

Issue 656

PS

July
2007

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-656

Approved for
Public Release;
Distribution is
Unlimited



EVOLUTION OF WEAPONRY

**SEE
PAGE 27**

Mad About PM

RUDYARD KIPLING SAID, "EVERYONE IS MORE OR LESS MAD ON ONE POINT."

HERE AT PS, THE POINT WE ARE MAD ON IS PM.

WE'RE MADLY ANGRY WHEN IT'S *NOT* DONE. AND WE'RE MADLY HAPPY WHEN IT *IS*.

TO PREACH THE POWER OF PM IS WHY WE GET UP IN THE MORNING.

TO KNOW OUR EFFORTS ARE DOING SOME GOOD IS WHY WE SLEEP WELL AT NIGHT.

WHY ARE WE LIKE THIS ABOUT PM AND WHY HAVE WE BEEN LIKE THIS FOR 56 YEARS?

BECAUSE PM NOT ONLY SAVES EQUIPMENT, IT SAVES LIVES!

MORE THAN A FEW OF YOU READING THESE WORDS HAVE SPENT MORE THAN A FEW DAYS IN THE DESERT.

YOU KNOW ALL TOO WELL THAT THERE ARE ENEMIES WAITING TO HARM YOU OTHER THAN JUST THOSE WHO CARRY A WEAPON.

HEAT AND COLD; SAND AND ROCK; RUGGED HILLS AND RUTTED VALLEYS; ALL OF THESE THINGS AND MORE ARE WAITING TO TEAR AT YOU AND TEAR UP YOUR EQUIPMENT.

HOW DO YOU SURVIVE? HOW DO YOU MAKE IT BACK FOR THAT HOT AND A COT?

PM!

IT'S **PM** THAT KEEPS YOUR RADIO WORKING AND YOUR GPS SIGNALING.



IT'S **PM** THAT KEEPS YOUR HUMVEE HUMMING ALONG AND YOUR 5-TON TRUCK MOVING FORWARD.

IT'S **PM** THAT KEEPS THE WATER IN YOUR CANTEEN, THE UNIFORM ON YOUR BACK AND THE TENT ABOVE YOUR HEAD.



IT'S **PM** THAT COOLS YOU ON THE HOTTEST DAY AND PM THAT WARMS YOU ON THE COLDEST NIGHT.

THE BOTTOM LINE: WITHOUT PM YOUR EQUIPMENT WILL FAIL. WHEN EQUIPMENT FAILS, SOLDIERS DIE.

MAYBE IT'S TIME *YOU* GET MAD ABOUT PM, TOO.



TB 43-PS-656, The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user. Masculine pronouns may refer to both genders.



COMBAT VEHICLES

M1131 FSV Stryker Data Plates Updated
Stryker IETM Software Installation Problem
M1A2 SEP Tank FBCB2 System Shutdown
M1-Series Tank Commo Equipment Set
M2/M3-Series Bradley Dipstick Gasket
M88A1 Recovery Vehicle, AVLB Extinguishers
M113A3 FOV Air Cleaner Maintenance



WHEELED VEHICLES

M1078A1 2 1/2-Ton Truck Master Light Switch
M939A2-Series Truck Fan Clutch
Tactical Vehicle Electrical Connectors
Ballistic Glass Cleaning
PLS Publications Updates
Conversion Math Made Easy



SMALL ARMS

M2 Machine Gun Riveted Components
M2 Machine Gun Spring PM
M203 Grenade Launcher Barrel Extension
Arms Room Humidifiers



CBRN

M157 Smoke Generator Tips
M40-, M42-Series Masks ID Suggestion



MISSILES

Avenger Missile System PM

2



TOOLS

2

Hydraulic Fluid Transfer System

3

M7 Forward Repair System Door Caution

4

5



AVIATION

6

7

OH-58D Tail Rotor Drive Shaft Disc Packs

8-9

M296 Machine Gun Recoil Buffer Assemblies

UH-60 Series Windshield Protection

AGSE Turbine Engine Wash System

Maintenance Record Keeping

10



COMMUNICATIONS

10

11

12

13

14

BA-5390/5990 Batteries State of Charge Indicator

PP-2953D/U Power Supply Replacements

AN/TAS-8(V)1 and (V)2 LRA53 IOB

SINCGARS LS-671 Loudspeaker Mounting

SINCGARS Vehicular Antenna Contacts

Commo Shelter Storage Suggestions

15



SOLDIER SUPPORT

15

16-17

17

18-19

Hydration System PM

Ice Storage Chest NSNs

Canteen Care and Parts

Plastic Water Can Maintenance

Bottled Water Tampering Check

20-21

21

22



LOGISTICS MANAGEMENT

22

22-24

Matching Up Parts with End Items

DRMO Automated Want List

25

25

26

35

35

36

37

38

39

40

40

41

42

43

44

45

46

46-49

50

51

52-53

54

55

55-57

58-59

You are invited to send PS your ideas for improving maintenance procedures, questions on maintenance and supply problems and questions or comments on material published in PS.

Just write to:

MSG Half-Mast

PS, the Preventive Maintenance Monthly

USAMC LOGSA (AMXLS-AM)

5307 Sparkman Circle

Redstone Arsenal, AL 35898-5000

Or e-mail to:

logsa.psmag@conus.army.mil or

half.mast@us.army.mil

Internet address:

<https://www.logsa.army.mil/psmag/pshome.html>

By order of the Secretary of the Army:

GEORGE W. CASEY, JR.

General, United States Army Chief of Staff

Official:

Joyce E. Morrow

JOYCE E. MORROW

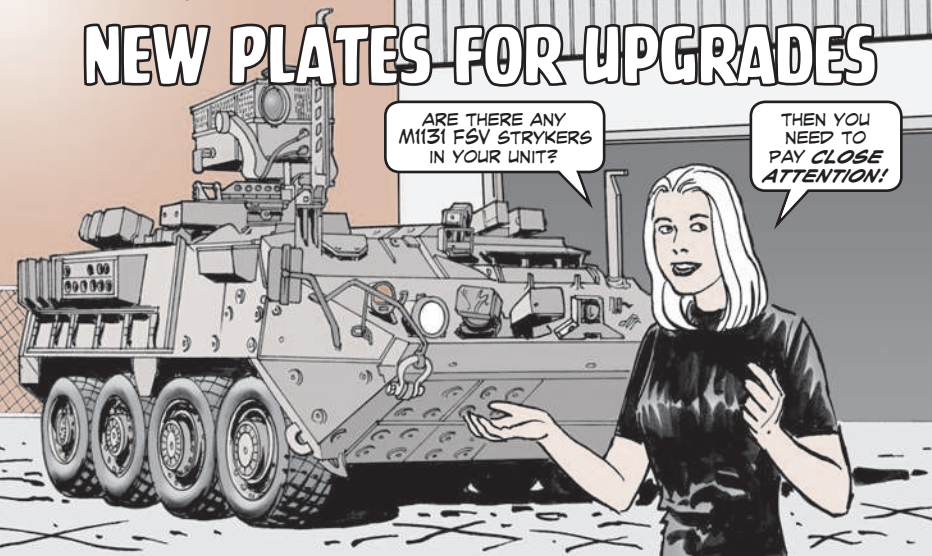
Administrative Assistant to the Secretary of the Army

0710801

PS, The Preventive Maintenance Monthly (ISSN 0475-2953) is published monthly by the Department of the Army, Redstone Arsenal, AL 35898-5000. Periodical postage is paid at the Huntsville, AL post office and at additional mailing offices.

Postmaster: Send address changes to PS, The Preventive Maintenance Monthly, USAMC LOGSA (AMXLS-AM), 5307 Sparkman Circle, Redstone Arsenal, AL 35898-5000.

NEW PLATES FOR UPGRADES



ARE THERE ANY
M1131 FSV STRYKERS
IN YOUR UNIT?

THEN YOU
NEED TO
PAY **CLOSE**
ATTENTION!

All M1131 Fire Support Vehicles have been upgraded to FSV/FS3s. The upgrade included the addition of the long range advanced scout surveillance system (LRAS3) and the laser designator module (LDM).

With the upgrade, the vehicle's NSN and part number have changed. The new NSN is 2355-01-528-1274 and the new part number is 12501485. All designated property book officers and hand receipt holders need to update their document registers to reflect the change.

PM-Stryker Brigade Combat Team (SBCT) is working out a plan to have all vehicle data plates replaced, either by providing the plates to each installation or by having a field service representative visit each location to install them.



ONCE YOU'VE UPDATED
THE HAND RECEIPT, NOTIFY
PM-SBCT SO THEY KNOW
WHERE THE DATA PLATES
ARE NEEDED.

JUST SEND
AN EMAIL TO:
angela.o.leslie@
us.army.mil

Stryker...

Software Locking You Out?

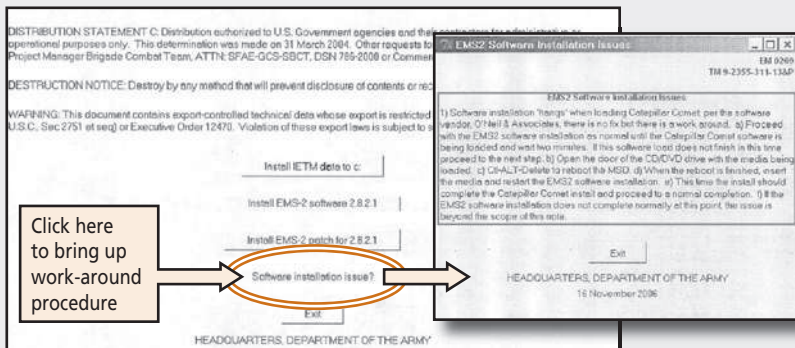
GOT A
SOFTWARE
LOCKOUT
PROBLEM?



The first time you try to install the Stryker IETM software on your maintenance support device (MSD) could be a problem. A lot of soldiers are reporting that the MSD locks up on them.

If this is the first time that you've tried to install EMS2 2.8.2.1, there is a potential work-around for the problem. For the work-around to succeed, this must be a new MSD install and no other vehicles can be installed on the device.

After you've inserted the software disk into the device, select the Software installation issue? button on the first screen. This brings up a new screen that provides the work-around solution.

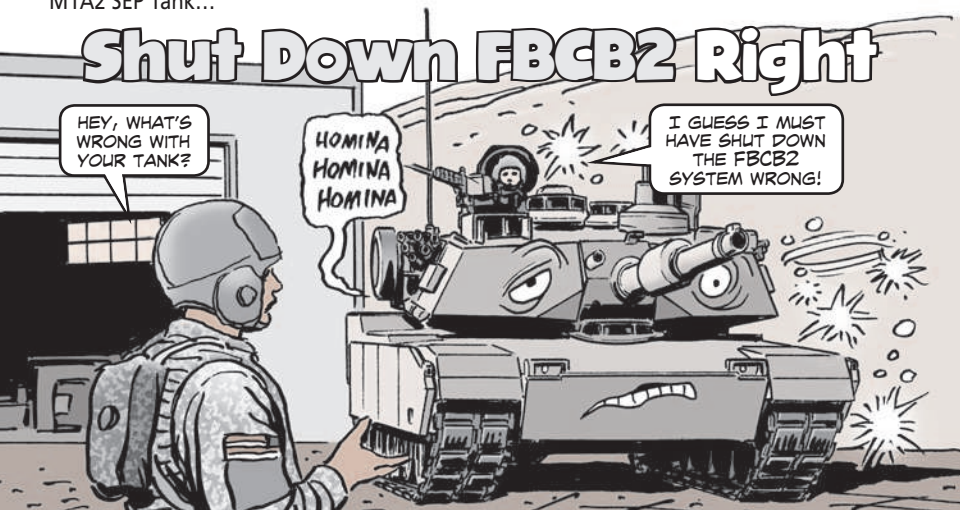


If you've installed the Stryker IETM with EMS2 2.8.2.1, just click the Install IETM data to c: button.

Questions? Contact TACOM's Ron Ford at (586) 532-6706 or by email:

ronald.w.ford@us.army.mil

Shut-Down FBCB2 Right



Tankers, there's a right way and a whole bunch of wrong ways to shut down the FBCB2 system on your M1A2 SEP tank.

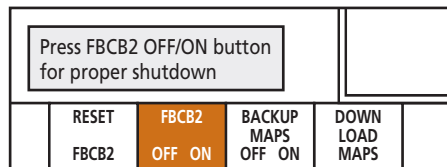
If you use one of the wrong ways, the FBCB2 software stops communicating properly. The tank's software treats this as an FBCB2 failure, leading to a 10-12 minute shutdown and possible corruption of the removable memory cartridge (RMC) and the FBCB2 software. That means your mechanic will have to re-download the software to the RMC.



SO NEVER USE ANY OF THESE METHODS TO SHUT DOWN THE FBCB2 SYSTEM...

- Flipping off any of the FBCB2-related circuit breakers
- "Shutdown" selection from the FBCB2 software
- Powering off the commander's station
- Turning off the master power switch
- Shutting down turret power

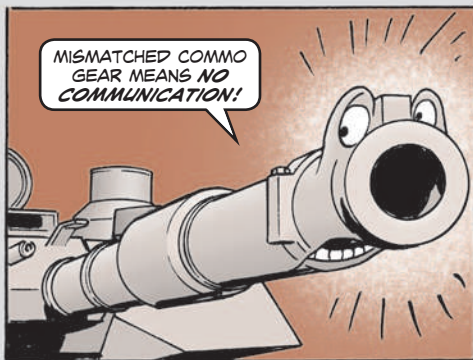
The right way means pressing the FBCB2 OFF/ON button under the COMMO SYSTEM menu on the commander's display. Complete procedures are on Pages 2-472 through 2-474 of TM 9-2350-388-10-1.



WHEN USING THIS METHOD, IT SHOULD TAKE ONLY TWO TO THREE MINUTES FOR THE FBCB2 TO SHUT DOWN.

THEN YOU CAN POWER DOWN THE TANK WITHOUT CORRUPTING THE RMC AND THE FBCB2 SOFTWARE.

COMMUNICATION IS KEY



Tankers, you need to be able to move, shoot and communicate to get the mission done as quickly and safely as possible. Lose the ability to do any of the three and your mission is jeopardized.

That's why it's important to have a complete and correct set of communications equipment in your tank. Radio sets that are incomplete, malfunctioning, or hooked up to the wrong type of antenna will cut you off completely.

Check the Additional Authorization List (AAL) located in Appendix C of your operator's manual. You'll find each radio set listed in the AAL by NSN. Simply look up the NSN of your radio and you'll find all the support equipment needed for that radio listed underneath.

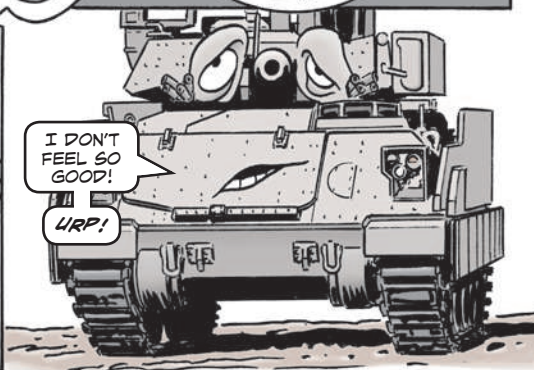
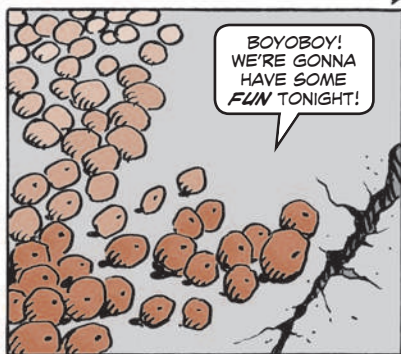
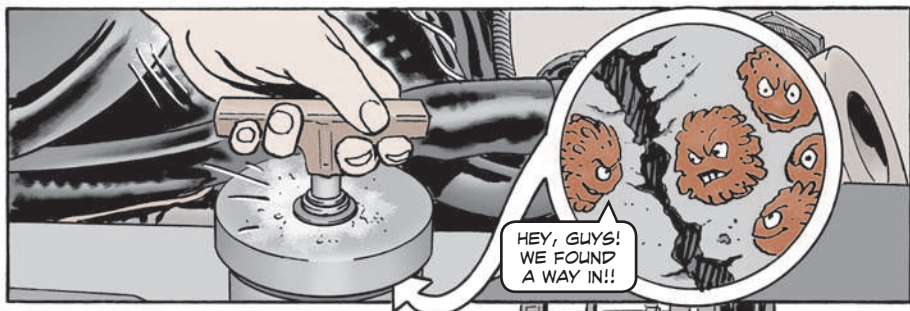
TM 9-2350-264-10-2

ADDITIONAL AUTHORIZATION LIST

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION CAGE & PART NUMBER	(3) USABLE ON CODE U/M	(4) QTY
MTOE AUTHORIZED ITEMS - Continued			
5820-01-151-9921	Radio Set AN/VRC-92: (80063) A3080239-1	EA	
Find radio set NSN...	Consisting of: 5895-01-188-8819 Amplifier-Adapter, vehicular, AM-7239/VRC: (80063) A3013365-1		
...then look for list of components below	5895-01-195-4844 Amplifier, radio frequency, AM-7238/VRC: (80063) A3013365-1		



DIPSTICK PREDICAMENT



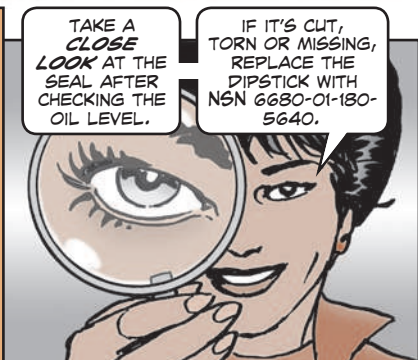
The gasket under the top of your Bradley's transmission oil dipstick is pretty important, crewmen.

