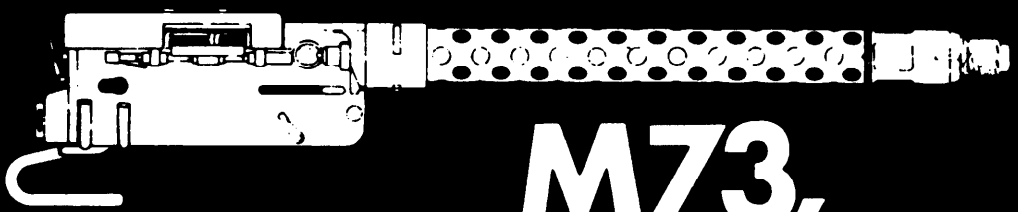
This reprint includes all changes in effect at the time of publication; change 1.

TM 9-1005-233-10

OPERATOR'S MANUAL



M73,

1005 00 869 8816

M73A1 AND M219

1005 00 937 7323 1005 00 077 2354

MACHINE GUNS

JULY 1974



WARNING

- Keep the weapon aimed on target until the gun is cleared. Don't let anybody get in the way of the barrel.
- Clear the gun whenever you don't intend to fire. Then, eyeball the chamber to make sure it's empty.
- Let a hot weapon that stops firing cool at least 15 minutes before you open the cover (if you've fired 200 rounds in 2 minutes the hot chamber could cook off the next one, bad news with an open cover).
- Charge the weapon using the handle of the chain, never use your hands on the barrel extension.
- When your weapon is charged, always put the safety on "S".
- CAUTION: When you reassemble the weapon after cleaning make sure the barrel extension is in the forward position with the safety on "F".

TM 9-1005-233-10
C1

CHANGE NO. 1

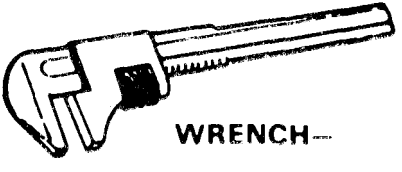
HEADQUARTER
DEPARTMENT OF THE ARMY
Washington, D. C., 10 May 1977

Operator's Manual
M73,
1005-00-869-8816
M73A1 and M219
1005-00-937-7323 **1005-00-077-2354**
MACHINE GUNS

TM 9-1005-233-10, July 1974, is changed as follows: The following pages replace pages 6, 7, 8 and 9.

BASIC ISSUE ITEMS

These items must accompany weapon during operation and whenever it is transferred between accountable officers. This manual is yur authority to requisition replacement BLL.



WRENCH—

5120-00-264-3793



COMBINATION TOOL—

4933-00-733-4759



PUNCH—

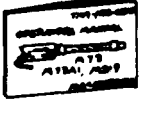
5120-00-242-5966



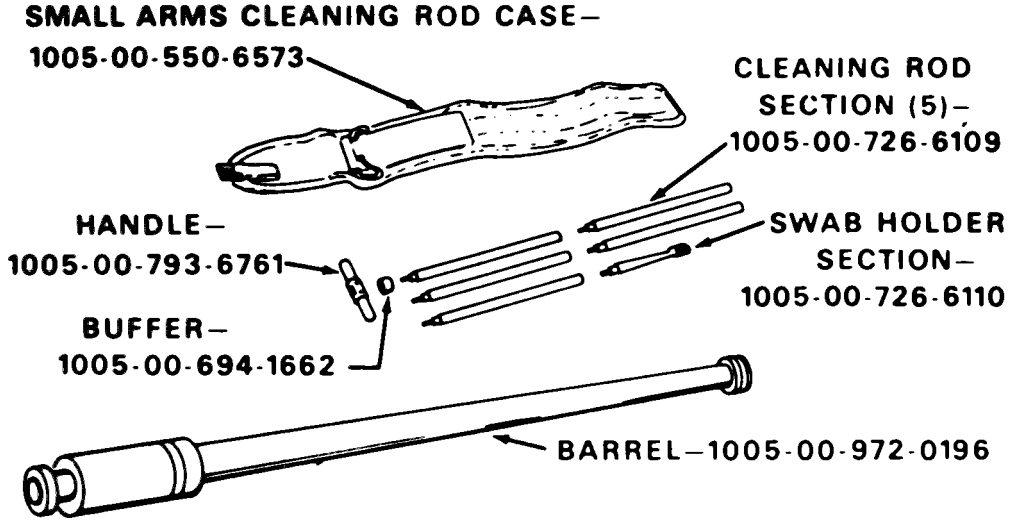
RUPTURED CARTRIDGE CASE EXTRACTOR—

4933-00-652-9950

TM9-1005-233-10



BASIC ISSUE ITEMS continued



ADDITIONAL AUTHORIZED LIST

These items do not have to accompany the weapon and do not hove to be turned in with it.



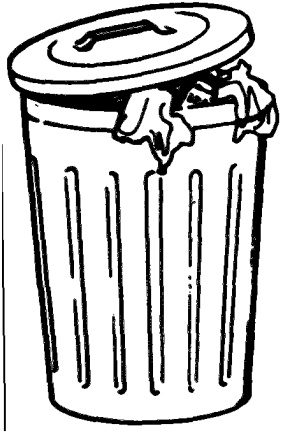
CHAMBER BRUSH—1005-00-690-3115



BORE BRUSH—1005-00-556-4174

EXPENDABLE SUPPLIES and MATERIALS LIST

This page lists expendable supplies and materials you will need to operate and maintain the weapon. These items are authorized to you by, CTA 50-970, Expendable Items (Except Medical, Class V, Repair Parts and Heraldic hems).



SWABS–1005-00-288-3565 - 1 pkg.

LSA–9150-00-889-3522-4 oz.

ANY CHANGES, COMMENTS, or IDEAS

Write to us ON DA FORM 2028

(or whatever you have handy)

We have a new address

COMMANDER
U.S. ARMY ARMAMENT MATERIEL READINESS COMMAND
ATTN: DRSAR-MAS
ROCK ISLAND, ILLINOIS 61201

By Order of the Secretary of the Army:

BERNARD W. ROGERS
General, United States Army
Chief of Staff

Official:
PAUL T. SMITH
Major General, United States Army
The Adjutant General

Distribution:

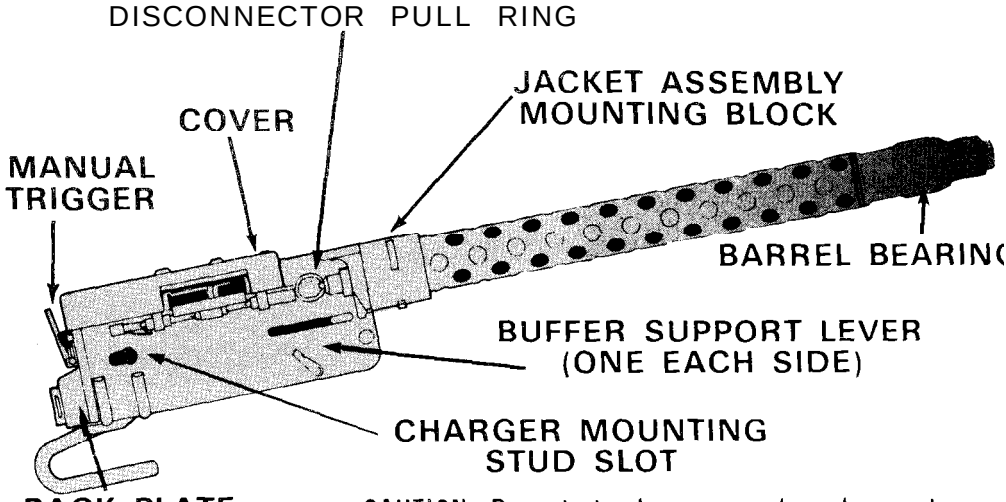
To be distributed in accordance with DA Form 12-40, Operator's maintenance requirements for Gun, Machine, 7.62-MM M73 (Tank).

WHAT IS THE M73, M73A1, M219?

. . . . It's a 7.62 mm. tank machine gun.

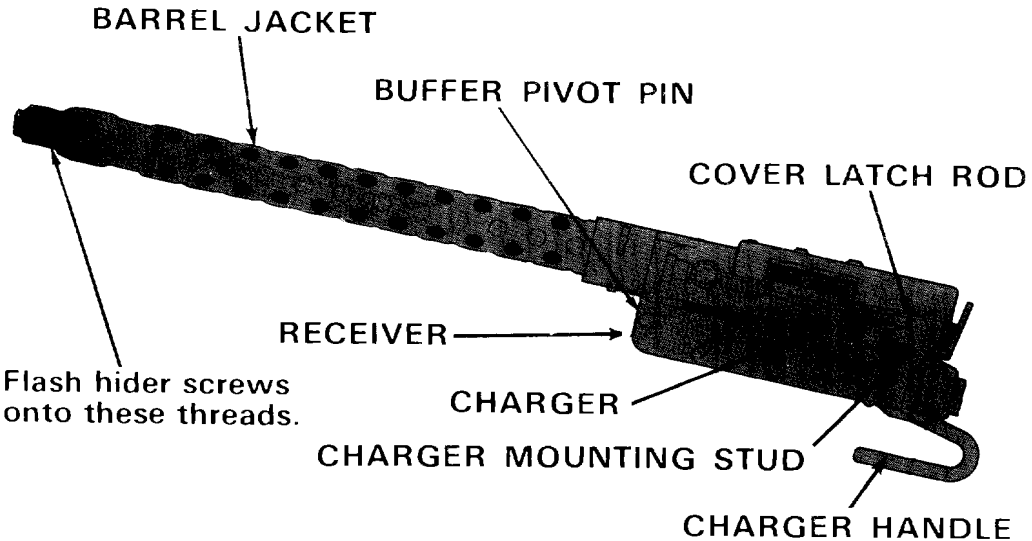
	M73	M73A1/M219
WEIGHT	31 Lbs	29.80 Lbs
LENGTH	35 in.	OTHERWISE, ALL THE SAME
FEED	Right or Left	
RATE OF FIRE (cyclic)	500-625 Rds per min.	
Max. Eff. Range	900 Meters (Tracer burn-out)	

About your Machine gun. . . .



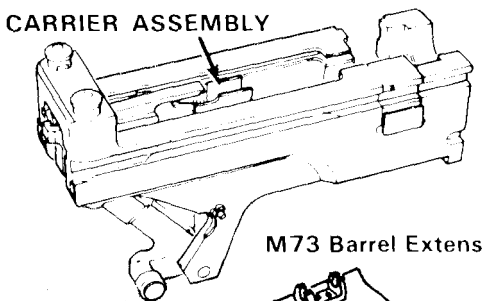
CAUTION: Do not stand gun on end — damage to the back plate trigger could result.

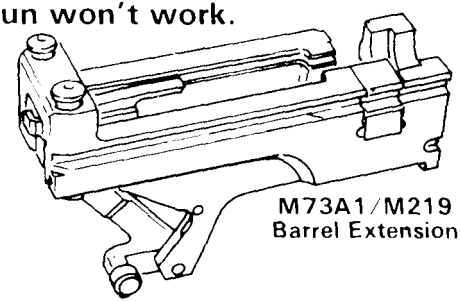
"Where to find it." . . . .

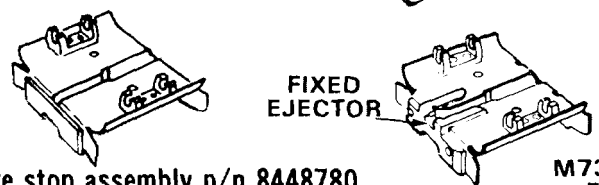


WHAT'S THE DIFFERENCE??

INSIDE the guns it's mostly the barrel extension assembly and the feed tray . . . DON'T SWITCH THEM AROUND from one model to another, the gun won't work.



