LCP128 control system allows control of up to 128 lighting circuits—dimmed and switched—into one simple system. LCP128 systems use prewired panels with integrated visual display programmers and built-in astronomical time clock, allowing for easy and cost-effective installation and commissioning.

Feature highlights

- Panel-based dimming and switching
- Preset scene control
- Scheduling
- Audio visual integration

Typical applications

- Restaurant
- Retail stores
- Banquet room
- Lobbies

Typical components

Ceiling-mount infrared receiver

seeTouch keypad

Wired LOS-W
wall-mount
occupancy sensor

Hi-lume 3D
ballast

LCP128
dimming panel

Infrared
remote control

3-wire fluorescent
power module

RS232
interface

Typical system components and communication

Primary controls

LCP128 dimming panel

LCP128 spec grade dimming panel

Sensors

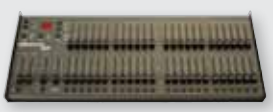
LOS C-Series ceiling-mount occupancy sensor

LOS W-Series wall-mount occupancy sensor

Wired high-bay occupancy sensor

Third-party devices

A/V equipment (by others)



Multi-channel theatrical console

Sub-controls

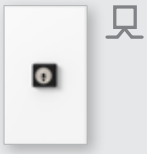
seeTouch® keypad

Large-button wallstation

Slim-button wallstation

Architrave™ wallstation

European-style wallstation



Keyswitch

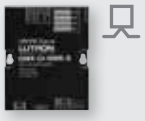
Architectural wallstation

Ceiling mount infrared (IR) receiver

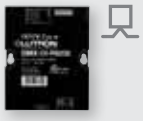
IR remote control

Traditional opening wallstation

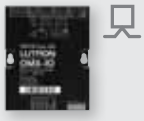
Control interfaces



Ethernet interface



RS232 interface



Contact closure input/output interface

Emergency lighting interface

Data link repeater

DMX512 input interface

Wallbox contact closure input interface

Contact closure output interface

For illustration purposes only, consult specification submittals and/or installation instructions for wiring information.

Wired communication

Infrared (IR) communication

Understanding how to build an LCP128 system

1. **Power panel selection**
   Select power panel(s) based on load type and size and the method of control required.

2. **Design choices**
   Choose wallstations and sensors based on functionality required and the aesthetic desired to compliment the space.

3. **Integration/connecting to third-party devices**
   Utilize control interfaces to connect to third-party devices and systems, such as security systems, A/V equipment and stageboards.

4. **Shades**
   Connect to third-party motorized shades via contact closure output.

5. **Software and programming**
   LCP128 can be programmed through button-presses.

Power panels

The main devices in the system that handle the power for lighting loads and distribute commands to sub-controls, sensors, control interfaces and lighting loads.

LCP128 dimming panel

- Combination dimming and switching panel for up to 36 circuits with integrated astronomical time clock and LCD controller for programming
- LCD controller provides easy-to-use menu-based control and configuration of the entire system
- Feed and load wiring only, no other wiring or assembly required

Mini:
W: 15.88 in (403 mm)
H: 24.50 in (622 mm)
D: 4.21 in (107 mm)

Standard:
W: 15.88 in (403 mm)
H: 59.50 in (1511 mm)
D: 4.21 in (107 mm)

POWERED BY
120 V
110-127 V
127 V NOM
220-40 V
230 V CE
277 V

LCP128 spec grade dimming panel

- Combination dimming and switching panel for up to 24 circuits with integrated astronomical time clock and LCD controller for programming
- LCD controller provides easy-to-use menu based control and configuration of the entire system
- Feed and load wires only, no other wiring or assembly required
- W: 28.00 in (711 mm)
  H: 37.00 in (940 mm)
  D: 12.00 in (304 mm)

POWERED BY
120 V
110-127 V
127 V NOM
277 V

LCP128 power panel summary

[1] DALI broadcast only

[2] Reverse phase only. Forward phase loads will require a power booster for proper dimming

