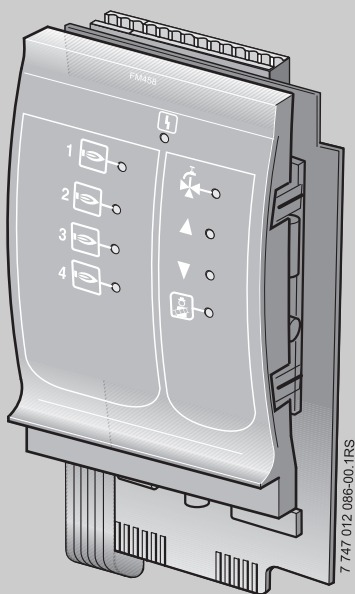




FM458 Strategy module

For the user

Please read carefully
before use

1	Safety	3
1.1	About this manual.	3
1.2	Intended use.	3
1.3	Standards and guidelines	3
1.4	Key to symbols	4
1.5	Please observe these notes	5
1.6	Disposal	6
2	Product description	7
3	Operating the FM458 function module.	9
4	Boiler flue gas test.	10
5	Correcting faults and troubleshooting.	11

1 Safety

1.1 About this manual

This section contains general safety instructions that you must observe when operating the FM458 function module.

The other sections of the operating instructions contain additional safety instructions that must also be observed. Read the safety instructions carefully before carrying out the activities described below.

If the safety instructions are not observed, serious or even fatal personal injury and damage to property and the environment may be caused.

1.2 Intended use

The FM458 function module can be installed in the controls 4321, 4322, 4323 of the Logamatic 4000 control system.

For the system to operate correctly you need software version 8.xx or higher on the control unit and the MEC2 remote controls.

1.3 Standards and guidelines



This product has been tested and certified and meets applicable standards for the US and Canadian markets.

1.4 Key to symbols

Two levels of danger are identified and signified by the following terms:



WARNING!

RISK OF LIFE

Identifies possible dangers emanating from a product, which might cause serious injury or death if appropriate care is not taken.



CAUTION!

RISK OF INJURY/SYSTEM DAMAGE

Indicates a potentially dangerous situation that could cause minor or moderately serious injuries or damage to property.



USER NOTE

Tip for optimum use of equipment and adjustment as well as useful information.

1.5 Please observe these notes

- Only operate the modules as intended and when they are in perfect working order.
- The technician must give detailed instructions on the operation of the system.
- Please read these operating instructions carefully.
- Only the operating characteristics listed in this manual may be input and modified. Any other entries can change the heating system control programs and may result in faulty system functions.
- Maintenance, repairs and fault diagnosis must be carried out by trained technicians only.



WARNING!

RISK OF LIFE

due to electric shock!

- Never open the controls.
- In an emergency, switch off the control panel (e.g. with the heating system emergency shutoff switch) or isolate the heating system from the power supply by disengaging the heating system circuit breaker.
- Ask your local heating contractor to remedy any faults in the heating system immediately.



CAUTION!

RISK OF INJURY/SYSTEM DAMAGE

due to operator error!

Operator errors can cause injury and damage to property.

- Make sure that children never operate the appliance unsupervised or play with it.
- Make sure that only personnel trained to operate the appliance correctly have access to it.

1.6 Disposal

- Electronic components do not belong in household waste. Dispose of defunct modules correctly through an authorized disposal site.

2 Product description

The FM458 function module has been designed exclusively for use with the Logamatic 4000 modular control system.

You can install one or two of the FM458 function modules in control units 4321, 4322, or 4323, as part of the Logamatic 4000 control system.

A single FM458 function module can control up to 4 boilers of the EMS and/or 4000 series. As a result, up to 8 boilers can be controlled.

