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Pro50 & Pro50K

Digital AC/DC Solenoid Activator w/Multi-Meter

Activador Digital para los Solenoides de CA/CC con Multímetro

Instruction Manual

Manual de Instrucciones

INTRODUCTION

This guide is intended to acquaint you with the safe operation and maintenance procedures for the Armada Technologies Models Pro50 and Pro50K digital AC/DC Solenoid Activator and Multimeter and kit. Read the entire guide before operating the Pro50 or Pro 210F filter tone probe found in the kit. Keep this guide available to anyone who may be required to use these products.

DESCRIPTION

The Pro50K consists of a Pro50 tester, a Pro210F advanced tone probe, and a soft carrying case. The functions of the Pro50 include:

- Testing 24v output from the clock/controller.
- Activating any AC or DC Low Voltage Solenoid.
- Chattering any AC or DC Low Voltage Solenoid for lost valve locating.
- Sending tone to identify wires.
- Measuring AC or DC Voltage and Resistance.

The Pro210F Filter Tone Probe is an advanced tone sensing probe for identifying wire termination in conjunction with the Pro50 in tone mode.

Safety

WARNING: To ensure safe operation and service of the Tester, follow these instructions. Failure to observe warnings can result in severe injury or death.

ÅThe Pro50 is designed for use on de-energized circuits only.
ÅConnection to AC power line voltages could damage the instrument and could be hazardous to the user
ÅUse the Tester only as specified in the User Guide.
ÅUse caution around voltages above 30 V ac rms, or 60 V dc. These voltages pose a shock hazard.

OPERATION

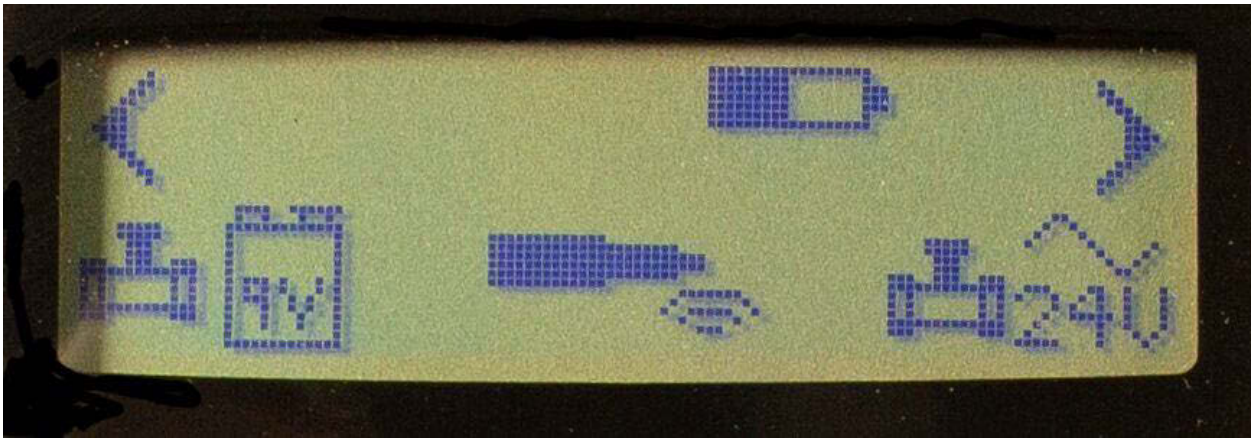
A. Battery Test

1. A battery icon appears on the top right side of the LCD screen of the Pro50 while in use. When batteries are fresh, the entire icon should be filled and solid. When the icon is empty, so are the batteries.
2. The Pro50 and the Pro210f both require 4 AA batteries each and are inserted on the back of each unit.

B. OPERATION

1. The power switch is located on the front of the Pro50 in the bottom right corner (see diagram). To activate, push the power switch until the screen becomes active.
2. The Pro50ûs LCD display shows the functions available and test conditions. The main screen is shown below ï you can choose to work with;
    a. F1: a 9 VDC (battery) system.
    b. F2: tracing tone for identifying wire termination points.
    c. F3: a conventional 24 VAC system.

Select the test function using the F1, F2 or F3 Main Control keys below the display.



F1: Operation with battery-powered controllers and remote DC latching valve solenoids.

1. Connect the Pro50 to a zone wire and associated common wire of the valve you wish to test and turn it on.
2. When selecting F1from the main screen, the Pro50 can test and operate the remote DC latching valve solenoids. On this DC screen, use the F1 ON to activate the solenoid or use F2 CHATTER to make the solenoid quickly turn on and off to locate (BE SURE THE WATER IS TURNED OFF). Selecting F3 turns both F1 and F2 off.

