

The Renewable Solutions Provider Making a World of Difference



LIVING ENVIRONMENTAL SYSTEMS

Fault Code Check List

Air Conditioning | Commercial Heating
Domestic Heating | Photovoltaics

This 'Fault Code Check List' is intended to provide an easy-to-use, quick reference guide on all Fault Codes across our product range. As the information in here is limited, please refer to the trouble-shooting section of the relevant Service Handbook(s) for full fault definition and guidance.

Air Conditioning

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Mr Slim P Series (A)
Mr Slim P Series (K)

Commercial Heating

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CITYMULTI

FAULT CODE	R22	R407c	R410A	LOSSNAY	DESCRIPTION
403	x	x	x	-	Comms fault between boards - check inverter error detail for which 2 boards, check transformer, bus voltage and inter-connecting cables
900	-	-	-	-	Lossnay unit in test run
1102	x	x	x	-	High compressor discharge temperature. Discharge temperature has exceeded 110°C or more. Short of refrigerant. Discharge thermistor
1111	x	x	-	-	Low pressure/temperature fault - check thermistors (TH2, TH3, TH4), gas charge, indoor fan, heat exchanger and filter
1112	x	x	-	-	Low pressure/temperature fault - check thermistors (TH2, TH3, TH4), gas charge, indoor fan, heat exchanger and filter
1113	x	x	-	-	Low pressure/temperature fault - check thermistors (TH2, TH3, TH4), gas charge, indoor fan, heat exchanger and filter
1202	x	x	x	-	Preliminary fault to 1102
1204	-	-	x	-	Preliminary heat exchanger gas temperature sensor fault - check thermistors 10a and 10b
1205	x	x	x	-	Preliminary thermistor fault (TH5)
1211	x	x	-	-	Preliminary thermistor fault (TH2)

CITYMULTI

CITYMULTI					
FAULT CODE	R22	R407c	R410A	LOSSNAY	DESCRIPTION
1214	x	x	x	-	Preliminary thermistor fault (THHS)
1216	x	x	x	-	Preliminary thermistor fault (TH7)
1217	x	x	x	-	Preliminary thermistor fault (TH8)
1219	x	x	-	-	Preliminary thermistor fault (TH9)
1221	x	x	x	-	Preliminary thermistor fault (TH6)
1243	-	x	-	-	Preliminary thermistor fault (TH10)
1301	-	x	-	-	Low pressure fault (63L operation) low pressure sensor sensing less than 1 bar immediately before starting
1302	x	x	-	-	High pressure fault - check pressure in system for more than 29 bar (R407c) 38 bar (R410A). Check high pressure sensor against gauge pressure
1368	x	x	-	-	Pressure sensor fault (PS1) at BC - compare pressure reading on SW1 on O/C
1370	x	x	-	-	Pressure sensor fault (PS3) at BC - compare pressure reading on SW1 at O/C
1402	-	-	x	-	Preliminary fault to 1302
1500	x	x	x	-	System overcharge. Abnormal low compressor superheat - discharge thermistor TH4

CITYMULTI

FAULT CODE	R22	R407c	R410A	LOSSNAY	DESCRIPTION
1501	x	x	-	-	High compressor shell temp - check for shortage of gas, insufficient indoor index running (comms room units)
1505	x	x	-	-	Suction pressure abnormal - generated by low pressure sensor detecting a vacuum - check for blockage, closed valve or sensor fault
2500	x	x	x	-	Detecting lack of water flow on a water circuit
2502	x	x	x	-	I/C has water level in drip tray, when the unit was running in cooling (temperature sensors - check for open or closed circuit and operation of pump)
2503	x	x	x	-	I/C has water level in drip tray when the unit was running in cooling (float sensor - check for closed circuit on float switch and operation of pump)
2600	x	-	x	-	Water leak from humidifier
4100	-	-	-	-	Compressor over current protection on Mr Slim with M-net interface - check inverter or compressor
4101	-	-	-	-	Compressor over current protection on Mr Slim with M-net interface - check inverter or compressor
4102	-	-	x	-	Open phase fault - check power supply and noise filter for loss of phase, check wiring and fuses

