TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL,

DIRECT SUPPORT AND GENERAL SUPPORT

MAINTENANCE MANUAL

CURRENT METER ME, 511/U

(WESTON)

MODEL 931-2902001

(NSN-6625-00-781-5769)

HEADQUARTERS, DEPARTMENT OF THE ARMY
19 MAY 1981

5 SAFETY STEPS TO FOLLOW IF SOMEONE IS THE VICTIM OF ELECTRICAL SHOCK

1 DO NOT TRY TO PULL OR GRAB THE INDIVIDUAL

2 IF POSSIBLE, TURN OFF THE ELECTRICAL POWER

3 IF YOU CANNOT TURN OFF THE ELECTRICAL POWER, PULL, PUSH OR LIFT THE PERSON TO SAFETY USING A DRY WOODEN POLE OR A DRY ROPE OR SOME OTHER INSULATING MATERIAL

4 SEND FOR HELP AS SOON AS POSSIBLE

5 AFTER THE INJURED PERSON IS FREE OF CONTACT WITH THE SOURCE OF ELECTRICAL SHOCK, MOVE THE PERSON A SHORT DISTANCE AWAY AND IMMEDIATELY START ARTIFICIAL RESUSCITATION

TECHNICAL MANUAL
TM 11-6625-2968-14

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, *19 May 1981*

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL

CURRENT METER ME-511/U
(WESTON MODEL 931-2902001)
(NSN 6625-00-781-5769)

REPORTING OF ERRORS

You can Improve this manual by recommending Improvements using DA Form 2028-2 located In the back of the manual. Simply tear out the self- addressed form, fill It out as shown on the sample, fold it where shown, and drop it In the mail.

If there are no blank DA Forms 2028-2 In the back of your manual, use the standard DA Form 2028 (Recommended Changes to Publications and Blank Forms) and forward to the Commander, US Army Communications and Electronics Materiel Readiness Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703.

In either case a reply will be furnished direct to you.

This manual is an authentication of the manufacturer's commercial literature which, through usage, has been found to cover the data required to operate and maintain this equipment. Since the manual was not prepared in accordance with military specifications, the format has been structured to consider levels of maintenance.

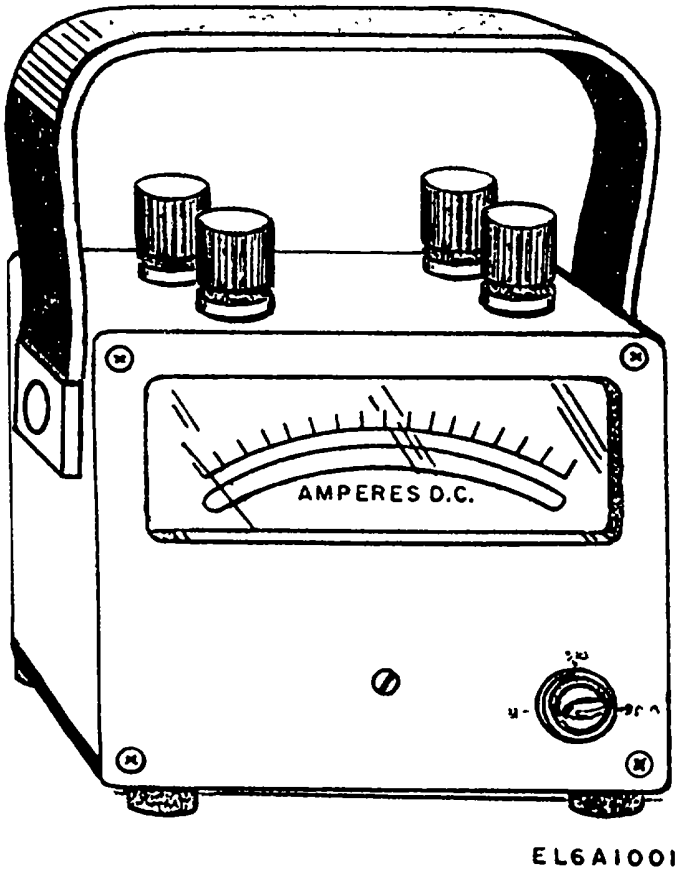

Figure 1-1. Current Meter, ME-511/U.

