



SEM300 TROUBLESHOOTING GUIDE

ADDRESSING THE KEYPAD

The default keypad address the SEM uses is Keypad 8 Device Address 23. If this keypad address is disabled, the SEM and panel will not communicate properly. However, at first power-up, the SEM will attempt to enable this address automatically. If unsuccessful, the address must be enabled manually via programming *196.

Keypad address	DIP switch setting	VISTA programming command
17	None—all OFF	*190
18	Switch 4 ON, others OFF	*191
19	Switch 3 ON, others OFF	*192
20	Switch 3 and 4 ON, others OFF	*193
21	Switch 2 ON, others OFF	*194
22	Switch 2 and 4 ON, others OFF	*195
23	Switch 2 and 3 ON, others OFF	*196

If another keypad is occupying this address already, a different address must be selected for the SEM. To select a different keypad address, manually adjust the dual in-line package DIP switches on the SEM to match the desired keypad address listed below. Then, exit programming via *99.

GATEWAY LED REFERENCE

The enclosure gateway LEDs can be used to indicate communication errors, panel communication, network communication, and signal strength.

Note: For advanced troubleshooting, open the cover to look at the Alarm.com module LEDs.

TROUBLE LED

The TROUBLE LED flashes 1 to 8 times in a four-second interval to indicate specific error conditions.

Flash pattern	Description
1	The Alarm.com module cannot communicate with the panel. Perform a power cycle on the panel. If the error persists, lift the Alarm.com module out of the SEM circuit board and re-insert it while power is disconnected from the system.
2 then 4	The Alarm.com module provisioning process could not be completed. Power-cycle the system. If the error persists, see Alarm.com CORE Technical Support .
2 then 5	The Alarm.com module provisioning process could not be completed because the module is currently roaming off the carrier's primary network.
3	The Alarm.com module is trying to register on the cellular network. If it persists for more than a few minutes, the module is having problems registering. Check L4 for signal level. If signal level is lower than 2 bars, change the panel's location or use a remote antenna option.
4	The Alarm.com module is registered on the cellular network but could not connect with Alarm.com. If the error persists, see Alarm.com CORE Technical Support .
5	The radio on the module is not working correctly. If this persists for more than a few minutes, the module may need to be replaced. This error is extremely rare, so please verify that the module is flashing 5 times.
6	This indicates an error only if it persists for more than a minute. Otherwise, it's an indication that the module is resolving an unusual condition regarding communication with the cellular network.
7	The SEM is unable to access panel programming. Check the panel wiring and installer code.



PATH LED

The PATH LED flashes to indicate the active communication path (cellular, broadband, or both) to Alarm.com.

Flash pattern	Description
Steady long flash (~2 sec)	The cellular communication path is active.
Long flash (~2 sec) followed by a short flash (~0.5 sec)	Both cellular and broadband communication paths are active.
Steady short flash (~0.5 sec)	The broadband communication path is active. This should also accompany an error LED flash.
No flash	Both communication paths are not communicating. This should also accompany an error LED flash.



SIGNAL LED

The SIGNAL LED flashes to indicate the cellular signal strength (0 to 6 bars).



PANEL LED

The PANEL LED flashes with every communication to the panel.



POWER LED

The POWER LED illuminates solid when power is supplied.

SPECIFICATIONS

Power requirements

13.6 V nominal, 125 mA nominal (continuous), 230 mA maximum

Cellular network	4G LTE with 3G HSPA, 2G GSM fallback
Panel interfaces	<p>GPIO keypad BUS connections, 12 V power and ground</p> <p>Five LEDs (red, yellow, or green)</p> <p>Five LEDs (red, green, yellow, or blue)</p>
Operating temperature	14 to 131°F (-10 to 55°C)
Storage temperature	-30 to 140°F (-34 to 60°C)
Humidity	90% relative humidity non-condensing
Enclosure dimensions	(L x W x D) 7.66 x 4.35 x 1.65 in. (19.46 x 11.05 x 4.19 cm)
Enclosure color	White
Case material	Fire-retardant PC/ABS, PC