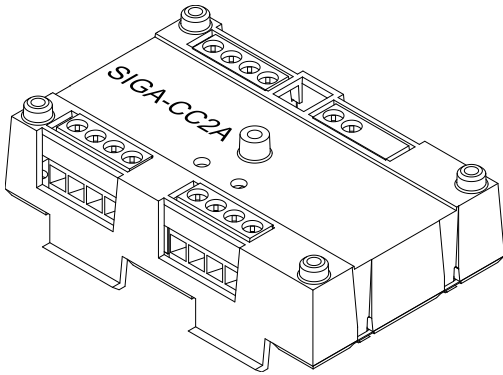




SIGA-CC2A Dual Input Signal Module Installation Sheet



Description

Note: The SIGA-CC2A is only compatible with EST3.

The SIGA-CC2A Dual Input Signal Module is an analog addressable device used to connect a supervised Class A or Class B output circuit to two input circuits (riser 1 and riser 2).

The CC2A does *not* provide supervision of the riser; the fire alarm panel must provide this function. Upon command from the loop controller, the CC2A connects the output circuit to the riser 1 bus or the riser 2 bus. The output can be 24 VDC to operate polarized audible and visible signals or 25 V or 70 V to operate audio evacuation circuits. Two device addresses are required.

The CC2A can also be configured as a three-state or four-state telephone riser selector.

The loop controller assigns an address to the CC2A automatically. A custom address can be assigned using a laptop computer. No addressing switches are used.

Diagnostic LEDs provide visible indication of the status of the module when the cover plate is removed:

- Normal: green LED flashes
- Alarm/active: red LED flashes

WARNINGS

- This module will not operate without electrical power. As fires frequently cause power interruption, we suggest you discuss further safeguards with your local fire protection specialist.
- This module does not support conventional two-wire smoke detectors.

Personality codes

The loop controller downloads the personality code to the CC2A, which determines how the module operates. The personality codes described below can be used with the CC2A.

Single input module personality codes

Personality code 5: Riser selector Class B, single input. The module operates as a single riser selector for signal power (24 VDC) or audio evacuation (25 or 70 V). The output circuit is monitored for open or shorted wiring. If a short exists, the control panel inhibits the activation of the audible or visible signal circuit, so that the riser is not connected to the wiring fault.

Personality code 27: Riser selector Class A, single input. Operates the same as personality code 5, except wiring is Class A.

Personality code 6: Riser selector Class B three-state, single input, ring tone. The module operates as a riser selector for a three-state (open, normal, active) firefighter's telephone. When a telephone handset is plugged into its jack or lifted from its hook, the module generates its own ring-tone signal. A separate ring-tone riser is unnecessary. The module sends this signal to the control panel to indicate the presence of an off-hook condition and waits for the system operator to respond to the call. When the system operator responds, the ring-tone signal is disabled.

Personality code 28: Riser selector Class A three-state, single input, ring tone. Operates the same as personality code 6, except wiring is Class A.

Personality code 26: Riser selector Class B four-state, single input, ring tone. The module operates as a riser selector for a four-state (open, normal, active, trouble) firefighter's telephone. *Only one telephone can be wired to the CC2A at any given time.* When a telephone handset is plugged into its jack or lifted from its hook, the module generates its own ring-tone signal. A separate ring-tone riser is unnecessary. The module sends this signal to the control panel to indicate the presence of an off-hook condition, and waits for the system operator to respond to the call. When the system operator responds, the ring-tone signal is disabled.

Personality code 29: Riser selector Class A four-state, single input, ring tone. Operates the same as personality code 26, except wiring is Class A and it *cannot* be used with a warden type (lift off the hook) telephone. It can *only* be used with a telephone handset that is plugged into a jack.

Personality code 25: Class B auto synchronization output. The module operates to provide synchronization of compatible fire alarm signals across multiple zones. The output wiring is monitored for opens and shorts. If a short exists, the module inhibits the activation of the audible/visible signal circuit so that the riser is not connected to the wiring fault.

Note: You may use nonsynchronous fire alarm signals with or instead of compatible synchronized fire alarm signals, but the operation of these devices will not comply with UL 1971.

Personality code 19: Class A auto synchronization output. Operates the same as personality code 25, except wiring is Class A.

