



GTEC UPS MODEL:

SATURN 10-200 kVA

SIRIUS 10-120 kVA

GPOscilloscope

SERVICE DOCUMENT

INTRODUCTION

This manual describes the features of GpOscilloscope software (real time waveforms).

With GpOscilloscope you can:

- graphically visualize, in real time, voltages and currents like they are detected by the UPS;
- record on file the displayed waveform for later analysis.

In order to use the software:

- you need the programming card B0096 of the YMSTPRG programming kit (refer to paragraph *Connection PC↔UPS*);
- the UPS must have DSP firmware version 02.13 or higher.

Symbols used in this manual:

	Danger	Indicates information that must not be ignored. Failure to follow these indications may cause serious damage to the UPS, the batteries or the load.
	Warning	Indicates important information. Failure to follow these indications may result in UPS malfunctioning.
	Information	Provides notes and useful suggestions for the User.

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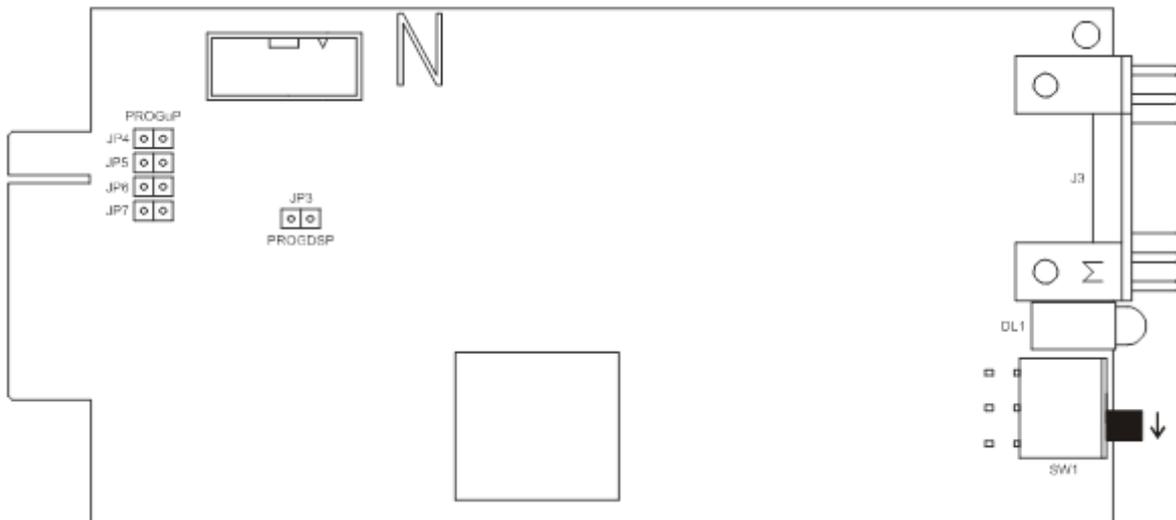
CONNECTION PC - UPS

 In order to use the GpOscilloscope software, you need to connect the UPS to the PC using the programming card (B0096 of programming kit YMSTPRG) properly configured in communication mode.

 To analyze previously recorded files, it is not necessary to connect the PC to the UPS.

