A Sierra Monitor Company

FieldServer Driver - Serial
FS-8700-84
Lutron eLumen

Description

The Serial eLumen driver allows the FieldServer to transfer data to and from devices over RS-232 or RS-485 using eLumen protocol. The FieldServer can only be used operationally as a Lutron client driver. Any existing Lutron server drivers are for FieldServer testing purposes only and cannot be used to emulate an eLumen system.

The driver supports the following 3 panels: GRAFIK5000, GRAFIK6000 and GRAFIK7000
The hardware for all 3 panels is identical. The only differences are limits in the database. GRAFIK5000 has only 1 CSD link and can have a max of 128 zones. GRAFIK6000 has 3 CSD links with 512 zones. GRAFIK7000 has 6 links with 512 zones and can communicate with other processors.

The FieldServer eLumen driver implements the following functionality:
- *Status monitoring of eLumen system data and parameters.*
- *System Control of eLumen.*

Status monitoring is achieved by sending status requests to the eLumen system. Retrieved status data are collected and stored in FieldServer data arrays that allow access by other protocols.

System Control Commands can be configured in the FieldServer to address any groups of Areas, Zones or Scenes. A mechanism is provided by which the parameters are set before the command is triggered using the upstream protocol. Commands are provided to read the names of Areas, Zones and Scenes from the eLumen to facilitate access by SCADA systems.

Fieldserver Mode	Nodes	Comments
Client	1	Only 1 client node allowed on Multidrop systems
Server		

Formal Driver Type

Serial
Client Only

Compatibility Matrix

FieldServer Model	Compatible with this driver
FS-B2010	Yes
FS-B2011	Yes
FS-B40 Series	Yes
FS-B30 Series	No

Connection Information

Connection type:	RS-232 or RS-485 (Two wire, Half-Duplex)
Baud Rates:	2400; **9600**; 19200; 38400 – Vendor limitation
Data Bits:	**8**
Stop Bits:	**1**
Parity:	None
Multidrop Capability	**Yes**

