FieldServer
Technologies

FieldServer FS-B-OPC-01 Start-Up Guide

APPLICABILITY & EFFECTIVITY

Effective for all systems manufactured after November 2008

Kernel Version:	5.17
Document Revision:	1

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1   PRE-INSTALLATION CHECK LIST

1.1   Supplied equipment

FS-B-OPC-01 Series FieldServer

- loaded with Modbus RTU driver, SMT Ethernet driver, FST OPC Server Configurator and any other drivers ordered.[1]

USB Flash Drive loaded with:

- FS-B-OPC-01 Series Start-up Guide

- FieldServer Configuration Manual

- FieldServer Utilities Manual

- Driver Manual(s) specific to all Drivers ordered with the FieldServer.

- Support Utilities (for the following platforms only:

  - Windows XP
  - Windows 2000
  - Windows NT
  - Windows 98

- Any additional folders related to special files configured for a specific FieldServer.

- Additional components as required -. See Driver Manual Supplement for details

Accessories:

- 6 ft Serial RS-232 connection pigtail (Part Number FS-8917-10)

- 7-ft Cat5 cable with RJ45 connectors at both ends (Part Number FS-8915-10)

- Power Supply

1.2   Mounting

The FS-B-OPC-01 Series FieldServer is supplied with an accessory bag which allows selection of adhesive feet (for standing on a shelf).

1.3   Wiring

- Select an external power supply certified for safety, for the correct destination country and an output rating, which is considered a NEC Class 2 circuit or is a SELV Limited power source with the following ratings:
  - 12-14 VDC, 5.0-4.28A;

- The operating environment for the product is 0 to 60°C (32 to 140°F).

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[1] Note that a default configuration file has already been loaded onto the FieldServer. Check the Driver Manual and the FieldServer Configuration Manual for further information on this file.
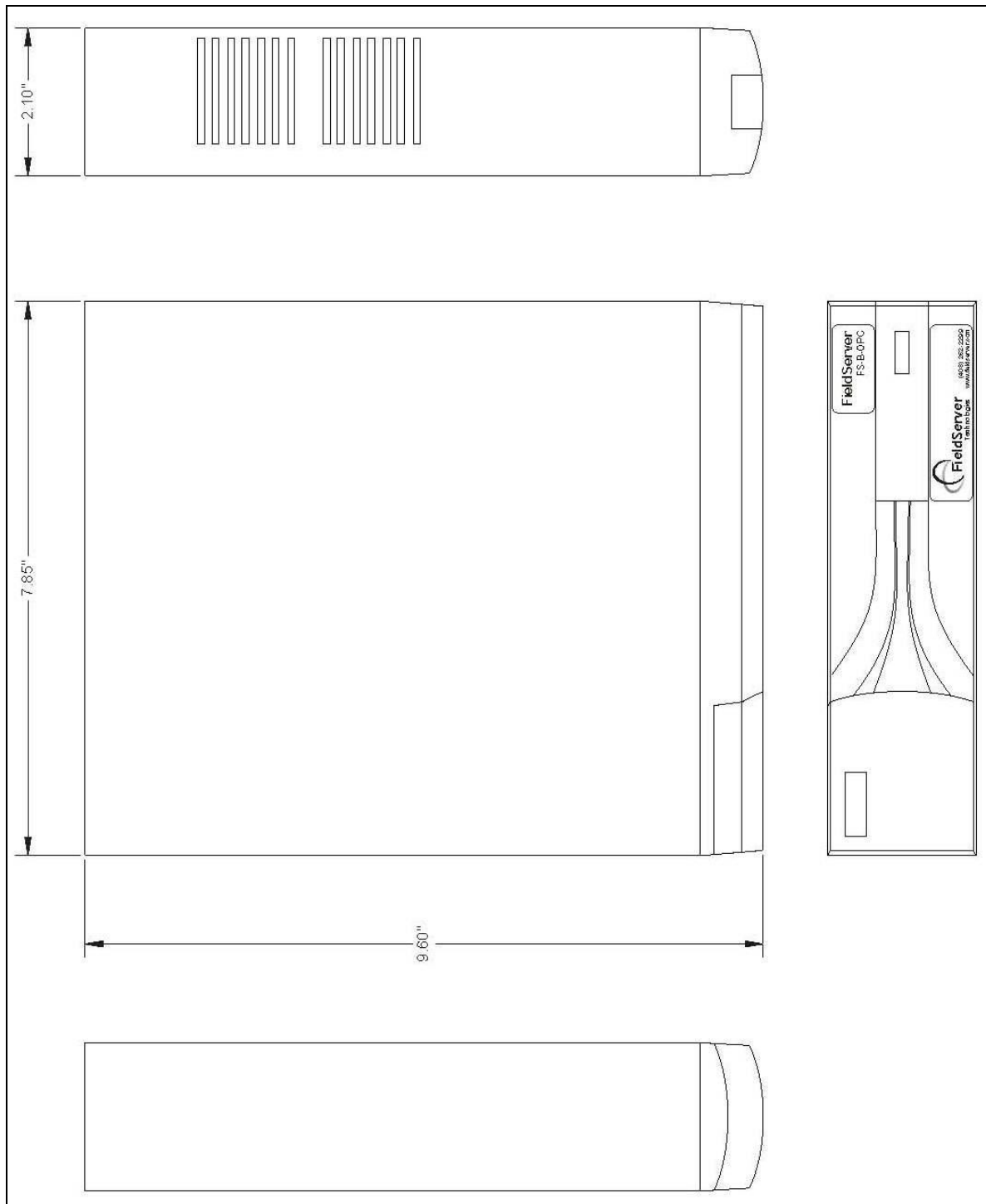
2   PRODUCT DESCRIPTION

