



I N S T R U C T I O N S

CAUTION: Before installing in a nuclear application, determine that the product is intended for such use.

CR120B 600 volt industrial relay—SERIES A

DESCRIPTION

The CR120B Series A 600 volt multicircuit industrial relay line includes the basic magnetic relay, timer attachments and latch attachment. These units plus contact modules and mounting accessories provide for maximum flexibility.

RATINGS

Ac—NEMA A600

Max. Ac Voltage	Max. Continuous Current	Max. Voltamp Rating		Max. Current Rating	
		Make	Break	Make	Break
600	10	7200	720	60	6

Dc—NEMA P300

Max. Current Rating		Max. Voltamp Rating
125V	250V	300V or Less
1.1	.55	138

INSTALLATION

1. Disconnect power from source.
2. Remove all packing.
3. Operate the magnet and operating arm by pulling the manual operator to assure free movement.
4. Mount the relay on a vertical panel.
5. Make all electrical connections. Normally open contacts are indicated by gold and normally closed by white.

COIL REMOVAL

1. Disconnect power from the device.
2. Remove from panel, if so mounted.
3. Insert a screwdriver blade between magnet and magnet retaining clip. Twist blade to force retaining clip away from magnet. Push down on screwdriver, dislodging magnet; then applying firm pressure with screwdriver, push magnet through coil to position shown in Figure 1.
4. Grasp the coil terminals and pull out.

TO REASSEMBLE:

5. Insert coil and center in housing.

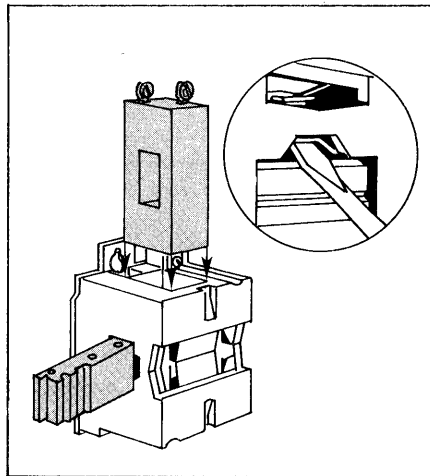


Figure 1.

6. Slide magnet back through coil and center with housing window. Insert blade of screwdriver through window, perpendicular to magnet. Using blade of screwdriver, push retaining clip away from magnet and apply pressure on magnet from opposite side. Snap

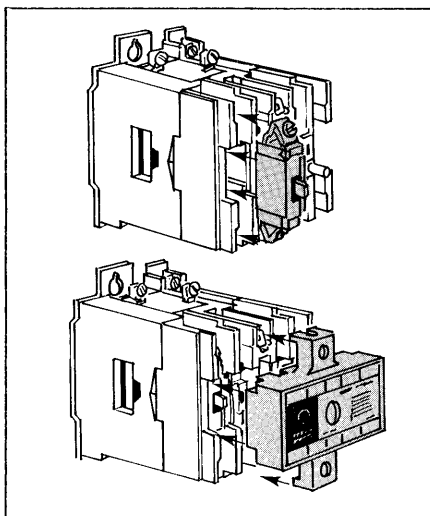


Figure 2.

magnet back into position under retaining clip. Magnet must be centered in housing window in order for it to seat properly.

CONTACT REMOVAL/CONVERSION

Contact modules may be removed, inspected, converted or replaced using only a screwdriver.

1. Disconnect power from the device.
2. Loosen cover screws or screws above the appropriate deck and remove.
3. Lift out contact module. Contacts may be inspected through gold transparent side of module.
4. To convert contact from normally open to normally closed or normally closed to normally open:
 - a. Remove contact module terminal screws and reassemble on opposite side.
 - b. Replace contact module in deck.
5. Reassemble.

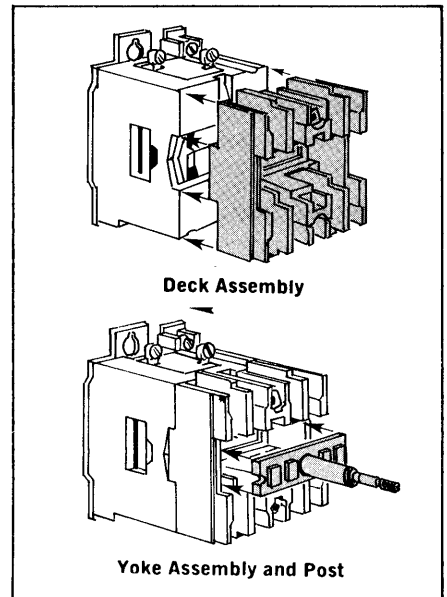


Figure 3.

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 nearest General Electric Sales Office.

