Installation and service instructions

for contractors

Vitocom 100
Type GSM
Remote monitoring and control of heating systems

For applicability, see the last page

VITOCOM 100

5692 842 GB 11/2009

Please keep safe.

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.

Please note
This symbol warns against the risk of material losses and environmental pollution.

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

Target group

These instructions are exclusively designed for qualified personnel.
- Work on electrical equipment must only be carried out by a qualified electrician.
- The system must be commissioned by the system installer or a qualified person authorised by the installer.

Regulations

Observe the following when working on this system
- all legal instructions regarding the prevention of accidents,
- all legal instructions regarding environmental protection,
- the Code of Practice of relevant trade associations.
- all current safety regulations as defined by DIN, EN, DVGW, VDE and all locally applicable standards

Working on the system

- Isolate the system from the power supply and check that it is no longer 'live', e.g. by removing a separate fuse or by means of a main isolator.
- Safeguard the system against unauthorised reconnection.

Please note
Electronic modules can be damaged by electrostatic discharges.
Touch earthed objects, such as heating or water pipes, to discharge static loads.

Repair work

Please note
Repairing components that fulfil a safety function can compromise the safe operation of your heating system.
Replace faulty components only with original Viessmann spare parts.

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Safety instructions (cont.)

Ancillary components, spare and wearing parts

Please note
Spare and wearing parts that have not been tested together with the heating system can compromise its function. Installing non-authorised components and non-approved modifications or conversions can compromise safety and may invalidate our warranty.
For replacements, use only original spare parts supplied or approved by Viessmann.

Index

Installation instructions

Service instructions

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Index (cont.)

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Safety and liability

Danger
The Vitocom radio signals (from communication via mobile phone) may interfere particularly with pacemakers, hearing aids and defibrillators.
If you use any such equipment, please avoid the immediate vicinity of the operational Vitocom.

Please note
The Vitocom only relays faults of connected Vitotronic control units and of the components connected to its configured inputs. For technical details, see the installation and service instructions of the appliances.
Conditions for fault messages:
- The Vitotronic control units **and** the Vitocom must be configured correctly.
- The Vitocom message paths must be established.
- The heating system and functionality of the message facilities must be checked at regular intervals.
- In order that messages can still be transferred during a power failure, we recommend using a UPS (uninterruptible power supply).
- For further improvement of the operational reliability of the heating system, we recommend allowing for supplementary measures, e.g. frost protection or monitoring for water damage.

Liability

Viessmann accepts no liability for loss of profit, unattained savings, or other direct or indirect consequential losses resulting from the use of the Vitocom or the software, nor for losses resulting from inappropriate use.
The Viessmann General Terms and Conditions apply; these are listed in the relevant current Viessmann pricelist.

We accept no liability for SMS and e-mail services provided by network operators. The terms and conditions of the relevant network operators therefore apply.

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System requirements

Heating system

- For one heating system with Viessmann boiler and Vitotronic control unit or with heat pump and weather-compensated control unit (see page 9).
- The control unit is connected to the Vitocom 100 via the KM BUS.
- Downstream heating circuit control units that are not connected via the KM BUS must be monitored via the digital input of the Vitocom 100.

SIM card

- SMS facility
- Bi-directional function (sending and receiving)

Mobile phone providers

- SIM cards approved for use with the Vitocom 100:
  - T-Mobile (standard for Vitocom 100 with SIM card)
  - Vodafone
  - E-Plus
- Adequate radio signal (field strength) for the selected SIM card at the place of installation of the Vitocom 100.
- The SIM card must be enabled by the mobile phone provider at the time of commissioning.

Programming unit

- SIM cards approved for use with the mobile phone:
  - T-Mobile
  - Vodafone
  - E-Plus

Message paths / Message targets

- Mobile phone for receiving and sending SMS.
  Up to two mobile phones can be specified as message targets.

Important information regarding system limitations

- At the time of the publication of this document the transmission range of the Vitocom 100 has only been tested with the approved SIM cards (for use with the Vitocom 100). The perfect function of the Vitocom 100 cannot be guaranteed with SIM cards that have not been approved.
- The transmission of SMS is a service provided by mobile phone operators. Consequently, the range of functions offered by the Vitocom 100 cannot be guaranteed in case of changes in the SMS service provided by network operators.
- The wide range of different mobile phone manufacturers and types makes it impossible to test each one regarding its compatibility with the functions offered by the Vitocom 100. Although no restrictions could be detected with any of the tested mobile phones, the perfect function of the Vitocom 100 cannot be guaranteed for all available mobile phones.

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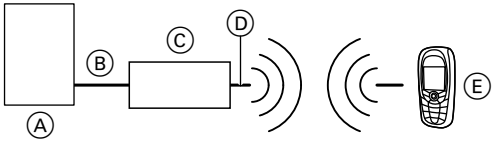
Functions of the Vitocom 100

Summary of functions



Ⓐ Heat source with control unit (see page 9)
Ⓑ KM BUS cable
Ⓒ Vitocom 100
Ⓓ Aerial
Ⓔ Mobile phone

Remote switching

The operating mode of the heating circuits connected to the control unit can be switched remotely using SMS.

Remote scanning

The following current settings of the Vitocom 100 can be scanned remotely:
- 2 mobile phone numbers that can be notified in case of faults
- SIM card credit (prepaid)
- Current date and expiry date of SIM card (prepaid)
- Cost of one SMS (stored value)
- Information text for naming the heating system and the digital input
- Current language setting

Remote monitoring

The Vitocom 100 monitors heating systems with Viessmann control units. Additional appliances are monitored via the digital input of the Vitocom 100.

The following are automatically signalled by SMS via mobile phone:
- Faults of the heating system and those of appliances connected to the digital input
- Expiry of SIM card (prepaid)
- Notification regarding resetting the current date after a power failure

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Functions of the Vitocom 100 (cont.)

Note
The dates "AKTDAT" and "ENDDAT" only need to be entered with a prepaid SIM card for monitoring the available credit. This entry is not required for a contract SIM card.

SIM card functions

A SIM card is required to operate the Vitocom 100. Different types of SIM cards from mobile phone providers are commercially available.

Note
Observe the system requirements for the SIM card (see page 7).

PIN function

Once a PIN code has been entered it remains permanently in force, even after a power failure. A new entry is therefore not required in this case. After power has been restored, the LED displays inside the device indicate the standby status of the Vitocom 100 (see page 40).

Additional security
The Vitocom 100 is also equipped with an access code (see pages 26 and 29) for all entered commands.

