



Been Inspected— You've Just WHAT DID

The inspector has just walked out the gate.

Now it's time to ask yourself what you learned from the inspection.

"Looks can be deceiving". . . . and "Beauty is only skin deep." In other on spit-and-polish, you found that he knows two old sayings by heart: words, he knew what he was looking for. Well . . . if you tried to pull the wool over his eyeballs by going heavy

snuff. And when you added everything together, you got a good picture of the overall condition of your equipment. You learned whether the maintenance of your equipment is up-to-

learned just how good your maintenance program is. The inspection showed you where you're weak and where you're strong, Finding out about the overall condition of your equipment, you

you have a good operation. If you're hurting for points, it's time to take long, hard look at the way you do things. If you came out of the inspection with a lot of points, you can figure

records jibed with the inspector's. You also learned whether your way of maintaining your log book

swer on the spot, he said he would find it for you. the inspector was willing to answer 'em. And if he didn't know the an-If you asked any questions, you found (at least you should've) that

willing to pull up a chair and explain things. -you learned (once again . . . you should've) that the inspector was In case you asked for help on filling out reports-an EIR, for instance

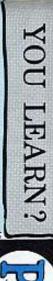
"You ought to try doing it this way" . . . and not "You will do it like better maintain your equipment. That means he said something like, The inspector probably offered some suggestions on how you might

up-to-date in case you're behind-the-times on things like publications Another thing that you learned is that a good inspector brings you

your outfit's Commanding Officer. He is the eyes and ears for your own CG . . . be he at division, post, army . . . or whatever level. things as you if the balloon ever goes up. Why? Because he represents -any inspector-is on your side. After all, he has just as big a stake in You learned, if you've given it some real thought, that the inspector

to home-your unit CO can be darn hardnosed about the situation. If you scored low in the inspection, you learned something right close

All the learning in the world won't do any good, tho, if you don't



THE PREVENTIVE MAINTENANCE MONTHLY Issue No. 139 1964 Series

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Use of feeds for printing of this publication has been approved by Headquarters, Department of the Army, 4 April 1962 DISTRIBUTION, to accordance with requirements submitted on DA Form 12-4.





PUBLIC

GET EM



"My Kingdom for a horse."

to do maintenance on your equipment and you've got nothing to go by. Maybe you've changed it to "My Kingdom for a TM," especially if you need

sure you get pubs. If you don't order 'em, you won't get 'em. And nobody but you will make to blame for not having that manual. The thing to remember about pubs is this: Before you start calling anybody names, maybe you'd better see if you're

1c of AR 750-8 (21 Aug 62). So what do you do to make sure you get the pubs When a CMMI hits you, you'll find the inspectors quoting Appendix II, Para

In the first place, there are oways you get as they're issued

THE DA FORMS HIS'LL GIVE YOU HOW IT WORKS. ORMS.

For Adminis



PINPOINT

Baltimore	Go thru channels* to	trative Pubs
DA Form 12-33 >	DA Form 12-31 DA Form 12-32	For Technical Pu
9	g	2

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DA Form 12-8 DA Form 12-4

DA Form 12-9

*Normally means to battalion level, and from battalion to the publications centers. Many more forms are being added, especially for technical manuals

DA Form 12-35 DA Form 12-34

St. Louis

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FORMULA

STATE OF

DA Form 12-2 DA Form 12-1 DA Form 12 DA Form 12-3 To Post or Division Publications Section. distribution. hese are used to set up termula

HOW PINPOINT WORKS

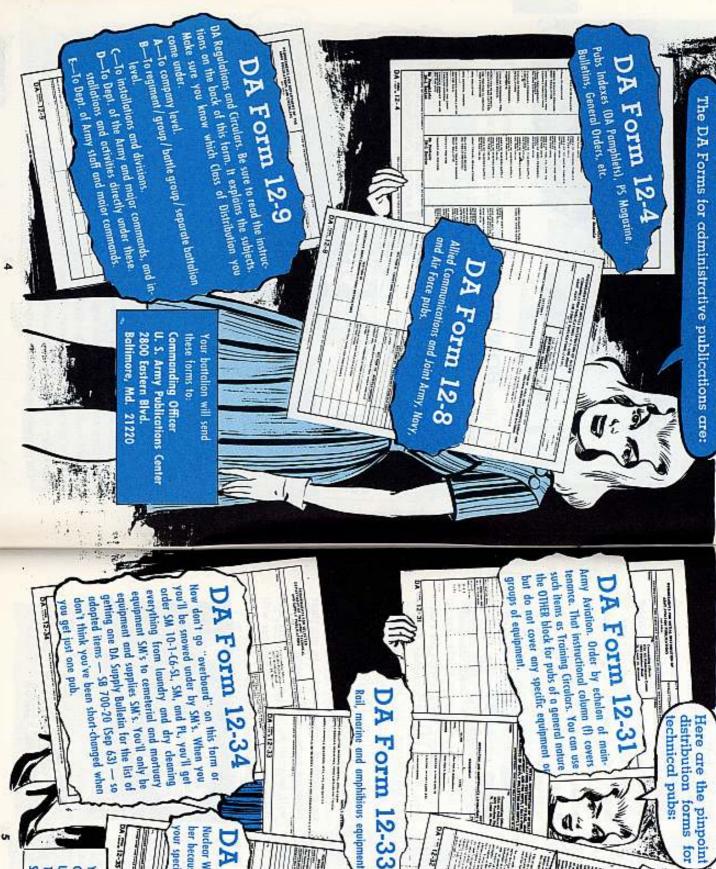


office. You can make out your order order house through the local catalog much like sending an order to a mail the store that handles mail orders. And your order is mailed direct to you. and they'll check it over and mail it to form, then take it to the catalog office Pinpoint distribution works very

On pinpoint which includes company clerk orders the publications you need

and battery size units, you fill out the stops at group or battalion level (such U.S. Army Publications Center (Baltias AR's and circulars) the headquarters more or St. Louis) for direct distribufor review. Battalion mails them to the DA 12 forms and send them to battalion tion of pubs to you. On pinpoint which





distribution forms for Here are the pinpoint technical pubs:



DA Form 12-32

PISTRIBUTION FORM HAS SPACE FOR AN ACCOUNT NUMBER ASSIGNED TO YOUR OUTFIT BY THE PUBLICATIONS CENTER. EVERY PIN POINT

Missile and rocket

DA Form 12-33

order SM 10-1-C6-SL, SM, and PL, you'll get you'll be snowed under by SM's. When you everything from loundry and dry cleaning equipment and supplies SM's. You'll only he equipment SM's to cemeterial and mortuary getting one DA Supply Bulletin for the list of don't think you've been short-changed when adopted items — SB 700-20 (Sep 63) — so

DA 12-35

A Form

ber because there may be pubs that apply to your specific outfit Nuclear Waupans, Don't forget your TOE num-

U. S. Army Publications Center Commanding Officer Your battalian will send these forms to: 1655 Woodson Road

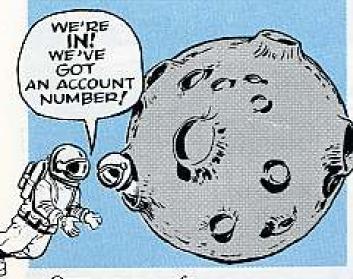
St. Louis, Missouri 63114



Every pinpoint distribution form has a space for an account number, and that account number is assigned to your outfit by the Publications Center after it gets the approved forms from battalion.



You may have the same account number for getting pubs from both Baltimore and St. Louis, or you may have a different account number for each center.



Once your outfit gets an account number, your pinpoint pubs will be mailed direct to you from Baltimore or St. Louis, except for those which are furnished through your group/battalion, etc, headquarters.

Whenever you send in a revised form or another DA 12 Form, you still have to send it thru channels for approval.



Say you have an account number for pubs listed on DA Form 12-4, and you want to get some pubs that are listed on DA Form 12-34. You still have to send the 12-34 thru channels for approval.

Any time you need more, less, or none of the pubs you're getting that are on pinpoint, you change your distribution by sending through channels a revised DA Form 12-(series number



Remember, once your outfit gets an account number, it stays with the outfit even if you change location. And, if you do change your location, be sure to notify Baltimore and St. Louis of your new address. The forms tell you how.

In order for a staff (for a battalion or regiment, for example) to get their pinpoint pubs, the DA Form 12-series will have to be sent to St. Louis and Baltimore, and an account number will be assigned.



You'll find blank spaces on the pinpoint forms. You can't write in requests for other pubs unless you have the word from the Pubs Center; they'll tell you what to put in the spaces.

Army National Guard pin-point distribution is currently limited to the parent TOE unit of Authorized ARNG aviation maintenance shops and on-site Nike Hercules units. All other publications are handled by the state AG.

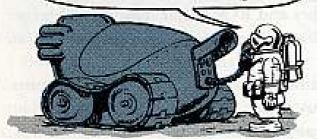
Army air Reserve units are on pinpoint for aviation pubs. Your Reserve corps headquarters puts out the word on other pubs.

FORMULA DISTRIBUTION

Now for the pubs you don't get on pinpoint. How do you get them?

There's a distribution formula in each of these publications that'll clue you as to who gets what. If your outfit's listed, you'll get that particular pub from your local publications section . . . if you need it. If your TOE is listed in

WADDAYAMEAN WE CAN'T HAVE
IT...OUR OUTFIT IS THE OLD 201
CAVALRY AND FOR THREE GENERATIONS WE'VE BEEN GETTIN'
"LEATHER SADDLE MANUALS"
OUR TOE LISTS IT!



the formula but the pub officer finds out that you don't really need it, he won't send it to you. The pub officer can also get and give you any pub you need even if your TOE isn't listed in the formula. You can find all of this in paras 68 and 70 of AR 310-1.

Extra Copies

DA Form 17 is used to ask for additional or replacement copies of pubs. When you get your pinpoint distribution and find there aren't enough copies, then you send the DA Form 17

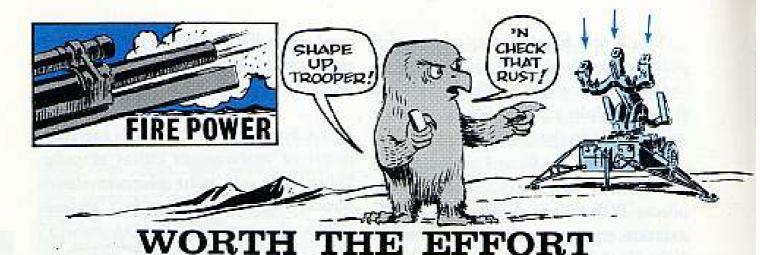


to St. Louis or Baltimore, depending upon the publication. Be sure to include your account number and statement explaining why you need the extra copies. This'll get you extra copies on a one-time basis; it won't change the number you get automatically by pinpoint.

Your local publications section will tell you how to get additional or replacement copies of pubs that are on formula distribution. This is usually covered in a post memo or bulletin. If you don't know, make it your business



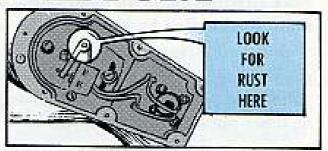




Next time you're pulling a monthly service on your Hawk launcher—and every time from then on—take the time to pull the cover plates from the three downstep switch housings.

Then take a close look inside and see if you can spot any rust, especially on the part of the arm that swivels around the post. If you run into any, get rid of it with some crocus cloth.

Rust on the part of the arm that swivels could keep the arm from moving and closing the microswitch the way it oughta. So, as a finishing touch,



use a little OAI (instrument lubricating oil) at the point where the arm rotates around the post. Be sure a new gasket is installed each time the cover plate is removed.

Of course, if you run into more rust than you can handle, then it's time to sing out for your support people.



Do the tents for your Hawk CW radars and ROR radar flap in the breeze?

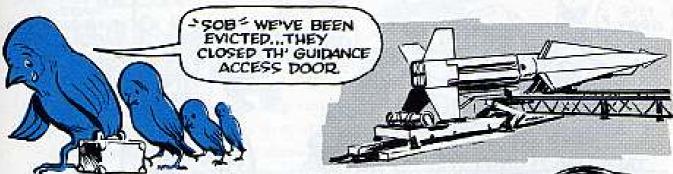
Or worse . . . do the tents look like they came out on the short end of an argument with a meat grinder?

Either one or both of these things could happen if you have the wrong tents. And the wrong ones are those without guy lines.

The right console tent—the one that has guy lines and gets used with CWA, LPI and the ROR radars—is listed under FSN 8340-823-6965. It's in Section II—the basic issue items list—in the -12P/1 TM for each radar.

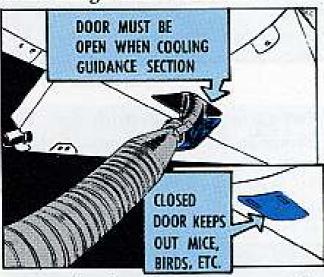
And to complete the picture, make sure you have a copy of TM 10-8340-203-24P (Dec 62) on hand.

READY...AIM...FIRE!



You can throw up a round-the-clock armed guard . . . set out traps . . . fence-in the area . . . and have nets on hand. But that's an expensive way—in men and equipment—to keep mice, birds and what-have-you from getting into a Nike-Hercules missile by way of the guidance section access door.

True . . . when the hose assembly used for cooling the guidance package is connected, the door has to be open. And everything and its brother and sister can get inside the missile.



But the hose doesn't have to be hooked up when you're not cooling the guidance section. So take the easy way out when you're not using the hose for cooling by disconnecting it and closing the guidance section access door.

There's one thing to remember, tho. The coupler end of the hose has a but-



terfly valve that's designed to provide a load in case the coupler end is accidentally disconnected from the missile. The load is needed, of course, to keep the blower motor from burning out if the coupler does break loose.

