



Mine Duty Circuit Breakers

J Frame Handle Reset Undervoltage Release

The handle reset undervoltage release accessory (see Figure 1) is a direct replacement requiring minimum modification, for the "Push to Trip / Push to Reset" type undervoltage release accessory. It maintains the "Push to Trip" feature, but replaces the "Push to Reset" with direct resetting from the circuit breaker handle. As long as the accessory supply voltage is maintained, the accessory solenoid magnetic force prevents tripping. If the accessory supply voltage is removed or falls within 35% to 70% of the supply voltage, the solenoid will release the accessory mechanism which directly engages the circuit breaker trip unit, causing instantaneous tripping. If the accessory supply voltage is not restored to at least 80% of nominal, the circuit breaker mechanism will release when the handle is moved from the OFF to the ON position. The accessory dropout voltage is factory calibrated to operate between 35% and 70% of the accessory rated voltage.

CAUTION: When removing or installing an undervoltage release accessory in a circuit breaker, the circuit breaker must be completely deenergized and disconnected from the electrical circuit. The circuit breaker must be in the tripped position. This can be achieved by exercising the "Twist to Trip" feature or by pushing the RESET-TRIP button. Circuit breakers and components should be handled, inspected, installed or removed by qualified personnel only and in accordance with these instructions and accepted safety practices.

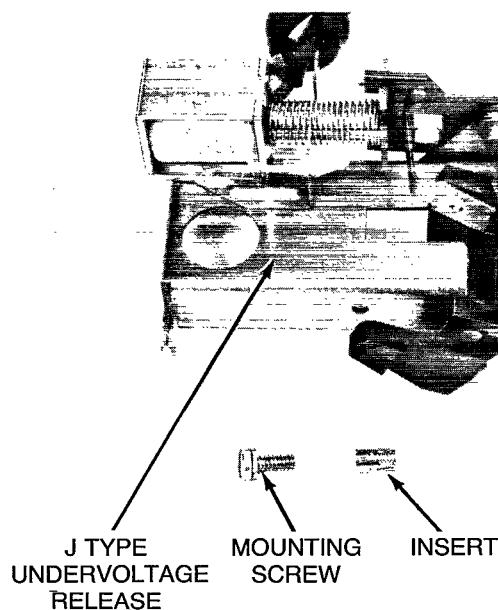


Figure 1

REMOVAL OF PUSHBUTTON RESET UNDERVOLTAGE ACCESSORY

1. Ensure circuit breaker is in the tripped position.
2. Disconnect the accessory power source.
3. Remove cover from the circuit breaker by removing the cover mounting screws.
4. Ensure the circuit breaker has been removed from the circuit. Remove the accessory mounting screw in the trip unit. Seat the plunger in the coil and lift the complete device from the circuit breaker base.

INSTALLATION OF HANDLE RESET UNDERTAGE ACCESSORY (AS REPLACEMENT)

1. Ensure the circuit breaker has been removed from the circuit.
2. Seat the plunger in the coil and hold firmly. Rotate the circuit breaker handle forward and place the accessory into the right pole (Figure 2). Release the circuit breaker handle and the accessory. Secure the accessory to the trip unit with the 6-32 screw provided. (Figure 3)
3. Slot the cover in Figure 4 and place the leads out of the side of the circuit breaker, positioning the wire tie restraints on each side of the wall.
4. Replace the circuit breaker cover and secure with the mounting screws.
5. Remove (snap off) the push button rubber boot on the cover. Replace or completely cover existing label with the label supplied in the kit. Replace (snap on) the push button rubber boot.
6. Bring the circuit breaker to the OFF position and attempt to turn to the ON position. The handle will release and the circuit breaker mechanism will return to the tripped position. Energize the undervoltage release to at least 80% of rated voltage. The circuit breaker will be able to be turned to the ON position. Affix the supplied rating label next to the wire leads exiting the circuit breaker base.

