Instructions for Replacement of:
Circuit Breaker Pole Unit
T-VAC/VCP-T 16, 20, & 25 kA

Tools Required:
- Ratchet Wrench
- 10mm Socket
- 13mm Socket
- 14mm Socket
- Large Flat-Blade Screwdriver – 12” Long Blade
- 5mm Hex Bit, Allen Wrench, or T-Handle
- 13mm Combination Wrench
- 14mm Combination Wrench
- 16mm Combination Wrenches (2)
- 17mm Combination Wrenches (2)
- 240 in-lb Torque Wrench
- 300 in-lb Torque Wrench
- Primary Disconnect Cluster Pliers – 692C281TXB
- 17mm Special Crowsfoot Adapter – 69C3083TXB
- 16mm Special Crowsfoot Adapter – 69C3083TXK
- 13mm Open-Position Gauge – 69C3084TXG
- Wear Gap Adjustment Gauge – 69C3084TXA
- Conductor Horizontal Alignment Tool – 69C3184TXA
- Conductor Vertical Alignment Tool – 69C3184TXB

WARNING

Do NOT attempt to install or perform maintenance on equipment while energized. Breaker must remain in the “OPEN” & “DISCHARGED” condition during the installation of this accessory kit. Death or severe personal injury can result from contact with energized equipment. Always verify that no voltage is present before proceeding.

Manufacturer/Supplier assumes no responsibility for damage done to circuit breakers or other equipment during field installation of any accessory.

Contents of Kit

(1) Pole Unit Sub-Assembly

(3) M10 lock washers

(24) M8 lock washers
STEP 1: Rack out breaker and remove from cassette.
STEP 5: Remove front cover.

Tools Required:
- Ratchet Wrench
- 10mm Socket
STEP 2: Set breaker to “OPEN” and “DISCHARGED”.

1. [Diagram showing breaker in OPEN position]
2. [Diagram showingbreaker in CLOSED position]
3. [Diagram showingbreaker in OPEN position]
STEP 3: Remove primary disconnects.

Tools Required:
Primary Disconnect Cluster Pliers – 692C281TXB
STEP 4: Remove phase barriers if present.
STEP 8: Remove conductors.

Tools Required:
Ratchet Wrench
13mm Socket
14mm Socket
5mm Hex Bit, Allen Wrench, or T-Handle
STEP 6: Disconnect opening spring by inserting long screwdriver between spring and top spring top mount and prying outward as shown. WARNING! SPRING IS LOADED. AVOID CONTACT WITH SPRING DURING REMOVAL.

Tools Required:
Large Flat-Blade Screwdriver – 12” Long Blade
STEP 7: Remove spring.
STEP 9: Loosen push rod nuts.

Tools Required:
16mm Combination Wrenches (2)
17mm Combination Wrenches (2)
STEP 10: Remove conductor bolts.

Tools Required:
- Ratchet Wrench
- 13mm Socket
- 14mm Socket
- 13mm Combination Wrench
- 14mm Combination Wrench
STEP 11: Remove pole unit assembly and replace the 3 push rod lock washers with new M10 lock washers supplied.

Tools Required:
16mm Combination Wrench
17mm Combination Wrench
STEP 13: Insert new pole unit.

Tools Required:
16mm Combination Wrench
17mm Combination Wrench
STEP 14: Install pole unit bolts. Replace 12 lock washers with new M8 lock washers supplied.

Tools Required:
Ratchet Wrench
13mm Socket
14mm Socket
13mm Combination Wrench
14mm Combination Wrench

Replace 12 lock washers with new M8 lock washers supplied.
STEP 15: Torque bolts to correct specification.

Tools Required:
- Ratchet Wrench
- 13mm Socket
- 14mm Socket
- 13mm Combination Wrench
- 14mm Combination Wrench
- 180 in-lb Torque Wrench
- 16mm Special Crowsfoot Adapter – 69C3083TXK
- 17mm Special Crowsfoot Adapter – 69C3083TXB
STEP 16: Install opening spring.

Tools Required:
Large Flat-Blade Screwdriver– 12” Long Blade
STEP 17: Check gaps and adjust as necessary.

Tools Required:
16mm Combination Wrenches (2)
17mm Combination Wrenches (2)
13mm Open-Position Gauge- 69C3084TXG
STEP 18: Measure gaps and adjust as necessary.

Tools Required:
- 16mm Combination Wrenches (2)
- 17mm Combination Wrenches (2)
- Wear Gap Adjustment Gauge – 69C3084TXA
STEP 19: OPEN and CLOSE breaker five times.
STEP 20: Check gaps again and adjust as necessary.

Tools Required:
16mm Combination Wrenches (2)
17mm Combination Wrenches (2)
13mm Open-Position Gauge – 69C3084TXG
STEP 21: Attach conductors and torque to appropriate specification. Replace all 12 lock washers with new M8 lock washers supplied.

Tools Required:
- 13mm Socket
- 14mm Socket
- 5mm Hex Bit, Allen Wrench, or T-Handle
- 180 in-lb Torque Wrench

Replace all 12 lock washers with new M8 lock washers supplied.
STEP 21: Properly align each conductor using conductor horizontal alignment tool (69C3184TXA). Align long edge of tool with gray plastic pole unit support molding and short edge with conductor as shown below to verify correct alignment.

Tools Required:
Conductor Horizontal Alignment Tool – 69C3184TXA
STEP 21: Properly align conductors as shown below using conductor vertical alignment tool (69C3184TXB).

Tools Required:
Conductor Vertical Alignment Tool – 69C3184TXB
STEP 22: Install phase barriers if required.
STEP 23: Attach primary disconnects.

Tools Required:
Primary Disconnect Cluster Pliers – 692C281TXB
STEP 24: Install front cover.

Tools Required:
- Ratchet Wrench
- 10mm Socket
STEP 25: FIELD VERIFICATION TESTING

1. Perform a standard field AC power frequency withstand test on the completed breaker as specified in table below. Breaker must pass this test before use. See breaker nameplate on front of breaker cover for Rated Maximum Voltage of breaker.

<table>
<thead>
<tr>
<th>Rated Maximum Voltage (kV rms)</th>
<th>Power Frequency Withstand Voltage (kV rms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.76</td>
<td>19</td>
</tr>
<tr>
<td>7.2</td>
<td>20</td>
</tr>
<tr>
<td>8.25</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>28</td>
</tr>
<tr>
<td>15</td>
<td>36</td>
</tr>
<tr>
<td>17.5</td>
<td>38</td>
</tr>
</tbody>
</table>

WARNING

THIS IS A HIGH VOLTAGE TEST THAT CAN CAUSE SEVERE ELECTROCUTION AND/OR DEATH. TEST MUST BE PERFORMED ONLY BY A CERTIFIED OPERATOR WITH TRAINING AND EXPERIENCE CONDUCTING THIS TEST.