



# Addendum

Date: December 17, 2018

210-1821 Wellington Avenue  
Winnipeg, Manitoba  
R3H 0G4

Phone (204) 779-7900  
Fax (204) 779-1119  
www.mcw.com

**Project Name:** Victory Building Activity Based  
Workplace Fit Up

**Client:** Verne Reimer Architecture

**To:** Verne Reimer Architecture

**Attention:** Richard Baronins

**Email:** rbaronins@vernereimer.com

**Project No.:** 11838

**ADD No.:** 05E

**Page No.:** 1 of 1 +attach

**Office:** Winnipeg

**From:** Donna Green,  
Associate

**Distribution:** Verne Reimer Architecture Kevin Siddall  
ksiddall@vernereimer.com

Rodych Integrated Design Inc. Lindsay Nesbitt l.nesbitt@ridi.ca

Rodych Integrated Design Inc. Cindy Rodych c.rodych@ridi.ca

---

In accordance with the drawings and specifications, provide in the tender all costs required to complete the work including items as listed below:

## ELECTRICAL

### RE: Lighting Controls

1. Refer to attached for information on Crestron Lighting control system.

DG/tk

# GLDALI System



The GLDALI SpaceBuilder system is ideal for medium to large spaces that need flexibility to reconfigure zones, adjust color temperature, or control ambient and task lighting within the same space. GLDALI is also a great choice for applications requiring scene-based control when loads are fed from multiple sources. GLDALI systems can also include options such as expansion modules for more load types, touch screens to use for both system set-up as well as end user operation, more sensors, and shade and AV integration.

SpaceBuilder allows you to specify all the necessary features and operations for an autonomous lighting control system specifically designed for the needs of your space. Start by selecting the load types and accessories and finish by defining how each interface should function to control lighting levels, vacancy sensing, daylight harvesting, shades, and AV.

## System Components

### GLDALI

Available with two DALI® output loops to control up to 64 fixtures. The dual-channel DALI outputs on the GLDALI makes controlling up to 128 individual DALI ballasts or drivers easy. The Digital Addressable Lighting Interface (DALI) is an open standard protocol used for the control of lighting in buildings. All GLDALI systems can be expanded to easily add more zones of lighting.

### Keypads

Up to 4 keypads can be added to a GLDALI space. Refer to page 4 for standard sequence of operations to specify the button operations and standard engravings.

### Occupancy Sensors

Up to 4 dual technology occupancy sensors can be added to each GLDALI space for either occupancy or vacancy sensing. Each sensor offers coverage for spaces up to 2,000 square feet. Sensor coverage varies based on type, see detail at end of this worksheet. Sensor defaults to vacancy operation unless noted as occupancy operation in the space part number.

### Daylight Sensors

Up to 4 daylight sensors can be added to each GLDALI space for daylight harvesting control. Open-loop and closed-loop options are available.

### Touch Screens

The GLDALI systems comes with a 7" touch screen to be used for both system set up and master control by the end user.

## Options

### Loads

Any GLDALI system can be expanded to include additional loads for switching, 0-10V, 2-wire phase, DMX, or switched plug loads.

### AV Integration

The GLDALI system can easily integrate with AV systems by adding a control port module. If this options is selected, Crestron will also supply prepackaged code for the AV contractor to connect the systems.

### Shade Integration

Integrate with Crestron and other shading solutions. Control for up to 4 local shade motors can be included with each GLDALI system.

### Networking

Any Crestron SpaceBuilder system can be networked to provide centralized monitoring, management and master control. This includes direct integration with BMS and reporting, alerts, global time clock management, maintenance, and automation via Crestron Fusion®.

### Crestron SolarSync™

GLDALI space can be enhanced with Award winning Crestron SolarSync technology using the industry's only commercial lighting CCT and intensity sensor (GLS-LCCT). Adding the "SYNC" option to the GLDALI space will allow tunable white fixtures to match the color of the measured sun light for smooth transitions from natural to artificial light.

GLDALI \_\_\_\_\_ - \_\_\_\_\_ AKP- \_\_\_\_\_ BKP- \_\_\_\_\_ CKP- \_\_\_\_\_ DKP- \_\_\_\_\_ EKP- \_\_\_\_\_ FKP- \_\_\_\_\_ GKP- \_\_\_\_\_ HKP- \_\_\_\_\_ NKP-  
 \_\_\_\_\_ PKP- \_\_\_\_\_ XKP- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_  
 \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_

## GLDALI SpaceBuilder Load Schedule

Zone #	Zone Description	Fixture Tag	Circuit #	Voltage	Load Type	Emergency / Life Safety	Dim (Y/N)	Fixture Watts	Quantity	Total Watts
Example	Downlights	A	H@-1	277 V	DALI	N/A	Yes	25	4	100
1					DALI					
2					DALI					
3					DALI					
4					DALI					
5					DALI					
6					DALI					
7					DALI					
8					DALI					
9					DALI					
10					DALI					
11					DALI					
12					DALI					
13					DALI					
14					DALI					
15					DALI					
16					DALI					
17					DALI					
18					DALI					
19					DALI					
20					DALI					
21					DALI					
22					DALI					
23					DALI					
24					DALI					
25					DALI					
26					DALI					
27					DALI					
28					DALI					
29					DALI					
30					DALI					
31					DALI					
32					DALI					

Add a Zone										
------------	--	--	--	--	--	--	--	--	--	--

277 VAC 120 VAC
--------------------

DALI Universal Phase Dimmed 0-10V 4-Wire Dimmed DMX
--

N/A Partial Zone Complete Zone
--------------------------------------

Yes No
-----------

GLDALI\_\_\_\_-\_\_\_\_AKP-\_\_\_\_BKP-\_\_\_\_CKP-\_\_\_\_DKP-\_\_\_\_EKP-\_\_\_\_FKP-\_\_\_\_GKP-\_\_\_\_HKP-\_\_\_\_NKP-\_\_\_\_  
 \_\_\_\_PKP-\_\_\_\_XKP-\_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_  
 \_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_

