



# INSTRUCTIONS

GEK-45311A  
Supersedes GEK-45311  
Insert Booklet GEK-45307

TRANSFORMER DIFFERENTIAL RELAY  
WITH PERCENTAGE AND HARMONIC  
RESTRAINT  
TYPE STD21C

GENERAL  ELECTRIC



INTRODUCTION

These instructions are a supplement to Instruction Book GEK-45307 which is included in this book. The combination of the two form instructions for the type STD21C relay.

DESCRIPTION

The type STD21C relay is similar to the STD16C except the former has eight through current restraint windings and is mounted in the L2D (large, double ended, deep) case.

Figure 1 shows the internal connections diagram for the STD21C relay.

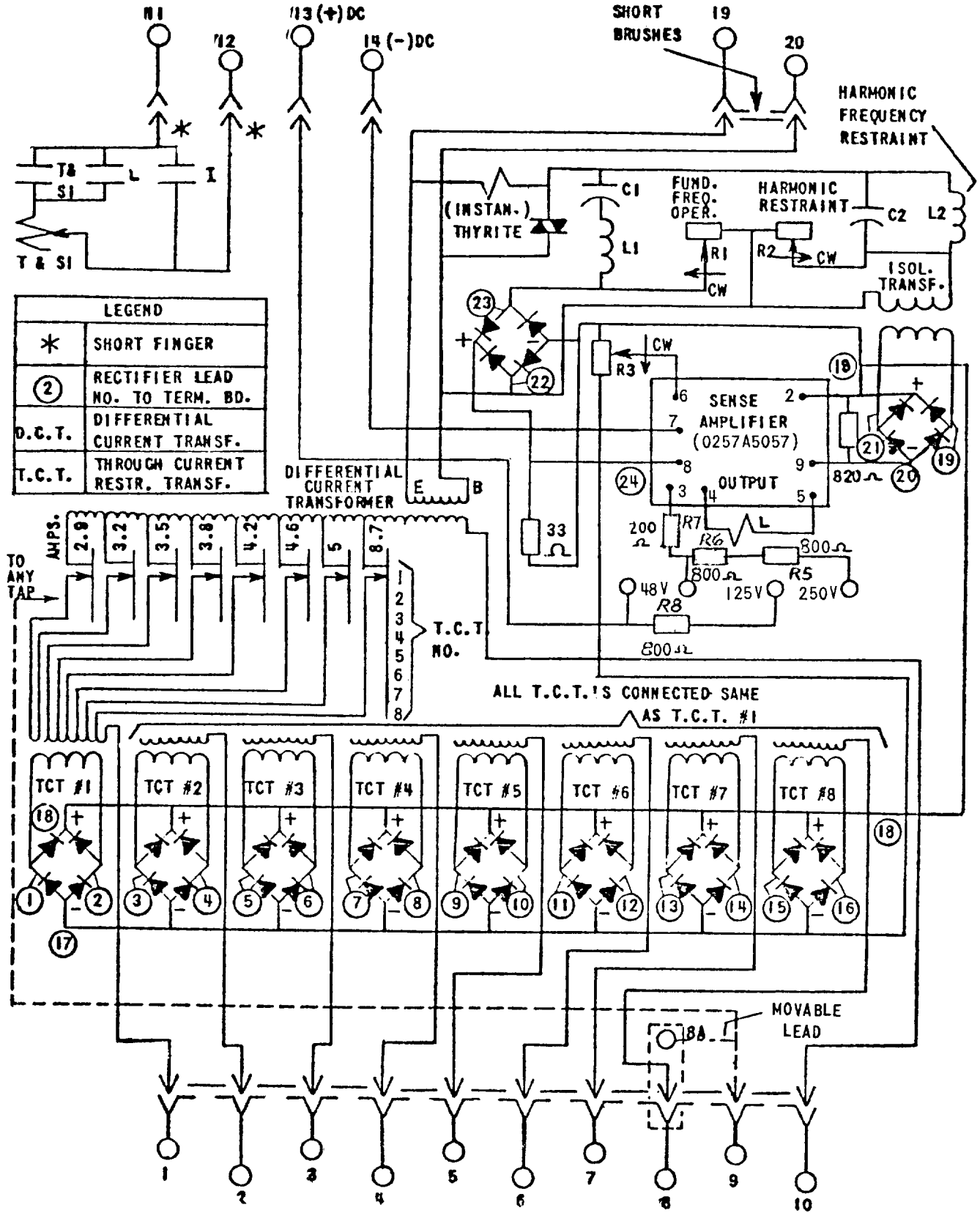
Figure 2 shows the typical external AC connections diagram for the STD21C relay.

