

Introduction

This publication describes the installation procedures for the optional Network Display Units (NDUs).

This product is compatible with both the 4100U and the 4100ES Fire Alarm Control Panels (FACP).

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Cautions and Warnings

Cautions and Warnings



READ AND SAVE THESE INSTRUCTIONS- Follow the instructions in this installation manual. These instructions must be followed to avoid damage to this product and associated equipment. Product operation and reliability depend upon proper installation.



DO NOT INSTALL ANY SIMPLEX® PRODUCT THAT APPEARS DAMAGED- Upon unpacking your Simplex product, inspect the contents of the carton for shipping damage. If damage is apparent, immediately file a claim with the carrier and notify an authorized Simplex product supplier.

ELECTRICAL HAZARD - Disconnect electrical field power when making any internal adjustments or repairs. All repairs should be performed by a representative or authorized agent of your local Simplex product supplier.



STATIC HAZARD - Static electricity can damage components. Handle as follows:

- Ground yourself before opening or installing components.
- Prior to installation, keep components wrapped in anti-static material at all times.



EYE SAFETY HAZARD - Under certain fiber optic application conditions, the optical output of this device may exceed eye safety limits. Do not use magnification (such as a microscope or other focusing equipment) when viewing the output of this device.

FCC RULES AND REGULATIONS – PART 15 - This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

SYSTEM REACCEPTANCE TEST AFTER SOFTWARE CHANGES To ensure proper system operation, this product must be tested in accordance with NFPA 72® after any programming operation or change in site-specific software. Reacceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring.

All components, circuits, system operations, or software functions, known to be affected by a change, must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified.

NFPA 72® is a registered trademark of the National Fire Protection Association.

Introduction to the NDU

Overview

The 4100-series NDU is a configurable Fire Alarm System Panel that functions as a receiving unit for proprietary systems.

The NDU is a network annunciator and manual system/point controller for a Simplex Fire Alarm Network. It provides either alphanumeric or multi-line LCD annunciation for network points and/or point lists, and can be programmed to function as the network master controller for Alarm Silence, Trouble Acknowledge, and System Reset. Multi-line LCD annunciation is part of the Flexible User Interface option.

When connected to other 4100-series products as part of a 4100 network, fire alarm control panels become components of a distributed intelligent system. Each panel that directly connects to the network is called a network “node”, and is capable of performing individual supervision and control on its locally connected devices, and has the network ability to inform the NDU (as well as other network control panels) of point status and panel condition. This allows system information to reach the proper location for appropriate system response.

Multiple NDUs (separately packaged) can be connected to a 4100 network to duplicate common information at separate locations, or direct selected information by type such as troubles and alarms.

The NDU’s master controller assembly supports the operator’s panel, provides local and remote module communications and supervision, and controls the system memory and custom programming interface.

Table 1 lists the different types of NDUs.

Continued on next page.

Introduction to the NDU, *continued*

Table 1. NDU PIDs

Overview
(continued)

PID	Components
4100-9141 NDU (U.S.)	120 VAC, 60 Hz; includes display, CPU card, network interface card, system power supply with 50 Ah battery charger
4100-9151 NDU w/ Flexible User Interface (U.S.)	
4100-9245 NDU w/ Flexible User Interface (International)	
4100-9142 NDU w/ Voice (U.S.)	120 VAC, 60 Hz; includes display, 2 CPU cards, 2 network interface cards, 2 system power supplies with 50 Ah battery charger (occupies 2 bays)
4100-9152 NDU w/ Voice and Flexible User Interface (U.S.)	
4100-9246 NDU w/ Voice and Flexible User Interface (International)	
4100-9143 NDU (Canadian English)	120 VAC, 60 Hz; includes display, CPU card, network interface card, system power supply with 50 Ah battery charger and battery cutout circuit
4100-9153 NDU w/ Flexible User Interface (Canadian English)	
4100-9144 NDU (Canadian French)	
4100-9154 NDU w/ Flexible User Interface (Canadian French)	
4100-9145 NDU w/ Voice (Canadian English)	120 VAC, 60 Hz; includes display, 2 CPU cards, 2 network interface cards, 2 system power supplies with 50 Ah battery charger and battery cutout circuit (occupies 2 bays)
4100-9155 NDU w/ Voice & Flexible User Interface (Canadian English)	
4100-9146 NDU w/ Voice (Canadian French)	
4100-9156 NDU w/ Voice & Flexible User Interface (Canadian French)	
4100-9241 NDU (International)	220/240 VAC, 50/60 Hz; includes display, CPU card, network interface card, system power supply with 50 Ah battery charger
4100-9243 NDU w/ Flexible User Interface	
4100-9242 NDU w/ Voice (International)	220/240 VAC, 50/60 Hz; includes display, 2 CPU cards, 2 network interface cards, 2 system power supplies with 50 Ah battery charger (occupies 2 bays)
4100-9244 NDU w/ Voice & Flexible User Interface	

Specifications

- Temperature: 32° F to 120° F (0° C to 49° C)
- Humidity: 93% Non-condensing @ 90° F (32° C)
- Input Power Requirements: 4 A @ 120 VAC, 60 Hz
2 A @ 240 VAC, 50/60 Hz for each power supply

Compatible NDU Modules

List of Modules

Not all modules are compatible with the NDU. The following lists compatible modules that may be used with the NDU.

