

**SIEMENS-ALLIS**

**Information and Instruction Guide**

**J6 and L6 Frame**

**Types JD2, JJ6, JL6, HJ6, LJ6, LL6, HL6**

**ITE<sup>®</sup> Molded Case  
Circuit Breakers**



**I-T-E J6 and L6 Frame  
Types JD2, JJ6, JL6, HJ6, LJ6, LL6, HL6  
Models ET, ETI, ET-H  
2 and 3 Pole 200-600 Amperes**

**WARNING**

Dangerous voltages are present inside the enclosures, or panels in which this circuit breaker is installed. Serious injury, electrocution, and/or equipment damage can result if extreme caution is not used when examining this circuit breaker while it is still in service.

De-energize all incoming power if conditions exist which are contrary to those described in this instruction book or which are otherwise unusual.

Only qualified personnel should work on or around this equipment.

### IMPORTANT

The information contained herein is general in nature and is not intended for specific application purposes nor is it intended as a training manual for unqualified personnel. Refer to Note for definition of a **qualified person**. It does not relieve the user of responsibility to use sound practices in application, installation, operation and maintenance of the equipment purchased or in personnel safety precautions. Should a conflict arise between the general information contained in this publication and the contents of drawings or supplementary material or both, the latter shall take precedence. ITE Electrical Products reserves the right to make changes in specifications shown herein or add improvements at any time without notice or obligation.

### NOTE

#### **\*Authorized and qualified personnel-**

For the purpose of this manual a qualified person is one who is familiar with the installation, construction or operation of the equipment and the hazards involved. In addition, he has the following qualifications:

- (a) **is trained and authorized** to de-energize, clear, ground, and tag circuits and equipment in accordance with established safety practices.
- (b) **is trained** in the proper care and use of protective equipment such as rubber gloves, hard hat, safety glasses or face shields, flash clothing, etc., in accordance with established safety practices.
- (c) **is trained** in rendering first aid.

### WARRANTY DISCLAIMER

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 local Siemens-Allis sales office.

The contents of this instruction manual shall not become part of or modify any prior or existing agreement, commitment or relationship. The sales contract contains the entire obligation of Siemens-Allis. The warranty contained in the contract between the parties is the sole warranty of Siemens-Allis. Any statements contained herein do not create new warranties or modify the existing warranty.

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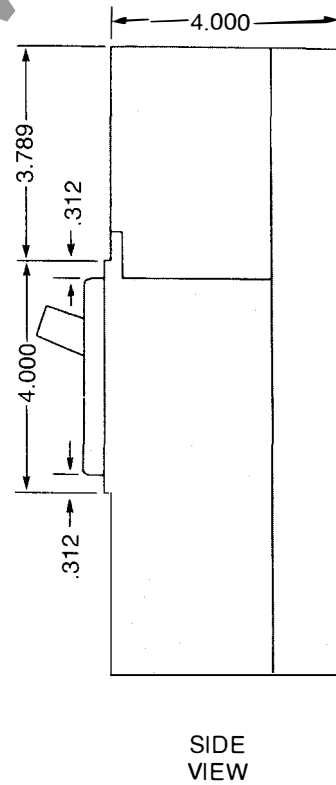
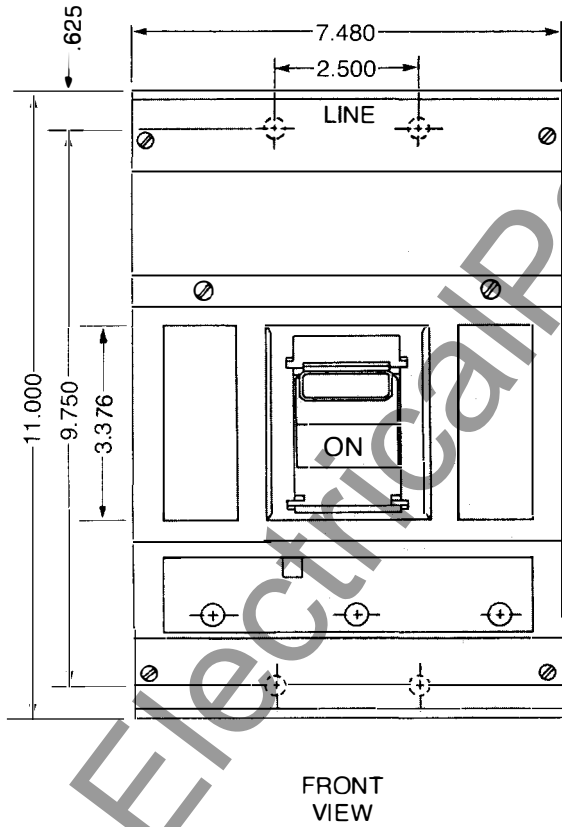
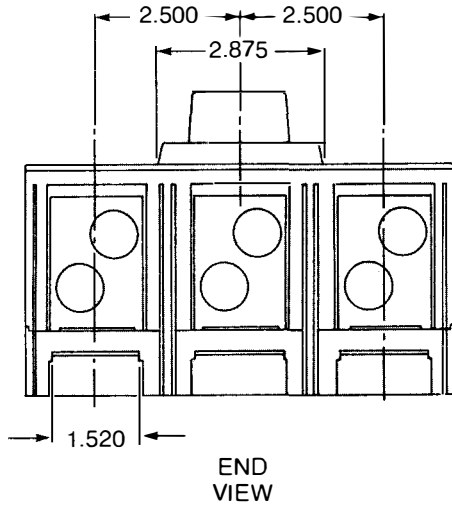
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# I-T-E J6 AND L6 OUTLINE DRAWINGS



DIMENSIONS IN INCHES

**NOTE:** 2 and 3 pole breakers are the same physical size; in the 2 pole breakers the current carrying parts are omitted from the center pole.

# GENERAL INFORMATION FOR I-T-E J6 AND L6 FRAME CIRCUIT BREAKERS AND SWITCHES 2 AND 3 POLE, 200-600 AMPERES

## General

J6 and L6 Frame circuit breakers, as shown in drawings on page 6, are for use in individual enclosures, switchboards, and in power and distribution panelboards.

They are available as thermal magnetic, with interchangeable trip units (types JL6, HJ6, LL6, HL6) and with non-interchangeable trip units (types JD2, JJ6, LJ6), instantaneous magnetic only (types JL6, LL6 ETI) and molded case switches.

Pressure wire connectors, suitable for use with aluminum or copper wire are available for J6 and L6 Frame circuit breakers. Rear connection studs or plug-in connector assemblies are also available (2 and 3 pole). The latter type of arrangement permits the removal of the circuit breaker from its leads without physically coming in contact with either the line or load terminals. Special features such as shunt trip, auxilliary and alarm switches and undervoltage trip devices are available for field adaptation. These devices are mounted internally and UL listed, page 33. Information concerning these special devices can be found on page 32.

## Thermal Magnetic

JD2, JJ6, JL6, LL6, LJ6, HJ6, and HL6 circuit breakers provide complete overload and short circuit protection by use of an inverse time-delay thermal trip element and an instantaneous magnetic trip device. Nominal instantaneous trip values are externally adjustable with eight trip points as shown below:

Breaker Ampere Rating	NOMINAL INSTANTANEOUS VALUES							
	Low	2	3	4	5	6	7	HI
200-300	1250	1430	1610	1790	1960	2140	2320	2500
350-450	2000	2290	2570	2860	3140	3430	3710	4000
500-600	3000	3430	3860	4290	4710	5140	5570	6000

Consult NEMA – procedures for verifying performance of molded case circuit breakers – AB2 for field test tolerance levels.

Circuit breakers are calibrated at the factory under controlled temperature conditions for a 40°C (104°F) ambient application. The cover on the trip unit is sealed to prevent access to the trip elements. Alterations of the calibration of these elements should not be attempted. Removal of the special sealed line cover voids the Underwriters' Laboratories, Inc. listing for that specific circuit breaker.

Catalog numbers for ordering and informational purposes can be found on pages 30, 31.

## Instantaneous Trip

ETI circuit breakers (adjustable instantaneous magnetic trip only) are designed for use in welding circuits, motor circuits and combination starters where short circuit protection only is required. When used in combination starters, they serve in conjunction with motor protective relays to offer complete protection. The relays guard against motor overloads, the circuit breaker provides short circuit protection. The available instantaneous adjustments are as follows:

Rating	NOMINAL INSTANTANEOUS VALUES							
	LOW	2	3	4	5	6	7	HI
400	2000	2290	2570	2860	3140	3430	3710	4000
600	3000	3430	3860	4290	4710	5140	5570	6000

## Molded Case Switch

Molded case switches are available in the JD2, JJ6 and LJ6 type circuit breakers. These devices employ the same operating mechanism as the thermal magnetic and magnetic only units. A preset instantaneous function is factory installed

to allow the switch to trip and protect itself at a high fault condition. No overload or low fault current protection is provided. This protection must be supplied by separate overcurrent devices. Catalog information is located on pages 30, 31.

## Interrupting Ratings

The interrupting ratings of the J6, L6 Frame circuit breakers are based on circuits adjusted to the rated short circuit (at specified voltage) before the insertion of the circuit breaker.

Based on UL 489 Standards Symmetrical Rms Amperes				
Breaker Type	240VAC	480VAC	600VAC	250VDC
JD2	22,000	—	—	10,000
JJ6, JL6, LL6	50,000	35,000	25,000	25,000
HJ6, HL6	85,000	42,000	25,000	25,000

## Circuit Breaker Operation

With the mechanism latched and the contacts open, the operating handle will be in the "OFF" position. Moving the handle to the "ON" position closes the contacts and establishes a circuit through the breaker. Under overload or short circuit conditions sufficient to trip or open the breaker automatically, the operating handle moves to a position between "ON" and "OFF" as previously described. To relatch the circuit breaker after automatic operation, move the operating handle to the extreme "OFF" position. The circuit breaker is now ready for reclosing.

The overcenter toggle mechanism is trip free of the operating handle. The circuit breaker, therefore, cannot be held closed by means of the handle should a tripping condition exist. The handle will assume an intermediate position between "ON" and "OFF" after automatic operation, thus giving a clear indication of tripping.

## Warning for Circuit Breaker Removal

The circuit breaker should always be in the "TRIPPED" or "OFF" position; and if practical, the switchboard de-energized before inspecting, changing, installing or removing the circuit breaker. Never attempt to add features pod with the circuit breaker mounted in any panel or switchboard. If the bus cannot be de-energized, use insulated hand tools, rubber gloves and a rubber floor mat.

## Maintenance

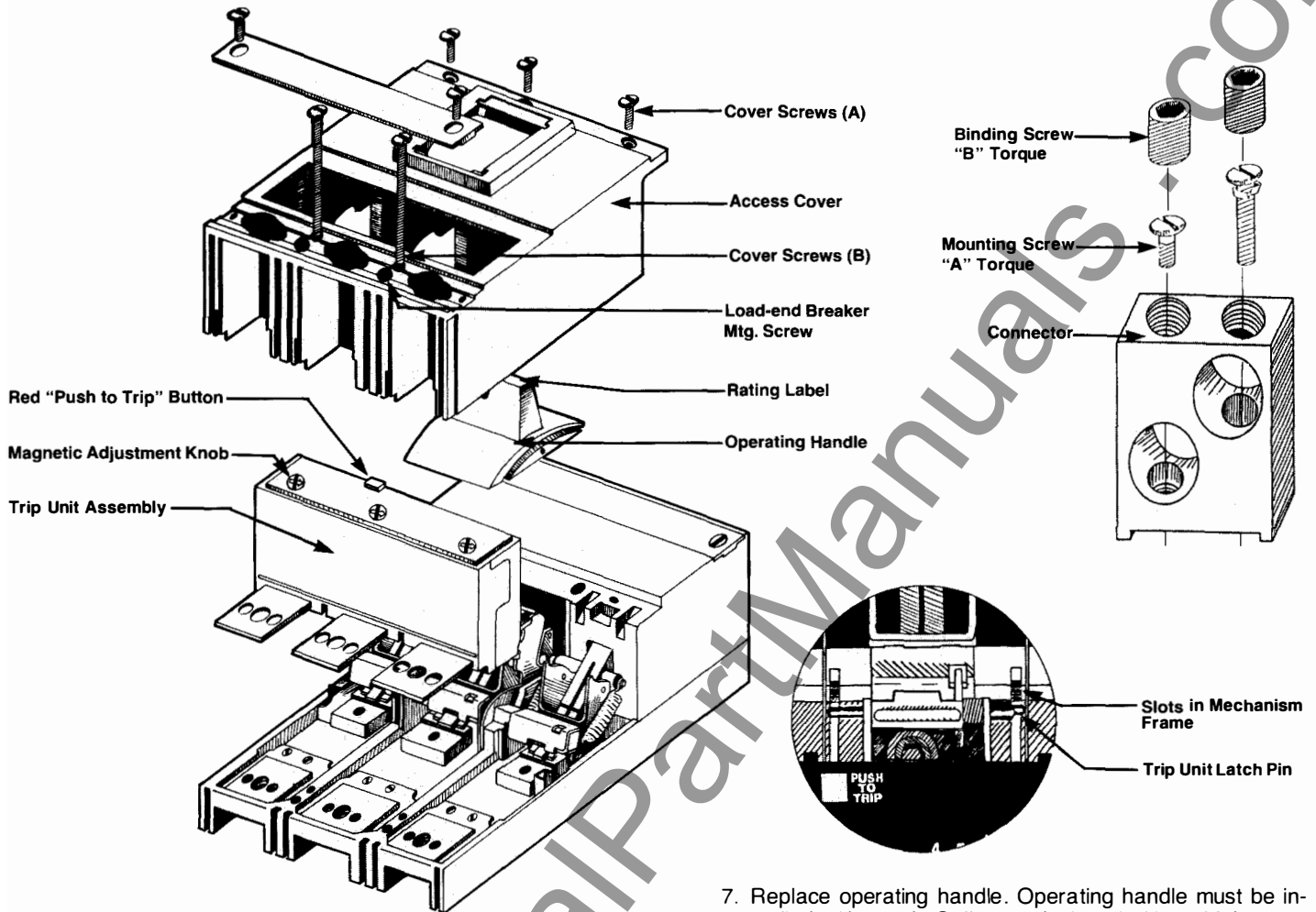
Specific maintenance schedules are recommended in order to assure a proper functioning circuit breaker. This schedule should include the following items:

- 1) Breaker should trip when push to trip button is pushed.
- 2) Visual inspection for broken or cracked case. (Damage caused by external sources.)
- 3) Trip unit attachment screws are at recommended torque value.
- 4) For additional testing information consult NEMA-PROCEDURES FOR VERIFYING PERFORMANCE OF MOLDED CASE CIRCUIT BREAKERS AB2.

