

## LON communication module

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### Safety instructions



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

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### Safety instructions explained



#### **Please note**

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

#### **Note**

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

Installation, commissioning, inspection, maintenance and repairs must only be carried out by an authorised, competent person (heating engineer/installation contractor).

Before working on the appliance/heating system, isolate it from 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 unintentional reopening.

Check for gas tightness after installation.

Wear suitable personal protective equipment when carrying out any work.

Repairing components that fulfil a safety function can compromise the safe operation of the system. For replacements, use only original spare parts supplied or approved by Viessmann.

Install the components with new gaskets.

## Application

### LON communication module, part number

7172173	7172174	7179113
<ul style="list-style-type: none"> <li>■ Boiler with the following boiler and heating circuit control units:               <ul style="list-style-type: none"> <li>– Vitotronic 100, type CC1E, CC1I, GC1, GC1B, GC4, GC4B</li> <li>– Vitotronic 200, type CO1E, CO1I, FO1, GW1, GW1B</li> <li>– Vitotronic 200, type KO1B, KO2B</li> <li>– Vitotronic 300, type FW1, GW2, GW2B, GW4, GW4B</li> </ul> </li> <li>■ Boiler and heating circuit control unit with cascade function:               <ul style="list-style-type: none"> <li>– Vitotronic 300, type CM1E, CM1I</li> </ul> </li> <li>■ Heating circuit control units:               <ul style="list-style-type: none"> <li>– Vitotronic 050</li> <li>– Vitotronic 200-H</li> </ul> </li> <li>■ Heat pumps (as individual appliances or lag appliances in a heat pump cascade) with the following weather-compensated control units:               <ul style="list-style-type: none"> <li>– WPR 300</li> <li>– Vitotronic 200, type WO1A, WO1B, WO1C</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Cascade control unit in multi boiler systems:               <ul style="list-style-type: none"> <li>– Vitotronic 300-K, type MW1, MW1B, MW2, MW2B</li> <li>– Vitotronic 333, type MW2</li> </ul> </li> <li>■ Lead heat pump in heat pump cascade:               <ul style="list-style-type: none"> <li>– Vitotronic 200, type WO1B, WO1C</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Oil/gas condensing boilers with the following weather-compensated control units:               <ul style="list-style-type: none"> <li>– Vitotronic 200, type HO1, HO1A, HO1B, HO1C</li> <li>– Vitotronic 200, type KW6, KW6A, KW6B</li> <li>– Vitotronic 200, type HO1D, HO1E, HO2B</li> </ul> </li> <li>■ Boiler with the following boiler and heating circuit control units:               <ul style="list-style-type: none"> <li>– Vitotronic 100, type GC7B</li> <li>– Vitotronic 200, type GW7B</li> </ul> </li> </ul>

## Installation



### Please note

Electronic assemblies can be damaged by electrostatic discharge. Before beginning work, touch earthed objects, e.g. heating or water pipes, to discharge any static.

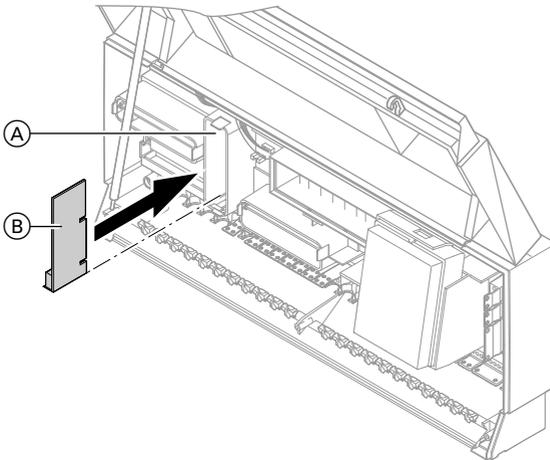


### For opening the control units and position (A) in the following diagrams

Relevant installation and service instructions

## Vitotronic 100, 200, 300, 300-K, 333, 050, 200-H

- Vitotronic 100, type GC1, GC1B, GC4, GC4B
- Vitotronic 200, type GW1, GW1B, GW4B
- Vitotronic 050 and 200-H, type HK1W, HK3W
- Vitotronic 300, type GW2, GW2B, GW4, GW4B
- Vitotronic 300-K, type MW1, MW1B, MW2, MW2B
- Vitotronic 333, type MW2