So... don't take the hose off the pipe assembly because you'll take the butterfly valve out of the picture if you do.

Closing the access door when you're not using the hose assembly to cool the guidance package helps take care of your problem. But you're still left with the problem of what to do when the hose is hooked up to the missile—leaving the access door open.

The answer, in a coupla words, is nothing much. Maybe it'll help you to know, tho, that the people with the slide rules are trying to come up with an answer or two. IT'S IN THE TM



I'D SUGGEST YOU EARTH-TYPES CHECK PAGE 18 TM 9-1430-250. 12P/21/1 (OCT63) WHEW:

TM 9-1430-253-20/2 (Feb 61) . . . they're the TM's that have the scoop on painting Nike-Hercules equipment.

The TM's talk about using gray paint for working on consoles and cabinets in the BC and RC vans and the like. And the pubs give you a run down on stock numbers for the gray paint.

But some Nike systems use a light green paint on the consoles and cabinets. So what do you do?

Why you turn to page 18 of TM 9-1430-250-12P/21/1 (Oct 63). You'll find what you want there-1-pt cans of lusterless green enamel listed under FSN 8010-844-0871.

WATCH THE HOOK

Dear Half-Mast,

On page 24 of PS 131 you answered a question about rusty chains on the Nike-Hercules portable hoisting unit.

Does the answer also apply to the book with the boisting unit?

Sgt G. L.

Dear Sergeant G. L.,

Yup.

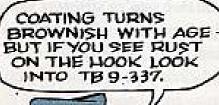
And the same deal goes with other hooks-like the ones on your rocket motor cluster hoist beam and the hook on such vehicles as the M62 wrecker.

Manus mall 11/11

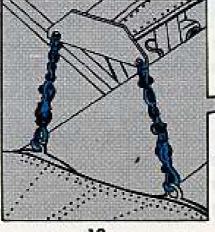
That is, there's a coating on the hook

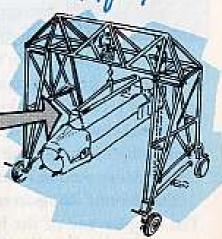
that turns brownish with age. The change in color doesn't mean a thing.

But if rust does show up on the hook . . . then you take heed of what it says in TB 9-337.





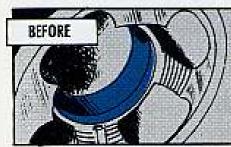






Y'say the recoil compensating ring on your 106-mm rifle looked bare when you sent it to support for its first 500-round adjustment?

And it came back wearing threads?



THREADS SHOULD SHOW AFTER SUPPORT MADE NECESSARY ADJUSTMENT



So, now you wonder if it's safe to fire?

Don't blame you for wondering. Your rifle's pub (TM 9-1000-205-12, Mar 59, with Change 1) doesn't say a thing about its looking different.

But, ease off. Threads should show after support's made the necessary adjustment.

This adjustment, like it says in para 58, returns the muzzle velocity to newrifle condition. This means, though, that the weapon'll have a small rearward motion when you fire it—something it'll lose the more you use it . . . till it'll have no movement. Then, after a while, a new forward movement will set in and you'll be back where you were—needing another adjustment.

Feel better now?

THAT BIG FAT

OK, men, let's get these cotton pickin' answers straight so's you don't ruin the blued or polished bearing surfaces on your small arms.

Yes, in a tight field situation, you can use laundry soap for cleaning your piece if'n you can't get hold of some bore cleaner, BUT . . .

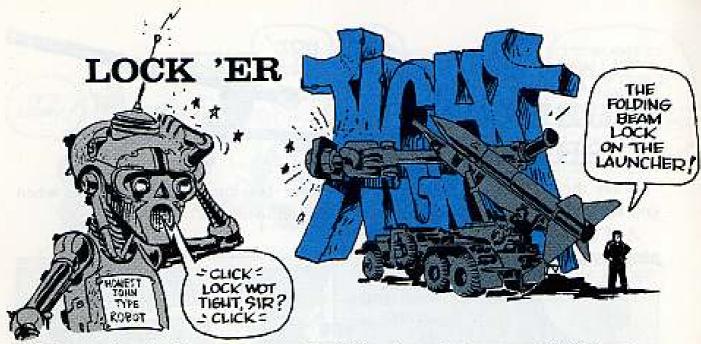
Only if you immediately dry your weapon good and lube it even better to keep it from rusting.

No, you can't use steel wool or crocus cloth to get rid of rust stains,

BUT...

Your atmorer can use 'em 'cause he's a special trained type who won't rub off the protective finishes like you're apt to or foul up critical weapon dimensions.

Yep, you only use the cleaning materials and procedures spelled out in your weapon's TM or FM. And always follow this cleaning bit with a thin coating of the recommended preservative. This'll keep your weapon healthy and yourself gig-proof.



It's enough to bald you . . . when the folding beam lock on your M386 launcher fails just as you're unloosing an Honest John.

The back-blast separates the beams. They fly back with an awful "whump." And most of the parts—including the beams—take a powerful beating.

Wha' hoppin? What can you do to prevent it in the future?

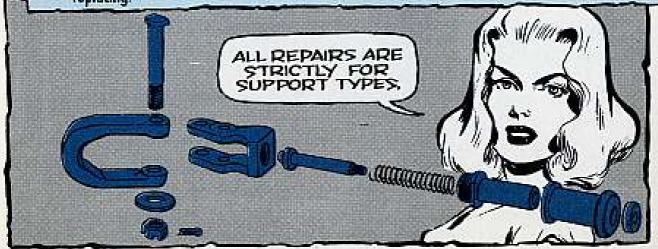
Like as not the lock failure was caused by one of two things. Either somebody (not you, of course) made with an unauthorized welding repair on the hook. Or, somebody (you, maybe?) didn't make sure the locking pin was fully engaged when he locked the folding beams in firing position.



Here's what you can do to avoid a bad repeat performance:

 Keep your cotton-picking hands off repairing any of the lock components. That's strictly for support types.

Get your support guys to take each lock group apart semi-annually. Get 'em to inspect the components for cracks, fractures or other defects. And get 'em to replace any parts that need replacing.



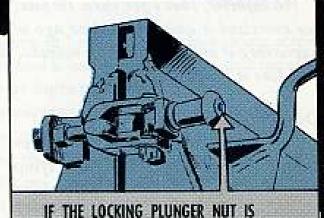
- 3. You inspect the beam lock for proper adjustment and engagement of the locking pin before each and every firing mission. If you find there's not enough tension in the lock group to prevent movement or play of the folding beams, get your armorer to increase the tension by adjusting the position of the lock hook—like it's outlined in Para 65 of TM 9-1055-205-35 (Mar 59). These instructions'll be switched to the next change to the -20 TM, Connie has learned.
- 4. And you make mighty sure the lock's locked good when you put the beams in firing position.
 You can tell in daylight by looking and after dark by feeling the end of the sleeve.

If the nut's flush, it's locked OK.

But if the nut sticks out even a 1/4 inch, it's not locked.

Get it?

Now, it's gonna take quite a bit of pressure to overcome the over-center feature of the lock and to engage the lock pin (by pushing the handle out straight)—even when the lock's adjusted right.

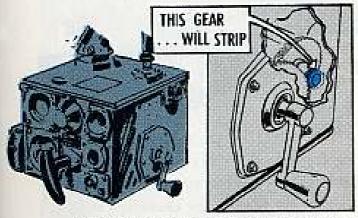


IF THE LOCKING PLUNGER NUT IS FLUSH—IT'S LOCKED.

IF IT EXTENDS OUT—IT'S NOT LOCKED.

But, whatever else you do, DON'T use a hammer or any other tool to help lock it. Finger or hand pressure should be enough.

ABOUT YOUR M13 BALLISTIC COMPUTER



There are times when you may think you're hep to any situation, but it may not be true. Take, for instance, when you're using the M13 ballistic computer in your M48 tank.

Unless you're sure you know just T142E3.

which crank, or handle, or knob does what, then maybe you'd better ponder a bit.

You could run into a passel of trouble if you use the maximum range correction above 4400 when you have the ammo indicator on HEP T142E3 and the range correction above +3. It hits the manual stop and something's got to give, and most likely it will be some of the gears. So—double-check that range correction to see that it's not above +3 before you select HEP T142E3.



Somebody said you have an MD degree (Doctor of Maintenance) so here goes; Can you diagnose this and prescribe a treatment? Our M103 tank's 120-mm gun developed a terrific leak in the hydropneumatic equilibrator and we can't figure why.

No injuries, that's for sure. In fact, it's not been used at all lately, except that we exercised it quite some time ago while obeying what TB ORD 303 says about exercising it at least every six months. And the gun's been parked in travel lock, too, like it's supposed to be.

Sgt. R. A. C.

Dear Sergeant R. A. C.,

Ah-hh, here we go again. Quite a few of these M103's are showing this symptom after standing in one place for a long time in travel lock.

Being parked in travel lock's not the problem, though. This takes the pressure off the seals, so keep parking it this way. keep it healthy.

The exercising bit for equilibrator assemblies mounted in the M103 120mm gun tanks is pinpointed in Para 9c of TB ORD 303, like so:

Elevate and depress the gun and mount throughout the FULL operating range at least three or four times. Got it?



But the cause is simple, and any maintenance practitioner'll tell you the cure's even simpler.

What happens is this: The elevating piston O-ring seal dries out and dry-rots from lack of lube. Then you have a leak.

The best cure is prevention. If you'll partially exercise the equilibration system once a week by crew operation, you'll lube the rubber in the O-seal and



And now, Sarge, you diagnose this one for me: Why is it that because the TB ORD says in Para 15 that the equilibrator's supposed to be exercised at least once every six months so many guys interpret this to mean it can't be exercised any oftener than that?

Maybe what we need are signs for people who can't read!

Hall-Mast



Next time you boresight the M31 periscope on your M48A3 or M60 tank, check the 'scope to see if it's suffering from parallax. And if it is, fix it yourself, using a suitable screwdriver.

What's that? Y'say you have strict orders to keep your cotton-picking screwdriving mitts off'n all periscopes? You've had it hammered into you that parallax adjustment can only be done internally at higher echelon?

Well, you're right—as far as other periscopes go.

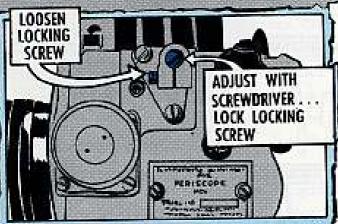
But the M31's different. It's equipped with a slot in the eccentric shaft that allows for this external adjustment. And there'll be a whole new breed of periscopes in the future with this same feature.

So, you might as well get hep to it right now.

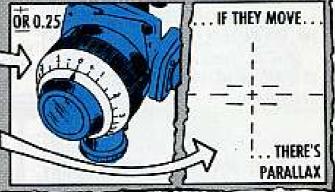
Here's how to make that check: Set the diopter scale at the sharpest focus position of the periscope reticle within plus or minus 0.25 diopter.

Then squint through the eyepiece at some target in the distance—say, 1200 meters—and move your head up and down and sideways. If the reticle markings of the target seem to move, don't blame it on last night—your 'scope's got parallax.

HERE'S HOW YOU FIX IT:



Loosen the locking screw in the eccentric shaft housing and while you're peering into the eyepiece, stick your screwdriver into the slot in the eccentric shaft and turn it till you get rid of the parallax. Then tighten the locking screw.



Normally parallax's no problem on M31 periscopes. About the only time you may have trouble with it is when you replace an unserviceable head assembly. But check it whenever you're boresighting.

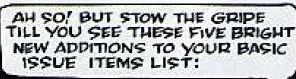
This is the big message to write in red ink behind your ear, though: While you're authorized by Change 1 (May 63) to TM 9-2350-215-10 to screw around with the M31 periscope parallax adjustment, don't get caught dead with a screwdriver around any of the other periscopes now in the field.



LOOKY HERE!



Can't do a good PM job on your M107 or M110's armament without the right tools, y'say?





A SOCKET WRENCH FOR ADJUSTING **EQUILIBRATORS.**

(Socket, socket wrench, 3/4-in square drive, 3/4-in square wrench size . . . FSN 5120-969-1773.)

A SPANNER WRENCH FOR ADJUSTING THE TRAVEL LOCK.

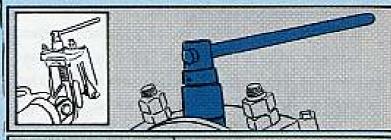
(Wrench, spanner, adjustable hook (2 to 43/4-in) MS16147-3 . . . FSN 5120-277-9076.)

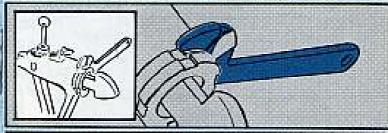
AND THREE DRIVE PIN PUNCHES FOR DISASSEMBLING THE BREECH.

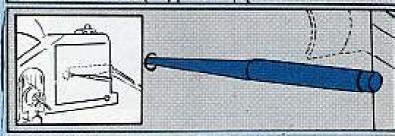
(Punch, drive pin, 3/16-in diameter, 31/2-in point length . . . FSN 5120-223-1015.)

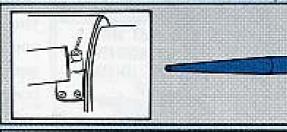
(Punch, drive pin, 5/32-in diameter, 2-in point length . . . FSN 5120-752-9031.)

(Punch, drive pin, 1/16-in diameter, 11/2-in point length . . . FSN 5120-752-9030.)





