ARCHITECTURAL DIMMING PANEL - MAIN/SECONDARY

| LCAP32M/S | LCAP44M/S

High capacity forward phase dimming capabilities LCAP44x up to 48 loads per panel – up to 30,720 watts @ 120V; 70, 912 watts @ 277V

LCAP32x up to 24 loads per panel - up to 15,360 watts @ 120V; 35, 456 watts @ 277V

Many combinations of dimming and switching available - forward phase, reverse phase, relays

Multiple levels of secure network access to the system

Panel includes terminal blocks for simple field wiring

Space allocated for adding emergency lighting relays

Adding a BACnet® enabled controller allows the panel to be part of a BACnet system

Powerful controller (LCAP32M or LCAP44M) offers integration using RS232, RS485, and Ethernet

Also listed as emergency lighting and power equipment

Auto backup: full project file and 52 week updates on included microSD card

ASHRAE BACnet®

Description

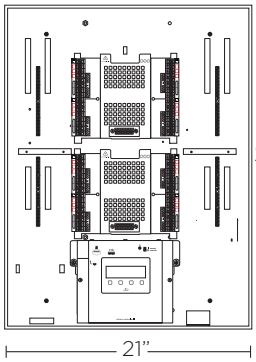
The LCAP series of lighting control panels provides modular pre-configured architectural dimming and integration options for a wide range of commercial market applications. The UL listed LCAPxxM/S series offers the highest amperage dimming and switching options of any in the LCAP line. Whether it's forward phase dimming, reverse phase dimming, or 20 amp switching the LCAPxxM/S series offers a robust option. In addition, the dimming curve for each dimming channel can be independently customized for starting and stopping points as well as linearity. This patent pending technology is exclusive to Legrand and allows for smooth dimming and consistent lighting when using mixed lighting types and brands. The included processor and networking capability provide an ideal platform for integration with Equinox touchscreen interfaces, plug load, emergency lighting, shades, and climate control.

Operation

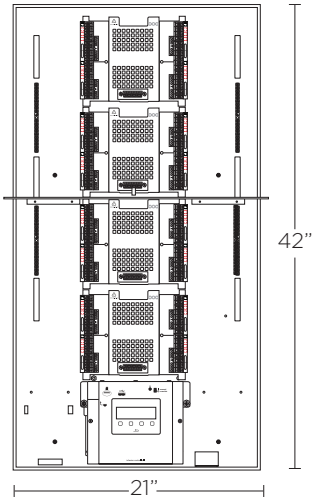
Using Legrand's powerful Design Center software tool, the controller in the LCAP32M or 44M can be easily configured with unlimited scenes and schedules. Also, using the Design Center software driver library and built-in controller RS2332, RS485, and Ethernet ports, the LCAP32M or 44M can be programmed to integrate third party devices. Our Equinox touchscreens and extensive line of keypads provide intuitive interfaces for controlling both lighting and integrated systems including shading, comfort, and A/V. Adding occupancy, daylight, contact sensors, as well as plug-load management, can deliver an energy code compliant solution.

Using a BACnet enabled controller provides the ability for the BMS system to have control and get feedback of lighting loads, tasks and occupancy status to be controlled by the BMS platform (Building Management System).

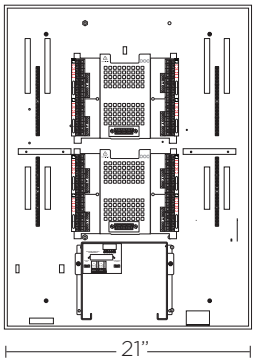
PROJECT		LOCATION/ TYPE	



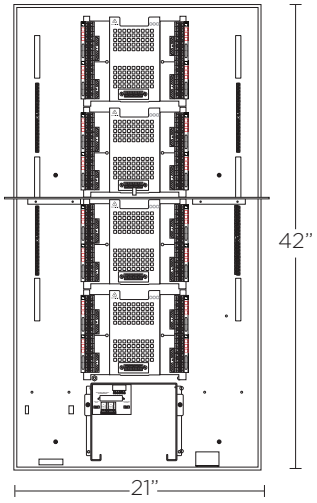
LCAP32M FRONT VIEW



LCAP44M FRONT VIEW



LCAP32S FRONT VIEW



LCAP44S FRONT VIEW

Highlights

Our controllers, combined with Design Center programming software, not only offer a comprehensive architectural dimming solution, but also provide precise automation of lighting and other related systems. The ability to utilize conditional programming using if-then-or statements can provide control beyond the scope of ordinary lighting control systems. In addition, the ability of Architectural Dimming controllers to integrate with the Digital Lighting Management (DLM) system provides advanced control capabilities for the entire facility.

