

Configuration Instructions

Lighting Control System Controller - SYSC MLX IP

**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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Overview

The Synergy System is a universal lighting control panel which 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. Operation can be stand alone or networked with other Synergy cabinets or building systems. Refer to the Synergy Operation Manual for programming instructions.
2. **Power Modules** - Synergy 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

SYESB - 1 Relay/Dimmer Module with Breakers

SYESMB - 3 Relay/Dimmer Modules with Breakers

SYESLB - 5 Relay/Dimmer Modules with Breakers

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

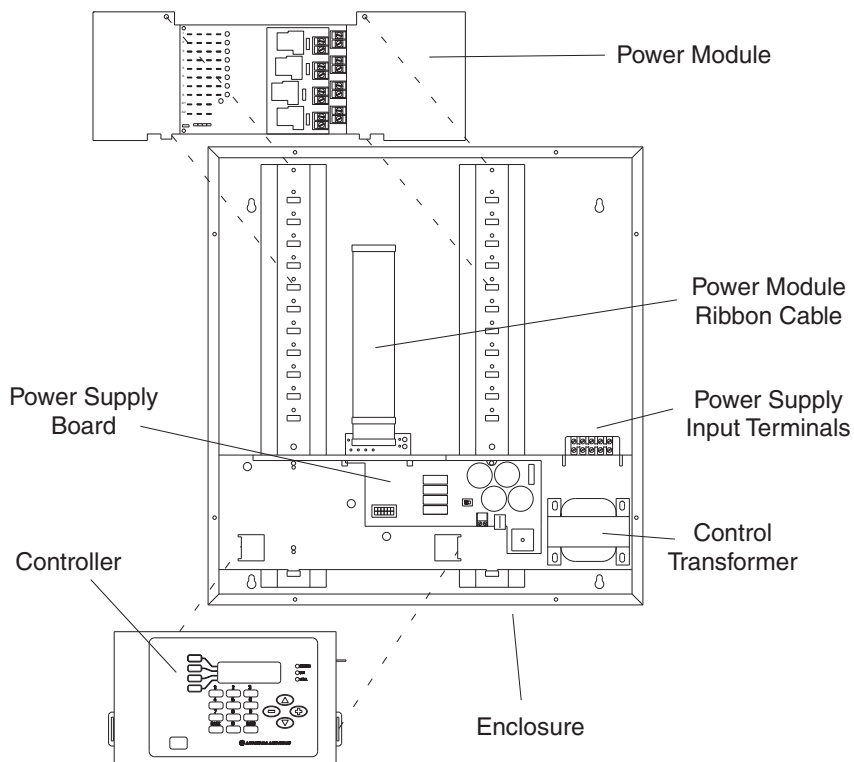


Figure 1 - Cabinet Details

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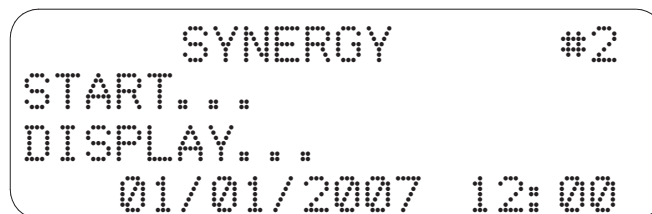
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Before You Start

1. Controller switch should be in the off position. See figure 2.
2. Install in accordance with the National Electrical Code and any other codes which may apply.
3. Do not remove the controller with the controller on/off switch in the "on" position.
4. Use only accessories recommended by Synergy Lighting Controls.
5. Use only at the voltage listed on product and component labels.

Controller Installation

1. Ambient Conditions:
Maximum Ambient Temperature: 104°F/40° C
Minimum Ambient Temperature: 32°F/0°C
Relative Humidity: 10-90% Non condensing.
2. Slide controller into the enclosure using the bayonets on the power supply mounting brackets as guides. Stop when the controller has made electrical contact (keypad lights up) and tighten the two mounting screws on top of the power supply brackets to hold the controller firmly in place.
3. Make sure all power modules have been addressed properly, and no duplicate addresses are present. Correct as required.
4. Turn controller on/off switch to the "on" position. In about one minute the keypad will display the "top level" Synergy screen pictured below, with correct date and time.



