

Valve Actuator mounting and enabling

v 1.9

Contents:

- Requirements
- How to instal a smart radiator valve actuator
- How to fix a stuck pin on a valve
- Different possible beep sequences indicating error
- How to fix a corroded TRV
- How to replace a valve actuator

Requirements:

Magnetic set-up/configuration tool (pen magnet) for smart radiator valve actuators:



Smart radiator valve actuators:





How to install an EcoSync Smart Radiator Valve Actuator:

1. Link the EcoSync device to the room on the cloud system (see [How to add new valves to floorplans](#) document). No room linking ⇒ No heating control.
2. After linking device unscrew the old TRV from the radiator (use spanner if necessary)
3. If you need to, install the adaptor. With Danfoss adaptors it is possible for the screws to not be sufficiently tightened, which can allow the EcoSync device to pull off the adaptor and automatically switch off. We recommend using Loctite on the adaptor screws.
4. **PUSH IN THE PIN of the valve and make sure it is not stuck!**
5. **CHECK FOR CORRODATION (See “[How to fix corroded TRV](#)” section)**
6. Mount EcoSync device onto radiator using a spanner
7. Use the pen magnet tool to switch the valve actuator to operating mode by taping the "micropelt" text for a **very short period** of time. It will **BEEP ONCE** (and flash light) WITH PEN OFF. It will not beep if you keep the magnet there for any period of time.
8. Few seconds after the first initial short beep of touching of the pen magnet the device will **BEEP TWICE** and flash twice (indicating network connection)
9. The device will do a reference run, motor is audible
10. The device will **BEEP THREE TIMES** and flash three times indicating a successful installation. **One long beep means the device has switched off due to an error. (See “Different possible beep sequences indicating error.”)**

IMPORTANT: DO NOT ACTIVATE THE DEVICE IN HAND! ONLY ON THE RADIATOR! It will simply switch off if activated in hand.

(See “[Different possible beep sequences indicating error:](#)”)



How to fix a stuck pin on a valve:

1. Take off the Valve Actuator from the radiator using a spanner.
- 2. PUSH IN THE PIN of the valve and make sure it is not stuck!**
3. Switch off the Valve Actuator by touching **for 5 seconds** the "micropelt" logo with the pen magnet. The device will beep long. (If it does not beep, it is already off.)

Note: In some cases, when a remote fix was initiated and the Valve Actuator could not push the pin, the Valve Actuator will already be in OFF / mounting mode.
4. Mount valve actuator back onto radiator using a spanner
5. Use the pen magnet tool to switch the valve actuator to operating mode by **taping** (not hold, not push or press just lightly tap) the "micropelt" text for a very **short period of time**. It will beep (and flashlight) WITH PEN OFF.
6. Few seconds after the first initial short beep of touching of the pen magnet the device will beep and flash twice (indicating network connection)
7. The device will do a reference run, motor is audible
8. The device will beep and flash three times indication a successful installation

Correct beep pattern:

1 short, 2 short, 3 short beep and flashes

Different possible beep sequences indicating error:

When the Valve Actuator is mounted, you will tap (not hold, not push or press just lightly tap)

