

# TM 11-6625-475-25

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

---

ORGANIZATIONAL, FIELD,  
AND DEPOT MAINTENANCE MANUAL

MULTIMETER AN/PSM-6, AN/PSM-6A

| PART NO. | FEDERAL STOCK NO. |
|----------|-------------------|
| 56-5002A | 6625-643-1686     |
| 56-5002B | 6625-643-1686     |
| 165-5002 | 6625-656-5871     |

(BRUNO)

---

|                                                                                  |
|----------------------------------------------------------------------------------|
| <p>This copy is a reprint which includes current pages from Changes 2 and 3.</p> |
|----------------------------------------------------------------------------------|

HEADQUARTERS, DEPARTMENT OF THE ARMY

JULY 1962

MULMETER AN/PSM-6, AN/PSM-6A

| Section |                                                                     | Page        |
|---------|---------------------------------------------------------------------|-------------|
| I       | DESCRIPTION AND LEADING PARTICULARS . . . . .                       | 1-1         |
|         | 1-1. Introduction . . . . .                                         | 1-1         |
|         | 1-2. Description . . . . .                                          | 1-2         |
| II      | TEST EQUIPMENT AND SPECIAL TOOLS . . . . .                          | 2-1/3-1/3-2 |
| III     | PREPARATION FOR USE AND RESHIPMENT . . . . .                        | 2-1/3-1/3-2 |
|         | 3-1. Preparation for Use . . . . .                                  | 2-1/3-1/3-2 |
|         | 3-4. Preparation for Reshipment . . . . .                           | 2-1/3-1/3-2 |
| IV      | THEORY OF OPERATION . . . . .                                       | 4-1         |
|         | 4-1. General . . . . .                                              | 4-1         |
|         | 4-2. Functional Operation . . . . .                                 | 4-2         |
| V       | ORGANIZATIONAL AND SQUADRON MAINTENANCE . . . . .                   | 5-1         |
|         | 5-1. Maintenance Required . . . . .                                 | 5-1         |
| VI      | FIELD AND FASRON MAINTENANCE . . . . .                              | 6-1         |
|         | 6-1. Minimum Performance Standard and Trouble<br>Analysis . . . . . | 6-1         |
|         | 6-4. Repair . . . . .                                               | 6-1         |
| VII     | DIAGRAMS . . . . .                                                  | 7-1         |
| VIII    | CALIBRATION . . . . .                                               | 8-1         |

LIST OF ILLUSTRATIONS

| Figure |                                                                   | Page    |
|--------|-------------------------------------------------------------------|---------|
| 1-1    | Multimeter AN/PSM-6 using Multimeter ME-70A/PSM-6 . . . . .       | ii      |
| 1-2    | Multimeter AN/PSM-6 using Multimeter ME-70/PSU-6 . . . . .        | 1-1     |
| 1-3    | Multimeter AN/PSM-6A using Multimeter ME-70B/<br>PSM-6A . . . . . | 1-2     |
| 1-4    | Measurement Ranges . . . . .                                      | 1-3     |
| 1-5    | Handle Positions . . . . .                                        | 1-4     |
| 4-1    | Simplified Circuit, DC Voltage 20,000 ohms/volts . . . . .        | 4-1     |
| 4-2    | Simplified Circuit, DC Voltage 1,000 ohms/volts . . . . .         | 4-2     |
| 4-3    | Simplified Circuit, AC Voltage . . . . .                          | 4-3     |
| 4-4    | Simplified Circuit, Output . . . . .                              | 4-3     |
| 4-5    | Simplified Circuit, DC Current . . . . .                          | 4-4     |
| 4-6    | Simplified Circuit, Resistance . . . . .                          | 4-5/4-6 |
| 4-7    | Simplified Circuit, 100 Microamperes Special . . . . .            | 4-5/4-6 |
| 4-8    | Schematic Diagram Shunt MX-1409/U . . . . .                       | 4-5/4-6 |
| 6-1    | Trouble Chart (6 Sheets) . . . . .                                | 6-1     |
| 6-2    | Protection System Test Voltage Table . . . . .                    | 6-6     |
| 6-3    | Protection System Testing Tables . . . . .                        | 6-6     |
| 7-1    | Schematic Diagram, Multimeter ME-70/PSM-6 . . . . .               | 7-1     |
| 7-2    | Schematic . . . . .                                               | 7-2     |

