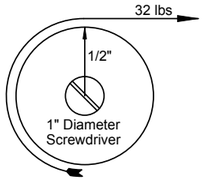
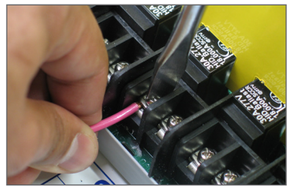
TORQUE SPECIFICATIONS

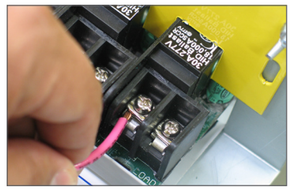
Torque Specification Instructions
Torque specs for the relay terminal block is 16 in-lbs. With a 1" diameter = ½" radius screwdriver this means a turning force of 32 lbs. This is a fairly solid turning force without overdoing it.

Torque and Wiggle
Copper is "ductile," which means that it can compress and flow. To ensure a good connection in the terminal block, follow this procedure:

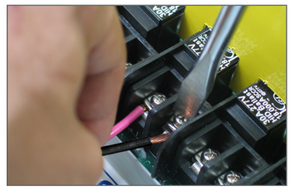




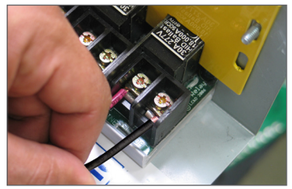
1. Tighten the terminal to the specified torque.



2. Wiggle wire; move it slowly from side-to-side while pulling gently.



3. Tighten to the specified torque–1/16 to 1/4 of a turn or more.



4. Repeat until screw does not turn further.

Acuity Controls
1 Lithonia Way, Conyers, GA 30012
www.acuitycontrols.com

Form No. 1382.068
994-004-0016

Complete this guide before the *Field Activation Checklist*

GR 2400 QUICK-START GUIDE

AcuityControls
LC&D

System Installer Read This First

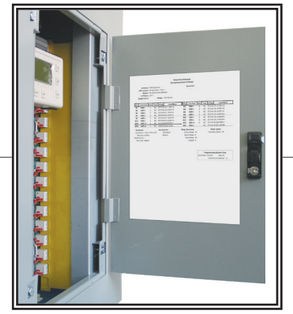
Follow the Release Package (provided with your shipment) and cut your installation time in half.

For specific product manuals and installation guides, visit www.lightingcontrols.com or call Tech Support at 800-345-4448 prior to equipment start-up and turn-over.

PANEL AND SWITCH SCHEDULES IN RELEASE PACKAGE

IMPORTANT NOTE:
Digital devices are pre-programmed for installation ease. Follow these schedules and cut your installation time in half.

Panel schedule includes location and all important wiring details.



Relay Panel Schedule

Job Name: WASHINGTON MUTUAL RIO SAN DIEGO
LCP Location: Electrical Room 101
Model #: GR 1408/08-DTC MODEM-HL-SM
LCP Name: LCP 1
Supply Circuit: H-42
Voltage: 277V Normal
Comments:

Relay	Line Feed	Zone	Type	Voltage	Load Name	Relay	Line Feed	Zone	Type	Voltage	Load Name
R1	H 1		NC	277V-N	CORRIDOR LIGHTING	R2	L 2		NC	120V-N	TRAINING RM103
R3	H 1		NC	277V-N	EXISTING LIGHTIN	R4	L 4		NC	120V-N	TRAINING RM103
R5	H 3		NC	277V-N	EXISTING LIGHTIN	R6	L 6		NC	120V-N	TRAINING RM103

Relay: Relay 1
Line Feed: Breaker 1
Load Name: Corridor Lighting
LCP Location: Location of panel
To Load

Switch schedule indicates digital switch location.

