The UL listed heart of the LynTec **Lighting Control and Sound Sequencing Panels**

Handle functions as a normal circuit breaker.

When switched off or tripped due to overload. the remote control will not turn on power.

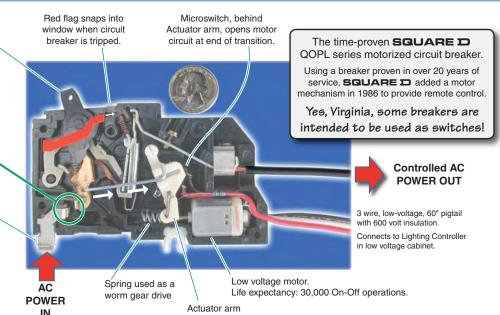
When in the normal ON position, the motorized remote control will turn it off and on.

The motor does not move the handle... it only opens or closes the high current contacts.

Snap on clip with heavy steel force spring. Contact is held tightly in place on panel bus feeder finger.

Under high current stress, magnetic forces actually increase contact pressure.

Also available in Bolt-on versions for Panelboards only.



Field installed, UL & CSA listed, motorized circuit breakers are required to complete the Lighting Control Panel or Sequencing Panel package.

BLUE TYPE = Bolt-on breakers for Panelboards ONLY — Clip-on breakers fit Load Centers or Panelboards



BMB-15 Bolt-on Motorized Breaker, Square D #QOB115PL-5393 MB-15 Clip-on Motorized Breaker, Square D #QO115PL-5393 One pole, 15 Amps. Special 60" leads. Square D trip curve: 730-4

BMB-20 Bolt-on Motorized Breaker, Square D #QOB120PL-5393 MB-20 Clip-on Motorized Breaker, Square D #QO120PL-5393 One pole, 20 Amps. Special 60" leads. Square D trip curve: 730-4 15 and 20 Amp breakers have a HM, (High Magnetic) rating. HM reduces nuisance breaker trips on high inrush loads.

BMB-220 Bolt-on Motorized Breaker, Square D #QOB220PL-5393 MB-220 Clip-on Motorized Breaker, Square D #QO220PL-5393 Two pole, 20 Amps. Special 60" leads. Square D trip curve: 730-4 15 and 20 Amp breakers have a HM, (High Magnetic) rating. HM reduces nuisance breaker trips on high inrush loads.

BMB-30 Bolt-on Motorized Breaker, Square D #QOB130PL-5393 MB-30 Clip-on Motorized Breaker, Square D #QO130PL-5393 One pole, 30 Amps. Special 60" leads. Square D trip curve: 730-5

BMB-230 Bolt-on Motorized Breaker, Square D #QOB230PL-5393 MB-230 Clip-on Motorized Breaker, Square D #QO230PL-5393 Two pole, 30 Amps. Special 60" leads. Square D trip curve: 730-5

2 pole 30A, 40A and 60A and 3 pole Bolt-on and Clip-on Motorized Breakers are also available on special order. — Call 800-724-4047 for price and delivery.



BUMB-10, -15, -20 or -30 are Bolt-on, 10, 15, 20 or 30 amp single pole. Square D QOB110, QOB115HM, QOB120HM or QOB130. — 15s & 20s are High Magnetic.

UMB-10, -15, -20 or -30 are Clip-on, 10, 15, 20 or 30 amp single pole. Square D QO110, QO115HM, QO120HM or QO130. — 15s & 20s are High Magnetic.

Page 7 of 8 139-0370-02.7

QO-PL (Plug-on), QOB-PL (Bolt-on) Powerlink® Remotely **Operated Circuit Breakers**

ECN N353

supplied

breakers

have special

60" control

wires.

(Square D

are 18".)

(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.

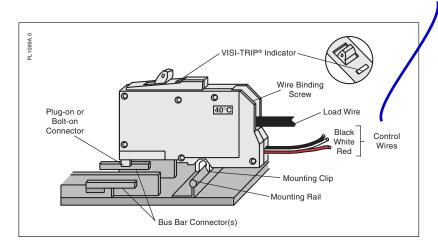
Failure to follow these instructions will result in death, or serious injury.

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. All LynTec
- 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 standards 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.

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-x0's are HM breakers.]

800-724-4047

LynTec ■ www.LynTec.com

8401 Melrose Dr., Lenexa, KS 66214, USA

Voice 913-529-2233 • Fax 888-722-4157 or 913-529-4157

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

Square D Company 3700 Sixth Street SW Cedar Rapids IA 52404 USA 1-888-SquareD (1-888-778-2733) www.SquareD.com

- 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.