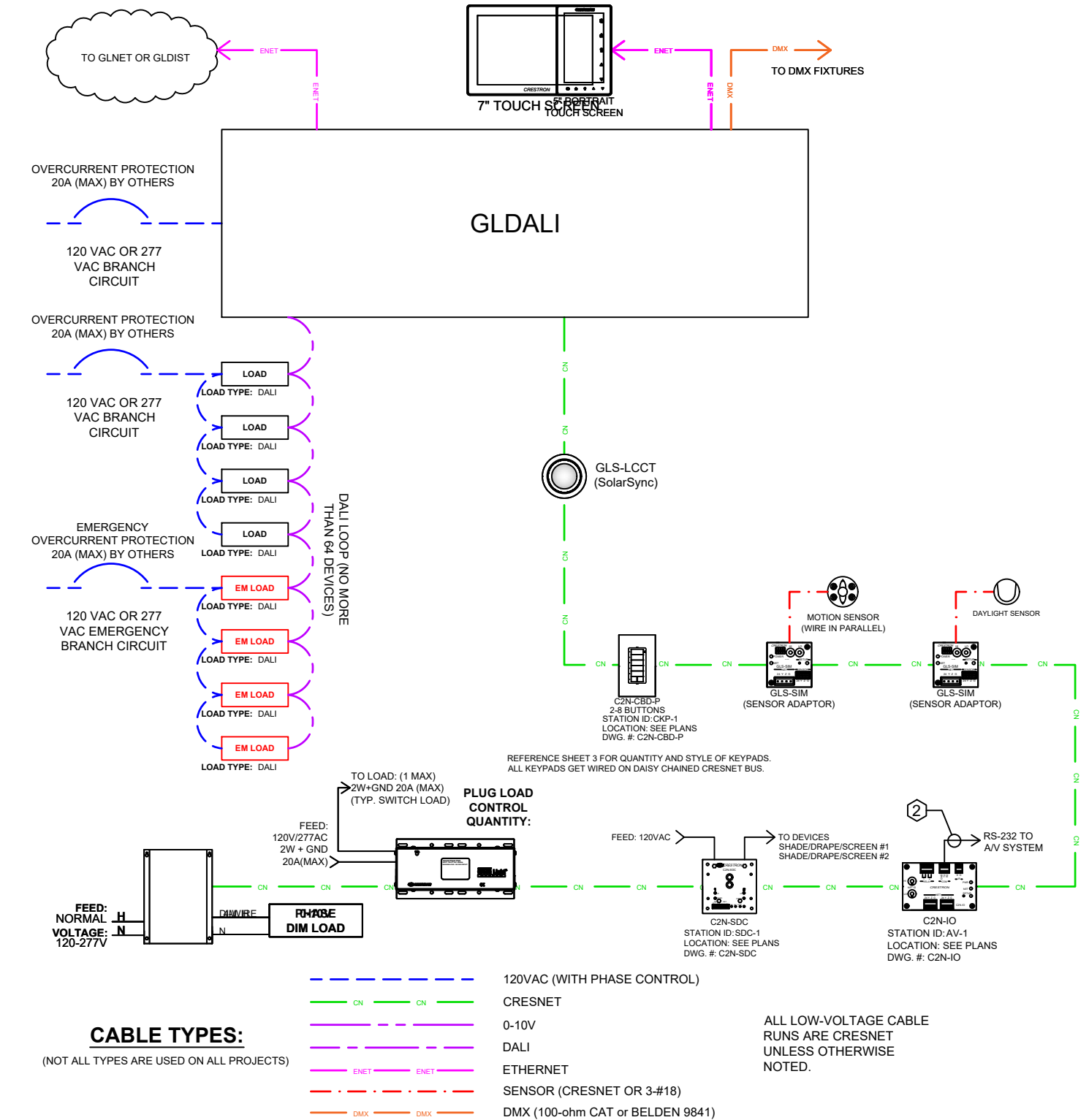
PACKAGE					
GLDALI _____ - _____					
<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 80%;">                 BLANK ..... NORMAL                  EM ..... UL924 LIFE SAFETY             </div>					
KEYPADS					
_____ AKP - _____ BKP - _____ CKP - _____ DKP - _____ EKP - _____ FKP - _____ GKP - _____ HKP - _____ NKP - _____ PKP - _____ XKP - _____					
<table style="width: 100%; font-size: 0.8em;"> <tr> <td style="width: 50%;">                     BLANK ..... NO KEYPADS                      QUANTITY OF AKP ..... KEYPAD STYLE A                      QUANTITY OF BKP ..... KEYPAD STYLE B                      QUANTITY OF CKP ..... KEYPAD STYLE C                      QUANTITY OF DKP ..... KEYPAD STYLE D                      QUANTITY OF EKP ..... KEYPAD STYLE E                 </td> <td style="width: 50%;">                     QUANTITY OF FKP ..... KEYPAD STYLE F                      QUANTITY OF GKP ..... KEYPAD STYLE G                      QUANTITY OF HKP ..... KEYPAD STYLE H                      QUANTITY OF NKP ..... KEYPAD STYLE N                      QUANTITY OF PKP ..... LCD KEYPAD                      QUANTITY OF XKP ..... CUSTOM KEYPAD S00                 </td> </tr> </table> <p style="text-align: center; font-size: 0.7em;">Max. 20 keypads</p>				BLANK ..... NO KEYPADS QUANTITY OF AKP ..... KEYPAD STYLE A QUANTITY OF BKP ..... KEYPAD STYLE B QUANTITY OF CKP ..... KEYPAD STYLE C QUANTITY OF DKP ..... KEYPAD STYLE D QUANTITY OF EKP ..... KEYPAD STYLE E	QUANTITY OF FKP ..... KEYPAD STYLE F QUANTITY OF GKP ..... KEYPAD STYLE G QUANTITY OF HKP ..... KEYPAD STYLE H QUANTITY OF NKP ..... KEYPAD STYLE N QUANTITY OF PKP ..... LCD KEYPAD QUANTITY OF XKP ..... CUSTOM KEYPAD S00
BLANK ..... NO KEYPADS QUANTITY OF AKP ..... KEYPAD STYLE A QUANTITY OF BKP ..... KEYPAD STYLE B QUANTITY OF CKP ..... KEYPAD STYLE C QUANTITY OF DKP ..... KEYPAD STYLE D QUANTITY OF EKP ..... KEYPAD STYLE E	QUANTITY OF FKP ..... KEYPAD STYLE F QUANTITY OF GKP ..... KEYPAD STYLE G QUANTITY OF HKP ..... KEYPAD STYLE H QUANTITY OF NKP ..... KEYPAD STYLE N QUANTITY OF PKP ..... LCD KEYPAD QUANTITY OF XKP ..... CUSTOM KEYPAD S00				
OCCUPANCY SENSORS		OCC SENSOR TYPE			
<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 90%;">                     BLANK ..... NO SENSORS                      OS ..... 2000SQ-FT DT CEILING                      QUAD ..... 4000SQ-FT PIR CEILING                      WOS ..... DT WALL/CORNER                      HALL_US1 ..... 33FT US HALL                      HALL_US2 ..... 65FT US HALL                      EOS ..... EXTERIOR                      HOS ..... PIR HIGH BAY                 </div>		<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 90%;">                     BLANK ..... VACANCY                      OCC ..... OCCUPANCY                 </div>			
TOUCH SCREEN		SHADE GROUPS / SHADE MOTOR TYPE			
<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 90%;">                     BLANK ..... NO TOUCH SCREEN                      TS5P ..... 5" PORTRAIT TOUCH SCREEN                      TS5P+DMX ..... 5" PORTRAIT TOUCH SCREEN W/DMX                      TS7 ..... 7" TOUCH SCREEN                      TS7+DMX ..... 7" TOUCH SCREEN W/DMX                 </div>		<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 90%;">                     BLANK ..... NO SHADES                      1 ..... 1 SHADE                      2 ..... 2 SHADES                      3 ..... 3 SHADES                      4 ..... 4 SHADES                 </div>			
INTERFACE COLOR		NETWORKING			
<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 90%;">                     BLANK ..... WHITE                      BLK ..... BLACK                      ALMD ..... ALMOND                      GRY ..... GREY                      RED ..... RED                 </div>		<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 90%;">                     BLANK ..... STAND-ALONE SPACE                      NET ..... NETWORKED SPACE                 </div>			
DAYLIGHT SENSORS		CRESTRON SOLARSYNC			
<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 90%;">                     BLANK ..... NO SENSORS                      1 ..... 1 SENSOR                      2 ..... 2 SENSORS                      3 ..... 3 SENSORS                      4 ..... 4 SENSORS                 </div>		<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 90%;">                     BLANK ..... NO SENSORS                      LOL ..... OPEN LOOP DAYLIGHT SEN.                      LCL ..... CLOSED LOOP DAYLIGHT SEN.                 </div>			
ADD A ZONE		PLUG LOAD			
<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 90%;">                     BLANK ..... NONE                      DIMU ..... UNIVERSAL PHASE DIM                      DIMFLV ..... 0-10V DIMMING                 </div>		<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 90%;">                     BLANK ..... NONE                      1PL ..... 1 PLUG LOAD ZONE                      2PL ..... 2 PLUG LOAD ZONES                      3PL ..... 3 PLUG LOAD ZONES                 </div>			

Example: GLDALI - 2FKP - 4NKP - 4QUAD - 1SYNC - NET - DIMU

GLDALI \_\_\_\_\_ - \_\_\_\_\_ AKP- \_\_\_\_\_ BKP- \_\_\_\_\_ CKP- \_\_\_\_\_ DKP- \_\_\_\_\_ EKP- \_\_\_\_\_ FKP- \_\_\_\_\_ GKP- \_\_\_\_\_ HKP- \_\_\_\_\_ NKP- \_\_\_\_\_  
 \_\_\_\_\_ PKP- \_\_\_\_\_ XKP- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_

## GLDALI SpaceBuilder Schematic Riser



GLDALI \_\_\_\_\_ - \_\_\_\_\_ AKP- \_\_\_\_\_ BKP- \_\_\_\_\_ CKP- \_\_\_\_\_ DKP- \_\_\_\_\_ EKP- \_\_\_\_\_ FKP- \_\_\_\_\_ GKP- \_\_\_\_\_ HKP- \_\_\_\_\_ NKP- \_\_\_\_\_  
 \_\_\_\_\_ PKP- \_\_\_\_\_ XKP- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_  
 \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

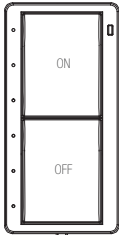
Date: \_\_\_\_\_ Project: \_\_\_\_\_  
 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_

## GLDALI SpaceBuilder Sequence of Operations

### KEYPAD TYPE A

**Typical Applications**

Office, Restroom, Storage/Utility Room, Corridor, Basic Classroom



**Button 1 Functionality: ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%

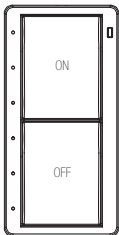
**Button 2 Functionality: OFF**

- Turn all lights off to 0% and disable daylight harvesting

### KEYPAD TYPE B

**Typical Applications**

Office, Conference Room, Classroom, Library



**Button 1 Functionality: ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%
- Press and hold will raise all dimmable lighting

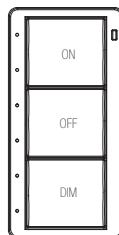
**Button 2 Functionality: OFF**

- Turn all lights off to 0% and disable daylight harvesting
- Press and hold will lower all dimmable lighting