Use

The Vitocom 100 can be connected to the following control units:

- Weather-compensated control units for floorstanding boilers
  - Vitotronic 150, type KB1, KB2
  - Vitotronic 200, type KW1, KW2, KW4, KW5, KW6
  - Vitotronic 300, type KW3, FW1

  For connection, see page 15.
- Weather-compensated control units Vitotronic 200, type HO1, HO1A. For connection, see page 16.
- Weather-compensated control units for wall mounted gas boilers Vitodens, Vitopend and Vitoplus, make: 1999 to 2004 with "Standard" and "Comfortrol" programming units. The wall mounted boiler Vitopend 100 is **not** supported. For connection, see page 17.
- Wall mounted boiler control units for constant temperature mode Vitotronic 100, type HC1, HC1A. For connection, see page 16.

Use (cont.)

- Weather-compensated heat pump control unit WPR 300
  For connection, see page 18.
- Weather-compensated heat pump control unit Vitotronic 200, type WO1A.
  For connection, see page 15.

Installing the Vitocom 100

Installation location

- Adequate strength of reception

  Note
  Adequate strength of reception using a mobile phone and a SIM card from same mobile phone operator, see page 40.

- Observing the maximum cable lengths (total length of all KM BUS subscribers up to 50 m)
- Power plug of the Vitocom 100 easily accessible

Install the aerial in a favourable location:

- To a suitable metal using the magnet that is integrated in the aerial
- To a smooth, clean and dry surface using the adhesive pad provided

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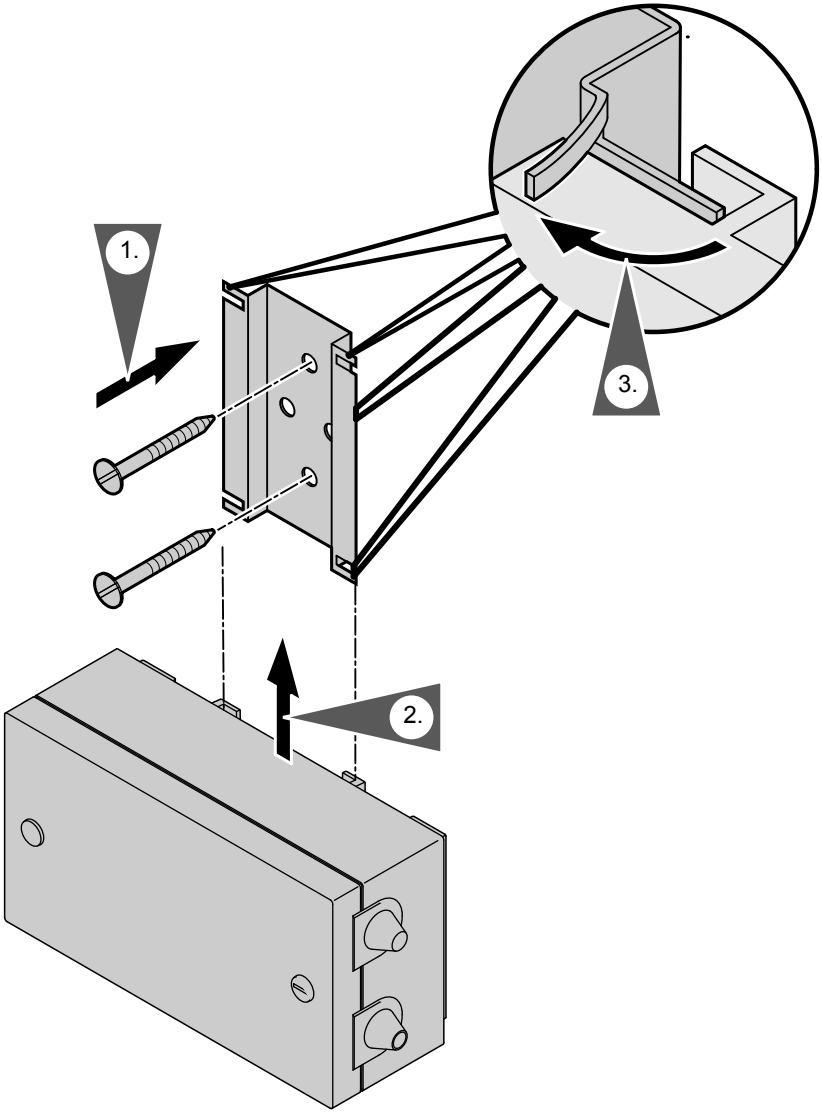
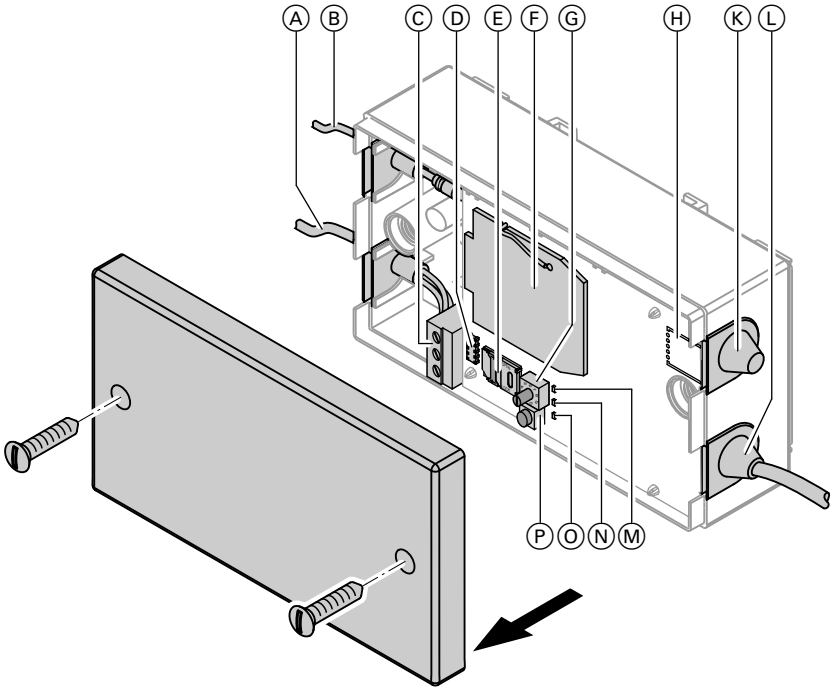
Installing the Vitocom 100 (cont.)