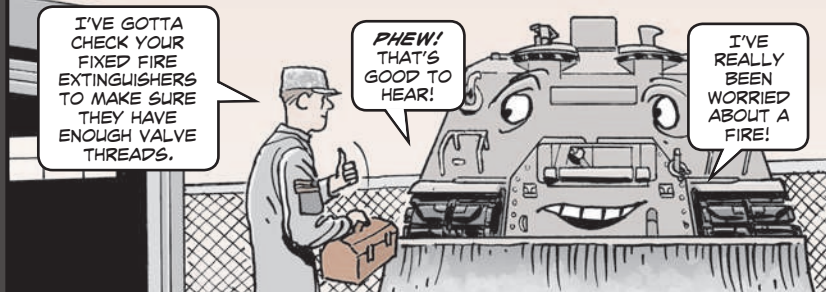
After checking the oil level, you have to turn the T-handle on the dipstick to lock it in place. Turning the T-handle makes the gasket under the top of the dipstick expand to completely seal the opening.

But if that gasket is damaged or missing, you won't get a good seal. Water, dirt and sand can get past the seal and into the transmission. Not good!

TAKE A
CLOSE
LOOK AT THE
SEAL AFTER
CHECKING THE
OIL LEVEL.

IF IT'S CUT,
TORN OR MISSING,
REPLACE THE
DIPSTICK WITH
NSN 6680-01-180-
5640.





COUNT THREADS FOR FAULTY EXTINGUISHERS

Crewmen, the fixed fire extinguishers on some of your M88A1s and AVLBs are hanging by a thread. And that can put you in danger if there's a fire.

Some of the bottle assemblies, NSN 4210-01-048-8646, under contract number DAAE07-03-D-N070 DO 0005 don't have enough threads on the portion that connects the valve assembly to the fire extinguisher tubing in the vehicle. The tubing nut won't seat properly on these defective valves.

If the bottle is activated, a lot of the CO₂ will leak out where the valve and tubing join. That means less CO₂ goes to the pre-positioned fire extinguisher nozzles where it's needed to fight the fire.

Take a look right now at the fixed fire extinguishers in your vehicles and in on-hand stock. Keep in mind that it's only **some** of the bottles under that contract that are faulty.

Look closely at the valve head for proper thread count. Defective valve heads will have only six full threads. Good valves will have eight or more full threads.

Defective bottle assemblies should be sent back to the manufacturer for replacement. Depressurize the bottles, then send them to:

Inflation Systems, Inc.

ATTN: QAR

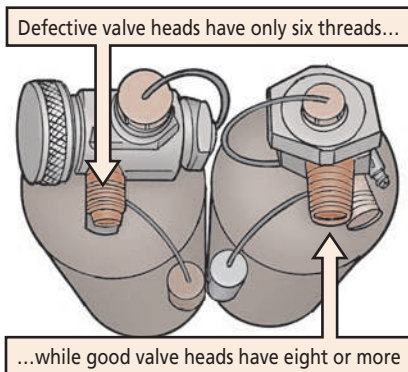
500 Ogden Ave

Mamaroneck, NY 10543-4317

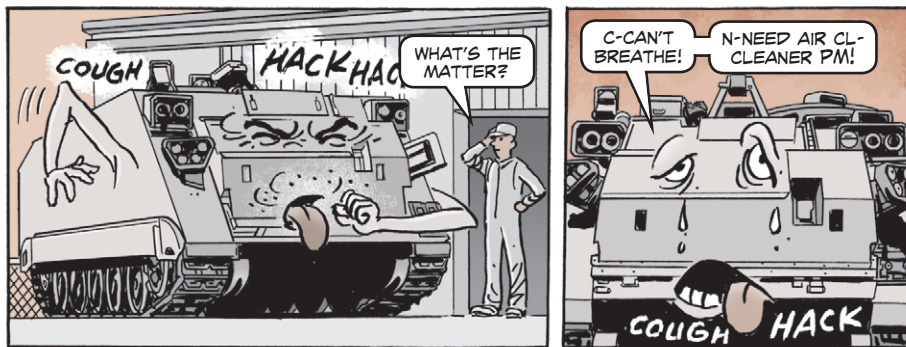
The complete scoop's in TACOM ground precautionary message 07-011. Check it out online:

https://aeps2.ria.army.mil/commodity/gpm/tacom_wn/07/gpm07-011.html

You'll need your AKO login and password to access the site.



Don't Choke on Air Cleaner PM



MECHANICS, THE SAND PIT IS A **TOUGH ENVIRONMENT** FOR AIR CLEANERS.

ONLY CONSTANT, VIGILANT PM WILL KEEP M113A3 FOVS BREATHING CLEAN, FRESH AIR.

WITHOUT IT, THAT VEHICLE WILL BE LEFT GASPING AND CHOKING.

Gaskets

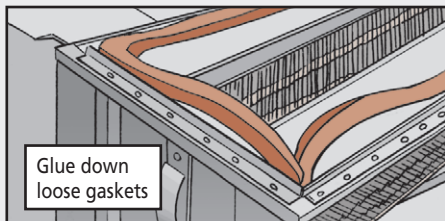
The gaskets on the air cleaner door and element are the first line of defense. Gaskets that are torn, loose or missing allow dirty air to get inside the engine and damage it.

First, eyeball the air cleaner door gasket for cuts or tears. If you see any, replace the gasket, NSN 5330-01-205-6016, like this:

1. Remove the old gasket.
2. Clean the door with dry cleaning solvent to remove all the old adhesive.
3. Apply new adhesive, NSN 8040-00-664-4318, to the gasket. Keep the coating light. Excess adhesive oozes out from around the gasket and can stick to the air cleaner element.
4. Let the adhesive cure until it is tacky. Then, place the gasket on the air cleaner door.

Next, check out the gaskets on the side of the air cleaner element. If they're loose, use the adhesive to glue them back in place.

If the gaskets are damaged or missing, replace the element, NSN 2940-01-205-6038.



Cleaning

If the air cleaner element is just dusty, shake it gently, then tap the sides with your hands to remove sand and dirt. Never hit the element against a hard surface. That dents the element and lets even more dirt through to the engine.

Next, use an air gun to blow dirt out of the element. Never use more than 30 psi and always blow from the inside to the outside of the element. When you use the air gun, wear goggles and gloves for protection.

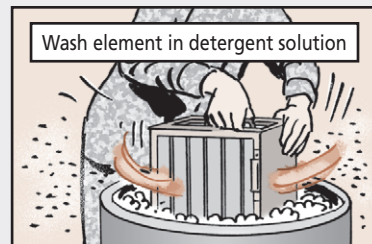


FOR MORE STUBBORN PROBLEMS LIKE HEAVY DIRT, CARBON OR OIL DEPOSITS, WASH THE FILTER ELEMENT AND USE IT AGAIN. HERE'S HOW...

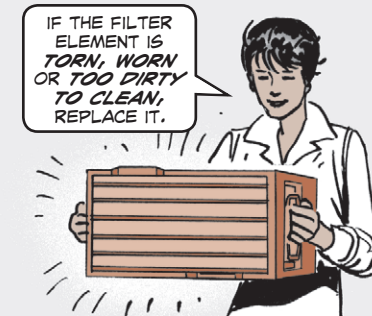
1. Mix one cup of dry detergent, NSN 7930-00-531-9715, with five gallons of water in a container large enough to completely submerge the filter element. Hot water works best, but it should be under 190°F. Boiling is 212°F.

If the element is extremely dirty, increase the concentration of detergent slightly, but no more than two cups of detergent per five gallons of water.

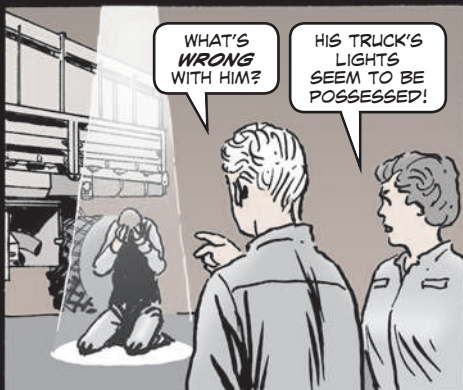
2. Immerse the element completely in the washing solution. Holding the element handle, swish the element in a circular motion for about two minutes. Wear gloves to protect your hands from the hot water.



3. Let the element soak in the solution for at least 15 minutes. Agitate it again for another three to five minutes.
4. Remove the element and let the detergent solution drain as much as possible.
5. Rinse the element with cold water from a low-pressure hose. Rinse from the inside out with a maximum of 45 psi until the water runs clear and all soap residue is removed.
6. Air dry the element thoroughly.
7. Wipe out the inside of the bell housing and air cleaner housing before reinstalling the element.



Shedding Light on a Failure



Dear Editor,

We recently spent some long hours troubleshooting an M1078A1 for transmission failure. The truck came to us with a burned ground wire and inoperative gauges. The engine light came on, the blackout marker lights stayed on, and the shifter selector light wouldn't come on! To top it off, when we put the vehicle in gear, it only moved about 15 yards before quitting.

We didn't have a solution, even after searching the tech manual for answers. So we approached the problem by starting repairs. After repairing the burned wire, the problem remained. Then we discovered a problem with the master light switch. And replacing the light switch cured *all* of the problems!

This may just apply to us, but then again, it may come up for another unit. It's worth telling others about.

Chuck Fannin
Fort Knox, KY

Editor's note: This should save others a little head scratching and frustration! Thanks for shedding light on this issue.

FAN CLUTCH TROUBLESHOOTING TIP

Dear Half-Mast,

What's with the fan clutches for M939A2-series 5-ton trucks? When the fan clutch won't engage, I thought the right thing to do was to replace it. But the replacement clutch still won't engage. How can I fix this?

SSG Y.M.E.

Dear Sergeant Y.M.E.,

You're not the first soldier to complain about brand new fan clutches being defective. Things aren't always how they seem, though.

Take a look at Item 7 in Fig 121 of TM 9-2320-272-24P-1. This elbow, NSN 4730-01-315-5596, could be the key to unlocking your troubleshooting door.

The elbow has a tiny metallic screen inside of it. If the fan clutch doesn't work, this 90-degree elbow fitting at the supply air line to the fan clutch may be plugged. See if either cleaning the screen or replacing the elbow gets the fan clutch to work.

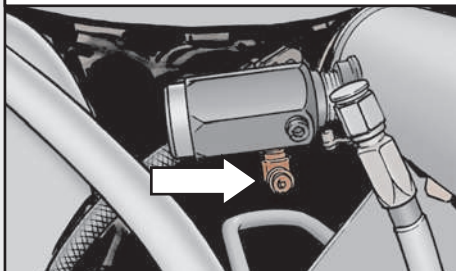
If the fan clutch still doesn't work, eyeball the fan clutch actuator, NSN 2930-01-285-5027, shown as Item 6 in Fig 121. It has another small metallic screen inside of it. Make sure that one isn't plugged, either.

If your problem still exists after both screens have been checked, go ahead and replace the fan clutch actuator. That ought to get your cooling system working properly again.

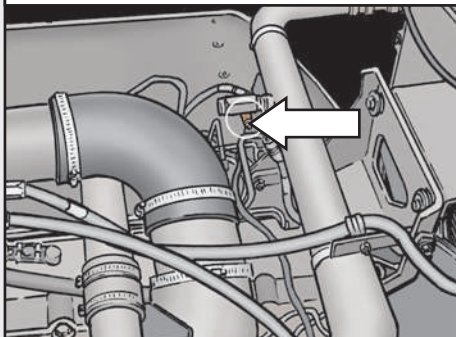
You can test the operation of the fan clutch using the guidance on Page 4-376 in TM 9-2320-272-24-3.

Half-Mast

See if either cleaning screen or replacing this elbow gets the fan clutch to work



Make sure the screen in the fan clutch actuator isn't plugged

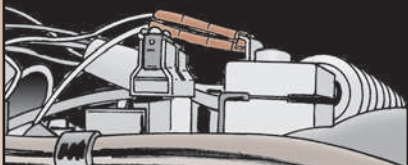


HEAT SHRINK TUBING TO THE RESCUE



A LITTLE HEAT SHRINK TUBING AROUND ELECTRICAL CONNECTORS IS A GOOD WAY TO SEAL OUT MOISTURE AND KEEP THE WIRING CONNECTION TIGHT.

Protect wires with heat shrink tubing



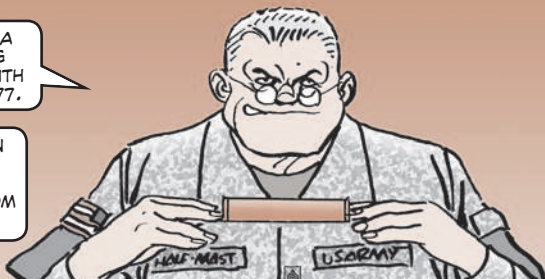
USE THIS LIST TO ORDER THE SIZE AND COLOR TUBING YOU NEED FOR THE JOB...

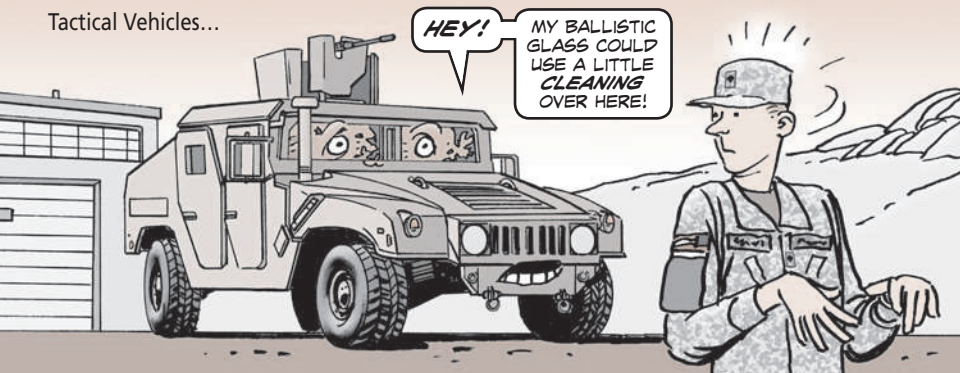
NSN 5970-	Size (inches)	Shrinks to (inches)	Color
00-724-1909	1/16	1/32	White
00-088-2975	1/8	1/16	White
00-052-4877	3/16	3/32	Yellow
00-815-1295	1/4	1/8	Black
00-814-2878	1/4	1/8	White
00-901-0759*	5/16	13/64	White
00-954-1624	3/8	3/16	Black
00-812-2967	1/2	1/4	Black
00-914-3118	3/4	3/8	Black
00-959-6336	1	1/2	Yellow
00-815-1300	1	1/2	Black

*Order on a DD Form 1348-6 and put "NSN not on AMDF" in the REMARKS block.

YOU CAN ALSO GET A HEAT SHRINK TUBING ASSORTMENT PACK WITH NSN 5970-01-026-1877.

THE TUBING COMES IN 6-IN LENGTHS AND MULTIPLE COLORS. THE SIZES RANGE FROM 3/64-IN TO 3/16-IN.





You'd Better Do Windows!

The ballistic glass on your tactical vehicle needs regular cleaning. And you'd better clean it right because you can't see very well through glass that's scratched or starting to separate.



1. Rinse the window with clean water from a squirt bottle to soften up and rinse away loose dirt and sand.
2. Mix up a batch of soapy water using a general purpose liquid detergent, like NSN 7930-00-282-9699. Don't use dry detergent. It may scratch if it doesn't totally dissolve in the water.
3. Gently wash the windows with a clean cotton rag, such as NSN 7920-00-205-1711, and the soapy water. While you're at it, wash the windshield wipers, too.
4. Rinse with clean water.



Use liquid detergent for cleaning ballistic glass

CAUTION!

Make very sure that you **do not** use ammonia or any cleaning product that contains ammonia to clean ballistic glass. Ammonia may be good for cleaning household glass, but it breaks down the bond between the inner and outer sections of ballistic glass.

It's also a good idea to stay away from aerosol window cleaners. The propellant in some of these cleaners can also cause ballistic glass separation.

PLS...

Got Pubs?

PUBS UPDATES GIVE YOU VALUABLE INFO, SUCH AS CHANGES TO PART NUMBERS, NSNS, AND REPAIR PROCEDURES.

GOT CURRENT PLS PUBS FOR YOUR PLS TRUCK, TRAILER, AND FLATRACK? EYEBALL THIS CHART TO FIND OUT.

