

Uponor



Uponor Smatrix Move PRO



HEATING APPLICATION

UK INSTALLATION AND OPERATION
MANUAL

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- is selected, planned and installed and put into operation by a licensed and competent planner and installer in compliance with current (at the time of installation) installation instructions provided by Uponor as well as in compliance with all applicable building and plumbing codes and other requirements and guidelines;
- has not been (temporarily or continuously) exposed to temperatures, pressure and/or voltages that exceed the limits printed on the products or stated in any instructions supplied by Uponor;
- remain in its originally installed location and is not repaired, replaced or interfered with, without prior written consent of Uponor;
- is connected to potable water supplies or compatible plumbing, heating and/or cooling products approved or specified by Uponor;
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- does not show evidence of tampering, mishandling, insufficient maintenance, improper storage, neglect or accidental damage before installation and being put into operation.

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2 Preface

This installation and operation manual describes how to install and operate the components of the system.

2.1 Safety instructions

Warnings used in this manual

The following symbols are used in the manual to indicate special precautions when installing and operating any Uponor equipment:



WARNING!

Risk of injury. Ignoring warnings can cause injury or damage components.



CAUTION!

Ignoring cautions can cause malfunctions.

Safety measures

Conform to the following measures when installing and operating any Uponor equipment:

- Read and follow the instructions in the installation and operation manual.
- Installation must be performed by a competent person in accordance with local regulations.
- It is prohibited to make changes or modifications not specified in this manual.
- All power supplies must be switched off before starting any wiring work.
- Do not use water to clean Uponor components.
- Do not expose the Uponor components to flammable vapours or gases.

Uponor cannot accept any responsibility for damage or breakdown that can result from ignoring these instructions.

Power



WARNING!

The Uponor system uses 50 Hz, 230 V AC power. In case of emergency, immediately disconnect the power.

Technical constraints



CAUTION!

To avoid interference, keep installation/data cables away from power cables of more than 50 V.

2.2 Correct disposal of this product (Waste Electrical and Electronic Equipment)



NOTE!

Applicable in the European Union and other European countries with separate collection systems



This marking shown on the product or its literature indicates that it should not be disposed with other household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes of disposal.

3 Uponor Smatrix Move PRO

Uponor Smatrix Move PRO is a supply temperature control system for use in different zones. The number of zones and setup vary depending on which application package (supplied with the controller) has been installed (inserting the microSD card into the controller).

This manual only reflects the installation of the controller together with the heating application package.

Heating application

Using the heating application, enables up to four zones to be setup for heating with different radiant systems (such as underfloor loops, radiators etc.), domestic hot water, or snow melting (keeping large areas clear of snow).

Heating/cooling application

Using the heating/cooling application enables up to three zones to be setup for heating and/or cooling with different radiant systems (such as underfloor loops, ceiling panels etc.), domestic hot water, or snow melting (keeping large areas clear of snow)

3.1 System overview

Uponor Smatrix Move PRO consists of a controller and a wide array of sensors. Together they control the supply temperature in each zone by managing the connected valve actuators and circulation pumps. The zones can be setup as follows.

Zone	Setup alternatives
1	Stand Alone Control
	Smatrix Base PRO
2	Stand Alone Control
	Smatrix Base PRO
	Domestic Hot Water
3	Stand Alone Control
	Smatrix Base PRO
	Meltaway
4	Stand Alone Control
	Smatrix Base PRO
	Meltaway

Stand Alone Control

If the zone is setup as **Stand Alone Control**, the controller operates without individual room control. The supply temperature setpoint is calculated using an outdoor sensor and an optional room temperature sensor.

The optional room temperature sensor is placed in a reference area and enables an indoor temperature setpoint parameter. It is used to keep the indoor temperature as close as possible to the indoor temperature setpoint.

Smatrix Base PRO

If the zone is setup as **Smatrix Base PRO**, individual room control in the zone is enabled via an integrated Uponor Smatrix Base PRO system. The supply temperature setpoint is calculated using sensor data and current mode from the Base PRO system.

The outdoor temperature sensor is connected to the Base PRO system via a thermostat, registered as a system device. The thermostat is preferably placed in a non-public area such as a technical room. The outdoor temperature sensor data will also be used by the other zones.

This requires the Move PRO controller to be connected to a Smatrix Base PRO bus.

Domestic Hot Water

If the zone is setup as **Domestic Hot Water**, hot water regulation is enabled in the zone. The supply temperature setpoint is set in the Move PRO controller display.



NOTE!

If the zone is setup as **Domestic Hot Water** without a return sensor, the zone will work with reduced functionality. Functions such as BoostPower and hot water recirculation requires a return sensor to work properly.

Meltaway

If the zone is setup as **Meltaway**, snow melting (keeping large areas clear of snow) is enabled in the zone. The supply temperature setpoint is calculated using an outdoor sensor, a ground temperature sensor, and a ground moisture sensor.

When to start or stop snow melting (status: Stop, Idle or Meltaway) is determined by using an outdoor temperature sensor and two Uponor Smatrix Move PRO Sensor Snow S-158 sensors. One of S-158 sensors is used for measuring the ground temperature and the other one is used for measuring the ground moisture level.

The return temperature sensor is used to calculate the difference between the supply and return temperature and trips an alarm if the difference is too high.

The primary return sensor is used to protect the heat source from too low return temperatures.

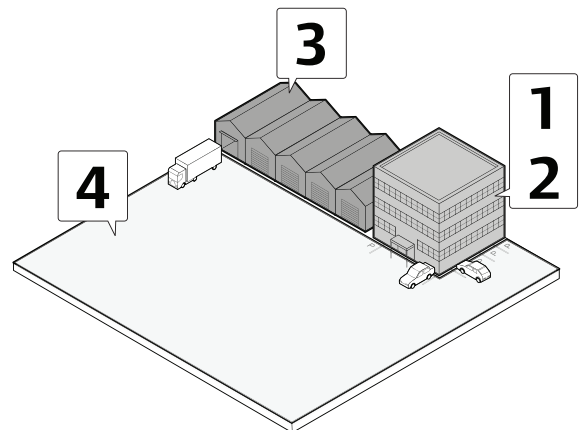
3.2 Example of a system

The illustration below shows a property divided into different zones. All zones are controlled by the Uponor Smatrix Move PRO.



NOTE!

This is an example. The Move PRO controller can be setup in a wide array of combinations.



Zone	Description
1	The zone (heating in an office building) is setup as Smatrix Base PRO .
2	The zone (domestic hot water production) is setup as Domestic Hot Water .
3	The zone (underfloor heating in a warehouse) is setup as Stand Alone Control .
4	The zone (keeping a parking lot and a large courtyard clear of snow) is setup as Meltaway .

3.3 Uponor Smatrix Move PRO components

CONTROLLER

The controller operates the valve actuators and circulation pumps, which in turn affect the supply water temperature to the zone.

The temperature in up to four zones can be regulated by the controller.

Uponor Smatrix Move PRO Controller X-159

Main characteristics:

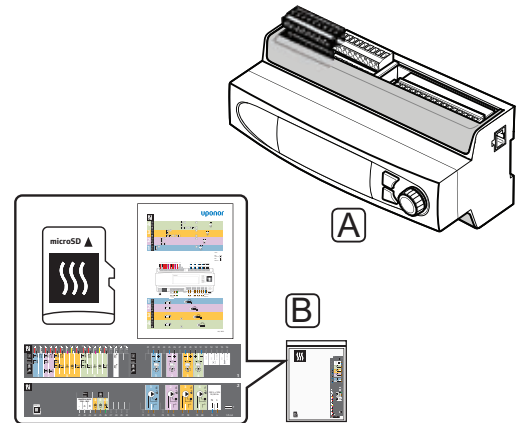
- Integrated display with menu system.
- Control of supply temperature for up to four zones (up to four heating systems, up to two snow melting zones, and one domestic hot water zone).
- Heating curve (Stand Alone Control and Smatrix Base PRO zones only).
- Connection of maximum four actuators (one per zone).
- Connection of maximum four circulation pumps (one per zone).
- Pump exercise.
- Lower supply temperature using customizable schedules (ECO mode).
- Initial setup done via startup wizard.
- BMS ready via Modbus and KNX interfaces.
- Integration with Uponor Smatrix Base PRO via system bus.

Options:

- Cabinet or wall mounted using a DIN rail (not supplied).

Components of the controller

The illustration below shows the controller and its components with the heating application package.



Item	Description
A	Uponor Smatrix Move PRO Controller X-159
B	Heating only application package (microSD card, application diagram, connection stickers)

The box also contains a heating/cooling application package which is explained in another installation and operation manual.

ROOM SENSOR



NOTE!

The room sensor is affected by the temperature of the surrounding surfaces as well as the ambient air temperature.

Uponor Smatrix Move PRO Sensor Room S-155

The sensor is designed to measure the indoor reference temperature within the zone.

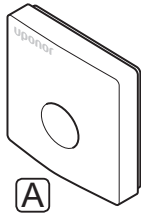
The sensor is only used in zones setup as **Stand Alone Control**.

Main characteristics:

- Sensor range is 0 – 60 °C.
- Prepared for wall or connection box mounting

Components of the room sensor:

The illustration below shows the room sensor and its components.



Item	Description
A	Smatrix Move PRO Sensor Room S-155

SNOW AND ICE SENSOR

Uponor Smatrix Move PRO Sensor Snow S-158

The sensor is designed to be embedded into outdoor surfaces to measure the ground temperature and moisture level.

The sensor is only used in zones setup as **Meltaway**. To ensure the snow melting function, two Uponor Smatrix Move PRO Sensor Snow S-158 and three supply/return sensors must be installed.

Main characteristics:

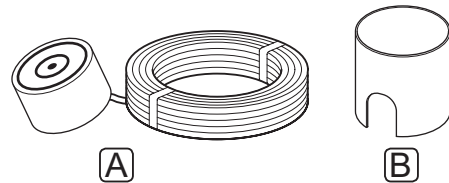
- Detects moisture.
- Detects temperature.
- Horizontal installation to ensure collection of draining melt water.

Options:

- The sensor can be used as either ground temperature sensor or ground moisture sensor. It cannot be used for both at once.

Components of the snow sensor:

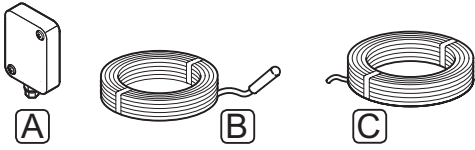
The illustration below shows the snow sensor and its components.



Item	Description
A	Smatrix Move PRO Sensor Snow & Ice S-158
B	Mounting socket

3.4 Accessories

Uponor offers a wide variety of accessories for use with the standard portfolio.



NOTE! Some of these accessories may be included in the system.

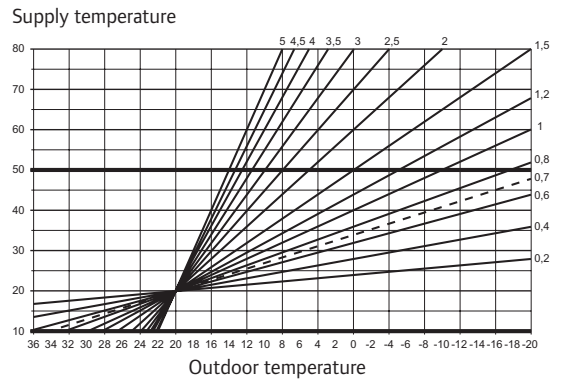
Item	Component	Description
A	Uponor Smatrix Sensor Outdoor S-1XX (outdoor sensor S-1XX)	Outdoor sensor for use with system without a zone setup as Smatrix Base PRO.
B	Uponor Smatrix Move Sensor Supply/Return S-152 (supply/return sensor S-152)	Sensor that can be used as either a supply or return sensor.
C	Uponor Smatrix Bus cable A-145	Bus cable for use with integration of Uponor Smatrix Base PRO system

3.5 Functions

HEATING CURVE

The Move PRO controller use a heating curve to calculate the supply temperature setpoint. This requires the zone to be setup as **Stand Alone Control** or **Smatrix Base PRO**.

The heating curve for the Uponor Smatrix Move PRO controller is shown in the diagram below. The diagram shows the calculated supply temperature, for each curve, at different outdoor temperatures. The controller uses the selected curve to operate the mixing valve, which in turn adjusts the supply temperature to the system.



The choice of curve depends on a combination of different factors, such as how well insulated the house is, geographical location, type of heating system etc.

Example:

A poorly insulated house heated by a radiator system requires a higher curve value than an equivalent house with underfloor heating.

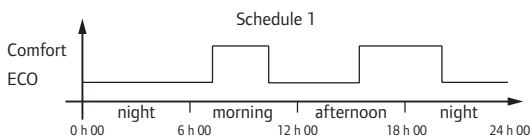
The curves in the diagram are also limited by maximum and minimum parameters set in the system (marked in the diagram with extra thick lines).

REAL TIME CLOCK

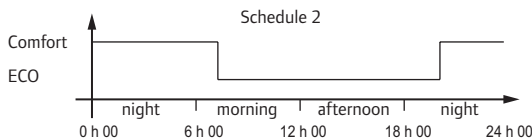
To facilitate accurate scheduling, the controller contains a real time clock. If an Uponor Smatrix Base PRO system is connected it will act as a time master, pushing the current time setting to the Move PRO controller.

COMFORT AND ECO MODES (SCHEDULING)

With the integrated timer in the controller, it is possible to change the temperature setpoint modes between two different temperatures. To utilise the Comfort and ECO modes in a zone, the zone must be setup as **Stand Alone Control** and using a room sensor. Available modes are **Comfort** and **ECO** (economy). *See example of Comfort and ECO mode below.*



Other zones can, depending on system setup, simultaneously switch between Comfort and ECO mode according to their own programmed schedules.



Even if programmed schedules exist in the system, some zones may still operate without any scheduling. These zones will operate in constant Comfort mode and is not affected by the programming of other zones.

SYSTEM INTEGRATION WITH BASE PRO SYSTEMS

The system can be integrated with an Uponor Smatrix Base PRO system to enable individual room control in the zone.

The outdoor temperature sensor is connected to the Base PRO system, and an additional outdoor temperature sensor connected to the Move PRO controller is not needed. The outdoor temperature sensor data will also be used by the other zones.

The integration is activated when a zone is setup as **Smatrix Base PRO** (requires that the wiring is done and that **Supply Water Controller** is activated in the **Integration** menu in the Base PRO interface) in the startup wizard on the Move PRO controller.

See section 5.10 Connect Uponor Smatrix Base PRO controller for more information.

See section 5.13 Startup wizard for more information.

See Uponor Smatrix Base PRO documentation for more information.

4 Install Uponor Smatrix Move PRO system

4.1 Installation procedure

UPONOR SMATRIX MOVE PRO

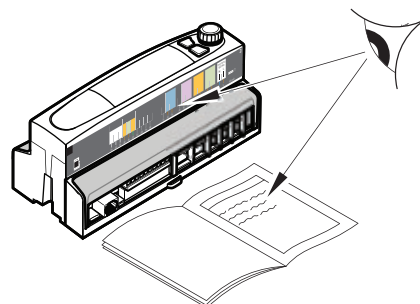
Uponor recommends following the process described below to guarantee the best possible installation results.

Stage	Procedure	Page
1	Prepare for installation	11
2	Install Uponor Smatrix Move PRO controller	15
3	Connect sensors to the controller	16
4	Connect valve actuators to the controller	25
5	Connect circulation pumps to the controller	26
6	Connect Uponor Smatrix Base PRO controller	27
7	Connect the controller to AC power	28
8	Startup wizard	28
9	Finishing installation	36

4.2 Prepare for installation

Before starting the installation:

- Verify the contents of the package with the packing list.
See also section 3.3 Uponor Smatrix Move PRO components for identification of components.
- Study the wiring diagram in the end of this manual or on the controller.

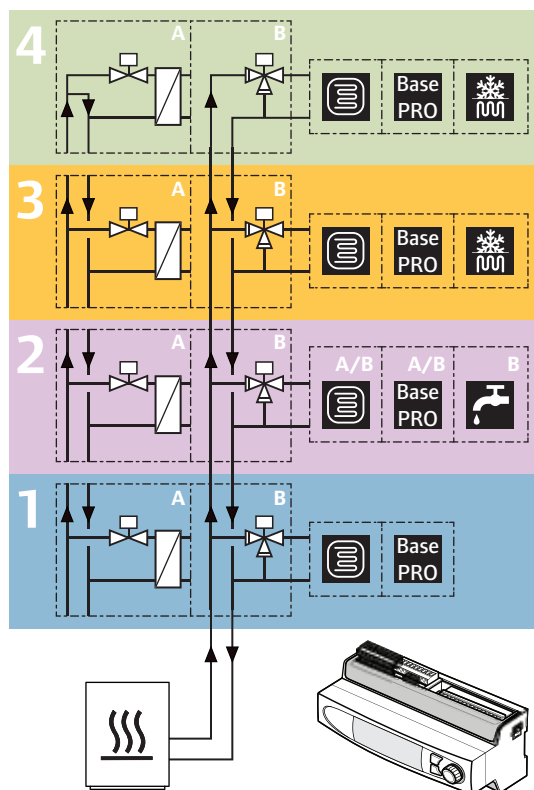


To determine where to best place the Uponor Smatrix Move PRO components, follow these guidelines:

- Ensure that the controller can be installed close to the valve actuators, if possible.
- Ensure that the controller can be mounted close to 230 V AC supply.
- Ensure that installed Uponor Smatrix Move PRO components are protected from running or dripping water, preferably in a cabinet.

4.3 Installation example

UPONOR SMATRIX MOVE PRO SYSTEM



A connection example of Uponor Smatrix Move PRO Controller (with the heating application installed) regulating four different zones (setup as underfloor heating with a **Stand Alone Control**, underfloor heating with a **Smatrix Base PRO** system, **Domestic Hot Water** production, or melting snow with **Meltaway**).

The installation will work in a standard way with a wide range of sensors regulating each zone according to set temperatures (setpoints).

The supply is routed to the zones using either a three-way mixing valve (B), or using a two-way valve together with a heat exchanger (A).

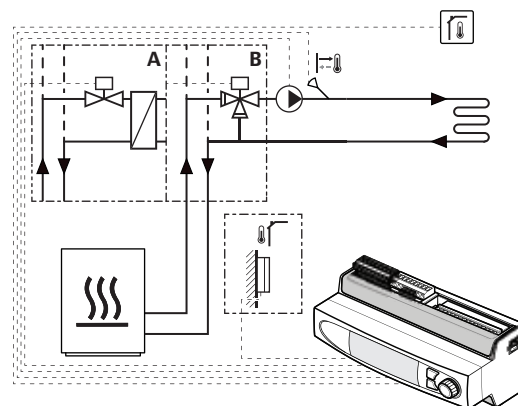


NOTE!

When using a 3-way mixing valve (option B) in a meltaway zone, a heat exchanger may be needed. This creates a secondary loop where water mixed with antifreeze additives circulate.

See also the wiring diagram in the end of the manual.

Stand Alone Control



If the zone (1 through 4) is setup as **Stand Alone Control**, basic control of the system is enabled.

The following components are required for heating operation in the zone (regulate the zone temperature using a mixing valve).

- Supply sensor S-152

Optional:

- Room sensor S-155

The outdoor temperature sensor is not needed if the Move PRO controller is integrated with an Uponor Smatrix Base PRO system (with outdoor temperature sensor).

See section 5 Install Uponor Smatrix Move PRO controller for more information.

SYSTEM SETTINGS IN STARTUP WIZARD

Enable Zone # (# = 1, 2, 3, or 4): Yes

Zone setup: Stand Alone Control

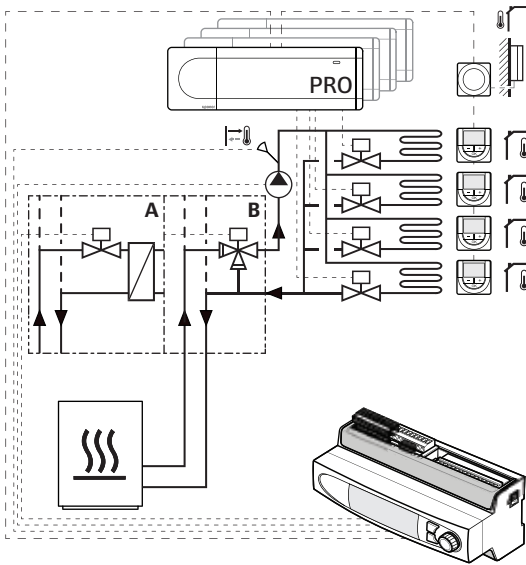
Heating Mode: Outdoor (outdoor temperature sensor only)
Outdoor + Indoor comp. (outdoor temperature sensor with optional room temperature sensor)

Other zone settings can be found in the menu system **Settings > Zone # Setting** (where # is the zone where **Stand Alone Control** is activated).

See section 5.13 Startup wizard for more information.

See section 7.10 Settings for more information.

Smatrix Base PRO



Base PRO If the zone (1 through 4) is setup as **Smatrix Base PRO**, individual room control in the zone is enabled.

The controller is connected to an Uponor Smatrix Base PRO system, via the Smatrix Base PRO bus, utilising its components to regulate the zone temperature.

The following components are required for heating operation in the zone (regulate the zone temperature using a mixing valve).

- Supply sensor S-152
- Smatrix Base PRO system

The outdoor temperature sensor is connected to the Base PRO system via a thermostat, registered as a system device. The thermostat is preferably placed in a non-public area such as a technical room.



CAUTION!

The integration is activated when a zone is setup as **Smatrix Base PRO** (requires that the wiring is done and that **Supply Water Controller** is activated in the **Integration** menu in the Base PRO interface) in the startup wizard on the Move PRO controller.

See section 5 *Install Uponor Smatrix Move PRO controller for more information.*

SYSTEM SETTINGS IN STARTUP WIZARD

Enable Zone # (# = 1, 2, 3, or 4): Yes

Zone setup: Smatrix Base PRO

Heating Mode: Outdoor (outdoor temperature sensor only)
Outdoor + Indoor comp. (outdoor temperature sensor with optional room temperature sensor)

Smatrix Indoor Temperature: Worst Case (the measured worst case temperature in the zone), or Average (the calculated average temperature in the zone).

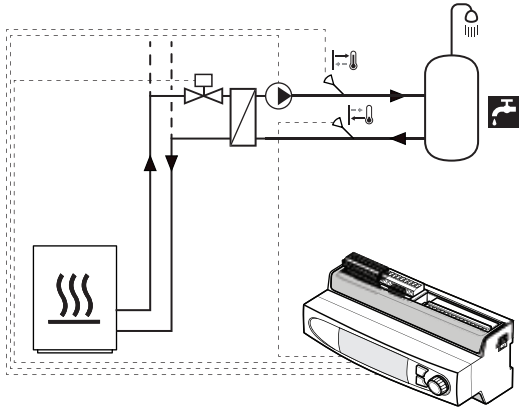
Assign Controller to zone: Assign connected Smatrix Base PRO controllers to zones.


Other zone settings can be found in the menu system **Settings > Zone # Setting** (where # is the zone where **Smatrix Base PRO** is activated).

See section 5.13 *Startup wizard for more information.*

See section 7.10 *Settings for more information.*

Domestic Hot Water



 If the zone is setup as **Domestic Hot Water**, hot water production is enabled in the zone.



CAUTION!

The Domestic Hot Water function requires a constant delivery of heating supply water, such as district heating.

The following components are required for regulating the hot water temperature in the zone (regulate the supply temperature using a mixing valve).

- Supply sensor S-152
- Return sensor S-152



NOTE!

If the zone is setup as **Domestic Hot Water** without a return sensor, the zone will work with reduced functionality. Functions such as BoostPower and hot water recirculation requires a return sensor to work properly.

See section 5 Install Uponor Smatrix Move PRO controller for more information.

SYSTEM SETTINGS IN STARTUP WIZARD

Enable Zone 2: Yes

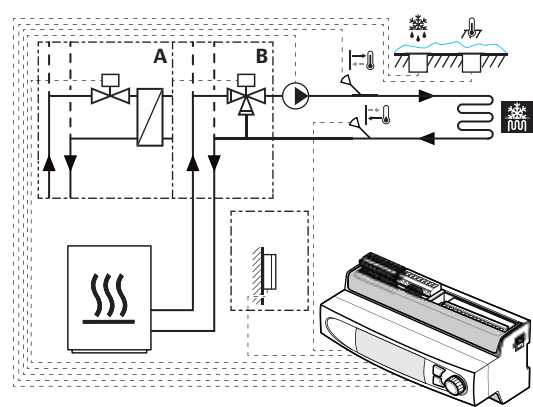
Zone setup: Domestic Hot Water


Other zone settings can be found in the menu system **Settings > Zone # Setting** (where # is the zone where **Domestic Hot Water** is activated).

See section 5.13 Startup wizard for more information.

See section 7.10 Settings for more information.

Meltaway



 If the zone is setup as **Meltaway**, hot water production for snow melting (keeping large areas clear of snow) is enabled in the zone.

The following components are required for snow melting hot water production in the zone (regulate the supply temperature using a mixing valve).

Required:

- Supply sensor S-152
- Return sensor S-152
- Primary return sensor S-152 (not shown in illustration)
- Snow sensor S-158 used as ground temperature sensor
- Snow sensor S-158 used as ground moisture sensor

The outdoor temperature sensor is not needed if the Move PRO controller is integrated with an Uponor Smatrix Base PRO system (with outdoor temperature sensor).

See section 5 Install Uponor Smatrix Move PRO controller for more information.

SYSTEM SETTINGS IN STARTUP WIZARD

Enable Zone # (# = 3 or 4): Yes

Zone setup: Meltaway

Other zone settings can be found in the menu system **Settings > Zone # Setting** (where # is the zone where **Melt away** is activated).



NOTE!

When using a 3-way mixing valve (option B) a heat exchanger may be needed, creating a secondary loop where water mixed with antifreeze additives circulate.

See section 5.13 Startup wizard for more information.

See section 7.10 Settings for more information.

5 Install Uponor Smatrix Move PRO controller

5.1 Placement of controller

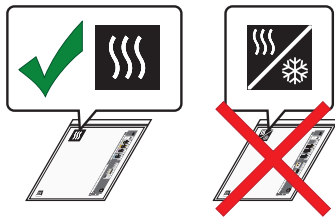
Refer to the installation preparation guidelines (see section 4.2 *Prepare for installation*), and use the following guidelines when positioning the controller:

- Position the controller close to at least one of the actuators, preferably inside a cabinet. Check the position of the 230 V AC supply.
- Check that the terminal cover can be easily removed from the controller.
- Check that connectors and switches are easily accessible.

