

## Installation Instructions

Lighting Control System Enclosure -  
SYES, SYEM and SYEL 120/277



**READ AND FOLLOW ALL SAFETY INSTRUCTIONS!  
SAVE THESE INSTRUCTIONS AND DELIVER TO OWNER AFTER INSTALLATION**

### IMPORTANT SAFETY INSTRUCTIONS

#### **⚠ WARNING**

**To reduce the risk of death, injury or property damage from fire, electric shock, cuts, abrasions, falling parts, and other hazards:**

- Service of the equipment must be performed by qualified service personnel.
- Installation and maintenance must be performed by a person familiar with the construction and operation of this product and any hazards involved. All applicable codes and ordinances must be followed.
- Read this document before installing, servicing, or maintaining this equipment. These instructions do not cover all installation, service, and maintenance situations. If your situation is not covered, or if you do not understand these instructions or additional information is required, contact *Synergy Lighting Controls*.

#### **⚠ WARNING**

**Before installing, servicing, or maintaining this equipment, follow these general precautions.**

**To reduce the risk of electrocution:**

- Make sure the equipment is properly grounded.
- Always de-energize any equipment before connecting to, disconnecting from, or servicing the equipment.

**To reduce the risk of fire:**

- Use supply conductors with a minimum installation temperature rating as specified.

**To reduce the risk of personal injury from cuts, abrasions:**

- Wear gloves to prevent cuts or abrasions from sharp edges when removing from carton, handling and maintaining this equipment.
- Do not install a damaged equipment.

*Synergy Lighting Controls*, a division of *Acuity Brands Inc.*, assumes no responsibility for claims arising out of improper or careless installation or handling of this product.

**SAVE THESE INSTRUCTIONS**

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## Lighting Control System Enclosure - SYES, SYEM and SYEL 120/277



### Overview

The Synergy System is a universal lighting control panel that allows control of switched lighting circuits and dimmed lighting circuits including most incandescent and electronic dimmable ballasts. The Synergy System consists of three main elements.

1. **Controller** - The controller provides for programming and automated operation of the system. This can be stand alone or networked with the other Synergy cabinets or other building systems. Refer to Synergy Operation Manual for program instructions.
2. **Power Modules** - The power modules control the system outputs or lighting loads as required. Input and output wiring requirements vary with the particular power module supplied. Refer to power module instructions for additional details.
3. **Enclosures** - The enclosures provide for rough-in wiring and house the controller and a quantity of power modules. Enclosures house up to the following quantity of power modules:

SYES -	2 Power Modules
SYEM -	4 Power Modules
SYEL -	6 Power Modules

Before you begin you should obtain information about the scope and type of lighting loads that will be controlled. This information is available from Lithonia supplied "As Built" drawings or from project specifications and standard installation instructions. Contact Lithonia Controls Technical Services at 800-533-2719 for additional information.

