

Features

Interface modules for LED and switch control of custom graphic annunciator panels including:

- **A100-7401**, 24 Point I/O Graphic Modules with points selectable as either switch inputs or LED outputs
- **A100-7402**, 64 Switch and 64 LED Driver Module with 32 on-board LED drivers
- **A100-7403**, 32 Point LED Driver Modules
- **A100-7404**, 32 Point LED Switch Input Modules

Module compatibility:

For use with Autocall 4007ES, 4010ES, and 4100ES series fire alarm control panels

Multiple mounting options are available:

- Semi-flush or surface mount cabinets in beige or red, with or without glass door
- Interface modules can be mounted in the same cabinet as graphic panel or mounted nearby
- Plate-mounted for mounting in cabinet by others
- Interface modules are UL listed for use in agency listed custom graphic annunciator panels

Operation and status supervision:

- Supervised RUI (remote unit interface) communications require a single, twisted, wire pair (some applications may require shields) to the fire alarm control panel (power is supplied via a second wire pair)
- Multiple annunciator module types can be connected to same communications wiring
- Convenient wiring connections are via pluggable terminal blocks

UL listed to Standard 864 for:

- Fire Detection and Control (UOJZ)
- Smoke Control Service (UUKL)

Introduction

Annunciator Control.

These remote annunciator graphic control modules complement Autocall 4007ES, 4010ES and 4100ES (and other installed legacy panels) by providing LED/lamp/relay drivers and switch inputs to allow custom graphic displays to be designed for specific facility requirements, such as for smoke control (UUKL) systems. Wiring is minimized by Signaling Line Circuit (SLC) communications that also provides supervision.

In the event of communications loss, a trouble will be displayed at the fire alarm control panel and can also be identified at the remote annunciator if desired.

Packaging Flexibility.

For packaging flexibility, these modules are plate-mounted, allowing compatibility with vended graphics assemblies. These modules also provide convenient terminal block wiring connections and use compact ribbon cable connectors for multiple module interconnection.

