

Guide for Raté!l - RatTrap ET20

On-line model

-marked equipment is approved for use in potentially explosive areas (Atex zone 2)

For best usage of this guide: Download Adobe Acrobat Viewer for reading PDF files on your smartphon/tablet

1. General

6. Demounting

2. Preparation

7. New location

3. Mounting

8. Repair/change

4. Test of system

9. APP

5. Service

10. Raté!lcom

[Link to Quick Guide](#)

Back to **[START](#)**

1. Generel

- The RatTrap ET20 is a mechanical rat trap, used for mounting in the sewer system. The solution is available for pipes with sizes from Ø160 mm to Ø500 mm.
- The trap is fitted for the different pipe sizes using an Inlet design in stainless steel – and the inlet also contains a rat block.
- The trap's block prevents the rats from passing into the manhole – instead the rats are guided into the RatTrap's killing unit.
- In the killing unit you find a flap. When the rat touches the flap with its head – a piston is released with great force. The piston will hit the rat in the neck – and the rat will die immediately.
- The piston driven by a CO2 canister under high pressure.
- The entire system is monitored and serviced via a customized webplatform and APP.
- On the next pages will follow a thorough manual, a quick guide and the necessary certification documents.
- [Glossary and Drawings](#) all parts
- [CE-certification](#) 
- [Atex-certification](#)  Read about Atex - and Atex-zones [HERE](#)
- [VA-certification](#)  Godkendelse
VA 2.99/20415

Back to [START](#)

1.1 Glossary and Drawings

1.1.1 The trap [Go](#)

1.1.2 Mounting gear [Go](#)

1.1.3 Electronics [Go](#)

1.1.3.1 Electronics Systems drawing [Go](#)

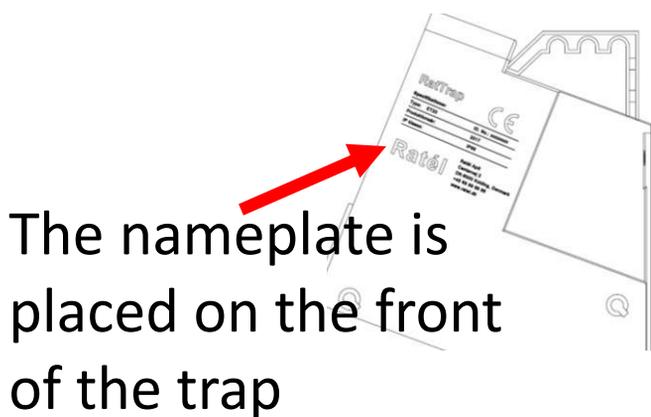
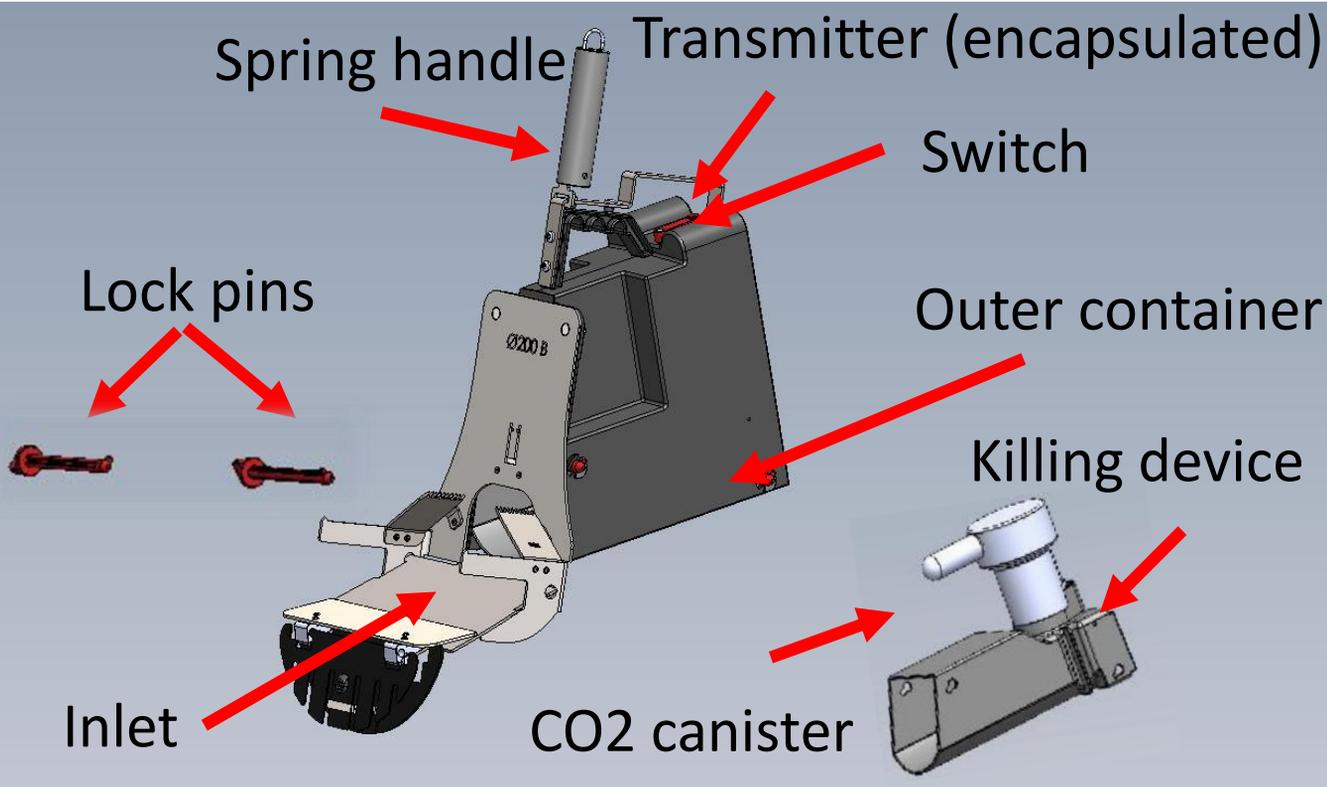
1.1.4 Mounting kit PVC [Go](#)

1.1.5 Mounting kit Concrete [Go](#)

1.1.6 Softwareplatform [Go](#)

1.1.7 APP [Go](#)

1.1.1 The trap



Killing chamber

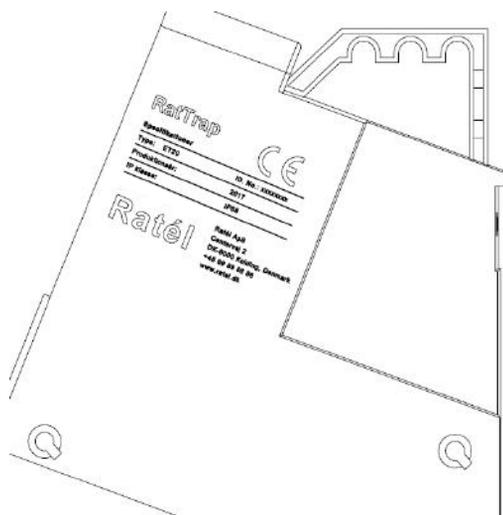
Back to [Generel](#)

