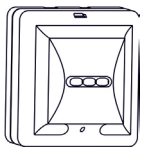
RIELTA
Ochrana

GLASS BREAK DETECTOR

«STEKLO-3»



Installation Guide

Introduction

The detector «Steklo-3» (hereinafter, the Detector):

- is intended for detecting destruction of all known kinds of construction glass: common, quenched, patterned, armored, multilayer and laminated with polymer film, glass units, as well as hollow glass blocks installed in structural units (openings) and/or interior elements of closed spaces;
- generates alarm messages by control relay contacts opening;
- ensures case tamper protection;
- may be installed on the wall, ceiling or on a pier between the monitored glass and curtains.

Features of the Detector

The Detector:

- ensures remote monitoring of controlled glazed structures of any shape;
- detects destruction of all known kinds of construction glass of different dimensions and shapes;
- provides multilevel microprocessor signal processing and functional self-test;
- offer to user an opportunity to choose algorithm of the Detector operation in dependence on situation on the secured object or on chosen security tactics;
- displays the Detector status information and noise interference by means of LED indication;
- possibility of LED indication disabling;
- operates in temperature range from minus 20 up to + 45 ^{0}C, supply voltage range 9 ... 17 V.

Scope of Delivery

Each Detector unit package contains the items listed in Table 1.

Table 1

Name	QNT
Glass Break Detector «Steklo-3»	1 pc.
Testing steel ball	*
Screw 3-3x30	2 pcs.
Glass Break Detector «Steklo-3». Installation Guide	1 copy
* – Supplied optionally	

Field of Application

The Detector can be applied in offices, shops, museums, exhibition halls, banks, accommodation rooms, etc.

Choosing the Detector Location

Before installing the Detector, get acquainted with the following requirements:

- when choosing the place of installation, the Detector detection zone location must be taken into account (Figure 1);
- it is recommended to install the Detector at least 2 m height (see examples of installation in Figures 4 – 8);
- during joint operation with an active ultrasonic Detector, distance between Detectors must be not less than 1 m;
- the entire surface of the monitored glass should be available within the direct visibility of the Detector;
- distance (L) between the Detector and the farthest point of the monitored glass should not exceed 6 m. If square of a secured glass exceeds 1 m^2, distance L can be increased up to 9 m;
- for protection of any type of glasses listed in Table 2, universal mode of the Detector operation can be applied.

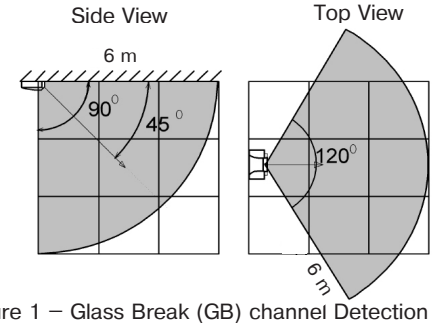


Figure 1 – Glass Break (GB) channel Detection Pattern

Table 2

DIP-switch position						Detector Operating Mode	
1	2	3	4	5	6		
OFF OFF ON ON	OFF ON OFF ON					Sensitivity (detection range) adjustment	minimum +6 dB +14 dB +20 dB (maximum)
		OFF ON				Universal mode Detection of glass destruction with chip fallout	
			OFF ON			Alarm memory indication	– OFF – ON
				OFF ON		LED indication control	– OFF – ON
					OFF ON	Standby mode Adjustment	– LED indicator lighting green

The Detector Installation

Remove the cover and PCB of the Detector and fasten the Detector with the help of screws. Choose the place of the Detector installation and mark out it's fastenings using the Detector base for the purpose.

The Detector Connection

Fulfill the Detector connection in accordance with Figures 2 or 3.

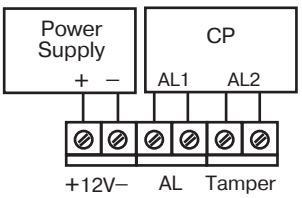
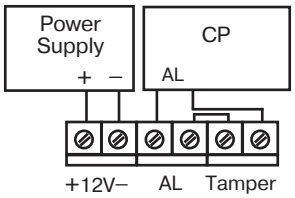


Figure 2 –Separate Connection of Alarm Loop and Tamper contact



Figire 3 – Joined connection of Alarm Loop and Tamper contact

Adjustment

Set the «1», «2» and «5» DIP-switches to the ON position. Energize the Detector. At this time the red LED indicator («Alarm» message indicator) should light for 2 – 10 sec and go out, that indicates the Detector changing to standby mode.

