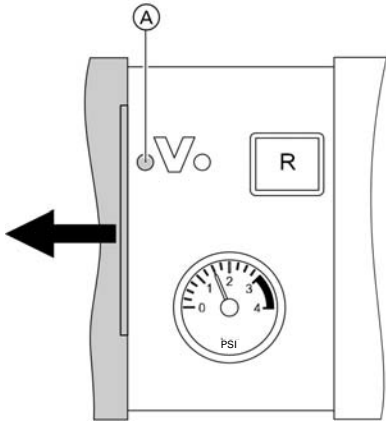


Fault Display

In the event of a fault, red fault indicator (A) flashes. "▲" flashes on the display and "Fault" is shown.



The fault code is displayed with OK. For an explanation of the fault code, see the following pages. For some faults, the type of fault is also displayed in plain text.

Acknowledging a fault

Follow the instructions on the display.

Note: The fault message is transferred to the standard menu. A fault message facility, if connected, will be switched OFF. If an acknowledged fault is not remedied, the fault message will be re-displayed the following day and the fault message facility restarted.

Calling up acknowledged faults

Select "Fault" in the standard menu. The current faults will be displayed in a list.

Calling up fault codes from the fault memory (fault history)

The 10 most recent faults (including resolved ones) are saved and can be called up. Faults are sorted by date.

1. Press OK and simultaneously for approximately 4 seconds
2. "Fault history"
3. "Display?"

Fault Codes

Fault code on display	Detailed fault code *2	System behavior *1	Cause	Corrective action
0F	-	Control mode	Code "0F" is only displayed in the fault history	Service required Note: After servicing select code "24:0"
10	-	Boiler operates based on outdoor temperature of 32°F (0°C)	Short circuit on outdoor temperature sensor	Check the outdoor temperature sensor (see page 78).
18	-	Boiler operates based on outdoor temperature of 32°F (0°C)	Outdoor temperature sensor cable broken	Check the outdoor temperature sensor (see page 78).
1A DO NOT USE	-	Burner blocked	Flow sensor 1 faulty	Replace sensor (see page 82)
1B DO NOT USE	-	Burner blocked	Flow sensor 2 faulty	Replace sensor (see page 82)
1F DO NOT USE	-	Burner blocked	Differential flow rate too large	Clean heat exchanger by flushing
20	-	Regulates without supply temperature sensor (low-loss header)	Short circuit on system flow temperature sensor	Check the low-loss header sensor (see page 79).
28	-	Regulates without supply temperature sensor (low-loss header)	System supply temperature sensor cable broken	Check the low-loss header sensor (see page 79). If no low loss header sensor is connected, set code 52:0.

*1 Control mode: Boiler/burner fully operational (fault code must be verified and reset).
 Burner in fault mode: Boiler control requires manual reset before burner can resume operation.
 Burner blocked: If fault cause is corrected, burner resumes operation.

*2 Detailed fault code coding address 38:xx (if available).

Fault Codes (continued)

Fault code on display	Detailed fault code *2	System behavior *1	Cause	Corrective action
30	140	Burner blocked	Short circuit on boiler water temperature sensor	Check the boiler water temperature sensor (see page 79).
38	140	Burner blocked	Boiler water temperature sensor cable broken	Check the boiler water temperature sensor (see page 79).
40	-	Mixing valve closes	Heating circuit 2 with mixing valve supply short circuit on temperature sensor	Check the supply temperature sensor [2] (see page 79).
44	-	Mixing valve closes	Short circuit, flow temperature sensor, heating circuit 3 (with mixing valve)	Check flow temperature sensor (see page 79).
48	-	Mixing valve closes	Heating circuit 2 with mixing valve supply temperature sensor cable broken	Check the supply temperature sensor [2] (see page 79).
4C	-	Mixing valve closes	Flow temperature sensor cable broken circuit 3 (with mixing valve)	Check flow temperature sensor (see page 79).
50	-	No DHW heating	Short circuit on DHW tank temperature sensor [5]	Check the DHW sensor [5] (see page 79).
58	-	No DHW heating	Tank temperature sensor [5] cable broken	Check the DHW sensor [5] (see page 79).
90	-	Control mode	Short circuit on temperature sensor [7]	Check sensor [7] on solar control module.
91	-	Control mode	Short circuit on temperature sensor [10]	Check sensor [10] on solar control module.
92	-	No solar DHW heating	Short circuit on collector temperature sensor [6]	Check the sensor [6] at the solar control module.
93	-	Control mode	Short circuit on collector temperature sensor [6]	Check the sensor [6] at the solar control module.
94	-	No solar DHW heating	Short circuit on tank temperature sensor [5]	Check the sensor [5] at the solar control module.
98	-	Control mode	Tank temperature sensor [7] cable broken	Check sensor [7] on solar control module.
99	-	Control mode	Temperature sensor [10] cable broken	Check sensor [10] on solar control module.
9A	-	No solar DHW heating	Collector temperature sensor [6] cable broken	Check the sensor [6] at the solar control module.
9B DO NOT USE		Control mode	Tank temperature sensor cable broken	Check temperature sensor at connection S3 to the Vitosolic solar control.