## SPECIAL NOTE:

JD2, JJ6, LJ6 circuit breakers are not UL listed as interchangeable trips—DO NOT REMOVE TRIP UNIT and replace with another. Removal of trip unit voids UL listing.

# INSTRUCTIONS FOR INSTALLING I-T-E J6 AND L6 TRIP UNITS



**⚠ DANGER**  
**Hazardous Voltage.**  
 Will cause severe personal injury or death.  
 Turn power off supplying device before installing.

NOTE: CIRCUIT BREAKER MUST BE IN THE "TRIPPED" POSITION BEFORE REMOVING ACCESS COVER. TO TRIP THE BREAKER SIMPLY DEPRESS THE RED "PUSH TO TRIP" BUTTON.

### To Add Trip Unit To Breaker Frame:

1. Remove cover attachment screws and cover.  
 Note: If breaker frame is mounted, load-end breaker mounting screws must also be backed-out before cover can be removed.
2. Remove operating handle.
3. Lower trip unit assembly into base. Make sure trip unit latch pin engages slots in mechanism frame.
4. Tighten three (3) trip unit attachment screws. (Recommended torque—140 inch lbs.)
5. Add the load lugs and fasten per instructions furnished with connector kits.
6. Apply rating label, supplied with trip unit, to recessed area on top of operating handle. Note: Make sure rating label agrees with amperage rating of trip unit installed.

7. Replace operating handle. Operating handle must be installed with word "On" toward trip unit. Note: Make sure operating handle is seated squarely on metal handle arm.
8. Replace access cover and cover attachment screws. (Recommended torque **A** 18-20 inch lbs. **B** 30-32 inch lbs.) Replace load-side breaker mounting screws if applicable.
9. Move operating handle to extreme "Off" position (reset). Circuit breaker is now ready for use.

Solderless Connector Torque Values			
Cat. No.	"A" Torque	"B" Torque	Cable Range
TA1L6750	132 in. lbs.	500 in. lbs.	500-600 MCM (CU.) 500-750 MCM (AL.)
TA2J6500	132 in. lbs.	300 in. lbs.	3/0-500 MCM (CU.) 4/0-500 MCM (AL.)

### To Replace Trip Unit In Breaker Frame:

NOTE: CIRCUIT BREAKER MUST BE IN THE "TRIPPED" POSITION AND BREAKER TERMINALS MUST BE DISENGAGED FROM ANY SOURCE OF POWER BEFORE REMOVING COVER.

1. Remove cover attachment screws and cover.  
 Note: If circuit breaker is mounted, load-end breaker mounting screws must also be backed-out before cover can be removed.
2. Remove operating handle.
3. Back-out three (3) trip unit attachment screws.  
 Note: Attachment screws will remain captive to trip unit assembly.
4. Remove load-end cable connector mounting screws and connectors if applicable.
5. Lift trip unit assembly from circuit breaker.
6. Add new trip unit as outlined under steps 3 to 9 of "Add Trip Unit" instructions.

## INSTALLATION INSTRUCTIONS

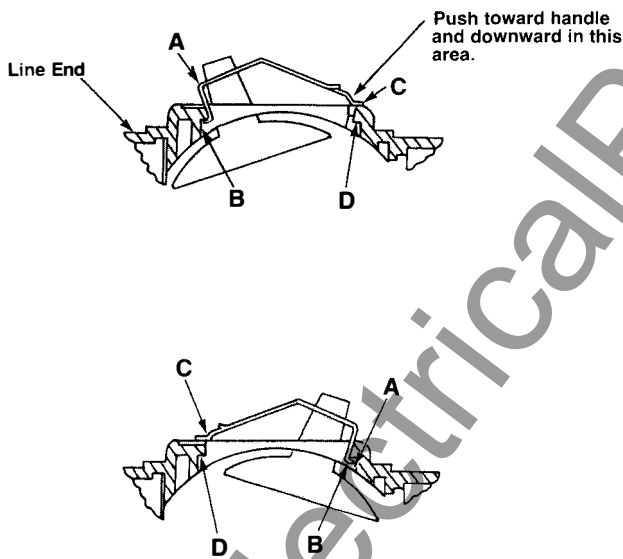
### ATTACHING I-T-E HANDLE BLOCKING DEVICE CAT. NO. J6HBL

#### To Block Handle "On"

Turn breaker "On", assemble blocking device to breaker by positioning over handle as shown with opening around handle. Insert tab **A** into slot **B**. Push toward handle and downward at area shown until tab **C** drops into slot **D**.

#### To Block Handle "Off"

Turn breaker "Off", assemble blocking device to breaker by positioning over handle with opening around handle. Insert tab **A** into slot **D** push toward handle and downward at area shown until tab **C** drops into slot **B**.

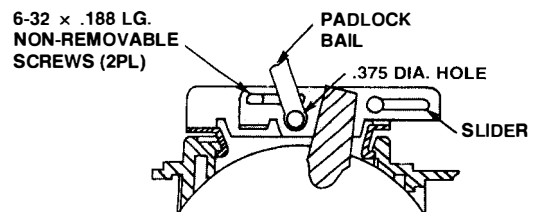
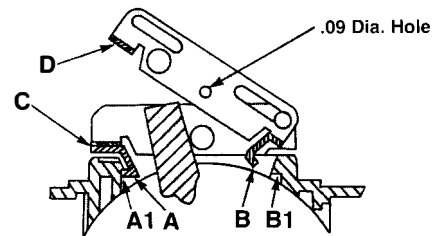


### ATTACHING I-T-E PADLOCKING DEVICE CAT. NO. J6HPL

With breaker in tripped position assemble padlocking device to breaker by positioning over handle as shown. Insert tab **A** into slot **A1** pivot tab **B** into slot **B1** until surface **D** is resting on surface **C**.

Install 6-32 x .188 non-removable screws (2 pc.) to padlock in "Off" position. Move breaker handle to "Off" and move slider to right as shown above until .375 dia. holes line up allowing padlock to be installed.

**NOTE:** To padlock circuit breaker in "On" position, enlarge .12 dia. hole in slider to .375 dia. Before assembly to breaker, file away burrs after drilling. Assemble padlocking device to breaker as explained above, then turn breaker "On" and install padlock.



# INSTRUCTIONS FOR INSTALLATION OF I-T-E REAR CONNECTED STUDS

## General Description

One complete rear stud assembly requires the following:

1 1" 12 threaded stud	1 "T" connector
1 Molded stand-off insulator	2 Brass locknuts
1 Insulator bushing	1 $\frac{5}{16}$ 18 x 1" mtg. bolt
1 Insulator (req'd for metallic mtg. panels only)	1 $\frac{5}{16}$ Belleville washer

## Mounting Preparation (Fig. 1)

- A. Drilling locations are shown Fig. 1. The  $\frac{5}{8}$ " wide cutout between holes is required when mounting the breaker with stud assemblies to a metallic panel.

## Breaker Preparation (Fig. 2)

Remove wire connectors from breaker if present.

- B. Attach (1 & 2) to circuit breaker for three pole devices, (1) only for two pole devices. Attach with (3) the  $\frac{5}{16}$  18 x 1" hex head bolt & the  $\frac{5}{16}$  serrated cone lockwasher (4). Tighten finger tight only.
- C. Slide one stand-off insulator (5) onto each stud until the stand-off insulator fully covers the square end of the studs. Tighten (3) to 132 in. lbs. and install insulator (10) over studs only if using a metallic mounting panel.

## Final Assembly (Fig. 3)

- D. Install circuit breaker so that all studs extend through mounting panel and the stand-off insulators (5) are seated against the mounting panel.
- E. Install insulator bushings (6 & 7) over studs where required and tighten them securely in place against the mounting panel with the locknut (8).
- F. Thread the second locknut (8) and the "T" connector (9) over the studs as far as possible where required. Position "T" connector as desired by loosening (1 full turn maximum) and lock in place with the second locknut at 132 in. lbs.

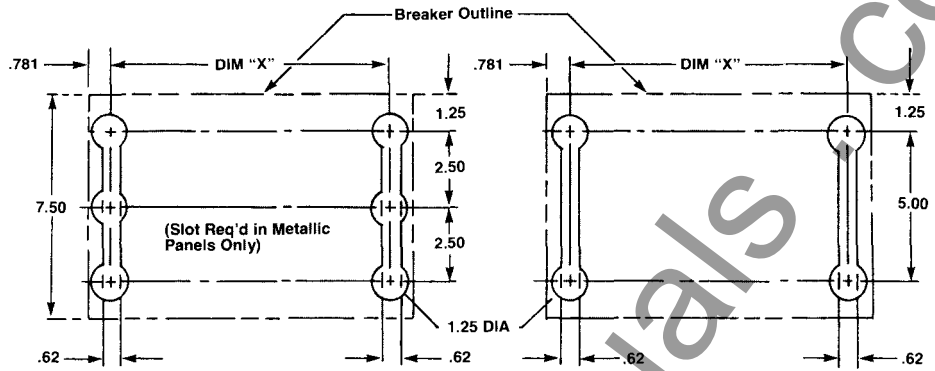
## Important User Note

Assemblies are designed with adequate 600 volt electrical clearance between components. User installation must maintain these clearances through spacing or proper insulation.

- G. Insert the upper end shields (11) into the slots provided at the line and load ends of the breaker as shown in Fig. 2, one for each stud position.
- H. Affix the label Pc. No. 60229 to breaker cover as shown in Fig. 2.
- I. Make desired bus bar connections with  $\frac{5}{16}$  bolts and washers to "T" connectors. (See Fig. 3 for hole pattern of "T" connector).

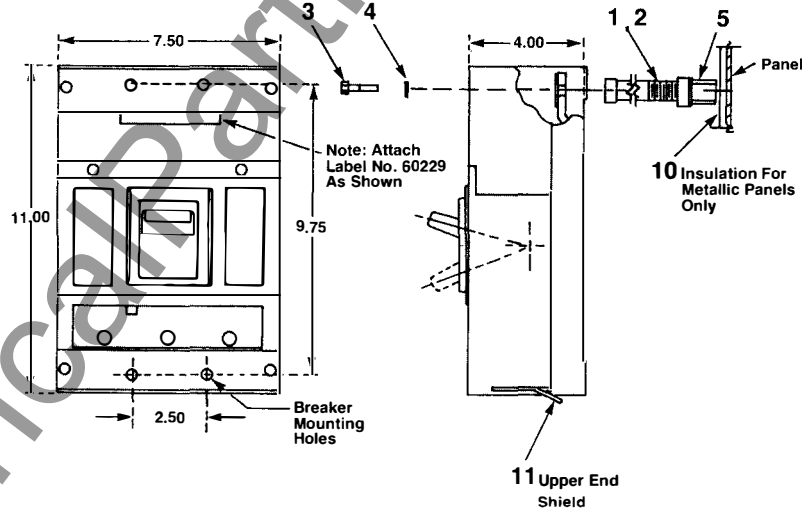
# DIAGRAMS FOR INSTALLATION OF I-T-E REAR CONNECTED STUDS

**Fig. 1  
MOUNTING  
PREPARATION**

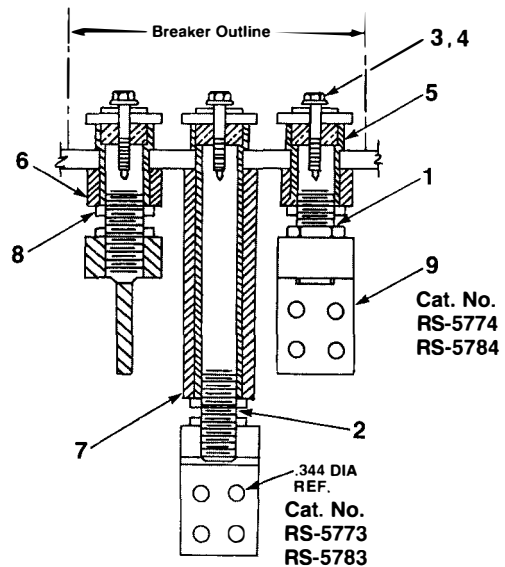


Breaker Type	DIM "X"	AMPS
SJL, JJ6, JL6, JHL, JD2	9.437	400 A
CLJ	14.937	
SLL, LJ6, LL6, HL6	9.437	600 A
CLL	14.937	

**Fig. 2  
BREAKER  
PREPARATION**



**Fig. 3  
FINAL  
ASSEMBLY**



AMPS	POLE	QUANTITY REQUIRED PER BREAKER
400 A.	2	4 of RS-5774
	3	4 of RS-5774 plus 2 of RS-5773
600 A.	2	4 of RS-5784
	3	4 of RS-5784 plus 2 of RS-5783

## INSTRUCTIONS FOR INSTALLATION OF I-T-E CIRCUIT BREAKER PLUG-IN ADAPTERS

A complete plug-in installation requires one line end adapter assembly (consisting of a mounting block assembly, tulip connectors, and associated hardware), one load end adapter assembly and one switchboard mounting plate. The switchboard mounting plate is optional and can be replaced by other mounting means to suit customer's requirement.

Application Information	No. of Poles	Line End Adapter Cat. No.	Load End Adapter Cat. No.	Switchboard Mtg. Pan Cat. No.
400 A. ("J6")	2	PC 5777	PC 5777	PL 5796
	3	PC 5778	PC 5778	PL 5796
600 A. ("L6")	2	PC 5660	PC 5660	PL 5796
	3	PC 5661	PC 5661	PL 5796

### Mounting Preparation

- A. If switchboard pan Cat. No. PL5796 1 is to be used, provide drilling as shown in Fig. 1.
- B. If other mounting means are to be used, provide the cutouts and drilling required to mount the plug-in adapters as shown in Fig. 2.

### Switchboard Mounting Plate, if used, (Fig. 3)

- C. Place switchboard mounting pan (1) in position at location previously prepared in step 1 above. Secure in place with  $\frac{5}{16}$ " lockwashers (3) and  $\frac{5}{16}$ " bolts (4) which are supplied.

### Mounting Block (Fig. 3)

- D. Align mounting block (2) with cutouts in switchboard mounting pan (other than Cat. No. PL5796 pan) and secure in place with  $\frac{5}{16}$ " lockwashers (3) and  $\frac{5}{16}$ " bolts (4) which are supplied.