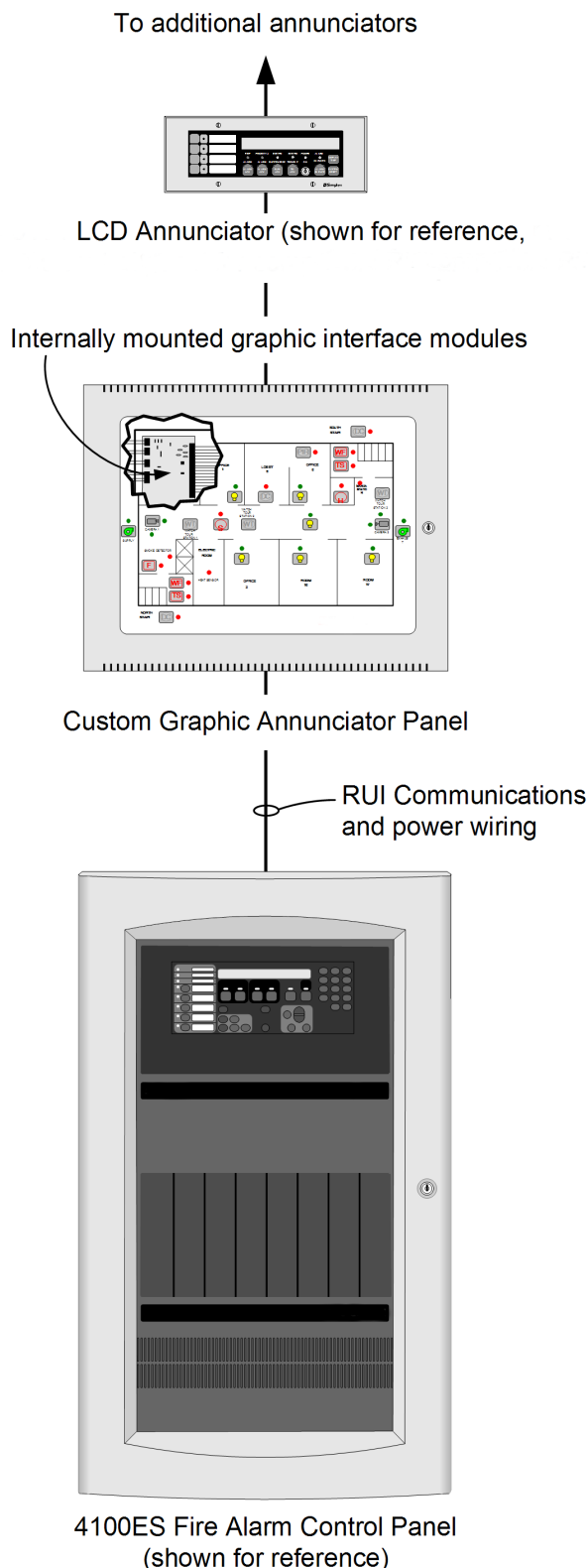


Figure 1: 4100ES Fire Alarm Control Panel Connected to a Remote Graphic Annunciator and a Remote LCD Annunciator

Graphics Control Module Descriptions

A100-7401, 24 Point I/O Graphic Module:

- 24 Points, selectable as either a switch input or a lamp/relay driver output
- Switch monitoring includes: unsupervised, supervision for opens, supervision for opens or shorts, and supervised monitoring of HOA (hand/off/auto) switches
- Switches can be momentary or maintained, 2 position or 3 position, maximum distance is 2500 ft (762 m), or 65 Ω from the module
- Each LED/lamp/relay driver is rated at 150 mA @ 24 VDC per point, inrush is current limited for compatibility with incandescent bulbs (relays need to be diode suppressed at the relay coil) maximum distance is 600 ft (183 m), or 2 Ω from the module
- LED/lamp/relay driver outputs are supervised for open circuits and can be set as on continuous, or pulsed at a slow or fast rate
- Additional inputs are included for communicating a remote power supply trouble and for lamp testing, the module can also be configured to provide local indication of communications loss

A100-7402, 64/64 LED/Switch Controller Module:

- Support for up to 64 switches *and* 64 LEDs (switches are unsupervised)
- Includes 32 LED driver outputs on-board for direct LED connection
- Full capacity is achieved by using a A100-7403, 32 Point LED Driver Module, and two A100-7404, 32 Point Switch Modules
- Multiplexed LED drivers provides 40 mA peak, 5 mA average, 60 Hz rate, 12.5% duty cycle for direct LED drive and can be steady on, or slow or fast pulse
- LEDs are supervised for open circuits, LED and switch module connections are supervised
- LEDs or switches can be up to 25 ft (7.6 m) or 3 Ω from module

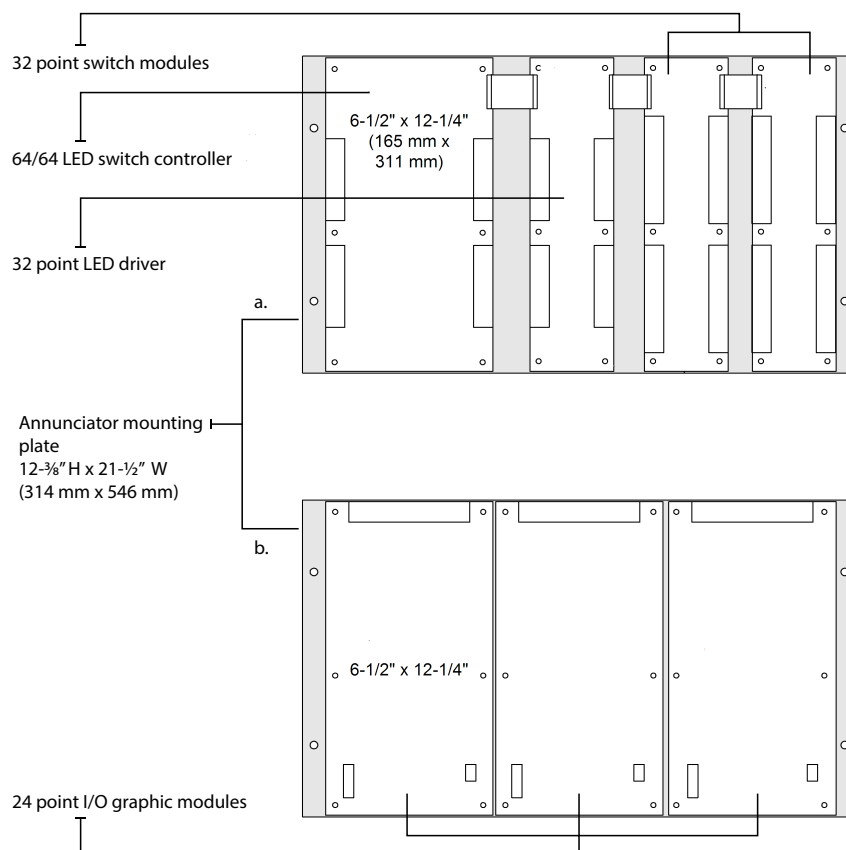
A100-7403, 32 Point LED Driver Module:

