



---

# Cleveland County

NORTH CAROLINA

## REQUEST FOR PROPOSAL

RFP No. FY22-004

Lighting and Audio/Visual Controls Upgrade— LeGrand Center  
1800 East Marion Street, Shelby, NC 28152

---

June 27, 2022

The LeGrand Center is the premier event venue in Shelby, NC. It specializes in everything from small business meetings held in conference rooms to weddings and social events in an expansive ballroom. It was constructed in 2010.

The lighting and audio/visual systems installed were that latest technology at the time, but now have become out dated. They are difficult to maintain and repair since replacement parts are obsolete. This makes getting parts impossible to procure.

Cleveland County will receive bids for the replacement and upgrading of the existing lighting and audio/visual systems.

A functional description of the lighting and audio/visual upgrade describes conceptually what the objectives of this project are.

The functional description also has the current system design schematic drawings as installed in 2010.

Vendors are asked to prepare a proposal that meets the intended objectives stated in the functional description. The proposed equipment must be compatible to the extent possible with the current equipment.

Vendors are invited and encouraged to schedule a tour of the LeGrand Center to see the installation and existing equipment.

If you have any project scope questions or want to schedule a site visit, please contact:

Carver Hopper

General Manager LeGrand Center  
1800 East Marion, Shelby NC 28150  
D: 704.669.4700  
C: 704.964.2245  
Email: [Carver@thelegrandcenter.com](mailto:Carver@thelegrandcenter.com)

Jason Falls

Business Development Director  
1800 East Marion, Shelby, NC 28150  
D: 704.669.4151  
C: 704.692.7998  
Email: [Jason.Falls@clevelandcountync.gov](mailto:Jason.Falls@clevelandcountync.gov)

INVITATION TO BID

RFP No. FY22-004  
Lighting and Audio/Visual Controls Upgrade— LeGrand Center  
1800 East Marion Street, Shelby, NC 28152

---

**ALL BIDS ARE DUE ON OR BEFORE July 21st, 2022—BY 3:00 PM.**

Bids shall be submitted on the form provided below and including 3 copies of the proposal in a sealed envelope. Please email a PDF of the proposal to messieurs Carver Hopper at [Carver@thelegrandcenter.com](mailto:Carver@thelegrandcenter.com) and Jason Falls at [Jason.Falls@clevelandcountync.gov](mailto:Jason.Falls@clevelandcountync.gov).

The sealed envelope shall be labeled with the project name and the bidder's name.

Bids can be submitted by any one of the following methods:

Mail: Finance & Purchasing Department  
Attn: Tonya Brittain  
PO Box 1210,  
Shelby, NC 28151

Email: [Tonya.Brittain@clevelandcountync.gov](mailto:Tonya.Brittain@clevelandcountync.gov)

Hand delivered: Cleveland County Administrative Building  
Finance & Purchasing Department  
Attn: Tonya Brittain  
311 E. Marion St  
Shelby, NC 28150

Cleveland County reserves the right to reject any or all bids if it is in the best interests of the County.

**BID FORM**  
INVITATION TO BID

RFP No. FY22-004  
Lighting and Audio/Visual Controls Upgrade— LeGrand Center  
1800 East Marion Street, Shelby, NC 28152

---

**ALL BIDS ARE DUE ON OR BEFORE July 21st, 2022—BY 3:00 PM.**

To: Cleveland County Finance & Purchasing Department  
PO Box 1210  
ATTN: Tonya Brittain  
311 E. Marion Street  
Shelby, NC 28151

From: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

As the undersigned contractor, I have inspected the above referenced site and understand the extent and character of the work to be completed as described in the *Invitation to Bid*.

I propose to furnish all labor and equipment necessary to accomplish all work as described in the *Request for Proposal*.

- Material and Equipment Costs: \$ \_\_\_\_\_
- Labor Costs: \$ \_\_\_\_\_
- Total Project Costs: \$ \_\_\_\_\_

I agree to the attached Terms & Conditions and will complete all work within 60 days of receipt of the *Notice to Proceed*.

Signature	Company Address Line 1
Print Name	Company Address Line 2
Contractor's License Number	Work Phone
Expiration Date	Cell Phone
Company Name	Email

---

## SERVICE CONTRACT AND INDEMNITY AGREEMENT

County of Cleveland, North Carolina (hereinafter "County") agrees to secure the services of the company or individual (hereinafter "Contractor") indicated in the signature section below to provide labor for a particular job or services of a limited special nature. The Contractor has been offered contract work by the County and the work will be performed at site(s) owned or operated by the County. Prior to signing contract and prior to commencing services, County and Contractor have provided a jointly completed "Worker Status Determination Report" and "Vendor Registration Form" for inspection by qualified staff in the County Finance & Purchasing Department. In consideration of the foregoing premises, the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

### TERMS AND CONDITIONS

- 1. Services:** The services to be performed by the Contractor shall be as described in documents attached hereto and incorporated herein by this reference. The work shall include all labor and materials which will be paid by the Contractor and necessary for completion of the work. Label attached documents sequentially beginning with Attachment 1. If more than two documents are attached, provide as Attachment 1 a list that identifies all documents attached and remaining documents shall be sequentially numbered.
- 2. Payment:** The Contractor will be paid as outlined in attached documents.
- 3. Warranty:** The Contractor shall and hereby does warranty all workmanship and materials for up to at least one year after completion of the project. Any materials, equipment, or workmanship discovered to be inferior or which fails to perform as reasonably expected shall be repaired or replaced by the Contractor, at the Contractor's expense, within a reasonable time period of the Contractor being notified of such discovery.
- 4. Independent Contractor:** The Contractor agrees that he/she is an "independent contractor" not under the control or supervision of the County and, therefore, not eligible for County employee benefits (such as health insurance and workers' compensation insurance). The County's health insurance policy and workers' compensation insurance will not cover the Contractor in the event of sickness, illness, injury, or accident. The personnel policies of the County do not apply to the Contractor. The Contractor does not make this agreement under any duress.
- 5. Taxes/Withholdings:** The Contractor is responsible for all federal and state employment taxes or other required withholdings. The County will not pay on the Contractor's behalf any federal or state income tax, social security tax, or any other withholding tax or benefit.
- 6. IRS Form 1099:** The Contractor will not be required to fill out an application for employment. The Contractor will not be provided a W-2 form, but the Contractor's pay will be reported to the IRS. The County will provide an IRS Form 1099 at the end of the calendar year to each Contractor per IRS rules and regulations.
- 7. Limited Need for Services:** As an "independent contractor", the Contractor's services may be needed for a limited time and the need may end at any time for any reason.
- 8. Compliance with Applicable Laws:** The parties to this Contract agree that the laws of the State of North Carolina shall govern the validity, construction, interpretation, and effect of this contract. The Contractor shall perform the work as provided for by the contract in compliance with all applicable federal, state and local regulations and laws including, but not limited to, the OSHA standards set and enforced by the Department of Labor, minimum hour and wage regulations, equal opportunity employment laws, confidentiality, state incorporation laws, state rules concerning the collection and reporting of sales and use taxes, restriction against officers and employees of the County deriving personal benefit(s) from the Contractor, disclosure of lobbying activities, etc. This Contract and the work to be done as described herein is also subject to the provisions of all pertinent local government ordinances which are hereby made a part hereof with the same force and effect as if specifically set out herein.

---

**9. Insurance and Bonding:** Prior to commencing services and throughout the term of this agreement, the Contractor and all subcontractors shall maintain in force adequate applicable insurance coverage for property and general liability, malpractice, workers compensation, and vehicle liability. When the minimum required insurance is determined to be insufficient, the Contractor will maintain in force insurance reasonably appropriate to the work to be undertaken by the Contractor. When exempt from workers compensation or other insurance coverage, the Contractor shall provide documented proof of exemption. Further, the Contractor agrees to provide a Certificate of Liability to the County for all applicable insurance coverage.

**10. Indemnity:** To the fullest extent permitted by law, the Contractor agrees to and hereby does indemnify, defend, and hold harmless the County and County's officers, agents, and employees from and against any and all losses, costs, damages, obligations, and expenses incurred by the County (including, without limitation, attorney's fees) that arise in connection in any way, directly or indirectly, associated with the work to be performed by the Contractor or any of its agents, subcontractors, and employees (including, without limitation, any claim for personal injury, death, sickness, or disease, or payment arising from an employee of Contractor, any sub-Contractor or any other party), whether in any event such claim arises prior to completion of and payment for the contracted work or thereafter.

**11. Damage to County Property:** The Vendor shall be responsible for any damage to or loss of the County's equipment or facilities arising out of an act or omission of the Vendor or its authorized user and deemed reasonable by either (1) both County and Contractor, (2) mediator, or (3) court/judge.

**12. Additional Terms:** The Contractor hereby also formally agrees to the entire set of general terms and conditions at <http://www.ccncgov.com/FinanceD/vendors.html>, which aids the County in its efforts to comply with federal rules and regulations.

**13. Amendment of the Contract:** No modification or amendment of the terms hereof shall be effective unless written and signed by the authorized representatives of all parties entitled to receive a right or obligated to perform a duty under this Contract. On behalf of the County, both the Authorized County Department Representative and the County Finance Director must sign and a board chairperson may also be required to sign. A signed original is to be fastened to the original Contract with signed copies retained by all parties.

**14. Complete Agreement:** This Contract and all attachments constitute the complete agreement and understanding between the parties. All prior and coexisting agreements and understandings, whether oral or written, are to be without effect in the construction of any provision or term of this contract if they alter, vary, or contradict this Contract.

## **SIGNATURE SECTION**

**1. Subject to Contractor Approval:** On behalf of the Contractor, please indicate consent to these terms and conditions by signing and completing the lines below.

---

Printed Name of Company or Individual

---

Authorized Representative: Signature / Printed Name / Date

**2. Subject to Board Approval:** On behalf of the Cleveland County Board of Commissioners, the Order to demolish this dwelling was approved on: \_\_\_\_\_

---

Clerk to the Board of Commissioners: Signature / Seal



LeGrand Center  
Functional Description

Lighting and Audio/Visual Control Systems Upgrade  
June 5, 2022



**Table of Contents**

<b>Section</b>	<b>Description</b>	<b>Page No.</b>
1.	Overview .....	2
2.	General .....	3
3.	General Lighting .....	3
4.	1 <sup>st</sup> Floor Lobby .....	4
5.	2 <sup>nd</sup> Floor Lobby .....	6
6.	Main Corridor .....	7
7.	Conference Rooms (3) .....	8
8.	Board Closing Room .....	9
9.	Ballroom .....	10
10.	Exhibit and Economic Development Corridors .....	11
11.	Exclusions .....	13
12.	Appendix—Cresnet As-Built Drawings .....	14

## 1. Overview

The LeGrand Center was constructed in 2010. The lighting control system design was engineered by a company called SmartCore—which does not exist any longer. SmartCore designed the LeGrand Center lighting system using Crestron and their Binary Data software for programming the system. Program documentation exists, but in the V3C file extension.

The Crestron As-Built drawings are attached and the overall system schematics can be seen on these drawings available only as PDF documents:

<b>Drg No.</b>	<b>Rev No.</b>	<b>Drawing Title</b>
03.0	00	BILL OF MATERIALS
04.0	02	OVERALL RISER PAGE 1
04.1	02	OVERALL RISER PAGE 2
04.2	02	OVERALL RISER PAGE 3
04.3	02	OVERALL RISER PAGE 4

Generally, the existing systems are fairly complicated and require LeGrand Staff to set up rooms. Each room should be simple to operate and unnecessary system elements removed.

The current architecture makes the spaces very rigid. For example, without connecting a lectern the presentation systems don't work. There is no wireless presentation capability. The rooms can not be used as 'overflow' rooms. Corporate clients can't bring their own equipment; like a laptop to host a conference.

The existing lighting systems are very difficult to maintain and operate. The Crestron model controllers are obsolete and are frequently going out. Repair and replacement parts are getting impossible to procure in kind. The lighting elements themselves are also obsolete and impossible to find expeditiously.

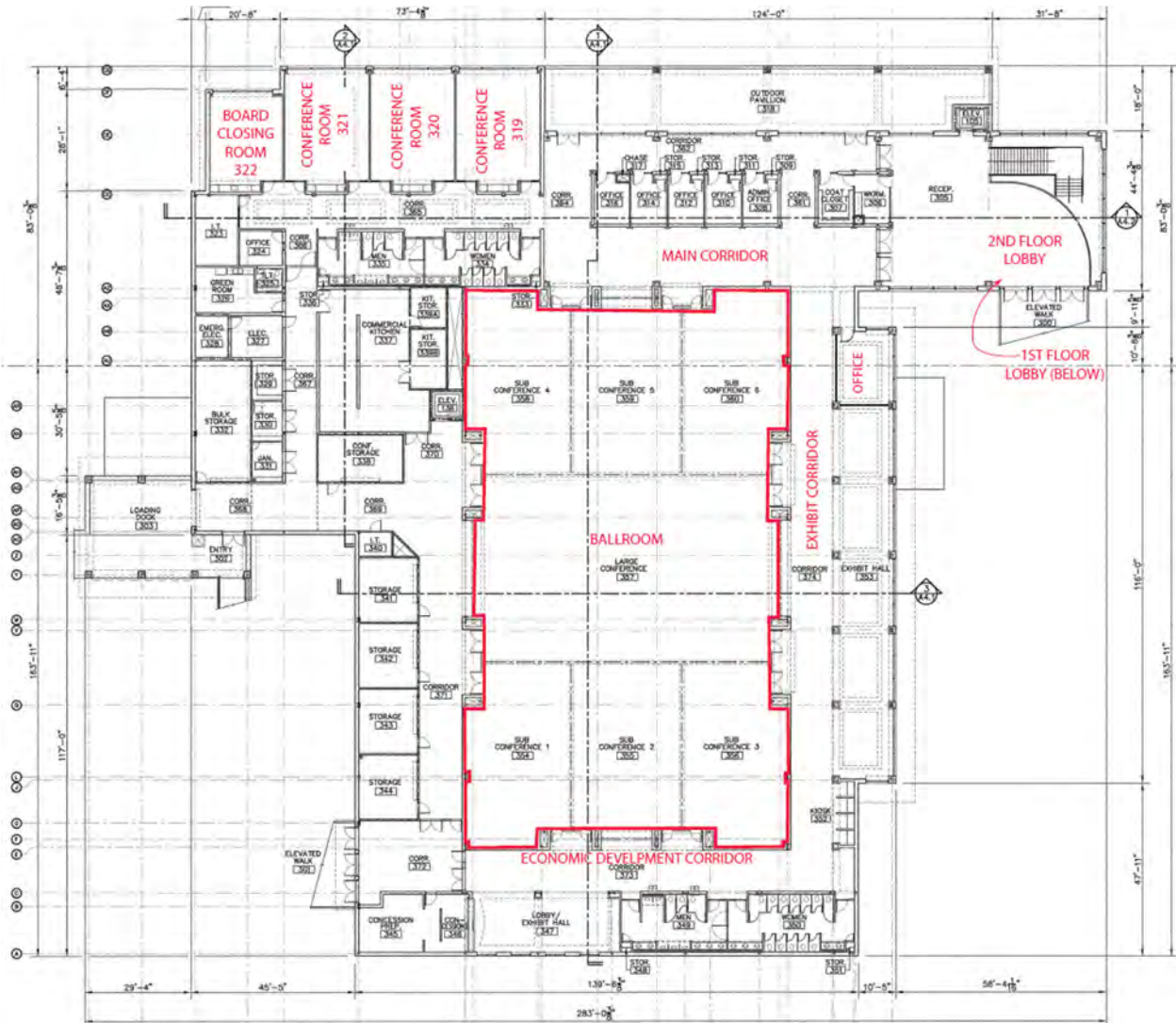
It is intended to reuse all existing electrical and control wiring. The new lighting and audio/visual elements will have new electrical and control wiring when needed.



## 2. General

This document shall describe the functionality and design of The LeGrand Center expectations and requirements for a facility-wide lighting upgrade and audio/visual upgrade.

### LeGrand 2<sup>nd</sup> Floor Layout



## 3. General Lighting

The general lighting for the LeGrand Center in commons areas (upstairs and downstairs) and ballrooms should be controlled by computer access and wall panels (which have the ability to be “locked out”).

All individual offices will have wall switches to control the office lighting. All lighting (common areas and meetings spaces) are to be LED lighting.



June 27, 2022

The processor for Audio / Video and Lighting systems should be integrated and redundant, with UPS and power conditioning devices present to protect the system. Should the system have wireless control capability, security measures must be put into place to ensure proper security controls.

#### 4. 1<sup>st</sup> Floor Lobby

This is an entry way for visitors and a point of emphasis to make an immediate impression. Video wall displays have been recommended on one side of the column in the center of this space at the bottom of the stairs.

The displays would be installed in portrait orientation. The content on the wall would be managed from administrators to welcome guests and provide up-to-date marketing information. Ceiling speakers would also be installed in this space for background music, enhanced ambiance, or to coincide with video content on the displays.

All sconces, pendants and up-lights will be converted to LED.

#### Location of Portrait Digital Signage on Column



Example of Column Digital Signage



## 5. 2<sup>nd</sup> Floor Lobby

This area serves a point of concentration for visitors as they enter the LeGrand Center. This is a place for visitors to get information and an opportunity to capture the visitor's attention.

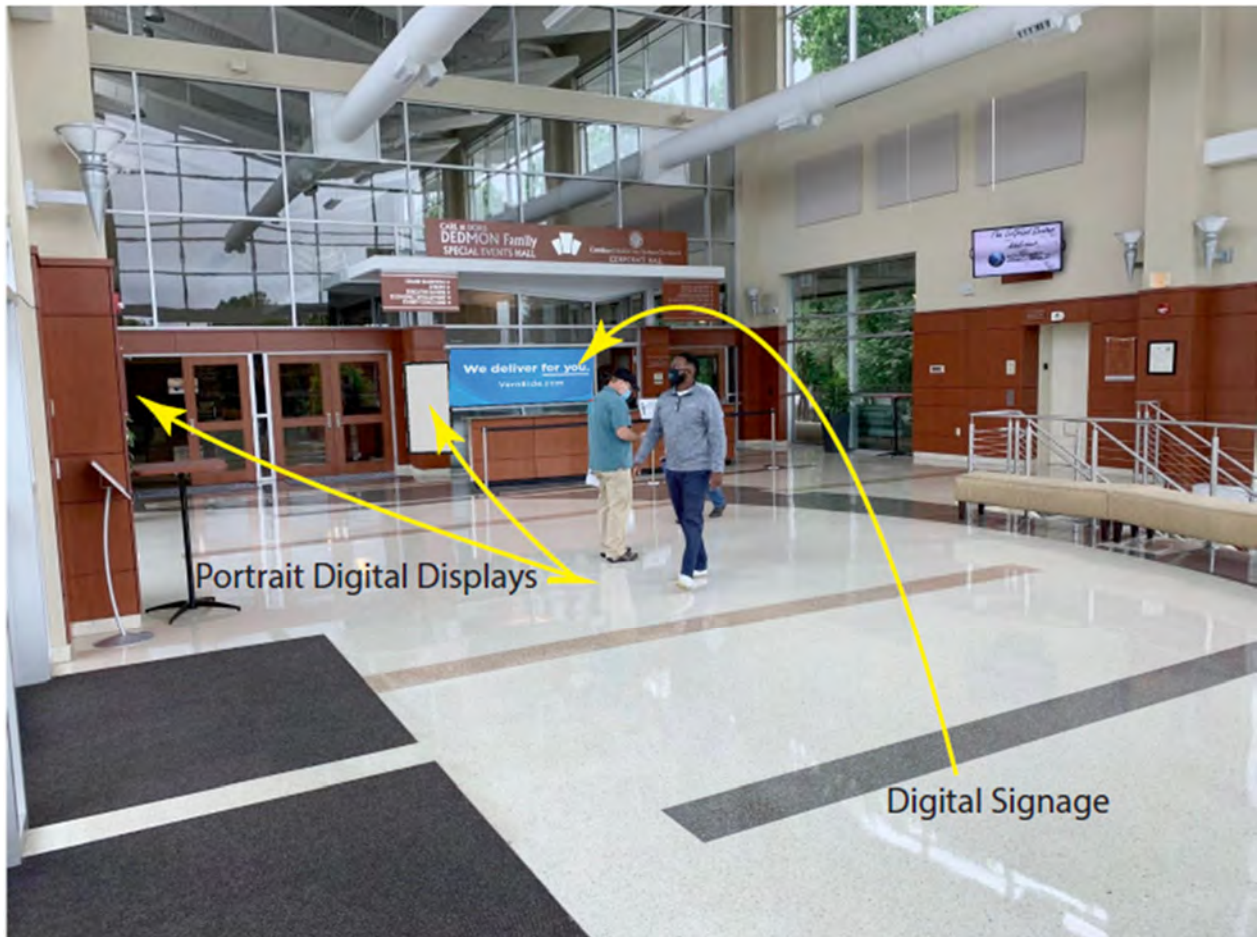
A video wall will be behind the reception desk for digital signage, in the place of (2) of the 4' x 8' panes of glass. This will allow administration the ability to change content and serve a variety of marketing initiatives.

Directional displays over the entrance doors (2 double doors would be considered if pricing included).

Cloud lighting will be replaced with LED fixtures to provide equivalent illumination. All sconces, pendants and uplights will be converted to LED.

Programmable LED light bars will be installed to allow for "color washing" of the lobby area.

### 2<sup>nd</sup> Floor Lobby Digital Display Locations





6. Main Corridor

This area can support large group and remains multifunctional. The design is intended to support a presentation from a speaker and digital signage. A 165” diagonal video wall is designed to be installed above the Corporate Hall entrance. The existing (3) flat panel displays will remain in their current locations. The same video source can be distributed all displays or have unique signage/content on each of the displays. A “smart” outdoor display will be located on the wall on the patio, 65+ inches.

A laptop connection will be provided for keynote presentations as well as digital signage media players for each of the displays that can be individually controlled. The existing line array speakers will be repurposed with (2) new digital wireless microphones added for voice amplification.

Cloud lighting will be replaced with LED fixtures to provide equivalent illumination. All sconces, pendants, can lights and up-lights will be converted to LED including on the patio.

**Main Corridor Digital Display Location**



### 7. Conference Rooms (3)

The focus of these rooms is to be used for small groups (less than 30 people) for presentation with the added ability for audio/video conferencing. The existing room technology will primarily be repurposed in functionality.

Projectors will be replaced with laser projection to improve image quality and reduce maintenance or new monitors will be installed to replace the projector/screen. User's will be given the ability to wirelessly present to the projector/monitor.

The rooms will be simplified to support the following video sources: PC, (2) Laptop wall plates, Wireless, and Atrium overflow.

There will be (2) wall mounted, HD, pan/tilt/zoom cameras ceiling microphones will be added for web-based conferencing. One camera at the front of the room for a conferencing setting and one camera at the rear of the room for training scenarios.

#### Conference Pan, Tilt, Zoom Camera Locations



June 27, 2022

A USB Connection will be provided for a visitor to use the conferencing features with their desired conferencing platform (Zoom, Teams, WebEx, etc.).

The ceiling microphones will be provided to also support audio conferencing in the space. The existing AV rack, amplifier, Crestron switch, projection screen, speakers, and surge protection may be repurposed.

A new control system processor and touch panel will be installed. The control system will support network control. The lighting system and shade controls will be integrated into the AV system and touch panel.

Cloud lighting will be replaced with LED fixtures to provide equivalent illumination. All can lights will be converted to LED.

#### 8. Board Closing Room

The focus of this room is to be used for small groups (less than 10 people), executive sessions, for presentation with the added ability for audio/video web-based conferencing.

The existing room technology may be repurposed in functionality. The (2) existing flat panels will be replaced with a single 98" UHD display. User's will be given the ability to wirelessly present to the display.

#### **The Board Closing Room (2) 60" Displays Replaced by (1) 98" UHD Display**





The rooms will be simplified to support the following video sources: PC, (2) Laptop connections at table, and Wireless.

The existing Cisco wall mounted, HD, pan/tilt/zoom camera and table microphones may be repurposed for web-based conferencing. A USB connection will be provided for a visitor to use the conferencing features with their desired conferencing platform (Zoom, Teams, WebEx, etc.).

The microphones will be provided to also support audio conferencing in the space.

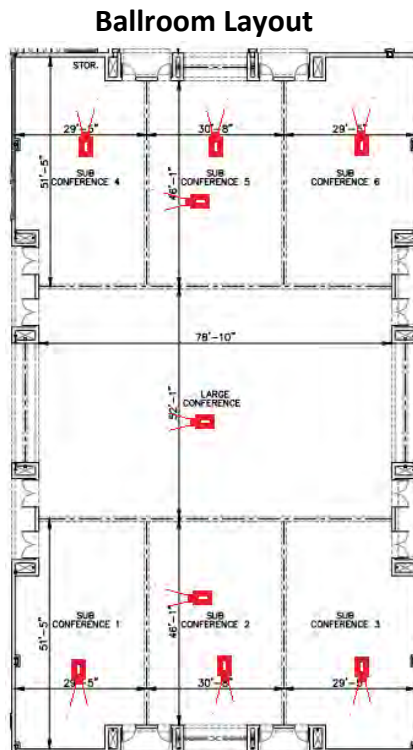
The existing A/V rack, amplifier, Crestron switch, table boxes, speakers, and surge protection may be repurposed.

A new control system processor and touch panel will be installed. The control system will support network control. The lighting system and shade controls will be integrated into the A/V system and touch panel.

Cloud lighting will be replaced with LED fixtures to provide equivalent illumination. All can lights will be converted to LED.

## 9. Ballroom

This space can support the largest groups within the facility and can be configured in various sizes depending upon the requirement.



The space can be configured in up to (7) independent rooms, or (1) single large room, or any combination in between. Laser projectors are recommended to replace the existing projectors—in order to enhance video resolution, brightness, contrast and to minimize maintenance. Manual overrides should be placed on lifts to ensure operation in emergencies.

Keypads will be designed to be placed in each of the rooms for simplified user control such as projector on/off, video mute, and volume control. Partition sensors will be installed in the ceiling to determine the state of the combined spaces for simplified user adoption.

Cloud light fixtures will be replaced with a modern fixture (approved by LeGrand management), installed lower than current lighting (18 total). All can lighting will be converted to LED lighting. Lighting will need to be configurable based on “Skywall” placement, dimmable and allow for separate control of each style of lighting in the room(s).

#### 10. Exhibit and Economic Development Corridors

These (2) corridors outside of the Ballrooms will be provided with audio (split into 2 zones respective to each corridor).

The existing Valcom wall mounted speakers may be repurposed or new equipment will be installed for music and paging.

The existing scheduling panels will be replaced with a *network-controlled* panel that is centrally managed for all other displays within the building scheduling software or same programming software as other video boards at the LeGrand Center.

**Exhibit Corridor**



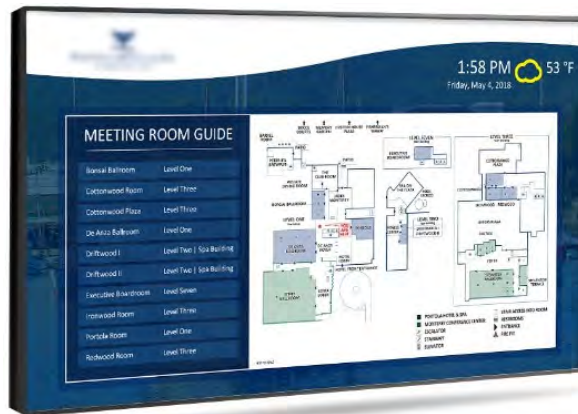
June 27, 2022

Cloud lighting will be replaced with LED fixtures to provide equivalent illumination. All sconces, pendants, and up-lights will be converted to LED.

**Schedule Monitor Example 1**



**Schedule Monitor Example 2**



**Schedule Monitor Example 3**



## 11. Exclusions

There will be no changes in the Early College High School Class rooms.

There will be no changes to the outside lighting.

Lighting And Audio Video Controls Upgrade Functional Description

June 27, 2022

12. Appendix—Cresnet As-Built Drawings as PDFs

No.	DRAWING #	REV	TITLE
1	01.0	02	COVER PAGE AND DRAWING INDEX
2	02.0	00	LETTER OF TRANSMITTAL
3	02.1	00	START UP REQUEST FORM
4	03.0	00	BILL OF MATERIALS
5	04.0	02	OVERALL RISER PAGE 1
6	04.1	02	OVERALL RISER PAGE 2
7	04.2	02	OVERALL RISER PAGE 3
8	04.3	02	OVERALL RISER PAGE 4
9	05.0	02	CPP-2 DETAILS
10	05.1	02	CPP-1 DETAILS
11	06.0	00	LCP-1 DETAILS
12	06.1	00	LCP-1 LOAD SCHEDULE
13	07.0	00	DALI-1 DETAILS
14	07.1	00	DALI-1 LOAD SCHEDULE
15	08.0	00	DALI-2 DETAILS
16	08.1	00	DALI-2 LOAD SCHEDULE
17	09.0	02	CONF. ROOMS 31-, 320, 321, & BROAD RM 322 LOAD DETAILS
18	10.0	00	LCP-1 DETAILS
19	10.1	00	LCP-1 LOAD SCHEDULE
20	11.0	02	CLASSROOMS AND LABS 187 & 191 LOAD DETAILS
21	12.0	00	GLPAC-1 DETAILS
22	12.1	00	GLPAC-1 LOAD SCHEDULE
23	C2N-CBD-TS	00	CAMEO STYLE KEYPAD PAGE 1
24	C2N-CBD-TS	00	CAMEO STYLE KEYPAD PAGE 2
25	CLS-C6	00	ILUX INTEGRATED LIGHTING CONTROLLER
26	CLS-EXP-DIMFDB		SH 1 OF 3
27	CLS-EXP-DIMFDB		SH 2 OF 3
28	CLS-EXP-DIMFDB		SH 3 OF 3
29	CLS-EXP-DIMFLV		SH 1 OF 5
30	CLS-EXP-DIMFLV		SH 2 OF 5
31	CLS-EXP-DIMFLV		SH 3 OF 5
32	CLS-EXP-DIMFLV		SH 4 OF 5
33	CLS-EXP-DIMFLV		SH 5 OF 5
34	GLE / GLEPD / GLPS	02	BREAKER PANEL WIRING DETAILS
35	GLPD & GLPS-BLOCK	01	CRESNET DISTRIBUTION BLOCKS FOR GLPD & GLPS
36	GLS-SIM	01	SENSOR INTEGRATION MODULE WITH WIRING DETAILS
37	GLXP-HSW12	01	12 CHANNEL HIGH INRUSH RELAY MODULE
38	GLXP-HSW8	01	8 CHANNEL HIGH INRUSH RELAY MODULE
39	TPMC-8L	00	ISYS 8.4" WALL MOUNT TOUCHPANEL
40	TPMC-8X	00	ISYS 8.4" WALL MOUNT WIRELESS TOUCHPANEL
41	TPMC-8X-DSW	00	DOCKING STATION FOR TPMC-8X
42	TPS-4L	00	ISYS 3.6 WALL MOUNT TOUCHPANEL
43	TPS-4L	00	TPS-4L ENGRAVING AND PROGRAMMING DETAIL SHEET



# LEGRANDE CENTER SHELBY NC

QUOTATION #: 1002617

REVISION #: 3

DATE: 11/2/10

## DRAWINGS FOR RECORD UPDATED TO "AS BUILT"

DRAWING INDEX		
DRAWING#	REV	TITLE
01.0	02	COVER PAGE AND DRAWING INDEX
02.0	00	LETTER OF TRANSMITTAL
02.1	00	START UP REQUEST FORM
03.0	00	BILL OF MATERIALS
04.0	02	OVERALL RISER PAGE 1
04.1	02	OVERALL RISER PAGE 2
04.2	02	OVERALL RISER PAGE 3
04.3	02	OVERALL RISER PAGE 4
05.0	02	CPP-2 DETAILS
05.1	02	CPP-1 DETAILS
06.0	00	LCP-1 DETAILS
06.1	00	LCP-1 LOAD SCHEDULE
07.0	00	DALI-1 DETAILS
07.1	00	DALI-1 LOAD SCHEDULE
08.0	00	DALI-2 DETAILS
08.1	00	DALI-2 LOAD SCHEDULE
09.0	02	CONF ROOMS 31-,320,321 & BOARD RM 322 LOAD DETAILS
10.0	00	LCP-1 DETAILS
10.1	00	LCP-1 LOAD SCHEDULE
11.0	02	CLASSROOMS AND LABS 187 & 191 LOAD DETAILS
12.0	00	GLPAC-1 DETAILS
12.1	00	GLPAC-1 LOAD SCHEDULE
C2N-CBD-TS	00	CAMEO STYLE KEYPAD
CLS-C6	00	ILUX INTEGRATED LIGHTING CONTROLLER
CRESNET	01	CRESNET WIRING DETAILS
GLE/GLEP	00	BREAKER PANEL WIRING DETAILS
GLPS-BLOCK	00	CRESNET TERMINATION BLOCK
GLS-SIM	01	SENSOR INTEGRATION MODULE
GLXP-HSW12	00	12 CHANNEL HIGH INRUSH RELAY MODULE
GLXP-HSW8	00	8 CHANNEL HIGH INRUSH RELAY MODULE
TPMC-8L	00	ISYS 8.4" WALL MOUNT TOUCHPANEL
TPMC-8X	00	ISYS 8.4" WIRELESS WIFI TOUCHPANEL
TPMC-8X-DSW	00	DOCKING STATION FOR TPMC-8X
TPS-4L	00	ISYS 3.6" WALL MOUNT TOUCHPANEL

### NOTE:

SUBMITTALS GENERATED FROM PROJECT THE FOLLOWING PROJECT DRAWINGS  
ENGINEER: N/A REVISION: N/A DATE: N/A  
IF THESE DRAWINGS ARE NOT CURRENT IT IS THE RESPONSABILITY OF THE APPROVER TO PROVIDE  
THE LATEST REVISION OF THE PROJECT DRAWINGS TO CRESTRON LIGHTING PROJECTS.

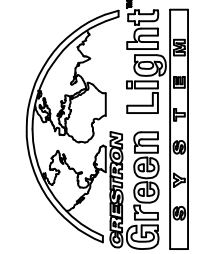
**productspluspeople**

### CONTACT:

PROJECT ENGINEER: ROB TOOKER

EMAIL ADDRESS: RTOOKER@CRESTRON.COM

PHONE: 1.800.237.2041 EXT. 10845



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

TITLE:  
COVER PAGE AND  
DRAWING INDEX

DRAWING:  
01.0  
REV: 02  
DATE: 8-AUG-2012  
DRAWN BY: RT





## Letter of Transmittal

One copy of this submittal package must be stamped and approved by the responsible architect/engineer. It should then be forwarded to:

Crestron Electronics, Inc.  
15 Volvo Drive  
Rockleigh, NJ 07647  
ATTN: Lighting Projects

Please clearly indicate whether this package is accepted as is, accepted with notations, or rejected.

An order for the dimming system described by this submittal package will be accepted after receipt of the stamped submittal and a valid PO matching the latest revision of the Crestron quotation. After receipt of these items, delivery will be scheduled within 4-6 weeks.

Any changes to this system will result in rescheduling, longer manufacturing time, and/or additional engineering charges.

On-site start-up must be requested a minimum of two weeks in advance of the proposed date. also prior to on-site, a crestron "systems engineering system check out" form must be signed by the electrical contractor confirming completion of the electrical wiring according to the approved crestron submittal.

**IMPORTANT: It is recommended that the PAC2 processor is supplied by a dedicated, backed up, clean power source with surge and spike protection (FBO).**

Any orders cancelled after 3 days from Crestron's acceptance of the order will result in cancellation charges of 10% order total.

**productspluspeople**



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

TITLE:  
LETTER OF  
TRANSMITTAL

DRAWING:  
02.0  
REV: 00  
DATE: 01/03/11  
DRAWN BY: BJ

# Start-Up Request Form

## Three weeks Notice Required

Please return this completed form along with the necessary programming information, if not provided previously, to [lightingprojects@crestron.com](mailto:lightingprojects@crestron.com) or fax to 201.767.6011 **THREE WEEKS** prior to the date startup is being requested. Any missing or incomplete information not provided will only delay the startup of the job.

Prior to submitting the Electrical Contractor shall acknowledge that the following conditions have been met:

1. All system installation, connections, and wiring have been completed per the checklist below.
2. A qualified and authorized person shall be present on the scheduled start-up date to verify/correct and system installation/wiring if necessary, and to provide final sign-off and acceptance of the Crestron Check Out Acceptance Form.
3. Failure to have wiring completed according to Crestron documentation as provided such that a subsequent site visit is required will result in additional onsite and expenses charges of at \$1500.00 a day.

### Crestron System Checkout Checklist

- The Load Schedule and the Panel Termination Schedule match. Any deviation from the schedule in the submittals will require as built load schedules when submitting this form.
- The lighting cabinet(s) is/are installed and both high voltage and low voltage are connected.
- All lighting fixtures are installed, wired, and checked for short circuits.
- There is power run to the processor over Cresnet cable.
- Any device shown on the overall riser in this submittal is installed and wired completely.
- There are no fixtures or loads that are not terminated in the lighting panels. Every fixture expected to be controlled by Crestron can be turned on and off at the dimming or switching cabinet.
- Programming details and information has been provided to Crestron Lighting Projects.

Name:

Company:

Phone / Email Address:

Date:     /     /

Project Completion Date:     /     /

Requested Start-Up Date:     /     /

Site Contact:

Mobile Phone:

Company:

Title:

Site Address:

Signature: \_\_\_\_\_



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
[www.crestron.com](http://www.crestron.com)

TITLE:  
START UP REQUEST  
FORM

DRAWING:  
02.1  
REV: 00  
DATE: 01/03/11  
DRAWN BY: BJ

**Bill of Materials**

Project: LEGRANDE CENTER  
 Creator: BJ  
 Date: 8/10/2012

**Panel ID: CPP-2**

QTY	PART #	DESCRIPTION
1	CAEN-4X1	CRESTRON AUTOMATION ENCLOSURE
1	CAEN-CK-4X1	COVER EXTENSION KIT
1	PAC2	PROFESSIONAL AUTOMATION PROCESSOR WITH POWER SUPPLY
1	C2ENET-1	SINGLE PORT ETHERNET CARD
2	CAFN-UMPIX2	UNIVERSAL MOUNTING PLATE
1	GLA-BMS	BACNET IP INTEGRATION DEVICE
1	GLA-BMS-MOUNT	BMS MOUNT
2	CEN-SW-POE-5	4 PORT NETWORK SWITCH WITH UPLINK
1	CLX-PWS75	75 WATT POWER SUPPLY
1	CLT-PWS75	TERMINAL RAIL FOR CLX-PWS75

**Panel ID: DALI-1 & DALI-2**

QTY	PART #	DESCRIPTION
2	GLEP-FT-8	COMMERCIAL LIGHTING ENCLOSURE
0	DIN-AP2	PROFESSIONAL AUTOMATION COMPUTER
2	DIN-DALI-2	DALI INTERFACE 2 LOOPS
2	DIN-PWS50	50 WATT POWER SUPPLY
2	DIN-BLOCK	NETWORK JUNCTION BLOCK

**Panel ID: LCP-2**

QTY	PART #	DESCRIPTION
1	GLEP-MLO-277-42	COMMERCIAL LIGHTING ENCLOSURE, 42 CIRCUITS, 277/480VV
42	GLC/GLEPB-277-20A-35	20A BREAKER
3	GLXP-HSW12	12 CHANNEL HI INRUSH SWITCH MODULE
1	GLXP-HSW8	8 CHANNEL HI INRUSH SWITCH MODULE

**Interfaces:**

QTY	PART #	DESCRIPTION	COLOR
2	TPMC-8L	8.4" LECTERN TOUCH PANEL	WHITE
28	C2N-CBD-TS	CAMEO STYLE KEYPAD, 2-6 BUTTON FIELD CONFIGURABLE	WHITE
1	TPMC-8X	8.4" WFI TOUCH PANEL	BLACK
26	CLS-C6W	6 ZONE LIGHTING CONTROLLER	WHITE
1	TPS-4L	ISYS 3.6" WALL MOUNT TOUCHPANEL	WHITE

**Panel ID: CPP-1**

QTY	PART #	DESCRIPTION
1	CAEN-4X1	CRESTRON AUTOMATION ENCLOSURE
1	CAEN-CK-4X1	COVER EXTENSION KIT
1	PAC2	PROFESSIONAL AUTOMATION PROCESSOR WITH POWER SUPPLY
1	C2ENET-1	SINGLE PORT ETHERNET CARD
1	CEN-SW-POE-5	4 PORT NETWORK SWITCH WITH UPLINK
1	CLX-PWS75	75 WATT POWER SUPPLY
1	CLT-PWS75	TERMINAL RAIL FOR CLX-PWS75

**Panel ID: LCP-1**

QTY	PART #	DESCRIPTION
1	GLEP-MLO-277-42	COMMERCIAL LIGHTING ENCLOSURE, 42 CIRCUITS, 277/480VV
42	GLE/GLEPB-277-20A-35	20A BREAKER
3	GLXP-HSW12	12 CHANNEL HI INRUSH SWITCH MODULE
1	GLXP-HSW8	8 CHANNEL HI INRUSH SWITCH MODULE

**Misc:**

QTY	PART #	DESCRIPTION
2	BB-8L	BACK BOX FOR TPMC-8L
4	GLA-PWS50	50 WATT POWER SUPPLY, 120V
1	CNPWS-75	75 WATT POWER SUPPLY
1	TPMC-8X-DSW	WALL MOUNT DOCKING STATION FOR TPMC-8X
1	BB-8X-DSW	BACK BOX FOR TPMC-8X-DSW
54	GLS-SIM	SENSOR INTEGRATION MODULE
60	GLS-ODT-C-2000	DUAL TECHNOLOGY OCCUPANCY SENSOR, CEILING MOUNT, 2000 Sq. Ft.
3	GLS-ODT-W-1200	DUAL TECHNOLOGY OCCUPANCY SENSOR, WALL MOUNT, 1200 Sq. Ft.
9	GLS-LOL	INTERIOR OPEN LOOP PHOTOCELL
22	CLS-EXP-DIMFLV	0-10V EXPANSION MODULE
44	CLS-EXP-DIMFDB	3-WIRE FLUORO DIMMING EXPANSION MODULE
2	C2N-SDC	SHADE AND DRAPE CONTROLLER
1	BB-4L	BACK BOX FOR TPS-4L
6	GLA-PWS50	50 WATT POWER SUPPLY, 120V

**Notes:**

Please ensure all colors shown on this bill of materials are correct prior to releasing the order for shipment. If there are any corrections please make sure to notify lightingprojects@crestron.com.



