

FS-8700-107

1 DESCRIPTION

This driver is used to exchange data between a FieldServer and a Mitsubishi Heavy Industries Air Conditioning System communication interface known as a CHC-MF

The driver is a serial driver using a RS232 serial port to connect between the FieldServer and the CHC-MF. An RS485 port together with a converter can also be used for the connection.

The driver provides client and server functionality.

As a client the driver can poll for data from Air Conditioning Units via the CHC-MF interface as well as writing some control and set points.

Server functionality is provided only to support our ongoing quality assurance program by facilitating automated testing of the driver. It is not documented as supported. If required please contact the FST sales group to discuss your requirements.

1.1 Connection Facts

FieldServer Mode	Nodes	Comments
Client	1	A maximum of 1 Mitsubishi CHC-MF device per FieldServer port
Server	1	A maximum of 1 Mitsubishi CHC-MF device per FieldServer port

2 FORMAL DRIVER TYPE

Serial

Client or Server

3 COMPATIBILITY MATRIX

FieldServer Model	Compatible with this driver
FS-x30	No
SlotServer	No
ProtoNode	No
QuickServer FS-QS-10xx	No
QuickServer FS-QS-12xx	No
ProtoCessor FPC-ED2	No
ProtoCessor FPC-ED4	No

4 CONNECTION INFORMATION

Connection type: EIA232
 Baud Rates: Driver Supports: 110; 300; 600; 1200; 2400; 4800; **9600**; 19200; 28800; 38400; 57600; 115200
 Vendor Equipment supports: 4800

Data Bits: Driver Supports: 7,8
 Vendor Equipment Supports: 7

Stop Bits: Driver Supports: 1,2
 Vendor Equipment Supports: 1

Parity: Driver Supports: Odd, Even, None
 Vendor Equipment Supports: Even

Multidrop Capability: No

5 DEVICES TESTED

Device	Tested (FACTORY, SITE)
Mitsubishi CHC system with 54 air conditioning groups	SITE (Costa Rica)

6 COMMUNICATIONS FUNCTIONS – SUPPORTED FUNCTIONS AT A GLANCE

6.1 Read/Write Operations supported

FieldServer as a Client	FieldServer as a Server
Start / Stop Operation	Digital Start/Stop Response
One Point Request	Digital Start/Stop Point
Parameter Setting Operation	Start / Stop Operation
	Analog Point Response
	Parameter Point Response
	Add Up Point Response

When the connection is first opened to the CHC unit or when the driver is recovering a connection (after a loss of connection) then the driver will wait for an Initial Data Request and respond appropriately. Thereafter, normal polling will occur. In the event that the driver does not receive the Initial Data Request from the CHC within a specified time it will default to normal polling behaviour.

FS-8700-107

6.2 Unsupported Functions and Data Types

Function	Reason
Initial Data Request Processing	Completion of parameter Setting operation
Forced Shutdown in a Fire	System Clock Time Notification

7 DATA POINTS

The following Data can be read and/or written from the FieldServer to the Air Conditioning Units attached to the CHC-MF.

Point Nr	Point	Read/Write	Notes
1	Start/Stop	RW	
2	Temp. Setting	R	
3	Automatic temperature control mode setting	RW	
4	Temperature control mode setting	RW	
5	Room Temperature	R	
6	Remote control mode, setting 1	RW	
7	Remote control mode, setting 2	RW	
8	Remote control mode, setting 3	RW	
9	Filter sign reset	RW	
10	Forced Thermo off	RW	
20	Electrical Energy	R	