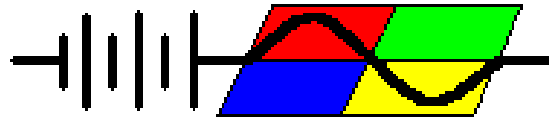


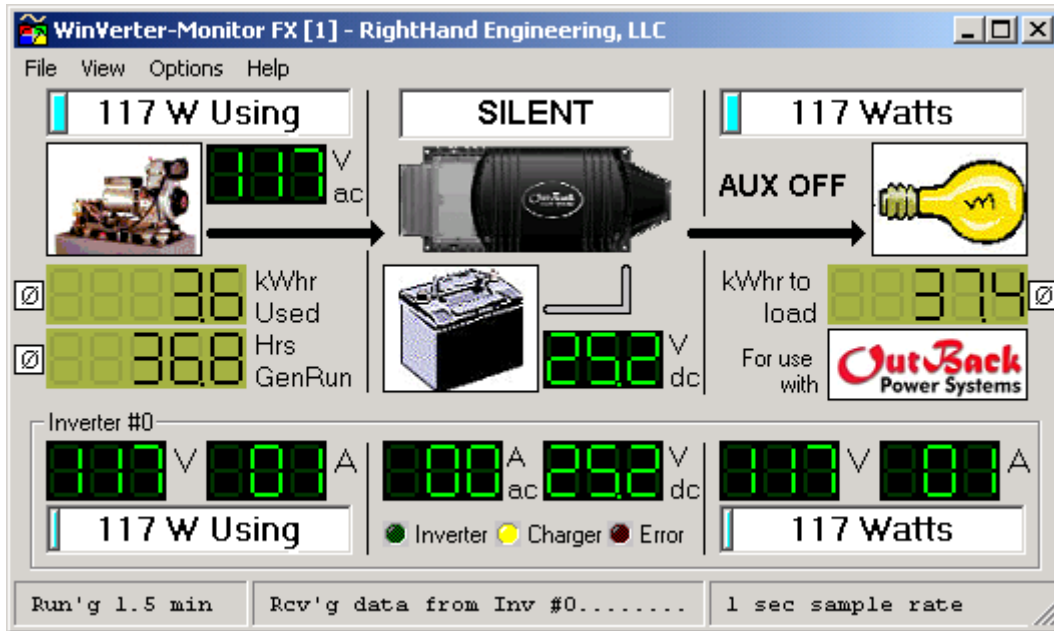
RightHand Engineering, LLC

WinVerter™ Monitor FX

WinVerter™ Monitor FX is Windows® - based software that works with the OutBack Power Systems FX-Series inverter via the Mate remote control panel to continually monitor and display the inverter system status while providing the user with data logging and control over the inverter.



Designed for the
OutBack FX
Series Inverter



Feature	Benefit
<ul style="list-style-type: none"> Displays all readings on a single screen. Graphical images indicate power routing. 	<ul style="list-style-type: none"> You see the present condition of your system at a glance.
<ul style="list-style-type: none"> Calculates watts, generator run time and Kilowatt-hours. 	<ul style="list-style-type: none"> You see information that is not readily obtained from the inverter itself.
<ul style="list-style-type: none"> Keeps a history of inverter events such as errors, warnings and mode changes. 	<ul style="list-style-type: none"> You can see events that occurred while unattended.
<ul style="list-style-type: none"> Outputs to file the accumulated hourly readings every day. 	<ul style="list-style-type: none"> You can see & compare past system performance using a spread-sheet.
<ul style="list-style-type: none"> Provides controls for your inverter. 	<ul style="list-style-type: none"> You can control the major modes of the inverter from your PC.
<ul style="list-style-type: none"> Password protected lock option 	<ul style="list-style-type: none"> Prevents unauthorized users from changing program settings or exiting.
<ul style="list-style-type: none"> Simultaneously monitors up to 8 inverters in a stack. 	<ul style="list-style-type: none"> You see how well each inverter is pulling its load.
<ul style="list-style-type: none"> Supports running two copies. 	<ul style="list-style-type: none"> You can see the status of two inverter systems on a single PC.
<ul style="list-style-type: none"> Evaluation mode 	<ul style="list-style-type: none"> Lets you try the software before purchasing
<ul style="list-style-type: none"> Simulation mode 	<ul style="list-style-type: none"> Evaluate or demonstrate the software without an inverter being connected