- Provides an additional 32 LED drivers for use with the A100-7402 Controller
- LED output is the same as for the A100-7402

A100-7404, 32 Point Switch Module:

- Monitors momentary or maintained, 2 or 3 position switches
- Switch position sampling is multiplexed at a 60 Hz rate, 12.5% duty cycle, 40 mA maximum, 5 mA average

Module Mounting Reference



Note:

Annunciator mounting plate a.

1. A100-7402 - LED switch controller
2. A100-7403 - 32 point LED driver
3. A100-7404 - 32 point switch modules

Annunciator mounting plate b.

A100-7401 - 24 point I/O graphic modules

4100 Series Graphic Annunciator Modules; LED/Switch Modules and 24 Point I/O Graphic Module

Product Selection

Table 1: System Type (select one)

SKU	Description
A100-8401	Cabinet mounted graphic modules
A100-8402	Graphic modules only, plate mounted
A100-8904	Aftermarket addition, modules only

Table 2: Graphic Modules*

SKU	Description	Mounting Information
A100-7401	24 Point I/O Graphic Module	Mounting is on dedicated mounting plates, up to 3 per plate
A100-7402	64/64 led Switch Controller	Mounting Rules: One A100-7402, 64/64 LED Switch Controller mounted per plate; the same plate can mount one A100-7403, 32 Point LED Driver Module, and two A100-7404, 32 Point Switch Input Modules Each mounting plate requires 2 units of space; 1 plate per 2-unit cabinet, 2 plates per 4-unit cabinet, 3 plates per 6-unit cabinet
A100-7403	32 Point led Driver Module	
A100-7404	32 Point Switch Input Module	

* Select as required, refer to [Module Mounting Reference](#) for panel mounting dimensions.

These 4100 series graphic modules are available internally mounted and UL listed in custom graphic annunciator panels and custom graphic smoke control annunciators from Space Age Electronics Inc., website: www.1sae.com

Table 3: Package Size, Finish and Trim Options (select as required if A100-8401)

SKU	Description
A100-2401	2-Unit
A100-2402	4-Unit
A100-2403	6-Unit
A100-2404	2-Unit
A100-2405	4-Unit
A100-2406	6-Unit
A100-2201	Red finish option

Autocall Cabinet Dimension Reference

Table 4: Cabinet dimensions*

Size	Height	Cabinet Width	Cabinet Depth	Door Width
2-Unit	20-3/4" (527 mm)	25-3/4" (654 mm)	4-1/4" (108 mm)	26-9/16" (675 mm)
4-Unit	36-1/4" (921 mm)			
6-Unit	52-1/8" (1324 mm)			

