

Installation instructions

for contractors



External extension H1

Part no. 7179 058

Safety instructions



Please follow these safety instructions closely to prevent accidents and material losses.

Safety instructions explained



Danger
This symbol warns against the risk of injury.

Note

Details identified by the word "Note" contain additional information.

Installation, initial start-up, inspection, maintenance and repairs must only be carried out by a competent person (heating engineer/installation contractor).

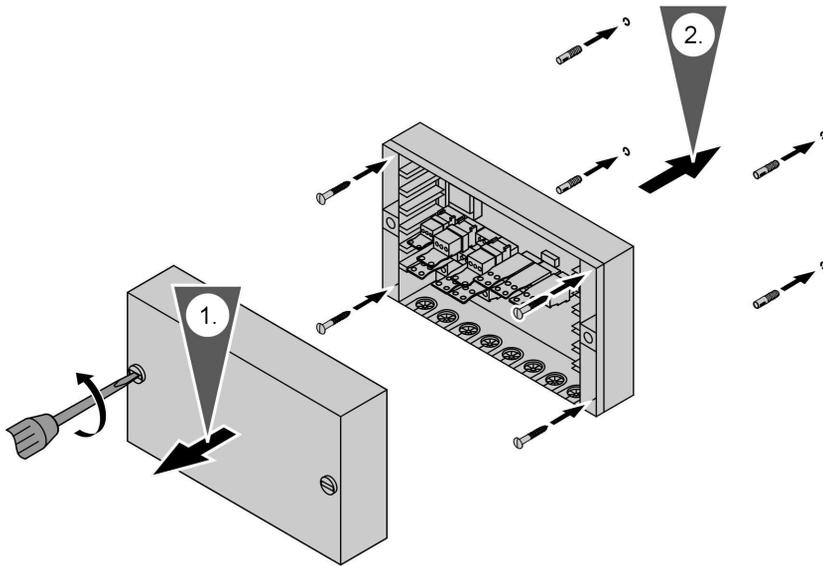
Before working on the equipment/heating system, isolate the power supply (e.g. by removing a separate mains fuse or by means of a mains isolator) and safeguard against unauthorised reconnection.

When using gas as fuel, also close the main gas shut-off valve and safeguard against unauthorised reopening.

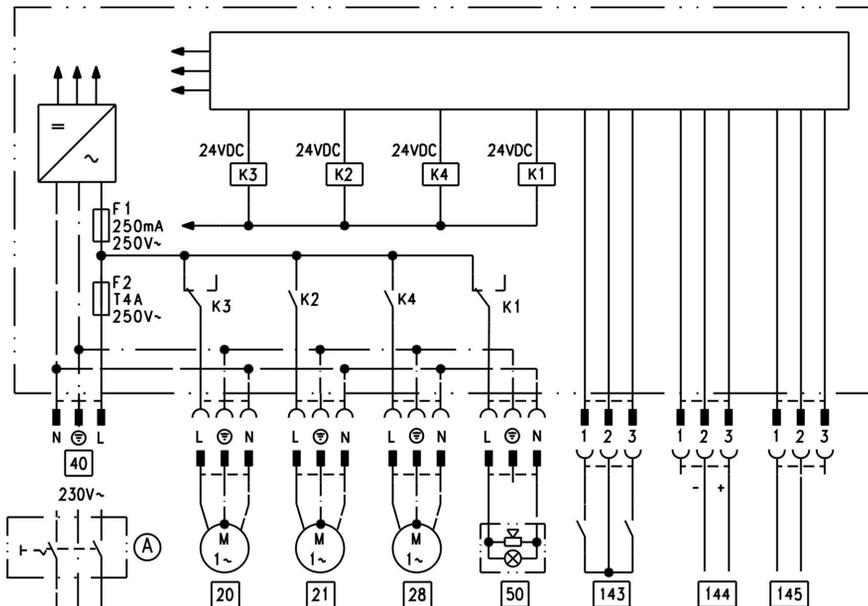
Repairing components which fulfil a safety function can compromise the safe operation of your heating system.

For replacements, use only original spare parts supplied or approved by Viessmann.

Installation



Summary of electrical connections



The external extension is connected to the boiler control unit via the KM BUS. The following functions can be controlled or processed simultaneously via the extension:

- (A) ON/OFF switch (on site)
- 20 Heating circuit pump (stepped) for heating circuit without mixer
- 21 Cylinder primary pump
- 28 DHW circulation pump (only for weather-compensated operation)
- 40 Power supply
- 50 Central fault message

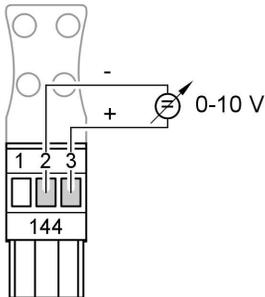
- 143 ■ External blocking (terminals 2 - 3)
 - External demand (terminals 1 - 2)
 - External heating program changeover (terminals 1 - 2) (only for weather-compensated operation)
 The allocation of function "External heating program changeover" is set via coding address "91".
- 144 External set value 0 to 10 V
- 145 KM BUS



Boiler installation and service instructions

Additional set value at plug 144

When connecting external switching contacts or components to the protective low voltage of the control unit, observe the requirements of protection class III, i.e. 8.0 mm air gap/creep path or 2.0 mm insulation thickness towards 'live' components.



