



# Communication module ASTRA-GSM

## User Guide



This User Guide is intended to study the principle of operation, operating conditions and maintenance of the communication module "Astra-GSM (PAK Astra)" (Pic. 1). The manufacturer reserves the right to make changes to the design, firmware, circuit solutions and product packaging that do not worsen its technical parameters, do not violate mandatory regulatory requirements, without prior notice to the consumer. The technical features of the product not listed in the User Guide in terms of design, firmware and circuit solutions are standard for the product, if they do not worsen the declared technical characteristics.

### Abbreviations:

**CrossARM** – automated workplace of the centralized security monitoring software;

**BAT** – accumulator battery;

**Tutorial** – PKM Astra Pro software embedded manual, or Astra-812 Pro setup manual from the keypad;

**PAK Astra** – TEKO cloud server platform;

**PKM Astra Pro** – Astra Pro configuring and monitoring software package (see on the website [www.teko.biz](http://www.teko.biz));

**Control Panel** – control panel "Astra-812 Pro" or "Astra-8945 Pro".

## 1 FUNCTION

**1.1** The module is designed for operation as part of the Astra control panel of the Pro series: Astra-8945 Pro, Astra-812 Pro\*

**1.2** The module is designed to exchange information via mobile cellular communication channels GSM standard 850/900/1800/1900 MHz (GPRS Class 12) for the purpose:

- transmission of digital messages to the Astra PAK Astra server (using GPRS technology),
- sending text messages and receiving remote control commands of the Control Panel in SMS format,
- transmission of voice messages to user phones (unavailable for English and Spanish versions of Control panels),
- remote monitoring and control of the Control Panel via the Internet by means of client services (mobile and web applications, CrossARM).

**1.3** The module is designed for continuous 24h operation.

## 2 SPECIFICATION

Number of information recipients.....	8
Number of supported SIM-cards, pcs.....	2
Average current consumption of 812 Pro, 8945 Pro at voltage 12 V (24 V) with installed module, mA, no more.....	120 (80)**
Overall dimensions, mm, not more.....	74×28×18
Weight (without antenna), kg, not more.....	0,015

### Operating conditions

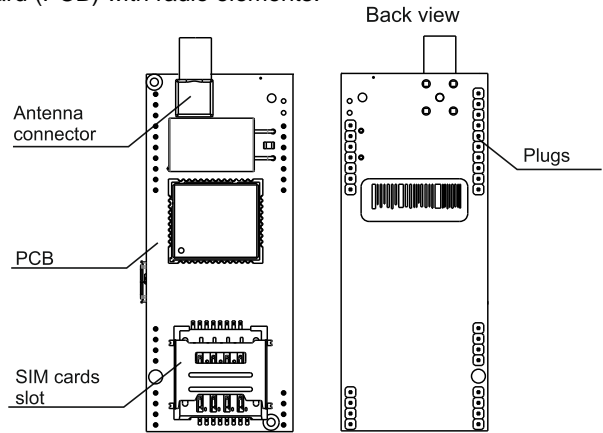
Temperature range, °C.....	from -10 to +55
Relative humidity, %.....	up to 93 at + 40 °C without moisture condensation

## 3 DELIVERY SET

Astra-GSM communication module (PAK Astra).....	1 pc.
Antenna GSM.....	1 pc.
Sticker.....	2 pc.

## 4 DESIGN

Structurally, the module is made in the form of a printed circuit board (PCB) with radio elements.



Picture 1

## 5 INSTALLATION

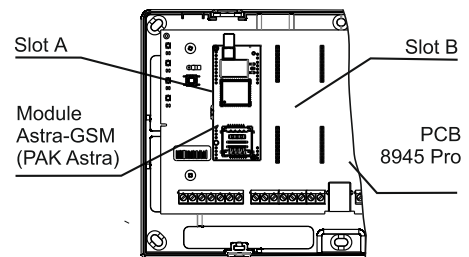
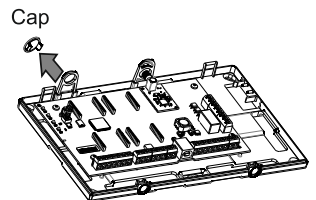
**5.1** After transportation under conditions different from the operating conditions, keep the module unpacked under operating conditions for at least 4 hours.