Front panel

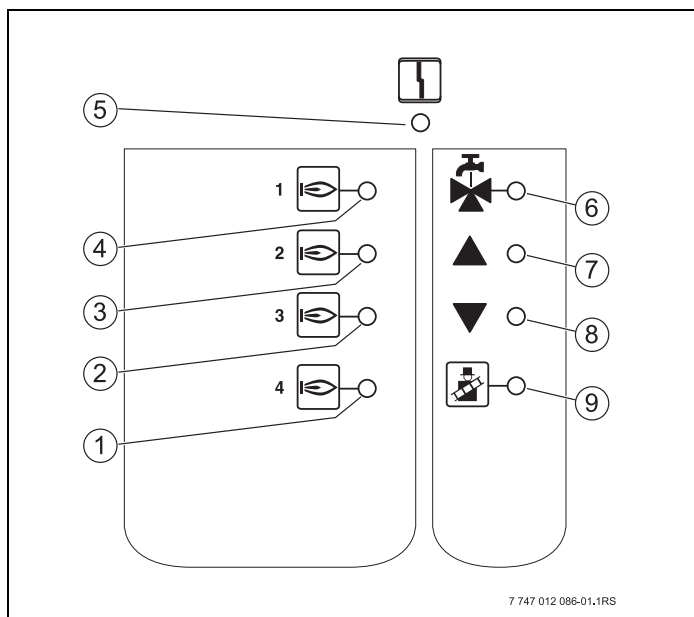


Fig. 1 Front panel of FM458 function module

- 1 LED boiler 4 enabled
- 2 LED boiler 3 enabled
- 3 LED boiler 2 enabled
- 4 LED boiler 1 enabled
- 5 LED "Module fault" (red) – general module fault*
- 6 LED hot water active via EMS boiler 1
- 7 LED supply too cold, therefore increasing output
- 8 LED supply too hot, therefore decreasing output
- 9 LED flue gas test active

* e.g. on-site fault, external fault, wiring fault, internal module fault, manual mode.
The fault messages appear as plain text on the MEC2 remote control.

3 Operating the FM458 function module

**CAUTION!****RISK OF INJURY/SYSTEM DAMAGE**

due to operator error!

Operator errors can cause injury and damage to property.

The FM458 function module contains no parameters that can be adjusted by end users.

All module settings are only accessible to trained contractors and are described in the service instructions of the FM458 function module.

- Make sure that this device is only operated by trained personnel.

4 Boiler flue gas test



USER NOTE

- Note the national regulations for limiting the emissions of the heating system.
- Have an emission test done annually according to the national regulations and standards. The flue gas test is started at the boiler (see technical boiler documentation).



WARNING!

RISK OF SCALDING

from hot water.

During the flue gas test, the hot water can reach a temperature in excess of 140 °F (60 °C). People may be scalded at the taps.

- Use only mixed hot water during or after an emissions test. Note that single lever faucets may produce very hot water in their normal position.
- Never turn on hot water only at faucets with two handles.

5 Correcting faults and troubleshooting



WARNING!

RISK OF LIFE

due to electric shock!

- Never open the controls.
- In an emergency, switch off the controls (e.g. with the heating system emergency shutoff switch) or isolate the heating system from the power supply by disengaging the heating system circuit breaker.
- Arrange for your heating contractor to rectify any heating system faults immediately.

Heating system faults are shown on the display of the MEC2 remote control.

Report the fault by telephone to your heating contractor.



USER NOTE

All the faults that can arise during interaction between the FM458 function module and the connected heat sources are listed in the "Fault" column.

The terms in the "Fault" column show the messages as they appear on the MEC2 remote control display.

MEC2 message	Effect	Remedy
Boiler x Status y/z Burner	– House cools down or no hot water.	– Press "Reset" on the BC10. – Notify heating contractor.
Boiler x EMS	– The combustion is not at an optimum level (high emissions).	– Notify heating contractor.
Boiler x Maintenance Hyy	– No effect. – Service message (e.g. maintenance interval expired), not a system fault.	– Notify heating contractor.

Tab. 1 Troubleshooting

MEC2 message	Effect	Remedy
Boiler x In manual mode	– House may cool down or no hot water.	– This is not a fault. If manual mode is no longer required, set both dials on the base controller BC10 to "AUT".
Boiler x No connection	– House cools down or no hot water.	– Notify heating contractor.
Boiler x Boiler #	– House cools down or no hot water.	– Notify heating contractor.
Hot water EMS	– No hot water.	– Notify heating contractor.
Strategy Supply sensor	– Automatic emergency operation.	– Notify heating contractor.
Strategy Return sensor	– Automatic emergency operation – Operation without condensate protection.	– Notify heating contractor.

Tab. 1 Troubleshooting

United States and Canada

Bosch Thermotechnology Corp.
50 Wentworth Avenue
Londonderry, NH 03053
Tel. 603-552-1100
Fax 603-584-1681
www.buderus.net
U.S.A.

Products manufactured by
Bosch Thermotechnik GmbH
Sophienstrasse 30-32
D-35576 Wetzlar
www.buderus.de

Bosch Thermotechnology Corp. reserves the right
to make changes without notice due to continuing
engineering and technological advances.

Buderus