EuroTech
COMMUNICATION

WINNER

Analog GSM Fax User Manual

Version 4.93

CONTENTS

1. OVERVIEW

1.1. PACKING LIST

On receiving your WINNER device, please inspect the package to verify that you have the following:

- 1 Winner GSM analog fax unit
- 1 Communications cable com port (8 Pines)
- 1 Phone cable
- 1 Power adapter
- 1 SMA Antenna
- 1 Bag with 2 screws & 2 screw wall plugs
- 1 metal adapter for attaching the fax unit to the wall

1.2. SAFETY GUIDELINES

For the safe and efficient operation of your WINNER gateway unit, please observe the following guidelines:

- Please read the installation instructions and safety guidelines in this User Manual carefully before installing the unit.
- Do not handle the equipment before disconnecting it from the electrical outlet.
- Do not use any cleaning agents or detergents on the exterior or interior surfaces.
- If you intend to clean the device, disconnect from electrical outlet and use only a damp cloth.
- Do not position device in a damp place; do not expose to water.
- Do not expose to extreme temperatures: optimal operating temperatures **-5° C to + 5O°C**.
- Position equipment in a stable environment; any sudden fall or sharp movement may damage the device.
- Do not cover or stick any foreign objects in devices' openings or ventilation holes.
- Do not operate your WINNER device while any person is within 0.O2m of the antenna.
- A person or object within 0.02 m of the antenna could impair call quality and may cause the phone to operate at a higher power level than necessary.
- **Warning: Potential Explosive Atmospheres:**
- Do not operate your WINNER near blasting caps, or in a blasting area, to avoid the possibility of triggering an explosion.
- Do not operate a WINNER transmitter in a hazardous atmosphere: an explosion or fire may result.
- The telephone interface is not designed for outdoor application:
  RJ-11 cable must not be run to an outdoor telephone; this minimizes equLandlinement exposure to coupling and directs lightning surges.

2. QUICK START GUIDE

2.1. USER INFORMATION

Placement of the device: the WINNER GSM gateway unit is designed for installation on a vertical surface but may be mounted also on a wall.

- ***If you wish to mount the device on a wall follow these steps:***

1) Remove the black metallic strandline used for hanging the unit on the wall by sliding it out from the back of the WINNER unit.
2) Place the metallic strandline on the wall to indicate the location of the screws.
3) Hold the strandline on the wall and drill holes for the screws to go into the wall through the metallic strandline.
4) Place the unit onto the wall by sliding the metallic strandline back into its place.

2.2. INTERFERENCE TO MEDICAL AND PERSONAL ELECTRONIC DEVICES

Most electronic equipment is shielded from RF energy. Nevertheless, RF energy from the WINNER transmitter may affect inadequately shielded electronic equipment. We therefore advise to consult the manufacturer(s) of your medical and personal electronic device(s), (for example a pacemaker or hearing aid) to determine if they are adequately shielded from external RF energy.

Do not install a WINNER gateway unit in a health care facility, if regulations posted in the area restrict the use of cellular phones. Hospitals and health care facilities may be using equipment t that is sensitive to external RF energy.

2.3. ANTENNA CONSIDERATIONS:

Use only the supplied or approved antenna. An unauthorized antenna, modifications or attachments could affect call quality.

3. INSTALLATION AND SETUP

MODE SEQUENCES TABLES

- **Voice Mode:** ****#00#**
- **Fax Mode:** ****#01#**
- **Data Mode:** ****#02#**
- **Sending Fax from Memory:** ****#03#**

3.1. STAGE 1: SETTING VOICE MODE

- ***To set the Voice Mode:***

1) Connect the phone cable to the Winner analog fax via RJ11 connection and the otherend of the phone cable to your fax machine.
2) Please insert SIM Card in to the SIM socket.
3) Connect the Winner analog fax to the SMA Antenna.
4) The fax module will begin **initialization** process.
   - After a few seconds the word **PORT EXPANDER** will appear on the LCD screen.
   - After a few seconds the word **GSM ENGINE** will appear on the LCD screen.
   - After a few seconds the word **VOICE MODE** will appear on the LCD screen.
   - After a few seconds the **NETWORK** will appear on the LCD screen and then **VOICE MODE** appear on the LCD screen.
   - **SIM READY.**

The unit is ready for Voice calls (Default),TR/RC.