5. If this screen does not appear, go to troubleshooting guide on back of these instructions. If it does appear, press the "START" softkey, "OVERRIDING", then "GROUP", then "LEVEL", then use +/- keys and "ENTER" to turn relays or dimmers on and off. If you are unable to control relays, refer to troubleshooting guide at the back of these instructions.
6. Each controller connected to a network must have a unique network number. Each controller ships from the factory at address 2. You must set the address of the controller to a unique number as part of the programming process. Refer to the Synergy Operation Manual for instructions on setting the network address.
7. The Synergy Operation Manual contains programming information and in conjunction with your factory supplied or field created "As-Built" drawings will enable you to completely configure your Synergy System. For additional information or assistance contact Synergy Lighting Controls Technical Service at 800-533-2719.

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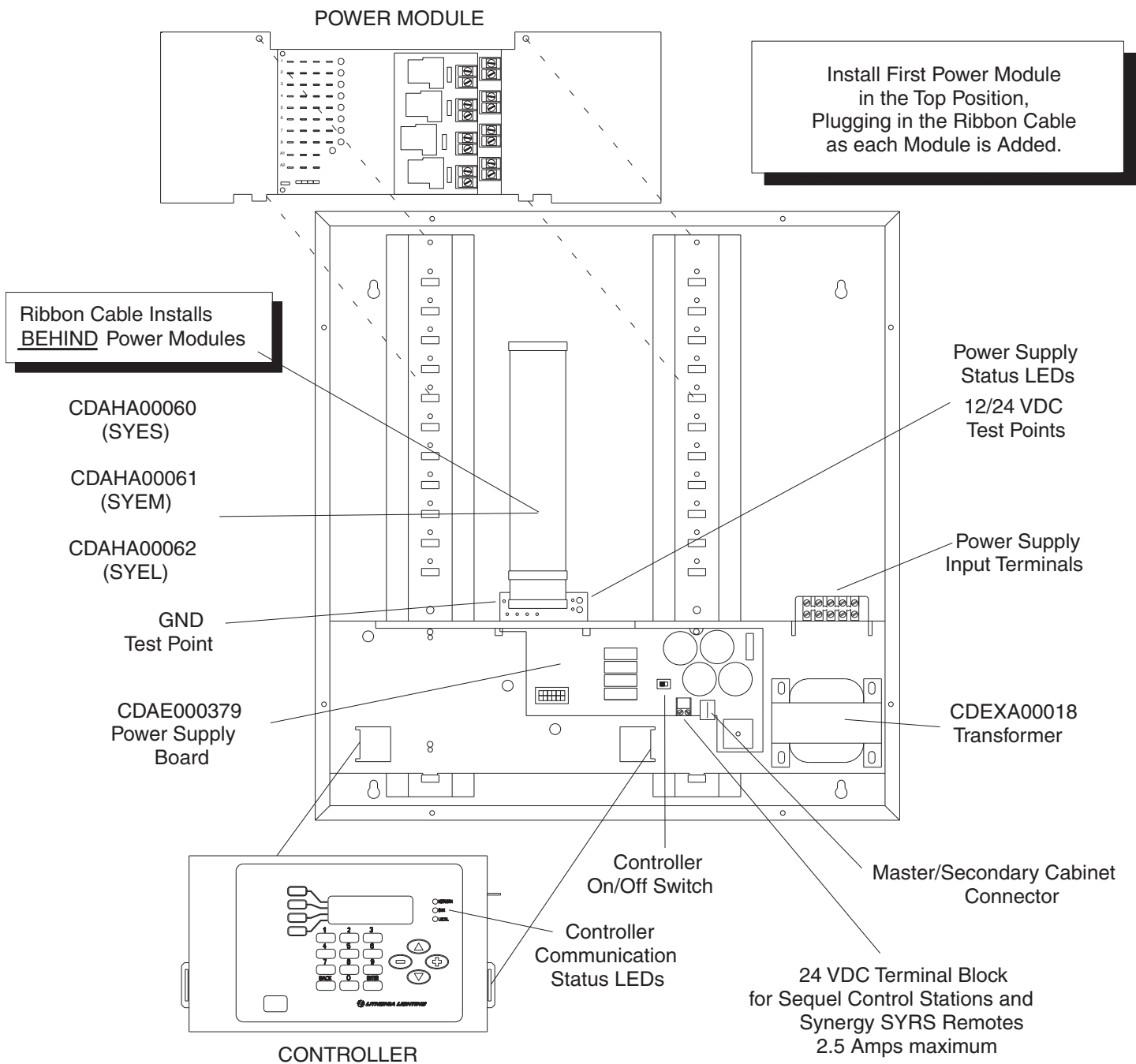


Figure 2 - Part Number and Voltage Test Point Reference Information

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Troubleshooting

SYMPTOM: SYNERGY TOP LEVEL SCREEN DOES NOT APPEAR.

