touch-plate®

LIGHTING CONTROLS

Calypso Prime Quick Start Guide

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Preparation

Unpack the Calypso Prime and inspect the contents for damaged or missing products. If any problems arise, please contact Touch-Plate at 260.426.1565 for assistance.

Precautions

The Calypso Prime hardware is designed to be in environments that have a temperature range of 0-60°C (non-condensing atmosphere). Installing in an environment outside of these parameters will   shorten the life span of the hardware.

Touch-Plate recommends the use of 18 to 22 AWG wire for low voltage wiring of contact closure products, 18 AWG wire for all 24v power connections, and 16 AWG wire for Smart Switch Stations.

All 120VAC wiring must use wire as specified by National Electric Code for load size and wire length.

Compatible Hardware

The Calypso Prime is a control board that can be a part of a networked, intelligent system.

*   Panel Products (WCR Relays)

*   Master Control Products

        *   Time-Keeper Series

        *   Nexus Series

Warranty

Touch-Plate warrants this product against defects in materials or workmanship, under normal use, for a period of ONE (1) year from date of shipment. If a defect arises and a valid claim is received within the Warranty Period, Touch-Plate will repair or replace the product at no charge.

This warranty does not apply to:

a.   Damage to unit(s) caused by accident, acts of God, inappropriate installation, faulty installation, or any negligent use;
b.   Unit(s) which have been subject to being taken apart or otherwise modified;
c.   Unit not used in accordance with instructions;
d.   The finish on any portion of the product, such as surface and/or weathering, as this is considered normal wear and tear;
e.   Non-Touch-Plate hardware installed by the user;
f.   Damage caused by Non-Touch-Plate products;
g.   Damage caused by operating the product outside the permitted or intended uses described by Touch-Plate;
h.   -or- Specific plans or Specific application requirements, unless the plans and specifications have been forwarded to Touch-Plate and Touch-Plate has approved and accepted the plans in writing.

EXCEPT AS PROVIDED IN THIS WARRANTY, TOUCH-PLATE IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, INCLUDING BUT NOT LIMITED TO, INSTALLATION OR REPLACEMENT LABOR COSTS.

Calypso Prime Overview

The Calypso Prime is a part of a networked, intelligent system.

- The green blinking light on the Calypso Prime is the "heartbeat". This indicates that power has properly been brought to the system.

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Line Voltage Connections	Lighting Load Connections	H	8
	Neutral Bar	I	8
	Ground Lug/Ground Bar	J	8
	Transformer Feed	K	8
	Manual Overrides	L	8
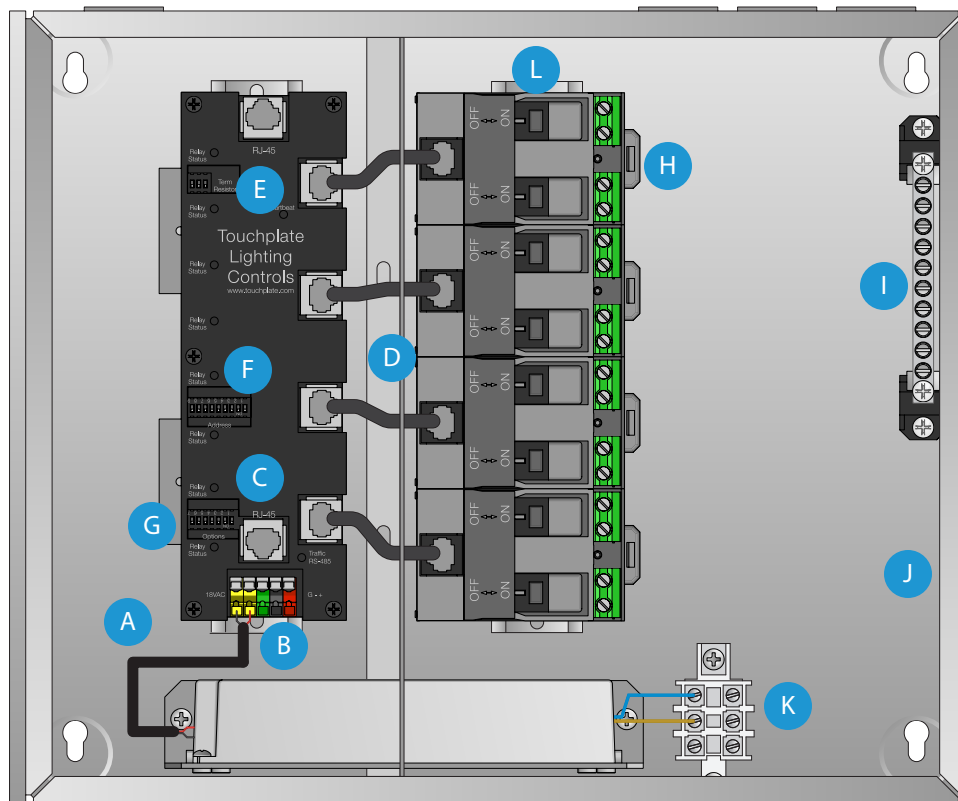
Calypso Prime Low Voltage Power Wiring