5.2 Select controller application

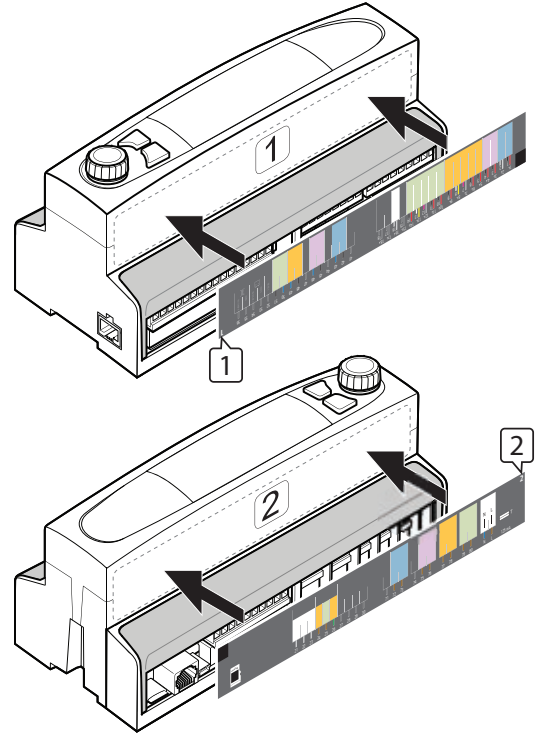
The controller is delivered with two packages containing applications for different use of the controller. The package contains a microSD card, electrical connection stickers, and an application diagram depicting installation examples.

Select the package containing the heating application and discard the other one.



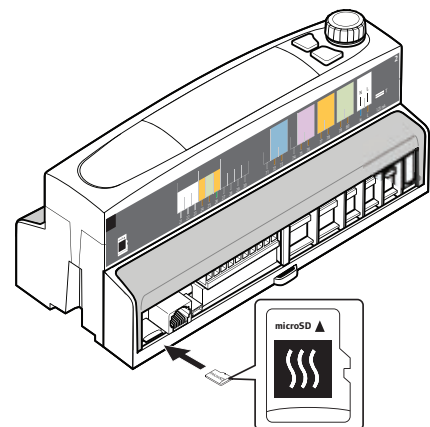
5.3 Attach stickers

Attach the stickers from the application package to the controller.



5.4 Insert microSD card

Insert the microSD card from the application package into the controller.

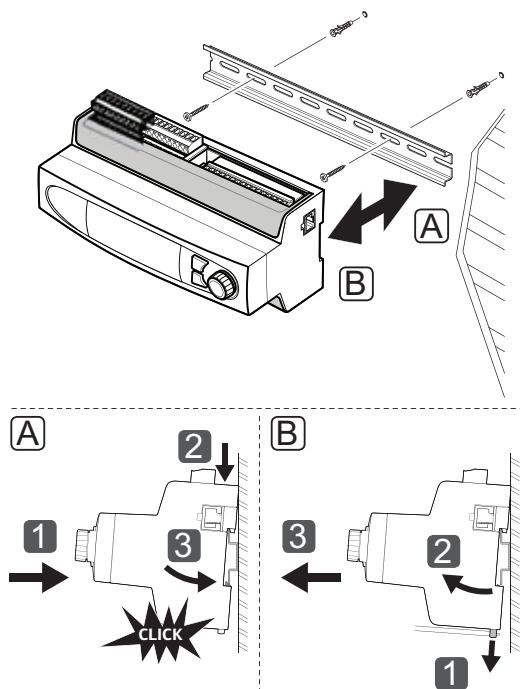


5.5 Attach controller to the wall

DIN RAIL

Attach the controller to a DIN rail in a cabinet (recommended), or to a DIN rail attached to a wall using screws and wall plugs.

The figure below shows how to attach the controller using a DIN rail.

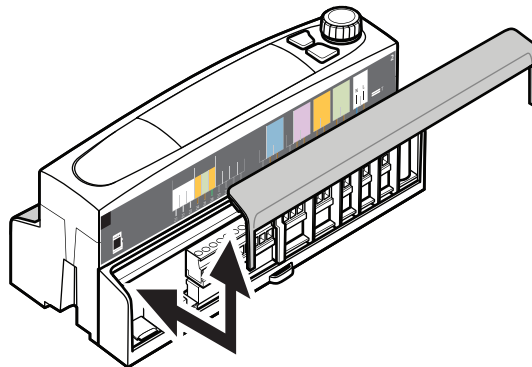


CAUTION!

Make sure the controller cannot slide off the DIN rail if mounting it in any other position than horizontal.

5.6 Terminal cover

The illustration below shows how to remove and re-attach the terminal cover.



5.7 Connect sensors to controller

The following sensors can be connected to the system:

- Uponor Smatrix Outdoor S-1XX
- Uponor Smatrix Move Sensor Supply/Return S-152
- Uponor Smatrix Move PRO Sensor Room S-155
- Uponor Smatrix Move PRO Sensor Snow S-158



WARNING!

Electrical installation and service behind secured 230 V AC covers must be carried out under the supervision of a qualified electrician.



CAUTION!

Make sure shielded cables are used when connecting sensors to the controller to prevent interference from power sources and cables.

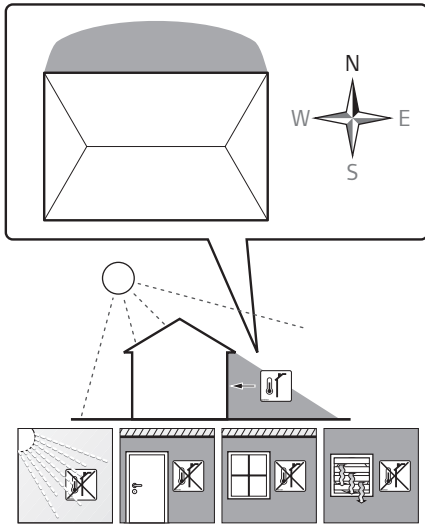
OUTDOOR SENSOR

The outdoor sensor is mandatory and must always be installed. Either directly to the Move PRO controller or via an integrated Uponor Smatrix Base PRO controller. If a Base PRO controller is integrated to the system, it is a requirement to connect the outdoor temperature sensor to the Base PRO controller via a thermostat, registered as a system device. The thermostat is preferably placed in a non-public area such as a technical room.

Placement of outdoor sensor

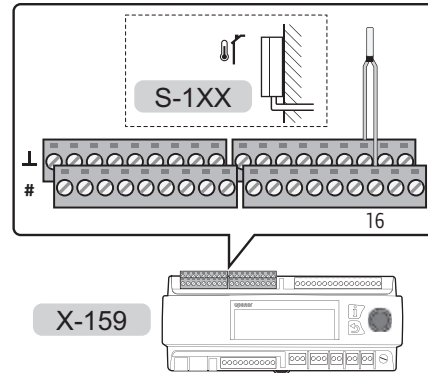
Refer to the installation preparation guidelines (see section 4.2 *Prepare for installation*), and use the following guidelines when positioning the outdoor sensor:

1. Attach the outdoor sensor to the north side of the building where it is unlikely to be exposed to direct sunlight.
2. Ensure that the outdoor sensor is placed away from doors, windows, or air outlets.



Connect outdoor sensor to controller

The illustration below shows the outdoor sensor connected to the controller.



To connect an outdoor sensor to the controller:

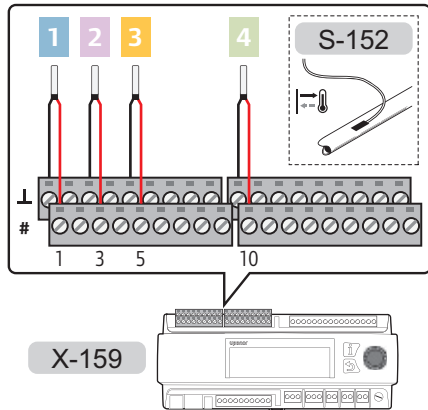
1. Ensure that the power is disconnected from the controller.
2. Remove the terminal cover.
See section 5.6 Terminal cover for more information.
3. Study the wiring diagram to locate the connection terminal positions.
4. Connect the wires from the outdoor sensor to terminals 16 and 16L on the controller.
5. Tighten the screws fixing the wires to the connector.

SUPPLY SENSOR

The supply sensor needs to be installed in all zones.

Connect supply sensor to controller

The illustration below shows supply sensors connected to the controller.



To connect a supply sensor to the controller:

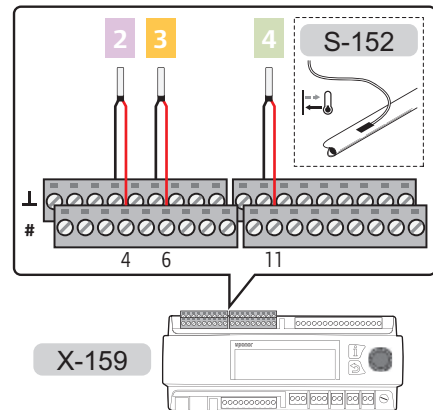
1. Study the wiring diagram to locate the connection terminal positions.
2. Ensure that the power is disconnected from the controller.
3. Remove the terminal cover.
See section 5.6 Terminal cover for more information.
4. Connect the wires from the supply sensor to the controller.
 - ZONE 1: Terminals 1 and 1 \perp .
 - ZONE 2: Terminals 3 and 3 \perp .
 - ZONE 3: Terminals 5 and 5 \perp .
 - ZONE 4: Terminals 10 and 10 \perp .
5. Tighten the screws fixing the wires to the connector.

RETURN SENSOR

The return sensor only needs to be installed in zones setup as **Meltaway** or **DHW** (domestic hot water).

Connect return sensor to controller

The illustration below shows return sensors connected to the controller.



To connect a return sensor to the controller:

1. Study the wiring diagram to locate the connection terminal positions.
2. Ensure that the power is disconnected from the controller.
3. Remove the terminal cover.
See section 5.6 Terminal cover for more information.
4. Connect the wires from the return sensor to the controller.
 - ZONE 2: Terminals 4 and 4 \perp .
 - ZONE 3: Terminals 6 and 6 \perp .
 - ZONE 4: Terminals 11 and 11 \perp .
5. Tighten the screws fixing the wires to the connector.

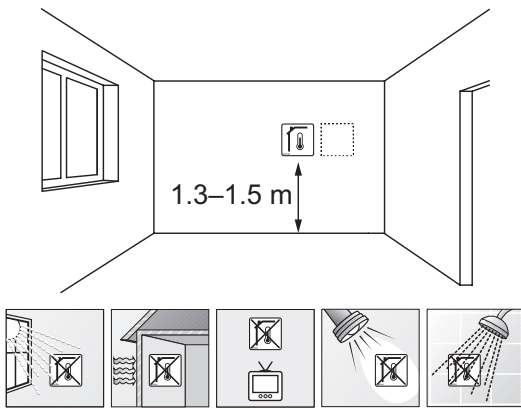
ROOM SENSOR

The room sensor only needs to be installed in zones setup as **Stand Alone**, with **Heating Mode** setup as **Outdoor + Indoor comp.**

Placement of room sensor

Refer to the installation preparation guidelines (see section 4.2 *Prepare for installation*), and use the following guidelines when positioning the room sensors:

1. Select an indoor wall and a position 1.3 m to 1.5 m above the floor.
2. Ensure that the room sensor is away from direct solar radiation.
3. Ensure that the room sensor will not be heated through the wall by sunshine.
4. Ensure that the room sensor is away from any source of heat, for example television set, electronic equipment, fireplace, spotlights, and so on.
5. Ensure that the room sensor is away from any source of humidity and water splashes (IP20).

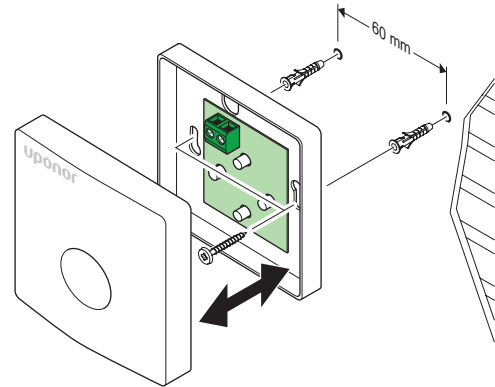


Label room sensor

Label the room sensors, where suitable, with the zone numbers they are to control, for example, #02, #03.

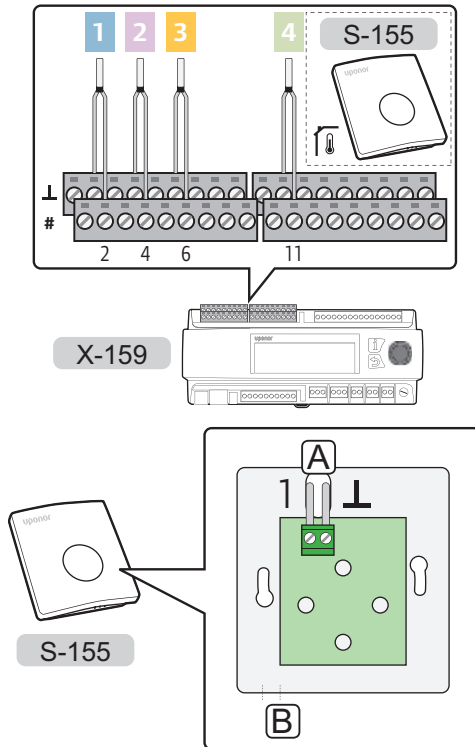
Attach room sensor to the wall

The illustration below shows room sensor mounting hole positions and how to attach it to the wall using screws and wall plugs.




Connect room sensor to controller

The illustration below shows room sensors connected to the controller.



CAUTION!

Do not change the jumper setting, otherwise the function of the sensor will be compromised.

Default setting: 

To connect a room sensor to the controller:

1. Study the wiring diagram to locate the connection terminal positions.
2. Ensure that the power is disconnected from the controller.
See section 5.6 Terminal cover for more information.
3. Remove the terminal cover.
4. Route the wires through points A or B.
5. Connect the wires from the room sensor to the controller.
 - ZONE 1: Terminals 2 and 2L.
 - ZONE 2: Terminals 4 and 4L.
 - ZONE 3: Terminals 6 and 6L.
 - ZONE 4: Terminals 11 and 11L.
6. Tighten the screws fixing the wires to the connector.

SNOW SENSOR

The snow sensor only needs to be installed in zones setup as **Meltaway**.



CAUTION!

Two snow sensors are needed to guarantee the **Meltaway** function.

One of them is used as a ground temperature sensor and the other one as a ground moisture sensor.

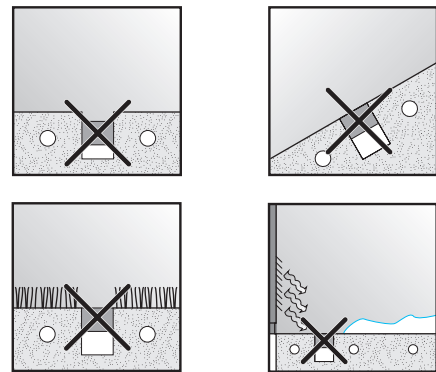
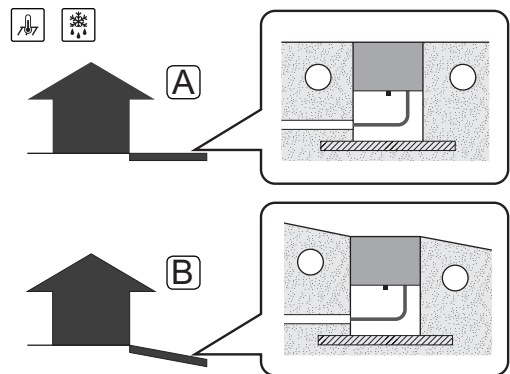
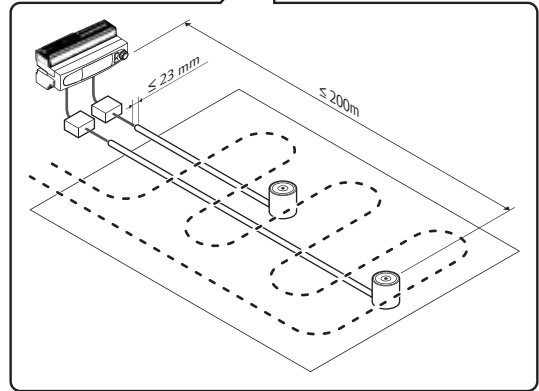
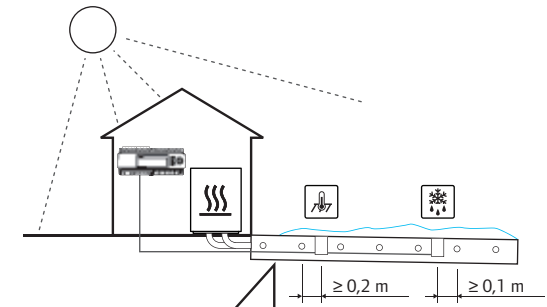
When installing the snow and ice sensors in a zone a primary return sensor, and secondary supply and return temperature sensors are needed.

See section 5.7 Connect sensors to controller for more information.

Placement of the snow sensor sensors

The following requirements must be met when installing the snow sensor.

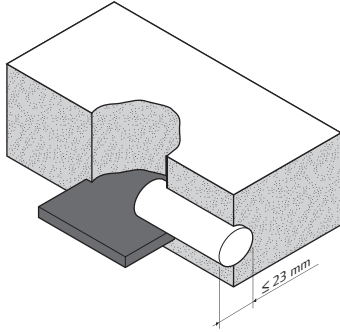
- The snow sensor must be installed within the area to be heated.
- The snow sensor must be installed levelled horizontally and embedded in a hard surface (such as concrete or asphalt).
- The snow sensor must not protude from the surface. It can be recessed a few millimeters into the surface to allow draining melt water to collect on the sensor surface. Not too deep though.
- The snow sensor must be installed in an open unsheltered position away from walls and exposed to the elements (eg. not close to walls, fan outlets, or other sources which can affect the sensors).
- If the snow sensor is to be used as a ground temperature sensor it must not be installed closer than 20 cm to the heating loop.
- If the snow sensor is to be used as a ground moisture sensor it must not be installed closer than 10 cm to the heating loop.
- If the ground is not horizontal, then the ground moisture sensor must be installer lower than the ground temperature sensor.
- Use a cable conduit with a diameter of up to 23 mm when routing the sensor cables.
- The sensor cable (supplied with 25 m) can be extended to up to 200 m using standard installation cable (6x1.5 mm²). The total resistance of the cable must be less than 10 ohm.



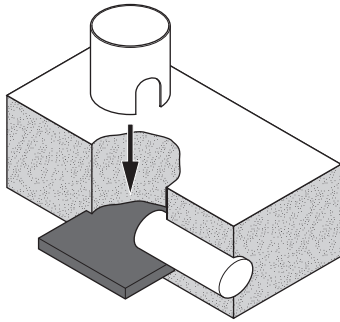
Install snow sensor into the ground surface

The following illustrations show how to install the snow sensor into the ground surface.

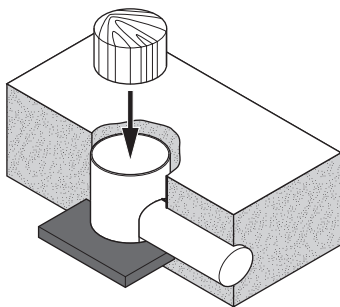
1. Create a notch for the cable conduit (maximum diameter of 23 mm). It is recommended to use a cable conduit equipped with a cord, in order to make it easier to pull the cable through when installed.



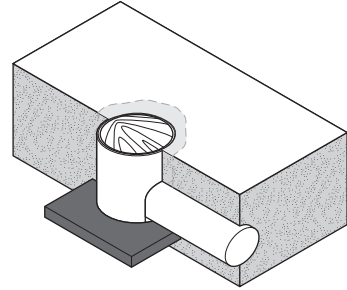
2. Insert the sensor tube in the hole where the sensor is to be installed. Make sure it is securely embedded in relation to the expected surface load.



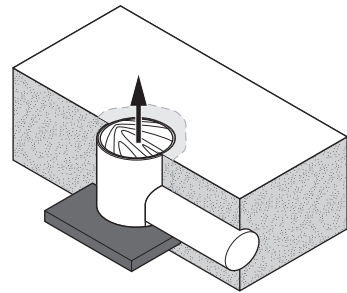
3. Insert the supplied wood plug into the sensor tube before applying the concrete/asphalt.



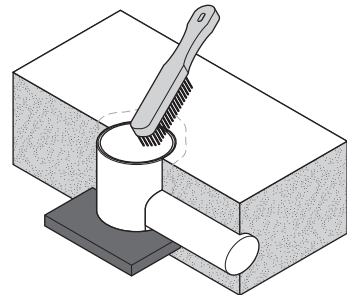
4. Apply the concrete/asphalt.



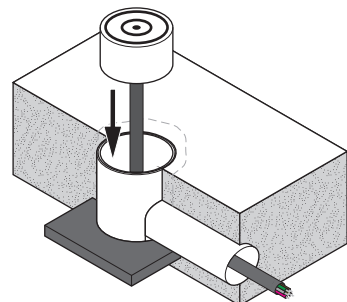
5. Remove the wood plug when the concrete/asphalt has cured.



6. Ensure that the sensor tube is clean.

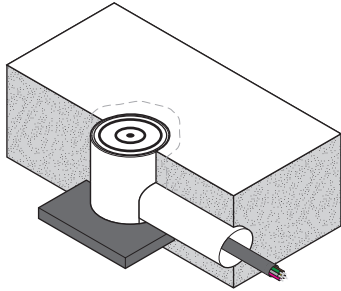


7. Insert the sensor cable and route it into the cable conduit. Ensure that the cable is not damaged on any sharp edges.



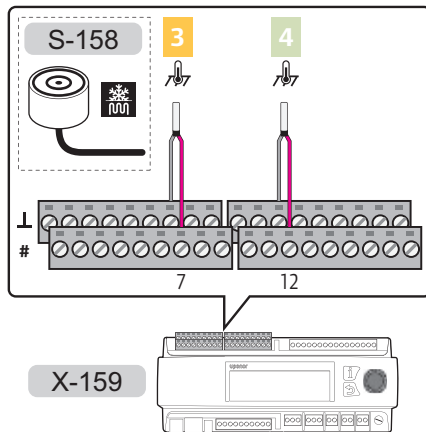
- Place the snow sensor into the tube. Make sure that the cable easily fits in the hole in the bottom.

Secure the sensor (in the middle of the sensor) with the supplied screw.



Connect snow sensor, used as ground temperature sensor, to controller

The illustration below shows the snow sensor, used as ground temperature sensor, connected to the controller.



To connect a snow sensor to the controller:

- Study the wiring diagram to locate the connection terminal positions.
- Ensure that the power is disconnected from the controller.
- Remove the terminal cover.
See section 5.6 Terminal cover for more information.
- Connect the wires from the snow sensor to the controller.

ZONE 3:

- Pink wire to terminal 7
- Grey wire to terminal 7↓

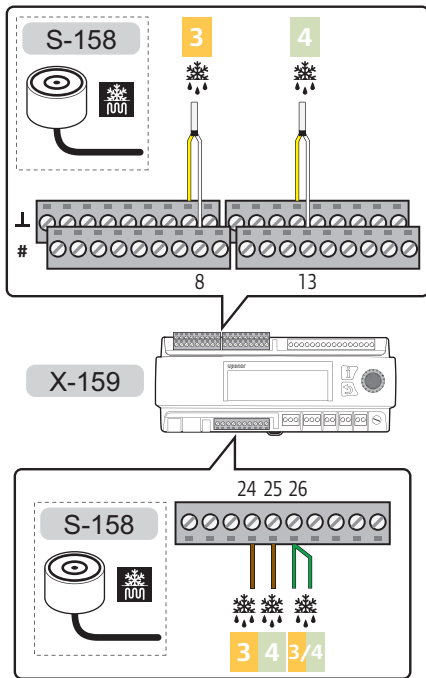
ZONE 4:

- Pink wire to terminal 12
- Grey wire to terminal 12↓

- Tighten the screws fixing the wires to the connectors.

Connect snow sensor, used as ground moisture sensor, to controller

The illustration below shows the snow sensor, used as ground moisture sensor, connected to the controller.



To connect a snow sensor to the controller:

1. Study the wiring diagram to locate the connection terminal positions.
2. Ensure that the power is disconnected from the controller.
3. Remove the terminal cover.
See section 5.6 Terminal cover for more information.
4. Connect the wires from the snow sensor to the controller.

ZONE 3:

- White wire to terminal 8
- Yellow wire to terminal 8_L
- Brown wire to terminal 24
- Green wire to terminal 26

ZONE 4:

- White wire to terminal 13
- Yellow wire to terminal 13_L
- Brown wire to terminal 25
- Green wire to terminal 26

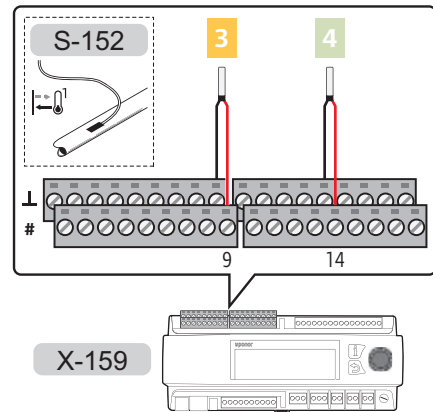
5. Tighten the screws fixing the wires to the connectors.

PRIMARY RETURN SENSOR

The primary return sensor may only need to be installed in zones setup as **Meltaway**.

Connect primary return sensor to controller

The illustration below shows primary return sensors connected to the controller.



To connect a primary return sensor to the controller:

1. Study the wiring diagram to locate the connection terminal positions.
2. Ensure that the power is disconnected from the controller.
3. Remove the terminal cover.
See section 5.6 Terminal cover for more information.
4. Connect the wires from the primary return sensor to the controller.
 - ZONE 3: Terminals 9 and 9_L.
 - ZONE 4: Terminals 14 and 14_L.
5. Tighten the screws fixing the wires to the connector.

SECONDARY SUPPLY AND RETURN SENSORS

The secondary supply or return sensor is connected as a standard supply or return sensor.

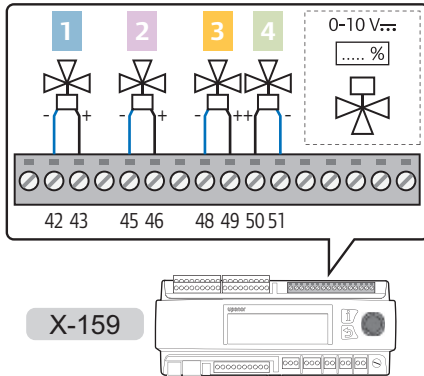
See section 5.7 Connect sensors to controller > Supply sensor for more information.

See section 5.7 Connect sensors to controller > Return sensor for more information.

5.8 Connect valve actuators to the controller

The controller can control up to 4 different zones.

The illustration below shows actuators connected to the controller.



WARNING!

Electrical installation and service behind secured 230 V AC covers must be carried out under the supervision of a qualified electrician.



NOTE!

Only the control signals from the valve actuators are connected to the Move PRO controller. Power must be obtained from an external source.

To connect valve actuators to the controller:

1. Ensure that the power is disconnected from both the controller and the actuator.
2. Remove the terminal cover.
See section 5.6 Terminal cover for more information.
3. Study the wiring diagram to locate the connection terminal positions.
4. Connect the wires from the actuator to the controller.

ZONE 1:

- 0...10 V wire to terminal 43.
- Ground wire (⊥) to terminal 42.

