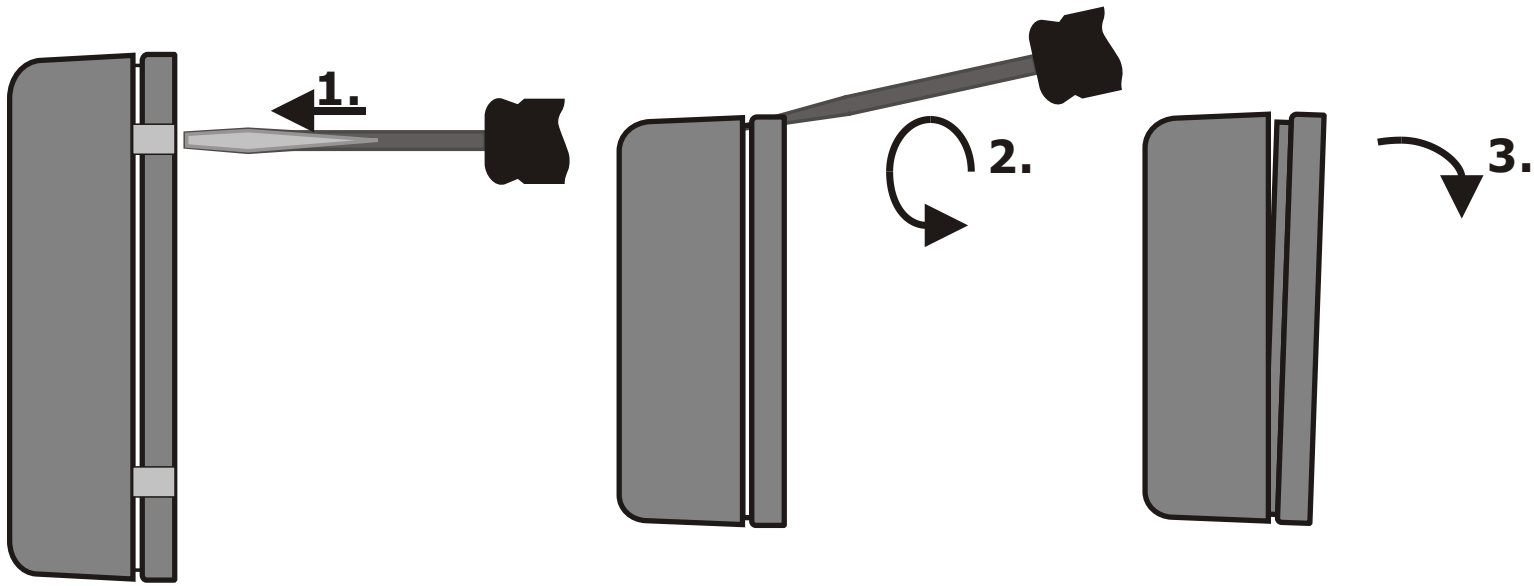
FIDRA
Surface Mount Technology

GsmVOX communicator
Ver 3.0

INSTALLATION & PROGRAMING MANUAL

All you need is GSM SIM Card



How to open plastic box

What's inside:

- ☑ GSM communicator **GsmVOX**
- ☑ GSM antenna
- ☑ Paper manual
- ☑ Box

INDEX

INTRODUCTION

We are thanking you for choosing **GsmVOX** communicator by **FIDRA**. It is made for fast and safe informing the owner of events and situations in cases when wired phone line is unavailable or quick and safe information is important.

1.1 FEATURES

☑ Ready for use (all you need is GSM SIM card)
☑ 3 Entry zones with N.O. activation
☑ Tone signal and SMS message for every entry zone
☑ 3 Phone numbers for every entry zone
☑ 3 SMS Phone numbers for every entry zone (total 9+9 numbers)
☑ Built-in GPRS modem and apropriate antenna
☑ SMS user message content can be programmed (80 characters max.)
☑ **Changing content of user messages by SMS sending**
☑ Default message when no programmed user conent
☑ Entry zones continuous check
☑ Parameters programming on any GSM phone
☑ GSM SIM card content reading
☑ Advanced call detection makes lower cost

