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Research Product 84-03

BRADLEY INFANTRY FIGHTING
VEHICLE PROCEDURES GUIDE:
DRIVER

ARI Field Unit at Fort Benning, Georgia
Training Research Laboratory

February 1984

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A procedures guide was developed for critical tasks for Bradley Infantry Fighting Vehicle (M2) Drivers. Tasks which are not complicated are presented in line-by-line form, with the names of tasks listed in the correct sequence. More complex tasks are presented in a flowchart format with decision trees at choice points. The steps within a procedure are sequenced, and the use of symbols highlights the subtasks. Warnings and cautions are presented, as well as indications to when vehicle indicator lights are critical. The terminology is identical to that found in the technical manual (TM 9-2350-250-10-1).		

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Item 20 (cont'd)

Fighting Vehicle, Infantry, M2, (Hull) and a table of contents is provided. Each operator guide also contains a checklist of the preventive maintenance checks and services for which that operator is responsible. The guide is intended to be used as both a training supplement and as a job performance aid.

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BRADLEY INFANTRY FIGHTING VEHICLE PROCEDURES GUIDE: DRIVER

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FOREWORD

The U.S. Army has begun introducing the Bradley Infantry Fighting Vehicle (M2) into mechanized infantry units, and has a major investment in training commanders, gunners, and drivers in the procedures of their respective positions. In support of this effort, the Army Research Institute initiated a research program to improve training and to develop procedures to maximize the operational effectiveness of the Bradley in combat.

In recognition of the complexity of the tasks required of BIFV crew members, the U.S. Army Infantry School requested that the Army Research Institute prepare a set of Procedures Guides which summarize the critical tasks for Bradley Commanders, Gunners, and Drivers. Tasks required of these crew members often dictate a specific sequence of actions designed to insure the safety of personnel, accomplish the mission, and safeguard the integrity of the equipment, or are so infrequently performed as to require a job aid for successful completion. Other tasks need to be cross-trained across squad members, or may require rapid familiarization for new crew members as a result of combat losses.

Responding to these task requirements, the Army Research Institute prepared a set of Procedures Guides to follow the same format as Procedures Guides developed by the Army Research Institute for the M1 Tank. The Bradley Guides are of compact size and allow for convenient updating as procedures change or new equipment becomes available. They include critical guidance on emergency procedures, proper use of the vehicle subsystems, and preventive maintenance checks. The intent is to provide each main crew member a position specific guide which, in addition to being technically correct, is more convenient to use than the technical manuals on board each vehicle.

The Driver Guide was prepared according to these guidelines, and is being evaluated in the field by the Infantry School. Operational units and trainers are evaluating the guides both as training supplements and as job aids. Evaluation of this Driver Procedures Guide and its companion Commander and Gunner Procedures Guide (RP 84-04) was undertaken in the institutional environment, and is available as Army Research Institute Research Note Bradley Infantry Fighting Vehicle Procedure Guides: Evaluation (RN 84-61).



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- U.S. Army Infantry School, Weapons Gunnery and Maintenance Department

- Officers, NCOs, and students in the BIFV Commander and BIFV Gunner Courses

- U.S. Army Training Center, Infantry Training Group Officers, NCOs, and students in the BIFV Driver Course

GENERAL INFORMATION

This booklet contains BIFV Driver Procedure Guides. Each guide is for a single activity and is matched to TM 9-2350-252-10-1 (Operator's Manual for Fighting Vehicle, Infantry, M2, Hull).

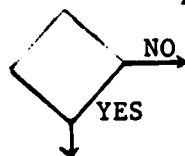
PURPOSE OF PROCEDURE GUIDES

The guides in this booklet are not intended to take the place of the BIFV TM or training materials. They will help you to remember long or difficult sets of procedures. In short, the guides will help to "jog your memory."

USE OF THIS BOOKLET

The Table of Contents (on the next page) lists the procedure guides in this booklet. Each guide gives you a step-by-step outline for completing an activity. The following will help you to better use each guide:

1. Some steps within a procedure guide are followed by a page
 number. On that page within the guide you will find a detailed breakdown of the step.



2. Some of the procedure guides include a question(s). Each question is stated inside a diamond shape. Your "yes" or "no" to the question will show you which path to follow.



3. Some steps within a procedure guide are followed by a box. In the box you will find more information on the step or a caution/warning.



4. Certain steps within a procedure guide require that a knob or switch be turned to a certain position. If that position is written like the symbol to the left, a light should also come on.

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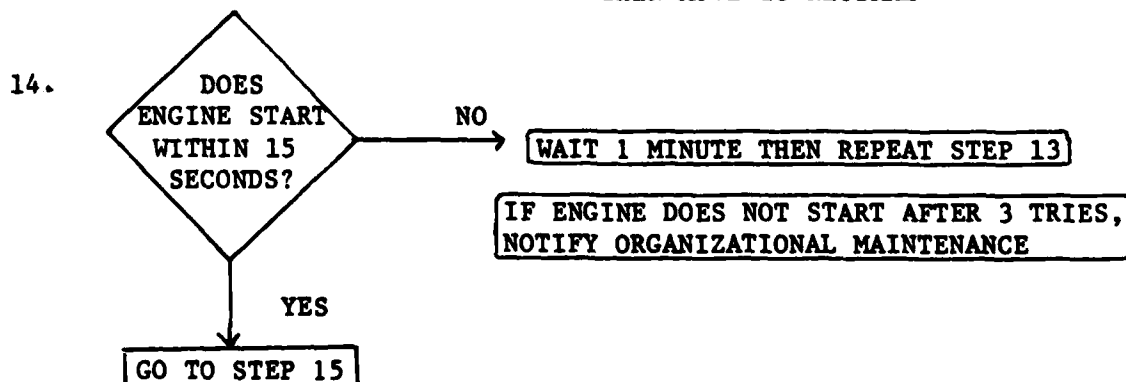
Prepare To Start

