



THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-646, 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.

ISSUE 646 SEPTEMBER 2006



COMBAT VEHICLES

CIPs for Combat, Tactical, Engineering Vehicles
Stryker Shifting Reminder
M1-Series Tank Skirt Hazard
M2/M3-Series Bradley Heater Check



WHEELED VEHICLES

Tire/Wheel Assembly Repair Programs
HMMWV Locknuts
TIPS for Combat, Tactical, Engineering Vehicles
Up-armored HMMWV Tire Pressure
M939-Series Truck ABS Troubleshooting Tool



SMALL ARMS

M14 Rifle Magazines and Scope Mounts
M9 Pistol Wearing Options
M16-Series Rifle, M4/M4A1 Carbine Cleaning
M2 Machine Gun Sight Mounting



MISSILES

MLRS Troubleshooting Tips
MLRS Cable Trough Check



COMBAT ENGINEERING

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M9 ACE Moving Cautions
RS28 Tamper Roller Gear Shifting
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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:

psmag@logsa.redstone.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:

PETER J. SCHOOMAKER
General, United States Army Chief of Staff

Official:



JOYCE E. MORROW
Administrative Assistant to the Secretary of the Army

0617810

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PS

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2006

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-646

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Public Release;
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**YOUR IBA TAKES CARE OF YOU...
IF YOU TAKE CARE OF IT!**

SEE PAGES 48-54

Defending the Constitution



"...I will support and defend the Constitution of the United States against all enemies, foreign and domestic..."

Soldiers and civilian employees take this oath when we enter our nation's service. Usually, we think of enemies as people who would do our nation harm.

But the oath says "all enemies" and there are some enemies that are far more persistent than any terrorist, spy, or hostile soldier.

Corrosion, rot, sand, heat, cold, friction, moisture and metal fatigue never stop working on your equipment, vehicles and personal gear.

Preventive maintenance is our defense against these natural enemies that never quit. PM keeps our equipment working longer, and it saves time and money from being spent on unnecessary repairs.

I WILL SUPPORT AND DEFEND THE NEED FOR PM!



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PS THE PREVENTIVE MAINTENANCE MONTHLY

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

By order of the Secretary of the Army:
PETER J. SCHOOMAKER
 General, United States Army Chief of Staff
 Official:

JOYCE E. MORROW
 Administrative Assistant to the Secretary of the Army
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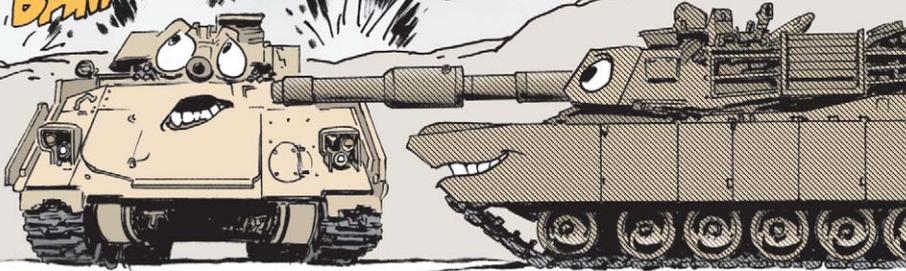
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Friend or Foe? CIPs Can Tell

I FEEL LIKE I'M SURROUNDED BY ENEMIES!

WITHOUT CIP PANELS FOR IDENTIFICATION, YOU REALLY ARE!

BAM **BLAM** **WHAM**

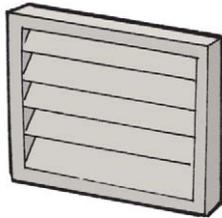


Combat is dangerous enough without having to worry about being shot at by someone on your own side. That's why your vehicle needs combat identification panels (CIPs).

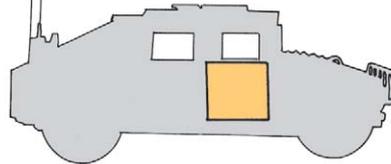
What are CIPs?

CIPs are the ground-to-ground component of the Joint Combat Identification Marking System (JCIMS) and are composed of 24x30-in panels covered with a special thermal tape. When mounted on the front, back and sides of a vehicle, the panels are seen as a unique contrasting "cold spot" when viewed through a thermal-imaging device.

CIPs measure 24 x 30 inches



Panels will appear as "cold spot" through thermal viewer



Gunners that are trained to recognize these unique signatures can tell if the vehicle in their sights is friendly or unknown.

The panels mount to the vehicle using bolts, hook-and-pile tape, or mounting frames. The back side is painted with CARC, so you can turn the system on or off by simply turning the panels around.

[Click here for a copy of this article to save or email.](#)

How Do You Get CIPs?

CIPs ARE BEING FIELDIED AS FREE-ISSUE ITEMS TO UNITS DEPLOYING IN SUPPORT OF OIF/OEF.

IF YOU'RE DEPLOYING AND HAVEN'T RECEIVED THE PANELS, CALL THE OFFICE OF THE PRODUCT MANAGER FOR TARGET IDENTIFICATION AND METEOROLOGICAL SENSORS (PM TIMS) AT DSN 987-5324 OR (732) 427-5324.

JCIMS ARE CLASS II ACCOUNTABLE ITEMS, SO THEY MUST BE ADDED TO UNIT PROPERTY BOOKS AND INDIVIDUAL HAND RECEIPTS.

THE PANELS COME IN KITS THAT INCLUDE FROM THREE TO FIVE PANELS, DEPENDING ON THE VEHICLE. THE KITS ARE AVAILABLE ONLY IN BROWN AND INCLUDE ALL MOUNTING HARDWARE.

AFTER INITIAL FREE DISTRIBUTION, UNITS MUST ORDER REPLACEMENTS THROUGH NORMAL SUPPLY CHANNELS.

HERE ARE THE NSNs FOR THE KITS...



PS 646

Vehicle	CIPs NSN
M1A1/A2 tank	2350-01-394-2534
M48A5/M60A1 AVLB	2350-01-392-1566
M88A1 recovery vehicle	2350-01-394-2531
M2/M3-series Bradleys	2350-01-398-5170
M113A2/A3 FOV	2350-01-398-5168
M993 MLRS	2350-01-398-5171
M992A2 ammo carrier	2350-01-398-5178
M109A2-A6 SP howitzer	2350-01-398-5180
M578 recovery vehicle	2350-01-421-7060
SEE	2320-01-398-5163
M9 ACE	2320-01-399-6774
D5B tractor	2320-01-400-1809
M93 Fox NBC vehicle	2350-01-398-5173
M1025, M1026, M1043, M1044 HMMWV	2320-01-398-7195
M966, M1036, M1045, M1046 HMMWV	2320-01-398-7190
M996, M997, M1037, M1042, M1097 HMMWV	2320-01-398-7188
M998, M1035, M1038, M1097, M1109 HMMWV	2320-01-398-7194
M1114 HMMWV	2320-01-472-5884
Avenger	2320-01-398-7197
M977, M983, M984, M985, M1977 HEMTT; M1074, M1075 PLS	2320-01-484-7833
M978 HEMTT tanker	2320-01-484-7838
FMTV/LMTV	2320-01-483-9056
M1126, M1127, M1130, M1131, M1132, M1134 Stryker	2320-01-501-9527
M1128 Stryker	2320-01-501-9533
M1129 Stryker	2320-01-501-9531
M1133 Stryker	2320-01-507-2544
M1135 Stryker	2320-01-501-9546

During fielding, units will also receive a compact disk set, *Combat Identification Panels Kit Installation*. This two-CD set provides detailed video on how to install, use, maintain and clean the CIPs. It also includes thermal images of specific vehicles and printable versions of the combat vehicle mounting instructions.



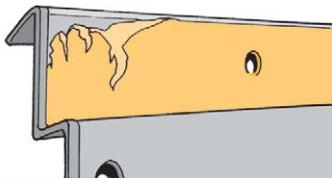
ONCE THE CIPs ARE INSTALLED, OPERATORS NEED TO KEEP THEM IN GOOD SHAPE WITH PMCS.



Before Operation

- Eyeball the CIPs to make sure they're securely attached to the vehicle. If you see bends in the CIP brackets, try to straighten them. Report panels that are missing or can't be repaired.
- Check the painted surface of the panels for damage. Spot paint with CARC if needed, but never paint over the thermal tape.
- Inspect the panel for loose, missing or peeling thermal tape. Loose tape should be repaired using adhesive, NSN 8040-00-938-6860. Replace damaged or missing tape with NSN 8135-01-518-2504. That NSN brings a 150-ft roll of brown self-adhering thermal tape.
- Keep the panels clear of dirt, dust, mud and sand. Use a soft, clean cloth to wipe off the panels. If the tape's dirty, you won't project a good image—in more ways than one.
- If the panels are mounted using hook-and-pile tape, make sure the tape is securely attached to the vehicle. The tape should also be clean and free of debris.

Replace or repair damaged thermal tape



During Operation

When operational conditions allow, make the following checks:

- Report any missing or damaged CIPs.
- Glue down any loose tape.
- Replace any missing thermal tape.
- Wipe the panels with a soft, clean cloth. The panels will need cleaning more often in dusty environments to ensure a strong thermal signature.

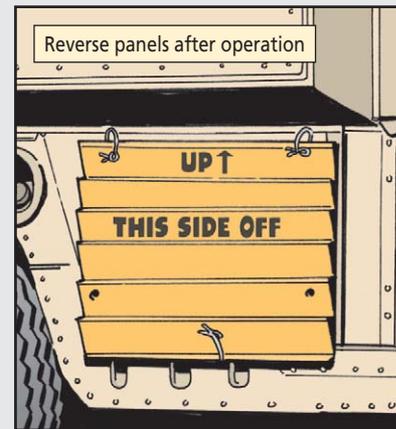
Keep panels clean during operation



After Operation

- Report any missing or damaged CIPs.
- Repair minor damage to the brackets, panels or panel inserts.
- Glue down any loose thermal tape.
- Replace any missing or damaged thermal tape or hook-and-pile tape.
- Remove the panels before washing your vehicle. High-pressure water can peel off the thermal tape or knock off and damage the panels.
- Wash both sides of the CIPs with low-pressure water. Then dry them with a soft, clean cloth.
- Reverse the panels so the CARC side faces out.

Reverse panels after operation



More Info

More information on CIP replacement and replenishment for panel kits, components, and tape is available through the CIP item manager at TACOM. Call DSN 786-6989 or (586) 574-6989.

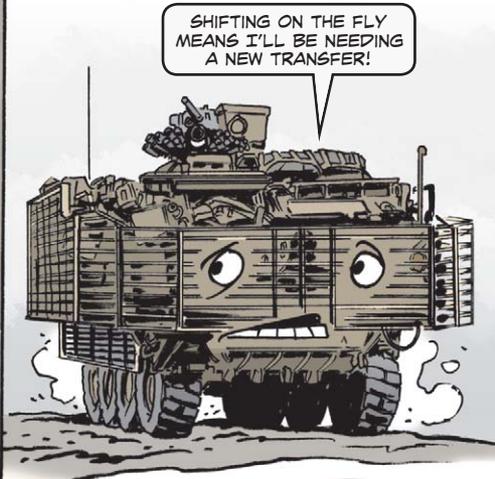
OR SEND AN E-MAIL TO...

roy.meister@
us.army.mil



Stryker...

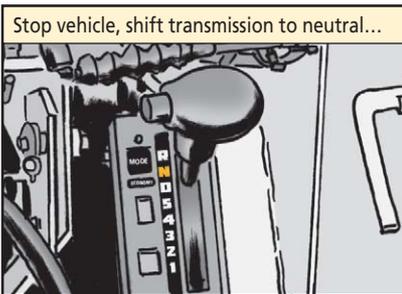
Do Not Shift on the Fly



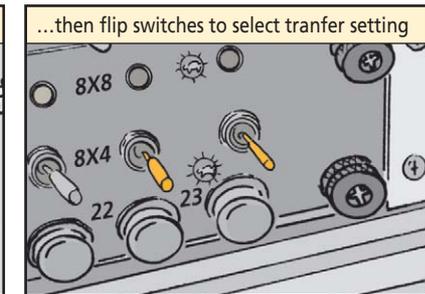
The transfer on your Stryker takes some getting used to, drivers. If you don't get used to it fast, though, you'll soon be buying a new one.

The transfer has three settings: 4-wheel drive, 8-wheel drive high, and 8-wheel drive low. You should **never** shift from one transfer setting to another while the vehicle is moving. That rips up the transfer case and the differentials.

If you need to shift the transfer setting, always make sure the vehicle is completely stopped and the transmission is in neutral. You'll find this caution in WP0023 00-11 of TM 9-2320-311-10-1.



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SEP 06

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M1-Series
Tanks...

SKIRTING DANGER



Dear Half-Mast,

I've noticed a potential hazard with track skirts here in Iraq. A lot of mechanics and crewmen working on the track and suspension have been opening both skirts that are on the same hinge point.

These skirts are extremely heavy, so opening **both** skirts on the **same** hinge point is asking for trouble. If the hinge breaks, someone could be seriously injured or killed by the falling skirts.

Can you get the word out to everyone? In the meantime, I'll keep telling everyone I see to avoid this dangerous situation.

SFC G.A.B.

Dear Sergeant G.A.B.,

We'll get the word out! And the next time you catch someone doing this, remind them that there's already a warning in the -10-1 TMs that reads:

CREWMEMBER WARNING

Do not open two skirts at the same time if they have the same hinge line. Skirt could break off and injure you. Hinge lines are between skirts 1 and 2, 3 and 4, and 5 and 6.

