

## INSTRUCTIONS

GEK-45453 A  
Insert Booklet GEI-20916  
GEK-27893

### DEFINITE TIME - OVERCURRENT RELAY

TYPE PJC

MODEL PJC99AB(-)A

#### INTRODUCTION

This supplement together with GEK-27893 and GEI-20916C form the instructions for the special relay PJC99AB(-)A.

#### DESCRIPTION

This relay is a combination of a Type PJC32D and a Type HGA14S relays mounted in a size M-2 case. The construction of the overcurrent unit is similar to those in Type PJC32D relay except only one target and seal-in unit is used. The d-c time delay auxiliary unit is similar to the Type HGA14S15 except that capacitors are provided for external mounting (see Table A). Also a blocking rectifier and discharge resistor are added. Another rectifier is added across coil HGA.

#### RATINGS AND BURDENS

Ratings and Burdens for the Type PJC units are listed in GEK27893.

The Type HGA auxiliary unit is rated 125 volts d-c and is similar to the Type HGA14S15 relay listed in the included GEI-20916 instruction book.

#### CHARACTERISTICS

The total operating time is obtained by adding the Type PJC operating time, determined from the time curves in the included GEK-27893 (Fig. 2), to the operating time of the Type HGA unit. The time delay of the auxiliary unit is adjustable (see Table A) and is set by moving the slider on the charging resistor.

*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.*

OPERATION

The overcurrent and auxiliary units operate individually as described in the included instruction books. When external connections from studs 15 to 16 and 17 to 18 are made and d-c voltage of proper polarity is applied to studs 10 and 20 definite operating times can be obtained. The operation of any of the overcurrent units will begin charging of the external capacitor through the adjustable resistor and the rectifier. The auxiliary unit will operate when the charge on the capacitor has equalled the pick up voltage of the unit. When all the overcurrent units reset, the 1000 ohm resistor will be connected across the external capacitor discharging it, insuring a definite pick-up time even on two instantaneous reclosures of the overcurrent unit. The rectifier prevents the capacitor from discharging into the auxiliary unit coil before the overcurrent contacts close.

INSTALLATION

The internal connections are shown in Fig. 1 and the outline and panel drilling are shown in Fig. 2,3 and 4.

TABLE A

FORM	EXT CAP	TIME (CYCLES)	
		Min	Max
1	25uf	4	14
2	25uf	4	14
3	25uf	4	14
4	25uf	4	14
5	25uf	4	14
6	75uf	4	17
7	25uf	4	14
8	25uf	4	14
9	75uf	4	17
10	75uf	4	17