Wall mounting



Overview of electrical connections

Upper PCB



- Ⓐ KM BUS cable (plug 145 supplied)
- Ⓑ Aerial cable (standard delivery)
- Ⓒ KM BUS terminals
- Ⓓ Plug-in connection to the wiring chamber
- Ⓔ SIM card holder
- Ⓕ GSM modem
- Ⓖ PIN code rotary selector
- Ⓗ Perforation for the strain relief recess, digital input
- Ⓚ Cable entry, digital input 230 V~ (for additional appliance)
- Ⓛ Power cable
- Ⓜ Green LED
- Ⓝ Yellow LED
- Ⓞ Red LED
- Ⓟ Button for setting the PIN code

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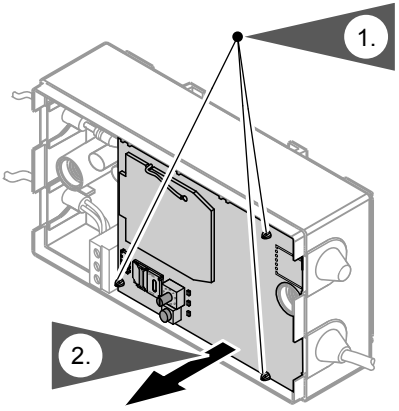
Overview of electrical connections (cont.)

Removing the upper PCB

Only for connecting an additional appliance to the digital input and for access to the mains terminals (see diagram on page 15).

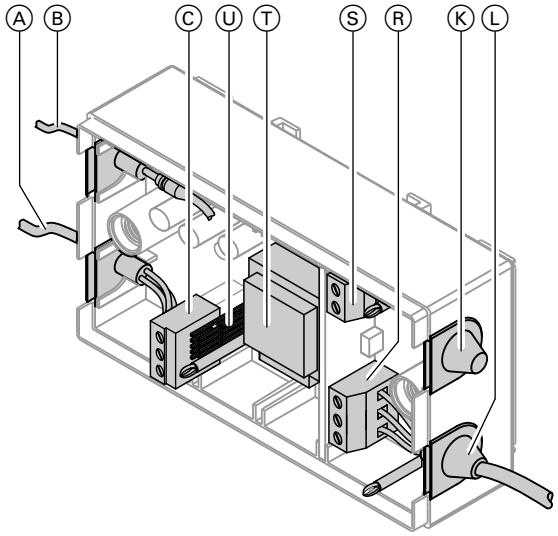
Danger
There is a risk of electric shock or damage to the device when working in the **wiring chamber** with the power connected.
Disconnect the equipment from the mains before lifting off the upper PCB.



1. Carefully push together all 3 clips with a pair of pliers.
2. Lift off the PCB.

Overview of electrical connections (cont.)

Wiring chamber



Ⓐ KM BUS cable (plug 145 supplied)
Ⓑ Aerial cable (standard delivery)
Ⓒ KM BUS connection terminals
Ⓒ Cable entry, digital input 230 V~ (for additional appliance)
Ⓚ Cable entry, digital input 230 V~ (for additional appliance)
Ⓛ Power cable
Ⓡ Mains terminals, 230 V/50 Hz
Ⓢ Terminals, digital input 230 V~
Ⓣ Transformer
Ⓤ Plug-in connector to upper PCB

Connecting the Vitocom 100

Connection to Vitotronic control units for floorstanding boilers and heat pumps

For possible Vitotronic control units, see page 9, **not** applicable for Vitotronic 200, type KW 6.

Note
If there are several KM BUS subscribers (e.g. remote control), use KM BUS distributor (part no. 7415 028, accessory).

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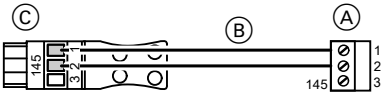
Connecting the Vitocom 100 (cont.)

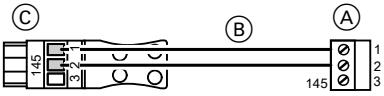
Total length of all cables of KM BUS subscribers up to 50 m.

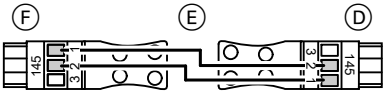
Without KM BUS distributor



Ⓐ Terminals 145 on the Vitocom 100
Ⓑ KM BUS cable (Vitocom 100)
Ⓒ Plug 145 to the Vitotronic

With KM BUS distributor





Ⓐ Terminals 145 on the Vitocom 100
Ⓑ KM BUS cable (Vitocom 100)
Ⓒ Plug 145 to the KM BUS distributor
Ⓓ Plug 145 from the KM BUS distributor
Ⓔ KM BUS cable (KM BUS distributor)
Ⓕ Plug 145 to the Vitotronic

Connection to Vitotronic control units for wall mounted gas boilers

For possible Vitotronic control units, see page 9, also applicable for Vitotronic 200, type KW 6.

Note
If there are several KM BUS subscribers (e.g. remote control), use KM BUS distributor (part no. 7415 028, accessory).
Total length of all cables of KM BUS subscribers up to 50 m.

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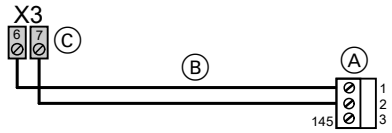
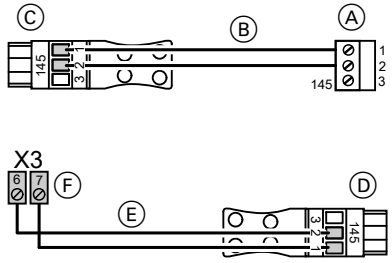
Connecting the Vitocom 100 (cont.)

Without KM BUS distributor



Ⓐ Terminals 145 on the Vitocom 100
Ⓑ KM BUS cable (Vitocom 100)
Ⓒ Terminals X3 on the Vitotronic

With KM BUS distributor

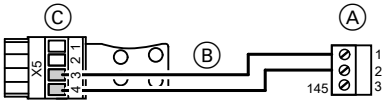


Ⓐ Terminals 145 on the Vitocom 100
Ⓑ KM BUS cable (Vitocom 100)
Ⓒ Plug 145 to the KM BUS distributor
Ⓓ Plug 145 from the KM BUS distributor
Ⓔ KM BUS cable (KM BUS distributor)
Ⓕ Terminals X3 on the Vitotronic (plug 145 disconnected)

Connection to control units for wall mounted gas boilers (make: 1999 to 2004)

For possible control units, see page 9.

Note
Cable length up to 50 m.