Half-Mast

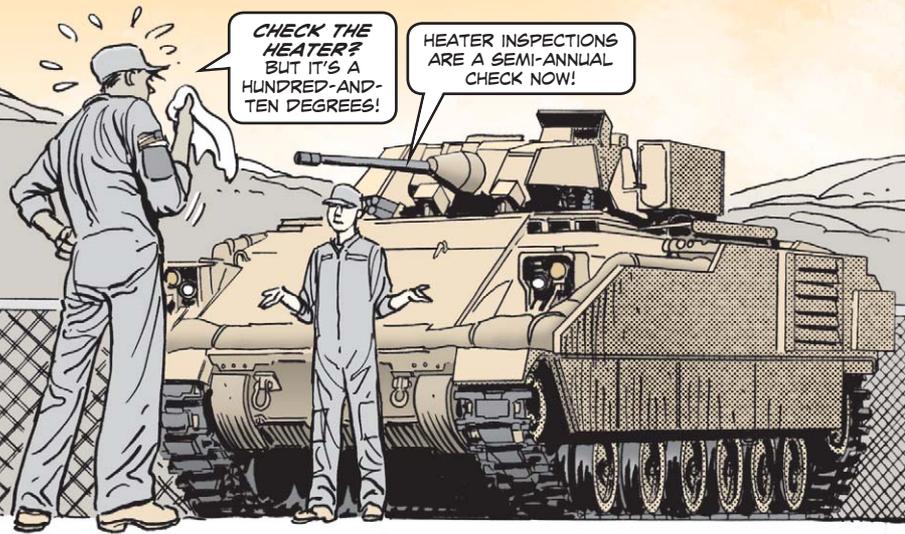
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7

SEP 06

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HEATER CHECKS A YEAR-ROUND JOB



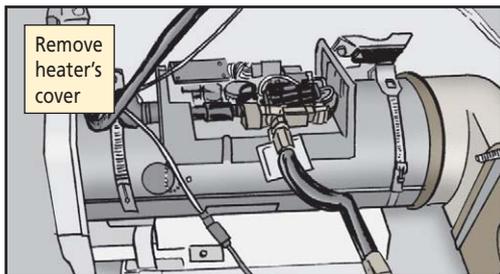
You may think the only time you have to worry about the heater on your Bradley is when cold weather sets in. Unfortunately, it's that kind of thinking that has resulted in some recent heater fires.

It takes a joint effort between mechanics and operators to keep the heater in tip-top condition all year.

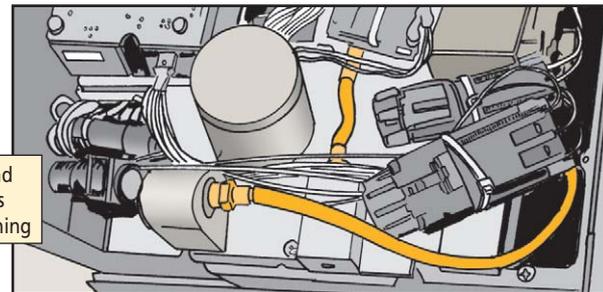
Mechanics

Since heaters aren't needed when it's hot, the required checks are often overlooked during the summer. That's why TACOM has decided to place more emphasis on heater system maintenance by requiring **semi-annual** inspections.

1. Prepare the location to allow total visual and physical access to the heater.
2. Inspect the heater body and occupied space, including hoses and fittings, for any sign of old or new fuel leaks. Older leaks can be identified by dried fuel stains.
3. Remove the heater's top cover. This is commonly known as the "doghouse".



4. Check all rubber hoses for leaks, dry rot, cracking, or hardening. Replace damaged ones.



5. Eyeball all fuel system junctions and connections for any signs of an old or new leak.

If you find no fuel leaks or system problems, continue on to step 6. Mechanics can repair fuel supply hoses in the heater compartment, but if you find a leak inside the heater component itself, see step 12.

6. While you're watching the heater, have someone else turn it on.
7. Watch for active leaks using the same procedures that were outlined in steps 2-5.
8. Look for smoke around the heater and at the heater ducts.
9. Check for an abnormally strong smell of fuel in the heater area.
10. Let the heater continue to run for 20 minutes and observe.
11. Turn the heater off.
12. If any fuel leaks or equipment problems are found within the heater component, remove the heater and turn it in to support for service.

Mechanics, if the service schedule doesn't align with your unit's heater use, or the vehicle has been in long-term storage, an extra service may be needed before cold weather sets in.

Make a note of the new inspection criteria until it can be added to the -20 level TMs.

Operators

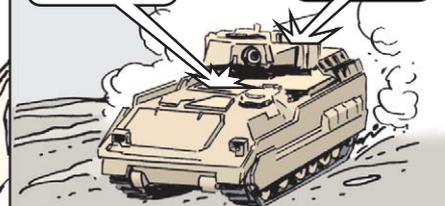
AWARENESS IS YOUR BEST DEFENSE AGAINST HEATER FIRES.

- Be aware of the warning signs of a fire—abnormal smells, smoke, flames, or fuel leaks—while operating the vehicle.



UGH! THAT SMELL! DID YOU HAVE CHILI FOR LUNCH AGAIN?

IT'S NOT ME! IT'S THE HEATER!



- Make sure there's **always** someone inside the vehicle when the heater system is running. Don't allow your heater compartment to erupt into an uncontrollable fire because no one was around to spot the danger.

Wheeled Vehicles...

THE WHOLE WHEEL DEAL

READ THIS ARTICLE TO GET SMART ON THE TARP IN SWA.



Tired of repairing your wheel assemblies? If you're in Southwest Asia (SWA), then you'll be glad to know that the Army Materiel Command's tire/wheel assembly repair programs (TARPs) are up and running. TARPs are located in Kuwait (Camp Arifjan), Qatar (Camp Al Saliyah) and Balad, Iraq (Camp Anaconda). The TARP in Qatar doesn't provide convoy support, though.

The TARPs repair the 41 different tire/wheel assemblies now stocked in the Army supply system. The TARPs recover unserviceable assemblies from local supply support activities or disposal yards, inspect and repair them, and return them to the local supply warehouse for reissue. TARPs also replace or repair damaged wheel assemblies for drive-thru customers who can't remove and replace their own tires.

When you order replacement assemblies at your local supply support activity (SSA), turn in unserviceable ones at that time. The SSA forwards assemblies needing repair to WLG in Balad or W2N in Kuwait. Both sites forward the unserviceables to the TARPs that will repair the assemblies and return them to the local GS warehouses for reissue.

If unserviceable assemblies can be recovered, repaired, and put back into supply, the steel wheel and runflat that hasn't been deployed can be reused. So repairing the assembly at TARP is a big bargain for the Army at almost half the price of buying a new one—and a big knuckle-saver for the soldier!

A list of tire assembly NSNs that TARPs support is online on page 83 of the Tire Group catalog:

<https://www.us.army.mil/suite/doc/5171678>

Keep in mind that only the heavy HMMWV wheel assembly, NSN 2530-01-493-5859, with the alignment pilot hole, is approved for repair. Any other damaged HMMWV wheel will be directed to DRMO for disposal.



POCs FOR THE TARPs IN SWA ARE...

Balad/Camp Anaconda:

DSN: 312-992-2607, Ext 6257, or veral@MMCS.army.mil

Kuwait/Camp Arifjan:

DSN: 314-430-4509, or mitzi.dix@arifjan.arcnt.army.mil and DSN: 314-430-4532, or latrice.clark@arifjan.arcnt.army.mil

HMMWV...

NEW LOCKNUTS EVERY TIME

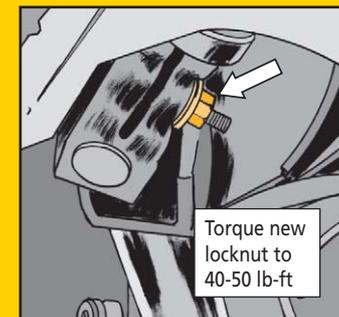


MECHANICS, USE NEW LOCKNUTS AND THE RIGHT TORQUE WHEN YOU REPLACE THE HMMWV'S INTERMEDIATE STEERING GEAR OR GEAR BOX.

Locknuts form to the bolt when they're first put on. They work loose if used over and over again. And even new locknuts will work loose if you don't use the correct torque.

Once a locknut works loose, not only does steering control suffer, but U-joints and steering gear splines get damaged.

Replace the old locknuts, NSN 5310-00-840-6222, and torque the new ones to 40-50 lb-ft like it says in Para 8-21 of TM 9-2320-280-20-2.



Torque new locknut to 40-50 lb-ft

Combat,
Tactical and
Engineering
Vehicles...

SOMEHOW,
I DON'T THINK
THAT'LL DO
YOU MUCH
GOOD IF THE
BOMBS START
TO FALL!

IT'LL HAVE TO
DO UNTIL I GET
MY TIP PANEL!



Protect Your Topside With TIPs

Friendly fire protection on the battlefield is vital. Combat identification panels (CIPs) do a good job of protecting your vehicle's front, rear, and sides. But what about the top? That's where thermal identification panels (TIPs) come in.

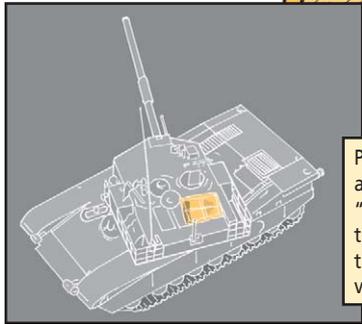
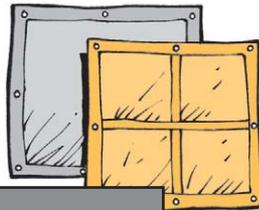
What are TIPs?

TIPs are the air-to-ground component of the Joint Combat Identification Marking System (JCIMS). They are composed of 4 x 4-ft thermal cloth panels that are used to identify stationary friendly vehicles from the air and prevent casualties caused by friendly fire.

When viewed through thermal sights—such as those found on AH-64 helicopters and the Air Force's LANTIRN system—a TIPs panel appears as a large cold spot that marks the vehicle as friendly.

TIPs can also be used as primary markers for positions and structures where CIPs are not installed.

TIPs provide
air-to-ground
identification



Panel
appears as
"cold spot"
though
thermal
viewer

How to Get TIPs

TIPs are being fielded as free-issue items to units deploying in support of OIF/OEF. If you're deploying and haven't received the panels, call the Office of the Product Manager for Target Identification and Meteorological Sensors (PM TIMS) at DSN 987-5324 or (732) 427-5324.

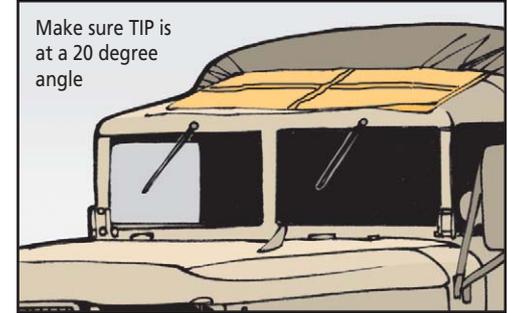
Units that don't get TIPs, or need replacements after the initial distribution, must order the panels, NSN 2590-01-531-6337, through the regular supply system.

TIPs are available in only one color combination. The thermal side of the panel is brown and the opposite side is international orange for use during air-to-ground visual operations.

How to Install TIPs

1. Remove the cloth panel from its storage bag.
2. Place the panel on the rear deck or similar flat spot that allows exposure of the panel without interfering with vehicle operations. For example, the turret ammunition vent panels are a good spot on M1-series tanks.
3. Position the TIP so that it is tilted at about a 20 degree angle from parallel to the ground. A filled sandbag or duffel bag placed under the panel can be used to create the required angle. The slight tilt lets the panel act as a thermal mirror that reflects the cooler temperature of the sky.
4. Tie the TIP in place using the metal grommets around the outside edge of the panel.

Make sure TIP is
at a 20 degree
angle



More Info

If you need more information about TIPs, contact PM TIMS at DSN 987-5324 or (732) 427-5324.

Up-armored
HMMWVs...

MAINTAIN SAFE TIRE PRESSURE

Just like maintaining a safe blood pressure contributes to good health, maintaining safe tire pressure on your up-armored HMMWV will do the same for you. Correct tire pressure is critical for vehicle mobility in snow, ice, sand, or mud. It also results in better vehicle braking and stability.

Tires with low pressure may lead to tire failure, uneven wear of the tread, shortened tire life, and undetectable damage to the structural steel cords. Ply cords weakened by underinflation may break and cause an explosive rupture. This could result in serious injury or death.

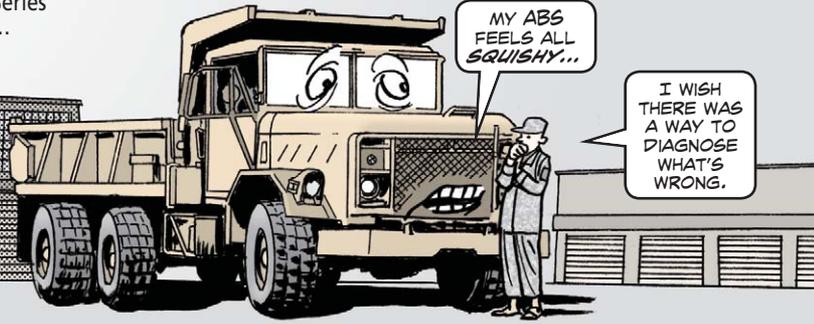
Don't let negligence hinder the mission. Keep tabs on tire pressure using the guidance shown in this chart. And remember that "unloaded" means no sandbags or other added items for protection, but does include a driver and a passenger.

Vehicle	Front PSI	Rear PSI
Unloaded		
M1113, M1151, M1152	20	20
M1114, M1151P1	35	45
Loaded (gross vehicle weight)		
M1113, M1151, M1152	40	50
M1114, M1151P1	40	50
Mud, sand and snow (30 mph max speed)	20	30



THIS INFORMATION IS DIFFERENT FROM WHAT'S SHOWN IN CHANGE 3 TO TM 9-2320-387-10 ON PAGE 1-12. MAKE A NOTE UNTIL TACOM UPDATES THE TM.