Check the following:

1. Verify controller on/off switch is in the "on" position.
2. Verify both Amber and Green power supply status LEDs adjacent to the ribbon cable connector are lit.
3. If the LEDs are not lit, verify proper voltage is present on the power supply input terminal block. If voltage is present on the input terminals, check transformer output. Transformer red wire to red wire should be 12 VAC nominal and blue wire to blue wire should be 24 VAC nominal. Contact Synergy Lighting Controls Technical Service for additional information.
4. If both power supply LEDs are lit, verify controller is firmly seated against power supply connector. Cycle input power for 10 seconds. If both switch and connector are properly set, and you have waited for more than one minute without seeing the "top level" screen, contact Synergy Lighting Controls Technical Service for additional information.

SYMPTOM: SYNERGY "TOP LEVEL" SCREEN IS NOT IN ENGLISH (SPANISH) (FRENCH)

Press the BACK key, choose the appropriate language, then begin programming.

SYMPTOM: CONTROLLER IS NOT ABLE TO TURN RELAYS ON OR OFF

Check the following:

1. Ribbon cable is connected to power supply and all modules.
2. Manual Override switch is in the "AUTO" position on ALL modules.
3. Each relay card MUST be set to a unique address, starting with "1" at the top card of the cabinet.

Cycle enclosure power supply circuit off for 10 seconds, then back on. Note any changes in system performance. Contact Synergy Lighting Controls Technical Service for additional information.

Warranty

Contact Synergy Lighting Controls Technical Service at 800-533-2719. Synergy Lighting Controls Technical Service is available Mon - Fri from 8:00 a.m. to 5:00 p.m. EST for phone consultation.

Synergy Lighting Controls warrants all equipment to be free from defects in manufacturing, under normal and proper storage, installation, and use, 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 authority has been granted by our Customer Service Department.

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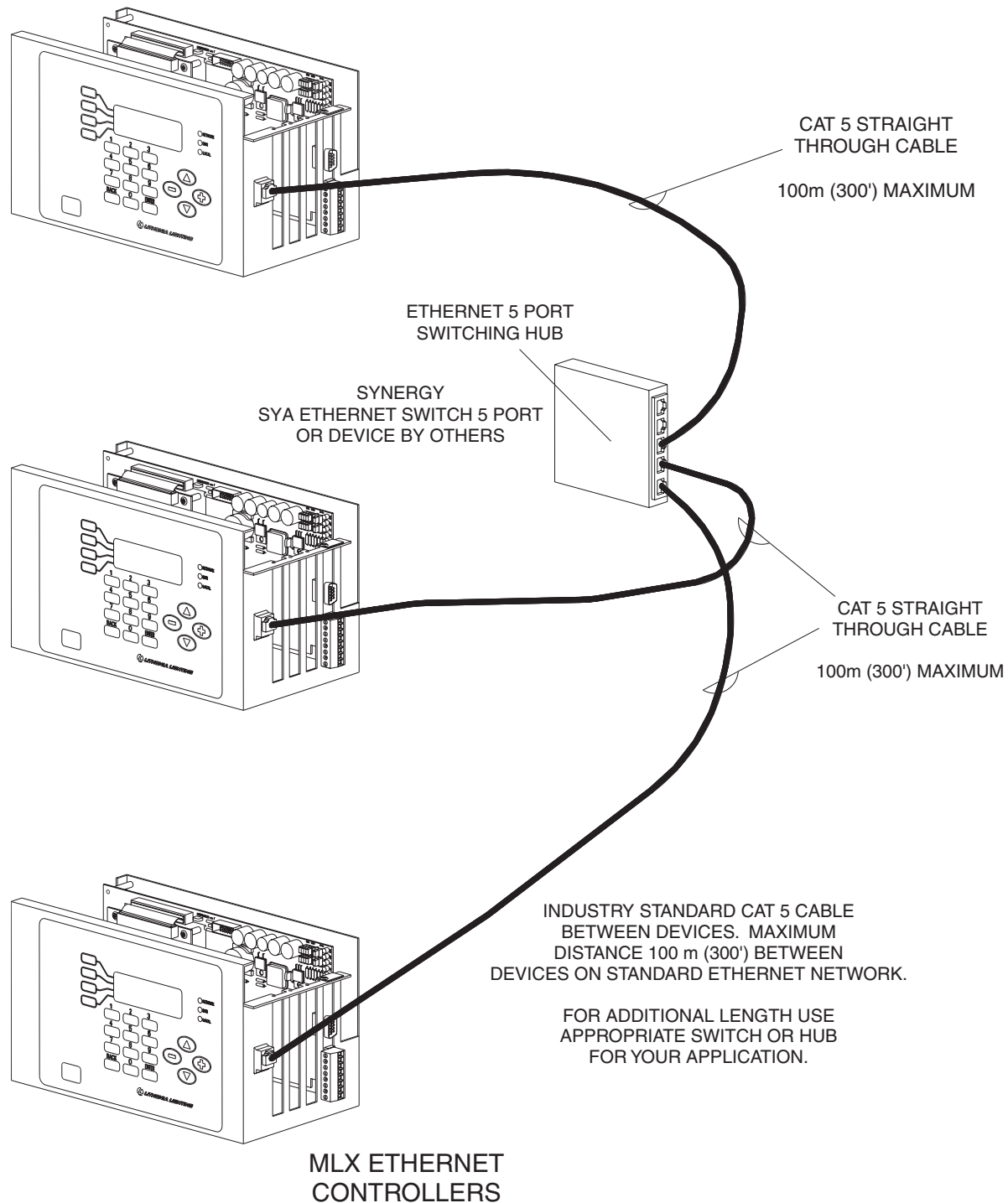