Ⓐ Terminals 145 on the Vitocom 100
Ⓑ KM BUS cable (Vitocom 100)
Ⓒ Plug "X5" to the wall mounted boiler

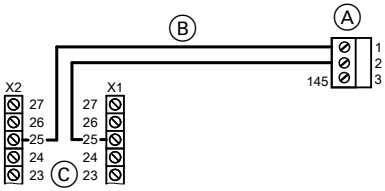
Connecting the Vitocom 100 (cont.)

Note
If an extension kit for one heating circuit with mixer has already been connected via plug "X5" to the wall mounted boiler, connect the KM BUS cable of the Vitocom 100 in parallel to this plug.

Connection to the heat pump control unit WPR 300

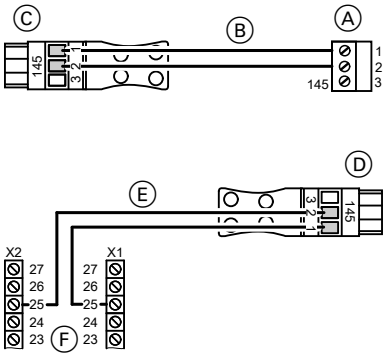
Note
If there are several KM BUS subscribers (e.g. remote control), use KM BUS distributor (part no. 7415 028, accessory).
Total length of all cables of KM BUS subscribers up to 50 m.

Without KM BUS distributor



Ⓐ Terminals 145 on the Vitocom 100
Ⓑ KM BUS cable (Vitocom 100)
Ⓒ Terminals X1.25 and X2.25 on the heat pump control unit WPR 300, PCB LP3

With KM BUS distributor



Ⓐ Terminals 145 on the Vitocom 100
Ⓑ KM BUS cable (Vitocom 100)
Ⓒ Plug 145 to the KM BUS distributor
Ⓓ Plug 145 from the KM BUS distributor
Ⓔ KM BUS cable (KM BUS distributor)
Ⓕ Terminals X1.25 and X2.25 on the heat pump control unit WPR 300, PCB LP3 (plug 145 disconnected)

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Hooking up additional signals

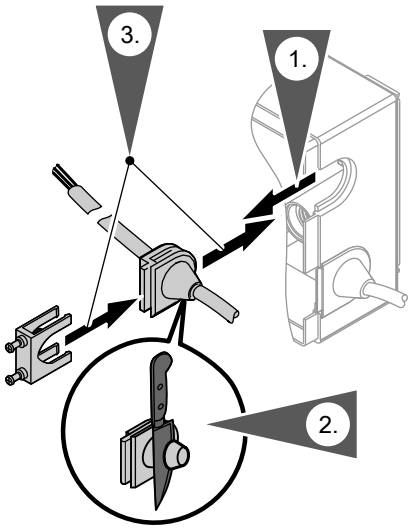
Digital input

Removing the upper PCB (see page 14).

Danger
There is a risk of electric shock or damage to the device when working in the **wiring chamber** with the power connected.
Pull the power plug prior to commencing any work.

Danger
If an appliance is connected to the digital input of the Vitocom 100, voltage of 230 V~ may still be present at the terminals, even if the mains plug has been unplugged (see diagram on page 20).
Check whether the digital input terminals are live and isolate from the power supply, if required.

Please note
To prevent short circuiting or damage to the Vitocom 100, ensure that the digital input and the Vitocom 100 power supply are connected to the same phase.



Note
Carefully break out the knock-out Ⓗ from the removed upper PCB along the perforation (see diagram on page 13) for the upper part of the strain relief (in the pack supplied).

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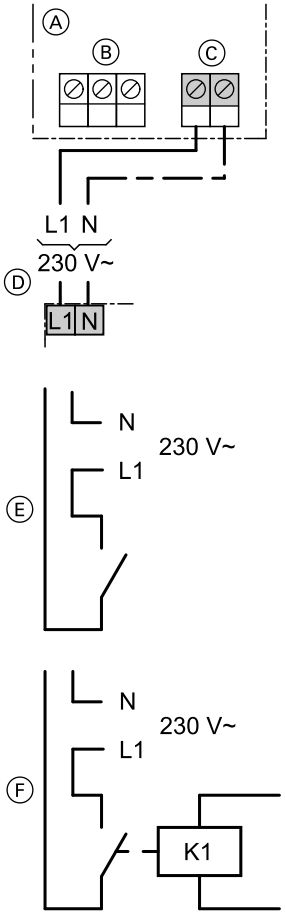
Hooking up additional signals (cont.)

Connection example for an additional appliance



Ⓐ Vitocom 100 wiring chamber
Ⓑ Power supply 230 V/50 Hz
Ⓒ Digital input
Ⓓ 230 V~ voltage signal
Ⓔ Message signal, zero volt contact
Ⓕ Message signal via contactor relay

- On-site fault messages can be hooked up as 230 V~ voltage signals via the digital input.
- The input signal is monitored by the Vitocom 100 and the fault is made known via SMS.
- The text of the SMS can be individually specified.
  Command: DITEXT (see page 34).

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Power supply [terminals]

Directives

Regulations

Carry out the power supply connection and all earthing measures (i.e fault current circuit) in accordance with IEC 60364-4-41, the requirements of your local power supply utility, VDE regulations or all local and national regulations.
Protect the power cable to the control unit or Vitocom 100 with no more than 16 A.

Main isolator requirements (if necessary)

For combustion equipment to DIN VDE 0116 , the main isolator fitted on site must meet the requirements of DIN VDE 0116 "section 6" [or local regulations].

The main isolator must be installed outside the installation area and must simultaneously isolate **all** non-earthed conductors with at least 3 mm contact separation.

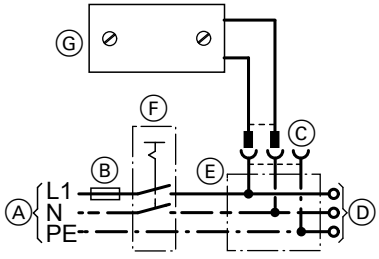
Power cable

2-core cable to unit
L1 brown
N1 blue

Note
Check that the power cable to the Vitocom 100 is fitted with a fuse with a max. rating of 16 A.

Connection via the main isolator

When the heating system is switched off via the main isolator, the Vitocom 100 is also switched off.
No more on-site faults are signalled. It is no longer possible to change the operating mode remotely.
This is the standard condition.



