WARNING: Hazard of electrical shock or burn. Turn off power supplying this equipment before working inside.

**General**

To comply with the National Electrical Code and Underwriters Laboratories, the breaker retainer kit and service barrier must be installed in accordance with the information contained in this sheet and by a qualified electrical contractor and/or licensed electrician.

**Introduction**

This bulletin provides instructions for installing circuit breaker retainer and Service barrier to Midwest Electric Products Load centers. The retainer is used to secure a 2-pole branch breaker on the load center interior when the breaker is used as a back-fed main circuit breaker. And Service barriers are installed on the line side of the breaker.

**Contents per Installation**

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<th>Description</th>
<th>Qty.</th>
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<td>MAIN BREAKER RETAINER</td>
<td>1</td>
</tr>
<tr>
<td>SCREW #6-19X.50 PNHD PH PLAST</td>
<td>2</td>
</tr>
<tr>
<td>THQL Lug Barrier</td>
<td>2</td>
</tr>
<tr>
<td>LABEL</td>
<td>1</td>
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</tbody>
</table>

**NOTICE:** These instructions do not purport to cover all details or variations in equipment or to provide for every possible contingency to be met in connection with the installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purposes, the matter should be referred to the Midwest Electric Products. These instructions are intended for use by qualified personnel only.

**Installation Instructions**

**USAGE:** Prevent electrical hazard posed by the accidental removal or contact to a wired-in energized main circuit breaker.

1. Uninstall the Dead front/shield and retain the mounting screws.

2. Insert the Service Barriers (A) onto line side of circuit breaker (D) as shown in Figure 1. Two Service Barriers included with the kit, need to assemble to both the poles.

3. Install the 2-pole back-fed main circuit breaker (D) on either side of the two stabs nearest to the main lugs of the load center shown in Figure 2. Use only a General Electric type THQL or THHQL two-pole circuit breaker.

4. With the circuit breaker still in the "OFF" position, install the retainer (F), as shown below by aligning to the retainer mounting holes (H). Tighten two mounting screws (G) to 6-8 lb-in. See Figure 2
Figure 2: Install Retainer to Secure Breaker

5. Remove the backing from the enclosed “SERVICE DISCONNECT” label and attach it to the shield besides the main circuit breaker opening.

6. Wire the circuit breaker to be used as main. Fig. 3

7. The Circuit Breaker is now ready for service.

**WARNING:** Service barriers (A) must be correctly installed on the line side of a main device in load centers, and MSLC to ensure isolation from live parts.

**WARNING:** Installing an incorrect size wire than the specified sizes for each circuit breaker frame will negate the barrier ability to protect personnel from exposed live components.

<table>
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<tr>
<th>Location</th>
<th>Conductors</th>
</tr>
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<tr>
<td>Lug Hole</td>
<td>10 AWG to 2/0 AWG Cu/Al</td>
</tr>
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</table>

Table 1: Shows the allowable wire range for the barrier.

The wires must be stripped to the correct length to maintain isolation. Strip the wire to a maximum of 0.595 inches.

After stripping the wires to the required length, the wires can be installed as shown in Figure 3. The service barrier must be correctly installed to maintain electrical isolation from accidental contact. Torque the wires according the torque specification on the breaker.

The strip wire length are measured to the scale provided on side of main circuit breaker, as shown on Figure 4.

Some THQL (1p and 2p up to 60 Amps) are finger safe and do not require a Service barrier. See Figure 5.

**Figure 4:** Max. Strip Wire Length.

**Figure 5:** Breakers Where Service Barriers Are Required

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