[Next](#)

Back to [START](#)

1.1.2 Mounting gear

The Mounting hook is extended with extender rods to match the depth of the manhole

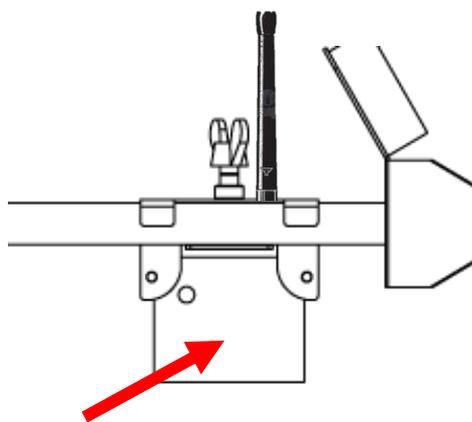


The Mounting hook grasps the traps handle when mounting and demounting

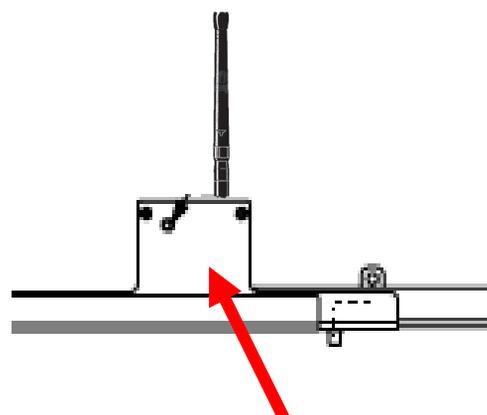
Back to [Generel](#)

1.1.3 Electronics

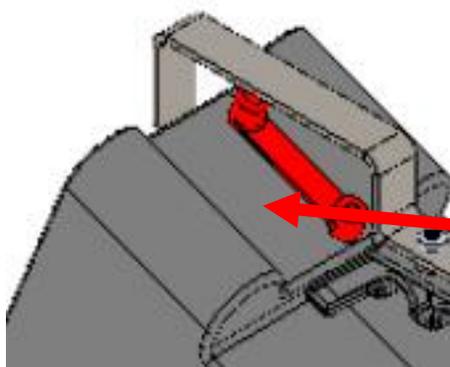
Communication module is to be placed above ground level



Repeater on PVC-kit



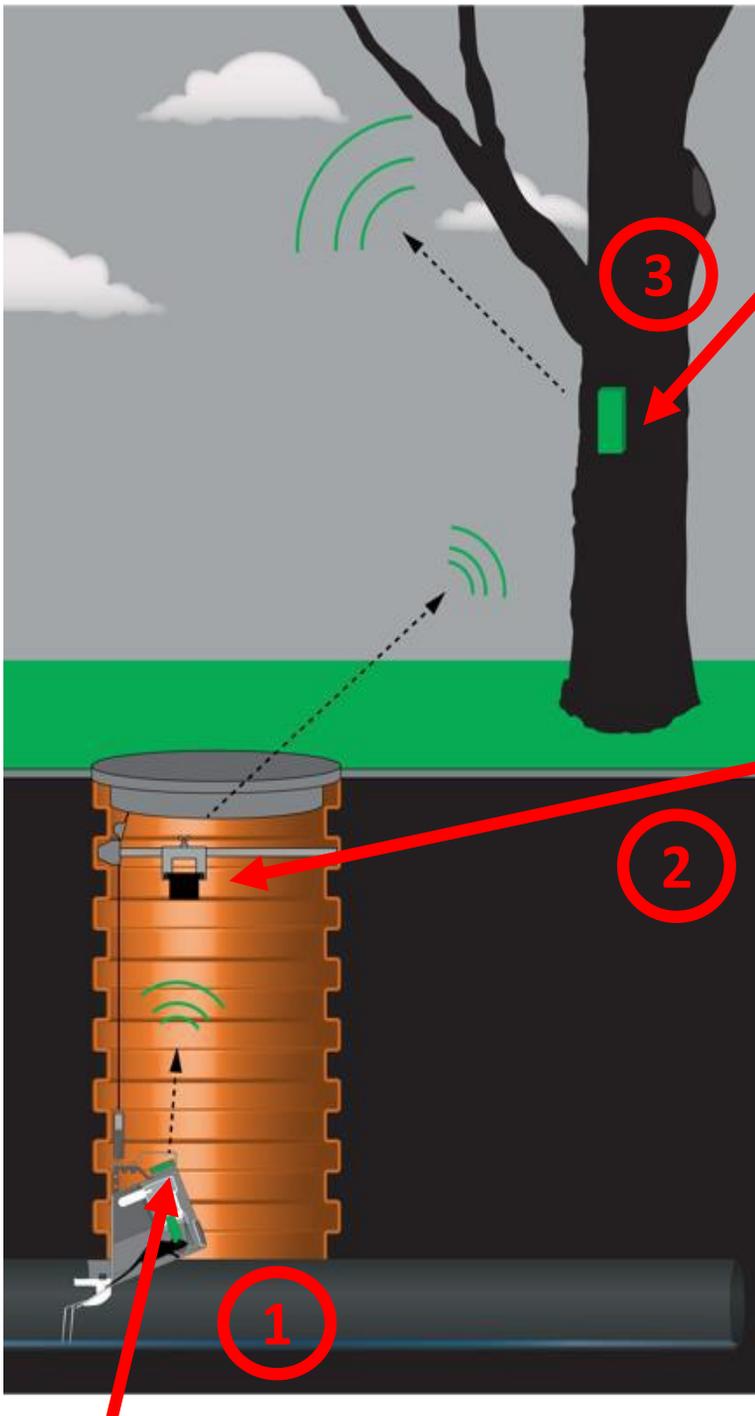
Repeater on Concrete-kit



The Transmitter is encapsulated in the Outer container's top

Back to [Generel](#)