### KEYPAD TYPE C

**Typical Applications**

Office, Conference Room, Classroom, Library



**Button 1 Functionality: ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%

**Button 2 Functionality: OFF**

- Turn all lights off to 0% and disable daylight harvesting

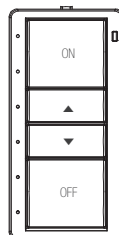
**Button 3 Functionality: DIM**

- Toggle to dim load up and down

### KEYPAD TYPE D

**Typical Applications**

Office, Conference Room, Classroom, Library



**Button 1 Functionality: ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%

**Button 2 Functionality: ▲**

- Dim lights up

**Button 3 Functionality: ▼**

- Dim lights down

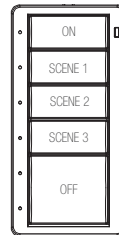
**Button 4 Functionality: OFF**

- Turn all lights off to 0% and disable daylight harvesting

### KEYPAD TYPE E

**Typical Applications**

Office, Conference Room, Cafeteria, Library, Multipurpose Room, Lobby, Ballroom



**Button 1 Functionality: ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%

**Button 2 Functionality: SCENE 1**

- Recalls scene 1 settings with feedback

**Button 3 Functionality: SCENE 2**

- Recalls scene 2 settings with feedback

**Button 4 Functionality: SCENE 3**

- Recalls scene 3 settings with feedback

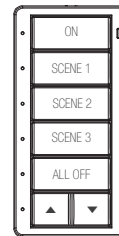
**Button 5 Functionality: OFF**

- Turn all lights off to 0% and disable daylight harvesting

### KEYPAD TYPE F

**Typical Applications**

Office, Conference Room, Classroom, Library



**Button 1 Functionality: ALL ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%

**Button 2 Functionality: SCENE 1**

- Recalls scene 1 settings with feedback

**Button 3 Functionality: SCENE 2**

- Recalls scene 2 settings with feedback

**Button 4 Functionality: SCENE 3**

- Recalls scene 3 settings with feedback

**Button 5 Functionality: ALL OFF**

- Turn all lights off to 0% and disable daylight harvesting

**Button 6 Functionality: ▲**

- Dim lights up

**Button 7 Functionality: ▼**

- Dim lights down

Continued on page 6

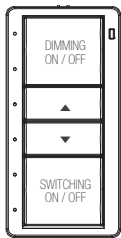
GLDALI \_\_\_\_\_ - \_\_\_\_\_ AKP- \_\_\_\_\_ BKP- \_\_\_\_\_ CKP- \_\_\_\_\_ DKP- \_\_\_\_\_ EKP- \_\_\_\_\_ FKP- \_\_\_\_\_ GKP- \_\_\_\_\_ HKP- \_\_\_\_\_ NKP-  
 \_\_\_\_\_ PKP- \_\_\_\_\_ XKP- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_  
 \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_

## GLDALI SpaceBuilder Sequence of Operations, Continued

## KEYPAD TYPE G

**Typical Applications:** Office, Conference Room, Classroom, Library,  
Applications where dimming and switching both exist and need separate control

**Button 1 Functionality: DIMMING ON/OFF**

- Toggle dimmable zones on or off with feedback if any lights are on
- Toggle to turn daylight harvesting on or off
- If daylight sensor is not present, lights will turn on to 100%

**Button 2 Functionality: ▲**

- Dim lights up

**Button 3 Functionality: ▼**

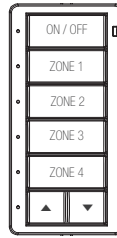
- Dim lights down

**Button 4 Functionality: SWITCHING ON/OFF**

- Toggle dimmable zones on or off with feedback if any lights are on

## KEYPAD TYPE N

**Typical Applications:** Office, Conference Room, Classroom, Library,  
Applications where shades control is needed

**Button 1 Functionality: ALL ON / OFF**

- Toggle all lights on and off

**Button 2 Functionality: ZONE 1**

- Zone 1 on, press and hold for off

**Button 3 Functionality: ZONE 2**

- Zone 2 on, press and hold for off

**Button 4 Functionality: ZONE 3**

- Zone 3 on, press and hold for off

**Button 5 Functionality: ZONE 4**

- Zone 4 on, press and hold for off

**Button 6 Functionality: ▲**

- Dim last touched zone up

**Button 7 Functionality: ▼**

- Dim last touched zone down

## KEYPAD TYPE H

**Typical Applications:** Office, Conference Room, Classroom, Library,  
Applications where shades control is needed

**Button 1 Functionality: ALL ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%

**Button 2 Functionality: SCENE 1**

- Recalls scene 1 settings with feedback

**Button 3 Functionality: SCENE 2**

- Recalls scene 2 settings with feedback

**Button 4 Functionality: ALL OFF**

- Turn all lights off to 0% and disable daylight harvesting

**Button 5 Functionality: SHADES**

- Activates up and down arrows to control shades.  
After 5 seconds of inactivity, up and down arrows revert back to dimming lights up and down.

**Button 6 Functionality: ▲**

- Dim lights up (shades up when SHADES button is active)

**Button 7 Functionality: ▼**

- Dim lights down (shades down when SHADES button is active)

## LCD KEYPAD TYPE P

**Typical Applications:** Conference Room, Cafeteria, Library,  
Multipurpose Room, Lobby, Ballroom



Color LCD keypad gives control of lighting scenes 1, 2 and OFF.

## KEYPAD TYPE X

**Typical Applications**  
All applications needing a custom keypad button configuration and functionality

Custom Keypad S00

## Note

By selecting keypad types, the SpaceBuilder system will be programmed, packaged, and shipped from the factory as an operable turnkey lighting control solution. Additional on-site support may be required for scene or sensor calibration.

GLDALI \_\_\_\_\_ - \_\_\_\_\_ AKP- \_\_\_\_\_ BKP- \_\_\_\_\_ CKP- \_\_\_\_\_ DKP- \_\_\_\_\_ EKP- \_\_\_\_\_ FKP- \_\_\_\_\_ GKP- \_\_\_\_\_ HKP- \_\_\_\_\_ NKP- \_\_\_\_\_  
 \_\_\_\_\_ PKP- \_\_\_\_\_ XKP- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_  
 \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_



# GLPAC System



The GLPAC SpaceBuilder system is ideal for medium-sized spaces that require additional options such as expansion modules for more load types, touch screens, additional sensors, and shade and AV integration.

SpaceBuilder allows you to specify all the necessary features and operations for an autonomous lighting control system specifically designed for the needs of your space. Start by selecting the load types and accessories and finish by defining how each interface should function to control lighting levels, vacancy sensing, daylight harvesting, shades, and AV.

## System Components

### GLPAC

Available in 4 or 8 zone versions to control both switching and 0-10V dimming loads. Options include regular and emergency versions as well as a split 4 regular and 4 emergency zone panel. All GLPAC systems can be expanded to easily add more zones of lighting.

### Keypads

Up to 4 keypads can be added to a GLPAC space. Refer to page 4 for standard sequence of operations to specify the button operations and standard engravings.

### Occupancy Sensors

Up to 4 dual technology occupancy sensors can be added to each GLPAC space for either occupancy or vacancy sensing. Each sensor offers coverage for spaces up to 2,000 square feet. Sensor coverage varies based on type, see detail at end of this worksheet. Sensor defaults to vacancy operation unless noted as occupancy operation in the space part number.

### Daylight Sensors

Up to 4 daylight sensors can be added to each GLPAC space for daylight harvesting control. Open-loop and closed-loop options are available.

## Options

### Touch Screens

An optional 7" color touch screen can be added to each to provide the user with full scene control, dynamic load control, and schedule adjustments.

### Loads

Any GLPAC system can be expanded to include additional loads for 2-wire phase, DMX, or switched plug loads.

### AV Integration

The GLPAC system can easily integrate with AV systems by adding a serial control module. If this option is selected, Crestron will also supply prepackaged code for the AV contractor to connect the systems.

### Shade Integration

Integrate with Crestron and other shading solution systems. Control for up to 4 local shade motors can be included with each GLPAC system.

### Networking

Any Crestron SpaceBuilder system can be networked to provide centralized monitoring, management, and master control. This includes direct integration with BMS and reporting, alerts, global time clock management, maintenance, and automation via Crestron Fusion®.

GLPAC\_ \_\_\_\_\_ - \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_  
 \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_



GLPAC SpaceBuilder Load Schedule

Zone #	Zone Description	Fixture Tag	Circuit #	Voltage	Load Type	Emergency / Life Safety	Dim (Y/N)	Fixture Watts	Quantity	Total Watts
Example	Pendants	a	HZ-1	277 VAC	0-10V	None	Yes	50W	4	200W
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
Add a Zone 1										
Add a Zone 2										
Add a Zone 3										
Add a Zone 4										

277 VAC  
120 VAC

Switched  
0-10V 4-Wire Dimmed  
Universal Phase Dimmed  
DMX

None  
Partial Zone  
Complete Zone

Yes  
No

GLPAC\_ - KP- KP- KP- KP- - - - -  
- - - - - - - - - -

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
Space Number(s): \_\_\_\_\_

