JA-111H TRB BUS module - interface for wired detectors

The JA-111H TRB is a component of the **JABLOTRON 100** system and it serves for connecting a wired detector with NC / NO outputs to the control panel BUS. It provides a power supply for the detector and reports its activation, tampering and faults.

It is designed to be installed inside a standard wired detector (with contact outputs) but thanks to the extended wires can also be installed out of it in a protected installation box. The module occupies one position in the system. The module should be installed by a trained technician with a valid certificate issued by authorized distributor.

Installation

1. Install the module at a suitable place in the detector or inside the protected installation box near the detector. The wire can be extended to up to 3 m maximum. When the module is installed inside the detector ensure that it cannot make a short circuit because of poor isolation.
2. Connect the wires to the detector (according to Fig. 1).
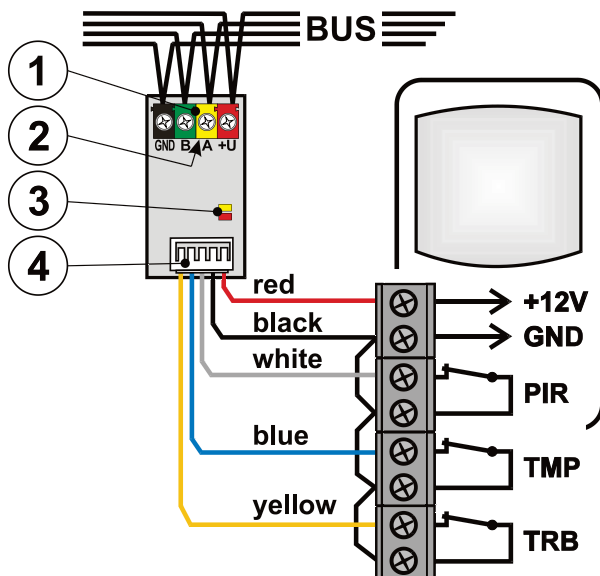

Figure 1: 1 - BUS terminals; 2 - Production code; 3 - Yellow LED indicates fault / not enrolled device, red LED indicates by flashing activation of any input; 4 – connecting wires, see the following table:

Wire	Meaning	Function
Red	+ 12 V	Power for detector
Black	GND	Common wire
White	INP	Alarm input
Blue	TMP	Tamper input
Yellow	TRB	Trouble input

3. Connect the BUS cable and switch on the control panel power.

⚠ **When connecting the module to the system bus, always switch the power off.**

The power consumption of the connected detector must not exceed 50 mA (the module power supply output is not protected against overloading.

4. The control panel has to be in service mode.
5. Proceed according to the control panel installation manual. Basic procedure:
   a) When the device is switched on, the yellow LED starts flashing repeatedly to indicate that the module has not been enrolled into the system.
   b) Go to the **F-Link** software, select the required position in the **Devices** window and launch the enrollment mode by clicking on the **Enroll** option.
   c) Click on the Add new BUS devices option, select the JA-111H TRB and confirm its enrolling by a double press – the yellow LED goes off.
6. Close the cover of the detector with the installed module inside.

Notes:
- The module can also be enrolled by pressing the tamper contact of the connected detector (connection of the black and blue wire together) or by entering the production code via the F-Link software. The production code is printed on the sticker under the bar code on the PCB of the product.
- If you need to remove the module from the system, erase it from its position in the control panel.

Setting the module properties

The module properties can be set in the **Devices** window of the F-Link software. Use the **Internal settings** option at the detector position to open a dialog window where you can set:

LED indication: Factory settings indication is **enabled**. The function serves for switching ON / OFF the LED indication of the red LED (3). The LED reacts to activation of any input of the module.

INP input: By factory default it is **enabled** in NC mode (C connected to GND). The input can be **disabled** completely and no activation will be reported to the system. The following option is **Roller** which reacts to short repeated pulses with a sensitivity adjustable to two levels: Impulse 1 = activation by 3 pulses up to max. 2 minutes; Impulse 2 = activation by 5 pulses up to max. 2 minutes. When the input terminal is disconnected from GND longer than 0.5 s, a tamper alarm is triggered. In the Roller mode the input is deactivated for 10 s after its triggering.

When the INP input is enabled, it shows other options for setting:

Inverted input reaction: It has a NC reaction by default but it can be changed to a NO reaction.

Impulse mode: The status mode is pre-set by factory default. If the parameter is enabled, the input starts to react with an impulse reaction. Ideal for pulse detectors (for instance movement detectors).

INP input reaction delay: A time filter for increasing false alarm immunity – it can be set from 0.1 s to 300 s to define how long the INP input must be active in order to be triggered in the control panel.

TRB input: By factory default it is **disabled** and no activation will be reported to the system. If you select **Trouble** then input activation triggers a fault from the position of the module (standby C connected to GND). If you select the Antimasking option then input activation in an unset section triggers a fault and in a set section fault + alarm (standby C connected to GND).

The input is meant for connection to detectors with an antimasking function.

Inverted TRB reaction: It has an NC reaction by default but it can be changed to a NO reaction.

TRB input reaction delay: A time filter – it can be set from 0.1 s to 300 s to define how long the TRB input must be active in order to be activated in the control panel.

TMP input: By factory default it is **enabled** in NC mode (C connected to GND). The input can be **disabled** completely and no activation will be reported to the system.

Inverted TMP reaction: It is an NC reaction by default but it can be changed to an NO reaction.

⚠ **The manufacturer only guarantees correct functioning of this module. However, they cannot guarantee the correct functioning of the connected detector. We therefore recommend using JABLOTRON 100 BUS detectors.**

To set the module to comply with security grade 2 use F-Link SW, the Parameters tab and the option "Perform EN50131-1".

Technical specifications

Power	from control panel BUS 12 V DC (9…15 V)

Current consumption:
- Nominal consumption - to calculate backup — 8 mA
  all inputs connected to GND
  (+ consumption of connected devices)
- Maximal consumption - for cable selection — 12 mA
  (+ consumption of connected devices)

Maximum allowed current of the connected detector	50 mA
Dimensions	16 x 30 x 12 mm
Weight	8 g
Classification	Security grade 2/environmental class II

Note: valid only, if it is built-in to security grade 2 or higher certified housing

- according to	EN 50131-1, EN 50131-3 (ACE type B)
- environmental	Indoor general
- operating temperature range	-10 to +40 °C
- average humidity	75 % RH non condensing
- certification body	Trezor Test s.r.o. (no. 3025)

Valid for installation of the module into a product certified for security grade 2 / environmental class II and also if the connection to the module is compatible.

Also complies with	EN 50130-4, EN 55022

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JABLOTRON ALARMS a.s. hereby declares that the JA-111H TRB is in a compliance with the relevant Union harmonisation legislation: Directives No: 2014/30/EU, 2011/65/EU. The original of the conformity assessment can be found at www.jablotron.com - Technical Support section.

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. For more detailed information visit www.jablotron.com.