1.1.3.1 Electronics systems drawing



3 The Communication module is sending data to Raté!com via the GSM-network every hour

2 The Repeater collects the data From the transmitter and deliver it to the Communication module once every hour

1 The transmitter is continuously sending data to the Repeater

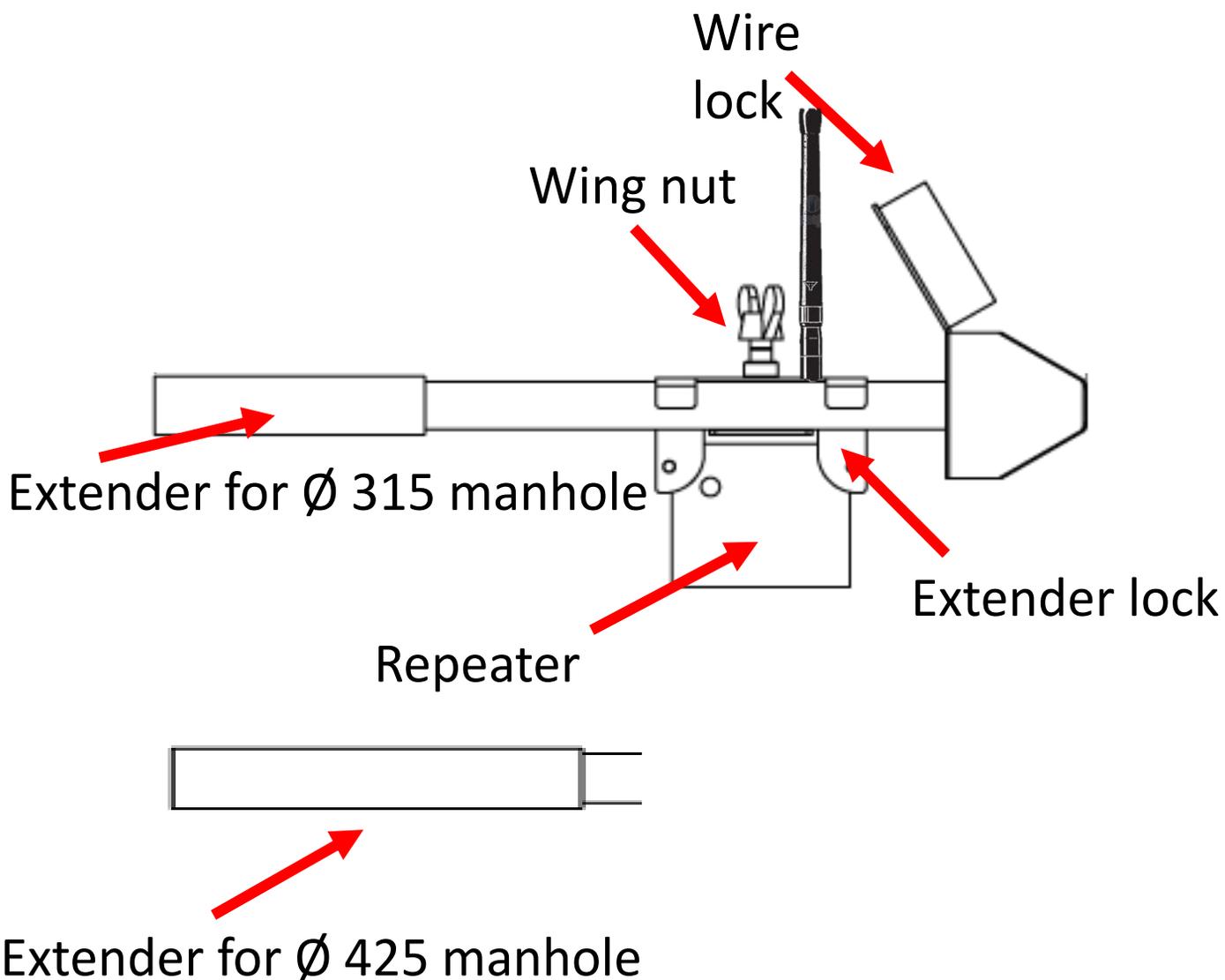
Back to [Generel](#)

[Next](#)

[Back](#)

Back to [START](#)

1.1.4 Mounting kit for PVC manhole



The extender lock is slid towards the extender, so that the mounting kit is securely fastened when the wing nut is tightened.

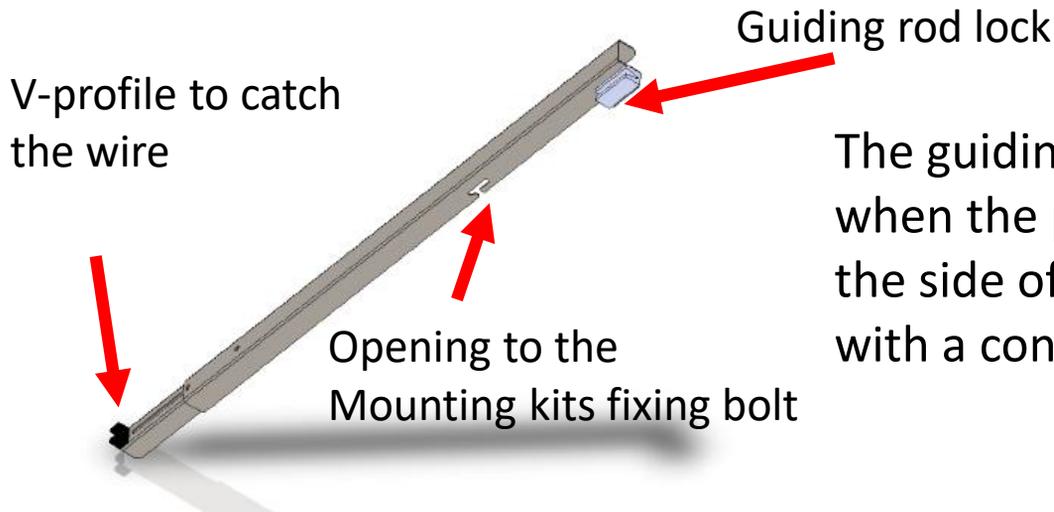
Back to [General](#)

[Next](#)

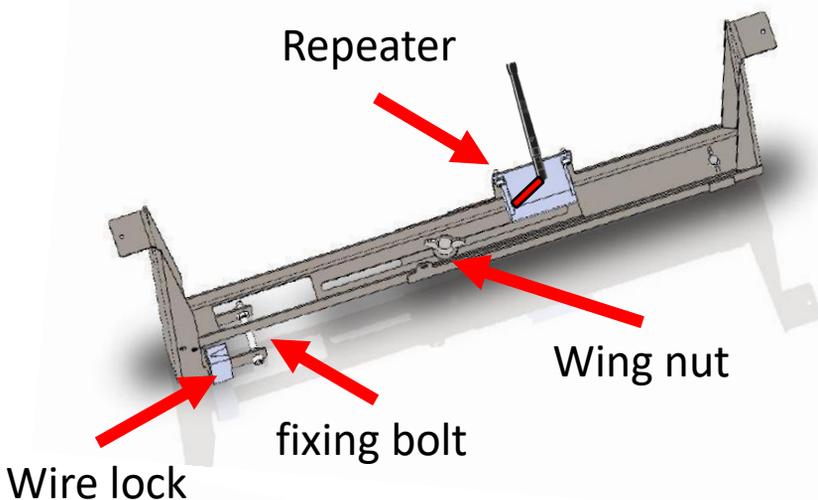
[Back](#)

Back to [START](#)

