

Controlled Power



For brief explanation of procedure, please click on text link below.

HI-SPEED DC TRIP UNIT REPLACEMENT

w w w . c o n t r o l l e d p o w e r . c o m

295 Wetmore Avenue SE, North Canton, Ohio 44720 USA
Phone: 330.834.3200 • Fax: 330.834.3201

Corp HQ:

2950 E. Philadelphia Street
Ontario, CA 91761
Phone: 909-923-1800
Toll-Free: 866-MY-MYERS
Fax: 909-923-1806

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



Controlled Power
replacement Hi-Speed DC Trip Unit.

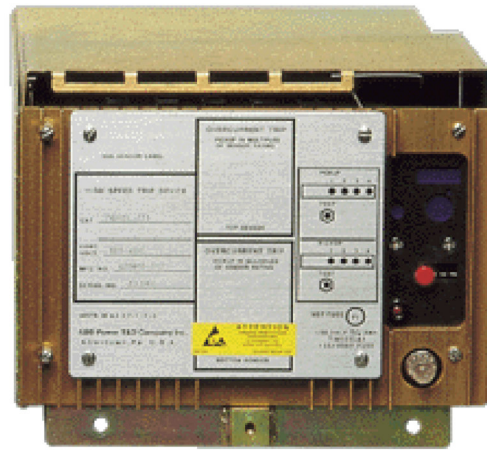


ABB Hi-Speed DC Trip Unit
replaced in procedure.

Controlled Power



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 Controlled Power, LLC.

Copyright © 2002 Controlled Power. All rights reserved.

Controlled Power



SAFETY NOTICE



DANGER: TURN OFF POWER SUPPLYING THE EQUIPMENT BEFORE WORKING INSIDE THE BREAKER!!!

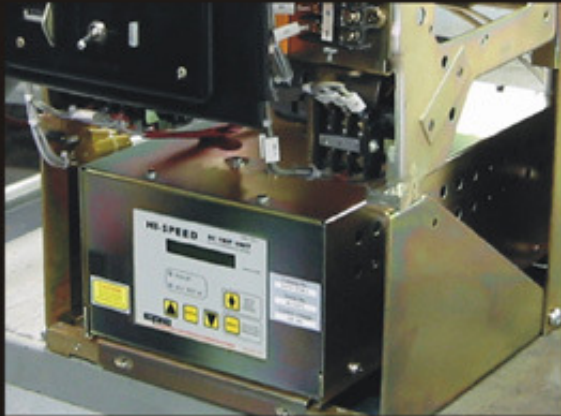
Installing, commissioning, maintaining, changing or refitting these units must be carried out only by qualified and suitably trained specialist personnel and under strict observation of national and international safety regulations.

Non-compliance with these warnings can result in death, severe physical injury and extensive damage to the equipment.

**The control circuits are partly equipped with capacitors which may be charged with dangerous voltages.
Work on this section must be carried out carefully.**