	LCP128 dimming panel				
	Dimming modules			Electronic low-voltage dimming module	
Load voltages	120V, 110-127V, 127V (NOM)	230V (CE)	220-240V	230V (CE)	220-240V
Dimmed loads					
Incandescent/halogen	●	●	●	●	●
Magnetic low-voltage	●	●	●	PB-CE	PB-AU
Electronic low-voltage	PA	ELVI-CE	ELVI-AU	●	●
Fluorescent and LED (3-wire)	3F		FDBI-AU		FDBI-AU
Fluorescent and LED (EcoSystem®)					
Tu-Wire® Fluorescent	●				
Fluorescent and LED (0-10V)	TVM, TVI	TVM, TVI	TVM, TVI	TVM, TVI	TVM, TVI
Fluorescent and LED (PWM)	TVM, PWM	TVM	TVM, PWM	TVM	TVM, PWM
Fluorescent and LED (DALI)	TVM[1]	TVM[1]	TVM[1]	TVM[1]	TVM[1]
LED (2-wire forward phase)	●				
CFL/LED (screw-base)	PA	PB-CE, ELVI-CE	PB-AU, ELVI-AU	●[2]	●[2]
Neon/cold cathode	●	●	●	PB-CE	PB-AU
Switched loads					
Non-dim lighting (loads above)	●	●	●	TVI	TVI, PWM
HID	SW, TVI, PWM	TVI	TVI, PWM	TVI	TVI, PWM
Motor loads	SW, TVI, PWM	TVI	TVI, PWM	TVI	TVI, PWM
Fan loads (switched or speed control)	SW, TVI, PWM	TVI	TVI, PWM	TVI	TVI, PWM
Panel/module voltage	120V	230V (CE)	220-240V	220-240V (CE)	220-240V (CE)
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Minimum load	25W	40W	40W	10W	10W
Maximum load per circuit	16A	10A	16A	10A	10A
Maximum load per module	16A	13A	16A	16A	16A

Power interfaces
- ● Compatible load control (no interfaces)

3F: 3-wire fluorescent power module pg. 516
ELVI-AU: Electronic low-voltage interface (AU) pg. 524
ELVI-CE: Electronic low-voltage interface (CE) pg. 524
FDBI-AU: Fluorescent dimming ballast interface (AU) pg. 526
PA: Phase adaptive power module pg. 514
PB-AU: Power booster pg. 522
PB-CE: Power booster (CE) pg. 522
PWM: Pulse width modulation interface pg. 530
SW: Switching power module pg. 520
TVI: 0-10V interface pg. 528
TVM: Ten-volt module in panel

LCP128 power panel summary

	LCP128 dimming panel		
	Adaptive dimming modules		
	Load voltages		
	120 V, 110-127 V, 127 V (NOM)	230 V (CE)	220-240 V
Dimmed loads			
Incandescent/halogen	●	●	●
Magnetic low-voltage	●	●	●
Electronic low-voltage	●	●	●
Fluorescent and LED (3-wire)	3F		FDBI-AU
Fluorescent and LED (EcoSystem®)			
Tu-Wire® Fluorescent	●		
Fluorescent and LED (0-10 V)	TVM, TVI	TVM, TVI	TVM, TVI
Fluorescent and LED (PWM)	TVM, PWM	TVM	TVM, PWM
Fluorescent and LED (DALI)	TVM [1]	TVM [1]	TVM [1]
LED (2-wire forward phase)	●		
CFL/LED (screw-base)	● [2]	● [2]	● [2]
Neon/cold cathode	●	●	●
Switched loads			
Non-dim lighting (loads above)	SW, TVI, PWM	TVI	TVI, PWM
HID	SW, TVI, PWM	TVI	TVI, PWM
Motor loads	SW, TVI, PWM	TVI	TVI, PWM
Fan loads (switched or speed control)	SW, TVI, PWM	TVI	TVI, PWM
Panel/module voltage	120 V	220-240 V (CE)	220-240 V (CE)
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Minimum load	10 W	10 W	10 W
Maximum load per circuit	10 A	8 A	8 A
Maximum load per module	16 A	13 A	16 A

[1] DALI broadcast only

[2] Visit www.lutron.com/LEDtool for a complete list of LEDs compatible with this module