ZONE 2:

- 0...10 V wire to terminal 46.
- Ground wire (⊥) to terminal 45.

ZONE 3:

- 0...10 V wire to terminal 49.
- Ground wire (⊥) to terminal 48.

ZONE 4:

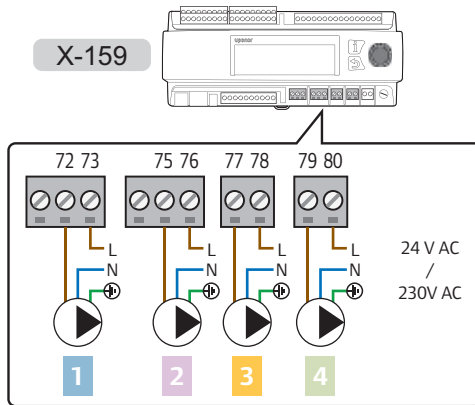
- 0...10 V wire to terminal 50.
- Ground wire (⊥) to terminal 51.

5. Tighten the screws fixing the wires to the connector.

5.9 Connect circulation pumps to the controller

The controller can control circulation pumps in up to 4 different zones.

The illustration below shows circulation pumps connected to the controller.



CAUTION!

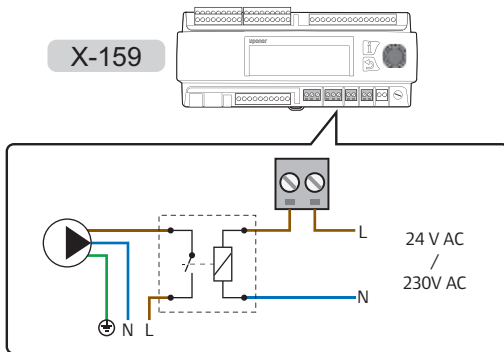
The terminals are limited to 1 A. An external relay might be needed.



NOTE!

The zone 3 and 4 connection terminals are using TRIACs for power control.

The illustration below shows circulation pump connected to the controller using external relays.



WARNING!

Electrical installation and service behind secured 230 V AC covers must be carried out under the supervision of a qualified electrician.



NOTE!

Only the control signals from the valve actuators are connected to the Move PRO controller. Power must be obtained from an external source.

To connect circulation pumps to the controller:

1. Ensure that the power is disconnected from the controller.
2. Remove the terminal cover.
See section 5.6 Terminal cover for more information.
3. Study the wiring diagram to locate the connection terminal positions.
4. Connect power (max 230VAC) to the circulation pumps/external relays via connection terminals on the controller.

Caution! The terminals are limited to 1A. An external relay might be needed.

ZONE 1:

- Power (L) from the circulation pump to terminal 72.
- External 24 or 230 VAC (L) to terminal 73.

ZONE 2:

- Power (L) from the circulation pump to terminal 75.
- External 24 or 230 VAC (L) to terminal 76.

ZONE 3:

- Power (L) from the circulation pump to terminal 77.
- External 24 or 230 VAC (L) to terminal 78.

ZONE 4:

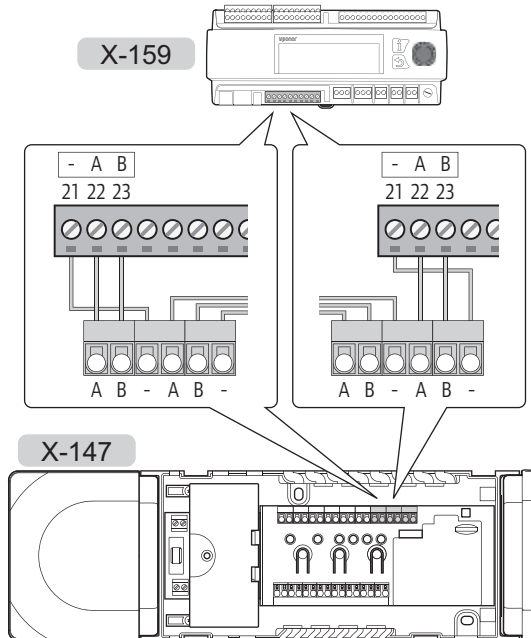
- Power (L) from the circulation pump to terminal 79.
- External 230 VAC source (L) to terminal 80.

5. Connect the common wire (N) from the circulation pumps to external connection.
6. Tighten the screws fixing the wires to the connector.

5.10 Connect Uponor Smatrix Base PRO controller

The controller can be connected to an Uponor Smatrix Base PRO system bus for integration with Base PRO controllers and thermostats.

The illustration below shows the Uponor Smatrix Base Pro system bus connected to the controller.



WARNING!

Electrical installation and service behind secured 230 V AC covers must be carried out under the supervision of a qualified electrician.

To connect an Uponor Smatrix Base PRO system bus to the controller:

1. Ensure that the power is disconnected from all controllers.
2. Remove the terminal cover on the Move PRO controller.
See section 5.6 Terminal cover for more information.
3. Remove the cover on (one of) the Base PRO controllers.
See Uponor Smatrix Base PRO documentation for more information.
4. Study the wiring diagrams of both controllers to locate the connection terminal positions.
5. Connect the wires from the Base PRO controller to the Move PRO controller.

Uponor Smatrix Base PRO:

- Communication wire to system bus terminal A, B and -.

Uponor Smatrix Move PRO:

- Communication wire to system bus terminal 21 (-), 22 (A) and 23 (B).
6. Tighten the screws fixing the wires to the connector.

Enable the Move PRO controller in the Smatrix Base PRO interface I-147:

7. Go to the **Integration** menu (**Main menu > Integration**).
8. Press **Supply Water Controller: Disable**.
9. Press **Enable** to activate communication between the interface and the Move PRO controller.
10. Assign controllers at the end of the Startup Wizard in the Move PRO controller. Connected Smatrix Base PRO controllers will be shown in a list automatically.
See section 5.14 Startup wizard for more information.

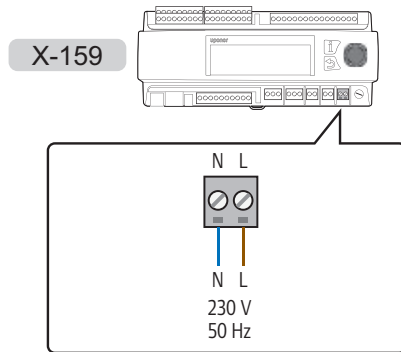
5.11 Connect Modbus RTU interface

The controller can be connected and integrated to a building management system (BMS) through a Modbus-RTU interface over RS-232.

See separate documentation for more information about BMS integration.

5.12 Connect the controller to AC power

The illustration below shows the the controller connected to AC power.



WARNING!

Electrical installation and service behind secured 230 V AC covers must be carried out under the supervision of a qualified electrician.

To connect the controller to AC power:

1. Check that all wiring is complete and correct:
 - Sensors
 - Valve actuators
 - Circulation pump
2. Connect the 230 V AC power cable to connection terminals N (blue) and L (brown).
3. Ensure that all terminal covers are attached correctly.
4. Connect the power cable to a 230 V AC wall socket, or if required by local regulations, to a junction box.

5.13 Alternate power inputs

The controller has connection terminals for alternate power inputs (connection terminals 52 – 56).



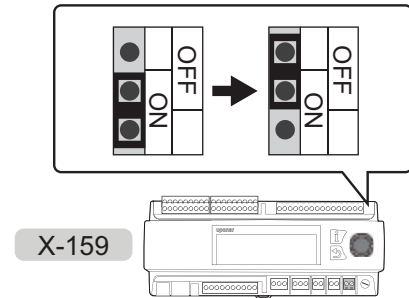
CAUTION!

Do not use these input terminals, unless instructed to by Uponor technical support.



CAUTION!

Set the jumper to **OFF** if using alternate power inputs.



5.14 Startup wizard

The controller initiates a startup wizard the first time it is started, or after a factory reset. This wizard is designed to configure the controller zones. Further settings can be done in the **Settings** menu.

It can also be started manually through the menu system, **Settings > Installer Settings > Restart wizard**.



NOTE!

The display on the controller can start flashing when powered on. This is completely normal and the regular operation will continue shortly after.



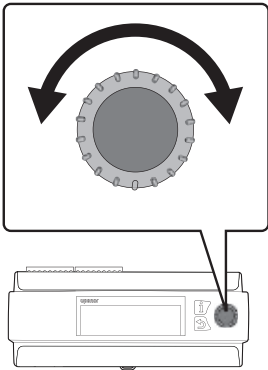
CAUTION!

At least one zone must be enabled when setting up the controller. Otherwise a configuration error will appear and the startup wizard is restarted.

NAVIGATING THE STARTUP WIZARD

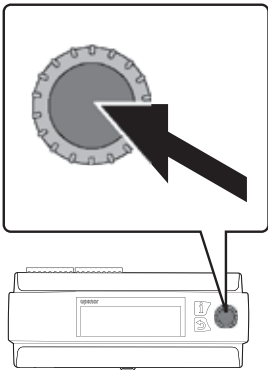
Select/change

Turn the control wheel to select an option, or to change a parameter setting.



Confirm

Press the control wheel to confirm a selection or parameter setting.



1. SET LANGUAGE

Select the language which is to be used in the controllers menu system.

Language
<input checked="" type="radio"/> English
<input type="radio"/> Deutsch
<input type="radio"/> Espanol
<input type="radio"/> Swedish

2. SET THE TIME

Set the time of the system, starting with the hours.

Time
Enter the hours
12:34
hh:mm

Time
Enter the minutes
12:34
hh:mm

3. SET THE DATE

Set the date of the system, starting with the day.

Date
Enter the day
Tue 01.06.2016

Date
Enter the month
Tue 01.06.2016

Date
Enter the year
Tue 01.06.2016

4. SELECT OPERATION MODE

Select operation mode of the controller.

- Select **Standard** to continue setting up the controller for heating/cooling operation.
- Select **Pre Heating** to enable pre heating operation mode in the controller.

See section 5.17 Pre heating concrete slab (DIN 1264-4) for more information.

Operation Mode

Standard

Pre Heating

5. ENABLE ZONE 1

5.1 Select **Yes** to enable zone 1 in the controller.

Enable Zone 1

No

Yes

5.2 Select the setup of the zone. **Stand Alone Control** only uses the sensors and components connected to the controller. **Smatrix Base PRO** uses a connected Uponor Smatrix Base PRO system.

Zone Setup

Stand Alone Control

Smatrix Base PRO

5.3 Select heating mode. **Outdoor** only uses an outdoor sensor, and **Outdoor + Indoor comp.** also uses a room sensor to calculate the supply temperature. The sensor/sensors are connected to either the Move PRO controller (**Stand Alone Control**) or to a connected Base PRO controller (**Smatrix Base PRO**).

See section 5.7 Connect sensors to controller > Outdoor sensor for more information

Heating Mode

Outdoor

Outdoor + Indoor comp.

5.4 Select which indoor temperature data in the Smatrix Base PRO system to use when calculating the supply temperature.

- **Worst Case** uses the room temperature from the room (only rooms with a heating demand) with the highest setpoint value in the zone.
- **Average** calculates the average from all connected room thermostats in the zone (selected in the Smatrix Base PRO interface I-147).

This setting is only shown if Smatrix Base PRO is selected in the Zone Setup menu, and if Outdoor + Indoor comp. is selected in Heating Mode.

Smatrix Indoor Temperature

Worst Case

Average

5.5 Set a minimum allowed supply temperature.

Min. Supply Temp.

15°C

min: 5 max: 70

5.6 Set a maximum allowed supply temperature.

Max. Supply Temp.

70°C

min: 15 max: 90

6. ENABLE ZONE 2

6.1 Select **Yes** to enable zone 2 in the controller.

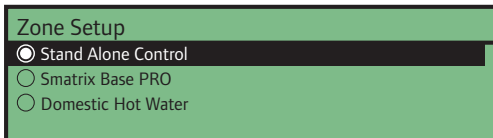


Enable Zone 2

No

Yes

6.2 Select the setup of the zone. **Stand Alone Control** only uses the sensors and components connected to the controller. **Smatrix Base PRO** uses a connected Uponor Smatrix Base PRO system. **Domestic Hot Water** (DHW) regulates the supply temperature for DHW in the zone.



Zone Setup

Stand Alone Control

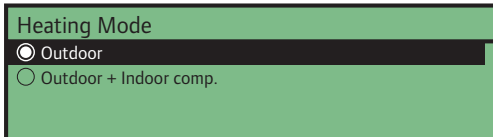
Smatrix Base PRO

Domestic Hot Water

6.3 Select heating mode. **Outdoor** only uses an outdoor sensor, and **Outdoor + Indoor comp.** also uses an room sensor to calculate the supply temperature. The sensor/sensors are connected to either the Move PRO controller (**Stand Alone Control**) or to a connected Base PRO controller (**Smatrix Base PRO**).

See section 5.7 *Connect sensors to controller > Outdoor sensor for more information*

This setting is not shown if Domestic Hot Water is selected in the Zone Setup menu.



Heating Mode

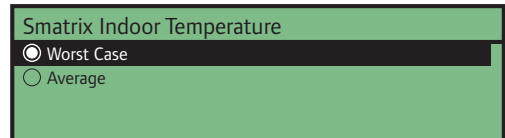
Outdoor

Outdoor + Indoor comp.

6.4 Select which indoor temperature data in the Smatrix Base PRO system to use when calculating the supply temperature.

- **Worst Case** uses the room temperature from the room (only rooms with a heating demand) with the highest setpoint value in the zone.
- **Average** calculates the average from all connected room thermostats in the zone (selected in the Smatrix Base PRO interface I-147).

This setting is only shown if Smatrix Base PRO is selected in the Zone Setup menu, and if Outdoor + Indoor comp. is selected in Heating Mode.



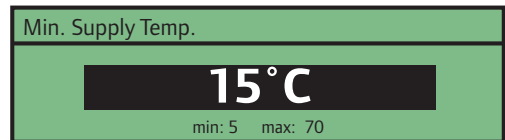
Smatrix Indoor Temperature

Worst Case

Average

6.5 Set a minimum allowed supply temperature.

This setting is not shown if Domestic Hot Water is selected in the Zone Setup menu.



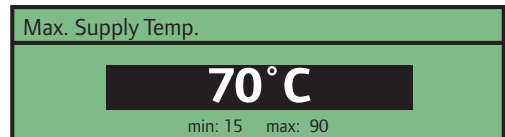
Min. Supply Temp.

15°C

min: 5 max: 70

6.6 Set a maximum allowed supply temperature.

This setting is not shown if Domestic Hot Water is selected in the Zone Setup menu.



Max. Supply Temp.

70°C

min: 15 max: 90

7. ENABLE ZONE 3

7.1 Select **Yes** to enable zone 3 in the controller.

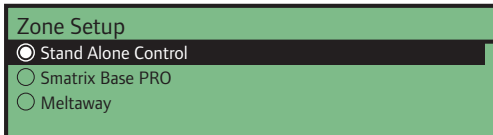


Enable Zone 3

No

Yes

7.2 Select the setup of the zone. **Stand Alone Control** only uses the sensors and components connected to the controller. **Smatrix Base PRO** uses a connected Uponor Smatrix Base PRO system. **Meltaway** uses snow sensors to keep large areas clear of snow.



Zone Setup

Stand Alone Control

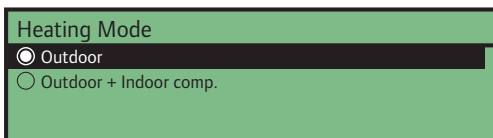
Smatrix Base PRO

Meltaway

7.3 Select heating mode. **Outdoor** only uses an outdoor sensor, and **Outdoor + Indoor comp.** also uses an room sensor to calculate the supply temperature. The sensor/sensors are connected to either the Move PRO controller (**Stand Alone Control**) or to a connected Base PRO controller (**Smatrix Base PRO**).

See section 5.7 *Connect sensors to controller > Outdoor sensor for more information*

This setting is not shown if Meltaway is selected in the Zone Setup menu.



Heating Mode

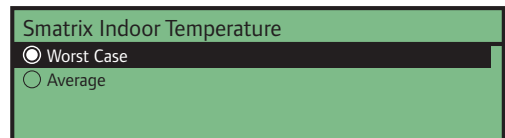
Outdoor

Outdoor + Indoor comp.

7.4 Select which indoor temperature data in the Smatrix Base PRO system to use when calculating the supply temperature.

- **Worst Case** uses the room temperature from the room (only rooms with a heating demand) with the highest setpoint value in the zone.
- **Average** calculates the average from all connected room thermostats in the zone (selected in the Smatrix Base PRO interface I-147).

This setting is only shown if Smatrix Base PRO is selected in the Zone Setup menu, and if Outdoor + Indoor comp. is selected in Heating Mode.



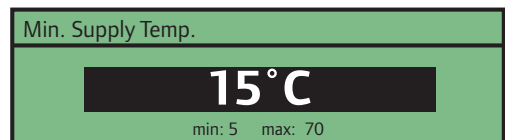
Smatrix Indoor Temperature

Worst Case

Average

7.5 Set a minimum allowed supply temperature.

This setting is not shown if Meltaway is selected in the Zone Setup menu.



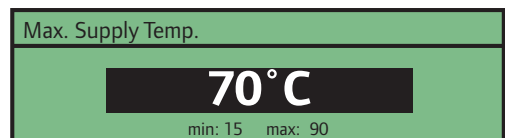
Min. Supply Temp.

15°C

min: 5 max: 70

7.6 Set a maximum allowed supply temperature.

This setting is not shown if Meltaway is selected in the Zone Setup menu.



Max. Supply Temp.

70°C

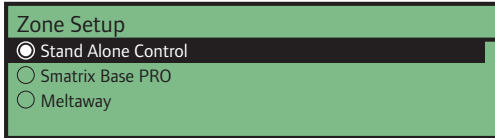
min: 15 max: 90

8. ENABLE ZONE 4

8.1 Select **Yes** to enable zone 4 in the controller.



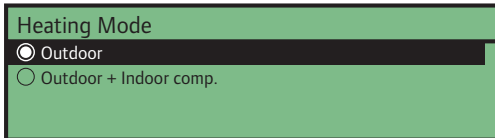
8.2 Select the setup of the zone. **Stand Alone Control** only uses the sensors and components connected to the controller. **Smatrix Base PRO** uses a connected Uponor Smatrix Base PRO system. **Meltaway** uses snow sensors to keep large areas clear of snow.



8.3 Select heating mode. **Outdoor** only uses an outdoor sensor, and **Outdoor + Indoor comp.** also uses an room sensor to calculate the supply temperature. The sensor/sensors are connected to either the Move PRO controller (**Stand Alone Control**) or to a connected Base PRO controller (**Smatrix Base PRO**).

See section 5.7 *Connect sensors to controller > Outdoor sensor for more information*

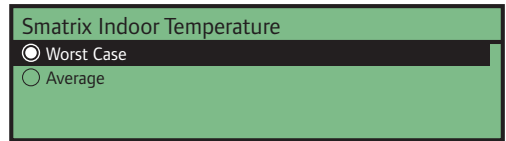
This setting is not shown if Meltaway is selected in the Zone Setup menu.



8.4 Select which indoor temperature data in the Smatrix Base PRO system to use when calculating the supply temperature.

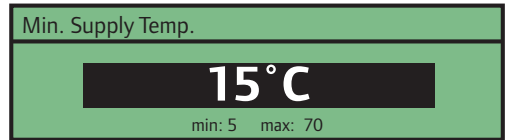
- **Worst Case** uses the room temperature from the room (only rooms with a heating demand) with the highest setpoint value in the zone.
- **Average** calculates the average from all connected room thermostats in the zone (selected in the Smatrix Base PRO interface I-147).

This setting is only shown if Smatrix Base PRO is selected in the Zone Setup menu, and if Outdoor + Indoor comp. is selected in Heating Mode.



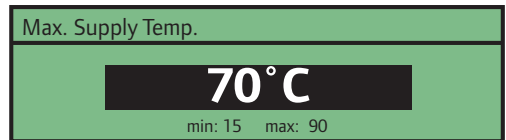
8.5 Set a minimum allowed supply temperature.

This setting is not shown if Meltaway is selected in the Zone Setup menu.



8.6 Set a maximum allowed supply temperature.

This setting is not shown if Meltaway is selected in the Zone Setup menu.



9. ASSIGN CONTROLLER TO ZONE

If the Move PRO controller is connected to a Smatrix Base PRO system, the connected controllers can be assigned to the different zones. This requires the zone setup to be set to Smatrix Base PRO.



NOTE!

The controllers in the Base PRO system must be registered to the Smatrix Base PRO interface I-147. Otherwise they will not appear in this menu.

This setting is only shown if Smatrix Base PRO is selected in the Zone Setup menu.

Select a connected Smatrix Base PRO controller and assign it to a zone.

5.15 Pre heating concrete slab (DIN 1264-4)

The controller can be setup to pre heat a concrete slab before a property is finished.

Pre heating is run in three different phases.

Phase 1: The supply temperature setpoint is set to 25 °C for 3 days (can be set in the **Settings** menu).

Phase 2: The supply temperature setpoint is set to maximum allowed calculated setpoint for 4 days (can be set in the **Settings** menu).

Phase 3: The controller enters **Standby** mode until the startup wizard is restarted (**Settings > Installer Settings > Restart wizard**). Frost protection is active during this final phase.



CAUTION!

In order to setup the controller zones, after pre heating, the startup wizard must be restarted.

To setup the controller for pre heating:

1. SET LANGUAGE

Select the language which is to be used in the controllers menu system.

2. SET THE TIME

Set the time of the system, starting with the hours.

3. SET THE DATE

Set the date of the system, starting with the day.

Date

Enter the day

Tue 01.06.2016

Date

Enter the month

Tue 01.06.2016

Date

Enter the year

Tue 01.06.2016

4. SELECT OPERATION MODE

Select **Pre Heating** to enable pre heating operation mode in the controller.

Operation Mode

Standard

Pre Heating

5. ENABLE PRE HEATING ZONE 1

5.1 Select **Enable** to enable pre heating zone 1 in the controller.

Pre-Heating Zone 1

Disable

Enable

5.2 Set a maximum allowed calculated supply setpoint.

Z1 Max. Calc. Supply Setpoint

45.0°C

min: 5.0 max: 70.0

6. ENABLE PRE HEATING ZONE 2

6.1 Select **Enable** to enable pre heating zone 2 in the controller.

Pre-Heating Zone 2

Disable

Enable

6.2 Set a maximum allowed calculated supply setpoint.

Z2 Max. Calc. Supply Setpoint

45.0°C

min: 5.0 max: 70.0

7. ENABLE PRE HEATING ZONE 3

7.1 Select **Enable** to enable pre heating zone 3 in the controller.

Pre-Heating Zone 3

Disable

Enable

7.2 Set a maximum allowed calculated supply setpoint.

Z3 Max. Calc. Supply Setpoint

45.0°C

min: 5.0 max: 70.0

8. ENABLE PRE HEATING ZONE 4

8.1 Select **Enable** to enable pre heating zone 3 in the controller.

Pre-Heating Zone 4

Disable

Enable

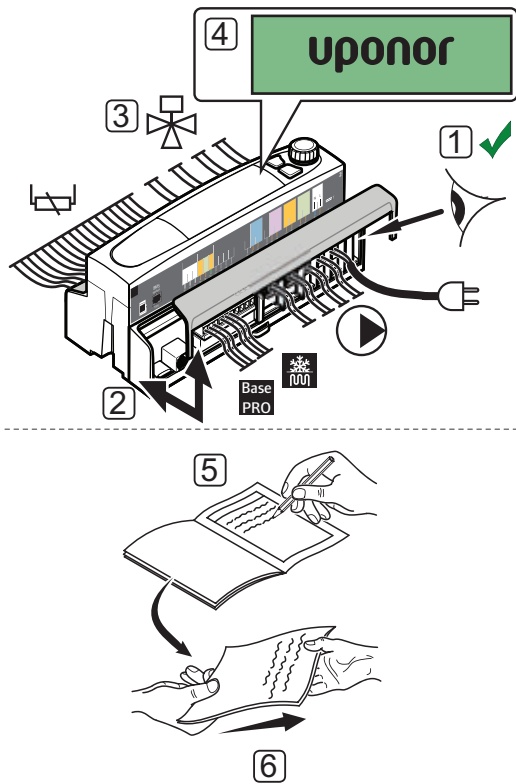
8.2 Set a maximum allowed calculated supply setpoint.

Z4 Max. Calc. Supply Setpoint

45.0°C

min: 5.0 max: 70.0

6 Finishing installation



Make a complete check up of the installation:

1. Make sure all wiring is done correctly and that the wires are thoroughly fastened.
2. Re-attach the terminal covers to the controller.
3. Check the mixing valves.

Increase the setpoints in each zone to make sure the valves are opening correctly.

4. Set system parameters in the controller to the defined operating settings.
5. Print and fill in the "Installation report" located at the end of the manual.
6. Give the manual and all information about the system to the user.

7 Operate the Uponor Smatrix Move PRO controller

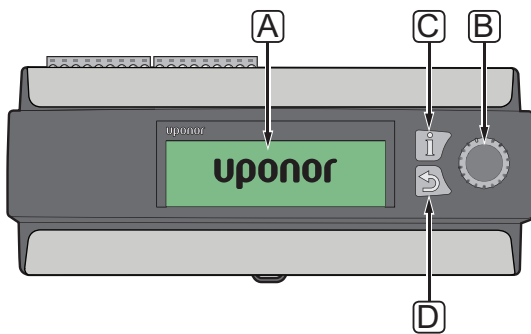
7.1 Principle of operation

The controller calculates the supply temperature for up to 4 different zones using a wide array of sensors. The calculated supply temperature is compared to the measured supply temperature. If the measured temperature differs from the calculated, the controller adjusts the mixing valve to raise or lower the supply temperature in the zone.

The optional room temperature sensor is placed in a reference area and enables an indoor temperature setpoint parameter. It is used to keep fluctuations in the indoor temperature close to a minimum and as close as possible to the indoor temperature setpoint.

7.2 Controller layout

The illustration below shows parts of the controller.

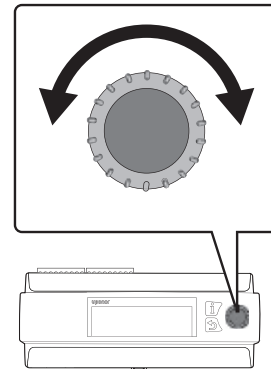


Item	Description
A	Display
B	Navigation wheel/ OK button Used for navigating the menu system, selecting options and confirming selections.
C	Information button Used for showing current zone information such as supply temperature, pump status etc. Push the button repeatedly to switch zones.
D	Back button

7.3 Navigating the menu system

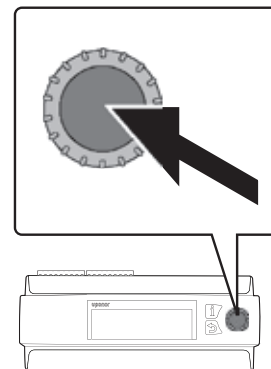
SELECT/CHANGE

Turn the control wheel to select an option, or to change a parameter setting.



CONFIRM

Press the control wheel to confirm a selection or parameter setting.