Ⓐ Mains connection 230 V/50Hz
Ⓑ Fuse (max. 16 A)
Ⓒ Single phase power outlet (on site)
Ⓓ Control unit power supply connection
Ⓔ Junction box (on site)

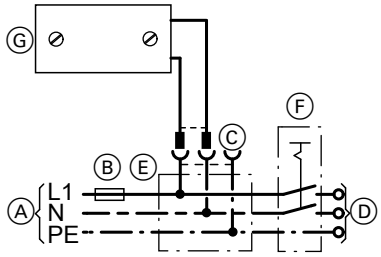
Power supply [terminals] (cont.)

Ⓕ Main isolator, two-pole, on site (if installed)
Ⓖ Vitocom 100

Connection independent of the main isolator

When the heating system is switched off via the main isolator, the Vitocom 100 continues to operate.
On-site faults continue to be signalled.

Note
If the control unit fails or is switched off (e.g. when filling the heating system) a fault is signalled.
If the mains power plug is disconnected, the "Emergency operation - data communication failure" fault message is issued.



Ⓐ Mains connection 230 V/50 Hz
Ⓑ Fuse (max. 16 A)
Ⓒ Single phase power outlet (on site)
Ⓓ Control unit power supply connection
Ⓔ Junction box (on site)
Ⓕ Main isolator, two-pole, on site (if installed)
Ⓖ Vitocom 100

Requirements

Commissioning steps:

1. Switch ON the Vitocom 100 without SIM card.
2. Enter PIN code of the SIM card (see page 23).
3. Pull power plug or switch OFF main isolator.
4. Insert SIM card (see page 24).
5. Connect power plug or switch ON main isolator.
6. Send commissioning SMS with access code and language selection to the Vitocom 100 (see page 26).
7. Only prepaid:
   Enter current date and expiry date of the SIM card.
8. Only prepaid:
   SIM card credit and SMS costs for monitoring the credit of the prepaid SIM card.

Note
After entering the PIN code, the Vitocom 100 is commissioned exclusively via SMS messages using a mobile phone.

Entering PIN code

Note
If nothing is entered within 30 seconds of the first or previous entry or if not all four digits have been entered, the subsequent adjusting procedure is terminated.

1. Open the casing (see page 13).
2. Initiate entry by holding down Ⓟ for 5 seconds.
   Only the red LED Ⓞ illuminates, and the unit is in "input" mode.
3. Enter the first digit of PIN code using rotary selector Ⓖ and confirm by briefly pressing Ⓟ.
   The red LED Ⓞ briefly goes off.
4. Repeat previous step for each digit of the PIN code.
   After the 4th and final digit has been entered, the red LED Ⓞ flashes 3 times and remains off.

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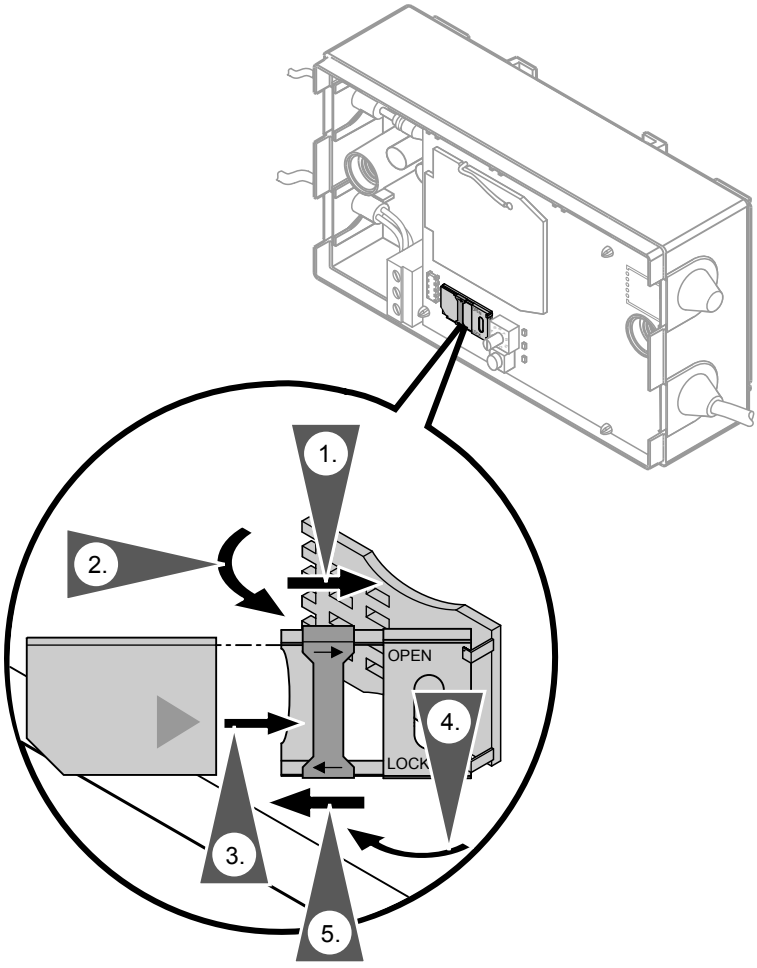
Inserting the SIM card

! **Please note**
Inserting a SIM card with the mains voltage applied can damage the unit or the SIM card. Disconnect the equipment from the mains before inserting the SIM card.



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Inserting the SIM card (cont.)

1. Slide the metal slider of the SIM card holder in the direction of the hinge ("OPEN"), thereby unlocking the holder.
2. Swivel the SIM card holder upwards.
3. Slide the SIM card into the holder with contacts facing downwards.
4. Swivel the SIM card holder downwards.
5. Slide the metal slider of the SIM card holder in the direction of the opening ("LOCK") thereby locking the holder.
6. Check operation:
   - Plug in the mains plug.
   - All 3 LED's (red, yellow and green), see page 13, permanently ON or flashing (for LED flashing pattern, see page 40).

Automatic dialling into the GSM mobile phone network

The GSM mobile phone network is dialled automatically in the specified sequence after the following steps:
- Enter four digit PIN code
- Disconnect power plug
- Insert SIM card
- Plug in power plug

Note
For LED flashing intervals, see page 40.

A successful dial-in is indicated by constant illumination or flashing of the **red** LED and indication of the reception strength.

Input by SMS

All entries apart from the PIN code are transmitted to the Vitocom 100 via mobile phone as SMS.

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Input by SMS (cont.)

Access code

In addition to the **PIN code** of the SIM card in the Vitocom 100, the unit is also protected from abuse by an **access code**.