Dual input module personality codes

Personality code 7: Riser selector Class B, dual input. The module operates as a riser selector for dual signal power (24 VDC) or dual audio evacuation (25 V or 70 V) riser selector. The output circuit is monitored for open or shorted wiring. If a short exists, the control panel inhibits the activation of the audible or visible signal circuit, so the riser is not connected to the wiring fault.

Personality code 30: Riser selector Class A, dual input. Operates the same as personality code 7, except wiring is Class A.

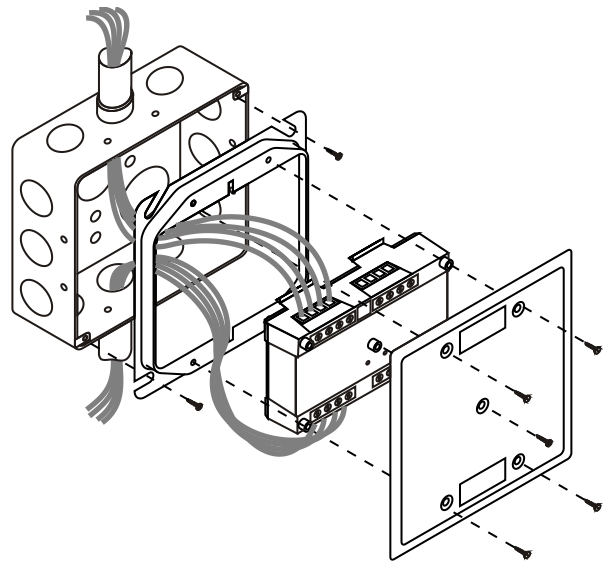
Installation

Note: The CC2A is shipped from the factory as an assembled unit; it contains no user-serviceable parts and should *not* be disassembled.

To install the module:

1. Verify that all field wiring is free of opens, shorts, and ground faults.
2. Make all wiring connections as shown in the wiring diagram.
3. Write the address assigned to the module on the label provided and apply it to the module. Peel off the removable serial number label from the module and apply it to the appropriate location in the serial number logbook.
4. Using the 4-24 × 5/16 in. (8 mm) self-tapping screw provided, mount the wall plate to the module.
5. Using the four 6-32 × 1/2 in. (13 mm) machine screws provided, mount the module to the electrical box.

Figure 1: Installation diagram



Transient protection caution

For installations in which the output circuit operates electromechanical bells or horns, install a listed Bipolar Transient Protector (P/N 235196P) to prevent inductive loads from causing transient spikes.

Figure 2: Bipolar Transient Protector (P/N 235196P)



To install a bipolar transient protector:

1. Locate all bells and horns at least 6 feet (1.8 m) from the module.
2. Using appropriately sized wire nuts, splice the transient protector on the NAC output of the module when using electromechanical bells or horns. Fit the transient protector into the module's electrical box.

Wiring

Figure 3: Single input Class A and Class B wiring (personality 5, 19, 25, 27)

Ring tone for three-state and four-state telephone Class A and Class B wiring (personality 6, 26, 28, 29)

