# TM 9-4910-700-14&P

TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE MANUAL
INCLUDING REPAIR PARTS LIST

FOR

# TEST SET, TACHOMETER, DWELL
# (AUL INSTRUMENTS, INC.)
# (NSN 4910-00-788-8549)

HEADQUARTERS, DEPARTMENT OF THE ARMY

JUNE 1981

Technical Manual
No. 9-4910-700-14&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 19 *June 1981*

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**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

**You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2, located in the back of this manual direct to: Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-MAS, Rock Island, IL 61299. A reply will be furnished directly to you.**

**NOTE**

This manual is published for the purpose of identifying an authorized commercial manual for the use of the personnel to whom this equipment is issued.

Manufactured by: Aul Instruments, Inc.
1400 Plaza Avenue
New Hyde Park, NY 11040

Procured under Contract No. DAAA09-78-C-4852

**This technical manual is an authentication of the manufacturers' commercial literature and does not conform with the format and content specified in AR 310-3, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of the equipment.**

## INSTRUCTIONS FOR REQUISITIONING PARTS

## NOT IDENTIFIED BY NSN

When requisitioning parts not identified by National Stock Number, it is mandatory that the following information be furnished the supply officer.

1 - Manufacturer's Federal Supply Code Number - 25778

2 - Manufacturerfs Part Number exactly as listed herein.

3 - Nomenclature exactly as listed herein, including dimensions, if necessary.

4 - Manufacturer's Model Number -

5 - Manufacturer's Serial Number (End Item)

6 - Any other information such as Type, Frame Number, and Electrical Characteristics, if applicable.

7 - If DD Form 1348 is used, fill in all blocks except 4,5, 6, and Remarks field in accordance with AR 725-50.

Complete Form as Follows:

(a) In blocks 4, 5, 6, list manufacturer's Federal Supply Code Number - 25778 followed by a colon and manufacturer's Part Number for the repair part.

(b) Complete Remarks field as follows:

Noun : (nomenclature of repair part)
For: NSN : 4910-00-788-8549
Manufacturer: Aul Instruments, Inc.
1400 Plaza Avenue, New Hyde Park, NY 11040
Model:
Serial: (of end item)

Any other pertinent information such as Frame Number, Type, Dimensions, etc.

# OPERATION AND MAINTENANCE MANUAL

# FOR THE

# TEST SET, TACHOMETER - DWELL

# NSN 4910-00-788-8549

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# CHAPTER 1

# INTRODUCTION AND SPECIFICATIONS

1-1. INTRODUCTION. This manual covers test set, tachometer-dwell. The manual contains instructions for operation and maintenance of the test set.

1-2. SAFETY PRECAUTIONS, The following safety precautions are applicable to the use of the test set.

//WARNING //

CAUTION SHOULD BE EXERCISED WHEN WORKING WITH SECONDARY IGNITION SYSTEMS. HIGH VOLTAGE IS PRESENT WHICH CAN CAUSE INJURY DIRECTLY THROUGH ELECTRICAL SHOCK, OR INDIRECTLY THROUGH REFLEX ACTIONS RESULTING IN INJURY. ALSO, WHEN WORKING IN THE ENGINE COMPARTMENT OF AUTOMOBILES AND TRUCKS, CARE SHOULD BE TAKEN TO AVOID ROTATING PARTS SUCH AS FAN BLADES AND BELTS.

1-3. DESCRIPTION, The test set has two panel meters which simultaneously display the engine r.p.m. and dwell angle. The tachometer operates off of an indirect secondary impulse pickup which can be clipped around any of the spark-plug wires. The dwell meter is connected across the distributor points to ground. It has provisions for measuring dwell angle directly in degrees for 8, 6 and 4 cylinder four cycle engines, Errors in r.p.m. will result when used with 2 cycle engines.

1-4. SPECIFICATIONS. Table 1-1 gives the specifications and pertinent data for the test set.