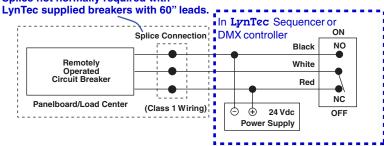
NOTE: The remote mechanism will not move the circuit breaker handle. Also, the remote mechanism cannot turn power ON when the circuit breaker is tripped (VISI-TRIP® flag indicator showing) or when the circuit breaker handle is in the OFF position.

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. QOPLPS (plug-on) or QOBPLPS (bolt-on).

Splice not normally required with



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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7

Series Ratings

For NQOD and NF Panelboards Class 1630, 1670



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.

				ies Hatings	Branch Circuit Breaker Designations and Allowable Ampere Ranges ab			
		Maximum System Voltage AC c	Maximum Short Circuit Current Rating (RMS Symmetrical)	Integral or Remote Main Circuit Breakers and Remote Main Fuses	Туре	1-pole	2-pole	3-pole
			22k	MG	QO (B)	15–30 A		
		120/	42k	HD, JD	QO (B) PL	15–30 A	15–60 A	15–30 A
		240	65k	HG, JG	QO (B) PL	15–30 A	15–60 A	15–30 A
		1Ø	100k	HJ, JJ	QO (B) PL	15–30 A	15–60 A	15–30 A
			125k	HL, JL	QO (B) PL	15–30 A	15–60 A	15–30 A
		120/ 240 1Ø 208Y/ 120	1001	DJ 400 A	QO (B) QO (B) GFI QO (B) VH QO (B) AFI	15–70 A 15–30 A 15–20 A	15–125 A 40–60 A 150 A	 15–150 A
			100k	Ø	QO (B) QO (B) AS QO (B) GFI QO (B) PL QO (B) VH QO (B) AFI	15–70 A 15–30 A 15–30 A 15–30 A 15–20 A	15–125 A 15–30 A 15–60 A 15–60 A 150 A	15–30 A 15–30 A 15–30 A 35–150 A
	zn T ec	208Y/ 120	18k	LA/LH (L) 34200MC LA/LH (L) 34225MC LA/LH (L) 34250MC LA/LH (L) 34400MC	QO (B)	15–30 A	15–30 A	15–30 A
LC MS MS	nodels LC 32 LC 32 LC 33	26 38	22k	QO (B) VH MB-xx	QO (B) QO (B) AS QO (B) GFI QO (B) PL QO (B) AFI	15–70 A 15–30 A 15–30 A 15–30 A 15–20 A	15–125 A 15–30 A 15–60 A 15–30 A	15–100 A 15–30 A
	SP 33 SP13		22k	Q2-Hf	QO (B) QO (B) GFI QO (B) AFI	15–70 A 15–30 A 15–20 A	15–100 A 15–30 A 	15–30 A
LC	ynTe models LC 3 SLC 3	41	25k	QD MB-xx	QO (B) QO (B) AS QO (B) GFI QO (B) PL QO (B) VH QO (B) AFI	15–70 A 15–30 A 15–30 A 15–30 A 15–20 A	15–125 A 15–30 A 15–60 A 15–60 A 150 A	15–30 A 15–30 A 15–30 A 35–150 A
1	LynTo		25k	ED, FDf	QO (B) QO (B) GFI QO (B) AFI	15–70 A 15–30 A 15–20 A	15–125 A 15–60 A 	15–100 A
M	MSLC MSLC are ser rated 2 AIR see 001301	127 129 ries 22k	25k	KDf	QO (B) QO (B) AS QO (B) GFI QO (B) AFI	15–70 A 15–30 A 15–30 A 15–20 A	15–125 A 15–30 A 15–60 A	15–100 A 15–30 A
ra			25k	HD, JD	QO (B) QO (B) VH QO (B) GFI QO (B) AFI QO (B) H QOB2150VH	15–70 A 15–30 A 15–20 A 	15–125 A 15–60 A 15–100 A 150 A	15–100 A 35–150 A
	n pg of Dig 173	est	42k	LA, MA MG	Q2L-Hf QDL QO (B) VH	 15–30 A	110–225 A 70–225 A 15–30 A	110–225 A 70–225 A 15–30 A
	173	•		HD, JD	QO (B) PL	15–30 A	15–60 A	15–30 A
			42k 65k	LC 600 A Maximum	QO (B) QO (B) VH QO (B) GFI	15–70 Ad 15–30 A	 15–125 A 15–60 A	15–100 A (3P 208 V Max.)
SQ	SDS	240			QO (B) AFI QO (B) VH	15–20 A 15–30 A	 15–125 A	 15–100 A (3P 208 V Max.)
	ВОАБ				QO (B) GFI QO (B) AFI QO (B)	15–30 Ae 15–20 A	 15–125 A	
PANELBOARDS	PANEI		65k	DJ 400 A	QO (B) VH QO (B) H QO (B)	15–70 A	150 A 15–100 A 15–125 A	15–150 A
	8		65k	EG, FGf, KGf	QO (B) GFI QO (B) AFI QO (B)	15–30 A 15–20 A 15–70 A	15–60 A 15–125 A	15–30 A
			65k	QG BMB-xx	QO (B) AS QO (B) VH QO (B) GFI	15–30 A 15–30 A	15–30 A 15–60 A	15–30 A 35–150 A
				QG, HG, JG	QO (B) PL QO (B) AFI QO (B)	15–30 A 15–30 A 15–70 A	15–60 A 15–125 A	15–30 Å 15–100 Å
'n	nTecnodels		65k	HG, JG	QO (B) VH QO (B) H QOB2150VH	 	 15–100 A 150 A	35–150 A
MS LC	SP 14 SP 34	1 5	65k	FCL22 KCL22 FCL32 KCL32	QO (B) QO (B) AS QO (B) GFI QO (B) AFI	15–70 A 15–30 A 15–30 A 15–20 A	15–100 A 15–30 A 15–30 A 	15–100 A 15–30 A
MSP 34		1/	65k	400 A Max. Class J or T6 Fuses	QO (B) VH QOB-VH QO (B) AFI	15–30 A 15–20 A	15–125 A 150 A 	15–100 A
			100k	FCL24 KCL24 FCL34 KCL34	QO (B) QO (B) AS QO (B) GFI QO (B) AFI	15–70 A 15–30 A 15–30 A 15–20 A	15–100 A 15–30 A 15–30 A	15–100 A 15–30 A
	/		100k	200 A Max. Class T3 Fuses	QO (B) AFI	15–20 A		
			100k		QO (B) QO (B) GFI QO (B) AFI	15–70 A 15–30 A 15–20 A	15–125 A 15–60 A 	15–100 A
	l .							

