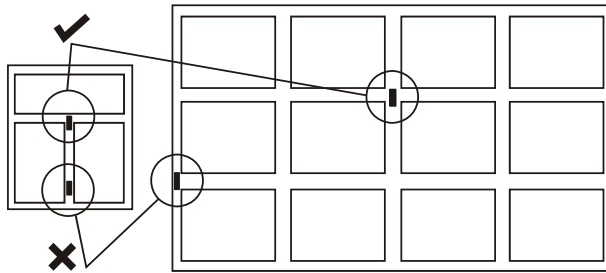


# JA-111SH Bus shock and tilt detector

The JA-111SH is a component of the JABLOTRON JA-100 system. It has two selectable operational modes. The mode for the detection of shocks (vibrations) to doors, windows, etc. can be used to indicate attempts to breach these by force. And the tilt detection mode can be used to indicate unwanted tampering with the object to which the detector is firmly fixed. This may be used for safes, artworks etc. The detector uses a semiconductor tri-axial accelerometer with a digital output. Its signal processing guarantees a high immunity against false alarms. The detector should be installed by a trained technician with a valid certificate issued by an authorized distributor.

## Installation

Choose a suitable place for the detector's installation. When in **shock detection** mode, the detector reacts to vibrations and shocks caused by the base to which it is mounted – the mechanical connection must ensure the smooth transmission of shocks to the detector body. The detector should be installed in places where stronger shocks can be expected – i.e. away from firmly fixed sections of window frames, door frames, etc.



When in **tilt detection mode**, the detector reacts to changes in its position. It is recommended to install the detector in a vertical position if possible.

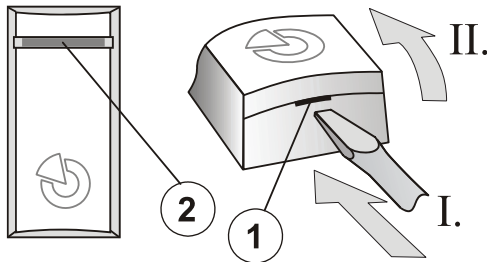


Fig: 1 – cover tab; 2 – LED indicators (yellow and red)

1. Open the detector cover (carefully by pushing the cover tab by screwdriver (1)).
2. Select the right hole for the cable in the back part of the cover and break through the membrane, put the cable thru and screw the detector onto the chosen place or stick it to a glass surface.



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

3. Connect the bus cables (3) to the terminals (6).
4. Proceed according to the control panel installation manual. Basic procedure:
  - a. When the device is powered, 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 enrollment mode by clicking on the Enroll option.
  - c. Press the tamper contact (8) – the module is enrolled and the yellow LED goes off.
5. Close the detector cover.

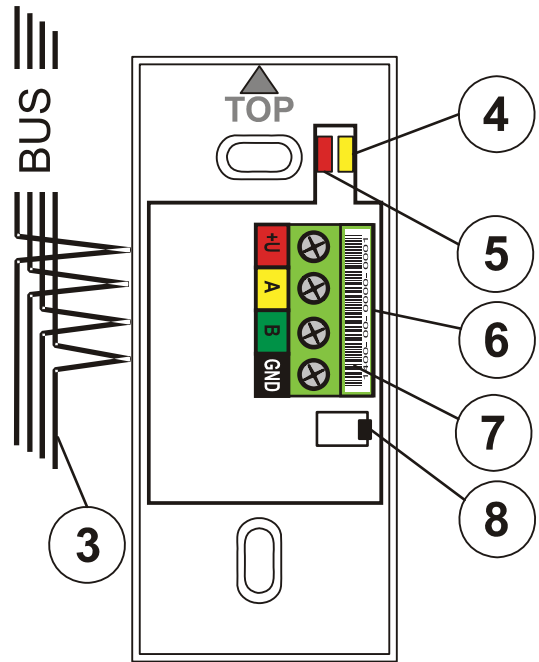


Fig: 3 – bus cable; 4 – yellow fault indicator; 5 – red detector activation indicator; 6 – digital bus terminals; 7 – production code; 8 – tamper contact;

## Internal settings of the detector

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

(\* default settings)

**LED indication:** *enabled\** / *disabled*: Allows the user to disable activation indication with a red LED.

**Function:** *Shock\** – reacts to vibrations; *Tilt* – reacts to tilting.

**Sensitivity:** *Lowest* / *Low* / *Medium\** / *High* / *Highest*

**Shock detector triggering:** *Unconfirmed\** / *Confirmed*

Unconfirmed shock detection is triggered by only one vibration which has reached the set sensitivity threshold.

Confirmed shock detection is triggered by two vibrations which have reached the set sensitivity threshold. After the first activation the detector is blocked for 10 s. When this time has expired and the second vibration is detected within 30 s, an alarm is triggered. Otherwise the first triggering is cancelled.

### Note:

- The detector can also be enrolled into the system by entering its production code (7) in the F-Link software (or using a bar code scanner). All numbers stated under the bar code shall be entered (1400-00-0000-0001).

## Technical specifications

Power	from control panel bus 12 V (9...15 V)
Current consumption in standby mode	5 mA
Current consumption for cable choice	5 mA
Dimensions	55 x 27 x 16 mm
Classification	grade 2
according to	EN 50131-1, CLC/TS 50131-2-8
Operational environment	EN 50131-1 II. Indoor general
Operating temperature range	-10 to +40 °C
Also complies with	EN 50130-4, EN 55022



JABLOTRON ALARMS a.s. hereby declares that the JA-111SH is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The original of the conformity assessment can be found at [www.jablotron.com](http://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](http://www.jablotron.com).