Motorized Breakers Make Control Easy!

All relay based systems MUST be electrically protected by a circuit breaker. Motorized breakers eliminate the need for wall or rack mounted relay based systems...

- Saves Space
- Saves redundant installation and hardware costs!
- UL listed circuit breaker with built-in internal switching capability manufactured by Square D
- Time tested, in service over 20 years
- Available in 15A, 20A and 30A - 1, 2 or 3 poles for remote control of all electrical loads
- Robust - rated for 60k on, off, on cycles
- Energy efficient - NO holding current or heat sinks required to maintain state - Runs cool, lasts long!
- Automatic load shedding and brownout protection in every panel.
- Emergency override function standard on every panel.

Specifying in 5 easy steps

1. Choose the control method: SC=RS-232
2. Choose the cabinet style: LC for load center and P for panelboard
3. Choose three phase (3) or single phase (1)
4. Choose the number of circuits: 26 or 41 Panelboards are only available in 41 circuits.
5. Choose the maximum number of controlled circuits: 10, 20, 30, 40, or 50.

EX: SCLC 326-20 = a 3 phase load center with 26 circuits (24 max controlled)
SCP 341-30 = a 3 phase panel board with 41 circuits (30 max controlled)

All panels and load centers
**AVAILABLE MODELS**

See www.LynTec.com for model specific design and submittal PDFs

### LOAD CENTERS

**SCLC 326-xx-Mxxx RS-232 Controlled Load Center**  
30, 208Y/120 Vac, 4 wire. — 100 Amp Main Breaker Standard

- **LynTec RS-232 Controlled Load Center**
- **MODEL NUMBERS**
  - **SCLC 326-10-Mxxx**  
    (Up to 10 RS-232 controlled circuits)
  - **SCLC 326-20-Mxxx**  
    (Up to 20 RS-232 controlled circuits)
  - **SCLC 326-30-Mxxx**  
    (Up to 30 RS-232 controlled circuits)
  - **Square D QO327M100 Load Center with LynTec low-voltage sidecar.**

  **Main Breaker:** 3/0 - 250 kcmil Al/Cu  
  **100% Neutral** has one feed lug that accepts 2 - 250 kcmil Cu wires

  **Part# suffix — (Up to 26 RS-232 controlled circuits)**
  - **SCLC 326-30-Mxxx**
  - **SCLC 326-20-Mxxx**
  - **SCLC 326-10-Mxxx**

  **Amp. - 65k AIR - MJG36**  
  **Outside dimensions:** 28.06” w., 50” h., 6.13” d.

**SCLC 341-xx-Mxxx RS-232 Controlled Load Center**  
30, 208Y/120 Vac, 4 wire. — 225 Amp Main Breaker Standard

- **LynTec RS-232 Controlled Load Center**
- **MODEL NUMBERS**
  - **SCLC 341-10-Mxxx**  
    (Up to 10 RS-232 controlled circuits)
  - **SCLC 341-20-Mxxx**  
    (Up to 20 RS-232 controlled circuits)
  - **SCLC 341-30-Mxxx**  
    (Up to 30 RS-232 controlled circuits)
  - **SCLC 341-40-Mxxx**  
    (Up to 40 RS-232 controlled circuits)
  - **Square D QO342MQ225 Load Center with LynTec low-voltage sidecar.**

  **Standard Main Breaker:** 1 #1-600 kcmil Cu or 2 #1-300 kcmil Cu wires  
  **100% Neutral** has one feed lug that accepts 2 - 250 kcmil Cu wires

  **Part# suffix — (Up to 40 RS-232 controlled circuits)**
  - **SCLC 341-40-Mxxx**
  - **SCLC 341-30-Mxxx**
  - **SCLC 341-20-Mxxx**
  - **SCLC 341-10-Mxxx**