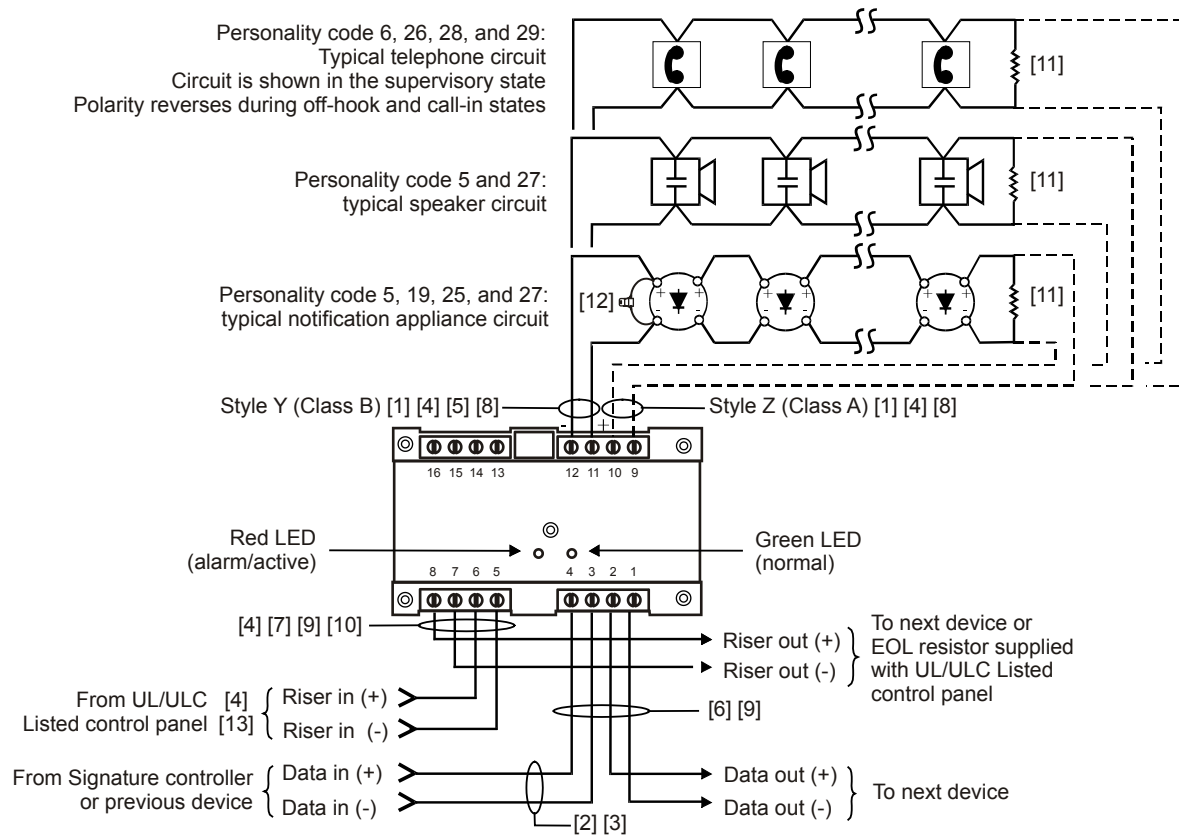
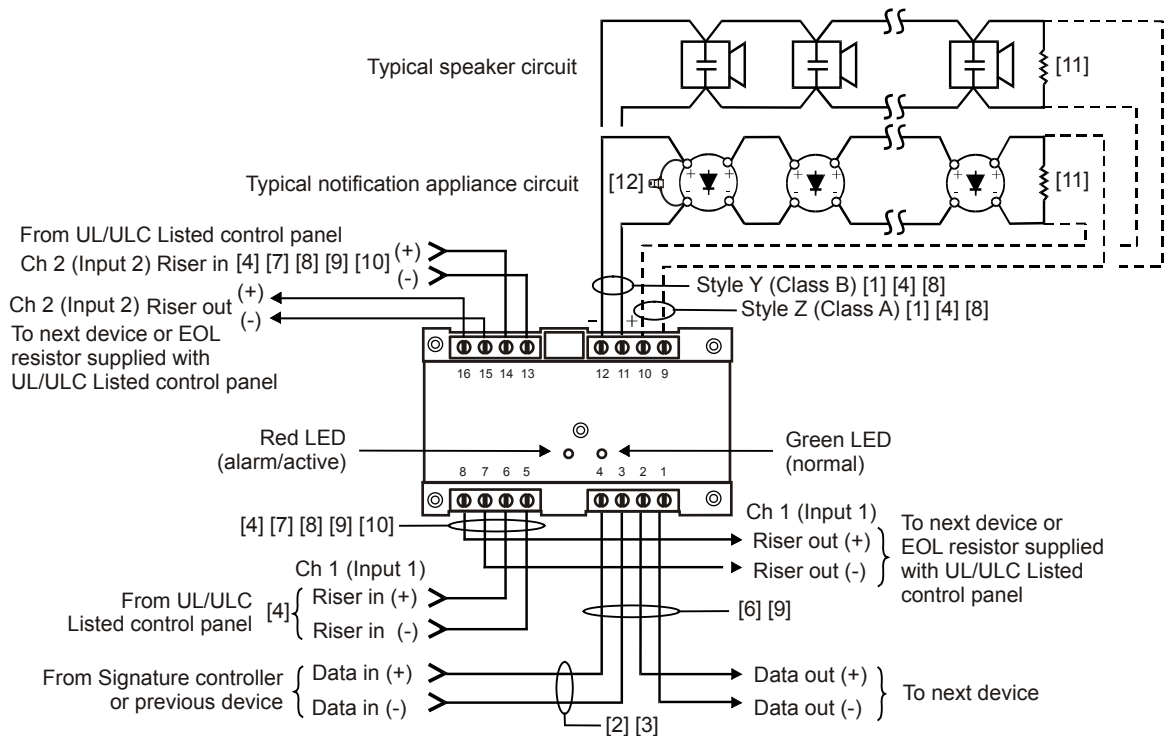