To correctly bring power to the Calypso Prime, use the wiring diagram below.

Power must be a Class 2, Isolated Transformer, with a rating of 24 VDC.

This will typically come from the factory pre-wired.

Wired to
Class 2,
Isolated
Transformer
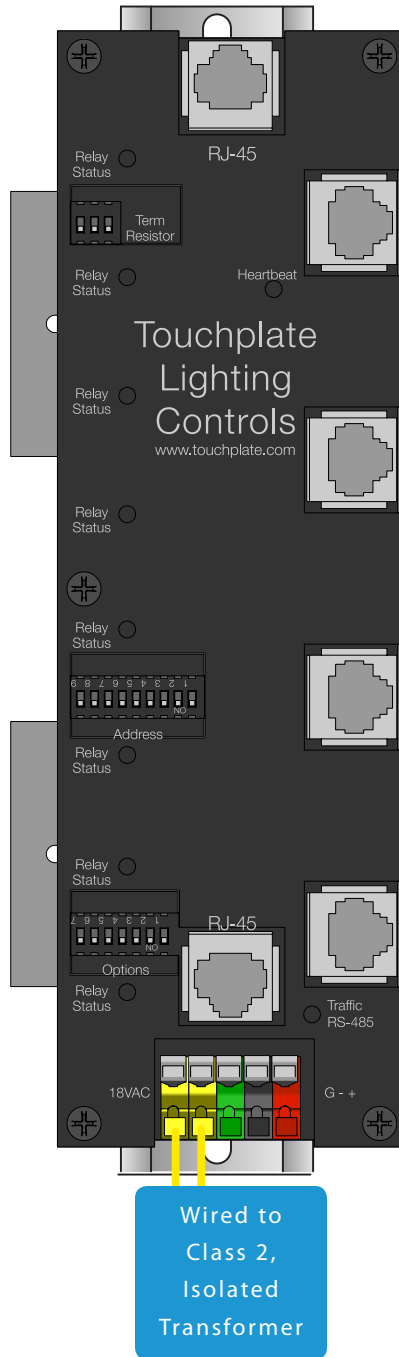
Calypso Prime RS485 Wiring

To correctly wire the RS485 connection to the Calypso Prime, use the wiring diagram below.

- **Shield or Ground for RS485 connection must be isolated from the ground on the power supply. Using the same ground will create a direct short across the diode bridge and damage the unit!**

