

INSTRUCTIONS

GEI-88760A
SUPERSEDES GEI-88760



CAPACITOR TRIP DEVICE

SWITCHGEAR DEPARTMENT

GENERAL  ELECTRIC

PHILADELPHIA, PA.

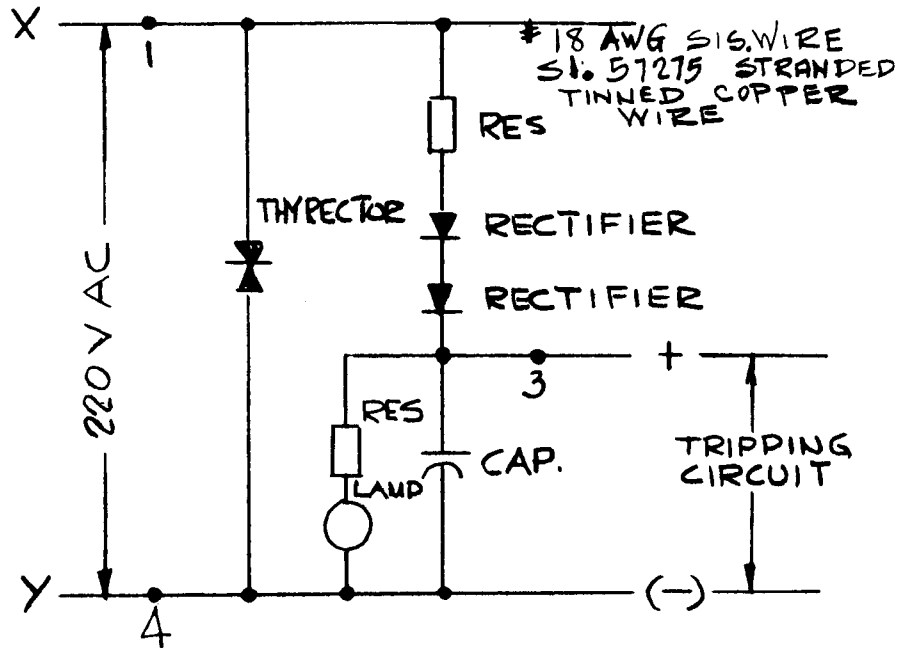


Fig. 1 Elementary Diagram

Fig. 1 (10509380)

Fig. 2 (8914721A8B)