Figure 3 shows the typical DC connections diagram for the STD21C relay.

Figure 4 shows the test circuit for the STD21C relay.

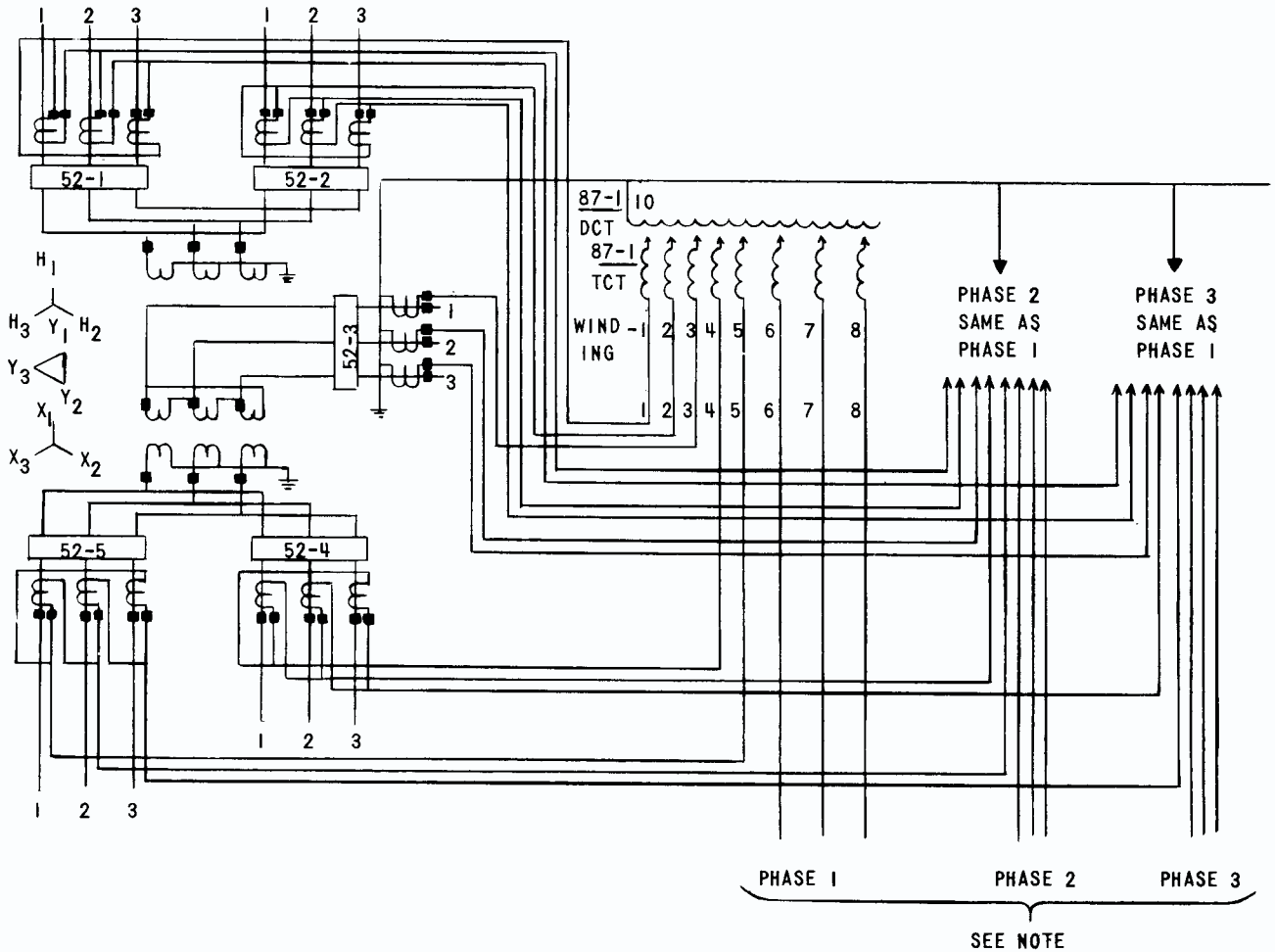
Figure 5 shows the outline and panel drilling for the STD21C relay.