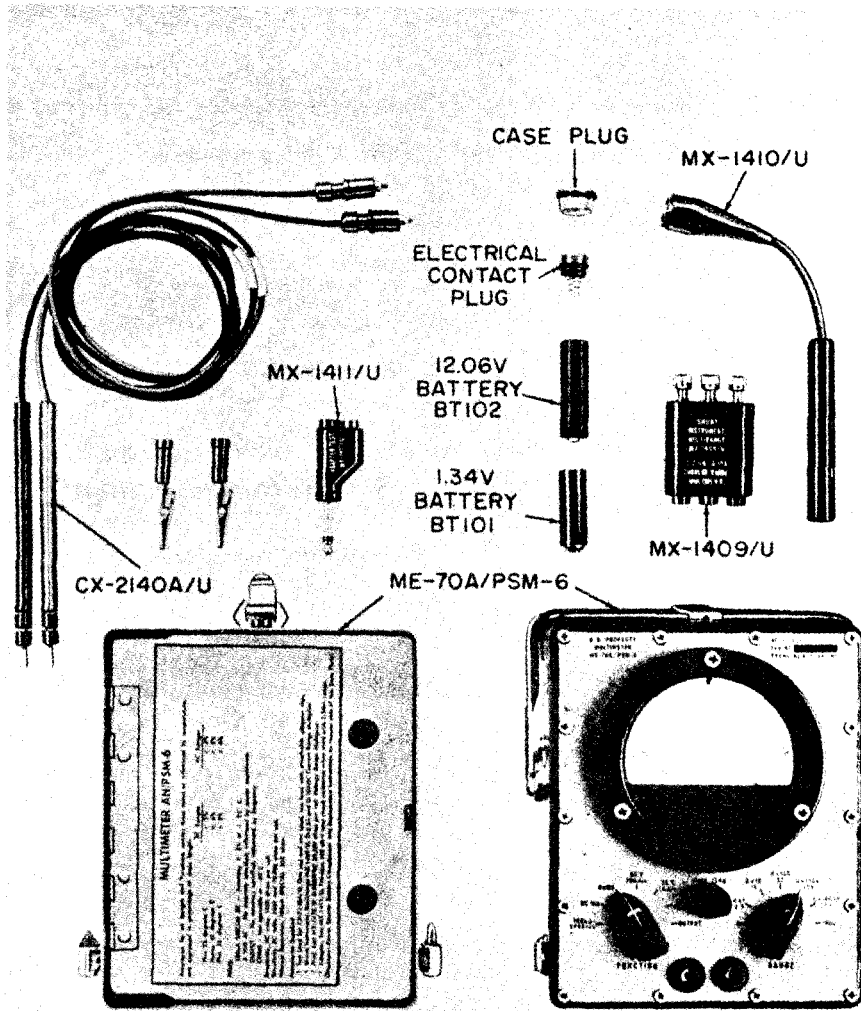


Figure 1-1. Multimeter AN/PSM-6 using Multimeter ME-70A/PSM-6

## SECTION I

## DESCRIPTION AND LEADING PARTICULARS

## 1-1. INTRODUCTION.

1-2. GENERAL. This publication comprises the operating instructions for Multimeter AN/PSM-6, Part No. 56-5002, Federal Stock No. 6625-643-1686, Multimeter AN/PSM-6, Part No. 56-5002B, Federal Stock No. 6625-643-1686, and Multimeter AN/PSM-6A, Part No. 165-5002, Federal Stock No. 6625-656-5871, manufactured by Bruno-New York Industries Corporation, New York, N. Y. Figure 1-1 shows Multimeter AN/PSM-6, using Multimeter ME-70/PSM-6 as its major component. Serial numbers 25298 and above are assigned to these units. Multimeter AN/PSM-6, illustrated in figure 1-2 uses Multimeter ME-70/PSM-6, to which serial numbers below 25298 are assigned. Multimeter AN/PSM-6A .

illustrated in figure 1-3, uses Multimeter ME-70B/PSM-6A as its major component.

