

# UNO/CITY MAINBOARD

N°	ERROR	INDICATION			Detect	Cancel
		Digital	Analog	Display Icon		
1	False flame (Flame detect with gas valve off)	E 20		A,M	3 sec	1 sec End error
2	Flow sensor open circuit	E 06		A,M	1 sec	1 sec End error
3	Flow sensor short circuit	E 07		A,M	1 sec	1 sec End error
4	Return sensor open circuit	E 04		A,M	1 sec	1 sec End error
5	Return sensor short circuit	E 05		A,M	1 sec	1 sec End error
8	Outdoor sensor open circuit (if at power up sensor is connected, then I'll check if it became open )	E 30		M	1 sec	1 sec End error
9	Outdoor sensor short circuit	E 31		M	1 sec	1 sec End error
10	Room sensor open	E 80		M	1 sec	1 sec End error
11	Room sensor short	E 80		A,M	1 sec	1 sec End error
12	Fumes temperature high (Over 68°C - MI version)	E 68		A	30sec	1 sec End error
15	Too many reset switch pressed ( 5 times in 15 minutes )	E 99		M	After 5 times	
16	Fault Fumes Pressure Switch (on at first burning sequence)	E 33	Fumes Led	A, M	3 sec.	1 sec End error
17	Fumes Pressure Switch error (off at fan on during burning sequence); Fumes Sensor disconnected (MI)	E 34	Fumes Led	A,M	20 sec.	1 sec End error
18	Plausibility test failure	E 95		A, M	40 sec	ON/OFF
20	No flame after safety timer	A 01	Flame led	A	7 sec.	Reset SW
21	Water flow check failure	A 02	R+Y	A		Reset Switch
22	Over heat (safety thermostat open)	A 03	Over heat led	A	1 sec	Reset SW
23	CPU fault (Rom, Ram, Eeprom, Stack, Register, instruction, timeslot, sequence error)	A 99		A		Reset SW
24	MCU fault (Gas feedback, WD feedback error, ADC check fault)	A 98		A		Reset SW
25						
26						

VOLATILE

NON VOLATILE

## BT2 MAINBOARD (bitermic world)

N°		ERROR DESCRIPTION	INDICATION			Detect	Cancel	
			RC-Display	Analog	RC Icon			
1	VOLATILE	Pump protection (Water flow sw OFF during 40sec. of pump ON)	E 02	Pump led		40 sec	ON/OFF SW ,(reset)	
2		DHW sensor open circuit	E 04		M	1 sec	1 sec End error	
3		DHW sensor short circuit	E 05		M	1 sec	1 sec End error	
4		Heating (Send) sensor open circuit	E 06		M	1 sec	1 sec End error	
5		Heating (Send) sensor short circuit	E 07		M	1 sec	1 sec End error	
8		False flame (Flame detect with gas valve off)	E 20		A	1 sec	1 sec End error	
9		Outdoor sensor open circuit (if at power up sensor is connected, then I'll check if it became open )	E 30		M	1 sec	1 sec End error	
10		Outdoor sensor short circuit	E 31		M	1 sec	1 sec End error	
11		Fumes circuit open (MI)	E 32		A	3 sec.	1 sec End error	
12		Fault Fumes Pressure Switch (on at first burning sequence)	E 33	Fumes Led	A,M	3 sec.	1 sec End error	
13		Fumes Pressure Switch error (off at fan on during burning sequence)	E 34	Fumes Led	A	20 sec.	1 sec End error	
14		Fumes temperature high (over 68°C -- MI version)	E 68	Fumes led	A	30 sec	16 m. (less 68°C)	
15		Room sensor open	E 80		M	1 sec	1 sec End error	
16		Room sensor short	E 80		M	1 sec	1 sec End error	
17		Too many reset switch pressed on RC ( 5 times in 15 minutes )	E 99		A	After 5 times		
18		NON VOLATILE	No flame after safety timer	A01	Flame led	A	7 sec.	Reset SW
19			Over heat (safety thermostat open)	A03	Overheat led	A	3 sec	Reset SW
24	Fumes circuit logic error		A 97	Fumes led	A, M		Reset SW	
25	MCU fault (Gas feedback, WD feedback error)		A 98		A		Reset SW	
23	CPU fault (Rom, Ram, Eeprom, Stack, Register, instruction, timeslot, sequence error)		A 99		A		Reset SW	

