

TM 94910-736-14&P

DEPARTMENT  
OF THE ARMY TECHNICAL MANUAL

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

FOR

IGNITION COIL - CAPACITOR TESTER

MODEL NUMBER 403

(4910-00-300-1305)

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HEADQUARTERS,  
DEPARTMENT OF THE ARMY

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## SAFETY SUMMARY

The following are general safety precautions that are not related to any specific procedures and therefore do not appear elsewhere in this publication. These are recommended precautions that personnel must understand and apply during many phases of operation and maintenance.

## KEEP AWAY FROM LIVE CIRCUITS

Operating personnel must at all times observe all safety regulations. Do not replace components or make adjustments inside the equipment with the high voltage supply turned on. Under certain conditions, dangerous potentials may exist when the power control is in the off position, due to charges retained by capacitors. To avoid casualties, always remove power and discharge and ground a circuit before touching it.

## DO NOT SERVICE OR ADJUST ALONE

Under no circumstances should any person reach into or enter the enclosure for the purpose of servicing or adjusting the equipment except in the presence of someone who is capable of rendering aid.

## RESUSCITATION

Personnel working with or near high voltages should be familiar with modern methods of resuscitation. Such information may be obtained from the Bureau of Medicine and Surgery.

The following warnings appear in the text in this volume, and are repeated here for emphasis.

WARNING

High voltages capable of causing death are used in this equipment. Use extreme caution when operating or servicing the test set with the PUSH TO TEST switch depressed (pages 2-6, 2-11, 2-13, 3-18, and 3-22) or when troubleshooting the condenser leakage test circuit (page 3-7).

WARNING

When using compressed air, do not exceed 10 psi. Compressed air in excess of 10 psi can cause injury. Do not direct compressed air against skin.  
(Page 3-1.)

## Section I. INTRODUCTION AND GENERAL INFORMATION

1-1. INTRODUCTION . This manual provides operation and maintenance instructions along with a parts list for the Ignition Coil-Capacitor Tester (figure 1-1), Model Number 403.

1-2. SCOPE OF MANUAL. Section I of this manual includes a description of the Ignition Coil-Capacitor Tester (also referred to as the test set), its leading particulars, and tables of equipment furnished and test equipment required for maintenance e. Section II covers operation instructions and Section III covers maintenance. The diagrams section (IV) includes a schematic diagram of the test set and Section V is a replacement parts list of the test set.

1-3. PURPOSE . The purpose of the test set is to test the coil and condenser in the ignition systems of automotive vehicles.

1-4. DESCRIPTION. The test set is a self-contained unit. It includes, in a carrying case (with a handle), compartments for the main chassis (front panel and printed circuit board assembly), test and battery leads and the coil pick-up lead. Access to these compartments may be gained by opening the cover, latched on one side and hinged on the other. The front panel contains the switches and indicators required to operate the test set.

1-5. LIST OF ITEMS FURNISHED. Refer to table 1-1 for a list of items furnished.

Table 1-1. List of Items Furnished

| Name                           | Description/model no.                            |
|--------------------------------|--------------------------------------------------|
| Ignition Coil-Capacitor Tester | Model 403                                        |
| Battery Leads                  | AWG No. 16 with insulated clips<br>(9 feet long) |
| Test Leads                     | AWG No. 18 with insulated clips<br>(9 feet long) |
| Coil Pick-Up Lead              | 9 feet long                                      |
| Coil Voltage Test Adapters     | 403BA031, 403BA032, 403BA033, and<br>403BA034    |
| Technical Manual               |                                                  |

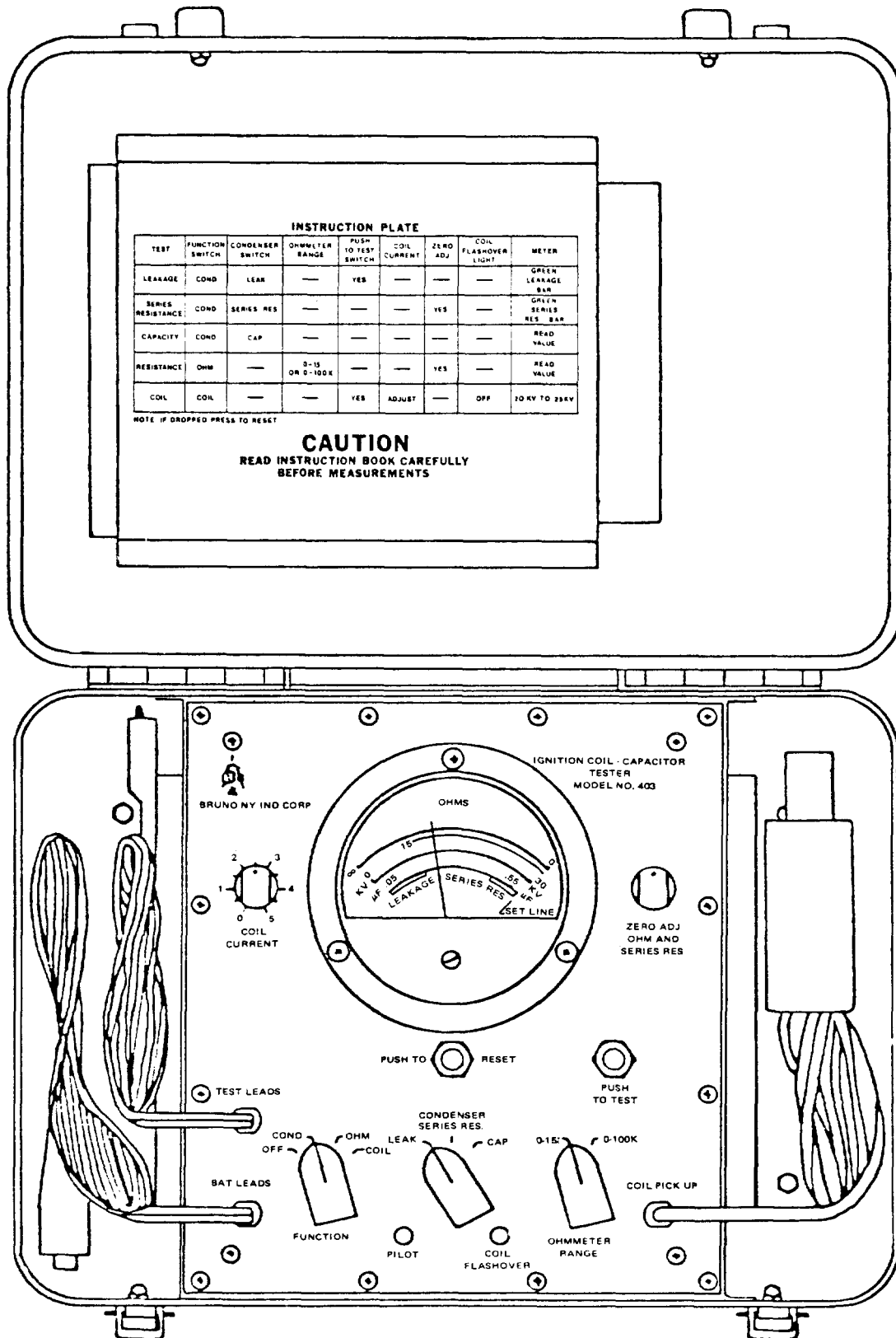


Figure 1-1. Ignition Coil-Capacitor Tester