**WARNING**

IMPROPERLY INSTALLING OR MAINTAINING THESE PRODUCTS CAN RESULT IN DEATH, SERIOUS PERSONAL INJURY, OR PROPERTY DAMAGE. COMPLETELY READ AND UNDERSTAND THESE INSTRUCTIONS BEFORE ATTEMPTING ANY OPERATION OR MAINTENANCE OF THE CIRCUIT BREAKERS. ONLY QUALIFIED PERSONNEL SHOULD ATTEMPT MAINTENANCE. THESE INSTRUCTIONS SHOULD NOT BE CONSIDERED ALL INCLUSIVE REGARDING MAINTENANCE PROCEDURES. IF FURTHER INFORMATION IS REQUIRED, YOU SHOULD CONTACT EATON.

**WARNING**

ALL SAFETY CODES, SAFETY STANDARDS, AND/OR REGULATIONS AS THEY MAY BE APPLIED TO THIS TYPE OF EQUIPMENT MUST BE STRICTLY ADHERED TO.

- Before doing any work on drawout type circuit breakers, make sure the breaker is racked out to the Test or Disconnect position.
- During the levering out and levering in of the circuit breaker, be aware of any signs that would indicate the process is not working properly. Be extremely careful while the circuit breaker is on the extension rails. Use provided rail clamps to firmly hold the circuit breaker on the extension rails while performing such activities as charging, closing, and tripping. Carelessness could cause the circuit breaker to fall from the rails resulting in personal injury to those in the area.
- If working on a fixed breaker, bus systems should be de-energized for convenience and safety.
- Do not work on a closed breaker or a breaker with closing springs charged. The closing spring should be discharged and the main contacts open before working on the breaker. Failure to do so could result in accidental shock or crushing injuries.

**DISASSEMBLY:**

1) Removed the cover by loosening the four; six-millimeter bolts using a ten-millimeter socket.
2) Pull completely down on the handle, and hold to remove cover.
3) Remove cover by pulling on the cover.
4) Open the rating plug door and loosen the screw all the way.
5) Remove the Trip Unit by pulling down (gently not to deform on the tab in the lower right hand corner of the Trip Unit.
6) Disconnect the lower end of the trip indicator wire form the trip bar as shown. (Figure 1)

7) Remove the 2 screws securing the trip indicator as shown (Figure 2) and hang it out of the way by the wires.
8) Loosen the bottom 2 screws from the connector mounting plate and hang it out of the way by the wiring.

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**NOTE:** Double-wide refers to the Magnum ACB Circuit Breakers and may not apply in these instructions.
9) Use a 10 mm socket or nut driver to remove the 3 bolts retaining the Trip Unit mounting deck. Remove the bolts and set them aside for reassembly. Move trip unit mounting deck and trip unit mounting plate to the side. (as shown in Figure 2a below)

10) Remove the spring release coil, shunt trip coil, Aux switch (52), latch check switch, Bell alarm (reset button assembly) and UV trip coil (if any) assemblies from the accessories mounting plate. (See Figures 3a & 3b)

CAUTION: MAKE SURE THAT THEY DO NOT FALL IN THE VIABLE AREA TO ACCESS THE D-SHAFT.

11) Bend the twist tabs off the accessory mounting deck (Figure 4). Spring the top of the mechanism molded faceplate forward and lift the front edge of the molded accessory mounting deck up.
12) When it is past the faceplate slide it toward you out of the retaining slot in the housing and set it aside for use later. (Figure 5)

13) Remove the banana link as follows; a) Remove the X washer first and carefully remove the brass washer from the banana link - main link assembly. b) Remove the hatchet return spring. c) Remove the banana link from the main link extension shaft.

14) Remove the existing Hatchet Assembly as follows: a) Remove the M10 E-clip from the left side of the existing Hatchet assembly shaft. b) Wiggle the Hatchet assembly and make sure it is free to be removed. c) Remove the Trip latch/hatchet assembly.

15) Remove the M3.2 E clip from the Trip Interlock lever and remove he Trip Interlock lever carefully.
16) Prepare to remove the existing D-shaft Assembly as follows:  
   a) Remove the E-Clip from the left end of the D-latch (Figure 9) and retain for later use.  
   b) Remove the TA platform, (the freely rotating plastic part) by removing the M5 E-Clip and set it aside for later use. (Figure 9)

16d) Remove the shunt trip platform as shown (Figure 11) which is pressed onto the D-Latch. Gently place a small screwdriver between the plastic part and the side plate and pry it off the D-Latch.

16c) On left side of mechanism, remove the M3.2 E-Clip from Trip Interlock Lever as shown (Figure 10) and set them aside for later use.