7.4 Start up

When starting up, the controller shows the Uponor logo before entering the main menu.

NOTE!

The display on the controller may start flashing when powered on. This only occurs after a firmware update and regular operation will continue shortly after.

7.5 Information button



The information button can be pressed anytime to get instant access to a summary of current information in the zones. Press the button several times to toggle between the different zones. Press the back button to return to the menu system.

STAND ALONE CONTROL

The following information is shown if the zone is setup as **Stand Alone Control**.

- Supply Temperature (current supply temperature)
- Indoor Temperature (current indoor temperature in the reference room, requires a room temperature sensor, and **Heating Mode** set to **Outdoor + Indoor comp.**)
- Outdoor Temperature (current outdoor temperature)
- Pump (status)
- Mixing valve (status)

SMATRIX BASE PRO

The following information is shown if the zone is setup as **Smatrix Base PRO**.

- Supply Temperature (current supply temperature)
- Indoor Temperature (current indoor temperature, worst case or average temperature from integrated Smatrix Base PRO system is used, **Heating Mode** set to **Outdoor + Indoor comp.**, and there is a heating/cooling demand in the Smatrix Base PRO system).
- Outdoor Temperature (current outdoor temperature)
- Mixing valve (status)

DOMESTIC HOT WATER

The following information is shown if the zone is setup as **Domestic Hot Water**.

- Supply Temperature (current supply temperature)
- Pump (status)
- Mixing valve (status)

MELTAWAY

The following information is shown if the zone is setup as **Meltaway**.

- Supply Temperature (current supply temperature)
- Outdoor Temperature (current outdoor temperature)
- Status (current meltaway statu., Stop, Idle, Melting, Protection)
- Pump (status)
- Mixing valve (status)

7.6 Main menu

The main menu is the base of the menu system, giving access to 4 different menu alternatives. Use the navigation wheel to navigate the menus and parameter settings.

System Overview	
i	Z1 - Supply Temperature 35.5 °C
!	Z2 - Supply Temperature 30.1 °C
	Z3 - Supply Temperature 18.9 °C
⚙	Z4 - Supply Temperature 27.4 °C

Icon	Description
	System Overview - Current outdoor temperature, and supply temperatures for enabled zones are shown.
	Information - System, zone (enabled zones only) and controller information are shown in this menu.
	Alarms - Active alarms and alarm history are shown in this menu. Acknowledge alarms and/or reset alarm history.
	Settings - System, zone (enabled zones only) and controller parameters can be set in this menu.

7.7 System Overview

This menu shows the current outdoor temperature, and supply temperatures for enabled zones.

Z# - SUPPLY TEMPERATURE

The current supply temperature is shown. The temperature is measured by the supply temperature sensor wired to the controller.

OUTDOOR TEMPERATURE

The current outdoor temperature is shown. The temperature is measured by an outdoor temperature sensor wired to either the controller or to a connected Smatrix Base PRO system.

7.8 Information

This menu shows information about the system, enabled zones and the controller (when the operating mode is set to **Standard** in the startup wizard).

Menu tree*

Information	
	System information
	Zone 1 Information
	Zone 2 Information
	Zone 3 Information
	Zone 4 Information
	Controller Information

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

SYSTEM INFORMATION

The system information menu shows the current time and date.

ZONE 1 INFORMATION

This menu shows information about zone 1.

Menu tree*

Zone 1 Information	
	Zone Setup
	Heating Mode
	Heating Curve
	Supply temperature
	Calculated Supply Setpoint
	Indoor temperature
	ECO-Comf Status
	Mixing Valve
	Pump

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

Zone Setup

The selected zone setup is shown:

- Stand Alone Control
- Smatrix Base PRO (integrated with a Smatrix Base PRO system)

Heating Mode

The selected heating mode for the zone is shown:

- Outdoor (only the outdoor temperature sensor is used)
- Outdoor + Indoor comp. (the outdoor temperature sensor is used together with room temperature data)

Heating Curve

This menu shows the heating curve, and max/min supply temperature limits, for the zone.

Supply temperature

The current supply temperature is shown. The temperature is measured by the supply temperature sensor wired to the controller.

Calculated Supply Setpoint

The calculated supply temperature is shown. The setpoint is calculated using the sensor setup selected in **Heating Mode**.

Indoor temperature

The current indoor temperature for the zone is shown.

If the zone is setup as **Stand Alone Control** the temperature is measured by a room temperature sensor wired to the Move PRO controller.

If the zone is setup as **Smatrix Base PRO** the Base PRO controller sends either **Average** or **Worst Case** (setup in the startup wizard) temperatures from the Base PRO system.

This information is only shown if **Heating Mode** is set to **Outdoor + Indoor comp.**.

ECO-Comf Status

The current ECO/Comfort for the zone status is shown.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** and **Heating Mode** is set to **Outdoor + Indoor comp.**.

Mixing Valve

The status of the mixing valve is shown. 0 % (supply from heat source closed) – 100 % (supply from heat source fully opened).

Pump

The status of the circulation pump is shown (on/off).

This information is only shown if **Zone Setup** is set to **Stand Alone Control**.

ZONE 2 INFORMATION

This menu shows information about zone 2.

Menu tree*

Zone 2 Information	
	Zone Setup
	Heating Mode
	Heating Curve
	Supply temperature
	Calculated Supply Setpoint
	DHW Circ. Return Temp
	Indoor temperature
	ECO-Comf Status
	Mixing Valve
	Pump

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

Zone Setup

The selected zone setup is shown:

- Stand Alone Control
- Smatrix Base PRO (integrated with a Smatrix Base PRO system)
- Domestic Hot Water (DHW)

Heating Mode

The selected heating mode for the zone is shown:

- Outdoor (only the outdoor temperature sensor is used)
- Outdoor + Indoor comp. (the outdoor temperature sensor is used together with room temperature data)

This information is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

Heating Curve

This menu shows the heating curve, and max/min supply temperature limits, for the zone.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

Supply temperature

The current supply temperature is shown. The temperature is measured by the supply temperature sensor wired to the controller.

Calculated Supply Setpoint

The calculated supply temperature is shown. The setpoint is calculated using the sensor setup selected in **Heating Mode**.

DHW Circ. Return Temp

The current return temperature is shown.

This information is only shown if **Zone Setup** is set to **Domestic Hot Water**.

Indoor temperature

The current indoor temperature for the zone is shown.

If the zone is setup as **Stand Alone Control** the temperature is measured by a room temperature sensor wired to the Move PRO controller.

If the zone is setup as **Smatrix Base PRO** the Base PRO controller sends either **Average** or **Worst Case** (setup in the startup wizard) temperatures from the Base PRO system.

This information is only shown if **Heating Mode** is set to **Outdoor + Indoor comp..**

ECO-Comf Status

The current ECO/Comfort for the zone status is shown.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** and **Heating Mode** is set to **Outdoor + Indoor comp..**

Mixing Valve

The status of the mixing valve is shown. 0 % (supply from heat source closed) – 100 % (supply from heat source fully opened).

Pump

The status of the circulation pump is shown (on/off).

This information is only shown if **Zone Setup** is set to **Stand Alone Control** or **Domestic Hot Water**.

ZONE 3 INFORMATION

This menu shows information about zone 3.

Menu tree*

Zone 3 Information	
	Zone Setup
	Heating Mode
	Heating Curve
	Supply temperature
	Calculated Supply Setpoint
	Indoor temperature
	ECO-Comf Status
	Meltaway Curve
	Return temperature
	Ground Temperature
	Ground Moisture
	Primary Return Temperature
	Status
	Mixing Valve
	Pump

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

Zone Setup

The selected zone setup is shown:

- Stand Alone Control
- Smatrix Base PRO (integrated with a Smatrix Base PRO system)
- Meltaway

Heating Mode

The selected heating mode for the zone is shown:

- Outdoor (only the outdoor temperature sensor is used)
- Outdoor + Indoor comp. (the outdoor temperature sensor is used together with room temperature data)

This information is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

Heating Curve

This menu shows the heating curve, and max/min supply temperature limits, for the zone.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

Supply temperature

The current supply temperature is shown. The temperature is measured by the supply temperature sensor wired to the controller.

Calculated Supply Setpoint

The calculated supply temperature is shown. The setpoint is calculated using the sensor setup selected in **Heating Mode**.

Indoor temperature

The current indoor temperature for the zone is shown.

If the zone is setup as **Stand Alone Control** the temperature is measured by a room temperature sensor wired to the Move PRO controller.

If the zone is setup as **Smatrix Base PRO** the Base PRO controller sends either **Average** or **Worst Case** (setup in the startup wizard) temperatures from the Base PRO system.

This information is only shown if **Heating Mode** is set to **Outdoor + Indoor comp.**.

ECO-Comf Status

The current ECO/Comfort for the zone status is shown.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** and **Heating Mode** is set to **Outdoor + Indoor comp.**.

Meltaway Curve

This menu shows the meltaway curve, and max/min supply temperature limits, for the zone.

This information is only shown if **Zone Setup** is set to **Meltaway**.

Return temperature

The current return temperature is shown.

This information is only shown if **Zone Setup** is set to **Meltaway**.

Ground Temperature

The current temperature in the ground around the snow sensor is shown.

This information is only shown if **Zone Setup** is set to **Meltaway**.

Ground Moisture

This parameter shows if there is moisture around the snow sensor.

Primary Return temperature

The current primary return temperature is shown.

This information is only shown if **Zone Setup** is set to **Meltaway**.

Status

This parameter shows the current meltaway status.

Stop: Meltaway is inactive.

Idle: Meltaway is idle and the supply temperature is kept low to keep the zone from getting too cold.

Melting: Meltaway is active.

Protection: Protecting the heat source from low return temperatures.

The status may change, in case of sensor fault. An alarm will also be shown in the display if that is the case.

This information is only shown if **Zone Setup** is set to **Meltaway**.

Mixing Valve

The status of the mixing valve is shown. 0 % (supply from heat source closed) – 100 % (supply from heat source fully opened).

Pump

The status of the circulation pump is shown (on/off).

This information is only shown if **Zone Setup** is set to **Stand Alone Control** or **Meltaway**.

ZONE 4 INFORMATION

This menu shows information about zone 4.

Menu tree*

Zone 4 Information	
	Zone Setup
	Heating Mode
	Heating Curve
	Supply temperature
	Calculated Supply Setpoint
	Indoor temperature
	ECO-Comf Status
	Meltaway Curve
	Return temperature
	Ground Temperature
	Ground Moisture
	Primary Return Temperature
	Status
	Mixing Valve
	Pump

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

Zone Setup

The selected zone setup is shown:

- Stand Alone Control
- Smatrix Base PRO (integrated with a Smatrix Base PRO system)
- Meltaway

Heating Mode

The selected heating mode for the zone is shown:

- Outdoor (only the outdoor temperature sensor is used)
- Outdoor + Indoor comp. (the outdoor temperature sensor is used together with room temperature data)

This information is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

Heating Curve

This menu shows the heating curve, and max/min supply temperature limits, for the zone.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

Supply temperature

The current supply temperature is shown. The temperature is measured by the supply temperature sensor wired to the controller.

Calculated Supply Setpoint

The calculated supply temperature is shown. The setpoint is calculated using the sensor setup selected in **Heating Mode**.

Indoor temperature

The current indoor temperature for the zone is shown.

If the zone is setup as **Stand Alone Control** the temperature is measured by a room temperature sensor wired to the Move PRO controller.

If the zone is setup as **Smatrix Base PRO** the Base PRO controller sends either **Average** or **Worst Case** (setup in the startup wizard) temperatures from the Base PRO system.

This information is only shown if **Heating Mode** is set to **Outdoor + Indoor comp.**

ECO-Comf Status

The current ECO/Comfort for the zone status is shown.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** and **Heating Mode** is set to **Outdoor + Indoor comp.**

Meltaway Curve

This menu shows the meltaway curve, and max/min supply temperature limits, for the zone.

This information is only shown if **Zone Setup** is set to **Meltaway**.

Return temperature

The current return temperature is shown.

This information is only shown if **Zone Setup** is set to **Meltaway**.

Ground Temperature

The current temperature in the ground around the snow sensor is shown.

This information is only shown if **Zone Setup** is set to **Meltaway**.

Ground Moisture

This parameter shows if there is moisture around the snow sensor.

Primary Return temperature

The current primary return temperature is shown.

This information is only shown if **Zone Setup** is set to **Meltaway**.

Status

This parameter shows the current meltaway status.

Stop: Meltaway is inactive.

Idle: Meltaway is idle and the supply temperature is kept low to keep the zone from getting too cold.

Melting: Meltaway is active.

Protection: Protecting the heat source from low return temperatures.

The status may change, in case of sensor fault. An alarm will also be shown in the display if that is the case.

This information is only shown if **Zone Setup** is set to **Meltaway**.

Mixing Valve

The status of the mixing valve is shown. 0 % (supply from heat source closed) – 100 % (supply from heat source fully opened).

Pump

The status of the circulation pump is shown (on/off).

This information is only shown if **Zone Setup** is set to **Stand Alone Control** or **Meltaway**.

CONTROLLER INFORMATION

This menu shows information about the controller.

Menu tree

Controller Information	
	Language
	About...

Language

This menu show the set display language for the controller.

About...

This menu shows the serial number, software versions, and hardware versions of the controller.

7.9 Alarms

This menu shows the current active alarms and the alarm history. A possibility of acknowledging all alarms and resetting the alarm history is also available.

Active alarms are always indicated with a ! and an number (of alarms) in the upper right corner of the display. Acknowledge the active alarms to remove the alarm indicator.

Menu tree

Alarms	
	Active alarms
	Alarm history
	Acknowledge all alarms
	Reset alarm history

ACTIVE ALARMS

This menu shows a list of all active alarms in the controller. Each active alarm is presented with a short description about when it was logged, why it occurred, and if it has been acknowledged (indicated with a !). Detailed information is available via button press.

The detailed information shows alarm type, time and date when it was logged, the source of the alarm with severity (PR1 to PR5, where PR5 is the worst), and which alarm group it belongs to (1 to 10). The alarm can also be acknowledged in the detailed information.

To access detailed alarm information:

1. Select an alarm.
2. Press the navigation wheel to confirm selection.

ALARM HISTORY

This menu shows a list of the 10 latest alarms in the controller. Each active alarm is presented with a short description about when it was logged and why it occurred. Detailed information is available via button press.

The detailed information shows alarm type, time and date when it was logged, the source of the alarm with severity (PR1 to PR5, where PR5 is the worst), and which alarm group it belongs to (1 to 10).

To access detailed alarm information:

1. Select an alarm.
2. Press the navigation wheel to confirm selection.

ACKNOWLEDGE ALL ALARMS

This menu enables to acknowledge all active alarms.

To acknowledge all active alarms:

1. Select **Acknowledge all alarms**.
2. Press the navigation wheel to confirm selection.
3. Select **Yes**.
Setting range: No (default)/Yes
4. Press the navigation wheel to confirm selection.

RESET ALARM HISTORY

This menu enables to reset the alarm history.

To reset the alarms history:

1. Select **Reset alarm history**.
2. Press the navigation wheel to confirm selection.
3. Select **Yes**.
Setting range: No (default)/Yes
4. Press the navigation wheel to confirm selection.

7.10 Settings

In this menu installer settings, enabled zone settings, and controller settings can be changed (when the operating mode is set to **Standard** in the startup wizard).

Menu tree*

Settings	
	Installer Settings
	Zone 1 Settings
	Zone 2 Settings
	Zone 3 Settings
	Zone 4 Settings
	Controller Settings

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

INSTALLER SETTINGS

In this menu lock codes (to gain access to locked parameter settings) can be set or changed, factory settings can be restored, backup of controller parameter settings can be managed, or the setup wizard can be restarted.

Menu tree

Installer Settings	
	T Outdoor Fallback
	Lock code
	Change lock code
	Display settings
	Restore factory settings
	Restore backup
	New backup
	Restart wizard

T Outdoor Fallback

In this menu the fallback temperature for the outdoor temperature sensor is set. This value will be used if the connection to the outdoor temperature sensor is lost.

To set the fallback temperature for the outdoor temperature sensor:

1. Select **T Outdoor Fallback**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0 °C
Setting range: -50 – 50 °C, 1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

Lock code

A lock code can be used to block a user from changing parameter settings. The menu system is fully accessible, but the lock code is required to enter and change parameter settings.

The default lock code is 0000. It is recommended to change this code if using this function.

The controller locks itself when it has been left untouched for about 10 minutes.

To enable lock code in the controller:

1. Select **Lock code**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
4. Press the navigation wheel to confirm selection.

ENTERING A MENU WHEN LOCK CODE IS ENABLED

To enter a lock code:

1. Select the parameter.
2. Press the navigation wheel to confirm selection.
3. Enter the lock code in the boxes using the navigation wheel.

Turn the navigation wheel to either select a box, or to increase/decrease a value in edit mode.

Press the navigation wheel to enter edit mode or to confirm the new setting.

Default: 0000

4. Confirm the lock code by pressing and holding the navigation wheel for a number of seconds.
5. Change the parameter setting and exit.

Change lock code

The standard lock code which is used to block a user from changing parameter settings, can be changed in this menu.

This menu is only shown when **Lock code** has been enabled in the **Lock code** menu.



NOTE!

If the controller display is already locked, it has to be unlocked before entering the new lock code.

To change the lock code:

1. Select **Change lock code**.
2. Press the navigation wheel to confirm selection.
3. Enter the new lock code in the boxes using the navigation wheel.

Turn the navigation wheel to either select a box, or to increase/decrease a value in edit mode.

Press the navigation wheel to enter edit mode or to confirm the new setting.

Default: 0000

4. Confirm the new lock code by pressing and holding the navigation wheel for about 8 seconds.

Display settings

This menu enables display settings, such as contrast, and it also shows the version number of the display software.

To set the display contrast:

1. Select **Display settings**.
2. Press the navigation wheel to confirm selection.
3. Select **Display contrast**.
4. Press the navigation wheel to confirm selection.
5. Set the display contrast.

Setting range: -50 – 100 %, 1 % increments

6. Press the navigation wheel to confirm selection.

Restore factory settings

This menu enables all parameter settings in the controller to be reset to the factory default settings.

To restore the factory settings:

1. Select **Restore factory settings**.
2. Press the navigation wheel to confirm selection.
3. Select **Yes**.
Setting range: No (default)/Yes
4. Press the navigation wheel to confirm selection.
5. All parameters in the controller are being restored to factory settings.

Restore backup

This menu enables the controller to restore all parameter settings from a previously created backup located on the microSD-card.

To restore from a backup:

1. Make sure the microSD-card with the backup is inserted into the controller.
2. Select **Restore backup**.
3. Press the navigation wheel to confirm selection.
4. Select **Yes**.
Setting range: No (default)/Yes
5. Press the navigation wheel to confirm selection.
6. All parameters in the controller are being restored from backup.

New backup

This menu enables the controller to save a backup of all parameter settings to the microSD-card.

To save from a backup:

1. Make sure a microSD-card, where the backup is to be saved, into the controller.
2. Select **New backup**.
3. Press the navigation wheel to confirm selection.
4. Select **Yes**.

Setting range: No (default)/Yes

5. Press the navigation wheel to confirm selection.
6. All parameters in the controller are being saved to the microSD card.

Restart wizard

This menu enables the controller to restart the setup wizard.

To restart the setup wizard:

1. Select **Restart wizard**.
2. Press the navigation wheel to confirm selection.
3. Select **Yes**.

Setting range: No (default)/Yes

4. Press the navigation wheel to confirm selection.
5. The setup wizard is now being restarted.

ZONE 1 SETTINGS

In this menu parameter settings for zone 1 can be set or changed.

Menu tree*

Zone 1 Settings	
	Supply Temp. Settings
	Indoor Temp. Settings
	Conf. - ECO
	Heating Curve
	Manual Operation
	Pump
	Mixing Valve
	Seasonal Shut Off

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

Supply Temp. Settings

This menu enables access to settings related to the supply temperature in the zone.

MENU TREE

Supply Temp. Settings	
	Calculated Supply Setpoint
	Min. Supply Temp.
	Max. Supply Temp.
	Deviation alarm limit
	Deviation alarm delay

CALCULATED SUPPLY SETPOINT

In this menu the calculated supply setpoint for the zone can be overridden. This temperature is used as setpoint for the supply temperature.

To override the calculated supply setpoint:

1. Select **Calculated supply setpoint**.
2. Press the navigation wheel to confirm selection.
3. Select **Manual**.
4. Set the override value.

Setting range: -5.0 – 70.0 °C, 0.1 °C increments

5. Confirm the new setting by pressing the navigation wheel again.

MIN. SUPPLY TEMP.

In this menu the minimum allowed supply temperature for the zone can be set. The supply temperature is not allowed to fall below this value.

To set the minimum allowed supply temperature:

1. Select **Min. supply temp.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 15.0 °C
Setting range: 5.0 – 35.0 °C (or max. supply temp), 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MAX. SUPPLY TEMP.

In this menu the maximum allowed supply temperature for the zone can be set. The supply temperature is not allowed to rise above this value.

To set the maximum allowed supply temperature:

1. Select **Max. supply temp.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 70.0 °C
Setting range: 5.0 (or min. supply temp) – 90.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DEVIATION ALARM LIMIT

In this menu the deviation alarm limit for the supply temperature in the zone is set. If the difference between the measured and the calculated supply temperatures are higher than the set limit during the time set in **Deviation alarm delay**, the alarm is triggered.

To set the deviation alarm limit:

1. Select **Deviation alarm limit.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 10.0 °C
Setting range: 0.0 – 50.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DEVIATION ALARM DELAY

In this menu the deviation alarm delay for the deviation alarm limit in the zone is set. If the difference between the measured and the calculated supply temperatures are higher than **Deviation alarm limit** during the set delay, the alarm is triggered.

To set the deviation alarm delay:

1. Select **Deviation alarm delay.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 5 min
Setting range: 0 – 30 min, 1 min increments
4. Confirm the new setting by pressing the navigation wheel again.

Indoor Temp. Settings

This menu enables access to settings related to the room temperature sensor in the zone.

This menu and its submenus are only shown if **Heating Mode** is set to **Outdoor + Indoor comp.** for the zone.

MENU TREE*

Indoor Temp. Settings	Indoor Setpoint
	Calculated Indoor Setpoint
	ECO-Comf. Status
	Indoor Setpoint Influence (Lower)
	Indoor Setpoint Influence (UPPER)

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

INDOOR SETPOINT

In this menu the indoor temperature setpoint for the zone is set.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** for the zone.

To set the indoor temperature setpoint:

1. Select **Indoor Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 21.0 °C
Setting range: 5.0 – 35.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

CALCULATED INDOOR SETPOINT

This menu shows the calculated indoor setpoint for the zone.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** and if ECO-Comf mode is set to ECO for the zone.

ECO-COMF STATUS

This menu shows if the zone is set in ECO mode.

This information is only shown if ECO-Comf mode is set to ECO for the zone.

INDOOR SETPOINT INFLUENCE (LOWER)

In this menu the indoor setpoint influence (lower) is set. If the measured indoor temperature is higher than the indoor temperature setpoint, the supply temperature setpoint will be lowered using this value.

This menu is used to to keep the measured room temperature as close as possible to the indoor temperature setpoint.

NOTE!

If the value is set too high it can lead to the system being unstable and the room temperature will start fluctuating.

To set the indoor setpoint influence (lower):

1. Select **Indoor Setpoint Influence (Lower)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

INDOOR SETPOINT INFLUENCE (UPPER)

In this menu the indoor setpoint influence (upper) is set. If the measured indoor temperature is lower than the indoor temperature setpoint, the supply temperature setpoint will be increased using this value.

This menu is used to to keep the measured room temperature as close as possible to the indoor temperature setpoint.

NOTE!

If the value is set too high it can lead to the system being unstable and the room temperature will start fluctuating.

To set the indoor setpoint influence (upper):

1. Select **Indoor Setpoint Influence (Upper)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

Comf. - ECO

This menu enables access to settings related to the controller Comfort/ECO modes.

This menu and its submenus are only shown if **Zone Setup** is set to **Stand Alone Control** and if **Heating Mode** is set to **Outdoor + Indoor comp.** for the zone.

MENU TREE

Comf. - ECO	
	ECO Setback
	ECO-Comf Status
	ECO-Comf Schedule

ECO SETBACK

In this menu the ECO setback temperature is set. The parameter reduces the current setpoint with the set value.

If the setback is set to 0 the zone will resume its normal operation, even if it is set in ECO mode.

To set the ECO setback value:

1. Select **ECO Setback**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

ECO-COMF STATUS

This menu shows if the zone is set in ECO or Comf (comfort) mode.

ECO-COMF SCHEDULE

In this menu a schedule for switching between Comfort and ECO mode can be created.

The default schedule is set to Comfort mode 24h a day, 7 days a week.



WARNING!

Ensure that different schedules cannot enable ECO and Comf and the same time. This may cause an error where the controller must be reset to factory default values.

To edit/create the ECO-Comf Schedule:

1. Select **ECO-Comf Schedule**.
2. Press the navigation wheel to confirm selection.
The current schedule is showing.
3. Select a day.
4. Press the navigation wheel to confirm selection.
All current schedule settings are shown, each line representing a switch between Comfort and ECO mode. If entering the menu for the first time only one line is present, showing Comf starting at 00:00 every day of the week.
5. Select an existing line to edit or **00:00 Add new** to add a new setting.
6. Select whether to edit the hours, minutes, mode or day of the week.

HOURS:

Set at which hour the mode will start and press the navigation wheel to confirm selection.

MINUTES:

Set at which minute of the hour the mode will start and press the navigation wheel to confirm selection.

MODE:

Select a mode which should start at the set time and press the navigation wheel to confirm selection. Select between **Comf**, **ECO** and **Delete switch time**. **Delete switch time** erases the current line when selecting OK and pressing the navigation wheel.

DAY OF THE WEEK:

Select which days of the week, at the set time the selected mode should start.

7. Select **OK** at the end of the line, when done, and press the navigation wheel to confirm selection.
A new line has been added to the schedule.
8. Redo steps 5 and 6 until the schedule is complete.
9. Press the back button on the controller to exit the schedule setup.

Heating Curve

This menu enables access to heating curve settings for the zone. Settings such as the slope (Setting) and offset of the heating curve.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** for the zone

MENU TREE

Heating Curve	
	Setting
	Offset
	Heating Curve

SETTING

In this menu the slope of the heating curve is selected.

To select a heating curve:

1. Select **Setting**.
2. Press the navigation wheel to confirm selection.
3. Set the value.

Default: 0.9

Setting range: 0.1 – 1.6, 0.1 increments

4. Confirm the new setting by pressing the navigation wheel again.

OFFSET

In this menu the the heating curve can be offset. The offset can be used for temporary changes to the heating curve.

To offset the heating curve:

1. Select **Offset**.
2. Press the navigation wheel to confirm selection.
3. Set the value.

Default: 0

Setting range: -8 – 8, 1 increments

4. Confirm the new setting by pressing the navigation wheel again.

HEATING CURVE

This menu shows the heating curve, and max/min supply temperature limits, for the zone.

Manual Operation

This menu enables access to manual operation mode in the zone.

When manual operation mode is activated, access to manual control (override) of the circulation pump and mixing valve is enabled.