1. DRIVER'S HATCH UNLOCK, OPEN
2. DRIVER'S SEAT UNSTOW, ADJUST
3. POWER UNIT ACCESS PANELS CHECK EDGES FLAT AND BOLTS TIGHT
4. BRAKE PEDAL ADJUST
5. SEAT BELT FASTEN
6. CVC HELMET PUT ON, PLUG IN
7. FIRE SUPPRESSION SWITCH CHECK IN AUTO
8. MASTER POWER SWITCH ON
9. ENGINE ACCESSORY SWITCH ON
10. DRIVER'S INSTRUMENT PANEL CHECK
 - 10a. Fuel Gage Green
 - b. Volts Gage Yellow
 - c. Warning Lights Flashing
 - d. Warning Tone Sounding
11. FUEL CONTROL ON

Start Engine

To Start Engine Above +40°F (+4°C) do steps 12 thru 15;
to Start Engine Below +40°F (+4°C) do steps 16 thru 26.

12. HORN SOUND - IF TACTICAL SITUATION PERMITS
13. GEAR SELECTOR MOVE TO START AND HOLD UNTIL ENGINE STARTS, THEN MOVE TO NEUTRAL



15. DRIVER'S INSTRUMENT PANEL CHECK

- 15a. Volts gage Green
- b. Warning lights Off
- c. Warning tone Stopped

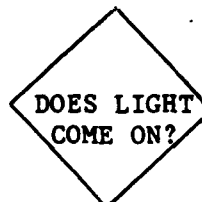
IF LIGHTS AND TONE DO NOT STOP AFTER 30 SECONDS,
NOTIFY ORGANIZATIONAL MAINTENANCE

GO TO STEP 27 →

16. COLD START SWITCH ON



17.



NO

NOTIFY ORGANIZATIONAL MAINTENANCE

YES

WAIT 1 MINUTE

GO TO STEP 18

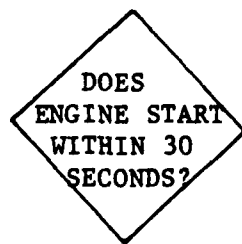
18. HORN SOUND - IF TACTICAL SITUATION PERMITS

19. STARTER CUTOUT OVERRIDE ON
SWITCH

20. ACCELERATOR PEDAL PRESS DOWN 1/4"

21. GEAR SELECTOR MOVE TO START AND HOLD UNTIL ENGINE STARTS
THEN MOVE TO NEUTRAL

22.



NO

WAIT 1 MINUTE THEN REPEAT
STEPS 16 THRU 21

IF ENGINE DOES NOT START AFTER 3 TRIES,
NOTIFY ORGANIZATIONAL MAINTENANCE

YES

GO TO STEP 23

23. STARTER CUTOUT OVERRIDE OFF
SWITCH

24. COLD START SWITCH OFF - WAIT UNTIL ENGINE RUNNING SMOOTHLY

25. DRIVER'S INSTRUMENT PANEL CHECK

- 25a. Volts gage Green
- b. Warning lights Off
- c. Warning tone Stopped

IF LIGHTS AND TONE DO NOT STOP AFTER
30 SECONDS, NOTIFY ORGANIZATIONAL
MAINTENANCE.

26. ENGINE FAST IDLE - ENGAGE HAND BRAKE; GEAR
SELECTOR IN NEUTRAL

- 26a. Accelerator Press down 1"
- b. Throttle Push to
Release Button Press
- c. Throttle Control
Handle Pull Out
- d. Engine Let run
2 to 5 min.
- e. Throttle Push To
Release Button Press
- f. Throttle Control
Handle Push in

Drive Vehicle

27. HORN SOUND - IF TACTICAL SITUATION PERMITS

28. RAMP RAISE

29. HAND BRAKE RELEASE

30. GEAR SELECTOR SET TO DESIRED GEAR

31. HORN SOUND - IF TACTICAL SITUATION PERMITS

32. VEHICLE MOVE AS DIRECTED

33. SPECIAL EQUIPMENT OPERATE LIGHTS, SMOKE SCREEN, ETC. AS NEEDED

IF FIRE SYSTEM DISCHARGED, NOTIFY
ORGANIZATIONAL MAINTENANCE.