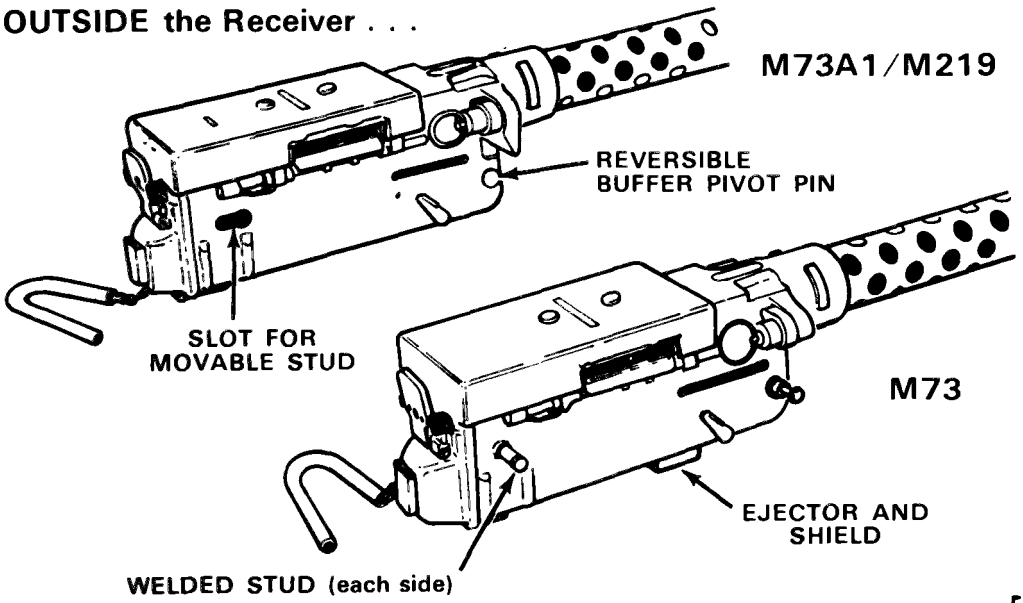




Use cartridge stop assembly p/n 8448780, 1005-00-003-1073 on M73, M73A1 and M219

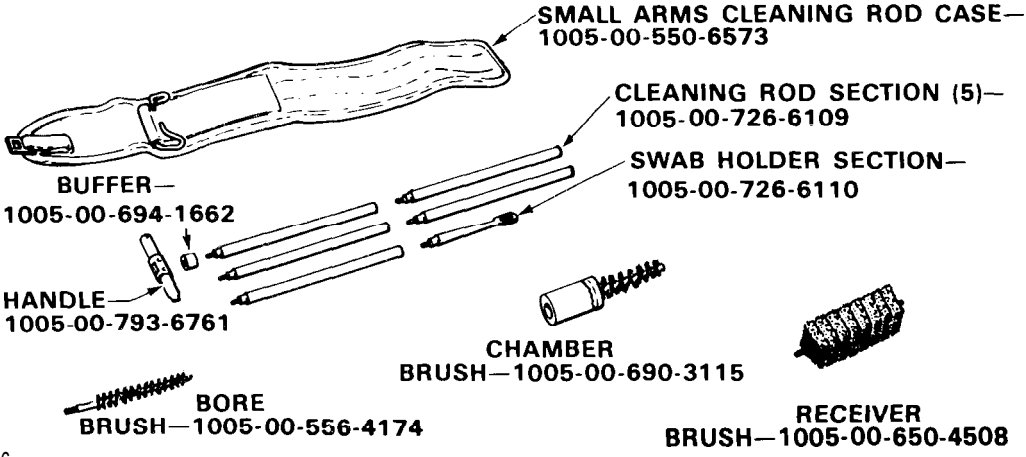
HERE'S THE DIFFERENCE!!

OUTSIDE the Receiver . . .

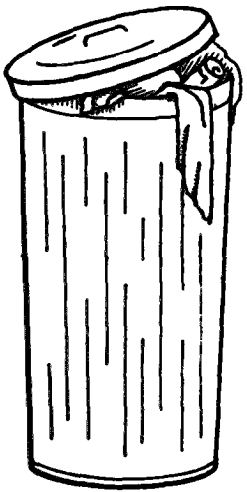


ITEMS TROOP INSTALLED OR AUTHORIZED

These items, at the discretion of your CO, may accompany your machine gun, but are not required to be turned-in with the machine gun.

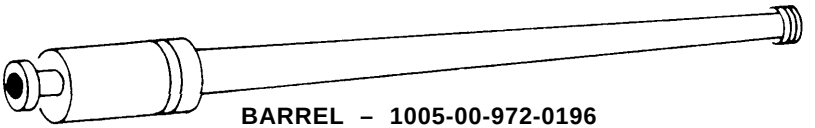


CONSUMABLE & EXPENDABLE ITEMS



PL Special	**- 4 oz.**	**- 9150-00-273-2389**
LAW	**- 1 qt.**	**- 9150-00-292-9689**
Swabs	**- 1,000**	**- 1005-00-288-3565**
SD	**- 1 gal.**	**- 6850-00-281-1985**
RBC	**- 6 oz.**	**- 6850-00-224-6657**
LSA	**- 4 oz.**	**- 9150-00-889-3522**

BASIC ISSUE ITEMS must be with your MACHINE GUN!

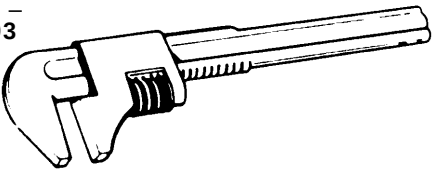


BARREL – 1005-00-972-0196

COMBINATION TOOL – 4933-00-733-4759



WRENCH – 5120-00-264-3793





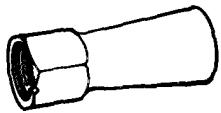
RUPTURED CARTRIDGE CASE EXTRACTOR – 4933-00-652-9950



PUNCH - 5120-00-242-5966

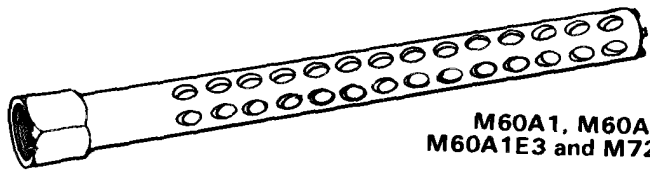
MORE **BASIC ISSUE ITEMS** must be with your VEHICLE!

FLASH HIDER—
1005-00-922-9777



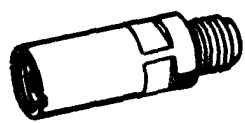
M48A3, M60,
M551 and XM706

FLASH SUPPRESSOR—
1005-00-869-8817



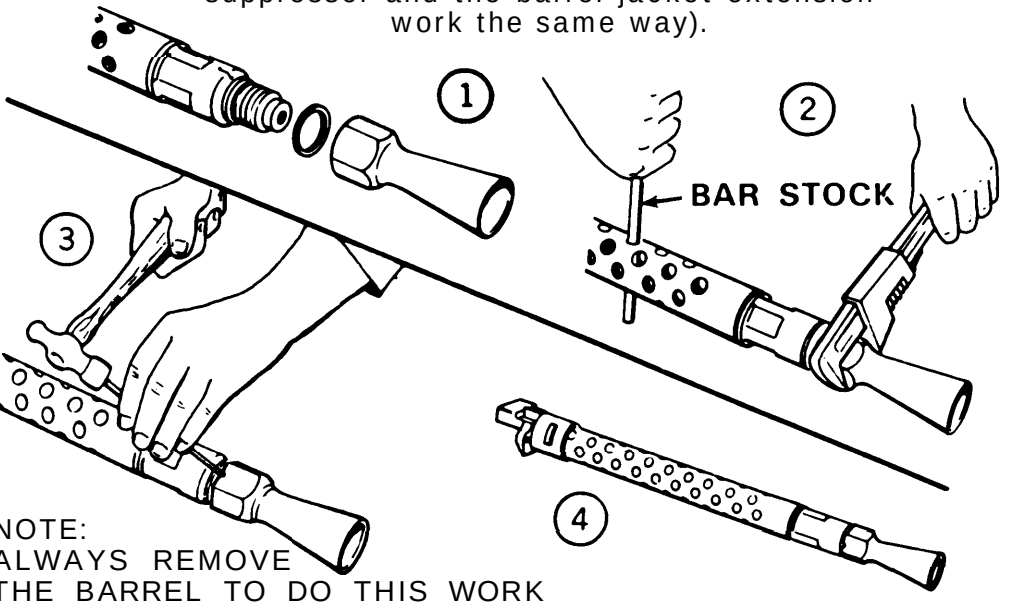
M60A1, M60A2,
M60A1E3 and M728

BARREL
JACKET
EXTENSION—
1005-00-933-8070



M60A2 ONLY

HOW TO install or remove your FLASH HIDER (the flash suppressor and the barrel jacket extension work the same way).



