JA-190X Telephone PSTN communication module

The JA-190X telephone communicator is a component of the JABLOTRON system. A control panel with a JA-190X reports voice alarm messages communicates with ARCs and provides remote access to the system over PSTN line. The communicator uses tone dialling only. The module is equipped with basic overvoltage protection. The product should be installed by a trained technician with a valid certificate issued by an authorised distributor.

Installation

Module installation has to be done when the power is completely disconnected. Insert the module into the right connector on a JA-10xK control panel PCB.

When connecting the module to the system BUS, always switch the power off.

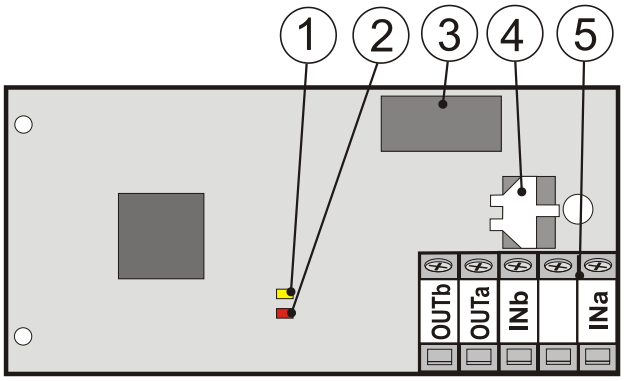


Figure: 1 – yellow fault indicator; 2 – relay activity red indicator; 3 – telephone relay; 4 – component for overvoltage protection; 5 – terminals for connecting telephone line and grounding

1. The communicator can only be connected to an analogue telephone line (PSTN).
2. When an ADSL line is used, it is necessary to connect the communicator after the splitter.
3. The communicator has to be always the first device on the telephone line, other devices can be connected after it, to the outgoing terminals labelled OUT.
4. Connect the incoming telephone line (ADSL splitter output) to the input terminals labelled INa and INb. We recommend protecting the telephone line against overvoltage.
5. The OUTa and OUTb terminals work as an output for line-end devices like telephones, fax machines, etc.
6. Do not connect anything to the unlabelled terminal. It is for other applications.
7. In standby mode all connected devices are ready for use and the telephone line goes through the telephone line terminals. When the communicator is being used, all devices connected to the OUTa and OUTb output terminals are disconnected during communication.

Voice alarm message reporting

The JA-190X reports voice messages to the pre-set telephone numbers. A voice message consists of 4 parts:

Your system reports + type of report + section X + name of the section

Your system reports =	Premises identification (max. 15 s)
Type of report =	Alarm in instant zone Alarm in delayed zone Tamper alarm Flood Fire alarm State of emergency Health problems
Section X =	X is the section number (from 1 to 8 or from 1 to 15)
Section name =	user defined section name (max. 15 s); default: no name

Remote access to the system by telephone line

According to the control panel settings by F-Link software, i.e. the Communication / Voice menu and control SMS tabs, when calling the system from an arbitrary / authorised telephone. The system answers after 15 seconds - requests entering the access code.

The communicator offers options by voice. The structure of the voice menu changes according to the restriction level of the entered code. If a new event in the system occurs, the call will be terminated.

Voice message recording

The language of pre-recorded messages is set by the F-Link software in the ***Initial setup*** tab during system installation. Voice recordings can be made by remote access to the communicator with Service or Master restriction levels. Do it in a silent room with no noise. If you do it from your cell phone, check the GSM signal where you will do the recording, it has to be very strong and stable. When the connection is established, the communicator starts the voice menu. Option 9 is "Voice message recording", and you activate it by pressing the 9 button. Record messages according to the commands in the voice menu in the below order *(the maximum message time is in brackets)*. The beginning of recording is indicated by one long beep. Messages which can only be recorded with **Service** level authorisation are marked in **Bold**. The rest of them are available to Administrator level restrictions.

Press:

0 – "For premises name recording press 0", *(15 s.)*
1 – "For section name recording press 1", *(5 s.)*. After pressing button "1", you will be offered a recording for every single section according to the settings in the **Initial setup** tab.
2 – "For special report A press 2"
3 – "For special report B press 3"
4 – "For special report C press 4"
5 – "For special report D press 5"
9 – "To erase all recorded messages, press 9"
– "To return to the main voice menu, press #"

When the message is recorded it will be repeated by the system once. And if the message is not satisfactory, you can record it again by pressing a particular button.

PSTN communicator settings

(Public Switched Telephone Network)

The communicator is programmed by F-Link software – by the **Communication** tab, and the **PSTN settings** button. In the dialog window you can set: *(default settings are marked*)*:

***PSTN module: *Disabled** / Enabled* – turn on or turn off the communication by the JA-190X.

Call limit min. /day: Limited time for outgoing calls from 5 to 500 minutes / day, (* 20 min).