Stop Vehicle & Shut Down

34. BRAKE PEDAL PRESS DOWN SMOOTHLY TO STOP

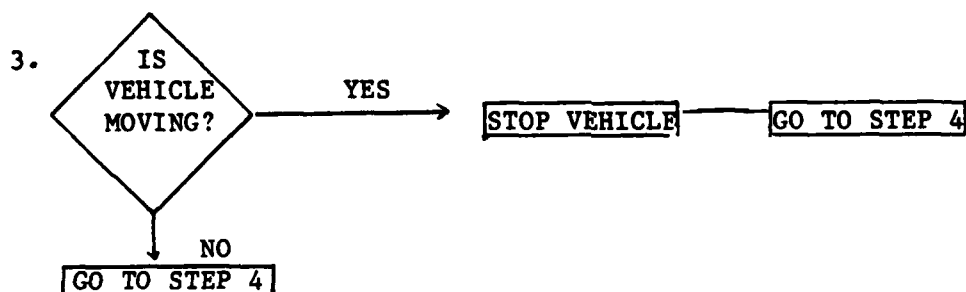
35. GEAR SELECTOR MOVE TO NEUTRAL

36. HAND BRAKE SET

- 37. FUEL CONTROL OFF
- 38. ENGINE ACCESSORY SWITCH OFF
- 39. FIRE SUPPRESSION SWITCH CHECK IN AUTO
- (H)40. CARGO HATCH COVER CLOSE
- (H)41. FIRING PORTS SECURE
- (G)42. TURRET SECURE
- 43. HORN SOUND — IF TACTICAL SITUATION PERMITS
- 44. RAMP LOWER SO CREW CAN EXIT
- 45. HORN SOUND — IF TACTICAL SITUATION PERMITS
- 46. RAMP RAISE
- 47. MASTER POWER SWITCH OFF
- 48. DRIVER'S HATCH COVER CLOSE/LOCK
- 49. ENGINE ACCESS DOOR LOCK

Runaway Engine - Immediate Action

1. FUEL CONTROL OFF
2. GEAR SELECTOR NEUTRAL



4. HAND BRAKE SET
5. TRIM VANE LOWER
6. POWER UNIT ACCESS DOOR OPEN
7. FUEL INLET HOSE PULL UP ON QUICK DISCONNECT
8. ORGANIZATIONAL MAINTENANCE NOTIFY

GUNNER MAY ALSO STOP RUNAWAY ENGINE BY MANUALLY TURNING OFF
MAIN FUEL SHUT OFF VALVE

Rough Terrain - Vehicle Operations

WEAR SEAT BELTS AT ALL TIMES

VEHICLE MUST MOVE STEADILY AND STRAIGHT ON

1. TRENCHES NOT GREATER THAN 8 FT. (2.5 m)
2. VERTICAL WALLS NOT GREATER THAN 36 IN. (91 cm)
OR OBSTACLES
3. HILLS NOT GREATER THAN 60%;
ACCELERATE TO KEEP FROM STALLING
4. SIDE SLOPES NOT GREATER THAN 40%;
USE LOW GEAR
5. SNOW, ICE, MUD MOVE SMOOTHLY AND SLOWLY
6. PARK SHELTERED, FIRM SURFACE

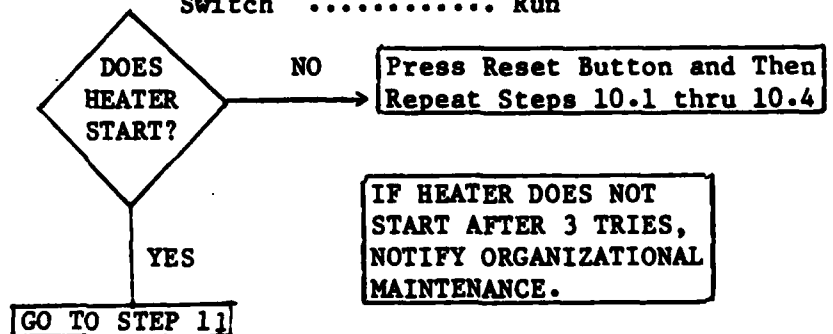
Extreme Cold - Operations

Prepare

1. ALL HATCH COVERS CLOSE
2. HORN SOUND — IF TACTICAL SITUATION PERMITS
3. RAMP RAISE
4. RAMP ACCESS DOOR CLOSE
5. TURRET SHIELD DOOR OPEN
6. GRILLE COVER INSTALL
- (G) 7. 25mm GUN MANUALLY DEPRESS
8. TARPAULIN COVER VEHICLE

Operate

9. TARPAULIN FOLD BACK TO UNCOVER GRILLES
10. WINTERIZATION KIT INSTALL
 - 10a. Exhaust Grille Cover .. Unfold to Uncover Exhaust Grille
 - b. Master Power ON
 - c. Winterization Heater .. Start
 - 10.1 Hi Lo Switch Hi
 - .2 Run/Off/Start Start Switch
 - .3 Winterization Heater Light ON
 - .4 Run/Off/Start Switch Run



11. WINTERIZATION HEATER LET RUN AT LEAST 30 MINUTES — BEFORE STEP 12
12. PERSONNEL HEATER OPERATE (see P. 22) — WITH WINTERIZATION HEATER FOR 1 MORE HOUR BEFORE STEP 13.
13. WINTERIZATION AND PERSONNEL HEATERS OFF — DO NOT TURN OFF MASTER POWER UNTIL HEATER STOPS RUNNING AND LIGHT GOES OUT.

14. ENGINE COLD START (see p. 2) — **RUN 15 MINUTES**
15. HAND BRAKE RELEASE
16. BRAKE PEDAL PRESS AND HOLD THRU NEXT STEP
17. GEAR SELECTOR MOVE TO PIVOT STEER AND HOLD 5 MIN.

RAISE IDLE GRADUALLY

- (G) 18. 25mm GUN MANUALLY ELEVATE
19. GEAR SELECTOR MOVE TO NEUTRAL - LOWER IDLE TO SLOW
20. HAND BRAKE SET
21. INTAKE GRILLE PARTIALLY UNCOVER
22. TARPAULIN REMOVE
23. STEPS 15 THRU 17 REPEAT
24. VEHICLE DRIVE — **SLOWLY UNTIL ENGINE WARMS**

