

PS

THE PREVENTIVE MAINTENANCE MONTHLY

ISSUE 746 JANUARY 2015



COMBAT VEHICLES

Operator's Manuals Mandatory
M88-Series Recovery Vehicle, Order Shoes Individually
Bradley BUSK Battery Replacement, Charging
Mine Plows, Rollers, Mounting Kits Reported Monthly
M113A3 FOV IETM Available



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FMTV Security Chain Position
HEMTT A1/A2/A4 TMs
HEMTT Rear Axle Popping Explanation
FMTV, Lunette Trailer Hook Guidance
HIMARS Cab Sling NSN
HMMWV 4L80E Transmission Troubleshooting



CCE/MHE VEHICLES

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Backhoe Loader Tire and Wheel NSNs
HYEX Fuel Filter Service Interval Updated



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M134 Mini-gun Barrel Bolt Changes
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GCS-Army Reminder

TB 43-PS-746, 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. The use of product or company names does not constitute endorsement of those products, services or companies by the U.S. Army. The use of non-DoD hyperlinks, along with their content, does not constitute endorsement by DoD or DA. Neither DoD nor DA exercises any editorial control over, and cannot vouch for, content on non-DoD websites.

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RAYMOND T. ODIERNO

General, United States Army Chief of Staff

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GERALD B. O'KEEFE

Administrative Assistant to the Secretary of the Army

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Issue 746

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January
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THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-746

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**2014
INDEX
PAGES
27-34**

HAPPY NEW
YEAR, JONESY!
DIDJA COME UP
WITH A LIST OF
RESOLUTIONS?

January 1st, 2015 10:06 AM

RESOLUTIONS FOR 2015...

1. READ PS MAGAZINE.
2. USE EQUIPMENT TMs.
3. DO PMCS RIGHT.
4. FOLLOW UNIT
MAINTENANCE SOP



PS

THE
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MAINTENANCE
MONTHLY

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General, United States Army Chief of Staff

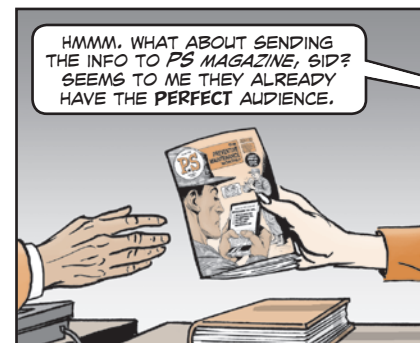
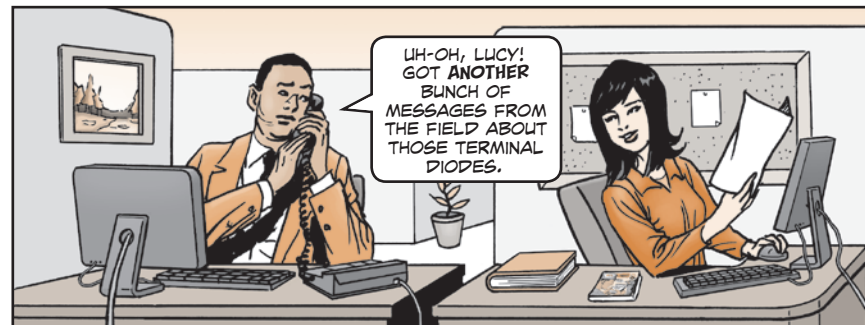
Official:

GERALD B. O'KEEFE

Administrative Assistant to the Secretary of the Army

1430901

HELP US HELP SOLDIERS!



Like most of the Army, *PS* has been hit by budget cuts. Unfortunately, that has limited our TDY trips and hampered how we've researched articles for more than 63 years. Visiting units was how we kept up-to-date on equipment problems.

Now we need to "think outside the TDY box" to keep articles flowing. To do that, we invite Soldiers, DACs and Army contractors to continue sending in their great ideas. But we also want to nudge the go-to folks who help answer many of our readers' questions.

Are you a subject matter expert on specific Army equipment or systems, in charge of an official publication, or perhaps an item manager who knows the quirks, repair or supply issues that come with a particular item?

Could the frequently asked questions you get from the field be reduced by publishing that information in *PS Magazine*, an official technical bulletin that reaches thousands of Soldiers worldwide? If so, send us your ideas and we'll take it from there. Knowledge is power, so help us keep our Army strong. **HOOAH!**

Send your article ideas to: usarmy.redstone.logsa.mbx.psmag@mail.mil

PS COMBAT VEHICLES



It helps to keep your vehicle running when you use your TMs. Other stories include ordering M88 track, caring for Bradley Busk batteries, reporting on M1 tank mine clearing equipment, and a new M113 TM has been released.

Combat Vehicles...

Give Your Vehicle the Gift of a TM

I KNOW I'VE DONE PMCS ON YOU A HUNDRED TIMES...

...BUT I CAN NEVER REMEMBER ALL THE STEPS!

AND I'VE TOLD YOU A HUNDRED TIMES...

...YOU NEED TO HAVE A COMPLETE TM!

Dear Editor,

A lot of units have been showing up at the National Training Center at Ft Irwin without complete operator TMs for their vehicles. Sometimes they don't even have a TM at all!

It seems many Soldiers believe TMs are only available in digital format. Many have spent their own funds getting manuals printed at local print shops. Because that's so expensive, they often skimp by only printing out the PMCS portion of the TMs. That's not good enough because the entire TM is needed so operators can refer to safety and vehicle operation instructions.

Units can still order hard copies of most TMs at no cost by establishing a pubs account with the Army Publication Directorate (APD).

Set up the account by filling out and sending a DA Form 12-R, *Request For Establishment of a Publications Account*, by fax to the Account Processing Team at DSN 693-9620 or (314) 592-0920. You'll find instructions for setting up your pubs account at:

<http://www.apd.army.mil/Orders/EstablishAccount.pdf>

Derek McCrea
TCM-ABCT
Ft Benning, GA

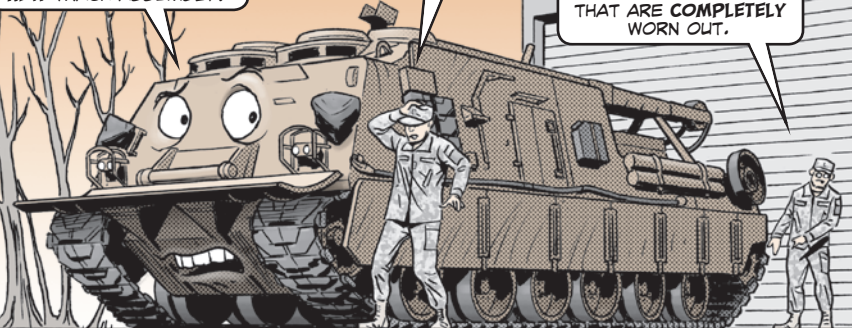
Editor's note: Thanks for the reminder, Derek. Pubs clerks, once you have a pubs account, you can order TMs (and PS Magazine) for your unit through the Point and Click Ordering System at: <https://dol.hqda.pentagon.mil/ptclick/index.aspx> Once there, click on Search and enter the info for the pub you want to order.

ORDER TRACK SHOES INDIVIDUALLY

I HAVE A TRACK SHOE THAT'S GETTING KINDA **WORN**. I THINK I'M GONNA NEED A WHOLE NEW TRACK ASSEMBLY!

A WHOLE TRACK? THAT SOUNDS KINDA EXPENSIVE!

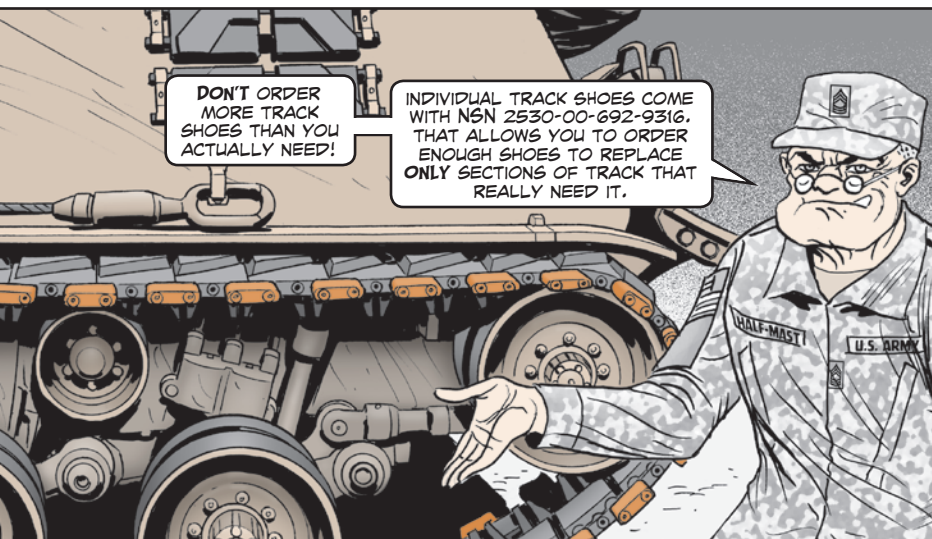
YOU BET IT IS! THAT'S WHY YOU SHOULD **ONLY** REPLACE SECTIONS OF TRACK THAT ARE COMPLETELY WORN OUT.



Dear Half-Mast,

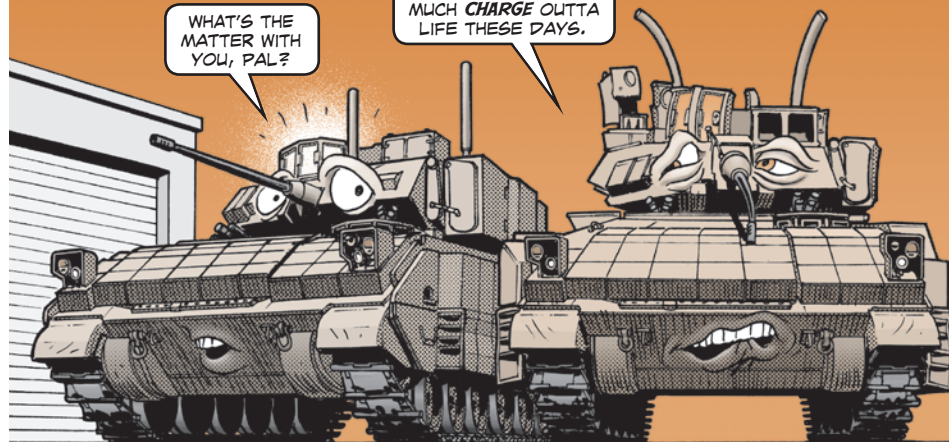
Is there is an NSN for a full track assembly for the M88A1 and M88A2 recovery vehicles? It seems like it would be a lot easier to order a full track assembly instead of individual sections.

SSG A.J.



WHAT'S THE MATTER WITH YOU, PAL?

I DUNNO!
I'M NOT GETTIN' MUCH **CHARGE** OUTTA LIFE THESE DAYS.

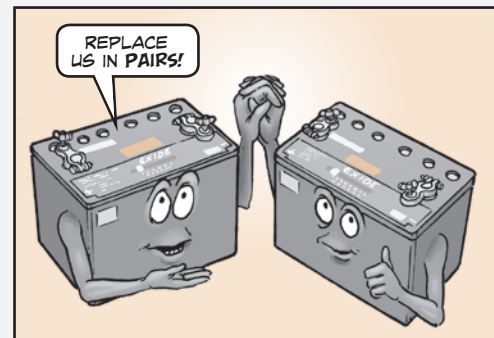


CHARGE UP BATTERY CARE

Crewmen and mechanics, you might have noticed that the Exide maintenance-free batteries, NSN 6150-01-582-5710, used in Bradleys with the Bradley Urban Survivability Kit (BUSK 3) modification can go bad in a hurry. Some units are ordering so many replacement batteries that the supply system's coming up short.

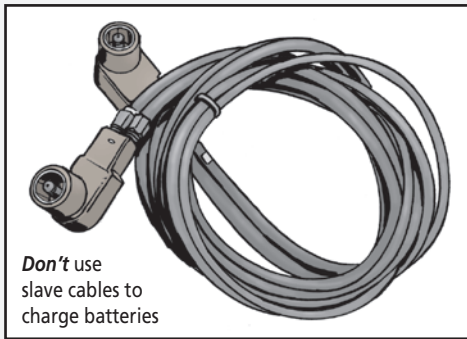
Check out these tips to extend battery life and save your unit lots of money:

1. Don't replace all eight batteries if one goes bad. At \$265 each, that adds up in a hurry! Instead, replace only the dead battery and the battery it's paired with. Test batteries with a battery analyzer. New batteries should have an open circuit voltage (OCV) of at least 12.80 volts direct current (VDC). The VDC should be at least 12.60 for batteries that have been charged before.
2. Before replacing a bad battery or battery pair, try recharging. Use the battery charger, NSN 6130-01-500-3401, specified in TM 9-2350-403-13&P and TB 9-2350-395-13&P. It's part of the standard automotive tool set (SATS). Batteries should be on the charger at least four hours before determining if they should be replaced.

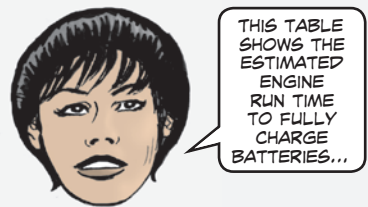


3. Partially-charged batteries that sit around for extended periods of time won't last as long. So keep 'em charged up. Just don't try to charge the batteries with another vehicle by using the NATO slave receptacle. That won't work with the Bradley's complex electrical distribution system.

4. If you're going to charge batteries on board by running the engine, first check each battery's OCV to estimate its state of charge (SOC).

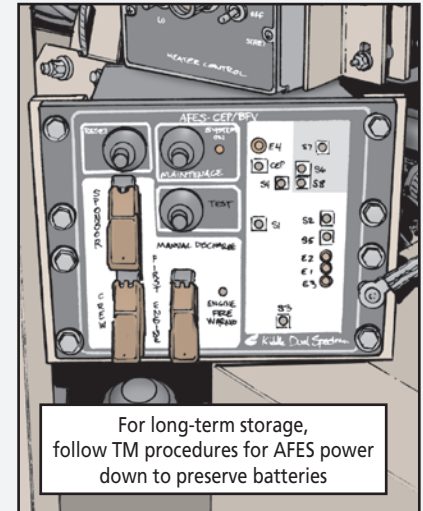
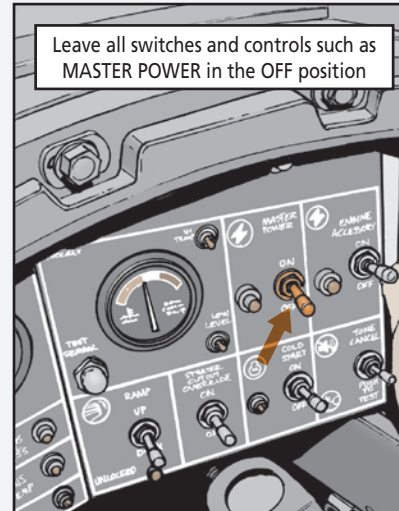


Single battery (CDC)	Battery pair (VDC)	SOC (percent)	Approximate charging time (hours)
12.80	25.60	100	No charge needed
12.60	25.20	75	0.9
12.30	24.60	50	1.9
12.00	24.00	25	2.9
11.00	22.00	0	4.0

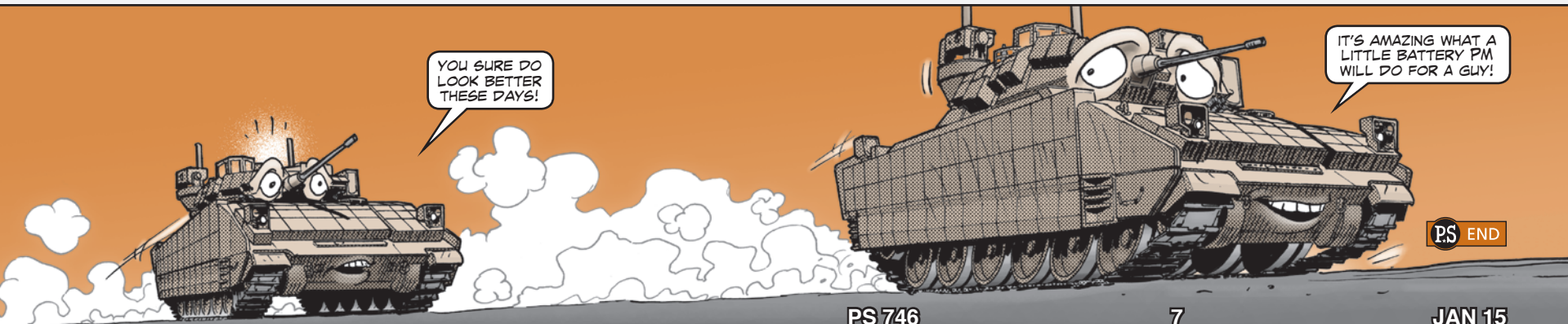


5. If batteries fall below 12.60 VDC, remove them from the vehicle and put them on a charger for 24 to 48 hours. Don't attempt to charge more than eight batteries at a time on the same charger.
6. If a charging attempt fails after 48 hours, tag the battery and turn it in to the Brigade Battery Maintenance Management Program (BMMP). Note on the tag how many hours the battery was left on the charger. If the batteries were new, be sure to also submit an SF 368, *Product Quality Deficiency Report (PQDR)*. The best way to submit an SF 368 is online at: <https://www.pdrep.csd.disa.mil>
Click on [EZ PDR Login](#) and follow the steps.

Remember, you can avoid a lot of battery problems by always shutting down your vehicle like it says in the -10 TM. Leaving the MASTER or TURRET POWER switches in the ON position at shutdown or not powering down the AFES properly before long-term storage can drain the batteries. Leave all switches and controls in the OFF position before securing the vehicle.

