

### Module Mounting Locations

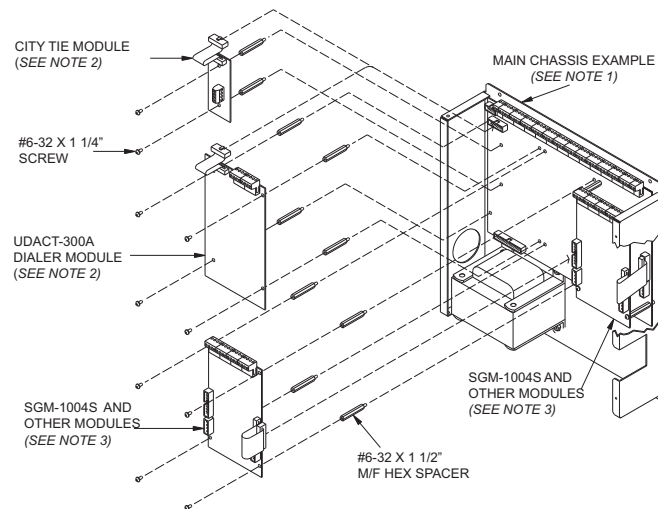
The SGM-1004S is a 4 NAC output module that provides synchronization and various modes of operation including signal silence mode (silencing audible signals but not visual signals), suite isolator mode, and bell cut mode. A maximum of 3 SGM-1004S can be installed in each node. Each SGM-1004S can provide its own audible and visual synchronization (the four outputs of one SGM-1004S are synchronized).

Mount the SGM-1004S in the same locations as other adder modules. Refer to Figure 1 below for mounting locations.



**Note:** Only the last circuit adder module should have a jumper plug on its continuity jumper; the continuity jumper on all the other adder modules must be open.

**Figure 1** Module Mounting Locations



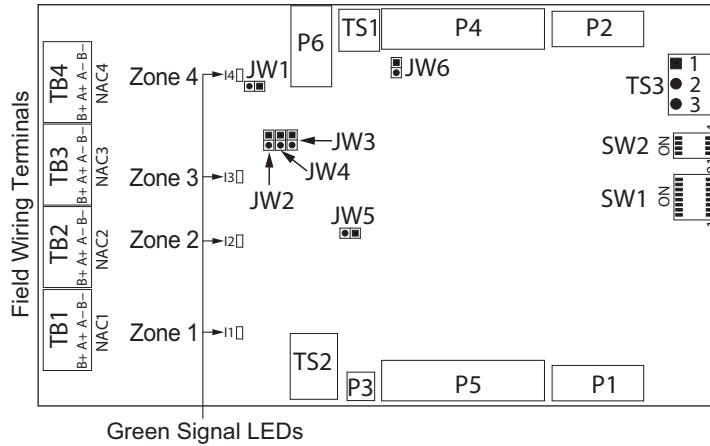
**Notes:**



1. Front plate is not shown.
2. Position reserved for city tie module or UDACT-300A.
3. Other modules may be: FNC-2000 Network Controller Module, DM-1008A Detection Adder Module, **SGM-1004S Signal Adder Module**, RM-1008A Relay Adder Module, ALCN-792MISO, ALCN-4792MISO, ALCN-960MISO Loop Adder Modules

# Terminal and Jumper Locations

**Figure 2 Signal Adder Module SGM-1004S**



## Terminal and Jumper Descriptions

Component	Description
<b>TB1 - TB4</b>	Field wiring terminals
<b>TS1</b>	Connect to an alarm relay (see "Suite Isolator Mode") or to a bell cut relay (see "Bell Cut Mode")
<b>TS2</b>	Connect to an output for signal silence (see "Signal Silence Mode")
<b>TS3</b>	The default is pins 2 and 3 closed. Do not change
<b>P1</b>	Power cable to next adder module
<b>P2</b>	Power cable to P8 on FACP main board (P6 on FA-1000) or to previous adder module
<b>P3</b>	Factory use only
<b>P4</b>	Data cable to P6 on FACP main board (P5 on FA-1000) or to previous adder module
<b>P5</b>	Data cable to next adder module
<b>P6</b>	Factory use only
<b>JW1 - JW4</b>	Jumpers for Suite Isolator Mode. See "Suite Isolator Mode" below
<b>JW5</b>	Watchdog jumper (normally closed)
<b>JW6</b>	Continuity jumper. Closed if this is the last adder module. Remove this jumper if this is not the last adder module installed
<b>SW1</b>	See "DIP Switch 1" below
<b>SW2</b>	See "DIP Switch 2: Bell Cut Select" below