**IF COOLANT TEMP GOES TO RED OR YELLOW,
REPEAT 19 THRU 21, AND THEN 15 THRU 17.**

After Operation

25. ENGINE STOP
26. TRIM VANE LOWER
27. POWER UNIT ACCESS DOOR OPEN
28. FUEL FILTER DRAIN OUT WATER — **IF EXCESSIVE WATER
AND/OR SEDIMENT IS
FOUND NOTIFY ORGANI-
ZATIONAL MAINTENANCE**
29. POWER UNIT ACCESS DOOR CLOSE
30. TRIM VANE STOW
31. GRILLE COVER INSTALL
32. 25mm GUN. DEPRESS TO 0 MILS
33. TARPAULIN COVER VEHICLE
34. HATCH COVER CLOSED
35. RAMP RAISED
36. RAMP ACCESS DOOR CLOSED

Install, Operate, and Remove Driver's Night Viewer

1. DRIVER'S PERISCOPE REMOVE FROM DRIVER'S HATCH COVER
2. DRIVER'S NIGHT VIEWER UNSTOW -

IF USING VEHICLE POWER, CHECK TO SEE
THAT BATTERY HAS BEEN REMOVED. IF
USING BATTERY POWER, INSTALL BATTERY.

3. 2 LATCH HANDLES SET IN OPEN POSITION
4. ENTRANCE WINDOW REMOVE AND STOW
COVER & EYEPIECE PROTECTIVE CAP
5. DRIVER'S NIGHT VIEWER INSTALL AND LOCK
6. OFF/BRIGHT ROTARY SWITCH OFF
7. DRIVER'S PERISCOPE. STOW

IF USING VEHICLE POWER, DO STEPS 8 THRU 13.
IF USING BATTERY POWER, DO STEPS 10 THRU 13.

8. VEHICLE POWER CABLE INSTALL ON NIGHT VIEWER
9. MASTER POWER ON
10. OFF/BRIGHT ROTARY SWITCH MAXIMUM BRIGHT
11. BRIGHTNESS ADJUST
12. NIGHT VIEWER POSITION AS NEEDED
13. OFF/BRIGHT ROTARY SWITCH OFF

IF USING VEHICLE POWER, GO TO STEP 14. IF
USING BATTERY POWER, GO TO STEP 16.

14. MASTER POWER OFF
15. VEHICLE POWER CABLE REMOVE FROM VIEWER
16. NIGHT VIEWER UNLOCK AND REMOVE FROM DRIVER'S
HATCH COVER — REMOVE BATTERY
IF PRESENT.
17. EYEPIECE PROTECTIVE CAP INSTALL
AND ENTRANCE WINDOW COVER
18. DRIVER'S PERISCOPE UNSTOW
19. DRIVER'S PERISCOPE INSTALL
20. DRIVER'S NIGHT VIEWER STOW

Slave Start - Start Engine With Outside Power Source

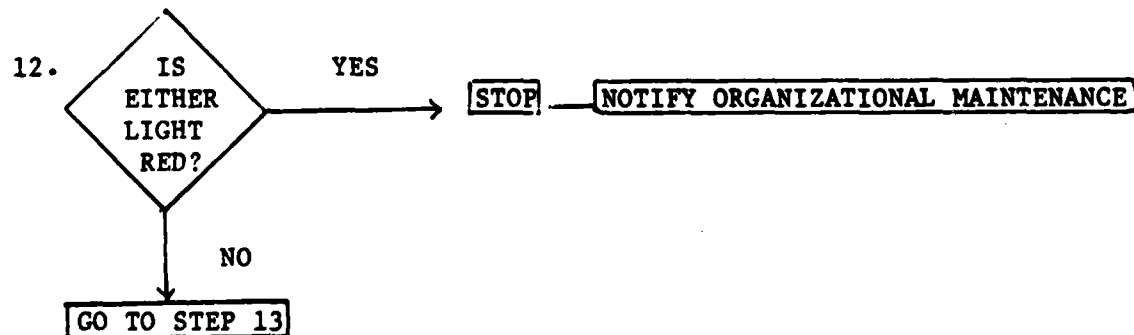
OUTSIDE POWER CAN BE AN OPERATIONAL VEHICLE
OR A 24V POWER SOURCE.

STEPS 1 THRU 8 APPLY TO BOTH OPERATIONAL
AND DISABLED VEHICLES.

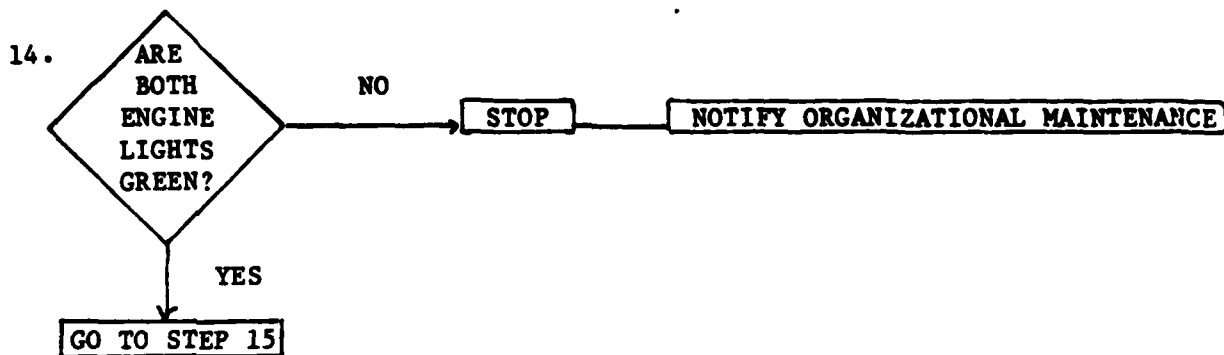
1. MASTER POWER SWITCH OFF
2. ENGINE ACCESSORY SWITCH OFF
3. TURRET POWER SWITCH OFF
4. FIRE SUPPRESSION SWITCH MANUAL
5. STARTER CUTOUT OVERRIDE SWITCH OFF
6. FWD AND REAR BILGE PUMP SWITCHES. OFF
7. SMOKE SCREEN GENERATOR SWITCH OFF
8. COLD START SWITCH OFF

SLAVE CABLE MUST BE OBTAINED FROM ORGANIZA-
TIONAL MAINTENANCE.