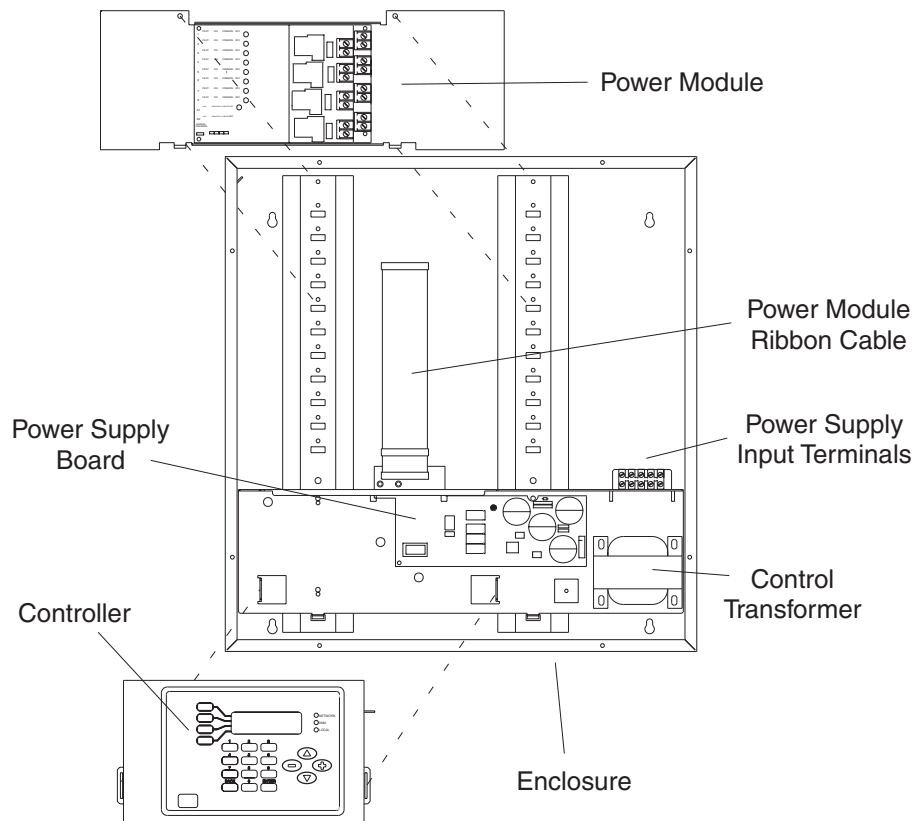


Figure 1 - Cabinet Details

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### Before You Start

1. Always disconnect all power.
2. Install in accordance with the National Electrical Code and any other codes which may apply.
3. Do not install conduit where "No Conduit Entry" is noted in figure 3.
3. Use only as intended.
4. Use only accessories recommended by Lithonia Control Systems.
5. Use only at voltage listed on product and component labels.

### Cabinet Rough In

#### IMPORTANT CABINET MOUNTING AND LOCATION NOTES

1. Ambient Conditions:  
Maximum Ambient Temperature: 104°F/40°C  
Minimum Ambient Temperature: 32°F/0°C  
Relative Humidity: 10-90% Non condensing.
2. Cabinet will make noise during normal operation. Mount in an area where noise will not be objectionable.
3. Cabinet produces heat while operating equivalent to 3.5% of connected dimmer load and 3 watts per relay.
4. Cabinet Physical Specifications — See Figure 2.  
SYES 55lbs(25Kg), SYEM 70lbs (32Kg), SYEL 80lbs (40Kg) Modules add additional weight.
5. Cabinet may be recess mounted if desired. Order accessory SYA SRE for small enclosures, SYA MRE for medium enclosures, or SYA LRE for large enclosures.

### Important Wiring Notes

1. Use conductors with 90°C insulation rating.

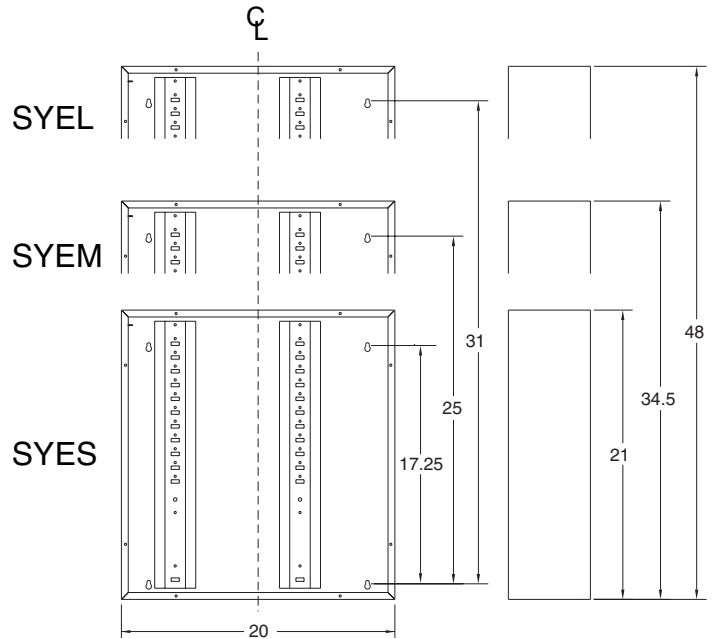


Figure 2 - Cabinet Dimensions (inches)