CITYMULTI

FAULT CODE	R22	R407c	R410A	LOSSNAY	DESCRIPTION
4103	x	x	x	-	Reverse phase fault - check phase rotation, loss of phase through the noise filter, fuse blown and high pressure switch open at power on
4106	-	-	x	-	Transmission power supply fault - check wiring, high current, incorrect voltage on transmission line and/or M-Net board
4108	-	x	-	-	Over current protection on DOL compressor - check power supply, contactor and compressor
4115	x	x	x	-	Power supply abnormal - check power, fuses, connections and PCB
4116	x	x	x	-	Fan motor abnormal - check fan motor and board (relates to indoor unit or Lossnay unit)
4124	-	-	-	-	Thermal switch (49C) open circuit on Mr Slim on M-Net - reset and check pressures and air flow
4210	x	-	-	-	Compressor over current problem - check inverter balance. Compressor and inverter
4220	-	x	x	-	Low inverter board BUS voltage. Less than 289VdcDC is detected. - check mains supply
4225	-	-	x	-	Low DC voltage on Vdc on fan inverter - check CNVdc for 300Vdc on diode stack and check mains power supply to outdoor unit

CITY MULTI

FAULT CODE	R22	R407c	R410A	LOSSNAY	DESCRIPTION
4230	x	x	x	-	High temperature on heat sink on inverter - check for blockages in air duct, failure of INV fan or failure of thermistor
4235	-	-	x	-	Fan inverter heat sink overheat protection. Reduced airflow through heat sink. Fan motor problem. THHS thermistor problem.
4240	x	x	x	-	Over current protection. If high current is detected for more than 10 minutes - check inverter balance. Reduced airflow through heat sink
4245	-	-	x	-	Over current protection. Possible ACCT current sensor fault. Should read 280 ohms between pins 1 & 2 and across pins 3 & 4
4250	-	-	x	-	Over current protection. Inverter IPM problem. Compressor lock - check inverter balance
4255	-	-	x	-	Inverter cooling fan problem - if high static fan is used then check that SW3-9 is on
4260	-	x	x	-	Preliminary inverter heat sink overheat protection. Reduced airflow through heat sink. Fan motor problem. THHS thermistor problem.
5101	x	x	x	-	Thermistor fault at indoor/outdoor unit - check fault code address
5102	x	x	x	-	Thermistor fault at indoor/outdoor unit - check fault code address
5103	x	x	x	-	Thermistor fault at indoor/outdoor unit - check fault code address

CITYMULTI

CITYMULTI					
FAULT CODE	R22	R407c	R410A	LOSSNAY	DESCRIPTION
5104	x	x	x	-	Thermistor fault at indoor/outdoor unit - check fault code address (indoor fault - check SW7-3 is off)
5105	x	x	x	-	TH5 open/short circuit - check if the TH is disconnected from the board
5106	x	x	x	-	TH6 open/short circuit - check if the TH is disconnected from the board
5107	x	x	x	-	TH7 open/short circuit - check if the TH is disconnected from the board
5108	x	x	-	-	TH8 open/short circuit - check if the TH is disconnected from the board
5109	-	x	-	-	TH9 open/short circuit - check if the TH is disconnected from the board
5110	x	x	x	-	TH10 open/short circuit - check if the TH is disconnected from the board
5111	x	-	x	-	BC box thermistor error - TH11 open/short circuit, disconnected from board/pipe
5112	x	x	x	-	BC box thermistor error - TH10 open/short circuit, disconnected from board/pipe
5113	x	-	-	-	BC box thermistor error - TH open/short circuit, disconnected from board/pipe
5114	x	-	-	-	BC box thermistor error - TH open/short circuit, disconnected from board/pipe
5115	x	-	x	-	BC box thermistor error - TH15 open/short circuit, disconnected from board/pipe
5116	x	-	x	-	BC box thermistor error - TH16 open/short circuit, disconnected from board/pipe

CITY MULTI

FAULT CODE	R22	R407c	R410A	LOSSNAY	DESCRIPTION
5201	x	x	x	-	Pressure sensor fault outdoor unit/BC box - check fault code address/SW1 pressure sensor readings
5202	x	-	-	-	Pressure sensor fault (PS2) in the BC box
5203	x	x	x	-	Pressure sensor fault (PS3) in the BC box
5300	-	-	-	-	A-Control UH fault - see Mr Slim fault code list
5301	-	x	x	-	Current sensor fault, ACCT or DCCT - check inv. error details
5401	-	-	x	-	Temperature sensor fault - check CN30 for humidity sensor
5701	-	-	x	-	Loose float switch connector - check switch, check CN4F on indoor unit
6201	-	-	x	-	TB7 transmission line communication error - check for voltage abnormality/short
6202	-	-	x	-	Transmission processor hardware error - check for noise/short on M-Net cable
6600	x	x	x	-	Repeat address fault - two or more units are assigned the same address - correct the repeated address
6601	-	-	x	-	Polarity setting error - no voltage or short circuit on the m-net transmission line
6602	x	x	x	-	Hardware error of transmission processor. Noise interference. Polarity problem on TB7