Access code properties:
- It belongs to the Vitocom 100, independent of the SIM card that is used.
- The 4-digit access code is preset to **1111** in the delivered condition.
- This code can be modified by SMS using the "CODE" command (see page 29). Immediately after entering them, the Vitocom 100 will automatically send new access codes by SMS to both programmed mobile phone numbers.
- The access code must be entered at the start of each SMS to the Vitocom 100 (not for the PASSWORD command).

Note
If you have forgotten your access code, you can check it with the "PASSWORD" command. The Vitocom 100 replies by SMS to both mobile phone numbers stored.

Example:
Scanning the access code

SMS from user:

password

Reply SMS from the Vitocom 100:

1111 SAFECODE 1111

Note
For improved access security, we recommend you change the access code after commissioning the Vitocom 100 and after executing the SMS command "PASSWORD" (see page 29).

SMS commissioning

An initial SMS must be transmitted in order to start the Vitocom 100.
The commissioning SMS defines the mobile phone number for incoming fault messages. For this, the mobile phone number of the commissioning SMS sender is saved. The language that is required must also be defined (see page 30).

The following text is transmitted to the Vitocom 100's mobile phone number:

Commissioning SMS in English (en):

1111␣en

␣ = One space

Input by SMS (cont.)

Note
*During text input, a **space** is always required between the access code and one or more commands.*

Reply SMS

The user will immediately receive two SMS replies. Both SMS messages contain a list of all common user commands. The sender's mobile phone number is already programmed under "MOBNR1" in the text.

1st reply SMS:

1111
CODE
INFO
MOBNR1 "017..."
MOBNR2
BAHKx
x=1...3

2nd reply SMS:

1111
SPRACHE
VWERT
SMSWERT
AKTDAT
ENDDAT
DITEXT

Note
After commissioning ensure that the correct mobile phone numbers of those individuals are entered who should be notified in case the heating system develops a fault.
The Vitocom always transmits reply SMS to both mobile phone numbers that have been entered (if they have been entered).

Recommendation

It is advisable to enter the emergency call number of a heating contractor or service company as the second mobile phone number "MOBNR2". This company should be commissioned to maintain the heating system. The number of the janitor or other person who can be reached with an alarm or fault message can also be used.
Entry of the second mobile phone number is not mandatory.

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Input by SMS (cont.)

SMS templates

SMS templates previously programmed in your mobile phone can be used to switch your heating system on and off. Relevant SMS commands can therefore be transmitted on the move at any time, without the need for operating instructions.
This also applies to all other commands with corresponding SMS templates.

Note
Create at least one SMS template in your mobile phone so that the access code is saved and can be retrieved if the code is forgotten. When changing the access code (see page 29), always update the SMS templates with the new access code. Immediately after entering them, the Vitocom 100 will automatically send new access codes by SMS to both programmed mobile phone numbers.

Example:
Switching the heating and DHW off (with frost protection)
- Selecting operating mode 5 for heating circuit 1

SMS template text from user:

1111␣bahk1␣5

␣ = One space

All other entries are made in accordance with the following list of SMS commands.

SMS commands with examples

The user can send various commands to the Vitocom 100 by SMS.

- The access code must always be at the start of the SMS.
- During text input, a **space** is always required between the access code and one or more commands.
- The length of the SMS is restricted to 70 characters. If the text is longer it will be truncated after the final permitted character.
- Only defined keywords may be used.
- Upper and lower case can be used.
- A reply message from the Vitocom 100 always starts with the access code.
- The date can be specified in the following formats:
  – D.M.YYYY or DD.MM.YYYY
  Day (D) and Month (M), 1 or 2 digits
  – DD.MM.YY or DD.MM.YYYY
  Year (Y) as 2 or 4 digits

SMS command	Description
CODE	The access code prevents abuse and belongs to the Vitocom 100 independent of the SIM card used. The 4-digit access code is preset to 1111 in the delivered condition. The access code must be specified at the beginning of every SMS to the Vitocom 100. The Vitocom 100 accepts only codes comprising four digits. Longer entries will be automatically truncated. Only figures 0-9 can be used for each digit.

Example:
Changing the access code from "1111" to, for example, "1234"

- Always modify the current SMS templates with the new access code.

SMS from user:

1111␣code␣1234

␣ = One space

Reply SMS (acknowledgement) from the Vitocom 100:

1234 CODE 1234 ok

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SMS commands with examples (cont.)

SMS command	Explanation	
SPRACHE	Define language for SMS. Language options:	
	cs Czech	it Italian
	da Danish	lv Latvian
	de German	lt Lithuanian
	en English	nl Dutch
	es Spanish	pl Polish
	et Estonian	ru Russian
	fr French	sk Slovakian
	hu Hungarian	sv Swedish

Example:
Setting the language to German:

SMS from user:
1111␣sprache␣de

␣ = One space

Reply SMS (acknowledgement) from the Vitocom 100:
1111 SPRACHE de ok

SMS command	Explanation
INFO	Information text to identify the heating system (e.g. name of the system operator, location of the system). This text is sent by SMS to clearly identify systems, e.g. within a fault or warning message. Take care not to enter any terms that will trigger commands, e.g. CODE. These will cause the message to be aborted. Enter a maximum of 30 characters; any more will be ignored.

Example:
Individual entry
- e.g. name of system user, location of system.

SMS from user:
1111␣info␣Heating system

␣ = One space

Reply SMS (acknowledgement) from the Vitocom 100:
1111 INFO Heating system ok

SMS commands with examples (cont.)

Note
You can scan this information text with the "info?" command. The Vitocom 100 will then send the stored text as reply, however no technical information regarding the heating system.

SMS command	Explanation
MOBNR1	Scan or modify mobile phone number 1: Enter max. 70 characters. The reply SMS is sent to the previous mobile phone number and the new one.
MOBNR2	Scan or modify mobile phone number 2: Enter max. 70 characters. The reply SMS is sent to the previous mobile phone number and the new one. ■ Entry of the mobile phone number 2 is not mandatory.

Example:
Enter 2 mobile phone numbers to be notified
■ Applies to both numbers "MOBNR1" and "MOBNR2".

SMS from user:
1111␣mobnr1␣01791234567

␣ = One space

Reply SMS (acknowledgement) from the Vitocom 100:
1111 MOBNR1 01791234567 ok

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SMS commands with examples (cont.)