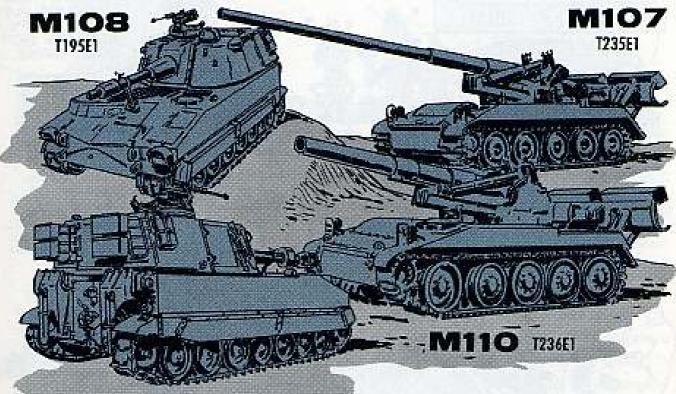






Use 'em in good health-yours and your vehicle's.

SHOOT AND SCOOT POOP



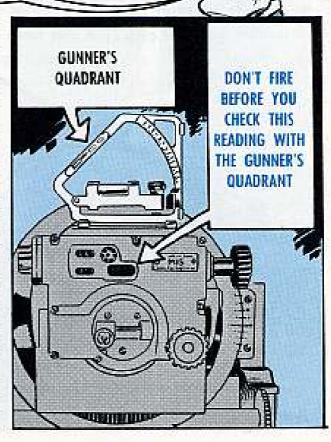
M109 T196ET

M107, M108, M109, OR M110 SP ARTILLERY VEHICLES?

Well, listen to this warning and you won't be mourning... Elevation quadrants M15 with serial numbers under 1000 don't always give an accurate reading on the elevation counter dial.

So, before you fire, be sure the reading is right by checking it with gunner's quadrant M1 or M1A1 . . . that way your round will go where you want it to instead of somewhere in the next county.

M15 elevation quadrants with serial numbers above 1000 are OK. But if you have one numbered below 1000 always check it with the gunner's quadrant... This won't be forever because they plan to fix the bad counters. But, for now, check before you fire.





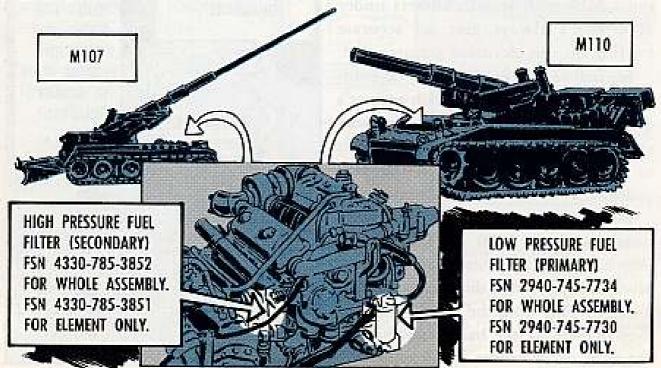
M107 SP 175-mm gun and the M110 8-in howitzer are a couple of far-geshootin', loud-geboomen, krieg-cannon. Be good to them and they'll write bad news for the bad guys.

Treat 'em tender, never bend a fender . . . and always remember, fuel filters help keep your cannon crackin'.



You might clip this info to page 19 of your TM 9-2300-216-20P (Jul 62) where some of it already is. Incidentally, the Fig 12 on page 18 is of a primary (low pressure) filter.

The two kinds of elements and filter assemblies are sittin' in the depots waiting for your order . . . so use 'em but don't lose 'em or abuse 'em.



M108-M109 SP TIP



You ready to disconnect the batteries on your M108 SP 105-mm howitzer (T195E1) or your M109 SP 155-mm howitzer (T196E1)?

They're negative ground like on all modern Army vehicles, and they'll give you no trouble . . . provided you remember that they go to ground in two places. When you're disconnecting the batteries, you disconnect the twocount 'em . . . two-negative (ground) cables first.

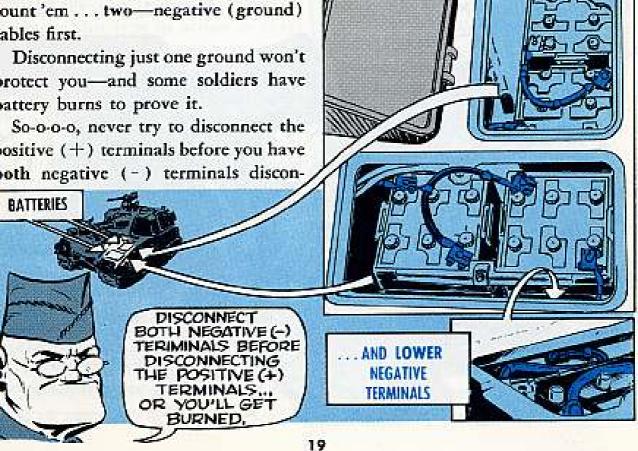
protect you-and some soldiers have battery burns to prove it.

positive (+) terminals before you have both negative (-) terminals discon-

nected. That way you'll be all right and 'so'll your batteries.

Likewise, when you reconnect the batteries, you connect the negative (ground) cables last. TM 9-2350-217-20 (Oct 62) shows you the cable attachments in Fig 163 on page 251.

> DISCONNEC UPPER . .





You can't tell the players without a score card . . . so this is your score card for the M113 PC transmission oil filters.

Maybe you wouldn't know an E.O. from the backside of a barn door—mox nix—it was E.O. 80671 (15 May 61) that changed transmission assembly TX200-2, OPN 8763102, to a new model which was named TX200-2A, OPN 10910292.

This was fine and dandy like chocolate candy except that transmission oil filter parts kit FSN 2510-767-3155 listed on page 91 of TM 9-2300-224-20P (Nov 61) will not work on the new TX200-2A transmissions.

What you need is transmission oil filter parts kit FSN 2520-860-7343 which has parts to fit either TX200-2 or TX200-2A transmissions. This kit is in the supply system so order it if you need it.

The late model M113 PC's have the new TX200-2A transmissions and so do their satellite vehicles such as the XM106, XM474E2, XM577, etc.





There may be one in your outfit! One what?

A point scrounger, that's what.

You know the type. He needs a set of points for the distributor in a vehicle and, with supply fresh out, he takes a short cut.

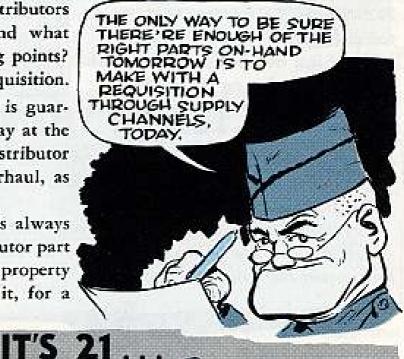
After all, direct exchange is right handy. They have rebuilt distributors with new points in 'em. And what could be easier than swapping points? Why, he doesn't even need a requisition.

'Course this type of action is guaranteed to turn a few hairs gray at the depot, when the rebuilt distributor comes back for a second overhaul, as well as in his own outfit.

Remember that if supply is always running out of ignition distributor part kits (points included), the unit property officer needs to know about it, for a very good reason.

Most part manuals say that an increase in the quantity of an item is OK if it's justified by usage and experience. AR 735-35 (16 Mar 62), "Property Accountability," gives him the green light to increase stockage.

So, if you notice a run on rebuilt distributors, spread the word, will ya?



IF YOU GUYS
ARE SO ADVANCED
HOW COME Y' DIDN'T
FIGURE THIS MIS-PRINT
ON PAGE 209 OF DA
PAM 310-4?





Y'R EARTH HUMOR SOME-TIMES ELUDES ME...

Yep, it's still TM 21-305 for wheeled vehicle driver know-how. The TM 1-305 listed on page 209 of DA Pam 310-4 (Jul 63) is simply shy its first digit.

BUTTON! BUTTON! WHO'S GOT ...?



WE GOT 'EM!
'N YOU HAVE TO
START A GALACTIC
WAR TO GET 'EM BACK...



Button! Button! Which truck has the rubber button on its starter pedal?

Is it the M38A1 1/4-ton?

No! No! No! No!

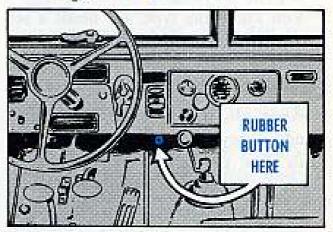
Is it the M37 and M37B1 3/4-ton?

Yes! Yes! Yes! Yes!

If you look in TM 9-2320-212-20P (Feb 60), the supply bible for the M37, you won't find anything about the rubber starter pedal button. However, it is in the supply system now under FSN 2920-562-0417 (Ord No. 7351198) and you can order it.

Use it just on the M37 and M37B1. You don't need it on the M38A1.





LEAVE THEM OFF

Dear Half-Mast,

Can you tell me why the M105A1 and M105A2 cargo trailers don't have amber side reflectors?

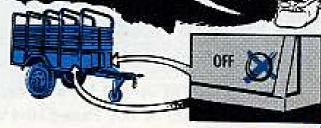
There's talk going around my outfit that unless a good answer can be found somebody's going to latch on to 'em . . . drill some boles in the trailers . . . and then mount the reflectors.

SFC N. R.

Dear Sergeant N. R.,

Those amber side reflectors were left off the trailers because of a problem we all have now and again: money.

And I sure would do some fast talking to keep the people in your unit from getting eager with the drill. THERE'S NO AUTHORIZATION FOR PUTTING ON THE REFLECT ORS - PERIOD.







Dear Half-Mast,

We've looked high and low for the FSN or any other number for the leveling jacks on the doppler station van trailer M324 and computer station van trailer M325. They just don't seem to be listed anywhere.

Can you give us a number for the whole assemblies?

CWO A. I. B.

Dear Mister A. I. B.,

Sure can.

The leveling jacks that you're looking for are listed on page 25 of Ord 7 & 8, SNL G221 (May 52).

Of course, the SNL gives the old Ordnance stock number for the jacks. But when you take these Ordnance numbers and add the federal group and class numbers, you then have the jacks' correct stock numbers.





JACK, leveling, left, assy (G221-7068425), FSN 2590-706-8425. JACK, leveling, right, assy (G221-7068426), FSN 2590-706-8426.

Half-Mast

M56 SCORPION SCOOP

SCORPION'S TEETH ... MAN, ARE YOU WAY DOWN ON THE EVOLUTION SCALE.



HOW MANY TIMES DO I HAVE TO TELL YOU... THEY ARE MACHINES!!

If you can't control the steering in your M56 Scorpion (SPAT) you can get killed—as one man has been already.

What happened, the sprocket mounting bolt heads got sheared off because the track guide pins were rubbing against them. With the bolt heads gone, the drive shaft backed off and steering control was lost.

To prevent this, put on new sprockets if yours get worn down so much the

track guide pins rub the mounting bolts.

Also, don't drive if there's a chunk out of a sprocket tooth so deep that bare metal is exposed.

Another thing you can do for safety—your safety—is replace the selflocking sprocket mounting bolts with safetywired bolts— FSN 5306-967-9576. Wire 'em in series of two with FSN 9505-331-2607 safety wire.



Is this what you do when you want to remove the horn button assembly on your 21/2-ton Reo, 5-ton or 10-ton truck?

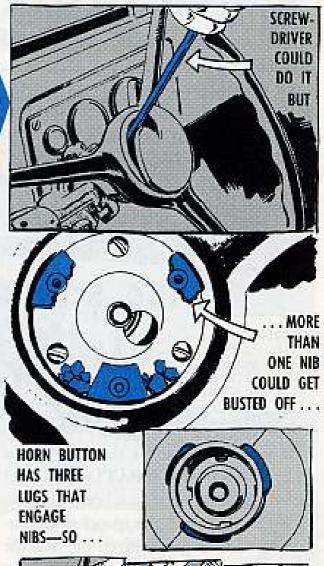
No wonder the supply people are climbing up the wall—what with the requisitions they're getting for the assemblies.

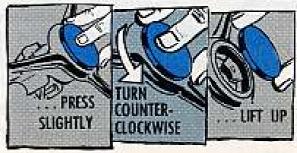
You can get the horn apart with the screwdriver. But the chances are better'n even that you'll bust one or more of the rubber nibs on the horn plate in the process.

You can see why. The horn button has three lugs made of hard plastic. And these lugs engage the nibs to keep the button in place. So . . . prying up the horn button means the lugs tear the nibs from here to there and gone.

There's only one right way to remove the button. Take hold of the rubber covering . . . press down slightly to take the pressure off the mated nibs and lugs . . . turn counterclockwise about one inch . . . and then lift up.

You work things in reverse to replace the button.







That's right! Why do it?

There are plenty good reasons why diesel fuel should not be used for cleaning vehicles.

First, it's a monstrous waste of fuel and money.

It'll cause the paint to break down. Pin-holes develop where rust can get a foothold. And rust will break down your paint job even worse.

It leaves an oily film on the paint that'll only gather more dust to make it harder to keep your vehicle clean.

A vehicle cleaned with diesel fuel may look slick for an hour or so, but that spit-and-polish won't fool a good inspector one bit.

So why do it?



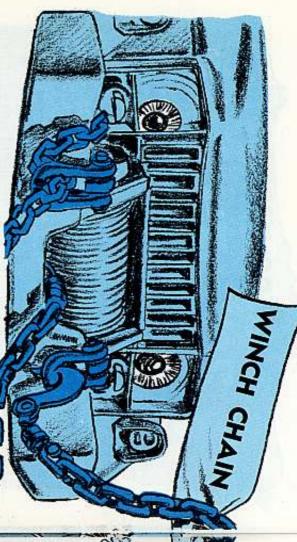
Why are there holes in the front bumper of the M135 trucks?

S Sgt T. H.

Dear Sergeant T. H.,

You're not the only one that's been puzzled by those holes in the front bumper. Those holes have led to all sorts of theories.

The truth of the matter is, it was one of several ways the designer used to reduce the overall vehicle weight without sacrificing structural stability.



