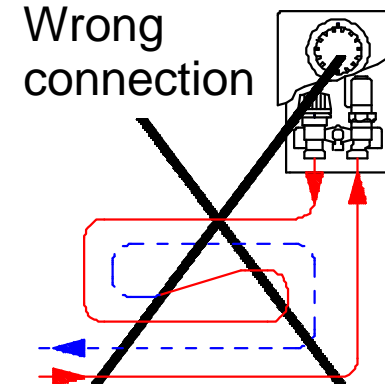
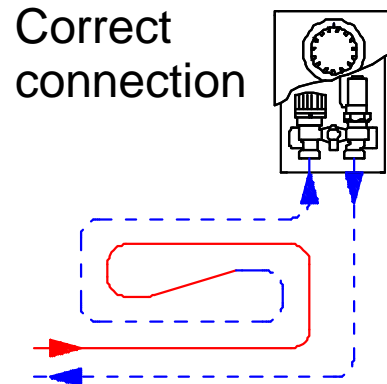


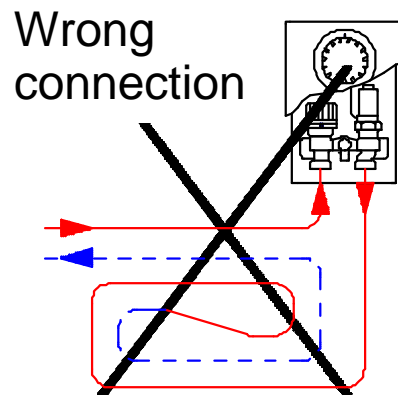
Unibox

- Possible mistakes
- Spare parts
- Use in one pipe systems

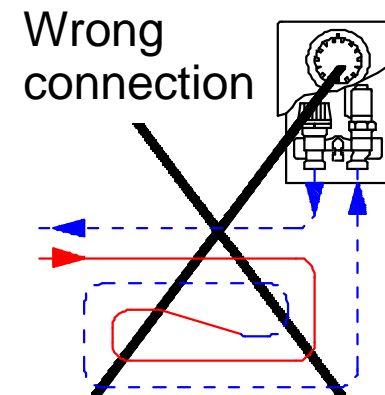
Mistake “Unibox” - Connection



Unibox at the beginning of the heating loop
wrong flow direction



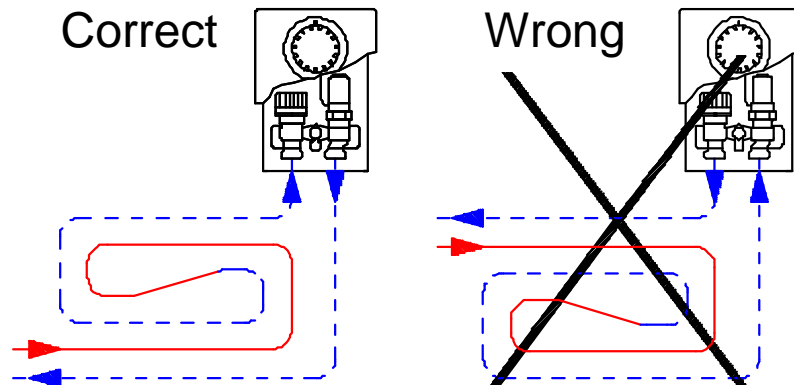
Unibox at the beginning
of the heating loop



Wrong flow direction

Mistake “Unibox” Reversed flow direction

- **Unibox RTL** white 102 26 35
chrome plated 102 26 45
- **Unibox T** white 102 26 36
chrome plated 102 26 46



Problem:

The valve rattles (but the floor gets warm)

Reason:

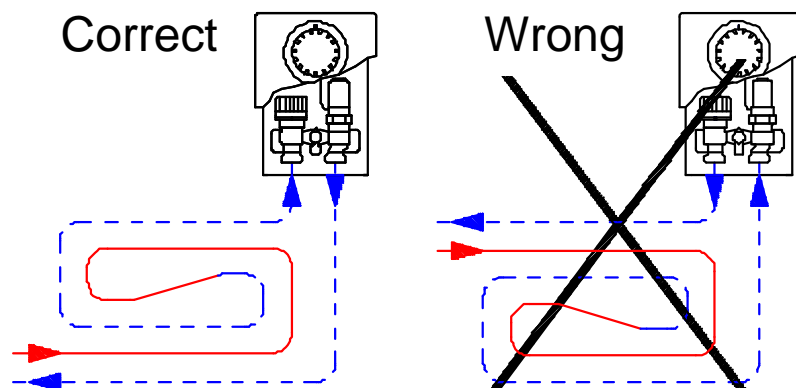
Reversed flow direction, i.e. against the marked flow direction (from the right to the left and not from the left to the right).

Solution:

- Unibox RTL replace existing insert with item no. 102 69 70
- Unibox T replace existing insert with item no. 118 70 77

Mistake “Unibox” Reversed flow direction

- **Unibox RTL** white 102 26 35
chrome plated 102 26 45
- **Unibox T** white 102 26 36
chrome plated 102 26 46



Problem:

The valve rattles (but the floor gets warm)

Reason:

Reversed flow direction, i.e. against the marked flow direction (from the right to the left and not from the left to the right).

Solution:

- Unibox RTL replace existing insert with item no. 102 69 70
- Unibox T replace existing insert with item no. 118 70 77

Mistake “Unibox” Reversed flow direction

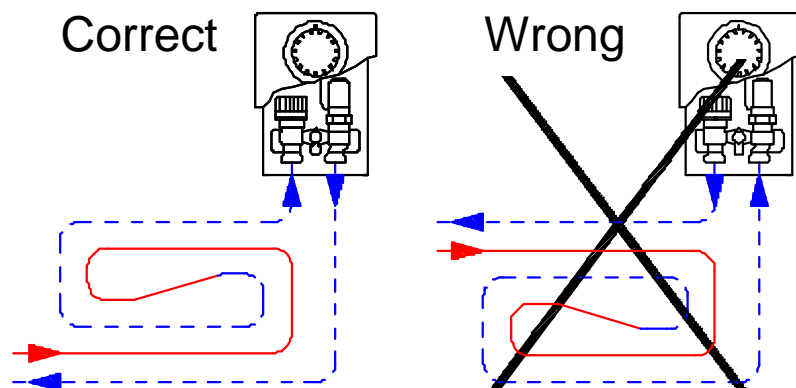
- **Unibox plus** white 102 26 37
chrome plated 102 26 47
- **Unibox vario** white 102 26 38



Unibox vario



Unibox plus



Problem:

The valve rattles (but the floor gets warm)

Reason:

Reversed flow direction, i.e. against the marked Flow direction (from the right to the left and not from the left to the right).

Solution:

Inside the box-vertical (RTL): replace the existing insert with item no.102 69 70

In the foreground (room sensor): replace the existing insert with item no. 118 70 77

Mistake “Unibox” Reversed flow direction

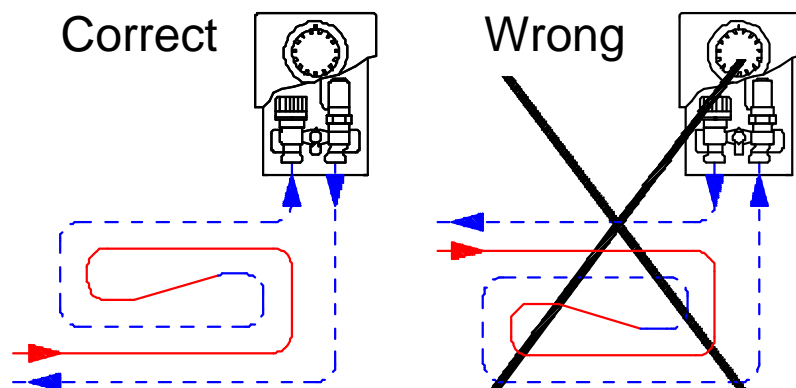
- Unibox E T white 102 26 32
chrome plated 10226 42
- Unibox E BV white 102 26 62



Unibox E T



Unibox E BV



Problem:

The valve rattles.

