

Issue 598

PS

September
2002

THE PREVENTIVE MAINTENANCE MONTHLY

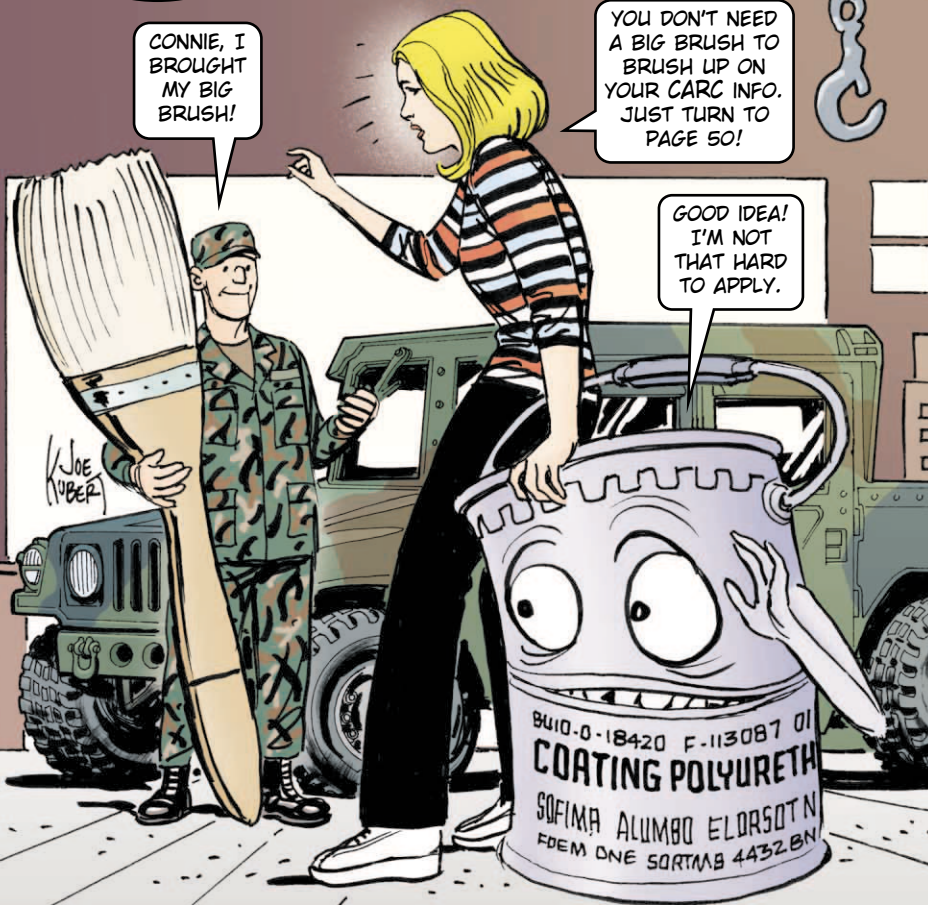
TB 43-PS-598

Approved for
Public Release;
Distribution is
Unlimited

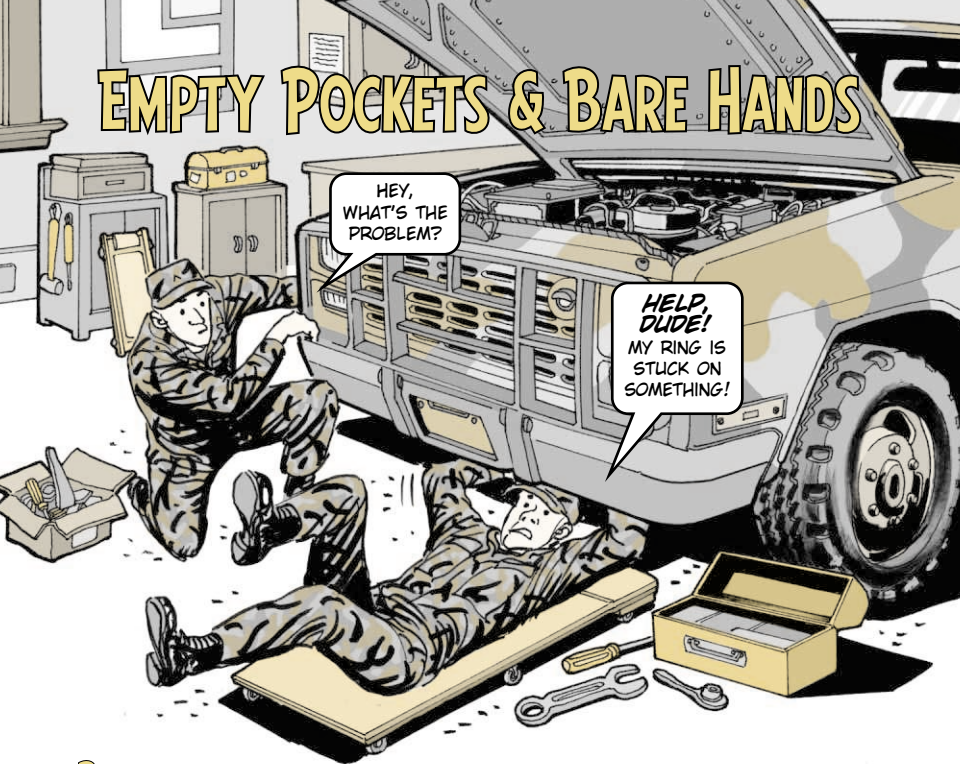
CONNIE, I
BROUGHT
MY BIG
BRUSH!

YOU DON'T NEED
A BIG BRUSH TO
BRUSH UP ON
YOUR CARC INFO.
JUST TURN TO
PAGE 50!

GOOD IDEA!
I'M NOT
THAT HARD
TO APPLY.



EMPTY POCKETS & BARE HANDS



Bad habits are hard to break. Ask anyone who's tried to stop smoking. Other habits don't have to be broken, just modified a little.

For instance, it's easy to forget about screwdrivers, glasses, wrenches, lighters and pens that you carry in your pockets. Easy, that is, until the item falls out of your pocket and shorts out a battery or plugs an opening.

It's also easy to forget that rings and watches can cause electrical shorts or get caught in moving parts. You could end up losing a finger or worse.

And one thing you won't soon forget is a system or equipment shutdown caused by something as simple as a paper clip.

Play it safe. If you need to change your work habits, do it! When you're on the job, always empty your pockets and remove all jewelry.



STEERING SYSTEM LUBRICATION

EARLY RESULTS FROM THE FIRST 5-YEAR SERVICES PERFORMED ON UPPER AND LOWER STEERING PLATE BEARINGS AND LOWER SUSPENSION BEARINGS ON M1000 SEMITRAILERS ARE NOW IN...

...AND THEY SHOW THAT THE TRAILERS **AREN'T** GETTING ENOUGH GREASE.

REPORTS SHOW THE LACK OF LUBRICATION **DAMAGES** PINS AND BUSHINGS USED IN THE STRUTS AND STEERING CYLINDERS SO **BADLY...**

...THAT DISASSEMBLY FOR THE SERVICE IS EXTREMELY **DIFFICULT** AND **TIME-CONSUMING**.

THAT TRANSLATES INTO **TWO** PROBLEMS FOR YOU WHO ARE FACING YOUR FIRST 5-YEAR SERVICES...

✱ Lots more maintenance time than is necessary.

✱ Even more expense than is necessary, since the pins range in price from about \$200 to more than \$1,000.

Lubing Right

Help out yourself and your unit by doing the lube job right, starting now.

Chapter 3 of TM 9-2330-381-14 has the mandatory lube instructions for the M1000. Eyeball Page 3-11, Step 13, for the platform grease fittings vital to the pins and bushings. These fittings are lubed monthly **under normal conditions**.



- ✱ Lubricate more often during constant use and **twice as often** in extreme dust and sand conditions.
- ✱ Clean the grease fittings with dry cleaning solvent and dry them off before using the grease gun.

Bum Hardware Problem

The reports also note grease fittings that won't take grease because the bolt that holds the pins and bushings in place has worked loose.

Seems the pins separate from the bushings, which causes the pins and bushings to rub. Soon the grease holes don't line up right and grease can't get where it needs to be. A loose bolt can also cause the seal to malfunction, letting in dirt and dust.

A new bolt is available that will solve this problem. Make notes in TM 9-2330-381-24P and put these new bolts to work now:

NSN 5306-01-472-3328, which is Item 4, Fig 29; Item 6 in Fig 30; and Item 6 in Fig 32.

Part number SW32291-3, which is Item 19, Fig 30. Order it on DD Form 1348-6, using CAGE 98255 with RIC AKZ.

THE HEADSHED WILL ALSO MAKE ANOTHER TM CHANGE TO MAKE PULLING THE 5-YEAR SERVICE AS EASY AS POSSIBLE.

UNTIL THEY DO, ADD THIS NOTE TO STEP 1 IN PARA 3-2 ON PAGE 3-1 IN THE -14 TM...

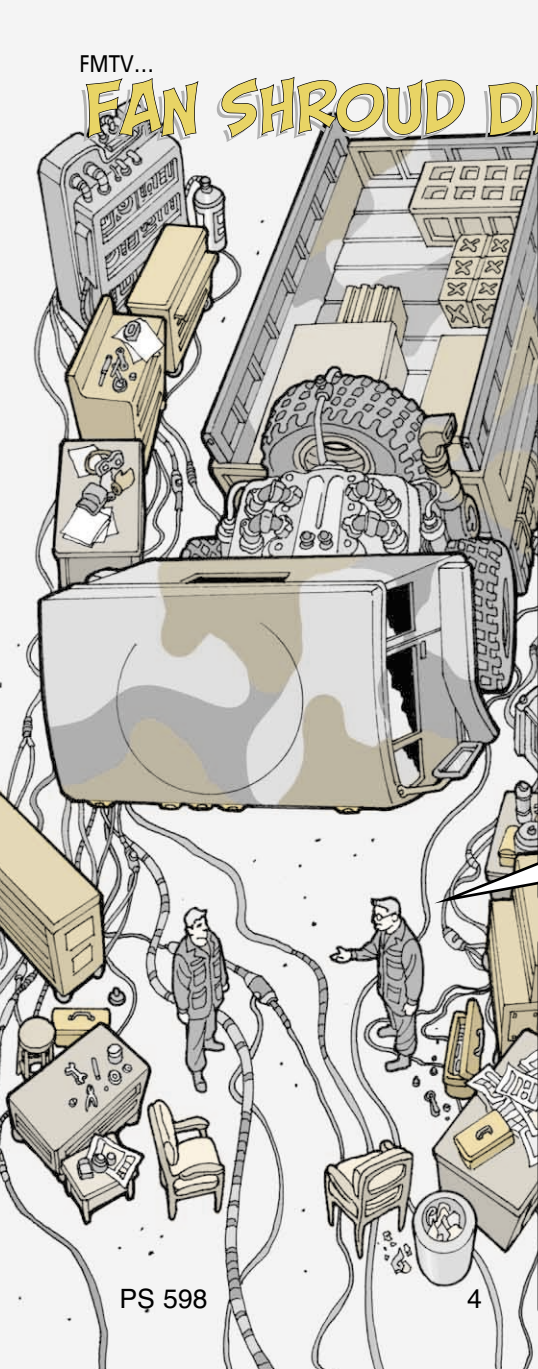
TM 9-2330-381-14

Page 3-1, para 3-2, step 1:

If a lubrication fitting will not accept grease, check to make sure that everything is properly tightened. If loose, tighten appropriate parts. If the lubrication fitting still will not accept grease, notify your supervisor.

FMTV...

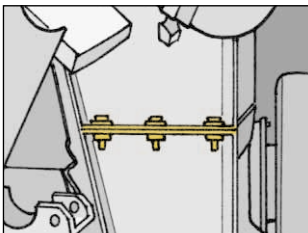
FAN SHROUD DIFFERENCES



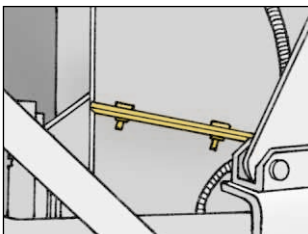
THE ORIGINAL TWO-PIECE FAN SHROUD USED ON FMTVS IS NO LONGER AVAILABLE. WHEN YOU HAVE TO REPLACE EITHER THE UPPER OR LOWER PIECE OF THE ORIGINAL SHROUD, YOU MUST ORDER **BOTH** PIECES OF THE NEW SHROUD.

THE NEW **UPPER** SHROUD COMES WITH NSN 2930-01-434-5219 AND THE NEW **LOWER** SHROUD COMES WITH NSN 2930-01-434-5220.

IDENTIFY WHICH SHROUD YOUR TRUCK HAS BY LOOKING AT THE AREA WHERE THE PIECES ARE BOLTED TOGETHER. IF THE AREA IS **PARALLEL** TO THE GROUND (STRAIGHT), YOUR TRUCK HAS THE ORIGINAL SHROUD



IF THE AREA IS **ANGLED** (ABOUT 45°), YOUR TRUCK HAS THE NEW SHROUD. NEED A REPLACEMENT PIECE OF THE NEW SHROUD? ORDER THE UPPER OR LOWER SECTIONS AS NOTED.



2500L Fire Truck...

STOP ENGINE RUN-ON

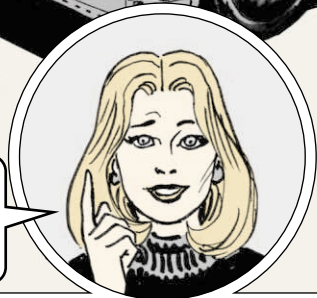
HERE'S A
NEW KIT THAT'LL
STOP ENGINE
RUN-ON!

DID YOU HEAR WHAT I
SAID? HERE'S A NEW KIT
THAT'LL STOP ENGINE
RUN-ON! WHAT'S 'RUN-
ON', YOU SAY? FUNNY
THAT YOU SHOULD ASK
ABOUT THAT!

IF YOUR ENGINE'S
BEEN EXPERIENCING
RUN-ON OVER THE
YEARS, YOU REALLY
HAVEN'T BEEN DOING
A VERY GOOD JOB
OF PERFORMING
PROPER PM.

WELL, MAYBE
NOT *YOU*, BUT
THERE'S A GUY
WHO BLAH
BLAH BLAH
BLAH BLAH
BLAH BLAH

BEFORE YOU
TUNE OUT,
HERE'S A
TIP ON THE
TUNE-UP!



Mechanics, is your Amertek fire truck having a problem with engine run-on? If so, you can install a parts kit to stop it. Get the kit from the manufacturer:

American Fire Equipment, Inc.
13720 Dabney Road
Woodbridge, VA 22191
Toll-free 888-233-3473
(703) 491-2990
(703) 491-1688 (Fax)

Ask for the Kit-American. It comes with installation instructions and costs about \$350.

Before installing the kit, make sure the truck's neutral safety switch works. If the truck starts up in any gear other than NEUTRAL or PARK, the neutral safety switch is shot. Order a new switch with NSN 5930-01-155-7359.

TAKE THE **HEAT** OFF WITH PM



A blocked or leaky vapor compression system unit (VCSU) on your M1A2 SEP (system enhancement package) can cause some hot problems, crewmen. That's why you've got to be extra careful during before-operation PMCS.

When storing gear in the bustle rack, it's easy to block the VCSU vent. With the vent plugged, the VCSU shuts down and the crew compartment doesn't get the air you need to stay cool during hot weather.

It's also easy to miss a leaky manifold under the VCSU. If the leak is severe enough—a Class III—the hydraulic fluid gets into the engine compartment where it can start a fire.

Change 2 to Page 2-50 in TM 9-2350-388-10-1 will include a caution about blocking the VCSU vent and an additional check for leaks.

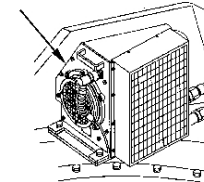
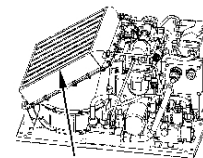
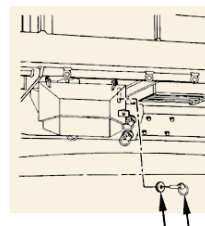
UNTIL THE CHANGE IS AVAILABLE, PUT A COPY OF THE FOLLOWING TABLE INSIDE YOUR TM:



TM 9-2350-388-10-1

Table 2-1. Preventive Maintenance Checks and Services

Item No.	Interval	Location Item to Check/ Service	Crewmember Procedure	Not Fully Mission Capable If:
4	Before	Vapor Compression System Unit (VCSU)	<p>CREWMEMBER</p> <p>CAUTION</p> <p>Do not block the VCSU intake grill. TMS may not operate correctly if VCSU intake grill is blocked.</p> <ol style="list-style-type: none"> Clean dirt, leaves, and other material out of VCSU louvers Check underside of VCSU for hydraulic or coolant leaks. If leaks are found, notify unit maintenance. Remove pin (1), washer (2), and lower ballistic cover. Inspect for leaks. Reinstall cover and pin. 	<p>Class III hydraulic leaks</p> <p>Class III hydraulic leaks</p>
5	Before	Air Handling Unit (AHU)	<p>CREWMEMBER</p> <ol style="list-style-type: none"> Check for hydraulic or coolant leak. If leaks are found, notify unit maintenance. Inspect heat exchange for dirt. Clean with brush as required. 	Class III hydraulic leaks



M2/M3-Series Bradleys...

