



**GE VERNOVA**

# **RELAYS**

## **AUXILIARY RELAY**

### **TYPE HGA35A and B**

**GEI-83957A**

**Supersedes GEI-83957**

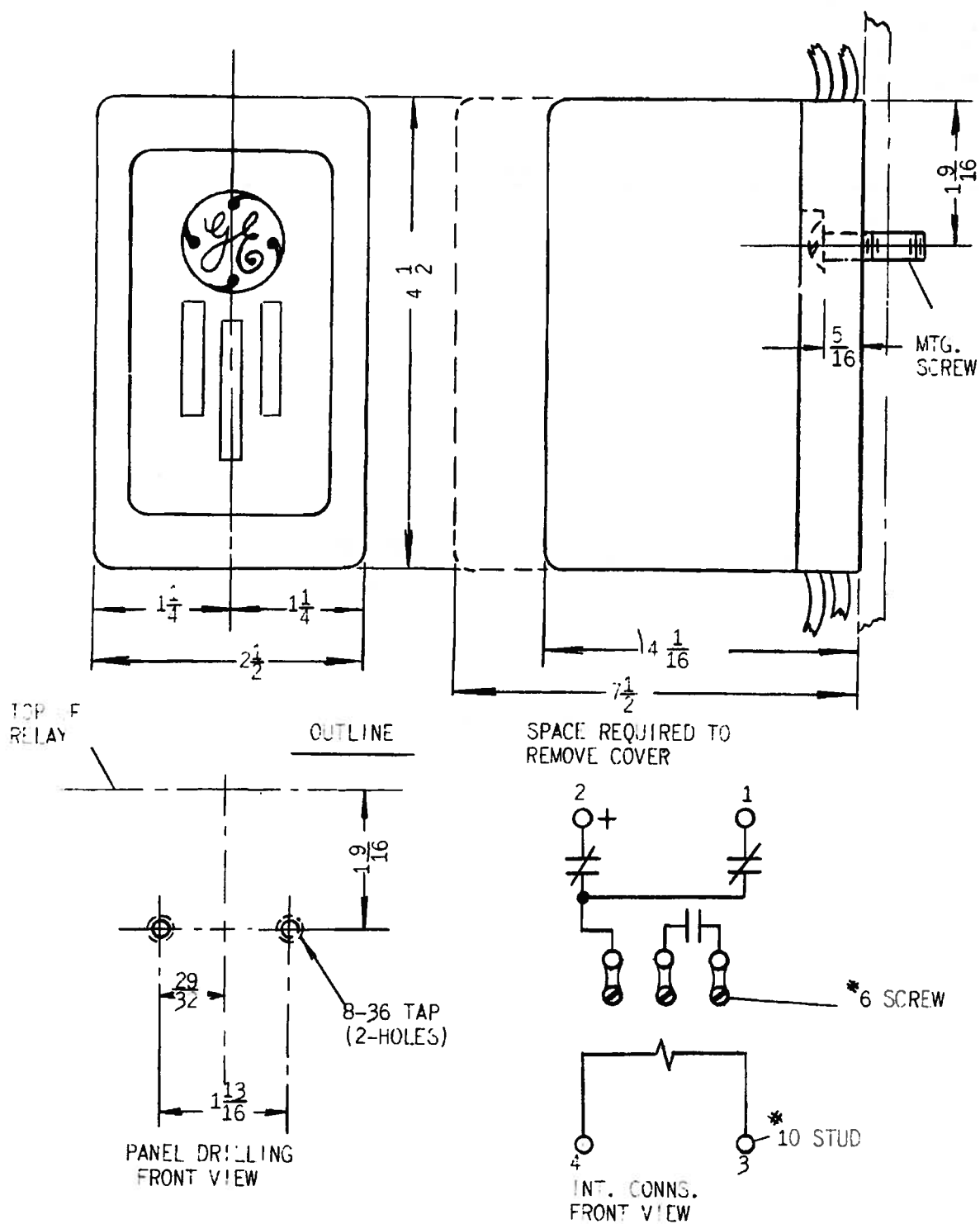


Fig. 1 (01484035-0) Outline, Panel Drilling And Internal Connections For The HGA35A And B Relays

# AUXILIARY RELAY HGA35A AND B

## INTRODUCTION

The HGA35A relay is an instantaneous shock resistant hinged armature control relay. It achieves its shock resistant characteristic by use of a balanced armature structure pivoted in the center. The relay is supplied with one normally closed bridging contact and one normally open overlapping contact. The bridging contact has a small horseshoe magnet around each of its stationary contacts.

The HGA35B is similar to the HGA35A except the magnetic circuit has been slightly modified to achieve time delay dropout.

## RATINGS

### COILS

The HGA35A and B relays are available in d-c voltage ratings 250 volts or less. The operating time of the HGA35A relay is approximately 30 milliseconds while the HGA35B has a dropout time of 150 milliseconds or more.

### CONTACTS

The current closing rating of the main (bridging) contacts is 30 amperes. The auxiliary contact will make, interrupt and carry continuously the coil current of the relay.

The inductive interrupting ability of the contacts is shown in the following table.

| VOLTS DC | CURRENT AMPERES |
|----------|-----------------|
| 24       | 12              |
| 48       | 9               |
| 125      | 6               |
| 250      | 3               |

The main contacts will carry 12 amperes continuously.

## BURDENS

| VOLTS | COIL OHMS |        |
|-------|-----------|--------|
|       | HGA35A    | HGA35B |
| 250   | 9600      | 6500   |
| 125   | 2460      | 1500   |
| 48    | 378       | 240    |
| 24    | 98        | 98     |

## CONSTRUCTION

### MOUNTING

The relay should be mounted on a vertical surface with the main (bridging) contacts at the top.

## ADJUSTMENTS

### MECHANICAL

1. Check that the normally closed contacts part within 1/64" of each other, that is, with one contact just making, the gap on the other should not exceed 1/64".
2. The gap on the normally open and normally closed contacts should be approximately 1/16" to 1/64".
3. Check that the normally open contact closes before the normally closed contact opens.

4. Check that the blowout magnets which are nested under the stationary contacts are assembled with the red dots toward the outside of the relay.

## ELECTRICAL

The HGA35A and B relays have been adjusted at the factory to pick up at 80% or less of rated voltage.

The HGA35B has been adjusted to drop out (i.e., close the normally closed contacts) in 150 milliseconds or more upon removal of rated voltage.

## CONNECTIONS

The polarity of the connections to the main contacts must be as shown on the internal connection diagram. This will cause the arc (if any) at the contacts to be blown up and away from the coil.

## MAINTENANCE

### CONTACT CLEANING

For cleaning contacts a flexible bur-nishing tool should be used. A typical bur-nishing tool is included in the standard XRT11A relay tool kit.

## RENEWAL PARTS

For renewal parts, address the nearest General Electric Company Sales Office, specifying the quantity required and describing the parts by catalogue numbers shown in Parts Bulletin No. GEF-2623.

*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.*



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