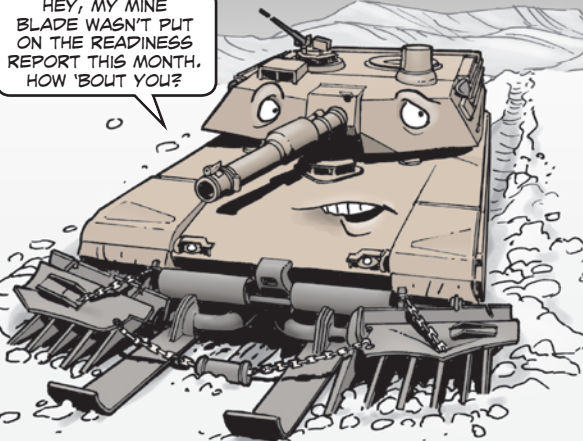


For more details on caring for your vehicle's batteries, check out TACOM maintenance information message 14-044 on the TACOM-Unique Logistics Support Applications (TULSA) website:
<https://tulsa.tacom.army.mil/Maintenance/message.cfm?id=MI14-044.html>
You'll need your CAC and first-time users must first request access.
Questions? Contact TACOM's Barry Tabron at DSN 786-2650, 586-282-2650 or email: barry.j.tabron.civ@mail.mil

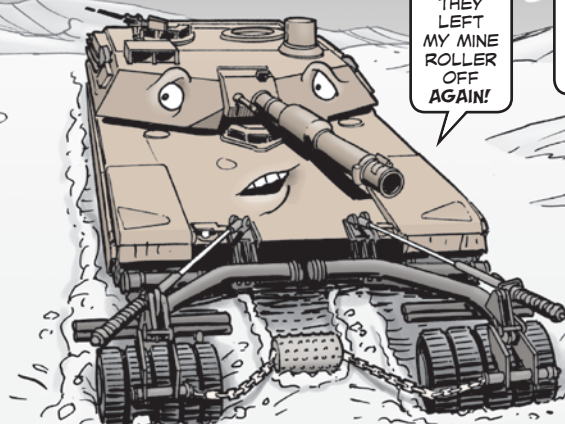


REPORT MINE CLEARING EQUIPMENT MONTHLY!

HEY, MY MINE
BLADE WASN'T PUT
ON THE READINESS
REPORT THIS MONTH.
HOW 'BOUT YOU?



NOPE.
THEY
LEFT
MY MINE
ROLLER
OFF
AGAIN!



IF YOU **HAVEN'T** BEEN
REPORTING YOUR UNIT'S MINE
CLEARING BLADES, ROLLERS
AND ROLLER MOUNTING KITS,
START NOW! IT'S REQUIRED
BY AR 700-138.



Loading your unit's mine clearing blades, rollers and roller mounting kits into SAMS-E and listing them on your unit's monthly Army Material Status System (AMSS) report is required by AR 700-138, Army Logistics Readiness and Sustainability.

It's vital information for the Army to have so it knows the readiness of that equipment.

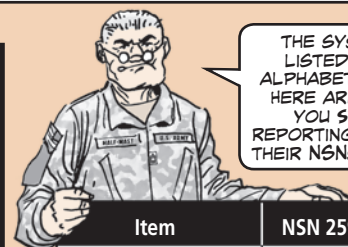
Mine clearing blades, rollers and roller mounting kits should be included in the table of reportable items the next time AR 700-138 is updated. But the Logistics Support Activity (LOGSA) puts out an updated list twice a year on LIW.

Here's how to get the list

1. Login to LIW:
<https://liw.logsa.army.mil/>
2. At the bottom of the page, click on App Warehouse.
3. Scroll down to the LIW RSRCs app and click on Go to Application.
4. Scroll down and click on Maintenance Master Data File.

to download and print:

5. Click on Download the... MMDF as a single file and/or Readiness Reportable Item Listing.
6. Click on the B1(date).xls file to access the current list of readiness reportable ground equipment (systems and stand-alone items). The file's date will change each time it's updated.



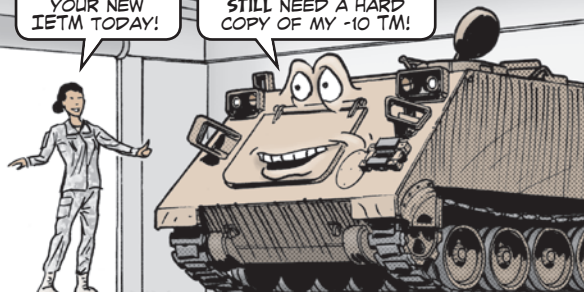
THE SYSTEMS ARE
LISTED BY LIN IN
ALPHABETICAL ORDER.
HERE ARE THE ITEMS
YOU **SHOULD** BE
REPORTING, ALONG WITH
THEIR NSN AND LINS...

Item	NSN 2590-	LIN
Mine clearing blade	01-230-8862	B71632
Mine roller kit	01-134-3724	M71632
Mine roller mounting kit	01-235-5458	M18157

M113A3 FOV IETM Available

GOOD NEWS!
I ORDERED
YOUR NEW
IETM TODAY!

THAT'S GREAT! BUT
DON'T FORGET YOU'LL
STILL NEED A HARD
COPY OF MY -10 TM!



Operator, maintenance and parts manuals for the M113A3 FOV have been combined in TM 9-2350-277-13&P (IETM EM 0321, Oct 14). The new IETM is available through the Army Publications Directorate (APD).

Set up an account by faxing a completed DA Form 12-R to APD's Account Processing Team at DSN 693-9620 or (314) 592-0920. Instructions for setting up an account are at:

<http://www.apd.army.mil/Orders/EstablishAccount.pdf>

Once your account is set up, order the IETM through the Point and Click Ordering System at:

<https://doi.hqda.pentagon.mil/ptclick/index.aspx>

To order, click Search and fill out the form on the next webpage.

Remember, even though the new IETM includes operator maintenance, you'll still need to keep a hard copy of TM 9-2350-277-10 (Mar 12) with your vehicle.

PS TACTICAL VEHICLES



Read about FMTV security, HEMTT TMs, HEMTT clutch plate popping, FMTV trailer connections, and HMMWV transmissions.

PS 746

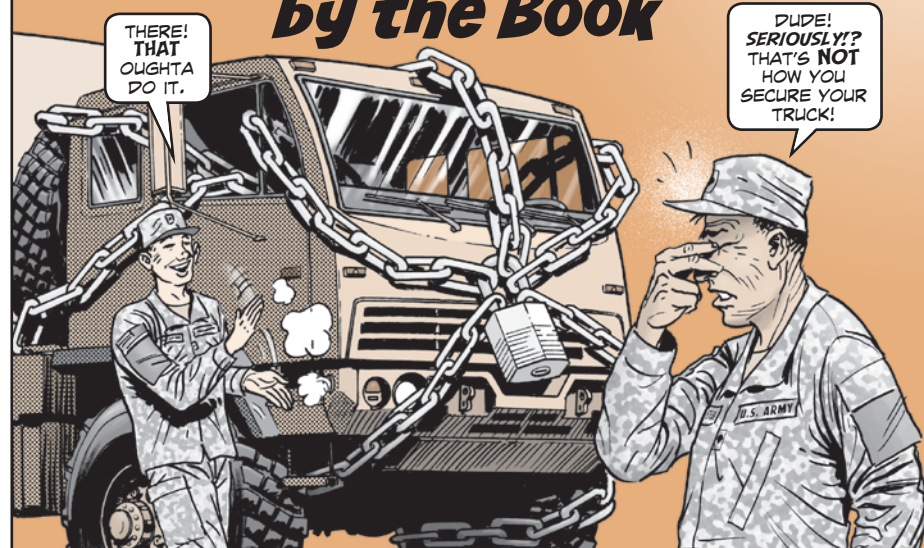
10

JAN 15

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

FMTV...

Secure Your Truck by the Book



Drivers, whenever you need to secure your FMTV, follow the guidance in your vehicle's -10 TM. Then you can install the chain and lock the correct way and avoid damaging the wiring harness and turn signal lever.

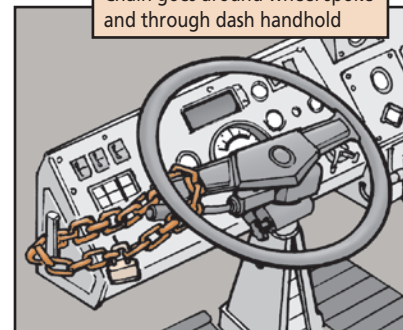
The right way to secure your unit's -A0 and -A1 FMTVs starts on Page 2-162 of TM 9-2320-365-10 (Jun 98, w/Ch 2, Aug 05) for 5-tons and Page 2-240 of TM 9-2320-366-10-1 (Sep 98, w/Ch 2, Aug 05) for 2 1/2-tons. For the FMTVAIP2 LTAS, the guidance starts on Page 0019-24 of TM 9-2320-333-10-1.

For these trucks, the chain is routed around a steering wheel spoke and through the dash-mounted handhold, then locked.

If you loop the chain around the wheel and steering column, you can damage the wiring harness. And using the chain as a handhold when you get into the cab can damage the turn signal lever.

So make sure you install the chain and lock correctly. Then use the handholds to get in and out of the cab.

Chain goes around wheel spoke and through dash handhold



PS 746

11

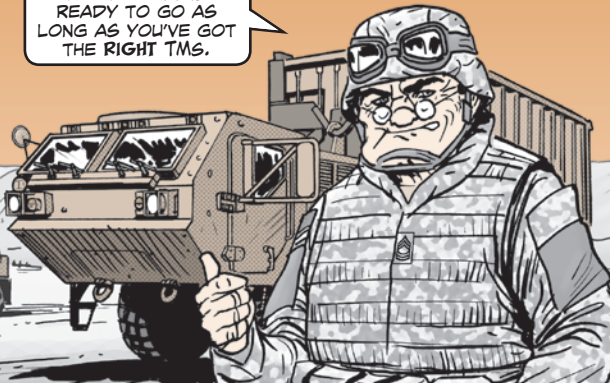
JAN 15

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

HEMTT Base/A1/A2/A4 Models...

TMS KEEP 'EM RUNNING

YOUR HEMTT IS
READY TO GO AS
LONG AS YOU'VE GOT
THE RIGHT TMS.



HERE ARE
LISTS OF
ALL
THE TMS
THAT
SUPPORT
THE HEMTT'S
BASE, A1
AND A2
MODELS...

HEMTT Base/A1	
IETM	TM 9-2320-279-14&P (EM 0290)
Hand receipt	TM 9-2320-279-10-HR
M977 cargo	TM 9-2320-428-10
M978 tanker (w/ and w/out winch)	TM 9-2320-429-10
M983 tractor	TM 9-2320-430-10
M984A1 wrecker (Volumes 1 & 2)	TM 9-2320-431-10-1 TM 9-2320-431-10-2
M985 cargo (w/ and w/out winch)	TM 9-2320-432-10
M985 guided missile transport	TM 9-2320-433-10
M1120 load handling system	TM 9-2320-434-10
M1977 common bridge transporter	TM 9-2320-435-10

HEMTT A2	
IETM	TM 9-2320-325-14&P (EM 0289)
Hand receipt	TM 9-2320-325-10-HR
M977A2 cargo	TM 9-2320-347-10
M978A2 tanker	TM 9-2320-348-10
M983A2 tractor	TM 9-2320-349-10
M983A2 light equipment transporter	TM 9-2320-420-10
M984A2 wrecker (Volumes 1 & 2)	TM 9-2320-421-10-1 TM 9-2320-421-10-2
M985A2 cargo (w/ and w/out winch)	TM 9-2320-422-10
M985A2 guided missile transport	TM 9-2320-423-10
M1120A2 load handling system	TM 9-2320-424-10
M1977A2 common bridge transporter	TM 9-2320-425-10

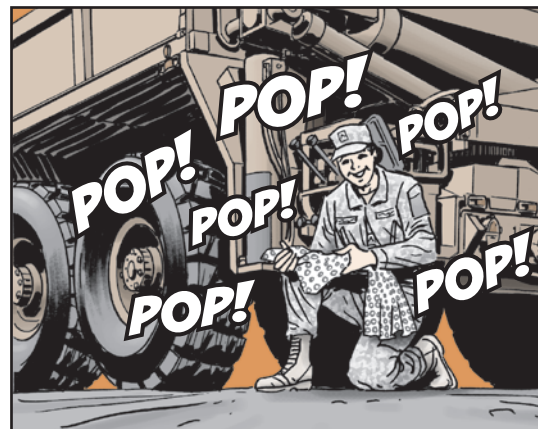
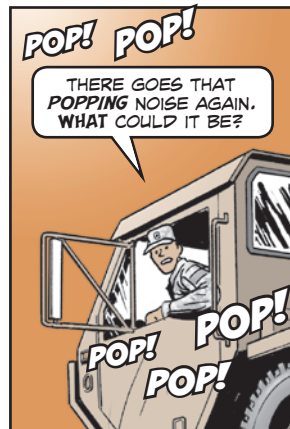
...AND THIS
LIST SHOWS
ALL THE
TMS THAT
SUPPORT THE
A4 MODEL
HEMTT.



HEMTT A4	
IETM	TM 9-2320-326-14&P (EM 0288)
Hand receipt	TM 9-2320-326-10-HR
M977A4 cargo (w/ and w/out winch)	TM 9-2320-338-10
M978A4 tanker	TM 9-2320-339-10
M983A4 tractor	TM 9-2320-340-10
M983A4 light equipment transporter	TM 9-2320-341-10
M984A4 wrecker (Volumes 1 & 2)	TM 9-2320-342-10-1 TM 9-2320-342-10-2
M985A4 cargo (w/ and w/out winch)	TM 9-2320-343-10
M985A4 guided missile transport	TM 9-2320-344-10
M1120A4 load handling system	TM 9-2320-345-10
M1977A4 common bridge transporter	TM 9-2320-346-10

HEMTTs...

POP GOES THE AXLE!



Have you noticed a loud popping noise coming from the rear of your HEMTT whenever you turn a corner? No, you didn't just run over a big roll of bubble wrap!

That noise is coming from the vehicle's rear axles. The outer wheels have to rotate faster than the inner wheels when making a turn. As torque builds up between the clutch plates in the differential, the plates "pop" to help release torque pressure.

So rest easy when you hear the pops. No harm, no foul.

Give Bent Hooks the Hook

BLIMEY, CAP'N! WHAT HAPPENED TO YOUR HOOK?

ARR...A SOLDIER TOOK IT, MATEY! SAID IT WAS JUST RIGHT FOR THE SAFETY CHAIN ON HIS TRAILER, HE DID.



Dear Editor,

Could you pass the word that the hooks on trailer safety chains should *never* be bent to fit the shackles on the back of FMTVs?

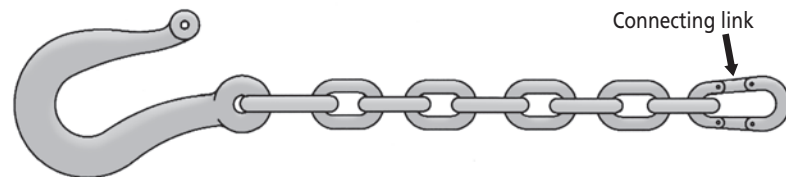
You had the word on Pages 10-11 of PS 721 (Dec 12) about using larger hooks and extensions for the chains. Unfortunately, we're still seeing bent hooks in the field.

Cindy Heyden
Equipment Specialist
TACOM LCMC

Editor's Note: Can do, Ma'am! But first a little history: The FMTV manufacturer increased the size of the truck's tow shackles to meet new air transport and rail tie-down requirements. When this happened, the tow shackles fit the size and weight of the FMTV trailer, but not the smaller hook size of the lunette trailers that FMTVs sometimes tow.

Instead of forcing a fit by bending the open hooks, follow these steps to ensure the right fit:

1. Cut the existing chain five inches from the frame.
2. Discard the old hook and excess chain.
3. Attach a new chain assembly, NSN 4010-01-169-6995, to the existing chain using the connecting link that's attached to the end of the assembly.
4. Cross the safety chain under the trailer tongue. Then pull the end of the chain and eye or clevis end of the hook toward each other.



And here are a few special reminders:

When attaching to a truck that has no extended pintle, you'll need to shorten the trailer safety chains so they don't drag or get caught on brush or commo wire. Try using zip ties or bungee cord to take up the extra slack.

If you have an M105A3, M101A2/A3, or a lunette trailer with a surge brake device, you must adjust the length of the breakaway cable/chain. Make it a bit shorter than the safety chains. Then if the trailer disconnects from the tow pintle, the breakaway cable/chain will fully actuate the trailer brakes before the slack in the safety chains is taken up.

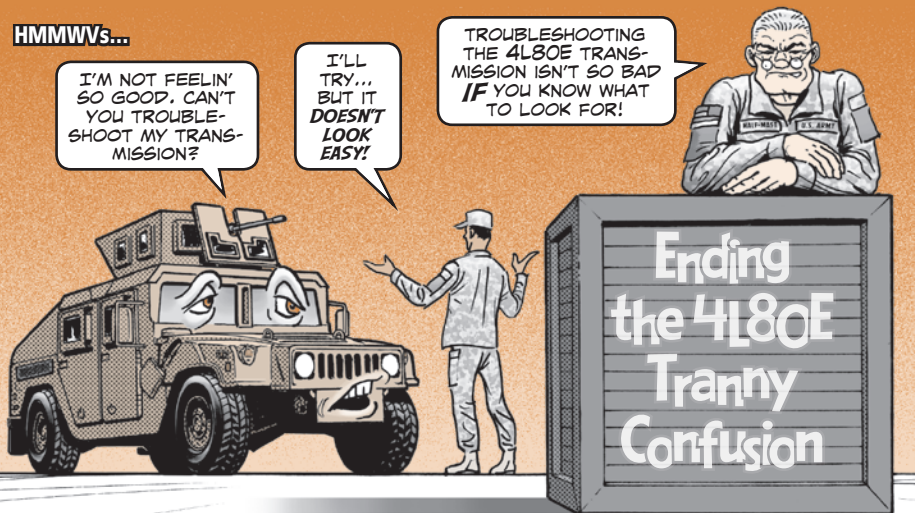
Consider this the latest and greatest guidance.



