

HMMWVs...

PUT A STOP TO TURRET DRIP DROP

MAN, THIS RAIN IS POURING DOWN!



I'M GLAD WE'RE STAYING DRY IN THIS HMMWV!



MAYBE I SPOKE TOO SOON...

YOUR HMMWV'S TURRET ISN'T DESIGNED TO BE WATERTIGHT, EVEN WHEN THE HATCH IS CLOSED.



SOME WATER FROM RAIN OR MELTED ICE OR SNOW WILL ENTER THE VEHICLE THROUGH THE TURRET'S BEARINGS.

THAT'S NORMAL.

Fortunately, communication systems used in HMMWVs, such as SINCGARS, Blue Force, Warlock, and VIC III, are water resistant. But they aren't waterproof and they can't be submerged in water and survive!

M1165s and M1165A1s use a roof plug in place of the turret and some units have reported leaks around the plug area. The solution was a design change that added water-sealing foam washers and closed cell, water-resistant insulation foam to plug the leak. This change was made in production, so your M1165 HMMWV should be good to go.

A few simple precautions can stop turret drip drops.

YOU MAY NOT BE ABLE TO CHANGE YOUR HMMWV'S DESIGN, BUT YOU CAN REDUCE TURRET LEAKS.



Preventive Measures

1. *During winter months, keep the roof free from snow or ice buildup. If you don't, water will leak into your vehicle when snow and ice melt. And, water seeping through the bearings can refreeze, damaging the turret bearings.*



2. *Whenever possible, keep the turret hatch closed. That will greatly reduce the amount of water coming into the vehicle from rain or snow.*



3. *Cover the top of your HMMWV with a tarpaulin, NSN 4610-00-442-9736. That can keep rain, snow and ice from reaching the turret area if the vehicle is parked or idle for extended periods.*

PS MORE

4. If you have M1114s, order a turret hatch hinge cover boot field repair kit, NSN 2510-01-520-3972. The kit includes one hatch hinge seal, one each of the hatch hinge seal's short and long tie-downs, 13 10-32 locking nuts, 13 10-32 x 1/2-in screws, four inches of 3/8-in diameter sponge rubber and a tube of adhesive.

5. For basic model (NON up-armored) HMMWVs—M966, M1025, M1026, M1036, M1043, M1044, M1045, and M1046—use the first three steps we've just told you about. Then follow these procedures to fabricate and install a seal to help keep water from leaking through the turret.

Getting the Right Stuff

Nomenclature	NSN	Qty
Inner tube, pneumatic	2610-00-051-9602	1
Adhesive	8040-00-856-8991	1
Knife, pocket	5110-00-240-5943	1
Nuts	5310-01-509-2488	15

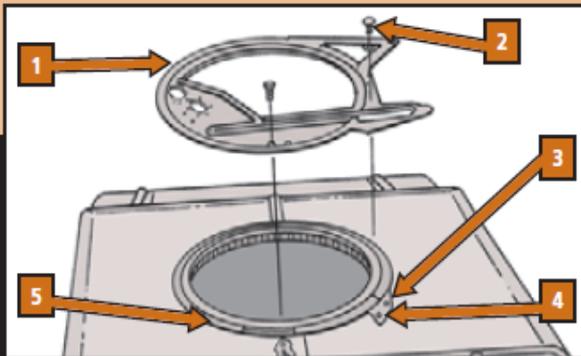
START BY GETTING THIS MATERIAL...

Removals to Prep your HMMWV

FOLLOW THE STEPS IN TM 9-2320-280-20-1 TO REMOVE THE...

1. weapon station hatch.
2. hinge pivot bracket and gunner's sling.
3. gunner's sling hook.
4. weapon station bracket pads.
5. weapon station hatch latches.
6. weapon station hatch tube assembly.
7. TOW mount pedestal, if installed.
8. TOW mount pedestal cover, if installed.
9. weapon station inclinometer, if installed.
10. turret lock.
11. armament cover and seal, if installed.
12. armament mount panel, if installed.
13. traversing bar, if installed.

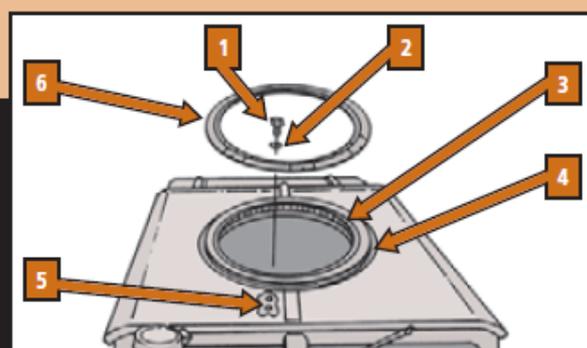
IN THE NEXT STEP, NOTE THE LOCATION OF ATTACHING HARDWARE FOR INSTALLATION.



14. Three existing nuts (4), six washers (3), and three screws (2), securing weapon station tray (1) to bearing assembly (5). Discard nuts.

15. Weapon station tray (1) from bearing assembly (5).

16. Twelve nuts (5), 24 washers (2), 12 screws (1), and six roof retainers (6) from bearing assembly (3) and support ring (4). Discard nuts, (5).