Dear Half-Mast,

he gets the signal to stop, winch parts and lifting shackles may get bent or broke shifter fork attaching pin. And if the operator in the cab reacts too slow when Try to disengage the winch with the cable real tight and you may shear the Trouble's brewing when you tie up a winch the way it's pictured in some TM's.

Wby not use this windup instead:

point down, through the ring. cable ring and the book meet below the center of the bumper. Then slip the book pick. Then take it across and down through the other shackle. Adjust until the See that the chain's straight and pass it up through one shackle . . . take your Wind until the ring where the chain's attached is about six feet from the drum

drive and set the drum lock pin. Result: No sweat and no damage Wind the cable to take up slack but don't draw it tight. Disengage the winch

you'd open up the gate to others. you'd duck some possible troubles, but

cable instead of just threading the chain you'd have to put the shackle over the through both shackles. So sometimes are too short to make that long loop Many of the chains you'll find in use

loop below the bumper, the hook will the bumper face. With the hook and chain in a loose

With the windup you described, bounce in rough country. And it may bounce out of the ring unless you wire the chain to the ring.

drum is likely to get crossed up. outer layer of the cable on the winch Besides, with that loose loop, the

loop stayed draped inside the bumper. 58) says "no dice" on dropping it over Page 324 of DA Pam 750-1 (28 Apr And you'd have to make sure that

HOW'S THAT

like you see in these pictures below, take it easy with the controls, and draw it Any way you hitch those winches you have to keep an eye on 'em. Tie 'em



WINCH CABLES: SAFEST WAY HERE'S THE 311 01





BUT NOT FOR ROAD TRAVEL TEMPORARY TIE ON ANY VEHICLE.

1/4-TON TRUCKS

you down the road . . . or 'round the boondocks. just tight enough to hold the hook in place. That way your troubles won't follow



M56 SPAT LUBING

worm gear? Any of you M56 SPAT "owners" still shook up about lubing the eccentric

apply grease through fittings until grease is forced out around scals." remind us that para 5 of Change 3 is right. It says, "Every 250 miles or quarterly, (Feb 61) to TM 9-2350-213-10 (May 58) says another. The engineers in Detroit Note 11 in the LO 9-2350-213-12 (Jun 63) says one thing and Change 3

little hard to get to. These fittings are about an inch back of each idler worm bolt, and they're a



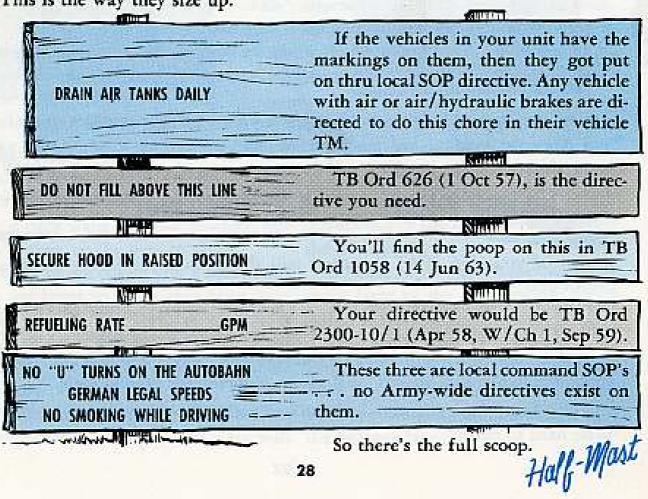
I've been flooded with questions on the requirements for markings on general purpose vehicles. After digging thru numerous publications, I find myself at a loss to know what are the requirements on the following vehicle markings:

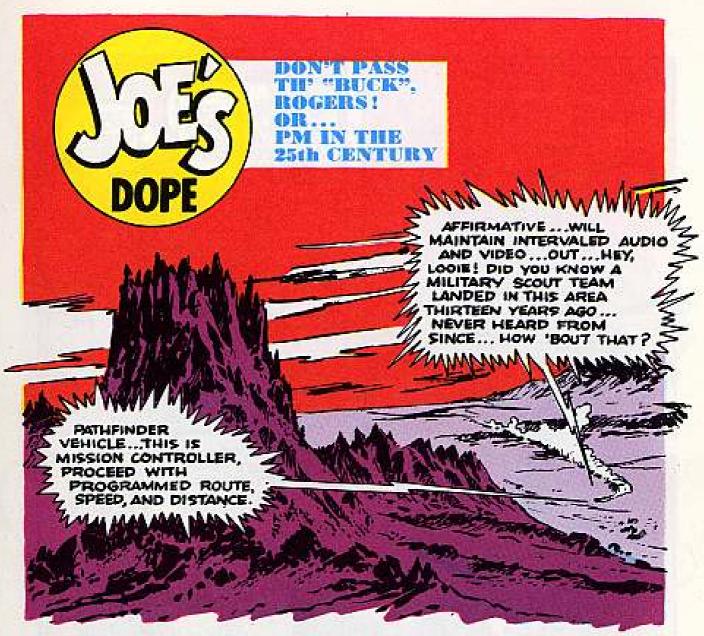


Dear Sergeant W. T. M.,

The requirements you are looking for derive their use from two sources . . . local SOP, and Department of the Army directive type publications.

This is the way they size up.



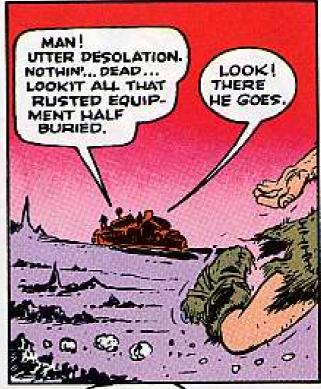


You are looking at a ground patrol vehicle exploring the far side of a distant planet . . . amazing, isn't it . . . but, don't be shocked . . . hang on to y'r socks . . . you're now in the "skylite zone!!"

















And so, after a real meal, a shower, shave and a change of clothes, Sgt. Zerkfitting spews out his almost unbelievable, thirteen year old report!!



Y'SEE, I WAS, 'N PROBABLY STILL AM, MAINTENANCE SGT., SO WHEN WE LANDED...

WELL, SGT.... WE'RE
HERE... OUR MISSION
WILL LAST FIVE YEARS,
SO...IT'S IMPERATIVE
YOU HAVE A TIGHT
FITTING MAINTENANCE
PROGRAM SET UP
TO LAST,...GOT THAT!

YESSIR! I'VE
CLUED 'EM IN, SIR...
THO' CLIMATIC CONDITIONS HERE WILL
MAKE SLIGHT
CHANGES IN OUR
SERVICING, SIR,

So things
went along
"five by
five," but
when y'r a
few billion
miles from
home...
y' let things
slide a bit...





... like the day the geological unit needed wheels to haul back samples . . .

HEY, SARGE! THEM "ROCK TYPES" NEED A HEAVY LOADING VEHICLE FOR SAMPLE TRANSFER... NEGATIVE!
NOTHING'S ON TH'
LINE, THO' WE COULD
USE A LIGHT "RECON"
WITH A TRAILER ...
HMMM, I DON'T KNOW
IF WE SHOULD ...
HMMM...

OK!
LET 'EM
HAVE IT...
BUT EASY ON
SPEED, THAT
"RECON" WAS
NOT DESIGNED
AS A HEAVY
PRIME
MOVER,

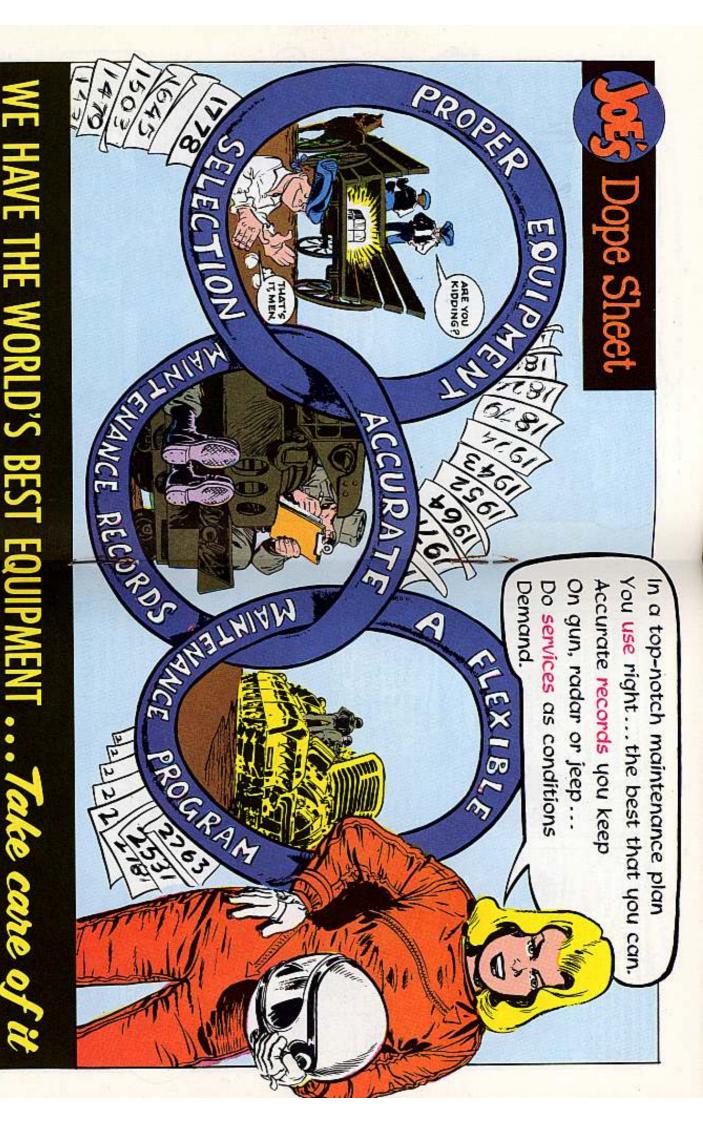
Wot an eight ball
I was . . . next
morning we started
to feel th' fickle
finger . . .

SARGE! THE ROCK BOYS ARE BACK, 'N' WE GOT TROUBLE!!





Yessir, we were on our way . . .



IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

The next mistake was to cover th' first one . . . and so we started to . . .



OUR REPAIR PARTS INVENTORY WAS FIGURED BY THE MORTALITY RATE OF ITEMS AS USED THROUGH A RANGE OF CONDITIONS ... SO WHEN YOU CANNIBALIZE A VE-HICLE IN ORDER TO GET THAT IS ALMOST NEVER SUPPOSED TO QUIT. YOU GOT BIG TROUBLE, HAVE A REPLACEMENT 'N' SO, YOU HAVE A "HANGAR QUEEN"

BIG DEAL! SARGE ... WE'LL USE UP ALL THEM PARTS IN 'ER AS EXTRA SPARES...

I SHOULDA CALLED IT OFF RIGHT THERE, BUT OTHER GOOFS STARTED UP.



CAN'T FIGURE IT, SHE HAD HER PERIODIC SERVICE ONLY THREE DAYS AGO AS PER THE TM.

FEH! SHE SOUNDS LIKE A MOUTH FULL OF MARBLES, LES-SEE THE EQUIP-MENT UTILIZATION RECORD (DA FORM 2400, AND THE LOG BOOK).



HEY! THIS ATOM BURNERS BEEN UP IN THE DESERT QUADRANT OF THIS PLANET ... SAND STORMS, HOT SUN, ROCKS, HANDLING CORROSIVE MATERIALS ...



LIKE I SAID BEFORE. SARGE ... THE LO SAYS TO LUBE EVERY 50 RUNNING HOURS, WHICH I DID, THE NEXT LUBE AIN'T DUE YET.

WOT ARE YOU-LO INTERVALS ARE FOR NORMAL **OPERATING** CONDITIONS, YOU CALL THESE



34





MORE EQUIPMENT SERVICEABILITY CRITERIA PUBS

Mere's an addition to the ESC Pubs. you saw listed last month in PS 138. You'll also find the complete list in DA Circular 750-1 dated 12 Mar 64, and as it says in the circular—ESC Pubs will go in your log book.

TM 11-283-ESC, AN/VRC-6, Radio Sel. TM 11-285-ESC, AN/VRC-7, Rodio Set TM 11-286-ESC, AN/VRC-8, -9, and -10, Radio Sels. TM 11-287-ESC, AN/YRQ-1, -2, and -3, Rodio Sels. TM 11-291-ESC, AN/YRC-13, and -15. Redio Seh. TM 11-296-ESC, AN/PRC-6, Radio Sel. TM 11-510-ESC, AN/URC-4, Radio Sels. TM 11-611-ESC, AN/VRC-16, -17, and -18, Radio Sels. TM 11-642-ESC, AN/VRC-20, and -21. Radio Sels. TM 11-706-ESC, AN/YIA-4, Intercommunication Station. IM 11-2139-ESC, AN/TCC-7, and -50, Telephone Terminals. TM 11-2142-ESC, AN/TCC-3, and -23, Telephone Terminals. TM 11-2258-ESC, AN/TXC-1, -1A, -18, -1C, -1D, Facsimile Sets. TM 11-2436-ESC, AN/TMQ-5, Radiosonde Recorder.