***These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.***



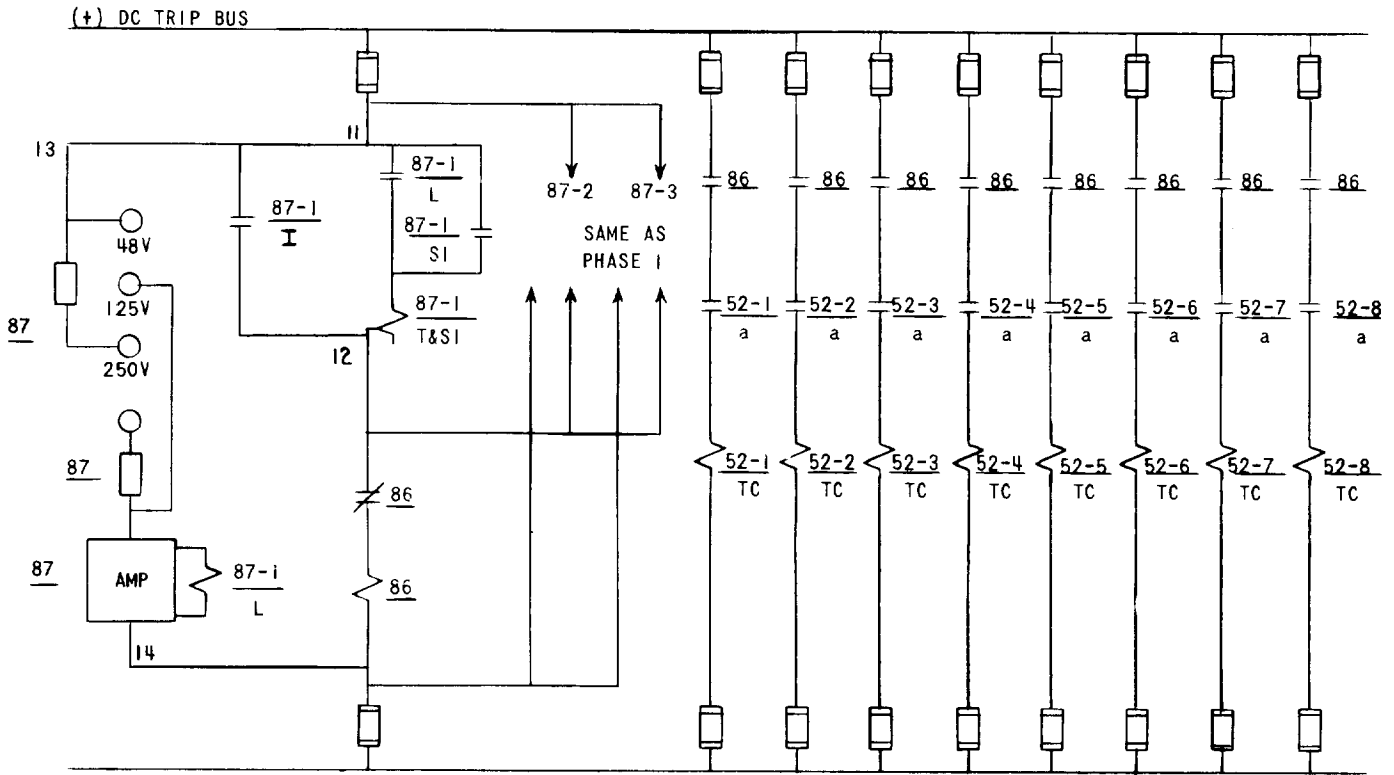
\* FIG. 1 (0257A5030-2) Internal Connections Diagram For The STD21C Relay (Front View)

\* Revised since last issue



NOTE: THE DIAGRAM SHOWS 5 BREAKERS. THE LEADS SHOWN HERE ARE TO BE CONNECTED TO THE RESPECTIVE PHASE OF THE CT'S FOR THE REMAINING THREE BREAKERS.