  **Amp. - 65k AIR - MJG36**  
  **Outside dimensions:** 28.06” w., 50” h., 6.13” d.

### PANELBOARDS

**SCP 341-xx-Mxxx RS-232 Controlled Panelboard**  
30, 208Y/120 Vac, 4 wire. — 225 Amp Main Breaker Standard

- **LynTec RS-232 Controlled Panelboard**
- **MODEL NUMBERS**
  - **SCP 341-10-Mxxx**  
    (Up to 10 RS-232 controlled circuits)
  - **SCP 341-20-Mxxx**  
    (Up to 20 RS-232 controlled circuits)
  - **SCP 341-30-Mxxx**  
    (Up to 30 RS-232 controlled circuits)
  - **SCP 341-40-Mxxx**  
    (Up to 40 RS-232 controlled circuits)
  - **SCP 341-50-Mxxx**  
    (Up to 50 RS-232 controlled circuits)

  **Square D NOQD-ML MB Panel with LynTec low-voltage sidecar.**

  **Standard SCP 225A Main Breaker:** 225 Amp. - 65k AIR - MJG36225
  **Main Breaker options**
  - **Part# suffix — Bold face + Amps**
  - **MHG3125, MUG3150, MUG3175 or MJG3020**
  **Wire Sizes**
  - Main Breaker: 3/0 - 350 kcmil Al/Cu  
  - 200% Neutral has one feed lug that accepts 2 - 250 kcmil Cu wires
  - Knockout panels supplied in both ends

**SCP 341-xx-M400 RS-232 Controlled Panelboard**  
30, 208Y/120 Vac, 4 wire. — 400 Amp Main Breaker Standard

- **LynTec RS-232 Controlled Panelboard**
- **MODEL NUMBERS**
  - **SCP 341-10-M400**  
    (Up to 10 RS-232 controlled circuits)
  - **SCP 341-20-M400**  
    (Up to 20 RS-232 controlled circuits)
  - **SCP 341-30-M400**  
    (Up to 30 RS-232 controlled circuits)
  - **SCP 341-40-M400**  
    (Up to 40 RS-232 controlled circuits)
  - **SCP 341-50-M400**  
    (Up to 50 RS-232 controlled circuits)

  **Square D NOQD MB Panel with LynTec low-voltage sidecar.**

  **Standard SCP 400A Main Breaker:** 400 Amp. - 10k AIR - LA36400
  **Main Breaker options**
  - **Part# suffix — Bold face + Amps**
  - **MHG3125, MUG3150, MUG3175 or MJG3020**
  **Wire Sizes**
  - Main Breaker: 1 #1 - 600 kcmil Cu or 2 #1-250 kcmil Cu (per NEC)
  - 100% Neutral has one feed lug that accepts one #1-750 kcmil or two #1-300 kcmil Cu wires

**Available Models**

**See www.LynTec.com for model specific design and submittal PDFs**

**LynTec RS-232 Controlled Panelboard**

**Model Numbers**

- **SCLC 326-10-Mxxx**
- **SCLC 326-20-Mxxx**
- **SCLC 326-30-Mxxx**
- **SCP 341-10-Mxxx**
- **SCP 341-20-Mxxx**
- **SCP 341-30-Mxxx**
- **SCP 341-40-Mxxx**
- **SCP 341-50-Mxxx**
- **SCP 400A Main Breaker**

**Outside dimensions:**

- **SCLC 326-xx-Mxxx**
  - 28.06” w., 50” h., 6.13” d.
- **SCP 341-xx-Mxxx**
  - 28.06” w., 62.82” h., 6.13” d.
- **SCP 341-xx-M400**
  - 28.06” w., 62.82” h., 6.13” d.

**Optional isolated technical ground sidecar not shown**
All A.C. power for the A/V system shall be supplied from a source capable of being remote controlled via RS-232 control protocol.

Circuits shall be individually addressable providing on and off control via RS232 protocol.

A means of visual operator feedback shall provide an indication of circuit on/off status locally via LEDs.

