# Technology Installation

**Orbital Shower Hatch Panel R3 (OS8733-E)**

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# Table of Contents

# Thank you for your purchase

This manual applies to model OS8733-E

⊗ Read the Safety Guide before starting the installation or before operating the shower.

Thank you for purchasing the Orbital Shower from Orbital Systems. To enjoy the full potential of the shower please read and follow the procedures in this manual. Make sure that you fully understand how to operate this shower and make sure that it is properly maintained in accordance with the instructions given in this manual. Do not discard this manual, keep it handy for future reference. This manual is valid for all shower models. When applicable, the manual will only display the Orbital Systems shower head & hand shower variant.

## Prerequisites and Approvals

Orbital Shower is designed and type approved according to the Swedish requirements in Swedish National Board of Housing and Building & Planning regulations (BBR).
The system is type approved according to RiSE C900373 & C900374, Kiwa
1513; 0753 and Kiwa safety certificate K100686/02. Connection safe W 540 DVGW CERT AS-0605DO0262.

Orbital Shower is CE-marked based on certificate and test reports from third party labs.

RI.SE    1002    Ⓝ    C∈    1913    kiwa gecertificeerd BRL K14011    CERTIFICATION BODY S KIWA    DVGW CERT Anschlusssicher W 540

If industry regulations and instructions in this manual are followed, Orbital Systems guarantees a functional shower system.

# Warranty

For Warranty and Liability for Defects information, please visit Orbital Systems web https://orbital-systems.com.

## Service

Orbital Systems and our team of expert staff are available to assist you if you require product advice, experience any problems, need to purchase spare parts or to set up a service appointment.
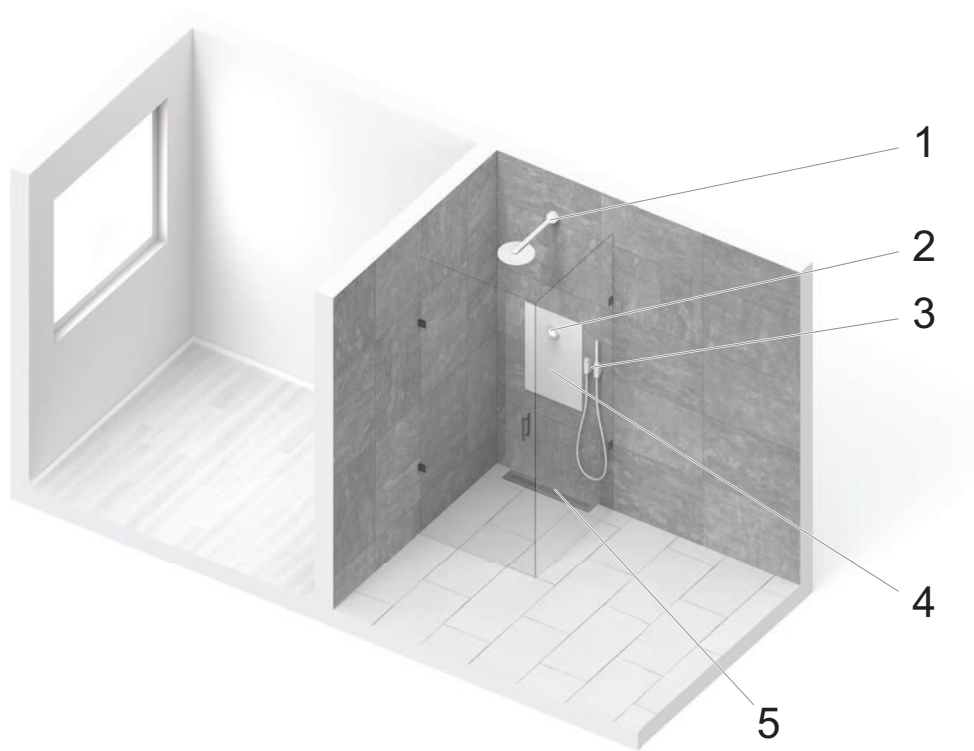
Repairs should only be carried out by Orbital Systems.

**Contact us**

- support@orbital-systems.com
- www.orbital-systems.com

# System Overview

## Orbital Shower Hatch Panel R3 (OS8733-E)



1. Shower head
2. Control Dial
3. Hand shower kit (hand shower, diverter and holder)
4. Orbital Shower Core (RSK 835 91 20) and Wall Box (RSK 831 41 82)
5. Drain unit (RSK 711 54 63) and outlet unit (RSK 711 99 33)

Preparation and installation of the shower area (including piping, connections, water proofing and tiling), installation of Wall Box (4) and drain (5) are included in the Fixture installation manual.

Installation of the Orbital Shower Core (4), Control Dial (2), shower head (1) and hand shower kit (3) are included in the Technology installation manual. Operation of the shower is included in the User Guide.

# Installation Overview

## Installation System Requirements

**Connectivity**

| | |
|---|---|
| Internet connection: | Password protected Wi-Fi 2,4 GHz / 5 GHz or Ethernet. |

**Electrical Supply**

| | |
|---|---|
| Residual circuit breaker: | One breaker per Orbital Shower Core |
| Power supply: | One Phase, 230VAC / 50-60 Hz / 16A * |
| Mains supply wire: | Min. 2.5 mm$^2$ (rated for 16A circuit) |

**Plumbing / Water**

| | |
|---|---|
| Incoming tap water supply connections: | Separate hot and cold, 2x female G 1/2″ swivel nut. |
| Incoming cold water temp. (min-max): | 4-25°C |
| Incoming hot water temp. (min-max): | 50-65°C |
| Maximum working pressure tap water: | PN10 |
| Incoming water pressure (min-max): | 2-10 bar |
| | The supply pressure is the fundamental requirement for the shower flow: |
| | • 2 bar: 7.5 litres/min<br>• 3 bar: 9.5 litres/min<br>• 4 bar: 11 litres/min |
| Recommended water supply flow: | 9 litres/minute per inlet hot and cold |
| Water hardness (min-max): | 3°dH-14°dH, or a total hardness of 53-250 mg $CaCO_3$/litres |
| Water iron content: | <0,3mg/litre |

*\* Using a lower fuse results in lower water flow:*

10A = 6 litres/min

13A = 8 litres/min

16A = 12 litres/min

# Seal mountings in wet zone

Seal the drill holes in accordance with applicable industry standards.

ⓘ **CAUTION**

Installations in Sweden must be carried out in accordance with the current Industry Rules Safe Water Installation. All mountings in the wet zone must be sealed against the waterproofing layer of the wall or floor. Material for sealing must adhere to the substrate and be water-resistant, mold-resistant and aging-resistant.

**Wood**                    **Solid construction**
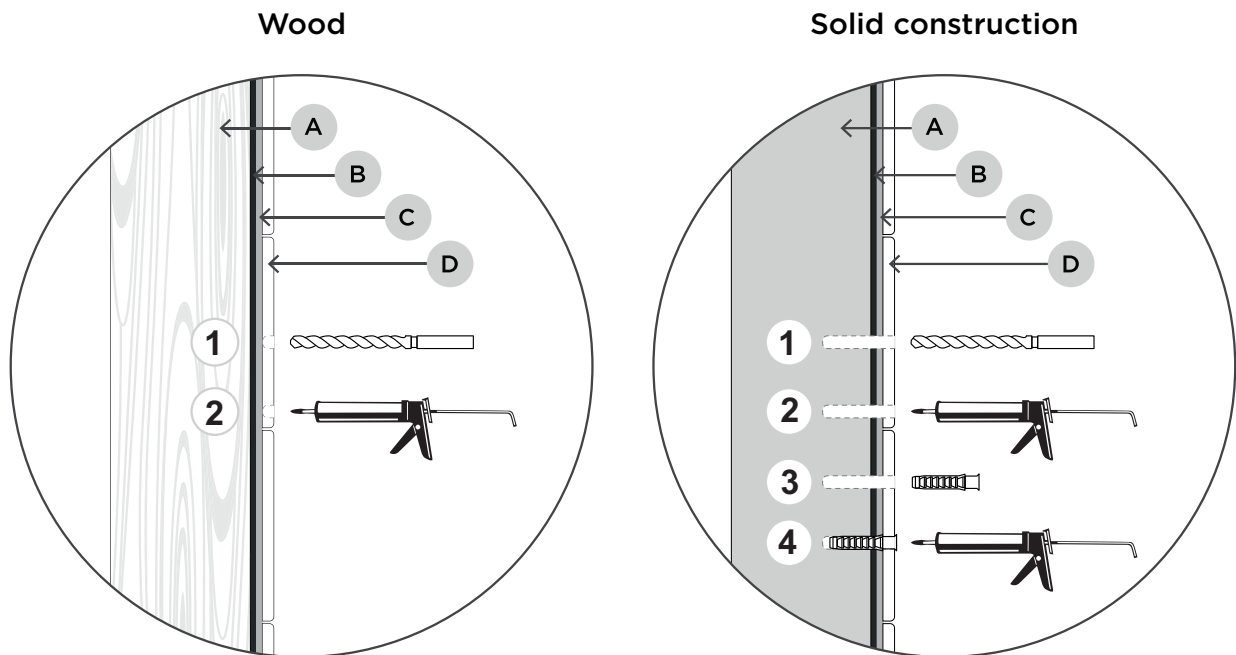
- **A:** Wood / Concrete
- **B:** Waterproofing membrane
- **C:** Tile adhesive
- **D:** Tile

# Install Orbital Shower Core

## Component Overview, Technology kit - Core components & door
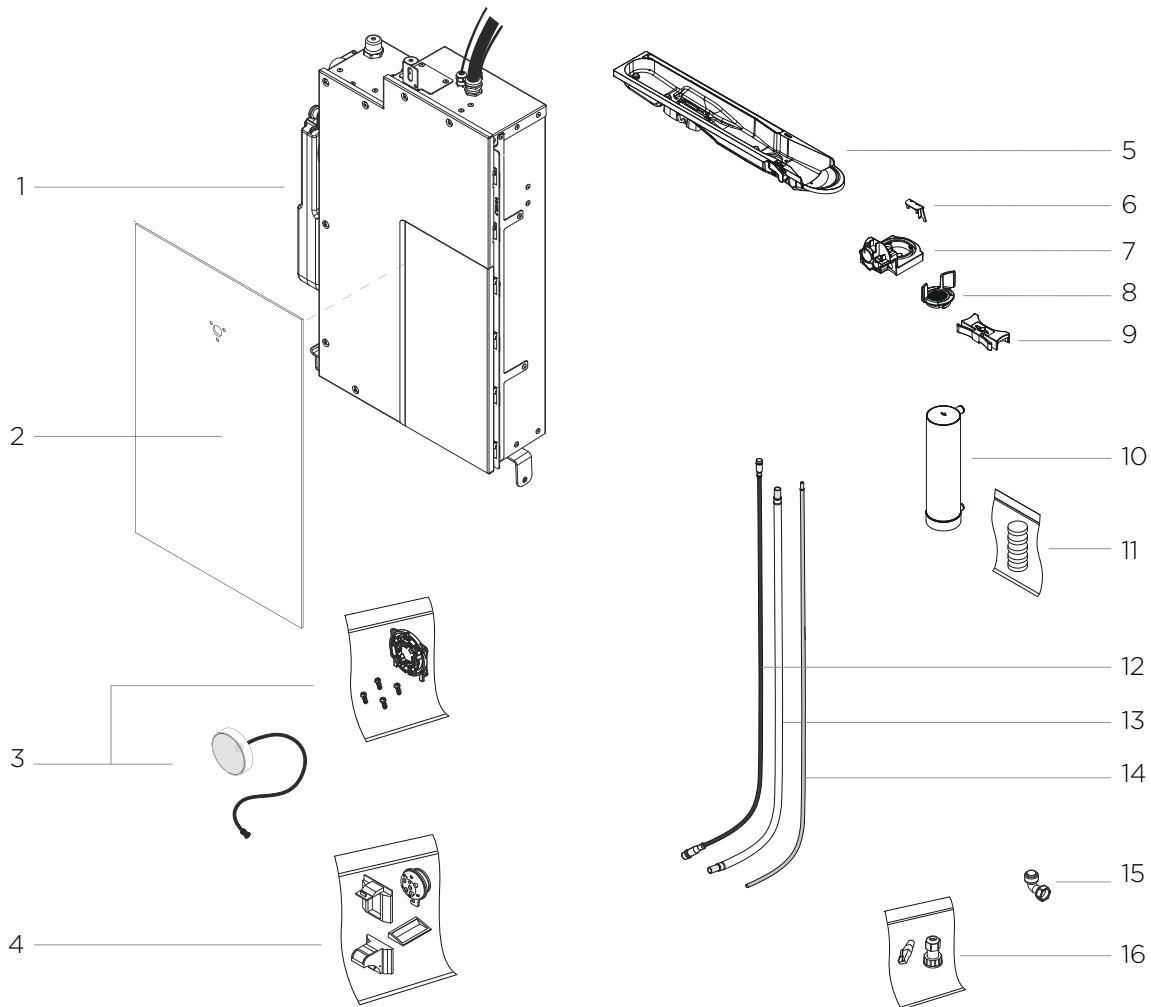
1. Orbital Shower Core, 1x
2. Hatch Panel door, 1x
3. Control Dial, 1x (incl fixture 1x, screws 4x)
4. Hatch Panel latch kit 1x
5. Sensor Tank, 1x
6. Clip, 1x
7. Sensor Tank dock, 1x
8. Sensor Tank lock, 1x
9. Spring lock, 1x
10. Filter Capsule, 1x
11. Descale tablets, 1x
12. Sensor cable, 1x
13. Recirculation hose, 1x
14. Flush hose, 1x
15. Hose connection, 1x
16. Ethernet kit, 1x

## Component Overview, Technology kit - Black or white shower heads & diverter
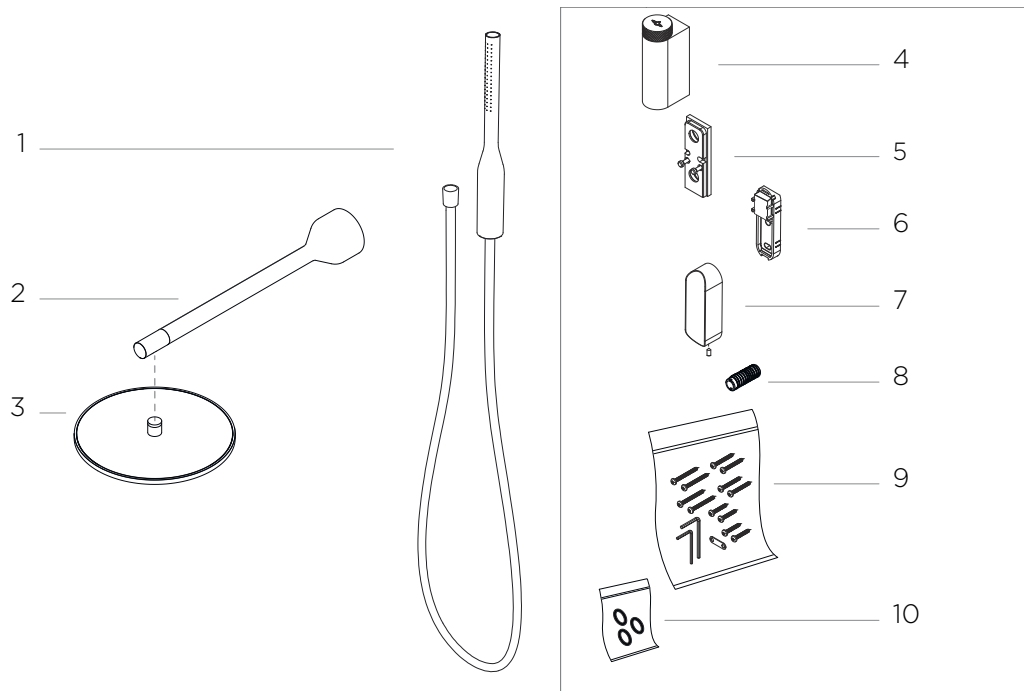
1. Hand shower with hose, 1x
2. Head shower arm, 1x
3. Shower head, 1x
4. Diverter body, 1x
5. Diverter wall plate, 1x
6. Hand shower holder, 1x
7. Hand shower holder cover, 1x + set screw, 1x
8. Threaded adapter, 1x
9. Screw and tool kit, 1x
10. O-ring kit, 1x

## Component Overview, Technology kit - Black or white shower head
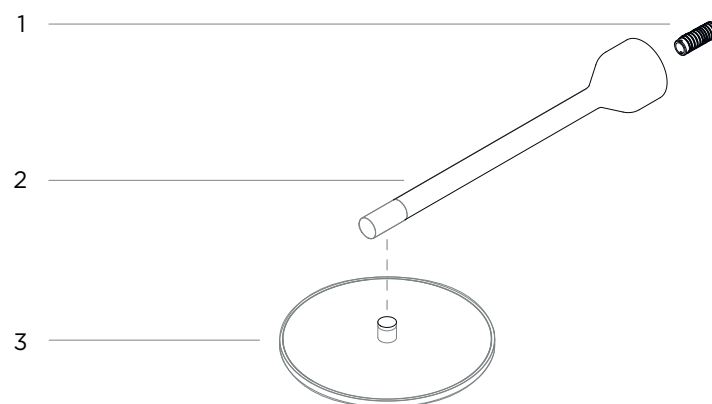
1. Threaded adapter, 1x
2. Head shower arm, 1x
3. Shower head, 1x

# Component Overview - Metallic shower heads & diverter
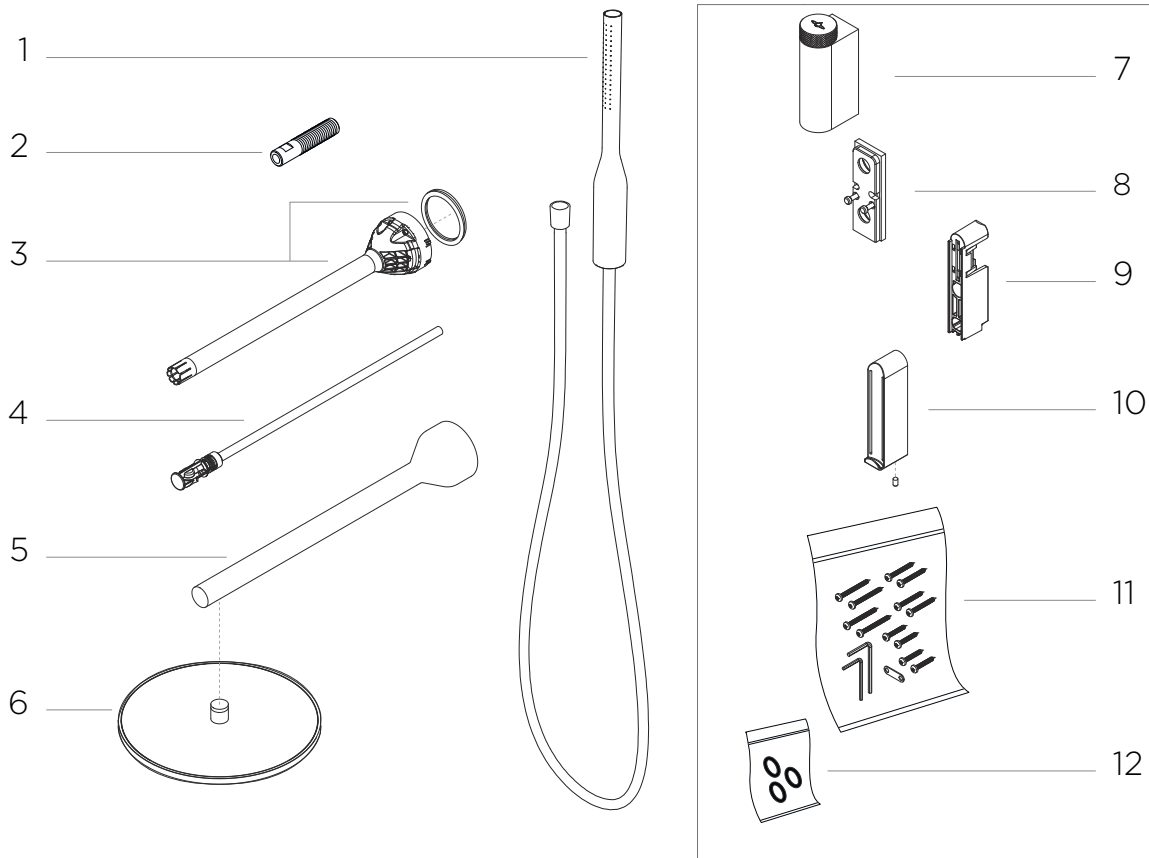


1. Hand shower with hose, 1x
2. Threaded adapter, 1x
3. Head shower arm insert with support ring, 1x
4. Head shower internal PEX pipe, 1x
5. Metal cover, 1x
6. Shower head, 1x
7. Diverter body, 1x
8. Diverter wall plate, 1x
9. Hand shower holder, 1x
10. Hand shower holder cover, 1x + set screw, 1x
11. Screw and tool kit, 1x
12. O-ring kit, 1x

# Install the sensor cable, flush hose and recirculation hose
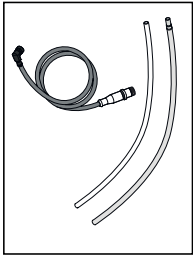


1. Remove the protective film and lift up the drain grate and Funnel. Set them aside.
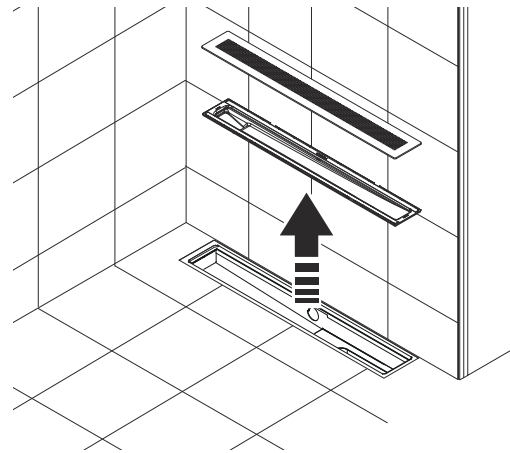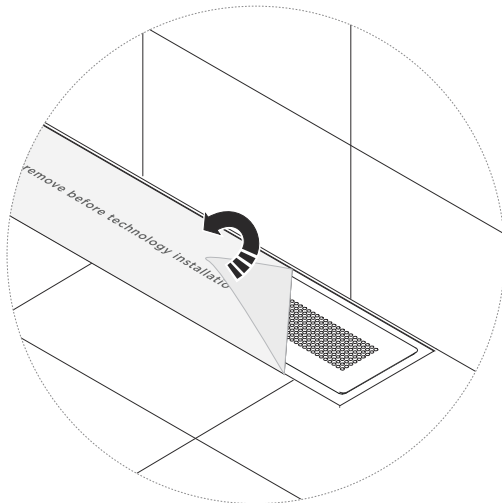


2. Route the sensor cable through the drain pipe, to where it is about 150 mm left between the cable and the edge of the drain unit. Keep the connector protection cover on.