16e) Carefully unhook the D-latch return spring without deforming the spring (Figure 12). Set the shunt trip platform aside for later use and leave the spring attached to the mechanism.
16f) Remove the second M5 E-Clip from the left side of the D-Latch and set it aside for later use (Figure 13a).

16g) Remove the E-Clip and UVR Platform from the right side of the D-Latch and set them aside for later use (Figure 13b). The platform is lightly pressed onto the D-Latch. Gently place a small screwdriver between the plastic part and the side plate and pry it off.

17) Carefully remove the existing D-Latch as follows; a) on double wide constructions, (Magnum, ACB) the D-Latch has a bearing and large side plate hole (Figure 14). b) On standard constructions there is no bearing and the side plate hole is smaller. Remove the D-Latch shaft from the mechanism.

CAUTION

On standard constructions the tube spacer will not fit the bearing hole and will come off the D-Latch when it is removed. Be sure to hold the tube spacer to prevent it from falling down into the mechanism. A small spring should hold the anti-pumping slide in position even after the D-Latch is removed. Be careful not to disturb the position of the small plastic part or deform the return spring.
INSTALLATION OF THE RETROFIT ANTI-BOUNCE FEATURE:

1) Loosen the M10 nut from the bolt that holds the two side sheet plates together as shown in Figure 15a. CAUTION: Do not take the M10 nut out entirely from the bolt.

2) Insert the Anti-bounce spring retainer assembly from the top as shown in Figure 15b such that holes coincide for inserting retrofit D-shaft. Hand tighten the M10 nut (to be tightened later).

3) Grease the bearing areas of the D-Latch with the Magnalube-G. (Figure 12)

REASSEMBLE IN THE REVERSE ORDER OF DISASSEMBLY.

1) For double wide constructions, (Magnum, ACB) grease the small bearing to be placed on the D-Latch (Figure 16). Use only the Magnalube provided.
2) Place the bearing onto the new D-Latch as shown in Figure 14. The flange should be toward the large diameter section on the D-Latch.
4) ASSEMBLE THE RETROFIT D-SHAFT WITH THE RETROFIT ANTI-BOUNCE FEATURE:
   A) INSERT THE D-SHAFT THROUGH THE ROLLER SPACER AND D-SHAFT SLIDER FIRST.
   1) For standard frame constructions hold the tube spacer between the side plates and slide the new D-Latch through the sideplate, the tube spacer, the plastic anti-pumping slide and the second side plate.
   2) Inspect the anti-pumping slide to insure it moves freely and the return spring is still working.
   C) Assemble the D-Shaft and the Anti-Bounce feature as shown in Figure 18c, such that the pin spring on the anti-bounce feature is pressed against the slot on the D-Shaft.
   D) Make sure the D-Shaft is free to rotate but experience springing action due to the pin spring riding in the slot on the D-Shaft.
   E) Tighten the M10 nut with wrench/socket.
   5. Re-attach M5 E-Clip as shown in Figure 13.
   6. Carefully re-hook D-Latch return spring and replace shunt trip platform as in Figure 12.
   NOTE: Ensure the D-Latch return spring is underneath the shunt trip platform as shown below.
   7. Replace interlock lever and M3.2 E-Clip as in Figure 10
   8. Replace TA platform (use new TA platform provided, press to fit) and e-clip as in Figure 9.
   9. Insert the new hatchet assembly from the right side carefully.
      a) Wiggle the D-shaft and other components as necessary as shown in the picture.
      b) Insert the M10 E-clip from the left side to secure the hatchet shaft.
      c) Insert the banana link in the main link pin and insert the brass washer and x clip appropriately.
10. Lubricate appropriately at all moving places and rotating locations.

11. Insert the hatchet return spring on hatchet pin and mechanism pin.

12. Replace accessory mounting deck as seen in Figure 5.

13. Bend twist tabs over accessory mounting deck as in Figure 4.

14. Grease TA reset spring and insert TA tripper as shown in Figure 19 (below). Make sure the TA tripper is sitting flush against the housing.

15. Place trip unit mounting deck post into TA tripper as shown in Figure 20. Rotate poleshift and press trip unit mounting deck flush to housing. While keeping poleshift rotated and trip unit mounting deck flush to housing insert bolts and tighten.

16. To check if assembly is installed correctly rotate poleshift and reach under trip unit mounting deck, with poleshift rotated the TA tripper should be able to rotate freely and 1/4 turn. (As in Figure 21. View from underneath)

17. Replace trip unit mounting plate and trip indicator assembly as in Figure 2.

18. Re-attach trip indicator wire form in Figure 1.

19. Replace trip unit and reset tri unit.

20. Test for functionality.
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