CITYMULTI

CITYMULTI					
FAULT CODE	R22	R407c	R410A	LOSSNAY	DESCRIPTION
6603	x	x	x	-	Bus circuit busy - check if indoor unit, Lossnay unit or anything else has been wired into TB7, instead of TB3
6607	x	x	x	-	Communication issue - no response back from unit whilst system is operational
6608	x	x	x	-	Communication error - loss of voltage or noise entering the transmission line
6700	-	-	-	-	K control communication error - R22 type unit connected onto M-Net circuit comms error
6701	-	-	-	-	K control communication error - R22 type unit connected onto M-Net circuit comms error
6702	-	-	-	-	K control duplicate address error - two or more R22 type units connected onto M-Net circuit with the same address
6750	-	-	-	-	K control communication error - R22 type unit connected onto M-Net circuit comms error
6751	-	-	-	-	R22 R/A thermistor fault (P1)
6752	-	-	-	-	R22 frost protection at I/C (P6)
6753	-	-	-	-	Comms fault between O/C and I/C
6754	-	-	-	-	R22 drain fault (P5)
6755	-	-	-	-	R22 drain fault (P5)

CITY MULTI

CITY MULTI					DESCRIPTION
FAULT CODE	R22	R407c	R410A	LOSSNAY	
6756	-	-	-	-	R22 frost protection at I/C (P6)
6757	-	-	-	-	System error
6758	-	-	-	-	Comms fault between I/C and O/C
6761	-	-	-	-	R22 R/A thermistor fault (P1)
6762	-	-	-	-	R22 TH2 fault check resistance (P2)
6763	-	-	-	-	R22 Comms fault between I/C and O/C
6764	-	-	-	-	R22 drain fault (P4)
6765	-	-	-	-	R22 drain fault (P5)
6766	-	-	-	-	R22 frost protection at I/C (P6)
6767	-	-	-	-	R22 comms fault between I/C and O/C
6771	-	-	-	-	K abnormality - high pressure abnormality or low pressure abnormality
6772	-	-	-	-	K abnormality - inner thermostat function, discharge temperature abnormality, shell thermostat function, over current protection
6773	-	-	-	-	K abnormality - radiator plate thermostat function

CITYMULTI

CITYMULTI					
FAULT CODE	R22	R407c	R410A	LOSSNAY	DESCRIPTION
6774	-	-	-	-	K abnormality - outdoor thermistor abnormality
6775	-	-	-	-	K abnormality - pressure sensor abnormality, indoor/outdoor communication error
6776	-	-	-	-	K abnormality - over current shut-off
6777	-	-	-	-	K abnormality - system error
6778	-	-	-	-	K abnormality - normal
6779	-	-	-	-	K abnormality - refrigerant overcharge, abnormal voltage, abnormal CT sensor
6830	-	-	-	-	Comms fault between I/C and R/C check connections to MA R/C and check for 12Vdc check R/C not set sub controller
6831	-	-	x	-	MA R/C communication fault - check connections on TB15 or that the controller was removed while the I/C was powered
6832	-		x	-	MA controller comms fault - check cable length no bigger than 500m, check connection and type of cable used, check R/C not set sub on field settings
6833	-	-	x	-	MA controller comms fault check cable length no bigger than 500m, check connection and type of cable used, check R/C not set sub on field settings

CITYMULTI					
FAULT CODE	R22	R407c	R410A	LOSSNAY	DESCRIPTION
6834	-	-	x	-	MA Controller comms fault - check cable length no bigger than 500m, check connection and type of cable used, check R/C not set sub on field settings
6840	-	-	-	-	A-Control E6/E8 fault - see Mr Slim fault code list
6841	-	-	-	-	A-Control E7/E9 fault - see Mr Slim fault code list
6844	-	-	-	-	A-Control EA fault - see Mr Slim fault code list
6845	-	-	-	-	A-Control Eb fault - see Mr Slim fault code list
6846	-	-	-	-	A-Control EC fault - see Mr Slim fault code list
7100	x	x	x	-	Over capacity - (R2 150% index exceeded) (Y 130% index exceeded)
7101	x	x	x	-	Capacity setting error - SW2 set wrong on indoors, SW5 on YHMA outdoor, (SW3-10 on older kit)
7102	x	x	x	-	Error in number of connected units - loss of M-Net voltage (short or break), no power to BC, wrong SW5 setting on box, wrong box type
7105	x	x	x	-	Address setting error - OC or BC addressed wrong
7106	-	x	x	-	Attribute setting error - SW3-1 setting on a GUF

