

GSM Module

AVG-13

**GSM link and backup module for
Alarm Control Panels**

Installation and Operation Manual

Version 1.01

Edition 5 (Jan 2017)

Item: 4740_ENG (A4BKE)

This product is subject to continual enhancements and
therefore specifications may be changed or altered
without prior notice



The AVG-13 emulates the PSTN line signal to the alarm panel and dials out using the GSM network to communicate.

The AVG-13 supporting SIA FSK and Contact ID (DTMF format) central station protocols and dialing signals sent by the alarm panel dialer. The AVG-13 is compatible with most alarm & fire panels and all Av-Gad alarm control panels.

The AVG-13 is also used as phone line in sites (or alarm systems) without PSTN line; just plug a simple phone with DTMF to the AVG-13 and dial. When interfaced with Av-Gad panels the DTMF commands are supported, compatible to all Av-Gad alarm panels. Programming is not required, simply plug and play. The AVG-13 does not send SMS.

Main Features

- Alarm Panel compatibility: Contact ID alarm panel to transmit alarms over GSM network, dialing the programmed phones in the alarm panel, DTMF commands with Av-Gad panels, voice generated by SVM or other sources.
- Option: Use as telephone line backup (requires Tele Spy module): Alarm dialer uses the telephone line (PSTN) as the main transmission line and uses the AVG-13 as backup.
- Low current consumption. Uses 40 mA while in idle state and 400 mA at transmitting mode.
- AVG-13 standard pack contains: GSM unit, GSM antenna, Installation Manual, Cable with RJ-11 both ends, RJ-11 cable with one end free wires, wire & plug for Power Supply. Model AVG-13B: Supplied with metal bracket for in-box assembly.
- Prevents RF disturbances and other radio problems (caused by low-end similar units).
- Very simple to install, nothing to program, fast and easy settings.

SIM card parameters: Important! Verify the SIM you are using is G2 compatible, without voice message service, without charges limits and PIN code is not activated

Switch off power before SIM inserting. GSM generation 2 and 3 SIM are compatible with AVG-13. Verify that the SIM in use is open for application and ID enabled.

Do not power up without SIM card and without antenna.

LED Indicators

Power indicator: LED on while power source is connected correctly.

Signal indicator: Level LEDs on indicates that the terminal is on GSM network plus the reception level, at three Red (level) LEDs on the AVG-13 reception is properly, including DTMF commands and CS reporting, at two LEDs consider to change location, or use an high gain antenna.

LEDs off indicate that the terminal has failed to search for GSM network or the RF antenna is faulty.

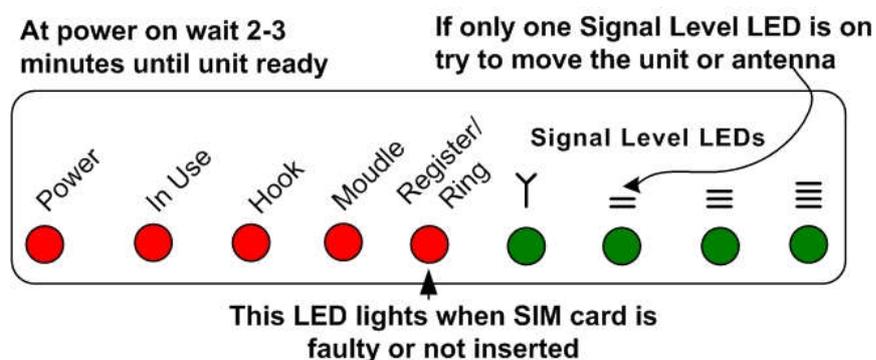


Figure 1: LEDs function

AVG-13 Wiring

Antenna: Connect the antenna to the GSM Ant plug (figure 3); place the antenna as far as possible from the AVG-13 and do not leave any coiling of the antenna cable to avoid radiant interference. When interfaced to Av-Gad panels set the panel/dialer to CCTV/GSM Modem Mode (available in models 2011 and later); cut jumper as shown in the alarm panel PCB layout drawing. Verify your alarm panel or phone are in DTMF mode.

SIM Card: Carefully insert the SIM card (consider SIM card parameters, previous page).

Dialer: Connect your alarm dialer or plain-wired DTMF phone to the Dialer socket. When interfaced to Av-Gad or other panels program the dialed numbers in the panel.

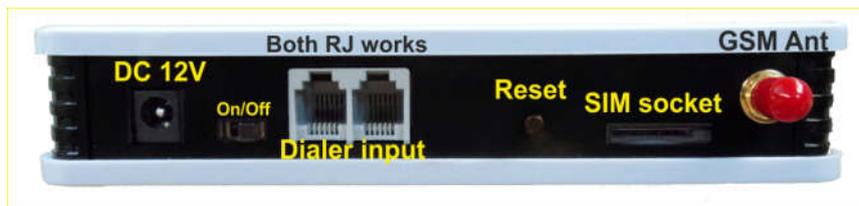


Figure 2: Wiring the AVG-13

Power Supply: Connect to a 12V, 1.5A power supply. If used for central station reporting power the unit from the alarm DC 12V power terminals, keep polarity as shown in figure 3.

Operating State: Approximately 120 sec's after power up, check the operating state indicated by the SIM LED: The LED is flash during power up phase, then off when the connection to the GSM network is established. The GSM Signal Level indicator LEDs will stay lit whenever there is signal. If low signal (two LEDs or less lit) displayed re-locate unit.

Connect to alarm panel: Refer to figure 3, AVG-13 dials via GSM only.

