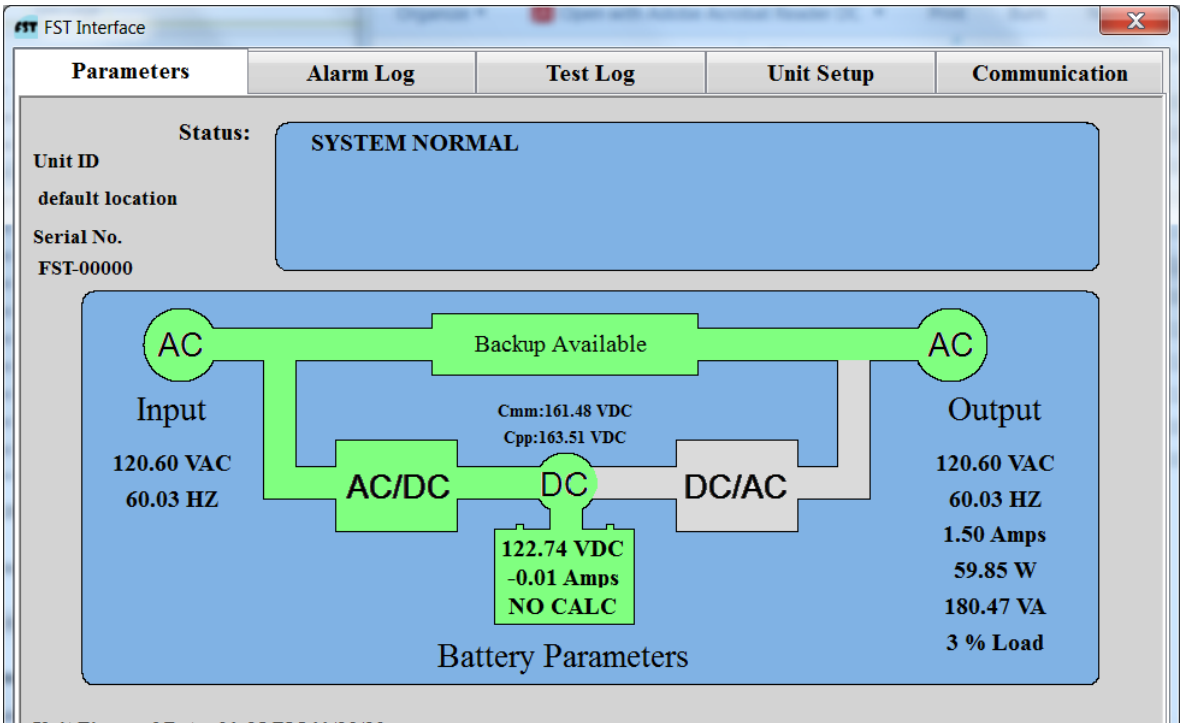
FastLITE

MODEL FST INTERFACE

USERS MANUAL



IMPORTANT - SAVE THESE INSTRUCTIONS - PLEASE READ THIS MANUAL
BEFORE USING EQUIPMENT

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ABOUT THIS MANUAL

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Clicking any blue text will take you to that section of our website.

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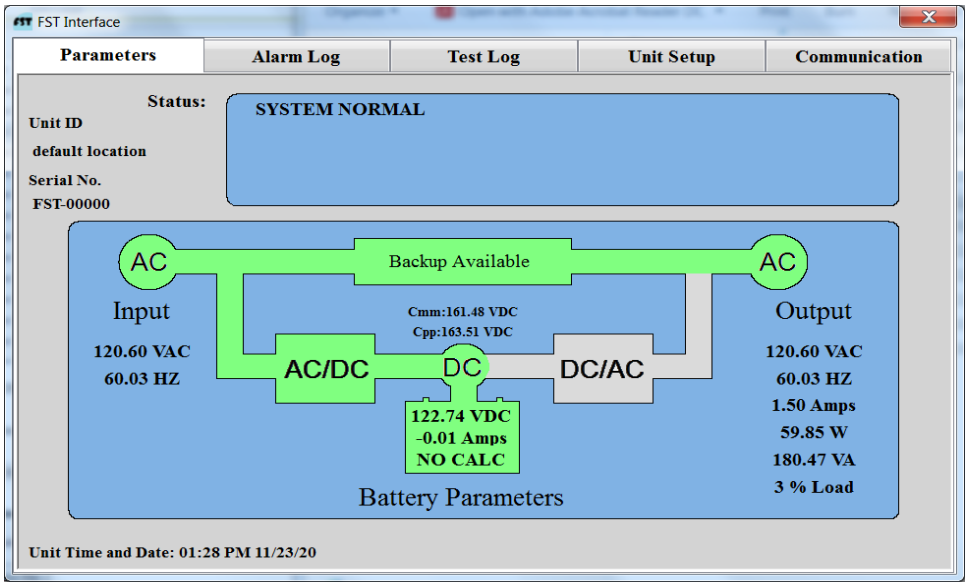
FST INTERFACE OVERVIEW