I UNDERSTAND AND AGREE WITH ABOVE SAFETY NOTICE

Controlled Power
REPLACEMENT OF HI-SPEED DC TRIP UNIT



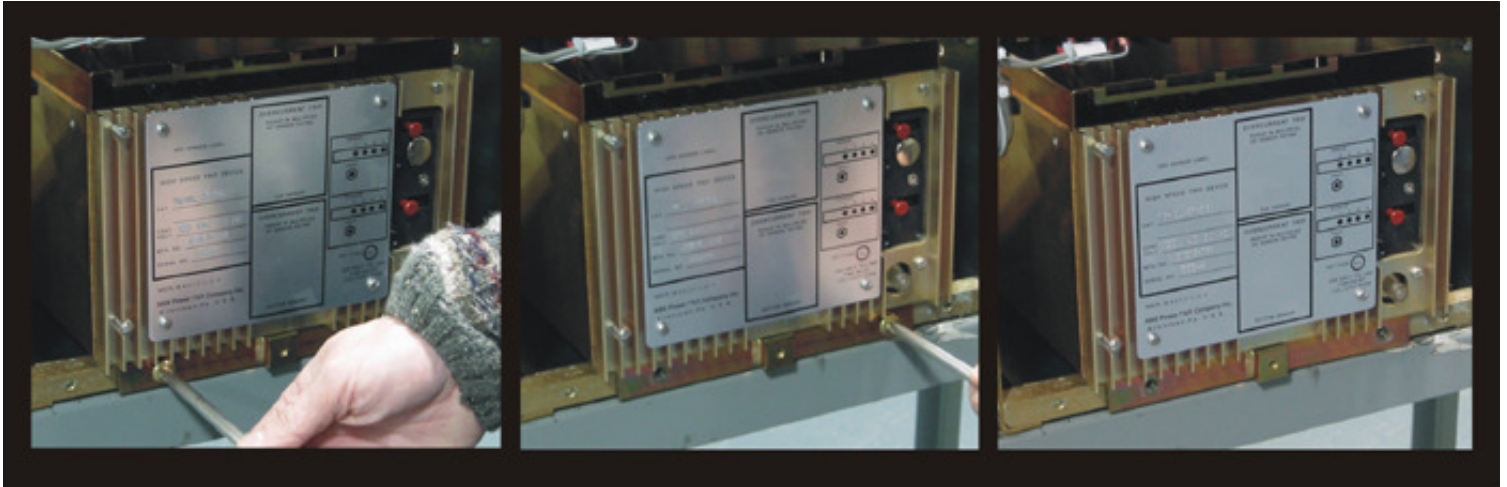
FBK circuit breaker with Controlled trip unit after replacement.



FBK circuit breaker with ABB trip unit to be replaced.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



Remove first of two phillips screws from front bar support.

Remove second of two phillips screws from bar support.

Trip unit pictured after screws removed from bar support.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



Remove grounding nut from rear of unit using 7/16 inch wrench.



Remove grounding wire from the grounding screw.



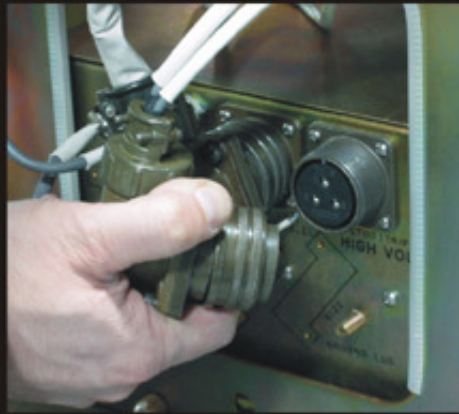
Pull ground wire completely clear of trip unit and breaker.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



Unscrew first of two amphenol connectors.



Pull first of two amphenol connectors clear.



Repeat for second of two amphenol connectors.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



Unscrew first sensor cable from trip unit.



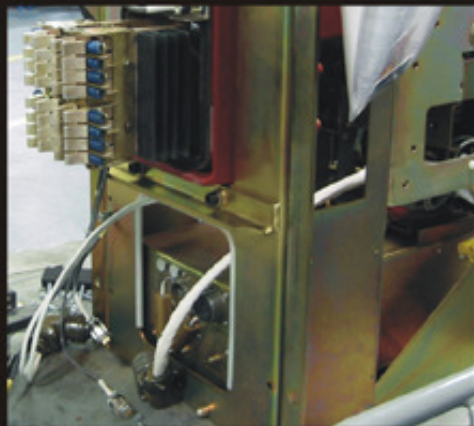
Remove first sensor cable from trip unit.



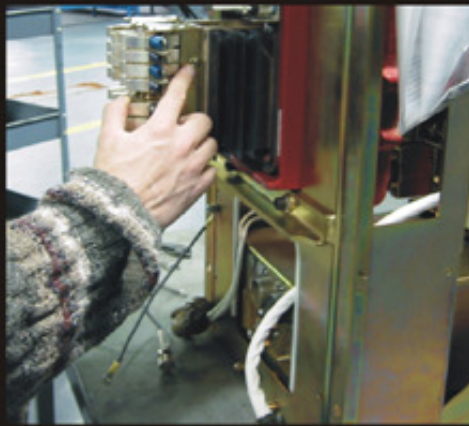
Repeat for second sensor cable if needed.