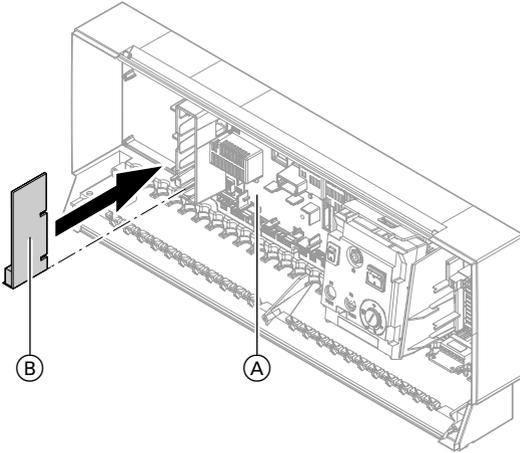
(A) Main control unit PCB

(B) LON communication module

## Vitotronic 100, 200, 300, type C...

- Vitotronic 100, type CC1E
- Vitotronic 200, type CO1E
- Vitotronic 300, type CM1E

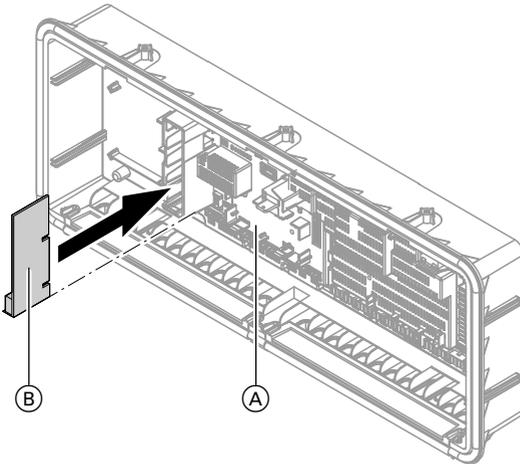
## Installation (cont.)



(A) Main control unit PCB

(B) LON communication module

- Vitotronic 100, type CC11
- Vitotronic 200, type CO11
- Vitotronic 300, type CM11

