

The JA-62GSM communicator for GSM

The communicator is a component of the Jablotron JA-63K(R) Profi system. It has been designed for communication via a GSM network. It is installed directly within the control panel housing and it allows the following:

- event reporting by SMS (for up to 8 telephone numbers)
- event reporting by phone call with voice message warnings (it is possible to record up to 7 messages for various events)
- remote control and programming by phone (by calling and using the voice navigation or by SMS instructions)
- remote control of the system (or appliances in the house)
- data transmission to an Alarm Receiving Centre (ARC) - up to 2 ARCs
- remote programming of the ARC by internet application
- **It is not possible to register the communicator on www.gsmlink.cz**

The GSM communicator should be installed by a trained technician with a valid certificate issued by an authorised distributor.

1. Installation in the control panel

If you purchased the communicator module separately, it should first be installed in the JA-63 Profi control panel as follows:

- a) The control panel **power must be switched off** (both mains and battery)
- b) Fit the communicator inside the control panel housing using screws and **connect its cable** to the main board.
- c) Attach the adhesive GSM antenna inside the control panel's plastic housing (it can be glued in a suitable place) and connect the antenna to the communicator. **Warning: never switch the control panel power on if the GSM antenna is not connected to the GSM module as this will cause serious damage!!!**

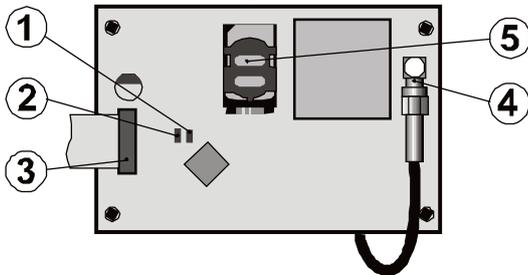


Fig. 1 Communicator description:

- Description: 1. Red LED signalling connection to a GSM network; 2. Green LED signalling normal operating mode; 3. Control panel connector; 4. GSM antenna connector; 5. SIM card

2. Initial powering up of the communicator

The communicator is installed in the control panel and its GSM antenna is connected, then:

1. **Have a suitable SIM card ready.** It should be activated (see if it works in a mobile phone first). The SIM card should have the following services activated: SMS, data (GPRS), voice and CLIP (caller identification). If it requires a PIN code when switching the phone on, **then disable the PIN code request upon the first use of the phone**; e.g. Nokia: Menu / Settings / Security settings / PIN code request / Off, if the SIM card requires the PIN code enter it, see 6.17. The communicator can work with a prepaid card, but we recommend using a tariff card for more reliable functioning.
2. **Insert the SIM card** into the communicator (to open the card holder push its frame up a little).
3. Switch on the control panel power (both mains and battery). The communicator's red LED should be lit = registering to the GSM network; **it should go off within a minute = registration successful.**
4. If the red LED starts flashing after a while, switch off the control panel power, put the SIM card into a mobile phone and check that it registers to the network in the place where the control panel is installed without any PIN code requests.
5. **Close the control panel cover**, the alarm system should be in Service mode - if it is not, enter F0 Service code (Factory default setting: 6060) with the alarm system unset (disarmed).
6. Key in **99101** - to set the **texts** and voice messages of the communicator **to the English language.**
7. Enter 888 to measure the GSM signal strength (a number in the range from 0 to 9 should be displayed). It should be **at least 3** to ensure reliable functioning. If the signal is weak, change the location of the control panel or try a SIM card from another GSM provider (it is not recommended to use either a high-gain or directional GSM antenna – see 6.2 GSM signal strength measuring).
8. If the GSM signal strength is sufficient, test the communicator functions (system control via a mobile phone, etc), see the instructions below.

Warning: If installed at a location near a national border where the signal strength fluctuates, roaming to a foreign network is highly likely. We therefore recommend blocking the roaming feature in the SIM card to avoid unnecessarily high communication fees (contact your GSM provider for details).

3. User functions of the communicator

The following text describes all communicator features. The installer should show the end user how to operate the functions used in the particular installation.

3.1. Event reporting to the user's phone

The communicator reports events in the Profi system by sending a text SMS and / or calling and transmitting a voice message. Reporting can be set to up to 8 telephone numbers. The most frequently used report variants are preset but they can be customized.

Notes:

- If used, transmissions to the Alarm Receiving Centre have absolute transmission priority (see 7.4).
- Calling is usually used to draw the user's attention to a detailed report sent in an SMS. If reporting by SMS is enabled, the communicator first sends all SMS messages before it starts dialling the set numbers.
- Message playing can be terminated by pressing # on the telephone keypad. The keypad then switches into keypad simulation mode and the messages are not further transmitted to other numbers.

3.2. Temporarily authorizing a phone as a system keypad

It is possible to operate the system remotely by temporarily authorizing a phone keypad as follows:

- a) dial the communicator's SIM card number
- b) after 15 seconds of ringing, the system will answer and ask for a code.
- c) enter a valid control panel access code on the telephone keypad – the code assigned to the telephone (see chapter 6.6), or use a service code for remote access (default 0000)
- d) once the code has been entered, the system tells you the current status and turns on the Keypad simulation mode
- e) connection is terminated by hanging up the call, if nothing is entered within a minute, the phone call will end automatically anyway
- f) the maximum allowed phone call length is 30 minutes

Notes:

- a land line phone can also be used to control the system remotely in the same way, a condition is that the phone must use tone dialling (DTMF)
- **do not enter sequences on the phone too fast, each key signal needs a certain time to be sent (it depends on the particular phone and the quality of the GSM connection**
- Service code for remote access default is set to 0000

3.3. SMS instructions to control the system remotely

All incoming SMSes are checked by the communicator and if there are any instructions to the system, they will be performed. Each instruction message must have the following format:

Instruction_code

(i.e. valid code space instruction)

SET 1234

Valid code = any valid code in the system (e.g. 1234), saved in the control panel.

The factory-default instruction texts (editable – see TXT command).

Command	Function	Note
SET	setting (arming)	setting or unsetting (the same way as if the used code is entered on the system keypad), If the system is already in the desired mode, it will not change
UNSET	unsetting (disarming)	
STATUS	reports system status	including GSM signal strength, GPRS connection and ARC communication (shown as MS1, MS2 and MS3)
MEMORY	reports latest events	this concerns the last 3 events from the control panel memory
PGON	turns on PG	the PG output has to be programmed for the function PHONE (enter sequence 238/248)
PGOFF	turns off PG	
CREDIT	SIM card credit inquiry	it has to be initialized before it can be used – see 6.17
DINFO	SMS info about device version	SMS on assembly info: firmware, hardware and versions + reg. key

Tab. 1 SMS commands

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Example by sending: "SET code" (SET space valid code) the system will set (if it is already set it will not change its status)

Notes:

- the access code is always required for the commands SET and UNSET
- the system will **confirm performance of the SMS** instruction by an SMS reply, if this function is enabled
- the SMS instruction texts are not case-sensitive and only ASCII characters are allowed
- the SMS instruction texts can contain multiple instructions separated with a comma
- if you are sending an instruction and you are not sure whether any other text will be automatically added to the SMS on the way (for example, when using an SMS internet gate) type the instruction as: **%instruction code %%**
- the valid code can also be entered automatically, see 6.6.