Model	TM Number	TM Date
M1074, M1075 truck	9-2320-364-10	Nov 05
M1074, M1075 truck	9-2320-364-10HR	Nov 05
M1074, M1075 truck	9-2320-364-20-1	Nov 05
M1074, M1075 truck	9-2320-364-20-2	Nov 05
M1074, M1075 truck	9-2320-364-20-3	Nov 05
M1074, M1075 truck	9-2320-364-20-4	Nov 05
M1074, M1075 truck	9-2320-364-20-5	Nov 05
M1074, M1075 truck	9-2320-364-24P-1	Nov 05
M1074, M1075 truck	9-2320-364-24P-2	Nov 05
M1074, M1075 truck	9-2320-364-34-1	Nov 05
M1074, M1075 truck	9-2320-364-34-2	Nov 05
M1074, M1075 truck	9-2320-364-34-3	Nov 05
M1074, M1075 truck	9-2320-364-34-4	Nov 05
M1076 PLS trailer	9-2330-385-14	Dec 05
M1076 PLS trailer	9-2330-385-24P	Dec 05
M1077/A1 M1 ISO flatrack	9-3990-206-14&P	Jun 06

Metrically Challenged?...

CONVERSION MATH MADE EASY

2/17
3.4159 in $\approx$ 3/4 mm
?

Dear Editor,

I get frustrated sometimes while trying to convert millimeters to inches and decimals to fractions. But I came across a couple of websites that make conversion math easy. Tell your readers in the field that are metrically challenged (like me) to use these links:

<http://www.worldwidemetric.com/metcal.htm>

and

<http://www.seoconsultants.com/charts/inches-decimal/#conversion>

Mark Wojcinski
FMTV Equipment Specialist
TACOM - Warren

Editor's note: You just told them and that tip really counts!

HOW LOOSE CAN RIVETS BE?

I'M JUST NOT SURE HOW **LOOSE** YOUR RIVETS CAN BE...

WELL... LET'S FIND OUT!

THAT'S A GOOD QUESTION, ONE THAT HAS ARMORERS AND THEIR DIRECT SUPPORT CONFUSED ABOUT M2 MACHINE GUN RIVETS.

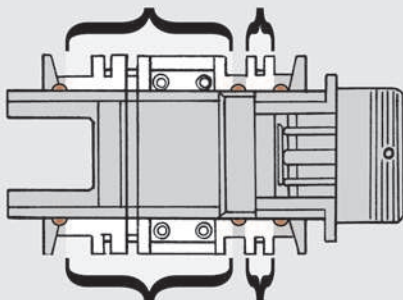
HERE'S THE STRAIGHT SCOOP...

Armorer—Do the PMCS check in Item 14 on WP 0010 00-23 in TM 9-1005-213-23&P (Change 2). Check the receiver for cracks or movement of riveted components. Rivets are allowed to turn as long as there's no movement of riveted components. Item 14 says "If there are more than a total of eight loose rivets on the receiver or more than six loose rivets on the top plate, bottom plate or trunnion block, send to direct support." **Disregard that.** That will be changed to say "If there is movement of riveted components, send to direct support."

Direct support—Verify that there is movement of riveted components. If there is, the M2 is unservicable and must be turned in for overhaul.

But it is OK for the feed pawl brackets to have some movement. The maximum allowable looseness or gap permitted between the belt holding ammo brackets and the side plates is 0.010 inch. The receiver is unservicable if a 0.010 feeler gauge passes through the area between the rivets.

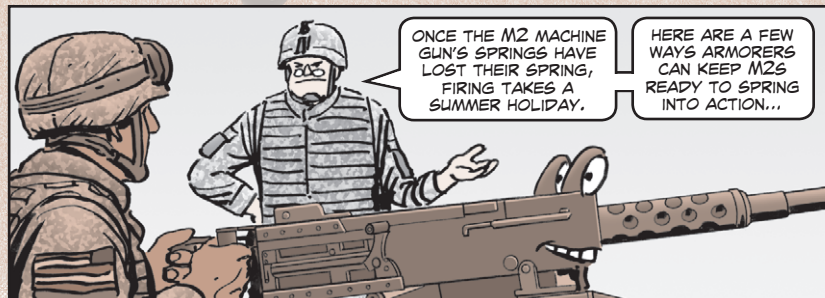
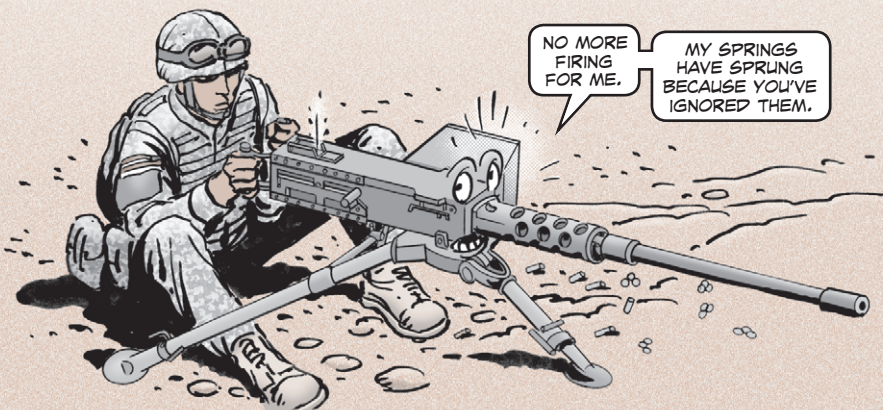
Does feeler gauge pass between rivets?



If you have questions, contact TACOM's Walter Hilliard at DSN 793-2261/(309) 782-2261 or email walter.hilliard@us.army.mil

Or you can contact TACOM's Dongil Juhn at DSN 793-0242/(309) 782-0242 or email dongil.juhn@us.army.mil

KEEPING THE SPRING IN SPRINGS

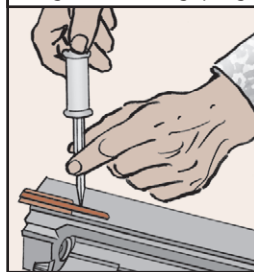


• Get the timing nut spring and sear spring changed annually. If the timing nut spring becomes weak, the timing nut won't stay put and the M2's timing is thrown off. A weak sear spring means the M2 can stop firing. It's direct support's job to change the springs during annual gauging. Make sure they do.

• Keep the barrel locking spring tight. If the spring works loose, the M2 can't hold headspace and it starts rupturing cartridges instead of firing them. If the spring's loose, swage the barrel extension once firmly with a $\frac{1}{4}$ -in flat-tip punch. (Swaging is staking with a flat-tip punch.)

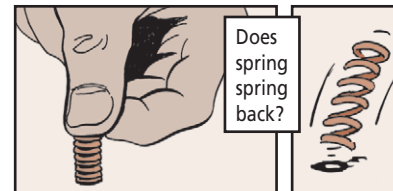
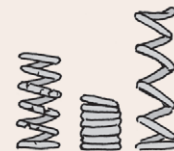
If the barrel extension is damaged where you want to swage, swage the opposite side of the barrel extension. As long as you don't crack the spring or punch a hole in it and it lets you install the barrel, the spring is usable.

Swage loose locking spring



• Test the sear spring. If it becomes too weak, the M2 stops firing. To get to the sear spring, depress the sear and remove the sear slide. Then remove the sear and sear spring. Look to see if either end of the spring is deformed or if it is cracked, broken, collapsed, or elongated. Check to see if the spring fits loosely in the sear or bolt. Finally, set the spring upright on a flat surface and push it down. If it doesn't spring back all the way, its life is over. If you see any problems, replace the spring. Remember to check the sear spring BEFORE PMCS.

Spring loose, deformed, cracked, elongated or crushed?



M203 Grenade Launcher...

BARREL EXTENSION LOOSE? NO GO!



Dear Half-Mast,

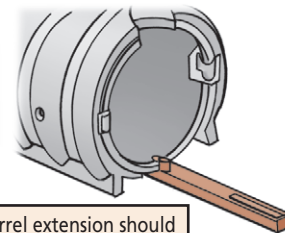
Item 3 in the M203 grenade launcher's quarterly PMCS in TM 9-1010-221-23&P says that there can be no obvious play or movement in the barrel extension. I don't have one single M203 in the arms room that doesn't have some movement, so could you please define "obvious play or movement"? How much movement is allowed?

SPC J.H.

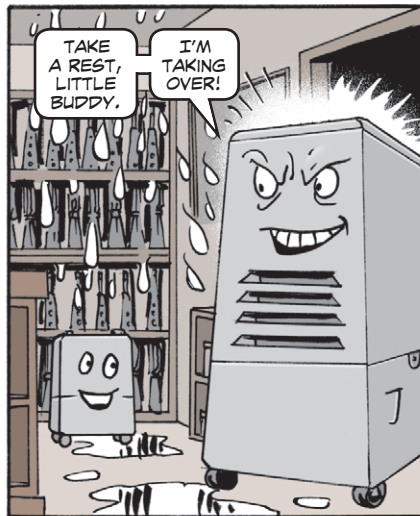
Dear Specialist J.H.,

If you look in the *NOT FULLY MISSION CAPABLE IF* column on the right in the PMCS, you find "Barrel extension is loose, bent, or cracked". In other words, **no movement** in the barrel extension is allowed. So, unfortunately, all your M203s need to go to support for repair.

Half-Mast



BIG ARMS ROOMS NEED BIG DEHUMIDIFIERS



Dear Editor,

The article in PS 645 (Aug 06) suggesting armorers run a dehumidifier in the arms room was good—but it didn't go far enough.

The dehumidifier listed in the article was the type used in the home and holds only 15 pints. That may not be big enough for many arms rooms. For not that much more money, you can get a dehumidifier with a 30- to 60-pint capacity. Industrial supply houses like McMaster or Grainger and the large home supply outlets have a wide selection. If it means saving thousands by preventing weapons from being ruined by corrosion, spending a few dollars more for a larger dehumidifier is a no-brainer.

Units might also want to consider buying a dehumidifier that has an integral drain so that the water can be run directly to a building drain. Another option is one with a pump so that water can be piped into a large plastic drum.

If your arms room temperature sometimes drops below 65°F, you may need to get a dehumidifier with automatic deicing. Many dehumidifiers ice up below 65°F.

Armors need to remember that most dehumidifiers start to lose their effectiveness above 95°F. So, if at all possible, the temperature in the arms room needs to be kept below that.

Dehumidifiers should be positioned on the floor since moist air settles. Circulation helps fight humidity, too, so running a fan is a help, especially blowing into corners.

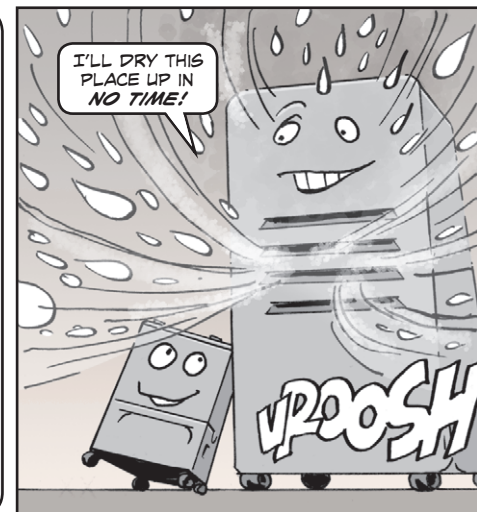
Another excellent addition to the arms room is a humidity meter. You can get a good one for around \$25. The meter lets you directly monitor the humidity. Armors should aim for 35 to 45 percent to prevent corrosion.

I hope these suggestions help armorers win the war against corrosion.

William Ellis
Army Sustainment Command
Rock Island, IL

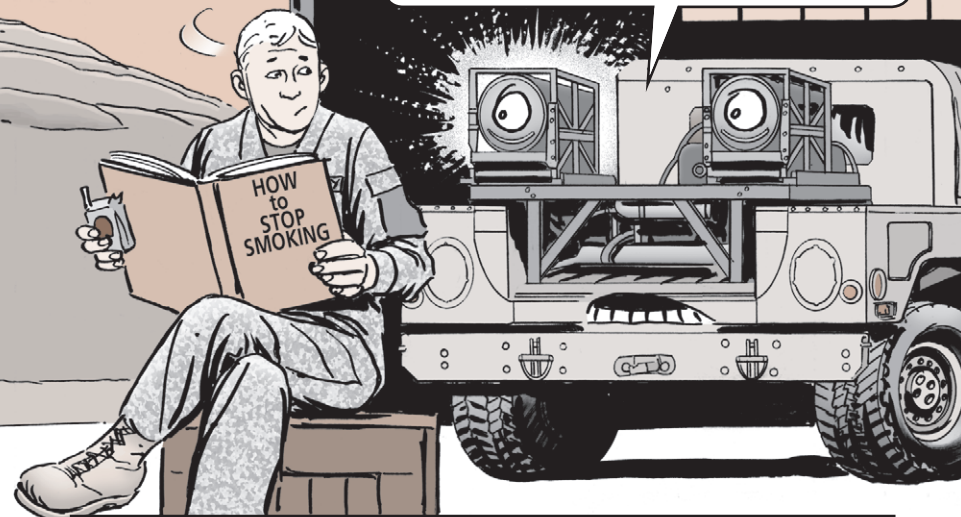
Editor's note: They certainly will, Mr. Ellis. One other point on dehumidifiers was made to PS during a recent visit to Ft Bragg by SPC Bret Pchelka of MATES:

Dehumidifiers need to be emptied on a regular basis to do any good. If armorers are going to be gone for long periods, someone else needs to be assigned the task of servicing the dehumidifier. And remember, even with dehumidifiers, the first line of defense against corrosion is the PMCS in your technical manuals.



HEY, BUDDY, THAT'S OK FOR YOU. BUT, I NEED...

HELP TO START SMOKING



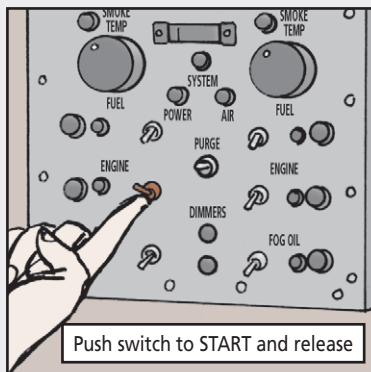
Dear Editor,

Smoking is your M157's business so you want to help it *start* smoking, not *stop*.

• M157 operators tend to hold the ENGINE toggle switch up in the START position. That often makes starting harder because the M157 loses air pressure and the engine floods. And it can trip the sensor for the fuel pump, which then needs to be reset.

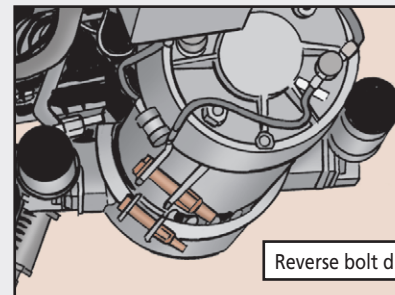
When starting the engine, you should push the switch to START and release it. If the engine doesn't start after five tries, preheat the engine and then try again. Usually when you hear burping from the baffles that means the engine is ready to start.

• When preheating the engine, be patient. Sometimes it can take as much as 15 minutes for the engine to reach operating temperature. Keep your eye on the temperature gauge while preheating. If the preheater doesn't automatically shut off, the timer for it may need to be replaced.



• On the M1059, reverse the bracket bolt for the air compressor. Its bolt can stick out, so soldiers entering the vehicle can cut their heads if they're not careful. Point the bolt in the other direction and you remove the danger.

SSG Daniel Rodriguez
369th Chemical Co
MacGregor Range, NM



Reverse bolt direction

Editor's note: Your suggestions should help light up lots of M157s. Thanks for sharing your experience.

M40-, M42-Series Masks...

ID the Easy Way

I DON'T HAVE ALL DAY, SERGEANT.

WE'VE GOT A MISSION TO PERFORM.



Having to hunt down each soldier's mask in your NBC room is the slick path to frustration, NBC NCOs. Here's an easy way to make mask ID easy:

Use metal dog tags, NSN 8465-00-242-4804, and dog tag covers, NSN 8465-00-999-7905. Attach them to the carrier D-ring with binder rings, NSN 7510-00-286-5787.

Put a strip of embossing tape, NSN 7510-00-995-4895, on each side of the tag with the ID number, mask type and size. You'll need an embossing gun, NSN 7490-00-835-0443, to punch numbers on the tape.

Or you can stamp the number directly on the dog tag.

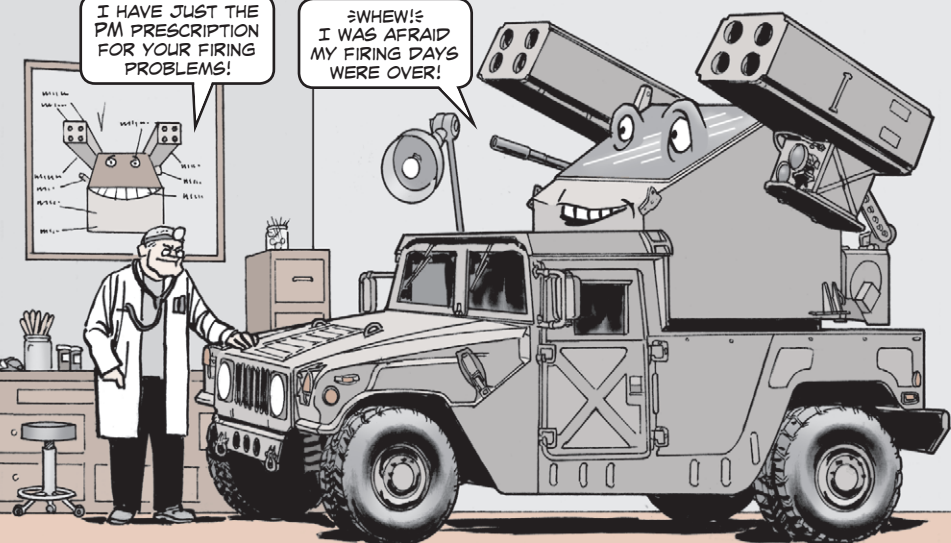
Attach dog tag to D-ring



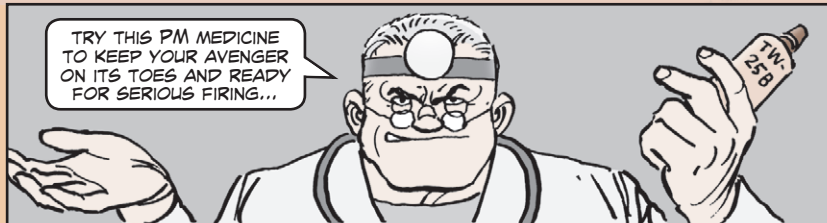
R_x FOR AVENGER PM

I HAVE JUST THE PM PRESCRIPTION FOR YOUR FIRING PROBLEMS!

