



## INSTRUCTIONS

GEK-49809A

INSERT BOOKLET GEK-45307

### TRANSFORMER DIFFERENTIAL RELAY

with

### PERCENTAGE AND HARMONIC RESTRAINT

### TYPE STD15D

#### INTRODUCTION

These instructions, together with those in the attached instruction book, GEK-45307, form the instructions for the STD15D relays.

#### DESCRIPTION

The STD15D relay is electrically and functionally equivalent to the STD15C relay described in the attached instruction book. The principal difference is in the target and seal-in circuit, and the internal connection to the relay terminals. This relay was designed to have external connections that are the same as the BDD relay.

The internal-connection diagram for the STD15D is shown in Figure 1. The Elementary diagram is Figure 2, and the test connections for bench testing and field testing are shown in Figures 3 and 4.

*These instructions do not purport to cover all details or variations in equipment nor 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.*

*To the extent required the products described herein meet applicable ANSI, IEEE and NEMA standards; but no such assurance is given with respect to local codes and ordinances because they vary greatly.*

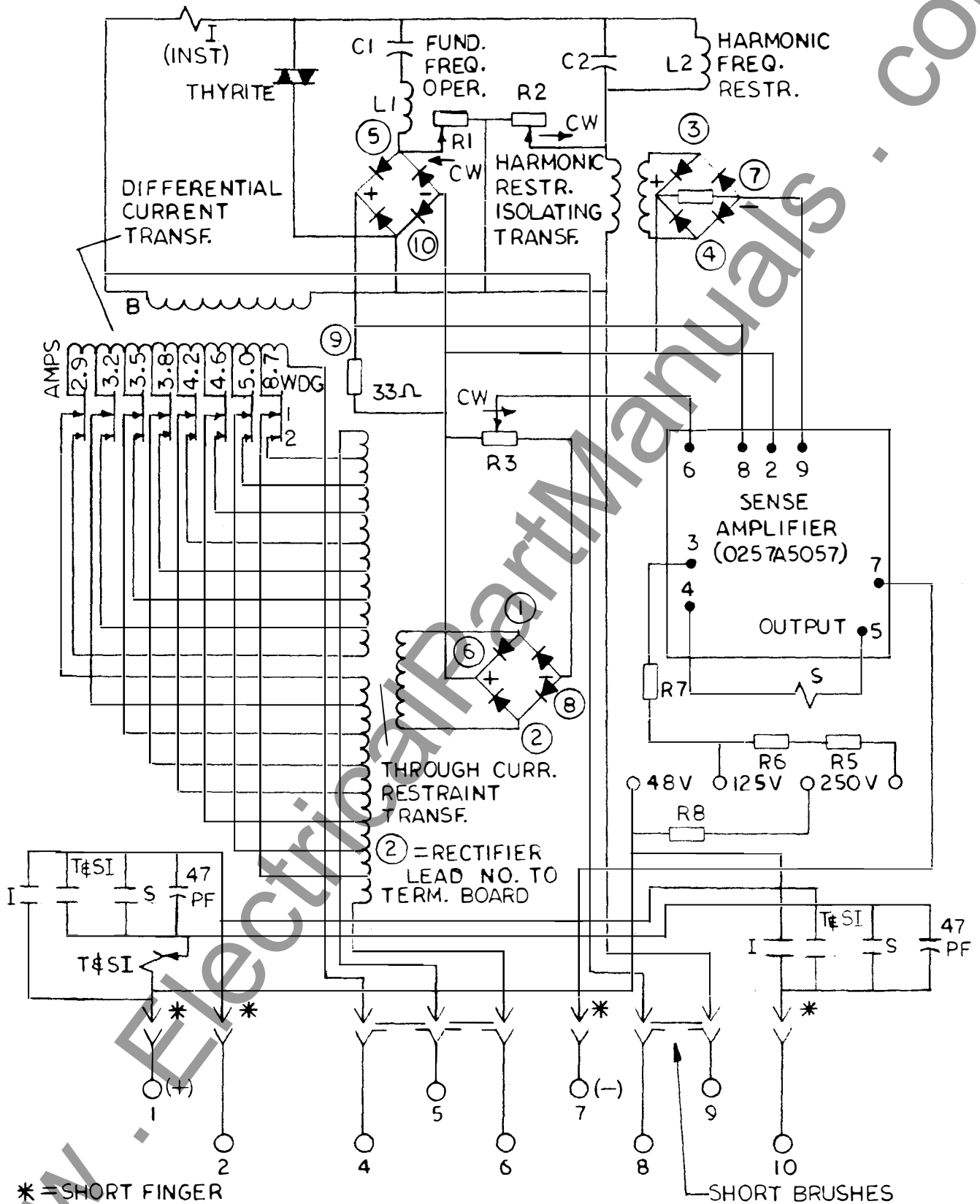
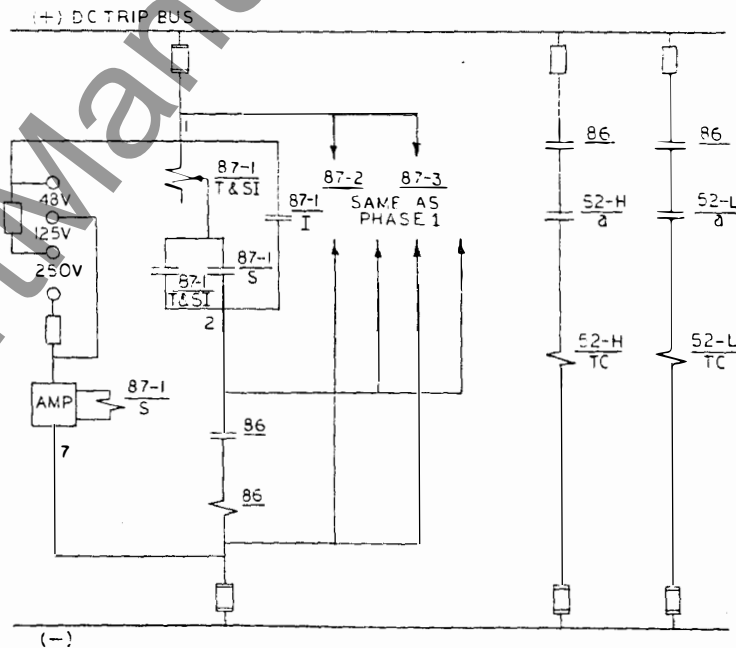
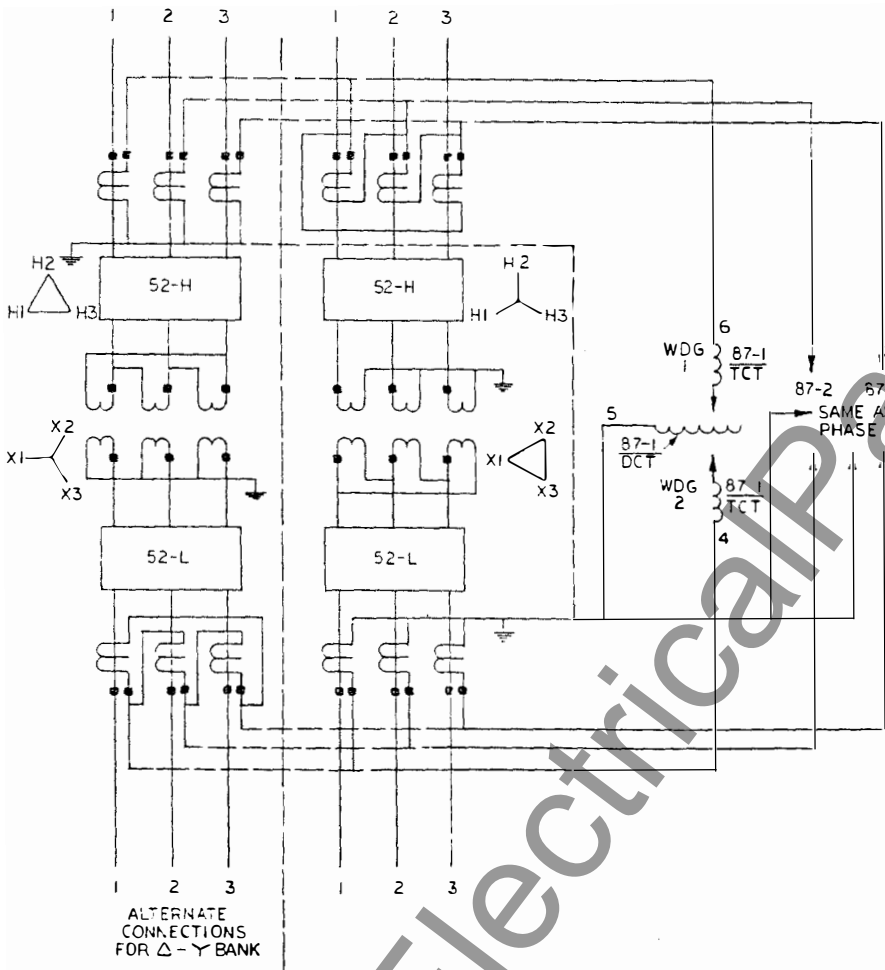


Figure 2 (0108B9017) Elementary Diagram for the STD15D



- a - AUXILIARY SWITCH OPEN WHEN BREAKER IS OPEN
- TC - TRIP COIL
- DCT- DIFFERENTIAL CURRENT TRANSFORMER
- TCT- THROUGH CURRENT TRANSFORMER
- I - INSTANTANEOUS OVERCURRENT UNIT
- S - SLAVE OUTPUT RELAY OPERATED FROM STATIC SENSING UNIT
- 86 - HAND RESET RELAY TYPE HEA
- 52 - POWER CIRCUIT BREAKER
- 87 - TYPE STD DIFFERENTIAL RELAY