SMS command	Description (Weather-compensated control unit)
BAHKx	Heating circuit operating mode (x = 1, 2 or 3): **Associated commands (appended with a space):** 0 DHW only: DHW heating and frost protection monitoring 1 Constantly reduced: Central heating with reduced room temperature **without** DHW heating 2 Constantly standard: Central heating with standard room temperature and DHW heating 3 or 4 Heating according to time program: Heating with standard or reduced room temperature and DHW, as per selected time program 5 Standby mode: Heating and DHW switched OFF, only frost protection monitoring

Note
Constant temperature control unit:
Switching the operating mode for the heating system via a connected clock thermostat (if installed) takes priority.

SMS command	Description (Constant temperature control unit)
BAHKx	Heating circuit operating mode (x = 1): **Associated commands (appended with a space):** 0 DHW only: DHW heating and frost protection monitoring 1, 2, 3 or 4 Constantly standard: Central heating with standard room temperature and DHW heating 5 Standby mode: Heating and DHW switched OFF, only frost protection monitoring

Example:
Selecting operating mode 5 for heating circuit 1

SMS commands with examples (cont.)

SMS from user:
1111␣bahk1␣5

Reply SMS (acknowledgement) from the Vitocom 100:
1111 BAHK1 Standby mode ok

␣ = One space

SMS command	Description
VWERT	Amount that has been put onto the SIM card. ■ Specify as number with decimal places, without units. ■ Enter a comma or full stop as a separator. (Only for prepaid SIM cards. Not required for contract SIM cards.)

Example:
Putting a credit of €25.00 onto the SIM card (prepaid)

Reply SMS (acknowledgement) from the Vitocom 100:
1111 VWERT 25.00 ok

SMS from user:
1111␣vwert␣25.00

␣ = One space

SMS command	Description
SMSWERT	Price for sending one SMS: ■ Specify as number with decimal places, without units. ■ Enter a comma or full stop as a separator.

Example:
Entering cost of €0.19 for an SMS

Reply SMS (acknowledgement) from the Vitocom 100:
1111 SMSWERT 0,19 ok

SMS from user:
1111␣smswert␣0.19

␣ = One space

SMS command	Explanation
AKTDAT	Scan or modify current date.
ENDDAT	End date or expiry of the validity of the SIM card (prepaid or contract).

SMS commands with examples (cont.)

Note
The dates "AKTDAT" and "ENDDAT" only need to be entered with a prepaid SIM card for monitoring the period of validity. This entry is not mandatory for a contract SIM card. However, if the mobile phone contract is terminated, this function can be used as a reminder of the expiry date.
However, to obtain notification of a power failure, enter a fictitious "AKTDAT" and "ENDDAT".

The date can be specified in the following formats:
- D.M.YYYY or DD.MM.YYYY
  Day (D) and Month (M), 1 or 2 digits
- DD.MM.YY or DD.MM.YYYY
  Year (Y) as 2 or 4 digits

Example:
Entering the date
- Applies to both date entries "AKTDAT" and "ENDDAT"

SMS from user:

1111␣aktdat␣11.03.2009

␣ = One space

Reply SMS (acknowledgement) from the Vitocom 100:

1111 AKTDAT 11.03.2009 ok

Example:
- Only "ENDDAT" has been entered.

or
- "AKTDAT" has been deleted by a power failure and the power supply has now been restored.

The Vitocom 100 sends the following warning SMS:

Warning SMS as request:

1111 Please enter AKTDAT

Example:
A current date was entered for "AKTDAT", that occurs later than the end date "ENDDAT".
The Vitocom 100 sends the following warning SMS:

Warning SMS as error message:

1111 ENDDAT 10.01.2007 ERROR AKTDAT 11.01.2007 ERROR

SMS command	Explanation
DITEXT	Information text as identification of the additional appliance connected to the digital input or its function (e.g. "Low oil level"). This text is sent by SMS to clearly identify systems, e.g. within a fault or warning message. Take care not to enter any terms that will trigger commands, e.g. CODE. These will cause the message to be aborted. Enter a maximum of 30 characters; any more will be ignored.

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SMS commands with examples (cont.)

Example:
Individual entry of information text for additional appliance
■ Example for oil level monitoring.

SMS from user:

1111␣ditext␣Low oil level

␣ = One space

Reply SMS (acknowledgement) from the Vitocom 100:

1111 DITEXT Low oil level ok

Note
You can scan the information text regarding the digital input with the "ditext?" command. The Vitocom 100 will then send the stored text as reply, however no technical information regarding the connected appliance.

SMS command	Explanation
RESET 0	**Restart** of the Vitocom 100. No deletion of entered parameters.
RESET 1	Resetting all settings to their delivered condition **except PIN code**. The commissioning SMS must be retransmitted.
RESET 2	Resetting **all** settings to their delivered condition. The entire commissioning procedure must be repeated.

Note
The Vitocom 100 does not issue reply SMS to RESET commands.

Example:
Deleting all previous entries, except the SIM card PIN code

SMS from user:

1111␣reset␣1

␣ = One space

Then another commissioning SMS must be transmitted to the Vitocom 100 (see page 26).

Note
Holding the pushbutton for entering the PIN code down for at least 60 s (see page 23) resets the Vitocom 100 into the delivered condition. Then the system needs to be completely recommissioned.

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SMS commands with examples (cont.)

Scan current settings

Note
With the exception of the command "PASSWORD", a scanning command is always followed by a question mark without space.

SMS from user:

1111␣info?

␣ = One space

SPRACHE?	SMSWERT?
INFO?	AKTDAT?
MOBNR1?	ENDDAT?
MOBNR2?	DITEXT?
VWERT?	PASSWORD

Reply SMS (acknowledgement) from the Vitocom 100:

1111 INFO Heating system

Example:
Scanning the current setting of "INFO"

Special information regarding sending SMS

As well as the above commands, other instructions and possibilities exist for transmitting SMS.

- Every SMS received by the Vitocom 100 is acknowledged with a reply SMS (confirmation or error message).
  – "OK" (confirmation)
  – "ERROR" (error message)
- The reply SMS (acknowledgement) is always sent by the Vitocom 100 to both mobile phone numbers "MOBNR1" and "MOBNR2" (if programmed).
- Multiple commands to the Vitocom 100 can be combined in one SMS, with the exception of "RESET" commands.
- If the reply SMS is longer than 70 characters, it is transmitted in several replies.

The following also applies:

- During text input, a **space** is always required between the access code and one or more commands.
- The access code must always be at the start of the SMS.
- The number of characters that can be entered per SMS is limited to 70 (30 characters for the "DITEXT" and "INFO") commands.

