Gprs Bus communicator

1. Overview

- Ensure direct connection between an installed DSC control panel via GPRS and receiver center;
- Works with all DSC control panels – series 'Classic' and 'Power Series';
- Connects directly to the Keybus of the control panel;
- Communicates using GPRS channel of the mobile operators;
- Ability to connect to 2 servers / computers / in series - if the connection with the first breaks, attempts to connect with the second one;
- Can be programmed and accessed remotely via computer with installed programming software;
- Transmission of all events generated in the panel - up to 65536 DSC control panel events;
- Owns buffer with 120 events;
- Maximum security with 128 Bit AES encryption of the transmitted information;

2. Connection of the communicator

- Turn off the card's PIN code. Place the card in regular phone and turn it off. Use SIM card with included data package / DATA card /, not VOICE card;
- Insert the card in the SIM card holder;
- Connect the unit with DSC control panel;
- Turn the power ON;

3. LED indications overview

3.1 Group of green LEDs (4) –> they gives information about signal strenght in the GSM network /see Appendix 3/;

3.2 Green LED – GSM (6):

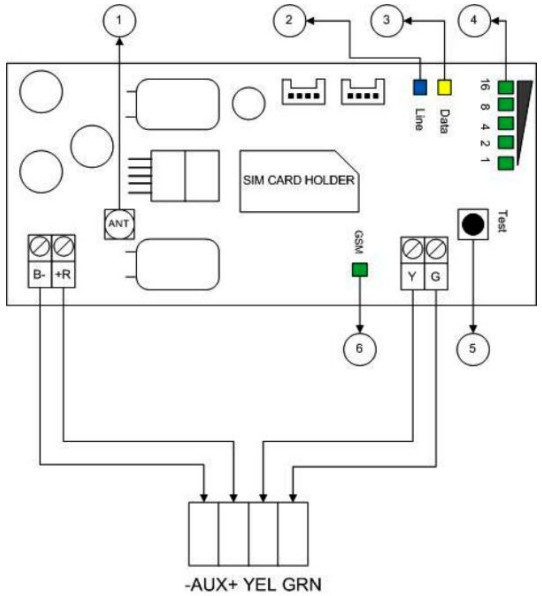
- OFF – Power OFF GPRS communicator;
- Blinks once per second – the communicator not registered in the GPRS Network;
- Blink once per 3 second – the communicator is registered in the GPRS Network;

3.3 Blue LED – Line (2) ->shows the current status of the communicator:

- Off -> the communicator is not connected with the receiver center;
- ON -> the communicator is connected with the monitoring center;
- Blinking; ->discrepancy in the account number, serial number and encryption key of the communicator and the receiver center;

3.4 Yellow LED – Data (3) –> gives information about the exchange of information with the receiver center;

- Off -> no data exchange at the moment;
- Blinking -> data exchange between the communicator and the monitoring center;



1 RF connector

2 LED for connection status:
ON: -> Connected with the receiver center;
OFF:-> Not connected with the receiver center;

3 Data LED:
Blinking : -> sends or receive data;

4 Group of green LEDs:
Digits from 1 to 16 give information about signal strength in the GSM network and the sum total is taken /see appendix 3/;

5 Test button:
Hold down this button to send signal "TEST" to the receiver center;

6 GSM status LED:
OFF – Power OFF GPRS communicator
Blinks once per second – Not registered in the GPR Network
Blink once every 3 seconds – Successful registration in the GPRS Network

4 Programming of the Gprs Bus communicator

Programming can be done in 2 ways:

- Remotely - from the receiver center with software after installation of the facility;
- From the DSC control panel through keyboard;

The communicator recognized as"59XX"in section [903] on LCD keyboard;

4.1. Programming by the keypad of the control panel:
[803] Alternative Communicator Programming (Gprs communicator)

[21] – First server TCP/IP address Default settings
[ ][ ][ ] . [ ][ ][ ] . [ ][ ][ ] . [ ][ ][ ] 213.222.033.001
/Record the address for connection with the first server in the receiver center /

[22] – First server port:
[ ][ ] [ ][ ] [ ][ ] 008061
/Record the port of the first server for connection with the receiver center /

[23] – Second server TCP/IP address:
[ ][ ][ ] . [ ][ ][ ] . [ ][ ][ ] . [ ][ ][ ] 255.255.255.255
/ Record the address for connection with the second server in the receiver center(if any) /

[24] – Second server port
[ ][ ] [ ][ ] [ ][ ] 65535
/ Record the port of the second server for connection with the receiver center (if any)/

[25] – Configuration server - TCP/IP address:
[ ][ ][ ] . [ ][ ][ ] . [ ][ ][ ] . [ ][ ][ ] 255.255.255.255
/ Record the address for connection with the receiver center /

[26] – Configuration server - port:
[ ][ ] [ ][ ] [ ][ ] 65535
/ Record the port for connection with the receiving center /