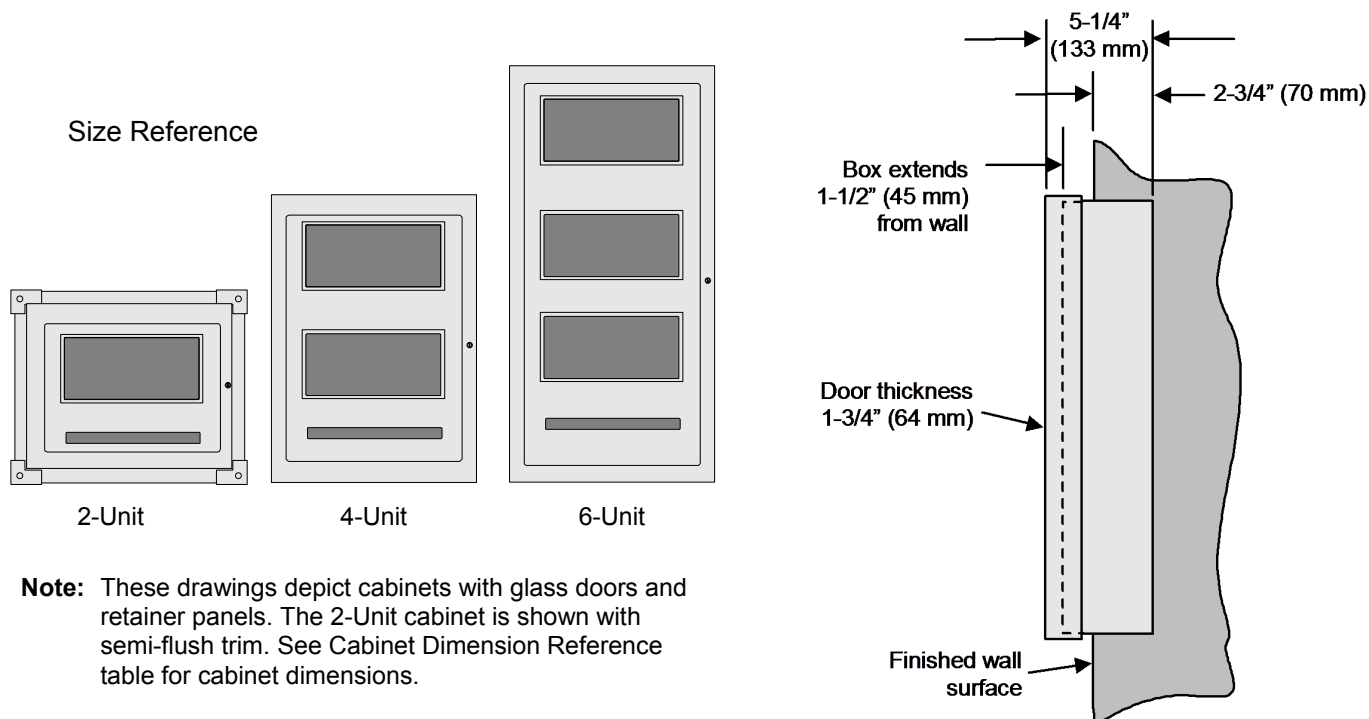
* See [Autocall Annunciator Cabinet Reference](#) for additional reference

Specifications

Table 5: Annunciator specifications

Specification		Rating	
Voltage		18.9 to 32 VDC; 24 VDC nominal from fire alarm control panel	
Current	A100-7401, 24 Point I/O Module	Standby and Alarm = 78 mA + all connected LED/lamp/relay currents and all switch currents	
		Switch current	Unsupervised mode = 12 mA when closed, per switch
			Supervised for open circuit mode = 5 mA open, 12 mA closed, per switch
			Supervised for open or short mode = 4 mA open, 8 mA closed, per switch
		HOA mode = 12 mA "on", 8 mA "off", 4.5 mA center position	
	A100-7402, 64/64 LED Switch Controller	Standby = 67 mA + all switch loads	
		Alarm = 285 mA with 64 total LEDs on + all switch loads	
		Switch current = 5 mA average, "up" position, 2.5 mA average, "down" position	
Communications		RUI (Remote Unit Interface) external annunciator communications line SLC (signaling line circuit)	
Capacity Per RUI Output	4100ES	Up to 31 total remote RUI devices	Refer to individual control panel and annunciator data sheets for additional RUI compatibility information
	4010ES	Up to 20 internal and external card addresses	
	4007ES	Up to 10 remote RUI devices	
Wiring Requirements	Data	Single, twisted, wire pair (some applications may require shields)	
		18 AWG (0.82 mm2)	
	Power	18 to 12 AWG (0.82 mm2 to 3.31 mm2) wires for 24 VDC system power	
	Input/Outputs	18 to 14 AWG (0.82 mm2 to 2.08 mm2)	
	Earth	A dedicated earth ground connection to the electrical box is required for proper ESD and EMI protection; wire in accordance with NFPA 70 (National Electrical Code)	
Operating Temperature		32° F to 120° F (0° C to 49° C)	
Operating Humidity		Up to 93% RH, non-condensing @ 90° F (32° C) maximum	
Additional Information		Refer to Field Wiring Diagram 841-802	

Autocall Annunciator Cabinet Reference


Figure 2: Cabinet reference

