Secondary Address Selector Accessory for use with Powerlink[™] Systems

Retain for future use.

Introduction

This bulletin explains how to install and set up the secondary address selector (part number NFSELG3), which is used to indicate the address of secondary panelboards in a Powerlink subnetwork.

How Addressing Works

The Powerlink subnetwork may contain one primary panelboard and up to seven secondary panelboards. The primary panelboards contain the controller and power supply. The secondary panelboards receive control signals and control power through the subnet connection to the primary panelboard. A simple Powerlink system is illustrated in Figure 1.

NOTE: A single controller can support up to eight control busses if each bus has an individual address (one bus per panel) or sixteen busses if each panel has two busses.. In the scenario, the primary panelboard would not have a control bus and each secondary panelboard would have a single control bus.

NOTE: The secondary address selector is required only on panelboards that do not have a power supply and controller.



Figure 1 - Typical Powerlink System Subnetwork

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If a control bus is connected to either the controller or power supply, the primary panelboard on the subnetwork is automatically assigned address 0 (zero). Each secondary panelboard on the subnetwork must have a unique address. The secondary address selector installed in each secondary panelboard is used to assign an address (0–7) to the secondary panelboard.

NOTE: Do not use address 0 unless the controller and power supply are mounted in a panelboard without control busses.

Setting the Address

Each secondary address selector accessory must have a unique address. To assign addresses to secondary panels, follow these steps:

1. Locate the address setting dial on the secondary address selector (see Figure 2).

Figure 2 - Rotary Dial on Secondary Address Selector Accessory



- 2. Use a screwdriver with a 1/8 in. flat head to turn the dial so the arrow on the dial points to the desired address.
- 3. Continue setting any additional secondary panelboards in this same manner, making sure each panelboard has a unique address.

NOTE: If two or more secondary panels share the same address, they will not operate as intended.

Installing the Secondary Address Selector

Follow these instructions to install the secondary address selector onto a secondary panel. The installation is illustrated in Secondary Address Selector Installation, page 3.

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E, NOM-029-STPS or CSA Z462 or local equivalent.
- Electrical equipment must be installed, operated, serviced, and maintained only by qualified personnel.
- Turn off all power supplying the secondary panel and the equipment in which it is installed before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors, and covers before turning on power to this equipment.
- Before energizing panelboard, all unused spaces must be filled with blank fillers.

Failure to follow these instructions will result in death or serious injury.

Figure 3 - Secondary Address Selector Installation



Preparing the Subnetwork Cabling

- 1. Turn of all power to the panelboard.
- 2. Remove the panelboard cover and deadfront, then confirm that all power is off using a properly rated voltage sensing device.

NOTE: The subnet must not extend farther than 400 feet (122 m) from the primary panel, unless a powered secondary panel is used.

3. Using the four-wire 18 AWG subnet cable (General Cable 236100, Belden 27326, or equivalent), insert one of the four colored wires into terminal B of a subnet connector plug (see Subnet Connector Wire Installation, page 4).

NOTE: Schneider Electric subnet cables NFSN06 (six-foot [1.8 m]), NFSN25 (twenty-five foot [7.6 m]), or NFSN50 (fifty-foot [15.2 m]).

 If connecting to another secondary panelboard, insert the same colored wire from the next four-wire 18 AWG subnet cable into terminal B (see Subnet Connector Wire Installation, page 4).

NOTE: If there are multiple secondary panels, it is important to use the same wire color sequence for each additional subnet connector. For example, if blue wire is inserted into terminal B for the first subnet connector, blue wire must be used for terminal B on all additional subnet connectors. Otherwise, the secondary panels and primary panel will not communicate.

- 5. Once the wires are in place, secure them in the terminal by torquing the screw to 5 lb-in. (0.6 N•m).
- 6. Using the same process above, secure the wires into the remaining terminals A, –, and + (see Subnet Connector Wire Installation, page 4).



Figure 4 - Subnet Connector Wire Installation

7. Repeat this process as needed for all secondary address selectors.

Connecting to the Subnetwork

Follow the instructions below to connect the subnetwork cabling to the secondary address selector.

1. Push the first subnet connector plug into the mating connection on the first secondary address selector (see Figure 5).

Figure 5 - Secondary Address Selector with the Subnet Connector Plug



2. Facing the first secondary panelboard, connect the secondary address selector to the left control bus's vertical bus connectors (see Figure 6).

NOTE: If using a column-width panelboard, connect the secondary address selector to the top control bus.

Figure 6 - Secondary Address Selector on the Left Control Bus



 If a left control bus is present, a secondary bus interconnect cable NF2HG3 is used to connect the right control bus to the left control bus. Push one of the connectors from the cable into the secondary bus interconnect cable connection on the secondary address selector (see Plugging in the Secondary Bus Interconnect Cable, page 5).

NOTE: If using a column-width panelboard, use the secondary bus interconnect cable NFCWG3.

4. Push the other end of the secondary bus interconnect cable into the secondary bus interconnect cable connection on the right control bus (see Figure 7).

NOTE: If using a column-width panelboard, connect the secondary bus interconnect cable to the bottom control bus.

Figure 7 - Plugging in the Secondary Bus Interconnect Cable



5. Affix the secondary panel label to the door of the secondary panelboard. Using a pen or permanent marker, fill out the information on the label using Secondary Panel Label (see Figure 8) as an example.

Figure 8 - Secondary Panel Label

| SECONDARY PANEL | |
|--|----------------|
| System Name: Panel Name: | Lavergne H2 |
| Subnet Address: | / |
| Master Panel Name: Master Panel Location: | H1 Training |
| POWERLINK [™] System | |

- 6. For each secondary panelboard, repeat steps 2 through 5 as needed.
- 7. Fill out the primary panel label on the primary panelboard. This label contains a list of the primary panelboard's secondary panelboards (see Figure 9).

Figure 9 - Primary Panel Label

| SECONDARY PANEL | |
|--------------------|---------------------|
| Location: | |
| Panel Designation: | |
| Address Number: | |
| PRIM | MARY PANEL |
| System Name: | |
| Network Address: | |
| Location: | |
| Panel Designation: | |
| SQU | ARED ™ 1778-2733 |

8. Proceed with the installation of any other Powerlink components according to the installation instruction sheets provided with the component. If no other components are to be installed at this time, or the installation is complete, replace the panelboard deadfront and cover before turning on the power.