Reason:

Differential pressure probably too high.

Solution:

Insert 118 70 77 already installed
=> pump probably set too high

Mistake “Unibox” Reversed flow direction

- Unibox E plus

white 102 26 33

chrome plated 102 26 43

- Unibox E vario

white 102 26 34

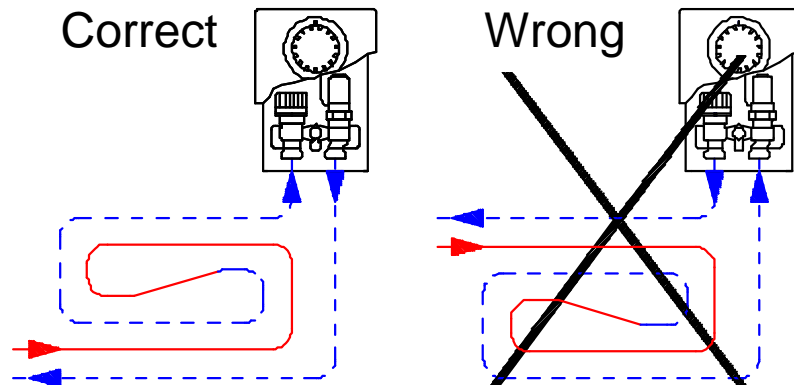
chrome plated 102 26 44



Unibox E vario



Unibox E plus



Problem:

The valve rattles (but the floor gets warm)

Reason:

Differential pressure probably too high

Solution:

- Insert 118 70 77 already installed
 - RTL cannot be replaced, but it is not affected by a wrong flow direction.
- => Pump pressure should probably be reduced

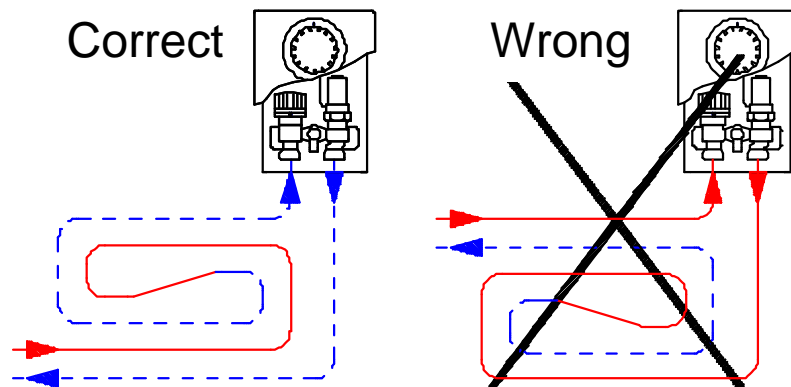
Mistake “Unibox” Floor does not get warm

Test for “Unibox“ with RTL insert

Unibox RTL

Unibox plus

Unibox vario



- Close RTL valve completely by turning the protection cap.
- Turn the protection cap back by one turn.
- Open room thermostat (if installed) completely or remove head.
- The double disc of the RTL valve is now fixed in the middle. Maximum flow rate is set and the heating medium flows without temperature limitation.
- *To protect the floor, limit flow temperature at the boiler to a maximum of 50°C first or stop test once the floor gets warm!*
- If the floor gets warm now, the Unibox has most probably been installed at the beginning of the heating loop. => Conversion to thermostatic control only.
- Does the floor not get warm, the reasons are different - e.g. hydronic imbalance or blocked pipe.