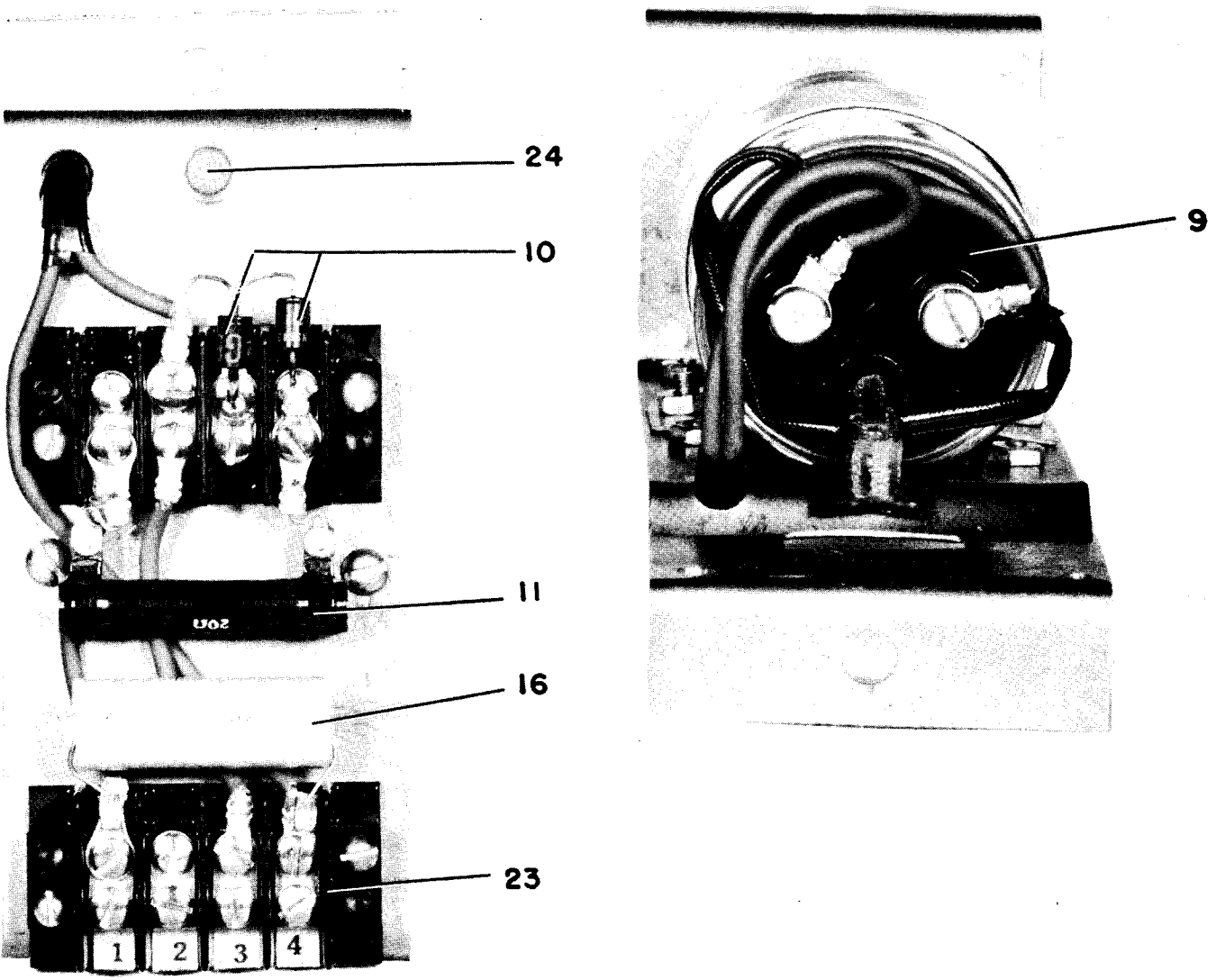


Fig. 2 Capacitor Trip Device

CAPACITOR TRIP DEVICE

INTRODUCTION

The capacitor trip device is a device designed for use in tripping the operating mechanism of a circuit breaker, its purpose being to provide sufficient electrical energy to operate the trip coil of the mechanism.

The device is primarily for use with circuit breakers which require some form of a-c power for their closing operation, i.e. circuit breakers having either a stored

energy closing mechanism with an a-c operated release coil or an a-c solenoid operated closing mechanism. It may also be used with circuit breakers employing other means of closing. However it might be necessary to observe certain operating procedures as outlined under "Operation and Checking".

In addition to circuit breaker tripping, the unit may be used to operate hand or

electric reset devices such as lockout relays.

It is recommended that each circuit breaker or other device be provided with its individual capacitor trip device. Exceptions to these recommendations are particular combinations of circuit breakers and lockout relays which tests have indicated can be operated reliably from a single tripping unit.

OPERATION AND CHECKING

The unit is connected directly to the 230 volt a-c source through the input terminals 1 and 4, and the leads to the trip circuit from terminals 3 and 4.

The operation of the unit is completely automatic and requires only an occasional check to determine if it is functioning normally. A neon light is supplied near the top of the unit. This light is energized continuously and will glow if the voltage across the capacitor is above the minimum tripping voltage. This shows the readiness

of the unit to trip the breaker and does not indicate if the a-c source is available. A constant visible check of the a-c line is available by the indicating lamp on the metal-clad door or panel.

