

SECTOR™

NETWORK DEVICE INSTALLATION

THESE FOUR STEPS ENSURE THE QUICKEST INSTALLATION OF SECTOR NETWORK.

1. INSTALL SECTOR BUS CONTROLLERS.
2. CONNECT POWER AND SECTOR CONTROL BUS WIRING TO THE LIGHT FIXTURES.
3. INSTALL SENSORS AND CONTROLS.
4. TEST THE SECTOR COMMUNICATION.

Network Quick Facts	Sector	LumaCAN
Max # Devices	64	252
Network Topology	Any	Daisy-Chained
Wire Type	18AWG or larger	CAT5 or Better
Max # Rooms	8	255
Bus Controller input power	120-277VAC 50/60Hz 0.5A	-
Run Length		
CAT5	--	2500'
14 -18 AWG Solid or Stranded	900'	--

WARNINGS AND CAUTIONS:

- To be installed and/or used in accordance with appropriate electrical codes and regulations.
- If you are unsure about any part of these instructions, consult a qualified electrician.
- Disconnect power at circuit breaker or fuse when servicing, installing or removing fixture.
- Use this device only with copper or copper clad wire.

PRODUCT INFORMATION

- For technical assistance call us at: **1-800-959-6004**
- Visit our website at www.leviton.com

STEP 1 - INSTALL THE BUS CONTROLLER

Bus Controller

- Install the Bus Controller to a standard electrical box. A ½" threaded nipple is provided for this purpose. Make certain that the LED indicators on the outside of the housing remain clearly visible. Access to the LumaCAN connectors should also be maintained.
- Connect power wiring (hot, neutral, ground) to the designated conductors of the Bus Controller. Up to 6 Sector Bus Controllers can be fed from the same 20A 120-277VAC circuit.
- Connect the brown conductors of the communication bus to the leads provided on the bus controller. Polarity of the brown conductors is not critical to the system operation. Since the Sector network control wiring is Class 1, it and the power wiring both can be run in the same electrical box, conduit, or cable. The Sector Bus Controller will provide power to each Sector device, other than a ballast, on the associated section of the network.
- Connect the Sector Bus Controllers together using Category 5 cabling. Two RJ45 jacks are provided to facilitate these connections. Daisy chain the Bus controllers together using both ports, either port can be used as IN or OUT. The last Bus Controllers on both ends of the LumaCAN should have the TERMINATION button depressed.
- Set each Sector Bus Controller to a unique address using the three rotary dials on the outside of the Bus Controller housing. When setting the Sector Network number remember that the most significant digit is on the dial on the left or is the upper most dial.

100's 10's 1's



Fig. 1 - Address Number 001 Shown

An address of 000 is considered no address (will not participate on the network) and 254 is the highest available address.

STEP 2 - CONNECT POWER AND SECTOR BUS WIRING TO FIXTURES

BALLASTS

- Install Sector Ballast in light fixture. Be careful to follow the complete installation instructions provided with the Sector Ballast.
- Connect power wiring (hot, neutral, ground) to each fixture. Ballasts can be tested by powering up the light fixture without the control wiring connected. This will result in the lamps going to full ON intensity. If fixtures do not go to full brightness, check wiring and consult ballast installation guide.
- Connect the brown conductors of the communication bus to the appropriate terminal provided on the fixture ballast. Polarity of the brown conductors is not critical to the system operation. Since the Sector network control wiring is Class 1, it and the power wiring both can be run in the same electrical box, conduit, or cable. The brown pair of Sector network conductors originates at the Sector Ballast Controller and all devices connected to these wires are associated with this controller.
- Each Sector Ballast is preset to a unique address. The address of the Ballast is marked on a three part label. Remove one of the tabs for your records. This will be needed for establishing communications through the Graphic User Interface. Each ballast will be associated with a Sector Bus Controller which can maintain a maximum of 64 control devices and ballasts on its associated branch of the sector network. Do not use duplicate addresses on a Bus Controller branch or some communication may be lost.

STEP 3 - INSTALL DEVICES AND CONTROLS

SWITCHES

- Set each Sector Switch to a unique address using the two rotary dials on the bottom of the switch housing. Each Sector Switch will be associated with a Sector Bus Controller which can maintain a maximum of 64 control devices and ballasts on its associated branch of the sector network. Do not use duplicate addresses on each Bus Controller branch. When setting the Sector Network address remember that the most significant digit is on the dial on the left or is the upper most dial. An address of 00 is considered no address (will not participate on the network) and 64 is the highest available address.