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 Burner in fault mode: Boiler control requires manual reset before burner can resume operation.
 Burner blocked: If fault cause is corrected, burner resumes operation.

*2 Detailed fault code coding address 38:xx (if available).

Fault Codes *(continued)*

Fault code on display	Detailed fault code *2	System behavior *1	Cause	Corrective action
9C	-	No solar DHW heating	Tank temperature sensor [5] cable broken	Check temperature sensor [5] on solar control module.
9E	-	Control mode	No flow rate in collector circuit or flow rate too low or temperature limiter has responded	Check solar circuit pump and solar circuit. Acknowledge fault message.
9F	-	Control mode	Solar control module faulty	Replace solar control module.
A3	-	Burner blocked	Flue gas temperature sensor not properly positioned	Properly install flue gas temperature sensor.
A4	-	Control mode	Max. system pressure exceeded	Check system pressure (max. system pressure 3 bar). Check the function and sizing of the diaphragm expansion vessel. Vent the heating system
A7	-	Control mode (stays in factory default setting)	Faulty programming unit	Replace the programming unit.
B0	141	Burner blocked	Flue gas temperature sensor shorted out	Check flue gas temperature sensor (see page 79).
B1	-	Control mode (stays in factory default setting)	Communication fault; programming unit (internal)	Check connections and replace programming unit if required.
B5	-	Control mode (factory default setting)	Internal fault	Replace the control unit.
B7	-	Burner blocked	Boiler coding card missing, faulty or incorrect boiler coding card	Plug in boiler coding card or replace if faulty.
B8	141	Burner blocked	Flue gas temperature sensor cable broken	Check flue gas temperature sensor (see page 79).
BA	-	Mixing valve regulates to a flow temperature of 68°F (20°C)	Communication fault - accessory kit for heating circuit 2 with mixing valve	Check extension kit connections and code.
BB	-	Mixing valve regulates to a flow temperature of 68°F (20°C)	Communication error, extension kit for heating circuit 3 (with mixing valve)	Check extension kit connections and code.
BC	-	Control mode without remote control	Communication error, remote control Vitotrol heating circuit 1 (without mixing valve)	Check connections, cable, coding address "A0" in "Heating circuit" group and remote control unit setting.

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 Burner in fault mode: Boiler control requires manual reset before burner can resume operation.
 Burner blocked: If fault cause is corrected, burner resumes operation.

*2 Detailed fault code coding address 38:xx (if available).

Fault Codes *(continued)*

Fault code on display	Detailed fault code *2	System behavior *1	Cause	Corrective action
BD	-	Control mode without remote control	Communication error, remote control Vitotrol heating circuit 2 (with mixing valve)	Check connections, cable, coding address "A0" in "Heating circuit" group and remote control unit setting.
BE	-	Control mode with out remote control	Communication error, remote control Vitotrol heating circuit 3 (with mixing valve)	Check connections, cable, coding address "A0" in "Heating circuit" group and remote control unit setting.
BF	-	Control mode	Incorrect LON communication module	Replace LON communication module.
C1	-	Control mode	Communication fault extension EA1	Check connections.
C2	-	Control mode	Communication fault - solar control unit or Vitosolic	Check solar control or Vitosolic.
C3	-	Control mode	Extension AM1 communication fault	Check connections.
C4	-	Control mode	Communication fault, Open Therm extension	Check Open Therm extension.
C5	-	Control mode, max. pump speed	Communication error, variable speed internal pump	Check setting of coding address "30"
CD NOT USED	-	Control mode	Communication fault, Vitocom 100 (KM-BUS)	Check connections Vitocom 100 coding address "95"
CF	-	Control mode	Communication fault - LON communication module	Replace LON communication module.
D6	-	Control mode	Input DE1 reports a fault at extension EA1	Remove fault at appliance concerned.
D7	-	Control mode	Input DE2 reports a fault at extension EA1	Remove fault at appliance concerned.

