

Home Automation - Mitsubishi Serial Controller Protocol

Model	FDC508HES3
Controller	RCD-H-E
Comms Rate	1200 bps
Parity	Even
Type	One Wire Half Duplex
CNB Serial Comms Connector	
X	VCC 10.6V at Controller
Y	Comms
Z	GND

Three Packets sent in continuous cycle			
Protocol	Size	Direction	Duration
Paket 1	16 bytes	Controller to Aircon	150ms
Paket 2	16 bytes	Aircon to Controller	150ms
Paket 3	16 bytes	Controller to Aircon	150ms

Protocol Details

Packet 1														
Byte	Function	Data												
0	Header	00												
1	Header	8f												
2	Mode	Auto On: b0	Auto Off: 90	Dry On: b1	Dry Off: 91	Cool On: b2	Cool Off: 92	Fan On: b3	Fan Off: 93	Heat On: b4	Heat Off: 94	First Nibble is 0 after start-up and a after system reset		
3		00												
4	Set Temp	18 Degrees: 48	19 Degrees: 4a	20 Degrees: 4c	21 Degrees: 4e	22 Degrees: 50	23 Degrees: 52	24 Degrees: 54	25 Degrees: 56	26 Degrees: 58	27 Degrees: 5a	28 Degrees: 5c	29 Degrees: 5e	30 Degrees: 60
5	Fan	Lo: f0	Med: f1	Hi: f2	First Nibble is e after system reset									
6	ff													
7	ff													
8	Clean Filter Reset	Reset Clean Filter: f1	Else: f0											
9	3f													
10	ff													
11	ff													
12	ff													
13	ff													
14	ff													
15	Modulo 256 Checksum													

Packet 2

Byte	Function	Data
0	Header	80
1	Header	8c
2	Mode	Auto On: b0 Mode Auto Off: 90 Dry On: b1 Dry Off: 91 Cool On: b2 Cool Off: 92 Fan On: b3 Fan Off: 93 Heat On: b4 Heat Off: 94 First Nibble is 0 after start-up and a after system reset
3	00	
4	Set Temp	18 Degrees: 48 19 Degrees: 4a 20 Degrees: 4c 21 Degrees: 4e 22 Degrees: 50 23 Degrees: 52 24 Degrees: 54 25 Degrees: 56 26 Degrees: 58 27 Degrees: 5a 28 Degrees: 5c 29 Degrees: 5e 30 Degrees: 60
5	Fan	Lo: f0 Med: f1 Hi: f2 First Nibble is e after system reset
6	Actual Temp	Varies between Bc and a4
7	e0	Not decoded (not necessary to control the system)
8	00	
9	Heating Warmup/Clean filter Alert	Maybe a malfunction indicator Not decoded
10	ff	Clean Filter Alert: fa or fb Filter OK: f8 or f9
11	ff	
12	Compressor State	Off: e0 On: e2
13	ff	
14	ff	
15	Modulo 256 Checksum	

Packet 3

Byte	Function	Data
0	Sequence Number MSB	00 to 32
1	Sequence Number LSB	80 to f0
2	Mode	Auto On: b0 Auto Off: 90 Dry On: b1 Dry Off: 91 Cool On: b2 Cool Off: 92 Fan On: b3 Fan Off: 93 Heat On: b4 Heat Off: 94 First Nibble is 0 after start-up and a after system reset
3	00	
4	Set Temp	18 Degrees: 48 19 Degrees: 4a 20 Degrees: 4c 21 Degrees: 4e 22 Degrees: 50 23 Degrees: 52 24 Degrees: 54 25 Degrees: 56 26 Degrees: 58 27 Degrees: 5a 28 Degrees: 5b 29 Degrees: 5e 30 Degrees: 60
5	Fan	Lic: f0 Med: f2
6	ff	
7	00	
8	f0	
9	3f	
10	ff	
11	ff	
12	ff	
13	ff	
14	ff	
15	Modulo 256 Checksum	