



INSTRUCTIONS

GEI-74678B

INSERT BOOKLET - GEI-83910B

**INSTANTANEOUS OVERCURRENT
RELAY - CFC15A2 & UP**

POWER SYSTEMS MANAGEMENT DEPARTMENT

GENERAL  ELECTRIC

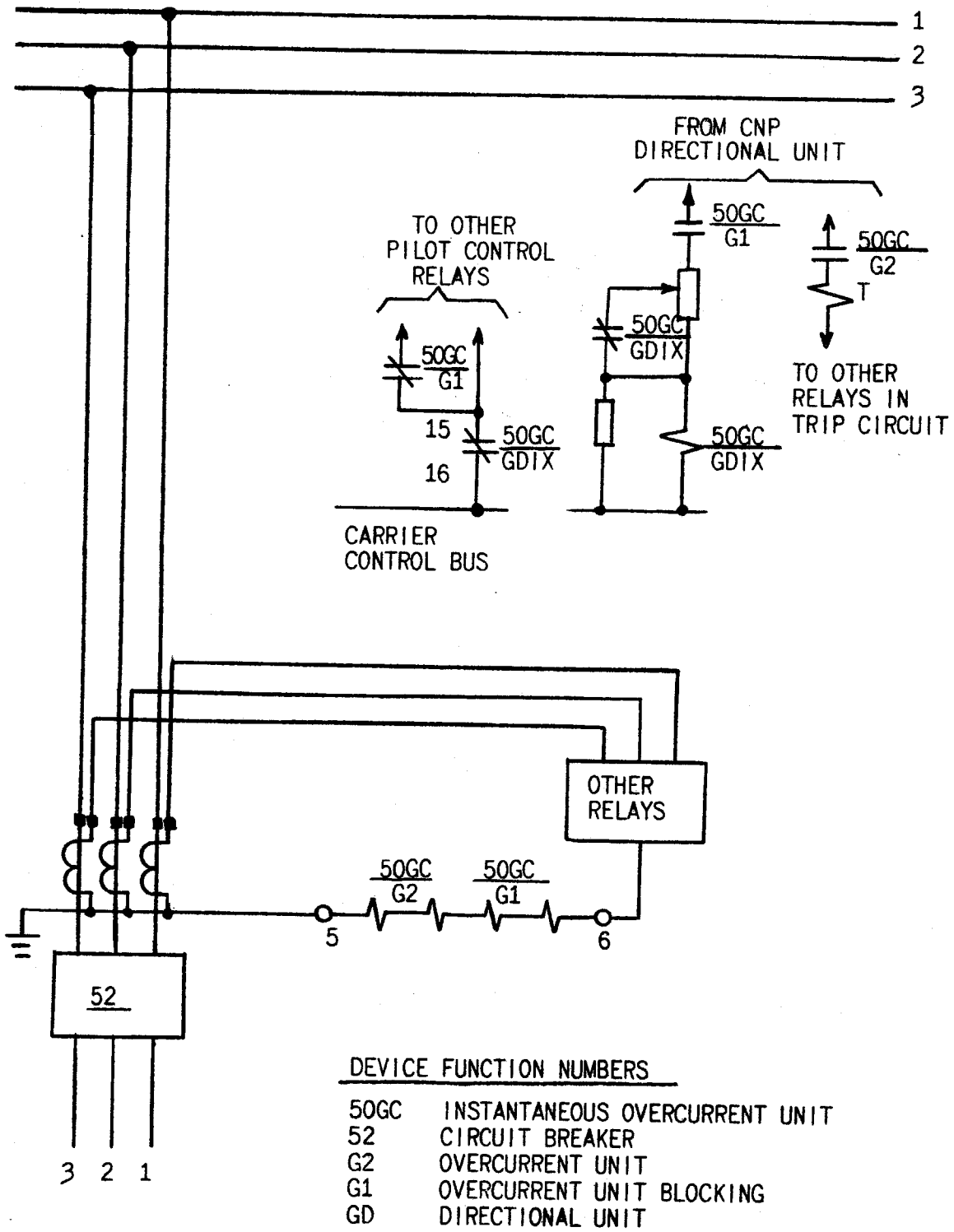


Fig. 1 (0165A6009-0) Typical External Connection Diagram for the CFC15A Relay

INSTANTANEOUS OVERCURRENT RELAY CFC15A

INTRODUCTION

These instructions are a supplement to instruction book GEI-83910 which is included in this book. The combination of the two forms instructions for the Type CFC15A relay.