Wire must be Liberty 18/2C SHLD or an equivalent wire.
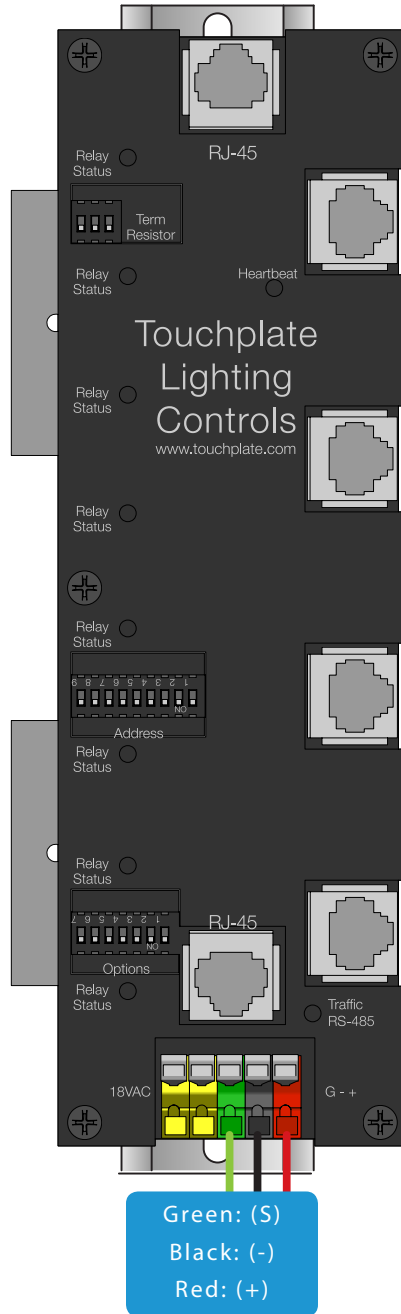
Calypso Prime RJ-45 Wiring

To correctly wire the RJ-45 connection to the Calypso Prime, use the wiring diagram below.

Cable must be a Cat5e or an equivalent cable. The RJ-45 cable can pass data and power through it when connected to other Touch-Plate boards.

Typical items wired via the RJ-45 connection are as follows:

- Other Touch-Plate panels
- Touch-Plate master controllers (Nexus and Time-Keeper)
- Other Calypso Prime Boards
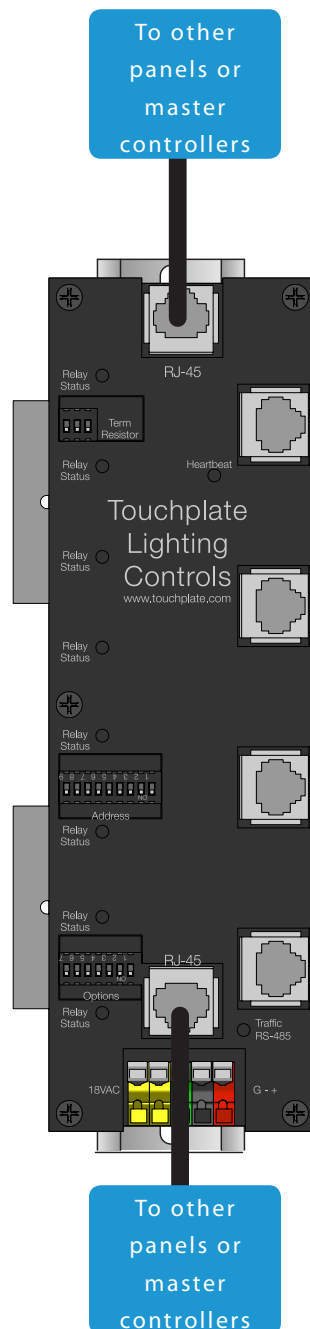
Calypso Prime Relay Wiring

To correctly wire the WCR relays to the Calypso Prime, use the wiring diagram below.