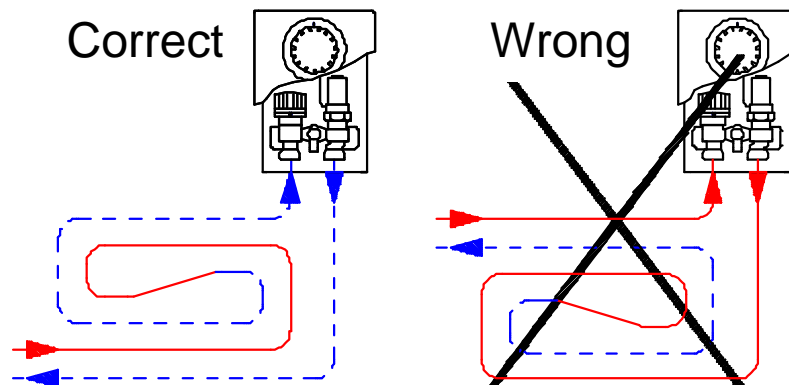
Mistake “Unibox” Floor does not get warm

Test for “Unibox” with E RTL insert

Unibox E RTL

Unibox E plus

Unibox E vario



- The “E RTL” insert is calibrated together with the valve body and cannot be replaced or be opened manually.
- Bridge the complete valve with a pipe elbow for example.
- The maximum flow is set and the heating medium flows without temperature limitation
- *To protect the floor, limit flow temperature at the boiler to a maximum of 50°C or stop test once the floor gets warm!*
- If the floor gets warm now, the Unibox has most probably been installed at the beginning of the heating loop. => Conversion to thermostatic control only.
- If the floor does not get warm now, the reasons are different - e.g. hydronic imbalance or blocked pipe.

Mistake “Unibox” Floor does not get warm

General information

- | Has the maximum permissible length of the heating circuit been observed?
 - | 100 m for pipe 16 x 2,0 mm
 - | 90 m for pipe 14 x 2,0 mm

- | Check whether resistance is too high
 - | Close the radiators / remaining surface heating circuits in the heating circuit.
 - | The corresponding surface heating circuit is now pressurised by the circulation pump.
 - | If the heating surface heats up, a hydronic imbalance exists.
 - ⇒ Throttle remaining radiators / surface heating circuits to restore the hydronic imbalance.
 - ⇒ Reduce resistance of the corresponding surface heating circuit by using a valve insert with higher flow values e.g..
 - | Still no flow
 - ⇒ Flush heating circuit

Mistake “Unibox” Unibox at the beginning of the heating loop

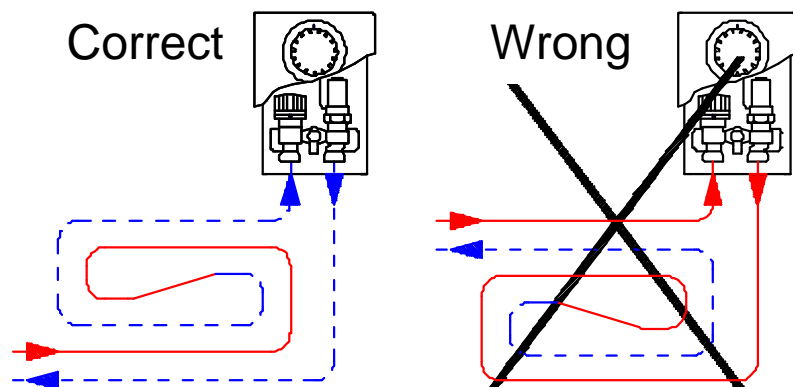
- **Unibox plus** white 102 26 37
chrome plated 102 26 47
- **Unibox vario** white 102 26 38



Unibox vario



Unibox plus



Problem:

Floor does not get warm.

Reason:

The hot water comes immediately in contact with the RTL and the valve closes.

