THERMOMATIC EC HOME® RO
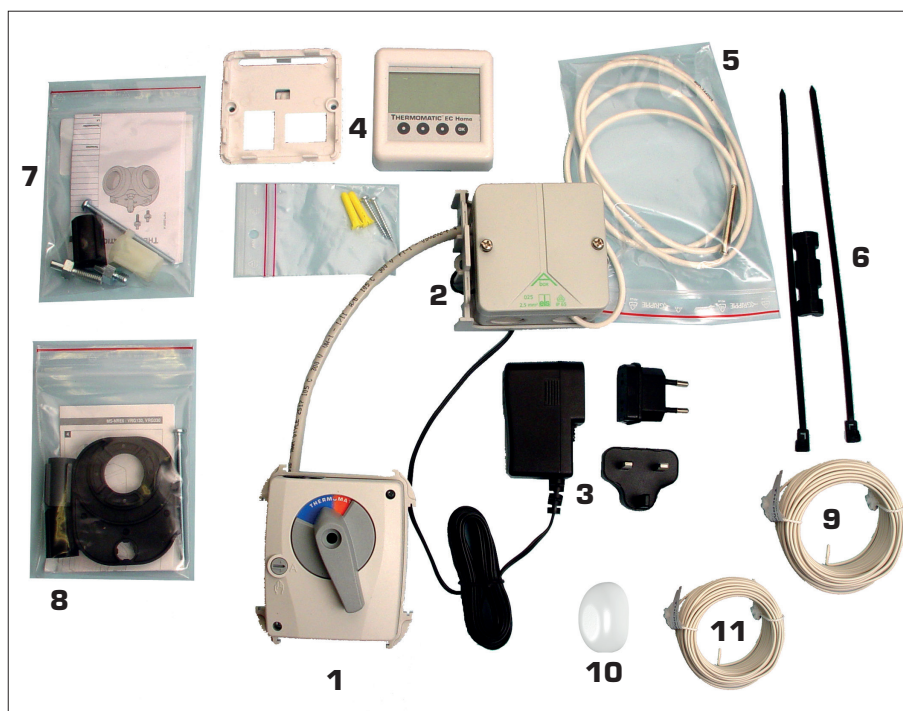## Quick start guide for installation and initial start-up

Abbreviations found in the text

CC = Connection centre
CP = Control Panel

Scope of delivery

1. Mixing valve motor, 24 V DC, 0-10 V, 90°, 10 Nm (connected to CC when delivered)

2. Connection centre (CC), with bracket for fitting motor. The click lock is delivered loose in the CC.

3. Power supply 24 V DC (connected to the CC on delivery). With EU/UK-adapters, 5 m. cable.

4. Room sensor/control panel (CP) (with installation kit for wall fitting).

5. Flow sensor (connected to CC on delivery).

6. Installation kit for supply sensors.

7. Installation kit MS-NRETV, for motors on Termoventiler mixing valves or similar.

8. Installation kit MR-NRETV1 for motors on mixing valve type Esbe VRG/VRB

9. 4 conductor cable, 25 m, for room sensor/control panel

10. Outdoor sensor
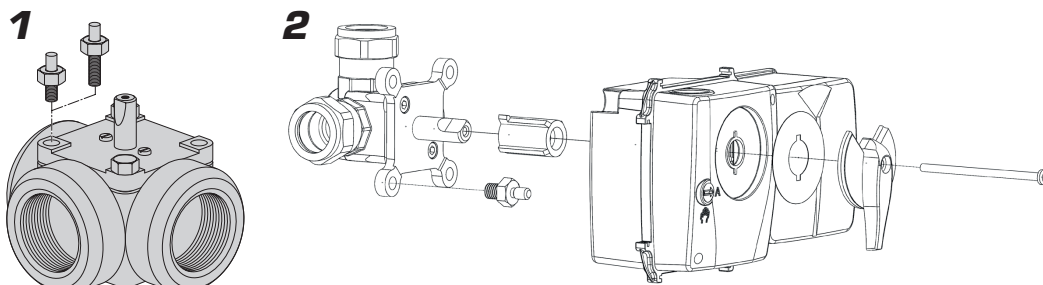
11. 2 conductor cable, 25 m, for outdoor sensor.

Scan the QR code on the right to view the complete manual for Thermomatic EC Home as a PDF.

