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TECHNICAL MANUAL
ORGANIZATIONAL MAINTENANCE

FIGHTING VEHICLE, INFANTRY, M2
(2350-01-048-5920)

AND

FIGHTING VEHICLE, CAVALRY, M3
(2350-01-049-2695)

TURRET

HEADQUARTERS,
DEPARTMENT OF THE ARMY

SEPTEMBER 1984
WARNINGS

This list summarizes critical WARNINGS in this manual. They are repeated here to let you know how important they are. Study these WARNINGS carefully; they can save your life and the lives of soldiers you work with.

**WARNING**

Energized system and equipment can burn you. If MASTER POWER switch is on, electrical system and equipment will be energized. Make sure MASTER POWER SWITCH is off when you work on electrical system or equipment.

**WARNING**

Battery post and cables touched by metal objects can short circuit and burn you. Gas from batteries can explode and injure you. Battery acid can blind you or burn you.

Do not wear jewelry when you work on electrical system.
Use caution when you work near battery or electrical system with tools or other metal objects.
Do not get acid on your skin or in your eyes.
Do not allow sparks near batteries.

**WARNING**

Start up of equipment or moving parts could injure you or others.

If other soldiers are working on your vehicle, be sure you know what they are doing.
Place DO NOT OPERATE tags on MASTER POWER and TURRET POWER switches when needed to prevent startup.
WARNING

Unsafe use of chemical products, tools, and equipment can injure you. Read and follow warnings and instructions on labels of all chemical products. Follow all general shop safety procedures. See unit commander for further instructions on safety.

WARNING

If you enter turret with turret power on, you may be killed or injured. Do not enter turret while turret power is on. Keep turret shield door closed and latched while turret power is on and turret is in operation.

WARNING

Gun barrel assembly can burn you. Let weapons cool, or wear heat protective mittens when you handle hot gun barrels and gun parts.

WARNING

Looking at sun through integrated sight unit (ISU) may cause blindness. Do not look at sun through ISU.
Cleaning solvent is poisonous, and can burn. Continued exposure to solvent can cause skin problems.

Always use in area with good air flow away from heat or flames.
Do not breathe solvent fumes.
Do not put hands in solvent.
Apply solvent with brush.
If solvent gets on hands, wash them.
If solvent gets in eyes, flush with fresh water and get medical help.
Keep fire extinguisher nearby.

Radiation Hazard

The antireflective coating on all infrared optics contains thorium fluoride which is slightly radioactive. The only potential hazard involves ingestion (swallowing or inhaling) of this coating material. Dispose of broken lenses, etc., in accordance with AR 385-11.

Unlocked ramp can open to move down slowly. If ramp system is damaged, unlocked ramp can fall suddenly. Soldier can be killed or injured. Equipment can be damaged. Take care when you work near ramp. Keep away from ramp that has come open during vehicle operation.

For artificial respiration and first aid, see FM 21-11.
REPORTING ERRORS AND RECOMMENDING IMPROVEMENT

You can help improve this manual. If you find any mistakes, or if you know a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA FORM 2028-2, located in the back of this manual, directly to: Commander, US Army Armament Munitions Command, Attn: DRSMC-MAS(R), Rock Island, IL 61299. A reply will be furnished to you.

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# CHAPTER 4
MAINTENANCE OF TURRET

## Section I. GENERAL MAINTENANCE TASKS

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REPLACE MARKERS OR DECALS

DESCRIPTION
This task covers: Remove (page 4-2). Install (page 4-3).

INITIAL SETUP
Tools:
- Turret mechanic’s tool kit (Item 31, App F)

Materials/Parts:
- Dry cleaning solvent (Item 8, App C)
- Wiping rag (Item 29, App C)
- Markers or decals as needed

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE MARKER OR DECAL (1) FROM TURRET.

NOTE
Any marker or decal is replaced the same way.
WARNING
Solvent fumes can burn and could poison you. Read warning on front page of this manual.

2. CLEAN MARKER OR DECAL MATING SURFACE ON TURRET.
   a. Clean marker or decal mating surface on turret with solvent and wiping rag.
   b. Dry mating surface with clean wiping rag.

INSTALL

3. INSTALL NEW MARKER OR DECAL (1) ON TURRET.
   a. Remove backing (2) from marker or decal (1).
   b. Press marker or decal (1) firmly on mating surface. Rub out air bubbles.

END OF TASK
REPAIR LEAD

INITIAL SETUP

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)
Lead removed from terminal

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

REPAIR

1. REMOVE INSULATED SLEEVING (1) FROM TERMINAL (2) AND LEAD (3).
   a. Cut insulated sleeving (1).
   b. Remove insulated sleeving (1) from terminal (2) and lead (3). Discard insulated sleeving.

2. REMOVE TERMINAL (2) FROM LEAD (3).
   a. Place lead (3) in vise (4).
   b. Cut lead (3) as close as possible to terminal (2). Discard terminal.
3. REMOVE TERMINAL (1) FROM LEAD (2).
   a. Cut lead (2) as close as possible to terminal (1). Discard terminal.

4. SLIDE NEW INSULATED SLEEVING (3) ON LEAD (2).

NOTE
All diameters of leads are installed in the same manner.

5. INSTALL NEW TERMINAL (1) ON LEAD (2).
   a. Strip insulation (4) from lead (2) to same length as crimp (5) on terminal (1).
   b. Position terminal (1) on lead (2).
   c. Crimp terminal (1) on lead (2).
6. INSTALL NEW TERMINAL (1) ON LEAD (2).
   a. Strip insulation (4) from lead (2) to same length as crimp (5) on terminal (1).
   b. Fill crimp (5) on terminal (1) half full with solder.
   c. Insert lead (2) into melted solder in crimp (5) on terminal (1). Allow to cool.
   d. Remove excess solder from terminal (1).

7. HEAT SHRINK INSULATED SLEEVING (3) ONTO TERMINAL (1) AND LEAD (2).
   a. Position insulated sleeving (3) onto terminal (1) and lead (2).
   b. Heat shrink insulated sleeving (3) onto terminal (1) and lead (2).

END OF TASK
REPAIR SINGLE PIN PLUG OR JACK

DESCRIPTION
Single pin plug: Repair (page 4-7).
Single pin jack: Repair (page 4-9).

INITIAL SETUP
Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

SINGLE PIN PLUG
REPAIR

1. SLIDE SHELL (1) OFF PIN (2).

2. REMOVE PIN (2) FROM LEAD (3).
   a. Cut lead (3) as close as possible to pin (2). Discard pin.

GO TO NEXT PAGE
3. Slide shell (1) and washer (2) off lead (3). Discard shell.

4. Slide new shell (1) on lead (3).

5. Strip insulation (4) from lead (3) to same length as pin crimp (5).

6. Install new pin (6) on lead (3).
   a. Position pin (6) on lead (3).
   b. Crimp pin (6) on lead (3).
7. POSITION WASHER (1) ON LEAD (2) BETWEEN PIN (3) AND SHELL (4).

8. SLIDE SHELL (4) OVER WASHER (1) AND PIN (3).

SINGLE PIN JACK REPAIR

9. SLIDE SHELL (5) AND SLEEVE (6) OFF PIN (7).

10. REMOVE PIN (7) FROM LEAD (8).
    a. Cut lead (8) as close as possible to pin (7). Discard pin.

GO TO NEXT PAGE
3. SLIDE SHELL (1) AND WASHER (2) OFF LEAD (3). DISCARD SHELL.

4. SLIDE NEW SHELL (1) ON LEAD (3).

5. STRIP INSULATION (4) FROM LEAD (3) TO SAME LENGTH AS PIN CRIMP (5).

6. INSTALL NEW PIN (6) ON LEAD (3).
   a. Position pin (6) on lead (3).
   b. Crimp pin (6) on lead (3).
7. POSITION WASHER (1) ON LEAD (2) BETWEEN PIN (3) AND SHELL (4).

8. SLIDE SHELL (4) OVER WASHER (1) AND PIN (3).

SINGLE PIN JACK REPAIR

9. SLIDE SHELL (5) AND SLEEVE (6) OFF PIN (7).

10. REMOVE PIN (7) FROM LEAD (8).
    a. Cut lead (8) as close as possible to pin (7). Discard pin.

GO TO NEXT PAGE
11. SLIDE SHELL (1) AND SLEEVE (2) OFF LEAD (3). DISCARD SHELL AND SLEEVE.

12. SLIDE NEW SHELL (1) AND SLEEVE (2) ON LEAD (3).

13. STRIP INSULATION (4) FROM LEAD (3) TO SAME LENGTH AS PIN CRIMP (5).

14. INSTALL NEW PIN (6) ON LEAD (3).
   a. Position pin (6) on lead (3).
   b. Crimp pin (6) on lead (3).
i. SLIDE SHELL (1) AND SLEEVE (2) OVER PIN (3).

END OF TASK
REPAIR MULTIPIN PLUG/JACK, RUBBER TYPE

DESCRIPTION

This task covers: Repair multipin plug (4-12). Replace multipin jack (page 4-14).

INITIAL SETUP

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

MULTIPIN PLUG

REPAIR

If plug has heat shrinkable boot, do step 1. If not, go to step 2.

Heat gun will aid in removal of boot.

1. REMOVE BOOT (1) FROM PLUG (2) AND CABLE (3).
   a. Cut boot (1).
   b. Remove boot (1) from plug (2) and cable (3). Discard boot.
   c. Remove excess adhesive from plug (2) and cable (3).

2. REMOVE SOCKETS (4) FROM PLUG (2).
   a. Gently punch sockets (4) from plug (2). Tag leads (5).

NOTE

Make sure all leads are tagged for installation.
3. REMOVE SOCKETS (1) FROM LEADS (2).
   a. Cut leads (2) as close as possible to sockets (1). Discard sockets.

4. SLIDE NEW BOOT (3) ONTO CABLE (4).

5. INSTALL SOCKETS (1) ON LEADS (2).
   a. Strip insulation (5) from leads (2) to same length as crimps (6) on sockets (1).
   b. Position sockets (1) on leads (2).
   c. Crimp sockets (1) on leads (2).

6. INSTALL SOCKETS (1) IN PLUG (7).
   a. Gently push sockets (1) into plug (7). Remove tags from leads (2).

GO TO NEXT PAGE
NOTE
If plug requires heat shrinkable boot, do steps 7 and 8.

7. PREPARE PLUG (1) AND CABLE (2) FOR BONDING.
   a. Abrade bonding surfaces (3, 4) of plug (1) and cable (2).
   b. Clean and degrease bonding surfaces (3, 4).
   c. Apply adhesive tape to bonding surfaces (3, 4).

8. HEAT SHRINK BOOT (5) ON PLUG (1) AND CABLE (2).
   a. Position boot (5) on plug (1) and cable (2).
   b. Heat shrink boot (5) on plug (1) and cable (2).

MULTIPIN JACK
REPLACE

NOTE
If jack has heat shrinkable boot, do step 9. If not, go to step 10.

9. REMOVE BOOT (5) FROM JACK (6) AND CABLE (2).
   a. Cut boot (5).
   b. Remove boot (5) from jack (6) and cable (2). Discard boot.
   c. Remove excess adhesive from jack (6) and cable (2).

NOTE
Make sure all leads are tagged for installation.

10. REMOVE PINS (7) FROM JACK (6).
   a. Gently punch pins (7) from jack (6).
   Tag leads (8).
11. REMOVE PINS (1) FROM LEADS (2).
   a. Cut leads (2) as close as possible to pins (1). Discard pins.

   NOTE
   If jack requires heat shrinkable boot, do step 12. If not, go to step 13.

12. SLIDE NEW BOOT (3) ONTO CABLE (4).

13. INSTALL NEW PINS (5) ON LEADS (2).
   a. Strip insulation (6) from leads (2) to same length as crimps (7) on pins (5).
   b. Position pins (5) on leads (2).
   c. Crimp pins (5) on leads (2).

14. INSTALL PINS (5) IN NEW JACK (8).
   a. Gently push pins (5) into jack (8).
   Remove tags from leads (2).

GO TO NEXT PAGE
11. SLIDE SHELL (1) AND SLEEVE (2) OFF LEAD (3). DISCARD SHELL AND SLEEVE.

12. SLIDE NEW SHELL (1) AND SLEEVE (2) ON LEAD (3).

13. STRIP INSULATION (4) FROM LEAD (3) TO SAME LENGTH AS PIN CRIMP (5).

14. INSTALL NEW PIN (6) ON LEAD (3).
   a. Position pin (6) on lead (3).
   b. Crimp pin (6) on lead (3).
5. SLIDE SHELL (1) AND SLEEVE (2) OVER PIN (3).

END OF TASK
REPAIR MULTIPIN PLUG/JACK, RUBBER TYPE

DESCRIPTION

This task covers: Repair multipin plug (4-12). Replace multipin jack (page 4-14).

INITIAL SETUP

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

MULTIPIN PLUG

REPAIR

NOTE
If plug has heat shrinkable boot, do step 1. If not, go to step 2.
Heating boot with heat gun will aid in removal of boot.

1. REMOVE BOOT (1) FROM PLUG (2) AND CABLE (3).
   a. Cut boot (1).
   b. Remove boot (1) from plug (2) and cable (3). Discard boot.
   c. Remove excess adhesive from plug (2) and cable (3).

NOTE
Make sure all leads are tagged for installation.

2. REMOVE SOCKETS (4) FROM PLUG (2).
   a. Gently punch sockets (4) from plug (2). Tag leads (5).
1.100  NO

3. REMOVE SOCKETS (1) FROM LEADS (2).
   a. Cut leads (2) as close as possible to sockets (1). Discard sockets.

4. SLIDE NEW BOOT (3) ONTO CABLE (4).

5. INSTALL SOCKETS (1) ON LEADS (2).
   a. Strip insulation (5) from leads (2) to same length as crimps (6) on sockets (1).
   b. Position sockets (1) on leads (2).
   c. Crimp sockets (1) on leads (2).

6. INSTALL SOCKETS (1) IN PLUG (7).
   a. Gently push sockets (1) into plug (7). Remove tags from leads (2).

NOTE
If plug has heat shrinkable boot, do step 4. If not, go to step 5.
4. NOTE
If plug requires heat shrinkable boot, do steps 7 and 8.

7. PREPARE PLUG (1) AND CABLE (2) FOR BONDING.
   a. Abrade bonding surfaces (3, 4) of plug (1) and cable (2).
   b. Clean and degrease bonding surfaces (3, 4).
   c. Apply adhesive tape to bonding surfaces (3, 4).

8. HEAT SHRINK BOOT (5) ON PLUG (1) AND CABLE (2).
   a. Position boot (5) on plug (1) and cable (2).
   b. Heat shrink boot (5) on plug (1) and cable (2).

MULTIPIN JACK
REPLACE

9. REMOVE BOOT (5) FROM JACK (6) AND CABLE (2).
   a. Cut boot (5).
   b. Remove boot (5) from jack (6) and cable (2). Discard boot.
   c. Remove excess adhesive from jack (6) and cable (2).

NOTE
If jack has heat shrinkable boot, do step 9. If not, go to step 10.

10. REMOVE PINS (7) FROM JACK (6).
    a. Gently punch pins (7) from jack (6).
    b. Tag leads (8).

NOTE
Make sure all leads are tagged for installation.
11. REMOVE PINS (1) FROM LEADS (2).
   a. Cut leads (2) as close as possible to pins (1). Discard pins.

12. SLIDE NEW BOOT (3) ONTO CABLE (4).

13. INSTALL NEW PINS (5) ON LEADS (2).
   a. Strip insulation (6) from leads (2) to same length as crimps (7) on pins (5).
   b. Position pins (5) on leads (2).
   c. Crimp pins (5) on leads (2).

14. INSTALL PINS (5) IN NEW JACK (8).
   a. Gently push pins (5) into jack (8).
   Remove tags from leads (2).
NOTE
If jack has heat shrinkable boot, do steps 15 and 16.

15. PREPARE JACK (1) AND CABLE (2) FOR BONDING.
   a. Abrade bonding surfaces (3, 4) of jack (1) and cable (2).
   b. Clean and degrease bonding surfaces (3, 4).
   c. Apply adhesive tape to bonding surfaces (3, 4).

16. HEAT SHRINK BOOT (5) ON JACK (1) AND CABLE (2).
   a. Position boot (5) on jack (1) and cable (2).
   b. Heat shrink boot (5) on jack (1) and cable (2).

END OF TASK
### Section II. MAINTENANCE OF AZIMUTH INDICATOR

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REPLACE AZIMUTH DIAL POINTER

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Dial pointer

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE POINTER (1) FROM TURRET BASKET (2).
   a. Remove screw (3), washer (4), and pointer (1) from turret basket (2).

INSTALL

2. INSTALL NEW POINTER (1) ON TURRET BASKET (2).
   a. Install pointer (1), washer (4), and screw (3) on turret basket (2). Flange (5) must face turret basket.

END OF TASK
REPLACE AZIMUTH IDENTIFICATION TAPE

DESCRIPTION

This task covers:  Remove (page 4-19).  Install (page 4-20).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Masking tape
- Identification tape
- Wiping rag (Item 29, App C)
- Dry cleaning solvent (Item 8, App C)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. MANUALLY TRAVERSE TURRET TO 5000 MILS. See TM 9-2350-252-10-2.

2. MARK FLANGE (1) TO SHOW 6400 MILS POSITION.
   a. Place masking tape (2) on flange (1) above 6400 mils position on identification tape (3).
   b. Place mark on masking tape (2) to correspond with 6400 mils position on identification tape (3).
3. REMOVE IDENTIFICATION TAPE (1) FROM GROOVE (2).

4. MANUALLY TRAVERSE TURRET TO BRING OUT NEXT SECTION OF IDENTIFICATION TAPE. See TM 9-2350-252-10-2.

5. REPEAT STEPS 3 AND 4 UNTIL ALL IDENTIFICATION TAPE (1) IS REMOVED FROM GROOVE (2).

WARNING
Solvent fumes can burn and could poison you. Read warning on front page of this manual.

6. CLEAN GROOVE (2) ON TURRET.
   a. Clean groove (2) with solvent and wiping rag.
   b. Dry groove (2) with clean wiping rag.

7. INSTALL NEW IDENTIFICATION TAPE (1) ON GROOVE (2).
   a. Pick identification tape (1) marked with 6400 mils, and aline with mark on masking tape (3).
   b. Press identification tape (1) onto groove (2).

8. MANUALLY TRAVERSE TURRET TO INSTALL NEXT SECTION OF NEW IDENTIFICATION TAPE. See TM 9-2350-252-10-2.

9. INSTALL NEXT SECTION OF NEW IDENTIFICATION TAPE (1) ON GROOVE (2).
   a. Press next section of identification tape (1) on groove (2) directly against installed tape.

10. REPEAT STEPS 7 AND 8 UNTIL ALL NEW SECTIONS OF IDENTIFICATION TAPE (1) ARE INSTALLED.

END OF TASK
## Section III. MAINTENANCE OF TURRET BASKET

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TM 9-2350-252-20-2-2

REPLACE TURRET FLOOR PLATES

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

WARNING
Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when you work with tools or other metal objects. Do not wear jewelry when you work on electrical system.

NOTE
There are four floor plates and one step plate. Procedure for removal and installation of each is the same. Illustration shows removal of center floor plate.

1. REMOVE FLOOR PLATE (1) FROM FRAME (2).
   a. Remove four screws (3), washers (4), and floor plate (1) from frame (2).

INSTALL

2. INSTALL NEW FLOOR PLATE (1) ON FRAME (2).
   a. Install floor plate (1), four washers (4), and screws (3) on frame (2).

END OF TASK
REPLACE SLIP RING RIGID CONNECTING LINK

DESCRIPTION

This task covers: Remove (page 4-23). Install (page 4-24).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Self-locking bolt (2)
- Rigid connecting link

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- TM 9-2350-252-20-1

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE CENTER TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. REMOVE LINK (1) FROM SLIP RING (2).
   a. Remove lock bolt (3) and link (1) from slip ring (2). Discard lock bolt.
3. REMOVE PASSAGEWAY FLOOR PLATE.  
   See TM 9-2350-252-20-1.

4. PULL FRONT END OF HEATER DUCT (1) 
   6-8 IN. (15.0-20.0 CM) FROM SHIELD (2).

5. REMOVE LINK (3) FROM MOUNT (4).  
   a. Remove lock bolt (5) and link (3) from 
      mount (4). Discard lock bolt.

6. INSTALL NEW LINK (3) ON MOUNT (4).
   a. Install link (3) and new lock bolt (5) on 
      mount (4).

7. PUSH FRONT END OF HEATER DUCT (1) 
   INTO PLACE ON SHIELD (2).

8. INSTALL PASSAGEWAY FLOOR PLATE.  
   See TM 9-2350-252-20-1.
9. INSTALL LINK (1) ON SLIP RING (2).
   a. Install link (1) and new lock bolt (3) on slip ring (2).

10. INSTALL CENTER TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

END OF TASK
REPLACE TURRET BASKET LOOSE ITEMS STOP PLATE

DESCRIPTION

This task covers: Remove (page 4-26). Install (page 4-27).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Stop plate

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. MANUALLY TRAVERSE TURRET TO 175 MILS. See TM 9-2350-252-10-2.

2. REMOVE SIX SCREWS (1) AND WASHERS (2) FROM PLATE (3).
3. MANUALLY TRAVERSE TURRET TO 6250 MILS. See TM 9-2350-252-10-2.

4. REMOVE PLATE (1) FROM TURRET BASKET.
   a. Remove three screws (2), washers (3), and plate (1) from turret basket. Do not remove gasket (4).

5. INSTALL NEW PLATE (1) ON TURRET BASKET.
   a. Install plate (1), three washers (3), and screws (2) on turret basket.

6. MANUALLY TRAVERSE TURRET TO 175 MILS. See TM 9-2350-252-10-2.

7. INSTALL SIX WASHERS (3) AND SCREWS (2) ON PLATE (1).

8. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
REPLACE TURRET BASKET GROUND STRAP

DESCRIPTION

This task covers: Remove (page 4-28). Install (page 4-29).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Ground terminal strap
- Lock washer (4)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE GROUND STRAP (1) FROM TURRET AND SUPPORT (2).
   a. Remove screw (3), two lock washers (4), and ground strap (1) from turret. Discard lock washers.
   b. Remove screw (5), two lock washers (6), and ground strap (1) from support (2). Discard lock washers.
2. INSTALL NEW GROUND STRAP (1) ON TURRET AND SUPPORT (2).
   a. Install ground strap (1) on turret with two new lock washers (3) and screw (4).
   b. Install ground strap (1) on support (2) with two new lock washers (5) and screw (6).

END OF TASK
REPLACE SNAP FASTENER STUD

DESCRIPTION

This task covers: Remove (page 4-30). Install (page 4-31).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Snap fastener stud
- Self-locking nut

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

REMOVE

1. MANUALLY TRAVERSE TURRET TO 1300 MILS. See TM 9-2350-252-10-2.

2. REMOVE BAG (1) FROM STUD (2) AND TWO LOOPS (3).
   a. Remove bag (1) from stud (2).
   b. Remove two straps (4) from two loops (3).
NOTE
To remove stud with screw and washer, do step 3.
To remove stud with nut, go to step 4.

3. REMOVE STUD (1) FROM TURRET BASKET.
   a. Hold stud (1) so it will not turn.
   b. (H) Remove screw (2) and washer (3) from outside turret basket.

4. REMOVE STUD (4) FROM TURRET BASKET.
   a. Hold stud (4) so it will not turn.
   b. (H) Remove nut (5) from outside turret basket. Discard locknut.

INSTALL

NOTE
You may need to enlarge mounting hole 7/32 inch to install new stud.

5. INSTALL NEW STUD (4) ON TURRET BASKET.
   a. Insert stud (4) through mounting hole from inside turret basket.
   b. (H) Install new locknut (5) on stud (4) from outside turret basket.

6. INSTALL BAG (6) ON TWO LOOPS (7) AND STUD (4).
   a. Install two straps (8) on two loops (7).
   b. Install bag (6) on stud (4).

7. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
### Section IV. MAINTENANCE OF SMOKE GRENADE LAUNCHER

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REMOVE/INSTALL SMOKE GRENADE LAUNCHER

DESCRIPTION
This task covers: Remove (page 4-34). Install (page 4-35).

INITIAL SETUP

Tools:
Turret mechanic’s tool kit (Item 31, App F)

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)
Launcher unloaded (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

REMOVE

WARNING
Accidental firing of smoke grenades could kill or injure soldiers. Do not stand in front of smoke grenade launchers. Make sure smoke grenade launchers are empty before you remove launchers.

NOTE
Procedure for removal and installation of right or left side smoke grenade launcher is the same.

1. REMOVE LAUNCHER (1) FROM MOUNT (2).
   a. Remove three screws (3), washers (4), and launcher (1) from mount (2).
   b. Remove plug (5) from jack (6).

4-34
2. INSTALL LAUNCHER (1) ON MOUNT (2).
   a. Install plug (3) on jack (4).
   b. Install launcher (1), three washers (5),
      and screws (6) on mount (2).

END OF TASK
REMOVE/INSTALL SMOKE GRENADE BIN

INITIAL SETUP

Tools:
Turret mechanic’s tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

REMOVE

WARNING
Accidental firing of smoke grenades could kill or injure soldiers. Make sure smoke grenade bins are empty before you remove smoke grenade bins.

NOTE
Procedure for removal and installation of right or left side smoke grenade bin is the same.

1. REMOVE SMOKE GRENADE BIN (1)
FROM TURRET.

   a. Remove four screws (2) and smoke grenade bin (1) from turret.

INSTALL

2. INSTALL SMOKE GRENADE BIN (1) ON TURRET.

   a. Install smoke grenade bin (1) and four screws (2) on turret.

END OF TASK
### Section V. MAINTENANCE OF COMMUNICATIONS EQUIPMENT

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REMOVE/INSTALL RADIOS

DESCRIPTION

This task covers: Remove (page 4-38). Install (page 4-40).

INITIAL SETUP

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10
Helper (H)

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

REMOVE

NOTE
Some vehicles are equipped with two radios. Number and location of additional cables not shown here can be expected. See TM 11-5820-401-20 for their locations and identification.

Mark all leads for ease of identification prior to removal.

Be sure you can support the weight of the radio prior to removal.

1. REMOVE ANTENNA CABLE CG-177B/U (8 FT) (1) FROM JACK (2) ON RADIO (3), AND REMOVE ANTENNA CABLE CX-4722A/VRC (8 FT) (4) FROM JACK (5) ON RADIO BEHIND COMMANDER'S SEAT.
2. REMOVE ANTENNA CABLE CG-1773B/U (3 FT) (1) FROM JACK (2) ON RADIO (3), AND REMOVE ANTENNA CABLE CX-4722/VRC (3 FT) (4) FROM JACK (5) ON RADIO BEHIND GUNNER'S SEAT.

3. REMOVE RADIO (3) FROM TURRET.
   a. Loosen clamps (6) on mounting tray (7).
   b. Grip buss bars (8) and gently and steadily pull radio (3) toward you. Stop pulling when radio is detached from jack (9) on mounting tray (7).
   c. (H) Carefully hand radio (3) to helper waiting in crew compartment.
   d. See that radio (3) is removed from vehicle and stored in a safe place.

GO TO NEXT PAGE
4. INSTALL COVER (1) ON JACK (2).

5. REMOVE COVER (1) FROM JACK (2).

6. INSTALL RADIO (3) IN TURRET.
   a. (H) Have helper bring radio (3) to turret. Do not carry by buss bars (4).
   b. Carefully take radio (3) from helper and lay it into mounting tray (5).
   c. Use guide pins (6) on mounting tray (5) to guide radio (3) to jack (2) on mounting tray (5).
   d. Grasp both buss bars (4), and gently and firmly push radio (3) into contact with jack (2).
   e. Tighten clamps (7) on mounting tray (5) to hold radio (3).
7. INSTALL ANTENNA CABLE CX-4722/VRC (3 FT) (1) ON JACK (2) OF RADIO (3), AND INSTALL ANTENNA CABLE CG-1773B/U (3 FT) (4) ON JACK (5), ALSO ON SAME RADIO.

8. INSTALL ANTENNA CABLE CX-4722A/VRC (8 FT) (6) ON JACK (7) OF RADIO (3), AND INSTALL ANTENNA CABLE CG-177B/U (8 FT) (8) ON JACK (9), ALSO ON SAME RADIO.

END OF TASK
REMOVE/INSTALL RADIO ANTENNA CABLES

DESCRIPTION

This task covers: Remove (page 4-42). Install (page 4-43).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Nylon straps (2)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE GUNNER'S RADIO ANTENNA CABLES.
   a. Remove cables CX-4722A (1) and CG-1773B (2) from front of gunner's radio (3).
   b. Remove cables (1, 2) from antenna matching unit (4).
   c. Remove screw (5) and clamp (6) from cables (1, 2).
   d. Remove cables (1, 2) from under radio mounting shelf.
REMOVE COMMANDER'S RADIO ANTENNA CABLES.

a. Remove cables CX-4722A (1) and CG-1773B (2) from front of commander's radio (3).

b. Remove cables (1, 2) from antenna matching unit (4).

c. Remove seven screws (5) and eight clamps (6) from cable bundle.

d. Remove two nylon straps (7) from cable bundle. Discard straps.

e. Remove cables (1, 2) from behind commander's periscopes (8) and from under radio mounting shelf.

INSTALL COMMANDER'S RADIO ANTENNA CABLES.

a. Route cables CX-4722A (1) and CG-1773B (2) under radio mounting shelf and behind commander's periscopes (8).

b. Install cables (1, 2) on front of commander's radio (3).

c. Install cables (1, 2) on antenna matching unit (4).

d. Install eight clamps (6) and seven screws (5) on cable bundle.

e. Install two new nylon straps (7) on cable bundle.

GO TO NEXT PAGE
4. INSTALL GUNNER'S RADIO ANTENNA CABLES.
   a. Route cables CX-4722A (1) and CG-1773B (2) under radio mounting shelf.
   b. Install cables (1, 2) on front of gunner's radio (3).
   c. Install cables (1, 2) on antenna matching unit (4).
   d. Install clamp (5) and screw (6) on cables (1, 2).

END OF TASK
REMOVE/INSTALL RADIO MOUNTINGS

DESCRIPTION

This task covers: Remove (page 4-45). Install (page 4-47).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
Be certain power to all radio equipment is off before proceeding.

Mounting hardware is part of government-furnished items. It is called out to assist in removing the mounting (also government-furnished).

1. REMOVE RADIOS. See task: REMOVE/INSTALL RADIOS, page 4-38.

2. REMOVE FIVE SCREWS (1) AND WASHERS (2) FROM MOUNTING TRAY (3).

GO TO NEXT PAGE
3. REMOVE GROUND LEAD (1) FROM MOUNTING TRAY (2).
   a. Remove screw (3), ground lead (1) and lock washer (4) from mounting tray (2).

NOTE
Mark all cable ends for ease of indentification. Do this before removing them from jacks.
Vehicles may have either one or two radio mountings. Both are removed in the same way. Only the number of cables attached to the mounting tray behind the gunner's seat receives two cables, the mounting tray behind the commander's seat receives three cables.

4. REMOVE TWO CABLES (5) AND (6) FROM UNDERSIDE OF GUNNER'S MOUNTING TRAY (2).
   a. Lift up mounting tray (2).
   b. Remove cable CX-4721/VRC (4 ft) (5) from jack J21 (7), and remove cable CX-4723/VRC (5 ft) (6) from jack J22 (8).
5. REMOVE THREE CABLES (1, 2 and 3) FROM UNDERSIDE OF COMMANDER'S MOUNTING TRAY (4).
   a. Lift up mounting tray (1).
   b. Remove cables CX 13089 (8 ft) (1) from jack J21 (5) on mounting tray (4), CX-4723/VRC (3 ft) (2) from jack J22 (6), and CX-4721/VRC from jack J23 (7) and cables (3).

6. REMOVE MOUNTING BASE (8) FROM VEHICLE.
   a. Remove five screws (9), five nuts (10), and ten lock washers (11) from mounting base (8).
   b. Remove mounting base (8) from vehicle.

7. INSTALL MOUNTING BASE (8) ON VEHICLE.
   a. Install mounting base (8), ten lock washers (11), five nuts (10) and five screws (9) on vehicle.
8. INSTALL THREE CABLES (1, 2 and 3) TO UNDERSIDE OF COMMANDER’S MOUNTING TRAY (4).
   a. Lift up mounting tray (4).
   b. Install cables CX-13089 (8 ft) (1) on jack J21 (5) of mounting tray (4), CX-4712/VRC (3 ft) on jack J22 (6), and CX-4721/VRC on (3) jack J23 (7).

9. INSTALL TWO CABLES (8 and 10) TO UNDERSIDE OF GUNNER’S MOUNTING TRAY (4).
   a. Lift up mounting tray (4).
   b. Install cables CX-4721/VRC (4 ft) (8) on jack J21 (9) and CX-4723/VRC (5 ft) (10) on jack J22 (11).
10. INSTALL GROUND LEAD (1) ON MOUNTING TRAY (2).

a. Install lock washer (3), ground lead (1) and screw (4) on mounting tray (2).

11. INSTALL FIVE WASHERS (5), SCREWS (6) AND MOUNTING TRAY (2) ON MOUNTING PLATE BASE (7).


END OF TASK
REMOVE/INSTALL CABLE ASSEMBLY CX-4723/VRC (3 FT)

DESCRIPTION

This task covers: Remove (page 4-50). Install (page 4-51).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE COMMANDER'S RADIO. See task: REMOVE/INSTALL RADIOS, page 4-38.

2. REMOVE MOUNTING TRAY (1) FROM MOUNTING BASE (2).
   a. Remove five screws (3), washers (4), and mounting tray (1) from mounting base (2).
   b. Remove screw (5), washer (6), and ground lead (7) from mounting tray (1).
3. REMOVE CABLE CX-4723/VRC (3 FT) (1).
   a. Raise mounting tray (2) from mounting base (3).
   b. Remove CX-4723/VRC (3 ft) (1) from jack J22 (4).
   c. Remove screw (5) and clamp (6) from cable bundle (7).
   d. Remove cable CX-4723/VRC (3 ft) (1) from amplifier jack J501 (8).
   e. Remove cable (1) from under radio mounting shelf.

4. INSTALL CABLE CX-4723/VRC (3 FT) (1).
   a. Route cable CX-4723/VRC (3 ft) (1) under radio mounting shelf.
   b. Install cable (1) on amplifier jack J501 (8).
   c. Install clamp (6) and screw (5) on cable bundle (7).
   d. Install cable (1) on mounting jack J22 (4).
   e. Lower mounting tray (2) on mounting base (3).
5. INSTALL MOUNTING TRAY (1) ON MOUNTING BASE (2).
   a. Install ground lead (3), washer (4), and screw (5) on mounting tray (1).
   b. Install five washers (6), screws (7), and mounting tray (1) on mounting base (2).


END OF TASK
REMOVE/INSTALL CABLE ASSEMBLY CX-4723/VRC (5 FT)

DESCRIPTION

This task covers: Remove (page 4-53). Install (page 4-54).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
Mark all cable ends for ease of identification prior to removal.
This task refers to only radio and mounting behind gunner's seat.

1. REMOVE RADIO FROM MOUNTING. See task: REMOVE/INSTALL RADIOS, page 4-38.

2. REMOVE FIVE SCREWS (1) AND WASHERS (2) FROM MOUNTING TRAY (3).

GO TO NEXT PAGE
3. REMOVE CABLE CX-4723/VRC (5 FT) (1) FROM JACK J22 (2) ON MOUNTING TRAY (3).
   a. Lift up mounting tray (3).
   b. Remove cable CX-4723/VRC (5 ft) (1) from jack J22 (2) on mounting tray (3).

4. REMOVE OTHER END OF CABLE CX-4723/VRC (5 FT) (1) FROM JACK J503 (4) ON AMP/VRC CONTROL BOX (5).
   a. Remove cable CX-4723/VRC (5 ft) (1) from vehicle.

5. INSTALL END OF CABLE CX-4723/VRC (5 FT) (1) ON JACK J503 (4) ON AMP/VRC CONTROL BOX (5).
   a. Lift up mounting tray (3).
   b. Install cable CX-4723/VRC (5 ft) (1) on jack J22 (2) of mounting tray (3).
7. INSTALL FIVE WASHERS (1) AND SCREWS (2) ON MOUNTING TRAY (3).

8. INSTALL RADIO ON MOUNTING. See task: REMOVE/INSTALL RADIOS, page 4-38.

END OF TASK
# Section VI. MAINTENANCE OF TURRET STOWAGE

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REPLACE TURRET PERISCOPEs AND BLACKOUT FRAMES

DESCRIPTION

This task covers: Remove (page 4-58). Install (page 4-59).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Adhesive (Item 5, App C)
- Sealing compound (Item 21, App C)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. OPEN GUNNER’S HATCH COVER TO FULL OPEN POSITION. See TM 9-2350-252-10-2.

2. OPEN COMMANDER’S HATCH COVER TO FULL OPEN POSITION. See TM 9-2350-252-10-2.

NOTE
Some periscopes have spacers between the periscope supports and turret, some do not. Step 3 is for periscopes without spacers. Step 4 is for periscopes with spacers.

3. REMOVE BLACKOUT FRAME (1) FROM PERISCOPE (2).
   a. Remove two screws (3), washers (4), supports (5), and blackout frame (1) from periscope (2). Discard screws.
   b. Go to step 5.
4. REMOVE BLACKOUT FRAME (1) FROM PERISCOPE (2).
   a. Remove two screws (3), washers (4), supports (5), washer(s) (6), spacers (7), and blackout frame (1) from periscope (2).

5. INSTALL PERISCOPE (2) ON TURRET.
   a. Slide periscope (2) up through opening into position on turret.

**NOTE**
Install spacers and washer(s) in step 6 even though they were not there on removal.

6. INSTALL BLACKOUT FRAME (1) ON PERISCOPE (2).
   a. Apply primer to threads of two new screws (3).
   b. Apply sealant to threads of two screws (3).
   c. Install blackout frame (1), two spacers (7), washer(s) (6), (as required to obtain seal compression when support (5) is tightened against spacer (7)), two supports (5), washers (4), and screws (3).
7. APPLY ADHESIVE TO MOUNTING SURFACE OF PERISCOPE (1) AND TURRET.

8. CLOSE AND SECURE COMMANDER'S HATCH COVER. See TM 9-2350-252-10-2.


END OF TASK
REPLACE TURRET STOWAGE WEBBING STRAPS

INITIAL SETUP

Materials/Parts:
- Webbing strap

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
All straps are removed and installed the same way.

1. REMOVE STRAP (1) FROM BRACKET (2).
   a. Unroll strap (1).
   b. Unhook buckle (3) and remove strap (1) from bracket (2).

INSTALL

2. INSTALL NEW STRAP (1) ON BRACKET (2).
   a. Position strap (1) on bracket (2) and fasten buckle (3).
   b. Roll up strap (1).

END OF TASK
REPLACE OUTSIDE TURRET AMMO BRACKETS

DESCRIPTION

This task covers: Remove (page 4-62). Install (page 4-63).

INITIAL SETUP

Tools:  
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Ammo bracket
- Ammo bracket

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE TURRET STOWAGE WEBBING STRAPS. See task: REPLACE TURRET STOWAGE WEBBING STRAPS, page 4-61.

   NOTE
   To remove bracket from right side of turret, do steps 2 and 3.
   To remove bracket(s) from bustle armor, go to step 4.

2. REMOVE ANTENNA ARMOR (1) FROM TURRET.
   a. Remove two screws (2) and antenna armor (1) from turret.
3. REMOVE BRACKET (1) FROM TURRET.
   a. Remove four screws (2), washers (3), and bracket (1) from turret.

4. REMOVE BRACKET (4) FROM BUSTLE ARMOR (5).
   a. Remove four screws (6) and bracket (4) from bustle armor (5).

5. INSTALL NEW BRACKET (4) ON BUSTLE ARMOR (5).
   a. Install bracket (4) and four screws (6) on bustle armor (5).

6. INSTALL NEW BRACKET (1) ON TURRET.
   a. Install bracket (1), four washers (3), and screws (2) on turret.
   b. TORQUE FOUR SCREWS (2) TO 54-59 FT-LB (7-8 MKG).

NOTE
Some vehicles may not have washers. Removal of bracket is the same.

NOTE
There are three or six brackets on bustle armor. Removal of each bracket is the same.

NOTE
There are three or six brackets on bustle armor. Installation of each bracket is the same.

To install bracket(s) on bustle armor, do step 5, then go to step 8.

To install bracket on right side of turret, go to step 8.

NOTE
Some vehicles may not have washers. Installation of bracket is the same.
7. INSTALL ANTENNA ARMOR (1) ON TURRET.
   a. Install antenna armor (1) and two screws (2) on turret.
   b. TORQUE TWO SCREWS (2) TO 54-59 FT-LB (7-8 MKG).

8. INSTALL TURRET STOWAGE WEBBING STRAPS. See task: REPLACE TURRET STOWAGE WEBBING STRAPS, page 4-61.

END OF TASK
REPLACE VEHICLE ACCESSORY BOX

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Vehicular accessory box

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFVICFV Trt Mech 45T10

REMOVE

1. REMOVE BOX (1) FROM TURRET.
   a. Remove three screws (2), washers (3), and box (1) from turret.

INSTALL

2. INSTALL NEW BOX (1) ON TURRET.
   a. Install box (1), three washers (3), and screws (2) on turret.

END OF TASK
REPLACE AMP/VRC CONTROL BOX RESILIENT MOUNT

DESCRIPTION

This task covers:
- Amp Control Box Resilient Mount: Remove (page 4-66), Install (page 4-67).
- VRC Control Boxes Resilient Mount: Remove (page 4-68), Install (page 4-69).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- TM 11-5820-401-12

Materials/Parts:
- Resilient mount
- Self-locking nut (9)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFVICFV/Trt Mech 45T10

AMP CONTROL BOX RESILIENT MOUNT

REMOVE

1. REMOVE RECEIVER-TRANSMITTER RADIO. See TM 11-5820-401-12.

3. REMOVE AMPLIFIER (1) FROM MOUNTS (2).
   a. Remove four locknuts (3), washers (4), and amplifier (1) from mounts (2). Discard locknuts.

4. REMOVE DAMAGED MOUNT (2) FROM TURRET. DISCARD MOUNT.

5. INSTALL NEW MOUNT (2) IN TURRET.
   a. Install short end of mount (2) in turret.

6. INSTALL AMPLIFIER (1) ON MOUNTS (2).
   a. Install amplifier (1), four washers (4), and new locknuts (3) on mounts (2).

8. INSTALL RECEIVER-TRANSMITTER RADIO. See TM 11-5820-401-12.


**NOTE**

There are two VRC control boxes. The procedure for removal of each box is the same.

10. REMOVE PLUG (7) FROM JACK J801 (8) AND PLUG 2A41P1 (9) FROM JACK (10) ON VRC CONTROL BOX (11). TAG PLUGS.
11. REMOVE VRC CONTROL BOX (1) FROM MOUNT PLATE (2).
   a. Remove two locknuts (3), washers (4), screws (5), and VRC control box (1) from mount plate (2). Discard lock-nuts.

12. REMOVE MOUNT PLATE (2) FROM MOUNTS (6).
   a. Remove three locknuts (7), washers (8), and mount plate (2) from mounts (6). Discard locknuts.

13. REMOVE DAMAGED MOUNT (6) FROM TURRET (9). DISCARD MOUNT.

14. INSTALL NEW MOUNT (6) IN TURRET (9).
   a. Install short end of mount (6) in turret (9).

NOTE
There are two VRC control boxes in the turret. The procedure for installation of both boxes is the same.
15. INSTALL MOUNT PLATE (1) ON MOUNTS (2).
   a. Install mount plate (1), three washers (3), and new locknuts (4) on mounts (2).

16. INSTALL VRC CONTROL BOX (5) ON MOUNT PLATE (1).
   a. Install VRC control box (5), two washers (6), screws (7), and new locknuts (8) on mount plate (1).

17. INSTALL PLUG (9) ON JACK J801 (10) AND PLUG 2A41P1 (11) ON JACK (12) ON VRC CONTROL BOX (5).


END OF TASK
IEPLACE COMMANDER'S BOW HANDLE

DESCRIPTION

This task covers: Remove (page 4-71). Install (page 4-72).

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Bow handle

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

REMOVE

NOTE

Some handles look different. Removal and installation is the same for both.
Tab washer remains on switch with bottom tab in switch thread’s slot.

1. REMOVE SWITCH (1) FROM HANDLE (2).
   a. Remove nut (3) and lock washer (4) from switch (1). Do not discard lock washer.
   b. Remove switch (1) from handle (2).

GO TO NEXT PAGE
2. REMOVE HANDLE (1) FROM BULK-HEAD (2).
   a. Remove two screws (3), washers (4), and handle (1) from bulkhead (2).

3. INSTALL NEW HANDLE (1) ON BULK-HEAD (2).
   a. Install handle (1), two washers (4), and screws (3) on bulkhead (2).

4. INSTALL SWITCH (5) IN HANDLE (1).
   a. Position switch (5) with thread’s slot (6) facing up. Place switch in handle (1).
   b. Install lock washer (7) and nut (8) on switch (5).

END OF TASK
REPLACE BORESIGHT BOX TRAY

**INITIAL SETUP**

**Tools:**
- Turret mechanic's tool kit (Item 31, App F)

**Materials/Parts:**
- Boresight box tray

**Personnel Required:**
- ITV/IFV/CFV Trt Mech 45T10

**References:**
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

**Equipment Conditions:**
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

**REMOVE**

1. **REMOVE TRAY (1) FROM TURRET.**
   a. Unbuckle and remove strap (2) from tray (1).
   b. Remove box (3) from tray (1).
   c. Remove four screws (4), washers (5), and tray (1) from turret.

**INSTALL**

2. **INSTALL NEW TRAY (1) ON TURRET.**
   a. Install tray (1), four washers (5), and screws (4) on turret.
   b. Place box (3) in tray (1).
   c. Install strap (2) through two slots (6) in tray (1).
   d. Buckle and tighten strap (2).

**END OF TASK**
REPLACE BORESIGHT ADAPTER BAG

INITIAL SETUP

Materials/Parts:
- Tools and spare bag

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)
- Weapons unloaded and safe (TM 9-2350-252-10-2)

REMOVE

1. UNBUCKLE TWO STRAPS (1) AND REMOVE BAG (2) FROM TURRET.
2. UNSNAP FASTENER (3) AND REMOVE ADAPTER (4) FROM BAG (2).

INSTALL

3. INSTALL ADAPTER (4) IN NEW BAG (2) AND SNAP FASTENER (3) CLOSED.
4. INSTALL BAG (2) ON TURRET AND BUCKLE TWO STRAPS (1) AROUND BAG.

END OF TASK
PLACE ANTENNA MOUNT COVER

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Cover
- Self-locking screw (4)

Personnel Required:
- TV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE FOUR SELF-LOCKING SCREWS (1) AND COVER (2) FROM ANTENNA MOUNT (3). DISCARD SCREWS AND COVER.

2. INSTALL NEW COVER (2) AND FOUR NEW SELF-LOCKING SCREWS (1) ON ANTENNA MOUNT (3).

END OF TASK
REPLACE HELMET HOLDER BRACKET

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Bracket

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE BRACKET (1) FROM DOME LIGHT (2).
   a. Remove screw (3) and bracket (1) from dome light (2).

INSTALL

2. INSTALL NEW BRACKET (1) ON DOME LIGHT (2).
   a. Install bracket (1), and screw (3) on dome light (2).

END OF TASK
## Section VII. MAINTENANCE OF COMMANDER'S/GUNNER'S SEAT

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REPLACE COMMANDER'S SEAT ASSEMBLY

DESCRIPTION

This task covers: Remove (page 4-78). Install (page 4-79).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Lock washer (2)
- Self-locking nut (2)
- Commander's seat assembly

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

REMOVE

1. MANUALLY TRAVERSE TURRET TO 400 MILS. See TM 9-2350-252-10-2.

2. REMOVE WIRE SHIELD (1) FROM SEAT TRACK (2).
   a. Remove two screws (3), lock washers (4), washers (5), and wire shield (1) from seat track (2). Discard lock washers.
WARNING

Seat can spring up and injure you when control handle is moved up. Stay clear of seat when you move control handle up.

NOTE

Seat must be raised and lowered to gain access to screws and washers.

3. REMOVE SEAT ASSEMBLY (1) FROM TURRET. HAVE HELPER ASSIST.

a. Remove seven screws (2) and washers (3) from right side of seat track (4) and turret basket (5).

b. Remove two locknuts (6), screws (7), and four washers (8) from bottom (9) of seat track (4) and turret flange (10). Discard locknuts.

c. Remove two screws (11) and washers (12) from top (13) of seat track (4) and turret baseplate (14). Remove seat assembly (1) from turret.

INSTALL

NOTE

Seat must be raised and lowered to gain access to screws and washers.

4. INSTALL NEW SEAT ASSEMBLY (1) IN TURRET. HAVE HELPER ASSIST.

a. Position seat assembly (1) in turret, and install two washers (12) and screws (11) in top (13) of seat track (4) and turret baseplate (14). Do not tighten screws.

b. Install four washers (8), two screws (7), and two new locknuts (6) in bottom (9) of seat track (4) and turret flange (10). Do not tighten screws.

c. Install seven washers (3) and screws (2) in right side of seat track (4) and turret basket (5). Tighten screws.

d. Tighten four screws (11, 7) in top (13) and bottom (9) of seat track (4).
5. INSTALL WIRE SHIELD (1) ON SEAT TRACK (2).
   a. Install wire shield (1), two washers (3), new lock washers (4), and screws (5) on seat track (2).

6. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
REPLACE COMMANDER'S SEAT CUSHION

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Seat cushion
- Self-locking screw (4)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE CUSHION (1) FROM SEAT PLATFORM (2).
   a. Pull quick release pin (3), and raise seat platform (2).
   b. Remove four lock screws (4), two plates (5), and cushion (1) from seat platform (2). Discard lock screws.

INSTALL

2. INSTALL NEW CUSHION (1) ON SEAT PLATFORM (2).
   a. Install cushion (1), two plates (5), and four new lock screws (4) on seat platform (2).
   b. Lower seat platform (2) until quick release pin (3) engages.

END OF TASK
REPLACE COMMANDER'S/GUNNER'S SEAT EXTENSION SPRINGS

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Extension spring (2)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

![Diagram of seat extension springs]

NOTE
Replacement of commander's/gunner's seat extension springs is the same. Commander's seat is shown here.

1. REMOVE TWO SPRINGS (1) FROM SEAT PLATFORM (2) AND SEAT SUPPORT (3).

INSTALL

2. INSTALL TWO NEW SPRINGS (1) ON SEAT PLATFORM (2) AND SEAT SUPPORT (3).

END OF TASK
REPLACE COMMANDER'S/GUNNER'S LAP SAFETY BELT

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Lap safety belt
- Self-locking nut (2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
Commander's and gunner's lap safety belts are removed and installed the same way. Commander's seat belt shown here.

1. REMOVE BELT (1) FROM SEAT SUPPORT (2).
   a. Remove two locknuts (3), screws (4), six washers (5), and belt (1) from seat support (2). Discard locknuts and belt.

INSTALL

2. INSTALL NEW BELT (1) ON SEAT SUPPORT (2).
   a. Install belt (1), six washers (5), two screws (4), and new locknuts (3) on seat support (2).

END OF TASK
REPLACE COMMANDER'S SEAT PLATFORM

DESCRIPTION:

This task covers: Remove (page 4-84). Install (page 4-85).

INITIAL SETUP

Tools:

Turret mechanic's tool kit (Item 31, App F)

References:

TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:

Cotter pin (2)
Seat platform

Equipment Conditions:

Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:

ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE SEAT CUSHION. See task: REPLACE COMMANDER'S SEAT CUSHION, page 4-81.

2. REMOVE EXTENSION SPRINGS. See task: REPLACE COMMANDER'S/GUNNER'S SEAT EXTENSION SPRINGS, page 4-82.

3. REMOVE LAP SAFETY BELT. See task: REPLACE COMMANDER'S/GUNNER'S LAP SAFETY BELT, page 4-83.

4. REMOVE QUICK RELEASE PIN. See task: REPLACE COMMANDER'S/GUNNER'S SEAT QUICK RELEASE PIN, page 4-86.

5. REMOVE SEAT PLATFORM (1) FROM SEAT SUPPORT (2).
   a. Raise seat platform (1).
   b. Remove two cotter pins (3) and washers (4) from two pins (5). Discard cotter pins.
   c. Remove two pins (5) and seat platform (1) from seat support (2).
6. INSTALL NEW SEAT PLATFORM (1) ON SEAT SUPPORT (2).
   a. Align seat platform (1) with seat support (2).
   b. Install two pins (3) through seat platform (1) and seat support (2).
   c. Install two washers (4) and new cotter pins (5) on pins (3).

7. INSTALL QUICK RELEASE PIN. See task: REPLACE COMMANDER'S/GUNNER'S SEAT QUICK RELEASE PIN, page 4-86.

8. INSTALL LAP SAFETY BELT. See task: REPLACE COMMANDER'S/GUNNER'S LAP SAFETY BELT, page 4-83.

9. INSTALL EXTENSION SPRINGS. See task: REPLACE COMMANDER'S/GUNNER'S SEAT EXTENSION SPRINGS, page 4-82.

10. INSTALL SEAT CUSHION. See task: REPLACE COMMANDER'S SEAT CUSHION, page 4-81.

END OF TASK
REPLACE COMMANDER'S/GUNNER'S SEAT QUICK RELEASE PIN

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Quick release pin
Self-locking screw (2)

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE PIN (1) FROM SEAT PLATFORM (2).
   a. Remove two screws (3), washers (4), and pin (1) from seat platform (2). Discard screws.

INSTALL

2. INSTALL NEW PIN (1) ON SEAT PLATFORM (2).
   a. Install pin (1), two washers (4), and new screws (3) on seat platform (2).
REPLACE GUNNER’S SEAT ASSEMBLY

DESCRIPTION

This task covers: Remove (page 4-87). Install (page 4-88).

INITIAL SETUP

Tools:

Turret mechanic's tool kit (Item 31, App F)

References:

TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:

Lock washer (2)
Locknut (2)
Gunner's seat assembly

Equipment Conditions:

Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:

ITV/IFV/CFV Trt Mech 45T10
Helper (H)

REMOVE

1. MANUALLY TRAVERSE TURRET TO 5900 MILS. See TM 9-2350-252-10-2.

2. REMOVE WIRE SHIELD (1) FROM SEAT TRACK (2).

a. Remove two screws (3), lock washers (4), washers (5), and wire shield (1) from seat track (2). Discard lock washers.
3. REMOVE LEFT TURRET FLOOR PLATE.
   See task: REPLACE TURRET FLOOR PLATES, page 4-22.

   **WARNING**
   Seat can spring up and injure you when control handle is moved up. Stay clear of seat when you move control handle up.

   **NOTE**
   Some vehicles may have four screws. Other vehicles may have seven screws. Removal of screws is the same.

   Seat must be raised and lowered to gain access to screws and washers.

4. REMOVE SEAT ASSEMBLY (1) FROM TURRET. HAVE HELPER ASSIST.
   a. Remove seven screws (2) and washers (3) from left side (4) of seat track (5) and turret basket (6).

   b. Remove two screws (7), four washers (8), and two locknuts (9) from bottom of seat track (5) and turret flange (10). Discard locknuts.

   c. Remove two screws (11) and washers (12) from seat track top (13) and turret baseplate (14). Remove seat assembly (1) from turret.

**INSTALL**

   **NOTE**
   Some vehicles may have four screws. Others may have seven screws. Installation is the same.

   Seat must be raised and lowered to gain access to screws and washers.

5. INSTALL NEW SEAT ASSEMBLY (1) IN TURRET. HAVE HELPER ASSIST.
   a. Position seat assembly (1) in turret, and install two washers (12) and screws (11) in seat track top (13) and turret baseplate (14). Do not tighten screws.

   b. Install four washers (8), two screws (7), and new locknuts (9) in bottom of seat track (5) and turret flange (10). Do not tighten screws.

   c. Install seven washers (3) and screws (2) in left side (4) of seat track (5) and turret basket (6). Tighten screws.

   d. Tighten four screws (11, 7) in top (13) and bottom of seat track (5).
6. INSTALL WIRE SHIELD (1) ON SEAT TRACK (2).
   a. Install wire shield (1), two washers (3), new lock washers (4) and screws (5) on seat track (2).

7. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

8. INSTALL LEFT TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

END OF TASK
REPLACE GUNNER'S SEAT CUSHION

INITIAL SETUP

Materials/Parts:
- Vehicular seat cushion

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE CUSHION (1) FROM SEAT (2).
   a. Grasp elastic cord (3) and remove cushion (1) from seat (2).

INSTALL

2. INSTALL NEW CUSHION (1) ON SEAT (2).
   a. Grasp elastic cord (3) and install cushion (1) on seat (2).

END OF TASK
REPLACE GUNNER'S SEAT

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Vehicular seat

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

WARNING
Seat can spring down and injure you when quick release pin is pulled down. Stay clear of seat when you pull quick release pin.

1. REMOVE SEAT CUSHION. See task: REPLACE GUNNER'S SEAT CUSHION, page 4-90.

2. REMOVE SEAT (1) FROM SEAT PLATFORM (2).
   a. Pull pin (3) from seat platform (2), and raise seat to vertical position.
   b. Remove eight screws (4), washers (5), and seat (1) from seat platform (2).

INSTALL

3. INSTALL NEW SEAT (1) ON SEAT PLATFORM (2).
   a. Install seat (1), eight washers (5), and screws (4) on seat platform (2).

4. INSTALL SEAT CUSHION. See task: REPLACE GUNNER’S SEAT CUSHION, page 4-90.

END OF TASK
REPLACE GUNNER'S SEAT PLATFORM

DESCRIPTION

This task covers: Remove (page 4-92). Install (page 4-93).

INITIAL SETUP

Tools: Turret mechanic’s tool kit (Item 31, App F)  

References: 

TM 9-2350-252-10-1 
TM 9-2350-252-10-2

Materials/Parts:  
Cotter pin (2)  
Seat platform

Equipment Conditions: 
Engine stopped (TM 9-2350-252-10-1)  
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:  
ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE SEAT CUSHION. See task: REPLACE GUNNER'S SEAT CUSHION, page 4-90.

2. REMOVE QUICK RELEASE PIN. See task: REPLACE COMMANDER'S/GUNNER'S SEAT QUICK RELEASE PIN, page 4-86.

3. REMOVE SEAT (1) FROM SEAT PLATFORM (2).  
   a. Remove eight screws (3), washers (4), and seat (1) from seat platform (2).
4. REMOVE EXTENSION SPRINGS. See task: REPLACE COMMANDER'S/GUNNER'S SEAT EXTENSION SPRINGS, page 4-82.

5. REMOVE LAP SAFETY BELT. See task: REPLACE COMMANDER'S/GUNNER'S LAP SAFETY BELT, page 4-83.

6. REMOVE SEAT PLATFORM (1) FROM SEAT SUPPORT (2).
   a. Remove two cotter pins (3), and washers (4), from two pins (5). Discard cotter pins.
   b. Remove two pins (5) and seat platform (1) from seat support (2).