Power interfaces

● Compatible load control (no interfaces)
FDBI-AU: Fluorescent dimming ballast interface (AU) pg. 526
PWM: Pulse width modulation interface pg. 530
3F: 3-wire fluorescent power module pg. 516
PA: Phase adaptive power module pg. 514
SW: Switching power module pg. 520

LCP128 dimming panel				
Fan speed module	**Motor module**	**Switching module**	**LCP128 spec grade dimming panel**	
Load voltages				
120V, 110-127V, 127V (NOM)	120V, 110-127V, 127V (NOM)	120V, 110-127V, 127V (NOM), 220-240V, 230V (CE), 347V	120V, 110-127V, 127V (NOM)	277V
Dimmed loads				
			●	●
			●	●
			●[3]	●[3]
			●	●
			●	
			TVM, TVI	TVM, TVI
			TVM, PWM	TVM, PWM
			TVM[1]	TVM[1]
			●	
			●[3]	●[3]
			●	
Switched loads				
	●	●	●	●
		●	●	●
	● (AC loads only)	●	SW, TVI, PWM	SW, TVI, PWM
●		●	SW, TVI, PWM	SW, TVI, PWM
120V	120V	100-277V (CE)	120V	277V
50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
0.25A	—	—	10W	10W
2A	5A; 0.5HP	16A; 0.5HP (120V), 1.5HP (277V), 0.5HP (220-240V)	16A	16A
16A	16A	(see per circuit rating)	—	—

[3] Forward phase only. Not all ELV transformers and dimmable CFL/LED dim properly with forward phase control; may require phase-adaptive power module for proper dimming; for reverse phase, a phase-adaptive power module will be required

ELVI-AU: Electronic low-voltage interface (AU) pg. 524
PB-AU: Power booster pg. 522
TVI: 0-10V interface pg. 528
ELVI-CE: Electronic low-voltage interface (CE) pg. 524
PB-CE: Power booster (CE) pg. 522
TVM: Ten-volt module in panel

Sub-controls

Sub-controls are accessory components that provide additional control locations for increased convenience.

Ceiling-mount infrared (IR) receiver

POWERED BY
OMX link

- Provides control of lighting via IR handheld remote controls by providing access point
- Allows scene selection, raise/lower scenes and all off functionality
- Compatible with all Lutron IR remote controls
- Available in White
- Diameter: 3.50 in (89 mm)
  Depth: 3.00 in (76 mm)
  Profile: 0.75 in (20 mm)

Traditional opening wallstation

POWERED BY
OMX link

BACKBOX
U.S. style

- Simple wallstation with one tap button with or without status LED
- Provides toggle functionality for any zone(s) in the system
- Available in White
- W: 2.86 in (73 mm)
  H: 4.60 in (117 mm)
  D: 1.31 in (33 mm)
  Profile: 0.23 in (6 mm)

IR remote control

POWERED BY
Battery

- Models available with four or eight scene control
- Offers master raise/lower and all off buttons
- Available in White and Black
- W: 1.50 in (38 mm)
  H: 5.69 in (145 mm)
  D: 0.88 in (22 mm)

2-button wallstation

POWERED BY
OMX link

BACKBOX
U.S. style

- Simple, intuitive wallstation ideal for use in entryways
- Status LEDs indicate which wallstation button has been activated
- Functionality includes scene selection, raise/lower, and all off
- Available in 17 finishes
- Width: 2.75 in (70 mm)
  Height: 4.56 in (116 mm)
  Depth: 1.38 in (35 mm)
  Profile: 0.31 in (8 mm)

Architectural wallstation

POWERED BY
OMX link

BACKBOX
U.S. style

- Models available with four programmable buttons that can be used for scene selection, scene or zone toggle or to enable/disable time clock
- Select models available with all off and/or raise/lower buttons and infrared (IR) receiver
- Available in 17 finishes, insert or non-insert style
- W: 2.75 in (70 mm)
  H: 4.56 in (116 mm)
  D: 1.38 in (35 mm)
  Profile: 0.31 in (8 mm)