This manual provides step-by-step instructions for viewing the FastLITE Model FST's parameters, alarm log, test log, unit setup, and communications.

A free download of this interface program and an interactive PDF of this manual are found on our website: https://www.controlledpwr.com/customer-support/software-downloads/

From our homepage www.controlledpwr.com, you can also click on the Customer Support navigation tab, and select Software Downloads from the menu.

INTRODUCTION

The FST Interface Application enables the FastLITE Model FST to communicate directly with a computer, laptop, or Windows tablet. By using a USB A/B Cable (printer cable), the user's remote device can be connected to the FST's USB Communications Port to enable all setup and data viewing. The FST Interface Application also enables the alarm event log and battery test log to be viewed and electronically saved as a report document to comply with NFPA 101, section 7.9.3.1.3.

The Interface consists of (5) main screens, which include the following features:

Parameters

- View parameters.
- View system status.
- View active alarms and faults.

Alarm Log

- View a log of past alarm events.
- Save the log of past alarm events.

Test Log

- View a log of past battery test events.
- Save the log of past battery test events.

Unit Setup

- Set up the parameters for the battery tests, including date, time, and period for the periodic test.
- Set up the system parameters (e.g., low line switch point, offbus settings, etc).

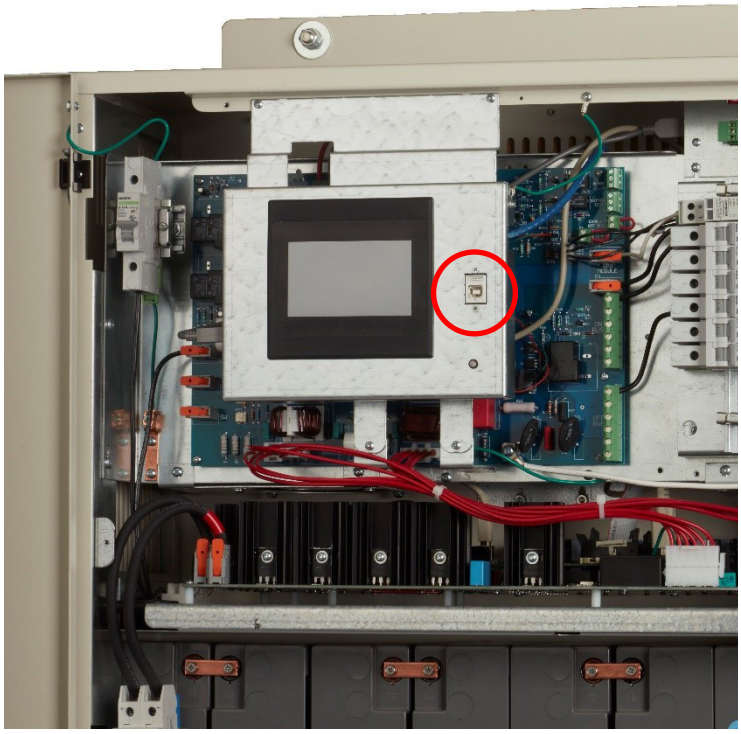
Communications

- Connecting the Model FST to the computer, laptop, or Windows tablet.
- Set up, start, and stop communication.