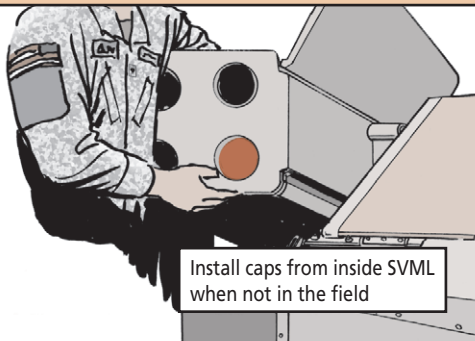
OWHEW! I WAS AFRAID MY FIRING DAYS WERE OVER!



TRY THIS PM MEDICINE TO KEEP YOUR AVENGER ON ITS TOES AND READY FOR SERIOUS FIRING...

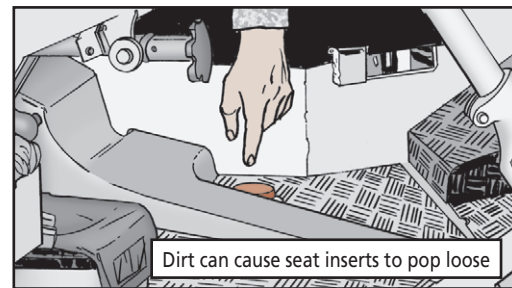


• When your Avenger is going to just sit in the motor pool, install the SVML (standard vehicle mounted launcher) caps from inside the launcher. That way the caps can't fall out and disappear. If you're in the field, though, and there's a chance you might be firing, install the caps from the outside. That way they blow right off during a launch.



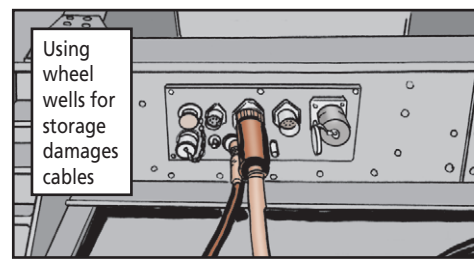
Install caps from inside SVML when not in the field

• Use your unit's shop vac to clean inside the turret as often as needed. If you let dirt build up on the turret floor, it can get in the seat inserts. Then when you tighten the seat, the inserts pop out. Vacuuming is much easier than replacing those inserts.



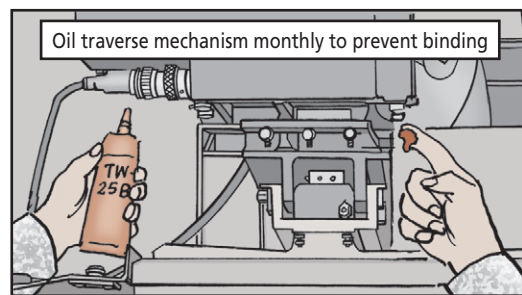
Dirt can cause seat inserts to pop loose

• Don't use the wheel wells as storage space for coats or radios or packs. That almost guarantees the W80 and video cables will be damaged. If your Avenger has a bustle box, use that for storage. You can also use the Avenger support vehicle to put stuff in.



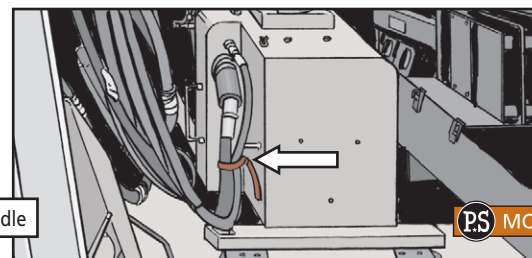
Using wheel wells for storage damages cables

• Monthly, give the M3P machine gun's traverse mechanism a few dabs of TW-25B. Work the traverse mechanism back and forth to spread the lube. That keeps the traverse mechanism from binding and making boresighting difficult.



Oil traverse mechanism monthly to prevent binding

• Tie off the cables to the RCU (remote control unit) to the RCU carrying handle. That keeps the cables from being jerked out if they are pulled on.

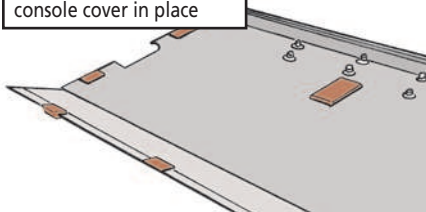


Tie off RCU cables to handle

PS MORE

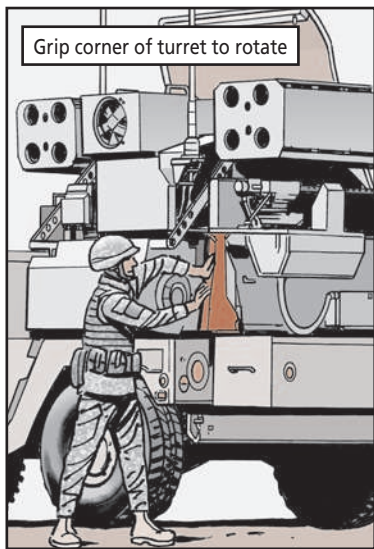
- If you have trouble with the console cover screws disappearing or you often have to remove the cover, use hook and pile to secure the cover. Glue strips of hook and pile around the bottom edges of the cover and the matching areas on the console. Then you can just lift off the cover without worrying about all those screws.

Use hook and pile to hold console cover in place



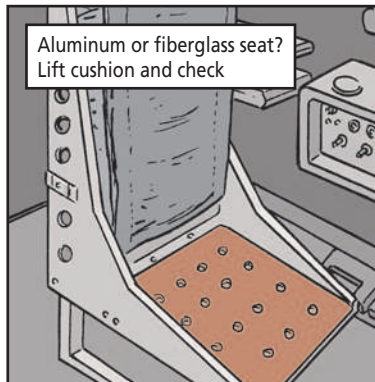
- Grip the corner of the turret to turn it. Pushing on the PPU can damage its rubber mounts.

Grip corner of turret to rotate

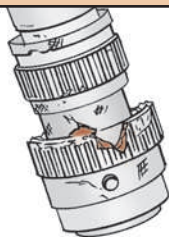


- If your Avenger has an aluminum seat, step on the left side of the seat when climbing in and out of the turret. If you step on the center of the aluminum seat, you can collapse it. But if you have the newer fiberglass seat, it's OK to step in the center—it can take your weight. Not sure which seat you have? Lift the cushion and look.

Aluminum or fiberglass seat? Lift cushion and check



- Tightening the cable to the M3P machine gun usually can't be done with your fingers, unless you have very long fingers. But don't try tightening the cable with regular pliers or your multi-purpose tool. They're too short and can damage the cable's connector. Then you need a new cable. Use needle-nosed pliers to tighten the M3P cable. They're long enough to do the job.



Using wrong tool damages M3P gun cable

NO MORE HYDRAULIC FLUID WASTE

BOY, THIS SURE DOES SEEM TO BE A TERRIBLE WASTE OF PERFECTLY GOOD HYDRAULIC FLUID!

AS SOON AS OUR NEW HYDRAULIC FLUID TRANSFER SYSTEM COMES IN, THERE'LL BE NO MORE WASTE!

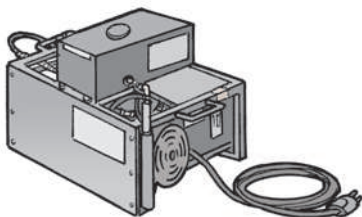


If you don't use all of a newly opened bottle of hydraulic fluid, you're supposed to dispose of it. That keeps you from accidentally using contaminated fluid in your equipment.

The cost of all those partially used bottles of hydraulic fluid adds up quickly. And hydraulic fluid is considered a hazardous waste, so it's not cheap to dispose of either.

Wouldn't it be great to have a system that would transfer, filter, indicate flow and store excess hydraulic fluid until you need it? Now you can. The KJ4000LW hydraulic oil transfer system, NSN 2990-01-525-9027, is ready to tackle the job.

KJ4000LW hydraulic fluid transfer system, NSN 2990-01-525-9027



THE
KJ4000LW IS
AWESOME!
IT...

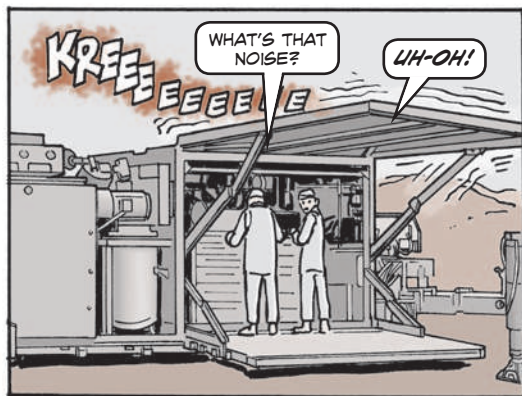


- filters hydraulic fluid to five microns
- re-circulates, purges, and filters hydraulic fluid in a closed loop system
- transfers hydraulic fluid from bulk tanks to your equipment
- has a flow meter that lets you keep up with how much fluid has passed through the system
- provides a gauge to let you know the exact pressure of the system being pressurized
- has a manual back-up pump in case you lose electrical power
- comes with a reservoir that stores up to eight gallons of hydraulic fluid

Remember to change the filter yearly or when the indicator on top of the oil filter turns from green to red. New filters will have to be ordered directly from the manufacturer, Mandus Group, Ltd. Contact them at (888) 922-8502 or go to

<http://www.mandusgroup.com>

Fresh Outlook on Door Screws



Your day will be completely ruined if one of the side doors on the M7 forward repair system (FRS) falls on your head. And that's exactly what can happen if you don't pay attention to the piano hinge screws at the top of the doors.

Vibration and use can loosen the screws. The door weighs about 220 pounds, so the door can collapse if enough screws fall out.

TM 9-4940-568-10 does not tell you to check those specific screws during PMCS, but it's a good idea. If you find any that are loose, retighten them. Missing hardware should be replaced.



NSN 5305-00-225-3842 brings 100 of the screws that mount the piano hinge to the door. Individual lock nuts come with NSN 5310-01-505-0247 and 100 of the flat washers come with NSN 5310-00-809-4058. The screws that mount the piano hinge to the M7's frame come individually with NSN 5305-00-081-6728.

If you have to replace the piano hinge, NSN 5340-01-475-3527 (green) or 5340-01-517-3333 (tan), you'll need to caulk it in place with some 3M marine adhesive sealant, PN 051135-06520. No NSN is available, so you'll need to order it from the manufacturer. Check out 3M Marine's website to find a retailer near you:

http://solutions.3m.com/wps/portal/3M/en_US/Marine/Home/

You can order a full hinge kit that includes the hinge, screws and adhesive sealant with NSN 5340-01-525-6346.

THE EVOLUTION OF WEAPONRY

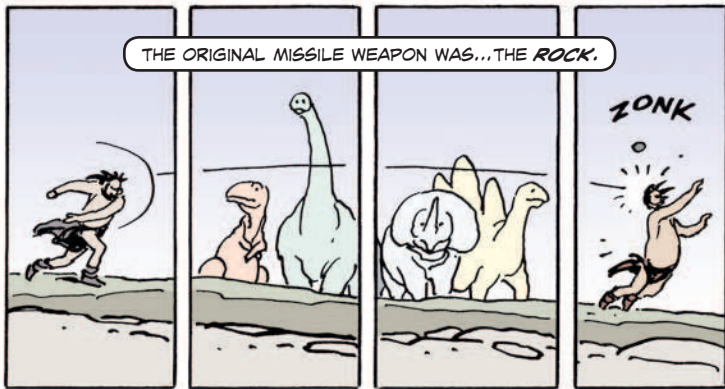
WHEN PM BECAME THE POINT

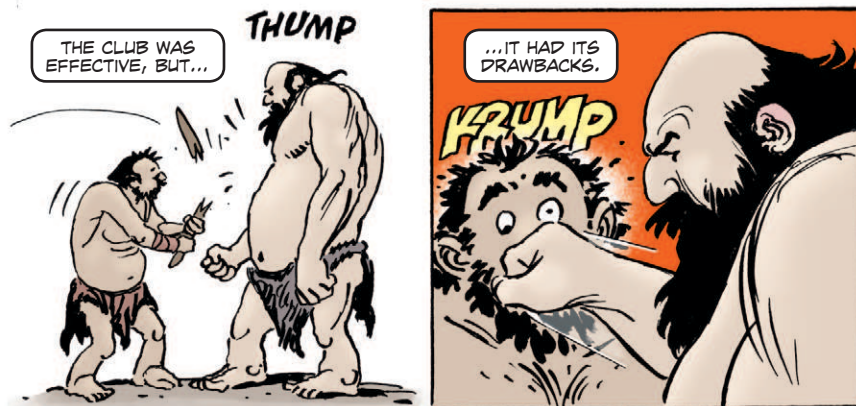


WEAPONS FALL
INTO TWO MAJOR
CATEGORIES:
*SHOCK AND
MISSILE.*

THE ORIGINAL
SHOCK WEAPON
WAS...
THE CLUB.

THE ORIGINAL MISSILE WEAPON WAS...THE ROCK.





PS 656

28

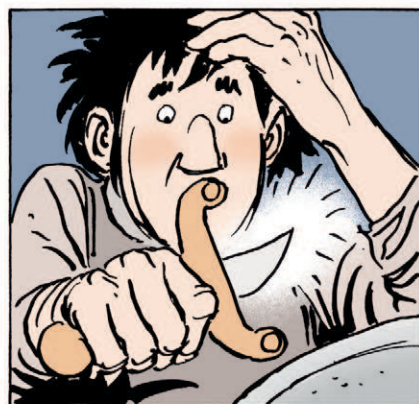
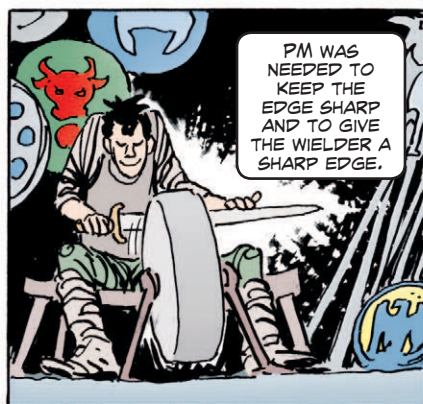
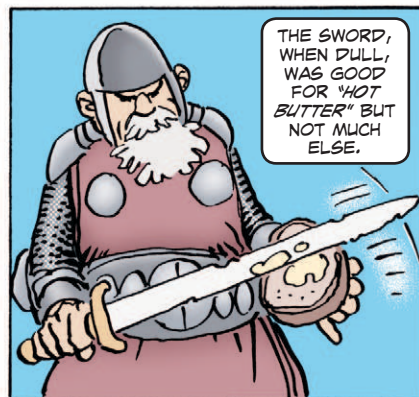
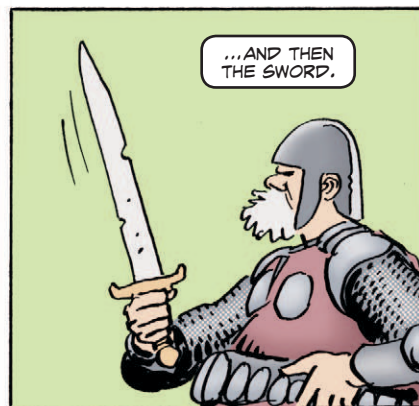
JULY 07



PS 656

29

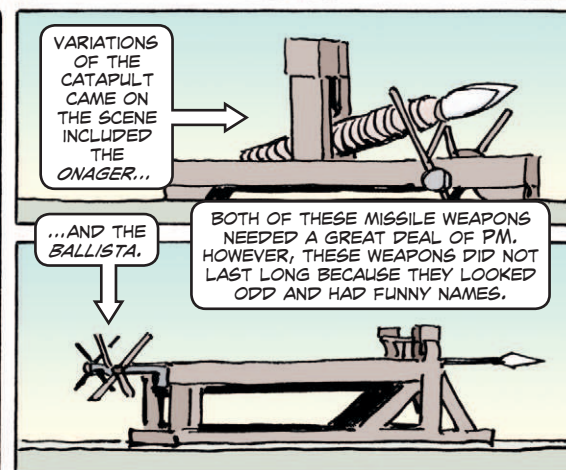
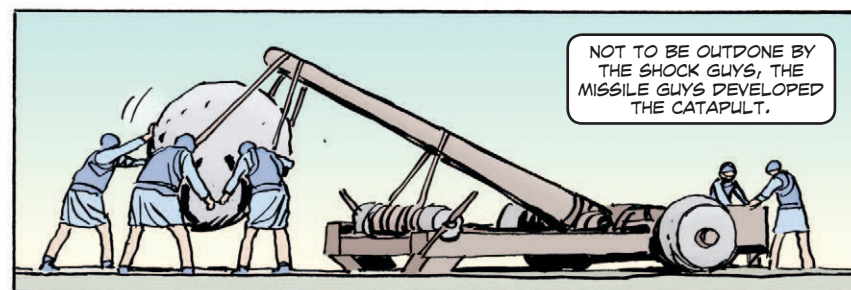
JULY 07