CITYMULTI

FAULT CODE	R22	R407c	R410A	LOSSNAY	DESCRIPTION
7107	x	x	x	-	Port setting error - check if too much capacity on a single port, wiring SW2 setting, wrong SW14 setting or wrong units on a box when using multiple boxes
7110	-	-	x	-	Check SW5-7 is correctly set
7111	x	x	x	-	Remote control sensor fault - SW1 - 1 on and no controllers fitted or faulty remote controller
7113	-	-	x	-	Function setting error - wrong SW5 setting or wrong resistors fitted on YHM-A
7117	-	-	x	-	Model setting error - SW5 set wrong or wrong resistors in
7130	-	x	x	-	Incompatible equipment on M-Net - check split with MAC 399 wired onto the TB5 line TB5 line, not the TB7

Mr.SLM P Series (A)				
FAULT CODE	LED 1 (GREEN)	LED 2 (RED)	CENTRAL CONTROLLER	DESCRIPTION
A0	2 flash	5 flash	6600	Duplicate address - Lossnay units attached with the same address - change addresses and reset the units power
A2	2 flash	5 flash	6602	Hardware error of transmission processor (Lossnay) - check comms wiring, and for possible Lossnay board fault
A3	2 flash	5 flash	6603	Line busy no data could be transmitted for 8 minutes - check A- M-Net connections (TB7 and TB3)
A6	2 flash	5 flash	6606	Communication error with communication processor - Lossnay address not transmitted - check M-Net voltage
A7	2 flash	5 flash	6607	No ACK signal - check A- M-Net wiring, range of transmission wiring exceeded or if faulty A- M-Net converter
A8	2 flash	5 flash	6608	M-Net no response - check A- M-Net wiring, range of transmission wiring exceeded, faulty A- M-Net converter or if incorrect wire used for M-Net connection
EA	-	-	6844	Mis-wiring/loose inter-connecting cables. Noise interference.
EB	-	-	6845	Mis-wiring/loose interconnecting cables. Noise interference. Wrong cable size/spec
EC	-	-	6846	Start-up time over. The unit has failed to initialise after power up. Noise interference. Wrong cable size/spec.

Mr.Slim P Series (A)

FAULT CODE	LED 1 (GREEN)	LED 2 (RED)	CENTRAL CONTROLLER	DESCRIPTION
ED	2 flash	5 flash	403	Serial communication error. Comms error between boards on outdoor unit caused by M-Net interface board incorrectly fitted.
EF	2 flash	4 flash	6607	Non-defined error code. Noise interference - power down outdoor unit for 30 seconds then switch back on
E0	2 flash	3 flash	-	Remote controller communication error - check wiring, connections and comms voltage. Also check Master/Slave settings if multiple systems are connected
E1	-	-	-	Remote controller issue - if grouped, check addressing. If twinned, check wired to master indoor only
E2	-	-	-	Remote controller issue - if grouped, check addressing. If twinned, check wired to master indoor only
E3	2 flash	3 flash	-	Remote controller issue - not transmitting - if grouped, check addressing. If twinned check wired to master indoor only
E4	2 flash	3 flash	-	Remote controller issue - not receiving - if grouped, check addressing. If twinned, check wired to master indoor only
E5	2 flash	3 flash	-	Remote controller issue - not receiving - if grouped, check addressing. If twinned, check wired to master indoor only

Mr.SUM. P Series (A)				
FAULT CODE	LED 1 (GREEN)	LED 2 (RED)	CENTRAL CONTROLLER	DESCRIPTION
E6	2 flash	2 flash	6840	Indoor/outdoor communication error, mainly caused by outdoor unit being powered up before indoor unit. Drain pump being wired into S1 and S2 causes interference
E7	2 flash	2 flash	-	Comms fault between I/C and O/C - check for condensate pump at I/C, reset power to O/C, check 12/24Vdc on S2 and S3 possible I/C board failure
E8	-	-	6840	Comms failure indoor to outdoor (S2/S3) - check pumps wired in, check indoor isolator and re-power in the correct sequence i.e. indoor then outdoor
E9	-	-	6841	Comms failure indoor to outdoor (S2/S3) - check pumps wired in, check indoor isolator and re-power in correct sequence i.e. indoor then outdoor
FA	1 flash	2 flash	4108	51CM connector open - check thermal relay for disconnection or contact failure. Possible defective board
F1	1 flash	1 flash	4103	Reverse phase detection - check power supply, try swapping 2 phases round. Possible defective board
F2	1 flash	1 flash	4102	L3 phase open - check power supply, also check for open circuit protection devices
F3	1 flash	2 flash	5202	63L open - check low pressure switch for disconnection or contact failure. Possible defective board
F4	1 flash	2 flash	4124	49C open - compressor inner thermostat for open circuit or contact failure