Solution:

Conversion to thermostatic control:

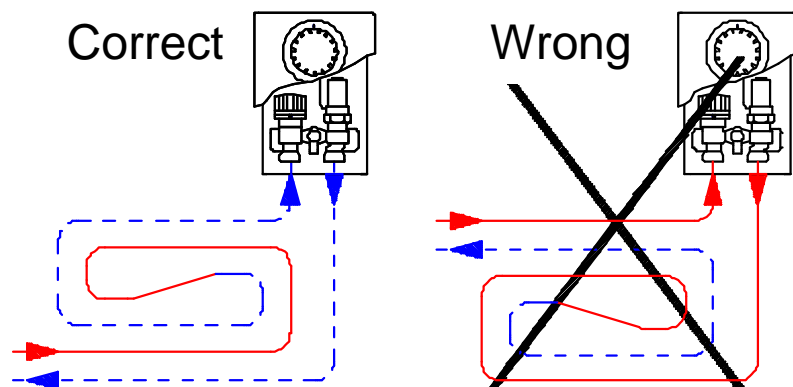
- Replace RTL insert with “Combi LR” (118 70 71)
- Set thermostatic valve insert to low presetting value (**max. 2 !**)!

Mistake “Unibox” Unibox at the beginning of the heating loop

- Unibox RTL white 102 26 35
- chrome plated 102 26 45



Unibox RTL



Problem:

Floor does not get warm.

Reason:

The hot water comes immediately in contact with the RTL and the valve closes.

Solution:

Conversion to thermostatic control:

- Replace RTL insert with presettable AV-6 insert (118 70 77) and mount thermostat “Uni LH” (101 14 65).
- Set thermostatic valve insert to low presetting value (**max. 2** !)

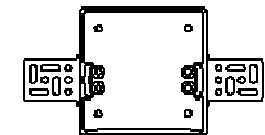
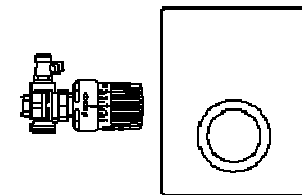
Mistake “Unibox” Unibox at the beginning of the heating loop

- Unibox E RTL

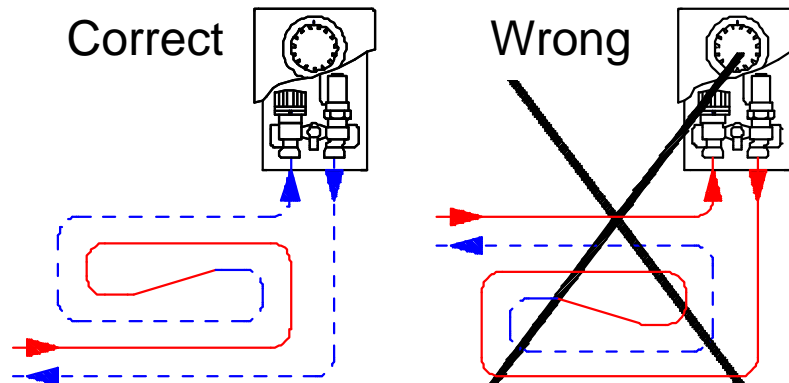
white 102 26 31
chrome plated 102 26 41



Unibox E RTL



Conversion set Unibox T



Problem:

Floor does not get warm.

Reason:

The hot water comes immediately into contact with the RTL and the valve closes.

Solution:

Conversion to thermostatic control:

- Use “Conversion set Unibox T” (102 26 39)
(complete “Unibox E RTL” remains)
- Set thermostativ valve insert to low presetting value (**max. 2 !**)