PS 656

30

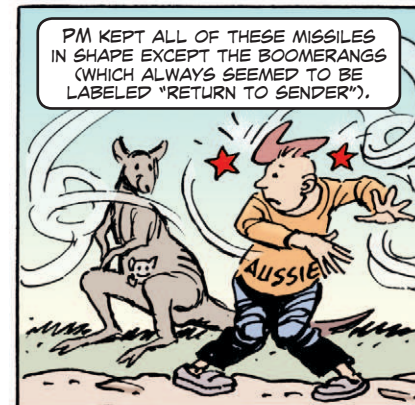
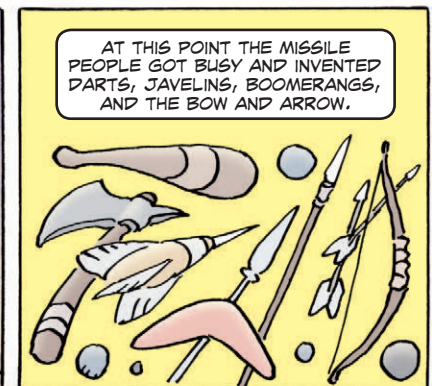
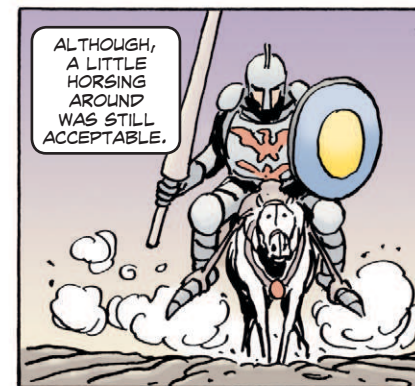
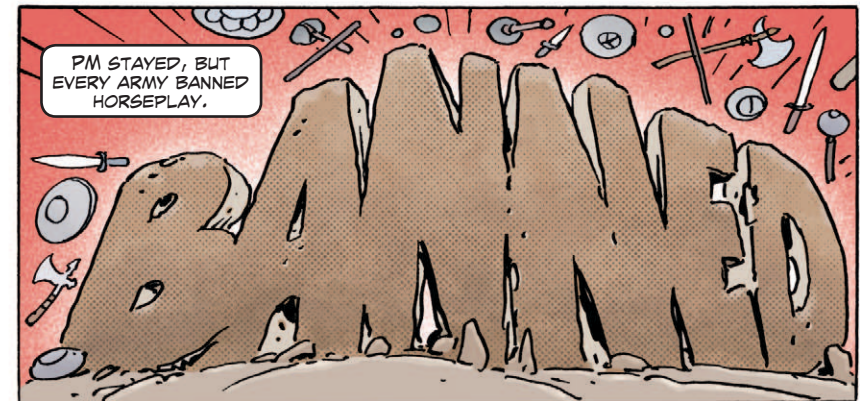
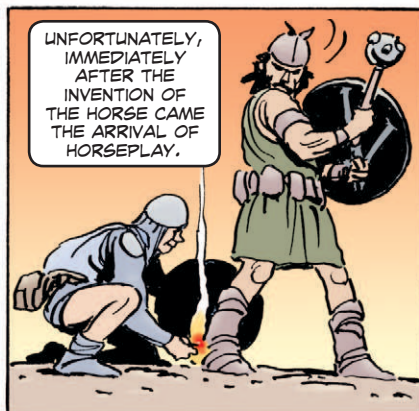
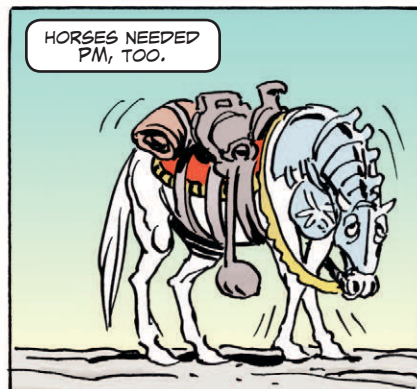
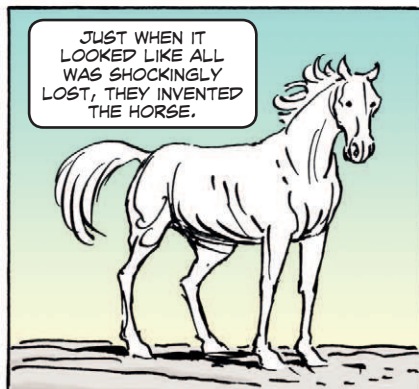
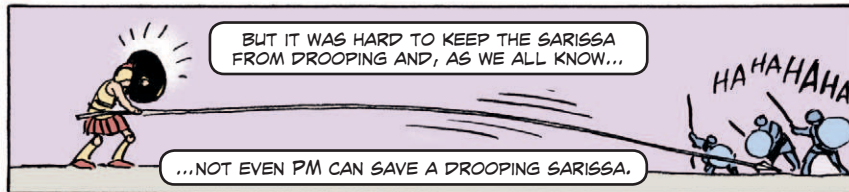
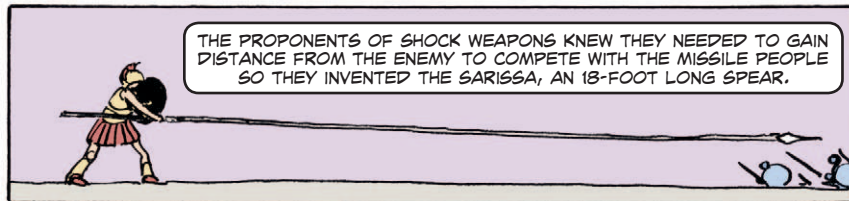
JULY 07



PS 656

31

JULY 07



PS 656

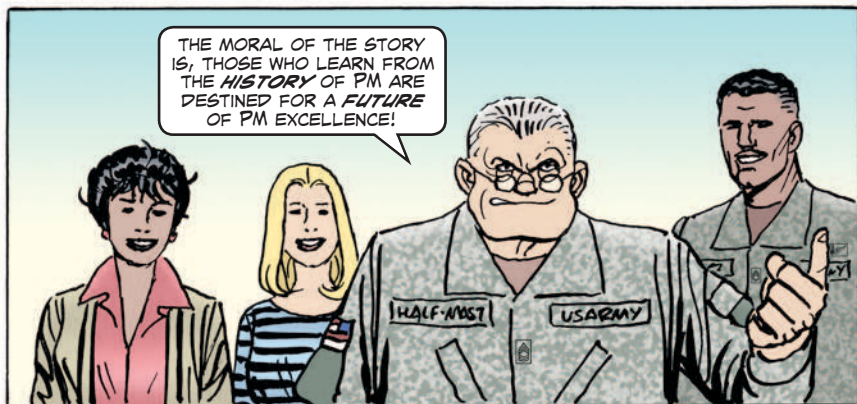
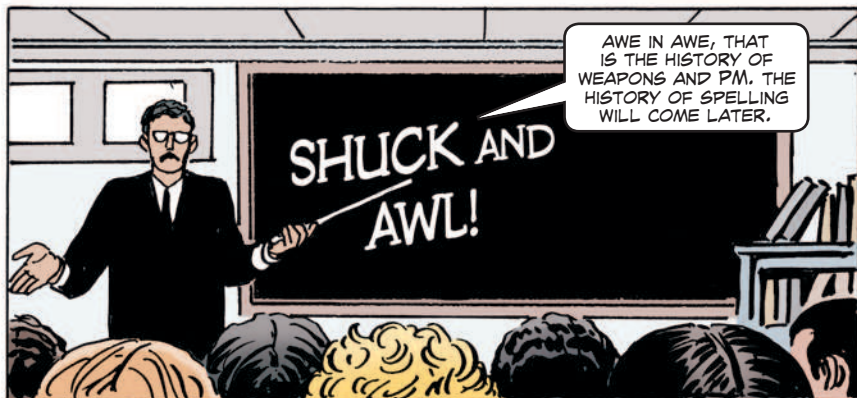
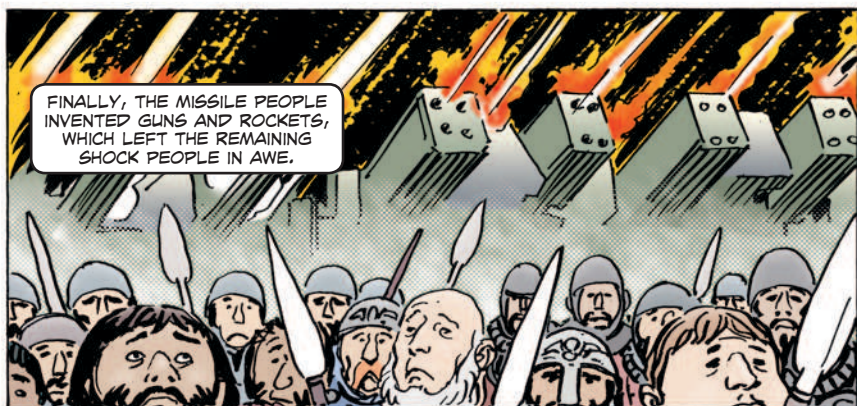
32

JULY 07

PS 656

33

JULY 07



OH-58D...

Six Pack, Disc Pack

TIME TO OPEN
THE TAILBOOM
COVER TO
INSPECT THE
DISC PACKS!

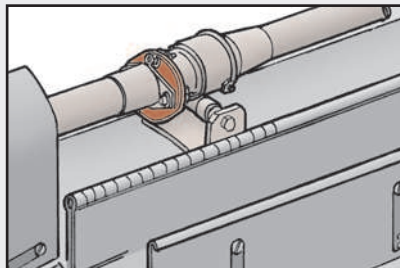
MECHANICS, IF YOU
BODY-BUILD, NO ONE
NEEDS TO TELL YOU
IT TAKES WORK TO
MAINTAIN A SIX PACK.

But we do have to tell you that tail rotor drive shaft disc packs in your Kiowa Warrior need work, too.

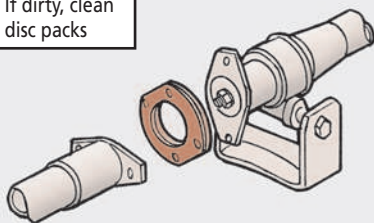
Maintenance information message OH-58D-MIM-05-025 has the full story. Here's what you need to do to take care of them.

Make sure the removed disc packs stay in their original stack-up by placing them on a bolt when cleaning them.

Clean 'em when they're dirty and then reuse 'em. But don't replace disc packs as Task 6-6-7 of TM 1-1520-248-23 on EM-0246 says, because of excessive dirt. That's out of date!



If dirty, clean
disc packs



Paragraph 6 of task 6-6-7 in the -23, EM-0246, will be changed to read, "Clean and reuse excessively dirty disc packs unless they are damaged beyond limits."

That's good news because it's better to clean 'em than to replace otherwise serviceable disc packs. And that will solve the problem of back orders of packs in the supply system.

Remember, clean the disc packs, but don't replace them unless they're damaged beyond repair. If disc sections are changed, you must replace old packs with new ones. Install the disc packs just like the TM says.

DETECTING DEFECTIVE BUFFERS

YOU COULD HAVE A DEFECTIVE MACHINE GUN RECOIL BUFFER ASSEMBLY.

OK, BUT BE GENTLE. I'M TICKLISH!

I'M AFRAID I'M GOING TO HAVE TO DO A QUICK EXAM.

Some defective M296 machine gun recoil buffer assemblies have gotten into the supply system and could be in use on your OH-58D. The buffer rivets securing the depressors onto the oil buffer body were installed wrong. The rivet heads can back out and interfere with the accelerator.

HERE'S HOW TO SPOT THE DEFECTIVE BUFFER ASSEMBLIES...

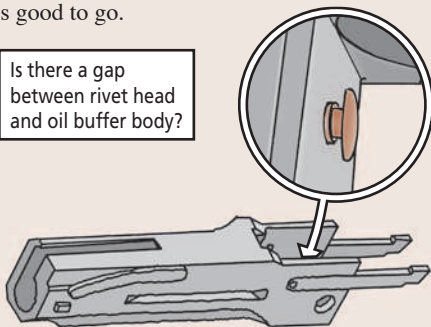
Check the top of the buffer assembly for CAGE code 28210. If the assembly has a different CAGE code or no code, it's good to go.

If it does have 28210, see if there's a gap between the rivet heads and the inside of the oil buffer body. If there's no gap, the buffer assembly is OK.

Buffer assemblies that fail the inspection should be marked defective condition code L and reported on an SF-368, *Quality Deficiency Report*. You can do this at <https://aeaps.ria.army.mil> or by emailing QAWQDRS@ria.army.mil. You can also fax the form to DSN 793-6653/(309) 782-6653. As soon as the SF-368 is received, your unit will receive credit for the buffer assembly.

For more info, see [TACOM maintenance advisory message 06-054](#).

Is there a gap between rivet head and oil buffer body?



PROTECT WINDSHIELD FROM DESERT SAND



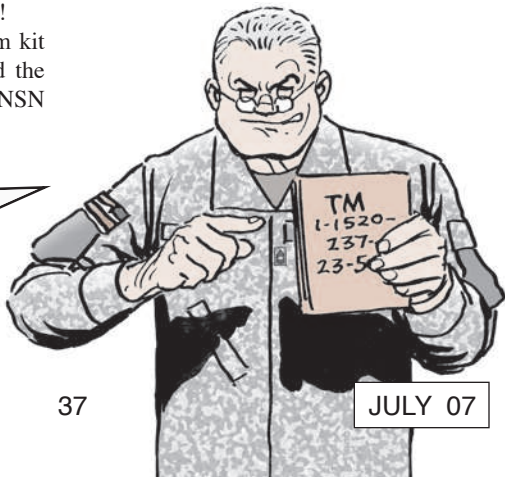
Mechanics, sand wreaks havoc on a Black Hawk windshield, whether it's in a sand storm or the result of rotor wash.

Once sand scratches up a windshield, your pilots will be squinting their eyes just to see where they're flying!

Take a page from auto racing's playbook and have your AVIM shop apply laminated film to the windshield. Then all you have to do when your windshield's been hit by sand is peel off a layer!

AVIM orders the laminated film kit with NSN 1560-01-526-3077 and the tool kit to apply the film with NSN 1560-01-526-5019.

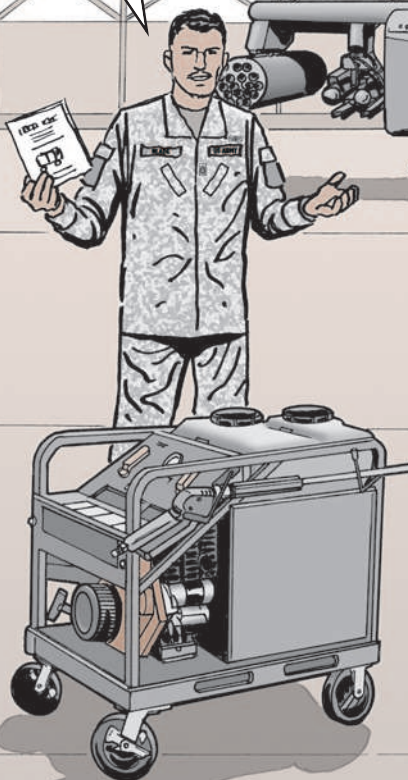
TAKE CARE OF THE FILM THE **SAME** WAY YOU WOULD THE WINDSHIELD USING PROCEDURES SPELLED OUT IN YOUR TM.



Washing Helicopter Turbine Engines

MECHANICS, YOU'RE AUTHORIZED TO USE THE TEWS, BUT **DON'T** SCRAP THE UNIVERSAL WASH UNIT! **YOU'LL NEED IT!**

USE THIS COMMERCIAL MANUAL WITH THE TEWS!



Check TEWS manual and engine manuals before washing

Mechanics, the aviation ground support equipment (AGSE) office at AMCOM has given a “thumbs up” on using the turbine engine wash system (TEWS), NSN 4940-01-514-0087, to wash helicopter engines.

The word is in aviation maintenance information message (MIM) GEN-MIM-06-004. It approves using the TEWS for washing and rinsing UH-60, AH-64, and OH-58 engines. The TEWS is added to the AVUM No. 2 shop tool set. It replaces the universal wash unit, NSN 4920-01-185-6215.

You can still use the universal wash unit for all T-700 engines, so don't get rid of it.

Before washing any engine, check out the engine cleaning procedures in the appropriate engine TM for each bird, and the commercial TM for the TEWS.

For the detailed scoop, check the MIM for info on authorized adapters that each helicopter engine uses.

All Aircraft...

RECORD IT OR LOSE IT

CREWS, DOING
DAILY INSPECTIONS
LIKE THE TMS SAY
AND RECORDING
FAILURES OR
FAULTS IS GOOD
MAINTENANCE
RECORD
KEEPING.