The system shall have brownout (undervoltage) protection; monitoring the line voltage and triggering an automatic shutdown if the line voltage drops below 95 volts for more than 2 seconds. The system shall automatically return circuits to on state when power resumes and remains above 105 volts for more than 2 seconds without operator intervention.

The system shall have emergency shutdown capability triggered by external contacts or the system operator.

Un-motorized circuits, as required, shall be supplied from the same A.C. source so that a single lever main circuit breaker is dedicated to the system.

All Load Centers shall have an isolated technical ground bar.

All branch circuit breakers shall be snap-in.

The Serial Controlled Panelboard system shall be the LynTec model SCLC xxx series Load Center.

Manufacturer shall warrant specified equipment to be free from defects in materials and workmanship as follows: at least (15) months from date of purchase for line voltage equipment; at least (5) years from the date of purchase for control electronics.

LynTec — 800-724-4047 — www.LynTec.com

Models:

Single Phase, 22k AIR: SCLC 129-12, SCLC 129-24, SCLC 129-36

Balanced Power, 60v — 0 — 60v, 22k AIR: SCLC 119-12, SCLC 119-24

Three Phase, 10k AIR: SCLC 326-12, SCLC 326-24, SCLC 326-36

Three Phase, 25k AIR: SCLC 341-12, SCLC 341-24, SCLC 341-36, SCLC 341-48

This document available in Word format:
http://www.lyntec.com/139-0578_SCLC_A&E_Spec.docx

Most recent version pdf:
http://www.lyntec.com/139-0578_SCLC_A&E_Spec.pdf

139-0578-00_SCP_A&E_Spec 10/10/11
## SC-10 RS232 PROTOCOL

### Commands set

<table>
<thead>
<tr>
<th>Command</th>
<th>Decimal</th>
<th>Hexadecimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start byte</td>
<td>176</td>
<td>0xB0</td>
</tr>
<tr>
<td>Stop byte</td>
<td>240</td>
<td>0xF0</td>
</tr>
<tr>
<td>Board address</td>
<td>1 - 99</td>
<td>0x01 - 0x63</td>
</tr>
<tr>
<td>Output address</td>
<td>1 - 10</td>
<td>0x01 - 0x0A</td>
</tr>
<tr>
<td>Output ON</td>
<td>180</td>
<td>0xB4</td>
</tr>
<tr>
<td>Output OFF</td>
<td>181</td>
<td>0xB5</td>
</tr>
<tr>
<td>Output status</td>
<td>182</td>
<td>0xB6</td>
</tr>
<tr>
<td>Status of all outputs</td>
<td>189</td>
<td>0xBD</td>
</tr>
<tr>
<td>All ON</td>
<td>186</td>
<td>0xBA</td>
</tr>
<tr>
<td>All OFF</td>
<td>187</td>
<td>0xBB</td>
</tr>
<tr>
<td>Set/clear output verification status*</td>
<td>190</td>
<td>0xBE</td>
</tr>
</tbody>
</table>

*Not be implemented - autoscan can distinguish between RR7 and RR9

### 2. Commands description

#### 2.1 Outputs ON command

0xB0, board_address, 0xB4, output_address_1, ..., output_address_m, 0xF0

m<=10 (0x0A)

Example: B0 01 B4 04 0A F0, turns on outputs at 4 and 10, on 1st card

#### 2.2 Outputs OFF command

0xB0, board_address, 0xB5, output_address_1, ..., output_address_n, 0xF0

n<=10 (0x0A)

Example: B0 02 B5 09 F0, turns off output at 9, on 2nd card

#### 2.3 Outputs ON/OFF command

0xB0, board_address, 0xB4, output_address_1, ..., output_address_m, 0xB5, output_address_1, ..., output_address_n, 0xF0

m and n<=10 (0x0A)

Example: B0 01 B4 04 0A B5 09 F0, turns on output at 4 and 10, and turns off output at 9, on 1st card

#### 2.4 Outputs status

0xB0, board_address, 0xB6, output_address_1, ..., output_address_m, 0xF0

m<=10 (0x0A)