Example:
3 commands combined in one SMS
1. Modify the access code
   - **accepted**
2. Modify mobile phone number 2
   - **accepted**
3. Modify operating mode (0 = DHW only) of heating circuit 4
   - **Fault**
     (only 3 heating circuits permitted)

Special information regarding sending SMS (cont.)

SMS from user:

```
1111␣code␣2345
␣mobnr2␣017198765432
␣bahk4␣0
```

␣ = One space

Reply SMS as confirmation and error message:

```
2345 CODE 2345 OK MOBNR2
017198765432 OK BAHK4 0
ERROR
```


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Validity of the SIM card

Irrespective of their credit and mobile phone provider, prepaid SIM cards may lose their validity after a specific time. The validity of SIM cards on contract expires upon termination at the end of the contract.

! **Please note**
An invalid SIM card has the effect that the remote monitoring of the heating system and any additional connected components will not function.
If the end of the validity period was specified with "ENDDAT" , then the Vitocom 100 will send 3 warning SMS in the programmed intervals ahead of the expiry of validity.

SIM card runtime

Prior to the expiry of the validity period, the Vitocom 100 sends a warning SMS to both mobile phone numbers "MOBNR1" and "MOBNR2" (if programmed). This message is transmitted for the following remaining validity periods:

- 60 days
- 30 days
- 10 days

Example:

Warning SMS:

1111 Only 30 days left

Note

If an information text ("INFO") has been programmed, that text will be displayed in the warning SMS after the access code.

Example:

Warning SMS with information text:

1111 Heating system runtime only 30 days left

Validity of the SIM card (cont.)

SIM card credit (prepaid)

If the credit is less than the specified amount, the Vitocom 100 transmits an alarm SMS to both mobile phone numbers "MOBNR1" and "MOBNR2" (if entered). This remaining credit message is retransmitted for the following number of SMS:

- 30 SMS remaining
- 20 SMS remaining
- 10 SMS remaining

Example:

Warning SMS:

1111 Credit remaining for 30 more SMS only

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LED descriptions

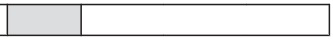
The Vitocom 100 has 3 LED's that indicate the following:

Red LED	Field strength indicator
Yellow LED	Connection set up indicator / SMS transmission started
Green LED	Connection set up indicator / SMS transmission completed

Note
The device contains LEDs (see diagram on page 13).

Signal strength (reception quality)

Strength of reception indication by the red LED:

Field strength	**Flash interval Red LED**	
extremely good	constantly ON	
good	1.5 s on – 0.5 s off	
satisfactory	1 s on – 1 s off	
adequate	0.5 s on – 1.5 s off	
inadequate	permanently off	
not dialled in	permanently off	

SMS transmission indication

Vitocom 100 function	**LED indicator**
Prepare to transmit SMS	Yellow LED (connection set up) illuminated
SMS being transmitted	Green LED (connection exists) also illuminates
SMS successfully transmitted	Both LED's switch off after approx. 5 s

Interpreting the LED flashing patterns

Behaviour of unit	Meaning/cause of problem	Measures
After the mains voltage has been connected, all 3 LED's illuminate	Unit not yet operational but ready to start	■ Commission the unit
Yellow LED flashes at 0.5 second intervals	PIN code not recognised	■ Enter PIN code again ■ Check SIM card in any mobile phone
Yellow LED permanently on	No dial-in to GSM mobile phone network possible within 2 minutes	■ Check aerial position ■ Trigger a reset by briefly pressing the button and making another attempt to dial in

Fault messages

Note
The Vitocom 100 monitors appliances and Vitotronic control units or heat pump control units connected via the KM BUS.

Please note
The Vitotronic **heating** circuit control units (e.g. Vitotronic 200-H) connected downstream via LON to the Vitotronic control units are **not** monitored by the Vitocom 100.
To monitor downstream heating circuit control units Vitotronic 200-H with plug 50, connect the switching output 50 (central fault message) with the digital input of the Vitocom 100 (see page 20). Adapt the information text of the digital input accordingly.

Fault messages of the Vitocom 100, type GSM:

Code	Fault	Fault message text
D1	Digital input	Digital input (D1): 230V <EE-Text> (or text user entered)
FB	KM BUS interruption	Emergency operation - data communication fault

Fault messages (cont.)

Note
Fault messages from the heating system appear in the control unit display in the form of a fault message text and a fault message code.

The SMS transmitted by the Vitocom 100 formats the fault message in a similar way to the following elements:
- Operating state of the system after the fault occurred, e.g. "Emergency mode"
- Cause of fault e.g. "Outside temperature sensor"
- Display of the fault message code regarding the precise cause of the fault by means of the last two characters in the SMS text, e.g. "10"

The fault message SMS is sent to both mobile phone numbers "MOBNR1" and "MOBNR2" (if programmed).

Example of a Vitotronic fault message:

Code	Fault	Fault message text
10	Outside temperature sensor fault	Emergency operation outside temp. 10

Fault message SMS from the Vitocom 100:

1111 Heating system emergency mode outside temp 10

Note
The Vitocom 100 resends the fault message if the fault has not been removed after 24 h.

Complete list of all fault messages
Installation/service instructions of the control unit of the boiler, the wall mounted gas boiler or the heat pump.

Specification

Rated voltage	230 V~
Rated frequency	50 Hz
Power consumption	4 W
Protection class	II
IP rating	IP 41 to EN 60529; ensure through appropriate design and installation
Function	Type 1 B as per EN 60730-1
Permiss. ambient temperature	
■ during operation	0 to +55°C Installation in living spaces or boiler rooms (standard ambient conditions)
■ during storage and transport	-20 to +85 °C

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Declaration of conformity

We, Viessmann Werke GmbH & Co KG, D-35107 Allendorf, declare as sole responsible body that the **Vitocom 100, type GSM** product complies with the following standards:

EN 50 090-2–2	EN 61 000-4-3
EN 55 014-1	EN 61 000-4-4
EN 55 014-2	EN 61 000-4-5
EN 55 022	EN 61 000-4-6
EN 55 024	EN 61 000-4-11
EN 60 730-1	EN 61 000-6-2
EN 61 000-4-2	EN 61 000-6-3

This product is designated CE in accordance with the following Directives:

89/336/EEC

Allendorf, 1. November 2009 Viessmann Werke GmbH&Co KG

pp. Manfred Sommer

Keyword index

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Keyword index (cont.)

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Applicability

Applicable for Vitocom 100, type GSM, part no. 7438 279

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5692 842 GB Subject to technical modifications.