4. User communicator programming

User setting of the communicator is performed by entering sequences from the Profi system keypad. Selected parameters can also be controlled or set by SMS instructions.

Setting on the system keypad is possible only in the case that the control panel is in **maintenance mode** (if it is not, enter F0 master code when system is unset – Factory default setting 1234). Modification of values set in the communicator is performed by entering programmable sequences (see Tab. 7).

Press the # button to exit Maintenance mode or to cancel code entering when you enter a wrong number.

If setting of telephone numbers in Maintenance mode is enabled in the control panel settings (sequence 251 of the Profi control panel), then it is possible to set the following communicator parameters in Maintenance mode by keying in the below mentioned sequences beginning with 8:

- Set telephone numbers M1 to M8
- Select events which should be reported by an SMS message and calling
- Measure GSM signal strength
- Limit the number of sent SMSes
- Record voice messages

4.1. Setting of telephone numbers for reporting

The communicator reports events in the Profi system by sending a text SMS and / or calling and transmitting a voice message. Reporting can be programmed for up to 8 telephone numbers.

The most frequently desired reports are already assigned to the telephone number memories by factory-default, so you only need to program tel. numbers to the particular memories:

Overview of reports assigned to tel. numbers (this can be modified see 6.4)

M	Reports
1	Alarms by SMS and phone call, faults by SMS
2	Alarms by SMS and phone call
3	Alarms by SMS and phone call
4	Alarms by SMS
5	Alarms by SMS and phone call
6	Alarms by SMS and phone call
7	Alarms by SMS
8	Technical faults by SMS (for a service technician)

tab. 2 Reports assigned to telephone number memories M1to M8

To program phone numbers to the M memories, enter the following sequence while in Maintenance / Service mode:

81 M xxx...x F0

where: **M** is memory number 1 to 8
xxx...x is a telephone number (max. 20 digits)

To erase a number from memory M enter: **81 M F0**

Example: entering **81 5 710 123 456 F0** will store the number 710123456 in memory M5 (alarms will be reported by SMSes + phone calls with a voice message).

Notes:

- In a split system, when you change a detector's section, adjust the reaction of the detector etc, you have to enter enrollment mode for 1 s and leave it before you leave service mode. This way the changes are saved in the communicator.
- Entering F9 before the first digit will insert a "+" for the international formatting of phone numbers.

- SMS report text consists of the installation name, event type, name of the event source, date and time. For example: "Report from your alarm: setting 47: device Time 11:27 01.08".
- If other events or texts should be reported to a particular number, change the communicator settings (see 6.4, 6.7 and tab. 5 the list of events which can be reported to your phone and their factory default settings).

5. Voice menu for control via a telephone

The communicator is equipped with voice navigation for remote control of the basic system functions (remote access via a telephone must be enabled). The menu has factory default voice reports in multiple languages – the desired languages is selected by entering the **991 xx** sequence (see 6.1). The voice navigation is as follows:

- After 15 seconds of ringing the communicator will answer the call and require entering the valid code.
- After entering a valid code for remote access the system reports its current status (always 1x) and opens the keypad simulation mode and allows entering the controlling / programming sequences.
- When you enter a valid access code, the system is set / unset and confirms the system status. For an incorrect entry the system generates a series of beeping sounds.
- When you enter programming sequences, a correct entry is confirmed by one beep, an incorrect entry is rejected and indicated by a series of beeps.
- When the system is in the service / maintenance mode, code verification is performed and if the code is valid, you will hear: "Service mode, keypad simulation".
- By entering the sequence 892, you enter the voice message recording mode.

6. Installation programming

The most convenient and complete programming is best done by a PC running Comlink software and higher connected locally at the installation or remotely via the Internet.

The communicator can also be programmed by keying in sequences from the system keypad or via SMS programming instructions.

Programming by the system keypad is possible only if the control panel is in **Service mode**, if it is not, key in *0 Service code (factory default setting: 6060) with the alarm system unset (disarmed) The setting is performed by keying in programming sequences, (see Tab. 7 communicator programming sequences). **Press the # button to exit service mode** or to cancel code entering when you key in a wrong number.

6.1. Communicator language setting

The language of the texts and voice menu used by the communicator can be set by the instruction:

991 xx

where: **xx** is a number defining the language – see the following list:

01	EN	English	08	IT	Italian
02	CZ	Czech	09	PT	Portuguese
04	NL	Dutch	10	FI	Finnish
05	DE	German	12	SV	Swedish
06	PL	Polish	14	HU	Hungarian
07	DA	Danish	15	RU	Russian

Example: Keying in 99101 will set English.

Notes:

- entering 00 will reset the texts and voice messages to the factory default values in the currently set language.
- set the language before editing the text in the system (a change of language will change the text to the factory default setting)
- The set language will not change when a reset is performed

Factory default setting: 99101 = English

6.2. GSM signal strength measuring

A good quality GSM signal is necessary for the reliable functioning of the communicator. Enter the **888** to start GSM signal strength measuring. The keypad then displays the signal strength in the range 0 to 9 and the measuring is repeated every second – new data is indicated by a beep. This

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mode allows users to find a suitable location for the communicator antenna.

Press the # key to exit the measuring.

The signal should be at least 3. In places with a weak signal we recommend trying another GSM provider's SIM card.

Warning: it is not recommended to use a directional GSM antenna with the communicator (the module would thus communicate with a single cellular base station only). The communicator normally communicates with at least three cellular base stations (the connection is thus more stable). It is not even recommended to use a high-gain antenna – if the signal is transmitted over a distance exceeding 30km, it does not ensure standard GSM function due to time lapses in the transmission.

6.3. Setting of telephone numbers and events

The factory-default list of reported events and their assignment to telephone numbers M1 to M8 (tab. 1) can be modified. The complete list of reportable events is shown in Tab 6.

It is possible to select whether the event should be reported by an SMS or by a phone call, or in both ways.

Each event has pre-programmed factory-default SMS text (it can be modified – see 6.7).

