

FIRE CONTROL(continued)

4. Check that both ISU/TAS windows are free of ice, snow, and frost.

- a. If they are free of ice, snow, and frost, go to step e.
- b. If they are not, use FAN DEFOGGER switch with covers closed to melt ice formations before firing missile.

NOTE: TOW missile may miss target if fired at temperatures less than -25 F (-32 C). TOW missile may miss target if target cannot be seen or tracked through ISU/TAS.

5. Fire TOW missile only when temperature is greater than -25 F (-32 C) and target can be seen or tracked through ISU. See Fire TOW Missiles in TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 9-2350-294-10-2.

CAUTION: TOW missile may be damaged if electrical connectors get wet when TOW launcher is unloaded. Install covers on electrical connectors after unloading TOW launcher so that connectors do not get wet.

6. Replace electrical connector cover after unloading TOW launcher. See Unload TOW launcher in TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 9-2350-294-10-2.

WARNING: Soldiers can be killed or injured if smoke grenades are fired when ice is holding grenades in launchers. Do not fire smoke grenades are held in launcher tubes by ice.

7. Check grenade launcher tubes for ice buildup. Keep discharger caps on grenade launcher tubes until ready for firing.

TURRET OPERATION

WARNING: Contact with cold metal can cause frostbite. Do not touch cold metal with bare skin.

CAUTION: Turret motors and drives can get damaged if turret is operated in extremely cold temperature. Do not operate turret in extremely cold temperatures below -25 F (-32 C) without running engine and personnel heater.

NOTE: Turret interior and exterior should be kept dry and free of debris. Turret power drains batteries quickly in extreme cold.

1. Operate turret manually when engine is not running. Refer to Operate Turret Manually in TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 9-2350-294-10-2.
2. Perform Preventive Maintenance Checks and Services (PMCS) on a regular basis. Refer to TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 9-2350-294-10-2.

WARNING: Soldiers can be killed or injured if gun is fired when barrel is obstructed by ice. Make sure 25mm and coax machine gun barrels are clear of ice before firing.

3. Manually depress 25mm gun to -160 mils when not in use. Refer to Operate Turret Manually in TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 9-2350-294-10-2.
4. Keep ballistic sight shield doors closed when ISU/TAS is not in use. Do not scrape ice or snow from ISU windows. Use isopropyl alcohol and a soft cloth.

TURRET OPERATION (continued)

4. Keep ballistic sight shield doors closed when ISU/TAS is not in use. Do not scrape ice or snow from ISU windows. Use isopropyl alcohol and a soft cloth.
5. Keep CIV stored when not in use (A3).
6. Keep tarpaulin on vehicle when vehicle is not in use.

M242 Chain Gun

CAUTION: When temperature is below -25 F (-32 C), GMD can cause barrel support bearing and breech locking lugs to stick. When temperature is below -25 F (-32 C), use LAW on barrel support bearing and breech locking lugs.

1. Lubricate barrel support bearing and breech locking lugs.
 - a. If temperature is above -25 F (-32 C), put heavy coat of GMD on barrel support bearing and breech locking lugs. Use oval brush.
 - b. If temperature is below -25 F (-32 C), put a heavy coat of LAW on barrel support bearing and breech locking lugs. Use oval brush.

CAUTION: When temperature is below -25 F (-32 C), GMD can cause track rails, slider, master link, and chain to stick. When temperature is below -25 F (-32 C), use LAW on track rails, slider, master link, and chain.

NOTE:

**Step 2 is done if temperature is above -25 F (-32 C).
Step 3 is done if temperature is below -25 F (-32 C).**

M242 Chain Gun (continued)

2. Lubricate track and bolt assembly if temperature is above -25 F (-32 C).
 - a. Put light coat of GMD on firing pin, firing pin sleeve, bolt body, cross slot, carrier track (on bolt carrier), and firing pin pawl. Use oval brush.
3. Lubricate track and bolt assembly if temperature is below -25 F (-32 C).
 - a. Put light coat of LAW on firing pin, firing pin sleeve, bolt body, cross slot, carrier track (on bolt carrier), firing pin pawl, cam pin groove, and firing pin sleeve keeper.
 - b. Put light coat of LAW on track rails, slider, master link, and chain. Use oval brush.