Controlled Power

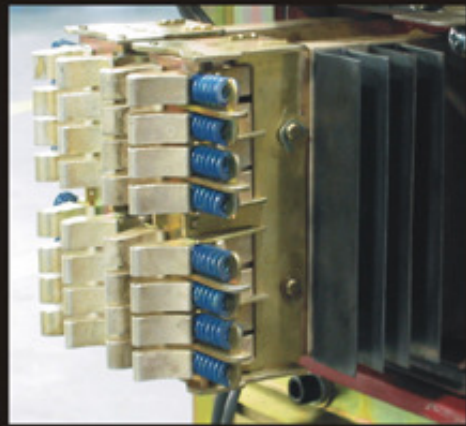
REPLACEMENT OF HI-SPEED DC TRIP UNIT



FBK circuit breaker with connectors removed.



Pin to be removed from primary disconnects where sensor is present.



Close up view of pin location and primary disconnects.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



Spread circlip on end of pin open with regular pair of plyers.



Wedge regular screwdriver inside gap to remove circlip completely from pin.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT

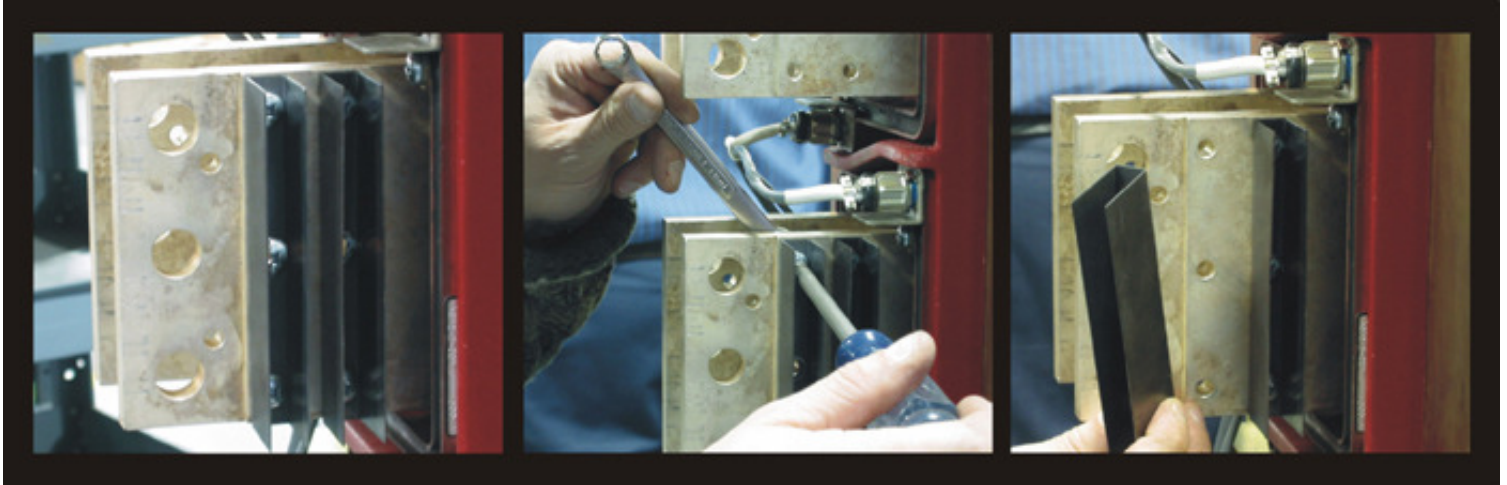


Push pin completely through using screwdriver, repeat procedure for all pins.



With pins removed, remove primary disconnects away from bus. Repeat for each sensor present.

Controlled Power
REPLACEMENT OF HI-SPEED DC TRIP UNIT



All heat sync fins to be removed from bus, where sensor is present.

Remove screws with phillips screwdriver and 7/16 inch wrench.

Remove heat sync fin from bus, repeat for each heat sync fin.

Controlled Power
REPLACEMENT OF HI-SPEED DC TRIP UNIT



Disconnect and remove first sensor cable from sensor.



Repeat for the second sensor cable, if needed.



Removal of sensor cable(s), completely from circuit breaker.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



Remove first of two phillips screws from old sensor.