9. SLAVE CABLE INSTALL -
BOTH VEHICLES
10. OPERATIONAL VEHICLE ON
MASTER POWER SWITCH
11. SLAVE RECEPTACLE POWER LIGHTS CHECK

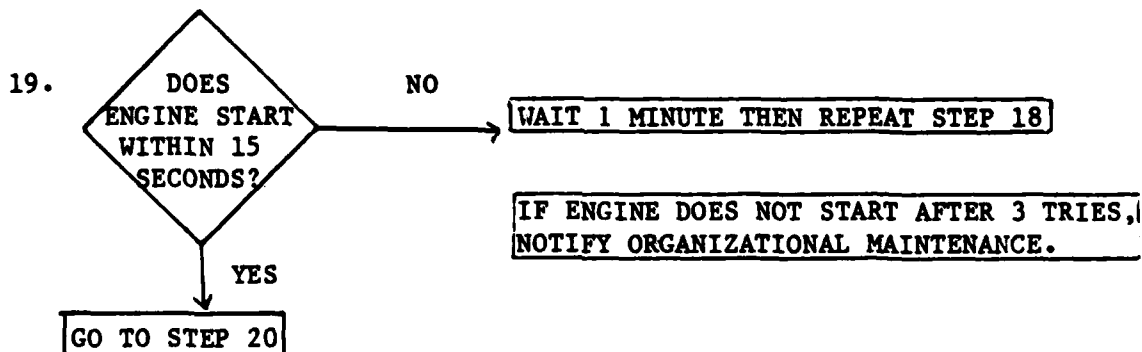


13. ENERGIZE SLAVE RECEPTACLE BUTTON PRESS
ON OPERATIONAL VEHICLE



SLAVE RECEPTACLE POWER LIGHT MUST BE GREEN IN BOTH VEHICLES. IF ONE OR BOTH ARE RED, DO NOT CONTINUE.

- 15. OPERATIONAL VEHICLE ENGINE START
- 16. DISABLED VEHICLE ENGINE ON
ACCESSORY SWITCH
- 17. DISABLED VEHICLE FUEL CONTROL ON
- 18. DISABLED VEHICLE GEAR SELECTOR MOVE TO START AND
HOLD UNTIL IT STARTS



- 20. OPERATIONAL VEHICLE OFF, THEN ON
MASTER POWER
TO DE-ENERGIZE SLAVE RECEPTACLE
- 21. SLAVE CABLE REMOVE FROM BOTH
VEHICLES
- 22. DISABLED VEHICLE MASTER POWER ON
- 23. DISABLED VEHICLE DRIVER'S INSTRUMENT PANEL CHECK

- 23a. Volts gage Green
- 23b. Warning lights Off
- 23c. Warning tone Stopped

IF LIGHT AND TONE DO NOT STOP AFTER 30 SECONDS, NOTIFY ORGANIZATIONAL MAINTENANCE.

Tow Disabled Vehicle

**DO NOT TOW VEHICLE WITH DAMAGED TRANSMISSION.
NOTIFY ORGANIZATIONAL MAINTENANCE**

1. REAR OF TOWING VEHICLE AND ALIGN
FRONT OF DISABLED VEHICLE

**IF TOWING WITH TOW BAR, DO STEPS 2 THRU 4;
IF TOWING WITH CABLE, GO TO STEP 5**

2. TWO PINS AND SHACKLES REMOVE FROM 2 TOWING EYES ON DISABLED
VEHICLE
- (H)3. TOW BAR INSTALL ON FRONT OF DISABLED VEHICLE
- (H)4. TOW BAR INSTALL ON PINTLE OF TOWING VEHICLE

GO TO STEP 9

5. TOW CABLE REMOVE FROM DISABLED VEHICLE
6. TOW CABLE REMOVE FROM TOWING VEHICLE
7. FOUR PINS AND SHACKLES REMOVE FROM REAR OF TOWING VEHICLE (2)
AND FRONT OF DISABLED VEHICLE (2)
8. TOWING CABLES INSTALL -- **LEFT REAR OF TOWING VEHICLE
TO RIGHT FRONT OF DISABLED
VEHICLE. RIGHT REAR OF TOW-
ING VEHICLE TO LEFT FRONT OF
DISABLED VEHICLE.**
9. DRIVER'S HATCH COVER CLOSE
10. DISABLED VEHICLE GEAR SELECTOR . . MOVE TO TOW AND LOCK
11. HAND BRAKE IN DISABLED VEHICLE . . RELEASE
- (G)12. TURRET IN DISABLED VEHICLE TRAVERSE TO 3200 mls
13. ENGINE IN TOWING VEHICLE START

ALL PERSONNEL MUST STAY CLEAR OF TAUT CABLES

DO NOT TOW AT SPEEDS GREATER THAN 15 MPH WITH TOW BAR
OR 5 MPH WITH CABLE OR OVER ROUGH TERRAIN.

