

Relay Test Set Model AE 100 Automatic



Features

Designed for easy and safe test of simple relays

- Large LCD display
- Test report printout fro the instrument on a built in thermal printer.
- Portable unit.

Main specifications

AC Current (I1)	
Range	0 to 1 – 10 – 100 A variable.
Power	500VA(10A), 800VA(100A)
Accuracy	±1.5%, ± 2 counts.
AC Voltage (U1)	
Range	10-500V
Power (500V)	500 VA
Accuracy	±1.0%, ± 2 counts.
DC Voltage	
Range	10 – 300 V
Power (300V)	600 W
Accuracy	± 0.5 %, ± 2 counts.
Auxiliary DC	
Range	20-240V
Power	250 VA
Accuracy	±1.0%, ± 2 counts.
Resolution	
output	
Number	1
Type	Potential free relay contact
Voltmeter	

Range	0-600V ac/dc
Accuracy	1 %
Ammeter	
Range	100 A AC
Accuracy	1 %

Following test can be carried out using our instrument :

1. Primary current injection test up to 100 A.
2. CT ratio test
3. AC resistance test of CTs.
4. CT excitation test.
5. secondary current injection / relay test.

MODES :

Mode 1 : In this mode the AC current out put will be available. The LCD Display will indicate the Out put current drawn at the out put terminals, and the time interval meters for relay timing. This mode has three ranges like 0 – 1A – 10A – 100A selected by independent keys. During this mode selection the AUX. DC voltage will be continuously available.

Model 2 : In this mode the AC voltage out put will be available. The LCD Display will indicate the Out put voltage at the out put terminals, and the time interval meters for relay timing. During this mode selection the AUX. DC voltage will be continuously available.

Model 3 : In this mode the DC voltage out put will be available. The LCD Display will indicate the Out put voltage at the out put terminals, and the time interval meters for relay timing. During this mode selection the AUX. DC voltage will be continuously available.

Model 4 : In this mode the DC voltage out put will be available. The LCD Display will indicate the Out put voltage at the out put terminals, and the time interval meters for relay timing. During this mode selection the AUX. DC voltage will be continuously available.

SETPS :

In current mode : a) Pick up test b) two times current injection c) Five times current injection d) 10 times current injection

OUTLINE OF THE FUNCTIONING OF THE RELAY TEST SET

AJIT relay test set is a sophisticated, user friendly and advanced instruments designed to satisfy the common needs of the relay and CT testing. The top panel of the instrument is designed in such a way that the panel itself guides the operator for the connections and testing.

DESCRIPTION OF THE TOP PANEL KEYS AND CONTROLS :

- A) MAINS SWITCH : This is a two pole Illuminated ON / OFF switch. The instrument can be switched ON or OFF by this switch.
- B) LCD DISPLAY : This is a very interactive component of the instrument. All the interactive messages and the major measurements are displayed on the LCD display. The display starts immediately when the mains supply is put ON.
- C) OUTPUT TERMINALS : Most of all the outputs and some inputs are terminated at the industrial grade female banana terminals. The terminals are marked by clear legends.
- D) OUTPUT CONTROLS : The respective output controls have been marked by the proper legends. The respective outputs can be controlled by these control knobs.

KEY PAD :

- E) M. RESET : By pressing this key the instrument quits all the operations and resets and starts from the initial stage.
- F) MODE: Using this key the user can select the mode of the outputs mentioned on the keys. The hardware inside takes the necessary settings automatically and the display also sets itself accordingly
- G) SET : When the user operates this key the instrument puts the selected mode output ON automatically. The operator now has to set the output values measuring the output on the LCD display within the range limit. If the user is exceeding the range limit the LCD display will indicate “REDUCE”. If the required value is set on the display the operator has to press the SET key. Once the output is accepted by the instrument (by operating SET key explained as above) the instrument itself will put OFF the output. Now again the display will indicate START. Now don't disturb the output control knobs.
- H) START : By pressing the START key the instrument will put ON the selected output (MODE) and the output will be measured and displayed on the LCD display. During this the time interval meter will be inactive. Once the output is put ON the timer will start counting time and the timer will stop counting time once the relay under test operates. When the timer stops the display will indicate/hold the applied input to the relay and the operating time until the operator resets it.

The instrument will go forward as per the **steps** mentioned above automatically. These values will be saved in the internal memory of the instrument.

- I) RESET : By operating this key the user can remain in the same mode selected previously but can operate freshly.
- J) PRINT : This key is provided below the LCD and near the RETRIEVE key. By operating this key the user can take the printout of the test results stored in the memory.
- K) EXT. VOLTMETER : This is a LED type digital voltmeter to measure the external voltage if connected to it's terminals. This particular meter is used during the AC resistance, CT excitation testing on the specimen.
- L) EXT.AMMETER : This is a LED type digital ammeter to measure the external current if connected to it's terminals. This particular meter is used during the CT ratio test on the specimen.
- M) POLARITY TEST : This arrangement consists of a 48 x 48 mm panel mounting type centre zero analog meter, a dry battery, input output terminals and a push button switch.
- N) OUTPUTS : The outputs are divided in four modes like – 1) mode 1 i.e. in this mode the LCD display will indicate AC current and the time interval meter readings. In this mode AC voltage output will be inactive. DC voltage or AXU. DC voltage (any one) output will be active but not displayed on the LCD display.
2) Mode 2 – i.e. in this mode the LCD display will indicate AC voltage and the time interval meter readings. In this mode AC current output will be inactive. DC voltage or AXU. DC voltage (any one) output will be active but not displayed on the LCD display.
3) Mode 3 - i.e. in this mode the LCD display will indicate DC voltage and the time interval meter readings. In this mode AXU.DC VOLTAGE output will be inactive. AC voltage or AC voltage (any one) output will be active but not displayed on the LCD display.
4) Mode 4 - i.e. in this mode the LCD display will indicate AXU.DC voltage readings. In this mode DC VOLTAGE output will be inactive. AC voltage or AC voltage (any one) output will be active but not displayed on the LCD display.
- O) TIME INTERVAL METER : Range – 0 to 999.999 seconds.
- P) AMMETER : Range – 0 to 100.00 A, 0 to 1.000 A AC
- Q) VOLTMETER AC / DC : Range – 0 to 500 V
- R) PRINETR : 50 mm wide thermal built in printer.

AJIT ELECTRONICS CO.,

B-301, Vasant Vihar Annexe,
Gandhi Nagar, Dombivli (E) – 421204, India
Telefax – 0251-287 1652/ 2822 148
Email : ajitelec@vsnl.com