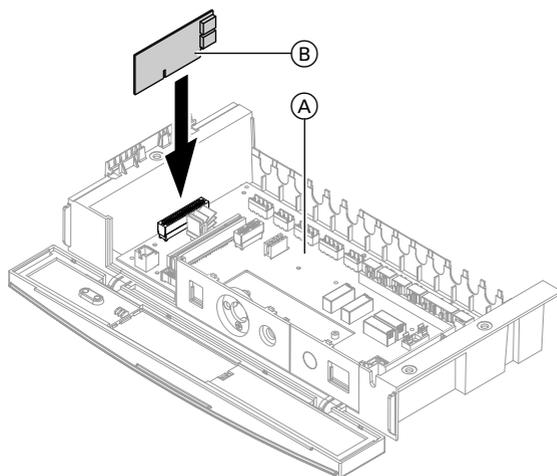


(A) Main control unit PCB

(B) LON communication module

## Installation (cont.)

### Vitotronic 200, type KO1B, KO2B

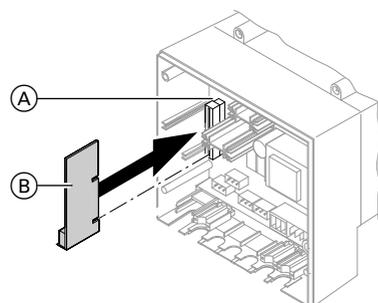


Type KO1B is shown

Ⓐ Main control unit PCB

Ⓑ LON communication module

### Vitotronic 050 and 200-H, type HK1M



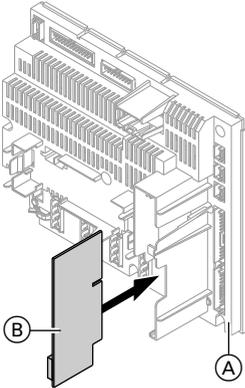
Ⓐ Main control unit PCB

Ⓑ LON communication module

## Installation (cont.)

### Heat pump control units

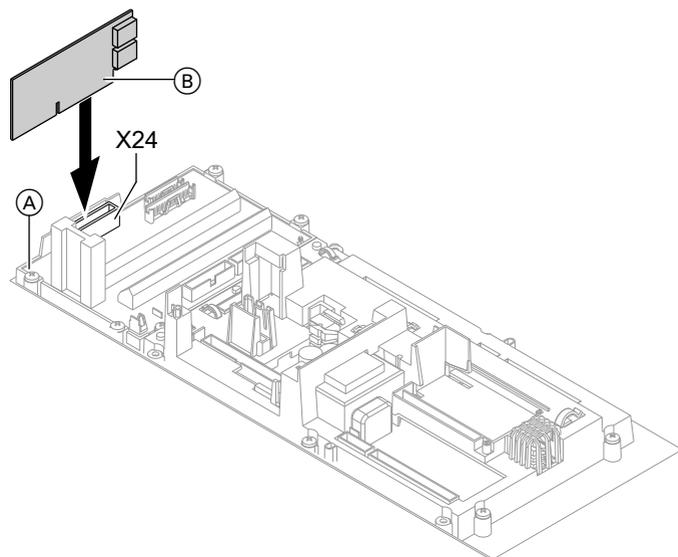
#### Vitotronic 200, type WO1...