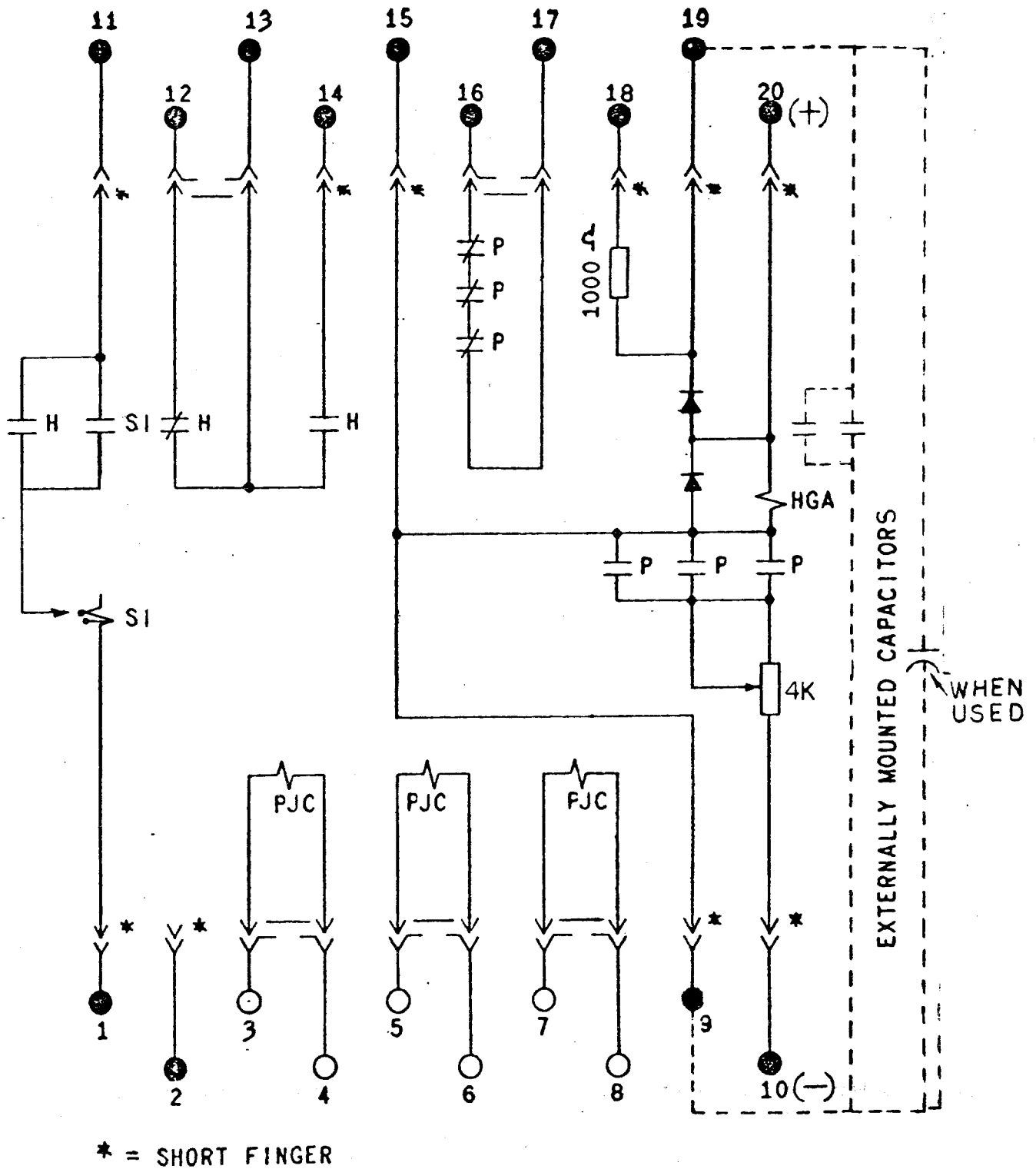


FIGURE 1(246A6964-4) INTERNAL CONNECTIONS FOR 12PJC99AB(-)A

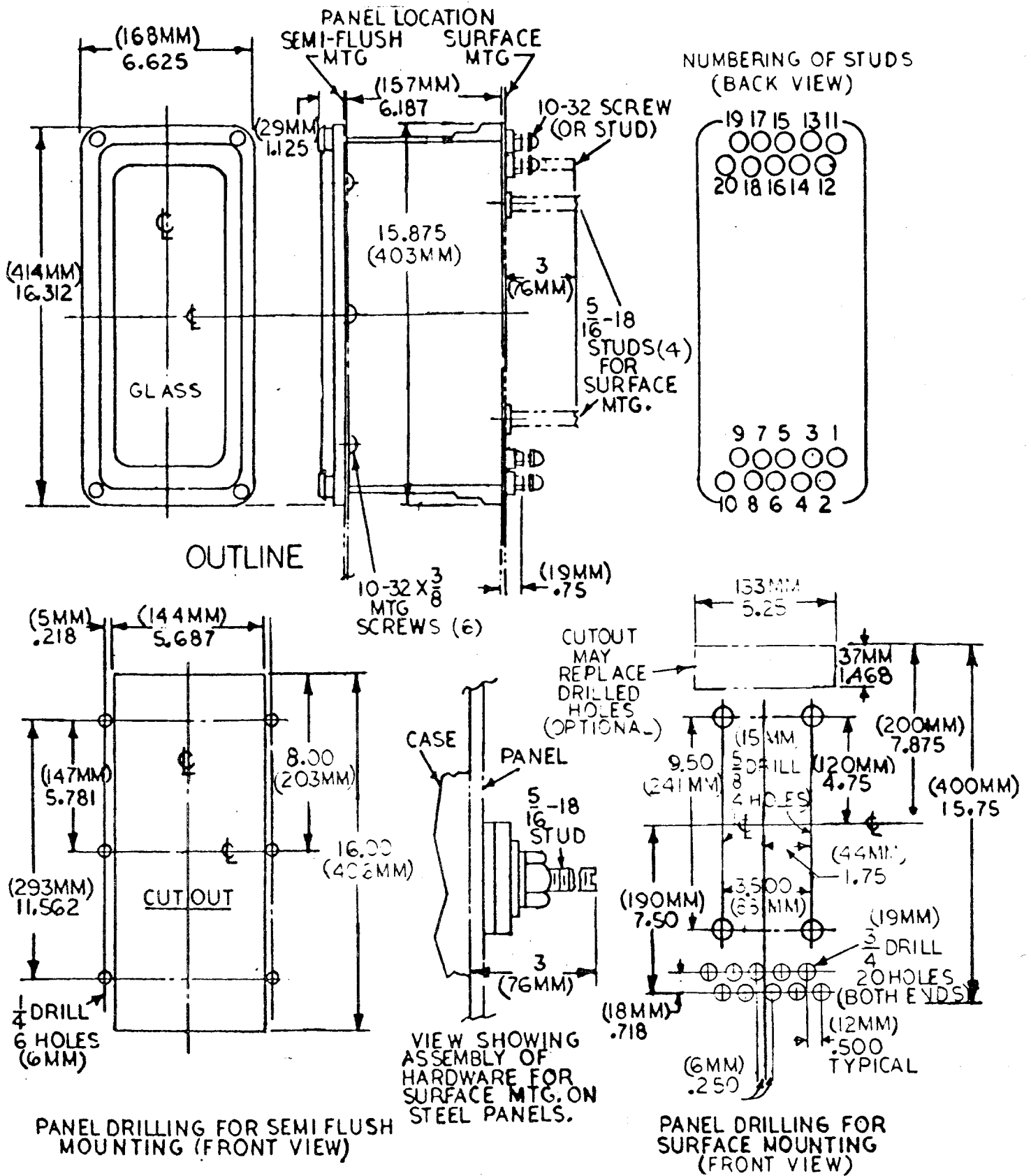


FIGURE 2(6209274-4) OUTLINE AND PANEL DRILLING FOR 12PJC99AB(-)A