1-3. PURPOSE. Multimeters AN/PSM-6 and AN/PSM-6A are items of general purpose test equipment used to measure dc voltage up to 5,000 volts, low-frequency ac up to 1,000 volts RMS, dc current up to 10 amperes and resistances up to 10 megohms. The AN/PSM-6 can also measure output voltage up to 1,000 volts RMS and the AN/PSM-6A can measure pulsed dc current up to 1,000 ma. Their operating temperature ranges for all measurements, except resistance, are from  $-40^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$ ) to  $131^{\circ}\text{F}$  ( $55^{\circ}\text{C}$ ). The multimeters are completely self-contained and include the following accessories stored under the lid in the cover:

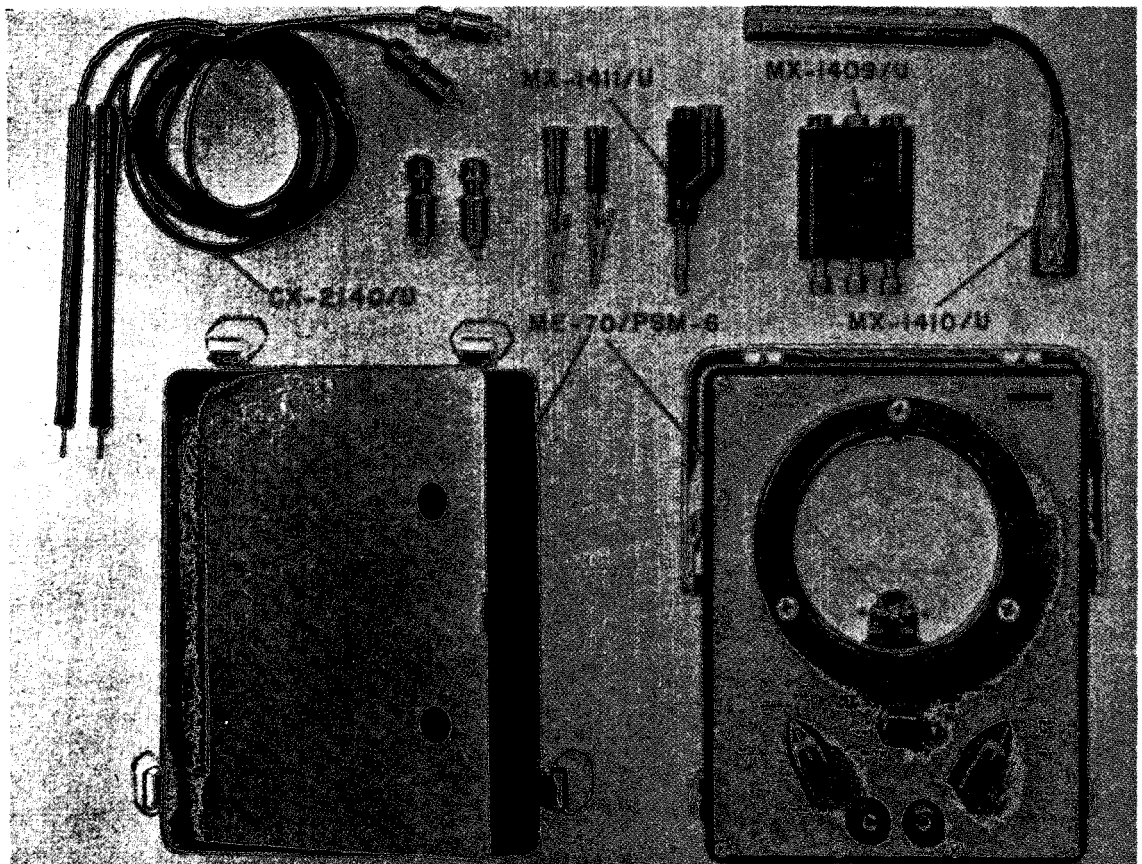


Figure 1-2. Multimeter AN/PSM-6 using Multimeter ME-70/PSM-6