New HIMARS Cab Sling

The M142 HIMARS has a new increased crew protection (ICP) cab web sling for lifting the cab off the truck. NSN 3940-01-630-8470 (PN 5000-1174) replaces the old sling, NSN 3940-00-276-9165 (PN FDC-8514-2). The new sling will be added to the AAL at the next revision of TM 9-2300-310-14&P in IETM EM 0258. A new safety latch kit, NSN 4030-01-630-7855 (PN 4000-306), for the new sling will be added, too.

HMMWVs...

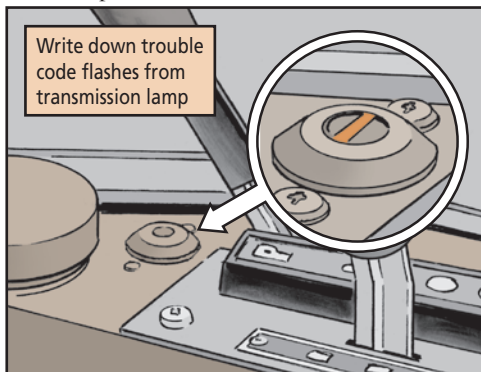


Mechanics, if you're confused by all those codes when it's time to troubleshoot the 4L80E electronic transmission in a HMMWV, read on. We've got a few tips that'll cut through the confusion and save you a lot of troubleshooting time.

Before You Start

Before you get started, remember these tips:

- Write down the trouble codes from the vehicle's transmission control module (TCM) as they flash over the transmission lamp located next to the shift lever. Remember, codes 12 and 63 will always appear and should be disregarded. Next, clear the codes and road test the vehicle. Then check to see which trouble codes still show up. That eliminates false codes and saves troubleshooting time.
- Check all transmission sensor connections. Most problems are caused by loose or corroded wiring connections. After checking the connections, clear the trouble codes and road test the vehicle to see if that clears up the trouble.
- When multiple codes are reported by the computer, always troubleshoot the lowest code first and then work your way up. The higher-numbered codes are sometimes the result of the lower-numbered codes. So if you fix the lower codes first, you'll often find some of the higher codes will disappear.



Before Changing the Transmission



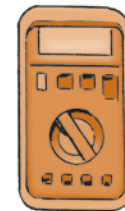
- Make sure you have all of the proper diagnostic test equipment needed. That includes a multimeter, the throttle positioning sensor (TPS) block gauge, NSN 4820-01-179-4869, and the special purpose tool kit, NSN 5180-01-410-8467. This kit includes the following:

Item	NSN
Diagnostic switch cable	6150-01-410-8215
TPS cable	6150-01-412-7774
Seal installer*	5120-01-414-1849
Seal installer*	5120-01-437-0480
Drive handle*	5120-01-026-1666

*These items are not required for diagnostic testing.

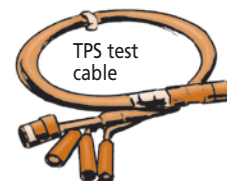
Get special tools for testing

Diagnostic switch cable



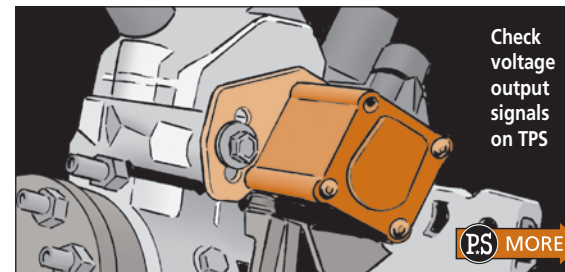
Multimeter

TPS block gauge



TPS test cable

- If you've never worked with this type of transmission, consult with your maintenance supervisor or TACOM LAR to get the help you need.
- If the truck's batteries have been serviced or replaced, it's important to properly reconnect the two power wires for the transmission control module (TCM). Do it wrong and the TCM gets 24 volts instead of the required 12. That burns up the TCM.
- Eyeball the transmission relay harness, which is located next to the batteries. If this harness ends up on top of the panel that separates the batteries and the relays, it may get cut when the passenger's seat is taken out and put back in. This will result in a no-shift mode and the transmission will be unable to change gears.
- Check the TPS voltage output signals. The TPS is used to send a signal to the TCM letting it know when to shift. The TPS may need to be adjusted or replaced.



A training video, *HMMWV A2 Electronic 4-speed Transmission*, is also available. The video focuses on the transmission's electronic component locations, functions and interactions and includes a section on common problems for diagnostic test codes.

You can order the video from the Defense Imagery website at:

<http://www.defenseimagery.mil/index.jsp>

If this is your first visit, you'll need to register your CAC card by clicking on REGISTER at the top of the page. Once that's completed, click LOGIN and confirm your certificate.

In the Search block, enter **711363** and deselect all of the result types except **A/V and IMI Products**. Click **SEARCH**.

On the next screen, click on the video's title. Then click Add Production to Cart. At the top of the screen, click on the SHOPPING CART, and follow the instructions. Once ordered, you'll receive an email confirmation and the DVD will be mailed to you within a week or so.

Enter Search Terms:
711363

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Search Results Summary

SUMMARY STILL MOTION A/V (1) IMI (0) SITE

Searched for 711363 in A/V and IMI

Audio/Visual Productions - 1 result

HMMWV A2 ELECTRONIC 4-SPEED TRANSMISSION
PIN: 711363 Completion Date: 07-APR-00

Click on video's title

RY.MIL

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A/V Production Details

RETURN TO SEARCH RESULTS

HMMWV A2 ELECTRONIC 4-SPEED TRANSMISSION

PIN: 711363

Description: PROGRAM FOCUSES ON THE ELECTRONIC ASPECT OF THE TRANSMISSION. IT REVIEWS ALL OF THE ELECTRONIC COMPONENTS LOCATION, FUNCTION, AND INTERACTION. THERE IS ALSO A SECTION ON COMMON PROBLEMS FOR DIAGNOSTIC TEST CODES.

Date of Completion: 07-APR-00

Primary Audience: UNCLASSIFIED

Public Clearance: NOT CLEARED FOR PUBLIC EXHIBITION/SALE

Length: 027 MIN 09 SEC

Delivery Mediums: DVD VHS VIDEO

*Add Production to Cart

First click Add Production to Cart...

...then click Shopping Cart

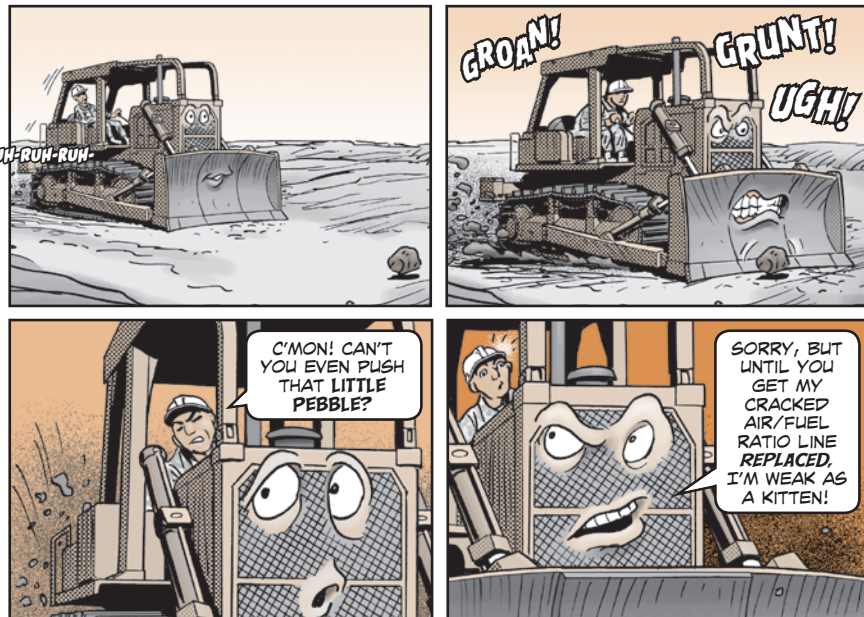
IT ONLY TAKES A FEW CLICKS... AND THEN YOU'RE ALL SET!



PS CONSTRUCTION



FUEL LINE CRACK TAKES THE BULL OUT OF DOZER



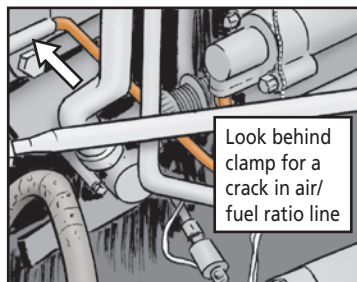
Operators, your dozer sounds and runs fine, but falls flat on its nose when you push a load. What gives?

It could be a crack in the air/fuel ratio line that mounts into the fuel injector pump. Due to the age of the dozer and vehicle vibration, this line sometimes cracks where it's mounted to the engine block by a small bracket.

The crack is usually in the part of the line that's covered by the bracket, so you won't see it. The only way to tell if this is the cause is to have your mechanic remove the bracket so he can eyeball the line.

Any crack in that line means the engine loses turbo boost pressure that's sent to the air/fuel ratio valve. When this happens, the fuel injector pump can't meter the increased fuel that's required to push the load.

If your dozer runs fine until it's under a load, have your mechanic come in for a quick look-see. He can replace the line with NSN 4710-01-253-7056. Then your dozer will run like new!



Dear Half-Mast,
I need new tires for my backhoe loader (BHL). Can you tell me the NSN for the tire and wheel assembly?

SFC J.M.K.

UNLIKE **MOST** EQUIPMENT, SERGEANT, THE BHL DOES NOT HAVE A TIRE AND WHEEL ASSEMBLY.

INSTEAD, YOU'LL NEED TO ORDER THE TIRE AND WHEEL **SEPARATELY** AND PUT THEM TOGETHER YOURSELF.

GET THE **FRONT TIRE** WITH NSN 2610-01-627-2155. NOTE THAT THAT'S A REPLACEMENT FOR NSN 2610-01-533-0485, WHICH IS CURRENTLY SHOWN AS ITEM 2 IN FIG 60 OF TM 5-2420-231-24P (JUN 13).

THE **FRONT WHEEL**, SHOWN AS ITEM 5 IN FIG 60, COMES WITH NSN 2530-01-623-3528.

INSTRUCTIONS FOR INSTALLING THE **FRONT TIRE AND WHEEL ASSEMBLY** ARE IN WP 0203 OF TM 5-2420-231-23-2 (JUL 13).

THE BHL'S **REAR TIRE** IS SHOWN AS ITEM 4 IN FIG 72 OF THE -24P AND COMES WITH NSN 2610-01-533-0486.

THE **REAR WHEEL** IS NSN 2530-01-623-3437 AND IS SHOWN AS ITEM 1 IN FIG 72.

INSTALLATION PROCEDURES FOR THE **REAR TIRE ASSEMBLY** ARE IN WP 0217 OF THE 23-2 TM.

HYEX...

Fuel Filter Service Interval UPDATED

HEY, I'VE HIT 240 HOURS OF OPERATION. IT'S TIME TO REPLACE MY LUBRICITY FUEL FILTER!

BUT YOUR TM SAYS TO REPLACE IT **EVERY 500 HOURS.**

HMMM...MAYBE I SHOULD CHECK WITH HALF-MAST.



TM

Dear Half-Mast,

I need a little help with the lubricity filter, NSN 2940-01-567-4018, that's used on the HYEX Model 240D LCR excavator.

According to Item 9 in the Machine PMCS on WP 0310-6 of TM 5-3805-294-23-2 (May 12), the filter is supposed to be replaced after every 500 hours of operation. But when a new filter comes in, it's labeled, "CAUTION: TO BE SERVICED EVERY 250 HOURS."

New filter says to replace every 250 hours



MADE IN U.S.A

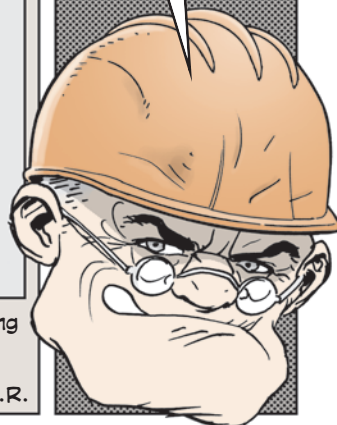
CAUTION: TO BE SERVICED EVERY 250 HOURS

So is TM 5-3805-294-23-2 wrong in requiring a 500-hour interval or is there a different, 500-hour filter we should be using?

Mr. J.R.

GOOD CATCH! THE REPLACEMENT INTERVAL FOR THE HYEX'S LUBRICITY FILTER IS **250 HOURS.**

TM 5-3805-294-23-2 WILL BE UPDATED TO SHOW THAT AT THE NEXT CHANGE.



PS

AVIATION

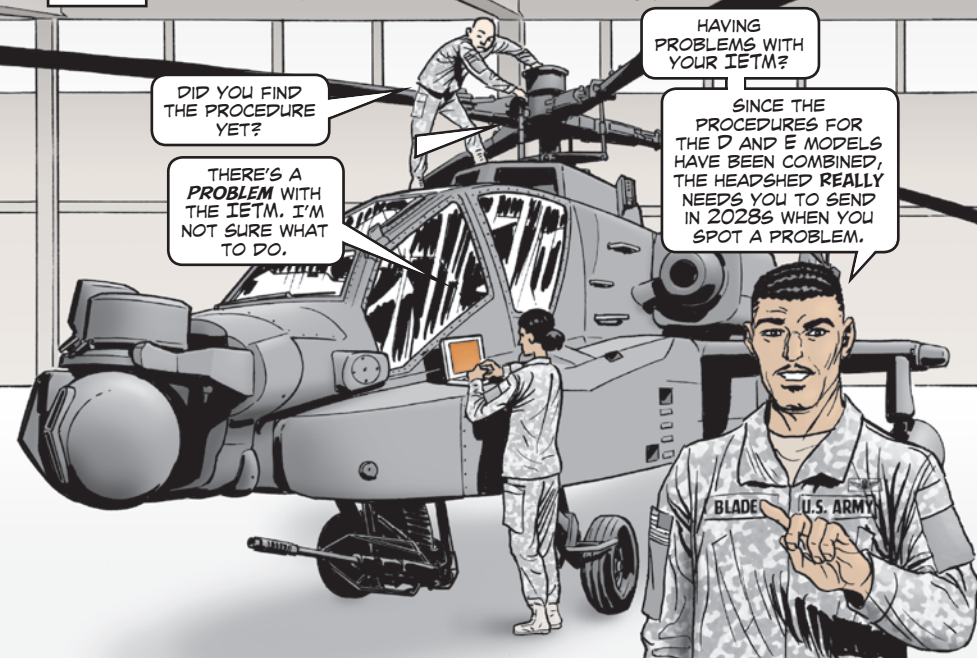
LET IT SNOW. LET IT SNOW. LET IT SNOOOOW!

I THOUGHT YOUR NEW YEAR'S RESOLUTION WAS TO STOP SINGING THAT DANG SONG!

YEAH!

Aviation articles cover correcting **LONGBOW/ APACHE TM** errors, change to the **M134** mini-gun barrel bolt, and using caution when moving **AGSE**.

SEND A 2028 WHEN PROBLEMS ARISE



Mechanics, now that the AH-64D/E aircraft repair procedures are combined in TM 1-1520-LONGBOW/APACHE, it's more important than ever to write up DA Form 2028s when you spot problems or want to make recommendations.

Since the headshed uses the same IETM you do, they need you to include as much specific information in your 2028s as possible. For example:

- Tail number of aircraft or model designator
- Answer the Dialogue questions box for modifications to help identify what equipment and MWOs are installed.
- Folder location or exact title in IETM
- Approximately how many steps into the task the issue is located

Within the Longbow IETM is a function called the Annotation Tool. One of its many uses is that it allows you to create and attach an annotation to the 2028. That pinpoints the exact location of the problem you have within the IETM.

To find out how to use the Annotation Tool, go to the top menu bar of the IETM and click on HELP, HOW TO USE THIS MANUAL. Open the HOW TO USE THIS MANUAL folder and click on the Annotations file. This will tell you how to fill out the annotation and how to import and export it.

If you want to submit a 2028 online, go to:

<https://amcom2028.redstone.army.mil>

You can also submit 2028s by fax, email or regular mail. Information on all methods is located in the IETM General Information/How To Use This Manual/Reporting Errors and Recommending Improvements section.

Remember to include your name, a good phone number (either commercial or DSN), and an @mail.mil email address so the 2028 reviewer can contact you with any questions.

M134 Mini-gun...

*Read all
About It!*
**Important
Barrel
Bolt News**

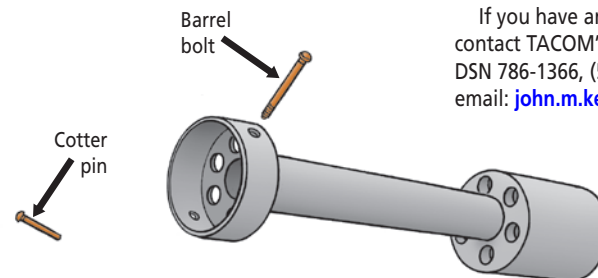


There have been two important changes for the M134 mini-gun's barrel bolt:

- The old barrel bolt has been replaced. Order the new barrel bolt with NSN 5306-01-505-2891 (PN DMG0073).