7. INSTALL NEW SEAT PLATFORM (1) ON SEAT SUPPORT (2).
   a. Aline seat platform (1) with seat support (2).
   b. Install two pins (5) through seat platform (1) and seat support (2).
   c. Install two washers (4) and new cotter pins (3) on two pins (5).

8. INSTALL LAP SAFETY BELT. See task: REPLACE COMMANDER'S/GUNNER'S LAP SAFETY BELT, page 4-83.

9. INSTALL EXTENSION SPRINGS. See task: REPLACE COMMANDER'S/GUNNER'S SEAT EXTENSION SPRINGS, page 4-82.
10. INSTALL SEAT (1) ON SEAT PLATFORM (2).
   a. Install seat (1), eight washers (3), and screws (4) on seat platform (2).

11. INSTALL QUICK RELEASE PIN. See task: REPLACE COMMANDER'S/GUNNER'S SEAT QUICK RELEASE PIN, page 4-86.

12. INSTALL SEAT CUSHION. See task: REPLACE GUNNER'S SEAT CUSHION, page 4-90.

END OF TASK
# CHAPTER 5
MAINTENANCE OF TURRET ELECTRICAL SYSTEM

## Section I. MAINTENANCE OF EMERGENCY BATTERY ASSEMBLIES

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REPAIR TURRET EMERGENCY BATTERY TRAY, RETAINER, AND HOOK BOLTS

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- TM 9-6140-200-14

Materials/Parts:
- Self-locking nut (2)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REPAIR

1. REMOVE LEFT REAR TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

WARNING
Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when you work with tools or other metal objects. Do not wear jewelry when you work on electrical system.

CAUTION
Incorrect cable removal can cause a short circuit. Remove negative cable before you remove positive cable.

2. LIFT COVER (1), AND REMOVE CLAMP (2) FROM NEGATIVE POST (3). See TM 9-6140-200-14.
3. LIFT COVER (1), AND REMOVE CLAMP (2) FROM POSITIVE POST (3). See TM 9-6140-200-14.


5. REMOVE RETAINER (7) FROM TWO HOOK BOLTS (8).
   a. Remove two locknuts (9), washers (10), and retainer (7) from two hook bolts (8). Discard locknuts.

6. REMOVE TWO HOOK BOLTS (8) FROM MOUNT (11).

GO TO NEXT PAGE
WARNING
Gas from batteries can explode and injure you. Do not allow sparks near batteries. Battery acid can burn or blind you. Do not get acid on your skin or eyes.

NOTE
Position of each battery should be noted as it is removed from tray.

7. REMOVE TWO BATTERIES (1, 2) FROM TWO TRAYS (3, 4).

8. REMOVE TWO TRAYS (3, 4) FROM MOUNT (5).

9. INSTALL TWO TRAYS (3, 4) ON MOUNT (5).

WARNING
Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when you work with tools or other metal objects. Do not wear jewelry when you work on electrical system.

10. INSTALL TWO BATTERIES (1, 2) IN TWO TRAYS (3, 4).
   a. Place battery (1) in tray (3) with positive post (6) forward.
   b. Place battery (2) in tray (4) with negative post (7) forward.
11. INSTALL TWO HOOK BOLTS (1) ON MOUNT (2).

12. INSTALL RETAINER (3) ON TWO HOOK BOLTS (1).
   a. Install retainer (3), two washers (4), and new locknuts (5) on two hook bolts (1).

NOTE
Clamps are marked positive (+) and negative (−). Only positive clamp should be installed on positive post of battery. Negative clamp should be installed on negative post.

13. LIFT TWO COVERS (6), AND INSTALL TWO CLAMPS (7) ON TWO POSTS (8). See TM 9-6140-200-14.

CAUTION
Incorrect cable installation can cause a short circuit. Install positive cable before you install negative cable.

15. LIFT COVER (1), AND INSTALL CLAMP (2) ON NEGATIVE POST (3). See TM 9-6140-200-14.

16. INSTALL LEFT REAR TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

END OF TASK
REPLACE TURRET EMERGENCY BATTERY TERMINAL LUG

DESCRIPTION

This task covers: Remove (page 5-7). Install (page 5-8).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- TM 9-6140-200-14

Materials/Parts:
- Terminal lug

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE LEFT REAR TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

WARNING
Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when you work with tools or other metal objects. Do not wear jewelry when you work on electrical system.

CAUTION
Incorrect cable removal can cause short circuit. Remove negative cable before you remove positive cable.

2. LIFT COVER (1) AND REMOVE LEAD (2) FROM LUG (3) ON NEGATIVE POST (4). See TM 9-6140-200-14.

GO TO NEXT PAGE
NOTE
There are four lugs on turret emergency batteries. All four lugs are removed in the same way.

3. LIFT RUBBER COVER (1) AND REMOVE LEAD (2) FROM LUG (3) ON POST (4). See TM 9-6140-200-14.

4. LIFT COVER (1) AND REMOVE LUG (3) FROM POST (4). See TM 9-6140-200-14.

WARNING
Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when you work with tools or other metal objects. Do not wear jewelry when you work on electrical system.

NOTE
There are four lugs on turret emergency batteries. All four lugs are installed in the same way.

NOTE
Lugs are marked as positive (+) or negative (−). Only positive lug should be installed on positive post of battery. Only negative lug should be installed on negative post of battery.

5. LIFT COVER (1) AND INSTALL NEW LUG (3) ON POST (4). See TM 9-6140-200-14.
7. LIFT COVER (4) AND INSTALL LEAD (5) ON LUG (6) ON NEGATIVE POST (7). See TM 9-6140-200-14.

8. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.


CAUTION
Incorrect cable installation can cause short circuit. Install positive cable before you install negative cable.

6. LIFT COVER (1) AND INSTALL LEAD (2) ON LUG (3). See TM 9-6140-200-14.
### Section II. MAINTENANCE OF WIRING HARNESS

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REPLACE CABLE 2W14

DESCRIPTION

This task covers: Remove (page 5-12). Install (page 5-13).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Special electrical cable assembly
- Nylon strap

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- TM 9-6140-200-14

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE LEFT REAR TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

   WARNING
   Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when you work with tools or other metal objects. Do not wear jewelry when you work on electrical system.

   CAUTION
   Incorrect cable removal can cause short circuit. Remove negative cable before you remove positive cable.

2. LIFT COVER (1) AND REMOVE LEAD (2) FROM CLAMP (3) ON NEGATIVE POST (4). See TM 9-6140-200-14.
3. REMOVE STRAP (1) FROM CABLE 2W14 (2). DISCARD STRAP.

NOTE
Cable 2W14 is removed from both clamps in the same way.

4. LIFT COVERS (3) AND REMOVE CABLE 2W14 (2) FROM TWO CLAMPS (4). See TM 9-6149-200-14. DISCARD CABLE.

5. LIFT COVERS (3) AND INSTALL NEW CABLE 2W14 (2) ON TWO CLAMPS (4). See TM 9-6140-200-14.

6. INSTALL NEW STRAP (1) ON CABLE 2W14 (2).

7. LIFT COVER (5) AND INSTALL LEAD (2) ON CLAMP (7) ON NEGATIVE POST (8). See TM 9-6140-200-14.

8. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.


END OF TASK
REPLACE CABLE 2W15

DESCRIPTION

This task covers: Remove (page 5-14). Install (page 5-15).

INITIAL SETUP

Tools:

- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:

- Self-locking nut
- Self-locking nut
- Special cable assembly

Personnel Required:

ITV/IFVICFV Trt Mech 45T10

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Equipment Conditions:

- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE TURRET STEP AND LEFT REAR FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

   WARNING
   Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when working with tools or other metal objects. Do not wear jewelry when you work on electrical system.

   CAUTION
   Incorrect cable removal can cause short circuit. Remove negative cable before you remove positive cable.

2. REMOVE CABLE 2W15 (1) FROM SCREW (2).

   a. Remove locknut (3), washer (4), and cable 2W15 (1) from screw (2). Discard locknut.
3. **REMOVE CABLE 2W15 (1) FROM TWO CLAMPS (2, 3).**
   
   a. Remove screw (4) and clamp (2) from weldnut (5) on turret.
   
   b. Remove locknut (6), screw (7), and clamp (3) from turret. Discard locknut.
   
   c. Remove cable 2W15 (1) from two clamps (2, 3).

---

**WARNING**

Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when working with tools or other metal objects. Do not wear jewelry when you work on electrical system.

4. **REMOVE CABLE 2W15 (1) FROM CLAMP (8).**
   
   a. Lift cover (9) and remove nut (10) and cable 2W15 (1) from clamp (8).

---

5. **INSTALL CABLE 2W15 (1) ON CLAMP (8).**
   
   a. Lift cover (9) and install cable 2W15 (1) and nut (10) on clamp (8).
6. INSTALL CABLE 2W15 (1) ON SCREW (2).
   a. Install cable 2W15 (1), washer (3), and new locknut (4) on screw (2).

7. INSTALL CABLE 2W15 (1) IN TWO CLAMPS (5, 6).
   a. Install cable 2W15 (1) in two clamps (5, 6).
   b. Install clamp (5) and screw (7) on weldnut (8) on turret.
   c. Install clamp (6), screw (9), and new locknut (10) on turret.

8. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.


END OF TASK
REPLACE CABLE 2W7

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Self-locking nut
- Cable assembly
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE LEFT FRONT AND CENTER TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. REMOVE CABLE 2W7 (1) FROM TURRET.
   a. Remove locknut (2), screw (3), washer (4), and cable 2W7 (1) from turret. Discard locknut.
   b. Remove screw (5), washer (6), and cable 2W7 (1) from bracket (7).

INSTALL

3. INSTALL NEW CABLE 2W7 (1) IN TURRET.
   a. Apply primer to threads of screw (5).
   b. Apply sealing compound to threads of screw (5).
   c. Install cable 2W7 (1), washer (6), and screw (5) on bracket (7) finger tight.
   d. Install cable 2W7 (1), washer (4), screw (3), and new locknut (2) on turret finger tight.
   e. Tighten screw (3).

4. TORQUE SCREW (5) to 73-79 IN-LB (84-91 CMKG).

5. INSTALL LEFT FRONT AND CENTER TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

END OF TASK
# REPLACE CABLE 2W301

## DESCRIPTION

This task covers:
- Remove (page 5-18).
- Install (page 5-22).

## INITIAL SETUP

### Tools:

- Turret mechanic's tool kit (Item 31, App F)

### References:

- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

### Materials/Parts:

- Special cable assembly
- Nylon strap (2)

### Equipment Conditions:

- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

### Personnel Required:

- ITV/IFV/CFV Trt Mech 45T10

## REMOVE

1. REMOVE CENTER AND RIGHT TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. REMOVE DISTRIBUTION BOX. See task: REPLACE DISTRIBUTION BOX, page 5-105.
3. REMOVE CABLE 2W301 (1) FROM FOUR CLAMPS (2).
   a. Remove four screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove cable 2W301 (1) from four clamps (2).

4. MANUALLY TRAVERSE TURRET TO 3000 MILS. See TM 9-2350-252-10-2.

5. REMOVE PLUG 2W301P1 (5) FROM JACK 2A200J1 (6).
6. PUSH PLUG 2W301P1 (1) BEHIND EQUILIBRATOR (2).

7. MANUALLY TRAVERSE TURRET TO 2400 MILS. See TM 9-2350-252-10-2.

8. REMOVE DOOR (3) FROM HE AMMO CAN (4).
   a. Turn latch (5) and lift door (3) up and out of HE ammo can (4).
9. REMOVE CABLE HANGER (1) FROM HE AMMO CAN (2).
   a. Remove two screws (3) and washers (4) from HE ammo can (2) and cable hanger (1).
   b. Remove three screws (5), washers (6), and cable hanger (1) from HE ammo can (2).

10. PULL PLUG 2W301P4 (7) FROM BETWEEN CABLE HANGER (1) AND HE AMMO CAN (2).
11. REMOVE TWO STRAPS (1) FROM CABLES (2). DISCARD STRAPS.

12. REMOVE CABLE 2W301 (3) FROM TWO CLAMPS (4).
   a. Remove two screws (5) and clamps (4) from weldnuts (6) on turret.
   b. Remove cable 2W301 (3) from two clamps (4) and turret.

INSTALL

13. PUSH PLUG 2W301P4 (7) OF NEW CABLE 2W301 (3) BETWEEN CABLE HANGER (8) AND HE AMMO CAN (9).
14. ROUTE PLUG 2W301P1 (1) BEHIND PLUG 2W308P9 (2) AND BEHIND EQUILIBRATOR (3).

CAUTION
Cable can be damaged if cable does not go through notch in cable hanger. Route cable through notch in cable hanger.

15. INSTALL CABLE HANGER (4) ON HE AMMO CAN (5).
   a. Route cable 2A22 (6) through notch (7) in cable hanger (4).
   b. Install cable hanger (4), two washers (8), and screws (9) on HE ammo can (5).
   c. Install three washers (10) and screws (11) in HE ammo can (5) and cable hanger (4).
16. INSTALL DOOR (1) ON HE AMMO CAN (2).
   a. Position bottom of door (1) in door hanger (3).
   b. Close door (1) and turn latch (4) up.

17. MANUALLY TRAVERSE TURRET TO 3000 MILS. See TM 9-2350-252-10-2.

18. INSTALL PLUG 2W301P1 (5) ON JACK 2A200J1 (6).
19. MANUALLY TRAVERSE TURRET TO 2400 MILS. See TM 9-2350-252-10-2.

20. INSTALL CABLE 2W301 (1) IN TWO CLAMPS (2).
   a. Install cable 2W301 (1) in two clamps (2).
   b. Install two clamps (2) and screws (3) on weldnuts (4) on turret.

21. INSTALL TWO NEW STRAPS (5) ON CABLES (6).

22. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

23. INSTALL CABLE 2W301 (1) IN FOUR CLAMPS (7).
   a. Install cable 2W301 (1) in four clamps (7).
   b. Install four clamps (7) and screws (8) on weldnuts (9) on turret.

24. INSTALL DISTRIBUTION BOX. See task: REPLACE DISTRIBUTION BOX, page 5-105.

25. INSTALL RIGHT AND CENTER TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

26. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE WIRING HARNESS 2W302

DESCRIPTION

This task covers: Remove (page 5-26). Install (page 5-32).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Nylon strap (2)
- Special cable assembly
- Self-locking nut

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE ISU. See task: REMOVE/INSTALL INTEGRATED SIGHT UNIT, page 21-43.


4. REMOVE PLUG 2W302P1 (1) FROM JACK 2A205J1 (2).

6. REMOVE LEAD 2W302P1 (1) FROM TWO CLAMPS (2).
   a. Remove two screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove lead 2W302P1 (1) from two clamps (2).

7. REMOVE LEAD 2W302P1 (1) FROM CLAMP (5).
8. REMOVE TWO PLUGS (1) FROM TWO JACKS (2) ON GUN ELEVATION DRIVE MOTOR (3) AS FOLLOWS:
   2W302P4 FROM 2A202J2
   2W302P5 FROM 2A202J3.
   TAG PLUGS.

9. REMOVE TWO PLUGS (4) FROM TWO JACKS (5) ON GUN ELEVATION DRIVE MOTOR (6) AS FOLLOWS:
   2W302P2 FROM 2A203J2
   2W302P3 FROM 2A203J3.
   TAG PLUGS.
10. REMOVE LEADS 2W302P2 (1) AND 2W302P3 (2) FROM FOUR CLAMPS (3).
   a. Remove four screws (4) and clamps (3) from weldnuts (5) on turret.
   b. Remove leads 2W302P2 (1) and 2W302P3 (2) from four clamps (3).

11. REMOVE PLUG 2W302P6 (6) FROM JACK 2A206J1 (7).

12. MANUALY TRAVERSE TURRET TO 3200 MILS. See TM 9-2350-252-10-2.
13. REMOVE PLUG 2W302P7 (1) FROM JACK 2A200J2 (2).

14. REMOVE TWO STRAPS (3) FROM TWO CABLES (4). DISCARD STRAPS.
15. **REMOVE WIRING HARNESS 2W302 (1) FROM TWO CLAMPS (2, 3).**
   a. Remove screw (4) and clamp (2) from weldnut (5) on turret.
   b. Remove locknut (6), screw (7), and clamp (3) from support (8). Discard locknut.
   c. Remove wiring harness 2W302 (1) from two clamps (2, 3).

16. **MANUALLY TRAVERSE TURRET TO 2850 MILS.** See TM 9-2350-252-10-2.

17. **REMOVE WIRING HARNESS 2W302 (1) FROM FOUR CLAMPS (9).**
   a. Remove four screws (10) and clamps (9) from weldnuts (11) on turret.
   b. Remove wiring harness 2W302 (1) from four clamps (9).
18. PULL WIRING HARNESS 2W302 (1)
FROM TURRET.

19. MANUALLY TRAVERSE TURRET TO
3200 MILS. See TM 9-2350-252-10-2.

20. INSTALL NEW WIRING HARNESS 2W302 (1) IN TURRET.
   a. Push plugs 2W302P1 (2), 2W302P2 (3), and 2W302P3 (4) of wiring harness
      2W302 (1) through turret opening (5).
   b. Push plugs 2W302P4 (6) and 2W302P5 (7) up to gun elevation drive
      motor (8).
1. INSTALL PLUG 2W302P7 (1) ON JACK 2A200J2 (2).

2. INSTALL PLUG 2W302P6 (3) ON JACK 2A206J1 (4).
23. MANUALLY TRAVERSE TURRET AS NEEDED TO PULL WIRING HARNESS 2W302 INTO TURRET. See TM 9-2350-252-10-2.

24. INSTALL TWO PLUGS (1) ON TWO JACKS (2) ON TOW ELEVATION DRIVE MOTOR (3) AS FOLLOWS:
   2W302P2 ON 2A203J2
   2W302P3 ON 2A203J3.

25. INSTALL TWO PLUGS (4) ON TWO JACKS (5) ON GUN ELEVATION DRIVE MOTOR (6) AS FOLLOWS:
   2W302P4 ON 2A202J2
   2W302P5 ON 2A202J3.
26. INSTALL PLUG 2W302P1 (1) ON JACK 2A205J1 (2).

27. INSTALL LEADS 2W302P2 (3) AND 2W302P3 (4) IN FOUR CLAMPS (5).
   a. Install leads 2W302P2 (3) and 2W302P3 (4) in four clamps (5).
   b. Install four clamps (5) and screws (6) on weldnuts (7) on turret.
28. INSTALL LEAD 2W302P1 (1) IN TWO CLAMPS (2).
   a. Install lead 2W302P1 (1) in two clamps (2).
   b. Install two clamps (2) and screws (3) on weldnuts (4) on turret.

29. INSTALL LEAD 2W302P1 (1) IN CLAMP (5).

31. MANUALLY TRAVERSE TURRET TO 2850 MILS. See TM 9-2350-252-10-2.

32. INSTALL WIRING HARNESS 2W302 (1) IN FOUR CLAMPS (2).
   a. Install wiring harness 2W302 (1) in clamps (2).
   b. Install four clamps (2) and screws (3) on weldnuts (4) on turret.

33. MANUALLY TRAVERSE TURRET TO 3200 MILS. See TM 9-2350-252-10-2.

34. INSTALL WIRING HARNESS 2W302 (1) IN TWO CLAMPS (5, 6).
   a. Install wiring harness 2W302 (1) in two clamps (5, 6).
   b. Install clamp (5) and screw (7) on weldnut (8) on turret.
   c. Install clamp (6), screw (9), and new locknut (10) on support (11).
35. INSTALL TWO NEW STRAPS (1) ON TWO CABLES (2).

36. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.


40. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE WIRING HARNESS 2W303

DESCRIPTION

This task covers: Remove (page 5-39). Install (page 5-45).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Special cable assembly
- Nylon strap (6)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


4. REMOVE PLUG 2W303P4 (1) FROM JACK 2A208J1 (2).
5. REMOVE LEAD 2W303P4 (1) FROM SEVEN CLAMPS (2).
   a. Remove seven screws (3) and clamps (2) from turret.
   b. Remove lead 2W303P4 (1) from seven clamps (2).

6. REMOVE LEAD 2W303P1 (4) FROM CLAMP (5).
   a. Remove screw (6) and two clamps (5, 7) from weldnut (8) on turret.
   b. Remove lead 2W303P1 (4) from clamp (5).
7. REMOVE PLUG 2W303P1 (1) FROM JACK 2A207J1 (2).

8. REMOVE LEADS 2W303P1 (3) AND 2W303P4 (4) FROM CLAMP (5).
   a. Remove screw (6) and clamp (5) from weldnut (7) on turret.
   b. Remove leads 2W303P1 (1) and 2W303P4 (4) from clamp (5).

10. REMOVE PLUG 2W303P2 (1) FROM JACK 2A7J7 (2).

11. REMOVE LEAD 2W303P2 (3) FROM THREE CLAMPS (4).
   a. Remove three screws (5) and clamps (4) from weldnuts (6) on turret.
   b. Remove lead 2W303P2 (3) from three clamps (4).
12. MANUALLY TRAVERSE TURRET TO 2850 MILS. See TM 9-2350-252-10-2.

13. REMOVE PLUG 2W303P3 (1) FROM JACK 2A200J3 (2).

14. REMOVE SIX STRAPS (3) FROM TWO CABLES. DISCARD STRAPS.

15. REMOVE LEAD 2W303P2 (4) FROM TWO CLAMPS (5).
   a. Remove two screws (6) and clamps (5) from weldnuts (7) on turret.
   b. Remove lead 2W303P2 (4) from two clamps (5) on weldnuts (7) on turret.
16. MANUALLY TRAVERSE TURRET TO 2400 MILS. See TM 9-2350-252-10-2.

17. REMOVE DOOR (1) FROM HE AMMO CAN (2).
   a. Turn latch (3) and lift door (1) up and out of HE ammo can (2).

18. REMOVE CABLE HANGER (4) FROM HE AMMO CAN (2).
   a. Remove two screws (5) and washers (6) from HE ammo can (2) and cable hanger (4).
   b. Remove three screws (7), washers (8), and cable hanger (4) from HE ammo can (2).
19. PULL PLUG 2W303P2 (1) FROM BETWEEN HE AMMO CAN (2) AND SUPPORT (3).

20. PUSH PLUG 2W303P2 (1) OF NEW WIRING HARNESS 2W303 BETWEEN HE AMMO CAN (2) AND SUPPORT (3).
CAUTION
Cable can be damaged if cable does not go through notch in support. Route cable through notch in support.

21. INSTALL SUPPORT (1) ON HE AMMO CAN (2).
   a. Route cable 2A22 (3) through notch (4) in support (1).
   b. Install support (1), two washers (5), and screws (6) on HE ammo can (2).
   c. Install three washers (7) and screws (8) in HE ammo can (2) and support (1).

22. INSTALL DOOR (9) ON HE AMMO CAN (2).
   a. Position bottom of door (9) in door support (10).
   b. Close door (9) and turn latch (11) up.

23. MANUALLY TRAVERSE TURRET TO 2850 MILS. See TM 9-2350-252-10-2.
24. INSTALL LEAD 2W303P2 (1) IN TWO CLAMPS (2).
   a. Install lead 2W303P2 (1) in two clamps (2).
   b. Install two clamps (2) and two screws (3) on weldnuts (4) on turret.

25. INSTALL SIX NEW STRAPS (5) ON CABLES.

26. INSTALL PLUG 2W303P3 (6) ON JACK 2A200J3 (7).
27. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

28. INSTALL LEAD 2W303P2 (1) IN THREE CLAMPS (2).
   a. Install lead 2W303P2 (1) in three clamps (2).
   b. Install three clamps (2) and screws (3) on weldnuts (4) on turret.

29. INSTALL PLUG 2W303P2 (5) ON JACK 2A7J7 (6).
30. INSTALL LEFT, CENTER, AND STEP TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

31. INSTALL LEADS 2W303P1 (1) AND 2W303P4 (2) IN CLAMP (3).
   a. Install leads 2W303P1 (1) and 2W303P4 (2) in clamp (3).
   b. Install clamp (3) and screw (4) on weidnut (5) on turret.

32. INSTALL PLUG 2W303P1 (6) ON JACK 2A207J1 (7).
33. INSTALL LEAD 2W303P1 (1) IN CLAMP (2).
   a. Install lead 2W303P1 (1) in clamp (2).
   b. Install two clamps (2, 3) and screw (4) on weldnut (5) on turret.

34. INSTALL LEAD 2W303P4 (6) IN SEVEN CLAMPS (7).
   a. Install lead 2W303P4 (6) in seven clamps (7).
   b. Install seven clamps (7) and screws (8) on turret.
35. INSTALL PLUG 2W303P4 (1) ON JACK 2A208J1 (2).


38. INSTALL 25MM GUN BARREL. See TM 9-2350-252-10-2.

39. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE CABLE 2W304

DESCRIPTION

This task covers: Remove (page 5-52). Install (page 5-56).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Nylon strap (3)
- Special cable assembly

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE ISU. See task: REMOVE/INSTALL INTEGRATED SIGHT UNIT, page 21-43.


5. REMOVE PLUG 2W304P1 (1) FROM JACK 2A203J1 (2).

GO TO NEXT PAGE
6. REMOVE CABLE 2W304 (1) FROM FOUR CLAMPS (2).
   a. Remove four screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove cable 2W304 (1) from four clamps (2).

7. REMOVE CABLE 2W304 (1) FROM CLAMP (5).

8. REMOVE CABLE 2W304 (1) FROM CLAMP (6).

GO TO NEXT PAGE
9. MANUALLY TRAVERSE TURRET TO 3500 MILS. See TM 9-2350-252-10-2.


11. REMOVE THREE STRAPS (3) FROM CABLES. DISCARD STRAPS.
3. REMOVE CABLE 2W304 (1) FROM TWO CLAMPS (2).
   a. Remove two screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove cable 2W304 (1) from two clamps (2).

4. PULL PLUG 2W304P5 (5) INTO TURRET, AND REMOVE CABLE 2W304 (1) FROM TURRET.

GO TO NEXT PAGE
14. PLACE NEW CABLE 2W304 (1) IN TURRET, AND PUSH PLUG 2W304P5 (2) OUT OF TURRET INTO SQUAD AREA.

15. INSTALL PLUG 2W304P5 (2) ON JACK 2A200J5 (3).

16. INSTALL CABLE 2W304 (1) IN TWO CLAMPS (4).
   a. Install cable 2W304 (1) in two clamps (4).
   b. Install two clamps (4) and screws (5) on weldnats (6) on turret.
18. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

19. INSTALL PLUG 2W304P1 (2) ON JACK 2A203J1 (3).
   a. Route cable 2W304 (4) to jack 2A203J1 (3).
   b. Install plug 2W304P1 (2) on jack 2A203J1 (3).

17. INSTALL THREE NEW STRAPS (1) ON CABLES.

20. INSTALL CABLE 2W304 (4) IN CLAMP (5).

21. INSTALL CABLE 2W304 (4) IN CLAMP (6).
22. INSTALL CABLE 2W304 (1) IN FOUR CLAMPS (2).
   a. Install cable 2W304 (1) in four clamps (2).
   b. Install four clamps (2) and screws (3) on weldnuts (4) on turret.


27. BORESIGHT 25MM GUN. See TM 9-2350-252-10-2.

END OF TASK
REPLACE CABLE 2W305

DESCRIPTION
This task covers: Remove (page 5-59) Install (page 5-61).

INITIAL SETUP
Tools:
Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
Self-locking nut
Nylon strap (2)
Special cable assembly

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFVICFV Trt Mech 45T10

REMOVE

1. MANUALLY TRAVERSE TURRET TO 3400 MILS. See TM 9-2350-252-10-2.

2. REMOVE PLUG 2W305P1 (1) FROM JACK 2A202J1 (2).

GO TO NEXT PAGE
3. REMOVE TWO STRAPS (1) FROM CABLES (2). DISCARD STRAPS.

4. REMOVE CABLE 2W305 (3) FROM TWO CLAMPS (4, 5).
   a. Remove locknut (6), screw (7), and clamp (4) from hanger (8) on turret. Discard locknut.
   b. Remove screw (9) and clamp (5) from weldnut (10) on turret.
   c. Remove cable 2W305 (3) from two clamps (4, 5).
5. REMOVE PLUG 2W305P6 (1) FROM JACK 2A200J6 (2).

6. PULL CABLE 2W305 (3) FROM TURRET.

7. INSTALL PLUG 2W305P6 (1) OF NEW CABLE 2W305 (3) ON JACK 2A200J6 (2).

8. PUSH CABLE 2W305 (3) INTO TURRET.

GO TO NEXT PAGE
9. INSTALL CABLE 2W305 (1) IN TWO CLAMPS (2, 3).
   a. Install cable 2W305 (1) in two clamps (2, 3).
   b. Install clamp (2) and screw (4) on weldnut (5) on turret.
   c. Install clamp (3), screw (6), and new locknut (7) on hanger (8) on turret.

10. INSTALL TWO NEW STRAPS (9) ON CABLES (10).

11. INSTALL PLUG 2W305P1 (11) ON JACK 2A202J1 (12).

12. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

13. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE CABLE 2W306

DESCRIPTION

This task covers: Remove (page 5-63), Install (page 5-69).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)
- Lifting device with rated lift capability of at least 1002 lb (465 kg)
- Nylon sling, 25 ft (Item 9, App C)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Cable assembly
- Cotter pin
- Lock washer (2)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE ISU. See task: REMOVE/INSTALL INTEGRATED SIGHT UNIT, page 21-43.


5. MANUALLY TRAVERSE TURRET TO 3600 MILS. See TM 9-2350-252-10-2.

6. MANUALLY RAISE TOW LAUNCHER TO FIRING POSITION. See TM 9-2350-252-10-2.

7. REMOVE CABLE 2W306 (1) FROM TWO CLAMPS (2).
   a. Remove two screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove cable 2W306 (1) from two clamps (2).
8. REMOVE PLUG 2W306P7 (1) FROM JACK 2A200J7 (2) ON ELECTRONIC CONTROL ASSEMBLY (3).

9. PULL CABLE 2W306 (4) INTO TURRET.
10. REMOVE CABLE 2W306 (1) FROM THREE CLAMPS (2).
   a. Remove three screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove cable 2W306 (1) from three clamps (2).

11. MANUALLY TRAVERSE TURRET TO 4800 MILS. See TM 9-2350-252-10-2.

WARNING
Unsupported TOW launcher can fall and injure soldiers. Do not work under unsupported TOW launcher.

12. ATTACH SLINGS (6) TO LAUNCHER (7).
   a. Attach slings (6) around launcher (7), between support bracket (8), upper bracket (9) and forward electrical mechanical post (10).
   b. Take up slack in slings (6) to support launcher (7). Use lifting device.
13. REMOVE SHIELD (1) FROM HOUSING (2).
   a. Remove four screws (3) and shield (1) from housing (2).

14. REMOVE GROUND STRAP (4) FROM GEARBOX (5).
   a. Remove screw (6), two lock washers (7), and ground strap (4) from gearbox (5). Discard lock washers.

15. REMOVE TWO PLUGS (8) FROM TWO JACKS (9) AS FOLLOWS:
    3W306P2 FROM J2

   TAG PLUGS.

16. REMOVE PLUG 2W306P3 (10) FROM JACK 2A200J3 (11).
NOTE
Step 17 should be done only if gearbox is secured to lower bracket with cotter pin, washer, and pin.

17. REMOVE PIN (1) FROM LOWER BRACKET (2). HAVE HELPER ASSIST.
   a. (H) Pull manual release knob (3) and hold out.
   b. Raise and lower ballscrew (4) to release pressure on pin (1). Use speed wrench and 14 mm socket at manual drive input (5).
   c. While holding gearbox (6), remove cotter pin (7), washer (8), and pin (7). Discard cotter pin.

NOTE
Step 18 should be done only if gearbox is secured to lower bracket with locknut and screw.

18. REMOVE SCREW (9) FROM LOWER BRACKET (2). HAVE HELPER ASSIST.
   a. (H) Pull manual release knob (3) and hold out.
   b. Raise and lower ballscrew (4) to release pressure on screw (9). Use speed wrench and 14 mm socket at manual drive input (5).
   c. While holding gearbox (6), remove locknut (10) and screw (9). Discard locknut and screw.
19. (H) PULL OUT ON LOWER END OF GEARBOX (1).

20. REMOVE PLUG 2W306P1 (2) FROM JACK 2A200J1 (3).

21. REMOVE CABLE 2W306 (4) FROM TWO CLAMPS (5).
   a. Remove two screws (6), washers (7), and clamps (5) from faceplate (8).
   b. Remove cable 2W306 (4) from two clamps (5).
22. REMOVE BRACKET (1) FROM FACEPLATE (2).
   a. Remove three screws (3), washers (4), and bracket (1) from faceplate (2).

23. PULL CABLE 2W306 (5) AND PLUG 2W306P7 (6) OUT OF TURRET THROUGH FACEPLATE (2).

24. PUSH PLUG 2W306P7 (6) AND NEW CABLE 2W306 (5) INTO TURRET THROUGH FACEPLATE (2).

GO TO NEXT PAGE 5-69
25. INSTALL BRACKET (1) ON FACEPLATE (2).
   a. Apply primer to threads of three screws (3).
   b. Apply sealing compound to threads of three screws (3).
   c. Install bracket (1), three washers (4), and screws (3) on faceplate (2).
   d. TORQUE THREE SCREWS (3) TO 73-79 IN-LB (84-91 CMKG).

26. INSTALL CABLE 2W306 (5) IN TWO CLAMPS (6).
   a. Install cable 2W306 (5) in two clamps (6).
   b. Install two clamps (6), washers (7), and screws (8) on faceplate (2).
   c. TORQUE TWO SCREWS (8) ON CLAMPS (6) ON FACEPLATE (2) TO 73-79 IN-LB (84-91 CMKG).
27. POSITION GEARBOX (1) TO FACEPLATE (2).

28. INSTALL PLUG 2W306P1 (3) ON JACK 2A200J1 (4) ON GEARBOX (1).

29. INSTALL GEARBOX (1) ON LOWER BRACKET (2).
   a. Turn manual drive shaft (3), and pull manual release knob (4) to align gearbox (1) and lower bracket (2).
   b. Install gearbox (1), pin (5), washer (6), and new cotter pin (7) on lower bracket (2).

30. INSTALL PLUG 2W306P3 (8) ON JACK 2A200J3 (9).

31. INSTALL TWO PLUGS (10) ON TWO JACKS (11) AS FOLLOWS:
   - 3W306P4 ON J4
   - 3W306P2 ON J2.

GO TO NEXT PAGE
32. INSTALL GROUND STRAP (1) ON GEARBOX (2).
   a. Install ground strap (1), two new lock washers (3), and screws (4) on gearbox (2).

33. INSTALL SHIELD (5) ON HOUSING (6).
   a. Apply primer to threads of four screws (7).
   b. Apply sealing compound to threads of four screws (7).
   c. Install shield (5) and four screws (7) on housing (6).

34. REMOVE SLINGS (8) FROM LAUNCHER (9).
35. PULL CABLE 2W306 (1) INTO TURRET.
   a. Pull cable 2W306 (1) through rotor (2) into turret.
   b. Loop cable 2W306 (1) to right side of rotor (2).
   c. Pull cable 2W306 (1) over rear spoke of mount (3) into turret.

36. INSTALL CABLE 2W306 (1) IN THREE CLAMPS (4).
   a. Apply primer to threads of three screws (5).
   b. Apply sealing compound to threads of three screws (5).
   c. Install cable 2W306 (1) in three clamps (4).
   d. Install three clamps (4) and screws (5) on weldnuts (6) on turret.
37. MANUALLY TRAVERSE TURRET TO 3600 MILS. See TM 9-2350-252-10-2.

38. PUSH CABLE 2W306 (1) OUT OF TURRET INTO SQUAD AREA.

39. INSTALL PLUG 2W306P7 (2) ON JACK 2A200J7 (3) ON ELECTRONIC CONTROL ASSEMBLY (4).
40. INSTALL CABLE 2W306 (1) IN TWO CLAMPS (2).
   a. Install cable 2W306 (1) in two clamps (2).
   b. Install two clamps (2) and screws (3) on weldnuts (4) on turret.

41. CHECK OPERATION OF TOW LAUNCHER. See TM 9-2350-252-10-2.

42. MANUALLY LOWER TOW LAUNCHER TO STOWED POSITION.
    See TM 9-2350-252-10-2.

43. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

44. INSTALL 25MM AMMO GUARD GUN MOUNT. See task: REPLACE 25MM AMMO GUARD GUN MOUNT, page 26-4.


47. INSTALL ISU. See task: REMOVE/INSTALL INTEGRATED SIGHT UNIT, page 21-43.

END OF TASK
REPLACE WIRING HARNESS 2W307

DESCRIPTION

This task covers: Remove (page 5-76). Install (page 5-79).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Nylon strap (2)
- Special cable assembly

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE ISU. See task: REMOVE/INSTALL INTEGRATED SIGHT UNIT, page 21-43.

   WARNING
   Accidental firing of 25mm gun could kill or injure soldiers. Jack rotation could allow 25mm gun to fire. Do not turn switch jack J1 when you remove plug from gearbox.

2. REMOVE PLUG 2W307P1 (1) FROM JACK 2A201J1 (2).

3. REMOVE STRAP (3) FROM LEAD 2W307P1 (4) AND TURRET BASKET (5). DISCARD STRAP.

4. REMOVE PLUG 2W307P2 (6) FROM JACK 2A201J2 (7).
5. REMOVE PLUG 2W307P3 (1) FROM JACK 2A201J3 (2).

6. REMOVE LEAD 2W307P2 (3) FROM FIVE CLAMPS (4, 5).
   a. Remove five screws (6, 7) and six clamps (4, 5, 8) from weldnuts (9) on turret.
   b. Remove lead 2W307P2 (3) from five clamps (4, 5).


10. REMOVE LEADS 2W307P1 (1) AND 2W307P3 (2) FROM SIX CLAMPS (3).
   a. Remove three straps (4) from cables. Discard straps.
   b. Remove six screws (5) and clamps (3) from weldnuts (6) on turret.
   c. Remove leads 2W307P1 (1) and 2W307P3 (2) from six clamps (3).

11. MANUALLY TRAVERSE TURRET TO 3400 MILS. See TM 9-2350-252-10-2.

12. REMOVE LEADS 2W307P1 (1) AND 2W307P3 (2) FROM CLAMP (7).

13. REMOVE PLUG 2W307P8 (8) FROM JACK 2A200J8 (9).
14. REMOVE LEAD 2W307P8 (1) FROM TWO CLAMPS (2).
   a. Remove two screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove lead 2W307P8 (1) from two clamps (2).


GO TO NEXT PAGE
16. PUT WIRING HARNESS 2W307 (1) INTO TURRET.

17. INSTALL LEAD 2W307P8 (2) IN TWO CLAMPS (3).
   a. Install lead 2W307P8 (2) in two clamps (3).
   b. Install two clamps (3) and screws (4) on weldnuts (5) on turret.

18. INSTALL PLUG 2W307P2 (6) ON JACK 2A201J2 (7).
   a. Route lead 2W307P2 (8) to jack 2A201J2 (7).
19. INSTALL PLUG 2W307P3 (1) ON JACK 2A201J3 (2).
   a. Route lead 2W307P3 (3) to jack 2A201J3 (2).
   b. Install plug 2W307P3 (1) on jack 2A201J3 (2).

   WARNING
   Accidental firing of 25mm gun could kill or injure soldiers. Jack rotation could allow 25mm gun to fire. Do not turn switch jack J1 when you install plug on gearbox.

20. INSTALL PLUG 2W307P1 (4) ON JACK 2A201J1 (5).
   a. Route lead 2W307P1 (6) to jack 2A201J1 (5).
   b. Install plug 2W307P1 (4) on jack 2A201J1 (5).

21. INSTALL NEW STRAP (7) ON LEAD 2W307P1 (6) AND TURRET BASKET (8).

GO TO NEXT PAGE
22. INSTALL LEADS 2W307P1 (1) AND 2W307P3 (2) IN SIX CLAMPS (3).
   a. Install leads 2W307P1 (1) and 2W307P3 (2) in six clamps (3).
   b. Install six clamps (3) and screws (4) on weldnuts (5) on turret.
   c. Install three new straps (6) on cables.

23. INSTALL LEADS 2W307P1 (1) AND 2W307P3 (2) IN CLAMP (3).

24. INSTALL LEAD 2W307P2 (8) IN FIVE CLAMPS (9, 10).
   a. Install lead 2W307P2 (8) in five clamps (9, 10).
   b. Install six clamps (9, 10, 11) on weldnuts (12) on turret with five screws (13, 14).

25. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.


30. INSTALL ISU. See task: REMOVE/INSTALL INTEGRATED SIGHT UNIT, page 21-43.


32. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE CABLE 2W308

DESCRIPTION

This task covers: Remove (page 5-83). Install (page 5-86).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Special cable assembly

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE RIGHT TURRET FLOOR PLATE.
   See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. MANUALLY TRAVERSE TURRET TO 2400 MILS. See TM 9-2350-252-10-2.

3. REMOVE PLUG 2W308P10 (1) FROM JACK 2A1J10 (2) ON DISTRIBUTION BOX (3).

GO TO NEXT PAGE
4. REMOVE DOOR (1) FROM HE AMMO CAN (2).
   a. Turn latch (3) and lift door (1) up and out of HE ammo can (2).

5. REMOVE CABLE HANGER (4) FROM HE AMMO CAN (2).
   a. Remove two screws (5) and washers (6) from HE ammo can (2) and hanger (4).
   b. Remove three screws (7), washers (6), and hanger (4) from HE ammo can (2).
6. REMOVE PLUG 2W308P9 (1) FROM JACK 2A200J9 (2) ON ELECTRONIC CONTROL ASSEMBLY (3).

7. REMOVE CABLE 2W308 (4) FROM CLAMP (5).
   a. Remove screw (6) and clamp (5) from turret.
   b. Remove cable 2W308 (4) from clamp (5).
   c. Pull cable 2W308 (4) from under HE ammo can (7), and remove from turret.

GO TO NEXT PAGE
8. INSTALL NEW CABLE 2W308 (1) IN CLAMP (2).
   a. Push plug 2W308P10 (3) under HE ammo can (4).
   b. Install cable 2W308 (1) in clamp (2).
   c. Install clamp (2) and screw (5) on turret.

9. INSTALL PLUG 2W308P9 (6) ON JACK 2A200J9 (7) ON ELECTRONIC CONTROL ASSEMBLY (8).
CAUTION
Cable is easily damaged. Place cable in notch of cable hanger.

10. INSTALL CABLE HANGER (1) ON HE AMMO CAN (2).
   a. Route cable 2A22 (3) through notch (4) in hanger (1).
   b. Install hanger (1), two washers (5), and screws (6) on HE ammo can (2).
   c. Install three washers (7) and screws (8) in HE ammo can (2) and hanger (1).

11. INSTALL DOOR (9) ON HE AMMO CAN (2).
   a. Position bottom of door (9) in door support (10).
   b. Close door (9) and turn latch (11) up.

GO TO NEXT PAGE
12. INSTALL PLUG 2W308P10 (1) ON JACK 2A1J10 (2) ON DISTRIBUTION BOX (3).

13. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.


15. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.
REPLACE CABLE 2W309

DESCRIPTION

This task covers: Remove (page 5-89). Install (page 5-92).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Lock washer (4)
- Lacing and tying tape (Item 11, App C)
- Special cable assembly

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

REMOVE

1. REMOVE PLUG 2W309P1 (1) FROM JACK 2A209J1 (2).
2. REMOVE FAN CONTROL (1) FROM TURRET SHIELD (2).
   a. Remove four nuts (3), lock washers (4) and fan control (1) from four mounts (5) on turret shield (2). Discard lock washers.

3. REMOVE CABLE 2W309 (6) FROM TURRET SHIELD (2).
   a. Remove three screws (7) and clamps (8) with cable 2W309 (6) from turret shield (2).
   b. Remove three clamps (8) from cable 2W309 (6).
4. REMOVE CENTER AND STEP TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

NOTE
Access to plug 2W309P8 is between center and step turret floor plates.

5. REMOVE PLUG 2W309P8 (1) FROM JACK 2A7J8 (2).

6. TIE ROPE (3) TO PLUG 2W309P8 (1).

NOTE
Rope should remain extended from under turret for easier return of cable.

7. REMOVE CABLE 2W309 (4) FROM TURRET.
   a. Pull cable 2W309 (4) forward and remove from under turret.
   b. Remove rope (3) from plug 2W309P8 (1).
INSTALL

8. MANUALLY TRAVERSE TURRET TO 850 MILS. See TM 9-2350-252-10-2.

NOTE
Rope should be extended from under turret following step 7.

9. INSTALL NEW CABLE 2W309 (1) IN TURRET.
   a. Tie rope (2) around plug 2W309P8 (3).
   b. Slide plug 2W309P8 (3) under turret.
   c. Pull rope (2) until cable 2W309 (1) can be pulled by hand. Have helper assist.

10. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

   NOTE
Access to plug 2W309P8 is between center and step floor turret plates.

11. REMOVE ROPE (2) FROM PLUG 2W309P8 (3).

12. INSTALL PLUG 2W309P8 (3) ON JACK 2A7J8 (4).

14. INSTALL CABLE 2W309 (1) ON TURRET SHIELD (2).
   a. Install three clamps (3) on cable 2W309 (1).
   b. Install three clamps (3) with cable 2W309 (1) and three screws (4) on turret shield (2).

15. INSTALL FAN CONTROL (5) ON TURRET SHIELD (2).
   a. Install fan control (5), four new lock washers (6), and nuts (7) on mounts (8) on turret shield (2).
16. INSTALL PLUG 2W309P1 (1) ON JACK 2A209J1 (2).

17. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
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16. INSTALL PLUG 2W309P1 (1) ON JACK 2A209J1 (2).

17. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
### Section III. MAINTENANCE OF ELECTRICAL SYSTEMS

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</table>
REPLACE HATCH INTERLOCK OVERRIDE SWITCH

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Toggle switch

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE SWITCH (1) FROM SHELF (2).
   a. Remove plug 2W2P3 (3) from jack 2A4J1 (4).
   b. Remove two screws (5), washers (6), and switch (1) from shelf (2).

INSTALL

2. INSTALL NEW SWITCH (1) ON SHELF (2).
   a. Install switch (1), two washers (6), and screws (5) on shelf (2).
   b. Install plug 2W2P3 (3) on jack 2A4J1 (4).

3. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE PATCHBOARD

DESCRIPTION

This task covers: Remove (page 5-97). Install (page 5-99).

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
Self-locking nut (2)
Nonelectrical wire (Item 15, App C)
Patchboard

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFVICFV Trt Mech 45T10

REMOVE

NOTE
For removal of left patchboard, step 1 is done and step 2 is omitted. For removal of right patchboard, step 2 is done.

1. REMOVE CENTER AND LEFT TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. REMOVE CENTER AND RIGHT TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

NOTE
For removal of both left and right side patchboards, steps 3 thru 7 are done. (Right side patchboard is shown here).

3. REMOVE TWO CAPS (1) FROM TWO JACKS (2). TAG JACKS.
4. REMOVE TWO JAM NUTS (1) FROM TWO JACKS (2).
   a. Remove lockwire (3) from two jam nuts (1). Discard lockwire.
   b. Remove two jam nuts (1) from two jacks (2).

5. REMOVE TWO RINGS (4) WITH CAPS (5) FROM TWO JACKS (2).

6. REMOVE TWO JACKS (2) FROM PATCHBOARD (6).
   a. Push two jacks (2) down and out of holes in patchboard (6).

7. REMOVE PATCHBOARD (6) FROM BASE (7).
   a. Remove two locknuts (8), screws (9), four washers (10), and patchboard (6) from base (7). Discard locknuts and patchboard.
NOTE
Steps 8 thru 13 are for installation of both right and left side patchboards. (Right side patchboard is shown here.)

8. INSTALL NEW PATCHBOARD (1) ON BASE (2).
   a. Install patchboard (1), four washers (3), two screws (4), and new locknuts (5) on base (2).

9. INSTALL TWO JACKS (6) IN PATCHBOARD (1).
   a. From underneath patchboard, place two jacks (6) in holes in patchboard (1).

10. INSTALL TWO RINGS (7) WITH CAPS (8) ON TWO JACKS (6).
11. INSTALL TWO JAM NUTS (9) ON TWO JACKS (6).
    a. Install two jam nuts (9) on two jacks (6).
    b. Install new lock wire (10) on two jam nuts (9).
12. INSTALL TWO CAPS (1) ON TWO JACKS (2).

NOTE
To install right patchboard, step 13 is done. To install left patchboard, step 14 is done.


END OF TASK
REPLACE AMMO SELECTOR TOGGLE SWITCH ASSEMBLY

DESCRIPTION

This task covers: Remove (page 5-101). Install (page 5-102).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Lock washer (3)
- Toggle switch assembly

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

NOTE
The two switches (attached to HE ammo can and AP ammo can) are removed and installed in the same way.
The two switches are removed and installed from squad area.

1. MANUALLY TRAVERSE TURRET TO CORRECT POSITION. FOR SWITCH MOUNTED NEXT TO AP AMMO CAN, MANUALLY TRAVERSE TURRET TO AP LOAD POSITION (4000 MILS). FOR SWITCH MOUNTED NEXT TO HE AMMO CAN, MANUALLY TRAVERSE TURRET TO HE LOAD POSITION (2400 MILS). See TM 9-2350-252-10-2.

2. REMOVE PLUG (1) FROM SWITCH (2).

GO TO NEXT PAGE
3. REMOVE SWITCH (1) FROM BRACKET (2).
   a. Remove three screws (3), lock washers (4), washers (5), and switch (1) from bracket (2). Discard lock washers.

4. INSTALL NEW SWITCH (1) ON BRACKET (2).
   a. Install switch (1), three washers (5), new lock washers (4), and screws (3) on bracket (2).

5. INSTALL PLUG (6) ON SWITCH (1).


7. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
REPLACE DEFOGGER SWITCH BOX ASSEMBLY

DESCRIPTION

This task covers: Remove (page 5-103). Install (page 5-104).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

Materials/Parts:
- Self-locking nut (2)
- Defogger switch

Personnel required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE PLUG 2W17P1 (1) FROM JACK 2A40J1 (2).

2. REMOVE TWO CLAMPS (3,4) FROM TURRET.
   a. Remove screw (5) and two clamps (3,4) from turret.
   b. Move clamp (4) six inches to left.

GO TO NEXT PAGE
3. REMOVE SWITCH (1) FROM BRACKET (2).
   a. Remove two locknuts (3), screws (4), and switch (1) from bracket (2). Discard locknuts.

4. INSTALL NEW SWITCH (1) ON BRACKET (2).
   a. Install switch (1), two screws (4), and new locknuts (3) on bracket (2).

5. INSTALL TWO CLAMPS (5,6) ON TURRET.
   a. Aline two clamps (5,6) on turret.
   b. Install two clamps (5,6) and screw (7) on turret.

6. INSTALL PLUG 2W17P1 (8) ON JACK 2A40J1 (9).


END OF TASK
Section IV. MAINTENANCE OF DISTRIBUTION BOX

REPLACE DISTRIBUTION BOX

DESCRIPTION

This task covers: Remove (page 5-105). Install (page 5-106).

INITIAL SETUP

Tools:

- Turret mechanic's tool kit (Item 31, App F)

Personnel Required:

- ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:

- Distribution box
- Sealing compound (Item 20, App C)
- Primer, grade N (Item 21, App C)

References:

- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:

- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. RAISE COMMANDER'S SEAT TO FULL UP POSITION. See TM 9-2350-252-10-2.

2. REMOVE RIGHT TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

3. REMOVE 14 PLUGS (1) FROM 14 JACKS (2) AS FOLLOWS:

- 2W1P2 FROM 2A1J1
- CX-13089/VRC FROM 2A1J2
- 2W9P1 FROM 2A1J3
- 2W301P4 FROM 2A1J4
- 2W101P4 FROM 2A1J5
- 2W102P2 FROM 2A1J6
- 2W203P1 FROM 2A1J7
- 2W10P1 FROM 2A1J8
- 2W3P1 FROM 2A1J9
- 2W308P10 FROM 2A1J10
- 2W4P1 FROM 2A1J11
- 2W2P2 FROM 2A1J12
- 2W6P1 FROM 2A1J13
- 2W5P5 FROM 2A1J14.

TAG PLUGS.
4. REMOVE DISTRIBUTION BOX (1) FROM MOUNTS (2).
   a. Remove four nuts (3), eight washers (4), and distribution box (1) from mounts (2).

7. INSTALL NEW MOUNTS (2) ON DISTRIBUTION BOX MOUNT (5).
   a. Apply primer to lower threads of four mounts (2).
   b. Apply sealing compound to lower threads of four mounts (2).
   c. Install four mounts (2), eight washers (7), and four nuts (6) on distribution box mount (5).

5. INSPECT MOUNTS (2) FOR DAMAGE. DO STEPS 6 AND 7 IF REPLACEMENT IS NECESSARY. IF MOUNTS ARE NOT DAMAGED, GO TO STEP 8.

6. REMOVE MOUNTS (2) FROM DISTRIBUTION BOX MOUNT (5).
   a. Remove four nuts (6), eight washers (7), and four mounts (2) from distribution box mount (5).

8. INSTALL NEW DISTRIBUTION BOX (1) ON MOUNTS (2).
   a. Apply primer to upper threads of four mounts (2).
   b. Apply sealing compound to upper threads of four mounts (2).
   c. Install distribution box (1), eight washers (4), and four nuts (3) on mounts (2).
9. INSTALL 14 PLUGS (1) ON 14 JACKS (2) AS FOLLOWS:
   - 2W1P2 ON 2A1J1
   - CX-13089/VRC ON 2A1J2
   - 2W9P1 ON 2A1J3
   - 2W301P4 ON 2A1J4
   - 2W101P4 ON 2A1J5
   - 2W102P2 ON 2A1J6
   - 2W203P1 ON 2A1J7
   - 2W10P1 ON 2A1J8
   - 2W3P1 ON 2A1J9
   - 2W308P10 ON 2A1J10
   - 2W4P1 ON 2A1J11
   - 2W2P2 ON 2A1J12
   - 2W6P1 ON 2A1J13
   - 2W5P5 ON 2A1J14.

10. INSTALL RIGHT TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

11. LOWER COMMANDER'S SEAT. See TM 9-2350-252-10-2.

12. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
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REPLACE WEAPON CONTROL BOX

DESCRIPTION

This task covers: Remove (page 5-110). Install (page 5-111).

INITIAL SETUP

Tools:

Turret mechanic's toolkit (Item 31, App F)

References:

TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:

Weapon control box
Self-locking hex nut (3)

Equipment Conditions:

Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:

ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE PLUG 2W3P2 (1) FROM JACK 2A4J1 (2).

2. REMOVE PLUG 2W4P2 (3) FROM JACK 2A4J2 (4).

3. REMOVE CONTROL BOX (5) FROM SUPPORT (6).

   a. Remove three locknuts (7), washers (8), and control box (5) from support (6). Discard locknuts.
4. INSTALL NEW CONTROL BOX (1) ON SUPPORT (2).
   a. Install control box (1), three washers (3), and new locknuts (4) on support (2).

5. INSTALL PLUG 2W4P2 (5) ON JACK 2A4J2 (6).

6. INSTALL PLUG 2W3P2 (7) ON JACK 2A4J1 (8).

7. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.
REPLACE WEAPON CONTROL BOX DISPLAY PANEL

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Weapon control panel

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE PANEL (1) FROM CONTROL BOX (2).
   a. Remove nine screws (3) and washers (4) from panel (1).
   b. Pry panel (1) carefully from control box (2) with screwdriver.

INSTALL

2. INSTALL NEW PANEL (1) ON CONTROL BOX (2).
   a. Install panel (1), nine washers (4), and screws (3) on control box (2).

END OF TASK
REPLACE WEAPON CONTROL BOX KNOB

INITIAL SETUP

Tools:

- Turret mechanic's tool kit (Item 31, App F)

Material/Parts:

- Knob

Equipment Conditions:

- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:

ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE KNOB (1) FROM CONTROL BOX (2).
   a. Loosen two setscrews (3) on knob (1).
   b. Remove knob (1) from control box (2).

INSTALL

2. INSTALL NEW KNOB (1) ON CONTROL BOX (2).
   a. Install knob (1) on control box (2).
   b. Tighten two setscrews (3) on knob (1).

END OF TASK
Section VI. MAINTENANCE OF 25MM VANEAXIAL FAN

REPLACE 25MM VANEAXIAL FAN

DESCRIPTION

This task covers:  Remove (page 5-115). Repair (page 5-116). Install (page 5-117).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Rotor exhaust fan

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/VICFV Trt Mech 45T10

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


4. REMOVE CABLE 2A10 (1) FROM TWO CLAMPS (2).
   a. Remove two screws (3) and clamps (2) from 25mm rotor (4).
   b. Remove cable 2A10 (1) from two clamps (2).

GO TO NEXT PAGE
5. REMOVE PLUG 2W12P1 (1) FROM JACK 2A10 + (2).

6. REMOVE PLUG 2W12P2 (3) FROM JACK 2A10— (4).

NOTE
If plugs 2W12P1 and 2W12P2 are to be repaired, go to step 7. If fan is to be replaced, go to step 8.

REPAIR

   a. Go to step 15.

8. OPEN COAX MACHINE GUN ACCESS DOORS. See TM 9-2350-252-10-2.

9. REMOVE COAX MACHINE GUN. See TM 9-2350-252-10-2.

10. REMOVE FAN (5) FROM JOURNAL (6).
    a. Remove five screws (7), fan (5), and cable 2A10 (8) from journal (6).
11. INSTALL NEW FAN (1) ON JOURNAL (2).
   a. Apply primer to threads of five screws (3).
   b. Apply sealant to threads of five screws (3).
   c. Insert cable 2A10 (4) through journal (2).
   d. Install fan (1) and five screws (3) on journal (2).

12. TORQUE FIVE SCREWS (3) TO 300-324 IN-LB (366-373 CMKG).


14. CLOSE COAX MACHINE GUN ACCESS DOORS. See TM 9-2350-252-10-2.

15. INSTALL PLUG 2W12P2 (5) ON JACK 2A10— (6).

16. INSTALL PLUG 2W12P1 (7) ON JACK 2A10+ (8).

GO TO NEXT PAGE
17. INSTALL CABLE 2A10 (1) IN TWO CLAMPS (2).
   a. Apply primer to threads of two screws (3).
   b. Apply sealing compound to threads of two screws (3).
   c. Install cable 2A10 (1) in two clamps (2).
   d. Install two clamps (2) and screws (3) on 25mm rotor (4).


21. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
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REPLACE TURRET POSITION INDICATOR ASSEMBLY BOX

DESCRIPTION

This task covers: Remove (page 5-120). Install (page 5-123).

INITIAL SETUP

Tools:  
Turret mechanic's tool kit

Materials/Parts:
Lock washer (3)
Turret position indicator box

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
There are two turret position indicator boxes in the turret. They are not removed in the same way. Steps 1 thru 3 are for removing only the gunner's box. Steps 4, and 5 are for removing only the commander's box.