**Breaker Preparation** (Fig. 4) Remove pressure wire connectors from breaker if present.

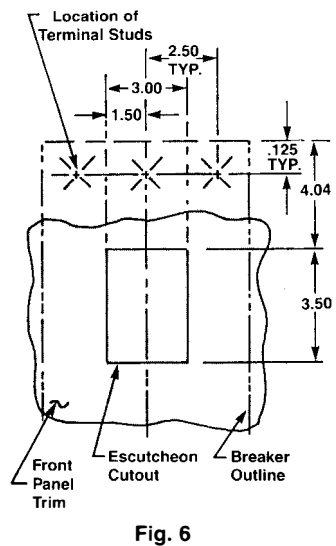
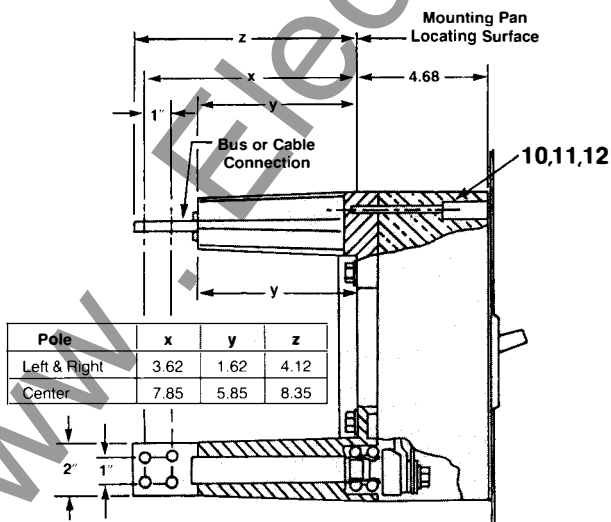
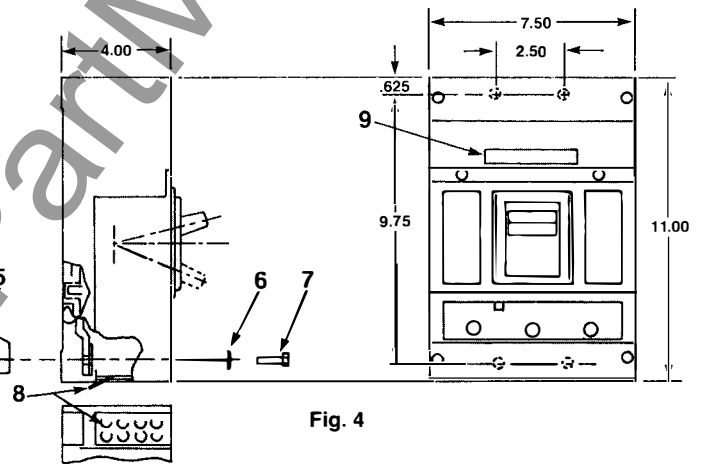
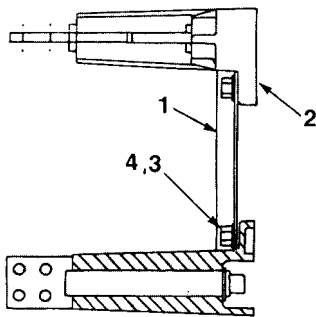
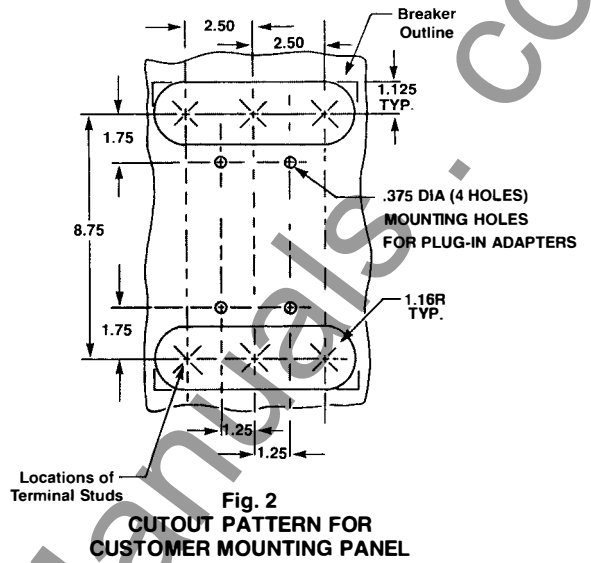
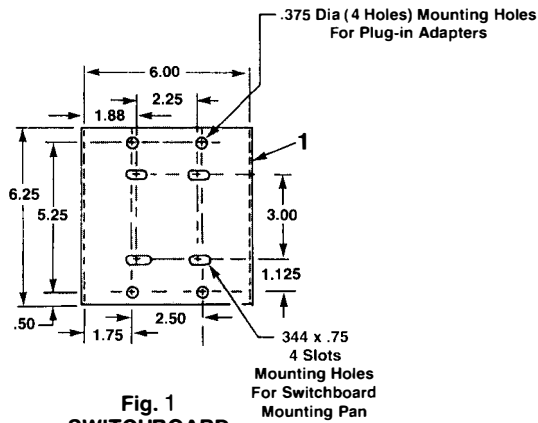
- E. Place tulip clip assembly (5) on back of breaker in recess provided in base molding. Secure in place with  $\frac{1}{4}$ " Belleville washers (6) and  $\frac{1}{4}$ "-20 x 1 hex head bolts (7) furnished. Recommended tightening torque for these bolts is 5-6 ft. lbs. to assure a good electrical connection. Repeat this procedure for the remaining tulip clip assemblies.
- F. Slide upper end shields (8) into slots provided in breaker case at line and load ends of breaker. No lower end shields are required.
- G. Add accessory label (9) to top of breaker as indicated in Fig. 4.

### Final Assembly (Fig. 5)

- H. Make bus connections to flat bar connectors at rear of mounting blocks (use  $\frac{5}{16}$ " hardware, customer supplied, hole pattern as shown in Fig. 5). Insure proper electrical clearance, or insulate adequately.
 


**Caution:** Make certain that breaker operating handle is in the **OFF** position before proceeding with the next step.
- I. Align breaker with mounting blocks and force female tulip clips over male studs in mounting block until breaker base bottoms against mounting block. Secure breaker in place with  $\frac{1}{4}$ "-20 x 3 long mounting screws (10), lockwashers (11), and flatwashers (12) furnished.
- J. If installation requires the use of front panel trim, provide cutout for breaker escutcheon as shown in Fig. 6.

# DIAGRAMS FOR INSTALLATION OF I-T-E CIRCUIT BREAKER PLUG-IN ADAPTERS



# ACCESSORY INSTALLATION INSTRUCTIONS FOR I-T-E SHUNT TRIP, UNDERVOLTAGE TRIP & AUXILIARY SWITCH UNITS

## CIRCUIT BREAKER PREPARATION



**⚠ DANGER**  
**Hazardous Voltage.**  
 Will cause severe personal injury or death.

Breaker must be completely disconnected and removed from any electrical equipment before accessories are installed.

### STEP 1.

Depress trip button (See Fig. 1) to trip circuit breaker prior to removing cover. Before attaching accessory unit, circuit breaker MUST be in tripped position.

### STEP 2.

Remove two terminal shield screws on load end cover (A, Fig. 1) and five load end cover screws (B, Fig. 1) and, if breaker is mounted, also remove mounting screws (not shown). Remove load end cover only. Accessory units can be mounted in either right or left poles of the circuit breaker.

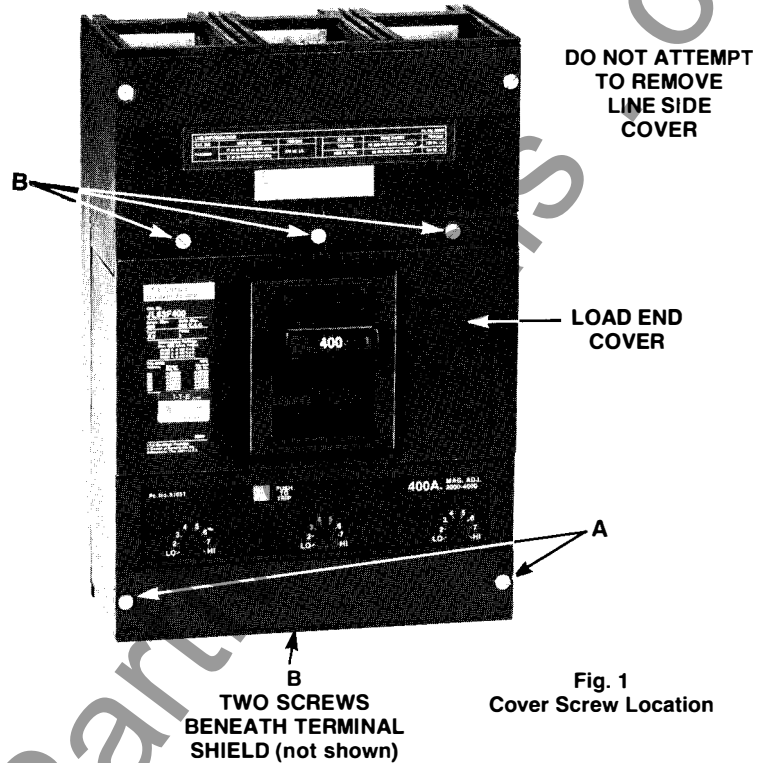


Fig. 1  
Cover Screw Location

## ACCESSORY MOUNTING INSTRUCTIONS

### STEP 3.

Feed leads through opening at bottom of accessory case for right hand or left hand mounting in breaker. (Leads should always exit accessory toward outer edge of breaker). Feed accessory leads down and through  $\frac{5}{16} \times \frac{5}{16}$  elongated opening (C, Fig. 2) to bring leads out bottom of circuit breaker. Note: Leads must be brought out in the same order as they exit wire retainer of accessory case.

Remove protective tape prior to inserting Shunt Trip/ or Undervoltage Device.

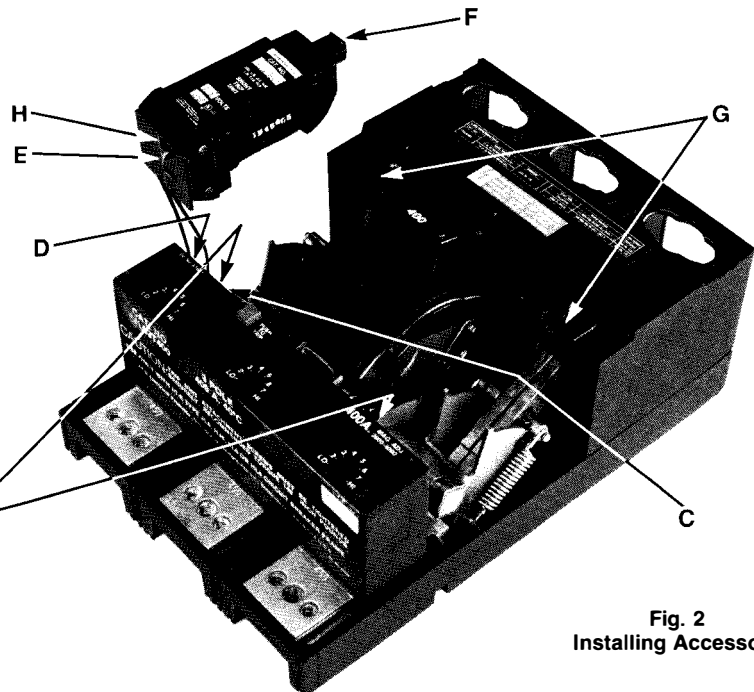
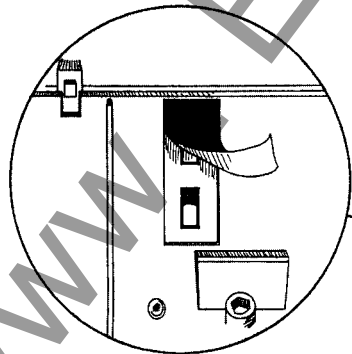


Fig. 2  
Installing Accessory

STEP 4.

Accessory is located in circuit breaker by groove (E, Fig. 2), bottom side of accessory. Slide accessory down to rest on pad (D, Fig. 2) Trip Unit. When accessory is installed correctly, front of accessory (F, Fig. 2) will rest on pad (G, Fig. 2) of line cover. Pull gently and evenly on accessory wire leads (2 to 6 wires) while lowering accessory into base. Make sure all the slack is removed from leads inside breaker.

NOTE: On shunt trip and undervoltage trip units, be sure transfer link (H, Fig. 2) is in opening (J, Fig. 2 & 3) at back of trip unit.

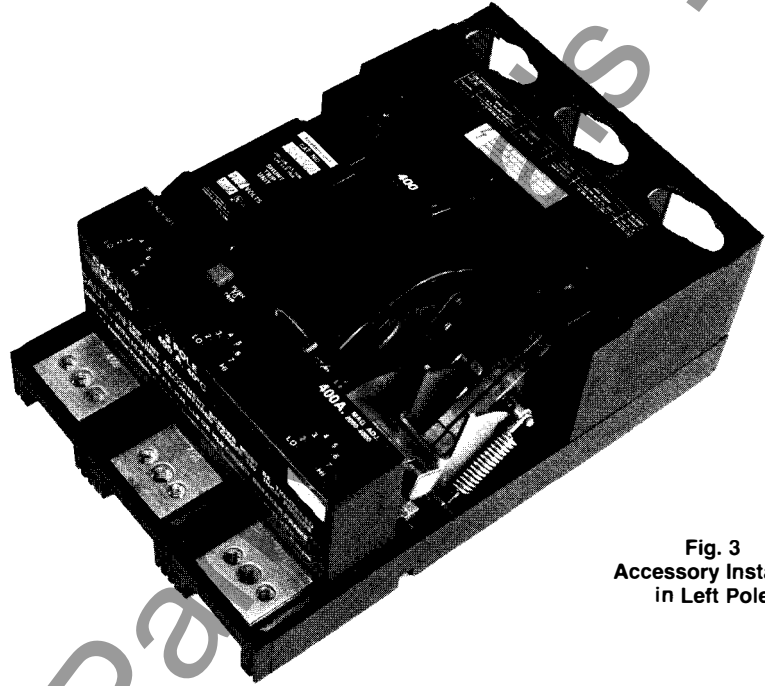


Fig. 3  
Accessory Installed  
in Left Pole

STEP 5.

Replace load end cover and cover screws (quantity 5) and mounting screws (quantity 4) if mounted, **replace terminal shield** with screws.

STEP 6.

Add two labels to circuit breaker. Attach identification label (K, Fig. 4) to top of circuit breaker on right hand side. Make sure correct identification square or squares have been checked (✓). Attach wiring label (L, Fig. 4) on side of circuit breaker cover as shown.