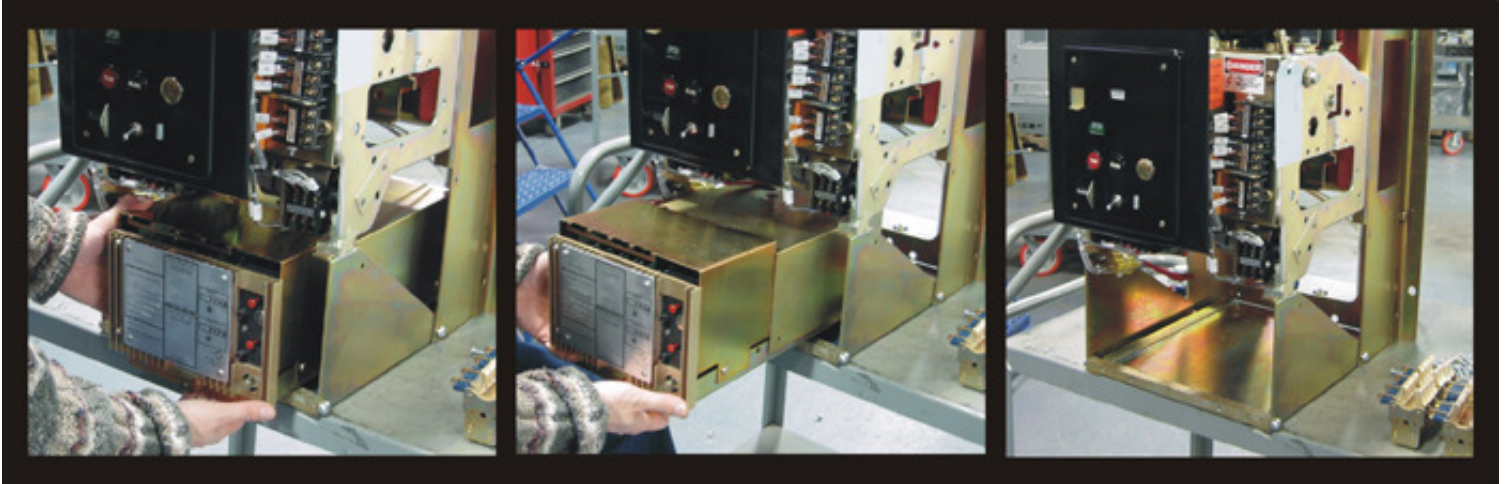


Remove second of two phillips screws from old sensor.



Remove old sensor completely from breaker bus. Repeat for each.