13. TOWING VEHICLE GEAR SELECTOR SET TO DRIVE, LOW OR REVERSE —

DO NOT USE REVERSE WITH CABLES

14. HEADLIGHTS OPERATE — IF TACTICAL SITUATION
PERMITS

15. HORN SOUND — IF TACTICAL SITUATION
PERMITS

16. VEHICLES MOVE, AT CONTROLLED SPEED

17. VEHICLES STOP WITHOUT BRAKING — COAST TO
A STOP

18. HAND BRAKE SET

19. TOWING VEHICLE ENGINE STOP

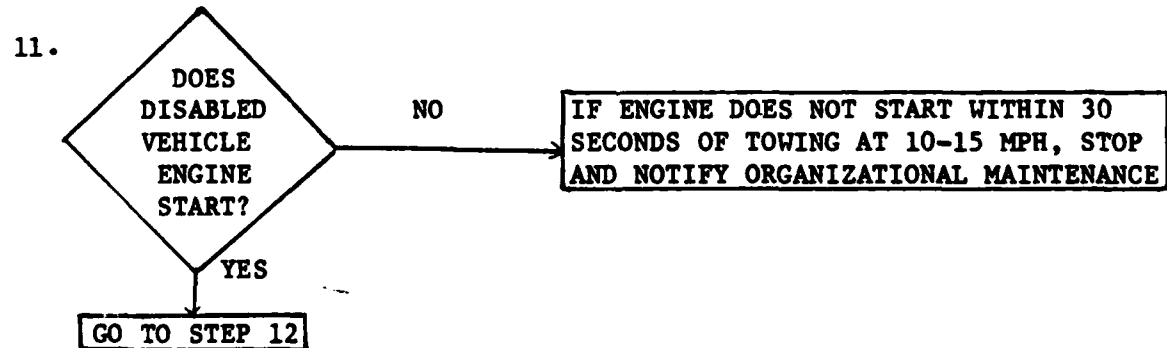
DO STEP 21 or 22

21. TOW BAR DISCONNECT FROM PINTLE OF TOWING
VEHICLE AND TOWING EYES OF DISABLED
VEHICLE

22. TOWING CABLES REMOVE FROM TOWING EYES AFTER
DRIVING BACKWARD UNTIL CABLES SLACK

Tow Start

1. TWO VEHICLES CONNECT WITH TOWING DEVICE
2. BEFORE OPERATIONS PMCS DO
3. DISABLED VEHICLE MASTER ON
POWER SWITCH
4. DISABLED VEHICLE ENGINE ON
ACCESSORY SWITCH
5. DISABLED VEHICLE FUEL ON
CONTROL HANDLE
6. DISABLED VEHICLE HAND RELEASE
BRAKE
7. DISABLED VEHICLE GEAR MOVE TO TOW AND LOCK
SELECTOR
8. TOWING VEHICLE ENGINE START
9. TOWING VEHICLE TOW DISABLED VEHICLE AT SPEED OF
10-15 MPH (15-25 KMPH)
10. DISABLED VEHICLE GEAR MOVE TO TOW START
SELECTOR



12. DISABLED VEHICLE GEAR MOVE TO DRIVE
SELECTOR
13. BOTH VEHICLES STOP
14. GEAR SELECTOR BOTH VEHICLES NEUTRAL
15. HAND BRAKES SET
16. DISABLED VEHICLE CHECK FOR NORMAL GAGE
INSTRUMENT PANEL AND LIGHT INDICATIONS
17. TOWING DEVICE REMOVE

WATER OPERATIONS

Ford Water Greater Than 1-1/2 Feet, Less Than 3-1/2 Feet Deep

1. FRONT/REAR HULL DRAIN PLUGS CLOSE
2. TWO FINAL DRIVE HULL DRAIN PLUGS SECURE
3. FOUR UPPER HULL DRAIN PLUGS SECURE
4. BILGE PUMPS CHECK OPERATION
5. RAMP RAISE — SOUND HORN IF TACTICAL SITUATION PERMITS
6. ENGINE START
7. FWD AND REAR BILGE PUMP SWITCHES MOVE TO  ON
8. WATER FORD
9. FWD AND REAR BILGE PUMP SWITCHES MOVE TO OFF — AFTER BILGES ARE EMPTY.

Prepare to Enter Water - Swim

1. 4 HATCH COVERS OPEN
- (G) 2. 25mm GUN ELEVATE TO 550 mils
3. RAMP LOWER
4. FINAL DRIVE HULL DRAIN PLUGS CHECK
5. FRONT/REAR HULL DRAIN PLUGS CLOSE
- (H) 6. FIRING PORT WEAPONS REMOVE
- (H) 7. FIRING PORT VENTS CLOSE
8. TWO FRONT UPPER HULL DRAIN PLUGS REMOVE

9. TWO REAR UPPER HULL REMOVE
DRAIN PLUGS
10. RAMP CHALK AND RAISE; CHECK SEAL
11. RAMP ACCESS DOOR CHALK AND CLOSE; CHECK SEAL
12. EXHAUST SHROUD RAISE
13. WATER BARRIER ERECT — See P. 17

Drive in Water

DO NOT WEAR SEAT BELTS OR SHOULDER HARNESS

1. ENGINE START
2. FWD AND REAR BILGE PUMPS 
3. VEHICLE ENTER WATER AT SAFE POINT AND
AT SAFE SPEED
- (C) 4. INTERCOM DIRECT STEERING
5. VEHICLE DRIVE, TURN, REVERSE

TO CHANGE DIRECTION, TAKE FOOT
OFF ACCELERATOR PEDAL AND LET
SPEEDOMETER GO TO ZERO. THEN
MOVE GEAR SELECTOR.

DO NOT APPLY BRAKES WHILE DRIVING IN WATER,
ENGINE CAN STALL. LET SPEEDOMETER GO TO ZERO.