MENU TREE*

Manual Operation	
	Manual Mode
	Pump
	Mixing valve

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

To activate manual operation mode:

1. Select **Manual Mode**.
2. Press the navigation wheel to confirm selection.
3. Select **On**.
4. Confirm the new setting by pressing the navigation wheel again.

PUMP

In this menu the pump can be overridden and turned on or off manually.

To override the circulation pump operation:

1. Select **Pump**.
 2. Press the navigation wheel to confirm selection.
 3. Select **Manual**.
 4. Select **On**.
- Default: Off*
- Setting range: Off/On*
5. Confirm the new setting by pressing the navigation wheel again.

MIXING VALVE

In this menu the mixing valve can be overridden opened or closed manually.

To override the mixing valve setting:

1. Select **Mixing valve**.
2. Press the navigation wheel to confirm selection.
3. Select **Manual**.
4. Set the override value.
Default: 0 %
Setting range: 0 – 100 %, 1 % increments.
5. Confirm the new setting by pressing the navigation wheel again.

Pump

This menu enables access to pump settings in the zone.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** for the zone.

MENU TREE*

Pump	
	Pump Exercise
	Exercise Day of the Week
	Exercise Hour
	Exercise Min

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

PUMP EXERCISE

In this menu pump exercise can be activated.

To activate pump exercise:

1. Select **Pump Exercise**.
2. Press the navigation wheel to confirm selection.
3. Select **Pump Exercise**.
Default: No Exercise
Setting range: No Exercise/Pump Exercise
4. Confirm the new setting by pressing the navigation wheel again.

EXERCISE DAY OF THE WEEK

In this menu the day of the week for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select a day of the week for pump exercise:

1. Select **Exercise Day of the Week**.
2. Press the navigation wheel to confirm selection.
3. Select a day.
Setting range: Monday – Sunday
4. Confirm the setting by pressing the navigation wheel again.

EXERCISE HOUR

In this menu the hour of the day for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select an hour of the day for pump exercise:

1. Select **Exercise Hour**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 8 h
Setting range: 0 – 23 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

EXERCISE MIN

In this menu the minute of the hour for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select a minute of the hour for pump exercise:

1. Select **Exercise Min**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0 min
Setting range: 0 – 59 min, 1 min increments
4. Confirm the setting by pressing the navigation wheel again.

Mixing Valve

This menu enables access to mixing valve settings in the zone.

MENU TREE

Mixing Valve	
	P-area
	I-time
	Actuator running time

P-AREA

In this menu the P-area for the mixing valve regulation is set.

To set the P-area:

1. Select **P-area**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 140.0 °C
Setting range: 2.0 – 500.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

I-TIME

In this menu the I-time for the mixing valve regulation is set.

To set the I-time:

1. Select **I-time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 35 seconds
Setting range: 5 – 300 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

ACTUATOR RUNNING TIME

In this menu the actuator running time for the mixing valve regulation is set.

To set the actuator running time:

1. Select **Actuator running time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 120 seconds
Setting range: 0 – 500 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

Seasonal Shut Off

This menu enables access to seasonal shut off settings in the zone.

MENU TREE*

Seasonal Shut Off	
	Pump Stop
	Valve Close
	Shut Off Outdoor Temp.
	T. Outdoor Setpoint
	T. Outdoor Delay
	Shut Off Indoor Temp.
	T. Indoor Delay

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

PUMP STOP

In this menu a function to stop the circulation pump, when requirements are met, is enabled.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control**.

To enable the function:

1. Select **Pump Stop**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

VALVE CLOSE

In this menu a function to close the mixing valve, when requirements are met, is enabled.

To enable the function:

1. Select **Valve Close**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

SHUT OFF OUTDOOR TEMP.

In this menu the function to stop the circulation pump and/or when to close the mixing valve, at an outdoor temperature setpoint is enabled/disabled for the zone.

This menu is only shown if **Pump Stop** and/or **Valve Close** is enabled.

To set an shut off outdoor temperature:

1. Select **Shut Off Outdoor Temp.**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

T. OUTDOOR SETPOINT

In this menu the outdoor temperature setpoint for stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Outdoor Temp.** is enabled.

To set an outdoor temperature setpoint:

1. Select **T Outdoor Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: 17.0 °C
Setting range: 0.0 – 40.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

T. OUTDOOR DELAY

In this menu the time delay for how long the outdoor temperature must be equal or higher than **T Outdoor Setpoint** before stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Outdoor Temp.** is enabled.

To set the stop time:

1. Select **T. Outdoor Delay**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 24 h
Setting range: 0 – 24 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

SHUT OFF INDOOR TEMP.

In this menu the function to stop the circulation pump, and/or when to close the mixing valve, at an indoor temperature setpoint is enabled/disabled for the zone.

This menu is only shown if **Pump Stop** and/or **Valve Close** is enabled, and if **Heating Mode** is set to **Outdoor + Indoor comp.** for the zone.

To set an shut off outdoor temperature:

1. Select **Shut Off Outdoor Temp.**
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

T. INDOOR DELAY

In this menu the time delay for how long the indoor temperature must be equal or higher than the indoor setpoint before stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Indoor Temp.** is enabled.

To set the stop time:

1. Select **T. Indoor Delay**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0 h
Setting range: 0 – 5 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

ZONE 2 SETTINGS

In this menu parameter settings for zone 2 can be set or changed.

Menu tree*

Zone 2 Settings	
	Supply Temp. Settings
	Indoor Temp. Settings
	DHW Circ Return Settings
	Conf. - ECO
	Heating Curve
	Manual Operation
	Pump
	Mixing Valve
	Seasonal Shut Off

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

Supply Temp. Settings

This menu enables access to settings related to the supply temperature in the zone.

MENU TREE*

Supply Temp. Settings	
	Calculated Supply Setpoint
	Min. Supply Temp.
	Max. Supply Temp.
	DHW Supply Setpoint
	Overheating alarm limit
	Overheating alarm delay
	Deviation alarm limit
	Deviation alarm delay

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

CALCULATED SUPPLY SETPOINT

In this menu the calculated supply setpoint for the zone can be overridden. This temperature is used as setpoint for the supply temperature.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO** for the zone.

To override the calculated supply setpoint:

1. Select **Calculated supply setpoint**.
2. Press the navigation wheel to confirm selection.
3. Select **Manual**.
4. Set the override value.
Setting range: -5.0 – 70.0 °C, 0.1 °C increments
5. Confirm the new setting by pressing the navigation wheel again.

MIN. SUPPLY TEMP.

In this menu the minimum allowed supply temperature for the zone can be set. The supply temperature is not allowed to fall below this value.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO** for the zone.

To set the minimum allowed supply temperature:

1. Select **Min. supply temp**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 15.0 °C
Setting range: 5.0 – 35.0 °C (or max. supply temp), 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MAX. SUPPLY TEMP.

In this menu the maximum allowed supply temperature for the zone can be set. The supply temperature is not allowed to rise above this value.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO** for the zone.

To set the maximum allowed supply temperature:

1. Select **Max. supply temp.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 70.0 °C
Setting range: 5.0 (or min. supply temp) – 90.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DHW SUPPLY SETPOINT

In this menu the supply temperature setpoint for domestic hot water production is set.

This menu is only shown if **Zone Setup** is set to **Domestic Hot Water** for the zone.

To set the supply temperature setpoint:

1. Select **Supply Setpoint.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 60.0 °C
Setting range: 5.0 – 95.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

OVERHEATING ALARM LIMIT

In this menu the overheating alarm limit for domestic hot water production is set. If the supply temperature is higher than the set limit during the time set in **Overheating alarm delay**, the alarm is triggered.

This menu is only shown if **Zone Setup** is set to **Domestic Hot Water** for the zone.

To set the overheating alarm limit:

1. Select **Overheating alarm limit.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 68.0 °C
Setting range: 65.0 – 120.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

OVERHEATING ALARM DELAY

In this menu the overheating alarm delay for the overheating alarm limit of the zone is set. If the supply temperature is higher than **Overheating alarm limit**, during the set delay, the alarm is triggered.

This menu is only shown if **Zone Setup** is set to **Domestic Hot Water** for the zone

To set the overheating alarm delay:

1. Select **Overheating alarm delay.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 10 min
Setting range: 0 – 15 min, 1 min increments
4. Confirm the new setting by pressing the navigation wheel again.

DEVIATION ALARM LIMIT

In this menu the deviation alarm limit for the supply temperature in the zone is set. If the difference between the measured and the calculated supply temperatures are higher than the set limit during the time set in **Deviation alarm delay**, the alarm is triggered.

To set the deviation alarm limit:

1. Select **Deviation alarm limit**.
2. Press the navigation wheel to confirm selection.
3. Set the value.

Stand Alone Control/Smatrix Base PRO:
Default: 10.0 °C

Setting range: 0.0 – 50.0 °C, 0.1 °C increments

Domestic Hot Water:
Default: 10 °C

Setting range: 0.0 – 30.0 °C, 0.1 °C increments

4. Confirm the new setting by pressing the navigation wheel again.

DEVIATION ALARM DELAY

In this menu the deviation alarm delay for the deviation alarm limit in the zone is set. If the difference between the measured and the calculated supply temperatures are higher than **Deviation alarm limit** during the set delay, the alarm is triggered.

To set the deviation alarm delay:

1. Select **Deviation alarm delay**.
2. Press the navigation wheel to confirm selection.
3. Set the value.

Stand Alone Control/Smatrix Base PRO:
Default: 5 min

Setting range: 0 – 30 min, 1 min increments

Domestic Hot Water:
Default: 60 seconds

Setting range: 0 – 600 seconds, 1 second increments

4. Confirm the new setting by pressing the navigation wheel again.

Indoor Temp. Settings

This menu enables access to settings related to the room temperature sensor in the zone.

This menu and its submenus are only shown if **Heating Mode** is set to **Outdoor + Indoor comp.**

MENU TREE*

Indoor Temp. Settings	Indoor Setpoint
	Calculated Indoor Setpoint
	ECO-Comf. Status
	Indoor Setpoint Influence (Lower)
	Indoor Setpoint Influence (UPPER)

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

INDOOR SETPOINT

In this menu the indoor temperature setpoint for the zone is set.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** for the zone.

To set the indoor temperature setpoint:

1. Select **Indoor Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 21.0 °C
Setting range: 5.0 – 35.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

CALCULATED INDOOR SETPOINT

This menu shows the calculated indoor setpoint for the zone.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** and if ECO-Comf mode is set to ECO for the zone.

ECO-COMF STATUS

This menu shows if the zone is set in ECO mode.

This information is only shown if ECO-Comf mode is set to ECO for the zone.

INDOOR SETPOINT INFLUENCE (LOWER)

In this menu the indoor setpoint influence (lower) is set. If the measured indoor temperature is higher than the indoor temperature setpoint, the supply temperature setpoint will be lowered using this value.

This menu is used to to keep the measured room temperature as close as possible to the indoor temperature setpoint.



NOTE!

If the value is set too high it can lead to the system being unstable and the room temperature will start fluctuating.

To set the indoor setpoint influence (lower):

1. Select **Indoor Setpoint Influence (Lower)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

INDOOR SETPOINT INFLUENCE (UPPER)

In this menu the indoor setpoint influence (upper) is set. If the measured indoor temperature is lower than the indoor temperature setpoint, the supply temperature setpoint will be increased using this value.

This menu is used to to keep the measured room temperature as close as possible to the indoor temperature setpoint.



NOTE!

If the value is set too high it can lead to the system being unstable and the room temperature will start fluctuating.

To set the indoor setpoint influence (upper):

1. Select **Indoor Setpoint Influence (Upper)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DHW Circ Return Settings

This menu enables access to settings related to the return temperature sensor.

This menu is only shown if **Zone Setup** is set to **Domestic Hot Water** for the zone.

MENU TREE

DHW Circ Return Settings	
	DHW Circ Return Setpoint
	BoostPower

DHW CIRC RETURN SETPOINT

In this menu the return temperature setpoint for the zone is set.

To set the return temperature setpoint:

1. Select **DHW Circ Return Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.

Default: 50.0 °C

Setting range: 50.0 – 250.0 °C, 0.1 °C increments

4. Confirm the new setting by pressing the navigation wheel again.

BOOSTPOWER

In this menu the boost power for domestic hot water production is set. The parameter is used to adjust the calculated supply temperature, if the difference between the supply and return temperatures is too large.

This menu is only shown if **Zone Setup** is set to **Domestic Hot Water** for the zone.

To set the boost power:

1. Select **BoostPower**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 60 %
Setting range: 0 – 100 %, 1 % increments
4. Confirm the new setting by pressing the navigation wheel again.

Comf. - ECO

This menu enables access to settings related to the controller Comfort/ECO modes.

This menu and its submenus are only shown if **Zone Setup** is set to **Stand Alone Control** and if **Heating Mode** is set to **Outdoor + Indoor comp.** for the zone.

MENU TREE

Comf. - ECO	
	ECO Setback
	ECO-Comf Status
	ECO-Comf Schedule

ECO SETBACK

In this menu the ECO setback temperature is set. The parameter reduces the current setpoint with the set value.

If the setback is set to 0 the zone will resume its normal operation, even if it is set in ECO mode.

To set the ECO setback value:

1. Select **ECO Setback**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

ECO-COMF STATUS

This menu shows if the zone is set in ECO or Comf (comfort) mode.

ECO-COMF SCHEDULE

In this menu a schedule for switching between Comfort and ECO mode can be created.

The default schedule is set to Comfort mode 24h a day, 7 days a week.



WARNING!

Ensure that different schedules cannot enable ECO and Comf and the same time. This may cause an error where the controller must be reset to factory default values.

To edit/create the ECO-Comf Schedule:

1. Select **ECO-Comf Schedule**.
2. Press the navigation wheel to confirm selection.
The current schedule is showing.
3. Select a day.
4. Press the navigation wheel to confirm selection.
All current schedule settings are shown, each line representing a switch between Comfort and ECO mode. If entering the menu for the first time only one line is present, showing Comf starting at 00:00 every day of the week.
5. Select an existing line to edit or **00:00 Add new** to add a new setting.
6. Select whether to edit the hours, minutes, mode or day of the week.

HOURS:

Set at which hour the mode will start and press the navigation wheel to confirm selection.

MINUTES:

Set at which minute of the hour the mode will start and press the navigation wheel to confirm selection.

MODE:

Select a mode which should start at the set time and press the navigation wheel to confirm selection. Select between **Comf**, **ECO** and **Delete switch time**. **Delete switch time** erases the current line when selecting OK and pressing the navigation wheel.

DAY OF THE WEEK:

Select which days of the week, at the set time the selected mode should start.

7. Select **OK** at the end of the line, when done, and press the navigation wheel to confirm selection.
A new line has been added to the schedule.
8. Redo steps 5 and 6 until the schedule is complete.
9. Press the back button on the controller to exit the schedule setup.

Heating Curve

This menu enables access to heating curve settings for the zone. Settings such as the slope (Setting) and offset of the heating curve.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** for the zone

MENU TREE

Heating Curve	
	Setting
	Offset
	Heating Curve

SETTING

In this menu the slope of the heating curve is selected.

To select a heating curve:

1. Select **Setting**.
2. Press the navigation wheel to confirm selection.
3. Set the value.

Default: 0.9

Setting range: 0.1 – 1.6, 0.1 increments

4. Confirm the new setting by pressing the navigation wheel again.

OFFSET

In this menu the the heating curve can be offset. The offset can be used for temporary changes to the heating curve.

To offset the heating curve:

1. Select **Offset**.
2. Press the navigation wheel to confirm selection.
3. Set the value.

Default: 0

Setting range: -8 – 8, 1 increments

4. Confirm the new setting by pressing the navigation wheel again.

HEATING CURVE

This menu shows the heating curve, and max/min supply temperature limits, for the zone.

Manual Operation

This menu enables access to manual operation mode in the zone.

When manual operation mode is activated, access to manual control (override) of the circulation pump and mixing valve is enabled.

MENU TREE*

Manual Operation	
	Manual Mode
	Pump
	Mixing valve

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

To activate manual operation mode:

1. Select **Manual Mode**.
2. Press the navigation wheel to confirm selection.
3. Select **On**.
4. Confirm the new setting by pressing the navigation wheel again.

PUMP

In this menu the pump can be overridden and turned on or off manually.

To override the circulation pump operation:

1. Select **Pump**.
 2. Press the navigation wheel to confirm selection.
 3. Select **Manual**.
 4. Select **On**.
- Default: Off*
- Setting range: Off/On*
5. Confirm the new setting by pressing the navigation wheel again.

MIXING VALVE

In this menu the mixing valve can be overridden opened or closed manually.

To override the mixing valve setting:

1. Select **Mixing valve**.
2. Press the navigation wheel to confirm selection.
3. Select **Manual**.
4. Set the override value.
Default: 0 %
Setting range: 0 – 100 %, 1 % increments.
5. Confirm the new setting by pressing the navigation wheel again.

Pump

This menu enables access to pump settings in the zone.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Domestic Hot Water** for the zone.

MENU TREE*

Pump	
	Pump Exercise
	Exercise Day of the Week
	Exercise Hour
	Exercise Min

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

PUMP EXERCISE

In this menu pump exercise can be activated.

To activate pump exercise:

1. Select **Pump Exercise**.
2. Press the navigation wheel to confirm selection.
3. Select **Pump Exercise**.
Default: No Exercise
Setting range: No Exercise/Pump Exercise
4. Confirm the new setting by pressing the navigation wheel again.

EXERCISE DAY OF THE WEEK

In this menu the day of the week for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select a day of the week for pump exercise:

1. Select **Exercise Day of the Week**.
2. Press the navigation wheel to confirm selection.
3. Select a day.
Setting range: Monday – Sunday
4. Confirm the setting by pressing the navigation wheel again.

EXERCISE HOUR

In this menu the hour of the day for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select an hour of the day for pump exercise:

1. Select **Exercise Hour**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 8 h
Setting range: 0 – 23 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

EXERCISE MIN

In this menu the minute of the hour for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select a minute of the hour for pump exercise:

1. Select **Exercise Min**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0 min
Setting range: 0 – 59 min, 1 min increments
4. Confirm the setting by pressing the navigation wheel again.

Mixing Valve

This menu enables access to mixing valve settings in the zone.

MENU TREE

Mixing Valve	
	P-area
	I-time
	Actuator running time

P-AREA

In this menu the P-area for the mixing valve regulation is set.

To set the P-area:

1. Select **P-area**.
2. Press the navigation wheel to confirm selection.
3. Set the value.

Stand Alone Control/Smatrix Base PRO:
Default: 200.0 °C

Setting range: 2.0 – 500.0 °C, 0.1 °C increments

Domestic Hot Water:
Default: 70 °C

Setting range: 2.0 – 500.0 °C, 0.1 °C increments

4. Confirm the setting by pressing the navigation wheel again.

I-TIME

In this menu the I-time for the mixing valve regulation is set.

To set the I-time:

1. Select **I-time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.

*Stand Alone Control/Smatrix Base PRO:
Default: 50 seconds*

Setting range: 5 – 300 seconds, 1 second increments

*Domestic Hot Water:
Default: 18 seconds*

Setting range: 5 – 300 seconds, 1 second increments

4. Confirm the setting by pressing the navigation wheel again.

ACTUATOR RUNNING TIME

In this menu the actuator running time for the mixing valve regulation is set.

To set the actuator running time:

1. Select **Actuator running time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.

*Stand Alone Control/Smatrix Base PRO:
Default: 60 seconds*

Setting range: 0 – 500 seconds, 1 second increments

*Domestic Hot Water:
Default: 60 seconds*

Setting range: 0 – 300 seconds, 1 second increments

4. Confirm the setting by pressing the navigation wheel again.

Seasonal Shut Off

This menu enables access to seasonal shut off settings in the zone.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

MENU TREE*

Seasonal Shut Off	
	Pump Stop
	Valve Close
	Shut Off Outdoor Temp.
	T. Outdoor Setpoint
	T. Outdoor Delay
	Shut Off Indoor Temp.
	T. Indoor Delay

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

PUMP STOP

In this menu a function to stop the circulation pump, when requirements are met, is enabled.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control**.

To enable the function:

1. Select **Pump Stop**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.

Default: Disable

Setting range: Disable/Enable

4. Confirm the setting by pressing the navigation wheel again.

VALVE CLOSE

In this menu a function to close the mixing valve, when requirements are met, is enabled.

To enable the function:

1. Select **Valve Close**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

SHUT OFF OUTDOOR TEMP.

In this menu the function to stop the circulation pump and/or when to close the mixing valve, at an outdoor temperature setpoint is enabled/disabled for the zone.

This menu is only shown if **Pump Stop** and/or **Valve Close** is enabled.

To set an shut off outdoor temperature:

1. Select **Shut Off Outdoor Temp.**
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

T. OUTDOOR SETPOINT

In this menu the outdoor temperature setpoint for stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Outdoor Temp.** is enabled.

To set an outdoor temperature setpoint:

1. Select **T Outdoor Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: 17.0 °C
Setting range: 0.0 – 40.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

T. OUTDOOR DELAY

In this menu the time delay for how long the outdoor temperature must be equal or higher than **T Outdoor Setpoint** before stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Outdoor Temp.** is enabled.

To set the stop time:

1. Select **T. Outdoor Delay**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 24 h
Setting range: 0 – 24 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

SHUT OFF INDOOR TEMP.

In this menu the function to stop the circulation pump, and/or when to close the mixing valve, at an indoor temperature setpoint is enabled/disabled for the zone.

This menu is only shown if **Pump Stop** and/or **Valve Close** is enabled, and if **Heating Mode** is set to **Outdoor + Indoor comp.** for the zone.

To set an shut off outdoor temperature:

1. Select **Shut Off Outdoor Temp.**
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

T. INDOOR DELAY

In this menu the time delay for how long the indoor temperature must be equal or higher than the indoor setpoint before stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Indoor Temp.** is enabled.

To set the stop time:

1. Select **T. Indoor Delay**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0 h
Setting range: 0 – 5 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

ZONE 3 SETTINGS

In this menu parameter settings for zone 3 can be set or changed.

Menu tree*

Zone 3 Settings	
Supply Temp. Settings	
Indoor Temp. Settings	
Conf. - ECO	
Heating Curve	
Meltaway Curve (IDLE Status)	
Return Temperature	
Enter Stop State Conditions	
Enter Idle State Conditions	
Enter Melting State Conditions	
Manual Operation	
Pump	
Mixing Valve	
Seasonal Shut Off	
Automatic Freeze Protection	

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

Supply Temp. Settings

This menu enables access to settings related to the supply temperature in the zone.

MENU TREE*

Supply Temp. Settings	
Calculated Supply Setpoint	
Melting Supply Setpoint	
Min. Supply Temp.	
Max. Supply Temp.	
Heating Curve Meltaway	
IDLE Supply Setpoint	
Min. Supply Temp. (IDLE Status)	
Max. Supply Temp. (IDLE Status)	
Deviation alarm limit	
Deviation alarm delay	

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

CALCULATED SUPPLY SETPOINT

In this menu the calculated supply setpoint for the zone can be overridden. This temperature is used as setpoint for the supply temperature.

To override the calculated supply setpoint:

1. Select **Calculated supply setpoint**.
2. Press the navigation wheel to confirm selection.
3. Select **Manual**.
4. Set the override value.
Setting range: -5.0 – 70.0 °C, 0.1 °C increments
5. Confirm the new setting by pressing the navigation wheel again.

MELTING SUPPLY SETPOINT

In this menu the supply temperature setpoint for meltaway in the zone is set.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

To set the melting supply temperature setpoint:

1. Select **Supply Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 35 °C
Setting range: 5.0 – 50.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MIN. SUPPLY TEMP.

In this menu the minimum allowed supply temperature for the zone can be set. The supply temperature is not allowed to fall below this value.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

To set the minimum allowed supply temperature:

1. Select **Min. supply temp**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 15.0 °C
Setting range: 5.0 – 35.0 °C (or max. supply temp), 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MAX. SUPPLY TEMP.

In this menu the maximum allowed supply temperature for the zone can be set. The supply temperature is not allowed to rise above this value.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

To set the maximum allowed supply temperature:

1. Select **Max. supply temp**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 70.0 °C
Setting range: 5.0 (or min. supply temp) – 90.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

HEATING CURVE MELTAWAY

In this menu a heating curve for the zone, while meltaway status is **IDLE**, can be enabled.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

To enable the heating curve:

1. Select **Heating Curve**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
4. Confirm the new setting by pressing the navigation wheel again.

IDLE SUPPLY SETPOINT

In this menu a setpoint for the zone, while meltaway status is **IDLE**, can be set. This temperature is used as setpoint for the supply temperature.

To set the IDLE supply setpoint:

1. Select **IDLE supply setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the override value.
Default: 8.0 °C
Setting range: 1.0 – 15.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MIN. SUPPLY TEMP. (IDLE STATUS)

In this menu the minimum available supply temperature for the zone, while meltaway status is **IDLE**, can be set. The supply temperature is not allowed to fall below this value.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

To set the minimum available supply temperature:

1. Select **Min. supply temp.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 5.0 °C
Setting range: 0.0 – 25.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MAX. SUPPLY TEMP. (IDLE STATUS)

In this menu the maximum available supply temperature for the zone, while meltaway status is **IDLE**, can be set. The supply temperature is not allowed to rise above this value.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

To set the minimum available supply temperature:

1. Select **Max. supply temp.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 15.0 °C
Setting range: 0.0 – 70.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DEVIATION ALARM LIMIT

In this menu the deviation alarm limit for the supply temperature in the zone is set. If the difference between the measured and the calculated supply temperatures are higher than the set limit during the time set in **Deviation alarm delay**, the alarm is triggered.

To set the deviation alarm limit:

1. Select **Deviation alarm limit.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 10.0 °C
Setting range: 0.0 – 50.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DEVIATION ALARM DELAY

In this menu the deviation alarm delay for the deviation alarm limit in the zone is set. If the difference between the measured and the calculated supply temperatures are higher than **Deviation alarm limit** during the set delay, the alarm is triggered.

To set the deviation alarm delay:

1. Select **Deviation alarm delay.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 5 min
Setting range: 0 – 30 min, 1 min increments
4. Confirm the new setting by pressing the navigation wheel again.

Indoor Temp. Settings

This menu enables access to settings related to the room temperature sensor in the zone.

This menu and its submenus are only shown if **Heating Mode** is set to **Outdoor + Indoor comp.**.

MENU TREE*

Indoor Temp. Settings	Indoor Setpoint
	Calculated Indoor Setpoint
	ECO-Comf. Status
	Indoor Setpoint Influence (Lower)
	Indoor Setpoint Influence (UPPER)

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

INDOOR SETPOINT

In this menu the indoor temperature setpoint for the zone is set.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** for the zone.

To set the indoor temperature setpoint:

1. Select **Indoor Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 21.0 °C
Setting range: 5.0 – 35.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

CALCULATED INDOOR SETPOINT

This menu shows the calculated indoor setpoint for the zone.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** and if ECO-Comf mode is set to ECO for the zone.

ECO-COMF STATUS

This menu shows if the zone is set in ECO mode.

This information is only shown if ECO-Comf mode is set to ECO for the zone.