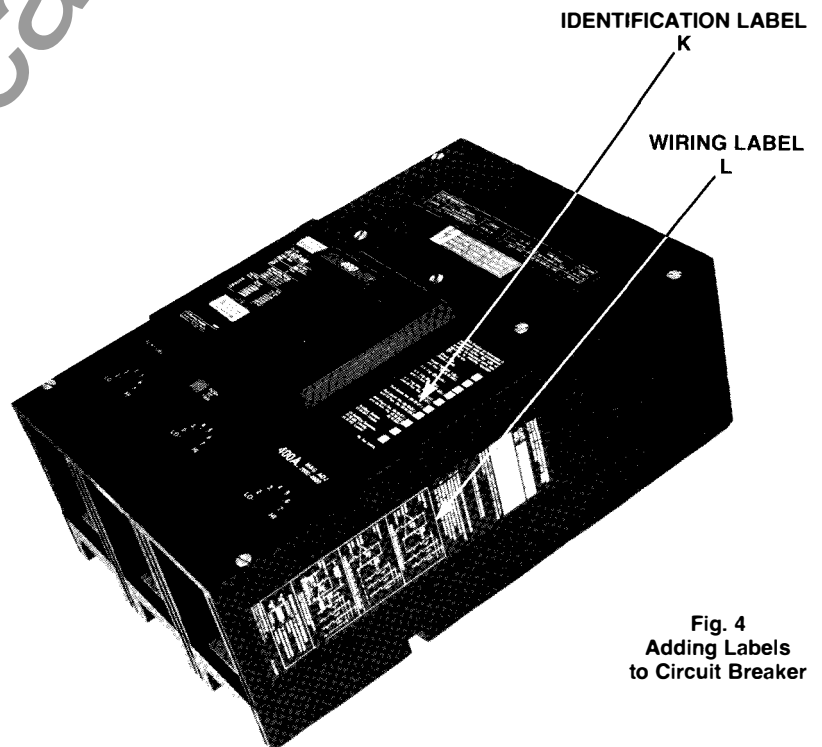


Fig. 4  
Adding Labels  
to Circuit Breaker

## I-T-E AUXILIARY SWITCH INFORMATION

### AUXILIARY SWITCH KITS

Cat. No.	Number Of Switches	Ampere Rating of Switch				
		AC Voltage			DC Voltage	
		120 V	240 V	480 V	125 V	250 V
A01J64	1	10	10	10	.50	.25
A02J64	2	10	10	10	.50	.25

**ALL SWITCHES HAVE THREE LEADS AND ARE IDENTIFIED AS FOLLOWS:**

Wire Markings	Wire Color	Switch Terminals or Contacts
C 1 or C2 A 1 or A2	White Black	C – Common terminal N.O. – Normally open contact (open when circuit breaker is open, closed when circuit breaker is closed)
B 1 or B2	Red	N.C. – Normally closed contact (closed when breaker is open, open when breaker is closed)

### MECHANICAL/ELECTRICAL CHECK

1. Use a buzzer or light indicator attached to switch leads A and C. With breaker in "ON" position, a light or buzz should be observed.
2. Move handle to "OFF" position. Indicator light or buzzer should turn off.
3. Attach test to leads B and C. Light or buzzer should turn on.
4. Move handle to "ON" position. Indicator light or buzzer should turn off.

SHOULD THE INDICATOR NOT FUNCTION PROPERLY DURING CHECK PROCEDURE, CHECK FOR INCORRECT INSTALLATION OR WIRING.

### MAXIMUM ACCESSORY COMBINATIONS THAT CAN BE INSTALLED

ONE SHUNT TRIP\* + ONE UNDERVOLTAGE TRIP + THREE AUXILIARY SWITCHES  
 ONE SHUNT TRIP\* + THREE AUXILIARY SWITCHES  
 ONE SHUNT TRIP\* + ONE BELLALARM + THREE AUXILIARY SWITCHES  
 ONE UNDERVOLTAGE TRIP + FOUR AUXILIARY SWITCHES  
 ONE UNDERVOLTAGE TRIP + ONE BELLALARM + FOUR AUXILIARY SWITCHES  
 ONE BELLALARM + FOUR AUXILIARY SWITCHES  
 FOUR AUXILIARY SWITCHES

\*SHUNT TRIP UNITS INCLUDE A COIL CLEARING SWITCH.

## ELECTRICAL CHECK

### SHUNT TRIP ACCESSORY

1. Reset and turn circuit breaker ON.
2. Attach test circuit to accessory leads. Shunt Trip must trip at a level of 55% or less of marked voltage rating. (Acceptable for use with ground fault sensing device.)
3. With breaker TRIPPED or OFF, check to make sure coil circuit has opened.

#### ELECTRICAL DATA FOR SHUNT TRIP

Coil Voltage	Inrush Current At Rated Voltage (Amperes)	Cat. No.
60 CYCLES AC		
120	.395	S01J60
208	.265	S02J60
240	.165	S03J60
277	.190	S15J60
480	.145	S04J60
600	.080	S06J60
DC		
24	2.2	S07J60
48	1.2	S09J60
125	.5	S11J60
250	.35	S13J60

### UNDERVOLTAGE TRIP ACCESSORY

1. With breaker in TRIPPED position, connect test circuit to accessory leads. Energize undervoltage trip device at 85 percent of the marked rated voltage of the coil. Reset and turn breaker handle ON.
2. Reduce voltage to 70% of rated coil voltage. Circuit breaker must not trip while reducing voltage.
3. Breaker must trip between 35 to 70 percent of rated coil voltage.

#### ELECTRICAL DATA FOR UNDERVOLTAGE TRIP

Coil Voltage	Sealed-In Current At Rated Voltage (Amperes)	Cat. No.
60 CYCLES AC		
120	.03	U01J60
208	.018	U02J60
240	.016	U03J60
277	.013	U16J60
480	.008	U06J60
*600	.008	U08J60
DC		
24	.11	U13J60
48	.06	U14J60
125	.027	U10J60
**250	.02	U12J60


\* Kit includes a 30k ohm, 25 watt resistor (Clarostat Cat. No. VP-25-K or equivalent).

\*\* Kit includes a 2.5k ohm, 25 watt resistor (Clarostat Cat. No. VP-25-K or equivalent).

Note: Resistor to be mounted externally of circuit breaker & connected by installer.

# INSTALLATION INSTRUCTIONS FOR I-T-E BELLALARM UNITS

## CIRCUIT BREAKER PREPARATION

	<b>⚠ DANGER</b>
	<p><b>Hazardous Voltage.</b> Will cause severe personal injury or death.</p> <p>Breaker must be completely disconnected and removed from any electrical equipment before accessories are installed.</p>

### STEP 1.

Depress trip button (See Fig. 1) to trip circuit breaker prior to removing cover. Before attaching accessory unit, circuit breaker **MUST** be in tripped position.

### STEP 2.

Remove two terminal shield screws on load end cover (**A**, Fig. 1) and five load end cover screws (**B**, Fig. 1) and, if breaker is mounted, also remove mounting screws (not shown). Remove load end cover only. Accessory units can be mounted in either right or left poles of the circuit breaker.

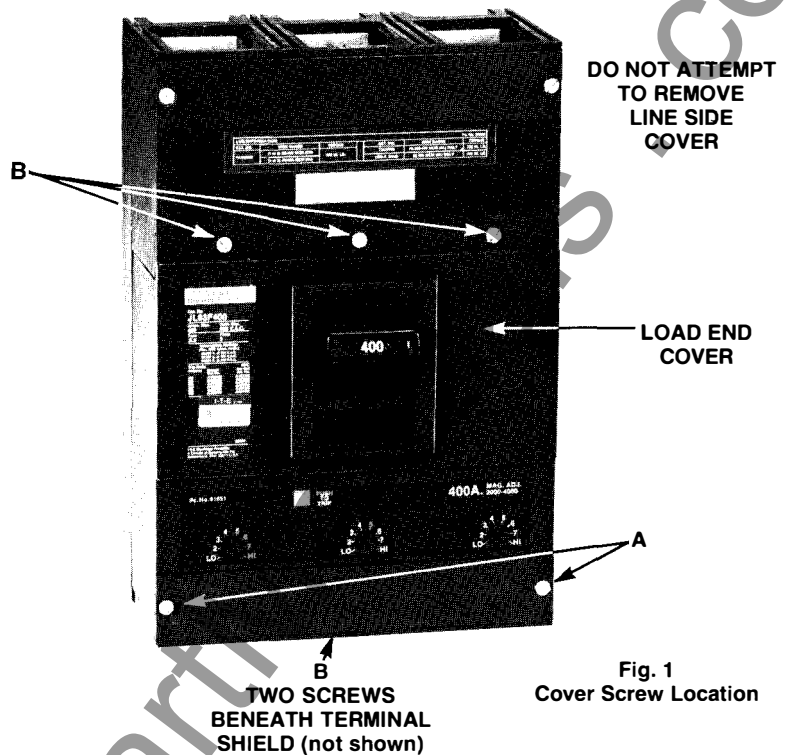


Fig. 1  
Cover Screw Location

## ACCESSORY MOUNTING INSTRUCTIONS

### STEP 3.

Feed leads through opening at bottom of accessory case for right hand or left hand mounting in breaker. (Leads should always exit accessory toward outer edge of breaker). Feed accessory leads down and through  $\frac{5}{16} \times \frac{5}{16}$  elongated opening (**C**, Fig. 2) to bring leads out bottom of circuit breaker.

NOTE: Leads must be brought out in the same order as they exit wire retainer of accessory case.

### STEP 4.

Accessory is located in circuit breaker by groove (**E**, Fig. 2), bottom side of accessory. Slide accessory down to rest on pad (**D**, Fig. 2) Trip Unit. When accessory is installed correctly, front of accessory (**F**, Fig. 2) will rest on pad (**G**, Fig. 2) of line cover. Pull gently and evenly on accessory wire leads (2 to 6 wires) while lowering accessory into base. Make sure all the slack is removed from leads inside breaker.

NOTE: On shunt trip and undervoltage trip units, be sure actuator (**H**, Fig. 2) is in opening (**J**, Fig. 2 & 3) at back of trip unit.

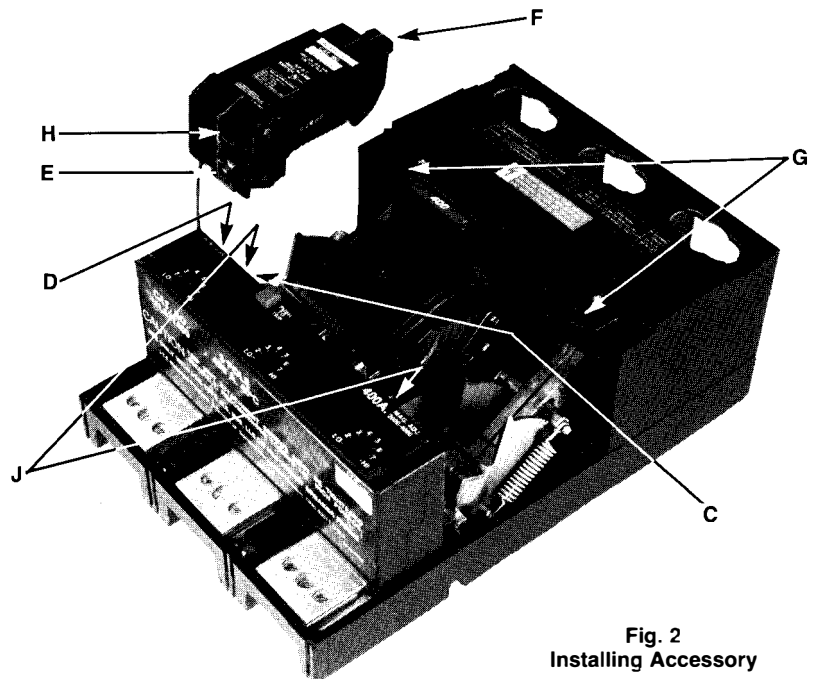
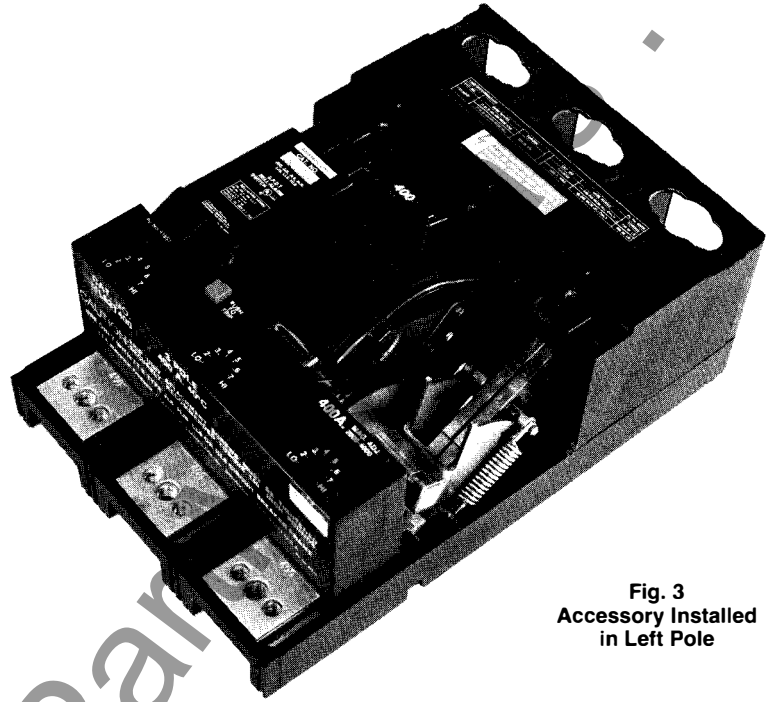


Fig. 2  
Installing Accessory

**STEP 5.**

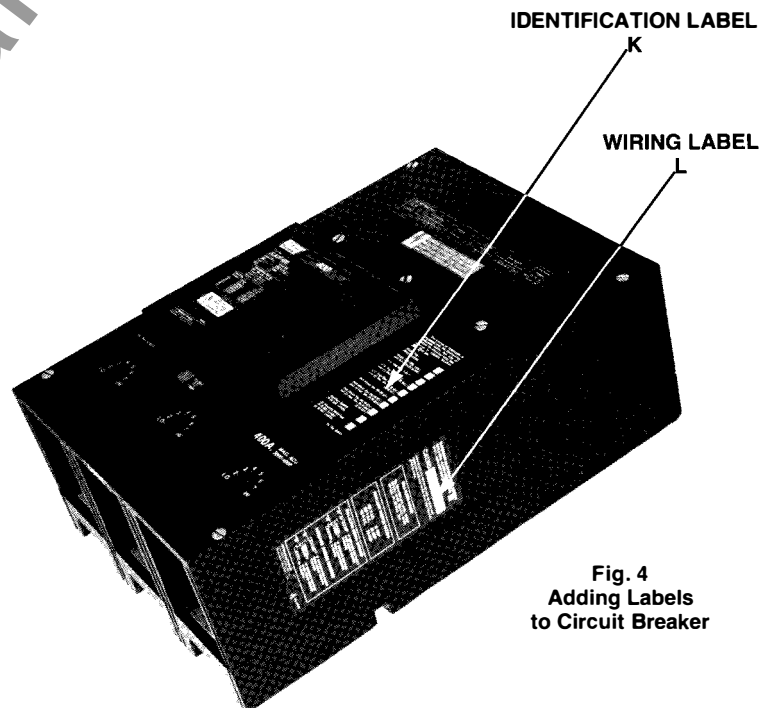
Replace load end cover and cover screws (quantity 5) and mounting screws (quantity 2) if mounted, **replace terminal shield** with screws.