6.4. SMS report setting

To set events to being reported by SMS, enter:

82 M uu x

where: **M** is phone number memory 1 to 8
uu event code 01 to 40 (see tab. 5)
x 0 = no SMS report, 1 = SMS report

Example: If **82 8 03 1** is programmed and a fire alarm is triggered (event 03 in the table), it will be reported by SMS to the phone number stored in memory M8.

6.5. Voice message setting

To set events to being reported by voice messages, enter:

83 M uu x

where: **M** is phone number memory 1 to 8
uu event code 01 to 40 (see tab. 5)
x 0 = no phone call, 1 = call

Example: if **83 1 03 1** is programmed and a fire alarm is triggered (event 03 in the table), the communicator will phone the first number stored in the memory and it will keep repeating: Your system is reporting a fire alarm.

Notes:

- Calling is usually used to draw the user's attention to a detailed report sent in an SMS. If reporting by SMS is enabled, the communicator first sends all SMS messages before it starts dialling.
- If used, transmissions to the Alarm Receiving Centre have absolute transmission priority (see 7.4).
- The message playing can be terminated by pressing # on the telephone keypad. The keypad then switches into keypad simulation mode and the messages are not further transmitted to other numbers.

6.6. Access code assignment to programmed telephone numbers

This parameter serves for identification of the user during a voice call. To do so, enter:

84 M xxxx

where: **M** is phone number memory 0 to 8
xxxx Valid code UC / MC / SC

Notes:

- Entered codes don't have to match the user code defined in the control panel
- Position 0 = service code for remote access,

Factory default setting: No code, 0000 – service code for remote acc

6.7. SMS and instruction text editing

The communicator contains various factory default text strings which are used to create SMS reports and also SMS instruction texts. The language of the text can be set – see 6.1. These text strings can be edited locally by ComLink software or remotely by sending the following SMS instruction:

code_TXT_n,text,n,text,.....n,text

where: **Code** is a valid service code for remote access (default 0000)
TEXT is an instruction to edit texts
N text number (0 to 611, see tab. 6)
, comma (or full stop)
text the new text (max. 30 characters) which will replace the former text. It is invalid to enter a comma or a full stop inside the text string, but a space is valid within the text string (spaces outside the text string are ignored).

Notes:

- A single SMS TEXT instruction can modify multiple texts (limited only by the maximum length of a single SMS)
- the communicator is not case-sensitive and it is recommended to use only English ASCII characters (some networks do not support non-English national characters)
- the communicator creates SMS reports with 5 parts (installation name, event description, source number (code 01 to 14 or device 01 to 16), source name and time. The maximum possible length of an ASCII SMS is 160 characters (only 70 characters for national characters) If this length is exceeded, the report is sent as multiple SMSes.
- The communicator automatically fills in spaces, delimiters and time.

Examples:

if the factory default service code is 0000 then the SMS instruction:

0000 TXT 33,key fob Bob,34,Key fob Jane changes the description (name) of the key fobs enrolled to addresses 33 and 34.

0000 TXT 609,heating on,610,heating off edits the text of the two instructions used to command the heating to be switched on and off by the PGXY output (the PG output must be programmed to have a PHONE function).

6.8. Voice message recording

Recording a message is done by phone with the system in service mode. Dial the system SIM card number. When the system answers, enter your access code, then press 9 (keypad simulation) and enter *0 service code or *0 Master code (unless you are in service / maintenance mode) and then sequence 892. The communicator will report that you are in voice message recording mode. You will hear regular beeping from the receiver; the communicator is waiting for a key to be pressed:

- 0 – replay all messages
- 1 – Record message no. 1 (intruder alarm)
- 2 – Record message no. 2 (fire alarm)
- 3 – Record message no. 3 (tamper alarm)
- 4 – Record message no.4 (panic alarm)
- 5 – Record message no. 5 (fault alarm)
- 6 – Record message no.6 (alarm report) – installation identification
- 7 – Record message no.7 (other event)
- 8 – delete all user recordings = reset to factory default recordings

When you press a key from 1 to 7, you will hear another beep and you can start speaking. The end of recording is signalled with a beep and the message is replayed. The communicator then returns to the main menu (regular beeping) and it is possible to record further messages. The length of message no.6 should not exceed 5 s, other messages should be 3 s long. Press # to stop the voice recording menu and return to service / maintenance mode.

Message no.7 is played upon each event which you set for a voice message and which is not an alarm. The factory default message is: **Other event**. i.e. is usually used to inform about sending an SMS. However, it can also be used specifically for a particular event (e.g. it may be used to report PG output control, etc. – it depends on the 83 M uu x settings see 6.5)

Notes:

- Listening to the message can be terminated by pressing the * key.
- To exit the message recording mode, just end the call.
- The messages are recorded in a memory which is not erased when the system power supply is shut down.
- For events like setting / unsetting, the voice messages "Armed system", "Disarmed system" or "Partially armed" are reported; these messages cannot be changed.

6.9. Quick enabling / disabling of reporting to phones

Event reports to your phone can be enabled / disabled as follows:

- 901 0** all SMS and call reports disabled
- 901 1** all SMS and call reports enabled
- 901 2** all reports enabled **except reports of setting and unsetting by users 1 to 4** (i.e. their codes and key fobs). Master code control is not reported either. This allows setting and unsetting done by report recipients (owners, bosses, etc.) not to be reported.

Factory default setting: 9011 all reports enabled

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6.10. Forwarding of incoming SMS messages

The communicator enables the automatic forwarding of incoming SMS messages which contain no valid instructions to the system:

801 0 messages are not forwarded, but the communicator saves the last 10 received messages to the SIM card

801 1 messages are forwarded to the first programmed tel. number in memories M1 to M8 (e.g. if numbers are only programmed in M5 and M6, then messages will be forwarded to M5). The tel. number from which the SMS was received will be shown at the beginning of the forwarded text.

Factory default setting: messages are forwarded

Notes:

- In order to protect the user against runaway (donation SMSes etc.), the forwarding is limited to the first 50 SMS messages. The counter can be erased automatically each midnight, by processing any SMS instruction or by exiting Service / Maintenance mode.

6.11. SMS instruction confirmation

If the communicator receives a valid SMS instruction, a confirmation SMS will be sent as a reply. This confirmation can be disabled as follows:

904 0 disabled

904 1 enabled

Factory default setting: enabled

6.12. Reaction to incoming calls

This sequence can be used to set the communicator's reaction to incoming phone calls:

905 0 the communicator ignores incoming calls

905 1 the communicator will answer after ringing for 15s

Factory default setting: answer after ringing for 15s

6.13. GSM signal dropout indication

This feature enables the monitoring of GSM network signal availability. If enabled and if there is a GSM signal dropout longer than 15 minutes, the control panel announces "External communication fault".

