2G GPRS/GSM Alarm communicator

Model: x31-3b

User manual

We would like to thank you all for purchasing this New World Security product. We trust you will see the unique benefits of using this professionally designed and engineered product.

This Plug and play GPRS communicator x31-3b has been developed, through a growing demand to transmit alarm panels Ademco Contact ID protocols to the monitoring stations (CMS) IP receivers by GPRS/GSM network in the event of PSTN line loss or failure.
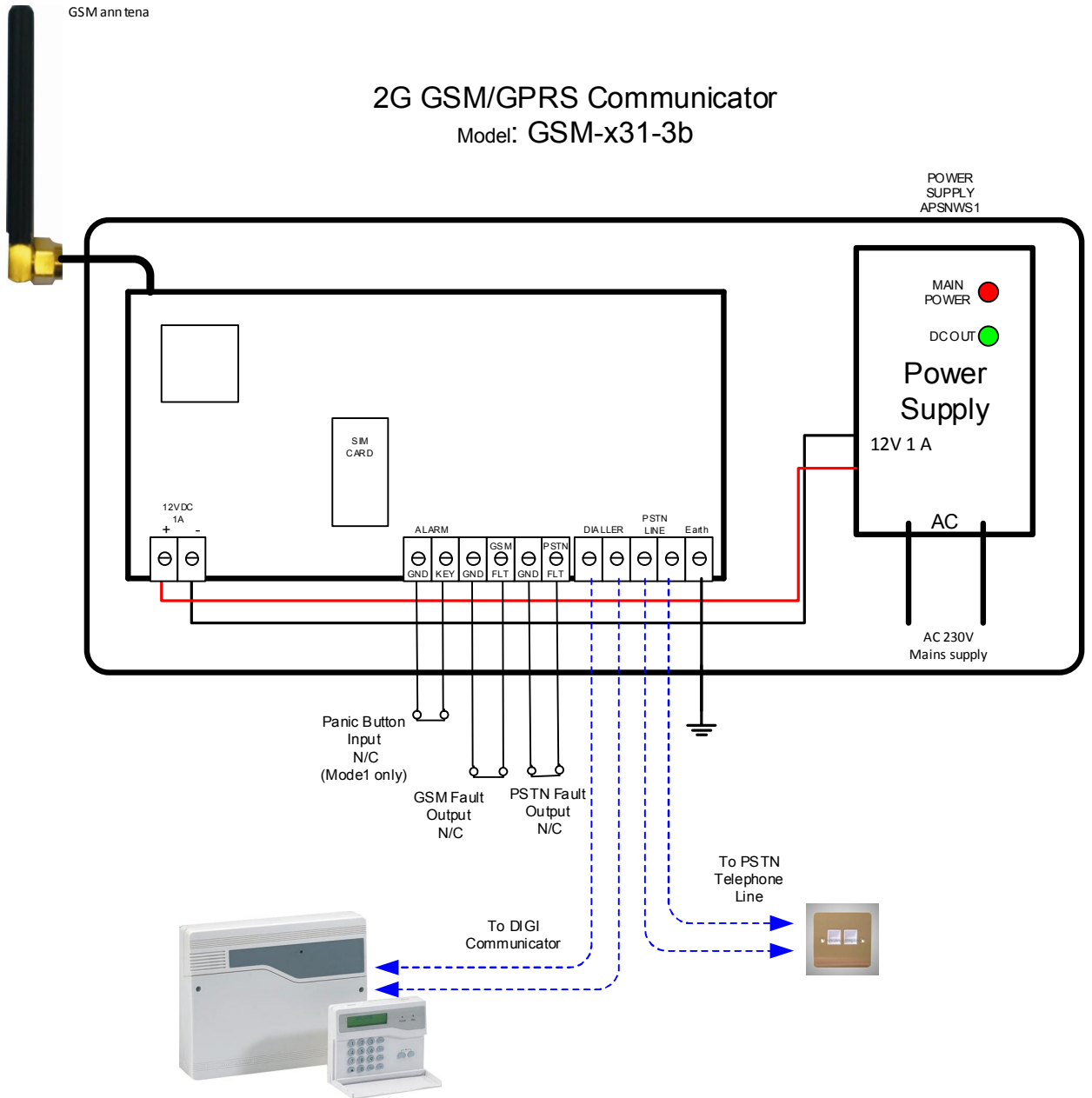
GSM/GPRS x31-3b communicator is compatible with control panels from any manufacturer which has PSTN telephone communicator and work with Ademco Contact ID protocol.