M939-Series Trucks...



ABS Troubleshooting Tool

Dear Half-Mast,

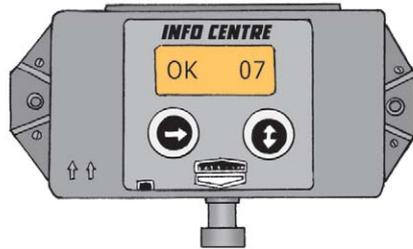
Our unit has M939-series 5-ton trucks with the anti-lock brake system (ABS). Is there a good NSN for the diagnostic tool used to troubleshoot the truck's ABS?

SSG D.C.

Dear Sergeant D.C.,

You bet.

The diagnostic tool is an infocenter diagnostic box. It comes with NSN 5895-01-515-9443. But before troubleshooting the vehicle's ABS, take a look at the following links:



<https://aeps.ria.army.mil>

https://aeps2.ria.army.mil/commodity/pubs/tacom/bulletin/m939_fov.pdf

https://aeps2.ria.army.mil/commodity/pubs/tacom/bulletin/m939_infocenter.pdf

You'll need an AEPS login and password to get into the links. If the link doesn't let you in, go to the "Site Search" box on the AEPS home page and type in "M939". The links you need are called "M939 FOV Anti-lock Brake System and Tire/Wheel Assembly" or type in "M939 Infocenter Instruction for Handheld Diagnostic Tool".

By the way, TACOM SOUM 06-007 has the lowdown on the ABS's warning light. Just open the link below:

https://aeps2.ria.army.mil/commodity/soum/tacom_wn/06/soum06-007.html

Half-Mast

PS 646

14

SEP 06

Click here for a copy of this article to save or email.

M14 Rifle...

MAGAZINES AND SCOPE MOUNTS?



Dear Half-Mast,

Our unit recently received M14 rifles for our marksmen, but we got only one magazine per rifle and no scope mounts. And I can't find a TM for the M14. How do you get magazines and mounts? Is there an M14 TM?

MAJ D.S.

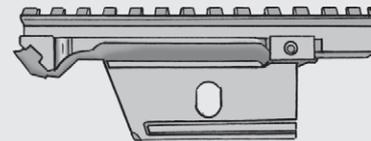
Dear Major D.S.,

The M14 has four TMs: TM 9-1005-223-10, -12P, -20, and -34. All four are on the ETM website:

<https://www.logsa.army.mil/etms/online.htm>

Order a magazine with NSN 1005-00-628-9048. The Army has no scope mounts for the M14, but NSN 5855-01-506-5750 brings a DLA-managed mount that works well for the M14.

Half-Mast



Order scope mount with NSN 5855-01-506-5750

PS 646

15

SEP 06

Click here for a copy of these articles to save or email.

Ways to Wear Your M9 Pistol

HOW SHALL I WEAR MY M9 PISTOL TODAY?

IT FEELS LIKE A SHOULDER HARNESS KIND OF DAY.



Dear Half-Mast,

What options do we have for wearing the M9 pistol?

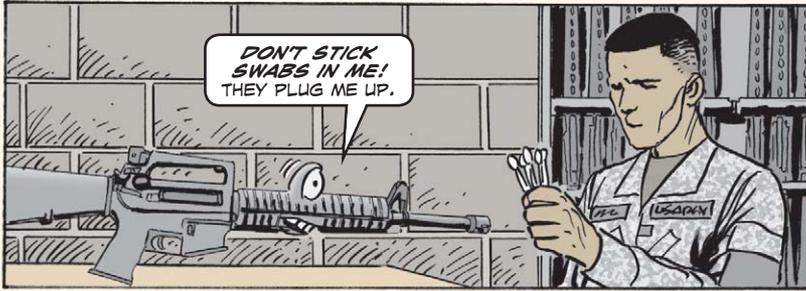
CPT R.J.

Dear Captain R.J.,

Several, actually, Sir. The M12 holster, NSN 1095-01-194-3343, is the standard method for carrying the M9 on your waist. You can wear the pistol lower on your thigh with a leg extender, NSN 1095-01-339-2213. You can turn the M12 into a shoulder holster with the M13 shoulder harness, NSN 1095-01-247-3917. Or you can just order the M7 shoulder holster, NSN 1095-00-973-2353.

Half-Mast

STICK THIS IN YOUR PIPE CLEANER



Dear Editor,

PS has told its readers many times not to use cotton swabs to clean their M16 rifles and M4 carbines. Why? Because the swabs come off and plug up the gas system.

But that's not all, as we can testify from recent experience. The cotton swabs mix with CLP or whatever lubricant the soldier uses and turn rock hard. We had a case where the bolt carrier key was blocked so badly we couldn't budge the swab/lube plug and had to junk the bolt carrier. In battle, you would be left with a useless weapon.

The best way to clean the carrier key is with a worn bore brush. Don't use a new bore brush, because cleaning the carrier key ruins the brush for cleaning the bore. But the bore brush can't bend so it won't be able to completely go through the carrier key. That's why you also need to push a pipe cleaner completely through the carrier key to push out any obstructions.

After cleaning carrier key with old bore brush, push pipe cleaner, NSN 9920-00-292-9946, all the way through key



A good tip for using a pipe cleaner is to first run your fingers down the pipe cleaner to remove any lint from it before using it. That way lint comes off on your fingers rather than inside the gas system where it can mix with lube, harden, and cause problems.

Run fingers down pipe cleaner to get rid of lint



Martin Weaver
Alexander Zelich
546th Maint Co
Ft Polk, LA

Editor's note: Armorer, ban cotton swabs in your unit. Teach your soldiers the bore brush and pipe cleaner method and you'll prevent plugged M16 and M4 gas systems.

Mounting Sights on M2 Machine Gun



Dear Half-Mast,
Is there a mounting bracket for mounting sights like the AN/PVS-4 on the M2 machine gun?

Dear Chief A.A.,

Sure is, Sir. Order it with NSN 5340-01-502-7233.

Don't forget the Small Arms Integration Booklet has info on almost all of the sights and mounting brackets.

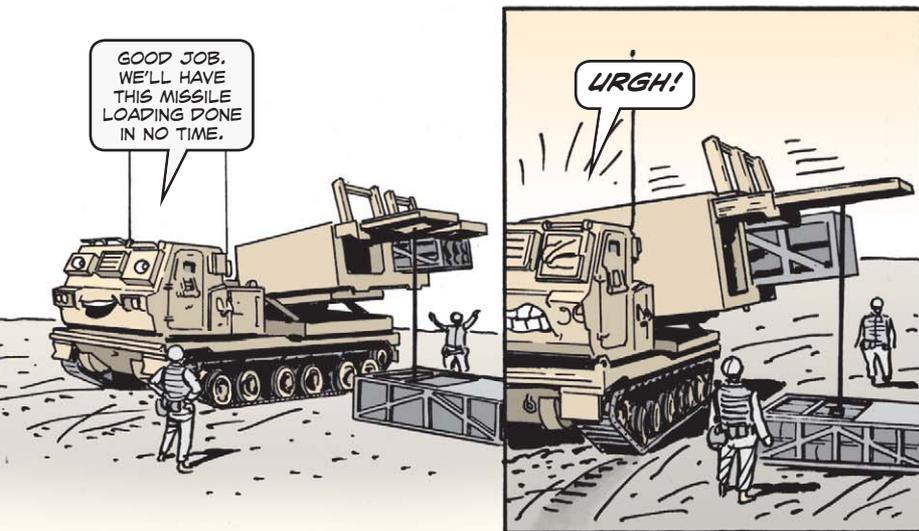
You can access it:

<http://www.train.army.mil>

CW2 A.A.

Half-Mast

Before You Call Repair



Dear Editor,

At Ft Sill we've come up with a couple of MLRS tips that may save you a call to your repair folks:

- If one boom is working but the other won't, try paralleling both alternators (this works only on the -A1 MLRS). Paralleling the alternators uses current from both the carrier and launcher alternators and batteries and can overcome weak launcher batteries that don't provide enough power for both booms.

To parallel the alternators, go to MENU on the fire control panel, then VEHICLE OPERATION, then PARALLEL ALTERNATORS.

Once you finish operations, check out the MLRS carrier charging system so you don't end up with both booms not working.

Your repairman can verify if the charging system is working by disconnecting the W11 and W33 cables from the power switching unit and checking pins A positive to C negative and B positive to D negative on both cables for 24-28 volts.

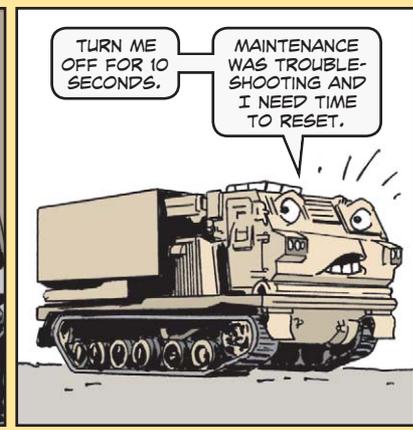
If you don't get that voltage on the W11, the secondary generating system is faulty. If the voltage is wrong on the W33, then the primary generating system is bad. Tell your repairman.

- If you power up the -A1 launcher and get UNABLE TO EXECUTE or UNABLE TO READ SOFTWARE or the system boots up in Maintenance Manager, you may not have a problem if your repairman has been troubleshooting with Maintenance Manager. If you got the UNABLE warnings, try turning off the launcher for 10 seconds and then turning it back on. Everything should work normally.

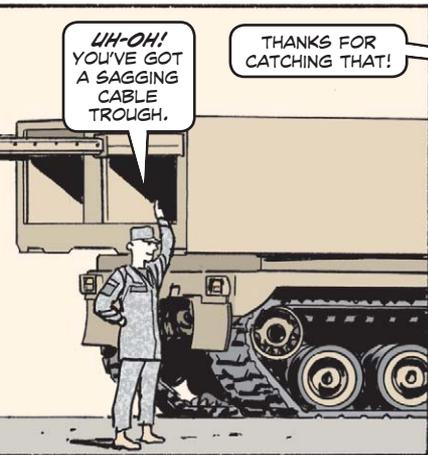
If the system booted up in Maintenance Manager, do the normal system power-down procedures if possible. Repeated hard shutdowns can corrupt system software.

SPC Christopher Cluff
SPC Jorge Baruelos
26th Maint Co
Ft Sill, OK

Editor's note: You two are certainly able to execute when it comes to troubleshooting MLRS problems. Thanks.



LOOK FOR SAGGING TROUGHS



Dear Editor,

The MLRS W75 and W76 cables run in troughs along each side of the inside top of the launcher bays. The troughs are held in place by clamps that sometimes work loose.

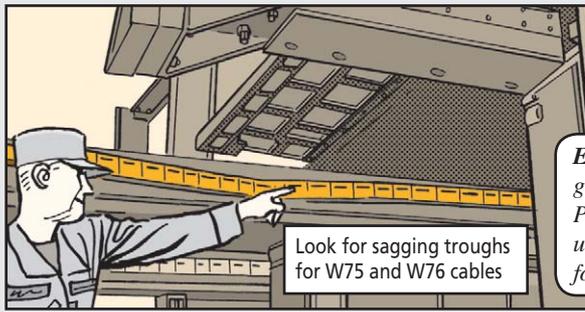
Then the W75 and W76 cables work loose and get wound in the worm gear of the boom extension actuator. That can destroy the cable, which is expensive and difficult to replace.

Crews can prevent that by just looking at the troughs for the W75 and W76 when they do PMCS. If you see any sagging, let your repairman know. He can check for:

- loose clamps that secure the cable to the tray and hoist carriage
- a loose beam that supports the rollers the cables run through
- loose hardware that secures the tray and cable to the hoist carriage
- frozen rollers that the cable runs through
- too many alligator clips

Mike Henderson
Lou Phillips
Shawn McDonald
DOL
Ft Sill, OK

Editor's note: Just a glance skyward during PMCS can save your unit big bucks. Look for sagging troughs!



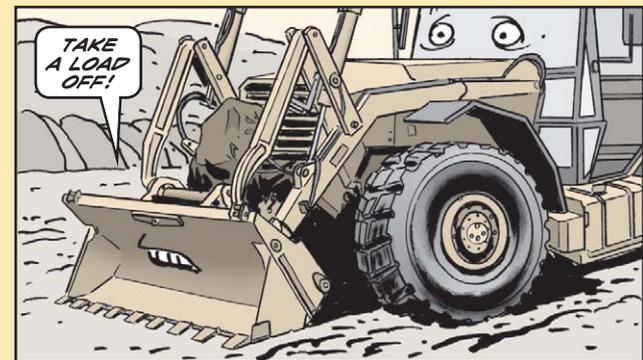
Bucket PM Again



Rest the Bucket

When you park your excavator, lower the bucket flat on the ground.

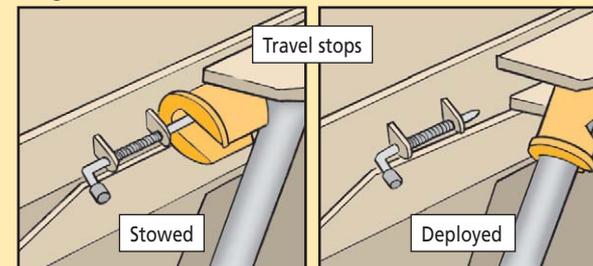
Resting the bucket takes the weight off the lift cylinders and keeps water from pooling in the bucket.