QOBxxx (B) = BUMB series Bolt-on, UnMotorized Breaker -xxx = poles. xxx = trip current.

[1 pole] BUMB-15, BUMB-20, BUMB-30

[2 pole] BUMB-215, BUMB-220, BUMB-230

[3 pole] BUMB-315, BUMB-320, BUMB-330

QOxxx = UMB series clip-on, UnMotorized Breaker -xxx = poles. xxx = trip current.

[1 pole] **UMB-15, UMB-20, UMB-30** [2 pole] **UMB-215, UMB-220, UMB-230** [3 pole] **UMB-315, UMB-320, UMB-330**

All 15 & 20 A breakers are **HM** (High Magnetic)

NQOD Series Ratings (Continued)

	Current al)		Branch Circuit Breaker Designations and Allowable Ampere Ranges ab				
Maximum System Voltage AC c	Maximum Short Circuit Cu Rating (RMS Symmetrical)	Integral or Remote Main Circuit Breakers and Remote Main Fuses	Туре	1-pole	2-pole	3-pole	
	100k	HJ, JJ	QO (B) QO (B) VH QO (B) GFI	15–70 A 15–30 A 15–30 A 15–20 A 	15–125 A 15–60 A 15–60 A 15–100 A 150 A	15–100 A 35–150 A	
	125k	HL. JL	QO (B) PL QO (B) AFI QO (B) H QOB2150VH			15–30 Å 	
240	200k	FI, KI	QO (B) QO (B) AS QO (B) GFI QO (B) AFI	15–70 A 15–30 A 15–30 A 15–20 A	15–125 A 15–30 A 15–60 A 	15–100 A 15–30 A 	
	200k	Maximum Fuses 200 A Class J or T6 400 A Class T3	QO (B) QO (B) AS QO (B) GFI	15-70 A 15-30 A 15-30 A	15-125 A 15-30 A 15-60 A	15–100 A 15–30 A 	

- A Suffixes HID, SWD and SWN may also be applied to the applicable branch circuit breakers shown above, except suffix SWN may NOT be applied in combination with LC main circuit breakers.

- shown above, except suffix SWN may NOT be applied in combination with LC main circuit breakers.

 Where QO (B) circuit breakers are shown above, QO (B) H, QO (B) VH, and QH (B) circuit breakers may also be used.

 ◆ For shown circuit breakers rated less than this maximum voltage, the indicated short circuit current rating also applies, but at the voltage rating of the circuit breaker.

 ★ Only 15–30 A circuit breakers may be used when the LC circuit breaker is rated 450, 500 or 600 A.

 ▼ Circuit breakers may not be used when the LC circuit breaker is rated 450, 500 or 600 A.

 △ Obsolescent. Contact your nearest Square D/Schneider Electric sales office for replacement circuit breaker. One-pole FJ circuit breakers are still available.