☑ Accepted call can be ended by receiver to reduce costs
☑ Busy detection and repeating call
☑ GSM radio signal strength and SIM card check
☑ Watchdog and modem RESET
☑ Extremely low power consuption
☑ User programmable outputs (3 PGM managed by SMS messages)
☑ Relay on PGM1 output

1.2 CHARACTERISTICS

Power supply voltage	13.8Vdc (10,5Vdc to 15Vdc)
Max power consuption	200mA max. (During call)
Average power consuption	17mA
Tone signal duration	30 sec.
Min. duration of act. inputs	2 sec.
Working temperature	5°C do +50°C
Dimensions wo antenna	104mm x 83mm x 32mm(WxLxH)
Antenna length	85mm
Weight with antenna	140 grams

2.1 PLACING

Place the device in dry and protected place. Cable entry hole is below terminal blocks. During operation device doesn't need additional cooling.

2.2 ENTRY ZONES

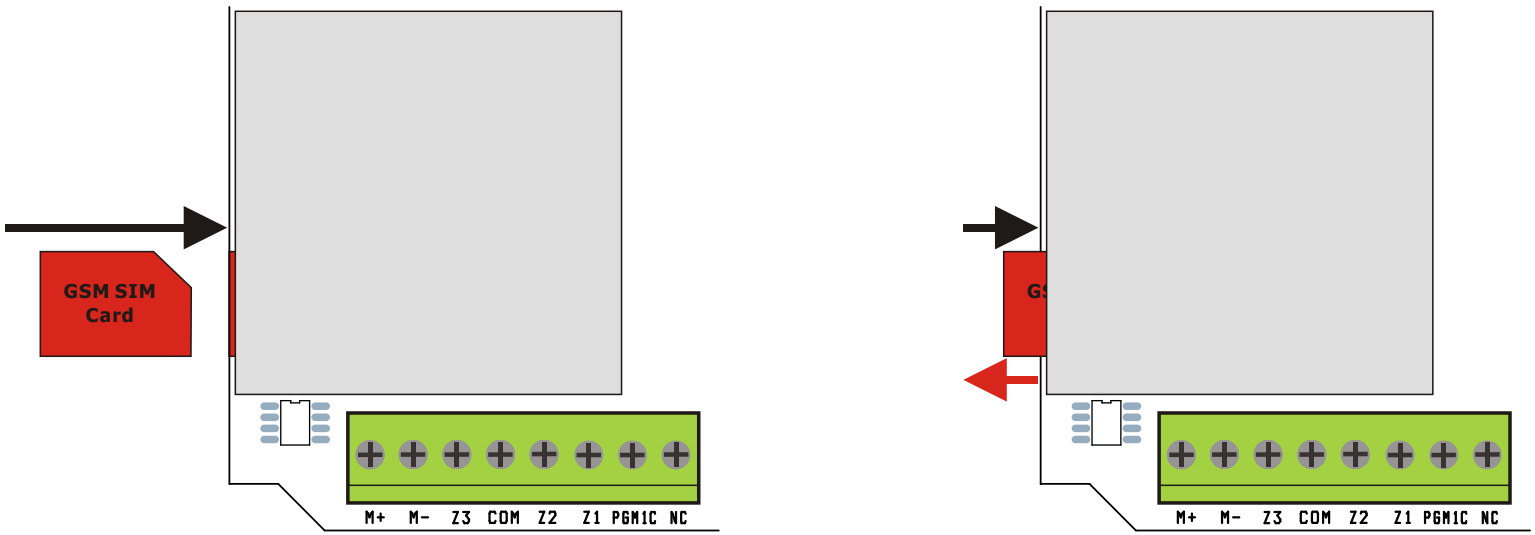
Different detectors, contacts and etc. can be connected to entry zones. All entries are without EOL resistors, N.O. type (normally open), please take care when connecting. Entry zones are marked Z1, Z2 i Z3. Common input is marked COM.

2.3 GSM SIM CARD

Kind of SIM card is no important for device functionality. In case of possession or planning to have pre-paid SIM card it is important to check the credit and duration. Any additional demand isn't needed, because the device uses only standard mobile operator services. SIM card PIN code checking must be turned off.