BEWARE OF BENT BARRELS

WOW! I GUESS I HIT THAT TREE A LITTLE HARDER THAN I REALIZED!

YEAH, YOU'RE TELLING ME! NOW, WHAT'RE YOU GONNA DO ABOUT IT?



If you've struck a tree or other hard object with your Bradley's 25mm cannon barrel, don't assume everything's OK.

Eyeball the weapon for bent or cracked parts and double check the mounting area to ensure nothing is loose or broken. Report any problems.

If everything checks out visually, have your mechanic perform STE Test 2791, 2640 and 2650. Those tests check the turret traverse bearing as well as gun and TOW elevation.

Share Your BDAR Tips

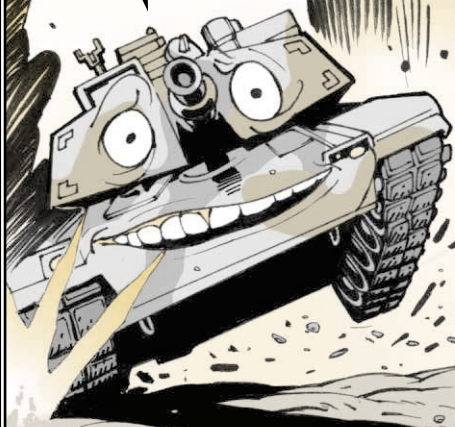
Got a good battlefield damage assessment and repair (BDAR) tip or technique, but not sure how to share it with others?

The TRADOC Executive Agency at Aberdeen Proving Ground, MD, is the place to go. They test BDAR techniques during live fire testing of vehicles and incorporate successful ones in the appropriate BDAR manuals.

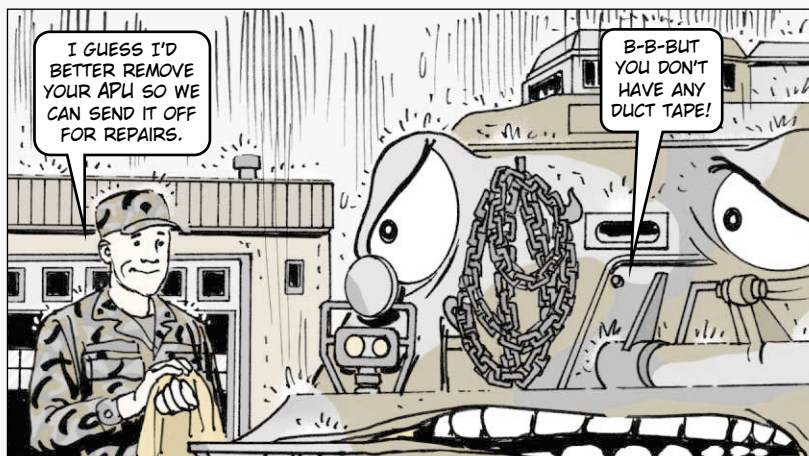
Contact the TRADOC Executive Agency by calling DSN 298-3050/4474 or (410) 278-3050/4474, faxing to (410) 278-5184, or e-mailing

robert.gehr@ocs.apg.army.mil or
brian.burridge@ocs.apg.army.mil

WITH YOUR BDAR SUGGESTIONS, I CAN KEEP GOING ON THE BATTLEFIELD!



TAKE TIME TO TAPE APU



Dear Editor,

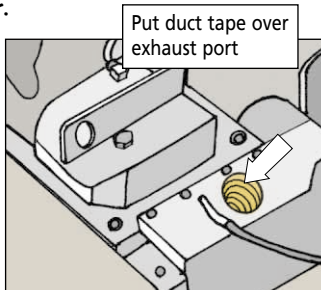
We repair the M88A1's auxiliary power unit (APU), NSN 6115-01-047-9330, under the National Maintenance Management Repair Program. We've noticed that more and more APUs arrive needing extensive (and expensive) repairs to the engine block because of water damage.

When the APU is removed, the exhaust port is left wide open. That lets water—from rain, condensation or any other source—inside the APU. The water seeps past the exhaust valves, enters the combustion chamber and rusts the piston to the side of the cylinder.

To fix this damage, we have to hone the cylinders and fit oversized pistons and rings. All that dramatically increases repair costs.

Most of this damage could be prevented if mechanics would seal the exhaust port with a piece of duct tape immediately after removing the APU. That keeps water out and damage to a minimum.

Robert A. Hamme
Ft Knox, KY



**From the
desk of
the Editor**



That little piece of duct tape sounds like a good investment! It's probably a good idea to further protect the APU by shrink wrapping it before shipment to the repair site.

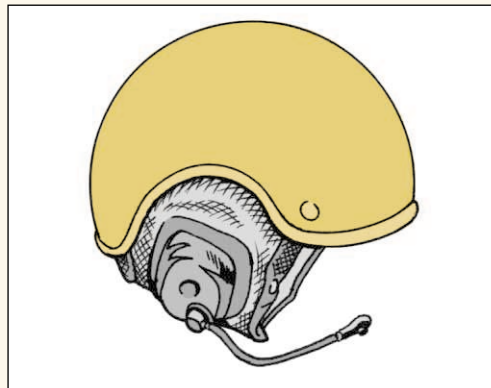
A Pile of Parts



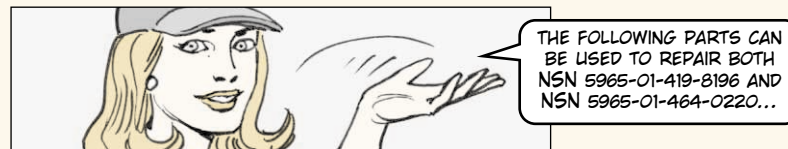
IF YOU'RE SERIOUS ABOUT KEEPING THE NEW AN/VIC-3(V) CVC HEADSET UP TO PAR, YOU'LL NEED TO FOLLOW THE ADVICE IN TM 11-5830-263-208P (APR 00).

THEN TAKE A LOOK AT THESE NSNs FOR PARTS THAT YOU CAN REPLACE AT THE UNIT LEVEL.

- ### Helmet shell
- Small/medium, NSN 8470-01-389-3815
 - Large, NSN 8470-01-389-3821

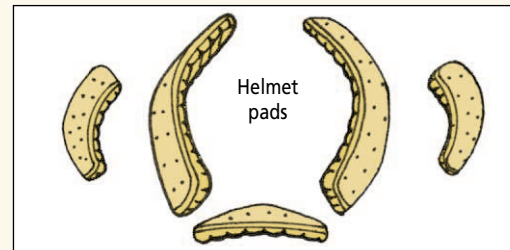


Headset, electrical assembly:



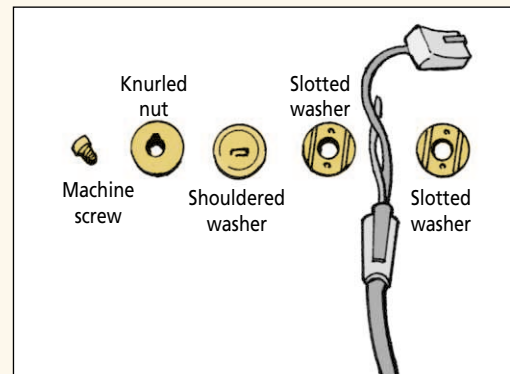
Helmet pads (5 pieces)

- Small/medium, NSN 8415-01-470-2845 (used in small/medium liner, NSN 8415-01-470-2821)
- Large, NSN 8415-01-470-2856 (used in large liner, NSN 8415-01-470-2840)



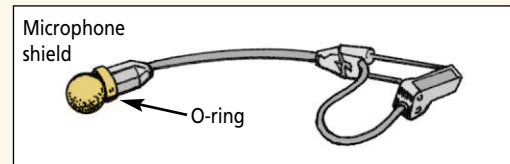
H-374(V) microphone and boom mounting assembly, NSN 5965-01-419-8197

- Machine screw, NSN 5305-00-489-0742
- Knurled nut, NSN 5310-01-443-9064
- Shouldered washer, NSN 5310-01-443-9063
- Slotted washer (2), NSN 5310-01-444-6389



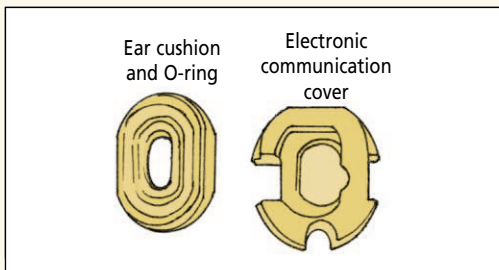
M-175/VRC one-piece microphone, boom and cable assembly, NSN 5965-01-462-4079

- Microphone shield, NSN 5965-01-411-1856
- O-ring, NSN 5331-00-248-3836

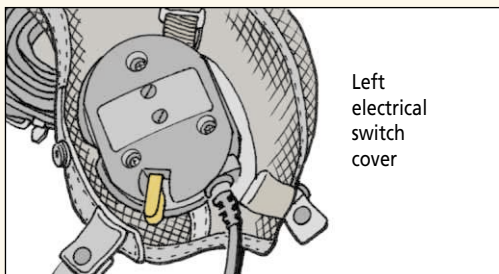


Headset, electrical assembly (continued):

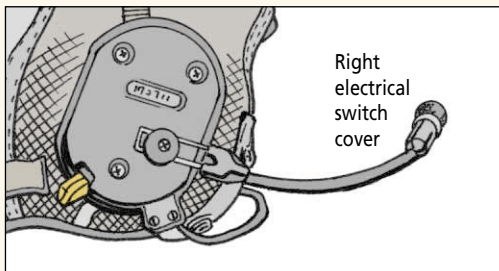
- Ear cushion and O-ring, NSN 5965-01-418-5535
- Electronic communication cover, NSN 5895-01-464-0223



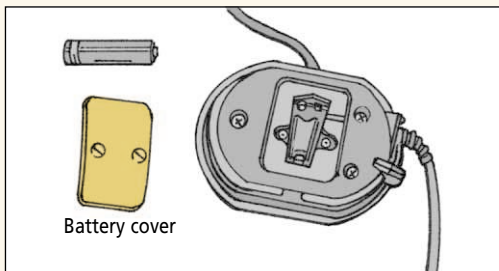
- Electrical switch cover (left side), NSN 5930-01-464-9981



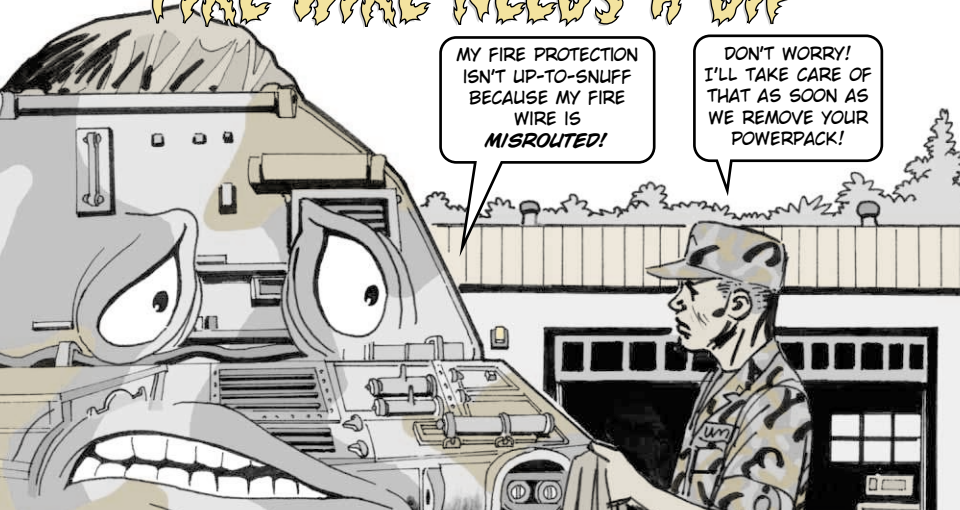
- Electrical switch cover (right side), NSN 5930-01-464-9985



- Battery cover, NSN 6160-01-464-0221 (for NSN 5965-01-464-0220 headset only)



FIRE WIRE NEEDS A DIP



MY FIRE PROTECTION
ISN'T UP-TO-SNUFF
BECAUSE MY FIRE
WIRE IS
MISROUTED!

DON'T WORRY!
I'LL TAKE CARE OF
THAT AS SOON AS
WE REMOVE YOUR
POWERPACK!

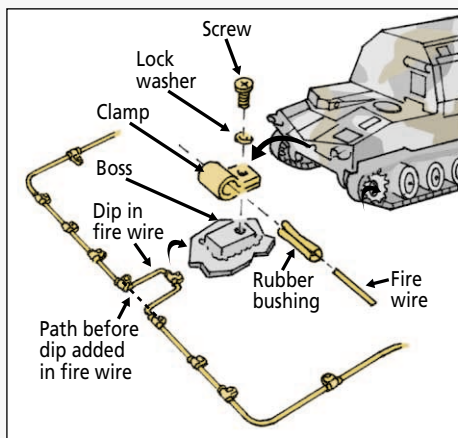
The fire wire in the lower front of the engine compartment of some M992A2 ammo carriers has some extra slack, mechanics. During production, that slack was coiled up in the corner of the engine compartment to keep it from getting cut or damaged.

Problem is, the extra wire was supposed to be formed into a dip at the front of the engine compartment to provide better fire coverage.

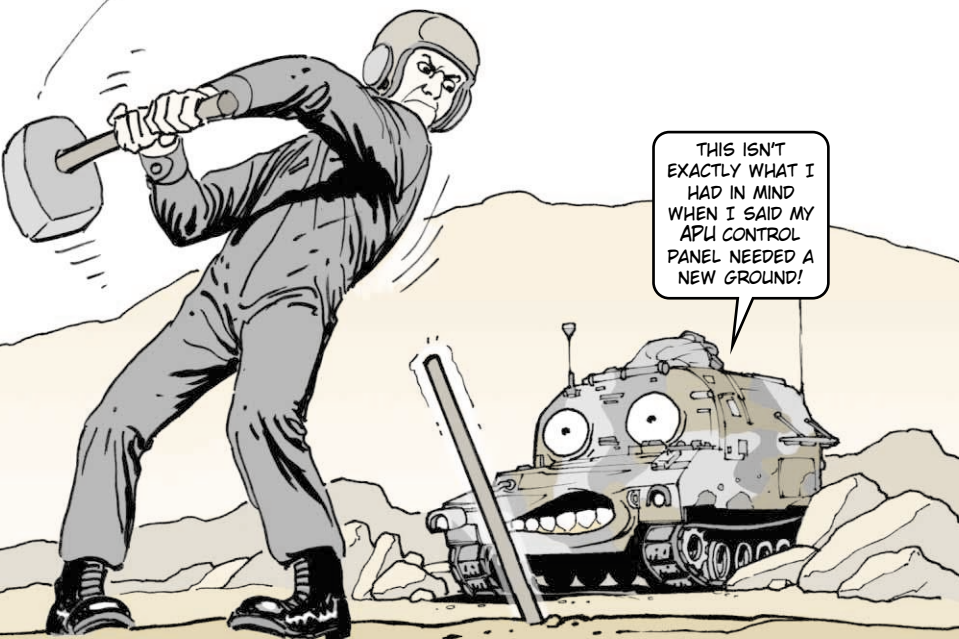
If your carrier has a serial number of 821 or higher, you'll need to secure the extra wire the next time the powerpack is removed. Just gather all the slack in the middle of the engine compartment and clamp the fire wire in place to the existing boss on the carrier's hull.

Here are the parts you'll need:

Item	NSN
Rubber bushing	5365-99-881-6505
Loop clamp	5340-00-057-2890
Lock washer	5310-00-045-3296
Machine screw	5305-00-984-6208



GET NEW GROUND FOR GAUGE



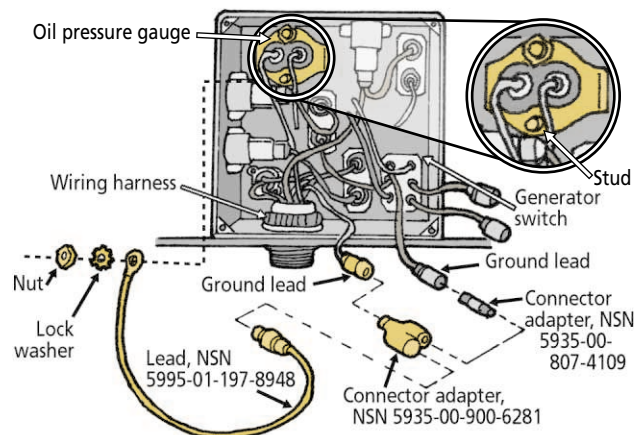
Before you replace a malfunctioning engine oil pressure gauge in the M992A2's APU control box, mechanics, check the ground.