Applications

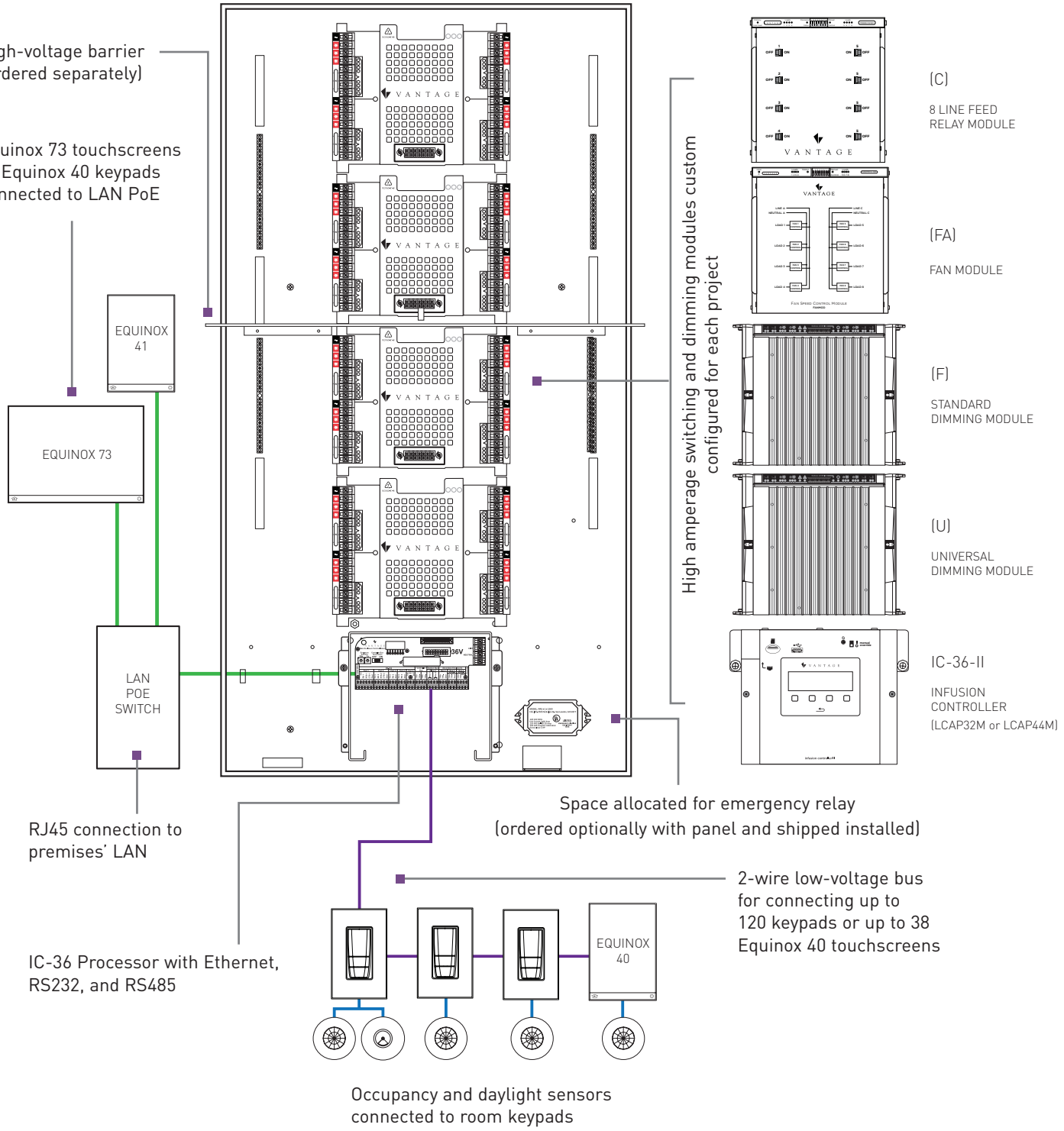
The LCAP32M/S and 44M/S are designed for medium to large spaces requiring control of up to 48 separate line voltage lighting circuits. The built-in integration and networking capabilities in the LCAP32M and LCAP44M mean that spaces with shades and comfort control needs can easily be met using this panel. Adding an Equinox 41 or 73 touchscreen to the project allows the facility manager or end user to create, change, and manage scenes, schedules, and user profiles.