6. VEHICLE EXIT TO PERFORM POST-SWIMMING
OPERATIONS

Post-Swimming Operations

1. UPPER TRIM VANE RELEASE
2. VEHICLE DRIVE TO FIRM, LEVEL GROUND
3. HAND BRAKE SET
4. ENGINE IDLE FOR AT LEAST 2 MINUTES TO
COOL ENGINE

5. FUEL CONTROL OFF
6. ENGINE ACCESSORY SWITCH OFF
7. FWD AND REAR BILGE PUMPS SWITCHES MOVE TO OFF — AFTER WATER IS
OUT OF VEHICLE
8. MASTER POWER OFF
9. WATER BARRIER STOW — SEE p. 18-19
10. FRONT AND REAR BILGE DRAIN WATER
11. UPPER HULL DRAIN PLUGS INSTALL
12. HUBCAP AND FINAL DRIVE OILS CHECK FOR WATER BUBBLES OR WHITE
COLOR —

IF FOUND NOTIFY ORGANIZATIONAL
MAINTENANCE.

Erect Water Barrier

1. LEFT SIDE TRIPOD ERECT
2. RIGHT SIDE TRIPOD UNSTOW AND ERECT
3. WATER BARRIER UNSTOW
 - 3a. Flaps Lift
 - 3b. Barrier Sides Pull Out/Unroll
and Front
 - 3c. Metal Cover Open
 - 3d. Barrier Rear Pull Out
 - 3e. Barrier Pull Up Onto Sides of Hull
 - 3f. Struts and Bilge ... Place On Inside
Pump Exhaust
Pipes
 - 3g. Water Barrier Pull On Top of Trim Vane
 - 3h. Water Barrier Fasten To Trim Vane
4. REAR WATER BARRIER ERECT
 - 4a. Rear Pull Up
 - 4b. Rear and Side In Tripod Slots
Cable Ends
 - 4c. Center Strut In Hull Cup
 - 4d. Barrier Corners Pull Up Over Tripods

5. SIDES OF WATER BARRIER ERECT

- 6a. Two Cable Eyelets .. Attach To Trim Vane
- (H)b. Water Barrier Pull Over Top of Trim Vane
- c. Upper Trim Vane Raise and Lock
- d. Trim Vane Lock in Place
- e. Water Barrier Forward and Latched
Release Lever
- f. 2 Blocks Remove From Left and
Right Brackets; Install In Slides
- g. Elastic Cords Attach Inside and Outside
- h. Release Lanyard Snap to Footman Loop
- i. Bilge Pumps Install To Bilge Outlets
Exhaust Pipes
- j. Struts Into Cups
- k. Master Power Move to
- l. Bilge Pump Move to
- m. Bilge Pump Check —
- n. Bilge Pump Move to OFF
- o. Metal Cover Raise
- p. Water Barrier Check For Tears - Patch If Necessary
- q. Ramp Raise
- r. Master Power Off



DON'T DRIVE IF BILGE
PUMPS DON'T WORK

Stow Water Barrier

1. TRIM VANE STOW

- 1a. Ramp Lower
- b. Elastic Cords Remove
- c. Bilge Pump Remove From Bilge Pump Outlet
Exhaust Pipes
- d. Struts Remove From Cups
- e. Lanyard Unsnap From Footman Loop; Roll Up
- f. Two Blocks Remove From Slides; Install In Brackets
- (H)g. Water Barrier Squeeze and Pull Release Lever To
Locking Lever Raise Trim Vane To Vertical Position
- h. Water Barrier Push Off Upper Trim Vane
- i. Cable Eyelets Remove
- j. Upper Trim Vane Fold To Locked Position
- (H)k. Snaps Unfasten
- (H)l. Trim Vane Fold Against Hull

2. TRIPODS STOW
 - 2a. Cable Ends and Remove From Tripods and Cup Strut
 - b. Water Barrier Remove Corners
 - c. Tripods Remove Right Side and Stow; Stow Left Side
3. FRONT OF WATER BARRIER STOW
 - 3a. Barrier Pull Off Hull
 - b. Cords Tuck In
 - c. Barrier Fold/Roll Into Trough
 - d. Barrier Secure With Flaps
4. REAR OF WATER BARRIER STOW
 - 4a. Metal Cover Open
 - b. Barrier Corners/ . . . Fold/Roll Into Trough Rear
 - c. Barrier Secure with flaps
 - d. Metal Cover Close and latch
5. SIDES OF WATER BARRIER STOW
 - (H) 5a. Barrier Fold/Roll Into Trough
 - b. Bilge Pump Place In Troughs Exhaust Pipes Cords and Struts
 - c. Barrier Secure With Flaps
6. CARGO HATCH COVER CLOSE
7. HORN SOUND —

IF TACTICAL SITUATION PERMITS
8. RAMP RAISE

PMCS - BEFORE OPERATIONS - DRIVER

			CHECK										
LOCATION	SYSTEM	EQUIPMENT	CLEAN/CLEAR	DAMAGE/TAMPERING	IN PLACE	LEAKS	LEVEL	MISSING PARTS	OPERATION	POSITION	PRESSURE	SECURE	STATUS
HULL EXTERIOR	VEHICLE	ALL	X	X		X		X					
	FINAL DRIVE	HULL DRAIN PLUGS			X			X				X	
	DRIVER'S HATCH	COVER		X				X	X				
		SAFETY PIN			X				X			X	
	ENGINE	OIL	X				X						
		TRANSMISSION OIL	X				X						
	EXTERNAL FIRE SUPPRESSION	WIRES, SEALS		X	X			X					
HULL INTERIOR	FIRE SUPPRESSION (AUTOMATIC) SQUAD, ENGINE AREA	SWITCH							X	X			X
		WIRES, SEALS		X	X			X					
		DISCHARGE LIGHTS											X
		PORTABLE EXTINGUISHERS		X	X						X		
	DRAIN PLUGS	FRONT AND REAR			X			X				X	
	DRIVER'S SEAT	SEAT		X				X	X	X			