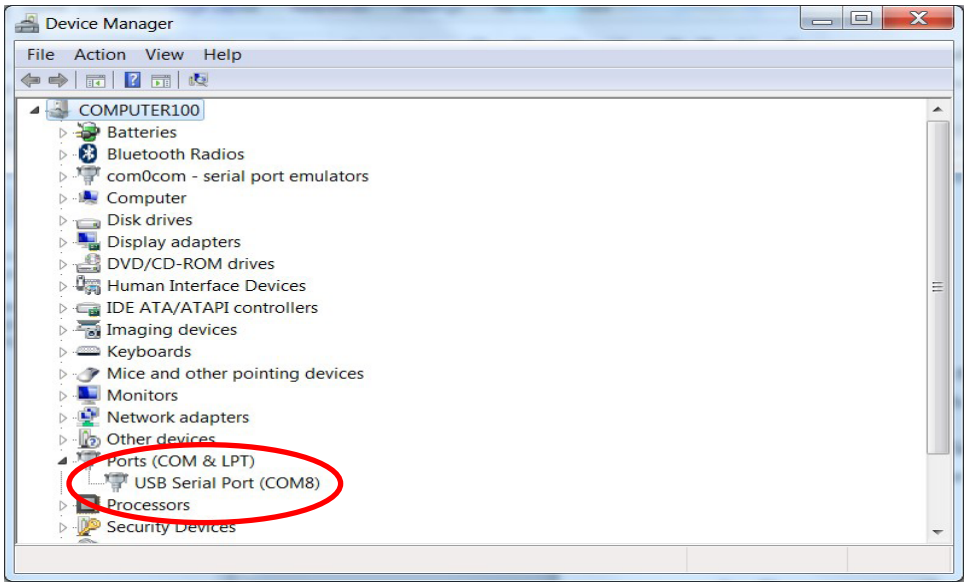
QUICK START

This section will discuss the method of connection to the application and walk you through getting the application working with the Unit.

1. Connect the USB B Side of the Cable to the Unit's USB Port circled in the picture below, and the USB A Side of the Cable to the Computer, Tablet, or Laptop.

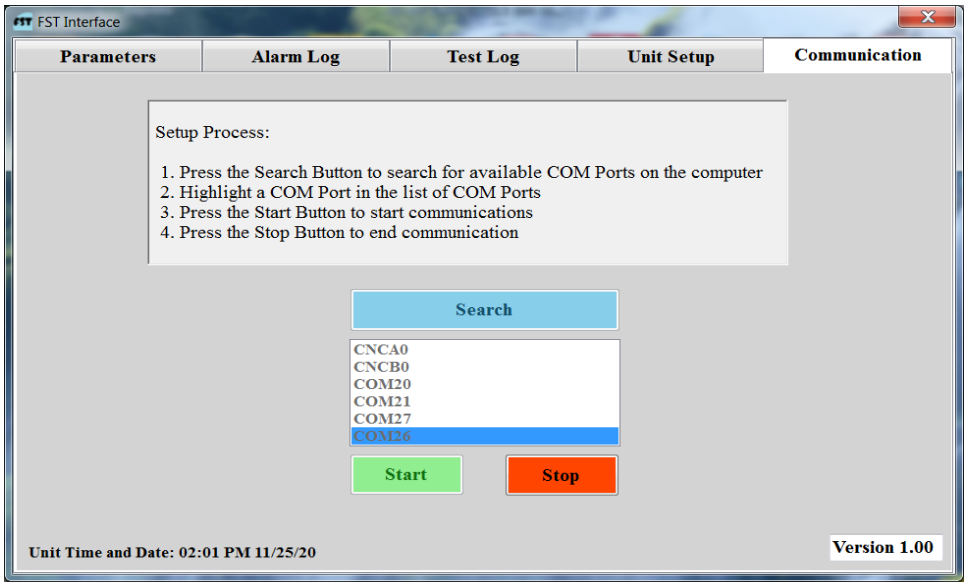


2. The computer will start to install drivers for a Virtual COM Port. When the drivers are done installing, go to device manager and check the ports for the USB Serial Port's COM number.