Figure 3 - Ethernet Network Wiring Terminations

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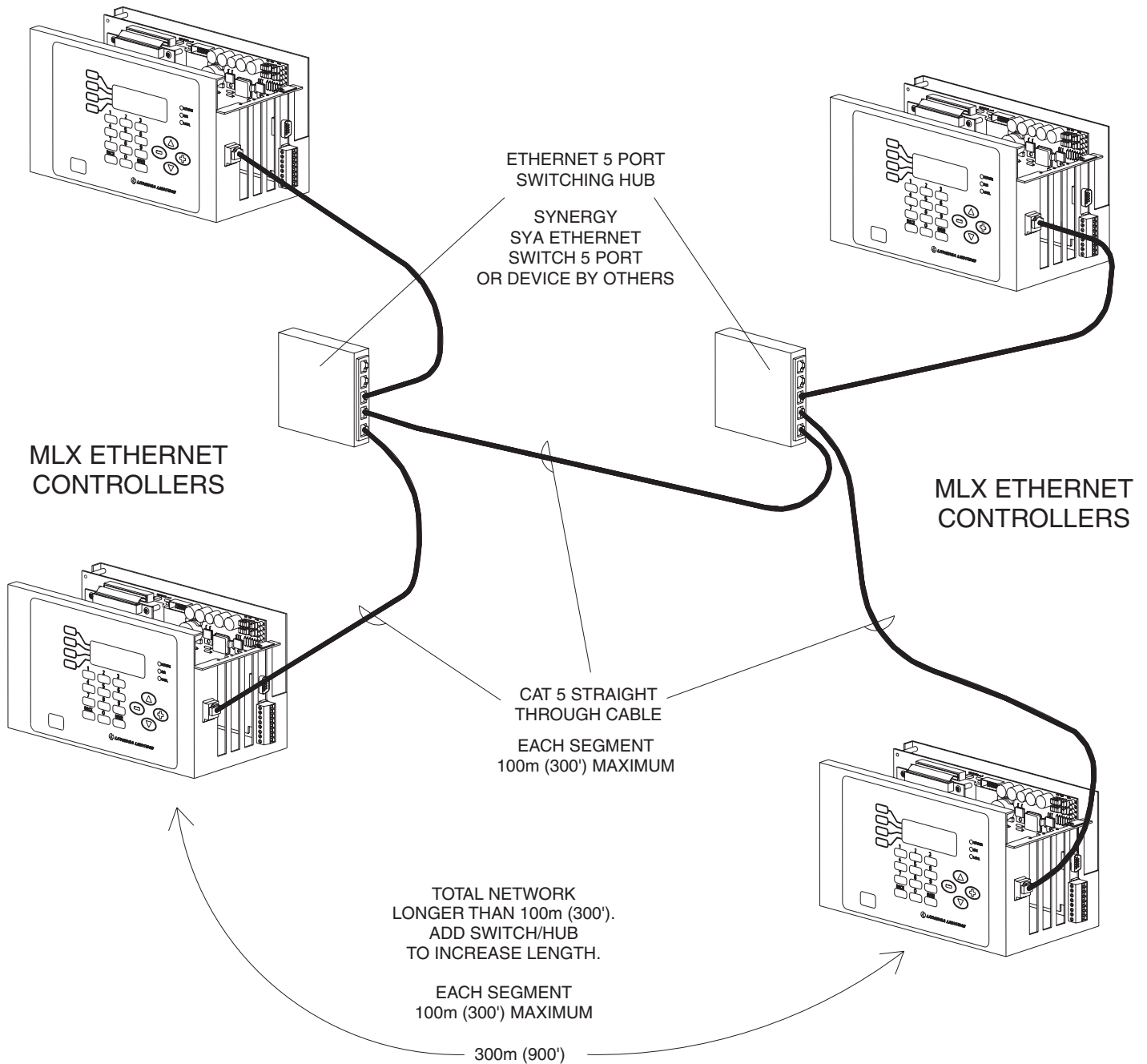
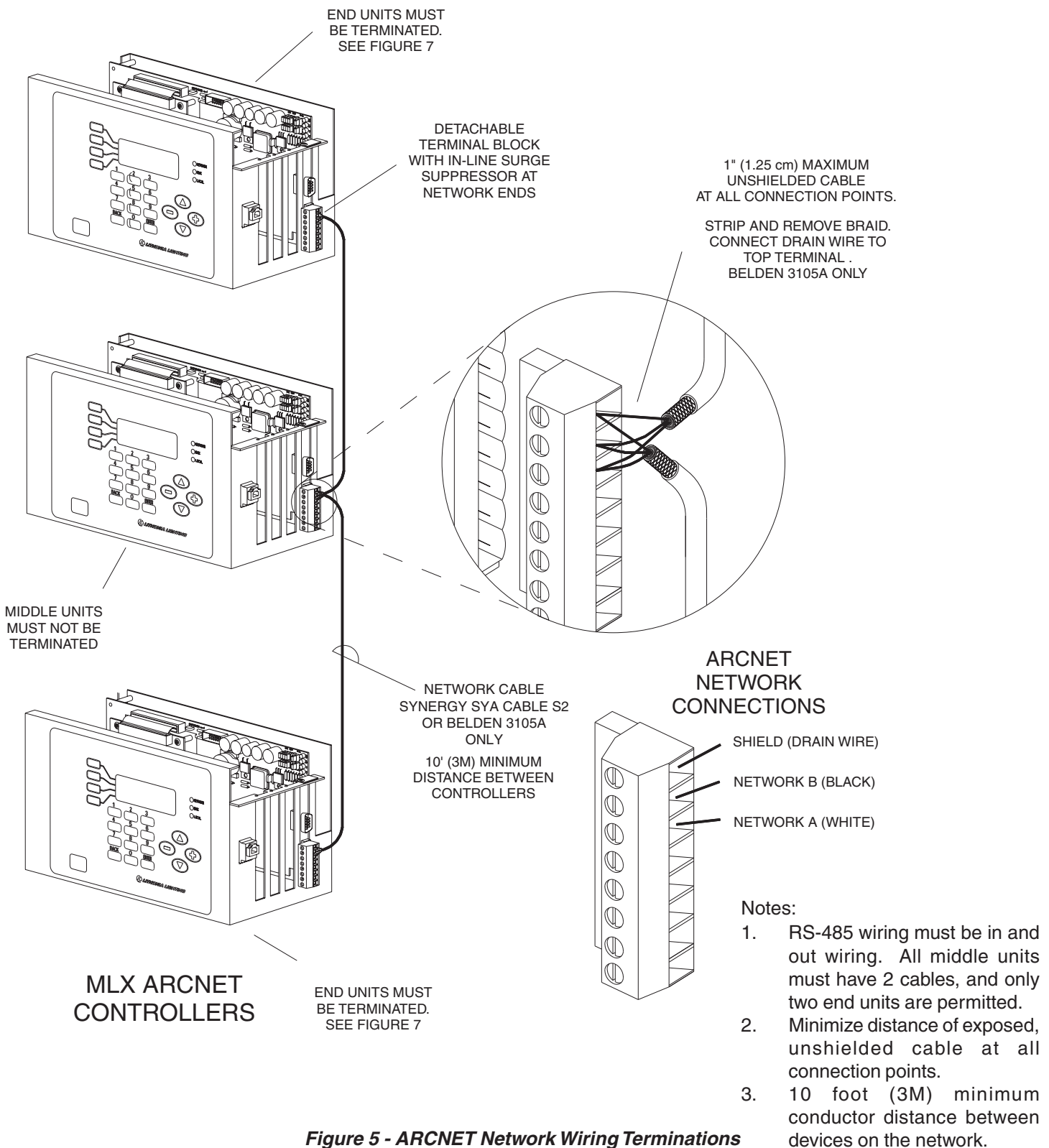