Controlled Power
REPLACEMENT OF HI-SPEED DC TRIP UNIT

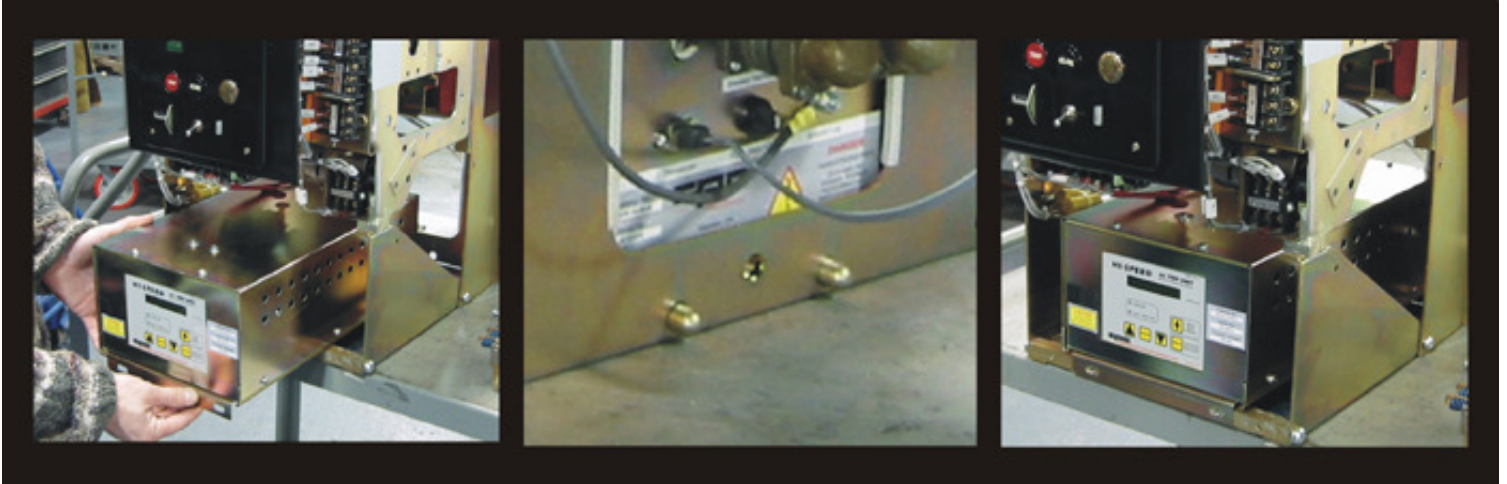


Begin to slide old trip unit out of circuit breaker housing.

WARNING!! Support under entire trip unit to avoid injury.

FBK circuit breaker housing after removal of trip unit.

Controlled Power
REPLACEMENT OF HI-SPEED DC TRIP UNIT



Slide the CP Hi-Speed Trip Unit into circuit breaker housing.

Align pins on back of trip unit to corresponding holes in housing.

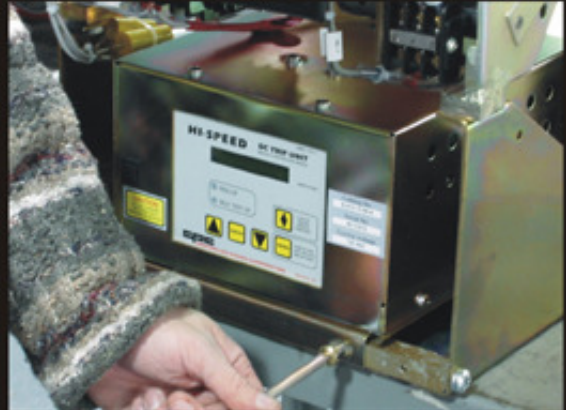
Slide the CP Hi-Speed Trip Unit into circuit breaker housing fully.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



Replace first of two phillips screws to trip unit and front bar support.



Replace second of two phillips screws to trip unit and front bar support.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



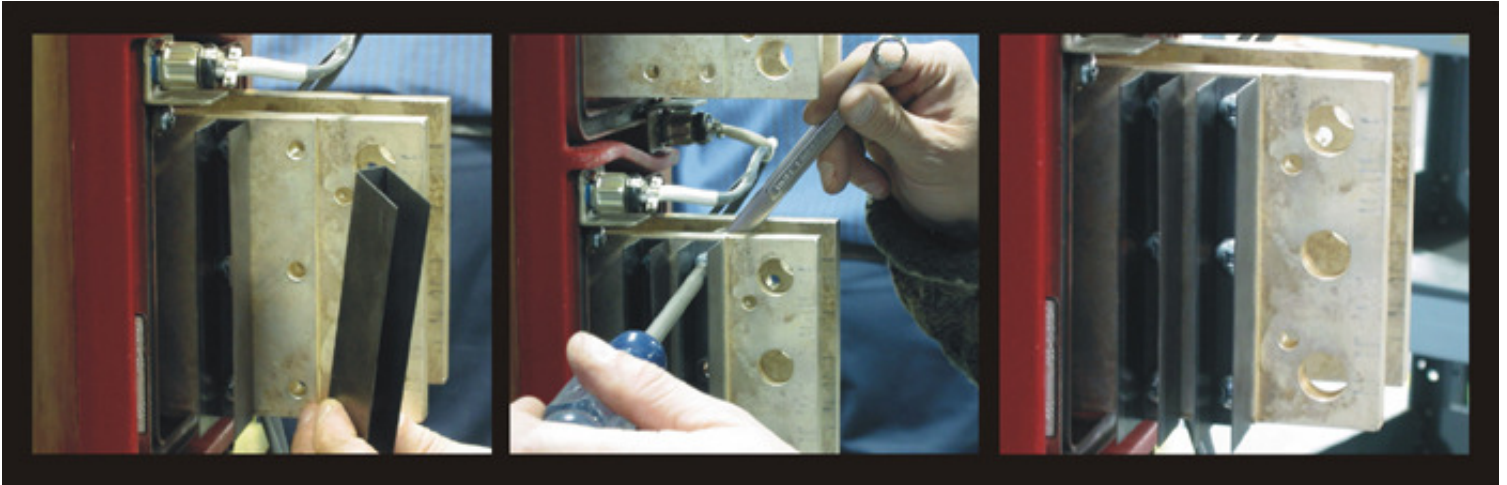
Replace with single new sensor and new hardware to lower bus.

