The JA-80X phone-line communicator

Installation manual

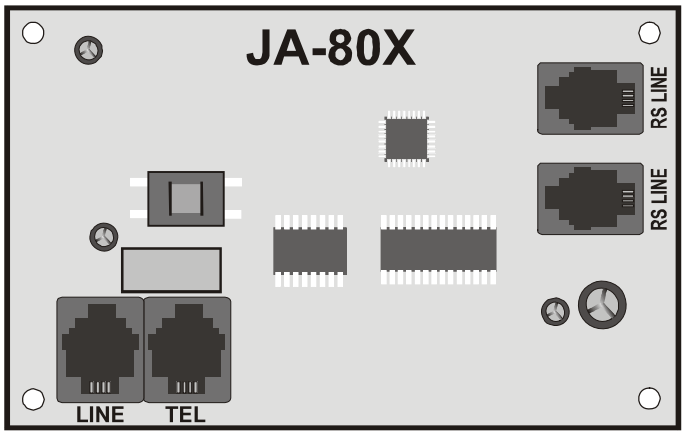
The JA-80X communicator is a component of Jablotron systems of the JA-8x series. It is designed to be installed within the control panel housing. Main features:

- o Alarm voice-reporting.
- o ARC (Alarm Receiving Centre) communication.
- o Remote access via a telephone keypad.
- o Backup option for the JA-80Y GSM communicator.

The JA-80X only uses the tone dialling method.

1. Installation

- The communicator can be connected to the control panel's digital bus via a four-cord RJ cable. Use connectors marked RS LINE on the communicator. Both RS LINE connectors have parallel wiring, thus they can also be used for splitting the control panel digital bus.
- Connect the communicator to a telephone line via the cable supplied with the package. Use a socket marked LINE on the communicator.
- Additional telephone devices (telephone, facsimile machine, modem etc.) can be connected using the connector marked "TEL".
- When the control panel is in normal stand-by mode, the phone line and any attached device will operate as normal.
- The communicator can only be connected to analogue phone line and must not be connected to a dual or a grouping extension-line.



Note: *The communicator must be plugged directly into a telephone line socket. All other devices should be connected to the communicator output marked TEL.*

2. Alarm voice-reporting

Depending on the type of events, the communicator is capable of sending 5 assigned alarm reports to up to 4 pre-programmed phone numbers.

- With the control panel being in the unset state, enter Service mode by **keying-in *0 SC** (SC=service code, **8080** by factory default) on the system keypad.
- Key-in the requested programming sequence(s). Any sequence currently being entered can be escaped from by pressing #.
- Completing a sequence entry is confirmed by a beep. After completing all the requested sequences, **exit Service mode by pressing the # key**.
- Depending on system configuration, telephone numbers can also be entered in operating mode.

2.1. Programming telephone numbers for voice reporting *sequence 71 Mxxx…xx*0*

To program tel. numbers used for voice reporting enter:

71Mxx... xx *0

where:

M is the phone number memory 1 to 4
xx...xx is the desired phone number (max.16 digits)

Special codes can be put into the phone number:
Code : ***** by pressing ***7**
by pressing ***8**
3 s pause by pressing ***6**

Example: Entering 712 483 123 456 *0 will store the number 483 123 456 in memory 2.

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

71M*0

where: **M** is memory 1 to 4

Voice reports are sent to pre-programmed phone numbers in the order they are stored. A single report to a particular tel. number starts with the number being dialled. A 6 sec waiting period follows. After this period voice message No. 1 is played (alarm system identification) followed by an event description message. This is repeated 4 times after which the communicator hangs up. Normally, voice reporting is not terminated until after all the numbers have been reported to. However, you can stop reporting by alarm cancellation or by pressing the # key on the phone which is currently being reported to.

If enabled, ARC reporting is performed prior to telephone voice reporting.

Note: *Do not program emergency call numbers!*
As a factory default, all phone number memories are erased.

2.2. Limited event-reporting *sequence 792x*

The communicator has a special option for the 2nd tel. number such that only INTRUSION or PANIC alarms are reported to that number (other types of alarm events like Fire, Fault or Tamper are not reported).

During the call to the 1st tel. number the user can decide whether the alarm report should be also forwarded to the remaining tel. numbers or ha can **terminate further voice call reporting by pressing #** on the phone keypad (e.g. in case of the false alarm).