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS

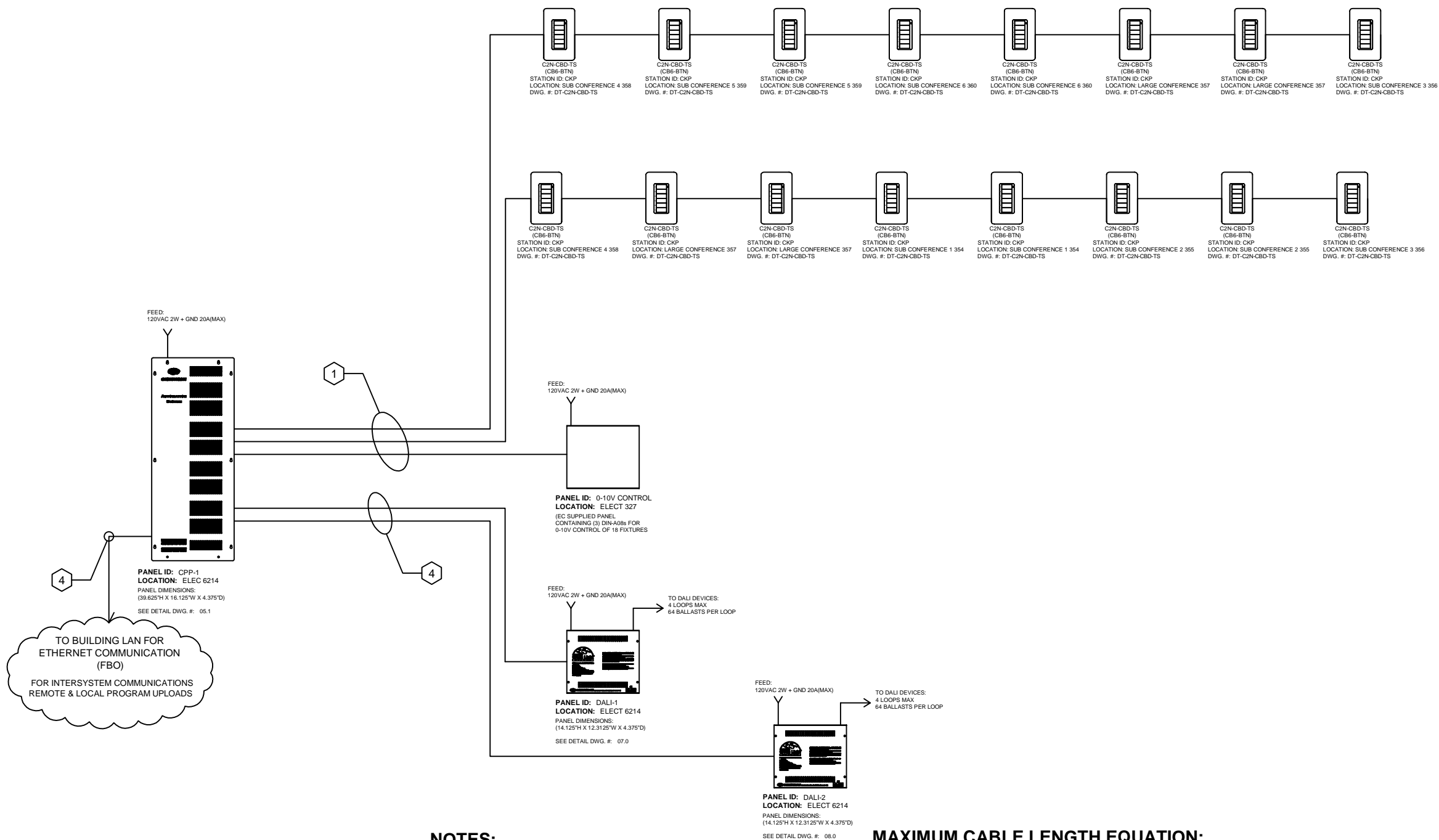


15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
 BILL OF MATERIALS

DRAWING:  
 03.0  
 REV: 00  
 DATE: 01/03/11  
 DRAWN BY: BJ

1 2



**NOTES:**

- 1** "CRESNET" CABLE:  
 (1) PAIR #18AWG,  
 (1) TWISTED PAIR 22AWG  
 W/SHIELD (BY E.C.)  
NON-PLENUM PN: CRESNET-NP-TL  
PLENUM PN: CRESNET-P-TL
- 2** RS-232 CABLE:  
 (1) TWISTED PAIR 22AWG  
 (1) SHIELD  
 DB-9 CONNECTOR  
 (BY E.C.)
- 3** CABLE:  
 (1) TWISTED PAIR 18AWG  
 (1) SHIELD  
 (BY E.C.)
- 4** CABLE:  
 CAT5E ETHERNET
- 5** SUITABLE GAUGE WIRE  
 TO MEET LOAD  
 REQUIREMENTS

**ALL CABLES ARE TYPE "1" CRESNET UNLESS OTHERWISE NOTED**

**MAXIMUM CABLE LENGTH EQUATION:**

$$L < \frac{40,000}{R \times P}$$

Where L = Maximum Length of run in feet from power source  
 R = 6 Ohms for Cresnet Certified wire or  
 1.6 Ohms for Cresnet High Power Certified wire  
 P = Cresnet Power usage of entire run

Example: A single run with (4) CNX-B6 Keypads, (4) GLS-SIM, (4) GLS-ODT-C-2000 (Sensor) has a total Cresnet Power usage of P = 20 Watts. Using standard Cresnet cable R = 6 the maximum wire length would be 333 feet. Using High Power Cresnet R= 1.6 the maximum wire length would be 1250 feet.

\*\*\*ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.

LENGTH OF CRESNET WIRING RUNS ARE LIMITED TO # OF DEVICES AND CRESNET POWER DRAW. DAISY CHAIN AND OR STAR TOPOLOGIES ARE PERMITTED TO SUIT INSTALLATION NEEDS. EACH HOME RUN NOT TO EXCEED 20 CRESNET DEVICES. USE THE CALCULATOR SHOWN TO DETERMINE MAXIMUM WIRE RUN LENGTH. POWER SUPPLIES CAN BE ADDED TO INCREASE LENGTH OF HOME RUNS.

PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

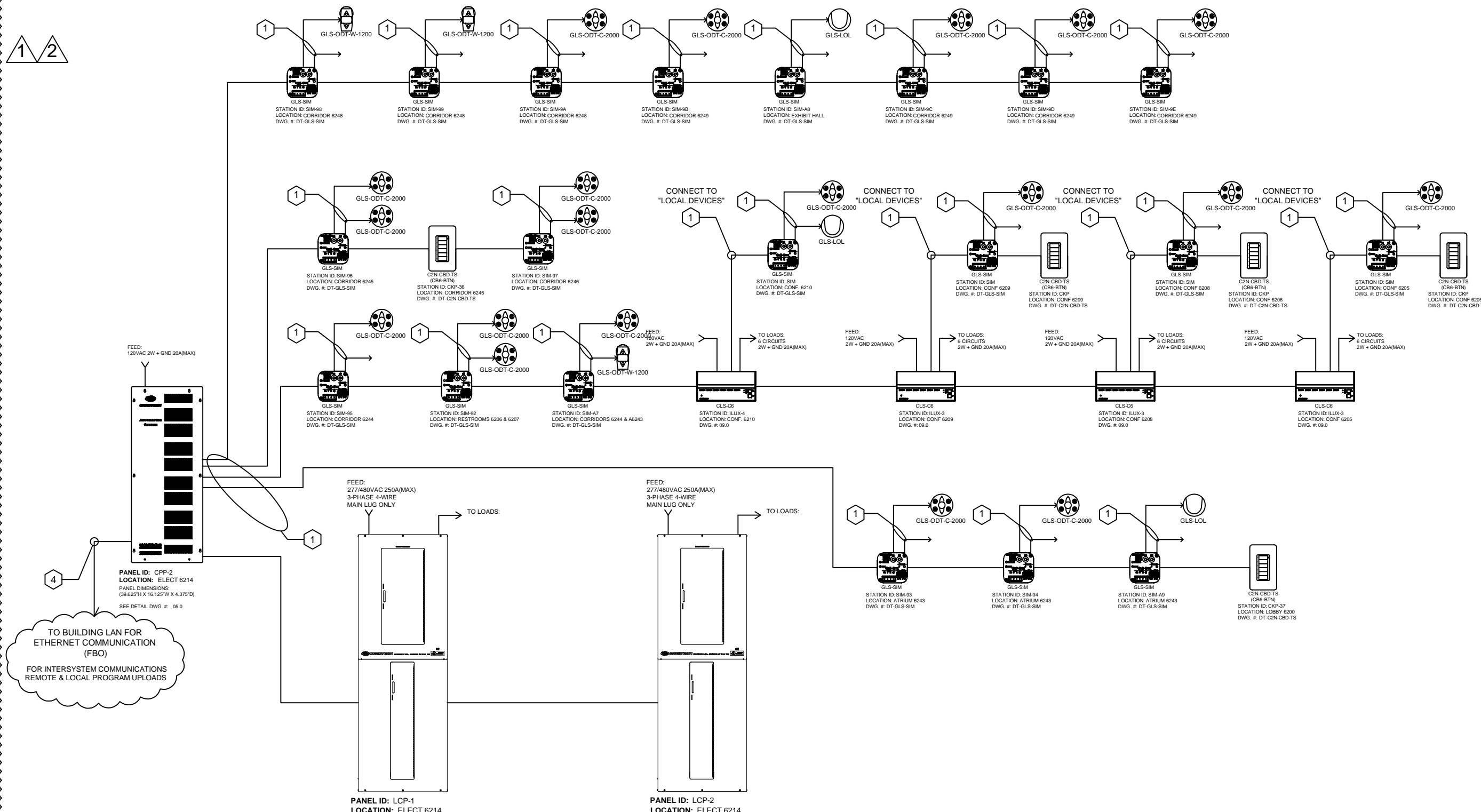
DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
 OVERALL RISER  
 PAGE 1

DRAWING:  
 04.0  
 REV:02  
 DATE: 8-AUG-2012  
 DRAWN BY: RT



TO BUILDING LAN FOR ETHERNET COMMUNICATION (FBO)  
FOR INTERSYSTEM COMMUNICATIONS  
REMOTE & LOCAL PROGRAM UPLOADS

**NOTES:**

- 1 \*CRESNET\* CABLE:  
(1) PAIR #18AWG,  
(1) TWISTED PAIR 22AWG  
W/SHIELD (BY E.C.)  
NON-PLENUM PN: CRESNET-NP-TL  
PLENUM PN: CRESNET-P-TL
- 2 RS-232 CABLE:  
(1) TWISTED PAIR 22AWG  
(1) SHIELD  
DB-9 CONNECTOR  
(BY E.C.)
- 3 CABLE:  
(1) TWISTED PAIR 18AWG  
(1) SHIELD  
(BY E.C.)
- 4 CABLE:  
CAT5E ETHERNET
- 5 SUITABLE GAUGE WIRE  
TO MEET LOAD  
REQUIREMENTS

**ALL CABLES ARE TYPE "1" CRESNET UNLESS OTHERWISE NOTED**

**MAXIMUM CABLE LENGTH EQUATION:**

$$L < \frac{40,000}{R \times P}$$

Where L = Maximum Length of run in feet from power source  
R = 6 Ohms for Cresnet Certified wire or  
1.6 Ohms for Cresnet High Power Certified wire  
P = Cresnet Power usage of entire run

Example: A single run with (4) CNX-B6 Keypads, (4) GLS-SIM, (4) GLS-ODT-C-2000 (Sensor) has a total Cresnet Power usage of P = 20 Watts. Using standard Cresnet cable R = 6 the maximum wire length would be 333 feet. Using High Power Cresnet R= 1.6 the maximum wire length would be 1250 feet.

\*\*\*ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.

LENGTH OF CRESNET WIRING RUNS ARE LIMITED TO # OF DEVICES AND CRESNET POWER DRAW. DAISY CHAIN AND OR STAR TOPOLOGIES ARE PERMITTED TO SUIT INSTALLATION NEEDS. EACH HOME RUN NOT TO EXCEED 20 CRESNET DEVICES. USE THE CALCULATOR SHOWN TO DETERMINE MAXIMUM WIRE RUN LENGTH. POWER SUPPLIES CAN BE ADDED TO INCREASE LENGTH OF HOME RUNS.

PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS

PO #: X07496

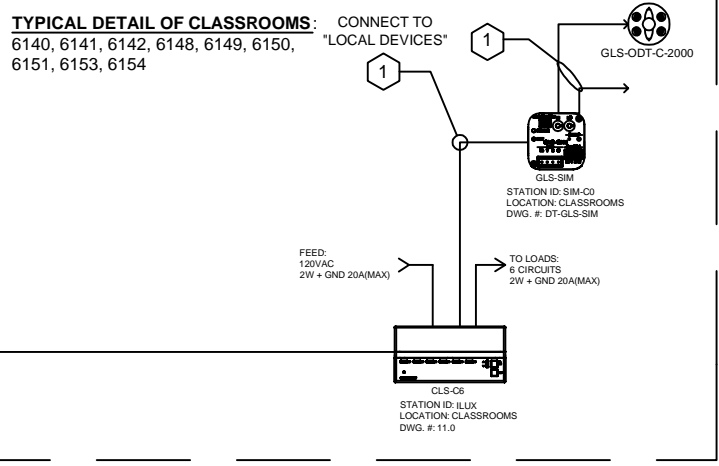
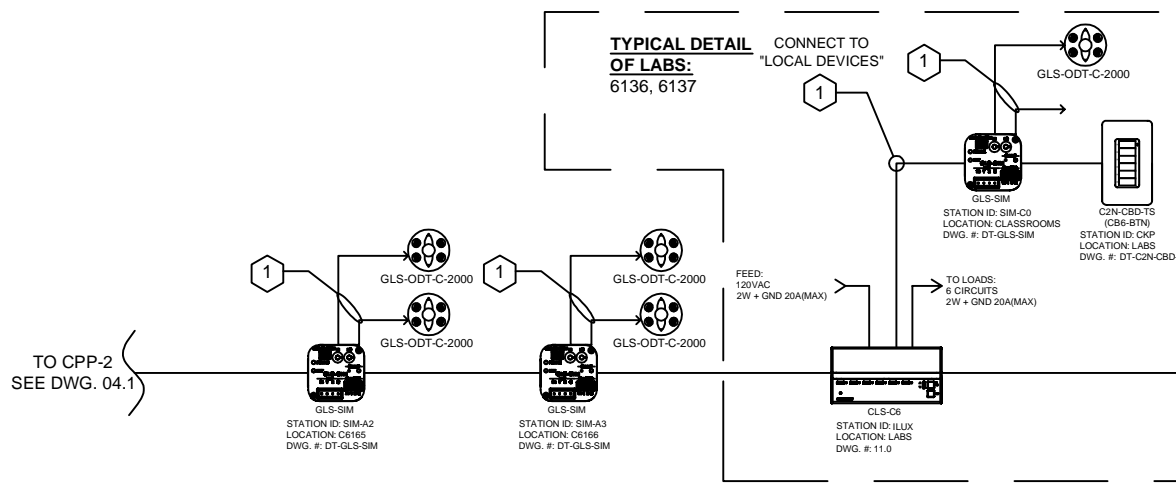
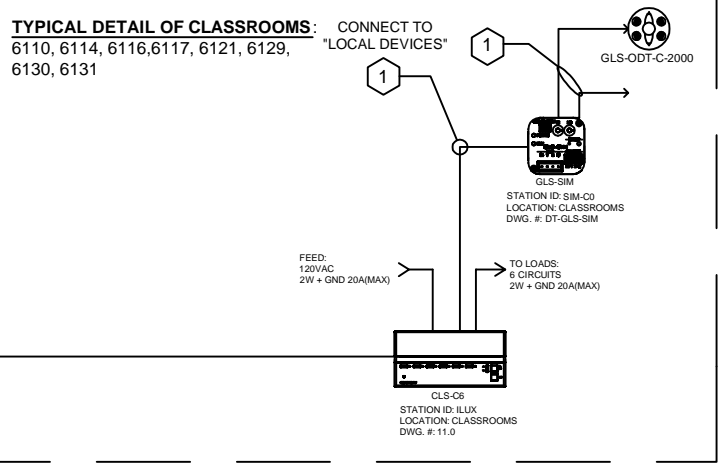
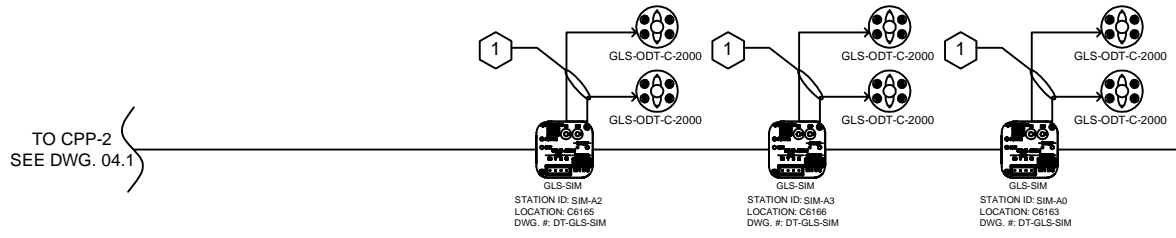
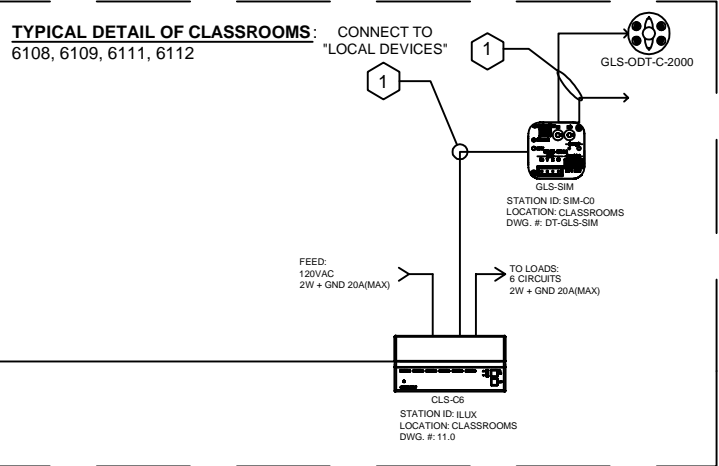
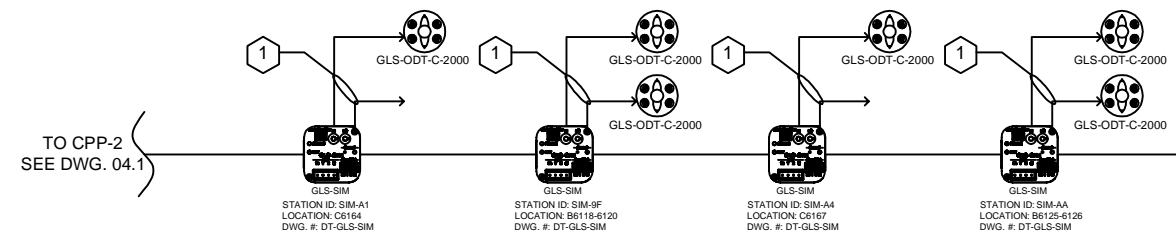


15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

TITLE:  
OVERALL RISER  
PAGE 2

DRAWING:  
04.1  
REV:02  
DATE: 8-AUG-2012  
DRAWN BY: RT

1 2



**NOTES:**

- 1 "CRESNET" CABLE:  
(1) PAIR #18AWG,  
(1) TWISTED PAIR 22AWG  
W/SHIELD (BY E.C.)  
NON-PLENUM PN: CRESNET-NP-TL  
PLENUM PN: CRESNET-P-TL
- 2 RS-232 CABLE:  
(1) TWISTED PAIR 22AWG  
(1) SHIELD  
DB-9 CONNECTOR  
(BY E.C.)
- 3 CABLE:  
(1) TWISTED PAIR 18AWG  
(1) SHIELD  
(BY E.C.)
- 4 CABLE:  
CAT5E ETHERNET
- 5 SUITABLE GAUGE WIRE  
TO MEET LOAD  
REQUIREMENTS

**ALL CABLES ARE TYPE "1" CRESNET UNLESS OTHERWISE NOTED**

**MAXIMUM CABLE LENGTH EQUATION:**

$$L < \frac{40,000}{R \times P}$$

Where L = Maximum Length of run in feet from power source  
R = 6 Ohms for Cresnet Certified wire or  
1.6 Ohms for Cresnet High Power Certified wire  
P = Cresnet Power usage of entire run

Example: A single run with (4) CNX-B6 Keypads, (4) GLS-SIM, (4) GLS-ODT-C-2000 (Sensor) has a total Cresnet Power usage of P = 20 Watts. Using standard Cresnet cable R = 6 the maximum wire length would be 333 feet. Using High Power Cresnet R= 1.6 the maximum wire length would be 1250 feet.

\*\*\*ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.

LENGTH OF CRESNET WIRING RUNS ARE LIMITED TO # OF DEVICES AND CRESNET POWER DRAW. DAISY CHAIN AND OR STAR TOPOLOGIES ARE PERMITTED TO SUIT INSTALLATION NEEDS. EACH HOME RUN NOT TO EXCEED 20 CRESNET DEVICES. USE THE CALCULATOR SHOWN TO DETERMINE MAXIMUM WIRE RUN LENGTH. POWER SUPPLIES CAN BE ADDED TO INCREASE LENGTH OF HOME RUNS.



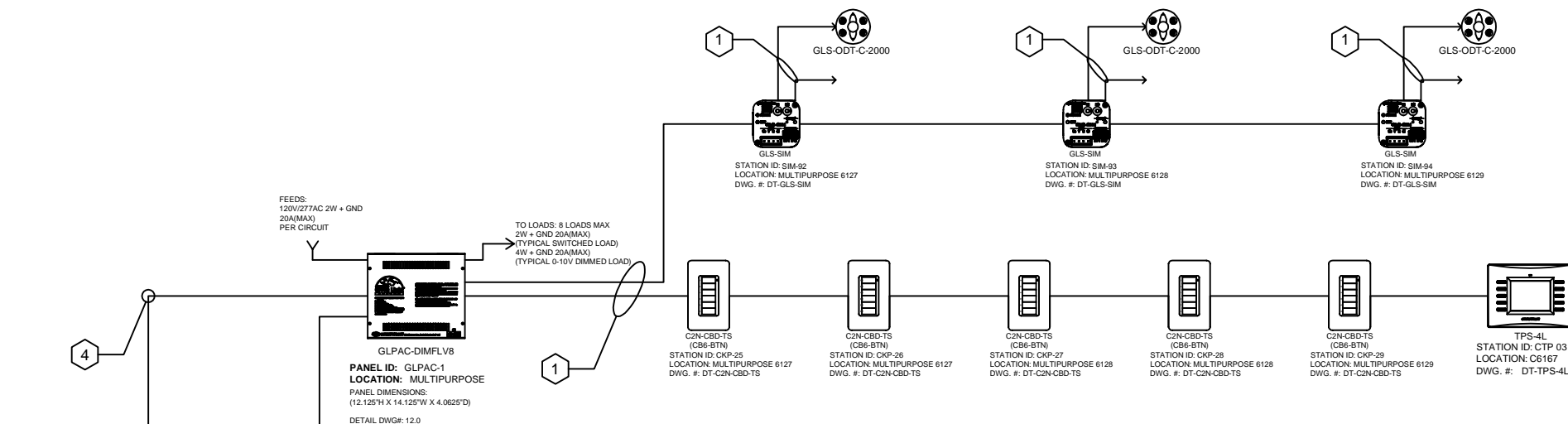
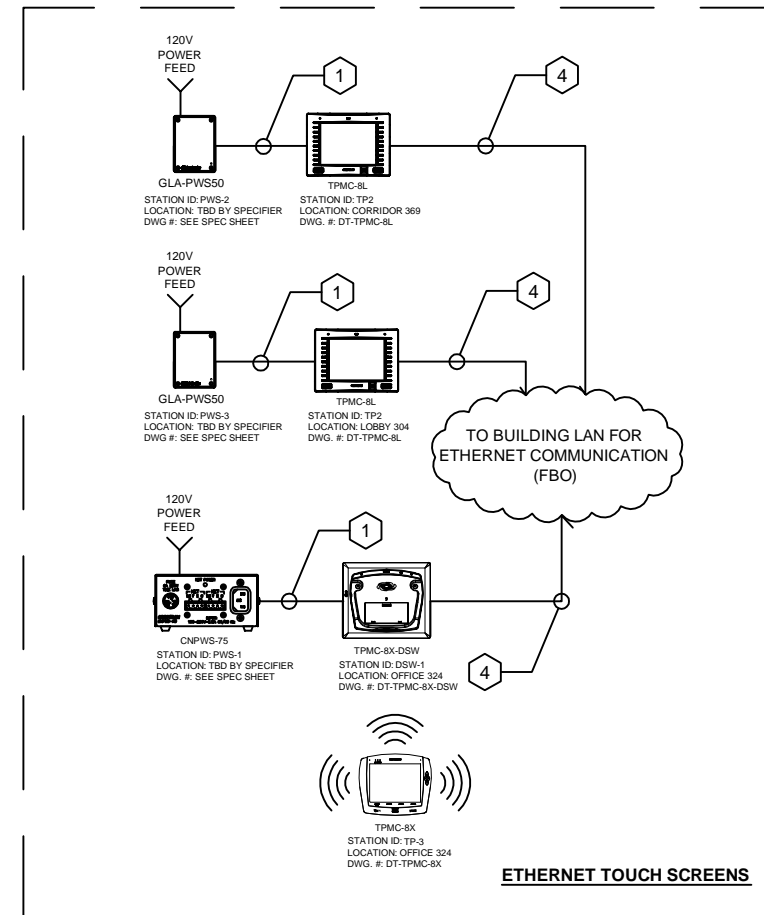
PROJECT: LEGRANDE CENTER  
LOCATION: SHELBY NC  
ORDER #: 830043 QUOTE #: 1002617 PO #: X07496  
SALES REP: TEAM LIGHTING  
DISTRIBUTOR: TECHNICAL INNOVATIONS

**CRESTRON**  
15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

TITLE:  
OVERALL RISER  
PAGE 3  
DRAWING:  
04.2  
REV: 02  
DATE: 8-AUG-2012  
DRAWN BY: RT



1 2



**NOTES:**

- 1 "CRESNET" CABLE:  
(1) PAIR #18AWG,  
(1) TWISTED PAIR 22AWG  
W/SHIELD (BY E.C.)  
NON-PLENUM PN: CRESNET-NP-TL  
PLENUM PN: CRESNET-P-TL
- 2 RS-232 CABLE:  
(1) TWISTED PAIR 22AWG  
(1) SHIELD  
DB-9 CONNECTOR  
(BY E.C.)
- 3 CABLE:  
(1) TWISTED PAIR 18AWG  
(1) SHIELD  
(BY E.C.)
- 4 CABLE:  
CAT5E ETHERNET
- 5 SUITABLE GAUGE WIRE  
TO MEET LOAD  
REQUIREMENTS

**MAXIMUM CABLE LENGTH EQUATION:**

$$L < \frac{40,000}{R \times P}$$

Where L = Maximum Length of run in feet from power source  
R = 6 Ohms for Cresnet Certified wire or  
1.6 Ohms for Cresnet High Power Certified wire  
P = Cresnet Power usage of entire run

Example: A single run with (4) CNX-B6 Keypads, (4) GLS-SIM, (4) GLS-ODT-C-2000 (Sensor) has a total Cresnet Power usage of P = 20 Watts. Using standard Cresnet cable R = 6 the maximum wire length would be 333 feet. Using High Power Cresnet R= 1.6 the maximum wire length would be 1250 feet.

\*\*\*ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.

LENGTH OF CRESNET WIRING RUNS ARE LIMITED TO # OF DEVICES AND CRESNET POWER DRAW. DAISY CHAIN AND OR STAR TOPOLOGIES ARE PERMITTED TO SUIT INSTALLATION NEEDS. EACH HOME RUN NOT TO EXCEED 20 CRESNET DEVICES. USE THE CALCULATOR SHOWN TO DETERMINE MAXIMUM WIRE RUN LENGTH. POWER SUPPLIES CAN BE ADDED TO INCREASE LENGTH OF HOME RUNS.

**ALL CABLES ARE TYPE "1" CRESNET UNLESS OTHERWISE NOTED**



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

TITLE:  
OVERALL RISER  
PAGE 4

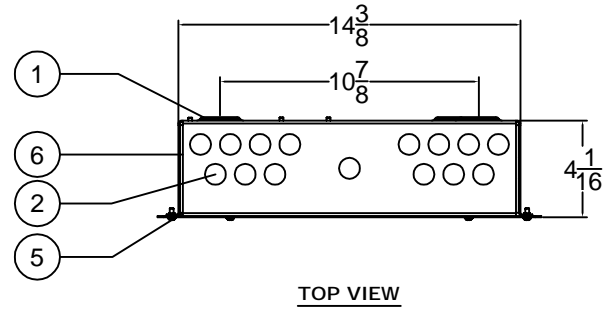
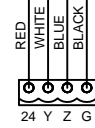
DRAWING: 04.3

REV: 02  
DATE: 8-AUG-2012  
DRAWN BY: RT

**CRESNET CONTROL WIRING**

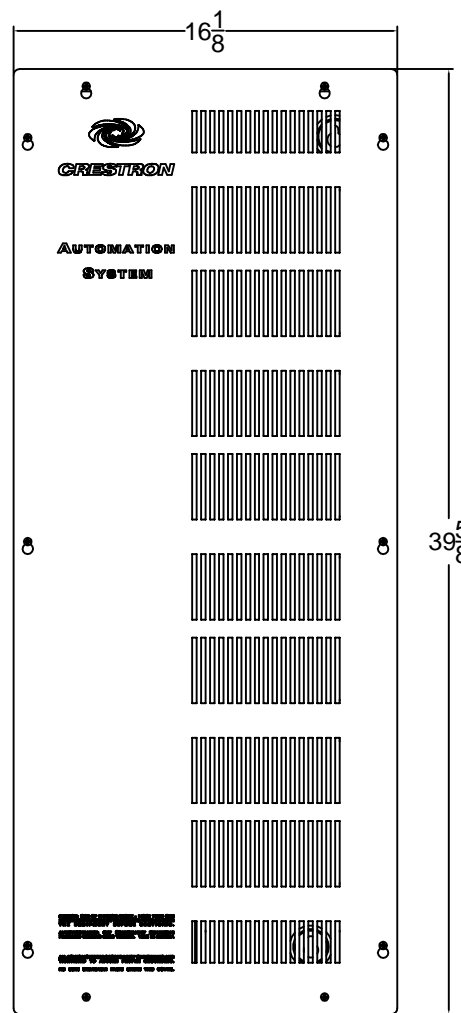
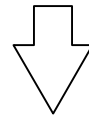
TO LAST CONTROL STATION, PROCESSOR, OR CRESNET DEVICE. (SEE CONTROL RISER)

TO NEXT CONTROL STATION, PROCESSOR, OR CRESNET DEVICE. (SEE CONTROL RISER)



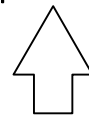
TOP VIEW

POWER (CLASS 1) WIRING ENTRY

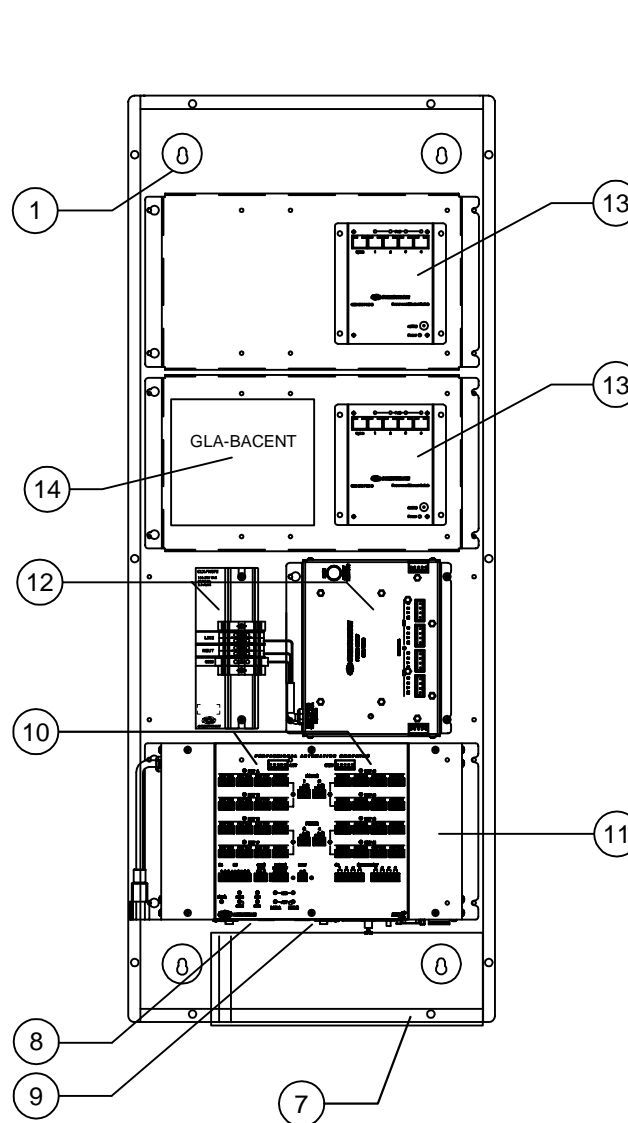


FRONT VIEW (WITH COVER)

CONTROL (CLASS 2) WIRING ENTRY



SIDE VIEW



FRONT VIEW (WITHOUT COVER)

**CAEN 4X1 LIGHTING PANEL**

**NOTES KEY**

- 1 MOUNTING KEYHOLES IN BACK PANEL OF CAEN ENCLOSURE FOR SURFACE MOUNTING OF ASSEMBLY.
- 2 KNOCKOUTS FOR CABINET WIRING
- 3 TERMINAL BLOCKS FOR MODULES #CLT-XXXXX (SEE CABINET MODULE SCHEDULE)
- 4 DIMMER MODULES #CLX-XXXXXX (SEE CABINET MODULE SCHEDULE)
- 5 #CAEN-CK-4X1 COVER KIT FOR CAEN ENCLOSURE (ORDERED SEPERATLY) (OUTLINE SHOWN AS A DOTTED LINE FOR CLARITY) **KIT ADDS 1.5" TO DEPTH OF CABINET**
- 6 #CAEN-4X1 AUTOMATION ENCLOSURE, 4-MODULE
- 7 BARRIERED CLASS-2 WIRING AREA. RUN ALL CONTROL WIRING INTO THE PPROCESSOR ASSEMBLY VIA THIS BARRIERED SECTION.
- 8 #CNXIO-16 I/O VERSIPOINT CARD INSTALLED IN THE PAC2 Y-BUS CARD SLOT. PROVIDES UP TO 16 VERSIPOINTS FOR ANALOG INPUTS, DIGITAL INPUTS, OR DIGITAL OUTPUTS.
- 9 #C2ENET-1 SINGLE PORT ETHERNET CARD INSTALLED IN PAC2 Z-BUS CARD SLOT.
- 10 INTEGRATED CRESNET HUB/ REPEATER CONNECTIONS ON PAC2 PROCESSOR PROVIDING (32) HEADERS DISTRIBUTED ACCROSS (8) SEGMENTS.
- 11 #PAC2 LIGHTING CONTROL PROCESSOR.
- 12 #CLX-PWS75 75 WATT CRESNET POWER SUPPLY MODULE. 4 CRESNET POWER PORTS ARE PROVIDED TO SUPPLY POWER TO CRESNET DEVICES OR A PROCESSOR.
- 13 #CLT-PWS75 TERMINAL BLOCK MOUNTED ON LEFT SIDE FOR #CLX-PWS75 POWER SUPPLY.
- 14 #CEN-SW-POE-5 5 PORT NETWORK SWITCH.
- 15 #GLA-BACNET BACNET IP GATEWAY FOR BMS COMMUNICATION.

**GENERAL NOTES**

- 1. THIS UNIT REQUIRES A DEDICATED 120VAC 50/60HZ POWER FEED.
- 2. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
- 3. GROUND SHIELD AT CONTROL SYSTEM END **ONLY**.
- 4. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
- 5. KEEP ALL CLASS 1 POWER WIRING SEPERATED FROM ALL CLASS 2 CONTROL WIRING WITHIN THE CABINET.



