

THERMAL TIME-DELAY RELAYS, KS-5596 REQUIREMENTS AND ADJUSTING PROCEDURES

1. GENERAL

1.01 This section covers KS-5596, time-delay relays and those covered by Item 1601, Power Data Section 15.71. These are essentially of the type known as Weston Electrical Instrument Corporation's model 613.

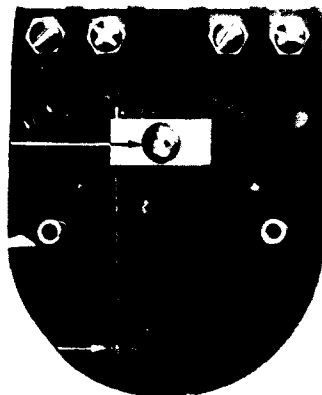
1.02 This section is reissued to add KS-5596. Changes are marked with arrows.

1.03 Requirements and associated procedures marked with a number sign (#) need not be checked by the installer unless it is thought that the requirement is not being met or performance indicates that such a check is advisable.

1.04 Requirements and associated procedures marked with an asterisk (*) need not be checked during maintenance unless performance indicates that such a check is advisable.

Contact Assembly
Clamping Screw

Contact
Adjusting Screw



Note: KS-5596, List 03, has an additional coil terminal C located between H2 and L2.

Fig. 1 - Time-delay Relay
(Cover Removed)

2. REQUIREMENTS

- #2.01 Cleaning: The contacts shall be cleaned when necessary. Gauge by eye.
- *#2.02 The contact assembly clamping screw shall be tight. Gauge by eye and feel.
- 2.03 The operate time shall be such as to meet the requirements specified in the circuit requirement table. Use pocket watch.

3. ADJUSTING PROCEDURES

3.001 List of Tools, Gauges, and Test Apparatus (Equivalents may be substituted if desired).

Tools

Contact Burnisher, No. 265C
Screwdriver, Cabinet, 3"
Screwdriver, Watchmaker's No. 3
Wrench, Flat, Open End, 5/32" Opening -
No. 74 Tool Suggested

Gauges

Watch, Pocket

Test Apparatus

Test Set, 35 Type

#3.01 Cleaning (Rq.2.01)

- (1) Clean contacts by using a clean blade of a contact burnisher. Place the blade between the contacts, press the contacts very lightly together, and move the blade back and forth two or three times.

*#3.02 Contact Assembly Clamping Screw (Rq.2.02)

- (1) The contact clamping screw is considered tight when it puts a slight bow in the metal clamping strip, thus holding the composition cylinders against the contact arms with a spring-like pressure.

3.03 Contact Adjustment (Rq.2.03)

- (1) Test may be at any room temperature between 60 and 94F, with relay hot or cold, with relay cover on, and 5 volts applied to the relay coil terminals H and H2. For standard rectifiers with transformers connected in accordance with circuit notes, the 5 volts on the heater coil need not be checked, provided (a) the operate time is in the upper half of the specified range while line voltage is 0-10 below the transformer tap voltage rating or (b) the operate time is in the lower half of specified range. When line is 0-10 volts above transformer tap rating.

- (2) Readjust requirements shall be met at ambient temperatures, 68-86F, from 5-30 minutes after last previous operation, with relay cover

on, and with 5 volts a-c or d-c applied to relay coil terminals H and H2. To assure correct voltage and avoid use of low voltage a-c voltmeter, it is suggested that the coil leads be disconnected and d-c voltage applied with B/G/V arrangement of the test set.

(3) To change the time required for relay operation, first see that the contact assembly clamping screw is tight; then loosen the locknut on the

contact adjusting screw with a wrench, screw the screw a fraction of a turn in to decrease the time or out to increase the time, and retighten the nut. Allow at least 5 minutes between tests for the contact arm to cool. The instant of operation of the relay may be determined by the operation of the associated circuit. Failure to operate is probably caused by an open heater coil which will require replacement of the relays.