Figure 4: Dual input Class A and Class B wiring (personality 7, 30)



Notes (for both wiring diagrams)

- [1] For maximum line impedance, refer to the installation manual for your fire alarm control panel.
- [2] See the Signature loop controller installation sheet for wiring specifications.
- [3] Supervised and power-limited.
- [4] Supervised and power-limited when connected to power-limited source. If non-power limited, then all power-limited wiring in box must use FPL, FPLR, or FPLP cable or equivalent per NEC. Power-limited marking must be eliminated. Wire size must be capable of handling fault current from nonpower-limited source.
- [5] Polarity at terminals 11 and 12 on notification appliance and speaker circuits shown in supervisory condition. Connect as shown in diagram. Polarity reverses on alarm.
- [6] Data circuits are Style 4 (Class B) or Style 6 (Class A).
- [7] Power-limited, regulated, power supply listed for fire protective signaling use.
- [8] If using horns while connected to an EST3 fire alarm control panel, a CDR-3 Bell Coder must be used to comply with ANSI S3.41.
- [9] If the circuit is used for more than one notification zone, install in accordance with the survivability from attack by fire requirements in NFPA 72 *National Fire Alarm and Signaling Code*.
- [10] Telephone riser circuits are Class B.
- [11] UL/ULC Listed 47 kΩ EOL (P/N EOL-47) (Class B only).
- [12] Transient protection required (see "Transient protection caution" on page 2).
- [13] Riser polarities are reversed in the four-state as compared to the three-state fire phone.

Specifications

Voltage	20 VDC
Current	
Standby	350 μA
Alarm	175 μA
Ground fault impedance	10 kΩ
Wire size	12 to 18 AWG (sizes 16 and 18 are preferred) (2.5 to 0.75 mm ²)
Maximum line impedance	Refer to the installation manual for your fire alarm control panel
Output ratings (special applications)	24 VDC: 2 A 25 VAC audio: 50 W 70 VAC audio: 35 W EOL resistor value: 47 kΩ Max. circuit resistance: Refer to manual Max. circuit capacitance: 0.1 μF
Compatible electrical boxes	North American 2-1/2 in. deep 2-gang box Standard 4 in. square by 1-1/2 in. deep box European 100 mm square box
Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Humidity	0 to 93% RH, noncondensing at 90°F (32°C)
Storage temperature	-4 to 140°F (-20 to 60°C)

Synchronization	Meets UL1971 synchronization requirement. All signaling devices signal within 0.01 sec. of each other for a period of at least two hours while maintaining a one hertz signal rate. (For a list of compatible devices, see "Compatibility" below.) Note: For synchronization, the maximum resistance between any two devices is 20 Ω. See the voltage specifications for the CC2A, the signaling device, and the control panel to determine the maximum allowable wire resistance.
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Compatibility

The SIGA-CC2A is compatible with Genesis and Enhanced Integrity (synchronized) models.

Table 1: Compatible Genesis devices

Description	Model number
Genesis strobes	*G1-V15, *G1R-V15, *G1-V30, *G1R-V30, *G1-V60, *G1R-V60, *G1-V75, *G1R-V75, *G1-V110, *G1R-V110
Genesis strobes synchronized	*G1-VM, *G1F-VM, *G1R-VM, *G1RF-VM, *GC-VM, *GC-VMH, *GCF-VM, *GCF-VMH
Genesis horns	*G1-HD, *G1-P, *G1F-HD, *G1F-P, *G1R-HD, *G1R-P, *G1RF-HD, *G1RF-P
Genesis horn strobes, high output	*G1-HOV15, *G1R-HOV15, *G1-HOV30, *G1R-HOV30, *G1-HOV60, *G1R-HOV60, *G1-HOV75, *G1R-HOV75, *G1-HOV110, *G1R-HOV110
Genesis horn strobes, high output, synchronized, temporal	*G1-HDVM, *G1F-HDVM, *G1R-HDVM, *G1RF-HDVM, *GC-HDVM, *GC-HDVMH, *GCF-HDVM, *GCF-HDVMH
Genesis horn strobes, low output	*G1-HV15, *G1R-HV15, *G1-HV30, *G1R-HV30, *G1-HV60, *G1R-HV60, *G1-HV75, *G1R-HV75
Genesis wall speakers strobe	*G4-S2VM, *G4R-S2VM, *G4-S7VM, *G4R-S7VM
Genesis speaker strobes, wall mount	*G4-S2VM, *G4S7VM, *G4F-S2VM, *G4F-S7VM, *G4RF-S2VM, *G4RF-S7VM
Genesis speaker strobes, ceiling mount	*GC-S2VM, *GC-S2VMH, *GC-S7VM, *GC-S7VMH, *GCF-S2VM, *GCF-S2VMH, *GCF-S7VM, *GCF-S7VMH
Genesis notification appliances	*G1-C, *G1-CVM, *G1F-C, *G1F-CVM, *G1R-C, *G1R-CVM, *G1RF-C, *G1RF-CVM
Bells, vibrating	439D-10AW, 439D-10AW-R, 439-6AW, 439D-6AW-R, 439D-8AW, 439D-8AW-R
Bell strobe adapter plates	403-3A-R, 403-5A-R, 403-7A-R, 403-8A-R
Horns, explosion proof	889D-AW
Notification appliances, explosion proof bells, vibrating	439DEX-10AW, 439DEX-6AW, 439DEX-8AW