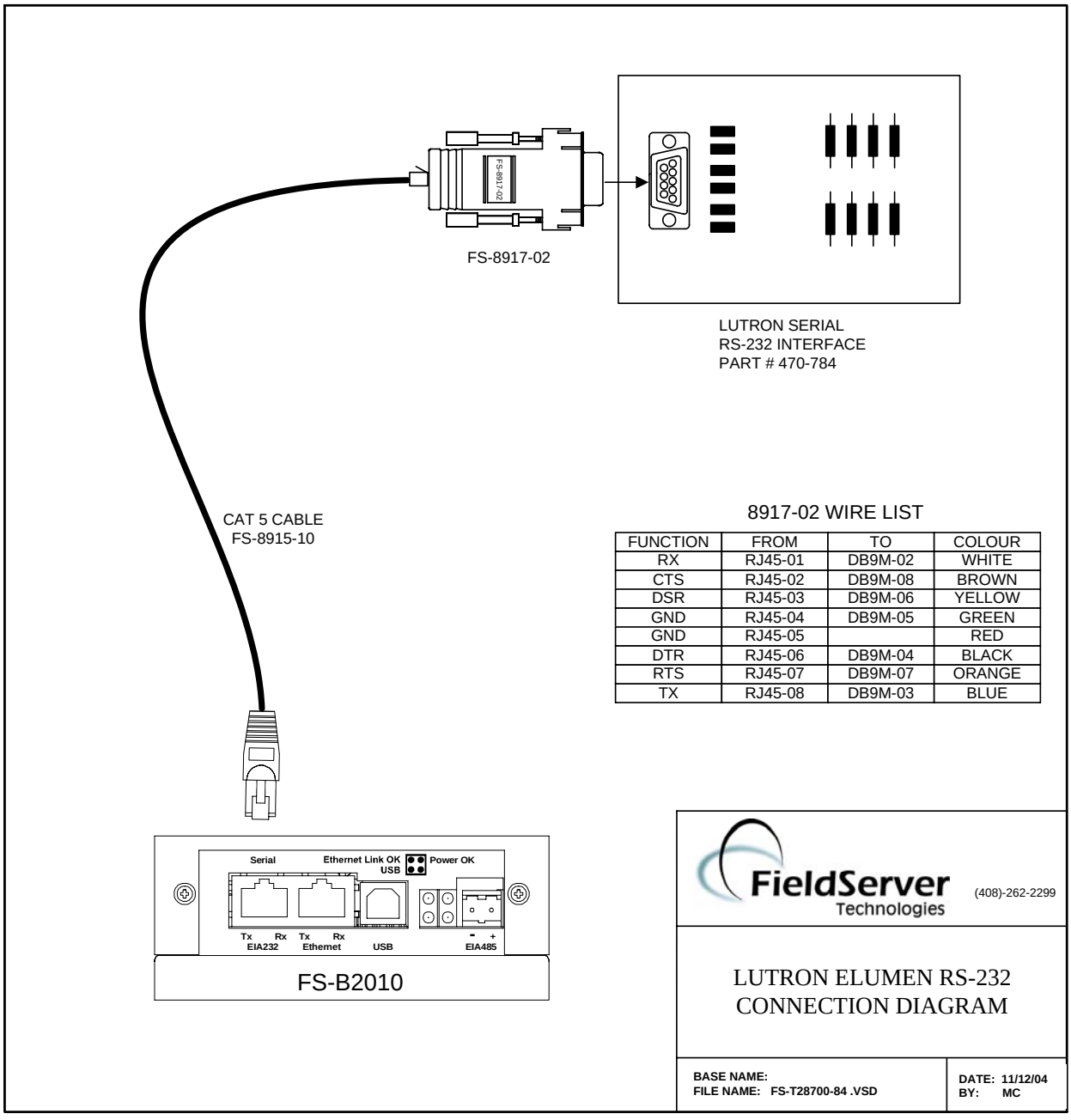
Proprietary Physical Interfaces Supported