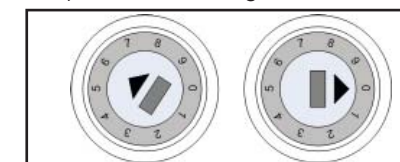


Fig. 3 - Address Number 60 Shown

- Install the switches in boxes suitable for low voltage devices.
- Connect the brown conductors of the communication bus to the leads provided on the Sector device. Polarity of the brown conductors is not critical to the system operation. Since the Sector network control wiring is Class 1, it and the power wiring both can be run in the same electrical box, conduit, or cable. The Sector control devices (switches, occupancy sensors, and photocells) derive their power from the Sector network control wiring and require no other source.

OCCUPANCY SENSORS

- Install the Occupancy Sensors in locations a minimum of 6 feet from ventilation openings. The occupancy sensor can be installed directly to a drywalled ceiling or ceiling tiles on a suspended acoustic ceiling. A self drilling adaptor is provided for this purpose. The mounting base of the occupancy sensor is compatible with standard ceiling type electrical boxes but not boxes with mud rings.
- Adjust the settings of the Occupancy Sensors. The functional parameters and behavior of the occupancy sensor can be adjusted locally at the sensor or can be set in the graphic user interface and uploaded to the sensor. The operation of the sensor can be manipulated by changing the four (4) DIP switch settings provided. Each switch has a corresponding function.

DIP Switch Number	Function Name	ON Position	OFF Position
B1	Override	Force the B2 State	Auto Mode
B2	Forced State	Lights Forced OFF	Lights Forced ON
B3	Test Mode	Test Mode ON	Test Mode OFF
B4	LED Disable	LEDs Disabled	LEDs Enabled

STEP 3 - Continued

- Set each Sector Occupancy Sensor to a unique address.

Use the two rotary dials on the outside of the Occupancy Sensor housing to set an address. Each Sector device will be associated with a Sector Bus Controller which can maintain a maximum of 64 control devices and ballasts on its associated branch of the sector network. Do not use duplicate addresses on each Bus Controller branch. When setting the Sector Network address, remember that the most significant digit is the left most dial or is the upper dial. An address of 00 is considered no address (will not participate on the network) and 64 is the highest available address.

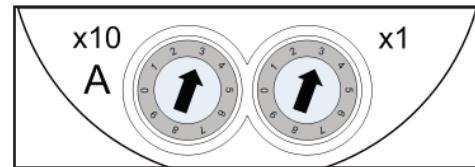


Fig. 4 - Address 33 Shown

- Connect the brown conductors of the communication bus to the leads provided on the Sector device.

Polarity of the brown conductors is not critical to the system operation. Since the Sector network control wiring is Class 1, it and the power wiring both can be run in the same electrical box, conduit, or cable. The Sector devices (switches, occupancy sensors, and photocells) derive their power from the Sector network control wiring.

PHOTOCELL

- Install the Photocell

Mount the Photocell, pointing at the desired work surface. The photocell can be mounted directly to the ceiling surface or on an electrical box.

- Set each Sector Photocell to a unique address.

Use the two rotary dials on the outside of the Photocell housing. Each Sector Photocell will be associated with a Sector Bus Controller which can maintain a maximum of 64 control devices and ballasts on its associated branch of the sector network. Avoid using duplicate addresses on each Bus Controller branch. When setting the Sector Network address remember that the most significant digit is on the dial on the left or is the upper most dial. An address of 00 is considered no address (will not participate on the network) and 64 is the highest available address.