SECTION I
GENERAL

1-1. Scope

This manual describes Current Meter, ME-51 I /U (Weston Model 931-2902001, (fig. 1-1) and provides maintenance instructions, testing procedures, calibration instructions, and replacement parts list. The meter specifications are listed in Table 1-1.

1-2. Indexes of Publications

a. DA Pam 3104. Refer to the latest issue of the DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. DA Pam 3107. Refer to DA Pam 310-7 to deter mine whether there are modification work orders (MWO's) pertaining to the equipment.

1-3. Forms and Records

a. Reports of Maintenance and Unsatisfactory Equipment. Maintenance forms, records, and reports which are to be used by maintenance personnel at all levels of maintenance are listed in and prescribed by TM 38-750.

b. Report of Packaging and Handling Deficiencies. 364 (Report of Discrepancy (ROD) as prescribed in AR 735-11-2/DLAR 4140. 55/ NAVMATINST 4355. 73/AFR 400-54/MCO 4430. 3E.

c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38/ NAVSUPINST 4610. 33B/AFR 75-18/MCO 4610. 19C and DLAR 4500. 15.

1-4. Reporting of Equipment Improvement Recommendations (EIR)

EIR's will be prepared using DA Form 2407, Maintenance Request. Instructions for perparing EIR's are provided in TM 38-750, The Army Maintenance Management System. EIR's should be mailed directly to Commander, US Army Communications and Electronics Materiel Readiness Command, ATTN: DRSEL-ME- MQ, Fort Monmouth, NJ 07703. A reply will be furnished directly to you.

1-5. Administrative Storage.

Administrative storage of equipment issued to and used by the Army activities shall be in accordance with TM 740-90-1.

1-6. Destruction of Army Electronics

Materiel Destruction of Army electronics materiel to prevent enemy use shall be in accordance with TM 750-244-2.

Table 1-1. Current Meter ME-511/U specifications

Parameter	Specifications
Range	0 to 5/20/50 Amperes, DC
Scale	0 to 5/20/50 Amperes, DC
Scale length	4. 04 inches
Mechanism full scale current	5 Milliamperes
Accuracy	0 5% of full scale deflection (with instrument scale in horizontal position)

SECTION II
DESCRIPTION AND DATA

2.1. Purpose and Use

Current Meter ME-5 11 /U provides a means of checking amperes in direct-current circuits.

2.2. Description

Current Meter ME-Si1/U, known commercially as Weston, Model 931-2902991, or part number 260482, is a self shielded permanent magnet moving coil type current meter with a molded bakelite case which measures 31/4 x 5 x 5l/4 inches. It is equipped with a hand calibrated mirror scale and knife edge pointer to eliminate parallax errors.

2.3. Specifications

Complete specifications of Current Meter ME-511/U are contained in Table 1-1.

SECTION III
SERVICE UPON RECEIPT AND INSTALLATION

3.1. Packaging Data

a. Current Meter ME-S I1/U may arrive packed for either domestic or overseas shipment.

b. When ME-SI /U is packed for overseas shipment, the current meter is placed in the carrying case with the connecting test leads. The equipment, in its carrying case, is placed in a corrugated carton. The carton is sealed with gummed tape. The boxed equipment is then placed in a moisture-vaporproof barrier, which is heatsealed, and this package is placed in a waterproof corrugated carton. The Technical Manual is placed under the lid and the carton is sealed with waterproof tape.

3-2. Unpacking

a. For unpacking overseas shipment equipment proceed as follows:

(1) Open the outer corrugated carton and break the sealed moisture-vaporproof barrier. Lift out the inner corrugated carton.