150 mm
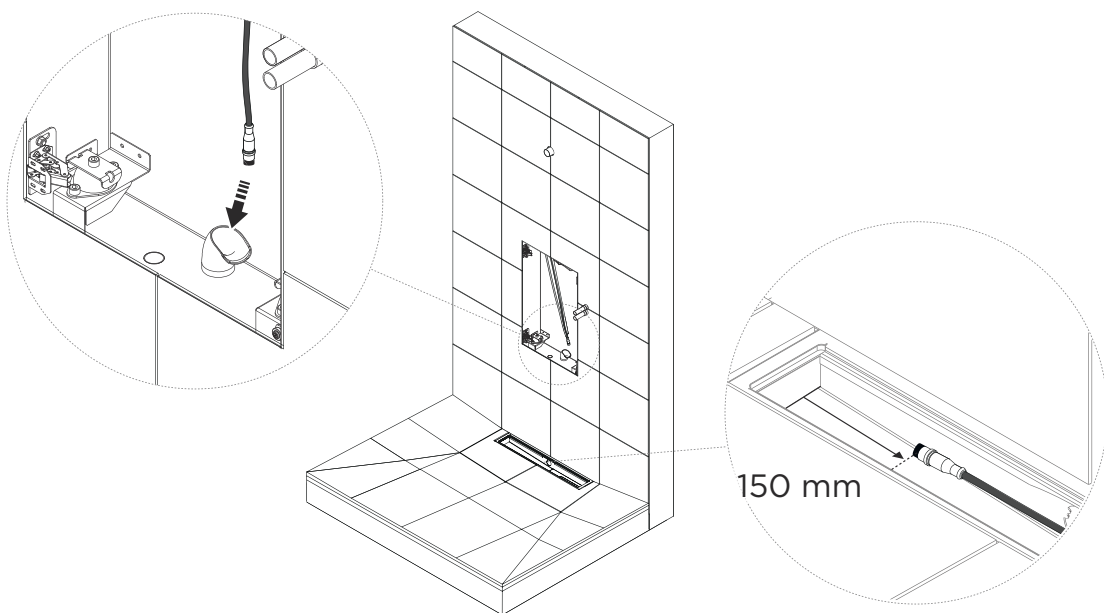
**3.** Route the flush hose and recirculation hose through the drain pipe, with the couplings down towards the drain unit.
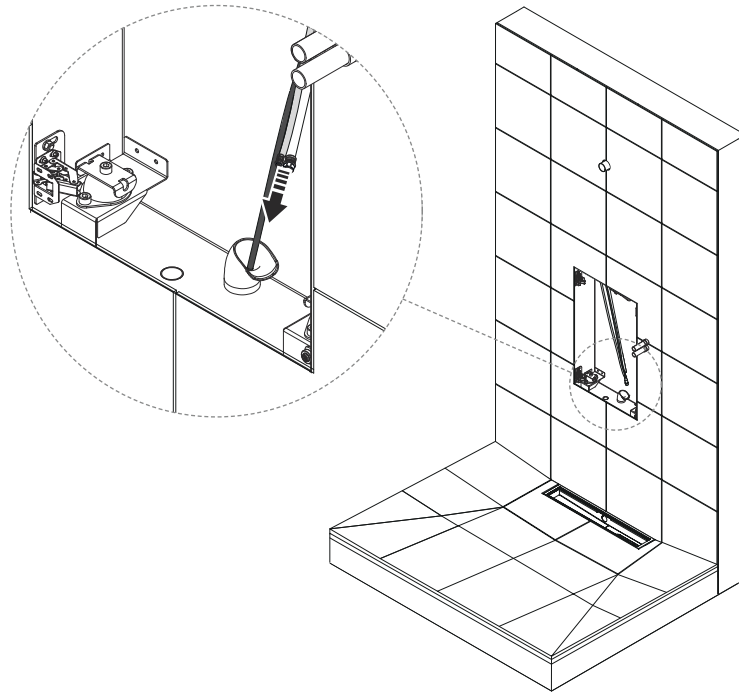
# Install Sensor Tank dock
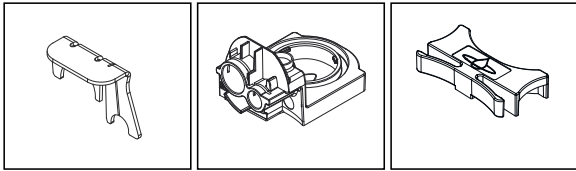


1. Apply lubricant to the o-rings and connect the hoses to the Sensor Tank dock.
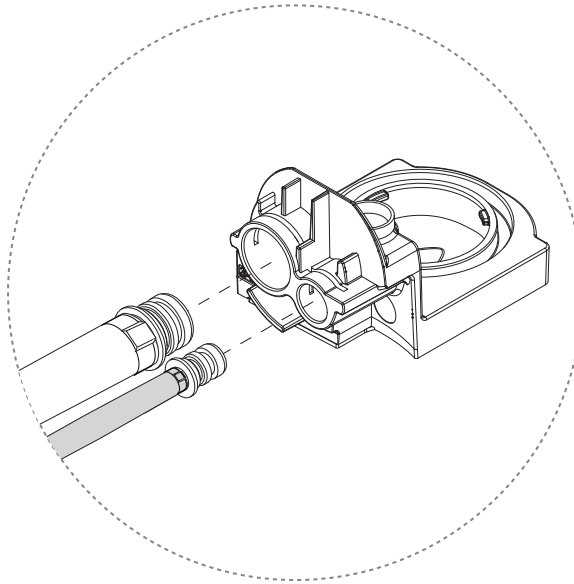


2. Lock the hoses by inserting the clip.
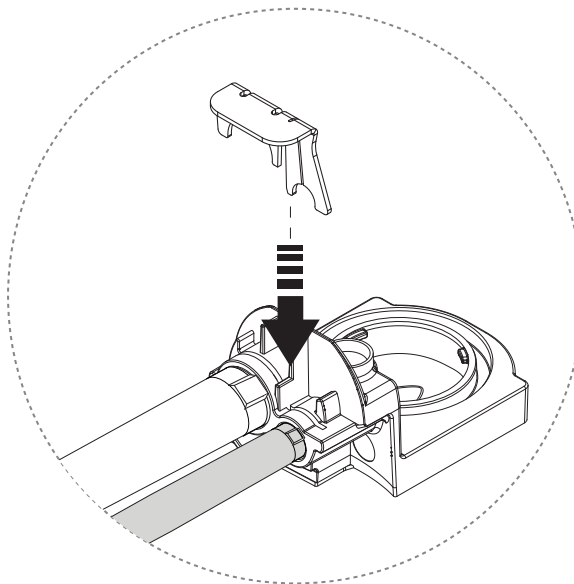
**3.** Insert the Sensor Tank dock into the connection pipe. Rotate it in place, and push it all the way in.
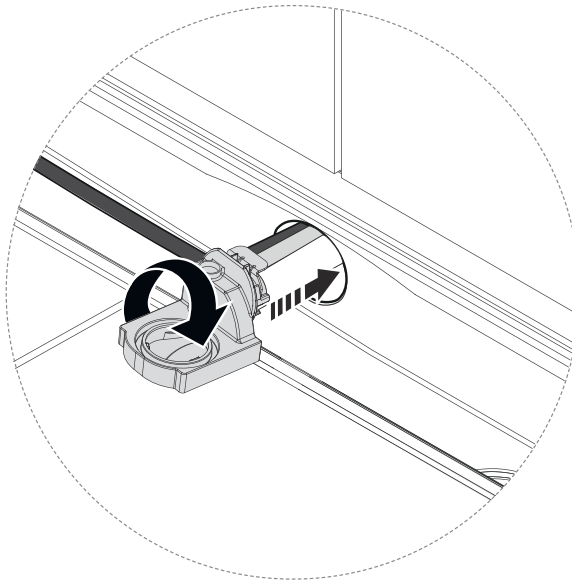
**4.** Lock the Sensor Tank dock in place with the spring lock.
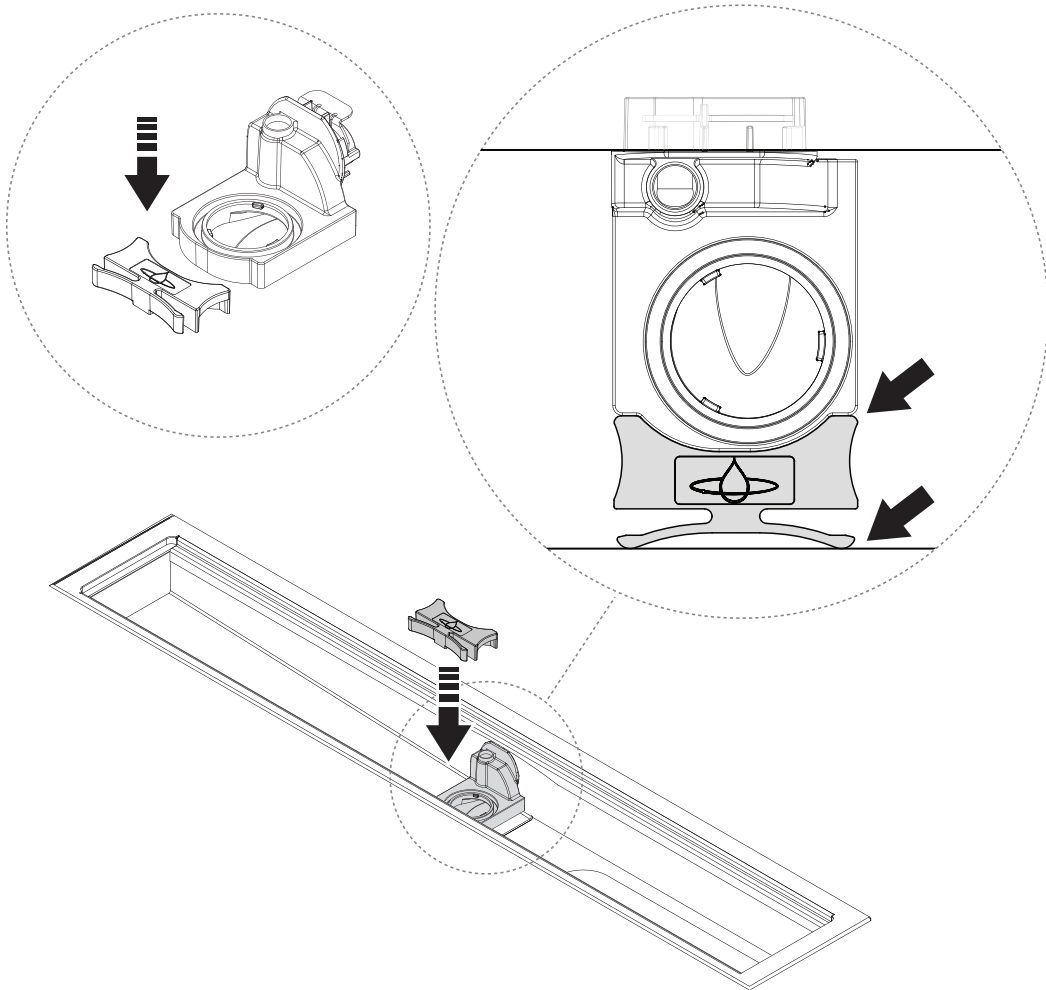
# Install Sensor Tank and Sensor Tank lock



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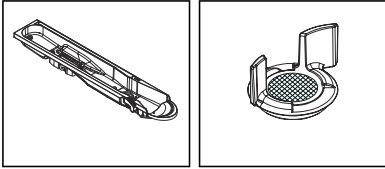
1.  Connect the sensor cable to the Sensor Tank.

    ⚠ **CAUTION**

    Make sure to have correct alignment between the key and slot in the connector by aligning the two white lines.



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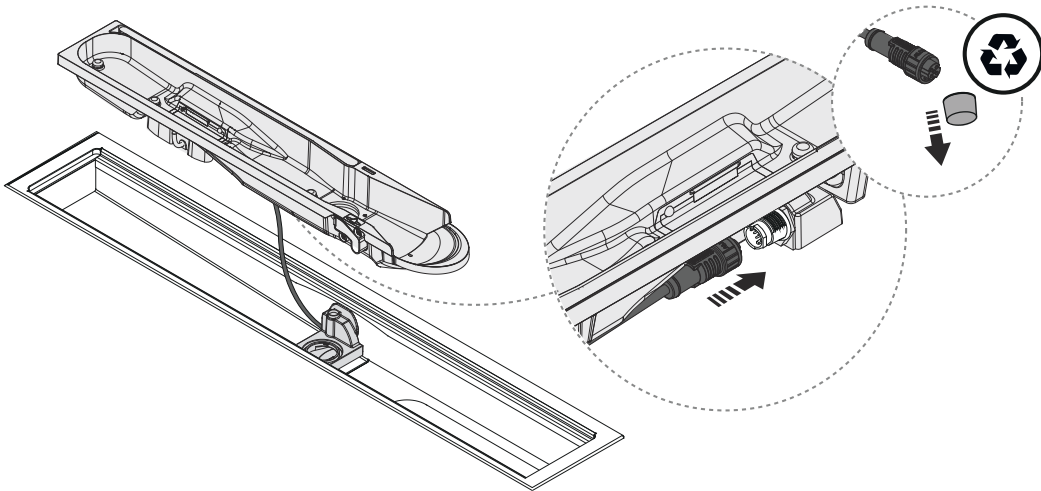
2.  Insert the Sensor Tank to the drain unit.

    ⚠ **CAUTION**

    Make sure the Sensor Tank is inserted correctly. The edge of the Sensor Tank should be fully pushed towards and in level with the edge of the drain unit.
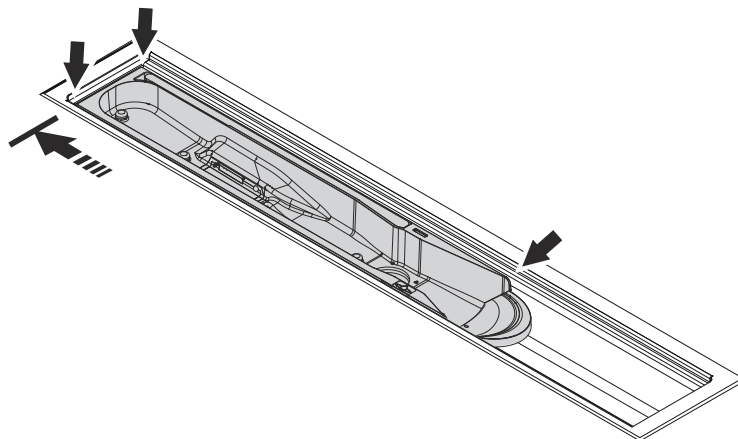
**3.** Lock the Sensor Tank in position with the Sensor Tank lock by turning it 90 degrees.
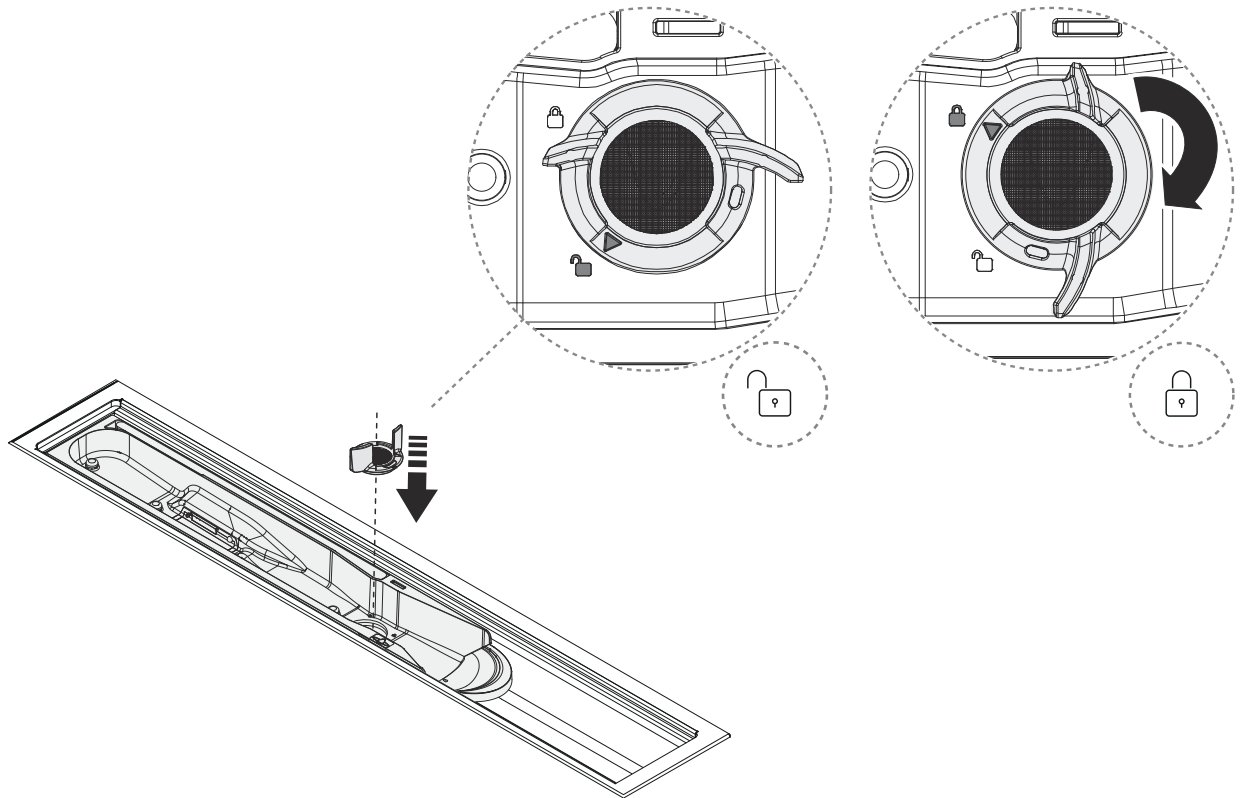
# Install Funnel
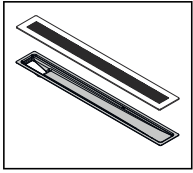
ⓘ **NOTICE**

Place the Funnel with the hole oriented to the left! Placing the hole oriented to the right will disable recirculation.
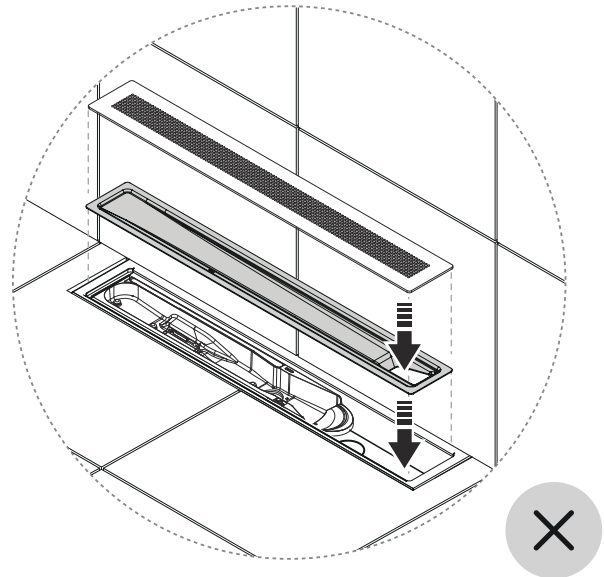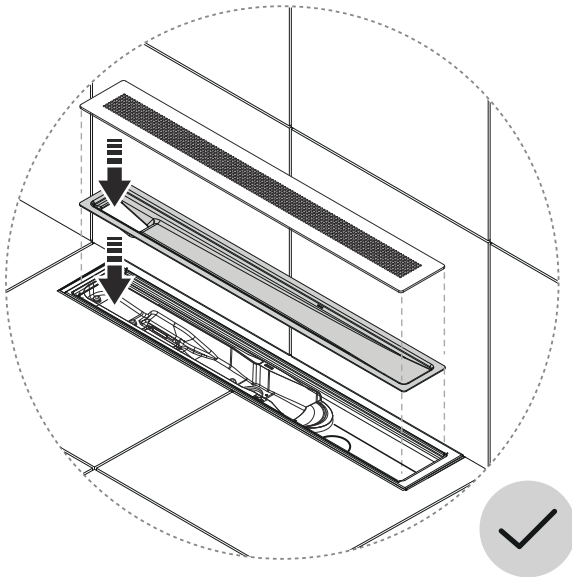
# Install Core



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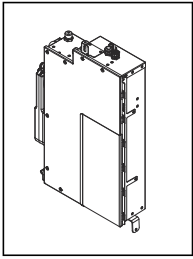
1.  Remove the four transport plugs.



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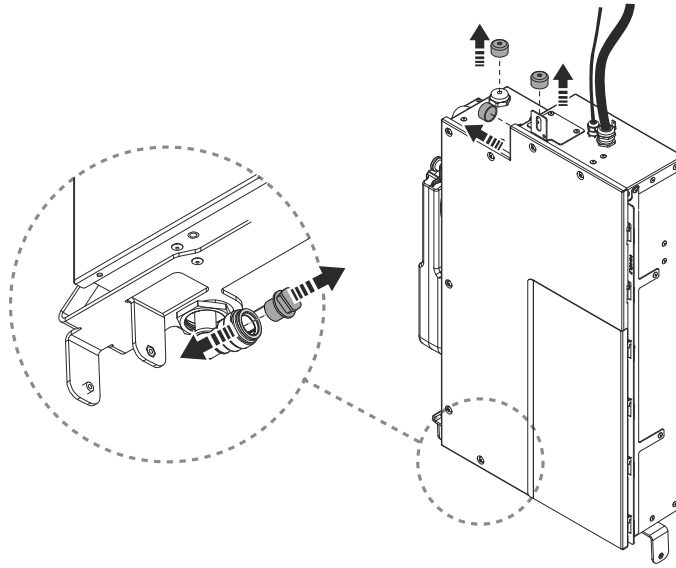
2.  Insert the Core into the Wall Box and attach the safety wire.

