TM 9-4910-389-12

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL

MAINTENANCE MANUAL

(INCLUDING REPAIR PARTS

AND SPECIAL TOOLS LIST)

FOR

CLEANER AND TESTER, SPARK PLUG:

BENCH MOUNTED (CHAMPION SPARK PLUG CO.,

MODEL 800) (JAT INDUSTRIES, MODEL JAT5000)

(THE OILJAK MFG. CO. INC., MODEL B800M)

(THE VP COMPANY, MODEL VP500)

(4910-261-5868)

HEADQUARTERS, DEPARTMENT OF THE ARMY

JULY 1972

Change No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D. C., *6 July 1973*

Operator's and Organizational Maintenance Manual (Including Repair Parts List) for CLEANER AND TESTER, SPARK PLUG: BENCH MOUNTED (CHAMPION SPARK PLUG CO., MODEL 800) (JAT INDUSTRIES, MODEL JAT5000) (THE OILJAK MFG. CO. INC., MODEL B800M) (THE VP COMPANY, MOFEL VP500) (4910-261-5868)

TM 9-4910-389-12, 31 July 1972 is changed as follows:
Title is changed as shown above.

Page ii. APPENDIX is superseded as follows:

Page 1-1 Paragraph 1-1e is superseded as follows:

e. Appendix D contains Repair Parts for operating and performing organizational maintenance on the spark plug cleaner and tester.

Paragraph 1-3 is superseded as follows

1-3. Recommendations for Maintenance Publications Improvements

You can improve this manual by calling attention to errors and by recommending improvements using DA Form 2028 (Recommended Changes to Publications) or by a letter and mailing directly to Commander, US Army Weapons Command, ATTN: AMSWE-MAS-SP, Rock Island, IL 61201.

Page 1-5, Paragraph 1-7c is superseded as follows:

c. Parts included with the end item and considered as components of the end item configuration are listed in the following table 1-1:

Table 1-1. Components of the End Item

Components	Part number	(FSCM or FSCNM	Code	Qty
3 INCH NIPPLE	5210-1	(8G954)	B	1
ADAPTER, SPARK PLUG CLEANER ru, 10-MM spark plugs accommodated, 1-3/4 dia, 2-13/16 shoulder dia, 9/16 body h	1A125	(11583)	A and B	1
ADAPTER, SPARK PLUG CLEANER: ru, 14-MM spark plugs accommodated, 1-3/4 dia, 2-13/16 shoulder dia, 9/16 body h	502	(11583)	A and B	1
ADAPTER, SPARK PLUG CLEANER: ru, 18-MM spark plugs accommodated, 1-3/4 dia, 2-13/16 shoulder dia, 9/16 body h	1A126	(11583)	A and B	1
ADAPTER, SPARK PLUG CLEANER: ru, 7/8 spark plugs accommodated, 1-3/4 dia, 2-13/16 shoulder dia, 9/16 body h	504	(11583)	A and B	1
ADAPTER, SPARK PLUG TESTER adapts compression chamber to accommodate 10-MM spark plugs, S body, 1-1/8 w o/a, 13/16 lg o/a	510	(11583)	A and B	2
ADAPTER, SPARK PLUG TESTER: adapts compression chamber to accommodate 14-MM spark plugs, S body, 1-1/8 w o/a, 13/16 lg o/a	514	(11583)	A and B	2
ADAPTER, SPARK PLUG TESTER adapts compression chamber to accommodate 18-MM spark plugs, S body, 1-1/8 w o/a, 13/16 lg o/a	518	(11583)	A and B	2
ADAPTER MOUNTING POSTS:	VP9-3817-530	(21246)	B	1
CLEANING ADAPTER MOUNTING BRACKET	VP9-3817-514	(21246)	A and B	1
CLEANING CHAMBER SHIELD:	VP9-3817-531	(21246)	B	1
CONTACTOR, SHIELDED SPARK PLUG: for testing	683	(11583)	A and B	1
COUPLING HALF, QUICK-DISCONNECT	8050-11	(53477)	A	1
ELECTRICAL PLUG ADAPTER	VP9-3817-511	(21246)	B	1
ELECTRICAL PLUG ADAPTER:	8-811	(44678)	A	1
GAGE, GAP SETTING:	FB302	(55719)	A and B	1
GASKET: asbestos, copper, 0.875 id, 1.125 od, 0.094 thk	MS35769/18	(96906)	A and B	3
HOSE NIPPLE: 1/4 NPT, quick disconnect	VP9-3817-521	(21246)	B	1
SPARK INDICATOR:	8-806	(44678)	A	1
SPARK PLUG TRAY;	VP9-3817-508	(21246)	B	1
SPARK PLUG TRAY	534	(44678)	A	1
WATER TRAP	VP9-3817-509	(21246)	B	1

Page 3-4, table 3-1. After ABRASIVE GRAIN change "(MILG 9954:81349) (10 oz)" to read "(MIL-C-744B: 81349)."

Add Appendix B after Appendix A as follows

APPENDIX B
BASIC ISSUE ITEMS LIST
AND
ITEMS TROOP INSTALLED OR AUTHORIZED LIST

Section I. INTRODUCTION

1. Scope

This appendix lists basic issue items and items troop installed or authorized required by the crew/operator for operation of the spark plug cleaner and tester.

2. General

This Basic Issue Items List and Items Troop Installed or Authorized List is divided into the following sections:

a. Basic Issue Items List. Not applicable.

b. Items Troop Installed or Authorized List. Not applicable.

3. Explanation of Columns

The following provides an explanation of columns found in the tabular listings

a. Federal Stock Number. Indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

b. Description. Indicates the Federal item name and a minimum description required to identify the item. The last line indicates the reference number followed by the applicable Federal Supply Code for Manufacturer (FSCM) in parentheses. The FSCM is used as an element in item identification to designate manufacturer or distributor or government agency, etc., and is identified in SB 708-42. Items that are included in kits and sets and listed below the name of the kit or set with quantity of each item in the kit or set indicated in front of the item name.

c. Unit of Measure (U/M). Indicates the standard or basic quantity by which the listed item is used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation, e.g., ea, in., pr, and is the basis used to indicate quantities. When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requistioned.

d. Quantity Furnished with Equipment (Basic columns ItemsOnly). Indicates the quantity of the item furnished with the equipment.

e. Quanity Authorized (Items Troop Installed or Authorized Only). Indicates the quantity authorized to be used with the equipment.

f. Illustration (Basic Issue Items Only). This column is divided as follows

(1) Figure number. Indicates the figure number of the illustration in which the item is shown.

(2) *Item number.* Indicates the item number used to identify each item called out in the illustra-

Page D-1. Appendix D title is changed to read as follows:

APPENDIX D
ORGANIZATIONAL MAINTENANCE REPAIR PARTS LIST

Paragraph D-1 is superseded as follows:

D-1. SCOPE

This appendix lists repair parts required by the crew/operator for operation and required for the performance of organizational maintenance of the spark plug cleaner and tester.

Paragraph D-2d is rescinded.

Page D-5. Section V, Tools and Support Equipment is rescinded.

Page D-6. Section VI is superseded as follows:

Section VI. FEDERAL STOCK NUMBER AND REFERENCE NUMBER INDEX

Stock NUMBER	FIGURE NO.	ITEM NO.	REFERENCE NUMBER	MFG. CODE	FIG. NO.	ITEM NO
4910-387-9498	1-1	8	VP9-3817-525	21246	1-2	10
	2-1	6			2-1	5
	2-3	2	5-560	11583	1-1	13
5930-356-8129	1-1	13	622	11583	1-1	8
					2-1	6
					2-3	2

Page D-8, Alphabetical Index. Under "Tables:" delete: "Tools and support equipment . . . . . 1-1."

By Order of the Secretary of the Army:

CREIGHTON W. ABRAMS
General, United States Army
Chief of Staff

Official:
VERNE L. BOWERS
Major General, United States Army
The Adjutant General

Distribution:
Active Army and USAR:

To be distributed in accordance with DA Form 12-38, (qty rqr block no. 250) Organizational maintenance requirements for Truck, Utility 1/4-Ton, M151, and DA Form 12-40, (qty rqr block no. 136) Organizational maintenance requirements for Rifle, 5.56 MM, M16, M16A1.
USNG: AG (3)

*U.S. GOVERNMENT PRINTING OFFICE: 1973-769752/5217

TECHNICAL MANUAL
NO. 9-4910-389-12

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., *31 July 1972*

OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) FOR CLEANER AND TESTER, SPARK PLUG: BENCH MOUNTED (CHAMPION SPARK PLUG CO., MODEL 800) (JAT INDUSTRIES, MODEL JAT5000) (THE OIL JAK MFG. CO. INC., MODEL B800M) (THE VP COMPANY MODEL VP500) (4910-261-5868)

Current as of 30 June 1972

***This manual supersedes TM 9-4910-389-20P, 11 June 1962.**

LIST OF ILLUSTRATIONS

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. SCOPE

a. This manual is for your use in operating and maintaining the spark plug cleaner and tester. (Champion, model 800) (JAT, model JAT5000) (Oiljak, model B800M) (VP, model VP500).

b. Appendix A contains a list of current references, including forms, technical manuals, and other available publications applicable to the spark plug cleaner and tester.

c. Appendix B—BASIC ISSUE ITEMS LIST (BILL) AND ITEMS TROOP INSTALLED OR AUTHORIZED LIST (ITIAL)-not applicable.

d. Appendix C contains the Maintenance Allocation Chart for the spark plug cleaner and tester, listing all maintenance and repair operations authorized by maintenance echelons.

e. Appendix D contains Repair Parts, and Tools and Support Equipment for operating and performing organizational maintenance on the spark plug cleaner and tester.

1-2. Maintenance Forms and Records. Maintenance forms and records that you are required to use are explained in TM 38-750.

1-3. Reporting of Errors. You can improve this manual by calling attention to errors and by recommending improvements, using DA Form 2028 (Recommended Changes to Publications], or by a letter, and mail directly to: Commanding General, Headquarters, U. S. Army Weapons Command, ATTN: AMSWE-MAS, Rock Island, IL 61,201 ..4 reply will be furnished directly to you.

1-4. Equipment Serviceability Criteria (ESC). This equipment is not covered by an ESC.

1-5. Destruction of Army Materiel to Prevent Enemy Use. Refer to DOD 4160.21-M-1 for **destruction of materiel to prevent enemy use.**

1-6. Administrative Storage. Refer to TM 740-90-1 for administrative storage.