2.4 SIM CARD MANIPULATION

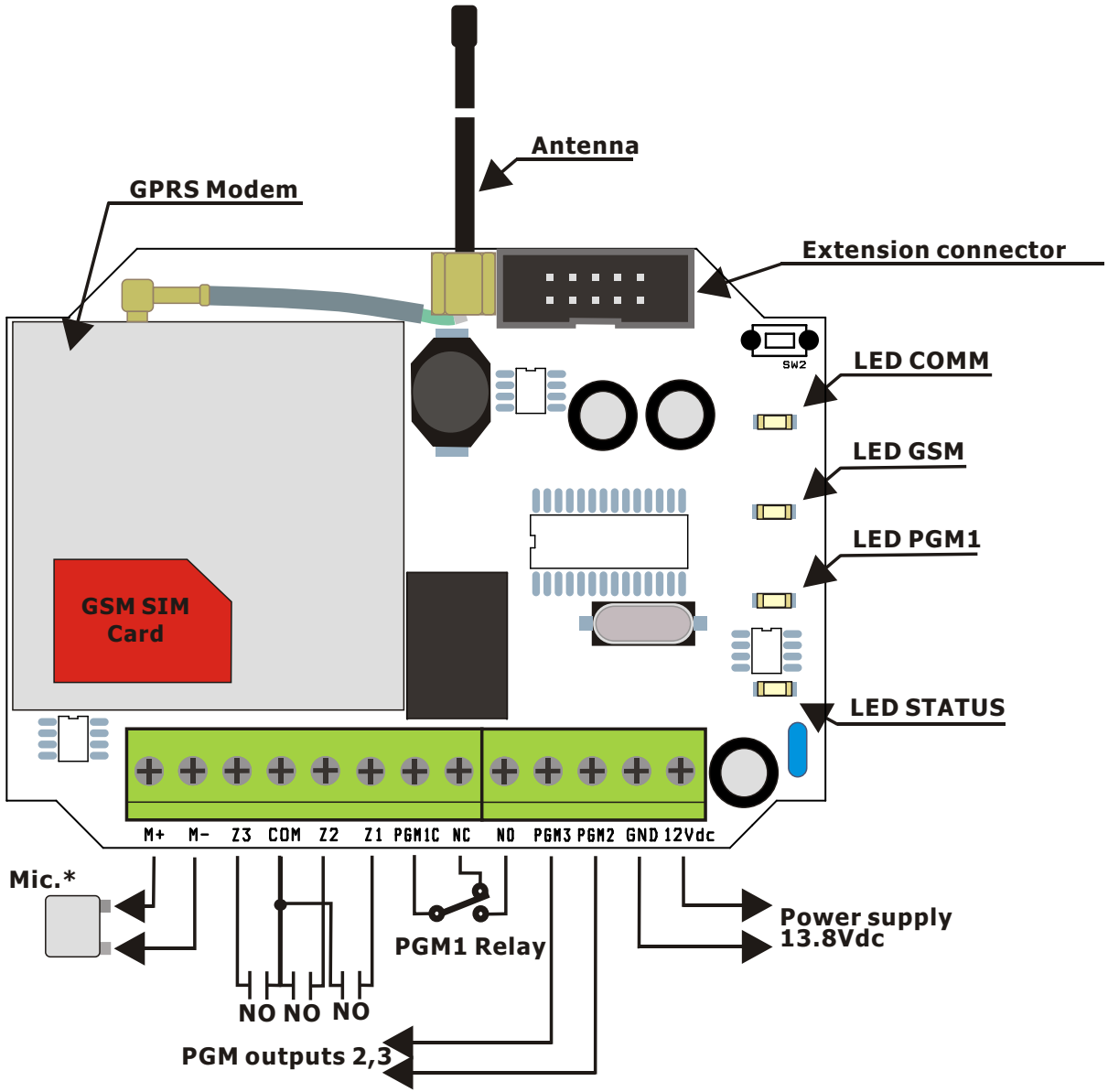
SIM card should be placed in hole on left side of GSM module. When inserting, it is enough to insert card into hole and slowly push until it is locked. When removing, the card should be pushed towards module until it is unlocked and the card can be taken out.



