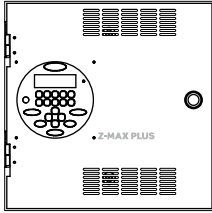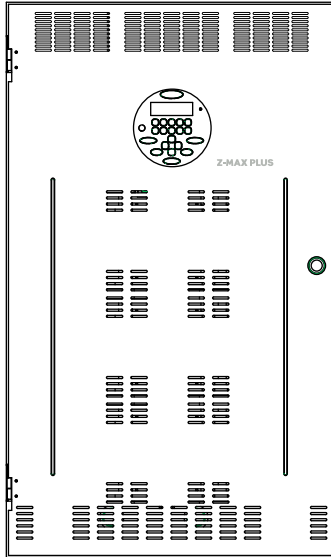**LEVITON**®

Z-MAX™ Plus
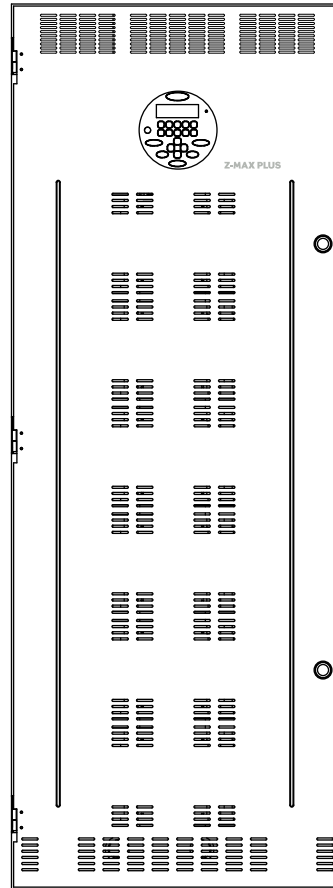# 8, 24, 48 Relay Control Panels

Z-MAX 8
All Voltages
Up to 8 Relays
Single Pole and
Two Pole Relays

Master Network
Control Module

Z-MAX 24
All Voltages
Up to 24 Relays
Single Pole and
Two Pole Relays

Master and Remote
control Modules
(Remote not shown)

Z-MAX 48
All Voltages
Up to 48 Relays
Single Pole and
Two Pole Relays

Master and Remote
control Modules
(Remote not shown)

Z-MAX PLUS RELAY CONTROL PANELS

DESCRIPTION

Leviton Z-MAX Plus relay control panels ena-
ble lighting applications of all sizes to be easily
controlled as a complete system, integrated
into a comprehensive system with Leviton
Dimensions™ D4200 and D8000 controls, or
operated independently. With 8 or 12 discrete
inputs, these panels readily incorporate
occupancy sensors, photocells, low voltage
switches and a variety of other input devices.
Eight different digital switch models are
available for control from multiple locations,
offering added flexibility. Designed for intuitive
programming and operation, Z-MAX Plus panels
feature a large keypad and 2-line, 16 character
LCD screen, as well as USB port.

APPLICATIONS

• Office spaces – large and small
• Schools
• Churches
• Convention centers
• Ballpark lighting - professional and recreational
• Spaces where centralized lighting control, programming
  and monitoring are required

PRODUCT DATA

FEATURES
- Integrated astronomical time clock
- Relay cards are rated for all light sources as well as motors
- Relay cards are individually replaceable
- Single-pole and two-pole relays fit in the same location - same density regardless
- Normal or Emergency panel capability
- Panel is prewired and tested
- Standard transformer has inputs for 120V, 277V or 347V power; separate transformer functions at 230V +/- 15%
- Panels may be surface or recess mounted
- Master and Remote Panel configurations
- 2 year warranty on Panels

SPECIFICATIONS
Z-MAX Cabinets work with:
- Z-MAX Digital Entry Stations
- Dimensions D4200
- Dimensions D8000
- DMX Controllers
- Analog Controllers
- Low Voltage Switches
- Discrete and Analog Photocells
- Occupancy Sensors