Section II. DESCRIPTION AND DATA

1-7. Description. You can clean and test used aircraft and automotive type spark plugs with any model listed. The maintenance paragraphs of this manual contains detailed descriptions of their components. The four models of Cleaner and Tester, Spark Plug (4910-261-58-8) are designated as codes “A” and “B.” Codes “A” and “B” vary only in appearance.

a. **"Champion Spark Plug Co., model 800" and "The Oiljak Mfg. Co. Inc., model B800M" are identical. They are designated code "A" (Fig. 1-1).**

KEY to Fig. 1-1:

1. 1/4 NPT quick-disconnect hose nipple
2. Water trap
3. Cleaner valve knob
4. Air line connection
5. Screw
6. Clip screw
7. Cleaner bag frame assembly
8. Rubber sand blast nozzle tip
9. Cleaning adapter mounting bracket
10. Cabinet top
11. Cap screw
12. Wire-switch OFF and ON-button
13. Switch OFF and ON-button
14. Screw
15. PRESSURE knob
16. Power supply unit
17. Lock nut
18. Adjustment screw
19. slot
20. Cord
21. Electrical plug adapter
22. Green pigtail
23. Spark plug tray
24. "Abrasive Blast"
25. "Air Blast"
26. Flip-top shield
27. Spark indicator
28. Viewing chamber with mirrors
29. Compression chamber
30. High voltage lead

b. **"JAT Industries, model JAT5000" and "The VP Company, model VP500" are identical. They are designed code "B" (Fig. 1-2).**

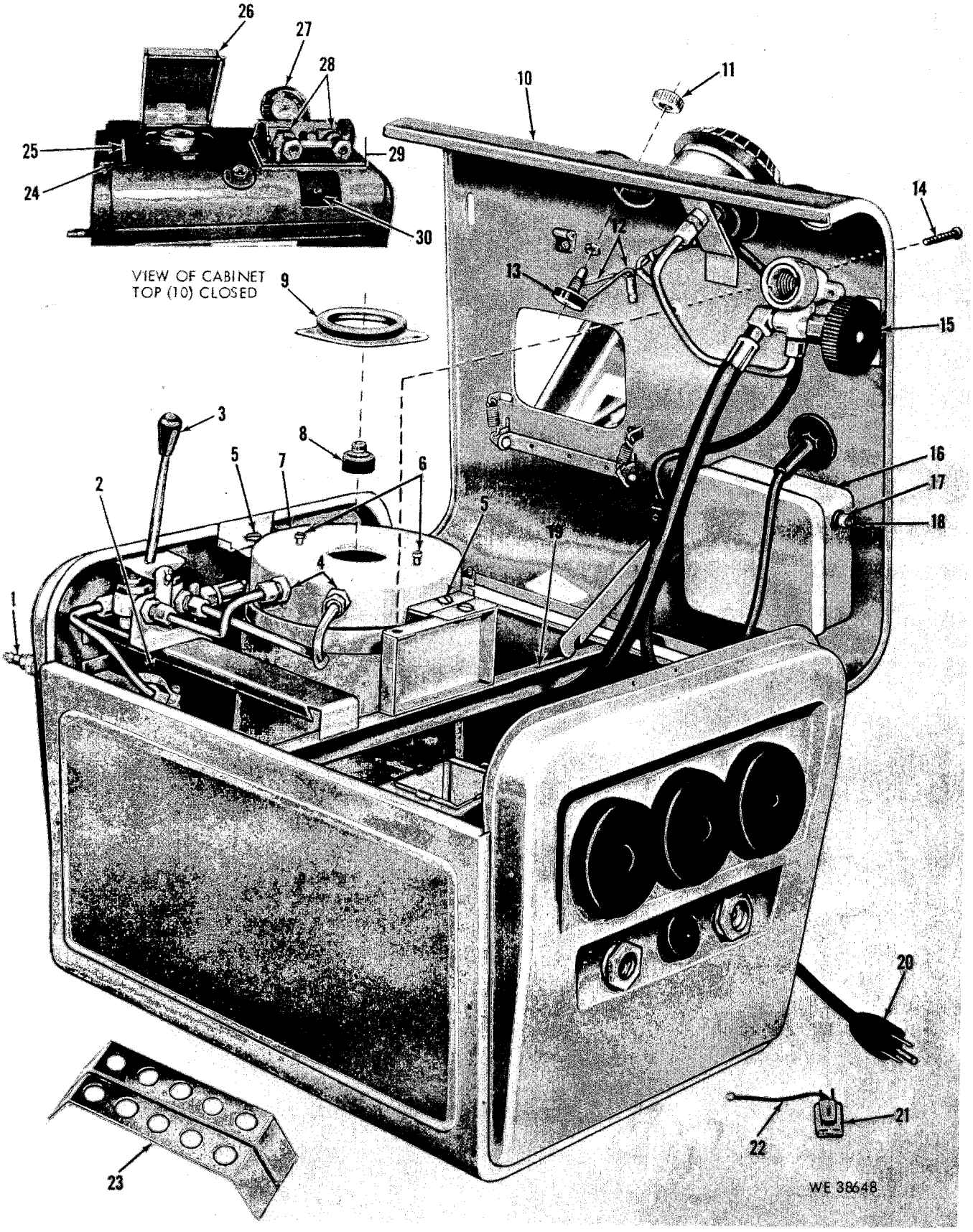
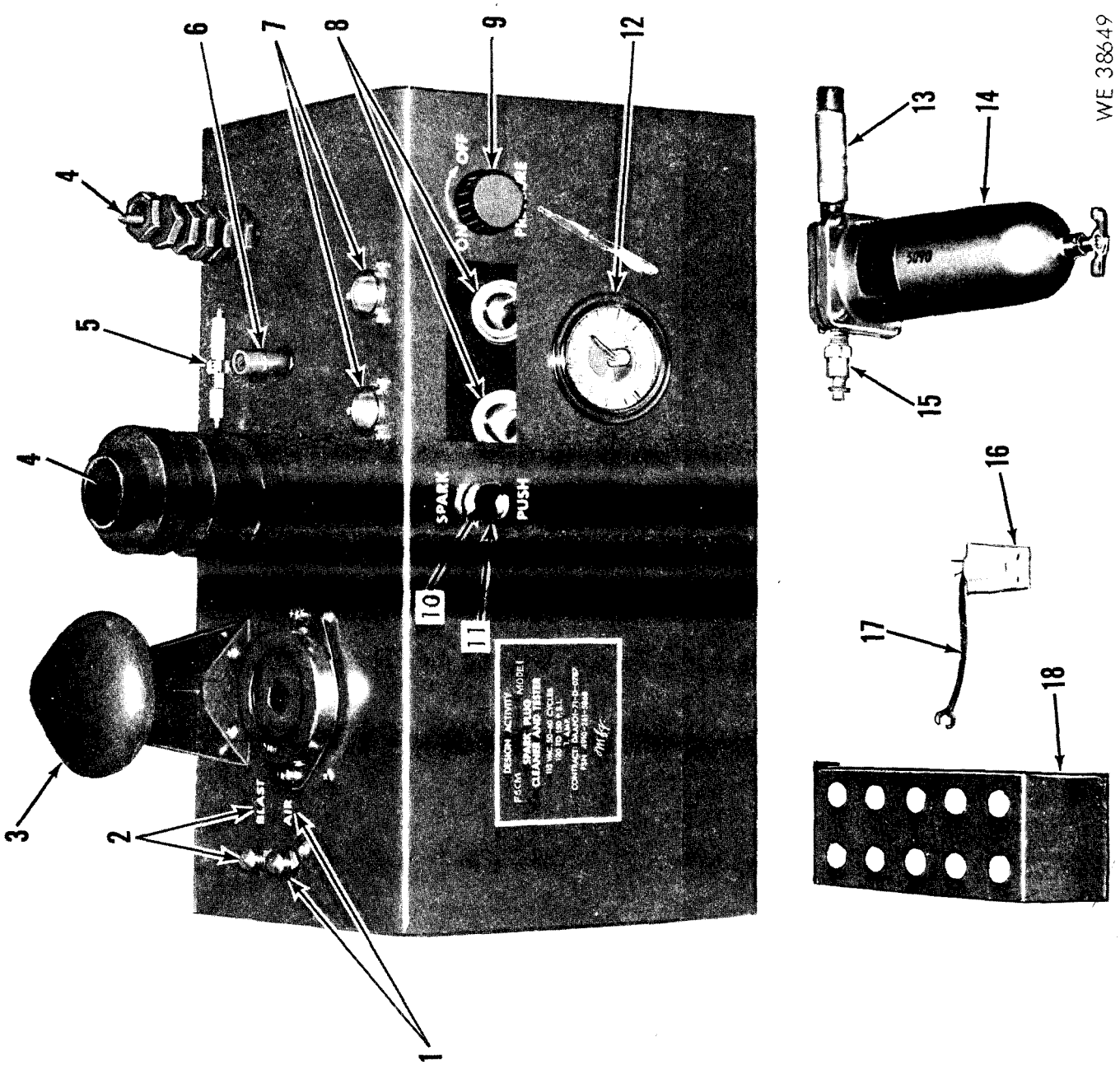


Figure 1-1. Spark plug cleaner and tester-code "A" model.



1. "AIR" button
2. "BLAST" button
3. Cleaning chamber shield
4. Adapter mounting posts
5. Clip
6. High voltage lead
7. 7/8 inch testing adapter
8. Viewing chamber with mirror
9. PRESSURE knob
10. Electrical switch-button
11. Cap screw
12. Pressure gauge
13. 3 inch nipple
14. Water trap
15. ¼ NPT quick-disconnect hose nipple
16. Electrical plug adapter
17. Green pigtail
18. Spark plug tray

Figure 1-2. Spark plug cleaner and tester-code "B" model.

c. Parts included with end item and considered part of end item are listed in Table 1-1. Check part number in Appendix D for manufacturer's code, and location by figure and item number.

Table 1-1. *Parts Included With End Item*

Part	Part Number: FSCM or FSCNM	Code
3 inch nipple	5210-1:8G954	B
Adapter mounting posts	VP9-3817-530:21246	B
Cleaning chamber shield	VP9-3817-531:21246	B
Electrical plug adapter	8-811:44678	A
	VP9-3817-511:21246	B
Hose nipple, 1/4 NPT, quick-disconnect	VP9-3817-521:21246	B
Spark indicator	8-806:44678	A
Spark plug tray	534:44678	A
	VP9.3817-508:21246	B
Water trap	VP9-3817-509:21246	B

1-8. Tabulated Data. The identification plate is located on the exterior of unit. It identifies the nomenclature (SPARK PLUG CLEANER AND TESTER), manufacturer, model, FSN (4910-261-***5868),*** serial and contract number, Table 1-2 contains tabulated data.

Table 1-2. Tabulated Data

* Manufacturer and Nonmanufacturer	*Model	Height	Width	Depth	Weight	*Compressed Air Requirements	* Electrical Requirements	
							Volts	Cycles
1. Champion Spark Plug Co.	800	14 in.	20 in.	15 in.	27 lbs (net)	120-180 psi	115	50-60
2. JAT Industries	JAT5000	13 in.	18 in.	9 in.	20 lbs	120-150 psi	115	50-60
3. The Oiljak Mfg. Co. Inc.	B800M	14 in.	20 in.	15 in.	27 lbs (net)	120-180 psi	115	50-60
4. The VP Company	VP500	13 in.	18 in.	9 in.	20 lbs	120-150 psi	115	50-60

CHAPTER 2

OPERATING INSTRUCTIONS

WARNING

Compressed air can produce air bubbles in the blood stream (embolism). Air can enter body through minor cuts. Embolism can be extremely painful and sometimes FATAL. Disconnect air line before performing maintenance or troubleshooting on compressed air system other than adjustment of air pressure. You will wear goggles when cleaning plugs. This will keep abrasive grain out of eyes. Use extreme caution to be sure voltage is not applied to high voltage lead except when required in test.

If equipment fails to operate, refer to troubleshooting procedures in chapter 3.