1. REMOVE DEFOGGER SWITCH BOX ASSEMBLY. See task REPLACE DEFOGGER SWITCH BOX ASSEMBLY, page 5-103.

2. REMOVE FOUR PLUGS (1) FROM FOUR JACKS (2) ON ISU (3) AS FOLLOWS:
   2W103P3 FROM 2A1001J02
   2W103P4 FROM 2A1001J03
   2W101P1 FROM 2A1001J01
   2W201P1 FROM 2A1001J04.
   TAG PLUGS.
NOTE

Screws securing gunner's box to wall may be reached more easily if cables removed from ISU are kept as close to wall as possible.

3. REMOVE BRACKET (1) WITH BOX (2) FROM TURRET.
   a. Remove two screws (3) and washers (4) from bracket (1).
   b. Remove plug 2W5P4 (5) from jack 2A9J1 (6).
   c. Remove bracket (1) with box (2) from turret.

NOTE

Steps 4 and 5 are for removing only the commander's box.

REMOVE PLUG 2W5P1 (7) FROM JACK 2A8J1 (8) ON BOX (9).
5. REMOVE BRACKET (1) WITH BOX (2) FROM TURRET.
   a. Remove two screws (3), lock washers (4), washers (5), and bracket (1) with box (2) from turret. Discard lock washers.

NOTE
Steps 6 and 7 are for removing either gunner's or commander's box.

6. REMOVE BOX (2) FROM BRACKET (1).
   a. Remove three nuts (6), lock washers (7), washers (8), and box (2) from bracket (1). Discard lock washers.

7. REMOVE THREE MOUNTS (9) FROM BOX (2).
NOTE

Steps 8 and 9 are for installing either gunner's or commander's box.

8. INSTALL THREE MOUNTS (1) ON NEW BOX (2).

9. INSTALL BOX (2) ON BRACKET (3).
   a. Install box (2), three washers (4), new lock washers (5), and nuts (6) on bracket (3).

NOTE

The two turret position indicator boxes are not installed in the same way. Steps 10 thru 12 are for installing the gunner's box. Steps 13 and 14 are for installing the commander's box.

10. INSTALL NEW BRACKET (7) WITH BOX (8) ON TURRET.
   a. Install plug 2W5P4 (9) on jack 2A9J1 (10).
   b. Install bracket (7) with box (8), two washers (11), and screws (12) on turret.
11. INSTALL FOUR PLUGS (1) ON FOUR JACKS (2) ON ISU (3) AS FOLLOWS:
   2W201P1 ON 2A1001J04
   2W101P1 ON 2A1001J01
   2W103P4 ON 2A1001J03
   2W103P3 ON 2A1001J02.

12. INSTALL DEFOGGER SWITCH BOX ASSEMBLY. See task: REPLACE DEFOGGER SWITCH BOX ASSEMBLY, page 5-103.

13. INSTALL BRACKET (4) WITH BOX (5) ON TURRET.

   a. Install bracket (4) with box (5), two washers (6), new lock washers (7), and screws (8) on turret.
14. INSTALL PLUG 2W5P1 (1) ON JACK 2A8J1 (2) ON BOX (3).

15. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE TURRET POSITION INDICATOR DISPLAY PANEL

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Light indicating panel

Equipment Conditions:
Enter stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

REMOVE

NOTE
There are two indicators in both the IFV and CFV. Procedures for replacing commander's and gunner's indicator display panels are the same.

1. REMOVE PANEL (1) FROM PLATE (2).
   a. Remove four screws (3), washers (4), and panel (1) from plate (2).

INSTALL

2. INSTALL NEW PANEL (1) ON PLATE (2).
   a. Install panel (1), four washers (4), and screws (3) on plate (2).

END OF TASK
Section VIII. MAINTENANCE OF ANNUNCIATOR DISPLAY PANEL

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REPLACE ANNUNCIATOR

DESCRIPTION

This task covers: Remove (page 5-128). Install (page 5-129).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Lock washer (2)
- Annunciator

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFVICFV Trt Mech 45T10

REMOVE

1. REMOVE PLUG 2W5P3 (1) FROM JACK 2A6J1 (2).

2. REMOVE ANNUNCIATOR (3) FROM BOX (4).
   a. Remove two screws (5), lock washers (6), washers (7), and annunciator (3) from box (4). Discard lock washers.

3. REMOVE PLATE (8) FROM ANNUNCIATOR (3).
   a. Remove two screws (9) and plate (8) from annunciator (3).
4. INSTALL PLATE (1) ON NEW ANNUNCIATOR (2).
   a. Install plate (1) and two screws (3) on new annunciator (2).

5. INSTALL NEW ANNUNCIATOR (2) ON BOX (4).
   a. Install annunciator (2), two washers (5), new lock washers (6), and screws (7) on box (4).

6. INSTALL PLUG 2W5P3 (8) ON JACK 2A6J1 (9).

7. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE ANNUNCIATOR INSTRUCTION PLATE

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Instruction plate

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REPLACE

1. REMOVE PLATE (1) FROM ANNUNCIATOR (2).
   a. Remove four screws (3) and plate (1) from announciator (2).

INSTALL

2. INSTALL NEW PLATE (1) ON ANNUNCIATOR (2).
   a. Install plate (1) and four screws (3) on announciator (2).

END OF TASK

5-130
## Section IX. MAINTENANCE OF TURRET CONTROL BOX

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REPLACE TURRET CONTROL BOX

DESCRIPTION

This task covers: Remove (page 5-132). Install (page 5-133).

INITIAL SETUP

Tools:

Turret mechanic's tool kit (Item 31, App F)

References:

TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:

Turret control box
Self-locking nut (4)

Equipment Conditions:

Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:

ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE PLUG 2W3P3 (1) FROM JACK 2A3J1 (2).

2. REMOVE PLUG 2W4P3 (3) FROM JACK 2A3J2 (4).

3. REMOVE BOX (5) FROM MOUNTS (6).
   a. Remove four locknuts (7), washers (8), and box (5) from mounts (6). Discard locknuts.
NOTE
If mounts are damaged, go to step 4. If mounts are not damaged, go to step 6.

4. REMOVE FOUR MOUNTS (1) FROM BRACKETS (2).

NOTE
If mounts were not removed in step 4, go to step 6.

5. INSTALL FOUR NEW MOUNTS (1) ON BRACKETS (2).

6. INSTALL NEW BOX (3) ON MOUNTS (1).
   a. Install box (3), four washers (4), and new locknuts (5) on mounts (1).

7. INSTALL PLUG 2W4P3 (6) ON JACK 2A3J2 (7).

8. INSTALL PLUG 2W3P3 (8) ON JACK 2A3J1 (9).

9. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE TURRET CONTROL BOX CONTROL PANEL

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Control panel

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE PANEL (1) FROM BOX (2).
   a. Remove six screws (3), washers (4), and panel (1) from box (2).

INSTALL

2. INSTALL NEW PANEL (1) ON BOX (2).
   a. Install panel (1), six washers (4), and screws (3) on box (2).

END OF TASK
Section X. MAINTENANCE OF ENCODER, ADAPTER, AND SLIP RING ASSEMBLY

REPAIR/REPLACE ENCODER, ADAPTER, AND SLIP RING ASSEMBLY

DESCRIPTION

This task covers: Remove (page 5-135). Install (page 5-140).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Lock washer (7)
- Self-locking screw

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE CENTER TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. REMOVE RELAY BOX ASSEMBLY 2A27. See task: REPLACE RELAY BOX ASSEMBLY 2A27, page 5-173.

3. REMOVE POWER CONVERTER. See task: REPLACE POWER CONVERTER, page 21-84.

4. REMOVE PLUG 2W6P2 (1) FROM JACK 2A2J1 (2) ON ENCODER SHAFT (3). TAG PLUG.

GO TO NEXT PAGE
5. REMOVE LINK (1) FROM SLIP RING (2).
   a. Remove lock screw (3) and link (1)
      from slip ring (2). Discard lock screw.

6. REMOVE SLIP RING (2) FROM
   BRACKET (4).
   a. Support slip ring (2) from below.
   b. Remove three screws (5), washers (6),
      and slip ring (2) from bracket (4).
   c. Place slip ring (2) on floor of turret.
7. REMOVE BRACKET (1) FROM TURRET.
   a. Remove four screws (2), washers (3), and bracket (1) from turret.

8. REMOVE EIGHT PLUGS (4) FROM EIGHT JACKS (5) ON SLIP RING (6) AS FOLLOWS:
   - 2W1P1 FROM 2A7J1
   - 1W4P1 FROM 2A7J2
   - 2W2P1 FROM 2A7J3
   - 1W5P2 FROM 2A7J4
   - CX7050A/VRC (10 ft) FROM 2A7J5
   - 1W5P3 FROM 2A7J6
   - 2W303P2 FROM 2A7J7
   - 2W309P8 FROM 2A7J8.

TAG PLUGS.
NOTE
Slip ring assembly must be put on workbench in same position assembly was in when taken from turret.

9. REMOVE SLIP RING ASSEMBLY (1) FROM TURRET FLOOR TO WORK BENCH.

10. ROTATE UPPER HALF OF SLIP RING (1) 180 DEGREES, AS SHOWN.

NOTE
To loosen setscrews you may need to use a 100 watt soldering iron to melt the sealant.

11. REMOVE PLUG (2) FROM ADAPTER (3).

12. LOOSEN TWO SETSCREWS (4) ON COUPLING (5) INSIDE ADAPTER (3).
   a. Locate setscrew (4) on coupling (5) through plug hole (6). Loosen setscrew.
   b. Rotate adapter (3) slowly until other setscrew (4) is seen through plug hole (6). Loosen setscrew.
13. REMOVE ENCODER SHAFT (1) FROM ADAPTER (2).
   a. Remove four screws (3), lock washers (4), washers (5), two retainers (6), and encoder shaft (1) from adapter (2). Discard lock washers.

14. REMOVE COUPLING (7) FROM ENCODER SHAFT (1).
   a. Loosen two setscrews (8) and remove coupling (7) from encoder shaft (1).

15. REMOVE ADAPTER (2) FROM SLIP RING (9).
   a. Remove three screws (10), lock washers (11), washers (12), and adapter (2) from slip ring (9). Discard lock washers.
16. INSTALL ADAPTER (1) ON SLIP RING (2).
   a. Install adapter (1), three washers (3),
      new lock washers (4), and screws (5)
      on slip ring (2).

17. INSTALL COUPLING (6) ON ENCODER SHAFT (7).
   a. Install coupling (6) on encoder shaft (7) with setscrew (8) facing
      flat on encoder shaft.
   b. Tighten two setscrews (8) on top half of coupling (6).

18. SET ENCODER SHAFT (7) TO MECHANICAL ZERO SETTING.
   a. Turn adapter (1) until flat edge of slip ring shaft (9) can be seen in plug hole (10).
   b. Aline flat edge of encoder shaft (7) with flat edge of slip ring shaft (9).
   c. Install encoder shaft (7) on adapter (1).
**NOTE**

Slip ring, adapter, and encoder shaft must stay in the same position set in step 18 or mechanical zero will be lost.

19. **TIGHTEN TWO SETSCREWS (1) ON COUPLING (2) INSIDE ADAPTER (3).**
   a. Locate two setscrews (1) on coupling (2) through plug hole (4). Tighten setscrew.
   b. Rotate adapter (3) slowly until other setscrew (1) is seen through plug hole (4). Tighten setscrew.

20. **TURN SLIP RING (5) TO POSITION SHOWN.**
   a. Rotate encoder shaft (6) 90 degrees to right of slip ring assembly (5).

21. **INSTALL TWO RETAINERS (7) ON ENCODER SHAFT (6) AND ADAPTER (3).**
   a. Install two retainers (7), four washers (8), new lock washers (9), and screws (10) on encoder shaft (6) and adapter (3).
22. INSTALL PLUG (1) ON ADAPTER (2).
   a. Apply primer to threads of plug (1).
   b. Apply sealant to threads of plug (1).
   c. Install plug (1) in adapter (2).

23. POSITION SLIP RING (3) ON TURRET FLOOR AS FOLLOWS:
    JACKS 2A7J2, 2A7J4, 2A7J6, AND 2A7J8 ON GUNNER'S SIDE OF TURRET.
    JACKS 2A7J1, 2A7J3, 2A7J5, AND 2A7J7 TOWARD REAR OF VEHICLE.

24. INSTALL EIGHT PLUGS (4) ON EIGHT JACKS (5) ON SLIP RING (3) AS FOLLOWS:
    2W309P8 ON 2A7J8
    2W303P2 ON 2A7J7
    1W5P3 ON 2A7J6
    CX7050A/VRC (10 ft) ON 2A7J5
    1W5P2 ON 2A7J4
    2W2P1 ON 2A7J3
    1W4P1 ON 2A7J2
    2W1P1 ON 2A7J1.
25. INSTALL BRACKET (1) IN TURRET.
   a. Center bracket (1) over slip ring assembly (2).
   b. Install bracket (1), four washers (3), and screws (4) on turret.

26. INSTALL SLIP RING (2) ON BRACKET (1).
   a. Support slip ring (2) from below.
   b. Install slip ring (2), three washers (5), and screws (6) on bracket (1).

27. INSTALL LINK (7) ON SLIP RING (2).
   a. Install link (7) and new lock screw (8) on slip ring (2).
28. INSTALL PLUG 2W6P2 (1) ON JACK 2A2J1 (2) ON ENCODER SHAFT (3).

29. LOOSEN FOUR SCREWS (4) ON TWO RETAINERS (5).


31. INSTALL RELAY BOX ASSEMBLY. See task: REPLACE RELAY BOX ASSEMBLY 2A27, page 5-173.

32. SET FINE ADJUSTMENT OF ENCODER SHAFT (3). PERFORM STE-M1/FVS TEST 2774. See task: TEST 2774 (AZIMUTH ENCODER ADJUSTMENT), page 3-567. HAVE HELPER ASSIST.

33. TIGHTEN FOUR SCREWS (4) ON TWO RETAINERS (5).

34. INSTALL CENTER TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

END OF TASK
## Section XI. MAINTENANCE OF 25MM SERVICE LIGHT

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REPLACE SERVICE LIGHT

DESCRIPTION

This task covers: Remove (page 5-146). Install (page 5-147).

INITIAL SETUP

Tools:  
Turret mechanic's tool kit (Item 31, App F)

References:  
TM 9-2350-252-10-1  
TM 9-2350-252-10-2

Materials/Parts:  
Service light

Equipment Conditions:  
Engine stopped (TM 9-2350-252-10-1)  
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:  
ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE LIGHT (1) FROM LAMP-HOLDER (2).
   a. Remove plug 2A19P1 (3) from jack 2W9J4 (4).
   b. Pull light (1) from lampholder (2).

   NOTE
   If lampholder needs to be replaced, do steps 2 and 3.
   There are three lampholders. Removal and installation is the same for all three.

2. REMOVE LAMPHOLDER (2) FROM TURRET.
   a. Remove two screws (5), lock washers (6), and lampholder (2) from turret.
      Discard lock washers.
3. INSTALL NEW LAMPHOLDER (1) ON TURRET.
   a. Install lampholder (1), two new lock washers (2) and screws (3) on turret.

4. INSTALL NEW LIGHT (4) ON LAMPHOLDER (1).
   a. Push light (4) into lampholder (1).
   b. Install plug 2A19P1 (5) on jack 2W9J4 (6).

5. CHECK OPERATION OF LIGHT. See TM 9-2350-252-10-2.
REPLACE SERVICE LIGHT LAMP

INITIAL SETUP

Materials/Parts:
Incandescent lamp

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

REMOVED

1. REMOVE LAMP (1) FROM LIGHT (2).
   a. Open lens (3) of light (2).
   b. Push lamp (1) in and turn left to remove from light (2).

INSTALL

2. INSTALL NEW LAMP (1) IN LIGHT (2).
   a. Push lamp (1) in and turn right to install in light (2).
   b. Close lens (3) of light (2).


END OF TASK
Section XII. MAINTENANCE OF INSTRUMENT LIGHT

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REPLACE INSTRUMENT LIGHT

DESCRIPTION

This task covers: Remove (page 5-150). Install (page 5-151).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Self-locking nut (2)
- Instrument light

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

NOTE
Plug is located to right of light behind 7.62mm ammo feeder.

1. REMOVE LIGHT (1) FROM BASE (2).
   a. Remove plug 2A18P1 (3) from jack 2W9J5 (4).
   b. Pull light (1) from base (2).
2. REMOVE BASE (1) FROM BRACKET (2).
   a. Remove two locknuts (3), screws (4), washers (5), and base (1) from bracket (2). Discard locknuts.

3. INSTALL NEW BASE (1) ON BRACKET (2).
   a. Install base (1), two washers (5), screws (4), and new locknuts (3) on bracket (2).

NOTE
Jack is located behind 7.62mm ammo feeder.

4. INSTALL NEW LIGHT (6) ON BASE (1).
   a. Push light (6) into base (1).
   b. Install plug 2A18P1 (7) on jack 2W9J5 (8).

5. CHECK OPERATION OF LIGHT. See TM 9-2350-252-10-2.

END OF TASK
REPLACE INSTRUMENT LIGHT LAMP

DESCRIPTION

This task covers: Remove (page 5-152). Install (page 5-153).

INITIAL SETUP

Materials/Parts:
- Incandescent lamp

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE LIGHT (1) FROM BASE (2).
2. REMOVE SOCKET (1) FROM LIGHT (2).

3. REMOVE LAMP (3) FROM LAMP SOCKET (4).

4. INSTALL NEW LAMP (3) IN LAMP SOCKET (4).

5. INSTALL SOCKET (1) IN LIGHT (2).
   a. Position lamp (3) with lamp socket (4) in light (2).
   b. Screw socket (1) into light (2).

6. INSTALL LIGHT (2) IN BASE (5).

7. CHECK OPERATION OF LIGHT. See TM 9-2350-252-10-2.

END OF TASK
Section XIII. MAINTENANCE OF DOME LIGHT

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REPLACE DOME LIGHT

DESCRIPTION

This task covers: Remove (page 5-156). Install (page 5-157).

INITIAL SETUP

Tools:

- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:

- Dome light
- Lock washer (4)

Equipment Conditions:

- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:

- ITV/IFV/CFV Trt Mech 45T10

REMOVE

NOTE

If removing gunner's dome light, do steps 1 and 2. If removing commander's dome light, do steps 3 and 4.

1. REMOVE PLUG 2W9P3 (1) FROM JACK 2A16J1 (2) ON GUNNER'S DOME LIGHT (3).

2. REMOVE GUNNER'S DOME LIGHT (3) FROM TURRET.
   a. Remove four screws (4), bracket (5), gunner's dome light (3), ground lead (6), and four lock washers (7) from turret. Discard lock washers.
3. REMOVE PLUG 2W9P6 (1) FROM JACK 2A17J1 (2) ON COMMANDER'S DOME LIGHT (3).

4. REMOVE COMMANDER'S DOME LIGHT (3) ON TURRET.
   a. Remove four screws (4), commander's dome light (3), ground lead (5), and four lock washers (6) from turret. Discard lock washers.

5. INSTALL NEW COMMANDER'S DOME LIGHT (3) ON TURRET.
   a. Install four new lock washers (6), ground lead (5), commander's dome light (3), and four screws (4) on turret.

6. INSTALL PLUG 2W9P6 (1) ON JACK 2A17J1 (2) ON COMMANDER'S DOME LIGHT (3).

NOTE
If installing commander's dome light, do steps 5 and 6. If installing gunner's dome light, do steps 7 and 8. Do step 9 for either dome light.

5-157
7. INSTALL NEW GUNNER'S DOME LIGHT (1) ON TURRET.
   a. Install four new lock washers (2), ground lead (3), gunner's dome light (1), bracket (4), and four screws (5) on turret.

8. INSTALL PLUG 2W9P3 (6) ON JACK 2A16J1 (7) ON GUNNER'S DOME LIGHT (1).

9. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE TURRET DOME LIGHT LAMP

DESCRIPTION

This task covers: Remove (page 5-159). Install (page 5-160).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Lock washer
- Incandescent lamp

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFVICFV Trt Mech 45T10

REMOVE

NOTE
Gunner's and commander's lamps are removed the same way.

1. REMOVE DOOR (1) FROM BODY (2).
   a. Loosen eight captive screws (3), and remove door (1) from body (2).
2. REMOVE LAMP (1) FROM DOOR (2).

3. REMOVE GASKET (3) FROM DOOR (2).
   a. Remove screw (4), lock washer (5), and lead (6) from terminal (7) on door (2). Discard lock washer.
   b. Remove gasket (3) from door (2). Discard gasket.

4. INSTALL GASKET (3) IN DOOR (2).
   a. Install gasket (3) in door (2).
   b. Install lead (6), new lock washer (5), and screw (4) on terminal (7) on door (2).

5. INSTALL NEW LAMP (1) IN DOOR (2).

NOTE
Both lamps are installed the same way.
6. INSTALL DOOR (1) ON BODY (2).
   a. Install door (1) on body (2), and tighten eight captive screws (3).

   END OF TASK
REPLACE TURRET DOME LIGHT KNOB

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Knob
- Lock washer
- Plunger
- Sealing compound (Item 19, App C)
- Set screw
- Spring

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

NOTE
Gunner’s and commander’s knobs are removed the same way.

1. REMOVE KNOB ASSEMBLY (1) FROM LIGHT (2).
   a. Remove screw (3), lock washer (4), and knob assembly (1) from light (2). Discard lock washer and knob assembly (1).

2. INSTALL NEW SPRING (5), NEW PLUNGER (6), AND NEW SET SCREW (7) IN NEW KNOB (1).

3. INSTALL NEW KNOB ASSEMBLY (1) ON LIGHT (2).
   a. Apply sealing compound to threads of screw (3).
   b. Install new knob assembly (1), new lock washer (4), and screw (3) on light (2).

END OF TASK
REPLACE TURRET DOME LIGHT SWITCH

DESCRIPTION

This task covers: Remove (page 5-163). Install (page 5-165).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App C)

Materials/Parts:
- Sealing compound (Item 19, App C)
- Lock washer
- Switch

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE KNOB (1) FROM LIGHT (2).
   a. Remove screw (3), lock washer (4), and knob (1) from light (2). Discard lock washer.

NOTE

Gunner's and commander's switches are removed the same way.

GO TO NEXT PAGE
2. REMOVE DOOR (1) FROM BODY (2).
   a. Loosen eight captive screws (3), and remove door (1) from body (2).

3. REMOVE THREE LEADS (4) FROM THREE TERMINALS (5) ON SWITCH (6).
   a. Remove three screws (7) and leads (4) from three terminals (5) on switch (6).
   Tag leads.

4. REMOVE SWITCH (6) FROM DOOR (1).
   a. Remove nut (8), washer (9), gasket (10), and switch (6) from door (1). Discard switch.

5. REMOVE GASKET (11) FROM DOOR (1).

NOTE
If gasket is damaged, do steps 5 and 6. If gasket is not damaged, go to step 7.
6. INSTALL NEW GASKET (1) IN DOOR (2).

7. INSTALL NEW SWITCH (3) ON DOOR (2).
   a. Install switch (3), new gasket (4), washer (5), and nut (6) on door (2).

8. INSTALL THREE LEADS (7) ON THREE TERMINALS (8) ON SWITCH (3).
   a. Install three leads (7) and screws (9) on three terminals (8) on switch (3).

9. INSTALL DOOR (2) ON BODY (10).
   a. Install door (2) on body (10), and tighten eight captive screws (11).

GO TO NEXT PAGE
10. INSTALL KNOB (1) ON LIGHT (2).
   a. Apply sealing compound to threads of screw (3).
   b. Install knob (1), new lock washer (4), and screw (3) on light (2).

11. RETURN TO ORIGINAL SYMPTOM.
    VERIFY NO FAULT.

END OF TASK
## Section XIV. MAINTENANCE OF EMERGENCY BATTERIES

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SERVICE TURRET EMERGENCY STORAGE BATTERIES

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- TM 9-6140-200-14
- DA PAM 750-34

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

SERVICE

1. REMOVE LEFT REAR TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. SERVICE TURRET EMERGENCY STORAGE BATTERIES. See TM 9-6140-200-14 and DA PAM 750-34.

3. INSTALL LEFT REAR TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

END OF TASK
REPLACE TURRET EMERGENCY STORAGE BATTERIES

DESCRIPTION
This task covers: Remove (page 5-169). Install (page 5-171).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Storage battery (2)
- Self-locking nut (2)

Personnel Required:
- ITV/IFVICFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- TM 9-6140-200-14

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE LEFT REAR TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

WARNING
Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when you work with tools or other metal objects. Do not wear jewelry when you work on electrical system.

CAUTION
Incorrect cable removal can cause short circuit. Remove negative cable before you remove positive cable.

2. REMOVE CLAMP (1) AND COVER (2) FROM NEGATIVE POST (3). See TM 9-6140-200-14.
3. REMOVE CLAMP (1) AND COVER (2) FROM POSITIVE POST (3). See TM 9-6140-200-14.


5. REMOVE RETAINER (7) FROM TWO HOOK BOLTS (8).
   a. Remove two locknuts (9), washers (10), and retainer (7) from two hook bolts (8). Discard locknuts.

6. REMOVE TWO HOOK BOLTS (8) FROM TWO MOUNTS (11).

7. REMOVE TWO BATTERIES (12, 13) FROM TWO TRAYS (14, 15).

WARNING
Gas from batteries can explode and injure you. Do not allow sparks near batteries. Battery acid can burn or blind you. Do not get acid on your skin or eyes.

NOTE
Position of each battery should be noted before it is removed from tray.
INSTALL

WARNING
Battery posts and cables touched by metal objects can short circuit and burn you. Do not wear jewelry, necklaces, or watches when working on the electrical system. Keep tools away from posts, wires, and terminals.

8. INSTALL TWO NEW BATTERIES (1, 2) IN TWO TRAYS (3, 4).
   a. Install battery (1) in tray (3) with positive post (5) forward.
   b. Install battery (2) in tray (4) with negative post (6) forward.

9. INSTALL TWO HOOK BOLTS (7) ON TWO MOUNTS (8).

10. INSTALL RETAINER (9) ON TWO HOOK BOLTS (7).
    a. Install retainer (9), two washers (10), and new locknuts (11) on two hook bolts (7).

NOTE
Clamps are marked positive and negative. Only positive clamp should be installed on positive post of battery. Negative clamp should be installed on negative post.


CAUTION
Incorrect cable installation can cause short circuit. Install positive cable before you install negative cable.

14. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

15. INSTALL LEFT REAR TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

END OF TASK
Section XV. MAINTENANCE OF RELAY BOX ASSEMBLY

REPLACE RELAY BOX ASSEMBLY 2A27

DESCRIPTION

This task covers: Remove (page 5-173). Install (page 5-175).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Self-locking nut (4)
- Relay box assembly

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- TM 9-2350-252-20-1

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE VEHICLE GROUND CABLE. See TM 9-2350-252-20-1.

2. REMOVE LEFT REAR AND CENTER TURRET FLOOR PLATES: See task: REPLACE TURRET FLOOR PLATES, page 4-22.

WARNING
Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when working with tools or other metal objects. Do not wear jewelry when you work on or near electrical system.

CAUTION
Incorrect cable removal can cause short circuit. Remove negative cable before you remove positive cable.

3. REMOVE CABLE 2W15 (1) FROM CLAMP (2).
   a. Lift cover (3), and remove nut (4) and cable 2W15 (1) from clamp (2).

GO TO NEXT PAGE
4. REMOVE LEAD 2W2 (1) FROM CLAMP (2).
   a. Lift cover (3), and remove nut (4) and lead 2W2 (1) from clamp (2).

5. REMOVE THREE PLUGS (5) FROM THREE JACKS (6) AS FOLLOWS:
   2W17P2 FROM 2A37J3
   2W1P3 FROM 2A27J1
   2W2P4 FROM 2A27J2.
   TAG PLUGS.

6. REMOVE RELAY BOX (7) FROM MOUNTS (8).
   a. Remove four locknuts (9), washers (10), and relay box (7) from mounts (8).
   Discard locknuts.

7. INSPECT MOUNTS (8). IF MOUNTS ARE WORN OR DAMAGED, DO STEPS 8 AND 9. IF NOT, GO TO STEP 10.

8. REMOVE MOUNTS (8) FROM BULKHEAD (11).
10. INSTALL NEW RELAY BOX (3) ON MOUNTS (1).
   a. Install relay box (3), four washers (4), and new locknuts (5) on mounts (1).

11. INSTALL THREE PLUGS (6) ON THREE JACKS (7) AS FOLLOWS:
    2W2P4 ON 2A27J2
    2W1P3 ON 2A27J1
    2W17P2 ON 2A27J3.
WARNING
Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when you work with tools or other metal objects. Do not wear jewelry when you work on or near electrical system.

CAUTION
Incorrect cable installation can cause short circuit. Install positive cable before you install negative cable.

12. INSTALL LEAD 2W2 (1) ON CLAMP (2).
   a. Lift cover (3), and install lead 2W2 (1) and nut (4) on clamp (2).

13. INSTALL CABLE 2W15 (5) ON CLAMP (6).
   a. Lift cover (7), and install cable 2W15 (5) and nut (8) on clamp (6).


15. INSTALL VEHICLE GROUND CABLE.
   See TM 9-2350-252-20-1.

END OF TASK
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REPLACE 25MM GUN CONNECTOR LOCK

DESCRIPTION

This task covers: Remove (page 5-178). Install (page 5-179).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Self-locking screw
- Gun connector lock

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE


3. POSITION FEEDER LOCK HANDLE (1) IN UP (UNLOCKED) POSITION.

4. REMOVE PLUG 2W10P2 (2) AND GUN CONNECTOR LOCK (3) FROM JACK 2A15J1 (4) ON RECEIVER.

5. REMOVE GUN CONNECTOR LOCK (3) FROM PLUG 2W10P2 (2).
   a. Remove self-locking screw (5) and washer (6) from gun connector lock (3). Discard self-locking screw.
   b. Remove gun connector lock (3) from plug 2W10P2 (2). Discard gun connector lock.
6. INSTALL WASHER (1) AND NEW SELF-LOCKING SCREW (2) ON NEW GUN CONNECTOR LOCK (3). DO NOT TIGHTEN SCREW AT THIS TIME.

7. SLIDE GUN CONNECTOR LOCK (3) ONTO PLUG 2W10P2 (4) MAKING SURE LOCKING TANG (5) IS ON RIGHT HAND SIDE.

8. INSTALL PLUG 2W10P2 (4) ON JACK 2A15J1 (6) ON RECEIVER.

NOTE
Press feeder forward to make sure feeder is fully seated on receiver before engaging lock handle.

9. MOVE FEEDER LOCK HANDLE (7) TO DOWN (LOCKED) POSITION.
10. SLIDE GUN CONNECTOR LOCK (1) FORWARD ON PLUG 2W10P2 (2) UNTIL SPACE (3) BETWEEN GUN CONNECTOR LOCK (1) AND DRIVE MOTOR HEAT SINK (4) IS APPROXIMATELY 3/32 INCH.


12. MEASURE SPACE (3) TO MAKE SURE GUN CONNECTOR LOCK (1) DID NOT MOVE WHILE TIGHTENING SCREW (7).

END OF TASK
REPLACE WIRING HARNESS 2W10

DESCRIPTION

This task covers: Remove (page 5-181). Install (page 5-187).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Sealing compound, grade A (Item 31, App C)
- Primer, grade N (Item 21, App C)
- 2W10 cable assembly
- Nylon straps (3)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


4. REMOVE RIGHT TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

5. REMOVE PLUG 2W10P1 (1) FROM JACK 2A1J8 (2).

6. MANUALLY TRAVERSE TURRET TO 2400 MILS. See TM 9-2350-252-10-2.
7. REMOVE DOOR (1) FROM HE AMMO CAN (2).
   a. Turn latch (3) and lift door (1) up and out of HE ammo can (2).

8. REMOVE SUPPORT (4) FROM HE AMMO CAN (2).
   a. Remove two screws (5) and washers (6) from HE ammo can (2).
   b. Remove three screws (7), washers (8), and support (4) from HE ammo can (2).
9. PULL LEAD 2W10P1 (1) FROM UNDER RIGHT SIDE OF HE AMMO CAN (2).

10. REMOVE THREE STRAPS (3) FROM CABLES. DISCARD STRAPS.

11. REMOVE LEAD 2W10P1 (1) FROM THREE CLAMPS (4).
   a. Remove three screws (5) and clamps (4) from turret.
   b. Remove lead 2W10P1 (1) from three clamps (4).

12. PUSH LEAD 2W10P1 (1) ABOVE HE AMMO CAN (2) INTO TURRET.

GO TO NEXT PAGE
13. REMOVE PLUG 2W10P3 (1) FROM JACK 2W12J1 (2).

14. REMOVE LEAD 2W10P3 (3) FROM CLAMP (4).
   a. Remove screw (5) and clamp (4) from rotor (6).
   b. Remove lead 2W10P3 (3) from clamp (4).
15. REMOVE GROUND LEAD 2W10 (1) FROM ROTOR (2).
   a. Remove screw (3) and ground lead 2W10 (1) from rotor (2).

16. REMOVE LEAD 2W10P2 (4) FROM FOUR CLAMPS (5).
   a. Remove four screws (6) and clamps (5) from rotor (2).
   b. Remove lead 2W10P2 (4) from four clamps (5).
17. REMOVE LEAD 2W10P2 (1) FROM CLAMP (2).
   a. Remove screw (3) and two clamps (2, 4) from turret.
   b. Remove lead 2W10P2 (1) from clamp (2).

18. REMOVE WIRING HARNESS 2W10 (5) FROM TURRET.
   a. Loosen strap (6) around bag (7).
   b. Pull leads 2W10P2 (1) and 2W10P3 (8) and ground lead 2W10 (9) down from bag (7).
   c. Remove wiring harness 2W10 (5) from turret.

20. INSTALL NEW WIRING HARNESS 2W10 (1) IN TURRET.
   a. Push leads 2W10P2 (2), 2W10P3 (3), and ground lead 2W10 (4) of wiring harness 2W10 (1) up through bag (5).
   b. Tighten strap (6) around bag (5).

21. INSTALL PLUG 2W10P3 (7) ON JACK 2W12J1 (8).

22. INSTALL LEAD 2W10P2 (2) IN CLAMP (9).
   a. Install lead 2W10P2 (2) in clamp (9).
   b. Install two clamps (9, 10) on turret with screw (11).
23. INSTALL LEAD 2W10P2 (1) IN FOUR CLAMPS (2).
   a. Apply primer to threads of four screws (3).
   b. Apply sealant to threads of four screws (3).
   c. Install lead 2W10P2 (1) in four clamps (2).
   d. Install four clamps (2) and screws (3) on rotor (4).

24. INSTALL GROUND LEAD 2W10 (5) ON ROTOR (4).
   a. Apply primer to threads of screw (6).
   b. Apply sealing compound to threads of screw (6).
   c. Install ground lead 2W10 (5) and screw (6) on rotor (4).
25. INSTALL LEAD 2W10P3 (1) IN CLAMP (2).
   a. Apply primer to threads of screw (3).
   b. Apply sealing compound to threads of screw (3).
   c. Install lead 2W10P3 (1) in clamp (2).
   d. Install clamp (2) and screw (3) on rotor (4).

26. PULL LEAD 2W10P1 (5) OVER HE AMMO CAN (6) AND OUTSIDE TURRET.

27. ROUTE LEAD 2W10P1 (5) BEHIND CABLE 2W308 (7) AND UNDER RIGHT SIDE OF HE AMMO CAN (6).
28. INSTALL PLUG 2W10P1 (1) ON JACK 2A1J8 (2).

CAUTION
Cable can be damaged if cable does not go through notch in support. Route cable through notch before you install support.

29. INSTALL SUPPORT (3) ON HE AMMO CAN (4).
   a. Route cable 2A22 (5) through notch (6) in support (3).
   b. Install support (3), two washers (7), and screws (8) on HE ammo can (4).
   c. Install three washers (9) and screws (10) in HE ammo can (4) and support (3).
30. INSTALL DOOR (1) ON HE AMMO CAN (2).
   a. Position bottom of door (1) in door support (3).
   b. Close door (1) and turn latch (4) up.

31. INSTALL LEAD 2W10P1 (5) IN THREE CLAMPS (6).
   a. Install lead 2W10P1 (5) in three clamps (6).
   b. Install three clamps (6) and screws (7) on turret.

32. INSTALL THREE NEW STRAPS (8) ON CABLES.

33. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

34. INSTALL RIGHT TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.


39. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.
REPAIR LEAD 2W10

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Soldering torch kit (Item 12, App H)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Insulation sleeving
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Tape, sealant, adhesive (Item 5, App C)
- Terminal lug
- Tin lead solder (Item 27, App C)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REPAIR

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


4. REMOVE LEAD 2W10 (1) FROM ROTOR (2).
   a. Remove screw (3) and lead 2W10 (1) from rotor (2).

5. REPAIR LEAD 2W10. See task: REPAIR LEAD, page 4-4.
6. INSTALL LEAD 2W10 (1) ON ROTOR (2).
   a. Apply primer to threads of screw (3).
   b. Apply sealing compound to threads of screw (3).
   c. Install lead 2W10 (1) and screw (3) on rotor (2).


10. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE WIRING HARNESS 2W6

DESCRIPTION

This task covers: Remove (page 5-194). Install (page 5-199).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Nonelectrical wire (Item 16, App C)
- Lock washer (2)
- Special cable assembly
- Nylon strap (2)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE CENTER, RIGHT, AND STEP TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. REMOVE PLUG 2W6P1 (1) FROM JACK 2A1J13 (2) ON DISTRIBUTION BOX (3).

3. REMOVE PLUG 2W6P2 (4) FROM JACK 2A2J1 (5) ON ENCODER SHAFT (6).
NOTE
Record which cables are in clamps for later installation.

4. REMOVE WIRING HARNESS 2W6 (1) FROM FOUR CLAMPS (2).
   a. Remove four screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove wiring harness 2W6 (1) from four clamps (2).

5. MANUALLY TRAVERSE TURRET TO 200 MILS. See TM 9-2350-252-10-2.

6. REMOVE WIRE SHIELD (5) FROM SEAT TRACK (6).
   a. Remove two screws (7), lock washers (8), washers (9), and wire shield (5) from seat track (6). Discard lock washer.
   b. Remove two straps (10) from cables. Discard straps.
7. REMOVE PLUG 2A29P1 (1) FROM JACK 2W6J3 (2).

8. REMOVE JACK 2W6J3 (2) FROM BRACKET (3).
   a. Remove lock wire (4) from jam nut (5) and bracket (3). Discard lock wire.
   b. Remove jam nut (5) and jack 2W6J3 (2) from bracket (3).

9. REMOVE PLUG 2A30P1 (6) FROM JACK 2W6J1 (7).

10. REMOVE JACK 2W6J1 (7) FROM BRACKET (8).
    a. Remove lock wire (9) from jam nut (10) and bracket (8). Discard lock wire.
    b. Remove jam nut (10) and jack 2W6J1 (7) from bracket (8).
11. REMOVE WIRING HARNESS 2W6 (1) FROM FOUR CLAMPS (2).
   a. Remove four screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove wiring harness 2W6 (1) from four clamps (2).

12. REMOVE GUNNER'S CUSHION (5) FROM TURRET.
   a. Remove six screws (6), washers (7), and gunner's cushion (5) from turret.

13. REMOVE WIRING HARNESS 2W6 (1) FROM CLAMP (8).
   a. Remove screw (9) and clamp (8) from weldnut (4) on turret.
   b. Remove wiring harness 2W6 (1) from clamp (8).
14. REMOVE CUSHION (1) FROM TURRET.
   a. Remove five screws (2), washers (3),
      and cushion (1) from turret.

15. REMOVE WIRING HARNESS 2W6 (4) FROM CLAMP (5).
   a. Remove screw (6) and clamp (5) from
      weldnut (7) on turret.
   b. Remove wiring harness 2W6 (4) from
      clamp (5).

16. REMOVE WIRING HARNESS 2W6 (4) FROM TURRET.
   a. Pull wiring harness 2W6 (4) through
      grommet (8).
   b. Remove wiring harness 2W6 (4) from
      turret.
17. PLACE NEW WIRING HARNESS 2W6 (1) IN TURRET.
   a. Pull wiring harness 2W6 (1) through grommet (2).
   b. Pull wiring harness 2W6 (1) through hole in turret.

18. INSTALL WIRING HARNESS 2W6 (1) IN CLAMP (3).
   a. Install wiring harness 2W6 (1) in clamp (3).
   b. Install clamp (3) and screw (4) on weldnut (5) on turret.

19. INSTALL CUSHION (6) ON TURRET.
   a. Install cushion (6), five washers (7), and screws (8) on turret.
20. INSTALL PLUG 2W6P1 (1) ON JACK 2A1J13 (2) ON DISTRIBUTION BOX (3).

21. INSTALL PLUG 2W6P2 (4) ON JACK 2A2J1 (5) ON ENCODER SHAFT (6).

22. INSTALL WIRING HARNESS 2W6 (7) IN FOUR CLAMPS (8).
   a. Install wiring harness 2W6 (7) in four clamps (8).
   b. Install four clamps (8) and screws (9) on weldnuts (10) on turret.

23. INSTALL WIRE SHIELD (11) ON SEAT TRACK (12).
   a. Install two straps (13) on cables.
   b. Install wire shield (11), two washers (14), new lock washers (15), and screws (16) on seat track (12).

24. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.
25. INSTALL JACK 2W6J1 (1) ON BRACKET (2).
   a. Install jack 2W6J1 (1) and jam nut (3) on bracket (2).
   b. Install new lock wire (4) on jam nut (3) and bracket (2).

26. INSTALL PLUG 2A30P1 (5) ON JACK 2W6J1 (1).

27. INSTALL JACK 2W6J3 (6) ON BRACKET (7).
   a. Install jack 2W6J3 (6) and jam nut (8) on bracket (7).
   b. Install new lock wire (9) on jam nut (8) and bracket (7).

28. INSTALL PLUG 2A29P1 (10) ON JACK 2W6J3 (6).
29. INSTALL WIRING HARNESS 2W6 (1) IN FOUR CLAMPS (2).
   a. Install wiring harness 2W6 (1) in four clamps (2).
   b. Install four clamps (2) and screws (3) on weldnuts (4) on turret.

30. INSTALL WIRING HARNESS 2W6 (1) IN CLAMP (5).
   a. Install wiring harness 2W6 (1) in clamp (5).
   b. Install clamp (5) and screw (6) on weldnut (4) on turret.

31. INSTALL GUNNER'S CUSHION (7) ON TURRET.
   a. Install gunner's cushion (7), six washers (8), and screws (9) on turret.

32. INSTALL CENTER, RIGHT, AND STEP TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

33. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE WIRING HARNESS 2W2

DESCRIPTION

This task covers: Remove (page 5-203). Install (page 5-208).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- TM 9-2350-252-20-1

Materials/Parts:
- Self-locking nut (3)
- Lock washer (2)
- Special cable assembly
- Nylon strap (2)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE VEHICLE GROUND CABLE.
   See TM 9-2350-252-20-1.

2. REMOVE LEFT, CENTER, RIGHT, AND STEP TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

WARNING
 Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when you work with tools or other metal objects. Do not wear jewelry when you work on electrical system.

CAUTION
Incorrect cable removal can cause short circuit. Remove negative cable before you remove positive cable.

3. REMOVE CABLE 2W15 (1) FROM CLAMP (2).
   a. Lift cover (3) and remove nut (4) and cable 2W15 (1) from clamp (2).

GO TO NEXT PAGE
4. REMOVE POSITIVE LEAD 2W2 (1) FROM CLAMP (2).
   
a. Lift cover (3) and remove nut (4) and positive lead 2W2 (1) from clamp (2).

5. REMOVE PLUG 2W2P4 (5) FROM JACK 2A27J2 (6).

6. REMOVE PLUG 2W2P1 (7) FROM JACK 2A7J3 (8).
7. REMOVE PLUG 2W2P2 (1) FROM JACK 2A1J12 (2) ON DISTRIBUTION BOX (3).

8. REMOVE LEAD 2W2P2 (4) FROM TWO CLAMPS (5).
   a. Remove two screws (6) and clamps (5) from weldnuts (7) on turret.
   b. Remove lead 2W2P2 (4) from two clamps (5).
9. REMOVE WIRING HARNESS 2W2 (1) FROM FOUR CLAMPS (2, 3).
   a. Remove screw (4) and clamp (2) from weldnuts (5) on turret.
   b. Remove three locknuts (6), screws (7), and clamps (3) from turret. Discard locknuts.
   c. Remove wiring harness 2W2 (1) from four clamps (2, 3).

10. REMOVE WIRE SHIELD (8) FROM SEAT TRACK (9).
   a. Remove two screws (10), lock washers (11), washers (12), and wire shield (8) from seat track (9). Discard lock washers.
   b. Remove two straps (13) from cables.
11. REMOVE CUSHION (1) FROM PLATE (2).
   a. Remove five screws (3), washers (4), and cushion (1) from plate (2).

12. REMOVE WIRING HARNESS 2W2 (5) FROM CLAMP (6).
   a. Remove screw (7) and clamp (6) from weldnut (8) on turret.
   b. Remove wiring harness 2W2 (5) from clamp (6).

13. REMOVE PLUG 2W2P3 (9) FROM JACK 2A46J1 (10).

GO TO NEXT PAGE
14. REMOVE WIRING HARNESS 2W2 (1) FROM TURRET.
   a. Pull plug 2W2P3 (2) through hole behind seat track (3).
   b. Pull plug 2W2P3 (2) through grommet (4) in bottom of turret.
   c. Remove wiring harness 2W2 (1) from turret.

15. INSTALL NEW WIRING HARNESS 2W2 (1) IN TURRET.
   a. Place wiring harness 2W2 (1) in turret.
   b. Push plug 2W2P3 (2) through grommet (4) in bottom of turret.
   c. Pull plug 2W2P3 (2) through hole behind seat track (3).
16. INSTALL PLUG 2W2P3 (1) ON JACK 2A46J1 (2).

17. INSTALL WIRING HARNESS 2W2 (3) IN CLAMP (4).
   a. Install wiring harness 2W2 (3) in clamp (4).
   b. Install clamp (4) and screw (5) on weldnut (6) on turret.

18. INSTALL CUSHION (7) ON PLATE (8).
   a. Install cushion (7), five washers (9), and screws (10) on plate (8).
19. INSTALL WIRE SHIELD (1) ON SEAT TRACK (2).
   a. Install two straps (3) on cables.
   b. Install wire shield (1), two washers (4), new lock washers (5), and screws (6) on seat track (2).

20. INSTALL PLUG 2W2P2 (7) ON JACK 2A1J12 (8).
   a. Route lead 2W2P2 (9) to turret distribution box (10).
   b. Install plug 2W2P2 (7) on jack 2A1J12 (8).
21. INSTALL LEAD 2W2P2 (1) IN TWO CLAMPS (2).
   a. Install lead 2W2P2 (1) in two clamps (2).
   b. Install two clamps (2) and screws (3) on weldnuts (4) on turret.

22. INSTALL WIRING HARNESS 2W2 (5) IN FOUR CLAMPS (6, 7).
   a. Install wiring harness 2W2 (5) in four clamps (6, 7).
   b. Install three clamps (7), screws (8), and new locknuts (9) on turret.
   c. Install clamp (6) and screw (10) on weldnut (11) on turret.
WARNING
Battery posts and cables touched by metal objects can short circuit and burn you or injure you. Use caution when you work with tools or other metal objects. Do not wear jewelry when you work on electrical system.

CAUTION
Incorrect cable installation can cause short circuit. Install positive cable before you install negative cable.

23. INSTALL POSITIVE LEAD 2W2 (1) ON CLAMP (2).
   a. Lift cover (3) and install positive lead 2W2 (1) and nut (4) on clamp (2).

24. INSTALL PLUG 2W2P1 (5) ON JACK 2A7J3 (6).

25. INSTALL PLUG 2W2P4 (7) ON JACK 2A27J2 (8).
26. INSTALL CABLE 2W15 (1) ON CLAMP (2).
   a. Lift cover (3) and install cable 2W15 (1) and nut (4) on clamp (2).

27. INSTALL LEFT, CENTER, RIGHT, AND STEP TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

28. INSTALL VEHICLE GROUND CABLE. See TM 9-2350-252-20-1.

29. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPAIR LEAD 2W2

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Soldering torch kit (Item 12, App H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Insulation sleeving
- Tin/lead solder (Item 27, App C)
- Terminal lug

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REPAIR

1. REMOVE BATTERIES FROM TURRET. See task: REPLACE TURRET EMERGENCY STORAGE BATTERIES, page 5-169.

2. REMOVE POSITIVE LEAD 2W2 (1) FROM CLAMP (2).
   a. Remove nut (3) and positive lead 2W2 (1) from clamp (2).

3. REPAIR LEAD 2W2. See task: REPAIR LEAD, page 4-5.

4. INSTALL POSITIVE LEAD 2W2 (1) ON CLAMP (2).
   a. Install positive lead 2W2 (1) and nut (3) on clamp (2).

5. INSTALL BATTERIES IN TURRET. See task: REPLACE TURRET EMERGENCY STORAGE BATTERIES, page 5-169.

END OF TASK
REPAIR/REPLACE WIRING HARNESS 2W1

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Self-locking nut
- Self-locking nut (4)
- Nylon strap

Personnel Required:
- ITV/IFVICFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE CENTER, RIGHT, AND STEP TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. REMOVE PLUG 2W1P1 (1) FROM JACK 2A7J1 (2) ON SLIP RING ASSEMBLY (3).

GO TO NEXT PAGE
3. REMOVE PLUG 2W1P2 (1) FROM JACK 2A1J1 (2) ON DISTRIBUTION BOX (3).

4. REMOVE PLUG 2W1P3 (4) FROM JACK 2A27J1 (5) ON RELAY BOX (6).
NOTE
Cable 2W1 has three terminals with the same designation, 2W1E1.

5. REMOVE TERMINAL 2W1E1 (1), TERMINAL 2W1E1 (2), AND TERMINAL 2W1E1 (3) FROM SCREW (4) ON TURRET.
   a. Remove locknut (5), washer (6), terminal 2W1E1 (1), terminal 2W1E1 (2), and terminal 2W1E1 (3) from screw (4) on turret. Discard locknut.

NOTE
Note location of clamps for later installation.

6. REMOVE WIRING HARNESS 2W1 (7) FROM SIX CLAMPS (8, 9).
   a. Remove nylon strap (10) from cables. Discard strap.
   b. Remove two screws (11) and clamps (8) from weldnuts (12) on turret.
   c. Remove four locknuts (13), screws (14), and clamps (9) from turret. Discard locknuts.
   d. Remove wiring harness 2W1 (7) from two clamps (8, 9).

7. REPAIR TERMINAL(S) 2W1E1. See task: REPAIR LEAD, page 4-4.

GO TO NEXT PAGE
8. INSTALL PLUG 2W1P3 (1) ON JACK 2A27J1 (2) ON RELAY BOX (3).

9. INSTALL PLUG 2W1P2 (4) ON JACK 2A1J1 (5) ON DISTRIBUTION BOX (6).
10. INSTALL PLUG 2W1P1 (1) ON JACK 2A7J1 (2) ON SLIP RING ASSEMBLY (3).

11. INSTALL WIRING HARNESS 2W1 (4) IN SIX CLAMPS (5, 6).
   a. Install two clamps (5) and screws (7) on weldnuts (8) on turret. Tighten screws finger tight.
   b. Install four clamps (6), screws (9), and new locknuts (10) on turret. Tighten locknuts finger tight.
   c. Install new strap (11) on cables.
NOTE
Cable 2W1 has three terminals with the same designation, 2W1E1.

12. INSTALL TERMINAL 2W1E1 (1), TERMINAL 2W1E1 (2), AND TERMINAL 2W1E1 (3) ON SCREW (4) ON TURRET.
   a. Install terminal 2W1E1 (1), terminal 2W1E1 (2), terminal 2W1E1 (3), washer (5), and new locknut (6) on screw (4) on turret.

13. TIGHTEN TWO SCREWS (7) AND FOUR LOCKNUTS (8) ON CLAMPS (9,10).


15. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE WIRING HARNESS 2W5

DESCRIPTION

This task covers: Remove (page 5-221). Install (page 5-228).

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
Self-locking nut
Electrical 2W5 cable assembly
Nylon strap (6)
Primer, grade N (Item 21, App C)
Sealing Compound, grade A (Item 20, App C)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE ISU. See task: REPLACE 2W5 INTEGRATED SIGHT UNIT, page 21-43.

2. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


8. REMOVE TOW CONTROL BOX (1) WITH ANNUNCIATOR (2) FROM SUPPORT (3).
   a. Remove two screws (4), washers (5), and TOW control box (1) with annun- 
      ciator (2) from support (3).

GO TO NEXT PAGE
9. REMOVE PLUG 2W5P2 (1) FROM JACK 2A5J1 (2) ON TOW CONTROL BOX (3).

10. REMOVE PLUG 2W5P3 (4) FROM JACK 2A6J1 (5) ON ANNUNCIATOR (6).

11. REMOVE PLUG 2W5P4 (7) FROM JACK 2A9J1 (8) ON GUNNER'S TURRET POSITION INDICATOR (9).
12. REMOVE LEAD 2W5P4 (1) FROM FOUR CLAMPS (2).
   a. Remove four screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove lead 2W5P4 (1) from four clamps (2).

13. REMOVE LEADS 2W5P2 (5) AND 2W5P3 (6) FROM FOUR CLAMPS (7).
   a. Remove four screws (8) and clamps (7) from weldnuts (9) on turret.
   b. Remove leads 2W5P2 (5) and 2W5P3 (6) from four clamps (7).
14. REMOVE PLUG 2W5P1 (1) FROM JACK 2A8J1 (2) ON COMMANDER'S TURRET POSITION INDICATOR (3).

15. REMOVE LEAD 2W5P1 (4) FROM TWO CLAMPS (5).
   a. Remove two screws (6) and clamps (5) from weldnuts (7) on turret.
   b. Remove lead 2W5P1 (4) from two clamps (5).


17. REMOVE PLUG 2W5P5 (8) FROM JACK 2A1J14 (9) ON DISTRIBUTION BOX (10).
18. MANUALLY TRAVERSE TURRET TO 2500 MILS. See TM 9-2350-252-10-2.

19. REMOVE DOOR (1) FROM HE AMMO CAN (2).
   a. Turn latch (3) and lift door (1) up and out of HE ammo can (2).

20. REMOVE CABLE HANGER (4) FROM HE AMMO CAN (2).
   a. Remove two screws (5) and washers (6) from HE ammo can (2) and cable hanger (4).
   b. Remove three screws (7), washers (8), and cable hanger (4) from HE ammo can (2).
21. REMOVE LEADS 2W5P1 (1) AND 2W5P5 (2) FROM THREE CLAMPS (3).
   a. Remove two straps (4) from cables. Discard straps.
   b. Remove three screws (5) and clamps (3) from weldnuts (6) on support.
   c. Remove leads 2W5P1 (1) and 2W5P5 (2) from three clamps (3).

22. PLACE LEAD 2W5P1 (1) AND LEAD 2W5P5 (2) ON TOP OF HE AMMO CAN (7).
   a. Pull lead 2W5P5 (2) from under HE ammo can (7).
   b. Coil lead 2W5P5 (2) and lead 2W5P1 (1), and place on top of HE ammo can (7).
CAUTION

Cable can be damaged if cable does not go through notch in cable hanger. Route cable through notch before you install cable hanger.

23. INSTALL CABLE HANGER (1) ON HE AMMO CAN (2).
   a. Route cable 2A22 (3) through notch (4) in cable hanger (1).
   b. Install cable hanger (1), two washers (5), and screws (6) on HE ammo can (2).
   c. Install three washers (7) and screws (8) in HE ammo can (2) and cable hanger (1).

24. MANUALLY TRAVERSE TURRET TO 3500 MILS. See TM 9-2350-252-10-2.

25. REMOVE WIRING HARNESS 2W5 (9) FROM FOUR CLAMPS (10, 11).
   a. Remove four straps (12), if any, from cables. Discard straps.
   b. Remove three screws (13) and clamps (10) from weldnuts (14) on turret.
   c. Remove locknut (15), screw (16), and clamp (11) from support (17).
   d. Remove wiring harness 2W5 (9) from four clamps (10, 11).
26. MANUALLY TRAVERSE TURRET TO 2500 MILS. See TM 9-2350-252-10-2.

27. REMOVE CABLE HANGER (1) FROM HE AMMO CAN (2).
   a. Remove two screws (3) and washers (4) from HE ammo can (2) and cable hanger (1).
   b. Remove three screws (5), washers (6), and cable hanger (1) from HE ammo can (2).

28. POSITION LEADS 2W5P5 (7) AND 2W5P1 (8) OF NEW WIRING HARNESS 2W5 IN TURRET.
   a. Push lead 2W5P5 (7) under HE ammo can (2).
   b. Place lead 2W5P1 (8) on top of HE ammo can (2).
29. INSTALL PLUG 2W5P5 (1) ON JACK 2A1J14 (2) ON DISTRIBUTION BOX (3).

30. INSTALL RIGHT TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

31. INSTALL PLUG 2W5P1 (4) ON JACK 2A8J1 (5) ON COMMANDER'S TURRET POSITION INDICATOR (6).

32. INSTALL LEAD 2W5P1 (7) IN TWO CLAMPS (8).
   a. Install lead 2W5P1 (7) in two clamps (8).
   b. Install two clamps (8) and screws (9) on weldnuts (10) on turret.
33. INSTALL LEADS 2W5P1 (1) AND 2W5P5 (2) IN THREE CLAMPS (3).
   a. Install leads 2W5P1 (1) and 2W5P5 (2) in three clamps (3).
   b. Install three clamps (3) and screws (4) on weldnuts (5) on support.
   c. Install two new straps (6), if any, on cables.

CAUTION
Cable can be damaged if cable does not go through notch in cable hanger. Route cable through notch before you install hanger.

34. INSTALL CABLE HANGER (7) ON HE AMMO CAN (8).
   a. Route cable 2A22 (9) through notch (10) in cable hanger (7).
   b. Install cable hanger (7), two washers (11), and screws (12) on HE ammo can (8).
   c. Install three washers (13) and screws (14) in HE ammo can (8) and cable hanger (7).
35. INSTALL DOOR (1) ON HE AMMO CAN (2).
   a. Position bottom of door (1) in door support (3).
   b. Close door (1) and turn latch (4) up.

36. MANUALLY TRAVERSE TURRET TO 3500 MILS. See TM 9-2350-252-10-2.

37. INSTALL WIRING HARNESS 2W5 (5) IN FOUR CLAMPS (6, 7).
   a. Install wiring harness 2W5 (5) in four clamps (6, 7).
   b. Install three clamps (6) and screws (8) on weldnuts (9) on turret.
   c. Install clamp (7), screw (10), and new locknut (11) on support (12).
   d. Install four new straps (13), if any, on cables.

GO TO NEXT PAGE
38. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

39. INSTALL PLUG 2W5P3 (1) IN JACK 2A6J1 (2) ON ANNUNCIATOR (3).

40. INSTALL PLUG 2W5P2 (4) ON JACK 2A5J1 (5) ON TOW CONTROL BOX (6).

41. INSTALL LEADS 2W5P3 (7) AND 2W5P2 (8) IN FOUR CLAMPS (9).
   a. Install leads 2W5P3 (7) and 2W5P2 (8) in four clamps (9).
   b. Install four clamps (9) and screws (10) on weldnuts (11) on turret.
42. INSTALL TOW CONTROL BOX (1) WITH ANNUNCIATOR (2) ON SUPPORT (3).
   a. Apply primer to threads of two screws (4).
   b. Apply sealant to threads of two screws (4).
   c. Install TOW control box (1) with annunciator (2), two washers (5), and screws (4) on support (3).