Figure 4 - Ethernet Network Wiring Terminations - Network Length Over 100m (300')

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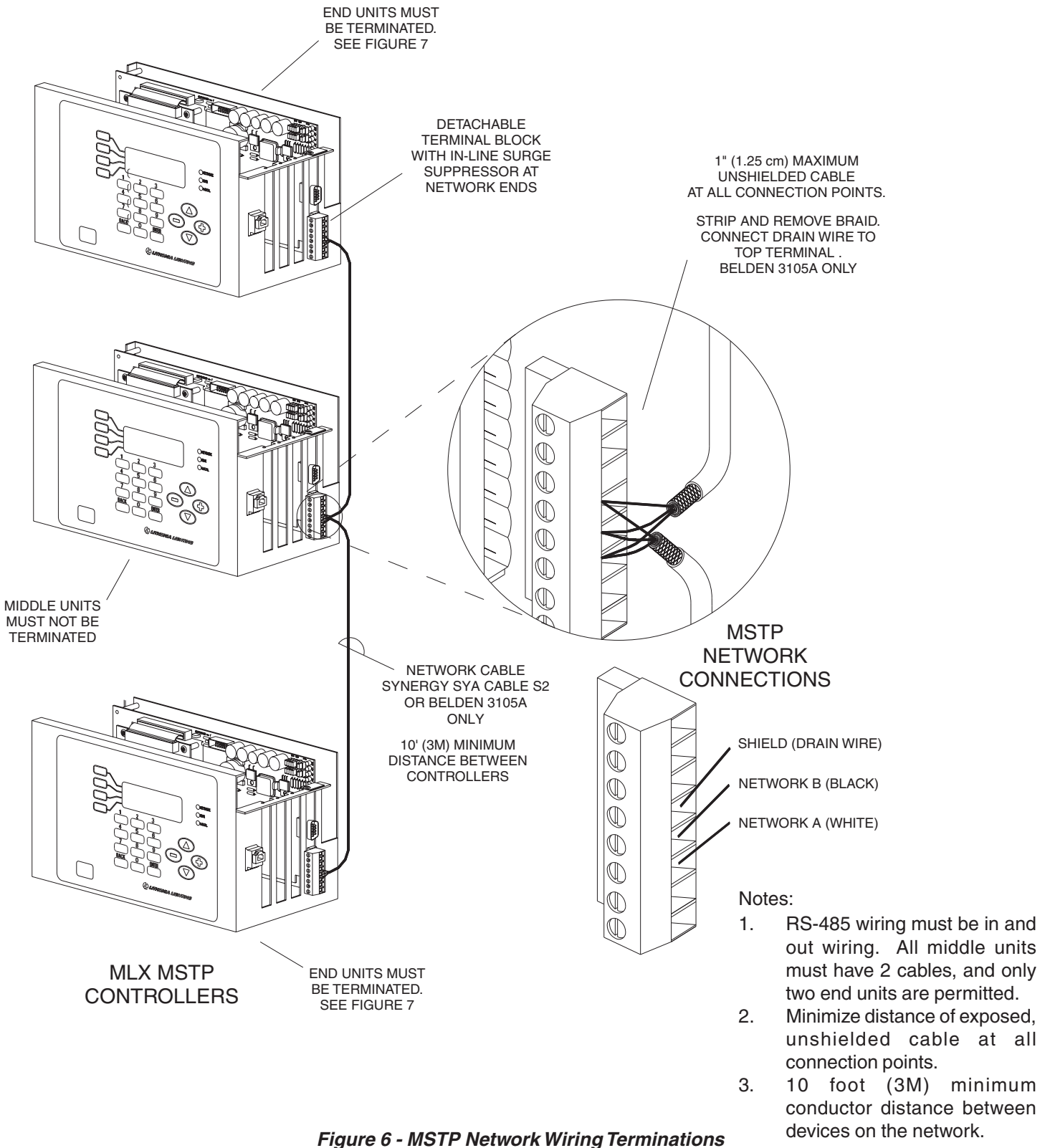