TABLE 1-l. SPECIFICATIONS AND DATA

| FUNCTIONS | |
|---|---|
| Engine RPM | |
| Ranges | 0-1000rpm; 0-5000rpm |
| Accuracy | ±3% of full scale readings |
| Dwell | |
| Ranges (6 and 8 cyl engines) | 0-60 degrees |
| Ranges (4 cyl engines) | 0-90 degrees |
| Ranges (all configurations) | 0-100 percent |
| Accuracy | ±3% of full scale readings |
| Point Voltage | |
| Ranges | 0-1 volt |
| Accuracy | ±.03 volts at .2 volts |
| Display | Two 4 1/2″ Meters |
| Operating Power | Vehicle battery 12-16V |
| Accessories | Indirect probe for tachometer, leads for battery power, lead for dwell connection Integral carrying case. |
| Size | 9 1/4 x 10 x 3 1/4 |
| Weight | Approximately 9 LBS |

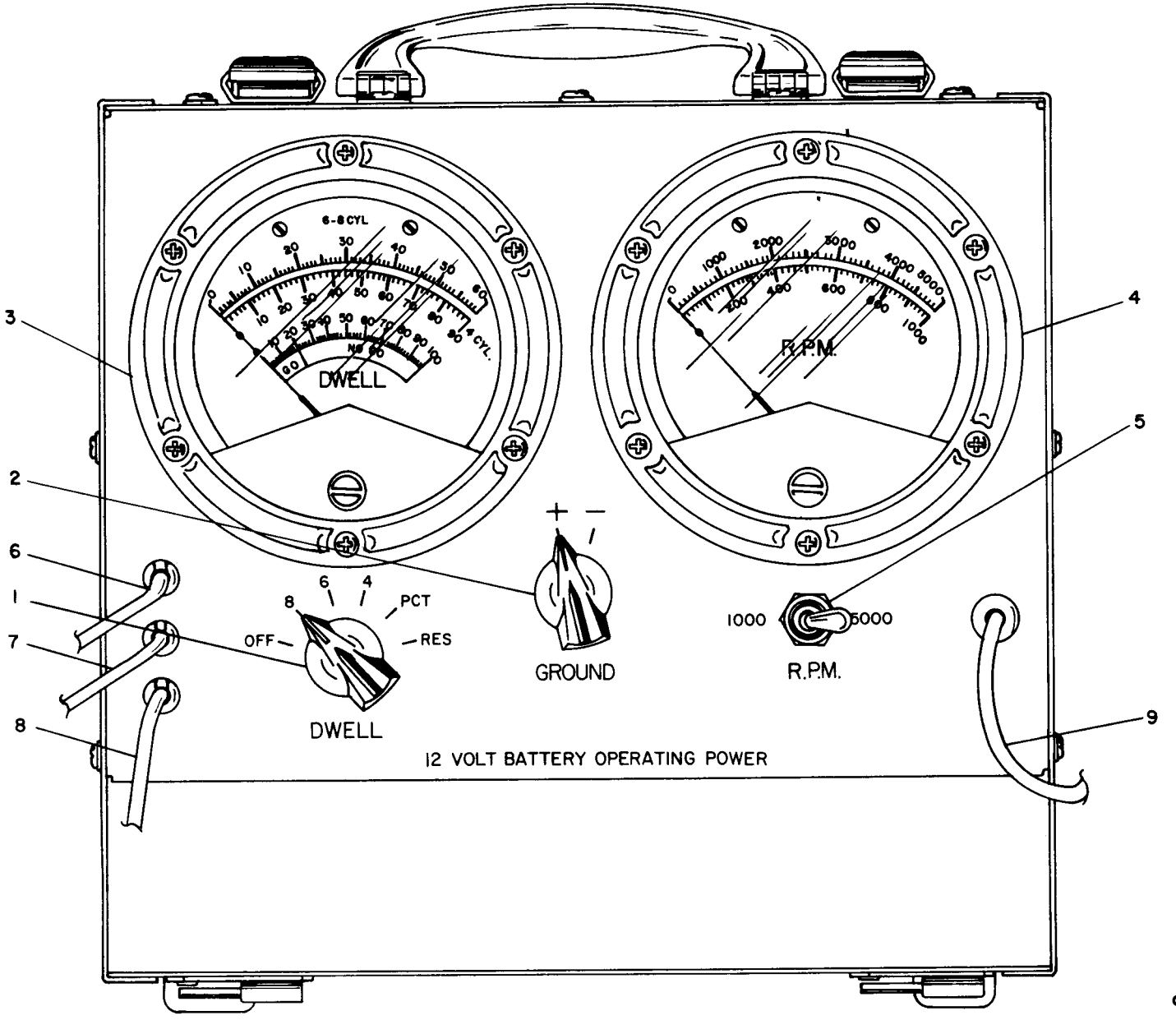


FIG. 2-1. OPERATOR'S CONTROLS AND INDICATORS.