Switch Schedule

Job Name: WASHINGTON MUTUAL RIO SAN DIEGO
Switch Location: TRAINING RM 103
Switch Name: C1
Switch Type: Chelsea
Model #: CH-6-WH-WH
Comments:

Button #	Function	Zones or Relays Controlled	Engraving Line 1	Engraving Line 2	Color
1	Toggle	LCP 1:1	1/4RM 10	ON/OFF	White
2	Toggle	LCP 1:2		ON/OFF	

Switch Location: Location of Switch

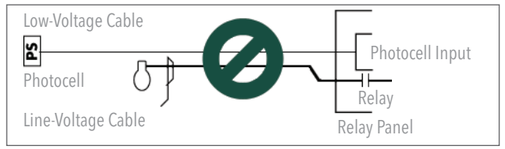
LOW-VOLTAGE CABLING

Digital devices have two RJ45 connectors and are daisy-chained using Cat. 5 cable. Non-digital devices (photosensors, toggle switches, etc.) are cabled per their installation guides (not daisy-chained).

! Adhere to 568A or 568B standards for Cat. 5. Always use a dedicated pair for center pins. Don't "home run" digital switches back to relay panels. No spurs or T-taps allowed.

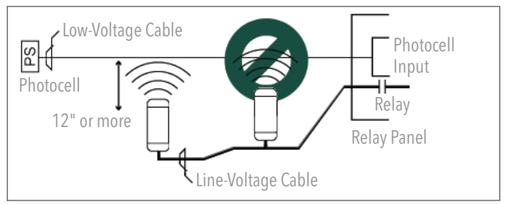
Eliminate Interference

Isolate Cat. 5 cables from line-voltage cable. Cat. 5 cable must be at least 12" from line-voltage conductors, except to cross or make terminations.



Low-voltage cabling must not be run in parallel or share the same conduit with line-voltage cable, whether Cat. 5 or low- voltage cable (3#18 from a photocell).

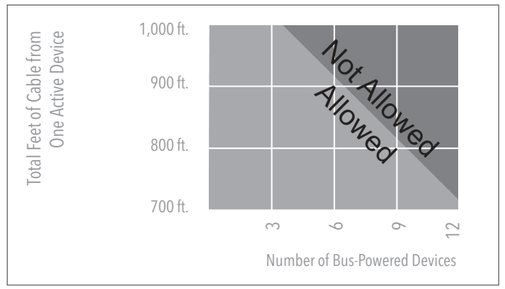
Low-voltage cabling must avoid EMF or RF from ballasts, arc welders or other "noisy" loads. EMF or RF interference can create an unstable bus.



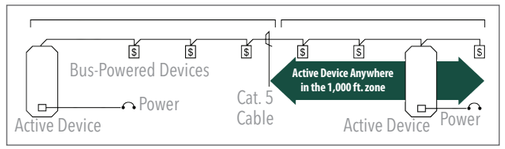
Don't Cause a Voltage Drop!

There is a limit to how many switches and photocell cards you can add in a row over long runs of Cat. 5 cabling.

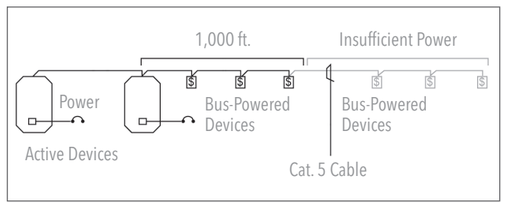
Bus-Powered Devices* Allowed for Each Active Device**



Examples: Per the above chart, up to three bus-powered devices may be powered across 1,000 ft. of cable.



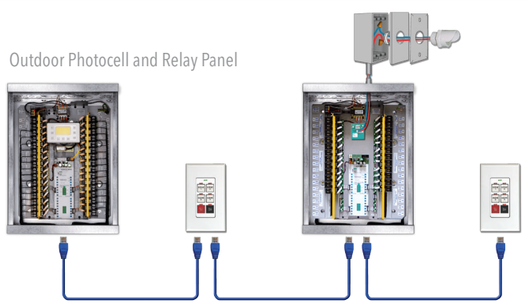
The active device may be located anywhere within the 1,000 ft. region. Multiple active devices in the same location will not increase the distance allowed.



For the above, the correct solution is to connect the active devices (relay panels) as the center of the network and have two runs of cable.

OUTDOOR PHOTOCELLS

1. Mount the photocell on the roof facing North.
2. Pull 2#18 AWG from the photocell to the photocell card (usually located in a LCP).
3. Match the blue conductor to the blue input and the red conductor to the red input on the photocell card.
4. The photocell is polarized; so ensure correct cabling.