The gauge is currently grounded through its mounting bracket. But since contact there can be skimpy, the gauge may not work.

The solution is to use a ground wire to attach the mounting bracket to an incoming ground that's already in place. Here's how:

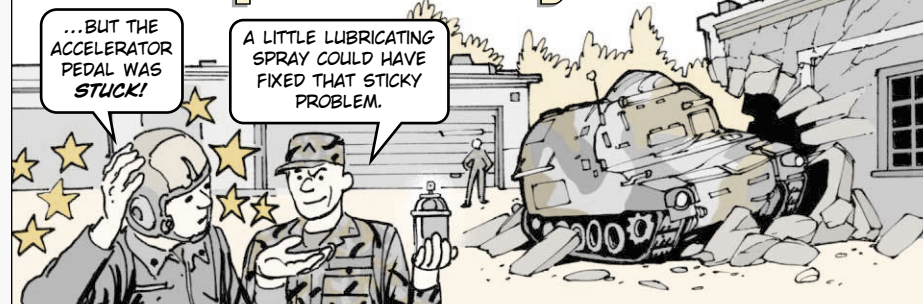
1. Remove the APU control box and take off the rear panel following the instructions starting on Page 7-62 of TM 9-2350-293-20-1.
2. Disconnect the ground lead that leads to the generator switch.
3. Connect the single side of the Y connector, NSN 5935-00-900-6281, to the loose ground lead of the wiring harness.
4. Fasten the ground lead from the generator switch to the double side of the Y connector using a connector adapter, NSN 5935-00-807-4109.
5. Remove the nut and lockwasher from the engine oil pressure gauge mounting stud. Slip the terminal end of the electrical lead, NSN 5995-01-197-8948, over the stud and secure it with the nut and lockwasher.

6. Plug the other end of the electrical lead into the remaining empty socket of the Y connector.
7. Reinstall the rear panel and APU control box.



M109-Series SP Howitzers, M992A2 Ammo Carrier...

Stop Sticky Pedal

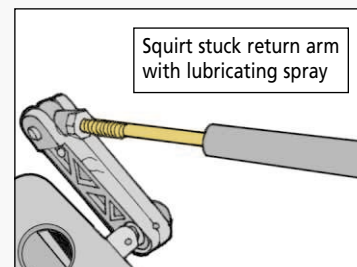


Got a sticky accelerator pedal on your howitzer or ammo carrier? That could be bad news if you need to stop quickly.

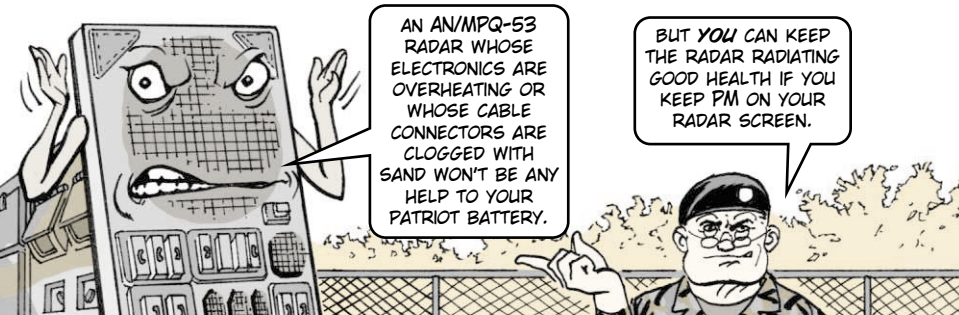
Have your mechanic give the return spring and return arm a few squirts of lubricating spray, NSN 9150-00-458-0075. Move the pedal back and forth a few times to work in the spray. That should get the pedal moving smoothly again.

If the return spring is stretched or broken, replace it with NSN 5360-00-805-3685.

Prevent future sticking problems by lubricating the return spring and arm quarterly with CLP like it says in the lubrication instructions of your vehicle's -10 TM.



Keep PM on Your Radar Screen

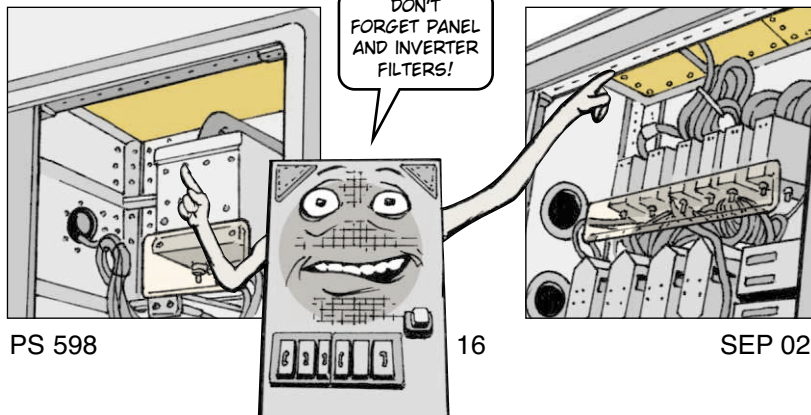


Fresh Air

The AN/MPQ-53 needs plenty of fresh air to keep its electronics from overheating, especially in the desert. That makes filters Job No. 1 during maintenance.

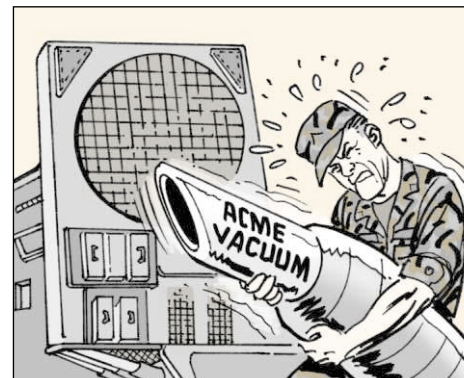
At least monthly (every other week in the desert), check all eight vent screens for dirt. Vacuum them if necessary. Before powering up the radar, make sure every vent is open.

The radar's two **A100 distribution box power panel** filters, the **A122 control logic panel excitor** filter and the filters behind the **inverters** are almost always forgotten. They should be checked monthly (every other week in the desert) and cleaned if necessary.



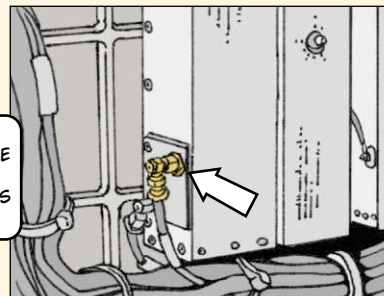
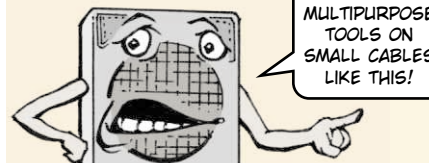
Filters will stay clean longer if you keep radar doors shut as much as possible and weekly vacuum inside the radar. Dust lying on the floor will be sucked into the air system.

The IFF cabinet also becomes clogged with dirt and its circuit cards overheat. Weekly, wipe dirt off the IFF cabinet and follow the rest of the PMCS in TM 11-5895-824-12.

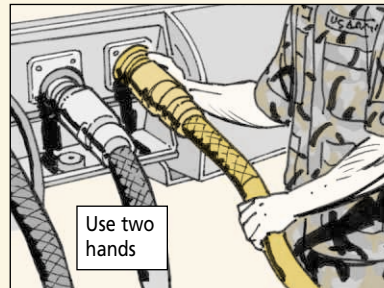


Cable Care

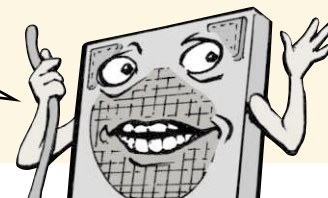
Inside the radar are numerous slender cables that require the proper wrench. If you use your multipurpose tool on them, you can twist the cables and tear their wiring.



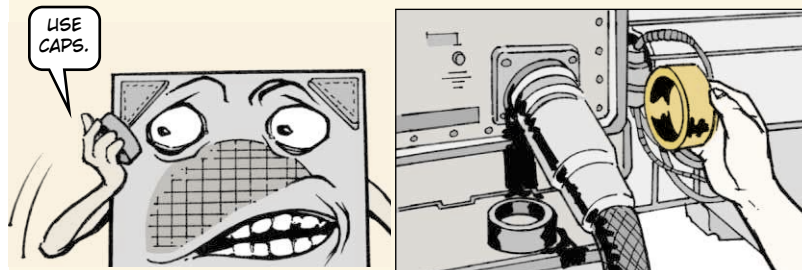
It's a different story with the big J1, J2, and J3 cables. They require two hands. If you twist cables on or off one-handed, you rip the wiring. And they're expensive. So use one hand to support the cable and take the weight off the connector. Use the other hand to turn the connector until it disconnects. Pull it straight off. Don't let the cable slam to the ground. It can't take the hit.



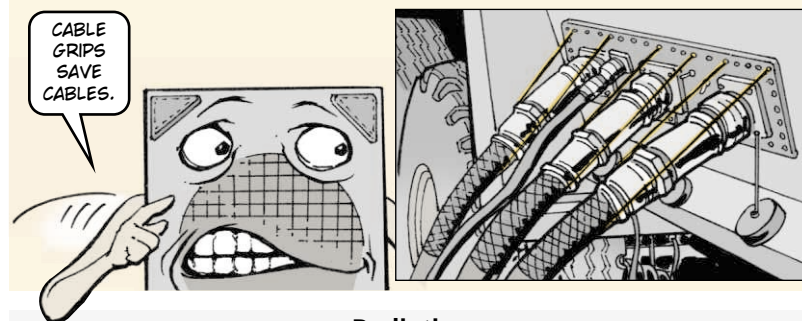
SUPPORT THE CABLE WITH ONE HAND WHILE UNSCREWING THE CONNECTOR. THEN LAY THE CABLE DOWN.



Cap the cables and radar connectors as soon as you disconnect them. Otherwise, dirt and sand clog the connectors. If the caps have disappeared, tell your repairmen and wrap the connectors in plastic.

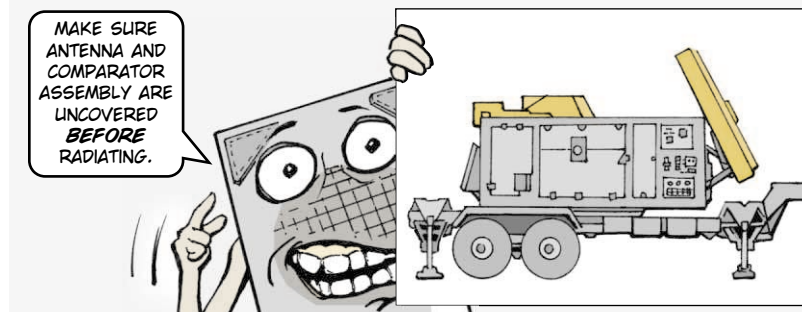


Cable grips will help these big cables last by supporting the cables' weight. Order grips with NSN 5120-01-213-9538.

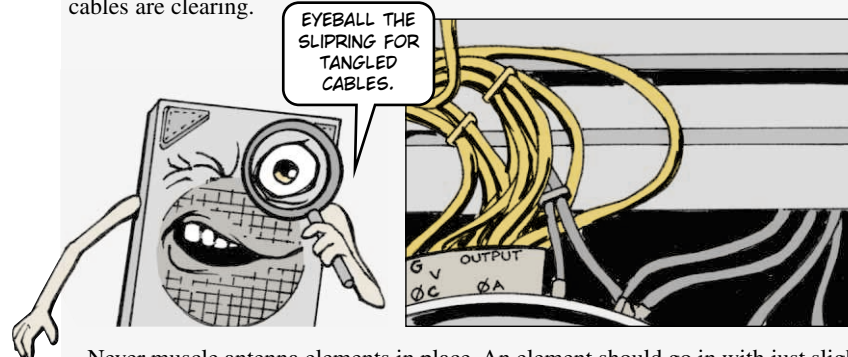


Radiating

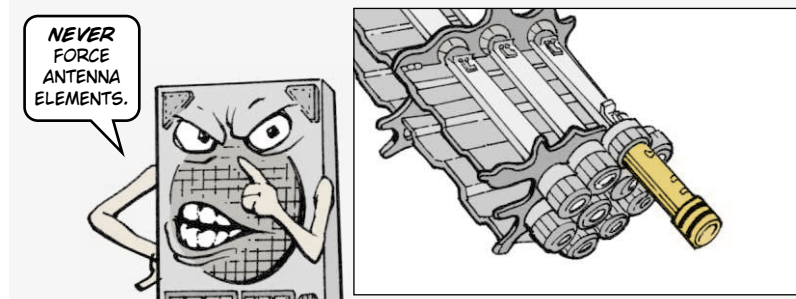
Before you radiate, double check that the covers have been removed from the comparator assembly and the antenna. If a cover's left on, it reflects the RF energy back down the wave guide and the radar becomes a microwave oven, cracking or damaging the waveguide window and other components.



Any time you're rotating and lose power, don't power up again until you inspect the slipring for tangled cables or arcing. A cable may have fallen out of the cable tray or the tray itself may be loose. If you continue to operate, cables rip out or the whole slipring burns up. A good check is to manually rotate the radar to see if the cables are clearing.



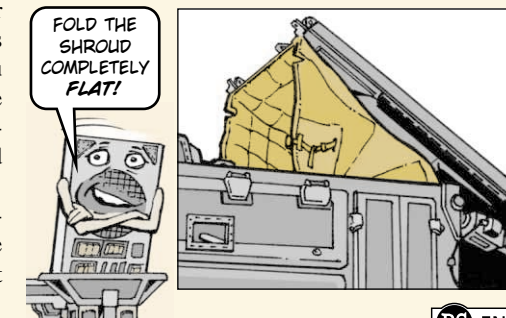
Never muscle antenna elements in place. An element should go in with just slight pressure. If it doesn't, turn the element and try again. Forcing an element bursts the antenna socket. The whole antenna has to be taken apart to fix one socket.



Hitting the Road

Before you hit the road or traverse, make sure all doors are latched and shut. If you forget just one door, it can be torn off and then the electromagnetic interference shield is ruined.

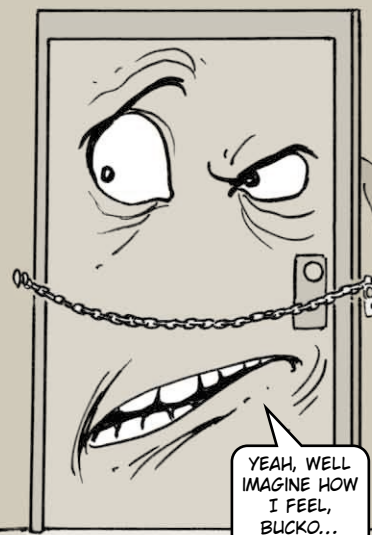
Fold the shroud completely flat before you lower the radar. If it is bunched up, it can damage the roof covers.



Small
Arms...

SECURITY FOR YOUR ARMS ROOM RACKS

Y'KNOW, I
DON'T FEEL
VERY SECURE
ABOUT RACK
SECURITY.



YEAH, WELL
IMAGINE HOW
I FEEL,
BUCKO...

← ARMS
ROOM

SO WHERE
DO WE GO FOR
ANSWERS ON
SECURITY?



From: 2LT J.S.
Sent: Sunday, June 09,
2002 5:07 PM
To: Half-Mast
<psmag@logsa.army.mil>

Dear Half-Mast,
I know that unit
arms room racks
require strong pad-
locks and chains to
meet security require-
ments. Could you give
me NSNs for a chain
and a padlock that
would meet those
requirements?

2LT J.S.

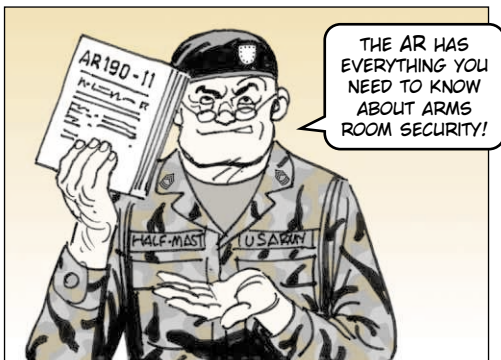
THAT
OUGHTA
DO IT!



Dear Lieutenant,

You bet. NSN 4010-00-149-5583 brings 550 feet of heavy-duty chain and NSN 4010-00-171-4427 brings 20 feet. NSN 5340-01-408-8434 gets a secure padlock with a 3-in shackle and NSN 5340-00-158-3805 gets one with a 2-in shackle.

You'll find the straight scoop on arms room rack security in AR 190-11, Physical Security of Arms, Ammunition, and Explosives. It's on the Internet at www.usapa.army.mil/gils.



THE AR HAS
EVERYTHING YOU
NEED TO KNOW
ABOUT ARMS
ROOM SECURITY!

Here are some important rules armorers must remember:

✱ All arms racks or containers must be locked with approved secondary padlocks. In arms rooms that are not manned 24 hours a day, rifle racks and containers weighing less than 500 pounds must be fastened to the floor or wall or fastened together in groups totaling more than 500 pounds with bolts or with chains equipped with secondary padlocks.