(2) Open the inner corrugated carton. Remove the equipment in its carrying case and place it near its final location. Mark or put identifying tags on the connecting test leads if leads are to be stored in a lead cabinet or storage location apart from the current meter.

b. The current Meter may be received in a domestic package. The instructions in A above also apply to unpacking domestic shipments. If a heavy wrapping paper has been used, remove it carefully and take out the components.

3.3. Checking Unpacked Equipment

a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on shipping form SF-364 (para 1-3 b).

b. Check the equipment for completeness against the packing slip. Report all discrepancies in accordance with paragraph 1-3. The equipment should be placed in service even though a minor part that does not affect proper functioning is missing.

c. After the equipment has been thoroughly checked, clean all items with a soft cloth. Apply the minimum amount of pressure with the cloth while cleaning the meter glass. Check to see if knurled terminal fasteners are secured in order to prevent loss.

SECTION IV
OPERATING INSTRUCTIONS

4-1. Treatment and Use

This instrument is to be treated with the same care and respeact given all standard pieces of laboratory equipment. It is calibrated for use in the horizontal position and will provide accurate readings to within 0.5% of full scale deflection when used in that position. It may be used in a vertical position of 0.5% accuracy is not required.

4-2. Zero Adjustment

Before using the ammeter check the pointer indication to assure that it is exactly on the zero mark. If it is not, adjust to zero by turning the zero adjuster screw located on the case front just below the window.

4.3. Operation

Check the function switch and compare each switch setting with the identification of each binding post. Review the ammeter internal wiring diagram (figure).

4.4. Test Leads and Binding Posts

a. Always use the leads manufactured for this equipment. Proper leads will prolong the life of the binding posts and will insure safe connection in each equipment setup.

b. Apply sufficient pressure while tightening binding posts when leads are being attached but do not overtighten or damage to the binding post may occur.

SECTION V
MAINTENANCE INSTRUCTIONS

5.1. Cleaning

Periodic lubrication or cleaning of this current meter is not required.

5.2. Test Procedures

The following tests are listed to assist in determining the probable cause for calibration error. Conduct the tests at ambient room temperature 25°C (77°F).

a. Balance Test.

(1) Place the current meter in a horizontal position on the test bench and adjust the pointer to the zero mark.

(2) Lift the current meter to the vertical position and tilt it approximately 60 degrees to the left and then to the right observing the motion of the pointer. If the position of the pointer varies by more than 0.2% of the scale length from the initial reading in either of the positions mentioned it will be necessary to rebalance the moving element assembly. Rebalancing the moving element should be done only by a skilled instrument repairer with the special tools necessary for moving the threaded weights on the three arms of the moving element.

b. Zero Correction Test. Carefully turn the zero adjuster screw completely around in both directions. The pointer must deflect evenly and approximately 5% of the scale length to each side of the zero mark.

5.3. Defective Series Resistors

Detailed instructions for replacing the series resistors R1 and R2 (figure 5-1) are not necessary due to the simplex design of this current meter. Refer to Section VII for part number and description of common parts and resistors.

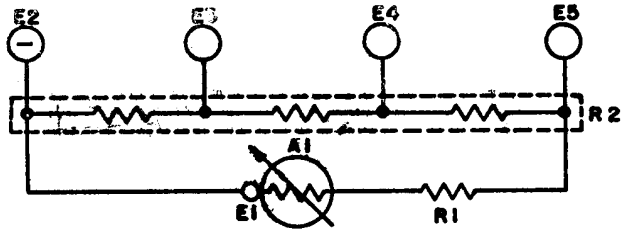

Figure 5-1. Current Meter ME-511/U, internal wiring diagram.

A1 - Instrument Mechanism Assembly (Resistance 3.5 ohms)
E1 - Mechanism Top Bridge Terminal
E2 - Negative Binding Post (-)
E3 - Binding Post (50)
E4 - Binding Post (20)
E5 - Binding Post (5)
R1 - Series Resistor, 9 ohms (unadjusted)
R2 - Shunt Resistor Assy

SECTION VI
CALIBRATION CHECK

6.1. Calibration Check

NOTE

Calibration in accordance with TB 43-180 is to be performed by the TMDE Calibration and Repair Support Center using instructions and designated calibration equipment contained in pamphlet AMCC number 274.