Mr.Slim P Series (A)

FAULT CODE	LED 1 (GREEN)	LED 2 (RED)	CENTRAL CONTROLLER	DESCRIPTION
F5	1 flash	2 flash	5201	63H open - check high pressure switch for disconnection or contact failure. Possible defective board
F7	1 flash	3 flash	4118	Phase detection circuit fault - faulty outdoor board
F8	1 flash	3 flash		No input detected at outdoor unit - outdoor board defective
F9	1 flash	2 flash	4119	Two or more protection devices are open - check protection devices for disconnection or contact failure
P1	4 flash	1 flash	-	Return air thermistor fault (TH1) - check if TH1 disconnected or open or close circuit
P2	4 flash	1 flash	-	Liquid pipe thermistor fault (TH2) check if TH2 disconnected or open or close circuit
P4	4 flash	2 flash	-	Drain sensor fault - DS open or close circuit
P5	4 flash	2 flash	-	High condensate level - drain pump failure or blockage in the drain
P6	4 flash	3 flash	-	Freezing/Overheating of indoor unit heat exchanger - mainly caused by reduced air flow through indoor coil. Dirty filters. Fan motor problem. Blockage.
P8	4 flash	4 flash	-	Abnormal pipe temperature - mainly caused by refrigerant leakage. Possibility that the thermistor mounted incorrectly

Mr.SLM. P Series (A)				
FAULT CODE	LED 1 (GREEN)	LED 2 (RED)	CENTRAL CONTROLLER	DESCRIPTION
P9	4 flash	1 flash	-	TH5 condenser/evaporator thermistor open/close circuit. Disconnected from the board.
U1	3 flash	2 flash	1302	High pressure trip - outdoor fan failure, blocked coil, blockage in the system, blocked filters on indoor in heating etc
U2	3 flash	1 flash	1102	High discharge temperature - compressor over heating due to lack of refrigerant, faulty thermistor, high ambient running conditions. Can also be caused by 49C (comp inner thermostat or external Klixon) tripping
U3	3 flash	5 flash	5104	Discharge thermistor fault
U4	3 flash	5 flash	5105	Outdoor thermistor fault
U5	3 flash	6 flash	4230	Inverter heat sink temperature too high (TH8) - check for lack of air flow around heat sink, no silicone paste, faulty thermistor (temperature can be read from service tool (or PAR21 on power inverter model))
U6	3 flash	4 flash	4250	Compressor over current - carry out inverter output test and electrical checks to the compressor
U7	3 flash	1 flash	1520	Low discharge superheat - check TH4 reading is correct. Check LEV operations

Mr.SLIM. P Series (K)

FAULT CODE	DESCRIPTION
E0	System transmission error - check for possible comms fault between I/C and R/C, could also be incorrect group or master/slave settings (check CN40, SW2 and SW6)
P1	TH1 fault - check return air thermistor (6.4K_ @ 20°C)
P2	TH2 fault - check coil/pipe thermistor (6.4K_ @20°C)
P3	System transmission error - check for possible comms fault between I/C and R/C, could also be incorrect group or master/slave settings (check CN40, SW2 and SW6)
P4	Drain sensor fault - check drain sensor resistance, connection and continuity
P5	Drain fault - unit has detected high condensate - check for blockage in drain or tray, pump failure or sensor fault
P6	Frost protection in cooling/Overheat protection in heating - detected by indoor coil sensor - general causes are lack of air flow or refrigerant charge problem
P7	System error - address setting fault - check CN40 SW2 and SW6. Potential board issue
P8	Abnormal pipe/coil temperature - no temperature change at indoor unit after 9 minutes of operation. General causes are outdoor unit tripped, problem with refrigerant charge or lack of air flow at the indoor unit. TH2 faulty or not mounted correctly

Mr.SLIM. P Series (K)

FAULT CODE	DESCRIPTION
LD1	Reverse phase on mains supply - change phases around, check for potential board problem
LD2	Component open circuit - check CH, 52C, 21S4, SV, 63H and 26C for open circuit or disconnected
LD3	Outdoor coil thermister is open or short circuit may be disconnected or outdoor board fault
LD4	63H high pressure switch open - investigate high pressure causes, 63H switch disconnected
LD5	51CM overcurrent relay open - compressor locked or pulling too much current - check power supply.
LD6	26C thermal switch open - check if refrigerant level low or if 26C is disconnected
LD7	Overheat protection - coil temp has exceeded 67°C - reduced airflow through condenser - check for fan motor problem or thermistor problem.
LD8	Input circuit of outdoor board - replace the outdoor board