✱ Bolts used to secure racks must be spot welded, brazed, or peened to prevent easy removal. Chains must be heavy duty hardened steel, welded, straight links, galvanized, and of at least 5/16-in thickness or of equivalent resistance to the force required to break or cut a secondary padlock.

Of course, any time you have security questions, the best place to start is with your local security office.

Half-Mast



IS THIS
REALLY
NECESSARY?

YES,
IT IS.



CHAINS MUST
BE **VERY
STRONG** TO
MEET SECURITY
STANDARDS.

Timing Gauge **Not** for Headspace



Dear Editor,

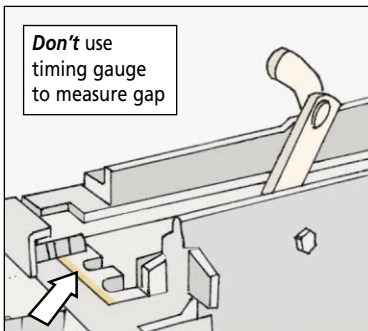
I've been told by several soldiers that they're being taught in AIT to use the .116-in end of the timing gauge to headspace the M2 machine gun.

They've been told at Step 9 (Page 2-46 in TM 9-1005-213-10) to use the gauge's .116-in end as a measure of how much to separate the barrel extension from the trunnion block. Since you're not supposed to have a gap between the extension and block of more than 1/16 inch, using the timing gauge actually results in too big a gap and the wrong headspace.

Help me get the word out that the timing gauge shouldn't be used for headspacing.

John Dixon
III Corps Troop School
Ft Hood, TX

Don't use
timing gauge
to measure gap

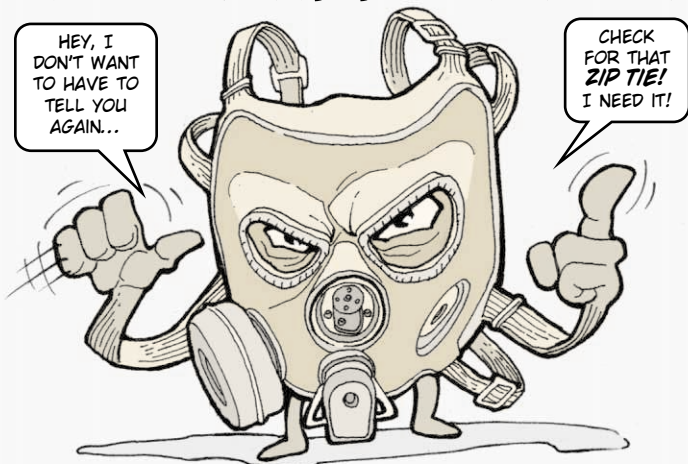


From the desk
of the *Editor*



Consider it done. M2 gunners should headspace and time the guns exactly as it says in the -10.

Have Your Masks Been MWOed?



A modification work order (MWO) has been around for more than 4 years that will keep your M40/M42 masks in better working order. Unfortunately, many NBC NCOs don't know about the MWO and too many masks aren't being modified.

MWO 3-4240-347-20-1 (Jun 98) prevents the silicone rubber of the outlet valve housing from pulling loose from the facepiece.

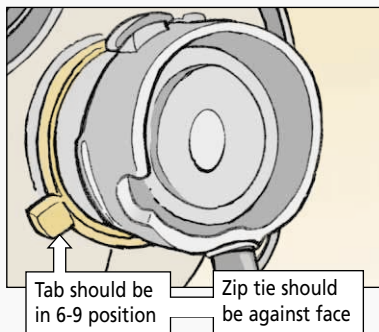
Not sure if your masks have been modified? Look at the outlet valve housing. If a zip tie has been fastened around the valve housing, the MWO has been done.

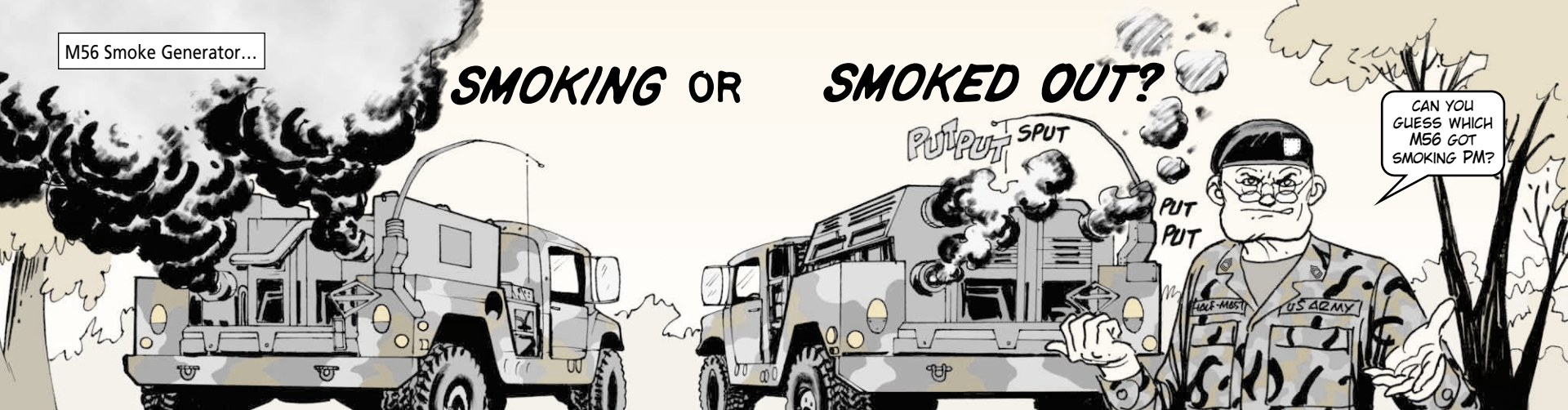
No zip tie? Contact your local MWO coordinator if you have one, or your SBCCOM logistics assistance representative. They can get you the MWO kit to modify masks.

The zip tie is easier to install if you first pull it hand-tight before using the tensioning tool to fully tighten it.

The tie should go against the face piece behind the drink tube nipple. If the tie's anywhere else, it can't do its job.

When you put on the zip tie, remember its tab should be in the 6 to 9 o'clock position. If you put it in anywhere in the 12 to 6 position, the drink tube gets in the way.



SMOKING OR**SMOKED OUT?**

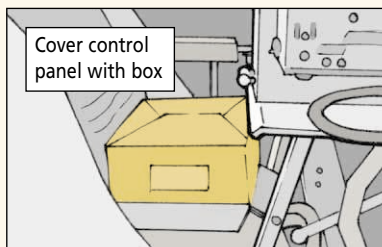
DO YOU WANT YOUR M56 SMOKE GENERATOR SMOKING LIKE A CHIMNEY OR SMOKED OUT BY CARELESSNESS AND LACK OF PM? CHIMNEY, RIGHT?



THEN HERE'S WHAT YOU NEED TO DO...

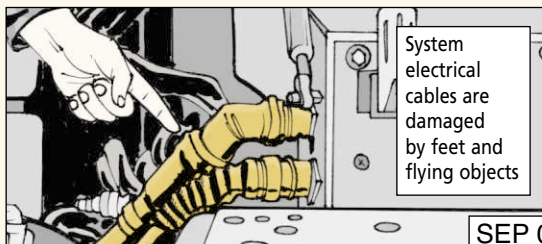
Don't Throw Stuff

A carelessly tossed helmet or pack can put your M56 down faster than you can say "uh-oh". Inside the truck, the usual victim is the toggle switches on the control panel. A broken switch usually means no smoking. Many units keep a cardboard or MRE box over the control panel when they're not smoking to protect the switches.



On the smoke generator itself, the fog oil pump, the system electrical cables, and the IR transport hose are what catch damage. They are banged up by not only tossed objects, but also by people stepping on them and by stuff being piled on them.

When you climb around the M56, step on the fenders and the loading platform. Don't pile equipment on the M56. Find someplace else to put your gear.



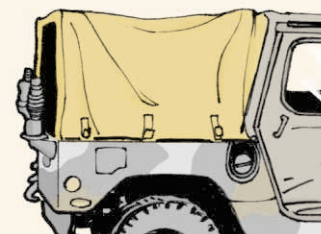
SEP 02

Watch the Water

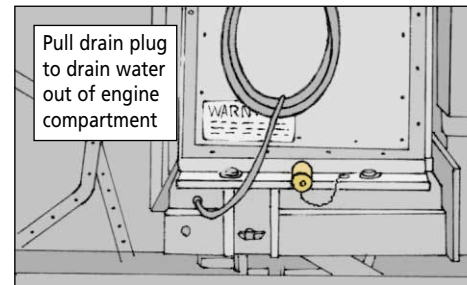
It's best to keep your M56 as dry as possible. Water not only causes the usual electrical and corrosion problems, but if it gets in the turbine exhaust it can stop the turbine engine from starting. And water in the IR ejector can eventually cause the grinder to seize from corrosion.

Keep the M56 covered with its tarp when it's not being used. Don't take the M56 through a wash rack unless the tarp is in place. Check after a rain or washing for water in the engine compartment. If you spot any, pull the drain plug at the bottom rear of the engine enclosure and let the water drain.

Keep M56 covered with tarp



Pull drain plug to drain water out of engine compartment



IF YOU FOLLOW THESE RULES AND THE ONES ON THE NEXT PAGE, YOUR M56 *WILL* SMOKE LIKE A CHIMNEY!



PS 598

25

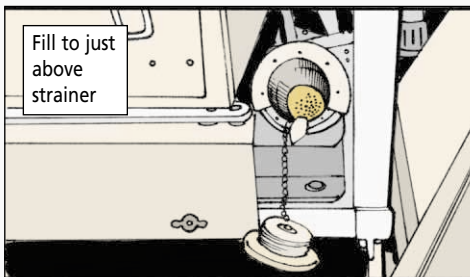
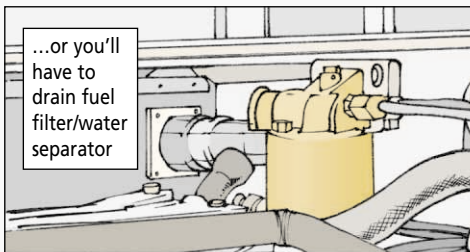
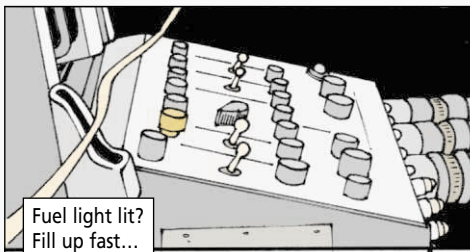
PS MORE

Watch the Fuel

The M56 doesn't have a fuel gauge, so you must keep an eye on the fuel warning light on the control panel. Once it lights up, you have only 5-10 minutes of smoking left. So shut down the system as soon as the light comes on.

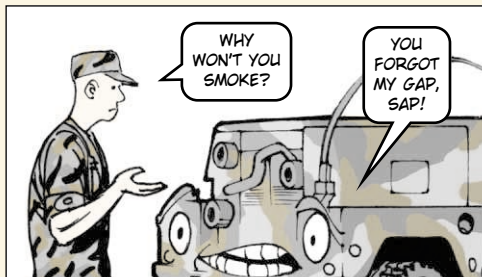
If you let the M56 run dry, air gets in the fuel lines. You won't be able to smoke again until you bleed the fuel lines and the fuel filter/water separator after you refill the tank. See Para 3-13 in TM 3-1040-282-10 for bleeding instructions. But even then you may have trouble restarting.

Your best bet is to always fill the M56 tank before you start smoking. But remember that a full tank will provide only 1½ hours of turbine operation. Be careful not to overfill the tank, though. Heat expands fuel and that can cause leaks. Fill it just above the strainer.

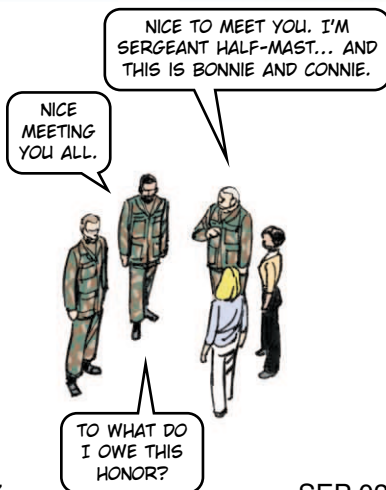
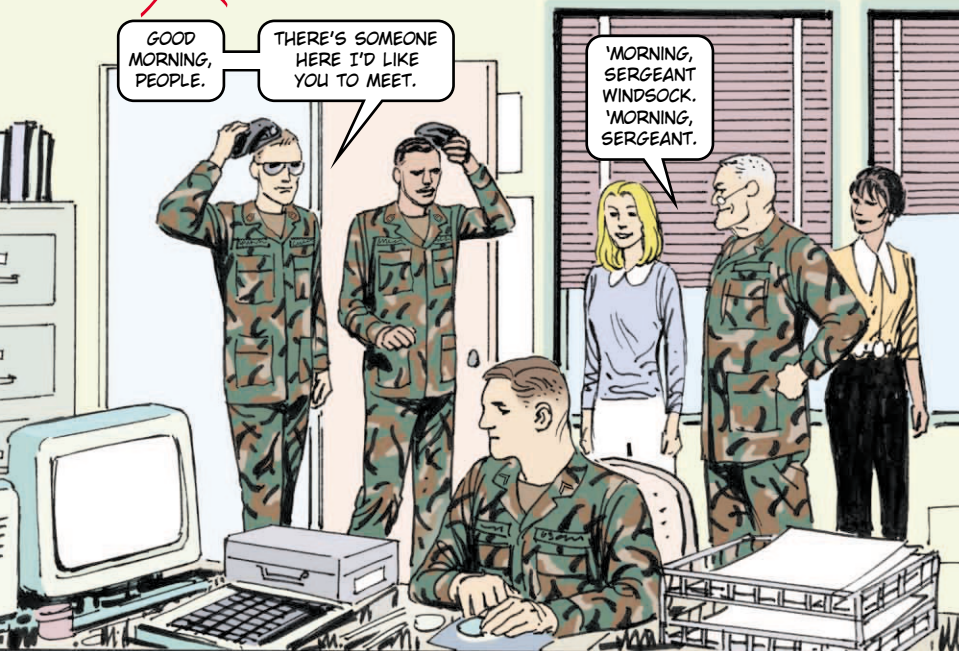


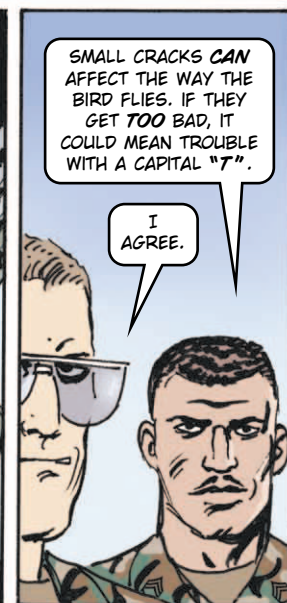
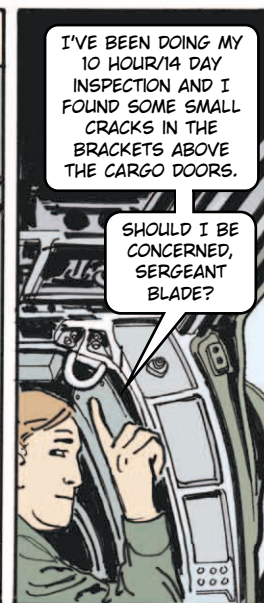
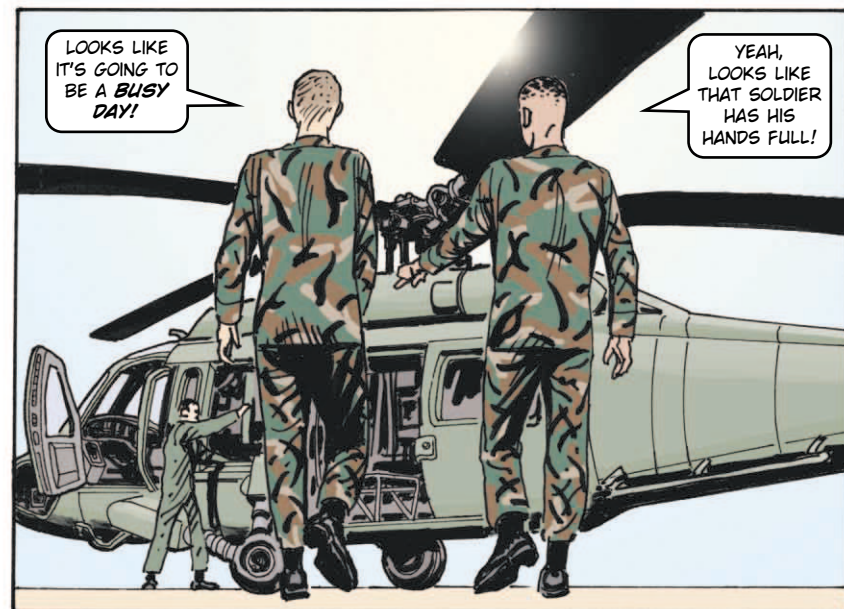
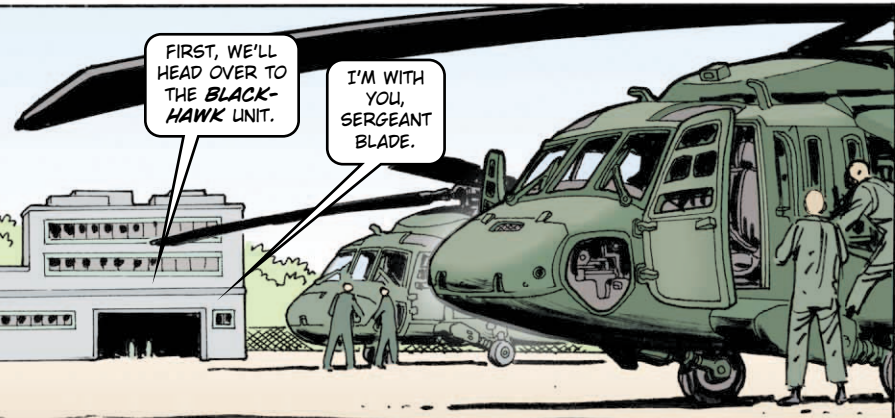
Remember the Gap