To program the feature enter:

792x

where:

x=0 only INTRUSION or PANIC alarms are reported to the 2nd tel. number
x=1 all events reported to all numbers

The factory default setting is ***7921***

This setting doesn't apply to transmissions to the ARC, which are made via voice messages.

2.3. Voice message recording

You can record voice messages via any phone using DTMF tone dialling. First, call the communicator's phone number. During the dial-up period, enter **72** on the system keypad. The communicator will answer the call which is indicated by a beep. Press a key **0 to 8** on the phone keypad according to which of the following actions you wish to perform:

0 – Replay all messages
1 – Record message No. 1 (Alarm reports) – identify your alarm system (your premises)
2 – Record message No. 2 (Intrusion)

3 – Record message No. 3 (Fire)
4 – Record message No. 4 (Tamper)
5 – Record message No. 5 (Panic)
6 – Record message No. 6 (Fault)
7 – Record message No. 7 (Welcome to OASiS) – greeting
8 – Record message No. 8 (Enter your access code)

Pressing the key invokes a timer with beep indication. Five beeps are to be heard in total with the last beep extended. After this the recording starts – you record a message by speaking into the phone's microphone. The message duration is limited to 9 sec for message No. 1, and to 3 sec for any of other messages.

After being recorded, the message is immediately re-played. A message ending is indicated by two beeps. Replaying all messages **(0)** can be terminated by pressing *****. The recording of any message can be terminated by pressing # or by hanging up.

Recording the voice message is stopped after hanging up.

Notes:

- *You can also remotely record or modify voice messages via a phone in a call to the control panel. This requires the control panel to be in Service mode (on the phone keypad, you enter 72x as described above).*
- *You can change recorded messages anytime using the above procedure. Messages are stored in a non-volatile memory so the JA-80X will not forget them when its power supply is disconnected.*

3. ARC reporting

Contact ID (CID) protocol is used for communication with Alarm Receiving Centres (ARC). If at least one phone number is pre-programmed for ARC reporting then the communicator tries to send a report about any event detected by the control panel (as requested for ARC reporting). Events are reported in the same order as they are detected. A successfully transferred report causes a "Report sent to ARC" event report to be stored in control panel memory.

If transfer to ARC1 is not successful, the communicator starts the transfer to ARC2 depending on whether a second ARC is pre-programmed. If the transfer to ARC2 is also not successful, the communicator tries to transfer the report to ARC1 again and this is repeated four times. Unsuccessful transmission results in "Report not sent to ARC" after eight (four) attempts. Then a standard voice message is sent to the phone numbers according to the event and settings. After that there are two other attempts (cycles) to deliver the message to the ARC after 5 minutes and after 10 minutes.

An undelivered report is stored in the memory and is reported together with the next report – if possible.

Note: Contact ID protocol ensures that all the relevant events are reported automatically. An idea of the data format is provided in the table below.

3.1. ARC phone numbers

sequence 75 Mxxx…xx*0

To program tel. numbers of requested ARCs enter:

75Mxx….x*0

where:

M is the ARC memory index: 1=main, 2=back-up
xx..x is the ARC phone number (max.16 digits)

To erase a number from memory M enter: **75M*0**

3.2. Installation (alarm system) ID for ARC use

sequence 76 Mx..x*0

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

76x..x*0

where:

xx.x is the installation ID number which identifies your premises

If a hexadecimal form is needed for the ID specification, use digits prefixed by "*" for alphabetical characters: *1 = A to *6 = F. Example: The sequence 7615*1*5*0 will program the hexadecimal ID 15AE.

3.3. Filtering reported events

sequence 73 nx

Reported events can be filtered according to their type. To enable/disable reporting events of a particular type (or group of types) enter:

73nx

where:

n is a group of event types
1 – All events
2 – Alarm triggering events
3 – Alarm cancellations
4 – Setting/Unsetting (Arming/Disarming)
5 – Faults
6 – Maintenance events only
7 – Regular (periodical) reports

x is the Enable/Disable attribute
1 – Report
0 – No report

The factory default setting is ***7311***.

3.4. ARC report structure

A report to an ARC sent using CID protocol consists of: installation ID (premises identification), event code, subsystem number and the number of the source (device or code).