    **CAUTION**
    - Heavy equipment. The Core weighs approx. 25 kg.
    - Make sure to attach the Safety Wire before tilting the Core.
    - Make sure that hoses and cables are not pinched or kinked.
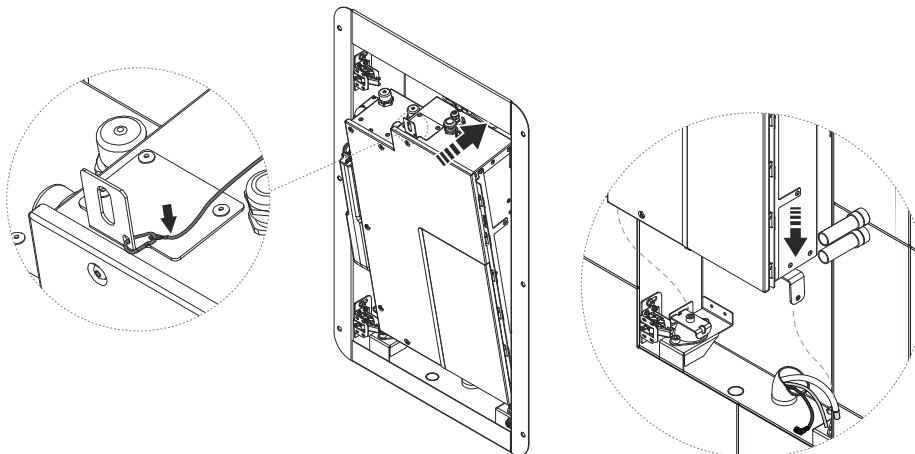
**3.** Measure and mark the pipes for cutting.
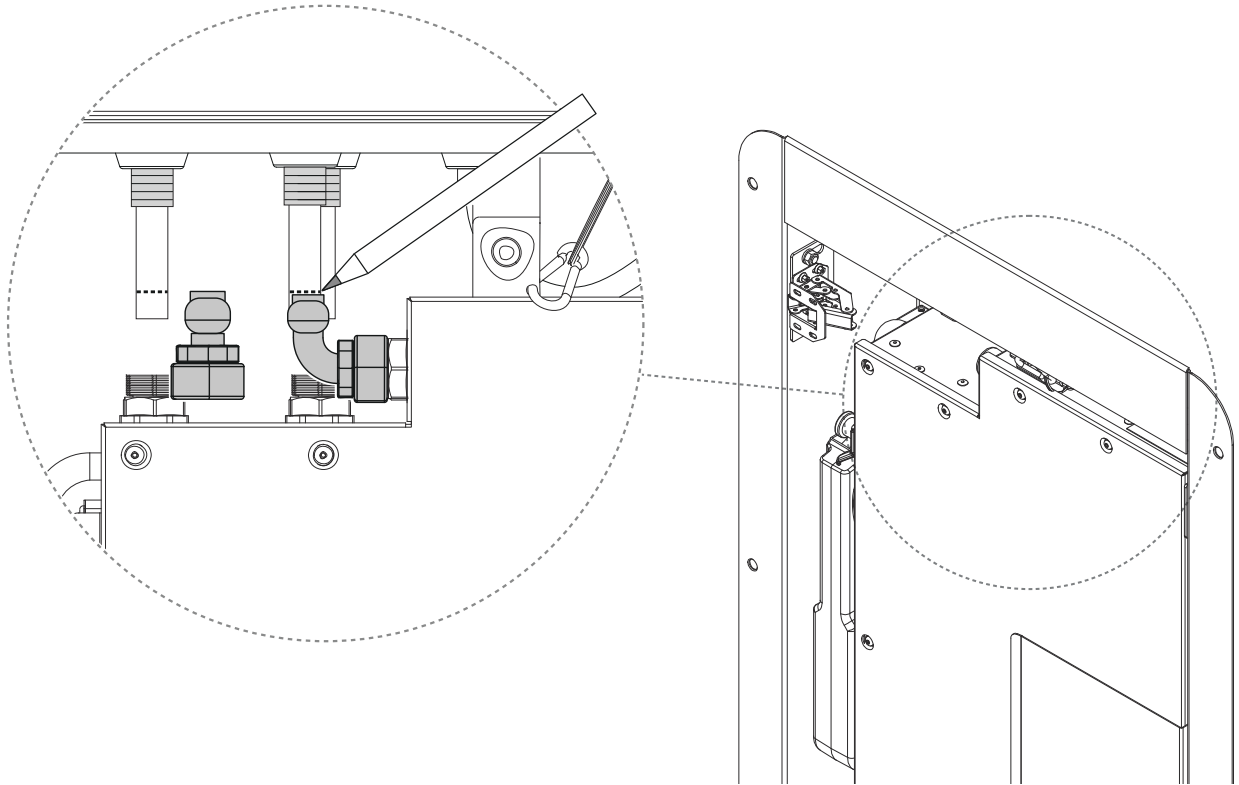
**4.** Cut the PEX pipes. Lift the Core out of the Wall Box for better access.
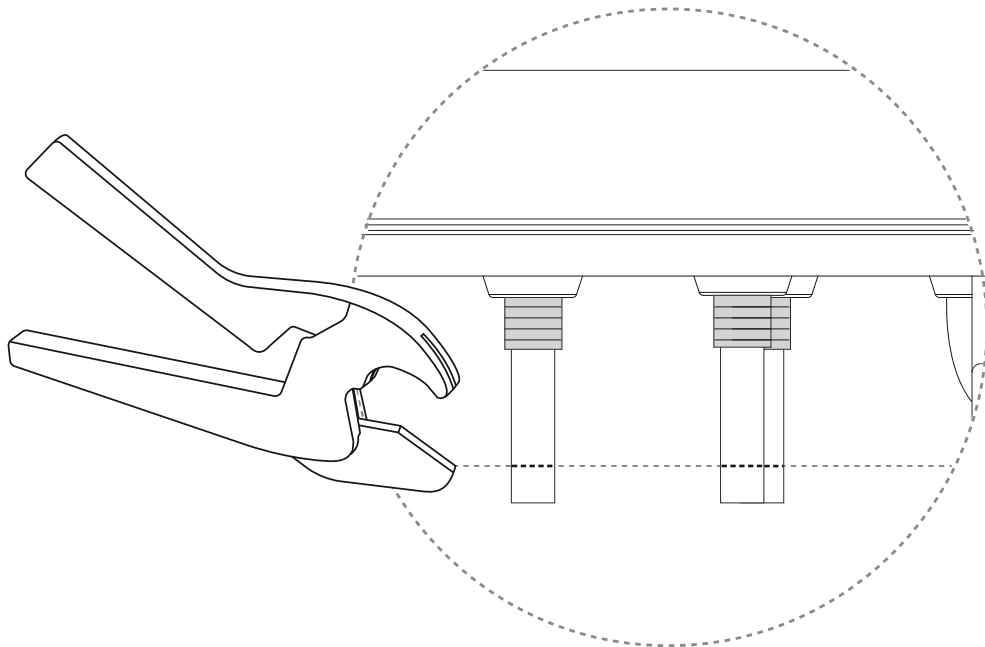
5. Install the connectors.

⚠ **CAUTION**
- Use couplings with a loose nut.
- Install hose connections in accordance with applicable industry standards.
- Make sure to flush out the water lines from debris before connecting the Core.
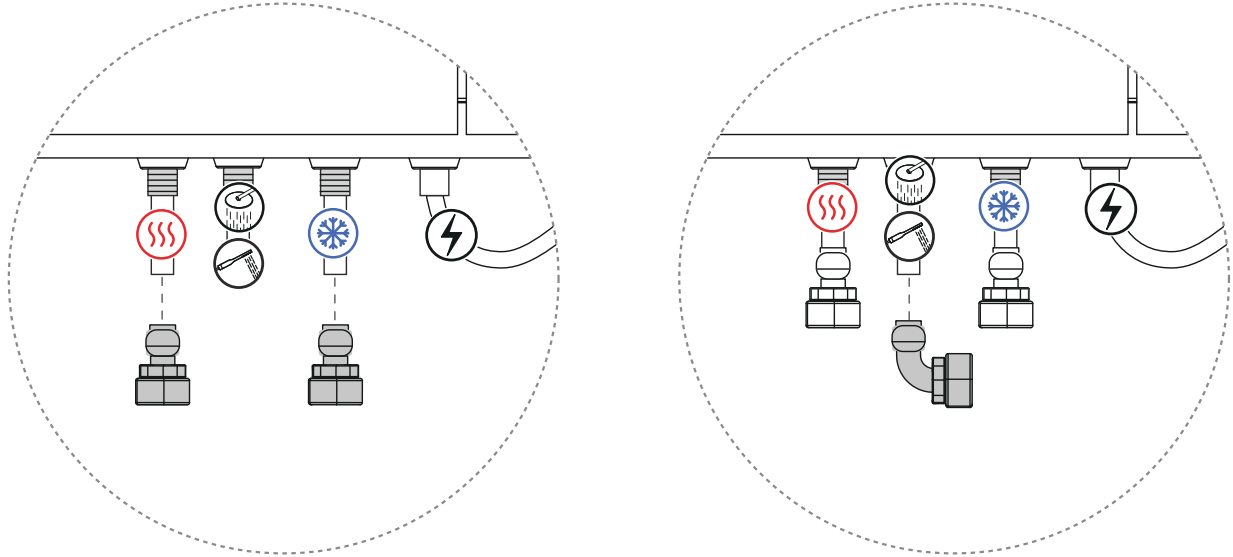


6. Insert the Core into the Wall Box again and attach the safety wire. Keep it tilted to enable electrical installation.
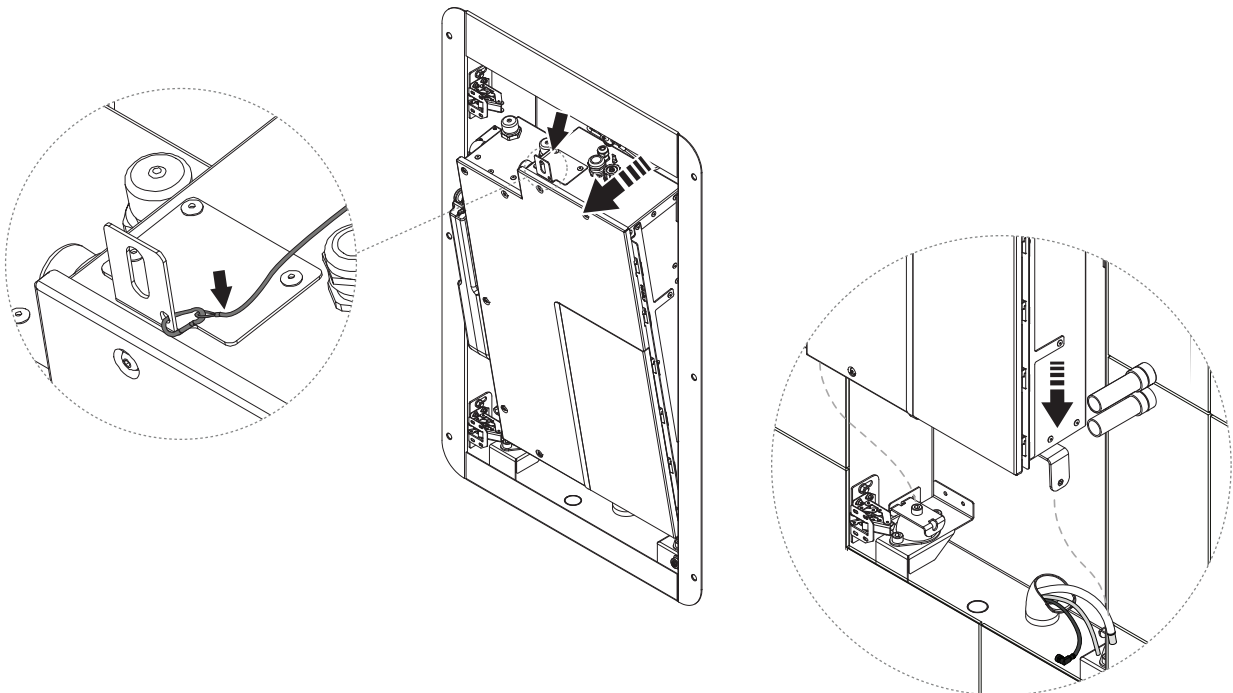
**7.** Connect the power cable to the junction box.

⚠ **WARNING**

Electrical installation should be performed by a qualified electrician according to applicable industry standards and regulations.
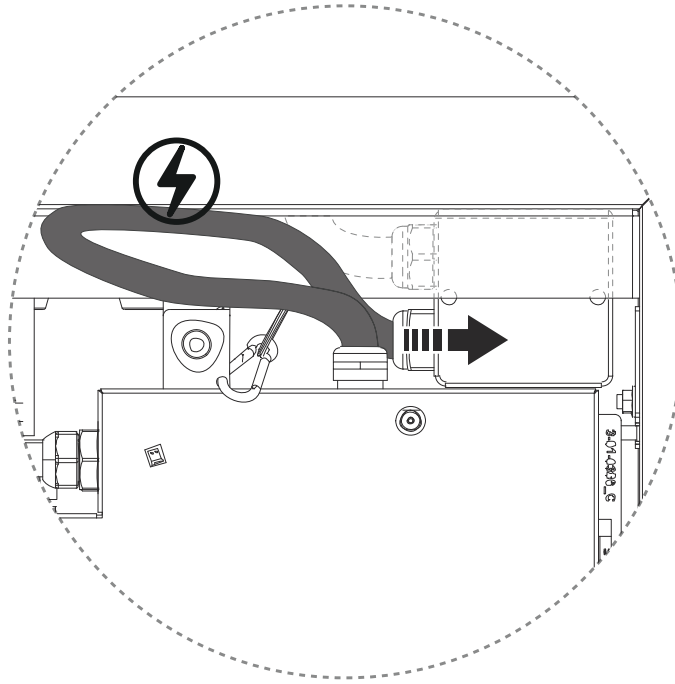


**8.** Connect the Wi-Fi cable to the Wi-Fi antenna.
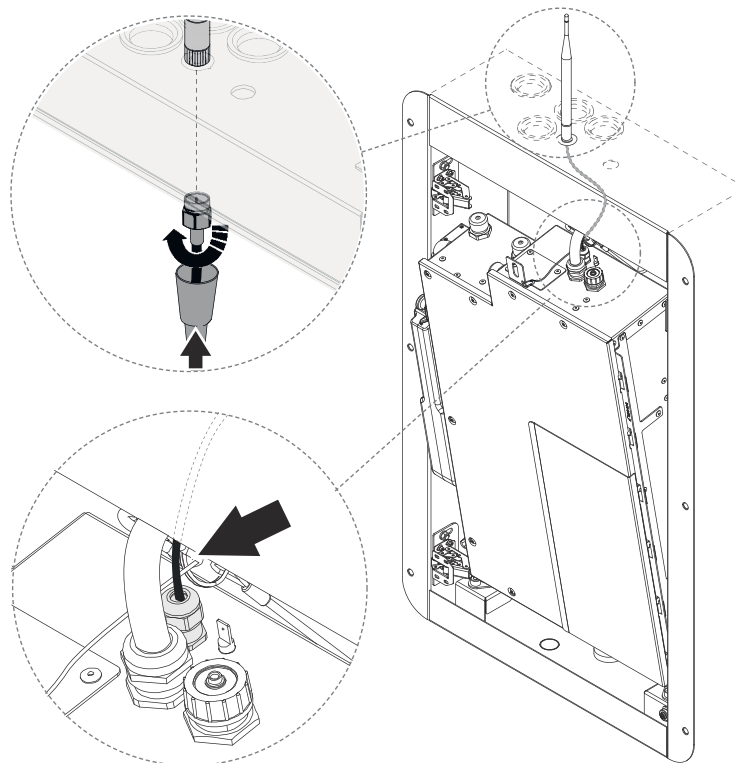
**9.** Lock the Core in place.
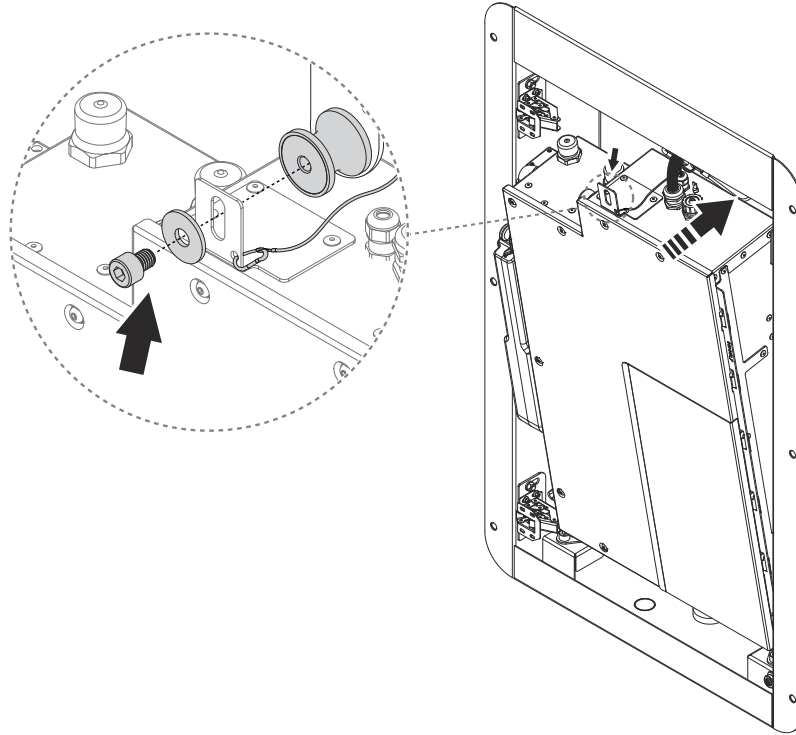
**x1**    M8 socket head

**10.** Connect incoming and outgoing water to the Core.
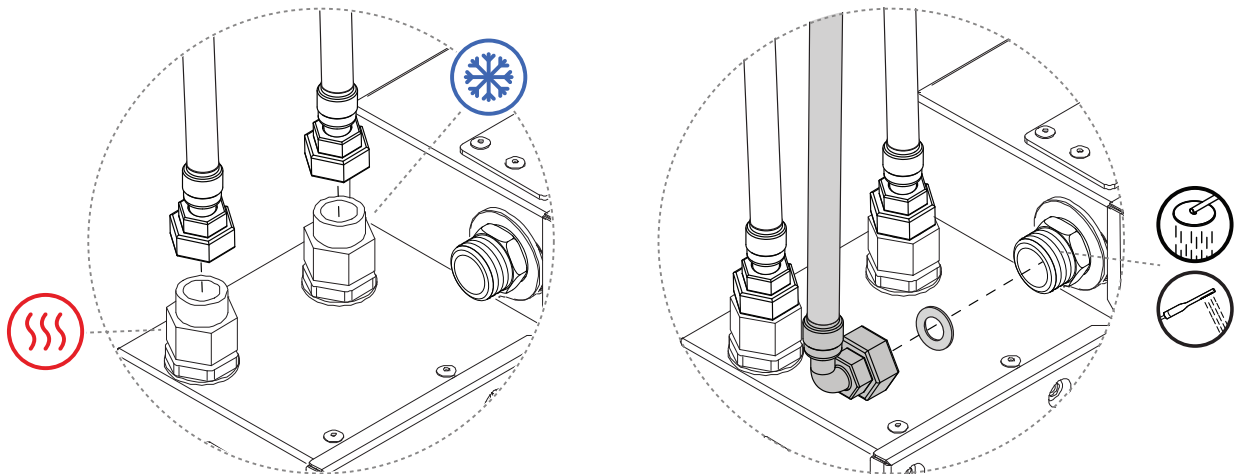
**11.** Connect the recirculation hose and flush hose to the bottom of the Core.
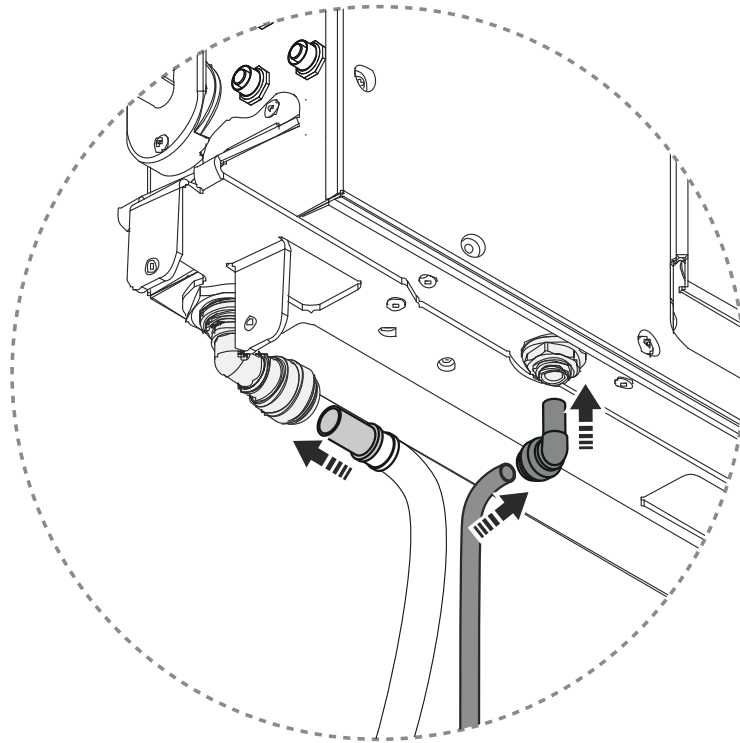
**12. Only valid for Orbital ethernet installation**
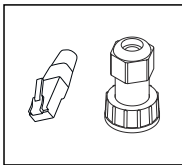
Pull the ethernet cable through the cable connector and attach the RJ45 connector.
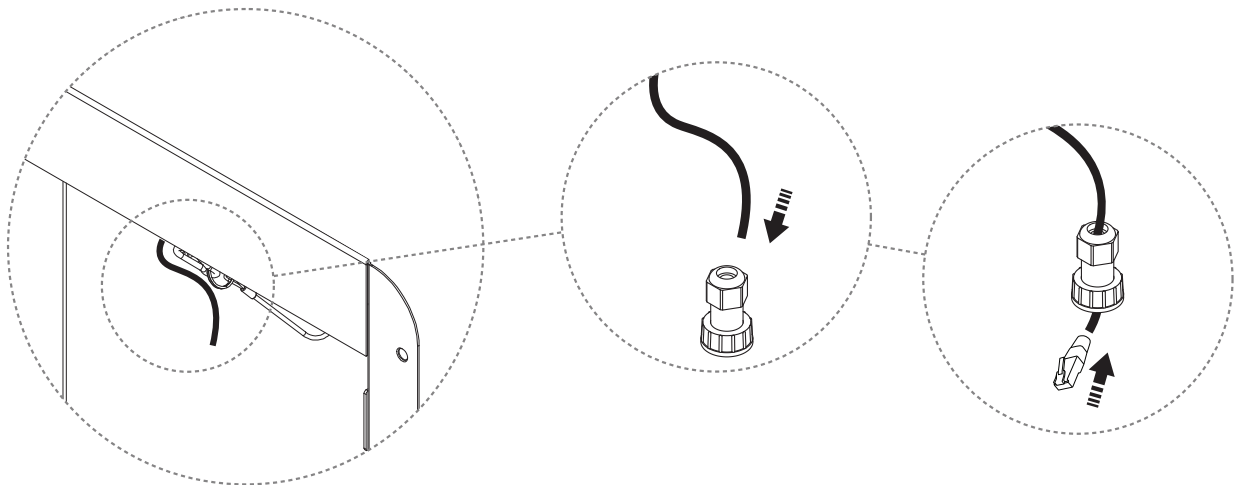
**13.** Unscrew the protective cover.
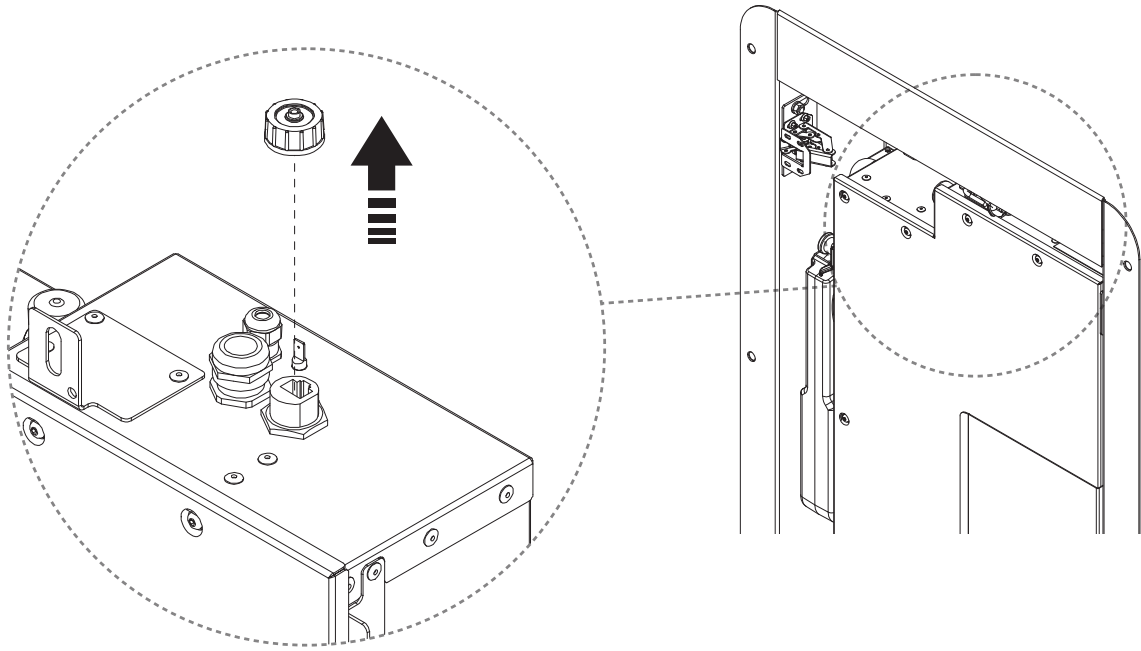
**14.** Hand tighten the cable connectors to avoid damage.
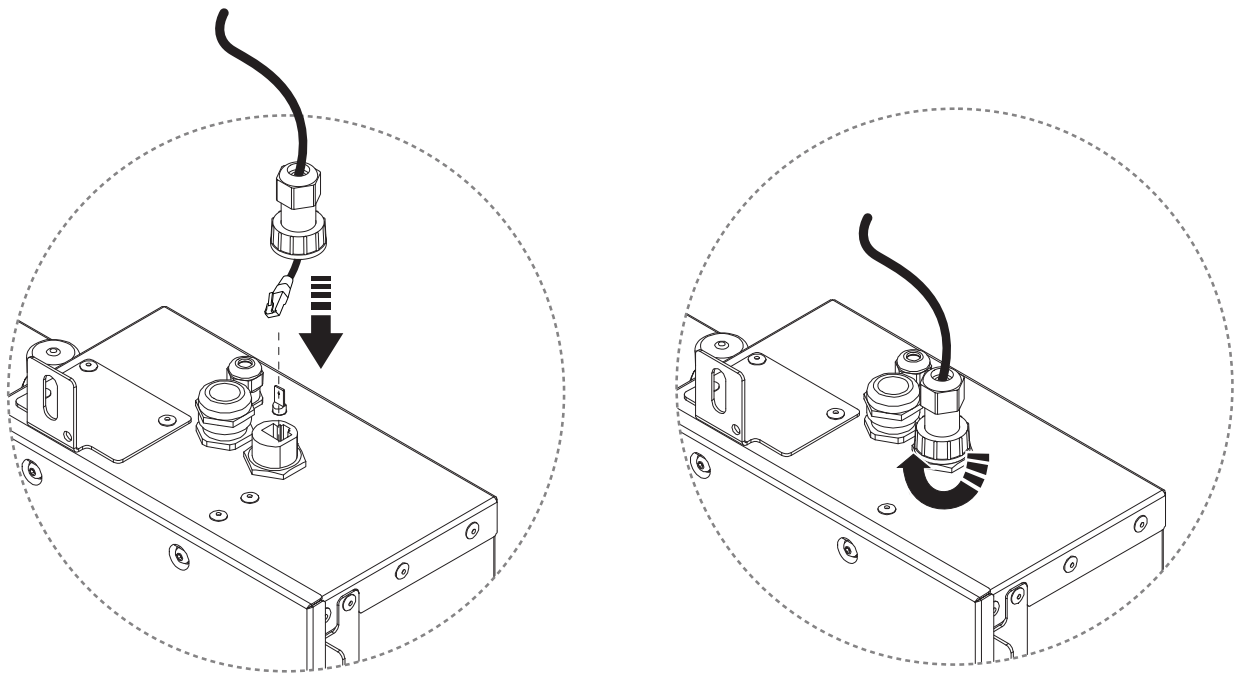
# Add the Filter Capsule