INDOOR SETPOINT INFLUENCE (LOWER)

In this menu the indoor setpoint influence (lower) is set. If the measured indoor temperature is higher than the indoor temperature setpoint, the supply temperature setpoint will be lowered using this value.

This menu is used to to keep the measured room temperature as close as possible to the indoor temperature setpoint.

NOTE!

If the value is set too high it can lead to the system being unstable and the room temperature will start fluctuating.

To set the indoor setpoint influence (lower):

1. Select **Indoor Setpoint Influence (Lower)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

INDOOR SETPOINT INFLUENCE (UPPER)

In this menu the indoor setpoint influence (upper) is set. If the measured indoor temperature is lower than the indoor temperature setpoint, the supply temperature setpoint will be increased using this value.

This menu is used to to keep the measured room temperature as close as possible to the indoor temperature setpoint.

NOTE!

If the value is set too high it can lead to the system being unstable and the room temperature will start fluctuating.

To set the indoor setpoint influence (upper):

1. Select **Indoor Setpoint Influence (Upper)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

Comf. - ECO

This menu enables access to settings related to the controller Comfort/ECO modes.

This menu and its submenus are only shown if **Zone Setup** is set to **Stand Alone Control** and if **Heating Mode** is set to **Outdoor + Indoor comp.** for the zone.

MENU TREE

Comf. - ECO	
	ECO Setback
	ECO-Comf Status
	ECO-Comf Schedule

ECO SETBACK

In this menu the ECO setback temperature is set. The parameter reduces the current setpoint with the set value.

If the setback is set to 0 the zone will resume its normal operation, even if it is set in ECO mode.

To set the ECO setback value:

1. Select **ECO Setback**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

ECO-COMF STATUS

This menu shows if the zone is set in ECO or Comf (comfort) mode.

ECO-COMF SCHEDULE

In this menu a schedule for switching between Comfort and ECO mode can be created.

The default schedule is set to Comfort mode 24h a day, 7 days a week.



WARNING!

Ensure that different schedules cannot enable ECO and Comf and the same time. This may cause an error where the controller must be reset to factory default values.

To edit/create the ECO-Comf Schedule:

1. Select **ECO-Comf Schedule**.
2. Press the navigation wheel to confirm selection.
The current schedule is showing.
3. Select a day.
4. Press the navigation wheel to confirm selection.
All current schedule settings are shown, each line representing a switch between Comfort and ECO mode. If entering the menu for the first time only one line is present, showing Comf starting at 00:00 every day of the week.
5. Select an existing line to edit or **00:00 Add new** to add a new setting.
6. Select whether to edit the hours, minutes, mode or day of the week.

HOURS:

Set at which hour the mode will start and press the navigation wheel to confirm selection.

MINUTES:

Set at which minute of the hour the mode will start and press the navigation wheel to confirm selection.

MODE:

Select a mode which should start at the set time and press the navigation wheel to confirm selection. Select between **Comf**, **ECO** and **Delete switch time**. **Delete switch time** erases the current line when selecting OK and pressing the navigation wheel.

DAY OF THE WEEK:

Select which days of the week, at the set time the selected mode should start.

7. Select **OK** at the end of the line, when done, and press the navigation wheel to confirm selection.
A new line has been added to the schedule.
8. Redo steps 5 and 6 until the schedule is complete.
9. Press the back button on the controller to exit the schedule setup.

Heating Curve

This menu enables access to heating curve settings for the zone. Settings such as the slope (Setting) and offset of the heating curve.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** for the zone

MENU TREE

Heating Curve	
	Setting
	Offset
	Heating Curve

SETTING

In this menu the slope of the heating curve is selected.

To select a heating curve:

1. Select **Setting**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0.9
Setting range: 0.1 – 1.6, 0.1 increments
4. Confirm the new setting by pressing the navigation wheel again.

OFFSET

In this menu the the heating curve can be offset. The offset can be used for temporary changes to the heating curve.

To offset the heating curve:

1. Select **Offset**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0
Setting range: -8 – 8, 1 increments
4. Confirm the new setting by pressing the navigation wheel again.

HEATING CURVE

This menu shows the heating curve, and max/min supply temperature limits, for the zone.

Meltaway Curve (IDLE Status)

This menu enables access to meltaway heating curve settings for the zone while in IDLE status. Settings such as the slope (Setting) and offset of the meltaway heating curve.

This menu is only shown if **Zone Setup** is set to **Meltaway** and if **Heating Curve Meltaway** is enabled for the zone.

MENU TREE

Meltaway Curve (IDLE Status)	
	Setting
	Offset
	Heating Curve

SETTING

In this menu the slope of the meltaway heating curve is selected.

To select a meltaway heating curve:

1. Select **Setting**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0.9
Setting range: 0.1 – 1.6, 0.1 increments
4. Confirm the new setting by pressing the navigation wheel again.

OFFSET

In this menu the the meltaway heating curve can be offset. The offset can be used for temporary changes to the heating curve.

To offset the meltaway heating curve:

1. Select **Offset**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0
Setting range: -8 – 8, 1 increments
4. Confirm the new setting by pressing the navigation wheel again.

HEATING CURVE

This menu shows the meltaway heating curve, and max/min supply temperature limits, for the zone.

Return Temperature

This menu enables access to settings related to the return temperature sensor.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

MENU TREE

Return Temperature
Max. Supply-Return Diff.

MAX. SUPPLY-RETURN DIFF.

In this menu the maximum difference allowed between the supply and return temperature is set.

To set the return temperature setpoint:

1. Select **Max. Supply-Return Diff.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 20 °C
Setting range: 0.0 – 80.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

Enter Stop State Conditions

This menu enables access to parameters deciding when to switch the meltaway state in the zone between IDLE and STOP.

The zone switches from IDLE to STOP state when the measured outdoor temperature is higher than the value set in **Outdoor Temperature**, for the number of days set in **Delay (days)**.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

MENU TREE

Enter Stop State Conditions
Outdoor Temperature
Delay (days)

OUTDOOR TEMPERATURE

In this menu the outdoor temperature, used to switch meltaway state between IDLE and STOP, is set.

To set the outdoor temperature:

1. Select **Outdoor Temperature**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 10.0 °C
Setting range: 0.0 – 15.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DELAY (DAYS)

In this menu the number of delay days, used to switch meltaway state between IDLE and STOP, is set.

To set the delay:

1. Select **Delay (days)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 2 days
Setting range: 0 – 5 days, 1 day increments
4. Confirm the new setting by pressing the navigation wheel again.

Enter Idle State Conditions

This menu enables access to parameters used when to switch the meltaway state in the zone to and from IDLE.

The zone switches from STOP to IDLE state when the measured outdoor temperature is lower than the value set in **Outdoor Temperature**, for the number of hours set in **Delay (hours)**.

The zone switches from MELTING to IDLE state when no moisture has been detected (for the number of days set in **Delay Surface Dry**), when the outdoor temperature is higher than the value set in Outdoor Temperature, and when the ground temperature is higher than **Enter Melting State Conditions > Ground Temperature Limit**.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

MENU TREE

Enter Idle State Conditions	
	Outdoor Temperature
	Delay (hours)
	Delay Surface Dry

OUTDOOR TEMPERATURE

In this menu the outdoor temperature, used to switch meltaway state from STOP or MELTING to IDLE, is set.

To set the outdoor temperature:

1. Select **Outdoor Temperature**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 5.0 °C
Setting range: 0.0 – 15.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DELAY (HOURS)

In this menu the number of delay hours, used to switch meltaway state from STOP to IDLE, is set.

To set the delay:

1. Select **Delay (hours)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 1 hour
Setting range: 0 – 24 hours, 1 hour increments
4. Confirm the new setting by pressing the navigation wheel again.

DELAY SURFACE DRY

In this menu the number of delay days, used to switch meltaway state from MELTING to IDLE, is set.

To set the dry surface delay:

1. Select **Delay Surface Dry**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0 days
Setting range: 0 – 2 days, 1 day increments
4. Confirm the new setting by pressing the navigation wheel again.

Enter Melting State Conditions

This menu enables access to parameters used when to switch the meltaway state in the zone to and from MELTING. When entering MELTING state the zone stays in that condition until the min limit set in **Min. Time in Melting** is met.

The zone switches from IDLE to MELTING state when one of the following scenarios are met:

1. No ground moisture is detected and the measured ground temperature is lower than than the set limit in **Ground Temperature Limit**.
2. No ground moisture is detected and the measured outdoor temperature is lower than than the set limit in **Outdoor Temperature Low Limit**.

The zone switches from PROTECTION to MELTING when the primary return sensor measures a supply temperature that is higher than PRIMARY RETURN TEMP. HIGH, set in **Automatic Freeze Protection** .

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

MENU TREE

Enter Melting State Conditions	
	Ground Temperature Limit
	Outdoor Temp. Offset
	Outdoor Temperature Low Limit
	Min. Time in Melting

GROUND TEMPERATURE LIMIT

In this menu the ground temperature limit, used to switch meltaway state between IDLE to MELTING , is set.

To set the ground temperature limit:

1. Select **Ground Temperature Limit**.
2. Press the navigation wheel to confirm selection.
3. Select **Low Limit**.
4. Press the navigation wheel to confirm selection.
5. Set the value.
Default: 2 °C
Setting range: 0 – 10 °C, 1 °C increments
6. Confirm the new setting by pressing the navigation wheel again.

OUTDOOR TEMP. OFFSET

In this menu the outdoor temperature offset, used to switch meltaway state from IDLE to MELTING, is set.

To set the outdoor temperature offset:

1. Select **Outdoor Temp. Offset**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 1 °C
Setting range: -5 – 5 °C, 1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

OUTDOOR TEMPERATURE LOW LIMIT

In this menu the lower outdoor temperature limit, used to switch meltaway state from IDLE to MELTING, is set.

To set the lower outdoor temperature limit:

1. Select **Outdoor Temperature Low Limit**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 1 °C
Setting range: -5 – 5 °C, 1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MIN. TIME IN MELTING

In this menu the minimum number of hours the zone can be in meltaway state MELTING, is set.

To set the minimum time:

1. Select **Min. Time in Melting**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 2 hour
Setting range: 0 – 10 hours, 1 hour increments
4. Confirm the new setting by pressing the navigation wheel again.

Manual Operation

This menu enables access to manual operation mode in the zone.

When manual operation mode is activated, access to manual control (override) of the circulation pump and mixing valve is enabled.

MENU TREE*

Manual Operation	
	Manual Mode
	Pump
	Mixing valve

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

To activate manual operation mode:

1. Select **Manual Mode**.
2. Press the navigation wheel to confirm selection.
3. Select **On**.
4. Confirm the new setting by pressing the navigation wheel again.

PUMP

In this menu the pump can be overridden and turned on or off manually.

To override the circulation pump operation:

1. Select **Pump**.
2. Press the navigation wheel to confirm selection.
3. Select **Manual**.
4. Select **On**.
Default: Off
Setting range: Off/On
5. Confirm the new setting by pressing the navigation wheel again.

MIXING VALVE

In this menu the mixing valve can be overridden opened or closed manually.

To override the mixing valve setting:

1. Select **Mixing valve**.
2. Press the navigation wheel to confirm selection.
3. Select **Manual**.
4. Set the override value.
Default: 0 %
Setting range: 0 – 100 %, 1 % increments.
5. Confirm the new setting by pressing the navigation wheel again.

Pump

This menu enables access to pump settings in the zone.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Meltaway** for the zone.

MENU TREE*

Pump	
	Pump Exercise
	Exercise Day of the Week
	Exercise Hour
	Exercise Min

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

PUMP EXERCISE

In this menu pump exercise can be activated.

To activate pump exercise:

1. Select **Pump Exercise**.
2. Press the navigation wheel to confirm selection.
3. Select **Pump Exercise**.
Default: No Exercise
Setting range: No Exercise/Pump Exercise
4. Confirm the new setting by pressing the navigation wheel again.

EXERCISE DAY OF THE WEEK

In this menu the day of the week for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select a day of the week for pump exercise:

1. Select **Exercise Day of the Week**.
2. Press the navigation wheel to confirm selection.
3. Select a day.
Setting range: Monday – Sunday
4. Confirm the setting by pressing the navigation wheel again.

EXERCISE HOUR

In this menu the hour of the day for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select an hour of the day for pump exercise:

1. Select **Exercise Hour**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 8 h
Setting range: 0 – 23 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

EXERCISE MIN

In this menu the minute of the hour for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select a minute of the hour for pump exercise:

1. Select **Exercise Min**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0 min
Setting range: 0 – 59 min, 1 min increments
4. Confirm the setting by pressing the navigation wheel again.

Mixing Valve

This menu enables access to mixing valve settings in the zone.

MENU TREE

Mixing Valve	
	P-area
	I-time
	Actuator running time

P-AREA

In this menu the P-area for the mixing valve regulation is set.

To set the P-area:

1. Select **P-area**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 200.0 °C
Setting range: 2.0 – 500.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

I-TIME

In this menu the I-time for the mixing valve regulation is set.

To set the I-time:

1. Select **I-time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 50 seconds
Setting range: 5 – 300 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

ACTUATOR RUNNING TIME

In this menu the actuator running time for the mixing valve regulation is set.

To set the actuator running time:

1. Select **Actuator running time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 60 seconds
Setting range: 0 – 500 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

Seasonal Shut Off

This menu enables access to seasonal shut off settings in the zone.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

MENU TREE*

Seasonal Shut Off	
	Pump Stop
	Valve Close
	Shut Off Outdoor Temp.
	T. Outdoor Setpoint
	T. Outdoor Delay
	Shut Off Indoor Temp.
	T. Indoor Delay

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

PUMP STOP

In this menu a function to stop the circulation pump, when requirements are met, is enabled.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control**.

To enable the function:

1. Select **Pump Stop**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

VALVE CLOSE

In this menu a function to close the mixing valve, when requirements are met, is enabled.

To enable the function:

1. Select **Valve Close**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

SHUT OFF OUTDOOR TEMP.

In this menu the function to stop the circulation pump and/or when to close the mixing valve, at an outdoor temperature setpoint is enabled/disabled for the zone.

This menu is only shown if **Pump Stop** and/or **Valve Close** is enabled.

To set an shut off outdoor temperature:

1. Select **Shut Off Outdoor Temp.**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

T. OUTDOOR SETPOINT

In this menu the outdoor temperature setpoint for stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Outdoor Temp.** is enabled.

To set an outdoor temperature setpoint:

1. Select **T Outdoor Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: 17.0 °C
Setting range: 0.0 – 40.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

T. OUTDOOR DELAY

In this menu the time delay for how long the outdoor temperature must be equal or higher than **T Outdoor Setpoint** before stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Outdoor Temp.** is enabled.

To set the stop time:

1. Select **T. Outdoor Delay**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 24 h
Setting range: 0 – 24 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

SHUT OFF INDOOR TEMP.

In this menu the function to stop the circulation pump, and/or when to close the mixing valve, at an indoor temperature setpoint is enabled/disabled for the zone.

This menu is only shown if **Pump Stop** and/or **Valve Close** is enabled, and if **Heating Mode** is set to **Outdoor + Indoor comp.** for the zone.

To set an shut off outdoor temperature:

1. Select **Shut Off Outdoor Temp.**
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

T. INDOOR DELAY

In this menu the time delay for how long the indoor temperature must be equal or higher than the indoor setpoint before stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Indoor Temp.** is enabled.

To set the stop time:

1. Select **T. Indoor Delay**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0 h
Setting range: 0 – 5 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

Automatic Freeze Protection

This menu decides when to activate automatic freeze protection during meltaway in the zone. The controller will keep the return temperature between the low and high thresholds.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

MENU TREE

Automatic Freeze Protection
Primary return Temp. Low
Primary return Temp. High

PRIMARY RETURN TEMP. LOW

In this menu the lower threshold is set.

To set the low threshold:

1. Select **Primary return Temp. Low**.
2. Press the navigation wheel to confirm selection.
3. Set a value.
Default: 0.0 °C
Setting range: -5.0 – 5.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

PRIMARY RETURN TEMP. HIGH

In this menu the higher threshold is set.

To set the high threshold:

1. Select **Primary return Temp. High**.
2. Press the navigation wheel to confirm selection.
3. Set a value.
Default: 15.0 °C
Setting range: 15.0 – 45.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

ZONE 4 SETTINGS

In this menu parameter settings for zone 3 can be set or changed.

Menu tree*

Zone 4 Settings
Supply Temp. Settings
Indoor Temp. Settings
Conf. - ECO
Heating Curve
Meltaway Curve (IDLE Status)
Return Temperature
Enter Stop State Conditions
Enter Idle State Conditions
Enter Melting State Conditions
Manual Operation
Pump
Mixing Valve
Seasonal Shut Off
Automatic Freeze Protection

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

Supply Temp. Settings

This menu enables access to settings related to the supply temperature in the zone.

MENU TREE*

Supply Temp. Settings
Calculated Supply Setpoint
Melting Supply Setpoint
Min. Supply Temp.
Max. Supply Temp.
Heating Curve Meltaway
IDLE Supply Setpoint
Min. Supply Temp. (IDLE Status)
Max. Supply Temp. (IDLE Status)
Deviation alarm limit
Deviation alarm delay

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

CALCULATED SUPPLY SETPOINT

In this menu the calculated supply setpoint for the zone can be overridden. This temperature is used as setpoint for the supply temperature.

To override the calculated supply setpoint:

1. Select **Calculated supply setpoint**.
2. Press the navigation wheel to confirm selection.
3. Select **Manual**.
4. Set the override value.
Setting range: -5.0 – 70.0 °C, 0.1 °C increments
5. Confirm the new setting by pressing the navigation wheel again.

MELTING SUPPLY SETPOINT

In this menu the supply temperature setpoint for meltaway in the zone is set.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

To set the melting supply temperature setpoint:

1. Select **Supply Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 35 °C
Setting range: 5.0 – 50.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MIN. SUPPLY TEMP.

In this menu the minimum allowed supply temperature for the zone can be set. The supply temperature is not allowed to fall below this value.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

To set the minimum allowed supply temperature:

1. Select **Min. supply temp**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 15.0 °C
Setting range: 5.0 – 35.0 °C (or max. supply temp), 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MAX. SUPPLY TEMP.

In this menu the maximum allowed supply temperature for the zone can be set. The supply temperature is not allowed to rise above this value.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

To set the maximum allowed supply temperature:

1. Select **Max. supply temp**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 70.0 °C
Setting range: 5.0 (or min. supply temp) – 90.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

HEATING CURVE MELTAWAY

In this menu a heating curve for the zone, while meltaway status is **IDLE**, can be enabled.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

To enable the heating curve:

1. Select **Heating Curve**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
4. Confirm the new setting by pressing the navigation wheel again.

IDLE SUPPLY SETPOINT

In this menu a setpoint for the zone, while meltaway status is **IDLE**, can be set. This temperature is used as setpoint for the supply temperature.

To set the IDLE supply setpoint:

1. Select **IDLE supply setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the override value.
Default: 8.0 °C
Setting range: 1.0 – 15.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MIN. SUPPLY TEMP. (IDLE STATUS)

In this menu the minimum available supply temperature for the zone, while meltaway status is **IDLE**, can be set. The supply temperature is not allowed to fall below this value.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

To set the minimum available supply temperature:

1. Select **Min. supply temp.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 5.0 °C
Setting range: 0.0 – 25.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MAX. SUPPLY TEMP. (IDLE STATUS)

In this menu the maximum available supply temperature for the zone, while meltaway status is **IDLE**, can be set. The supply temperature is not allowed to rise above this value.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

To set the minimum available supply temperature:

1. Select **Max. supply temp.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 15.0 °C
Setting range: 0.0 – 70.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DEVIATION ALARM LIMIT

In this menu the deviation alarm limit for the supply temperature in the zone is set. If the difference between the measured and the calculated supply temperatures are higher than the set limit during the time set in **Deviation alarm delay**, the alarm is triggered.

To set the deviation alarm limit:

1. Select **Deviation alarm limit.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 10.0 °C
Setting range: 0.0 – 50.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DEVIATION ALARM DELAY

In this menu the deviation alarm delay for the deviation alarm limit in the zone is set. If the difference between the measured and the calculated supply temperatures are higher than **Deviation alarm limit** during the set delay, the alarm is triggered.

To set the deviation alarm delay:

1. Select **Deviation alarm delay.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 5 min
Setting range: 0 – 30 min, 1 min increments
4. Confirm the new setting by pressing the navigation wheel again.

Indoor Temp. Settings

This menu enables access to settings related to the room temperature sensor in the zone.

This menu and its submenus are only shown if **Heating Mode** is set to **Outdoor + Indoor comp.**.

MENU TREE*

Indoor Temp. Settings	Indoor Setpoint
	Calculated Indoor Setpoint
	ECO-Comf. Status
	Indoor Setpoint Influence (Lower)
	Indoor Setpoint Influence (UPPER)

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

INDOOR SETPOINT

In this menu the indoor temperature setpoint for the zone is set.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** for the zone.

To set the indoor temperature setpoint:

1. Select **Indoor Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 21.0 °C
Setting range: 5.0 – 35.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

CALCULATED INDOOR SETPOINT

This menu shows the calculated indoor setpoint for the zone.

This information is only shown if **Zone Setup** is set to **Stand Alone Control** and if ECO-Comf mode is set to ECO for the zone.

ECO-COMF STATUS

This menu shows if the zone is set in ECO mode.

This information is only shown if ECO-Comf mode is set to ECO for the zone.

INDOOR SETPOINT INFLUENCE (LOWER)

In this menu the indoor setpoint influence (lower) is set. If the measured indoor temperature is higher than the indoor temperature setpoint, the supply temperature setpoint will be lowered using this value.

This menu is used to to keep the measured room temperature as close as possible to the indoor temperature setpoint.

NOTE!

If the value is set too high it can lead to the system being unstable and the room temperature will start fluctuating.

To set the indoor setpoint influence (lower):

1. Select **Indoor Setpoint Influence (Lower)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

INDOOR SETPOINT INFLUENCE (UPPER)

In this menu the indoor setpoint influence (upper) is set. If the measured indoor temperature is lower than the indoor temperature setpoint, the supply temperature setpoint will be increased using this value.

This menu is used to to keep the measured room temperature as close as possible to the indoor temperature setpoint.

NOTE!

If the value is set too high it can lead to the system being unstable and the room temperature will start fluctuating.

To set the indoor setpoint influence (upper):

1. Select **Indoor Setpoint Influence (Upper)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

Comf. - ECO

This menu enables access to settings related to the controller Comfort/ECO modes.

This menu and its submenus are only shown if **Zone Setup** is set to **Stand Alone Control** and if **Heating Mode** is set to **Outdoor + Indoor comp.** for the zone.

MENU TREE

Comf. - ECO	
	ECO Setback
	ECO-Comf Status
	ECO-Comf Schedule

ECO SETBACK

In this menu the ECO setback temperature is set. The parameter reduces the current setpoint with the set value.

If the setback is set to 0 the zone will resume its normal operation, even if it is set in ECO mode.

To set the ECO setback value:

1. Select **ECO Setback**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 4.0 °C
Setting range: 0.0 – 10.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

ECO-COMF STATUS

This menu shows if the zone is set in ECO or Comf (comfort) mode.

ECO-COMF SCHEDULE

In this menu a schedule for switching between Comfort and ECO mode can be created.

The default schedule is set to Comfort mode 24h a day, 7 days a week.



WARNING!

Ensure that different schedules cannot enable ECO and Comf and the same time. This may cause an error where the controller must be reset to factory default values.

To edit/create the ECO-Comf Schedule:

1. Select **ECO-Comf Schedule**.
2. Press the navigation wheel to confirm selection.
The current schedule is showing.
3. Select a day.
4. Press the navigation wheel to confirm selection.
All current schedule settings are shown, each line representing a switch between Comfort and ECO mode. If entering the menu for the first time only one line is present, showing Comf starting at 00:00 every day of the week.
5. Select an existing line to edit or **00:00 Add new** to add a new setting.
6. Select whether to edit the hours, minutes, mode or day of the week.

HOURS:

Set at which hour the mode will start and press the navigation wheel to confirm selection.

MINUTES:

Set at which minute of the hour the mode will start and press the navigation wheel to confirm selection.

MODE:

Select a mode which should start at the set time and press the navigation wheel to confirm selection. Select between **Comf**, **ECO** and **Delete switch time**. **Delete switch time** erases the current line when selecting OK and pressing the navigation wheel.

DAY OF THE WEEK:

Select which days of the week, at the set time the selected mode should start.

7. Select **OK** at the end of the line, when done, and press the navigation wheel to confirm selection.
A new line has been added to the schedule.
8. Redo steps 5 and 6 until the schedule is complete.
9. Press the back button on the controller to exit the schedule setup.

Heating Curve

This menu enables access to heating curve settings for the zone. Settings such as the slope (Setting) and offset of the heating curve.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** for the zone

MENU TREE

Heating Curve	
	Setting
	Offset
	Heating Curve

SETTING

In this menu the slope of the heating curve is selected.

To select a heating curve:

1. Select **Setting**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0.9
Setting range: 0.1 – 1.6, 0.1 increments
4. Confirm the new setting by pressing the navigation wheel again.

OFFSET

In this menu the the heating curve can be offset. The offset can be used for temporary changes to the heating curve.

To offset the heating curve:

1. Select **Offset**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0
Setting range: -8 – 8, 1 increments
4. Confirm the new setting by pressing the navigation wheel again.

HEATING CURVE

This menu shows the heating curve, and max/min supply temperature limits, for the zone.

Meltaway Curve (IDLE Status)

This menu enables access to meltaway heating curve settings for the zone while in IDLE status. Settings such as the slope (Setting) and offset of the meltaway heating curve.

This menu is only shown if **Zone Setup** is set to **Meltaway** and if **Heating Curve Meltaway** is enabled for the zone.

MENU TREE

Meltaway Curve (IDLE Status)	
	Setting
	Offset
	Heating Curve

SETTING

In this menu the slope of the meltaway heating curve is selected.

To select a meltaway heating curve:

1. Select **Setting**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0.9
Setting range: 0.1 – 1.6, 0.1 increments
4. Confirm the new setting by pressing the navigation wheel again.

OFFSET

In this menu the the meltaway heating curve can be offset. The offset can be used for temporary changes to the heating curve.

To offset the meltaway heating curve:

1. Select **Offset**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0
Setting range: -8 – 8, 1 increments
4. Confirm the new setting by pressing the navigation wheel again.

HEATING CURVE

This menu shows the meltaway heating curve, and max/min supply temperature limits, for the zone.

Return Temperature

This menu enables access to settings related to the return temperature sensor.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

MENU TREE

Return Temperature
Max. Supply-Return Diff.

MAX. SUPPLY-RETURN DIFF.

In this menu the maximum difference allowed between the supply and return temperature is set.

To set the return temperature setpoint:

1. Select **Max. Supply-Return Diff.**
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 20 °C
Setting range: 0.0 – 80.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

Enter Stop State Conditions

This menu enables access to parameters deciding when to switch the meltaway state in the zone between IDLE and STOP.

The zone switches from IDLE to STOP state when the measured outdoor temperature is higher than the value set in **Outdoor Temperature**, for the number of days set in **Delay (days)**.