Large-button wallstation

POWERED BY
OMX link

BACKBOX
U.S. style

- Models available to select 3, 5, 6 or eight scenes plus raise/lower and all off functionality
- Features large easy-to-use buttons
- Available in 17 finishes
- 5-scene with off and 3-scene with raise/lower and off:
  W: 2.75 in (70 mm)
  H: 4.56 in (116 mm)
  D: 0.88 in (21 mm)
  Profile: 0.31 in (8 mm)

  8-scene with off and 5-scene with raise/lower and off:
  W: 4.56 in (116 mm)
  H: 4.56 in (116 mm)
  D: 0.88 in (21 mm)
  Profile: 0.31 in (8 mm)

Slim-button wallstation

POWERED BY
OMX link

BACKBOX
U.S. style

- Models available with 5, 10, or 15 slim buttons to select scenes
- Large buttons provide either on/off or raise/lower functionality
- Available in 17 finishes
- 5-button and 10-button:
  W: 2.75 in (70 mm)
  H: 4.56 in (116 mm)
  D: 0.88 in (21 mm)
  Profile: 0.31 in (8 mm)

  15-button:
  W: 4.56 in (116 mm)
  H: 4.56 in (116 mm)
  D: 0.88 in (21 mm)
  Profile: 0.31 in (8 mm)

European-style wallstation

POWERED BY
OMX link

BACKBOX
Round or square

- Models available with 2, 4, or 8 programmable buttons plus raise/lower and all off functionality
- Select models offer IR receiver allowing convenient control of lights via IR remote control
- Features large, rounded buttons
- Available in 17 finishes
- Mounts in UK/German single-gang backbox
- W: 3.38 in (86 mm)
  H: 3.38 in (86 mm)
  D: 1.00 in (25 mm)
  Profile: 0.25 in (6 mm)

Sub-controls (continued)

Sub-controls are accessory components that provide additional control locations for increased convenience.

Architrave wallstation

POWERED BY
OMX link

BACKBOX
Lutron supplied

- Models available with two or four programmable buttons that can be used for scene selection, zone or scene toggle or to enable/disable time clock
- Four button models are available with slim or large buttons
- Two button available with slim buttons only
- Available in 16 finishes
- Slim-button:
  Width: 1.75 in (44 mm)
  Height: 4.50 in (114 mm)
  Depth: 1.75 in (44 mm)
  Profile: 0.13 in (3 mm)

  Large-button:
  Width: 1.50 in (38 mm)
  Height: 5.16 in (131 mm)
  Depth: 1.99 in (51 mm)
  Profile: 0.13 in (3 mm)

seeTouch® keypad

POWERED BY
OMX link

BACKBOX
U.S. style

- Models available with 1-7 programmable buttons that can be used for scene selection, zone toggle or to enable/disable time clock
- Select models available with all off and/or raise/lower buttons and infrared receiver
- Backlit buttons or text make it easy to find and operate keypad in low-light conditions
- Available in 40 finishes
- W: 2.75 in (70 mm)
  H: 4.56 in (116 mm)
  D: 1.38 in (35 mm)
  Profile: 0.31 in (8 mm)

Multi-channel theatrical consoles

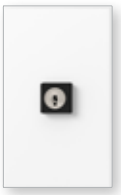
POWERED BY
External transformer

BACKBOX
U.S. style

- Fully featured and simple to operate, the consoles were designed and built for professional use
- Available with 12 or 24 channels
- Simultaneous DMX, microplex, and analog output
- 12-channel:
  W: 15.41 in (391 mm)
  H: 10.13 in (257 mm)
  D: 2.87 in (73 mm)

  24-channel:
  W: 25.38 in (645 mm)
  H: 10.13 in (257 mm)
  D: 2.87 in (73 mm)

Keyswitch



POWERED BY
OMX link

- Provides scene selection or enable/disable time clock functionality
- Limits access to lighting control, ideal for public spaces
- Available in 17 finishes, insert or non-insert style
- W: 2.75 in (70 mm)
  H: 4.56 in (116 mm)
  D: 1.38 in (35 mm)
  Profile: 0.31 in (8 mm)

Ballasts and Drivers

Ballasts and drivers are required to control fluorescent and/or LED lighting via the LCP128 or LCP128 spec grade dimming panel.