DESCRIPTION

The CFC15A is a two unit induction cup instantaneous overcurrent relay in a Type M2 case similar to the CLPG12C relay except that the directional (bottom) unit is omitted. The CFC15A relay is designed for use with a Type CNP negative phase sequence directional relay to provide pilot relay protection against ground faults. The CFC15A relay contains a low set (upper) unit (G1) for pilot signal starting, a higher set (lower) unit (G2) with series target for trip circuit supervising and an auxiliary unit (GD1X) for prolonging the pilot signal. The G2 has provisions for either series or parallel connections to permit two ranges of pickup for application on 2 terminal or 3 terminal lines respectively.

APPLICATION

The Type CFC15A relay, together with other relays, provides ground-fault protection for two terminal lines (and some 3 terminal lines) where it is necessary to use a negative-phase-sequence relay rather than a zero-phase-sequence relay for the directional unit. This will be true where zero sequence mutual reactance is such that proper directional response requires the use of a negative phase sequence relay rather than a zero phase sequence relay. See Fig. 1 of this book for typical external connections.

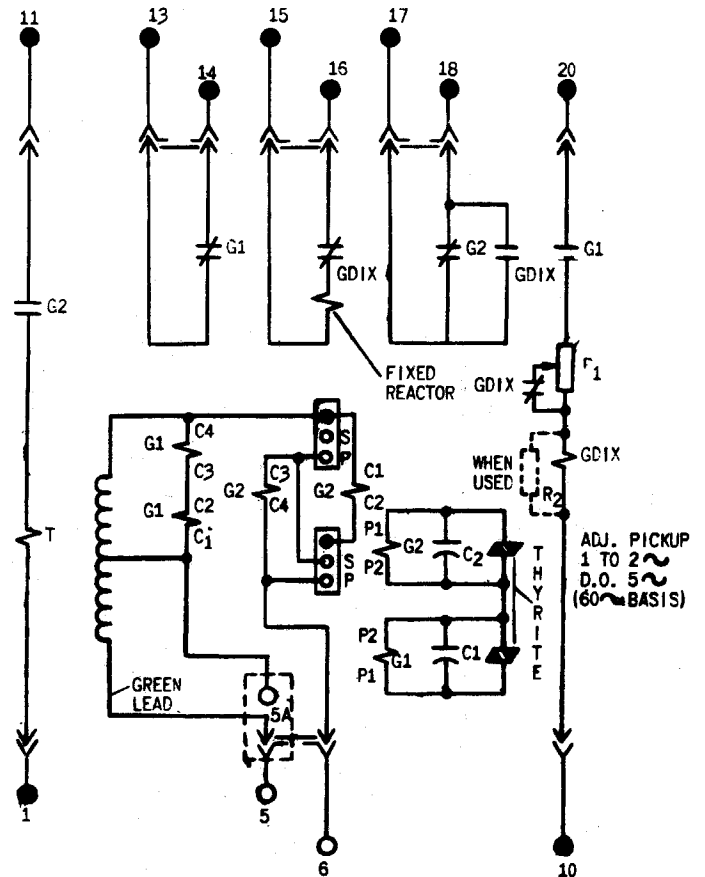
If this relay is to be used as a component of a pilot relay equipment, refer to the instructions for that equipment for choice of settings for the G1 and G2 units.

CHARACTERISTICS

The internal connections are shown in Fig. 2 of this book.

The outline and panel drilling is shown in Fig. 3 of this book.

CURRENT BURDENS AT MINIMUM G1 PICKUP 60 HERTZ					MEASURED BURDENS IN OHMS IMPEDANCE AT:			
G1 RATING AMPS	G2 TAP RANGE AMPS	R OHMS	X OHMS	Z OHMS	5 AMPS	10 AMPS	20 AMPS	50 AMPS
0.4-1.6	0.5-2	2.20	3.39	4.04	4.04	2.55	1.83	1.00
0.4-1.6	1-4	1.97	3.01	3.60	3.60	2.2	1.45	0.68