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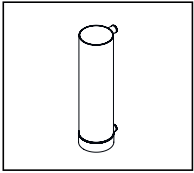
1.  Open the filter hatch on the Core.



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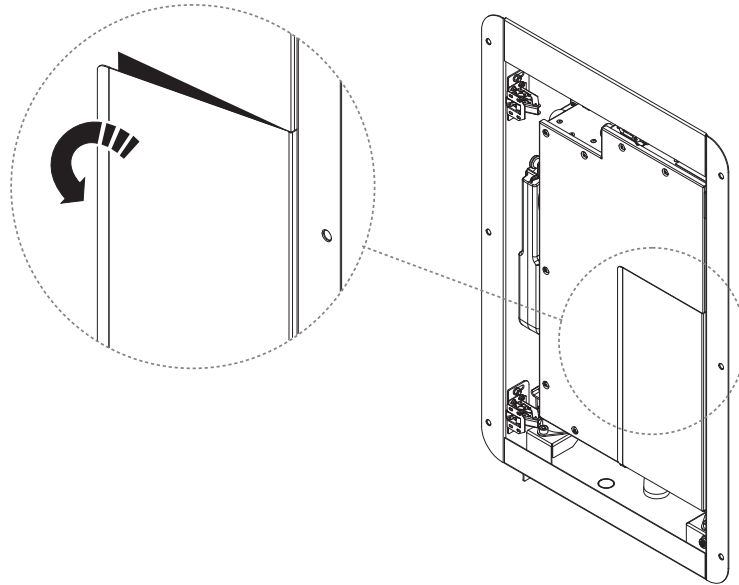
2.  Release the filter holder.
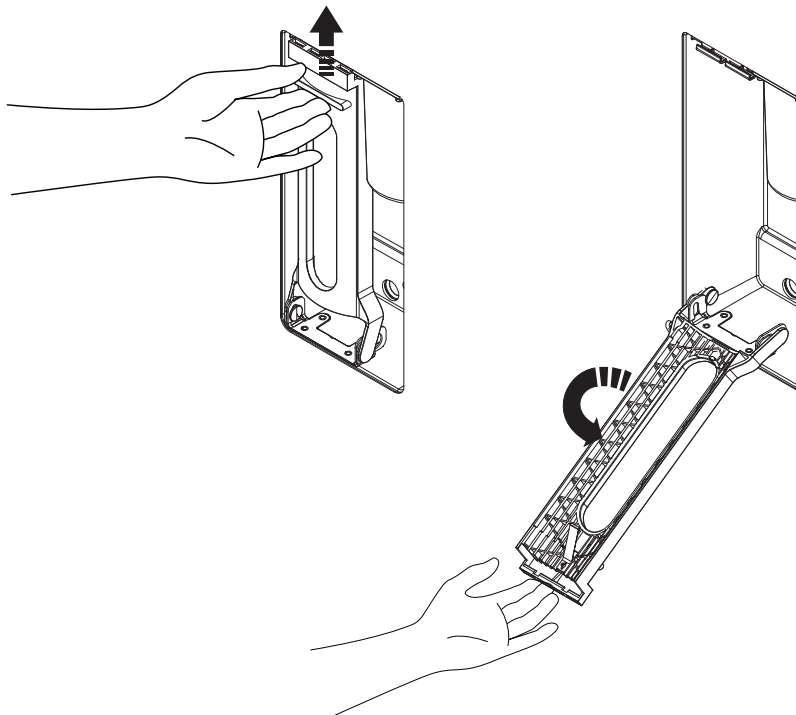
**3.** Insert the Filter Capsule.

⊙ **RISK OF LEAKAGE**
Make sure the Filter Capsule is inserted all the way in, or leakage may occur.
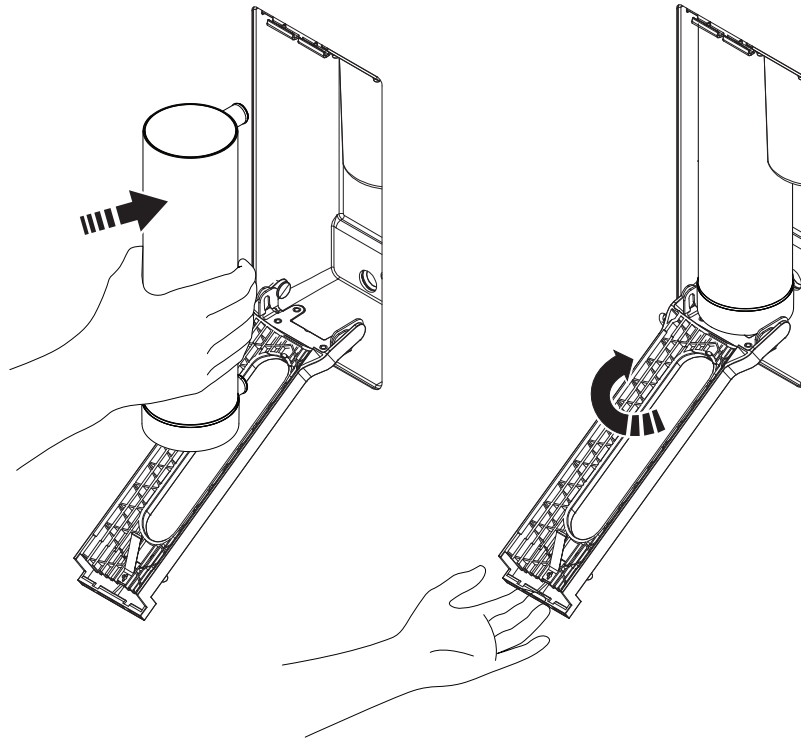


**4.** Close the filter holder and hatch on the Core.
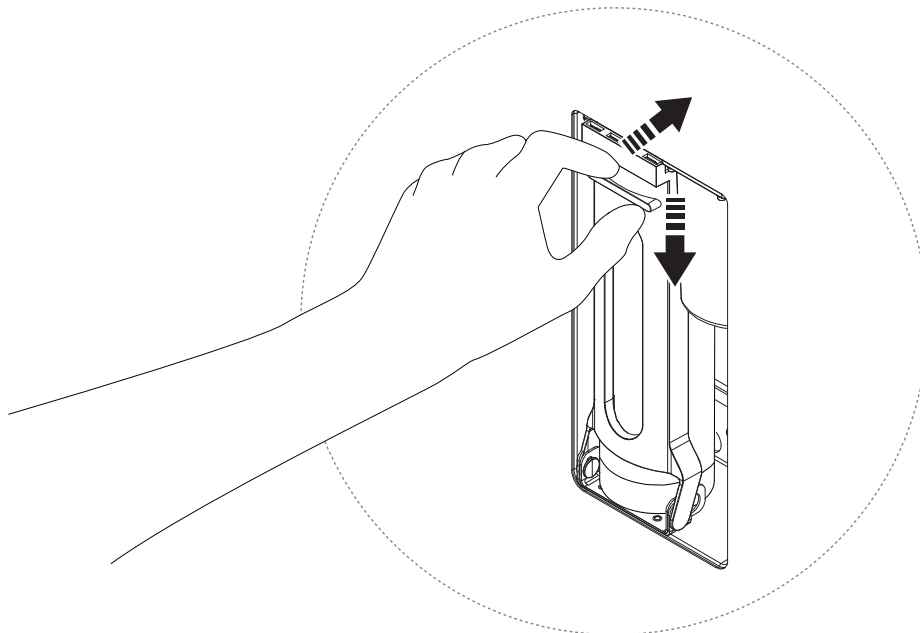
# Install door



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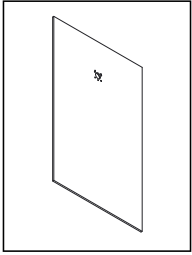
**1.** Secure the door to the hinges.
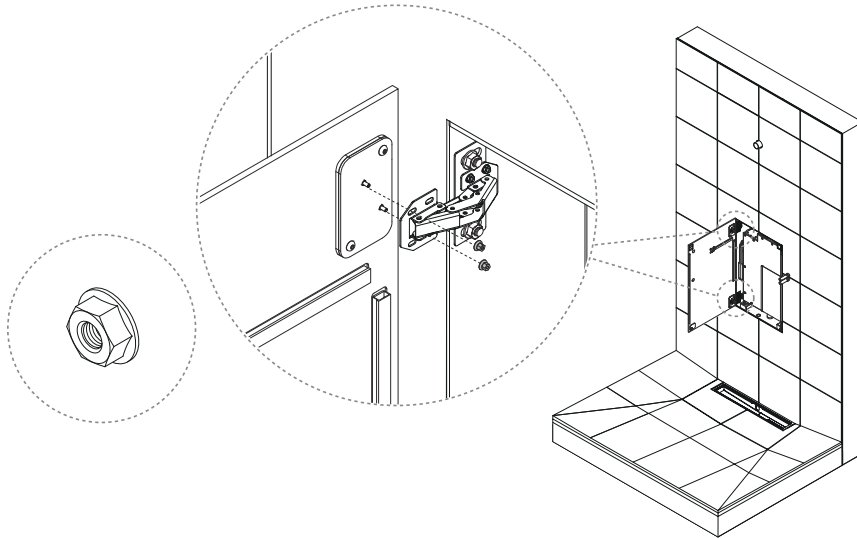


**x4**    M3 (5.5mm driver)

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**2.** Adjust the angle of the door, and then tighten the nuts.
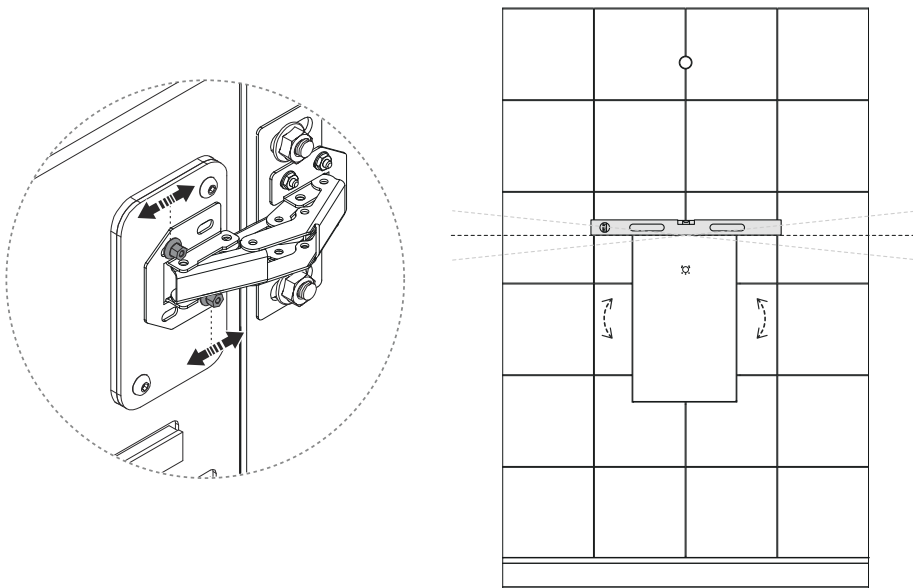
# Install Control Dial
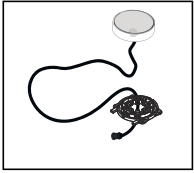


ℹ **NOTICE**

   Do not remove the protective cover from the Control Dial until the installation is completed.

1. Secure the bracket using the four screws provided.
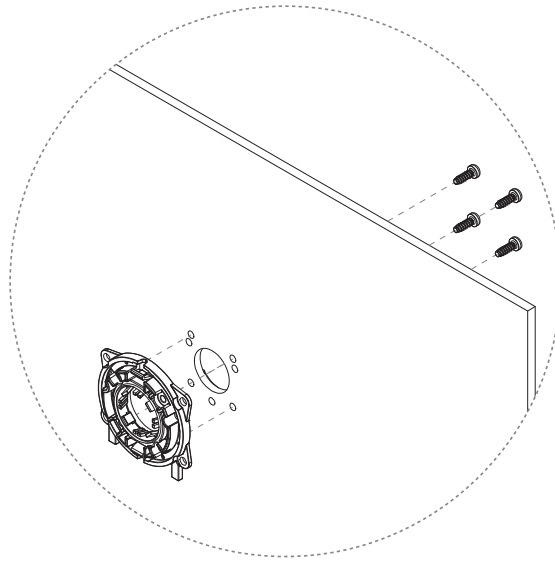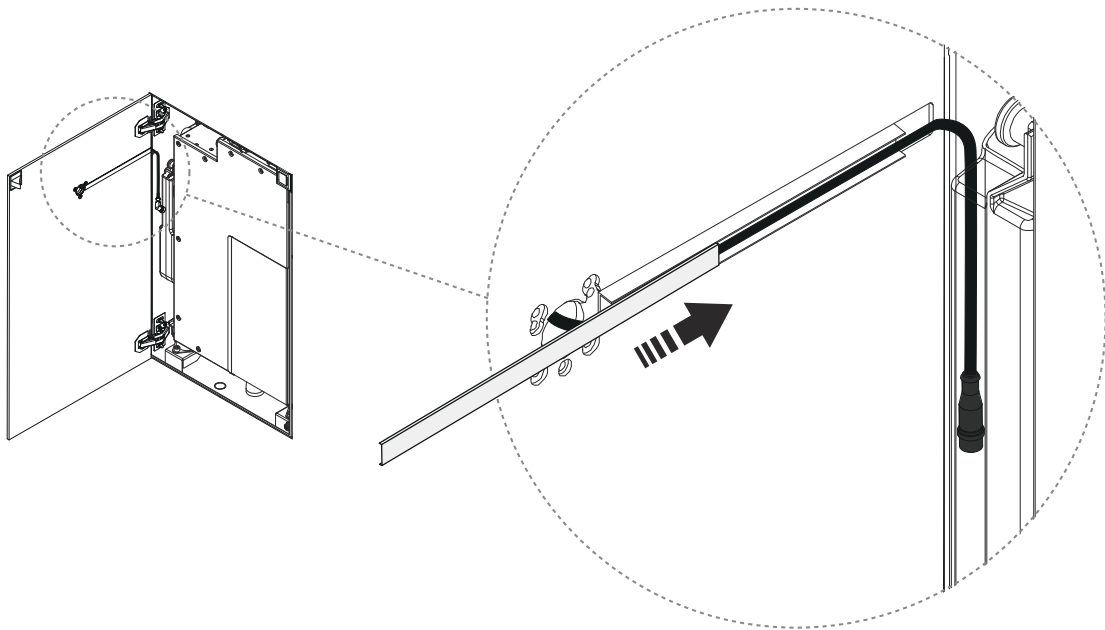


   **x4**     Plastite screw

2. Draw the cable through the bracket and the door.
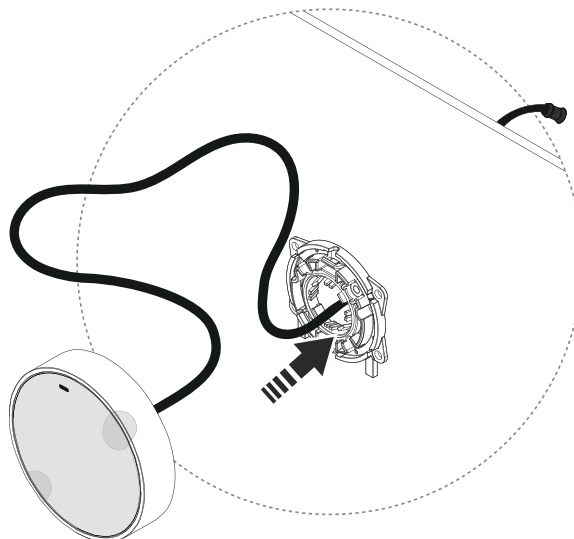
**3.** Position the Control Dial according to the "up marking" before assembly. Snap the Control Dial onto the fixture, and make sure to align the brackets according to the arrows.
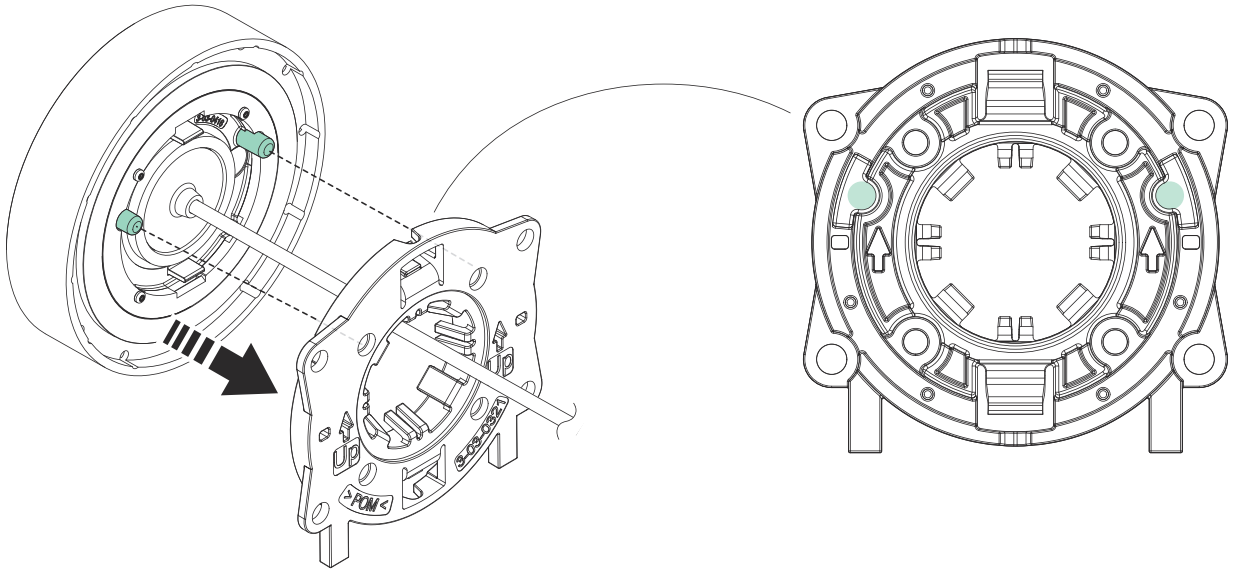
**4.** Fit the cable in the channel on the inside of the door.