906 0 signal availability monitoring disabled

906 1 signal availability monitoring enabled

Factory default setting: disabled

6.14. Phone receiver loudness

To set the loudness of the receiver of the phone which is used to call the communicator key in:

909 x where x is a number from 1 to 9 (max.)

Factory default setting: 9 (max.)

6.15. Number to be called to maintain SIM card validity

If a prepaid SIM card is used and a lack of outgoing phone calls for a certain period cancels the validity of the SIM card, then this function offers the following: if there have been no outgoing phone calls within the last 90 days, then the communicator automatically calls the number programmed by this sequence. The communicator waits until the call is answered and then automatically hangs up after 10 sec.

910 xx...x F0

where: **xx...x** is the telephone number

Notes:

- To erase this number enter 910 F0
- It is recommended to call cheap public services (e.g. weather forecasts etc.) but not toll-free numbers.

Factory default setting: Erased

6.16. Restriction of the number of sent SMSes

The parameter limits the amount of sent SMSes to 100 per 24 hours. 50 may be alarm SMSes and 50 may be for other events. This is to prevent enormously high telephone fees.

803 0 restriction disabled

803 1 restriction enabled

Factory default setting: enabled

There is also a limiter to 500 SMSes per 24 hours – it can not be disabled.

6.17. Prepaid SIM card credit interrogation

The communicator is capable of checking the credit balance of its SIM card upon request (by the "CREDIT" SMS instruction) or this activity can be requested automatically (with a preset cycle) and if it finds out that the remaining credit is lower than the preset value, an information SMS is sent. The function is set by sending the following SMS instruction:

code_CREDIT_uu..u_xx_yyy_zz

where: **Code** is a valid access or service code for remote access (e.g. 0000), a change of parameters is possible only with a service code (other codes allow "0000 CREDIT" SMS credit interrogation)

uu..u space
instruction recognized by the GSM network to check the balance

xx automatic checking period in days,
yyy minimum acceptable credit balance
zz the textual position in which the number showing the balance starts in the reply message from the GSM provider.

Notes:

- If the reported credit balance is lower than the set limit (yyy), text no. 545 will be sent to phone numbers M1 and M8 which have the "Low credit balance" (event no. 28) event sending enabled
- If only uu..u follows the CREDIT instruction (no xx yyy zz) then periodic balance checking will not be performed, but the balance will be checked immediately
- If there is further data following the CREDIT instruction, the communicator will memorize them and automatically put them in the message when the CREDIT instruction is used again (i.e. the Credit instruction must contain at least the uu..u part upon the first sending) and the user just needs to send: code CREDIT

Example: sending the SMS instruction "code CREDIT *101# 7 50 1" causes the credit balance to be checked every 7th day after the SMS has been sent and if the balance (starting with the first character in the message from the GSM provider) is lower than 50 currency units it will be reported.

Warning: the use of prepaid SIM cards in the communicator can negatively influence the reliability of the device. Some GSM providers block cards not only when there is no credit but also when they are not topped up frequently enough. This means that even if there is enough credit balance on the card, the communication can still be blocked. We therefore strongly advise the use of tariff SIM cards !!!

6.18. Remote programming by SMS instructions

The communicator enables remote programming of the system by the following SMS instruction:

code_PRG_seq_seq, another instruction

where: **Code** valid access or service system code (e.g. 0000)
seq space
programming sequence usually set via the keypad

Notes:

- Only characters which can be keyed in from the system keypad (0 to 9, * and #) can be used in the sequences.
- When a valid instruction is received, the communicator performs the sequence by simulating pressing the keys on the keypad. A comma in the SMS is taken as a pause in the sequence entering.
- If you want to remotely reprogram the system it must first be unset and then switched to programming mode.
- The number of sequences in one SMS is limited by the maximum size of an SMS in the GSM network.

Example: by sending SMS 0000_PRG_F06060_201_#, SET 4321 the exit delay will be set to 10s and set system by the code 4321.

6.19. Registration code

The code is stated on the label on the communicator panel but it can also be sent to the mobile phone by SMS (see table 1, 3.3) DINFO command. To request a registration code, enter:

911 xx...x F0

where: **xx...x** is the number of the phone where the code should be sent

Notes:

- The time needed for delivery of the code depends on the current GSM network speed
- Each communicator has a unique registration code in the following format: xxxxx-xxxxx-xxxx

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6.20. Restarting GSM communication

After 893 has been entered, the communicator disconnects from the GSM network and then re-registers itself. This re-registration does not change any settings in the communicator. It should be used after GSM network faults or data collisions and in some networks it also has to be used after a blocked SIM card has been unblocked by the GSM provider. It is also possible (if the SIM card can still receive) to trigger GSM network re-registration by sending the SMS instruction.

6.21. Communicator reset

Entering 998080 returns the communicator to its factory default settings. Telephone numbers will be erased together with all untransmitted reports but the text settings in the communicator will not be changed.

6.22. SIM card's PIN code

It is recommended to use a SIM card with disabled PIN protection in the communicator. If you still want to use a card with PIN protection, enter the PIN by entering the following sequence (it must be entered after the control panel has been powered up):

920 PIN F0

Example: If the SIM card PIN code is 1234, enter **920 1234 F0**

Notes:

- If the communicator does not register to the GSM network within 1 minute of the PIN being entered (this problem is shown by the red LED flashing), then you either entered a wrong PIN or the GSM signal is too weak. In such a case:
 - enter 920 F0 while in control panel service mode (erases the PIN entered in the communicator)
 - disconnect the control panel power (mains and battery)
 - take out the SIM card, insert it into a mobile phone and check whether the PIN is correct. Check whether the signal strength at the location of the control panel is sufficient
 - if you know the right PIN code and the GSM signal is strong enough, put the SIM card back into the communicator, turn on the control panel power and then enter the correct PIN code (920 PIN F0) and wait until the communicator registers to the GSM network (its red LED should turn off within a minute)
- The communicator memorizes the set PIN and it will use it automatically whenever it registers to the GSM network again.
- If you are replacing the SIM card in the communicator with another one and the former one used a PIN code, first switch the control panel to service mode and enter 920 F0 to erase the former PIN code. The SIM card can then be changed.