43. INSTALL PLUG 2W5P4 (6) ON JACK 2A9J1 (7) ON GUNNER’S TURRET POSITION INDICATOR (8).

GO TO NEXT PAGE
44. INSTALL LEAD 2W5P4 (1) IN FOUR CLAMPS (2).
   a. Install lead 2W5P4 (1) in four clamps (2).
   b. Install four clamps (2) and screws (3) on weldnuts (4) on turret.

45. INSTALL 25MM AMMO CHUTE GUARD.


49. INSTALL 25MM GUN FEEDER. See TM 9-2350-252-10-2.

50. INSTALL 25MM GUN BARREL. See TM 9-2350-252-10-2.

51. INSTALL ISU. See task: REMOVE/INSTALL INTEGRATED SIGHT UNIT, page 21-43.

52. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE WIRING HARNESS 2W4

DESCRIPTION

This task covers: Remove (page 5-235). Install (page 5-240).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- 2W4 electric cable assembly
- Strap (6)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE RIGHT TURRET FLOOR PLATE.
   See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. REMOVE PLUG 2W4P1 (1) FROM JACK 2A1J11 (2) ON DISTRIBUTION BOX (3).

GO TO NEXT PAGE
3. REMOVE PLUG 2W4P2 (1) FROM JACK 2A4J2 (2) ON WEAPON CONTROL BOX (3).

4. REMOVE PLUG 2W4P3 (4) FROM JACK 2A3J2 (5) ON TURRET CONTROL BOX (6).

5. REMOVE LEAD 2W4P2 (7) FROM CLAMP (8).
   a. Remove screw (9) and clamp (8) from weldnut (10) on turret.
   b. Remove lead 2W4P2 from clamp (8).
6. REMOVE LEAD 2W4P3 (1) FROM TWO CLAMPS (2, 3).
   a. Remove two screws (4) and three clamps (2, 3, 5) from weldnuts (6) on turret.
   b. Remove lead 2W4P3 (1) from two clamps (2, 3).

7. MANUALLY TRAVERSE TURRET TO 2400 MILS. See TM 9-2350-252-10-2.

8. REMOVE DOOR (7) FROM HE AMMO CAN (8).
   a. Turn latch (9) and lift door (7) up and out of HE ammo can (8).
9. REMOVE CABLE HANGER (1) FROM HE AMMO CAN (2).
   a. Remove two screws (3) and washers (4) from HE ammo can (2) and cable hanger (1).
   b. Remove three screws (5), washers (6), and cable hanger (1) from HE ammo can (2).

10. PULL PLUG 2W4P1 (7) FROM BETWEEN CABLE HANGER (1) AND HE AMMO CAN (2).
11. REMOVE WIRING HARNESS 2W4 (1) FROM THREE CLAMPS (2).
   a. Remove six straps (3) from cables. Discard straps.
   b. Remove three screws (4) and clamps (2) from weldnuts (5) on turret.
   c. Remove wiring harness 2W4 (1) from three clamps (2).

12. REMOVE WIRING HARNESS 2W4 (1) FROM TURRET.
13. PUSH PLUG 2W4P1 (1) OF NEW WIRING HARNESS 2W4 (2) BETWEEN CABLE HANGER (3) AND HE AMMO CAN (4).

15. INSTALL PLUG 2W4P1 (1) ON JACK 2A1J11 (2) ON DISTRIBUTION BOX (3).

16. INSTALL PLUG 2W4P3 (4) ON JACK 2A3J2 (5) ON TURRET CONTROL BOX (6).

17. INSTALL PLUG 2W4P2 (7) ON JACK 2A4J2 (8) ON WEAPON CONTROL BOX (9).
18. INSTALL LEAD 2W4P3 (1) IN TWO CLAMPS (2, 3).
   a. Install lead 2W4P3 (1) in two clamps (2, 3).
   b. Install three clamps (2, 3, 4) on weldnuts (5) on turret with two screws (6).

19. INSTALL LEAD 2W4P2 (7) IN CLAMP (8).
   a. Install lead 2W4P2 (7) in clamp (8).
   b. Install clamp (8) and screw (9) on weldnut (10) on turret.
CAUTION
Cable can be damaged. Route cable through notch in cable hanger.

20. INSTALL CABLE HANGER (1) ON HE AMMO CAN (2).
   a. Route cable 2A22 (3) through notch (4) in cable hanger (1).
   b. Install cable hanger (1), two washers (5), and screws (6) on HE ammo can (2).
   c. Install three washers (7) and screws (8) on HE ammo can (2) and cable hanger (1).

21. INSTALL DOOR (9) ON HE AMMO CAN (2).
   a. Position bottom of door (9) in door support (10).
   b. Close door (9) and turn latch (11) up.

GO TO NEXT PAGE
22. INSTALL WIRING HARNESS 2W4 (1) IN THREE CLAMPS (2).
   a. Install wiring harness 2W4 (1) in three clamps (2).
   b. Install three clamps (2) and screws (3) on weldnuts (4) on turret.
   c. Install six new straps (5) on cables.

23. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.


25. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE WIRING HARNESS 2W3

DESCRIPTION

This task covers: Remove (page 5-245). Install (page 5-248).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Special cable assembly
- Strap (6)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE RIGHT TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. MANUALLY TRAVERSE TURRET TO 2400 MILS. See TM 9-2350-252-10-2.

3. REMOVE THREE PLUGS (1) FROM THREE JACKS (2) AS FOLLOWS:
   - 2W6P1 FROM 2A1J13
   - 2W6P2 FROM 2A1J12
   - 2W3P1 FROM 2A1J9.

TAG PLUGS.

GO TO NEXT PAGE 5-245
4. REMOVE DOOR (1) FROM HE AMMO CAN (2).
   a. Turn latch (3) and lift door (1) up and out of HE ammo can (2).

5. REMOVE CABLE HANGER (4) FROM HE AMMO CAN (2).
   a. Remove two screws (5) and washers (6) from HE ammo can (2) and cable hanger (4).
   b. Remove three screws (7), washers (8), and cable hanger (4) from HE ammo can (2).
6. PULL PLUG 2W3P1 (1) BETWEEN CABLE HANGER (2) AND HE AMMO CAN (3).

7. REMOVE PLUG 2W3P2 (4) FROM JACK 2A4J1 (5).

8. REMOVE PLUG 2W3P3 (6) FROM JACK 2A3J1 (7).
9. REMOVE LEAD 2W3P3 (1) FROM CLAMP (2).
   a. Remove screw (3) and two clamps (2, 4) from weldnut (5) on turret.
   b. Remove lead 2W3P3 (1) from clamp (2).

10. REMOVE LEAD 2W3P2 (6) FROM CLAMP (7).
    a. Remove screw (8) and clamp (7) from weldnut (9) on turret.
    b. Remove lead 2W3P2 (6) from clamp (7).

11. REMOVE WIRING HARNESS 2W3 (10) FROM THREE CLAMPS (11).
    a. Remove three screws (12) and clamps (11) from weldnuts (13) on turret.
    b. Remove wiring harness 2W3 (10) from three clamps (11) and turret.

12. PUSH PLUG 2W3P1 (14) ON NEW WIRING HARNESS 2W3 (10) BETWEEN CABLE HANGER (15) AND HE AMMO CAN (16).
13. INSTALL THREE PLUGS (1) ON THREE JACKS (2) AS FOLLOWS:
   2W3P1 ON 2A1J9
   2W6P1 ON 2A1J13
   2W6P2 ON 2A1J12.

CAUTION
Cable will be damaged if cable is not routed through notch in cable hanger. Route cable through notch in cable hanger.

14. INSTALL CABLE HANGER (3) ON HE AMMO CAN (4).
   a. Route cable 2A22 (5) through notch (6) in cable hanger (3).
   b. Install cable hanger (3), two washers (7), and screws (8) on HE ammo can (4).
   c. Install three washers (9) and screws (10) in HE ammo can (4) and cable hanger (3).
15. INSTALL DOOR (1) ON HE AMMO CAN (2).
   a. Position bottom of door (1) in door hanger (3).
   b. Close door (1) and turn latch (4) up.

16. INSTALL PLUG 2W3P3 (5) ON JACK 2A3J1 (6).

17. INSTALL PLUG 2W3P2 (7) ON JACK 2A4J1 (8).
18. INSTALL WIRING HARNESS 2W3 (1) IN THREE CLAMPS (2).
   a. Install wiring harness 2W3 (1) in three clamps (2).
   b. Install three clamps (2) and screws (3) on weldnut (4) on turret.

19. INSTALL LEAD 2W3P2 (5) IN CLAMP (6).
    a. Install lead 2W3P2 (5) in clamp (6).
    b. Install clamp (6) and screw (7) on weldnut (8) on turret.
20. INSTALL LEAD 2W3P3 (1) IN CLAMP (2).
   a. Install two clamps (2, 3) on weld-nut (4) on turret with screw (5).

21. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

22. INSTALL RIGHT TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

23. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE WIRING HARNESS 2W9

DESCRIPTION

This task covers: Remove (page 5-253). Install (page 5-268).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- TM 9-2350-252-20-3

Materials/Parts:
- Cable assembly 2W9
- Self-locking nut (3)
- Lock washer (2)
- Lock washer (2)
- Nylon strap (2)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

REMOVE

1. REMOVE ISU. See task: REMOVE/INSTALL INTEGRATED SIGHT UNIT, page 21-43.


5. REMOVE CENTER, RIGHT, AND STEP TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

6. REMOVE POWER CONVERTER. See task: REPLACE POWER CONVERTER, page 21-84.

7. RAISE COMMANDER'S SEAT TO FULL UP POSITION. See TM 9-2350-252-10-2.

8. REMOVE DISTRIBUTION BOX. See task: REPLACE DISTRIBUTION BOX, page 5-105.

9. REMOVE WIRE SHIELD (1) FROM SEAT TRACK (2).
   a. Remove two screws (3), lock washers (4), washers (5), and wire shield (1) from seat track (2). Discard lock washers.
NOTE
For right smoke grenade launcher, plug 2W9P8 is removed from jack 2A32J1. For left smoke grenade launcher, plug 2W9P2 is removed from jack 2A31J1.

10. REMOVE TWO GRENADE LAUNCHERS (1) FROM TURRET.
   a. Remove six screws (2), washers (3), and two grenade launchers (1) from turret.
   b. Remove two plugs (4) from jacks (5). Push plugs into turret.

11. REMOVE PLUG 2A22P1 (6) FROM JACK 2W9J2 (7).

12. REMOVE PLUG 2A21P1 (8) FROM JACK 2W9J1 (9).
13. REMOVE LEAD 2W9J1 (1) FROM TWO CLAMPS (2).
   a. Remove two screws (3) and clamps (2) from turret.
   b. Remove lead 2W9J1 (1) from two clamps (2).

14. MANUALLY TRAVERSE TURRET TO 2400 MILS. See TM 9-2350-252-10-2.

15. REMOVE DOOR (4) FROM HE AMMO CAN (5).
   a. Turn latch (6) and lift door (4) up and out of HE ammo can (5).

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16. REMOVE CABLE HANGER (1) FROM HE AMMO CAN (2).
   a. Remove two screws (3) and washers (4) from HE ammo can (2) and cable hanger (1).
   b. Remove three screws (5), washers (6), and cable hanger (1) from HE ammo can (2).

17. REMOVE LEAD 2W9J2 (7) FROM TWO CLAMPS (8).
   a. Remove two screws (9) and clamps (8) from turret.
   b. Remove lead 2W9J2 (7) from two clamps (8).
18. INSTALL CABLE HANGER (1) ON HE AMMO CAN (2).
   a. Route cable 2A22 (3) through notch (4) in cable hanger (1).
   b. Install cable hanger (1), two washers (5), and screws (6) on HE ammo can (2).
   c. Install three washers (7) and screws (8) in HE ammo can (2) and cable hanger (1).

19. INSTALL DOOR (9) ON HE AMMO CAN (2).
   a. Position bottom of door (9) in door hanger (10).
   b. Close door (9) and turn latch (11) up.

20. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

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NOTE
Leads 2W9J1 and 2W9J2 become one wiring harness at first clamp of step 21.

21. REMOVE WIRING HARNESS 2W9 (1) FROM THREE CLAMPS (2).
   a. Remove three screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove wiring harness 2W9 (1) from three clamps (2).

22. MOVE GUN ELEVATION DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

   NOTE
Access to lead 2W9P8 is through opening under right front armor.

23. REMOVE LEAD 2W9P8 (5) FROM FOUR CLAMPS (6) AND BRACKET (7).
   a. (H) Turn handwheel (8) to move coax rotor (9) as needed to access six screws (10, 11).
   b. Remove four screws (10) and clamps (6) from turret.
   c. Remove two screws (11) and bracket (7) from turret.
   d. Remove lead 2W9P8 (5) from four clamps (6) and bracket (7).
NOTE

It may be necessary to preheat area around sealing grip before removing it from turret.

24. REMOVE LEAD 2W9P8 (1) FROM TURRET.
   a. Remove nut (2), washer (3), grommet (4), sealing grip (5), and lead 2W9P8 (1) from turret.

25. REMOVE JACK 2W9J4 (6) FROM BRACKET (7).
   b. Remove jam nut (9) and jack 2W9J4 (6) from bracket (7).

26. REMOVE JACK 2W9J3 (10) FROM PLUG 2A20P1 (11).

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27. REMOVE JACK 2W9J5 (1) FROM BRACKET (2).
   a. Remove plug 2A18P1 (3) from jack 2W9J5 (1).
   b. Remove jam nut (4) and jack 2W9J5 (1) from bracket (2).

28. REMOVE SOCKET 2W9DS1 (5) FROM TURRET BASKET (6).
   a. Loosen jam nut (7), and remove socket 2W9DS1 (5) from turret basket (6).

29. REMOVE LEAD 2W9DS1 (8) FROM TWO CLAMPS (9).
   a. Remove two screws (10) and clamps (9) from turret.
   b. Remove lead 2W9DS1 (8) from two clamps (9).

30. REMOVE WIRING HARNESS 2W9 (11) FROM CLAMP (12).
   a. Remove screw (13) and clamp (12) from turret.
   b. Remove wiring harness 2W9 (11) from clamp (12).
31. REMOVE PLUG 2W9P6 (1) FROM JACK 2A17J1 (2) ON COMMANDER'S DOME LIGHT (3).

32. REMOVE GROUND LEAD (4) FROM COMMANDER'S DOME LIGHT (3).
   a. Loosen screw (5) on commander's dome light (3).
   b. Remove screw (6), ground lead (4), and lock washer (7) from commander's dome light (3). Discard lock washer.

33. REMOVE VRC CONTROL BOX (8) AND MOUNT PLATE (9) FROM THREE MOUNTS (10).
   a. Remove three locknuts (11), washers (12), VRC control box (8), and mount plate (9) from three mounts (10). Discard locknuts.
   b. Lower VRC control box (8) to behind ammo box (13).

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34. REMOVE COMMANDER'S CUSHION (1) FROM TURRET.
   a. Remove five screws (2), washers (3),
      and commander's cushion (1) from
      turret.

35. REMOVE WIRING HARNESS 2W9 (4) FROM CLAMP (5).
   a. Remove screw (6) and clamp (5) from
      weldnut (7) on turret.
   b. Remove wiring harness 2W9 (4) from
      clamp (5) under sponson (8).

36. REMOVE WIRING HARNESS 2W9 (4) FROM FOUR CLAMPS (9).
   a. Remove four screws (10) and clamps
      (9) from weldnuts (11) on turret.
   b. Remove wiring harness 2W9 (4) from
      four clamps (9).
37. REMOVE TWO STRAPS (1) FROM CABLES. DISCARD STRAPS.

38. REMOVE WIRING HARNESS 2W9 (2) FROM SIX CLAMPS (3).
   a. Remove six screws (4) and clamps (3) from weldnuts (5) on turret.
   b. Remove wiring harness 2W9 (2) from six clamps (3).

39. PULL PLUGS 2W9P6 (6), 2W9P8 (7), JACKS 2W9J3 (8), 2W9J5 (9), 2W9J4 (10), AND SOCKET 2W9DS1 (11) THROUGH TURRET AND ONTO COMMANDER'S SEAT (12).

40. REMOVE SOCKET 2W9DS2 (13) FROM BRACKET (14).
   a. Loosen jam nut (15).
   b. Remove socket 2W9DS2 (13) from bracket (14).
41. REMOVE LEAD 2W9DS2 (1) FROM TWO CLAMPS (2).
   a. Remove two screws (3) and clamps (2) from turret.
   b. Remove lead 2W9DS2 (1) from two clamps (2).

42. REMOVE PLUG 2W9P3 (4) FROM JACK 2A16J1 (5) ON GUNNER'S DOME LIGHT (6).

43. REMOVE GROUND LEAD (7) FROM GUNNER'S DOME LIGHT (6).
   a. Loosen screw (8) on gunner's dome light (6).
   b. Remove screw (9), ground lead (7), and lock washer (10) from gunner's dome light (6). Discard lock washer.
44. REMOVE DRIVE ASSEMBLY (1) FROM TURRET.
   a. Remove two screws (2), washers (3), drive assembly (1) with lead 2A34J1 (4), and bolt retainer (5) from turret.

45. REMOVE GUNNER'S CUSHION (6) FROM TURRET.
   a. Remove six screws (7), washers (8), and gunner's cushion (6) from turret.

46. REMOVE WIRING HARNESS 2W9 (9) FROM CLAMP (10).
   a. Remove screw (11) and clamp (10) from weldnut (12) on turret.
   b. Remove wiring harness 2W9 (9) from clamp (10) under sponson (13).

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47. REMOVE WIRING HARNESS 2W9 (1) FROM THREE CLAMPS (2).
   a. Remove three screws (3) and clamps (2) from weldnuts (4) on turret.
   b. Remove wiring harness 2W9 (1) from three clamps (2).

48. REMOVE WIRING HARNESS 2W9 (1) FROM SIX CLAMPS (5).
   a. Remove six screws (6) and clamps (5) from weldnuts (7) on turret.
   b. Remove wiring harness 2W9 (1) from six clamps (5).
49. PULL LEADS 2W9P2 (1), 2W9P3 (2), AND 2W9DS2 (3) THROUGH SPONSON (4) AND ONTO COMMANDER'S SEAT (5).

50. REMOVE LEAD 2W9P1 (6) FROM CLAMP (7).
   a. Remove screw (8) and clamp (7) from weldnut (9) on turret.
   b. Remove lead 2W9P1 (6) from clamp (7).

51. REMOVE WIRING HARNESS 2W9 (8) FROM TURRET.
   a. Pull leads 2W9P1 (6), 2W9J1 (9), and 2W9J2 (10) through grommet (11).
   b. Pull leads 2W9P1 (6), 2W9J1 (12), and 2W9J2 (10) through opening in turret and onto commander's seat (5).
   c. Remove wiring harness 2W9 (8) from turret.

GO TO NEXT PAGE
52. INSTALL NEW WIRING HARNESS 2W9 (1) IN TURRET.
   a. Place wiring harness 2W9 (1) on commander's seat (2).
   b. Push leads 2W9P1 (3), 2W9J1 (4), and 2W9J2 (5) into turret.
   c. Push leads 2W9P1 (3), 2W9J1 (4), and 2W9J2 (5) through grommet (6) and to turret floor.

53. ROUTE LEADS 2W9P2 (7), 2W9P3 (8), AND 2W9DS2 (9) TO GUNNER'S DOME LIGHT (10).

54. INSTALL GROUND LEAD (11) ON GUNNER'S DOME LIGHT (10).
   a. Install new lock washer (12), ground lead (11), and screw (13) on gunner's dome light (10).
   b. Tighten screw (14) on gunner's dome light (10).

55. INSTALL PLUG 2W9P3 (15) IN JACK 2A16J1 (16) ON GUNNER'S DOME LIGHT (10).
56. ROUTE LEAD 2W9DS2 (1) TO ELEVATION INDICATOR BRACKET (2).

57. INSTALL SOCKET 2W9DS2 (3) ON BRACKET (2).
   a. Install socket 2W9DS2 (3) on bracket (2).
   b. Tighten jam nut (4).

58. INSTALL LEAD 2W9DS2 (3) IN TWO CLAMPS (5).
   a. Install lead 2W9DS2 (3) in two clamps (5).
   b. Install two clamps (5) and screws (6) on turret.

GO TO NEXT PAGE
59. PUSH PLUG 2W9P2 (1) THROUGH LEFT GRENADE LAUNCHER HOLE (2).

60. INSTALL WIRING HARNESS 2W9 (3) IN SIX CLAMPS (4).
   a. Install wiring harness 2W9 (3) in six clamps (4).
   b. Install six clamps (4) and screws (5) in weldnuts (6) on turret.
61. INSTALL WIRING HARNESS 2W9 (1) IN THREE CLAMPS (2).
   a. Install wiring harness 2W9 (1) in three clamps (2).
   b. Install three clamps (2) and screws (3) in weldnuts (4) on turret.

62. INSTALL WIRING HARNESS 2W9 (1) IN CLAMP (5).
   a. Install wiring harness 2W9 (1) in clamp (5) under sponson (6).
   b. Install clamp (5) and screw (7) on weldnut (8) on turret.

63. INSTALL GUNNER’S CUSHION (9) ON TURRET.
   a. Install gunner’s cushion (9), six washers (10), and screws (11) on turret.

GO TO NEXT PAGE
64. INSTALL DRIVE ASSEMBLY (1) ON TURRET.
   a. Install drive assembly (1) with lead 2A34J1 (2) and bolt retainer (3), two washers (4), and screws (5) on turret.

65. PUSH PLUGS 2W9P6 (6) AND 2W9P8 (7), JACKS 2W9J5 (8) AND 2W9J4 (9), AND SOCKET 2W9DS1 (10) INTO TURRET TO COMMANDER'S DOME LIGHT (11).
66. INSTALL GROUND LEAD (1) ON COMMANDER'S DOME LIGHT (2).
   a. Install new lock washer (3), ground lead (1), and screw (4) on commander's dome light (2).
   b. Tighten screw (5) on commander's dome light (2).

67. INSTALL PLUG 2W9P6 (6) ON JACK 2A17J1 (7) ON COMMANDER'S DOME LIGHT (2).

68. INSTALL SOCKET 2W9DS1 (8) ON TURRET BASKET (9).
   a. Route socket 2W9DS1 (8) behind, and under, ammo box (10) and to azimuth indicator (11).
   b. Install socket 2W9DS1 (8) on turret basket (9) and tighten jam nut (12).
69. INSTALL WIRING HARNESS 2W9 (1) IN CLAMP (2).
   a. Install wiring harness 2W9 (1) in clamp (2).
   b. Install clamp (2) and screw (3) on turret.

70. INSTALL LEAD 2W9DS1 (4) IN TWO CLAMPS (5).
   a. Install lead 2W9DS1 (4) in two clamps (5).
   b. Install two clamps (5) and screws (6) on turret.
71. INSTALL JACK 2W9J5 (1) ON BRACKET (2).

a. Install jack 2W9J5 (1) and jam nut (3) on bracket (2).

b. Install plug 2A18P1 (4) on jack 2W9J5 (1).

72. INSTALL PLUG 2A20P1 (5) ON JACK 2W9J3 (6).
73. INSTALL JACK 2W9J4 (1) ON BRACKET (2).
   a. Install jack 2W9J4 (1) and jam nut (3) on bracket (2).
   b. Install plug 2A19P1 (4) on jack 2W9J4 (1).

74. INSTALL WIRING HARNESS 2W9 (5) IN SIX CLAMPS (6).
    a. Install wiring harness 2W9 (5) in six clamps (6).
    b. Install six clamps (6) and screws (7) in weldnuts (8) on turret.

75. INSTALL TWO NEW STRAPS (9) ON CABLES.
76. INSTALL WIRING HARNESS 2W9 (1) IN FOUR CLAMPS (2).
   a. Install wiring harness 2W9 (1) in four clamps (2).
   b. Install four clamps (2) and screws (3) in weldnuts (4) on turret.

77. INSTALL WIRING HARNESS 2W9 (1) IN CLAMP (5).
   a. Install wiring harness 2W9 (1) in clamp (5) under sponson (6).
   b. Install clamp (5) and screw (7) on turret.

78. INSTALL COMMANDER'S CUSHION (8) ON TURRET.
   a. Install commander's cushion (8), five washers (9), and screws (10) in weldnuts (11) on turret.

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79. INSTALL VRC CONTROL BOX (1) AND MOUNT PLATE (2) ON THREE MOUNTS (3).
   a. Install VRC control box (1) and mount plate (2), three washers (4), and new locknuts (5) on mounts (3).

80. INSTALL LEAD 2W9P8 (6) IN TURRET.
   a. Push lead 2W9P8 (6) through hole in turret.
   b. Install sealing grip (7), grommet (8), washer (9), and nut (10) in turret.
NOTE
Access to lead 2W9P8 is through opening under right front armor.

81. PUSH PLUG 2W9P8 (1) THROUGH RIGHT GRENADE LAUNCHER HOLE (2).

82. INSTALL LEAD 2W9P8 (3) IN FOUR CLAMPS (4) AND BRACKET (5).
   a. (H) Turn handwheel (6) to move coax rotor (7) as needed to install six screws (8, 9).
   b. Install lead 2W9P8 (3) in four clamps (4) and bracket (5).
   c. Install bracket (10) and two screws (9) on turret.
   d. Install four clamps (4) and screws (8) on turret.
83. INSTALL PLUG 2A22P1 (1) ON JACK 2W9J2 (2).

84. INSTALL PLUG 2A21P1 (3) ON JACK 2W9J1 (4).

85. INSTALL WIRING HARNESS 2W9 (5) IN THREE CLAMPS (6).
   a. Install wiring harness 2W9 (5) in three clamps (6).
   b. Install three clamps (6) and screws (7) in weldnuts (8) on turret.
86. MANUALLY TRAVERSE TURRET TO 2400 MILS. See TM 9-2350-252-10-2.

87. REMOVE DOOR (1) FROM HE AMMO CAN (2).
   a. Turn latch (3) and lift door (1) up and out of HE ammo can (2).

88. REMOVE CABLE HANGER (4) FROM HE AMMO CAN (2).
   a. Remove two screws (5) and washers (6) from HE ammo can (2) and cable hanger (4).
   b. Remove three screws (7), washers (8), and cable hanger (4) from HE ammo can (2).
89. INSTALL LEAD 2W9J2 (1) IN TWO CLAMPS (2).
   a. Install lead 2W9J2 (1) in two clamps (2).
   b. Install two clamps (2) and screws (3) on turret.

90. INSTALL LEAD 2W9J1 (4) IN TWO CLAMPS (5).
   a. Install lead 2W9J1 (4) in two clamps (5).
   b. Install two clamps (5) and screws (6) on turret.
CAUTION
Cable can be damaged if cable does not go through notch in support. Route cable through notch in support.

91. INSTALL CABLE HANGER (1) ON HE AMMO CAN (2).
   a. Route cable 2A22 (3) through notch (4) in cable hanger (1).
   b. Install cable hanger (1), two washers (5) and screws (6) on HE ammo can (2).
   c. Install three washers (7) and screws (8) in HE ammo can (2) and cable hanger (1).

92. INSTALL DOOR (9) ON HE AMMO CAN (2).
   a. Position bottom of door (9) in cable hanger (1).
   b. Close door (9) and turn latch (10) up.

93. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

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NOTE
For right smoke grenade launcher, plug 2W9P8 is installed in jack 2A32J1. For left smoke grenade launcher, plug 2W9P2 is installed in jack 2A31J1.

94. INSTALL TWO GRENADE LAUNCHERS (1) ON TURRET.
   a. Pull plugs (2) from turret. Install plugs on jacks (3).
   b. Install two grenade launchers (1), six washers (4), and screws (5) on turret.

95. INSTALL WIRE SHIELD (6) ON SEAT TRACK (7).
   a. Install wire shield (6), two washers (8), new lock washers (9), and screws (10) on seat track (7).
96. INSTALL DISTRIBUTION BOX. See task: REPLACE DISTRIBUTION BOX, page 5-105.

97. INSTALL LEAD 2W9P1 (1) IN CLAMP (2).
   a. Install lead 2W9P1 (1) in clamp (2).
   b. Install clamp (2) and screw (3) on weldnut (4) on turret.

98. INSTALL POWER CONVERTER. See task: REPLACE POWER CONVERTER, page 21-84.


100. INSTALL 25MM AMMO GUARD GUN MOUNT. See task: REPLACE 25MM AMMO GUARD GUN MOUNT, page 26-4.


102. INSTALL ISU. See task: REMOVE/INSTALL INTEGRATED SIGHT UNIT, page 21-43.

103. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPAIR DOME LIGHT PLUG/LEAD

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Crimping tool die (Item 3, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Lock washer
- Strap

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REPAIR

NOTE
If repairing gunner's dome light, do steps 1 thru 3. If repairing commander's dome light, do steps 4 thru 7.

1. REMOVE PLUG 2W9P3 (1) FROM JACK 2A16J1 (2) ON GUNNER'S DOME LIGHT (3).

2. REMOVE GROUND LEAD (4) FROM GUNNER'S DOME LIGHT (3).
   a. Loosen screw (5) on gunner's dome light (3).
   b. Remove screw (6), ground lead (4), and lock washer (7) from gunner's dome light (3). Discard lock washer.

3. REMOVE GROUND LEAD (4) FROM CLAMP (8).
4. REMOVE PLUG 2W9P6 (1) FROM JACK 2A17J1 (2) ON COMMANDER’S DOME LIGHT (3).

5. REMOVE LEAD 2W9P6 (4) FROM CLAMP (5).
   a. Remove screw (6) and clamp (5) from turret.
   b. Remove lead 2W9P6 (4) from clamp (5).

6. REMOVE GROUND LEAD (7) FROM COMMANDER’S DOME LIGHT (3).
   a. Loosen screw (8) on commander’s dome light (3).
   b. Remove screw (9), ground lead (7), and lock washer (10) from commander’s dome light (3). Discard lock washer.

7. REMOVE STRAP (11) FROM CABLES AND GROUND LEAD (7). DISCARD STRAP.

NOTE
Do steps 8 and 9 to repair gunner’s or commander’s dome light plugs and ground leads.


NOTE
If repairing gunner's dome light, do steps 10 thru 12. If repairing commander's dome light, do steps 13 thru 16. Do step 17 for gunner's and commander's dome lights.

10. INSTALL GROUND LEAD (1) IN CLAMP (2).

11. INSTALL GROUND LEAD (1) ON GUNNER'S DOME LIGHT (3).
   a. Install new lock washer (4), ground lead (1), and screw (5) on gunner's dome light (3).
   b. Tighten screw (6) on gunner's dome light (3).

12. INSTALL PLUG 2W9P3 (7) ON JACK 2A16J1 (8) ON GUNNER'S DOME LIGHT (3).

13. INSTALL NEW STRAP (9) ON CABLES AND GROUND LEAD (10).

14. INSTALL GROUND LEAD (10) ON COMMANDER'S DOME LIGHT (11).
   a. Install new lock washer (12), ground lead (10), and screw (13) on commander's dome light (11).
   b. Tighten screw (14) on commander's dome light (11).
15. INSTALL LEAD 2W9P6 (1) IN CLAMP (2).
   a. Install lead 2W9P6 (1) in clamp (2).
   b. Install clamp (2) and screw (3) on turret.

16. INSTALL PLUG 2W9P6 (4) ON JACK 2A17J1 (5) ON COMMANDER’S DOME LIGHT.

17. CHECK OPERATION OF TURRET DOME LIGHT. See TM 9-2350-252-10-2.

END OF TASK
REPAIR/REPLACE AZIMUTH/ELEVATION INDICATOR LIGHT ASSEMBLY

DESCRIPTION

This task covers:
- Remove (page 5-290).
- Repair (page 5-292).
- Install (page 5-292).
- Adjust Elevation Light (page 5-294).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Boot
- Lamp socket
- Tin lead solder (Item 27, App C)
- Insulation sleeving
- Adhesive sealant tape (Item 5, App C)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE LAMP (1) FROM SOCKET (2).

NOTE
Azimuth and elevation lamps are removed the same way. Azimuth lamp is removed from socket 2W9DS1. Elevation lamp is removed from socket 2W9DS2.

5-290
2. REMOVE BRACKET (1) FROM SUPPORT (2).
   a. Mark position of bracket (1) on support (2).
   b. Remove screw (3), washer (4), and bracket (1) from support (2).

3. REMOVE SOCKET (5) FROM BRACKET (1).
   a. Trim 1/8 inch of boot (6) off socket (5), if necessary, to access jam nut (7).
   b. Loosen jam nut (7), and slide socket (5) from bracket (1).

4. REMOVE BOOT (6) FROM SOCKET (5).
   a. Cut boot (6), and remove from socket (5). Discard boot.

5. REMOVE LEAD (8) FROM SOCKET (5).
   a. Cut lead (8) as close as possible to solder wells (9) on socket (5).
6. REMOVE JAM NUT (1), WASHER (2), GROUND LUG (3), AND RUBBER WASHER (4) FROM SOCKET (5). DISCARD SOCKET.

NOTE
Step 7 should be done only if ground lug needs repair.

REPAIR
7. REPAIR GROUND LUG. See task: REPAIR LEAD, page 4-4.

8. STRIP INSULATION (6) FROM LEAD (7) TO LENGTH EQUAL TO DEPTH OF TWO SOLDER WELLS (8) ON NEW SOCKET (5).

9. SLIDE NEW BOOT (9) ONTO LEAD (7).

10. INSTALL RUBBER WASHER (4), GROUND LUG (3), WASHER (2), AND JAM NUT (1) ON SOCKET (5).
11. SOLDER LEAD (1) TO SOCKET (2).
   a. Solder lead (1) to solder wells (3) on socket (2).

12. SLIDE BOOT (4) OVER REAR OF SOCKET (2).

13. HEAT SHRINK BOOT (4) ON SOCKET (2).

14. INSTALL SOCKET (2) ON BRACKET (5).
   a. Slide socket (2) onto bracket (5), and tighten jam nut (6).

NOTE
Azimuth socket is installed on mount the same way elevation socket is installed on bracket.

NOTE
Step 15 should be done only if you are repairing elevation light.

15. INSTALL BRACKET (5) ON SUPPORT (7).
   a. Install bracket (5), washer (8), and screw (9) on support (7) at position marked in step 2.
Azimuth and elevation lamps are installed the same way. Azimuth lamp is installed in socket 2W9DS1. Elevation lamp is installed in socket 2W9DS2.

16. INSTALL LAMP (1) IN SOCKET (2).

18. ADJUST SOCKET (2) TO LIGHT UP TAPE (7).
   a. Loosen jam nut (8), and turn socket (2) to light up tape (7).
   b. Tighten jam nut (8).

19. INSTALL BRACKET (3) ON SUPPORT (4).
   a. Install bracket (3), washer (6), and screw (5) on support (4) at position marked in step 2.

REPLACE AZIMUTH/ELEVATION INDICATOR LIGHT LAMP

INITIAL SETUP

Materials/Parts:
Incandescent lamp

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
Azimuth and elevation lamps are removed the same way. Azimuth lamp is removed from socket 2W9DS1. Elevation lamp is removed from socket 2W9DS2.

1. REMOVE LAMP (1) FROM SOCKET (2).
   a. Remove lamp (1) and washer (3) from socket (2).

INSTALL

NOTE
Azimuth and elevation lamps are installed the same way. Azimuth lamp is installed on socket 2W9DS1. Elevation lamp is installed on socket 2W9DS2.

2. INSTALL NEW LAMP (1) IN SOCKET (2).
   a. Install washer (3) and new lamp (1) in socket (2).


END OF TASK
REPLACE PHOTOELECTRIC CONTROL JACK

DESCRIPTION

This task covers:

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Insertion tool (Item 32, App F)
- Contact removal socket (Item 25, App F)
- Crimping tool (Item 3, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Materials/Parts:
- Adhesive sealant (Item 5, App C)
- Insulation sleeving
- Electrical connector
- Connector boot

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

JACK 2W9J3

REMOVE

1. REMOVE PLUG 2A20P1 (1) FROM JACK 2W9J3 (2).

INSTALL

3. INSTALL PLUG 2A20P1 (1) ON JACK 2W9J3 (2).
4. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.
**JACK 2W9J1**

**REMOVE**

5. REMOVE CENTER TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.


7. REMOVE PLUG 2A21P1 (1) FROM JACK 2W9J1 (2).


**INSTALL**

9. INSTALL PLUG 2A21P1 (1) IN JACK 2W9J1 (2).


11. INSTALL CENTER TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

12. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.
13. **MANUALLY TRAVERSE TURRET TO HE LOAD.** See TM 9-2350-252-10-2.

14. **REMOVE DOOR (1) FROM HE AMMO CAN (2).**
   a. Turn latch (3), and lift door (1) up and out of HE ammo can (2).

15. **REMOVE SUPPORT (4) FROM HE AMMO CAN (2).**
   a. Remove two screws (5) and washers (6) from HE ammo can (2) and support (4).
   b. Remove three screws (7), washers (8), and support (4) from HE ammo can (2).
16. REMOVE PLUG 2A22P1 (1) FROM JACK 2W9J2 (2).

17. REPAIR JACK 2W9J2. See task: REPAIR MULTIPIN PLUG/JACK, RUBBER TYPE, page 4-12.

18. INSTALL PLUG 2A22P1 (1) IN JACK 2W9J2 (2).
CAUTION
Cable may get damaged if cable does not go through notch in support. Route cable through notch before you install hanger.

19. INSTALL CABLE HANGER (1) ON HE AMMO CAN (2).
   a. Route cable 2A22 (3) through notch (4) in hanger (1).
   b. Install hanger (1), two washers (5), and screws (6) on HE ammo can (2).
   c. Install three washers (7) and screws (8) in HE ammo can (2) and hanger (1).

20. INSTALL DOOR (9) ON HE AMMO CAN (2).
   a. Position bottom of door (9) in door support (10).
   b. Close door (9) and turn latch (11) up.

21. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

22. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE CABLE 2W203

DESCRIPTION

This task covers: Remove (page 5-301). Install (page 5-303).

INITIAL SETUP

Tools: Turret mechanic's tool kit (Item 31, App F)

Personnel Required: ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Self-locking nut
- Nonelectrical wire (Item 15, App C)
- Cable assembly 2W203
- Nylon strap (4)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE CENTER, RIGHT, AND STEP TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. REMOVE PLUG 2W203P1 (1) FROM JACK 2A1J7 (2).

GO TO NEXT PAGE
3. REMOVE JACK 2W203J1 (2A42J4) (1) FROM PATCHBOARD 2A42B (2).
   a. Remove cap (3) from jack 2W203J1 (2A42J4) (1).
   b. Remove lock wire (4) from jam nut (5) and patchboard 2A42B (2). Discard lock wire.
   c. Remove jam nut (5), washer (6), and jack 2W203J1 (2A42J4) (1) from patchboard 2A42B (2).

4. REMOVE CABLE 2W203 (7) FROM THREE CLAMPS (8, 9).
   a. Remove four straps (10) from cables. Discard straps.
   b. Remove two screws (11) and clamps (8) from weldnuts (12) on turret.
   c. Remove locknut (13), screw (14), and clamp (9) from turret. Discard locknut.
   d. Remove cable 2W203 (7) from three clamps (8, 9).
5. INSTALL JACK 2W203J1 (2A42J4) (1) OF NEW CABLE 2W203 (2) ON PATCH-BOARD 2A42B (3).
   
a. Install jack 2W203J1 (2A42J4) (1), washer (4), and jam nut (5) on patch-board 2A42B (3).
   
b. Install new lock wire (6) on jam nut (5) and patchboard 2A42B (3).
   
c. Install cap (7) on jack 2W203J1 (2A42J4) (1).

6. INSTALL PLUG 2W203P1 (8) ON JACK 2A1J7 (9).
7. INSTALL CABLE 2W203 (1) IN THREE CLAMPS (2, 3).
   a. Install cable 2W203 (1) in three clamps (2, 3).
   b. Install two clamps (2) and screws (4) on weldnuts (5) on turret.
   c. Install clamp (3), screw (6), and new locknut (7) on turret.
   d. Install four new straps (8) on cables.


9. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE CABLE 2W202

DESCRIPTION

This task covers: Remove (page 5-305). Install (page 5-309).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Nonelectrical wire (Item 15, App C)
- GE diagnostic cable assembly
- Nylon straps (8)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE CENTER AND RIGHT TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. REMOVE JACK 2W202J1 (2A42J3) (1) FROM PATCHBOARD 2A42B (2).
   a. Remove cap (3) from jack 2W202J1 (2A42J3) (1).
   b. Remove lock wire (4) from jam nut (5) and patchboard 2A42B (2).
   c. Remove jam nut (5), washer (6), and jack 2W202J1 (2A42J3) (1) from patchboard 2A42B (2).
3. REMOVE DISTRIBUTION BOX. See task: REPLACE DISTRIBUTION BOX, page 5-105.

4. REMOVE CABLE 2W202 (1) FROM TWO CLAMPS (2).
   a. Remove two screws (3) and two clamps (2) from weldnute (4) on turret.
   b. Remove cable 2W202 (1) from two clamps (2).

5. MANUALLY TRAVERSE TURRET TO 3300 MILS. See TM 9-2350-252-10-2.

   a. Remove two straps (7), if any, from cables. Discard straps.
7. Push plug 2W202P1 (1) behind equilibrator (2).


9. Remove door (3) from HE ammo can (4).
   a. Turn latch (5) and lift door (3) up and out of HE ammo can (4).
10. REMOVE CABLE HANGER (1) FROM HE AMMO CAN (2).
   a. Remove two screws (3) and washers (4) from HE ammo can (2) and cable hanger (1).
   b. Remove three screws (5), washers (6), and cable hanger (1) from HE ammo can (2).

11. PULL JACK 2W202J1 (2A42J3) (7) FROM CABLE HANGER (1) AND HE AMMO CAN (2).
12. REMOVE CABLE 2W202 (1) FROM TWO CLAMPS (2) AND TURRET.
   a. Remove six straps (3) from cables. Discard straps.
   b. Remove two screws (4) and clamps (9) from two weldnuts (5) on turret.
   c. Remove cable 2W202 (1) from two clamps (2) on turret.

13. PUSH JACK 2W202J1 (2A42J3) (6) OF NEW CABLE 2W202 (1) BETWEEN CABLE HANGER (7) AND HE AMMO CAN (8).
14. INSTALL JACK 2W202J1 (2A42J3) (1) ON PATCHBOARD 2A42B (2).
   a. Install jack 2W202J1 (2A42J3) (1), washer (3), and jam nut (4) on patchboard 2A42B (2).
   b. Install new lock wire (5) on jam nut (4) and patchboard 2A42B (2).
   c. Install cap (6) on jack 2W202J1 (2A42J3) (1).

15. ROUTE PLUG 2W202P1 (7) BEHIND PLUG 2W308P9 (8), BY CLAMP (9), AND BEHIND EQUILIBRATOR (10).
16. INSTALL CABLE HANGER (1) ON HE AMMO CAN (2).
   a. Route cable 2A22 (3) through notch (4) in cable hanger (1).
   b. Install cable hanger (1), two washers (5), and screws (6) on HE ammo can (2).
   c. Install three washers (7) and screws (8) in HE ammo can (2) and cable hanger (1).

17. INSTALL DOOR (9) ON HE AMMO CAN (2).
   a. Position bottom of door (9) in door support (10).
   b. Close door (9) and turn latch (11) up.
18. **MANUALLY TRAVERSE TURRET TO 3300 MILS.** See TM 9-2350-252-10-2.

19. **INSTALL PLUG 2W202P1 (1) ON JACK 2A200J4 (2).**
   b. Install two new straps (3), if any, on cables.

20. **MANUALLY TRAVERSE TURRET TO 2400 MILS.** See TM 9-2350-252-10-2.

21. **INSTALL CABLE 2W202 (4) IN TWO CLAMPS (5).**
   a. Install cable 2W202 (4) in two clamps (5).
   b. Install two clamps (5) and two screws (6) on weldnuts (7) on turret.
   c. Install six new straps (8) on cables.
22. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

23. INSTALL CABLE 2W202 (1) IN TWO CLAMPS (2).
   a. Place cable 2W202 (1) in two clamps (2).
   b. Install two screws (3) and clamps (2) on weldnuts (4) on turret.

24. INSTALL DISTRIBUTION BOX. See task: REPLACE DISTRIBUTION BOX, page 4-22.


26. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE CABLE 2A39

DESCRIPTION

This task covers: Remove (page 5-314). Install (page 5-318).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Self-locking nut
- Lock washer (2)
- Electric switch cable assembly
- Nylon strap (2)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE PLUG 2A39P1 (1) FROM JACK (2) ON CONTROL BOX (3).
2. REMOVE GUNNER'S CUSHION (1) FROM TURRET.
   a. Remove six screws (2), washers (3), and gunner's cushion (1) from turret.

3. REMOVE CABLE 2A39 (4) FROM CLAMP (5).
   a. Remove screw (6) and clamp (5) from weldnut (7) on turret.
   b. Remove cable 2A39 (4) from clamp (5).

4. REMOVE WIRE SHIELD (8) FROM SEAT TRACK (9).
   a. Remove two screws (10), lock washers (11), washers (12), and wire shield (8) from seat track (9). Discard lock washers.
REPLACE CABLE 2A39

DESCRIPTION

This task covers: Remove (page 5-314). Install (page 5-318).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Self-locking nut
- Lock washer (2)
- Electric switch cable assembly
- Nylon strap (2)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE PLUG 2A39P1 (1) FROM JACK (2) ON CONTROL BOX (3).
2. REMOVE GUNNER'S CUSHION (1) FROM TURRET.
   a. Remove six screws (2), washers (3), and gunner's cushion (1) from turret.

3. REMOVE CABLE 2A39 (4) FROM CLAMP (5).
   a. Remove screw (6) and clamp (5) from weldnut (7) on turret.
   b. Remove cable 2A39 (4) from clamp (5).

4. REMOVE WIRE SHIELD (8) FROM SEAT TRACK (9).
   a. Remove two screws (10), lock washers (11), washers (12), and wire shield (8) from seat track (9). Discard lock washers.
5. REMOVE STEP, CENTER, AND LEFT FRONT TURRET FLOOR PLATES. See task: REPLACE TURRET FLOOR PLATES, page 4-22.


8. REMOVE TWO STRAPS (1) FROM CABLES. DISCARD STRAPS.

9. REMOVE CABLES 2A39 (2) FROM THREE CLAMPS (3, 4).
   a. Remove two screws (5) and clamps (3) from weldnuts (6) on turret.
   b. Remove locknut (7), screw (8), and clamp (4) from turret. Discard locknut.
   c. Remove cable 2A39 (2) from three clamps (3, 4).
10. REMOVE CABLE 2A39 (1) FROM CLAMP (2).
   a. Remove screw (3) and clamp (2) from turret.
   b. Remove cable 2A39 (1) from clamp (2).

11. REMOVE SWITCH (4) WITH CABLE 2A39 (1) FROM SUPPORT (5).
   a. Remove two screws (6), washers (7), and switch (4) with cable 2A39 (1) from support (5).

12. REMOVE CABLE 2A39 (1) FROM TURRET.
   a. Pull plug 2A39P1 (8) through opening behind seat track (9) and through grommet (10).
   b. Remove cable 2A39 (1) from turret.
13. INSTALL SWITCH (1) WITH NEW CABLE 2A39 (2) ON SUPPORT (3).
   a. Install switch (1) with cable 2A39 (2), two washers (4), and screws (5) on support (3).

14. PUSH PLUG 2A39P1 (6) OF CABLE 2A39 (2) THROUGH GROMMET (7) AND OPENING BEHIND SEAT TRACK (8).
15. INSTALL PLUG 2A39P1 (1) ON JACK (2) ON CONTROL BOX (3).
   a. Route plug 2A39P1 (1) to control box (3).
   b. Install plug 2A39P1 (1) on jack (2) on control box (3).

16. INSTALL CABLE 2A39 (4) IN CLAMP (5).
   a. Install cable 2A39 (4) in clamp (5).
   b. Install clamp (5) and screw (6) on turret.
17. INSTALL CABLE 2A39 (1) IN THREE CLAMPS (2, 3).
   a. Install cable 2A39 (1) in three clamps (2, 3).
   b. Install two clamps (2) and screws (4) on weldnuts (5) on turret.
   c. Install clamp (3), screw (6), and new locknut (7) on turret.

18. INSTALL TWO NEW STRAPS (8) ON CABLES.


22. INSTALL WIRE SHIELD (1) ON SEAT TRACK (2).
   a. Install wire shield (1), two washers (3), new lock washers (4), and screws (5) on seat track (2).

23. INSTALL CABLE 2A39 (6) IN CLAMP (7).
   a. Install cable (6) in clamp (7).
   b. Install clamp (7) and screw (8) on weldnut (9) on turret.

24. INSTALL GUNNER'S CUSHION (10) ON TURRET.
   a. Install gunner's cushion (10), six washers (11), and screws (12) on turret.

25. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE CABLE 2A41

DESCRIPTION

This task covers: Remove (page 5-322). Install (page 5-323).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Cable assembly

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE SWITCH (1) FROM BRACKET (2).
   a. Remove nut (3), lock washer (4), switch (1), and tab washer (5) from bracket (2).

2. REMOVE CABLE 2A41 (6) FROM SIX CLAMPS (7).
   a. Remove six screws (8) and clamps (7) from weldnuts (9) on turret.
   b. Remove cable 2A41 (6) from six clamps (7).
3. REMOVE PLUG 2A41P1 (1) FROM JACK (2) ON CONTROL BOX (3).
   a. Remove plug 2A41P1 (1) from jack (2) on control box (3).
   b. Remove cable 2A41 (4) from turret.

4. INSTALL PLUG 2A41P1 (1) ON JACK (2) ON CONTROL BOX (3).
   b. Install plug 2A41P1 (1) on jack (2) on control box (3).

5. INSTALL CABLE 2A41 (4) IN SIX CLAMPS (5).
   a. Install cable 2A41 (4) in six clamps (5).
   b. Install six clamps (5) and screws (6) on weldnuts (7) on turret.
NOTE
Small hole in handle should line with tab washer.

6. INSTALL SWITCH (1) ON BRACKET (2).
   a. Install tab washer (3) on switch (1).
   b. Install switch (1) on bracket (2) with switch threads slot up.
   c. Install lock washer (4) and nut (5) on switch (1).

7. RETURN TO ORIGINAL SYMPTOM.
   VERIFY NO FAULT.

END OF TASK
### Section XVII. MAINTENANCE OF PHOTOELECTRIC CONTROLS

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NOTE
Small hole in handle should aline with tab washer.

6. INSTALL SWITCH (1) ON BRACKET (2).
   a. Install tab washer (3) on switch (1).
   b. Install switch (1) on bracket (2) with switch threads slot up.
   c. Install lock washer (4) and nut (5) on switch (1).

7. RETURN TO ORIGINAL SYMPTOM.
   VERIFY NO FAULT.

END OF TASK
### Section XVII. MAINTENANCE OF PHOTOELECTRIC CONTROLS

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REPAIR/REPLACE HE PHOTOELECTRIC CONTROL

DESCRIPTION

This task covers: Remove (page 5-326). Repair (page 5-327). Install (page 5-328).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. MANUALLY TRAVERSE TURRET TO HE LOAD (2150 MILS). See TM 9-2350-252-10-2.

2. REMOVE DOOR (1) FROM AMMO CAN (2).
   a. Turn latch (3) and lift door (1) up and out of ammo can (2).
4. REMOVE HANGER (2) FROM AMMO CAN (4).
   a. Remove two screws (5) and washers (6) from ammo can (4) and hanger (2).
   b. Remove three screws (7), washers (8), and hanger (2) from ammo can (4).

5. REMOVE PLUG 2A22P1 (9) FROM JACK 2W9J2 (10).

REPAIR


GO TO NEXT PAGE
7. INSTALL PLUG 2A22P1 (1) ON JACK 2W9J2 (2).

CAUTION
Cable may be damaged if it does not go through notch in support. Cable should be routed through notch before support is installed.

8. INSTALL SUPPORT (3) ON AMMO CAN (4).
   a. Route cable 2A22 (5) through notch (6) in support (3).
   b. Install support (3), two washers (7), and screws (8) on ammo can (4).
   c. Install three washers (9) and screws (10) on ammo can (4) and support (3).
9. INSTALL CONTROL (1) ON SUPPORT (2).
   a. Loosen two screws (3).
   b. Install two screws (4) and control (1) on hanger (2).
   c. Tighten two screws (3).

10. INSTALL DOOR (5) ON AMMO CAN (6).
    a. Position bottom of door (5) in door hanger (7).
    b. Close door (5) and turn latch (8) up.

11. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

12. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPAIR/REPLACE 7.62MM PHOTOELECTRIC CONTROL

DESCRIPTION

This task covers: Remove (page 5-330). Repair (page 5-331). Install (page 5-331).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Self-locking nut (2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
Plug is located behind ammo box.

1. REMOVE PLUG 2A20P1 (1) FROM JACK 2W9J3 (2).

2. REMOVE CONTROL (3) FROM AMMO BOX (4).
   a. Remove two locknuts (5), washers (6), screws (7), and control (3) from ammo box (4). Discard locknuts.

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4. INSTALL CONTROL (1) ON AMMO BOX (2).
   a. Install control (1), two screws (3), washers (4), and new locknuts (5) on ammo box (2).

5. INSTALL PLUG 2A20P1 (6) ON JACK 2W9J3 (7).

6. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPAIR/REPLACE AP PHOTOELECTRIC CONTROL

DESCRIPTION

This task covers: Remove (page 5-332). Repair (Page 5-334). Install (page 5-334).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Self-locking nut (2)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE CENTER TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

2. REMOVE POWER CONVERTER. See task: REPLACE POWER CONVERTER, page 21-84.

3. REMOVE RETAINER (1) FROM AP AMMO CAN (2).
   a. Remove two screws (3), washers (4), and retainer (1) from AP ammo can (2).
4. REMOVE LEAD 2A21 (1) FROM TURRET FLOOR.
   a. Remove plug 2A21P1 (2) from jack 2W9J1 (3).
   b. Remove screw (4) and clamp (5) from post (6) on turret floor.
   c. Remove clamp (5) from lead 2A21 (1).
   d. Pull lead 2A21 (1) through space between AP ammo can (7) and turret floor.

5. REMOVE CONTROL (8) FROM BRACKET (9).
   a. Remove two locknuts (10), screws (11), and control (8) from bracket (9). Discard locknuts.

7. INSTALL CONTROL (1) ON BRACKET (2).
   a. Route lead 2A21 (3) through hole (4) in bracket (2).
   b. Install control (1), two screws (5), and new locknuts (6) on bracket (2).

8. INSTALL LEAD 2A21 (3) ON TURRET FLOOR.
   a. Push lead 2A21 (3) through space between AP ammo can (7) and turret floor.
   b. Install clamp (8) on lead 2A21 (3).
   c. Install clamp (8) and screw (9) on post (10) on turret floor.

9. INSTALL RETAINER (13) ON AP AMMO CAN (7).
   a. Install retainer (13), two washers (14), and screws (15) on AP ammo can (7).

10. INSTALL POWER CONVERTER. See task: REPLACE POWER CONVERTER, page 21-84.

11. INSTALL CENTER TURRET FLOOR PLATE. See task: REPLACE TURRET FLOOR PLATES, page 4-22.

12. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

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REPLACE WIRING HARNESS 2W12

DESCRIPTION

This task covers: Remove (page 5-336). Install (page 5-339).

INITIAL SETUP

Tools:

- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:

- Nonelectrical wire (Item 15, App C)
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Special cable assembly

Equipment Conditions:

- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:

- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE 25MM GUN BARREL.
   See TM 9-2350-252-10-2.

2. REMOVE 25MM GUN FEEDER:
   See TM 9-2350-252-10-2.

3. REMOVE 25MM GUN RECEIVER.
   See TM 9-2350-252-10-2.

4. REMOVE COAX MACHINE GUN.
   See TM 9-2350-252-10-2.

5. REMOVE JACK 2W12J4 (1) FROM BRACKET (2).
   a. Remove lock wire (3) from jam nut (4).
      Discard lock wire.
   b. Remove jam nut (4) and jack 2W12J4 (1) from bracket (2).
6. REMOVE WIRING HARNESS 2W12 (1) FROM TWO CLAMPS (2).
   a. Remove two screws (3) and clamps (2) from coax rotor (4).
   b. Remove wiring harness 2W12 (1) from two clamps (2).

   NOTE
   Step 7 should be done only if bracket needs replacing.

7. REMOVE BRACKET (5) FROM COAX ROTOR (4).
   a. Remove two screws (6), washers (7), and bracket (5) from coax rotor (4).


9. REMOVE JACK 2W12J1 (8) FROM BRACKET (9).
   a. Remove plug 2W10P3 (10) from jack 2W12J1 (8) on bracket (9).
   b. Remove lock wire (11) from jam nut (12). Discard lock wire.
   c. Remove jam nut (12) and jack 2W12J1 (8) from bracket (9).

GO TO NEXT PAGE
10. REMOVE WIRING HARNESS 2W12 (1) FROM TWO CLAMPS (2).
   a. Remove two screws (3) and clamps (2) from 25mm rotor (4).
   b. Remove wiring harness 2W12 (1) from two clamps (2).

NOTE
Step 11 should be done only if bracket needs replacing.
In some vehicles the bracket is mounted with screws. In some vehicles the bracket is welded on. Remove bracket only if it is mounted with screws.

11. REMOVE BRACKET (5) FROM 25MM ROTOR (4).
   a. Remove two screws (6) and bracket (5) from 25mm rotor (4).
12. PULL Wiring Harness 2W12 (1) Through Mounting Hole (2) AND Remove FROM Turret.

13. PUSH New Wiring Harness 2W12 (1) Through Mounting Hole (2).

14. INSTALL Bracket (3) ON 25MM Rotor (4).
   a. Apply primer to threads of two screws (5).
   b. Apply sealing compound to threads of two screws (5).
   c. Install bracket (3) and two screws (5) on 25mm rotor (4).

NOTE
Step 14 should be done only if bracket was removed in step 11.
15. INSTALL WIRING HARNESS 2W12 (1) ON TWO CLAMPS (2).
   a. Apply primer to threads of two screws (3).
   b. Apply sealing compound to threads of two screws (3).
   c. Install wiring harness 2W12 (1) on two clamps (2).
   d. Install two clamps (2) and screws (3) on 25mm rotor (4).

16. INSTALL JACK 2W12J1 (5) ON BRACKET (6).
   a. Install jack 2W12J1 (5) and jam nut (7) on bracket (6).
   b. Install new lockwire (8) on jam nut (7).
   c. Install plug 2W10P3 (9) on jack 2W12J1 (5).

NOTE
Step 18 should be done only if bracket was removed in step 7.

18. INSTALL BRACKET (1) ON COAX ROTOR (2).
   a. Apply primer to threads of two screws (3).
   b. Apply sealing compound to threads of two screws (3).
   c. Install bracket (1), two washers (4), and screws (3) on coax rotor (2).