2.1   Dimensions

Figure 2-1: Diagram of FS-B-OPC-01 Showing External Dimensions

2.2   Specifications

Power requirements (power supply is external)	
FS-B-OPC-01 power supply P/N PWR-ACDC-12v-5A-60W Input voltage: 100-240Vac, 60W (max); Output voltage / current: 12Vdc @ 5.0A	
Physical Dimensions(excluding the external power supply)	
(WxDxH):	7.70 x 9.50 x 2.10 inches (19.56 x 24.13 x 5.33 cm)
Weight:	2.4 lbs. (1.09 Kg)
Available Ports	
1 x DB9 RS-232 serial port 1 x RJ45 10-BaseT Ethernet connector	
Environment:	
Operating Temperature:	0 – 60°C (32 – 140°F)
Humidity:	10 - 90% RH (non-condensing)
(Specifications subject to change without notice)	

3   CONNECTION TO THE DEVICE

The 12VDC power supply received with the unit needs to be plugged into a power source and then connected to the back of the FieldServer. Ensure that the power supply used complies with the specifications provided in Section 2.2.
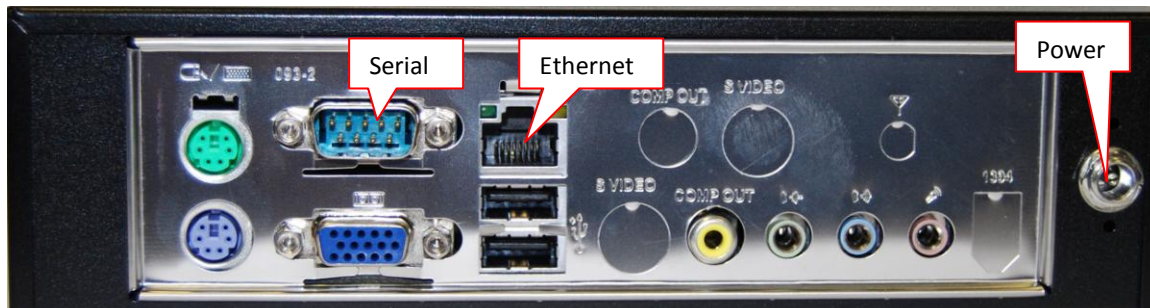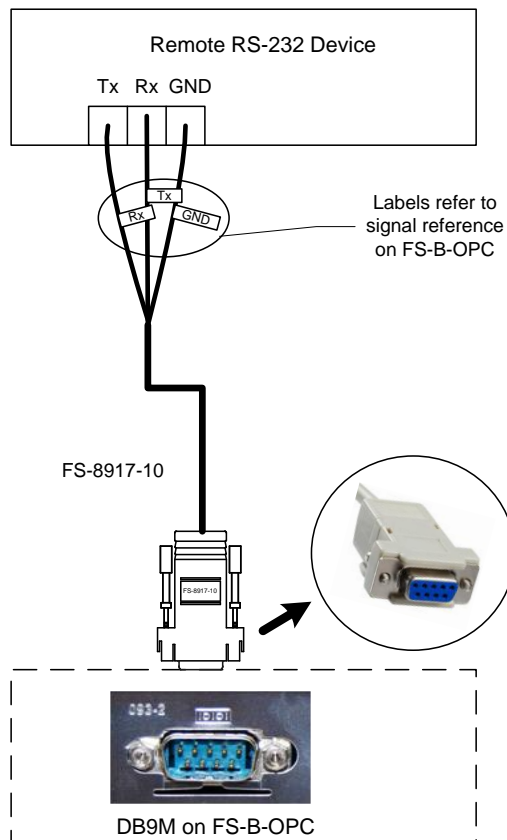

Figure 3-1: View of back of FS-B-OPC-01 showing Connection Ports

3.1   RS-232 connection

The FS-B-OPC-01 Series FieldServer is shipped with the RS-232 port activated.