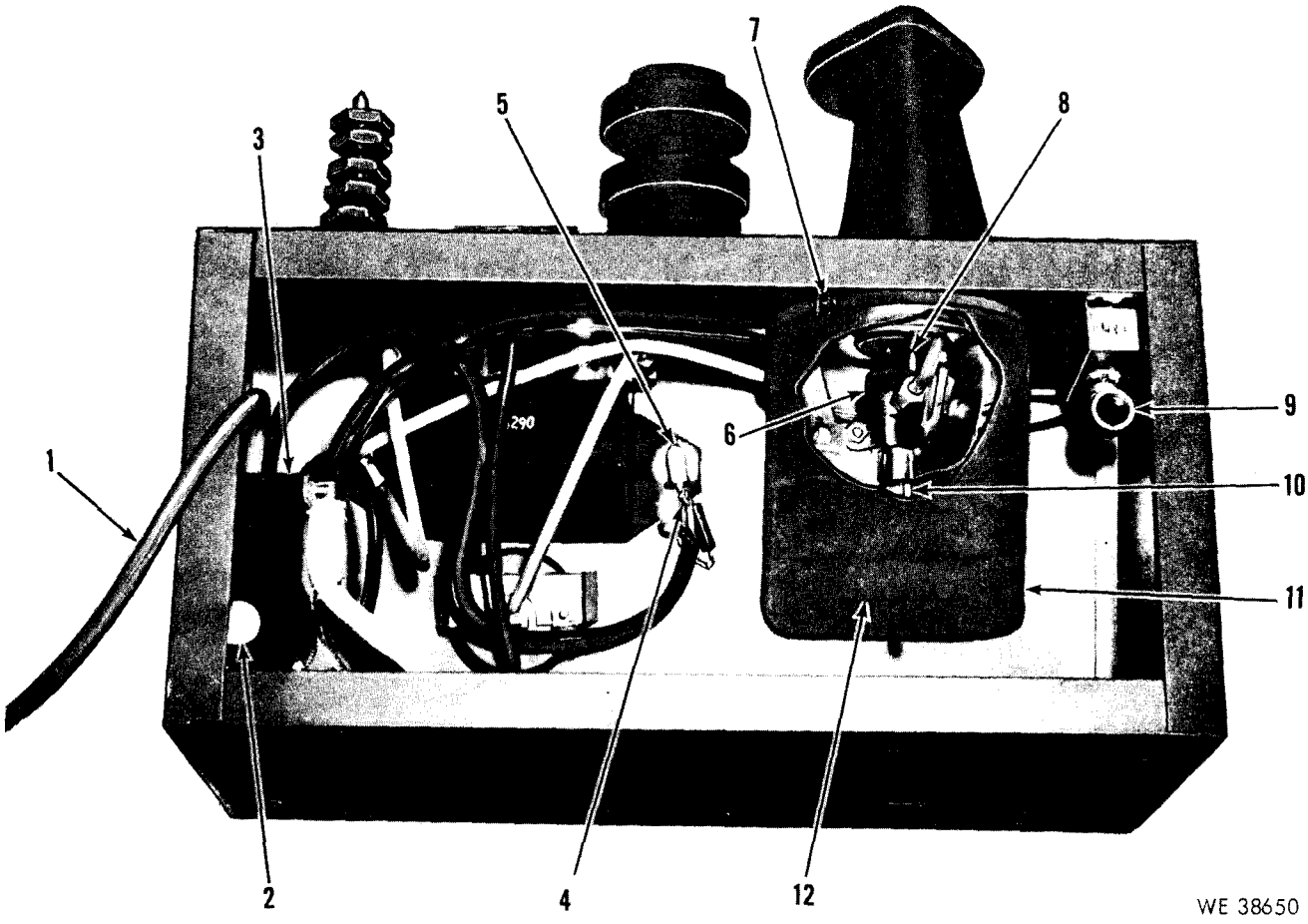
Do not inhale cleaning solvent for prolonged periods.

Section I. OPERATING PROCEDURES

2-1. Installation and Preparation for Use.

a. Secure Unit. Unit (Fig. 1-1 or 1-2) may be fastened to work bench through holes provided.

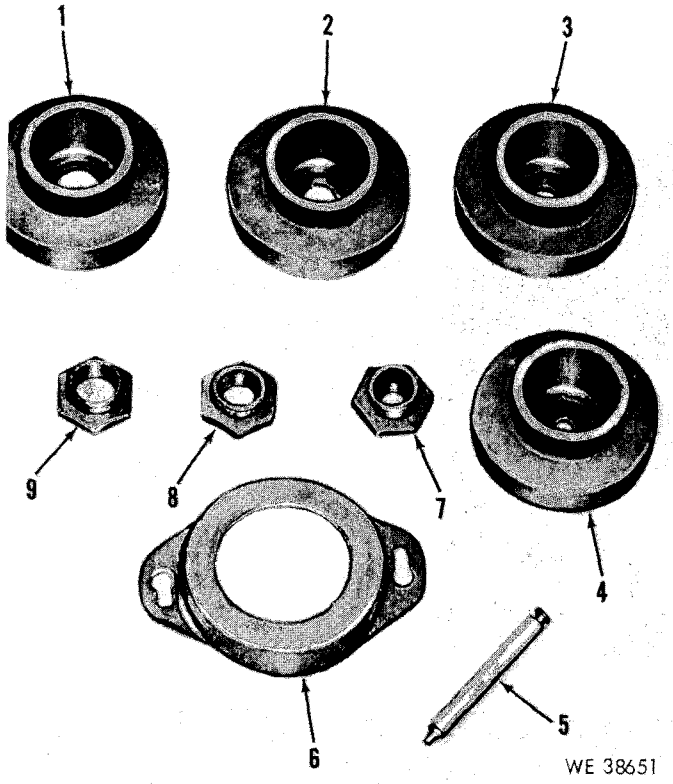
b. Connect Cord. Connect cord (20, Fig. 1-1 or 1, Fig. 2-1) to a mating 3 wire electrical outlet (115 VAC, 50-60 cycles). If this type outlet is not available, use the electrical plug adapter (21, Fig. 1-1 or 16, Fig. 1-2). Secure the green pigtail (22, Fig. 1-1 or 17, Fig. 1-2) to a suitable ground on the outlet box.



1. Cord
2. Metal button
3. Power supply unit
4. Wire-electrical switch-button
5. Electrical switch-button
6. Rubber sand blast nozzle tip
7. Bag clamp
8. Steel nozzle tip
9. Elbow-"BLAST / AIR" valve
10. Nozzle tube
11. Cleaning chamber canvas bag
12. Bag zipper

Figure 2-1. Spark plug cleaner and tester-code "B" model-rear view.

c. Install Adapter Mounting Posts. On code "B" models install two adapter mounting posts (4, Fig. 1-2) in holes located on top of the right-rear section of the unit. Secure in place with screws and lockwashers provided. The adapters not in use are placed on these posts. Place the spark plug cleaner adapters (1, 2, 3, and 4, Fig. 2-2) on one post and spark plug tester adapters (7, 8, and 9, Fig. 2-2) on the other post. On code "A" models holes are provided on right side of unit for adapters. Place the spark plug cleaner adapters on top row and spark plug tester adapters on bottom row.



1. Spark plug cleaner adapter (7 / 8)
2. Spark plug cleaner adapter (18-MM)
3. Spark plug cleaner adapter (14-MM)
4. Spark plug cleaner adapter (10-MM)
5. Shielded spark plug contactor
6. Cleaning adapter mounting bracket
7. Spark plug tester adapter (10-MM)
8. Spark plug tester adapter (14-MM)
9. Spark plug tester adapter (18-MM)

Figure 2-2. Tools and support equipment.

d. Install Cleaning Chamber Shield. On code "13" models install cleaning chamber shield *(3,* Fig. 1-2) to left of above posts. Secure in place with screws, lockwashers, and nuts provided. On code "A" models a flip-top shield (26, Fig. 1-1) is attached on top-left position. The shield prevents abrasive grain from getting into your eyes, however, see above **WARNING.**

e. Install Water Trap and Air Line Hose. On code "B'' models screw 3 inch nipple (13, Fig. 1-2) into elbow at bottom of "BLAST / AIR" valve (9, Fig. 2-1). using plumbing putty. This valve is located at the rear inside of unit on top right side. Screw water trap (14, Fig. l-2) on 3 inch nipple. Screw 1/4 NPT quick-disconnect hose nipple (15, Fig. 1-2) on water trap. On all models connect standard air line (120 to 150 PSI) to the 1/4 NPT nipple on water trap to supply compressed air to unit. On code "A" models the 1/4 NPT quick-disconnect hose nipple (1, Fig, 1-1) is entended from unit on left side. Water from compressed air is collected in water trap (2, Fig. 1-1 or 14, Fig. 1-2). When compressed air is used observe above WARNING.

f. Secure Shielded Spark Plug Contactor. On code "B" models place shielded spark plug contactor (5, Fig. 2-2) into clip (5, Fig, 1-2) located between adapter mounting posts in c above. A clip is not provided on code "A" models. This contactor is used to test Army type plugs. It is inserted into plug to adapt it for use with high voltage lead (30, Fig. 1-1 or 6, Fig. 1-2). Observe above WARNING concerning high voltage lead.

g. Cleaning Chamber.

(1) On code "A" models the cleaner bag frame assembly (7, Fig. 1-1 and Fig. 2-3) is installed inside of unit below the flip-top shield in *d* above. The cleaner bag (8, Fig. 2-3) may be replaced or cleaned as follows:

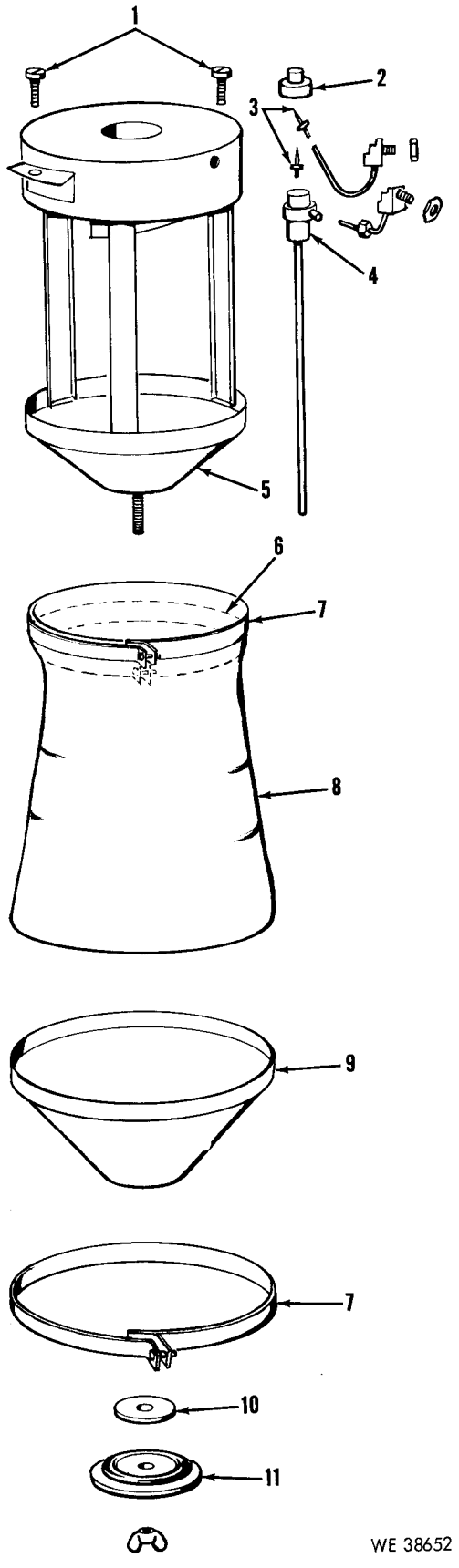


Figure 2-3. Cleaner bag frame assembly.

KEY to Fig. 2-3:

1. Screw
2. Rubber sand blast nozzle tip
3. Steel nozzle tip(s)
4. Nozzle tube
5. Cleaning chamber
6. Inner bag clamp
7. Outer bag clamp-upper and lower
8. Cleaner bag
9. Hopper
10. Abrasive drain cap
11. Outer drain cap

(a) Remove cleaner valve knob (3, Fig. 1-1) located left-front top of unit.

(b) Remove screw (14, Fig. 1-1) located top of unit to right of flip-top shield.

(c) Lift cabinet top (10, Fig. 1-1) and secure in slot (19, Fig. 1-1).

(d) Disconnect two air line connections (4, Fig. 1-1) from cleaner bag frame assembly.

(e) Remove two screws (5, Fig. 1-1 or 1, Fig. 2-3) connecting cleaner bag frame assembly to unit. Remove entire assembly.

(f) Remove upper and lower outer bag clamps (7, Fig. 2-3).

(g) Fold back outside bag and remove inner bag clamp (6, Fig. 2-3).

(h) Remove dirt and abrasive grain as follows:

1. After cleaning 300-400 spark plugs remove both outer and abrasive drain caps (11, and 10, Fig. 2-3) on bottom of hopper (9, Fig. 2-3). Drain dirt and abrasive grain into a tray. Tap cleaner bag and hopper to remove sticking dirt or abrasive grain. Replace both the abrasive and outer drain caps.

2. After cleaning 900-1000 spark plugs remove hopper from bottom of cleaning chamber (5, Fig. 2-3) and clean.

(i) Slide cleaner bag off-shake or use air hose-to clean.