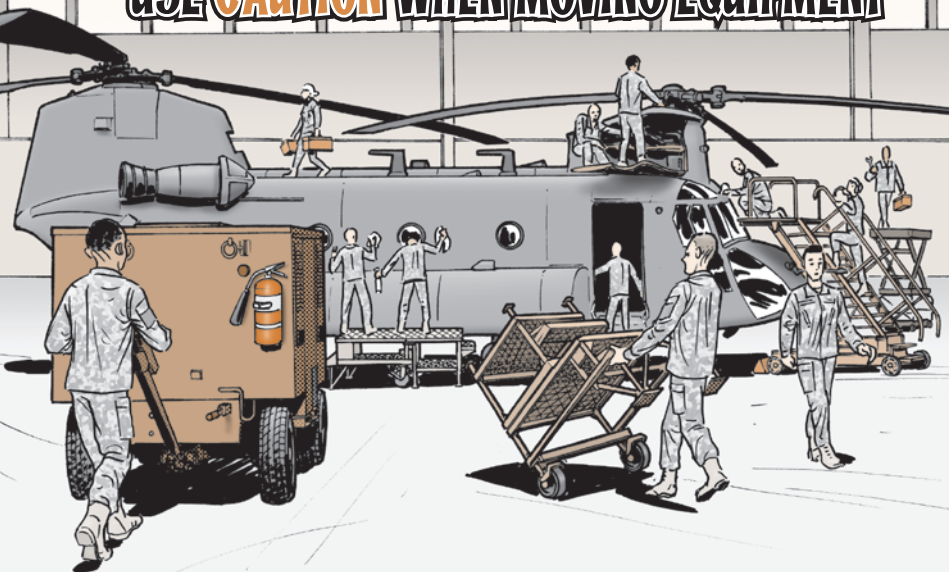
Replace the barrel bolt if it doesn't have a "V" on the head, if it's damaged, or after firing 100,000 rounds.

- Any time you remove the barrel bolt, you must replace its cotter pin, NSN 3515-00-234-1864 (PN MS24665-302). This increases your M134's safety and reliability.



If you have any questions, contact TACOM's John Kelty at DSN 786-1366, (586) 282-1366, or email: john.m.kelty.civ@mail.mil

USE CAUTION WHEN MOVING EQUIPMENT



MECHANICS,
GOOD MAINTENANCE
STARTS WITH PAYING
ATTENTION TO DETAIL,
ESPECIALLY
WHEN MANEUVERING
AVIATION GROUND
SUPPORT EQUIPMENT
(AGSE) NEAR
AIRCRAFT.



Slow your roll when positioning maintenance stands and other AGSE near aircraft. That means slowing down early to leave plenty of room to stop before reaching the aircraft.

Ground support equipment like the low level maintenance stand, the B-1 and B-4 stands, the rotor blade stand and the AGPU can get away from you if you're not careful. They can act like a runaway train and before you know it... **BAM!** You just took a chunk out of an airframe.

Protecting aircraft from damage should be a part of PMCS. Always use chock blocks on AGSE wheels. With maintenance stands, make sure you apply the brakes to prevent movement as you go up and down the steps. You don't want equipment to roll into the aircraft or out from under you, right?

When you're not using AGSE, it's a good practice to keep the equipment stationed outside the outer edge of aircraft rotor blades. And when you're doing night maintenance, make sure the equipment has reflective tape. That way you can see where everything is and avoid injury.

Remember, slow and steady is the way to go. Fast and furious just results in aircraft damage or personnel injury.

Subject	Issue/Pg	Subject	Issue/Pg
AIR CONDITIONERS		Anti-collision light damaged by blades	737 23
60K-BTU IECU--Cover, storage bag	737 45	M230--Barrel, remove for cleaning	738 26
60K-BTU IECU--Replaces FDECU	743 61	Microclimate cooling system (MCS) parts	740 24
60K-BTU IECU--Storage of components	738 48	Work platform access door inspection	741 25
AIRCRAFT ARMAMENT SUBSYSTEMS		AIRCRAFT, OH-58D, KIOWA	
M230--Cleaning, lubing, sideloader, hydraulics	737 25	Blade tie-down wand assembly fix	739 25
M230--Sideloader, cannon plug, lock wires...	742 24	Ground handling wheel pickup point	734 25
AIRCRAFT, GENERAL		Ground handling wheel safety	741 24
DA-authenticated TMs only	745 26	Ground wheel NSN	737 60
Electrical system circuit breaker lockout	743 23	M3P--Seating extractor	739 23
Fire extinguisher use, number needed	735 22	Mast-mounted sight servicing	739 24
FMs being converted to TMs	737 61	Weapon systems cable connections	739 26
Forms, TMs, FCC, signal data converters...	744 18	AIRCRAFT, UAV	
Hand signal posters for download	735 28	Shadow--TM & logbook, keep up-to-date	734 26
Hand Signals Make All the Difference	735 26	AIRCRAFT, UH-60, BLACK HAWK	
JTDI vs CAPS	745 23	Electrical control panel replaces legacy parts	743 60
Pitot tubes, use covers but without heater	744 11	ESSS wing hookup electrical lead	742 61
PQDRs now go through PDREP	744 12	Flight control computer turn-in	735 23
Sheet metal stripped screw removal	744 16	MEDEVAC portal, MilSuite access	735 21
Sling loading operations clarified (731-41)	737 22	Microclimate cooling system (MCS) parts	740 24
AIRCRAFT GRD SPT EQUIPMENT (AGSE)		Shaft assy fan and drive needed for turn-in	737 24
AGPU--D/E model NSN update	740 23	Signal converters needed for turn-in	740 61
DAWS--Conversion to 3-scale DAWS	741 23	Static line anchoring device for parachuting	736 22
Nitrogen generation and servicing equipment	744 13	Transmission oil filter sleeve check	740 26
Non-standard item TMs	735 25	TS-3920C/ASM CTS calibration	742 60
PM AGSE help desk	741 61	Windshield wiper assembly	741 61
Primer for CARC paint now aerosol	734 22	AMMUNITION	
SATS--Unexpected movement permanent fix	736 24	AMMO Help website	743 60
AIRCRAFT LIFE SPT EQUIPMENT (ALSE)		Ammo placards for vehicles	745 42
ASEK--Knife placement	736 20	ANTENNA, AS-1729, AS-1730	
MCU--Turn-in help	743 26	Matching unit ground	742 48
One-man life raft air hose fitting	742 60	AOAP	
SKRAM--Contents, number needed	735 24	LIW app, supplies	743 56
AIRCRAFT TOOLS		ARMORED COMBAT EARTHMOVER, M9	
Sewing machine parts	736 61	Cutting edge, blade folding, hydraulics check	742 18
Sheet metal stripped screw removal	744 16	Ejector hydraulic cylinder rod, not a step	736 18
AIRCRAFT, AH-64, APACHE		Hydraulic line clamp	736 19
Collective servocylinder bellcrank assy bracket	744 23	Hydraulic line, fluid level check	743 19
M230--Worm gear installation	739 22	Rear step, starter master relay, exhaust hose	735 18
M261--Contact, tube cleaning	745 25	ARMORED SECURITY VEHICLE, M1117	
Main rotor blade wedges demand	736 61	Transmission pan filter, not a field-level fix	741 08
Unserviceable component list for turn-in	744 22	ARTILLERY EQUIPMENT	
Water pooling after washing	741 26	DA Form 2408-4, who is responsible?	744 38
AIRCRAFT, CH-47D/F, CHINOOK		AVLB, M60/M48	
Aft rotor pylon step (ARPS) plans	738 22	O-ring NSN change	735 04

Subject	Issue/Pg	Subject	Issue/Pg
AVLB, M104 WOLVERINE		CARRIER, AMMO, M992A2	
Battery retainer modification	741 06	Cooling fan screens for maintenance	744 36
Recuperator, reduction gear box leaks	740 02	CARRIER, COMMAND POST, M1068-SERIES	
AWARDS		M1068A3--Hour meter location for APU	744 25
2013 DOD Maintenance Awards	738 61	CARRIER, PERSONNEL, M113 FOV	
2014 AAME nomination packets due soon	743 59	Battery maintenance	744 26
2014 CLEA awards announced	744 53	Hull rust prevention	738 04
BACK COVER		Idler wheel lubing	743 06
CLP vs LSA and LAW	737 62	Stowage seat kit	741 09
Don't Let Ladders Be Your Downfall	744 62	CBRN EQUIPMENT	
First Line of Defense Against FOD Is You!	741 62	CBRN information resource center	737 44
Job Isn't Finished Until Clean Up Is Done	742 62	Collective Protection Equip--HORN OFF button	734 42
Make PM a Priority Now	736 62	JACKS for CBRN questions	743 44
Santa Not Only One with Heavy Load	745 62	JBPDS--Generator insulation, exhaust hose...	739 42
Save Your Sight...Use Combat Eyewear	739 62	JCAD--M42 alarm needed	738 44
Take Spare Barrels to the Field and Use Them	743 62	M41 PATS--Reagent grade alcohol only	740 41
Take Time to Check for Loose Nuts	740 62	M41 PATS--Shipping do's and don'ts	745 45
UTAP: One-Stop Shop for Training Material	738 62	CLOTHING	
Wake Up! Carbon Monoxide Dangers	734 62	Army combat shirt ordering info	745 52
BATTERY, HAWKER		Barbed wire handler's gloves	738 60
Tricking dead batteries back to life	742 12	Soutache braid stored in ACU pocket	739 60
BATTERY, LEAD-ACID		Winter clothing articles	734 58
Battery acid NSNs	741 61	COMMERCIAL CONSTRUCTION EQUIP (CCE)	
Battery acid NSN	743 49	Service kit NSNs	742 14
Battery box coating compound	745 61	Tire tread direction, follow arrow	741 18
Electrolyte NSNs	744 60	COMPACTOR, 815F	
Solar charger info, NSN	738 10	Engine accessory belt with A/C NSN	741 60
VRLA--Charging, test equipment	734 12	Engine oil hot and cold check	745 19
BODY ARMOR		COMPUTERS & SOFTWARE	
Improved outer tactical vest PM	743 27	EMS-2--Sunsets with Windows XP	744 59
BRIDGE BOAT, TWIN-JET		EMS NG--Newsletter available	741 59
MK2--CPS code in parts TM	735 20	EMS NG--Suspending troubleshooting	741 58
CABLES, COMMUNICATION		MSD software downloading	739 52
Fiber optic cable PM	743 50	MSD-V3--Software upgrade needed	740 60
CAN, FUEL		COMSEC EQUIPMENT	
Water can differences	744 50	CCI--Software upgrades online	738 45
CAN, WATER		Fill cable needed for connecting equipment	734 54
Fuel can differences	744 50	NET team training	742 51
CARBINE, M4-SERIES		CONTAINER HANDLER, RT (RTCH)	
Be your own inspector	737 38	Fuel/water separator draining	745 21
General PM tips	738 27	Starter, don't engage for more than 30 seconds	734 13
Improved cleaning kit components	740 36	CONTINUITY	
M4 converting to M4A1	741 60	Battle for PM	739 27
Rail bracket, grip NSN changes	738 44	Dr. Drill Show	736 27
Selector switch installed by 91F	744 41	Forgotten Mission of NoSurprise	737 27
		Hand Signals Make All the Difference	735 26

Subject	Issue/Pg	Subject	Issue/Pg
How the Vest Was Won, Part 1	741 27	FORWARD REPAIR SYSTEM, M7	
How the Vest Was Won, Part 2	742 27	Low coolant sensor, harness for Tier III engine	737 61
Knight to Castle 4	745 27	Retrofit free through 14 Jul 14	739 61
M1-series tank air induction system PM	744 27	GENERATORS, SMALL	
PM Is Start of Beautiful Friendship (M16/M4)	738 27	3-kW, 5-kW--Engine oil, fuel, and heat PMCS	739 46
PM Needs a Lot of Thought	740 27	10-kW AMMPs--Overspeed shutdown fault	743 48
Therapy for the Improved Outer Tactical Vest	743 27	GRADERS	
CRANES		130G--Exhaust pipe positioning for transport	741 18
Hand signal posters for download	735 28	130G--Hydraulic unloading valve use	742 20
Hand Signals Make All the Difference	735 26	130G--Turbocharger coupling leak fix	737 20
DECON		GRENADE LAUNCHER, M203	
M12--Corrosion, heater, communications	740 42	Turn-in instructions	745 40
EDITORIAL		GUN, MACHINE	
CSM Chance: Are You Ready for GCSS-A?	741 01	M2A1--Barrel cover fits w/o flash suppressor	741 42
From GPS to PMCS	745 01	M2A1--Barrel, securing properly	742 42
If TM Says Do It, Do It!	735 01	M2A1--Barrel support removal tool nonexistent	741 43
Key Point to Remember	744 01	M2A1--BFA installation different from M2	744 43
Lose the Rabbit Habit	736 01	M2A1--LBS needed for boresighting	736 39
Maintenance Takes Time	743 01	M2A1--M205 lightweight tripod available	742 43
Moment for Mechanics	734 01	M2A1--Sluggish firing cure	743 39
PS: Free but Priceless	737 01	M3P--Seating extractor	739 23
Report the Problem Gauge!	742 01	M3P--Seating extractor correction (739-23)	744 61
Study Warnings Ahead of Time	738 01	M203 Tripod--Pinch hazard warning	735 38
What Can You Do in 15 Minutes?	740 01	M230--Barrel, remove for cleaning	738 26
Your Best Insurance	739 01	M230--Cleaning, lubing, sideloader, hydraulics	737 25
EXCAVATOR, HYEX		M230--Worm gear installation	739 22
230--Starters, two types to choose from	742 21	M240--DA 2028 submission for TM mistakes	738 43
230, 330--Fuel/water separator draining	745 20	M240C--Securing pin suggestion	738 05
Lubricity filter change interval	742 61	M240H--Bipod assembly parts changes	739 36
Warmup, cool down, engine oil and dipstick	738 20	M240H--Bipods available for free issue	743 60
FIRE SUPPORT VEHICLES		M240L--M26 BFA for short barrel	741 36
M1200--Transmission pan filter, not field-level	741 08	M240L--M26 BFA for short barrel after MWO	743 43
FORKLIFTS		M240L--Pistol grip, check for looseness	741 43
6K--Battery retaining strap NSN	742 61	M240L--Safety spring, replace when removed	739 36
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6K, ATLAS--Axle lubrication	734 18	M240-Series--MWOs extended, renumbered	742 40
6K, ATLAS--Fork extensions not allowed	739 61	M240-Series--Op rod pin loose	739 44
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ATLAS II--Starter NSN	744 60	M249--AR vs LMG differences	743 40
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		MK 19--M205 lightweight tripod available	742 43

Subject	Issue/Pg	Subject	Issue/Pg
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HARDWARE		LAUNDRY ADVANCED SYSTEM (LADS)	
DILNet for hardware searches	739 53	Doors closed to keep out dirt, dust	737 51
Sealant for moisture seepage	736 60	Drain water before cold weather hits	744 48
Zipper lube NSN	740 61	LOADER, BACKHOE (BHL)	
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HEATER, PERSONNEL		Roof pad NSN correction (729-21)	739 60
A-20--Control panel tips	737 05	Secondary air filter NSN	742 60
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HELMETS, AVIATION		966H--Battery disconnect, hood tilt, engine oil...	734 14
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Night vision mount	744 47	LOADER, SKID-STEER, BOBCAT	
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HOWITZER, SP, M109A6 PALADIN		SAMS-E help desk support	734 61
Bore evacuator O-ring swelling	736 02	TACOM LAR, how to find	734 48
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MCS exercise, water draining	741 05	EPIC policy search tool	744 56
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HOWITZER, TOWED, M777A2		GCSS-Army Wave 2 transition prep	744 58
Belly pan quick-release pin lubing	740 07	GCSS-Army website reminder	745 61
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Army Enterprise Service Desk (AESD)	738 57	WebFLIS	736 56
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Portals, forums may not be official	738 58	10% variance on maintenance services	736 52
KITCHEN EQUIPMENT		COEI, BII, AAL turn-in requirements	739 56
MBU--Dust prevention	736 48	Deferred maintenance tracking	740 58
MBU--Pack extra filters for deployment	734 61	Manufactured tool limits	742 56
MBU--V3 upgrade for adjustable heat output	736 46	Shop stock, when allowed	737 55
MTRCS--Hook arm pin damage	745 48	MAINTENANCE, GENERAL	
		FMSWeb	740 22

Subject	Issue/Pg	Subject	Issue/Pg
LOGSA maintenance/readiness mailboxes	738 61	NIGHT VISION EQUIPMENT	
Oshkosh equipment warranty claims	744 60	AN/PVS-6, -7, -14--Image intensifier tube	740 46
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M40, M42--Be Your Own Inspector	742 44	AN/PVS-14--Helmet mount hardware change	738 50
M40, M42--Fitting solutions	745 44	AN/PVS-14--Retaining ring loose	741 40
M40-Series--M40 can't covert to M40A1	741 35	Helmet mount, order the latest	744 47
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MINE CLEARING EQUIPMENT		M9--Holster NSNs	736 38
Husky--Cab ledge step, detection heads	736 15	M9--Holsters, new NSNs added	742 39
Husky--Dust cap, air filter cleaning	738 18	POL	
Husky--Fuel/water separator draining	736 14	PS MAGAZINE	
Husky--Shock absorber bracket loose	736 12	Back issue requests	736 59
Husky III--CTIS control unit NSN	741 60	How to order	734 50
MISSILE, AVENGER		Issues too large to email	738 61
Contact, non-skid strips, no step, climbing...	736 42	PS: Free but Priceless	737 01
Primary power unit PM tips	737 35	Radionerds website for back issues	742 61
W87 cable, canopy, azimuth brake, FLIR...	737 36	Search engine instructions	741 53
MISSILE, HIMARS		Unit-maintained equipment covered by PS	737 59
Biannual/biennial definition (734-46)	742 46	Winter clothing articles	734 58
Cab spanner nuts, cab lock, wash rack, batteries	745 36	PUBLICATIONS	
Shock absorber mandatory replacement parts	734 46	AR 750-1 released	734 49
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AMG--Feed horn plugs, pneumatic pump covers	734 43	AR 750-43 revised	742 57
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SSS--Keypad temp, straps for travel	739 35	Aviation FMs being converted to TMs	737 61
MISSILES, GENERAL		Bring pubs back from deployment	738 51
PQDRs now go through PDREP	744 12	DA Pam 25-30 for pubs availability	742 61
MLRS		DA Pam 385-1 revised	736 59
Cab, launcher safety	742 06	DA Pam 385-11 released	736 59
Dash lights, hoist carriage assy, prop shaft bolts...	742 36	DA Pam 385-63 revised	741 60
Desiccant panels, cable security, limit switches...	743 36	DA Pam 738-751 revised	742 23
Heater cleaning, fuse replacement	743 03	DA Pam 750-1 revision adds CMDP	738 57
Water cleaning precautions	737 02	DA Pam 750-3 revised	738 57
MORTARS		DA Pam 750-43 revised	739 61
DA Form 2408-4, who is responsible?	744 38	EMS NG viewer printing	742 53
M120, M121--Store legs before travel	734 42	EOPDB for pubs list	734 47
M120, M121--Store legs correction (734-42)	741 39	FM 3-20.21 helps with Bradley gunnery	743 05
M224/A1--Handle, firing mechanism torque	741 38	Official manuals only for maintenance	737 52
Paint only for alignment lines	737 40	Ordering Army publications	734 50
Sight protection during baseplate settling	745 41	Publications status tracker	744 61
TM 9-1000-202-14 sections for borescoping	736 40	Winter publications	734 58
MOUNT, WEAPONS		RADIO SET, SINCGARS	
M66--Parts info	738 41	Radio frequency cable damage	737 46
M153 CROWS II--Components remain	736 41	REELING EQUIPMENT	
M153 CROWS II--Travel locks	739 45	MARS reels lighter, stronger	738 46
		RIFLE, M16-SERIES	
		Be your own inspector	737 38

