

# The Blue Box

## Control Panel



An Acuity Brands Company



## The Blue Box LT Series

**Description:** The Blue Box LT Series is a cost-effective, simple alternative to traditional time clocks, twist timers and contactor packages. It comes in three enclosure sizes, each with a compact footprint. The Blue Box LT Series is ideal for small-to-medium projects, and arrives pre-assembled and ready for installation. The Master Panel may be networked with up to 16 digital devices including remote relay panels, switches and photocell. The Master Panel has an input for an outdoor photosensor which may be programmed to control any relay(s) on the bus. The Blue Box LT Series is compatible with LC&D's GR 2400 system accessories. Blue Box LT remote panels may be used on GR 2400 systems.

- Features:**
- 100% digital
  - UL Listed 30A @ 277V ballast/HID, 20A tungsten, 18,000A SCCR normally closed latching lighting relays (NCL)
  - Simple networking with Cat. 5 cable with RJ45 connectors
  - Hinged locking door
  - Replace expensive line-voltage cabling for override switches and photocells
  - Integrates with all other GR 2400 system components

## Specifications:

Enclosure dimensions:	<b>GR1404LT</b> (2 or 4 relays) NEMA 1 - 8.4" w x 8.4" h x 3.125" d NEMA 4/4X/12 - 12" w x 16" h x 6" d	SCCR 18kA @ 277VAC Rated 250,000 Cycles
	<b>GR1408LT</b> (4 or 8 relays) NEMA 1 - 8.4" w x 13.4" h x 3.125" d NEMA 4/4X/12 - 16" w x 20" h x 6" d	Optional relays: Normally Open (NOL) 2-Pole Relay in remote panels only
	<b>GR1416LT</b> (8 or 16 relays) NEMA 1 - 10.6" w x 17.1" h x 3.125" d NEMA 4X - 16" w x 24" h x 8" d NEMA 4/12 - 16" w x 24" h x 6" d	Max. devices per bus: 16 digital devices w/ Blue Box LT Master Panel
Enclosure type:	Surface Mount, Hinged Locking Door, NE 1 Flush Mount optional	# of Addresses: GR 1404 (1), GR 1408 (1), GR 1416 (2) Programming: Via DTC
Optional enclosures:	NEMA 4, NEMA 12	Max. humidity: 10-90% non-condensing
Relay:	Normally Closed (NCL) 30A @ 277VAC Ballast and HID 20A @ 120VAC Tungsten 20A @ 347VAC Ballast	Ambient temperature: 32-104° F (0-40° C) Power supply voltage: 120/277VAC (for all) 120/347VAC (for 1408 & 1416) 347VAC (for 1404 only)
		Bus physical layer: RS485 (GR 2400 bus) Bus connector: RJ45 connectors
		Listings: UL and cUL 916 listed, ETL listed to UL 924 (for emergency circuit use)

# One Product...Three Solutions

**1400 DTC:**  
32-channel, 365-day astro clock to access and program the entire system.  
**Dead Front**

**UL Listed 30A @ 277VAC 18,000A SCCR Relays**  
**Optional Modem:**  
For remote programming and control, includes free lifetime dial-up programming.  
**Removable Interior**

**GR 1404 LT**  
• With 2 or 4 relays  
• Master or remote  
• 8.4" w x 8.4" h x 3.125" d

**GR 1408 LT**  
• With 4 or 8 relays  
• Master or remote  
• 8.4" w x 13.4" h x 3.125" d

**GR 1416 LT**  
• With 8 or 16 relays  
• Master or remote  
• 10.6" w x 17.1" h x 3.125" d

Photosensor  
Chelsea DigitalSwitch™  
Remote Relay Panel  
Chelsea DigitalSwitch™  
Master Relay Panel  
Cat. 5 patch cable with RJ45 connectors  
Up to 16 digital devices with a Blue Box LT Series Master Panel  
Up to 127 digital devices with a GR 2400 Master Panel  
Up to 4,000 ft. bus length

## Seismic Certification:

- Preapproved for use in Category IV structures with an Importance Factor of 1.5
- California Office of Statewide Health Planning and Development (OSHPD) Special Seismic Certification Preapproval (# OSP-0091-10)

Evaluated per the requirements of:

- 2007/ 2010 California Building Code
- Section 13.2.5 of (American Society of Civil Engineers / Structural Engineering Institute) ASCE/SEI 7-05

- Tested to: ICC-ES AC156

## ORDERING INFORMATION

Enclosure					
<b>Relay Panel Enclosure</b>		<b>Enclosure Mounting, NEMA Rating</b>			
GR1416 LT ENC = 16 Relay Enclosure		SM NE1 = Surface Mount, NEMA 1			
GR1408 LT ENC = 8 Relay Enclosure		FM NE1 = Flush Mount, NEMA 1			
GR1404 LT ENC = 4 Relay Enclosure		SM NE4 = Surface Mount, NEMA 4			
		SM NE12 = Surface Mount, NEMA 12			
Interior					
<b>Relay Panel Interior</b>	<b>Relays</b>	<b>Clock Option</b>	<b>Transformer</b>	<b>Voltage Barrier</b>	<b>Dry Contacts (optional)</b>
GR1416 LT INT = 16 Relay Interior	[qty]NCL = Normally Closed Latching	DTCMOD = Digital time clock with modem	DV = Dual voltage 120/277V	1VB = 1 Voltage Barrier	D6 = 6 inputs (with enable/disable)
GR1408 LT INT = 8 Relay Interior	[qty]NOL = Normally Open Latching	DTC = Digital time clock without modem	CNDV = Canadian dual voltage 120/347V (GR1408 & GR1416 only)		D14 = 14 inputs (no enable/disable)
GR1404 LT INT = 4 Relay Interior	[qty]DPNC = Double Pole Normally Closed	REMOTE = Remote panel, no clock	347 = 347 volt (GR1404 only)		
	[qty]DPNO = Double Pole Normally Open				
	[qty]JRRNO = Reed Relay Normally Open (pair)				
	[qty]SPDT = Single Pole Double Throw				
	[qty]SPDTC = Single Pole Double Throw Contactor				
Total quantity of relay spaces specified must either equal to, or half of, the total allowed in any given enclosure. The GR1416 may only have 16 or 8 relays, the GR1408 may only have 8 or 4, and the GR1404 may only have 4 or 2 (example: GR1416 LT INT 8NCL = a quantity of 8 normally closed, latching relays for the GR1416 LT interior).					
2-pole relays, reed relay pairs, and contactor relays all count as two relay spaces (example: a GR1416 LT INT may not have more than 8 2-pole relays).					
<b>2-pole and contactor relays may not be combined into the DTC or DTCMOD option panel.</b>					
<b>Examples:</b>	GR1416 LT ENC SM NE1 R1416 LT INT 16NCL DTCMOD DV D14 GR 1416 Blue Box LT master panel with a modem, in a surface mounted, NEMA 1 enclosure, with 16 normally closed relays, 120/277V dual voltage transformer and 14 dry contact inputs.				
	GR1408 LT ENC SM NE1 GR1408 LT INT 4NCL 2DPNC REMOTE DV GR 1408 Blue Box LT remote panel, in a surface mounted, NEMA 1 enclosure, with 4 normally closed relays and 2 2-pole normally closed relays, and a 120/277V dual voltage transformer.				