POWER
- Input Power (Domestic): 120V, 277V and 347V
  Input Power (Foreign): 230V +/- 15%
- All voltages 50/60Hz, phase to neutral
- Lifetime power failure memory: restores lighting to levels prior to power interruption
- User adjustable for either sequential or non-sequential cycling of relays

SOURCES
- Incandescent (Tungsten) and Halogen
- Magnetic Low Voltage Transformer
- Electronic Low Voltage Transformer
- Neon or Cold Cathode
- Magnetic and Electronic Fluorescent Lamp Ballasts
- HID
- Motor Loads (1 HP at 120V, 2 HP at 277V, 2 HP at 480V)

RELAYS
- Several relay cards to choose from:
  - 30A standard relay card
  - 1-Pole relay card, 120-277V, 20A, N/O or N/C, single pole
  - 347V 20A relay card, single pole
  - 2-Pole 208-480V, 20A, N/O or N/C relay card
  - Latching 277V, 20A continuous use relay card
- Relay cards rated at 20A for N/O or N/C continuous use lighting loads
- Z-MAX zero cross circuit eliminates arcing at mechanical contacts when loads are switched. Prolongs relay life to an average of 1,000,000 cycles (on/off). Handles 50 times steady-state current inrush. Rated for resistive, inductive, or capacitive sources.
- 10 year warranty on relay cards

WIRING
- Internal: Factory prewired and tested
- System Communications: Low voltage Class 2 (PELV) wiring connects cabinets to external controls
- Line (mains) voltage: Feed (for Control Electronics) and Load wiring only. No other wiring or assembly required.

PHYSICAL DESIGN
- Enclosure: NEMA-Type 1, IP-20 protection; #16 U.S. Gauge Steel. Indoors only.
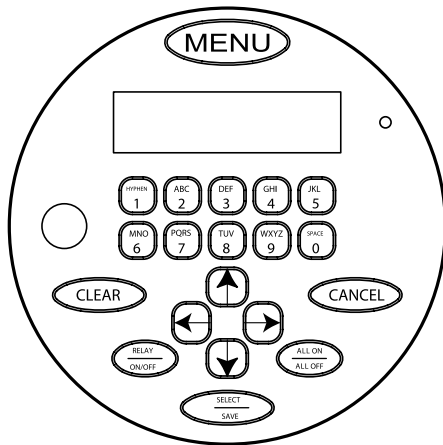- Dimension: (see page 4)
- Weight: (see page 4)

MOUNTING
- Surface mount or recess
- Recessed mounting flanges available

ENVIRONMENT
- 32-104° F (0-40° C) relative humidity less than 90% non-condensing.

STANDARDS
- For 120V, 277V, and 347V Panels:
  - UL 924
  - UL and CUL Listed (Reference: UL File E123072)
  - CEC Title 24 compliant
  - ASHRAE 90.1 compliant

CONTROL MODULE OVERVIEW

The control module is used to configure the entire system. The controller features an LCD user interface to facilitate programming of all switching system and astronomic time clock (ATC) parameters.

CONTROL MODULE FEATURES

- Integrated astronomic time clock (ATC) automates switching with up to 999 user-defined events and 999 holiday schedules
- ATC events may be triggered by time of day or by a time offset from either sunrise or sunset
- System location is programmable by specifying your location
- ATC automatically adjusts for daylight savings time and leap year (where applicable)
- Programmable "blink warn" and user programmable refresh time
- Overrides available at panel for controls, time clock, and relays.
- Located in the panel for easy access
- 8 (8 panel) or 12 (24 and 48 panel) low voltage switch inputs (24 V DC) (additional 36 discrete inputs are available for the 24 and 48 panels – see accessories data sheet for details)
- Emergency sensing control power loss circuitry
- Astronomic time clock
- Daylight harvesting
- Prioritization of switch inputs and TOD schedules
- Switch input timers
- Timed overrides
- Master override (On/Auto/Off)
- Individual override switch per relay