3.2. STAGE 2: SETTING FAX MODE

- ***To set Fax Mode:***

1) In order to send a fax or, press the following sequence on your fax machine:
   ** # 01 # , the unit will turn to FAX mode
2) To send a fax - dial the number and send.
3) Once the unit sends the fax the unit will show the following sequences on the LCD:
   - **INIT LCL FAX** - the unit is connecting & initializing sending from fax machine.
   - **LC FAX TO MEMORY** - means the fax has been sent and is stored in the unit memory.
   - **FAX:** 002% 1 PG. 002% - shows how much of the unit's memory is used. 1 PG means 1 PG is in memory.
   - **DISCONNECTING** - the unit is disconnecting from the local fax machine.
   - **CONNECTING** - the unit connects to destine remote fax machine. The unit will show you the last five digits of that fax number.
   - **CALL TO RM FAX** - the unit is attempting to call to the remote fax machine.
   - **MEMORY TO RM FAX** - the fax has been transferred from the unit's memory to the remote fax machine.

4) To receive a Fax, press the following sequence on your fax machine:
   - If you are not in fax mode then press ** # 01 # , the unit will turn to FAX mode.
   - When the fax is being received the unit will show the following sequence – Incoming Fac call, Init. GSM Fax.
   - RM FAX TO MEMORY (the fax that's being sent to you is stored into the unit's memory).
   - MEMORY TO LC FAX (the fax has been transferred from the unit's memory to your fax machine).

Note

In case the receiving fax machine is **busy**, the unit will store the fax being sent to it's memory. In order to re-send the fax you will have to press **** # 03 #** at your convenience. The unit will show you the following –

For example: FAX: 002% 1 PG

** # 03 # to send

When a new fax is being received or sent, it will overwrite the current fax which in memory.

3.3. STAGE 3: SETTING DATA MODE

- ***To set Data Mode:***

1) In order to send or receive data,(Data Mode has to be on enable at menu 11 in programming mode, see DTMF programming), press the following sequence on your fax machine:
   * # 01 #..
2) After the COM PORT cable to is connected to PC the following massage will appear on the LCD : **Data Mode RS- 232 Connection**.

In order to revise to VOICE Mode again, Please press: **#OO#

3.4. STAGE 4: DTMF OPERATION PARAMETERS MENU

- ***To enter programming mode:***

1) Pick up the handset of the landline phone and press the star key 3 times " * * * ".
2) LCD will indicate "Programming Mode" (it is now in programming mode).
   (after 1 second the LCD will display the first parameter: "1. AnsSuperVision ").
3) In order to scroll through the "Programming Options" 'parameter menu' press "#".
4) To enter any sub menu press "*".

3.4.1. PARAMETER MENU

1. Answer Supervision (AnsSuperVision) - Off Hook Signal type

This parameter allows the user to specify the type of signal sent to the PBX when the phone handset is lifted off the cradle. This signal is PBX specific so check your PBX documentation and pay attention to the notes at the bottom.

1) Press "*****" to enter the sub menu options. The LCD will display **"# - Choose / * - Save".**
2) After 1 second the LCD will display "Battery Reversal" (first item in the Sub Menu).

3) To scroll between options in the sub menu press "**#**", to choose an option press "*****".

Available signal types (Sub Menu Items):

- Battery Reversal. (Polarity reverse)*
- Disable
- Double Line Reverse
- Break Line

* Polarity reverse timing (Pulse Duration can be programmed using menu parameter 2) "Answer Supervision Timer".