Subject	Issue/Pg	Subject	Issue/Pg
General PM tips	738 27	SUPPLY, GENERAL	
Improved cleaning kit components	740 36	Accounting for nonexpendable COEI	742 58
Rail bracket, grip NSN changes	738 44	Component protection in storage	740 52
Selector switch installed by 91F	744 41	Estimated ship date tools on LIW	739 58
Sight post, square vs. round	739 41	FED LOG help for ordering parts	738 52
RIFLE, SNIPER		PBUSE AIT quick setup guides	743 54
M107--XM107 conversion info	737 42	Shelf-life information	745 54
M107--XM107 now converted	734 60	Supply discrepancy reports	745 58
M110 SASS--Bolt repair part NSNs	745 38	WebFLIS changes coming	738 60
M110 SASS--Day sight dust covers	739 39	SURVEILLANCE SYSTEMS	
M110 SASS--Trigger assembly POC	737 42	BETSS-C--Generator PM	739 46
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M2010--Components for turn-in with rifle	739 38	Air induction system PM	744 27
ROBOTS, GROUND		Battery retainer modification	741 06
310 SUGV Mini-EOD--Weight, track check	740 20	Breech crank assembly bolts missing	745 07
EOD robot parts ordering system	744 60	Breech inspection, cleaning, servicing	734 04
XM1216 SUGV--Power button warning	734 21	Bustle rack cargo net, extension	735 02
ROCKET LAUNCHER		Cleaning inside and outside of tank	738 08
M260, M261--Cleaning, PMCS, loading tool...	734 40	DA Form 2408-4, who is responsible?	744 38
SAFETY		DSESTS--M934 truck still prime mover	734 06
Fire prevention	737 56	Gun card, keep updated	737 04
Hand signal posters for download	735 28	M1A1--M19 particulate filter replacement	734 05
Hand Signals Make All the Difference	735 26	M18A1 filter canister caution	742 07
Heat injury prevention, Part 1	740 50	Recuperator, reduction gear box leaks	740 02
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MSDS at DLA's HMIRS website	737 61	Transmission oil filler neck needs funnel	743 07
SCRAPER, EARTHMOVER, 621B		Turret lifting device bolts, mount assembly	739 08
Guide roller lubing	736 17	Turret screens not for hanging gear	739 07
Starter NSN	745 61	TENTS	
SIGHTS & SCOPES		Zipper lube NSN	740 61
AN/PSQ-23/A--Heater, turn off	734 39	TEST EQUIPMENT	
Batteries no longer included with new items	744 44	DSESTS--M934 truck still prime mover	734 06
M151--Night vision goggle addition	745 39	MSD software downloading	739 52
SLEEPING BAG		STE-M1/FVS--Bradleys with ED	742 60
Replacement parts, NSNs	737 48	TS-3920C/ASM CTS calibration	742 60
SMALL ARMS		TIRES	
Armorer no longer weapons maintainer	738 43	CCE tire tread direction, follow arrow	741 18
Bubble wrap no good for long trips	740 35	DOT code determines shelf life	735 12
CCMCK gage needs no calibration	743 42	General PM	740 14
Clearing rod, how to make	734 38	Retreads not allowed on some vehicles	738 14
CLP vs LSA and LAW	737 62	Safety tips	738 12
COMET: TMs, tool protection, jack stands...	736 35	Tire chain use, NSNs	734 07
DA 2407-E, bolts, barrels, transport, CCMCK...	738 38	TOOLS	
Lubes and weapons they're used on	741 44	Accountability checklist	740 38
Packing for safe travel	734 36	Common #1, #2 replaced by SATS?	745 43
PQDR submission website	734 35	SATS--Corrosion, generator door, travel prep...	738 35
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Subject	Issue/Pg	Subject	Issue/Pg
SATS--Tool drawer layout	742 46	LED headlight NSN	737 61
Torque wrench, zero out to maintain accuracy	745 43	LED headlight NSN	741 61
TRACTOR, D7E/F/G/R		M1151--Tarp for gunner's turret	737 17
Rear winch cable fix	737 18	Self-locking nut NSN change	741 60
TRAILERS		Snow plow kit	744 03
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M1076--Interface kit components explained	745 12	Up-armored--Windshield deicer shorting	736 04
M1077--Stowage box repair, replacement	735 08	TRUCK, 5-TON, M939-SERIES	
M1101, M1102--Adjustable lunette	738 17	M939/A1/A2-Series--Starter assembly NSN	745 61
M1112--Hand brake repair parts NSNs	741 14	M939A2-Series--Alternator change for Hawkers	743 15
M1112--Hand brake repair correction (741-14)	743 61	TRUCK, FMTV	
TRAILERS, SEMI		Batteries, don't mix Hawkers with wet cell	744 06
Linseed oil to protect wood decks	740 19	Battery tray retainer missing corrosion coating	742 11
M129A3/A4--Data plate model identification	741 16	Bogie O-ring NSN	736 60
M870/A1--Wood decking replacment	735 09	Brake air tanks, drain after operation	735 06
M870/A1--Wood deck correction (735-9)	743 61	Brake spider NSN	739 60
M870A1--Wood decking kit	740 19	Cab support tool use, NSN	735 05
M872A4--Bumper pin NSN replacement	741 60	Cargo cover kits, components	739 10
M969A3--Radar fuel level sensor NSN	738 61	Cargo cover repair	741 12
M1000--Ramp chain restraint snap hook	743 17	GRS for soft shell cabs	744 09
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LIW training	738 54	LTAS--M66 ring mount parts	740 10
NET team training	742 51	LTAS -A1P2--Auxiliary starter relay bracket	744 08
SASMO DCO training session	737 60	LTAS -A1P2--Cab door damper NSN	745 15
Transportation basic freight traffic course	736 58	M1081--Cargo bed D-rings, clean and lube	738 15
UTAP for recovery vehicle info	734 15	M1083--Tailgate bumper damage	744 07
UTAP newsletter covers legacy equipment	742 60	M1083/A1P2--M66 mounting instructions	744 09
UTAP: One-Stop Shop for Training Material	738 62	M1083A1P2--Passenger-side door window	737 60
TRANSPORTATION		M1089A1--Wrecker load test faults	735 07
Basic freight traffic course	736 58	Oil pressure gauge check	736 10
CDDP launched	738 56	Safety mirrors	735 08
TRUCK, M915-SERIES		TRUCK, HEMTT	
M916A3--Gladhand/plug holder NSN	738 60	A4 Models--Hydraulic enable switch to OFF	737 14
M917A1--Air dryer NSN	738 60	A4 Models--Hydraulic filter O-rings	737 14
Tire size differences	743 16	A4 Models--Steering gear replaced	738 16
TRUCK, M1070 HET		A4 Models--Temperature sensor O-rings	736 61
A0/A1--Wheel hub assembly seal	739 60	A4 Models--Universal service kit NSN	734 60
Heated LED headlight NSN	736 60	A4 Models--Wiring harnesses over manifold	737 15
Transfer case rotary pump NSN	744 60	Heated LED headlight NSN	736 60
TRUCK, 1 1/4-TON, HMMWV		LED headlight NSN	744 60
Cdr's seat, don't remove bolts to recline	744 05	M978A4--Hydraulic pump assembly warranty	737 16
Door latch lubing	738 12	M978A4--V1 emergency valve MC bracket	745 15
Frag armor, OGPk repair parts	745 14	M1120A2/A4--E-CHU/CHU removal	734 61
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		A1 Models--Hydraulic enable switch to OFF	737 14

Subject	Issue/Pg
Basic first aid kit, item expiration dates	739 61
Heated LED headlight NSN	736 60
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Mud flap hanger kit	737 61

TRUCKS, GENERAL

Battery box coating compound	745 61
Elastic cord for canvas covers	738 60
GPK, OGPk maintenance TMs	734 37
GRS guidance, PMCS, NSNs, deadlining...	737 10
Hand signal posters for download	735 28
Hand Signals Make All the Difference	735 26
Operator's manual, keep with vehicle	740 09
Parts bin helps with maintenance organization	743 11
Retreads not allowed on some vehicles	738 14
Service kit NSNs	742 14
Solar charger info, NSN	738 10
Tire chain placement for tactical vehicles	734 10
Tire chain use, NSNs	734 07
Tire safety tips	738 12
Towing safety	735 10
Towing safety update (735-10)	741 17

VEHICLE, FIGHTING, M2/M3 BRADLEY

Battery charging, CIV tarp, gun card	734 02
DA Form 2408-4, who is responsible?	744 38
FM 3-20.21 pre-fire checklist	743 05
FSS test set upgraded, renamed	738 06
Idler wheel nuts loosen	742 03
M240C--Securing pin suggestion	738 05
M242--Barrel, only one now available	738 05
M242--Cleaning, lubing, assembly, PMCS...	745 04
M242, TOW--Firing PM	742 04
Schematics for troubleshooting	743 05
STE-M1/FVS not needed with ED	742 60
Track connecting with tanker's bar	744 37

VEHICLE, MRAP

Driver's survey	743 12
Driver training, publications	745 16
M-ATV--Brake chamber vent line replacement	740 13
M-ATV--Cushion set	736 60

Subject	Issue/Pg
M-ATV--Lube order update	743 61
MaxxPro--AFES battery backup kit	743 60
MaxxPro Dash/DXM--Air filler valve NSN	743 60
MEL TB available	736 60
VEHICLE, RECOVERY, M88-SERIES	
A1--Personnel access door lubing	738 07
End connector, center guide torque	737 08
Spare roadwheel rust prevention	741 02

VEHICLE, STRYKER

AFES PMCS checks	739 02
DA Form 2408-4, who is responsible?	744 38
Hub fill plug O-rings	735 03
IETM contributions requested	740 04
Left window extraction kit (LWEK)	740 05
M1128 MGS--Battery box boots, cover	741 04
M1129A1, XM1252--Mortar tube stress cracks	743 09
M1135 NBCRV--ACADA water problem	736 44
M1135 NBCRV--Moisture, fluids, axle oil	737 43
M1135 NBCRV--SSA troubleshooting	743 46
Recovery rope improved	738 02
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Storage of gear and equipment	739 06
Winch pulley lubing	743 08

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Air filter ice, moisture damage	743 04
Battery box coating compound	745 61
Hand signal posters for download	735 28
Hand Signals Make All the Difference	735 26
Operator's manual, keep with vehicle	740 09
Service kit NSNs	742 14
Slat armor not for storage	739 05
Towing safety	735 10
Track pad identification	737 09

VEHICLES, GENERAL

Hand signal posters for download	735 28
Hand Signals Make All the Difference	735 26
Operator's manual, keep with vehicle	740 09

WARRANTY

Oshkosh equipment warranty claims	744 60
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WATER PURIFICATION

TWPS--Filter NSNs	734 16
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WATER PURIFICATION UNITS (ROWPU)

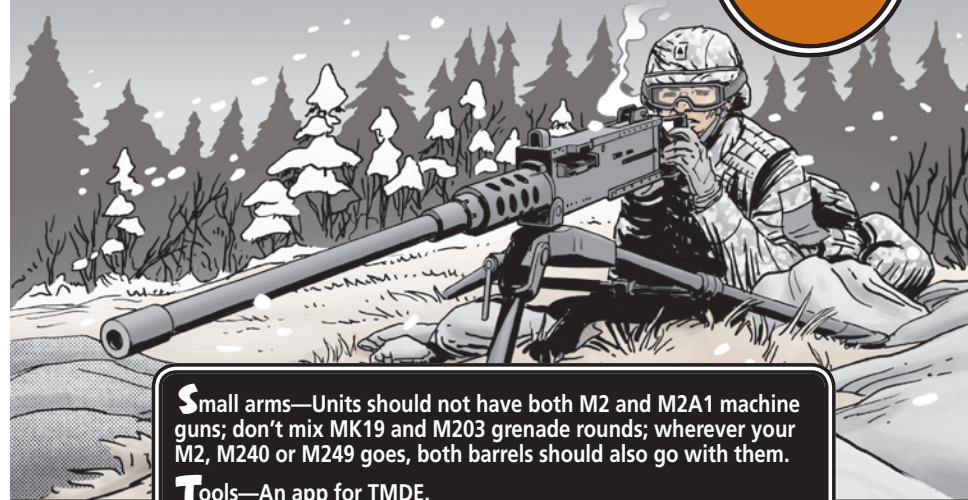
Filter NSNs	734 16
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WATER SUPPLY

Dehydration dangers in winter	734 56
FAWPSS--Cargo container NSN	744 60
Water publications	736 50

PS SMALL ARMS

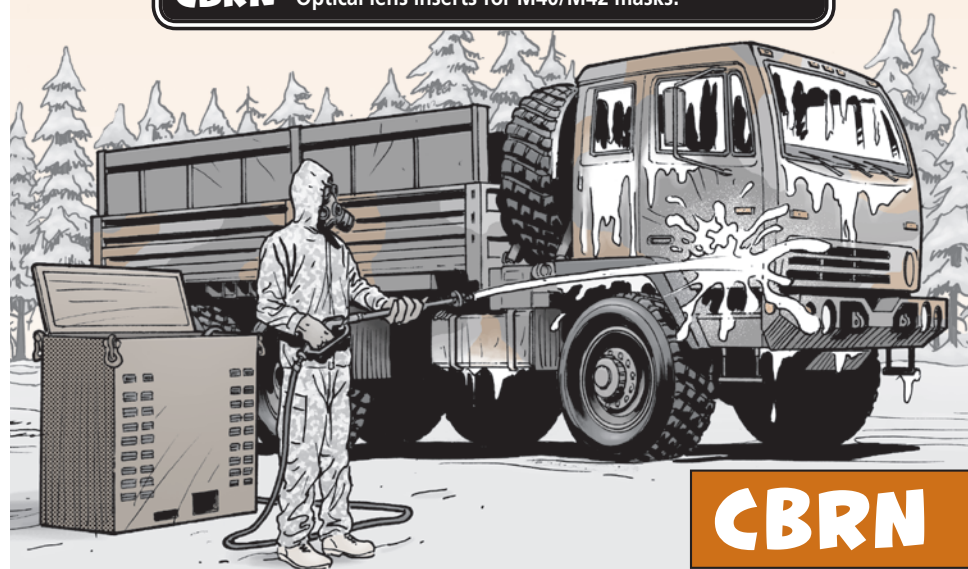
ALSO
FEATURING
TOOLS



Small arms—Units should not have both M2 and M2A1 machine guns; don't mix MK19 and M203 grenade rounds; wherever your M2, M240 or M249 goes, both barrels should also go with them.

Tools—An app for TMDE.

CBRN—Optical lens inserts for M40/M42 masks.



CBRN

M2 vs. M2A1: IT'S EITHER/OR



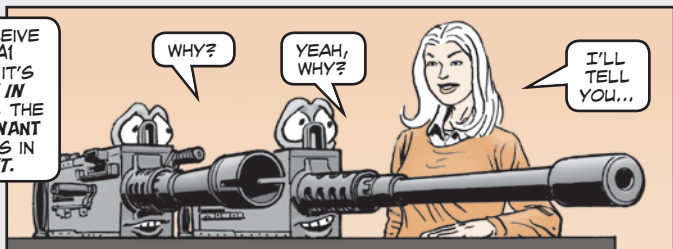
I'M REPORTING FOR DUTY. THAT MEANS YOU NEED TO GO TO ANOTHER UNIT. I'M AFRAID I **DON'T** WORK WITH M2S. I WORK STRICTLY WITH OTHER M2A1S.

ONCE UNITS RECEIVE THE NEW M2A1 MACHINE GUNS IT'S TIME TO **TURN IN** THEIR OLD M2S. THE ARMY **DON'T** WANT M2S AND M2A1S IN THE **SAME UNIT**.

WHY?

YEAH, WHY?

I'LL TELL YOU...



...YOU CAN INTERCHANGE M2 BARRELS WITH OTHER M2 MACHINE GUNS AND YOU CAN DO THE SAME WITH M2A1 BARRELS AND M2A1 MACHINE GUNS.

BUT, IF YOU TRY TO USE AN M2A1 BARREL ON AN M2 OR AN M2 BARREL ON AN M2A1, YOU **DAMAGE** THE WEAPON AND MAYBE EVEN **YOURSELF**.