PACKAGE	KEYPADS										
<p><b>GLPAC</b> _____ -</p> <p>4 ..... (4) 0-10V DIM/SW ZONES  8 ..... (8) 0-10V DIM/SW ZONES  12 ..... (12) 0-10V DIM/SW ZONES  16 ..... (16) 0-10V DIM/SW ZONES  4X4EM ..... (4 NORM. + 4 EMER.) 0-10V DIM/SW ZONES  8X4EM ..... (8 NORM. + 4 EMER.) 0-10V DIM/SW ZONES  12X4EM ..... (12 NORM. + 4 EMER.) 0-10V DIM/SW ZONES</p>	<p>_____ <b>KP -</b>    _____ <b>KP -</b>    _____ <b>KP -</b>    _____ <b>KP -</b></p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ..... NO KEYPADS  <b>A</b> ..... KEYPAD STYLE A  <b>B</b> ..... KEYPAD STYLE B  <b>C</b> ..... KEYPAD STYLE C  <b>D</b> ..... KEYPAD STYLE D  <b>E</b> ..... KEYPAD STYLE E </td> <td style="width:33%; border: none;"> <b>F</b> ..... KEYPAD STYLE F  <b>G</b> ..... KEYPAD STYLE G  <b>H</b> ..... KEYPAD STYLE H  <b>N</b> ..... KEYPAD STYLE N  <b>P</b> ..... LCD KEYPAD  <b>X</b> ..... CUSTOM KEYPAD S00 </td> <td style="width:34%; border: none; vertical-align: bottom;"> <p style="font-size: small;">Contact us to add more than 4 keypads</p> </td> </tr> </table>			<b>BLANK</b> ..... NO KEYPADS <b>A</b> ..... KEYPAD STYLE A <b>B</b> ..... KEYPAD STYLE B <b>C</b> ..... KEYPAD STYLE C <b>D</b> ..... KEYPAD STYLE D <b>E</b> ..... KEYPAD STYLE E	<b>F</b> ..... KEYPAD STYLE F <b>G</b> ..... KEYPAD STYLE G <b>H</b> ..... KEYPAD STYLE H <b>N</b> ..... KEYPAD STYLE N <b>P</b> ..... LCD KEYPAD <b>X</b> ..... CUSTOM KEYPAD S00	<p style="font-size: small;">Contact us to add more than 4 keypads</p>					
<b>BLANK</b> ..... NO KEYPADS <b>A</b> ..... KEYPAD STYLE A <b>B</b> ..... KEYPAD STYLE B <b>C</b> ..... KEYPAD STYLE C <b>D</b> ..... KEYPAD STYLE D <b>E</b> ..... KEYPAD STYLE E	<b>F</b> ..... KEYPAD STYLE F <b>G</b> ..... KEYPAD STYLE G <b>H</b> ..... KEYPAD STYLE H <b>N</b> ..... KEYPAD STYLE N <b>P</b> ..... LCD KEYPAD <b>X</b> ..... CUSTOM KEYPAD S00	<p style="font-size: small;">Contact us to add more than 4 keypads</p>									
<p><b>MOTION SENSORS</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ... NO SENSORS  <b>1</b> ..... 1 SENSOR  <b>2</b> ..... 2 SENSORS  <b>3</b> ..... 3 SENSORS  <b>4</b> ..... 4 SENSORS </td> <td style="width:67%; border: none;"> <b>BLANK</b> ..... NO SENSORS  <b>OS</b> ..... 2000SQ-FT DT CEILING  <b>QUAD</b> ..... 4000SQ-FT PIR CEILING  <b>WOS</b> ..... DT WALL/CORNER  <b>HALL_US1</b> ..... .33FT US HALL  <b>HALL_US2</b> ..... .65FT US HALL  <b>EOS</b> ..... EXTERIOR  <b>HOS</b> ..... PIR HIGH BAY </td> </tr> </table>	<b>BLANK</b> ... NO SENSORS <b>1</b> ..... 1 SENSOR <b>2</b> ..... 2 SENSORS <b>3</b> ..... 3 SENSORS <b>4</b> ..... 4 SENSORS	<b>BLANK</b> ..... NO SENSORS <b>OS</b> ..... 2000SQ-FT DT CEILING <b>QUAD</b> ..... 4000SQ-FT PIR CEILING <b>WOS</b> ..... DT WALL/CORNER <b>HALL_US1</b> ..... .33FT US HALL <b>HALL_US2</b> ..... .65FT US HALL <b>EOS</b> ..... EXTERIOR <b>HOS</b> ..... PIR HIGH BAY	<p><b>OCC SENSOR TYPE</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ..... VACANCY  <b>OCC</b> ..... OCCUPANCY </td> <td style="width:67%; border: none;"></td> </tr> </table>	<b>BLANK</b> ..... VACANCY <b>OCC</b> ..... OCCUPANCY		<p><b>DAYLIGHT SENSORS</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ... NO SENSORS  <b>1</b> ..... 1 SENSOR  <b>2</b> ..... 2 SENSORS  <b>3</b> ..... 3 SENSORS  <b>4</b> ..... 4 SENSORS </td> <td style="width:67%; border: none;"> <b>BLANK</b> ..... NO SENSORS  <b>LOL</b> ..... OPEN LOOP DAYLIGHT SEN.  <b>LCL</b> ..... CLOSED LOOP DAYLIGHT SEN. </td> </tr> </table>	<b>BLANK</b> ... NO SENSORS <b>1</b> ..... 1 SENSOR <b>2</b> ..... 2 SENSORS <b>3</b> ..... 3 SENSORS <b>4</b> ..... 4 SENSORS	<b>BLANK</b> ..... NO SENSORS <b>LOL</b> ..... OPEN LOOP DAYLIGHT SEN. <b>LCL</b> ..... CLOSED LOOP DAYLIGHT SEN.			
<b>BLANK</b> ... NO SENSORS <b>1</b> ..... 1 SENSOR <b>2</b> ..... 2 SENSORS <b>3</b> ..... 3 SENSORS <b>4</b> ..... 4 SENSORS	<b>BLANK</b> ..... NO SENSORS <b>OS</b> ..... 2000SQ-FT DT CEILING <b>QUAD</b> ..... 4000SQ-FT PIR CEILING <b>WOS</b> ..... DT WALL/CORNER <b>HALL_US1</b> ..... .33FT US HALL <b>HALL_US2</b> ..... .65FT US HALL <b>EOS</b> ..... EXTERIOR <b>HOS</b> ..... PIR HIGH BAY										
<b>BLANK</b> ..... VACANCY <b>OCC</b> ..... OCCUPANCY											
<b>BLANK</b> ... NO SENSORS <b>1</b> ..... 1 SENSOR <b>2</b> ..... 2 SENSORS <b>3</b> ..... 3 SENSORS <b>4</b> ..... 4 SENSORS	<b>BLANK</b> ..... NO SENSORS <b>LOL</b> ..... OPEN LOOP DAYLIGHT SEN. <b>LCL</b> ..... CLOSED LOOP DAYLIGHT SEN.										
<p><b>PARTITION SENSORS</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ..... NO SENSOR  <b>1PART</b> ..... 1 PARTITION SENSOR  <b>2PART</b> ..... 2 PARTITION SENSORS  <b>3PART</b> ..... 3 PARTITION SENSORS  <b>4PART</b> ..... 4 PARTITION SENSORS </td> <td style="width:67%; border: none;"> <b>BLANK</b> ..... NO TOUCH SCREEN  <b>TS5P</b> ..... 5" PORTRAIT TOUCH SCREEN  <b>TS5P+DMX</b> ..... 5" PORTRAIT TOUCH SCREEN W/DMX  <b>TS7</b> ..... 7" TOUCH SCREEN  <b>TS7+DMX</b> ..... 7" TOUCH SCREEN W/DMX </td> </tr> </table>	<b>BLANK</b> ..... NO SENSOR <b>1PART</b> ..... 1 PARTITION SENSOR <b>2PART</b> ..... 2 PARTITION SENSORS <b>3PART</b> ..... 3 PARTITION SENSORS <b>4PART</b> ..... 4 PARTITION SENSORS	<b>BLANK</b> ..... NO TOUCH SCREEN <b>TS5P</b> ..... 5" PORTRAIT TOUCH SCREEN <b>TS5P+DMX</b> ..... 5" PORTRAIT TOUCH SCREEN W/DMX <b>TS7</b> ..... 7" TOUCH SCREEN <b>TS7+DMX</b> ..... 7" TOUCH SCREEN W/DMX	<p><b>SHADE GROUPS / SHADE MOTOR TYPE</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ... NO SHADES  <b>1</b> ..... 1 SHADE  <b>2</b> ..... 2 SHADES  <b>3</b> ..... 3 SHADES  <b>4</b> ..... 4 SHADES </td> <td style="width:67%; border: none;"> <b>BLANK</b> ..... NO SHADES  <b>RS232</b> ..... RS-232/CONTACT  <b>CN</b> ..... CRESTRON QMT MOTOR  <b>RLY</b> ..... 120V MOTOR </td> </tr> </table>		<b>BLANK</b> ... NO SHADES <b>1</b> ..... 1 SHADE <b>2</b> ..... 2 SHADES <b>3</b> ..... 3 SHADES <b>4</b> ..... 4 SHADES	<b>BLANK</b> ..... NO SHADES <b>RS232</b> ..... RS-232/CONTACT <b>CN</b> ..... CRESTRON QMT MOTOR <b>RLY</b> ..... 120V MOTOR	<p><b>AV</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ..... NO AV  <b>AV-NC</b> ..... NON-CRESTRON (RS-232)  <b>AV-C</b> ..... CRESTRON (ETHERNET) </td> <td style="width:67%; border: none;"></td> </tr> </table>	<b>BLANK</b> ..... NO AV <b>AV-NC</b> ..... NON-CRESTRON (RS-232) <b>AV-C</b> ..... CRESTRON (ETHERNET)			