NOTE: The energy storage capacitor used in this unit is a special high grade, low leakage, industrial type electrolytic capacitor. One characteristic of electrolytic capacitors is that they tend to unform when left de-energized for extended periods. Although these units have been completely

formed at the factory, they may have been idle for a considerable period of time. It is therefore recommended that immediately prior to putting a unit into operation, it is energized from the 230 volt a-c source for a period of at least two (2) hours or more.

NOTE: During testing of the unit with its associated circuit breaker, do not have the tripping circuit completed when applying a-c voltage to a discharged unit. Also, supervision of the trip coil in the usual manner with the red indicating light should be avoided.

MAINTENANCE

Voltage measurements should be made with a vacuum tube voltmeter to assure accuracy. The unit should be energized with a-c power for at least one hour before any measurements are attempted.

1. The a-c input voltage can be measured at terminals 1 and 4 and should be from 190v to 250v a-c.
2. The d-c output voltage should be

measured at terminals 3 and 4. With the a-c line energized, the output voltage should be from 260v to 350v d-c.

RENEWAL PARTS

It is recommended that sufficient renewal parts be carried in stock to enable the prompt replacement of any worn, broken or damaged parts.

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9	0456A0864 P102	Capacitor
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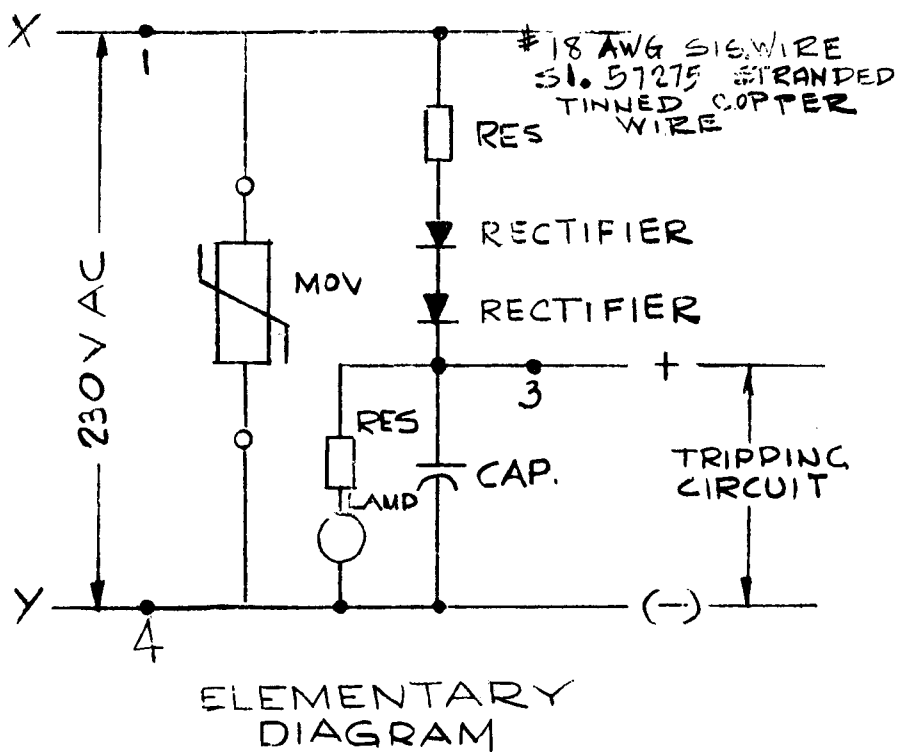
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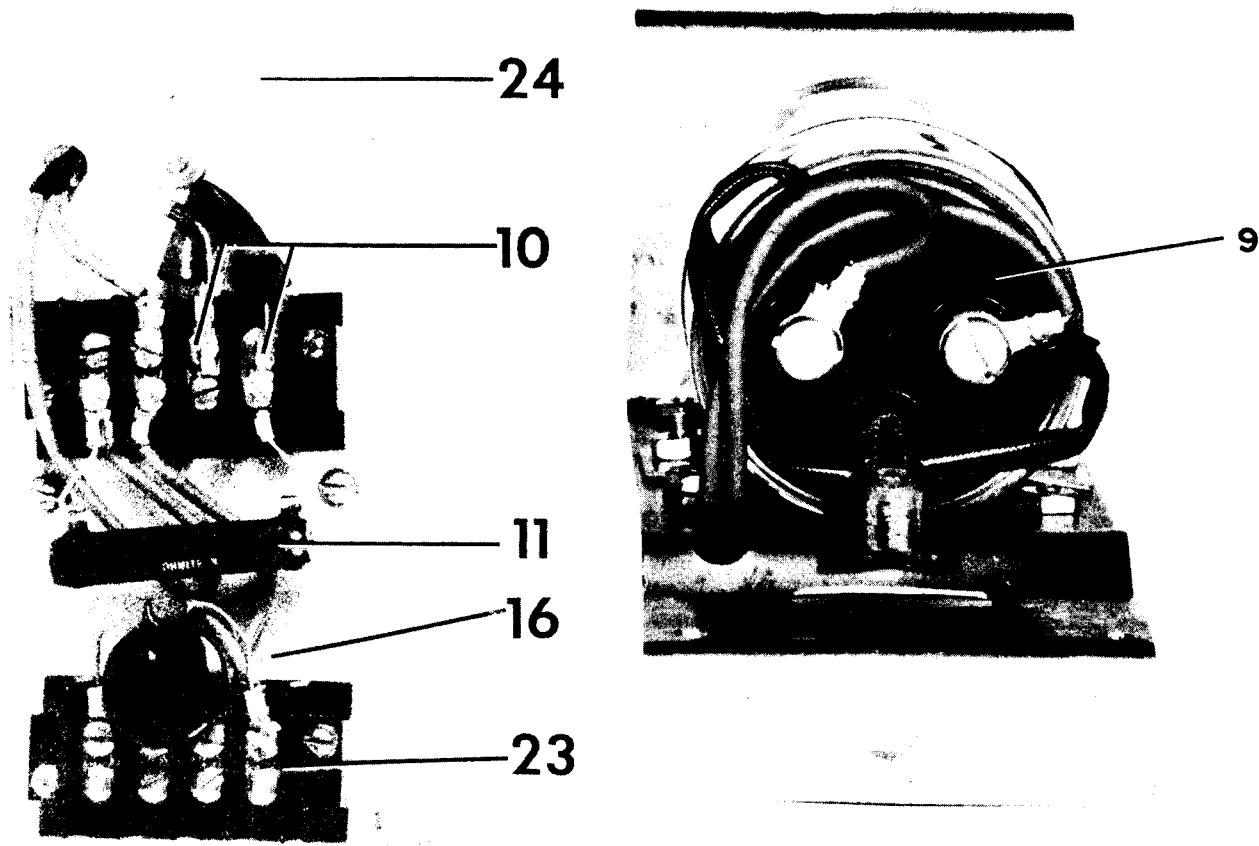
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CAPACITOR TRIP DEVICE

GENERAL  ELECTRIC



* Fig. 1 (0105C9380-13) Elementary Diagram



* Fig. 2 (8043415 and 8914721B) Capacitor Trip Device

CAPACITOR TRIP DEVICE

INTRODUCTION

The capacitor trip device is a device designed for use in tripping the operating mechanism of a circuit breaker, its purpose being to provide sufficient electrical energy to operate the trip coil of the mechanism.

The device is primarily for use with circuit breakers which require some form of a-c power for their closing operation, i.e. circuit breakers having either a stored

energy closing mechanism with an a-c operated release coil or an a-c solenoid operated closing mechanism. It may also be used with circuit breakers employing other means of closing. However it might be necessary to observe certain operating procedures as outlined under "Operation and Checking".

In addition to circuit breaker tripping, the unit may be used to operate hand or

electric reset devices such as lockout relays.

It is recommended that each circuit breaker or other device be provided with its individual capacitor trip device. Exceptions to these recommendations are particular combinations of circuit breakers and lockout relays which tests have indicated can be operated reliably from a single tripping unit.