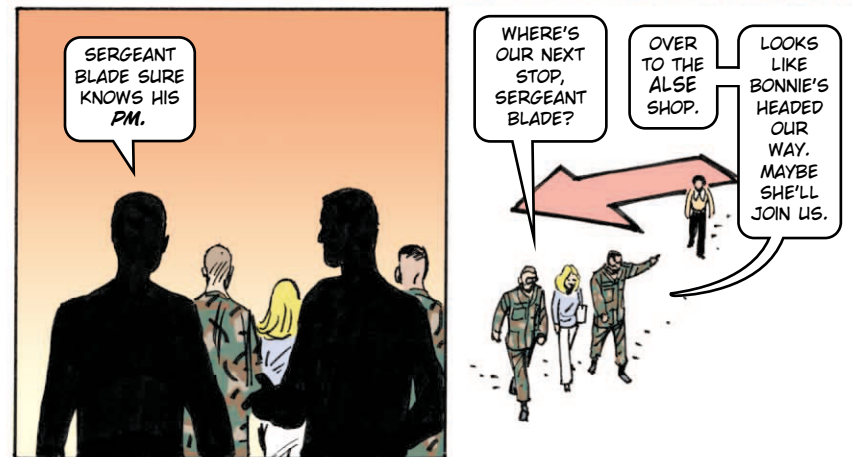
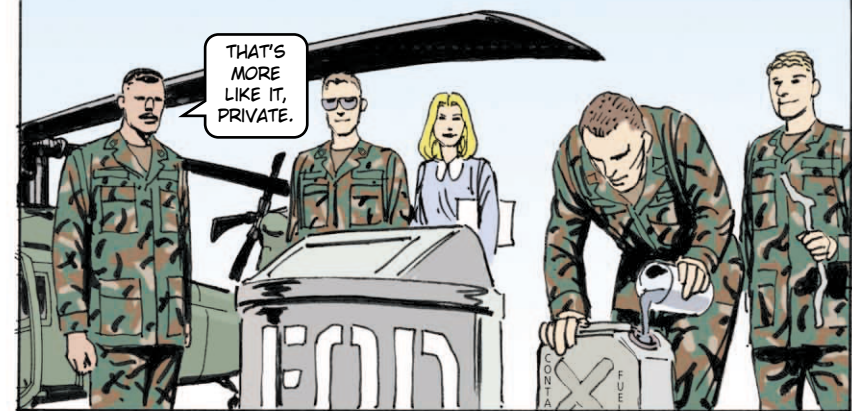
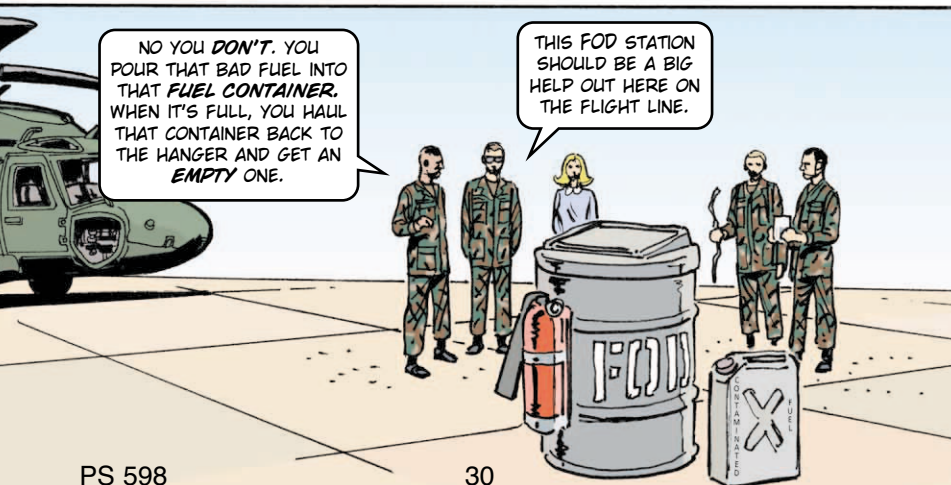
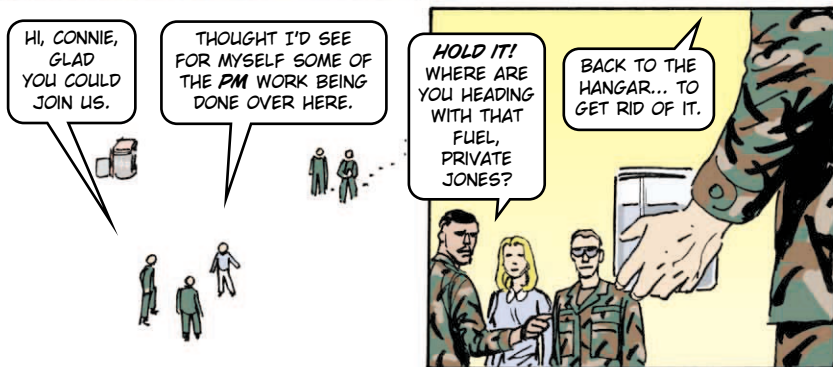
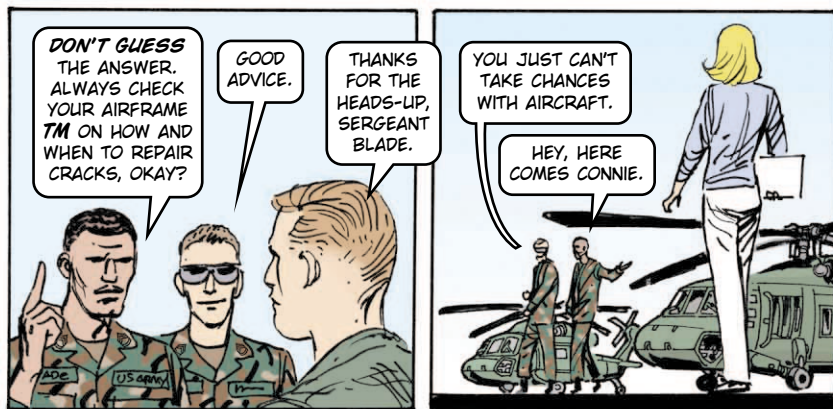
The ejector air gap setting must be adjusted according to the temperature you'll be operating in or you'll have smoking problems. See Page 2-44 in the -10 for the temperature settings and the procedure for adjusting the gap.

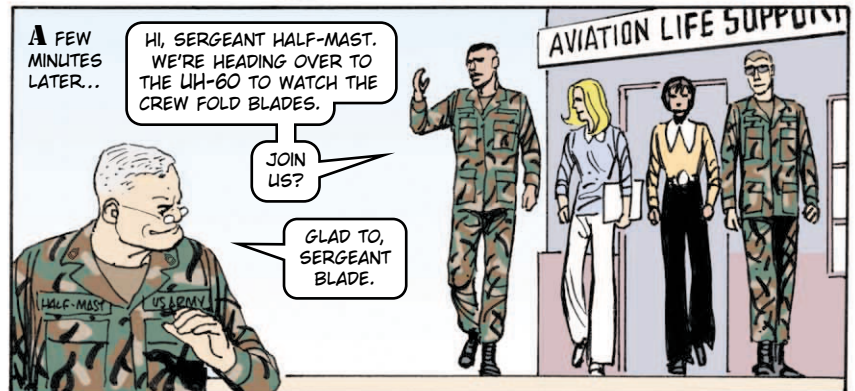
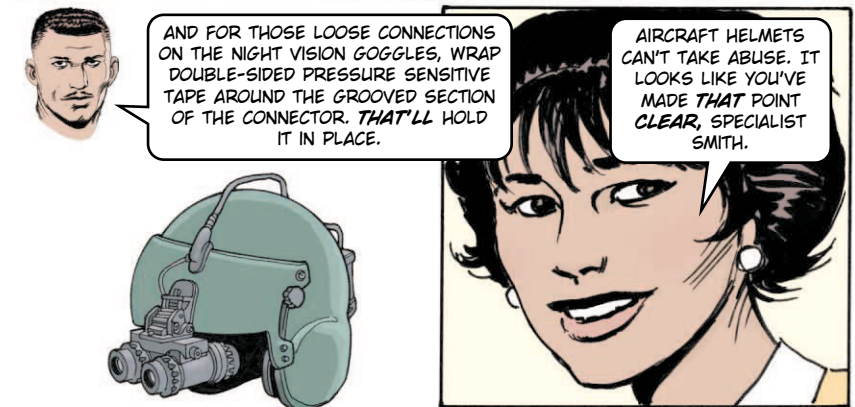
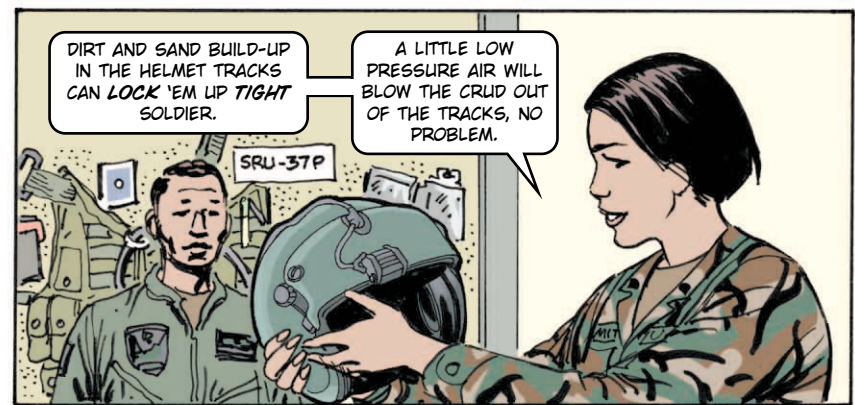
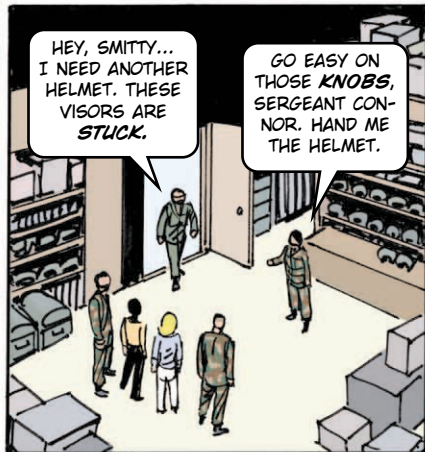
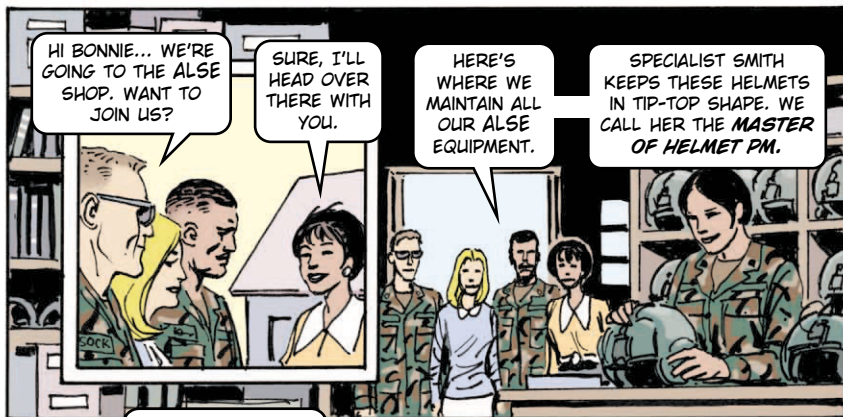


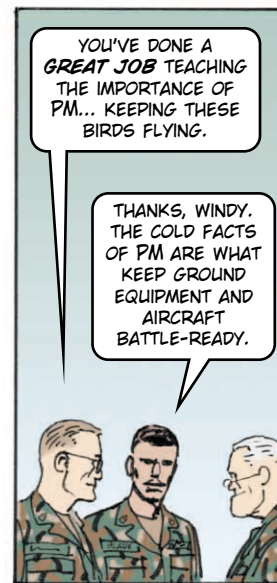
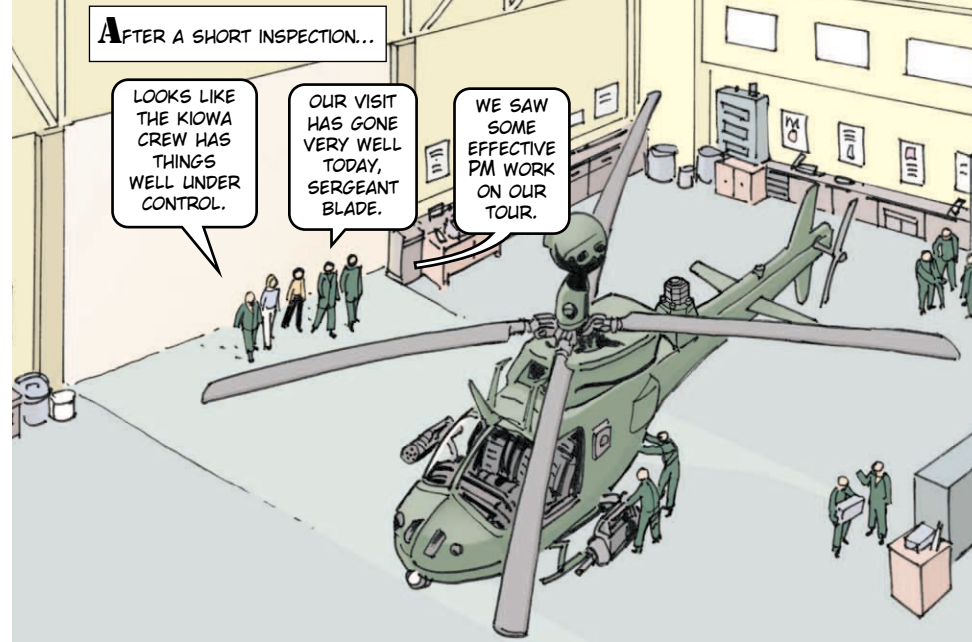
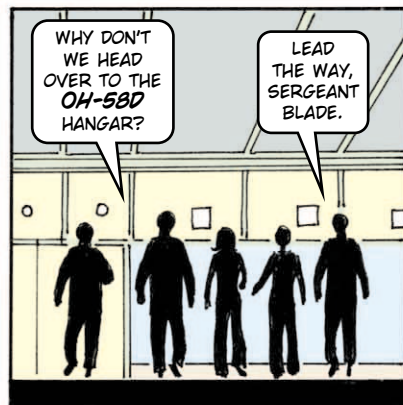
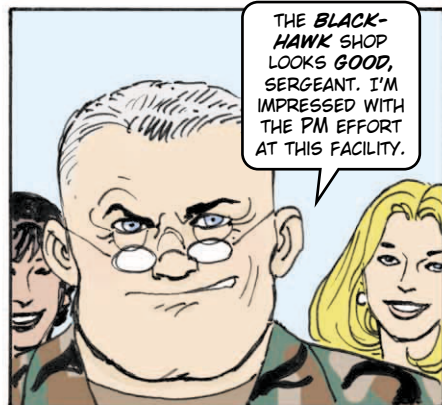
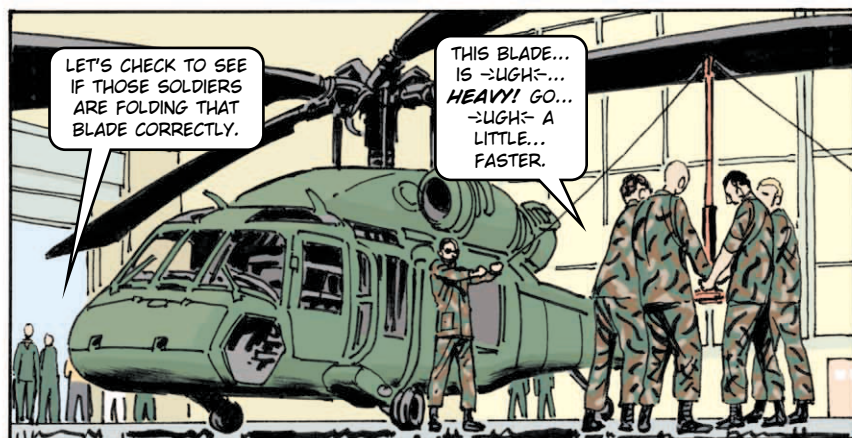
~~R~~MOTOR STABLES

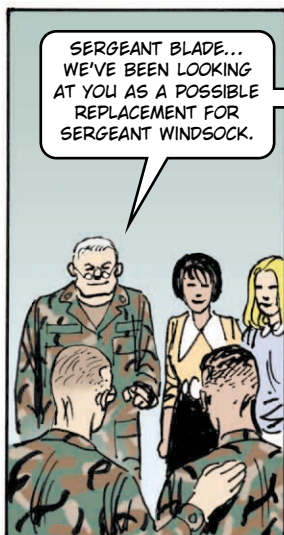








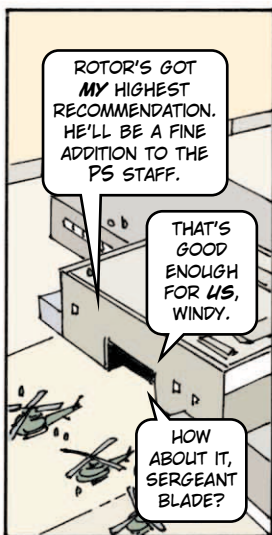




SERGEANT BLADE...
WE'VE BEEN LOOKING
AT YOU AS A POSSIBLE
REPLACEMENT FOR
SERGEANT WINDSOCK.