TM 11-5805-246-ESC, TH-5/TG, Telegraph Terminal. TM 11-5805-247-ESC, TA-182/U. Telegraph-Telephone Signal Converter. TM 11-5805-254-ESC, AN/TCC-14, Telegroph-Telephone Terminol. TM 11-5820-222-ESC, AN/VEC-24, Radio Set. TM 11-5820-292-ESC, AN/PRC-8, -9, -10, Radio Sets. TM 11-5820-401-ESC/1, AN/VEC-12, Rodio Set. TM 11-5820-401-ESC/2, AN/VRC-46. Regio Set. JM 11-5820-498-ESC. AN/YRC-53. Radio Set. TM 11-5840-217-ESC. AN/TPS-25. Rodor Set. TM 11-5840-229-ESC, AN/TPS-21 and -33, Radar Sels. TM 11-5895-204-ESC, AN/TNS-3, [GR-6-A], Sound Ronging Set. TM 11-5895-336-ESC, AN/TER-15, Radio Receiving Set, and AN/TAQ-1, Infrared Surveillance. TM 11-6115-204-ESC, PU-286A/G, and PU-2868/G, Generator Sets. TM 11-6740-200-ESC, AN/TFQ-7, -7A, Laboratory Darkrooms and 0A-4198/TFQ-7, 0A-419V/TFQ-7, Photo Darkroom Groups. TM 1-10H-23C-ESC, OH-23B, OH-23C. TM 55-1510-201-ESC, U-8D, BU-8D, F.

TM 55-1510-202-ESC, 0-1A, 0-1E.

TM 9-1005-208-12P, Jon Coliber .30,

TM 55-1510-203-ESC, U-6A.

TM 55-1510-204-ESC, OY-1A, OY-1B, OY-1C.

TM 55-1510-206-ESC, U-1A.

TM 55-1510-206-ESC, CY-2A, CY-2B.

TM 55-1520-201-ESC, UH-19,

TM 55-1520-202-ESC, CH-34A,

CH-34C.

TM 55-1520-203-ESC, CH-37A, CH-37B,

TM 55-1520-204-ESC, OH-13E,

OH-13G, OH-13H, OH-13K.

TM 55-1520-205-ESC, CH-21,

TM 55-1520-206-ESC, OH-23D.

TM 55-1520-209-ESC, CH-47.

TM 55-1520-211-ESC, UH-1A, UH-1B.

TM 55-1550-200-ESC, USD-1.

AIRCRAFT ELECTRONIC EQUIPMENT TM 11-1510-201-ESC/1, U-80. TM 11-1510-201-ESC/2, RU-8D. TM 11-1510-202-ESC, 0-1A, 0-1E. TM 11-1510-203-ESC, U-6. TM 11-1510-204-ESC, OV-1. TM 11-1510-205-85C, U-IA. TM 11-1510-206-ESC, CY-2. TM 11-1520-201-ESC, UH-19. TM 11-1520-202-ESC, CH-34. TM 11-1520-203-ESC, CH-37. TM 11-1520-204-ESC, OH-13. TM 11-1520-205-ESC, CH-21. TM 11-1520-206-ESC, OH-23. TM 11-1520-209-ESC, CH-47, TM 11-1520-207-ESC, UH-1.

A selected first of recent publications of Interest to Organizational Maintenance Personnal. This is a first compiled from recent Adjutant General's Distribution Center Bulletins. For complete details see DA Pam 310-4 with latest changes.

TM 11-2643-ISC, AN/UIC-1, Intercom-

munication Set.

TECHNICAL MANUALS TM 1-1L-23D-1016, C1, Feb L-23D. TM 3-1040-215-12, Dec Irritant Gas Dispersers M4. TM 5-1090-201-15. Jon Melascope. Infrared, Polan Model P-141 TM 5-1450-200-20, Jan Nike-Herc TM 5-2815-200-20P, Jan Diesel Engine, GM Series 71. TM 5-3431-206-15, Jon Welding Mochine, Arc. Libby LJ-200, TM 5-3431-214-15, Jan Welding Mochine, Arc: Libby LEW-300. TM 5-3805-207-20P, Jon Looder, Scoop Clark 85A-M and M23: TM 5-3805-216-20P, Jan Machine, Gar Wood Dilching M-407, TM 5-3805-219-20P, Jon Loader, Scoop, Hough H-90M. TM 5-3810-203-20P, Jan Crone Shovel, Gar Wood M-20A(F) +M-208, TM 5-3810-206-20, Jan Crone Shevel, Basic Unit, Harnishleger 855 BG. TM 5-3820-200-20, Dec Earth Anger, Jaques TJ 254 TM 5-3820-205-10/1, Jan Crusher Eagle 5157. TM 5-3820-205-10/2, Jan Cresher. Jaw, Eagle 5157. TM 5-4310-227-15, Jan Compressor, 15 CFM, Champion OEG-458-ENG 1. TM 5-6115-282-25P, Jan Generator

Set, Hollingsworth JHGW3C.

Browning M191#A2. TM 9-1005-210-12P, Sep (Corrected Copy) Coliber .30, M1 and M2. TM 9-1005-213-12P, Jon Mechine Gun, Coliber ,50:M2, M3, and M63. TM 9-1005-247-12, Jon Armonent Helicopter, 7,62mm Machine Gun: Twin, M2. TM 9-1100-250-20P, Feb Wpns System, Nike-Hercules. TM 9-1220-221-20/2, Jan M18 Computer, Gun Direction. TM 9-1440-375-10/2/1, 10/2/2, Feb Pershing, Ammo, Ground Handling, etc. TM 9-1400-376-12P/1, Feb Pershing. Ground Handling, Spt & Src Equip. TM 9-1430-375-12, Jan Pershing. TM 9-1440-375-12, Jan Pershing, Ground Handling. TM 9-1450-375-12P/1, Jon Pershing. Ground Handling. TM 9-1450-375-14, Jon Pershing. Ground Handling, Spt & Svc Equip. TM 9-2320-218-20P, Dec Truck 1/4-Ton M151. TM 10-500, Feb Airdrop, Supplies & Equipment TM 10-500-13-2, Feb Rigging M101, TM 10-500-62, C1, Feb Rigging Whole Blood. TM 10-500-88-3, Feb Rigging Plantic TAutt avelt hoof TM 10-1670-219-23, Jan Parachule, Personnel Troop Back and Chest (Maneuverable). TM 10-3930-224-20P, Feb Truck, Lift, Pork, MHE 166. TM 10-3930-232-10, Jon Truck, Lift,

TM 10-3930-241-20, Jan Treck, Lift, Fork, MHE 179. TM 10-3930-405-20P, Jan (Proroted ID) Tractor, Warehouse, MHE 148. TM 10-3930-252-12, Dec Truck, Lift, Fork, MHE 185. TM 10-3930-253-12, Jen Truck Lift, Fork, MHE 186. TM 10-3930-231-10, Jan Truck, Lift, Fork, MHE-184. TM 10-3950-202-20P, Jan Crans. Treck, Warehouse, MHE 137 TM 10-4520-201-10, Jan Heaters, Duct-type, Gasoline 250,000 h.T.U. TM 10-8340-208-23P, Feb Teni, Yehicle Maintenance. TM 11-5805-246-20P, Jan Converter, Telegraph-Telephone Signal, TA-182/U. TM 11-5805-334-15, Jan Panels, Circuit Termination 38-1525/FT and 58-1526/FT TM 11-5805-336-15, Jon Panels, Relay Telegraph 58-1529/FG and 58-1530/FG TM 11-5805-346-15P, Jon Switch Key and lamp Assembly MX-4427/G. TM 11-5820-406-20P, Feb Control Frequency Selector C-2742/VBC. TM 11-5820-471-20P, Jan Receiving Set, Radio AN/MRP-48. TM 11-5820-505-15, Jan Radio Terminol Sel AN/MRC-68A. TM 11-5830-211-20P, Jan Intercom-municating Stations L5-124/FI(*). TM 11-5895-246-12, CS, Jon USD-1. TM 11-5930-201-15P, Jan Switchbox SA-331-U. TM 11-5965-217-12P, Jan Microphone, Dynamic, M-65/U.

Fork, MHE 183.



More and more outfits are corralling the spark plug servicing kit, pardner.

Small wonder, now that the tools for cleaning the massive-type plugs have been added to the kit. TB AVN 25-8 (9 Oct 63) now requires you to put the pep

back in all plugs—fine wire and massive alike.

'Course this means that a lot more plug reconditioning (cleaning, gapping, bomb testing) is going to be done. The maintenance manual for your bird, or local SOP, tells you when the plugs get cleaned. It may be during a periodic—or sooner.

CHECK THE PUB

Take the Bird Dog (0-1), TM 55-1510-202-20 (20 Jan 64). The chart in Chapter 2, Section III, page 3-52 says that if the engine runs rough at speeds above idle, all the plugs need to be regapped. It figures, what with the gap burning wider all the time.

But say that the plugs were cleaned Naturally you w not long ago, and during a run up the faulty plug.

38



you got a 200-RPM drop on one mag.
Naturally you want to recondition only
the faulty plug.

To find the cylinder with the bad plug your best bet is the "magic wand", FSN 6625-566-5202.

Crank up the bird on both mags. Then switch to the bum mag, run it for a minute or so, and shut 'er down. By checking the cylinders fired by the bum mag you'll be able to spot the one cylinder that's cooler than the others, and not firing.

Another way to locate a bum cylinder, when you're out in the boondocks without the "magic wand", is simply to mark the proper exhaust stacks with a grease pencil before you crank 'er up. The grease dot will turn white if the plug is firing, but won't change if it isn't firing... works like a charm.



If you're way out yonder and you've got no good replacement plugs, it's possible to put a fouled spark plug back in operation without putting it through special cleaning. Like this—change it to a cylinder where a plug is working OK. For example, spark plugs that are fouled in lower cylinder positions can

be made to operate if you swap them with plugs in upper cylinder locations. This should work especially in opposedtype engines using high octane fuels or where oil's being used fast.

Of course, if your bird keeps buckin' like a bronc after plug reconditioning, that's a horse of a different breed. Fact is, the electrical system, engine, or carburctor may not be up to snuff.

Pin holes in the ignition harness can let in moisture. And with weak insulation, a short circuit can mean the fuel in the cylinder is not being burned—so . . . fouled plugs.

About the only way a faulty harness can be spotted is with the ignition analyzer in the Organizational Maintenance A, B, and C Tool Kits.

Fact is, the analyzer can take the place of the "magic wand," grease pencil, and burnt finger routines. It'll pick up a fouled plug, leaking valve, shorted condenser, shorted ignition harness, or a burn fuel mixture.

But there's a hitch! You'll have to contact your support because their mechs are trained to read the scope.

Then there's the engine itself. With the radial type, oil will tend to stay in the lower cylinders and seep past the rings because of a fast shut-down. That's why you want to idle an engine before shut-down... gives the scavenge pump a chance to do its job. Remember, tho, idling an engine below the RPM called for can also foul up the plugs.

'Course if your bird is a thirsty beast and drinks oil like it's going out of style, the engine may be over the hill.

Another cause of plug fouling is a

faulty carburctor adjustment. An overrich fuel-air mixture setting can load the plugs with carbon, shorting them out. Your maintenance pub has the poop on making this adjustment.



When it comes right down to it, that maverick, "blacky carbon", is always around to foul up plugs. The trick is to keep him under control by putting your cleaning brand on him.

USE THE RIGHT TOOLS

But before you reach for any tools, remember that using the right ones is mighty important. None of that using an oversize socket wrench and tilting or cocking it to one side for a better grip. The wrench can slip on you and hit the plug—goodbye porcelain insulator . . . and plug!

You can avoid the damaging tilt by using these wrenches.

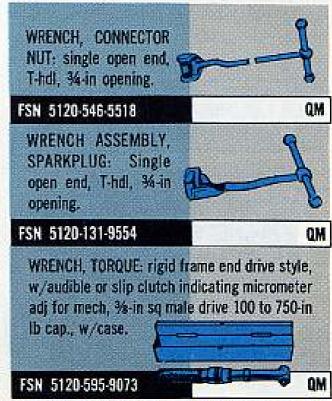
PLUG USE WRENCH 18-mm, 7 / 8 inch hex FSN 5120-243-7342

14-mm, 13 / 16 inch hex FSN 5120-243-7345



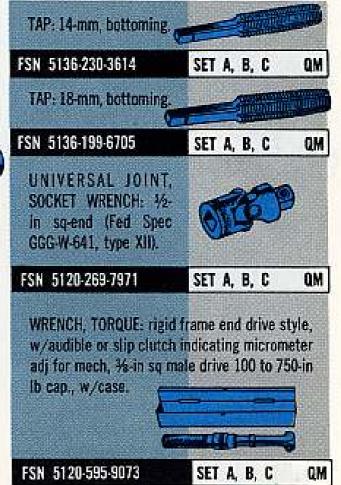
From . . . Tool Kit, Aircraft Mechanic's general, FSN 5180-323-4692, SM 55-4-5180-A01 (30 Mar 62):





From . . . Tool Set, Organizational Maintenance, Set A, FSN 5180-323-4947; Set A (supplemental) FSN 5180-323-4948; Set B, FSN 5180-323-4979; Set C, FSN 5180-323-5037, SM 55-4-5180-A08 (28 Nov. 62):

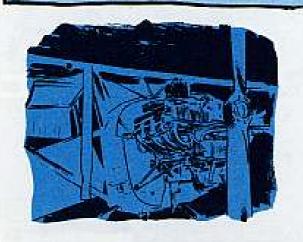


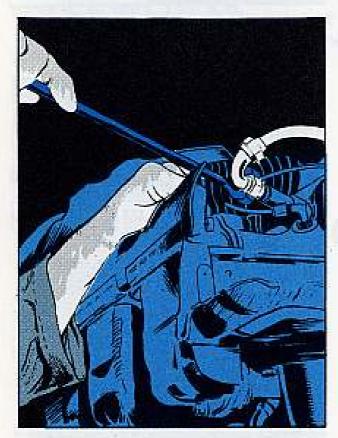


HAVE AT IT

Armed with the right tools, you're ready to restore your down-in-themouth Bird Dog to her ol' self again.

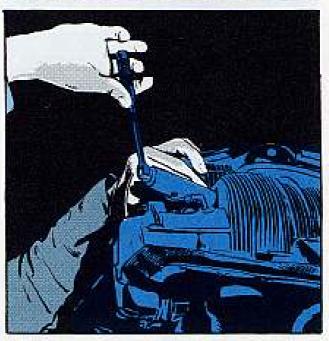
With the cowling off, make with the wrench on the ignition lead connector nut.