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 Burner in fault mode: Boiler control requires manual reset before burner can resume operation.
 Burner blocked: If fault cause is corrected, burner resumes operation.

*2 Detailed fault code coding address 38:xx (if available).

Fault Codes *(continued)*

Fault code on display	Detailed fault Code *2	System behavior *1	Cause	Corrective action
D8	-	Control mode	Input DE3 reports a fault at extension EA1	Remove fault at appliance concerned.
DA	-	Control mode without room influence	Short circuit on room temperature sensor, heating circuit 1 without mixing valve	Check the room temperature sensor, heating circuit 1 without mixing valve.
DB	-	Control mode without room influence	Room temperature sensor, shorted out heating circuit 2 with mixing valve	Check the room temperature sensor, heating circuit 2.
DC	-	Control mode without room influence	Short circuit, room temperature sensor, heating circuit 3 (with mixing valve)	Check room temperature sensor, heating circuit 3
DD	-	Control mode without room influence	Room temperature sensor cable broken, heating circuit 1 without mixing valve	Check the room temperature sensor, heating circuit 1 and the remote control setting (see page 79).
DE	-	Control mode without room influence	Room temperature sensor cable broken, heating circuit 2 with mixing valve	Check the room temperature sensor, heating circuit 2 and the remote control settings (see page 79).
DF	-	Control mode without room influence	Room temperature sensor cable broken, heating circuit 3 (with mixing valve)	Check room temperature sensor for heating circuit 3 and remote control settings (see page 79).
E0	-	Control mode	Fault external LON participant	Check connections and LON participants.
E1	202	Burner in a fault mode	Ionization current too high during calibration	Check gap between ionization electrode and burner gauze assembly (see page 22). In open flue mode, prevent very dusty conditions for the combustion air. Press reset button R .
E3	204	Burner in a fault mode	Heat transfer too low during calibration. Temperature limiter caused shutdown.	Ensure adequate heat transfer. Press reset button R .
E4	-	Burner blocked	Fault, supply voltage 24V	Replace the control unit.

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 Burner in fault mode: Boiler control requires manual reset before burner can resume operation.
 Burner blocked: If fault cause is corrected, burner resumes operation.

*2 Detailed fault code coding address 38:xx (if available).

Fault Codes *(continued)*

Fault code on display	Detailed fault code *2	System behavior *1	Cause	Corrective action
E5	226	Burner blocked	Fault flame amplifier	Replace control unit.
E7	192	Burner in a fault mode	Ionization current too low during calibration	Check ionization electrode: - Distance to burner gauze assembly (see page 22). - Contamination of electrode. - Connecting lead and plug-in connections. Check flue system; remedy flue gas recirculation if required. Press reset button R .
E8	189	Burner in a fault mode	The ionization current lies outside the permissible range	Check gas supply (gas pressure and gas flow limiter), gas valve and connecting lead. Check allocation of gas type (see page 15). Check ionization electrode: - Distance to burner gauze assembly (see page 22). - Contamination of electrode Press reset button R .
EA	193	Burner in a fault mode	The ionization current lies outside the permissible range during calibration (deviation from previous level too great)	Check flue system; remedy flue gas recirculation if required In open flue mode, prevent very dusty conditions for the combustion air. Press reset button R . Following several unsuccessful reset attempts, replace boiler coding card and press reset button R .
EB	194	Burner in a fault mode	Repeated flame loss during calibration	Check gap between ionization electrode and burner gauze assembly (see page 22). Check allocation of gas type (see page 15). Check flue system; remedy flue gas recirculation if required. Press reset button R .
EC	67 or 195	Burner in a fault mode	Parameter fault during calibration	Press reset button R or Replace boiler coding card and press reset button R .
ED	191	Burner in a fault mode	Internal fault	Replace control unit.