AND IT'S **PRETTY EASY** TO MAKE THAT **MISTAKE!**

THE BARRELS DON'T LOOK THAT DIFFERENT.



M2A1 BARRELS HAVE INTERRUPTED THREADS ON THE RECEIVER SIDE OF THE BARREL, A BARREL LOCK PIN (OR LUG) AND A CARRYING HANDLE ASSEMBLY.

M2 BARRELS HAVE THE SAME SERIAL NUMBER AS THEIR RECEIVER AND DO NOT HAVE A CARRYING HANDLE ASSEMBLY OR BARREL LOCK PIN.

REMEMBER, ANY TIME THE M2 IS TO BE FIRED IT MUST **FIRST** BE HEADSPACED AND TIMED BY THE GUNNER. AND THAT'S ALSO TRUE ANY TIME BARRELS ARE **SWITCHED**.

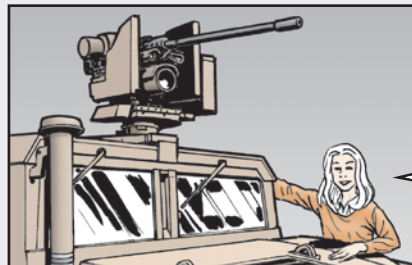


TO DO THAT, EVERY GUNNER **MUST** HAVE HIS OWN M2 HEADSPACE AND TIMING GAGES, NSN 5220-00-535-1217. **DON'T** GO TO THE FIELD OR RANGE WITH ONLY ONE SET OF GAGES FOR ALL THE M2S. THAT'S ASKING FOR **TROUBLE**.

THE M2A1 MUST HAVE ITS HEADSPACE AND TIMING VERIFIED BY YOUR REPAIRMAN BEFORE YOU GO TO THE FIELD.



BUT ONCE THAT'S DONE YOU CAN SWITCH ITS TWO BARRELS WITHOUT WORRYING ABOUT GAGING IT AGAIN.



IF YOU'RE GOING TO BE FIRING THE M2A1 ON THE CROWS, KEEP THE OLD M2 GAGES.

THEY ARE NEEDED TO PERFORM THE ELECTRONIC TIMING FOR THE CROWS SOLENOID.

USE THE FIRE/NO FIRE PORTION OF THE OLD TIMING GAGE FOR THE ELECTRONIC TIMING.

MK 19 AND M203 AMMO **DON'T** MIX!

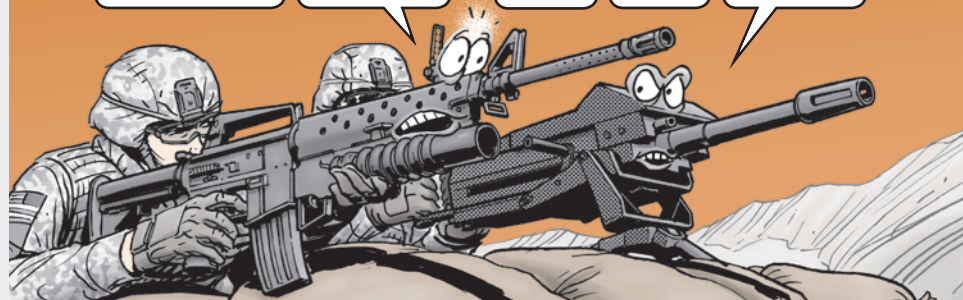
EXCUSE ME, I SEEM TO BE RUNNING A BIT SHORT OF AMMO.

MIGHT I BORROW A FEW OF YOUR ROUNDS?

ARE YOU KIDDING ME?

OUR ROUNDS **DON'T** MIX!

YOU GOTTA FIRE YOUR ROUNDS **ONLY**.



Dear Editor,

The MK 19 and M203 weapons may both fire grenades, but they definitely can't fire the same ammo.

MK 19 ammo comes linked. M203 ammo has no links. Cutting off the links for MK 19 ammo so it can be used in an M203 is illegal and dangerous. And trying to fire M203 ammo in an MK 19 is equally dangerous. We had one unit try that with an MK 19 and half the rounds burst during the feed stroke.

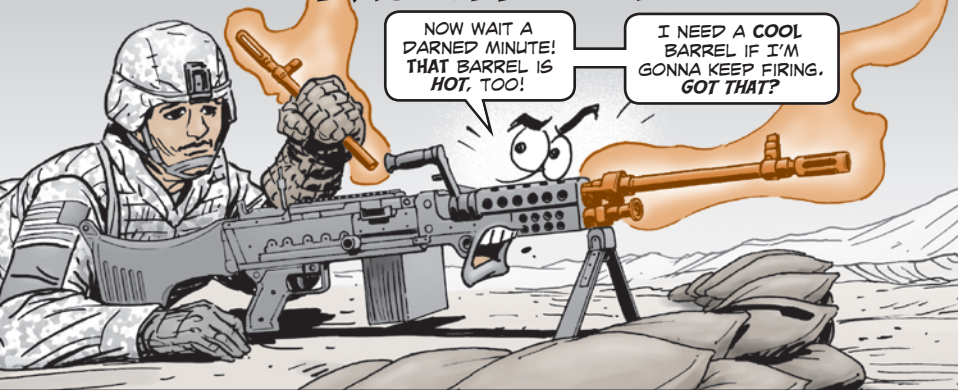
Just follow the -10 TMs for both weapons on what ammo to use and you'll be fine.

Karl Hayhurst
TACOM Small Arms LAR
Camp Casey, S. Korea

Editor's note:

Thanks for the warning, Karl.

TAKE BOTH BARRELS AND ORDER EXTRAS IF NEEDED

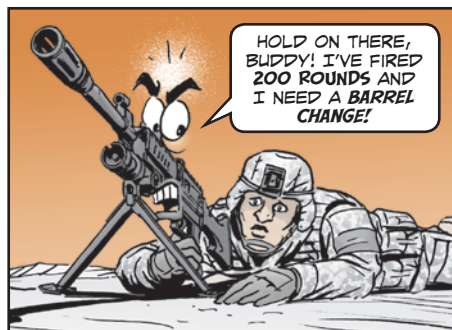


Every unit that fires M2, M240 and M249 machine guns should have a sign hanging over the arms room door saying "Always take both barrels to the field."

Every year thousands of bucks are spent replacing these weapons' barrels because units leave the spare barrel in the arms room. Especially at the range, they fire many rounds through the same barrel. The barrel gets so hot—red hot in some cases—it warps. That barrel is ruined. And hot barrels can also cause cook offs, which are dangerous.

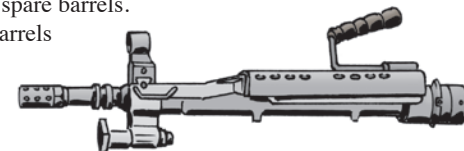
But if you're firing and firing at the range, you may need more than one spare barrel. For the M240, you should change the barrel every 10 minutes during sustained fire (100 rounds per minute with 4-5 seconds between bursts) and every 2 minutes during rapid fire (200 rounds per minute with 2-3 seconds between bursts). The M249 barrel should be changed every 200 rounds both for sustained and rapid fire.

For the M2, change the barrel at the end of the day if you're firing single shot or slow fire (fewer than 40 rounds per minute). Change the barrel every hour if you're firing more than 40 rounds per minute and every half hour for more than 100 rounds per minute. Of course, change the barrel immediately if the barrel is damaged.



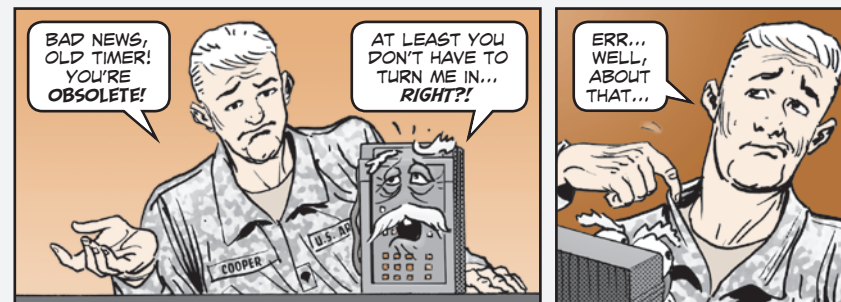
If you're firing rounds fast, the barrels don't have time to really cool off even when you change them like you're supposed to. So, if you replace a hot barrel with another hot barrel, the barrel is ruined. That's why if you regularly do lots of firing at the range, it's a good idea to have extra spare barrels. Then you can rotate three or more barrels instead of two.

Barrel should be cool to touch with your bare hand **before** you reinstall it



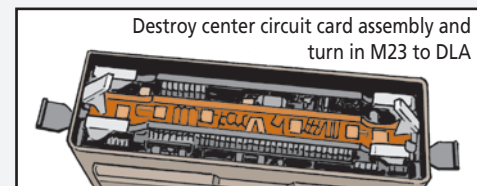
But remember for the M2A1, M240 and M249, you can use only spare barrels specifically headspaced to that particular weapon. If you swap barrels between machine guns, you damage not only the barrel but the machine gun itself. And you could damage yourself if the gun blows up! All barrels should be tagged for the machine gun they have been headspaced for.

Mortars... M23 MBC *Obsolete*



If you're still using the M23 mortar ballistic computer (MBC), NSN 1220-01-119-6049, and its companion computer, NSN 1220-01-161-8888, stop. They're obsolete and should be demilitarized and sent to DLA Disposition Services.

To demil the M23, remove the center circuit card assembly from inside the MBC and destroy it. Fill out a DLIS Form 1867 and tape it to the MBC's back cover plate. Then turn it in to your local DLA Disposition Services.



Let TACOM know you've turned in the MBC by emailing its serial number to: usarmy.detroit.tacom.mbx.ilsc-mortar-systems@mail.mil

The M23 has been replaced with the M32 lightweight handheld mortar ballistic computer.

If you have questions, contact TACOM's Joe Leigh at DSN 786-1223, (586) 282-1223, or email: joseph.t.leigh.civ@mail.mil



A Better Way to Modify M12 Rack

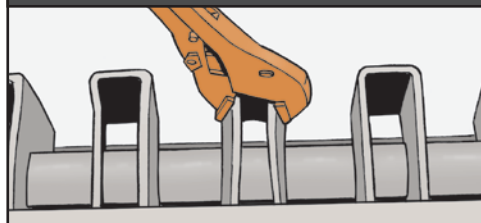
The new fire control selector, NSN 1005-01-585-6042, for the M16-series rifle and the M4/M4A1 carbine makes it necessary to modify your M12 racks. Otherwise, you can't lock the racks.

Pages 38-39 of PS 729 (Aug 13) told you how to modify the M12 racks. But that procedure required cutting and grinding the rack slot and was very time-consuming.

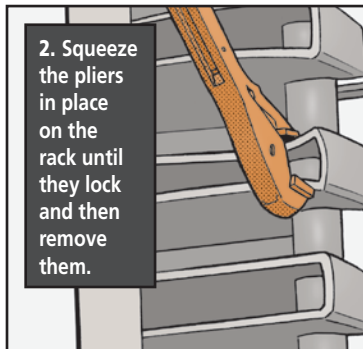
Fortunately TACOM LAR Chris Warner and SSG Shawn Landeen of Ft Stewart have come up with an easier and better way to fit the fire control selector in the M12. Their method doesn't involve cutting, allows the rack to be returned to its original configuration, and cuts the modification time from an hour to about 10 minutes.

To do the job, you'll need welding pliers, NSN 5120-00-494-1895. Here's how:

1. Open the plier grips fully. Position the welding pliers 0.5 inches back from the face of the rack. Set the jaws to a size smaller than the sheet divider when the jaws are closed.

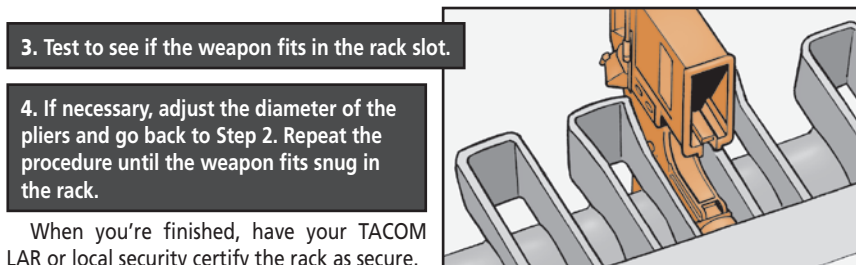


2. Squeeze the pliers in place on the rack until they lock and then remove them.



3. Test to see if the weapon fits in the rack slot.

4. If necessary, adjust the diameter of the pliers and go back to Step 2. Repeat the procedure until the weapon fits snug in the rack.



When you're finished, have your TACOM LAR or local security certify the rack as secure.

DON'T LOSE NECK CORD!

UH-OH, MY NECK CORD IS GONE AGAIN!

SHOOT! THAT MEANS YOU'RE NMC UNTIL WE GET YOU A NEW CORD.



Dear Editor,

I work at Ft Benning's weapons pool where we issue as many as 3,000 AN/PVS-14 night vision sights per week.

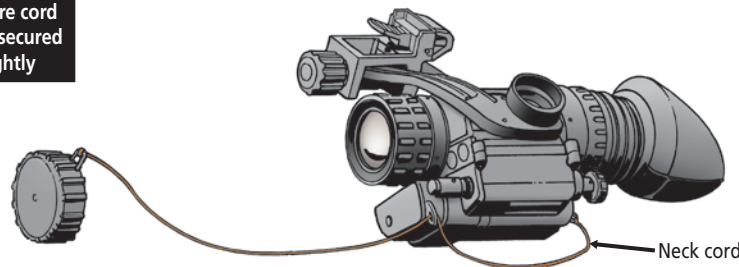
We have a big problem with the -14's neck cord disappearing. It's often removed or comes off. Unfortunately, the sight is NMC without the cord, NSN 4020-01-446-8097. So we can't reissue the -14 until we replace the cord. The cord costs only \$1.27, but it adds up when you have to replace cords over and over again. Plus getting new cords is not easy.

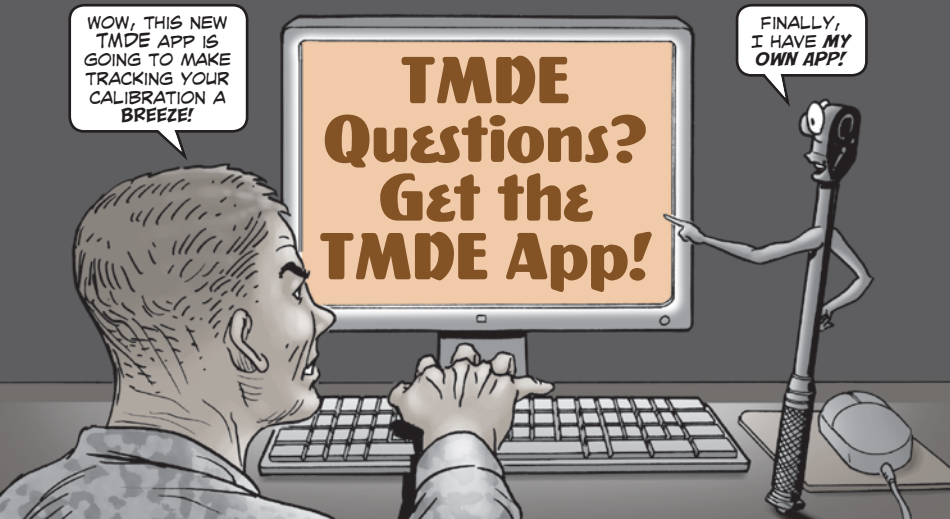
Please ask Soldiers not to remove the cord. When they PMCS the sight, they should make sure the cord is not loose. They can re-tie it if necessary.

Raymond Brown
Ft Benning, GA

Editor's note: We'll be glad to do that, Raymond. Units should order extra cords to replace the ones that eventually disappear. You don't want a sight sitting on your deadline report because of a missing cord.

Make sure cord is secured tightly





Worried about the status of your unit's TMDE? Stop worrying and get the TMDE app at the Logistics Information Warehouse (LIW).

The TMDE app lets you easily check the master list and projected, delinquent and in-shop status reports for your unit's TMDE items.

The master list shows all your unit's TMDE items by serial number, model, nomenclature, status and calibration due date.

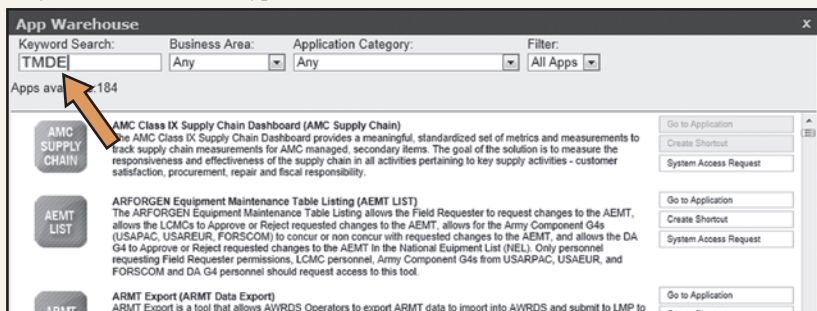
The projected items report lists all TMDE due for calibration in the next 30 days.

The delinquent items list identifies items past due for calibration.

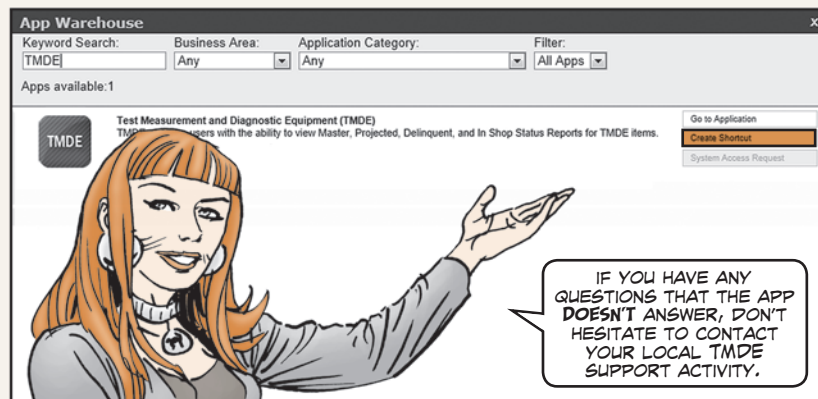
The in-shop status report provides the work order number and status along with the model, serial number, and nomenclature of all your items at TMDE.