2.5 POWER SUPPLY

The device is supplied by 13.8 Vdc. When using it as part of alarm system, device should be connected to AUX contacts.

2.6 CONNECTION DIAGRAM AND PGM OPTION



3.1 BUILT-IN INDICATORS

3.1.1 COMM LED INDICATOR

Lights during communication between main processor and Gsm module

3.1.2 GSM LED INDICATOR

Slowly flashes 0,5 sec. ON 3 sec. OFF when GSM module is connected to network and all parts of GSM module are functional (SIM card, signal strength, etc.)

Flashes 0,5 sec. when GSM module searching for GSM network or any of parts isn't functional

Turned OFF when GSM module is turned off

3.1.3 PGM1 LED INDICATOR

Lights when PGM1 output is activated

3.1.4 STAT LED INDICATOR

Flashes 0,5 sec. when the device is in process of initializing or memory of busy numbers is active

Lights continuously during calling or sending SMS messages

Flashes 0,5 sec. ON 2 sec. OFF if signal strength too low or missing antenna

3.2 PROGRAMMING PARAMETERS

If all parameters are correct after initialization, device is ready for use. Any GSM phone can be used to program the device. Place the card into phone and turn it ON. Continue the programming steps. When programming is finished, turn the phone OFF, remove GSM SIM card and put it into **GsmVOX**.

IMPORTANT: GsmVOX must not be connected to power supply during removing or replacing SIM card.

3.3 STANDBY STATE

During this state **GsmVOX** checks inputs and switches to active state in case of inputs activity.

3.4 ACTIVE STATE

After changing to this state **GsmVOX** carries out next activities:

Calls all preprogrammed numbers belonging to active input zone XtoneXY (X i Y can be 1, 2 or 3)

Sends SMS messages to preprogrammed numbers belonging to active input zone XsmsXY (X i Y can be 1, 2 or 3)

When busy line is detected current phone number is pushed into memory of busy numbers to repeat call later

4.1 PHONE NUMBERS FOR TONE CALL INPUT

Tone call is same as direct call made by ordinary GSM phone. For every entry zone we can program different phone numbers. Typing procedure is as follows:

1. Add desired phone number into phone
2. Depending the zone create the name like:
   Xtone11 (12 or 13) Zone 1
   Xtone21 (22 or 23) Zone 2
   Xtone31 (32 or 33) Zone 3

The name must have quoted sintax (**X** capital letter, all remaining letters small).

IMPORTANT: All numbers should be in locations 01 to 99 of SIM card memory. This is meant for tone calls and SMS messages phone numbers. Due to quicker communication the address book should not have any other numbers programmed.

4.2 SMS MESSAGES (PHONE NUMBERS)

For every entry zone different SMS message could be programmed. Procedure for recording phone numbers to which SMS messages are sent, is the same as input of numbers for tone calls:

1. Add desired phone number into phone
2. Depending the zone create the name like:
   Xsms11 (12 or 13) Zone 1
   Xsms21 (22 or 23) Zone 2
   Xsms31 (32 or 33) Zone 3

The name must have quoted sintax (**X** capital letter, all remaining letters small).

4.3 SMS MESSAGES

Procedure for creating text of SMS message is like:

1. Create new SMS message as follows:

Xmessage1: your message for entry zone 1
Xmessage2: your message for entry zone 2
Xmessage3: your message for entry zone 3

2. Message save like text in SIM card memory (isn't needed to send it)

The message must have quoted sintax (**X** capital letter, all remaining letters small).

IMPORTANT: Messages can be programmed by sending it to the GsmVOX number. These messages will be saved from deleting until the user clears it from SIM card by using GSM phone. Before sending message wait until GsmVOX is initialized.

IMPORTANT: All messages must be in first 9 SIM memory locations. All messages should be cleared before creating new one. Message length must not be over 80 characters.

IMPORTANT: If message isn't created for corresponding zone, but phone numbers (XsmsXX) exists default message will be sent.

IMPORTANT: Service center number (SCA) must be programmed for sending SMS messages.