(j) Reassemble and reinstall in unit.

(2) on code “B” models the cleaning chamber canvas bag (11, Fig. 2-1) will be installed inside of unit below shield in *d* above. Secure open end of bag around circular part of cleaning chamber frame with bag clamp (7, Fig. 2-1). Adjust clamp opening by turning screw.

(a) Drain out dirt after cleaning 300-400 spark plugs.

1. Tap bag to loosen dirt.
2. Open bag zipper (12, Fig. 2-1).
3. Drain out dirt.
4. Close bag zipper.

(b) Dump dirt and abrasive grain after cleaning 900-1000 spark plugs.

1. Remove bag and clamp.
2. Open bag zipper.

3. Dump dirt and abrasive grain.

4. Shake—or use air hose—to clean bag.

5. Reinstall bag inside of unit.

(3) Pour required amount of abrasive grain into bag through hole in top of unit. Observe above **WARNING** when using abrasive grain. The abrasive grain applied to plug by compressed air will remove abrasive particles. The particles removed in cleaning chamber sift through inner bag. On code "A" models they are collected in bottom of hopper. On code "B" models they are collected in bottom of cleaning chamber canvas hag.

h. Attach Spark Indicator. On code "A" models attach spark indicator (27, Fig. 1-1) on top of unit to right of shield.

2-2. Operating the Cleaner.

a. Select Spark Plug Cleaner Adapter. Select the correct size spark plug cleaner adapter (rubber) (1, 2, 3, and 4, Fig. 2-2) for spark plug being cleaned.

b. Install Spark Plug Cleaner Adapter.

(1) Insert spark plug cleaner adapter. Insert spark plug cleaner adapter in hole above bag (see 2-l. g. above). The top of chamber will be enclosed when plug is inserted into adapter for cleaning.

(2) *Install cleaning adapter mounting bracket.* Place cleaning adapter mounting bracket (6, Fig. 2-2) over adapter in 2-2. *b. (1)* above. Rotate bracket clockwise until it locks in place under the clip screws. This secures the adapter.

Note: When cleaning spark plug, rotate clockwise or wobble in a circular manner.

c. Clean Spark Plug.

(1) First. Insert bottom of spark plug into the adapter in 2-2. *b. (1)* above.

(2) Second.

(a) On code "A" models the cleaner valve assembly is located inside of unit on left-front position. The cleaner valve knob (3, Fig. 1-1) of assembly is extended through opening in cover. It can be moved to two positions. Compressed air is released when knob is engaged in either position. These positions are marked "Abrasive Blast" (24, Fig. 1-1) and "Air Blast" (25, Fig. 1-1). The "Abrasive Blast" agitates the abrasive grain. The "Air Blast" is used to remove loose particles from plug.

(b) On code "B" models the compressed air from "BLAST / AIR" valve is released by pushing buttons marked either "BLAST" or "AIR. " These buttons are located on top of unit above "BLAST / AIR" valve in 2-1. e. above. The "BLAST" button (2, Fig. 1-2) agitates the abrasive grain, The "AIR" button (1, Fig. 1-2) is used to remove loose particles from plug.

(3) Third.

(a) On code "A" models pull knob to "Abrasive Blast" position. Rotate spark plug for approximately five to ten seconds. Return knob to neutral position. This will clean most spark plugs.

(b) On code "B" models push "BLAST" button, rotate spark plug for approximately five to ten seconds, release button. This will clean most spark plugs.

(4) *Fourth.*

(a) On code "A" models push knob to "AIR BLAST" position for 2 or 3 seconds. This will remove loose particles from spark plug. Return knob to neutral position.

(b) On code "B" models push "AIR" button, for 2 or 3 seconds, to remove loose particles from spark plug, release button.

(5) *Fifth.* Remove spark plug. Perform test in paragraph 2-3. Reclean spark plug if test indicates plug can be reused.

2-3. Operating the Tester.

a. Method I (Comparing a Used Plug to New Plug).

(1) First. Select two steel spark plug tester adapters (7, 8, and 9, Fig. 2-2) of the correct size for the spark plugs being tested.

Note: Screw plugs in finger-tight. Do not use wrench. Slight air-leakage at the adapter or spark plug threads facilitates steady control of air pressure. This is necessary to obtain a stable spark during test.

(2) Second. Insert plugs.

(a) on code "A" models screw adapters into compression chamber (29, Fig. l-I). The compression chamber is located right-front on top of unit. The viewing chamber with mirrors (28, Fig. 1 -1) is located behind compression chamber. It is used to observe spark during test.

1. Screw the cleaned used spark plug in one adapter. Do not regap.

2. Screw the new spark plug in other adapter. The gap setting should correspond to that recommended for vehicle being checked.

(b) On code "B" models screw adapters into outside top part of the 7 / 8 inch testing adapter (7, Fig. 1-2). The 7 / 8 inch adapter is located in the unit above the viewing chamber with mirror (8, Fig. 1-2). This viewing chamber is located upperright front of unit. It is used to observe spark during test. This 7 / 8 inch adapter is used to adapt the other steel adapters. Screw new and cleaned used plugs in adapters as prescribed in (a) 1 and 2 above.

(3) *Third.* Connect the high voltage lead (30, Fig. 1-1 or 6, Fig. 1-2) to the terminal of the new spark plug. Return lead to position after use. If

shielded plugs are being tested, use shielded spark plug contactor as prescribed in paragraph 2-1. *f.* The high voltage lead with alligator clip, insulator and grommet is located between posts in 2-1. c. on code "B" models. On code "A" models it is located in front of compression chamber. It furnishes the voltage for spark. Observe above WARNING concerning high voltage lead.

(4) *Fourth.* Press switch OFF and ON button (13, Fig. 1-1) for code "A" models or electrical switch button (10, Fig. 1-2) for code "B" models, located left of viewing chamber. Watch spark in viewing chamber. Increase air pressure by turning PRESSURE knob (15, Fig. 1-1 or 9, Fig, 1-2) located to right of viewing chamber. The spark will quench out when pressure passes the sparking efficiency of the new plug. Reduce pressure until the spark becomes steady.

(5) *Fifth.* Mark reading of new plug.

(a) On code "A" models the spark indicator (27, Fig. 1-1 or Fig. 2-4) is located above and behind viewing chamber. Keep switch button pressed and move dial of indicator till the right edge of the "Green" or "Good" area (Fig. 2-4) is aligned with the gauge pointer (Fig. 2-4) (disregard gap setting arrow (Fig. 2-4)). The reading on indicator is the amount of pressure reached for new plug. This is the sparking efficiency of the new plug. Release switch button. The cleaned used spark plug will be compared to this reading. The scale on indicator is numbered every 20 psi. Numbering starts at 40 psi with markings every 4 psi to maximum of 200 psi.

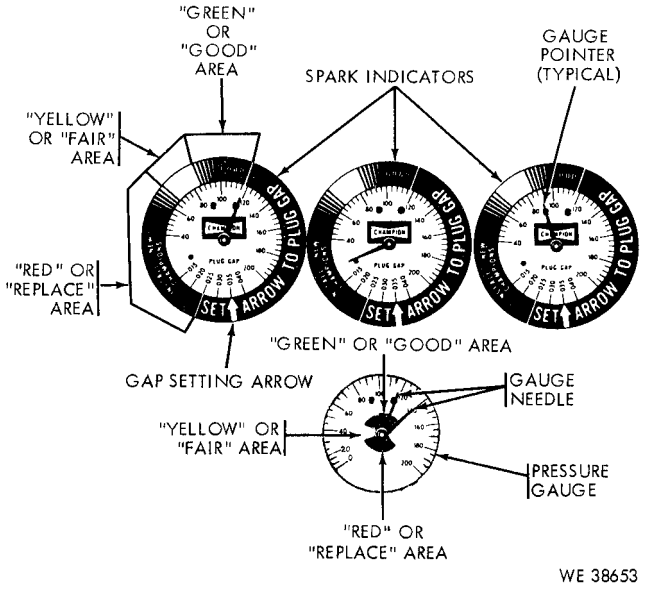


Figure 2-4. Dials.

(b) On code "B" models the pressure gauge (12, Fig. 1-2 or Fig. 2-4) is located below viewing chamber. Keep switch button pressed and rotate dial on gauge until the "Green" or "Good" area (Fig. 2-4) lines up guage gauge needle (Fig. 2-4). (Only one needle on gauge, two needles are shown on illustration to show sample of readings for new and used plugs). This is the sparking efficiency of the new plug. Release switch button. The cleaned used spark plug will be compared to this reading. The scale on pressure gauge is numbered every 20 psi. The range is 0 psi to 200 psi wiith markings every 5 psi.

(6) *Sixth.* Remove the high voltage lead from the new spark plug and clip on the cleaned used plug.

(7) *Seventh.* Obtain a steady spark on used plug as prescribed in (4) above. Compare reading of cleaned used spark plug with reading of new plug in (5) (a) and (5) (b) above. The reading will be in one of the following areas:

(a) The green or good area (higher reading than this means used plug is better than new plug) indicates cleaned used spark plug is in good condition and will be reused.

(b) The yellow or fair area (Fig. 2-4) indicates cleaned used spark plug requires approximately 50 per cent of the available ignition system voltage. This area is located to left of area in (a) above. Replacement of plug is recommended. If conditions make this undesirable, the plug may be reused. The plug can generally be cleaned and serviced. The spark plug electrodes cannot be too severely eroded or deteriorated.

(c) The red or replace area (Fig. 2-4) indicates cleaned used spark plug requires 75 per cent or more of the available ignition system voltage. This area is located to left of area in (b) above. The plug is in bad condition and will be replaced.

b. *Method II (Testing Two Used Plugs).* Oniy code "A" models are equipped to perform this method.

(1) *First.* Select two steel spark plug tester adapters (7, 8, and 9, Fig. 2-2) of the correct size for the spark plugs being tested.

Note: Screw plugs in finger-tight. Do not use wrench.

Slight air-leakage at the adapter or spark plug threads facilitates steady control of air pressure. This is necessary to obtain a stable spark during test,

(2) Second. Screw adapters into compression chamber (29, Fig. 1-1). The compression chamber is located right-front on top of unit. The viewing

chamber with mirrors (28, Fig. 1-1) is located behind compression chamber, It is used to observe spark during test. Screw one cleaned used spark plug in each adapter in compression chamber. Do not regap plugs.

(3) Third. Connect the hig~h voltage lead (30, Fig.1-1 to the terminal of either spark plug. Return lead to position after use. If shielded plugs are being tested, use shielded spark plug contactor as prescirbed , in paragraph 2-1. *f.* The high voltage lead with alligator clip, insulator and grommet is located in front of compression chamber. It furnishes the voltage for spark. Observe above WARNING concerning high voltage lead.

(4) *Fourth*.

{al The spark indicator (27, Fig. 1-1 or Fig. 2-4) is Iocated above and behind viewing chamber. Move dial of indicator till the gap setting arrow (Fig .2-4) is aligned with setting of the gap for plug being tested. (See middle spark indicator.)

(b) Press switch OFF and ON button (13, Fig. 1-1) located left of viewing chamber. Watch spark in viewing chamber. Increase air pressure by turning PRESSURE knob (15, Fig. 1-1) located to right of viewing chamber. The spark will quench out when pressure passes the sparking efficiency of plug. Reduce pressure until the spark becomes steady.

(c) W bile still pressing switch button, observe gauge pointer (Fig. 2-4) of indicator. The reading on indicator is the amount of pressure reached and the sparking efficiency of plug being tested. (See spark indicator on right.) Release switch button. The scale on indicator is numbered every 20) psi. Numbering starts at 40 psi with markings every 4 psi to maximum of 200 psi. The gauge pointer points to an area on dial. It indicates condition of plug for gap tested, The areas with explanations are as follows:

1. The green or good area (Fig. 2-4) indicates cleaned used plug spark plug is in good condition and will be reused used.

2. The yellow or fair area (Fig. 2-4) indicuates clreaned used spark plg is in fair condition and maiy be reused. Replacement f plug is recommended.