EcoSystem ballast

- Continuous, flicker-free dimming from 100% to 10%
- Models available for T8, T8 reduced wattage, T5, T5 reduced wattage and T5HO lamps
- Wired sensors can connect directly to the ballast
- Available with EcoSystem® digital link or 3-wire control

POWERED BY
120V
110-127V
127V NOM
220-240V
277V

Hi-lume 3D ballast

- Continuous, flicker-free dimming from 100% to 0.3% for T8, T5 and T5HO lamps, and 5% for T5 twin-tube and T5HO 80 W lamps
- Available with EcoSystem® digital link or 3-wire control

POWERED BY
120V
110-127V
127V NOM
220-240V
277V

EcoSystem ballasts for compact fluorescent lamps (CFL)

- Continuous flicker free dimming from 100% to 5% for T4 compact fluorescent lamps
- Available with 3-wire control

POWERED BY
120V
110-127V
127V NOM
220-240V
277V

Hi-lume ballast

- Continuous flicker free dimming from 100% to 1%
- Models available for T5HO lamps and T4 compact fluorescent lamps
- Available with 3-wire control

POWERED BY
120V
110-127V
277V

Ballasts and Drivers (continued)

Ballasts and drivers are required to control fluorescent and/or LED lighting via the LCP128 or LCP128 spec grade dimming panel.

Tu-wire® ballast

- Continuous, flicker-free dimming from 100% to 5%
- Models available for T8 lamps and T4 compact fluorescent lamps
- Available with Tu-wire® control

POWERED BY
120V
110-127V

Hi-lume® A-Series LED driver

- Continuous, flicker-free dimming from 100% to 1%
- Models available for LED light engines up to 40W, constant current or constant voltage
- Available with EcoSystem® digital link, 3-wire or 2-wire forward phase control

POWERED BY
120V
110-127V
127V NOM
220-240V
277V

Sensors

Wired sensors add convenience by detecting occupancy/vacancy and daylight adjusting accordingly.

Wired LOS-C and LOS-W series occupancy sensors

POWERED BY
20-24 V DC from power pack

- Automatically turns lighting scenes/zones on and/or off based on space occupancy
- Sensor technology options include passive infrared, ultrasonic and dual technology
- Wall-mount and ceiling-mount models available
- Available in White
- Ceiling-mount:
  Diameter: 4.50 in (114 mm)
  Depth: 1.40 in (38 mm)

  Wall-mount:
  W: 2.70 in (69 mm)
  H: 5.25 in (133 mm)
  D: 3.90 in (99 mm)

Wired high-bay occupancy sensors

POWERED BY
20-24 V DC from power pack

- Automatically turns lighting scenes/zones on and/or off based on space occupancy
- Passive infrared sensor designed for use in high-bay applications
- Maximum mounting height 45 ft (14 m)
- Surface-mount and end-mount models available
- Available in White
- 180° and 360° surface-mount:
  Diameter: 4.00 in (102 mm)
  Depth: 1.50 in (38 mm)

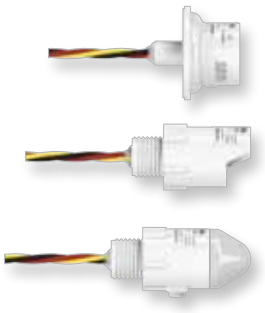
  180° end-mount:
  W: 4.00 in (102 mm)
  H: 4.50 in (114 mm)
  D: 1.50 in (38 mm)

  360° end-mount:
  W: 3.60 in (91 mm)
  H: 4.40 in (112 mm)
  D: 2.00 in (51 mm)

Sensors (continued)

Wired sensors add convenience by detecting occupancy/vacancy and daylight adjusting accordingly.