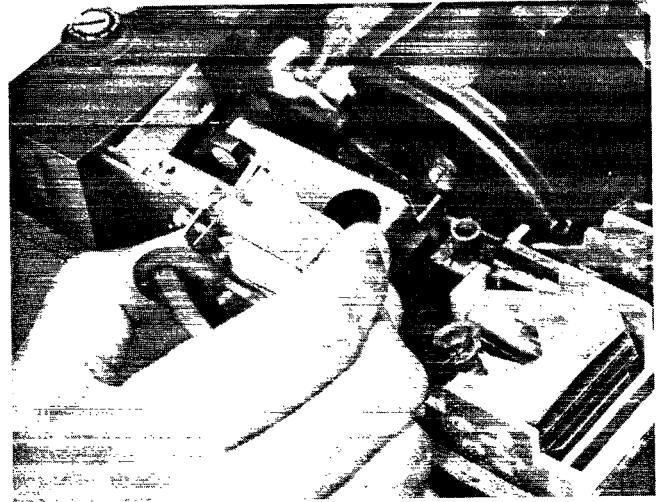


Figure 2

6-32
MOUNTING SCREW

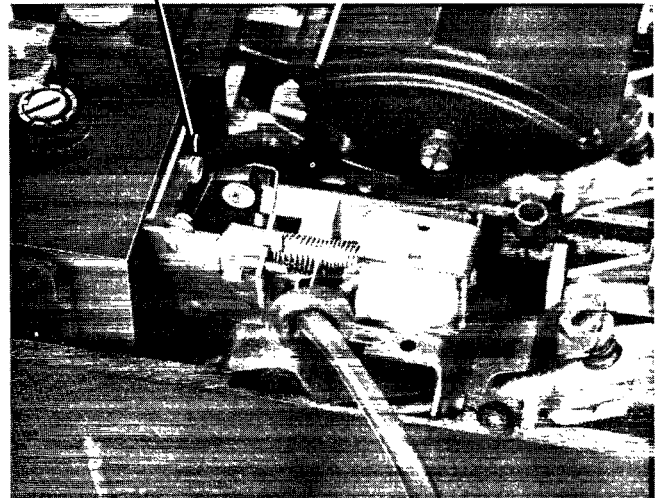


Figure 3

INSTALLATION OF HANDLE RESET UNDERTAGE ACCESSORY—INITIAL)

1. Verify the voltage rating of the accessory.
2. Remove cover from the circuit breaker by removing the eight mounting screws. Do not remove the trip unit.
3. Ensure the circuit breaker has been deenergized and removed from the circuit. At the hole indicated in Figure 5, enlarge the existing hole to .187 diameter and .327 deep. Press the insert provided into the hole until it is flush or below the trip unit surface.
4. Being careful not to eject chips into the trip unit case, use a small screwdriver and gently pry out the knockout in the trip unit case as indicated in Figure 5. Remove any debris that may have entered the circuit breaker housing.