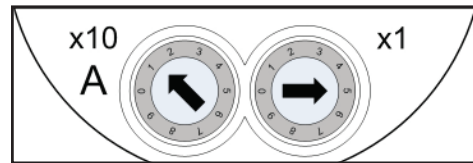
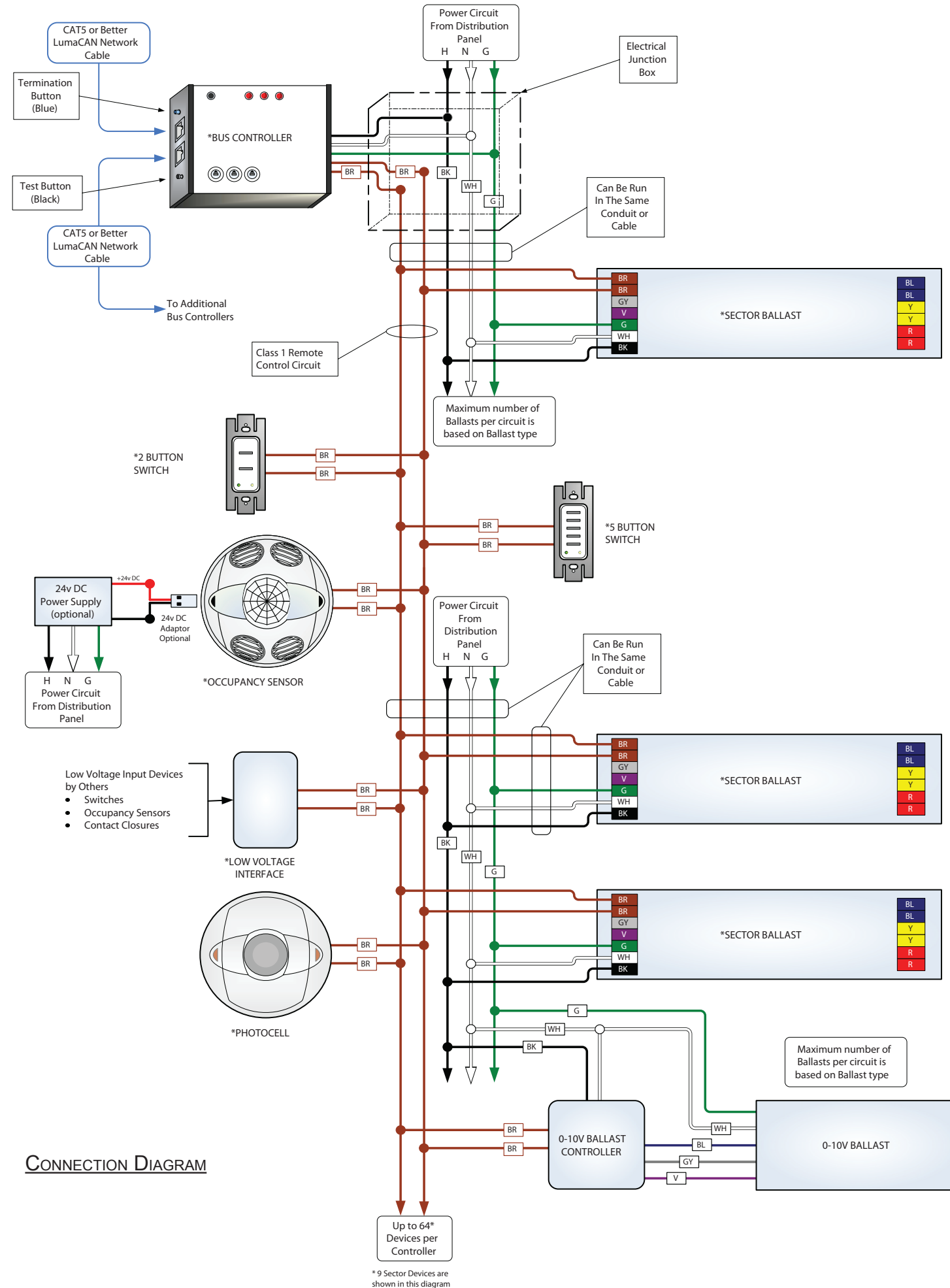


Fig. 5 - Address 15 Shown

- Connect the brown conductors of the communication bus to the leads provided on the Sector device.

Polarity of the brown conductors is not critical to the system operation. Since the Sector network control wiring is Class 1, it and the power wiring both can be run in the same electrical box, conduit, or cable. The Sector devices (switches, occupancy sensors, and photocells) derive their power from the Sector network control wiring.



CONNECTION DIAGRAM

Step 4 - TEST THE SECTOR COMMUNICATIONS

- Enter Test Mode

Momentarily press the black TEST button located on the right hand side of the Sector Bus Controller adjacent to the cable connectors. This will initiate a locate command on the section of the network. Each device associated with this Sector Bus Controller will visually identify itself in the manner outlined in the following chart.

Device	Method of Identification	Additional Instructions
Switch	A concealed LED, in the lower right corner of the faceplate, will continuously flash.	None
Occupancy Sensor	The YELLOW LED will continuously flash.	None
Ballast/Fixture	The ballast will slowly dim the light output of the fixture and then fade up at the same rate of speed.	Pressing the TEST button a second time will start this feature.
Photocell	The YELLOW LED will continuously flash.	None

- Take note of all devices and fixtures that are indicating that they are in the identify mode.

If a device is not responding correctly check the setting of the address. When setting the Sector Network address remember that the most significant number is on the dial on the left or is the upper most dial. An address of 00 is considered no address and will not participate on the network. The address 64 is the highest available address.

- Exit Test mode.

To exit the TEST mode, press and hold the black Test button located on the right hand side of the Bus Controller for 5 seconds. Release the button and the system restores to normal operation.

- Repeat this procedure for each Sector Bus Controller.

- Troubleshooting

Occupancy Sensor & Photocell Yellow LED

The flashing pattern of the yellow LED indicates the following:

- Rapid flashing indicates the Sensor is in Locate mode.
- A quick flash every 5 seconds indicates no bus activity.
- LED Off indicates bus activity without errors.
- Slow, steady flash indicates bus communications error.
- Rapid bright flashing every 2 seconds indicates a duplicate address.