Mistake “Unibox” Unibox at the beginning of the heating loop

- Unibox E plus

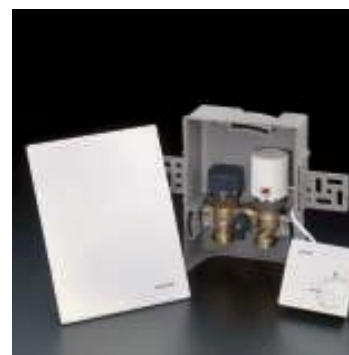
white 102 26 33

chrome plated 102 26 43

- Unibox E vario

white 102 26 34

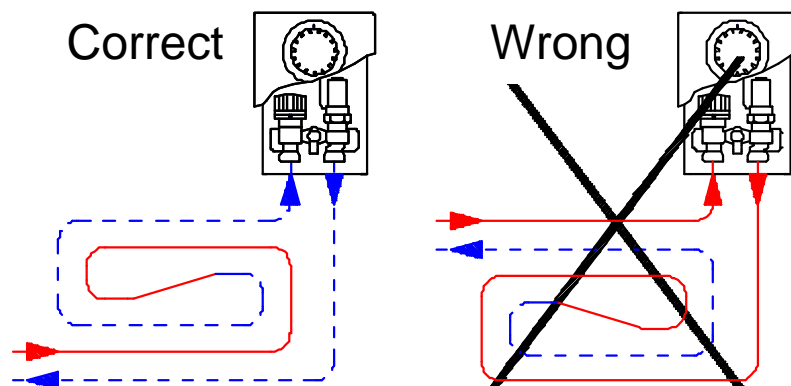
chrome plated 102 26 44



Unibox E vario



Unibox E plus



Problem:

Floor does not get warm.

Reason:

The hot water comes immediately into contact with the RTL and the valve closes.

Solution:

Conversion to thermostatic control:

- Conversion by using the “Unibox E T” (102 26 32 / 42) (original box is left over)
- Set thermostatic valve insert to low presetting value (**max. 2 !**)!

Mistake “Unibox” Unibox at the beginning of the heating loop

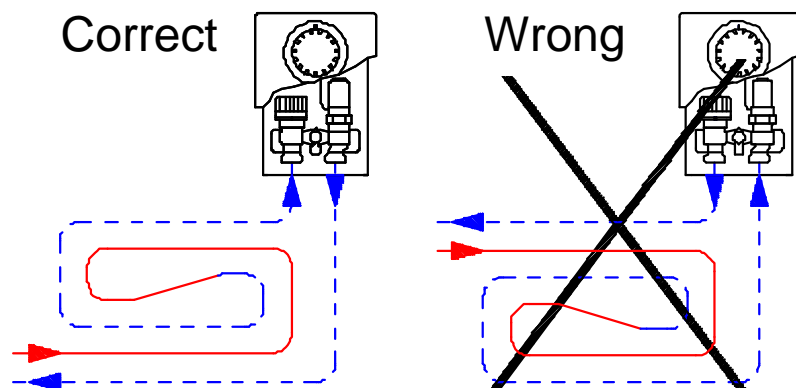
- **Unibox T** white 102 26 36
 chrome plated 102 26 46
- **Unibox E T** white 102 26 32
 chrome plated 102 26 42
- **Unibox E BV** white 102 26 62



Unibox T

Unibox E T

Unibox E BV



These Uniboxes have a thermostatic control only. As they are only designed for temperatures which are suitable for surface heating systems, they do not have an RTL valve for return temperature limitation. For this reason they can be used at the beginning or the end of the heating loop. Flow direction must be as marked on the body.

Unibox – Spare parts - Valve inserts

RTL-inserts

M30x1,5 / M30x1,0 (up to 1998)

- RTLH-Valve M30x1,5
 - M30x1,5 102 69 81
 - M30x1,5 reversed supply/return 102 69 70
- AZ insert - higher flow
 - AZ-Valve M30x1,5 118 70 60
 - with gland 102 69 86
- RTLH-Valve M30x1,0
 - M30x1,0 AZ-insert 101 70 60
 - with gland 102 69 86
- RTLH-Valve M30x1,0 reversed supply/return
 - M30x1,0 insert 101 70 70
 - with gland 102 69 86

Thermostatic inserts

M30x1,5 / M30x1,0 (up to 1998)

- AV-6
 - M30x1,5 118 70 57
 - M30x1,5 reversed supply/return 118 70 77
 - M30x1,0 101 70 57
- AZ insert - higher flow
 - AZ-Valve M30x1,5 118 70 60
 - AZ-Valve M30x1,0 101 70 60
- Insert M30x1,0 reversed supply/return 101 70 70