Notes:

1. The "Off Hook Signal" is determined by your type of PBX.

2. If you are using a CDR (Call Detail Record) unit, use "Double Line Reverse" as your preferred option.

2. Answer Supervision Timer: Modify "Off Hook Signal" Pulse Duration

This parameter is in multiplications of 100ms (milliseconds) (see your PBX documentation for the correct value).

1) Press "*****" to reach the sub menu. The LCD will display **"# - Change / * - Exit"**.
2) After 1 second the LCD will display: "100msX" (100ms times 1).
   User can change the multiplication value by pressing "#". LCD will display (for about 1sec): "**0-9 –Edit / * - Exit**".
3) Choose a new multiplication factor by pressing 00 – 09 (2 digit number).
4) Press **"*"** to accept new value and exit.

3. Minimum Digits: Minimum number of digits to be dialed

This parameter allows the user to specify the minimum number of digits to be dialed for any valid outgoing call.

1) Press **"*"** to reach the sub menu. The LCD will indicate "**# - Change / * - Exit**". After about a second the LCD display will change to: "Min: 07".
2) Press **"#"** in order to modify this value. LCD will display "**Min: (02-08)** " (for about 1 sec). Choose a number between 02 to 08 (2 digit number), press **"*"** to accept and exit.

Note:

When you have finished dialing, the call will go out after the "Inter Digit Timer" delay (menu parameter No. 5) but only if the number of digits dialed is between "Minimum Digits" and "Maximum Digits".
If "Minimum Digits" is less than 02, no call will go out.

4. Maximum Digits: Maximum number of digits to be dialed

This parameter allows the user to specify the maximum number of digits to be dialed for any valid outgoing call.

1) Press "*" to reach the sub menu. The LCD will indicate "# - Change / * -Exit". After about a second the LCD display will change to: "Max: O9 ".
2) Press "#" in order to modify this value. LCD will display "Max: (O5-2O)" (for about1 sec). Choose a number between O5 to 2O (2digit number).
3) Press "*" to accept and exit.

Note:

When the “Maximum Digits” number is reached during dialing, the call will go out immediately, regardless of any superfluous dialing.

5. Inter Digit Timer

The interval between the end of your dialing sequence and the moment the call goes out.

This parameter is in multiplications of 5Oms (milli seconds).

4) Press "*" to reach the sub menu. The LCD will indicate: **"# - Change / * - Exit**”. After about a second the LCD display will change to: "**50msX200**".
5) Press "#" in order to modify this value. LCD will display (for about 1 sec): "**50msX(001-200)**". Choose a number between 001 to 200 (3 digit number).
6) Press "*" to accept and exit.

Note:

When you have finished dialing, the call will go out after the “Inter Digit timer” delay (menu parameter No. 5) but only if the number of digits dialed is between “Minimum Digits” and “Maximum Digits”.

If “Minimum Digits” is less than O2, no call will go out.

If “Maximum Digits” is reached during the dialing sequence the call will go out immediately, regardless of any superfluous dialing.

6. Ignore First Digit

This parameter allows you to ignore the first dialing digit:

1) Press "*" to reach the sub menu, the LCD will indicate "**# - Change / * - Exit**". After 1 second the LCD will display: "**Digit:** ".
2) Pressing "#" until LCD shows the digit that you need to ignore.
3) Press "*" to choose and exit.

Available options:

1. Disable: - Don't ignore any digits.
2. 0 to 9: - Set the specific digit to be ignored (at the start of the dialed number).
3. Any: - Any first dialed digit will be ignored.