Replace first of two phillips screws to new sensor.

Replace second of two phillips screws to new sensor.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



Replace heat sync fin on bus,
repeat as needed.

Replace screws with phillips
screwdriver and 7/16 inch wrench.

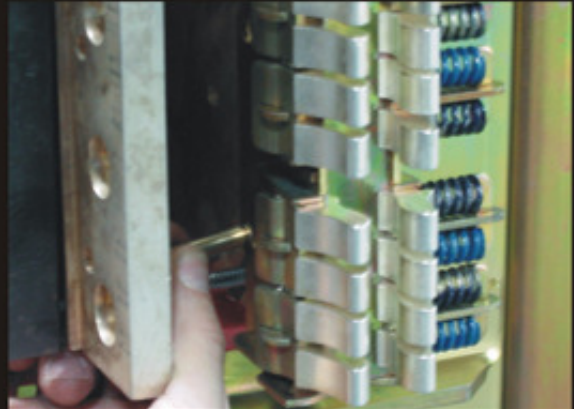
All heat sync fins replaced on bus,
replace screws on each fin.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



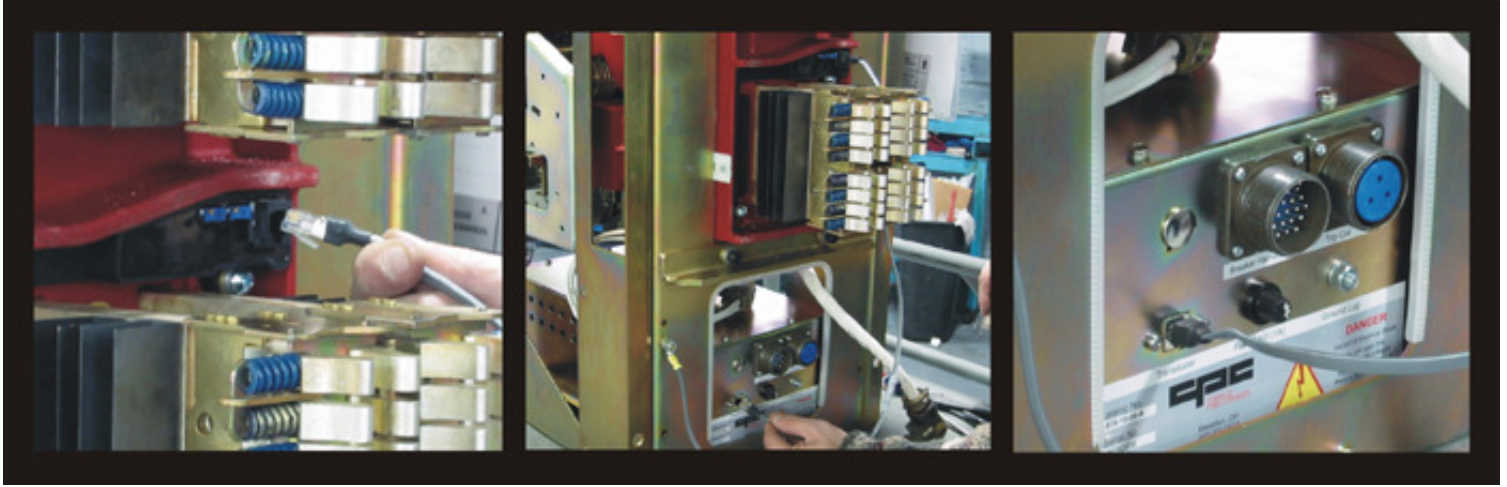
Replace primary disconnects previously removed to breaker bus.