<b>BLANK</b> ..... NO SENSOR <b>1PART</b> ..... 1 PARTITION SENSOR <b>2PART</b> ..... 2 PARTITION SENSORS <b>3PART</b> ..... 3 PARTITION SENSORS <b>4PART</b> ..... 4 PARTITION SENSORS	<b>BLANK</b> ..... NO TOUCH SCREEN <b>TS5P</b> ..... 5" PORTRAIT TOUCH SCREEN <b>TS5P+DMX</b> ..... 5" PORTRAIT TOUCH SCREEN W/DMX <b>TS7</b> ..... 7" TOUCH SCREEN <b>TS7+DMX</b> ..... 7" TOUCH SCREEN W/DMX										
<b>BLANK</b> ... NO SHADES <b>1</b> ..... 1 SHADE <b>2</b> ..... 2 SHADES <b>3</b> ..... 3 SHADES <b>4</b> ..... 4 SHADES	<b>BLANK</b> ..... NO SHADES <b>RS232</b> ..... RS-232/CONTACT <b>CN</b> ..... CRESTRON QMT MOTOR <b>RLY</b> ..... 120V MOTOR										
<b>BLANK</b> ..... NO AV <b>AV-NC</b> ..... NON-CRESTRON (RS-232) <b>AV-C</b> ..... CRESTRON (ETHERNET)											
<p><b>KEY SWITCH</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ..... NO KEY SWITCH  <b>KEY</b> ..... ADD KEY SWITCH </td> <td style="width:67%; border: none;"> <b>BLANK</b> ..... WHITE  <b>BLK</b> ..... BLACK  <b>ALMD</b> ..... ALMOND  <b>GRY</b> ..... GREY  <b>RED</b> ..... RED </td> </tr> </table>	<b>BLANK</b> ..... NO KEY SWITCH <b>KEY</b> ..... ADD KEY SWITCH	<b>BLANK</b> ..... WHITE <b>BLK</b> ..... BLACK <b>ALMD</b> ..... ALMOND <b>GRY</b> ..... GREY <b>RED</b> ..... RED	<p><b>INTERFACE COLOR</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ..... NO POWER MONITORING  <b>PM</b> ..... ADD POWER MONITORING </td> <td style="width:67%; border: none;"> <b>BLANK</b> ..... STANDARD ENCLOSURE  <b>CP</b> ..... CHICAGO PLENUM ENCLOSURE </td> </tr> </table>	<b>BLANK</b> ..... NO POWER MONITORING <b>PM</b> ..... ADD POWER MONITORING	<b>BLANK</b> ..... STANDARD ENCLOSURE <b>CP</b> ..... CHICAGO PLENUM ENCLOSURE	<p><b>POWER MONITORING</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ..... NO POWER MONITORING  <b>PM</b> ..... ADD POWER MONITORING </td> <td style="width:67%; border: none;"> <b>BLANK</b> ..... NO KEY SWITCH  <b>KEY</b> ..... ADD KEY SWITCH </td> </tr> </table>	<b>BLANK</b> ..... NO POWER MONITORING <b>PM</b> ..... ADD POWER MONITORING	<b>BLANK</b> ..... NO KEY SWITCH <b>KEY</b> ..... ADD KEY SWITCH	<p><b>CHICAGO PLENUM</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ..... NO KEY SWITCH  <b>KEY</b> ..... ADD KEY SWITCH </td> <td style="width:67%; border: none;"> <b>BLANK</b> ..... NO POWER MONITORING  <b>PM</b> ..... ADD POWER MONITORING </td> </tr> </table>	<b>BLANK</b> ..... NO KEY SWITCH <b>KEY</b> ..... ADD KEY SWITCH	<b>BLANK</b> ..... NO POWER MONITORING <b>PM</b> ..... ADD POWER MONITORING
<b>BLANK</b> ..... NO KEY SWITCH <b>KEY</b> ..... ADD KEY SWITCH	<b>BLANK</b> ..... WHITE <b>BLK</b> ..... BLACK <b>ALMD</b> ..... ALMOND <b>GRY</b> ..... GREY <b>RED</b> ..... RED										
<b>BLANK</b> ..... NO POWER MONITORING <b>PM</b> ..... ADD POWER MONITORING	<b>BLANK</b> ..... STANDARD ENCLOSURE <b>CP</b> ..... CHICAGO PLENUM ENCLOSURE										
<b>BLANK</b> ..... NO POWER MONITORING <b>PM</b> ..... ADD POWER MONITORING	<b>BLANK</b> ..... NO KEY SWITCH <b>KEY</b> ..... ADD KEY SWITCH										
<b>BLANK</b> ..... NO KEY SWITCH <b>KEY</b> ..... ADD KEY SWITCH	<b>BLANK</b> ..... NO POWER MONITORING <b>PM</b> ..... ADD POWER MONITORING										
<p><b>NETWORKING</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ..... STAND-ALONE SPACE  <b>NET</b> ..... NETWORKED SPACE </td> <td style="width:67%; border: none;"> <b>BLANK</b> ..... NONE  <b>1DIMU</b> ..... 1 UNIVERSAL PHASE DIM  <b>2DIMU</b> ..... 2 UNIVERSAL PHASE DIM  <b>3DIMU</b> ..... 3 UNIVERSAL PHASE DIM  <b>4DIMU</b> ..... 4 UNIVERSAL PHASE DIM </td> </tr> </table>	<b>BLANK</b> ..... STAND-ALONE SPACE <b>NET</b> ..... NETWORKED SPACE	<b>BLANK</b> ..... NONE <b>1DIMU</b> ..... 1 UNIVERSAL PHASE DIM <b>2DIMU</b> ..... 2 UNIVERSAL PHASE DIM <b>3DIMU</b> ..... 3 UNIVERSAL PHASE DIM <b>4DIMU</b> ..... 4 UNIVERSAL PHASE DIM	<p><b>ADD A ZONE</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ..... NONE  <b>1PL</b> ..... 1 PLUG LOAD ZONE  <b>2PL</b> ..... 2 PLUG LOAD ZONES  <b>3PL</b> ..... 3 PLUG LOAD ZONES </td> <td style="width:67%; border: none;"> <b>BLANK</b> ..... NONE  <b>1PL</b> ..... 1 PLUG LOAD ZONE  <b>2PL</b> ..... 2 PLUG LOAD ZONES  <b>3PL</b> ..... 3 PLUG LOAD ZONES </td> </tr> </table>		<b>BLANK</b> ..... NONE <b>1PL</b> ..... 1 PLUG LOAD ZONE <b>2PL</b> ..... 2 PLUG LOAD ZONES <b>3PL</b> ..... 3 PLUG LOAD ZONES	<b>BLANK</b> ..... NONE <b>1PL</b> ..... 1 PLUG LOAD ZONE <b>2PL</b> ..... 2 PLUG LOAD ZONES <b>3PL</b> ..... 3 PLUG LOAD ZONES	<p><b>PLUG LOAD</b></p> <p>_____ -</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%; border: none;"> <b>BLANK</b> ..... NONE  <b>1PL</b> ..... 1 PLUG LOAD ZONE  <b>2PL</b> ..... 2 PLUG LOAD ZONES  <b>3PL</b> ..... 3 PLUG LOAD ZONES </td> <td style="width:67%; border: none;"> <b>BLANK</b> ..... NONE  <b>1PL</b> ..... 1 PLUG LOAD ZONE  <b>2PL</b> ..... 2 PLUG LOAD ZONES  <b>3PL</b> ..... 3 PLUG LOAD ZONES </td> </tr> </table>	<b>BLANK</b> ..... NONE <b>1PL</b> ..... 1 PLUG LOAD ZONE <b>2PL</b> ..... 2 PLUG LOAD ZONES <b>3PL</b> ..... 3 PLUG LOAD ZONES	<b>BLANK</b> ..... NONE <b>1PL</b> ..... 1 PLUG LOAD ZONE <b>2PL</b> ..... 2 PLUG LOAD ZONES <b>3PL</b> ..... 3 PLUG LOAD ZONES		
<b>BLANK</b> ..... STAND-ALONE SPACE <b>NET</b> ..... NETWORKED SPACE	<b>BLANK</b> ..... NONE <b>1DIMU</b> ..... 1 UNIVERSAL PHASE DIM <b>2DIMU</b> ..... 2 UNIVERSAL PHASE DIM <b>3DIMU</b> ..... 3 UNIVERSAL PHASE DIM <b>4DIMU</b> ..... 4 UNIVERSAL PHASE DIM										
<b>BLANK</b> ..... NONE <b>1PL</b> ..... 1 PLUG LOAD ZONE <b>2PL</b> ..... 2 PLUG LOAD ZONES <b>3PL</b> ..... 3 PLUG LOAD ZONES	<b>BLANK</b> ..... NONE <b>1PL</b> ..... 1 PLUG LOAD ZONE <b>2PL</b> ..... 2 PLUG LOAD ZONES <b>3PL</b> ..... 3 PLUG LOAD ZONES										
<b>BLANK</b> ..... NONE <b>1PL</b> ..... 1 PLUG LOAD ZONE <b>2PL</b> ..... 2 PLUG LOAD ZONES <b>3PL</b> ..... 3 PLUG LOAD ZONES	<b>BLANK</b> ..... NONE <b>1PL</b> ..... 1 PLUG LOAD ZONE <b>2PL</b> ..... 2 PLUG LOAD ZONES <b>3PL</b> ..... 3 PLUG LOAD ZONES										