**Fig. 3**  
Accessory Installed  
in Left Pole

**STEP 6.**

Add two labels to circuit breaker. Attach identification label (**K**, Fig. 4) to top of circuit breaker on right hand side. Make sure correct identification square or squares have been checked (✓). Attach wiring label (**L**, Fig. 4) on side of circuit breaker cover as shown.



**Fig. 4**  
Adding Labels  
to Circuit Breaker

## I-T-E BELLALARM INFORMATION

### BELLALARM SWITCH KITS

Cat. No.	Number Of Auxiliary Switch	Ampere Rating of Switch				
		A.C. Voltage			D.C. Voltage	
		125 V.	250 V.	480 V.	125 V.	250 V.
B00J64	0	10	10	10	.50	.25
A01J64B	1	10	10	10	.50	.25
A02J64B	2	10	10	10	.50	.25

**BELLALARM HAS THREE LEADS AND ARE IDENTIFIED AS FOLLOWS:**

Wire Markings	Wire Color	Switch Terminals or Contacts
C	White	C – Common terminal
A	Yellow	N.C. – Normally closed contact (closed when circuit breaker is tripped).
B	Brown	N.O. – Normally open contact (open when circuit breaker is tripped).

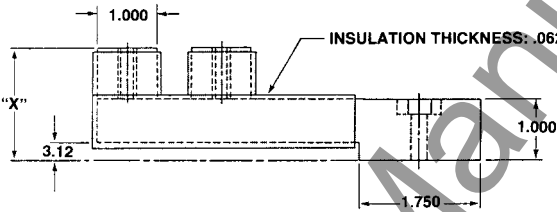
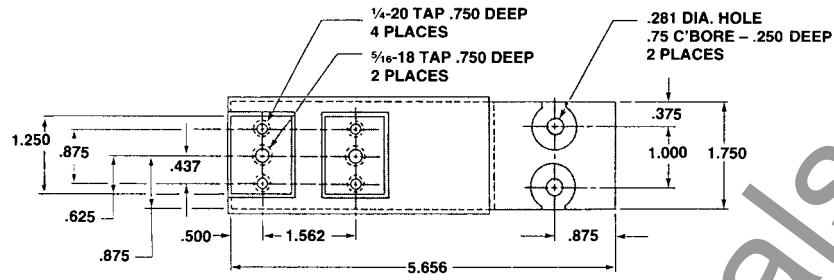
#### MECHANICAL / ELECTRICAL CHECK

1. Use a buzzer or light indicator attached to switch leads A and C. With breaker in "ON" position, trip breaker by depressing red trip button. Indicator light or buzzer should operate.
2. Reset breaker to "OFF". Indicator light or buzzer should turn off.
3. Move breaker handle to "ON". Indicator light or buzzer should remain off.

SHOULD THE INDICATOR NOT FUNCTION PROPERLY DURING CHECK PROCEDURE, CHECK FOR INCORRECT INSTALLATION OR WIRING.

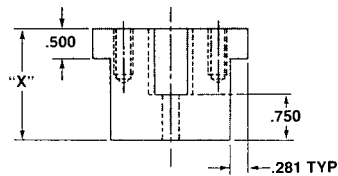
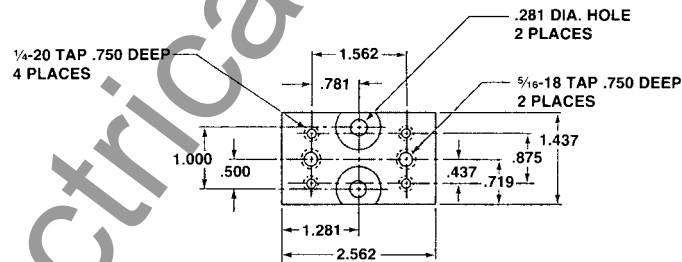
# I-T-E PANELBOARD CONNECTOR STRAPS

## OUTSIDE CONNECTOR STRAP



J6 Cat. No.	L6 Cat. No.	"X"
CS362OR	CS3624R	1.832
CS3622R	CS3626R	3.394

## CENTER CONNECTOR STRAP



J6 Cat. No.	L6 Cat. No.	"X"
CS3621R	CS3625R	1.832
CS3623R	CS3627R	3.394

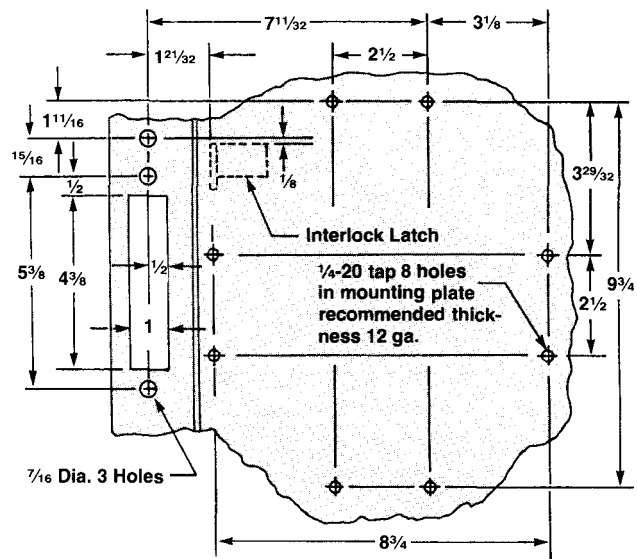
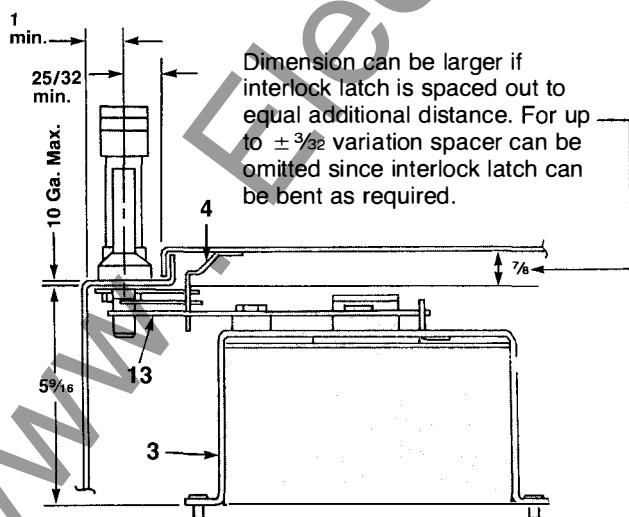
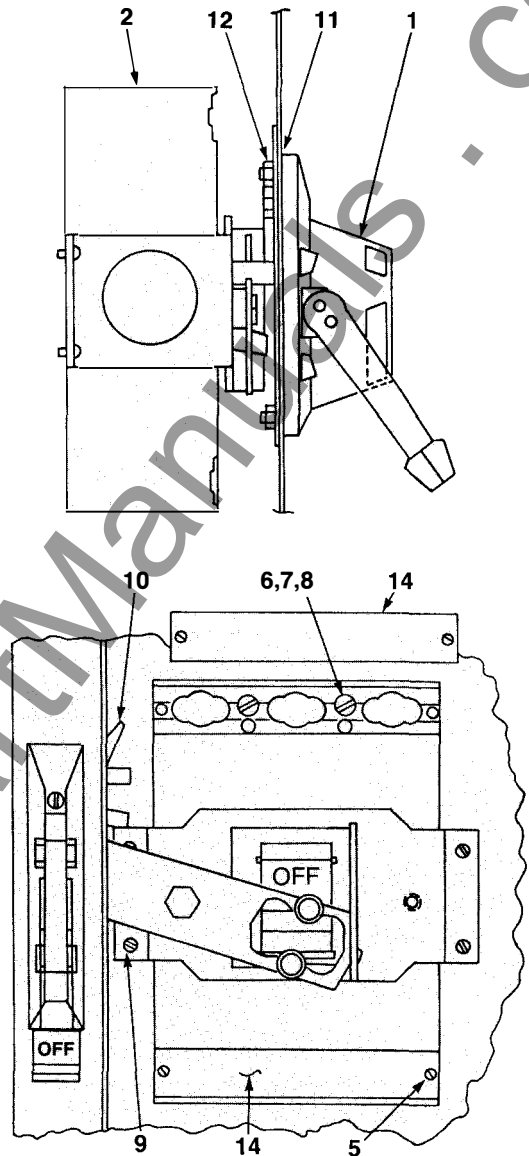
NOTE: THESE STRAPS ARE NOT USED BY I-T-E IN SERIES 6 PANELBOARDS.

# MOUNTING INSTRUCTIONS FOR I-T-E SIDE HANDLE OPERATOR CAT. NO. D11JLU & D11JL4U

- A. Cut slot and holes in enclosure flange for operating handle (1), provide mounting holes for circuit breaker (2) and support member (3) as shown.
- B. Weld interlock latch (4) to inside of cover. Additional cover securing means also required.
- C. Loosen four cover screws (5) and remove terminal shields (14). Insert four  $\frac{1}{4}$ -20 x  $2\frac{3}{4}$  long screws (6) with lockwasher (7) and flatwasher (8) through mounting holes of circuit breaker (2) and tighten securely to mounting surface. Make terminal connections and **reassemble the circuit breaker terminal shields.**
- D. Mount support member (3) by means of four  $\frac{1}{4}$ -20 slotted pan head screws (9).
- E. The operating handle (1) and interlock ass'y (10) are supplied preassembled. Before disassembling note the position of the levers on the interlock ass'y with respect to the operator. Care must be taken to insure this relationship is maintained when the device is reassembled.
- F. Assemble operating handle (1) with gasket (11) from outside of the enclosure and interlock ass'y (10) from inside of the enclosure by means of two  $\frac{3}{8}$ -16 hex nuts (12). When correctly assembled the operating handle cannot be moved from the "OFF" position to the "ON" position while the cover is open.
- G. Pick up actuating member ass'y (13) at hex head screw and assemble to support member (3).  
NOTE: Be sure the nylon rollers engage circuit breaker handle, U-slot engages operator and actuating member engages slot in support member. Tighten hex head screw securely.

**Operation:**

The handle cannot be operated from the "OFF" position to the "ON" position with cover open unless the interlock mechanism is deliberately voided. This involves turning the screw in the handle housing counterclockwise before moving the handle. For inspection with power on – rotate same screw clockwise to open the cover.

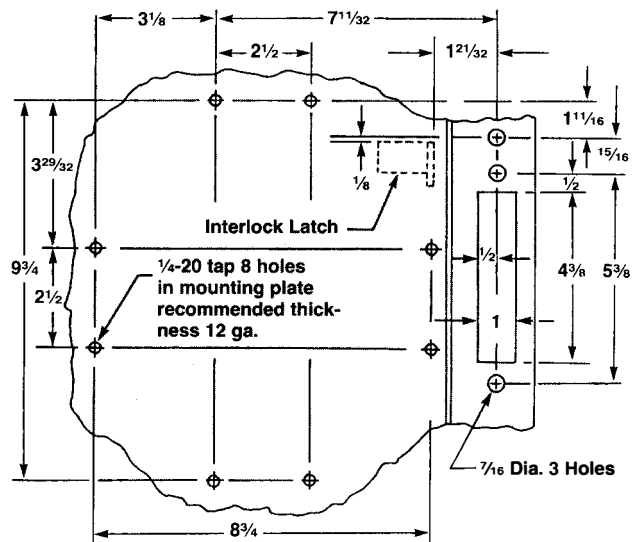
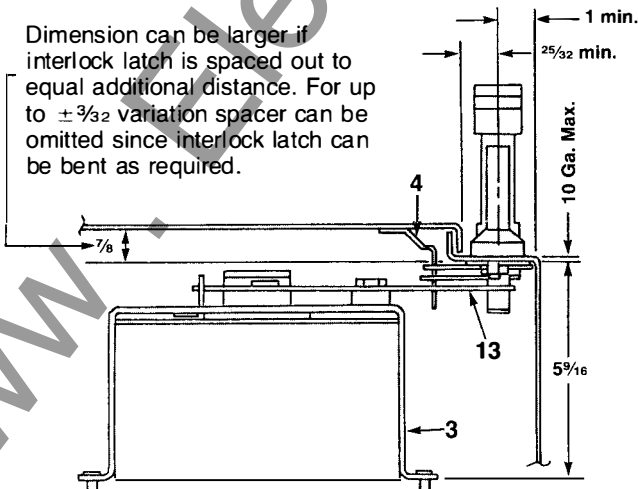
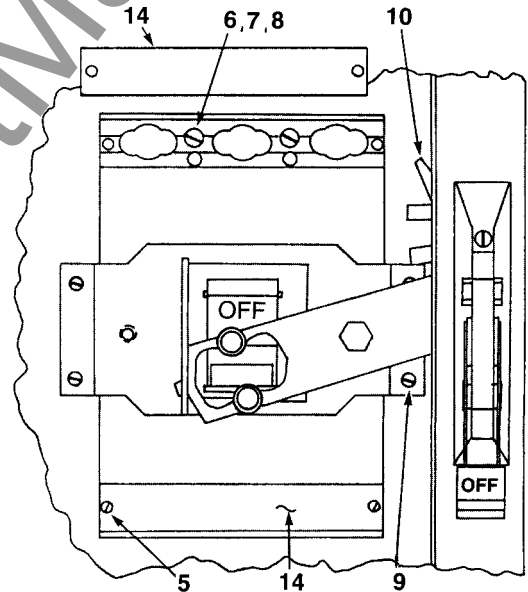
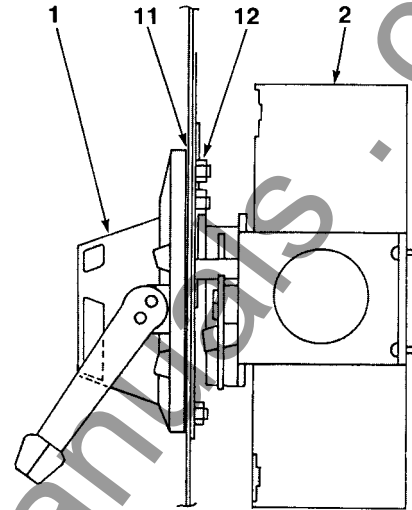