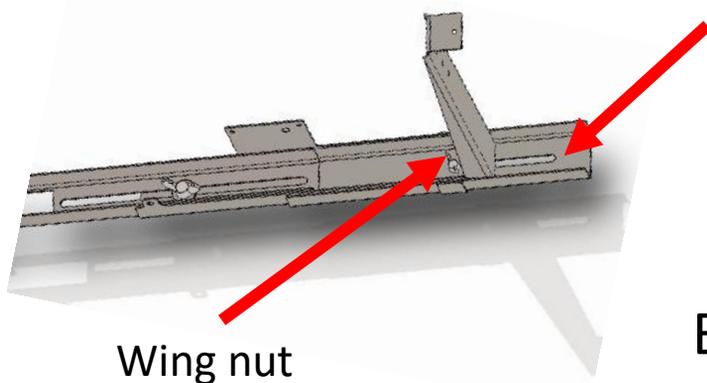
1.1.5 Mounting kit for Concrete manhole



The guiding rod is used when the pipe is placed in the side of the manhole with a conical top piece



The Mounting kit is fitted to the diameter of the manhole, and the wing nut is tightened



The supporting profile is slid towards the manhole side and the wing nut is tightened

Back to [Generel](#)

1.1.6 Softwareplatform

RatéIcom- the softwareplatform is accessed from a normal browser via www.ratelcom.com

See the full guide to RatéIcom [HERE](#)

Back to [Generel](#)

[Next](#)

[Back](#)

Back to [START](#)

1.1.7 APP

- The APP is downloaded from where you normally download APPs for your phone.
 - APP store for Iphones
 - Google Play for Android Phones (Samsung, HTC, Sony etc.)
- See the full guide for the APP [HERE](#)

Back to [General](#)

2. Preparation before mounting

2.1 Mount CO2 canister [Go](#)

2.2 Choose Inlet [Go](#)

2.3 Prepare electronics [Go](#)

2.4 Mount the wire on the trap [Go](#)

2.5 Create the trap in the APP [Go](#)

2.1 Mount CO2 canister

- 2.1.1 Take out the Lock pins [Go](#)
- 2.1.2 Lift of the Outer container [Go](#)
- 2.1.3 Insert the CO2 canister [Go](#)
- 2.1.4 Put back the Outer container [Go](#)
- 2.1.5 Insert the Lock pins [Go](#)

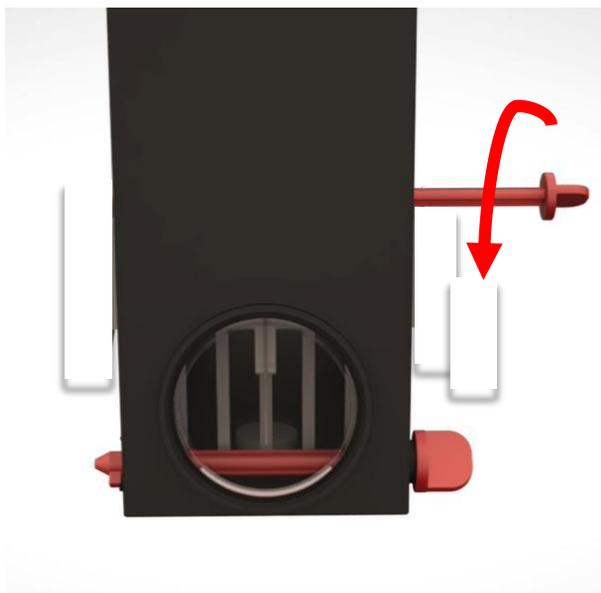
 NOTE that insert and replacement of the CO2 canister in Atex labeled equipment must NOT be performed within the Atex zones (zone classified areas).

Read about Atex zones [HERE](#)

Back to [Preparation](#)

Back to [START](#)

2.1.1 Take out the Lock pins



Turn the Lock pins



Pull out the Lock pins

Back to [Preparation](#)

[Next](#)

Back to [START](#)

2.1.2 Lift of the Outer container



Back to [Preparation](#)

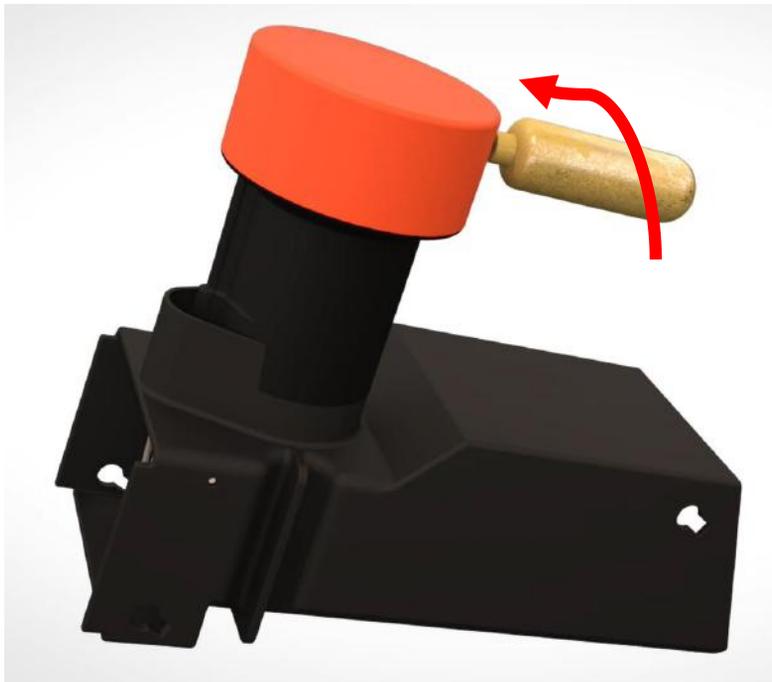
[Next](#)

[Back](#)

Back to [START](#)

2.1.3 Insert the CO2 canister

Screw in the canister clockwise – the canister must be tightened *as quickly as possible* to avoid the CO2 from leaking out



Back to [Preparation](#)

[Next](#)

[Back](#)

Back to [START](#)

2.1.4 Put back the Outer container



Back to [Preparation](#)

[Next](#)

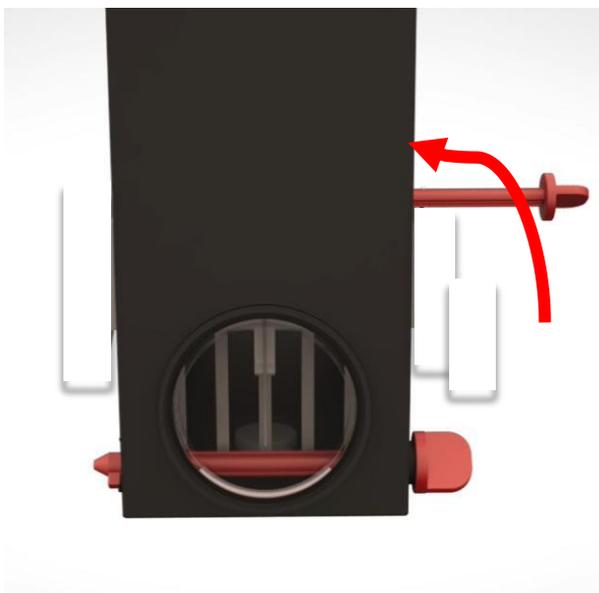
[Back](#)