F3: Operation with AC controllers solenoids.

Again from the main menu, for AC valve actuation or chatter, use F3. This takes the user to the AC solenoid menu. Once on this menu, the instructions are the same as above.

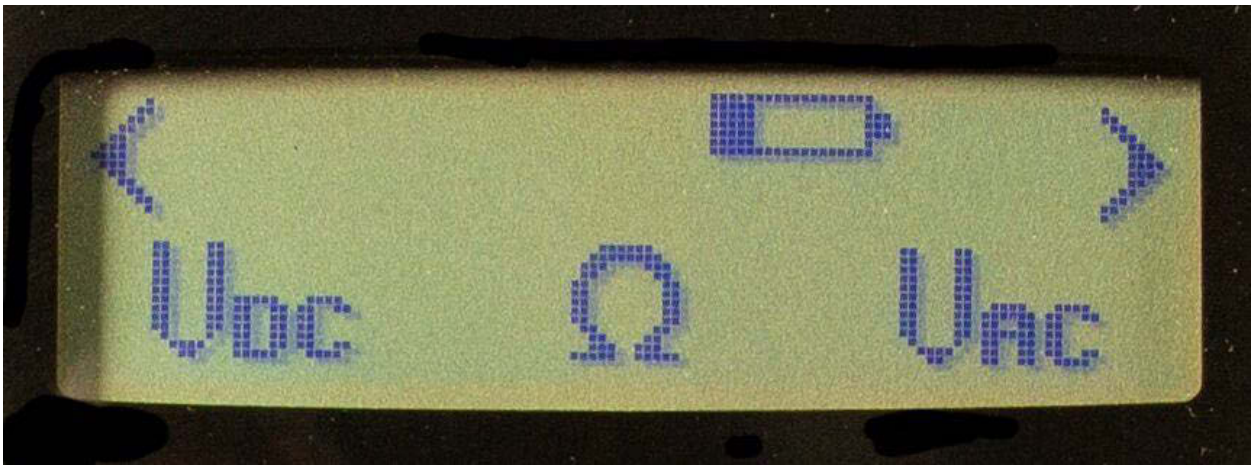
F2: Tone Generation.

If the user presses F2 from the main menu, this activates the built in tone generator for wire identification. A Pro210F filter probe will be required to hear the tone at the far end. When activating the tone, connect the Pro50 to a single conductor that the user wishes to identify. Connect the other alligator clip (red or black) to ground for best signal. Once connected and activated, the user can identify the cable attached to the Pro50 by taking the Pro210F to the far end of the cable and listening for the loudest tone coming from a particular cable or wire. The loudest is generally the wire to be identified.

How to Use the Digital Multimeter

To utilize the built-in digital multimeter, press either the left or right arrow keys from the main menu screen. The symbols for Voltage DC, Ohms, and Voltage AC will appear.

Connect the Pro50 to the zone or item you wish to test. Press F1 for DC Voltage, F2 for resistance ohms, or F3 for AC Voltage. The Pro50 has auto-range capability, meaning that the expected range is not required to be entered into the Pro50.



MAINTENANCE

The Armada Pro50 requires 4 AA batteries for operation (not included).

SPECIFICATIONS of the Pro50:

Connections: Removable Standard Multimeter Alligator Leads. 24 inch, Red and Black. Cat IV, 600v.

Tone tracing transmit power: +6 dBm (600 ohms).

Line transmit frequency: 900 Hz alternating with 1050 Hz, at a 2 Hz rate.

Line voltage protection: 120 Vac or 120Vdc.

Battery type: Four (4) óAAô or LR6 cells.

AC Solenoid Operation 24 volts AC.

DC Latching Solenoid Operation +9 volt DC and -9 volt DC pulses 40 milliseconds.

Test Range 3,000 feet (1 km) over 18 ga (1 mm) cable.

Built-in Multimeter Tests AC or DC to 40 volts, auto-ranging.

Electrical resistance from 0 to 40 kilohms, auto-ranging.

Display 0.5 x 2 inches (12 x 50 mm) LCD.

Battery saving Timeout ï 30 minutes.

Operating Conditions +32 to +120 degrees F (0 to +50 degrees C).

Unit Size 7 x 3 x 1.5 inches (175 x 80 x 35 mm).

Weight including test leads 8.5 ounces (240 g) without batteries.

One-Year Limited Warranty