Warning: The PIN code cannot be changed if the ARC settings are locked

Factory default setting: The PIN code is erased

6.23. GPRS parameter setting

GPRS data communication (wireless Internet via a GSM network) is used for communication between the system and the ARC. To use GPRS data communication it must first be enabled (activated) in the SIM card (contact your GSM provider for details). Depending on the SIM card used, the GPRS parameters (APN and possibly the login and password if the SIM card requires them) must be programmed by sending the following SMS instruction to the communicator.

code_GPRS_x..x_y..y_z..z

where: **Code** valid service system code (e.g. 0000)
 - space
x..x SIM card APN
y..y username (do not enter if not required)
z..z password (do not enter if not required)

Examples:

For a T-mobile Czechia card enter: **code GPRS internet.t-mobile.cz**

Warning: The GPRS parameters cannot be changed if the ARC settings are locked

Factory default setting: APN = internet

7. Communication to the ARC

7.1. ARC phone numbers

Events can be reported to up to 2 ARCs (which can be independent or ARC2 can work as ARC1's backup). Each ARC can have its main and backup phone numbers (or IP addresses) programmed with:

Main: 01 p xx....xF0

Backup: 02 p xx....xF0

where: **p** 1=ARC1, 2=ARC2
xxx...x tel. number (max.20 digits) or IP address and port – entry format

Example: 01 2 F8 192 168 001 123 08080 F0

where: F8 (auto-converts to #) signifies an IP address which must have 12 digits and must be followed by the 5 digits of the port number (no separators).

To erase a tel. number / IP address enter **01pF0** or **02pF0**. If numbers / IP addresses are erased there will be no reporting to that particular ARC.

Notes:

- the communicator first tries to send data to the main number / address, if it is not successful it tries the backup number / address.

Factory default setting: all tel. Numbers / IP addresses erased

7.2. Installation (alarm system) ID for ARC use

The installation's ID number which is sent to an ARC with every report can be programmed with:

03 p zz..z F0

where: **p** 1=ARC1, 2=ARC2
zz..z installation ID number, max. 8 characters (0 to 9 and F1=A to F6=F)

Factory default setting: for all ARCs = 0000

7.3. Selecting the ARC communication protocol

To select the required communication protocol enter:

04 p x

where: **p** 1 = ARC1, 2 = ARC2
x 0.2 = ARC type
 0 = Contact ID, 1 = Jablotron GPRS, 2 = Jablotron SMS

Notes:

- **Jablotron IP is the fastest** of the above-mentioned protocols and it is the only one which **allows very frequent checking of communication reliability** with the ARC (e.g. every 5 minutes).
- **Contact ID protocol can be directed to ARCs linked by standard telephone lines** (if they support Contact ID).
- **If your ARC does not allow Jablotron SMS or Jablotron GPRS protocols, please contact a Jablotron distributor for details on how to upgrade your ARC**

Factory default setting: ARC1 – Jablotron GPRS, ARC2 – Jablotron SMS

7.4. Selection of events to report to ARCs

This sequence allows you to select which events are reported to the ARC:

05 p uu x

where: **p** 1 = ARC1, 2 = ARC2
uu Event number 00 to 93
x 0 = no report, 1 = report

Factory default setting: See the table below

Event	CID CODE	Factory default settings	uu	CL
Alarm after powering up the system	1140	reported	00	1
Instant zone alarm	1130/3130	reported	01	2
Delayed zone alarm	1134/3134	reported	02	3
Fire zone alarm	1110/3110	reported	03	4
Panic alarm	1120/3120	reported	04	5
Tampering alarm	1144/3144	reported	05	6
Wrong codes entered	1461/3461	reported	06	7
Fault	1330/3330	reported	07	8
Setting	3401	reported	08	9
Unsetting	1401	reported	09	10
Completely set without code	3408	reported	12	11

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Event	CID CODE	Factory default settings	uu	CL
Partial setting	3402	reported	13	12
Lost communication w. device	1350/3350	reported	14	13
Power fault of control panel	1301	reported	15	14
Control panel power OK	3301	reported	16	15
Low battery in the device	1384/3384	reported	17	16
Communicator fault	1330	not reported	18	17
Communicator is working	3330	not reported	19	18
Back up battery fault	1302	reported	20	19
Back up battery OK	3302	reported	21	20
Receiver jamming detected	1355	reported	24	21
Setting (Two section system)	3402	reported	30	22
Unsetting (Two section system)	1402	reported	31	23
Setting zone A	3402	reported	30	24
Setting zone B	3402	reported	31	25
Unsetting zone A	1402	reported	28	26
Unsetting zone B	1402	reported	29	27
Low SIM card credit	*	not reported	50	28
Control panel powering up	3301	not reported	64	29
Service/maintenance mode entered	1306	reported	65	30
Service/maintenance mode exit	3306	reported	66	31
Alarm end	*	not reported	67	32
Alarm cancelled by user	1406	reported	78	33
All tampers contacts OK	3137	reported	80	34
No fault in system	3300	not reported	81	35
All device power OK	*	not reported	82	36
Master code changed	*	not reported	86	37
AC fault longer then 30 minutes	1301	reported	89	38
PG output ON	1661	not reported	92	39
PG output OFF	3661	not reported	93	40

tab. 3 ARC event table

Source	Name
701	Control panel
731	Communicator
741	Keypad
001 - 016	Wired inputs
017 - 032	Wireless detectors
033 - 040	Remote controls
041	Wireless siren
042	Sub panel
500	Master code
599	Service code
501 - 514	Code 1 - code 14

tab. 4 Source number table

The report to the ARC consists of:

- Premises number, event code, section, source number.
- Section: 01 is set for all reports
- Split system for setting and unsetting: 02 = A, 03 = B
- Unsplit system for Partial setting (Home bypassed) : 03
- Unsplit system for Set always (Normal arming): 02

Notes:

- Events to ARC are reported with the identification of the section

7.5. ARC communication checking – periodic or fixed

This sequence is used to define whether the regular transmission takes place at a given time according to **07 p hhmm**, or periodically according to **07 p hhmm** settings.

06 p x

- where: **p** 1=ARC1, 2=ARC2
x 0 = with a period according to **07 p hhmm**
 1 = at the set time according to **07 p hhmm**

Factory default setting: With a period after the last report

7.6. ARC communication checking period

This sequence programs how often the communication check is performed:

07 p hhmm

- where: **p** 1 = ARC1, 2 = ARC2
hh hours
mm minutes

Notes:

- Checking reports are not sent in service mode.
- Jablotron GPRS protocol allows very frequent checking of ARC communication (even every 5 minutes in practice).
- When 00:00 is set, a communication check is not performed.