Back to [START](#)

2.1.5 Insert the Lock pins



Mount the Lock pins from the front of the trap (the side with the nameplate)



Turn the Lock pins back in place

Back to [Preparation](#)

2.2 Choose and mount an Inlet

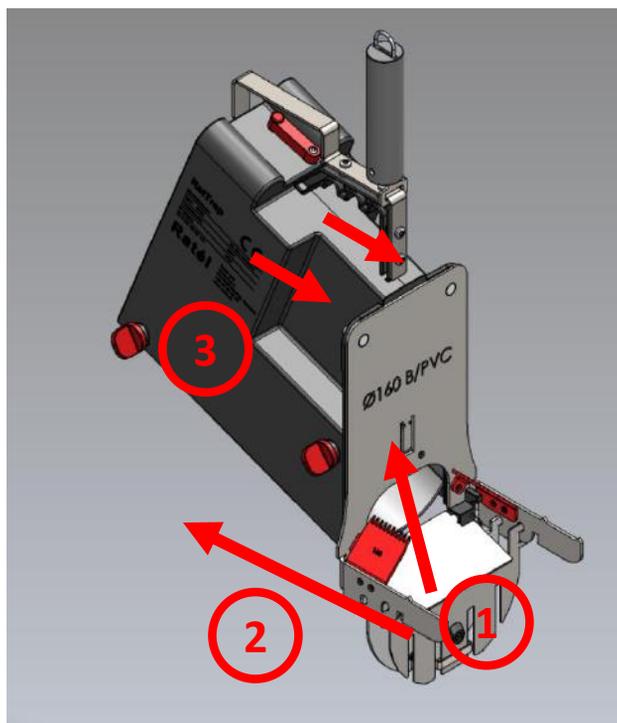
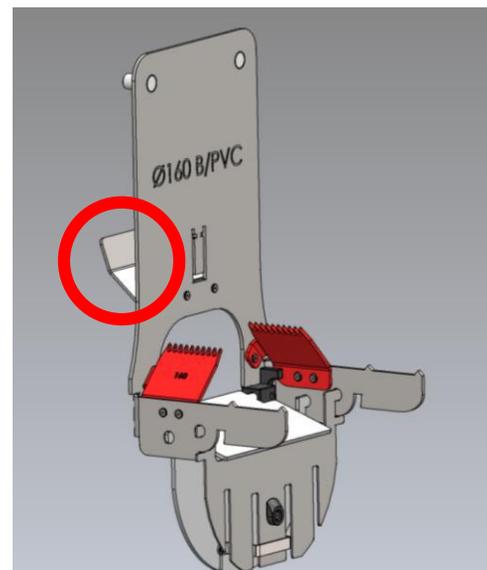
- 2.2.1 Pipe-size Ø160 [Go](#)
- 2.2.2 Pipe-size Ø200 - Ø500 [Go](#)
- 2.2.3 Bench Inlet [Go](#)

Back to [Preparation](#)

Back to [START](#)

2.2.1 Pipe-size Ø160

On the backside of the Ø160 Inlets is a little angle plate. These Inlets must therefore be angled into the trap, before the bolts can be fitted in the holes.



1. Inlet is angled into the trap
2. Inlet is put into place
3. Nuts are tightened

Back to [Preparation](#)

Back to [START](#)

2.2.2 Pipe-size $\varnothing 200$ - $\varnothing 500$

The Inlet is put into place and fastened with the nuts.



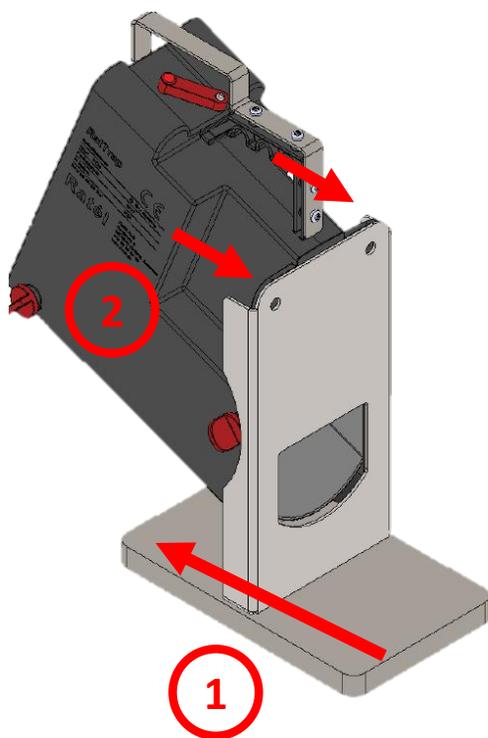
1. Inlet is put into place
2. Nuts are tightened

Back to [Preparation](#)

Back to [START](#)

2.2.3 Bench Inlet

The Inlet is put into place and fastened with the nuts.



1. Inlet is put into place
2. Nuts are tightened

Back to [Preperation](#)

Back to [START](#)

2.3 Prepare electronics

- 2.3.1 Loosen the Switch on the trap [Go](#)
- 2.3.2 Turn on the repeater [Go](#)
- 2.3.3 Consider where to place the Communication module – preferable max 10 metres from the manhole [Go](#)
- 2.3.4 Examples of possible placings of the Communication module [Go](#)



ALWAYS remember to use ATEX-labeled equipment in ATEX zones (zone-classified areas), as well as to check that all ATEX-labeled devices are intact and correctly assembled before mounting in ATEX zones

Read about ATEX zones [HERE](#)

