Installation and Service Instructions for Style SCEB S3 Brakes

**CAUTION!** Armature must be secured against magnet face before removing cage mounting bolts.

1. Make a temporary lead wire connection and energize unit. Insert (4) manual release bolts clamping armature to magnet body, de-energize unit and disconnect lead wires.
2. Remove cage mounting bolts, magnet body and armature assembly, friction discs and intermediate discs.
3. Assemble brake hub to shaft.
4. With shaft leveled and aligned to machine base as desired install brake cage to Dimension "A" as shown on Figure 2.
5. Mount indicator on brake hub or on shaft and indicate face of brake cage by turning shaft. Place indicator on as great a radius as possible. This operation indicates angular misalignment and must not exceed .001" T.I.R. per inch of measuring radius.
   
   **Example:** If measuring on a 6 inch radius, total indicator reading must not exceed .006".

6. Indicate machined turn on brake cage by rotating shaft. This operation indicates parallel misalignment and should not exceed .010" total indicator reading.
7. Always perform Step 5 before Step 6, since any angular misalignment which exists can introduce errors in readings for parallel misalignment. Also, after making corrective adjustments recheck both Steps 5 and 6.
8. It is recommended that the brake cage be doweled to the mounting base to prevent any shift during operation.
9. Replace friction discs and intermediate discs in order shown in Figure 1. Mount magnet body and armature to cage making certain that arrows, metal stamped on each part are in line. **Note:** (1) hole is 1/4" offset) and tighten cage mounting screws.
10. Connect lead wires, energize unit and remove (4) manual release screws.
11. Set open air gap per *Brake Wear Adjustment*. Unit is now ready for operation.
12. The initial seating of the linings may cause some opening of the air gap. Check air gap after brake has been cycled in operation. Ordinary lining wear thereafter is very slight under normal loads. Use factory supplied feeler gauges and adjusting tool when making adjustments.

**Replacement of Friction Discs**
1. Energize magnet and clamp armature to magnet body with (4) manual release bolts. De-energize magnet and remove leads.
2. Remove cage mounting bolts and magnet body and armature assembly. Back off wear adjust ring slightly to allow space for new friction discs.
3. Friction discs may now be slid from hub and replaced.
4. Replace magnet body and armature assembly (arrows metal stamped on each part must be in line).
5. Reconnect lead wires, energize unit and remove (4) manual release bolts.
6. Set gap per *Brake Wear Adjustment*. 

### Brake Assembly

*Some brake designs utilize two locking set screws instead of a pin.*

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimension &quot;A&quot; ± 1/64</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1-13/64</td>
</tr>
<tr>
<td>10</td>
<td>1-1/2</td>
</tr>
<tr>
<td>12</td>
<td>1-5/8</td>
</tr>
<tr>
<td>14</td>
<td>2-7/32</td>
</tr>
<tr>
<td>16</td>
<td>2-13/32</td>
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</tbody>
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*Industrial Clutches and Brakes*

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Brake Wear Adjustment

1. The operating air gap should be set to dimension shown on chart below. As lining wear continues the air gap will increase. Readjustment is recommended when the gap has increased by .015. Use factory supplied feeler gauges and adjusting tool when adjusting.

2. To adjust for wear, depress lock pin and turn wear adjust ring clockwise until lock pin snaps into next slot.

Note: Flange mounted brakes use (2) set screws in the adjusting ring instead of a locking pin. Both must be removed before adjusting.

3. De-energize magnet and check open air gap.

4. If open air gap is still too large, repeat Step 2 and 3 until desired gap is obtained.

Option: Above adjustments can be completed using (4) manual release bolts through the mag body and threading into the armature.

Pressure Spring Assembly

Sizes 800 and 1000 (free height of spring pack 3.45)

Sizes 1200, 1400 and 1600 (free height of spring pack 3.76)

Note: Should removal of springs become necessary, they must be reassembled as shown to insure normal operation of clutch or brake.

Typical Forcing Circuit Diagram

Note: Refer to Table for circuit values.

Circuit Values

The brake coil, wound for approximately 1/3 line voltage, is momentarily engaged at line voltage. Timer, which must be set at approximately 5 seconds, then places the series resistor in the circuit, reducing the brake coil voltage and current to a holding current.