TALISMAN – GSM
User Manual

Moscow
2011

1. GENERAL

The TALISMAN – GSM is designed for automatic encryption of voice data transmitted over GSM networks.
The device is the SonyEricsson W395 mobile phone with the built-in crypto module (without any additional external accessories).

2. MAIN FEATURES AND SPECIFICATIONS

The TALISMAN – GSM provides:

- cryptographic protection of voice data transmitted over GSM 900/1800/1900 networks (point to point mode) with guaranteed strength against deciphering;
- **protection** against eavesdropping through the mobile phone with "visual" indication;
- **protection** against unauthorized usage in case of loss or theft;
- **protection** of confidential net subscribers' numbers in case of loss or theft;
- **protection** against transmission of plaintext information during equipment failures;
- **protection** of firmware integrity;
- **protection** against cloning;
- **protection** against voice identification in communicating channel;
- **protection** against connection to communicating channel (identity verification of subscribers by unique crypto number);
- ГОСТ 28147-89 encryption algorithm;
- full-duplex operation with the TALISMAN – GSM devices only;
- 2,4 Kbit/s data transfer speed;
- acoustic indication of protected mode;
- time of turning on of protected mode is 7 s (V 110) and 15 s (V32);
- quality of synthesized speech 3,7 according MOS estimation;
- preserving all main functions of the basic model of mobile phone;
- absence of external changes in design of the mobile phone.

3.COMPLETE SET

1. TALISMAN – GSM main unit.
2. AC/DC adapter.
3. Mobile phone User Manual.
4. Rechargeable battery.
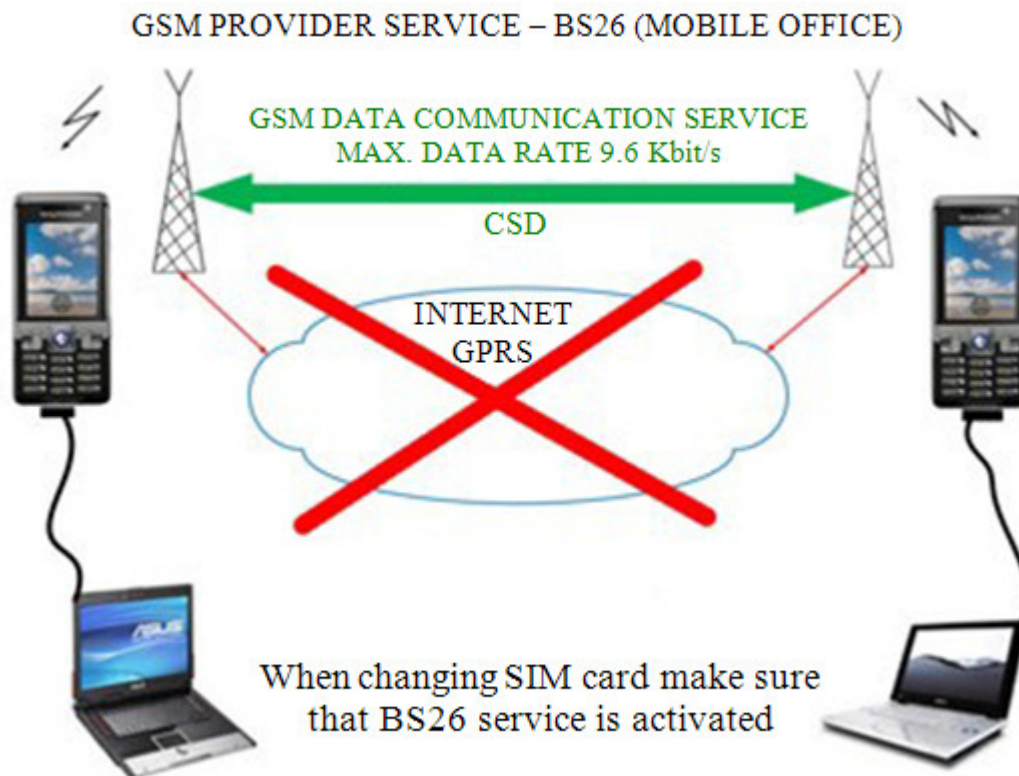5. SIM card.
6. TALISMAN – GSM User Manual.
7. Packing.

