All non-dimmed lights need a power panel.

Now have as many DMX512 controlled circuits as you need in the same panel. You can mix DMX controlled, motorized branch breakers with standard QO breakers for a one-panel solution. LynTec DMX panels are modular and field expandable.



BENEFITS of LynTec LC Lighting Control series Power Panels

Reduced installation labor — electrician friendly

• One wall-mounted, DMX controlled power panel feeds AC power to all un-dimmed circuits.



Low power consumption

• **BMB** (Bolt-on) and **MB** (Clip-on) series motorized circuit breakers require no holding current (like DC relays) or heat sinks (like solid state relays).

Runs cool — lasts long.

Motorized breakers available in 15, 20 or 30 Amp — 1, 2 or 3 poles.

Multiple universe control

Optional control of up to 5 universes depending on model.

LynTec

LC series Lighting Control panels add DMX addressable branch circuit control to the functions normally found in a Load Center or Panelboard.

New!! Simplified Control Protocol

A simple jumper system allows the user to select the address of the first breaker and additional breakers are addressed consecutively.

The system uses only as many addreses as there are breakers.

Once addressed, individual breakers may be turned **ON**, **OFF**, or set to a **NO CHANGE** status.



Who is LynTec?

Ask any sound contractor. Chances are, they'll tell you that LynTec pretty much wrote the book on remote controlled, sequencing power systems for the installed sound industry.

LynTec sequencing can be found in high-profile venues where reliable power control is mission critical. Stadiums, arenas and performing arts centers hosting national exposure events have been sequenced on and off by LynTec power panels for over 15 years.

Now, LynTec brings that same expertise to non-dimmed DMX power control.

Using the same proven panels and motorized circuit breakers, LynTec now offers a broad product line with a new DMX512 control system for lighting.

LynTec — AVAILABLE MODELS — LynTec

Panel electrical specifications and configurations — Outline dimensions

at LynTec.com for model specfic Design or Submittal PDFs. See 🦪

CENTERS LOAD

LCLC 326-xx-Mxxx Lighting Control Load Center 3Ø, 208Y/120 Vac, 4 wire. — 100 Amp Main Breaker Standard

LynTec

Lighting Control Load Center MODEL NUMBERS

LCLC 326-10-Mxxx (Up to 10 DMX controlled circuits) LCLC 326-20-Mxxx (Up to 20 DMX controlled circuits) LCLC 326-30-Mxxx (Up to 26 DMX controlled circuits) Square D QO327M100 Load Center

with LynTec low-voltage sidecar. Standard back-fed Main Breaker:

Squared D# QO3100VH. 100A, (VH = 22k AIB)[Amps Interrupt Rating]

Back-fed Main Breaker options Part# suffix - Bold face=Amps -M3030, -M3035: (10kAIR) Square D# QO30xx

-M3050, -M3060, -M3070 or -M3090

PDF

Squared D# QO3xxVH (all VH = 22k AIR) Wire Sizes #4 - 2/0 Cu

Outside dimensions 20.9" w., 29.8" h., 3.9" d.

LynTec

Lighting Control Panelboard

MODEL NUMBERS

LCP 341-10-Mxxx

(Up to 10 DMX controlled circuits)

LCP 341-20-Mxxx

(Up to 20 DMX controlled circuits)

LCP 341-30-Mxxx

(Up to 30 DMX controlled circuits)

LCP 341-40-Mxxx



(Up to 40 DMX controlled circuits) LCP 341-50-Mxxx (Up to 41 DMX controlled circuits limited by 42 circuit code rule)

Square D NQOD-NL MB Panel with LynTec low-voltage sidecar.

Standard LCP-225A Main Breaker: 225 Amp. - 65k AIR - MJG36225

Square D MJG36xxx or MHG36xxx series (all 65k AIR) [Amps Interrupt Rating]

Main Breaker options Part# suffix - Bold face = Amps -MHG3125, -MJG3150, -MJG3175 or -MJG3200

Wire Sizes Main Breaker: 3/0 - 350 kcmil Al/Cu 200% Neutral has one feed lug that accepts 2 - 250 kcmil Cu wires

Control Board Enclosure ground bar 4 DMX CONTROL POWER 23 position 14-4 ga. supplie 2 X N Control Board Ċ₿Ă 0370-02.2.eps 5 NQOD-NL Panel 200% Neutral 0 Ϋ́́́Τ Outside dimensions 28.06" w., 50" h., 6.13" d. Knockout panels supplied in both ends

Adobe



Adobe

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Outside dimensions:

28.06" w., 68.2" h., 6.13" d.

Knockout panels supplied in both ends



Page 3 of 8

LynTec

Numbered circuit LED Indicates status of breaker. Flashes during timed command countdown.

LIGHTING CONTROL PANELBOARDS -

24v, 40VA power transformer

Supplies

DMX

Control boards

Low Voltage

DMX control sidecar

24v from ransformer

LC-10 DMX LIGHTING CONTROLLER boards

DMX512 Control Be m a DMX512 address controlled vice actuates the actuates actuates the actuates Movable circuit jumpers set the 1.1 2 DMX STARTING address. It may be set to any address from 1 to 503. Why 503? See INVALID Address example below. DMX ADDRESS SAVER At power-up, each board scans for connected breakers and uses only as many addresses as there are breakers attached. If the breaker configuration is changed by adding, deleting or moving breakers, update the breaker status with a re-scan. Cycle the DMX CONTROL POWER breaker off for at least 3 sec. to re-scan. DMX Address 120 Ohm Input Termination resistor Receiving DMX LED Flashes when a valid DMX signal is received. 10 MTA .156" DMX Input Test plug TAP to pulse of HOLD to p Wago Cage-Clamp Input Terminals — Press white levers toward board to insert stripped wire. 1968 TEST 100 ON D- D+ DMX Input DMX OVERRIDES TEST SWITCHES Terminated Buffered DMX Output Flickering LED indicates data presence. Warning LED Fast flash = Low line voltage Red Slow flash = Invalid Address (Set to total above 512). White Example: With a STARTING Black address set at 504 and 10 breakers attached, the total would be 513, exceeding DMX512's capacity. Lit Continuously = No breakers attached. Lever-latch breaker plug Open lever — Insert twisted wire. Snap lever closed. Spring tension clamps wire securely.