Be a champion of good maintenance! If you find a problem or a fault, or perform maintenance, make sure it's recorded daily on your bird's DA Form 2408-13-1, *Aircraft Inspection and Maintenance Record*.

Write down every problem and fault on the form every day no matter how small or insignificant you think they are.

Some like to write things down on small pieces of paper, sticky notes or commit them to memory. Written notes get lost and memory fades.

Then, when it's time for phase maintenance, you can bet your bottom dollar your memory won't kick in and those sticky notes with all the problems or faults are nowhere to be found.

When it's time to fill out DA Form 2408-13-1, you'll only have what you recorded for that day's inspection.

If that happens, your bird could remain NMCM or NMCS longer. That's because maintenance personnel find more wrong than what is recorded on the form.

Don't depend on memory or notes for later recording. Go to DA Pam 738-751 for instructions on completing this form.



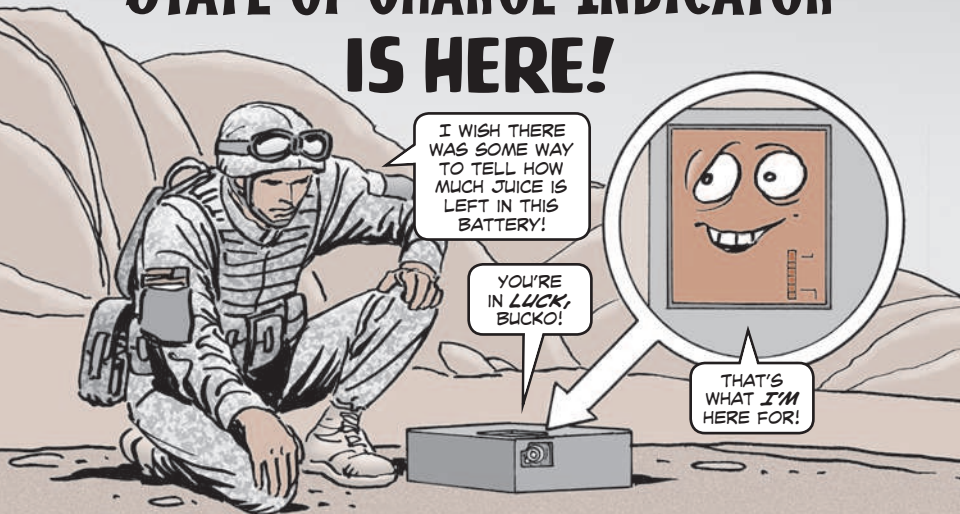
The illustration shows a man with a mustache, wearing a flight suit, pointing his right index finger at a DA Form 2408-13-1. The form is titled 'PART I - FAULT INFORMATION' and contains several sections for recording aircraft faults. The form is shown at an angle, with the right side partially cut off. The man's hand is visible, pointing to the 'STATUS' field in the first fault section.

1. AIRCRAFT SERIAL NUMBER				2. MODEL			
PART I - FAULT INFORMATION							
STATUS		SYS	DATE	NO.	TIME		
FAULT/REMARKS							
A/C HRS		WHEN DISC		HOW REC		MAL EFF	WUC
W.O.		REQ		OTHER		PID	
STATUS		SYS	DATE	NO.	TIME		
FAULT/REMARKS							
A/C HRS		WHEN DISC		HOW REC		MAL EFF	WUC
W.O.		REQ		OTHER		PID	
STATUS		SYS	DATE	NO.	TIME		
FAULT/REMARKS							
A/C HRS		WHEN DISC		HOW REC		MAL EFF	WUC
W.O.		REQ		OTHER		PID	

DA FORM 2408-13-1, OCT 91

AIRCRAFT INSPECTION AND MAINTENANCE RECORD
For use of this form, see DA Pam 738-751, the proponent agency is DCSG6

STATE OF CHARGE INDICATOR IS HERE!



Deployed units should order BA-5390A/U, NSN 6135-01-517-6060, and BA-5590A/U, NSN 6135-01-523-3037, batteries with a state of the charge indicator (SOCI) so you will always know how much of a charge is left in the battery.

That way, you can swap out the battery for your SINCGARS ASIP radio or other devices when the charge is low instead of changing batteries too soon just to make sure the battery lasts through the mission or the day.

The BA-5590 is cheaper, but doesn't last as long as the BA-5390. In fact, you should get at least 50 percent more battery life out of the BA-5390.

The BA-5590 is slightly lighter and is more effective in cold temperatures than the BA-5390, which is more effective at higher temps. So, depending on the mission, choose the BA-5390A/U or the BA-5590A/U.

The Communication-Electronics Life Cycle Management Command (C-E LCMC), formerly CECOM, has developed an automated tool to help you determine which battery and how many you will need to complete your mission. Go to:

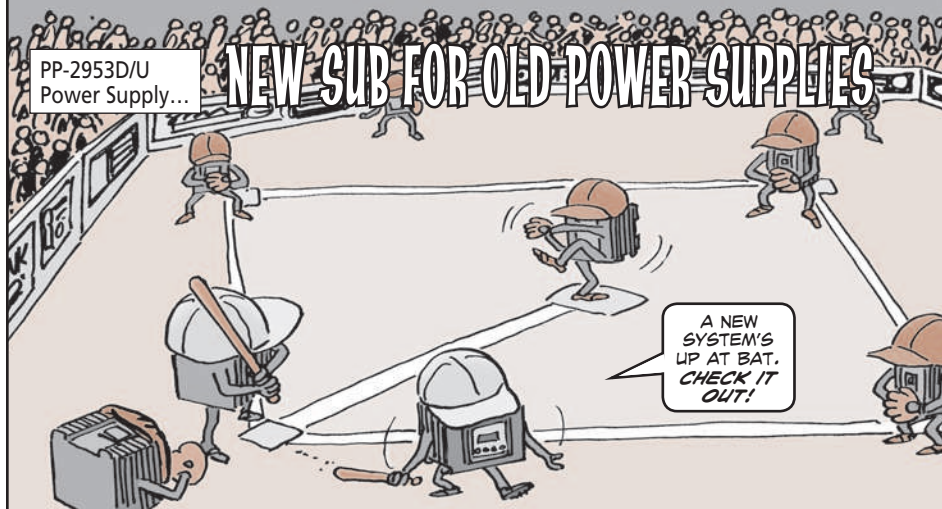
<https://lrteams.monmouth.army.mil/QuickPlace/ipm/Main.nsf>

then under What's New, click on Battery Calculator. Your AKO login will be needed to download the POWER software.

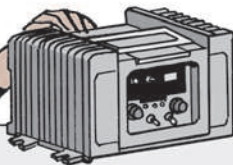
Deployed units in a training phase and non-deployed units should continue to order non-SOCI batteries—BA-5390/U, NSN 6135-01-501-0833 and BA-5590B/U, NSN 6135-01-438-9450.

PP-2953D/U
Power Supply...

NEW SUB FOR OLD POWER SUPPLIES



THE **NEW** PP-2953D/U POWER SUPPLY, NSN 6130-01-522-3494, CAN BE USED TO POWER YOUR SINGARS, AND IS A SUITABLE SUBSTITUTE FOR MANY OLDER POWER SUPPLIES.



Here is the list of power supplies that the new PP-2953D/U can sub for:

Power Supply	NSN 6310-
PP-2953C/U	01-235-3787
PP-2953/U	00-985-7899
SLA 20002	01-493-4393
PP-6224/U	00-133-5879
PP-6224B/U	01-223-0267

Contrary to what you may be hearing, power supply, NSN 6130-00-435-1116, is not a recommended replacement for powering a SINGARS.

For more information on power supply availability, contact Charles Puleo, 732-427-4767 or DSN: 987-4767. Or email him:

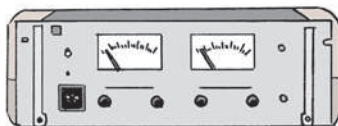
charles.puleo@us.army.mil

For technical questions, contact Ari Herman, 732-532-6763 or DSN 992- 6763. Or email him:

ari.herman@us.army.mil



Don't use either of these power supplies, which are ordered under NSN 6130-00-435-1116!



Questions about those LRAS3 IOB Parts?



Dear Editor,

I am a manager for the AN/TAS-8(V)1 & (V)2, long range scout surveillance system (LRAS3). I need your help to get the word out to all 45 Golfs and LRAS3 operators and maintainers.

Here's the word: The critical internal optical assembly known as the integrated optical bench (IOB) has an SMR code of PBFDD, "**Stocked Insurance.**" The problem is many units are ordering the IOB for ASL/PLL stockage.

Because of the high cost of this item, the Army did not intend nor can it afford to stock the IOB in each unit's ASL. Excessive requisitioning of these LRAS3 IOB items will degrade the ability of the Army supply system to respond to critical NMC requirements. Their NSNs are:

5860-01-486-5044 5860-01-506-8843 5860-01-532-0190
5860-01-518-7082 5860-01-536-9374 5860-01-536-9367

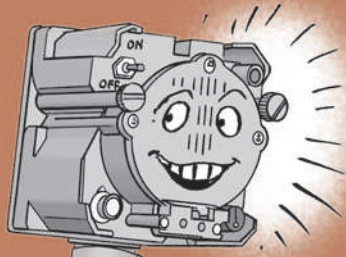
Ordering IOBs for only NMC LRAS3 systems will save the Army millions of dollars, including the manpower resources required to validate each and every requisition.

With your help the Army Supply System can respond much faster.

John (Dave) Walzer
Logistics Management
DVE/LRAS3
US Army HQ CE-LCMC

Editor's note: Thanks, Dave, for the heads-up on this critical supply issue. Maintainers, 45 Golfs and LRAS3 operators, the ball is in your court. Order IOBs for only NMC LRAS3 systems!

MOUNT 'EM UP!



When it comes to mounting the LS-671/VRC SINGARS loudspeaker, NSN 5965-01-222-1420, the location is the call of the commander.

Two preferred locations on 2 1/2-ton M35-series and 5-ton M809-series trucks are the dashboard and the transmission hump.

You'll find installation instructions in TB 11-5820-890-20-8

TB 11-5820-890-20-8

TECHNICAL BULLETIN



INSTALLATION INSTRUCTIONS FOR
INSTALLATION KIT, ELECTRONIC EQUIPMENT MK-2196/VRC
(NSN 5965-01-222-0670) (EIC: N/A)
TO PERMIT INSTALLATION OF
RADIO SET ANVVC-8891 SERIES

IN A
TRUCK, CARGO, 2 1/2 TON, 6x6: M35, M35 A1A2, M36
TRUCK, WRECKER, 5 TON, 6x6: M54, M54A, M54B, M54C
TRUCK, WRECKER, MEDIUM, 5 TON, 6x6: M543, M543A2, M543B
TRUCK, TRACTOR, 5 TON, 6x6: M52, M52B
TRUCK, TRACTOR, WRECKER, 5 TON, 6x6: M519
TRUCK, STAKE, BRIDGE TRANSPORTING, 5 TON, 6x6: M521

Approved for public release; distribution is unlimited.

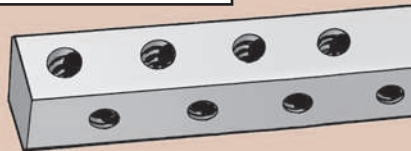
HEADQUARTERS, DEPARTMENT OF THE ARMY

1 AUGUST 1999

Here are the parts you need to mount the mounting plate to the vehicle:

Item	Number Needed	NSN
Bolt	4	5306-00-225-9089
Flat washer	4	5310-00-081-4219
Lock washer	4	5310-00-407-9566
Nut strip	2	5310-01-243-9429

You'll need two nut strips



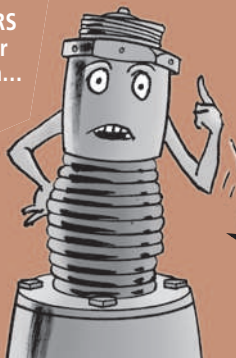
When you order mounting plate, NSN 5340-01-391-2740, you get everything you need to mount the loudspeaker to the plate. The plate, two body screws and two nut strips come in a cotton bag.

If you lose a screw or a nut and don't want to order the entire mounting plate kit, you can order the screw or nut by part number request on a DD Form 1348-6. The part number for the screw is A3018701-4 and for the nut, A3018192-2. There are no NSNs for these parts.

If you have questions about mounting the loudspeaker, contact Honto Wong at DSN 992-9181 or email: Honto.Wong@us.army.mil

Or contact Lyonnel Eugene at DSN 992-9184 or email: Lyonnel.Eugene@us.army.mil

Mounting an LS-671 is actually a double-mounting job. First, the mounting plate, NSN 5340-01-391-2740, needs to be mounted to the vehicle and then the loudspeaker needs to be mounted to the mounting plate.



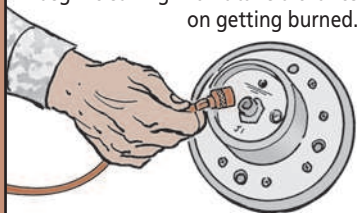
IT'S ALL ABOUT GOOD CONTACTS

DIRTY AND CORRODED CONTACTS ON THE SINGARS VEHICULAR ANTENNA LEAD TO INTERMITTENT OR BROKEN TRAFFIC.

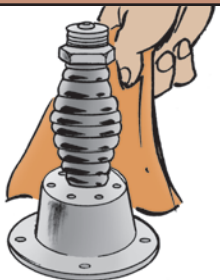
WORSE YET, DIRT AND CORROSION CAN CAUSE HIGH REFLECTED RF POWER, WHICH CAN **DAMAGE** THE RECEIVER-TRANSMITTER.

HERE ARE A FEW TIPS FOR CLEAN CONTACTS...

Unhook the RF cable before you begin cleaning. Don't take a chance on getting burned.

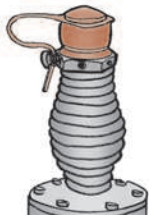
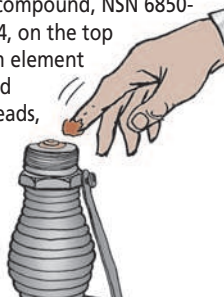


Unscrew the top and bottom antenna elements and clean the contacts with isopropyl alcohol, NSN 6810-01-190-2538, and a soft cloth. Clean the contact on the antenna base the same way.



Clean stubborn dirt and corrosion off the top element contact with 550 cord, NSN 4020-00-014-6699. Loop the cord once around the contact and pull it back and forth to clean out the ridges. Then wipe it down with isopropyl alcohol.

After cleaning, apply a light coat of silicone compound, NSN 6850-00-177-5094, on the top and bottom element contacts and on the threads, too. That'll help protect against corrosion.



If you remove just the top element for any length of time, put a piece of electrical tape over the opening of the bottom element to keep out dirt and moisture. If you remove the bottom element, put a rubber dust cap, NSN 5340-01-316-0883, over the antenna base's contact to keep it clean and dry.

A Crucial Question



Dear Half-Mast,

We faithfully read your magazine and try to follow all your maintenance tips, but recent articles on commo shelters have us puzzled.

In articles about the inside of the shelter, you say to limit what we store there to prevent equipment damage.

In articles about the outside of the shelter, you say not to put anything on top of the shelter or we'll harm the roof.

So, our question is, where in the world do we store all the stuff we have to take to the field with us?

SGT Y.Y.

Dear Sergeant Y.Y.,

Equipment storage problems during transportation have been around since Napoleon was a private. And, just like then, when it's time to move out, equipment gets tossed into and onto any area that's available. The consequences at the time seem inconsequential. However, robbing Peter early will mean paying Paul later. If you're pulling a generator trailer, you have some storage areas on it. Use 'em, but keep the weight within these limits: On the PU-751 with a 5-KW generator, you can store up to 555 lbs of stuff; on the PU-753 with a 10-KW generator, 160 pounds is the limit.

The vehicle carrying your shelter has some storage capacity. Make the best use of it and consider making an over-the-cab storage rack. It should be light weight and non-interfering with a load-limit of around 150 pounds. After you make it, though, you must get approval from C-E LCMC to use it.

