



**Driver Version: 1.00**  
**Document Revision: 5**

## **FieldServer Driver - Serial** **FS-8700-111** **ProtoCessor Simple Protocol (PSP)**

### **Description**

ProtoCessor Simple Protocol (PSP) a simple ASCII protocol provides a simple way to communicate with a ProtoCessor.

The driver can be configured as a Client or Server.

As a Server: Driver responds to read/write requests for the transfer of data. The Server can update selected upstream device configuration settings (such as Baud rate and Node\_ID.) on request. The Server can accept or provide data values in decimal or in hex format as required by the Client. Note that the Server will respond with data even where the upstream node is offline and the data has aged out. An advanced version of the driver avoids this limitation. (See FS-8700-109)

As a Client: The client side has been developed primarily to test the Server side driver as part of FieldServer's QA program. The Driver polls to read or write data. The Driver can receive or send data values in decimal or in hex format. The Driver can also poll the Server to change upstream node or connection parameters like Node\_ID or Baud rate.

<b>Fieldserver Mode</b>	<b>Nodes</b>	<b>Comments</b>
Client	1	Single client per port.
Server	1	Protocol is Node-less. Only 1 device per port

### **Formal Driver Type**

Serial  
Client/Server Only

### **Compatibility Matrix**

<b>FieldServer Model</b>	<b>Compatible with this driver</b>
FS-x2010/1	Yes
FS-x30	Yes
FS-x40	Yes



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### Connection Information

**Connection type:** RS-232 or RS-485 (Two wire, Half-Duplex)  
**aud Rates:** **38400** (Protocol Limitation) - FieldServer supports 300- 115200 Standard Baud rates only.  
**Data Bits:** 7,8  
**Stop Bits:** 1,2  
**Parity:** Odd, Even, **None**  
**Multidrop Capability** No

### Proprietary Physical Interfaces Supported

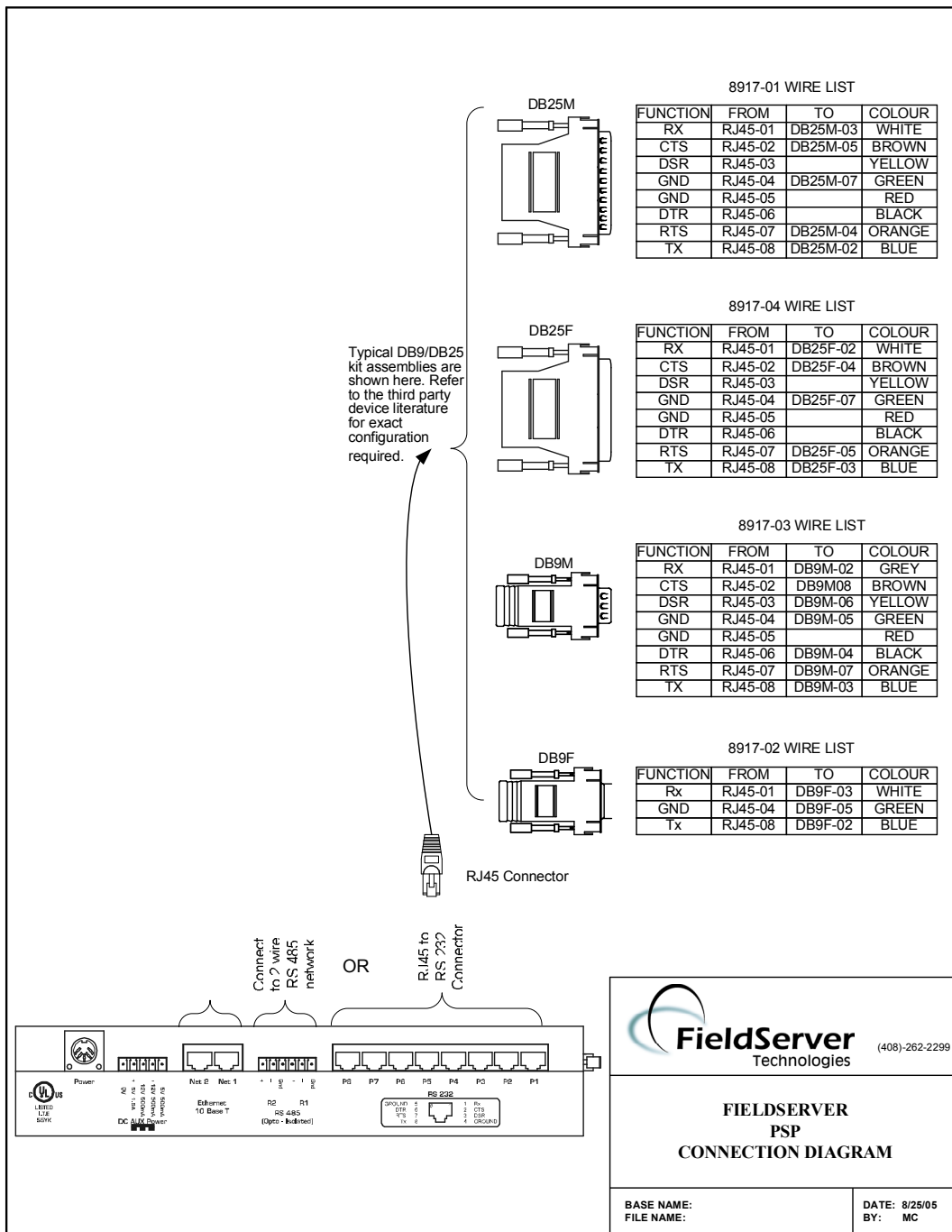
None

### Devices tested

Device	Tested (FACTORY, SITE)
None	



**Connection configurations**





**Connection Notes**

**Communications functions - Supported functions at a glance:**

**Data Types Supported**

The driver does not type data. All data is transferred as ASCII string representations of real numbers.

**Read Operations supported**

FieldServer as a Client	FieldServer as a Server
Read any float value (in decimal or hex format)	Provide any float value (in decimal or hex format)
Selectively read changed or updated data	Accept ACK messages from Client.

**Write (Control) Operations supported**

FieldServer as a Client	FieldServer as a Server
Write any float value (in decimal or hex format)	Accept any float value (in decimal or hex format)

**Configuration (Control) Operations supported**

FieldServer as a Client	FieldServer as a Server
Send command to change Node_ID or Baud Rate of upstream device.	Accept command to change the baud rate of an upstream connection and to change the Node_ID of the upstream server node. There are limitations to this capability. They are documented in the manual.
Send command to Enable/Disable ProtoCessor nodes	
Send command to get ProtoCessor Status	
Send command to get ProtoCessor Mac Address	

**Unsupported Functions and Data Types**

Function	Reason
None	



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