Example: GLPAC4 - AKP - PKP - 2QUAD - 1LOL - 2PART - TS5P - NET - 2PL

GLPAC\_ \_\_\_\_\_ - \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
Space Number(s): \_\_\_\_\_

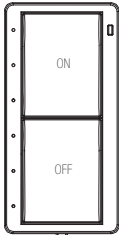


## GLPAC SpaceBuilder Sequence of Operations

### KEYPAD TYPE A

**Typical Applications**

Office, Restroom, Storage/Utility Room, Corridor, Basic Classroom



**Button 1 Functionality: ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%

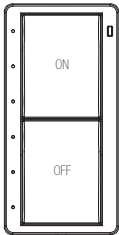
**Button 2 Functionality: OFF**

- Turn all lights off to 0% and disable daylight harvesting

### KEYPAD TYPE B

**Typical Applications**

Office, Conference Room, Classroom, Library



**Button 1 Functionality: ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%
- Press and hold will raise all dimmable lighting

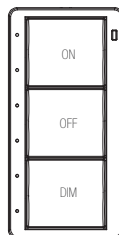
**Button 2 Functionality: OFF**

- Turn all lights off to 0% and disable daylight harvesting
- Press and hold will lower all dimmable lighting

### KEYPAD TYPE C

**Typical Applications**

Office, Conference Room, Classroom, Library



**Button 1 Functionality: ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%

**Button 2 Functionality: OFF**

- Turn all lights off to 0% and disable daylight harvesting

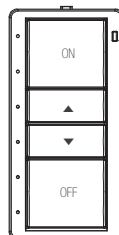
**Button 3 Functionality: DIM**

- Toggle to dim load up and down

### KEYPAD TYPE D

**Typical Applications**

Office, Conference Room, Classroom, Library



**Button 1 Functionality: ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%

**Button 2 Functionality: ▲**

- Dim lights up

**Button 3 Functionality: ▼**

- Dim lights down

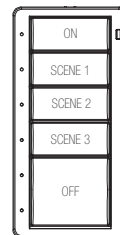
**Button 4 Functionality: OFF**

- Turn all lights off to 0% and disable daylight harvesting

### KEYPAD TYPE E

**Typical Applications**

Office, Conference Room, Cafeteria, Library, Multipurpose Room, Lobby, Ballroom



**Button 1 Functionality: ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%

**Button 2 Functionality: SCENE 1**

- Recalls scene 1 settings with feedback

**Button 3 Functionality: SCENE 2**

- Recalls scene 2 settings with feedback

**Button 4 Functionality: SCENE 3**

- Recalls scene 3 settings with feedback

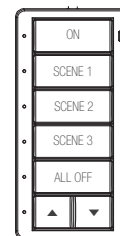
**Button 5 Functionality: OFF**

- Turn all lights off to 0% and disable daylight harvesting

### KEYPAD TYPE F

**Typical Applications**

Office, Conference Room, Classroom, Library



**Button 1 Functionality: ALL ON**

- Turn all lights on and enable daylight harvesting
- If daylight sensor is not present, lights will turn on to 100%

**Button 2 Functionality: SCENE 1**

- Recalls scene 1 settings with feedback

**Button 3 Functionality: SCENE 2**

- Recalls scene 2 settings with feedback

**Button 4 Functionality: SCENE 3**

- Recalls scene 3 settings with feedback

**Button 5 Functionality: ALL OFF**

- Turn all lights off to 0% and disable daylight harvesting

**Button 6 Functionality: ▲**

- Dim lights up

**Button 7 Functionality: ▼**

- Dim lights down

Continued on page 6

GLPAC\_ - KP- KP- KP- KP- - - - - -  
 - - - - -

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_



GLPAC Specifications

LOAD RATINGS

Dimmer Channels

GLPAC-DIMFLV4(-PM): 4  
GLPAC-DIMFLV8(-PM): 8

Per Channel

16 Amps @ 100 to 277 Volts AC, 50/60 Hz

Dim Load Types

0-10 Volt fluorescent ballast (4-wire); 0-10V LED drivers;  
60 mA max current sink

Switch Load Types

Fluorescent Ballast, Incandescent, Magnetic Low-Voltage,  
Electronic Low-Voltage, Neon/Cold Cathode, High-Intensity  
Discharge, LED, Motor

Relay Lifetime

Resistive rating: 100,000 on/off operations, 50A @ 277 VAC  
General rating: 50,000 on/off operations, 16A @ 120/277 VAC

ENCLOSURE

Surface mount metal box enclosure, suitable for  
mounting in plenum airspace

ENVIRONMENTAL

Temperature

32° to 104°F (0° to 40°C)

Humidity

10% to 90% RH (non-condensing)

DIMENSIONS

Height

12.13 in (308 mm)

Width

14.13 in (359 mm)

Depth

4.06 in (103 mm)

ELECTRICAL REGULATORY CERTIFICATIONS

Relays tested and certified for Electronic Ballasts according  
to UL508, Section 41 (Endurance Test) and Section 61C  
(Electronic Ballasts)

IEC60669-2-1, Section 19.102 (Contact mechanisms  
incorporated in electronic switches, intended for fluorescent  
lamp circuits or other capacitive loads)

CEC Title 24 2013 Compliant



- Up to 8 channels of 0-10 Volt fluorescent and LED dimming or switching
- Works in 100 to 277 VAC systems
- 16-Amp load rating per channel
- Built-in Control System with Cresnet® and Ethernet port
- Programmable astronomical time clock for scheduled events
- Preloaded program for quick setup
- Optional real-time power monitoring per channel
- Supports keypad control, occupancy sensing, and daylight harvesting
- Positive air gap at each output
- Phase-independent channels
- Local controls for setup, testing and verification
- Local and remote override capability
- Non-volatile power failure memory
- High-speed Ethernet LAN port

Products in this system can include:

GLS-ODT-C-NS: 2000 Square Foot Dual Technology Ceiling Mount Occupancy Sensor  
GLA-IR-QUATTRO-HD-COM1-24: 4000 sq-ft interior ceiling motion sensor  
GLA-DT-CM-COM1-24: Dual technology corner mount motion sensor  
GLA-US-ONEWAY-COM1-24: Ultrasonic 35ft corridor motion sensor  
GLA-US-HALLWAY-COM1-24: Ultrasonic 65ft corridor motion sensor  
GLA-IS-360: High bay motion sensor  
GLA-HBS-300: Exterior motion sensor  
GLS-LCL: Closed loop daylight sensor  
GLS-LOL: Open Loop Daylight Sensor  
C2N-IO: Serial RS-232 interface  
TSW-760: 7" Touch Screen  
C2N-CBD-P: Keypad  
C2N-LCDB3: LCD Keypad  
TSW-560P: 5" Portrait Touch Screen  
GLA-KEYSW-MAINTAIN: Keyed switch

For technical specifications on all other products in this system,  
please visit [www.crestronlighting.com](http://www.crestronlighting.com)

For more information or to access digital specification forms for all Crestron  
SpaceBuilder systems, visit [www.crestronspacebuilder.com](http://www.crestronspacebuilder.com) or call 855-644-7643

Notes:

GLPAC\_ \_ \_ \_ - \_ \_ \_ KP- \_ \_ \_ KP- \_ \_ \_ KP- \_ \_ \_ KP- \_ \_ \_ - \_ \_ - \_ \_ \_ - \_ \_ \_ - \_ \_ \_ - \_ \_ \_  
\_ \_ \_ - \_ \_ \_ - \_ \_ \_ - \_ \_ \_ - \_ \_ \_ - \_ \_ \_ - \_ \_ \_ - \_ \_ \_ - \_ \_ \_ - \_ \_ \_

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
Space Number(s): \_\_\_\_\_

# GLPP System



The GLPP SpaceBuilder system offers effective and powerful lighting control for small-sized spaces providing automation based on natural light and presence of people within the space. This system also supports expansion modules for more load types.

SpaceBuilder allows you to specify all the necessary features and operations for an autonomous lighting control system specifically designed for the needs of your space. Start by selecting the load types and accessories and finish by defining how each interface should function to control lighting levels, vacancy sensing, daylight harvesting, shades, and AV.

## System Components

### GLPP

Available in 1 to 3 zone versions to control both switching and 0-10V 4-wire dimming loads. All GLPP systems can be expanded to easily add plug load control.

### Keypads

Up to 3 keypads can be added to a GLPP space. Refer to page 4 for standard sequence of operations to specify the button operations and standard engravings.

### Occupancy Sensors

Up to 2 dual technology occupancy sensors can be added to each GLPP space for either occupancy or vacancy sensing. Each sensor offers coverage for spaces up to 4,000 square feet. Sensor coverage varies based on type, see detail at end of this worksheet. Sensor defaults to vacancy operation unless noted as occupancy operation in the space part number.

### Daylight Sensors

One open-loop or one closed-loop daylight sensor can be added to each GLPP space for daylight harvesting control.

## Options

### Loads

Any GLPP system can be expanded to include switched plug loads.

### Networking

Any Crestron SpaceBuilder system can be networked to provide centralized monitoring, management and master control. This includes direct integration with BMS and reporting, alerts, global time clock management, maintenance, and automation via Crestron Fusion®.

GLPP \_\_\_\_\_ - \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_  
 - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_

## GLPP SpaceBuilder Load Schedule

Zone #	Zone Description	Fixture Tag	Circuit #	Voltage	Load Type	Emergency / Life Safety	Dim (Y/N)	Fixture Watts	Quantity	Total Watts
Example	Pendants	A	HZ-1	277 V	0-10V 4-Wire Dimmed	Partial Zone	Yes	8	4	32
1										
2										
3										
				277V 120V	Switched 0-10V 4-Wire Dimmed	N/A Partial Zone Complete Zone	Yes No			

PACKAGE

GLPP

1SW ..... (1) SWITCHED ZONE  
2SW ..... (2) SWITCHED ZONES  
3SW ..... (3) SWITCHED ZONES  
1DIM ..... (1) 0-10V DIM/SW ZONE  
2DIM ..... (2) 0-10V DIM/SW ZONES  
3DIM ..... (3) 0-10V DIM/SW ZONES

KEYPADS

KP - KP - KP -

BLANK ..... NO KEYPADS  
J ..... KEYPAD STYLE J  
J1 ..... KEYPAD STYLE J1  
J2 ..... KEYPAD STYLE J2  
J3 ..... KEYPAD STYLE J3  
K ..... KEYPAD STYLE K  
L ..... KEYPAD STYLE L  
M ..... KEYPAD STYLE M

OCCUPANCY SENSORS

BLANK ..... NO SENSORS  
1 ..... 1 SENSOR  
2 ..... 2 SENSORS  
3 ..... 3 SENSORS

BLANK ..... NO SENSORS  
OS ..... 2000SQ-FT DT CEILING  
QUAD ..... 4000SQ-FT PIR CEILING  
WOS ..... DT WALL/CORNER  
HALL\_US1 ..... .33FT US HALL  
HALL\_US2 ..... .65FT US HALL  
EOS ..... EXTERIOR  
HOS ..... PIR HIGH BAY

OCC SENSOR TYPE

BLANK ..... VACANCY  
OCC ..... OCCUPANCY

DAYLIGHT SENSORS

BLANK ..... NO SENSORS  
1 ..... 1 SENSOR  
LOL ..... OPEN LOOP DAYLIGHT SEN.  
LCL ..... CLOSED LOOP DAYLIGHT SEN.