To get the app, go to: <https://liw.logsa.army.mil/>

Scroll to the bottom of the page and click the App Warehouse button. In the Keyword Search block, type TMDE.



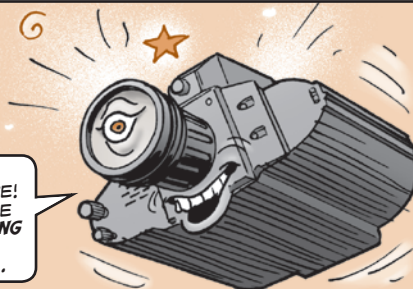
When the TMDE app appears, click Create Shortcut on the right-hand side of the page. Then close the page and click on the TMDE app to get started.



AN/PVS-6 MELIOS Laser Rangefinder...

IS THERE A CARRYING CASE?

HEY, I'M DELICATE HERE! I NEED SOME KINDA CARRYING CASE FOR PROTECTION.

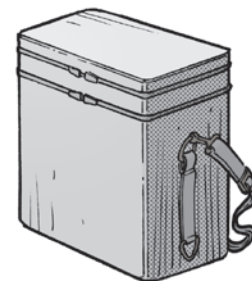


Dear Half-Mast,
We've had no luck finding either a carrying case or shipping case for the AN/PVS-6 mini eyesafe laser infrared observation set (MELIOS) laser rangefinder. Are there any available?

SSG D.J.

Dear Sergeant,
Yes and no. There is a soft carrying case for the rangefinder that comes with NSN 5855-01-546-0126. But there is no shipping case. You can order a case online or buy one at your local big box store that you can adapt for the AN/PVS-6. If it protects your rangefinder, it's worth the money.

Half-Mast



Order carrying case with
NSN 5855-01-546-0126

M40/M42-Series Masks...

TODAY'S THE DAY WE TRAIN IN THE GAS CHAMBER.

HOPE YOU DO A GOOD JOB OF SEALING OUT THAT TEAR GAS!

NOT IF YOU WEAR THOSE GLASSES! THEY RUIN MY SEAL.

YOU'RE GONNA NEED SPECIAL PRESCRIPTION LENSES FOR ME!



NO GLASSES OR CONTACTS PLEASE!

If you wear glasses or contacts to correct your vision, don't wear them with your M40/M42 mask.

If you put on your mask while wearing glasses (yes, sunglasses count!), the mask can't seal properly to your face and can't protect you.

Contact lenses may not affect your mask seal, but they can quickly become a problem. Not only do contact lenses require a good fit, they also need sufficient moisture and oxygen to be worn comfortably. If the mask is cutting down the oxygen to your eyes or if dust, smoke or gas have fouled your contacts, they can become extremely painful to wear. If you're in a chemical environment, you can't remove your mask to take out the contacts or put in eye drops. Bottom line, contact lenses and masks don't mix.

That's why every Soldier who wears glasses or contacts needs to use optical lens inserts for his M40/M42. The inserts include prescription lenses; a lens carrier, NSN 6540-01-264-1348; and a carrier mount/frame, NSN 6540-01-389-7152.

Soldiers who wear glasses or contacts need prescription lenses for M40/M42 masks



Order your optical lens inserts through your medical branch or by contacting the Naval Ophthalmic Support and Training Activity (NOSTRA):

<http://www.med.navy.mil/sites/nostra/Pages/default.aspx>

NOSTRA also provides optical inserts for other masks.

Their website has instructions for ordering lenses, tracking the order and installing the lens inserts.

The M40/M42's TM 3-4240-346-23&P also provides installation and removal instructions for the optical lens inserts.

If you need mask help, email the Individual Protection Team at:

us.army.detroit.tacom.mbx.ilsc-masks@mail.mil

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

PS

LOGISTICS



HAPPY NEW YEAR FROM OUR FRIENDS AT SIAD!



The new year brings downloadable IETMs, and free Army equipment from SIAD!

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

PUT YOUR **BEST** SAFETY FOOT FORWARD



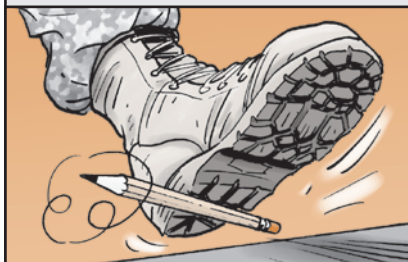
An obvious but painful fact is that an accident can result in life-changing injuries. But not all accidents are created equal. Sometimes, what seems to be a minor accident on the surface turns out to be a major one because it affects unit readiness.

Speaking of surfaces... slips, trips and falls are among the most common and preventable accidents around the workplace.

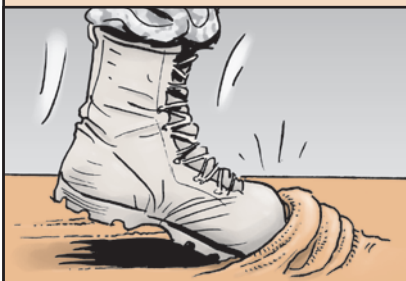
Awareness and taking proactive steps to reduce hazards are the keys to protecting Soldiers and civilians.

Here are some ways to nip slipping and tripping dangers in the bud:

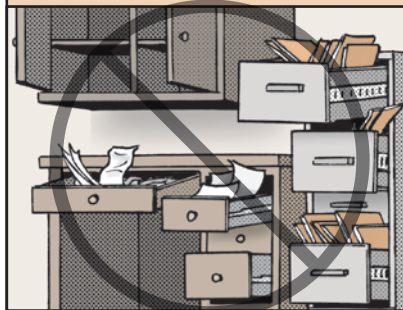
- CLEAR PATHWAYS OF **OBSTACLES** LIKE BOXES AND **TRIPPING HAZARDS** LIKE EXTENSION CORDS. SCOUT FOR SMALL HAZARDS, TOO. SOMEONE CAN SLIP ON SOMETHING AS SIMPLE AS A PENCIL LEFT ON THE FLOOR.



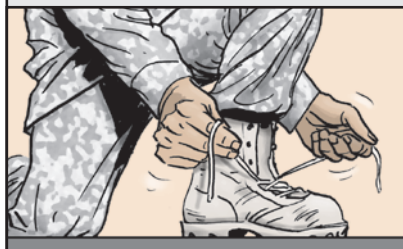
- CHECK THAT ALL FLOORING SURFACES ARE LEVEL AND SECURED. REPAIR BROKEN TILES AND OTHER TYPES OF LOOSE OR TORN FLOORING SUCH AS CARPETING.



- CLOSE DESK AND CABINET DRAWERS WHEN THEY'RE NOT IN USE.



- CIVILIANS SHOULD CHOOSE FOOTWEAR WITH **LOW HEELS** AND **NONSLIP SOLES** FOR THE WORKPLACE. SOLDIERS AND CIVILIANS ALIKE, KEEP THOSE LACES **SHORT AND TIED**.



- ADJUST YOUR WALKING SPEED AND STYLE DEPENDING ON SURFACES. IF A SURFACE IS ROUGH, UNEVEN, SLIPPERY OR ANGLED, **SLOW DOWN!** TAKE SMALL, CAREFUL STEPS.

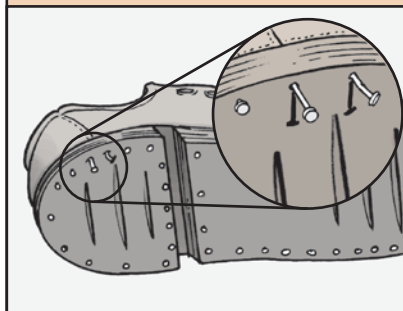


- BE SURE SHOES AND BOOTS HAVE **ADEQUATE TREAD** BEFORE WALKING ON **ICY, GREASY OR WET SURFACES**.



- MAKE SURE ANY NECESSARY WARNING SIGNS ARE POSTED IN WORK AREAS. FOR SPECIFIC MOTOR POOL SAFETY TIPS, SEE PAGES 56-59 IN PS 728 (JUL 13):
<https://www.logsa.army.mil/psmag/archives/PS2013/728/728-56-59.pdf>

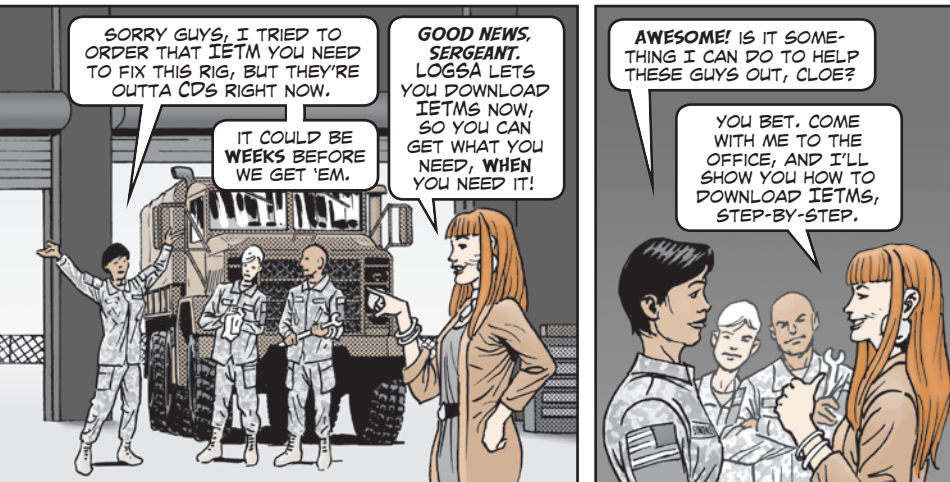
- KEEP FOOTWEAR IN GOOD REPAIR. A DEFECT LIKE A NAIL POKING THROUGH A HEEL CAN CAUSE TRIPS OR SLIPS.



FOR MORE POINTERS ON **BOOSTING WORKPLACE SAFETY**, VISIT THE US COMBAT READINESS/SAFETY CENTER WEBSITE AT
<https://safety.army.mil/>



IETMs Get Green Light for Download



Good news! You can now download DA-authenticated interactive electronic technical manuals (IETMs).

IETMs are computerized, screen-based diagnostic and maintenance versions of TMs. They are used for troubleshooting, isolating faults and identifying equipment maintenance needs.

IETMs are still available on CD-ROMs/DVDs and read-only online. But Army funding shortfalls meant there weren't enough disks being printed to meet customer demand.

The Logistics Support Activity (LOGSA) heard pleas from the field and came up with a cost-effective alternative.

Downloadable IETMs mean faster equipment fixes. But remember:

- Authorized IETM downloads are only available from LOGSA's Logistics Information Warehouse (LIW). You must have a valid, current system access request (SAR) and use your CAC whenever you log in to LIW.
- IETM access and download is based on distribution statement codes. The public can view Distribution Statement A information, but viewing or downloading any IETMs coded other than A is restricted.
- LOGSA's goal is to deliver IETMs in the same format as the original CD-ROMs or DVDs. However, IETMs are very large, so to make downloads possible, content is broken down into several zip files (each 500 MB or less). These zips must be recombined by the end user before they work like the original disks.
- Carefully follow the 'IETM_Download_Instruction.txt' file that comes with each downloadable IETM. Instructions vary depending on the IETM's proponent (for example, AMCOM, CECOM, TACOM, etc.) That's why it's important to read the step-by-step instructions *every* time you download a new IETM.
- If you download content and make a CD-ROM/DVD, be sure that the date of the IETM is also written on the disk you create. That way when an updated IETM comes out, you'll be reminded to replace the old disk.

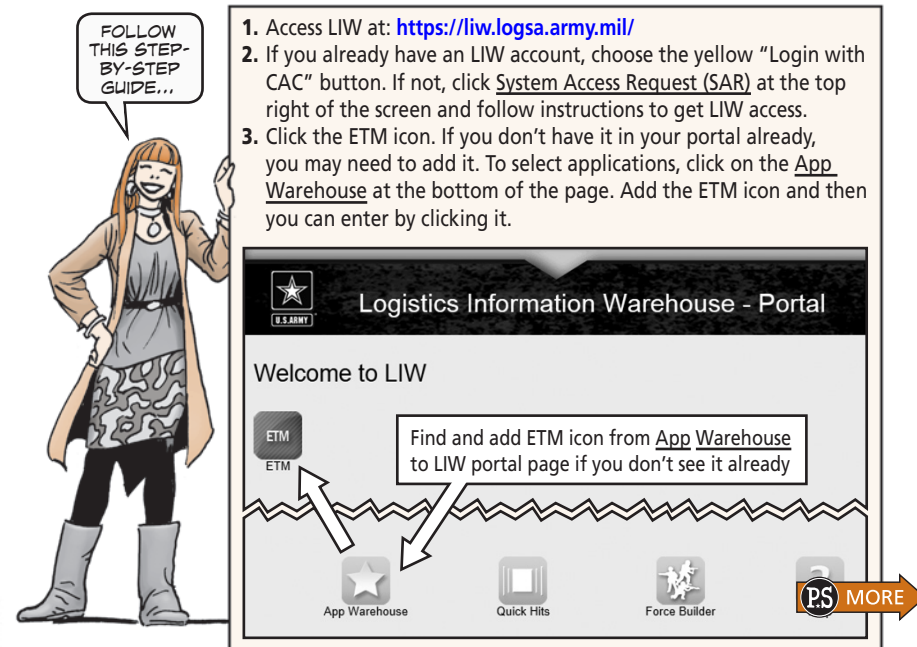
Destruction Instructions for Distribution Restricted CD-ROMs/DVDs (Coded B, C, D)

If your local facility does not destroy distribution restricted CD-ROMs/DVDs, you can send them to the National Security Agency (NSA). Follow these rules:

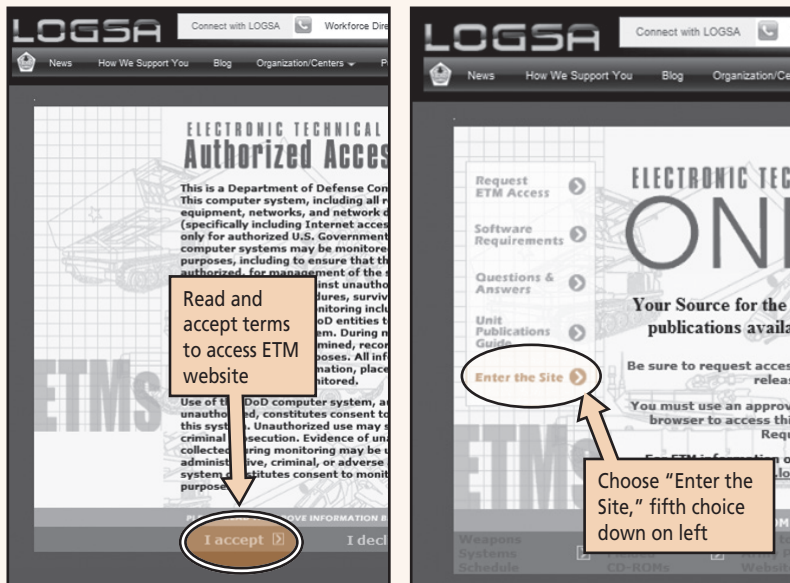
- Ship only whole disks to NSA. No need to scratch disks.
- Don't send sleeves, mailers or cases.
- Maximum shipping box size is 18 inches high x 18 inches wide x 18 inches long. Maximum weight is 40 pounds per box.
- Single-wrap outside shipping box with brown paper. If loose disks rattle, mark box "Rattle Okay."
- Send no more than 10 boxes at one time.
- If you want a receipt, include a documentation/destruction form in each shipping box with the total number of CD-ROMs/DVDs written on it.

Ship boxes by first-class mail to:

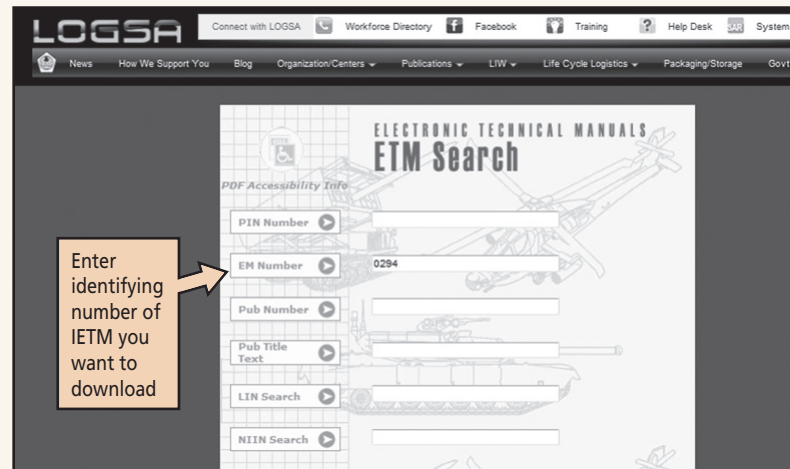
Director
National Security Agency
9800 Savage Road
ATTN: CMC-Degaussing-Suite 6875
Ft George G. Meade, MD 20755-6875



4. You should see the Electronic Technical Manuals Authorized Access Page. Read the terms, choose I accept and then Enter the Site.