Daylight sensor package



- Allow system to switch lights on/off in response to ambient daylight level setting
- Package includes a wired power pack, daylight sensor, and daylight controller
- Package available in 120 or 277 V; sensor options: indoor, outdoor, atrium/skylight

POWERED BY
20-24 V DC from power pack

- Indoor sensor:
  W: 1.28 in (33 mm)
  H: 1.15 in (29 mm)

  Outdoor sensor:
  W: 1.85 in (47 mm)
  H: 1.35 in (34 mm)

  Atrium/Skylight sensor:
  W: 2.25 in (57 mm)
  H: 1.28 in (33 mm)

Control interfaces

Use control interfaces to combine Lutron® lighting controls with other third-party devices and systems for advanced integration. Interfaces may also provide connection points for other Lutron devices.

Contact closure output interface

POWERED BY
OMX link or external transformer (12-24 V DC)

- Provides eight dry contact closure outputs
- Compatible with motorized projection screens, window treatments and A/V equipment that have contact closure output
- Offers both normally open and normally closed contacts
- W: 5.75 in (146 mm)
  H: 10.75 in (273 mm)
  D: 2.00 in (50 mm)

Contact closure input/output interface

POWERED BY
OMX link or external transformer (12-24 V DC)

- Provides five inputs and five dry contact closure outputs
- Compatible with motion/occupancy sensors, movable walls, security systems and other products that have contact closure input/output
- Outputs provide both normally open and normally closed contacts
- W: 4.26 in (108 mm)
  H: 5.26 in (134 mm)
  D: 1.06 in (27 mm)

Wallbox contact closure input interface

POWERED BY
OMX link or external transformer (12-24 V DC)

- Provides seven contact closure inputs
- Interfaces with third-party low-voltage switches to provide an alternative keypad aesthetic
- Mounts behind third-party low-voltage switch in backbox
- Diameter: 2.31 in (59 mm)
  Depth: 0.81 in (20 mm)

RS232 interface

POWERED BY
OMX link or external transformer (12-24 V DC)

- Allows integration with touchscreen, PC, A/V system or other digital equipment that supports RS232 communication
- Control and monitor switching panel
- Monitor lighting scenes
- W: 4.26 in (108 mm)
  H: 5.26 in (134 mm)
  D: 1.06 in (27 mm)

Control interfaces (continued)

Use control interfaces to combine Lutron® lighting controls with other third-party devices and systems for advanced integration

Ethernet interface

POWERED BY
OMX link or external transformer (12-24 V DC)

- Allows integration with touchscreen, PC, A/V system or other digital equipment that supports TC/ICP communication over Ethernet
- Control and monitor switching panel
- Monitor lighting scenes
- W: 4.26 in (108 mm)
  H: 5.26 in (134 mm)
  D: 1.06 in (27 mm)

Emergency lighting interface

POWERED BY
OMX link or 20-24 V DC from power pack

- Turns all or designated lighting loads to “full on” output or other programmed emergency light level
- Senses the normal line-voltage on all three phases of power
- Provides inputs for a Fire Alarm Control Panel
- UL 924 listed as "Emergency Lighting and Power Equipment"
- W: 5.00 in (127 mm)
  H: 7.75 in (197 mm)
  D: 2.50 in (64 mm)

DMX512 input interface

POWERED BY
OMX link or external transformer (12-24 V DC)

- Provides an interface between DMX512/1190 compatible stage lighting console and the system
- Supports up to 32 consecutive channel levels from the entire range of 512 channels
- Control can be shared between systems
- W: 5.00 in (127 mm)
  H: 7.75 in (197 mm)
  D: 2.50 in (84 mm)

Data link repeater

POWERED BY
120 V 110-277 V 127 V NOM 220-240 V 230 V (CE)

- Allows power panel links to be extended beyond their maximum distances
- Extends the maximum distance and increases the power of the OMX link
- W: 5.00 in (127 mm)
  H: 7.75 in (197 mm)
  D: 2.50 in (64 mm)

Software and programming

The LCP128 system is programmed at the Liquid Crystal Display (LCD) controller located within the power panel.

Button-press programming via Softswitch128 LCD controller

- Programming performed directly at the LCP128 panel for easy access
- Program wallstations to recall scenes, raise/lower circuits, activate delay-to-off and activate contact closures on a button-by-button basis
- Set-up up to 500 user-defined time clock events within seven daily schedules and 40 holiday schedules