19. INSTALL WIRING HARNESS 2W12 (5) ON TWO CLAMPS (6).
   a. Apply primer to threads of two screws (7).
   b. Apply sealing compound to threads of two screws (7).
   c. Install wiring harness 2W12 (5) on two clamps (6).
   d. Install two clamps (6) and screws (7) on coax rotor (2).
20. INSTALL JACK 2W12J4 (1) ON BRACKET (2).
   a. Install jack 2W12J4 (1) and jam nut (3) on bracket (2).
   b. Install new lock wire (4) on jam nut (3).


25. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPAIR CABLE CONNECTOR PLUG 2W12

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REPAIR

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.
4. REMOVE PLUG 2W12P1 (1) FROM JACK 2A10 + (2).
5. REMOVE PLUG 2W12P2 (3) FROM JACK 2A10-(4).

GO TO NEXT PAGE
8. INSTALL PLUG 2W12P2 (1) ON JACK 2A10-(2).

9. INSTALL PLUG 2W12P1 (3) ON JACK 2A10 + (4).


13. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

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ADJUST COMMANDER'S HATCH COVER SCREW

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. OPEN AND SECURE HATCH COVER IN POP-UP POSITION WITH HATCH COVER SECURED IN THE LEVEL POSITION. See TM 9-2350-252-10-2.

2. ADJUST SCREW (1).
   a. Loosen jam nut (2) and turn screw (1) until it touches hatch cover (3).
   b. Back screw (1) off 1/8 turn and tighten jam nut (2).

3. CLOSE AND SECURE HATCH COVER. See TM 9-2350-252-10-2.
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3. INSTALL NEW SPRINGS (1) IN SHIELD (2).
   a. Apply coat of grease to 10 springs (1).
   b. Stack 10 springs (1) on clean surface so all ends and edges align.
   c. Align springs (1) with hinge screw holes (3) as shown.
   d. Insert stack of springs (1) in shield (2). Seat springs in socket at other end of shield.

4. INSTALL RETAINER (4) ON HINGE (5).
   a. Align screw holes in retainer (4) with screw holes in hinge (5).
   b. Engage springs in socket of retainer (4).
   c. Press retainer (4) against hinge (5), and hold.
   d. Install two washers (6) and screws (7) in retainer (4).
   e. TORQUE TWO SCREWS (7) TO 22-24 FT-LB (3.0-3.3 MKG).

5. CLOSE AND SECURE HATCH COVER.
   See TM 9-2350-252-10-2.

END OF TASK
REPLACE GUNNER'S HATCH TORSION SPRINGS

DESCRIPTION

This task covers: Remove (page 6-4). Install (page 6-5).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Molybdenum grease (Item 14, App C)
- Spring (10)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. (H) OPEN AND HOLD HATCH COVER IN VERTICAL POSITION. DO NOT SECURE. See TM 9-2350-252-10-2.

   NOTE
   Position of old springs should be noted so that new springs can be placed in same position.

2. REMOVE SPRINGS (1) FROM SHIELD (2).
   a. Remove two screws (3), washers (4), and retainer (5) from hinge (6).
   b. Remove 10 springs (1) from shield (2).
3. INSTALL NEW SPRINGS (1) IN SHIELD (2).
   
a. Apply coat of grease to 10 springs (1).
   
b. Stack 10 springs (1) on clean surface so all ends and edges align.
   
c. Align springs (1) with hinge screw holes (3) as shown.
   
d. Insert stack of springs (1) in shield (2). Seat springs in socket at other end of shield.

4. INSTALL RETAINER (4) ON HINGE (5).
   
a. Align screw holes in retainer (4) with screw holes in hinge (5).
   
b. Engage springs in socket of retainer (4).
   
c. Press retainer (4) against hinge (5), and hold.
   
d. Install two washers (6) and screws (7) in retainer (4).
   
e. TORQUE TWO SCREWS (7) TO 22-24 FT-LB (3.0-3.3 MKG).

5. CLOSE AND SECURE HATCH COVER.
   See TM 9-2350-252-10-2.

END OF TASK
REPLACE GUNNER'S HATCH COVER

DESCRIPTION

This task covers: Remove (page 6-6). Install (page 6-7).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Cotter pin
- Vehicle hatch door
- Torque spacer (3)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE HATCH COVER CUSHIONING PAD. See task: REPLACE GUNNER'S HATCH COVER CUSHIONING PAD, page 6-16.

2. REMOVE STRIKE. See task: REPLACE COMMANDER'S/GUNNER'S LATCH STRIKE, page 6-42.

3. REMOVE TORSION SPRINGS. See task: REPLACE GUNNER'S HATCH TORSION SPRINGS, page 6-4.

4. REMOVE HATCH COVER (1) FROM HINGES (4).
   a. Remove shield (2) and three torque spacers (3) from hatch cover (1) and hinges (4). Discard torque spacers.
   b. Lift hatch cover (1) from turret and place on work surface with outside of hatch cover facing up. Have helper assist.
5. REMOVE HOLD-UP PIN (1) FROM HATCH COVER (2).
   a. Remove cotter pin (3) and washer (4) from hold-up pin (1). Discard cotter pin.
   b. Remove hold-up pin (1) from hatch cover (2).

6. INSTALL HOLD-UP PIN (1) ON NEW HATCH COVER (2).
   a. Install hold-up pin (1) in hatch cover (2).
   b. Install washer (4) and new cotter pin (3) on hold up pin (1).

7. INSTALL HATCH COVER (2) ON HINGES (5).
   a. Align hatch cover (2) on hinges (5).
      Have helper assist.
   b. Install shield (6) and three new torque spacers (7) on hatch cover (2) and hinges (5).

8. INSTALL TORSION SPRINGS. See task: REPLACE GUNNER'S HATCH TORSION SPRINGS, page 6-4.


11. INSTALL HATCH COVER CUSHIONING PAD. See task: REPLACE GUNNER'S HATCH COVER CUSHIONING PAD, page 6-16.

12. CLOSE AND SECURE HATCH COVER. See TM 9-2350-252-10-2.

END OF TASK
REPAIR GUNNER’S HATCH COVER LOCKING LATCH MECHANISM

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Cotter pin

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REPAIR


2. REMOVE LEVER (1) AND SPRING (2) FROM LATCH SUPPORT (3).
   a. Remove cotter pin (4) and washer (5) from straight pin (6). Discard cotter pin.
   b. Remove straight pin (6), lever (1), and spring (2) from latch support (3).
3. REMOVE LATCH SUPPORT (1) FROM TURRET.
   a. Remove two screws (2), washers (3), latch support (1), and shim(s) (4), if any, from turret.

4. INSTALL LATCH SUPPORT (1) ON TURRET.
   a. Install shim(s) (4), if any, latch support (1), two washers (3), and screws (2) on turret.
   b. TORQUE TWO SCREWS (2) TO 22-24 FT-LB (3.0-3.3 MKG).

5. INSTALL LEVER (5) AND SPRING (6) ON LATCH SUPPORT (1).
   a. Place spring (6) on lever (5) so “U” of spring is over lever and centers of coil aline with hole in lever.
   b. Hold lever (5) with spring (6) between holes in latch support (1).
   c. Slide straight pin (7) through holes in latch support (1), coils in spring (6), and lever (5).
   d. Install washer (8) and new cotter pin (9) on straight pin (7).


7. CLOSE AND SECURE HATCH COVER. See TM 9-2350-252-10-2.

END OF TASK
REPAIR GUNNER’S HATCH HOLD-OPEN LATCH

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Cotter pin (2)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REPAIR

1. REMOVE QUICK RELEASE PIN (1) FROM BRACKET (2).
2. REMOVE LATCH (1) AND SPRING (2) FROM MOUNT (3).
   a. Remove two cotter pins (4) and washers (5) from straight pin (6). Discard cotter pins.
   b. Remove straight pin (6), latch (1), and spring (2) from mount (3).

3. REMOVE SPRING (2) FROM LATCH (1).

4. REMOVE MOUNT (3) FROM TURRET.
   a. Remove three screws (7), washers (8), mount (3), and shim(s) (9) from turret.

GO TO NEXT PAGE
5. INSTALL MOUNT (1) ON TURRET.
   a. Install shim(s) (2), mount (1), three washers (3), and screws (4) on turret.
   b. TORQUE SCREWS (4) TO 22-24 FT-LB (3.0-3.3 MKG).

6. INSTALL SPRING (5) ON LATCH (6).

7. INSTALL LATCH (6) AND SPRING (5) ON MOUNT (1).
   a. Install latch (6), spring (5), and straight pin (7) on mount (1).
   b. Install two washers (8) and new cotter pins (9) in straight pin (7).
8. INSTALL QUICK RELEASE PIN (1) IN BRACKET (2).


END OF TASK
REPLACE GUNNER'S HATCH RUBBER BUMPER

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Rubber bumper

Personnel Required:
- ITV/IFVICFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE BUMPER (1) FROM TURRET.
   a. Remove bumper (1), washer (2), and shim (3) from turret. Use slip-joint pliers (4).

INSTALL

2. INSTALL NEW BUMPER (1) ON TURRET.
   a. Install shim (3), washer (2), and bumper (1) on turret. Use slip-joint pliers (4).


4. ADJUST BUMPER (1).
   a. Add or subtract washers (2) as needed until hatch cover (5) compresses bumper (1) 1/4 to 1/2 inch, with hatch cover (5) opened and latched.

END OF TASK
REPAIR GUNNER'S HATCH COVER SEAL

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Adhesive (Item 3, App C)
Round rubber seal

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

REMOVE


2. REMOVE SEAL (1) FROM HATCH COVER (2). DISCARD SEAL.

INSTALL

3. INSTALL NEW SEAL (1) ON HATCH COVER (2).
   a. Apply adhesive to mounting surface (3) on hatch cover (2).
   b. Press seal (1) onto mounting surface (3) on hatch cover (2).

4. CLOSE AND SECURE HATCH COVER. See TM 9-2350-252-10-2.

END OF TASK
REPLACE GUNNER'S HATCH COVER CUSHIONING PAD

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Cushioning pad

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE


2. REMOVE PAD (1) FROM HATCH COVER (2).
   a. Remove four screws (3), washers (4), and pad (1) from hatch cover (2).

INSTALL

3. INSTALL NEW PAD (1) ON HATCH COVER (2).
   a. Install pad (1), four washers (4), and screws (3) on hatch cover (2).

4. CLOSE AND SECURE HATCH COVER. See TM 9-2350-252-10-2.

END OF TASK
REPLACE GUNNER’S HATCH OPENING CUSHIONING PADS

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Cushioning pad

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)
- Weapons unloaded and safe (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE


2. REMOVE TWO PADS (1, 2) FROM TURRET.
   a. Remove 11 screws (3), washers (4), and two pads (1, 2) from turret.

INSTALL

3. INSTALL TWO NEW PADS (1, 2) IN TURRET.
   a. Install two pads (1, 2), 11 washers (4), and screws (3) in turret.

4. CLOSE AND SECURE HATCH COVER.
   See TM 9-2350-252-10-2.

END OF TASK
REPLACE COMMANDER'S HATCH COVER

DESCRIPTION

This task covers: Remove (page 6-18). Install (page 6-19).

INITIAL SETUP

Materials/Parts:
- Vehicle hatch door

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H) (2)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE


2. REMOVE STRIKE. See task: REPLACE COMMANDER'S/GUNNER'S LATCH STRIKE, page 6-42.

3. REMOVE PAD. See task: REPLACE COMMANDER'S HATCH COVER CUSHIONING PAD, page 6-30.


5. REMOVE PIVOT PINS. See task: REPLACE COMMANDER'S HATCH COVER PIVOT PINS, page 6-37.

6. LIFT HATCH COVER (1) FROM SUPPORT (2). HAVE TWO HELPERS ASSIST.
INSTALL

7. ALINE NEW HATCH COVER (1) WITH SUPPORT (2). HAVE TWO HELPERS ASSIST.

8. INSTALL PIVOT PINS. See task: REPLACE COMMANDER'S HATCH COVER PIVOT PINS, page 6-37.


11. INSTALL NEW SEAL. See task: REPLACE COMMANDER'S HATCH COVER SEAL, page 6-41.


13. ADJUST COMMANDER'S HATCH COVER SCREW. See page 6-3.

END OF TASK
REPLACE COMMANDER'S HATCH TORSION SPRINGS

DESCRIPTION

This task covers: Remove (page 6-20). Install (page 6-21).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

Materials/Parts:
- Molybdenum grease (Item 14, App C)
- Torsion spring (20)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. (H) OPEN AND HOLD HATCH COVER IN VERTICAL POSITION. DO NOT SECURE. See TM 9-2350-252-10-2.

   WARNING
   Torsion springs or bars can fly out and injure you. Make sure spring tension is released before you start work.

   NOTE
   Position of springs should be noted for later installation.

2. REMOVE 20 SPRINGS (1) FROM SPACER (2).
   a. Remove two screws (3) and washers (4) from retainer (5).
   b. Remove retainer (5) from hinge (6).
   c. Remove 20 springs (1) from spacer (2).
3. INSTALL 20 NEW SPRINGS (1) IN SPACER (2).
   a. Apply coat of grease to 20 springs (1).
   b. Stack 20 springs (1) on clean surface so all ends and edges line.
   c. Pick up stack of springs (1) and align springs with screw holes in hinge (3).
   d. Insert stack of springs (1) into spacer (2) and engage ends in socket at end of spacer.

4. INSTALL RETAINER (4) ON HINGE (3).
   a. Aline screw holes in retainer (4) with screw holes in hinge (3).
   b. Engage springs (1) in socket of retainer (4).
   c. Press retainer (4) against hinge (3) and hold.
   d. Install two washers (5) and screws (6) in retainer (4).
   e. TORQUE TWO SCREWS (6) TO 22-24 FT-LB (3.0-3.3 MKG).

5. CLOSE AND SECURE HATCH COVER.
   See TM 9-2350-252-10-2.

END OF TASK
REPLACE COMMANDER'S HATCH COVER SUPPORT

DESCRIPTION

This task covers: Remove (page 6-22). Install (page 6-23).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Hatch door support

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H) (2)

REMOVE

1. REMOVE TORSION SPRINGS. See task: REPLACE COMMANDER'S HATCH TORSION SPRINGS, page 6-20.

2. REMOVE SCREW (1) AND JAM NUT (2) FROM SUPPORT (3).

3. REMOVE PIVOT PINS. See task: REPLACE COMMANDER'S HATCH COVER PIVOT PINS, page 6-37.
2. Number, position, and thickness of ring spacers should be noted before taking support apart. Shims vary with each vehicle.

3. Screws on left and right hinges may have to be loosened to remove spacer from support and hinges.

5. REMOVE SUPPORT (2) FROM TWO HINGES (3). HAVE HELPER ASSIST.
   a. Remove ringspacer (4) and sleeve spacers (5) from support (2) and two hinges (3).
   b. Remove support (2) from two hinges (3).

4. REMOVE HATCH COVER (1) FROM SUPPORT (2). HAVE HELPERS ASSIST.

NOTE
Ring spacers must be in the same position as when removed in step 5.

Screws on left and right hinges must be tightened after step 6 if they were loosened in step 5.

6. INSTALL NEW SUPPORT (2) ON TWO HINGES (3). HAVE HELPER ASSIST.
   a. Aline support (2) on two hinges (3).
   b. Install ring spacer (4) and sleeve spacers (5) on support (2) and two hinges (3).

GO TO NEXT PAGE
9. INSTALL SCREW (3) AND JAM NUT (4) IN SUPPORT (2).

10. ADJUST COMMANDER'S HATCH COVER SCREW. See page 6-3.


END OF TASK
REPAIR COMMANDER'S HATCH COVER HOLD-OPEN LATCH

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Machinist vise — 4 inch jaw (Item 33, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Helical compression spring
- Primer, grade N (Item 21, App C)
- Sealant, grade A (Item 20, App C)
- Self-locking nut
- Spring pin

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REPAIR

1. OPEN COMMANDER'S HATCH COVER TO FULL OPEN POSITION. See TM 9-2350-252-10-2.

   NOTE
   Number and thickness of shims should be noted before removing bracket.

2. REMOVE BRACKET (1) WITH HANDLE (2) FROM TURRET.
   a. Remove three screws (3), washers (4), bracket (1) with handle (2), and shim(s) (5) from turret.

GO TO NEXT PAGE
3. REMOVE SHOULDER PIN (1) AND SPRING (2) FROM HANDLE (3) AND BRACKET (4).
   a. Place handle (3) in vise, and remove spring pin (5) from handle (3) and shoulder pin (1). Discard spring pin.
   b. Remove shoulder pin (1) and spring (2) from bracket (4) and handle (3). Discard spring.

4. REMOVE BRACKET (4) FROM HANDLE (3).
   a. Remove locknut (6), washer (7), screw (8), and bracket (4) from handle (3). Discard locknut.

6. INSTALL SHOULDER PIN (1) AND NEW SPRING (2) ON HANDLE (3) AND BRACKET (4).
   a. Align shoulder pin (1) and new spring (2) in bracket (4) and handle (3).
   b. Install new spring pin (5) through handle (3) and shoulder pin (1). Spring pin (5) must protrude an equal distance from each side of handle (3).
   c. Remove handle (3) from vise.

5. INSTALL BRACKET (4) ON HANDLE (3).
   a. Install bracket (4), screw (8), washer (7), and new locknut (6) on handle (3).
7. INSTALL BRACKET (4) WITH HANDLE (3) ON TURRET.
   a. Apply primer to threads of three screws (1).
   b. Apply sealant to threads of three screws (1).

NOTE
Install same number and thickness of shims as removed in step 2.

   c. Install shim(s) (2), bracket (3) with handle (4), three washers (5), and screws (1) on turret.
   d. TORQUE THREE SCREWS (1) TO 22-24 FT-LB (3.0-3.3 MKG).

8. CHECK OPERATION OF COMMANDER'S HOLD-OPEN LATCH. See TM 9-2350-252-10-2.

END OF TASK
REPAIR COMMANDER'S HATCH COVER PIVOT LOCKING MECHANISM

INITIAL SETUP

Tools:
- Turret mechanic's toolkit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Lock washer (3)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REPAIR


2. REMOVE LATCH COVER (1) FROM HATCH COVER (2).
   a. Remove two screws (3), lock washers (4), and latch cover (1) from hatch cover (2). Discard lock washers.

3. REMOVE LEVER (5) AND SHIM (6) FROM HATCH COVER (2).
   a. Remove screw (7), lock washer (8), lever (5), and shim (6) from hatch cover (2). Discard lock washer.
4. REMOVE SHOULDER PIN (1) AND SPRING (2) FROM HATCH COVER (3).
   a. Pull shoulder pin (1) through pin opening (4) in hatch cover (3), and remove shoulder pin from hatch cover.
   b. Remove spring (2) from hatch cover (3).

5. INSTALL SPRING (2) AND SHOULDER PIN (1) ON HATCH COVER (3).
   a. Position spring (2) in hatch cover (3).
   b. Position shoulder pin (1) with slot facing away from hatch cover (3). Push shoulder pin into pin opening (4) in hatch cover.

6. INSTALL SHIM (5) AND LEVER (6) ON HATCH COVER (3).
   a. Position shim (5) and lever (6) on hatch cover (3) with lever in slot on shoulder pin (1).
   b. Install new lock washer (7) and screw (8) on lever (6).

7. INSTALL LATCH COVER (9) ON HATCH COVER (3).
   a. Install latch cover (9), two new lock washers (10), and screws (11) on hatch cover (3).

8. CLOSE AND SECURE HATCH COVER. See TM 9-2350-252-10-2.
REPLACE COMMANDER'S HATCH COVER CUSHIONING PAD

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Cushioning pad

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE


2. REMOVE PAD (1) FROM HATCH COVER (2).
   a. Remove five screws (3), washers (4), clips (5), and pad (1) from hatch cover (2).

INSTALL

3. INSTALL NEW PAD (1) ON HATCH COVER (2).
   a. Install pad (1), five clips (5), washers (4), and screws (3) on hatch cover (2).

4. CLOSE AND SECURE HATCH COVER. See TM 9-2350-252-10-2.

END OF TASK
REPLACE COMMANDER’S HATCH COVER RIGHT HINGE

INITIAL SETUP
Tools:
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Hinge

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

NOTE
Position of shim(s) should be marked for later installation.

1. REMOVE SUPPORT. See task: REPLACE COMMANDER’S HATCH COVER SUP- PORT, page 6-22.

2. REMOVE RIGHT HINGE (1) FROM TURRET.
   a. Remove two screws (2), washers (3), right hinge (1), and shim(s) (4) from turret.

3. INSTALL NEW RIGHT HINGE (1) ON TURRET.
   a. Install shim(s) (4), right hinge (1), two washers (3), and screws (2) on turret.
   b. TORQUE TWO SCREWS (2) TO 54-59 FT-LB (7.5-8.2 MKG).


END OF TASK
REPLACE COMMANDER'S HATCH COVER LEFT HINGE

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Access door hinge
- Adhesive (Item 3, App C)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- Equipment Conditions:
  - Engine stopped (TM 9-2350-252-10-1)
  - Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
Position of shim(s) should be marked for later installation.

1. REMOVE SUPPORT. See task: REPLACE COMMANDER'S HATCH COVER SUPPORT, page 6-22.

2. REMOVE LEFT HINGE (1) FROM TURRET.
   a. Remove four screws (2), washers (3), left hinge (1), and shim(s) (4) from turret.

INSTALL

3. INSTALL NEW LEFT HINGE (1) ON TURRET.
   a. Install shim(s) (4), left hinge (1), four washers (3), and screws (2) on turret.
   b. TORQUE FOUR SCREWS (2) TO 54–59 FT-LB (7.5–8.2 MKG).
   c. Apply adhesive to outer surface of shims (4).


END OF TASK

6-32
REPLACE COMMANDER'S HATCH SIDE PADS

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Cushioning pad
- Cushioning pad

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE


2. REMOVE TWO PADS (1, 2) FROM TURRET.
   a. Remove eight screws (3), washers (4), and two pads (1, 2) from turret.

INSTALL

3. INSTALL TWO NEW PADS (1, 2) ON TURRET.
   a. Install two pads (1, 2), eight washers (4), and screws (3) on turret.

CLOSE AND SECURE HATCH COVER.
See TM 9-2350-252-10-2.

END OF TASK
REPAIR COMMANDER'S HATCH COVER LOCKING LATCH MECHANISM

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Cotter pin
- Self-locking nut

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

REPAIR


2. REMOVE BRACKET (1) FROM LEVER (2).
   a. Remove locknut (5), screw (3), washer (4), and bracket (1) from lever (2). Discard locknut.

3. REMOVE LEVER (2) AND SPRING (6) FROM LATCH SUPPORT (7).
   a. Remove cotter pin (8), and washer (9) from straight pin (10). Discard cotter pin.
   b. Remove straight pin (10), lever (2), and spring (6) from latch support (7).
4. REMOVE LATCH SUPPORT (1) FROM TURRET.
   a. Remove two screws (2), washers (3), latch support (1), and shim(s) (4), if any, from turret.

5. INSTALL LATCH SUPPORT (1) ON TURRET.
   a. Install shim(s) (4), if any, latch support (1), two washers (3), and screws (2) on turret.
   b. TORQUE TWO SCREWS (2) TO 22-24 FT-LB (3.0-3.3 MKG).

6. INSTALL LEVER (5) AND SPRING (6) ON LATCH SUPPORT (1). HAVE HELPER ASSIST.
   a. Place spring (6) on lever (5) so “U” of spring is over lever and centers of coil align with hole in lever.
   b. Hold lever (5) with spring (6) between holes in latch support (1).
   c. Slide straight pin (7) through holes in latch support (1), coils in spring (6), and lever (5).
   d. Install washer (8) and new cotter pin (9) on straight pin (7).

GO TO NEXT PAGE
7. INSTALL BRACKET (1) ON LEVER (2).
   a. Install bracket (1), washer (3), screw (4), and new locknut (5) on lever (2).

8. CHECK OPERATION OF COMMANDER'S HATCH COVER LOCKING LATCH MECHANISM. See TM 9-2350-252-10-2.


END OF TASK
REPLACE COMMANDER’S HATCH COVER PIVOT PINS

DESCRIPTION

This task covers: Remove (page 6-37). Install (page 6-38).

INITIAL SETUP

Tools:
Turret mechanic’s tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Key washer (2)
Pin (2)

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10
Helper (H) (2)

REMOVE


2. REMOVE HATCH COVER PAD. See task: REPLACE COMMANDER’S HATCH COVER CUSHIONING PAD, page 6-30.

NOTE

There is one pin on each side of hatch cover. Both pins are removed the same way.

3. REMOVE TWO PINS (1) FROM HATCH COVER (2) AND SUPPORT (3). HAVE TWO HELPERS ASSIST.
   a. Bend tabs open on two key washers (4).
   b. Remove two screws (5), key washers (4), and brackets (6) from hatch cover (2). Discard key washers.
   c. Remove two pins (1) from hatch cover (2) and support (3).

GO TO NEXT PAGE
INSTALL

NOTE
There is one pin on each side of hatch cover. Installation of both pins is the same.

4. INSTALL TWO NEW PINS (1) IN SUPPORT (2) AND HATCH COVER (3). HAVE TWO HELPERS ASSIST.
   a. Install two pins (1) in support (2) and hatch cover (3).
   b. Aline grooves in two pins (1) and install two brackets (4), new key washers (5), and screws (6) on hatch cover (2).
   c. TORQUE TWO SCREWS (6) TO 22-24 FT-LB (3.0-3.3 MKG).
   d. Bend tabs on two key washers (5) over brackets (4) and screws (6).

5. INSTALL HATCH COVER PAD. See task: REPLACE COMMANDER’S HATCH COVER CUSHIONING PAD, page 6-30.


7. CLOSE AND SECURE HATCH COVER. See TM 9-2350-252-10-2.

END OF TASK
REPLACE GUNNER’S HATCH COVER LEFT HINGE

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Hinge

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE HATCH COVER. See task: REPLACE GUNNER’S HATCH COVER, page 6-6.

   NOTE
   Mark position of shim(s) for later installation.

2. REMOVE LEFT HINGE (1) FROM TURRET.
   a. Remove two screws (2), washers (3), left hinge (1), and shim(s) (4) from turret.

INSTALL

3. INSTALL NEW LEFT HINGE (1) ON TURRET.
   a. Install shim(s) (4), left hinge (1), two washers (3), and screws (2) on turret.
   b. TORQUE SCREWS (2) TO 54-59 FT-LB (7.5-8.2 MKG).


END OF TASK
REPLACE GUNNER'S HATCH COVER RIGHT HINGE

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Access door hinge

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE HATCH COVER. See task: REPLACE GUNNER'S HATCH COVER, page 6-6.

   NOTE
   Mark position of shim(s) for later installation.

2. REMOVE RIGHT HINGE (1) FROM TURRET.
   a. Remove two screws (2), washers (3), right hinge (1), and shim(s) (4) from turret.

INSTALL

3. INSTALL NEW RIGHT HINGE (1) ON TURRET.
   a. Install shim(s) (4), right hinge (1), two washers (3), and screws (2) on turret.
   b. TORQUE SCREWS (2) TO 54-59 FT-LB (7.5-8.2 MKG).


END OF TASK
REPLACE COMMANDER'S HATCH COVER SEAL

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Adhesive (Item 3, App C)
- Hatch seal

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE


2. REMOVE SEAL (1) FROM HATCH COVER (2). DISCARD SEAL.

INSTALL

3. INSTALL NEW SEAL (1) ON HATCH COVER (2).
   a. Apply adhesive to mounting surface (3) on hatch cover (2).
   b. Press seal (1) onto mounting surface (3) on hatch cover (2).

4. CLOSE AND SECURE HATCH COVER. See TM 9-2350-252-10-2.

END OF TASK
REPLACE COMMANDER’S/GUNNER’S LATCH STRIKE

DESCRIPTION

This task covers: Remove (page 6-42). Install (page 6-43).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Catch strike

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

NOTE
If commander's strike is removed, do step 1. If gunner's strike is removed, go to step 2.


NOTE
Removal of commander’s and gunner’s strike is the same. Gunner’s strike is shown here.

3. REMOVE STRIKE (1) FROM HATCH COVER (2).
   a. Remove two screws (3), washers (4), and strike (1) from hatch cover (2).
INSTALL

NOTE
Installation of commander's and gunner's strike is the same. Gunner's strike is shown here.

4. INSTALL NEW STRIKE (1) ON HATCH COVER (2).
   a. Install strike (1), two washers (3), and screws (4) on hatch cover (2).
   b. TORQUE TWO SCREWS (4) TO 22-24 FT-LB (3.0-3.3 MKG).

NOTE
If gunner's strike is installed, go to step 5. If commander's strike is installed, go to step 6.

5. CLOSE AND SECURE GUNNER'S HATCH COVER. See TM 9-2350-252-10-2.


END OF TASK
REPLACE GUNNER'S HATCH COVER LATCH HANDLE BRACKET

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Nonrotating eye bracket

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE


2. REMOVE QUICK RELEASE PIN (1) AND CHAIN (2) FROM BRACKET (3).

3. REMOVE BRACKET (3) FROM TURRET.
   a. Raise handle (4).
   b. Remove two screws (5), washers (6), bracket (3), and spacer(s) (7), if any, from turret.

INSTALL

4. INSTALL NEW BRACKET (3) ON TURRET.
   a. Install spacer(s) (7), if any, bracket (3), two washers (6), and screws (5) on turret.
   b. TORQUE SCREWS (5) TO 22-24 FT-LB (3.0-3.3 MKG).
   c. Move handle (4) to down position.

5. INSTALL QUICK RELEASE PIN (1) AND CHAIN (2) ON BRACKET (3).


END OF TASK
REPLACE COMMANDER’S/GUNNER’S QUICK RELEASE PIN

DESCRIPTION

This task covers: Remove (page 6-61). Install (page 6-62).

INITIAL SETUP

Tools:

Turret mechanic’s tool kit (Item 31, App F)

Personnel Required:

ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:

Quick release pin
Quick release pin
Chain
Hook

References:

TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:

Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE

Step 1 should be done only if commander’s quick release pin is removed. Step 2 should be done only if gunner’s quick release pin is removed.


NOTE

Procedure for removal of commander’s and gunner’s quick release pins is the same.

3. REMOVE QUICK RELEASE PIN (1) FROM BRACKET (2).
4. REMOVE CHAIN (1) FROM BRACKET (2) AND QUICK RELEASE PIN (3).
   a. Remove hook (4) with chain (1) from bracket (2).
   b. Remove chain (1) from hook (5) on quick release pin (3). Discard chain with hook (4).

5. INSTALL NEW HOOK (4) ON NEW CHAIN (1).

NOTE
Procedure for installation of commander's and gunner's quick release pins is the same.

6. INSTALL CHAIN (1) ON NEW QUICK RELEASE PIN (3) AND BRACKET (2).
   a. Install chain (1) on hook (5) on quick release pin (3).
   b. Install hook (4) with chain (1) on bracket (2).
7. INSTALL QUICK RELEASE PIN (1) IN BRACKET (2).

**NOTE**
Step 8 should be done only if gunner's quick release pin is replaced. Step 9 should be done only if commander's quick release pin is replaced.

8. CLOSE AND SECURE GUNNER'S HATCH COVER. See TM 9-2350-252-10-2.


END OF TASK
REPLACE COMMANDER'S/GUNNER'S HATCH COAMING

DESCRIPTION

This task covers: Remove (page 6-48). Install (page 6-49).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Sealing compound (Item 17, App C)
- Hatch coaming

Personnel Required:
- ITV/IFVICFV Trt Mech 45T10

REFERENCES:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
Procedure for removing commander's/gunner's hatch coaming is the same. Gunner's hatch is shown.


   NOTE
   Eight screws and washers are removed with commander's pad.

2. REMOVE GUNNER'S PAD (1) FROM TURRET.
   a. Remove 11 screws (2), washers (3), and gunner's pad (1) from turret.
NOTE
Procedure for installing commander's/gunner's hatch coaming is the same. Gunner's hatch is shown.

4. INSTALL NEW COAMING (1) IN TURRET (2).
   a. Aline screw holes in coaming (1) with screw holes in turret (2).
   b. Install coaming (1) in turret (2).
   c. Apply sealing compound around lip of coaming (1).

3. PRY COAMING (1) FROM TURRET (2).

NOTE
Eight screws and washers are installed with commander's pad.

5. INSTALL GUNNER'S PAD (3) IN TURRET (2).
   a. Install gunner's pad (3), 11 washers (4), and screws (5) in turret (2).


END OF TASK
REPLACE COMMANDER'S INTERNAL HATCH RELEASE BRACKET

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Self-locking nut
- Angle bracket

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE BRACKET (1) FROM LEVER (2).
   a. Remove locknut (3), screw (4), washer (5), and bracket (1) from lever (2). Discard locknut.

2. REMOVE TWO CABLES (6) FROM BRACKET (1).
   a. Loosen two screws (7) on two stop collars (8).
   b. Remove two stop collars (8) and cables (6) from bracket (1).

INSTALL

3. INSTALL TWO CABLES (6) ON NEW BRACKET (1).
   a. Install two cables (6) on stop collars (8) on bracket (1).
   b. Tighten two screws (7) on two stop collars (8).

4. INSTALL BRACKET (1) ON LEVER (2).
   a. Install bracket (1), washer (5), screw (4), and new locknut (3) on lever (2).

END OF TASK
REPLACE COMMANDER'S INTERNAL HATCH RELEASE EYEBOLTS

DESCRIPTION

This task covers: Remove (page 6-51). Install (page 6-52).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Eyebolt (10)
- Hexagonal plain nut (10)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. (H) MANUALLY TRAVERSE TURRET TO 500 MILS. See TM 9-2350-252-10-2.

2. REMOVE RIGHT CABLE (1) FROM EYEBOLT (2).
   a. Loosen screws (3) on two stop collars (4).
   b. Remove right cable core (5), two stop collars (4), and washers (6) from eyebolt (2).

3. (H) MANUALLY TRAVERSE TURRET TO 6000 MILS. See TM 9-2350-252-10-2.

GO TO NEXT PAGE
4. (H) MANUALLY TRAVERSE TURRET AS NEEDED TO REMOVE LEFT CABLE. See TM 9-2350-252-10-2.

NOTE
Some vehicles may have 11 eyebolts. Procedure is the same.

5. REMOVE LEFT CABLE (1) FROM TURRET BASKET (2).

a. Loosen screws (3) on two stop collars (4).

b. Remove left cable core (5), two stop collars (4), and washers (6) from eyebolt (7).

c. Remove left cable (1) from four rollers (8) and eight eyebolts (7) on turret basket (2).

6. (H) MANUALLY TRAVERSE TURRET AS NEEDED TO REMOVE EYEBOLTS. See TM 9-2350-252-10-2.

7. REMOVE 10 EYEBOLTS (7) FROM BASE PLATE (9).

a. Loosen 10 nuts (10), and remove 10 eyebolts (7) from base plate (9).

8. (H) MANUALLY TRAVERSE TURRET AS NEEDED TO INSTALL EYEBOLTS. See TM 9-2350-252-10-2.

9. INSTALL 10 NEW EYEBOLTS (7) ON BASE PLATE (9).

a. Install 10 new nuts (10) on eyebolts (7).

b. Install 10 eyebolts (7) on base plate (9), and tighten nuts (10) against base plate.
10. (H) MANUALLY TRAVERSE TURRET AS NEEDED TO INSTALL LEFT CABLE. See TM 9-2350-252-10-2.

11. INSTALL LEFT CABLE (1) ON TURRET BASKET (2).
   a. Install left cable (1) through eight eyebolts (3) and four rollers (4) on turret basket (2).
   b. Install left cable core (5) on eyebolt (3) with two washers (6) and stop collars (7).
   c. Pull left cable (1) to remove slack. Have helper assist.
   d. Tighten screws (8) on two stop collars (7).

12. (H) MANUALLY TRAVERSE TURRET TO 500 MILS. See TM 9-2350-252-10-2.

13. INSTALL RIGHT CABLE (9) ON EYEBOLT (10).
   a. Install right cable core (11) on eyebolt (10) with two washers (12) and stop collars (13).
   b. Pull right cable (9) to remove slack. Have helper assist.
   c. Tighten screws (14) on two stop collars (13).

14. (H) MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
REPLACE COMMANDER'S INTERNAL HATCH RELEASE SUPPORT ROLLERS

DESCRIPTION

This task covers: Remove (page 6-54). Install (page 6-57).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Lock washer (2)
- Self-locking nut (5)
- Support roller
- Support roller (5)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

REMOVE

1. REMOVE ROLLER (1) FROM TURRET.
   a. Loosen four screws (2) on four stop collars (3).
   b. Remove two cable cores (4) and four stop collars (3) from bracket (5).
   c. Pull two cables (6) from roller (1).
   d. Remove two screws (7), lock washers (8), and roller (1) from turret. Discard lock washers.
2. (H) MANUALLY TRAVERSE TURRET TO 500 MILS. See TM 9-2350-252-10-2.

3. (H) MANUALLY TRAVERSE TURRET AS NEEDED TO REMOVE RIGHT CABLE. See TM 9-2350-252-10-2.

4. REMOVE RIGHT CABLE (1) FROM TURRET BASKET (2).
   a. Loosen two screws (3) on two stop collars.
   b. Remove right cable core (5), two stop collars (4), and washers (6) from eye bolt (7).
   c. Remove right cable (1) from two rollers (8) on turret basket (2).

5. (H) MANUALLY TRAVERSE TURRET AS NEEDED TO REMOVE ROLLERS. See TM 9-2350-252-10-2.

6. (H) REMOVE TWO ROLLERS (8) FROM TURRET BASKET (2).
   a. Mark position of two rollers (8) on turret basket (2). Remove two locknuts (9), screws (10), washers (11), and rollers (8) from turret basket (2). Discard locknuts.
7. **(H) MANUALLY TRAVERSE TURRET TO 6000 MILS.** See TM 9-2350-252-10-2.

8. **(H) MANUALLY TRAVERSE TURRET AS NEEDED TO REMOVE LEFT CABLE.** See TM 9-2350-252-10-2.

9. **REMOVE LEFT CABLE (1) FROM TURRET BASKET (2).**
   a. Loosen two screws (3) on two stop collars (4).
   b. Remove left cable core (5), two stop collars (4), and washers (6) from eye bolt (7).
   c. Remove left cable (1) from four rollers (8) and nine eye bolts (7) on turret basket (2).

10. **(H) MANUALLY TRAVERSE TURRET AS NEEDED TO REMOVE ROLLERS.** See TM 9-2350-252-10-2.

11. **REMOVE THREE ROLLERS (8) FROM TURRET BASKET (2).**
    a. Mark position of three rollers (8) on turret basket (2). Remove three locknuts (9), screws (10), washers (11), and rollers (8) from turret basket (2). Discard locknuts.
12. INSTALL NEW ROLLER (1) ON TURRET.
   a. Install roller (1), two new lock washers (2), and screws (3) on turret.
   b. Install two cables (4) through roller (1).
   c. Install two cable cores (5) on bracket (6) with four stop collars (7).
   d. Tighten four screws (8) on four stop collars (7).

13. (H) MANUALLY TRAVERSE TURRET AS NEEDED TO INSTALL ROLLERS. See TM 9-2350-252-10-2.
   a. Install five rollers (9, 10), washers (12, 13), screws (14, 15), and new locknuts (16, 17) on positions marked on turret basket (11). Have helper assist.

14. INSTALL FIVE NEW ROLLERS (9, 10) ON TURRET BASKET (11).

15. (H) MANUALLY TRAVERSE TURRET TO 6000 MILS. See TM 9-2350-252-10-2.

GO TO NEXT PAGE
16. (H) MANUALLY TRAVERSE TURRET AS NEEDED TO INSTALL LEFT CABLE. See TM 9-2350-252-10-2.

17. INSTALL LEFT CABLE (1) ON TURRET BASKET (2).
   a. Install left cable (1) through four rollers (3) on turret basket (2).
   b. Install left cable core (4) on eye bolt (5) with two washers (6) and stop collars (7).
   c. Pull left cable (1) to remove slack. Have helper assist.
   d. Tighten two screws (8) on two stop collars (7).

18. (H) MANUALLY TRAVERSE TURRET TO 500 MILS. See TM 9-2350-252-10-2.

19. (H) MANUALLY TRAVERSE TURRET AS NEEDED TO INSTALL RIGHT CABLE.

20. INSTALL RIGHT CABLE (9) ON TURRET BASKET (2).
    a. Install right cable (9) through two rollers (10) on turret basket (2).
    b. Install right cable core (11) on eye bolt (12) with two washers (13) and stop collars (14).
    c. Pull right cable (9) to remove slack. Have helper assist.
    d. Tighten two screws (15) on two stop collars (14).


22. (H) MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
REPLACE COMMANDER'S INTERNAL HATCH RELEASE CONDUIT CLIP

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
Conduit clip kit
Lock washer (10)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
Procedure for replacing all 10 conduit clips is the same.

1. REMOVE CONDUIT CLIP (1) FROM TURRET.
   a. Remove screw (2), lock washer (3), and conduit clip (1) from cable (4) and turret. Discard lock washer.

INSTALL

2. INSTALL NEW CONDUIT CLIP (1) ON TURRET.
   a. Install conduit clip (1), new lock washer (3), and screw (2) on cable (4) and turret.

END OF TASK
REPLACE COMMANDER'S INTERNAL HATCH RELEASE CABLES

DESCRIPTION

This task covers: Remove (page 6-60). Install (page 6-63).

INITIAL SETUP

Tools:
  - Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
  - Core
  - Core
  - Cable
  - Cable

Equipment Conditions:
  - Engine stopped (TM 9-2350-252-10-1)
  - Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
  - ITV/IFV/CFV Trt Mech 45T10
  - Helper (H)

REMOVE

1. REMOVE LEFT AND RIGHT CABLES (1,2) FROM TURRET.
   a. Loosen four screws (3) on four stop collars (4).
   b. Remove four stop collars (4) and left and right cable cores (5, 6) from bracket (7).
   c. Loosen 10 screws (8) on 10 conduit clips (9).
   d. Remove left and right cables (1, 2) from roller (10) and 10 conduit clips (9).

2. (H) MANUALLY TRAVERSE TURRET TO 500 MILS. See TM 9-2350-252-10-2.
3. (H) MANUALLY TRAVERSE TURRET, AS NEEDED, TO REMOVE RIGHT CABLE. See TM 9-2350-252-10-2.

4. REMOVE RIGHT CABLE (1) FROM TURRET BASKET (2).
   a. Loosen two screws (3) on two stop collars (4).
   b. Remove two stop collars (4), two washers (5), and right cable core (6) from eyebolt (7).
   c. Remove right cable (1) from two rollers (8) on turret basket (2).
   d. Mark position of right cable (1) on turret basket (2), and have helper pull right cable into turret.

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5. (H) MANUALLY TRAVERSE TURRET TO 6000 MILS. See TM 9-2350-252-10-2.

6. (H) MANUALLY TRAVERSE TURRET, AS NEEDED, TO REMOVE LEFT CABLE. See TM 9-2350-252-10-2.

NOTE
Some vehicles may have ten eye bolts. Procedure for removal is the same.

7. REMOVE LEFT CABLE (1) FROM TURRET BASKET (2).
   a. Loosen two screws (3) on two stop collars (4).
   b. Remove two stop collars (4), two washers (5), and left cable core (6) from eyebolt (7).
   c. Remove left cable (1) from three rollers (8) and eight eyebolts (7) on turret basket (2).
   d. Mark position of left cable (1) on turret basket (2), and have helper pull left cable into turret.
NOTE
There are two cable cores. Removal of both cable cores is the same.
Inspect cable for damage. If cable is damaged, discard.

8. REMOVE CABLE CORE (1) FROM CABLE (2) AND HOSE (3).

9. INSTALL NEW CABLE CORE (1) IN CABLE (2) AND HOSE (3).

10. INSTALL NEW LEFT AND RIGHT CABLES (4, 5) ON TURRET.
   a. Feed left and right cables (4, 5) through 10 conduit clips (6) and roller (7). Tighten 10 screws (8) on 10 conduit clips.
   b. Install left and right cable cores (9, 10) on bracket (11) with four stop collars (12).
   c. Tighten four screws (13) on four stop collars (12).
11. (H) MANUALLY TRAVERSE TURRET SO THAT MARK MADE ON TURRET BASKET (14) IN STEP 7 CAN BE SEEN FROM SQUAD AREA. See TM 9-2350-252-10-2.

12. (H) FEED LEFT CABLE (1) THROUGH TURRET BASKET (2) INTO SQUAD AREA AT POSITION MARKED IN STEP 7.

13. (H) MANUALLY TRAVERSE TURRET, AS NEEDED, TO INSTALL LEFT CABLE (1). See TM 9-2350-252-10-2.

14. INSTALL LEFT CABLE (1) ON TURRET BASKET (2).
   a. Install left cable (1) through eight eyebolts (3) and three rollers (4) on turret basket (2).
   b. Install left cable core (5) on eyebolt (3) with two washers (6) and stop collars (7).
   c. Pull left cable (1) to remove slack. Have helper assist.
   d. Tighten two screws (8) on two stop collars (7).
15. (H) MANUALLY TRAVERSE TURRET SO MARK MADE ON TURRET BASKET (1) IN STEP 4 CAN BE SEEN FROM SQUAD AREA. See TM 9-2350-252-10-2.

16. (H) FEED RIGHT CABLE (2) THROUGH TURRET BASKET (1) INTO SQUAD AREA AT POSITION MARKED IN STEP 4.

17. (H) MANUALLY TRAVERSE TURRET, AS NEEDED, TO INSTALL RIGHT CABLE (2). See TM 9-2350-252-10-2.

18. INSTALL RIGHT CABLE (2) ON TURRET BASKET (1).
   a. Install right cable (2) into two rollers (3).
   b. Install right cable core (4) on eyebolt (5) with two washers (6) and two stop collars (7).
   c. Pull right cable (2) to remove slack. Have helper assist.
   d. Tighten two screws (8) on two stop collars (7).


20. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
CHAPTER 7

MAINTENANCE OF TURRET DRIVE

Section I. MAINTENANCE OF TURRET DRIVE

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REPLACE GUNNER'S HANDSTATION MOUNTING BRACKET

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
Handstation bracket

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

REFERENCES:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE GUNNER'S HANDSTATION.
   See task: REPLACE GUNNER'S HANDSTATION, page 7-124.

2. REMOVE BRACKET (1) FROM TURRET.
   a. Remove four screws (2), washers (3), and bracket (1) from turret.

INSTALL

3. INSTALL NEW BRACKET (1) ON TURRET.
   a. Install bracket (1), four washers (3), and screws (2) on turret.

4. INSTALL GUNNER'S HANDSTATION. See task: REPLACE GUNNER'S HANDSTATION, page 7-124.

END OF TASK
REPLACE EQUILIBRATOR CABLE GUARD

DESCRIPTION

This task covers: Remove (page 7-3). Install (page 7-4).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)
- Turret drive level (Item 14, App F)
- Level support (Item 29, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Sealing compound, grade A
  (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Cable guard

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


4. REMOVE GUARD (1) FROM TURRET.
   a. Remove three screws (2), washers (3), and guard (1) from turret.

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CHAPTER 7

MAINTENANCE OF TURRET DRIVE
Section I. MAINTENANCE OF TURRET DRIVE

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REPLACE GUNNER'S HANDSTATION MOUNTING BRACKET

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Handstation bracket

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE GUNNER'S HANDSTATION.
   See task: REPLACE GUNNER'S HANDSTATION, page 7-124.

2. REMOVE BRACKET (1) FROM TURRET.
   a. Remove four screws (2), washers (3), and bracket (1) from turret.

INSTALL

3. INSTALL NEW BRACKET (1) ON TURRET.
   a. Install bracket (1), four washers (3), and screws (2) on turret.

4. INSTALL GUNNER'S HANDSTATION. See task: REPLACE GUNNER'S HANDSTATION, page 7-124.

END OF TASK
REPLACE EQUILIBRATOR CABLE GUARD

DESCRIPTION

This task covers: Remove (page 7-3). Install (page 7-4).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Turret drive level (Item 14, App F)
- Level support (Item 29, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Cable guard

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


4. REMOVE GUARD (1) FROM TURRET.
   a. Remove three screws (2), washers (3), and guard (1) from turret.
5. INSTALL LEVEL (1) ON ISU MOUNTING PLATE (2).
   a. Loosen thumbscrew (3) below 0° level (4).
   b. Position level (1) on ISU mounting plate (2).
   c. Rotate knob (5) on level (1) until 0° level (4) bubble centers.
   d. Tighten thumbscrew (3) below 0° level (4).

6. INSTALL SUPPORT (6) IN END OF GUN MOUNT (7).
   a. Install support (6) in end of gun mount (7) as shown.
   b. Tighten three thumbscrews (8) on support (6).

7. INSTALL LEVEL (9) ON SUPPORT (6).
   a. Position magnetic surface of level (9) on support (6) as shown.
   b. Turn gun elevation drive handwheel (10) to elevate or depress gun mount (7) until 0° level (11) bubble centers. Have helper assist.

8. REMOVE LEVEL (9) AND SUPPORT (6) FROM GUN MOUNT (7).
   a. Remove level (9) from support (6).
   b. Loosen three thumbscrews (8) and remove support (6) from gun mount (7).
9. POSITION NEW GUARD (1) ON TURRET.
   a. Locate 0 mils mark (2) on rotor (3).
   b. Place guard (1) on turret.
   c. Position guard pointer (4) to 0 mils mark (2) on rotor (3).

10. INSTALL GUARD (1) ON TURRET.
    a. Apply primer to threads of three screws (5).
    b. Apply sealing compound to threads of three screws (5).
    c. Install guard (1), three washers (6), and screws (5) on turret.

11. TORQUE THREE SCREWS (5) TO 73-79 IN-LB (84-91 CMKG).


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Replace Gun Elevation Drive Manual Drive Chain .......... 7-55
ADJUST GUN ELEVATION DRIVE BRAKE LINKAGE

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Grease (Item 10, App C)
- Cotter pin

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

ADJUST

1. MOVE TOW ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

2. MANUALLY ELEVATE 25MM GUN TO MAXIMUM ELEVATION. See TM 9-2350-252-10-2.

3. REMOVE ROD END CLEVIS (1) FROM BRAKE RELEASE HANDLE (2).
   a. Remove cotter pin (3), washer (4), and pin (5) from rod end clevis (1). Discard cotter pin.
   b. Remove rod end clevis (1) from brake release handle (2).
   c. Loosen jam nut (6).
4. MOVE GUN ELEVATION DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

5. ADJUST ROD END CLEVIS (1).
   a. Push brake release handle (2) against end of motor (3).
   b. Turn handwheel (4) slowly and move brake release handle (2) away from end of motor (3) just until resistance begins to be felt in handwheel. Hold arm of brake release handle (2) in position and stop turning handwheel.
   c. Turn rod end clevis (1) right or left to align holes in rod end clevis and brake release handle (2). Then turn rod end clevis 1/2 turn toward jam nut (5).
   d. Install pin (6) in rod end clevis (1) and brake release handle (2).
   e. Tighten jam nut (5).

6. CHECK ADJUSTMENT OF BRAKE LINKAGE.
   a. Turn handwheel (4).
   b. If handwheel (4) does not turn easily, repeat steps 3 thru 6. If handwheel does not turn easily after repeating steps 3 thru 6, replace motor. See task: REPLACE GUN ELEVATION DRIVE MOTOR, page 7-14.
   c. If handwheel (4) turns easily, go to step 7.
7. INSTALL WASHER (1) AND NEW COTTER PIN (2) IN PIN (3).

8. MANUALLY DEPRESS 25MM GUN TO 0 MILS. See TM 9-2350-252-10-2.

9. MOVE GUN ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

10. CHECK MOTOR BRAKE.
   a. Grasp 25mm gun barrel (4) and try to raise 25mm gun barrel using moderate force (125 lbs maximum).
   b. If 25mm gun barrel (4) does not move, go to step 11. If 25mm gun barrel moves, repeat steps 2 thru 10. If 25mm gun barrel still moves after repeating steps 2 thru 10, replace motor. See task: REPLACE GUN ELEVATION DRIVE MOTOR, page 7-14.

11. LUBRICATE PINS (5, 3) WITH GREASE.

12. MOVE GUN ELEVATION DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

13. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
ADJUST GUN ELEVATION DRIVE SHIFT LINKAGE

INITIAL SETUP

Tools:
- Turret mechanic's tool kit

Materials/Parts:
- Cotter pin
- Spring pin

Personnel Required:
- ITV / IFV / CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. MOVE TOW ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

2. REMOVE GUN ELEVATION DRIVE MOTOR.
   See task: REPLACE GUN ELEVATION DRIVE MOTOR, page 7-14.

3. MOVE GUN ELEVATION DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

4. REMOVE CLEVIS (1) FROM REMOTE CONTROL LEVER (2).
   a. Remove cotter pin (3), washer (4), pin (5), and clevis (1) from remote control lever (2). Discard cotter pin.
   b. Remove spring pin (6) from remote control lever (2). Discard spring pin.
   c. Push shoulder pin (7) with clevis (1) in towards housing (8).

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5. FIND MANUAL ENGAGEMENT POINT.
   a. Push shoulder pin (1) all the way in towards housing (2).
   b. Turn handwheel (3) slowly.
   c. Slowly pull shoulder pin (1) out until noise indicates gears are touching each other.
   d. Hold shoulder pin (1), and stop turning handwheel (3).
   e. Mark shoulder pin (1) where shoulder pin meets housing (2).

6. CHECK ADJUSTMENT OF CLEVIS (4).
   a. Align holes in clevis (4) with hole in remote control lever (5).
   b. Align spring pin hole (6) in remote control lever (5) with hole in shaft (7).
   c. If mark on shoulder pin (1) meets housing (2), clevis (4) is properly adjusted. Go to step 8. If mark on shoulder pin does not meet housing, clevis is not properly adjusted. Go to step 7.

7. ADJUST CLEVIS (4).
   a. Hold shoulder pin (1) so that mark on shoulder pin meets housing (2).
   b. Turn clevis (4) left or right as needed, to align holes in clevis and remote control lever (5) and spring pin holes (6) in remote control lever and shaft (7).
   c. Go to step 6.

8. SET GEAR MESH DEPTH.
   a. Turn clevis (4) two full turns left.
9. INSTALL CLEVIS (1) ON REMOTE CONTROL LEVER (2).
   a. Install clevis (1), pin (3), washer (4), and new cotter pin (5) on remote control lever (2).
   b. Install new spring pin (6) on remote control lever (2).

10. CHECK ADJUSTMENT OF LINKAGE. HAVE HELPER ASSIST.
   a. Turn handwheel (7) back.
   b. If 25mm gun elevates, go to step 11.
   c. If 25mm gun does not elevate, go to step 4.

11. MOVE GUN ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

12. CHECK ADJUSTMENT OF LINKAGE. HAVE HELPER ASSIST.
   a. Turn handwheel (7) back.
   b. If 25mm gun does not move, go to step 13.
   c. If 25mm gun moves, go to step 3.


15. ADJUST GUN ELEVATION DRIVE BRAKE LINKAGE. See page 7-8.

16. MANUALLY ELEVATE OR DEPRESS 25MM GUN TO 0 MILS. See TM 9-2350-252-10-2.

END OF TASK
REPLACE GUN ELEVATION DRIVE MOTOR

DESCRIPTION

This task covers: Remove (page 7-14). Install (page 7-15).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Extreme grease (Item 12, App C)
- Grease (Item 14, App C)
- Grease (Item 10, App C)
- Tech petroleum (Item 26, App C)
- Lock washer (2)
- Self-locking nut
- Self-locking screw (4)
- Preformed packing
- DC motor
- Cotter pin

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.

2. MANUALLY TRAVERSE TURRET TO 3200 MILS. See TM 9-2350-252-10-2.


4. REMOVE PLUG 2W305P1 (1) FROM JACK 2A202J1 (2).
5. REMOVE CLEVIS (1) FROM BRAKE ASSEMBLY HANDLE (2).
   a. Remove cotter pin (3), washer (4), pin (5), and clevis (1) from brake assembly handle (2). Discard cotter pin.

6. REMOVE GUARD (6) FROM MOTOR (7)
   a. Remove locknut (8), screw (9), and two washers (10) from guard (6). Discard locknut.
   b. Remove two screws (11), lock washers (12), washers (13), and guard (6) from motor (7). Discard lock washers.

CAUTION
Failure to remove screws without supporting motor can cause damage to equipment.

7. REMOVE MOTOR (7) FROM GEARBOX (14).
   a. Remove four lock screws (15), washers (16), and motor (7) from gearbox (14). Have helper assist. Discard lock screws.

8. INSTALL NEW PREFORMED PACKING (17) ON NEW MOTOR (7).
   a. Apply coat of tech petrolatum on preformed packing (17).
   b. Install preformed packing (17) in groove (18) of motor (7).

9. APPLY COAT OF GREASE (ITEM 15) ON SHAFT (19) OF MOTOR (7).
10. INSTALL MOTOR (1) ON GEARBOX (2).
   a. Apply coat of grease (Item 18) on threads of four new lock screws (3).
   b. Install motor (1), four washers (4), and lock screws (3) on gearbox (2).

11. TORQUE FOUR LOCK SCREWS (3) TO 20-23 FT-LB (3 MKG).

12. INSTALL GUARD (5) ON MOTOR (1).
   a. Install guard (5), two washers (6), new lock washers (7), and screws (8) on motor (1).
   b. TORQUE TWO SCREWS (8) TO 20-23 IN-LB (23-26 CMKG).
   c. Install two washers (9), screw (10) and new locknut (11) on guard (5).
   d. TORQUE SCREW (10) TO 3-5 IN-LB (4-6 CMKG).

13. INSTALL CLEVIS (12) ON BRAKE ASSEMBLY HANDLE (13).
   a. Coat pin (14) with grease (Item 19).
   b. Install clevis (12), pin (14), washer (15), and new cotter pin (16) on brake assembly handle (13).
14. INSTALL PLUG 2W305P1 (1) ON JACK 2A202J1 (2).

15. LUBRICATE GUN ELEVATION DRIVE LINKAGE. See PMCS, page 2-3.

16. ADJUST GUN ELEVATION DRIVE BRAKE LINKAGE. See page 7-8.

17. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

18. MANUALLY DEPRESS 25MM GUN TO 0 MILS. See TM 9-2350-252-10-2.


END OF TASK
REPLACE SELF-LOCKING NUT (PRELOAD)

DESCRIPTION

This task covers: Remove (page 7-18). Install (page 7-19).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Tech petrolatum (Item 26, App C)
- Spring washer (7)
- Preformed packing
- Self-locking nut (Preload)
- Washer
- Packing with retainer
- Retainer
- Retainer

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. MANUALLY TRAVERSE TURRET TO 3200 MILS. See TM 9-2350-252-10-2.

2. REMOVE SELF-LOCKING NUT (1) AND RETAINER (2) WITH PREFORMED PACKING (3) FROM EYEBOLT (4). DISCARD SELF-LOCKING NUT, RETAINER AND PREFORMED PACKING.

GO TO NEXT PAGE

7-18
3. REMOVE RETAINER (1) FROM EYEBOLT (2).
   a. Remove seven spring washers (3), retainer (1), packing with retainer (4), and washer (5) from eyebolt (2). Discard spring washers, retainer, packing with retainer, and washer.