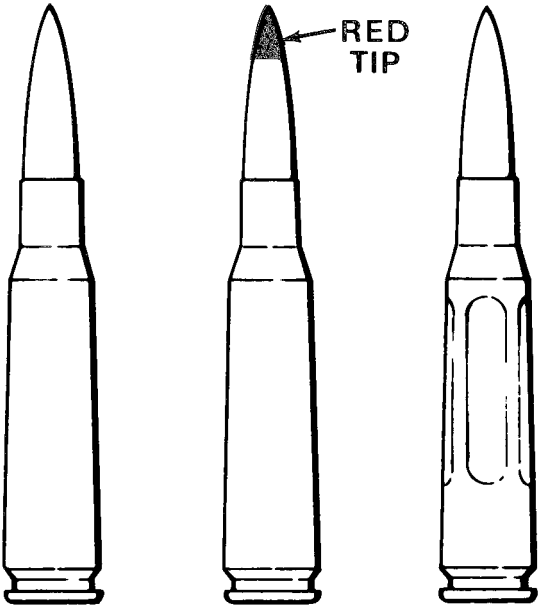
NOTE:
ALWAYS REMOVE
THE BARREL TO DO THIS WORK

AMMO

7.62mm

WARNING

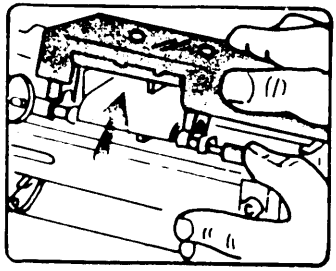
Use only certified ammo that is manufactured to U.S. spec's DODAC 1305, A131, A143



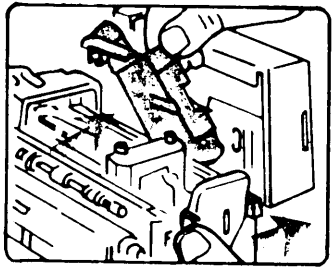
M59 & M80 BALL | **M62 TRACER** | **M63 DUMMY**

BEFORE LOADING & FIRING

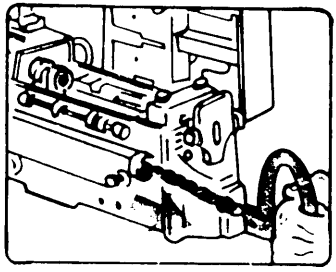
- Make sure the bore is dry and free of obstructions.
- Hand operate the gun using dummy cartridges — check feed components, safety and manual trigger.
- See that the electrical connections are good and that the firing solenoid works like it should.
- Install the gun in it's mount (the operator's manual for your vehicle tells you how, along with boresighting and zeroing).



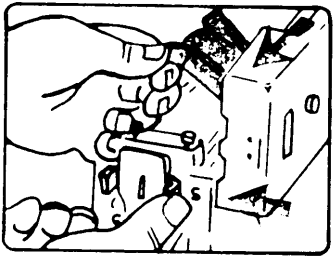
1. Push latch rod and raise cover.



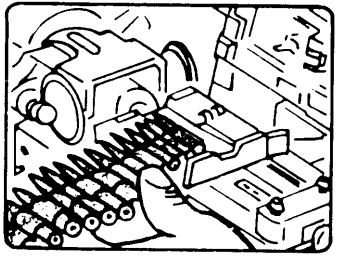
2. Raise feed tray and slide safety to “F”.



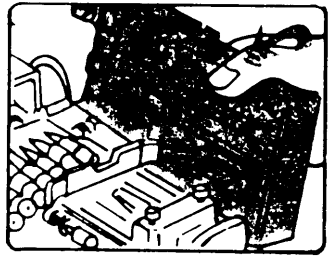
3. Pull handle to cock gun. Inspect chamber.



4 Slide safety to “S” and lower feed tray.

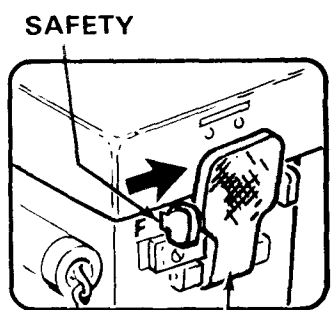


5. Place ammo in slot of feed tray, open side of links down.



6. Close cover easy. Do not slam.

FIRING



- **ELECTRICALLY**

  TURN SWITCHES "ON"

  SLIDE THE GUN SAFETY TO "F"

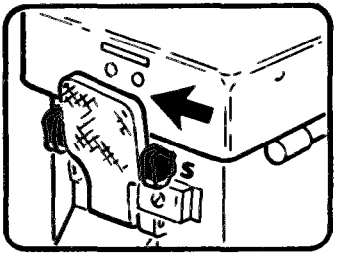
  SIGHT IN THE TARGET AND PRESS THE FIRING BUTTON.

- **MANUALLY**

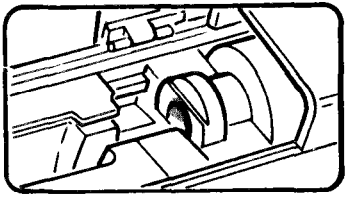
  SLIDE THE GUN SAFETY TO "F"

  SIGHT IN THE TARGET AND PRESS THE MANUAL TRIGGER ON THE MACHINE GUN.

UNLOADING



- "SAFE" YOUR MACHINE GUN
- TURN ELECTRICAL SWITCHES "OFF"
- OPEN THE COVER AND REMOVE THE BELTED AMMO



WARNING

- CHECK THE CHAMBER, MAKE SURE IT'S EMPTY
- PUT SAFETY ON "F"
- HOLD CHARGING HANDLE, PRESS THE MANUAL TRIGGER, AND LET THE BARREL EXTENSION GO FORWARD SLOWLY!
- FINALLY, CLOSE THE COVER AND LEAVE SAFETY ON "F"

IMMEDIATE ACTION

If your gun quits, here's what you'll do . . .