WE HAD HEARD
GOOD THINGS ABOUT
YOUR EXPERIENCE
AND ATTITUDE... NOW
WE'VE SEEN IT FOR
OURSELVES.



ROTOR'S GOT
MY HIGHEST
RECOMMENDATION.
HE'LL BE A FINE
ADDITION TO THE
PS STAFF.

THAT'S
GOOD
ENOUGH
FOR **US**,
WINDY.

HOW
ABOUT IT,
SERGEANT
BLADE?

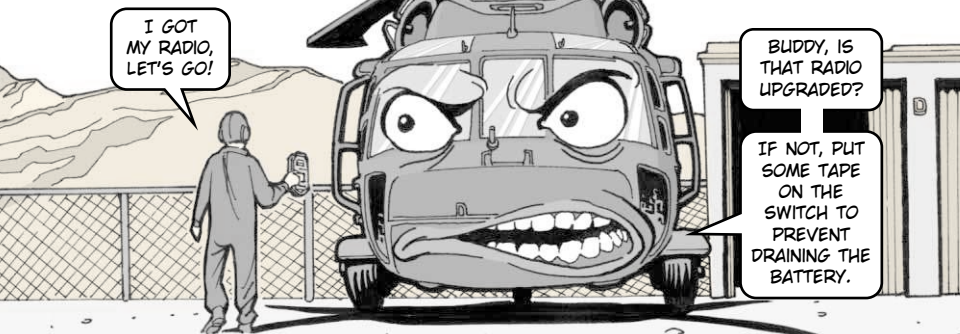


SERGEANT HALF-MAST, IT
WILL BE MY PLEASURE TO
BE A PART OF THE **PS**
TEAM. I LOOK FORWARD
TO IT! SO... LET'S GET THE
PAPERWORK STARTED!

I'LL MISS
THESE GUYS,
BUT DUTY
CALLS.

ELSE...

SURVIVAL RADIO *Make-Over*



To be a survivor, your AN/PRC-112 survival radio must work. But it can't work if it doesn't seal out water, has frequency problems, or if the battery is dead because the large VOL ON/OFF knob was turned on when you stuffed the radio into your flight vest.

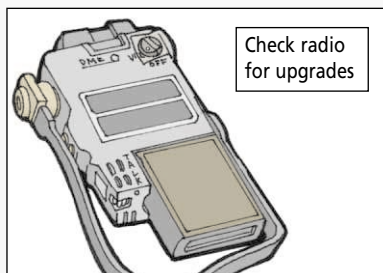
The Communications-Electronics Command (CECOM) is taking care of those problems for you with its AN/PRC-112 make-over, which is going on now.

Upgrades include a smaller VOL ON/OFF knob, an improved gasket to keep water out of the radio's case and an improved transponder.

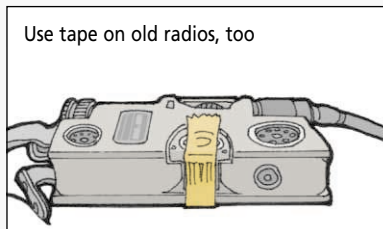
Check your radio. If it has NSN 5820-01-458-6018, then your radio is good to go. Likewise, if it is NSN 5820-01-279-5450 and has a Tobyhanna Army Depot (TYAD) sticker, your radio has gotten its make-over.

No sticker on your radio? Contact CECOM's Bruce Jetter at DSN 992-1191, (732) 532-1191 or e-mail: bruce.jetter@mail1.monmouth.army.mil. He'll help you start your radio make-over process.

You can stop draining the battery now by taping two inches of surgical tape, NSN 6510-01-060-1639, over the button to keep it from turning the radio on. 'Course, if you have the old AN/PRC-90 radios, use tape on the switch, too.



Check radio for upgrades



Use tape on old radios, too

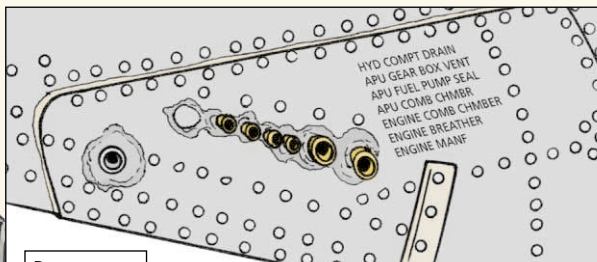
TURN DOWN HIGH PRESSURE WATER

GOOD WORK
FELLAS! A LITTLE **ELBOW
GREASE** AND **LOW
PRESSURE WATER** GETS
THE JOB DONE **RIGHT** AND
DOESN'T CONTAMINATE MY
FUEL AND OIL!

MECHANICS,
DON'T WASH YOUR
CHINOOK WITH HIGH
PRESSURE WATER
TO BLOW AWAY
GRIT, GRIME
AND DIRT.

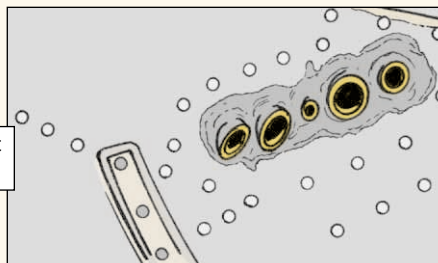
High-powered water may get your bird clean as a whistle, but it can damage the skin or knock off antennas.

When the next washing comes up, don't blast water into the drain holes at the rear of the aircraft near the cargo door. That contaminates fuel and hydraulic, engine and transmission oil.



Do not direct water at drain holes on right side...

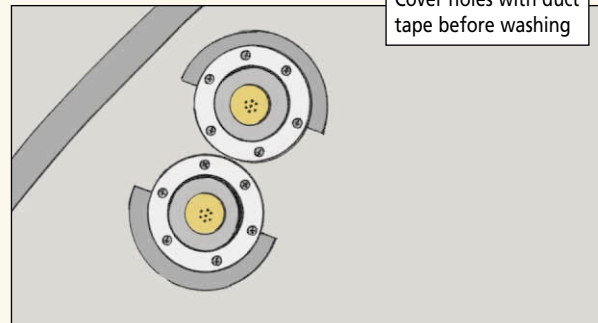
...or left side



High pressure water can also damage the finish, and wash grease out of lubricated parts. So turn down the pressure on your washers and use a nozzle that doesn't blast water.

If that's not bad enough, directing water at your bird's pitot-static system sideslip ports, static ports and tubes will cause moisture problems in the lines. That can lead to bad readings on flight instruments like your airspeed indicator and the vertical speed indicator.

Cover holes with duct tape before washing



Then your electrician has to drain and purge the pitot-static system like it says in Task 8-25 and 8-26 of TM 55-1520-240-23-7 to get the moisture out of the lines.

TURN DOWN THE
WATER PRESSURE
AND USE A LITTLE
ELBOW GREASE
TO WASH AWAY
THE CRUD.

MAKE A COVER FOR THE CONSOLE

LET'S GET TO WORK ON THESE OVERHEAD COMPONENTS!

HEY! WHAT'RE YOU GONNA DO TO PROTECT MY CONSOLE FROM FALLING CRUD?

DON'T WORRY, WE'VE GOT YOU COVERED, BUDDY.

Dear Editor,

Our air crews have problems with console knobs, switches and buttons sticking.

When working in the UH-60 cockpit on overhead components, dirt, oil, and sand drop down on the console and gum up the works.

We've come up with a cover that protects the console from the falling gunk and can give some dropped-tool protection, too.

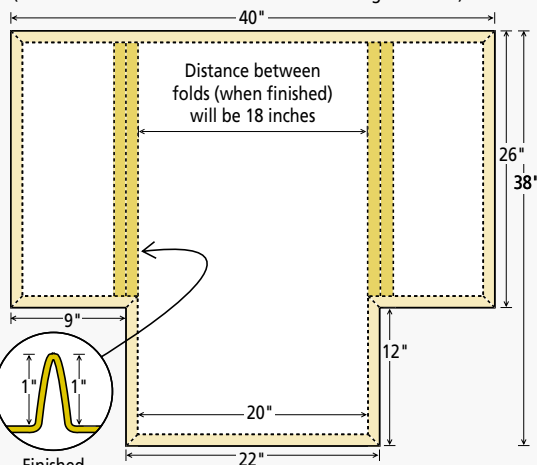
It also works well while we're performing maintenance in a sandy environment.

1" folds around edges and center. Start with a 40" x 38" piece of material. Final size is about 38" x 36".

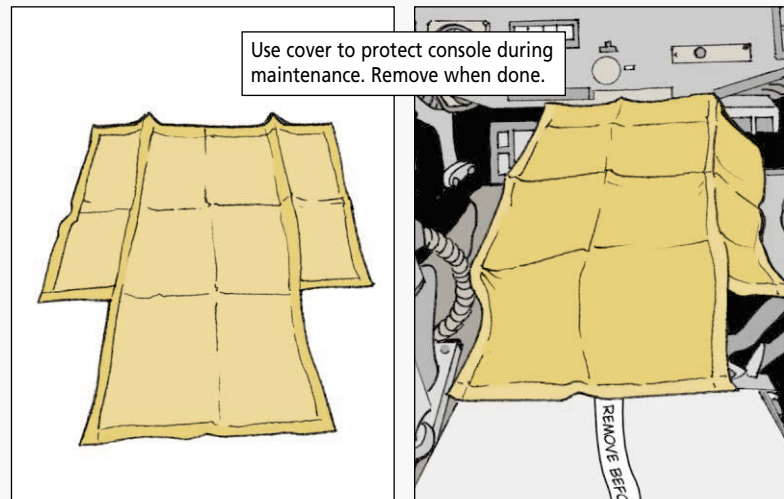
Our canvas shop orders the material with NSN 8305-01-452-9332, and makes the cover using these measurements:

Fold and stitch one inch seams around entire outer edge.

(Outer dimensions are *before* folds and stitching are done.)



When finished, the cover looks like this:



SSG David King
AL/ARNG
Birmingham, AL

From the desk
of the Editor

You've got that
problem covered.
Good job!

TIGHTEN DOWN THE ANTENNA



Dear Editor,

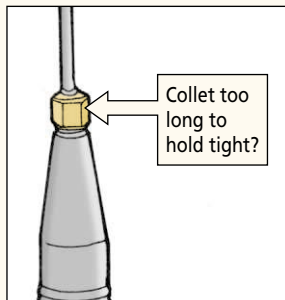
The mast element of the AS-3916/VRC antenna often comes loose from the base, because the collet, NSN 3460-01-435-8079, is too long to hold it tight.

The problem is the collet bottoms out before adequately clamping onto the element.

This can be solved by unscrewing the collet from the antenna base and filing off 1/16 of an inch from the collet bottom.

This lets the collet be tightened fully and stay tight like it should.

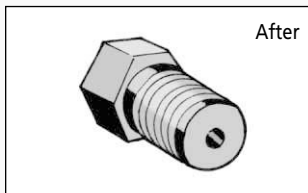
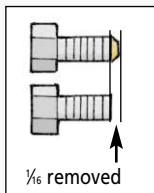
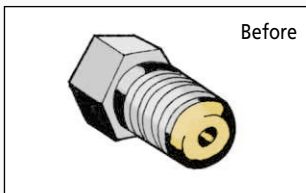
George Gorlewski
CECOM RDEC
Ft Monmouth, NJ



**From the desk
of the Editor**



Too many new antennas are ordered because of this problem. This simple solution will save a great deal of money. Great job, George.



SILENCING THE LOUDSPEAKER



Like 40 cars on a fog-shrouded California highway, there's a pile-up happening in most commo shops. That pile is made up of SINCGARS LS-671 loudspeakers.

Why are they piling up?

The flexible ribbon cable inside the LS-671 is torn and the loudspeaker is silent.

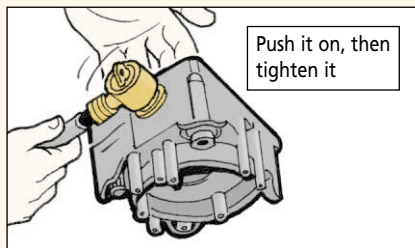
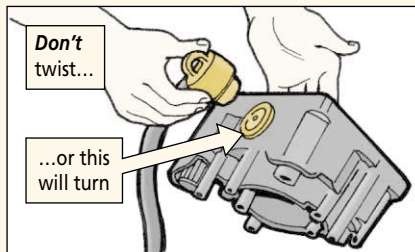
Why is the ribbon cable torn?

Because operators are trying to connect the CX-13292 cable that runs from the SINCGARS mounting base to the speaker by twisting it on.

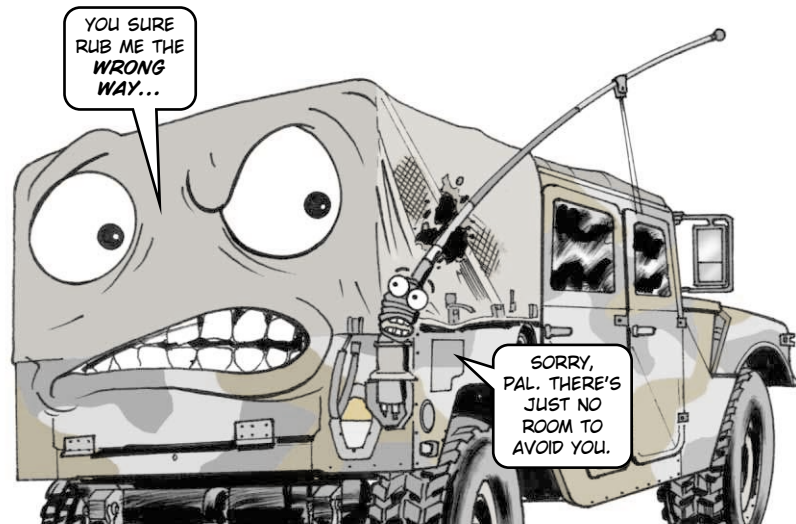
Unfortunately for the loudspeaker, this connection is not a twist-on. To attach this connector, you push it on and then tighten it down with the locking mechanism on top of it.

When you try to twist it on, you may dislodge the other half of the connector from the loudspeaker. If it moves, it will tear the ribbon cable.

Operators, stop this pile-up in the commo shop. Give up the twist! Learn to push and lock!



STOP THE RUB



Dear Editor,

I have a money-saving idea that our unit has adopted to save wear and tear on the cargo cover of our HMMWVs.

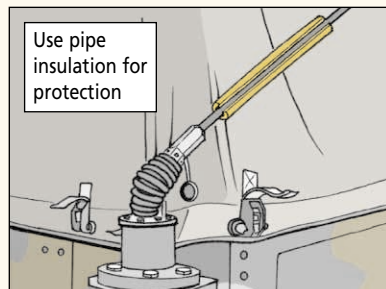
We are a National Guard unit that travels long distances to get to training sites. We keep our antennas tied down during these trips. Our cargo covers are always getting holes worn in them by the antenna rubbing against the canvas.

To solve this problem, we local purchase 10-ft sections of 1-inch pipe insulation. We cut off a 2-foot section and tape the section to the antenna with electrical tape.

The insulation is easy to install and can be placed at various rub points by repositioning it either up or down on the antenna. The electrical tape holds it in place no matter the position on the antenna.

The insulation will eventually wear out, but replacing it is easier than repairing a hole in the cover, and is much less expensive.