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

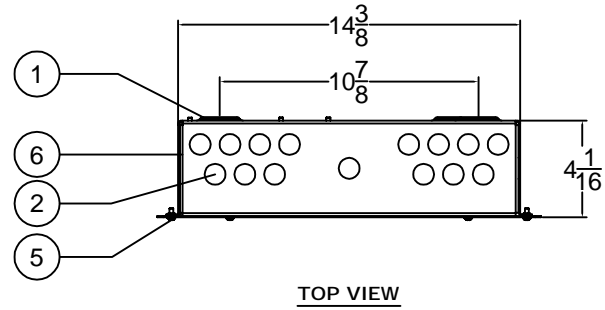
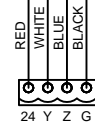
TITLE:  
 CPP-2 DETAILS

DRAWING:  
 05.0  
 REV: 02  
 DATE: 8-AUG-2012  
 DRAWN BY: RT

**CRESNET CONTROL WIRING**

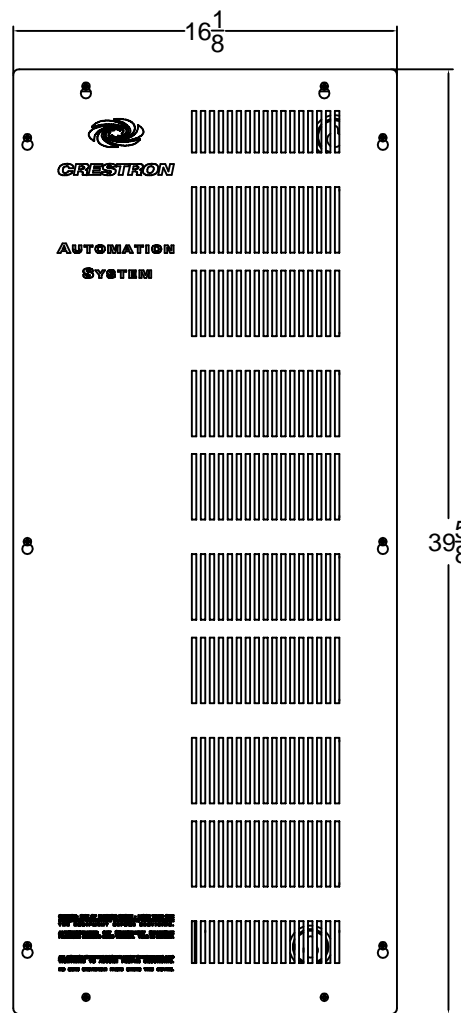
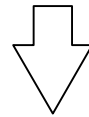
TO LAST CONTROL STATION, PROCESSOR, OR CRESNET DEVICE. (SEE CONTROL RISER)

TO NEXT CONTROL STATION, PROCESSOR, OR CRESNET DEVICE. (SEE CONTROL RISER)



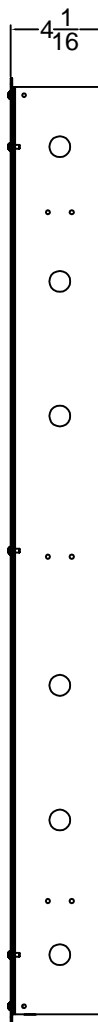
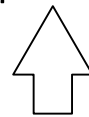
TOP VIEW

POWER (CLASS 1) WIRING ENTRY

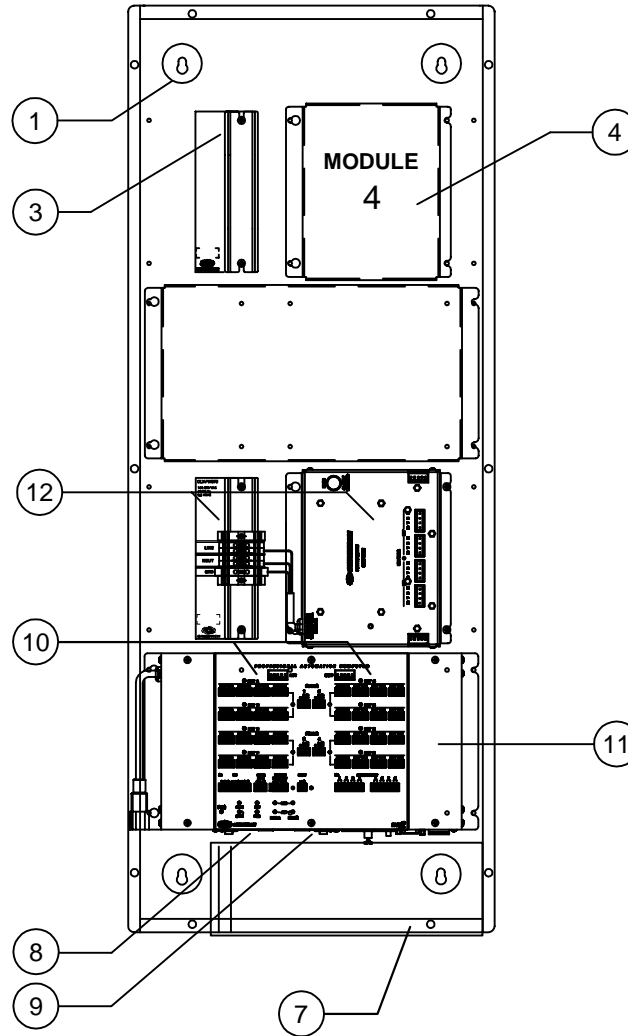


FRONT VIEW (WITH COVER)

CONTROL (CLASS 2) WIRING ENTRY



SIDE VIEW



FRONT VIEW (WITHOUT COVER)

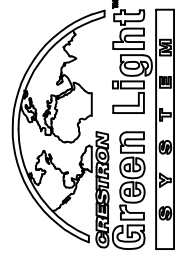
**CAEN 4X1 LIGHTING PANEL**

**NOTES KEY**

- 1 MOUNTING KEYHOLES IN BACK PANEL OF CAEN ENCLOSURE FOR SURFACE MOUNTING OF ASSEMBLY.
- 2 KNOCKOUTS FOR CABINET WIRING
- 3 TERMINAL BLOCKS FOR MODULES #CLT-XXXXX (SEE CABINET MODULE SCHEDULE)
- 4 DIMMER MODULES #CLX-XXXXXX (SEE CABINET MODULE SCHEDULE)
- 5 #CAEN-CK-4X1 COVER KIT FOR CAEN ENCLOSURE (ORDERED SEPERATLY) (OUTLINE SHOWN AS A DOTTED LINE FOR CLARITY) **KIT ADDS 1.5" TO DEPTH OF CABINET**
- 6 #CAEN-4X1 AUTOMATION ENCLOSURE, 4-MODULE
- 7 BARRIERED CLASS-2 WIRING AREA. RUN ALL CONTROL WIRING INTO THE PPROCESSOR ASSEMBLY VIA THIS BARRIERED SECTION.
- 8 #CNXIO-16 I/O VERSIPOINT CARD INSTALLED IN THE PAC2 Y-BUS CARD SLOT. PROVIDES UP TO 16 VERSIPOINTS FOR ANALOG INPUTS, DIGITAL INPUTS, OR DIGITAL OUTPUTS.
- 9 #C2ENET-1 SINGLE PORT ETHERNET CARD INSTALLED IN PAC2 Z-BUS CARD SLOT.
- 10 INTEGRATED CRESNET HUB/ REPEATER CONNECTIONS ON PAC2 PROCESSOR PROVIDING (32) HEADERS DISTRIBUTED ACCROSS (8) SEGMENTS.
- 11 #PAC2 LIGHTING CONTROL PROCESSOR.
- 12 #CLX-PWS75 75 WATT CRESNET POWER SUPPLY MODULE. 4 CRESNET POWER PORTS ARE PROVIDED TO SUPPLY POWER TO CRESNET DEVICES OR A PROCESSOR.
- 13 #CEN-SW-POE-5 5 PORT NETWORK SWITCH.

**GENERAL NOTES**

1. THIS UNIT REQUIRES A DEDICATED 120VAC 50/60HZ POWER FEED.
2. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
3. GROUND SHIELD AT CONTROL SYSTEM END **ONLY**.
4. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
5. KEEP ALL CLASS 1 POWER WIRING SEPERATED FROM ALL CLASS 2 CONTROL WIRING WITHIN THE CABINET.



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

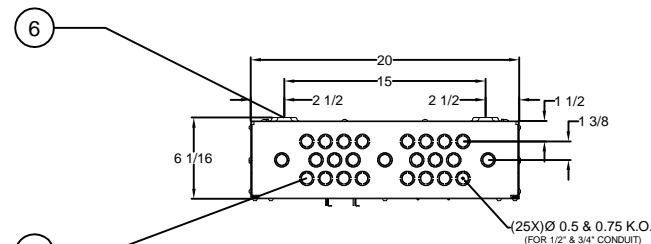
DISTRIBUTOR: TECHNICAL INNOVATIONS



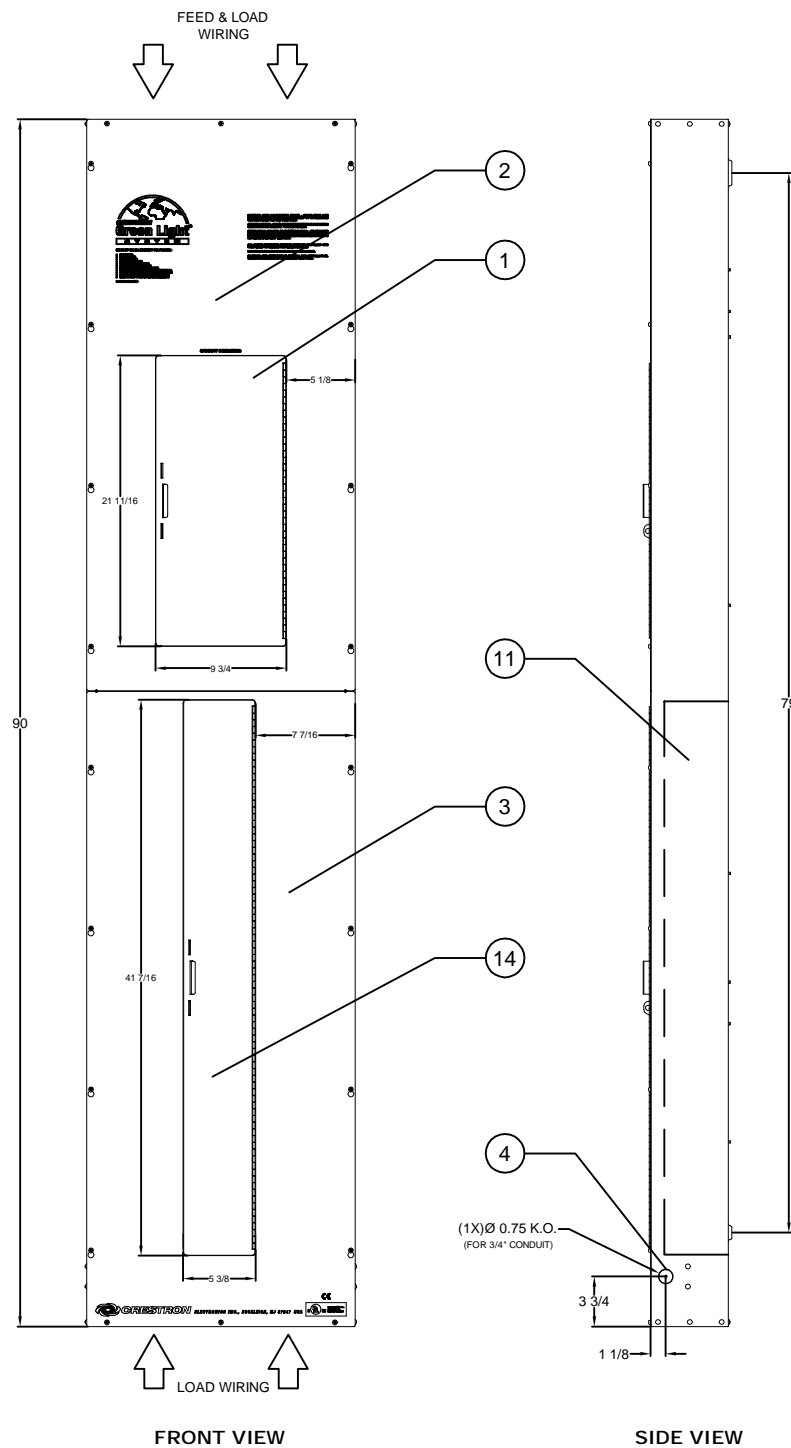
15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
 CPP-1 DETAILS

DRAWING:  
 05.1  
 REV: 02  
 DATE: 8-AUG-2012  
 DRAWN BY: RT

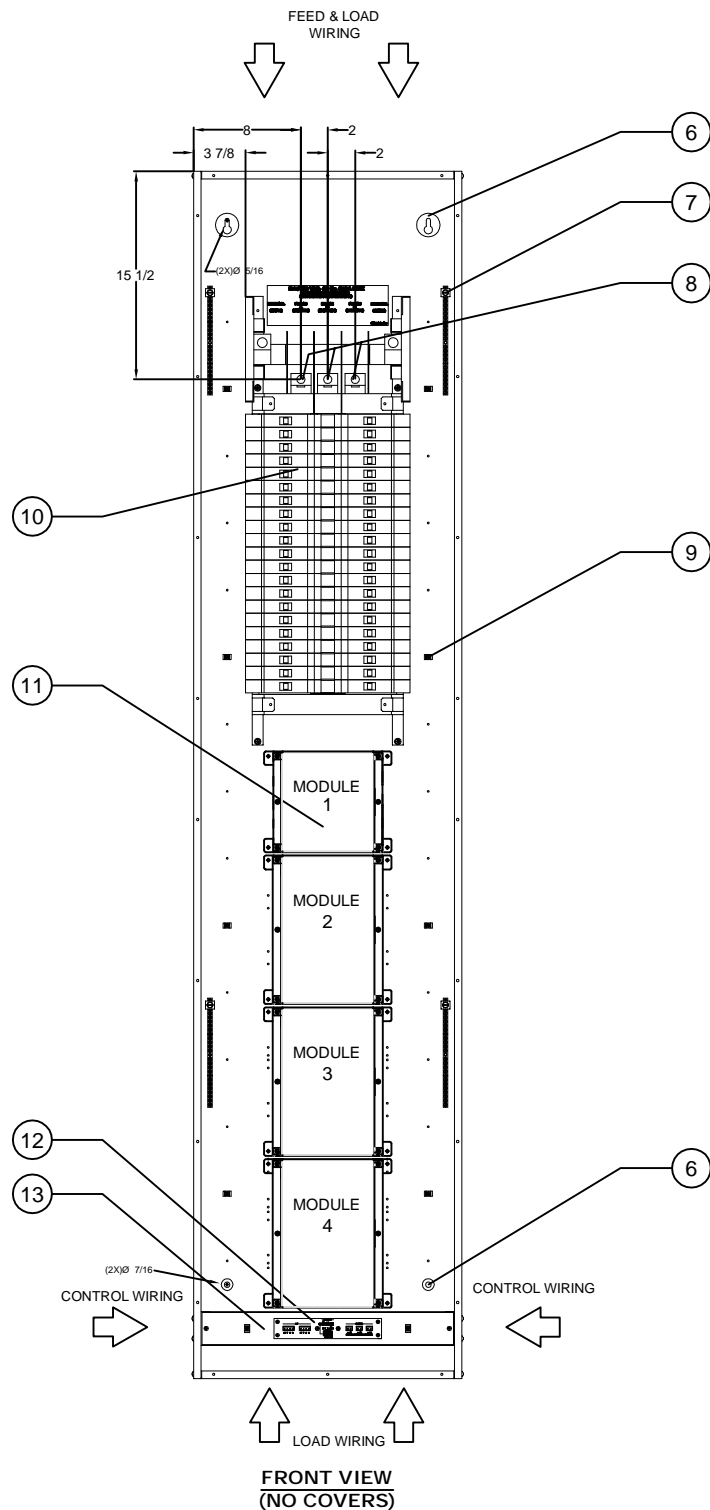


(TYPICAL OF TOP & BOTTOM VIEW)



FRONT VIEW

SIDE VIEW



FRONT VIEW (NO COVERS)

NOTES KEY

- ① HINGED DOORS FOR ACCESS TO BRANCH CIRCUIT BREAKERS. INTEGRAL LOOP FOR LOCKING OF ACCESS DOOR (LOCK FURNISHED BY OTHERS).
- ② BREAKER BAY COVER PLATE - FASTENED WITH SCREWS. COVERS BREAKER PANEL.
- ③ MODULE BAY COVER PLATE - FASTENED WITH SCREWS. COVERS SWITCHING MODULES, AVAILABLE WITH HINGED DOOR ON SOME MODELS.
- ④ KNOCKOUT TO LOW VOLTAGE WIRING CHANNEL. 3/4" FOR USE WITH 3/4" CONDUIT.
- ⑤ KNOCKOUTS FOR HIGH VOLTAGE WIRING. 1/2" AND 3/4" FOR USE WITH CORRESPONDING CONDUIT SIZE. (25) KNOCKOUTS ON THE TOP PLATE AND (25) KNOCKOUTS ON THE BOTTOM PLATE.
- ⑥ MOUNTING HOLES FOR SURFACE MOUNTING OF CABINET. 5/16" KEYSLOT HOLES ON THE TOP WITH 7/16" ROUND HOLES ON THE BOTTOM.
- ⑦ GROUNDING BAR FOR LOAD SIDE GROUNDS. TYPICAL OF (4) BARS.
- ⑧ INTEGRATED SQUARE D (42) CIRCUIT BREAKER PANEL WITH APPROPRIATE BRANCH BREAKERS, LOAD CIRCUIT NEUTRAL BUS, AND MAIN LUG INPUT FOR POWER FEED. 250A BUS RATING.
- ⑨ CLIPS FOR SECURING WIRE TIES.
- ⑩ SQUARE D QO CIRCUIT BREAKERS. AVAILABLE WITH THE FOLLOWING AIC RATINGS:  
**MATERIAL:**      **DESCRIPTION:**  
 CSTB-277-20A-18K    20AMP 18K AIC RATING  
 CSTB-277-20A-35K    20AMP 35K AIC RATING  
 CSTB-277-20A-65K    20AMP 65K AIC RATING
- ALL BREAKERS FACTORY INSTALLED AND WIRED.
- ⑪ MODULE BAY FOR MOUNTING OF SWITCHING MODULES. ALL MODULES ARE FACTORY INSTALLED AND WIRED TO CIRCUIT BREAKERS.
- ⑫ #GLEP-BLOCK - CRESNET NETWORK DISTRIBUTION BLOCK. (2) CRESNET NETWORK PORTS. (3) MODULE OVERRIDE CONTACT CLOSURES.
- ⑬ LOW VOLTAGE WIRING CHANNEL FOR ALL CLASS 2 LOW VOLTAGE WIRING.
- ⑭ HINGED DOORS FOR ACCESS TO SWITCHING MODULES FRONT PANEL. INTEGRAL LOOP FOR LOCKING OF ACCESS DOOR (LOCK FURNISHED BY OTHERS).

LIGHTING CONTROL CABINET			
PANEL ID	LCP-2	TYPE	NORMAL
MODEL	GLEP-MLO-277-42	AIC RATING	35K
FEED	3PH 4-WIRE, MLO		
CSTC-3 CABINET MODULE SCHEDULE			
MODULE	MODEL	VOLTAGE	CIRCUITS
1	GLXP-HSW12	277VAC	12
2	GLXP-HSW12	277VAC	12
3	GLXP-HSW12	277VAC	12
4	GLXP-HSW8	277VAC	8



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

PO #: X07496

QUOTE #: 1002617

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
LCP-1 DETAILS

DRAWING:  
06.0  
 REV: 00  
 DATE: 01/03/11  
 DRAWN BY: BJ

GLEP-120-42nd SWITCHING PANEL

**Load Schedule w/ Panel Terminations**

Project: LEGRAND CENTER

Creator: BJ

Date: 8/9/2012 Revision:00

Panel ID: LCP-2

Feed Type: NORMAL

Cabinet Voltage: 277VAC

Area	Room #	Zone Name	Zone or Ckt No.	Breaker #	Module Type	Module #	Output #	Fixture Designation	Load Type	Dim (Y/N)	Fixture Watts	Qty	Total Watts
		2nd Floor Conference Center / 6201 - 04 Offices / Ceiling Light		1	GLXP-HSW12	1	1	Ceiling Light	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6234 - 35 Bathrooms / Ceiling Light		2	GLXP-HSW12	1	2	Ceiling Light	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6248 - 6249 Corridors / Uplights 02		3	GLXP-HSW12	1	3	Ceiling Light	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6243 Atrium / Sconces		4	GLXP-HSW12	1	4	Sconces	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6243 Atrium / Pendants		5	GLXP-HSW12	1	5	Pendants	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6243 Atrium / Uplights		6	GLXP-HSW12	1	6	Ceiling Light	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6245 - 6246 Corridors / Ceiling Light		7	GLXP-HSW12	1	7	Ceiling Light	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6244 Corridor / Ceiling Light		8	GLXP-HSW12	1	8	Ceiling Light	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6206 - 07 Bathrooms / Ceiling Light		9	GLXP-HSW12	1	9	Ceiling Light	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6248 - 6249 Corridors / Uplights 01		10	GLXP-HSW12	1	10	Ceiling Light	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6243 Exhibit Hall / Downlights 01		11	GLXP-HSW12	1	11	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6243 Exhibit Hall / Downlights 02		12	GLXP-HSW12	1	12	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6239c Large Conf Rm / Downlights		13	GLXP-HSW12	2	1	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6239c Large Conf Rm / Pendants		14	GLXP-HSW12	2	2	Pendants	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6248 - 6249 Corridors / Sconces		15	GLXP-HSW12	2	3	Sconces	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6200 Lobby / Pendants		16	GLXP-HSW12	2	4	Pendants	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6200 Lobby / Uplights		17	GLXP-HSW12	2	5	Ceiling Light	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6236 Sub Conf Rm 3 / Downlights		18	GLXP-HSW12	2	6	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6236 Sub Conf Rm 3 / Pendants		19	GLXP-HSW12	2	7	Pendants	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6236 Sub Conf Rm 3 / Spot Lights		20	GLXP-HSW12	2	8	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6239a Large Conf Rm / Downlights		21	GLXP-HSW12	2	9	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6239a Large Conf Rm / Pendants		22	GLXP-HSW12	2	10	Pendants	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6239a Large Conf Rm / Spot Lights		23	GLXP-HSW12	2	11	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6237 Sub Conf Rm 2 / Downlights		24	GLXP-HSW12	2	12	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6237 Sub Conf Rm 2 / Pendants		25	GLXP-HSW12	3	1	Pendants	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6237 Sub Conf Rm 2 / Spot Lights		26	GLXP-HSW12	3	2	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6239b Large Conf Rm / Downlights		27	GLXP-HSW12	3	3	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6239b Large Conf Rm / Pendants		28	GLXP-HSW12	3	4	Pendants	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6239c Large Conf Rm / Spot Lights		29	GLXP-HSW12	3	5	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6240 Sub Conf Rm 4 / Downlights		30	GLXP-HSW12	3	6	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6240 Sub Conf Rm 4 / Pendants		31	GLXP-HSW12	3	7	Pendants	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6240 Sub Conf Rm 4 / Spot Lights		32	GLXP-HSW12	3	8	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6242 Sub Conf Rm 6 / Downlights		33	GLXP-HSW12	3	9	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6242 Sub Conf Rm 6 / Pendants		34	GLXP-HSW12	3	10	Pendants	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6242 Sub Conf Rm 6 / Spot Lights		35	GLXP-HSW12	3	11	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6241 Sub Conf Rm 5 / Downlights		36	GLXP-HSW12	3	12	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6241 Sub Conf Rm 5 / Pendants		37	GLXP-HSW8	4	1	Pendants	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6241 Sub Conf Rm 5 / Spot Lights		38	GLXP-HSW8	4	2	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6238 Sub Conf Rm 1 / Downlights		39	GLXP-HSW8	4	3	Downlights	Fluor. Non-Dim	100	1	100	100
		2nd Floor Conference Center / 6238 Sub Conf Rm 1 / Pendants		40	GLXP-HSW8	4	4	Pendants	Fluor. Non-Dim	50	1	50	50
		2nd Floor Conference Center / 6238 Sub Conf Rm 1 / Spot Lights		41	GLXP-HSW8	4	5	Downlights	Fluor. Non-Dim	100	1	100	100
				42	GLXP-HSW8	4	6						0

**NOTES:**

- LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.
- AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.
- CIRCUIT DESIGNATIONS ARE GENERATED BY CRESTRON BASED ON ZONING NEEDS UNLESS OTHERWISE DIRECTED BY THE CONTRACT ENGINEERING DRAWINGS. ALL CIRCUIT NUMBERS AND DESIGNATIONS SHOULD BE VERIFIED AGAINST THE APPROPRIATE PROJECT CONTRACT DRAWINGS AT TIME OF INSTALL.



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

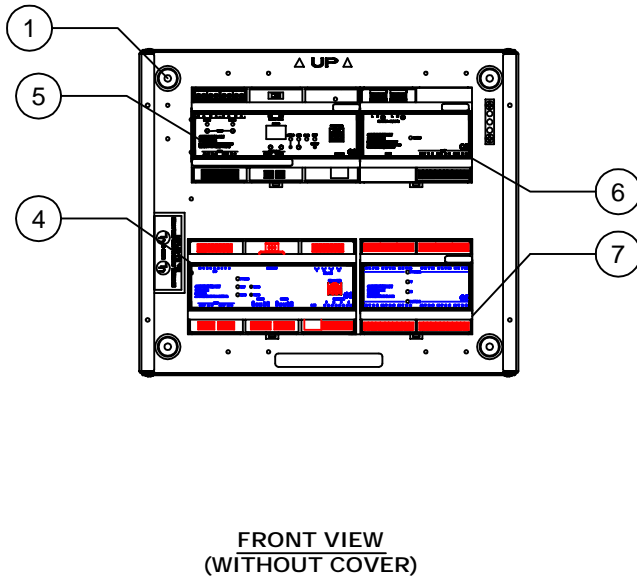
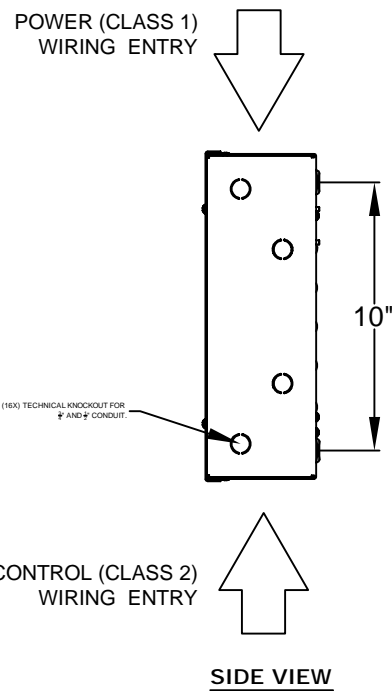
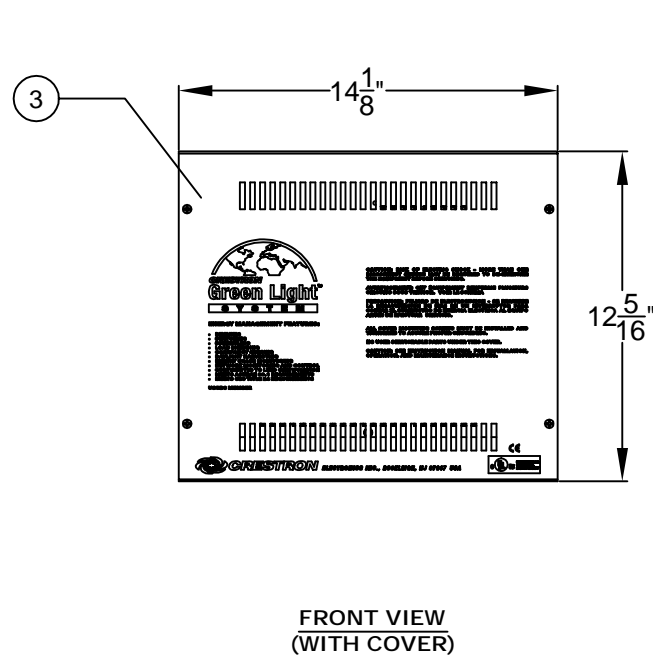
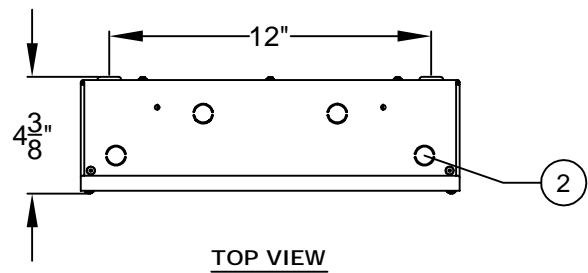
DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
 LCP-1 LOAD  
 SCHEDULE

DRAWING:  
 06.1  
 REV: 00  
 DATE: 01/03/11  
 DRAWN BY: BJ



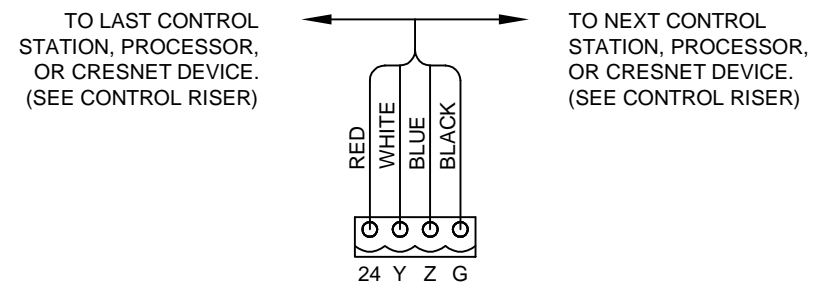
**NOTES KEY**

- ① MOUNTING KEYHOLES IN BACK PANEL OF GLEX-FT-8 ENCLOSURE FOR SURFACE MOUNTING OF ASSEMBLY.
- ② KNOCKOUTS FOR CABINET WIRING
- ③ #GLEX-FT-8 AUTOMATION ENCLOSURE DIMENSIONS: 12" H x 14" W X 4 3/8" D
- ④ #DIN-AP2 2 SERIES CRESTRON AUTOMATION PROCESSOR.
- ⑤ #DIN-DALI-2 DALI COMMUNICATION BUS SUPPLY. 2 INDIVIDUAL LOOPS. 64 DALI ADDRESSES MAX PER LOOP.
- ⑥ #DIN-PWS50 50 WATT CRESNET POWER SUPPLY. CURRENT DRAW: 0.5A DRAW AT 120VAC.
- ⑦ #DIN-HUB DINRAIL CRESNET DISTRIBUTION BLOCK

**GENERAL NOTES**

- 1. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
- 2. GROUND SHIELD AT CONTROL SYSTEM END **ONLY**.
- 3. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
- 4. KEEP ALL CLASS 1 POWER WIRING SEPERATED FROM ALL CLASS 2 CONTROL WIRING WITHIN THE CABINET.

**CRESNET CONTROL WIRING**



**GLEX-FT-8 LIGHTING PANEL**

PROJECT: LEGRANDE CENTER  
 LOCATION: SHELBY NC  
 ORDER #: 830043 QUOTE #: 1002617 PO #: X07496  
 SALES REP: TEAM LIGHTING  
 DISTRIBUTOR: TECHNICAL INNOVATIONS

**CRESTRON**  
 15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
 DALI-1 DETAILS  
 DRAWING:  
 07.0  
 REV: 00  
 DATE: 01/03/11  
 DRAWN BY: BJ



Area	Room Name	Room #	Zone	Fixture Type	Dali Address Count	Notes:
					64	NOT TO EXCEED 64 BALLASTS PER LOOP
Dali Loop Totals	Bus 001-1	>>>	64	<<<		
Area	Room Name	Room #	Zone	Fixture Type	Dali Address Count	Notes:
					64	NOT TO EXCEED 64 BALLASTS PER LOOP
Dali Loop Totals	Bus 001-2	>>>	64	<<<		

**NOTES:**

- 1.) LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.
- 2.) AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.
- 3.) CIRCUIT DESIGNATIONS ARE GENERATED BY CRESTRON BASED ON ZONING NEEDS UNLESS OTHERWISE DIRECTED BY THE CONTRACT ENGINEERING DRAWINGS. ALL CIRCUIT NUMBERS AND DESIGNATIONS SHOULD BE VERIFIED AGAINST THE APPROPRIATE PROJECT CONTRACT DRAWINGS AT TIME OF INSTALL.



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

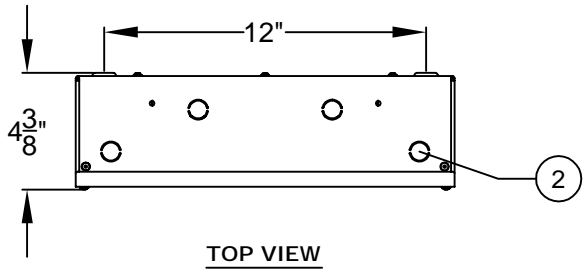
DISTRIBUTOR: TECHNICAL INNOVATIONS



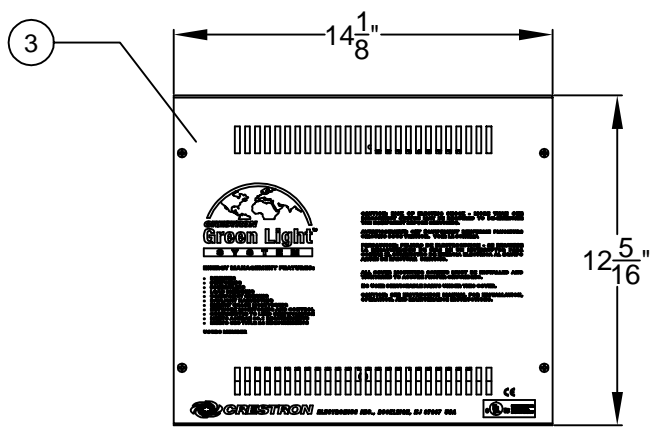
15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
 DALI-1 LOAD  
 SCHEDULE

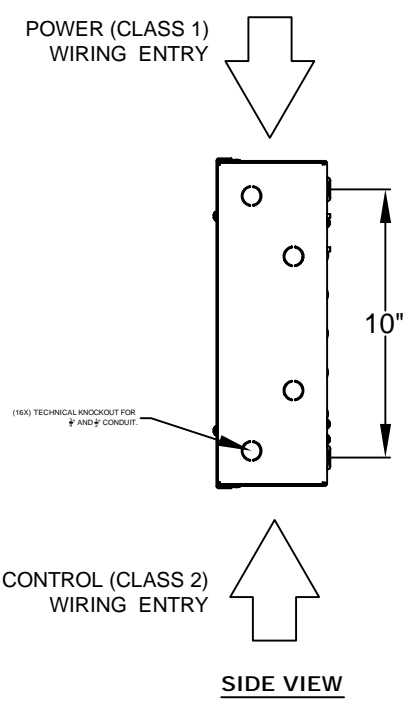
DRAWING:  
 07.1  
 REV: 00  
 DATE: 01/03/11  
 DRAWN BY: BJ



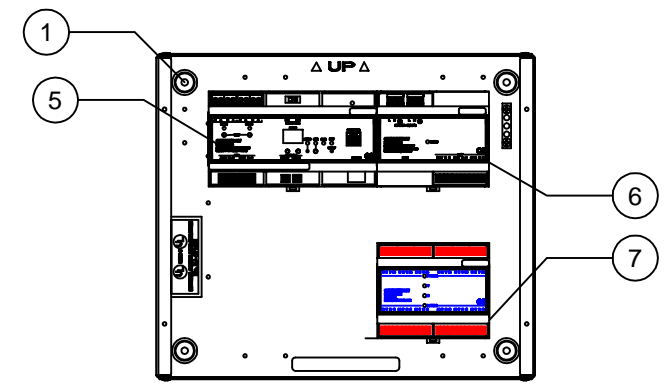
TOP VIEW



FRONT VIEW  
(WITH COVER)



SIDE VIEW



FRONT VIEW  
(WITHOUT COVER)

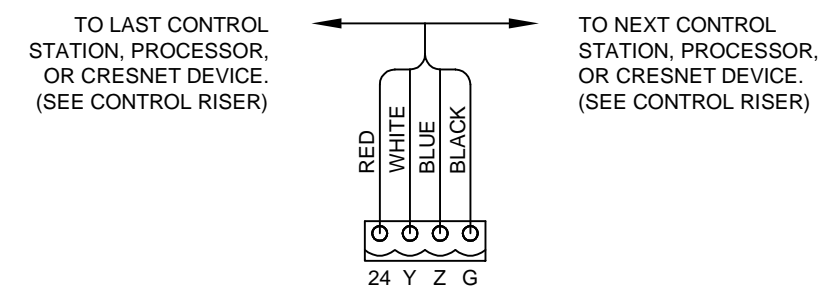
NOTES KEY

- ① MOUNTING KEYHOLES IN BACK PANEL OF GLEX-FT-8 ENCLOSURE FOR SURFACE MOUNTING OF ASSEMBLY.
- ② KNOCKOUTS FOR CABINET WIRING
- ③ #GLEX-FT-8 AUTOMATION ENCLOSURE DIMENSIONS: 12" H x 14" W X 4 3/8" D
- ④ NOT USED
- ⑤ #DIN-DALI-2 DALI COMMUNICATION BUS SUPPLY. 2 INDIVIDUAL LOOPS. 64 DALI ADDRESSES MAX PER LOOP.
- ⑥ #DIN-PWS50 50 WATT CRESNET POWER SUPPLY. CURRENT DRAW: 0.5A DRAW AT 120VAC.
- ⑦ #DIN-HUB DINRAIL CRESNET DISTRIBUTION BLOCK

GENERAL NOTES

1. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
2. GROUND SHIELD AT CONTROL SYSTEM END **ONLY**.
3. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
4. KEEP ALL CLASS 1 POWER WIRING SEPERATED FROM ALL CLASS 2 CONTROL WIRING WITHIN THE CABINET.

CRESNET CONTROL WIRING



GLEX-FT-8 LIGHTING PANEL

PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

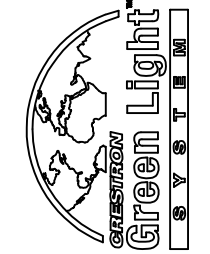
TITLE:  
DALI-2 DETAILS

DRAWING:  
08.0  
REV: 00  
DATE: 01/03/11  
DRAWN BY: BJJ

Area	Room Name	Room #	Zone	Fixture Type	Dali Address Count	Notes:
					64	NOT TO EXCEED 64 BALLASTS PER LOOP
Dali Loop Totals	Bus 002-1	>>>	64	<<<		
Area	Room Name	Room #	Zone	Fixture Type	Dali Address Count	Notes:
					64	NOT TO EXCEED 64 BALLASTS PER LOOP
Dali Loop Totals	Bus 002-2	>>>	64	<<<		

**NOTES:**

- 1.) LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.
- 2.) AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.
- 3.) CIRCUIT DESIGNATIONS ARE GENERATED BY CRESTRON BASED ON ZONING NEEDS UNLESS OTHERWISE DIRECTED BY THE CONTRACT ENGINEERING DRAWINGS. ALL CIRCUIT NUMBERS AND DESIGNATIONS SHOULD BE VERIFIED AGAINST THE APPROPRIATE PROJECT CONTRACT DRAWINGS AT TIME OF INSTALL.



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

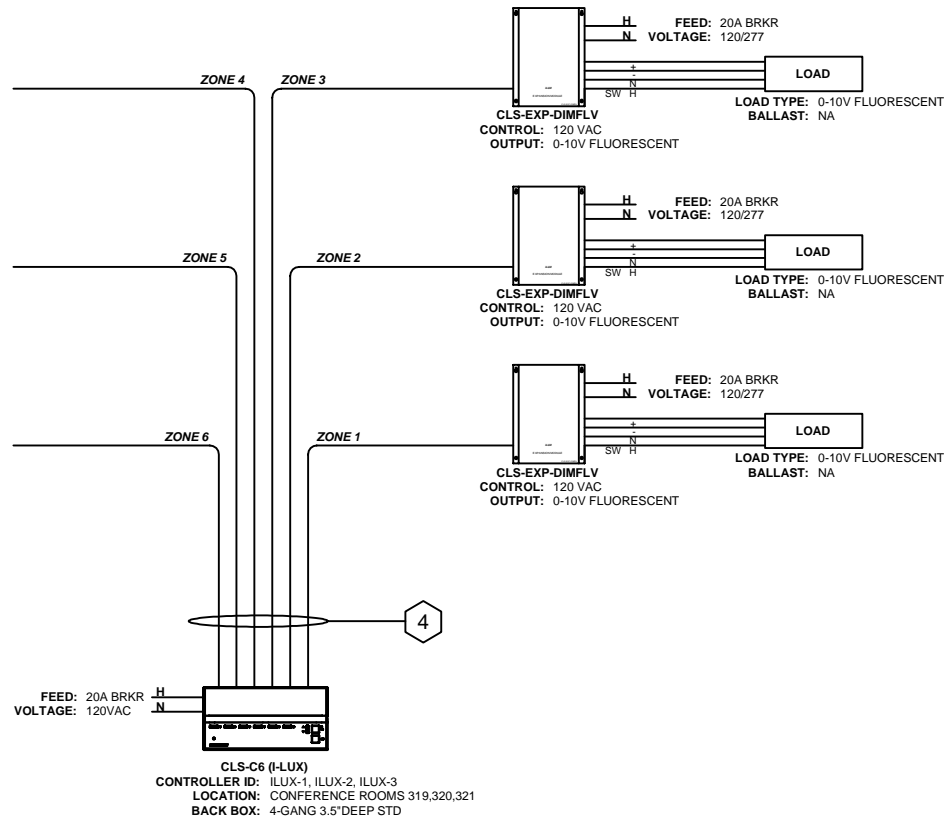
DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
 DALI-2 LOAD  
 SCHEDULE

DRAWING:  
 08.1  
 REV: 00  
 DATE: 01/03/11  
 DRAWN BY: BJ



TYPICAL OF 3 CONFERENCE ROOMS : 319,320,321

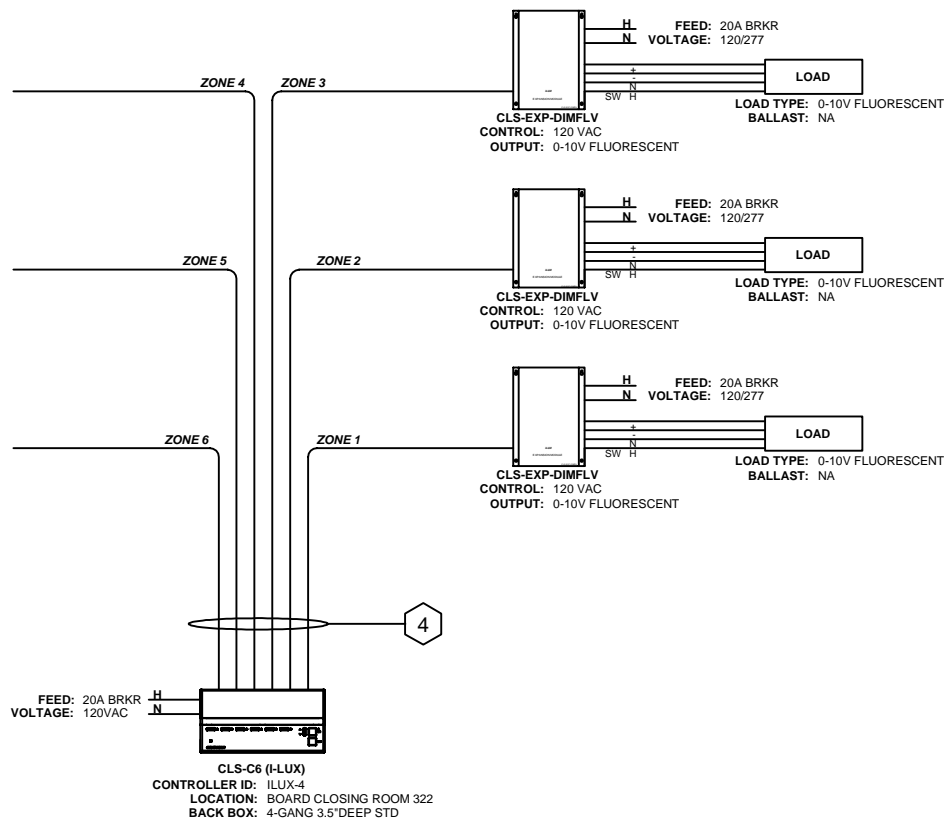
<b>System:</b> TYPICAL FOR CONF RMS 319,320,321		<b>Controller ID:</b> ILUX-1,ILUX-2,ILUX-3									
<b>Project Name:</b> LEGRANDE CENTER		<b>Date:</b> 1/3/2011									
<b>Creator:</b> BJ		<b>Revision:</b> 0									
Zone	Feed Ckt	Location / Room #	Output #	Voltage	Fixture Type	Load Type	Dim (Y/N)	Fixture Watts	Qty	Total Watts	Booster Model
1		CONFERENCE ROOMS	1	120/277		0-10V FLUORESCENT	Y			50	CLS-EXP-DIMFLV
2		CONFERENCE ROOMS	2	120/277		0-10V FLUORESCENT	Y			50	CLS-EXP-DIMFLV
3		CONFERENCE ROOMS	3	120/277		0-10V FLUORESCENT	Y			50	CLS-EXP-DIMFLV
4		CONFERENCE ROOMS	4	120						0	
5		CONFERENCE ROOMS	5	120						0	
6		CONFERENCE ROOMS	6	120						0	
<b>Total System Load</b>										150	

- LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.
- AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.
- CIRCUIT DESIGNATIONS ARE GENERATED BY CRESTRON BASED ON ZONING NEEDS UNLESS OTHERWISE DIRECTED BY THE CONTRACT ENGINEERING DRAWINGS. ALL CIRCUIT NUMBERS AND DESIGNATIONS SHOULD BE VERIFIED AGAINST THE APPROPRIATE PROJECT CONTRACT DRAWINGS AT TIME OF INSTALL.