PWFY		
FAULT CODE	DETAIL CODE	DESCRIPTION
403	1	Comms fault between boards - check between control board an inverter board
403	5	Comms fault between boards - check between control board an fan board
1102		High compressor discharge temperature - discharge temp has exceeded 115°C or more - check if short of refrigerant or discharge thermistor
1301		Low pressure fault - low pressure sensor sensing less than 1 bar immediately before starting
1302		High pressure fault - check system pressure exceded 32.3 bar, check high pressure sensor (63HS) against gauge pressure
2000		Pump interlock error - pump interlock open whilst system in operation
2134		Abnormal water temperature (TH6) has exceded 85°C
2135		Water source heat exchanger frozen (TH6) or (TH8) reading 2°C
4102		Open phase fault - check power supply and noise filter for loss of phase, check wiring and fuses
4115		Power supply abnormal - check power, fuses, connections and PCB
4220	108	Low inverter board BUS voltage - less than 200Vdc is detected during in inverter operation - check mains supply

PWFY		
FAULT CODE	DETAIL CODE	DESCRIPTION
4220	1	Bus voltage error PAM damage - replace the inverter board
4220	109	High bus voltage Vdc>380v - check power supply and possible faulty inverter board
4220	121	Replace inverter board
4230		High temperature (85°C) on heat sink on inverter - check for blockages in air duct, failure of INV fan failure of INV fan or failure of thermistor (THHS)
4250	101	Over current protection - inverter IPM problem or compressor lock - check inverter balance
4250	102	ACCT sensor over current detection 34.5A peak or 16A rms is detected - check the compressor for failure, or possible inverter board failure
5102		Thermistor TH22 failure
5103		Thermistor TH13 or TH23 failure
5104		Thermistor TH11 failure
5106		Thermistor TH6 failure
5108		Thermistor TH8 failure
5110		Thermistor THHS failure

PWFY		
FAULT CODE	DETAIL CODE	DESCRIPTION
5201		High pressure sensor fault - check the system pressure is >1 bar, check the operation of 63HS high pressure transducer
5202		Pressure sensor fault
5301		Current sensor fault, ACCT or DCCT - check inv. error details
5301	115	Low output current <1.5A rms whilst the inverter is in operation

CAHV	
ERROR CODE	DESCRIPTION
AFSA	Water supply cut-off (flow switch has been triggered) - check flow switch and wiring
AHP1	High pressure fault - check water flow, possible high pressure sensor fault LEV fault
AdSH	Compressor crank case temperature of 10°C or less for 40 minutes while compressor in operation - check for possible failure of fan motor, low pressure sensor, compressor shell thermistor, high pressure sensor, discharge thermistor (TH1 TH5), LEV or SV2
1303	Low pressure protection low pressure below 6 bar within 30 sec of start up - possible failure of LP sensor, air inlet thermistor fault (TH4 TH8), suction temperature (TH2 TH6), LEV bypass check valve
1103	Compressor shell bottom temperature exceeded 80°C detected whilst compressor running
5109	Compressor shell thermistor faulty (TH3 TH6), LEV failure
5110	Outside temperature thermistor fault - check TH9
5112	Water inlet temperature - check TH10 main circuit
5111	Water inlet temperature - check TH12 sub circuit

CAHV	
ERROR CODE	DESCRIPTION
5113	Outlet water temperature - check TH11 main circuit
5103	Outlet water temperature - check TH12 sub circuit
5107	Compressor shell temperature - check TH3 main circuit
5101	Compressor shell temperature - check TH7 sub circuit
5105	Discharge temperature - check TH1 main circuit
5102	Discharge temperature - check TH5 sub circuit
5106	Inlet temperature - check TH2 main circuit
5104	Inlet temperature - check TH6 sub circuit
5108	Air to refrigerant heat exchanger inlet temperature - check TH4 main circuit
5114	Air to refrigerant heat exchanger inlet temperature - check TH8 sub circuit
5115	Common return water when using multiple outdoors - check TH14