Connect the FS-8917-10 cable (supplied) between the RS-232 port on the OPC FieldServer and the device as shown in the connection diagram. Note that the cable labels refer to the Tx and Rx signals on the FS-B-OPC and must be connected to the opposite signal on the remote device.

3.1.1 Connector Pinouts

Wire Color	FS-OPC		Remote Device	
	Signal	Pin #	Signal	Pin #
Green	Tx	3	Rx	8
Red	Rx	2	Tx	1
Black	GND	5	GND	4

Figure 3-2: FS-B-OPC Serial RS-232 Connection

FieldServer Technologies 1991 Tarob Court Milpitas, California 95035 USA **Web**:www.fieldserver.com
Tel: (408) 262-2299   **Fax**: (408) 262-2269   **Toll Free**: 888-509-1970   **email**: support@fieldserver.com

3.2   Ethernet Connection

If connecting to a hub/switch use the provided Cat5 UTP Ethernet cable to connect the FieldServer to the hub. If connecting directly to the device, an Ethernet Crossover cable is required (not provided).

Note that the front USB ports and Compact Flash port are <u>not</u> activated.

4 OPERATION

Read this Start-up Guide in conjunction with the Configuration Manual, the Driver Manual(s) and the Utilities manual.

4.1 Connect and Power the FieldServer.

- Connect the power adapter to a 100 to 240vAC power supply. Ensure that the power supply used complies with the specifications provided in Section 2.2
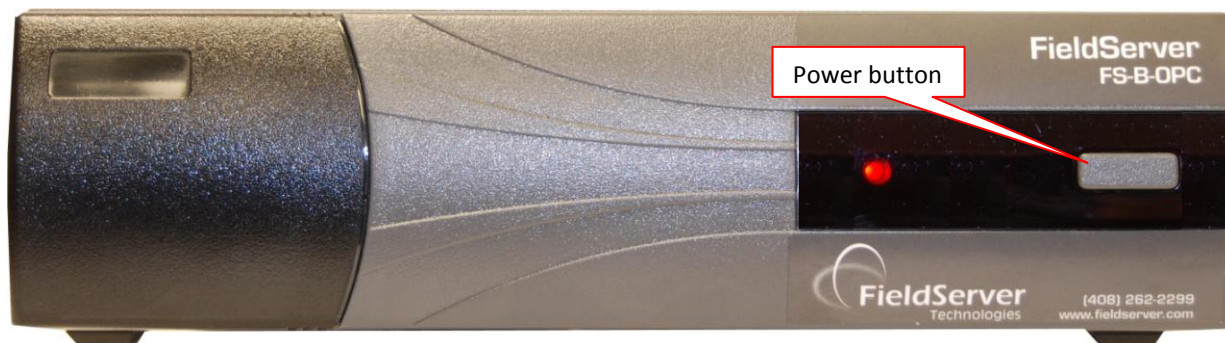

Figure 4-1: View of front of FS-B-OPC-01 showing Power LED and power button

- Press the Power Button on the front of the FS-B-OPC-01.

- Wait approximately 3-5 minutes for unit to operate.

4.2 Connect all wiring to unit

- Connect a standard CAT-5 Ethernet cable to the Ethernet port of the FS-B-OPC-01.

- Make appropriate RS232 wiring connections to the RS-232 port of the FS-B-OPC-01. Refer to Section 3 for more information.

4.3 Install and Run the Utility Software

- Plug the supplied USB flash drive into the USB port on a PC/laptop. Open Index.html to get the menu of options, run the Install option and follow the installation instructions.

- Once installed, the FieldServer Utilities can be located in the Windows Start menu and as a desktop icon.

4.4 Connect the PC to the FieldServer over the Ethernet port.

- If connecting through a hub/switch, use the supplied Cat5 UTP Ethernet cable to connect between the Ethernet port of the FS-B-OPC-01and the hub. Refer to Section 3.2 for more information.

- Disable any wireless Ethernet adapters on the PC/Laptop,

- It is important that the PC/Laptop is on the same subnet as the FS-B-OPC-01. The default IP address on the FieldServer Ethernet port is 192.168.2.X . Refer to the FieldServer Utilities Manual for information on how to change the FieldServer's IP address.

4.5 Using the ping utility to Identify the FieldServer on the Network

- Select Start|Programs|FieldServer Utilities, browse to the Ping Utility and select it. The display should show

- FieldServer Name
- IP Address (192.168.2.X)
- FieldServer Version

4.6   Connect using "Remote User Interface" (RUINET)

- All configuration file transfers and system diagnostics are executed via the RUI or "Remote User Interface" which is installed with the Utility software. Refer to the FieldServer Utilities manual for further information.