**WIRE NOTES:**

- \*CRESTRON\* CABLE: (1) PAIR #18AWG, (1) TWISTED PAIR 22AWG W/SHIELD (BY E.C.)  
NON-PLENUM PN: CRESTRON-NP-TL  
PLENUM PN: CRESTRON-P-TL
- RS-232 CABLE: (1) TWISTED PAIR 22AWG (1)SHIELD W / DB-9 CONNECTOR (BY E.C.)
- CABLE: (1) TWISTED PAIR 18AWG, (1) SHIELD (BY E.C.)
- WIRE: SUITABLE GAUGE WIRE TO MEET LOAD REQUIREMENTS.

\*\*\*ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.



BOARD CLOSING ROOM 322

<b>System:</b> BOARD CLOSING ROOM 322		<b>Controller ID:</b> ILUX-4									
<b>Project Name:</b> LEGRANDE CENTER		<b>Date:</b> 1/3/2011									
<b>Creator:</b> BJ		<b>Revision:</b> 0									
Zone	Feed Ckt	Location / Room #	Output #	Voltage	Fixture Type	Load Type	Dim (Y/N)	Fixture Watts	Qty	Total Watts	Booster Model
1		BOARD CLOSING ROOM 322	1	120/277		0-10V FLUORESCENT	Y			50	CLS-EXP-DIMFLV
2		BOARD CLOSING ROOM 322	2	120/277		0-10V FLUORESCENT	Y			50	CLS-EXP-DIMFLV
3		BOARD CLOSING ROOM 322	3	120/277		0-10V FLUORESCENT	Y			50	CLS-EXP-DIMFLV
4		BOARD CLOSING ROOM 322	4	120						0	
5		BOARD CLOSING ROOM 322	5	120						0	
6		BOARD CLOSING ROOM 322	6	120						0	
<b>Total System Load</b>										150	

- LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.
- AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.
- CIRCUIT DESIGNATIONS ARE GENERATED BY CRESTRON BASED ON ZONING NEEDS UNLESS OTHERWISE DIRECTED BY THE CONTRACT ENGINEERING DRAWINGS. ALL CIRCUIT NUMBERS AND DESIGNATIONS SHOULD BE VERIFIED AGAINST THE APPROPRIATE PROJECT CONTRACT DRAWINGS AT TIME OF INSTALL.

**WIRE NOTES:**

- \*CRESTRON\* CABLE: (1) PAIR #18AWG, (1) TWISTED PAIR 22AWG W/SHIELD (BY E.C.)  
NON-PLENUM PN: CRESTRON-NP-TL  
PLENUM PN: CRESTRON-P-TL
- RS-232 CABLE: (1) TWISTED PAIR 22AWG (1)SHIELD W / DB-9 CONNECTOR (BY E.C.)
- CABLE: (1) TWISTED PAIR 18AWG, (1) SHIELD (BY E.C.)
- WIRE: SUITABLE GAUGE WIRE TO MEET LOAD REQUIREMENTS.

\*\*\*ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

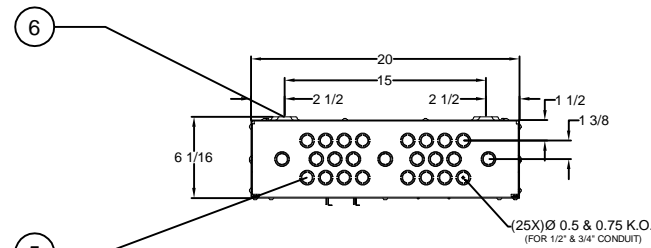
SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS

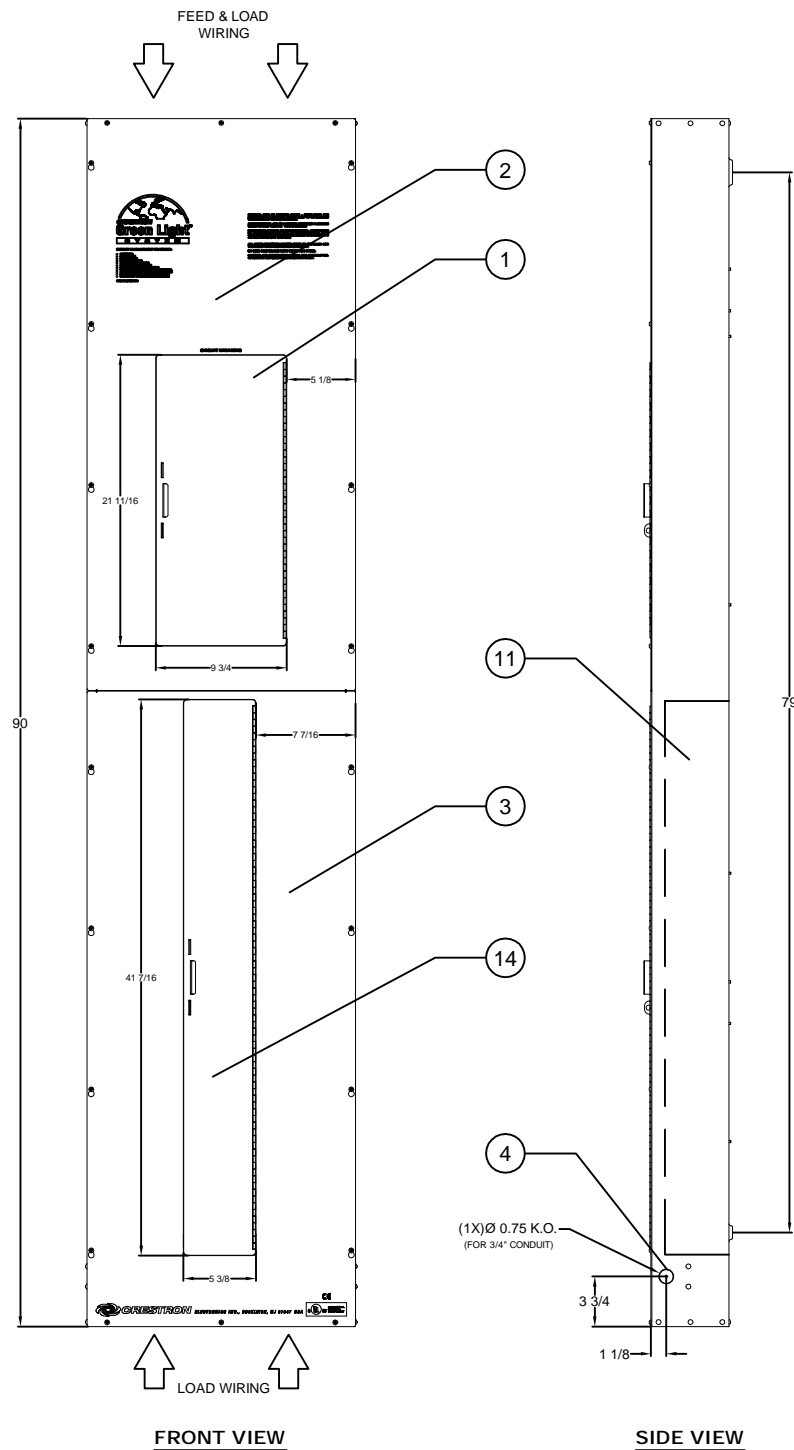


15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

TITLE:  
CONF ROOMS  
31-,320,321 & BOARD  
RM 322 LOAD  
DETAILS  
DRAWING:  
09.0  
REV: 02  
DATE: 8-AUG-2012  
DRAWN BY: RT



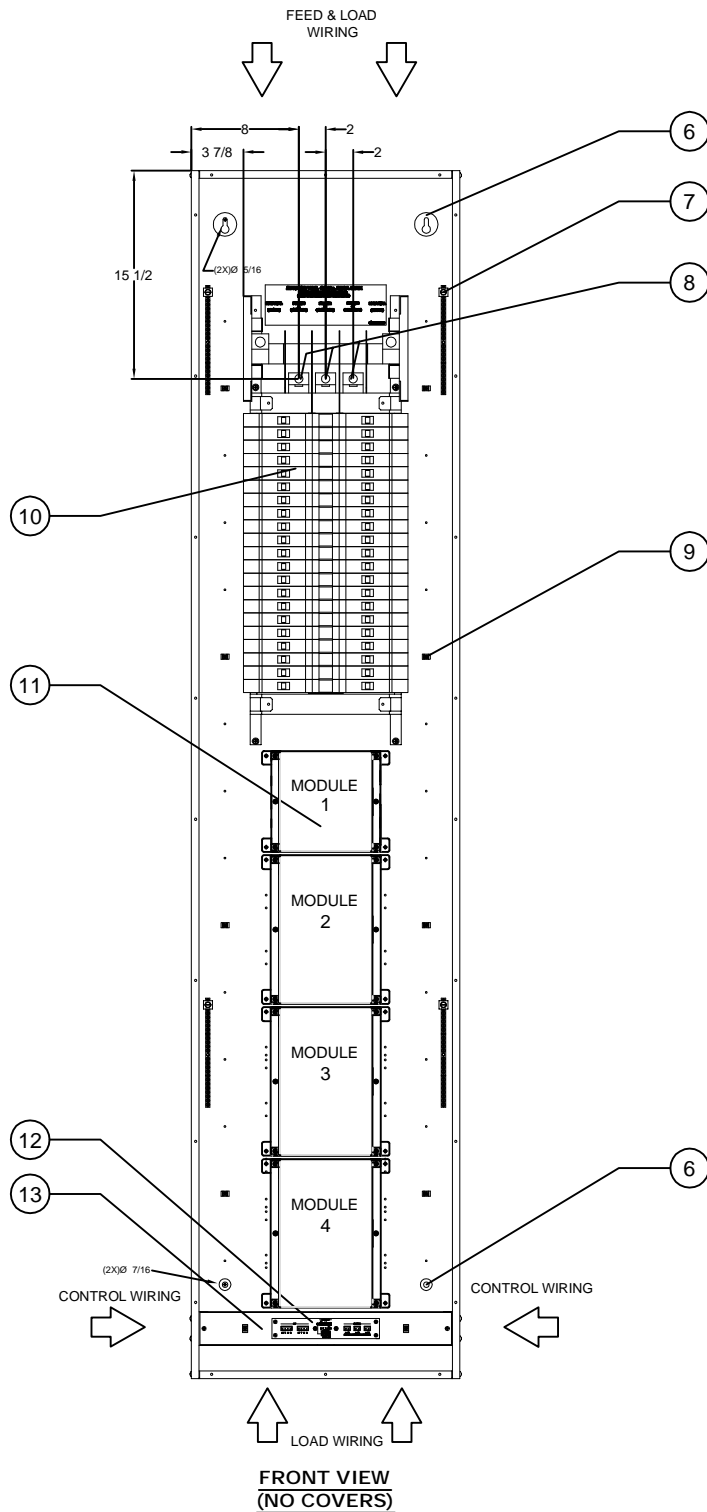
(TYPICAL OF TOP & BOTTOM VIEW)



FRONT VIEW

SIDE VIEW

(1X) Ø 0.75 K.O.  
(FOR 3/4" CONDUIT)



FRONT VIEW  
(NO COVERS)

NOTES KEY

- 1 HINGED DOORS FOR ACCESS TO BRANCH CIRCUIT BREAKERS. INTEGRAL LOOP FOR LOCKING OF ACCESS DOOR (LOCK FURNISHED BY OTHERS).
- 2 BREAKER BAY COVER PLATE - FASTENED WITH SCREWS. COVERS BREAKER PANEL.
- 3 MODULE BAY COVER PLATE - FASTENED WITH SCREWS. COVERS SWITCHING MODULES, AVAILABLE WITH HINGED DOOR ON SOME MODELS.
- 4 KNOCKOUT TO LOW VOLTAGE WIRING CHANNEL. 3/4" FOR USE WITH 3/4" CONDUIT.
- 5 KNOCKOUTS FOR HIGH VOLTAGE WIRING. 1/2" AND 3/4" FOR USE WITH CORRESPONDING CONDUIT SIZE. (25) KNOCKOUTS ON THE TOP PLATE AND (25) KNOCKOUTS ON THE BOTTOM PLATE.
- 6 MOUNTING HOLES FOR SURFACE MOUNTING OF CABINET. 5/16" KEYSLOT HOLES ON THE TOP WITH 7/16" ROUND HOLES ON THE BOTTOM.
- 7 GROUNDING BAR FOR LOAD SIDE GROUNDS. TYPICAL OF (4) BARS.
- 8 INTEGRATED SQUARE D (42) CIRCUIT BREAKER PANEL WITH APPROPRIATE BRANCH BREAKERS, LOAD CIRCUIT NEUTRAL BUS, AND MAIN LUG INPUT FOR POWER FEED. 250A BUS RATING.
- 9 CLIPS FOR SECURING WIRE TIES.
- 10 SQUARE D QO CIRCUIT BREAKERS. AVAILABLE WITH THE FOLLOWING AIC RATINGS:  

MATERIAL:	DESCRIPTION:
CSTB-277-20A-18K	20AMP 18K AIC RATING
CSTB-277-20A-35K	20AMP 35K AIC RATING
CSTB-277-20A-65K	20AMP 65K AIC RATING
- 11 ALL BREAKERS FACTORY INSTALLED AND WIRED.
- 12 MODULE BAY FOR MOUNTING OF SWITCHING MODULES. ALL MODULES ARE FACTORY INSTALLED AND WIRED TO CIRCUIT BREAKERS.
- 13 #GLEP-BLOCK - CRESNET NETWORK DISTRIBUTION BLOCK. (2) CRESNET NETWORK PORTS. (3) MODULE OVERRIDE CONTACT CLOSURES.
- 14 LOW VOLTAGE WIRING CHANNEL FOR ALL CLASS 2 LOW VOLTAGE WIRING.
- HINGED DOORS FOR ACCESS TO SWITCHING MODULES FRONT PANEL. INTEGRAL LOOP FOR LOCKING OF ACCESS DOOR (LOCK FURNISHED BY OTHERS).

LIGHTING CONTROL CABINET			
PANEL ID	LCP-1	TYPE	NORMAL
MODEL	GLEP-MLO-277-42	AIC RATING	35K
FEED	3PH 4-WIRE, MLO		
CSTC-3 CABINET MODULE SCHEDULE			
MODULE	MODEL	VOLTAGE	CIRCUITS
1	GLXP-HSW12	277VAC	12
2	GLXP-HSW12	277VAC	12
3	GLXP-HSW12	277VAC	12
4	GLXP-HSW8	277VAC	8

GLEP-120-42nd SWITCHING PANEL



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

PO #: X07496

QUOTE #: 1002617

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
LCP-1 DETAILS

DRAWING:  
10.0  
 REV: 00  
 DATE: 01/03/11  
 DRAWN BY: BJ

**Load Schedule w/ Panel Terminations**

Project: LEGRAND CENTER  
 Creator: BJ  
 Date: 8/10/2012 Revision:00

Panel ID: LCP-1  
 Feed Type: NORMAL  
 Cabinet Voltage: 277VAC

Area	Room #	Zone Name	Zone or Ckt No.	Breaker #	Module Type	Module #	Output #	Fixture Designation	Load Type	Dim (Y/N)	Fixture Watts	Qty	Total Watts
		1st Floor Community Collage / 6163 - 6165 Corridors / Ceiling Light		1	GLXP-HSW12	1	1		Floor Non-Dim	100	1	100	100
		1st Floor Community Collage / 6166 - 6169 Corridors / Ceiling Light		2	GLXP-HSW12	1	2		Floor Non-Dim	100	1	100	100
				3	GLXP-HSW12	1	3		RELAY	N			0
				4	GLXP-HSW12	1	4		RELAY	N			0
				5	GLXP-HSW12	1	5		RELAY	N			0
				6	GLXP-HSW12	1	6		RELAY	N			0
				7	GLXP-HSW12	1	7		RELAY	N			0
				8	GLXP-HSW12	1	8		RELAY	N			0
				9	GLXP-HSW12	1	9		RELAY	N			0
				10	GLXP-HSW12	1	10		RELAY	N			0
				11	GLXP-HSW12	1	11		RELAY	N			0
				12	GLXP-HSW12	1	12		RELAY	N			0
				13	GLXP-HSW12	2	1		RELAY	N			0
				14	GLXP-HSW12	2	2		RELAY	N			0
				15	GLXP-HSW12	2	3		RELAY	N			0
				16	GLXP-HSW12	2	4		RELAY	N			0
				17	GLXP-HSW12	2	5		RELAY	N			0
				18	GLXP-HSW12	2	6		RELAY	N			0
				19	GLXP-HSW12	2	7		RELAY	N			0
				20	GLXP-HSW12	2	8		RELAY	N			0
				21	GLXP-HSW12	2	9		RELAY	N			0
				22	GLXP-HSW12	2	10		RELAY	N			0
				23	GLXP-HSW12	2	11		RELAY	N			0
				24	GLXP-HSW12	2	12		RELAY	N			0
				25	GLXP-HSW12	3	1		RELAY	N			0
				26	GLXP-HSW12	3	2		RELAY	N			0
				27	GLXP-HSW12	3	3		RELAY	N			0
				28	GLXP-HSW12	3	4		RELAY	N			0
				29	GLXP-HSW12	3	5		RELAY	N			0
				30	GLXP-HSW12	3	6		RELAY	N			0
				31	GLXP-HSW12	3	7		RELAY	N			0
				32	GLXP-HSW12	3	8		RELAY	N			0
				33	GLXP-HSW12	3	9		RELAY	N			0
				34	GLXP-HSW12	3	10		RELAY	N			0
				35	GLXP-HSW12	3	11		RELAY	N			0
				36	GLXP-HSW12	3	12		RELAY	N			0
				37	GLXP-HSW8	4	1		RELAY	N			0
				38	GLXP-HSW8	4	2		RELAY	N			0
				39	GLXP-HSW8	4	3		RELAY	N			0
				40	GLXP-HSW8	4	4		RELAY	N			0
				41	GLXP-HSW8	4	5		RELAY	N			0
				42	GLXP-HSW8	4	6		RELAY	N			0

**NOTES:**

- LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.
- AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.
- CIRCUIT DESIGNATIONS ARE GENERATED BY CRESTRON BASED ON ZONING NEEDS UNLESS OTHERWISE DIRECTED BY THE CONTRACT ENGINEERING DRAWINGS. ALL CIRCUIT NUMBERS AND DESIGNATIONS SHOULD BE VERIFIED AGAINST THE APPROPRIATE PROJECT CONTRACT DRAWINGS AT TIME OF INSTALL.



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS

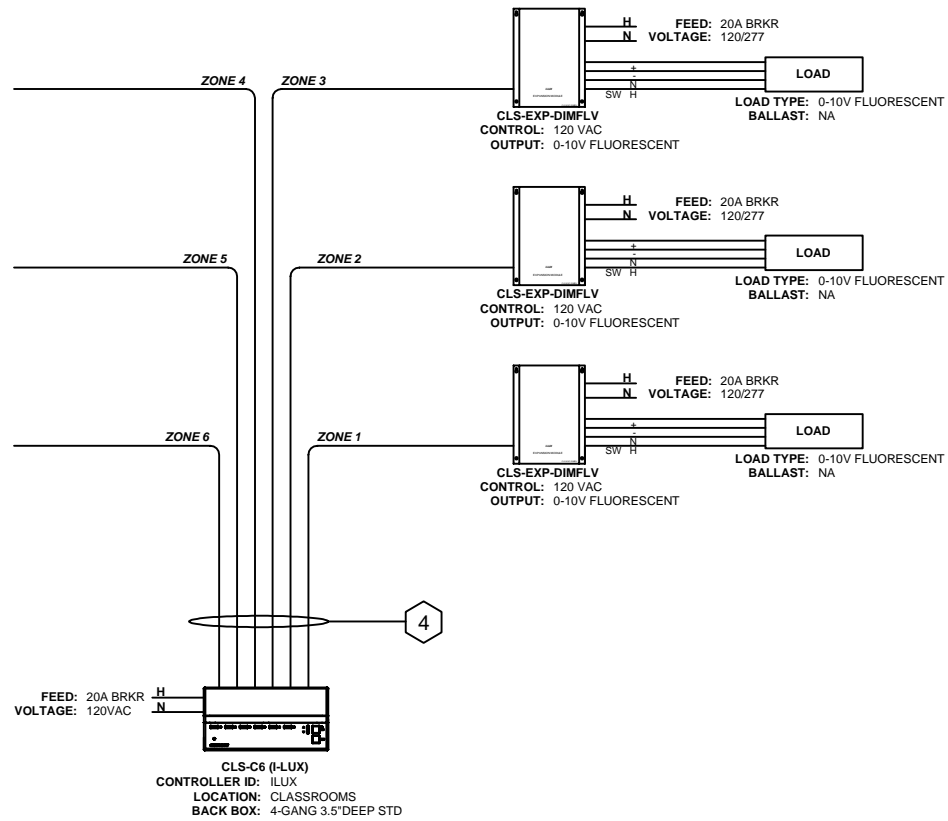


15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
 LCP-1 LOAD  
 SCHEDULE

DRAWING:  
 10.1  
 REV: 00  
 DATE: 01/03/11  
 DRAWN BY: BJ





**TYPICAL OF 20 CLASSROOMS**

<b>System:</b> TYPICAL OF 20 CLASSROOMS		<b>Controller ID:</b> ILUX	
<b>Project Name:</b> LEGRANDE CENTER		<b>Date:</b> 1/3/2011	
<b>Creator:</b> BJ		<b>Revision:</b> 0	

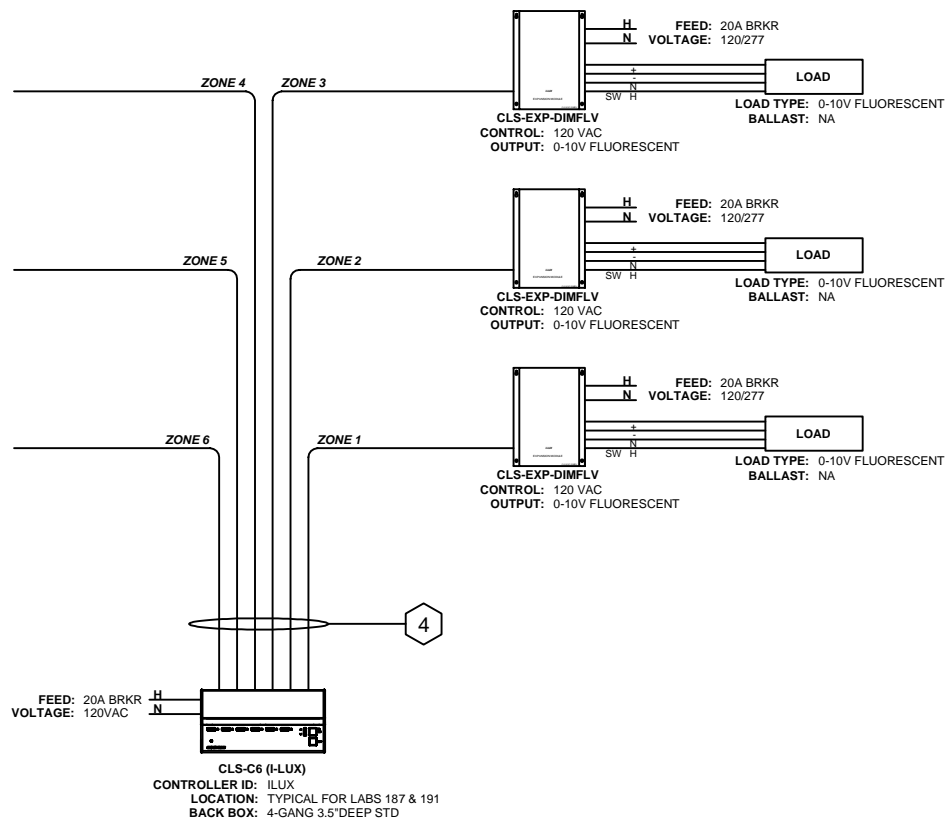
Zone	Feed Ckt	Location / Room #	Output #	Voltage	Fixture Type	Load Type	Dim (Y/N)	Fixture Watts	Qty	Total Watts	Booster Model
1		CLASSROOM	1	120/277		3-WIRE FLUORO	Y			50	CLS-EXP-DIMFDB
2		CLASSROOM	2	120/277		3-WIRE FLUORO	Y			50	CLS-EXP-DIMFDB
3		CLASSROOM	3	120/277		0-10V FLUORESCENT	Y			50	CLS-EXP-DIMFLV
4		CLASSROOM	4	120						0	
5		CLASSROOM	5	120						0	
6		CLASSROOM	6	120						0	
<b>Total System Load</b>										<b>150</b>	

- LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.
- AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.
- CIRCUIT DESIGNATIONS ARE GENERATED BY CRESTRON BASED ON ZONING NEEDS UNLESS OTHERWISE DIRECTED BY THE CONTRACT ENGINEERING DRAWINGS. ALL CIRCUIT NUMBERS AND DESIGNATIONS SHOULD BE VERIFIED AGAINST THE APPROPRIATE PROJECT CONTRACT DRAWINGS AT TIME OF INSTALL.

**WIRE NOTES:**

- \*CRESTRON CABLE: (1) PAIR #18AWG, (1) TWISTED PAIR 22AWG W/SHIELD (BY E.C.)  
NON-PLENUM PN: CRESTRON-NP-TL  
PLENUM PN: CRESTRON-P-TL
- RS-232 CABLE: (1) TWISTED PAIR 22AWG (1)SHIELD W / DB-9 CONNECTOR (BY E.C.)
- CABLE: (1) TWISTED PAIR 18AWG, (1) SHIELD (BY E.C.)
- WIRE: SUITABLE GAUGE WIRE TO MEET LOAD REQUIREMENTS.

\*\*\*ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.



**TYPICAL FOR LABS 187 AND 191**

<b>System:</b> TYPICAL FOR LABS 187 AND 191		<b>Controller ID:</b> ILUX	
<b>Project Name:</b> LEGRANDE CENTER		<b>Date:</b> 1/3/2011	
<b>Creator:</b> BJ		<b>Revision:</b> 0	

Zone	Feed Ckt	Location / Room #	Output #	Voltage	Fixture Type	Load Type	Dim (Y/N)	Fixture Watts	Qty	Total Watts	Booster Model
1		LABS	1	120/277		0-10V FLUORESCENT	Y			50	CLS-EXP-DIMFLV
2		LABS	2	120/277		0-10V FLUORESCENT	Y			50	CLS-EXP-DIMFLV
3		LABS	3	120/277		0-10V FLUORESCENT	Y			50	CLS-EXP-DIMFLV
4		LABS	4	120						0	
5		LABS	5	120						0	
6		LABS	6	120						0	
<b>Total System Load</b>										<b>150</b>	

- LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.
- AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.
- CIRCUIT DESIGNATIONS ARE GENERATED BY CRESTRON BASED ON ZONING NEEDS UNLESS OTHERWISE DIRECTED BY THE CONTRACT ENGINEERING DRAWINGS. ALL CIRCUIT NUMBERS AND DESIGNATIONS SHOULD BE VERIFIED AGAINST THE APPROPRIATE PROJECT CONTRACT DRAWINGS AT TIME OF INSTALL.

**WIRE NOTES:**

- \*CRESTRON CABLE: (1) PAIR #18AWG, (1) TWISTED PAIR 22AWG W/SHIELD (BY E.C.)  
NON-PLENUM PN: CRESTRON-NP-TL  
PLENUM PN: CRESTRON-P-TL
- RS-232 CABLE: (1) TWISTED PAIR 22AWG (1)SHIELD W / DB-9 CONNECTOR (BY E.C.)
- CABLE: (1) TWISTED PAIR 18AWG, (1) SHIELD (BY E.C.)
- WIRE: SUITABLE GAUGE WIRE TO MEET LOAD REQUIREMENTS.

\*\*\*ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS



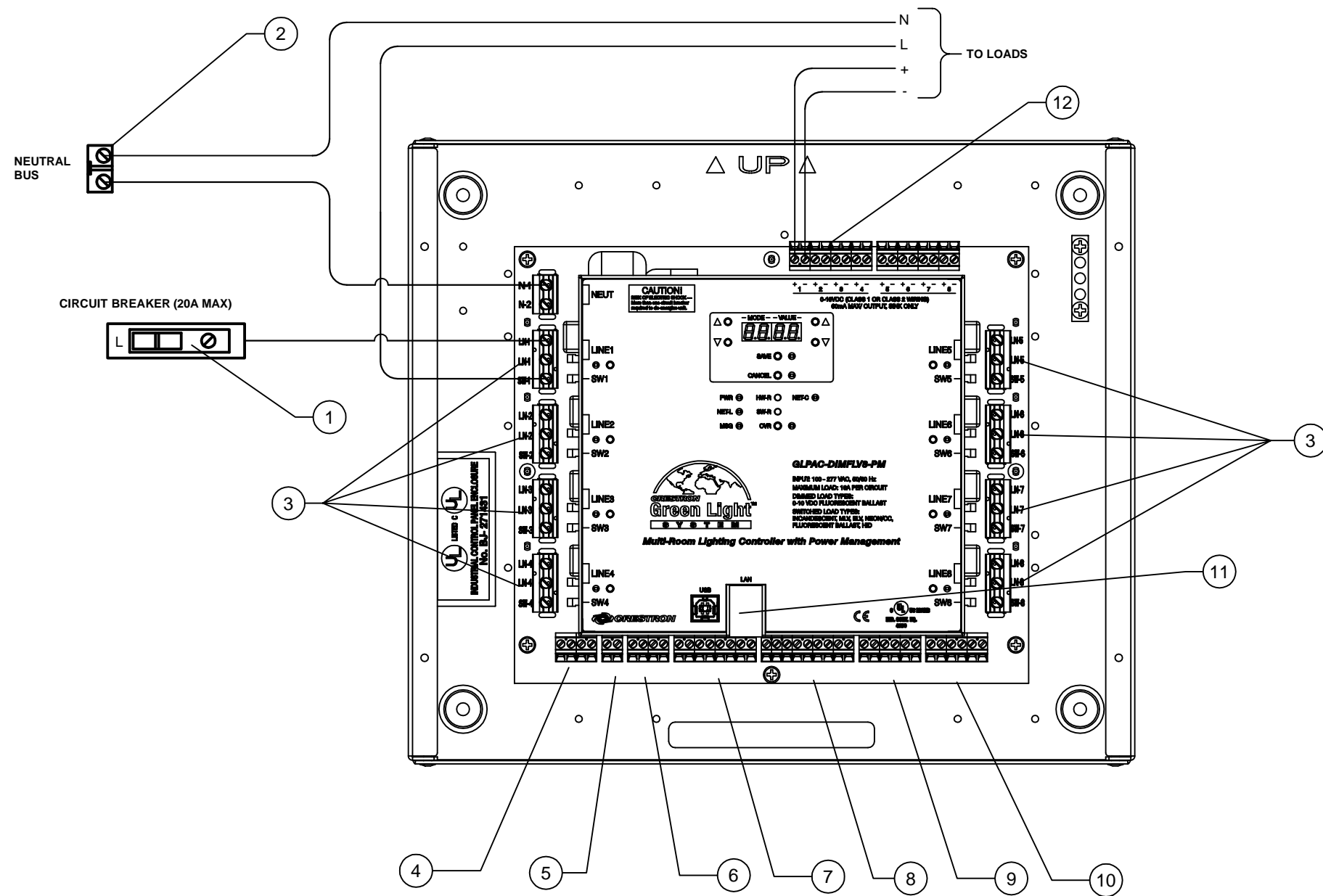
15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

TITLE:  
CLASSROOMS AND  
LABS 187 & 191  
LOAD DETAILS

DRAWING:  
11.0

REV: 02  
DATE: 8-AUG-2012  
DRAWN BY: RT

# GLPAC-DIMFLV8 DIMMING MODULE



FRONT VIEW DIMENSIONS

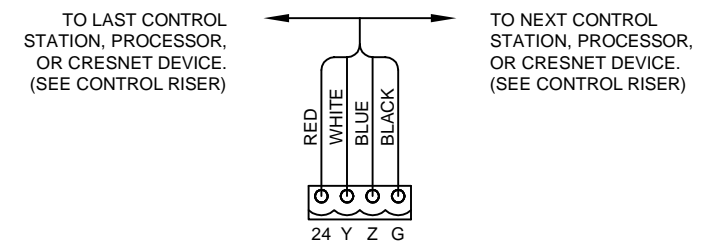
## NOTES KEY

- ① CIRCUIT BREAKER (20A MAX) - BREAKER IS FURNISHED BY ELECTRICAL CONTRACTOR.
- ② NEUTRAL BUS BAR - BUS BAR IS INTEGRAL TO CIRCUIT BREAKER PANEL BOARD.
- ③ (2) LINE AND (1) LOAD TERMINAL FOR EACH OF (8) CIRCUITS. (SCREWS TO BE TORQUED TO 8 IN-LB)
- ④ MASTER CRESNET NETWORK CONNECTOR FOR COMMUNICATION TO BUILDING PROCESSOR.
- ⑤ EMERGENCY OVERRIDE INPUT FOR UL 924 COMPLIANCE
- ⑥ LOCAL CRESNET NETWORK CONNECTOR FOR COMMUNICATION LOCAL DEVICES.
- ⑦ SIGNAL RELAYS TO HVAC SYSTEMS.
- ⑧ CONTACT CLOSURES.
- ⑨ (4) OCCUPANCY SENSOR INPUTS. 24V LOW VOLTAGE POWER PROVIDED.
- ⑩ (4) PHOTO SENSOR INPUTS. 24V LOW VOLTAGE POWER PROVIDED.
- ⑪ ETHERNET CONNECTION FOR SYSTEM CONFIGURATION.
- ⑫ 0-10V OUTPUT FOR DIMMING OF FIXTURES. USE CLASS 1 OR CLASS 2 WIRE. 0-10V OUTPUTS MUST CORRESPOND TO LINE OUTPUTS. MINIMUM GAUGE WIRE IS 18AWG.

## GENERAL NOTES

- 1. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
- 2. MODULE SHIPS FROM WITH FACTORY INSTALLED JUMPERS ON EACH CIRCUIT. JUMPERS MUST BE REMOVED AT COMMISSIONING.

## CRESNET CONTROL WIRING



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

PO #: X07496

QUOTE #: 1002617

SALES REP: TEAM LIGHTING

DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
 GLPAC-1 DETAILS

DRAWING:  
 12.0  
 REV: 00  
 DATE: 01/03/11  
 DRAWN BY: BJ

Project: LEGRAND CENTER  
 Creator: BJ  
 Date: 1/3/2011 Revision: 00

ROOMS: MULTI-PURPOSE 161,162,163

Area / Room	Room #	Description	Zone #	Circuit #	GLPAC Type	GLPAC ID	Output #	Fixture Designation	Load Type	Dim (Y/N)	Fixture Watts	Qty	Total Watts
			1		GLPAC-DIMFLV8	1	1		0-10V DIMMING	Y			
			2		GLPAC-DIMFLV8	1	2		0-10V DIMMING	Y			
			3		GLPAC-DIMFLV8	1	3		0-10V DIMMING	Y			
			4		GLPAC-DIMFLV8	1	4		0-10V DIMMING	Y			
			5		GLPAC-DIMFLV8	1	5		0-10V DIMMING	Y			
			6		GLPAC-DIMFLV8	1	6		0-10V DIMMING	Y			
			7		GLPAC-DIMFLV8	1	7		0-10V DIMMING	Y			
			8		GLPAC-DIMFLV8	1	8		0-10V DIMMING	Y			

**NOTES:**

- 1.) LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.
- 2.) AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.
- 3.) CIRCUIT DESIGNATIONS ARE GENERATED BY CRESTRON BASED ON ZONING NEEDS UNLESS OTHERWISE DIRECTED BY THE CONTRACT ENGINEERING DRAWINGS. ALL CIRCUIT NUMBERS AND DESIGNATIONS SHOULD BE VERIFIED AGAINST THE APPROPRIATE PROJECT CONTRACT DRAWINGS AT TIME OF INSTALL.



PROJECT: LEGRANDE CENTER

LOCATION: SHELBY NC

ORDER #: 830043

QUOTE #: 1002617

PO #: X07496

SALES REP: TEAM LIGHTING

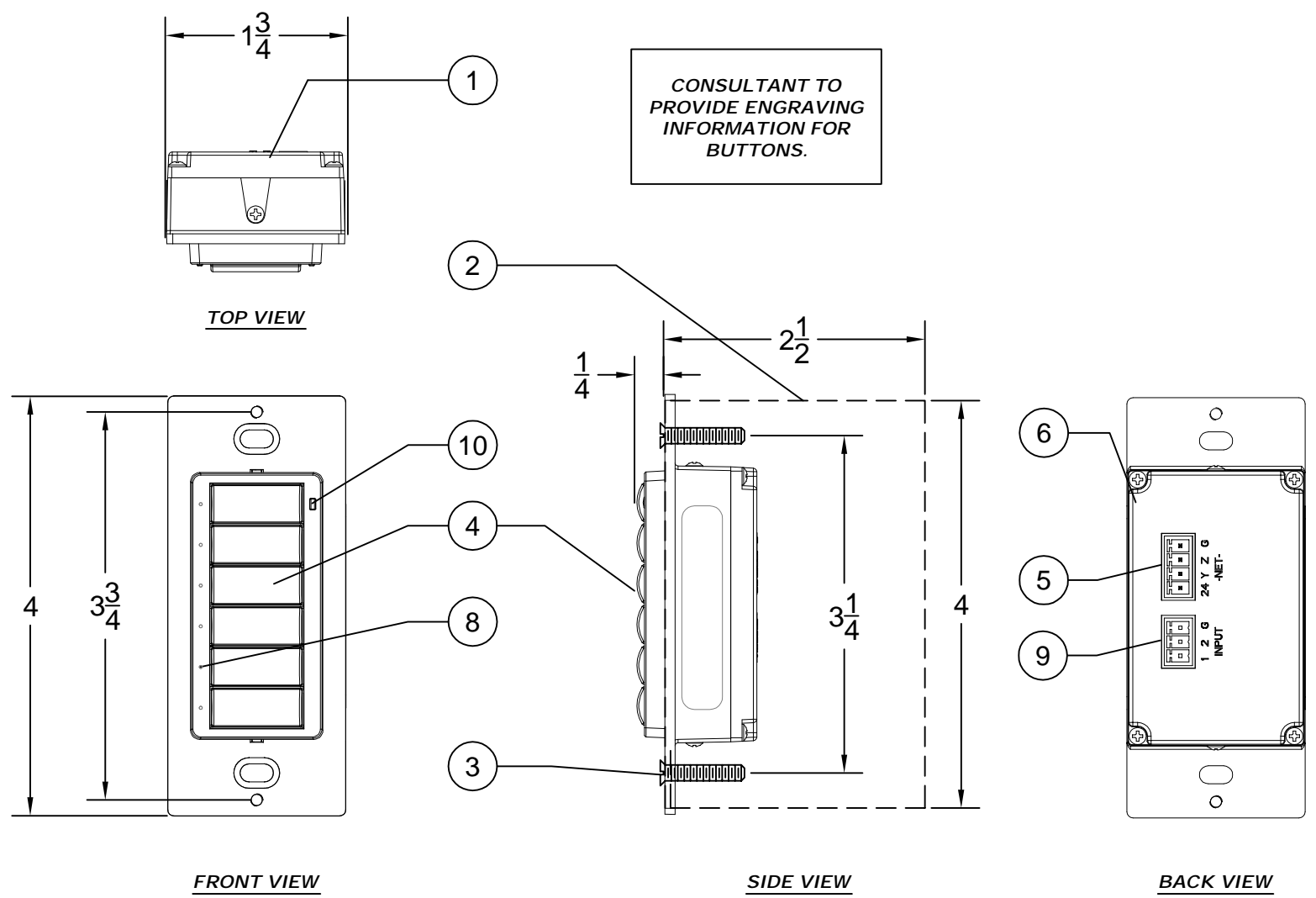
DISTRIBUTOR: TECHNICAL INNOVATIONS



15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

TITLE:  
 GLPAC-1 LOAD  
 SCHEDULE

DRAWING:  
 12.1  
 REV: 00  
 DATE: 01/03/11  
 DRAWN BY: BJ



CONSULTANT TO PROVIDE ENGRAVING INFORMATION FOR BUTTONS.