**5.** Connect the Control Dial cable to the red connector. Proceed by connecting the Sensor Tank cable to the blue connector.
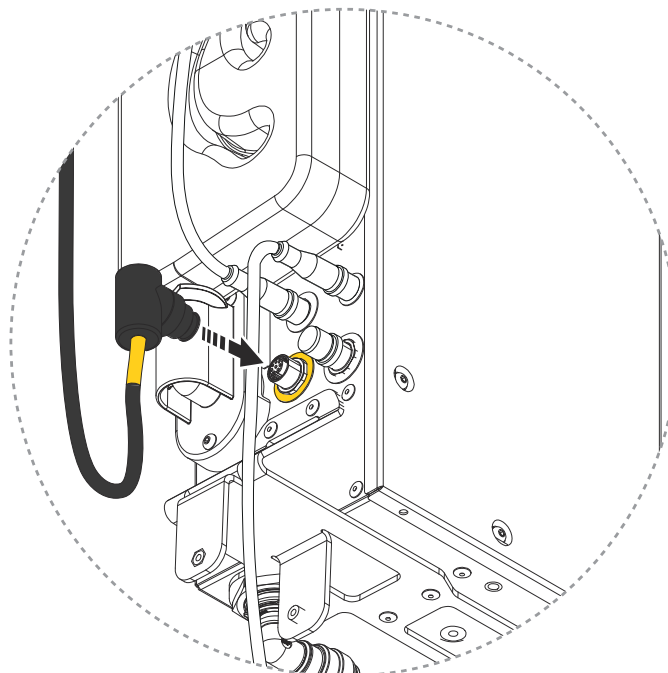
> ⚠ **CAUTION**
> Make sure to have correct alignment between key and slot in connectors. This must be done with attention to prevent damage to the pins. Make sure locking ring snaps and connector is locked.
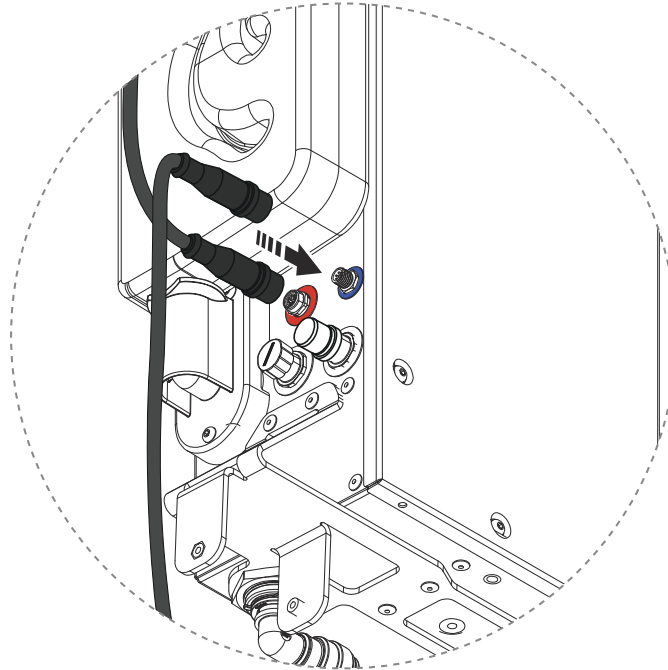


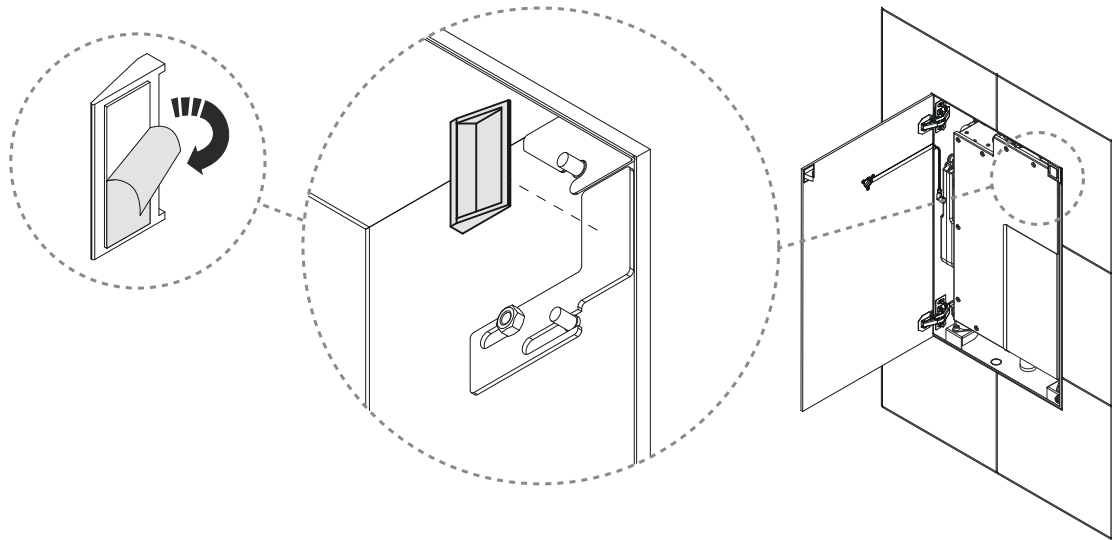**6. Only valid for Orbital Audio Installation**
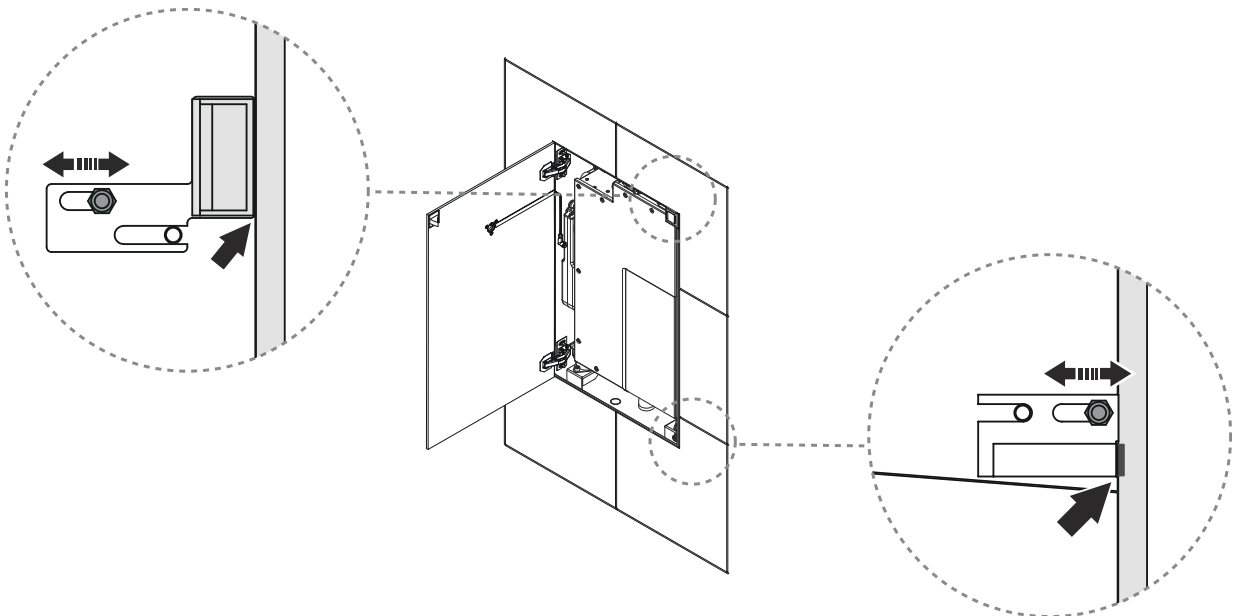Connect the amplifier cable to the yellow connector.
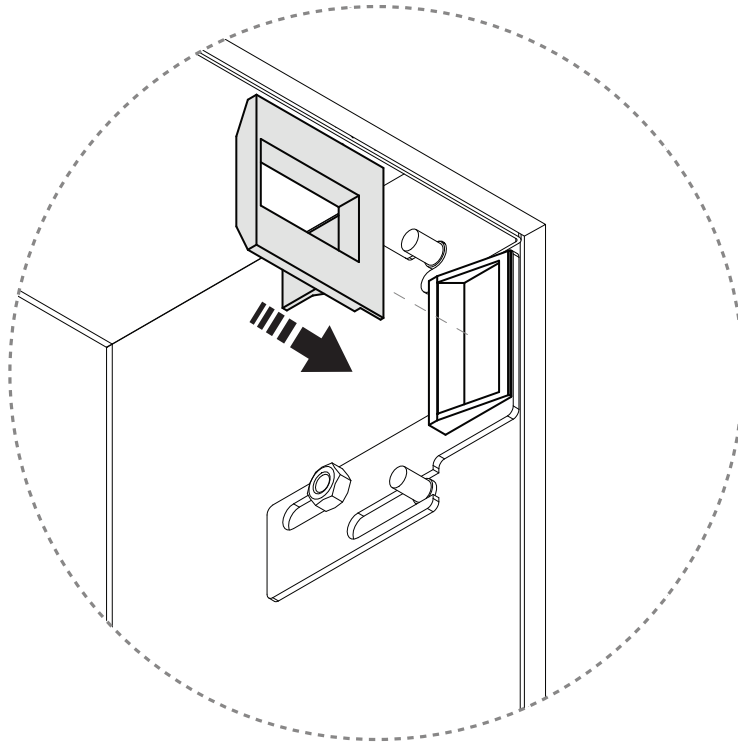
# Install door lock
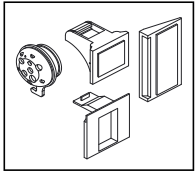


1. ⓘ **NOTICE**
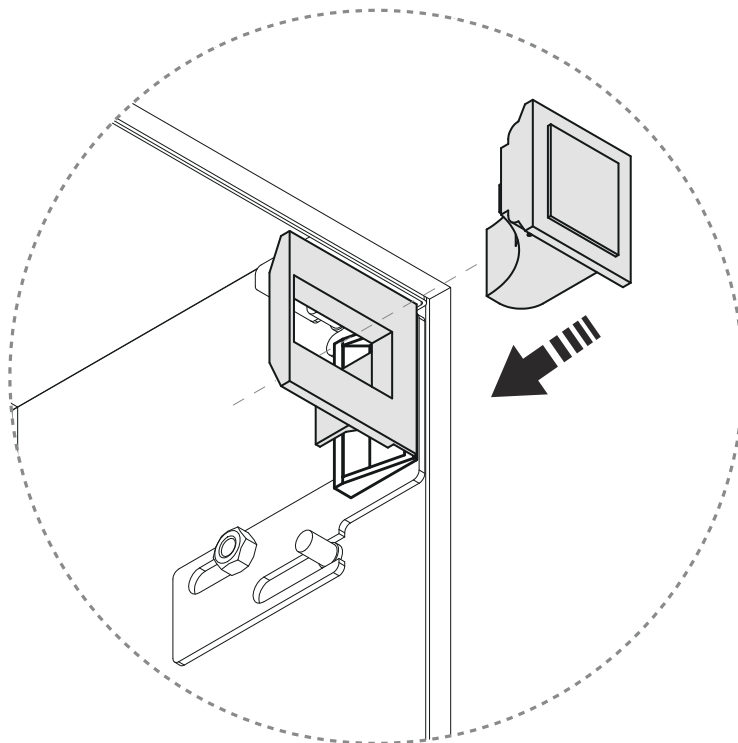   Clean the surface before attaching the bracket.



2. Adjust until edge aligned to edge.
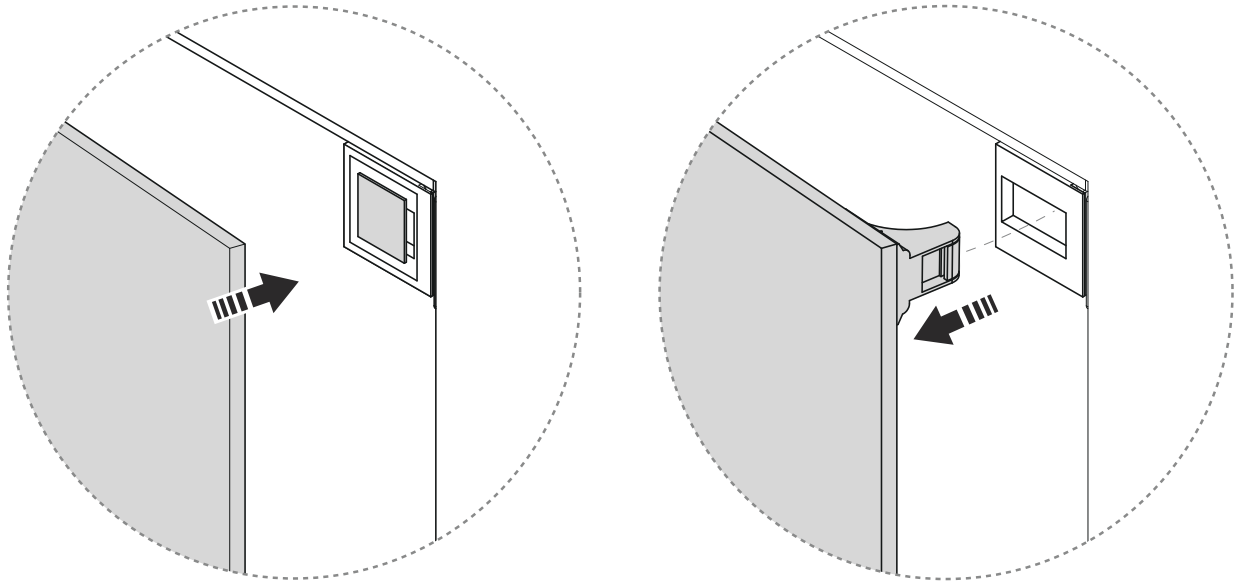   Adjust until edge aligned with magnet.

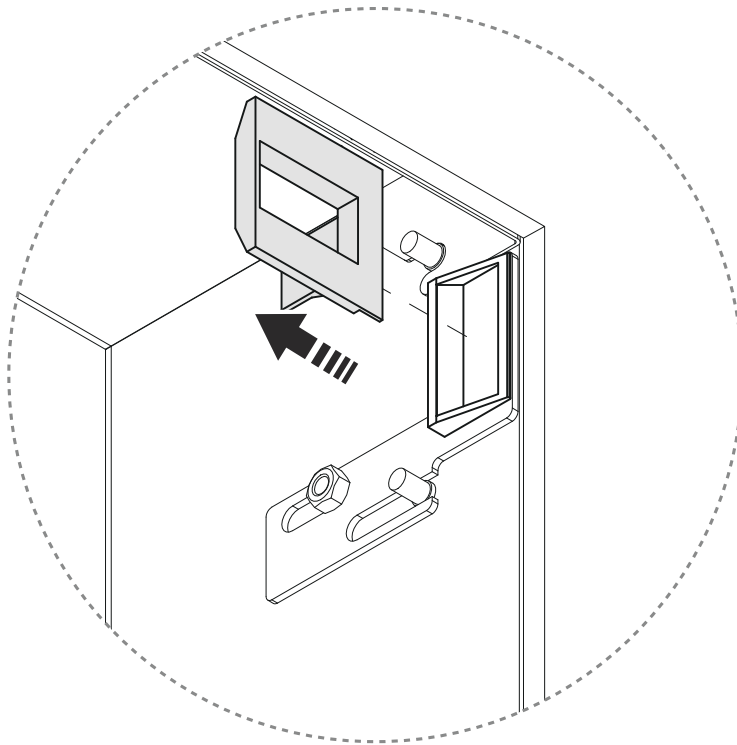**3.** Attach the positioning template to the bracket.

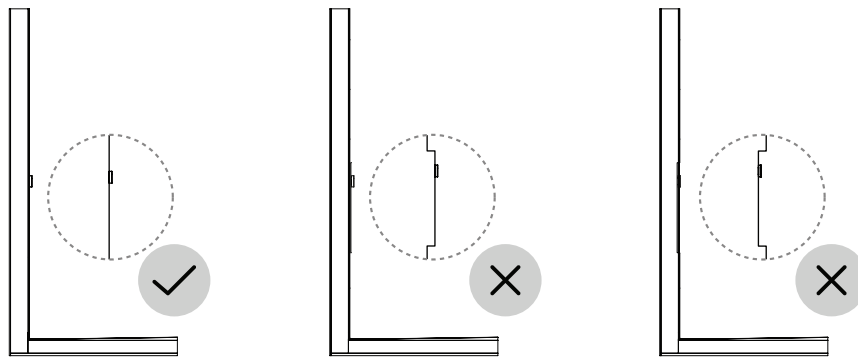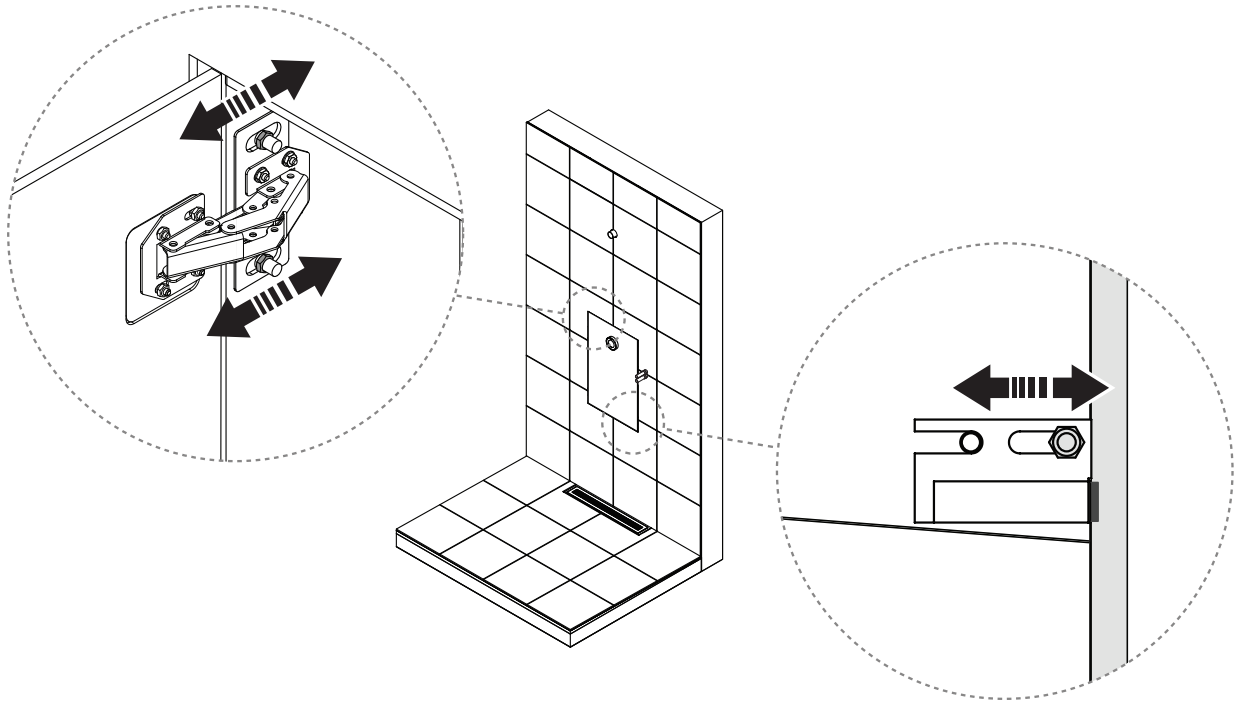**4.** Place the lock in the positioning template.

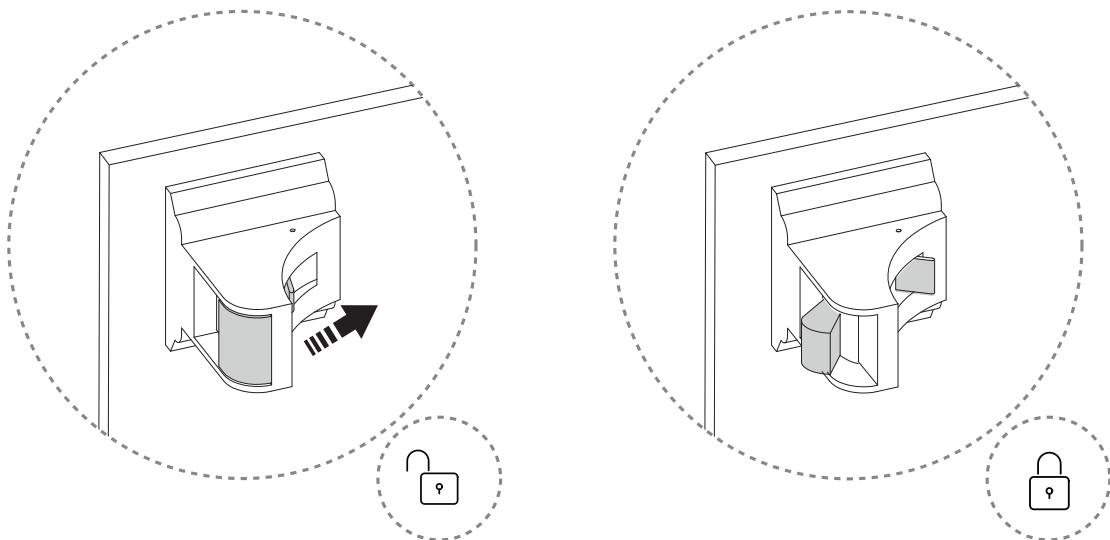**5.** Close the door to attach the lock to the door.



**6.** Remove the positioning template.
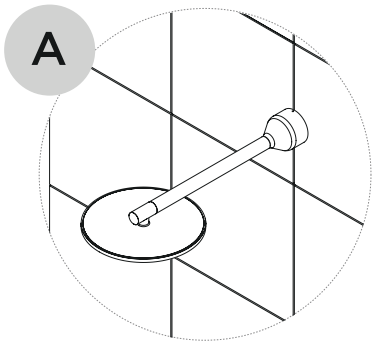
**7.** Adjust door depth.
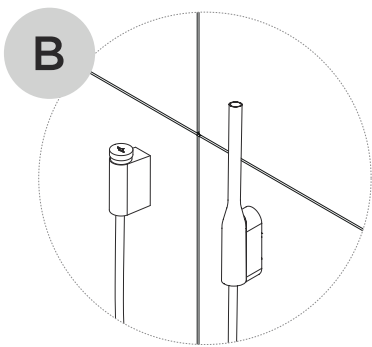
**8.** Set into locked position.

# Next Step

**Orbital Shower Core installation completed.** The next step depends on the shower variant:



Follow the steps valid for Orbital Systems shower head. For black or white shower heads, see Installing the black or white shower head [37]. For metallic shower heads, see Installing the metallic shower head [40].



Follow the steps valid for Orbital Systems hand shower Installing the diverter and hand shower [45] and Installing the black or white hand shower holder [50] for black or white hand shower, or Installing the metallic hand shower holder [53] for metallic hand showers.
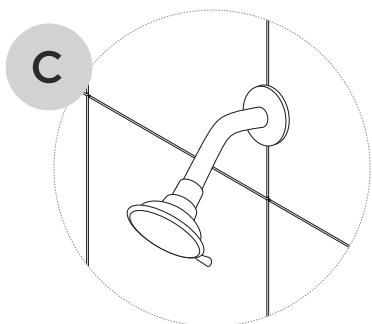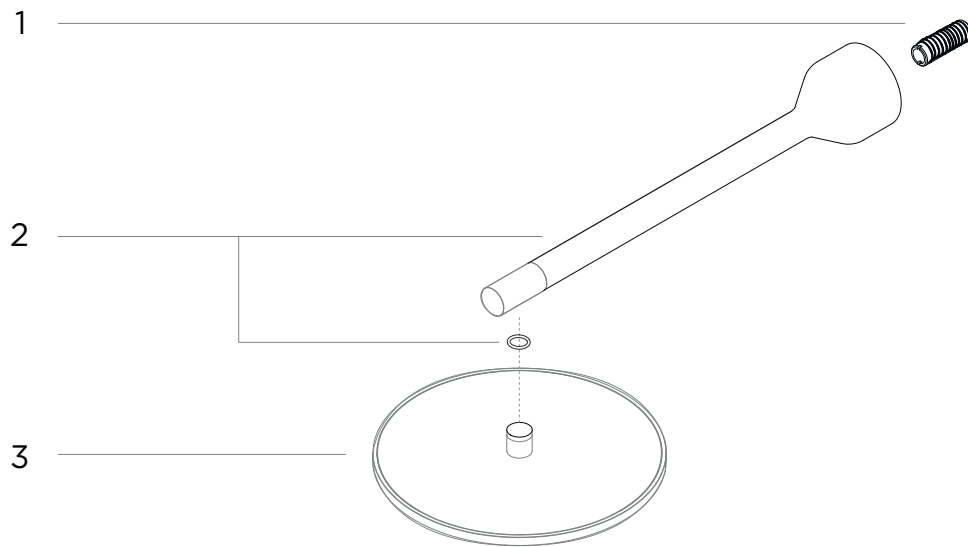


If installing Orbital Shower with third-party components, adapt the following steps to the supplier's instructions.
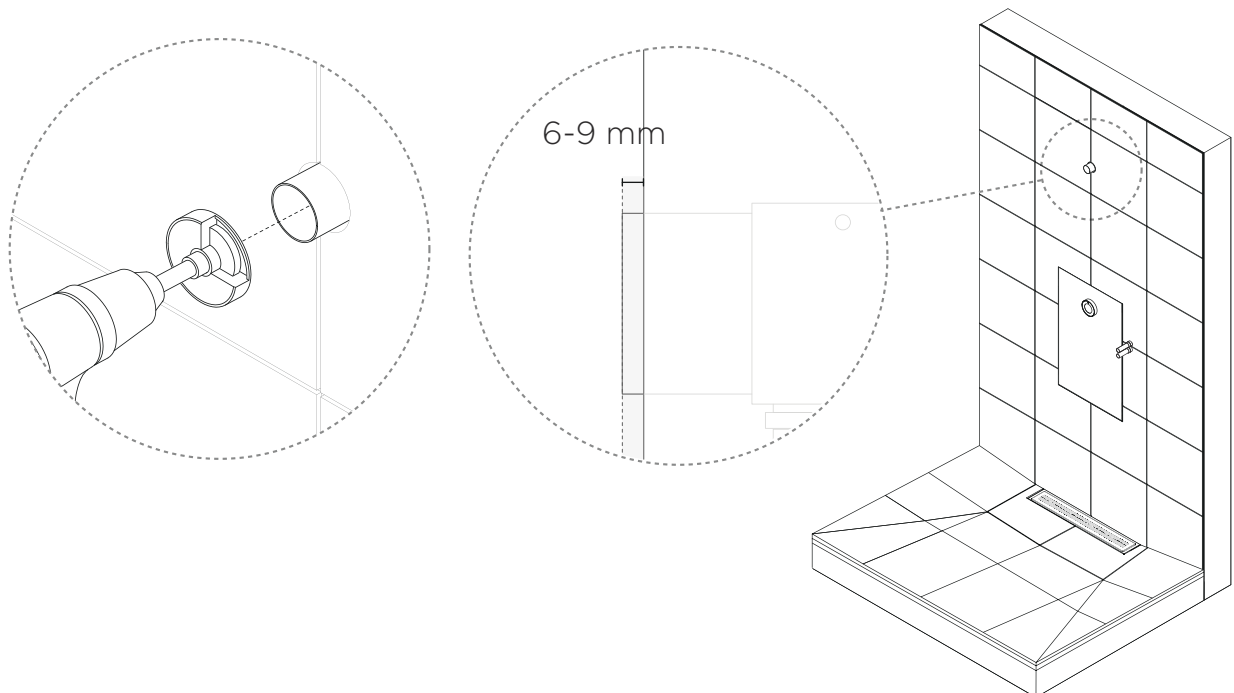
# Installing the black or white shower head

For the metallic shower head, see .