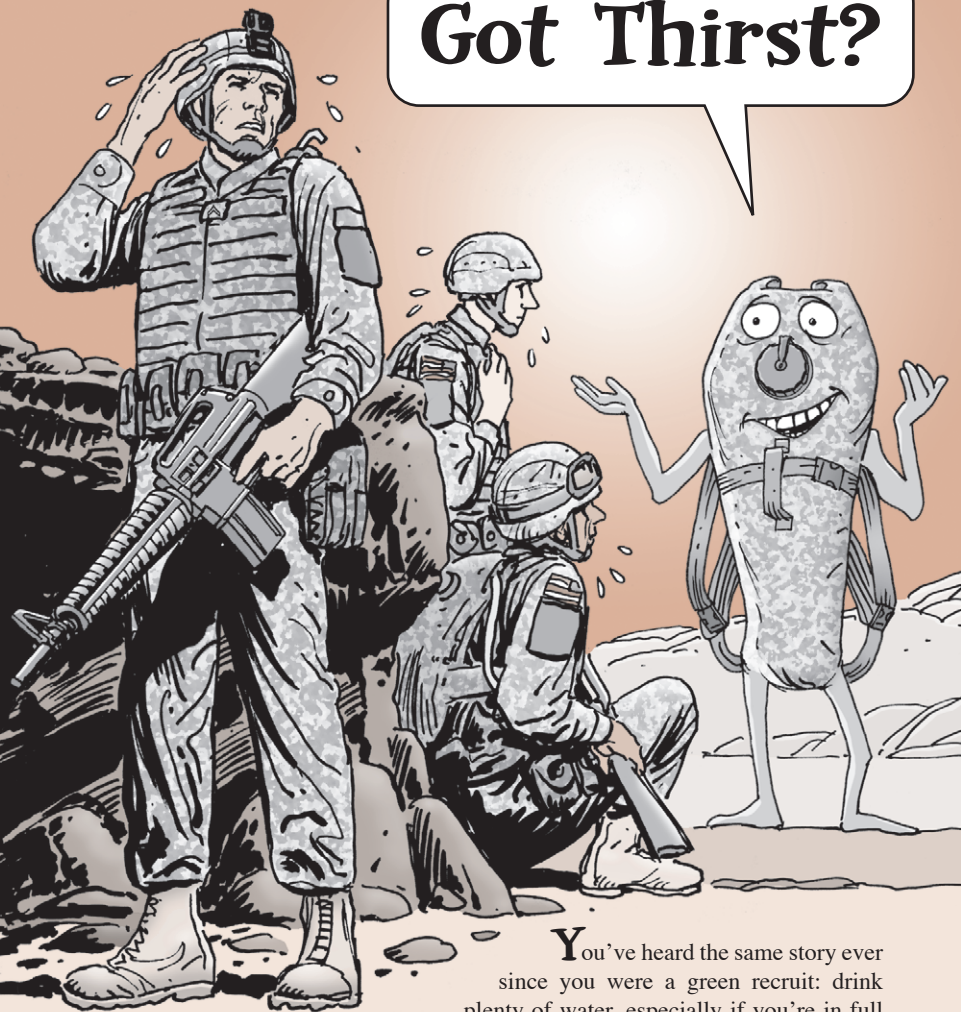
Got an idea already? Email: Tony.Lui@us.army.mil

It's a must to have a load plan that covers all your equipment. Practice implementing the plan before you deploy so you'll know what to do when you must move out in a hurry.

Limit your personal items. Some of those things may seem more important to you than the radio equipment you're hauling, but personal items are space eaters.

Half-Mast

Got Thirst?



You've heard the same story ever since you were a green recruit: drink plenty of water, especially if you're in full gear and soldiering in the heat. Just a couple of hours out in the sun without enough water will begin to sap your energy and endurance. Soon after that, you'll feel the advanced stages of heat stress: headaches, nausea and serious fatigue.

That's why you see more soldiers wearing hydration systems every day. They make it easy to replace your precious bodily fluids lost through sweating.

THE TYPICAL SYSTEM HAS A BLADDER FOR HOLDING WATER, A CARRIER WITH STRAPS FOR CARRYING IT, AND A DRINKING TUBE.

THEY HAVE SEVERAL ADVANTAGES OVER CANTEENS...

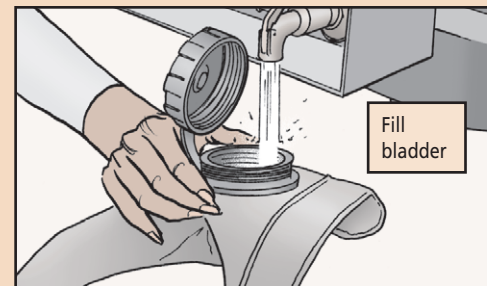


- They carry more clean, cool water
- You can drink on the move while keeping your hands and eyes focused on the mission
- Drinking from the tube is more convenient than reaching for a canteen, so you'll drink more water more often

HERE ARE A FEW THINGS YOU SHOULD KNOW ABOUT HYDRATION SYSTEMS...



Filling—If your hydration system has an external cap, you can fill it without removing the bladder. Just open the cap and fill the system with water. Add ice cubes if you like. If your system doesn't have an external cap, you'll have to remove the bladder from the carrier.



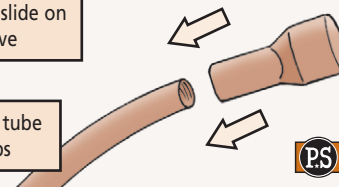
Fill bladder

Assembling—Insert a bladder into the carrier. Route the drinking tube out the carrier opening. To install a new bite valve, pinch the tube and pull off the old valve. Wet the tube and slide on a new valve. Make sure you don't force the tube past the valve stops.

To install the bite valve cover, pinch the tube and pull off the valve. Attach the cover's lanyard to the tube. Wet the tube and slide the bite valve back on.

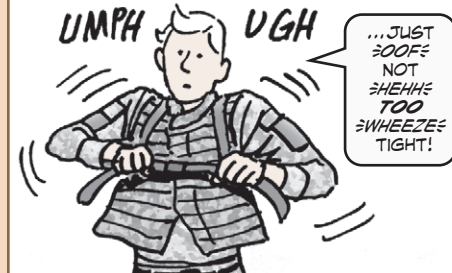
Wet tube and slide on a new bite valve

Do NOT insert tube past valve stops

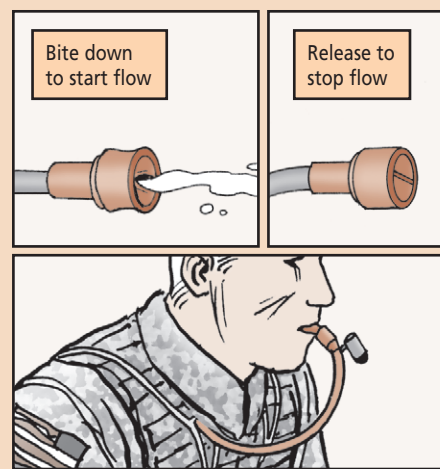


PS MORE

Fitting—These systems are made to be worn close to your body. When you carry weight close to your center of gravity, the load feels much lighter. So tighten the shoulder straps until the carrier is snug. If your carrier comes with a sternum strap and a waist belt, attach them. Drape the drinking tube over your shoulder with the bite valve close to your mouth. Adjust the tube length by sliding extra tubing into the carrier.



Drinking—Pinch and roll the bite valve between your fingers to open the drinking slit. Don't use a knife to open it. You could damage the valve. Bite down on the valve to start the water flowing. Draw in slightly, just like you were using a straw. Ease up on the valve to stop the water flow.



In very cold weather, route the drinking tube close to your body or inside your sleeve to prevent the water from freezing. After you drink, blow air into the tube to force the water back to the bladder. That way water can't freeze in the tube.

Inspecting and Repairing—Inspect the bladder often for leaks. If the bladder leaks, replace it.

Before each mission, inspect the carrier, buckles and straps. Look for wear spots—any place where metal or plastic rubs against the fabric. Repair small rips, tears and loose seams.

For tears less than an inch long, fix them with cloth tape, NSN 8315-00-958-0744.

If the fabric is ripped up to three inches, sew it with the needle and thread from the tentage repair kit, NSN 8340-00-262-5767.

For longer tears, you may need to replace the carrier.



ONE LAST NOTE. TAKE CARE WHEN PACKING PENS, PENCILS, NAIL FILES, KNIVES OR OTHER SHARP OBJECTS IN THE HYDRATION SYSTEM.

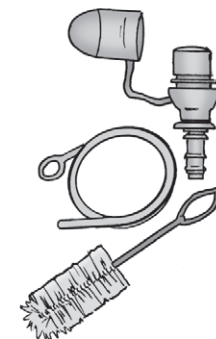


ONE OF THE LEADING MAKERS OF HYDRATION SYSTEMS IS CAMELBAK PRODUCTS.

THEIR WEBSITE IS AT <http://www.camelbak.com/index.cfm>



CLICK ON MILITARY IN THE LEFT COLUMN AND YOU'LL FIND A VARIETY OF SYSTEMS, REPLACEMENT PARTS AND ACCESSORIES, INCLUDING BITE VALVES AND COVERS, CLEANING SUPPLIES, BLADDERS AND DRINKING TUBES.



YOU CAN REACH CAMELBAK BY EMAIL: webmaster@camelbak.com

OR YOU CAN PHONE THEM AT (800) 767-8725 OR (707) 792-9700.



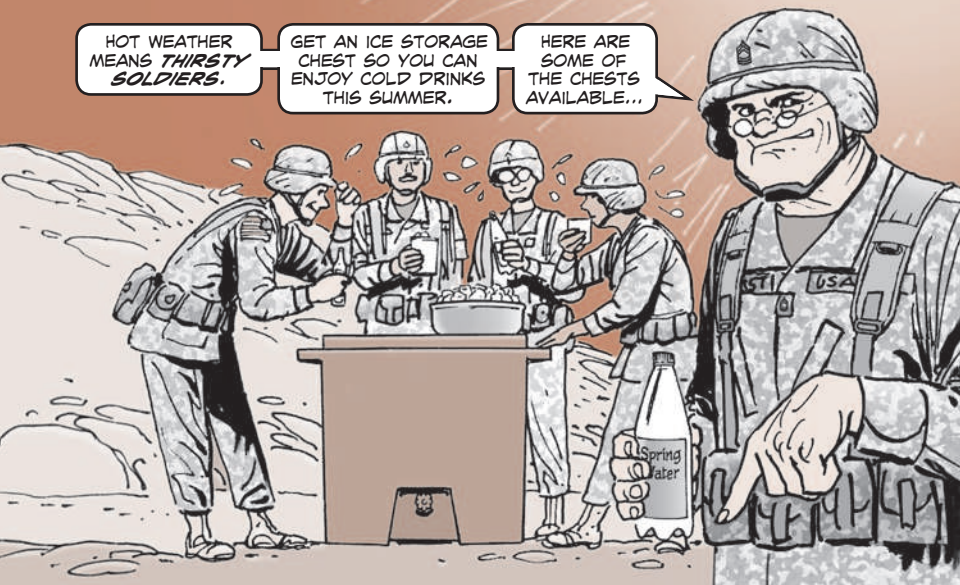
Ice Storage
Chest...

NSNS ON ICE

HOT WEATHER
MEANS *THIRSTY*
SOLDIERS.

GET AN ICE STORAGE
CHEST SO YOU CAN
ENJOY COLD DRINKS
THIS SUMMER.

HERE ARE
SOME OF
THE CHESTS
AVAILABLE...



NSN 4110-	Type	Color	Width x Length x Height	Weight
01-452-5756	two fixed and two swivel casters	desert sand	23 x 34 x 38 inches	89 lbs
01-452-7311	two fixed and two swivel casters	olive drab	23 x 34 x 38 inches	89 lbs
01-452-7315	no casters	desert sand	23 x 34 x 34 inches	66 lbs
01-452-7317	no casters	olive drab	23 x 34 x 34 inches	66 lbs

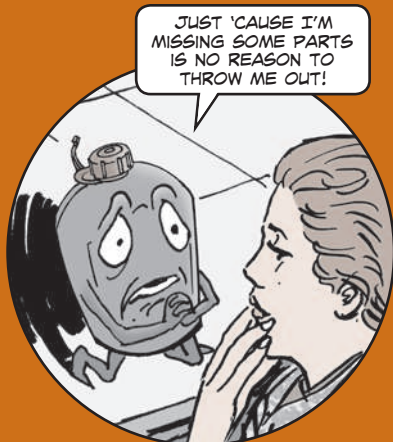
The no-caster chests replace the 200-lb ice chests in the mobile kitchen trailer and the company-level field feeding kitchen. All chests are made of high impact polyethylene with foam insulation. They can store 175 lbs of ice or ice with limited A rations for several days in temperatures up to 120°F. All of them feature a lid cover that slides open for easy filling and dispensing. A recessed handle on the front allows an easy grip for lifting and moving. They also come with a recessed faucet for draining.

Canteen Care and Parts

You won't find a parts list for the 1-qt plastic canteen in any TM. So we've listed them for you. Now you have no excuse for ditching a canteen just because it's missing a cap or a cover.

NSN 8465-01-115-0026 brings you a canteen with the M1 chemical protective cap.

And here are the replacement parts:



Cup, NSN 8465-00-165-6838



Cap,
NSN 8465-00-930-2077

Cap strap,
NSN 8465-01-082-6449



Cover,
NSN 8465-00-
860-0256



Take a Stand

One other item you might find useful is a canteen cup stand, NSN 8465-01-250-3632. The stand lets you use your cup to heat water for coffee or MREs. It fits inside the canteen cover, with the cup and canteen.

Strap the Cover

If the strap holding the flip-up cover on the chemical protective cap breaks off, you could lose the cover and spring a leak. But you can make a stronger strap out of 10 inches of nylon cord, NSN 4020-00-262-2019. Here's how:

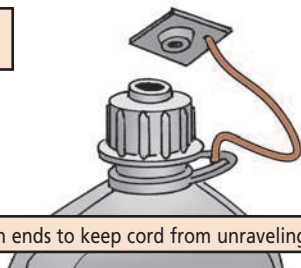
- Cut off the broken plastic strap.
- Drill a $\frac{1}{8}$ -in hole $\frac{1}{4}$ inch from the edge of the cover.
- Run the cord through the hole and knot it.
- Tie the other end around the cap strap.
- Melt both knots with a match or lighter. Smash them flat with a flat tip screwdriver or your knife blade. That'll keep them from unraveling.

1. Use 10-in
nylon cord

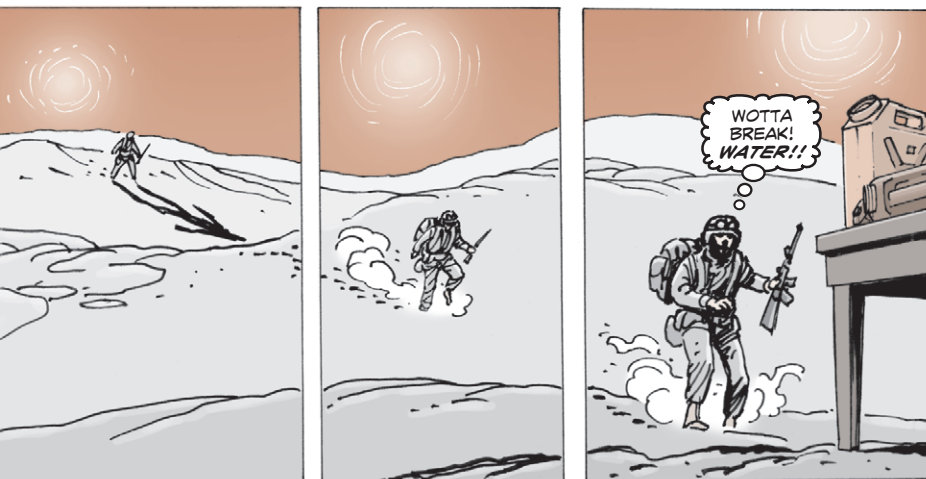
2. Tie it

3. Knot it

4. Melt both ends to keep cord from unraveling



CAN CARE LETS



Water is vital when you're soldiering in the summer heat. You need to drink long and often when the sun is scorching and the land's baked dry and dusty.

Give your water cans some basic care so you won't go thirsty.

The first step is to get acquainted with TM 10-7200-200-13. It'll give you the full story on your can. Then follow this PM plan:

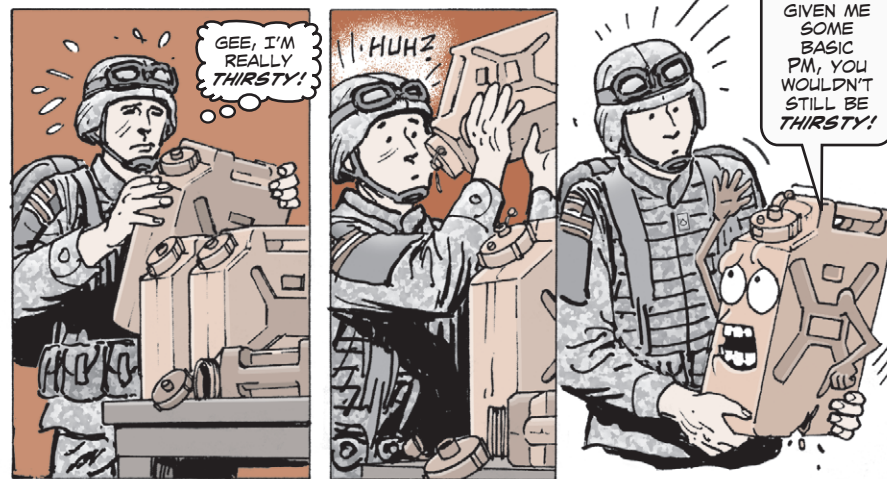
- **Inspect.** Look over the can and its cap often while in use. After you come in from the field, go over them again. Look for leaks, scratches or other damage. Check inside the can and cap to make sure they're clean.

- **Clean.** If they're dirty, wash the can and cap inside and out. Use one ounce of detergent, NSN 7930-00-281-4731, for each gallon of hot water. Keep the water temperature below 180°F. (212°F is boiling.) Hotter water will warp the plastic can.

Wash with a clean cloth, sponge or fiber brush. Steer clear of abrasives like scouring powder, steel wool and metal sponges. They'll scratch the can's surface and make it harder to clean next time.