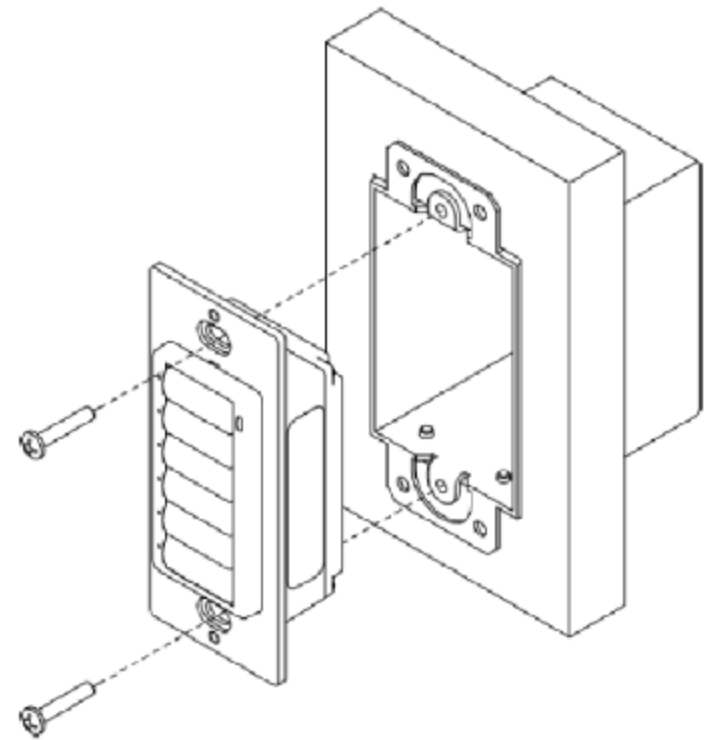
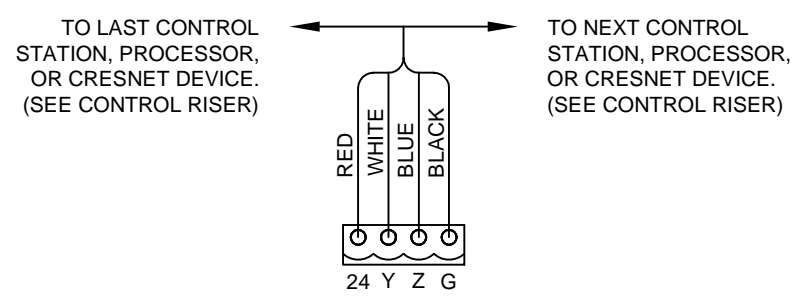
**NOTES KEY**

- ① #C2N-CBD-TS CAMEO SERIES CONTROL STATION WITH LED INDICATORS.
- ② SINGLE GANG ELECTRICAL BOX WITH NECESSARY ACCESSORIES, 2.5" DEEP MINIMUM (NOT BY CRESTRON).
- ③ 0.1 IN PAN HEAD SCREW (TYP OF (2) PER STATION). PROVIDED WITH CONTROL STATION BY CRESTRON.
- ④ CUSTOM ENGRAVEABLE AND CONFIGURABLE KEYPAD BUTTONS. SEE MANUAL FOR ASSEMBLY INSTRUCTIONS.
- ⑤ CRESNET CONNECTION PORT FOR CONTROL VIA 2-SERIES CONTROL SYSTEM.
- ⑥ GROUNDING WIRE FOR KEYPAD TO ELECTRICAL ENCLOSURE.
- ⑦ NOT SHOWN: TO BE USED WITH ANY DECORA STYLE FACEPLATE. FURNISHED BY OTHERS.
- ⑧ LED INDICATORS - INDICATE SELECTED SCENE
- ⑨ 3-PIN 3.5MM DETACHABLE TERMINAL BLOCK. COMPRISES OF (2) DRY CONTACT CLOSURE INPUTS.
- ⑩ PHOTOSENSOR FOR CONTROL OF AUTO-DIMMING FUNCTION. CAN BE CONFIGURED TO REPORT AMBIENT LIGHT LEVEL TO CONTROL SYSTEM.

**WIRING NOTES:**

- CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED**
1. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
  2. GROUND SHIELD AT CONTROL SYSTEM END **ONLY**.
  3. STRIP ONLY THE MINIMUM AMOUNT OF JACKETING FROM THE WIRES, AND INSULATE EXPOSED CONDUCTORS/ DRAIN WIRES WITH HEAT SHRINK TUBING.
  4. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
  5. MODEL CNTBLOCK NETWORK DISTRIBUTION/ TERMINAL BLOCKS ARE RECOMMENDED FOR TESTING PURPOSES AND CONVENIENCE OF WIRING.
  6. WHEN DAISY CHAINING NETWORK UNITS, ALWAYS TWIST THE ENDS OF THE INCOMING WIRE AND THE OUTGOING WIRE THAT SHARE A PIN ON THE NETWORK CONNECTOR. IF NECESSARY USE A PIGTAIL WHEN LANDING MORE THAN TWO CONDUCTORS ON A SMALL CONNECTOR.

**CRESNET CONTROL WIRING**



**IMPORTANT:**  
SEE INSTALLATION AND OPERATION MANUAL FOR KEYPAD ASSEMBLY INSTRUCTIONS AND BUTTON CONFIGURATION INSTRUCTIONS.

MANUAL - DOC.6603A

**C2N-CBD-TS KEYPAD**

PART #: C2N-CBD-TS

DESCRIPTION: C2N-CBD-TS KEYPAD

REVISION: 000

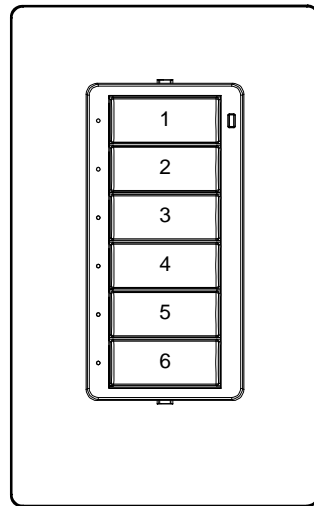
NOTES:

15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

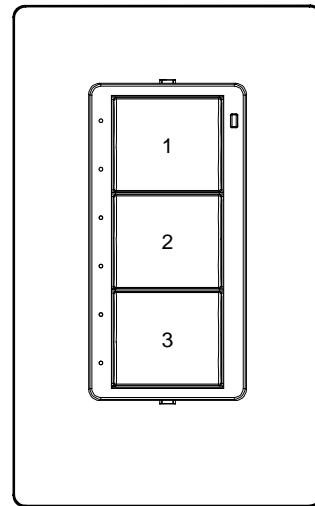
PART #:  
C2N-CBD-TS

DRAWING:  
1 OF 2

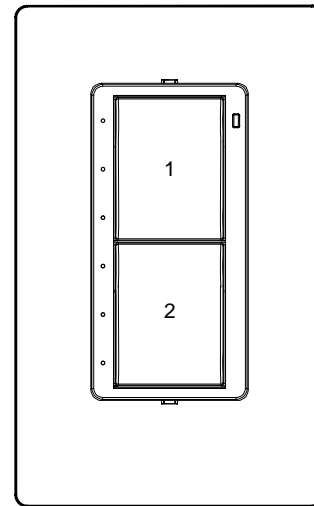
**C2N-CBD-TS ENGRAVING AND PROGRAMMING DETAIL SHEET.  
IF NEEDED PLEASE PRINT MULTIPLE COPIES OF THIS SHEET.**



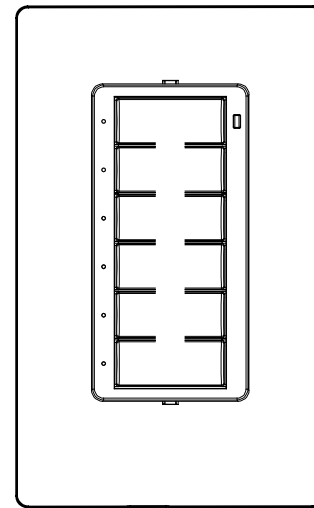
**6 BUTTON  
CONFIGURATION**



**3 BUTTON  
CONFIGURATION**



**2 BUTTON  
CONFIGURATION**



**CUSTOM  
CONFIGURATION**

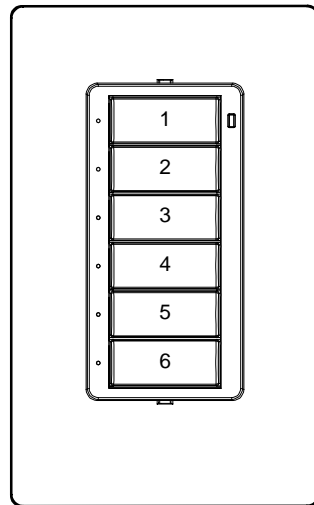
SHADE IN BUTTONS FOR CUSTOM CONFIGURATION.  
BUTTONS COME IN 1, 2, AND 3 SPACE SIZES. MINIMUM  
IS 2 QND MAXIMUM IS 6 BUTTONS.

STATION ID: \_\_\_\_\_  
LOCATION: \_\_\_\_\_  
COLOR: \_\_\_\_\_  
TEXTURE OR SMOOTH: \_\_\_\_\_

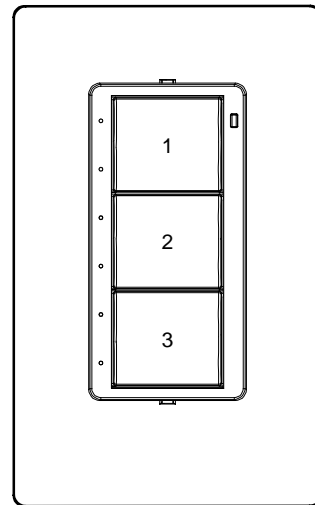
\*BUTTONS BIGGER THAN 1 SPACE CAN HAVE 2 LINES OF TEXT AND EACH LINE CAN HAVE A  
MAXIMUM OF 7 CHARACTERS. (SEPARATE LINES WITH /)

ENGRAVING AND PROGRAMMING SCHEDULE			
BUTTON ID	ENGRAVING	ZONES CONTROLLED	PROGRAMMING DESCRIPTION
1			
2			
3			
4			
5			
6			

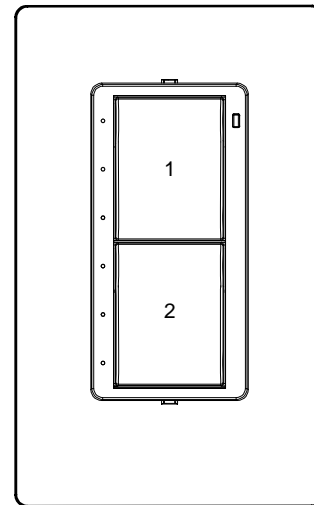
NOTES:



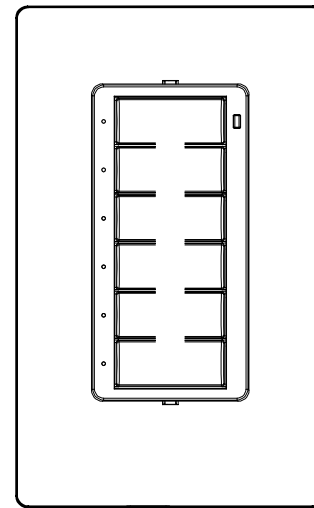
**6 BUTTON  
CONFIGURATION**



**3 BUTTON  
CONFIGURATION**



**2 BUTTON  
CONFIGURATION**



**CUSTOM  
CONFIGURATION**

SHADE IN BUTTONS FOR CUSTOM CONFIGURATION.  
BUTTONS COME IN 1, 2, AND 3 SPACE SIZES. MINIMUM  
IS 2 QND MAXIMUM IS 6 BUTTONS.

STATION ID: \_\_\_\_\_  
LOCATION: \_\_\_\_\_  
COLOR: \_\_\_\_\_  
TEXTURE OR SMOOTH: \_\_\_\_\_

\*BUTTONS BIGGER THAN 1 SPACE CAN HAVE 2 LINES OF TEXT AND EACH LINE CAN HAVE A  
MAXIMUM OF 7 CHARACTERS. (SEPARATE LINES WITH /)

ENGRAVING AND PROGRAMMING SCHEDULE			
BUTTON ID	ENGRAVING	ZONES CONTROLLED	PROGRAMMING DESCRIPTION
1			
2			
3			
4			
5			
6			

NOTES:

PART #: C2N-CBD-TS

DESCRIPTION: C2N-CBD-TS KEYPAD

REVISION: 000

DATE: 8/13/00

NOTES:



15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

PART #:  
C2N-CBD-TS

DRAWING:  
2 OF 2



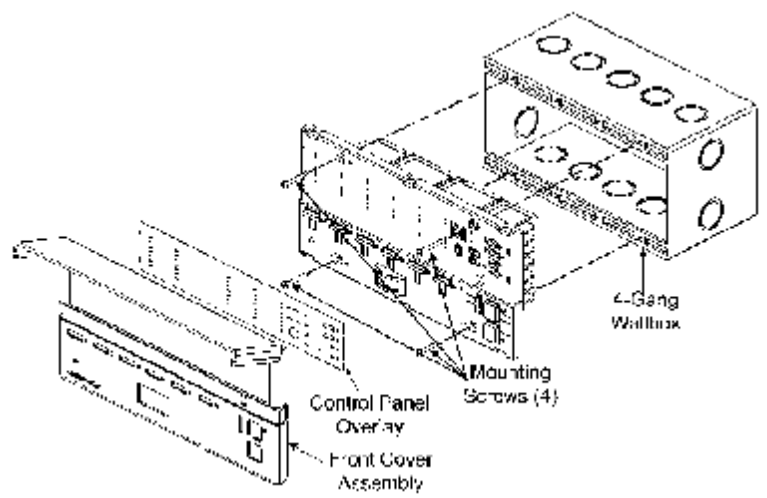
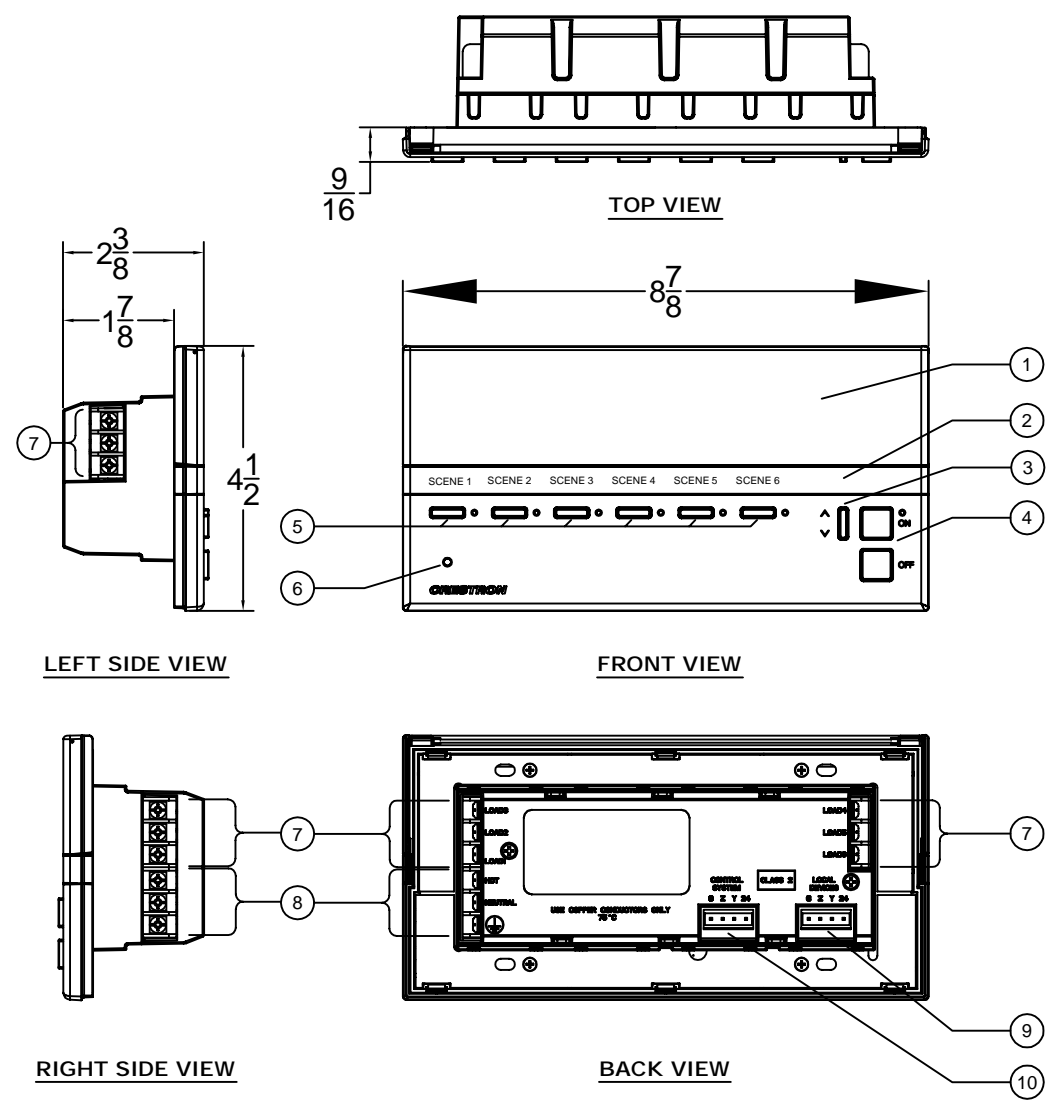


**NOTE:**  
 MAXIMUM LOAD PER CHANNEL NOT TO EXCEED 800W (6.6A @ 120VAC)  
 MINIMUM LOAD PER CHANNEL NOT TO BE BELOW 15 W (0.125A @ 120VAC)  
 MAXIMUM LOAD PER UNIT NOT TO EXCEED 1920W (16A @ 120VAC)

MAXIMUM CHANNEL AND UNIT LOADS CAN BE INCREASED BY USING POWER BOOSTERS/EXPANSION MODULES (PURCHASED SEPARATELY).

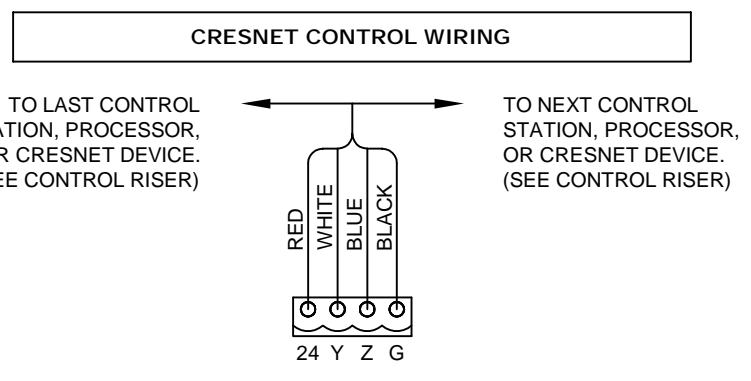
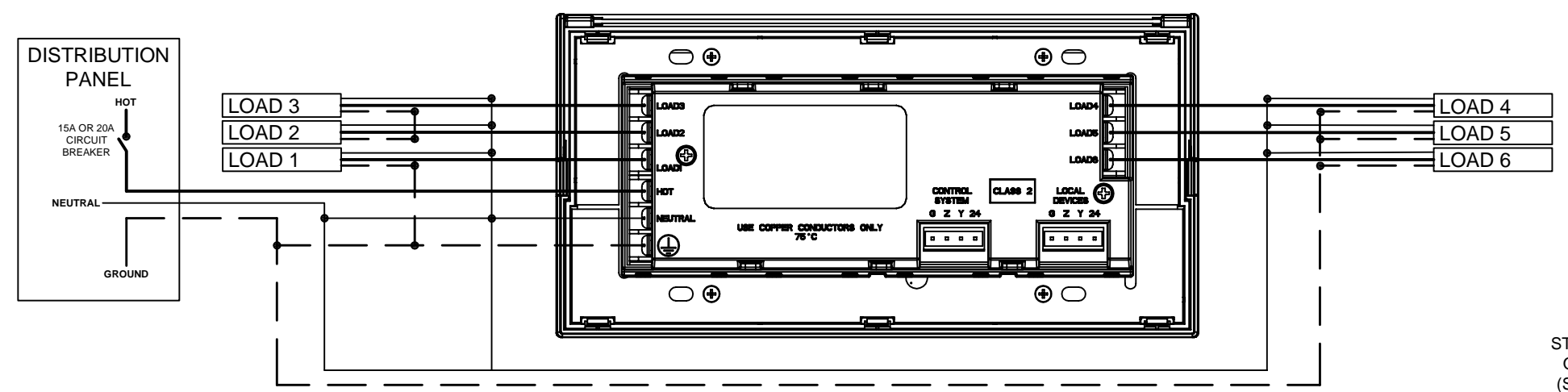
THIS UNIT IS FOR 2-WIRE 120VAC FORWARD-PHASE DIMMING CIRCUITS. FOR OTHER LOAD TYPES AND/OR VOLTAGES SUITABLE POWER BOOSTERS MUST BE USED.

**AVAILABLE TYPES:**  
 CLS-EXP-DIM 2-WIRE FORWARD PHASE DIMMING  
 CLS-EXP-DIMFDB 3-WIRE DIMMING  
 CLS-EXP-DIMFLV SWITCHED LOADS, 4-WIRE 0-10V DIMMING  
 CLS-EXP-DIMU 2 WIRE FORWARD OR REVERSE PHASE DIMMING  
 ALL BOOSTERS RATED AT 120/230/277 VOLTS 16A MAX.



- NOTES KEY**
- 1 DISPLAY COVER. DISPLAY INCLUDES LIGHTING LEVEL BAR GRAPHS, TWO DIGIT DISPLAY, MINI PHONE JACK, AND SETUP/CONFIGURATION CONTROL BUTTONS.
  - 2 LABEL STRIP - CUSTOMIZABLE LABEL FOR SIX SCENES.
  - 3 UP/DOWN PUSHBUTTON - "ROCKER" SWITCH IS PROGRAMMABLE FOR MASTER LIGHTS CONTROL, MASTER SHADE CONTROL, OR AS A "SHIFT" BUTTON TO ALLOW FOR A SECOND SET OF FUNCTIONS FOR THE SIX FUNCTION BUTTONS.
  - 4 ON & OFF BUTTONS - RECALLS FOR THE "ON" AND "OFF" SCENES.
  - 5 FUNCTION BUTTONS AND LEDS - USED TO SELECT OR RECALL SCENES IN STANDARD MODE. IN LIGHTS MODE THEY ARE USED TO MAKE TEMPORARY ADJUSTMENTS TO THE SIX LIGHTING LOADS. CAN BE PROGRAMMED FOR OTHER FUNCTIONS.
  - 6 IR DETECTOR - RESPONDS TO COMMANDS FROM OPTIONAL IR REMOTE CONTROL.
  - 7 LOADS 1 THRU 6 - TERMINALS TO CONNECT THE CLS-C6 DIMMER CHANNEL OUTPUTS TO THE LIGHTING LOADS. **MAXIMUM WATTAGE PER LOAD NOT TO EXCEED 800W**
  - 8 HOT, NEUTRAL, GROUND - TERMINALS TO CONNECT THE UNIT TO 120V AC POWER SOURCE.
  - 9 LOCAL DEVICES - 4-PIN TERMINAL BLOCK TO CONNECT THE CLS-C6, USING CRESNET WIRING, TO LOCAL DEVICES.
  - 10 CONTROL SYSTEM - 4-PIN TERMINAL BLOCK TO CONNECT THE CLS-C6, USING CRESNET WIRING, TO A 2-SERIES CONTROL SYSTEM NETWORK.

- GENERAL NOTES**
1. THIS UNIT REQUIRES A 120VAC 50/60HZ POWER FEED.
  2. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
  3. GROUND SHIELD AT CONTROL SYSTEM END **ONLY**.
  4. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
  5. REFER TO THE FOLLOWING MANUALS FOR FURTHER INFORMATION.  
 OPERATIONS GUIDE - DOC.6347B  
 INSTALLATION GUIDE - DOC.6413A  
 USER GUIDE - DOC.6395

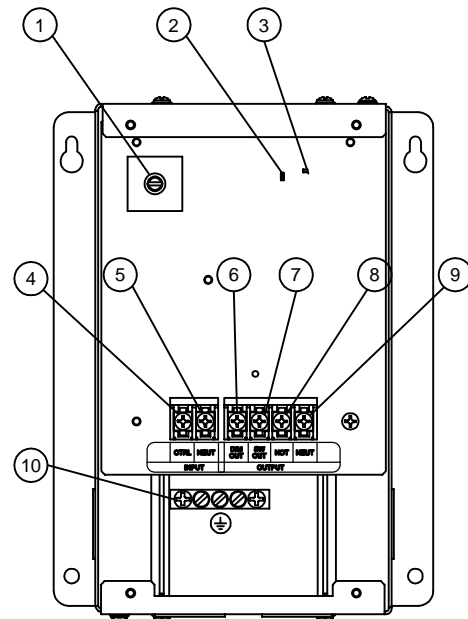
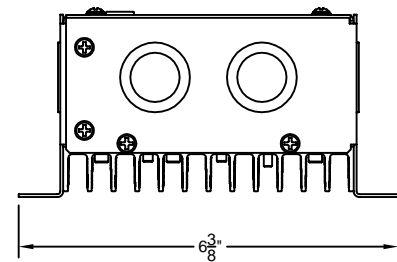
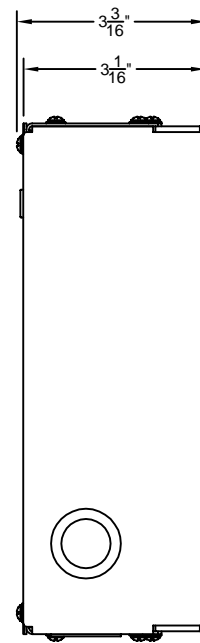
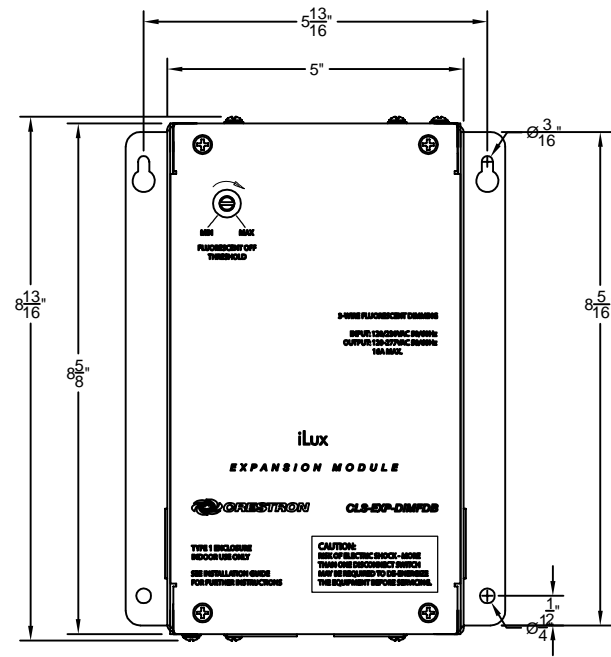


**CRESTRON LIGHTING CONTROLLER**

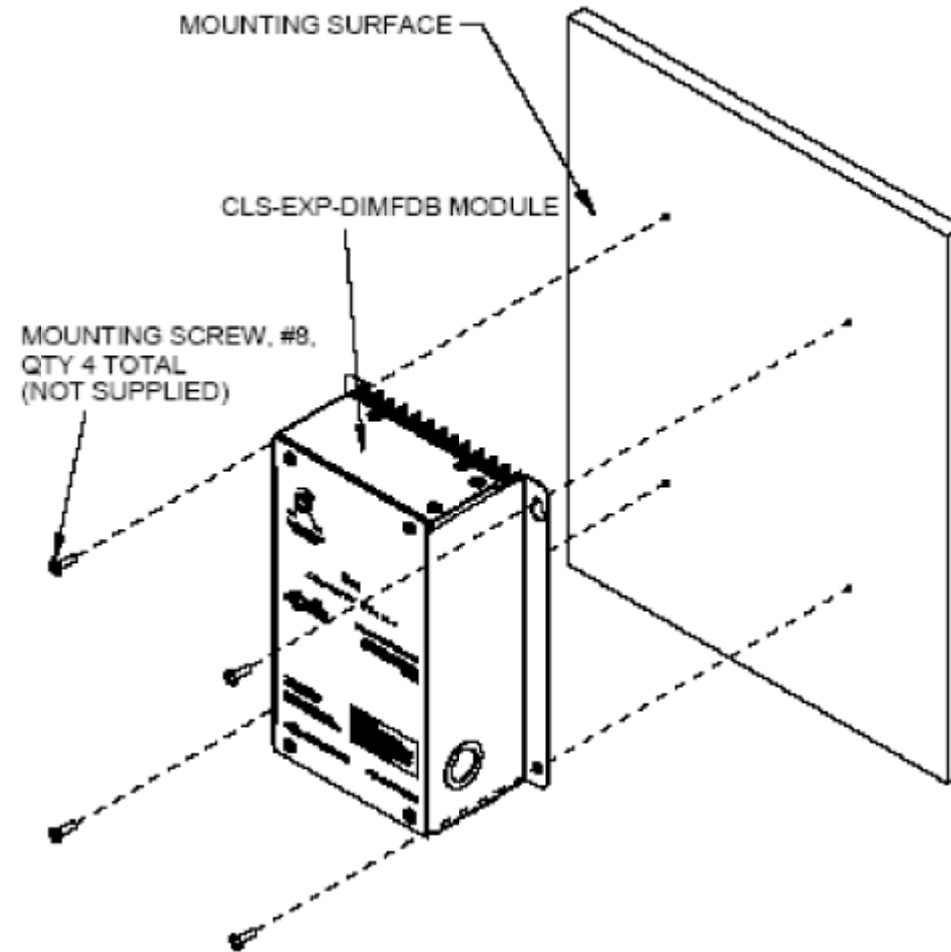
PART #: CLS-C6  
 DESCRIPTION: ILUX INTEGRATED LIGHTING CONTROLLER  
 REVISION: 001  
 DATE: 2/14/2012  
 NOTES:

**CRESTRON**  
 15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

PART #: CLS-C6  
 DRAWING: 1 OF 1



### Module Installation



#### NOTES KEY

- ① FLUORESCENT OFF THRESHOLD. (1) RECESSED SCREWDRIVER ADJUSTABLE TRIM POT, ADJUSTS MINIMUM BRIGHTNESS LEVEL. COVERED BY REMOVABLE CAP.
  - ② LOAD STATE INDICATOR. (1) RED LED BEHIND FRONT PANEL, ILLUMINATES WHEN LOAD OUTPUT IS ON.
  - ③ POWER INDICATOR. (1) GREEN LED BEHIND FRONT PANEL, INDICATES POWER IS APPLIED TO THE HOT TERMINAL.
  - ④ CTRL (1) CAPTIVE SCREW TERMINAL, FOR CONTROL INPUT FROM CLS-SERIES, CLW-SERIES\* DIMMERS, CLX-DIM (ALL VERSIONS), OR OTHER CRESTRON DIMMERSUT
  - ⑤ NEUT (INPUT) (1) CAPTIVE SCREW TERMINAL, FOR NEUTRAL CONNECTION FOR CONTROL INPUT.
  - ⑥ DIM OUT (1) CAPTIVE SCREW TERMINAL FOR DIMMED OUTPUT TO THE LOAD.
  - ⑦ SW OUT (1) CAPTIVE SCREW TERMINAL FOR SWITCHED OUTPUT TO THE LOAD.
  - ⑧ HOT (1) CAPTIVE SCREW TERMINAL, FOR LINE POWER INPUT.
  - ⑨ NEUT (OUTPUT) (1) CAPTIVE SCREW TERMINAL, NEUTRAL CONNECTION FOR LINE POWER INPUT AND LOAD.
  - ⑩ GROUND. (1) CHASSIS GROUND BUS BAR
- \* CLW - SERIES DEVICE MUST HAVE A DEDICATED NEUTRAL

#### GENERAL NOTES

1. THIS UNIT REQUIRES A 120 OR 230VAC 50/60HZ CONTROL FEED AND A 120 OR 277VAC 50/60HZ POWER FEED.
2. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
3. REFER TO THE FOLLOWING MANUALS FOR FURTHER INFORMATION.  
OPERATIONS GUIDE - DOC.6678B



PART #: CLS-EXP-DIMFDB

DESCRIPTION: 3-WIRE FLUORESCENT DIMMER EXPANSION MODULE

REVISION: 001

DATE: 2/6/12

NOTES:



15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

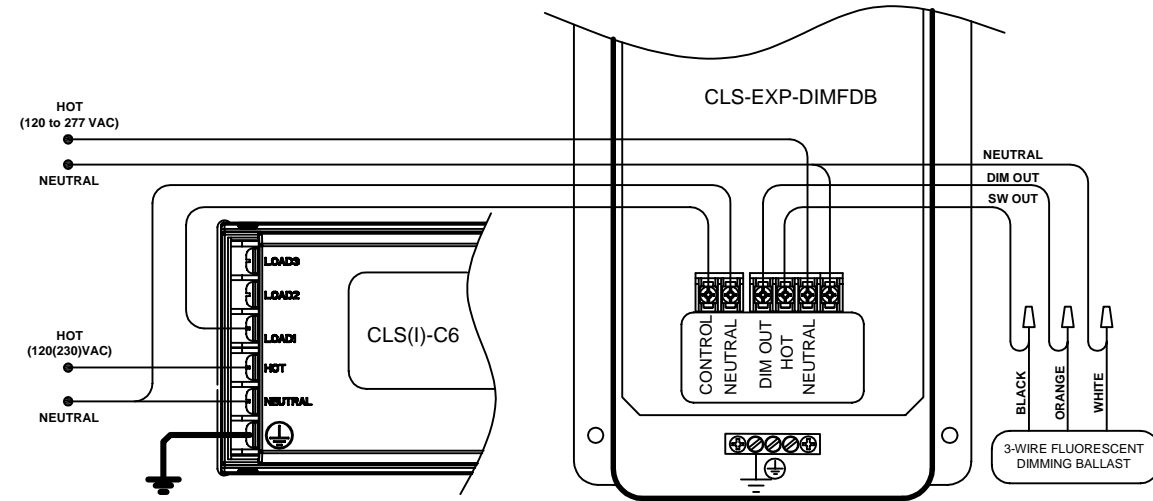
PART #:  
CLS-EXP-DIMFDB

DRAWING:  
1 OF 3

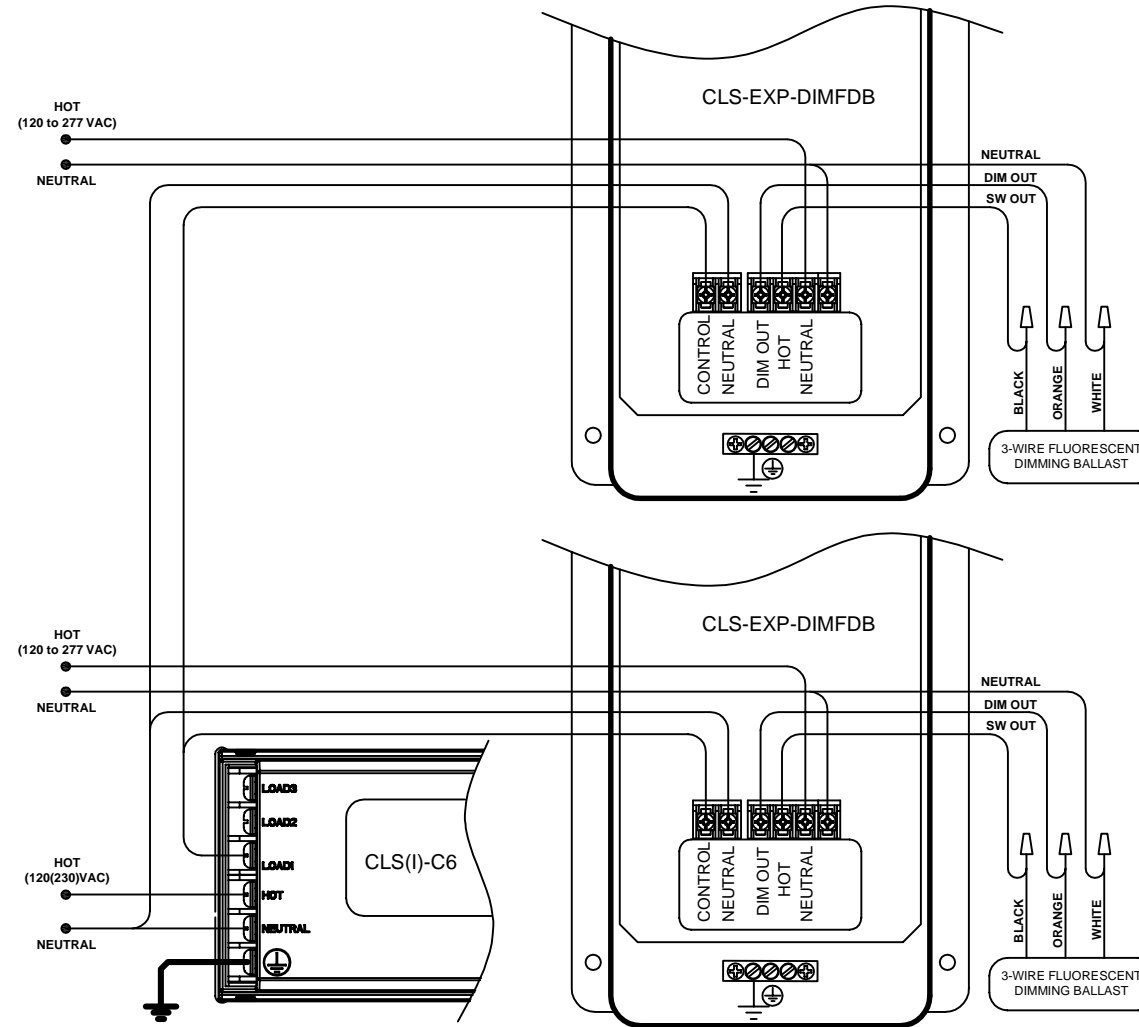
## CLS-EXP-DIMFDB 3-WIRE FLUORESCENT DIMMER EXPANSION MODULE

# CLS-EXP-DIMFDB WIRING DIAGRAM W/ AN ILUX

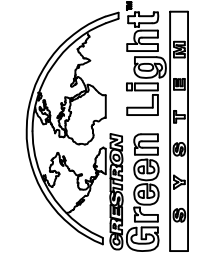
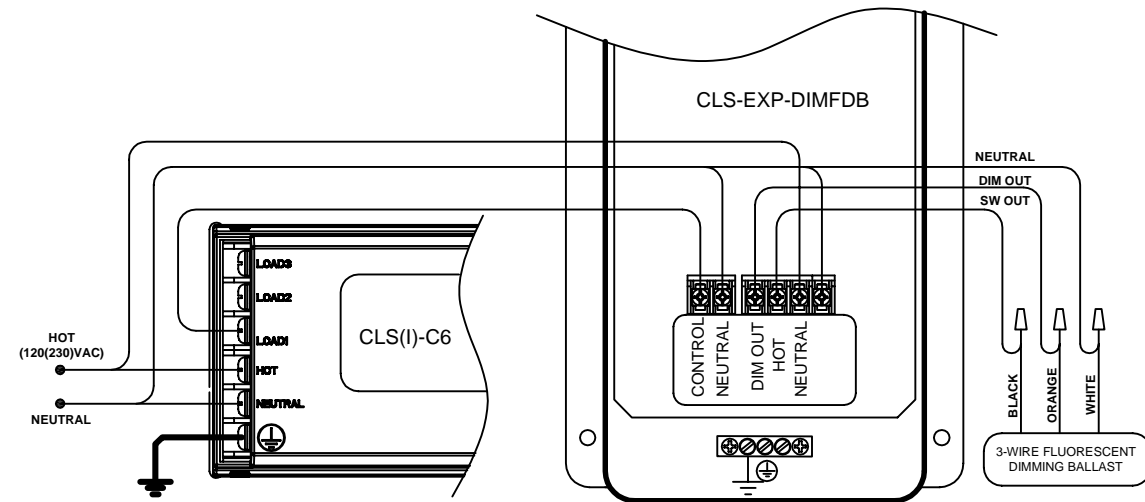
CLS-EXP-DIMFDB WITH SEPARATE FEEDS



MULTIPLE CLS-EXP-DIMFDB MODULES



CLS-EXP-DIMFDB WITH SHARED FEED



PART #: CLS-EXP-DIMFDB	DESCRIPTION: 3-WIRE FLUORESCENT DIMMER EXPANSION MODULE
	REVISION: 001
DATE: 4/2/12	
NOTES:	