Example: B0 03 B6 04 0A F0, status of outputs at 4 and 10, on 3rd card

#### 2.5 Status of all outputs

0xB0, board_address, 0xBD, 0xF0

#### 2.6 All ON - turn on all available outputs

0xB0, board_address, 0xBA, 0xF0
2.7 All OFF - turn off all available outputs

0xB0, board_address, 0xBB, 0xF0

2.8 Set/clear output verification status (NOT IMPLEMENTED)

0xB0, board_address, 0xBE, output_address_i, output_ver_status_i, output_address_j, output_ver_status_j, ...
output_address_n, output_ver_status_n, 0xF0

output_address_i, output_ver_status_i, output_address_j, output_ver_status_j, ..., output_address_n, output_ver_status_n - addresses and status of outputs, n<=10

Output_ver_status coding

<table>
<thead>
<tr>
<th>Status</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable</td>
<td>0x01</td>
</tr>
<tr>
<td>Enable</td>
<td>0x02</td>
</tr>
</tbody>
</table>

When verification status of the output is disabled, the board will always respond with “no verification” status for this output. Verification status shall be disabled for all outputs driving RR7 relays.

3. Responses

3.1 Output status codes

<table>
<thead>
<tr>
<th>Status</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>0x01</td>
</tr>
<tr>
<td>On</td>
<td>0x02</td>
</tr>
<tr>
<td>Fault</td>
<td>0x03</td>
</tr>
<tr>
<td>No verification, expected off</td>
<td>0x04</td>
</tr>
<tr>
<td>No verification, expected on</td>
<td>0x05</td>
</tr>
<tr>
<td>Empty</td>
<td>0x06</td>
</tr>
</tbody>
</table>

3.2 Output status change response

This response is transmitted when output(s) change(s) status for ANY reason (RS232 command, button push, brown out, recover from brown out, emergency override, recover from emergency override).

0xB0, board_address, 0xB6, output_address_i, output_status_i, ..., output_address_n, output_status_n, 0xF0

n<=10 (0x0A)

Example: B0 01 B6 04 01 05 02 0A 06 F0, output at 4 is off, at 5 is on, and at 10 is empty, on 1st card

3.3 Status of all ten outputs (transmitted only in reply to status of all outputs command)

0xB0, board_address, 0xBD, byte_1, ..., byte_10, 0xF0

Example: B0 02 BD 01 01 01 01 01 02 02 02 02 06 F0, outputs 1 thru 5 are off, 6 thru 9 are on, and 10 is empty, on 2nd card

4. AMX Device Discovery

Beacon request: “AMXR”

Beacon: “AMXB<SDKClass=Utility><Make=Lyntec><Model=SC10><Revision=1.0.0>\r”
**Planning and Layout Worksheet — As-built door label**

**LynTec SCLC 129-xx Lighting Control Load Center**

RS-232 controlled, AC power remote control for un-dimmable lighting circuits

**Breaker types, sizes, positions and connections**

Each motorized breaker is actuated by a command from an RS-232 control device. The RS-232 address is set for each board by jumpers. The RS-232 output is an optoisolated, buffered, loop-thru for driving other RS-232 devices. Output data availability is indicated by a flickering LED.

**How it works**

The Control Power circuit breaker powers the circuit boards via a 24 volt transformer. Motorized circuit breakers (face-marked Remotely Operated) are individually actuated by a command from a remote RS-232 control device.

Each numbered LED indicates the status of that addressed breaker.

Lit = ON, Unlit = OFF. Flashing = command execution in progress.

Each circuit board controls up to ten 1, 2 or 3 pole motorized circuit breakers.

RS-232 signals are fed to the first board of each RS-232 panel.

Power and RS-232 data are daisy-chain fed board to board by the yellow jumper connectors.

The RS-232 address is set for each board by jumpers. The RS-232 output is an optoisolated, buffered, loop-thru for driving other RS-232 devices. Output data availability is indicated by a flickering LED.