OPERATION AND CHECKING

The unit is connected directly to the 230 volt a-c source through the input terminals 1 and 4, and the leads to the trip circuit from terminals 3 and 4.

The operation of the unit is completely automatic and requires only an occasional check to determine if it is functioning normally. A neon light is supplied near the top of the unit. This light is energized continuously and will glow if the voltage across the capacitor is above the minimum tripping voltage. This shows the readiness

of the unit to trip the breaker and does not indicate if the a-c source is available. A constant visible check of the a-c line is available by the indicating lamp on the metal-clad door or panel.

NOTE: The energy storage capacitor used in this unit is a special high grade, low leakage, industrial type electrolytic capacitor. One characteristic of electrolytic capacitors is that they tend to unform when left de-energized for extended periods. Although these units have been completely

formed at the factory, they may have been idle for a considerable period of time. It is therefore recommended that immediately prior to putting a unit into operation, it is energized from the 230 volt a-c source for a period of at least two (2) hours or more.

NOTE: During testing of the unit with its associated circuit breaker, do not have the tripping circuit completed when applying a-c voltage to a discharged unit. Also, supervision of the trip coil in the usual manner with the red indicating light should be avoided.

MAINTENANCE

Voltage measurements should be made with a vacuum tube voltmeter to assure accuracy. The unit should be energized with a-c power for at least one hour before any measurements are attempted.

1. The a-c input voltage can be measured at terminals 1 and 4 and should be from 190v to 250v a-c.
2. The d-c output voltage should be

measured at terminals 3 and 4. With the a-c line energized, the output voltage should be from 260v to 350v d-c.

RENEWAL PARTS

It is recommended that sufficient renewal parts be carried in stock to enable the prompt replacement of any worn, broken or damaged parts.