4. CRYPTO MODULE

- speech converter;
- cipher generating module;
- intrasystem monitoring elements;
- power supply, control and signaling elements;
- adapter circuit for radio modem, etc

5. RECOMMENDATIONS ON THE TALISMAN – GSM USAGE

First read attentively the SonyEricsson W395 User Manual!

5.1. Compulsory condition of the TALISMAN – GSM operation in protected mode is Data Transmission service availability. Data Transmission service or Mobile Office means connection of two terminals through CSD channel in point-to-point mode, but not through Internet or GPRS.

GSM PROVIDER SERVICE – BS26 (MOBILE OFFICE)

GSM DATA COMMUNICATION SERVICE
MAX. DATA RATE 9.6 Kbit/s

CSD

INTERNET
GPRS

When changing SIM card make sure
that BS26 service is activated

When going abroad International Roaming service must be available.

5.2. The TALISMAN GSM allows using SIM cards of any GSM provider.
5.3. The device does not require changing keys by the user as they are generated anew automatically for every communication session with every device. At that keys of accomplished sessions are automatically

deleted.

5.4. Loss (theft) of the device does not compromise keys as they are automatically deleted after completion of synchronization.

5.5 Simultaneous operation of more than two devices during one communication session is impossible because during synchronization, identification of devices by unique crypto number occurs.

5.6. The device has automatic mode of information protection when being in premises. When this mode is activated, microphone, telephone circuits and also the built-in recorder of the Talisman GSM are blocked. At that the devices is ready to receive incoming calls. For a purpose of saving battery visual indication of the protection mode activation is absent. Sign of this mode activation is display turning off in stand-by mode.

5.7. **Crypto call.**

To make a crypto call it is necessary to dial required subscriber's number and add * symbol or select from contacts list, then press Call button. Dialed number in such a format will be stored in recent calls list or can be stored in contacts list. After pressing Call button, process of dialing required number and setting protected communication starts.

After connection of call and subscriber's answer, communicating channel protection setting requires 7-15 s depending on employed modem protocol of data transmission. To accept crypto call press Answer button.

5. 8. **Protocol.**

Data calls using CSD standard can be analog (V.32, 10-15 s) or ISDN (V.110, 5-7 s).

Possibility to use one or another data call is determined by a subscriber. To start V.32 data call add * after telephone number of your counterpart, in case of V.110 data call - add **.

Restrictions

1. Use of multifunctional jack of the mobile phone is allowed in normal mode only.

2. Connection of any accessory to the multifunctional jack in protected mode causes blocking of the crypto module. To unblock the module it is necessary to restart the mobile phone (switch off and on) with compulsory disconnection of the phone battery.

3. Call forwarding of protected call to normal mobile phone is impossible.

4. It is not recommended to use the device in protected mode when moving in a car with high speed.

5. **Attention! If not in use during more than one week remove the battery from the phone to avoid deep discharge!**

6. Presence of telephone numbers in resent calls list means technical testing. These numbers can be deleted.

7. The crypto module is built-in to the external memory card slot and cannot be removed. Use of external memory card is **impossible**.

WARRANTY

Manufacturer guarantees failure free operation of the TALISMAN-GSM during one year (for crypto module – three years) from the moment of sale.

During warranty period repairs or replacement of the device is made at the expense of the manufacture. Warranty does not cover the following:

- devices with mechanical damage;
- misuse of devices;
- repairs or attempts of repairs made by unauthorized personnel;

After warranty period technical support and free of charge firmware update are available.

Sony Ericsson W395 mobile phone
S/N:
IMEI:
SIM card:

Date of sale _____