- Ⓐ Controller and sensor PCB
- Ⓑ LON communication module

## Installation (cont.)

### WPR300

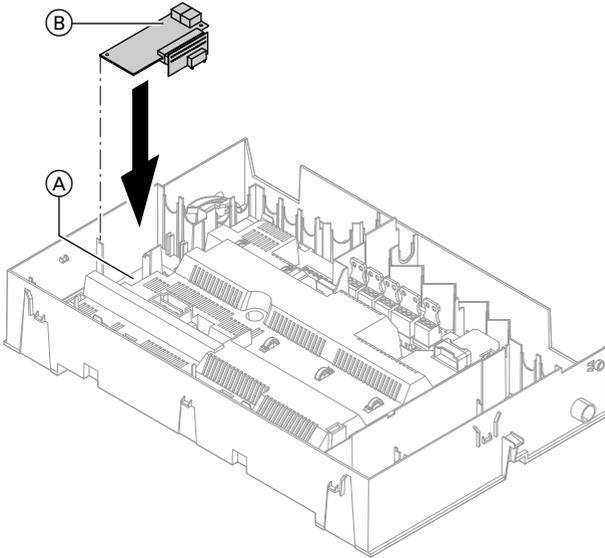


(A) Sensor PCB

(B) LON communication module

## Installation (cont.)

### Vitotronic 200, type GC7B, HO2B, HO1...

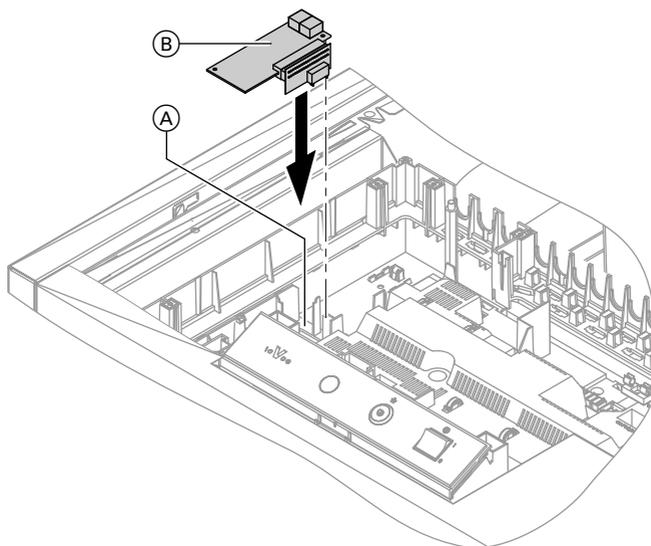


(A) Main PCB

(B) LON communication module

## Installation (cont.)

### Vitotronic 200, type KW6...

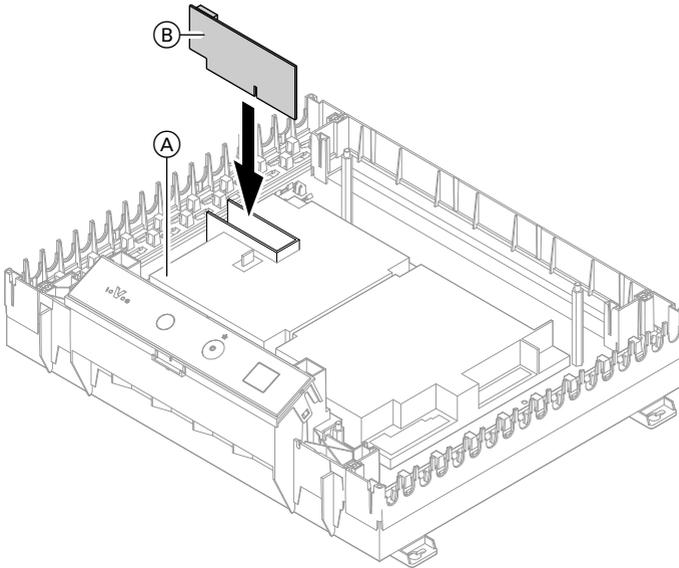


Ⓐ Main PCB

Ⓑ LON communication module

## Installation (cont.)

### Vitotronic 200, type FO1 and Vitotronic 300, type FW1



Ⓐ PCB heat distribution control

Ⓑ LON communication module

## Making the LON connection

The Viessmann LON is designed for "line" bus topology with a terminator at both ends (accessories).

The transfer distances for LON are subject to the electrical properties of the relevant cable. For this reason, only use the specified cable types. Use only one cable type within each LON.

Cable types (on site):

- 2-core cable, CAT5, screened
- JY(St)Y 2 x 2 x 0.8 mm (telephone cable)

Observe the requirements for cabling and operation of the LON interface FTT 10-A.

All Viessmann appliances are connected with RJ45 connectors. The Viessmann LON always requires cores "1" and "2" plus the screen. The cores are interchangeable.

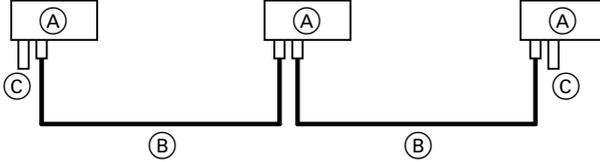
### **Note**

*When connecting external switching contacts and on-site components, observe the insulation requirements of IEC/EN 60335-1.*

## Making the LON connection (cont.)

### Connection versions

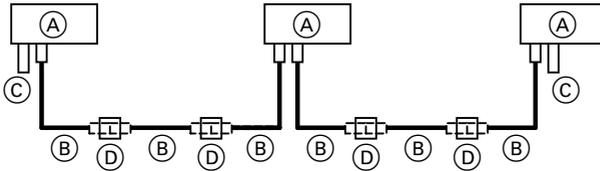
#### Connection with LON cable



Installation spacing  $\leq 7$  m

- (A) Control unit or communication product
- (B) LON cable, 7 m long product
- (C) Terminator

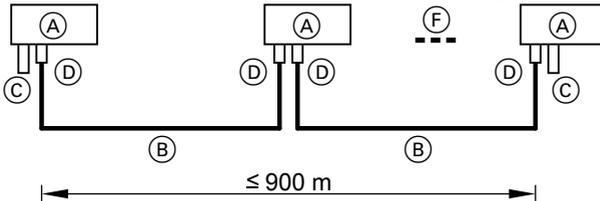
#### Connection with LON cable and LON coupling



Installation spacing 7 to 21 m

- (A) Control unit or communication product
- (B) LON cable, 7 m long  
Max. 3 cables between 2 devices
- (C) Terminator
- (D) LON coupling

#### Connection with on-site cable and LON plug

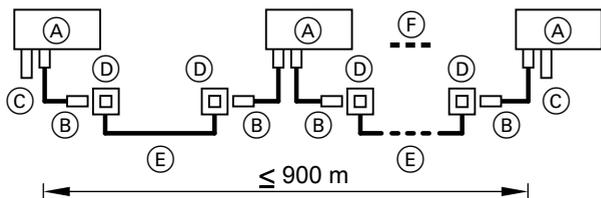


Installation spacing  $\leq 900$  m (with LON plug)

- (A) Control unit or communication product
- (B) On-site cable
- (C) Terminator
- (D) LON plug
- (F) Up to 30 subscribers

## Making the LON connection (cont.)

### Connection with LON cable, on-site cable and LON socket



Installation spacing  $\leq 900$  m (with LON sockets)

- |   |                          |
|---|--------------------------|
| (A) Control unit or communication product | (D) LON sockets          |
| (B) LON cable, 7 m long                   | (E) On-site cable        |
| (C) Terminator                            | (F) Up to 30 subscribers |

## Commissioning and adjustment



Service and installation instructions and service instructions for the relevant appliance

### Note

*If the LON PCB is installed as a spare part, the LON subscriber list has to be deleted at the control unit that is designated as the fault manager: See installation and service instructions for the control unit.*



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5780510 Subject to technical modifications.