## CMP3 MAINBOARD (microgenus world)

N°		ERROR DESCRIPTION	INDICATION			Detect	Cancel
			RC-Display	Analog	RC Icon		
1	VOLATILE	Pump protection (Water flow sw OFF during 40sec. of pump ON)	E 02	Pump led		40 sec	ON/OFF SW ,(reset)
2		DHW sensor open circuit	E 04		M	1 sec	1 sec End error
3		DHW sensor short circuit	E 05		M	1 sec	1 sec End error
4		Heating (Send) sensor open circuit	E 06		M	1 sec	1 sec End error
5		Heating (Send) sensor short circuit	E 07		M	1 sec	1 sec End error
6		Return sensor open circuit	E 08		M	1 sec	1 sec End error
7		Return sensor short circuit	E 09		M	1 sec	1 sec End error
8		False flame (Flame detect with gas valve off)	E 20		A	1 sec	1 sec End error
9		Fumes circuit open (MI)	E 32		A	3 sec.	1 sec End error
10		Fault Fumes Pressure Switch (on at first burning sequence)	E 33	Fumes Led	A,M	3 sec.	1 sec End error
11		Fumes Pressure Switch error (off at fan on during burning sequence or at the end of PuP sequence)	E 34	Fumes Led	A	20 sec. / 4m (PuP)	1 sec End error
12		Fumes temperature high (over 68°C -- MI version) or fume sensor open circuit.	E 68	Fumes led	A	30 sec	16 m. (less 68°C)
13		Room sensor open	E 80		M	1 sec	1 sec End error
14		Room sensor short	E 80		M	1 sec	1 sec End error
15		Too many reset switch pressed on RC ( 5 times in 15 minutes )	E 99		A	After 5 times	
16		Outdoor sensor open circuit (If at power up sensor is connected, then I'll check if it became open )	S 30		M	1 sec	1 sec End warning
17		Outdoor sensor short circuit	S 31		M	1 sec	1 sec End warning
18	NON VOLATILE	No flame after safety timer	A01	Flame led	A	7 sec.	Reset SW
19		Over heat (safety thermostat open)	A03	Overheat led	A	3 sec	Reset SW
20		Fan Error ( Vmeasured ≤Vmin more than 100 rpm for 3 seconds)	A 34		A	3 sec	Reset SW
21		Too Many research of Vc	A 35		A	After 3 times	Reset SW
22		EEPROM fault/EEPROM not programmed	A 90		A		Reset SW
23		Hall feedback error	A 91		A		Reset SW
24		MCU fault (Gas feedback)	A 94		A		Reset SW
25		Fumes circuit logic error	A 97	Fumes led	A, M		Reset SW
23		MCU fault (WD feedback error)	A 98		A		Reset SW
24	CPU fault (Rom, Ram, Eeprom, Stack, Register, Instruction, timeslot, sequence error)	A 99		A		Reset SW	

