

## INSTALLATION . OPERATION . MAINTENANCE

# INSTRUCTIONS

## TYPE SDG-1T & SDG-2T STATIC GROUND DISTANCE RELAYS WITH CONTACT OUTPUT

These instructions are a supplement to instruction leaflet I.L. 41-496.5 which is included in this leaflet. The combination of the two leaflets contain instructions for the type SDG-1T and SDG-2T Relays.

The construction and operation of these relays are the source as the corresponding SDG-1 and SDG-2 relays covered by I.L. 41-496.5 except:

- 1. The internal schematics have been replaced by those shown in this supplement.
- These relays are provided with an Indicating Contactor Switch (ICS). The ICS provides a seal-in contact for the output telephone relay.

#### 3. (For SDG-1T)

The 15 to 20 volt dc transistor output in the standard SDG-1 relay has been replaced by normally open contacts of a telephone relay.

The coil of the telephone relay is in series with the collector of transistor Q16 so that, when Q16 is turned on, the telephone relay is energized causing the contacts to close. A zener diode is connected across the collector of Q16 to limit the inductive kick voltage appearing at the collector during the pickup and drop-

out of the telephone relay.

#### 4. (For SDG-2T)

The 15 to 20 volt dc transistor output in the standard SDG-2 relay has been replaced by normally open contacts of a telephone relay.

The coil of the telephone relay is in series with the collector of transistor Q14 so that, when Q14 is turned on, the telephone relay is energized causing the contacts to close. A silicon diode is connected across the coil of the telephone relay to limit the inductive kick voltage appearing at the collector during the pickup and dropout of the telephone relay.

#### 5. (For SDG-1T)

This relay does not have a pushbutton check circuit. The operation of the telephone relay contacts is now used for output circuit checkout.

#### 6. (For SDG-1T)

A two phase to ground switch has been added between pin 8 of the 2\mathbb{O}-Gnd. circuit board S-203C369G01 and the positive supply bus. This permits de-activation of the 2\mathbb{O}-Gnd. circuit when desired.

### STYLE INFORMATION

OTTER THE COMMENT					
Style	Description		Logic Diag.	Internal Schematic	Relay Type
6667D56A01 6667D56A02 6667D56A03		125 Vdc 0.2 - 4.35 ohms	Fig. 1	Fig. 2	SDG-2T
6667D56A04 6667D56A05 6667D56A06 6667D56A07		1.0 - 30 ohms 1.0 - 30 ohms 0.2 - 4.35 ohms 0.2 - 4.35 ohms		Fig. 3	SDG-1T