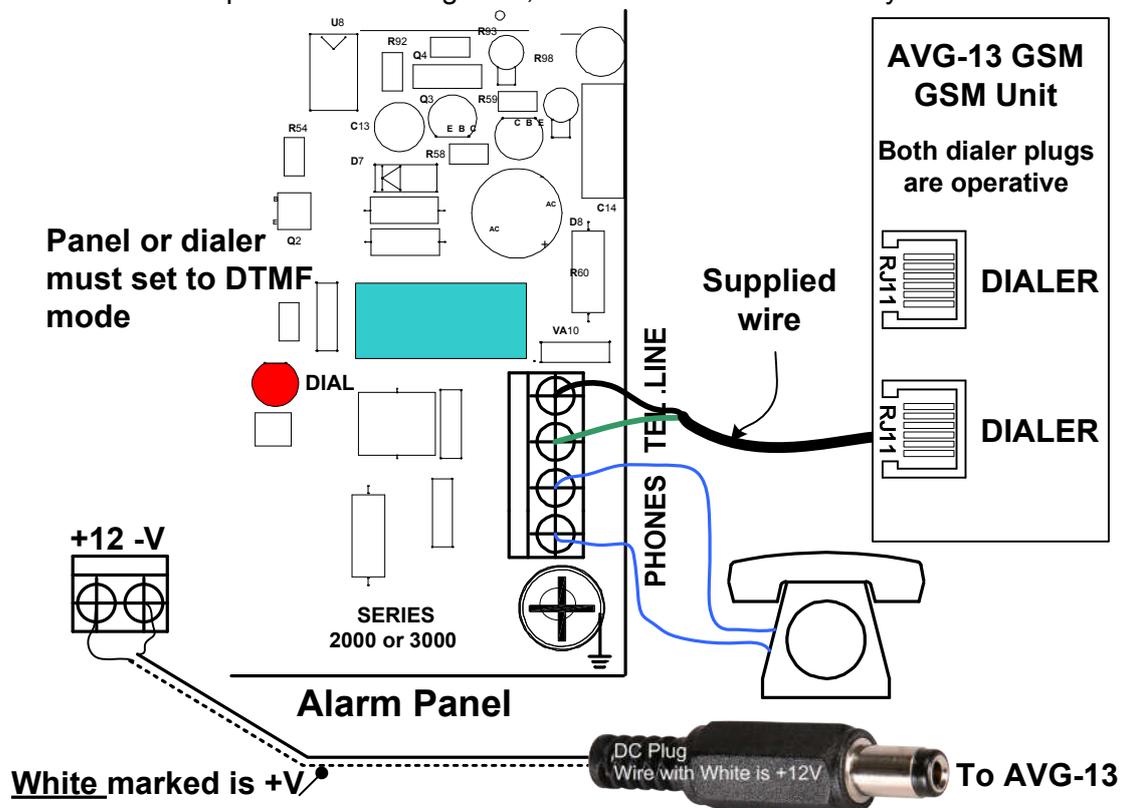


Figure 3: Wiring the AVG-13 to Alarm Panel

Installing the SIM Card

Proceed as follows:

Open the lid at the back side where the SIM housing is located. Slide back the SIM door and lift it up.

Slide the SIM card into the SIM door making sure that the clipped corner of the SIM card lines up with the clipped corner of the SIM holder. Close the SIM door. Slide the SIM door to lock the SIM card in place.

Powering Up the AVG-13

Disconnect the Power. Insert the SIM card, wire the dialer as figure 4 displays, connect the antenna, then the power supply, wait 120 seconds for unit registration to the GSM network and Green LED is off. For alarm applications: Power the AVG-13 direct from your alarm panel (use the supplied cable with plug). The start up current is over 1A, use a quality power supply; 12V, 1.5A DC, for AV-Gad panels use standard power supply with battery.

Verifications and Tests

Test the unit by dialing or trig alarm; verify that the central station reporting or dialing functions. Test by causing alarm or connecting a simple DTMF PSTN phone to the AVG-13, verify that your dialing reach the destination. Call the AVG-13 as wired to Av-Gad alarm panel (SIM number) check that system answers, if not program address 091 to count 03 rings. If problem occur set the unit to factory defaults by dialing *00#000#, wait for long dial tone as confirmation.

Technical Specifications

Parameter		Parameter	
GSM Module (G2)	850, 900, 1800, 1900 MHz. Channel Space: 250 KHz	Indicators	Nine LEDs
Antenna	0-3dB, 2.5m Cable	Dialer input plug	RJ-11
Antenna connector	RF SMA type	Power switch	Slide on/off
SIM Card	Standard Genern. II	Standby current	38 mA
** Ext. Power Supply	DC 12V 1.5A	Operating current	Up to 450 mA
Power Polarity	Fully protected	Dimensions	L x W x H: 186 x 131 x 44 mm
Housing	ABS	Weight	Gross 0.4 KG (0.88 POUNDS)

** On power up for external power supply. Alarm panel with battery supports AVG-13 powering

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Av-Gad Systems Ltd. (Av-Gad) warrants its products to be free from production defects in components, materials used and labor for twelve months following the date of production. Av-Gad will within the mentioned period, as its option, repair or replace any product failing to proper operation without charging the purchaser.

This warranty shall not apply to any equipment, or any part thereof, which has been repaired by others, improperly installed, used improperly, abused, altered, damaged or subjected to forces of nature or on which the serial and data code is altered or removed.

Av-Gad will not be responsible for any dismantling or reinstallation expenses. In order to exercise the warranty, the purchaser must return the product; delivery and transportation costs will be prepaid and insured to Av-Gad.

After repair or replacement, Av-Gad assumes the cost of returning products under warranty.

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There is no express or implied warranty of merchantability or a warranty of fitness for particular purpose. Additionally, this warranty is in lieu of all other obligations or liabilities on the part of Av-Gad.

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Price list for such services will be updated from time to time.