Factory default setting: 23:59 (hours:mins)

7.7. Enable ARC reporting (ARC2 backs up ARC1)

This sequence allows reporting to ARCs to be switched on/off and also enables ARC2 to backup ARC1:

08 p x

- where: **p** 1 = ARC1, 2 = ARC2
x 0 = off, 1 = on, 2 = ARC2 backs up ARC1 (2 can only be entered for ARC2)

Note: if ARC2 backs up ARC1 then it will only receive reports if it is not possible to deliver them to ARC1. Each event is first reported to ARC1 (both main and backup number / URL address) and if the transmission fails, the event is reported to ARC2. A report containing "Communication fault to ARC1" is then sent to ARC2 together with the first report to ARC2

Factory default setting: Transmissions to both ARCs are off

7.8. Recording ARC reporting in the control panel memory

This sequence enables the recording of every report successfully communicated to ARCs in the control panel's internal memory:

- 001 0** disabled
001 1 enabled

Note: it is recommended not to record reports sent to ARCs via reliable protocols (IP CID and SMS CID) but to enable the indication of ARC communication faults (see 7.9). This saves a significant amount of control panel memory. The system initially assumes that every report is successfully delivered to ARCs, but if a report is not successfully delivered within 110 seconds of transmission, then a communication fault will be indicated and recorded.

Factory default setting: disabled

7.9. Indicate an unsuccessful ARC communication fault

Enables the indication and recording of a communication fault if a report is not successfully delivered to an ARC within 110 seconds of its transmission:

- 002 0** communication faults not indicated
002 1 communication faults indicated

Notes:

- The communicator continues trying to send information to an ARC even after a communication fault has been indicated (after the data has been delivered, communication fault indication stops)
- for communication-checking reports the delivery time limit (confirmation from the ARC) is 300 minutes. But if any other report is sent to the ARC it must be confirmed within 110 seconds (otherwise a communication fault will be indicated).

Factory default setting: communication faults not indicated

7.10. Locking the ARC settings

All settings which affect reporting to ARCs can be locked by a digital code. To do so, enter:

091 xx..xF0

- where: **xx..x** is your code (4 to 8 digits)

Notes:

- Exiting service mode after the locking code has been entered will lock all the settings affecting ARC communication (see the sequence list in section 12).
- If ARC programming is locked, then it can be temporarily enabled in service mode by entering **092 xx..x F0** where **xx..x** is the locking code. It will then relock on exiting service mode.

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- The ARC settings can be permanently unlocked by entering **091 F0** (the code can be erased only if ARC setting is unlocked)

Factory default setting: ARC settings unlocked

7.11. Repeated ARC communication

The communicator tries to send the report to the main telephone number. If this fails, it tries the backup number and in the case of failure, the communicator repeats the attempt with a delay which is set by the following sequence:

0001 p mmss

where: **p** 1 = ARC1, 2 = ARC2
mmss time in minutes, seconds

Notes:

- Comlink SW allows you to set the time scale with 5 minute steps
- When you enter a delay of 31 min for example, the communicator rounds it to 30 min.
- Seconds entry is required, but it will always be rounded to 00 regardless of what you enter

Factory default setting: without delay (0000)

7.12. Number of repeated attempts

Defines how many times in a row the communicator will try to transmit information to the ARC after an unsuccessful attempt. It is possible to set up to 9 repeated attempts. They are set by the following sequence:

0002 p n

where: **p** 1=ARC1, 2=ARC2
n 1 to 9 attempts

Note: Comlink SW allows you to enter data from 0 to 15, via the keypad you can only enter the range 0 – 9.

Factory default setting: 2 attempts

8. Further guidance on the communicator

8.1. How the communicator sends reports

1. If there is a need to report an event (e.g. an alarm) then the communicator sends data to ARC1 (the communicator tries the main phone number / IP address / URL. If unsuccessful then it tries the backup number / IP address / URL and if still unsuccessful, it repeats the action).
2. Then it sends data to ARC2 in the same way if programmed as an independent ARC. If ARC2 is programmed as the backup to ARC,1 then the data will only be sent to it if transfer to ARC1 has been unsuccessful.
3. Then the unit sends SMS reports (1st tel. number, 2nd tel. Number,..)
4. Then the unit transmits a voice message to each telephone number with this setting. Each programmed number is called only once regardless of whether the call has been answered or not. Pressing the # key cancels calling other numbers and the system enters keypad simulation mode in which it is possible to fully control the system.

If all previous attempts to send data to ARCs have been unsuccessful, the next attempts occur after the programmed repeat period (see 7.6).

If an alarm is cancelled by a user while it is being reported, any unsent SMSes and unperformed call reports are cancelled, but the ARC still gets a complete set of reports about events in the system.

8.2. The communicator's LED

The **red LED** on the communicator board indicates as follows:

- It is lit for a period during registration to a GSM network
- when sending an SMS message, the LED is lit for 1 second
- the LED flashes rapidly during the detection of an incoming call
- It is lit permanently during remote access from a telephone
- A permanently lit LED could indicate that the communicator is not registered to a GSM network

The **green LED** on the communicator board indicates as follows:

- Flashes for 2 seconds when the communicator is connected to the control panel

8.3. Notes on entering service mode

If the system is switched to service mode:

1. The communicator completes the current transmission to the ARC.
2. The current phone call reporting is terminated.
3. Unfinished SMSes and call reports are erased (they are not transmitted after the service mode has been exited).

4. Unsent ARC reports are only erased if ARC tel. numbers / IP addresses / URLs or the ARC communication format or the installation ID are changed.
5. Fault restoration reports are sent to the ARC even in service mode.
6. Changes to communicator settings do not take effect until service mode has been exited.

9. Technical specifications

Power	12V DC (from the control panel)
Stand-by consumption (mean value)	about 35 mA (depends on the GSM signal strength)
GSM band	QUAD-BAND, 850/900/1800/1900MHz
Complies in configuration CIE Profi system with	EN 50131-1, EN 50136-2-1
as follows:	ATS 4, ATS 5 if CID protocol is used and the repeating period is set to zero (Sequence 06p0)
Operating environment – indoor general (-10 °C to 40 °C)	Class II
Security	Grade 2
Safety	EN 60950-1
EMC	ETSI EN 301489-1, ETSI EN 301489-7, EN 55022, EN 50130-4
Radio transmissions	ETSI EN 301419-1 and EN 301511
CLIP protocol (caller ID + SMS)	ETSI EN 300 089
Can be operated according to	GSM Regulations



JABLOTRON ALARMS a.s. hereby declares that the JA-62GSM is in a compliance with the relevant Union harmonisation legislation: Directives No: 2014/53/EU, 2014/35/EU, 2014/30/EU, 2011/65/EU. The original of the conformity assessment can be found at www.jablotron.com - Section Downloads.



Note: Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the producer after use.