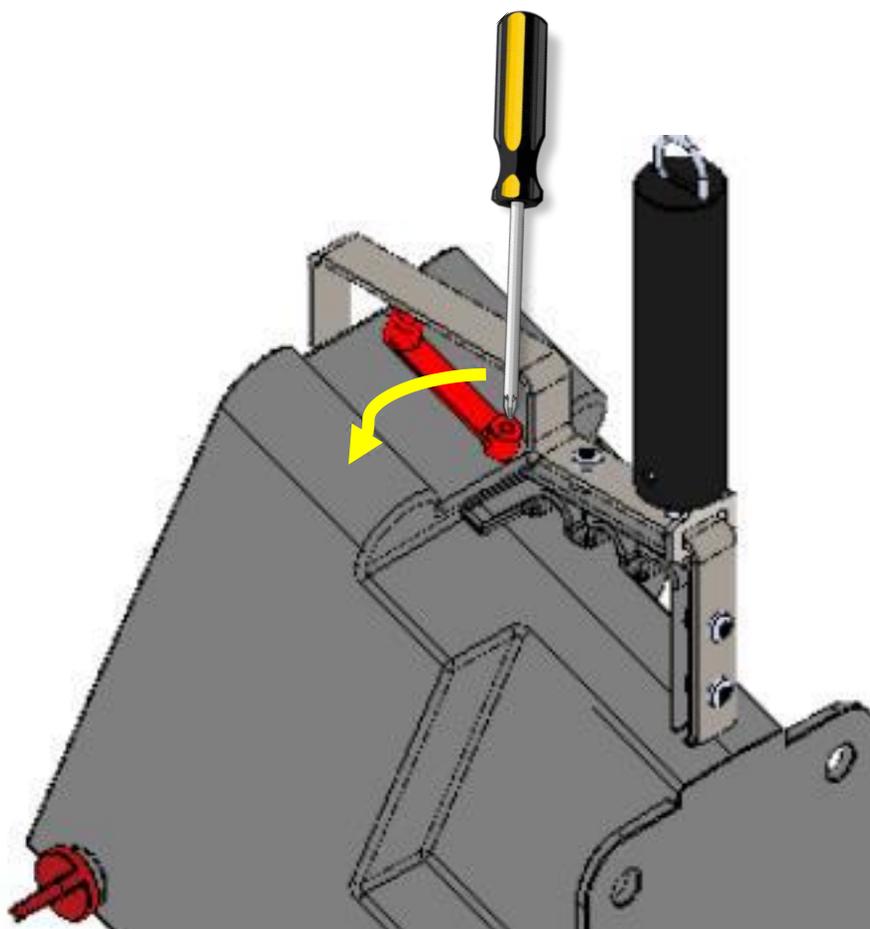
Back to [Preparation](#)

Back to [START](#)

2.3.1 Loosen the Switch on the trap

The screw on the Switch is loosened, so that the switch can move freely.

Now the transmitter is active



Back to [Preparation](#)

[Next](#)

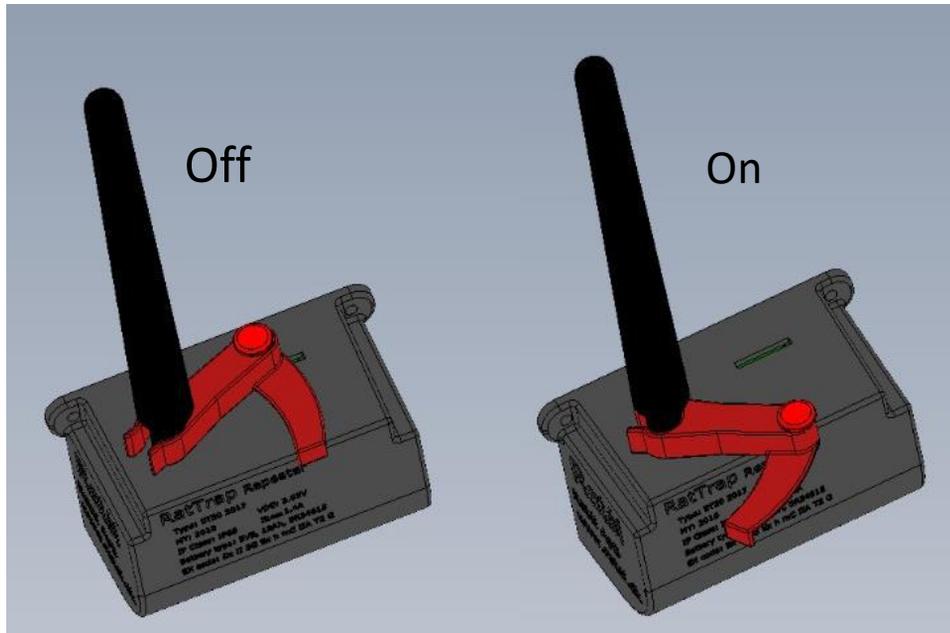
Back to [START](#)

2.3.2 Turn on the repeater

The Repeater is mounted on both the PVC- and concrete-mounting-kit.

-Turn the red arm, and the repeater is on.

When the repeater is flashing red every fifth second, it is synchronized correctly with the trap.



Back to [Preparation](#)

[Next](#)

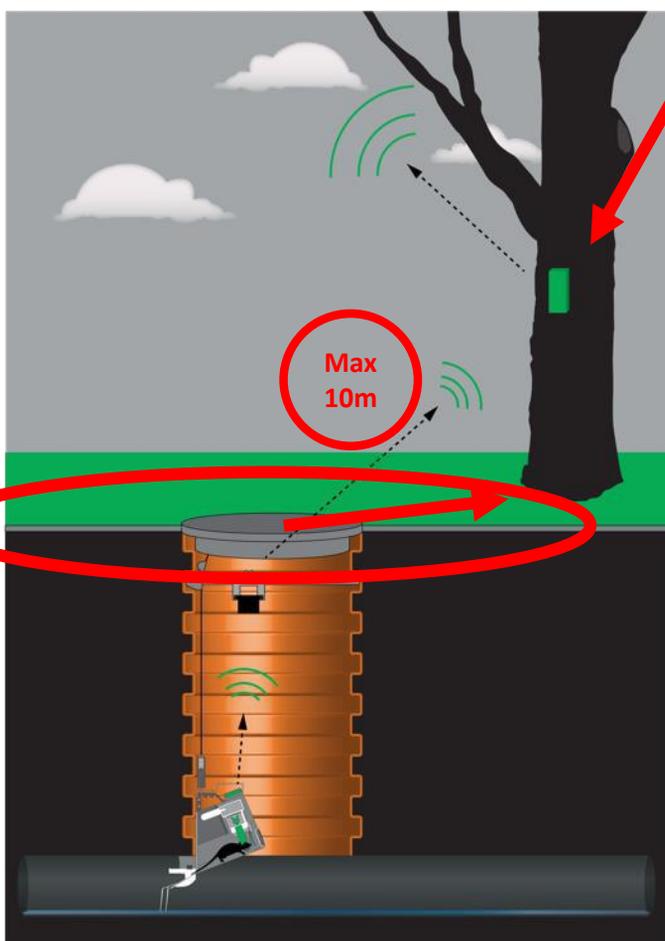
[Back](#)

Back to [START](#)

2.3.3 Consider where to place the Communication module – preferable max 10 metres from the manhole



The Communication module is active from the production – no further actions



Communication module

Consider where to place the Communication module – preferable max 10 metres from the manhole