4. INSTALL NEW RETAINER (1) ON EYEBOLT (2).
   a. Coat packing in new retainer (4) with petrolatum.
   b. Install new washer (5), new packing with retainer (4), and retainer (1) on eyebolt (2).
   c. Install seven new spring washers (3) on eyebolt (2). Install with cupped sides of pairs facing each other.

5. INSTALL NEW RETAINER (6) AND NEW SELF-LOCKING NUT (7) ON EYEBOLT (2).
   a. Coat new preformed packing (8) with petrolatum.
   b. Install preformed packing (8) in groove (9) on retainer (6).
   c. Install retainer (6) and self-locking nut (7) on eyebolt (2).

6. TIGHTEN SELF-LOCKING NUT (7) ON EYEBOLT (2) UNTIL GAP (10) BETWEEN TWO RETAINERS (1, 6) MEASURES 0.045-0.050 IN (1.14-1.27 MM) ON BOTH SIDES.

7. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
ADJUST GUN ELEVATION DRIVE VARIABLE RESISTOR

DESCRIPTION

This task covers: Adjust coarse (page 7-20). Adjust fine (page 7-24).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)
- Turret drive level (Item 14, App F)
- Level support (Item 29, App F)
- Socket wrench attachment (Item 8, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Adhesive (Item 2, App C)
- Grease (Item 10, App C)
- Self-locking screw (8)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

ADJUST COARSE

1. MOVE TOW ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.
2. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.
5. MANUALLY ELEVATE 25MM GUN TO MAXIMUM ELEVATION. See TM 9-2350-252-10-2.
6. MANUALLY TRAVERSE TURRET TO 3200 MILS. See TM 9-2350-252-10-2.
WARNING
25mm gun rotor could spring up and injure you. Fully elevate 25mm gun to mechanical stop, and move gun elevation drive select lever to MANUAL position before disengaging gears.

7. (H) LOOSEN PRELOAD NUT (1) UNTIL PINION GEAR (2) IS DISENGAGED FROM SPUR GEAR (3).

8. REMOVE COVER (4) FROM HOUSING (5).
   a. Remove eight self-locking screws (6), washers (7), and cover (4) from housing (5). Use a socket wrench attachment. Discard self-locking screws.

NOTE
Step 9 should be done only if gasket is too worn or damaged for further use.

9. REMOVE GASKET (8) FROM COVER (4). DISCARD GASKET.
10. INSPECT MOUNTING OF RESISTOR (1).
   a. If resistor (1) is mounted with three synchro clamps (2), go to step 12.
   b. If resistor (1) is mounted with two shoulder screws (3), go to step 11.

   **CAUTION**
   Equipment can be damaged if you pry against resistor. Do not pry against resistor.

11. ADJUST RESISTOR (1).
   a. Loosen two screws (3).
   b. Move resistor (1) so that the two screws (3) are in the center of slots (4). Use putty knife.
   c. Tighten two screws (3).
   d. Go to step 14.

   **CAUTION**
   Equipment can be damaged if there is not enough slack in resistor wires. Be sure that there is a service loop in resistor wires.

12. INSPECT SERVICE LOOP (5).
   a. If there is enough slack in service loop (5), go to step 14.
   b. If not, go to step 13.

13. ROTATE RESISTOR (1) TO FORM SERVICE LOOP (5).
   a. Loosen three clamps (2).
   b. Rotate resistor (1) until there is slack in service loop.
   c. Tighten three clamps (2).

15. IF GUN ELEVATION DRIVE IS FAULTY, GO TO STEP 16. IF GUN ELEVATION DRIVE IS NOT FAULTY, GO TO STEP 17.

16. REPLACE GUN ELEVATION DRIVE GEARBOX. See page 7-38.

CAUTION
Equipment can be damaged if pinion gear and sector gear do not mesh properly. Make sure pinion gear and sector gear mesh properly.

NOTE
Handwheel may need to be turned slightly to align gears. Handwheel should not be turned more than 1/4 turn.

17. (H) TIGHTEN PRELOAD NUT (1) TO MESH GEARS (2, 3).
   a. Tighten preload nut (1) on eye bolt (4) until gears (2, 3) begin to mesh.
   b. Tighten preload nut (1) until preload gap (5) between retainers (6, 7) measures 0.045-0.050 inch (1.14-1.27mm) on both sides.


19. INSPECT PRELOAD GAP (5).
   a. (H) Manually depress 25mm gun to maximum depression.
   b. Inspect gap (5) between two retainers (6, 7) during gun depression.

20. IF GAP (5) DOES NOT GO TO ZERO, GO TO STEP 22.

ADJUST FINE


25. MOVE TOW ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

26. MOVE GUN ELEVATION DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

27. ZERO TURRET DRIVE LEVEL (1) ON ISU MOUNTING PLATE (2).
   a. Loosen thumbscrew (3) below 0° level (4).
   b. Position level (1) on ISU mounting plate (2).
   c. Rotate knob (5) on level (1) until 0° level (4) bubble centers.
   d. Tighten thumbscrew (3) below 0° level (4).

28. INSTALL LEVEL SUPPORT (6) IN END OF GUN MOUNT (7).
   a. Install support (6) in end of gun mount (7).
   b. Tighten three thumbscrews (8) on support (6).

29. INSTALL LEVEL (1) ON SUPPORT (6).
   a. Position magnetic surface of level (1) on support (6) as shown.
30. IF INSTALLED, REMOVE COVER (1) WITH GASKET (2) FROM HOUSING (3).
   a. Remove eight self-locking screws (4), washers (5), and cover (1) with gasket (2) from housing (3). Use socket wrench attachment. Discard self-locking screws.

NOTE
Step 31 should be done only if gasket is too worn or damaged for further use.

31. REMOVE GASKET (2) FROM COVER (1). DISCARD GASKET.

32. PERFORM STE-M1/FVS TEST 2785. See page 3-617.

33. MOVE GUN ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

34. ELEVATE 25MM GUN TO MAXIMUM ELEVATION. See TM 9-2350-252-10-2.

35. MOVE GUN ELEVATION DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

36. CHECK HANDWHEEL (6) TRAVEL.
   a. Turn handwheel (6) back.
   b. If handwheel (6) turns 1/8 turn or more to upper mechanical stop, go to step 37.
   c. If not, go to step 32.

37. TURN HANDWHEEL (6) FORWARD TWO TURNS AWAY FROM UPPER MECHANICAL STOP.
38. MOVE GUN ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.


40. MOVE GUN ELEVATION DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

41. CHECK HANDWHEEL (1) TRAVEL.
   a. Turn handwheel (1) forward.
   b. If handwheel (1) turns 1/8 turn or more to lower mechanical stop, go to step 42.
   c. If not, go to step 32.

42. TURN HANDWHEEL (1) BACK TWO TURNS AWAY FROM LOWER MECHANICAL STOP.

43. REMOVE LEVEL (2) AND SUPPORT (3) FROM GUN MOUNT (4).
   a. Remove level (2) from support (3).
   b. Loosen three thumbscrews (5), and remove support (3) from gun mount (4).

44. IF GUN ELEVATION DRIVE IS FAULTY, GO TO STEP 45. IF GUN ELEVATION DRIVE IS NOT FAULTY, GO TO STEP 46.

45. REPLACE GUN ELEVATION DRIVE GEARBOX. See page 7-38.

NOTE
Step 46 should be done only if gasket was removed in step 31 or step 9.

46. INSTALL NEW GASKET (6) ON COVER (7).
   a. Apply adhesive to mounting surfaces of gasket (6) and cover (7).
   b. Aline holes in gasket (6) and cover (7), and install gasket on cover.
47. INSTALL COVER (1) WITH GASKET (2) ON HOUSING (3).
   a. Apply grease to threads of eight new self-locking screws (4).
   b. Install cover (1) with gasket (2), eight washers (5), and new self-locking screws (4) on housing (3). Use socket wrench attachment.

48. TORQUE EIGHT SCREWS (4) TO 16-19 IN-LB (18-22 CMKG). USE SOCKET WRENCH ATTACHMENT.

49. INSTALL 25MM GUN RECEIVER. See TM 9-2350-252-10-2.


51. INSTALL 25MM GUN BARREL. See TM 9-2350-252-10-2.

52. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
ADJUST GUN ELEVATION DRIVE BRAKE SENSITIVE SWITCH

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)
Multimeter (Item 15, App F)
STE-M1/FVS test set (Item 30, App F)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
Cotter pin (2)
Spring pin

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. REMOVE WEAPON CONTROL BOX. See task: REPLACE WEAPON CONTROL BOX, page 5-110.

2. IF CLEVIS (1) IS INSTALLED, GO TO STEP 3. IF CLEVIS (2) WITH SETSCREW (3) IS INSTALLED, GO TO STEP 12.

4. REMOVE ROD END CLEVIS (1) FROM REMOTE CONTROL LEVER (2).
   a. Remove cotter pin (3), washer (4), pin (5), and rod end clevis (1) from remote control lever (2). Discard cotter pin.

5. REMOVE CLEVIS (6) FROM REMOTE CONTROL LEVER (2).
   a. Remove cotter pin (7), washer (8), pin (9), and clevis (6) from remote control lever (2). Discard cotter pin.

6. REMOVE REMOTE CONTROL LEVER (2) FROM SUPPORT (10).
   a. Remove spring pin (11) from remote control lever (2). Discard spring pin.
   b. Remove remote control lever (2) from manual support (10).

7. REMOVE CLEVIS (6) FROM SHOULDER PIN (12).
   a. Measure and record distance from clevis (6) to housing (13).
   b. Unscrew clevis (6) from shoulder pin (12).
8. SCREW NEW CLEVIS (1) WITH SET-SCREW (2) ONTO SHOULDER PIN (3).
   a. Screw new clevis (1) onto shoulder pin (3).
   b. Adjust distance between setscrew (2) on clevis (1) and housing (4) to distance recorded in step 7.

9. INSTALL REMOTE CONTROL LEVER (5) ON MANUAL SUPPORT (6).
   a. Install remote control lever (5) on shaft (6).
   b. Install new spring pin (7) on remote control lever (5).

10. INSTALL CLEVIS (1) ON REMOTE CONTROL LEVER (5).
    a. Install clevis (1), pin (8), washer (9) and new cotter pin (10) on remote control lever (5).

11. INSTALL ROD END CLEVIS (11) ON REMOTE CONTROL LEVER (5).
    a. Install rod end clevis (11), pin (12), washer (13), and new cotter pin (14) on remote control lever (5).
12. REMOVE PLUG 2W302P5 (1) FROM JACK 2A202J3 (2).

13. MOVE GUN ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

14. CHECK CONTINUITY OF PINS A (3) AND B (4) ON JACK 2A202J3 (5).
   a. Connect probes to pins A (3) and B (4) on jack 2A202J3 (5). Use multimeter.
   b. If continuity exists, go to step 19.
   c. If continuity does not exist, go to step 15.

15. CHECK CONTINUITY OF PINS B (4) AND C (6) ON JACK 2A202J3 (5).
   a. Connect probes to pins B (4) and C (6) on jack 2A202J3 (5). Use multimeter.
   b. If continuity exists, go to step 16.
   c. If continuity does not exist, go to step 20.
16. MOVE GUN ELEVATION DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

17. CHECK CONTINUITY OF PINS A (1) AND B (2) ON JACK 2A202J3 (3).
   a. Connect probes to pins A (1) and B (2) on jack 2A202J3 (3). Use multimeter.
   b. If continuity exists, go to step 18.
   c. If continuity does not exist, notify direct support maintenance.

18. CHECK CONTINUITY OF PINS B (2) AND C (4) ON JACK 2A202J3 (3).
   a. Connect probes to pins B (2) and C (4) on jack 2A202J3 (3). Use multimeter.
   b. If continuity does not exist, go to step 19.
   c. If continuity exists, notify direct support maintenance.

19. REMOVE PROBES FROM PINS B (2) AND C (4) ON JACK 2A202J3 (3).

20. GO TO STEP 23.
21. ADJUST SETSCREW (1) ON SWITCH (2).
   a. Loosen locknut (3) on setscrew (1).
   b. Turn setscrew (1) right until continuity does not exist.
   c. Tighten locknut (3) on setscrew (1).
   d. Go to step 15.

22. ADJUST SETSCREW (1) ON SWITCH (2).
   a. Loosen locknut (3) on setscrew (1).
   b. Turn setscrew (1) right until continuity exists.
   c. Tighten locknut (3) on setscrew (1).
   d. Go to step 14.

23. INSTALL PLUG 2W302P5 (4) ON JACK 2A202J3 (5).

24. ADJUST GUN ELEVATION DRIVE SHIFT LINKAGE. See page 7-11.

25. INSTALL WEAPON CONTROL BOX. See task: REPLACE WEAPON CONTROL BOX, page 5-110.

26. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.
ADJUST GUN ELEVATION DRIVE MANUAL DRIVE CHAIN

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

Materials/Parts:
- Grease (Item 14, App C)
- Sealing compound (Item 22, App C)
- Self-locking screw (4)
- Self-locking screw (4)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. REMOVE 25MM GUN BARREL.
   See TM 9-2350-252-10-2.

2. REMOVE 25MM GUN FEEDER.
   See TM 9-2350-252-10-2.

3. REMOVE 25MM GUN RECEIVER.
   See TM 9-2350-252-10-2.


6. MOVE TOW ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

7. REMOVE SPRING (1) FROM HANDWHEEL (2) AND TWO ANGLE BRACKETS (3).


9. MANUALLY TRAVERSE TURRET TO 3200 MILS. See TM 9-2350-252-10-2.
WARNING
25mm gun rotor could spring up and injure you. Fully elevate 25mm gun to mechanical stop, and move gun elevation drive select lever to MANUAL position before loosening preload nut.

NOTE
If preload nut is lowered too much, gears will disengage. Preload nut should not be lowered more than necessary to access two lock screws on cover.

10. LOOSEN PRELOAD NUT (1) TO GAIN ACCESS TO TWO LOCK SCREWS (2) ON COVER (3).
   a. Loosen preload nut (1) on eyebolt (4) so that space (5) between retainer halves (6) measures no more than 3/16 inch. Have helper assist.

11. REMOVE COVER (3) FROM HOUSING (7).
   a. Loosen two lock screws (2).
   b. Remove six remaining lock screws (8) and washers (9) from cover (3). Discard lock screws.
   c. Pry cover (3) at two points (10). Use screwdriver.
   d. Remove two lock screws (2), washers (11) and cover (3) from housing (7). Discard lock screws.

GO TO NEXT PAGE
12. MOVE GUN ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

13. ADJUST FREE PLAY (1) OF CHAIN (2).
   a. Loosen screw (3).
   b. Adjust guide (4) until chain (2) has 1/4 inch (6.35 mm) of free play (1).
   c. Tighten screw (3).

14. TORQUE SCREW (3) TO 20–23 IN-LB (23–26 CMKG).

15. COAT MATING SURFACE OF HOUSING (5) WITH SEALING COMPOUND.

16. INSTALL COVER (6) ON HOUSING (5).
   a. Coat threads of four new long lock screws (7, 8) and four new short lock screws (9) with grease.
   b. Install cover (6), two washers (10), and long lock screws (8) on housing (5). Tighten screws securely.
   c. Install two washers (11) and long lock screws (7) in cover (6) and housing (5).
   d. Install four washers (12) and short lock screws (9) in cover (6) and housing (5).

17. TORQUE SIX LOCK SCREWS (7, 9) TO 65–75 IN-LB (75–86 CMKG).
CHECK FOR SMOOTH OPERATION OF CHAIN.

19. MANUALLY ELEVATE OR DEPRESS 25MM GUN TO 0 MILS. See 
TM 9-2350-252-10-2.

20. INSTALL SPRING (1) ON TWO ANGLE BRACKETS (2) AND HANDWHEEL (3).


23. INSTALL 25MM GUN RECEIVER. See 
TM 9-2350-252-10-2.

24. INSTALL 25MM GUN FEEDER. See 
TM 9-2350-252-10-2.

25. INSTALL 25MM GUN BARREL. See 
TM 9-2350-252-10-2.

END OF TASK
REPLACE GUN ELEVATION DRIVE GEARBOX

DESCRIPTION

This task covers: Remove (page 7-38). Install (page 7-42).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

Materials/Parts:
- Extreme grease (Item 12, App C)
- Cotter pin
- Lock washer (2)
- Gearbox assembly

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


5. REMOVE WEAPON CONTROL BOX. See task: REPLACE WEAPON CONTROL BOX, page 5-110.


9. REMOVE FLEXIBLE SHAFT (1) FROM ADAPTER (2).
10. REMOVE TWO PLUGS (1, 2) FROM TWO JACKS (3, 4).
   a. Remove plug 2W302P5 (1) from jack 2A202J3 (3).
   b. Remove plug 2W302P4 (2) from jack 2A202J2 (4).
   c. Tag plugs.

11. REMOVE GROUND STRAP (5) FROM HOUSING (6).
   a. Remove screw (7), two lock washers (8), and ground strap (5) from housing (6). Discard lock washers.
12. REMOVE ROD END CLEVIS (1) FROM SHIFTING LEVER (2).
   a. Remove cotter pin (3), pin (4), washer (5), and rod end clevis (1) from shifting lever (2). Discard cotter pin.

**WARNING**
25mm gun rotor could spring up and injure you. Fully elevate 25mm gun to mechanical stop, and move gun elevation drive select lever to manual position before disengaging gears.

13. LOOSEN PRELOAD NUT (6) UNTIL FLUSH WITH END OF EYEBOLT (7).

**WARNING**
Gear box can fall and injure soldiers. Support gear box before you remove screws.

**NOTE**
Rear support pin has top and bottom thru holes for installing support pin and left and right threaded holes for removing support pin.

14. REMOVE REAR SUPPORT PIN (8) FROM TURRET.
   a. Remove two screws (9) and washers (10) from rear support pin (8).
   b. Install two washers (10) and screws (9) in two jacking holes (11) in rear support pin (8).
   c. Tighten two screws (9) until rear support pin (8) can be pried out.
   d. Pry out rear support pin (8), and carefully lower gearbox (12). Have helper assist.
15. REMOVE TWO SCREWS (1) AND WASHERS (2) FROM TWO JACKING HOLES (3) IN REAR SUPPORT PIN (4).

16. REMOVE GEARBOX (5) FROM TURRET. HAVE HELPER ASSIST.

NOTE
Front support pin has top and bottom thru holes for installing support pin and left and right threaded holes for removing support pin.

17. REMOVE FRONT SUPPORT PIN (6) AND EYEBOLT (7) FROM CLEVIS (8).
   a. Remove two screws (9) and washers (10) from front support pin (6).
   b. Install two washers (10) and screws (9) in two jacking holes (11) in front support pin (6).
   c. Tighten two screws (9) until front support pin (6) can be removed from clevis (8).
   d. Remove front support pin (6) and eyebolt (7) from clevis (8). Have helper assist.

18. REMOVE PRELOAD NUT (12) FROM EYEBOLT (7).

GO TO NEXT PAGE
19. REMOVE TWO SCREWS (1) AND WASHERS (2) FROM TWO JACKING HOLES (3) IN FRONT SUPPORT PIN (4).

NOTE
Front support pin has top and bottom thru holes for installing support pin and left and right threaded holes for removing support pin.

20. INSTALL EYEBOLT (5) AND FRONT SUPPORT PIN (4) IN CLEVIS (6).
   a. Install eyebolt (5) and front support pin (4) in clevis (6).
   b. Aline two mounting holes in front support pin (4) with two mounting holes in clevis (6).
   c. Install two washers (2) and screws (1) in front support pin (4) and clevis (6).

21. INSTALL PRELOAD NUT (7) FLUSH WITH END OF EYEBOLT (5).
22. INSTALL FRONT END OF NEW GEARBOX (1) ON EYEBOLT (2).
   a. Apply grease to output pinion gear (3) and gun elevation sector gear (4).
   b. Raise front end of gearbox (1) and position gearbox clevis (5) on eyebolt (2). Have helper assist.

NOTE
Rear support pin has top and bottom thru holes for installing support pin and left and right threaded holes for removing support pins.

23. INSTALL REAR END OF GEARBOX (1) IN CLEVIS (6).
   a. Raise rear end of gearbox (1) and align mounting surface (7) with clevis (6).
   b. Install rear support pin (8), and align two mounting holes in rear support pin with two holes in clevis (6).
   c. Install two washers (9) and screws (10) on rear support pin (8) and clevis (6). Tighten screws finger tight.
   d. TORQUE TWO SCREWS (10) TO 20-25 IN-LB (23-29 CMKG).

GO TO NEXT PAGE
24. TORQUE TWO SCREWS (1) TO 20-25 IN-LB (23-29 CMKG).

CAUTION
Equipment can be damaged if pinion gear and sector gear do not mesh properly. Make sure pinion gear and sector gear mesh properly.

NOTE
Handwheel may need to be turned slightly to align gears. Handwheel should not be turned more than 1/4 turn.

25. (H) TIGHTEN PRELOAD NUT (2) TO ALINE GEARS (3).
   a. Tighten preload nut (2) on eyebolt (4) until gears (3) begin to mesh.
26. INSTALL GROUND STRAP (1) ON HOUSING (2).
   a. Install ground strap (1) on housing (2) with two new lock washers (3) and screw (4).

27. INSTALL TWO PLUGS (5, 6) ON TWO JACKS (7, 8).
   b. Install plug 2W302P5 (6) on jack 2A202J3 (8).

28. ADJUST GUN ELEVATION DRIVE VARIABLE RESISTOR. See page 7-20.

29. INSTALL FLEXIBLE SHAFT (9) ON ADAPTER (10).
30. INSTALL ROD END CLEVIS (1) ON SHIFTING LEVER (2).
   a. Install rod end clevis (1), pin (3), washer (4), and new cotter pin (5) on shifting lever (2).


33. INSTALL WEAPON CONTROL BOX. See task: REPLACE WEAPON CONTROL BOX, page 5-110.


END OF TASK
REPLACE GUN ELEVATION DRIVE TOW DRIVE CHAIN

DESCRIPTION

This task covers: Remove (page 7-47). Install (page 7-48).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Roller chain

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFVICFV Trt Mech 45T10

REMOVE

1. MANUALLY DEPRESS 25MM GUN TO MAXIMUM DEPRESSION. See TM 9-2350-252-10-2.

2. MOVE BOTH GUN AND TOW ELEVATION DRIVE SELECT LEVERS TO POWER POSITION. See TM 9-2350-252-10-2.

3. REMOVE GUN ELEVATION DRIVE HANDWHEEL DRIVE CHAIN. See task: REPLACE GUN ELEVATION DRIVE HANDWHEEL DRIVE CHAIN, page 7-49.

NOTE
Location of handwheel drive chain and TOW drive chain should be noted before removal. TOW drive chain is longer than handwheel drive chain.

4. REMOVE TOW DRIVE CHAIN (1) FROM HOUSING (2).
   a. Loosen screw (3).
   b. Remove spring clip (4), plate (5), and connecting link (6) from chain (1).
   c. Remove chain (1) from housing (2).

GO TO NEXT PAGE
6. ADJUST FREE PLAY (7) OF TOW DRIVE CHAIN (1).
   a. Adjust guide (8) until TOW drive chain (1) has 7/16 - 9/16 inch (11.1 - 14.3 mm) play (7).
   b. Tighten screw (9).
   c. TORQUE SCREW (9) TO 20-23 IN-LB (23-26 CMKG).

7. INSTALL GUN ELEVATION DRIVE HANDWHEEL DRIVE CHAIN. See task: REPLACE GUN ELEVATION DRIVE HANDWHEEL DRIVE CHAIN, page 7-49.

8. MANUALLY ELEVATE 25MM GUN TO 0 MILS. See TM 9-2350-252-10-2.
REPLACE GUN ELEVATION DRIVE HANDWHEEL DRIVE CHAIN

DESCRIPTION

This task covers: Remove (page 7-49). Install (page 7-51).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

Materials/Parts:
- Grease (Item 14, App C)
- Sealing compound (Item 22, App C)
- Roller chain
- Self-locking screw (13)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
Cover may have two brackets installed.

1. REMOVE SPRING (1) FROM HAND-WHEEL (2) ANGLE BRACKET (3) AND ANGLE BRACKET (4) IF INSTALLED.

2. MOVE TOW ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

3. MANUALLY DEPRESS 25MM GUN TO MAXIMUM DEPRESSION. See TM 9-2350-252-10-2.

4. MOVE GUN ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

GO TO NEXT PAGE
NOTE
Cover may have two brackets installed. One bracket must be removed and discarded.

5. REMOVE COVER (1) FROM HOUSING (2).

- a. Remove 13 lock screws (3), washers (4), angle bracket (5), and angle bracket (6) if installed, from cover (1) on housing (2). Discard lock screws.
- b. Discard bracket (6) if removed.
- c. Remove cover (1) from housing (2) at two pry points (7). Use flat-tip screwdriver.

6. REMOVE CHAIN (8) FROM HOUSING (2).

- a. Loosen screw (9).
- b. Remove spring clip (10), plate (11), and connecting link (12) from chain (7).
- c. Remove chain (8) from housing (2).
7. INSTALL NEW CHAIN (1) IN HOUSING (2).
   a. Position chain (1) around sprockets (3) in housing (2).
   b. Install connecting link (4), plate (5), and spring clip (6) on chain (1).

8. ADJUST FREE PLAY (7) OF CHAIN (1).
   a. Adjust guide (8) until chain (1) has 1/2 inch (6.35 mm) of free play (7).
   b. Tighten screw (9).
   c. TORQUE SCREW (9) TO 20-23 IN-LB (23-26 CMKG).

GO TO NEXT PAGE
9. INSTALL COVER (1) ON HOUSING (2).
   a. Coat mating surface of housing (2) with sealing compound.
   b. Position cover (1) on two guide pins (3) on housing (2).
   c. Coat threads of 13 new lock screws (4) with grease.
   d. Install angle bracket (5), 13 washers (6), and new lock screws (4) in cover (1).

10. CHECK THAT HANDWHEEL (7) TURNS EASILY IN BOTH DIRECTIONS.
    a. If handwheel (7) does not turn easily in both directions, go to step 11.
    b. If handwheel (7) turns easily in both directions, go to step 14.

11. REMOVE COVER (1) FROM HOUSING (2).
    a. Remove 13 lock screws (4), washers (6), and angle bracket (5) from cover (1). Discard lock screws.
    b. At pry points (8), pry off and remove cover (1) from housing (2). Use screwdriver.
12. ADJUST FREE PLAY (1) OF TOW DRIVE CHAIN (2).
   a. Loosen screw (3).
   b. Adjust guide (4) until chain (2) has 7/16-9/16 inch (11.1-14.3 mm) of free play (1).
   c. Tighten screw (3).
   d. TORQUE SCREW (3) TO 20-23 IN-LB (23-26 CMKG).

13. LOOSEN SCREW (5). GO TO STEP 8.

14. TORQUE 13 LOCK SCREWS (6) TO 65-75 IN-LB (75-86 CMKG).

GO TO NEXT PAGE
15. MANUALLY ELEVATE AND DEPRESS 25MM GUN. See TM 9-2350-252-10-2. CHECK FOR SMOOTH OPERATION OF CHAIN.

16. MANUALLY ELEVATE OR DEPRESS 25MM GUN TO 0 MILS. See TM 9-2350-252-10-2.

17. INSTALL SPRING (1) ON HANDWHEEL (2) AND ANGLE BRACKETS (3).

END OF TASK
REPLACE GUN ELEVATION DRIVE MANUAL DRIVE CHAIN

DESCRIPTION

This task covers: Remove (page 7-55). Install (page 7-58).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

Materials/Parts:
- Grease (Item 14, App C)
- Sealing compound (Item 22, App C)
- Self-locking screw (4)
- Roller chain

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)
- Weapons unloaded and safe (TM 9-2350-252-10-2)

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.
5. MOVE TOW ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

NOTE
- Cover may have two brackets installed.

6. REMOVE SPRING (1) FROM HANDWHEEL (2), ANGLE BRACKET (3) AND (4) IF INSTALLED.
7. MANUALLY ELEVATE 25MM GUN TO MAXIMUM ELEVATION. See TM 9-2350-252-10-2.
8. MANUALLY TRAVERSE TURRET TO 3200 MILS. See TM 9-2350-252-10-2.

**WARNING**
25mm gun rotor could spring up and injure you. Fully elevate 25mm gun to mechanical stop, and move gun elevation drive select lever to MANUAL position before loosening preload nut.

**NOTE**
If preload nut is lowered too much, gears will disengage. Preload nut should not be lowered more than necessary to remove screws.

9. LOOSEN PRELOAD NUT (1) TO GAIN ACCESS TO TWO SCREWS (2) ON COVER (3).

a. Loosen preload nut (1) on eyebolt (4) so that space (5) between retainer halves (6) measures no more than 3/16 inch. Have helper assist.
10. REMOVE COVER (1) FROM HOUSING (2).
   a. Remove six lock screws (3) and washers (4) from cover (1). Discard lock screws.
   b. Loosen two long lock screws (5), and back out as far as possible.
   c. Pry off cover (1) at two points (6). Use screwdriver.
   d. Remove two long lock screws (5), washers (7), and cover (1) from housing (2). Discard lock screws.

11. MOVE GUN ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

12. REMOVE CHAIN (8) FROM HOUSING (2).
   a. Loosen screw (9).
   b. Turn handwheel (10), as needed, to access connecting link (11).
   c. Remove spring clip (12), plate (13), and connecting link (11) from chain (8).
   d. Remove chain (8) from housing (2).

GO TO NEXT PAGE
13. INSTALL NEW CHAIN (1) IN HOUSING (2).
   a. Position chain (1) around sprockets (3) in housing (2).
   b. Install connecting link (4), plate (5), and spring clip (6) on chain (1).

14. ADJUST FREE PLAY (7) OF CHAIN (1).
   a. Loosen screw (8).
   b. Adjust guide (9) until chain (1) has 1/4 inch (6.35 mm) of free play (7).
   c. Tighten screw (8).

15. TORQUE SCREW (8) TO 20–23 IN-LB (23–26 CMKG).
16. COAT MATING SURFACE OF HOUSING (1) WITH SEALING COMPOUND.

17. INSTALL COVER (2) ON HOUSING (1).
   a. Coat threads of four new long lock screws (3, 4) and four new short lock screws (5) with grease.
   b. Install cover (2), two washers (6), and long lock screws (3) on housing (1). Tighten screws securely.
   c. Install two washers (7) and long lock screws (4) on cover (2) and housing (1).
   d. Install four washers (8) and short lock screws (5) on cover (2) and housing (1).

18. TORQUE SIX LOCK SCREWS (4, 5) TO 65-75 IN-LB (75-86 CMKG).


20. MANUALLY ELEVATE AND DEPRESS 25MM GUN. See TM 9-2350-252-10-2. CHECK FOR SMOOTH OPERATION OF CHAIN.

21. MANUALLY ELEVATE OR DEPRESS 25MM GUN TO 0 MILS. See TM 9-2350-252-10-2.
22. INSTALL SPRING (1) ON TWO ANGLE BRACKETS (2) AND HANDWHEEL (3).


END OF TASK
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**Section III. MAINTENANCE OF TRAVERSE DRIVE, MOTOR, AND GEARBOX**
ADJUST TRAVERSE DRIVE BRAKE LINKAGE

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

Materials/Parts:
- Grease (Item 14, App C)
- Cotter pin

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

ADJUST

1. MOVE TURRET TRAVERSE DRIVE SELECT LEVER TO MANUAL POSITION.
   See TM 9-2350-252-10-2.

2. REMOVE SPRING (1) FROM HANDWHEEL (2).
3. REMOVE ROD END CLEVIS (1) FROM BRAKE RELEASE HANDLE (2).
   a. Remove cotter pin (3), washer (4), pin (5), and rod end clevis (1) from brake release handle (2). Discard cotter pin.
   b. Loosen jam nut (6).


5. ADJUST ROD END CLEVIS (1).
   a. Push brake handle (2) against end of motor (7).
   b. Turn handwheel (8) slowly, and move brake release handle (2) away from end of motor (7) until resistance begins to be felt in handwheel. Hold arm of brake release handle in position and stop turning handle.
   c. Turn rod end clevis (1) right or left to align holes in rod end clevis and brake handle (2).
   d. Turn rod end clevis (1) 1/2 turn toward jam nut (6).
   e. Install pin (5) in rod end clevis (1) and brake release handle (2).
   f. Tighten jam nut (6).
   g. Remove pin (5) and rod end clevis (1) from brake release handle (2).
6. INSTALL ROD END CLEVIS (1) ON BRAKE RELEASE HANDLE (2).
   a. Apply coat of grease to pin (3).
   b. Install rod end clevis (1), pin (3), washer (4), and new cotter pin (5) on brake release handle (2).

7. CHECK ADJUSTMENT OF BRAKE LINKAGE.
   a. Turn handwheel (6).
   b. If handwheel (6) turns easily, go to step 8. If handwheel does not turn easily, repeat steps 3 thru 7. If handwheel does not turn easily after repeating steps 3 thru 7, replace motor. See task: REPLACE TRAVERSE DRIVE MOTOR, page 7-70.
8. HOOK SPRING (1) OVER HANDWHEEL (2).

9. MOVE TURRET TRAVERSE DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

10. CHECK MOTOR BRAKE.
   a. Grasp 25mm gun barrel (3), and try to traverse turret by pushing or pulling on 25mm gun barrel. If turret does move, repeat steps 2 thru 8. If turret does not move, go to step 11.

11. SECURE TURRET TRAVEL LOCK. See TM 9-2350-252-10-2.

12. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
ADJUST TRAVERSE DRIVE SHIFT LINKAGE

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Grease (Item 10, App C)
- Cotter pin

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. MOVE TURRET TRAVERSE DRIVE
   SELECT LEVER TO POWER POSITION.
   See TM 9-2350-252-10-2.

2. REMOVE SPRING (1) FROM
   HANDWHEEL (2).

3. MEASURE AND RECORD DISTANCE
   BETWEEN BOTTOM OF CLEVIS (3) AND
   TOP OF COVER (4).

5. MOVE LEVER (1) TOWARD MANUAL POSITION.
   a. Turn handwheel (2), press push-button (3), and slowly move lever (1) toward MANUAL position until noise indicates gears are beginning to touch.

6. MOVE LEVER (1) TOWARD POWER POSITION.
   a. Turn handwheel (2), press push-button (3), and slowly move lever (1) toward POWER position until noise indicates gears stop touching.
   b. Hold lever (1) in place, and stop turning handwheel (2).

7. MEASURE AND RECORD DISTANCE BETWEEN BOTTOM OF CLEVIS (4) AND TOP OF COVER (5).

8. CHECK ADJUSTMENT OF LINKAGE.
   a. Subtract measurement recorded in step 3 from measurement recorded in step 7.
   b. If difference between measurements is not 1/16 inch (1.5 mm), go to step 9.
   c. If difference between measurements is 1/16 inch (1.6 mm), go to step 12.
9. REMOVE CLEVIS (1) FROM BELL CRANK (2).
   a. Remove cotter pin (3), washer (4), pin (5), and clevis (1) from bell crank (2). Discard cotter pin.

10. ADJUST CLEVIS (1).
    a. Loosen jam nut (6).
    b. If difference in step 8 is less than 1/16 inch (1.6 mm), turn clevis (1) away from jam nut (6).
    c. If difference in step 8 is greater than 1/16 inch (1.6 mm), turn clevis (1) toward jam nut (6).
    d. Tighten jam nut (6).
11. INSTALL CLEVIS (1) ON BELL CRANK (2).
   a. Apply coat of grease to pin (3).
   b. Install clevis (1) and pin (3) on bell crank (2).
   c. Go to step 3.

12. INSTALL WASHER (4) AND NEW COTTER PIN (5) ON PIN (3).

13. ADJUST TRAVERSE DRIVE BRAKE LINKAGE. See page 7-62.

14. ADJUST TRAVERSE DRIVE BRAKE SENSITIVE SWITCH. See page 7-84.

15. INSTALL SPRING (6) ON HANDWHEEL (7).

END OF TASK
REPLACE TRAVERSE DRIVE MOTOR

DESCRIPTION

This task covers: Remove (page 7-70). Install (page 7-73).

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Extreme grease (Item 12, App C)
- Tech petrolatum (Item 26, App C)
- Grease (Item 14, App C)
- Grease (Item 10, App C)
- Cotter pin
- Lock washer (4)
- Self-locking screw (4)
- Self-locking screw (2)
- Self-locking nut (2)
- Preformed packing
- DC motor

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REFERENCES:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

REMOVE

1. REMOVE ROD END CLEVIS (1) FROM BRAKE RELEASE HANDLE (2).
   a. Remove cotter pin (3), washer (4), pin (5), and rod end clevis (1) from brake release handle (2). Discard cotter pin.

2. REMOVE GUNNER'S SLOPE INDICATOR.
3. REMOVE PLUG 2W307P2 (1) FROM JACK 2A201J2 (2).

4. REMOVE MOTOR GUARD (3) FROM MOTOR (4).
   a. Remove four screws (5), lock washers (6), washers (7), and motor guard (3) from motor (4). Discard lock washers.

NOTE
Instruction plate should be discarded only if instruction plate is too worn or damaged for further use.

5. REMOVE PLATE (8) FROM MOTOR GUARD (3).
   a. Remove four screws (9), washers (10), nuts (11), lock washers (12), and retaining straps (13) from motor guard (3). Discard lock washers.
   b. Remove plate (8) from motor guard (3).

6. REMOVE UPPER CLAMP (14) FROM LOWER CLAMP (15).
   a. Remove two lock screws (16), washers (17), and upper clamp (14) from lower clamp (15). Discard lock screws.

GO TO NEXT PAGE
7. REMOVE LOWER CLAMP (1) FROM SUPPORT (2).
   a. Remove two locknuts (3), screws (4), four washers (5), and lower clamp (1) from support (2). Discard locknuts.

8. REMOVE SUPPORT (2) FROM TURRET.
   a. Remove two screws (6), washers (7), and support (2) from turret.

**CAUTION**
Equipment can be damaged if you remove screws without supporting motor. Support motor before you remove screws.

9. REMOVE MOTOR (8) FROM GEARBOX (9).
   a. Remove four lock screws (10), washers (11), and motor (8) from gearbox (9). Discard lock screws.
   b. Remove preformed packing (12) from motor (8). Discard preformed packing.
10. INSTALL NEW MOTOR (1) ON GEARBOX (2).
   a. Coat new preformed packing (3) with tech petrolatum. Install preformed packing in groove (4) on motor (1).
   b. Coat shaft (5) of motor (1) with grease (Item 15).
   c. Coat threads of four new lock screws (6) with grease (Item 18).
   d. Install motor (1), four washers (7), and lock screws (6) on gearbox (2).

11. TORQUE FOUR LOCK SCREWS (6) TO 20-23 FT-LB (3 MKG).

12. INSTALL SUPPORT (8) ON TURRET.
   a. Coat threads of two screws (9) with grease (Item 18).
   b. Install support (8), two washers (10), and screws (9) on turret.

13. INSTALL LOWER CLAMP (11) ON SUPPORT (8).
   a. Coat threads of two screws (12) with grease (Item 18).
   b. Install lower clamp (11), four washers (13), two screws (12), and new locknuts (14) on support (8). Do not tighten locknuts.
14. INSTALL UPPER CLAMP (1) ON LOWER CLAMP (2).
   a. Coat threads of two new lock screws (3) with grease (item 18).
   b. Install upper clamp (1), two washers (4), and lock screws (3) on lower clamp (2).

15. TORQUE TWO LOCK SCREWS (3) TO 65-75 IN-LB (75-88 CMKG).

16. TORQUE TWO LOCKNUTS (5) TO 65-75 IN-LB (75-88 CMKG).

NOTE
New instruction plate should be installed only if worn or damaged instruction plate was discarded in step 5.

17. INSTALL NEW PLATE (6) ON MOTOR GUARD (7).
   a. Install new plate (6) on motor guard (7).
   b. Install four screws (8), washers (9), retaining straps (10), new lock washers (11), and nuts (12) on plate (6).
18. INSTALL MOTOR GUARD (1) ON MOTOR (2).
   a. Coat threads of four screws (3) with grease (Item 18).
   b. Install motor guard (1), four washers (4), new lock washers (5), and screws (3) on motor (2).
   c. TORQUE FOUR SCREWS (3) TO 20-23 IN-LB (23-26 CMKG).


21. INSTALL ROD END CLEVIS (8) ON BRAKE RELEASE HANDLE (9).
   a. Coat rod end clevis (8) with grease (Item 19).
   b. Install rod end clevis (8), pin (10), washer (11), and new cotter pin (12) on motor brake release handle (9).

22. ADJUST TRAVERSE DRIVE BRAKE LINKAGE. See page 7-62.

23. CHECK OPERATION OF TURRET TRAVERSE IN POWER MODE. See TM 9-2350-252-10-2.
ADJUST TRAVERSE DRIVE MANUAL DRIVE CHAIN

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Grease (Item 14, App C)
- Lock washer (3)
- Retaining ring

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. REMOVE HANDWHEEL (1) FROM SHAFT (2).
   a. Unhook spring (3) from handwheel (1).
   b. Remove retaining ring (4), washer (5), and handwheel (1) from shaft (2). Discard retaining ring.
2. REMOVE COVER (1) FROM HOUSING (2).
   a. Remove screw (3), lock washer (4), and angle bracket (5) with spring (6) from cover (1). Discard lock washer.
   b. Remove two screws (7), lock washers (8), washers (9), and cover (1) from housing (2). Discard lock washers.

3. ADJUST FREE PLAY (10) OF CHAIN (11).
   a. Loosen screw (12).
   b. Adjust guide (13) until chain (11) has 3/16 inch (5 mm) of free play (10).
   c. Tighten screw (12).

4. TORQUE SCREW (12) TO 16-19 IN-LB (18-22 CMKG).

5. INSTALL COVER (1) ON HOUSING (2).
   a. Apply grease to threads of three screws (3, 7).
   b. Install cover (1), two washers (9), new lock washers (8), and screws (7) on housing (2).
   c. Install angle bracket (5) with spring (6), new lock washer (4), and screw (3) on cover (1).
6. INSTALL HANDWHEEL (1) ON SHAFT (2).
   a. Install handwheel (1), washer (3), and new retaining ring (4) on shaft (2).

7. MANUALLY TRAVERSE TURRET. See TM 9-2350-252-10-2.

8. CHECK FOR SMOOTH OPERATION OF CHAIN.
   a. If handwheel (1) turns smoothly, go to step 9.
   b. If handwheel (1) does not turn smoothly, see task: REPLACE TRAVERSE DRIVE GEARBOX, page 7-109.

9. HOOK SPRING (5) ONTO HANDLE (6).

END OF TASK
ADJUST GUN ELEVATION DRIVE, TOW, AND HANDWHEEL DRIVE CHAINS

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
Grease (Item 14, App C)
Sealing compound (Item 22, App C)
Self-locking screw (13)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. MOVE GUN ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

2. MOVE TOW ELEVATION DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

NOTE
Cover may have two brackets installed.

3. REMOVE SPRING (1) FROM HANDWHEEL (2), ANGLE BRACKET (3) AND (4) IF INSTALLED.

GO TO NEXT PAGE
NOTE
Cover may have two brackets installed. One bracket must be removed and discarded.

4. REMOVE COVER (1) FROM HOUSING (2).
   a. Remove 13 lock screws (3), washers (4), bracket (5), and bracket (6) if installed, from cover (1) on housing (2). Discard lock screws.
   b. Discard bracket (6) if removed.
   c. Remove cover (1) from housing (2) at two pry points (7). Use flat-tip screwdriver.

5. ADJUST FREE PLAY (8) OF HANDWHEEL DRIVE CHAIN (9).
   a. Loosen screw (10).
   b. Adjust guide (11) until handwheel drive chain (9) has 7/16-9/16 inch (11.1-14.3 mm) of free play (8).
   c. Tighten screw (10).
   d. TORQUE SCREW (10) TO 20-23 IN-LB (23-27 CMKG).
6. INSTALL COVER (1) ON HOUSING (2).
   a. Coat mating surface of housing (2) with sealing compound.
   b. Position cover (1) on two guide pins (3).
   c. Coat threads of 13 new lock screws (4) with grease.
   d. Install angle bracket (5), 13 washers (6), and lock screws (4) in cover (1).

7. CHECK THAT HANDWHEEL (7) TURNS EASILY IN BOTH DIRECTIONS.
   a. If handwheel (7) does not turn easily in both directions, go to step 8.
   b. If handwheel (7) turns easily in both directions, go to step 11.

8. REMOVE COVER (1) FROM HOUSING (2).
   a. Remove 13 lock screws (4), washers (6) and angle bracket (5) from cover (1).
      Discard lock screws.
   b. At pry points (8), pry off and remove cover (1). Use flat-tip screwdriver.
9. ADJUST FREE PLAY (1) OF TOW DRIVE CHAIN (2).
   a. Loosen screw (3).
   b. Adjust guide (4) until TOW drive chain (2) has 7/16-9/16 inch (11.1-14.3 mm) of free play (1).
   c. Tighten screw (3).
   d. TORQUE SCREW (3) TO 20-23 IN-LB (23-27 CMKG).

10. LOOSEN SCREW (5), AND GO TO STEP 5.

11. TORQUE 13 LOCK SCREWS (6) TO 65-75 IN-LB (75-86 CMKG).
12. MANUALLY ELEVATE OR DEPRESS TOW LAUNCHER AND 25MM GUN TO 0 MILS. See TM 9-2350-252-10-2. CHECK FOR SMOOTH OPERATION OF CHAINS.

13. INSTALL SPRING (1) ON HANDWHEEL (2) AND ANGLE BRACKET (3).

END OF TASK
ADJUST TRAVERSE DRIVE BRAKE SENSITIVE SWITCH

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)
- Multimeter (Item 15, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Grease (Item 10, App C)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. REMOVE PLUG 2W307P3 (1) FROM JACK 2A201J3 (2).
NOTE
Steps 2 through 5 should be done only if bellcrank does not have a setscrew.

2. REMOVE BELLCRANK (1) FROM CLEVIS (2) AND COVER (3).
   a. Remove two cotter pins (4), washers (5), pins (6), and bellcrank (1) from clevis (2) and cover (3). Discard cotter pins.

3. REMOVE BELLCRANK (1) FROM CLEVIS (7).
   a. Remove cotter pin (8), washer (9), headed straight pin (10), and bellcrank (1) from clevis (7). Discard cotter pin.

4. INSTALL NEW BELLCRANK (1) WITH SETSCREW (11) ON CLEVIS (7).
   a. Apply grease to headed straight pin (10).
   b. Install new bellcrank (1) with setscrew (11), headed straight pin (10), washer (9), and new cotter pin (8) on clevis (7).

GO TO NEXT PAGE
5. INSTALL BELLCRANK (1) ON CLEVIS (2) AND COVER (3).
   a. Apply grease to two headed straight pins (4).
   b. Install bellcrank (1), two headed straight pins (4), washers (5), and new cotter pins (6) on clevis (2) and cover (3).

6. ADJUST TRAVERSE DRIVE SHIFT LINKAGE. See page 7-66.

7. INSTALL TWO TEST PIN PROBES (7) ON PINS B (8) AND C (9) ON JACK 2A201J3 (10). USE TEST PIN PROBES FROM STE-M1/FVS.

8. CONNECT MULTIMETER PROBES (11) TO TEST PIN PROBES (7) ON PINS B (8) AND C (9) ON JACK 2A201J3 (10).

9. MOVE TRAVERSE DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.
10. CHECK CONTINUITY OF SWITCH (1).

USE MULTIMETER.

a. If continuity does not exist, go to step 11.

b. If continuity exists, go to step 12.

11. ADJUST SWITCH (1).

a. Loosen nut (2) on setscrew (3).

b. Turn setscrew (3) right until continuity exists.

c. If continuity exists tighten nut (2) on setscrew (3). Go to step 12.

d. If continuity does not exist, notify Direct Support Maintenance.

12. MOVE TRAVERSE DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

13. CHECK CONTINUITY OF SWITCH (1).

USE MULTIMETER.

a. If continuity does not exist, go to step 14.

b. If continuity exists, notify Direct Support Maintenance.
14. INSTALL TWO TEST PIN PROBES (1) ON PINS A (2) AND B (3) ON JACK 2A201J3 (4). USE TEST PIN PROBES FROM STE-M1/FVS.

15. CONNECT MULTIMETER PROBES (5) TO TEST PIN PROBES (1) ON PINS A (2) AND B (3) ON JACK 2A201J3 (4).

16. CHECK CONTINUITY OF SWITCH (6). USE MULTIMETER.
   a. If continuity exists, go to step 17.
   b. If continuity does not exist, notify Direct Support Maintenance.

17. MOVE TRAVERSE DRIVE SELECT LEVER TO POWER POSITION. See TM 9-2350-252-10-2.

18. CHECK CONTINUITY OF SWITCH (6). USE MULTIMETER.
   a. If continuity does not exist, go to step 19.
   b. If continuity exists, notify Direct Support Maintenance.
19. REMOVE TWO MULTIMETER PROBES (1) AND TEST PIN PROBES (2) FROM JACK 2A201J3 (3).

20. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

21. INSTALL PLUG 2W307P3 (4) ON JACK 2A201J3 (3).

END OF TASK
ADJUST TRAVERSE DRIVE MANUAL FIRING SWITCH

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Multimeter (Item 15, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Shim

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

ADJUST


2. CHECK ADJUSTMENT OF SWITCH (1).
   a. Measure distance (2) between plunger (3) and lever (4).
   b. If measurement is .040 inch (1.02 mm) or more, go to step 3.
   c. If measurement is less than .040 inch (1.02 mm), go to step 9.

GO TO NEXT PAGE
3. CHECK CONTINUITY OF PIN A (1) AND PIN B (2) ON SWITCH (3).
   a. (H) Connect probes to pins A (1) and B (2) on switch (3). Use multimeter.
   b. If continuity exists, go to step 4.
   c. If continuity does not exist go to step 5.

4. CHECK CONTINUITY OF PIN A (1) AND PIN C (4) ON SWITCH (3).
   a. (H) Connect probes to pin A (1) and pin C (4) on switch (3).
   b. If continuity exists, go to step 5.
   c. If continuity does not exist, go to step 6.

5. REPLACE TRAVERSE DRIVE MANUAL FIRING SWITCH. See page 7-115.
NOTE
Improper measurement will be obtained if sleeve spacer is not properly positioned. Be sure sleeve spacer is held firmly against handwheel when pressing firing button.

6. CHECK ADJUSTMENT OF SWITCH (1).
   a. (H) Connect probes to pins A (2) and C (3) on switch (1). Use multimeter.
   b. Hold sleeve spacer (4) firmly against handwheel (5). Press button (6).
   c. If continuity exists, go to step 7.
   d. If continuity does not exist, go to step 9.

7. MEASURE DISTANCE (7) THAT BUTTON (6) IS DEPRESSED.
   a. Measure distance (7) that button (6) is depressed inside sleeve spacer (4) when continuity exists.
   b. If distance (7) is ≈ 0.035 inch (2.78-3.57 mm), go to step 8. If not, go to step 9.

8. INSPECT SHIM (8).
   a. Inspect shim (8) for proper fit.
   b. If shim is loose, go to step 9. If not, go to step 23.

9. REMOVE SWITCH (1) FROM GEARBOX (9).
   a. Remove jam nut (10) from switch (1).
   b. Remove switch (1) and shim (8) from gearbox (9). Discard shim.
10. INSTALL SWITCH (1) ON GEARBOX (2).
   a. Install switch (1) part way into gearbox (2).

NOTE
Improper measurement will be obtained if sleeve spacer is not properly positioned. Be sure sleeve spacer is held firmly against handwheel when pressing firing button.

11. ADJUST SWITCH (1).
   a. (H) Connect probes to pins A (3) and C (4). Use multimeter.
   c. Screw switch (1) into gearbox (2) until continuity exists.
   d. If continuity exists, go to step 12.
   e. If continuity does not exist, go to step 5.

12. REMOVE MULTIMETER PROBES FROM SWITCH (1).

GO TO NEXT PAGE
13. ALINE LARGEST KEYWAY (1).
   a. Rotate switch (2) no more than one half turn right or left so largest keyway (1) faces away from handwheel (3).

NOTE
Shim may be no more than .003 inch (.08 mm) thicker than recorded measurement.

15. INSTALL SWITCH (2) ON GEARBOX (5).
   a. Peel layers from new shim (7) until thickness is no less than measurement in step 14.
   b. Install shim (7) on switch (2).
   c. Screw switch (2) into gearbox (5) until shim (7) is snug.

14. MEASURE DISTANCE (4) BETWEEN SWITCH (2) AND GEARBOX (5).
   a. Measure and record distance (4) between switch shoulder (6) and gearbox (5).
   b. Remove switch (2) from gearbox (5).

16. ALINE LARGEST KEYWAY (1).
   a. Rotate switch (2) no more than one half turn right or left so largest keyway (1) faces away from handwheel (3).
17. INSPECT SHIM (1).
   a. Inspect shim (1) for proper fit.
   b. If shim (1) is loose, go to step 18. If not, go to step 20.

18. REMOVE SWITCH (2) FROM GEARBOX (3).
   a. Remove shim (1) from switch (2). Discard shim.
   b. Peel layers from new shim (1) until shim is .003 inch (.08 mm) thicker than distance recorded in step 13.

19. INSTALL SWITCH (2) ON GEARBOX (3).
   a. Install shim (1) on switch (2).
   b. Install switch (2) on gearbox (3).
   c. Go to step 6.
20. INSTALL JAM NUT (1) ON SWITCH (2).

21. TORQUE JAM NUT (1) TO 50-60 IN-LB (58-69 CMKG).

22. GO TO STEP 2.

23. INSTALL TRAVERSE DRIVE GEARBOX.

END OF TASK
ADJUST TRAVERSE DRIVE PINION GEAR BACKLASH

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Swivel adapter (Item 9, App F)
- Installation tool (Item 11, App F)
- STE-M1/FVS test set (Item 30, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

WARNING
Accidental firing of 25mm gun could kill or injure soldiers. 25mm gun can fire by accident if you turn switch jack J1. Do not turn switch jack J1 when you remove plug from gearbox.

1. REMOVE PLUG 2W307P1 (1) FROM JACK 2A201J1 (2).

2. REMOVE PLUG 2W307P3 (3) FROM JACK 2A201J3 (4).

GO TO NEXT PAGE
3. MOVE TRAVERSE DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

**NOTE**
You should check that gunner's seat post is securely installed before mounting dial indicator.

4. INSTALL DIAL INDICATOR (1) ON GUNNER'S SEAT POST (2).
   a. Install button (3) on end of dial indicator (1).
   b. Install magnetic base (4) and dial indicator (1) on gunner's seat post (2).

**NOTE**
Center mounting screw is located at center of turret doorway.

Drill blank must be positioned firmly between ring gear teeth when measuring and recording readings on dial indicator.

Ring gear must be clean.

5. ZERO DIAL INDICATOR (1) AND MARK START POINT ON CENTER MOUNTING SCREW (5).
   a. Turn dial indicator dial (1) to zero.
   b. Position drill blank (6) between teeth on ring gear (7) at center mounting screw (5).
   c. Turn handwheel (8) slowly until button (3) is aligned with drill blank (6). Have helper assist.
   d. Move magnetic base (4) until dial indicator (1) reads 0.030 inches (0.76 mm) and button (3) touches highest spot on drill blank (6). Mark start point on center mounting screw (5).
6. LOCATE HIGH SPOT ON RING GEAR (1).
   a. Move drill blank (2) two mounting screws (3) to the right to position (4). Position drill blank between teeth on ring gear (1).
   b. Turn handwheel (5) slowly until button (6) is aligned with drill blank (2). Have helper assist.
   c. Measure and record reading on dial indicator (7) and azimuth indicator tape (8) for each reading.
   d. Repeat substeps 6a thru 6c at every other mounting screw (3) until 24 readings have been taken.

NOTE
Start point is located at center mounting screw.

7. RECHECK START POINT.
   a. Turn handwheel (5) slowly until button (6) is aligned with drill blank (2) at start point marked on center mounting screw (3). See step 5. Have helper assist.
   b. Check reading on dial indicator (7). If reading is still 0.030 inch (0.76 mm) go to step 8. If reading is not 0.030 inch (0.76 mm), go to substep 7c.
   c. Repeat readings check on dial indicator (7) at two points on each side of start point. If readings are the same as original readings, record reading taken at start point in substep 7b and go to step 8. If readings are not the same as original readings, go to step 6.

GO TO NEXT PAGE
8. REMOVE DIAL INDICATOR (1) AND MAGNETIC BASE (2) AND DRILL BLANK (3) FROM GUNNER'S SEAT POST (4).

9. CALCULATE INITIAL DISTANCE.
   a. Add 0.003 inch (0.08 mm) to the high spot reading found in step 6.
   b. Subtract the reading found for the start point in step 7 from the reading in substep 9a.
   c. Record this number as the initial distance.

10. MANUALLY TRAVERSE TURRET TO 5100 MILS. See TM 9-2350-252-10-2.

   NOTE
   Access to pinion gear tooth and ring gear tooth is from squad area through turret door opening.

11. CHECK DISTANCE (5) BETWEEN LEFT PINION GEAR TOOTH (6) AND RING GEAR TOOTH (7).
   a. If distance (5) between left pinion gear tooth (6) and ring gear tooth (7) is not equal to the distance recorded in substep 9c, go to step 12.
   b. If distance (5) between left pinion gear tooth (6) and ring gear tooth (7) is equal to the distance recorded in substep 9c, go to step 15.
NOTE
Steps 12 and 13 should be done only if traverse drive motor has not been removed.

12. REMOVE PLUG 2W307P2 (1) FROM JACK 2A201J2 (2).

13. LOOSEN TWO NUTS (3) ON LOWER CLAMP (4) ON MOTOR (5).

NOTE
The distance between the left pinion gear tooth and the ring gear tooth must still equal the initial distance after torquing is applied.

14. ADJUST DISTANCE (6) BETWEEN LEFT PINION GEAR TOOTH (7) AND RING GEAR TOOTH (8).
   a. Loosen two screws (9).
   b. Turn two adjustable washers (10) right to increase distance (6) or left to decrease distance between left pinion gear tooth (7) and ring gear tooth (8). Have helper assist.
   c. TORQUE TWO SCREWS (9) TO 240–320 IN-LB (276–369 CMKG).
8. REMOVE DIAL INDICATOR (1) AND MAGNETIC BASE (2) AND DRILL BLANK (3) FROM GUNNER’S SEAT POST (4).

9. CALCULATE INITIAL DISTANCE.
   a. Add 0.003 inch (0.08 mm) to the high spot reading found in step 6.
   b. Subtract the reading found for the start point in step 7 from the reading in substep 9a.
   c. Record this number as the initial distance.

10. MANUALLY TRAVERSE TURRET TO 5100 MILS. See TM 9-2350-252-10-2.

   NOTE
   Access to pinion gear tooth and ring gear tooth is from squad area through turret door opening.

11. CHECK DISTANCE (5) BETWEEN LEFT PINION GEAR TOOTH (6) AND RING GEAR TOOTH (7).
   a. If distance (5) between left pinion gear tooth (6) and ring gear tooth (7) is not equal to the distance recorded in substep 9c, go to step 12.
   b. If distance (5) between left pinion gear tooth (6) and ring gear tooth (7) is equal to the distance recorded in substep 9c, go to step 15.
NOTE
Steps 12 and 13 should be done only if traverse drive motor has not been removed.