Figure 6 - MSTP Network Wiring Terminations

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MODEM cable plugs into connector on controller card.
See figure 7 for details

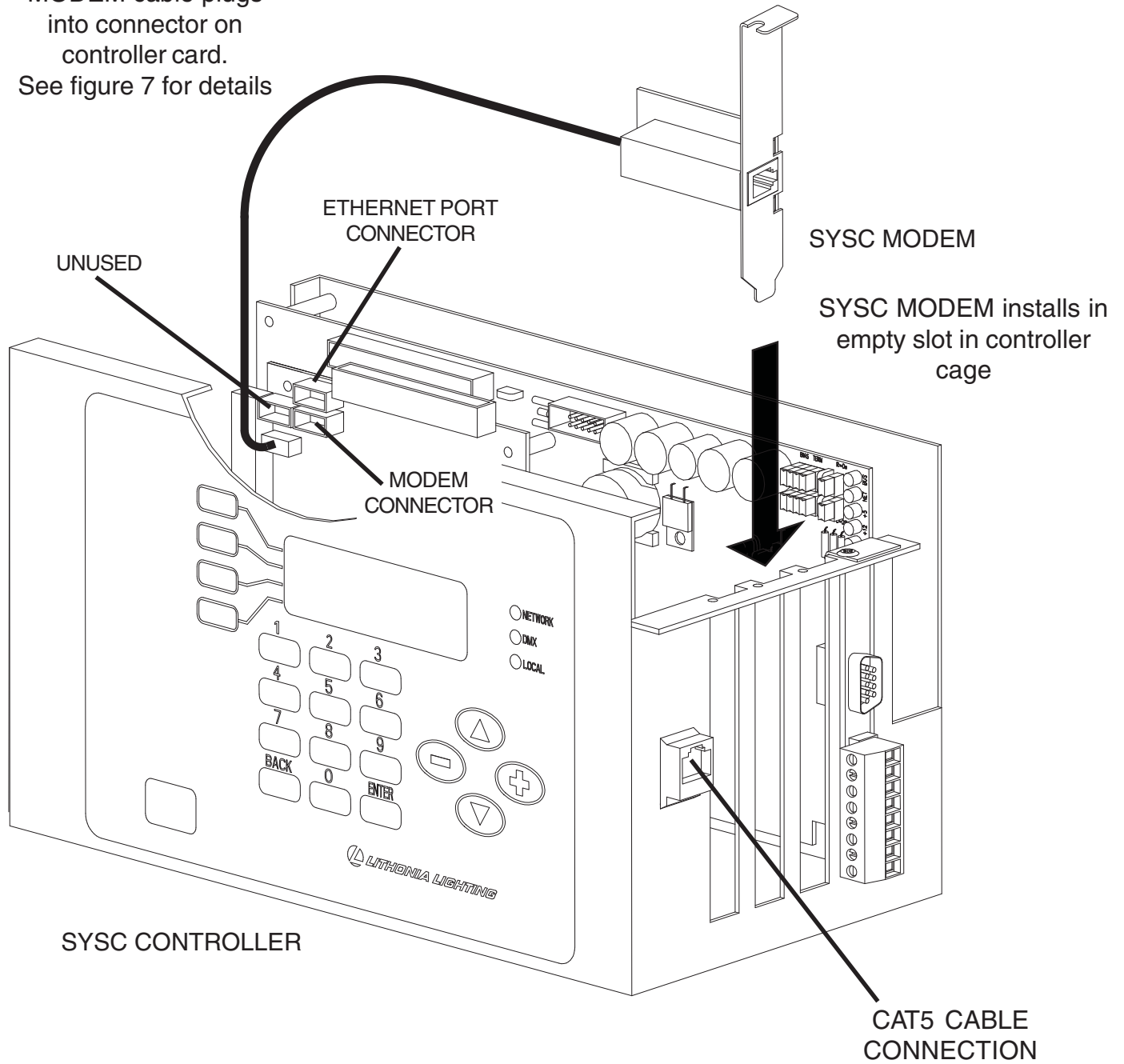


Figure 8 - SYSC MODEM installation