**Component Overview**



1. Threaded adapter
2. Shower head arm with gasket
3. Shower head

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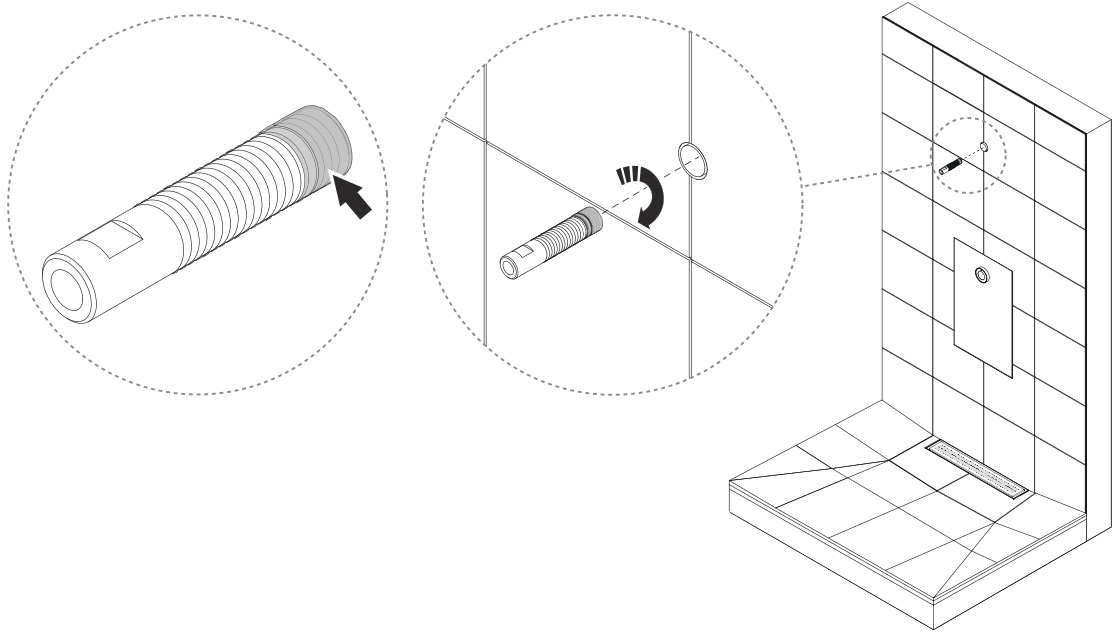**1.** Cut the Wallbox UNI Push so that it protrudes 6-9 mm. We recommend using the LK Wallbox Cutter UNI.



6-9 mm

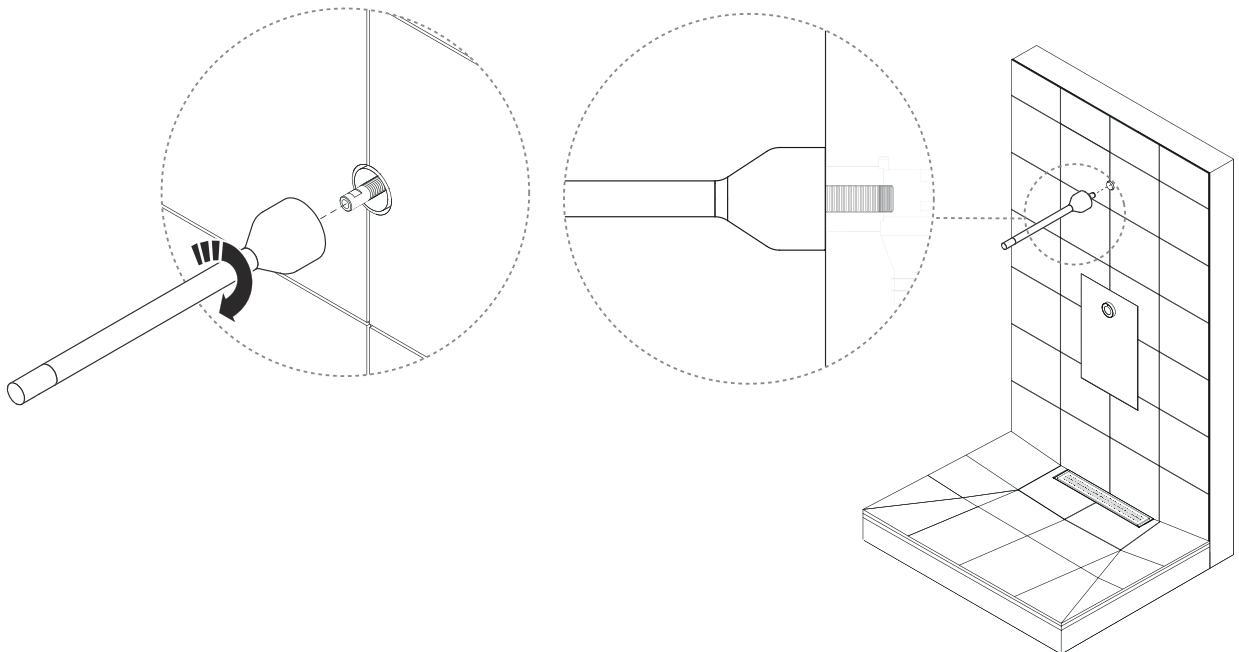**2.** Fit the threaded adapter into the UNI Push wallbox.

> ⓘ **NOTICE**
> Cover the end of the threaded adapter with thread sealant to avoid leakage.
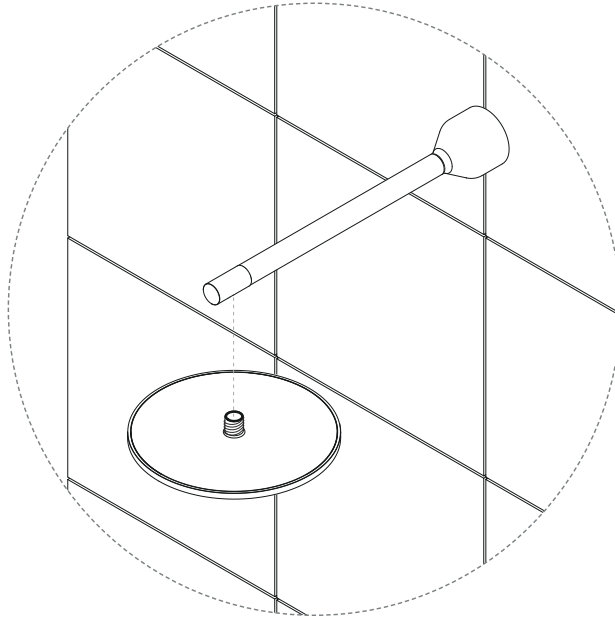
**3.** Install the shower arm.
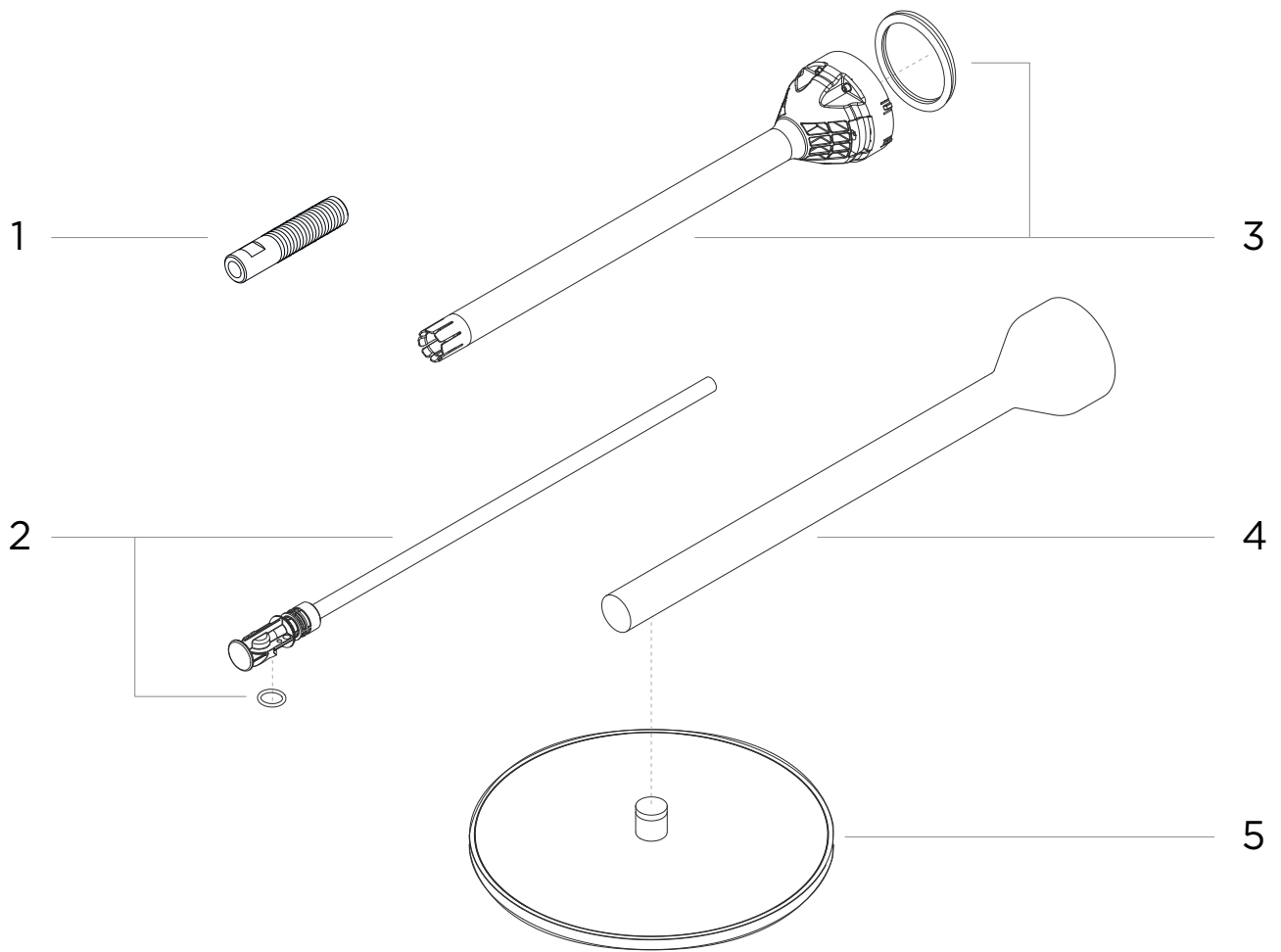
**4.** Fit the shower head onto the shower head arm.

> ⓘ **CAUTION**
> Make sure the gasket is in place, not to cross thread, and not to overtighten.
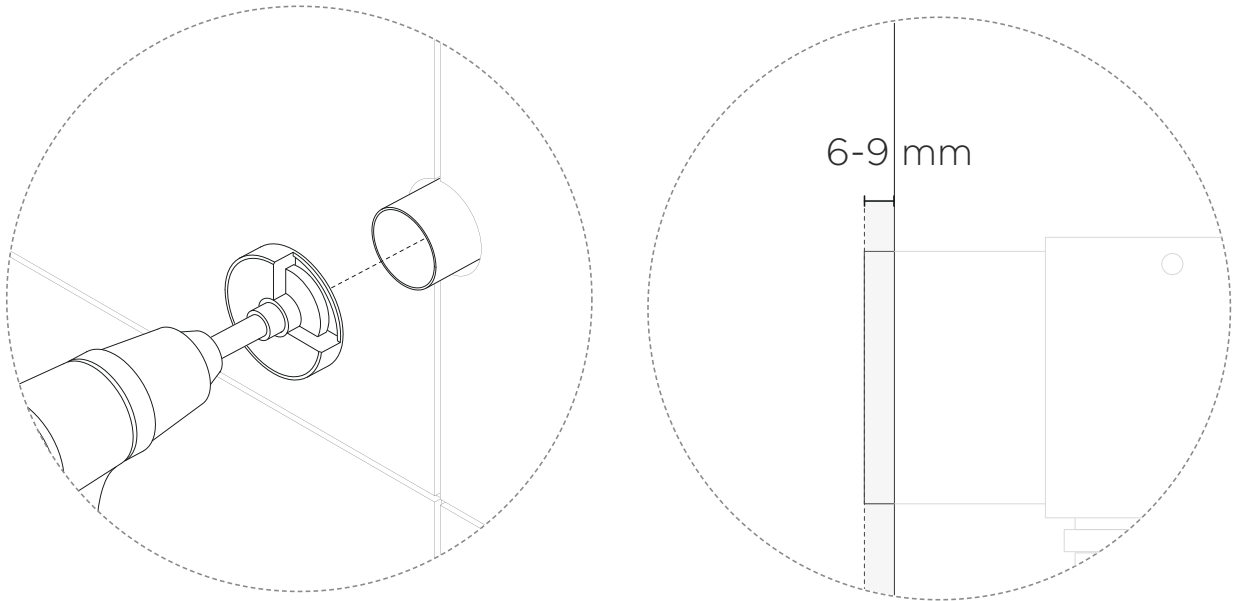
# Installing the metallic shower head

## Component Overview

1

2

3

4

5

1. Threaded adapter
2. Head shower internal PEX pipe with gasket
3. Head shower arm insert with support ring
4. Metal cover
5. Shower head

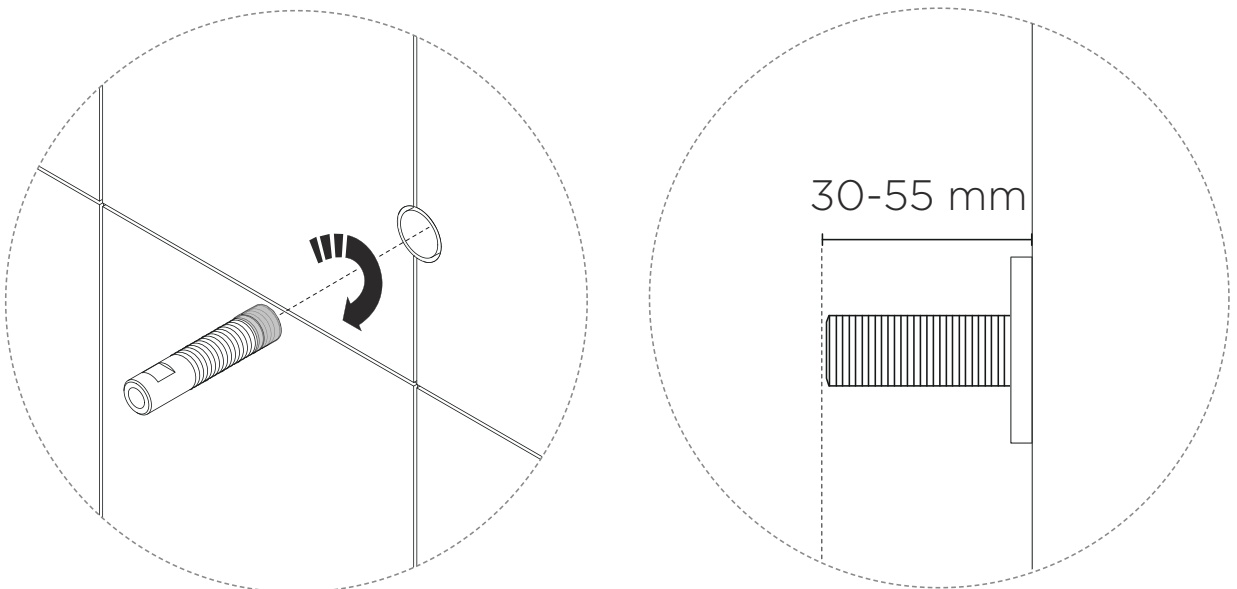1.  Cut the wallbox UNI Push so that it protrudes 6-9 mm. We recommend using the LK Wallbox Cutter UNI.

6-9 mm

2.  Fit the threaded adapter into the UNI Push wallbox, so that it protrudes 30-55 mm from the wall surface. Cut it if needed.

    ⓘ **NOTE**
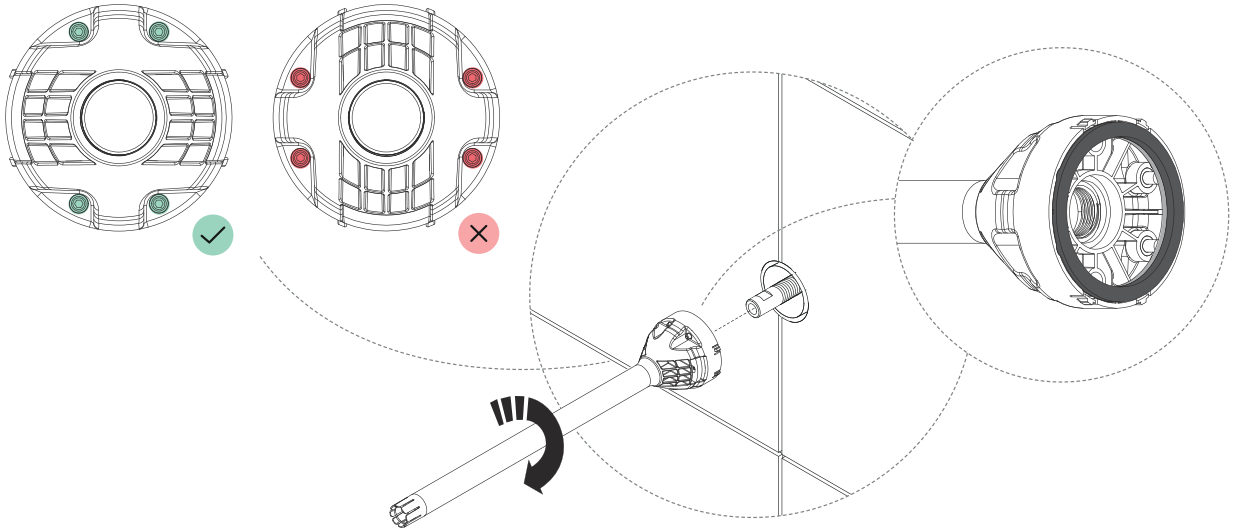    Cover the end of the threaded adapter with thread sealant to avoid leakage.