WARNING Stay on target, it might be a hangfire!

1. Charge the weapon and attempt to fire again (IF YOU'VE ALREADY FIRED 200 ROUNDS WITHIN 2 MINUTES YOU'D BETTER DO THIS IMMEDIATELY . . YOU COULD GET A COOK-OFF FROM YOUR HOT BARREL)!
2. Still no luck? **WARNING** If you've got a hot barrel, let it be for 15 minutes until it's cooled. If you open the cover now on a hot one, you could get an open-cover cook-off and big trouble!
3. Finally, open the cover, clear the gun.
4. Make sure the safety's on "F", and see if you can successfully hand function the gun one cycle.

IMMEDIATE ACTION

5. if OK, reload like always, and attempt to fire.

6. still no-go? Clear the gun, and inspect it for the problem. The Troubleshooting Chart in this manual tells you what to do.

GOT A RUNAWAY GUN? ! ! ! (won't stop firing)

WARNING Stay aimed on target!

Jerk the charging handle to the rear, and HANG ON!

Then, open the cover and remove the belted ammo.

(The only fix YOU can try is to replace the barrel extension assembly).

STUCK Cartridge ?

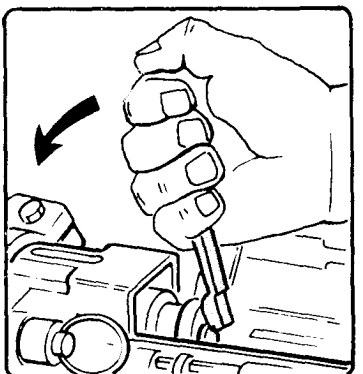
HERE'S HOW TO GET IT OUT!

FIRST

Safe the gun

THEN

(cover and feed tray up, of course)
position the combination tool on the cartridge case lip as shown —
press forward to lever it out.



WARNING Inspect the bore to make sure the bullet isn't stuck in it! If so, remove the barrel and tap the bullet back out with the end of your cleaning rod.

RUPTURED Cartridge case ?

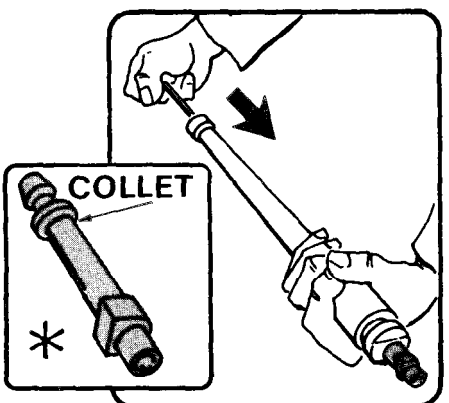
HERE'S HOW TO SOLVE THAT ONE!

FIRST

Replace the barrel.

THEN

(as soon as combat conditions permit) Insert the *ruptured cartridge case extractor through the broken case into chamber until the collet snaps over the front end of the case.



Now

run your cleaning rod through the front of the barrel and drive out the extractor and case.

TROUBLESHOOTING

IF YOUR GUN DOESN'T WORK, LOOK HERE – AND – IF THIS DOESN'T HELP, TAKE THE GUN TO ORGANIZATIONAL MAINTENANCE.

TROUBLE	CHECK THIS	FIX
AMMO DOESN'T FEED	1. Cover unlatched.	Latch it.
	2. Ammo belt upside down.	Do it right, (open side of links down).
	3. Barrel Extension forward when loaded.	Re-load correctly.

TROUBLE	CHECK THIS	FIX
more AMMO DOESN'T FEED	4. Bad link or ammo.	Take it out.
	5. Bad driving stud.	Replace Barrel Extension Assembly.
AMMO DOESN'T CHAMBER	1. Obstruction in chamber.	Clean it out.
	2. Bad Driving Springs.	Replace them.
	3. Bad Cartridge Rammer or Rammer Actuator Roller.	Replace Barrel Extension Assembly.

TROUBLE	CHECK THIS	FIX
GUN DOESN'T LOCK	1. Bad Driving Springs.	Replace them.
	2. Bad Breechblock Roller.	Replace Breechblock Assembly.
	3. Bad Lever Actuator (breech closing) roller.	Replace Barrel Extension Assembly.
	4. Feed Support Retainer out of position (in the cover).	Position Retainer Correctly.
GUN DOESN'T FIRE	1. Bad ammo.	Take it out.
	2. Bad Firing Pin.	Replace Breechblock Assembly.

TROUBLE	CHECK THIS	FIX
more GUN DOESN'T FIRE	**3. Bad Firing Pin Extension.**	**Replace Barrel Extension Assembly.**
	4. Bad Barrel Extension Assembly.	**Replace it.**
GUN DOESN'T UNLOCK	**Bad Lever Actuator (breech closing) roller.**	**Replace Barrel Extension Assembly.**
SPENT CASE WON'T EXTRACT	**1. Short recoil.**	**Find the binding parts, then clean and lube as needed.**
	2. Ruptured Cartridge Case.	**Replace barrel. Take out ruptured case soon as you can.**

TROUBLE	CHECK THIS	FIX
more SPENT CASE WON'T EXTRACT	3. Pitted Chamber.	Replace barrel.
	4. Bad Cartridge Rammer, Extractor, or Extractor Spring.	Replace Barrel Extension Assembly.
RUNAWAY GUN	1. Bad Barrel Extension Assembly.	Replace Barrel Extension Assembly.
	2. Bent Receiver Tabs or bad Sear adjustment	Take gun to Organizational Maintenance.

TROUBLE	CHECK THIS	FIX
If the SPENT CASE WON'T EJECT, or the GUN WON'T COCK, or it FIRES ERRATICALLY, the only fix is to replace the Barrel Extension Assembly. If this don't work, take your gun to Organizational Maintenance.		

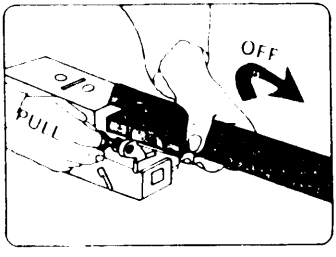
Protect your Machine gun at all times. Cover with canvas, if possible. Moisture, dust and carbon makes it easy for your gun to malfunction.

The BIG FIX is to keep your Machine gun cleaned in other words, PREVENTIVE MAINTENANCE.