You can also click here to open the manual as a PDF (computer).

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1 Installation of motor on mixing valve

Fit the motor to the mixing valve according to the instructions on the respective installation kit (example shown in photos 1 and 2). Which installation kit is to be used depends on the mixing valve, see the table and instructions in the respective installation kit.

1

2

NB! See the respective installation kit!

3

Fit the plate (blue/red) for the mixing valve's position indicator on the motor and fix the handle as shown in figure 3. **NB! The motor is always delivered in the centre position and the handle only fits in the position that the motor is in.** Insert and tighten the screw in the centre of the motor.

Turn the motor to manual position (photo 3). **NB! The handle must only be turned. If the handle is depressed it may stick in the manual position.**
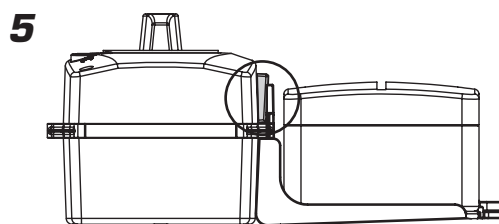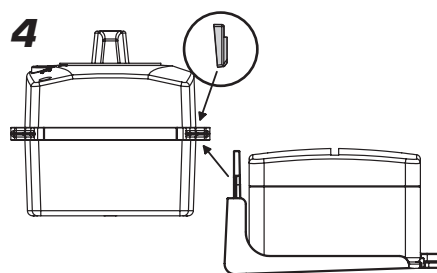
Check that the mixing valve's working area agrees with the position of the handle.

2 Installation of the CC

Install the CC with the bracket as shown in photo 4. **The bracket can be located on either side of the motor and is pressed into place from behind.** The click lock is pressed into the slot until it says "Click" (photo 5). You can use e.g. a small screwdriver to remove the click lock.
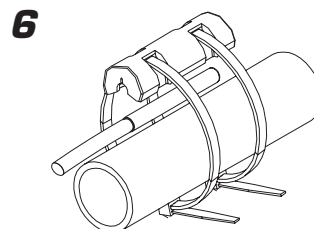
The click lock is delivered loose inside the CC.

The CC can also be fitted separately, e.g. on a wall. The box size is adapted for exterior fitting on a 70 mm electrical box (e.g. wall socket).

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3 Fitting the flow sensor

Attach the sensor with the enclosed installation kit on the supply pipe (photo 6) as close to the mixing valve as possible. Ensure that there is good contact. Insulate.

6

4 Cabling

Installing the 4 conductor cable:
Lay **all** of the cable between the CC and the CP before connecting to the respective units.
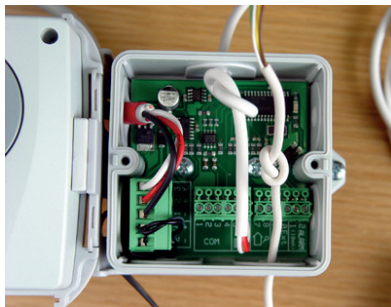
5 Connecting the CC to the outdoor sensor

Insert the cable through the cable entry. We recommend that you knot the cable as a cable grip (photo 7).
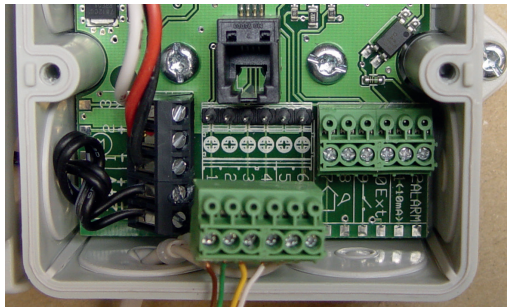
The terminal block can be removed (photo 8) and is pushed into place on the stud after the cables are connected. Connect the 4-way multi-cable to the CC's terminals 1-4. NB! The colour combination on the CC terminal block must be repeated when connecting to the CP.
Photo 9 shows the CC's various terminal blocks and their function with numbers and symbols.
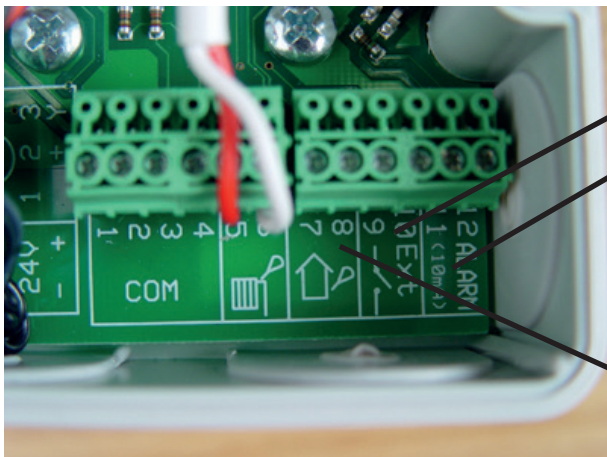