3. The red or replace area (Fig. 2-4) indicates cleaned ui used spark plug is in bad condition and will be replaced.

(5) *Fifth*. *Move* high voltage lead to the other plug and repeat (4 I (b) and (4) (c) above. The test determines if both plugs are serviceable.

2-4. Remove the Equipment from Operation.

a. *Put Equipment in Standby Condition.*

(1) Disconnect cord. Disconnect cord from electrical outlet. Disconnect green pigtail from ground. Remove electrical plug adapter.

(2) *Disconnect air line hose.* Disconnect air line hose from 1/4 NPT quick-disconnect hose nipple on water trap.

(3) *Remove 1 NPT quick-disconnect hose nipple.* Remove l/4 NPT quick-disconnect hose nipple from water trap.

(4) *Remove water trap and ,3 inch nipple.* On code "B" models remove water trap from 3 inch nipple. Remove 3 inch nipple.

(5) *Secure.* Secure accessories removed in (1), (3), and *(4)* above in unit.

b. Put Equipment in Shutdown Status.

(1) Disconnect cord. Disconnect cord from electrical outlet. Disconnect green pigtail from ground. Remove electrical plug adapter.

(2) *Secure flip-top shield*. On code "A" models tape flip-top shield to cover.

(3) *Disconnect air line hose.* Disconnect air line hose from 1/4 NPT quick-disconnect hose nipple on water trap.

(4) *Remove 1/4 NPT quick-disconnect hose nipple.* Remove 11/4 NPT quick-disconnect hose nipple from water trap.

(5) *Remove water trap and* 3 *inch nipple.* On code "B" models remove water trap from 3 inch nipple. Remove 3 inch nipple.

(6) *Remove shielded spark plug contactor.* On code "B" models remove shielded spark plug contactor from clip located between adapter mounting posts.

(7) *Remove cleaning adapter mounting bracket.* Remove cleaning adapter mounting bracket. Rotate bracket counter-clockwise until it is free of the clip screws.

(8) *Remove spark plug* cleaner *adapters and spark plug tester adapters.* Remove spark plug cleaner adapter from hole above cleaning chamber.

(a) On code "A" models remove adapters from right side of unit. "Remove two spark plug tester adapters from compression chamber.

(b) on code "B" models remove adapters from adapter mounting posts. Remove two spark plug tester adapters from top of the 7 / 8 inch testing adapter.

(9) Secure.

(a) Cushion following items in box or bag to prevent loss or damage:

1. On code "A" models the loose shielded spark plug contactor.
2. Abrasive grain.
3. Spark plug tray.
4. Items removed in (1), and (4) through (8) above.

(b) Store in unit.

(10) Clean cleaner bag or cleaning chamber canvas bag. Clean cleaner bag or cleaning chamber canvas bag as prescribed in paragraph 2-1. g.

Section II. OPERATION OF AUXILIARY EQUIPMENT

2-5. Auxiliary Equipment. No auxiliary equipment is required on the spark plug cleaner and tester.

Section III. OPERATION UNDER UNUSUAL CONDITIONS

2-6. Unusual Conditions. The spark plug cleaner and tester has electrical and compressed air requirements. Area where these requirements can be met would eliminate unusual operating conditions. No additional operating instructions required.

CHAPTER 3

OPERATOR/ CREW MAINTENANCE INSTRUCTIONS

Section I. LUBRICATION INSTRUCTIONS

3-1. Lubricatoin. No lubrication is required on the Spark Plug cleaner and tester.

.Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

3-2. General. To insure that the Spark Plug Cleaner and 'I'ester is ready for operation at all times, is must be inspected systematically so that defects may be discovered and corrected before they result in serious damage or failure. The necessary preventive maintenance checks and services to be performed are listed as described in paragraph 3-4. The item numbers indicate the sequence of minimum inspection requirements. The work measurement time in tenths of hour is included in Table 3-1 below item number. Defects discovered during operation of the unit will be noted for future correction to be made as soon as operation has ceased. Stop operation immediately if a deficiency is noted during operation which would damage the equipment if operation were continued. All deficieneies and shortcomings will be recorded together with the corrective action taken on DA Form 2404 at the earliest possible opportunity.

a. *Responsibility and Intervals.* The primary function of preventive maintenance is to prevent breakdowns and, therefore, the need for repair. These services consist generally of before-operation and after-operation services performed by the operator, Intervals are based on normal operations. Reduce intervals for abnormal operations for severe conditions. Intervals during the inactive periods may be extended accordingly.

b. *Definition of Terms.* The general inspection of each item applies also to any supporting member or connection and is generally a check to see whether the item is in good condition, correctly assembled. secure, and not excessively worn.

(1) The inspection for "good condition" is usually an external visual inspection to determine whether the unit is dam aged beyond serviceable limits. The term "good condition" is explained further by the following: not bent or twisted, not chaffed or burred, not broken or cracked, not bare or frayed, not dented or collapsed, not torn *or* cut, not deteriorated.

(2) The inspection of a unit to see that it is "correctly assembled" is usually an external visual inspection to see whether it is in normal assembled position.

(3) Inspection of a unit to determine if it is "secure" is usually an external visual examination by hand or wrench for looseness. Such an examination must include any brackets, lock-washers, locknuts, locking wires, or cotter pins used.

(4) By "excessively worn" is meant worn beyond serviceable limits or to a point likely to result in failure if the unit is not replaced before the next scheduled inspection.

3-3. Cleaning.

a. General. Any special cleaning instructions required for specified components or parts are contained in the pertinent section. General cleaning instructions are as outlined in (1) through (4) below:

(1) *Metal parts.*

(a) Use self-emulsifying decreasing solvent compound, mineral spirits paint thinner, or dry-cleaning solvent to clean or wash grease or oil from all metal parts of the spark plug cleaner and tester.

(b) Use clean water or a solution of either 1/4 pound of soap chips or 6 ounces of painted-surface detergent to one gallon of hot water for all parts and overall general cleaning of painted surfaces.

(c) After parts are clean, dry them thoroughly. Apply a light film of special preservative lubricating oil to all parts having a polished surface to prevent misting.

(d) Before installing new parts, remove any rust-preventing compound, protective grease, etc.

(2) *Electrical part.* Use technical trichloroethane (methylchloroform) (O-T-620) for cleaning electrical parts. Clean painted parts and plastics by wiping, brushing, or spraying but never by immersing in trichloroethane. Do not use trichloroethane for cleaning leather or rubber parts (other than neoprene).

(3) *Rubber parts other than electrical.* Clean rubber parts with soap and warm water. Apply

coating of powdered technical talcum to preserve the rubber,

(4) *Meters.* Clean each meter window glass using a soft cloth dampened with a solution of common detergent and water. After cleaning, allow the meter window to dry without rubbing. Apply antistatic compound.

b. General Precautions in Cleaning.

(1) Trichloroethane. Provide adequate ventilation both during and after use of trichloroethane. Avoid prolonged inhalation of vapor. Rubber gloves should be worn since this cleaner has a drying effect on the skin.

(2) *Other cleaning agents.* Self-emulsifying decreasing solvent compound, mineral spirits paint thinner, and dry-cleaning solvent are flammable and should not be used near an open flame. Fire extinguishers should be provided when these materials are used. Use only in well ventilated places. These cleaners evaporate quickly and have a drying effect on the skin. If used without gloves, they may cause cracks in the skin, and, in the case of some individuals, a mild irritation or inflammation.

(3) *Rubber parts.* Avoid getting petroleum products, such as mineral spirits paint thinner, dry-cleaning solvent, engine fuels, er lubricants, on rubber parts, as they will deteriorate the rubber.

(4) *Prohibited cleaning agents.* The use of Diesel fuel oil, gasoline, or benzene (benzol) for cleaning is prohibited.

c. Rust Removal. Remove rust or corrosion from all parts of the material. To remove rust or crrosion from unfinished surfaces, use steel cleaning brushes or abrasive cloth. On finished surfaces, other than highly polished surfaces, remove rust or corrosion by buffing with a rotary wheel wire brush constructed of steel wire between 0.010 and 0.025 inch in diameter. Crocus cloth may be used manually to remove rust or corrosion from polished surfaces.

3-4. Preventive Maintenance Checks and Services.

a. Purpose. To insure efficient operation, it is necessary that the spark plug cleaner and tester be systematically inspected. It should be inspected at intervals each day it is operated. Inspection will discover defects. They will be corrected to prevent serious damage or failure. Certain scheduled maintenance services will be performed at these designated intervals. The correction of any defect or unsatisfactory operating characteristics beyond the scope of the operator must be reported at the earliest opportunity to organization maintenance personnel for correction.

b. Services. operator's preventive maintenance checks and services are listed in table 3-1. Every operator equipped with the spark plug cleaner and tester must be thoroughly familiar with mian - tenauce procedures for the materiel.

Table 3-1. *Operator's Preventive Maintenance Checks and Services*

BO—Before Operation Time required: 1.6 | AO—After Operation Time required: 0.3 | W—Weekly Time required: 1.0

Procedures	Interval and sequence No. BO	AO	W	Paragraph reference
CLEANING CHAMBER SHIELD				2-1.*d.*
a. Inspect for "good condition."			20 0.1	3-2.*b.*(1)
b. Inspect to see it is "correctly assembled."			21** 0.1	3-2.*b.*(2)
c. Inspect to see it is "secure."	1 0.1			3-2.*b.*(3)
d. Close shield.		19* 0.1		2-1.*d.*
CLEANING ADAPTER MOUNTING BRACKET				2-2.*b.*(2)
a. Inspect for "good condition."	2 0.1			3-2.*b.*(1)
b. Inspect to see it is "secure.	3 0.1			3-2.*b.*(3)
ADAPTER MOUNTING POSTS				2-1.*c.*
a. Inspect for "good condition."			22** 0.1	3-2.*b.*(1)
b. Inspect to see they are "correctly assembled."			23** 0.1	3-2.*b.*(2)
c. Inspect to see they are "secure."	4** 0.1			3-2.*b.*(3)
SPARK PLUG CLEANER AND SPARK PLUG TESTER ADAPTERS				2-1.*c.* and 2-4. *b.* (8)
a. Inspect for "good condition."	5 0.1			3-2.*b.*(1)
b. Inspect to see they are "secure."	6 0.1			3-2. (3)
c. Inspect to see they are not "excessively worn."	7 0.1			3-2. (4)
d. Return spark plug cleaner and spark plug tester adapters to storage on outside of unit.		17 0.1		2-4. (8)
e. Clean.			25 0.5	3-3.
SPARK INDICATOR OR PRESSURE GAUGE AND MIRROR(S)				2-1. *h.*, 2-3. *a.*, and 2-3.b.
a. I for "good condition "	8 0.1			3-2.b.1
b. Inspect to see they are "secure."	9 0.1			3-2.
ELECTRICAL CORDS AND AIR LINE HOSE				2-1. and 2-3. *b.*
a. Inspect for "good condition."	10 0.1			3-2.*b.*(1)
b. Inspect to see they are "correctly assembled."	11 0.1			3-2.*b.*(2)
c. Inspect to see they are not "excessively worn."	12 0.1			3-2.*b.*(4)
WATER TRAP				2-1.*e.*
a. Inspect for "good condition."			24 0.1	3-2.*b.*(1)
b. Inspect to see it is "correctly assembled."	13** 0.1			3-2.*b.*(2)
c. Inspect to see it is "secure."	14 0.1			3-2.*b.*(3)
CLEANING CHAMBER				2-1.*g.*
a. Inspect for "good condition."	15 0.1			3-2.*b.*(1)
b. Inspect to see it is "secure."	16 0.1			3-2. (3)

*Table **3-1.** Operator's Preventive Maintenance Checks and Services-Continued*

BO-Before Operation
Time required: 1.6

AO-After Operation
Time required: 0.3

W-Weekly
Time required: 1.0

Procedures	BO	AO	W	Paragraph reference
ABRASIVE GRAIN (MILG 9954: 81349) (10 OZ) (FSN 5350-222-0581) Brush or blow away loose abrasive grain left on unit.		18 0.1		2-1. d., and 2-1. g. (3 I 2-2.c.