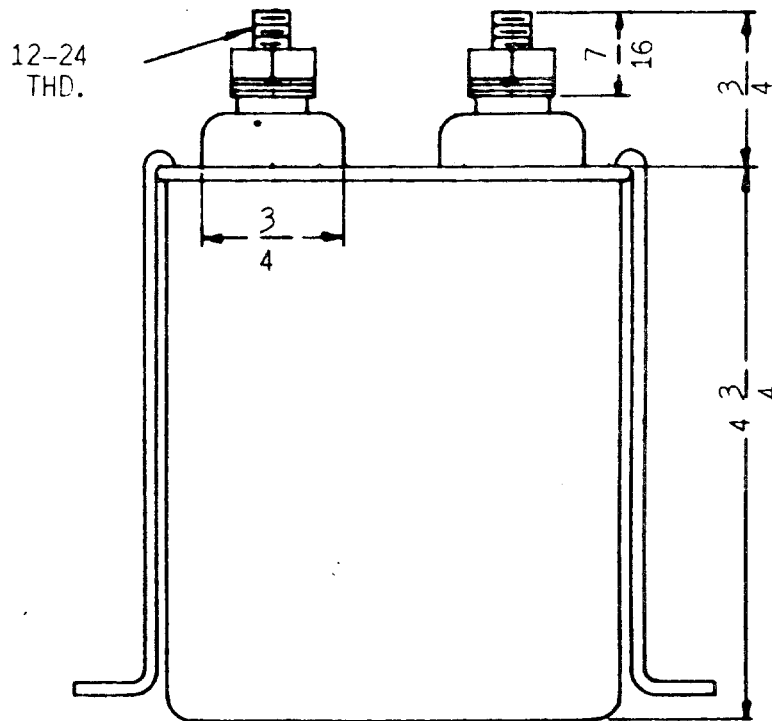
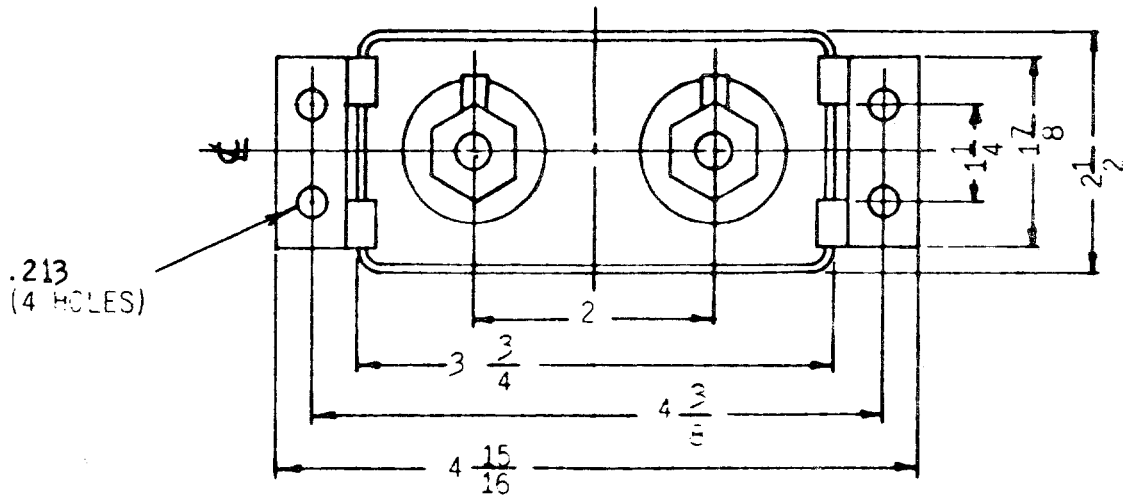
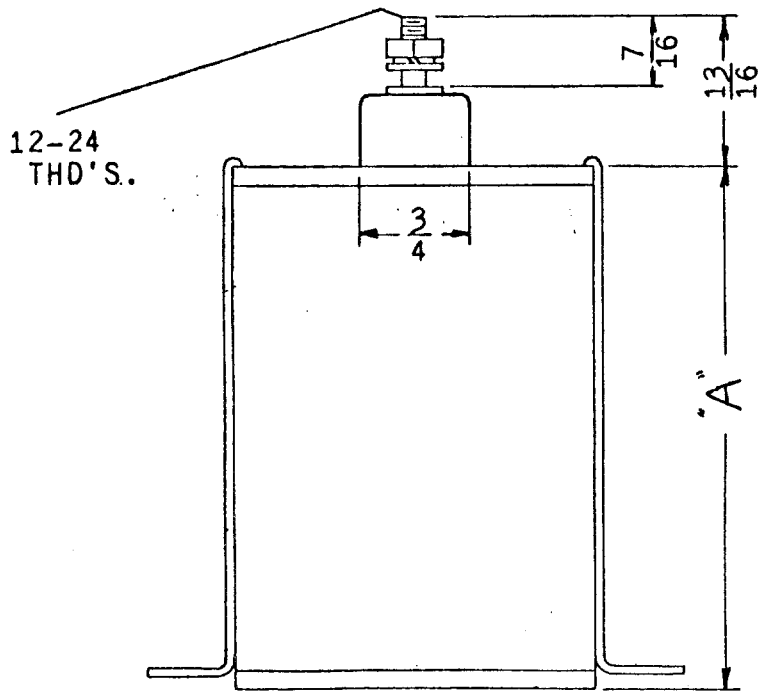
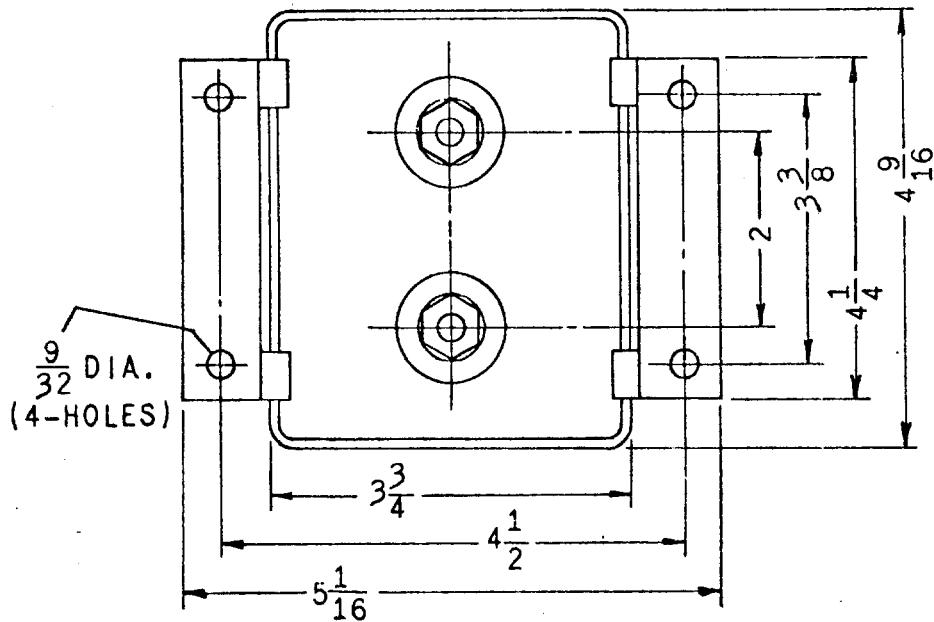


FIGURE (165A6045-1) OUTLINE FOR EXTERNAL 25 MUF CAPACITOR



OUTLINE

CAPACITOR NO.	"A" DIM.
23F713 G-102	$5\frac{1}{8}$
23F1067 G-102	$4\frac{3}{4}$

FIGURE 4(402A0945-3)OUTLINE FOR EXTERNAL 50 MUF CAPACITOR

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