**5.2** Only persons who have studied this user guide and are allowed to work with electrical installations up to 1000 V are allowed to work on the installation, maintenance and operation of the module.

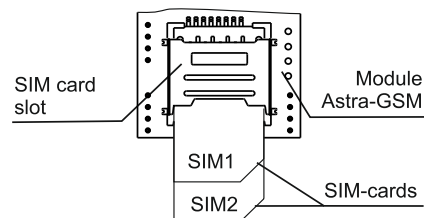
### 5.3 INSTALLATION ORDER

#### 5.3.1 Installing a Module in the 8945 Pro Control Panel:

- 1) Turn off the power of the Control Panel 8945 Pro.
- 2) Open the cover of the 8945 Pro Control Panel by unscrewing the two screws at the bottom of the base.
- 3) Remove the cap for the GSM antenna opening at the top of the case base.
- 4) Install the module in slot A of the 8945 Pro Control Panel:



- 5) Connect the GSM antenna from the delivery set to the connector installed on the GSM module PCB.
- 6) Install the SIM card(s) into the SIM card holder of the module. SIM cards must be oriented with contacts to the PCB:



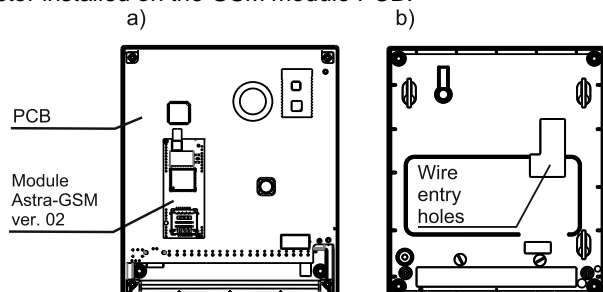
\* starting from firmware version v4\_0

\*\* For the Control Panel Pro to operate with any set of modules, the rated current of the power supply must be at least 0.7 A (recommended 1 A)

7) Close the cover of the Control Panel 8945 Pro, tighten the two screws at the bottom of the base of the Control Panel 8945 Pro.

### 5.3.2 Installing the module in the Control Panel 812 Pro:

- 1) Turn off the power of the Control Panel 812 Pro.
- 2) Open the keypad cover of the Control Panel 812 Pro.
- 3) Open the cover of the terminal block by unscrewing the 2 screws securing it, remove the cover.
- 4) Unscrew 4 screws from the side of the base, remove the base.
- 5) Install the module into the slot of the control panel 812 Pro PCB.
- 6) Connect the GSM antenna from the delivery set to the connector installed on the GSM module PCB:



7) Insert the SIM card(s) into the module's SIM card holder (see clause 5.3.1 step 6), SIM cards must be oriented with their contacts to the PCB.

- 8) Replace the base, tighten the 4 screws.
- 9) Close the cover of the Control Panel 812 Pro terminal block, tighten the two screws securing it. Close the keypad cover if necessary.

## 6 SETUP

Module configuration is carried out using a computer and the PKM program Astra-Pro according to the method described in the User's Manual of the software.

When using the module as part of the Astra-812 Pro control panel, it is possible to add and configure it through the built-in keypad and display of the Astra-812 Pro control panel according to the instructions for the Astra-812 Pro control panel.

## 7 WARRANTY

7.1 Warranty period of operation - 2 years from the date of commissioning, but not more than 2 years 6 months from the date of manufacture.

7.2 Average module life is 10 years.

7.3 **The warranty does not take effect in the following cases:**

- non-observance of this user guide;
- mechanical damage to the module;
- module repair by a person other than the manufacturer.

9.4 The warranty only applies to the module. All third party equipment used with the module is covered by their own warranties.

**The manufacturer is not liable for any damage to health, property, or other incidental or special loss, direct or indirect damages based on the user's claim that the module did not fulfill its functions, or as a result of misuse, failure or temporary inoperability of the module.**

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