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.

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.
LOAD CENTERS

LCLC 326-xx-Mxxx Lighting Control Load Center
30, 208Y/120 Vac, 4 wire. — 100 Amp Main Breaker Standard

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 20 DMX controlled circuits)
LCLC 326-40-Mxxx (Up to 40 DMX controlled circuits)

Standard back-fed Main Breaker:
Squared D QO3100VH, 100A, (VH = 22k AIR)
Main Breaker options
Part# suffix — Bold face = Amps
- M30, M350 (10k AIR)
-Square D QO3xxx
(M30, M305, M3060, M3070 or M3090)

Wire Sizes
N4 - 2/0 Cu
Outside dimensions:
20.9" w., 29.8" h., 3.9" d.

Main LUG — MLO option
Remove back feed main and top feed as a MLO to gain 3 circuits.
Feed from a protected disconnect.
Provides access to branch breaker positions 1, 3, & 5.

Model number becomes a
LCLC 329-xx-MLO
(20 DMX controlled circuits)
LCLC 329-10-MLO
(10 DMX controlled circuits)

Outside dimensions:
20.9" w., 39.3" h., 3.9" d

PANELBOARDS

LCP 341-xx-Mxxx Lighting Control Panelboard
30, 208Y/120 Vac, 4 wire. — 225 Amp Main Breaker Standard

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)

Standard LCP 225A Main Breaker: 225 Amp. - 65k AIR - MJG 36225
Main Breaker options
Part# suffix — Bold face = Amps
MG12, MG150, MG175 or MG1200

Outside dimensions:
28.06" w., 50" h., 6.13" d.
Knockout panels supplied in both ends

LCLC 341-xx-Mxxx Lighting Control Load Center
30, 208Y/120 Vac, 4 wire. — 225 Amp Main Breaker Standard

Model Numbers
LCLC 341-10-Mxxx (Up to 10 DMX controlled circuits)
LCLC 341-20-Mxxx (Up to 20 DMX controlled circuits)
LCLC 341-30-Mxxx (Up to 30 DMX controlled circuits)
LCLC 341-40-Mxxx (Up to 40 DMX controlled circuits)

Standard D QO342MQ225 Load Center with LynTec low-voltage sidecar.
Main Breaker options
Part# suffix — Bold face = Amps
M3150, M3175 or M3200
Square D QCL3xxx series
(25k AIR) [Amps Interrupt Rating]

LCP 341-xx-M400 Lighting Control Panelboard
30, 208Y/120 Vac, 4 wire. — 400 Amp Main Breaker Standard

Model Numbers
LCP 341-10-M400 (Up to 10 DMX controlled circuits)
LCP 341-20-M400 (Up to 20 DMX controlled circuits)
LCP 341-30-M400 (Up to 30 DMX controlled circuits)
LCP 341-40-M400 (Up to 40 DMX controlled circuits)

Square D NQOD MB Panel with LynTec low-voltage sidecar.
Standard LCP 400A Main Breaker: 400 Amp. - 10k AIR - LA36400

Outside dimensions:
28.06" w., 68.2" h., 6.13" d
Knockout panels supplied in both ends

LynTec — AVAILABLE MODELS — LynTec
Panel electrical specifications and configurations — Outline dimensions
See LynTec.com for model specific Design or Submittal PDFs.
Planning and Layout Worksheet — As-built door label

LynTec LCLC 326-xx Lighting Control Load Center
DMX controlled, AC power remote control for lighting circuits

Breaker types, sizes, positions and connections

Each motorized breaker is actuated by a command from a DMX control device. As-built door label example:
The DMX #_________ is the DMX address of this breaker.
The board jumpers set the DMX address of the #1 position of the board.
Positions 2 to 10 are subsequent addresses. Example: #1 = 201, #2 to #10 = 202 to 210.

The test switches work in the absence of controlled breakers.
Controlled by the TEST switches on the master & Slave boards. Receiving input is indicated by a flickering LED.

DMX PROTOCOL for LynTec LC series

<table>
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<tr>
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The diagram shows the layout of the lighting control load center with specified breaker positions and connections.

How it works
The DMX 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 DMX 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. Master and Slave boards are used depending upon the number of DMX universes served. (Slaves have no DMX input or output components).
DMX signals are fed to the Master board of each DMX universe system.