Examples

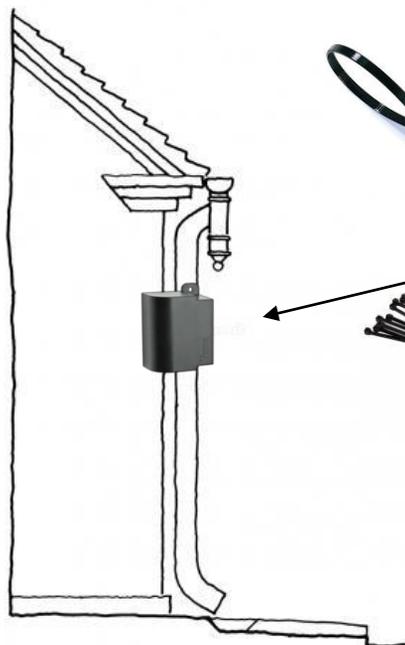
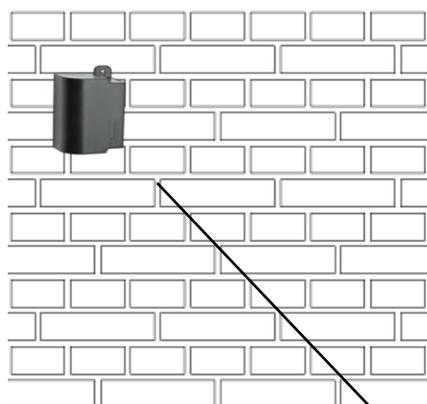
Back to Preparation

Next

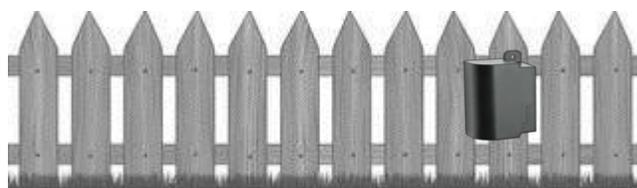
Back

Back to START

2.3.4 Examples of possible placings of the Communication module



one can advantageously mount place the module in an angel of 90 degrees relative to screw holes



altomhus.dk

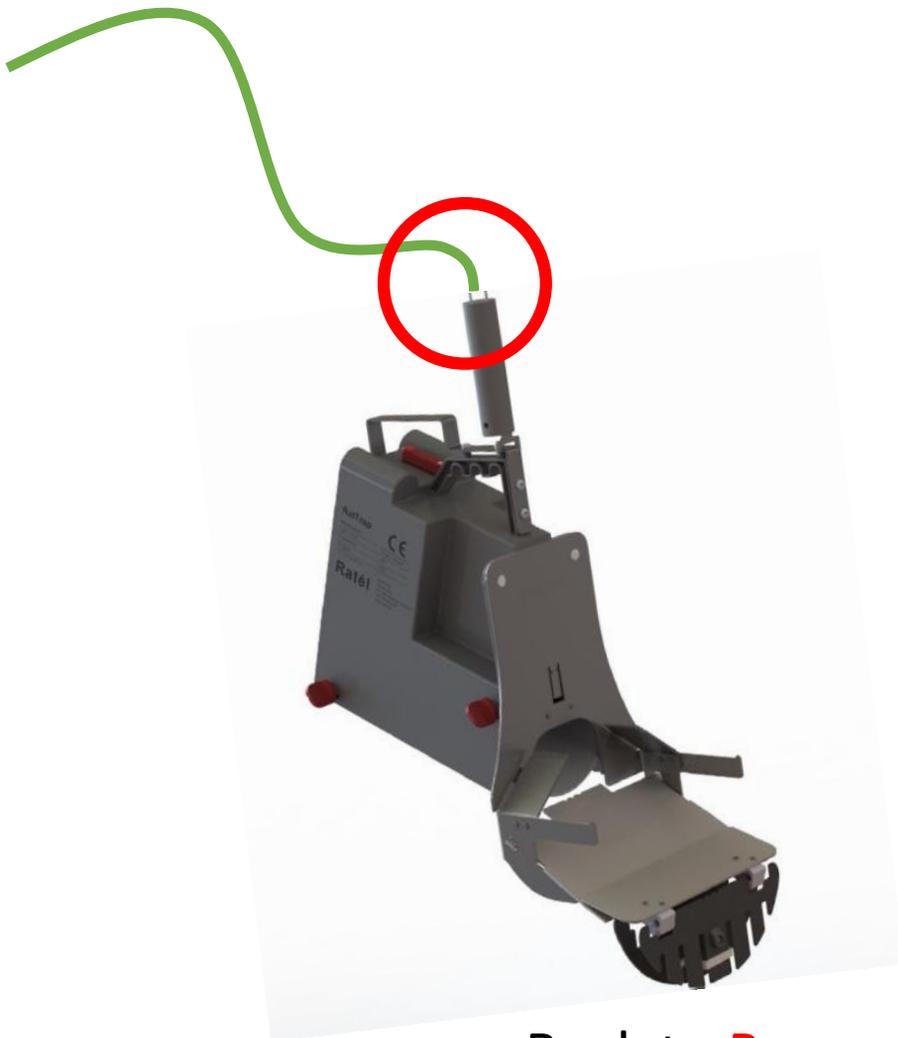
Back to [Preparation](#)

[Back](#)

Back to [START](#)

2.4 Mounting the Wire

- Mount The wire on the trap using the snap hook on the spring handle



Back to [Preparation](#)

Back to [START](#)

2.5 Create the trap in the APP

- 2.5.1 Click on the trap on the list or scan the QR code on the trap [Go](#)
- 2.5.2 Take pictures of the manhole and the surroundings [Go](#)
- 2.5.3 Choose Inlet size and change address [Go](#)
- 2.5.4 Click on "new position" and save [Go](#)

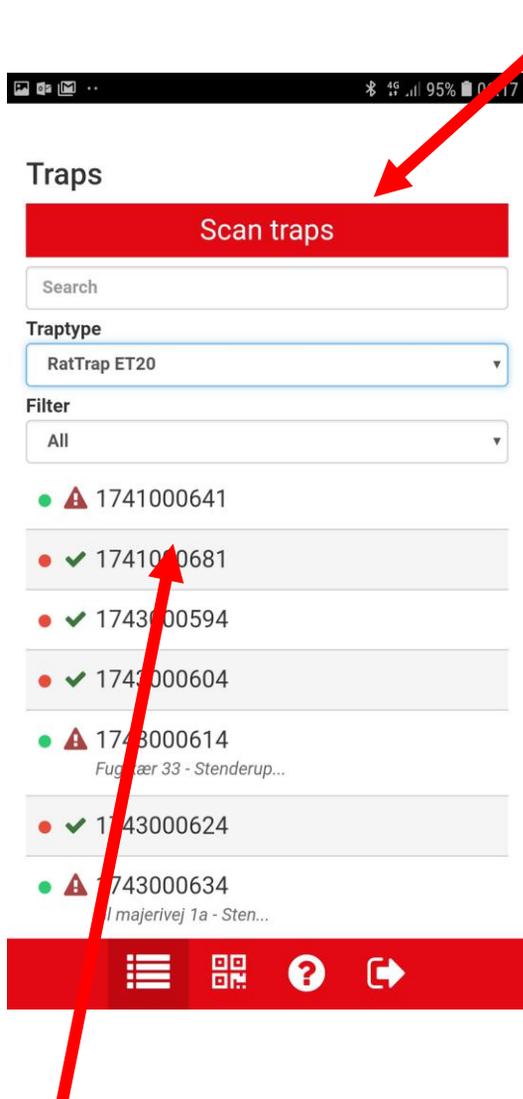
See the full guide for the APP [HERE](#)