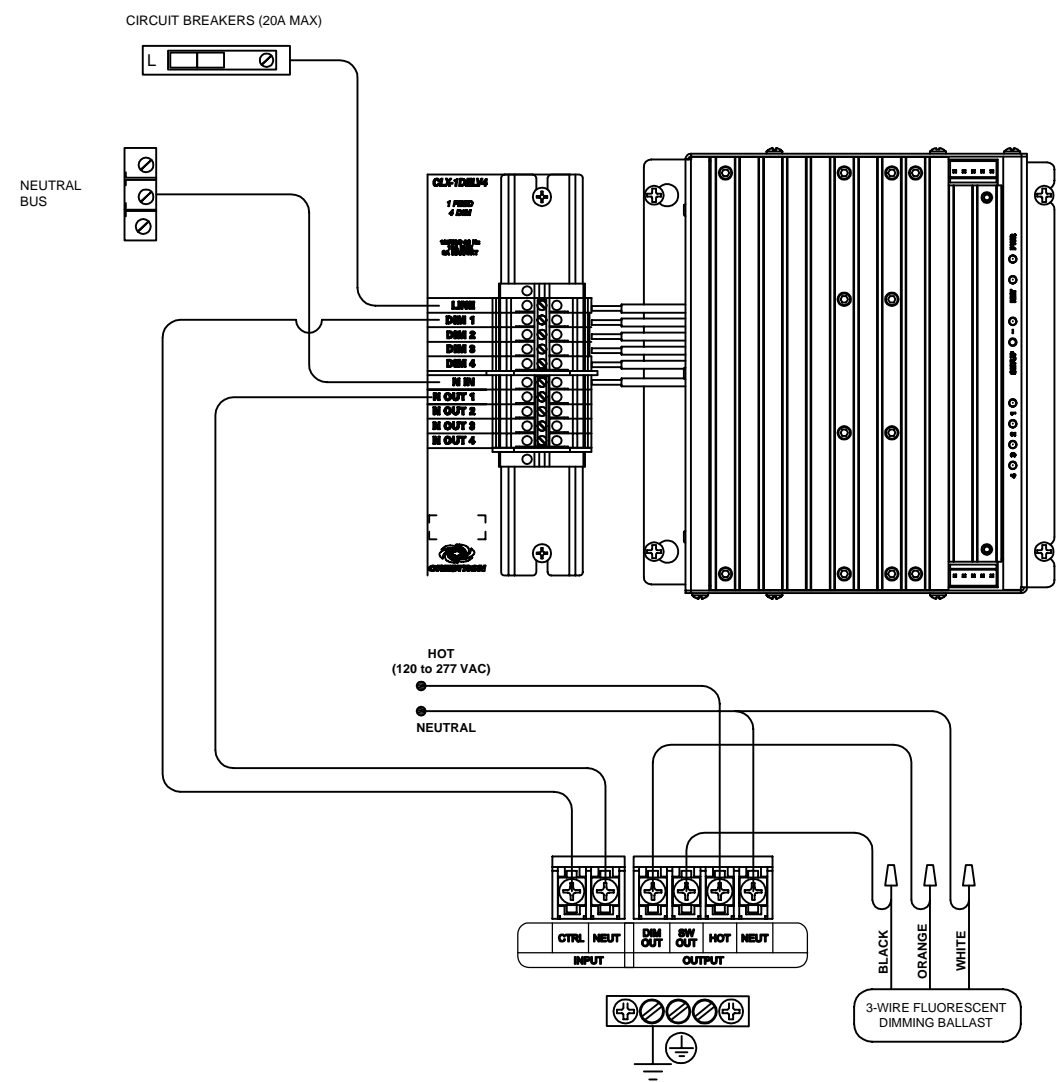
**CRESTRON**  
 15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

# CLS-EXP-DIMFDB 3-WIRE FLUORESCENT DIMMER EXPANSION MODULE

PART #:  
CLS-EXP-DIMFDB

DRAWING:  
2 OF 3

# CLS-EXP-DIMFDB WIRING WITH A CLX DIMMING MODULE



## CLS-EXP-DIMFDB 3-WIRE FLUORESCENT DIMMER EXPANSION MODULE



PART #: CLS-EXP-DIMFDB

DESCRIPTION: 3-WIRE FLUORESCENT DIMMER EXPANSION MODULE

REVISION: 000

DATE: 8/11/10

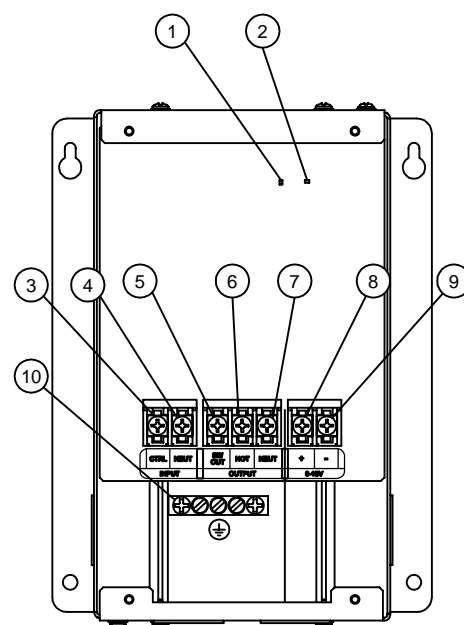
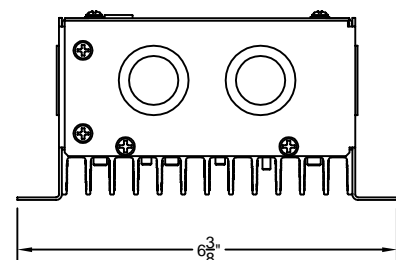
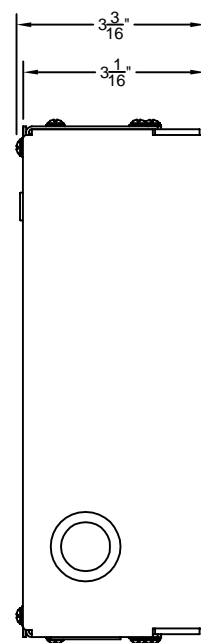
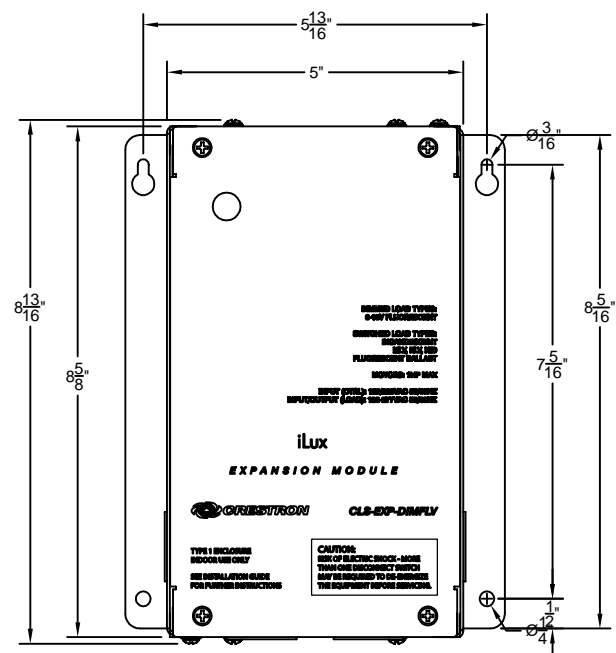
NOTES:



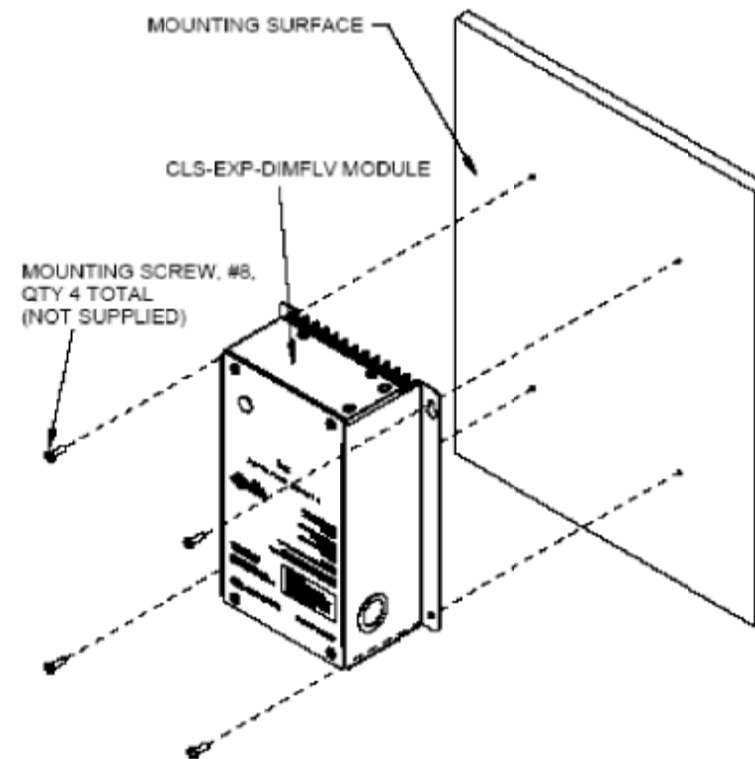
15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

PART #:  
 CLS-EXP-DIMFDB

DRAWING:  
 3 OF 3



**Module Installation**



**NOTES KEY**

- ① LOAD STATE INDICATOR. (1) RED LED BEHIND FRONT PANEL, ILLUMINATES WHEN LOAD OUTPUT IS ON
- ② POWER INDICATOR. (1) GREEN LED BEHIND FRONT PANEL, INDICATES POWER IS APPLIED TO THE HOT TERMINAL.
- ③ CTRL. (1) CAPTIVE SCREW TERMINAL, FOR CONTROL INPUT FROM COMPATIBLE DIMMER OR SWITCH
- ④ NEUT (INPUT). (1) CAPTIVE SCREW TERMINAL, FOR NEUTRAL CONNECTION FOR CONTROL INPUT
- ⑤ SW OUT. (1) CAPTIVE SCREW TERMINAL FOR SWITCHED OUTPUT TO THE LOAD
- ⑥ HOT. (1) CAPTIVE SCREW TERMINAL, FOR LINE POWER INPUT.
- ⑦ NEUT (OUTPUT).(1) CAPTIVE SCREW TERMINAL, NEUTRAL CONNECTION FOR LINE POWER INPUT AND LOAD.
- ⑧ +. (1) CAPTIVE SCREW TERMINAL, "+" CONNECTION TO DIMMABLE BALLAST
- ⑨ -. (1) CAPTIVE SCREW TERMINAL, "-" CONNECTION TO DIMMABLE BALLAST
- ⑩ GROUND. (1) CHASSIS GROUND BUS BAR

**GENERAL NOTES**

- 1. THIS UNIT REQUIRES A 120 OR 230VAC 50/60HZ CONTROL FEED AND A 120 OR 277VAC 50/60HZ POWER FEED.
- 2. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
- 3. REFER TO THE FOLLOWING MANUALS FOR FURTHER INFORMATION.  
OPERATIONS GUIDE - DOC.6680A

PART #: CLS-EXP-DIMFLV

DESCRIPTION: FLUORESCENT DIMMER EXPANSION MODULE

REVISION: 002

DATE: 2/6/12

NOTES:



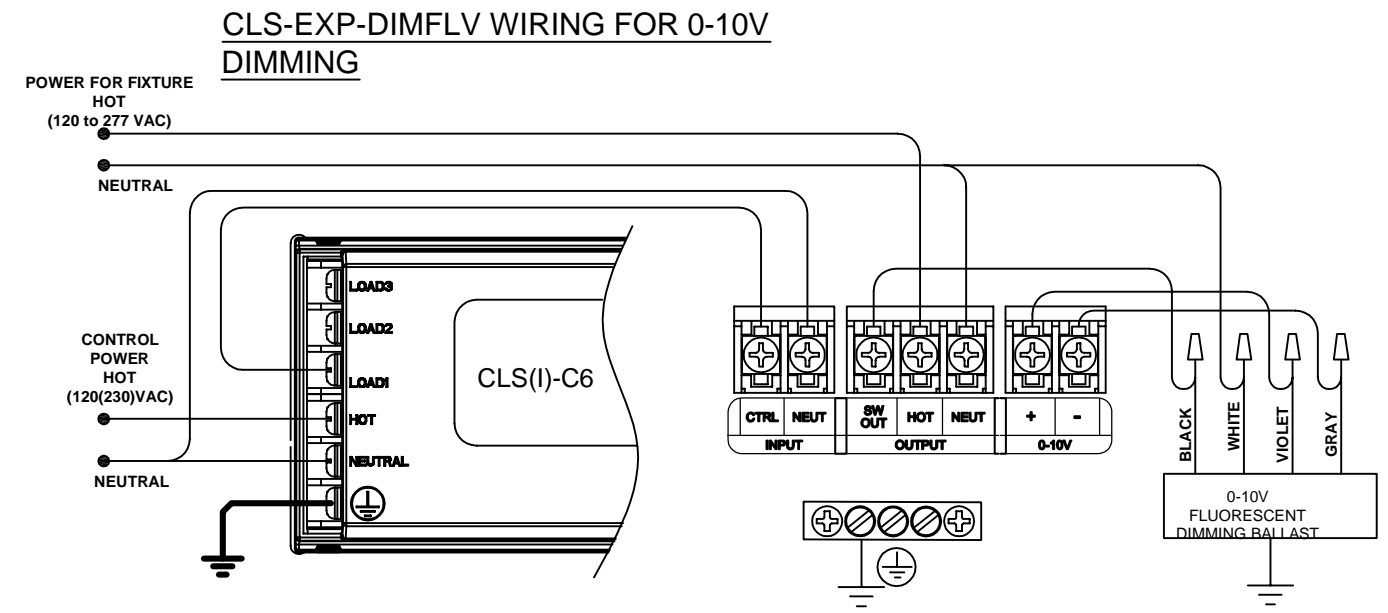
15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

PART #:  
CLS-EXP-DIMFLV

DRAWING:  
1 OF 5

**CLS-EXP-DIMFLV FLUORESCENT DIMMER EXPANSION MODULE**

CLS-EXP-DIMFLV WIRING WITH AN ILUX



CLS-EXP-DIMFLV FLUORESCENT DIMMER EXPANSION MODULE

PART #: CLS-EXP-DIMFLV

DESCRIPTION: FLUORESCENT DIMMER EXPANSION MODULE

REVISION: 002

DATE: 4/2/12

NOTES:



15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

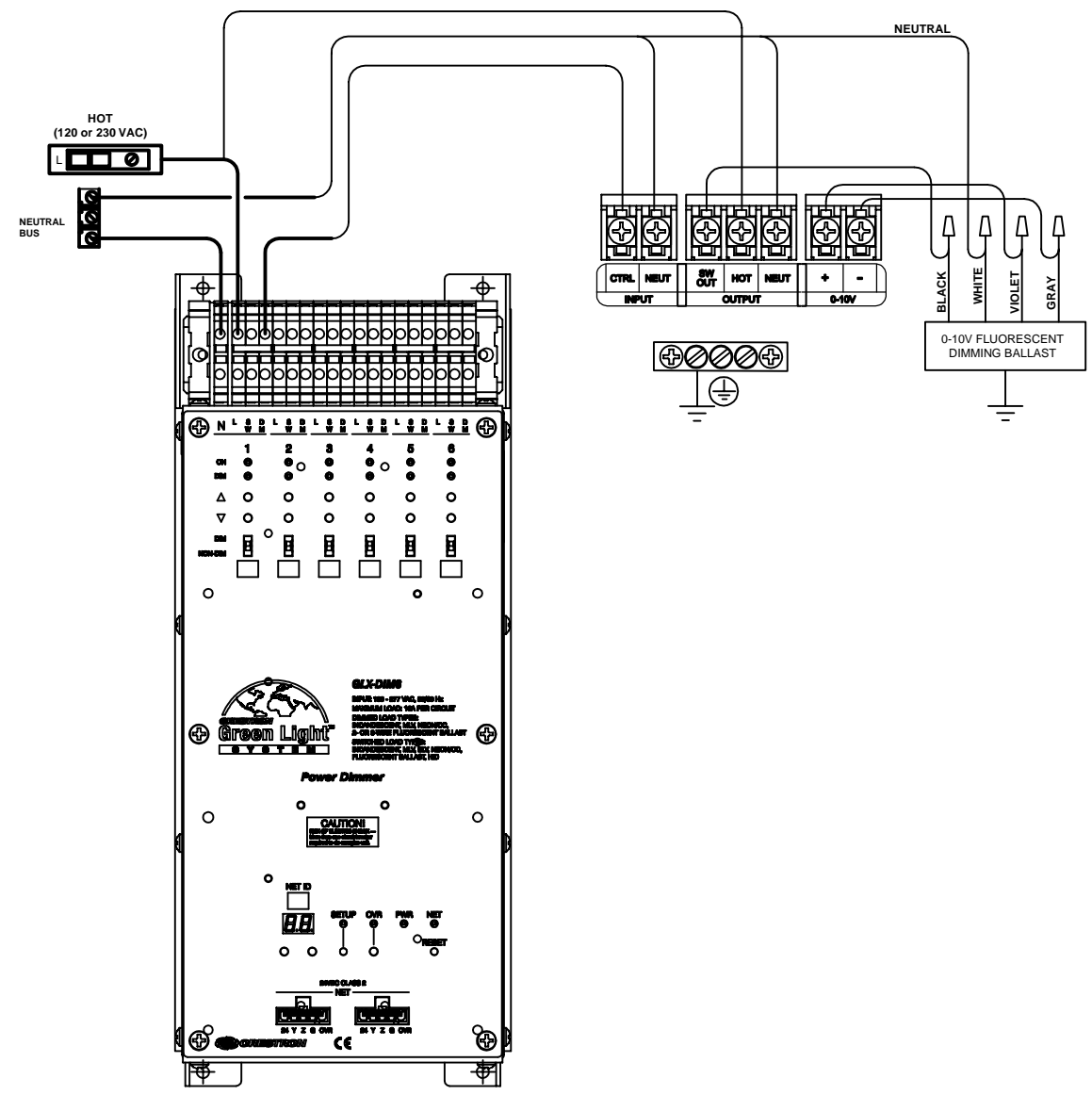
PART #:  
 CLS-EXP-DIMFLV

DRAWING:  
 2 OF 5

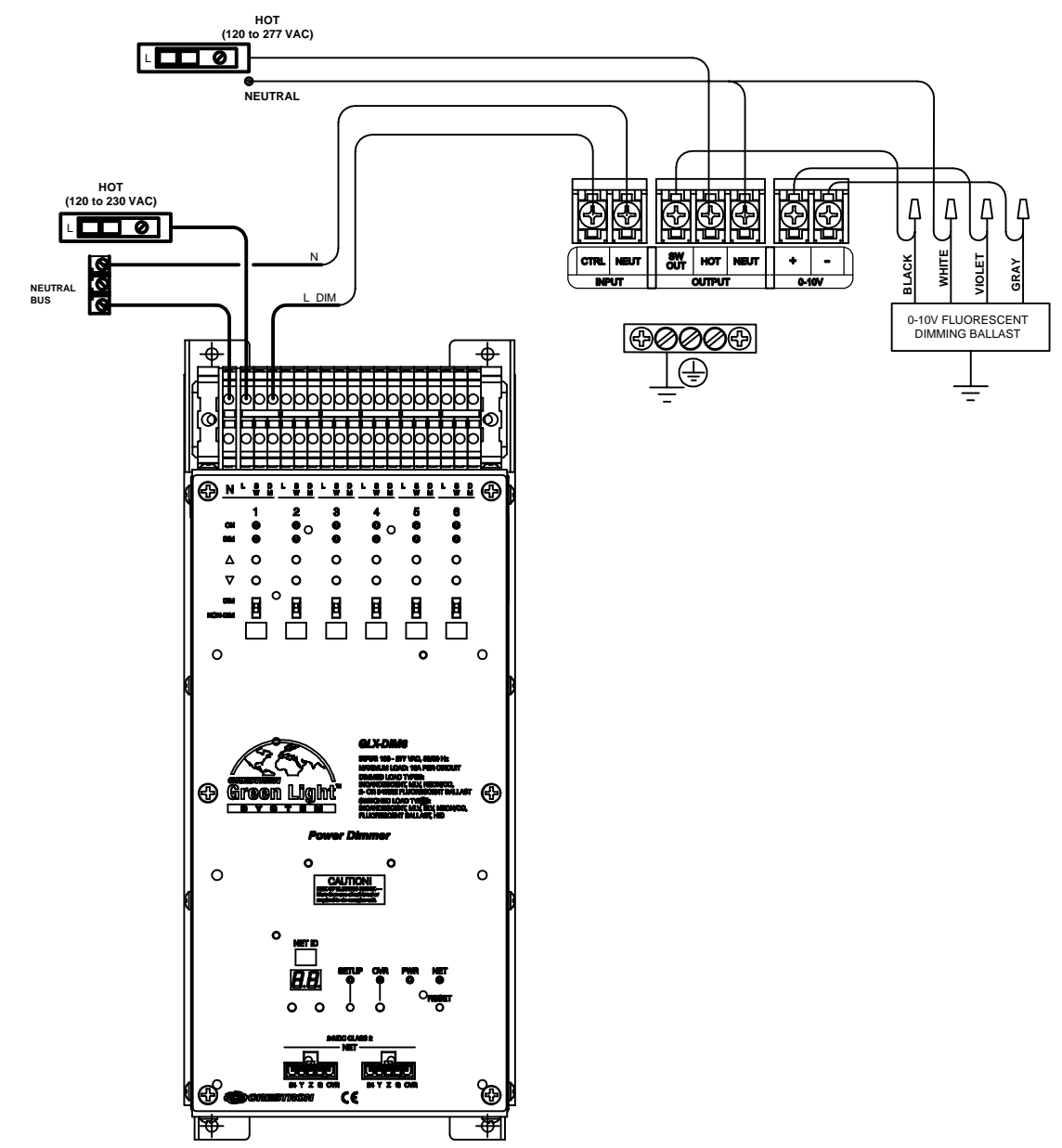




CLS-EXP-DIMFLV WIRING WITH GLX-DIM6



FIXTURE IS 120 OR 230VAC:  
CONTROL POWER MAY ALSO POWER  
CLS-EXP-DIMFLV



FIXTURE IS 277VAC:  
CONTROL POWER MAY NOT ALSO  
POWER CLS-EXP-DIMFLV  
CLS-EXP-DIMFLV REQUIRES CONTROL  
FEED NOT TO EXCEED 230VAC

CLS-EXP-DIMFLV FLUORESCENT DIMMER EXPANSION MODULE

PART #: CLS-EXP-DIMFLV

DESCRIPTION: FLUORESCENT DIMMER EXPANSION MODULE

REVISION: 001

DATE: 8/5/2011

NOTES:

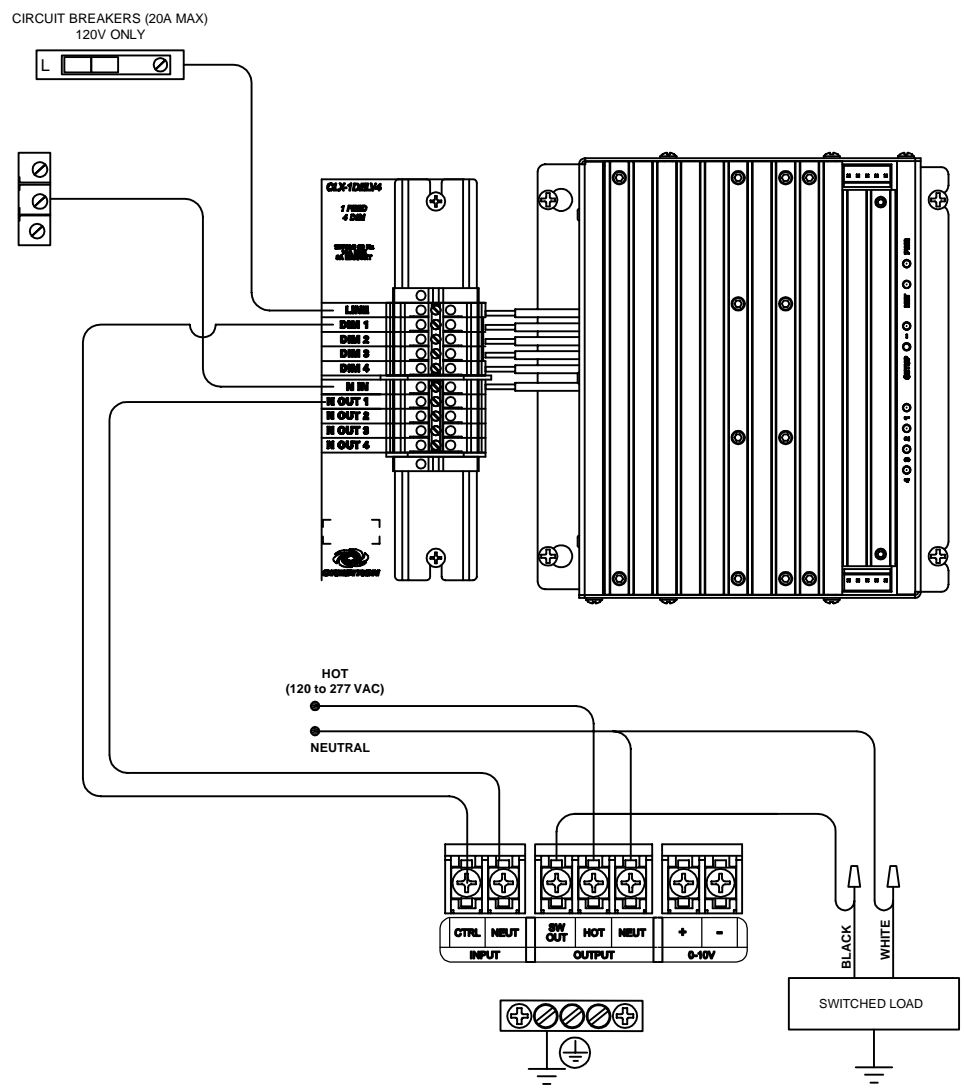
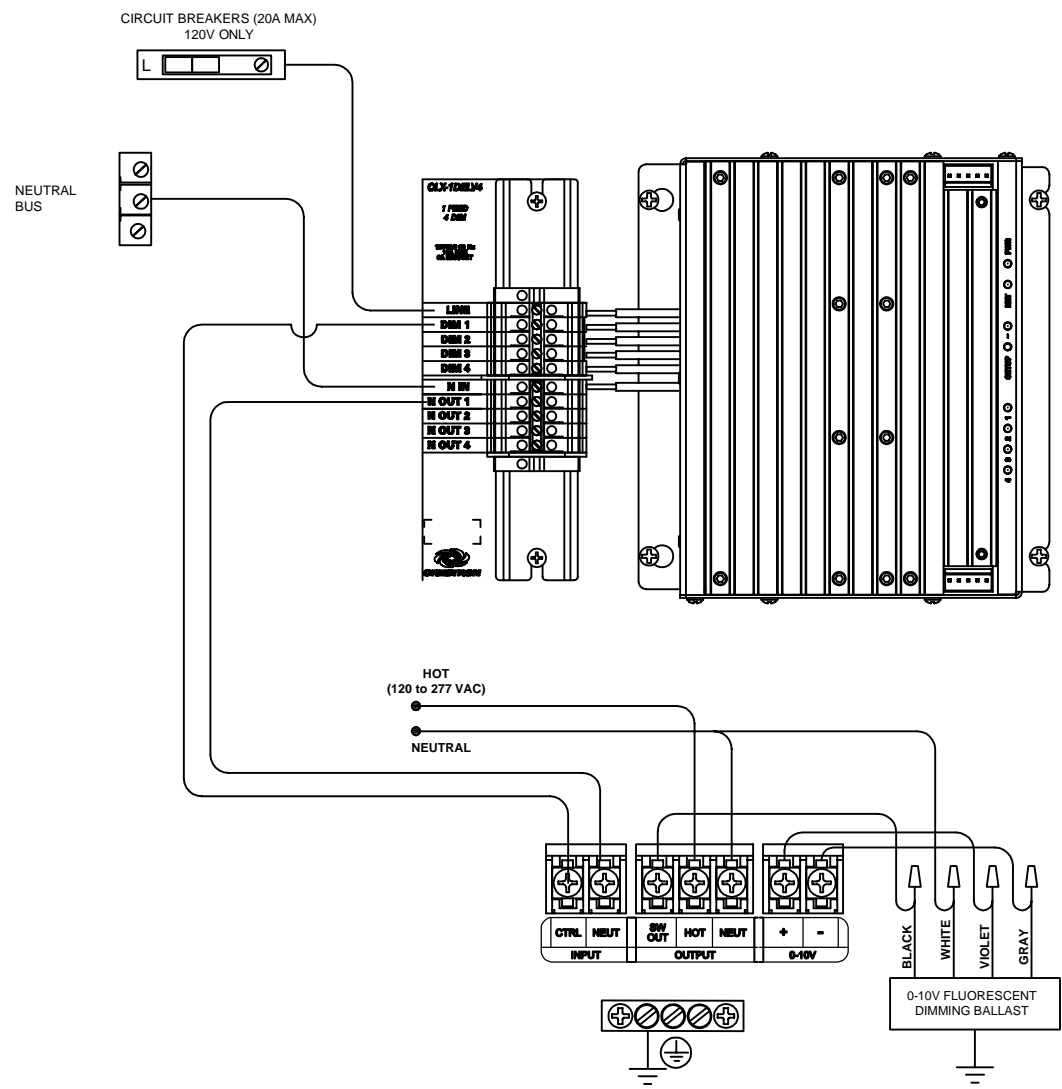


15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

PART #:  
CLS-EXP-DIMFLV

DRAWING:  
3 OF 5

# CLS-EXP-DIMFLV WIRING WITH A CLX DIMMING MODULE



# CLS-EXP-DIMFLV FLUORESCENT DIMMER EXPANSION MODULE



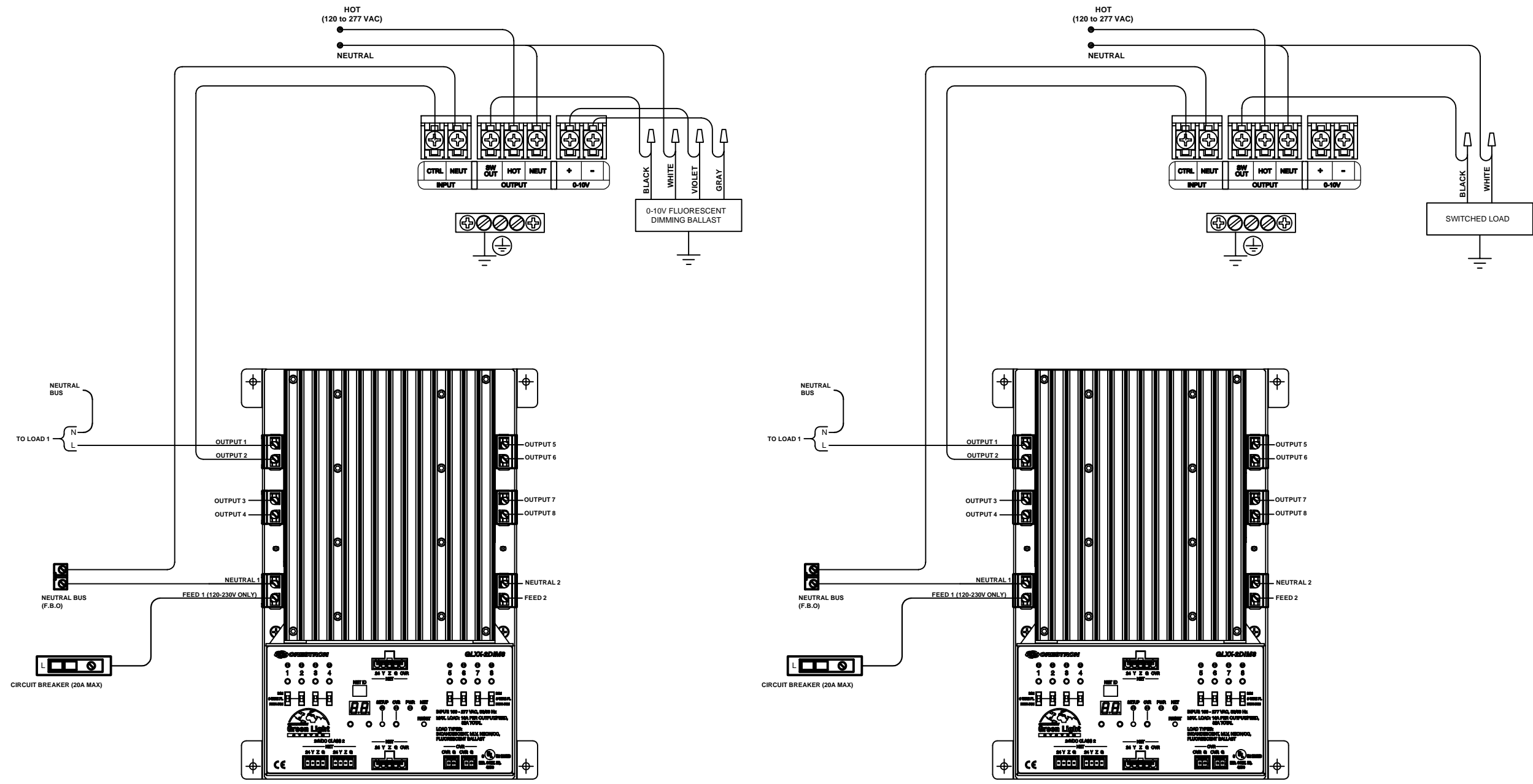
PART #: CLS-EXP-DIMFLV	
DESCRIPTION: FLUORESCENT DIMMER EXPANSION MODULE	DATE: 8/11/10
REVISION: 000	NOTES:

**CRESTRON**  
 15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

PART #:  
CLS-EXP-DIMFLV  
 DRAWING:  
4 OF 5



## CLS-EXP-DIMFLV WIRING WITH GLXX-2DIM8



## CLS-EXP-DIMFLV FLUORESCENT DIMMER EXPANSION MODULE

PART #: CLS-EXP-DIMFLV

DESCRIPTION: FLUORESCENT DIMMER EXPANSION MODULE

REVISION: 000 DATE: 8/11/10

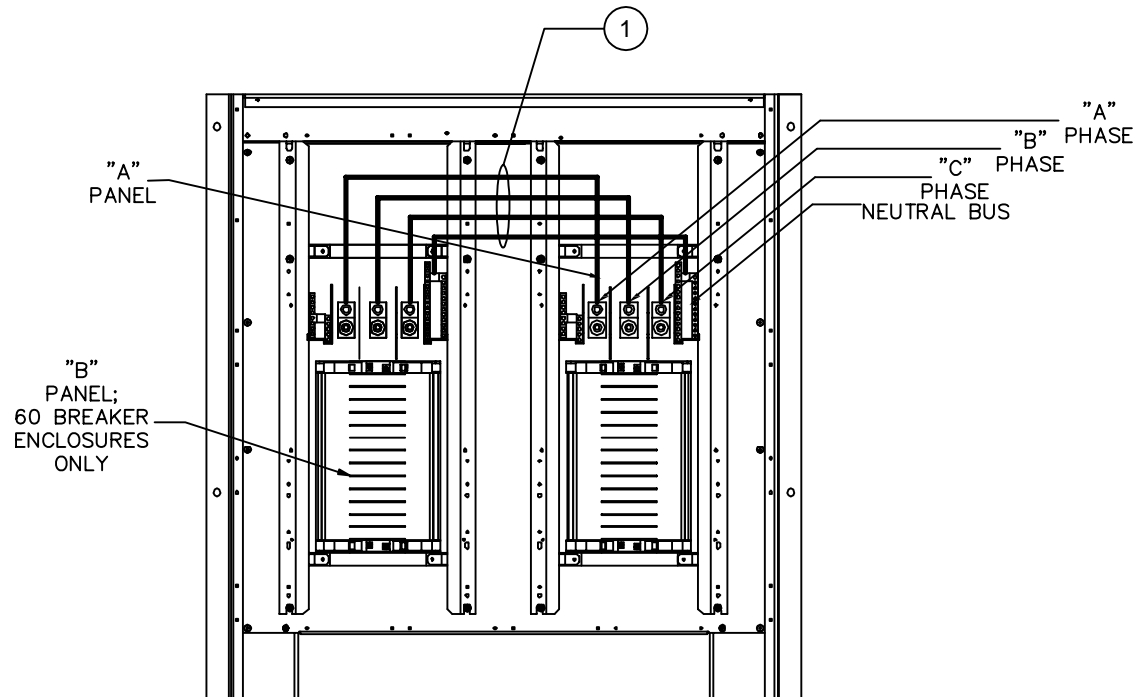
NOTES:



15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

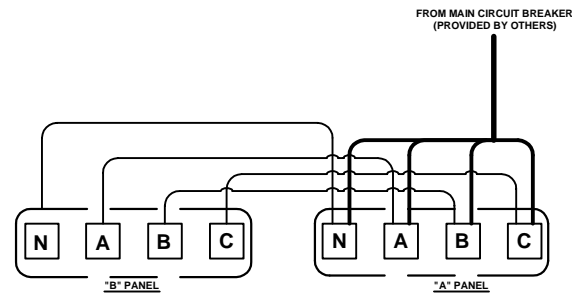
PART #: CLS-EXP-DIMFLV

DRAWING: 5 OF 5

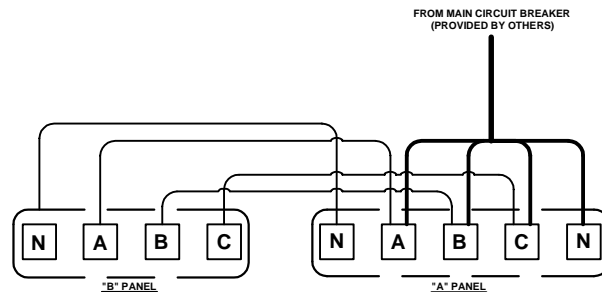


### BREAKER PANEL DETAIL WITH TWO PANEL BOARDS

(APPLIES TO GLE-2X4 AND GLE-3X4 WITH 60 CIRCUIT CONFIGURATIONS)



"A" PANEL TO "B" PANEL WIRING, 120V ENCLOSURES



"A" PANEL TO "B" PANEL WIRING, 277V ENCLOSURES

### PANEL TO PANEL WIRING DETAIL

(APPLIES TO GLE-2X4 AND GLE-3X4 WITH 60 CIRCUIT CONFIGURATIONS)

#### WIRING NOTES:

**CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED**

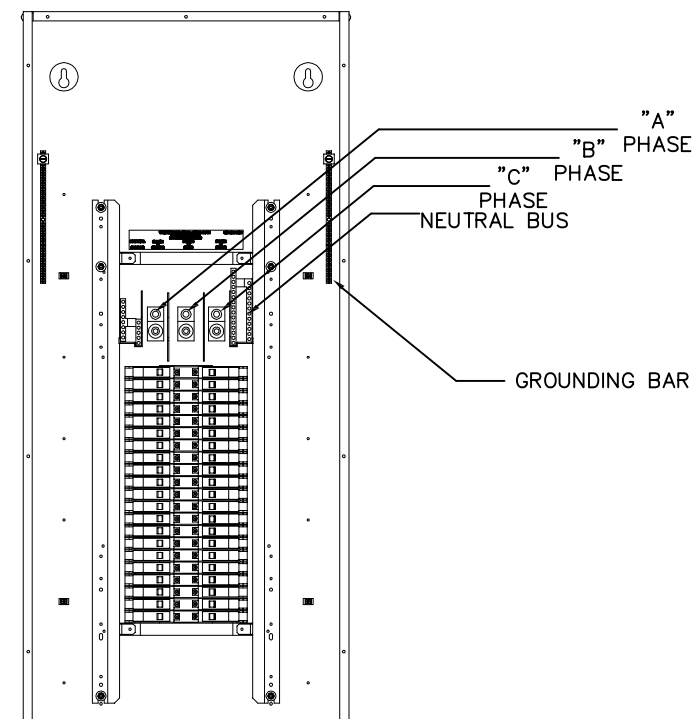
1. WIRING FOR MAIN LUGS MUST BE COPPER OR ALUMINUM CONDUCTORS ONLY. RATED AT 75C.
2. TIGHTEN ALL SCREWS TO THE PROPER TORQUE SPECIFICATION IN THE MODULE INSTALLATION GUIDE.
3. TIGHTEN MAIN LUGS TO THE PROPER TORQUE SPECIFICATION AS SHOWN IN THE TABLE PROVIDED.

#### WARNING:

**FAILURE TO PROPERLY TIGHTEN LUGS MAY RESULT IN POOR ELECTRICAL CONNECTION AND OVERHEATING OF THE TERMINALS**

#### NOTES KEY

- 1 4/0 STRANDED WIRE USED TO INTERCONNECT PANEL BOARDS.