12. REMOVE PLUG 2W307P2 (1) FROM JACK 2A201J2 (2).

13. LOOSEN TWO NUTS (3) ON LOWER CLAMP (4) ON MOTOR (5).

NOTE
The distance between the left pinion gear tooth and the ring gear tooth must still equal the initial distance after torquing is applied.

14. ADJUST DISTANCE (6) BETWEEN LEFT PINION GEAR TOOTH (7) AND RING GEAR TOOTH (8).
   a. Loosen two screws (9).
   b. Turn two adjustable washers (10) right to increase distance (6) or left to decrease distance between left pinion gear tooth (7) and ring gear tooth (8). Have helper assist.
   c. TORQUE TWO SCREWS (9) TO 240–320 IN-LB (276–369 CMKG).
15. MANUALLY TRAVERSE TURRET TO 4870 MILS. See TM 9-2350-252-10-2.

16. CHECK DISTANCE (1) BETWEEN RIGHT PINION GEAR TOOTH (2) AND RING GEAR TOOTH (3).
   a. If distance (1) between right pinion gear tooth (2) and ring gear tooth (3) is not equal to distance recorded in substep 9c, go to step 17.
   b. If distance (1) between right pinion gear tooth (2) and ring gear tooth (3) is equal to distance recorded in substep 9c, go to step 19.

**NOTE**
The distance between the right pinion gear tooth and the ring gear tooth must still equal the initial distance after torquing is applied.

17. ADJUST DISTANCE (1) BETWEEN RIGHT PINION GEAR TOOTH (2) AND RING GEAR TOOTH (3).
   a. Loosen two screws (4).
   b. Turn two adjustable washers (5) right to increase distance (1) or left to decrease distance between pinion gear tooth (2) and ring gear tooth (3). Have helper assist.
   c. TORQUE TWO SCREWS (4) TO 240-320 IN-LB (276-369 CMKG).

18. REPEAT STEPS 10 THRU 17 UNTIL BOTH RIGHT AND LEFT PINION GEAR TO RING GEAR DISTANCES EQUAL THE DISTANCE RECORDED IN STEP 9.
19. TRACE GEAR TEETH PATTERN.
   a. (H) Turn handwheel (1) back to traverse turret left until left and right pinion gears (2, 3) are not at start point at center mounting screw.
   b. Place paper (4) on ring gear (5) at start point.
   c. Turn handwheel (1) forward slowly to traverse turret right until right pinion gear (2) moves across paper (4). Have helper assist.

20. INSPECT GEAR TEETH PATTERN.
   a. If gear teeth pattern looks like pattern (6) or (7), go to step 21.
   b. If gear teeth pattern looks like pattern (8), go to step 26.

GO TO NEXT PAGE
21. ADJUST FOR EVEN GEAR TEETH PATTERN.
   a. Loosen screw (1).
   b. If gear teeth pattern looks like pattern (2), rotate adjusting washer (3) right one-half turn. Repeat as needed. Use adjusting tool.
   c. If gear teeth pattern looks like pattern (4), rotate adjusting washer (3) left one-half turn. Repeat as needed. Use adjusting tool.

22. TORQUE SCREW (1) TO 15–20 FT-LB (2–3 MKG).

23. TRACE GEAR TEETH PATTERN.
   a. (H) Turn handwheel (5) forward to traverse turret right until left and right pinion gears (6, 7) are not at start point at center mounting screw.
   b. Place paper (8) on ring gear (9) at start point.
   c. Turn handwheel (5) back slowly to traverse turret left until left pinion gear (7) moves across paper (8). Have helper assist.
24. INSPECT GEAR TEETH PATTERN.
   a. If gear teeth pattern looks like pattern (1) or (2), go to step 25.
   b. If gear teeth pattern looks like pattern (3), go to step 26.

25. ADJUST FOR EVEN GEAR TEETH PATTERN.
   a. Loosen screw (4).
   b. If gear teeth pattern looks like pattern (1), rotate adjusting washer (5)
      right one-half turn. Repeat as needed. Use adjusting tool.
   c. If gear teeth pattern looks like pattern (2), rotate adjusting washer (5)
      left one-half turn. Repeat as needed. Use adjusting tool.
26. TORQUE THREE SCREWS (1) TO 90-100 FT-LB (12-14 MKG).

27. MANUALLY TRAVERSE TURRET TO 5100 MILS. See TM 9-2350-252-10-2.

NOTE
Access to pinion gear tooth and ring gear tooth is from squad area through turret door opening.

28. CHECK DISTANCE (2) BETWEEN LEFT PINION GEAR TOOTH (3) AND RING GEAR TOOTH (4).
   a. If distance (2) between left pinion gear tooth (3) and ring gear tooth (4) is not equal to distance recorded in substep 9c, go to step 14.
   b. If distance (2) between left pinion gear tooth (3) and ring gear tooth (4) is equal to distance recorded in substep 9c, go to step 29.
29. MANUALLY TRAVERSE TURRET TO 4870 MILS. See TM 9-2350-252-10-2.

30. CHECK DISTANCE (1) BETWEEN RIGHT PINION GEAR TOOTH (2) AND RING GEAR TOOTH (3).
   a. If distance (1) between right pinion gear tooth (2) and ring tooth (3) is not equal to distance recorded in substeps 9c, go to step 17.
   b. If distance (1), between right pinion gear tooth (2) and ring gear tooth (3) is equal to distance recorded in substep 9c, go to step 31.

31. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.
    CHECK FOR SMOOTH OPERATION OF GEARS.

**NOTE**
Steps 32 and 33 should be done only if traverse drive motor has not been removed.

32. TORQUE TWO NUTS (4) ON LOWER CLAMP (5) ON MOTOR (6) TO 90-100 IN-LB (104-115 CMKG).

33. INSTALL PLUG 2W307P2 (7) ON JACK 2A201J2 (8).
WARNING
Accidental firing of 25mm gun could injure or kill soldiers. 25mm gun can fire by accident if you turn switch jack J1. Do not turn switch jack J1 when you install plug or gearbox.

34. INSTALL PLUG 2W307P3 (1) ON JACK 2A201J3 (2).

35. INSTALL PLUG 2W307P1 (3) ON JACK 2A201J1 (4).

36. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE TRAVERSE DRIVE GEARBOX

DESCRIPTION

This task covers: Remove (page 7-109). Install (page 7-111).

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Extreme grease (Item 12, App C)
- Grease (Item 10, App C)
- Lock washer (2)
- Traverse drive gearbox
- Cotter pin

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE GUNNER’S HANDSTATION. See task: REPLACE GUNNER’S HANDSTATION page 7-124.

2. REMOVE GUNNER’S TURRET POSITION INDICATOR. See task: REPLACE TURRET POSITION INDICATOR ASSEMBLY BOX, page 5-120.


4. REMOVE TRAVERSE DRIVE MOTOR. See task: REPLACE TRAVERSE DRIVE MOTOR, page 7-70.

5. SET TURRET TRAVEL LOCK IN LOCKED POSITION. See TM 9-2350-252-10-2.

6. REMOVE LINK (1) FROM GEARBOX (2).
   a. Remove cotter pin (3), washer (4), pin (5), and link (1) from gearbox (2).
   b. Discard cotter pin.

GO TO NEXT PAGE
WARNING
Accidental firing of 25mm gun could kill or injure soldiers. Jack rotation could allow 25mm gun to fire. Do not turn switch jack J1 when you remove plug from gearbox.

7. REMOVE PLUGS (1) FROM JACKS (2) AS FOLLOWS:
   2W307P1 FROM 2A201J1
   2W307P3 FROM 2A201J3.
   TAG PLUGS.

8. REMOVE GROUND STRAP (3) FROM GEARBOX (4).
   a. Remove screw (5), two lock washers (6), and ground strap (3) from gearbox (4). Discard lock washers.

9. REMOVE GEARBOX (4) FROM TURRET.
   a. Remove three screws (7) and adjustable washers (8) from gearbox (4).
   b. Remove gearbox (4) from turret. Have helper assist.
10. **Loosen Drive Gear Shield** (1).
   a. Loosen two screws (2) on drive gear shield (1).
   b. Slide drive gear shield (1) toward turret wall.

11. **Apply Grease** (Item 15) to Ring Gear (3).

   a. Loosen four screws (6) alternately 1/2 inch to release tension on spring retainer (4).

13. **Apply Grease** (Item 15) to Output Pinion Gears (7) of Gearbox (5).
14. INSTALL THREE NEW RINGS (1) AND SLEEVE BUSHINGS (2) ON GEARBOX (3).
   a. Install three rings (1) in front of gearbox (3). Tighten three rings until they sit just below surface of gearbox (3).
   b. Install three sleeve bushings (2) in rear of gearbox (3). Tighten three sleeve bushings until face (4) is flush with gearbox surface (5), and straight sides (6) are vertical.

15. ADJUST TRAVERSE DRIVE MANUAL FIRING SWITCH. See page 7-90.

**CAUTION**
Misalignment of gear teeth can damage gears. Align gear teeth.

**NOTE**
Sleeve bushings must align with vertical slots in turret wall. Sleeve bushings will not be flush against turret wall if gear teeth are out of mesh.

16. INSTALL GEARBOX (3) ON TURRET.
   HAVE HELPER ASSIST.
   a. Position gearbox (3) on turret.
   b. Push lever (7) toward turret wall. Turn handwheel (8) as needed to align gear teeth.
   c. Apply grease (Item 19) to threads of three screws (9).
   d. Install three new adjustable washers (10) and screws (9) in gearbox (3) and turret.

**WARNING**
Accidental firing of 25mm gun could kill or injure soldiers. Jack rotation could allow 25mm gun to fire. Do not turn switch jack J1 when you install plug on gearbox.

17. INSTALL PLUG 2W307P1 (11) ON JACK 2A201J1 (12).

18. TORQUE THREE SCREWS (9) TO 15-20 FT-LB (2-3 MKG).
19. TIGHTEN SPRING RETAINER (1) TENSION ON GEARBOX (2).
   a. Tighten four screws (3) on spring retainer (1).
   b. TORQUE FOUR SCREWS (3) TO 65-75 IN-LB (75-86 CMKG).

20. ADJUST TRAVERSE DRIVE PINION GEAR BACKLASH. See page 7-97.

21. INSTALL GROUND STRAP (4) ON GEARBOX (2).
   a. Install ground strap (4), two new lock washers (5), and screw (6) on gearbox (2).

22. INSTALL PLUG 2W307P3 (7) ON JACK 2A201J3 (8).

23. TIGHTEN DRIVE GEAR SHIELD (9).
   a. Position drive gear shield (9) as close to gearbox (2) as possible.
   b. Tighten two screws (10) on drive gear shield (9).
24. INSTALL LINK (1) ON GEARBOX (2).
   a. Apply grease (Item 19) to pin (3).
   b. Install link (1), pin (3), washer (4), and new cotter pin (5) on gearbox (2).

25. INSTALL TRAVERSE DRIVE MOTOR.
    See task: REPLACE TRAVERSE DRIVE MOTOR, page 7-70.

26. SET TURRET TRAVEL LOCK IN UNLOCKED POSITION. See
    TM 9-2350-252-10-2.

27. ADJUST TRAVERSE DRIVE BRAKE LINKAGE. See page 7-62.


29. INSTALL GUNNER'S TURRET POSITION INDICATOR. See task: REPLACE TURRET POSITION INDICATOR ASSEMBLY BOX, page 5-120.

30. INSTALL GUNNER'S HANDSTATION.
    See task: REPLACE GUNNER'S HANDSTATION, page 7-124.

31. PERFORM STE-M1/FVS TEST 2650. See page 3-561.

32. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE TRAVERSE DRIVE MANUAL FIRING SWITCH

DESCRIPTION

This task covers: Remove (page 7-115). Install (page 7-116).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Switch
- Shim

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE


2. REMOVE SWITCH (1) FROM BRACKET (2).
   a. Remove nut (3), lock washer (4), switch (1) and shim (5) from bracket (2). Discard lock washer and shim.

GO TO NEXT PAGE
3. INSTALL NEW SWITCH (1) ON BRACKET (2).
   a. Install new shim (3) on new switch (1),
      new lock washer (4), and nut (5) on bracket (2) finger tight.

4. POSITION SWITCH (1) IN BRACKET (2).
   a. Position switch (1) in bracket (2).
   b. Tighten nut (5).

5. ADJUST TRAVERSE DRIVE MANUAL FIRING SWITCH. See page 7-90.

END OF TASK
### Section IV. MAINTENANCE OF COMMANDER'S HANDSTATION

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REPLACE COMMANDER'S HANDSTATION

DESCRIPTION

This task covers: Remove (page 7-118). Install (page 7-119).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Commander's handstation

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE PLUG 2W302P6 (1) FROM JACK 2A206J1 (2).
CAUTION
Equipment may get damaged if you remove screws without supporting handstation. Support handstation before you remove screws.

2. REMOVE COMMANDER’S HANDSTATION (1) FROM TURRET.
   a. Remove two screws (2), washers (3), slope indicator (4), and commander’s handstation (1) from turret.

3. INSTALL NEW COMMANDER’S HANDSTATION (1) ON TURRET.
   a. Install commander’s handstation (1), slope indicator (4), two washers (3), and screws (2) on turret.

4. INSTALL PLUG 2W302P6 (5) ON JACK 2A206J1 (6).

5. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
ADJUST COMMANDER’S HANDSTATION ELEVATION RESISTOR

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. LOOSEN FOUR SCREWS (1) ON RESISTOR MOUNT (2).
2. PERFORM STE-M1/FVS TEST 2540. See page 3-446.
3. TIGHTEN FOUR SCREWS (1) SO RESISTOR MOUNT (2) CANNOT ROTATE.
4. TORQUE FOUR SCREWS (1) TO 16-19 IN-LB (18-22 CMKG).
5. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
ADJUST COMMANDER’S HANDSTATION TRAVERSE RESISTOR

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. LOOSEN FOUR SCREWS (1) ON RESISTOR MOUNT (2).

2. PERFORM STE/M1/FVS TEST 2540. See page 3-446.

3. TIGHTEN FOUR SCREWS (1) SO RESISTOR MOUNT (2) CANNOT ROTATE.

4. TORQUE FOUR SCREWS (1) TO 18–19 IN-LB (18–22 CMKG).

5. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
### Section V. MAINTENANCE OF GUNNER'S HANDSTATION

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REPLACE GUNNER'S HANDSTATION

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Self-locking nut (4)
- Gunner's handstation

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE PLUG 2W302P1 (1) FROM JACK 2A205J1 (2).

CAUTION
Equipment may get damaged if you remove screws without supporting handstation. Support handstation before you remove screws.

2. REMOVE GUNNER'S HANDSTATION (3) FROM BRACKET (4).
   a. Remove four locknuts (5), screws (6), eight washers (7), and gunner's handstation (3) from bracket (4). Discard locknuts.

INSTALL

3. INSTALL NEW GUNNER'S HANDSTATION (3) ON BRACKET (4).
   a. Install gunner's handstation (3), eight washers (7), four screws (6), and new locknuts (5) on bracket (4).

4. INSTALL PLUG 2W302P1 (1) ON JACK 2A205J1 (2).

5. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
ADJUST GUNNER’S HANDSTATION ELEVATION RESISTOR

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. LOOSEN FOUR SCREWS (1) ON RESISTOR MOUNT (2).
2. PERFORM STE-M1/FVS TEST 2540. See page 3-446.
3. TIGHTEN FOUR SCREWS (1) SO RESISTOR MOUNT (2) CANNOT ROTATE.
4. TORQUE FOUR SCREWS (1) TO 16–19 IN-LB (18–22 CMKG).
5. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
ADJUST GUNNER'S HANDSTATION TRAVERSE RESISTOR

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

ADJUST

1. LOOSEN FOUR SCREWS (1) ON RESISTOR MOUNT (2).

2. PERFORM STE-M1/FVS TEST 2540. See page 3-446.

3. TIGHTEN FOUR SCREWS (1) SO RESISTOR MOUNT (2) CANNOT ROTATE.

4. TORQUE FOUR SCREWS (1) TO 16–19 IN-LB (18–22 CMKG).

5. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
### Section VI. MAINTENANCE OF ELECTRONIC CONTROL ASSEMBLY

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REPLACE ELECTRONIC CONTROL ASSEMBLY

DESCRIPTION

This task covers: Remove (page 7-128). Install (page 7-130).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

Materials/Parts:
- Lock washer (2)
- Lock washer (2)
- Self-locking nut (2)
- Turret control
- Electronic control assembly

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

CAUTION
Do not use tools to loosen or tighten plugs. Plugs must be finger tight or damage to equipment can occur.

1. (H) MANUALLY TRAVERSE TURRET TO 3200 MILS. See TM 9-2350-252-10-2.

2. REMOVE FOUR PLUGS (1) FROM FOUR JACKS (2) AS FOLLOWS:

   2W301P1 FROM 2A200J1
   2W302P7 FROM 2A200J2
   2W303P3 FROM 2A200J3
   860P21P4 FROM 2A200J4.

   TAG PLUGS.
3. REMOVE FOUR PLUGS (1) FROM FOUR JACKS (2) AS FOLLOWS:

- 2W304P5 FROM 2A200J5
- 2W305P6 FROM 2A200J6
- 2W306P7 FROM 2A200J7
- 2W307P8 FROM 2A200J8

TAG PLUGS.

4. REMOVE PLUG 2W308P9 (3) FROM JACK 2A200J9 (4). TAG PLUG.

5. REMOVE GROUND STRAP (5) FROM ELECTRONIC CONTROL ASSEMBLY (6).
   a. Remove screw (7), two lock washers (8), and ground strap (5) from electronic control assembly (6). Discard lock washers.
6. REMOVE ELECTRONIC CONTROL ASSEMBLY (1) FROM TURRET SUPPORT (2).
   a. Remove screw (3) and washer (4) from bracket (5) and electronic control assembly (1).
   b. Remove locknut (6), screw (7), washer (8), two lock washers (9), and ground strap (10) from support (2). Discard locknut and lock washers.
   c. Remove locknut (11), screw (12), washer (13), and electronic control assembly (1) from support (2). Discard locknut. Have helper assist.

7. INSTALL NEW ELECTRONIC CONTROL ASSEMBLY (1) ON SUPPORT (2).
   a. Install electronic control assembly (1), washer (13), screw (12), and new locknut (11) on support (2). Have helper assist.
   b. Install washer (8), screw (7), ground strap (10), two new lock washers (9), and new locknut (6) on support (2).
   c. Install washer (4) and screw (3) on bracket (5) and electronic control assembly (1).
8. INSTALL GROUND STRAP (1) ON ELECTRONIC CONTROL ASSEMBLY (2).
   a. Install ground strap (1), two new lock washers (3), and screw (4) on electronic control assembly (2).

9. INSTALL PLUG 2W308P9 (5) ON JACK 2A200J9 (6).

10. INSTALL FOUR PLUGS (7) ON FOUR JACKS (8) AS FOLLOWS:
    2W307P8 ON 2A200J8
    2W306P7 ON 2A200J7
    2W305P6 ON 2A200J6
    2W304P5 ON 2A200J5.
CAUTION
Do not use tools to loosen or tighten plugs. Plugs must be fingertight or damage to equipment can occur.

11. INSTALL FOUR PLUGS (1) ON FOUR JACKS (2) AS FOLLOWS:

12. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

13. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE ELECTRONIC CONTROL ASSEMBLY GROUND STRAP

DESCRIPTION

This task covers: Remove (page 7-133). Install (page 7-134).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Ground terminal strap
- Lock washer (2)
- Lock washer (2)
- Self-locking nut

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFVICFV Trt Mech 45T10

REMOVE

1. MANUALLY TRAVERSE TURRET TO 2700 MILS. See TM 9-2350-252-10-2.

2. REMOVE GROUND STRAP (1) FROM ELECTRONIC CONTROL ASSEMBLY (2) AND SUPPORT (3).
   a. Remove screw (4), two lock washers (5), and ground strap (1) from electronic control assembly (2). Discard lock washers.
   b. Remove locknut (6), screw (7), washer (8), two lock washers (9), and ground strap (1) from support (3). Discard locknut and lock washers.

GO TO NEXT PAGE
3. INSTALL NEW GROUND STRAP (1) ON SUPPORT (2) AND ELECTRONIC CONTROL ASSEMBLY (3).
   a. Install ground strap (1) on support (2) with screw (4), washer (5), two new lock washers (6), and new locknut (7).
   b. Install ground strap (1) on electronic control assembly (3) with screw (8) and two new lock washers (9).

4. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
## Section VII. MAINTENANCE OF GUN AND PITCH GYROS

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REPLACE GUN GYRO

DESCRIPTION

This task covers: Remove (page 7-136). Install (page 7-137).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Lock washer (4)
- Gyro assembly

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE


2. REMOVE CLAMP (1) FROM TURRET.
   a. Remove screw (2) and clamp (1) from turret.

3. REMOVE PLUG 2W303P4 (3) FROM JACK 2A208J1 (4).
4. REMOVE COVER (1) FROM GYRO (2).
   a. Remove four screws (3), washers (4), and cover (1) from gyro (2).

5. REMOVE GYRO (2) FROM TURRET.
   a. Remove four screws (5), lock washers (6), and gyro (2) from turret. Discard lock washers.

6. INSTALL NEW GYRO (2) ON TURRET.
   a. Install gyro (2), four new lock washers (6), and screws (5) on turret.

7. INSTALL COVER (1) ON GYRO (2).
   a. Install cover (1), four washers (4), and screws (3) on gyro (2).

GO TO NEXT PAGE
8. INSTALL PLUG 2W303P4 (1) ON JACK 2A208J1 (2).

9. INSTALL CLAMP (3) ON TURRET.
   a. Install clamp (3) and screw (4) on turret.

10. CLOSE GUN COVER AND INSTALL 25MM GUN GUARD. See TM 9-2350-252-10-2

11. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE PITCH GYRO

DESCRIPTION

This task covers: Remove (page 7-139). Install (page 7-140).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- STE-M1/FVS test set (Item 30, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Self-locking nut (4)
- Gyro

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE PLUG 2W303P1 (1) FROM JACK 2A207J1 (2).

2. REMOVE GYRO (3) FROM TURRET.
   a. Remove four locknuts (4), screws (5), eight washers (6), and gyro (3) from turret. Discard locknuts.

GO TO NEXT PAGE
3. INSTALL NEW GYRO (1) ON TURRET.
   a. Install gyro (1), eight washers (2), four screws (3), and new locknuts (4) on turret.

4. INSTALL PLUG 2W303P1 (5) ON JACK 2A207J1 (6).

5. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
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REPLACE COMMANDER'S TOP SEAT BACK CUSHION

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Seat back cushion

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE QUICK RELEASE PIN (1) AND CHAIN (2) FROM CUSHION (3).

2. REMOVE CUSHION (3) FROM TURRET.
   a. Remove two screws (4), washers (5), and cushion (3) from turret.

INSTALL

3. INSTALL NEW CUSHION (3) ON TURRET.
   a. Install cushion (3), two washers (5), and screws (4) on turret.

4. INSTALL QUICK RELEASE PIN (1) AND CHAIN (2) ON CUSHION (3).

END OF TASK
REPLACE TURRET PAD AND SEAT BACK CUSHIONS

DESCRIPTION

This task covers: Remove (page 8-3). Install (page 8-4).

INITIAL SETUP

Tools:

Turret mechanic's tool kit (Item 31, App F)

References:

TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:

Seat back cushion
Cushioning pad
Seat back cushion

Equipment Conditions:

Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:

ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE GUNNER'S SEAT BACK CUSHION (1) FROM PLATE (2).
   a. Remove six screws (3), washers (4), and gunner's seat back cushion (1) from plate (2).

2. REMOVE COMMANDER'S SEAT BACK CUSHION (5) FROM PLATE (6).
   a. Remove five screws (7), washers (8), and commander's seat back cushion (5) from plate (6).

GO TO NEXT PAGE
3. REMOVE PAD (1) FROM PLATE (2).
   a. Remove two screws (3), washers (4), and pad (1) from plate (2).

4. INSTALL NEW PAD (1) ON PLATE (2).
   a. Install pad (1), two washers (4), and screws (3) on plate (2).

5. INSTALL NEW COMMANDER'S SEAT BACK CUSHION (5) ON PLATE (6).
   a. Install commander's seat back cushion (5), five washers (7), and screws (8) on plate (6).

6. INSTALL NEW GUNNER'S SEAT BACK CUSHION (9) ON PLATE (10).
   a. Install gunner's seat back cushion (9), six washers (11), and screws (12) on plate (10).

END OF TASK
# CHAPTER 9

MAINTENANCE OF TRAVEL LOCK

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ADJUST TRAVEL LOCK ASSEMBLY

DESCRIPTION

This task covers: Adjust setscrew and plunger (page 9-2). Adjust gear (page 9-4).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Cotter pin

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

ADJUST SETSCREW AND PLUNGER

1. REMOVE TRAVEL LOCK. See task: REPLACE TURRET TRAVEL LOCK ASSEMBLY, page 9-6.

2. ADJUST SETSCREW (1) ON LEVER (2).
   a. Loosen setscrew (1) to allow lever (2) to be pushed into lock position.
   b. Push lever (2) into lock position.
   c. Tighten plunger (3) in housing (4).
   d. Screw in setscrew (1) until it touches housing (4).
3. ADJUST PLUNGER (1) IN HOUSING (2).
   a. Pull lever (3) and loosen plunger (1) until lever moves without binding.

4. CHECK ADJUSTMENT OF SETSCREW (4).
   a. Push lever (3) into lock position. Check position of setscrew (4).
   b. Setscrew (4) should just touch housing (2) when lever (3) is in lock position. If it does, go to next step. If it does not, repeat steps 2 thru 4.

5. CHECK ADJUSTMENT OF PLUNGER (1).
   a. Pull out lever (3) and check movement of lever.
   b. Lever (3) should move with maximum pressure without binding. If it does, go to next step. If it does not, repeat steps 2 thru 5.


NOTE
Travel lock gear teeth should align with azimuth ring teeth. If they do not, turret should be traversed one inch until teeth are aligned.
ADJUST GEAR

7. CHECK OPERATION OF TRAVEL LOCK.
   a. Push lever (1) into lock position.
   b. Gear teeth (2) should fully engage azimuth ring teeth (3). If they do, end task. If they do not, go to next step.

8. REMOVE COVER (4) FROM HOUSING (5).
   a. Remove four screws (6), washers (7), and cover (4) from housing (5).

9. REMOVE LEVER (1) FROM GEAR HOUSING (5).
   a. Remove cotter pin (8) from straight pin (9). Discard cotter pin.
   b. Remove straight pin (9) and lever (1) from housing (5).

10. ADJUST GEAR (10).
    a. Rotate gear (10) to move it in or out as needed.
11. CHECK ADJUSTMENT OF GEAR (1).
   a. Place lever (2) in housing (3). Install straight pin (4) through housing and lever. Hold lever and straight pin in housing.
   b. Push lever (2) into lock position.
   c. Check adjustment of gear (5). Gear teeth (5) should fully engage azimuth ring teeth (6). If they do, go to step 12. If they do not, repeat steps 9 thru 11.

12. INSTALL NEW COTTER PIN (7) IN STRAIGHT PIN (4).

13. INSTALL COVER (8) ON HOUSING (3).
   a. Apply primer to threads of four screws (9).
   b. Apply sealing compound to threads of four screws (9).
   c. Install cover (8), four washers (10), and screws (9) on housing (3).

14. TORQUE FOUR SCREWS (9) TO 73-79 IN-LB (84-91 CMKG).

END OF TASK
REPLACE TURRET TRAVEL LOCK ASSEMBLY

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

Materials/Parts:
- Travel lock assembly
- Sealing compound, grade A
  (Item 20, App C)
- Primer, grade N (Item 21, App C)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE TRAVEL LOCK (1) FROM PLATE (2).
   a. Pull out lever (3) to unlock position.
   b. Remove four screws (4), washers (5), and travel lock (1) from plate (2).

INSTALL


3. INSTALL TRAVEL LOCK (1) ON PLATE (2).
   a. Apply primer to threads of four screws (4).
   b. Apply sealing compound to threads of four screws (4).
   c. Install travel lock (1), four washers (5), and screws (4) on plate (2).
   d. TORQUE FOUR SCREWS (4) TO 22–24 FT-LB (3.0–3.3 MKG).


END OF TASK

9-6
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REPLACE SECONDARY SIGHT BRACKET AND MOUNTING BLOCK

DESCRIPTION

This task covers: Remove (page 10-2). Install (page 10-3).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Sight arm bracket
- Emergency sight mounting block

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE


2. REMOVE BRACKET (1) FROM TURRET.
   a. Remove four screws (2), washers (3), and bracket (1) from turret.

   NOTE
   Some mounting blocks look different. The procedure for removal and installation is the same for both.

3. REMOVE MOUNTING BLOCK (4) FROM TURRET.
   a. Remove two screws (5), washers (6), and mounting block (4) from turret.
4. INSTALL NEW MOUNTING BLOCK (1) ON TURRET.
   a. Apply primer to threads of two screws (2).
   b. Apply sealing compound to threads of two screws (2).
   c. Install mounting block (1), two washers (3), and screws (2) on turret.
   d. TORQUE TWO SCREWS (2) TO 22-24 FT-LB (3.0-3.3 MKG).

5. INSTALL NEW BRACKET (4) ON TURRET.
   a. Apply primer to threads of four screws (5).
   b. Apply sealing compound to threads of four screws (5).
   c. Install bracket (4), four washers (6), and screws (5) on turret.
   d. TORQUE FOUR SCREWS (5) TO 22-24 FT-LB (3.0-3.3 MKG).


END OF TASK
REPLACE SECONDARY FOLDING SIGHT ASSEMBLY

DESCRIPTION

This task covers: Remove (page 10-4). Install (page 10-5).

INITIAL SETUP

Materials/Parts:
Secondary folding sight assembly

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE LINK (1) FROM BRACKET (2).
   a. Remove quick release pin (3) and link (1) from bracket (2).

   NOTE
   Some mounting blocks look different. The procedure is the same for both.

2. REMOVE SECONDARY FOLDING SIGHT (4) FROM MOUNTING BLOCK (5).
   a. Remove quick release pin (3) and secondary folding sight (4) from mounting block (5).
3. INSTALL NEW SECONDARY FOLDING SIGHT (1) ON MOUNTING BLOCK (2).
   a. Install secondary folding sight (1) and quick release pin (3) on mounting block (2).

4. INSTALL LINK (4) ON BRACKET (5).
   a. Install link (4) and quick release pin (6) on bracket (5).

5. LIFT REAR RINGSIGHT (7) AND FRONT RINGSIGHT (8) TO UPRIGHT POSITION.

END OF TASK
REPAIR SECONDARY FOLDING SIGHT ASSEMBLY

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Vise, machinist, 4 inch jaw (Item 33, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Primer, grade N (Item 21, App C)
- Sealing compound, grade A (Item 20, App C)
- Helical spring (4)
- Helical compression spring (2)
- Spring pin (6)
- Spring pin (2)
- Spring pin

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REPAIR


2. REMOVE CONNECTING LINK (1) FROM SIGHT ARM (2).
   a. Set sight arm (2) in vise.
   b. Remove screw (3) and connecting link (1) from sight arm (2).
3. REMOVE WIRE ROPE (1) FROM CONNECTING LINK (2).
   a. Remove screw (3) and wire rope (1) from connecting link (2).

4. REMOVE QUICK RELEASE PIN (4) FROM WIRE ROPE (1).
   a. Bend hook (5) open, and remove quick release pin (4) from wire rope (1).

5. REMOVE WIRE ROPE (6) FROM SIGHT ARM (7).
   a. Remove screw (8) and wire rope (6) from sight arm (7).

6. REMOVE QUICK RELEASE PIN (9) FROM WIRE ROPE (6).
   a. Bend hook (10) open, and remove quick release pin (9) from wire rope (6).
7. REMOVE RETICLE (1) FROM RETAINER (2).
   a. Loosen two thumbscrews (3), and remove reticle (1) from retainer (2).
   b. Remove two pins (4) from two thumbscrews (3). Use 1/16 inch punch. Discard pins.
   c. Remove two thumbscrews (3) and washers (5) from retainer (2).

8. REMOVE RETAINER (2) AND THREE SPRINGS (6, 7) FROM SIGHT ARM (8).
   a. Remove three spring pins (9) from pin (10). Use 1/8 inch punch. Discard spring pins.
   b. Remove two washers (11) and spring (7) from pin (10). Discard spring.
   c. Remove pin (10) from sight arm (8), retainer (2), and two springs (6).
   d. Remove retainer (2) and two springs (6) from sight arm (8). Discard springs.
9. REMOVE SCREW (1) FROM CLEVIS (2).
   a. Loosen nut (3) on screw (1).
   b. Remove screw (1) from clevis (2).

10. REMOVE NUT (3) AND BOLT BLANK (4) FROM SCREW (1).
    a. Remove nut (3) from screw (1).
    c. Remove bolt blank (4) from screw (1).

11. REMOVE PIN (6) FROM BASE (7), CLEVIS (2), AND TWO SPRINGS (8).
    b. Remove washer (10) and spring (11) from pin (6). Discard spring.
    c. Remove pin (6) from base (7), clevis (2), and two springs (8).

12. REMOVE CLEVIS (2) AND TWO SPRINGS (8) FROM BASE (7). DISCARD SPRINGS.

GO TO NEXT PAGE
13. REMOVE BASE (1) FROM SIGHT ARM (2).
   a. Remove two screws (3), washers (4), and base (1) from sight arm (2).

14. INSTALL BASE (1) ON SIGHT ARM (2).
   a. Install base (1), two washers (4), and screws (3) on sight arm (2).

15. INSTALL TWO NEW SPRINGS (5) AND CLEVIS (6) ON BASE (1).
   a. Install two springs (5) on base (1) with hooked legs of springs up.
   b. Position clevis (6) on two springs (5).

16. INSTALL PIN (7) THROUGH BASE (1), CLEVIS (6), AND TWO SPRINGS (5).
   a. Install pin (7) through base (1), clevis (6), and two springs (5).
   b. Install new spring (8) and washer (9) on pin (7).
   c. Install three new spring pins (10) in pin (7). Use 1/8 inch punch.
17. INSTALL NUT (1) AND BOLT BLANK (2) ON SCREW (3).
   a. Install nut (1) halfway along screw (3).
   b. Install bolt blank (2) on screw (3).
   c. Install new pin (4) through bolt blank (2). Use 1/8 inch punch.

18. INSTALL SCREW (3) ON CLEVIS (5).
   a. Install screw (3) on clevis (5), and tighten nut (1).

19. INSTALL RETAINER (6) AND THREE NEW SPRINGS (7, 8) ON SIGHT ARM (9).
   a. Install two springs (7) and retainer (6) in sight arm (9) with hooked legs of springs up.
   b. Install pin (10) through sight arm (9), retainer (6), and two springs (7).
   c. Install two washers (11) and spring (8) on pin (10).
   d. Install three new spring pins (12) in pin (10). Use 1/8 inch punch.
20. INSTALL RETICLE (1) ON RETAINER (2).
   a. Install reticle (1), two washers (3), and thumbscrews (4) on retainer (2).
   b. Install two new pins (5) in two thumbscrews (4). Use 1/16 inch punch.
   c. Insert reticle (1) in retainer (2) and tighten thumbscrews (4).

21. INSTALL QUICK RELEASE PIN (6) ON WIRE ROPE (7).
   a. Place quick release pin (6) on hook (8).
   b. Bend hook (8) closed to secure quick release pin (6).

22. INSTALL WIRE ROPE (7) ON SIGHT ARM (9).
   a. Install wire rope (7) and screw (10) on sight arm (9).
23. INSTALL QUICK RELEASE PIN (1) ON WIRE ROPE (2).
   a. Place quick release pin (1) on hook (3).
   b. Bend hook (3) closed to secure quick release pin (1).

24. INSTALL WIRE ROPE (2) ON CONNECTING LINK (4).
   a. Install wire rope (2) and screw (5) on connecting link (4).

25. INSTALL CONNECTING LINK (4) ON SIGHT ARM (6).
   a. Apply primer to threads of screw (7).
   b. Apply sealing compound to threads of screw (7).
   c. Install connecting link (4) and screw (7) on sight arm (6).
   d. Remove sight arm (6) from vise.

# CHAPTER 11

MAINTENANCE OF BOLT-ON ARMOR

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REPLACE TOW ROTOR ARMOR PLATE

DESCRIPTION

This task covers:  Remove (page 11-2).  Install (page 11-7).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Lifting device with rated lift capability of at least 700 lb (318 kg)
- Nylon sling (Item 9, App C)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Sealing compound, grade N (Item 21, App C)
- Sealing compound, grade A (Item 20, App C)
- Sealing compound (Item 40, App C)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE ISU. See task: REMOVE/INSTALL INTEGRATED SIGHT UNIT, page 21-43.


5. REMOVE TOW LAUNCHER DUST COVER. See task: REPLACE TOW LAUNCHER DUST COVER, page 19-12.


8. MANUALLY TRAVERSE TURRET TO 4800 MILS. See TM 9-2350-252-10-2.

WARNING
Unsupported TOW launcher can fall and injure soldiers. Do not work under unsupported TOW launcher.

9. ATTACH SLING (1) TO ARMOR (2).
   a. Attach sling (1) to armor (2) as shown. Take up slack in sling. Use lifting device. Have helper assist.

10. MANUALLY TRAVERSE TURRET TO 3600 MILS. See TM 9-2350-252-10-2.

11. REMOVE CABLE 2W306 (3) FROM TWO CLAMPS (4).
   a. Remove two screws (5) and clamps (4) from weldnuts (6) on turret.
   b. Remove cable 2W306 (3) from two clamps (4).

GO TO NEXT PAGE
12. REMOVE PLUG 2W306P7 (1) FROM JACK 2A200J7 (2) ON ELECTRONIC CONTROL ASSEMBLY (3).

13. PULL CABLE 2W306 (4) INTO TURRET.
14. REMOVE CABLE 2W306 (1) FROM FOUR CLAMPS (2).


16. REMOVE CABLE 2W306 (1) FROM FACEPLATE (3).
   a. Remove two screws (4), washers (5), and clamps (6) with cable 2W306 (1) from faceplate (3).
17. REMOVE BRACKET (1) FROM FACEPLATE (2).
   a. Remove three screws (3), washers (4), and bracket (1) from faceplate (2).

18. REMOVE CABLE 2W306 (5) FROM TURRET.
   a. Pull cable 2W306 (5) and plug 2W306P7 (6) out of turret through faceplate (2).

WARNING
Faceplate and armor can suddenly shift and injure you. Stay clear of faceplate and armor when last bolt is removed.

19. REMOVE FACEPLATE (2) WITH ARMOR (7) FROM ROTOR (8).
   a. Remove 12 screws (9) and washers (10) from faceplate (2).
   b. Install three screws (9) in jacking holes (11) on faceplate (2).
   c. Alternately tighten three screws (9), and remove faceplate (2) with armor (7) from rotor (8). Use lifting device. Have helper assist.
   d. Remove three screws (9) from faceplate (2).
20. REMOVE TOW ROTOR ARMOR PLATE (1) FROM TURRET.
   a. Remove five screws (2) and washers (3) from TOW rotor armor plate (1).
   b. Pry TOW rotor armor plate (1) away from turret and remove from turret. Have helper assist.

21. INSTALL NEW TOW ROTOR ARMOR PLATE (1) ON TURRET.
   a. Apply sealing compound (Item 30) around five screw holes (4) and on edges of TOW rotor armor plate (1).
   b. Install TOW rotor armor plate (1), five washers (3), and screws (2) on turret.
   c. TORQUE FIVE SCREWS (2) TO 54-59 FT-LB (8 MKG).
22. INSTALL FACEPLATE (1) WITH ARMOR (2) ON ROTOR (3).
   a. Lift and position faceplate (1) with armor (2) on dowel pin (4) of rotor (3).
      Use lifting device. Have helper assist.
   b. Apply primer to threads of 12 screws (5).
   c. Apply sealing compound (Item 31) to threads of 12 screws (5).
   d. Install 12 screws (5) and washers (6) on faceplate (1).

23. TORQUE 12 SCREWS (5) TO 32-34 FT-LB (4-5 MKG).

24. INSTALL CABLE 2W306 (7) IN TURRET.
   a. Insert plug 2W306P7 (8) and cable 2W306 (7) into turret through faceplate (1).
25. PULL CABLE 2W306 (1) INTO TURRET.
   a. Loop cable 2W306 (1) to right side of rotor (2).
   b. Pull plug 2W306P7 (3) and cable 2W306 (1) over rear spoke of mount (4) and into turret.

26. INSTALL BRACKET (5) ON FACEPLATE (6).
   a. Apply primer to threads of three screws (7).
   b. Apply sealing compound (Item 31) to threads of three screws (7).
   c. Install bracket (5), three washers (8), and screws (7) on faceplate (6).
   d. TORQUE THREE SCREWS (7) TO 73-79 IN-LB (84-91 CMKG).

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27. INSTALL CABLE 2W306 (1) IN FACEPLATE (2).
   a. Apply primer to threads of two screws (3).
   b. Apply sealing compound (Item 31) to threads of two screws (3).
   c. Install two clamps (4) with cable 2W306 (1), two washers (5), and screws (3) on faceplate (2).
   d. TORQUE TWO SCREWS (3) ON CLAMPS (4) ON FACEPLATE (2) TO 73-79 IN-LB (84-91 CMKG).


29. ADJUST TOW LIFT UPPER POSITION SWITCH. See page 18-65.

30. ADJUST TOW LIFT LOWER POSITION SWITCH. See page 18-73.

31. REMOVE SLING (6) FROM ARMOR (7).

32. MANUALLY TRAVERSE TURRET TO 3600 MILS. See TM 9-2350-252-10-2.
33. INSTALL CABLE 2W306 (1) IN FOUR CLAMPS (2).

34. ROUTE CABLE 2W306 (1) THROUGH TURRET TO ELECTRONIC CONTROL ASSEMBLY (3).

35. INSTALL PLUG 2W306P7 (4) ON JACK 2A200J7 (5) ON ELECTRONIC CONTROL ASSEMBLY (3).
36. INSTALL CABLE 2W306 (1) IN TWO CLAMPS (2).
   a. Install cable 2W306 (1) in two clamps (2).
   b. Install two clamps (2) and screws (3) in weldnuts (4) on turret.


39. BORESIGHT TOW LAUNCHER. See page 19-89.

40. INSTALL TOW LAUNCHER FRONT ARMOR PLATE. See task: REPLACE TOW LAUNCHER FRONT ARMOR PLATE, page 19-81.

41. INSTALL TOW LAUNCHER DUST COVER. See task: REPLACE TOW LAUNCHER DUST COVER, page 19-12.

42. RETURN TO ORIGINAL SYMPTOM. VERIFY NO FAULT.

END OF TASK
REPLACE TURRET LEFT SIDE ARMOR PLATES

DESCRIPTION

This task covers: Remove (page 11-13). Install (page 11-15).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Lifting device with rated lift capability of at least 700 lb (318 kg)
- Nylon sling, 25 ft (2) (Item 9, App C)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

Materials/Parts:
- Sealing compound (Item 17, App C)
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Turret armor plate
- Turret armor plate
- Turret armor plate

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

NOTE

The left side armor plates are: the upper plate, lower plate, and closeout plate.

1. MANUALLY TRAVERSE TURRET TO 4800 MILS. See TM 9-2350-252-10-2.

2. MANUALLY RAISE TOW LAUNCHER TO FIRING POSITION. See TM 9-2350-252-10-2.

WARNING

Unsupported TOW launcher can fall and injure soldiers. Do not work under unsupported TOW launcher.

3. ATTACH SLING (1) TO LAUNCHER (2).
   a. Attach sling (1) around launcher (2) between support bracket (3), upper bracket (4), and forward of stow pin (5).
   b. Take up slack in sling (1) to support launcher (2). Use lifting device.

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5. REMOVE UPPER PLATE (1) FROM TURRET.
   a. Remove four screws (2), washers (3), and upper plate (1) from turret. Have helper assist.

6. REMOVE LOWER PLATE (4) FROM TURRET.
   a. Remove four screws (5), washers (6), and lower plate (4) from turret. Have helper assist.

7. REMOVE CLOSEOUT PLATE (7) FROM TURRET.
   a. Remove four screws (8), washers (9), and closeout plate (7) from turret. Have helper assist.
8. INSTALL NEW LOWER PLATE (1) ON TURRET. HAVE HELPER ASSIST.
   a. Position lower plate (1) on turret and apply a bead of sealing compound around all outer edges.
   b. Apply primer to threads of four screws (2).
   c. Apply sealing compound to threads of four screws (2).
   d. Install four washers (3) and screws (2) in lower plate (1).

9. TORQUE FOUR SCREWS (2) TO 54-59 FT-LB (8 MKG).

10. INSTALL NEW UPPER PLATE (4) ON TURRET. HAVE HELPER ASSIST.
    a. Position upper plate (4) on turret and apply a bead of sealing compound around all outer edges.
    b. Apply primer to threads of four screws (5).
    c. Apply sealing compound to threads of four screws (5).
    d. Install four washers (6) and screws (5) in upper plate (4).

11. TORQUE FOUR SCREWS (5) TO 54-59 FT-LB (8 MKG).
12. INSTALL NEW CLOSEOUT PLATE (1) ON TURRET. HAVE HELPER ASSIST.
   a. Position closeout plate (1) on turret and apply a bead of sealing compound around all outer edges.
   b. Apply primer to threads of four screws (2).
   c. Apply sealing compound to threads of four screws (2).
   d. Install four washers (3) and screws (2) in closeout plate (1).

13. TORQUE SCREWS (2) TO 54-59 FT-LB (8 MKG).

14. REMOVE SLING (4) FROM LAUNCHER (5).

15. INSTALL TOW SUPPORT BRACKET. See task: REPLACE TOW SUPPORT BRACKET, page 19-14.

16. MANUALLY LOWER TOW LAUNCHER TO STOWED POSITION. See TM 9-2350-252-10-2.

17. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
REPLACE TURRET BUSTLE ARMOR PLATE

DESCRIPTION

This task covers: Remove (page 11-17). Install (page 11-18).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Lifting device with rated lift capability of at least 120 lb (55 kg)
- Nylon sling, 25 ft (2) (Item 9, App C)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Self-locking hex nut (9)
- Bustle armor plate

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE TURRET ANTENNA ARMOR PLATE FROM TURRET. See task: REPLACE ANTENNA ARMOR PLATE, page 11-21.

2. REMOVE OUTSIDE AMMO BRACKETS FROM ARMOR. See task: REPLACE OUTSIDE TURRET AMMO BRACKETS, page 4-62.

3. REMOVE BASKET (1) FROM ARMOR (2).
   a. Remove 9 locknuts (3), screws (4), 18 washers (5), and basket (1) from armor (2). Discard locknuts.

GO TO NEXT PAGE
WARNING
Armor plate could fall and injure you. Secure sling before you remove screws from armor plate.

4. REMOVE ARMOR (1) FROM TURRET.
   a. Remove six screws (2) from armor (1).
   b. Remove armor (1) from turret. Use lifting device and slings. Have helper assist.

INSTALL

5. INSTALL NEW ARMOR (1) ON TURRET.
   a. Place armor (1) on turret. Use lifting device and slings. Have helper assist.
   b. Install six screws (2) on armor (1). Tighten screws finger tight.
   c. Remove slings from armor.

6. INSTALL BASKET (3) ON ARMOR (1).
   a. Install basket (3), 18 washers (4), 9 screws (5), and new locknuts (6) on armor (1).

7. TORQUE SIX SCREWS (2) TO 54.59 FT-LB (8 MKG).

8. INSTALL OUTSIDE AMMO BRACKETS ON ARMOR. See task: REPLACE OUTSIDE TURRET AMMO BRACKETS, page 4-62.


END OF TASK
REPLACE TURRET STORAGE BASKET

DESCRIPTION

This task covers: Remove (page 11-19). Install (page 11-20).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Self-locking nut (9)
- Storage basket

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

REMOVE

1. REMOVE BASKET (1) FROM TURRET (2) AND ARMOR (3).
   a. Remove 10 screws (4) and washers (5) from basket (1) and turret (2).
   b. Remove 9 locknuts (6), screws (7), and 18 washers (8) from basket (1) and armor (3). Discard locknuts. Have helper assist.
   c. Pull down and out to remove basket (1) from turret (2) and armor (3). Have helper assist.
2. INSTALL NEW BASKET (1) ON TURRET (2) AND ARMOR (3).
   a. Place basket (1) on turret (2) and armor (3). Have helper assist.
   b. Install 10 washers (4) and screws (5) in basket (1) and turret (2). Tighten screws finger tight. Have helper assist.
   c. Install 18 washers (6), 9 screws (7), and new locknuts (8) in basket (1) and armor (3). Tighten screws finger tight.
   d. Tighten 19 screws (5, 7).

END OF TASK
REPLACE ANTENNA ARMOR PLATE

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Materials/Parts:
- Antenna armor plate

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. MANUALLY TRAVERSE TURRET TO 4800 MILS. See TM 9-2350-252-10-2.

NOTE
Some vehicles do not have washers.

2. REMOVE ARMOR (1) FROM TURRET.
   a. Remove two screws (2), washers (3), if any, and armor (1) from turret.

INSTALL

3. INSTALL NEW ARMOR (1) ON TURRET.
   a. Install two washers (3), if any, screws (2), and armor (1) on turret.
   b. TORQUE TWO SCREWS (2) TO 54-59 FT-LB (8 MKG).

4. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
REPLACE UPPER RIGHT SIDE TURRET ARMOR PLATE

DESCRIPTION

This task covers: Remove (page 11-22). Install (page 11-23).

INITIAL SETUP

Tools:
Turret mechanic’s tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Turret armor plate

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. MANUALLY TRAVERSE TURRET TO 4800 MILS. See TM 9-2350-252-10-2.

NOTE
Some vehicles do not have washers.

2. REMOVE ANTENNA ARMOR (1) FROM TURRET.
   a. Remove two screws (2), washers (3), if any, and antenna armor (1) from turret.

NOTE
Some vehicles may not have a bracket. If your vehicle does not have a bracket, go to step 7.

3. REMOVE BRACKET (4) FROM TURRET.
   a. Remove four screws (5) and bracket (4) from turret.
4. REMOVE ARMOR (1) FROM TURRET.
a. Remove two screws (2) and armor (1) from turret.

5. INSTALL NEW ARMOR (1) ON TURRET.
a. Install armor (1) and two screws (2) on turret. Finger tighten screws.

6. INSTALL BRACKET (3) ON TURRET.
a. Install bracket (3) and four screws (4) on turret. Finger tighten screws.

7. TORQUE FOUR SCREWS (4) TO 54-59 FT-LB (8 MKG).

8. INSTALL ANTENNA ARMOR (5) ON TURRET.
a. Install antenna armor (5), washers (6), if any, and two screws (7) on turret.

9. TORQUE TWO SCREWS (7) TO 54-59 FT-LB (8 MKG).

10. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

NOTE
Some vehicles may not have a bracket. If your vehicle does not have a bracket, go to step 7.

END OF TASK
REPLACE ANTENNA BRUSH GUARD

INITIAL SETUP

Tools:
- Turret mechanic's toolkit (Item 31, App F)

Materials/Parts:
- Brush guard

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
Antenna armor will come off when brush guard is removed.

1. REMOVE BRUSH GUARD (1) FROM TURRET.
   a. Remove two screws (2), washers (3), screws (4), washers (5), and brush guard (1) from turret. Discard brush guard.

INSTALL

NOTE
Make sure antenna armor is in place prior to installing brush guard.

2. INSTALL NEW BRUSH GUARD (1) ON TURRET.
   a. Install new brush guard (1), two washers (5), screws (4), washers (3), and screws (2) on turret.
   b. TORQUE TWO SCREWS (4) TO 54-59 FT-LB (8 MKG).

END OF TASK
REPLACE BALLISTIC DEFLECTOR

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Ballistic deflector

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

NOTE
There are two ballistic deflectors. Removal and installation is the same for both.

1 REMOVE DEFLECTOR (1) FROM TURRET.
   a. Remove two screws (2), washers (3), and deflector (1) from turret. Discard deflector.

INSTALL

2. INSTALL NEW DEFLECTOR (1) ON TURRET.
   a. Install deflector (1), two washers (3), and screws (2) on turret.

END OF TASK
CHAPTER 12

MAINTENANCE OF VANE SIGHT

REPLACE VANE SIGHT

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Vane sight

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE SIGHT (1) FROM TURRET.
   a. Remove two screws (2), washers (3), and sight (1) from turret.

INSTALL

2. INSTALL NEW SIGHT (1) ON TURRET.
   a. Install sight (1), two washers (3), and screws (2) on turret.

END OF TASK
# CHAPTER 13
## MAINTENANCE OF COAX MACHINE GUN BULKHEAD DOORS

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REPAIR COAX MACHINE GUN ACCESS DOOR HANDLE/BOLT ASSEMBLY

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REPAIR

1. OPEN LEFT AND RIGHT DOORS (1, 2).
   a. Pull down handle (3) and pull left door (1) open.
   b. Pull down handle (4) and push right door (2) open.

   NOTE
   Step 2 should be done only if door block is welded to door.

2. REMOVE HANDLE (3) FROM LEFT DOOR (1).
   a. Remove handle (3) and screw (5) from left door (1).
   b. Go to step 4.
**NOTE**
Step 3 should be done only if door block is not welded (bolted) to door. Note number and position of shims.

3. REMOVE THREE SCREWS (1), BLOCK (2), AND SHIMS (3) FROM DOOR (4). GO TO STEP 5.

4. REMOVE LATCH BOLT (5) AND SPRING (6) FROM LEFT DOOR (7). GO TO STEP 6.

5. REMOVE SCREW (8) FROM HANDLE (9).
   a. Put door block (10) in vise.
   b. Remove screw (8) from handle (9).
   c. Go to step 7.

**NOTE**
Flat side of left latch bolt must face front of vehicle. Flat side of right latch bolt must face rear of vehicle.

Installation of both handles is the same. Left handle is shown here.

6. INSTALL SPRING (6) AND LATCH BOLT (5) IN LEFT DOOR (7). GO TO STEP 8.
NOTE
Flat side of left latch bolt must face front of vehicle. Flat side of right latch bolt must face rear of vehicle.
Installation of both handles is the same. Left handle is shown here.

7. INSTALL SPRING (1) AND LATCH BOLT (2) INTO DOOR BLOCK (3). GO TO STEP 9.

8. INSTALL HANDLE BOLT (4) ON LEFT DOOR (5).
   a. Apply primer to threads of screw (6).
   b. Apply sealing compound to threads of screw (6).
   c. Push latch (7) down and insert screw (6) through hole in latch.
   d. Install handle (4) on screw (6).
   e. Go to step 10.

9. INSTALL HANDLE BOLT (8) ON DOOR (9).
   a. Apply primer to threads of screw (10).
   b. Apply sealing compound to threads of screws (10).
   c. While pressing down latch bolt (2), install handle bolt (8) and screw (10).
   d. Go to step 11.

10. TORQUE SCREW (11) TO 264-288 IN-LB (304-332 CMKG). GO TO STEP 14.

11. TORQUE SCREW (11) TO 264-288 IN-LB (304-332 CMKG). GO TO STEP 12.
NOTE
Install shim(s) as needed for correct fit of door.

12. INSTALL DOOR BLOCK ASSEMBLY (1) ON DOOR (2).
   a. Remove door block assembly (1) from vise.
   b. Apply primer to threads of three screws (3).
   c. Apply sealing compound to threads of screws (3).
   d. Install shim(s), if needed, between door block assembly (1) and door (2).
   e. Go to step 13.

13. TORQUE THREE SCREWS (3) TO 264-288 IN-LB (304-332 CMKG). GO TO STEP 15.

14. CHECK THAT HANDLE BOLT (4) AND LATCH (5) MOVE UP AND DOWN FREELY.
    a. If handle bolt (4) and latch (5) move up and down freely, go to step 16.
    b. If handle (4) and latch bolt (5) do not move up and down freely, go to step 2.
15. CHECK THAT HANDLE BOLT (1) AND LATCH (2) MOVE UP AND DOWN FREELY.
   a. If handle bolt (1) and latch (2) move up and down freely, go to step 17.
   b. If handle bolt (1) and latch bolt (2) do not move up and down freely, go to step 3.

16. CLOSE LEFT AND RIGHT DOORS (3, 4).
   a. Pull handle bolt (1) and push left door (3) shut.
   b. Pull down handle bolt (1) and pull right door (4) shut.

END OF TASK
REPLACE COAX MACHINE GUN ACCESS DOOR HINGE

DESCRIPTION

This task covers: Remove (page 13-7). Install (page 13-8).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Primer, grade N (Item 21, App C)
- Sealing compound, grade A (Item 20, App C)
- Hinge

Engine Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE COAX MACHINE GUN. See TM 9-2350-252-10-2.

   NOTE
   If one or both hinges need to be replaced on left door, go to step 2.
   If one or both hinges need to be replaced on right door, go to step 3.


   NOTE
   Top screw has been removed in step 2 or 3.


4. REMOVE HINGE (1) FROM TURRET.
   a. Remove two screws (2), hinge (1), and shim(s) (3), if any, from turret.

GO TO NEXT PAGE
NOTE
Install shims as needed for correct fit of access door.

5. INSTALL NEW HINGE (1) ON TURRET.
   a. Apply primer to threads of two screws (2).
   b. Apply sealing compound to threads of two screws (2).
   c. Install shim(s) (3), if needed, hinge (1), and two screws (2) on turret.
   d. TORQUE TWO SCREWS (2) TO 264-288 IN-LB (304-331 CMKG).

NOTE
If hinges were replaced on left door, go to step 6.
If hinges were replaced on right door, go to step 7.


END OF TASK
REPLACE LEFT COAX MACHINE GUN ACCESS DOOR

DESCRIPTION

This task covers: Remove (page 13-9). Install (page 13-11).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Access door
- Instruction marker

Personnel Required:
- ITV/IFVICFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

NOTE
Tab washer must remain on switch.

1. REMOVE SWITCH (1) FROM HANDLE (2).
   a. Remove nut (3), lock washer (4), and switch (1) from handle (2). Do not discard lock washer.
NOTE
On some doors the block is mounted with three screws. On some doors the block is welded on.

2. OPEN LEFT AND RIGHT DOORS (1, 2).
   a. Pull handle (3) on block (4) down and pull left door (1) open.
   b. Pull handle (5) down and push right door (2) open.

3. REMOVE LEFT DOOR (1) FROM TURRET.
   a. Remove two screws (6) from top of hinges (7).
   b. Support left door (1), and remove two pins (8) and left door from hinges (7).

If block is mounted on left door with three screws, do steps 5 and 6. If block is welded to left door, go to step 7.

5. REMOVE BLOCK (1) FROM LEFT DOOR (2).
   a. Remove three screws (3), block (1), and shim(s) (4), if any, from left door (2).

6. INSTALL BLOCK (1) ON NEW LEFT DOOR (2).
   a. Apply primer to threads of three screws (3).
   b. Apply sealing compound to threads of three screws (3).
   c. Install shim(s) (4), as needed, block (1), and three screws (3) on left door (2).
   d. TORQUE THREE SCREWS (3) TO 22-24 FT-LB (3 MKG).