When the lead connection is broken, use your hand to come straight out with the lead. Otherwise any side force could damage the plug barrel insulator or the ceramic terminal on the lead.

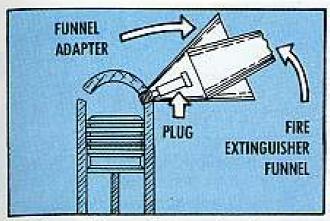
Next, put the socket wrench on the wrench handle. Slide the socket over the plug and make with the muscle power.



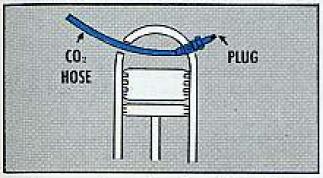
Of course, you never want to use a torque wrench here, since a higher torque is usually needed to loosen a plug. Then too, the torque wrench is designed for tightening only. Using it in reverse (for loosening) can throw it out of kilter right quick.

If a plug seems to be in the cylinder for keeps, don't reach for a wrench with a king-size handle—you don't want to leave part of the plug behind. A sheared plug can mean that the plug bushing in the cylinder has had it, and your only out would be a cylinder change.

Instead, make a cone shaped metal adapter big enough to take the funnel of a carbon dioxide bottle. Spraying the carbon dioxide on the tight plug should do the trick. If not, try heating the cylinder head prior to again using the carbon dioxide.



If you still can't loosen the plug, you can take out the spark plug opposite the stuck one and rig up a line to play carbon dioxide on the plug threads from inside the cylinder.



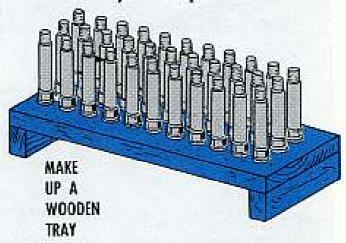
Once you have the plug in hand, treat it like a new born colt—gently. Plugs can take it when it comes to heat ranges but they're mighty fragile. If one is dropped on the floor you never put it back in the engine without looking it over real well for thread or electrode damage and without putting it in the Bomb Tester for an electrical test.



Even a thorough check may not detect damage to the plug. Take the recent case of a massive plug which bit the dust.

The plug checked out OK so it was put back in the engine. After a few hours of operation, a chip of porcelain went right thru the piston head. Result —a blowdown and crankcase fire.

That's why it's a capital idea to make



up a wooden tray (if you don't already have one) drilled to hold a number of plugs. The tray comes in mighty handy . . . beats carrying a fist full of plugs and maybe dropping some on the way to the tester.

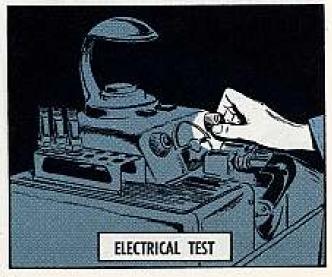




FSM	P/N	Nomenclature	Quantit
4910-786-9271	5612478	Kit-Spark Plug Servicing	
Acres stone	. 40.000.00	Consisting of:	
4910-787-4332	5610523	Chest	
4910-787-0929	AV-11-1	Cleaner & Indicator	
4910-787-4334	AV-19-3	Vibrator Unit	1
4910-787-4326	CL-248	Cleaning Tool	I -
4910-056-7251	CL-251	Cleaning Tool	
4910-056-7253	CL-273	Cleaning Tool (L.H.) 3 blade	
4910-969-0904	QL-274	Cleaning Tool (R.H.) 3 blade	1
4910-969-0905	CL-286	Tool Holder	
4910-969-0906	Q-275	Cleaning Tool (L.H.) 4 blade	1
4910-969-0908	Q-276	Cleaning Tool (R.H.) 4 blade	
4910-787-4327	AV-20-3	Gapping Tool	1
4910-056-7250	CL-250	Gap Spacer (.016 nom.)	5
4920-700-4476	AY-10-1	Gapping Tool	1
4910-787-4328	AY-14-1	Gap Gauge	2
4910-787-4329	AY-17-1	Cleaning Tool Assembly	
4910-787-0930	AV-241	Cleaning Tool	6
4910-787-4333	AY-7-1	Geaning Compound	
4910-787-4330	CL-3	Geaning Compound	6
4910-969-0907	AV-24-1	Inspection Light	1
4910-787-4331	CL-73	Nozzle Pockage	
The state of the s		Instruction Book	1

When using the kit, used plugs get the full treament—cleaning, re-gapping and bomb testing . . . that's understood.







Remember, tho, that new plugs should also be eyeballed. How many times have you found the gap set wrong on a new plug? Plenty, no doubt!

When you adjust the electrode gap of the plug, the tolerance limits are, plus .002 inch (no-go) and minus .001 inch (go), from these settings.

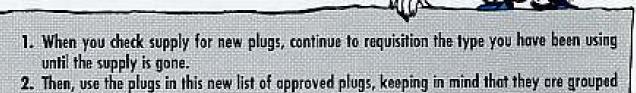
Gapping tool, FSN 4910-787-4327, is used to adjust the fine wire plug and, FSN 4920-700-4476, is used for the massive type. Be sure you check your adjustment with gap gage, FSN 4910-787-4328.

Plug Part No. Set At
AC 172, AC 272 .019 inch
All other plugs .016 inch

USE WIRE GAGE
FSN 4910-787-4328.
FLAT TYPE GAGE WILL
GIVE WRONG
MEASUREMENT
DUE TO CURVE OF
ELECTRODES.

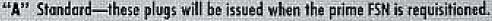
GAGE MUST BE
PARALLEL TO CENTER—
LINE OF CENTER ELECTRODE.
TILTING OF GAGE WILL
GIVE WRONG MEASUREMENT.

BUT BEFORE YOU PUT A NEW OR RECONDITIONED PLUG IN THE ENGINE, KEEP THESE POINTERS IN MIND:



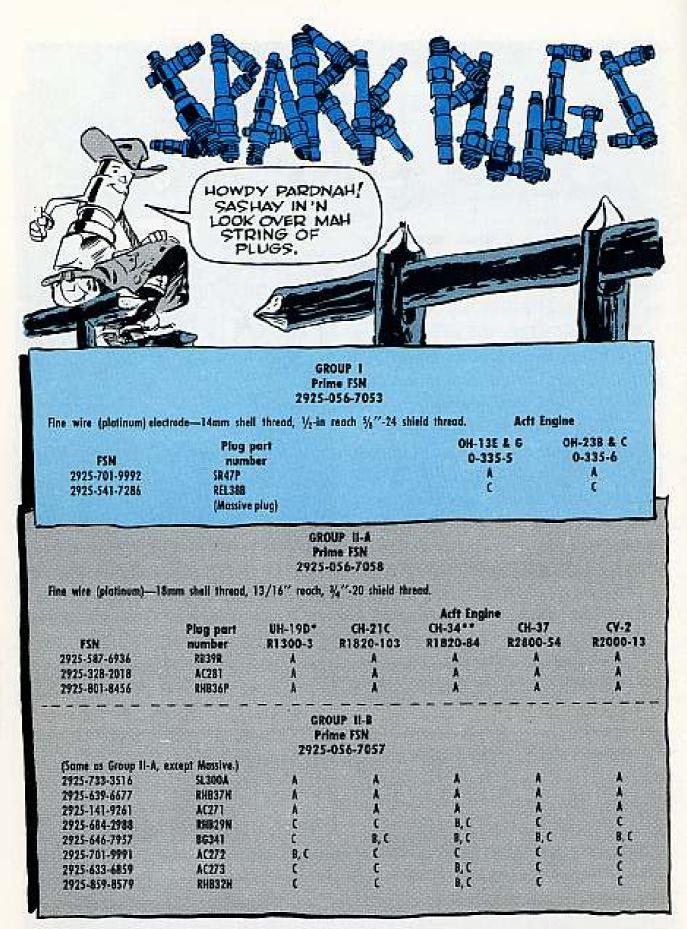
into three categories.

PLUG A-B-C's



"B" Alternate—you'll be issued these plugs when the standard plugs are not available.

"C" Test Stand Depreservation Run—you order these plugs by FSN for ground use only. When they're gone, use standard plugs.



- *Remember, AC272 gets gapped .019-in. But if you can't get it use massivetype plugs AC271, RHB37N or SL300A . . . gapped to .019-in.
- **In a hot spot, with a heavy load, you may need a cooler plug to prevent pre-ignition . . . use AC273 or RHB32N.

				Prim	P III-A e FSN 56-7054					
Fine wire (ple	tinum)—18mm	shell three	od, 1/4" rea	The Control of	shield thread					
			200		Actt Engine					
	25 (1915)	UH-19C	U-1A R1340-19	TO-TA, E	0-1F 70-10		U-AD.F		yarra.	OH-23
FSH	Plug part number	The second secon	R1340-37			U-6A R985	THE RESERVE OF THE PARTY OF THE	0H-13H 3-435-231	OH-23D I O-435-238	0-540
2925-554-6473	SRB3P	A	A	A	A.	A	A CONTRACTOR		A	
	RB4855	A		A		A	A	A	A	A
	REN38P PH26	A	A	A	A	A	A	A	A B	A
2723-766-7084	LHTO				-					
Section of the second	HOUSE STATE	HHALL WILL			P III-B	265				SAME S
					e FSN 56-7052					
Same as Group	101 4	4000		1473-0	30-1032					
2925-986-7082		A A		A	A	Ä	Ċ	C		C
2925-580-4931		A	Ä	A	Ä	A	Č	Č	Č	- (
2925-711-9411		A	Ä	A	A	A		C	Ç	C
2925-720-3162	9195R-5	C	C	B, C	B, C	B, C	C		C	C
HARMAN CONTRACTOR		distance of		GROU	P IV-A		om merchin			
	TENERS OF				e FSM					
				2925-0	56-7056					
tine wire (pic	haum)— I San	n shelf thre	od, 13/16"	reach, 34	"-24 shield th		A III T. II.			
							Acft Engine			
	FSM		Plug part		UH-19D** R1300-3		CH-21C R1820-103		CH-37 2800-54	
292	13M 5-142-8731		ACISI		K1300-3		K1020-103		2800-34 A	
	5-037-7707		R827R-1		A		À		A	
292	5-142-8733		R819R-2		B, C		B, (B, C	
				CPOL	P IV-B					
					e FSN					
					56-7055					
IC.	ne as Group IV	.h necessi	Manisa 1							
	5-328-2016	n, carep.	AC171		A		à		4	
THE RESERVE OF THE PARTY OF THE	5-639-6675		REB37N		A		A		A	
	5-733-3520		AGEJZ		A		A		10 A	
292	5-508-3830		AC172		B, C		C		C	
				DR	ONE					
fine wire (platic	med alastroda	10mm ch	all throad	W. Connello	57.77 04 AMAL	d Blacon	d as subta			
time wite things	initial elections.	Tuning Se	CIT THE CHAP	yr reading	Ag Law smen	a silier	The state of			
		454					Acft Engin	•		
FSM	Plug p numb					100	USD-1 00-2 (McCu	ara and		
2925-294-3							OO'Z (INCLO	mocaj		
The second second	Mary States			and the lead	nave Industra		(8)			
			101	REIME EN	GINE IGNITE	43	Acft Engin			
	lmeir	er part	CH-4	78	UH-1	A		B, C, D		UH-18
		mber	T-55		T-53-L			1-3, 7		-53-L-
FSN	TO TO			SCOTT AND RESIDENCE OF THE PARTY OF THE PART	NAME OF TAXABLE PARTY.	2050	BANKS BANKEY	of the second		PROPERTY.
F5M 2925-871-	3460 10-15	7780-1	A					01201000		
2925-871-1 2925-618-1	3460 10-15 3965 HEZ	7780-1			À					
2925-871-	8460 10-15 1965 HE7 5516 10-16	57780-1 55660-1						\$ \$		A

***AC172 is also gapped to .019-in. But if you can't get it, use massive-type plugs, AC171, REB37N or SL30A, gapped to .019-in.



MAKE OTHER CHECKS



If the package of plugs was damaged, all the plugs go back to supply for accountability. You'll be issued new plugs.

Should you find carton lint or other stuff in a plug gap or firing chamber, just blast it out with the bomb tester.

Badly nicked or damaged threads, cracked electrodes, or any rusting condition, means that the plug gets turned back for a new one.

Of course, any foreign matter in the shielding barrel, or any metallic filings in the terminal well, can also be air blasted out. Then too, any crack in the center electrode insulator or shielding barrel insulator and in the shell at the root of the last thread below the gasket seat is reason for you to reject the plug.

Don't overlook the all-important gasket, either.

Toss all used gaskets, no matter how good they look. Use one NEW, undamaged gasket on each plug. And if a thermocouple gasket is called for, that's the only one you need.

For the 18-mm plugs, use copper gasket, AN 4027-1, FSN 5310-285-3589. For the 14-mm plugs, use AN 4027-2, FSN 5330-285-3588.



Plugs are a condition replacement item. You should get at least 200 hours from a massive-type and 400 hours from a fine wire-type. When you come up with a shot plug, here's what you do.

All unserviceable plugs get demilitarized and turned into the property disposal yard. There the massive-type gets scrapped, while the fine wire-type is reported to the Defense Surplus Sales Office to be sold as unserviceable plugs containing platinum.

If, per chance, serviceable plugs are turned into the property disposal office,

they don't get demilitarized. They're offered for sale by DSSO as usable plugs.

The only exception to this is if the plugs are to be shipped with an engine that had, say, an internal failure. The plugs then get shipped with the engine, according to TB AVN 24-16 (27 Aug 63).