Features

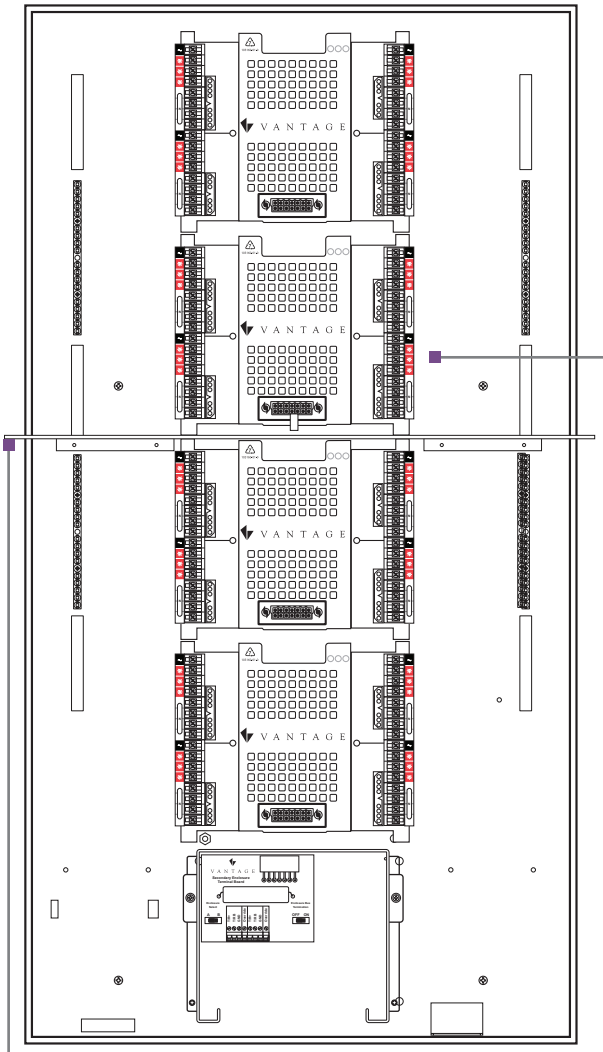
- Modular, pre-configured solution from the factory. Just connect line voltage and load wires
- System is expandable using other LCAP series primary or secondary panels
- Can be configured with additional emergency rated relays for emergency lighting
- When connected to the premises' LAN the panel can be remotely programmed
- Low-voltage 2 wire station bus for connecting keypads can extend up to 4,000 ft.*
- Connects to DLM systems for a whole building control solution
- Ability to integrate plug load
- DMX-DALI supported with additional hardware (see DMX-DALI-GW)
- Daylight and occupancy sensors are connected to keypads or contact input stations. No power packs needed
- Dimmers have programmable start/stop and dimming curve adjustment features to customize dimming linearity
- Forward phase and universal dimmers, SDM12 and UDM08 each have 65kA ratings
- Simple programming from a single software solution – Design Center
- LCAP32M and LCAP44M include controller, add up to six LCAP32S or LCAP44S panels for expansion of dimming and load control capabilities; network additional controllers for further scalability
- BACnet option available through a BACnet enabled controller

* See controller specifications for limitations

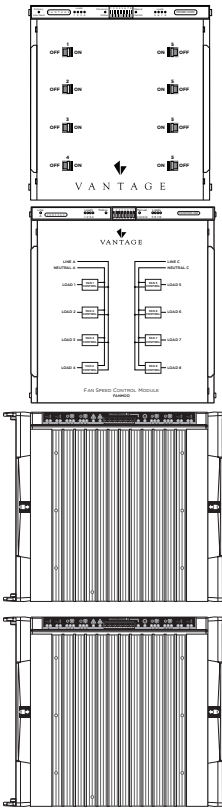
System Diagram - Main



System Diagram - Secondary



High amperage switching and dimming modules custom configured for each project



(C)

8 LINE FEED
RELAY MODULE

(FA)

FAN MODULE

(F)

STANDARD
DIMMING MODULE

(U)

UNIVERSAL
DIMMING MODULE

High-voltage barrier
(ordered separately)

Dimensions (LxWxD)