## LEDs

There are four green LEDs (labeled I1, I2, I3, I4) on the board, one for each signal zone. The LED illuminates or flashes following the signal rate sent to its zone. It is off when the system is normal and it illuminates when a signal zone is activated. The LED does not reflect what is happening on the signal zone, just that it is receiving data to activate that signal zone.

# DIP Switches

## DIP Switch 1

	SW1	SW2	SW3	SW4	SW5	SW6	SW7
No sync	OFF	OFF	OFF	OFF			
Mircom/Amseco	<b>ON</b>	OFF	OFF	OFF			
Secutron/Gentex	OFF	<b>ON</b>	OFF	OFF			
System Sensor	OFF	OFF	<b>ON</b>	OFF			
Wheelock	OFF	OFF	OFF	<b>ON</b>			
No function					OFF	OFF	
Signal silence					<b>ON</b>	OFF	
No function						OFF	
Bell Cut						<b>ON</b>	

**Note:** Leave Signal Silence OFF.

## DIP Switch 2: Bell Cut Select

DIP switch 2	SW1	SW2	SW3	SW4
None	OFF	OFF	OFF	OFF
NAC 1	<b>ON</b>	-	-	-
NAC 2	-	<b>ON</b>	-	-
NAC 3	-	-	<b>ON</b>	-
NAC 4	-	-	-	<b>ON</b>

## Field Wiring

Refer to the field wiring instructions for the SGM-1004A in the respective fire alarm panel manual.

FleX-Net™ FX-4000: LT-894MP, MMX™-4000: LT-894MPSEC, FleX-Net™: LT-894, MMX™: LT-894SEC, FX-2000: LT-657, FA-1000: LT-600, FX-6000MNS-CH: LT-6683

Use the table below for the corresponding SGM-1004S terminal designations.

SGM-1004A	SGM-1004S NAC1	SGM-1004A	SGM-1004S NAC2	SGM-1004A	SGM-1004S NAC3	SGM-1004A	SGM-1004S NAC4
Ind 1+ (Y/Z)	B+	Ind 2+ (Y/Z)	B+	Ind 3+ (Y/Z)	B+	Ind 4+ (Y/Z)	B+
Ind 1+ (Z)	A+	Ind 2+ (Z)	A+	Ind 3+ (Z)	A+	Ind 4+ (Z)	A+
Ind 1- (Z)	A-	Ind 2- (Z)	A-	Ind 3- (Z)	A-	Ind 4- (Z)	A-
Ind 1- (Y/Z)	B-	Ind 2- (Y/Z)	B-	Ind 3- (Y/Z)	B-	Ind 4- (Y/Z)	B-



**Note:** The terminal blocks are depluggable for ease of wiring. The SGM-1004S NACs are either all power limited or all non-power limited. See “Synchronization” on page 4. All power limited circuits must use type FPL, FPLR, or FPLP power limited cable. See “NAC Ratings” on page 6 for the ratings.



**Note:** FleX-Net™ FX-4000, MMX™-4000, FleX-Net™, MMX™, FX-2000: Maximum voltage drop should not exceed 3.3 volts for Class A and 3.7 volts for Class B. FX-6000MNS-CH: Maximum voltage drop should not exceed 3 volts. FA-1000: Maximum voltage drop should not exceed 3.3 volts.

# Synchronization

Use DIP Switch 1, SW1 to SW4, to set the SGM-1004S to no sync (the panel provides synchronization) or to sync according to a manufacturer's protocol.

If the panel is set to Temporal 3, and the DIP Switch 1 is set to **No sync**, then the field wiring terminals are **not power-limited**. All the field wiring terminals on each SGM-1004S must be either all power-limited or all non-power-limited.