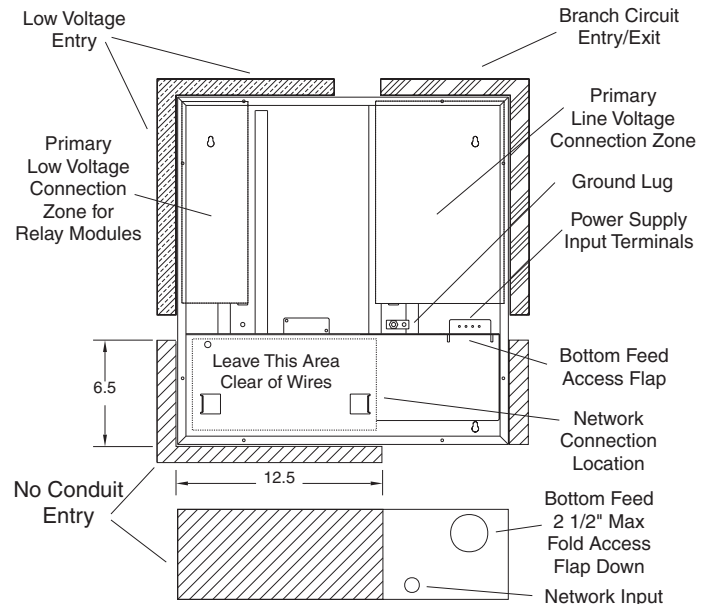


Figure 3 - Recommended Conduit Entry Locations

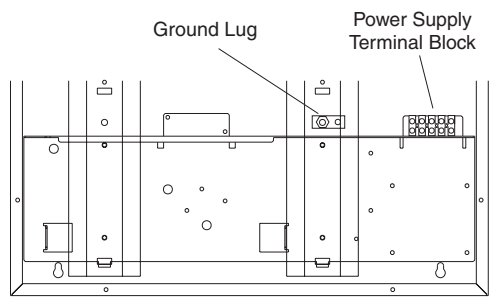
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### Rough In Instructions

1. **Remove Cover** — Remove screws located on the edge of the front panel. Remove cover and set aside.
2. **Mount Cabinet** — Mount the cabinet to structural members as required using the four holes that have been provided in the back of the cabinet. Refer to *Figure 2* for dimensions.
3. **Choose Conduit Entry Locations** — Choose desired location of main or branch circuit entry and exit from the cabinet. Choose desired entry points for low voltage inputs, and network wiring. See *Figure 3*. Bottom access is allowed only where shown in *Figure 3*. Top access is strongly recommended.
4. **Remove Excess Contaminants** — Remove excess metal shavings and excess contaminants from the cabinet prior to installation of controller and power modules.



### Connect Power Supply Input

1. Connect a dedicated 15 or 20 amp branch circuit breaker to the power supply input. See *Figure 4*. This input can be 120, 230 or 277 VAC (50 or 60 Hertz) as labeled on the cabinet. The power supply input requires a maximum of 300VA in a fully loaded and configured system. Connect a suitably sized ground conductor to the ground lug. See *Figure 4*.
2. The power supply input should remain un-powered until the power modules are installed and terminated. The controller "on/off" switch should remain in the "off" position until the controller is installed. See *Figure 5*.