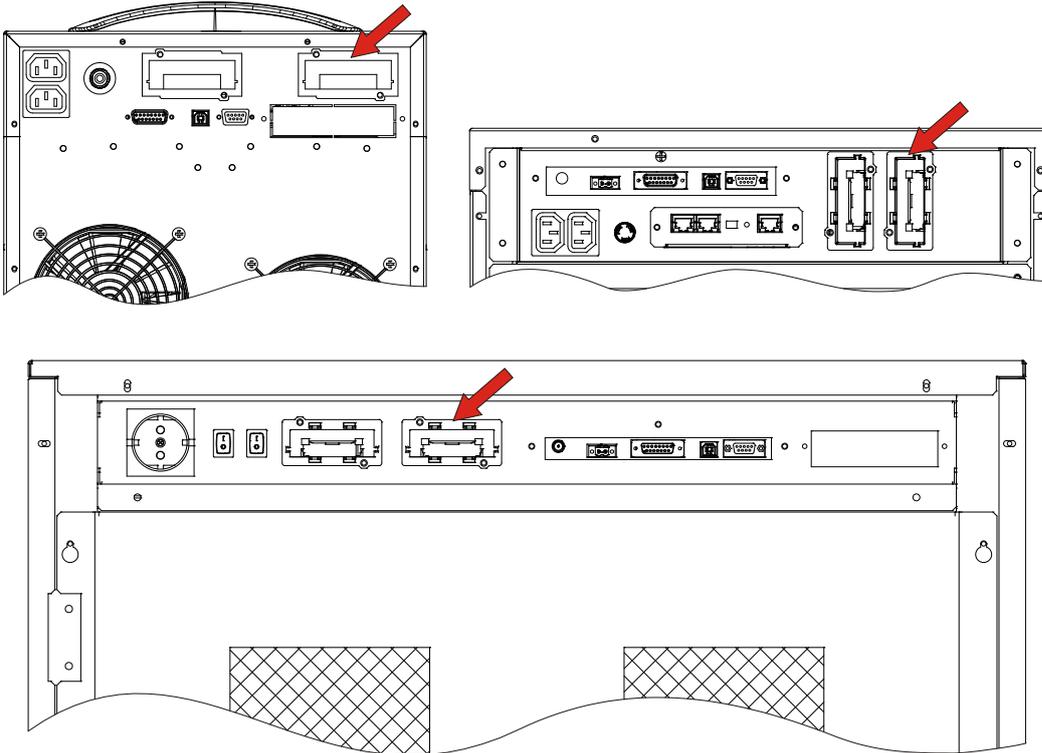
CONFIGURING THE PROGRAMMING CARD

- Open all the jumpers (JP3 – JP4 – JP5 – JP6 – JP7).
- Put switch SW1 down.