INSTALLING ADDER DECK

Additional decks of contact modules may be added to the relay making a relay with up to 12 poles and a maximum of eight poles that can be normally closed.

To install adder decks:

1. Remove power from the device.
2. Loosen cover screws and remove cover.
3. Unscrew steel post and replace with the longer post supplied with the adder deck. If adding two decks, only the extra long post supplied with the second adder deck should be used.
4. Add deck to the relay using the screws provided.
5. Slip the T-shaped yoke over the steel post.
6. Add the contact modules. For normally open contact, assemble with gold tabs up. A normally closed contact should have the white side up. Make sure the screws are on the top side of each module.
7. If a second adder deck is being used, repeat steps 4, 5, and 6.
8. Reassemble the cover.

INSTALLING INDICATING LIGHT ATTACHMENT

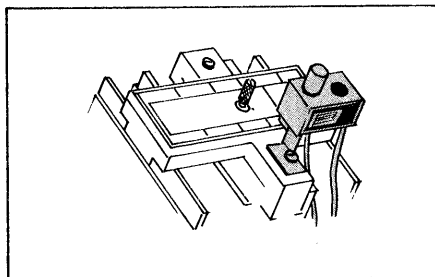


Figure 4.

1. Remove one of the cover screws.
2. Using screw supplied with indicating light kit, install the light as shown.
3. Wire to coil terminals or any other source of the proper voltage.

INSTALLING SURGE SUPPRESSOR

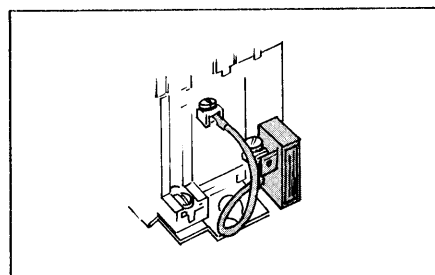


Figure 5.

1. Remove coil terminal screws.
2. Install surge suppressor and lead to coil terminals as shown.

INSTALLING OVERLAPPING CONTACTS

Standard contacts are non-overlapping, i.e., during pickup and dropout there is a period where all contacts are open. If overlapping contacts are required, contact modules CR120BX1A may be used. These contacts will overlap with each other but not necessarily with standard contacts. Normally open and normally closed overlapping contacts will all be closed for a period of time during pickup and dropout. For installing the contact modules, see section on Contact Removal/Conversion.

CONTACT MODULE IDENTIFICATION

The type of contact module can be identified even after installation by the terminal color. Standard modules have a brass terminal, overlapping modules have a gray color, and gold-plated contact modules have red on the terminal.

ACCESSORY KITS

Standard Contact Modules	CR120BX1
Overlapping Modules	CR120BX1A
Gold-plated Contact Modules	CR120BX1B
First Adder Deck (Can accommodate up to eight total contact modules) Includes one contact module	CR120BX3
Second Adder Deck (Use with first adder deck or eight-pole relay to accommodate up to 12 total contact modules) Includes four contact modules	CR120BX14
Mounting Track—(40 inches long for 16 relays)	
Breakaway type	CR120BX4
Non breakaway type	CR120BX18
Indicating Light	
115V 50/60 Hz	CR120BX5
230V 50/60 Hz	CR120BX6
460V 50/60 Hz	CR120BX7
Surge Suppressor	
115V 50/60 Hz	CR120BX2
Wiring Trough Covers	
1 1/2 in. wide x 6 ft	CR120X15A
2 in. wide x 6 ft	CR120X16A
2 1/2 in. wide x 6 ft	CR120X17A
NEMA 1 Enclosure	
(For up to four-pole relay)	CR120BX19
(For up to eight-pole relays)	CR120BX15
Retaining Shields—6 ft. long for use:	
with mounting track	CR120BX9
without mounting track	CR120BX8
Retaining Shield Brackets (Pkg. of eight) for use:	
with mounting track	CR120BX13
without mounting track	CR120BX12
Latch and Time-Delay Kits—Latch relays and time-delay relays are also available as either kits or complete relays. See General Purpose Control Catalog GEP-1260 for Ordering and Pricing Information.	

RENEWAL PARTS

Coils

(Order 55-513696G*** plus suffix number per table below).

Voltage	Frequency	Suffix No. ***
24	60	025
115	60	002
120	60	022†
200	60	023
230	60	003
460	60	004
575	60	005
600	60	006
110	50	007
220	50	008
380	50	004
440	50	009
550	50	010

† Coil is dual rated 120V, 60 Hz/110V, 50 Hz.

Instantaneous Contacts

Standard Contact Modules . . . CR120BX1
Overlapping Contact Modules CR120BX1A
Gold-plated Contact Modules CR120BX1B