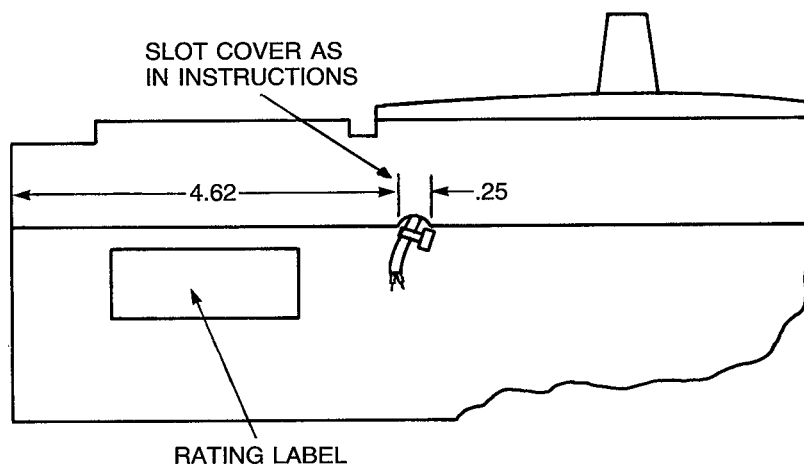
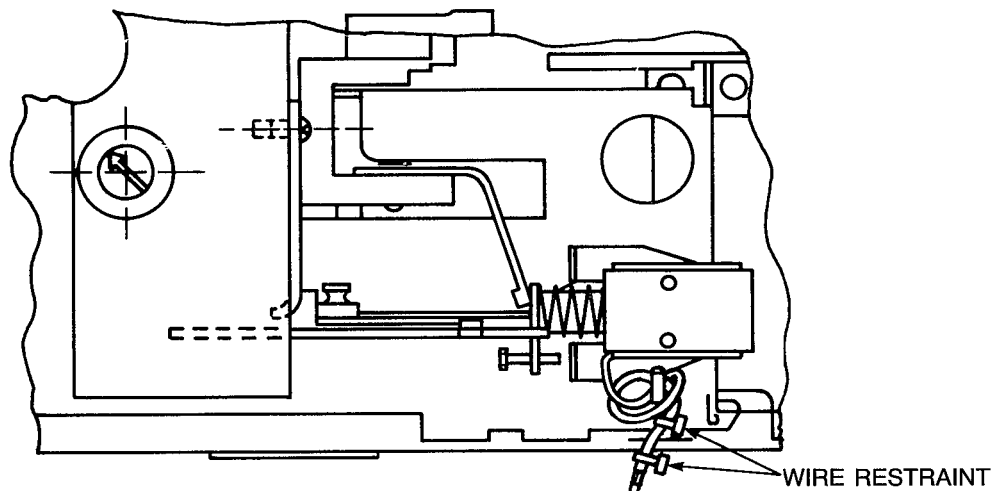


Figure 4

5. Seat the plunger in the coil and hold in firmly. Rotate the circuit breaker handle forward and place the accessory into the right pole (Figure 2). Release the circuit breaker handle and the accessory. Secure the accessory to the circuit breaker trip unit with the 6-32 screw provided.
6. Slot the cover as in Figure 4 and place the leads out the side of the circuit breaker, positioning the wire tie restraint on each side of the wall.
7. Replace the circuit breaker cover securing each of the eight mounting screws removed during Step 2.
8. Bring the circuit breaker handle to the OFF position and attempt to turn to the ON position. The handle will release and the circuit breaker mechanism will return to the tripped position. Energize the under-voltage release to at least 80% of rated voltage. The circuit breaker will be able to be turned to the ON position. Affix the supplied rating label next to the wire leads exiting the circuit breaker base.

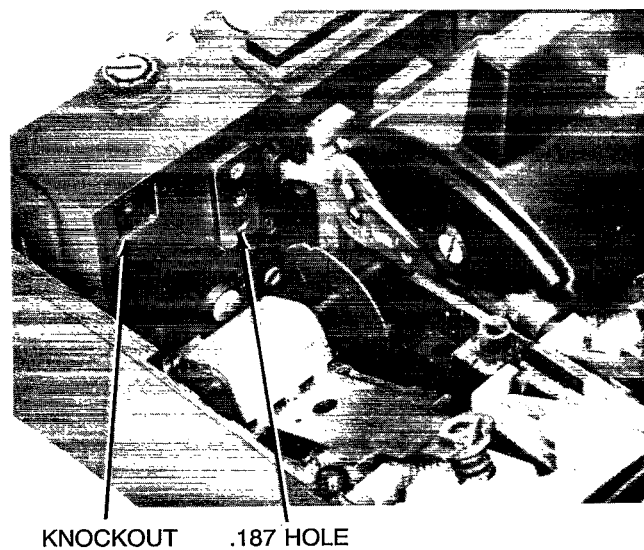


Figure 5