8. INSTALL LEFT DOOR (2) IN TURRET.
   a. Install left door (2) and two pins (5) on hinges (6).
   b. Apply primer to threads of two screws (7).
   c. Apply sealing compound to threads of two screws (7).
   d. Install two screws (7) in top of hinges (6).

9. TORQUE TWO SCREWS (7) TO 22-24 FT-LB (3 MKG).

GO TO NEXT PAGE
10. CHECK OPERATION OF LEFT DOOR (1).
   a. Pull handle (2) down, and open and close left door (1).
   b. If left door (1) opens and closes freely, go to step 11.
   c. If left door (1) does not open and close freely, repeat steps 3 thru 10.

11. CLOSE RIGHT AND LEFT DOORS (3, 1).
   a. Pull handle (4) down, and pull right door (3) closed.
   b. Pull handle (2) down, and push left door (1) closed.

12. INSTALL SWITCH (5) IN HANDLE (6).
   a. Install switch (5) with slot in threads up, lock washer (7), and nut (8) in handle (6).

13. INSTALL NEW INSTRUCTION MARKER.
   See task: REPLACE MARKERS OR DECALS, page 4-2.

END OF TASK
REPLACE RIGHT COAX MACHINE GUN ACCESS DOOR

DESCRIPTION

This task covers: Remove (page 13-13). Install (page 13-15).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Sealing compound (Item 20, App C)
- Sealing compound (Item 21, App C)
- Self-locking nut (2)
- Access door
- Instruction Marker

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE COAX MACHINE GUN. See TM 9-2350-252-10-2.

2. REMOVE LIGHT (1) FROM BASE (2).

GO TO NEXT PAGE
3. REMOVE BASE (1) FROM BRACKET (2).
   a. Remove two locknuts (3), screws (4), washers (5), and base (1) from bracket (2). Discard locknuts.

NOTE
On some doors the block is mounted with three screws. On some doors the block is welded on.

4. OPEN LEFT AND RIGHT DOORS (6, 7).
   a. Pull handle (8) down, and pull left door (6) open.
   b. Pull handle (9) down, and push right door (7) open.
NOTE
Access to hinges for right door is under right front armor.

5. REMOVE RIGHT DOOR (1) FROM TURRET.
   a. Remove two screws (2) from top of two hinges (3).
   b. Support right door (1), and remove two pins (4) and right door from two hinges (3).


7. REMOVE BLOCK (5) FROM RIGHT DOOR (1).
   a. Remove three screws (6), block (5), and shim(s) (7), if any, from right door (1).

8. INSTALL BLOCK (5) ON NEW RIGHT DOOR (1).
   a. Apply primer to threads of three screws (6).
   b. Apply sealing compound to threads of three screws (6).
   c. Install shim(s) (7), as needed, block (5), and three screws (6) on right door (1).
   d. TORQUE THREE SCREWS (6) TO 22-24 FT-LB (3 MKG).
9. INSTALL HANDLE AND BOLT ON NEW RIGHT DOOR. See task: REPAIR COAX MACHINE GUN ACCESS DOOR HANDLE/BOLT ASSEMBLY, page 13-2

NOTE
Access to hinges for right door is under right front armor.

10. INSTALL RIGHT DOOR (1) IN TURRET.
   a. Install right door (1) and two pins (2) on two hinges (3).
   b. Apply primer to threads of two screws (4).
   c. Apply sealing compound to threads of two screws (4).
   d. Install two screws (4) on top of two hinges (3).

11. TORQUE TWO SCREWS (4) TO 264-268 IN-LB (304-332 CMKG).

12. CHECK OPERATION OF RIGHT DOOR (1).
   a. Pull handle (5) down and open and close right door (1).
   b. If right door (1) opens and closes freely, go to step 13.
   c. If right door (1) does not open and close freely, repeat steps 5 thru 12.
13. CLOSE RIGHT AND LEFT DOORS (1, 2).
   a. Pull handle (3) down and pull right door (1) closed.
   b. Pull handle (4) down and push left door (2) closed.

14. INSTALL BASE (5) ON BRACKET (6).
   a. Install base (5), two screws (7), washers (8), and new locknuts (9) on bracket (6).

15. INSTALL LIGHT (10) ON BASE (5).


17. INSTALL NEW INSTRUCTION MARKER. See task: REPLACE MARKERS OR DECALS, page 4-2.

END OF TASK
REPLACE COAX MACHINE GUN ACCESS DOOR SEAL

DESCRIPTION

This task covers: Remove (page 13-18). Install (page 13-19).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Adhesive (Item 4, App C)
- Seal

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

NOTE
When left coax machine gun access door seal is replaced, step 1 should be done. When right coax machine gun access door seal is replaced, step 2 should be done.


NOTE
Steps 3 thru 5 are necessary when replacing left or right access door seal.

3. REMOVE SEAL STRIPS (1) FROM ACCESS DOOR (2). DISCARD SEAL.
4. Cut new seal to lengths equal to seal strips (1) removed in step 3.

5. Install new seal strips (1) on access door (2).
   a. Apply adhesive around edge of access door (2).
   b. Install seal strips (1) on edge of access door (2).

   **NOTE**
   When replacing left coax machine gun access door seal, step 6 should be done. When replacing right coax machine gun access door seal, step 7 should be done.


**END OF TASK**
# CHAPTER 14
## MAINTENANCE OF 25MM GUN GUARD

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REPLACE 25MM GUN GUARD SUPPORT

DESCRIPTION

This task covers: Remove (page 14-2). Install (page 14-3).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Sealing compound, grade A, (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Self-locking nut (2)
- Gun guard support

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE


2. REMOVE WEAPON CONTROL BOX. See task: REPLACE WEAPON CONTROL BOX, page 5-110.

3. REMOVE TOW CONTROL BOX (1) FROM SU, RT (2).
   a. Remove two screws (3), washers (4), and TOW control box (1) from support (2).
   b. Remove plug 2W5P2 (5) from jack 2A5J1 (6) on TOW control box (1).
   c. Remove plug 2W5P3 (7) from jack 2A6J1 (8) on annunciator box (9).
4. REMOVE SUPPORT (1) FROM TURRET.
   a. Remove three screws (2), washers (3), and support (1) from turret.

5. REMOVE MOUNTING BASE (4) FROM SUPPORT (1).
   a. Remove two locknuts (5), screws (6), and mounting base (4) from support (1). Discard locknuts.

6. INSTALL MOUNTING BASE (4) ON NEW SUPPORT (1).
   a. Install mounting base (4), two screws (6), and new locknuts (5) on support (1).

7. INSTALL SUPPORT (1) ON TURRET.
   a. Apply primer to threads of three screws (2).
   b. Apply sealing compound to threads of three screws (2).
   c. Install support (1), three washers (3), and screws (2) on turret.
8. INSTALL TOW CONTROL BOX (1) ON SUPPORT (2).
   a. Install plug 2W5P3 (3) on jack 2A6J1 (4) on annunciator box (5).
   b. Install plug 2W5P2 (6) on jack 2A5J1 (7) on TOW control box (1).
   c. Apply primer to threads of two screws (8).
   d. Apply sealing compound to threads of two screws (8).
   e. Install TOW control box (1), two washers (9), and screws (8) on support (2).

9. INSTALL WEAPON CONTROL BOX. See task: REPLACE WEAPON CONTROL BOX, page 5-110.


END OF TASK
REPLACE 25MM GUN GUARD STOP

DESCRIPTION
This task covers: Remove (page 14-5). Install (page 14-6).

INITIAL SETUP
Tools:
- Turret mechanic’s tool kit (Item 31, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

Materials / Parts:
- Sealant, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Gun guard stop

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. OPEN GUARD (1).
   a. Turn handle (2) left, and lower guard (1).

2. REMOVE STOP (3) FROM TURRET.
   a. Remove two screws (4), washers (5), stop (3), and washer(s) (6) from turret.

GO TO NEXT PAGE
NOTE
Install washer(s), as needed, between stop and turret to obtain proper engagement of stop by guard handle.

3. INSTALL NEW STOP (1) ON TURRET.
   a. Apply primer to threads of two screws (2).
   b. Apply sealant to threads of two screws (2).
   c. Install washer(s) (3), stop (1), two washers (4), and screws (2) on turret. Tighten screws finger tight.

4. ADJUST STOP (1).
   a. Move stop (1) backward or forward until guard (5) closes securely when handle (6) is turned right.
   b. TORQUE TWO SCREWS (2) TO 73–79 IN-LB (84–91 CMKG).

5. CLOSE GUARD (5).
   a. Raise guard (5), and turn handle (6) right.

END OF TASK
REPAIR 25MM GUN GUARD LATCH MECHANISM

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Spring pin
- Ball plunger

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REPAIR

1. REMOVE GUARD (1) FROM SUPPORT (2)
   a. Turn handle (3) and open guard (1).
   b. Remove guard (1) from support (2).
2. REMOVE HANDLE (1) AND ARM (2) FROM GUARD (3).
   a. Remove spring pin (4) from handle (1) and arm (2). Discard spring pin.
   b. Remove handle (1) and washer (5) from arm (2).
   c. Remove arm (2) from guard (3).

3. REMOVE PLATE (6) FROM GUARD (3).
   a. Remove two screws (7) and plate (6) from guard (3).
   b. Remove plunger (8) from plate (6). Discard plunger.

4. INSTALL PLATE (6) ON GUARD (3).
   a. Install plate (6) and two screws (7) on guard (3).
   b. Screw new plunger (8) completely into plate (6), then turn back one full turn for positive detent at ball.
5. INSTALL HANDLE (1) AND ARM (2) ON GUARD (3).
   a. Insert arm (2) through rear of guard (3) and plate (6).
   b. Place washer (5) and handle (1) on arm (2).
   c. Install new spring pin (4) in handle (1) and arm (2).

6. INSTALL GUARD (3) ON SUPPORT (9).
   a. Place guard (3) on support (9).
   b. Turn handle (1) to lock guard (3).

END OF TASK
REPLACE 25MM GUN GUARD

DESCRIPTION

This task covers: Remove (page 14-10). Install (page 14-11).

INITIAL SETUP

Tools:

Turret mechanic's tool kit (Item 31, App F)

References:

TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:

25mm gun guard
Spring pin
Ball plunger
Instruction plate
Instruction plate

Equipment Conditions:

Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:

ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE GUARD (1) FROM SUPPORT (2).
   a. Turn handle (3) and open guard (1).
   b. Remove guard (1) from support (2).

GO TO NEXT PAGE
2. REMOVE HANDLE (1) AND ARM (2) FROM GUARD (3).
   a. Drive spring pin (4) out of handle (1) and arm (2). Discard spring pin.
   b. Remove handle (1) and washer (5) from arm (2).
   c. Remove arm (2) from guard (3).

3. REMOVE PLATE (6) AND PLUNGER (7) FROM GUARD (3).
   a. Remove two screws (8) and plate (6) with plunger (7) from guard (3).
   b. Remove plunger (7) from plate (6). Discard plunger.

INSTALL

4. INSTALL PLATE (6) AND NEW PLUNGER (7) ON NEW GUARD (3).
   a. Install plate (6) and two screws (8) on guard (3).
   b. Screw plunger (7) completely into plate (6). Turn plunger back one full turn for positive detent at ball.
5. INSTALL HANDLE (1) AND ARM (2) ON GUARD (3).
   a. Insert arm (2) through rear of guard (3) and plate (4).
   b. Place washer (5) and handle (1) on arm (2).
   c. Drive new spring pin (6) in handle (1) and arm (2).

6. INSTALL GUARD (3) ON SUPPORT (6).
   a. Place guard (3) on support (6).
   b. Turn handle (1) to lock guard (3).

7. INSTALL TWO NEW INSTRUCTION PLATES ON GUARD. See task: REPLACE MARKERS OR DECALS, page 4-2.

END OF TASK
CHAPTER 15
MAINTENANCE OF POINTER INDICATOR

REPLACE GUN ROTOR POINTER INDICATOR LAMP BRACKET

DESCRIPTION

This task covers: Remove (page 15-1). Install (page 15-2).

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Angle bracket

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFVICFV Trt Mech 45T10

REMOVE

1. MANUALLY ELEVATE 25MM GUN TO 0 MILS. See TM 9-2350-252-10-2.

2. REMOVE BRACKET (1) WITH SOCKET (2) FROM TURRET.
   a. Remove screw (3), washer (4), and bracket (1) with socket (2) from turret.

3. REMOVE BRACKET (1) FROM SOCKET (2).
   a. Loosen jam nut (5), and remove bracket (1) from socket (2).

GO TO NEXT PAGE
4. INSTALL NEW BRACKET (1) ON SOCKET (2).
   a. Place bracket (1) between lock washer (3) and ground terminal (4) of socket (2).
   b. Tighten jam nut (5).

5. INSTALL BRACKET (1) WITH SOCKET (2) ON TURRET.
   a. Aline white edge of bracket pointer (6) with "0" on indicator tape (7).
   b. Install bracket (1) with socket (2), washer (8), and screw (9) on turret.

END OF TASK
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</table>
REPLACE 25MM GUN

INITIAL SETUP

Tools:

- Turret mechanic's tool kit (Item 31, App F)

References:

- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Personnel Required:

- ITV/IFV/CFV Trt Mech 45T10

Equipment Conditions:

- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


INSTALL


END OF TASK
REPLACE 25MM WEAPON ROTOR SHIELD

DESCRIPTION

This task covers: Remove (page 16-3). Install (page 16-4).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- External weapon shield

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.
2. REMOVE COAX MACHINE GUN. See TM 9-2350-252-10-2.
4. REMOVE BRACKET (1) FROM SHIELD (2).
   a. Remove four screws (3), washers (4), and bracket (1) from shield (2).
5. REMOVE SHIELD (2) FROM TURRET.
   a. Remove five screws (5), washers (6), and shield (2) from turret. Have helper assist.
6. INSTALL NEW SHIELD (1) ON TURRET.
   a. Install shield (1), five washers (2), and screws (3) on turret. Have helper assist.
   b. TORQUE FIVE SCREWS (3) TO 300-324 IN-LB (346-373 CMKG).

7. INSTALL BRACKET (4) ON SHIELD (1).
   a. Apply primer to threads of four screws (5).
   b. Apply sealing compound to threads of four screws (5).
   c. Install bracket (4), four washers (6), and screws (5) on shield (1).
   d. TORQUE FOUR SCREWS (5) TO 22-24 FT-LB (3.0-3.3 MKG).


END OF TASK
REPAIR 25MM GUN BARREL RELEASE

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10
Helper (H)

Materials/Parts:
Sealing compound, grade A, (Item 20, App C)
Primer, grade N (Item 21, App C)
Spring pin (3)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

REPAIR

1. REMOVE COAX MACHINE GUN. See TM 9-2350-252-10-2.

2. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


6. REMOVE SHIELD (1) FROM TURRET.
   a. Remove five screws (2), washers (3), and shield (1) from turret. Have helper assist.

GO TO NEXT PAGE
NOTE
Corner with mechanism must be removed last.

7. REMOVE GUN MOUNT (1) FROM ROTOR (2).
   a. From inside turret, push mechanism handle (3) to lock position.
   b. From outside turret, remove four screws (4) from mount (1).
   c. From outside turret, turn mount (1) toward left side of turret, and remove mount from rotor (2). Have helper assist.

8. REMOVE RELEASE ASSEMBLY (5) FROM MOUNT (1).
   a. Remove four screws (6) and release assembly (5) from mount (1).
9. RELEASE TENSION ON REAR SUPPORT (1).
   a. Pull rear support (1) down, and turn lever (2) to left until rear support slides down from actuator (3).

10. REMOVE LEVER (2) AND SUPPORT (4) FROM ROD (5).
    a. Remove spring pin (6), lever (2), and support (4) from rod (5). Discard spring pin.

11. REMOVE SPRING (7) AND REAR SUPPORT (1) FROM ROD (5).
    a. Remove spring pin (8), spring (7), and rear support (1) from rod (5). Discard spring pin.

12. REMOVE ACTUATOR (3) FROM ROD (5).
    a. Remove spring pin (9) and actuator (3) from rod (5). Discard spring pin.

GO TO NEXT PAGE
14. INSTALL REAR SUPPORT (4) AND SPRING (5) ON ROD (2).
   a. Place rear support (4) on rod (2) with socket (6) facing away from actuator (1).
   b. Place spring (5) on rod (2) with tang (7) in socket (6), and install new spring pin (8) through rear support (4) and rod.

15. INSTALL SUPPORT (9) AND LEVER (10) ON ROD (2).
   a. Place support (9) on rod (2).
   b. Place lever (10) on rod (2) with notch in lever aligned with notch in support (9), and install new spring pin (11) through lever and rod.

16. APPLY TENSION ON REAR SUPPORT (4).
   a. Push rear support (4) up, and turn lever (10) to right until tip (12) on rear support locks in slot (13) on actuator (1).
17. INSTALL RELEASE ASSEMBLY (1) IN MOUNT (2).

a. Hold lever (3). Turn actuator (4) one half turn, and place release assembly (1) in mount (2) with lever (3) in cutout (5).

b. Apply primer to threads of four screws (6).

c. Apply sealing compound to threads of four screws (6).

d. Install four screws (6) on mount (2) and into release assembly (1).

e. TORQUE FOUR SCREWS (6) TO 150-165 IN-LB (173-190 CMKG).

NOTE
Corner with mechanism must be installed first.

18. INSTALL MOUNT (2) IN ROTOR (7).

a. Move mechanism handle (8) to lock position.

b. Apply primer to threads of four screws (9).

c. Apply sealing compound to threads of four screws (9).

d. Install mount (1) and four screws (9) in rotor (7). Have helper assist.

e. TORQUE FOUR SCREWS (9) TO 171-189 FT-LB (24-26 MKG).

GO TO NEXT PAGE
19. INSTALL SHIELD (1) ON TURRET (2).
   a. Apply primer to threads of five screws (3).
   b. Apply sealant to threads of five screws (3).
   c. Install shield (1), five washers (4), and screws (3) on turret (2). Have helper assist.
   d. TORQUE FIVE SCREWS (3) TO 300-350 IN-LB (346-403 CMKG).


END OF TASK
REPLACE 25MM GUN MOUNT BUMPERS

DESCRIPTION

This task covers: Remove (page 16-11). Install (page 16-12).

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Sealing compound, grade A, (Item 20, App C)
Primer, grade N (Item 21, App C)
Rubber bumper

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

REMOVE

NOTE
There are two gun mount bumpers. Removal of top and bottom bumpers is the same. Bottom bumper is shown here.

Steps 1 and 3 apply to bottom bumper. Steps 2 and 3 apply to top bumper.

1. MANUALLY ELEVATE 25MM GUN TO 1050 MILS. See TM 9-2350-252-10-2.

2. MANUALLY DEPRESS 25MM GUN TO -170 MILS. See TM 9-2350-252-10-2.

NOTE
Number and type of shims should be noted for later installation.

3. REMOVE BUMPER (1) FROM ROTOR (2).
   a. Remove three screws (3), washers (4), bumper (1), and shim(s) (5) from rotor (2).

GO TO NEXT PAGE
NOTE
There are two gun mount bumpers. Installation of top and bottom bumpers is the same. Bottom bumper is shown here.

Same number and type of shims removed in step 3 must be installed.

4. INSTALL NEW BUMPER (1) ON ROTOR (2).
   a. Apply primer to threads of three screws (3).
   b. Apply sealing compound to threads of three screws (3).
   c. Install shim(s) (4), bumper (1), three washers (5), and screws (3) on rotor (2).

5. ADJUST GUN ELEVATION DRIVE VARIABLE RESISTOR. See page 7-20.

6. ELEVATE 25MM GUN TO MAXIMUM ELEVATION IN POWER MODE. See TM 9-2350-252-10-2.

7. MOVE GUN ELEVATION DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

8. CHECK THAT TOP BUMPER (6) RESTS AGAINST SHIELD (7).
   a. Turn handwheel (8) back to elevate 25mm gun.
   b. If handwheel (8) turns back 1/4 to 1/2 turn, go to step 9.
   c. If handwheel (8) turns back less than 1/4 turn, repeat steps 2, 3, and 4 to remove shims as needed. Repeat steps 6, 7, and 8 to check adjustment.
   d. If handwheel (8) turns back more than 1/2 turn, repeat steps 2, 3, and 4 to add shims as needed. Repeat steps 6, 7, and 8 to check adjustment.
9. DEPRESS 25MM GUN TO MAXIMUM DEPRESSION IN POWER MODE. See TM 9-2350-252-10-2.

10. MOVE GUN ELEVATION DRIVE SELECT LEVER TO MANUAL POSITION. See TM 9-2350-252-10-2.

11. CHECK THAT BOTTOM BUMPER (1) RESTS AGAINST SHIELD (2).
   a. Turn handwheel (3) forward to depress 25mm gun.
   b. If handwheel (3) turns forward 1/4 to 1/2 turn, go to step 12.
   c. If handwheel (3) turns forward less than 1/4 turn, repeat steps 1, 3, and 4 to remove shims as needed. Repeat steps 9, 10, and 11 to check adjustment.
   d. If handwheel (3) turns forward more than 1/2 turn, repeat steps 1, 3, and 4 to add shims as needed. Repeat steps 9, 10, and 11 to check adjustment.

12. MANUALLY ELEVATE OR DEPRESS 25MM GUN TO 0 MILS. See TM 9-2350-252-10-2.

END OF TASK
REPLACE SPUR GEAR

DESCRIPTION

This task covers: Remove (page 16-14). Install (page 16-16).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Cap screw
- Plain hexagon nut

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

Materials/Parts:
- Grease (Item 14, App C)
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Spur gear

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE


2. MANUALLY TRAVERSE TURRET TO 2900 MILS. See TM 9-2350-252-10-2.

3. MANUALLY DEPRESS 25MM GUN TO MAXIMUM DEPRESSION. See TM 9-2350-252-10-2.

4. (H) INSTALL SCREW (1) AND NUT (2) ON EQUILIBRATOR (3).
5. MANUALLY ELEVATE 25MM GUN TO MAXIMUM ELEVATION. See TM 9-2350-252-10-2.

**NOTE**

Note position of wire rope for later installation.

6. REMOVE WIRE ROPE (1) FROM LUG (2) ON ROTOR (3).

7. MANUALLY DEPRESS 25MM GUN TO MAXIMUM DEPRESSION AND REST ROTOR ON MECHANICAL STOP. See TM 9-2350-252-10-2.

8. MANUALLY TRAVERSE TURRET TO 3400 MILS. See TM 9-2350-252-10-2.

9. (H) LOOSEN PRELOAD NUT (4) UNTIL PINION GEAR (5) AND SPUR GEAR (6) DISENGAGE.

GO TO NEXT PAGE
10. REMOVE SPUR GEAR (1) FROM ROTOR (2).
   a. Remove six screws (3), washers (4), and spur gear (1) from rotor (2).

---

INSTALL

NOTE
Flat side of sector gear must face in when installing.

11. INSTALL NEW SPUR GEAR (1) ON ROTOR (2).
   a. Apply primer to threads of six screws (3).
   b. Apply sealing compound to threads of six screws (3).
   c. Install spur gear (1) on rotor (2) with flat side out.
   d. Install six washers (4) and screws (3) on rotor (2).
   e. TORQUE SIX SCREWS (3) TO 432-454 IN-LB (498-523 CMKG).

12. APPLY COAT OF GREASE TO SPUR GEAR (1).
CAUTION
Pinion or spur gear may be damaged if they do not mesh correctly. Handwheel may need to be turned slightly to aline gears (no more than 1/4 turn). Make sure pinion gear and spur gear engage each other properly.

13. TIGHTEN PRELOAD NUT (1) TO ALINE SPUR GEAR (2) AND PINION GEAR (3).
   a. Tighten preload nut (1) on eyebolt (4) until spur gear (2) and pinion gear (3) begin to mesh.
   b. Tighten preload nut (1) until preload gap (5) between retainer halves (6, 7) measures 0.045-0.050 inch (1.14-1.27 mm) on each side.


15. INSTALL WIRE ROPE (8) ON LUG (9) OF ROTOR (10).

GO TO NEXT PAGE
16. (H) MANUALLY DEPRESS 25MM GUN TO MAXIMUM DEPRESSION. See TM 9-2350-252-10-2.

17. INSPECT PRELOAD GAP (1).
   a. Inspect gap (1) between retainer halves (2, 3) during gun depression.
   b. If gap (1) does not go to zero, go to step 18.
   c. If gap (1) goes to zero, replace spur gear (4). Go to step 5.

18. MANUALLY TRAVERSE TURRET TO 2900 MILS. See TM 9-2350-252-10-2.

19. (H) REMOVE NUT (5) AND SCREW (6) FROM EQUILIBRATOR (7).


21. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.


23. ADJUST GUN ELEVATION DRIVE VARIABLE RESISTOR. See page 7-20.

END OF TASK
REPLACE 25MM WEAPON COVER

DESCRIPTION

This task covers: Remove (page 16-19). Install (page 16-21).

INITIAL SETUP

Tools:
Turret mechanic's tool kit (Item 31, App F)

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Materials/Parts:
Sealing compound, grade A
(Item 20, App C)
Primer, grade N (Item 21, App C)
Access cover

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.
4. REMOVE CLAMP (1) FROM ROTOR (2).
   a. Remove screw (3) and clamp (1) from rotor (2).

GO TO NEXT PAGE
6. REMOVE TOP RETAINER (3) FROM ROTOR (4).
   a. Remove four screws (5), washers (6), and top retainer (3) from rotor (4).

7. REMOVE RIGHT RETAINER (7) FROM ROTOR (4).
   a. Remove five screws (8), washers (9), and right retainer (7) from rotor (4).

NOTE
The right retainer in step 7 is shaped differently in turrets that have backup sights.

8. REMOVE LEFT RETAINER (10) FROM ROTOR (4).
   a. Remove four screws (11), washers (12), and left retainer (10) from rotor (4).
9. REMOVE SHORT RETAINER (1) FROM ROTOR (2).
   a. Remove two screws (3), washers (4), and short retainer (1) from rotor (2).

10. REMOVE BOTTOM RETAINER (5) FROM ROTOR (2).
    a. Remove four screws (6), washers (7), and bottom retainer (5) from rotor (2).

11. REMOVE COVER (8) FROM ROTOR (2).

12. PLACE NEW COVER (8) ON ROTOR (2).

GO TO NEXT PAGE
13. INSTALL BOTTOM RETAINER (1) ON ROTOR (2).
   a. Apply primer to threads of four screws (3).
   b. Apply sealing compound to threads of four screws (3).
   c. Install bottom retainer (1) on rotor (2) with four washers (4) and screws (3).

14. INSTALL SHORT RETAINER (5) ON ROTOR (2).
   a. Apply primer to threads to two screws (6).
   b. Apply sealing compound to threads of two screws (6).
   c. Install short retainer (5) on rotor (2) with two washers (7) and screws (6). Do not over tighten screws.

15. INSTALL LEFT RETAINER (8) ON ROTOR (2).
   a. Apply primer to threads of four screws (9).
   b. Apply sealant to threads of four screws (9).
   c. Install left retainer (8) on rotor (2) with four washers (10) and screws (9).

16. INSTALL RIGHT RETAINER (11) ON ROTOR (2).
   a. Apply primer to threads of five screws (12).
   b. Apply sealing compound to threads of five screws (12).
   c. Install right retainer (11) on rotor (2) with five washers (13) and screws (12).
17. INSTALL TOP RETAINER (1) ON ROTOR (2).
   a. Apply primer to threads of four screws (3).
   b. Apply sealant to threads of four screws (3).
   c. Install top retainer (1) on rotor (2) with four washers (4) and screws (3).

18. TORQUE 19 SCREWS (3, 5, 6, 7, 8) TO 73-79 IN-LB (84-91 CMKG).
19. INSTALL HOOK AND PILE FASTENER (1) AROUND WIRING HARNESS (2).

20. INSTALL CLAMP (3) ON ROTOR (4).
   a. Apply primer to threads of screw (5).
   b. Apply sealing compound to threads of screw (5).
   c. Install clamp (3) on rotor (4) with screw (5).


END OF TASK
REPLACE 25MM GUN CHUTE COVER

DESCRIPTION
This task covers: Remove (page 16-25). Install (page 16-26).

INITIAL SETUP
Tools:
- Turret mechanic's tool kit (Item 31, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Chute cover

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shutdown (TM 9-2350-252-10-2)

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.
7. REMOVE TWO RETAINERS (1, 2) FROM ROTOR (3).
   a. Remove eight screws (4), washers (5), and two retainers (1, 2) from rotor (3).
8. UNZIP COVER (1) FROM ROTOR (2).

9. ZIP NEW COVER (1) ON ROTOR (2).

10. INSTALL TWO RETAINERS (3, 4) ON ROTOR (2).
    a. Apply primer to threads of eight screws (5).
    b. Apply sealing compound to threads of eight screws (5).
    c. Install two retainers (3,4), eight washers (6), and screws (5) on rotor (2) finger tight.
    d. Hold two retainers (3, 4) against rotor (2) and tighten eight screws (5).

11. TORQUE EIGHT SCREWS (5) TO 73-79 IN-LB (84-91 CMKG).


17. INSTALL 25MM GUN BARREL. See TM 9-2350-252-10-2.

END OF TASK
REPLACE BACKUP SIGHT CAM

DESCRIPTION

This task covers: Remove (page 16-27). Install (page 16-29).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Cam

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFVICFV Trt Mech 45T10

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


4. REMOVE SPRING (1) FROM HOOK (2).

GO TO NEXT PAGE
5. REMOVE CLAMP (1) FROM ROTOR (2).
   a. Remove screw (3) and clamp (1) from rotor (2).

6. REMOVE TOP RETAINER (4) FROM ROTOR (2).
   a. Remove four screws (5), washers (6), and top retainer (4) from rotor (2).

7. REMOVE RIGHT RETAINER (7) AND COVER (8) FROM ROTOR (2).
   a. Remove five screws (9), washers (10), and right retainer (7) from rotor (2).
   b. Move cover (8) aside.
8. REMOVE CAM (1) FROM ROTOR (2).
   a. Remove cam (1) from guide pins (3) on rotor (2).

9. INSTALL NEW CAM (1) ON ROTOR (2).
   a. Aline new cam (1) with guide pins (3).
   b. Install cam (1).

10. INSTALL RIGHT RETAINER (4) AND COVER (5) ON ROTOR (2).
    a. Apply primer to threads of five screws (6).
    b. Apply sealing compound to threads of five screws (6).
    c. Position cover (5) on cam (1) so that screw holes are aligned.
    d. Install right retainer (4) on rotor (2) with five washers (7) and screws (6).

GO TO NEXT PAGE
11. INSTALL TOP RETAINER (1) ON ROTOR (2).
   a. Apply primer to threads of four screws (3).
   b. Apply sealing compound to threads of four screws (3).
   c. Install top retainer (1) on rotor (2) with four washers (4) and screws (3).

12. TORQUE NINE SCREWS (3, 5) TO 73–79 IN-LB (84–91 CMKG).

13. INSTALL CLAMP (6) ON ROTOR (2).
   a. Apply primer to threads of screw (7).
   b. Apply sealing compound to threads of screw (7).
   c. Install clamp (6) on rotor (2) with screw (7).
14. INSTALL SPRING (1) ON HOOK (2).


17. INSTALL 25MM GUN BARREL. See TM 9-2350-252-10-2.

END OF TASK
REPLACE 25MM LINK EJECTION CHUTES

DESCRIPTION

This task covers: Remove (page 16-32). Install (page 16-33).

INITIAL SETUP

Materials/Parts:
- Ejection chute

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE 25MM GUN GUARD.
   See TM 9-2350-252-10-2.

2. OPEN 25MM GUN COVER.
   See TM 9-2350-252-10-2.

NOTE

If HE chute only is to be replaced, steps 3 and 4 and steps 9, 10, 11, and 12 should be done.

If AP chute only is to be replaced, steps 5, 6, and 7 and steps 10, 11, and 12 should be done.

If both chutes are to be replaced, all remaining steps (3 thru 12) should be done.

3. MANUALLY DEPRESS 25MM GUN TO - 170 MILS. See TM 9-2350-252-10-2.

4. REMOVE HE CHUTE (1) FROM ROTOR (2).
   a. Squeeze latches (3), and pull HE chute (1) from feeder (4).
   b. Pull HE chute (1) left, and out of lower slot (5) in rotor (2).
5. MANUALLY ELEVATE 25MM GUN TO 200 MILS. See TM 9-2350-252-10-2.

6. REMOVE AP CHUTE (1) FROM ROTOR (2).
   a. Squeeze latches (3), and pull AP chute (1) from feeder (4).
   b. Pull AP chute (1) left and out of upper slot (5) in rotor (2).

7. INSTALL NEW AP CHUTE (1) IN ROTOR (2).
   a. Place AP chute (1) in upper slot (5) in rotor (2).
   b. Squeeze latches (3), and place AP chute (1) in feeder (4). Release latches.
   c. Pull AP chute (1) down and from side to side to make sure AP chute is secure.

   NOTE
   Step 8 is to be done only if both chutes are to be replaced.

8. MANUALLY DEPRESS 25MM GUN TO - 170 MILS. See TM 9-2350-252-10-2.
9. INSTALL NEW HE CHUTE (1) IN ROTOR (2).
   a. Place HE chute (1) in lower slot (3) in rotor (2).
   b. Squeeze latches (4), and place HE chute (1) in feeder (5). Release latches.
   c. Pull HE chute (1) down and from side to side to make sure HE chute is secure.

10. MANUALLY DEPRESS/ELEVATE 25MM GUN TO 00 MILS.
    See TM 9-2350-252-10-2.

11. CLOSE 25MM GUN COVER.
    See TM 9-2350-252-10-2.

12. INSTALL 25MM GUN GUARD.
    See TM 9-2350-252-10-2.

END OF TASK
REPLACE LINK CHUTE SEAL

DESCRIPTION

This task covers: Remove (page 16-35). Install (page 16-36).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Primer, grade N (Item 21, App C)
- Sealing compound, grade A (Item 20, App C)
- Link chute seal

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


4. REMOVE COAX MACHINE GUN. See TM 9-2350-252-10-2.

5. REMOVE RETAINER (1) AND SEAL (2) FROM ROTOR JOURNAL (3).
   a. Remove four screws (4), retainer (1), and seal (2) from rotor journal (3).
   Discard seal.

NOTE
Removal of HE and AP retainers and seals is the same. AP retainer and seal are shown here.

GO TO NEXT PAGE
NOTE
Installation of HE and AP retainers and seals is the same. AP retainer and seal are shown here. HE retainer has notch to correctly align retainer with rotor bulkhead.

6. INSTALL NEW SEAL (1) AND RETAINER (2) ON ROTOR JOURNAL (3).
   a. Apply primer to threads of four screws (4).
   b. Apply sealing compound to threads of four screws (4).
   c. Install seal (1), retainer (2), and four screws (4) on rotor journal (3).

7. INSTALL COAX MACHINE GUN. See TM 9-2350-252-10-2.


END OF TASK
Section II. MAINTENANCE OF EQUILIBRATOR

REPLACE EQUILIBRATOR

DESCRIPTION

This task covers: Remove (page 16-37). Install (page 16-39).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- Externally relieved body screw (Item 22, App F)
- Hex nut (Item 16, App F)
- Screw (Item 21, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

Materials/Parts:
- Primer, grade N (Item 21, App C)
- Sealing compound, grade A (Item 20, App C)
- Equilibrator
- Lock washer (4)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. MANUALLY TRAVERSE TURRET TO 2900 MILS. See TM 9-2350-252-10-2.

2. MANUALLY DEPRESS 25MM GUN TO MAXIMUM DEPRESSION. See TM 9-2350-252-10-2.

WARNING
Equilibrator can fly out and kill or injure you. Make sure compression spring is locked before you try to remove equilibrator.

3. (H) INSTALL SCREW (1) AND NUT (2) ON EQUILIBRATOR (3).


GO TO NEXT PAGE
NOTE
Position of wire rope should be noted for later installation.

5. REMOVE WIRE ROPE (1) FROM LUG (2) ON ROTOR (3).

6. MANUALLY DEPRESS 25MM GUN AS FAR AS IT WILL GO AND REST ROTOR ON MECHANICAL STOP. See TM 9-2350-252-10-2.

NOTE
Some equilibrators are installed without lock washers.

7. REMOVE EQUILIBRATOR (4) FROM TURRET.
   a. Remove four screws (5), lock washers (6), if any, and equilibrator (4) from turret. Discard lock washers.
8. IF NEW EQUILIBRATOR HAS COMPRESSION SPRING PRELOADED, GO TO STEP 10. IF EQUILIBRATOR IS NOT PRELOADED, GO TO STEP 9.

9. PRELOAD NEW EQUILIBRATOR (1).
   a. Install externally relieved body screw (2) in base of equilibrator (1). Install externally relieved body screw to depth that will allow you to install new screw (3).
   b. Install screw (3) and new nut (4) on equilibrator (1).
   c. Remove externally relieved body screw (2) from equilibrator (1).

NOTE
If equilibrator is installed without lock washers, go to step 10. If equilibrator is installed with lock washers, go to step 12.

10. APPLY PRIMER TO THREADS OF FOUR SCREWS (5).

11. APPLY SEALING COMPOUND TO THREADS OF FOUR SCREWS (5).

12. INSTALL EQUILIBRATOR (1) ON TURRET.
   a. Place equilibrator (1) on turret with screw holes aligned and with wire rope (6) toward inside of turret.
   b. Install four screws (5), new lock washers (7), if required, on equilibrator (1) and turret.

13. TORQUE FOUR SCREWS TO 264-288 IN-LB (304-332 CMKG).

15. INSTALL WIRE ROPE (1) IN LUG (2) ON ROTOR (3).


17. (H) REMOVE NUT (4) AND SCREW (5) FROM EQUILIBRATOR (6).

18. MANUALLY ELEVATE 25MM GUN TO 0 MILS. See TM 9-2350-252-10-2.

19. MANUALLY TRAVERSE TURRET TO 6400 MILS. See TM 9-2350-252-10-2.

END OF TASK
Section III. MAINTENANCE OF 25MM GUN MOUNT

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REPLACE 25MM GUN MOUNT

DESCRIPTION

This task covers:  Remove (page 16-42). Install (page 16-44).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (H)

Materials/Parts:
- Primer, grade N (Item 21, App C)
- Sealing compound, grade A (Item 20, App C)
- Nonelectrical wire (Item 15, App C)
- Gun mount

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE COAX MACHINE GUN. See TM 9-2350-252-10-2.

2. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


6. REMOVE SHIELD (1) FROM TURRET.
   a. Remove five screws (2), washers (3), and shield (1) from turret. Have helper assist.
NOTE
Corner with mechanism must be removed last.

7. REMOVE MOUNT (1) FROM ROTOR (2).
   a. From inside turret, push mechanism handle (3) to lock position.
   b. From outside turret, remove four screws (4) from mount (1).
   c. From outside turret, turn mount (1) toward left side of turret and remove mount from rotor (2). Have helper assist.

8. REMOVE RELEASE (5) FROM MOUNT (1).
   a. Remove four screws (6) and release (5) from mount (1).
9. REMOVE MECHANISM (1) FROM MOUNT (2).
   a. Remove lock wire (3) from two screws (4). Discard lock wire.
   b. Remove two screws (4) and mechanism (1) from mount (2).

10. INSTALL MECHANISM (1) ON NEW MOUNT (2).
    a. Install mechanism (1) and two screws (4) on mount (2).
    b. TORQUE TWO SCREWS (4) TO 150-165 IN-LB (173-190 CMKG).
    c. Install new lock wire (3) on two screws (4).
11. INSTALL RELEASE (1) IN MOUNT (2).
   a. Hold lever (3), turn actuator (4) one-half turn, and place release (1) in mount (2) with handle in cutout (5).
   b. Apply primer to threads of four screws (6).
   c. Apply sealing compound to threads of four screws (6).
   d. Install four screws (6) on mount (2) and release (1).

12. TORQUE FOUR SCREWS (6) TO 150-165 IN-LB (173-190 CMKG).

13. INSTALL MOUNT (2) IN ROTOR (7).
   a. Move mechanism handle (8) to lock position.
   b. Apply primer to threads of four screws (9).
   c. Apply sealing compound to threads of four screws (9).
   d. Install mount (2) and four screws (9) on rotor (7). Have helper assist.

14. TORQUE FOUR SCREWS (9) TO 171-189 FT-LB (24-28 MKG).

NOTE
Corner with mechanism must be installed first.

GO TO NEXT PAGE
15. INSTALL SHIELD (1) ON TURRET.
   a. Apply primer to threads of five screws (2).
   b. Apply sealing compound to threads of five screws (2).
   c. Install shield (1), five washers (3), and screws (2) on turret. Have helper assist.

16. TORQUE FIVE SCREWS (2) TO 300-350 IN LB (346-403 CMKG).


END OF TASK
REPLACE 25MM GUN MOUNT STOP

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Spring pin

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVAL

1. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


NOTE
Spring pin is gun mount stop.

4. REMOVE SPRING PIN (1) FROM MOUNT (2).

INSTALL

5. INSTALL NEW SPRING PIN (1) IN MOUNT (2).


END OF TASK
TM 9-2350-252-20-2

REMOVE 25MM GUN RECEIVER AND FEEDER AS ONE UNIT

DESCRIPTION

This task covers: Remove (page 16-48). Install (page 16-56).

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)
- 14 mm ratchet wrench (Item 34, App F)

Materials/Parts:
- Cotter pin

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10
- Helper (3)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2
- TM 9-1005-200-20&P

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. CLEAR COAX MACHINE GUN. See TM 9-2350-252-10-2.

2. RAISE FEEDER HANDLE (1).
   a. Push down latch (2) and raise feeder handle (1).
   b. Release latch (2) and lock feeder handle (1) up.

3. REMOVE PLUG 2W10P2 (3) FROM JACK 2A15J1 (4).
4. LOWER FEEDER HANDLE (1).
   a. Push and hold latch (2) down.
   b. Lower feeder handle (1) down.
   c. Release latch (2). Feeder handle (1) should be locked down.

5. OPEN COAX MACHINE GUN ACCESS DOORS. See TM 9-2350-252-10-2.

6. DISCONNECT LINKS (3) FROM LINKS (4) IN AP (5) AND HE (6) LINK EJECT CHUTES.

7. CLOSE COAX MACHINE GUN ACCESS DOORS. See TM 9-2350-252-10-2.

8. REMOVE AP LINK EJECT CHUTE (5) FROM FEEDER (7).
   a. Squeeze latches (8) and pull AP link eject chute (5) to right, away from feeder (7).
   b. Disconnect link (3) in AP link eject chute (5) from link (9) coming out of feeder (7).
   c. Pull AP link eject chute (5) up and left, and remove from journal (10).
   d. Remove AP link eject chute (5) from 25mm gun area.
   e. Remove and discard links (3) from AP link eject chute (5).

GO TO NEXT PAGE

10. REMOVE HE LINK EJECT CHUTE (1) FROM FEEDER (2).
   a. Squeeze latches (3) and pull HE link eject chute (1) to right away from feeder (2).
   b. Disconnect links (4) in HE link eject chute (1) from link coming out of 25mm gun feeder (2).
   c. Pull HE link eject chute (1) down and left and remove from journal (5).
   d. Turn HE link eject chute (1) and pull out of receiver area.
   e. Remove and discard links (4) from HE link eject chute (1).

**WARNING**
A cartridge explosion could kill or injure soldiers. Handle ammo with care. Don't bump primers against any hard surface.

11. RELEASE TENSION ON AP AMMO (6).
   a. Place 14 mm ratchet wrench (7) on shaft (8) of AP forwarder (9) with wrench handle to the right.
   b. Put upward pressure on 14 mm ratchet wrench (7) and turn AP release handle (10) to left.
   c. Hold AP release handle (10) to left while moving 14 mm ratchet wrench (7) to straight down position.
   d. Let go of AP release handle and turn 14 mm ratchet wrench (7) left until AP release handle pops back into place.
WARNING
A cartridge explosion could kill or injure soldiers. Handle ammo with care. Don't bump primers against any hard surface.

12. RELEASE TENSION ON HE AMMO.
   a. Place 14 mm ratchet wrench (1) on shaft (2) of HE forwarder (3) with wrench handle to the left.
   b. Put upward pressure on 14 mm ratchet wrench (1) and pull HE release handle (4) to right.
   c. Hold HE release handle (4) to right while moving 14 mm ratchet wrench (1) to straight down position.
   d. Let go of HE release handle (4) and turn 14 mm ratchet wrench (1) to right until HE release handle (4) pops back into place.
   e. Remove 14 mm ratchet wrench (1) from shaft (2).

13. ELEVATE 25MM GUN TO 0 MILS. See TM 9-2350-252-10-2.

14. REMOVE AP FEED CHUTE (5) FROM FEEDER (6).
   a. Squeeze two latches (7) together and remove AP feed chute (5) from front guide pin hole (8).
   b. Push AP feed chute (5) to left away from 25 mm gun feeder (6) to expose rounds closest to feeder (6).
WARNING
A cartridge explosion could kill or injure soldiers. Handle ammo with care. Don't bump primers against any hard surface.

15. REMOVE AP ROUND (1) FROM LINK (2). HAVE HELPER ASSIST.
   a. Position screwdriver between link (2) and AP round (1).
   b. Pry AP round (1) down and out.
   c. Pass AP round (1) to helper.

16. DOWNLOAD AP AMMO.
   a. Place 14 mm ratchet wrench (3) on shaft (4) of AP forwarder (5) with wrench handle to the right.
   b. Put upward pressure on 14 mm ratchet wrench (3) and turn AP release handle (6) to left.
   c. Hold AP release handle (6) to left while moving 14 mm ratchet wrench (3) to straight down position.
   d. Let go of AP release handle (6) and turn 14 mm ratchet wrench (3) left until AP release handle pops back into place and AP ammo falls into ammo can (7).
   e. Remove 14 mm ratchet wrench (3) from shaft (4).
17. REMOVE HE FEED CHUTE (1) FROM FEEDER (2).
   a. Squeeze two latches (3) together and remove HE feed chute (1) from front guide pin hole (4).
   b. Push HE feed chute (1) to left away from feeder (2) to expose rounds closest to feeder.

**WARNING**
A cartridge explosion could kill or injure soldiers. Handle ammo with care. Don't bump primers against any hard surface.

18. REMOVE HE ROUND (5) FROM LINK (6). HAVE HELPER ASSIST.
   a. Position screwdriver between link (6) and HE round (5).
   b. Pry HE round (5) up and out of link (6).
   c. Pass HE round (5) to helper.

GO TO NEXT PAGE
WARNING
A cartridge explosion could kill or injure soldiers. Handle ammo with care. Don't bump primers against any hard surface.

19. DOWNLOAD HE AMMO (1).
   a. Place 14 mm ratchet wrench (2) on shaft of HE forwarder (3) with wrench handle to the left.
   b. Put upward pressure on 14 mm ratchet wrench (2) and pull HE release handle (4) to right.
   c. Hold HE release handle (4) to right while moving 14 mm ratchet wrench (2) to straight down position.
   d. Let go of HE release handle (4) and turn 14 mm ratchet wrench (2) to right until HE release handle pops back into place and HE ammo falls into ammo can (5).
   e. Remove wrench (2) from shaft (3).

CAUTION
Gun cable can be damaged or destroyed when receiver and feeder are removed. Make sure cable is out of the way.

20. PUSH 25MM COVER (6) DOWN FOR FULL CLEARANCE.

21. MOVE PLUG 2W10P2 (7) UNDER RECEIVER AND OUT OF THE WAY.

22. MANUALLY DEPRESS 25MM GUN TO MAXIMUM DEPRESSION. See TM 9-2350-252-10-2.
CAUTION
Receiver and feeder may rotate when anti-rotation handle is removed. Have helper hold receiver and feeder assembly as handle is removed.

23. REMOVE ANTIROTATION HANDLE (1) FROM BRACKET (2). HAVE HELPER ASSIST.
   a. Remove cotterpin (3), washer (4), and pin (5) from anti-rotation handle (1). Discard cotterpin.
   b. Pull anti-rotation handle (1) straight out from receiver (6).

24. MANUALLY ELEVATE 25MM GUN TO 250 MILS. See TM 9-2350-252-10-2. HAVE HELPER HOLD RECEIVER AND FEEDER ASSEMBLY.


   NOTE
   If 25mm gun barrel cannot be removed, go to step 27. If 25mm gun barrel can be removed, go to step 26.

26. REMOVE RECEIVER (7) AND FEEDER (8) FROM TURRET AS ONE UNIT. HAVE HELPERS ASSIST.
   a. Rotate receiver (7) and feeder (8) left to release them from trunnion (9).
   b. Slide receiver (7) and feeder (8) out of trunnion (9) as one unit.
   c. Place receiver (7) and feeder (8) on workbench.
NOTE
For step 27, helpers should be positioned inside turret, outside turret near 25mm gun barrel, and inside squad area.

27. REMOVE RECEIVER (1), FEEDER (2), AND BARREL (3) FROM TURRET AS ONE UNIT. HAVE 3 HELPERS ASSIST.
   a. Rotate receiver (1), feeder (2) and barrel (3) left to release them from trunnion (4).
   b. Slide receiver (1), feeder (2), and barrel (3) out of trunnion (4) as one unit.
   c. Place receiver (1), feeder (2), and barrel (3) on workbench.

28. UNJAM FEEDER. See TM 9-1005-200-20&P.

29. INSTALL ANTI-ROTATION HANDLE (5) ON BRACKET (6).
   a. Position anti-rotation handle (5) in bracket (6).
   b. Install pin (7), washer (8) and new cotter pin (9) in anti-rotation handle (5) and bracket (6).
   c. Pull anti-rotation handle (5) forward so that shaft (10) clears trunnion (4).


32. INSTALL 25MM GUN BARREL. See TM 9-2350-252-10-2.

END OF TASK
Section IV. MAINTENANCE OF 25MM GUN ANTIROTATION MECHANISM

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REPLACE 25MM GUN ANTIROTATION MECHANISM

DESCRIPTION

This task covers: Remove (page 16-58). Install (page 16-60).

INITIAL SETUP

Tools:
Turret mechanic’s tool kit (Item 31, App F)

Personnel Required:
ITV/IFV/CFV Trt Mech 45T10
Helper (H)

Materials/Parts:
Primer, grade N (Item 21, App C)
Sealing compound, grade A
(Item 20, App C)
Nonelectrical wire (Item 15, App C)
Antirotation mechanism

References:
TM 9-2350-252-10-1
TM 9-2350-252-10-2

Equipment Conditions:
Engine stopped (TM 9-2350-252-10-1)
Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE COAX MACHINE GUN. See TM 9-2350-252-10-2.
2. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2
3. REMOVE 25MM GUN FEEDER. See TM 9-2350-252-10-2
4. REMOVE 25MM GUN RECEIVER. See TM 9-2350-252-10-2
6. REMOVE SHIELD (1) FROM TURRET.
   a. Remove five screws (2), washers (3), and shield (1) from turret. Have helper assist.
NOTE
Corner with mechanism must be removed last.

7. REMOVE MOUNT (1) FROM ROTOR (2).
   a. From inside turret, push mechanism handle (3) to lock position.
   b. From outside turret, remove four screws (4) from mount (1). Have helper assist.
   c. From outside turret, turn mount (1) toward left side of turret and remove mount from rotor (2). Have helper assist.

8. REMOVE MECHANISM (5) FROM MOUNT (1).
   a. Remove lock wire (6) from two screws (7). Discard lock wire.
   b. Remove two screws (7) and mechanism (5) from mount (1).
9. INSTALL NEW MECHANISM (1) on MOUNT (2).
   a. Install mechanism (1) and two screws (3) on mount (2).
   b. TORQUE TWO SCREWS (3) TO 150—165 IN-LB (173—190 CMKG).
   c. Install new lock wire (4) on two screws (3).

NOTE
Corner with mechanism must be installed first.

10. INSTALL MOUNT (2) IN ROTOR (5).
    a. Move mechanism handle (6) to lock position.
    b. Apply primer to threads of four screws (7).
    c. Apply sealing compound to threads of four screws (7).
    d. Install mount (2) and four screws (7) in rotor (5). Have helper assist.

11. TORQUE FOUR SCREWS (7) to 171-189 FT-LB (24-26 MKG).
12. INSTALL SHIELD (1) ON TURRET.
   a. Apply primer to threads of five screws (2).
   b. Apply sealing compound to threads of five screws (2).
   c. Install shield (1), five washers (3), and screws (2) on turret. Have helper assist.

13. TORQUE FIVE SCREWS (2) TO 300-350 IN-LB (346-405 CMKG).


17. INSTALL 25MM GUN BARREL. See TM 9-2350-252-10-2.

18. INSTALL COAX MACHINE GUN. See TM 9-2350-252-10-2.

END OF TASK
REPAIR 25MM GUN ANTIROTATION MECHANISM

INITIAL SETUP

Tools:
- Turret mechanic's tool kit (Item 31, App F)

Materials/Parts:
- Cotter pin (3)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

REMOVE

1. REMOVE COAX MACHINE GUN. See TM 9-2350-252-10-2.

2. REMOVE 25MM GUN BARREL. See TM 9-2350-252-10-2.


7. REMOVE BRACKET (1) FROM HANDLE (2).
   a. Remove cotter pin (3) from pin (4). Discard cotter pin.
   b. Remove pin (4) and bracket (1) from handle (2).
8. REMOVE LOCKING PIN (1), RETAINER (2), AND SPRING (3) FROM HANDLE (4).
   a. Remove cotter pin (5) from pin (6). Discard cotter pin.
   b. Remove washer (7), and pin (6), from handle (4).
   c. Remove locking pin (1), retainer (2), and spring (3) from handle (4).

9. REMOVE TWO LINKS (8) FROM LOCKING PIN (1).
   a. Remove cotter pin (9) from pin (10). Discard cotter pin.
   b. Remove pin (10) and two links (8) from locking pin (1).

10. INSTALL TWO LINKS (8) ON LOCKING PIN (1).
    a. Install two links (8) and pin (10) on locking pin (1).
    b. Install new cotter pin (9) in pin (10).
11. INSTALL SPRING (1), RETAINER (2), AND LOCKING PIN (3) IN HANDLE (4).
   a. Place spring (1) on retainer (2).
   b. Place locking pin (3) in handle (4) and place retainer (2) between links (5).
   c. Install pin (6) through handle (4), links (5), and retainer (2).

   NOTE
   Use two washers if space permits.
   d. Install washer (7) and new cotter pin (8) in pin (6).

12. INSTALL BRACKET (9) IN HANDLE (4).
   a. Install bracket (9) and pin (10) in handle (4).
   b. Install new cotter pin (11) in pin (10).


17. INSTALL 25MM GUN BARREL. See TM 9-2350-252-10-2.

18. INSTALL COAX MACHINE GUN. See TM 9-2350-252-10-2.

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REPLACE COMMANDER’S/GUNNER’S SLOPE INDICATOR

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Materials/Parts:
- Primer, grade N (Item 21, App C)
- Sealing compound, grade A (Item 20, App C)
- Slope indicator

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE

NOTE
Commander’s and gunner’s indicators are removed and installed in the same way.

1. REMOVE INDICATOR (1) FROM BRACKET (2).
   a. Remove three screws (3), guard (4), and indicator (1) from bracket (2).

INSTALL

2. INSTALL NEW INDICATOR (1) ON BRACKET (2).
   a. Apply primer to threads of three screws (3).
   b. Apply sealant to threads of three screws (3).
   c. Install indicator (1), guard (4), and three screws (3) on bracket (2).

END OF TASK
REPLACE COMMANDER’S SLOPE INDICATOR BRACKET

INITIAL SETUP

Tools:
- Turret mechanic’s tool kit (Item 31, App F)

Materials/Parts:
- Sealing compound, grade A (Item 20, App C)
- Primer, grade N (Item 21, App C)
- Slope indicator bracket

References:
- TM 9-2350-252-10-1
- TM 9-2350-252-10-2

Equipment Conditions:
- Engine stopped (TM 9-2350-252-10-1)
- Turret shut down (TM 9-2350-252-10-2)

Personnel Required:
- ITV/IFV/CFV Trt Mech 45T10

REMOVE


2. REMOVE BRACKET (1) FROM HANDSTATION (2).
   a. Remove screw (3), washer (4), and bracket (1) from handstation (2).

INSTALL

3. INSTALL NEW BRACKET (1) ON HANDSTATION (2).
   a. Apply primer to threads of screw (3).
   b. Apply sealant to threads of screw (3).
   c. Install bracket (1), washer (4), and screw (3) on handstation (2).


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Step 6. The screws (2) on the bracket (1) must be torqued. Please add an additional substep for this.

Step 25. There are four clamps (8) and four straps (9) on wiring harness (1), not two. Please correct this step.

Step 31. The torque as shown is not correct. It should read 1.5-2.5 in lb (1.2-2.3 CMKG). Please change the step.
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### The Metric System and Equivalents

#### Linear Measure
- 1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
- 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
- 1 Kilometer = 1000 Meters = 0.621 Miles

#### Square Measure
- 1 Square Centimeter = 100 Square Millimeters = 0.155 Square Inches
- 1 Square Meter = 10,000 Square Centimeters = 10.76 Square Feet
- 1 Square Kilometer = 1,000,000 Square Meters = 0.386 Square Miles

#### Cubic Measure
- 1 Cubic Centimeter = 1000 Cubic Millimeters = 0.06 Cubic Inches
- 1 Cubic Meter = 1,000,000 Cubic Centimeters = 36.31 Cubic Feet

#### Weight
- 1 Gram = 0.001 Kilogram = 1000 Milligrams = 0.035 Ounces
- 1 Kilogram = 1000 Grams = 2.2 Lb
- 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

#### Liquid Measure
- 1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
- 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

#### Temperature
- \( \frac{5}{9} (°F - 32) = °C \)
- 212°F is equivalent to 100°C
- 90°F is equivalent to 32.2°C
- 32°F is equivalent to 0°C

#### Approximate Conversion Factors

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<td>Kilometers per Liter</td>
<td>0.425</td>
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<tr>
<td>Miles per Hour</td>
<td>Kilometers per Hour</td>
<td>1.609</td>
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<table>
<thead>
<tr>
<th>To Change</th>
<th>To</th>
<th>Multiply By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liters</td>
<td>Quarts</td>
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</tr>
<tr>
<td>Liters</td>
<td>Gallons</td>
<td>0.264</td>
</tr>
<tr>
<td>Grams</td>
<td>Ounces</td>
<td>0.036</td>
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<tr>
<td>Kilograms</td>
<td>Pounds</td>
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<tr>
<td>Metric Tons</td>
<td>Short Tons</td>
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<tr>
<td>Centimeter-kilograms</td>
<td>Inch-pounds</td>
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<tr>
<td>Meter-kilograms</td>
<td>Foot-pounds</td>
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<tr>
<td>Kilopascals</td>
<td>Pounds per Square Inch</td>
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</tr>
<tr>
<td>Kilometers per Liter</td>
<td>Kilometers per Gallon</td>
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</tr>
<tr>
<td>Kilometers per Hour</td>
<td>Kilometers per Hour</td>
<td>0.821</td>
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</tbody>
</table>

**CAUTION—USE SCALE FOR COMPARISON ONLY, NOT FOR MEASURING PARTS**