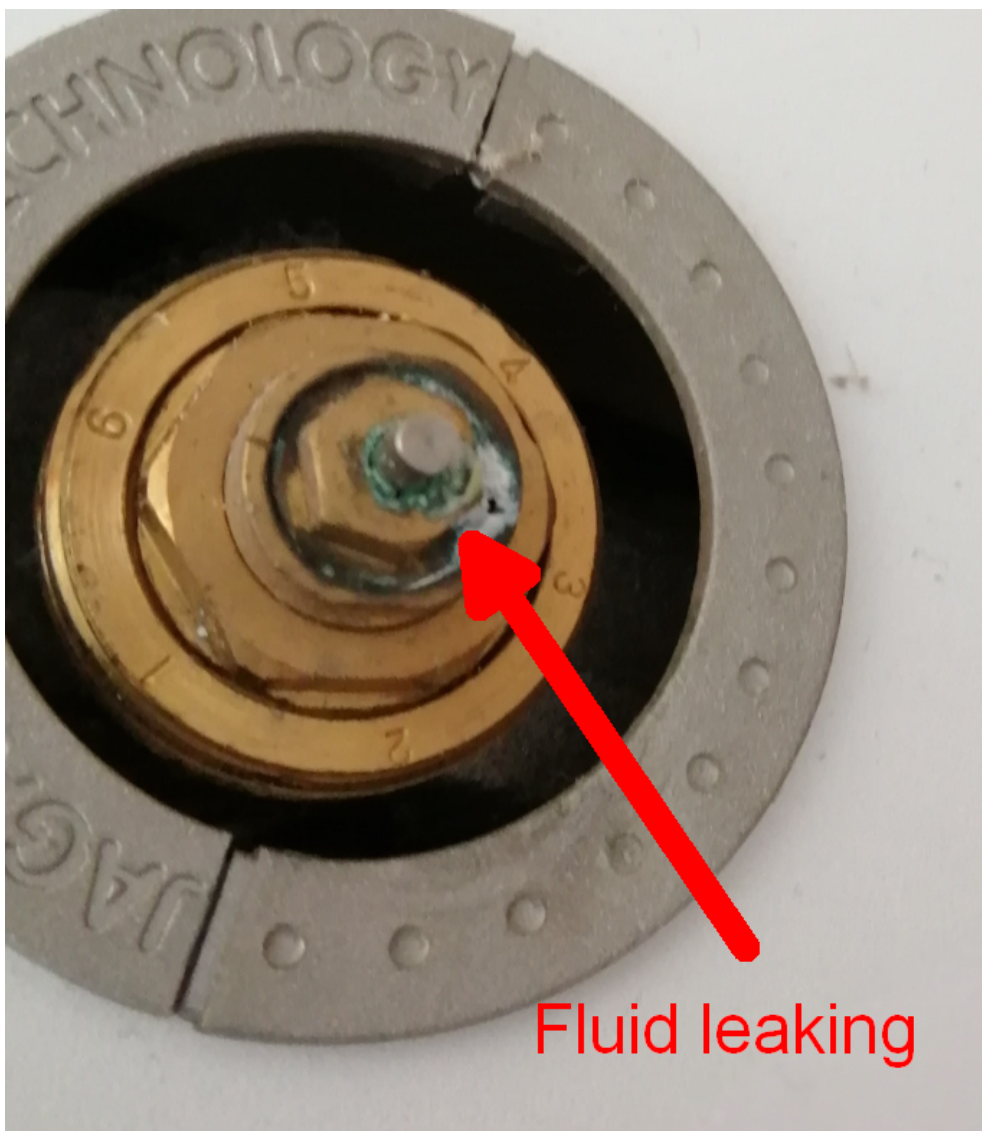
1. No beeps at all:
 - 1.1. Problem: trying a short tap and the device does not answer?
Answer: Device is already ON, try a long push (5s) to switch off
 - 1.2. Problem: trying a long tap and the device does not answer?
Answer: Device is off, try a short tap
 - 1.3. Problem: No answer to any type of taps. Please get in touch with us.
2. 1 short, 1 long, 3 short - Device is operational and is mounted on a radiator but does not connect to the gateway.
Steps to take:
 - 2.1. Please make sure the gateway is powered on and is in reach.
 - 2.2. Switch off the Valve Actuator by keeping the pen magnet to the by touching the "micropelt" text for a 5 seconds. The device will beep long.
 - 2.3. Use the pen magnet tool to switch the valve actuator to operating mode by tapping the "micropelt" text for a very short period of time. It will beep (and flashlight) WITH PEN OFF.
3. 1 short, 2 short, 1 long - Device is not mounted on a radiator and therefore switched off. Will only answer to another short tap next time.

How to fix a corroded TRV

If you happen to see corrosion, traces of fluid on the outside of the TRV

DO NOT INSTALL the EcoSync smart radiator valve actuator.

Leaking water will damage the smart radiator valve actuator's electrical components. The TRV needs to be replaced. (This indicates that you will have to depressurize at least that radiator you have the faulty TRV on.)





How to fix “Mechanical error”

Every Valve Actuator device does a “reference run” to inspect whether it is properly sitting on the valve. If a device is loose it will send a message to our systems and switch off. When a device can not successfully finish a reference run that means that it can not control the flow of hot water and therefore it goes back to low energy use mode.

To fix this, please make sure that the device is fitted properly on the valve. Please follow the steps in this document from [step 2](#)

How to restart a smart radiator valve actuator:

IMPORTANT! Restarting a valve actuator is very rarely needed, only when our colleagues ask for a device to be restarted. If you experience a problem with a valve actuator, please first contact EcoSync, the problem is 99% of the time it can be handled remotely.

1. Use the pen magnet tool to restart the Valve Actuator by touching **for 5 seconds** the "micropelt" logo with the pen magnet. The device will flash and **beep once**. Remove the magnet.
2. Few seconds after the first initial short beep the device will flash and **beep twice** (indicating network connection)
3. The device will do a reference run, motor is audible
4. The device will flash and **beep three times** indicating a successful installation. **One long beep means the device has switched off due to an ERROR. (See “Different possible beep sequences indicating error.”)**

How to replace an EcoSync Smart Valve Actuator:

As Murphy’s law states, “Anything that can go wrong will go wrong”. The EcoSync Valve Actuators are no exception. If a device constantly behaves strangely or stops working altogether we will recommend you to replace it with another one. In this case first dismount it from the radiator valve and install its replacement. It is important that you unlink the faulty device from the room as you add the new one to the room. See [How to install an EcoSync Smart Radiator Valve Actuator](#) in the beginning of this document.