Unibox – Spare parts - Thermostatic sensors

RTL

- Uni RTLH M30x1,5 102 71 65
- Uni RTLH M30x1,0 102 71 00

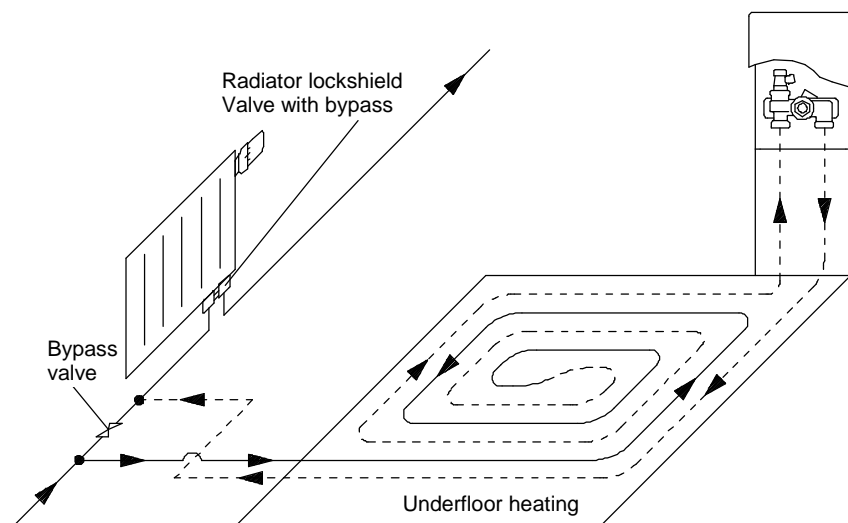
Thermostatic

- Uni LH M30x1,5 101 14 65
- Uni LH M30x 1,0 101 14 01

Unibox in one pipe systems

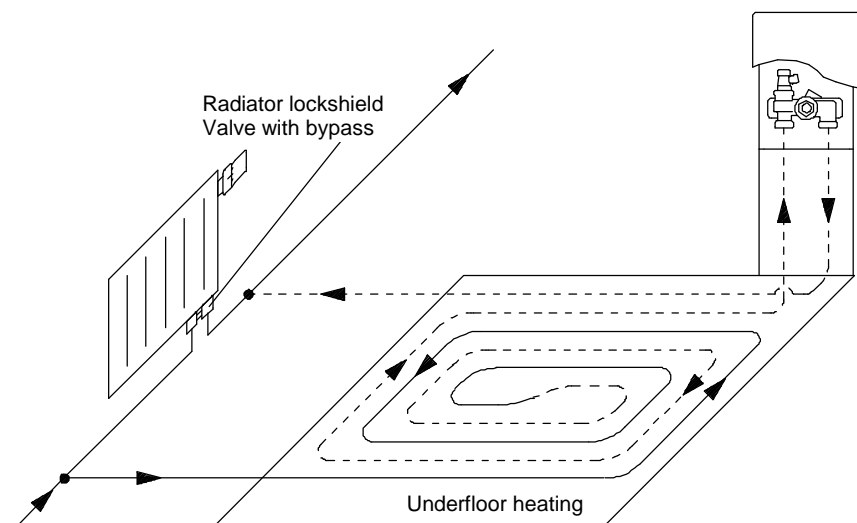
Possibility 1:

- An increased flow rate and pressure lost is to be expected.
- The pressure loss and noise characteristic lines of the radiator valves are to be observed.
- The bypass valve (e.g. “Combi LR”) has to be regulated so that enough water flows through the surface heating.



Possibility 2:

- An increased flow rate and pressure loss is to be expected.
- The pressure loss and noise characteristic lines of the radiator valves are to be observed.
- The radiator has to be regulated so that enough water flows through the surface heating even if the valve is opened. If the Unibox valve is closed, there should not be any noise at the radiator.



Unibox in one pipe systems

Possibility 3:

- An increased flow rate and pressure loss is to be expected.
- The pressure loss and noise characteristic lines of the radiator valves are to be observed.
- The bypass valve “Unibox RLA” has to be regulated so that enough water flows through the surface heating.