**MANUAL CONTROL**

The circuit breakers may be manually controlled by the TEST switches on each board.

The test switches work in the absence of a RS-232 signal. A valid RS-232 signal, indicated by a flashing LED, overrules the test switches.

Transfer as-built information to the door.

Keep this sheet for as-built documentation.

Available as PDF download [www.lyntec.com/139-0545_SCLC129Plnr.pdf](http://www.lyntec.com/139-0545_SCLC129Plnr.pdf)
Mechanical Dimensions and Knockouts

**LynTec**

MSLC 113-xx, MSLC 127-xx, MSLC 129-xx, MSLC 326-xx, MSLC 329-xx (MLO),
LCLC 326-xx, LCLC 329-xx (MLO) SCLC 127-xx, SCLC 129-xx,
SCLC 326-xx or SCLC 329-xx (MLO)

Surface Mount **ONLY**

### Knockouts

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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</thead>
<tbody>
<tr>
<td>IN</td>
<td>.50</td>
<td>.75</td>
<td>1.00</td>
<td>1.25</td>
<td>1.50</td>
<td>2.00</td>
<td>2.50</td>
</tr>
<tr>
<td>MM</td>
<td>13</td>
<td>19</td>
<td>25</td>
<td>32</td>
<td>38</td>
<td>51</td>
<td>64</td>
</tr>
</tbody>
</table>

### Dimensions

- **DUAL DIMENSIONS: INCHES MILLIMETERS**
- **20.75 527**
- **26.94 684**
- **29.86 758**
- **3.75 95**
- **5.50 140**
- **7.50 191**
- **11.0 280**
- **13.0 331**
- **16.0 407**
- **20.0 508**
- **23.8 609**
- **26.7 679**
- **28.6 724**
- **30.5 774**
- **36.0 915**
- **41.0 1040**
- **45.7 1163**
- **48.0 1219**
- **51.0 1295**
- **53.5 1365**
- **56.3 1448**
- **57.5 1483**

### Load Center Bottom End Panel Hole Pattern

- **Wall mounting surface**
- **Load center bottom end panel hole pattern is same as top except flipped end-to-end.**

### lynTec

- **Low Voltage Sequencer Sidecar**
- **Sequencer 1**
- **Sequencer 2**
- **Sequencer 3**

### lynTec

- **Mains Ampere Rating**
- **Spaces**
- **Maximum Number of Single Pole Circuits**
- **Main Wire Size**

<table>
<thead>
<tr>
<th>LynTec</th>
<th>SQUARE D CATALOG NUMBER</th>
<th>MAXIMUM SYSTEM VOLTAGE</th>
<th>MAINS AMPERE RATING</th>
<th>SPACES</th>
<th>MAXIMUM NUMBER OF SINGLE POLE CIRCUITS</th>
<th>MAIN WIRE SIZE AWG AL/CU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single Phase Load Centers</strong> EX: MSLC 127 or SCLC 129</td>
<td>QO130M200</td>
<td>120/240Vac 1Ø, 3W</td>
<td>200</td>
<td>30</td>
<td>30</td>
<td>#4-250</td>
</tr>
<tr>
<td><strong>Three Phase Load Centers</strong> EX: MSLC 326 or LCLC 329</td>
<td>QO327M100</td>
<td>208Y/120Vac 3Ø, 4W</td>
<td>100</td>
<td>27</td>
<td>27</td>
<td>#4-2/0</td>
</tr>
</tbody>
</table>
Thermal-magnetic Molded Case Circuit Breakers
250 Ampere Frame
Class 734

QDL & OQL
2 and 3-pole
70–250 Amperes

### Interrupting Ratings (kA)

<table>
<thead>
<tr>
<th></th>
<th>QD</th>
<th>QG</th>
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<tbody>
<tr>
<td>240 V</td>
<td>25</td>
<td>65</td>
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</table>

For Branch Breaker Series Ratings
see http://www.lyntec.com/139-0407_Series_Ratings.pdf

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4/1/04

LynTec 139-0343-04 Q Frame Mains 09/27/11
Derived from Digest 173 — page 6-21
This page contains UL Tested and Certified series combination ratings for panelboards. These ratings apply to either an integral main located in the same enclosure or a remote main located in a separate enclosure.

