

**WIRING LEGEND:**

△ \ ▽ **QS Control Link (\*see below)**

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**(Connect wires 1, 3, and 4. Do not connect wire # 2)**

QS Wiring as Required by Control Link Length:

Control Link Length	Wire Gauge	Available from Lutron in one cable:
Less than 500ft (153m) use: △ or ▲	Power (terminals 1&2): 1 pair 18 AWG (1.0mm <sup>2</sup> )	GRX-CBL-346S or GRX-PCBL-346S
	Data (terminals 3&4): 1 pair 22 AWG (0.5mm <sup>2</sup> ), twisted and shielded*	
500ft (153m) to 2000ft (610m)** use: ▽ or ▼	Power (terminals 1&2): 1 pair 12 AWG (1.0mm <sup>2</sup> )	GRX-CBL-46L
	Data (terminals 3&4): 1 pair 22 AWG (0.5mm <sup>2</sup> ), twisted and shielded*	

**\*Alternate data-only cable: Use approved data link cable (22 AWG [0.5mm<sup>2</sup>] twisted/shielded) from Belden (model # 9461).**

**\*\*Total length of the QS link must NOT exceed 2000ft (610m).**

**\*\*\*QS Link can have a maximum of 99 devices, 100 zones, and 512 switch legs.**

▽ **Lutron cable GRX-CBL-46L (5 Conductor non-plenum) or GRX-PCBL-46L (5 Conductor plenum rated). Otherwise use 2 #12AWG (2.5mm<sup>2</sup>), 1 Belden #9461 and between panels add 1 #18AWG (1.0mm<sup>2</sup>) for emergency sensing cable by others.**

□ Input Power

● **2 #12AWG**

○ **3 #12AWG**

◇ **EcoSystem Bus:**  
**Lutron cable C-CBL-216-GR-1 (2 #16 Conductor Non-Plenum) or C-PCBL-216-CL-1 (2 #16 Conductor Plenum rated). Otherwise use 2 #16 AWG by others.**

△ **CAT5e or better cable for dedicated Lutron network terminated with RJ45 connectors (to be provided by others). 328 feet (100m) maximum run.**

△ **Fiber Optic Cable for dedicated Lutron network terminated with appropriate Fiber Optic Connectors (to be provided by others). Note: Requires Dedicated Fiber Optic Link (single-mode or multi-mode).**

△ **DMX Link**

◆ **DALI Link**

◆ **0-10V Signal 2 #18**

⌘ **Sensor Cable 4 #18 Lutron C-CBL-522S**

⌘ **Sensor Cable 3 #18 Lutron C-CBL-522S**

⎓ **Contact Closure Input 2#18 AWG**  
 ⎓ **Contact Closure Output 2#18 AWG**

∞ **2#18 AWG**

∞ **3#18 AWG**

**WIRING NOTES:**

**QS Control Link**

The QS Control Link has a free wiring topology (daisy chain, t-tap, etc.) For illustration purposes the QS Control Link is shown wired in the daisy chain fashion. Additionally, controls have been laid out to ensure appropriate power to each device. Check power requirements before modifying device wiring order. Use Lutron cable GRX-CBL-346S (4 Conductor Non-Plenum) or GRX-PCBL-346S (4 Conductor Plenum). Otherwise use 2 #18 AWG (1.0 mm sq) and 1 Belden #9461. Use GRX-CBL-46L for links running longer than 500 ft.

**EcoSystem Bus**

The EcoSystem Bus has a free wiring topology (daisy, chain, t-tap, home-run etc.) For illustration purposes the Ecosystem Bus is shown wired in daisy chain fashion. EcoSystem Bus requires Lutron cable C-CBL-216-GR-1 (2 #16 Conductor Non-Plenum) or C-PCBL-216-CL-1 (2 #16 Conductor Plenum rated). Otherwise use 2 #16 AWG by others. EcoSystem Bus (E1 and E2) are polarity insensitive.

Bus length is limited by the wire gauge used for E1 and E2 as follows:

Wire Gauge	Max Loop Length
#18 AWG (1.02mm)	550' (167m)
#16 AWG (1.29mm)	900' (274m)
#14 AWG (1.63mm)	1,400' (426m)
#12 AWG (2.05mm)	2,200' (670m)

**DMX Link**

DMX Link wiring requires one Belden #9729 (Non-Plenum) or one Belden #89729 (Plenum) or Dura Flex 22/4 WA cable.