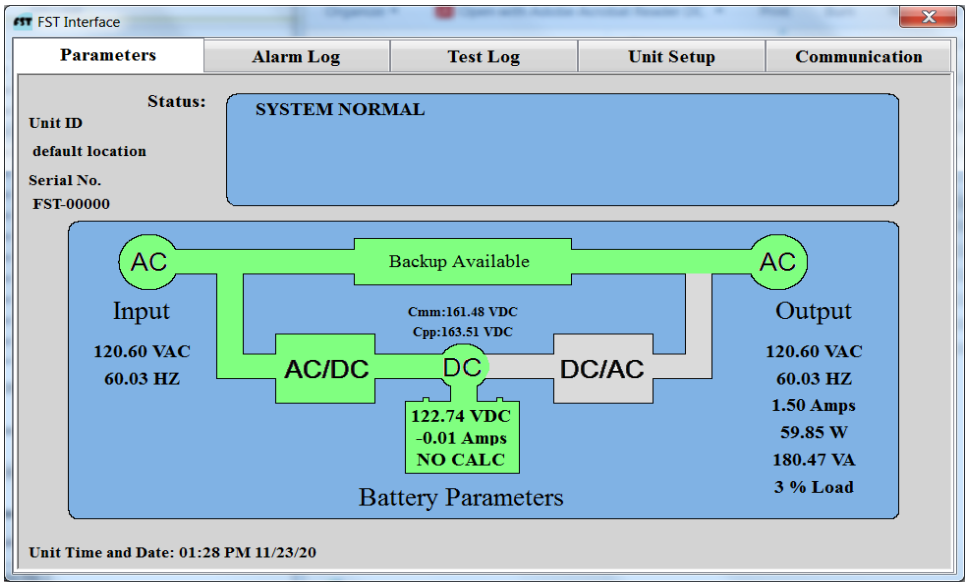


QUICK START CONTINUED

3. Open the FST Interface application, and press the Communication Tab. Press the “Search” Button on this tab and a list of available COM Ports will be shown. Select the Virtual COM Port of the system from “Part 2.”, and press the “Start” button to start communications.



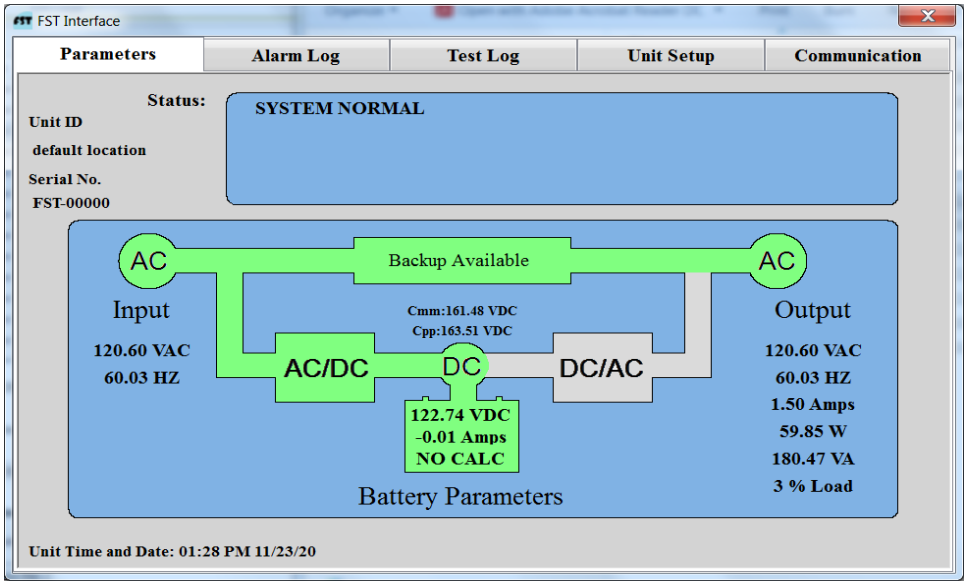
4. Press the Parameters Tab, and the system status as well as the parameters should now be present.