Safety Instructions:

Please read and follow these safety guidelines in order to maintain safety of operators and people around:

• ⚠️GPRS communicator contains a radio transceiver operating in:
   Quad-Band GSM/GPRS 850/900/1800/1900MHz.

• ⚠️Don't use the system where it can interfere with other devices and cause any potential danger.

• ⚠️Don't use the system with medical devices if this is required in the manual of the medical device.

• ⚠️Don't use the system in hazardous environment.

• ⚠️Don't expose the system to high humidity, chemical environment or mechanical impacts.

• ⚠️Don't attempt to personally repair the system.

• ⚠️ Any system repairs must be done only by qualified, personnel. Mains power must be disconnected before any installation or tuning work starts. The system installation or maintenance must not be done during stormy conditions.

2G GSM/GPRS Communicator
Model: GSM-x31-3b

GSM anntena

POWER SUPPLY APSNWS1

MAIN POWER

DCOUT

Power Supply
12V 1 A

AC

SIM CARD

12VDC 1A
+ −

ALARM

GND | KEY | GND | GSM FLT | GND | PSTN FLT

DIALLER

PSTN LINE

Earth

AC 230V Mains supply

Panic Button Input N/C (Mode1 only)

GSM Fault Output N/C

PSTN Fault Output N/C

To PSTN Telephone Line

To DIGI Communicator

Technical Specifications

Power Supply	12V 1A
Current Used in Standby Mode	44mA
Current Used in transmitting mode	120MA
GSM Modem Frequency	Quad-Band GSM/GPRS/ 850/900/1800/1900MHz
Communications	Voice Calls, SMS, GPRS
Supported Protocols	Ademco Contact ID, SIA IP, SIA IP encrypted, Enigma2
Administrator number	1
ALARM (Panic Button) Input type	NC (normally closed)
TAMPER Input type	NC (normally closed)
GSM Fault (FLT) Output type	NC (normally closed)
Allowable Input Values	0-12V 0.1-0.3mA
Generated Phone Line Voltage(Tone)	0.7VDC
Dial Tone Frequency	425Hz
Phone Line Active resistance	150 Ω
Phone line Reactive resistance	600 Ω
Operating temperature range	-20..+55o C
GPRS communicator PSB dimensions	140 x 57 x 20mm
PCB weight	120g

LED Illumination

GSM (Blue-flashing)	GSM Network connection
100%,75%,50%,25% (Green-static)	GSM signal power level
In Use (Orange- flashing)	Data transmitting indication
READY (Red-static/flashing)	System ready/ system not ready
POWER (Red-static)	Power +12V
DTMF (Red- flashing)	DTMF tone indication
LINE (Green-static)	ON-PSTN connected, OFF- PSTN disconnected

POWER SUPPLY

⚠ Before connecting x31-3b communicator to alarm system's 12VDC power supply, please, make sure that the output is able to maintain peak current consumption of up to 1A max. Otherwise, please, use an external power supply.

IMPORTANT

When mounting GSM antenna, choice a location which is away from human interaction and away from the alarm panel. Route the GSM antenna cable from the GPRS communicator so that it is separate from the power supply cables. Always ensure the power is off on GPRS communicator before inserting or removing the SIM card.