* Substitute XLS or ADT

Table 2: Compatible Integrity devices

Description	Model number
Integrity mini strobes, synchronized	*202-15PS, *202-15PSW, *202-75PS, *202-75PSW, *202-3A-T, *202-3A-TW, *202-5A-T, *202-5A-TW, *202-7A-T, *202-7A-TW, *202-8A-T, *202-8A-TW
Integrity strobes, four inch square box	405-15PS, 405-15PSW, *405-3A-T, *405-3A-TW, *405-5A-T, *405-5A-TW, 405-6A-T, 405-6A-TW, 405-75PS, 405-75PSW, *405-7A-T, *405-7A-TW, *405-8A-T, *405-8A-TW, CS405-7A-T, CS405-8A-T
Integrity chime strobes	*757-3A-CS, *757-3A-CSW, *757-5A-CS, *757-5A-CSW, *757-7A-CS, *757-7A-CSW, *757-8A-CS, *757-8A-CSW
Integrity horn strobes, temporal	*757-7A-T, *757-7A-TW, *757-8A-T, *757-8A-TW
Integrity speaker strobes	*757-3A-SS25, *757-3A-SS25W, *757-3A-SS70, *757-3A-SS70W, *757-5A-SS25, *757-5A-SS25W, *757-5A-SS70, *757-5A-SS70W, *757-7A-SS25, *757-7A-SS25W, *757-7A-SS70, *757-7A-SS70W, *757-8A-SS25, *757-8A-SS25W, *757-8A-SS70, *757-8A-SS70W
Integrity speaker strobes, re-entrant wall mount	*757-3A-RS25, *757-3A-RS25W, *757-3A-RS70, *757-3A-RS70W, *757-7A-RS25, *757-7A-RS25W, *757-7A-RS70, *757-7A-RS70W, *757-8A-RS25, *757-8A-RS25W, *757-8A-RS70, *757-8A-RS70W
Integrity speaker strobes, ceiling mount 25V	*964-3A-4RR, *964-3A-4RW, *964-3A-8RW, 964-3A-8SW, *964-5A-4RR, *964-5A-4RW, *964-5A-8RW, 964-5A-8SW, *964-7A-4RR, *964-7A-4RW, *964-7A-8RW, 964-7A-8SW, *964-8A-4RR, *964-8A-4RW, *964-8A-8RW, 964-8A-8SW
Integrity speaker strobes, ceiling mount 70V	*965-3A-4RR, *965-3A-4RW, *965-3A-8RW, 965-3A-8SW, *965-5A-4RR, *965-5A-4RW, *965-5A-8RW, 965-5A-8SW, *965-7A-4RR, *965-7A-4RW, *965-7A-8RW, 965-7A-8SW, *965-8A-4RR, *965-8A-4RW, *965-8A-8RW, 965-8A-8SW
Bell strobes adapter plate	*403-3A-R, *403-5A-R, *403-7A-R, *403-8A-R
Power-saver speaker strobes	*757S2-15PS, *757S2-15PSW, *757S7-15PS, *757S7-15PSW, *757S2-75PS, *757S2-75PSW, *757S7-75PS, *757S7-75PSW

* Substitute XLS