** **Bus-Powered Device:** Any device that relies on the 12V supplied by the bus for its power, i.e.—digital switches, and photocell cards.*

*** **Active Device:** A device with a power supply (transformer). It acts as a source of electrical energy for the bus.*

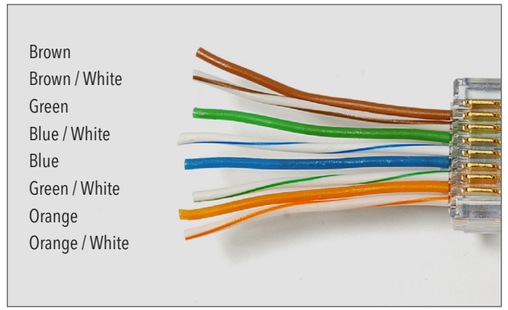
MAKING UP RJ45 CONNECTORS

Never made up RJ45 connectors before? It's easy. Just follow the steps below:

To be successful, only use the ratcheting crimping tool recommended by LC&D and a Local Area Network (LAN) cable tester that allows remote testing. The ends of the cable will be remote from each other.

! Only use stranded Cat. 5 cable and only use EZ RJ45 connectors factory-provided by Lighting Control & Design (LC&D).

1. Remove two inches of the Cat. 5 jacket–use the wire stripper and cutter provided in our kit. Carefully inspect the conductors for nicks.
2. Untwist all four pairs and straighten/smooth out each conductor.
3. Reorganize conductors in the order shown below. Bring all of the conductors together until they touch.
4. Place an EZ connector on the end of the cable with the locking prong facing down.

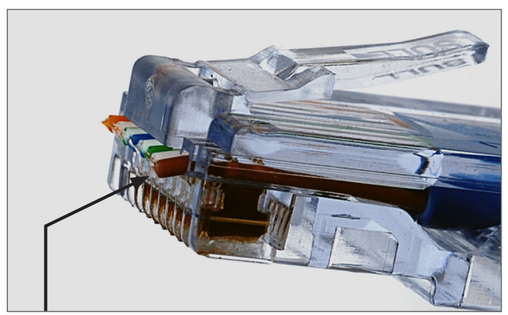


5. Push conductors through and trim off all excess cable with flush/box cutters. Conductors should butt up to end of connector–they must not protrude or be too short.

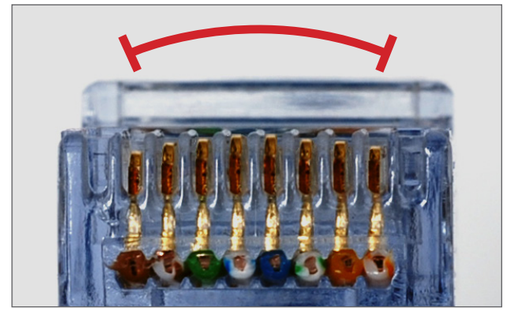
! Always follow acceptable safety procedures when using sharp cutting tools. Dull tools cause more hazards than sharp ones.

6. Using the recommended ratcheting crimp tool, crimp at least five times for the best possible connection.
7. Visually inspect each connector. Contacts should be pushed into the insulation of each conductor.
8. Repeat on the other end of the cable for a straight-through cable.
9. Test every cable for continuity with a LAN cable tester. While testing, wiggle and tug on each connector to test for a solid crimp.

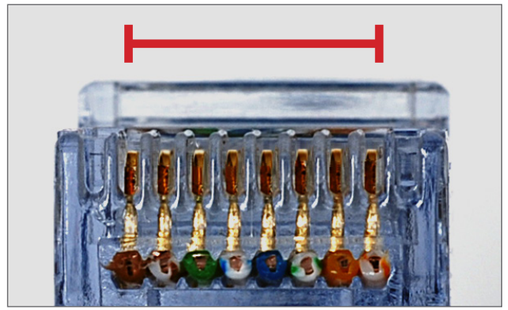
! Never crimp a RJ45 connector if the other end of the cable is plugged into a powered device. This can cause damage to your equipment.



Contacts not seated properly (sticking out 1/16" too far).



Contacts not seated properly (bowed crimp).



Contacts properly seated (flat crimp).

Important Note:

If you need help or if you get stuck, contact Tech Support at 800-345-4448.

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