Push pin completely through, repeat for all pins on each primary disconnect.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



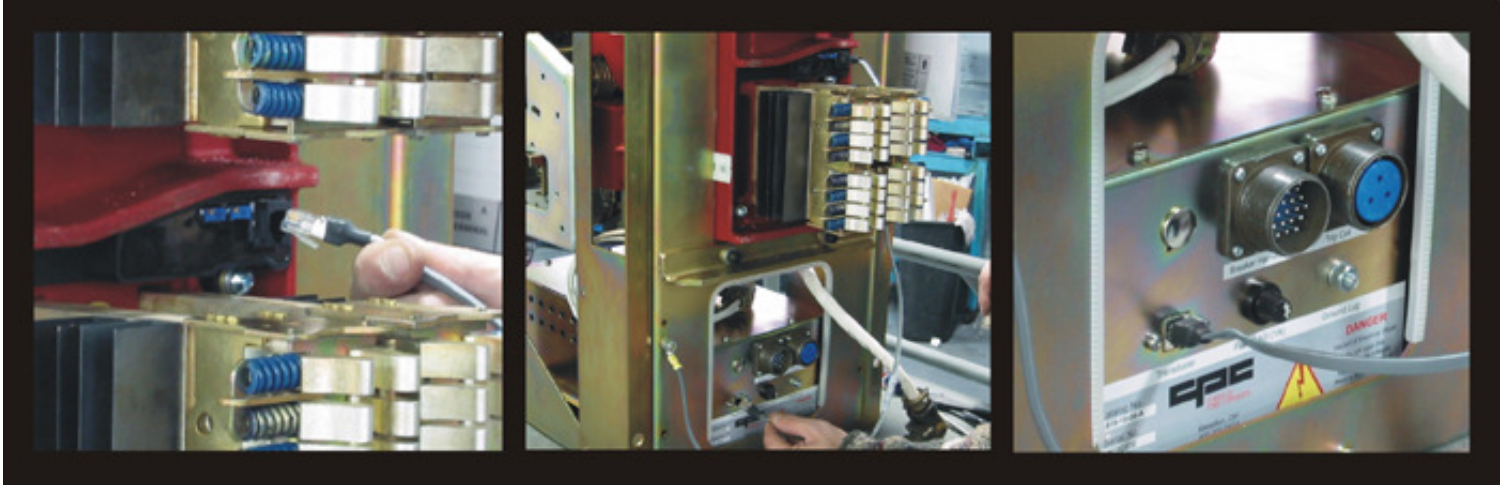
Plug in new supplied sensor cable to new sensor installed.

Plug in new supplied sensor cable to new CP trip unit installed.

New CP Hi-Speed Trip Unit with sensor plugged in.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



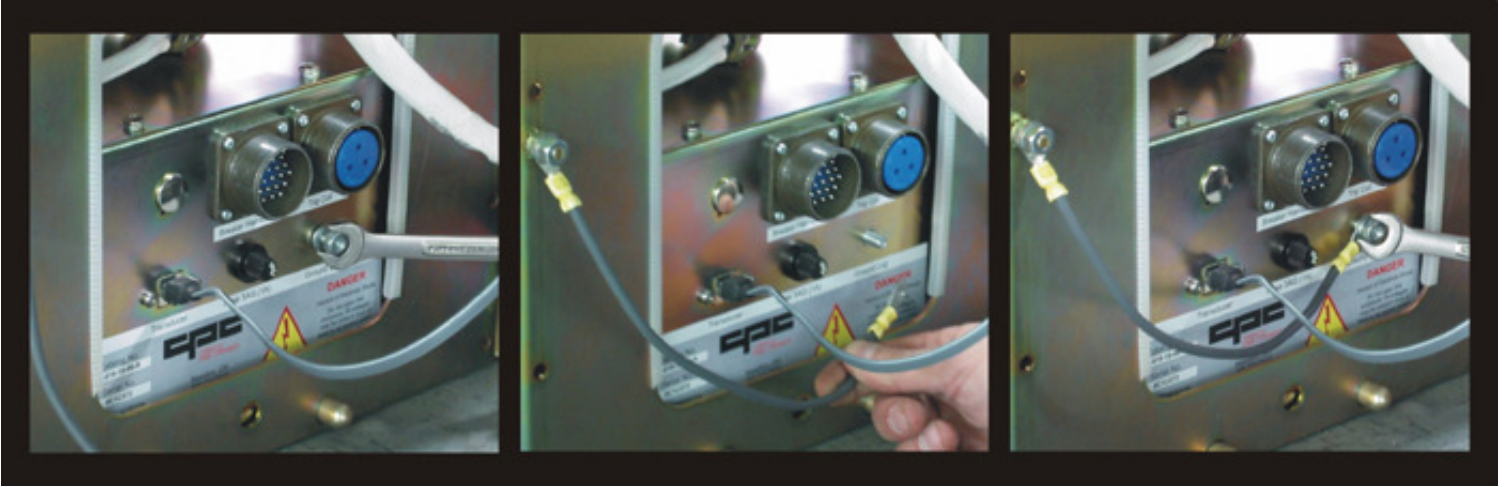
Plug in new supplied sensor cable to new sensor installed.