4.4 SMS MESSAGES FOR PGM OUTPUT CONTROL

Procedure for creating text of SMS message is like:

1. Create new SMS message as follows:

X.pgm1:_On for turning ON PGM1 output
X.pgm1:_Off for turning OFF PGM1 output
X.pgm1:_Mon for turning ON PGM1 output for 5 sec.
X.pgm2:_On for turning ON PGM2 output
X.pgm3:_On for turning ON PGM3 output
X.pgm2:_Off for turning OFF PGM2 output
X.pgm3:_Off for turning OFF PGM3 output

2. Send message to your **GsmVOX** number

The message must have quoted sintax (symbol "_" means one blank)

IMPORTANT: Built-in control clears all incoming messages after analyzing their content and preserve SMS messages memory from overloading.

IMPORTANT: If you want to know the exact moment when your message is received by GsmVOX it is needed to turn on option "SMS Status Report" in your GSM phone.

4.5 ALARM CONTROL PANEL CONFIGURATION

Procedure to configure device in alarm control panel is as follows:

1. Create phone number **0001**
2. This number save with name **Xconfig**

The name must have quoted sintax (**X** capital letter, all remaining letters small).

IMPORTANT: If no number is saved by this name, device understands that this option is turned OFF .

5.1 CALL DETECTION

GsmVOX has improved system for call detection. In case that called number is free and the device detects the call (RING) it is possible to reject call, usually after 5 to 8 sec. after first ring tone. In that way busy line is not registered and costs are reduced. Also it is even possible to interrupt already established connection (call), which also reduces costs.

5.2 FUNCTIONALITY CHECK OF GSM CONNECTION

If during work the error is detected or GSM module "locks", built-in hardware watchdog turns modem OFF and later after initialization turns it ON again to establish functional state.

5.3 SIM CARD CHECK AND SIGNAL STRENGTH

Built-in control checks continuously SIM card presents and functionality. In case the irregularity is detected the device automatically turns into reset state until regular state is established. Signal strength is continuously monitored and if signal level is too low LED STAT is turned ON.

5.4 ENTRY ZONES CONTINUOUS CHECKING

Entry zones are continuously checked, even when one or two of the zones are activated. This function keeps functionality of all entry zones.

5.5 BUSY LINE CALLS

Numbers that are busy during call will be called again in intervals of 2 minutes until call is finally established. Numbers of recalls are unlimited. SMS messages are not sent in this procedure.

5.6 REPEATING CALL

If during entry zone active state another activity is registered on same input the device doesn’t let consequent calls in current sequence. This function reduce time waste and costs. New activity will be accepted only after completing current one.

5.7 PGM OPTION

This **GsmVOX** option could be used for controling PGM outputs by SMS messages. Various aplications are possible due to numbers of controled outputs (3). All outputs could be turned ON or OFF, also output 1 could be turn ON for 5 seconds only. Command syntax prevent irregular use or unwanted outputs state change. Also built-in logic prevents SMS card memory from overloading, by erasing incoming messages after executing command. This option is available in regular communicator mode and also in CP mode when device works like control panel, except in CP mode only output PGM3 is available.

5.8 CP OPTION (CONTROL PANEL)

If you like to turn your **GsmVOX** into basic control panel and also to preserve regular functionality CP option could be used. Device could be armed and disarmed by ordinary key-lock contact or remote control output. One input is reserved for delayed entry zone, another for instant entry zone. Activation is changed to N.C. type since control panel convention. EOL resistors are not needed. Outputs changes their function also, one of them is converted to siren out, another is armed/disarmed status and last one preserves ordinary PGM functionality.