PMCS - DURING OPERATIONS - DRIVER

			CHECK					
LOCATION	SYSTEM	EQUIPMENT	CLEAN/CLEAR	DAMAGE/TAMPERING	IN PLACE	LEAKS	OPERATION	STATUS
HULL EXTERIOR	DRIVER'S HATCH	COVER		X			X	
		SAFETY PIN			X		X	
	RAMP	RAMP	X			X	X	
		LIGHT					X	X
DRIVER'S COMPARTMENT	INSTRUMENT PANEL GAGES	VOLTS GAGE					X	X
		ENGINE COOLANT GAGE					X	X
		ENGINE OIL GAGE					X	X
	INSTRUMENT PANEL WARNING LIGHTS	COOLANT LOW LEVEL					X	X
		TRANS OIL PRESSURE					X	X
		TRANS OIL TEMP					X	X
		AIR CLEANER CLOGGED					X	X
	PERISCOPES	LENSES	X	X	X			
		BLACKOUT COVERS		X	X		X	
	PERSONNEL HEATER	HEATER				X	X	
		DUCT AREA	X				X	
		FUEL LINES/ FITTINGS				X		
	DRIVER'S CONTROLS	ACCELERATOR PEDAL GEAR SELECTOR					X	
		STEERING YOKE					X	
		VEHICLE BRAKES					X	

See p. 22

PMCS - Check Operation of Personnel Heater

1. MASTER POWER ON
 2. PRESS-TO-TEST SWITCH PRESS TO CHECK
PERSONNEL HEATER
LIGHT
 3. RUN-OFF-START SWITCH MOVE TO START AND HOLD
UNTIL LIGHT COMES ON —

NO LONGER THAN 3 MINUTES
 4. RUN-OFF-START SWITCH MOVE TO RUN —

DO NOT STOP AT OFF
 5.

IS
PERSONNEL
HEATER
LIGHT
ON?

NO →

REPEAT STEPS 2 THRU 4

YES →

GO TO STEP 6

NO MORE THAN 3 TIMES
BEFORE NOTIFYING
ORGANIZATIONAL MAIN-
TENANCE.

 - 6. HI-LO SWITCH SELECT HEAT AS NEEDED
 - 7. RUN-OFF-START SWITCH MOVE TO OFF WHEN FINISHED
- DRIVER MUST REMAIN IN VEHICLE WITH MASTER
POWER ON UNTIL HEATER COOLS AND PERSONNEL
HEATER LIGHT GOES OFF
8. MASTER POWER OFF —

ONLY AFTER HEATER
LIGHT GOES OFF.

PMCS - AFTER OPERATIONS - DRIVER

			CHECK												
LOCATION	SYSTEM	EQUIPMENT	CLEAN/CLEAR	DAMAGE/TAMPERING	HEAT	IN PLACE	LEAKS	LEVEL	OPERATION	POSITION	PRESENCE OF WATER	STATUS	TENSION	WEAR	
HULL	FUEL	GAGE						X							
		FILTER	X				X				X				
	TRANSMISSION	OIL					X	X							
		OIL FILTER INDICATOR									X		X		
	COOLING	HOSES		X		X	X								X
		COOLANT					X	X							
		BILGE AREA	X									X			
		INTAKE SCREEN	X				X								
	RIGHT ANGLE FAN DRIVE	OIL	X				X	X							
	FINAL DRIVE	OIL					X	X			X				
	ENGINE	HOSES, CLAMPS, FITTINGS		X			X								X
		OIL					X	X			X				
	SUSPENSION	SHOCK ABSORBERS		X	X	X				X					
		ROAD WHEELS													
		IDLERS, SUPPORT ROLLER WHEEL		X		X				X					X
		WHEEL MOUNTING HOLES, FASTENERS													X
		HUBS		X	X	X	X	X							
		SIGHT GLASSES	X	X								X			
		TRACK		X										X	X
		TRACK ADJUSTER FITTING, BLEED VALVE		X			X						X		
		TRACK PIN NUTS		X		X									X
		TRACK GUIDES		X		X									X
CREW MEMBERS ASSIST DRIVER WITH SUSPENSION SYSTEM															

PMCS - WEEKLY - DRIVER

1. ROAD WHEELS CHECK FOR BROKEN TORSION BARS
2. BATTERIES CHECK PRESENCE, STATUS
3. RAMP HYDRAULIC POWER UNIT CHECK CONNECTIONS, FLUID
4. TRIM VANE CHECK FOR DAMAGED PARTS, BROKEN MESH
5. TRIM VANE LATCH CHECK OPERATION

PMCS - MONTHLY - DRIVER AND CREW

1. SUSPENSION SYSTEM CHECK
 - 1a. Road Wheels, Support Rollers Separation, Pitting, Chunking
 - b. Wheel Arms Broken or Bent
 - c. Track Shoe Pads Worn or Missing
 - d. Drive Sprocket Teeth Worn, Broken, Cracked
 - e. Track Shoes Broken or Cracked
 - f. Truck Pin Nuts Centered
2. RIGHT ANGLE FAN DRIVE CHECK OIL LEVEL
3. EXTERIOR VEHICLE LIGHTS CHECK OPERATION
4. BILGE PUMPS CHECK OPERATION
5. COOLANT PUMP BELT CHECK STATUS AND OPERATION

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