CAHV	
ERROR CODE	DESCRIPTION
5117	Common return water when using multiple outdoors - check TH15
5118	High pressure sensor or high pressure fault - check 63HS sensor or 63H (hp switch)
7113	Low pressure sensor low or low pressure fault - check 63LS
7117	Model setting error 1 - mis-set switch
4115	Model setting error 2 - faulty Z21 resistor
A471	Power supply frequency fault - power supply frequency is not 50Hz or 60Hz
4106 (255)	Open phase - check incoming power supply and main circuit board
AC61	Power supply fault - check transmission power supply or if PCB faulty
1104	Discharge temperature fault - 120°C detected during compressor operation - check water flow, pump, high pressure sensor fault or LEV fault
4250 4255 (101)	Heat exchanger freeze up - drop in water flow during defrost - check 4 way valve

CAHV	
ERROR CODE	DESCRIPTION
4250 4255 (102)	Inverter IPM error - check inverter board, compressor or condenser fan motor down to earth
4250 4255 (103)	ACCT over current detection - check inverter board, compressor or condenser fan motor down to earth
4250 4255 (107)	DCCT over current detection $\geq 56A$ or greater detected - check inverter board, compressor or condenser fan motor down to earth
4250 4255 (106)	Over current relay trip $\geq 33A$ rms detected
4250 4255 (104)	Over current relay trip $\geq 56A$ rms detected
4250 4255 (105)	Inverter IPM error - check inverter board, compressor down to earth, IPM fault
4250 4255 (108)	Overload short circuit - ground fault of the compressor or fan motor detected or short circuit on signal wire
4250 4255 (109)	Bus voltage drop - power supply voltage dropped below 180V inter phase - check inverter board CNDC2 wiring, 72C fault or diode stack failure
4250 4255 (111)	Bus voltage rise - check input voltage, possible inverter board fault

CAHV	
ERROR CODE	DESCRIPTION
4250 4255 (131)	Logic error - external noise interference, faulty grounding, shielded cable not used, inverter board fault
4230 4235	Bus voltage drop at start up - check mains input power, PCB fault
4240 4245	Heat sink fault - check incoming voltage, air flow around the heat sink, fan motor failure, THHS failure or if IPM loose
5301 5305 (115)	Overload protection - check incoming voltage, air flow around the heat sink, inverter board fan output failure, THHS failure, compressor failure or current sensor failure
5301 5305 (116)	ACCT sensor fault - inverter board fault - compressor down to ground and IPM fault
5301 5305 (117)	DCCT sensor fault - compressor down to ground and IPM fault
5301 5305 (118)	ACCT sensor fault - ACCT sensor faulty
5301 5305 (119)	DCCT sensor fault - DCCT sensor faulty or inverter board fault
5301 5305 (120)	Open circuited IPM ACCT sensor disconnected - ACCT faulty, compressor open circuit or IPM fault
5110(01)(05)	Incorrect wiring - ACCT Fault

CAHV	
ERROR CODE	DESCRIPTION
0403(01)(05)	THHS sensor fault - thermistor circuit on the inverter board faulty
6830	Serial communication error - communication error between control board, interference or broken wiring
7105	Multiple address error - more than one unit on the system has the same address
6831	Non-consecutive address error - address setting error non-consecutive
6832	MA remote controller signal error - remote controller not connected or communication circuit fault on the control board
6834	MA remote controller signal transmission error - communication error due to external noise or communication circuit fault on the control board
7102	MA remote controller signal transmission error - communication error due to external noise, communication circuit fault on the control board
7130	Number of connected units error - either too many indoor units connected or M-NET cannot communicate with any indoor units

CAHV	
ERROR CODE	DESCRIPTION
6500	Incompatible combination of units, different type of units are connected to the same system communication error between master and sub units, contact failure on CN102 or connection failure at the MA-MB terminal block on the main circuit or TB3 on the sub unit
6600	Transmission line power supply PCB fault - M-NET transmission wiring failure between master and sub unit
6602	Transmission line power supply PCB fault - M-NET transmission wiring failure between master and sub unit
6603	Transmission line power supply PCB fault
6606	Transmission line power supply PCB fault
6607	Transmission line power supply PCB fault - faulty M-NET transmission wiring
6608	Transmission line power supply PCB fault - faulty M-NET transmission wiring

F3

Low pressure switch failure - check connection on the board and continuity of switch

F5

High pressure switch failure - check connection onto board and continuity of switch

F9

Both pressure switch contacts are open at the same time - check connection onto board and continuity of switch and for a potential board failure

EA

Mis-wiring fault between FTC and Ecodan - check S1,S2,S3 also check voltages and comms

EB

Mis-wiring fault between FTC and Ecodan - Check S1,S2,S3 also check voltages and comms

EC

Unit cannot finish start up process - generally caused by a comms fault

U1

Ecodan high pressure fault - mainly caused by incorrect water flow rates - check with flow setter