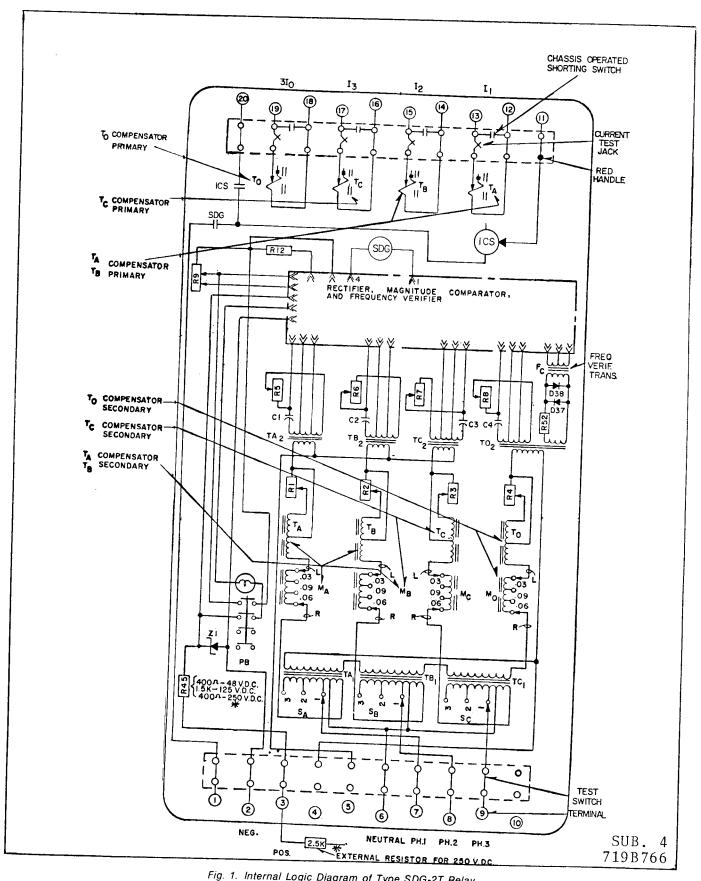
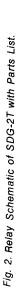
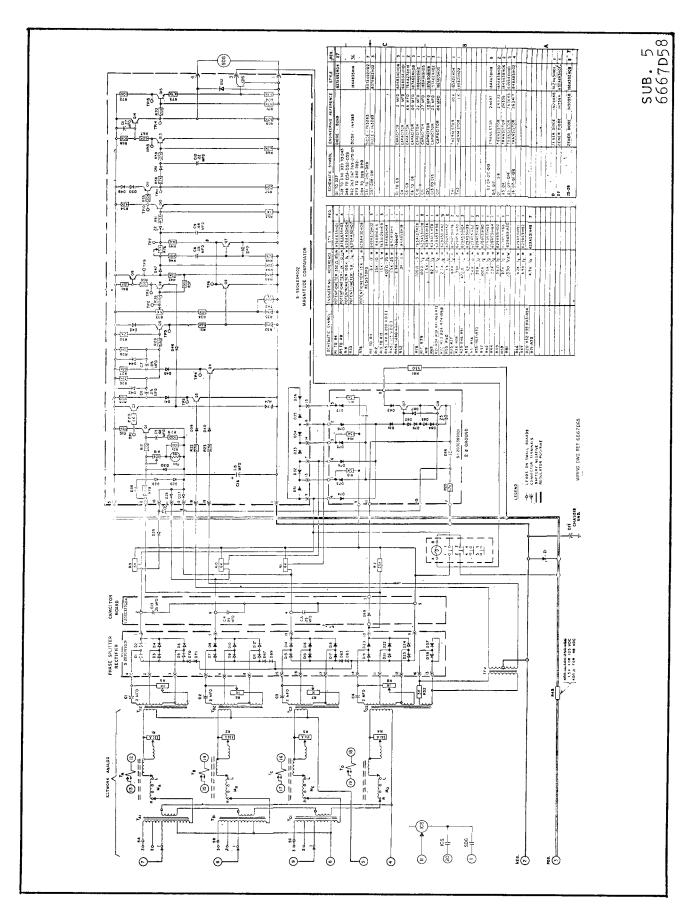
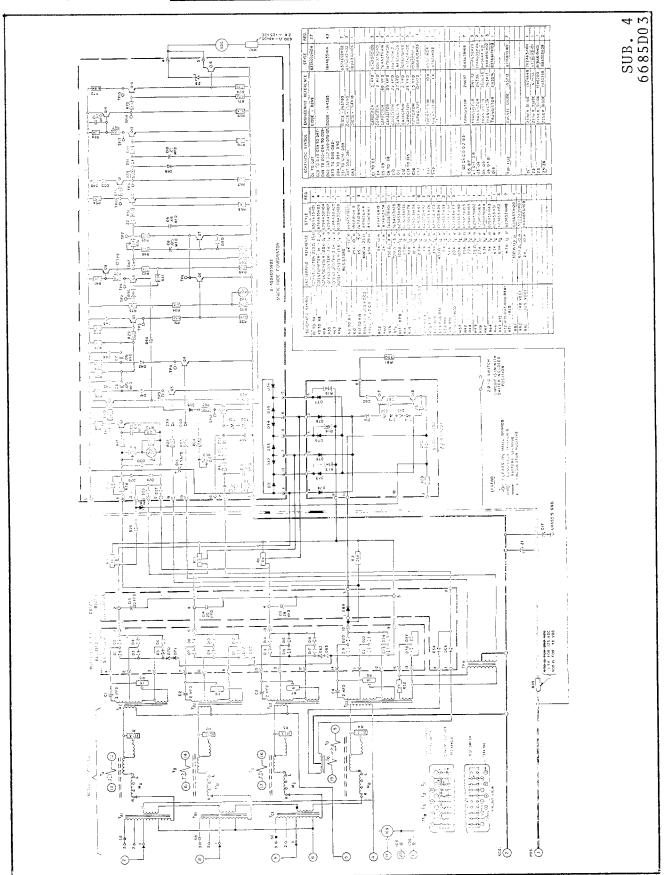


Fig. 1. Internal Logic Diagram of Type SDG-2T Relay.







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Detailed Internal Schematic of SDG-2T Relay with Parts List.

Fig. 3.