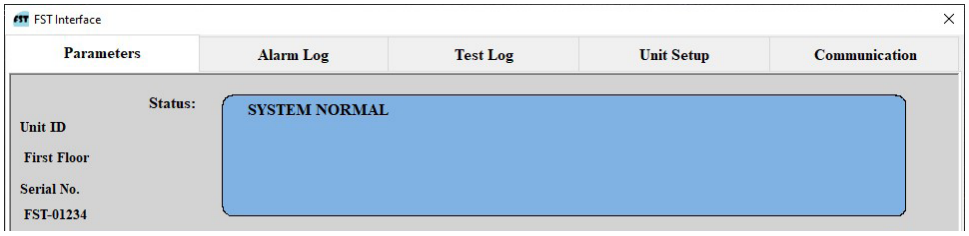
FST INTERFACE - PARAMETERS

PARAMETERS

The Parameters tab displays the system's status as well as the real time voltages and currents of the system. A line diagram is also provided to display power flow through the system. This tab is where the Unit Identifier and Serial number can be seen.



SYSTEM STATUS PANEL

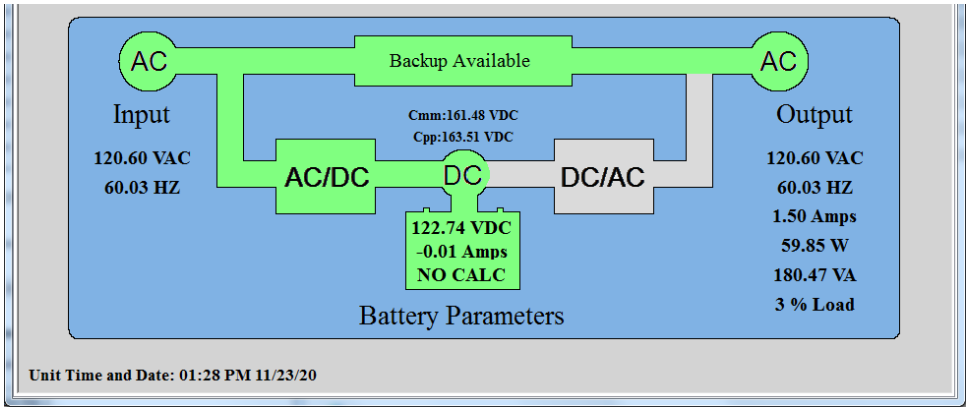


The System Status Panel indicates the system status as well as displays current alarms. The statuses and alarms it indicates are:

- System Normal
- Offbus Returning
- System on Battery
- Unit Overloaded
- High Output Voltage
- High Input Voltage
- Low VA Out on Battery Test
- Manual Restart Required
- High Battery Voltage
- Output Circuit Breaker Open
- Bus Voltage High
- System Testing
- Offbus Connecting
- Offbus Active
- Battery Test Fail
- Low Output Voltage
- Low Input Voltage
- Overload On Battery
- Low Battery Warning
- SPD Alarm
- Bad Temperature Sensor
- Weekly Diagnostic Fail
- Unit Initializing
- Remote Offbus Active
- Power to Load, No Backup
- High Battery Current
- No Communication
- Low Battery Shutdown
- DC Not Available Shutdown
- Frequency Out of Range
- IGBT Desaturated
- Heatsink Overtemperature
- Charger Failed

PARAMETERS CONTINUED

Real Time Parameters and Line Diagram



The real time parameters provided are:

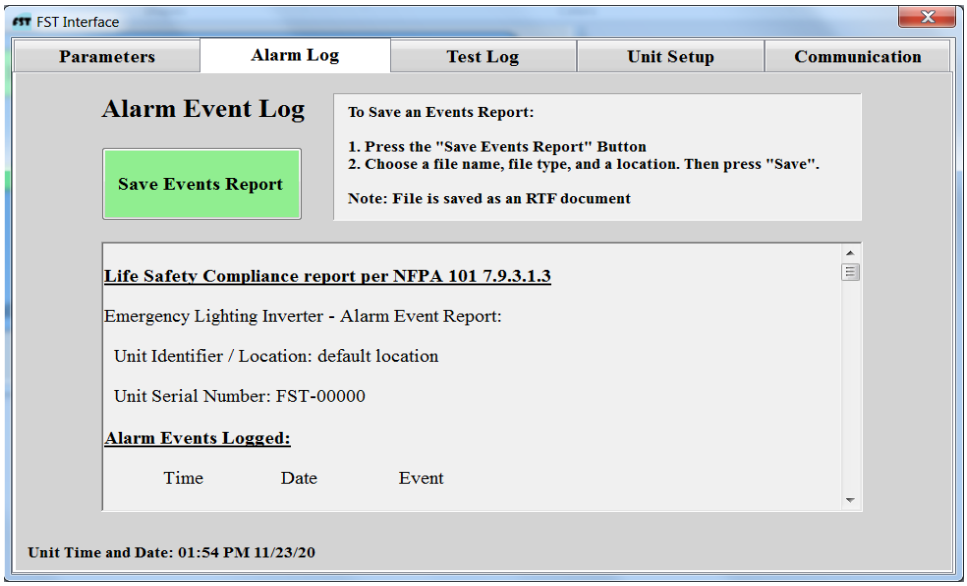
- Input Voltage: Incoming Line to the System
- Input Frequency: Incoming Line Frequency
- Output Voltage: Output Voltage to the Load, comes from the Line or the Inverter while on battery
- Output Frequency: Frequency of Output Voltage to the Load
- Output Current: Load Current
- Output Watts: Load Watts
- Output VA: Load VA
- Percentage Load: Percentage of Rated Load
- Positive DC Bus Voltage: This comes from the line, or DC/DC Boost and is used for charging the batteries or providing the DC for the Output Inverter on Battery
- Negative DC Bus Voltage: This comes from the line or DC/DC Boost and is used for charging the batteries or providing the DC for the Output Inverter on Battery
- Battery Voltage: DC Voltage of Battery String
- Battery Amps: Charging current on line or discharging current on battery
- Battery Capacity: The current amount of charge capacity on the battery string

The Line Diagram is intended for a quick check of the system power flow. The diagram shows power flow for the following states:

- System Off
- System Normal
- On Battery
- System Testing
- Charger Failed

ALARM LOG

The Alarm Log tab gives the user a place to view past alarm events and save the log to a file.



ALARM EVENT REPORT WINDOW

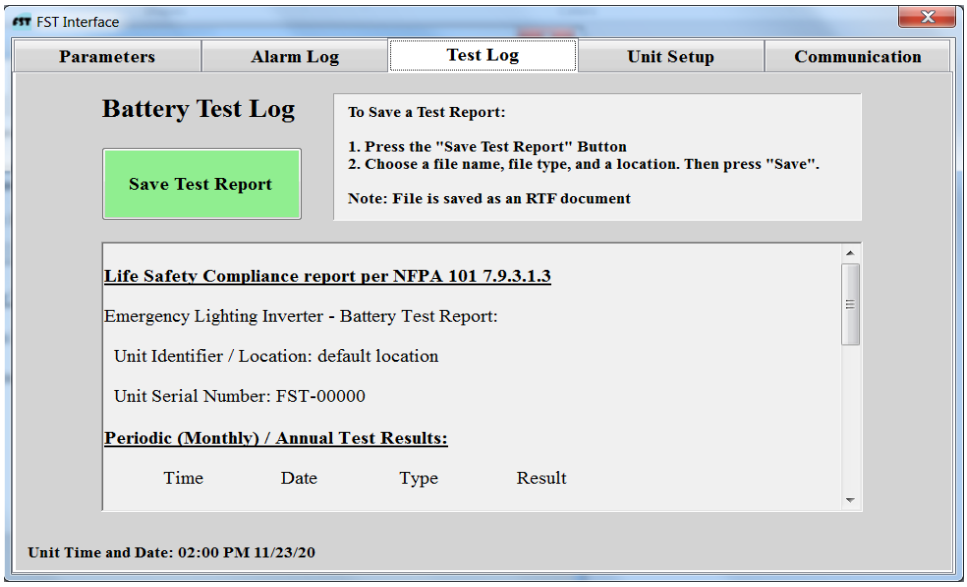
This window displays the most recent 250 Alarm Events. The user can use the scroll bar to scroll through the log to see all of the events.

SAVE EVENTS REPORT

This button gives the user the ability to save the alarm log as either a .txt, .doc, or an .rtf. All of these files types save the file in Rich Text Format, so a rich text reader like Microsoft Word will need to be used to properly view the file.

TEST LOG

The Test Log tab gives the user a place to view past battery test events and save the event report to a file.