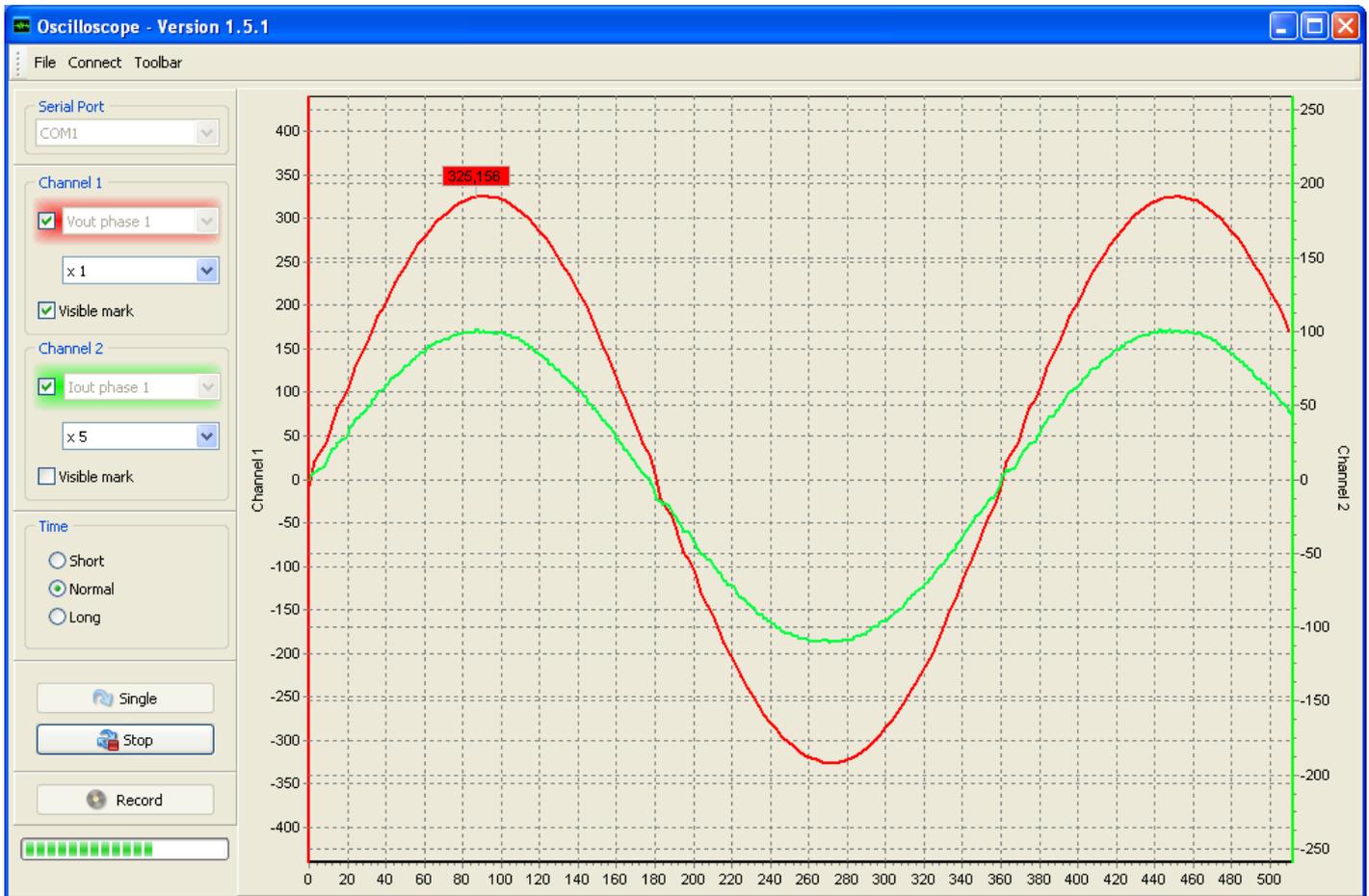
INSTALLING THE PROGRAMMING CARD

- Remove the cover of “**COMMUNICATION SLOT 2**” or any card installed in it.
- Insert the programming card, properly configured, in “**COMMUNICATION SLOT 2**”.
-  Refer to the manual and/or the UPS label to identify the “**COMMUNICATION SLOT 2**”.
- Connect the PC to the programming card using the serial cable provided.



Example figures: position of “COMMUNICATION SLOT 2” on various UPS models.

GPOSCILLOSCOPE



MENU

File

- Open file → to open a previously recorded file.
- Close file → to close an open file.

Connect

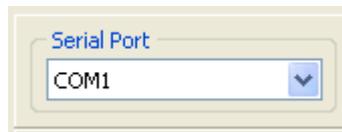
- Connect → to activate PC↔UPS connection.
- Disconnect → to stop PC↔UPS connection.

Toolbar

- Show Toolbar → to display the toolbar.

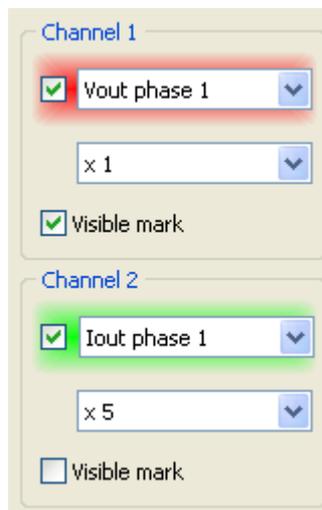
SETTINGS

SERIAL PORT



Select the PC serial port to which is connected the UPS.

CHANNEL 1 & CHANNEL 2



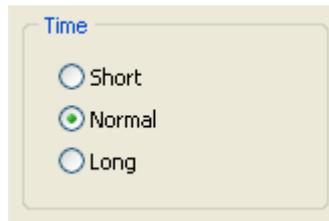
For each channel, select the waveform to display.

Vin phase 1	Input Voltage Phase 1
Vin phase 2	Input Voltage Phase 2
Vin phase 3	Input Voltage Phase 3
Vout phase 1	Output Voltage Phase 1
Vout phase 2	Output Voltage Phase 2
Vout phase 3	Output Voltage Phase 3
Iout phase 1	Output Current Phase 1
Iout phase 2	Output Current Phase 2
Iout phase 3	Output Current Phase 3
PP0	Square-wave synchronism bypass phase 1

For each channel, you can set a multiplier that allows you to amplify the scale of values.

The "Visible mark" option, allows you to see the point value of the waveform by moving the mouse over the track itself.

TIME



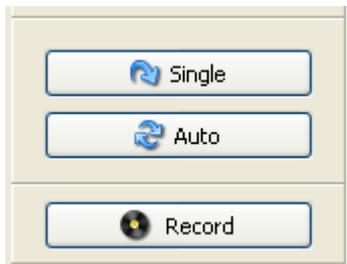
Select the interval length of waveform data acquisition.

Short	Data acquisition interval short (higher resolution)
Normal	Data acquisition interval normal (standard resolution)
Long	Data acquisition interval long (lower resolution)

DATA ACQUISITION AND DISPLAY WAVEFORMS



To acquire data and display waveforms, it is necessary that the PC↔UPS connection is active. Refer to paragraph *Menu→Connect*.



	It allows you to capture and display a single waveform.
	To acquire continuously new values with automatic refresh of the displayed waveforms.
	To stop continuous capture.
	To record on file the displayed waveforms.