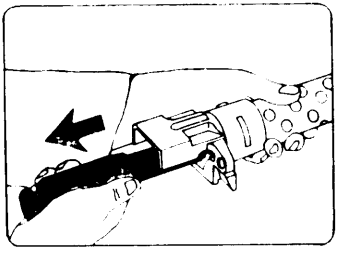
FIELD STRIP

SAFETY ON "F"
BARREL EXTENSION FORWARD

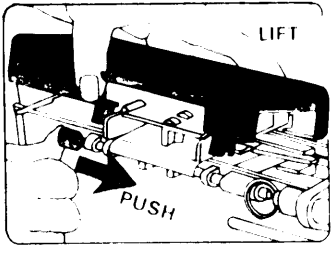
WARNING **MAKE SURE THE CHAMBER IS EMPTY!**



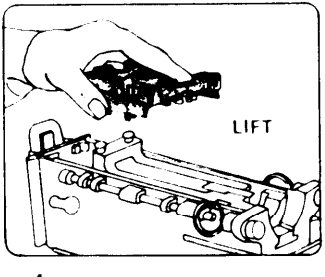
1. PULL DISCONNECTOR RINGS REMOVE BARREL JACKET.



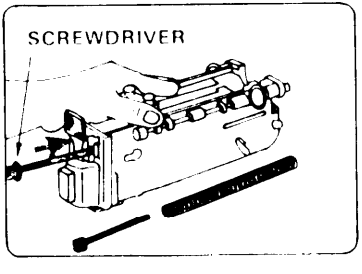
2. SLIDE BARREL OUT.



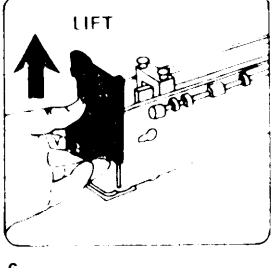
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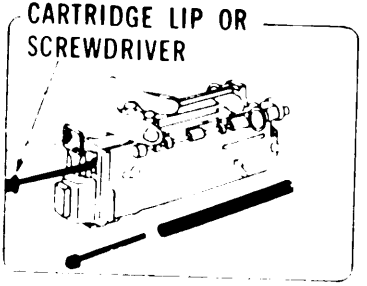
4.



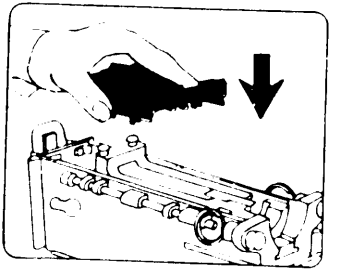
5. PUSH GUIDE RODS, TURN 1/4 TURN, REMOVE.



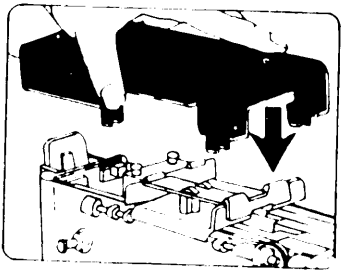
6 .



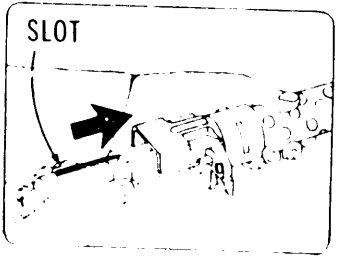
5. 1/4 TURN TO LOCK



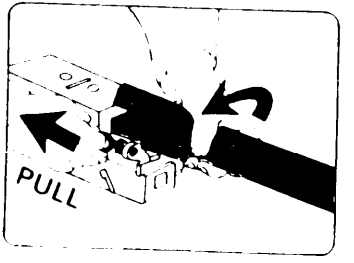
6.



7.



8. ALINE SLOT WITH BARREL LOCATOR.



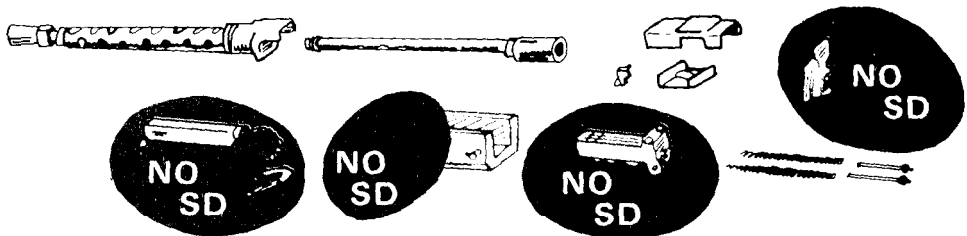
9.

OK, NOW IT'S ALL TOGETHER!

CLEANING INSPECTION LUBRICATION

HERE'S WHAT'S NEEDED:

After firing field strip your machine gun and clean all powder fouled surfaces with RBC. Clean everything EXCEPT the Back Plate, Barrel Extension, Buffer and Charger Assemblies with SD. Wipe dry and lubricate.



If your machine gun isn't used at all, it still needs complete cleaning and heavy lubing at least every 30 days. (Unusual conditions could shorten this interval.) Store weapon in horizontal position with safety "F" (fire position) and barrel extension forward.

MORE

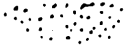
UNUSUAL CONDITIONS



Extreme hot weather and humid salt-air conditions — Your machine gun needs much more frequent servicing since this kind of climate quickly dissipates the lubricants.



Extreme Cold Weather — Clean and lube with LAW only! Hand operate the entire weapon often to keep the parts from freezing up. Keep the weapon covered and dry when not in use.



Sandy and dusty conditions — Check often for fouled lubricants. Clean, relube often.



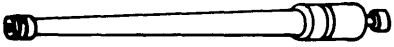
If your machine gun gets sopping wet inside, take it apart, dry it out and relubricate.

SPECIAL LUBE INFO

LSA/PL Special works from -10°F and up, LAW is used only from 0°F and below.

MORE

BARREL BORE



C Swab out with RBC, run the bore brush through it, then dry with clean patches.

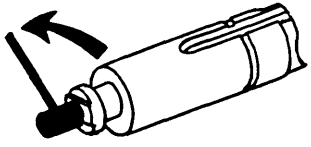
✓ Check for: bulges, cracks, rust. Note: don't worry about that inside ring 8" in from the chamber end, it's a heat expansion gap.

L Finally, lube lightly. Note again: wipe out lube before firing.

CHAMBER



C Insert the chamber brush, using RBC if necessary, turning to the left (it's a ratchet).



CLEANING INSPECTION LUBRICATION

BARREL JACKET **Clean, then**



✓ **everything for rust, corrosion.**
bearing block for staking, and barrel bearing for damaged threads.

L **Finally, wipe on a light coat of lube.**

BACKPLATE & SOLENOID



CAUTION **These parts must be kept dry – do not use SD or lube. Use only a clean rag and brush to remove dirt.**

✓ **Check spring action of trigger.**

✓ **Check trigger safety for proper functioning.**



DO NOT LUBE SOLENOID

CLEANING INSPECTION LUBRICATION



Clean, then

spring action of depressor and stripper.
all pawls, under spring tension operate freely.
that the whole thing locks properly to the receiver.