### NQD Series Ratings

<table>
<thead>
<tr>
<th>Maximum System Voltage (V)</th>
<th>NQD Series Ratings</th>
<th>Branch Circuit Breaker Designations and Allowable Amperes Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 240 3/2 250 260 6/2 275 6/2 300</td>
<td>QO (B)</td>
<td>15–70 A</td>
</tr>
<tr>
<td>200 240 3/2 250 260 6/2 275 6/2 300</td>
<td>PL, P, KO</td>
<td>15–70 A</td>
</tr>
<tr>
<td>200 240 3/2 250 260 6/2 275 6/2 300</td>
<td>SG (O)</td>
<td>15–20 A</td>
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#### NQOD Series Ratings

<table>
<thead>
<tr>
<th>NQOD Series Ratings</th>
<th>Branch Circuit Breaker Designations and Allowable Amperes Ranges</th>
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<tbody>
<tr>
<td>120 240 6/0 3/0 200 3/0 275 3/0 300</td>
<td>SQ (O)</td>
</tr>
<tr>
<td>120 240 6/0 3/0 200 3/0 275 3/0 300</td>
<td>UMB-215, UMB-220, UMB-230</td>
</tr>
<tr>
<td>120 240 6/0 3/0 200 3/0 275 3/0 300</td>
<td>BUMB-215, BUMB-220, BUMB-230</td>
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</table>

#### SCP 338 Series Ratios

<table>
<thead>
<tr>
<th>SCP 338 Series Ratings</th>
<th>Branch Circuit Breaker Designations and Allowable Amperes Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 200 3/0 3/0 300</td>
<td>SQ (O)</td>
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<tr>
<td>150 200 3/0 3/0 300</td>
<td>UMB-215, UMB-220, UMB-230</td>
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<tr>
<td>150 200 3/0 3/0 300</td>
<td>BUMB-215, BUMB-220, BUMB-230</td>
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</table>

#### MSP 139 Series Ratings

<table>
<thead>
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<th>MSP 139 Series Ratings</th>
<th>Branch Circuit Breaker Designations and Allowable Amperes Ranges</th>
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<tr>
<td>150 200 3/0 3/0 300</td>
<td>SQ (O)</td>
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<tr>
<td>150 200 3/0 3/0 300</td>
<td>UMB-215, UMB-220, UMB-230</td>
</tr>
<tr>
<td>150 200 3/0 3/0 300</td>
<td>BUMB-215, BUMB-220, BUMB-230</td>
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</table>

### NQD Series Ratings (Continued)

#### Maximum System Voltage (V) | NQD Series Ratings | Branch Circuit Breaker Designations and Allowable Amperes Ranges |
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>200 240 3/2 250 260 6/2 275 6/2 300</td>
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<td>PL, P, KO</td>
<td>15–70 A</td>
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<tr>
<td>200 240 3/2 250 260 6/2 275 6/2 300</td>
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<td>15–20 A</td>
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#### NQOD Series Ratings

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<td>SQ (O)</td>
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<tr>
<td>120 240 6/0 3/0 200 3/0 275 3/0 300</td>
<td>UMB-215, UMB-220, UMB-230</td>
</tr>
<tr>
<td>120 240 6/0 3/0 200 3/0 275 3/0 300</td>
<td>BUMB-215, BUMB-220, BUMB-230</td>
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#### SCP 338 Series Ratios

<table>
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<tbody>
<tr>
<td>150 200 3/0 3/0 300</td>
<td>SQ (O)</td>
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<tr>
<td>150 200 3/0 3/0 300</td>
<td>UMB-215, UMB-220, UMB-230</td>
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<tr>
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<td>BUMB-215, BUMB-220, BUMB-230</td>
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#### MSP 139 Series Ratings