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*2 Detailed fault code coding address 38:xx (if available).

Fault Codes *(continued)*

Fault code on display	Detailed fault code *2	System behavior *1	Cause	Corrective action
EE	132	Burner in a fault mode	At burner start, flame signal is missing or too weak	Check gas supply (gas pressure and gas regulator). Check gas train. Check ionization electrode and connecting cable. Check ignition: - Connecting leads to ignition module and ignition electrode. - Ignition electrode gap and contamination (see page 22). Check condensate drain. Press reset button R .
EF	138	Burner in a fault mode	Flame is lost immediately after it has built (during the safety time)	Check gas supply (gas pressure and gas regulator). Check flue gas/ventilation air system for flue gas recirculation. Check ionization electrode (replace if required): - Distance to burner gauze assembly (see page 22). - Contamination of electrode Press reset button R .
F0	-	Burner blocked	Internal fault	Replace the control unit.
F1	135	Burner in a fault mode	Maximum flue gas temperature exceeded 230°F (110°C) limit.	Check heating system fill level. Bleed air from system. Check circulation pump. Check boiler water temperature sensor and cable. Press reset button R after vent system has cooled down.
F2	129	Burner in fault mode	Fixed high limit switch open (activated)	Check heating system fill level. Check the circulation pump. Bleed air from the system. Check fixed high limit switch and connecting cables. Press reset button R .
F3	139	Burner in fault mode	Flame signal already present at burner start	Check the ionization electrode and connecting cable. Press reset button R .
F6	-	Burner in a fault state	Boiler water temperature sensor temperature values vary too widely from one another	Replace boiler water temperature sensors
F8	148	Burner in fault mode	Gas valve closes too late	Check the gas valve. Check both control wiring/connections. Press reset button R .

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 Burner blocked: If fault cause is corrected, burner resumes operation.

*2 Detailed fault code coding address 38:xx (if available).

Fault Codes *(continued)*

Fault code on display	Detailed fault code *2	System behavior *1	Cause	Corrective action
F9	151 or 152	Burner in fault mode	Fan speed too low during burner start	Check the fan, the fan cables and power supply. Check the fan control. Press reset button R .
FA	154	Burner in fault mode	Fan not at standstill	Check the fan, the fan connecting cables and fan control. Check the fan control. Press reset button R .
FC	190	Burner in fault mode	Gas valve faulty or faulty modulation valve control; or vent system blocked	Check the gas valve. Check the vent system. Press reset button R .
FD	227	Burner in a fault state and additional fault B7 is displayed	Boiler coding card is missing	Insert the boiler coding card. Press reset button R . Replace control unit if fault persists.
	-	Burner in a fault state	Fault, burner control unit	Check ignition electrodes and connecting cables. Check whether a strong interference (EMC) field exists near the appliance. Press reset button R . Replace control unit if fault persists.
FE	158, 159, 162 or 225	Burner in fault mode	Damaged or incorrect boiler coding card or main PCB	Press reset button R . If the fault persists, check the boiler coding card or replace it or the control unit.
FF	224	Burner in fault mode	Internal fault or reset button R blocked	Restart the equipment. Replace the control unit if the equipment will not restart.
N/A	2	Burner in hold/wait state, boiler not displaying fault refer to coding address 38:XX	Gas supply - no/low gas pressure detected	Check gas supply pressure
	3		No boiler water circulation detected	Check boiler water flow
	5		Flame failure during stabilization	Check ionization electrode
	6		Boiler temperature has exceeded the monitoring limit	Check boiler temperature sensor
	8		Flue gas temperature has exceeded the monitoring limit	Check flue gas temperature sensor
	29		Open circuit at terminals 1 and L on Multi terminal of the power pump module.	Check connection at terminals 1 and L (jumper or installed safety equipment of the Multi terminal of the power pump module).
	33		Power supply voltage, is below minimal operation level, internal fuse failure.	Check power, replace control

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