7. Software Version

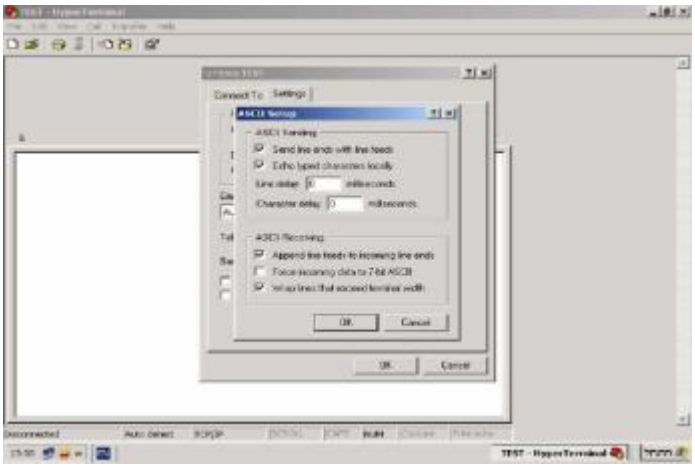
Indicates the software version.

8.Data Mode : Data mode on / Data mode off

This parameter allows the user to transmit digital data over the GSM. An 8 pin serial data cable has to be connected to the serial port(Comport) off the PC on one side and on other side the RJ45.

Once Data Mode "ON" setting has been done (Enter main menu" * * * ">>> Browse to the data mode menu "#" >>> Enter data mode and choose "ON""*") the HyperTerminal has to be accessed.

Make sure the setting the HyperTerminal is as follows:



1) Open the HyperTerminal on 19200 frequency. This Enables you to send AT Commands/Data.

Note: This parameter must be OFF when being used for 'Voice' only!

9.Pre Digit Dialling: Allows you to transmit a prefix using an ordinary phone:

This parameter allows you to attach a series of digits (i.e. O5O) to every number dialed i.e. your cell phone prefix number. Every time you dial a number this prefix will be added automatically.

* This attribute can save valuable dialing time.

1) Press "*" to reach the sub menu, the LCD will indicate "# - Change / * - Exit". After a short delay the LCD displays: "String: ".
2) Press "#" and write your prefix -- ie. "050" then press "*" until the LCD display returns to "**9. Pre_Dialling**".

10. CID: (Setup Caller ID) Caller I.D option

This parameter is **Optional,** and can be obtained **by special order only**.

If this option is active (ON) and your PBX Supports this service, the caller ID will be sent to the target extension, (Caller I.D. will always appear on your LCD - with or without this option).

11. PIN Number:

1) Press "*" to reach the sub menu, the LCD will indicate "# - Change / * - Exit". After a short delay the LCD displays: "PIN: XXXXXX".
2) Press "*" to accept the existing No. and exit to the parameter menu.
3) Press '#' to add a new PIN number or change the current PIN No. "NEW PIN:" will be displayed Key in a PIN number (max 8 digits) using the telephone keypad.
4) Press '*' to accept the PIN number and exit to the parameter menu.

12. CLIR Mode: (CLIR – ClearCaller ID).

1) Press "*" to reach the sub menu, the LCD will indicate "# - Change / * - Exit".
2) Scroll through the Sub Menu options using "#".
3) Press "*" to accept the option in the display and exit to the parameter menu.

Available options:
1. By Network: According to cellular network
2. Invocation: Inactives ID display
3. Suppression: ID will be displayed

13. Voice Gain: Volume of Caller or Receiver voice.

1) Press "*" to reach the sub menu, the LCD will indicate "# - Change / * - Exit".
2) Scroll through the Sub Menu options using "**#**".
3) Press "*****" for 3 secs in order to change volume setting (3 digits).
4) Press "*****" to accept the option in the display and exit to the parameter menu.

Options:

Rx gain – Incoming voice Volume Control

Tx gain - Outgoing voice Volume Control

14. RX DTMF Restoration: Correcting the reception DTMF signal.

Options for the length of the signal restoration:

1) Enable
2) Short
3) Long
4) User (See section 16 – DTMF Restoration Timers)

15. TX DTMF Restoration: Correcting the transmission DTMF signal.

Options for the length of the signal restoration:

1) Enable
2) Short
3) Long
4) User (See section 16 – DTMF restoration timers)

16. DTMF Restoration Timers:

Enable you to choose manually the length of DTMF Restoration.