New SIM cards will need registering before they can be used. Full details of how this is done, can be found in the SIM card pack. It will normally require that the SIM card is inserted into a mobile phone, a number dialed and instruction followed. While the SIM is in the mobile phone it would be a good time to disable any PIN codes, call diverts, ring back, and disable features such as voicemail and text alerts. Details of how to do this can be found on the SIM card provider's web site or by calling their customer services. For GPRS communicator we recommend use 2G Network SIM cards.
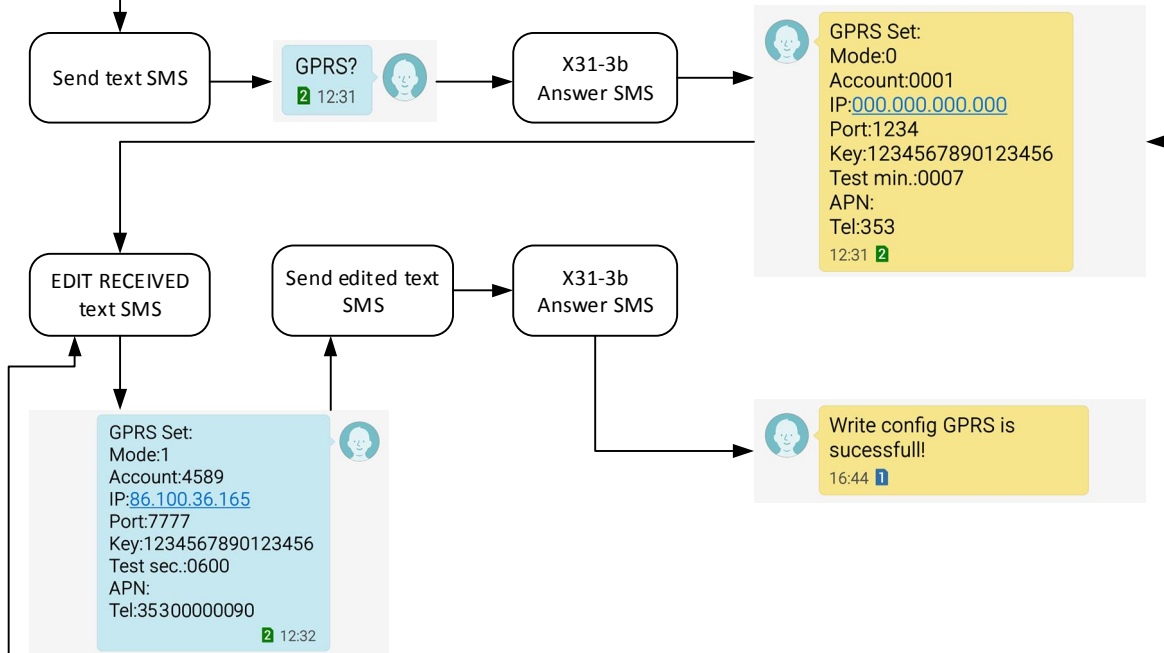
X31-3b WIRING

When the metal enclosure is used, it is necessary to ground the enclosure using yellow/green color cable. For the connection use 0.50 mm2 1 thread cable. For the device connection to input/output connectors use 0.50 mm2 1 thread cable of up to 100 meters length.
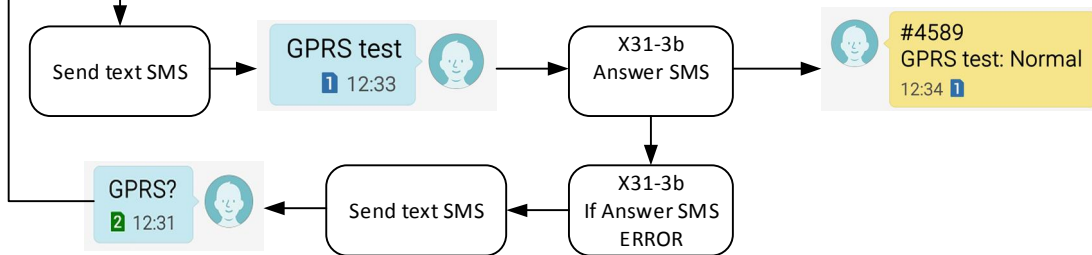
Recommended to install the GSM antenna away from the alarm system to ensure better quality of the audio signal. It is not recommend to install the antenna inside the metal enclosure.