Meanwhile, back at the ranch, your bird has been patiently waiting for the spruced-up plugs that'll put 'er back in the pink.



EYE BUSHING, LEAD



If the plug bushing or heli-coil insert in the cylinder is clean, chances are good that you won't need any release compound when you put the plug back.

If you do use the compound, tho, be sure to follow TB AVN 25-8 closely. Your bird can act like a buckin' bronc, due to plug fouling, if the compound isn't put on the plug just so.

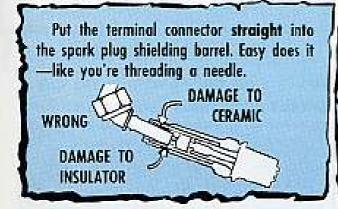
TORQUE PLUG

All set to put the plug back? Good.



The next step is to hook up the spark plug lead. But before you do, give'er the once over for damage and cleanliness. If any release compound was used before, you've got to clean the terminal sleeves, contact, and integral seal with acetone, wood alcohol, naphtha, or white gasoline. Don't use any leaded Av Gas or carbon tetrachloride.

If you decide to re-apply the compound, again be sure to follow the poop in TB AVN 25-8. Usually a clean, dry lead will fill the bill.



Tighten the terminal nut hand tight. Then make with the crowfoot wrench, 1/4 to 3/8 of a turn.

The last step is to run the engine up to check out the plugs.

You say you're just about to run 'er up! Good deal.

Now that's more like it. Danged if she doesn't sound like her ol' self again. Sashay over to the chuck wagon—you've earned a coffee break.

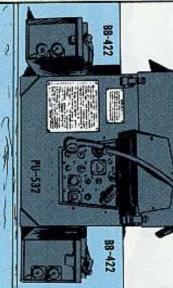


A PEPPY PIPSY PULSATOR, OR...



PU-532/PPS-4 generator set. So you just got your new

a full charge to your Pipsy-4 radar set batteries. And maybe it to good use. Like shooting operating the radar from it at the same time. Naturally, you wanna put



Or getting away from a not-so-ideal vehicle battery hookup.

BB-422/U, f'rinstance. You can do it, but there's a "best way" for charging the PPS-4 battery, the

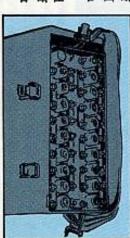
spare power to operate the Pipsy-4-at the same time! The PU-532 lets you charge up to two BB-422's and still generates enough

at a time or you'll overload the generator). if you're charging two batteries in parallel (don't charge more than two batteries It takes 21/2 hours to give a full jolt of juice to one BB-422, and four hours

The charging method for one or two batteries is the same. Lend an ear

service, clean it as per Change 2 to TM clean dry surface. 11-6140-202-15. Then, put it on a When you take the battery out of

you find any, ship it off to your support or missing connectors and bad leads. If Inspect it for electrolyte leakage, bad



the electrolyte to 1/8 inch above the plates . . . if necessary. Otherwise, remove the cell vent caps and put them in distilled water. Adjust



Put the generator BATTERY switch in OFF position

Set the meter switch to VOLTS

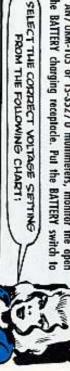
Start the generator

battery voltage on the generator panel PU-532 until you get a 35-volt open circuit Adjust the ENGINE SPEED ADJ knob of the

0

Let the generator run for 10 minutes.

ON for this. circuit voltage across the BATTERY charging receptacle. Put the BATTERY switch to Then with either the AN/URM-105 or TS-352/U multimeters, monitor the open

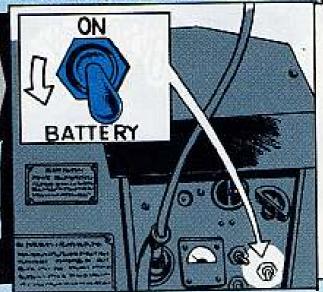


35V 36 37 39	Above 80°F 35V 61° to 80°F 36 21° to 60°F 37 — 9° to 20°F 37 —20° to —10°F 40
	35V 36 37 38

Readjust the ENGINE SPEED ADJ knob so's the multimeter gives you the voltage reading you want (the small generator meter, coupled with vibration, can't be depended on for this. That's why you use the multimeter). Engine speed increase affects only the battery charging circuit. The radar circuit is independent and has a constant output of 24½ volts—no matter what the engine speed is.

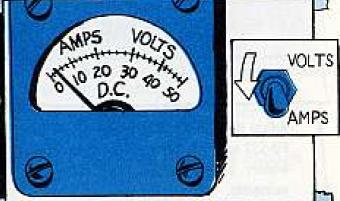
Lo, your patience hath been rewarded. You are about to make the charging hookup. But first, set the BATTERY switch to the BATTERY (off) position and remove the dust cap from the battery (or batteries).

OK. Now! Connect the battery to the generator with your CX-8797 cable. If you're charging two, interconnect the batteries with Cable CX-8798/U (they're part of Cable Kit, MX-4765/PPS-4, FSN 6115-957-3709). Be sure the cables are seated right.



Turn the BATTERY switch to ON (Don't get shook if the engine speed decreases. It'll pick up in a minute or two—as the load decreases).

As the battery nears full charge, you get a clue from increased gassing. Also, the charging current should level at 2 amps or less (to check, flip the switch on the right of the volt-ammeter to AMPS).



A caution here: If gassing comes too fast (or there's too much), lower the charging voltage by slowly rotating the ENGINE SPEED ADJ knob counterclockwise.

And, pretty soon your battery should be charged.

But just a cotton-pickin' important minute here, man!

Never, never, NEVER disconnect that cable from the battery until the generator's completely off. It's a must in avoiding explosions and bad burns!

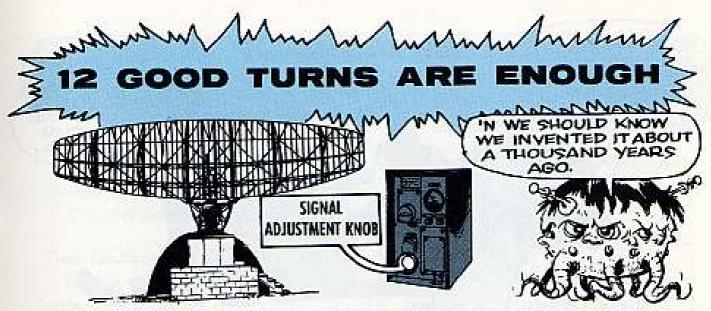
First—set the battery charging receptacle switch to BATTERY (off). Then—turn the generator's fuel cutoff valve (CHOKE CARB ADJ) dockwise—IF the generator is not powering the radar, also. The generator will stop when the fuel line and carburetor are empty.

Now you can disconnect the CX-8797 from the generator and battery.

Don't touch the fuel cutoff if you're powering the radar. Instead, set the bottery charging receptacle switch to BATTERY (off) and disconnect the CX-8797.

Unless you need the charged battery soonest, let it sit for a half-hour or more. After the wait, inspect and readjust the electrolyte level of each cell. Remove the cell vent caps from their bath and rinse them with clean distilled water. Dry the caps, and replace them on the battery.

Put the cover back on the battery case—and you're ready for business.



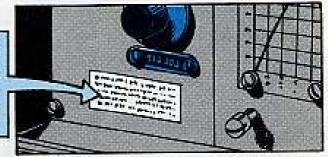
Here's a hot flash on your AN/FPS-36, -61, -69, -71 and -75 radar sets.

The AM-1570/TPS-1D electrical amplifier-filter assembly is taking a beating because some knob twisters are turning the SIG ADJ control too many turns counterclockwise. First thing you know, the screwhead breaks off at the bottom of the tuning slug and damages the crystal mixer assembly.

So how far can you go counterclockwise? No more than 12 turns. Just so you and everyone else will know, you can paste up an adhesive label below the con-

trol saying:

"Caution: When adjusting the SIG ADJ control, do not rotate the knob more than 12 complete turns counterdockwise from the extreme clockwise position or the signal mixer assembly will be damaged."



NO VRC-10 FOR THE

Dear Half-Mast.

We have a problem with the AN/VRC-10 radios. They are issued to Davy Crockett squads for mounting on M38A1D vehicles. There's no room to mount them.

What's the poop?

CWO J. W. N.

Dear Mister J. W. N.,

You're so right-there is no room. The VRC-10 is issued to DACRO squads, but not for mounting on the M38A1D.

The M38A1D has just enough space for two squad members and the mounted weapon system. Back blast from the weapon would probably damage the radio,

anyway.

90-0-0-0 ... WORD FROM THE TOP IS THAT THE RADIO, ADDITIONAL AMMO AND THE REST OF THE SQUAD RIDE IN ANOTHER VEHICLE. Hall-Mast

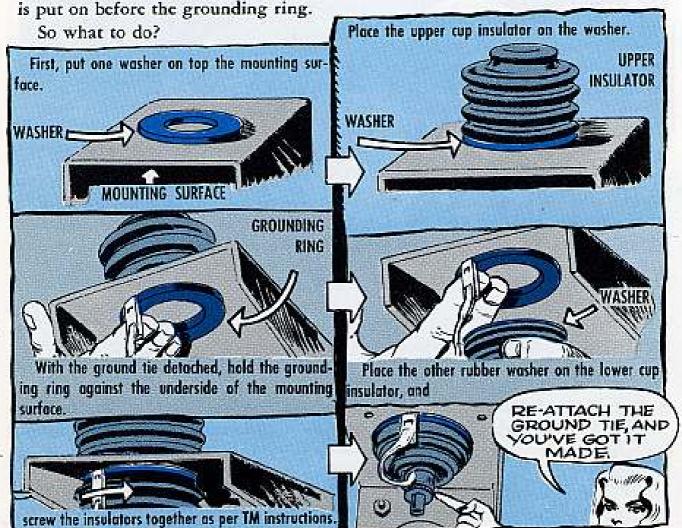


Insulator. Cushion. Lock washer.

A man could make a healthy list of the things the two large rubber washers do on the AB-15/GR mast base.

That's why it's plenty important to have the washers and to install 'em right. Foul the works, and the upper and lower ceramic insulator cups won't do their job. Your antenna won't perform right, and neither will your radio set.

That unwanted mess happens when both washers are installed on the same side of the mounting surface of the antenna mount or when the lower washer



VRC-12 CABLE CONNECTORS Dear Half-Mass,

How about locating FSN's for the two connectors on the CX-7867 | VRC cable assembly used with the AN | VRC-12 series radio sets?

We can't find a stock number. Any information will be appreciated.

Dear Lieutenant N. I. G.,

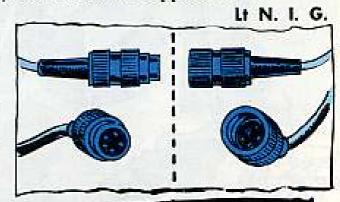
It took a little sweat, Sir, but here goes:

The connectors you want are the U-181/U, FSN 5935-892-9249, and the U-182/U; FSN 5935-892-0663 (both are male).

They go on three sizes of cables, Sir, so here's an FSN bonus on complete assemblies:

6-ft assembly, FSN 5995-889-1021, part of installation kits FSN 5820-892-0783, 5820-892-3385, 5820-892-3386 and 5820-892-0993.

10-ft, FSN 5995-889-1130, in kit FSN 5820-892-3387. 25-ft, FSN 5995-889-0833, in kit FSN 5830-892-3711.



THE INSTALLATION

KITS ARE IN THE
REVISED SB 11-131
(SEP63), AND
THE BREAKDOWN
OF ASSEMBLIES,
CONNECTORS, ETC.,
IS IN THE NEWEST
SB 11-466.

THANKS, OL' BUDDY OL' PAL.



You want to do yourself and your support outfit a big favor when you're setting the 5678 and 1AD4 tubes in your AN/VRC-19, -19X or -19Y radio set at minimum values?

OK . . . then make sure the meter on your electron tube test shows a reading of between 55 and 60 for the 1AD4

1AD4 AT LEAST 30

and at least 30 for the 5678.

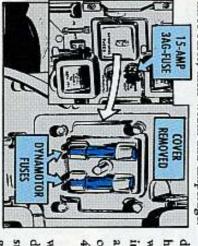
The figures don't jibe with those in TB 11-6625-274-12/1 (Jan 62), but you'll find your radio will operate better and last longer if you use 'em. And your support unit will find it easier to aline the set when it goes to them for work.



GRC-19 radio set. in Fuse-Switch-Cable PM on an AN/ "FSC." That's a sneaky way to get

Initially, it pays. FSC can keep your radio humming. An extra minute or two with that

three fuses, their width and amperage. "F," f'rinstance, concerns a coupla



F603) of the T-195 transmitter with amp, 4AG dynamotor fuses (F602 and try to interchange the 10-amp and 30-Stretching a point or two, you might

> the 15-amp, 3AG 24V front panel fuse (F601) of service selector switch and other tame.

It's possible, but it's a waste of time.

No. 1—The amperage is wrong.

No. 2—The fuses don't properly fit each others receptocles.

in the 4AG clips, all it'll do is rattle around. You'll get anything but solid wider. Which means if you put the 3AG 4AG in the 3AG receptacle. It won't fit. contact. Same deal for trying to put the here. That's the width, and the 4AG is diameter. "3AG" and "4AG" clue you The reason for No. 2 is difference in

you're there,

stamped into the metal ends. You can diameter (4AG-3AG, etc.) will be what you have. The amperage and the get the right fuse like so: A fast look at the fuse'll tell you

F601, 15-amp, 3AG-FSN 5920-012-0151 F602, 10-amp, 4AG-FSN 5920-142-4824 30-cmp, 4A6—FSN 5920-565-0035

> FOR "S", SNATCH A LOOK SWITCH OF THE TRANS-AT THE SERVICE SELECTOR MITTER IF YOU'VE GOT it, Mac. "STAND BY." Meanin' you ain't with the relays have you back at "CW" or "REMOTE" or "CALIBRATE," but

A REMARKABLE

PUL-LEEZE
MADAME, WE COMMO
ROBOTS ARE NOT
PROGRAMMED TO
INTERPRET INSULTS.