BATTERY TEST REPORT WINDOW

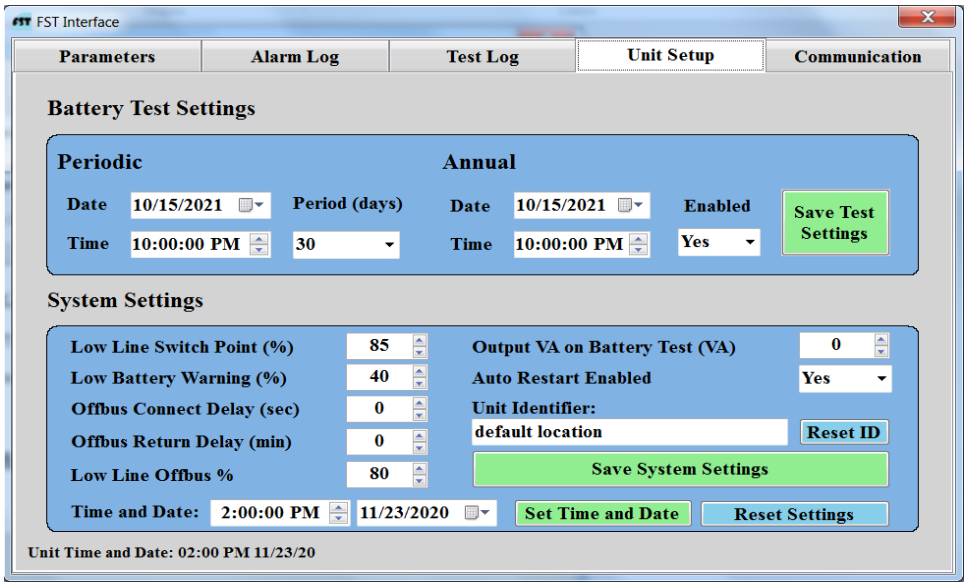
This window displays the most recent 25 Battery Test Events. The user can use the scroll bar to scroll through the log to see all of the events.

SAVE TEST REPORT

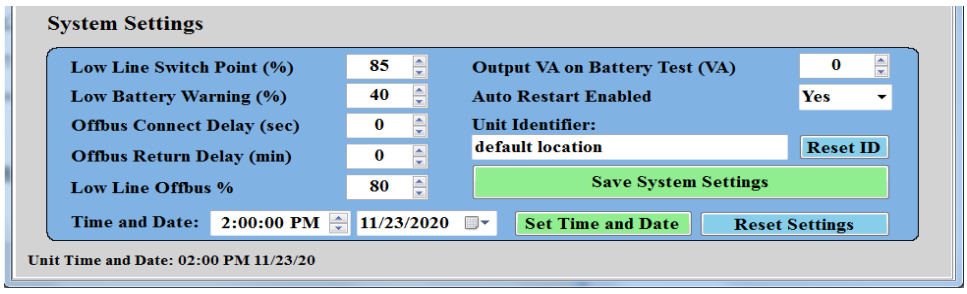
This button gives the user the ability to save the Test Report as either a .txt, .doc, or an .rtf. All of these files types save the file in Rich Text Format, so a rich text reader like Microsoft Word will need to be used to properly view the file.

UNIT SETUP

The unit setup tab can be used to setup up battery test and system setting.



SYSTEM SETTINGS

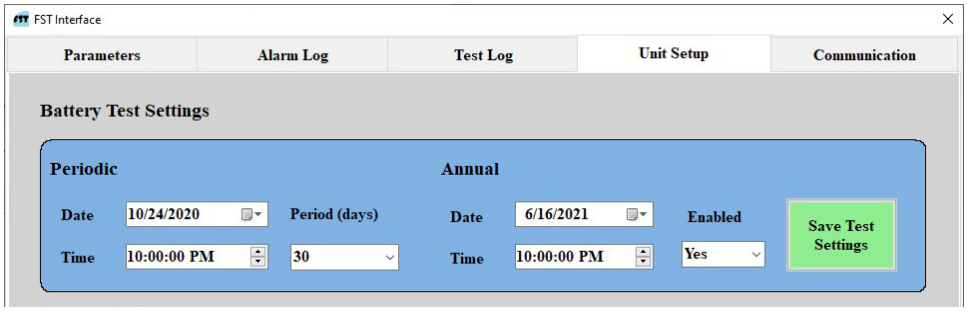


To change the system settings, make all desired changes then press “Save System Settings”. The time and date are set seperately and use the “Set Time and Date” button. The password for both is 05151.