WATER FLOW



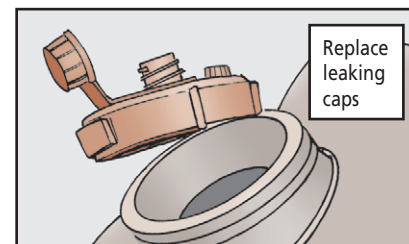
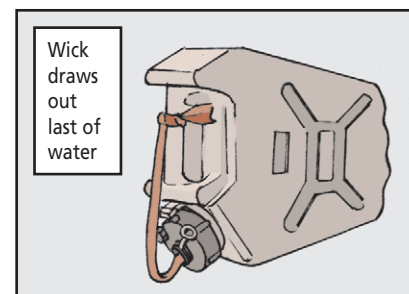
Rinse the can and cap in clear, hot water. Then turn the can upside down to drain and air dry. A little water left sitting in a can could be a breeding ground for contaminants, so remove as much moisture as possible.

Some units have devised a wicking system to get the last bit of moisture out of the cans as they sit in storage. They tie a strip of clean, cotton cloth or fabric tape, NSN 8315-00-255-7662, to the can's handle and then run it into the can. The fabric acts as a wick and draws out the last of the water.

- **Replace.** If the cap leaks or is damaged, get a new one with NSN 7240-00-089-7312.

If the can has even a small puncture, replace it with one of these five-gallon plastic cans:

NSN	Color
7240-00-089-3827	Lusterless sand
7240-01-365-5317	Green





In the desert, bottled water is a real convenience. But it can quickly become a toxic weapon if it falls into the wrong hands. During distribution from the bottling plant to you, the bottled water won't spend every minute under the Army's watchful eye. That could give the enemy an opportunity to tamper with water supplies.

Signs of Tampering

Tampering usually involves adding chemical or biological contaminants to water. Signs of tampering include:



- Broken seal around the cap

- Pin holes in the cap, neck or top of the bottle
- Unusual water color
- Bad or unusual tastes or odors

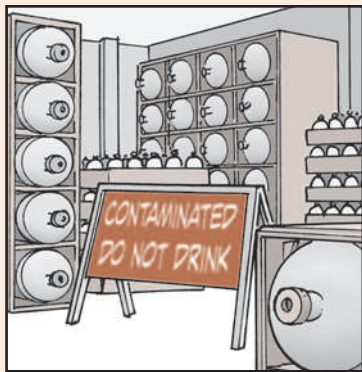


- Large amount of particles floating in the water

Deal with Tampering

If you suspect that someone has tampered with your bottled water:

- Do not drink the suspected water.
- Report tampering to your superior.
- Identify and quarantine other bottles from the same batch or lot.



For more information, read the bottled water fact sheet on the U.S. Army Center for Health Promotion and Preventive Medicine website:

<http://chppm-www.apgea.army.mil/documents/FACT/31-006-0904.pdf>

Match Wayward Parts with End Items



LOGSA has consolidated WEB LOG, WebLIDB and ILAP into a single location known as the Logistics Information Warehouse (LIW). That allows you to log into LIW with your AKO login and password and have access to the features of all three sites. You have to consolidate and convert your ILAP and WebLIDB logins to access LIW. You can convert to LIW from the LOGSA homepage:

<https://www.logsa.army.mil/>

Click on LIW to reach the LOGON/conversion page. Follow the instructions.

Find the End Item

ONCE ON THE LIW HOMEPAGE, CLICK ON THE WEBLIDB ENTRY AT THE BOTTOM OF THE CENTER COLUMN.

ON THE WEBLIDB WEBPAGE UNDER THE WEBLIDB REPORTING AND QUERY DATABASE HEADINGS CLICK ON SUPPORT ITEM RQMTS (SIR).

UNDER SIR REPORTS CLICK SPARE/REPAIR PART TO END ITEM.

To match parts to end items use the CRITERIA tab. Type in the NIIN (no hyphens) of your spare part, click ADD. The NIIN will be posted in the square box underneath.

Address: <https://weblidb.logsa.army.mil/arf/index.jsp>

webLIDB **LOGSA**

SIR Reports

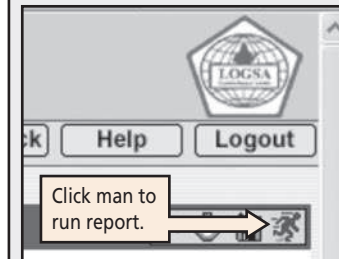
Select a report from the list below.

- Contingency Stockage (Customer Support Requirement)
- End Item to Spare/Repair Part
- Spare/Repair Part to End Item
- Items On Hand

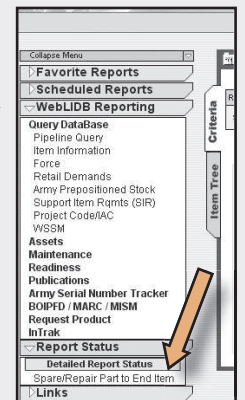
Criteria

PS 656

In the upper right of the screen beneath the LOGSA logo and Logout button is a figure that looks like a running man. Click the man to run the report.



Go back to the left-hand column under WebLIDB Reporting and scroll down to Report Status/Detailed Report Status. When the report has finished running, its title "Spare/Repair Part to End Item" will appear here. Click on the title to open it.



For example, if the spare part were NSN 4710-01-189-0705, and you ran the report for NIIN 011890705 you would get a report like that shown here.

USAMC Logistics
Support Activity



www.logsa.army.mil

Spare/Repair Part to End Item Report

(Report run on 2007-04-04)

Show Report Selections

SI_FSC	SI_NIIN	SI_NOMEN	SOS	ESS_CD	EI_FSC	EI_NIIN	EI/MAJ COMP NOMEN
4710	011890705	TUBE,BENT,METALLIC SMS	1	2320	011077153		TRUCK,UTILITY
4710	011890705	TUBE,BENT,METALLIC S9C	7	2320	011077154		TRUCK,UTILITY
4710	011890705	TUBE,BENT,METALLIC SMS	1	2320	011077155		TRUCK,UTILITY
4710	011890705	TUBE,BENT,METALLIC SMS	1	2320	011077156		TRUCK,UTILITY
4710	011890705	TUBE,BENT,METALLIC SMS	1	2310	011112274		TRUCK,AMBULANCE
4710	011890705	TUBE,BENT,METALLIC SMS	1	2310	011112275		TRUCK,AMBULANCE
4710	011890705	TUBE,BENT,METALLIC SMS	1	2320	011289551		TRUCK,UTILITY

Where on the End Item is it Used?

HERE'S AN EXAMPLE...

IF YOU HAVE THE M966 HMMWV, NSN 2320-01 107-7153, YOU CAN SEARCH ITS PARTS MANUAL, TM 9-2320-280-24P-1, FOR 471001890705. DON'T USE HYPHENS.

THAT SEARCH WILL TAKE YOU TO ITEM 2 OF FIG 124 AND ITEM 2 OF FIG 125.

PS
END

**SOMEWHERE IN A
MOTOR POOL ON A
BASE FAR, FAR AWAY...
A LONELY PRIVATE IS
WAITING ON A CRITICAL
PART TO REPAIR ONE OF
HIS UNIT'S VEHICLES....**

**SOMEWHERE IN A
MOTOR POOL ON A
BASE FAR, FAR AWAY...
A LONELY PRIVATE IS
WAITING ON A CRITICAL
PART TO REPAIR ONE OF
HIS UNIT'S VEHICLES....**

**PRIVATE! WHY
HAVEN'T YOU
REPAIRED THIS
VEHICLE?**

WELL, SARGE, BASE
SUPPLY HAS A SIX-
MONTH BACKLOG ON
THE PARTS.

SIX MONTHS!
PRIVATE, HAVE
YOU CREATED AN
AUTOMATED WANT
LIST WITH THE
PRMOZ?

AUTOMATED
WHAT LIST? ...
DRMO? NEVER
HEARD OF
THEM.

I *CAN'T* DO ANY MORE TO FIX THIS BABY UNTIL THE PARTS COME IN.

DRMO IS THE DEFENSE
REUTILIZATION AND
MARKETING OFFICE. THEY
COLLECT EQUIPMENT THAT
ONE UNIT IS DISPOSING OF
AND HELP OTHER UNITS
REUSE IT.

THE AUTOMATED WANT LIST IS A DRMO TOOL THAT LETS YOU CREATE A LIST OF ITEMS YOU NEED.

AND GET THIS! THE WANT LIST SYSTEM WILL ALERT YOU BY EMAIL WHEN THOSE ITEMS ENTER THE PRMO INVENTORY.

YEAH, BUT HOW MUCH DOES IT COST, SERGEANT? YOU KNOW OUR BUDGET WAS CUT AGAIN.

ISSUE AND SHIPMENT FROM THE DRMO INVENTORY IS **FREE**. BUT THE ARMY FINANCE OFFICE MAY BILL THE UNIT BASED ON ARMY REGULATIONS.

BUT IT'S NOT A NEW
ITEM. SO THAT COULD
SAVE OUR UNIT AND
THE ARMY BIG BUCKS.

THANKS, SARGE! WHERE DO I FIND MORE INFORMATION ABOUT DRMO AND HOW DO I SET UP THIS WANT LIST?

LET'S GO
LOOK IT UP ON
THE OFFICE
COMPUTER.

ITS URL IS **<http://www.drms.dla.mil>**
LOOK UNDER THE R-T-D CUSTOMER
SECTION. YOU'LL SEE A ***HYPERLINK***
TO THE WANT LIST SEARCH.

<https://www.drms.dla.mil/rtd03/index.html>

Reutilization

Agencies within the threat of Defense and Programs that are provided for by regulation to customers. DOD screens and requisitions for the first two weeks after receipt of inventory. Property Search With Want List Match Against Current Inventory Guide New 01

We have updated our guide to better assist our customers create their Want List. We have Excel Tips for shortcuts on building your list of NSNs.

Want List Search (mail only)

Conduct your search, view the results, then choose to have future search results email you in various formats. You can also choose to have future search results email you in various formats. You can also choose to have future search results email you in various formats.

WOW! DRMO HAS LOTS OF THINGS WE NEED!

TOOLS, EQUIPMENT, AND LOTS OF OTHER COOL STUFF WE CAN USE IN THE SHOP. THEY EVEN HAVE VEHICLES I CAN CANNIBALIZE (OFF-SITE) TO GET MY TRUCK BACK ON THE ROAD.

THE DRMO IS A GOOD ALTERNATIVE TO THE SUPPLY SYSTEMS.

THEY STOCK MOST OF THE MATERIALS MANAGED BY THE ARMY AND THEIR RESOURCES CAN HELP US GET THE ITEMS WE NEED.

Connie's POST SCRIPTS

M1022 Dolly Set Data Plate

Use NSN 7690-01-268-4743 to get the parking brake data plate for the M1022 dolly set. This NSN fills in the parts info missing from Item 10, Fig 27 of TM 9-2330-379-14&P.

HEMTT Blower Motor Assembly

The wrong mounting adapter plate was packaged with the HEMTT's heater blower motor assembly, NSN 2910-01-422-7758. The assembly is shown as Item 16 in Fig 400 of TM 9-2320-279-24P. Order the right plate with NSN 4140-01-531-1545.

Idler Pulley for HMMWVs

Use NSN 3020-01-482-1834 to get the grooved idler pulley for the M1123, M1025A2, M1035A2, M1043A2, M1045A2, and M1097A2 HMMWVs. This NSN replaces the one shown as Item 4 in Fig 33-A1 in C1 of TM 9-2320-280-24P-1.

Better Bracket for CMSE

The M1097A1 version of the contact maintenance shop equipment has an alternator bracket for the under-hood welder that's not strong enough to do its job. The bracket lets the alternator move too much, which results in loss of power to the welder, bolts breaking, and belts slipping off the pulleys. To get a bracket attachment to prevent the bracket from moving and instructions on how to install it, contact TACOM-Rock Island's David Muller at DSN 793-4750/(309) 782-4750 or email mullerd@ria.army.mil

Antifreeze NSNs

The antifreeze NSNs shown in operator TM expendable supply lists for most vehicles shows up on FED LOG as terminal items. Order NSN 6850-01-464-9125 for a 1-gal container. Use NSN 6850-01-464-9137 to get a 5-gal container of antifreeze.

LIGHTWEIGHT MAINTENANCE ENCLOSURE

If you're ready to scrap your old frame-type, medium maintenance tent, NSN 8340-00-951-6419, you need to get its replacement: the Type I lightweight maintenance enclosure (LME). It's available in green, NSN 8340-01-456-3637, and tan, NSN 8340-01-507-4375. The LME is modular and extendable, with room for wheeled and tracked vehicles. It comes equipped with its own standard 70-amp power distribution box and standard fluorescent light set.

New NSN for M872A3 Brake Shoe Assembly

The pin-type anchor system used on the brakes in your M872A3 flatbed trailers is history. An approved SMART suggestion changed the brakes to a free-floating brake system, and solves the problem of pivot pin rusting and brake shoe seizing. Order the new brake shoe kit with NSN 2530-01-540-7667. You'll get a pair of brake shoes and the hardware to do a brake job on one wheel. That kit replaces Items 1 through 10 in Fig 15 of TM 9-2330-359-14&P.

M1 TANKS REQUIRE UPDATED GUN CARD

Your M1-series tank is officially **Not Fully Mission Capable** if you don't accurately update the DA Form 2408-4, *Weapon Record Data Card*, after firing, borescoping or exercising the main gun. The gun card should also be updated whenever the tank has been fielded, overhauled, rebuilt, turned in, or transferred to another unit. To update the card, go to the AEPs website:

<https://aeps2.ria.army.mil/commodity/guncard/index.cfm>

You'll need your AKO login and password to access the site.

NO DEXRON VI IN STRYKER TRANSMISSIONS

Mechanics, **do not** put Dexron VI in your Stryker transmissions. That fluid will ruin the seals and seal rings in 3000-, 4000-, AT-, MT-, HT- and CLT-series Allison transmissions. Dexron III is no longer available, so use TES 295 as a replacement in Stryker transmissions. Currently, that transmission fluid comes only in 55-gal drums with NSN 9150-01-551-2796.

M1070/M1074/M1075 Tow Shackle NSN

Use NSN 4030-01-539-5345 to get a 17-ton tow shackle for the HET and PLS. This NSN replaces the BII 13-ton tow shackle shown as Item 33 on Page B-11 of TM 9-2320-360-10 for the HET; and the shackle shown as Item 28 on Page B-11 of TM 9-2320-364-10 for the PLS.

M149A1 TRAILER ELBOW

Use NSN 4730-00-253-5765 to get the 90-degree elbow behind the front faucets for the water trailer. This NSN updates the parts info shown for Item 16 in Fig 28 of TM 9-2330-267-14&P.

VALVE STEM CAPS

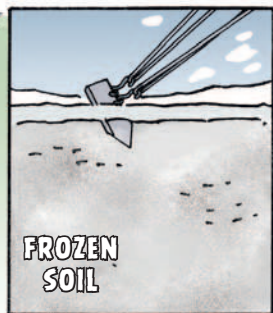
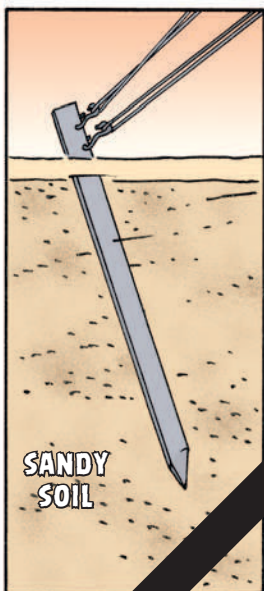
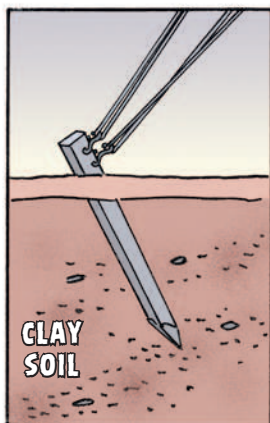
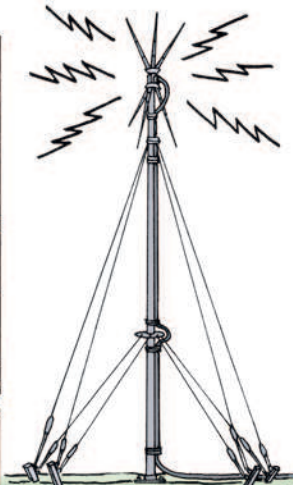
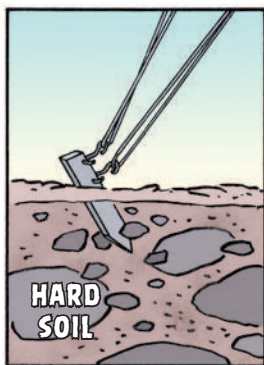
Prevent accidental air leaks by replacing missing tire valve stem caps. A new standard-size cap comes with NSN 2640-00-255-9346.

M9 ACE Roadwheel

The earthmover's rubber roadwheel, NSN 2530-01-361-1764, is no longer available in the Army's supply system. Instead, the **only** roadwheel you can use is polyurethane that comes with NSN 2530-01-462-5062. If your ACE has a rubber roadwheel and you need another to go with it, order two polyurethane roadwheels. Do **not** mix different roadwheels on the same roadwheel arm.

DISTRIBUTION: To be distributed in accordance with the initial distribution number (IDN) 340312, requirements for TB 43-PS-Series.

Would You Stake Your Life ^{right now} on the Condition of Your Equipment?



**ARE YOU
VOIDING
ANTENNA
ACCIDENTS?**

**THE *TYPE OF SOIL* DETERMINES
THE *TYPE OF ANCHOR***