MENU TREE

Enter Stop State Conditions
Outdoor Temperature
Delay (days)

OUTDOOR TEMPERATURE

In this menu the outdoor temperature, used to switch meltaway state between IDLE and STOP, is set.

To set the outdoor temperature:

1. Select **Outdoor Temperature**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 10.0 °C
Setting range: 0.0 – 15.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DELAY (DAYS)

In this menu the number of delay days, used to switch meltaway state between IDLE and STOP, is set.

To set the delay:

1. Select **Delay (days)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 2 days
Setting range: 0 – 5 days, 1 day increments
4. Confirm the new setting by pressing the navigation wheel again.

Enter Idle State Conditions

This menu enables access to parameters used when to switch the meltaway state in the zone to and from IDLE.

The zone switches from STOP to IDLE state when the measured outdoor temperature is lower than the value set in **Outdoor Temperature**, for the number of hours set in **Delay (hours)**.

The zone switches from MELTING to IDLE state when no moisture has been detected (for the number of days set in **Delay Surface Dry**), when the outdoor temperature is higher than the value set in Outdoor Temperature, and when the ground temperature is higher than **Enter Melting State Conditions > Ground Temperature Limit**.

MENU TREE

Enter Idle State Conditions	
	Outdoor Temperature
	Delay (hours)
	Delay Surface Dry

OUTDOOR TEMPERATURE

In this menu the outdoor temperature, used to switch meltaway state from STOP or MELTING to IDLE, is set.

To set the outdoor temperature:

1. Select **Outdoor Temperature**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 5.0 °C
Setting range: 0.0 – 15.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

DELAY (HOURS)

In this menu the number of delay hours, used to switch meltaway state from STOP to IDLE, is set.

To set the delay:

1. Select **Delay (hours)**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 1 hour
Setting range: 0 – 24 hours, 1 hour increments
4. Confirm the new setting by pressing the navigation wheel again.

DELAY SURFACE DRY

In this menu the number of delay days, used to switch meltaway state from MELTING to IDLE, is set.

To set the dry surface delay:

1. Select **Delay Surface Dry**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0 days
Setting range: 0 – 2 days, 1 day increments
4. Confirm the new setting by pressing the navigation wheel again.

Enter Melting State Conditions

This menu enables access to parameters used when to switch the meltaway state in the zone to and from MELTING. When entering MELTING state the zone stays in that condition until the min limit set in **Min. Time in Melting** is met.

The zone switches from IDLE to MELTING state when one of the following scenarios are met:

1. No ground moisture is detected and the measured ground temperature is lower than than the set limit in **Ground Temperature Limit**.
2. No ground moisture is detected and the measured outdoor temperature is lower than than the set limit in **Outdoor Temperature Low Limit**.

The zone switches from PROTECTION to MELTING when the primary return sensor measures a supply temperature that is higher than PRIMARY RETURN TEMP. HIGH, set in **Automatic Freeze Protection** .

MENU TREE

Enter Melting State Conditions	
	Ground Temperature Limit
	Outdoor Temp. Offset
	Outdoor Temperature Low Limit
	Min. Time in Melting

GROUND TEMPERATURE LIMIT

In this menu the ground temperature limit, used to switch meltaway state between IDLE to MELTING , is set.

To set the ground temperature limit:

1. Select **Ground Temperature Limit**.
2. Press the navigation wheel to confirm selection.
3. Select **Low Limit**.
4. Press the navigation wheel to confirm selection.
5. Set the value.
Default: 2 °C
Setting range: 0 – 10 °C, 1 °C increments
6. Confirm the new setting by pressing the navigation wheel again.

OUTDOOR TEMP. OFFSET

In this menu the outdoor temperature offset, used to switch meltaway state from IDLE to MELTING, is set.

To set the outdoor temperature offset:

1. Select **Outdoor Temp. Offset**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 1 °C
Setting range: -5 – 5 °C, 1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

OUTDOOR TEMPERATURE LOW LIMIT

In this menu the lower outdoor temperature limit, used to switch meltaway state from IDLE to MELTING, is set.

To set the lower outdoor temperature limit:

1. Select **Outdoor Temperature Low Limit**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 1 °C
Setting range: -5 – 5 °C, 1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

MIN. TIME IN MELTING

In this menu the minimum number of hours the zone can be in meltaway state MELTING, is set.

To set the minimum time:

1. Select **Min. Time in Melting**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 2 hour
Setting range: 0 – 10 hours, 1 hour increments
4. Confirm the new setting by pressing the navigation wheel again.

Manual Operation

This menu enables access to manual operation mode in the zone.

When manual operation mode is activated, access to manual control (override) of the circulation pump and mixing valve is enabled.

MENU TREE*

Manual Operation	
	Manual Mode
	Pump
	Mixing valve

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

To activate manual operation mode:

1. Select **Manual Mode**.
2. Press the navigation wheel to confirm selection.
3. Select **On**.
4. Confirm the new setting by pressing the navigation wheel again.

PUMP

In this menu the pump can be overridden and turned on or off manually.

To override the circulation pump operation:

1. Select **Pump**.
2. Press the navigation wheel to confirm selection.
3. Select **Manual**.
4. Select **On**.
Default: Off
Setting range: Off/On
5. Confirm the new setting by pressing the navigation wheel again.

MIXING VALVE

In this menu the mixing valve can be overridden opened or closed manually.

To override the mixing valve setting:

1. Select **Mixing valve**.
2. Press the navigation wheel to confirm selection.
3. Select **Manual**.
4. Set the override value.

Default: 0 %

Setting range: 0 – 100 %, 1 % increments.

5. Confirm the new setting by pressing the navigation wheel again.

Pump

This menu enables access to pump settings in the zone.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Meltaway** for the zone.

MENU TREE*

Pump	
	Pump Exercise
	Exercise Day of the Week
	Exercise Hour
	Exercise Min

* *Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.*

PUMP EXERCISE

In this menu pump exercise can be activated.

To activate pump exercise:

1. Select **Pump Exercise**.
2. Press the navigation wheel to confirm selection.
3. Select **Pump Exercise**.

Default: No Exercise

Setting range: No Exercise/Pump Exercise

4. Confirm the new setting by pressing the navigation wheel again.

EXERCISE DAY OF THE WEEK

In this menu the day of the week for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select a day of the week for pump exercise:

1. Select **Exercise Day of the Week**.
2. Press the navigation wheel to confirm selection.
3. Select a day.

Setting range: Monday – Sunday

4. Confirm the setting by pressing the navigation wheel again.

EXERCISE HOUR

In this menu the hour of the day for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select an hour of the day for pump exercise:

1. Select **Exercise Hour**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 8 h
Setting range: 0 – 23 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

EXERCISE MIN

In this menu the minute of the hour for pump exercise is set.

This menu is only shown if **Pump Exercise** is set to **Pump Exercise**.

To select a minute of the hour for pump exercise:

1. Select **Exercise Min**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0 min
Setting range: 0 – 59 min, 1 min increments
4. Confirm the setting by pressing the navigation wheel again.

Mixing Valve

This menu enables access to mixing valve settings in the zone.

MENU TREE

Mixing Valve	
	P-area
	I-time
	Actuator running time

P-AREA

In this menu the P-area for the mixing valve regulation is set.

To set the P-area:

1. Select **P-area**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 200.0 °C
Setting range: 2.0 – 500.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

I-TIME

In this menu the I-time for the mixing valve regulation is set.

To set the I-time:

1. Select **I-time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 50 seconds
Setting range: 5 – 300 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

ACTUATOR RUNNING TIME

In this menu the actuator running time for the mixing valve regulation is set.

To set the actuator running time:

1. Select **Actuator running time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 60 seconds
Setting range: 0 – 500 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

Seasonal Shut Off

This menu enables access to seasonal shut off settings in the zone.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control** or **Smatrix Base PRO**.

MENU TREE*

Seasonal Shut Off	
	Pump Stop
	Valve Close
	Shut Off Outdoor Temp.
	T. Outdoor Setpoint
	T. Outdoor Delay
	Shut Off Indoor Temp.
	T. Indoor Delay

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

PUMP STOP

In this menu a function to stop the circulation pump, when requirements are met, is enabled.

This menu is only shown if **Zone Setup** is set to **Stand Alone Control**.

To enable the function:

1. Select **Pump Stop**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

VALVE CLOSE

In this menu a function to close the mixing valve, when requirements are met, is enabled.

To enable the function:

1. Select **Valve Close**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

SHUT OFF OUTDOOR TEMP.

In this menu the function to stop the circulation pump and/or when to close the mixing valve, at an outdoor temperature setpoint is enabled/disabled for the zone.

This menu is only shown if **Pump Stop** and/or **Valve Close** is enabled.

To set an shut off outdoor temperature:

1. Select **Shut Off Outdoor Temp.**
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

T. OUTDOOR SETPOINT

In this menu the outdoor temperature setpoint for stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Outdoor Temp.** is enabled.

To set an outdoor temperature setpoint:

1. Select **T Outdoor Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: 17.0 °C
Setting range: 0.0 – 40.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

T. OUTDOOR DELAY

In this menu the time delay for how long the outdoor temperature must be equal or higher than **T Outdoor Setpoint** before stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Outdoor Temp.** is enabled.

To set the stop time:

1. Select **T. Outdoor Delay**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 24 h
Setting range: 0 – 24 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

SHUT OFF INDOOR TEMP.

In this menu the function to stop the circulation pump, and/or when to close the mixing valve, at an indoor temperature setpoint is enabled/disabled for the zone.

This menu is only shown if **Pump Stop** and/or **Valve Close** is enabled, and if **Heating Mode** is set to **Outdoor + Indoor comp.** for the zone.

To set an shut off outdoor temperature:

1. Select **Shut Off Outdoor Temp.**
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
Default: Disable
Setting range: Disable/Enable
4. Confirm the setting by pressing the navigation wheel again.

T. INDOOR DELAY

In this menu the time delay for how long the indoor temperature must be equal or higher than the indoor setpoint before stopping the circulation pump, and/or closing the mixing valve, in the zone is set.

This menu is only shown if **Shut Off Indoor Temp.** is enabled.

To set the stop time:

1. Select **T. Indoor Delay**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 0 h
Setting range: 0 – 5 h, 1 h increments
4. Confirm the setting by pressing the navigation wheel again.

Automatic Freeze Protection

This menu decides when to activate automatic freeze protection during meltaway in the zone. The controller will keep the return temperature between the low and high thresholds.

This menu is only shown if **Zone Setup** is set to **Meltaway** for the zone.

MENU TREE

Automatic Freeze Protection	
	Primary return Temp. Low
	Primary return Temp. High

PRIMARY RETURN TEMP. LOW

In this menu the lower threshold is set.

To set the low threshold:

1. Select **Primary return Temp. Low**.
2. Press the navigation wheel to confirm selection.
3. Set a value.
Default: 0.0 °C
Setting range: -5.0 – 5.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

PRIMARY RETURN TEMP. HIGH

In this menu the higher threshold is set.

To set the high threshold:

1. Select **Primary return Temp. High**.
2. Press the navigation wheel to confirm selection.
3. Set a value.
Default: 15.0 °C
Setting range: 15.0 – 45.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

CONTROLLER SETTINGS

In this menu parameter settings for the controller can be set or changed.

Menu tree

Controller Settings	
	Time
	Date
	Language

Time

In this menu the time of the system is set.

To set the time:

1. Select **Time**.
2. Press the navigation wheel to confirm selection.
3. Set the hours.
4. Press the navigation wheel to confirm selection.
5. Set the minutes.
6. Confirm the setting by pressing the navigation wheel again.

Date

In this menu the date of the system is set.

To set the date:

1. Select **Date**.
2. Press the navigation wheel to confirm selection.
3. Set the day.
4. Press the navigation wheel to confirm selection.
5. Set the month.
6. Press the navigation wheel to confirm selection.
7. Set the year.
8. Confirm the setting by pressing the navigation wheel again.

Language

In this menu the language of the system is set.

To set the language:

1. Select **Language**.
2. Press the navigation wheel to confirm selection.
3. Select a language.
4. Confirm the setting by pressing the navigation wheel again.

7.11 Pre Heating Info

This menu shows information about the system, enabled zones and the controller (when the operating mode is set to **Pre Heating** in the startup wizard).

Menu tree*

Pre Heating Info	
	System information
	Zone 1 Information
	Zone 2 Information
	Zone 3 Information
	Zone 4 Information
	Controller Information

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

SYSTEM INFORMATION

The system information menu shows the current time and date.

ZONE 1 INFORMATION

This menu shows information about zone 1.

Menu tree

Zone 1 Information	
	Supply temperature
	State
	Time Left

Supply temperature

The current supply temperature is shown. The temperature is measured by the supply temperature sensor wired to the controller.

State

The current pre-heating state (phase) in the zone is shown.

Pre heating is run in three different phases.

Pase 1: The supply temperature setpoint is set to 25 °C for 3 days (can be set in the **Settings** menu).

Pase 2: The supply temperature setpoint is set to maximum allowed calculated setpoint for 4 days (can be set in the **Settings** menu).

Pase 3: The controller enters **Standby** mode until the startup wizard is restarted (**Settings > Installer Settings > Restart wizard**). Frost protection is active during this final phase.

Time Left

The time left of the current pre-heating phase in the zone is shown.

ZONE 2 INFORMATION

This menu shows information about zone 2.

Menu tree

Zone 2 Information	
	Supply temperature
	State
	Time Left

Supply temperature

The current supply temperature is shown. The temperature is measured by the supply temperature sensor wired to the controller.

State

The current pre-heating state (phase) in the zone is shown.

Pre heating is run in three different phases.

Pase 1: The supply temperature setpoint is set to 25 °C for 3 days (can be set in the **Settings** menu).

Pase 2: The supply temperature setpoint is set to maximum allowed calculated setpoint for 4 days (can be set in the **Settings** menu).

Pase 3: The controller enters **Standby** mode until the startup wizard is restarted (**Settings > Installer Settings > Restart wizard**). Frost protection is active during this final phase.

Time Left

The time left of the current pre-heating phase in the zone is shown.

ZONE 3 INFORMATION

This menu shows information about zone 3.

Menu tree

Zone 3 Information	
	Supply temperature
	State
	Time Left

Supply temperature

The current supply temperature is shown. The temperature is measured by the supply temperature sensor wired to the controller.

State

The current pre-heating state (phase) in the zone is shown.

Pre heating is run in three different phases.

Pase 1: The supply temperature setpoint is set to 25 °C for 3 days (can be set in the **Settings** menu).

Pase 2: The supply temperature setpoint is set to maximum allowed calculated setpoint for 4 days (can be set in the **Settings** menu).

Pase 3: The controller enters **Standby** mode until the startup wizard is restarted (**Settings > Installer Settings > Restart wizard**). Frost protection is active during this final phase.

Time Left

The time left of the current pre-heating phase in the zone is shown.

ZONE 4 INFORMATION

This menu shows information about zone 4.

Menu tree

Zone 4 Information	
	Supply temperature
	State
	Time Left

Supply temperature

The current supply temperature is shown. The temperature is measured by the supply temperature sensor wired to the controller.

State

The current pre-heating state (phase) in the zone is shown.

Pre heating is run in three different phases.

Pase 1: The supply temperature setpoint is set to 25 °C for 3 days (can be set in the **Settings** menu).

Pase 2: The supply temperature setpoint is set to maximum allowed calculated setpoint for 4 days (can be set in the **Settings** menu).

Pase 3: The controller enters **Standby** mode until the startup wizard is restarted (**Settings > Installer Settings > Restart wizard**). Frost protection is active during this final phase.

Time Left

The time left of the current pre-heating phase in the zone is shown.

CONTROLLER INFORMATION

This menu shows information about the controller.

Menu tree

Controller Information	
	Language
	About...

Language

This menu show the set display language for the controller.

About...

This menu shows the serial number, software versions, and hardware versions of the controller.

7.12 Pre Heating Settings

In this menu installer settings, enabled zone settings, and controller settings can be changed (when the operating mode is set to **Pre Heating** in the startup wizard).

See section 5.14 *Pre heating concrete slab (DIN 1264-4)* for more information.

MENU TREE*

Pre Heating Settings	
	Installer Settings
	Zone 1 Settings
	Zone 2 Settings
	Zone 3 Settings
	Zone 4 Settings
	Controller Settings

* Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

INSTALLER SETTINGS

In this menu lock codes (to gain access to locked parameter settings) can be set or changed, factory settings can be restored, backup of controller parameter settings can be managed, or the setup wizard can be restarted.

Menu tree

Installer Settings	
	Lock code
	Change lock code
	Display settings
	Restore factory settings
	Restore backup
	New backup
	Restart wizard

Lock code

A lock code can be used to block a user from changing parameter settings. The menu system is fully accessible, but the lock code is required to enter and change parameter settings.

The default lock code is 0000. It is recommended to change this code if using this function.

The controller will stay unlocked until it has been left untouched for about 10 minutes. Then it will lock itself again.

To enable lock code in the controller:

1. Select **Lock code**.
2. Press the navigation wheel to confirm selection.
3. Select **Enable**.
4. Press the navigation wheel to confirm selection.

ENTERING A MENU WHEN LOCK CODE IS ENABLED

To enter a lock code:

1. Select the parameter.
2. Press the navigation wheel to confirm selection.
3. Enter the lock code in the boxes using the navigation wheel.

Turn the navigation wheel to either select a box, or to increase/decrease a value in edit mode.

Press the navigation wheel to enter edit mode or to confirm the new setting.

Default: 0000

4. Confirm the lock code by pressing and holding the navigation wheel for a number of seconds.
5. Change the parameter setting and exit.

Change lock code

The standard lock code which is used to block a user from changing parameter settings, can be changed in this menu.

This menu is only shown when **Lock code** has been enabled in the **Lock code** menu.



NOTE!

If the controller display is already locked, it has to be unlocked before entering the new lock code.

To change the lock code:

1. Select **Change lock code**.
2. Press the navigation wheel to confirm selection.
3. Enter the new lock code in the boxes using the navigation wheel.

Turn the navigation wheel to either select a box, or to increase/decrease a value in edit mode.

Press the navigation wheel to enter edit mode or to confirm the new setting.

Default: 0000

4. Confirm the new lock code by pressing and holding the navigation wheel for about 8 seconds.

Display settings

This menu enables display settings, such as contrast, and it also shows the version number of the display software.

To set the display contrast:

1. Select **Display settings**.
2. Press the navigation wheel to confirm selection.
3. Select **Display contrast**.
4. Press the navigation wheel to confirm selection.
5. Set the display contrast.
Setting range: -50 – 100 %, 1 % increments
6. Press the navigation wheel to confirm selection.

Restore factory settings

This menu enables all parameter settings in the controller to be reset to the factory default settings.

To restore the factory settings:

1. Select **Restore factory settings**.
2. Press the navigation wheel to confirm selection.
3. Select **Yes**.
Setting range: No (default)/Yes
4. Press the navigation wheel to confirm selection.
5. All parameters in the controller are being restored to factory settings.

Restore backup

This menu enables the controller to restore all parameter settings from a previously created backup located on the microSD-card.

To restore from a backup:

1. Make sure the microSD-card with the backup is inserted into the controller.
2. Select **Restore backup**.
3. Press the navigation wheel to confirm selection.
4. Select **Yes**.
Setting range: No (default)/Yes
5. Press the navigation wheel to confirm selection.
6. All parameters in the controller are being restored from backup.

New backup

This menu enables the controller to save a backup of all parameter settings to the microSD-card.

To save from a backup:

1. Make sure a microSD-card, where the backup is to be saved, into the controller.
2. Select **New backup**.
3. Press the navigation wheel to confirm selection.
4. Select **Yes**.
Setting range: No (default)/Yes
5. Press the navigation wheel to confirm selection.
6. All parameters in the controller are being saved to the microSD card.

Restart wizard

This menu enables the controller to restart the setup wizard.

To restart the setup wizard:

1. Select **Restart wizard**.
2. Press the navigation wheel to confirm selection.
3. Select **Yes**.
Setting range: No (default)/Yes
4. Press the navigation wheel to confirm selection.
5. The setup wizard is now being restarted.

ZONE 1 SETTINGS

In this menu parameter settings for zone 1 can be set or changed.

Menu tree

Zone 1 Settings	
	Z1 Max. Calc. Supply Setpoint
	Frost Protection Setpoint
	P-area
	I-time
	Actuator running time

Z1 Max. Calc. Supply Setpoint

In this menu the maximum allowed calculated supply setpoint for the zone can be set.

To set the maximum allowed calculated supply setpoint:

1. Select **Z1 Max. Calc. Supply Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 45.0 °C
Setting range: -5.0 – 70.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

Frost Protection Setpoint

In this menu the frost protection setpoint (minimum available supply temperature) for the zone can be set. The supply temperature is not allowed to fall below this value.

To set the frost protection setpoint:

1. Select **Frost Protection Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 5.0 °C
Setting range: 5.0 – 20.0 °C (or max. supply temp), 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

P-area

In this menu the P-area for the mixing valve regulation is set.

To set the P-area:

1. Select **P-area**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 140.0 °C
Setting range: 2.0 – 500.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

I-time

In this menu the I-time for the mixing valve regulation is set.

To set the I-time:

1. Select **I-time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 35 seconds
Setting range: 5 – 300 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

Actuator running time

In this menu the actuator running time for the mixing valve regulation is set.

To set the actuator running time:

1. Select **Actuator running time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 120 seconds
Setting range: 0 – 500 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

ZONE 2 SETTINGS

In this menu parameter settings for zone 2 can be set or changed.

Menu tree

Zone 2 Settings	
	Z2 Max. Calc. Supply Setpoint
	Frost Protection Setpoint
	P-area
	I-time
	Actuator running time

Z2 Max. Calc. Supply Setpoint

In this menu the maximum allowed calculated supply setpoint for the zone can be set.

To set the maximum allowed calculated supply setpoint:

1. Select **Z2 Max. Calc. Supply Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 45.0 °C
Setting range: -5.0 – 70.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

Frost Protection Setpoint

In this menu the frost protection setpoint (minimum available supply temperature) for the zone can be set. The supply temperature is not allowed to fall below this value.

To set the frost protection setpoint:

1. Select **Frost Protection Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 5.0 °C
Setting range: 5.0 – 20.0 °C (or max. supply temp), 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

P-area

In this menu the P-area for the mixing valve regulation is set.

To set the P-area:

1. Select **P-area**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 200.0 °C
Setting range: 2.0 – 500.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

I-time

In this menu the I-time for the mixing valve regulation is set.

To set the I-time:

1. Select **I-time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 50 seconds
Setting range: 5 – 300 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

Actuator running time

In this menu the actuator running time for the mixing valve regulation is set.

To set the actuator running time:

1. Select **Actuator running time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 60 seconds
Setting range: 0 – 500 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

ZONE 3 SETTINGS

In this menu parameter settings for zone 3 can be set or changed.

Menu tree

Zone 3 Settings	
	Z3 Max. Calc. Supply Setpoint
	Frost Protection Setpoint
	P-area
	I-time
	Actuator running time

Z3 Max. Calc. Supply Setpoint

In this menu the maximum allowed calculated supply setpoint for the zone can be set.

To set the maximum allowed calculated supply setpoint:

1. Select **Z1 Max. Calc. Supply Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 45.0 °C
Setting range: -5.0 – 70.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

Frost Protection Setpoint

In this menu the frost protection setpoint (minimum available supply temperature) for the zone can be set. The supply temperature is not allowed to fall below this value.

To set the frost protection setpoint:

1. Select **Frost Protection Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 5.0 °C
Setting range: 5.0 – 20.0 °C (or max. supply temp), 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

P-area

In this menu the P-area for the mixing valve regulation is set.

To set the P-area:

1. Select **P-area**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 200.0 °C
Setting range: 2.0 – 500.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

I-time

In this menu the I-time for the mixing valve regulation is set.

To set the I-time:

1. Select **I-time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 50 seconds
Setting range: 5 – 300 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

Actuator running time

In this menu the actuator running time for the mixing valve regulation is set.

To set the actuator running time:

1. Select **Actuator running time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 60 seconds
Setting range: 0 – 500 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

ZONE 4 SETTINGS

In this menu parameter settings for zone 4 can be set or changed.

Menu tree

Zone 4 Settings	
	Z4 Max. Calc. Supply Setpoint
	Frost Protection Setpoint
	P-area
	I-time
	Actuator running time

Z4 Max. Calc. Supply Setpoint

In this menu the maximum allowed calculated supply setpoint for the zone can be set.

To set the maximum allowed calculated supply setpoint:

1. Select **Z4 Max. Calc. Supply Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 45.0 °C
Setting range: -5.0 – 70.0 °C, 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

Frost Protection Setpoint

In this menu the frost protection setpoint (minimum available supply temperature) for the zone can be set. The supply temperature is not allowed to fall below this value.

To set the frost protection setpoint:

1. Select **Frost Protection Setpoint**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 5.0 °C
Setting range: 5.0 – 20.0 °C (or max. supply temp), 0.1 °C increments
4. Confirm the new setting by pressing the navigation wheel again.

P-area

In this menu the P-area for the mixing valve regulation is set.

To set the P-area:

1. Select **P-area**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 200.0 °C
Setting range: 2.0 – 500.0 °C, 0.1 °C increments
4. Confirm the setting by pressing the navigation wheel again.

I-time

In this menu the I-time for the mixing valve regulation is set.

To set the I-time:

1. Select **I-time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 50 seconds
Setting range: 5 – 300 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

Actuator running time

In this menu the actuator running time for the mixing valve regulation is set.

To set the actuator running time:

1. Select **Actuator running time**.
2. Press the navigation wheel to confirm selection.
3. Set the value.
Default: 60 seconds
Setting range: 0 – 500 seconds, 1 second increments
4. Confirm the setting by pressing the navigation wheel again.

CONTROLLER SETTINGS

In this menu parameter settings for the controller can be set or changed.

Menu tree

Controller Settings	
	Time
	Date
	Language
	Operation mode

Time

In this menu the time of the system is set.

To set the time:

1. Select **Time**.
2. Press the navigation wheel to confirm selection.
3. Set the hours.
4. Press the navigation wheel to confirm selection.
5. Set the minutes.
6. Confirm the setting by pressing the navigation wheel again.

Date

In this menu the date of the system is set.

To set the date:

1. Select **Date**.
2. Press the navigation wheel to confirm selection.
3. Set the day.
4. Press the navigation wheel to confirm selection.
5. Set the month.
6. Press the navigation wheel to confirm selection.
7. Set the year.
8. Confirm the setting by pressing the navigation wheel again.

Language

In this menu the language of the system is set.

To set the language:

1. Select **Language**.
2. Press the navigation wheel to confirm selection.
3. Select a language.
4. Confirm the setting by pressing the navigation wheel again.

Operation mode

In this menu the operation mode of the system is set.

This setting is used to change from pre heating to standard mode, when done pre heating.

To set operation mode:

1. Select **Operation mode**.
2. Press the navigation wheel to confirm selection.
3. Select an operation mode.

Standard: This selection will make the controller to restart the startup wizard, after a small delay.

Pre Heating: This selection will make the controller stay in Pre Heating mode.

4. Confirm the setting by pressing the navigation wheel again.

7.13 Menu tree



NOTE!