1. **Connect 12VDC 1A power supply**
2. **Connect Terminals (Alarm), (GSM FLT),(PSTN FLT), (DIALLER) to Alarm panel**
3. **Connect GSM antenna**
4. **Insert SIM card**
5. **Power ON power supply**
6. **For GSM/PSTN back-Up mode, No any programming necessary.**
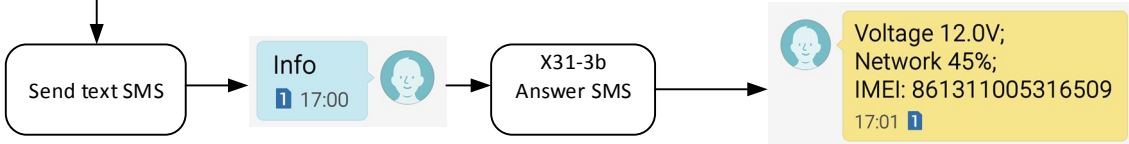   **For GPRS mode, check next step- GPRS programming.**

1. To start a remote GPRS communicator programming please , send the following SMS message from user phone number. **For GSM/PSTN backUp mode, Ignore this programming !**
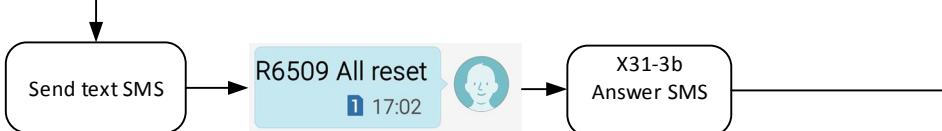
Send text SMS

GPRS?
2 12:31

X31-3b
Answer SMS

GPRS Set:
Mode:0
Account:0001
IP:000.000.000.000
Port:1234
Key:1234567890123456
Test min.:0007
APN:
Tel:353
12:31 2

EDIT RECEIVED text SMS

Send edited text SMS

X31-3b
Answer SMS

GPRS Set:
Mode:1
Account:4589
IP:86.100.36.165
Port:7777
Key:1234567890123456
Test sec.:0600
APN:
Tel:35300000090
2 12:32