ASTRONOMIC TIME CLOCK

- Capable of up to 999 events
- Capable of 999 holidays
- Holiday schedules are programmable one year in advance
- Astronomic time clock programmable by entering your location
- CEC Title 24 compliant 120V, 277V and 347V Panels

SWITCH INPUTS

- 8 or 12 (depending on panel) Switch inputs
- Inputs can control the following:
  - Low Voltage Switches
    - Maintained
    - Momentary
    - Toggle
  - Occupancy Sensors
  - Analog Photocells
  - Discrete Photocells
  - Analog Inputs
  - Contact Closures
- May be configured as pull up to 24 VDC (externally supplied) or pulled down to common

NETWORK CONNECTIONS

- Luma-Net (for Z-MAX switches Digital and tie into a networked system with D8000 or D4200)
- DMX
- Remote Panel Control
- USB serial interface for programming via a PC
- RJ-45 for Optional TCP/IP Ethernet Board
- Optional modem and touch tone interface board
- Bacnet
  - Standard MSTP
- Optional
  - Lonworks
  - ModBus
  - Bacnet IP
  - Metasys

MAIN UNITS/REMOTE UNITS

The Z-MAX Plus 24 and 48 panels are available in remote versions. This allows costs to be cut from a project and minimizes the amount of setup work at each cabinet.

- Main control module can handle 252 relays
- Utilizes CAT 5, low voltage wiring as the panel interconnect
- Main control module can handle 252 inputs
- Remote panel can have optional switch input board

Z-MAX Plus Relay Control Panels

Leviton Mfg. Co., Inc. Lighting Management Systems

RELAY CARDS	
RELAY-030	Single-Pole N/O or N/C Relay Card, 30A, 120-277V
RELAY-ST2	Single-Pole N/O Relay Card, 20A, 120-277V
RELAY-2PL	2-Pole, N/O Relay Card, 20A, 208-480V
RELAY-1NC	Single-Pole N/C Relay Card, 20A , 120-277V
RELAY-2NC	2-Pole N/C Relay Card, 20A, 208-480V
RELAY-347	347V Relay Card, 20A, 347V
RELAY-LAT	Latching Relay Card, 20A, 347V

ACCESSORIES	
RAC00-SIB	Switch Input Board - 36 Discrete Inputs
RAC00-MOD *	External Modem with Touch Tone Input Capability
RAC00-ETH *	Ethernet Module
RAC00-08F	Flush Trim Kit for 8 Relay Panel
RAC00-24F	Flush Trim Kit for 24 Relay Panel
RAC00-48F	Flush Trim Kit for 48 Relay Panel
RAC00-VBR	Voltage Barrier between Relay cards
RAC00-485*	Z-MAX Expansion Module for Bacnet MSTP
RAC00-BUS*	Z-MAX Expansion Module for ModBus or Lonworks
RAC00-BIP *	Z-MAX Expansion Module for Bacnet IP
RAC00-JSC*	Z-MAX Expansion Module for Johnson Control Metasys

* Consult factory for availability.