The following calibration check is to be used by maintenance shop personnel after major parts replacement, repair, or overhaul.

a. Connect the current meter in the circuit as shown in figure 61.

b. Apply current and check each cardinal point on the scale from 0 to top scale mark on each range.

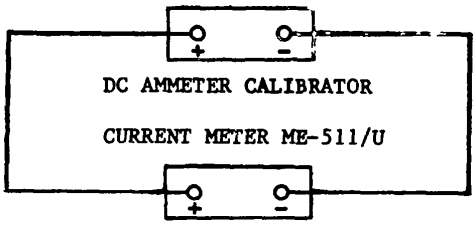

Figure 6-1. Calibration circuit, equipment setup.

c. Each indication must be accurate to within 0.5% of full scale deflection when tested in the horizontal position.

d. the indications are not within the accuracy limits, refer to the following trouble shooting chart and test procedures to determine the probable cause of calibration error.

Trouble Shooting Chart

TROUBLE	PROBABLE CAUSE	REMEDY
FRICTION	Damaged pivots or jewel screws.	Replace pivots or jewel screws.
	Foreign particle in air gap.	Remove particle.
	Fuzz on moving coil.	Remove fuzz.
	Moving coil touching core.	Readjust jewel screws for proper moving coil clearance. Replace moving coil if it is bent or distorted.
	Distorted spring.	Realign spring with fine tweezers or replace it entirely.
	Jewel screws too tight	Readjust jewel screws.
NO INDICATION VARIABLE READING	Open moving coil.	Replace moving coil.
	Poor solder connection.	Resolder connection.
	Poor connections.	Tighten or resolder connections.
	Frinction. Loose balance weight.	See FRICTION section above. Replace balance weight and rebalance.
	Distorted spring in moving element.	Realign spring with fine tweezers or replace it entirely.
INDICATES LOW	Friction.	See FRICTION above.
	Loose connections.	Tighten or resolder connections.
	Spring test too high.	Replace springs.
	Shorted turns on moving coil or incorrect moving coil.	Replace moving coil.
	Faulty or incorrect resistance.	Replace resistor.
	Insufficient magnet strength.	Recharge and treat magnet.
INDICATES HIGH	Spring test too low.	Replace springs.
	Incorrect moving coil.	Replace moving coil.
	Excessive magnet strength.	Treat magnet.
	Defective resistor.	Replace resistor.
INSUFFICIENT ZERO CORRECTION	Bridge abutment not adjusted properly.	Adjust bridge abutment.
CALIBRATION ERROR IN EXCESS	Moving element poorly balanced.	Rebalance moving element.
	Distorted spring.	Realign spring with fine tweezers or replace it entirely.

NOTE

Some Current Meters ME-511/U are transported to each job site in a leather carrying case. Connection test leads may also be packed in the carrying case. Annotate the Maintenance Request Form DA 2407 accompanying the Cur- rent Meter for maintenance or calibration "With case and leads" or "Without case and leads" so as to avoid confusion when the Cur- rent Meter is returned to the user; upon completion of service.

SECTION VII
REPLACEMENT PARTS

7.1. Ordering Information

a. To order a part listed in the replacement parts table, note the Weston part number and then order by exception data through ordering channels.

b. Refer to the following table for part number, discription, and quantity per assembly.

