JA-111H TRB Bus module interface for wire detector

*The JA-111H TRB is a component of the **JABLOTRON** 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. ***The product is compatible with JA-100K, JA-101K, JA-106K, JA-102K, JA-103K, JA-107K and JA-108K control panels.***

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).

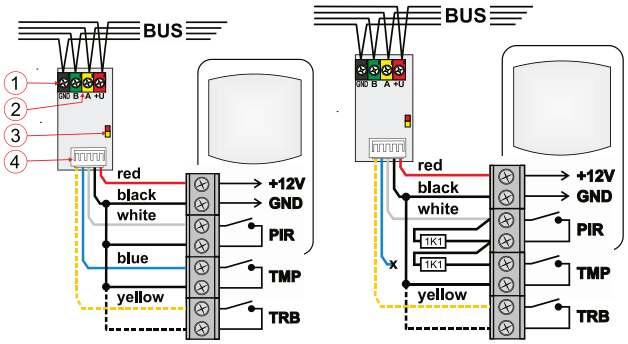


***Figure 1 and 2**: Description of internal part of the product and connecting the wires of the module*

***1** – bus terminals; **2** – serial number; **3** – yellow LED indicator of fault / not enrolled device, red LED indicator of 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	Fault input

***Table 1**: Wires of the module*

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 enrolment mode by clicking on the ***Enrol*** option.
   c) Click on the "SCAN/Add new bus devices" button, 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, delete it from its position in the control panel.
- Not all wires need to be connected. If the installation does not meet the relevant Security grade, only the wires necessary for the application can be used and the other wires can be isolated against short circuits. Their function can be deactivated in the internal settings of the peripheral device.

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 also be set as **Double Balance**. With a double-balanced INP input, the TMP F-Link input is automatically turned off and locked. 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. 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: The input is factory set to Off (applies to GRADE 2), and therefore its activation will not be reported to the system (if the GRADE 3 system profile is set, this input is automatically switched to "fault" mode).

By selecting the Fault option, the activation of the connected detector input will report a fault at the module position (normally connected to GND = NC). By selecting the Antimasking option, activation of the input in the unsecured state of the section will be reported as a fault and in the secured state as a fault + alarm (normally connected to GND = NC). Designed for connecting detectors with the Antimasking function.

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

Joint activation of TRB and INP triggers anti-masking: This parameter can only be activated if the TRB input is set to "fault" response.

TRB input reaction delay: The factory setting for GRADE 3 is 0.1 s and this value cannot be changed. The setting for GRADE 2 is 0.5 s (settings 0.1 s…300 s). The delay setting determines how long the TRB input must be active in order for it to be activated.

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 properties in accordance with the security grade classification, select the standard in the parameters tab in the F-Link software - "system profiles".

Technical specifications

Power	*from control panel bus 12 V DC (8…15 V)*
Quiescent current consumption	*5,2 mA (+ consumption of connected devices) all inputs connected to GND*
Maximal current consumption	*11 mA (+ consumption of connected devices)*
Maximum allowed current of the connected detector	*50 mA*
Type of control device (ACE)	*type B*
Dimensions	*18.1 x 31.5 x 12 mm*
Wire lenght	*300 mm (cannot be extended)*
Weight	*8 g*
Classification	*Security grade 3 / environmental class II (according to EN 50131-1)*
Note: Valid only, if it is built-in to Security grade 3 or higher certified housing	
Environment	*indoor general*
Operating temperature range	*-10 °C to +40 °C*
Average humidity	*75% RH, non-condensation*
Certification body	*Trezor Test s.r.o. (no. 3025), Kiwa Nederland b.v.*
Complies with	*EN 55032, EN 50130-4, EN 50131-3, T 031, EN IEC 63000*

JABLOTRON 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 - 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.

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