Report code table

Report code	Event
1130 / 3130	Intruder alarm – instant / restored
1134 / 3134	Intruder alarm – delayed / restored
1110 / 3110	Fire alarm / restored
1120 / 3120	Panic alarm / restored
1461 / 3461	Number of incorrect code-entries exceeded alarm / restored
1140 / 3140	Alarm triggered during control panel power-up / restored
1137 / 3137	Tamper alarm / no tampering
1144 / 3144	Device tamper alarm / no tampering
1406	Alarm cancelled by user
1401 / 3401	Unsetting / setting
3402	Partial setting
3408	Codeless complete setting
1354 / 3354	External communication fault / restored
1300 / 3300	Fault (except device) / all faults restored
1330 / 3330	Device fault / all faults restored
1301 / 3301	Mains dropout longer than 30 minutes / restored
1302 / 3302	Battery fault (except devices) / all battery faults restored
1384 / 3384	Device battery fault / all battery faults restored
1306 / 3306	Switching to Service Mode / Leaving Service mode
1661 / 3661	PGX ON/OFF
1662 / 3662	PGY ON/OFF
1355	Radio communication jamming present
1350 / 3350	Internal communication fault / restored
1602	Communication test
1138	Unconfirmed alarm
1351	Communication fault to ARC1
1393	Annual check request
1551 / 3551	Communicator blocked / restored

List of source numbers

Source number	Source
701	Control panel
731	Communicator
741	Wired keypad
001 – 050	Devices 01 – 50
500	Master code
599	Service code
501 – 550	Codes 01 – 50

Subsystem: 01 in all reports
In a split system, for setting and unsetting: 02 = A, 03 = B
For partial setting: 02 = A, 03 = AB

3.5. ARC communication test

sequence 74

To perform the test enter:

74

After a successful transfer the keypad will display "**test ok**". An unsuccessful transfer is indicated by displaying "**test error**".

Regular reports (group No. 7) are sent 24 hours after an event has been reported.

3.6. Using the JA-80X and the JA80Y in combination

The JA-80X can be used in combination with a JA-80Y GSM communicator. The communicators can either work in parallel or the JA-80X can operate as a backup device to the JA-80Y. In this case, any unsuccessful attempt of the JA-80Y to report events via GSM is followed by JA-80X voice telephone reporting.

GSM report faults are indicated by reporting "No ARC report sent" events to the control panel memory.

Use spacing posts to install the JA-80X above the JA-80Y in the control panel.

Notes:

- *This option requires the **JA-80Y** to be **pre-programmed** by instruction **081**.*
- *Using two communicators in combination can reduce the internal antenna's working range. If this is a problem you can use some of Jablotron's external antennas designed for OASiS systems.*

3.7. ARC reporting mode

sequence 791x

To program reporting mode enter:

791x

where:

- **x = 0** **no ARC reporting** from the JA-80X
- **x = 1** the JA-80X operates as a **back-up** device for **ARC1** reporting
- **x = 2** the JA-80X operates as a **back-up** device for **ARC2** reporting
- **x = 3** the JA-80X reports unconditionally (this requires the installation ID and at least one phone number to be pre-programmed)

The factory default setting is ***7910***.

After a JA-80X back-up report (x = 1 or 2), the JA-80Y will perform reporting as soon as GSM communication is re-established.

3.8. Telephone line monitoring

sequence 793x

If this function is enabled, the dialler will monitor readiness of the telephone line. If the line is not ready it indicates problem on the keypad and to control panel's events memory will be written a report "External communication fault".

To program the feature enter:

793x

where:

x = 0 monitoring disabled
x = 1 monitoring **enabled**

The factory default setting is 7930 (does not comply with EN 50131-1!)

3.9. Sensitivity to signals

sequence 794x

This setting allows you to set a higher sensitivity to the line signal. This can help in cases where the quality or level of the signal is low.

794x

where:

x-0 basic sensitivity (default)
x-1 higher sensitivity

3.10. Busy – line detection

sequence 795x

If this function is enabled, the dialler will check for the busy tone after dialling each phone number. If the line is busy it hangs up and continues dialling the other numbers.

The attempt is repeated in a standard way (eight / four attempts for communication to the ARC, four attempts for voice messages

795x

where:

x-0 detection is disabled (default)
x-1 detection is enabled

4. Remote access via a telephone line

The JA-80X communicator makes it possible to operate the system remotely via a phone line by temporarily authorizing a phone keypad. After a call request has been received, the communicator will wait for a pre-programmed ringing period and then answer the call. Subsequently, message No. 8 is replayed (Enter your access code). After then the communicator waits for 60 sec for a Service, User or MASTER code to be entered.