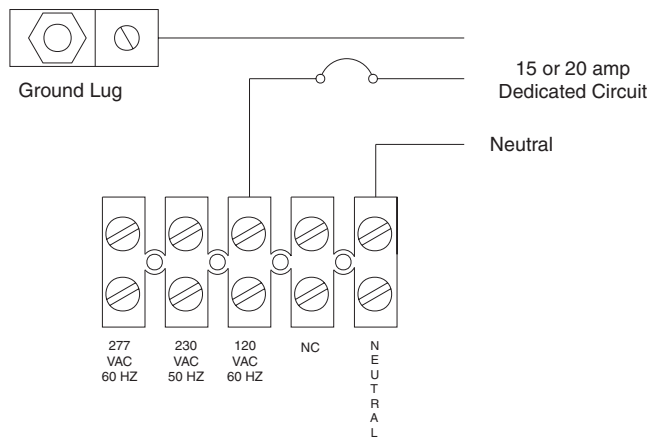


Figure 4- Power Supply Input Wiring

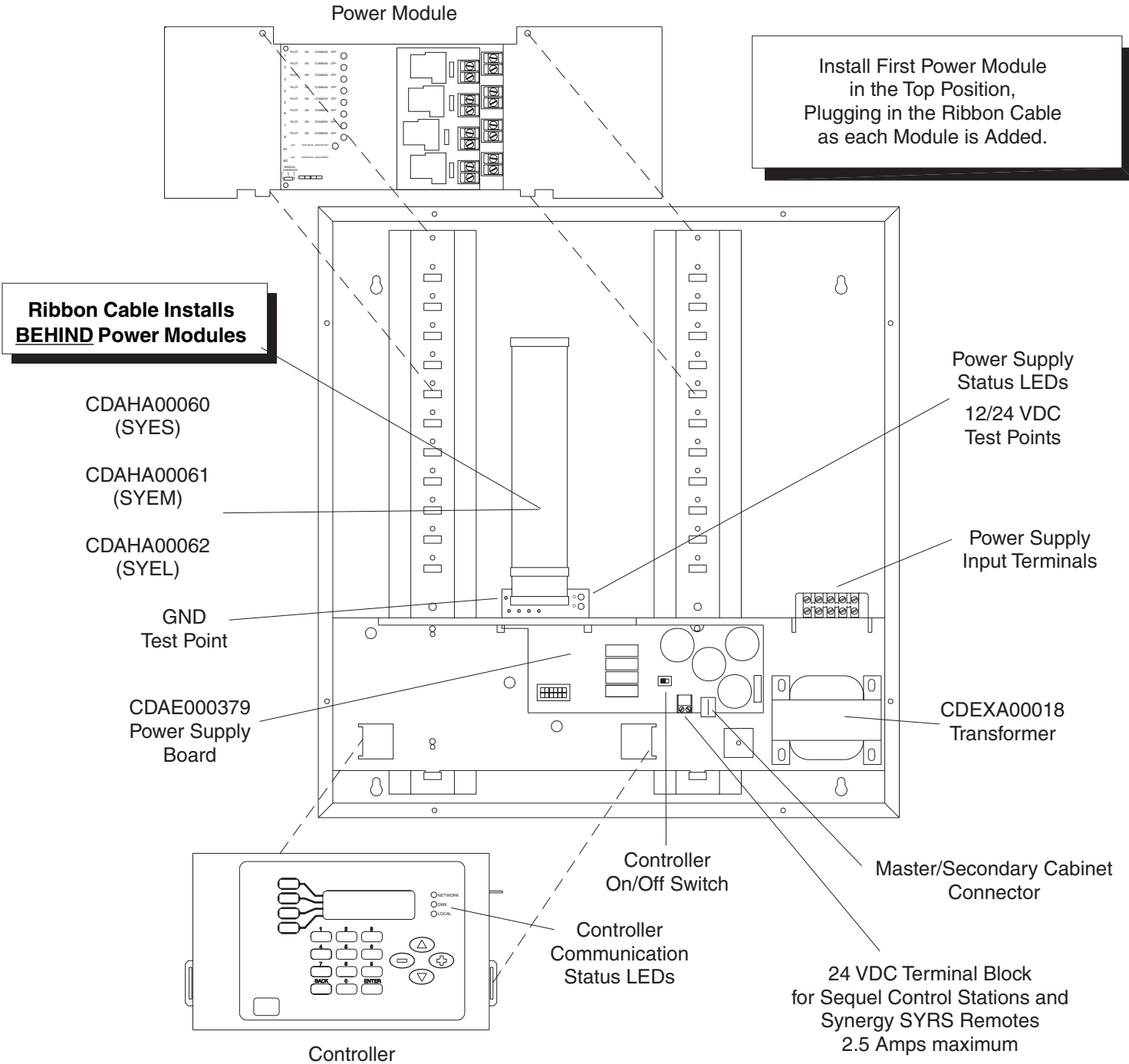
Visit Synergy Lighting Controls on the internet at <http://www.synergylightingcontrols.com> for further information on products, technical data or installation instructions.

### Warranty

Synergy Lighting Controls warrants all equipment to be free from defect in manufacturing under normal and proper storage, installation, and operation for a period of one (1) year. Our guarantee liability extends only to the repair or replacement of the defective part and no labor charges for correction of the defect by repair or replacement will be honored by Synergy Lighting Controls unless prior written authorization has been granted by our Customer Service Department.

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**Figure 5 - Part Number and Voltage Test Point Reference Information**