Terminals 9-10: Input for external control

Terminals 11-12: Output for Alarm.
NB! Polarity! Terminals 11 = "+"

Outdoor sensor Terminals 7-8

6 Connection of the CP

The CP is delivered with the wall fitting/adapter loose. The CP can later be removed simply w[...]
11.

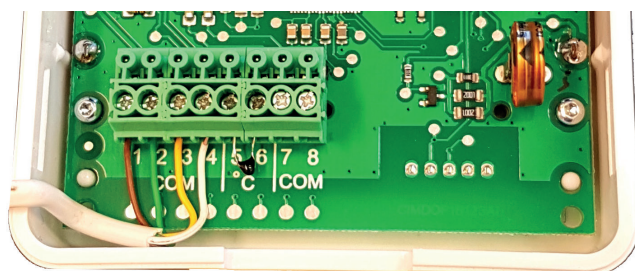Connect the 4-way multi-cable to the CC's terminals 1-4, as shown in photo 12.
NB! The same colour combination as on the terminals in the CC.
Remember that the cable must also be pulled through the wall fitting.
The CP is then pushed in place on the bottom plate with the click lock.
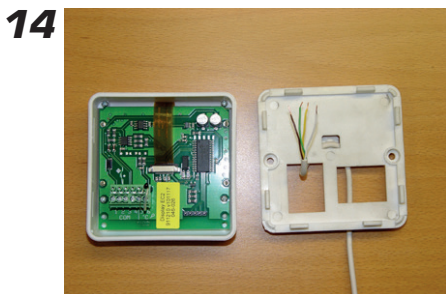Insert the lower edge first, then press in the upper part.

7 Installing the CP or a separate room sensor

The CP can be fitted on the CC or on the wall using the enclosed installation kit (plug and screw).

In its standard design, the CP has an integrated temperature sensor that is used as the room sensor. The position of the CP is therefore decisive for correct operation when using the room sensor function.
The CP should be located centrally in the house, in a hall, stairway or similar space which is linked to as much of the rest of the house as possible. Avoid rooms with a lot of supplementary heat sources, such as a kitchen, south-facing living room or upstairs in a two storey house. Position the sensor away from direct sunlight. Avoid placing on an external wall or near an external door. Make sure the sensor is not positioned closer than 1 m from the nearest radiator and around 1.5 m from the floor.
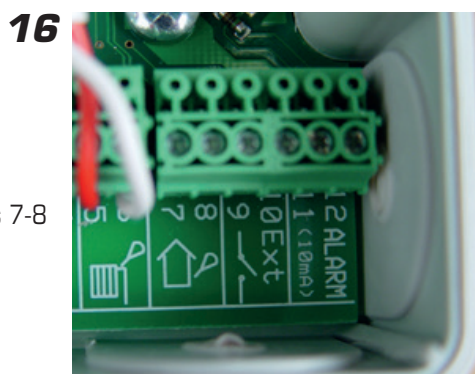
For installation on the CC, see photo 13. The cover screws are then used to fix the CP wall fitting directly to the CC. The 4-way multi-cable is always pulled through the wall fitting as shown in photo 14. Photo 15 shows installation with the CP on the CC.
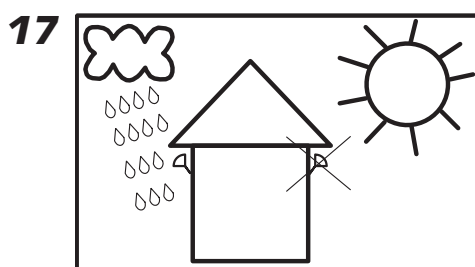
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8 Fitting outdoor sensors

16

8.1 Connecting the cable to the CC

The outdoor sensor is connected using the enclosed 2 conductor cable to terminals 7-8 in the Connection Centre.