KEY SWITCH

BLANK ..... NO KEY SWITCH  
KEY ..... ADD KEY SWITCH

INTERFACE COLOR

BLANK ..... WHITE  
BLK ..... BLACK  
ALMD ..... ALMOND

NETWORKING

BLANK ..... STAND-ALONE SPACE  
NET ..... NETWORKED SPACE

PLUG LOAD

BLANK ..... NONE  
1PL ..... 1 PLUG LOAD ZONE  
2PL ..... 2 PLUG LOAD ZONES  
3PL ..... 3 PLUG LOAD ZONES

Example: GLPP2SW - 1KP - 1KP - 1OS - 1DS - NET

GLPP \_\_\_\_\_ - \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_

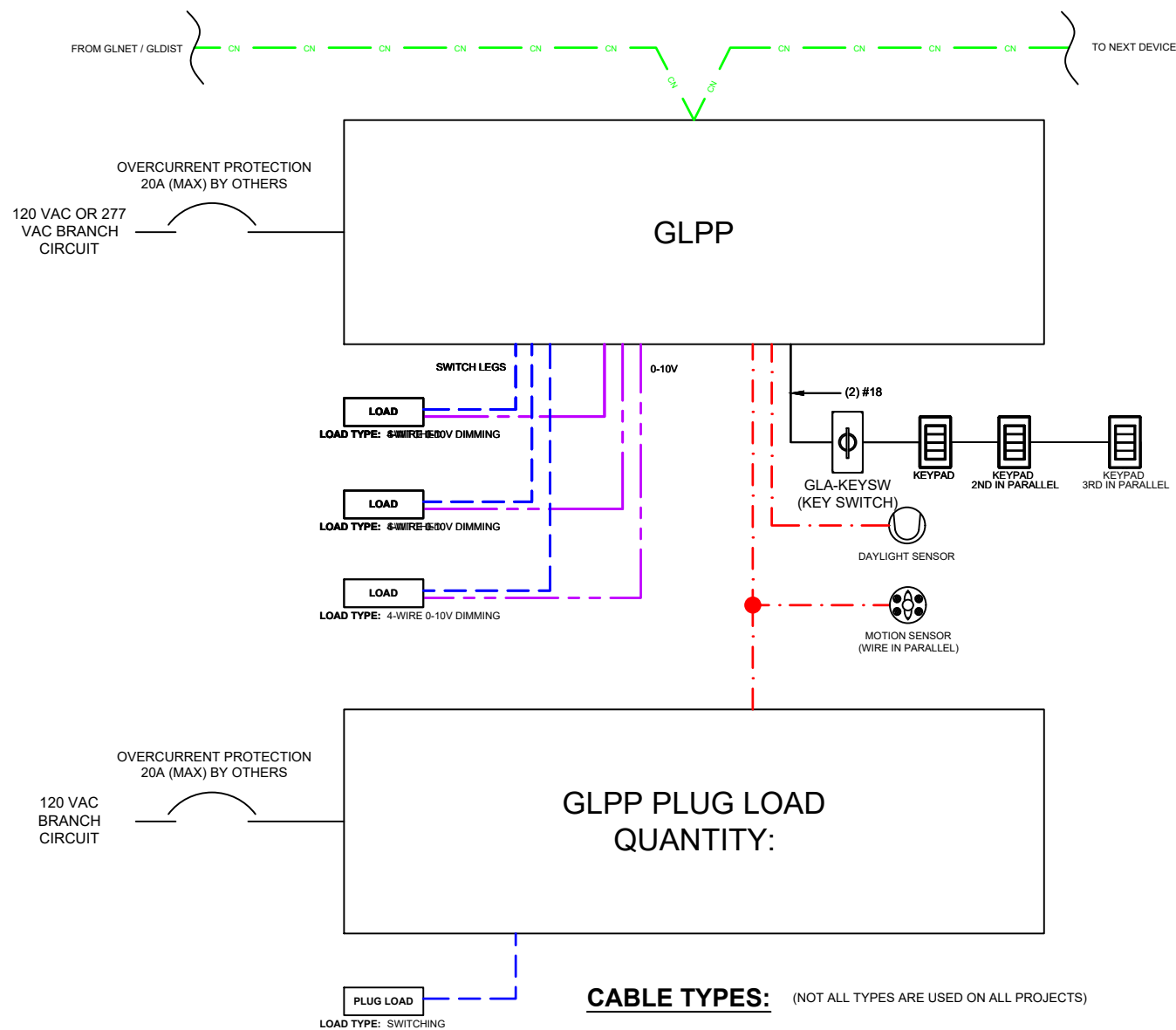
\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_

Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_

Space Number(s): \_\_\_\_\_

GLPP SpaceBuilder Schematic Riser

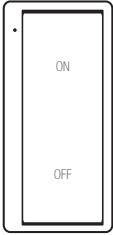


GLPP \_\_\_\_\_ - \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_  
- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
Space Number(s): \_\_\_\_\_

## GLPP SpaceBuilder Sequence of Operations

### KEYPAD TYPE J



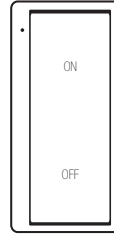
**Button 1 Functionality: ON**

- Tap the top of the button for scene 1
- Double tap the top of the button for full on
- Hold the top of the button to dim lights up

**Button 2 Functionality: OFF**

- Tap the bottom of the button for all off
- Double tap the bottom of the button for fast off
- Hold the bottom of the button to dim lights down

### KEYPAD TYPE J2 Note: Zone 2 Keypad



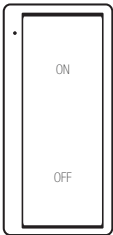
**Button 1 Functionality: ON**

- Tap the top of the button for scene 1
- Double tap the top of the button for full on
- Hold the top of the button to dim lights up

**Button 2 Functionality: OFF**

- Tap the bottom of the button for all off
- Double tap the bottom of the button for fast off
- Hold the bottom of the button to dim lights down

### KEYPAD TYPE J1 Note: Zone 1 Keypad



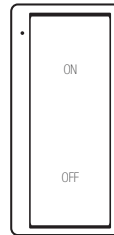
**Button 1 Functionality: ON**

- Tap the top of the button for scene 1
- Double tap the top of the button for full on
- Hold the top of the button to dim lights up

**Button 2 Functionality: OFF**

- Tap the bottom of the button for all off
- Double tap the bottom of the button for fast off
- Hold the bottom of the button to dim lights down

### KEYPAD TYPE J3 Note: Zone 3 Keypad



**Button 1 Functionality: ON**

- Tap the top of the button for scene 1
- Double tap the top of the button for full on
- Hold the top of the button to dim lights up

**Button 2 Functionality: OFF**

- Tap the bottom of the button for all off
- Double tap the bottom of the button for fast off
- Hold the bottom of the button to dim lights down

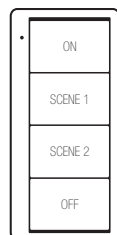
Continued on page 5

GLPP \_\_\_\_\_ - \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_  
 - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_  
 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_

## GLPP SpaceBuilder Sequence of Operations, Continued

## KEYPAD TYPE K

**Button 1 Functionality: ON**

- Tap the first button for all on
- Double tap the first button for all on
- Hold the first button to dim lights up

**Button 2 Functionality: SCENE 1**

- Tap the second button for scene 1
- Double tap the second button for all on

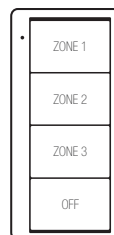
**Button 3 Functionality: SCENE 2**

- Tap the third button for scene 2
- Double tap the third button for all on

**Button 4 Functionality: OFF**

- Tap the fourth button for all off
- Double tap the fourth button for fast off
- Hold the fourth button to dim lights down

## KEYPAD TYPE M

**Note:** Use with 3 zone dimming**Button 1 Functionality: ZONE 1 TOGGLE**

- Tap once to turn lights on
- Tap again to turn lights off
- Press and hold to dim lights up
- Press and hold to dim lights down

**Button 2 Functionality: ZONE 2 TOGGLE**

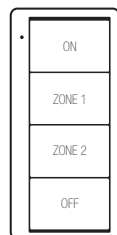
- Tap once to turn lights on
- Tap again to turn lights off
- Press and hold to dim lights up
- Press and hold to dim lights down

**Button 3 Functionality: ZONE 3 TOGGLE**

- Tap once to turn lights on
- Tap again to turn lights off
- Press and hold to dim lights up
- Press and hold to dim lights down

**Button 4 Functionality: OFF**

- Tap the fourth button for all off
- Double tap the fourth button for fast off
- Hold the fourth button to dim lights down

KEYPAD TYPE L **Note:** Use with 2 zone dimming**Button 1 Functionality: ON**

- Tap the first button for all on
- Double tap the first button for all on
- Hold the first button to dim lights up

**Button 2 Functionality: ZONE 1 TOGGLE**

- Tap once to turn lights on
- Tap again to turn lights off
- Press and hold to dim lights up
- Press and hold to dim lights down

**Button 3 Functionality: ZONE 2 TOGGLE**

- Tap once to turn lights on
- Tap again to turn lights off
- Press and hold to dim lights up
- Press and hold to dim lights down

**Button 4 Functionality: OFF**

- Tap the fourth button for all off
- Double tap the fourth button for fast off
- Hold the fourth button to dim lights down

## Note

By selecting keypad types, the SpaceBuilder system will be programmed, packaged, and shipped from the factory as an operable turnkey lighting control solution. Additional on-site support may be required for scene or sensor calibration.