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11	0456A0864 P034	Resistor
* 16	0456A0864 P224	Metal Oxide Varistor
23	0456A0864 P032	Terminal Board
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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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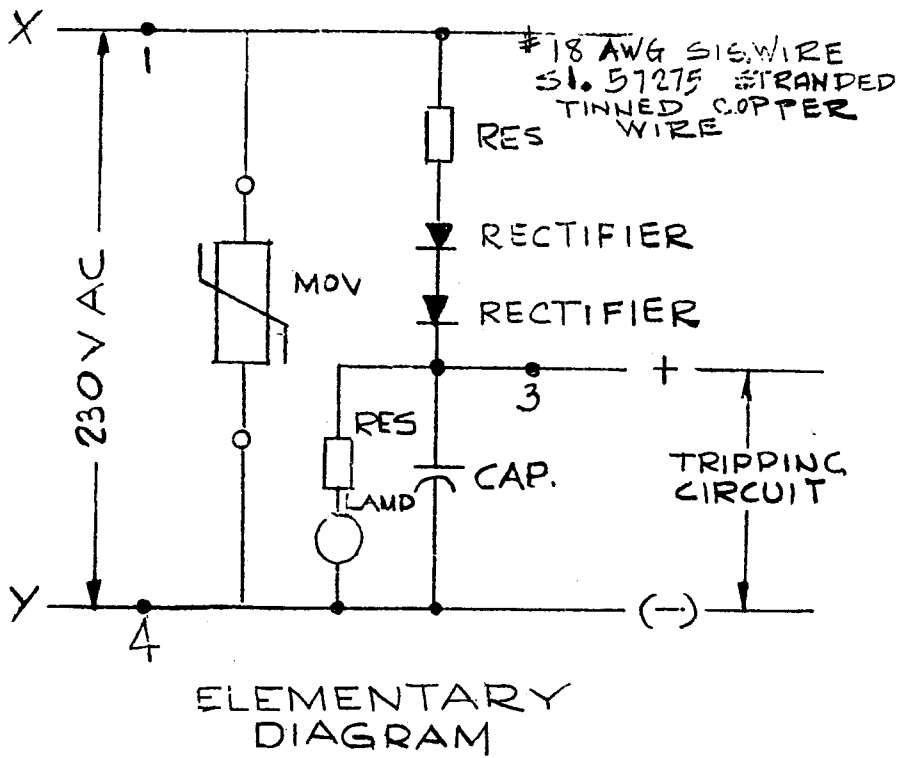
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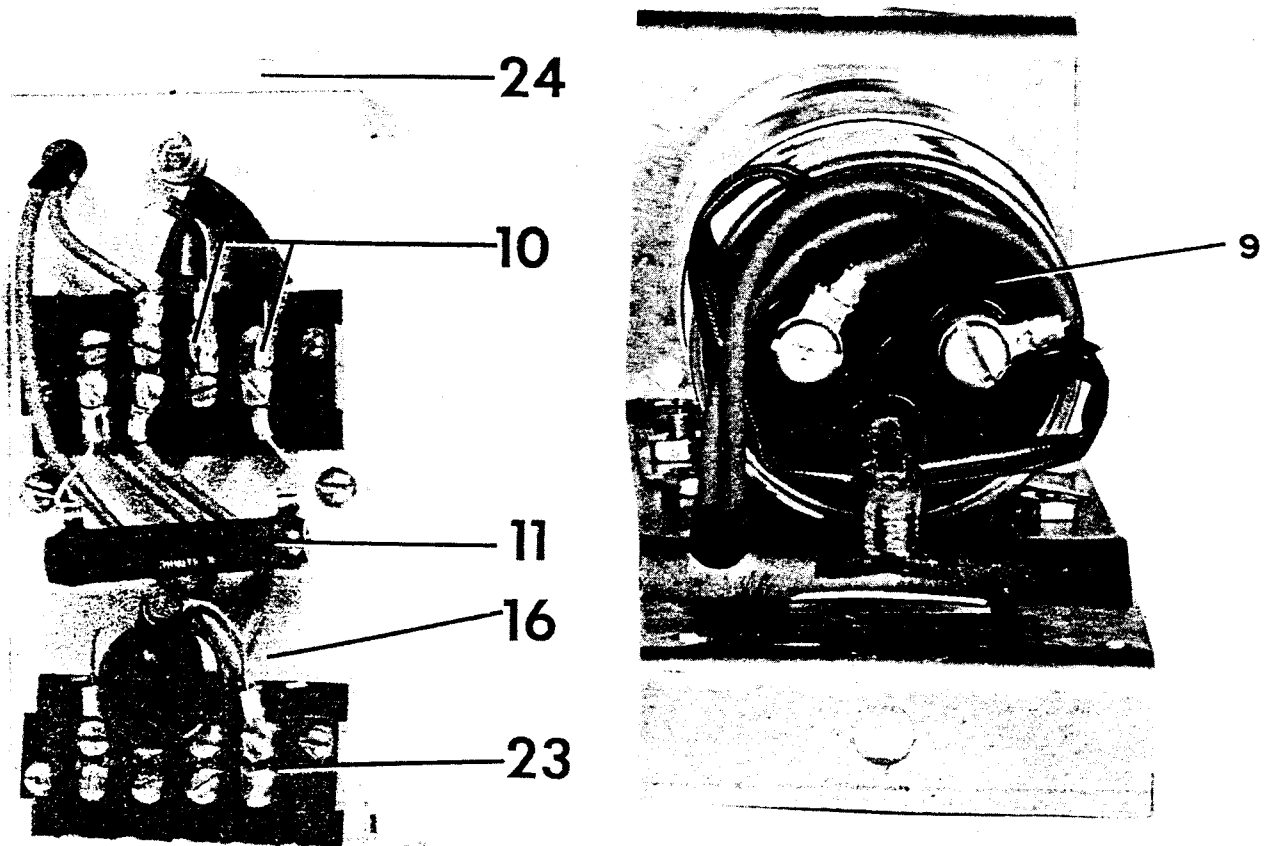
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