CAUTION: When temperature is below -25 F (-32 C), GMD can cause bolt lugs to stick. When temperature is below -25 F (-32 C), use LAW on bolt lugs.

NOTE:

**Step 4 is done if temperature is above -25 F (-32 C).
Step 5 is done if temperature is below -25 F (-32 C).**

4. If temperature is above -25 F (-32 C), lubricate bolt lugs.
 - a. Put heavy coat of GMD on bolt lugs. Use oval brush.
5. If temperature is below -25 F (-32 C), lubricate bolt lugs.
 - a. Put heavy coat of LAW on bolt lugs. Use oval brush.

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BRADLEY FIGHTING VEHICLES COLD WEATHER OPERATION

This abbreviated checklist is not to be used as a replacement for the -10 series Technical Manuals or any other PMCS guide.

HULL

Engine:

1. **WARNING:** Operating smoke generator with a cold engine can start an engine fire. Allow engine to reach operating temperature before reactivating smoke generator.
2. **WARNING:** Ether can explode causing injury to personnel and equipment damage. Use the cold start system. Never use ether to assist cold starting the engine.
3. **CAUTION:** When starting engine during cold start conditions, do not press on accelerator pedal.
4. **CAUTION:** Running engine at high speed after cold start could damage engine. Drive vehicle slowly for first kilometer.
5. **NOTE:** During cold start conditions use starter cutout override switch. This allows starter to crank longer overriding automatic starter cutout.

Transmission:

1. **CAUTION:** Engaging a cold transmission in PIVOT STEER may stall the engine. Press accelerator only as needed to prevent stalling the engine.

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Transmission (continued):

2. WARNING: Vehicle can hesitate or show unusual movement when a cold transmission is engaged. Soldiers could be hurt. Soldiers should clear away from vehicle when engaging a cold transmission.

3. NOTE: A cold transmission can result in hesitation or minor inadvertent movement when transmission is engaged. Control any inadvertent movement with the foot brake.

4. NOTE: A cold transmission can cause hesitation or unusual movement when DRIVE is engaged. If vehicle does not move with normal accelerator pressure repeat transmission warm-up.

NBC System Operation:

WARNING: You can get frostbite on your face when you inhale subfreezing air. During cold weather do not connect air outlet hose to protective mask until air is warm. Hold your hand over air outlet hose and feel if air is warm.

Heater:

CAUTION:

1. Check personnel heater operation.
2. Perform this check only if operating in cold weather or if heater operation is anticipated. Do not turn personnel heater on if air duct insulation is loose or damaged. Notify unit maintenance.
3. Do not stow anything except 25mm ammo boxes near heater air duct.

General:

1. WARNING: Contact with cold metal can cause frostbite. Wear gloves in cold conditions. Do not touch cold metal with bare skin.

General (continued):

2. CAUTION: In cold climate, it is advisable to leave air intake grille covered after shutting down engine. This will keep power unit warm during periods when engine is not running.

Preparing to Operate Vehicle in Extreme Cold:

1. CHECK THAT GUNNER'S HATCH COVER IS CLOSED. See TM 9-2350-284-10-2.
2. CHECK THAT COMMANDER'S HATCH COVER IS CLOSED. See TM 9-2350-284-10-2.
3. CHECK THAT CARGO HATCH COVER IS CLOSED.
4. CHECK THAT RAMP IS RAISED.
5. CHECK THAT RAMP ACCESS DOOR IS CLOSED.
6. CHECK THAT DRIVER'S HATCH COVER IS CLOSED.
7. OPEN TURRET SHIELD DOOR.
8. INSTALL GRILLE COVER.
 - a. Fold grille cover in half and lay on intake grille as shown.
 - b. Fasten straps from underside of grille cover on two eyes on vehicle.
 - c. Unfold grille cover on exhaust grille.
 - d. Fasten straps on nine eyes on vehicle.
9. MANUALLY DEPRESS 25MM GUN. See TM 9-2350-284-10-2.
10. REMOVE FRONT SECONDARY SIGHT ARM FROM FRONT BRACKET.
 - a. Press pushbutton and hold in.
 - b. Remove quick release pin from front bracket and front secondary sight arm.
 - c. Release pushbutton.
 - d. Place front secondary sight arm next to front bracket on turret.
11. PLACE TARPAULIN OVER VEHICLE.