Finally, a normal coat of lube, THEN:

Put a normal amount of LSA in these special places: recesses and grooves where the belt feed slide rides and where the feed cam rides. Operate these parts to spread it around.

FEED TRAY

✓ Clean, then
cartridge stop secure.
tray fits OK **on the receiver.**

L **Finally,** light **coat of lube.**

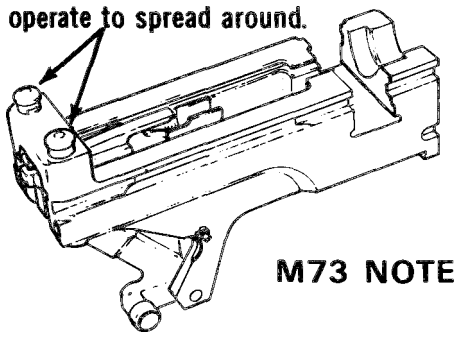
NOTE: leave top surface dry if gun is to be fired.

BARREL EXTENSION

NO SD

Clean, then

lube here and hand operate to spread around.



✓ rammer assembly ✓ spring action in catiridge extractor and firing pin extension ✓ hammer sear housing tightly secured to the barrel extension ✓ hammer sear spring action ✓ lever assembly for freedom of action of rollers ✓ hammer functions properly.

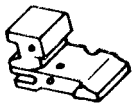
M73 NOTE **DO NOT LUBE Carrier Assembly grip sufaces if gun is to be fired.**

L lube hammer sear spring through vent hole in hammer sear housing and actuate to spread the lube around.
Lube the rest of the Barrel Extension and then . . . . . .

LSA breechblock slideway, receiver rail slot catiridge rammer grooves and all roller riding sufaces. Hand operate these parts to spread it around.

CLEANING INSPECTION LUBRICATION

BREECHBLOCK Clean, then



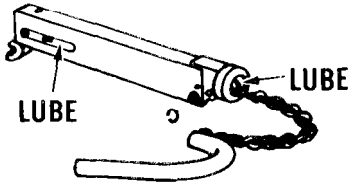
- ✓ roller moves freely.
- ✓ firing pin spring action.
- ✓ see that firing pin protrudes from breechblock.
- L Finally, normal coat of lube.



GUIDE RODS AND DRIVING SPRING

Clean, then

- ✓ rods for straightness.
- ✓ springs for kinks.
- L Lube normal



CHARGER NO SD Clean, then

- ✓ for loose parts.
- ✓ spring action by pulling on handle.
- L Finally, lube as shown and operate to spread it around.

RECEIVER

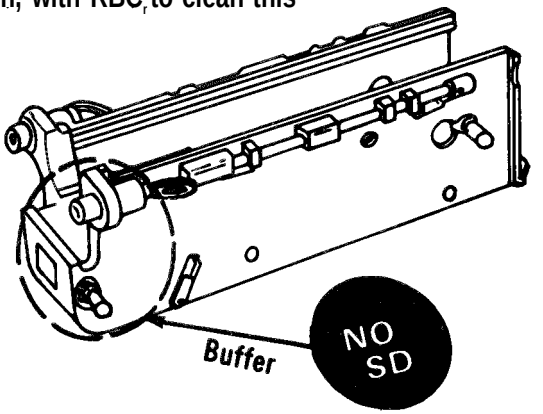
C Use the rectangular receiver brush, with RBC, to clean this item. Wipe dry. No SD on Buffer.

✓ spring action of fhe cover latch rods.

✓ spring action of buffer support levers

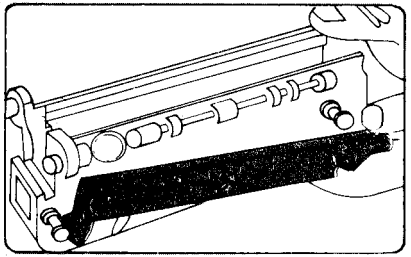
✓ functioning of rate control slide.

L Finally, wipe on a normal coat of lube.

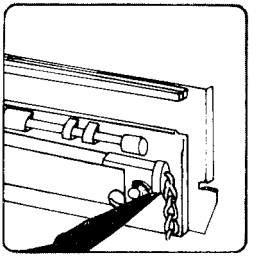


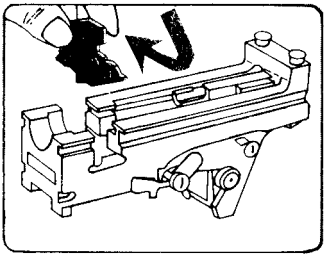
LSA LSA needed here:
Receiver rails, caroming groove areas for hammer cocking breech opening and breechblock roller.

HOW TO PUT IT BACK TOGETHER

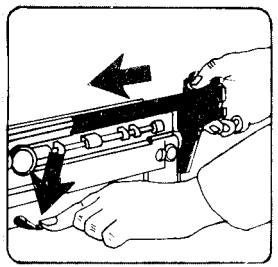


1.

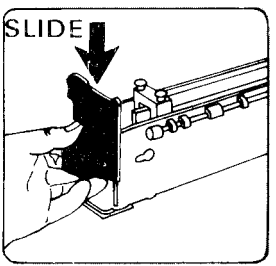




2. NOTE: Right top edge of breechblock must be flush with right top edge of barrel extension.

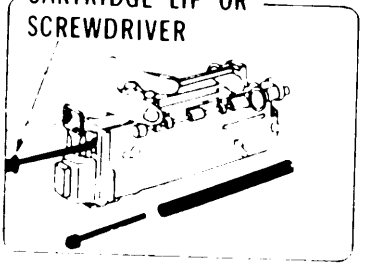


3.

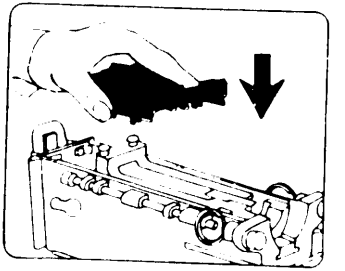


4.

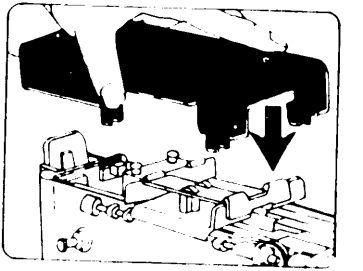
CAUTION: Don't slam down — you could lower the receiver tabs, causing a runaway gun!