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<tr>
<td>150 200 3/0 3/0 300</td>
<td>SQ (O)</td>
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<tr>
<td>150 200 3/0 3/0 300</td>
<td>UMB-215, UMB-220, UMB-230</td>
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<tr>
<td>150 200 3/0 3/0 300</td>
<td>BUMB-215, BUMB-220, BUMB-230</td>
</tr>
</tbody>
</table>

### QOBLxxx-5393 BMB series Bolt-on, Motorized. (REMOTE OPERATED)

<table>
<thead>
<tr>
<th>BMB-15, BMB-20, BMB-30</th>
<th>BMB-150, BMB-200, BMB-300</th>
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### QOPLxxx-5393 MB series clip-on, Motorized. (REMOTE OPERATED)

<table>
<thead>
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</table>
Instruction Bulletin

QO-PL (Plug-on), QOB-PL (Bolt-on) Powerlink® Remotely Operated Circuit Breakers
(Use in Type QO Load Centers and Type NQO, NQOB, and NQOD Panelboards)

Retain for future use.

REQUIREMENTS

Remotely Operated Circuit Requirements

**DANGER**

HAZARD OF ELECTRIC SHOCK, BURN, OR EXPLOSION.

When servicing a branch circuit fed by a remotely operated circuit breaker, move handle of remotely operated circuit breaker to OFF position. Do not rely on remote operation to open circuit breaker.

Failure to follow these instructions will result in personal injury or death.

CIRCUIT BREAKER INSTALLATION

**DANGER**

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E.
- This equipment must be installed and serviced only by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors, and covers before turning on power to this equipment.

Failure to follow these instructions will result in death, or serious injury.

See page 2 for LynTec part number explanation

POWERLINK® QO(B)-PL Remotely Operated Circuit Breakers require a power supply capable of delivering at least two amperes at 24 Vdc for a minimum of 50 milliseconds. One-, two-, and three-pole circuit breakers all have one internal motor, and power requirements are the same regardless of the number of poles and ampere ratings.

The required power supply ampacity and control device contact rating are determined by the number of circuit breakers to be switched simultaneously (i.e., four circuit breakers switched simultaneously require a power supply and a control device contact rated 8 amperes minimum). The control device may be either a normally-open (NO)/ normally-closed (NC) contact; a single-pole, double-throw switch (SPDT); or other three-wire control device.

1. Turn off all power supplying this equipment before working on or inside equipment.

2. Before installing circuit breaker turn circuit breaker handle to OFF position.

3. Remove panelboard cover and deadfront. Verify power is off with voltage meter before proceeding.

Installation of circuit breaker into panelboard/load center (refer to figure below)

4. Except for remotely operated connections, QO(B)-PL remotely operated circuit breakers are installed in a panelboard/load center the same as conventional QO(B) circuit breakers.

Connection of remotely operated circuit (refer to the figure on next page)

5. Assure that power supply and control device meet requirements listed under “Remotely Operated Circuit Requirements.”
CIRCUIT BREAKER INSTALLATION

**CAUTION**

HAZARD OF CIRCUIT BREAKER DAMAGE.

Connect the 24 Vdc remote control wiring as shown on this page.

Failure to follow these instructions can permanently damage the remotely operated circuit breaker.

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**LynTec**

**part numbers**

**MB** series motorized circuit breakers (Snap-On)

May be used in **LCLC, LCP, MSLC, MSP, SLC** or **SP** series panels.

**BMB** series motorized circuit breakers (Bolt-On)

Use only in **LCP, MSP** or **SP** panelboards.

All **BMB & MB** series breakers have Square D part number suffix of -5393 indicating a special 60 inch lead length for remote control wires required to connect to LynTec control boards in low voltage cabinet.