### BREAKER PANEL DETAIL WITH SINGLE PANEL BOARD

(APPLIES TO ALL GLEP CABINETS, GLE-2X2, AND GLE-3X2)

#### WIRE GAUGE AND TORQUE VALUES

TERMINAL	BUSS AMPS*	120 VOLT MODELS		277 VOLT MODELS	
		CONNECTOR MAX WIRE RANGE	TORQUE	CONNECTOR MAX WIRE RANGE	TORQUE
MAIN LUGS & NEUTRAL MAIN LUGS	225 (120V) 250 (277V)	10-2/0 (CU) or 6-2/0 (AL)	15 LB-FT	#6-350 kcmil (CU or AL)	275-300 LB-IN
	400	6 - 300 KCMIL (CU or AL)	21 LB-FT	1/0-750 kcmil (CU or AL)	
SUBFEED LUGS (60 CIRCUIT ONLY)	225 (120V) 250 (277V)	(2) 4-1/0 (CU or AL)	15 LB-FT	(1) 1/0-750 kcmil (CU or AL)	275-300 LB-IN
	400	(2) 4-300 kcmil (CU or AL)	28 LB-FT	(2) 1/0-350 kcmil (CU or AL)	
NEUTRAL BARS		14-10 (CU) OR 12-10 (AL)	20 LB-IN	14-6 (CU or AL)	24-35 LB-IN
		8 (CU OR AL)	25 LB-IN	14-2/0 (CU or AL)	40-50 LB-IN
		6-4 (CU or AL)	35 LB-IN		

\*ALL PANELS ARE RATED FOR 225/250A MAX UNLESS SPECIFICALLY NOTED OTHERWISE IN THE SUBMITTAL DOCUMENTS. CONTACT CRESTRON IF YOU HAVE ANY QUESTIONS.

#### AMPACITY AND BEND RADIUS FOR NYLON STRANDED WIRE

AWG SIZE	AMPACITY 90° C	APPROX. BEND RADIUS	AWG SIZE	AMPACITY 90° C	APPROX. BEND RADIUS
6	75	2.02"	2/0	195	3.97"
4	95	2.52"	3/0	225	4.44"
2	130	2.80"	4/0	260	4.91"
1	150	3.34"	300 MCM	320	6.08"
1/0	170	3.65"	500 MCM	430	7.53"



PART #: GLE/GLPD / GLPS

DESCRIPTION: BREAKER PANEL WIRING DETAILS

REVISION: 002

DATE: 2/6/12

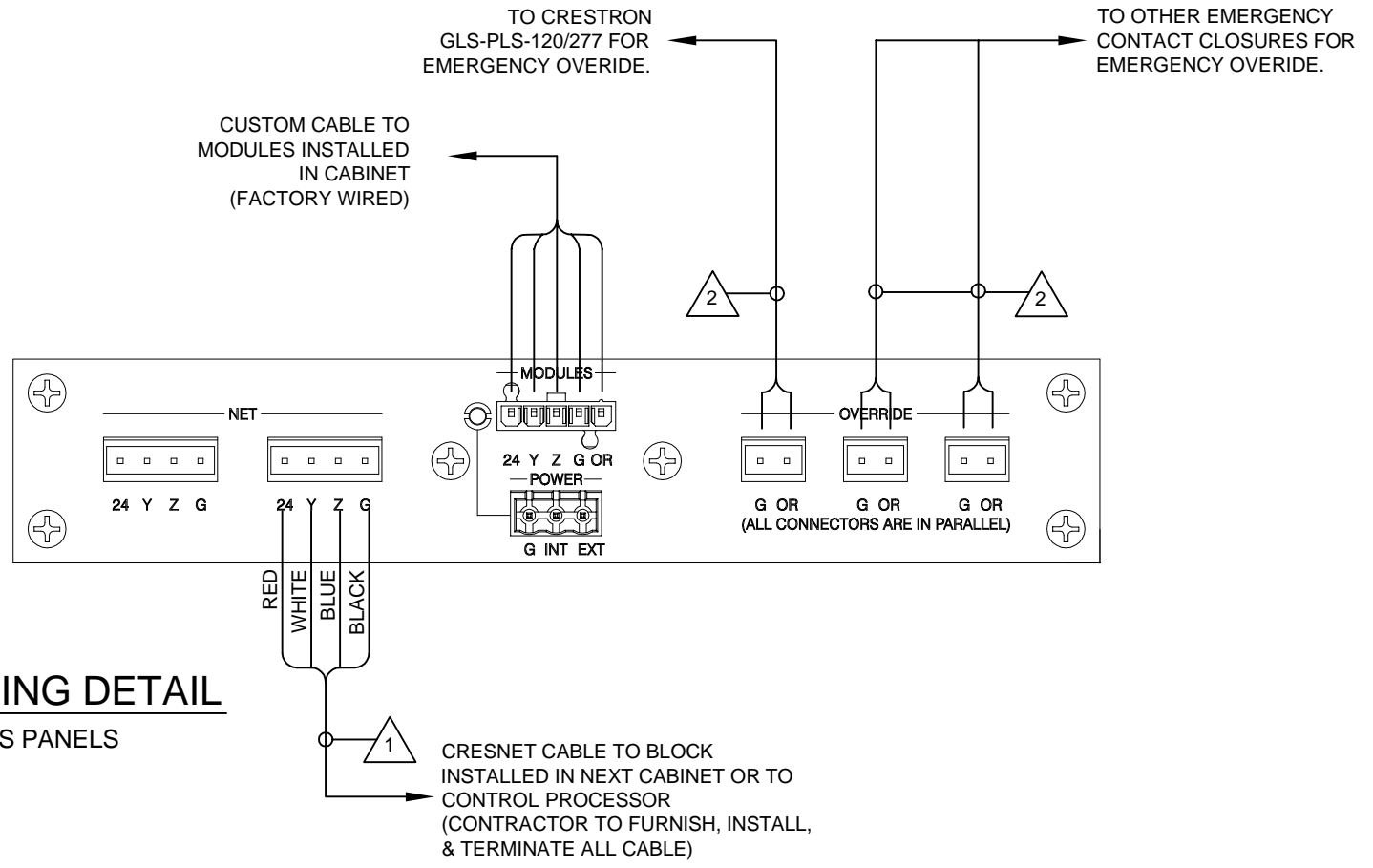
NOTES:



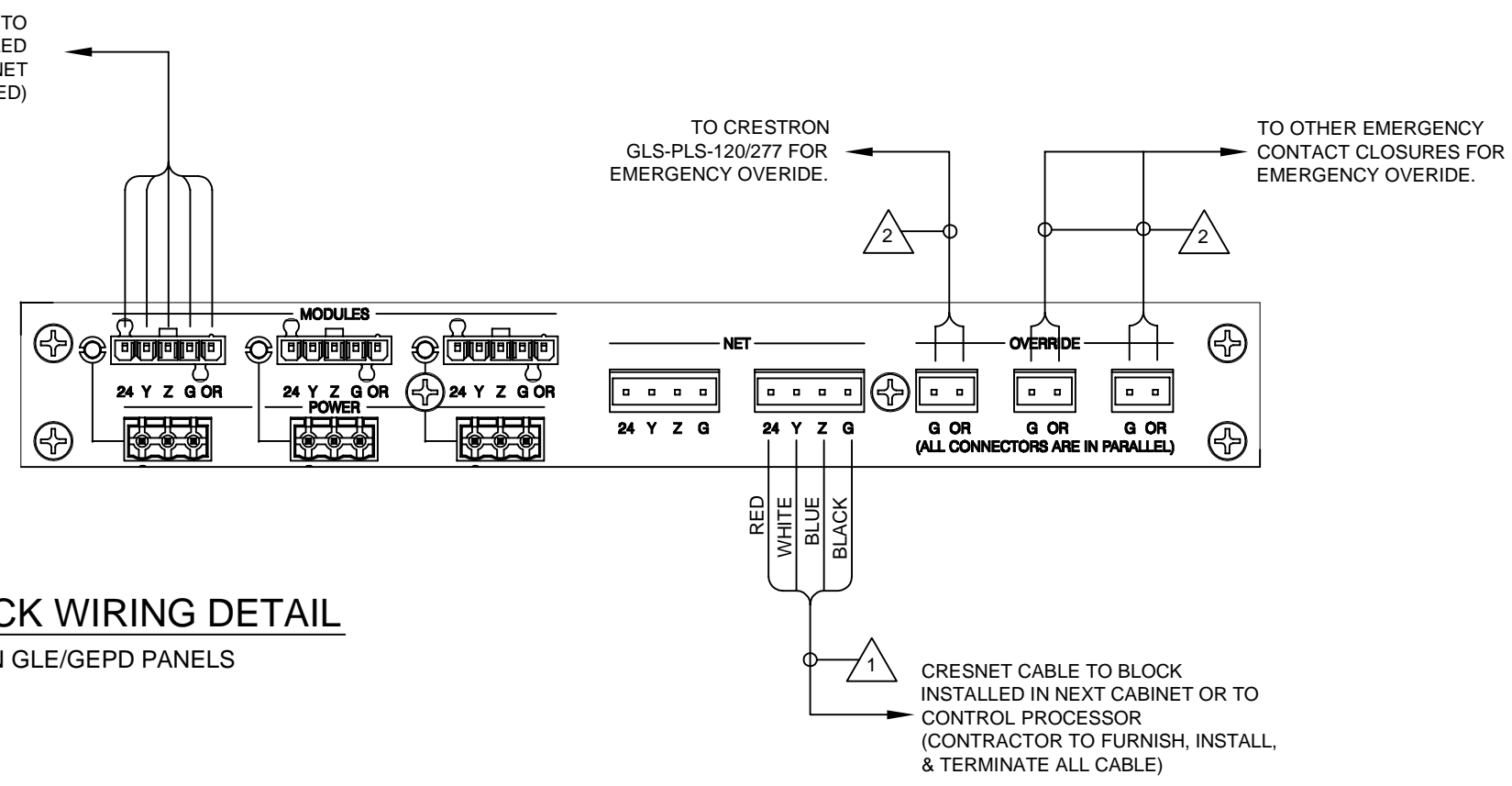
15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

PART #: GLE/GLPD / GLPS

DRAWING: 1 OF 1



**GLPS BLOCK WIRING DETAIL**  
USED IN GLEP/GLPS PANELS



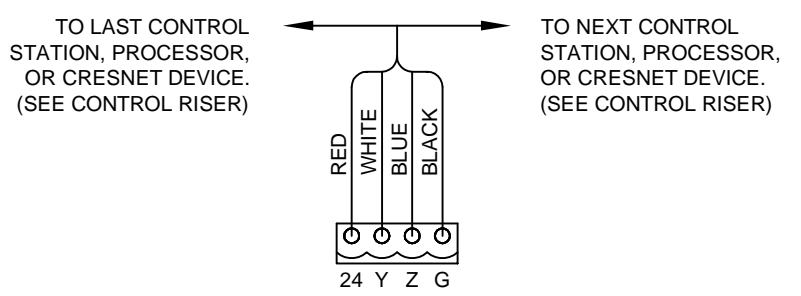
**GLPD BLOCK WIRING DETAIL**  
USED IN GLE/GE PD PANELS

**WIRING NOTES:**

- CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED**
- DO NOT POWER UP SYSTEM UNTILL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
  - GROUND SHIELD AT CONTROL SYSTEM END **ONLY**.
  - STRIP ONLY THE MINIMUM AMOUNT OF JACKETING FROM THE WIRES, AND INSULATE AND EXPOSED CONDUCTORS/ DRAIN WIRES WITH HEAT SHRINK TUBING.
  - GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
  - MODEL GLPD-BLOCK & GLPS-BLOCK NETWORK DISTRIBUTION/ TERMINAL BLOCKS ARE RECOMMENDED FOR TESTING PURPOSES AND CONVENIENCE OF WIRING.
  - WHEN DAISY CHAINING NETWORK UNITS, ALWAYS TWIST THE ENDS OF THE INCOMING WIRE AND THE OUTGOING WIRE THAT SHARE A PIN ON THE NETWORK CONNECTOR. IF NECESSARY USE A PIGTAIL WHEN LANDING MORE THAN TWO CONDUCTORS ON A SMALL CONNECTOR.
  - ALL CONTROL WIRING IS PROVIDED BY OTHER UNLESS NOTED OTHERWISE.

- 1 CRESNET CONTROL CABLE ((1) PAIR 18AWG FOR 24VDC POWER, (1) TWISTED PAIR 22AWG WITH SHIELD FOR CONTROL DATA) (BY E.C.). PLENUM AND NON-PLENUM VERSIONS AVAILABLE.
- 2 CABLE ((1) TWISTED PAIR 18AWG WITH SHIELD) (BY E.C.).

**CRESNET CONTROL WIRING**



PART #: GLPD & GLPS BLOCKS

DESCRIPTION: CRESNET DISTRIBUTION BLOCKS FOR GLPD & GLPS

REVISION: 001

DATE: 4/9/12

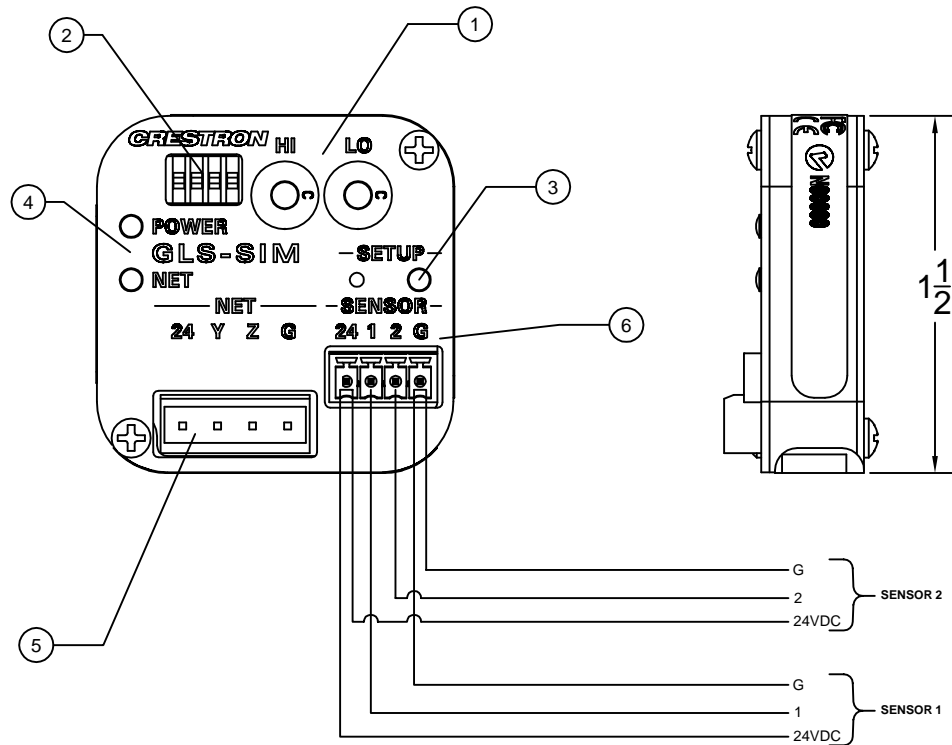
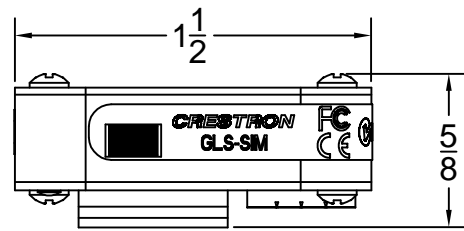
NOTES:



15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

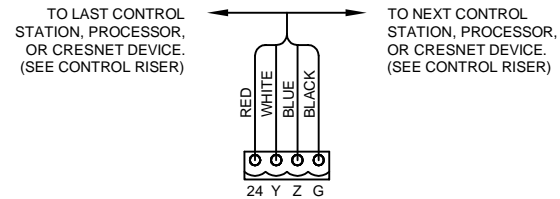
PART #:  
GLPD & GLPS BLOCK

DRAWING:  
1 OF 1



GLS-SIM WIRING DETAIL

CRESNET CONTROL WIRING



ADDRESSING

PROJECT RISERS SHOULD SHOW AN ADDRESS FOR EACH GLS-SIM SUCH AS "SIM-03" OR "SIM-AD". PLEASE SET THAT ADDRESS VIA THE TWO ROTARY DIP SWITCHES (NOTE 1 THIS SHEET). SYSTEMS WITH MULTIPLE PROCESSORS MAY SHOW DUPLICATE ADDRESSES.

ADDRESSES 00, 01, AND 02 HAVE PRESET FUNCTIONS FOR USE WITH STANDALONE ILUX SYSTEMS. 03 IS THE FIRST VALID ADDRESS FOR SYSTEMS WITH A CENTRAL PROCESSOR.

NOTES KEY

- ① (2) ROTARY DIP SWITCHES; USED FOR MANUALLY SETTING THE CRESNET ID; '00' SETTING ENABLES TOUCH-SETTABLE ID.
  - ② (1) 4-POSITION DIP SWITCH; SETS SENSOR TYPE AND OPERATING MODE. SEE CHART BELOW FOR SETTINGS.
  - ③ (1) MINIATURE PUSHBUTTON, USED FOR TOUCH SETTABLE ID.
  - ④ **PWR:** (1) GREEN LED, ILLUMINATES WHEN DC POWER IS APPLIED TO THE NET PORT  
**NET:** (1) YELLOW LED, INDICATES COMMUNICATION WITH CONTROL PROCESSOR
  - ⑤ CRESNET NETWORK CONNECTOR TO CONTROL PROCESSOR OR ADDITIONAL MODULES. FACTORY BUILT CABINETS WILL HAVE CRESNET CONNECTIONS WIRED IN FACTORY.
  - ⑥ (1) 4-PIN 3.5MM DETACHABLE TERMINAL BLOCK; SENSOR INPUT COMPRISED OF 24VDC POWER OUTPUT AND
- (2) DIGITAL OR ANALOG INPUT PORTS;
- DIGITAL INPUT: RATED FOR 0-24 VOLTS DC, INPUT IMPEDANCE 20k OHMS, LOGIC THRESHOLD 1.25 VOLTS DC;
- ANALOG INPUT: RATED FOR 0-10 VOLTS DC, PROTECTED TO 24 VOLTS DC MAXIMUM, INPUT IMPEDANCE 20k OHMS; PROGRAMMABLE 5 VOLTS, 2k OHMS PULL-UP RESISTOR PER PIN; MAXIMUM POWER LOAD: 1 AMP @ 24 VOLTS DC.

DIP SWITCH SETTINGS				
SENSOR INPUT	DIP SWITCH	PARTITION SENSOR	OCCUPANCY SENSOR	PHOTOCELL
1	1	OFF	ON	ON
	2	OFF	ON	OFF
2	3	OFF	ON	ON
	4	OFF	ON	OFF

SWITCH SETTINGS ARE SHOWN FOR TYPICAL CRESTRON-PROVIDED DEVICES. NON-CRESTRON DEVICES MAY NOT USE THESE SETTINGS. ALTERNATE MODES ARE AVAILABLE; SEE GLS-SIM INSTALLATION & OPERATION GUIDE FOR FULL DETAILS.

NOTE THAT IF NON-CRESTRON DEVICES ARE BEING USED, CRESTRON REQUIRES THE FOLLOWING INFORMATION PRIOR TO SHIPPING EQUIPMENT:

A COMPLETE ANNOTATED GROUND PLAN INDICATING EACH DEVICE, TO WHICH GLS-SIM IT IS TO CONNECT (REFERENCED BY THE DEVICE ID SHOWN ON PROJECT RISER DIAGRAMS), AND WHAT TYPE OF INPUT IS REQUIRED- CONTACT CLOSURE, 0-10V SENSING, OR CRESTRON DIGITAL LOGIC. FAILURE TO PROVIDE THIS INFORMATION WILL RESULT IN ADDITIONAL CHARGES FOR ONSITE REPROGRAMMING OF THE DEVICE CONFIGURATIONS.



PART #: GLS-SIM

DESCRIPTION: SENSOR INTEGRATION MODULE WITH WIRING DETAILS

REVISION: 003

DATE: 6/1/2012

NOTES:

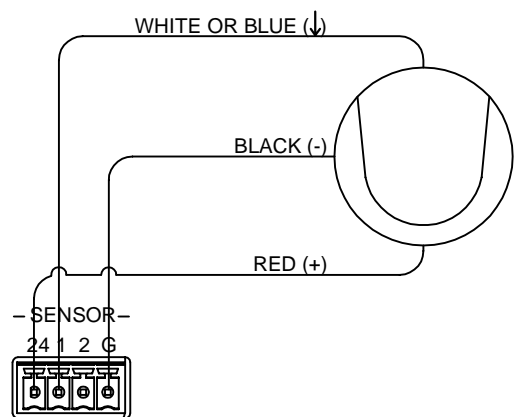


15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

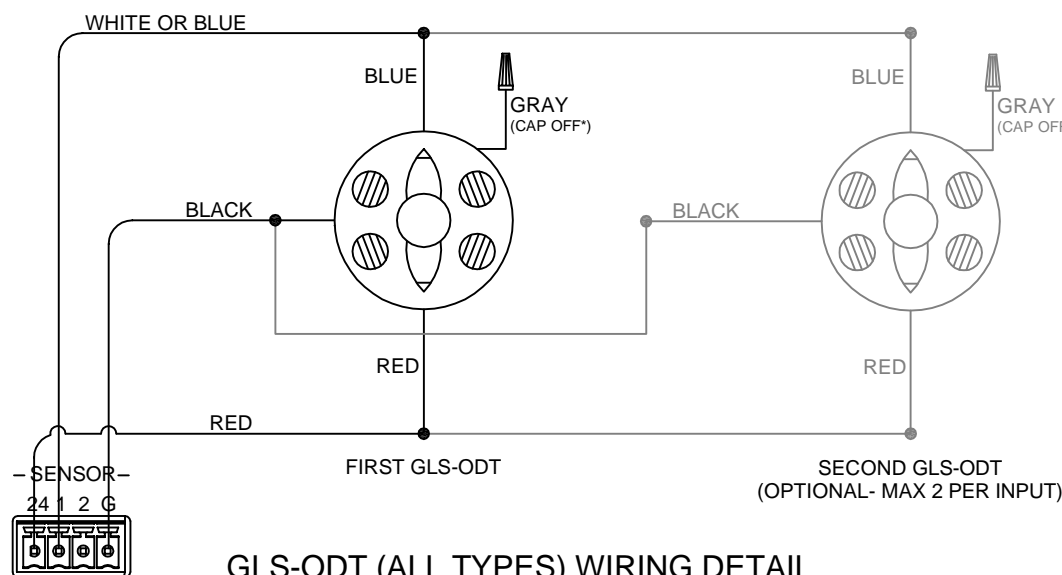
PART #: GLS-SIM WITH SENSOR WIRING  
DRAWING:

SENSOR WIRING DETAILS

GLS-LOL CONNECTIONS ARE VIA SCREW TERMINALS WITHIN DEVICE. GLS-ODT CONNECTIONS ARE VIA FLYING LEADS. SEE INSTRUCTION SHEETS PROVIDED IN SENSOR PACKAGE FOR FULL INFORMATION.



GLS-LOL WIRING DETAIL

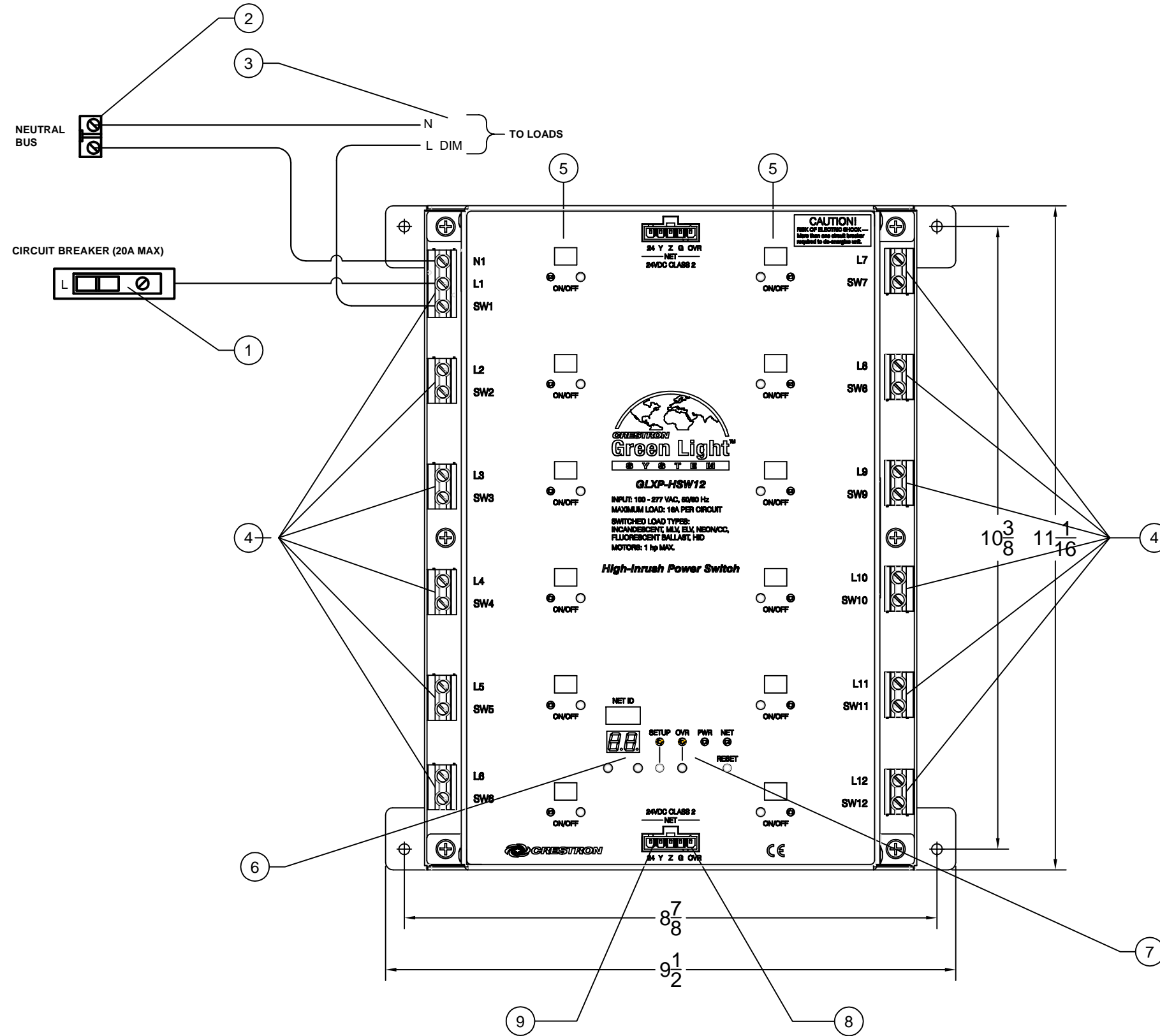


GLS-ODT (ALL TYPES) WIRING DETAIL

\*GRAY WIRE MAY BE CONNECTED INSTEAD OF BLUE WIRE IF USE OF INTERNAL PHOTOSENSOR IS DESIRED. PHOTOSENSOR IS NOT NORMALLY UTILIZED



# GLXP-HSW12 SWITCHING MODULE



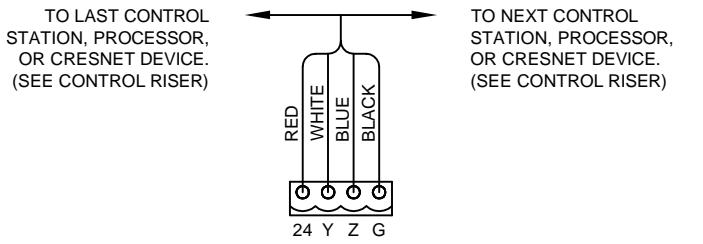
## NOTES KEY

- ① CIRCUIT BREAKER (20A MAX) - BREAKER IS FACTORY INSTALLED AND WIRED IN MAIN-LUG PANELS.
- ② NEUTRAL BUS BAR - BUS BAR IS INTEGRAL TO CIRCUIT BREAKER PANEL BOARD IN MAIN-LUG PANELS.
- ③ HIGH INRUSH SWITCHED LOADS
- ④ DETACHABLE TERMINAL BLOCK - (1) LINE AND (1) LOAD TERMINAL FOR EACH OF (8) CIRCUITS. CIRCUIT #1 HAS A NEUTRAL TERMINAL FOR BOARD NEUTRAL. **(SCREWS TO BE TORQUED TO 8 IN-LB)**
- ⑤ OUTPUT STATUS LED AND OVERRIDE BUTTON FOR EACH CHANNEL / CIRCUIT
- ⑥ **NET ID:** (2) 7-SEGMENT GREEN LED DIGITS AND (2) MINATURE PUSHBUTTONS FOR SETTING CRESNET ID.
- ⑦ **PWR:** (1) GREEN LED, ILLUMINATES WHEN DC POWER IS APPLIED TO THE NET PORT  
**NET:** (1) YELLOW LED, INDICATES COMMUNICATION WITH CONTROL PROCESSOR  
**RESET:** (1) RECESSED MINI PUSHBUTTON, RESETS INTERNAL PROCESSOR
- ⑧ EMERGENCY OVERRIDE INPUT FOR UL 924 COMPLIANCE
- ⑨ CRESNET NETWORK CONNECTOR TO CONTROL PROCESSOR OR ADDITIONAL MODULES. FACTORY BUILT CABINETS WILL HAVE CRESNET CONNECTIONS WIRED IN FACTORY.

## GENERAL NOTES

1. THIS UNIT REQUIRES A 120/230/277VAC 50/60HZ SINGLE PHASE POWER FEED.
2. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
3. MODULE SHIPS FROM WITH FACTORY INSTALLED JUMPERS ON EACH CIRCUIT. JUMPERS MUST BE REMOVED AT COMMISSIONING.
5. THIS PRODUCT IS LISTED TO APPLICABLE UL STANDARDS AND REQUIREMENTS BY UNDERWRITERS LABORATORIES INC. (E103692)
6. OUTPUTS UL508 LISTED FOR SWITCHING FULL 16A ELECTRONIC BALLAST LOAD @ 277VAC.
7. AVERAGE RELAY LIFE OF 1,000,000 CYCLES.
8. RELAYS ARE LATCHING TYPE RATED UP TO 50A.
9. OUTPUTS PROVIDE POSITIVE AIR-GAP WHEN LOADS ARE "OFF"

## CRESNET CONTROL WIRING



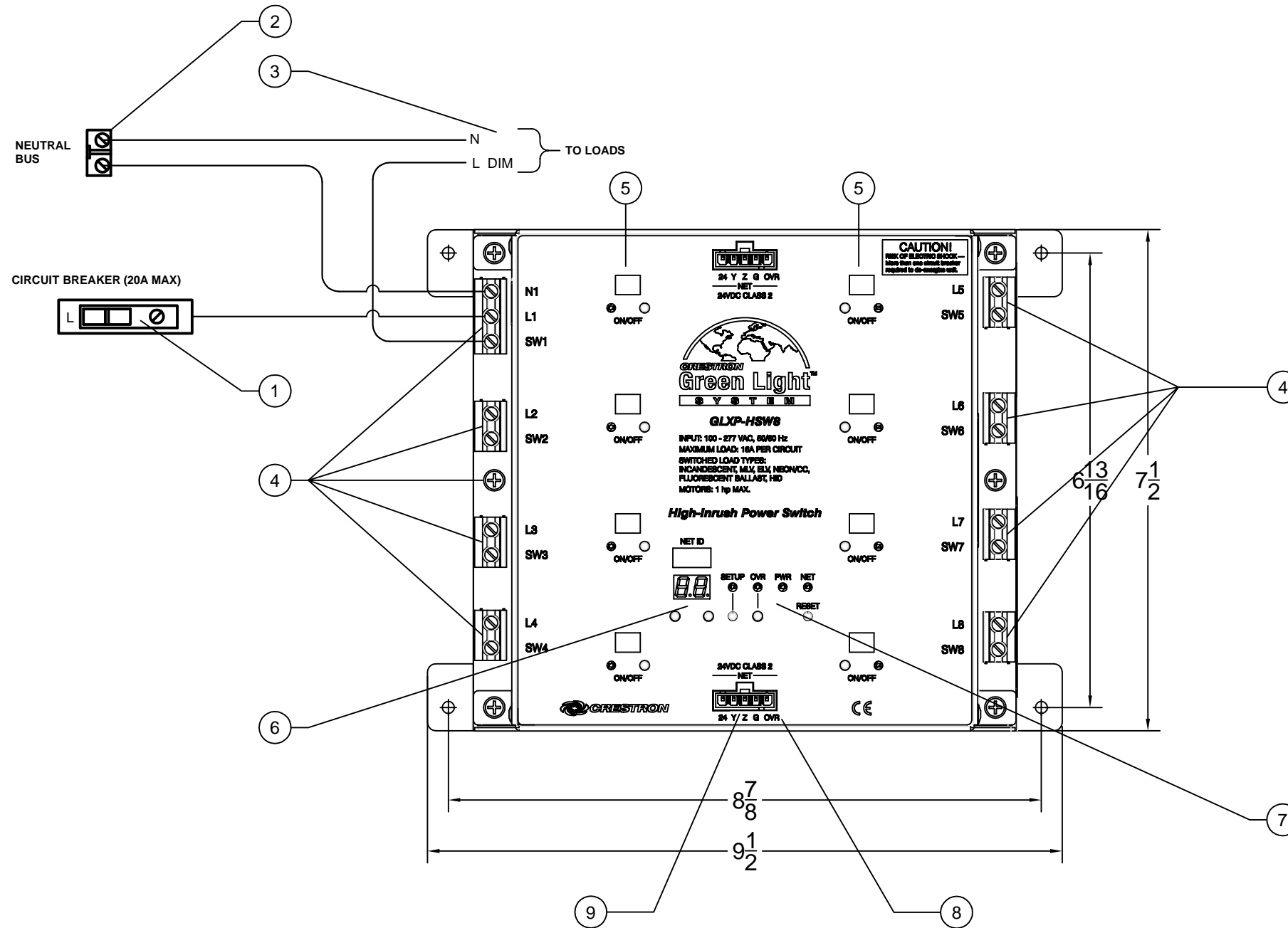
PART #: GLXP-HSW12	DESCRIPTION: 12 CHANNEL HIGH INRUSH RELAY MODULE	REVISION: 001	DATE: 2/14/2012
	NOTES:		

**CRESTRON**  
 15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

PART #:  
 GLXP-HSW12

DRAWING:  
 1 OF 1

# GLXP-HSW8 SWITCHING MODULE



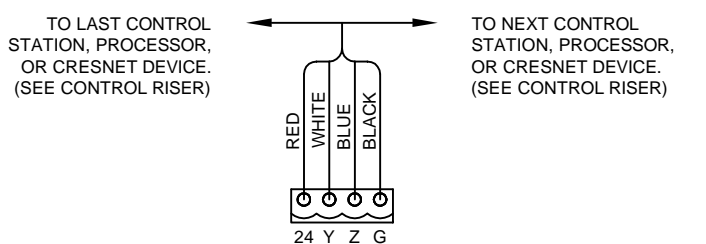
## NOTES KEY

- ① CIRCUIT BREAKER (20A MAX) - BREAKER IS FACTORY INSTALLED AND WIRED IN MAIN-LUG PANELS.
- ② NEUTRAL BUS BAR - BUS BAR IS INTEGRAL TO CIRCUIT BREAKER PANEL BOARD IN MAIN-LUG PANELS.
- ③ HIGH INRUSH SWITCHED LOADS
- ④ DETACHABLE TERMINAL BLOCK - (1) LINE AND (1) LOAD TERMINAL FOR EACH OF (8) CIRCUITS. CIRCUIT #1 HAS A NEURAL TERMINAL FOR BOARD NEUTRAL. **(SCREWS TO BE TORQUED TO 8 IN-LB)**
- ⑤ OUTPUT STATUS LED AND OVERRIDE BUTTON FOR EACH CHANNEL / CIRCUIT
- ⑥ **NET ID:** (2) 7-SEGMENT GREEN LED DIGITS AND (2) MINATURE PUSHBUTTONS FOR SETTING CRESNET ID.
- ⑦ **PWR:** (1) GREEN LED, ILLUMINATES WHEN DC POWER IS APPLIED TO THE NET PORT  
**NET:** (1) YELLOW LED, INDICATES COMMUNICATION WITH CONTROL PROCESSOR  
**RESET:** (1) RECESSED MINI PUSHBUTTON, RESETS INTERNAL PROCESSOR
- ⑧ EMERGENCY OVERRIDE INPUT FOR UL 924 COMPLIANCE
- ⑨ CRESNET NETWORK CONNECTOR TO CONTROL PROCESSOR OR ADDITIONAL MODULES. FACTORY BUILT CABINETS WILL HAVE CRESNET CONNECTIONS WIRED IN FACTORY.

## GENERAL NOTES

1. THIS UNIT REQUIRES A 120/230/277VAC 50/60HZ SINGLE PHASE POWER FEED.
2. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
3. MODULE SHIPS FROM WITH FACTORY INSTALLED JUMPERS ON EACH CIRCUIT. JUMPERS MUST BE REMOVED AT COMMISSIONING.
5. THIS PRODUCT IS LISTED TO APPLICABLE UL STANDARDS AND REQUIREMENTS BY UNDERWRITERS LABORATORIES INC. (E103692)
6. OUTPUTS UL508 LISTED FOR SWITCHING FULL 16A ELECTRONIC BALLAST LOAD @ 277VAC.
7. AVERAGE RELAY LIFE OF 1,000,000 CYCLES.
8. RELAYS ARE LATCHING TYPE RATED UP TO 50A.
9. OUTPUTS PROVIDE POSITIVE AIR-GAP WHEN LOADS ARE "OFF"

## CRESNET CONTROL WIRING



PART #: GLXP-HSW8

DESCRIPTION: 8 CHANNEL HIGH INRUSH RELAY MODULE

REVISION: 001

DATE: 2/14/2012

NOTES:



15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

PART #: GLXP-HSW8

DRAWING: 1 OF 1

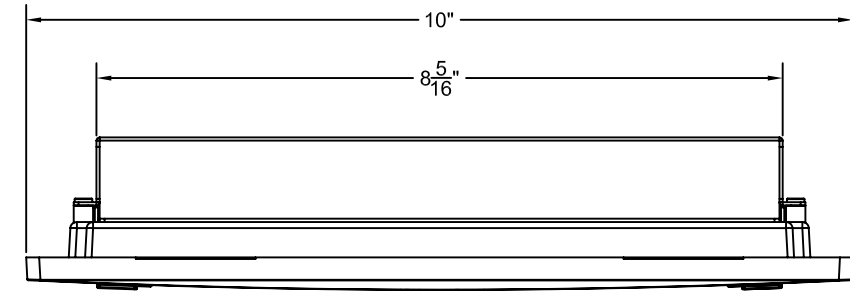
**NOTES KEY**

- ① HARD PUSHBUTTONS AND THUMB PAD - PROGRAMMABLE BUTTONS TO PROVIDE TACTILE CONTROL.
- ② USB - (2) USB 2.0 TYPE A FEMALE JACK.
- ③ MICROPHONE - (2) BUILT IN MICROPHONES BEHIND THE BEZEL SUPPORT IP BASED INTERCOM, TELEPHONE, AND CONFERENCING FUNCTIONALITY.
- ④ LIGHT SENSOR - PROGRAMMABLE PHOTO SENSOR FOR AUTOMATIC BACKLIGHT DIMMING
- ⑤ FINGERPRINT SCANNER - BIOMETRIC FINGERPRINT SCANNER FOR USER IDENTIFICATION AND LOGON.
- ⑥ 24 VDC - (1) 2-PIN 3.5 MM DETACHABLE TERMINAL BLOCK; 24 VOLT DC POWER INPUT; WIRE SIZE: 18AWG MAXIMUM.  
 LAN - (1) 8-WIRE RJ-45 WITH 2 LED INDICATORS; 10 / 100 BASE T ETHERNET PORT; GREEN LED INDICATES STATUS AND YELLOW LED INDICATES ETHERNET ACTIVITY.
- ⑦ 

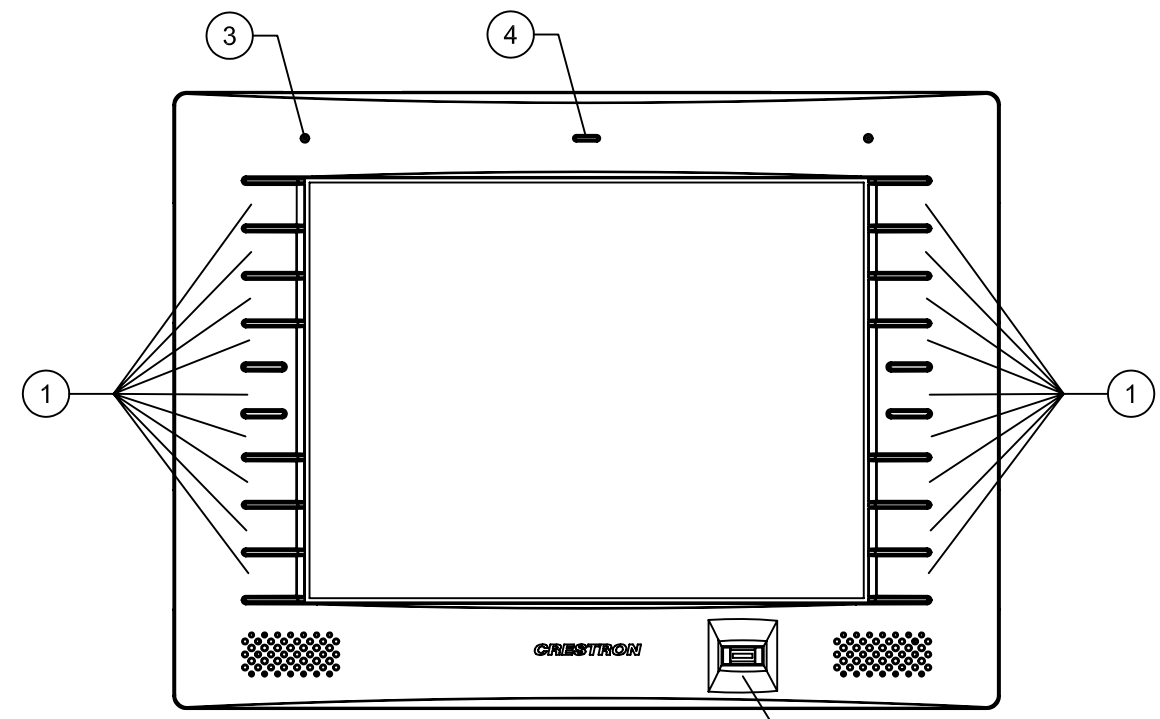
PIN	SIGNAL	PIN	SIGNAL
1	TX +	5	N/C
2	TX -	6	RC -
3	RC +	7	N/C
4	N/C	8	N/C
- ⑧ AUDIO OUT - (1) 5-PIN 3.5 MM DETACHABLE TERMINAL BLOCK; BALANCED/UNBALANCED STEREO LINE LEVEL AUDIO OUTPUT.