30-55 mm

**3.** Fit the head shower arm insert onto the adapter. Then loosen about half a turn to adjust the angle.

> ⓘ **CAUTION**
> Make sure that the support ring is in place, and that the rubber side is facing the wall.
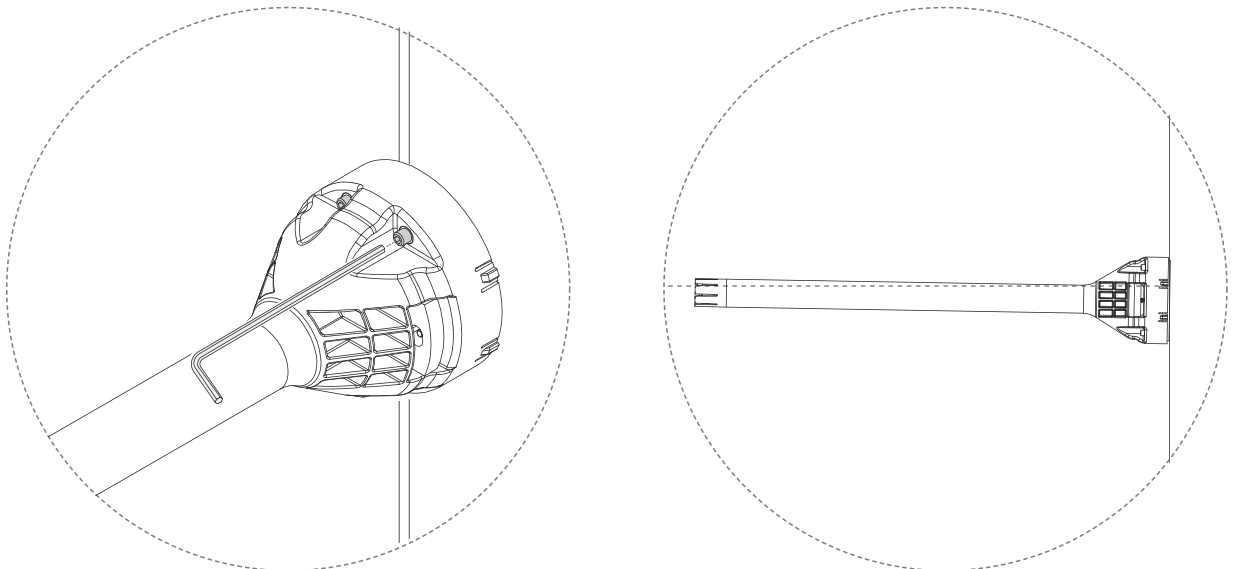


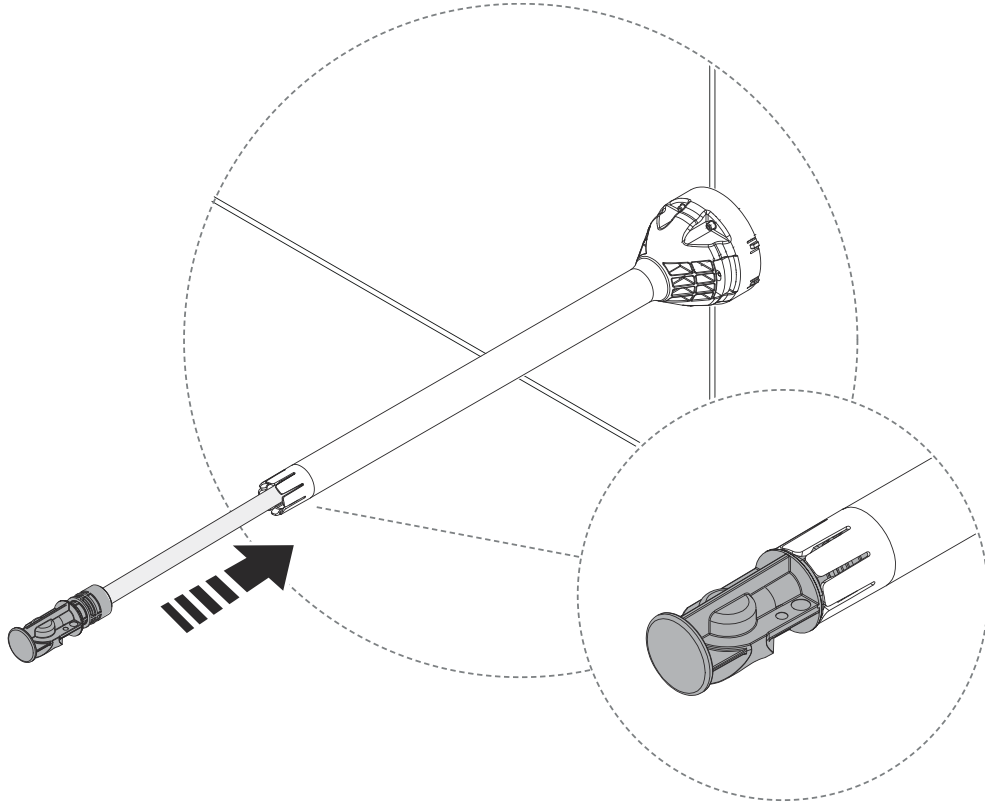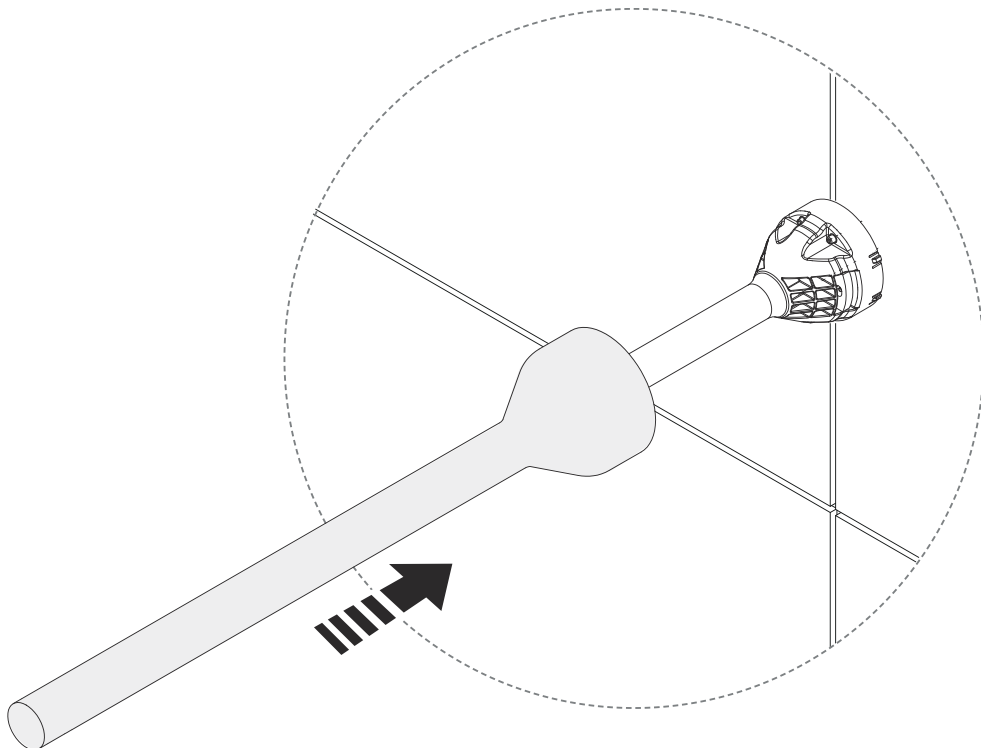**4.** Adjust the angle using the set screws.

> ⓘ **NOTE**
> The head shower will add some weight. Adjust the angle of the arm slightly upwards to compensate for the added weight.

**5.** Push the PEX pipe into the shower arm insert. Be careful not to break the pins.
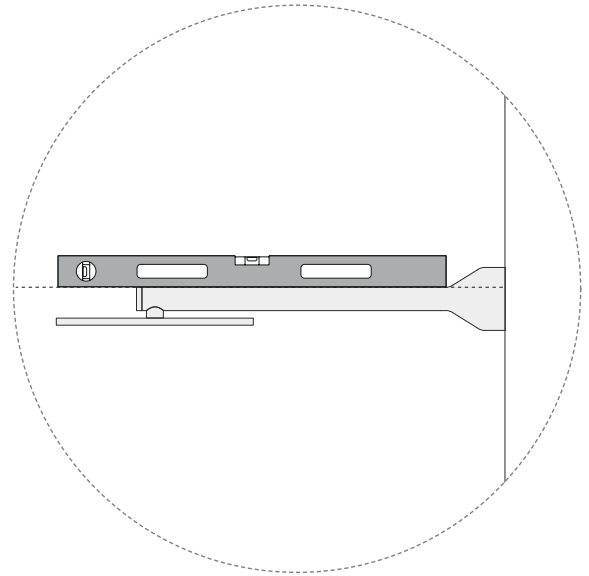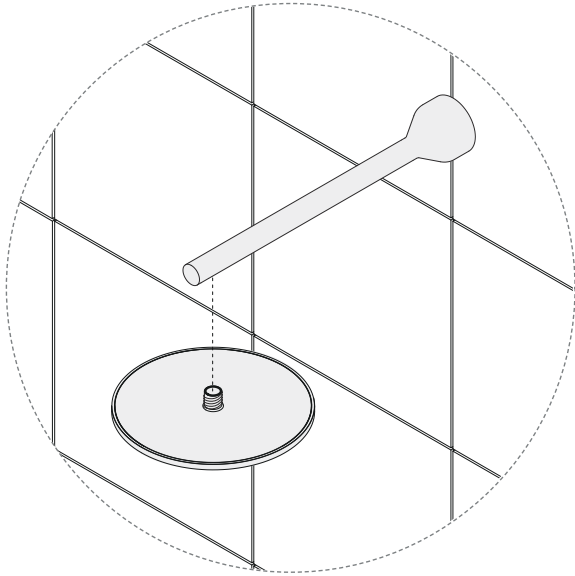
**6.** Fit the metal cover over the shower arm insert.

**7.** Fit the shower head onto the shower head arm. Check the angle with a spirit level.
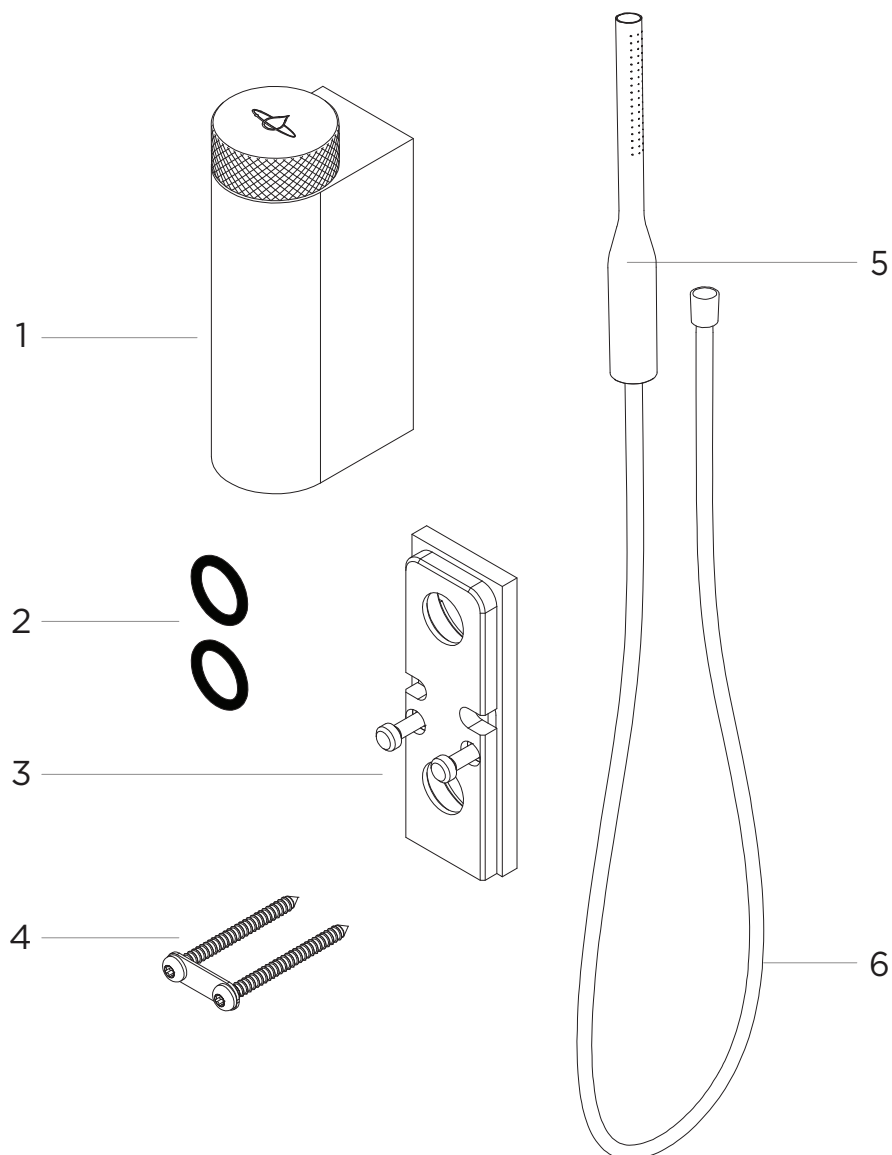
&#9432; **CAUTION**
Make sure the gasket is in place, not to cross thread, and not to overtighten.
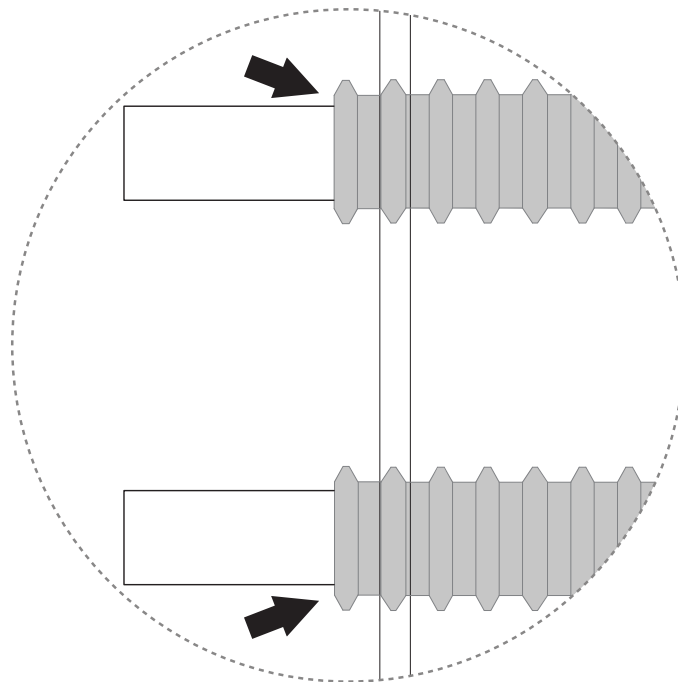
# Installing the hand shower

## Installing the diverter and hand shower

**Component Overview**

1. Diverter body, x1
2. O-ring, x2
3. Diverter wall plate, x1
4. TX25 screw, x2 and twin washer, x1
5. Hand shower, x1
6. Shower hose, x1

1. Cut the conduits to a minimum of 6 mm and a max of 9 mm outside of the tile surface.
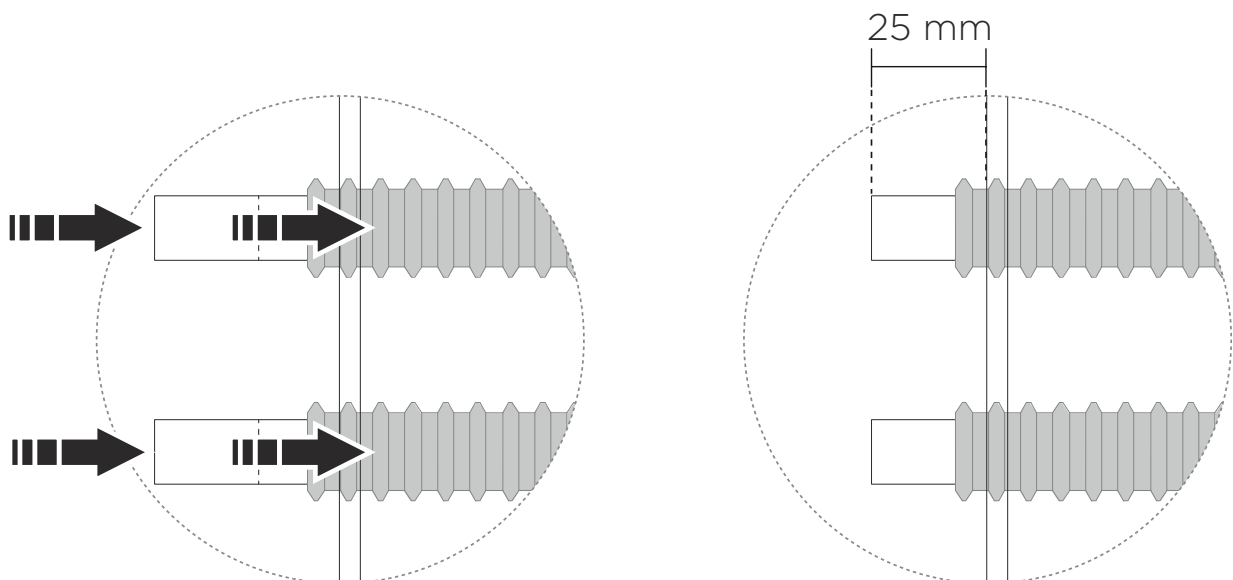
2. Push the PEX pipes in until it stops, and cut them 25 mm outside the tile surface. Deburr and calibrate the pipes.
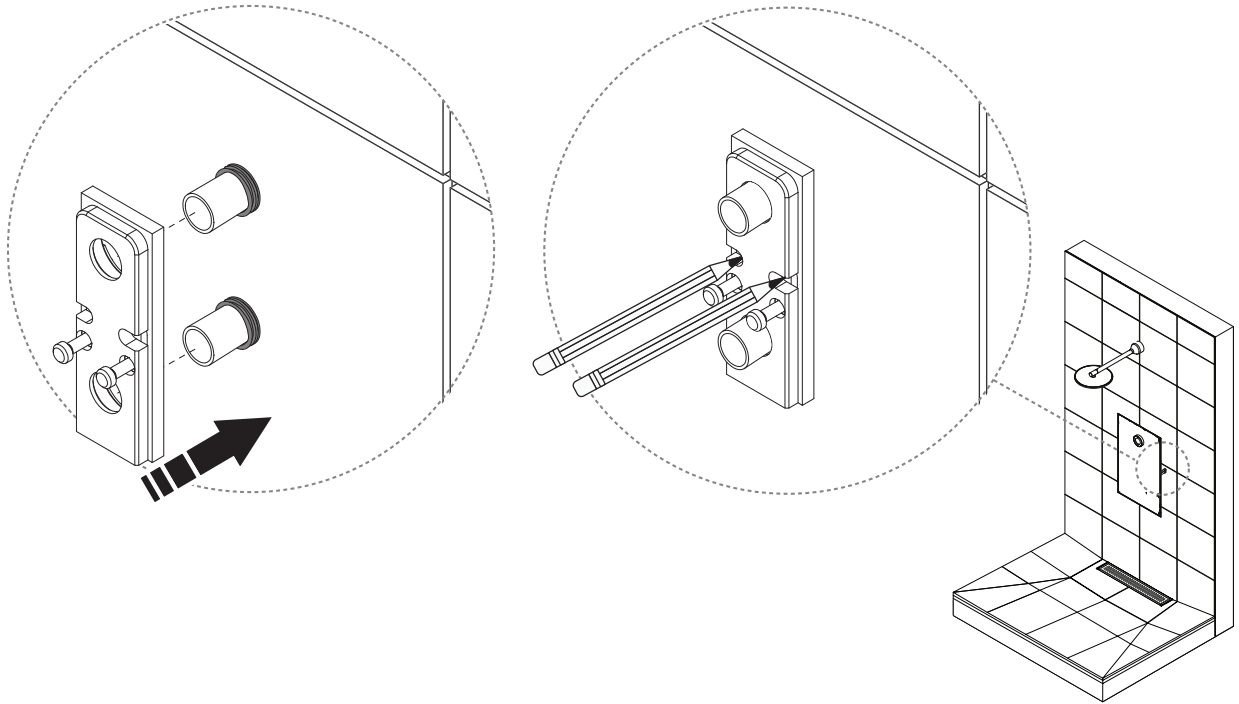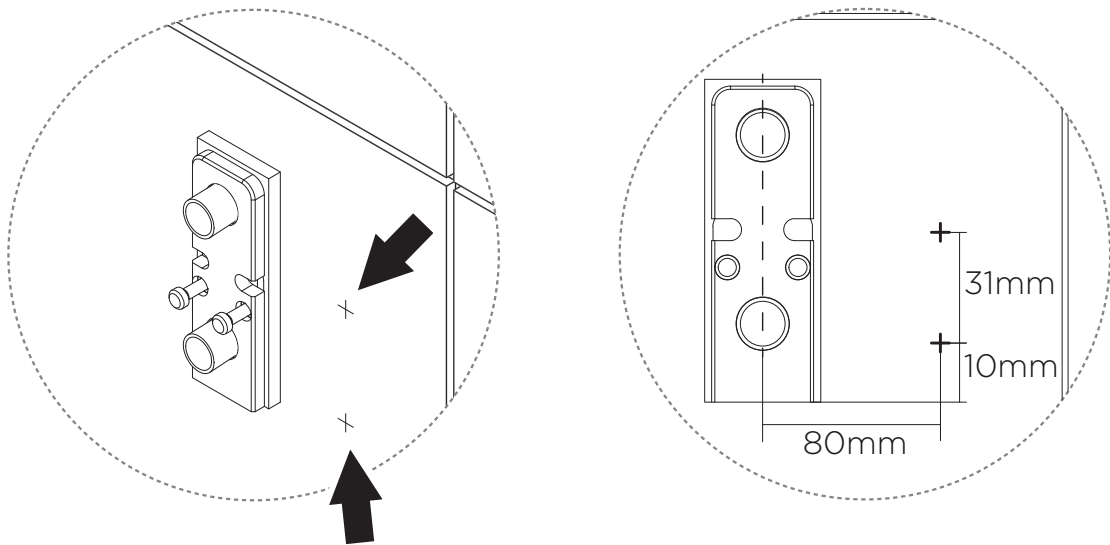
   ⓘ **CAUTION**
   It's important that the PEX hoses are pushed in all the way to 'stop' before cutting.

25 mm

**3.** Measure and mark the hole positions for the diverter.



**4.** Mark hole positions for the hand shower holder.
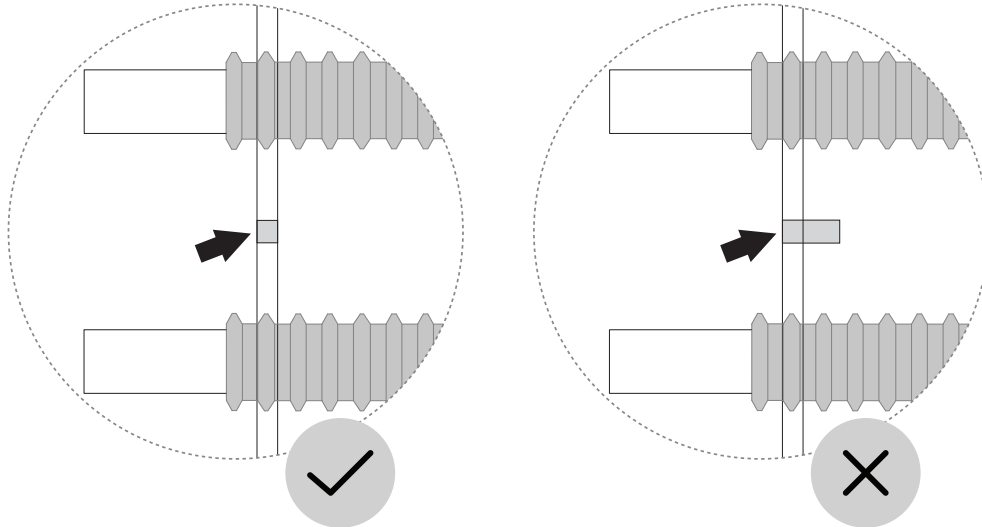


31mm

10mm

80mm

**5.** Drill four holes (6 mm) in marked locations.

> ⚠ **CAUTION**
> - Only drill through the tile itself.
> - Seal drill holes in accordance with applicable industry standards. See section Seal mountings in wet zone [8] for instructions.
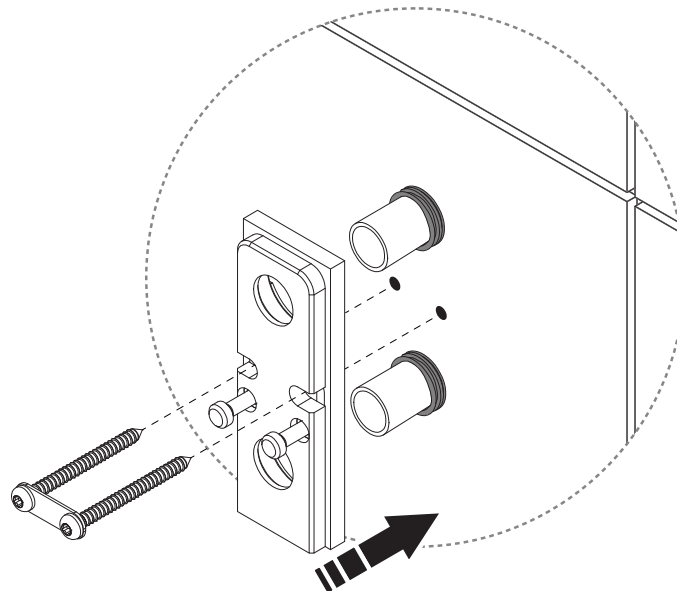