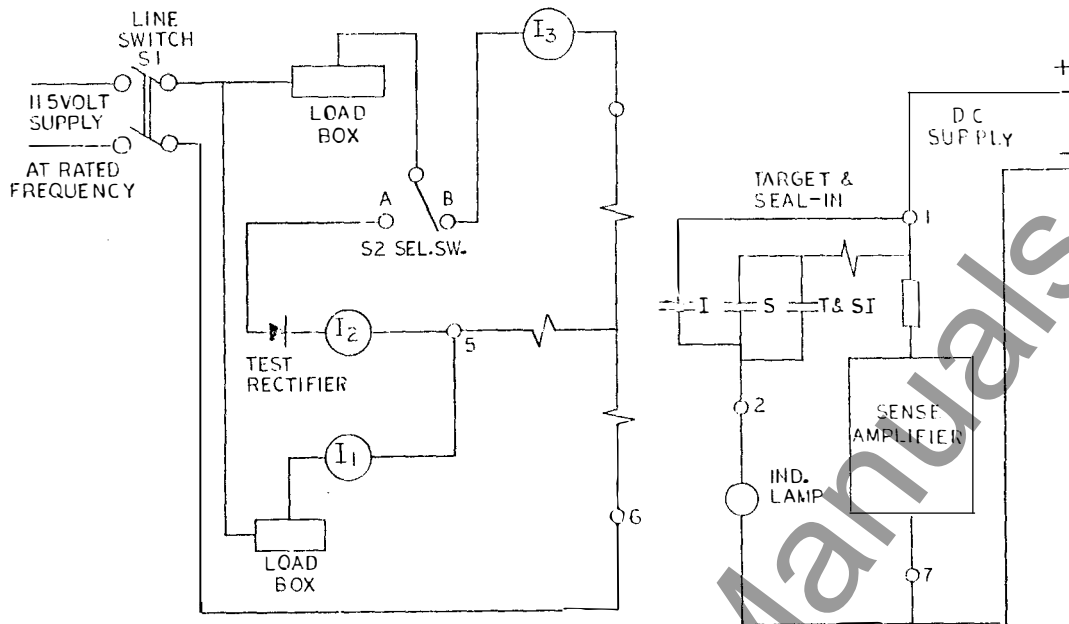


Figure 3 (010889018) Test-Connections Diagram for the STD15D

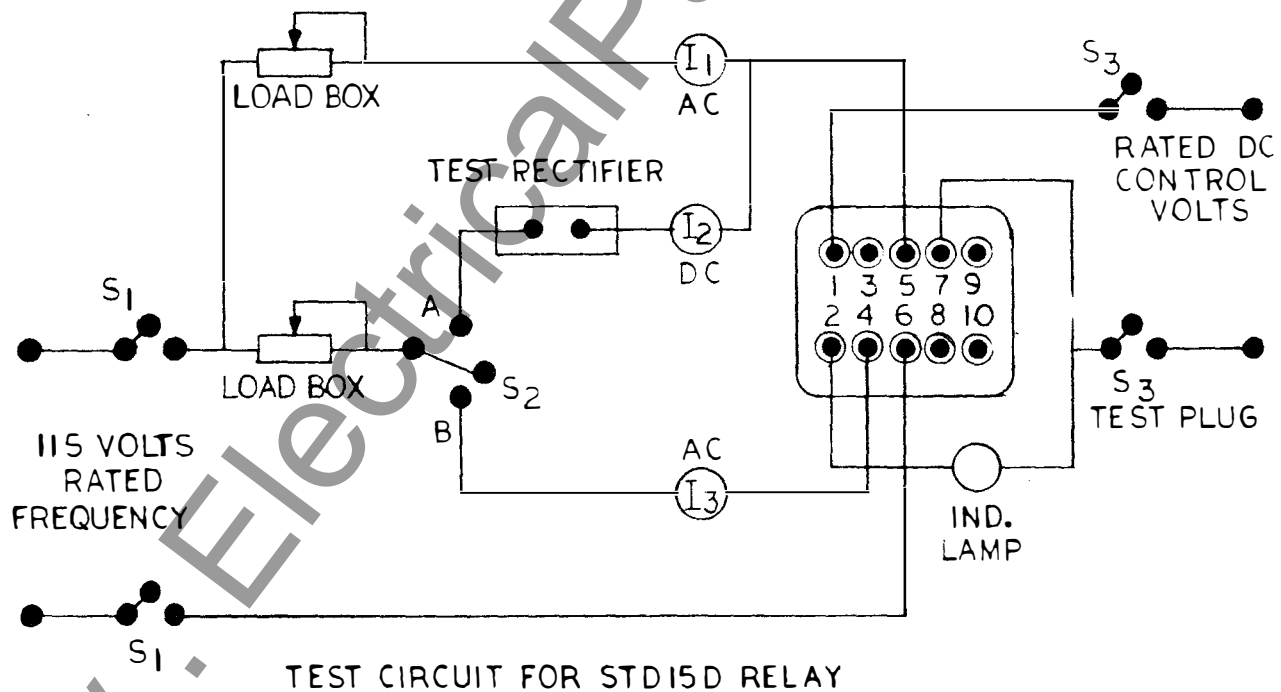


Figure 4 (0257A9684) Field-Test-Connections Diagram for the STD15D Using XLA Test Plugs