The 0–10 V hook-up provides an additional set boiler water temperature:

1 V– □ 10 °C

10 V– □ 100 °C

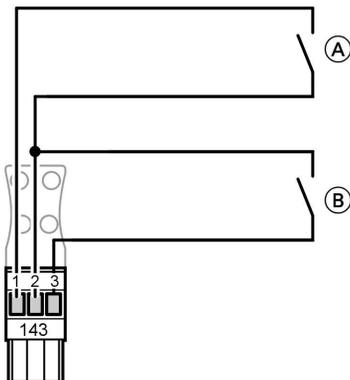
0 - 1 V– evaluated as "no default".

Connection to terminals "2" and "3" in plug 144.

External connections at plug 143

When connecting external switching contacts or components to the protective low voltage of the control unit, observe the requirements of protection class III, i.e. 8.0 mm air gap/creep path or 2.0 mm insulation thickness towards 'live' components.

External connections at plug . . . (cont.)



- (A) External heating program changeover/external demand (zero volt contact)
- (B) External blocking (zero volt contact)

External heating program changeover/external demand

The manually preselected heating program can be modified and an external demand be received via the contact.

The heating program changeover can be allocated to the heating circuits via coding address "91".

A minimum boiler water temperature can be defaulted via coding address "9b", and an additional function can be programmed for the circulation pump via coding address "34".

External blocking

Closing the zero volt contact causes the burner to shut down.

Note

To ensure frost protection, the boiler is switched ON when the actual temperature falls below 5 °C; the boiler water is then heated up to 15 °C.

An additional function for the circulation pumps can be programmed via coding address "32".



Boiler service instructions

Pump connection

Available pump connections

- 20 Heating circuit pump
- 21 Cylinder primary pump
- 28 DHW circulation pump



Note

Heating circuit pumps for mixer circuits are connected to the mixer circuit extension kit.

Rated current: 2 (1) A~
Recommended connecting cable: H05VV-F3G
0.75 mm²
or
H05RN-F3G
0.75 mm²

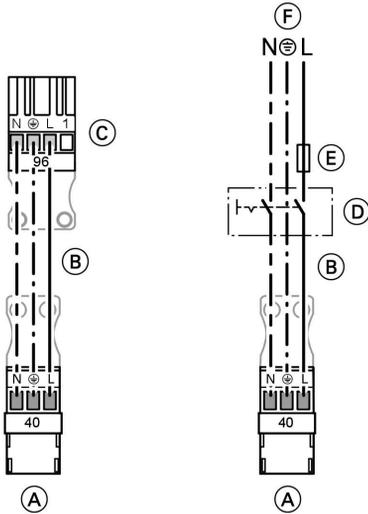
Power supply

Regulations

Carry out the power supply connection and all earthing measures (i.e. RCD circuit) in accordance with IEC 364, the requirements of your local power supply utility, VDE or national regulations.

Protect the power supply cable with a fuse with a maximum rating of 16 A.

Power supply (cont.)



- (A) Plug [40] for the external extension
- (B) Power supply cable
- (C) Plug [96] to the control unit
- (D) ON/OFF switch, 2-pole (on site)
- (E) Fuse
- (F) Mains voltage, 230 V~

1. Check that the cable to the control unit is fitted with a fuse with a max. rating of 16 A.
2. Connect the power cable to plug [96] of the control unit.
If plug [96] has already been allocated, create a direct power supply.



Danger

Incorrect core termination can cause severe injuries and damage to the equipment.

Take care not to interchange wires "L1" and "N":

L1 brown

N blue

PE green/yellow

3. Insert plug [40] into the external extension and plug [96] into the control unit.
4. Close unused cable entries.

Specification

Specification, standard module

Mains voltage	230 V
Rated frequency	50 Hz
Rated current	4 A
Protection class	I
Protection	IP 32; ensure through appropriate design/installation
Permiss. ambient temperature	0 to +40 °C
■ during operation	Installation in living spaces or boiler rooms (standard ambient conditions)
■ during storage and transport	-20 to +65 °C



Specification (cont.)

Rated relay output breaking capacity
at 230 V~

 20	Heating circuit pump	4(1) A~
 21	Cylinder primary pump	4(1) A~
 28	DHW circulation pump	4(1) A~
 50	Central fault message	0.4(0.2) A~

Total: max. 4 A~

Commissioning and adjustment



Boiler installation and service
instructions

The control unit automatically detects
the external extension. Code "2E:1" is
set automatically.

Troubleshooting

Should the KM BUS be interrupted,
the control unit display shows "CE".
The red fault indicator flashes.



Boiler installation and service
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Viessmann Werke GmbH&Co KG
D-35107 Allendorf
Telephone: +49 6452 70-0
Fax: +49 6452 70-2780
www.viessmann.com

Viessmann Limited
Hortonwood 30, Telford
Shropshire, TF1 7YP, GB
Telephone: +44 1952 675000
Fax: +44 1952 675040
E-mail: info-uk@viessmann.com

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