Only Touch-Plate WCR relays can be wired to the Calypso Prime.
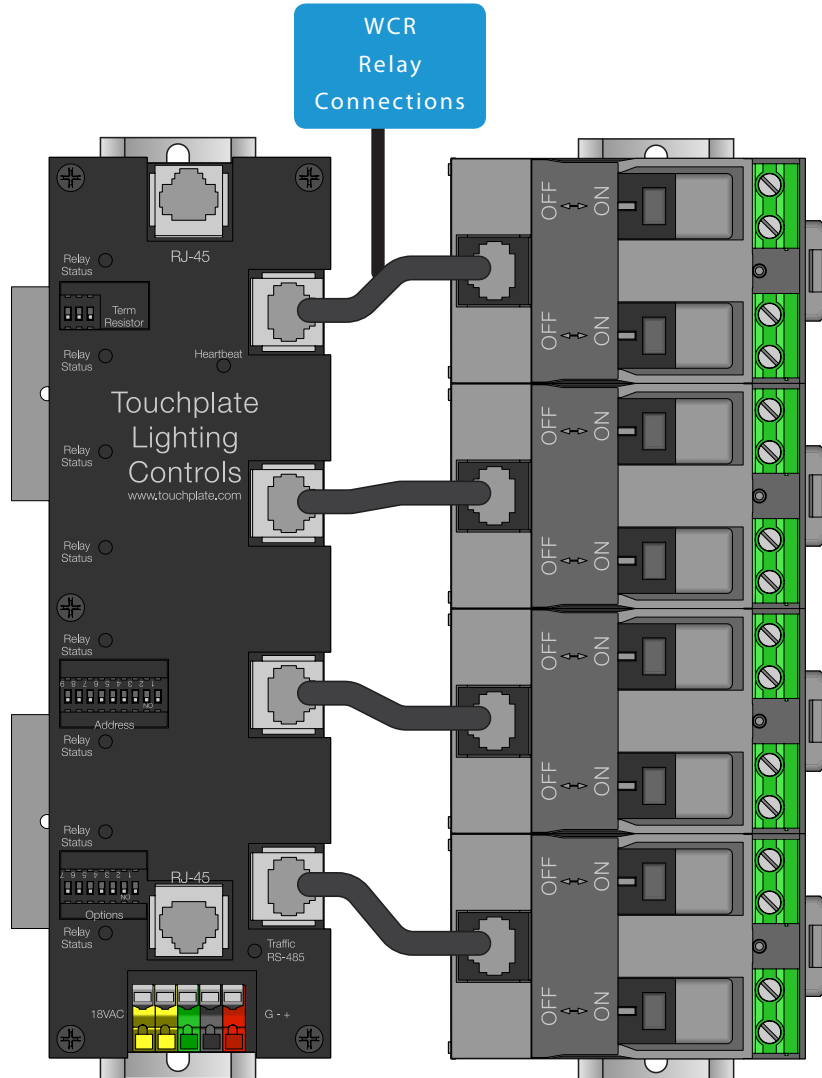
Calypso Prime Line Voltage Wiring

To correctly wire line voltage connections to the Calypso Prime WCR Relays, use the wiring diagram below.

- Each WCR relay can have its own hot feed brought to it from the breaker panel, or hots can be jumped together depending on load sizes.