Operating Vehicle in Extreme Cold:

1. FOLD TARPAULIN BACK OVER TURRET TO UNCOVER EXHAUST/INTAKE GRILLES.
2. OPERATE WINTERIZATION KIT.
3. COLD START ENGINE AND WARM UP TRANSMISSION.
4. MANUALLY ELEVATE 25MM GUN. See TM 9-2350-284-10-2.
5. FOLD GRILLE COVER TO PARTLY UNCOVER INTAKEGRILLE.
 - a. Remove straps from two eyes on vehicle.
 - b. Fold grille cover to partly uncover intake grille.
 - c. Fasten front right strap to rear left eye on vehicle.
6. REMOVE TARPAULIN FROM VEHICLE.
7. INSTALL FRONT SECONDARY SIGHT ARM ON FRONT BRACKET.
 - a. Place front secondary sight arm on front bracket.
 - b. Press pushbutton and hold in.
 - c. Install quick release pin through front bracket and front secondary sight arm.
 - d. Release pushbutton.
8. PERFORM MISSION (DRIVE VEHICLE) - If ENGINE COOLANT TEMP gauge pointer is in red or yellow zone during mission, stop vehicle. Then do Step 21 before resuming mission.
9. FOLD GRILLE COVER TO UNCOVER INTAKE GRILLE.
 - a. If Step 5 was done, remove front right strap from rear left eye. Install two straps removed in Step 5 onto two eyes on vehicle.
 - b. Remove three straps from three eyes on vehicle.
 - c. Fold grille cover as shown and secure with two straps.
10. STOP ENGINE
11. OPEN POWER UNIT ACCESS DOOR

Operating Vehicle in Extreme Cold (continued):

12. DRAIN FUEL FILTER OF WATER.
 - a. Pull drain hose out of engine compartment and place end in container.
 - b. Open toggle valve and allow water to drain into container.
 - c. If nothing comes out of drain hose, notify unit maintenance.
 - d. Close toggle valve when fuel begins to drain.
 - e. Place drain hose back in engine compartment.
 - f. If any water is found, notify unit maintenance.
13. CLOSE POWER UNIT ACCESS DOOR-NOTE: In Steps 14a-14b, secure grille cover over intake grille if necessary. Step 14c secures grille cover over exhaust grille.
14. INSTALL GRILLE COVER.
 - a. If Step 9 was done, remove two straps securing grille over. Install three straps removed in Step 9 on two eyes on vehicle.
 - b. If Step 9 was not done and Step 5 was done, remove front right strap from rear left eye. Install two straps removed in Step 5 on two eyes on vehicle.
 - c. Install four straps on four eyes on vehicle
15. MANUALLY DEPRESS 25MM GUN. See TM 9-2350-284-10-2
16. **NOTE: Front secondary sight arm should be released from front bracket to help ensure that front secondary folding sight is not damaged when applying the tarpaulin to the vehicle top.**
17. REMOVE FRONT SECONDARY SIGHT ARM FROM FRONT-BRACKET.
 - a. Press pushbutton and hold in.
 - b. Remove quick release pin from front bracket and front secondary sight arm.

Operating Vehicle in Extreme Cold (continued):

17. REMOVE FRONT SECONDARY SIGHT ARM FROM FRONT-BRACKET (continued).
 - c. Release pushbutton.
 - d. Place front secondary sight arm next to front bracket on turret.

NOTE: When placing tarpaulin on vehicle top, care should be given so that front secondary sights will not be damaged. Ensure that sights are folding properly. Care should be given when walking on vehicle top. Do not step on front secondary sight arm or sights.

18. PLACE TARPAULIN OVER VEHICLE.

TURRET AND GUN

FIRE CONTROL

1. Keep rubber caps on gunner's eyepiece when Integrated Sight Unit (ISU) is not in use.
2. Keep rubber caps on commander's eyepiece when ISU is not in use.

WARNING: On bright, snowy days, sunshine reflecting off snow can harm your eyes. Sensor select switch should be set to NEUTRAL when using ISU on bright, snowy days.

3. Set sensor select switch to neutral position when using ISU on bright, snowy days.