Replacement Parts Lost of Peculiar Parts
Model 931 Triple Range Ammeter
0 to 5/20/50 AMPS DC

NOTE

In order to formulate the complete parts list for thus range ammeter insert the following line information into the common parts listing. Upon transposition, the common parts listing will become a complete and specific replacement parts list.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY
1	260482	AMMETER, DC, Triple range, 0 to 5/20/50 Amps, Model 931	-
29	190316-901	Resistor, WW, 9 ohms unadjusted	1
40	75216-001	Shunt Assy, R2	1
43	10063-901	Mark, Engraved, 5	1
44	10067-901	Mark, Engraved, 20	1
45	10071-901	Mark, Engraved, 50	1
63	165509-901	Element Assy	I
64	169789-901	Spring, Paired	1 Pr.
66	169789-901	Pointer Assy	1
71	78286901	Coil, Meter Movement	1

Replacement Parts List of Common Parts
(To be used with peculiar parts list)

ITEM NO	PART NUMBER	DESCRIPTION	QTY PER ASSY
1	*	AMMETER, DC, Triple range, Model 931	-
2	45463424	Screw, Machine (Mtg Cover)	4
3	45464-024	Screw, Machine (Mtg Cover)	2
4	45465-024	Washer, Special (Mtg Cover)	6
5	74511-901	Cover Assy	1
6	22358-024	Nut, Plan, Hex (Mtg window clip)	4
7	23299-001	Clip, Spring	4
8	73495-01	Window	1
9	14765-024	Screw, Instrument (Zero Adjuster)	1
10	53550-001	Crank, Zero Adjuster	1
11	17647-001	Washer, Internal Teeth	1
12	36262-24	Washer, Flat	1
13	57927-212	Stud, Zero Adjuster	1
14	15724-001	Washer, Nonmetalic	1
15	ND17015-141	Screw, Drive (Mtg ID Plate)	2

*See footnote at the end of this table.

Replacement Parts List of Common Parts-(Continued)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY
16	74512-901	Plate, Identification	1
17	75400-001	Foot, Rubber	8
18	75398-024	Washer, Flat	8
19	73487-050	Cover	I
20	172604-001	Gasket, Braid	I
21	17225-024	Screw, Machine (Mtg Dial)	2
22	27197-024	Washer, Lock (Mtg Dial)	2
23	126866-901	Dial Scale, Semi-Printed	1
24	72117-024	Screw, Machine (Mtg Mech Plate)	4
25	ND37041-045	ND37041-045	4
26	126258-001	Terminal, Grounding	1
27	ND37514-024	Screw, Machine (Spool Mounting)	1
28	27083-024	Washer, Lock (Spool Mounting)	1
29	*	Resistor, WW, R1	1
30	121335-024	Support (Mtg Deck)	4
31	ND11571-024	Washer, Lock	4
32	55942-024	Washer, Flat	4
33	45566-024	Stud (Handle Mtg)	2
34	34877-024	Nut, Plain, Hex (Mtg Stud)	2
35	ND37045495	Washer, Lock	2
36	55302-001	Handle	1
37	191-024	Screw, Machine (Mtg Shunt)	2
38	27083-024	Washer, Lock (Mtg Shunt)	2
39	ND21068-033	Terminal (Shunt Connection)	2
40	*	Shunt Assy, R2	1
41	72124-024	Top, Binding Post	4
42	72125-024	Binding Post (E2 through E5)	4
43	*	Mark, Engraved	1
44		Mark, Engraved	1
45		Mark, Engraved	1
46	4232-901	Mark, Engraved (-)	1
47	74407-050	Case	1
48	No Number	Mechanism Assy, A1 (Listed for ref only. Consists of the following parts)	1
49	ND32122-024	Screw, Machine (Mech Movement to Mtg Plate)	4
50	27081-024	Washer, Lock (Mech Movement to Mtg Plate)	4
51	144977-167	Plate, Mounting	1
52	14765-024	Screw, Instrument (Mtg bridges)	4
53	27088-024	Washer, Lock (Mtg bridges)	4
54	87767-033	Terminal, Lug, Top Bridge, E1	1
55	125051-901	Spring, Cushion	2
56	141796-901	Jewel and Screw Assy	2
57	137783-901	Bndge Assy, Top	1
58	137784-901	Bndge Assy, Bottom	1
59	151809-001	Nut, Locking	1
60	150198-001	Screw, Machine	
61	254375-024	Shunt, Magnetic	1
62	136516-067	Magnet Assy	1
63	*	Element Assy	1
64	*	Springs, Paired	1 Pr.
65	22960-001	Nut	2
66	* *	Pointer Assy	1
67	113417-001	Weight, Balance	1
68	107381-001	Weight, Balance (2 as required)	AR
69	107382-001	Weight, Balance	AR
70	7089-234	Pivot	2
71	*	Coil, Meter Movement	1
72	144976-901	Yoke Assy	1