4100-6014 Network Interface Card (NIC). Multiple communications media are available on the 4120-6014 Modular Interface Card with selectable media cards. Media cards include fiber optics, wired, and modem communications and may be mixed on one interface card.

4100-6030 Service Modem. Provides remote data access for a computer equipped with a modem and terminal emulation software.

4100-6038 Dual RS-232 Module. Used for connections to printers and computer CRTs.

4100-0634 Tamper Switch. Monitor the switch with an IDNet Individual Adapter Module (IAM) or monitor point in a non-NDU node.

4100-1293 Panel-Mounted Printer. Provides hard copy reports of the master control panel's output.

4100-6052 DACT. Notifies the central station when specified events occur; reports changes to a specific point's status to the central station.

For additional information on any of these modules, refer to the manuals in their individual ship groups.

Note: The Voice Command Center (VCC) option adds Voice Evac capability to the system, and the VCC is operated from controls at the NDU. The VCC is actually a separate 4100U/4100ES node than the NDU.

NDU Installation

Installation for NDU without Audio

The 4100-9141/9143/9144/9241/9151/9153/9154/9243/9245 NDU (non-audio) is made up of several modules, and each module has its own set of installation instructions. The figure below shows the general setup for the non-audio NDU. Refer to the appropriate manuals to install specific modules. Manuals are found in each module's ship group.