8.2 Positioning outdoor sensors

The outdoor sensor is positioned under the eaves where it does not receive direct sunlight and rain.

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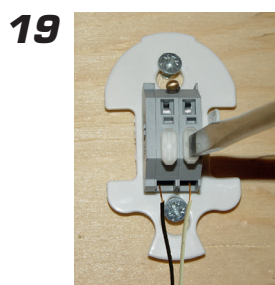## 8.3 Connecting the cable to the outdoor sensor

The sensor cover is removed/fitted by pressing the sides and lifting/pressing in place, as shown in photo 18.

NB! Screw the sensor in place on the wall before connecting the cable.

The sensor is fitted with a strong spring-loaded terminal block to safeguard its function.

Use a screwdriver or similar to press down and open the connector as shown in photo 19.
Insert the cable ends and release the pressure to secure the cable.

18

19

9 Using the CP

Press any of the buttons to start the display. The second press on any button opens the first available menu.
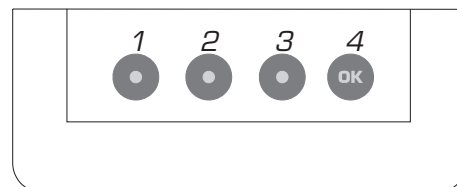
The buttons' function is then displayed above the respective buttons.

Button 1 = Move down/right or decrease value

Button 2 = Move up/left or increase value

Button 3 = Return/escape

Button 4 = OK/activate menu

```
    1     2     3     4
    ●     ●     ●    OK
```

```
1       Change
```

None of the values can be changed "by mistake". In all of the modes where it is possible to change a value, you will be prompted whether you are sure you want to make the change before the value is actually changed.
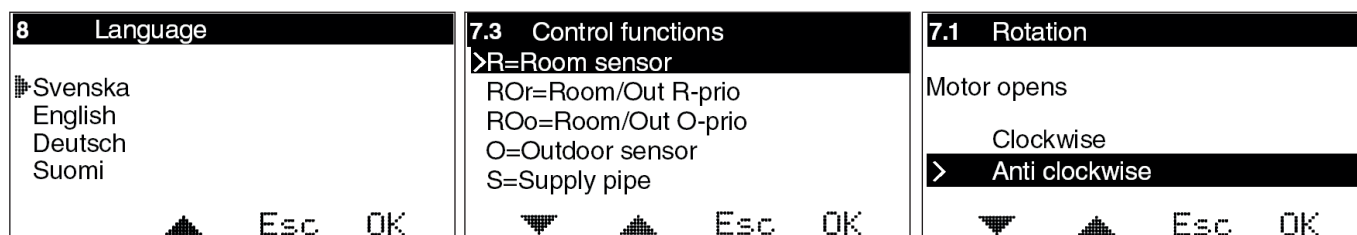
```
Change wanted?

        No    OK
```

10 Basic settings on first start-up

The following settings are made on first start-up (see photo below):

When using two systems, a common menu will be shown as the first screen. See the complete manual pages 45-46.
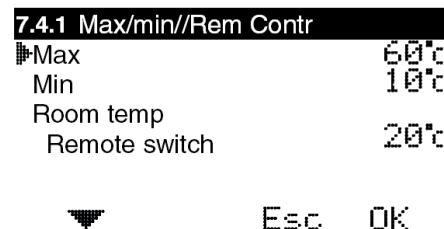
```
8       Language

▸Svenska
 English
 Deutsch
 Suomi

         ▲    Esc   OK
```

```
7.3    Control functions
▸R=Room sensor
 ROr=Room/Out R-prio
 ROo=Room/Out O-prio
 O=Outdoor sensor
 S=Supply pipe
     ▼    ▲    Esc   OK
```

```
7.1    Rotation

Motor opens

     Clockwise
▸    Anti clockwise

     ▼    ▲    Esc   OK
```

11 Other basic settings

The maximum limit is set from 0-90°C. Factory setting is 60°C. The setting is made in menu 7.4.