Seal Fabrication and Installation

1. Place the inner tube (1), NSN 2610-00-051-9602, on a flat surface.

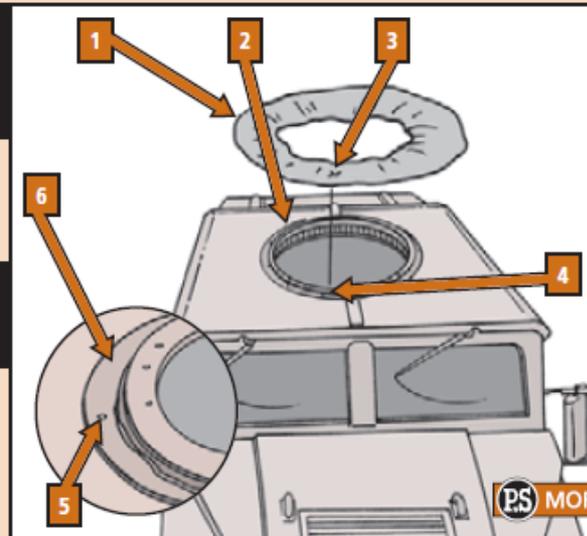
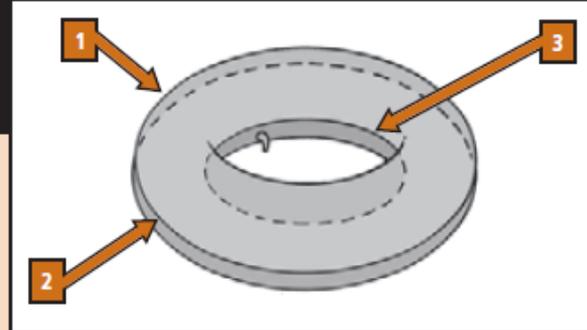
2. Using the knife, NSN 5110-00-240-5943, cut outer circumference (2) and inner circumference (3) of the inner tube.

3. Center one half of the cut inner tube (1) on the bearing assembly (2).

4. Locate and mark 12 places (3) in the inner tube (1) where screw holes (4) are located.

5. Using a 3/8-in diameter hole punch, punch 12 holes marked in step 4.

6. Apply a 1/8-in bead of adhesive sealant (5), NSN 8040-00-865-8991, on bearing assembly (2).



PS MORE

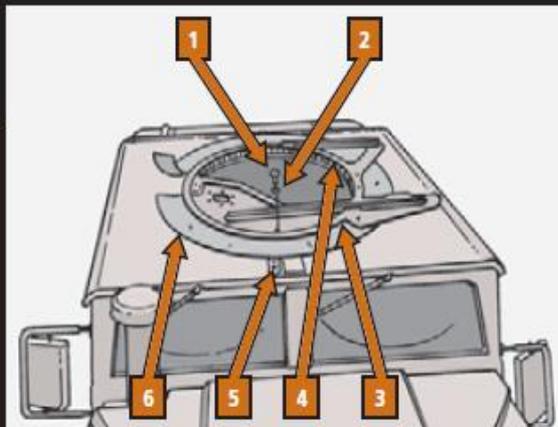
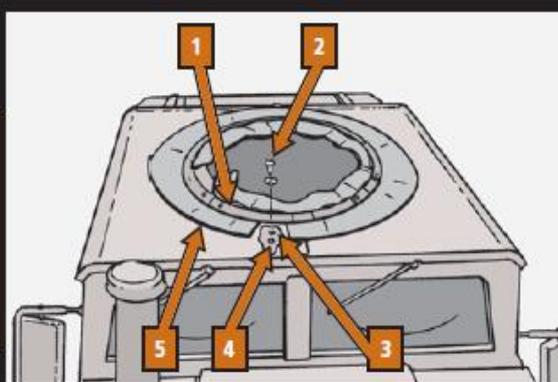
7. Position the cut inner tube (1) on the bearing assembly (2).

8. Position six roof retainers (1) and secure with 12 screws (2), 24 washers (3), and 12 nuts (4), NSN 5130-00-935-9021. Tighten the nuts to 37 lb-ft.

9. Using the knife, trim excess material from inner tube (5) $\frac{1}{8}$ inch from the roof retainers (1).

10. Place the weapon station tray (3) on the bearing assembly (4) and secure with three existing screws (1), six washers (2), and three nuts (5). Tighten nuts to 37 lb-ft.

11. Using a knife, trim excess material from the inner tube (6) $\frac{1}{8}$ inch along outside edge of weapon station tray (3). Rotate the weapon station tray (3).



FOLLOW THE GUIDANCE
IN TM 9-2320-280-20
TO INSTALL THE...



12. traversing bar, if it was removed.
13. armament mount panel, if removed.
14. armament cover and seal, if removed.
15. turret lock.
16. TOW MGS pan, if removed.
17. weapon station inclinometer, if removed.
18. TOW mount pedestal cover, if removed.
19. TOW mount pedestal, if removed.
20. weapon station hatch tube assembly.
21. weapon station hatch latches.
22. weapon station backrest pads.
23. weapon gunner's sling hook.
24. hinge pivot bracket and gunner's sling.
25. weapon station hatch.

PS
END