Out to Load
In from Breaker

Out to Load
In from Breaker
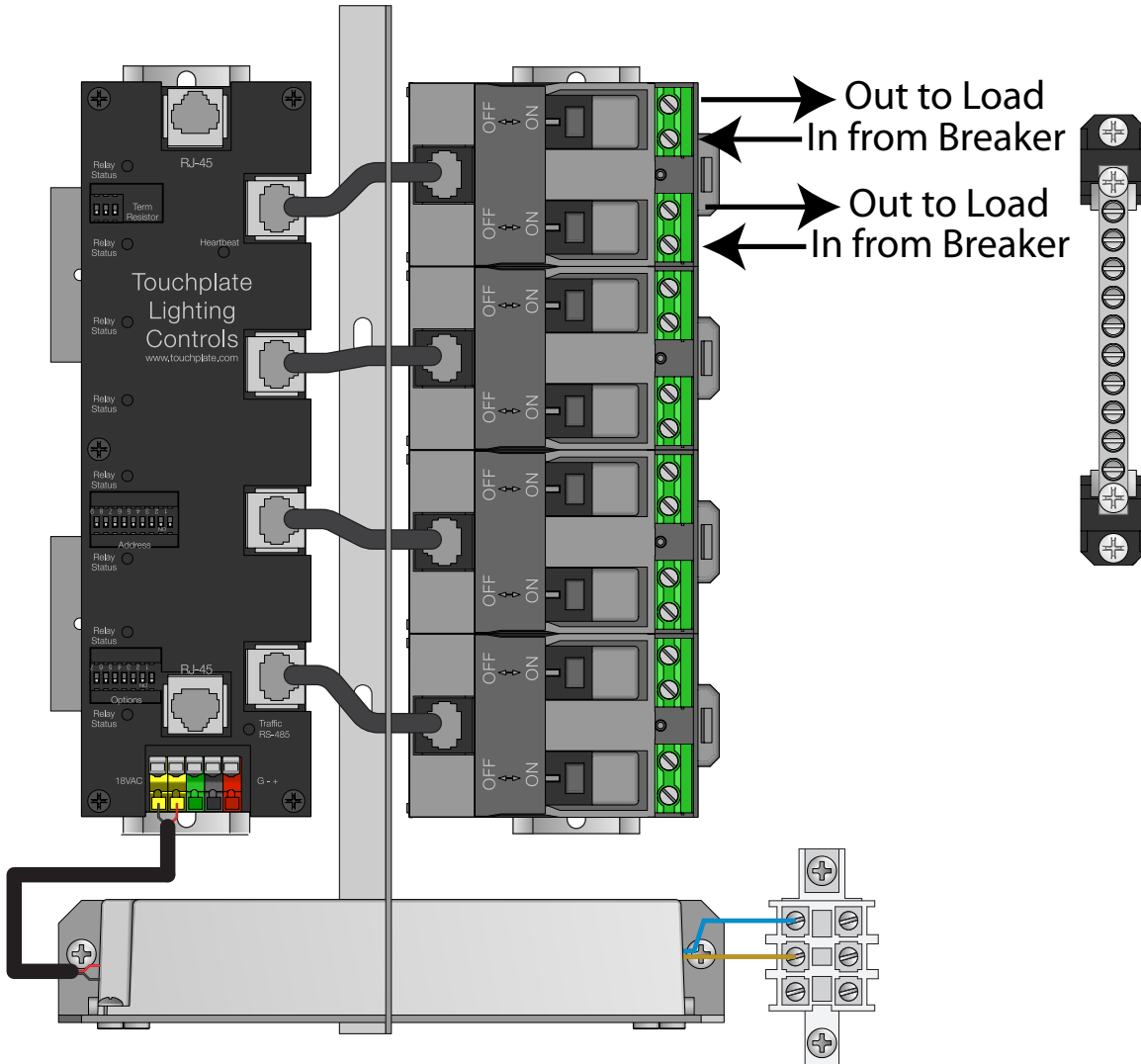
WCR Relay Specifications

The following are specifications for the WCR relay that connects to the Calypso Prime board via RJ-45 cable.

- Dielectric Strength (between coil and contacts): >4000VAC

- Operating Temperatures: -40°C to 40°C

- Contacts: AgSnO2

- Mechanical Endurance: 1 million cycles

- Max Switching Power: 10K VA

- Max Switching Voltage: 440VAC

- Max Switching Current: 32 Amps

- Lamp Load: up to 5000 Watts

- Rated for: 30 Amp Ballast; 120VAC - 277VAC

- Rated: 20 Amp Tungsten; 120VAC

- Terminal Tightening Torque:

  - Minimum = 0.5 Nm / 4.4 in-lbs

  - Maximum = 0.6 Nm / 5.3 in-lbs

WCR Mounting
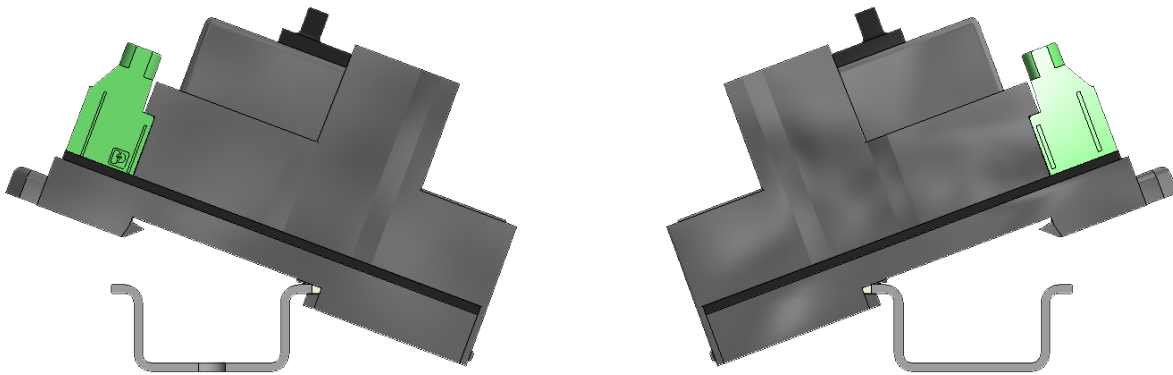
Calypso Prime RS485 Termination Dip Switches

The RS485 Termination Dip Switches are used to set RS485 terminations.

Option	1	2	3
RS485 Termination (Non-Inverting Input Pull Up; 510 Ohms)	ON	OFF	OFF
RS485 Termination (Inverting Input Pull Up; 510 Ohms)	OFF	ON	OFF
RS485 Termination (Line to Line Termination; 120 Ohms)	OFF	OFF	ON

Calypso Prime Option Dip Switches

The Option Dip Switches are used to change and/or enable certain functions on the Calypso Prime.

Option	A	B	C	D	E	F	G
No Action	ON	-	-	-	-	-	-
No Action	OFF	-	-	-	-	-	-
No Action	-	ON	-	-	-	-	-
No Action	-	OFF	-	-	-	-	-
No Action	-	-	ON	-	-	-	-
No Action	-	-	OFF	-	-	-	-
No Action	-	-	-	ON	-	-	-
No Action	-	-	-	OFF	-	-	-
No Action	-	-	-	-	ON	-	-
No Action	-	-	-	-	OFF	-	-
No Stagger Delay	-	-	-	-	-	ON	-
50MIL Sec Delay between each relay on the same Calypso Prime	-	-	-	-	-	OFF	-
Relays are numbered top to bottom (8 is the top relay, 1 is the bottom)	-	-	-	-	-	-	ON
Relays are numbered top to bottom (1 is the top relay, 8 is the bottom)	-	-	-	-	-	-	OFF

Setting the Calypso Prime Address

The Address Dip Switches are used to set the Address.

Normally, these Dip Switches come from the factory pre-programmed to Address #1.

Use the setting diagram to change the Address if needed. Note that for the address changes to take effect, a power cycle needs to occur.

Address	1	2	3	4	5	6	7	8	9
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
Valid Addresses are 1-512									

Valid addresses for: Time-Keeper from 73 to 264, Nexus from 1 to 16. Addresses are set using the nine Address Dip Switches, with each having a value noted in the chart below.

Address Dip Switch	1	2	3	4	5	6	7	8	9
Value	1	2	4	8	16	32	64	128	256

The values of all switches in the ON position are added together and the total is equal to the address. See the examples below:

Address 1: Turn on switch 1 only, and leave all other Address switches off.

Address 13: Turn on switches 1, 3 and 4. The value of those switches are 1 + 4 + 8 = 13.

Troubleshooting Guide

If no response occurs when the system is powered up, use the following steps to identify the problem.

1. Look for the LED indicator to be blinking on it.

    a. For the indicator to be blinking, power has to be correctly brought to the system. If the LED indicator is blinking, move on to step 2.
    b. If the LED indicator is not blinking, confirm power connections and then contact the factory for assistance.

2. Verify that the line voltage has been fed to all the necessary relays.

3. Verify that each light fixture is connected to the switched leg.

4. If these steps do not solve the problem, please contact the factory for assistance.

Frequently Asked Questions

1. Can I update just one section of my Touch-Plate system?

    a. In most applications just one section of the Touch-Plate system cannot be updated.

    b. There are some applications where one section of the Touch-Plate system can be updated. This is only possible when there are no shared commons and each panel location has its own transverter.

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Revision: 2.0a

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ENVIRONMENTALLY
DESIGNED PRODUCTS