If DIP Switch 1 is set to a manufacturer protocol, then the field wiring terminals are **power-limited**.



**Attention: If the field wiring terminals are power-limited, attach the included label NP-8308 to the field wiring terminals. If the field wiring terminals are not power-limited, discard the included label NP-8308.**

**Maintain a separation of 1/4" (6.4 mm) minimum between power-limited and non-power-limited wiring at all times. Reserve the left side of the enclosure for all non-power-limited wiring.**

# Operation

There are four modes of operation for this module.

## Basic Mode

The basic mode of operation does not involve any bell cut relay or suite isolators connected to the signal zones, and no signal silence. For this case, leave jumpers JW1, JW2, JW3 and JW4 off, leave SW5, SW6 and SW7 of DIP Switch 1 off, leave the switches of DIP Switch 2 off, and do not connect anything to terminal blocks TS1 or TS2.

## Bell Cut Mode

This mode provides bell cut operation which allows the silencing of bells or horns.

1. Connect TS1 to a bell cut relay (for details see *LT-666 QRM-1001 Bell Cut Module Installation and Operating Instructions*).
2. Set SW7 of DIP Switch 1 ON.
3. Use DIP Switch 2 to select which of the four NACs will silence its bells and horns when the bell cut relay is active. You can select more than one NAC.

## Suite Isolator Mode

This mode is used when suite isolators are connected to the signal circuits.

1. Connect TS1 to a common alarm relay. See Figure 3.
2. Set SW7 of DIP Switch 1 OFF.
3. Place a jumper according to the table below.

Place jumper on	JW1	JW2	JW3	JW4
If there is a suite isolator on	zone 4	zone 3	zone 2	zone 1

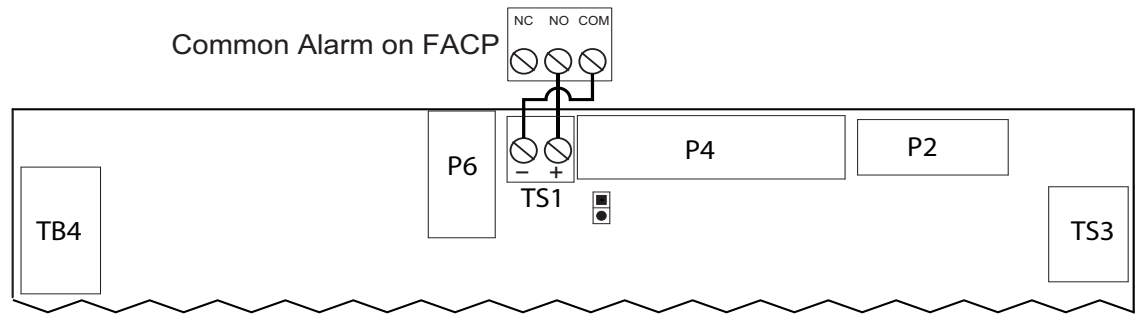


**Attention: Discard jumpers on zones that are not configured for suite isolators.**

Refer to *LT-875 CSIS-202A Supervised Signal Isolator Module Installation Instructions* or *LT-879 CSIS-202A1 Supervised Signal Isolator Module Installation Instructions*.

For further information on bell cut relays or suite isolators, please refer to the specific fire alarm panel manual or the isolator instruction manual.

**Figure 3 Suite Isolator Mode Wiring**



### Signal Silence Mode

This mode is used if audible signals are required to be silenced but visual signals should continue to function when signal silence is activated on the panel.

1. Connect TS2 to a NAC output that is configured as a continuous silenceable signal (not strobe). See Figure 4.
2. Configure the NACs on the SGM-1004S that require horns to be silenced as non-silenceable strobes using the panel configurator.
3. Set DIP switch 1 for the strobe manufacturer (see "DIP Switch 1").
4. Set SW5 of DIP Switch 1 ON.

When signal silence is active, the SGM-1004S changes its output signals from both horns and strobes active to only the strobes active.

**Figure 4 Signal Silence Mode Wiring**