Power and DMX data are daisy-chain fed between board to board by the yellow jumper connectors.
The STARTING DMX address is set for each board by jumpers.
The DMX Output is an optoisolated, Series coupled DMX component. The board jumpers set the DMX address of the #1 position of the board.
DMX Input is an optoisolated, Series coupled DMX component

LynTec Lighting Control Load Center
LCLC 326-xx
-xx = Maximum number of controlled breakers. See right side of page for model number for explanation.

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Available as PDF download
www.lyntec.com/LCLC326-Plnr.pdf

Transfer as-built information to the door.
Keep this sheet for as-built documentation.

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LC-10 DMX LIGHTING CONTROLLER boards

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

Movable circuit jumpers set the 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.

120 Ohm Input Termination resistor
Receiving DMX LED
Flashes when a valid DMX signal is received.

MTA .156" DMX Input Test plug
Wago Cage-Clamp Input Terminals
Press white levers toward board to insert stripped wire.

Buffered DMX Output Flickering LED indicates data presence.

Warning LED
Fast flash = Low line voltage
Slow flash = Invalid Address (Set to total above 512).
Example: With a STARTING address set at 504 and 10 breakers attached, the total would be 513, exceeding DMX512’s capacity.
Lit Continuously = No breakers attached.

24v from transformer

Lever-latch breaker plug
Open lever — Insert twisted wire.
Snap lever closed.
Spring tension clamps wire securely.

DMX OVERIDES TEST SWITCHES

DMX512 OVERIDES TEST SWITCHES

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For illustration, photos show branch breakers installed.

For full field flexibility, the branch breakers are supplied boxed, uninstalled.

10 – Lever-latch breaker plugs for the breaker-to-board connection are supplied, installed in each board.

For any QO series
Square D
Load Center or Panelboard.

Add BMB or MB series
Motorized Breakers for Controlled circuits.
**specifier's Guide for LynTec Lighting Control Panels**

**load Center and Panelboard part number explanation**

**Panelboards** are the electrician’s choice because they have 3 times the wiring space. Panelboards are used when bolt-on breakers, 200% neutrals or high circuit counts are required.

**Load Centers** are typically used where the circuit count isn’t high, offering the lowest cost.

---

**Multiple DMX512 Universe Option**

LynTec Lighting Control panels have the option of multiple universe control. All LC-10S boards service up to 10- one, two or three pole motorized breakers. The first/top control board is always a LC-10M Master board. The Master board has the opto-isolated DMX512 input and opto-isolated, buffered, feed-thru output components.

In a standard one-universe system, the subsequent boards are slaves. The lower-cost, LC-10S Slave boards have their own starting address, but derive their opto-isolated DMX data from the Master board above.

When multiple universes are desired, two or more LC-10M Master boards are supplied. Each universe requires a Master board. Any Master may have one or more subsequent slaves. See page 3 for possible board counts in each type panel.

---

**Load Center Main Breaker Options**

**Large 3 Phase Load Center**

The standard LCLC 341-xx has a factory installed, 3 pole, 225 Amp main breaker (65 kVA transformer) [25kAIR Amps Interrupt Rating].

Optional main breakers [All 65kAIR]
- 125A —-MQD3125 (36 kVA transformer)
- 150A —-MJG3150 (45 kVA)
- 175A —-MJG3175 (50 kVA)
- 200A —-MQD3200 (60 kVA)

-MLO (Main Lug Only) option: We only stock LCLC panels with main breakers. If your specification requires a -MLO we will provide it at the same price as the standard panel.

**Higher Interrupt Current Option**

Load Center: GSL32xx series 65k AIR main breaker— 150, 175, 200 or 225A.

Add the H to the model type. Example: LCLCH 341.

---

**Small 3 Phase Load Center**

The standard LCLC 326-xx has a bracket-retained, clip-on, back-fed, 3 pole, 100 Amp main breaker.

Optional main breaker sizes available:
- 30A —-M3030 (7.5 kVA transformer)
- 35A —-M3035 (10 kVA)
- 50A —-M3050 (15 kVA)
- 70A —-M3070 (20 kVA)
- 90A —-M3090 (25 kVA)
- 30A & 35A: 10kAIR
- 50A up: 22kAIR (Amps Interrupt Rating)

---

**Photograph of LynTec Lighting Control Panel**

Provides DMX control for any Square D QO panel by using BMB or MB breakers.
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.

**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.

- **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, 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 reassigned 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.

**Indicators 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.

**DMX PROTOCOL for LynTec LC series**

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**ARCHITECTS & ENGINEERS SPECIFICATIONS**

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