Travel Stop Reminder

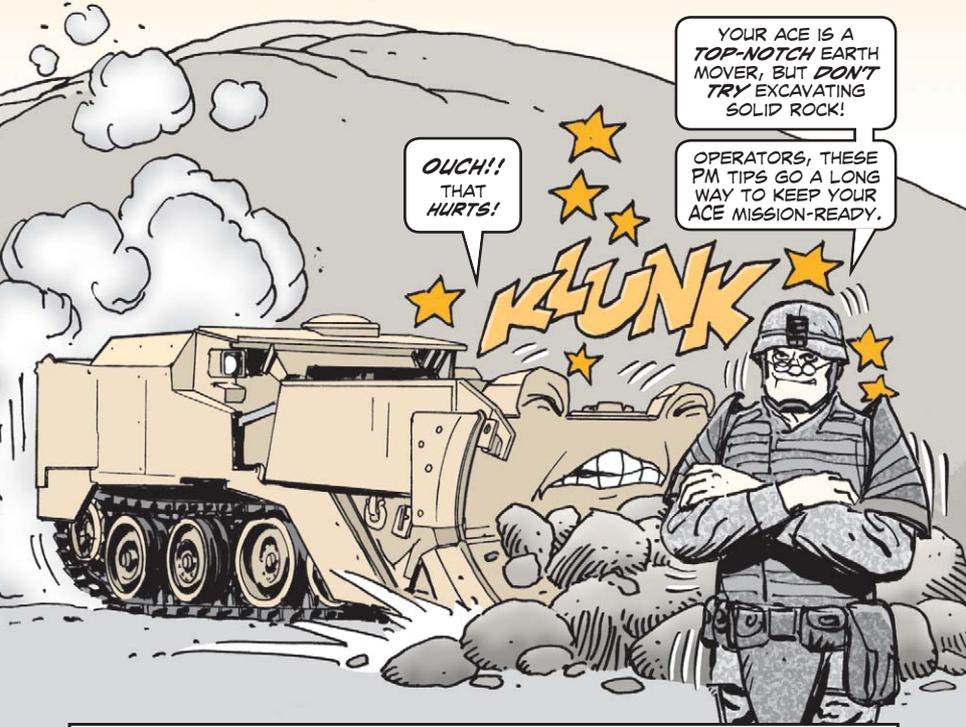
Make sure you install the excavator's travel stops (stowed position) before driving a long distance.

The stops hold the front-end loader bucket about a foot above the ground. That way the bucket's weight won't ride on the hydraulic cylinders, which can blow seals or hydraulic lines. Also, the bucket won't hit the ground or dig into a ridge—a real dangerous situation.



The stops keep the bucket teeth pointed up and out of the way of obstacles. Page 6-2 of TM 5-2420-230-10 tells you how to install the stops in the stowed or deployed positions.

Moving More Sand



YOUR ACE IS A TOP-NOTCH EARTH MOVER, BUT DON'T TRY EXCAVATING SOLID ROCK!

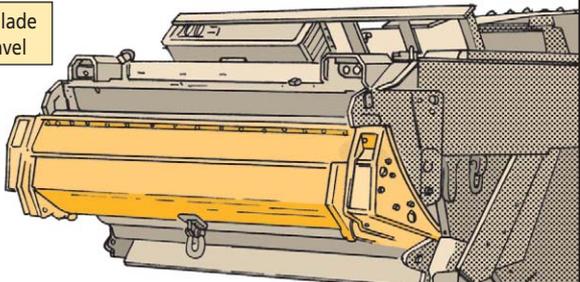
OUCH!! THAT HURTS!

KLUNK

OPERATORS, THESE PM TIPS GO A LONG WAY TO KEEP YOUR ACE MISSION-READY.

- Use the ACE's blade for moving, loading and unloading sand, dirt and gravel. Never use the ACE to break rock. You'll wreck the blade's scarifier teeth for sure, and damage the hydraulics.
- Always fold the blade when traveling cross country, no matter what the soil conditions are. That way the blade can't dig into a ridge or other obstruction.

Fold blade for travel



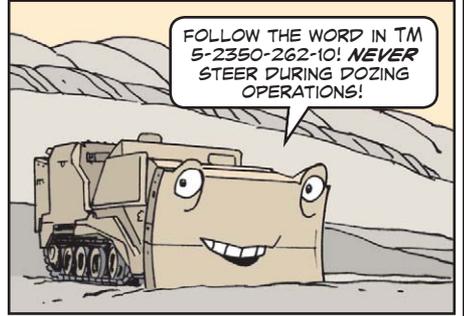
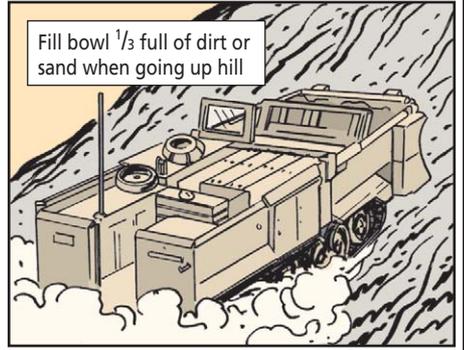
- An empty ACE is butt-heavy, which is no problem on flat ground, hard-top road or when you're going downhill.

Going uphill, keep the bowl about one-third full of dirt or sand and push the ejector forward. This moves enough weight to the front of the earthmover so that you can scale those big hills or sand dunes.

- Read and heed the words on Page 2-69 of TM 5-2350-262-10. Never steer the earthmover during dozing operations. Turning the wheel while dozing throws track. Thrown track can crack road wheels, bend road arms, rip actuators from the hull and bend track retainers.

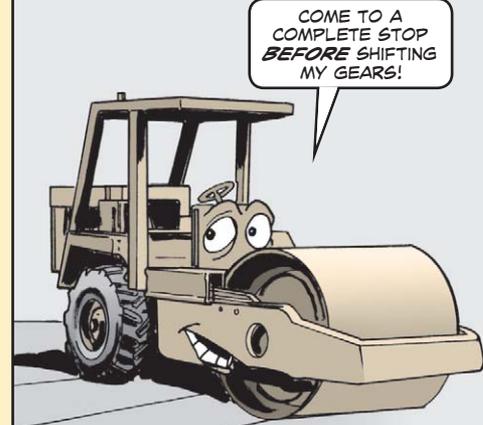
Forget sharp turns during other operations. You can throw a track that way, too.

Keep these tips in mind while thumbing through TM 5-2350-262-10.



RS28
Tampo
Roller...

Stop for Shifting



Operators, you know these rollers are getting a constant workout while rebuilding roads and runways in Iraq.

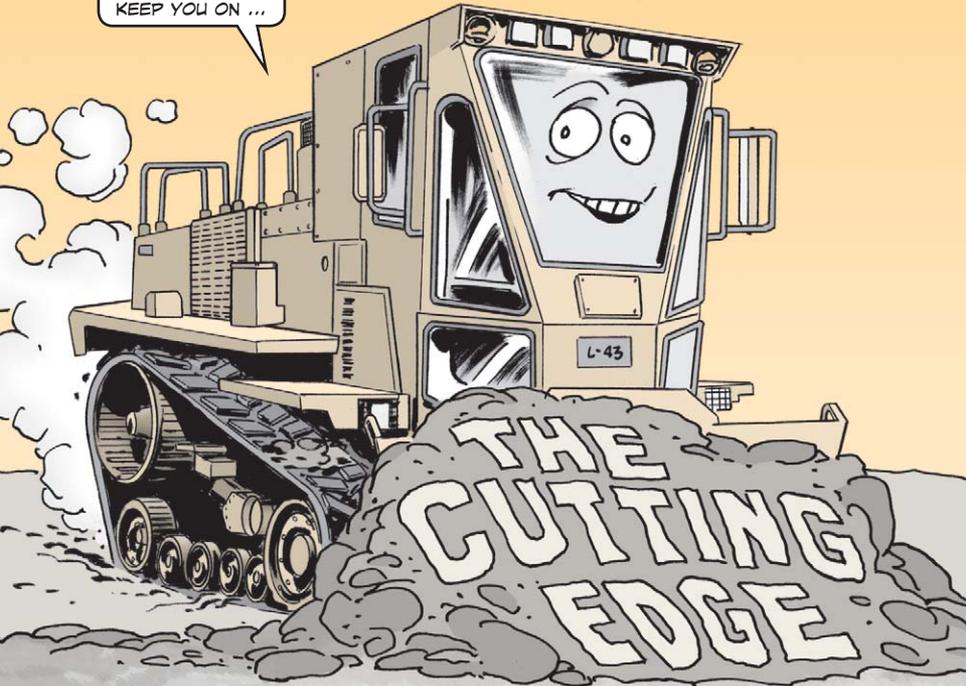
It's easy to get into the hard and fast mode of shifting gears during operation. After all, you're on the move, shifting into forward and reverse as the roller compacts gravel bedding.

But, every time you shift into or out of gear without stopping, you're putting unnecessary stress on the roller's hydrostatic transmission. That's bound to shorten its life.

Plain and simple: bring your roller to a complete stop before shifting gears.

DEUCE...

HERE ARE SOME
PM TIPS TO
KEEP YOU ON ...



Operators, give your excavator the PM edge to successfully move dirt and sand. Follow the words in TM 5-2430-200-10 and use these pointers that others have learned the hard way to keep your DEUCE on the job.

Cutting Edge

The blade's cutting edge protects the moldboard. If the cutting edge wears down too far, the moldboard is damaged and has to be replaced or sent to support for repair.

Make sure the cutting edge is protecting the moldboard. To get a good look at the edge, raise the blade about 6 inches off the ground.

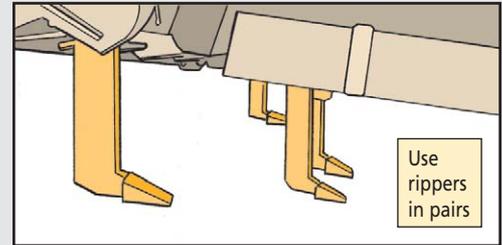
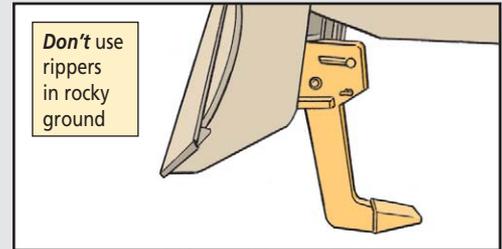
If the cutting edge is worn to less than $\frac{3}{4}$ -inch (about the diameter of a penny), report it. Your mechanic can reverse the edge or replace it if both edges are worn.



Don't Rip it Up

The earthmover's back rippers help break up hard-packed soil. Here's a checklist that saves wear and tear on the vehicle and ripper shanks:

- Do not steer when the shanks are in the ground. They'll twist and break off.
- Don't use the rippers in rocky ground. That damages them.
- When the rippers are down, operate the vehicle in the EARTHMOVING mode with the transmission in FIRST SPEED REVERSE.
- Use all four rippers at one time, or pair them so the earthmover doesn't pull to one side. If using one pair, for example, use the inside or outside rippers. But don't use only the two rippers on one side!



CB-534B Vibratory Roller...

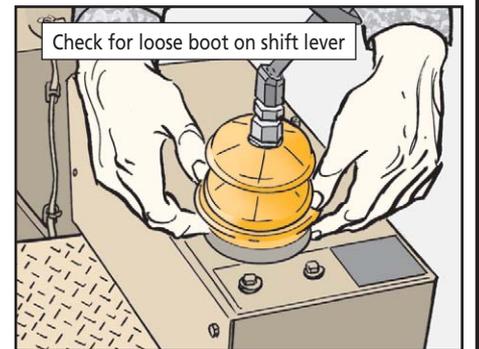
WHEN WATER GETS IN!

OPERATORS, BEFORE THE DAY'S RUN, EYEBALL THE RUBBER BOOT THAT FITS OVER THE PROPULSION CONTROL VALVE AND SHIFT LEVER.



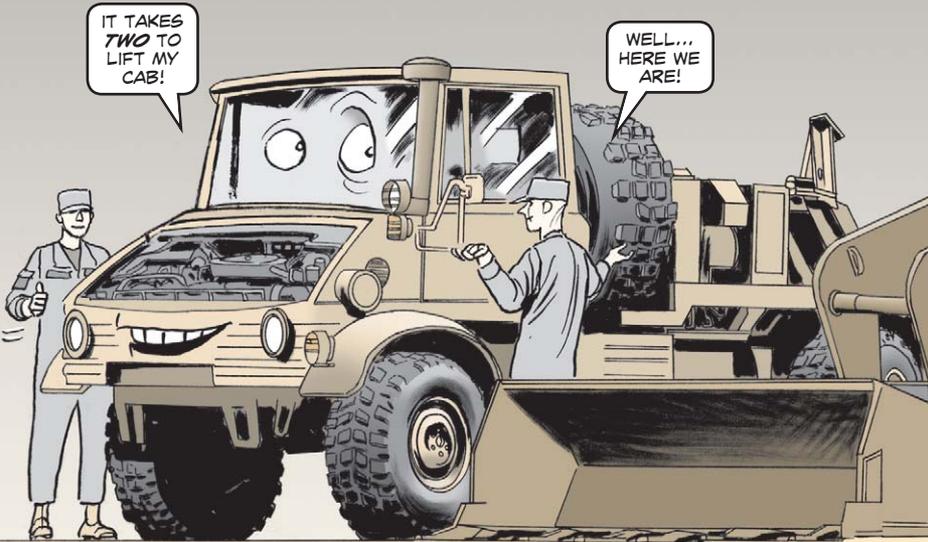
The rubber boot has been known to come loose during operations. If water gets past the boot, it shorts out the valve's electronic relays. The end result is a roller that won't shift or engage its power takeoff (PTO).

If the boot is loose, report it. Your mechanic can put a hose clamp, NSN 4730-00-908-6294, around the boot's outer edge to hold it in place on the console.



SEE...