**= Stocked items**

- **MB-15 = 15 Amp.** Square D QO-115PL-5393
- **BMB-15 = 15 Amp.** Square D QOB-115PL-5393
- **MB-20 = 20 Amp.** Square D QO-120PL-5393
- **BMB-20 = 20 Amp.** Square D QOB-120PL-5393
- **MB-30 = 30 Amp.** Square D QO-130PL-5393
- **BMB-30 = 30 Amp.** Square D QOB-130PL-5393

Two pole motorized - call for pricing & delivery

- **MB-215 = 15 Amp.** Square D QO-215PL-5393
- **BMB-215 = 15 Amp.** Square D QOB-215PL-5393
- **MB-220 = 20 Amp.** Square D QO-220PL-5393
- **BMB-220 = 20 Amp.** Square D QOB-220PL-5393
- **MB-230 = 30 Amp.** Square D QO-230PL-5393
- **BMB-230 = 30 Amp.** Square D QOB-230PL-5393

40A, 50A or 60A, Two pole also available on Special Order

Three pole motorized - call for pricing & delivery

- **MB-315 = 15 Amp.** Square D QO-315PL-5393
- **BMB-315 = 15 Amp.** Square D QOB-315PL-5393
- **MB-320 = 20 Amp.** Square D QO-320PL-5393
- **BMB-320 = 20 Amp.** Square D QOB-320PL-5393
- **MB-330 = 30 Amp.** Square D QO-330PL-5393
- **BMB-330 = 30 Amp.** Square D QOB-330PL-5393

LynTec also stocks **UMB & BUMB** (un-motorized) QO series circuit breakers including HM (High Magnetic) Recommended for eliminating nuisance trips in high inrush applications. All **BMB & MB** x15’s and **BMB & MB** x20’s are HM breakers.

**800-724-4047**

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LynTec overprint 139-0216-08.2 9/23/06

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6. All wiring and splicing must comply with applicable code requirements for Class 1 circuits. Refer to paragraph 373-8 and article 725 of the National Electrical Code.

7. Three #18 AWG control wires are attached to the remotely operated circuit breaker for connection to the power supply and remote control device and should be cut to the required length to reach the splice connections. Use #18 AWG or larger conductors with 600 V insulation and approved wire connectors for splices.

8. Connect the black lead of the remotely operated circuit breaker to the negative (-) terminal of the 24 Vdc power supply. Connect the red lead of the remotely operated circuit breaker to the positive (+) terminal of the 24 Vdc power supply. Connect the white lead of the remote control device. The remote control device provides connections between either positive or negative potential of the power supply and the white wire of the remotely operated circuit breaker, as appropriate.

9. Applying the positive potential of the power supply to the white wire (contact closure between the red wire and white wire) will operate the remote mechanism of the circuit breaker to the OFF position. Applying the negative potential of the power supply to the white wire (contact closure between the black wire and the white wire) will operate the remote mechanism of the circuit breaker to the ON position. A control circuit utilizing a normally open (NO)/normally closed (NC) contact is illustrated below.

**NOTE:** The remote mechanism will not move the circuit breaker handle. Also, the remote mechanism cannot turn power ON when the circuit breaker is tripped (VISI-TRIP® flag indicator showing) or when the circuit breaker handle is in the OFF position.

Installation of the trim and operational checks

10. Remove corresponding twist-out from panelboard trim and replace trim.

11. Turn power to panelboard on.

12. Turn remotely operated circuit breaker handle to the ON position.

13. Turn power to the remotely operated circuit on and test this circuit, turning remotely operated circuit breaker off remotely, then on remotely. If power to remote controlled circuit breaker load does not switch off and on, turn off power to remotely operated circuit and panelboard and check wiring.

**NOTE:** A power supply is available from Square D Company, Cat. No. QOQPLPS (plug-on) or QOBQPLPS (bolt-on).

**Splice not normally required with LynTec supplied breakers with 60” leads.**

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Electrical equipment should be installed, operated, serviced and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

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