JABLOTRON
CREATING ALARMS

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10. List of events which can be reported to your phone and their factory default settings

uu	CL	Event	Telephone number memory - M								Voice message
			1	2	3	4	5	6	7	8	
00	01	Alarm after panel powering up	SC	SC	SC	S	SC	SC	S		5: "fault"
01	02	Instant zone alarm	SC	SC	SC	S	SC	SC	S		1: "intruder alarm"
02	03	Delay zone alarm	SC	SC	SC	S	SC	SC	S		1: "intruder alarm"
03	04	Fire zone alarm	SC	SC	SC	S	SC	SC	S		2: "fire alarm"
04	05	Panic alarm	SC	SC	SC	S	SC	SC	S		4: "panic alarm"
05	06	Tampering alarm	SC	SC	SC	S	SC	SC	S		3: "tamper alarm"
06	07	Wrong codes entered	SC	SC	SC	S	SC	SC	S		3: "tamper alarm"
07	08	Fault	S							S	5: "fault"
08	09	Setting									"Armed system"
09	10	Unsetting									"Disarmed system"
12	11	Completely set without code									"Armed system"
13	12	Partial setting									"Partially armed"
14	13	Lost communication w. device									5: "fault"
15	14	Power fault of control panel									7: "other event"
16	15	Control panel power OK									7: "other event"
17	16	Low battery in the device	S							S	5: "fault"
18	17	Communicator fault	S							S	5: "fault"
19	18	Communicator is working									7: "other event"
20	19	Back up battery fault	S							S	5: "fault"
21	20	Back up battery OK									7: "other event"
24	21	Receiver jamming									5: "fault"
30	22	Setting (Two section system)									"Armed system"
31	23	Unsetting (Two section system)									"Disarmed system"
30	24	Setting zone A									"Armed system"
31	25	Setting zone B									"Armed system"
28	26	Unsetting zone A									"Disarmed system"
29	27	Unsetting zone B									"Disarmed system"
50	28	Low SIM card credit	S								5: "fault"
64	29	Control panel powering up									7: "other event"
65	30	Service/maintenance mode entered									7: "other event"
66	31	Service/maintenance mode exit									7: "other event"
67	32	Alarm end									7: "other event"
78	33	Alarm cancelled by user	S	S	S	S	S	S	S		7: "other event"
80	34	All tampers contacts OK									7: "other event"
81	35	No fault in system									7: "other event"
82	36	All device power OK									7: "other event"
86	37	Master code changed									7: "other event"
89	38	AC fault longer then 30 minutes	S								5: "fault"
92	39	PG output ON									7: "other event"
93	40	PG output OFF									7: "other event"

tab. 5 List of events which can be reported to your phone and their factory default settings

Notes:

- Factory default report assignment: S = SMS, C = call, SC = SMS followed by a call
- "External communication fault" means a GSM network dropout longer than 15 minutes (if GSM network dropout indication is enabled)
- In a split system it is necessary to synchronize the current control panel settings by opening enrollment mode for 1 s and closing it before you leave service mode

11. Summary of all communicator texts for SMS messages and instructions

n	factory default text:	n	factory default text:	n	factory default text:
0	Report from your alarm:	300	Master code	510	Alarm cancelled by user
1	Wired detector #1	301	Code #1	511	Setting
2	Wired detector #2	302	Code #2	512	Unsetting
3	Wired detector #3	303	Code #3	514	Codeless setting
4	Wired detector #4	304	Code #4	515	External communication failure
5	Wired detector #5	305	Code #5	516	External communication restored
6	Wired detector #6	306	Code #6	517	Fault
7	Wired detector #7	307	Code #7	518	Fault no longer present
8	Wired detector #8	308	Code #8	519	Mains dropout over 30 minutes
9	Wired detector #9	309	Code #9	520	Mains dropout
10	Wired detector #10	310	Code #10	521	Mains recovery
11	Wired detector #11	311	Code #11	522	Discharged battery
12	Wired detector #12	312	Code #12	523	System power OK
13	Wired detector #13	313	Code #13	524	Switching to Service Mode
14	Wired detector #14	314	Code #14	525	Leaving Service Mode
15	Wired detector #15	400	System status	528	Radio jamming present
16	Wired detector #16	401	Set	529	Internal communication failure
17	Wireless detector #1	402	Unset	530	Internal communication restored
18	Wireless detector #2	403	Exit delay	531	Communication test
19	Wireless detector #3	404	Entrance delay	535	Partial setting A
20	Wireless detector #4	405	Alarm	536	Partial setting B
21	Wireless detector #5	406	Service mode	538	Partial unsetting A
22	Wireless detector #6	407	Maintenance mode	539	Partial unsetting B
23	Wireless detector #7	409	Discharged battery	540	Communicator failure
24	Wireless detector #8	410	Tamper alarm	541	Communicator OK
25	Wireless detector #9	411	Alarm memory	542	Backup battery failure
26	Wireless detector #10	412	Fault	543	Backup battery OK
27	Wireless detector #11	413	Power failure	545	Credit low
28	Wireless detector #12	414	Unknown status	546	Power ON
29	Wireless detector #13	415	Time:	549	Master code change
30	Wireless detector #14	416	Last event:	550	Message delivered
31	Wireless detector #15	417	Credit unknown	551	Message not delivered
32	Wireless detector #16	418	Credit	553	PG ON
33	Controller #1	420	Error while processing command	554	PG OFF
34	Controller #2	421	Output turned ON	601	SET
35	Controller #3	422	Output turned OFF	602	UNSET
36	Controller #4	423	Partially set A	603	STATUS
37	Controller #5	424	Partially set B	604	MEMORY
38	Controller #6	426	Command processing OK	609	PGON
39	Controller #7	501	Instant alarm	610	PGOFF
40	Controller #8	502	Delayed alarm	611	CREDIT
41	Wireless siren	503	Fire		
42	Subsystem	504	Panic alarm		
201	Control panel	505	Invalid code-entries exceeded		
202	Service code	506	Alarm when power turned ON		
204	Communicator	507	Tamper alarm		
205	Keypad	508	End of tamper alarm		
206	ARC code	509	End of alarm indication		

tab. 6 table of factory-default SMS report and instruction texts

Notes:

- The communicator always automatically puts numbers from 01 to 42 in front of Device names
- Texts **0 to 554** are used to create SMS event reports
- Texts **601 to 611** are SMS instructions (to control the system remotely by SMS)
- Texts are set by ComLink software
- Other texts with diacritics, if required, can be loaded from a file and save to the communicator

12. Communicator programming sequence overview

Sequences beginning with "8" are also accessible from Maintenance mode if the change of telephone numbers in Maintenance mode is enabled (Profi control panel sequence 251)