I

* Code "A" models only.
**Code "B" models only.

Section III. TROUBLESHOOTING

3-5. Troubleshooting. Malfunctions are listed in table 3-2.

a. This section contains troubleshooting information for locating and correcting most of the operating troubles which may develop in the spark plug cleaner and tester. Each malfunction for an individual component, unit, or system is followed by a list of tests or inspections. They will help you to determine probable causes and corrective actions to take. You should perform the tests / inspections and corrective actions in the order listed.

b. This manual cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify your supervisor.

1. NO CLEANING ACTION.	
Step 1.	Check for abrasive grain in the cleaner bag or cleaning chamber canvas bag. If empty or low, add abrasive grain as required.
Step 2.	Check for moisture in abrasive grain. If moisture is in abrasive grain, drain out dust and old abrasive grain. Replace with new abrasive grain.
2. POOR CLEANING ACTION.	
Step 1.	Check for contaminated abrasive grain. If abrasive grain is contaminated, drain out dust and old abrasive grain. Replace with new abrasive grain.
Step 2.	Check for low air pressure. If air pressure is low, increase external pressure supply.

Section IV. MAINTENANCE PROCEDURES

3-6. Maintenance Procedures. You may test the shielded spark plug contactor (5, Fig. 2-2) as follows:

a. Inspect for "good condition, " and "excessively worn."

b. Service shielded spark plug contactor by cleaning contact points.

c. Use a new-Army type-plug to perform test in paragraph 2-3. A spark should appear in viewing chamber during test. No spark indicates voltage not reaching plug.

d. Replace with new shielded spark plug contactor and retest.

e. A spark during test indicates malfunction was in old shielded spark plug contactor.

CHAPTER 4

ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Section I. SERVICE UPON RECEIPT OF MATERIEL

4-1. Inspecting and Servicing the Equipment.

a. General. When a new or reconditioned spark plug cleaner and tester is first received, it is the responsibility of the Officer in charge to determine whether the materiel has been properly prepared for service by the supply organization and to be sure it is in condition to perform its function. For this purpose, inspect assemblies and parts to be sure they are properly assembled, secured, cleaned, adjusted, and / or lubricated. Check all repair parts. and tools and support equipment with the listing in Appendix D to be sure every item is present and in good condition.

b. Record. Make a record of any missing repair parts, and tools and support equipment; and of any malfunctions. Correct any deficiencies as quickly as possible.

c. Unpacking and Checking. Remove the exterior wrapping from spark plug cleaner and tester. Remove the barrier material enveloping the unit. Remove the small box containing equipment from tester. Remove all cushioning materials, seals, wrappings and equipment from box and tester. Check all equipment with the listing in Appendix D, to be sure every item is present and in good condition.

d. Cleaning. Clean all parts of the spark plug cleaner and tester as prescribed in paragraph 3-3.

e. Inspection.

(1) Perform a general inspection of the spark plug cleaner and tester to assure all parts are properly and securely assembled and in good working condition.

(2) Inspect to see that all connections are secure.

(3) Perform the preventive maintenance checks and services as prescribed in tables 3-1 and 4-1.

Section 11. REPAIR PARTS, SPECIAL TOOLS, AND EQUIPMENT

4-2. Tools and Equipment. Common tools and equipment having general application to this materiel are authorized by tables of allowances and tables of organization and equipment.

4-3. Special Tools and Equipment. No tools or equipment specially designed for organizational maintenance are supplied or required for the spark plug Cleaner and tester.

4-4. Maintenance Repair Parts. Repair parts and tools and support equipment are supplied to the using organization. They are supplied for replacement of those parts most likely to become worn, broken, or unserviceable. The replacement of these items must be within the scope of organizational maintenance functions. Repair parts and tools and support equipment are listed and identified by illustration figure and item number in Appendix D.

Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

4-5. General. Refer to paragraphs 3-2 through 3-4 for preventive maintenance checks and services for the operator, These instructions apply equally to maintenance personnel of the using organization.

4-6. Organizational Preventive Maintenance Checks and Services. The using organization is further responsible for services listed in table 4-1 and must thoroughly train its personnel in performing the maintenance procedures for this materiel.

Table 4-1. Organizational Preventive Maintenance Checks and Services

W—Weekly
Time required : 1.0

A1—After 300-400 uses
Time required : 0. 3

A2—After 900-1000 uses
Time required : 0.7

Procedures	Interval and sequence No			Paragraph reference
	W	A1	A2	
CLEANING CHAMBER SHIELD				2-1.*d.*
Clean.	0.21			3-3.
CLEANING ADAPTER MOUNTING BRACKET				2-2.*b.*(2)
Clean.	2 0.2			3-3.
ADAPTER MOUNTING POSTS				2-1.*c.*
Clean.	3* 0.1			3-3.
SPARK INDICATOR OR PRESSURE GAUGE AND MIRRORS				2-1. *h.*, 2-3.*a.*, and 2-3.*b.*
Clean.	4 0.1			3-3
ELECTRICAL CORDS AND AIR LINE HOSE				2-1.*b.*, 2-1.*e.*, 2-3.*a.*, and 2-3. *b.*
Clean.	5 0.2			3-3
WATER TRAP				2-1.*e.*
Clean.	6 0.2			3-3.
CLEANING CHAMBER				2-1.*g.*
Clean.		7 0.3	8 0.5	2-1.*g.*
SAND BLAST NOZZLE TIP				4-8.
Replace tip.			9 0.2	4-8.

*Code "B" models only.

Section IV. TROUBLESHOOTING

4-7. Troubleshooting. Malfunctions are listed in tables *3-2* and *4-2*. In effect, table 4-2 is the continuation of table 3-2, paragraph 3-5. Refer to chapter three, paragraph 3-5 for troubleshooting procedures performed by the operator.

Table 4-2. Troubleshooting

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION
CLEANER ASSEMBLY GROUP
1. POOR CLEANING ACTION. Step 1. Check clean chamber steel nozzle tip(s) to see if plugged. If plugged, remove and clean with wire or other suitable means. Step 2. Check cleaning chamber nozzle tube to see if plugged. If plugged, clean with wire or other suitable means.
2. "BLAST" AND "AIR" BUTTONS STICKING (CODE "B" MODELS ONLY). Check for abrasive or dirt between valve stem and nuts. If abrasive or dirt between valve stem and nuts, clean buttons.
3. WATER TRAP DOES NOT ACTUATE. Check discharge port for leakage. If leakage, probe gently with pencil to be sure valve stem is in upward position.
4. FAULTY VOLTAGE. Step 1. Check for low voltage. If voltage is low, increase. Step 2. Check switch for no voltage. If no voltage is indicated, replace switch. Step 3. Check for high voltage. If voltage is high, decrease.

Section V. MAINTENANCE OF NOZZLE TUBE, STEEL NOZZLE TIP(S), AND RUBBER SAND BLAST NOZZLE TIP

4-8. Nozzle Tube, Steel Nozzle Tip(s), and Rubber Sand Blast Nozzle Tip. The nozzle tube (10, Fig. 2-1 or 4, Fig. 2-3) directs air to agitate abrasive grain. The steel nozzle tip(s) (8, Fig. 2-1 or 3, Fig. 2-3), and rubber sand blast nozzle tip (6, Fig. 2-1 or 2, Fig. 2-3) directs air to spark plug. The rubber sand blast nozzle tip prevents most clogging of this air supply by the abrasive grain,

a. *Disassembly.*

(1) Rotate cleaning adapter mounting bracket (9, Fig. 1-1) until it unlocks from clip screws (6, Fig. 1-1) and lift up to remove.

(2) Remove spark plug cleaner adapter.

(3) Remove rubber sand blast nozzle tip.

(4) Remove steel nozzle tip(s).

b. Cleaning.

(1) Clean steel nozzle tip(s) with wire or other suitable means.

(2) Clean nozzle tube with wire or other suitable means.

(3) Replace removed rubber sand blast nozzle tip with new clean rubber sand blast nozzle tip.

c. *Reassembly.*

(1) Reinstall steel nozzle tip.

(2) Install the new rubber sand blast nozzle tip.

(3) Add abrasive grain as required before reinstalling spark plug cleaner adapter.

(4) Reinstall spark plug cleaner adapter.

(5) Reinstall cleaning adapter mounting bracket by rotating until it locks under clip screws.

Section VI. MAINTENANCE OF "BLAST" AND "AIR" BUTTONS

4-9. "BLAST" and "AIR" Buttons. The **"BLAST"** and **"AIR"** buttons are marked **"BLAST"** and **"AIR"** on code **"B"** models. This instruction is for code **"B"** models only. The valve buttons are located on top of unit on left side. When the **"BLAST"** button (2, Fig. 1-2) is depressed, the compressed air is released. This air agitates the abrasive grain. The abrasive grain performs the cleaning action. When the "AIR" button (1, Fig. 1-2) is depressed, the compressed air is released to remove loose particles from plug.

a. *Disassemby.*

(1) Loosen nut below button on top of unit.

(2) Unscrew button Stem from unit.

(3) Remove rubber valve seat from button stem .

(4) Remove nut from button stem.

(3) Repeat (1) through (4) above on other button).

b. *Cleaning.* (Clean disassembled parts as prescribed in paragraph 3-3.

c. Reassembly.

(1) Reinstall nut to button stem.

(2) Reinstall rubber valve seat to button stem.

(3) Screw button stem to unit.

(4) Tighten nut below button, on top of unit.

(5) Repeat (i) through (4) above on other button.

Section VII. MAINTENANCE OF WATER TRAP

4-10. Water Trap. The water trap (2, Fig. 1-1 or 14, Fig. 1-2) collects water from compressed air. The water is removed before air is used in cleaning and testing. On code "A" models the water trap is located inside of unit. It is located in the front left side in front of cleaner bag frame assembly and below cleaner valve assembly. On code "B" models the water trap extends from rear of unit. The water trap may malfunction if valve stem is in the wrong position. Inspect discharge port at bottom of water trap. A leakage indicates valve stem is in wrong position. Probe valve stem gently with a pencil to adjust in upward position.

Section VIII. MAINTENANCE OF SWITCHES

4-11. Switches. The switch turns the electrical power "ON" and "OFF. " This electrical power is used in testing the spark plug. When it is applied to the plug, the electrical spark is used to determine the amount of voltage required by spark plug. This test for sparking efficiency of spark plug determines the replacement of plug. When the push button of switch is depressed, the current is turned "ON. " When released the button returns to "OFF" position.

a. *Switch for Code "A "Models.* SWITCH OFF AND ON (13, Fig. 1-1) is the name of code "A" models' switch. It is located front-center on cover. The push button part of switch extends through cover from the inside. It is secured in place with a cap screw (11, Fig. 1-1).

b. Switch for Code "B" Models. ELECTRICAL SWITCH (l0, Fig. 1-2 and 5, Fig. 2-1) is the name of code "B" models' switch. It is located top-center to left of viewing chamber on front of unit. The push button part of switch extends through unit from the inside. It is secured in place with a cap screw (11, Fig. 1-2).

4-12. Testing. Test voltage by performing test on new spark plug gapped at 0.025". Perform the test as prescribed in paragraphs 2-3. a. (1) through 2-*3.a.* (4). In paragraph 2-3. *a,* (4) the spark of the new plug will quench out at 140 PSI. This will be the standard used to determine adjustment.

4-13. Adjustment.

a. *Remove.* On code "B" models' remove metal button (2, Fig. 2- 1) on power supply unit (3, Fig. 2-1).

b. Loosen. Loosen lock nut (17, Fig. l-l) on adjustment screw (18, Fig. 1-1). Lock nut and adjustment screw not shown on code "B" models (see *a.* above).

c. Adjust.