TWO TO LIFT



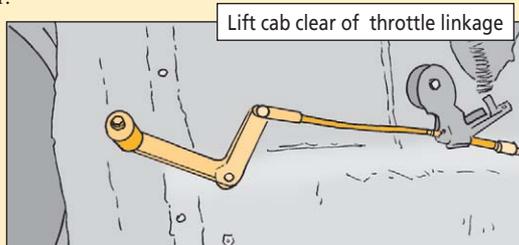
Mechanics, make sure you follow Pages 4-418 through 4-432 in TM 5-2420-224-20 when it comes to raising or lowering the excavator's cab.

Without proper clearance, it's real easy to damage the throttle linkage and mount bracket when the cab is raised. Both are connected to the driver's side of the cab's engine wall.

A damaged linkage means you're stuck with an engine that won't accelerate or decelerate smoothly—if at all!

So, get a buddy to help you raise or lower the excavator's cab.

With one person on each side of the cab, keep it clear of the throttle linkage. Then you don't have to worry about damage.

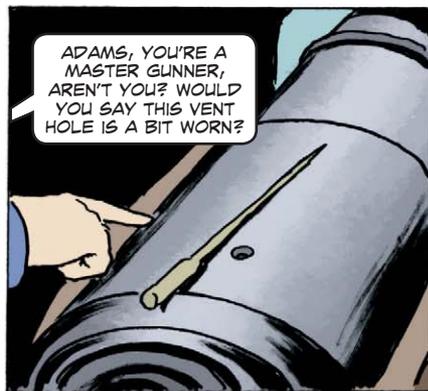


SEE Engine Oil Filter
Use NSN 2940-01-225-1531 to get the excavator's engine oil filter. The NSN listed as Item 13 in Fig 15 of TM 5-2420-224-24P-1 is wrong.

[Click here for a copy of this article to save or email.](#)



[Click here for a copy of this article to save or email.](#)







SILENCE ON THE DECK!



WE'LL TAKE HIM WITH A STARBOARD BROADSIDE!



FIRE! FIRE!

BLAM



WHAM



BLAM WHAM

WHAP WHAM

BOOM BOOM BOOM



RAISE YOUR CANNON HIGHER!



WHUMP



GOOD SHOT!



CRAACK



COME ABOUT ON THE PORT TRACK!



MR. TRUMPETER! STAND BY THE PORTSIDE GUNS! FIRE AS EACH GUN COMES TO BEAR!



I WANT THAT MAINMAST DOWN!

AYE, SIR!



BOARDING PARTIES AWAY!

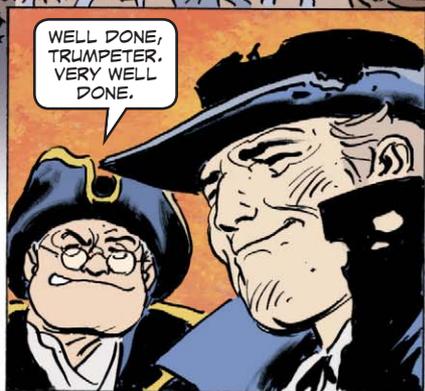




FOLLOW ME, MEN! THE SHIP IS OURS!



THEY HAVE SURRENDERED! WE'VE WON THE DAY!

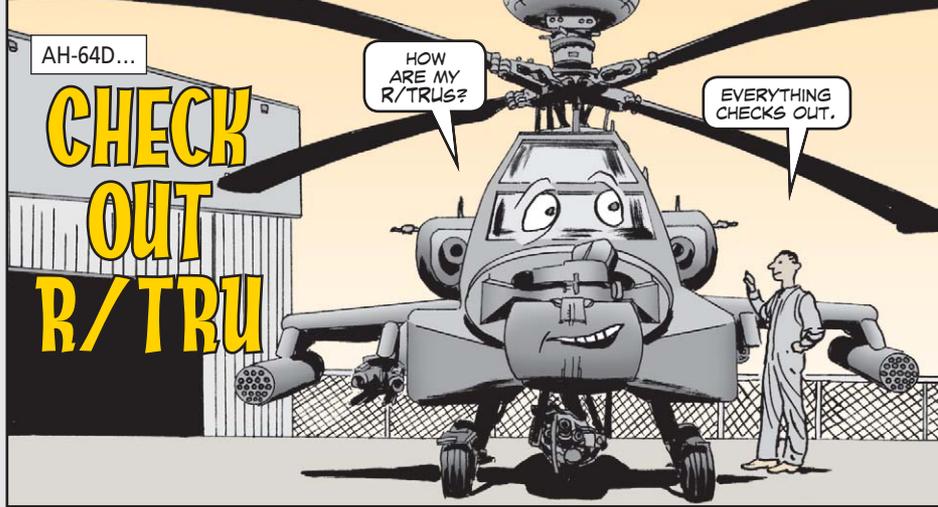


WELL DONE, TRUMPETER. VERY WELL DONE.



WILL THE PM YOU'VE DONE TODAY HELP BRING VICTORY TO YOUR UNIT?

The BIG BOOK of BRITISH NAVAL PM Tales



AH-64D...

CHECK OUT R/TRU

HOW ARE MY R/TRUS?

EVERYTHING CHECKS OUT.

Mechanics and pilots, your AH-64D's regulated transformer rectifier unit (R/TRU), NSN 6120-01-440-5711, can lose electrical power and you won't notice it.

You'll get an indication that an R/TRU has failed because of thermal overload, but not when there's a lost ground or other electrical problem.

The two R/TRUs provide primary DC electrical power for your bird. Since the maintenance data recorder (MDR) doesn't alert you to a R/TRU electrical failure, the bird could have a complete failure of primary DC electrical power if one is already out and the other one goes out in flight.

Some aircraft have flown for hours when only one R/TRU was working and that can put you and your bird in harm's way.

AMCOM message AH-64-05-ASAM-05 tells you to inspect both R/TRUs within 30 days and implement a 125-hour inspection to perform an R/TRU voltage check and to check the terminal connections for condition and security.



HAVE YOU CHECKED YOUR R/TRU LATELY?

When you power up your bird, check the back of the R/TRU on both sides of the forward transmission bay area. Make sure the fan is blowing air on each one and there's air flow before you take off.

If an R/TRU is not working, call your AVUM shop and they will test it following the ASAM instructions to make sure your aircraft stays mission ready.

NOT IN HERE YOU DON'T!

ARE YOU
READY TO
PACK THIS
BIRD UP?

YEAH! WE
GOT A LOT
OF STUFF
FOR THIS
MISSION.

YOU'D BETTER MAKE
SURE NONE OF YOUR
STUFF ENDS UP IN
MY SEAT WELLS!

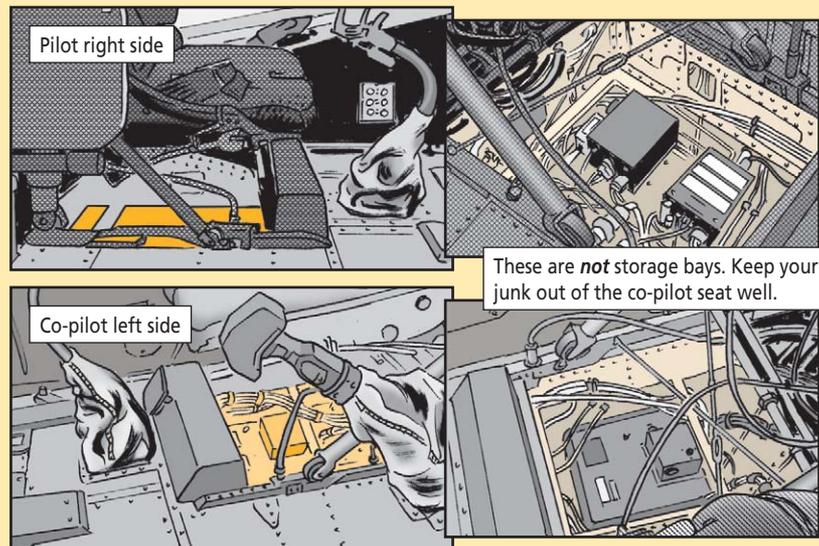
Pilots and co-pilots, don't you dare store stuff in the Black Hawk seat wells.

They're not storage spaces. It's a bad habit to toss TMs, kitbags, checklists, goggles, and other stuff in the seat wells.

Stashing things under the seat wells can damage pitot static lines, wiring/connectors and avionic components installed there.

More importantly, that bad habit can put your life in harm's way. In the event of a crash or a hard landing, the seat can't stroke down properly as it's designed to absorb the shock for your protection.

So for your safety and that of the bird, don't store anything under your seats.



An Ounce of Prevention

MECHANICS, YOU
CAN PREVENT
DIRTY PISTONS.

CLEAN 'EM
LIKE THE TM
SAYS!

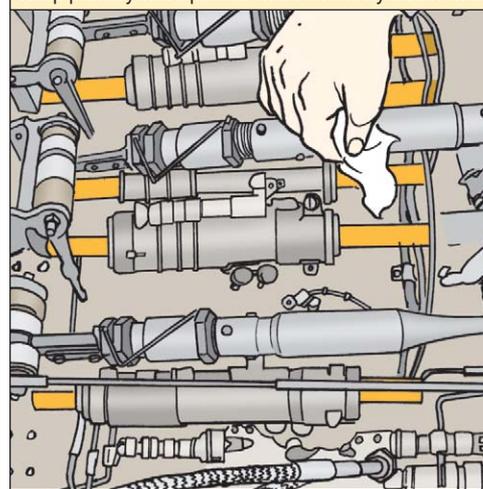


Mechanics, prevention is the pillar of PM. Keep that in mind when inspecting the primary servos' exposed pistons and internal seals on the hydraulic deck.

The primary servos, the control rods and the swashplate are all connected. If anything goes wrong in this area, it could mean "curtains" for your Black Hawk's flight controls.

So during your 30-hr/42-day primary servo inspection, eyeball the servos for everything that sequence 6.5 of TM 1-1520-237-PMS-1 tells you to.

Keep primary servo pistons clean on the hydraulic deck



To prevent servo seal leaks, make it a daily habit to wipe the dirt and sand from the exposed areas of the pistons with a clean rag. That protects the seals from cuts and prevents damage to the servos. Damaged seals leak and scored servo cylinders have to be replaced.

If you don't keep the hydraulic deck in mind, you'll be looking at primary servo replacement if the seals go bad.

Cleaning dirt from the exposed pistons daily is the ounce of prevention that's worth a pound of cure.

OH-58D...

I CAN SEE CLEARLY NOW WITH MY NEW PROGRAM!

DITTO TO THAT! MY NEW CONTACTS WORK REALLY GOOD!

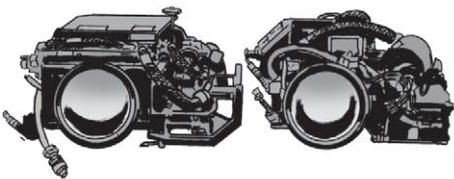
You've Just Been Reprogrammed

Mechanics, here's the latest about the thermal imaging sensor (TIS) in the Kiowa Warrior's mast mounted sight (MMS).

Units can order either the TISU or a thermal imaging sensor upgrade (TISU), NSN 1260-01-503-4177 for the same price. AMCOM will issue the TISU when available. If the TISU is out of stock at the time of the requisition, you'll get the TIS, which you can install on your bird right away.

TISU

TIS



Receiving a TISU

When you receive a TISU to replace a TIS, it can be installed, but it will not be operational without changes. You have to do one mandatory change and one recommended change so it will operate correctly within the MMS.

Mandatory Change

The TISU needs a reprogrammed A5A card in the master system processor (MSP) or the improved master system processor (IMSP). When the A5A card has been reprogrammed, the MSP or IMSP will get a new NSN, as will the circuit card. A large number of cards have already been updated, so compare the NSN on the box to this chart to see if you need the upgrade.

Item Name	Current NSN 5999-01-	Upgraded NSN 5999-01-522-
MSP	313-3113 (PN) 1D49402-509	1802 (PN) 1D49402-511
IMSP	503-4178 (PN) 1D85001-509	1803 (PN) 1D85001-513
IMSP	417-4688 (PN) 1D85001-507	1800 (PN) 1D85001-511



IF YOU NEED TO GET YOUR ASA REPROGRAMMED, CONTACT YOUR FORWARD REPAIR ACTIVITY OR YOUR MMS CONTRACTOR FIELD SERVICE REPRESENTATIVE.

Recommended Change

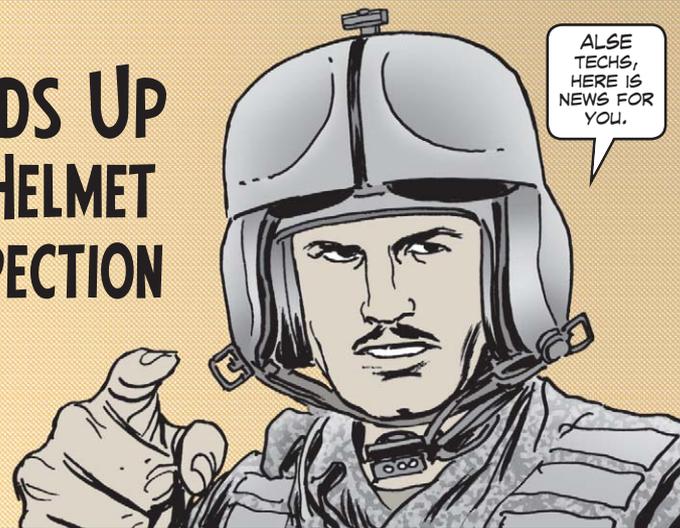
The TISU works best if you change to the newest Kiowa Warrior version of the upper shroud, NSN 1260-01-479-4629. If you keep the old shroud it will somewhat degrade the output performance of the TISU. However, the TIS will still work just fine with either the new or old upper shroud.



QUESTIONS? CONTACT DSN 897-1400, (256) 313-1400 OR EMAIL: sandra.denton@peoavn.army.mil

ELSE...