1) * Choose / # Browse
2) Press "*" for Approx. 5 Seconds for editing the length.
3) Press 3 digits (000 – 225).
4) See OK.

Options for Editing:

1. **DTMF RX** – See section 14.
2. **DTMF TX –** See section 15.
3. **DTMF RX Mute** – The length in which the voice reception is been silenced so it will not disturb in the DTMF detection.
4. **DTMF TX Mute** - The length in which the voice reception is been silenced so it will not disturb in the DTMF detection.
5. **DTMF Inter digits** – the length of restoration between each digit.

17. Boot Loader: Optional remote programming through comport.

Enables the user to reprogram (upgrade software) the unit, using a local PC.

Boot Loader Mode is only available with units that include **"Data mode"**. This parameter is **Optional,** and can be obtained **by special order only**. For trained personal only!

Contact your dealer for details.

4. GENERAL TECHNICAL INFORMATION

- Electrical
  - Power supply: 12 VDC +/- 5% 1,2 A
  - 3OO mA average in GSM 9OO at Tx power, Voice O.5W, Data 2W
  - 2OO mA in idle mode
- Physical
  - Maximum dimension: 114 x 9O x 34 mm
  - Weight: 6OO g
  - Casing: Complete shielding-stainless stee
  - Mounting: 4 screw holes
  - Operating temperature range: -5°C to + 55°C
- Optimal storage temperature: -35°C to +85°C
- Analog Telephone/LANDLINE-PBX interface
  - TIP/Ring Voltage –48V
  - Line current 25ma
  - Ringing Voltage 14O Vpp
- Load 3REN
- Crest Factor 1.25
- Frequency 2O Hz
- Cadency 2s/4s
- Answer supervision - Reverse polarity
- DTMF compliancy
  - Dial Tone 4OO Hz
  - Busy Tone 4OO Hz, cadency 5OOms/5OOms
- GSM circuit Data Features
  - Data circuit asynchronous, transparent and non transparent up to 14,4OO b/s
  - Automatic fax group 3 (Class 1 & 2) Alternate speech and fax
  - MNP2, V.42bis

4.1. TELEPHONE LINE CHARACTERISTICS

4.1.1. DTMF DIALING:

- Detection level: -25dBm to +3dBm
- On time: 5Omsec.
- Off time: 12 characters
- Ringing Signal:
  - Feeding type: Balanced signal
  - Distortion: Less than 5%

- Ring drive capability 3 type A
- Minimum ring Voltage: 4O Vrms – crest factor 1.2
- Frequency: (2O Hz)

4.1.2. NORMAL DIALING TONE:

- Frequency: 400Hz
- Level: 2dB
- Cadence: continuous
- **Congestion / Busy Tone:**
  - Frequency: 4OOHz
  - Level: 2dB
- Cadence:
  - 5OOms 2O% signal
  - 5OOms 2O% pause

4.2. ENVIROMENTAL CHARACTERISTICS

The WINNER complies to the following requirements:

- Temperature - we claim -5° to 70° (Israeli Standard Institute Approval is in process).
- Humidity - 5% to 95%
- Safety - Israeli Standard Institute Approval
- Packing - Per EuroTech standard
- Transportation - Transport conditions are according to EuroTech Standards.
- Storage Condition - Storage conditions are according to class 1.1, ETS 300 019 –1-1 (-20°C +80°C), 25°C to +65°C

4.3. LABELS

Each WINNER labeled as following:

Product ID: located at the box side(in future units). The label contains product model number, Serial number, Date and code identified as **WWYY** (1'st two digits identify the chronological week in the year, 2nd two digits identify the year), Hardware and Software version.
For Example: Logo, Model No, Serial No, Rev.

HardwareX/SoftwareY:OX/OY , Date: Month/Year