

## FM456 FM457

For the user

Please read carefully  
before use

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# 1 Safety

## 1.1 About this manual

These operating instructions contain important information regarding the safe and correct operation and maintenance of the function modules FM456 and FM457.

## 1.2 Intended use

You can install the function modules FM456 and FM457 into the control panels that are part of the Logamatic 4000 control system.

## 1.3 Standards, regulations and directives



### USER NOTE

Observe all regulations and standards applicable to installation and operation of the system in your country.



### USER NOTE

All electrical components must be approved in the USA and Canada!



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 entered 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 control panel.
- 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

A single module FM456 or FM457 enables the control of 2 or 4 EMS boilers. Up to 2 modules, i.e. up to 8 EMS boilers, can be controlled with one control panel.

An unmixed heating zone is also integrated on the modules. You cannot connect a remote control unit for this heating zone.

The manual switches on the modules are only provided for service and maintenance functions.


If the manual switches are not set to automatic, a message to this effect appears on the MEC2 remote control and fault indicator  illuminates.








### USER NOTE

Never use the manual switches to shut down the heating system during temporary absence.

Use the vacation function for this purpose (see operating instructions for the corresponding control panel).

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

### LEDs for the following functions:

Display	
	Burner operational
	Unmixed heating zone in summer mode
	Heating pump in operation
	DHW via boiler 1 enabled
	Boiler in flue gas test

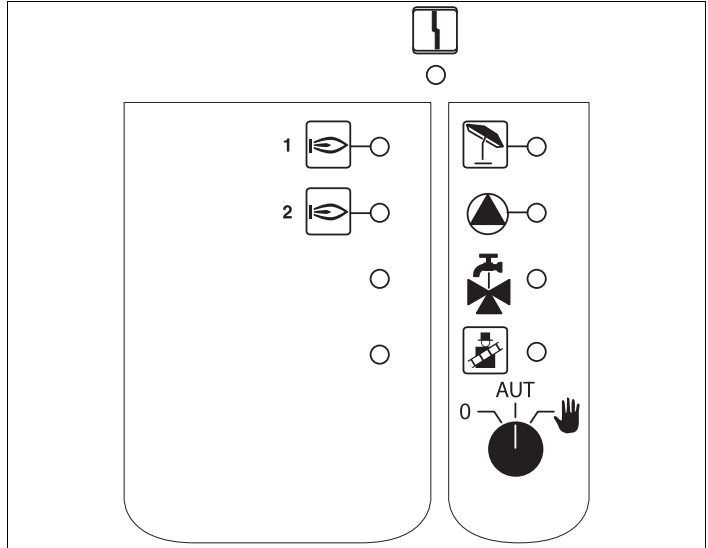


Fig. 1 FM456

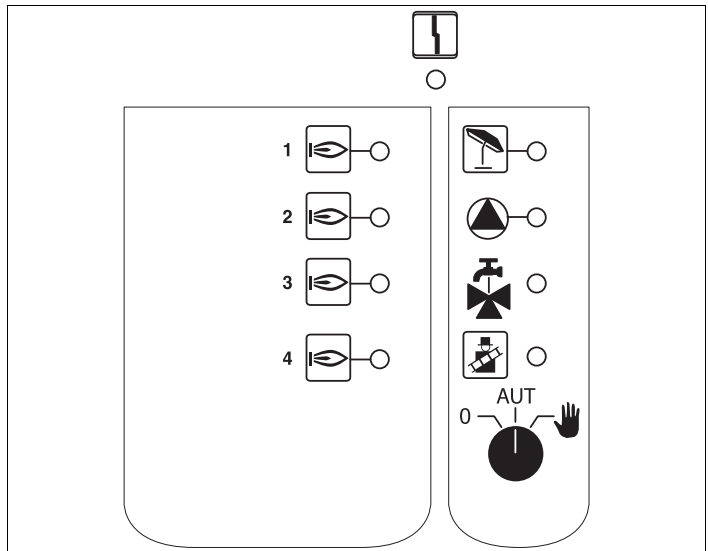


Fig. 2 FM457

## 3 Operation of modules FM456/FM457

The operation of the control panel in which these modules are installed is explained in the technical module documentation of each respective control panel.

These instructions only explain the control functions associated with the respective module.

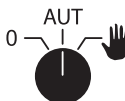


### USER NOTE

Modules FM456 and FM457 have no parameters that end users can adjust. All settings for these modules are only accessible to heating contractors and are described in the service instructions of modules FM456 and FM457.

### Heating zone function

Manual heating zone switch



for heating zone:



### USER NOTE

Under normal circumstances, the manual switch should be set to "AUT".

The **0** and **manual operation** (hand icon) positions are special settings that should only be made by technicians.

**hand icon**: The heating pump is switched on.

**AUT**: The heating zone is operating in automatic mode.

**0**: The heating pump is switched off. The control functions continue to operate.

Current functions are indicated by LEDs.



## 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.

The flue gas test is started at the boiler (see technical boiler documentation).



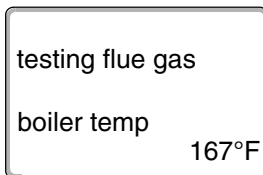
### WARNING!

### 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.



During the flue gas test the MEC2 will show the display on the left.

## 5 Correcting faults and troubleshooting



**WARNING!**

### **RISK OF LIFE**

due to electric shock!

- Never open the control panel.
- 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.

Provided your control panel is equipped with the above modules, the following faults may be reported:

- boiler outdoor sensor
- DHW EMS
- boiler x Status y burner
- boiler x no connection
- boiler x 3-way valve
- low loss header supply sensor

### Troubleshooting

MEC2 message	Effect	Remedy
<b>boiler 1 Status y burner fault</b>	House cools down.	Try and remedy the boiler fault (see technical boiler documentation).
<b>boiler x manual mode</b>	No automatic function, such as heating program.	This is not a fault. Turn the dials on the standard controller BC10 to "AUT" if manual mode is no longer required.
<b>boiler x no connection fault</b>	House cools down.	Switch the boiler to manual. 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](http://www.buderus.net)  
U.S.A.

Products manufactured by  
Bosch Thermotechnik GmbH  
Sophienstrasse 30-32  
D-35576 Wetzlar  
[www.buderus.de](http://www.buderus.de)

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