HEADS UP ON HELMET INSPECTION



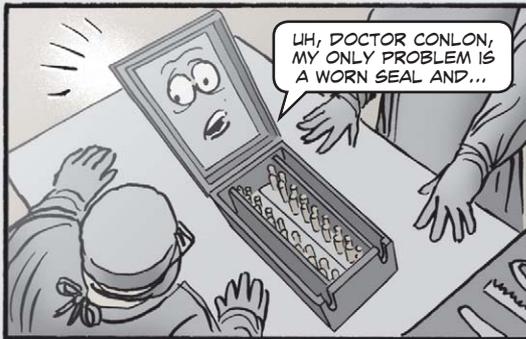
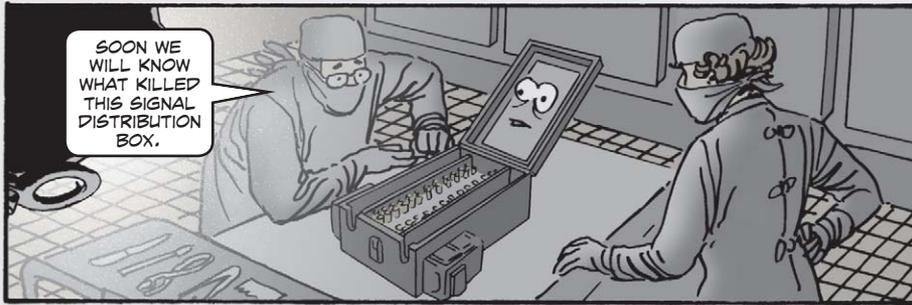
ALSO TECHS, HERE IS NEWS FOR YOU.

The TACOM-RI headshed says the inspection interval for the integrated helmet and display sight system (IHADSS) has changed.

The inspection requirement on the helmet is now 180 days instead of 120. That's because the headshed wants the inspection to fall in line with that of the survival vest.

This info is contained in PM AW advisory message ELSE 06-02. You'll need to make a note of it until TM 9-1270-233-23&P and IETM EM 0126 (TM 1-1520-Longbow/Apache) are changed.

Dissecting the Distribution Boxes



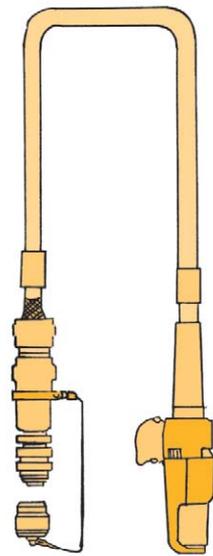
If you work with either signal distribution box, J-1077A/U, NSN 6110-00-985-7574, or J-2317A/U, NSN 6110-00-937-4964, chances are good you're in need of some parts stock numbers and some maintenance info.

TM 11-6110-201-12P on the J-1077A/U and TM 11-6110-243-14P for the J-2317A/U are both a bit skimpy on supply and preventive maintenance details.



Supply

Here are the standard cables used with these distribution boxes:

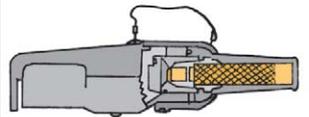


Part Number	NSN 5995-	Description, 26-pair cable	Length (ft)
SM-D-811235	01-079-3719	U-185B/G connector on one end and a MS27467T23B535 connector on the other	25
CX-4760A/U	00-889-0803	U-185B/G connector on one end and open leads on the other	15
CX-4566A/G	00-985-7571	U-185B/G connector on each end	25
CX-4566A/G	00-823-2715	U-185B/G connector on each end and cable on RC-435/U reel	250
CX-4566A/G	00-985-7569	U-185B/G connector on each end and no reel	250

Use NSN 8130-00-656-1090 to get an RC-435/U reel.

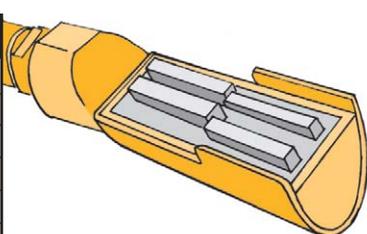
Here are the connectors used with these distribution boxes and cables:

Part Number	NSN 5935-	Description
U-185B/G	00-577-8846	Cable plug
U-186C/G	00-926-7428	Panel mount, pedestal
U-187/G	00-682-0381	Panel mount, flat
U-187A/G	01-412-4943	Panel mount, flat
MX-3227/G	01-142-9742	Contact assembly



Here are the replacement parts for these connectors:

NSN	Description
5999-01-073-5507	Contact cap kit (set of 10)
5935-00-883-4265	Hock cover
4010-00-575-6233	Wire rope
4030-00-431-5536	Swag sleeve
5330-01-130-7340	Hock gasket
5975-00-874-3541	Hock rubber boot (U-185)
5970-00-685-9059	Electrical tape



Preventive Maintenance

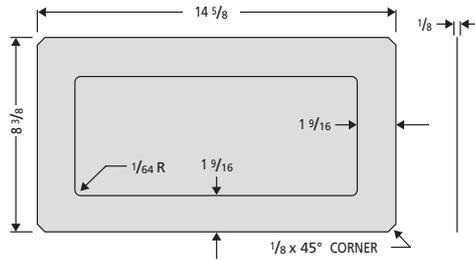
The number one PM job on signal distribution boxes is taking action to keep water out. To do that, you need good gaskets. Keeping good gaskets from becoming bad gaskets takes a visual inspection each time you use the distribution box. If a gasket is cracked, cut, excessively worn or is not providing the seal it should, replace it immediately.

Not all the gaskets in the distribution boxes that you need to keep proper seals have NSNs. For those gaskets that do not have NSNs, you can make the gaskets you need from bulk gasket material. Order the bulk gasket material below and use the old gaskets as a guide or use the part that the gasket attaches to as a guide. The bulk gasket material is available in the three different sizes used on the distribution boxes:

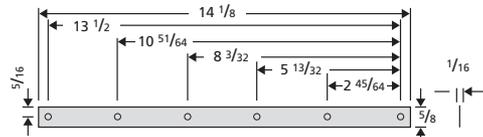
NSN 9320-	Neoprene sheet size (in)
00-866-5715	36x36x ¹ / ₁₆
01-091-0507	36x36x ¹ / ₈
00-965-0852	36x36x ³ / ₁₆

You will also need adhesive to affix the gaskets. NSN 8040-01-033-7507 brings a 5-ounce tube of the recommended adhesive. NSN 8040-00-390-7959 brings a quart.

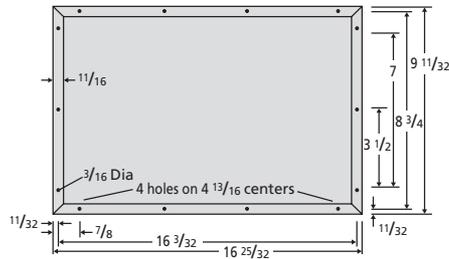
J-1077A/U inside cover gasket



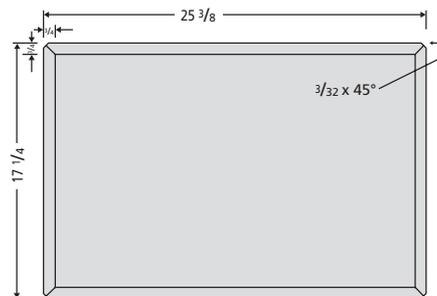
J-1077A/U gasket (between barrier and housing assembly)



J-2317A/U gasket (behind connector panel)



J-2317A/U cover gasket



The next PM job on signal distribution boxes is taking action to keep the writing board in good shape. The writing board's location inside the lid of the distribution box makes it vulnerable to wear and tear.

The writing board in the distribution boxes is not in the supply system. However, you can order a sheet of plastic, 20-in x 50-in, NSN 9330-00-584-0533, that you can use to make your own writing board. Use the old writing board as a guide or you can make it a little larger as long as the distribution box closes properly.

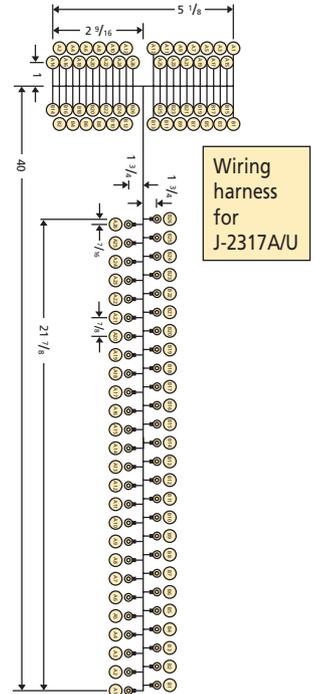
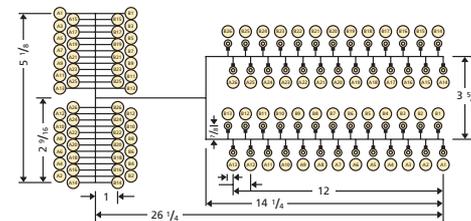
The same adhesive used on the gaskets can be used to mount the boards. You can also use thin strips of electrical tape to line the writing board or a fine-line permanent marker.

Your signal distribution box is made of tempered aluminum alloy. Your PM job is to check it so it stays in good shape. Get your support shop on the job to replace metal parts and to do spot welding as needed.

Not all the metal parts are available from the supply system. Your support shop can build most of the metal parts using bulk material. They will need to use the old parts as guides. Here are some of the bulk materials that your support can use:

NSN	Description (in)
5935-00-242-8606	Aluminum sheet, 36x96x0.080
5935-01-167-2216	Aluminum sheet, 48x144x ¹ / ₁₆
5935-00-232-6879	Aluminum sheet, 36x96x ¹ / ₈
5925-00-483-2470	Aluminum rod, 120x ³ / ₁₆
5915-00-640-4268	Steel sheet, 36x96x ¹ / ₈
5910-00-229-4818	Steel rod, 120x ³ / ₈
5940-01-055-4206	Hinge

Wiring harness for J-1077A/U

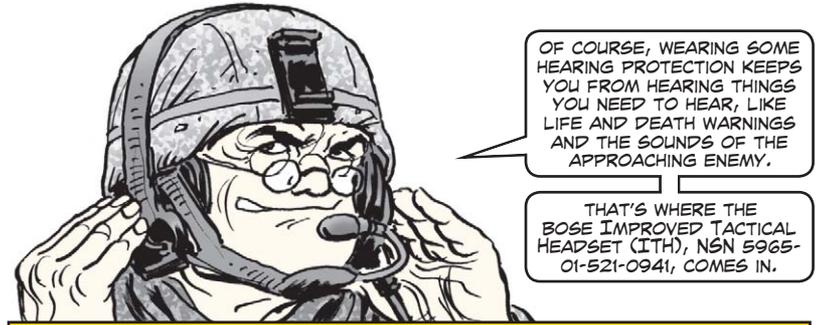
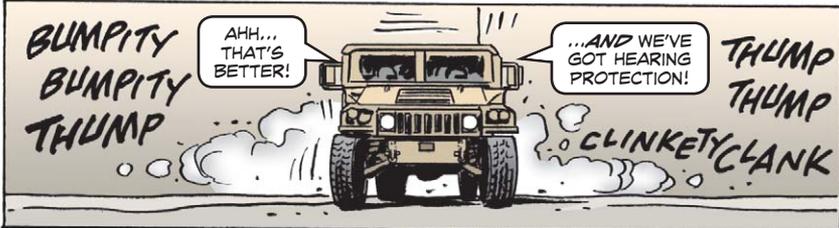


The wiring harness on both boxes is made from WM-130A/G telephone cable, NSN 6145-00-577-8480, and terminal lugs, NSN 5940-00-113-3138. Check 'em for cuts and corrosion and replace 'em as necessary. Keep a wiring diagram within easy access of each distribution box.

If you have any supply or maintenance questions on these boxes, you can contact the signal distribution box expert, at DSN 992-0130 or (732) 532-0130. Or you can email him: jim.conlon@us.army.mil



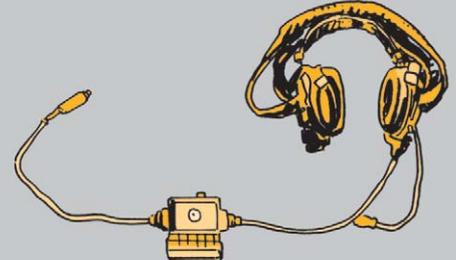
A Headset for the HMMWV!



THAT'S WHERE THE BOSE IMPROVED TACTICAL HEADSET (ITH), NSN 5965-01-521-0941, COMES IN.

THE HEADSET PROTECTS YOUR HEARING, BUT STILL LETS YOU HEAR WHAT NEEDS TO BE HEARD. IT'S THE VITAL COMPONENT TO THE INTERCOM SYSTEM OF YOUR HMMWV AND EVENTUALLY OTHER LIGHT TACTICAL VEHICLES.

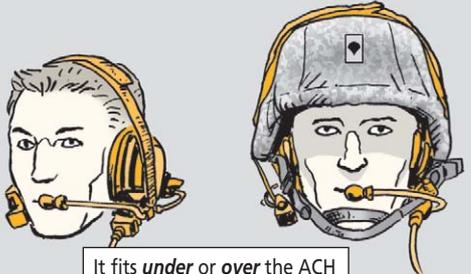
BOSE has arrived!



THE HEADSET FITS UNDER OR OVER THE ADVANCED COMBAT HELMET (ACH) AND CAN BE PUT ON OR REMOVED *WITHOUT* REMOVING THE HELMET.

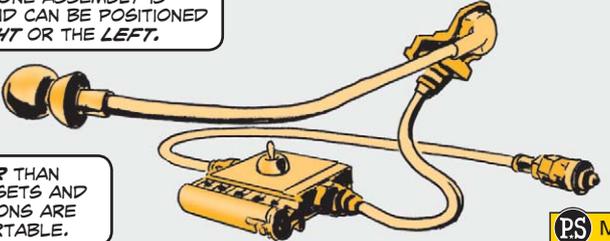
ADJUSTMENTS TO FIT EVERY HEAD ARE MADE WITH THE HOOK-AND-PILE STRAPS AROUND THE NECK AND OVER THE HEAD.