Function	Sequence	Possible options	Factory default settings
Communicator language setting	991 xx	xx=01-EN, 02-CZ, 04-NL, 15-RU Language selection affects SMS texts and basic voice navigation features	01-English
GSM signal strength measuring	888	range from 0 to 9, exit by pressing N	-
Tel. number programming for reporting to telephones	81 M xx..x F0	M = memory 1 to 8; xx..x = tel. number (max.20 digits) entering F9 inserts +, entering F7 inserts *, 81 M F0 erases the number in memory M	all M1 to M8 erased
Selection of events to report by SMS	82 M uu x	M = tel. number memory 1 to 8 uu = event code, see the List of events which can be reported to your phone and their factory default settings x=0 no report x=1 report	M1 alarms and faults by SMS. M2 and M3 alarms by SMS and phone calls M5 and M6 alarms by SMS and phone calls M4 and M7 alarms SMS M8 faults only by SMS from
Selection of events to report by phone call	83 M uu x	See the List of events which can be reported to your phone and their factory default	
Codes associated with enrolled telephones	84 M xxxx	If an SMS with no code arrives from telephone number M, xxxx is used as a code for identification, entering 84 M F0 erases the given code	No code
SMS and instruction text editing	The texts can be changed by ComLink software or by sending an instructional SMS: code TXT n,text,n,text...		See 6.7
Voice message recording	The recording is performed via a mobile phone; the system must be in service or user mode. Dial the system SIM card number from your telephone. When the system answers, enter the valid access code (0000) and then enter 892 from cell phone keypad. The communicator informs you that voice message recording mode entered, see the installation manual." see 6.8		
Enable reporting to phones	901 x	x=0 disabled x=1 enabled (all programmed) x=2 enabled without reporting setting/unsetting by users 1 to 4 (codes & key-fobs) and master code setting / unsetting	enabled
Forwarding of incoming SMS messages	801 x	x=0 no, x=1 if the incoming text is not an SMS instruction it will be forwarded to the first programmed number in memories M1 to M8	yes
SMS instruction confirmation	904 x	x=0 no, x=1 yes (by SMS reply)	yes
Reaction to incoming calls	905 x	x=0 no reaction x=1 answers after 15s ringing	answers after ringing for 15s
GSM signal dropout indication	906 x	x=0 no, x=1 yes (15min. dropout =fault)	no
Phone speaker loudness	909 x	x=0..9, 0=minimum,9=maximum	5
Number to be called to maintain SIM card validity	910 xx..xF0	xx..x = tel. number (max.20 digits), 910 F0 erase the number	Erased
Restriction of the number of sent SMSes to max. 50 SMSes per 24 hours	803 x	1=restriction enabled, 0=restriction disabled	restriction enabled
SIM card credit interrogation	You can inquire about credit balance by sending the SMS instruction: code CREDIT uu..u xx yyy zz where code = master or service code, uu..u = GSM network command string to ascertain the credit (e.g. *104#), xx=auto-interrogation frequency in days, yyy=minimum acceptable balance, zz= the textual position at which the number showing the balance starts in the reply message from the GSM provider. If the credit is lower than the set minimum value, the provider's SMS will be auto-forwarded to numbers M1 and M8 for someone to top up the pre-paid SIM card		
Programming by SMS	The system can be programmed remotely via SMS instruction code PRG seq, seq... where seq are programming sequences set in the same way as from the keypad (e.g. 0000 PRG F06060 201 N sets a 10s exit delay (a space in the sequence causes a 500ms pause)		
Registration code	911 xx..x F0	xx..x = tel. number to which the registration code should be sent	
Re-registration to the GSM network	893	the communicator disconnects from the GSM network and then re-registers itself.	
Communicator reset	998080	Resets to the factory default settings and erases all phone numbers, text will not be changed	
SIM card's PIN code	920 xx..x F0	xx..x = PIN, 920 F0 erases the PIN (to use a SIM card with a disabled PIN)	erased
GPRS parameter settings	by SMS instruction: code GPRS apn user pass where apn = APN, user = username, pass = password (only enter the APN if the name and password are not required by the GSM provider)		

Tab. 7 communicator programming sequence

Tab. 7 communicator programming sequence continued

Function	Sequence	Possible options	Factory default settings
ARC main telephone number / IP address	01 p xx..x F0	p=1 ARC1, p=2 ARC2 xx..x = tel. number max. 30 digits. When using IP protocol, IP addresses are entered instead of telephone numbers To erase the corresponding telephone numbers or IP addresses enter 01pF0	erased
ARC backup telephone number / IP address	02 p xx..x F0	p=1 ARC1, p=2 ARC2, xx..x = tel. number max. 30 digits. When using IP protocol, IP addresses are entered instead of telephone numbers To erase the corresponding telephone numbers or IP addresses enter 02pF0	erased
Installation (alarm system) ID for ARC use	03 p zz..zF0	p=1 ARC1, p=2 ARC2, zz..z = installation number max. 8 characters 0 to 9 and F1=A to F6=F	0000
Selecting the ARC communication protocol	04 p x	p=1 ARC1, p=2 ARC2, x=0 CID, x=1 Jablotron GPRS, x=2 Jablotron SMS,	p1 Jablotron GPRS p2 Jablotron SMS
Selection of events to report to ARCs	05 p uu x	p=1 ARC1, p=2 ARC2 uu is an event code (see 7.4) x=0 no report, x=1 report	All events are reported - see tab. 3
Periodic or fixed ARC connection check	06 p x	p=1 ARC1, p=2 ARC2 x=0 with a period from the last report according to the 07 p hhmm setting x=1 once a day at the time set by entering 07 p hhmm	With a period after the last report (X=0)
ARC communication checking period	07 p hhmm	p=1 ARC1, p=2 ARC2 hhmm = hours, minutes, see setting via 06 p x	2359
Enable ARC reporting (ARC2 backs up ARC1)	08 p x	p=1 ARC1, p=2 ARC2 x=0 reports disabled, x=1 reports enabled, x=2 only for ARC1, sets that ARC2 backs up ARC1	1,2 ARC reporting disabled
Recording reports sent to ARCs in the control panel memory	001 x	x=0 no (only records ARC communication faults) x=1 yes (all reports except communication checks)	no
Indicates an ARC communication fault if a report is not successfully received within 110 sec of transmission	002 x	x=0 no x=1 yes	no
Locking the ARC settings	091 xx..xF0	xx..x is your code (4 to 8 digits) Entering this code and then exiting service mode will lock the ARC settings 091 F0 will erase the code (permanently unlocked)	unlocked
Unlocking the ARC settings	092 xx..xF0	xx..x is the locking code used by sequence 091	ARC programming can be temporarily enabled in service mode by entering this sequence. It will then relock on exiting service mode. For permanent unlocking see sequence 091.
Period of waiting before repeating unsuccessful communication to the ARC	0001 p mmss	p=1 ARC1, p=2 ARC2 mmss = minutes, seconds	Without delay (0000)
Number of repeated attempts after unsuccessful communication to the ARC	0002 p n	p=1 ARC1, p=2 ARC2 n= 1x to 9x	2x