FIG. 2 (0246A6945-0) External AC Connections For The STD21C Relay



- (-)
- a - AUX. SW. OPEN WHEN BREAKER IS OPEN
  - TC - TRIP COIL
  - DTC - DIFFERENTIAL CURRENT TRANSFORMER
  - TCT - THROUGH CURRENT TRANSFORMER
  - I - INSTANTANEOUS OVERCURRENT UNIT
  - 86 - TYPE HEA HAND RESET RELAY
  - 52 - POWER CIRCUIT BREAKER
  - 87 - TYPE STD DIFFERENTIAL RELAY
  - L - SLAVE OUTPUT RELAY OPERATED FROM STATIC SENSING UNIT

FIG. 3 (0246A6946-0) External DC Connections Diagram For STD21C Relay

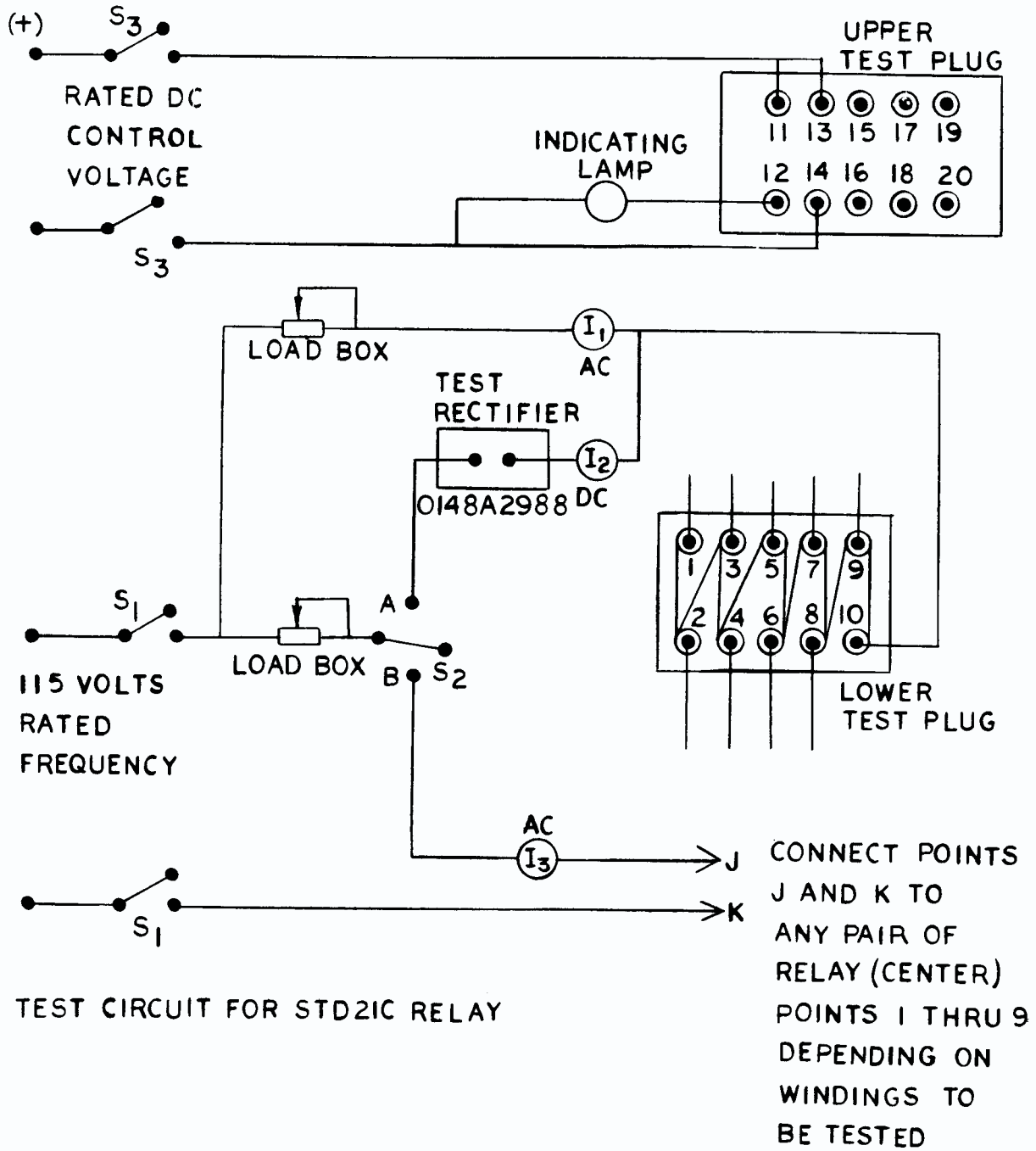
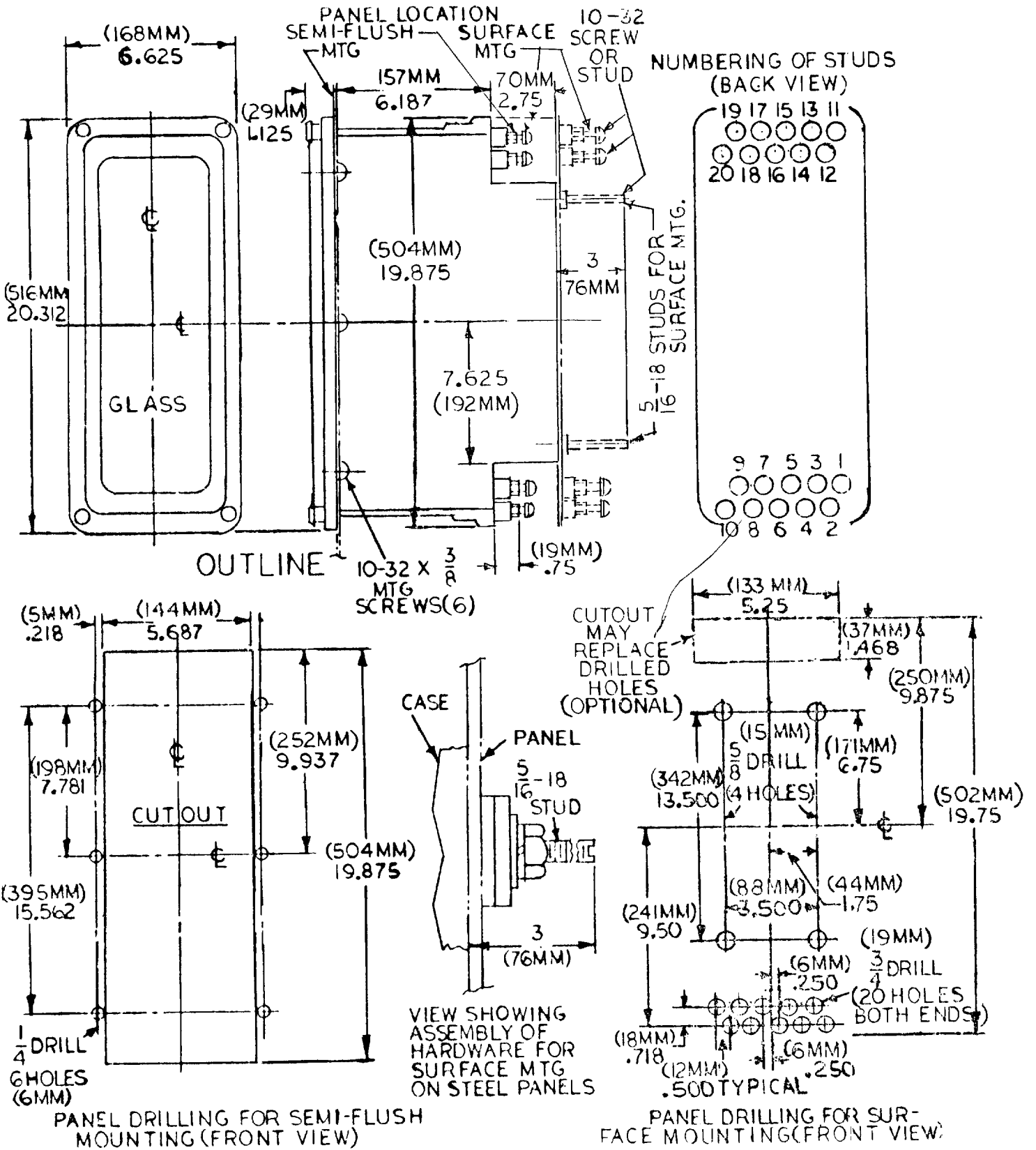


FIG. 4(0257A5054,Sh.3) Test Connections Diagram For The STD21B Relay



\* FIG. 5 (0178A7336-4) Outline And Panel Drilling Dimensions For The L2D Case

\* Revised since last issue