(1) If spark did not quench out at 140 PSI in paragraph 4-12 above, the voltage is too high. Decrease voltage by turning adjustment screw counter-clockwise,

(2) If spark quenched out before 140 PSI was reached in paragraph 4-12. above, the voltage is too low. Increase voltage by turning adjustment screw clockwise. Switch will be replaced if this adjustment cannot be made.

d. Tighten. Tighten lock nut on adjustment screw.

e. Reinstall. On code "B" models reinstall metal button on power supply unit.

4-14. Disassembly.

WARNING

Unplug cord from electrical outlet before disassembly.

a. Cap Screw. Unscrew cap screw on outside of unit from switch on inside of unit.

b. Switch.

(1) Pull pole part through hole to loosen from unit.

(2) Cut wire *(12,* Fig. 1-1 or 4, Fig. 2-1) at switch. This wire leads to power supply unit (16, Fig. 1-1 or 3, Fig. 2-1).

4-15. Repair. Repair faulty switch by replacing with new switch.

4-16. Reassembly.

a. Switch.

(1) Solder switch on loose end of wire from power supply unit.

(2) Push pole part through hole used in 4-14. b. (l) above.

b. Cap Screw. Screw cap screw on outside of unit to switch on inside of uni.,

c. Cord. Reconnect cord in electrical outlet.

APPENDIX A

REFERENCES

A-1. Forms

DA Form 2028, Recommended Changes to Publications

DA Form 2404, Equipment Inspection and Maintenance Worksheet

A-2. Publications

a. General.

Defense Demilitarization Manual . . . . . DOD 4160.21-M-I

Federal Supply Code for Manufacturers. . . . . .SB 708-42
United States and Canada Code to Name (Cataloging Handbook H 4-2)

Nongovernment Organization Codes SB708-82 C8
for Military Standard Contract Administration Procedures (MLSCAP)
United States and Canada Code to Name (Handbook H 8-2)

The Army Maintenance Management Systems (TAMMS) . . . . . TM 38-750

b. Maintenance and Repair.

classification, Reclassification, Maintenance, ... AR 700-42
Issuance and Reporting of Maintenance Training Aircraft

Joint Regulation Governing the Use and AR700-82
Application of Uniform Source Maintenance and Recoverability Codes

Organization, Policies, and Responsibilities . . . . . .AR 750-5
for Maintenance Operation

Repair Parts Special Tools and Test Equipment . . . .AR 700-18
Allocation and Allowances

c. *Storage.*

Administrative Storage of Equipment . . . . . TM 740-90-1

APPENDIX C

MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

C-1. General. The Maintenance Allocation Chart allocates maintenance operations to the proper category of maintenance. Avocations of maintenance operations are made on the basis of time, tools, and skills normally available to the various categories of maintenance to combat situation and influenced by maintenance policy and sound maintenance practices, as outlined in AR 750-5.

C-2. Maintenance Functions. Maintenance functions will be limited to and defined as follows:

a. *INSPECT. To* determine serviceability of an item by comparing its physical, mechanical, and electrical characteristics with established standards.

b. TEST. To verify serviceability and to detect electrical or mechanical failure by use of test equipment.

c. SERVICE. To clean, to preserve, to charge, and to add fuel lubricants, cooling agents, and air.

d. ADJUST. To rectify to the extent necessary to bring into proper operating range.

e. ALIGN. To adjust specified variable elements of an item to bring to optimum performance.

f. CALIBRATE. To determine the corrections to be made in the readings of instruments or test equipment used in precise measuremnent. Consists of the comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared with the certified standard.

g. INSTALL. To set up for use in an operational environment such as an emplacement, site, or vehicle.

h. REPLACE. *To* replace unserviceable items with serviceable like items.

i. REPAIR. Those maintenance operations necessary to restore an item to serviceable condition through correction of material damage or a specific failure. Repair may be accomplished at each category of maintenance.

j. OVERHAUL. Normally, the highest degree of maintenance performed by the Army in order to minimize time work in process is consistent with quality and economy of operation. It consists of that maintenance necessary to restore an item to completely serviceable condition as prescribed by maintenance standards in technical publications for each item of equipment. Overhaul normally does not return an item to like new, zero mileage, or zero hour condition.

k. REBUILD. The highest degree of materiel maintenance. It consists of restoring equipment as nearly as possible to new condition in accordance with original manufacturing standards. Rebuild is performed only when required by operational considerations or other paramount factors and then only at the depot maintenance category. Rebuild reduces to zero the hours or miles the equipment, or component thereof, has been in use.

l. SYMBOLS. The uppercase letter placed in the appropriate column indicates the lowest level at which that particular maintenance function is to be performed.

C-3. Explanation of Format. Purpose and use of the Maintenance Allocation Chart format are as follows :

a. Column 1, Group Number. Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies and modules with the next higher assembly.

b. Column 2, Functional Group. Column 2 lists the noun names of components, assemblies, subassemblies and modules on which maintenance is authorized.

c. *Column 3, Maintenance Functions.* Column 3 lists the category of maintenance.

d. Use of Symbols. See legend at bottom of Maintenance Allocation Chart.

e. Work Measurement Time. Work measurement time is the amount of time required to perform function. This time is shown in manhours by tenths of hour. It is shown below each symbol,

f. Column 4, *Tools and Equipment.* This column shall be used to specify, by code, those tools and test equipment required to perform the designated function.

g. *Column 5, Remarks.* Self-explanatory.

Section II. MAINTENANCE ALLOCATION CHART FOR SPARK PLUG CLEANER AND TESTER

(1) GROUP NO.	(2) Functional group	(3) MAINTENANCE FUNCTION											(4) TOOLS AND EQUIPMENT	(5) REMARKS
		Inspec	Test	Service	Adjust	Align	Calibrate	Install	Replace	Repair	Overhaul	Rebuild		
1	Cleaner Assembly Group	C 1.8	C 0.3	O 2.5	O 0.4			O 0.6	O 0.9	O 1.1				
2	Equipment Group	C 0.6	C 0.2	C .0				C 0.7	C 0.2					

LEGEND:

C—Operator / crew
O—Organizational Maintenance
F— Direct Support Maintenance
H—General Support Maintenance
D—Depot Maintenance

APPENDIX D

ORGANIZATIONAL MAINTENANCE REPAIR PARTS LIST, AND TOOLS AND SUPPORT EQUIPMENT

Section I. INTRODUCTION

D-1. Scope. This appendix lists repair parts, and tools and support equipment required by the crew / operator for operation and required for the performance of organizational maintenance of the spark plug cleaner and tester.

D-2. General. This Repair Parts List, and Tools and Support Equipment is divided into the following sections:

a. Basic Issue Items List-Section II. Not applicable.

b. Items Troop Installed or Authorized List-Section III. Not applicable.

c. Repair Parts List-Section IV. A list of repair parts authorized at the organizational level for the performance of maintenance in figure and item number sequence.

d. Tools and Support Equipment-Section V. A list of operating tools and support equipment authorized at the organizational level for use by spark plug cleaner and tester operator and crew.

e. Federal Stock Number and Reference Number Index-Section VI. A list. in ascending numerical sequence, of all Federal stock numbers appearing in the listings, followed by a list, in alphanumerical sequence, of all reference numbers appearing in the listings. Federal stock numbers and reference numbers are cross-referenced to each illustration figure and item number appearance.

D-3. Explanation of Columns. The following provides an explanation of columns found in the tabular listings.

a. Source, Maintenance, and Recoverability Codes (SMR). SMR codes are assigned in accordance with instructions contained in AR 700-18 ant] AR 700-82.

(1) *Source code.* The source code is a two position alphabetical code assigned to support items. They are entered in the first and second position of the SMR code. They indicate the manner of acquiring support items for maintenance, repair, or overhaul of end item. Following are authorized source codes:

Code	*Explanation*
PA	Item procured and stocked for anticipated or known usage.
PB	I procured and stocked for insurance purposes because essentiality dictates that a minimum quantity be available in the supply system. (a) Items to be designated as insurance items must meet all the following criteria: 1. No failure is predicted and no demand can be predicted based upon the planned operational usage. 2. The lack of a replacement item or inability to obtain the item from procurement in a reasonable time w seriously hamper the operational capability of an end item or system. 3. Item cannot be manufactured by the supporting depot facility within a reasonable time. (Repair parts procured as insurance items will normally be stocked only in CONUS depot. As an exception, insurance items selected as an E item may be stocked in oversea theater depots when the theater commander determines that they are necessary to maintain an acceptable level of system readiness.
PC	Item procured and stocked and which otherwise would be coded "PA" except that it is deteriorative in nature.
KD	An item of depot overhaul / repair kit and not purchased separately. Depot kit defined as a kit that provides items required at the time of overhaul.
KF	An item of a maintenance kit and not purchased separately. Maintenance kit defined as a kit that provides an item that can be replaced at Organizational or intermediate (or GS) levels of maintenance.
KB	Item included in both a depot overhaul / repair kit and a maintenance kit.
PD	Support item, excluding support equipment, procured for initial issue or outfitting and stocked only for subsequent or additional initial issues or outfitting. Not subject to automatic replenishment. Use for establishing Modification Kits.
PE	Support equipment procured and stocked for initial issue or outfitting to specified maintenance repair activi:
PF	Support equipment which will not be stocked but which will be centrally procured on demand.
MO	Item to be manufactured or fabricated at Organizational level.
MF	Iterm to be manufactured or fabricated at Direct Support level.
MH	I to be manufactured or fabricated at General Support level.
MD	I to be manufacture or fabricated at Depot Maintenance level.
AO	I to be assembled at Organizational level.

Code	Explanation
AF	Item to be assembled at Direct Support level.
AH	Item to be assembled at General Support level.
AD	Item to be assembled at Depot Maintenance level.
XA	Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly.
XB	Item is not intended for procurement and is not stocked. If not available thru salvage, requisition.
XC	Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturers part number.

Note: Cannibalization or salvage may be used as a source of supply for any items source coded above except those coded XA and aircraft support items as restricted by AR 700-42.

(2) *Maintenance code.* The maintenance code is a two position alphabetical code designed to indicate the levels of maintenance authorized to ***USE*** and ***REPAIR*** support items. They are entered in the third and fourth position of the **SMR** code.

(a) *USE* *code.* The ***USE*** code will indicate the lowest maintenance level authorized to remove. replace, and use the support item. The decision to code the item for removal and replacement at the indicated maintenance level will require that all capabilities necessary to install and insure proper operation after installation of a replacement item (i.e., pre-installation inspection, testing and post-installation checkout) are provided. This code will indicate one of the following levels of maintenance:

Code	Explanation
C	Used to denote crew or operator maintenance performed within Organizational level of maintenance.
0	Support item is removed, replaced, used at the Organizational level of maintenance.
F	Support item is removed, replaced, used at the Direct Support level of maintenance.
H	Support item is removed, replaced, used at the General Support level of maintenance.
D	Support item is removed, replaced, used at the Depot level of maintenance only.

(b) *REPAIR* *code.* The ***REPAIR*** *code* will indicate whetеher the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i. e., all authorized maintenance functions). The decision to code the support item for repair at the indicated maintenance level requires that all maintenance capability (remove, replace, repair, assemble, and test) for the support items be provided to that level. This does not preclude some repair which may be accomplished at a lower level of maintenance. Codes are as follows:

Code	Explanation
0	The lowest maintenance level capable of complete repair of the support item is the Organizational level.
F	The lowest maintenance level capable of complete repair of the support item is the Direct Support level.
H	The lowest maintenance level capable of complete repair of the support item is the General Support level.
D	The lowest maintenance level capable of complete repair of the support item is the Depot level.
Z	Non-reparable. No repair is authorized.