- Low Line Switch Point: The point at which the unit will switch to battery for a low line condition in % of Nominal Line. It can be set between 85% of nominal line to 90% of nominal line.
- Low Battery Warning: The percentage of battery capacity at which point the system will give a low battery warning alarm. It can be set between 0% capacity to 85% capacity.
- Offbus Connect Delay: The time in seconds that the offbus will delay turning on (0s to 10s).
- OffBus Return Delay: The time in minutes that the offbus will delay turning off (0m to 15m).
- Low Line Offbus %: When the Input Voltage goes below this percentage of nominal line the offbus will be activated. It can be set from 80% of nominal line to 95% of nominal line.
- Output VA on Battery Test: When the Load VA goes below this point in VA on a battery test the unit will give a “Low Output VA on Battery Test” alarm.
- Auto Restart Enabled: If enabled, the unit will auto restart if a condition caused the unit to shut down while on battery.
- Unit Identifier: This is where the 35 character max identifier for the unit can be set. The reset button can be used to reset it back to its last value in the middle of changing the text box.
- Time and Date: Sets the inverter time and date. After chosen, press “Set Time and Date” to store.
- Reset Settings: Press this to reset all system settings to their currently saved values.

UNIT SETUP CONTINUED

BATTERY TEST SETTINGS



To change the battery settings, make all desired changes then press ”Save Test Settings”. The password is 05151.

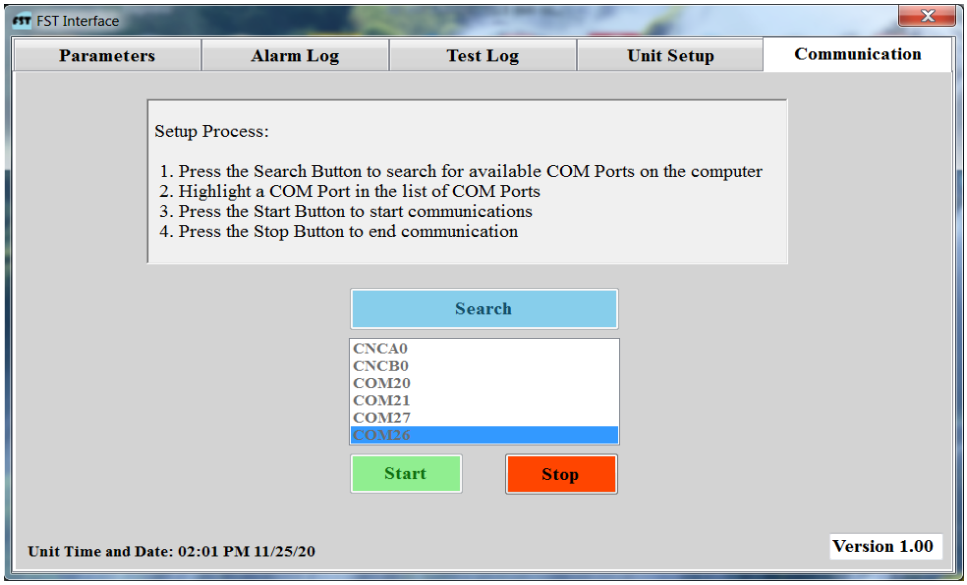
- Periodic Test Date: The date at which the next periodic test will occur
- Periodic Test Time: The time at which the net periodic test will occur
- Periodic Test Period: The number of days between periodic tests, this can be set to disabled, 7 days, 30 days, or 90 days
- Annual Test Date: The date at which the next annual test will occur
- Annual Test Time: The time at which the next annual test will occur

COMMUNICATION

This tab is where communications between the unit and the computer, tablet, or laptop are setup.

With the Unit connected to the computer, windows tablet, or laptop with a USB cable, press the search button to search for available COM Ports. Select the COM Port that is connected to your unit.

Note: Device Manager can be used to determine which COM Port is being used to connect to the Unit.



Press the “Start” button to start communications, and you can press the “Stop” button to stop communications.

See the Quick Start guide for more information about connecting to the unit.