Parts of the menu tree may only be visible in the Move PRO controller depending on its current configuration.

STANDARD OPERATING MODE

System Overview		
Information	System information	Time
		Date
		Outdoor Temperature
	Zone 1 Information	Zone Setup
		Heating Mode
		Heating Curve
		Supply temperature
		Calculated Supply Setpoint
		Indoor temperature
		ECO-Comf Status
		Mixing Valve
		Pump
	Zone 2 Information	Zone Setup
		Heating Mode
		Heating Curve
		Supply temperature
		Calculated Supply Setpoint
		DHW Circ. Return Temp
		Indoor temperature
		ECO-Comf Status
		Mixing Valve
		Pump
	Zone 3 Information	Zone Setup
		Heating Mode
		Heating Curve
		Supply temperature
		Calculated Supply Setpoint
		Indoor temperature
		ECO-Comf Status
		Meltaway Curve
		Return temperature
		Ground Temperature
		Ground Moisture
		Primary Return Temperature
		Status
		Mixing Valve
		Pump

	Zone 4 Information	Zone Setup	
		Heating Mode	
		Heating Curve	
		Supply temperature	
		Calculated Supply Setpoint	
		Indoor temperature	
		ECO-Comf Status	
		Meltaway Curve	
		Return temperature	
		Ground Temperature	
		Ground Moisture	
		Primary Return Temperature	
		Status	
		Mixing Valve	
		Pump	
	Controller Information	Language	
		About...	
Alarms	Active alarms		
	Alarm history		
	Acknowledge all alarms		
	Reset alarm history		
Settings	Installer Settings	T Outdoor Fallback	
		Lock code	
		Change lock code	
		Display settings	
		Restore factory settings	
		Restore backup	
		New backup	
		Restart wizard	
	Zone 1 Settings	Supply Temp. Settings	Calculated Supply Setpoint
			Min. Supply Temp.
			Max. Supply Temp.
			Deviation alarm limit
			Deviation alarm delay
		Indoor Temp. Settings	Indoor Setpoint
			Calculated Indoor Setpoint
			ECO-Comf. Status
			Indoor Setpoint Influence (Lower)
			Indoor Setpoint Influence (UPPER)
		Comf. - ECO	ECO Setback
			ECO-Comf Status
			ECO-Comf Schedule

	Heating Curve	Setting
		Offset
		Heating Curve
	Manual Operation	Manual Mode
		Pump
		Mixing valve
	Pump	Pump Exercise
		Exercise Day of the Week
		Exercise Hour
		Exercise Min
	Mixing Valve	P-area
		I-time
		Actuator running time
	Seasonal Shut Off	Pump Stop
		Valve Close
		Shut Off Outdoor Temp.
		T. Outdoor Setpoint
		T. Outdoor Delay
		Shut Off Indoor Temp.
		T. Indoor Delay
Zone 2 Settings	Supply Temp. Settings	Calculated Supply Setpoint
		Min. Supply Temp.
		Max. Supply Temp.
		DHW Supply Setpoint
		Overheating alarm limit
		Overheating alarm delay
		Deviation alarm limit
		Deviation alarm delay
	Indoor Temp. Settings	Indoor Setpoint
		Calculated Indoor Setpoint
		ECO-Comf. Status
		Indoor Setpoint Influence (Lower)
		Indoor Setpoint Influence (UPPER)
	DHW Circ Return Settings	DHW Circ Return Setpoint
		BoostPower
	Comf. - ECO	ECO Setback
		ECO-Comf Status
		ECO-Comf Schedule
	Heating Curve	Setting
		Offset
		Heating Curve

	Manual Operation	Manual Mode
		Pump
		Mixing valve
	Pump	Pump Exercise
		Exercise Day of the Week
		Exercise Hour
		Exercise Min
	Mixing Valve	P-area
		I-time
		Actuator running time
	Seasonal Shut Off	Pump Stop
		Valve Close
		Shut Off Outdoor Temp.
		T. Outdoor Setpoint
		T. Outdoor Delay
		Shut Off Indoor Temp.
		T. Indoor Delay
Zone 3 Settings	Supply Temp. Settings	Calculated Supply Setpoint
		Melting Supply Setpoint
		Min. Supply Temp.
		Max. Supply Temp.
		Heating Curve Meltaway
		IDLE Supply Setpoint
		Min. Supply Temp. (IDLE Status)
		Max. Supply Temp. (IDLE Status)
		Deviation alarm limit
		Deviation alarm delay
	Indoor Temp. Settings	Indoor Setpoint
		Calculated Indoor Setpoint
		ECO-Comf. Status
		Indoor Setpoint Influence (Lower)
		Indoor Setpoint Influence (UPPER)
	Comf. - ECO	ECO Setback
		ECO-Comf Status
		ECO-Comf Schedule
	Heating Curve	Setting
		Offset
		Heating Curve

Meltaway Curve (IDLE Status)	Setting
	Offset
	Heating Curve
Return Temperature	Max. Supply-Return Diff.
Enter Stop State Conditions	Outdoor Temperature
	Delay (days)
Enter Idle State Conditions	Outdoor Temperature
	Delay (hours)
	Delay Surface Dry
Enter Melting State Conditions	Ground Temperature Limit
	Outdoor Temp. Offset
	Outdoor Temperature Low Limit
	Min. Time in Melting
Manual Operation	Manual Mode
	Pump
	Mixing valve
Pump	Pump Exercise
	Exercise Day of the Week
	Exercise Hour
	Exercise Min
Mixing Valve	P-area
	I-time
	Actuator running time
Seasonal Shut Off	Pump Stop
	Valve Close
	Shut Off Outdoor Temp.
	T. Outdoor Setpoint
	T. Outdoor Delay
	Shut Off Indoor Temp.
	T. Indoor Delay
Automatic Freeze Protection	Primary return Temp. Low
	Primary return Temp. High

Zone 4 Settings	Supply Temp. Settings	Calculated Supply Setpoint
		Melting Supply Setpoint
		Min. Supply Temp.
		Max. Supply Temp.
		Heating Curve Meltaway
		IDLE Supply Setpoint
		Min. Supply Temp. (IDLE Status)
		Max. Supply Temp. (IDLE Status)
		Deviation alarm limit
		Deviation alarm delay
	Indoor Temp. Settings	Indoor Setpoint
		Calculated Indoor Setpoint
		ECO-Comf. Status
		Indoor Setpoint Influence (Lower)
		Indoor Setpoint Influence (UPPER)
	Comf. - ECO	ECO Setback
		ECO-Comf Status
		ECO-Comf Schedule
	Heating Curve	Setting
		Offset
		Heating Curve
	Meltaway Curve (IDLE Status)	Setting
		Offset
		Heating Curve
	Return Temperature	Max. Supply-Return Diff.
	Enter Stop State Conditions	Outdoor Temperature
		Delay (days)
	Enter Idle State Conditions	Outdoor Temperature
		Delay (hours)
		Delay Surface Dry
	Enter Melting State Conditions	Ground Temperature Limit
		Outdoor Temp. Offset
		Outdoor Temperature Low Limit
		Min. Time in Melting
	Manual Operation	Manual Mode
		Pump
		Mixing valve
	Pump	Pump Exercise
		Exercise Day of the Week
		Exercise Hour
		Exercise Min

Controller Settings	Mixing Valve	P-area
		I-time
		Actuator running time
	Seasonal Shut Off	Pump Stop
		Valve Close
		Shut Off Outdoor Temp.
		T. Outdoor Setpoint
		T. Outdoor Delay
		Shut Off Indoor Temp.
		T. Indoor Delay
	Automatic Freeze Protection	Primary return Temp. Low
		Primary return Temp. High
	Time	
	Date	
	Language	

PRE HEATING OPERATING MODE

System Overview		
Pre Heating Info	System information	Time
		Date
	Zone 1 Information	Z1 - Supply Temperature
		State
		Time Left
	Zone 2 Information	Z2 - Supply Temperature
		State
		Time Left
	Zone 3 Information	Z3 - Supply Temperature
		State
		Time Left
	Controller Information	Language
		About...
Alarms	Active alarms	
	Alarm history	
	Acknowledge all alarms	
	Reset alarm history	

Pre Heating Settings	Installer Settings	Lock code
		Change lock code
		Display settings
		Restore factory settings
		Restore backup
		New backup
	Restart wizard	
	Zone 1 Settings	Z1 Max. Calc. Supply Setpoint
		Frost Protection Setpoint
		P-area
		I-time
		Actuator running time
	Zone 2 Settings	Z2 Max. Calc. Supply Setpoint
		Frost Protection Setpoint
		P-area
		I-time
		Actuator running time
	Zone 3 Settings	Z3 Max. Calc. Supply Setpoint
		Frost Protection Setpoint
		P-area
		I-time
		Actuator running time
	Controller Settings	Time
	Date	
	Language	
	Operation mode	

8 Maintenance

The maintenance of Uponor Smatrix Move PRO includes the following:

- Manual preventive maintenance
- Automatic preventive maintenance
- Corrective maintenance
- Controller display

8.1 Manual preventive maintenance

Uponor Smatrix Move PRO requires no preventive maintenance except cleaning:

1. Use a dry soft cloth to clean the components.



WARNING!

Do not use any detergents to clean the Uponor Smatrix Move PRO components.

8.2 Automatic preventive maintenance

Uponor Smatrix Move PRO is equipped with an automatic exercise function. This function consists of a test run designed to prevent the pump from seizing up due to inactivity.

This exercise is run at fixed intervals, set in the menu system:

See section 7.10 Settings > Zone # Settings > Pump > Pump Exercise for more information.

- The pump exercise operates only in the zone if enabled in the Move PRO controller display. The pump is activated for 1 minute during the exercise.

8.3 Corrective maintenance

FALLBACK MODE

If a sensor is malfunctioning or not detected, the controller triggers an alarm and executes the fallback mode to maintain the temperature in the zone until the problem is resolved.

RESETTING THE CONTROLLER

If the controller does not work as expected, for example due to a hang-up, it can be reset (requires a service level code) to solve the problem:

See section 7.10 Settings > Installer Settings > Restore factory settings for more information.

8.4 Controller display

It is recommended to occasionally check the display on the controller for alarms. The display flashes continuously for general alarms, until acknowledged. Determine what is causing the alarm by reading the alarm description.

See section 7.8 Alarms for more information.

9 Troubleshooting

The table below shows problems and alarms that can occur with Uponor Smatrix Move PRO and describes solutions. A common cause of a problem though may be due to wrongly installed loops or mixed up thermostats.

Problem	Indication	Probable cause	Solutions
Fluctuating floor temperature	Floor temperature is changing abnormally between hot and cold	Supply water temperature is too high	Check boiler or mixing valve
	Room temperature does not match setpoint on the controller, and mixing valves open/close on a fixed interval	Heating fall back function is activated due to lost communication with an room sensor	Check the connection of the room sensor Reconnect if the connection is lost
	Room temperature does not match setpoint on the controller	The room sensor is placed in direct sunlight or close to other heat sources	Check placement of the room sensor according to installation instructions and change location if needed
The room sensor is placed in the wrong room.		Check the placement of the room sensor and change room if needed.	
The room is too cold	Check the indoor setpoint in the menu system	The indoor setpoint is too low	Change the temperature setpoint
	The temperature displayed in the controller menu system changes after the room sensor is moved	The room sensor may be influenced by an external heat source	Change location of the room sensor
	The indicator on the mixing valve actuator does not change/move	The mixing valve does not open	<ol style="list-style-type: none"> 1. Check that the mixing valve is correctly installed 2. Contact the installer 3. Replace the mixing valve
The room is too warm	Corresponding loop is warm even after a long period without heat call	A mixing valve does not close	<ol style="list-style-type: none"> 1. Check that the mixing valve is correctly installed 2. Contact the installer 3. Replace the mixing valve
The floor is cold	The room temperature OK but the floor is cold	No heat demand from the underfloor heating system	
		The room is heated by another heat source	
All rooms are cold	Check the indoor setpoint in the menu system	The indoor setpoint is too low	Change the temperature setpoint
	ECO mode for the zone programmed in the controller	ECO mode	Change ECO profile or assign another profile to the room/system Reduce the ECO setback value for the zone
Disturbing noise from the pump at the same time and day of the week		Pump exercise is active	Change time for pump exercise
No communication	Alarm shown in controller display	Communication error	Contact the installer
		Software versions incompatible	

9.1 Troubleshooting after installation

Problem	Indication	Probable cause	Solutions
The system does not start	The controller display is off	There is no AC power to the controller	<ol style="list-style-type: none"> 1. Check that the controller is connected to AC power 2. Check the wiring 3. Check that there is 230 V AC power in the wall socket
	There is 230 V AC power in the wall socket	Blown controller fuse or faulty power cable	<ol style="list-style-type: none"> 1. Replace the fuse and/or power cable and plug
The sensors are faulty	The controller display continue flashing and an alarm is displayed	The cable is not connected or a wire is damaged	Check the wiring

9.2 Contact the installer

For installer contact information, see the installation report in the end of this document. Prepare the following information before contacting an installer:

- Installation report
- Drawings of the underfloor heating system (if available)
- List of all alarms, including time and date

9.3 Installer instructions

To determine if a problem is caused by the supply system or the control system, loosen the actuators from the manifold for the room concerned, wait a few minutes and check if the flow pipe of the underfloor heating loop becomes warm.

If the pipe does not become warm, the problem is in the heating system. If the loop becomes warm, the cause could be the room control system.

A supply system defect can be indicated by no warm water in the manifold. Check the boiler and circulation pump.

10 Technical data

10.1 Technical data

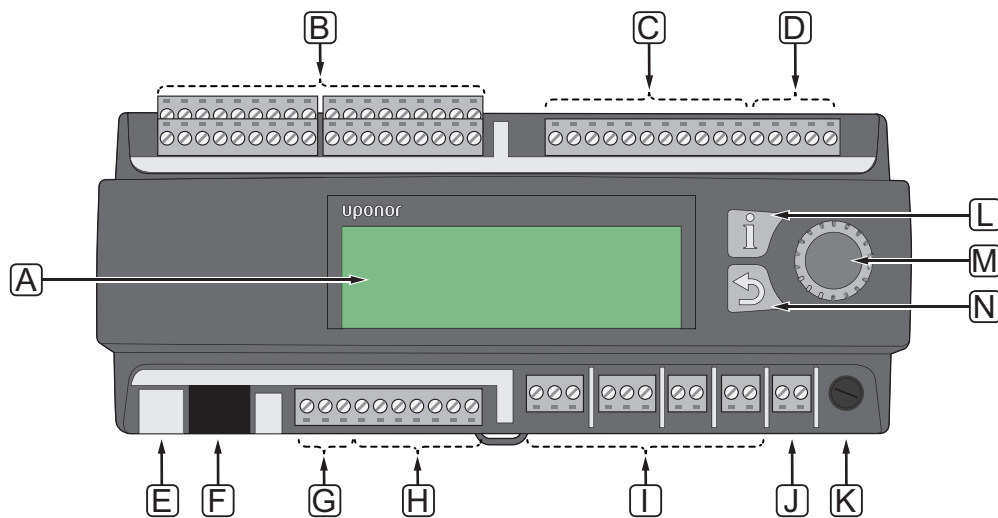


General	
IP	IP20 (IP: degree of inaccessibility to active parts of the product and degree of water)
ErP (with room sensors)	III (VII)
Operating temperature	0 °C to +50 °C
Storage temperature	-20 °C to +70 °C
Mounting standard	EN 50022, DIN 46277-3
microSD	micro SDHC, UHS/Standard 4...32 GB, FAT 32 Class 4...10 +
Power Supply	
Operating voltage	230 V AC ±10%, 50/60 Hz (maximum 125 mA)
Battery input (UPS)	12 V DC / 125 mA
Transformer input	24 V AC / 0.7A (maximum 6 A)
Internal fuse	125 mA
Sensor inputs	
Supply temperature sensor	NTC 10
Return temperature sensor	-50 °C...+100 °C, ±0.1 °C
Room temperature sensor	
Outdoor temperature sensor	
Ground temperature sensor (Snow and ice sensor)	
Moisture sensor (Snow and ice sensor)	$R_{OFF} = \infty \Omega$ $R_{ON} < 2M\Omega$
Outputs	
Mixing valves	$U_o = 0...10V$ $I_o < 10 \text{ mA}$
Snow sensor	$U_o = 24 \text{ V AC}$ $P_o < 10 \text{ VA}$
Circulation pumps (Zone 3 and 4: TRIAC)	$U_{IN} = 230 \text{ V AC}$ $I_{IN} \leq 1 \text{ A}$
Communication	
BMS interface	MODBUS-RTU (RS-232) RJ45
Uponor Smatrix Base PRO bus	Galvanically isolated Terminals: -, A, B

10.2 Technical specifications

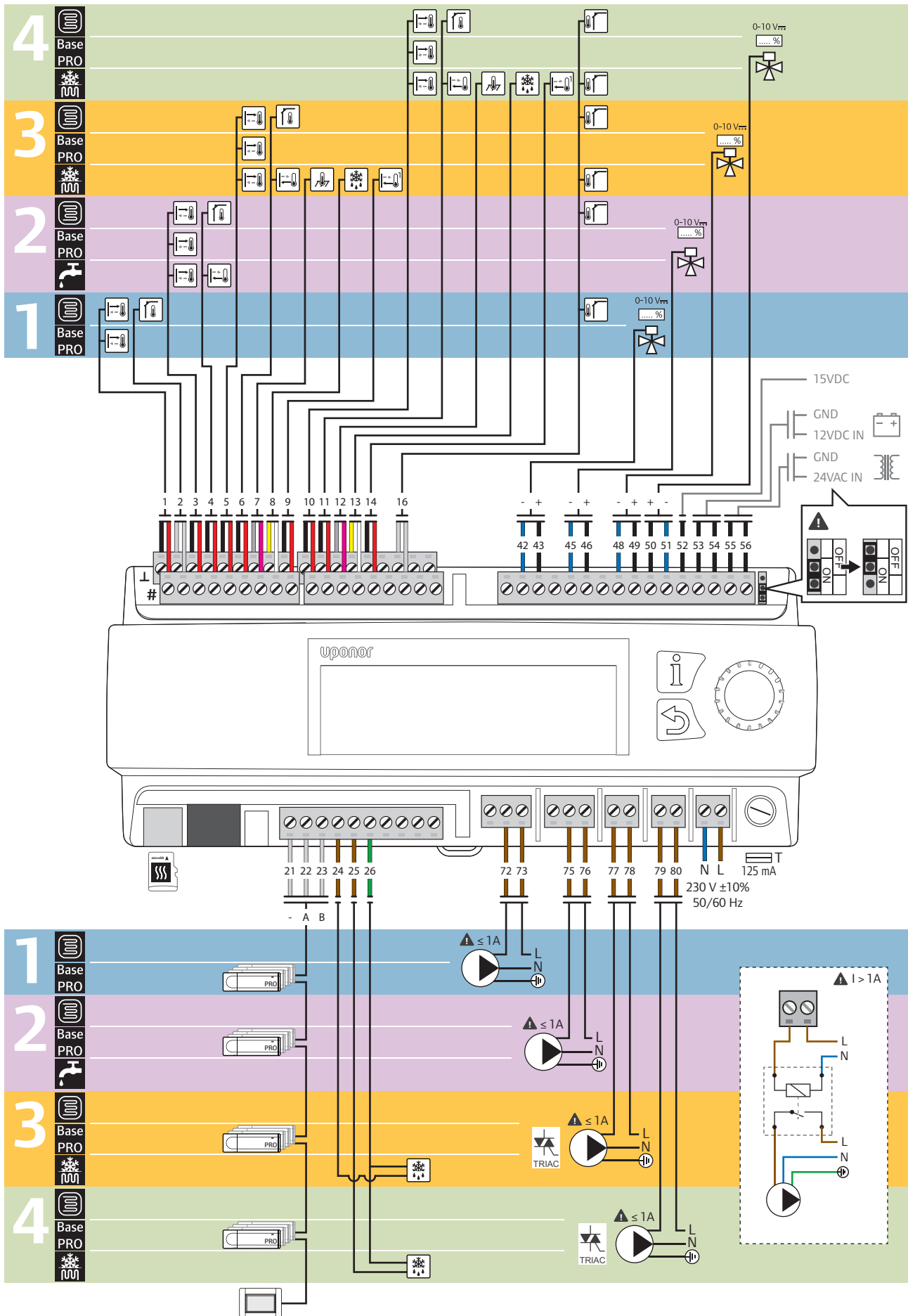
Cables	Standard cable length	Maximum cable length	Wire gauge
Cable from controller to valve actuator (shielded connected to ground)	0.75 m	20 m	0.2 mm ² to 1.5 mm ²
Cable to sensor input on controller (shielded connected to ground)	5 m	100 m	0.6 mm ²
Snow and ice sensor to controller	25 m	200 m	6 x 1.5 mm ²
Cable from output on controller to external devices	5 m	20 m	Up to 4.0 mm ² solid, or 2.5 mm ² flexible with ferrules
Communication cable	-	5 m	0.5 mm ² to 2.5 mm ²
Power cable	2 m	20 m	Up to 4.0 mm ² solid, or 2.5 mm ² flexible with ferrules









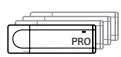









10.3 Controller layout







Item	Description
A	Display
B	Sensor input connection terminals
C	Mixing valve output connection terminals
D	Battery and transformer input connection terminals
E	microSD
F	BMS, MODBUS-RTU (RS-232), connection
G	Uponor Smatrix Base PRO bus connection terminals
H	Snow and ice sensor output connection terminals
I	Circulation pump output connection terminals
J	Power connection connection terminal
K	Fuse (125 mA)
L	Information button
M	Navigation wheel/ OK button
N	Back button

10.4 Wiring diagram, Uponor Smatrix Move PRO controller



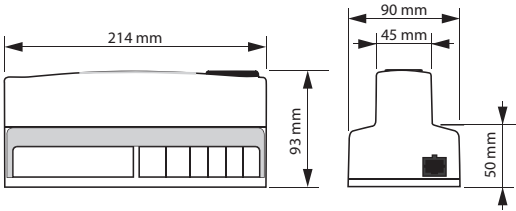
Setup	Sensors		Connection terminal			
			Zone 1	Zone 2	Zone 3	Zone 4
Stand Alone Control		Supply temperature sensor	1	3	5	10
		Indoor temperature sensor	2	4	6	11
		Outdoor temperature sensor	16			
		Mixing Valve	42 – 43	45 – 46	48 – 49	50 – 51
		Circulation pump ($I_{IN} \leq 1$ A)	72 – 73	75 – 76	77 – 78 (TRIAC)	79 – 80 (TRIAC)
Smatrix Base PRO		Supply temperature sensor	1	3	5	10
		Mixing valve	42 – 43	45 – 46	48 – 49	50 – 51
		Circulation pump ($I_{IN} \leq 1$ A)	72 – 73	75 – 76	77 – 78 (TRIAC)	79 – 80 (TRIAC)
		Smatrix Base PRO controller (-, A, B)	21 – 23			
Meltaway		Supply temperature sensor			5	10
		Return temperature sensor			6	11
		Outdoor temperature sensor			16	
		Ground temperature sensor			7	12
		Moisture sensor			8	13
		Primary return sensor			9	14
		Mixing valve			48 – 49	50 – 51
		Circulation pump ($I_{IN} \leq 1$ A)			77 – 78 (TRIAC)	79 – 80 (TRIAC)
		Snow and ice sensor			24, 26	25 – 26

Setup	Sensors	Connection terminal			
		Zone 1	Zone 2	Zone 3	Zone 4
Domestic Hot Water	 Supply temperature sensor		3		
	 Return temperature sensor		4		
	 Mixing valve		45 – 46		
	 Circulation pump ($I_{IN} \leq 1 A$)		75 – 76		

10.5 Dimensions

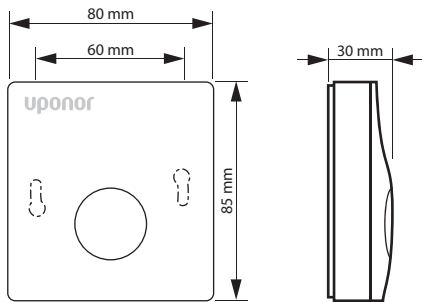
CONTROLLER

X-159



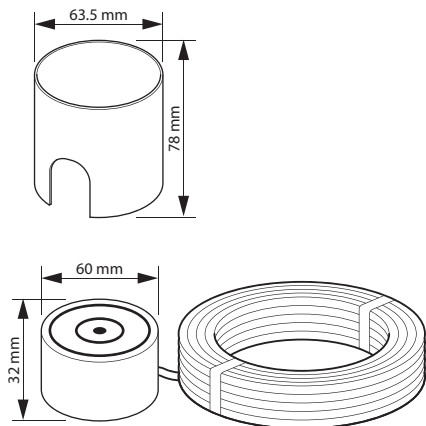
ROOM TEMPERATURE SENSOR

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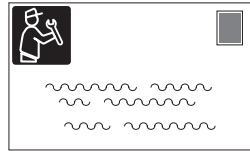
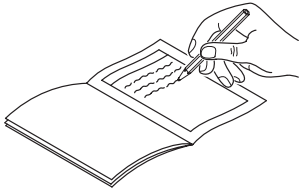


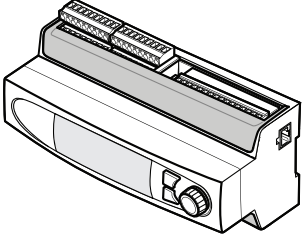








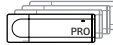
SNOW SENSOR

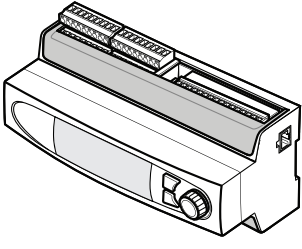













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11 Installation report



					
		Zone 1	Zone 2	Zone 3	Zone 4
Setup	Sensors				
Stand Alone Control	 Supply temperature sensor				
	 Indoor temperature sensor				
	 Outdoor temperature sensor				
	 Mixing Valve	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	 Circulation pump	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Smartix Base PRO	 Supply temperature sensor				
	 Mixing valve	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	 Circulation pump	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	 Smartix Base PRO controller				

		Zone 1		Zone 2		Zone 3		Zone 4	
		Setup		Sensors					
Meltaway		Supply temperature sensor							
		Return temperature sensor							
		Outdoor temperature sensor							
		Ground temperature sensor							
		Moisture sensor							
		Primary return sensor							
		Mixing valve				<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		
						<input type="checkbox"/> No	<input type="checkbox"/> No		
		Circulation pump				<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		
					<input type="checkbox"/> No	<input type="checkbox"/> No			
	Snow and ice sensor								
Domestic Hot Water		Supply temperature sensor							
		Return temperature sensor							
		Mixing valve				<input type="checkbox"/> Yes			
						<input type="checkbox"/> No			
	Circulation pump				<input type="checkbox"/> Yes				
					<input type="checkbox"/> No				



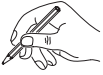
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Uponor reserves the right to make changes, without prior notification, to the specification of incorporated components in line with its policy of continuous improvement and development.

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