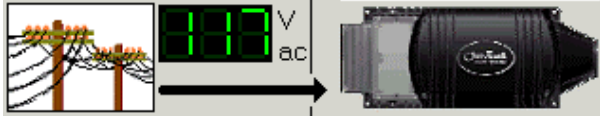
Communications



Using the OutBack Mate, *WinVerter-Monitor FX* continually reads each connected FX inverter's AC voltage and amperage meters and DC voltage meter.

The program receives meter data once a second providing up-to-date information continuously.

Graphical Display



WinVerter-Monitor FX displays a graphic image of each power port of the Inverter. Thus at a glance you can see when you are powering loads, charging batteries, inverting, running your generator, using grid power or selling.

Calculated Values

The program also interprets other useful information from the meter readings. From volt and amp readings it calculates watts. From elapsed time it calculates kilowatt-hours and generator run time..

NOTE: Because the meters on the inverter have coarse resolution and show only the real portion of the current, the data displayed and logged by *WinVerter-Monitor* is only approximate.

Evaluation Mode

WinVerter-Monitor FX can be run in an evaluation mode allowing you to try the software before purchasing. The evaluation software can be turned into fully functional software by on-line payment and email authorization (see web site at bottom of page for details). Evaluation mode allows basic monitoring features for a single inverter, as well as full featured simulation.

Simulation Mode

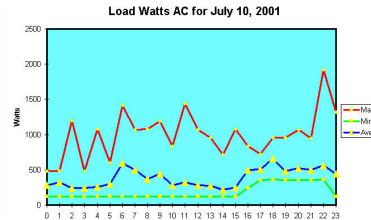
The program allows you to simulate operation just as if it were connected to one or more inverters. You are able to simulate mode and meter reading changes by clicking on particular screen elements. This allows for even more detailed evaluation and greatly assists in demonstrations.

Error Causes

The program provides an easy way to view all error and warning causes at a glance. When an inverter error occurs it can produce an audible and visual alarm and gets logged along with time and date.

Data Logging

As long as *WinVerter-Monitor FX* is running it is able to accumulate and record readings from the inverter system. The program writes a log file every day at midnight. This contains the minimum, maximum and average data of every hour for every value displayed by the program.



Instructions included in the program's help text (on-line user's manual) give you detailed step-by-step instructions on how to import

these data files into Microsoft's Excel spreadsheet program.

Control Panel

When desired you may bring up the control panel screen. From the control panel you can control the inverter mode (on, off, search, charge), the AC mode (use, drop) and the auxiliary output state (on, off).

PC System Requirements

- Processor: Pentium or equivalent minimum.
- Processor Speed:
166 MHz or better for up to 2 inverters,
233 MHz or better for up to 4 inverters,
400 MHz or better for up to 8 inverters.
- Operating System: Windows® 98 SE or later.
- Pointing Device: required.
- Video Display:
640 x 480 or better for up to 3 inverters,
1024 x 768 or better for up to 6 inverters,
1280 x 1024 or better for up to 8 inverters.
Color recommended.
- RAM Memory: 128 MB or more.
- Removable Disk: Multi-read CD-ROM drive.
- Fixed Disk Memory: 10 MB of free space minimum plus 1 MB per month for daily logs.
- Serial Ports: One free RS-232 port (9-pin recommended) per running copy, or a USB port with a RS-232-to-USB converter.

Inverter Requirements

- FX firmware revision: 00043 or later
- Mate firmware revision: 1.6 or later
- Models supported:
115 and 230 Volt AC models,
12, 24 and 48 Volt DC models.

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