*See Peculiar Parts List for part number and other details.

APPENDIX A
REFERENCES

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 7, 8, and 9), Supply Bulletins, and Lubrication Orders.
DA Pam 310-7	US Army Equipment Index of Modification Work Orders.
SB 38-100	Preservation, Packaging, Packing and Marking Materials, Supplies, and Equipment Used by the Army.
TB 43-180	Calibration Requirements for the Maintenance of Army Materiel.
TB 385-4	Safety Precautions for Maintenance of Electrical/Electronic Equipment.
TB 43-0118	Field Instructions for Painting and Preserving Electronics Command Equipment Including Camouflage Pattern Painting of Electrical Equipment Shelters.
TM 38-750	The Army Maintenance Management System. (TAMMS).
TM 740-90-1	Administrative Storage of Equipment.
TM 750-244-2	Procedures for Destruction of Electronics Materiel to Prevent Enemy Use.

APPENDIX B
MAINTENANCE ALLOCATION

Section I. INTRODUCTION

B-1. General

This appendix provides a summary of the maintenance operations for the ME-511 /U. It authorizes categories of maintenance for specific maintenance functions on repairable items and components and the tools and equipment required to perform each function. This appendix may be used as an aid in planning maintenance operations.

B-2. Maintenance Function

Maintenance functions will be limited to and defined as follows:

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/ or electrical characteristics with established standards through examination.

b. Test. To verify serviceability and to detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating conditions, i. e. , to clean (decontaminate), to preserve, to drain, to paint, or to replenish fuel, lubricants, hydraulic fluids, or compressed air supplies.

d. Adjust To maintain, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to the specified parameters.

e. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test measuring and diagnostic equipments used in precision measurement. Consists of comparisons 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.

g. Install. The act of emplacing, seating, or fixing into position an item, part, module (component or assembly) in a manner to allow the proper functioning of the equipment or system.

h. Replace. The act of substituting a serviceable like type part, subassembly, or module (component or assembly) for an unserviceable counterpart.

i. Repair. The application of maintenance services (inspect, test, service, adjust, align, calibrate, replace) or other maintenance actions (welding, grinding, riveting, straightening, facing, remachining, or resurfacing) to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

j. Overhaul. That maintenance effort (service/ action) necessary to restore an item to a completely serviceable/operational condition as prescribed by maintenance standards (i.e., DMWR) in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

k. Rebuild. Consists of those services actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours, miles, etc.) considered in classifying Army equipments/components.

B-3. Column Entries

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

b. Column 2, Component/Assembly. Column 2 contains the noun names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3, Maintenance Functions. Column 3 lists the functions to be performed on the item listed in column 2. When items are listed without maintenance functions, it is solely for purpose of having the group numbers in the MAC and RPSTL coincide.

d. Column 4, Maintenance Category. Column 4 specifies, by the listing of a "worktime" figure in the appropriate subcolumn(s), the lowest level of maintenance authorized to perform the function listed in column 3. This figure represents the active time required to perform that maintenance function at the indicated category of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance categories, appropriate "worktime" figures will be shown for each category. The number of task-hours specified by the "worktime" figure represents the average time required to restore an item (assembly, subassembly, compo- nent, module, end item or system) to a serviceable condition under typical field operating conditions. This time includes preparation time, troubleshooting time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. Subcolumns of column 4 are as follows:

C - Operator/Crew
0 - Organizational
F - Direct Support
H - General Support
D - Depot

e. Column 5, Tools and Equipment. Column 5 specifies by code, those common tool sets (not individual tools) and special tools, test, and sup- port equipment required to perform the designated function.

f. Column 6, Remarks. Column 6 contains an alphabetic code which leads to the remark in section IV, Remarks, which is pertinent to the item opposite the particular code.