# ACO MAINBOARD

Code	ERROR Description	Boiler type (A:Applied)			Detect	Cancel (A: applied/NA: not applied)		
		DHW	TANK	Only CH		Reset	Power	Others
E02	Pump Protect	A	A	A	Circulation pressure switch=on at Pump output=on for 40sec	-	A	-
E04	DHW/Tank sensor open circuit	A	A	A	Sensor = open for 1.0 sec during on/off sw = on.	-	A	1 sec End error
E05	DHW/Tank sensor short circuit	A	A	A	Sensor = short for 1.0sec during on/off sw = on.	-	A	1 sec End error
E06	Flow sensor open circuit	A	A	A	Sensor = open for 1.0sec during on/off sw = on.	-	A	1 sec End error
E07	Flow sensor short circuit	A	A	A	Sensor = short for 1.0sec during on/off sw = on.	-	A	1 sec End error
E08	Return sensor open circuit	A	A	A	Sensor = open for 1.0sec during on/off sw = on.	-	A	1 sec End error
E09	Return sensor short circuit	A	A	A	Sensor = short for 1.0 sec during on/off sw = on.	-	A	1 sec End error
E10	Floor heating thermostat open	A	A	A	Floor heating thermostat open for 3 sec in CH mode	-	A	1 sec End error
E11	Flue pipe sensor open circuit	A	A	A	Sensor = open for 1.0 sec during on/off sw = on.	-	A	1 sec End error
E12	Flue pipe sensor short circuit	A	A	A	Sensor = short for 1.0sec during on/off sw = on	-	A	1 sec End error
E17	Niagara Delta Water Flow Check (First condition)	A	A	A	Return Temperature > Send Temperature +10	-	A	
E18	Niagara Delta Water Flow Check (Second condition)	A	A	A	Send Temperature – Return Temperature > 40	-	A	
E20	Flame detect with gas valve off	A	A	A	Flame = on during gas valve = off at start-up sequence → Restart start-up sequence from pre-purge.	-	A	End error
E30	Outdoor sensor open circuit	A	A	A	Outdoor sensor is connected at power up. We apply to check Outdoor sensor open. It's checked every start-up sequence. And outdoor sensor is = open for 1.0sec at Risk parameter = Calculation.	-	A	1 sec END error
E31	Outdoor sensor short circuit	A	A	A	When RISK parameter = calculation, Power=on and Heating request, this item is checked. If sensor = short is detected for 1.0s, then lockout.	-	A	1 sec END error
E33	Fumes Pressure Switch Fault	A	A	A	Fume sw = on during fan output =off, start-up sequence waits at first start-up sequence.	-	A	End Error
E34	Fumes Pressure Switch Error	A	A	A	When fume sw = off is detected during fan output = on, Burning sequence is restarted.	-	A	-
E36	Flue pipe temperature too high	A	A	A	???	-	A	???
E80	Room sensor open	A	A	A	When TWR-MC1 is installed into Room, Power=on and Heating request, this item is checked. This signal is transmitted by Main by every 250msec. If this signal is open/short 4 times on succession, then results in lockout.	-	-	the signal is normal 4 times on succession
E80	Room sensor short	A	A	A				
E94	Main-Sub Communication Error	A	A	A	Communication trouble between Main and Sub CPU	-	A	-
E95	Plausibility test failure	A	A	A	Refer to paragraph 2.6 a)	-	A	
E99	Too many reset switch pressed	A	A	A	( 5 times in 15 minutes )	-	-	Refer to "Safety documents"
A01	No flame after safety timer	A	A	A	No flame at detection moment (After the THIRD attempt)	A	-	-
A02	Water flow check failure	A	A	A	Refer to paragraph 2.6 b)	A	-	-
A03	Over heat	A	A	A	NTC1 or NTC2 > 105 deg for 0.3 seconds Safety thermostat open for 0.3 sec during on/off switch = on	A	-	Short-C. need
A07	Flame lift	A	A	A	After the third flame lift occurred in one burner cycle	A	-	
A33	Fan error	A	A	A	N° rpm<500 x 5sec or difference between measured rpm and the target >300 for more than 3 minutes	A	-	-
A36	Flue pipe too high temperature 3 times in 30 min	A	A	A	???	A	-	-
A97	MCU fault 1	A	A	A	Abnormal Fumes logic for 1.0 sec	A	-	-
A98	MCU fault 2	A	A	A	Different logic between Gas valve output and feedback for 1.0 sec. Different logic WD pulse output and feed back for 2.8 sec. (50,40 and 60Hz) Gas output = on & IG = off situation for 200 msec is made at start-up sequence. If flame on signal is detect during the period, it's a fault ADC check fault	A	-	-
A99	CPU fault	A	A	A	Rom, Ram, EEPROM, Stack, Register, instruction, timeslot, sequence error	A	-	-
S01	No flame detection	A	A	A	No flame at detection moment (After the FIRSTH attempt)	-	A	further attempt
S02	No flame detection	A	A	A	No flame at detection moment (After the SECOND attempt)	-	A	further attempt
S06	Flame lift	A	A	A	Flame lift during burning	-	A	further attempt
S69	Tank fault warning	-	A	-	Later			