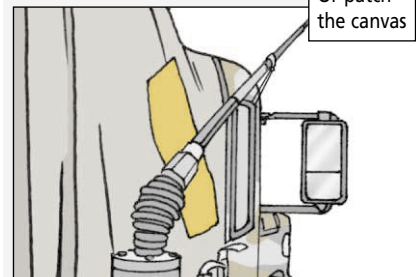
SFC William K. Murphy
Btry B, 1st Bn, 623d FA
KYARNG



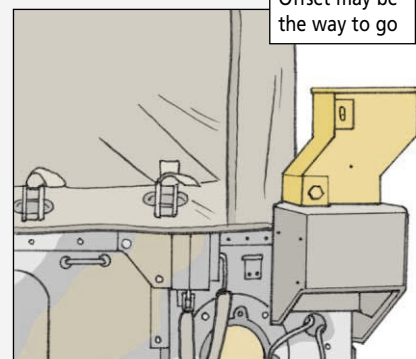
From the desk of the *Editor*

We love to see money-saving ideas. Good job, Sergeant Murphy.

Other units have taken the approach of covering the fabric at the spot where the antenna rubs. They make a patch from an old piece of canvas and hold it in place with a rubber-based adhesive, such as NSN 8040-00-298-1946.



Of course, the best solution is to use offset kit, NSN 5985-01-258-0037, to move your antenna a couple of inches beyond the side of the HMMWV where it can't rub the fabric.

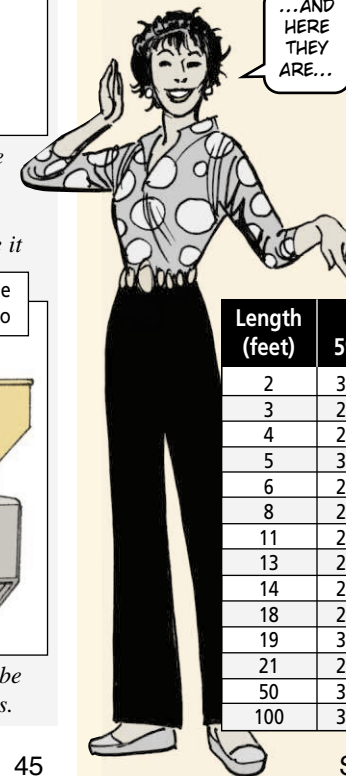


But at almost \$350 a pop, the kit may be too expensive a solution for many units.

LS-671 CABLES!

HERE'S SOMETHING TO **SHOUT ABOUT!** THE CX-13292 CABLE THAT CONNECTS YOUR LS-671/L LOUDSPEAKER TO THE SINGGARS MOUNTING BASE COMES IN **DIFFERENT LENGTHS...**

...AND HERE THEY ARE...

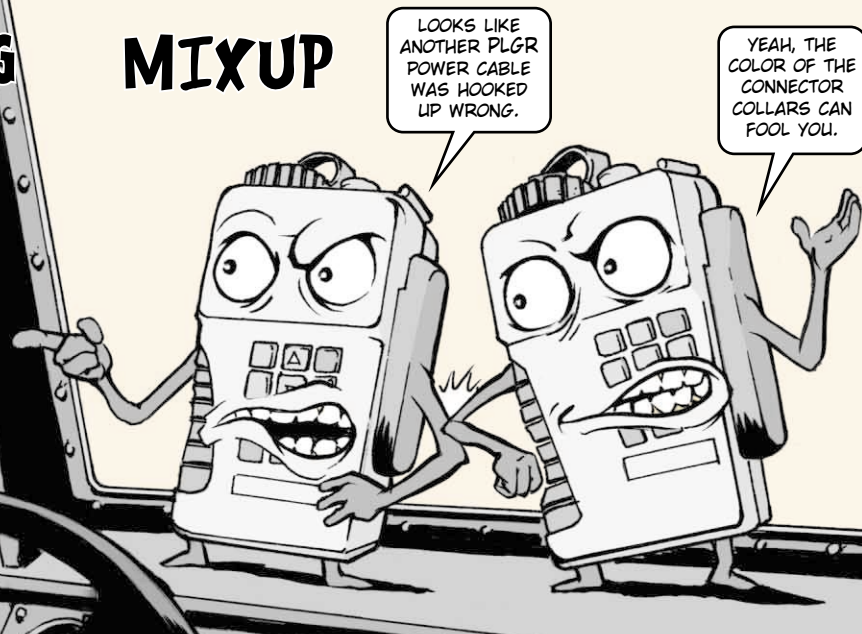


Length (feet)	NSN 5995-01-
2	302-0059
3	219-7010
4	219-4703
5	300-9291
6	219-4704
8	259-9283
11	225-1657
13	259-9282
14	219-4705
18	219-4706
19	303-4950
21	219-1844
50	358-1078
100	382-6869

POWER CABLE WIRING



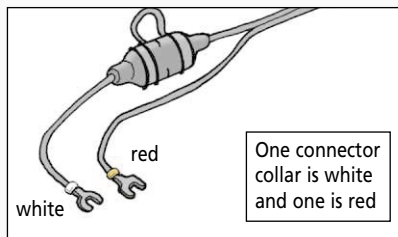
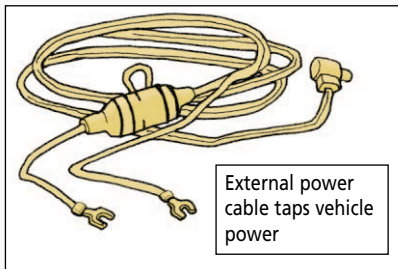
MIXUP



Dear Half-Mast,

Using the external power cable, NSN 6150-01-375-8661, is a great way to tap vehicle power and avoid the use of batteries to operate your AN/PSN-11 precision lightweight GPS receiver (PLGR).

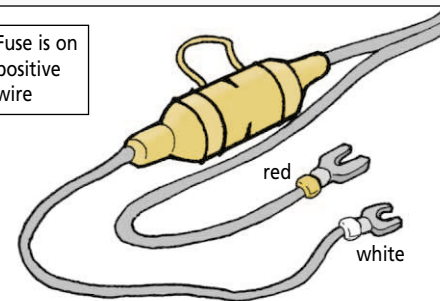
But there is an identification problem with the two leads of the power cable. Neither of the leads is marked. There is no positive (+) or negative (-) indication. However, one lead does have a white collar next to the spade connector and the other has a red one. But guess what? The red one is the negative or ground wire. The white one is the positive or hot wire. This is contrary to what most people would think.



The important indicator to remember is that the positive, hot wire has the in-line fuse. The negative wire does not. So, when you're hooking up the external power cable, only pay attention to where the in-line fuse is and not what color the collars are.

SFC Ronald L. Atkins
Camp Rilea UTES, OR

Fuse is on positive wire



Dear Sergeant Atkins,

For such a small item, that external power cable has received a lot of attention. There are several versions of this cable that the stock number brings. Some have this problem, some don't. Thanks for the update.

Half-Mast

WHAT TO KNOW ABOUT *COMMO*

Pulling a rotation at NTC can be rough on commo equipment, but pulling one without first pulling PM can be a real bear.

People in the know say that 50 percent of the communication equipment problems at NTC can be avoided if proper PMCS and training take place at home before your commo act hits the road.

1. Power cables hooked up wrong
 HERE ARE A DIRTY DOZEN OF NTC COMMO KILLERS...
 GOOD TRAINING AND SOLID PM CAN HELP YOU AVOID 'EM!
 OBVIOUS, BUT IT HAPPENS ALL THE TIME.

2. Cabling wrong inside shelters
 HAPPENS EVEN MORE THAN WITH THE POWER CABLES.

3. Air filters not clean
 THEY DON'T START OUT CLEAN, THEY'RE NOT KEPT CLEAN, AND THEY CERTAINLY DON'T FINISH CLEAN.

4. Cables not repaired
 FRAYS, BREAKS, BUSTED CONNECTORS, BROKEN PINS—HECK OF A TIME TO FIND OUT WHEN YOU'RE SETTING UP.

5. Missing parts
 CAN YOU BELIEVE THE KNOB'S GONE?

6. Bad switches
 WON'T TURN ON, WON'T TURN OFF. WIRING SHOT AND SO ARE YOUR COMMUNICATIONS

7. Poor grounding is a safety hazard and adds a lot of noise to commo system
 NOT DEEP ENOUGH, SOIL NOT PREPARED, NOT TIED OFF RIGHT, OR WRONG WIRE USED.

8. No cleaning
 VACUUM DIRT OUT, SWEEP DIRT OUT OR BLOW DIRT OUT—BEFORE, DURING AND AFTER.

9. Bad storage procedures
 TOSS IT HERE, TOSS IT THERE, TOSS IT EVERYWHERE—AND BREAK THINGS IN THE PROCESS.

10. No antenna maintenance
 JUST STICK IT IN THE AIR. IT'S BOUND TO WORK, RIGHT? SORRY, I CAN'T HEAR YOUR RESPONSE.

11. No generator maintenance
 HEY, I WORK ON RADIOS. I DON'T KNOW NOTHING ABOUT NO GENERATORS.

12. Bad batteries
 "REPLACING IS EASIER THAN MAINTAINING?"
 I DON'T THINK SO.

NTC THROWS SOME SERIOUS STUFF AT YOU AND YOUR COMMO EQUIPMENT. DON'T BEGIN A ROTATION WITH A HANDICAP.

MAKE SURE THE DIRTY DOZEN ARE DEALT WITH AT HOME SO YOU DON'T HAVE TO DEAL WITH THEM IN THE SAND, DIRT AND HEAT.



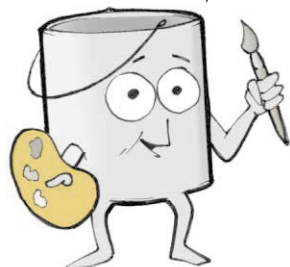
Spot with CARC

for a Work of Art



SPOT PAINTING WITH CHEMICAL AGENT RESISTANT COATING (CARC) MAY SEEM A LITTLE COMPLEX.

BUT IF YOU FOLLOW ALL THE INSTRUCTIONS AND SAFETY MEASURES, YOU'LL SOON BE A REGULAR PICASSO.



What is CARC?

CARC is a special type of paint that is resistant to chemical agents. Since it won't soak up chemical agents like alkyd paint does, decontamination is quicker and easier. That means less time spent in MOPP gear for you.

After surface preparation and pretreatment, CARC is applied in two steps. First, the equipment is painted with an epoxy primer. Then it's coated with a polyurethane topcoat.

Most equipment is already painted with CARC. Look for a CARC stencil near the data plate. If you're unsure about your equipment, try this test: Wet a cloth with acetone, NSN 6810-00-753-4780, and rub hard on the painted surface for about 10 seconds to remove any dirt. Then wet another cloth with acetone and rub again. Acetone will remove alkyd paint, but not CARC. So if the cloth is clean, your equipment was painted with CARC.

Use CARC only on CARC-painted equipment. Likewise, only CARC should be used for adding unit identification markings. Using any other type paint over CARC leaves areas where chemical agents will be absorbed. The only way to get rid of the agents is to remove the paint itself.

CARC should not be used on fabric, metals that have anodized finishes (such as small arms) or hoses or other flexible surfaces. It should not be used on exhaust pipes, turbochargers, cooling fins, engines or other surfaces that conduct heat or get above 400°F.

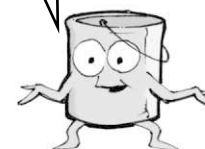
No CARC on hot spots



USE THESE HEAT-RESISTANT PAINTS FOR THOSE APPLICATIONS...

NSN 8010	Color	Qty
01-235-4166	Black	1-gal
01-235-4165	Black	1-qt
01-235-2694	Brown	1-qt
01-235-4164	Green	1-gal

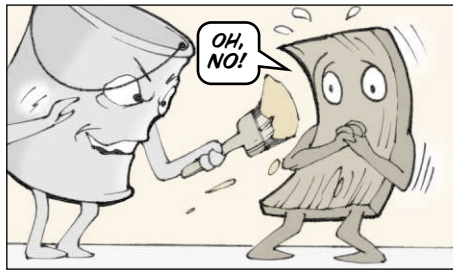
NSN 8010	Color	Qty
01-235-2693	Green	1-qt
01-235-2695	Brown	1-gal
00-877-6415	Gray	1-gal
00-616-4009	Olive drab	1-gal



DON'T USE CARC ON WOOD. WOOD EXPANDS AND CONTRACTS WITH CHANGES IN THE WEATHER—CARC DOESN'T.



CARC WILL BEGIN PEELING OFF WOOD SURFACES SOON AFTER APPLICATION.



Before You Start

The first question you should ask is “Does my equipment need spot painting?”

Touch-up painting is done to prevent corrosion, not to make your equipment look better. If the paint is marred, but not deep enough to see bare metal, you don't need to paint.

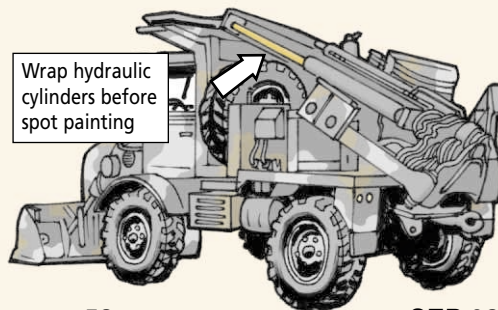
Once you've decided spot painting is necessary, make sure you provide for your safety. Here's what you'll need:

- ✦ **Clothes that cover all your skin.** Coveralls work well.
- ✦ **Boots and rubber gloves.**
- ✦ **Face shield or splash goggles** to protect your eyes from paint and thinner.
- ✦ **Respiratory protection.**

Depending on the conditions and location for spot painting, a respirator may be required. Contact your local occupational safety and health office to perform an evaluation of your work area.

If a respirator is required, they'll do a baseline medical evaluation, fit-test you for the proper respirator and train you in its use.

Next, protect those areas on your equipment that you don't want covered with paint. Use paper or masking tape to cover lights, lenses, windows, data plates, hydraulic cylinder rods, hoses and exposed seals and gaskets that might get splattered when spot painting.



Surface Preparation

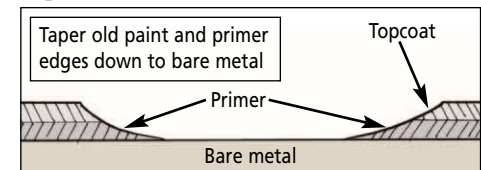
Proper surface preparation is vital before painting with CARC. If you skimp here, the paint won't stick and you'll have to start over.

Follow these steps:

1. Wash the area to be painted with liquid detergent, NSN 7930-00-282-9699, mixed with water. Rinse the area with fresh water and let it dry.
2. Remove all loose paint and rust by hand sanding or with an orbital grinder. Wet sanding will help keep the dust down, but you'll still need to use a high-efficiency respirator and eye protection. Your occupational health and safety office will help you with the right respirator. A vacuum, NSN 7910-01-068-5662, helps with clean up.



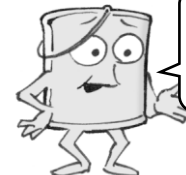
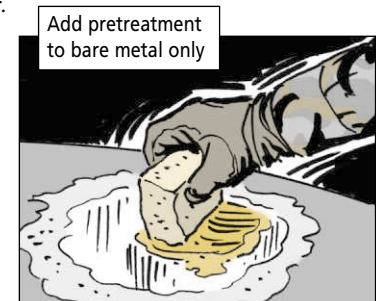
3. Sand the damaged spot down to bare metal using sandpaper or steel wool. Then sand the surrounding paint, tapering up to the topcoat surface. This process is called “featheredging.”



4. As soon as possible, but no more than four hours later to prevent corrosion, clean the area to be painted with thinner, NSN 8010-00-181-8079. Wear gloves. You may also need a respirator, depending on the size of the areas you have to clean and the length of time you will be working. Your occupational health and safety office will help you with the right gloves and respirator.

5. After the thinner has dried, immediately coat all bare metal surfaces with primer pretreatment. This protects the surface and helps the primer bond properly. Keep it off the paint surrounding the bare metal, though. That could keep the primer from bonding to the old paint.

Check with your occupational health and safety office for the right glove to use and to find out if you need to use a respirator.



ORDER THE PRE-TREATMENT WITH THESE NSNs...

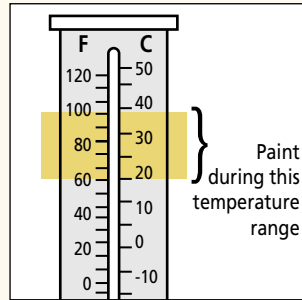
NSN	Size
8030-00-850-7076	1 ¼-qt
281-2726	1 ½-gal
165-8577	5-gal

Let the pretreatment dry at least 30 minutes, but no more than 24 hours to limit the potential for corrosion. Now the surface is ready for priming.

Plan Your Painting

If possible, paint your equipment when the outside temperature is between 60° and 100°F. The ideal temperature is 75-80°F with a humidity of 45-50 percent. CARC will still cure at temperatures below 50°F, but it takes much longer.