U2

Ecodan high compressor discharge temperature - mainly caused by refrigerant shortage or dirty condenser

U3

Ecodan discharge thermistor problem - mainly caused by TH4 discharge thermistor - open/close circuit

U4

Open or close circuit Ecodan thermistors (TH3, TH32, TH33, TH6, TH7, TH8) - open or close circuit or disconnected from main board

U5

Inverter heat sink overheat protection (W50 and W85 models 77°C, HW140 model 95°C - reduced air flow through Ecodan - faulty fan motor

U6

Inverter/Compressor over current - system indicates possible IPM error

U8

Ecodan fan motor problem - mainly caused by DC fan motor being disconnected, connected or obstructed with the power on or possible main board fault

U9

Over voltage or under voltage - mainly caused by either CN2 or CN5 loose or disconnected or decrease of mains power supply

UD

Overheat protection TH3 $\geq 70^{\circ}\text{C}$ or 63HS $\geq 70^{\circ}\text{C}$ saturation temperature

UF

Compressor over current/Compressor lock - occurs within 30 seconds of compressor start

UH

Abnormal running current - $< 1\text{A}$ or $> 40\text{A}$ detected during operation - check CN5 connections

UL

Open circuit (63L)

UP

Over current detected after 30 seconds of operation - do an inverter test to determine outputs balanced

E0

Transmitting Error PAR W21 - check refrigerant address on SW1 of Ecodan

E1

Faulty controller

E3

Transmitting Error (PAR W21) - check refrigerant address on SW1 of Ecodan

E4

Receiving Error (PAR W21) - check refrigerant address of SW1 on Ecodan

E5

Receiving Error (PAR W21) - check refrigerant address of SW1 on Ecodan

E6

Indoor/Outdoor communication error - mainly due to Ecodan being powered up before FTC(2)

E8

Indoor/Outdoor communication error - mainly due to Ecodan being powered up before FTC(2)

E9

Indoor/Outdoor communication error - mainly due to Ecodan being powered up before FTC(2)

EF

Non-defined error code - noise interference - power down Ecodan for 30 seconds then switch back on

ED

Serial communication fault between Ecodan main board and Ecodan inverter board - mainly due to loose CN2 or CN5 cable

P1

Flow temp sensor fault - TH1 not connected, short or open circuit

P6

Over heating at heat exchanger - lack of water flow, air in the system, flow rate incorrectly set, blockage or pump problem

P8

No temp change at plate heat exchanger - problem with flow rate (too high) - incorrect sizing of system

P9

TH5 Fault - TH5 not connected, short or open circuit, FTC not configured for heating only

PE

Inlet water temp fault - TH32 is below 10°C whilst compressor is in operation - possible thermistor out of range, short of gas, incorrect sizing of radiator or problem in the water circuit (blockage, pump failure etc)

Resistance Charts

Thermistor Symbols

Functions	Symbols	
	YHM/YJM	YGM
Pipe temperature after HIC (gas side)(Y)	TH6	TH7
Pipe temperature after H/E	TH3	TH5
Discharge temperature	TH4	TH11,TH12
Pipe temperature before ACC	TH5	TH2
Pipe temperature after HIC (Y)	TH7	TH7
Pipe temperature before H/E (R2)		
Outdoor air temperature	TH7	TH6

Thermistor Resistance Table					
UNIT	CAHV UNIT	°C	kΩ	°C	kΩ
TH4	TH1 TH5	0	698	60	48
		10	413	70	34
		20	250	80	24
		30	160	90	17.5
		40	160	100	13
		50	70	110	9.8
				120	7.47
Outdoor TH2,6,7,8 BC TH11,12,15,16 Indoor TH21,22,23,24	TH1,5,3,7,2,6,4,8 TH9,10,11,12,13	0	15	25	4.3
		10	9.7	30	4.3
		20	6.4	40	31
Inverter THHS	Inverter THHS	0	181	25	50
		10	105		
		20	64	40	26



Changes for the Better

After Sales Service: 0161 866 6089

email: air.conditioning@meuk.mee.com

web: www.mitsubishielectric.co.uk/aircon

UNITED KINGDOM Mitsubishi Electric Europe Living Environmental Systems Division

Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, England

General Enquiries Telephone: 01707 282880 Fax: 01707 278881

IRELAND Mitsubishi Electric Europe Westgate Business Park, Ballymount, Dublin 24, Ireland

Telephone: Dublin (01) 419 8800 Fax: Dublin (01) 419 8890 International code: (003531)

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