**GENERAL NOTES**

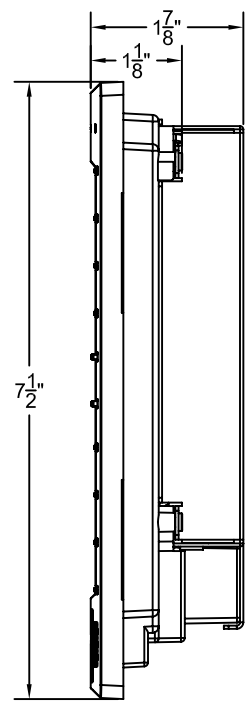
1. REFER TO THE FOLLOWING MANUALS FOR FURTHER INFORMATION.  
OPERATIONS GUIDE - DOC.6554A
2. DISPLAY SPECIFICATIONS  
DISPLAY TYPE: TFT ACTIVE MATRIX COLOR LCD  
SIZE: 8.4" DIAGONAL  
ASPECT RATIO: 4:3 SVGA  
RESOLUTION: 800 X 600 PIXELS
3. MEMORY SPECIFICATIONS  
DDR SDRAM: 512 MB  
FLASH: 1GB, EXPANDABLE VIA CF CARD SLOT  
COMPACT FLASH: ACCEPTS UP TO 4GB CF+ TYPE II
4. OPERATION SYSTEM MICROSOFT WINDOWS XP EMBEDDED



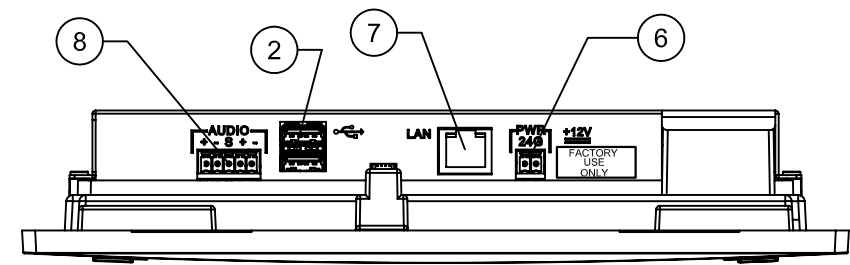
TOP VIEW



FRONT VIEW (WITH FACEPLATE)

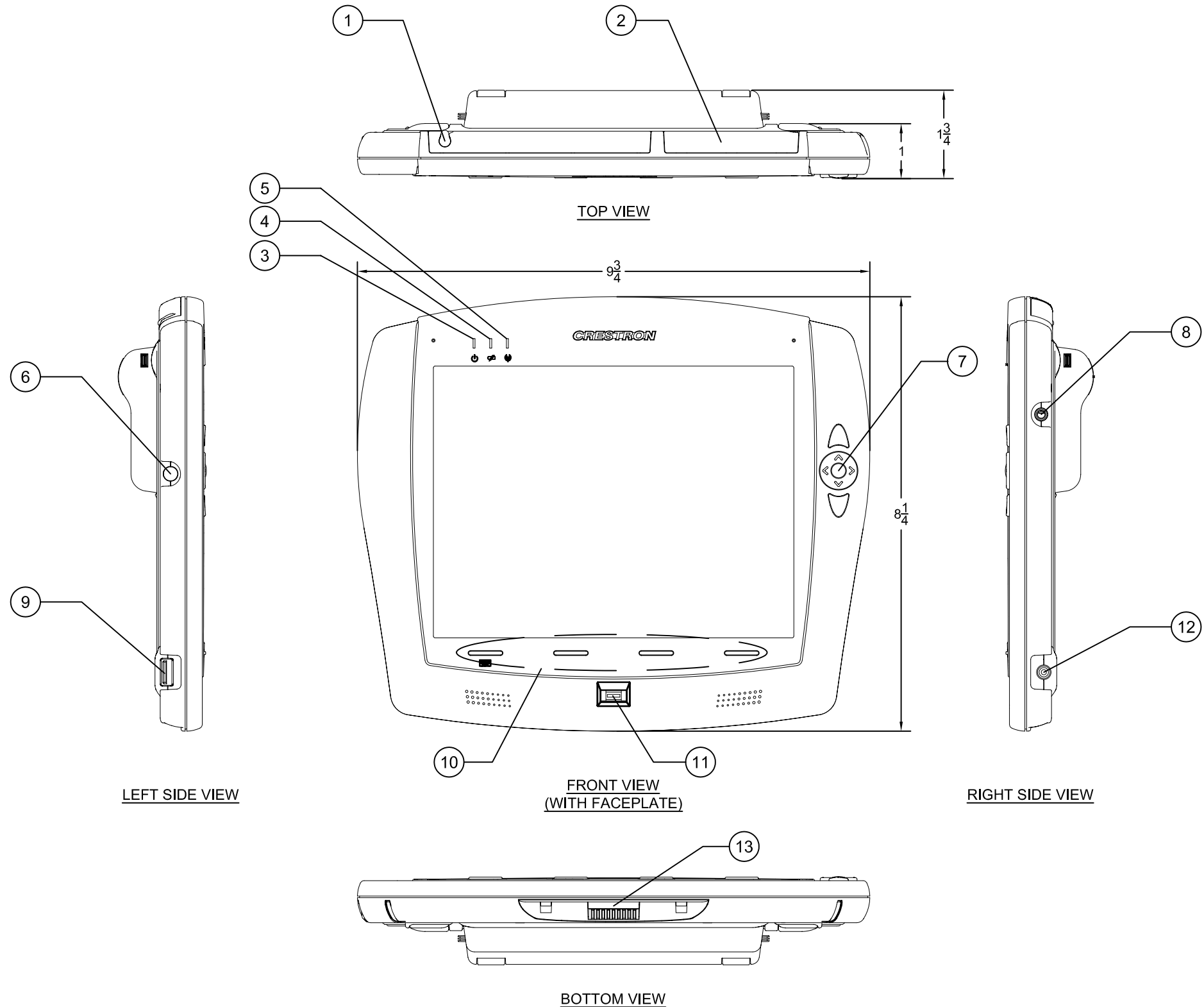


TYPICAL SIDE VIEW



BOTTOM VIEW

**TPMC-8L 8.4" TOUCHPANEL**



**TPMC-8X 8.4" WIRELESS (WIFI) TOUCHPANEL**

**NOTES KEY**

- ① **STYLUS** - USED ON THE TOUCH SCREEN TO TAP, SELECT, DRAG, IN PLACE OF THE FINGER OR MOUSE. ALSO USED TO TYPE ON THE KEYBOARD WHEN ENTERING TEXT COMMANDS.
- ② **MEMORY SLOT** - (1) CF+ TYPE II COMPACT FLASH CARD SLOT FOR MEMORY EXPANSION
- ③ **POWER LED** - (GREEN) INDICATES TOUCHPANEL POWER IS ON.  
**BATTERY LED** - INDICATES STATUS OF BATTERIES (INTERNAL AND EXTERNAL) LED WILL REMAIN SOLID GREEN WHEN BATTERY IS ABOVE 25% OF FULL CHARGE, SOLID YELLOW WHEN LEVEL DROPS BELOW 25%, AND BLINKING YELLOW WHEN BELOW 10%. LED WILL BLINK GREEN WHEN AC IS ONLINE AND BATTERY IS CHARGING.
- ④ **WIFI LED** - INDICATES STATUS OF PANELS WIFI CONNECTION. SOLID GREEN INDICATES COMMUNICATION WITH WAP. BLINKING GREEN INDICATES SEARCHING FOR WAP. OFF INDICATES NO WIRELESS CONNECTION.
- ⑤ **POWER BUTTON** - USED TO PLACE TOUCH PANEL IN POWER DOWN MODE, OR TO TURN PANEL OFF & ON.
- ⑥ **HARD PUSHBUTTONS AND THUMBPAD** - PROGRAMMABLE BUTTONS TO PROVIDE TACTILE CONTROL.
- ⑦ **HEADPHONES** - (1) 3.5 MM TRS MINI PHONE JACK. 12mW PER CHANNEL. 32 OHM MIN IMPEDANCE.
- ⑧ **USB** - (1) USB 2.0 TYPE A FEMALE JACK.
- ⑨ **BUTTONS** - (4) PROGRAMMABLE SOFTKEY BUTTONS
- ⑩ **FINGERPRINT SCANNER** - BIOMETRIC FINGERPRINT SCANNER FOR USER IDENTIFICATION AND LOGON.
- ⑪ **12 VDC POWER JACK** - 12 VDC 3.5A POWER JACK FOR USE WITH INCLUDED POWER PACK. USED TO CHARGE INTERNAL BATTERY.
- ⑫ **DOCKING STATION CONNECTOR** - MATES WITH TPMC-8X-DS OR TPMC-8X-DSW DOCKING STATION/CHARGE (SOLD SEPARATELY)

**GENERAL NOTES**

1. REFER TO THE FOLLOWING MANUALS FOR FURTHER INFORMATION.  
OPERATIONS GUIDE - DOC.6539B
2. DISPLAY SPECIFICATIONS  
DISPLAY TYPE: TFT ACTIVE MATRIX COLOR LCD  
SIZE: 8.4" DIAGONAL  
ASPECT RATIO: 4:3 SVGA  
RESOLUTION: 800 X 600 PIXELS
3. MEMORY SPECIFICATIONS  
DDR SDRAM: 512 MB  
FLASH: 1GB, EXPANDABLE VIA CF CARD SLOT  
COMPACT FLASH: ACCEPTS UP TO 4GB CF+ TYPE II
4. OPERATION SYSTEM MICROSOFT WINDOWS XP EMBEDDED
5. WIRELESS SPECIFICATIONS  
RANGE: 30 FEET @ 54Mbps; BASED ON ENVIRONMENT  
BLUETOOTH: BLUETOOTH V1.2 CLASS 1 BUILT IN
6. BATTERY SPECIFICATIONS  
INTERNAL TYPE: LITHIUM ION, 7.4 VOLT  
USAGE PER CHARGE: ~1.5 HOURS CONTINUOUS  
CHARGING TIME: ~2 HOURS, (~3 HR WHEN IN USE)

PART #: TPMC-8X

DESCRIPTION: ISYS 8.4" WIRELESS TOUCHPANEL

REVISION: 000

DATE: 8/13/10

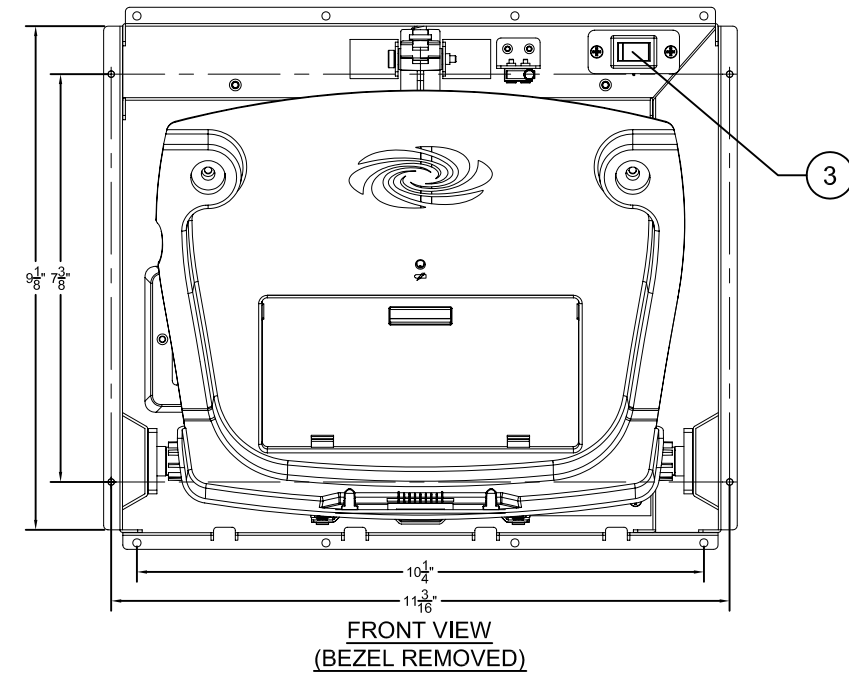
NOTES:



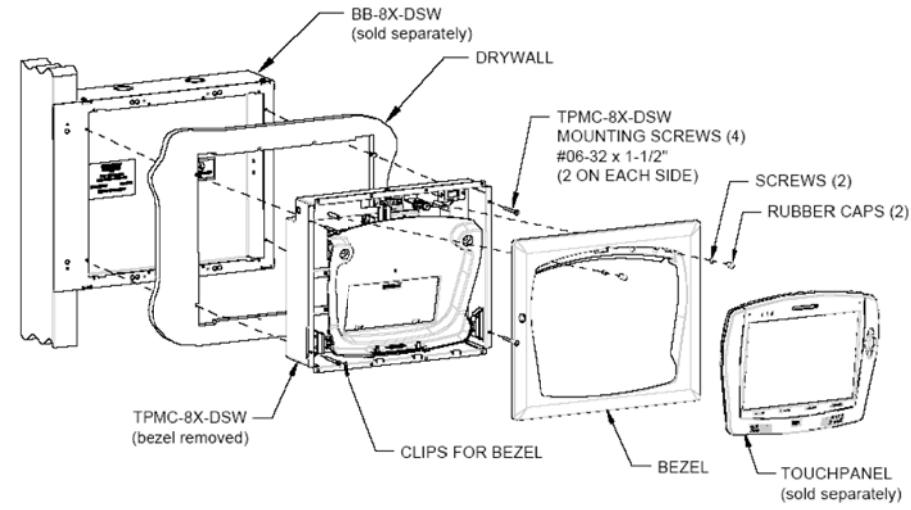
15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

PART #: TPMC-8X

DRAWING: 1 OF 1



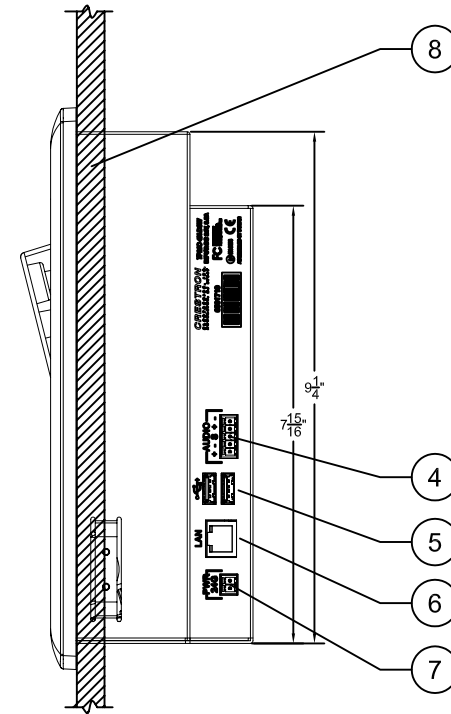
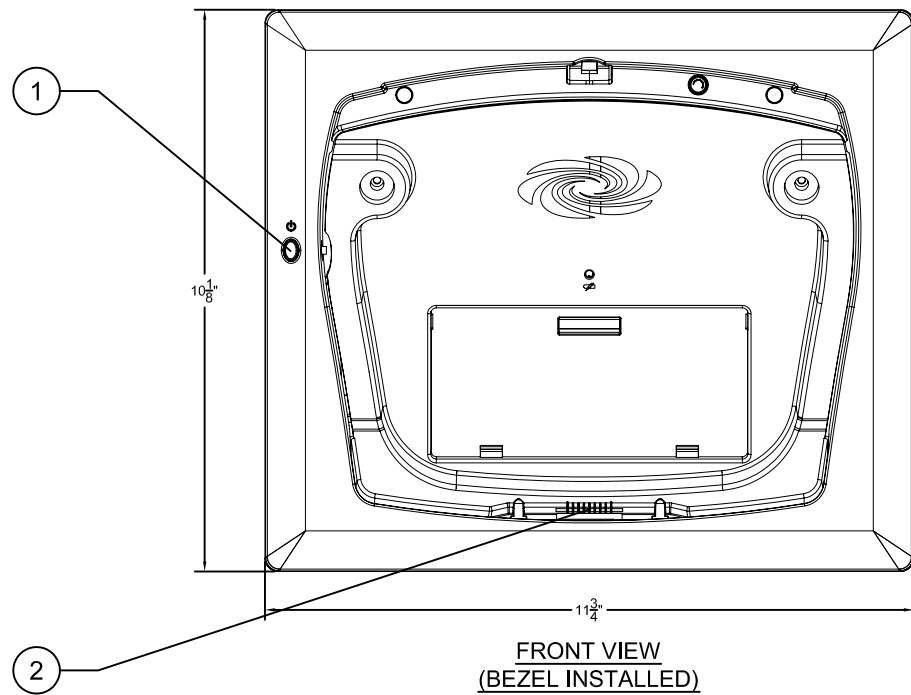
**TPMC-8X-DSW Mounting Using (Optional) BB-8X-DSW Back Box – Exploded View**



**MOUNTING DETAIL FOR BB-8X-DSW**

**NOTES KEY**

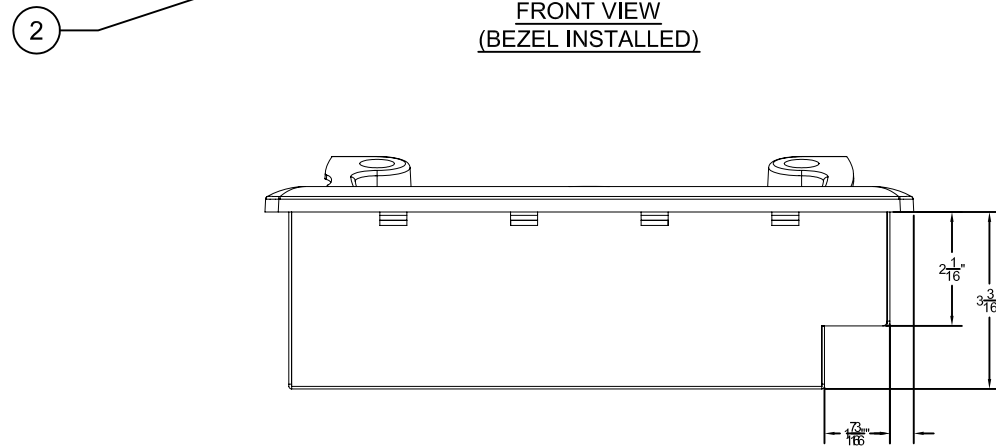
- 1 POWER/SUSPEND BUTTON - ACTIVATES POWER AND SUSPEND FEATURES OF THE TPMC-8X TOUCHPANEL.
- 2 DOCKING STATION CONNECTOR - MATES WITH TPMC-8X TOUCHPANEL.
- 3 AUDIO SWITCH OUT - ENGAGES AUDIO CONNECTORS ON THE SIDE OF THE TPMC-8X-DSW
- 4 AUDIO CONNECTOR - (1) 5-PIN 3.5MM DETACHABLE TERMINAL BLOCK; BALANCED/UN-BALANCED STEREO LINE LEVEL AUDIO OUTPUT.
- 5 USB CONNECTOR - (2) USB 2.0 TYPE A FEMALE; FOR KEYBOARD, MOUSE AND EXTERANAL STORAGE DEVICES.
- 6 ETHERNET JACK - (1) 8-WIRE RJ-45 WITH 2 LED INDICATORS. 10/100BASET ETHERNET PORT. ETHERNET. GREEN LED - LINK STATUS, YELLOW LED - ACTIVITY.
- 7 POWER JACK - (1) 2-PIN 3.5MM DETATACHABLE TERMINAL BLOCK FOR 24VDC POWER INPUT. WIRE SIZE 18AWG MAX. POWER VIA CRESNET.
- 8 WALLBOARD - (1/2" DRYWALL SHOWN) BETWEEN CONTROL STATION AND BACKBOX (NOT BY CRESTRON).



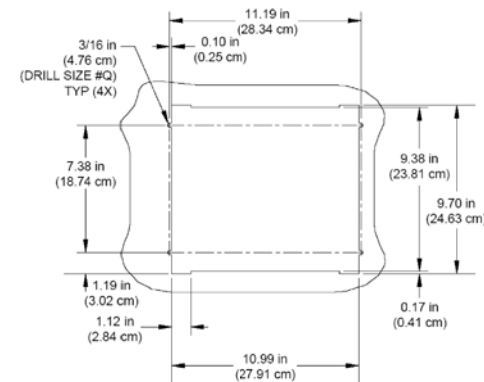
**GENERAL NOTES**

1. THIS UNIT HAS A POWER FACTOR OF 15 WATTS OVER CRESNET NETWORK.
2. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
3. GROUND SHIELD AT CONTROL SYSTEM END ONLY.
4. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS. **HIGH POWERED CABLE (HP) RECOMMENDED FOR NETWORK RUNS > 200 FT**  

CRESNET-NP-TL	NON-PLENUM RATED
CRESNET-P-TL	PLENUM RATED
CRESNET-HP-NP-TL	HIGH POWER NON-PLENUM RATED
5. REFER TO THE FOLLOWING MANUALS FOR FURTHER INFORMATION.  
OPERATIONS & INSTALLATION GUIDE - DOC.6588A  
BACKBOX INSTALLATION GUIDE - DOC.6579A

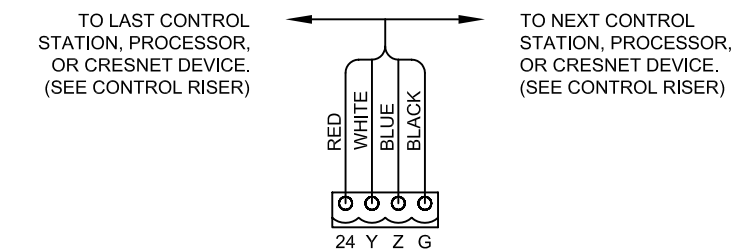


**Dimensions for Drywall Cutout**



**DRYWALL CUTOUT DIMENSIONS**

**CRESNET CONTROL WIRING**



PART #: TPMC-8X-DSW

DESCRIPTION: TPMC-8X IN WALL DOCKING STATION

REVISION: 000

DATE: 8/13/10

NOTES:

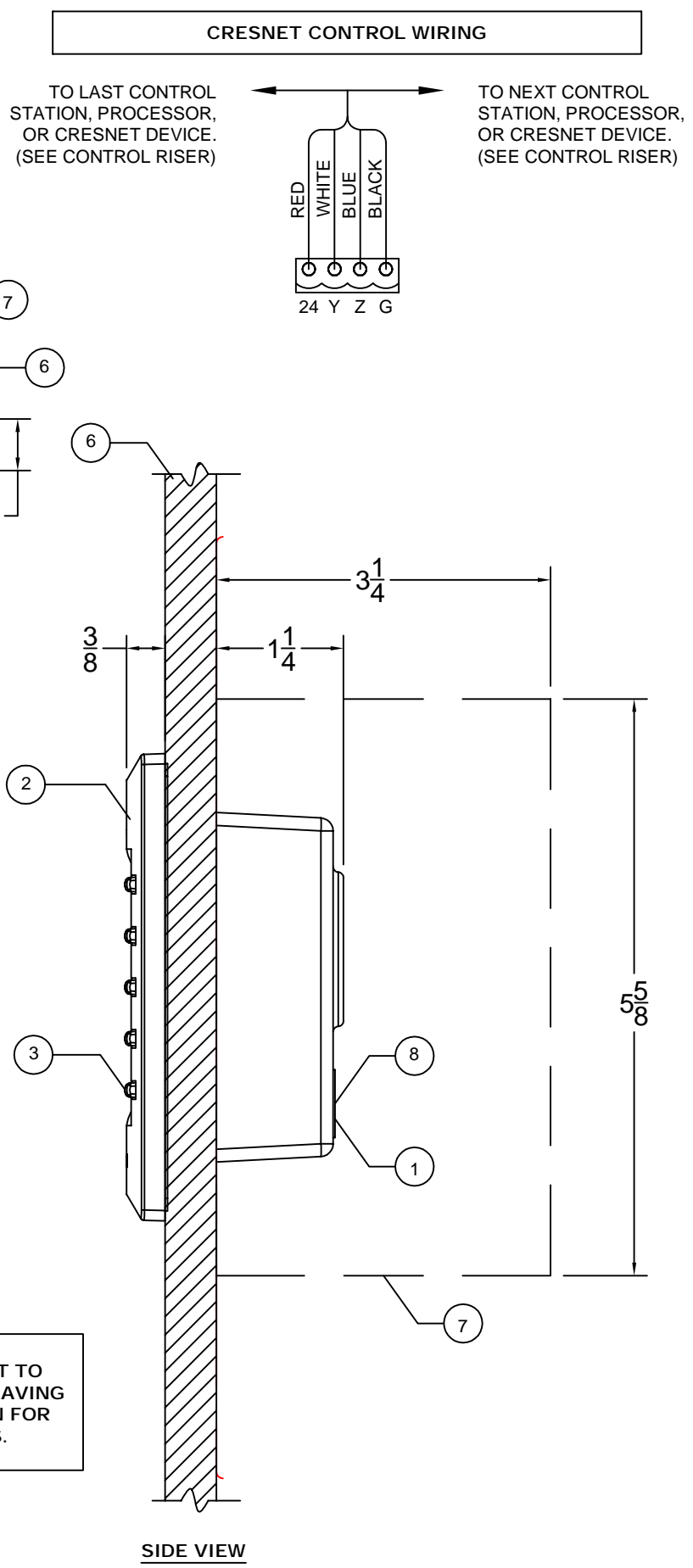
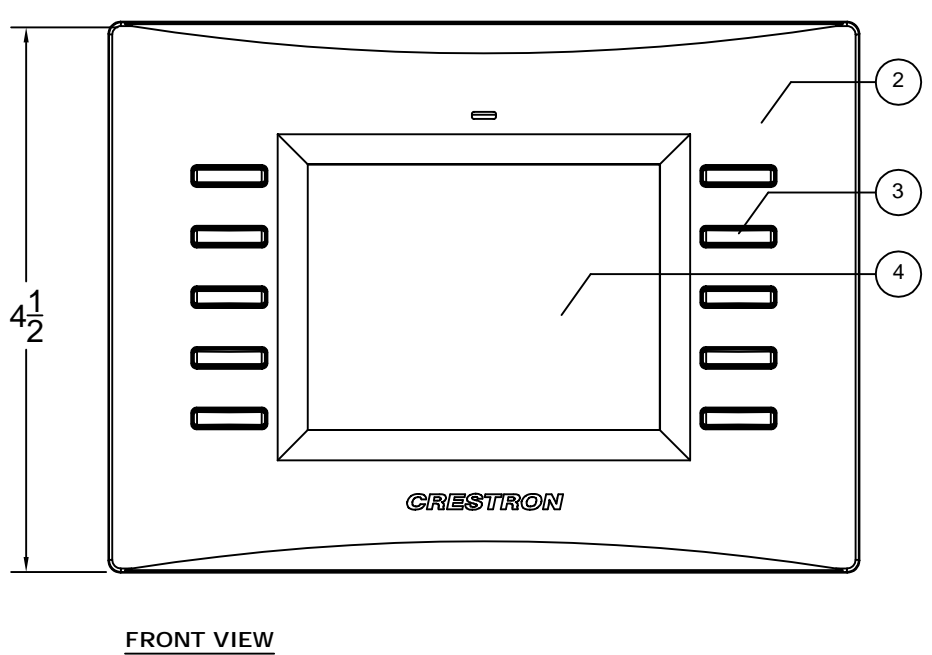
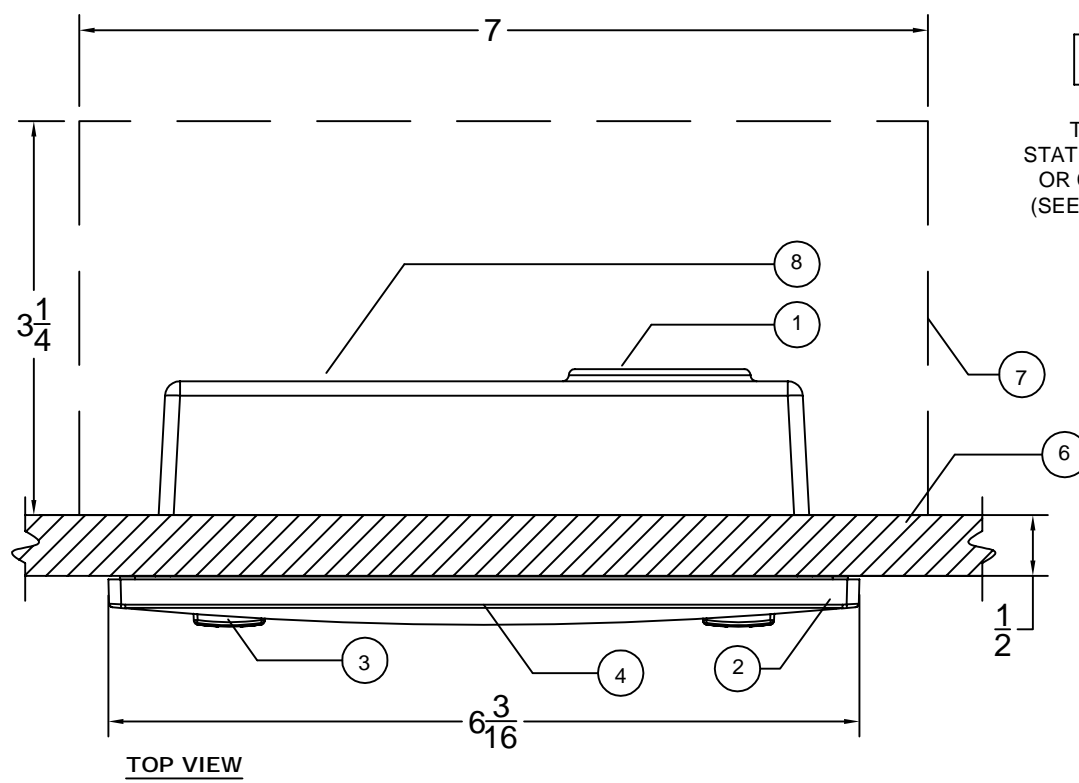
**CRESTRON**

15 Volvo Drive  
Rockleigh NJ 07647  
Tel: 888-273-7876  
Fax: 201-767-6011  
www.crestron.com

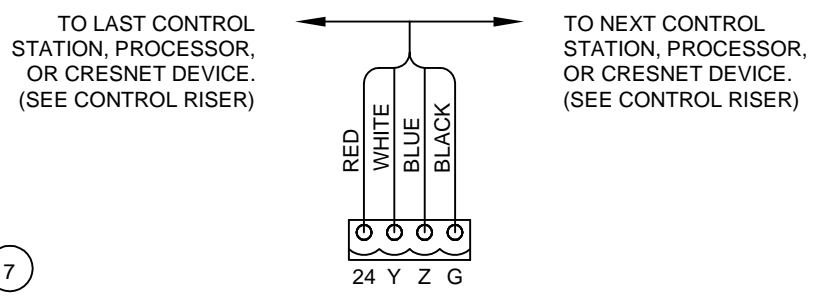
PART #:  
TPMC-8X-DSW

DRAWING:  
1 OF 1

**TPMC-8X-DSW WALL MOUNT DOCKING STATION**



**CRESNET CONTROL WIRING**

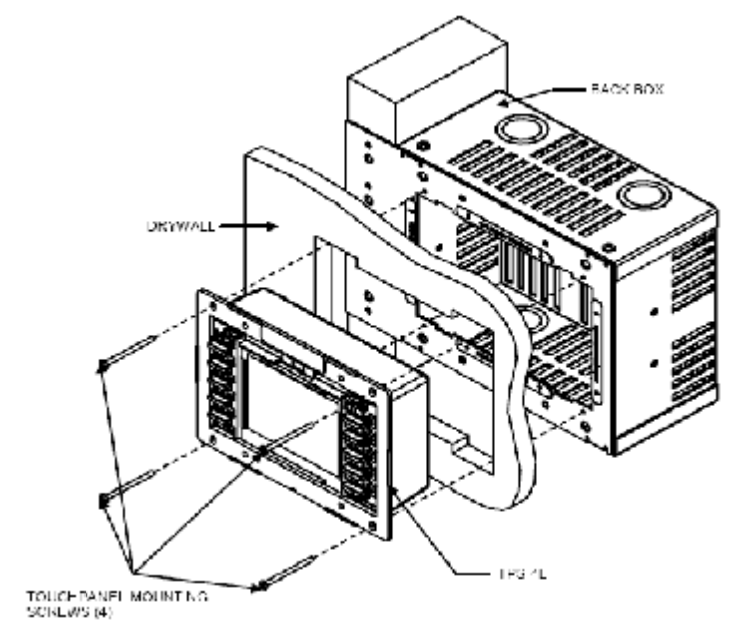


**NOTES KEY**

- 1 ETHERNET PORT.
- 2 FACEPLATE WITH BUTTONS (ENGRAVED).
- 3 HARD BUTTON, BACKLIT, TYPICAL OF (10). FUNCTION DEFINED BY PROGRAMMING.
- 4 3.6" ACTIVE MATRIX TOUCH SCREEN, 320 X 234 RESOLUTION. CONFIGURATION & FUNCTION DEFINED BY PROGRAMMING.
- 5 NOT USED
- 6 WALLBOARD (1/2" DRYWALL SHOWN) BETWEEN CONTROL STATION AND BACKBOX (NOT BY CRESTRON).
- 7 #BB4L PRE-CONSTRUCTION BACKBOX (CRESTRON FURNISH, CONTRACTOR INSTALL).
- 8 CRESNET CONNECTION PORT FOR CONTROL VIA 2-SERIES CONTROL SYSTEM.

**WIRING NOTES:**

- CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED**
1. DO NOT POWER UP SYSTEM UNTILL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
  2. GROUND SHIELD AT CONTROL SYSTEM END **ONLY**.
  3. STRIP ONLY THE MINIMUM AMOUNT OF JACKETING FROM THE WIRES, AND INSULATE AND EXPOSED CONDUCTORS/ DRAIN WIRES WITH HEAT SHRINK TUBING.
  4. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
  5. MODEL CNTBLOCK NETWORK DISTRIBUTION/ TERMINAL BLOCKS ARE RECOMMENDED FOR TESTING PURPOSES AND CONVENIENCE OF WIRING.
  6. WHEN DAISY CHAINING NETWORK UNITS, ALWAYS TWIST THE ENDS OF THE INCOMING WIRE AND THE OUTGOING WIRE THAT SHARE A PIN ON THE NETWORK CONNECTOR.



**TPS-4L TOUCH PANEL**

PART #: TPS-4L

DESCRIPTION: ISYS 3.6" WALL MOUNT TOUCHPANEL

REVISION: 000

DATE: 8/13/10

NOTES:

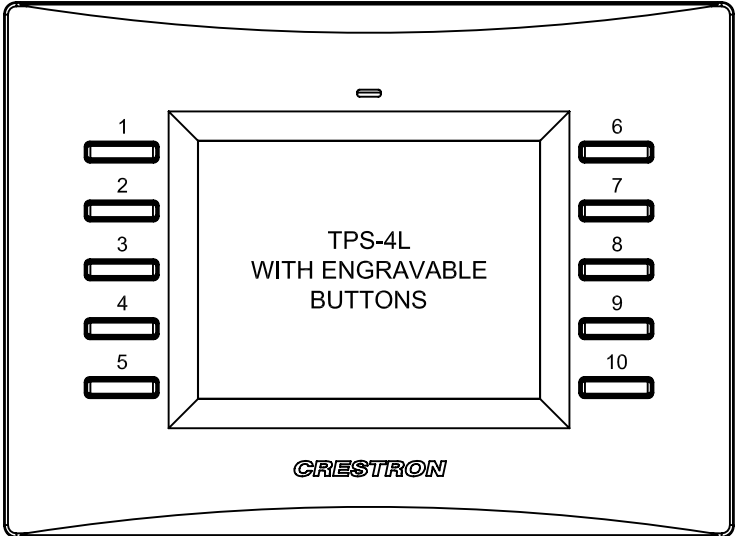


15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

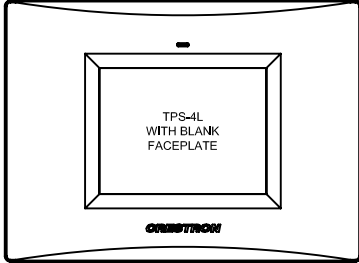
PART #: TPS-4L

DRAWING: 1 OF 1

**TPS-4L ENGRAVING AND PROGRAMMING DETAIL SHEET.**  
**IF NEEDED PLEASE PRINT MULTIPLE COPIES OF THIS SHEET.**



STATION ID: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 COLOR: \_\_\_\_\_  
 BLANK FACE PLATE WITH NO ENGRAVABLE BUTTONS (Y/N): \_\_\_\_\_



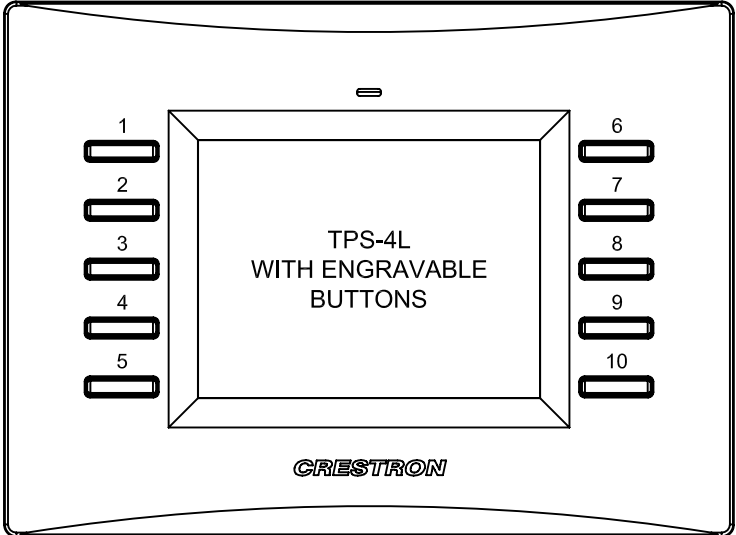
\*BUTTONS CAN HAVE 2 LINES OF TEXT AND EACH LINE CAN HAVE A MAXIMUM OF 7 CHARACTERS. (SEPARATE LINES WITH /)

ENGRAVING AND PROGRAMMING SCHEDULE			
BUTTON ID	ENGRAVING	ZONES CONTROLLED	PROGRAMMING DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

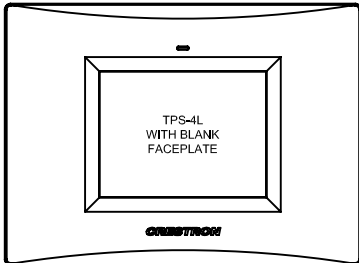
NOTES:

PASSWORD PROTECTION (Y/N): \_\_\_\_\_  
 SCHEDULER FUNCTIONALITY (Y/N): \_\_\_\_\_

TOUCH PANEL PROGRAMMING INFORMATION		
ROOMS / AREAS CONTROLLED	# OF PRESETS	SHADE CONTROL (Y/N)



STATION ID: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 COLOR: \_\_\_\_\_  
 BLANK FACE PLATE WITH NO ENGRAVABLE BUTTONS (Y/N): \_\_\_\_\_



\*BUTTONS CAN HAVE 2 LINES OF TEXT AND EACH LINE CAN HAVE A MAXIMUM OF 7 CHARACTERS. (SEPARATE LINES WITH /)

ENGRAVING AND PROGRAMMING SCHEDULE			
BUTTON ID	ENGRAVING	ZONES CONTROLLED	PROGRAMMING DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

NOTES:

PASSWORD PROTECTION (Y/N): \_\_\_\_\_  
 SCHEDULER FUNCTIONALITY (Y/N): \_\_\_\_\_

TOUCH PANEL PROGRAMMING INFORMATION		
ROOMS / AREAS CONTROLLED	# OF PRESETS	SHADE CONTROL (Y/N)



15 Volvo Drive  
 Rockleigh NJ 07647  
 Tel: 888-273-7876  
 Fax: 201-767-6011  
 www.crestron.com

**PART #: TPS-4L**

**ISYS 3.6" WALL MOUNT TOUCHPANEL**