- Browse to the Remote User Interface icon in the Start menu directory and click on it.

- The RUI menu screen should appear.

4.7   Upload the Default Configuration

The configuration of the FS-B-OPC-01 is provided to the FS-B-OPC-01's operating system via a comma-delimited file called "CONFIG.CSV".   If ordered with the FS-B-OPC-01, the custom configuration is installed; (Reference documentation FS-8790-XX). If a custom configuration is not purchased, a template config.csv is shipped on the FieldServer.   Refer to the Configuration Manual and the Driver Manual(s) provided with the FS-B-OPC-01 for further information on configuration files.

In the main menu of the Remote User Interface screen, type "U" to upload the configuration. Then type "U" again. The Remote User Interface Utility will fetch the default configuration and put it into the Configuration File folder (Start|Programs|FieldServerUtilities|Configuration File folder).

4.8   Change the Configuration File to Meet the Application

Refer to the Configuration Manual in conjunction with the Driver supplements for information on configuring the FieldServer. FieldServer Technologies offers training on this topic as well as a configuration service to complete this portion of the work. See www.fieldserver.com for specific details.

4.9   Download the Updated Configuration File

- Before attempting to send files to the FS-B-OPC-01, ensure that the files are in the configuration file folder. Refer to the FieldServer Utilities manual for further information.

- From the main menu, type "D" to access the "download" menu,

- Type "L" (for local filename) to specify the name and extension of the file to be sent to the FieldServer. Hit <Enter> when done.

- The Remote User Interface Utility will automatically select config.csv for download of csv files. On rare occasions where other files need to be downloaded to the FS-B-OPC-01 type "O" for other files, then type "R" to specify the remote filename needed on the FieldServer.

- When satisfied that the correct file names are specified, Type "D" to download the file to the FS-B-OPC-01. The Remote User Interface Utility will display a menu showing download progress.

- Note: the Remote User Interface Utility will indicate when download is complete. DO NOT reset the FS-B-OPC-01 before this message displays, as this could corrupt the FS-B-OPC-01.

- Once download is complete, hit <Esc> to get back to the main menu and use the "!" option (or simply cycle power to the FS-B-OPC-01) to put the new file into operation. Note that it is possible to do multiple downloads to the FS-B-OPC-01before resetting

4.10   Run the FieldServer PC Bridge Utility

- If a Custom Configuration was ordered, this software will run automatically and this step can be skipped

- Once the config.csv file is set-up, double click on the FieldServer PC Bridge icon on the desktop to run the FieldServer software.

4.11   Configure the FST OPC Server Configurator to meet the Application

- If a Custom Configuration was ordered this step can be skipped

- If a Custom Configuration was not ordered, please follow the instructions supplied in the FS-8707-06 driver manual to configure the OPC Server to connect to the correct Data Arrays.

- The OPC Configurator is installed in c:\program files\FieldServer\FST., there is a shortcut on the desktop and it can be found in the start menu under Start|Programs|FST OPC Server for FieldServers.

4.12   Test and commission the FieldServer

- Connect the FieldServer to the third party device(s), and test the application.

- It may be necessary to connect a standard PC monitor, PC Keyboard and PC Mouse to perform any diagnostics or configuration

- If necessary, refer to the Troubleshooting manual which can be found in the FieldServer utilities directory under Documentation.

- Before contacting FieldServer technical support, send your config.csv file, and the *.fst file from your FST OPC Configurator to **support@fieldserver.com**. In the email, also provide a detailed description of the problem(s) occurring on the system.

- Application notes and other resources are available on the web at www.fieldserver.com

Appendix A. Limited Warranty

FieldServer Technologies warrants its products to be free from defects in workmanship or material under normal use and service for two years after date of shipment. FieldServer Technologies will repair or replace without charge any equipment found to be defective during the warranty period. Final determination of the nature and responsibility for defective or damaged equipment will be made by FieldServer Technologies personnel.

All warranties hereunder are contingent upon proper use in the application for which the product was intended and do not cover products which have been modified or repaired without FieldServer Technologies approval or which have been subjected to accident, improper maintenance, installation or application, or on which original identification marks have been removed or altered. This Limited Warranty also will not apply to interconnecting cables or wires, consumables or to any damage resulting from battery leakage.

In all cases FieldServer Technology's responsibility and liability under this warranty shall be limited to the cost of the equipment. The purchaser must obtain shipping instructions for the prepaid return of any item under this warranty provision and compliance with such instruction shall be a condition of this warranty.

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