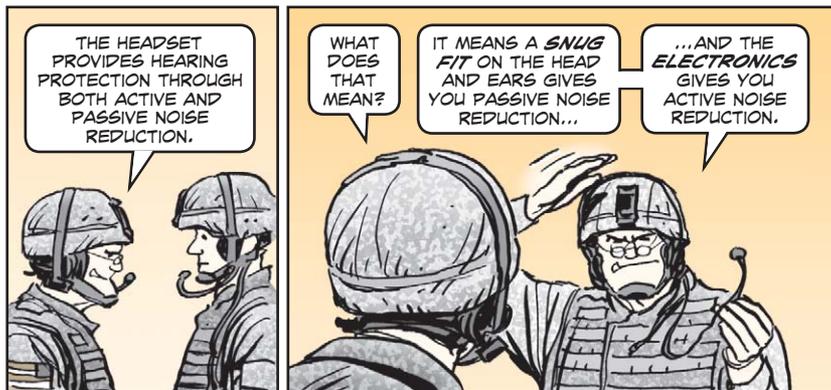
It fits under or over the ACH



ITS MICROPHONE ASSEMBLY IS REPLACEABLE AND CAN BE POSITIONED ON THE *RIGHT* OR THE *LEFT*.

IT'S *LIGHTER* THAN PREVIOUS HEADSETS AND THE EAR CUSHIONS ARE MORE COMFORTABLE.





THE HEADSET PROVIDES HEARING PROTECTION THROUGH BOTH ACTIVE AND PASSIVE NOISE REDUCTION.

WHAT DOES THAT MEAN?

IT MEANS A *SNUG FIT* ON THE HEAD AND EARS GIVES YOU PASSIVE NOISE REDUCTION...

...AND THE *ELECTRONICS* GIVES YOU ACTIVE NOISE REDUCTION.

THE HEADSET ALSO HAS A "TALK-THRU" CIRCUIT THAT LETS YOU DISMOUNT FROM THE VEHICLE AND HEAR AMBIENT SOUND IN STEREO AND HAVE A NORMAL CONVERSATION WITHOUT HAVING TO REMOVE THE HEADSET.

THE CONTROL MODULE ON THE CABLE/MICROPHONE ASSEMBLY HAS A THREE-POSITION PUSH-TO-TALK SWITCH AS WELL AS THE TWO-POSITION TALK-THRU SWITCH.

THE PUSH-TO-TALK SWITCH IS SPRING LOADED AND POSITIONED ON THE FACE OF THE CONTROL MODULE IN THE CENTER.

THE SWITCH CAN BE HELD MOMENTARILY IN THE PUSH-TO-TALK POSITION OR IT CAN BE "LATCHED" IN THE LIVE INTERCOM POSITION.

THE TALK-THRU SWITCH IS LOCATED ON ONE SIDE OF THE CONTROL MODULE. THE BATTERY COMPARTMENT WITH ONE AA ALKALINE BATTERY IS ON THE OTHER SIDE.

THE CONTROL MODULE ALSO HAS AN M42 GAS MASK MICROPHONE CONNECTION.

PREVENTIVE MAINTENANCE ON THE HEADSET IS KEEPING IT CLEAN, STORING IT OUT OF HARM'S WAY, AND CHECKING FOR CRACKS AND OTHER DAMAGE.

The talk-thru switch is on one side

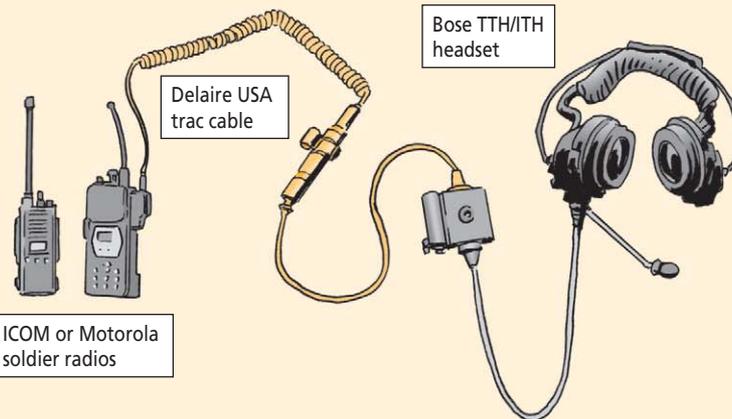
The battery compartment is on the other

HERE ARE THE REPAIR PARTS THAT ARE AVAILABLE FOR THE HEADSET...



Part	NSN
Headband, head	5965-01-525-1695
Headband, neck	5965-01-525-2635
Outer ear cushion	5965-01-525-1694
Inner ear cushion	5965-01-525-2016
Microphone harness	5965-01-525-2019
Microphone shield	5965-01-525-1684
Electrical headset	5965-01-525-1685
Cable assembly	5995-01-525-1680
Electrical cover	5930-01-525-1675

ALSO, CABLES ARE IN THE WORKS THAT WILL MAKE THE HEADSET COMPATIBLE TO PORTABLE RADIOS INCLUDING ICOM, MOTOROLA, AND MBTR.



Bose TTH/ITH headset

Delaire USA trac cable

ICOM or Motorola soldier radios

FOR MORE INFORMATION ON THE HEADSET AND THE ADAPTER CABLES, CONTACT

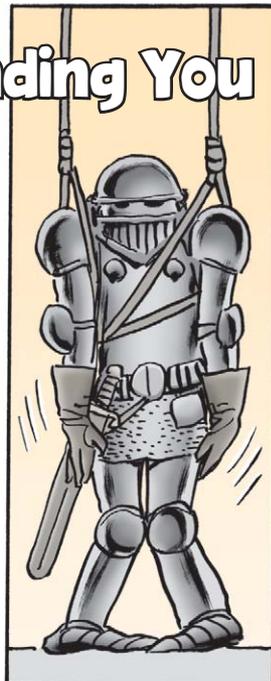
DSN 992-5415 OR (732) 532-5415.

YOU CAN REACH HIM BY EMAIL: Ronald.Claiborne@us.army.mil TELL 'IM HALF-MAST SENT YA!

PS END

Interceptor Body Armor...

PM Keeps IBA Defending You



MAN!
AM I GLAD
WE'VE
GOT THE
ARMOR
WE'VE
GOT!

ROGER
THAT!

That Interceptor body armor (IBA) you're wearing is hands down the finest body armor ever made. Its soft ballistic panels protect you against light fragmentation and 9mm rounds. Its small arms protective inserts (SAPI) protect you against rounds as large as 7.62mm.

Considering how the IBA protects you, you need to take a personal interest in its condition. That means thorough preventive maintenance. When was the last time you gave your body armor some PM? If it's been a while, take the PM pledge. Devote some time each week to the care and cleaning of your IBA.

Inspection

Start with a close inspection of the **outer tactical vest (OTV)**. The OTV includes the following **cloth carriers**:

- base vest's outer shell
- yoke and collar
- groin protector
- deltoid and axillary protectors
- throat protector

The OTV also includes all **soft ballistic panels and inserts**.

Here's what to look for when you inspect the **OTV's cloth carriers**:

Cuts, rips, tears, holes, or burns

Loose or broken stitching

Hits from fragmentation or small arms fire

Torn, damaged or missing hook-and-loop fasteners

Broken or missing buckles or snaps

Torn pockets or flaps

Front hook-and-loop fastener won't close securely

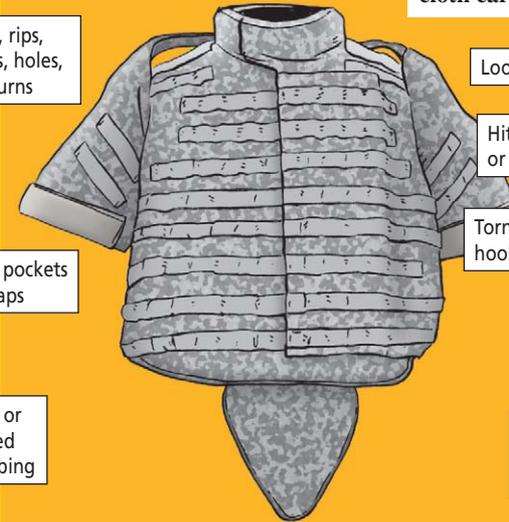
Torn or frayed webbing

You also need to inspect all **soft ballistic panels and inserts**. Look for:

Cuts, rips, tears, holes, or burns

Hits from fragmentation or small arms fire

Bunching or lumps that cannot be flattened



Depending on the amount of damage, your OTV could be repaired or replaced. Ask direct support for guidance. Turn in a badly worn or damaged OTV to your supply folks so they can determine if it's serviceable. If it isn't, they'll give you a replacement.

Damaged soft panels and inserts have had their ballistic protection weakened. So play it safe. Always turn in damaged panels and inserts for direct support assessment/replacement.

Cleaning the OTV Cloth Carriers

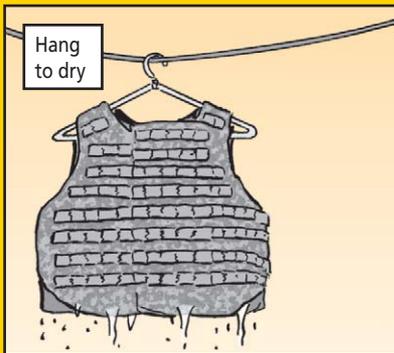
OTV cloth carriers layered with mud and grime deserve a good cleaning. Washing them now and then helps prolong their lives and makes them more comfortable to wear. Besides, the Central Issue Facility (CIF) expects you to clean the carriers before turn-in. Follow this cleaning advice:

- Use a cloth or soft brush to sweep away loose dirt from the carriers and the hook-and-loop fasteners. Never use a wire, metal or stiff-bristled brush. It'll damage the material.
- **Remove all soft ballistic panels and inserts and all small arms protective inserts (SAPI) from the carriers before washing.**
- Wet the carriers with cold or lukewarm water. Hand-wash with mild detergent, NSN 7930-00-929-1221, and a soft brush. Never machine wash. It causes too much wear and tear on the fabric.
- To clean heavy grease and oil, apply a mix of detergent and water directly on the spots and scrub with a soft brush. Repeat the cleaning if the stain is stubborn.
- After washing, rinse thoroughly in clean, lukewarm water until all traces of soap are gone.
- Hang the cloth carriers to dry. You can dry them either indoors or outdoors in the shade. Never dry them in a machine dryer or near a heater or open flame—they'll fade and shrink the fabric.

Wash by hand in mild soap and water



Hang to dry



- Do not use chlorine bleach, solvents, cleaning fluids or petroleum products to clean the carriers. They can stain, fade and weaken the fabric and shorten its life.

Cleaning the Soft Ballistic Panels and Inserts

- Use a moistened cloth or soft brush to sweep away loose dirt from the panels and inserts.
- Do not dunk the panels and inserts in water. It can damage the layers of ballistic protective fibers inside. When panels and inserts get soaked, the layers and the weave begin to pull apart or bunch up. Either way, they start to degrade. Once that happens, they start to lose their ballistic protection.

Wipe with a damp cloth.
Do not dunk in water



Never machine wash or dry clean panels and inserts. If they become wet, let them air dry flat, indoors or outdoors in the shade. Never dry them in a machine dryer. And never dry them near a heater or open flame.

- Do not use chlorine bleach, solvents, cleaning fluids or petroleum products to clean the panels and inserts.
- If they become soaked with bleach, gasoline, oil or lubricant, turn them in for assessment/replacement.

FOR MORE INFORMATION, SEE THE USE AND CARE MANUAL THAT COMES WITH THE IBA.



PS 646

THE OTV HAS A POCKET INSIDE THE BASE VEST DESIGNED TO HOLD THE MANUAL.



51

IN ADDITION TO THE USE AND CARE MANUAL, ALSO SEE CHAPTER 25 OF TM 10-8400-203-23, GENERAL REPAIR PROCEDURES FOR INDIVIDUAL EQUIPMENT.



SEP 06

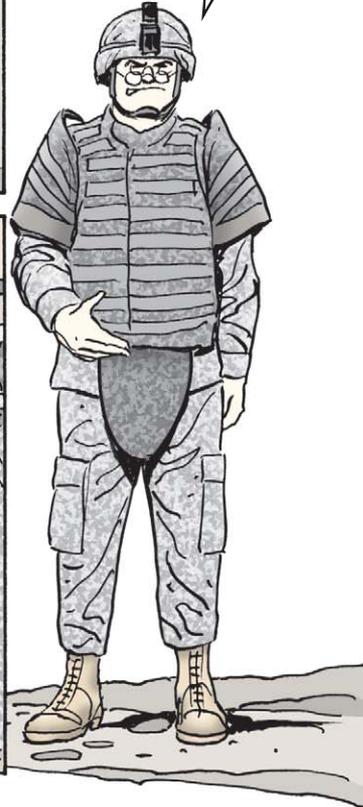
PS
END

WHAT'S IN STORE



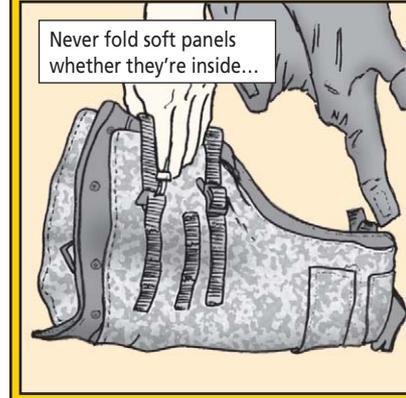
A PLACE FOR EVERYTHING AND EVERYTHING IN ITS PLACE.