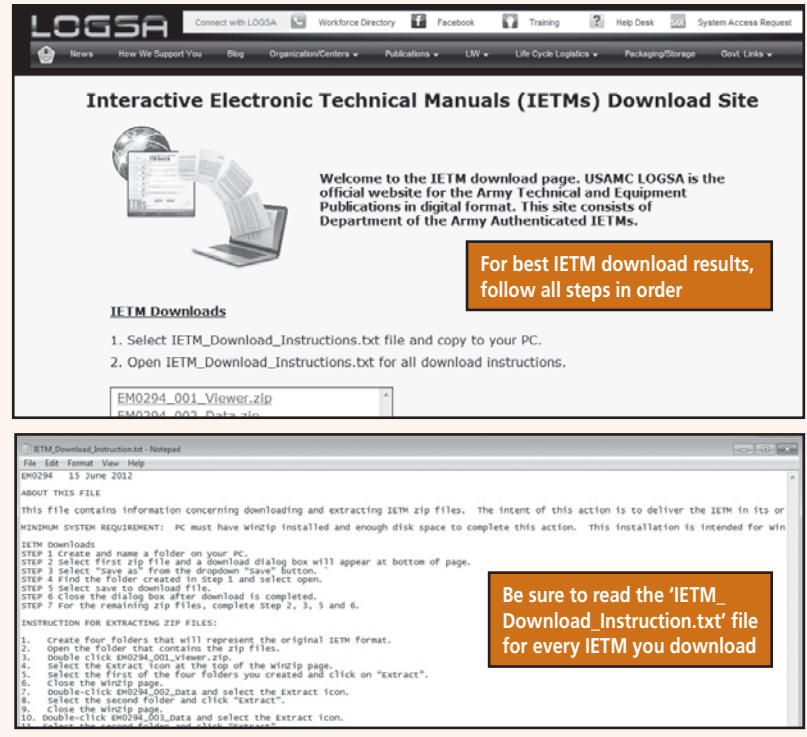
5. On the ETM Search screen, enter the number of the IETM you want in the EM Number field. Or you can search by title or other fields.



6. On the search results page, click on the green download arrow in the ZIP column.



7. Follow the IETM download instructions.





GOOD NEWS, UNITS!
YOU CAN SCOOP UP THESE
ITEMS THROUGH THE
ARMY'S **REDISTRIBUTION**
PROCESS.



SCOPES

SCOPES

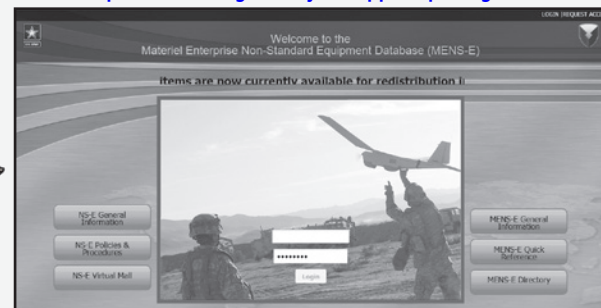


BUT THERE IS ALSO A LARGE VARIETY OF OTHER EXCESS NON-STANDARD EQUIPMENT (NS-E) UP FOR GRABS.

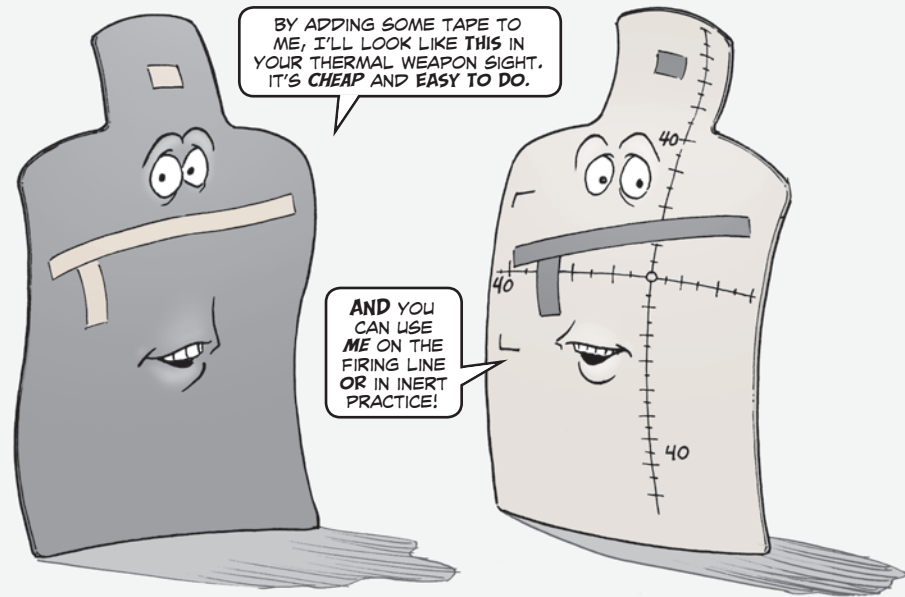
HERE'S HOW
REDISTRIBUTION
WORKS...



<https://mens-e.logsa.army.mil/app/scripts/login.cfm>



Or Bertrand James at DSN 320-6857, (256) 450-6857, email: bertrand.f.james.civ@mail.mil



Do It Yourself Thermal Targets

SAVE YOUR UNIT MONEY AND INCREASE THE **QUALITY** OF YOUR SOLDIERS' TRAINING.

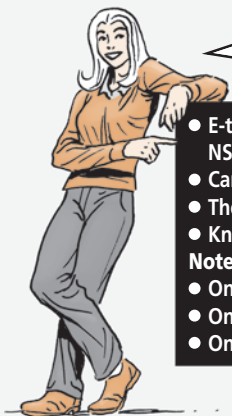


The Army's lightweight AN/PAS-13 Thermal Weapon Sight (TWS) gives Soldiers the ability to spot even a well-camouflaged enemy night or day through dust, smoke or fog, but attaining proficiency takes training and practice.

Project Manager Soldier Sensors and Lasers (PM SSL) has developed Do It Yourself (DIY) thermal targets that keep the cost of training with thermal sensors affordable.

A standard store-bought thermal target costs approximately \$60 each, while a DIY version costs approximately 24 cents each. This includes the cost of the E-type silhouette but excludes the labor hours needed to purchase and assemble them.

The DIY thermal targets requires no power and can be used at the range or in inert training locations. Thermal tape uses its natural reflective property, so even in near zero illumination the tape will be reflective. Saving money and improving Soldiers' survivability, mobility and lethality couldn't be easier. The DIY idea creates a simulated weapon-shaped thermal signature over the torso of an E-type silhouette.



HERE'S WHAT YOU'LL NEED...

- E-type silhouette target (NSN 6920-00-795-1806 or NSN 6920-00-600-6874)
 - Can of adhesive spray glue (NSN 8040-00-782-0433)
 - Thermal paper (NSN 7530-00-523-9981)*
 - Knife or scissors to cut the thermal paper
- Note:** Cut strips into the following sizes:
- One 2 inches (2") wide x 18 inches (18") long
 - One 2" wide x 4" long
 - One 2" x 2" long

*You can also substitute aluminum tape, NSN 7510-00-684-8803, for the thermal paper, eliminating the need for glue and cutting.

Thermal Target Construction

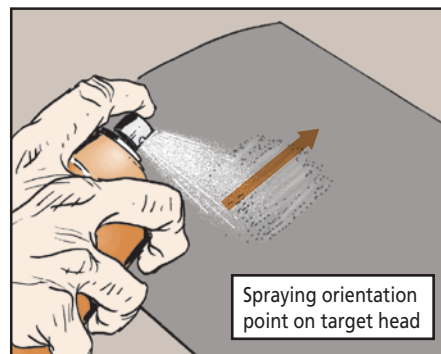
Step 1: E-type Silhouette Target



Place your E-Type target on a flat surface with the green side up. Approximately 4 inches down on the left side (just below the shoulder area), spray the glue from left to right slightly angled upwards, until you reach the right shoulder. This will eventually be the upper receiver. Your glue pattern should be several inches wide.

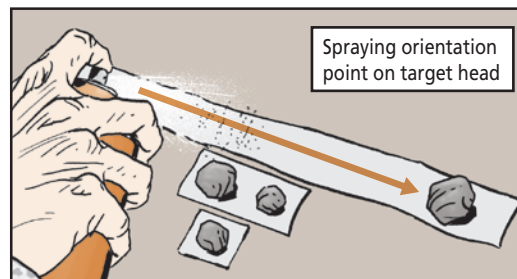


About 3 inches in from the left side, spray a 4-inch swath downward so that you can place the 2" x 4" strip on it, which will form the pistol grip.



In the center of the head, spray (either nose or eyebrow level) a 2" to 3" spot for your 2" x 2" piece of thermal tape. Allow to dry to a point that it is still tacky.

Step 2: Thermal Strips



Holding the spray gun about 6 to 8 inches away from the thermal strip, spray the backside (the uncolored side).

Step 3: Making the Target

While still tacky, take your 2" x 18" thermal strip (upper receiver) and place it on the target, ensuring that you angle it up to the right shoulder.

Then place the 2" x 4" strip for the pistol grip.

With the remaining 2" x 2" strip, place it in the center of the head to give the shooter a point of reference while making head shot.

Your target should look like a man holding a weapon at "Port Arms."



HERE ARE SOME ADDITIONAL TIPS FOR YOUR DIY THERMAL TARGETS...

- In foul weather, place a clear plastic bag over the target but leave it open. This will help the glue last a lot longer. **Note:** If you are zeroing the AN/PAS-13, the spotter will still see the impacts of the round through the plastic bag.
- The target needs to be tilted back 10-12 degrees in order to see the reflection through the AN/PAS-13.

The Right Place for CECOM Returns



Dear Editor,

Please tell your readers not to send CECOM equipment directly to the LCMC at Aberdeen Proving Ground (APG), MD, under DODAAC W15GK8. This is the *wrong* address and the APG installation warehouse is getting clogged with items that do not belong there.

Most CECOM items can be returned to the Defense Logistic Agency's (DLA) warehouse in Tobyhanna, PA, or DLA's warehouse in New Cumberland, PA. When returning items, type or clearly print mailing labels in ALL CAPS, exactly as shown below. Send returns to one of the following addresses:

Tobyhanna – BY6

For general cargo returns (unclassified and non-radiological)

Ship to:

W25G1W
W1BG UEF DIST DEPOT TOBYANNA
GIBBS AND FIFTH STREETS
WAREHOUSE 6 BAY 4
TOBYHANNA, PA 18466-5059

Classified, non-radiological returns

Ship to:

SV3114
DLA DISTRIBUTION TOBYHANNA
SPEC HANDLING FAC PH 570 615 7354
SQUIRE AND 5TH ST BLDG 5 BAY 5
TOBYHANNA, PA 18466-5059

Classified and unclassified radiological returns

Ship to:

ST3114
DLA DISTRIBUTION TOBYHANNA
RADIOLOGICAL SPEC HANDLING FACILITY
BUILDING 13 6TH STREET
TOBYHANNA, PA 18466-5059

or

New Cumberland – AN5
W25G1U
W1BG DLA DISTRIBUTION
DDSP NEW CUMBERLAND FACILITY
2001 NORMANDY DRIVE DOOR 113 TO 134
NEW CUMBERLAND, PA 17070-5002

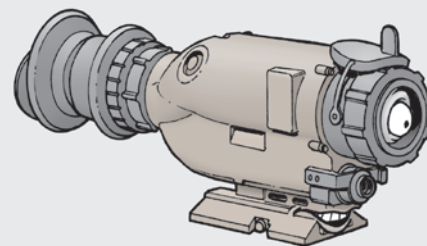
If your readers have questions about shipping any CECOM items, they can email: usarmy.APG.cecom.mbx.lrc-leo-s-and-d-support@mail.mil
Their email subject line should reference shipping items to CECOM.

Donna Albietz
CECOM Accountable Property Officer
AMSEL-LCL-D
APG, MD

Editor's note: Thanks for alerting us, Donna. They've got the message now.

Night Vision Devices...

**LITHIUM
BATTERIES
ONLY,
PLEASE**



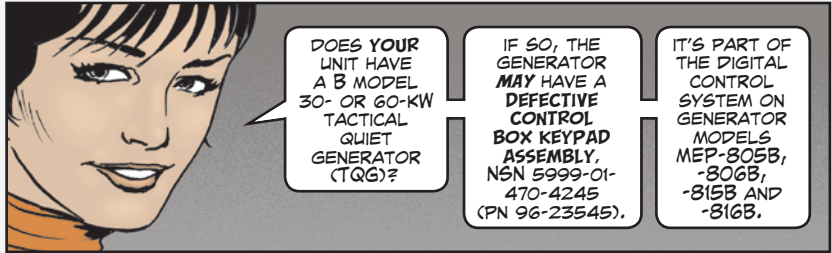
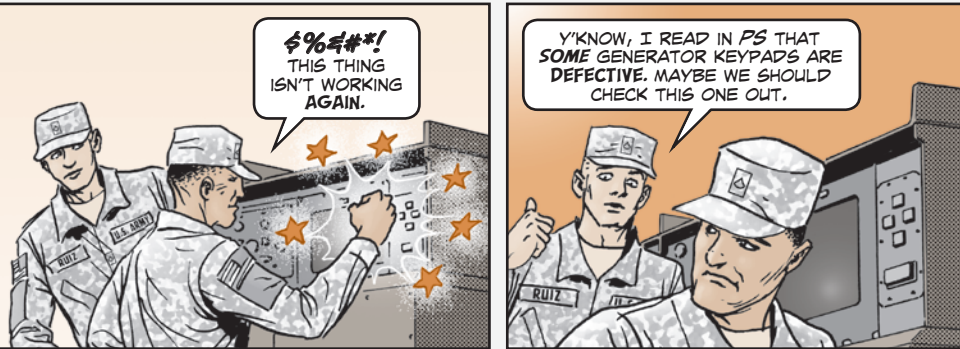
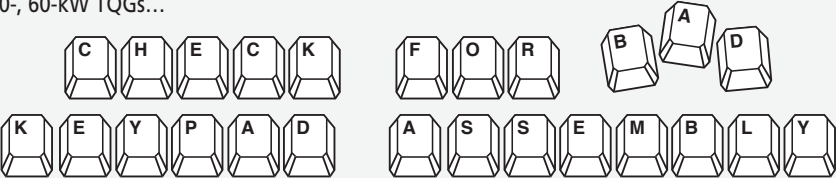
Units are correctly ordering 1.5V AA L91 lithium batteries, NSN 6135-01-333-6101, for their night vision devices. But when the DLA supplier is out of lithium batteries, alkaline batteries are being substituted. That just won't do!

These battery level indicators and alarms for night vision devices are developed specifically for AA L91 lithium batteries. Lithium batteries provide more than 13 hours of operation under ideal conditions, which is vastly superior to alkaline batteries. That's why you should only use alkaline batteries in night vision devices in a pinch.

So how do you prevent battery substitutions? Mark the requisition form DD Form 1348-6 with an advice code of "2J" in record positions 65-66, which means fill or kill, no substitutions.

The NSN brings 12 lithium batteries in individual blister packs packed in a single box.

30-, 60-kW TQGs...



THE KEYPAD ASSEMBLY CONTROLS NAVIGATION IN THE COMPUTER INTERFACE MODULE (CIM).

IF IT'S FAULTY, ONE CLUE IS THAT THE CIM CURSOR DOESN'T WORK RIGHT. SOMETIMES THE CURSOR WON'T MOVE DOWN-WARD OR LEFT AND SOMETIMES IT WON'T MOVE AT ALL.



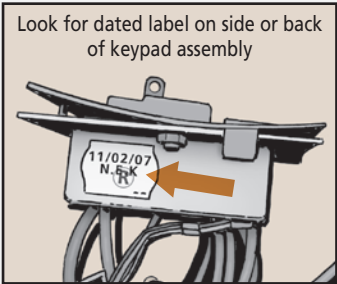
A TOTAL OF 566 CONTROL BOX KEYPAD ASSEMBLIES WERE DELIVERED AS SPARE PARTS UNDER THE FOLLOWING CONTRACTS IN THESE QUANTITIES...

Contract No.	Qty
SPM7M912V5779	145
SPM7M913V1559	110
SPM7M912V9941	89
SPM7M912V6443	86
26473	84
7040592	25
5672	25
NFECL credit card/email	2

Identify the Faulty Keypad Assembly

If your keypad falls under one of these contracts, here's how to check if it's covered:

- If the keypad assembly is already installed, remove it in an electrostatic discharge safe area.
 - For 30-kW generators, remove the keypad following the instructions in Steps 1-8 in WP 0050 of TM 9-6115-671-14.
 - For 60-kW generators, remove the keypad following the instructions in Steps 1-8 in WP 0050 in TM 9-6115-672-14.
- Find the label with the "N.E.K." quality assurance stamp. The label may be on the top or back of the assembly.
- Check the date code. The date code on the label is formatted as "MM/DD/YY" (for example, 11/02/07 is 02 Nov 2007).
 - If the date code on the label falls between 06/01/12 to 06/30/13, your keypad assembly is eligible for repair. The manufacturer will forward defective keypad assemblies to a supplier who will repair and return them to units free of charge. Contact the following POC to get a return material authorization (RMA) number and further instructions:
Kathryn Santine
Contract Administrator
L-3 Communications Westwood Corp.
12402 E. 60th St.
Tulsa, OK 74146
Or call her at (918) 250-4480 or email: Kathryn.Santine@L-3com.com
 - If the date on the label does not fall within the dates in Step 3(a), but the keypad assembly is defective, follow the standard product quality deficiency report (PQDR) process. To submit a PQDR, go to: <https://www.pdrep.csd.disa.mil/>



GCSS-Army Reminder

Remember to check the GCSS-Army website for alerts, updated fielding and training schedules and other important info. Visit: <https://gcss.army.mil/>
Or sign up to get automatic notifications at: <https://gcss.army.mil/Support/register.aspx>

DISTRIBUTION: To be distributed in accordance with the initial distribution number (IDN) 345239, requirements for the TB 43-PS-Series.

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

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**DON'T OPERATE IN THE DARK WHEN
IT COMES TO CHEMICAL SAFETY!**



DON'T GUESS! USE THE MSDS!



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