# MOUNTING INSTRUCTIONS FOR I-T-E SIDE HANDLE OPERATOR CAT. NO. D11JRU & D11JR4U

- A. Cut slot and holes in enclosure flange for operating handle (1), provide mounting holes for circuit breaker (2) and support member (3) as shown.
- B. Weld interlock latch (4) to inside of cover. Additional cover securing means also required.
- C. Loosen four cover screws (5) and remove terminal shields (14). Insert four  $\frac{1}{4}$ -20 x  $2\frac{3}{4}$  long screws (6) with lockwasher (7) and flatwasher (8) through mounting holes of circuit breaker (2) and tighten securely to mounting surface. Make terminal connections and **reassemble the circuit breaker terminal shields**.
- D. Mount support member (3) by means of four  $\frac{1}{4}$ -20 slotted pan head screws (9).
- E. The operating handle (1) and interlock ass'y (10) are supplied preassembled. Before disassembling note the position of the levers on the interlock ass'y with respect to the operator. Care must be taken to insure this relationship is maintained when the device is reassembled.
- F. Assemble operating handle (1) with gasket (11) from outside of the enclosure and interlock ass'y (10) from inside of the enclosure by means of two  $\frac{3}{8}$ -16 hex nuts (12). When correctly assembled the operating handle cannot be moved from the "OFF" position to the "ON" position while the cover is open.
- G. Pick up actuating member ass'y (13) at hex head screw and assemble to support member (3).  
NOTE: Be sure the nylon rollers engage circuit breaker handle, U-slot engages operator and actuating member engages slot in support member. Tighten hex head screw securely.

**Operation:**

The handle cannot be operated from the "OFF" position to the "ON" position with cover open unless the interlock mechanism is deliberately voided. This involves turning the screw in the handle housing clockwise before moving the handle. For inspection with power on - rotate same screw counterclockwise to open the cover.



INSTRUCTIONS FOR MOUNTING  
I-T-E TELEMANT<sup>®</sup> MOTOR OPERATOR  
CAT. NO. TO6J6120, TO6J6240



**⚠ DANGER**

Hazardous Voltage.  
Will cause severe  
personal injury  
or death.

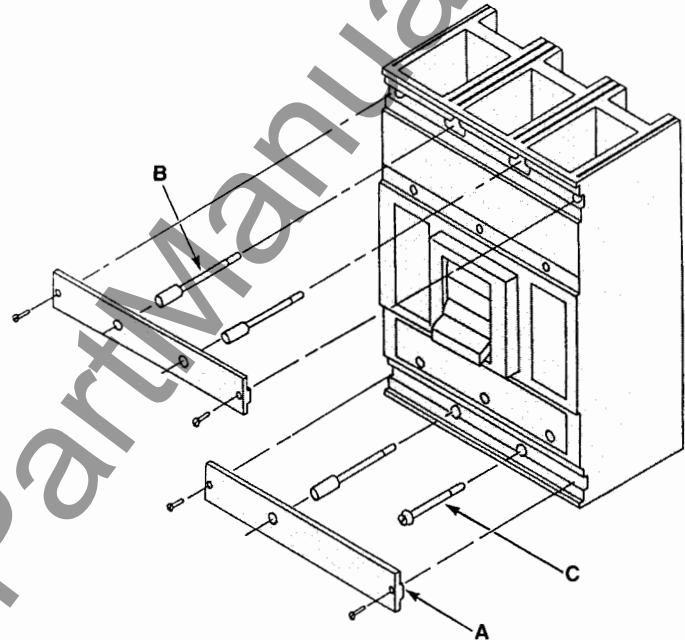
Turn power off  
supplying device  
before installing.



**SAFETY INSTRUCTIONS**

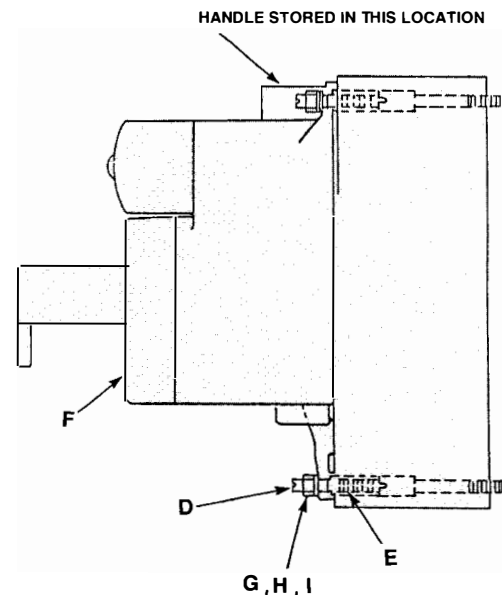
**Mounting The Circuit Breaker**

1. Remove the four shield screws and the terminal shields (A).
2. Fasten circuit breaker to prepared mounting surface using three special  $\frac{1}{4}$ -20  $\times$   $3\frac{1}{2}$  slotted extension studs (B) in the lower left and both top hole positions. The  $\frac{1}{4}$ -20 screw and lockwasher (C) are used in the bottom right hole position.
3. Confirm that the power from the supplying device has been turned off. Connect all cables to the circuit breaker at this time.
4. Punch or drill out the two .531 diameter knockouts in the line terminal shield and the left-hand knockout in the load terminal shield. **Replace the terminal shields onto the circuit breaker.**



**Mounting The Telemant Motor Operator**

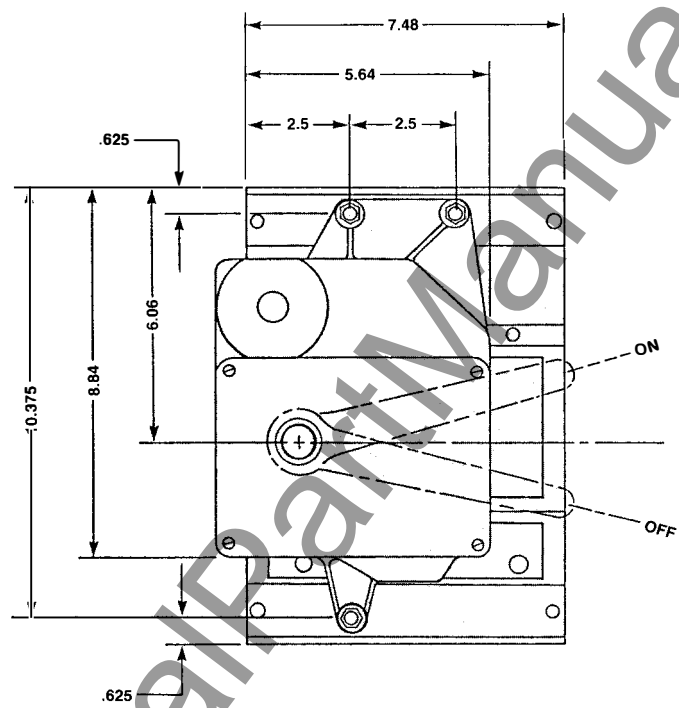
1. Insert three  $\frac{5}{16}$  slotted threaded rods (D) through line shield knockouts and tighten into extension studs. The slotted side of the rod must extend past the face of the breaker. Slip the plastic sleeves (E) over these extended rods.
  2. Move the breaker handle firmly to the OFF position. Breaker must be in the OFF position to permit mounting of the TELEMANT.
  3. The TELEMANT operator (F) must also be in the OFF position – place manual TELEMANT operating handle over operating shaft. Depress to engage handle and turn clockwise until it stops.
  4. Position and place the TELEMANT operator over the three threaded rods. Fasten with flatwashers (G), lockwashers (H) and  $\frac{5}{16}$ -18 hex nuts (I).
  5. Remove top cover of motor mechanism. Wire TELEMANT in accordance with diagram located on underside of top cover and replace top cover.
- Circuit Breaker is NOW ready for TELEMANT operation.



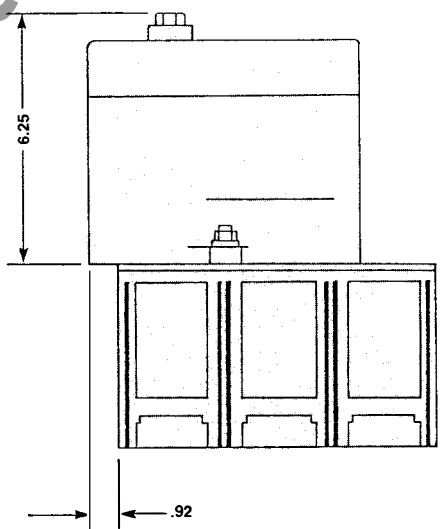
**DIMENSIONAL INFORMATION FOR  
I-T-E TELEMAND® MOTOR OPERATOR  
CAT. NO. TO6J6120, TO6J6240**

Control Voltage	CAT. NO.
120 VAC	TO6J6120
240 VAC	TO6J6240

**FRONT VIEW**

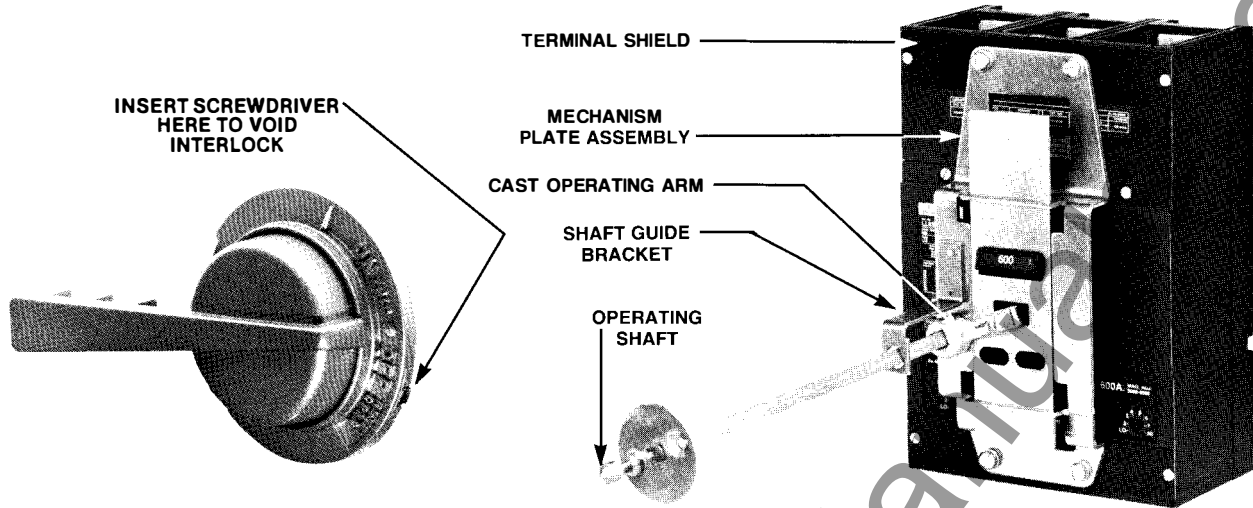


**END VIEW**



**NOTE:** For Use On J6-L6 Frame Circuit Breakers and Switches  
Types JD2, JJ6, JL6, JL6 ET1, HJ6, LJ6, LL6, LL6 ET1, HJ6

# INSTRUCTIONS FOR I-T-E VARIABLE DEPTH ROTARY HANDLE ENCLOSURE MECHANISM – D11CJU2



### General

Handle will permit locking the disconnect device in the "OFF" position using up to three locks having shackles up to 3/8 inches in diameter. Provision for locking in "ON" position is provided, but the handle plate must have the material covering the locking notch removed. This can be done with a hacksaw or file. The handle has a voidable interlock. Voiding the interlock requires inserting a small screwdriver into the rectangular opening in the handle plate, which will release the handle.

Measure distance "F" from breaker mounting surface to top surface of cover. If distance "F" is less than 8 inches then remove shaft guide bracket.

Find length "G" by subtracting 5.50 inches from "F" dimension. Mark length "G" from underside of operating plate on shaft and cut shaft squarely at mark.

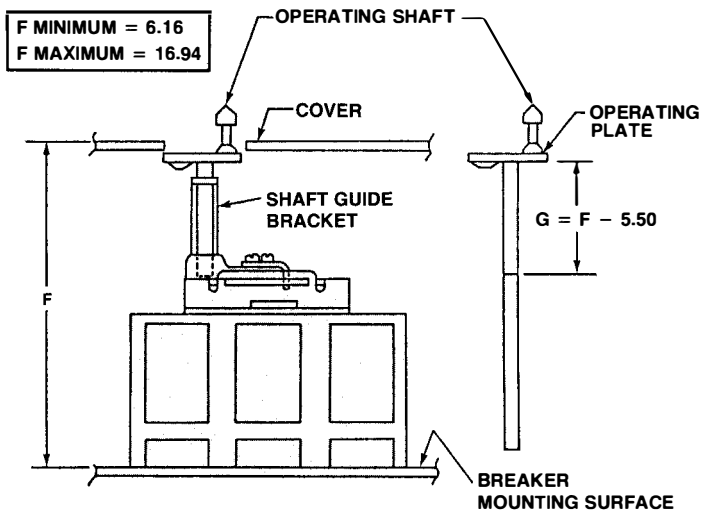
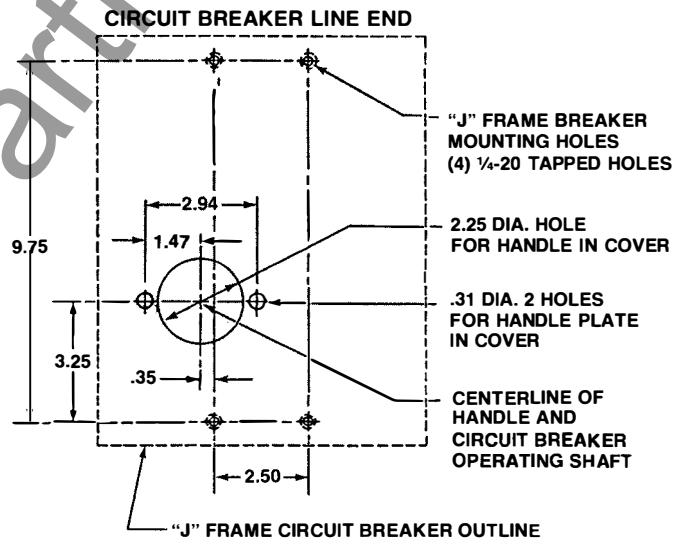
Breaker must be "tripped" during installation. Push red button marked "Push to trip".