Write config GPRS is sucessfull!
16:44 1

2. To test GPRS communicator programming please , send the following SMS message from user phone number. Or press TEST button on communicator PCB
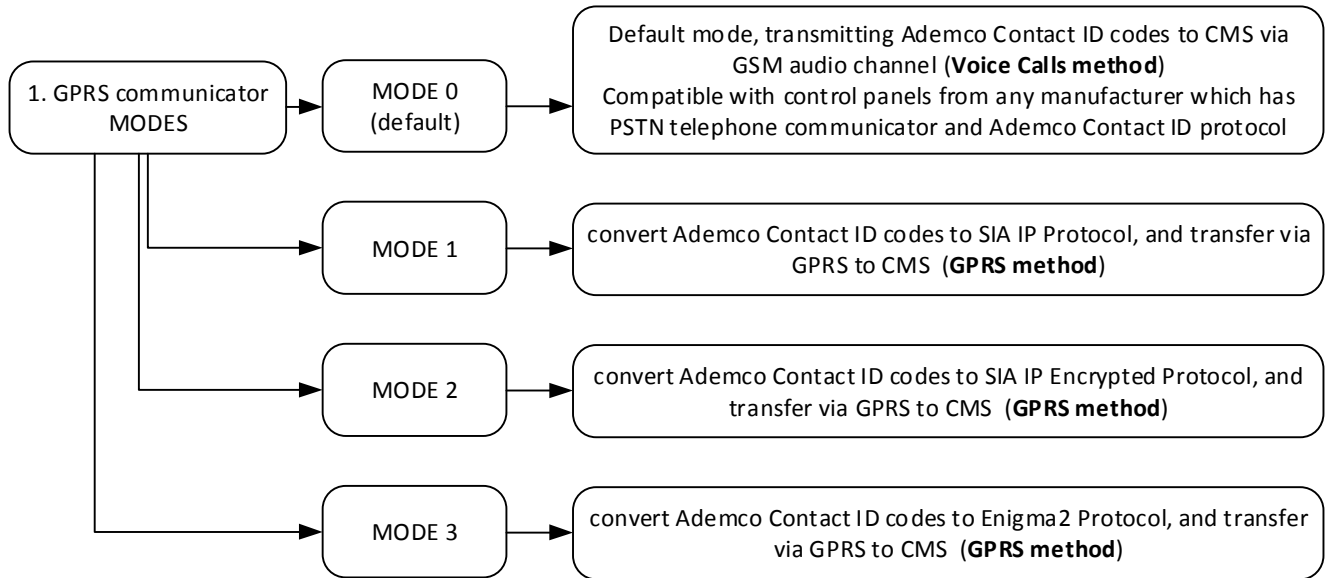
Send text SMS

GPRS test
1 12:33

X31-3b
Answer SMS

#4589
GPRS test: Normal
12:34 1

X31-3b
If Answer SMS
ERROR

Send text SMS

GPRS?
2 12:31

3. To check GPRS communicator systems parameters please , send the following SMS message from user phone number.

Send text SMS

Info
1 17:00

X31-3b
Answer SMS

Voltage 12.0V;
Network 45%;
IMEI: 861311005316509
17:01 1

4. Reset GPRS communicator to factory default , please ,send the following SMS message from user phone number. R****   (*-last 4 IMEI numbers)

Send text SMS

R6509 All reset
1 17:02

X31-3b
Answer SMS

GPRS parameters
settings
Information

1. GPRS communicator
MODES

MODE 0
(default)

Default mode, transmitting Ademco Contact ID codes to CMS via
GSM audio channel (**Voice Calls method**)
Compatible with control panels from any manufacturer which has
PSTN telephone communicator and Ademco Contact ID protocol

MODE 1

convert Ademco Contact ID codes to SIA IP Protocol, and transfer via
GPRS to CMS (**GPRS method**)

MODE 2

convert Ademco Contact ID codes to SIA IP Encrypted Protocol, and
transfer via GPRS to CMS (**GPRS method**)

MODE 3

convert Ademco Contact ID codes to Enigma2 Protocol, and transfer
via GPRS to CMS (**GPRS method**)

GPRS Set:
Mode:0
Account:0001
IP:255.255.255.255
Port:7777
Key:1234567890123456
Test min.:0000
APN:
Tel:370
12:35

Mode: GPRS working mode
Account: CMS IP receiver account number
IP: CMS IP receiver IP address
Port: CMS IP receiver port number
Key: SIA encrypted Key (only on Mode 2)
Test min: Alarm Polling signal in minutes
APN: Network provider address(leave blank)
Tel: Admin phone number who only has
access to communicator programming

POSSIBLE FAULTS

GSM LED is off or not flashing	• Not connected power supply • Circuit not properly connected • Blown fuse • No GSM network signal
READY LED flashing several times per second	• Not programmed GPRS mode • No connection to CMS IP receiver
Sent Text SMS not responding	• Check SMS text letters , Caps, Spaces • No credits on SIM card number
LINE LED is Off	• Not connected PSTN Line

TECH. SUPPORT

For Tech. Support please send enquiry to gsmalarms@eircom.net

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