(3) *Recoverability code.* The recoverability code is a one position alphabetical code designed to indicate when the responsible Army activity desires the return of unserviceable repair parts and / or tools and test equipment. Codes are as follows:

Code	Explanation
Z	Non-reparable item. When unserviceable, con-. demn and dispose at the level authorized to replace the item.
F	Reparable item. When uneconomically reparable, condemn and dispose at Direct Support level.
H	Reparable item. When uneconomically reparable, condemn and dispose at General Support level.
D	Reparable item. When beyond lower level repair capability, return to Depot. Condemnation and disposal not authorized below Depot level.
L	Reparable item. Repair, condemnation and disposal not authorized below depot /' specialized repair activity level.
A	Item requires special handling or condemnation procedure because of specific reasons (i.e., precious metal content, high dollar value, critical material, or hazardous material).

b. Federal Stock Number. Indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. Description. Indicates the Federal item name and a minimum description required to identify the item. The last line indicates the reference number followed by the applicable Federal Supply Code for Manufacturer (FSCM) or Federal Supply Code for nonmanufacturers **(FSCNM)** in parentheses. The **FSCM** and **FSCNM** are used as elements in item identification to designate manufacturer or distributor or Government agency, etc., and is identified in **SB** 708-42 or **SB** 708-82 C8.

d. Unit of Measure (U/M). Indicates the standard or basic quantity by which the listed item is used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation, e.g., ea, in., pr, etc., and is the basis used to indicate quantities and allowances in subsequent columns. When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

e. Quantity Incorporated in Unit. Indicates the quantity of the item used in the breakout shown on the illustration figure,. which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that no specific quantity is applicable, e.g., shims, spacers, etc.

f. Maintenance Allowances. All items are authorized for use as required.

g. *Illustration.* This column is divided as Follows:

(1) *Figure number.* Indicates the figure number of the illustration on which the item is shown.

(2) Item number. Indicates the callout number used to reference the item on the illustration.

D-4. Special Information. Usable on codes are included in Column 3. Uncoded items are applicable to all models. Identifications of the usable on codes used in this publication are:

Code	Used *On*	
	Manufacturer	*Model*
A	Champion Spark Plug Co.	800
	The Oiljack Mfg. Co. Inc.	B800M
B	JAT Industries	JAT5000
	The VP Company	VP500

D-5. How to Locate Repair Parts.

a. *When Federal Stock Number or Reference Number Is Unknown:*

(1) First. Find the illustration of the unit or functional group to which the repair part belongs.

(2) Second. Identify the repair part on the illustration and note the illustration figure and item number of the repair part.

(3) *Third.* Using the Repair Parts Listing, find the figure and item number listed in the illustration column.

b. When Federal Stock Number or Reference Number Is Known:

(1) First. Using the Index of Federal Stock Numbers and Reference Numbers, find the pertinent Federal stock number or reference number. This index is in ascending FSN sequence followed by a list of reference numbers in ascending alphanumerica] sequence, cross-referenced to the illustration figure and item number.

(2) *Second.* Using the Repair Parts Listing, find the illustration figure number and item number referenced in the Index of Federal Stock Numbers and Reference Numbers.

D-6. Abbreviations.

Abbreviation	*Exp[anation*
h	high, height
mm	millimeter(s)
o/a	overall
ru	rubber
S	steel
w	wide, width

D-7. Federal Supply Codes.

Code	*Manufacturer and Nonmanufacturer*
11583	Champion Spark Plug Co. Toledo, OH *43601*
21246	The VP Company Pasadena, CA 91101
44678	The Oiljak (Oiljack) Mfg. Co. Inc. *(Now:* Banner Metals Inc. Stroudsburg, PA 18300)
8G954	JAT Industries Altadena, CA 91001

(1) SMR code	(2) Federal stock number	(3) Description Reference Number & Mfr. Code	Usable on Code	(4) Unit of	(5) Qty inc in unit	(6) 15-day organizational maintenance alw (a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(7) Illustration (a) no.	(b) no.
		REPAIR PARTS									
PAOZZ	4910-387-9498	NOZZLE TIP, SAND BLAST RU 522 (11583)		EA	1	*	*	*	*	1-1 2-1 2-8	8 6 2
PAOZZ	5930-356-8129	SWITCH OFF AND ON 5-560 (11583)	A	EA	1	*	*	*	*	1-1	13
PAOZZ	NA	ELECTRICAL SWITCH VP9-3817-525 (21246)	B	EA	1					1-2 2-1	10 5

(1) SMR code	(2) Federal stock number	(3) Description Reference Number & Mfr. Code / Usable on Code	(4) Unit of meas	(5) Qty inc in unit	(6) 15-day organizational maintenance allw (a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(7) Illustration (a) figure no.	(b) item no.
PACZZ	NA	CLEANING ADAPTER MOUNTING BRACKET TP9-3817-514 (21246)	EA	1					1-1 2-2	9 6
PACZZ	4910-356-8775	ADAPTER, SPARK PLUG CLEANER RU, 8 SPARK PLUGS ACCOMMODATED, -3/4 DIA, 2-13/16 SHOULDER DIA, 9/16 BODY H 104 (11583)	EA	1	*	*	*	*	2-2	1
PACZZ	4910-356-8774	ADAPTER, SPARK PLUG CLEANER RU, 8-MM SPARK PLUGS ACCOMMODATED -3/4 DIA, 2-13/16 SHOULDER DIA, 9/16 BODY H A126 (11583)	EA	1	*	*	*	*	2-2	2
PACZZ	4910-356-8773	ADAPTER, SPARK PLUG CLEANER RU, 4-MM SPARK PLUGS ACCOMMODATED, -3/4 DIA, 2-13/16 SHOULDER DIA, 9/16 BODY H 102 (11583)	EA	1	*	*	*	*	2-2	3
PACZZ	4910-356-8772	ADAPTER, SPARK PLUG CLEANER RU, 0-MM SPARK PLUGS ACCOMMODATED, -3/4 DIA, 2-13/16 SHOULDER DIA, 9/16 BODY H A125 (11583)	EA	1	*	*	*	*	2-2	4
PACZZ	4910-822-1712	CONTACTOR, SHIELDED SPARK PLUG FOR TESTING 183 (11583)	EA	1	*	*	*	*	2-2	5
PACZZ	4910-224-4970	ADAPTER, SPARK PLUG TESTER ADAPTS COMPRESSION CHAMBER TO ACCOMMODATE 10-MM SPARK PLUGS, S BODY, 1-1/8 W O/A, 13/16 LG O/A 510 (11583)	EA	2	*	*	*	*	2-2	7
PACZZ	4910-224-4971	ADAPTER, SPARK PLUG TESTER ADAPTS COMPRESSION CHAMBER TO ACCOMMODATE 14-MM SPARK PLUGS, S BODY, 1-1/8 W O/A, 13/16 LG O/A 514 (11583)	EA	2	*	*	*	*	2-2	8
PACZZ	4910-288-5129	ADAPTER, SPARK PLUG TESTER ADAPTS COMPRESSION CHAMBER TO ACCOMMODATE 18-MM SPARK PLUGS, S BODY, 1-1/8 W O/A, 13/16 LG O/A 518 (11583)	EA	2	*	*	*	*	2-2	9

Section VI. FEDERAL STOCK NUMBER AND REFERENCE NUMBER INDEX

STOCK NUMBER	FIGURE NO	ITEM NO
4910-224-4970	2-2	7
4910-224-4971	2-2	8
4910-288-5129	2-2	9
4910-356-8772	2-2	4
4910-356-8773	2-2	3
4910-356-8774	2-2	2
4910-356-8775	2-2	1
4910-387-9498	1-1	8
	2-1	6
	2-3	2
4910-822-1712	2-2	5
5930-356-8129	1-1	13

REFERENCE NUMBER	MFG CODE	FIG NO	ITEM NO
VP9-3817-508	21246	1-2	18
VP9-3817-509	21246	1-2	14
VP9-3817-511	21246	1-2	16
VP9-3817-514	21246	1-1	9
		2-2	6
VP9-3817-521	21246	1-2	15
VP9-3817-525	21246	1-2	10
		2-1	5
VP9-3817-530	21246	1-2	4
VP9-3817-531	21246	1-2	3
1A125	11583	2-2	4
1A126	11583	2-2	2
5-560	11583	1-1	13
502	11583	2-2	3
504	11583	2-2	1
510	11583	2-2	7
514	11583	2-2	8
518	11583	2-2	9
5210-1	8G954	1-2	13
534	44678	1-1	23
622	11583	1-1	8
		2-1	6
		2-3	2
683	11583	2-2	5
8-806	44678	1-1	27
8-811	44678	1-1	21

ALPHABETICAL INDEX

By Order of the Secretary of the Army:

BRUCE PALMER, JR.
General, U. S. Army
Acting Chief of Staff

Official:

VERNE L. BOWERS
Major *General, United States Army*
The Adjutant General

DISTRIBUTION:

Active Army:

DCSLOG (1)
DCSOPS (1)
CNGB (1)
COE (2)
CofSptS (2)
TSG (1)
Dir of Trans (1)
Bds (2)
AMC (2)
ECOM (2)
TACOM (2)
WECOM (10)
TECOM (2)
OS Maj Comd (2) except
  USAREUR (4)
  USARJ (5)
USSOUTHCOM (2)
USARV (2)
USARYIS (3)
USARPAC (3)
USARHAW (2)
USARAL (1)
AVSCOM (10)
USACDC (2)
USACDCCEA (2)
USACDCEC (10)
Corps (2)
Div (2)
Bde (2)
Regt/Gp (2)
Bn (2)
Co/ btry (2)
Armies (3) except
  Seventh (5)
  Eighth (5)
LOGCOMD (3)
SASCOM (1)
USASTRATCOM (1)
Instl (2) except
  USATCFE (4)
MDW (2)
USAG (5)
WSMR (5)
ARADCOM (2)
ARADCOM Rgn (2)
USATC (3)
USMA (2)
Br Svc Sch (2)
USA Sch of Americas (2)
USACSS (1)
USAOC&S (2)
USDB (1)
PG (2)
Arsenals (I)
Dep (2)
VFGH (2)
WRAMC (1)
MAAG (5)
USASPTCP (2)
USAATC (2)
USATTC (1)
USARPA (2)
USACOMZEUR (3)
USAAPSA (4)
USAASTA {1)
USAMERDC (2)
Beaumont Gen Hosp (1)
USAAVNC (2)
USAIC (2)
DUSAA (1)
Engr FLDMS (2)
QM FLDMS (2)
4th USASA Fld Sta (1)
JUSMAG Philippines (1)

Units org under fol TOE: -2 ea.
1-167 92
1-177 96
1-207
3-500
5-165
5-167
5-278
5-346
5-500
7-157
8-123
8-204
8-551
8-564
8-565
8-566
8-571
8-581
8-590
8-620
10-94
10-500
12-56
12-580
29
29-112
29-139
29-407
29-502
31-101
31-105
39-51
44
44-8
55-540

ARNG: State AG (3); Units- Same as Active Army except allowance is one (1) copy each.
USAR: Same as Active Army.
For explnation of abbreviations used, see AR 310-50.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1972—754-143/5013

TM 9-4910-389-12 — OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) FOR CLEANER AND TESTER, SPARK PLUG: BENCH MOUNTED (CHAMPION SPARK PLUG CO., MODEL 800) (JAT INDUSTRIES, MODEL JAT5000) (THE OILJAK MFG. CO. INC., MODEL B800M) (THE VP COMPANY, MODEL VP500) — 1972

DEPARTMENT OF THE ARMY
US ARMY AG PUBLICATIONS CENTER
1655 WOODSON ROAD
ST. LOUIS, MISSOURI 63114

POSTAGE AND FEES PAID
DEPARTMENT OF THE ARMY
SPECIAL FOURTH
CLASS RATE BOOKS
DOD-314

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

CCR M0497
USA CARCOM MAT READ SPT
ACTV ATTN CRXMC-MP
LEXINGTON KY 40511

DA PUBLICATIONS/FORM NUMBER				CHG OR DATE
TM 9-4910-389-12				
LOCATION	QUANTITY	UNIT OF ISSUE	ACTION	RQN DATE
K1653	1	EA		3091
PKG SIZE	ITEM NO.	BULK/RCPT DATE	SLAGPC CONTROL NO.	
	7C032C	NB3095 3096	17C19	

TAGO FORM 4-26s, 1 SEP 78 PREVIOUS EDITION OF THIS FORM IS OBSOLETE