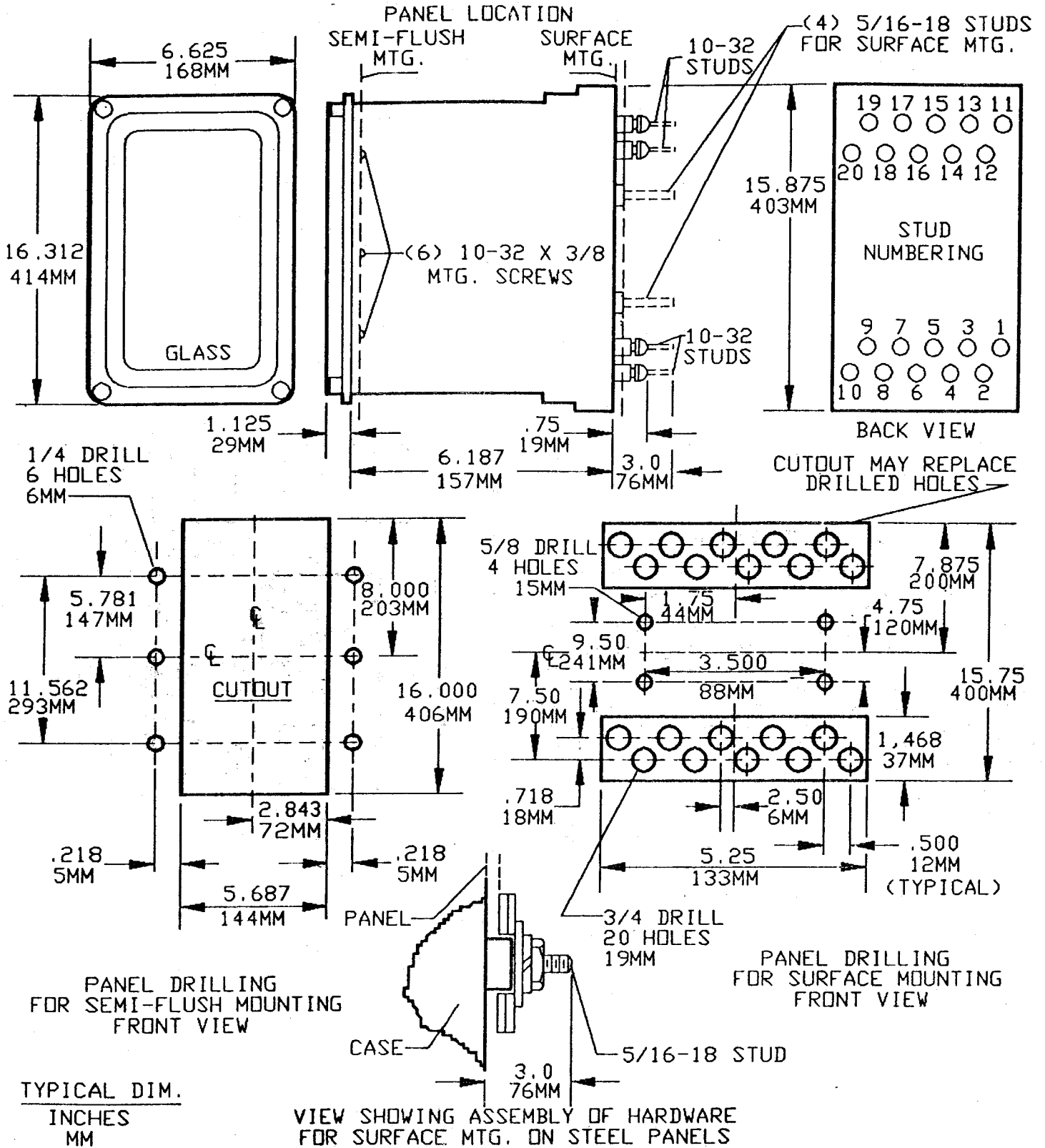


T = TARGET
 G1 = INSTANT OVERCURRENT UNIT (TOP)
 G2 = INSTANT OVERCURRENT UNIT (BOTTOM)
 FOR LOWER PICK-UP RANGE CONNECT TAPS IN "S"
 FOR HIGHER PICK-UP RANGE CONNECT TAPS IN "P"

Fig. 2 (0165A6047-0) Internal Connections (Front View)
for the CFC15A Relays Forms
2 and Up.

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.

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.



* Fig. 3 (6209274-6) Outline and Panel Drilling Dimensions for the CFC15A Relay

* Revised since last issue