The minimum limit is set from 0-60°C. Factory setting is 10°C. The setting is made in menu 7.4.

```
7.4.1 Max/min//Rem Contr
▸Max               60°c
 Min               10°c
 Room temp
  Remote switch    20°c

     ▼             Esc   OK
```

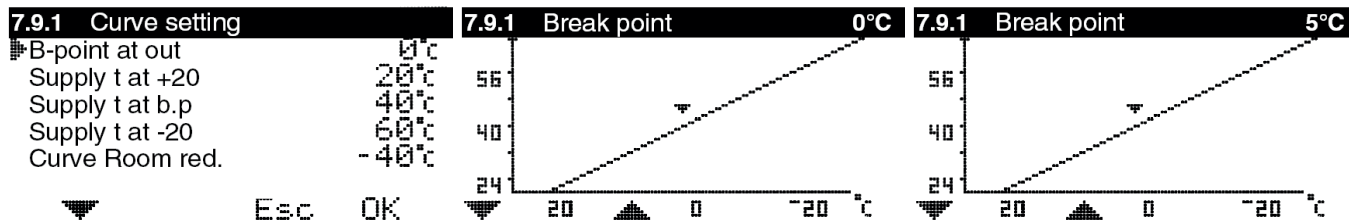For more advanced settings, such as setting the clock, night reduction etc. - see the complete manual.

12 Menu 7.9 Curve setting

When control is run in ROr mode, this setting is used for the maximum limit of the supply temperature.
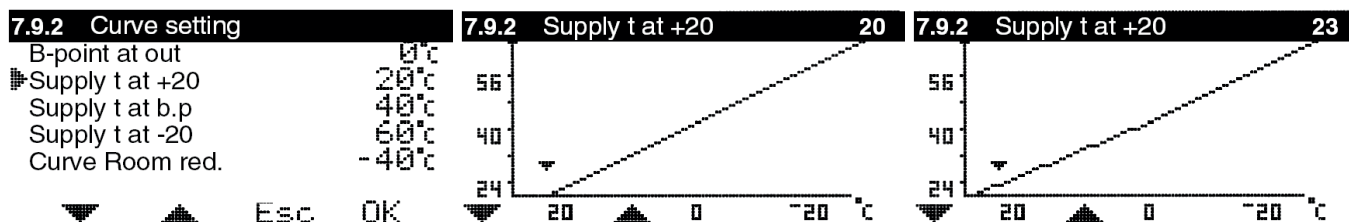When control is running in the ROo mode the desired flow temperature is set.
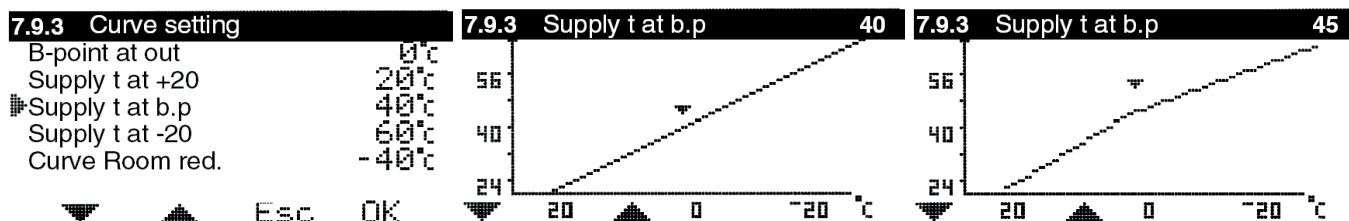How the curve is affected is shown in the display (see photo below).

7.9.1 B-pint at out – This setting allows you to break the curve at a selected outdoor temperature.

7.9.2/7.9.4 Supply t. at +20 / -20 – What the maximum supply temperature shall be at +20 and -20°C outdoors, respectively.

7.9.3 Supply t. at b.p - What the maximum supply temperature must be at the set break point.

7.9.5 Curve Room red. - Is used to select how many degrees below the selected max. curve the room sensor may lower the flow temperature, so-called floating minimum limit. See page 29 in the complete manual for more info.