LCAP32M/S	
Enclosure	32.0" x 24.0" x 4.575" 81cm x 61cm x 12cm
Panel insert	29.5" x 21.0" x 4.175" 75cm x 53.3cm x 10.6cm
Door	32.0" x 24.0" x .75" 81cm x 61cm x 2cm
LCAP44M/S	
Enclosure	44.5" x 24.0" x 4.575" 113cm x 61cm x 12cm
Panel insert	42.0" x 21.0" x 4.175" 106.7cm x 53.3cm x 10.6cm
Door	44.25" x 24.0" x .75" 112.4cm x 61cm x 2cm

Specifications

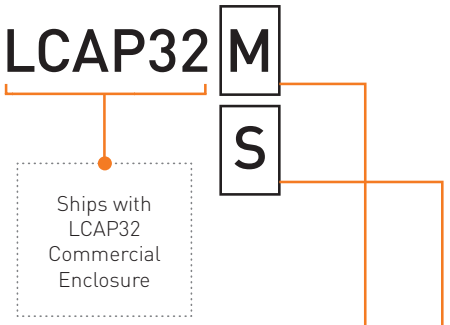
Delivered as a complete unit with enclosure

Model	LCAP32M/S and LCAP44M/S
Weight	
LCAP32M/S	
Enclosure	30 lbs. (13.61 kg)
Panel insert	M - 23 lbs. (10.43 kg) S - 20 lbs. (9.07 kg)
Door	15.5 lbs. (7.03 kg)
LCAP44M/S	
Enclosure	41 lbs. (18.59 kg)
Panel insert	M - 18.7 lbs. (8.48 kg) S- 15.4 lbs. (7.12 kg)
Door	20.7 lbs. (9.38 kg)
Mounting	Surface
Ambient operating humidity	5-95% non-condensing
Ambient operating temperature	32-104°F (0-40°C)
Cooling	Convection
Controller battery backup	Disk battery CR2032, 3V
Power requirements Input voltage	120V 60Hz for controller, 120/277V for dimming modules
Interior capacity	**LCAP32M** - Up to 24 forward phase or 16 reverse phase loads at 120/277V 20A each channel See SDM12-EM and UDM08-EM cutsheets for more information - Up to 16 universal phase loads at 120/277V 6A each channel See UDM08-EM cutsheet for more information - Up to 24 relay latching loads at 120V or 277V 20A each channel See MDR8CW301 cutsheet for more information - Up to 16 fan loads at 120V 2A each channel See FANMOD cutsheet for more information **LCAP44M** - Up to 48 forward phase or 32 reverse phase loads at 120/277V 20A each channel See SDM12-EM and UDM08-EM cutsheets for more information - Up to 32 universal phase loads at 120/277V 6A each channel See UDM08-EM cutsheet for more information - Up to 32 relay latching loads at 120V or 277V 20A each channel See MDR8CW301 cutsheet for more information - Up to 24 fan loads at 120V 2A each channel See FANMOD cutsheet for more information
Processor (in LCAP32M or LCAP44M)	IC-36-II See IC-36-II cutsheet for more information
Warranty	5 years

System Compatibility

InFusion

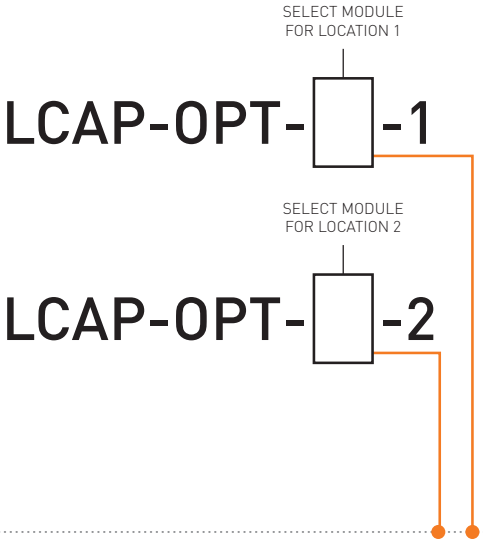
Ordering Key for LCAP32M/S



LCAP32**M** - Architectural Dimming Panel - ***Main***
2 module capacity main panel with controller terminal board

LCAP32**S** - Architectural Dimming Panel - ***Secondary***
2 module capacity secondary panel with secondary terminal board

Part #s for Modules/Module Placement



Module locations 1 and 2 - select:

C - for MDR8CW301, 8 line feed latching relay

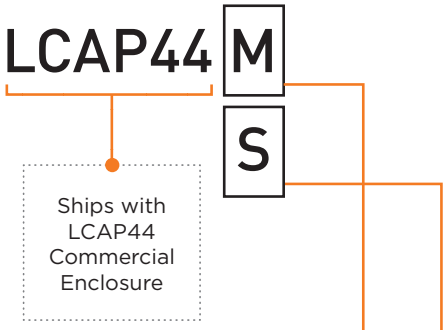
FA - for FANMOD, 2 line feed 8 fan load module

F - for SDM12-EM, standard dimming module
(forward phase)

U - for UDM08-EM universal dimming module
(forward or reverse phase)

X - Blank module position
(Allowed only after populated module positions)

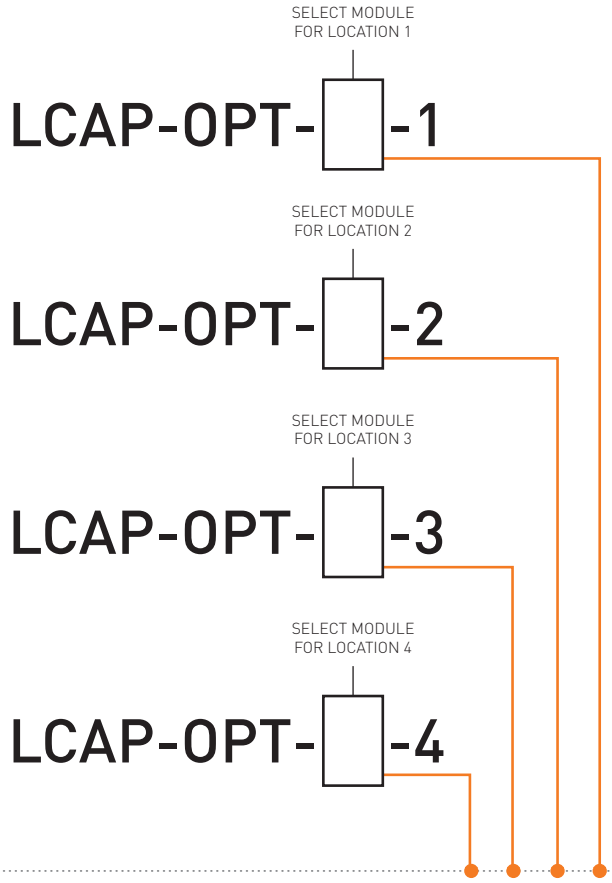
Ordering Key for LCAP44M/S



LCAP32**M** - Architectural Dimming Panel - ***Main***
4 module capacity main panel with controller terminal board

LCAP44**S** - Architectural Dimming Panel - ***Secondary***
4 module capacity secondary panel with secondary terminal board

Part #s for Modules/Module Placement



Module locations 1, 2, 3, and 4 - select:

C - for MDR8CW301, 8 line feed latching relay

FA - for FANMOD, 2 line feed 8 fan load module

F - for SDM12-EM, standard dimming module
(forward phase)

U - for UDM08-EM universal dimming module
(forward or reverse phase)

X - Blank module position
(Allowed only after populated module positions)

Ordering Information

Catalog #		Description	Voltage	Zones
☐	LCAP32M	Architectural Dimming Panel - Main	120/277V 50/60Hz	Up to 24 dimming zones
☐	LCAP44M	Architectural Dimming Panel - Main	120/277V 50/60Hz	Up to 48 dimming zones
☐	LCAP32S	Architectural Dimming Panel - Secondary	120/277V 50/60Hz	Up to 24 dimming zones
☐	LCAP44S	Architectural Dimming Panel - Secondary	120/277V 50/60Hz	Up to 48 dimming zones
☐	BACNET-IP-IC	BACnet enabled controller		See InFusion Controller BACnet Protocol Implementation Compliance Statement for more information
☐	VA-RRU-1-120V	Emergency Shunt Relay	120V	
☐	VA-RRU-1-277V	Emergency Shunt Relay	277V	
☐	VA-EPC-DFS-120V	Emergency Lighting Surface Mount Switch	120V	
☐	VA-EPC-DFS-277V	Emergency Lighting Surface Mount Switch	277V	
☐	COM-HV-BARRIER	High-Voltage Barrier		