Remote control by phone: management of system remote control by voice menu:
No: remote access is denied, only outgoing communication is allowed;
***Users*:** remote access is allowed only for users for whom telephone numbers have been set. In the **Communication** tab it is also possible to set access to the voice menu without entering an access code, see the **Voice menu and SMS control** option;
***Anybody **:** remote access is allowed for any telephone, but a valid user access code is always requested.

Note: *For correct remote access functioning, it is absolutely necessary to have caller ID display (CLIP) activated, which is valid for all authorised users (function "Users").*

DTMF tone level (to ARCs): *this setting depends on the local quality of the telephone line and the sensitivity of the ARC input. Proper functioning (correct settings) has to be checked with the ARC technicians.*

***DTMF detection sensitivity (from ARC*):** the required setting for the detection sensitivity depends on the quality of the local telephone line and the level of the ARC tone output. Proper functioning (correct settings) has to be checked with the ARC technicians.

Note: *Default DTMF detection **sensitivity** settings are set according to the norms for PSTN networks. Only use different*

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settings when you are solving some particular problems and when there are problems with the telephone line.

PSTN access prefix: (* default: empty) A sequence dialled before dialling a telephone number by PSTN. Use it when the communicator is connected via a private telephone exchange. The prefix has to be entered to connect to the PSTN before the desired number is dialled and is set according to exchange requirements.

Detection of dial tone:

***Enabled**:** The communicator starts dialling a preset tel. number after the dial tone is detected. If a standard dial tone is not detected, the communicator stops its activity and records the message that hasn't been delivered in the event log.

Disabled: Dials the number immediately when the telephone line is picked up by the communicator. This option is recommended if a standard telephone line is not used or the usual dial tone is not detected.

Detection of busy tone:

Enabled*: The communicator detects a busy tone. When the communicator detects a busy tone, it hangs up and records this event in the history.

Disabled: the communicator does not detect a busy tone.

Control of phone line:

The communicator detects the voltage on the telephone line and also its interruption. When the voltage drops down or the telephone line is disconnected, then this status is indicated by a yellow LED.

Enabled *: If the telephone line voltage is interrupted for more than 30 minutes, a fault is triggered.

Disabled*:* The telephone line status is not checked. *This setting does not comply with EN 50131-1*

Simulated telephone line:

This parameter is meant for the situation when the dialler is connected to a non-standard telephone line, for instance use with radio modems.

Disabled*:* The communicator expects a connection to the PSTN.

Enabled*:* The communicator detects a fault when there is a voltage lower than 10 V.

ARC settings

Go to the F-Link software - ARC tab. For a selected communicator position choose a format of ADM-CID or SIA-DCS. These protocols can be transmitted using the JA-190X communicator.

You can find a description of protocols in the "JA-100 CID and SIA protocol structure". The communicator is able to be used as a backup for communication to ARCs.

The communicator sends reports to the ARC from the oldest report to the newest when the telephone number has been set and ARC transfer is allowed. Every report is recorded in the event memory (example: "ARC 1, Event report 12523 delivered", which means the event with the number 12523 in the event memory was delivered to ARC 1).

LED indicator activity:

Red – indicates communicator activity;
- **Permanently lit:** communication running (communication established)
- **Flashes** *(irregularly):* incoming call is detected

Yellow – indicates faults;
- **Permanently lit:** telephone line is not available
- **Fast flashing:** when the module is initialized (a very short time). Flashing in a normal state means a fault with communication; the LED will flash all the time while the fault is still triggered. For more details see F-Link software.

Technical specifications

Dialling method	DTMF
Phone line check	optional – enabled/disabled
Voice message phone numbers with JA-101K	8
Voice message phone numbers with JA-106K	15
Classification	Security grade 2/environmental class II
- according to	EN 50131-1, EN 50131-3, EN 50131-10 EN 50136-1, EN 50136-2, SIA DC-02, SIA DC-05
- average humidity	75 % RH, non condensation
- alarm transmission class – voice	ATS 2
- alarm transmission class – digital	ATS 4
- digital data protocols	ADM-CID (DTMF), SIA-DCS (FSK)
Weight	28 g
Analogue interface connectivity according to	EN 301 437,TBR 21
Also complies with	EN 50130-4, EN 55022, EN 60950-1

JABLOTRON ALARMS a.s. hereby declares that the JA-190X is in a compliance with the relevant Union harmonisation legislation: Directives No: 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: Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please return the product to the dealer or contact your local authority for further details of your nearest designated collection point.