Fieldserver Model	Adapter Model #	Vendor	Physical Medium

Devices tested

Device	Tested (FACTORY, SITE)
Lutron Grafik6000	Factory
Lutron Grafik7000	Site

Connection configurations

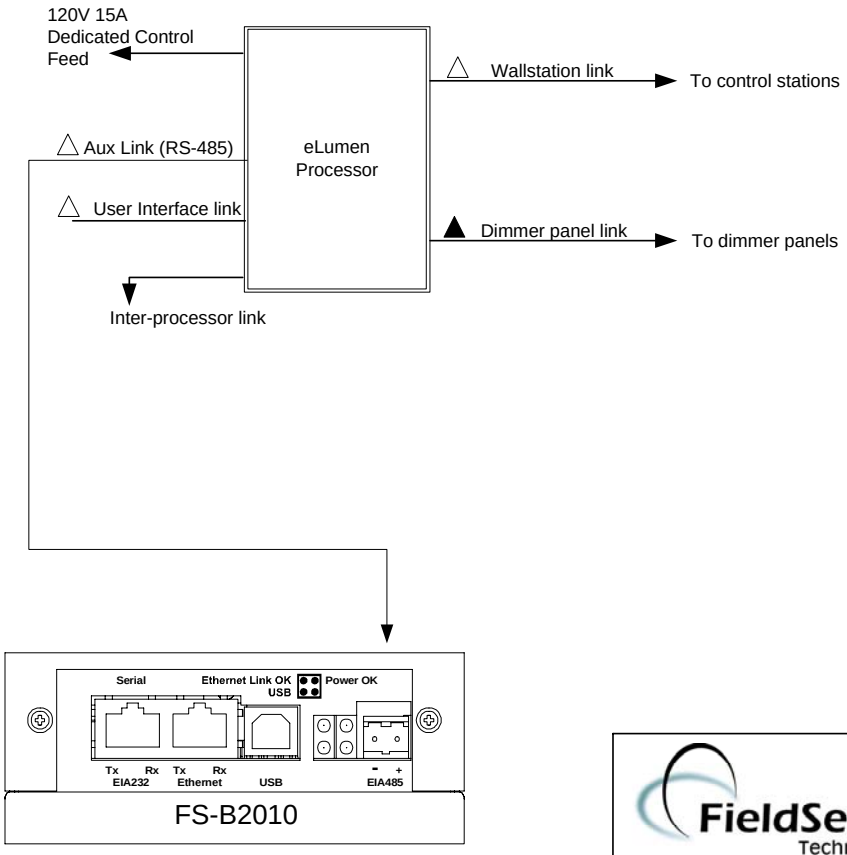


8917-02 WIRE LIST

FUNCTION	FROM	TO	COLOUR
RX	RJ45-01	DB9M-02	WHITE
CTS	RJ45-02	DB9M-08	BROWN
DSR	RJ45-03	DB9M-06	YELLOW
GND	RJ45-04	DB9M-05	GREEN
GND	RJ45-05		RED
DTR	RJ45-06	DB9M-04	BLACK
RTS	RJ45-07	DB9M-07	ORANGE
TX	RJ45-08	DB9M-03	BLUE

Connection Notes

Pin-out eLumen
Pin 2 Data Out
Pin 3 Data In
Pin 5 common



FieldServer Technologies (408)-262-2299

LUTRON ELUMEN RS-485
CONNECTION DIAGRAM

BASE NAME:
FILE NAME: FS-T28700-84 .VSD

DATE: 11/12/04
BY: MC

Communications functions - Supported functions at a glance:

Data Types Supported

Read Operations supported

FieldServer as a client
Read System Names:
Get Area Names Get Scene Names Get Zone Names
Read System Status:
Get Area Status Get Timeclock Status Get Wallstation Status Get Switch Status Get Zone Intensity Get Time Now Get Astro Times Get Date Get Code Revision Level Get Boot Code Revision Level Get Serial Number Get System Variable Value Request Panel Emergency Status
System Zone Control:
Halt Zone Toggle Zone Output Level Fade Zone to Level Ramp Up Zone Intensity Ramp Down Zone Intensity Pommel or Pulse Zone Intensity Multi Level (Flash or Warn or Chase) Zone Intensity Ramp Scene Zones Up Ramp Scene Zones Down Stop Scene Ramp Up Stop Scene Ramp Down
System Scene Control:
Select System Scene Select System Scene using Override Times Output Temporary Scene Select Scene in Area
System Timeclock Control:
Disable Until Enable Issued Disable Until End of Day or Enable Issued

FieldServer as a client
Re-enable with Complete Catchup
Re-enable and do Previous Event
Standard Re-enable
New Schedule
Set Timeclock
Wallstation Control:
Enable Wallstation
Disable Wallstation
Simulate Wallstation Switch Press
Simulate Wallstation Switch Release
Run Script
Set System Variable
Toggle System Variable
Enabling Switch Presses and Releases Reporting
Disabling Switch Presses and Releases Reporting
Listening to Switch Presses and Releases

Revision History

Date	Resp	Format	Driver Version	Doc. Rev.	Comment
03/23/02			1.00	0	Create first version
04/24/02			1.00	1	Updates after customer review
05/10/02			1.00	2	Added switch reporting and name retrieval commands
09/23/02			1.01	0	Added stop scene ramp down command
12/31/02			1.02	0	Added request panel emergency status command
8/20/03			1.02	1	Releasing
10/20/04	Meg	Meg	1.04	0	Changed document name and references in text – DUR0468 Updated formatting – DUR0479 Updated Description – DUR0469 Added RS-485 functionality – DUR0481
11/12/04	Meg	Meg	1.04	1	Updated connection diagram – DUR0468.
12/17/04	Meg	Meg	1.04	2	Added corrected connection diagrams – DUR0468.
12/20/08	Meg	Meg	1.04	3	Table formatting sorted out – DUR0519
1/6/05	JD		1.04	4	Releasing