If an incorrect code is entered, the communicator responds with message No. 8 and still waits for a correct code to be entered. If an incorrect code is detected for the second time, the communicator responds with 4 beeps and hangs up.

A correct code entry is responded to by system status indication:

1 beep – Set (Armed)
2 beeps – Unset (Disarmed)
3 beeps – Service mode
1 long beep + 3 short beeps – Alarm state

Subsequently, the communicator replays message No. 7 "Welcome to OASiS". The system can then be operated via the phone keypad, the same way as from the system keypad. Instruction performance is confirmed by beeps:

1 beep – Setting (Arming)
2 beeps – Unsetting (Disarming)
3 beeps – Entering Service mode
4 beeps – Error

Phone calls are automatically terminated after 60 seconds of inactivity.

4.1. Ringing period

sequence 77n

To program the ringing period after which the communicator will answer a call, enter:

77n

where:

- **n** is a number from 0 to 9 with the following meaning:
  - **n = 1 to 8** the communicator will answer after n multiplied by 5 seconds of ringing
  - **n = 9** answers after a second call - first there must be at least one ring, then a pause (5 to 40sec.) and then just after the first ring of the second call, the call will be answered
  - **n = 0** the communicator will never answer

5. Communicator RESET

sequence 78080

To reset the communicator to its factory default settings enter:

78080

Note: Performing a RESET does not affect the voice message recordings.

6. Specification

Dialling method	*DTMF*
Phone line check	*enable / disable*
Voice message phone numbers	*up to 4*
(voice message assigned to one of the 5 alarm types)	
Digital data transmission to an ARC	*CID*
(Alarm Receiving Centre)	*(Contact ID)*
Complies with EN 50131-1:	
Security	*grade 2*
Alarm transmission system class	*ATS 4*
Environmental class	*2 Indoor general (-10°C to + 40°C)*
Further standards:	*EN 50136-1-1, EN 50136-2-1, ANSI C63.4, EN 55022, EN 50130-4, EN 60950-1*
Analogue interface connectivity	*EN 301437, TBR 21*

Jablotron Ltd. hereby declares that the JA-80X is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/.
The original of the conformity assessment can be found on the web site www.jablotron.com, Technical Support section.

Note: Dispose of batteries safely depending on battery type and local regulations. Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the manufacturer after use.

A brief list of programming sequences

Function	Sequence	Options / Notes	Factory default
Programming telephone numbers for voice reporting	**71 M xx…x *0**	**M** = memory 1to 4 **xx…x** = tel. number (max. 16 digits) ***0** is the entry terminator **71M*0 erases memory M**	M1 to M4 erased
Voice message recording	**72**	To be entered on the system keypad during the ringing period.	(English)
Filtering reported events	**73nx**	**N** = Group of event types 1 = All events 2 = Alarm triggering events 3 = Alarm cancellations 4 = Setting/Unsetting (Arming/Disarming) 5 = Faults 6 = Maintenance events only 7 = Regular (periodical) reports **x = 1** Report **x = 0** No report	**7311**
ARC communication test	**74**		
ARC phone numbers	**75Mxx…x*0**	**M = 1** main ARC **M = 2** backup ARC	Both M1 and M2 erased
Installation ID for ARC use	**76xx…x*0**		**0000**
Ringing period for remote access	**77n**	**n = 1-8** duration in multiples of 5 seconds **n = 9** the call is answered after ringing for the second time **n = 0** the call is never answered	**n = 0**
Communicator RESET	**78080**		
ARC reporting mode	**791x**	**x = 0** no reports **x = 1** backup to ARC1 **x = 2** backup to ARC2 **x = 3** always report	**7910**
Limited event-reporting	**792x**	**x = 0** limited reports for the 2nd tel. number **x = 1** all events reported to all numbers	**7921**
Telephone line monitoring	**793x**	**x = 0 monitoring** disabled **x = 1 monitoring** enabled	**7930**
Sensitivity to signals on the telephone line	**794x**	**x = 0** basic sensitivity **x = 1** higher sensitivity	**7940**
Busy – tone detection	**795x**	**x = 0** busy-tone detection disabled **x = 1** busy-tone detection enabled	**7950**

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