**6.** Mount the diverter wall plate.

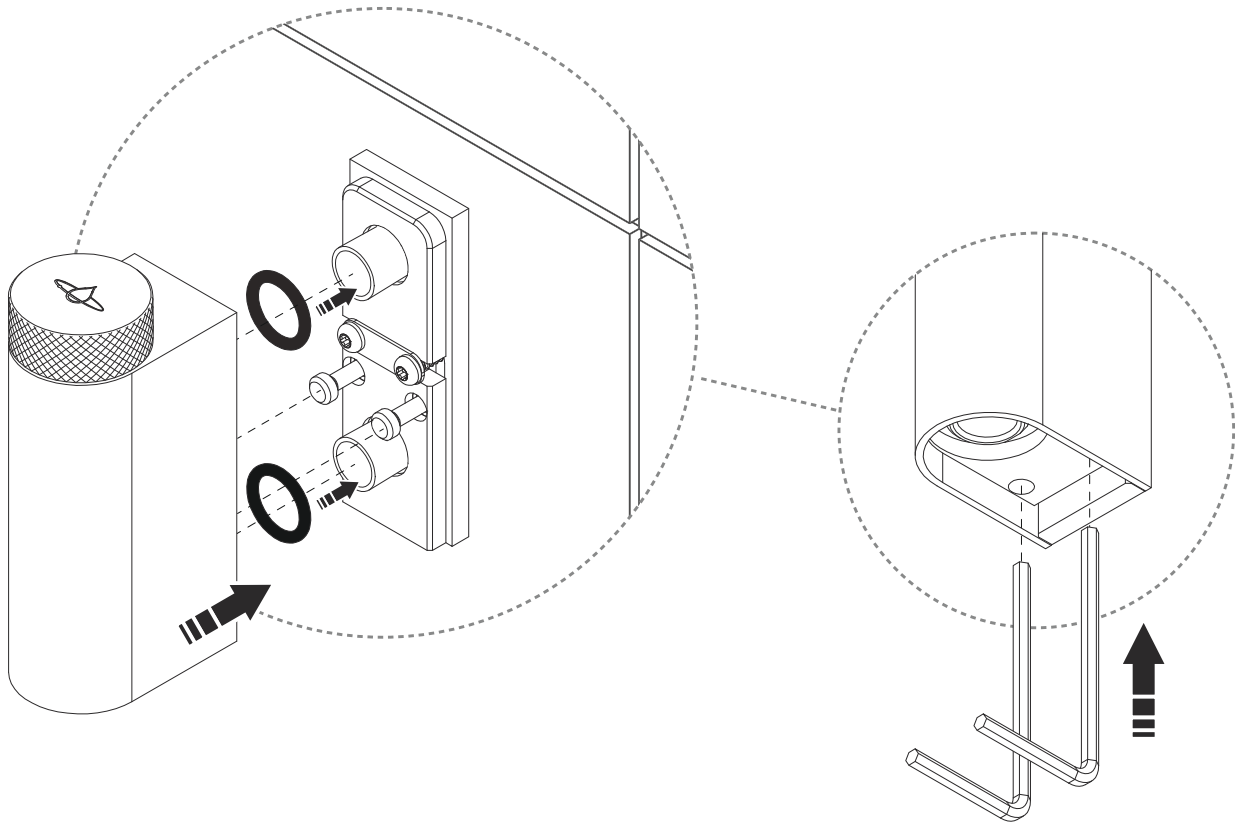> ⚠ **CAUTION**
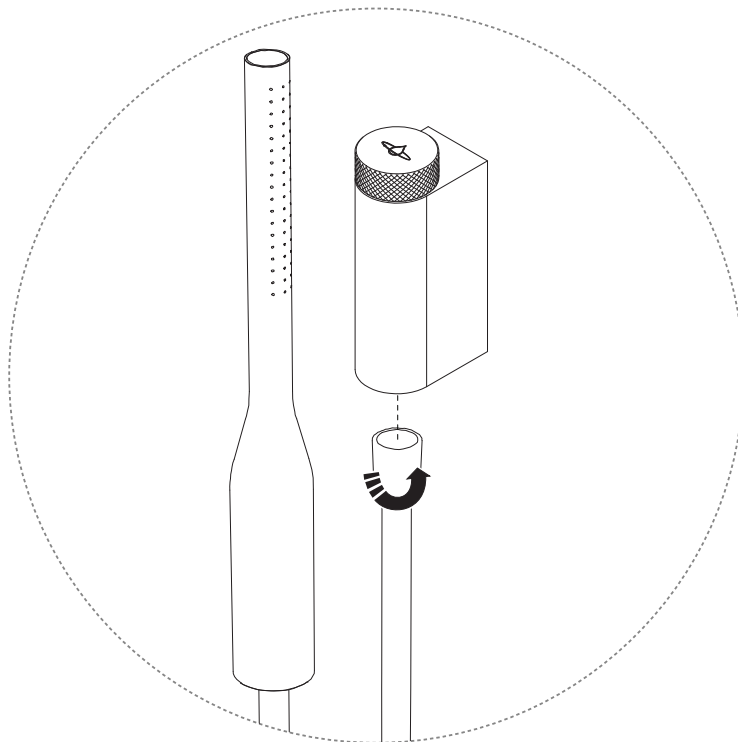> Use 2x included screw, choose screw according to wall thickness.



| | |
|---|---|
| **x2** | TX25 stainless steel screw |
| **x1** | Twin washer |

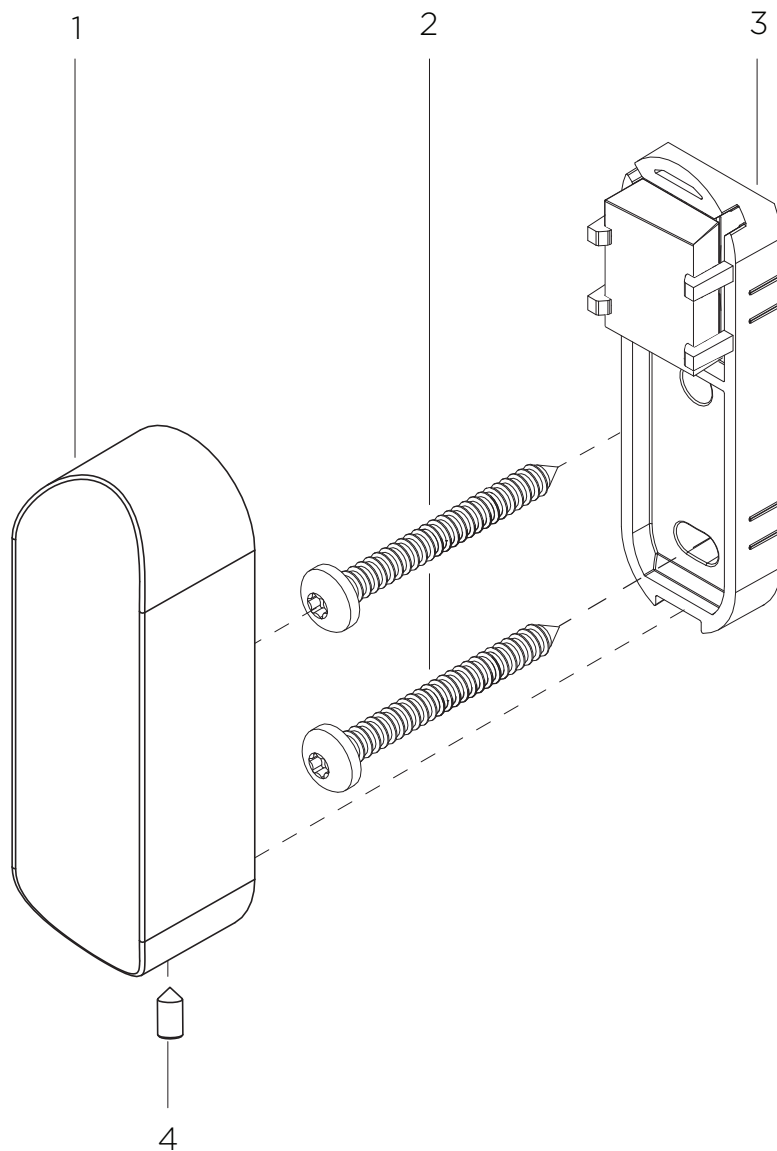**7.** Secure the diverter body to the diverter wall plate using an Allen key (3mm).

**8.** Install the hand shower to the diverter.

# Installing the black or white hand shower holder
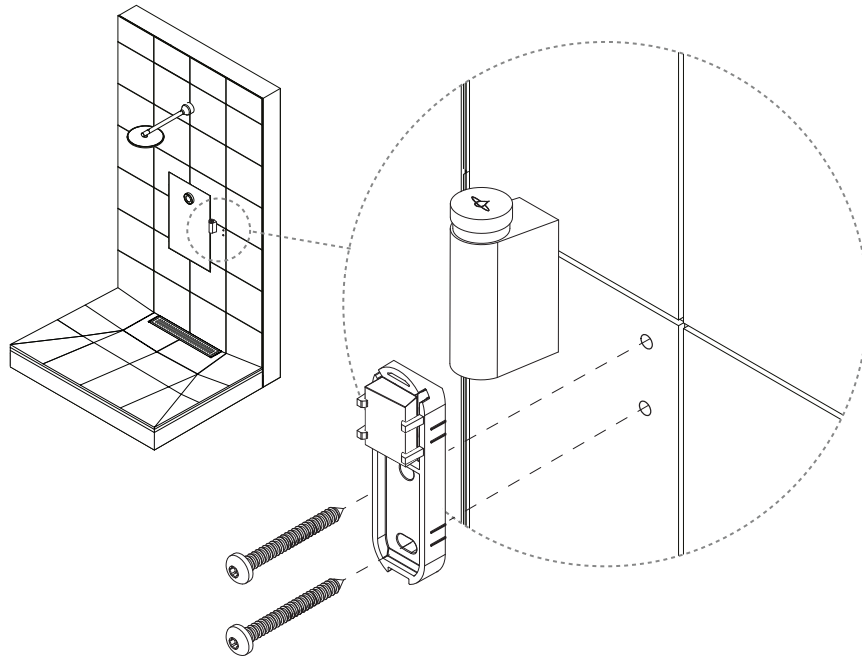
For the metallic hand shower, see Installing the metallic hand shower holder [53].
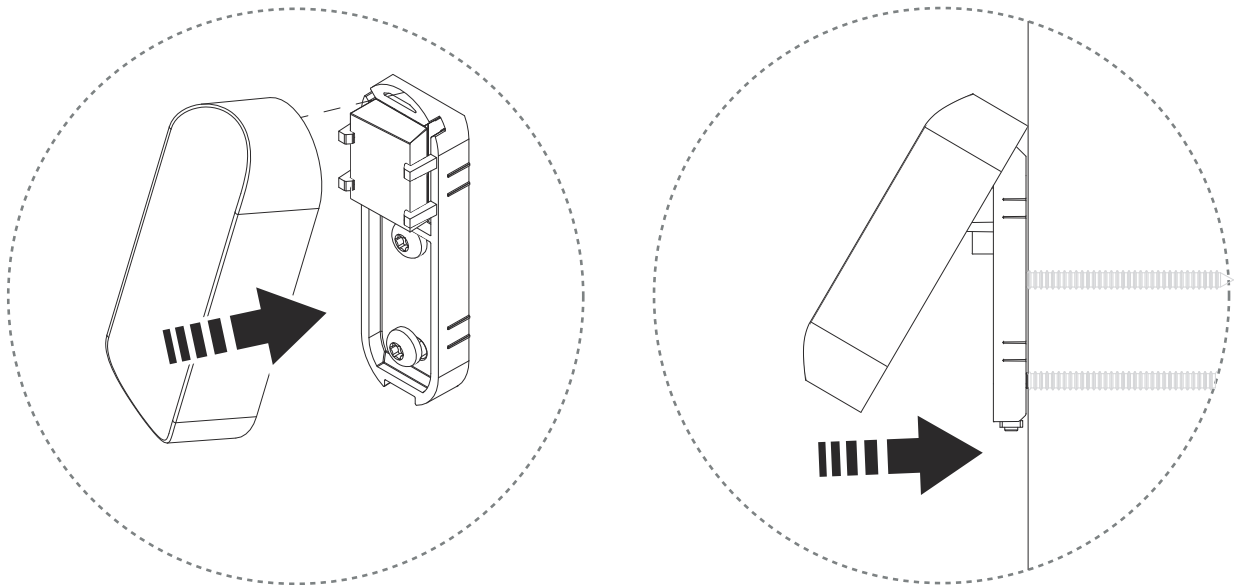
## Component Overview



1. Hand shower cover
2. T25 stainless steel screw 50 mm (5.5 mm), x2
3. Hand shower bracket
4. M4 x 8 set screw

**1.** Install the hand shower bracket.



**x2**   T25 stainless steel screw 50 mm (5.5mm)

**2.** Push the hand shower cover into position and use the set screw to lock it.
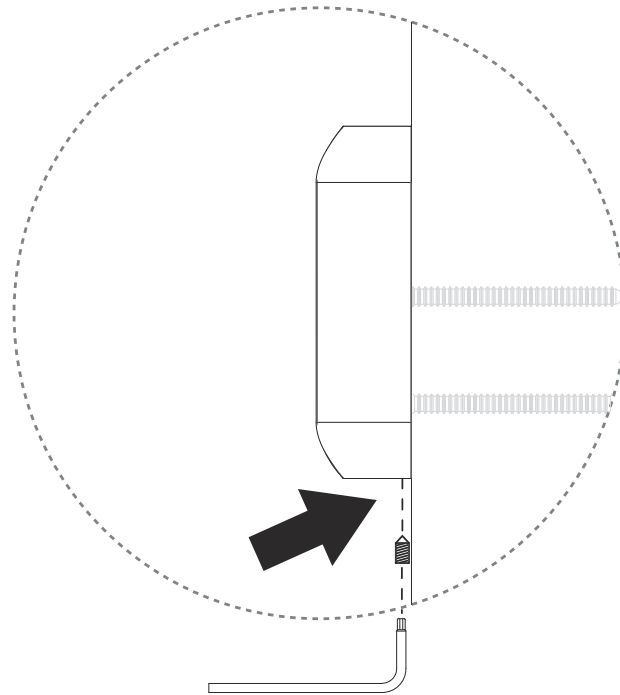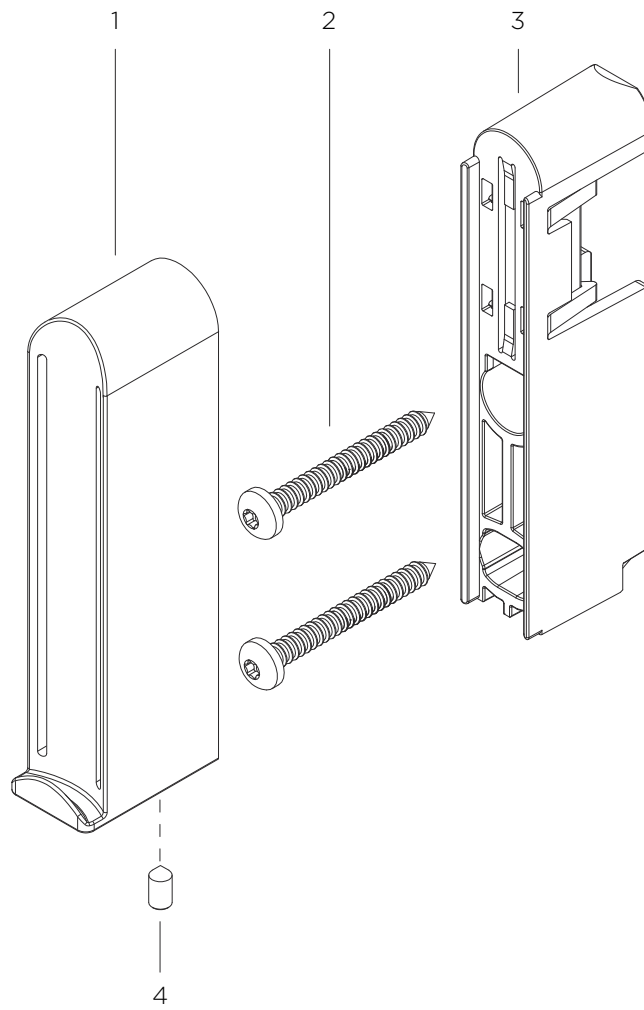
3. Use the set screw to lock it.

> ⓘ **NOTICE**
> Use Torx T8 L key tool in kit

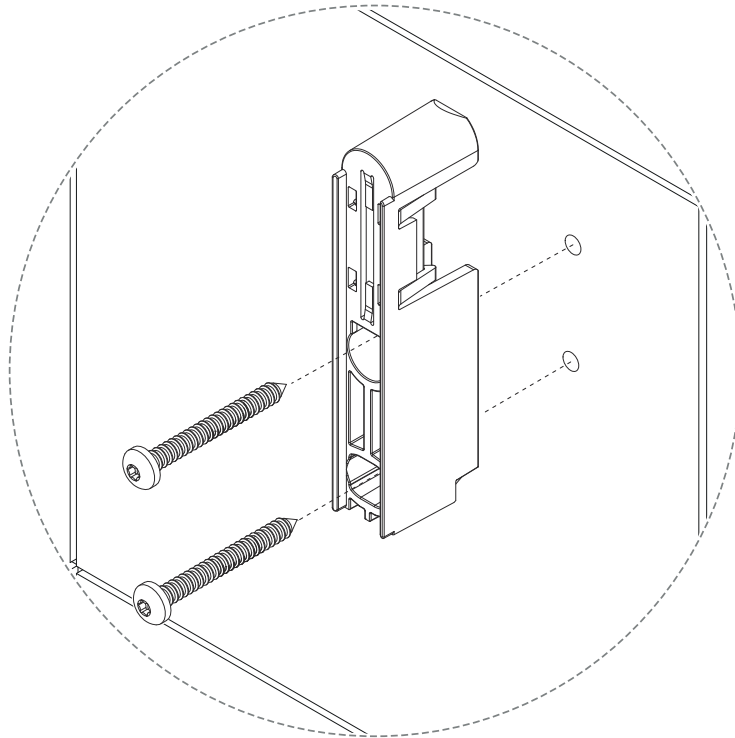# Installing the metallic hand shower holder

## Component Overview

1. Hand shower cover
2. T25 stainless steel screw 50 mm (5.5 mm), x2
3. Hand shower bracket
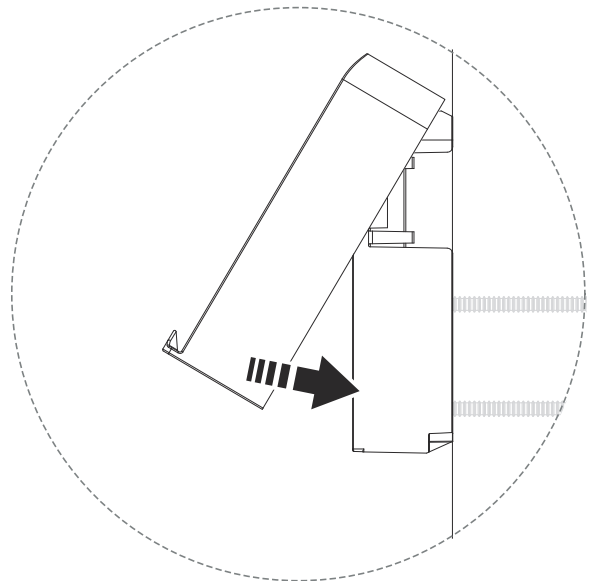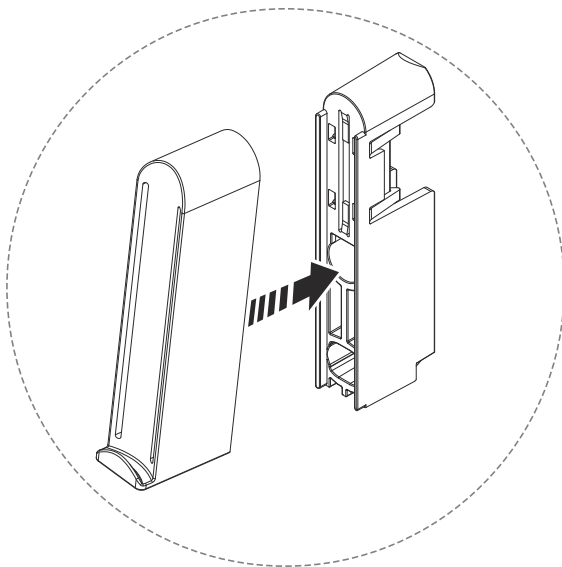4. M4 x 8 set screw

1. Install the hand shower bracket.

   ⓘ **CAUTION**

   Be careful when tightening the screws to avoid deforming the bracket.

   **x2**   T25 stainless steel screw 50 mm (5.5mm)
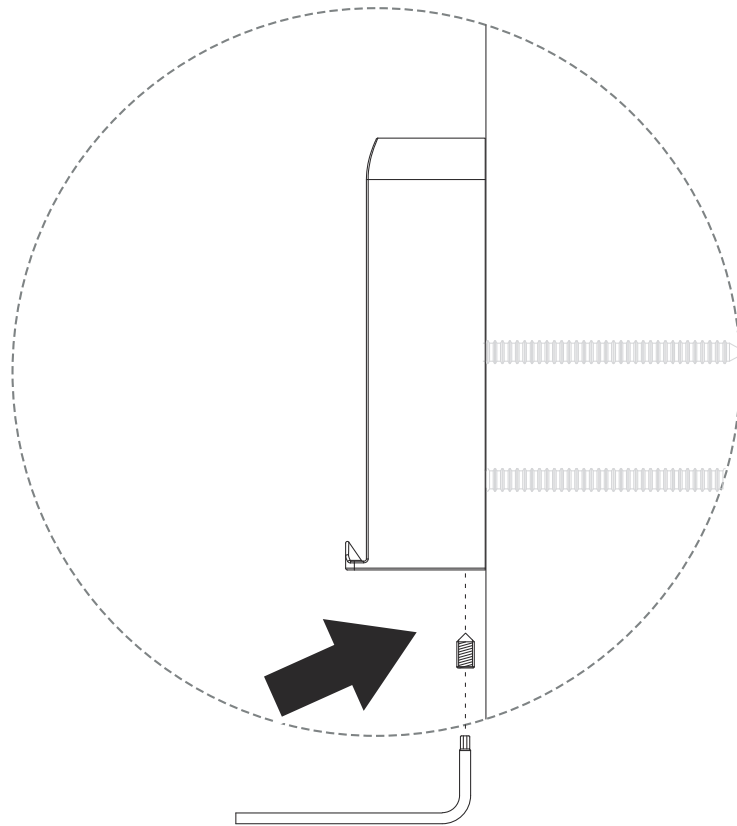
2. Push the hand shower cover into position.

3. Use the set screw to lock it.

> ⓘ **NOTICE**
> Use Torx T8 L key tool in kit

# Verify the shower

The final step is to start the shower to verify that it works as intended.

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1.  Turn on the power and water supply. It takes about 1 minute for the Core to start up.

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2.  Start the shower and set the temperature to 25 °C.



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3.  Let the shower run, and check that the recirculation starts within 5 minutes. This should be displayed on the Control Dial screen.



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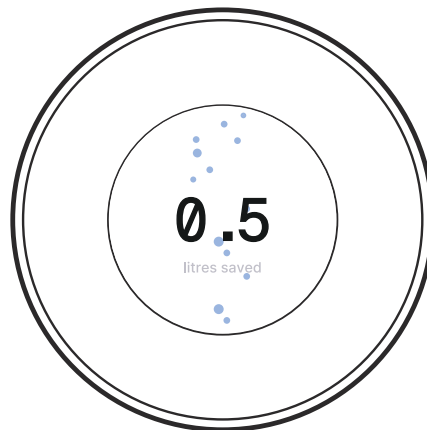
4.  Inspect all water connection points for leakage. Carefully check each connection point to ensure there are no leaks.

# ORBITAL