Loosen the two (2) 8-32 screws that secure both terminal shields to the breaker, remove the two .28 DIA. knockouts and fasten circuit breaker with four (4) 3.56 total length fastening members. Wire circuit breaker and **replace terminal shields**. Using 1/4-20 x 1 1/2 R.H. screws together with lockwasher and washer supplied with kit, attach mechanism plate assembly on breaker as shown.

Insert end of operating shaft into square socket in cast operating arm so that top of shaft has proper relationship to handle as illustrated in photograph on front of instruction sheet. (Breaker or handle may be rotated in 90° increments so long as relationship of handle and top of operating shaft is held.) Tighten set screw in side of cast operating arm. (Recommended torque – 75 in. lbs.)

### Handle Mounting

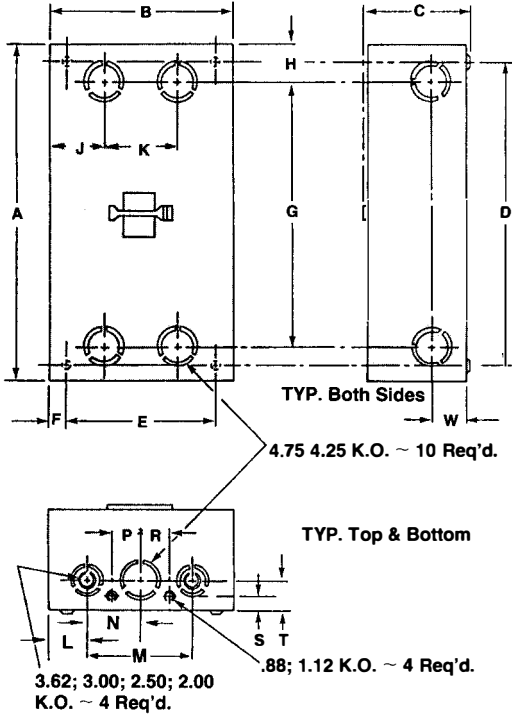
Holes in cover to be as shown at right. Mount handle with cork gasket on cover, handle mounting plate on inside of cover, fasten together loosely through cover with the two short screws provided. The two (2) .31 DIA. mounting holes must be rotated in the same 90° increments to maintain the handle and operating shaft relationship. Close cover, adjust handle with actuator to be free of binding. Tighten handle mounting screws and operate handle "ON" and "OFF" to see that circuit breaker operates satisfactorily.



## I-T-E ENCLOSURES

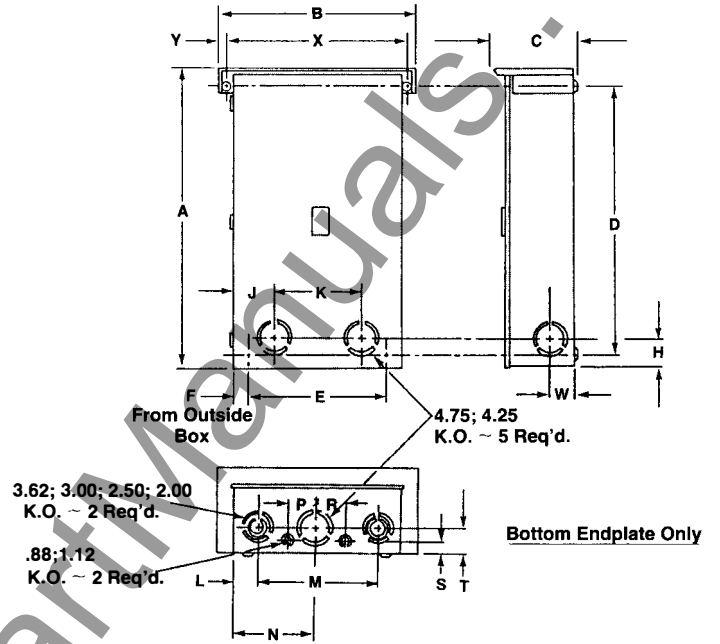
### TYPE I – J6N1, L6N1

General purpose indoor, sheet-steel enclosure for use in normal atmosphere, listed as service-entrance equipment.



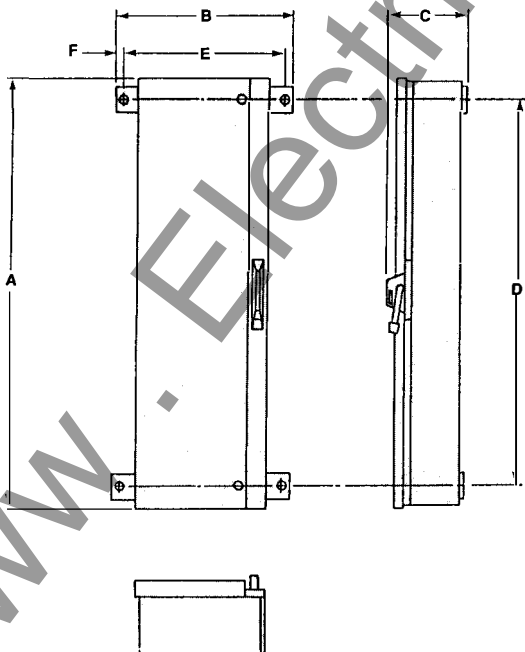
### TYPE 3R – J6N3R, L6N3R

An outdoor, sheet-steel enclosure providing protection against driving rain, sleet or snow. Listed as service-entrance equipment.



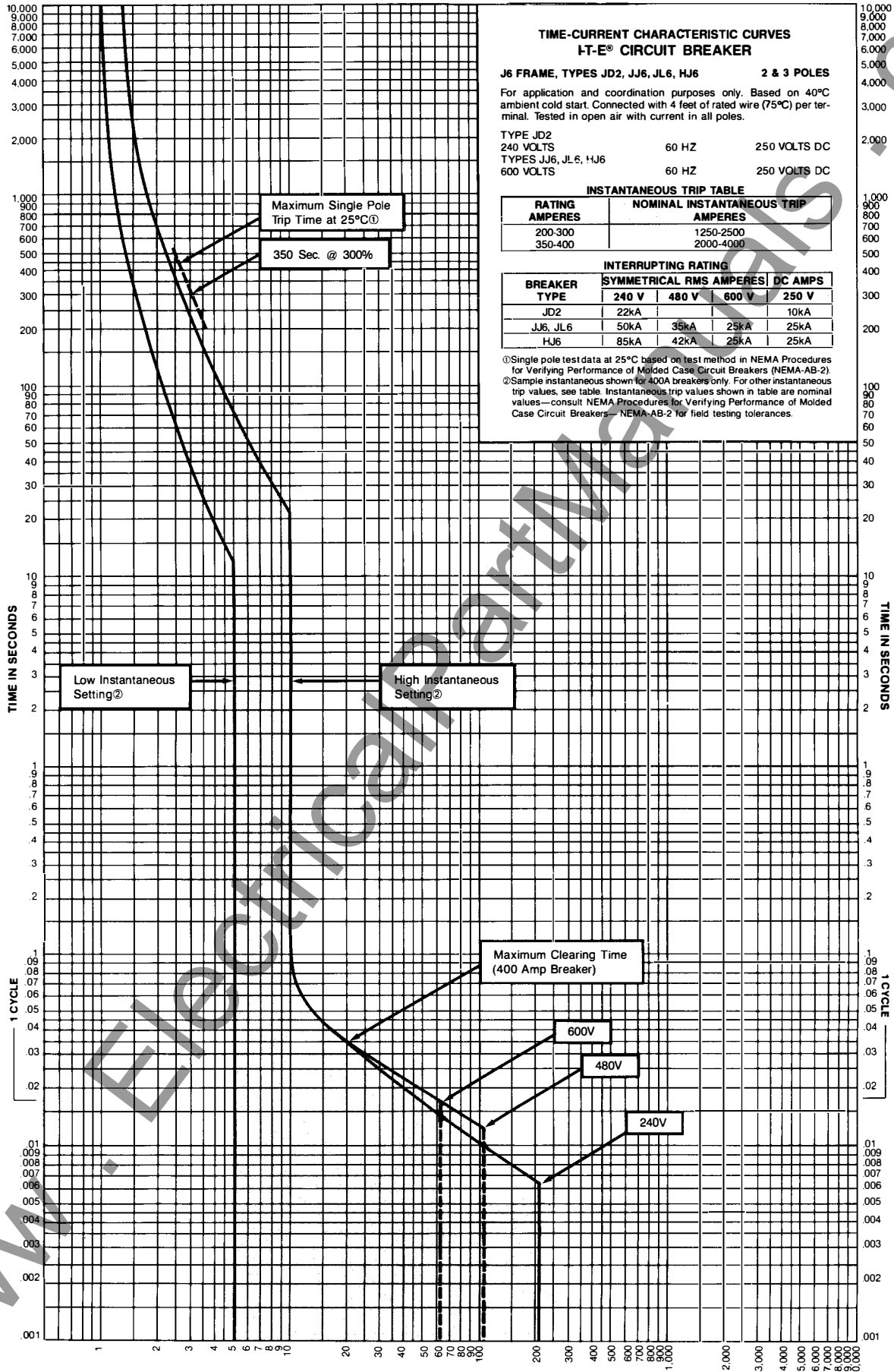
### TYPE 12 – J6N12, L6N12

A special-industry, sheet-steel enclosure for indoor use in atmosphere containing particles of lint, dirt, sawdust and other foreign matter.

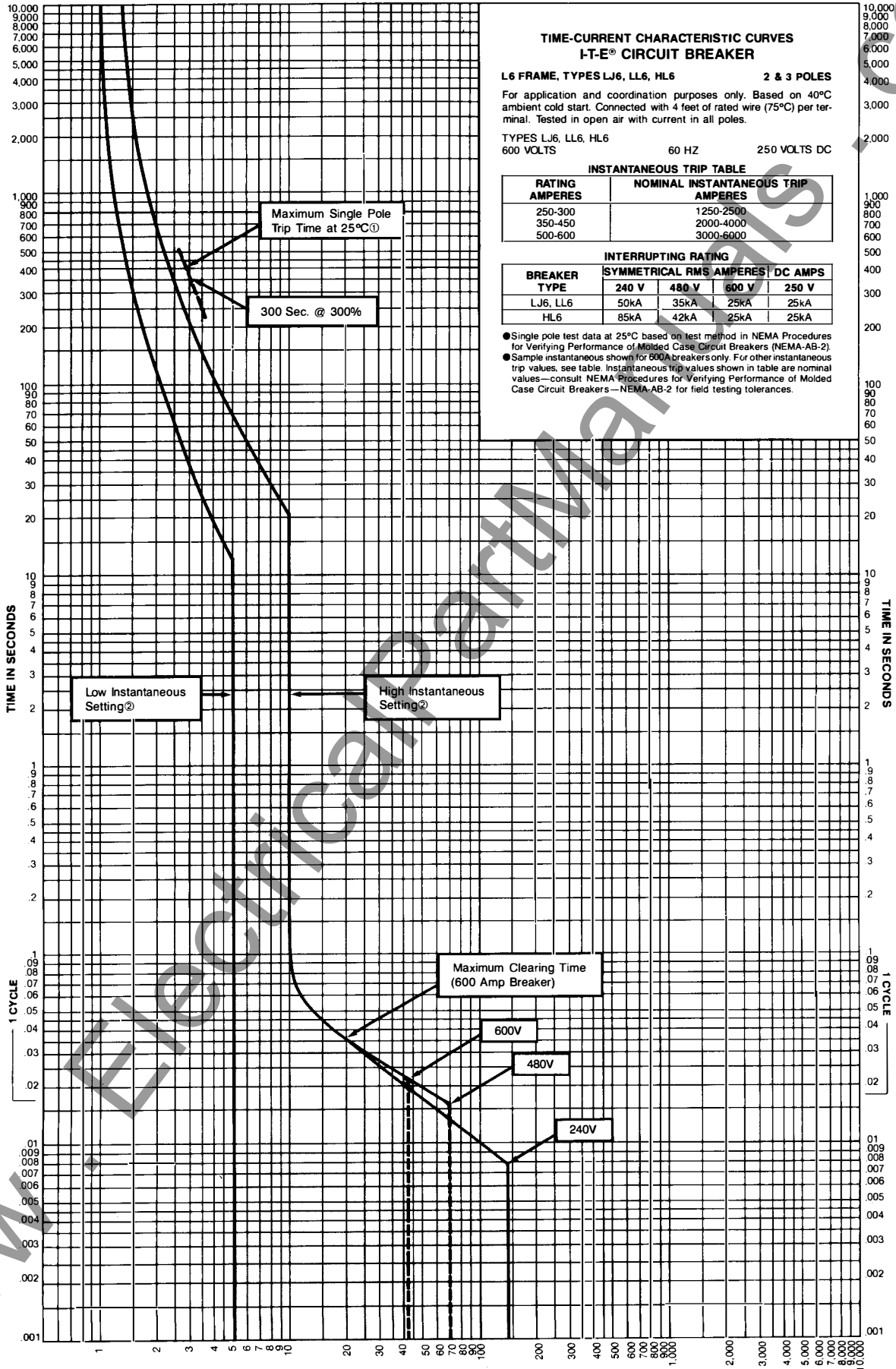


REF.	CAT. NO.					
	J6N1	L6N1	J6N3R	L6N3R	J6N12	L6N12
A	40.2	45.2	41.2	45.2	40.5	45.5
B	22.4	22.4	26.8	26.8	21.75	21.75
C	10.7	10.7	11.7	11.7	11.62	11.62
D	36.0	41.0	36.5	41.5	36.15	41.15
E	18.25	18.25	18.25	18.25	20.5	20.5
F	2.09	2.09	2.12	2.12	.62	.62
G	32.5	37.5	—	—	—	—
H	2.8	2.8	3.8	3.8	—	—
J	6.2	6.2	6.1	6.1	—	—
K	5.0	5.0	10.0	10.0	—	—
L	4.5	4.5	4.5	4.5	—	—
M	13.5	13.5	13.5	13.5	—	—
N	11.2	11.2	11.2	11.2	—	—
P	3.4	3.4	3.4	3.4	—	—
R	3.4	3.4	3.4	3.4	—	—
S	1.5	1.5	1.5	1.5	—	—
T	3.5	3.5	3.5	3.5	—	—
W	3.3	3.3	3.3	3.3	—	—
X	—	—	24.15	24.25	—	—
Y	—	—	1.12	1.12	—	—

# I-T-E TIME/CURRENT CURVES – J6 FRAME 600 VOLTS, 60 HZ, 250 VOLTS DC 200-400 AMPERES



# I-T-E TIME/CURRENT CURVES – L6 FRAME 600 VOLTS, 60 HZ, 250 VOLTS DC 250-600 AMPERES



### TIME-CURRENT CHARACTERISTIC CURVES I-T-E® CIRCUIT BREAKER

**L6 FRAME, TYPES LJ6, LL6, HL6** **2 & 3 POLES**

For application and coordination purposes only. Based on 40°C ambient cold start. Connected with 4 feet of rated wire (75°C) per terminal. Tested in open air with current in all poles.