 Where QO(B) GFI circuit breakers are shown above, QO(B), EPD circuit breakers may also be used.

NF Series Ratings

NF Selies hattings								
Maximum System Voltage AC	Maximum Short Circuit Current Rating (RMS Symmetrical)	Main Type	Branch Type	Poles				
	65,000	EG, FH, FGf, KH, LH, MH, MX, HG, JG	EDB, EDB-EPD					
		EG	ECB-G3					
	100,000	EJ, FC, FJf , KC, LC, LX, HJ, JJ	EDB, EDB-EPD, EGB					
240		EJ, FC, KC, HJ, JJ	ECB-G3	1, 2 & 3				
	125,000	HL, JL	EDB, EDB-EPD, EGB, ECB-G3					
	200,000	FI, KI, LI, LXI	EDB, EDB-EPD, EGB, EJB					
		FI, KI	ECB-G3					
	35,000	EG, FGf, KH, LH, HG, JG	EDB, EDB-EPD	1,2&3				
		EG, HG, JG	ECB-G3					
	65,000	EJ, FC, FJf , KC, LC, LX, HJ, JJ	EDB, EDB-EPD, EGB					
480Y/277		EJ, FC, KC, HJ, JJ	ECB-G3					
	100,000	HL,JL	EDB, EDB-EPD, EGB					
		FI, KI, LI, LXI	EDB, EDB-EPD, EGB, EJB					
		FI, KI	ECB-G3					
	18,000	HG, JG, MG	EDB, EDB-EPD	1, 2, 3				
	25,000	EJ, FI, KH, KL, LC,. LE, LX, LI, LXI, HJ, JJ	EDB, EDB-EPD, EGB					
		LH	EDB(15-70 A), EGB					
600Y/347	35,000	LC, LE	EDB, EDB-EPD, EGB, EJB					
	50,000	HL, JL	EDB, EDB-EPD, EGB					
	65,000	FI, KI	EDB, EDB-EPD, EGB, EJB					
		LI, XI	EJB					
		Remote Main Fuse						
240	200,000	200 Ampere Maximum Class J or T (600V)	ECB-G3	1, 2 & 3				
	100,000	400 Ampere Maximum Class J or T (600V)	EDB, EDB-EPD, EGB, EJB					
480Y/277	200,000	200 Ampere Maximum Class J or T (600V)	EDB, EDB-EPD, EGB, EJB	1,2&3				
	200,000	200 Ampere Maximum Class J or T (600V)	ECB-G3					
600Y/347	200,000	200 Ampere Maximum Class J or T (600V)	EDB, EDB-EPD, EGB, EJB	1,2&3				

QOBPLxxx-5393 = BMB series Bolt-on, Motorized. (REMOTELY OPERATED) -xxx = poles. xxx = trip current. -5393 suffix denotes special 60" control wires.

[1 pole] BMB-15, BMB-20, BMB-30

[2 pole] BMB-215, BMB-220, BMB-230, BMB-240, BMB-250, BMB-260

[3 pole] BMB-315, BMB-320, BMB-330

QOPLxxx-5393 = MB series clip-on, **M**otorized. (REMOTELY OPERATED) -**x**xx = poles. x**xx** = trip current. **-5393** suffix denotes special 60" control wires.

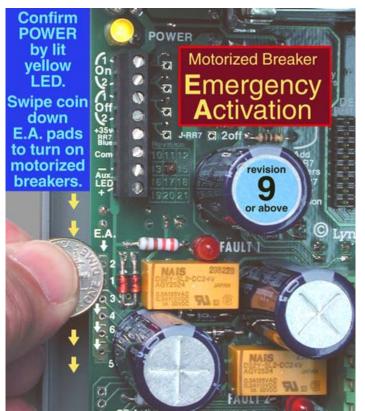
[1 pole] MB-15, MB-20, MB-30

[2 pole] MB-215, MB-220, MB-230, MB-240, MB-250, MB-260 [3 pole] MB-315, MB-320, MB-330

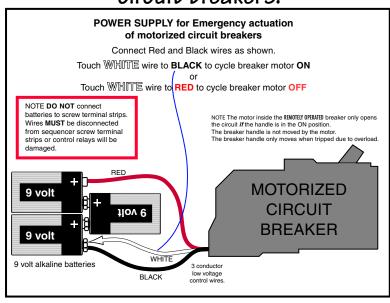
LynTec overprint: 139-0407-01 Series Ratings 9/23/06

Emergency circuit breaker activation

for MSLC or MSP systems using motorized circuit breakers.



OR for all systems using motorized circuit breakers.



LynTec 800-724-4047

Emergency RR7 relay activation for LCRP or PDS-8 series