TCHCK !

TO A T-195 RESEMBLAN MITTER ...

you get where you're headed, the relays at each position (CW, STAND BY, etc.) carry you to the next position. When one click at a time. Wait a second or so try this: Turn the service selector switch will give you contact on the position so the relays have time to cut in and you want. To avoid question-marked eyeballs,

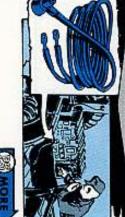
over to "REMOTE" or "CALIBRATE."

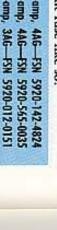
Now, say you wanna' go from "OFF"

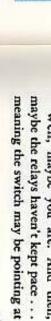
AN EARLY MODEL T-195



maybe the relays haven't kept pace . . . Well, maybe you are. And then,







57

It's well-known SOP to remove the radio when you wash your vehicle, but many times users forget the power cable after disconnecting it from the radio. They leave the cable in the vehicle.

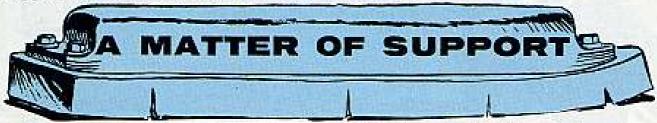
So what happens?

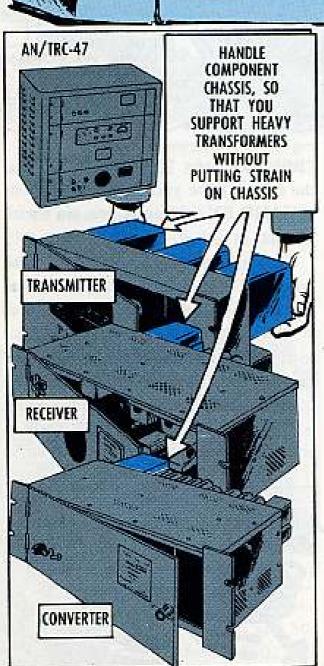
Water gets to the cable, that's what happens. Then, the cable connector cor-

rodes . . . and you get poor or no contact. Result: No juice to operate the set.

To avoid it, disconnect the CX-2583 from the radio and the vehicle battery and store the cable with the set until you finish washing the vehicle.

In short: FSC . . . For Sure Communication.





Naked to a cold, cold world!

That's about the way the major components of your Track-42 or Track-47 radio set feel when you slip 'em out of the cabinet.

And it's a lot of gentle handlin' and TLC they need to keep 'em from gettin' all banged and bruised.

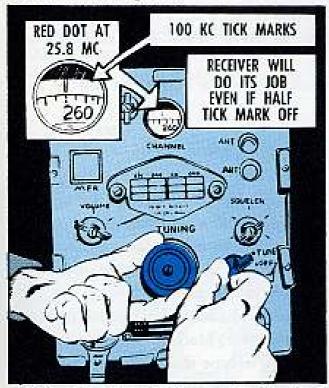
The chassis for the receiver, transmitter and converter were not made to support the heavy weight of the transformers and other circuit elements without some help from the radio cabinet. So any time you slip out one of the component chassis, handle it so that you support the transformer weight and keep it from putting a strain on the chassis.

Same thing goes when you lay a component down—like on a work bench. Lay it down so that the transformer is supported by the bench and not by the chassis. It's sorta like trying to lay down an ice cream cone, but with a little planning you can do it.

One thing's for sure: Never stand any of the components on their ends. The chassis just can't take it.



So there you are with your R-108 thru -110 receiver: One hand's holdin' the dial light switch on TUNE, and the other's on the tuning control . . . swinging the channel dial toward the 25.8 mc calibration point.

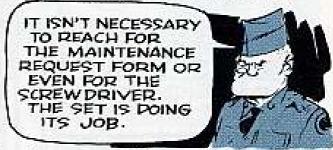


You hit the red dot on the head at 25.8 (or 47.3 mc on the R-110), but the receiver's still squealin' its lungs out. You gotta swing the dial part of a tick mark, or scale division, to get your zero beat. But you do get the zero beat, and you get it within half a tick mark of the red dot.

Now, some Joe not in the know might rush his set off to his support to get it calibrated. He's wasting his time and theirs.

You, being in the know . . . at least as of now . . . wouldn't do that, because you're aware you can be up to a half tick mark, or 50 kc, off the calibration points (red dots). The receiver'll still do its job.

Being really with it, you know that your dial adjustment (calibration corrector) screw can pull that red dot back to the dial needle even if you got your zero beat two full tick marks (200 kc) from the dot. Your TM fills you in.



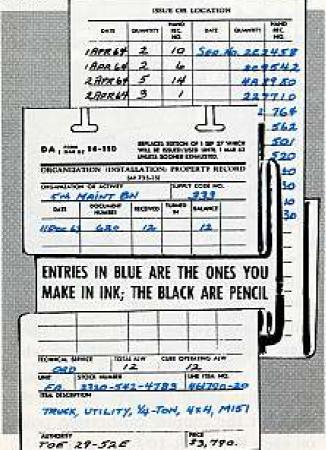
So wot now? So-o-o, the big point to remember is: Don't reach for the maintenance request form, and maybe don't even reach for the screwdriver, when you get your zero beat within 50 kc of your red dot calibration point. And that goes for the coupla' calibration points on each R-108, R-109 and R-110.



Dear Half-Mast,

AR 735-35 (16 Mar 62), "Supply Procedures for TOE units, Organizations and Non-TOE Activities," in para 11c says to use a pencil in making certain entries.

Where the pencil's not mentioned, should we make entries in ink or type them?



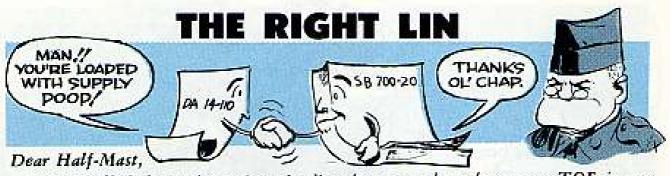
Mr. R. J. M.

Dear Mister R. J. M.,

Penciled entries give supply info which is likely to change often (like total allowance, current operating allowance, unit price, date of last handreceipt posting and location of item by handreceipt number).

All permanent-like entries must be in ink (blue, black or blue-black ink). It's OK to type these entries, of course, but about the only time you can conveniently type a DA Form 14-110, for example, is when you're starting out a page for your property book.

And, I guess you've noticed, the AR's para 11c(1)(1) OK's the use of a date stamp in the date column.



I was called down for using the line item numbers from our TOE in my property book, altho that's what para 11c(1)(h), AR 735-35 (16 Mar 62) tells me to do.

I was told that I should use the line item numbers from the SB's which list adopted items of materiel. But, in most cases, I find that the TOE line item numbers don't agree with the line item numbers in the SB's.

Which numbers should I use?

Mr. R. M.

Dear Mister R. M.,

Normally it's safe to use the numbers in the publication with the latest date. However, from now on, current line item info should be a lot easier to come by.

The Army's adopted items of materiel are now listed in one big book-SB 700-20 (Sep 63), "Army Adopted Items of Materiel." It replaces the old SB's which listed the separate items of the various support services.



Dear Editor.

Here's a supply saver that should help Engineer units everywhere:

STORAGE

BOX

To stop spillage and waste of materials used with our water purification units, we store the bags of powdered limestone and diatomaceous earth (diatomite) in clean, discarded fiber barrels

We paint the barrels to make them durable and resistant. Then, we label the barrels with "Diatomite" or "Limestone" and store them in the van or trailer.

Since the limestone and diatomite come in paper bags-and since the bags break or spill once they've been opened the barrels work great.

> 7th Engr Bn Fort Carson, Colo.



seamed 16-gagers. Especially the 18-gage specimens that're sort of taking over for the double-Those lube drums are not as tough as you think, so treat 'em kindly, ch?

other words, you worry about leaks . . . at the openings, seams and sides. and their contents . . . and what fouled-up lube'll do to valuable equipment. In Come right down to it, of course, what you have to worry about are the drums

Use one of these ways that best suits your needs:



And never roll drums over rocks or uneven surfaces. No matter which method you use, though, don't let the drums bump together.

BASE DUNNAGI



opening. unscrew or remove the plug, wipe all tight, clean container. But, before you dirt and moisture from around the the right way to do each and follow If there's a leak, switch the oil to a

Now, there're only two times you

stored. So, all you have to do is to find you're handling 'em and when they're have to worry about drums-when through from there.



under the end drums. don't forget to put cleats or wedges cither nested or dunnaged with the them on their sides in pyramids and Para 69 in Change 1 (22 Jan 58) to bungs facing out-and horizontal. And TM 10-1101 (Sept 55). That is, store full or empty-take your tips from For storing drums-whether they're

from water and seepage Try to keep the drums protected

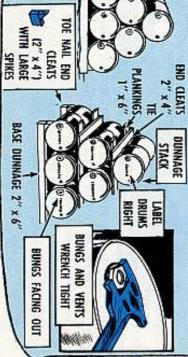
AT LEAST 21/

INTO GROUND

MESTED STACK

> they're OK. tect the lube from contamination and bung plugs wrench tight. This'll prothe full ones once a week to see that the drum from rusting inside. Check drums should be stored with vent and Remember, both full and empty

handling in the world won't mean a thing if you're using the wrong lube. frums are labelled right. All the careful And don't forget to make sure all

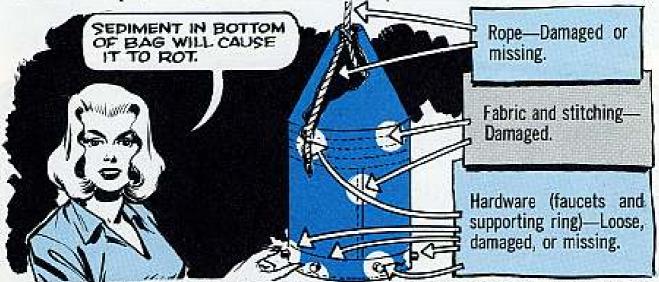


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A stitch in time can save nine. It also might make the difference between having water to drink or going thirsty.

Here are things you check on your water sterilizing bag, FSN 4610-268-9890, to make sure you have drinkable water when you need it.



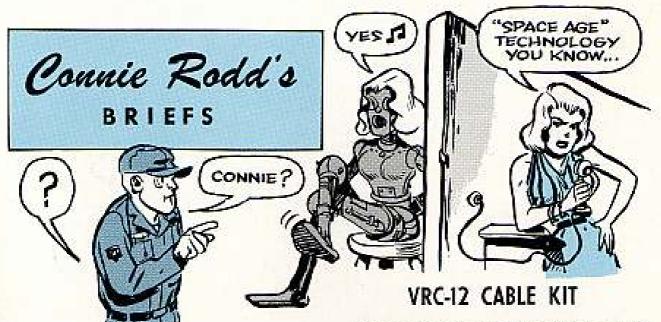
In case you're going to do some repair, such as patching, stitching, or replacing the rope, never use material that has been made mildew-resistant or treated with chemicals that might poison you.

Stir the water in the bag before you use it and it'll taste better.

AUTOMATIC SWITCH



Your MAC for the PU-407/M and PU-408/M generator sets—page 68 of TM 11-6115-231-15 (6 Nov 61)—lists a "Load transfer switch assembly." But you order replacement items for this from page 3 of TM 11-6115-231-20P (30 Nov 62), where the six items with cable lengths to suit your operational needs are listed under "Automatic Switch Box Assembly Group." This group replaces the assembly as it's phased out.



TRIED 'EM YET?

They're smooth, compact, lightweight and strong. And they come in two sizes. They're real handy to have around, especially if you have a dirty, greasy maintenance job to do.

Maybe you've already tried those paper wipers. If not—they're GSA items and the 13½-in x 22-in carries FSN 7920-823-9772. The 13½-in x 16-in has FSN 7920-823-9773. You use 'eminstead of wiping rags.

GLOW BLINKER GLOW

Page 62 in PS 135 told how you can get yourself a portable light flasher to hang on any load that's sticking beyond your tailgate. TB 9-2300-260-10 says the light's available on an as-required basis by using FSN 6220-796-2657. Well, this FSN only gets you the light... less batteries. To make the blinker glow you'll need two BA-200/U (FSN 6135-050-3280) batteries. Each battery is 6 volts, length is 2% inches, width is 2% inches, height is 3% inches and it has two coil spring terminals.

You say you need the kit to install your AN/VRC-47 radio in an M38 or M38A1 ¼-ton? Then you should know that the kit FSN on page 17 of SB 11-131 (Sep 63) has been changed to FSN 5820-892-0783. It used to be FSN 5820-892-3383. Also, the kit's not listed in the newest Issue Parts List for Vehicular Installation Units, SB 11-466 (28 Jan 64).

BAR PIX MIX

If your M1918A2 Browning Automatic Rifle comes back from support with bipod trouble, could be yon support guys were thrown for a loss by a mix-up in illustrations in the new TM 9-1005-208-35P (13 Feb 64). Tip 'em off that the illustration on page 17 and the one on page 21 got transposed. The nomenclatures under the illustrations are in the right place, though.

NEW TOOLS FOR THE TK-103

You mechanic types using the TK-103/USD-1 tool kit, surveillance system, should make sure you get the eight new items authorized for the kit in SB 11-580 (6 Feb 64). The SB gives you the rundown.

Would You Stake Your Life on the Condition of Your Equipment?