TYPES LJ6, LL6, HL6 60 HZ  
600 VOLTS 250 VOLTS DC

#### INSTANTANEOUS TRIP TABLE

RATING AMPERES	NOMINAL INSTANTANEOUS TRIP AMPERES
250-300	1250-2500
350-450	2000-4000
500-600	3000-6000

#### INTERRUPTING RATING

BREAKER TYPE	SYMMETRICAL RMS AMPERES				DC AMPS
	240 V	480 V	600 V	250 V	
LJ6, LL6	50kA	35kA	25kA	25kA	
HL6	85kA	42kA	25kA	25kA	

● Single pole test data at 25°C based on test method in NEMA Procedures for Verifying Performance of Molded Case Circuit Breakers (NEMA-AB-2).  
● Sample instantaneous shown for 600A breakers only. For other instantaneous trip values, see table. Instantaneous trip values shown in table are nominal values—consult NEMA Procedures for Verifying Performance of Molded Case Circuit Breakers—NEMA-AB-2 for field testing tolerances.

## I-T-E ORDERING INFORMATION

### J6 FRAME CIRCUIT BREAKERS

Breaker Type	Ampere Rating	Instantaneous Trip Range		Complete Breaker Unenclosed	Frame Only	Trip Unit Only	UL Interrupting Ratings (kA) (RMS Symmetrical Amperes)				
		Min.	Max.	Cat. No.	Cat. No.	Cat. No.	VAC		VDC		
							240	480	600	125	250
<b>JD2</b> ① 2 Pole 240 VAC 250 VDC	200	1250	2500	JD22B200			22				10
	225	1250	2500	JD22B225			22				10
	250	1250	2500	JD22B250			22				10
	300	1250	2500	JD22B300			22				10
	350	2000	4000	JD22B350			22				10
	400	2000	4000	JD22B400			22				10
	400	Molded Case ② Switch		JD225400A							
<b>JD2</b> 3 Pole 240 VAC	200	1250	2500	JD23B200			22				
	225	1250	2500	JD23B225			22				
	250	1250	2500	JD23B250			22				
	300	1250	2500	JD23B300			22				
	350	2000	4000	JD23B350			22				
	400	2000	4000	JD23B400			22				
	400	Molded Case ② Switch		JD235400A							
<b>JJ6</b> ① 2 Pole 600 VAC 250 VDC	200	1250	2500	JJ62B200			50	35	25		25
	225	1250	2500	JJ62B225			50	35	25		25
	250	1250	2500	JJ62B250			50	35	25		25
	300	1250	2500	JJ62B300			50	35	25		25
	350	2000	4000	JJ62B350			50	35	25		25
	400	2000	4000	JJ62B400			50	35	25		25
	400	Molded Case ② Switch		JJ625400A							
<b>JJ6</b> 3 Pole 600 VAC	200	1250	2500	JJ63B200			50	35	25		
	225	1250	2500	JJ63B225			50	35	25		
	250	1250	2500	JJ63B250			50	35	25		
	300	1250	2500	JJ63B300			50	35	25		
	350	2000	4000	JJ63B350			50	35	25		
	400	2000	4000	JJ63B400			50	35	25		
	400	Molded Case ② Switch		JJ635400A							
<b>JL6</b> ① 2 Pole 600 VAC 250 VDC	200	1250	2500	JL62B200	JL62F400	JL62T200	50	35	25		25
	225	1250	2500	JL62B225	JL62F400	JL62T225	50	35	25		25
	250	1250	2500	JL62B250	JL62F400	JL62T250	50	35	25		25
	300	1250	2500	JL62B300	JL62F400	JL62T300	50	35	25		25
	350	2000	4000	JL62B350	JL62F400	JL62T350	50	35	25		25
	400	2000	4000	JL62B400	JL62F400	JL62T400	50	35	25		25
	400										
<b>JL6</b> 3 Pole 600 VAC	200	1250	2500	JL63B200	JL63F400	JL63T200	50	35	25		
	225	1250	2500	JL63B225	JL63F400	JL63T225	50	35	25		
	250	1250	2500	JL63B250	JL63F400	JL63T250	50	35	25		
	300	1250	2500	JL63B300	JL63F400	JL63T300	50	35	25		
	350	2000	4000	JL63B350	JL63F400	JL63T350	50	35	25		
	400	2000	4000	JL63B400	JL63F400	JL63T400	50	35	25		
	400										
<b>HJ6</b> 3 Pole 600 VAC	200	1250	2500	HJ63B200	HJ63F400	JL63T200	85	42	25		
	225	1250	2500	HJ63B225	HJ63F400	JL63T225	85	42	25		
	250	1250	2500	HJ63B250	HJ63F400	JL63T250	85	42	25		
	300	1250	2500	HJ63B300	HJ63F400	JL63T300	85	42	25		
	350	2000	4000	HJ63B350	HJ63F400	JL63T350	85	42	25		
	400	2000	4000	HJ63B400	HJ63F400	JL63T400	85	42	25		
	400										

### INSTANTANEOUS ONLY CIRCUIT BREAKERS (MOTOR CIRCUIT INTERRUPTER)

<b>JL6</b> 3 Pole 600 VAC	400	1250	2500	JL63L400 JL63H400	ETI interrupting ratings are determined only through combination tests with properly sized overload relays and contactors.
	400	2000	4000		

① Two Pole Available in 3 Pole Width Only

② Includes Self Protecting Instantaneous Element

#### SPECIAL NOTE

For 50°C application: Replace "B" letter in catalog number with the letter "M" for ordering purposes.

If trip unit only is required, replace the letter "T" with the letter "W", for ordering purposes.

## I-T-E ORDERING INFORMATION

### L6 FRAME CIRCUIT BREAKERS

Breaker Type	Ampere Rating	Instantaneous Trip Range		Complete Breaker Unenclosed Cat. No.	Frame Only Cat. No.	Trip Unit Only Cat. No.	UL Interrupting Ratings (kA) (RMS Symmetrical Amperes)				
		Min.	Max.				VAC		VDC		
							240	480	600	125	250
<b>LJ6</b> 2 Pole 600 VAC 250 VDC	450	2000	4000	LJ62B450			50	35	25	25	
	500	3000	6000	LJ62B500			50	35	25	25	
	600	3000	6000	LJ62B600			50	35	25	25	
<b>LJ6</b> 3 Pole 600 VAC	450	2000	4000	LJ63B450			50	35	25	25	
	500	3000	6000	LJ63B500			50	35	25	25	
	600	3000	6000	LJ63B600			50	35	25	25	
<b>LL6</b> 2 Pole 600 VAC 250 VDC	250	1250	2500	LL62B250	LL62F600	JL62T250	50	35	25	25	
	300	1250	2500	LL62B300	LL62F600	JL62T300	50	35	25	25	
	350	2000	4000	LL62B350	LL62F600	JL62T350	50	35	25	25	
	400	2000	4000	LL62B400	LL62F600	JL62T400	50	35	25	25	
	450	2000	4000	LL62B450	LL62F600	LL62T450	50	35	25	25	
	500	3000	6000	LL62B500	LL62F600	LL62T500	50	35	25	25	
	600	3000	6000	LL62B600	LL62F600	LL62T600	50	35	25	25	
<b>LL6</b> 3 Pole 600 VAC	250	1250	2500	LL63B250	LL63F600	JL63T250	50	35	25	25	
	300	1250	2500	LL63B300	LL63F600	JL63T300	50	35	25	25	
	350	2000	4000	LL63B350	LL63F600	JL63T350	50	35	25	25	
	400	2000	4000	LL63B400	LL63F600	JL63T400	50	35	25	25	
	450	2000	4000	LL63B450	LL63F600	JL63T450	50	35	25	25	
	500	3000	6000	LL63B500	LL63F600	JL63T500	50	35	25	25	
	600	3000	6000	LL63B600	LL63F600	JL63T600	50	35	25	25	
<b>HL6</b> 3 Pole 600 VAC	250	1250	2500	HL63B250	HL63F600	JL63T250	85	42	25	25	
	300	1250	2500	HL63B300	HL63F600	JL63T300	85	42	25	25	
	350	2000	4000	HL63B350	HL63F600	JL63T350	85	42	25	25	
	400	2000	4000	HL63B400	HL63F600	JL63T400	85	42	25	25	
	450	2000	4000	HL63B450	HL63F600	LL63T450	85	42	25	25	
	500	3000	6000	HL63B500	HL63F600	LL63T500	85	42	25	25	
	600	3000	6000	HL63B600	HL63F600	LL63T600	85	42	25	25	

### INSTANTANEOUS ONLY CIRCUIT BREAKERS (MOTOR CIRCUIT INTERRUPTER)

<b>LL6</b> 3 Pole 600 VAC	600	2000	4000	LL63L600		ETI interrupting ratings are determined only through combination tests with properly sized overload relays and contactors
	600	3000	4000	LL63H600		

① Two Pole Available in 3 Pole Width Only

② Includes Self Protecting Instantaneous Element

#### SPECIAL NOTE

For 50°C application: Replace "B" letter in catalog number with the letter "M" for ordering purposes.

If trip unit only is required, replace the letter "T" with the letter "W", for ordering purposes.

## ORDERING INFORMATION FOR I-T-E CIRCUIT BREAKER ACCESSORIES

### AUXILIARY SWITCH COMBINATIONS

Control Voltage		1 Auxiliary Switch	1 Alarm Switch & 2 Auxiliary Switches	2 Auxiliary Switches
AC	DC	Cat. No.	Cat. No.	Cat. No.
120		A01J64	A02J64B	A02J64
208		A01J64	A02J64B	A02J64
240		A01J64	A02J64B	A02J64
277		A01J64	A02J64B	A02J64
480		A01J64	A02J64B	A02J64
600		-	-	-
	24	A01J64	A02J64B	A02J64
	48	A01J64	A02J64B	A02J64
	125	A01J64	A02J64B	A02J64
	250	A01J64	A02J64B	A02J64

### UNDERVOLTAGE TRIP COMBINATIONS

Control Voltage		1 Undv. Trip	1 Undv. Trip & 1 Aux. Switch
AC	DC	Cat. No.	Cat. No.
120		U01J60	U01J62A
208		U02J60	U02J62A
240		U03J60	U03J62A
277		U16J60	U16J62A
480		U06J60	U06J62A
600		U08J60	-
	24	U13J60	U13J62A
	48	U14J60	U14J62A
	125	U10J60	U10J62A
	250	U12J60	U12J62A

### ALARM SWITCH COMBINATIONS

Control Voltage		1 Alarm Switch	1 Alarm Switch & 1 Auxiliary Switch
AC	DC	Cat. No.	Cat. No.
120		B00J64	A01J64B
208		B00J64	A01J64B
240		B00J64	A01J64B
277		B00J64	A01J64B
480		B00J64	A01J64B
600		-	-
	24	B00J64	A01J64B
	48	B00J64	A01J64B
	125	B00J64	A01J64B
	250	B00J64	A01J64B

### SHUNT TRIP COMBINATIONS

Control Voltage		1 Shunt Trip	1 Shunt Trip 1 Aux. Switch
AC	DC	Cat. No.	Cat. No.
120		S01J60	S01J62A
208		S02J60	S02J62A
240		S03J60	S03J62A
277		S15J60	S15J62A
480		S04J60	S04J62A
600		S06J60	-
	24	S07J60	S07J62A
	48	S09J60	S09J62A
	125	S11J60	S11J62A
	250	S13J60	S13J62A

### ADDITIONAL ACCESSORIES

Item	Catalog No.	Item	Catalog No.
Door Mounted Rotary Operating Handle		Plug In Adapters	
Variable Depth –		2 pole (2 req'd per breaker) J6 Family	PC 5777
Interior Enclosure		2 pole (2 req'd per breaker) L6 Family	PC 5660
Depth 5 <sup>5</sup> / <sub>16</sub> to 16 <sup>3</sup> / <sub>4</sub>	D11CJU2	3 pole (2 req'd per breaker) J6 Family	PC 5778
		3 pole (2 req'd per breaker) L6 Family	PC 5661
Side Flange Mounting		Enclosures	
Right Hand – Minimum Enclosure		Type 1 J6	J6N1
Depth 5 <sup>5</sup> / <sub>16</sub> (Flange to Back)	D11JRU	Type 1 L6	L6N1
Left Hand – Minimum Enclosures		Type 3R J6	J6N3R
Depth 5 <sup>5</sup> / <sub>16</sub> (Flange to Back)	D11JLU	Type 3R L6	L6N3R
Rear Connecting Studs		Type 12 J6	J6N12
Short Length J6 Family	RS 5774	Padlocking Device	J6HPL
Short Length L6 Family	RS 5784	Handle Blocking Device	J6HBL
Long Length J6 Family	RS 5773		
Long Length L6 Family	RS 5783	Telemand® Motor Operator 120 VAC	TO6J6120
		240 VAC	TO6J6240

## MISCELLANEOUS INFORMATION

<u>I-T-E Item</u>	<u>UL File Number</u>	<u>CSA File Number</u>
Breakers	- E10848	LR 13077
Terminal Connectors	- E23615 (Sp)	—
Plug-in Connectors	- E23615	—
Rear Studs	- E23615	—
Internal Accessories	- E69455	—
Shunt trips		
Undervoltage		
Aux. Switch		
Bellalarm		
Molded Case Switch	- E68312	LR 42022
Enclosures	- E10848	—
Connector Straps	- E23615	

Circuit Breaker Mounting Screws ¼-20 × 2.750"

PROCEDURES FOR VERIFYING PERFORMANCE OF MOLDED CASE CIRCUIT BREAKERS — AB2

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