LIGHTING CONTROL LOAD CENTERS

LynTec





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



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

UnMotorized circuit breakers for un-controlled circuits

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. PDF Adobe

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.

Circuits controlled by one or more LC-10 Lighting Control boards

Each LC-10 board has 10 drivers capable of driving one 1, 2 or 3 pole BMB or **MB** series motorized circuit breakers. Each breaker has its own individual DMX512 address. The motorized breakers may be located in any open slot in the panel.

Bold face type = legends printed on LC-10 boards.

STARTING address

The **STARTING address** is field programmed by installing push-on jumpers.

Each board has a starting DMX address which is typically set between 1 and 503. Subsequent addresses are automatically assigned as needed, determined by how many breakers are attached to the board.

ADDRESS SAVER

To conserve DMX addresses, the LC-10 board only assigns subsequent addresses for breakers it locates at power-up. At power-up, the board scans and pulses all breaker connectors from 1 to 10. Each breaker load found is assigned the next subsequent address regardless of its numerical position.

Empty connectors are skipped to save addresses.

EXAMPLE

If the **STARTING address** were set at 301, the number **1** position would be DMX address 301.

If the second connector had no breaker connected, it wouldn't draw any control current during the power-up scan. It would be skipped and wouldn't be assigned a DMX address.

The third and fourth connectors have breakers and would be assigned DMX addresses 302 and 303.

To avoid confusion, we would suggest that you not leave spaces except after the last connected breaker. Then your **existing** breaker DMX addresses won't change if you add a breaker. In the above example, if you were to plug a breaker into the empty #2 position and re-scan, those breakers that had addresses 302 and 303, would be <u>reassigned</u> **new** addresses of 303 and 304 for your convenience and amazement.

NOTE

If a breaker is plugged into a connector *after* power-up it will be ignored until a new power-up scan is run by cycling the DMX CONTROL POWER breaker off for at least 3 seconds.

Indicator LEDs

Amber POWER LED

Power to each LC-10 circuit board is indicated by the amber POWER LED.

Numbered Green LEDs, 1 - 10

Green numbered LEDs, adjacent to each breaker connector, light when the circuit breaker motor has been pulsed on. When a "delayed Off command" is executing, the breaker's LED will flash.

Red warning LED

Low Voltage, INVALID address or No Breakers Attached

Low Voltage = A fast red flash indicates AC line voltage is below 105 VAC - No DMX reception or execution.

INVALID address = A slow (1 Hz) red flash indicates an invalid address setting

totaling of more than 512.

Example: With a **STARTING address** set at 504 and 10 breakers attached, the *total* would be 513, exceeding DMX512's capacity.

No Breakers Attached = A continuously lit red LED indicates no breakers were found at the time of the power-up scan.

Green Receiving DMX LED

When the **Receiving DMX** LED is flashing, the system is active and ready to execute DMX commands. The **Receiving DMX** LED *stays* lit during command execution.

Green DMX Output LED

Flickering LED indicates data presence at the Buffered DMX Output.

Brown-out protection

Five seconds after power stabilizes above 105 volts, the board begins receiving DMX signals indicated by a flashing green **Receiving DMX** LED. When the Receiving DMX LED is flashing, the system is ready to execute DMX commands. A *fast* flashing red LED indicates the power hasn't been above 105 volts for the last 5 seconds and the controller is waiting for the power to stabilize before resuming DMX reception.

Motorized Circuit Breaker Low Voltage Connections

Each motorized breaker derives its control power through a 60" - 3 conductor wire. This low voltage, 600 volt insulated, cable is field connected to the Lever-latch 3 pin plugs. The Lever-latch plugs fit into numbered receptacles on the circuit board/s.

DMX CONTROL POWER

The DMX CONTROL POWER circuit breaker, mounted in the lower right position in the high voltage section of the panel, is connected to a UL listed 120v to 24v, 40 VA transformer mounted inside the low voltage cabinet.

This 10 amp un-motorized breaker should be left on continuously. This circuit breaker is used as an approved, switchable connection method to the high voltage. The **UL** & **UL**_c listed transformer is impedance protected with an internal thermal fuse.

Each sequencer board is protected by an on-board 3AG 3/4 amp fuse.

Power required: 50/60 Hz, 6.5 watts per board with 10 breakers in the on condition. 33 watts maximum per panel.

DMX PROTOCOL for LynTec LC series

Code Range (8 bit)	%	Circuit Function
0-63	0-24	Turns breaker off. When applied to all breakers simultaneously, they turn OFF at a .25 second step rate.
64-191	25-74	No change
192-255	75-100	Turns breaker on. When applied to all breakers simultaneously, they turn ON at a .25 second step rate.

ARCHITECTS & ENGINEERS SPECIFICATIONS

for PDF and Word file links

see http://www.lyntec.com/139-0378_LC_Brkr_A&E_Specs.pdf

In the interest of product improvement, specifications are subject to change without notice — see web site for the most current data.

www.**LynTec**.com

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