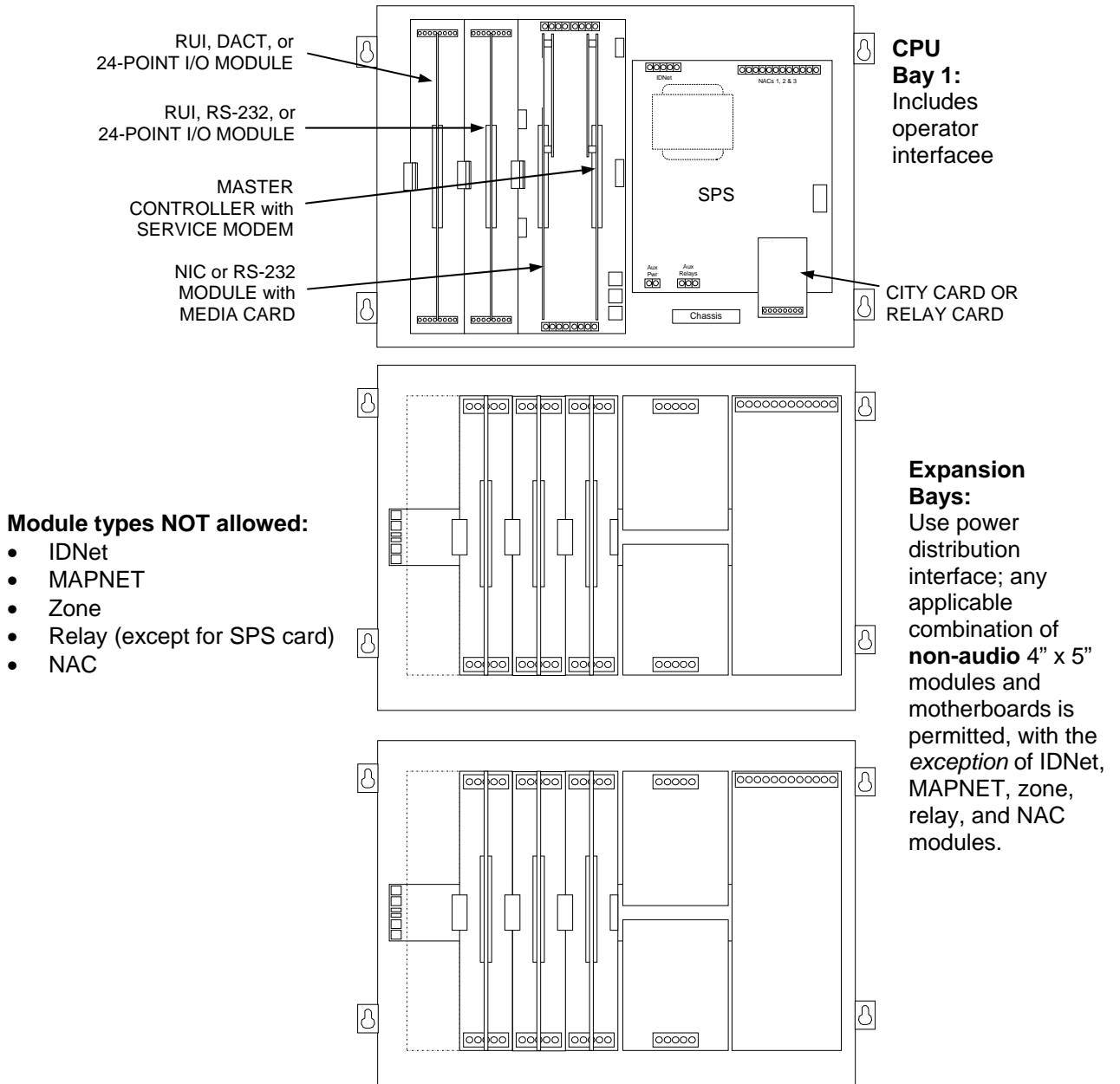


Figure 1. The Non-Audio NDU

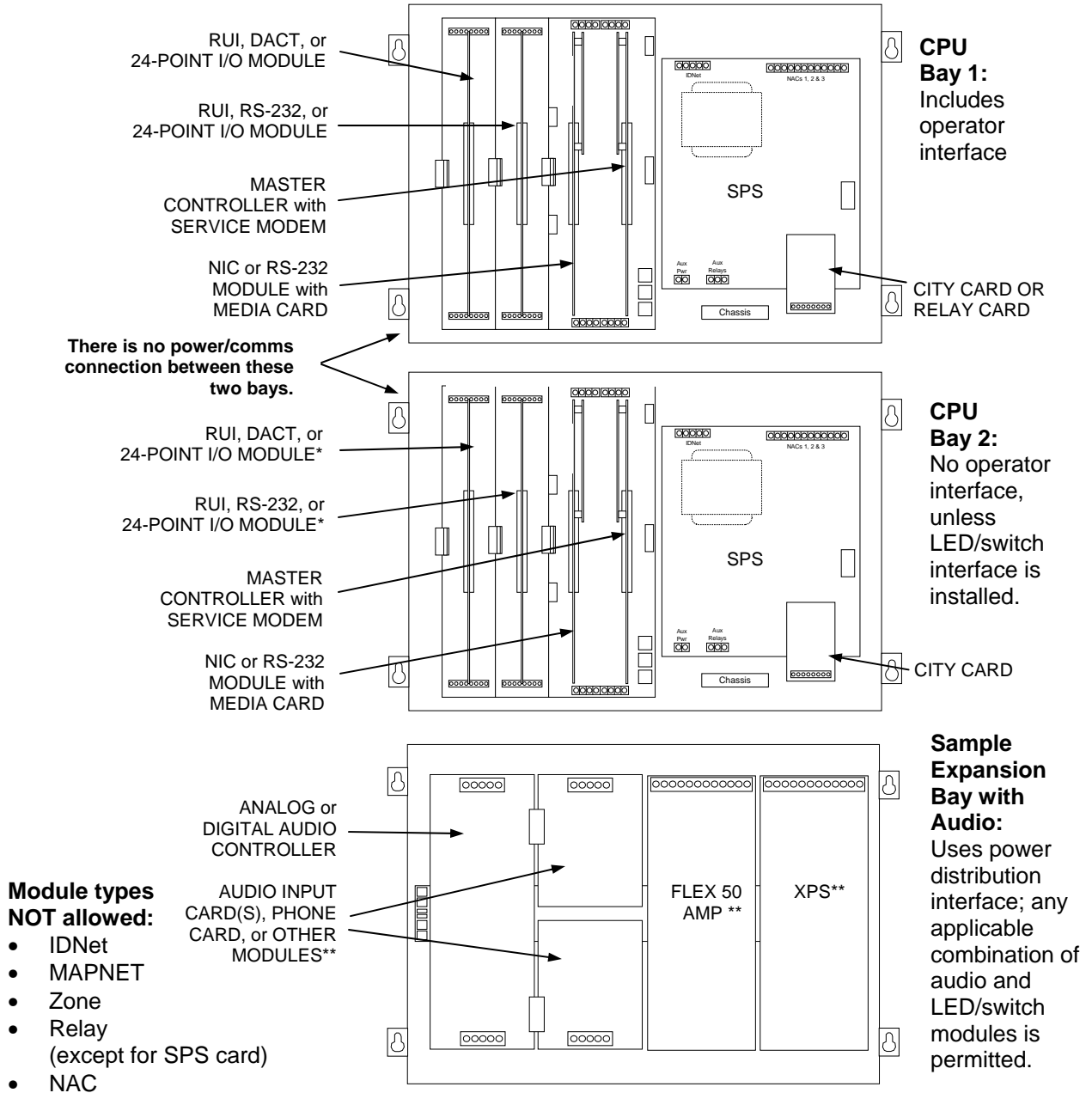
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NDU Installation, Continued

Installation for NDU with Audio

The 4100-9142/9145/9146/9242/9152/9155/9156/9244/9246 use audio modules

Note: The battery charger may need to be disabled on either one of the SPS shown. Earth detect should also be disabled on one SPS.



*LED/switch modules and LED/switch controllers may be installed to front of assembly.

**Other modules in these slots may be phones, phone cards, microphones, or LED/switch modules.

Figure 2. The NDU with Audio