Plug in new supplied sensor cable to new CP trip unit installed.

New CP Hi-Speed Trip Unit with sensor plugged in.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT

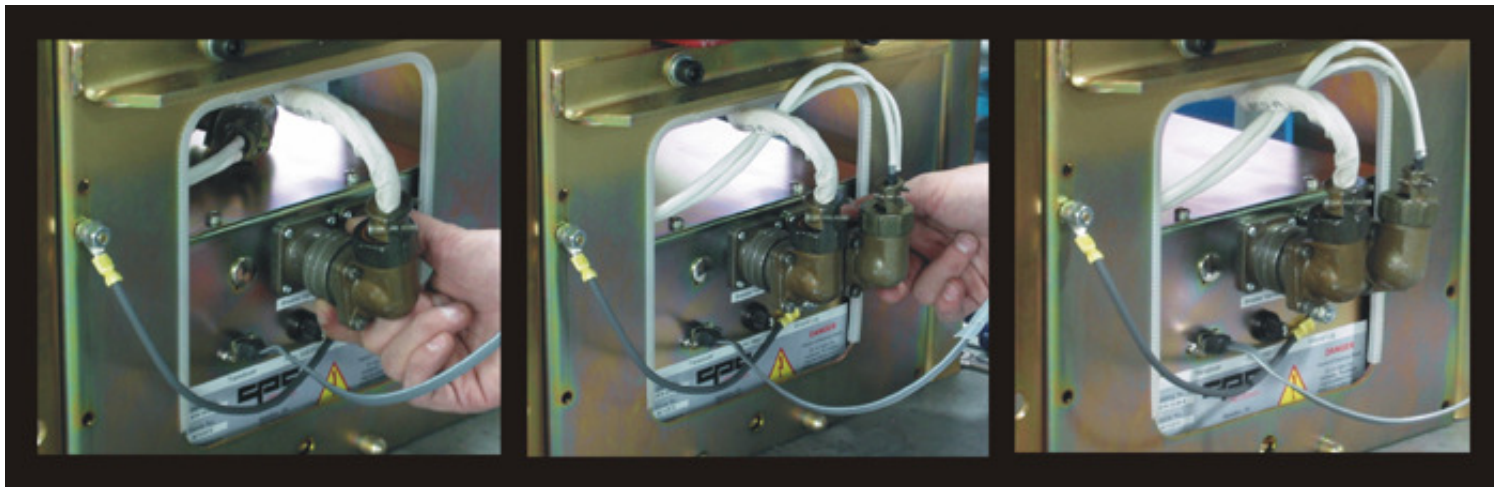


Remove grounding nut from new trip unit using 7/16 inch wrench.

Replace ground wire to new trip unit grounding screw.

Replace grounding nut to new trip unit using 7/16 inch wrench.

Controlled Power REPLACEMENT OF HI-SPEED DC TRIP UNIT



Replace first of two amphenol connectors to male port.

Replace second of two amphenol connectors to female port.

CP trip unit after all reconnections have been made.

Controlled Power

REPLACEMENT OF HI-SPEED DC TRIP UNIT



FBK circuit breaker with CP trip unit after replacement. Back view.



FBK circuit breaker with CP trip unit after replacement. Front View.