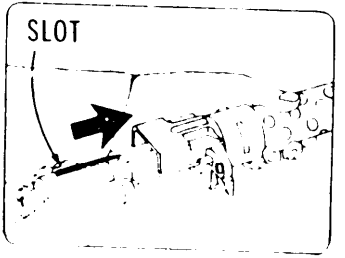
5. 1/4 TURN TO LOCK



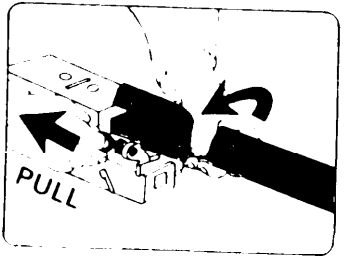
6.



7.



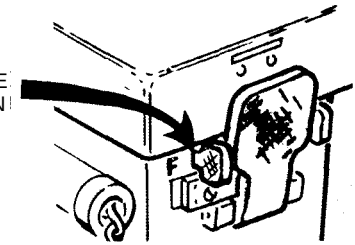
8. ALINE SLOT WITH BARREL LOCATOR.



9.

OK, NOW IT'S ALL TOGETHER!

CHECK IT OUT

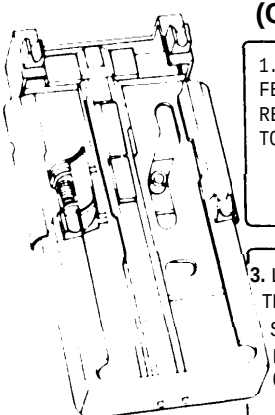


CHECK SAFETY SEVERAL TIMES AS FOLLOWS:

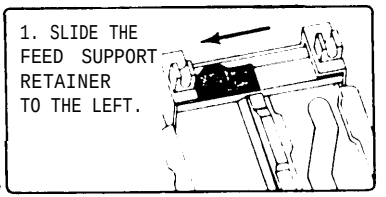
PLACE TRIGGER SAFETY AT "F" (FIRE POSITION). PULL CHARGER HANDLE TO REAR. KEEP HOLDING HANDLE. PUSH MANUAL TRIGGER, ALLOWING BARREL EXTENSION TO GO FORWARD SLOWLY. PULL CHARGER HANDLE, THEN PUT SAFETY ON "S" (SAFE POSITION). PUSH MANUAL TRIGGER. IF BARREL EXTENSION GOES FORWARD WHEN AT "S" OR DOES NOT GO" FORWARD WHEN AT "F", NOTIFY ORGANIZATIONAL MAINTENANCE.

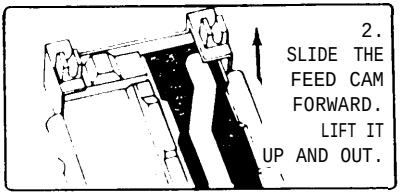
CHANGING FROM RIGHT TO LEFT HAND FEED

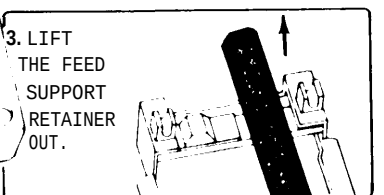
(Changing back is the same process in reverse)

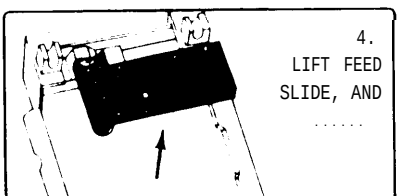


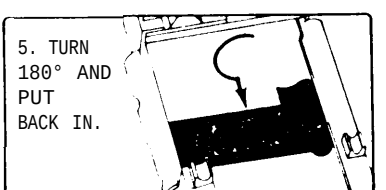
COVER
set for RIGHT
hand feed.

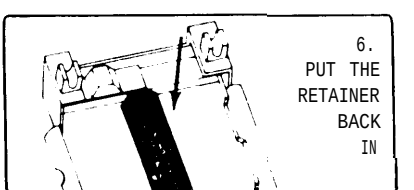


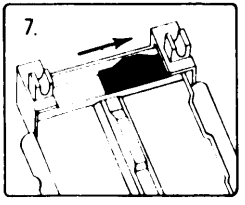


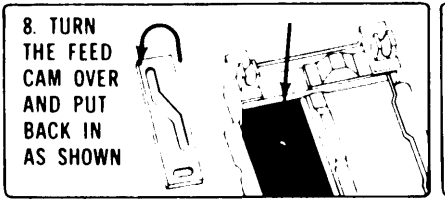


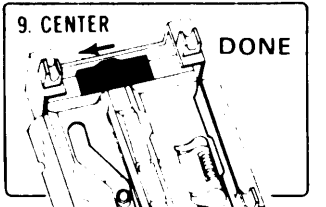






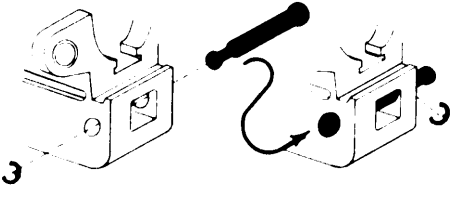




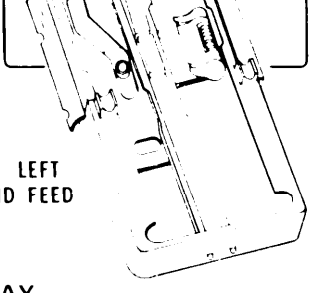


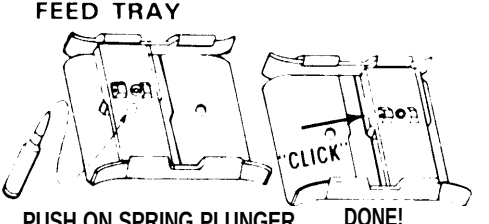
CHANGING THE CHARGER

1. TAKE IT OFF THE RIGHT SIDE.
2. TAKE OUT THE STUD (M73E1, M219). PUT IN ON THE LEFT SIDE.
3. TURN THE FRONT STUD AROUND.



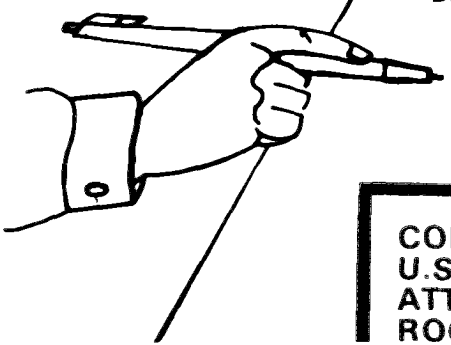
4. PUT THE CHARGER ON THE LEFT SIDE. DONE!





This pub is for you!!!

Got Any Ideas? Let Us Know!



DA FORM 2028
(OR ANYTHING YOU HAVE HANDY)

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U.S. ARMY ARMAMENT COMMAND
ATTN: AMSAR-MAS
ROCK ISLAND, ILLINOIS 61201

TM 9-1005-233-10
July, 1974

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Chief of Staff

Official:

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