Spot paint your equipment in the shade or on an overcast day. Never paint in direct sunlight or when the surface temperature of your equipment is over 100°F. The solvents in the paint evaporate too fast and the CARC won't stick.

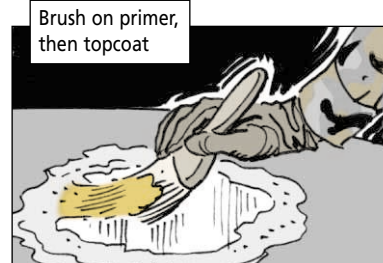


Step-by-Step Touchup

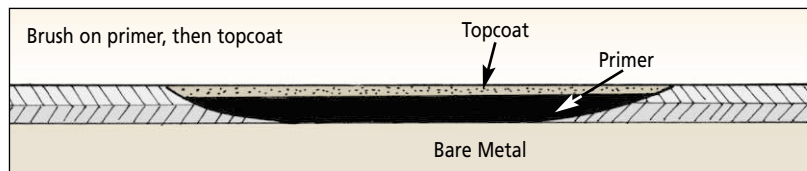
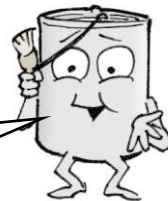
Now you're ready to spot paint your equipment. Follow these steps:

1. Follow the directions that come with the primer to mix only as much as you'll need for that day. Remember, you'll have to dispose of any extra primer because it hardens quickly and can't be reused.
2. When the mixture is uniform, let the primer stand for 30 minutes, then brush it on. Make sure you feather the primer over the edge of the old paint. The primer will harden within 30 to 90 minutes.
3. Stir the container of CARC topcoat thoroughly, then brush it on. Any regular paint brush will do, but here are a few in various sizes:

NSN 8020-00-	Bristle Width (inches)	Bristle Length (inches)
263-3866	1	2
559-9842	1 ½	2 ½
205-6501	2	2 ¾
263-3867	2 ½	2 ½
559-9843	2 ½	3
597-4764	3	3 ¼



APPLY THE PAINT LIGHTLY AT THE OUTER EDGES AND HEAVIER AS YOU MOVE TO THE MIDDLE. THAT REBUILDS THE PAINT LAYERS TO THE ORIGINAL THICKNESS.



After application, CARC goes through a drying process in which the solvent evaporates and the film hardens. Usually the topcoat will be dry to the touch in about 30 minutes and dry enough to walk on in 4-6 hours.

Complete curing takes considerably longer, however. At room temperature (approximately 72°F), it will take 7-14 days for the CARC to completely cure. Cooler temperatures require longer cure times while warmer temperatures require shorter cure times. Do not use the equipment until you're sure the paint is completely cured.



Paint Removal

Even with the best precautions, there will be times you'll need to remove CARC from a surface that can't be scratched or scored—like hydraulic cylinders, cannon mounts, and aircraft surfaces. You won't be able to grind or sandblast without damaging the equipment.

Use epoxy and polyurethane paint stripper to remove CARC in sensitive areas. Wear the gloves and respirator recommended by your occupational health and safety office.

Get the stripper with these NSNs:

NSN 8010-00-	Qty	NSN 8010-00-	Qty
142-9273	1-pt	926-1488	5-gal
181-7568	1-gal	926-1489	55-gal

Be careful where you use the stripper, though. It can damage non-metal surfaces such as plastic and rubber.



Paint Failures

Occasionally, the CARC will not properly adhere to the surface you're painting.



Here are some of the causes...

- ⊛ The surface was not properly prepared. Loose or blistered paint, sanding dust, grease or oil, diesel fuel and even fingerprints are enough to keep CARC from sticking to the surface.
- ⊛ No primer was used. The topcoat was applied to bare metal.
- ⊛ The primer did not have time to dry before the topcoat was applied.
- ⊛ The surface was too hot or cold and the paint didn't have a chance to cure properly.

If the CARC does not adhere to the surface, your only choice is to strip the spot down to bare metal and start over.

Welding CARC-painted Surfaces

Never weld or use a cutting torch on CARC-painted surfaces. Heat releases toxic gases, vapors and metal fumes that can cause lung damage. It can also cause severe eye and skin irritation.

Sand or grind off any CARC paint from both sides of anything you plan to weld. Remove enough CARC so that you have at least four inches of clearance around the area to be welded on both sides.

Wet sanding will help keep the dust down, but you'll still need to use a high-efficiency respirator and eye protection.

Video Help

A training video that shows how to spot paint with CARC is available. Just go to the Joint Visual Information Services Distribution Activity web site at:

<http://dodimagery.afis.osd.mil/dodimagery/davis/>

Click on PIN/ICN Search in the left-hand column. At the next screen, enter 708415 in the PIN number block and click Search. Click on CARC, CHEMICAL AGENT RESISTANT COATING and follow the rest of the instructions to order the video.

You can also order the film by e-mail at vibuddy@hq.afis.osd.mil, or write to:

JVISDA

Warehouse 3/Bay 3

11 Hap Arnold Blvd

Tobyhanna, PA 18466-5120

Include your name, full mailing address, the title and PIN number of the film, format (VHS, for example), and the quantity of tapes you need. APO addresses must include their unit/box number, CMR/box number, or PSC/box number.

Paint NSNs

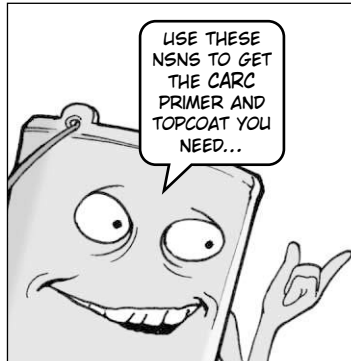
Primer

Color	Kit size	NSN 8010-01-
White*	1 ¼ qt	193-0516
White*	1 ½ gal	193-0517
White**	1 ¼ qt	193-0519
White**	1 ½ gal	193-0520
White**	5 gal	193-0521
Light green***	1 qt	218-0856
Light green***	1 gal	218-7354

*Solvent reducible, lead- and chromate-free.

**Water reducible, lead- and chromate-free.

***Water reducible, lead-free, contains chromate.



Topcoat

CARC topcoat is available as two-component and single-component paint. Two-component CARC paint consists of a polymer resin and a curing agent that must be mixed in a four-to-one ratio. That allows you to mix up only as much paint as you need and save the rest for later use.

Single-component CARC already has the curing agent added, so the paint will dry quickly once the can is opened.

Two-Component CARC

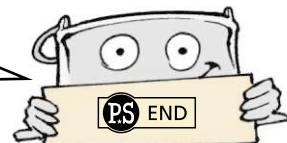
Color/ Federal Std No.	1 ¼-Qt Kit NSN 8010-01-	1 ½-Gal Kit NSN 8010-01-	5-Gal Kit NSN 8010-01-
Brown 383/30051	160-6744	-----	-----
Aircraft red/31136	144-9884	144-9873	-----
Field drab/33105	141-2414	130-3345	-----
Earth yellow/33245	141-2415	130-3346	-----
Sand/33303	141-2416	130-3347	-----
Tan 686A/33446	260-0910	260-0909	260-0908
Aircraft yellow/33538	247-8885	235-8059	-----
Aircraft green/34031	141-2420	131-6255	131-6262
Olive drab/34088	146-2650	055-2319	144-9875
Green 383/34094	160-6741	162-5578	160-6742
Insignia blue/35044	-----	146-2648	-----
Gray/36231	170-7583	146-2649	-----
Aircraft gray/36300	144-9882	127-8908	144-9876
Black/37030	141-2419	131-6254	-----
Aircraft black, interior/37031	144-9886	-----	-----
Aircraft black/37038	144-9885	146-2646	144-9879
Aircraft white/37875	144-9883	144-9872	144-9877

Single-Component CARC

Color/ Federal Std No.	1 Qt NSN 8010-01-	1 Gal NSN 8010-01-	5-Gal NSN 8010-01-	45-Gal NSN 8010-01-
Green 383/34094	229-7546	229-9561	229-7547	232-8514
Brown 383/30051	229-7543	229-7544	229-7545	-----
Black/37030	229-7540	229-7541	229-7542	-----
Sand/33303	234-2934	234-2935	234-2936	-----
Aircraft green/34031	246-0717	246-0718	246-0719	-----
Tan 686A/33446	276-3638	276-3639	276-3640	-----

TM 43-0139, PAINTING INSTRUCTIONS FOR ARMY MATERIEL, SPELLS OUT WHAT COLORS TO USE WITH YOUR EQUIPMENT. IT ALSO CONTAINS A MORE COMPREHENSIVE LIST OF COLORS AND NSNs.

TB 43-0242, CARC SPOT PAINTING, PROVIDES MORE INFO ON TOUCHUP PAINTING.



MOBILE KITCHEN TRAILER MAKE-OVER

The mobile kitchen trailer (MKT) covers take a beating from heat, dust, water and mildew.

So give your MKT a make-over with the MKT-I improvement kit, NSN 7360-01-469-5482. All of the MKT-I components are standard on the MKT-99.

Order just the parts you need from the upgrade kit below.

Upgrade Kit Item	NSN	QTY
Griddle assembly with 4-inch flange	7360-01-476-6715	1
Grease funnel assembly for above griddle	7360-01-476-6723	1
Can opener, mounted	7330-01-411-9788	1
Can opener adapter	7330-01-476-6657	1
Chest, ice storage	4110-01-452-7317	1
Lamp, fluorescent, set	6230-01-485-6376	2
Light set hangers	P/N 3955T334 Cage 1BD74	1 pkg
Extension cord	6150-01-374-4603	1
Exhaust fan assembly, 3-in hose clamps (2), 3-in X 12-foot hose, heater vent weldment, portable prop for fan	7360-01-476-6635	1
Duplex outlet and cable assembly	5975-01-476-7146	1
Rubber floor matting,		
Center	7220-01-476-6674	1
Front/rear	7220-01-476-6860	2
Sides	7220-01-476-6861	2
Screen Assembly Components		
Screen assembly, end, large	5411-01-476-7130	2
Screen assembly, end, small	5411-01-476-7132	2
Screen assembly, side	5411-01-476-7140	2
Wall and Roof Assembly Components		
Cover, end, large	5411-01-476-7134	2
Cover, end, small	5411-01-476-6862	2
Cover, side, assembly	5411-01-476-6663	2
Roof canopy assembly	5411-01-476-7136	2
Travel Cover Components		
Travel cover assembly, left side	5411-01-476-7144	1
Travel cover assembly, right side	5411-01-476-7145	1
Travel cover assembly, front	5411-01-476-7141	1
Travel cover assembly, rear	5411-01-476-7143	1
Cold Weather Skirt Components		
Cold weather skirt assembly, roadside	5411-01-476-6678	1
Cold weather skirt assembly, curbside	5411-01-476-6703	1

THEY FINALLY GOT RID OF THOSE FILTHY OLD COVERS!

IF YOU STILL HAVE THE OLDER MKT-75 THROUGH MKT-95 MODELS, HERE'S THE LIST OF NSNs FOR THE OLDER FABRIC IN GREEN OR SAND-COLORED.

MKT-75 through MKT-95		
Item	NSN	QTY
Cover assembly, side, green	7360-01-043-8478	2
Cover assembly, side, sand	7360-01-245-6947	2
Cover assembly, end, large, green	7360-01-046-0066	2
Cover assembly, end, large, sand	7360-01-245-6946	2
Cover assembly, end, small, green	7360-01-044-5091	2
Cover assembly, end, small, sand	7360-01-246-4310	2
Roof, canopy, assembly, green	7360-01-043-8477	2
Roof, canopy, assembly, sand	7360-01-246-4309	2
End screen, large, green	7369-01-043-5417	2
End screen, large, sand	7360-01-245-6948	2
End screen, small, green	7369-01-044-7100	2
End screen, small, sand	7360-01-246-4312	2
Side screen assembly, green	7360-01-043-5416	2
Side screen assembly, sand	7360-01-245-6949	2
Travel cover assembly, front, green	7360-01-045-8622	1
Travel cover assembly, front, sand	7360-01-245-6943	1
Travel cover assembly, rear, green	7360-01-045-8621	1
Travel cover assembly, gear, sand	7360-01-245-6944	1
Travel cover assembly, right side, green	7360-01-043-8474	1
Travel cover assembly, right side, sand	7360-01-245-6945	1
Travel cover assembly, left side, green	7360-01-045-8623	1
Travel cover assembly, left side, sand	7360-01-246-6733	1

WHETHER YOU HAVE NEW COVERS OR OLD CANVAS COVERS, TAKE CARE OF THEM WITH THE PM TIPS IN TM 10-7360-206-13.

Remember, adding the kit does not allow storing camouflage nets on top during movement. You can't stand on them when they're raised either. The supports are not made to withstand extra weight. And don't forget the ½ ton trailer PMCS in TM 9-2330-213-14&P to keep those meals on wheels rolling safely.

Make a note of the new NSNs until the TM is updated.

SLED EASES OIL CHANGING



You probably feel more like a contortionist than a mechanic when it comes time to crawl under equipment to change the oil.

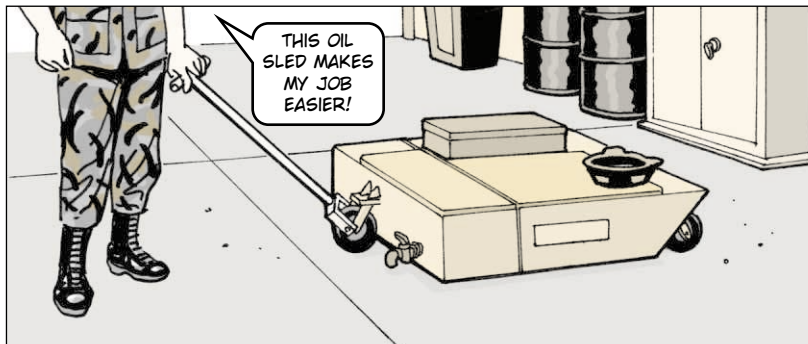
First, you have to position the oil container. Next, you have to remove the oil pan plug without losing it in the container. Then you have to get the container from under the vehicle after the job's done.

All this, plus you don't want to spill any oil and leave hazardous waste.

Make the whole job easier with an oil sled on wheels. This 55-gal container rolls easily under most vehicles. It's 4 feet long, 3 feet wide, and 1 foot tall.

It has a mesh screen to catch the drain plug, a spigot for draining oil, and a pivot handle for steering.

Order one on a DD Form 1348-6 from RIC S9C with part number 1P2850 and CAGE code 11083. It'll cost your unit about \$1,000.





M1 Loader's Hatch Screws

Mechanics, if you find any loose or missing screws on the loader's hatch mounting bracket or door latch for the M1-series tank, replace 'em with NSN 5305-00-688-2111. Then clean out any sealing compound inside the mounting holes, apply new sealing compound, NSN 8030-01-158-6070, to the screw threads, and torque the screws to 36-43 lb-ft. TACOM Ground Precautionary Message 02-014 has the complete scoop.

M88A1 ECD Rods

Need some replacement rods for your M88A1 recovery vehicle's exothermic cutting device (ECD)? Order 'em from this list:

Size (inches)	NSN	Qty
1/4 x 22	3439-01-325-7641*	25
3/8 x 18	3449-01-346-2545	50
3/8 x 36	3439-01-325-7642	25

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

MOUSE PADS

Mouse pads let your computer mouse move smoothly and reduce the amount of dirt that can make the tracker ball jam and stick. Get 'em with these NSNs:

NSN 7045-01-368-	Qty/ Color
4808*	1 Red
4809*	1 Blue
4810*	1 Gray
4811	1 red, 1 blue, 1 gray

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

DISTRESS MARKER BATTERY UPDATE

To get light out of distress marker lights, NSN 6230-00-938-1778 or NSN 6230-00-067-5209, use battery, NSN 6135-01-455-9646. Update the battery NSN given on Page 61 of PS 592, too.

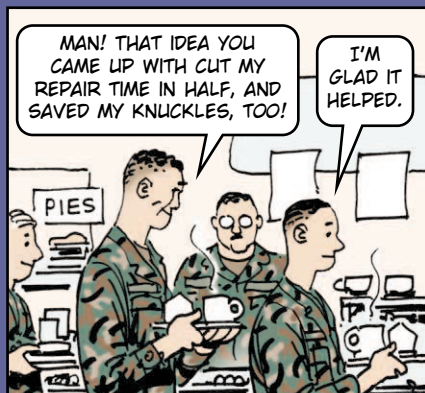
Shelter Ladder Kit for FMTV

A ladder adapter kit, NSN 4010-01-470-2864, solves a couple of problems with the S-280 shelter and FMTVs. Not only will the ladder reach the ground with the kit, but there's more space to maneuver at the shelter door. Eyeball Fig 474 of TM 9-2320-366-24P-2 for the kit and its downparts.

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

Would You Stake Your Life *right now* on the Condition of Your Equipment?

SMART On-line



Got a SMART idea?

Go on-line and submit suggestions at:

<http://aeprs.ria.army.mil/SMART/smartidea.cfm>

OR

http://www.cascom.army.mil/multi/project_smart

If you need more info about the program, send e-mail to:
smart@lee.army.mil