[27] – GPRS communicator timeout [sec.]:
[ ][ ] [ ][ ] [ ][ ] 200, 250
/Time in seconds after that GPRS Bus device is disconnecting and trying to connect again to another receiver center if have communication problem/

[29] – Account number and code for remote programming:
[ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] 777777, 123456
/The number is six-digit and the first 2 digits are '03',
followed by the number account;
Example: For site 5C20 in section [29] enter '035C20/'

[31] – GPRS module code for encryption:
[ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ]
[ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] FF FF FF ..... FF
/Enter the code for the encryption of 32 characters – mixture of digits from 0 to 9 and letters from A to F. The code is provided by the receiver center operator or the installer enters it and provides it to the operator./

[32] – APN address - first part:
[ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ]
[ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] 00 00 00 00

[33] – APN address - second part, continuation:

[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] 00 00 00 00

Enter the APN address, depending on the card of the mobile provider.

Important : The APN (Access Point Name**) address is specific for each mobile provider. Contact with your mobile provider for APN address.**

For entering the address use the table with hexadecimal codes from Appendix 2 of this description.

- Examples:

APN –> **globul**
In section [33] enter : 67 6C 6F 62 75 6C
APN –> **inet-gprs.mtel.bg**
In section [33] enter : 69 6E 65 74 2D 67 70 72 73 2E 6D 74 65 6C 2E 62 67;

[34] – PDP address:

[ ][ ][ ], [ ][ ][ ], [ ][ ][ ], [ ][ ][ ] 000.000.000.000

For future use

[35] – SMS number 1:

[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] FF FF FF ..... FF

For future use

[36] – SMS number 2:

[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] FF FF FF ..... FF

For future use

[37] – SMS number 3:

[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] FF FF FF ..... FF

For future use

[993] Restore alternate communicator to default programming:

[*] [8] [Installer Code] [993] [Installer Code] [993]

Important:This command restores the factory default settings of all devices, programmable in section [803];

❖ Notice:

- Turn off the PIN code, before inserting the SIM card!

Appendix 1

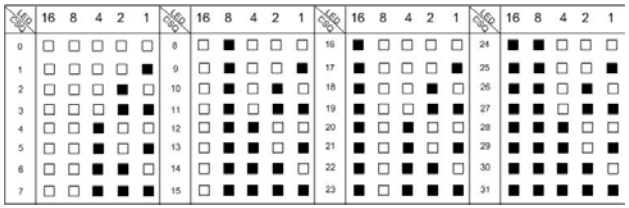
Troubleshooting Guide

Problem	Cause	Elimination
1. 'GSM' LED is OFF	1. No power supply 12V	1. Check the power supply
2. 'GSM' LEDblink once per second	1. The PIN code of the card is not turned OFF 2. Defective card 3. No antenna is placed	Insert the card in the mobile phone and check it 3.Place the antenna
3. 'Line' LED is OFF	1. Incorrectly entered IP address 2. Incorrectly entered port number 3. Incorrectly entered APN address 4. Incorrectly entered PDP address	1. Check sections [21], [23] 2. Check sections [22], [24] 3. Check sections [32], [33] 4. Check section [34] -> 000 000 000 000
4. Line' LED is blinking	1. Discrepancy in account number 2. Discrepancy in serial number 3. Discrepancy in encryption key	1. Check section [29] 2. Check the F/N number, written on the back of the communicator 3. Check section [31] 4. Compare the data with the submitted in the receiving center
5.Low level GSM signal	1. Antenna is damaged 2.Weak signal from the mobile provider 3. Inappropriate location for installation	1.Change the antenna 2.Change the mobile provider 3.Change the position
6. Not impossible to enter programming	1. The communicator is not recognized by the control panel;	1. Enter the section [902] 2.1. Check the connections of the communicator with the control panel
7. Other		Call the service centre;

Appendix 2

HEX codes of the ASCII symbols

Hex	ASCII	Hex	ASCII	Hex	ASCII	Hex	ASCII
20	Space	38	8	50	P	68	H
21	!	39	9	51	Q	69	I
22	"	3A	:	52	R	6A	J
23	#	3B	;	53	S	6B	K
24	$	3C	<	54	T	6C	L
25	%	3D	=	55	U	6D	M
26	&	3E	>	56	V	6E	N
27	'	3F	?	57	W	6F	O
28	(	40	@	58	X	70	P
29	)	41	A	59	Y	71	Q
2A	*	42	B	5A	Z	72	R
2B	+	43	C	5B	[	73	S
2C	,	44	D	5C	\	74	T
2D	-	45	E	5D	]	75	U
2E	.	46	F	5E	^	76	V
2F	/	47	G	5F	_	77	W
30	0	48	H	60	`	78	X
31	1	49	I	61	a	79	Y
32	2	4A	J	62	b	7A	Z
33	3	4B	K	63	c	7B	{
34	4	4C	L	64	d	7C	|
35	5	4D	M	65	e	7D	}
36	6	4E	N	66	f	7E	~
37	7	4F	O	67	g	7F	Del

Appendix 3

Descriptions of LED indications (4):