THAT WISDOM HOLDS TRUE WHETHER YOU'RE GETTING YOUR AREA SQUARED AWAY OR STORING YOUR INTERCEPTOR BODY ARMOR (IBA).

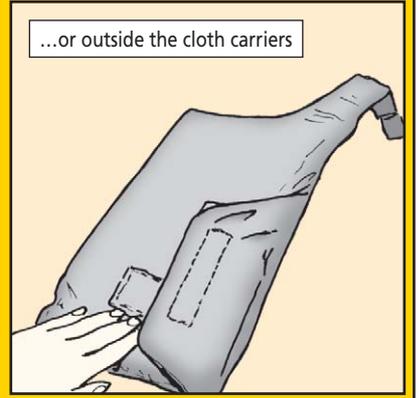


PROPER STORAGE CAN PROLONG THE LIFE OF YOUR IBA. HERE ARE SOME GUIDELINES...

• **Never** fold the soft ballistic panels and inserts to store them. That rule applies whether they're inside or outside the cloth carriers. If a soft panel or insert remains folded long enough, a permanent crease forms. That crease won't come out even if you try to lay the material flat. Layers of ballistic protective fibers start to degrade along the fold. Once that happens, the panel or insert starts to lose its ballistic protection. Also, the fold draws the fiber layers inward, decreasing the area of protective cover.



Never fold soft panels whether they're inside...



...or outside the cloth carriers



ALWAYS CLEAN AND DRY THE IBA BEFORE STORAGE. THAT MEANS ALL THE IBA, INCLUDING...

...THE **OUTER TACTICAL VEST (OTV)** AND THE **SMALL ARMS PROTECTIVE INSERTS (SAPI)**.

(The OTV includes the cloth carriers of the base vest's outer shell, yoke and collar, throat protector, groin protector, and deltoid and axillary protectors. It also includes all soft ballistic panels and inserts.)

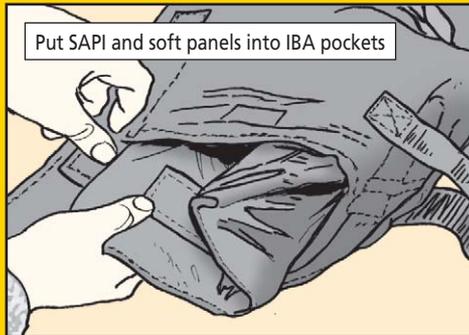
Storage Details

• Attach all components to the IBA. Put the SAPI and soft panels and inserts into the IBA pockets—just like you were going to wear them. That way you'll know exactly where everything is.

• Put the IBA in a plastic bag to keep out dirt, dust and moisture. Just don't seal the bag. It's better to give the IBA some air and to let it "breathe" during storage.

• Store the IBA as flat as possible to keep the materials (especially the soft panels and inserts) from bunching.

Another method for storage is to hang the IBA on a sturdy hanger with all SAPI and soft panels and inserts placed inside. Make your own garment bag by cutting a small hole in the bottom of a garbage bag. Then cover the IBA on the hanger. That'll help keep out dust and sand.

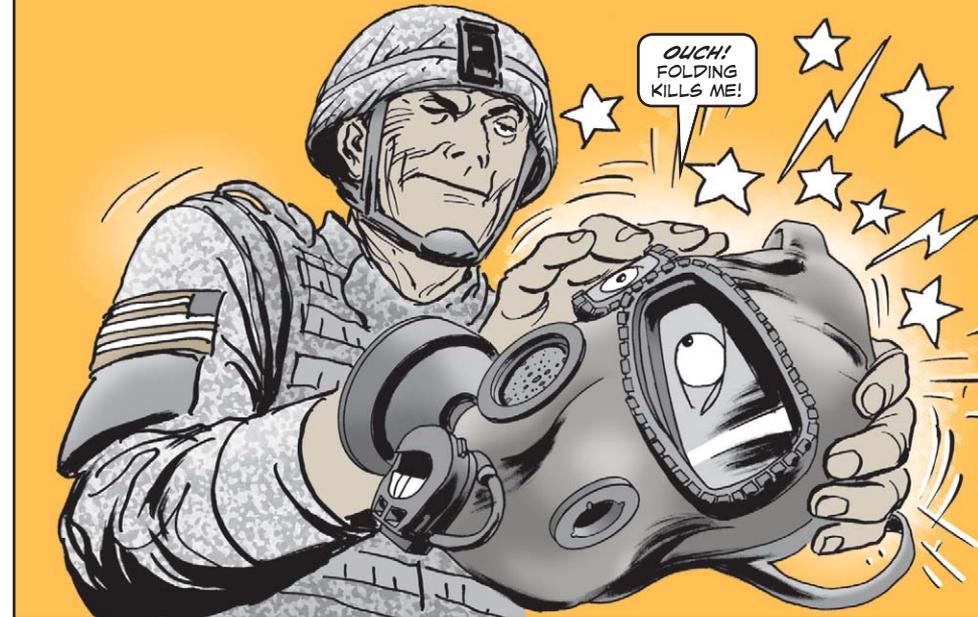


FOR MORE INFORMATION, SEE THE *USE AND CARE MANUAL* THAT COMES WITH THE IBA. THE IBA HAS A POCKET INSIDE THE BASE VEST DESIGNED TO HOLD THE MANUAL.

ALSO SEE CHAPTER 25 OF TM 10-8400-203-23, *GENERAL REPAIR PROCEDURES FOR INDIVIDUAL EQUIPMENT*.



Please Don't Fold



If you do nothing else for your M40- or M42-series masks, follow this rule: **Do not fold.**

Folding a mask to put it in its carrier usually results in the drink tube being sheared off or the facepiece being punctured. That leaves the mask NMC and cracked.

Folding also causes deformation of the facepiece and scratched and cracked eyelenses. And folding isn't a rare problem. NBC NCOs tell PS that they think as many as 50 percent of masks are stored folded.

So NBC NCOs should stress to their unit at every opportunity not to fold masks. And while you're at it, tell them not to use the mask carrier as a seat cushion or pillow and not to use the carrier to store stuff other than the mask.

When you sit or lie on the carrier, the mask will be damaged. Same thing happens when you stuff extra stuff in the carrier. The carrier is not meant to hold anything other than the mask and its accessories. Shoving extra stuff in the carrier pretty much guarantees the mask won't survive a trip to the field.

If masks aren't being used in training or combat, the best place for them is in the NBC room. Masks will survive better hung on a wall than lying at the bottom of a closet or car trunk.

HERE'S HOW TO STORE MASKS RIGHT...



M40

Stow the M40 upright in the carrier with the eyelenses facing away from your body. Do not store a canister in the face cavity. **Do not fold the mask.**



Store masks upright with eyelenses facing away from body

Never use an M42 carrier with an M40 mask. The larger M42 carrier could let the M40 mask twist itself out of position and get damaged.

M42 carrier is too large for M40



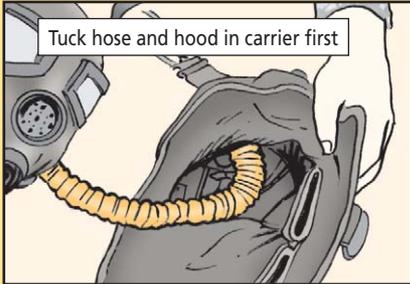
M42



M40

M42

1. Stick the canister in the carrier first with the armor quick disconnect coupling completely through the carrier's side opening.
2. Tuck as much as possible of the hose and hood into the carrier.



Tuck hose and hood in carrier first

3. Fold the rest of the hose inside the facepiece.
4. Put the mask in the carrier upright with the eyelenses facing away from your body. **Do not fold the mask.**



Mask upright, lenses facing away?

FOR MORE INFO, SEE PAGES 2-112 OR 2-122 IN TM 3-4240-346-10.



PS END

FED LOG Appearance Changes

FED LOG PUTS ON A NEW FACE FOR USERS THIS MONTH WHEN IT CHANGES THE APPEARANCE OF ITS INTERFACE SCREENS.



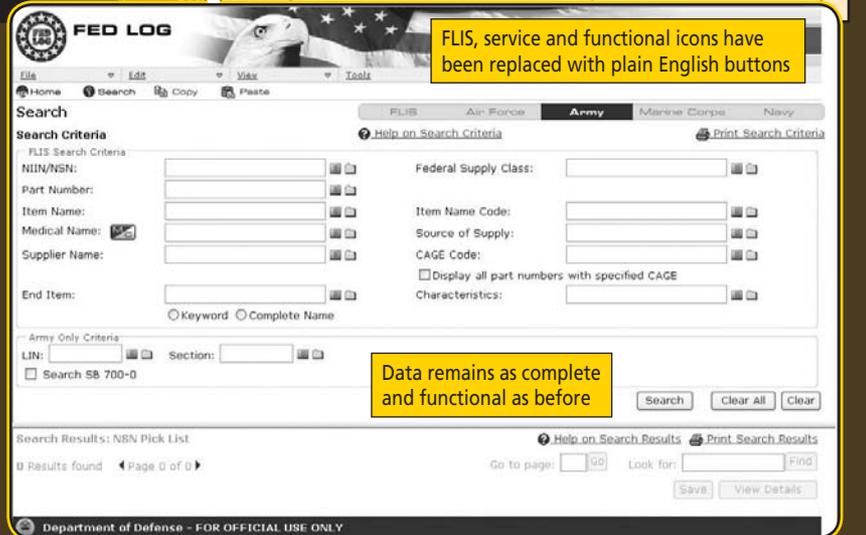
THE NEW SCREENS ARE EASIER TO VIEW AND USE!



THE CHANGES REPLACE THE ICON MENU BAR WITH PLAIN LANGUAGE LABELS IN A CLEAN MODERN LAYOUT MAKING THE INTERFACE MORE VISUALLY ATTRACTIVE AND USER FRIENDLY.



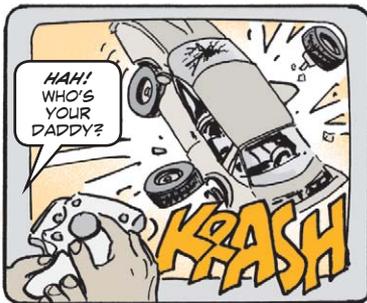
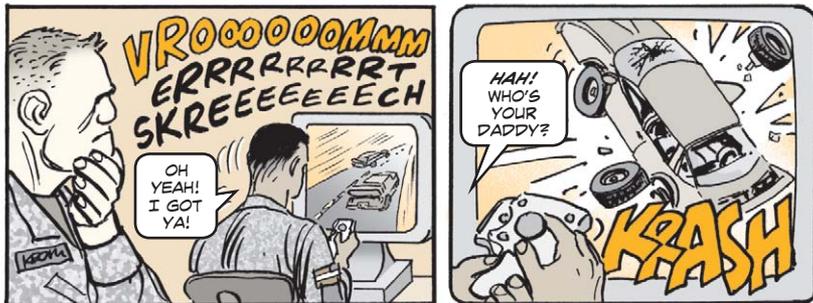
FROM SEPTEMBER THROUGH OCTOBER USERS WILL HAVE THE OPTION OF USING THE NEW OR THE OLD SCREENS. ONLY THE NEW SCREENS WILL BE AVAILABLE THEREAFTER.



FLIS, service and functional icons have been replaced with plain English buttons

Data remains as complete and functional as before

ONLINE DRIVER'S COURSE FILLS NEED



Mmilitary and civilian drivers of Army vehicles must complete the online Accident Avoidance Course through the Army Learning Management System.

The course fulfills the requirement under ARs 385-55 and 600-55 for each driver to receive refresher training every four years.

The course teaches awareness skills and motivates drivers to reduce accidents and improve Army readiness.

The course takes just 90 minutes and is a worthwhile refresher.

To take the course, log on to the Combat Readiness University:
<https://safetylms.army.mil>

Click here for a copy of this article to save or email.



Cab Cracks Make M939 NMC

TACOM GPM 06-005 gave inspection criteria for stress cracks in the cab structure of armored M939-series 5-ton trucks in paragraph 3-B. These inspections no longer apply because now any crack makes your M939 NMC. See TACOM GPM 06-009 for more guidance on cab cracking:
<https://aeps2.ria.army.mil/commodity/pubs/tacom/bulletin/cab-crack-repair-2.pdf>

DOD Maintenance Awards

Red River Army Depot won the 2006 DOD Maintenance Award for its HMMWV RECAP work. The 297th Trans Co., Ft Hood, TX, won in the medium-sized unit category. At the Army depot level, winners of Shingo Prizes for Excellence in Manufacturing were Rock Island Arsenal-gold prize for its Forward Repair System; Letterkenny AD and Red River AD-silver prize for the HMMWV; and Tobyhanna AD-bronze prize for the AN/TPS-75 radar system.

FMTV Tire Chain Update

Tire chain assembly, NSN 2540-00-933-9033, is no longer authorized for your FMTVs, so don't use these chains. Use NSN 2540-01-483-2930 or NSN 2540-01-492-2989 instead. Remember, once the chains are installed, CTIS must be in highway mode. And don't exceed the maximum speed limits of 10 mph on highway and 15 mph off highway.

HMMWV ENGINE OIL PRESSURE CHANGES

The current engine oil pressure requirements in all HMMWV national maintenance work requirements (NMWRs) and technical manuals have been revised. Operating oil pressure requirements for engine rpm above idle should be changed from 40-50 psi to 30-50 psi and 40 psi should be changed to 30 psi. Minimum oil pressure at idle will remain 10 psi. Make a note until updates are made.

HMMWV TIRE CHAIN

NSN 2540-01-530-6341 gets an improved tire chain for the HMMWV. This new "alloy all-square pattern" chain is made by PEWAG. It's easier to install or dismount, gives a smoother ride, has a self-tensioner, and lasts longer than the present twist-lock, ladder-style chain.

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

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