B-4. Tool and Test Equipment Requirement (sect III)

a. Tool or Test Equipment Reference Code. The numbers in this column coincide with the numbers used in the tools and equipment column of the MAC. The numbers indicate the applicable tool or test equipment for the maintenance functions.

b. Maintenance Category. The codes in this column indicate the maintenance category allocated the tool or test equipment.

c. Nomenclature. This column lists the noun name and nomenclature of the tools and test equipment required to perform the maintenance functions.

d. National/NATO Stock Number. This column lists the National/NATO stock number of the specified tool or test equipment.

e. Tool Number. This column lists the manu- facturer's part number of the tool followed by the Federal Supply Code for manufacturers (5-digit) in parentheses.

B-5. Remarks (sect IV) Not applicable.

SECTION II MAINTENANCE ALLOCATION CHART
FOR
WESTON MODEL 931/DC AMMETER (ME-511/U)

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C	O	F	H	D	(5) TOOLS AND EQUIPMENT	(6) REMARKS
00	PORTABLE DC AMMETER ME-511/U (WESTON-931)	INSPECT		.1				4,5	
		TEST				.6		1-5	
		REPLACE				.3		4,5	
		REPAIR				1.0		4,5	
		OVERHAUL					2.0	1-5	

SECTION III TOOL AND TEST EQUIPMENT REQUIREMENTS FOR WESTON MODEL 931/DC AMMETER (ME-511/U)

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
1	H,D	STANDARD PORTABLE DC AMMETER/CALIBRATER (SINGER 861630 DWE)		6625-00-585-3860
2	H,D	DC POWER SUPPLY (50A QRE3-300-M3)	4931-00-178-0716	
3	H,D	AC POTENTIOMETER	4931-00-071-5358	
4	H,D	TOOL KIT 105/G	5180-00-610-8177	
5	0	COMMON TOOLS NECESSARY TO THE PERFORMANCE OF THIS MAINTENANCE FUNCTION ARE AVAILABLE TO MAINTENANCE PERSONNEL, FOR THE MAINTENANCE CATEGORY LISTED.		

*U.S. GOVERNMENT PRINTING OFFICE: 1981-703-029/1154

TEAR ALONG PERFORATED LINE

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
TM 11-5825-270-10	23 Jul 81	Radio Frequency R-2176/FRN

BE EXACT. . .PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE:

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

P.S.—IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

By Order of the Secretary of the Army:

E. C. MEYER
General, United States Army
Chief of Staff

Official:

J. C. PENNINGTON
Major General, United States Army
The Adjutant General

DISTRIBUTION:

To be distributed in accordance with DA Form 12-34B requirements for TMDE Calibration Maintenance Manuals.

This fine document...

Was brought to you by me:

Liberated Manuals -- free army and government manuals

Why do I do it? I am tired of sleazy CD-ROM sellers, who take publicly available information, slap “watermarks” and other junk on it, and sell it. Those masters of search engine manipulation make sure that their sites that sell free information, come up first in search engines. They did not create it... They did not even scan it... Why should they get your money? Why are not letting you give those free manuals to your friends?

I am setting this document FREE. This document was made by the US Government and is NOT protected by Copyright. Feel free to share, republish, sell and so on.

I am not asking you for donations, fees or handouts. If you can, please provide a link to liberatedmanuals.com, so that free manuals come up first in search engines:

<A HREF=http://www.liberatedmanuals.com/>Free Military and Government Manuals</A>

- Sincerely
  Igor Chudov
  http://igor.chudov.com/
- Chicago Machinery Movers