GLPP \_\_\_\_\_ - \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_

- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_

Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_

Space Number(s): \_\_\_\_\_

## GLPP Specifications

### LOAD RATINGS

#### Dim/Switched Channels:

1, 2, or 3 switched or dimmed (0-10V) loads

#### Per Unit:

16 Amps @ 100-277VAC, 50/60Hz  
(20 Amps, de-rated to 80%)

#### Dim Load Types (for dimming models):

0-10V LED drivers; 0-10 Volt fluorescent ballast (4- wire);  
60 mA max current sink

#### Switch Load Types:

Fluorescent Ballast, Incandescent, Magnetic Low-Voltage,  
Electronic Low-Voltage, Neon/Cold Cathode, High-Intensity  
Discharge

#### Relay Lifetime:

1,000,000 cycles

#### Enclosure

20-gauge galvanized steel enclosure; designed for mounting to  
two (2) adjacent standard 4" square electrical junction boxes;  
3-channel versions require a box depth of 2.125 in (54 mm)

#### Environmental

##### Temperature:

32° to 104°F (0° to 40°C)

##### Humidity:

10% to 90% RH (non-condensing)

### DIMENSIONS

#### Height

4.25 in (108 mm)

#### Width:

8.63 in (219 mm); 9.88 in (251 mm) with antenna  
at 90° angle (wireless model only)

#### Depth:

2 in (51 mm)

### STANDARDS & CERTIFICATIONS

UL916

UL2043

FCC

Relays listed under UL508 Section 41 (Endurance Test)  
and Section 61C (Electronic Ballasts)

CEC Title 24 2013 Compliant



- Works in 120-277VAC systems
- Ideal for new construction or retrofits
- Wired or wireless link to central Crestron® system
- 1, 2, and 3-channel models available
- Switched and 0-10V dimming models available
- Integrates with occupancy sensor and photo sensor
- Supports up to three remote keypads
- Easy keypad wiring using existing switch-loop wiring
- Optional handheld remote for daily use (GLPPA-REMOTE-USER)
- Real-time energy monitoring on select models
- Adaptive zero-cross switching for extended life

### Products in this system can include:

GLS-ODT-C-NS: Dual Technology Ceiling Mount Occupancy Sensor  
GLG-LOL: Open Loop Daylight Sensor  
GLA-IR-QUATTRO-HD-COM1-24: 4000 sq-ft interior ceiling motion sensor  
GLA-DT-CM-COM1-24: Dual technology corner mount motion sensor  
GLA-US-ONEWAY-COM1-24: Ultrasonic 35ft corridor motion sensor  
GLA-US-HALLWAY-COM1-24: Ultrasonic 65ft corridor motion sensor  
GLA-IS-360: High bay motion sensor  
GLA-HBS-300: Exterior motion sensor  
GLA-LCL: Closed Loop Motion sensor  
GLPP-SWCN: 1-zone switching room controller  
GLPP-DIMFLVCN-PM: 1-zone 0-10v dimming room controller  
GLA-KEYSW-MAINTAIN: Keyed switch  
GLPP-KP: GLPP Keypad

For technical specifications on all other products in this system, please visit [www.crestronlighting.com](http://www.crestronlighting.com)

For more information or to access digital specification forms for all Crestron SpaceBuilder systems,  
visit [www.crestronspacebuilder.com](http://www.crestronspacebuilder.com) or call 855-644-7643

### Notes:

GLPP \_\_\_\_\_ - \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_ KP- \_\_\_\_\_  
- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_\_ Project: \_\_\_\_\_

Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_

Space Number(s): \_\_\_\_\_

Victory Bldg Level 3							
area	room #	location	fixture tag	dimming	devices	controller	notes
Public	329	elevator	D	0-10		GLPAC, 12 relays normal power, 4 relays emergency power	
	328	corridor	D	0-10			
	332	corridor	D	0-10			
	333	corridor	C	0-10			
	324	lobby	H	0-10			
	326	corridor	D	0-10			
	325	wc	D1	0-10	2 occ		
	327	wc	D1	0-10	2 occ		
offices	313A	open	A	DALI	1 keypad, 2 occ	GLDALI	please specify keypad type see cut sheets for options
	313B	goods and services procurement	A	DALI	2 occ		
	301B	goods and services	A	DALI	2 occ		
	301B	copprorate services	A	DALI	2 occ		
	322	huddle	A	DALI	1 occ		
	310	staff	A	DALI	1 occ		
	309	huddle	A	DALI	1 occ		
	305B	audit	A	DALI	1 keypad, 2 occ		
	303	human resources	A	DALI	1 occ		
	321	lockers	A	DALI	2 occ		
	319	printer stn	D		1 switch	GLPP 3 relays	please specify switch type see cut sheets for options
	315	huddle	D		1 switch		
	31	huddle	D		1 switch		
	307	small meeting room perimeter	G	0-10	3 dimmers	GLPP 3 relays	please specify dimmer type see cut sheets for options
		small meeting TV wall	G	0-10			
		small meeting room troffers	D	0-10			
	308	enclave	F	ELV	1 keypad	GLPAC, 4 relays normal power, 4 relays emergency power, 1 ELV extender (for Type F)	please specify keypad type see cut sheets for options
	321,313,303	centre pathway	C	0-10			
	311	shared equip	D	0-10	2 occ		
	310	staff under cabinet	L				
	323	medium meeting room linear	A*	0-10	3 dimmers	GLPP 3 relays	please revise TYPE A in this room only, 0-10V, not DALI
		medium meeting room perimeter	G	0-10			
		medium meeting room TV wall	G	0-10			

Victory Bldg Level 5								
	area	room #	location	fixture tag	dimming	devices	controller	notes
		514	translation	D	0-10	1 occ	GLPAC, 12 normal power, 4 emergency power	
		513	corridor	D	0-10			
		506, 507	huddle	K	0-10			2 rooms, shared relay
		545	shared equipment	D	0-10			
		531	pathway lights	B	0-10			
		535, 540, 531, 502	all remaining corridor pathway lights	C	0-10			shared relay
		543	collaboration room	B	0-10	dimmer		please specify dimmer type see cut sheets for options
		541	collaboration room	E	0-10	dimmer		please specify dimmer type see cut sheets for options
		504	collaboration room	C	0-10	3 occ		
				J	0-10			
		503	kitchen	K	0-10	1 occ		
		538	wc	D1		1 occ	GLPP 3 relays	
		537	huddle	D		1 switch		
		500	medium meeting room perimeter	G	0-10	3 dimmers	GLPP 3 relays	please specify dimmer type see cut sheets for options
			medium meeting room TV wall	G	0-10			
			medium meeintg room linear	A	0-10			Please revise this TYPE A to 0-10 instead of DALI
		505	medium meeting room perimeter	G	0-10	3 dimmers	GLPP 3 relays	please specify dimmer type see cut sheets for options
			medium meeting room TV wall	G	0-10			
			medium meeintg room linear	A	0-10			Please revise this TYPE A to 0-10 instead of DALI
		at grid line X1 (no room #)	small meeting room	D		1 switch	GLPP 3 relays	
		500-1	huddle	D		1 switch		
		534	huddle	D		1 switch		
		532	large meeting room linear LEFT	A	0-10	2 touch screens, 1 partition sensor	GLPAC, 12 relays normal power	Please revise this TYPE A to 0-10 instead of DALI
			large meeting room linear RIGHT	A	0-10			Please revise this TYPE A to 0-10 instead of DALI
			large meeting room downlights LEFT	G	0-10			
			large meeting room downlights LEFT	G	0-10			
			large meeting room downlights RIGHT	G	0-10			
			large meeting room downlights RIGHT	G	0-10			
		546	huddle	D		1 switch	GLPP 3 relays	
		547	huddle	D		1 switch		
		510	locker	D		1 occ	GLPP 3 relays	
		509	huddle	D		1 switch		
		512	locker	D		1 switch		
		511	wc	D1		2 occ	GLPP 3 relays	
				C				
		548	closet	x		1 switch		
		516	huddle	D		1 occ	GLPP 3 relays	
		517	huddle	D		1 occ		
		518	shared equipment	D		1 switch	GLPP 3 relays	
		519	small meeting room	D		1 switch		
		521	huddle	D		1 switch	GLPP 3 relays	
		522	huddle	D		1 switch		
		523	huddle	D		1 switch	GLPP 3 relays	
		524	huddle	D		1 switch		
		527	enclave	F		1 keypad	GLDALI with ELV extender (for Type F)	
		all remaining	all remaining linear	A	DALI	2 touch screens, 20 occ sensors		