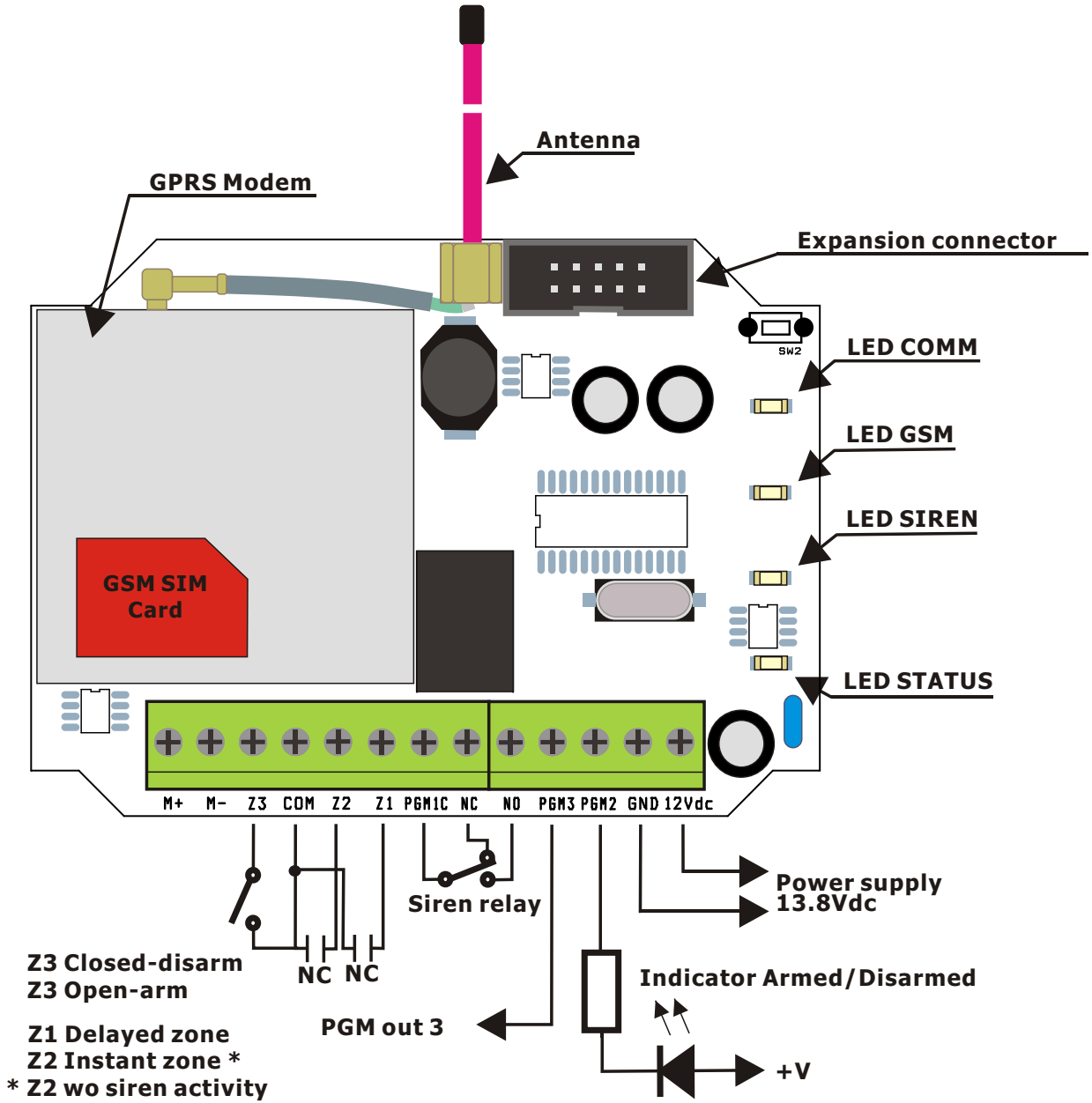
Z1 Delayed entry zone with programmed exit and entry time (exit time 30sec. entry time 10sec.)
Siren out duration time is 50sec.
Belonging phone numbers Xtone11,12,13 and Xsms11,12,13

Z2 Instant entry zone without exit and entry time
Siren out not activated (silent alarm)
Belonging phone numbers Xtone21,22,23 and Xsms21,22,23

Z3 Arm/disarm input
Dry contact or open collector could be connected

PGM1 Siren out (relay output)
PGM2 Armed/Disarmed indicator
LED lights when armed
PGM3 This output could be controlled by SMS messages

5.9 CONNECTION DIAGRAM AND CP OPTION



NOTES

NOTES

NOTES

This device is not intended for medical use and human life support.
We couldn’t accept any consequences indicated by irregular connection, use or unallowed use.
Please excuse us if any error during publishing of this manual is made.

FIDRA
Surface Mount Technology

http://www.fidra.rs

FID-GSM0405-E 2012V03.1
Printed in Serbia