CAT. NO.	DESCRIPTION
R08ND-000	Z-MAX Plus 8 Panel, Networkable, 120V, 277V and 347V, No Relays
R08ND-L08	Z-MAX Plus 8 Panel, Networkable, 120V, 277V and 347V, (8) 30A Relays
R08ND-208	Z-MAX Plus 8 Panel, Networkable, 120V, 277V and 347V, (8) 2-Pole Relays
R24MD-000	Z-MAX Plus 24 Panel, Master, 120V, 277V and 347V, No Relays
R24MD-L12	Z-MAX Plus 24 Panel, Master, 120V, 277V and 347V, (12) 30A Relays
R24MD-L24	Z-MAX Plus 24 Panel, Master, 120V, 277V and 347V, (24) 30A Relays
R24MD-224	Z-MAX Plus 24 Panel, Master, 120V, 277V and 347V, (24) 2-Pole Relays
R48MD-000	Z-MAX Plus 48 Panel, Master, 120V, 277V and 347V, No Relays
R48MD-L24	Z-MAX Plus 48 Panel, Master, 120V, 277V and 347V, (24) 30A Relays
R48MD-L36	Z-MAX Plus 48 Panel, Master, 120V, 277V and 347V, (36) 30A Relays
R48MD-L48	Z-MAX Plus 48 Panel, Master, 120V, 277V and 347V, (48) 30A Relays
R48MD-248	Z-MAX Plus 48 Panel, Master, 120V, 277V and 347V, (48) 2-Pole Relays
R24SD-000	Z-MAX Plus 24 Panel, Remote, 120V, 277V and 347V, No Relays
R24SD-L24	Z-MAX Plus 24 Panel, Remote, 120V, 277V and 347V, (24) 30A Relays
R24SD-224	Z-MAX Plus 24 Panel, Remote, 120V, 277V and 347V, (24) 2-Pole Relays
R48SD-000	Z-MAX Plus 48 Panel, Remote, 120V, 277V and 347V, No Relays
R48SD-L48	Z-MAX Plus 48 Panel, Remote, 120V, 277V and 347V, (48) 30A Relays
R48SD-248	Z-MAX Plus 48 Panel, Remote, 120V, 277V and 347V, (48) 2-Pole Relays
R08NF-000	Z-MAX Plus 8 Panel, Networkable, 230V, No Relays
R08NF-L08	Z-MAX Plus 8 Panel, Networkable, 230V, (8) 30A Relays
R08NF-208	Z-MAX Plus 8 Panel, Networkable, 230V, (8) 2-Pole Relays
R24MF-000	Z-MAX Plus 24 Panel, Master, 230V, No Relays
R24MF-L12	Z-MAX Plus 24 Panel, Master, 230V, (12) 30A Relays
R24MF-L24	Z-MAX Plus 24 Panel, Master, 230V, (24) 30A Relays
R24MF-224	Z-MAX Plus 24 Panel, Master, 230V, (24) 2-Pole Relays
R48MF-000	Z-MAX Plus 48 Panel, Master, 230V, No Relays
R48MF-L24	Z-MAX Plus 48 Panel, Master, 230V, (24) 30A Relays
R48MF-L48	Z-MAX Plus 48 Panel, Master, 230V, (48) 30A Relays
R48MF-248	Z-MAX Plus 48 Panel, Master, 230V, (48) 2-Pole Relays
R24SF-000	Z-MAX Plus 24 Panel, Remote, 230V, No Relays
R24SF-L24	Z-MAX Plus 24 Panel, Remote, 230V, (24) 30A Relays
R24SF-224	Z-MAX Plus 24 Panel, Remote, 230V, (24) 2-Pole Relays
R48MF-000	Z-MAX Plus 48 Panel, Remote, 230V, No Relays
R48SF-L48	Z-MAX Plus 48 Panel, Remote, 230V, (48) 30A Relays
R48SF-248	Z-MAX Plus 48 Panel, Remote, 230V, (48) 2-Pole Relays

CABINET	LENGTH	HEIGHT	DEPTH	WEIGHT – FULLY LOADED	SUGGESTED MOUNTING HEIGHT TO BOTTOM OF CABINET
8 Relays – Networked	13" (330.20 mm)	13" (330.20 mm)	4 11/32 " (110.55 mm)	16 lbs (7.26 kg)	53" (1,358.9 mm)
24 Relay Panel	20" (514.35 mm)	34" (863.60 mm)	4 11/32 " (110.55 mm)	44 lbs (19.96 kg)	32" (825.5 mm)
48 Relay Panel	20" (514.35 mm)	54" (1371.60 mm)	4 11/32 " (110.55 mm)	65 lbs (29.48 kg)	12" (317.5 mm)

LEVITON SPECIFICATION SUBMITTAL	
JOB NAME:	CATALOG NUMBERS:
JOB NUMBER:	

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