Estimate the interference situation in the room. Yellow LED indicator lighting is an evidence of high-frequency interference in the room. Green LED lighting means low-frequency interference presence. Eliminate the cause of interference wherever it is possible.

Fulfill the Detector adjustment as follows:

- set DIP-switches «1» and «2» in OFF position, DIP-switch «6» – in ON position, DIP-switches «3» and «4» – in OFF position;
- suspend a steel ball 21 – 22 mm in diameter on a 35 cm long thread near the farthest part of the monitored glass (ordinary, ornamental, armed, laminated), deflect it at an angle of 30 – 70˚ (see Table 3, 45˚ for hollow glass blocks). Deliver a blow to the most distant place of the secured glass. If red indicator is not lighting after test blows, the Detector sensitivity should be increased by DIP-switches «1» and «2» (See Table 2).

Table 3

Glass thickness, mm	<3	3...4	4...5	5...6	6...7	>7
Ball deflection angle for ordinary, armed and ornamental glass, ^{0}	30	35	40	45	50	55
Ball deflection angle for, hardened and laminated glass, ^{0}	45	50	55	60	65	70

– for monitoring a multilayer glass or a small area of glass, it is allowed to use electronic glass break simulator during adjustment;

- check the correctness of the Detector adjustment with the Detector cover installed;

– after completing the Detector adjustment, set DIP-switch «6» to OFF position and choose the mode of operation by «3», «4» and «5» DIP-switches (See Table 2) in accordance with type of secured glass and security tactics accepted on the object.

Manufacturer's Guarantees

The manufacturer guarantees conformity of the Detector to the Technical Specifications requirements provided the transportation, storage, installation and operation conditions are observed.

The guaranteed shelf life of the Detector is 63 months since the date of manufacture.

The guaranteed useful life is 60 months since the day of putting into operation within the guaranteed shelf life.

The Detectors that are found non-conforming to the Technical Specifications requirements shall be repaired by manufacturer, provided the installation and operation rules have been complied with.

Acceptance and Packing Certificate

The Detector «Steklo-3»,

lot number_____ ,

has been manufactured in compliance with the active technical documentation, classified as fit for operation and packed by «RIELTA» JSC.

Person in charge of acceptance and packing

QC representative_____ _____.
month, year

Variants of the Detector Installation

Figures 4 – 8 illustrates right variants of the Detector installation, Figure 9 – the wrong one.

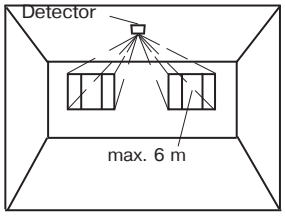


Figure 4 – Installing the Detector on the Ceiling

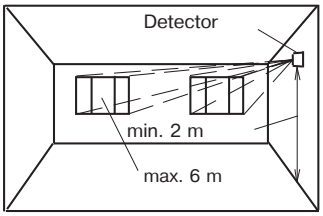


Figure 5 – Installing the Detector on a Side Wall

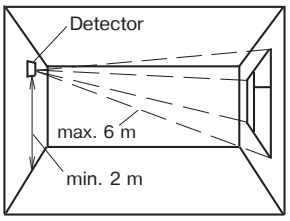


Figure 6 – Installing the Detector on the Opposite Wall

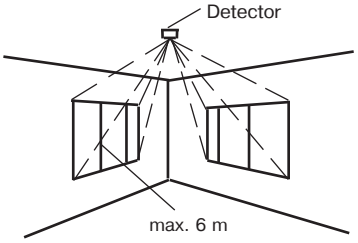


Figure 7 – Installing the Detector on the Ceiling (for window openings in the neighboring walls monitoring)

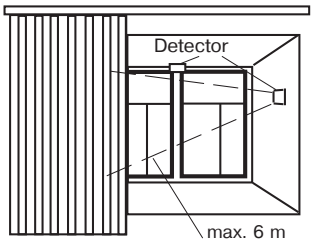


Figure 8 – Detector Installation between the Glass and the Curtains (Blinds) or on a Window Frame

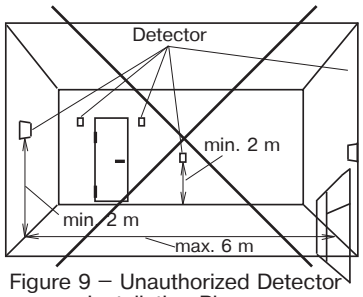


Figure 9 – Unauthorized Detector Installation Places

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Made in Russia

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