Back to [Preparation](#)

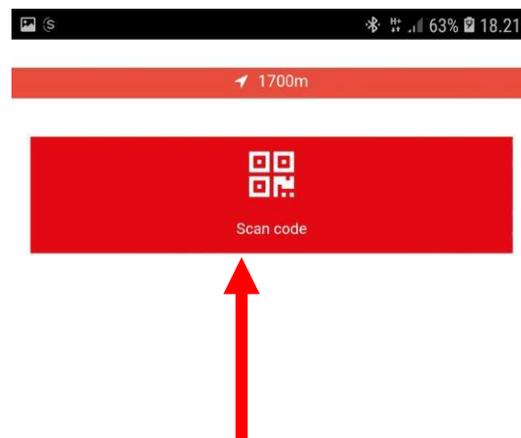
Back to [START](#)

2.5.1 Click on the trap on the list or scan the QR code on the trap

or click "Mounting" to go to the QR-side



Choose from the list



Click on the QR symbol

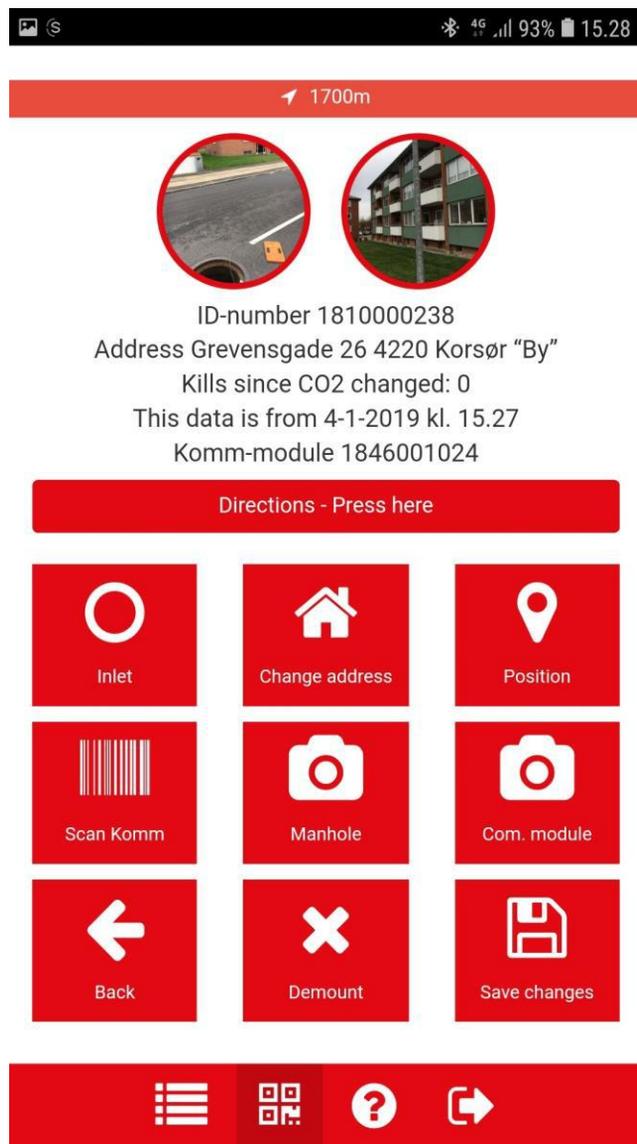


Back to Preparation

Next

Back to START

2.5.2 Take pictures of the manhole and surroundings as well as the chosen spot for the Communication module



First click on the foto icon "manhole" – take picture of manhole and surroundings and click "ok"

Second click on the foto icon "Com.Module"-modul" – take picture of the chosen spot for the Communication module and click "ok"

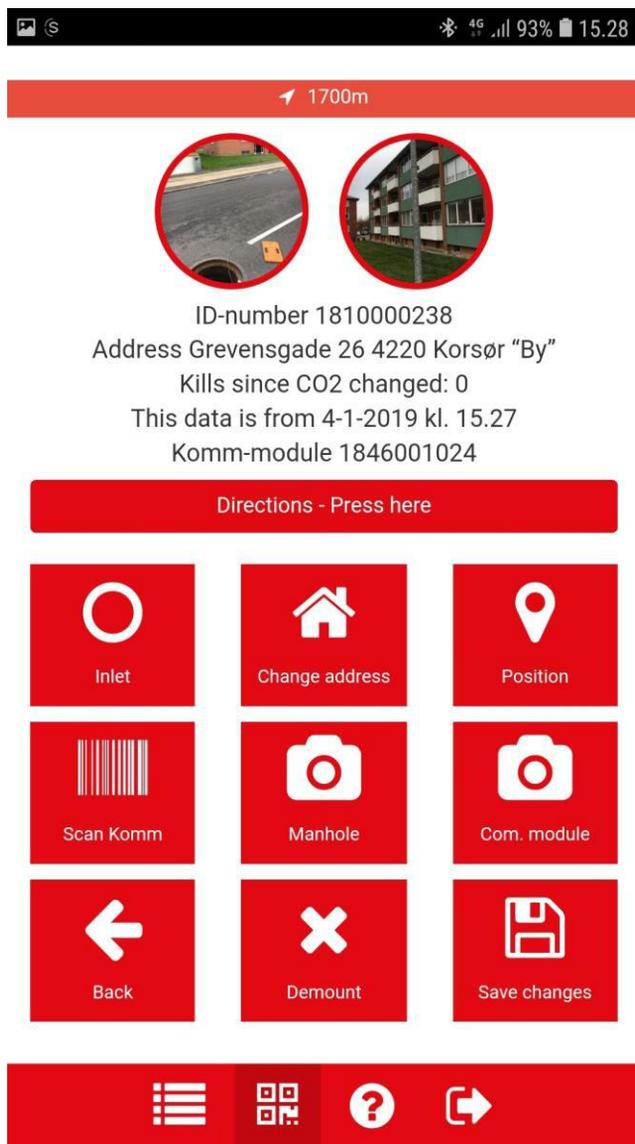
Back to [Preparation](#)

[Next](#)

[Back](#)

Back to [START](#)

2.5.3 Choose Inlet and change address



First Click the Inlet icon and choose Inlet type

Next click the icon "change address" and note the address

This field is a free text field and can therefore be used to note eg the manhole ID or other relevant issues.

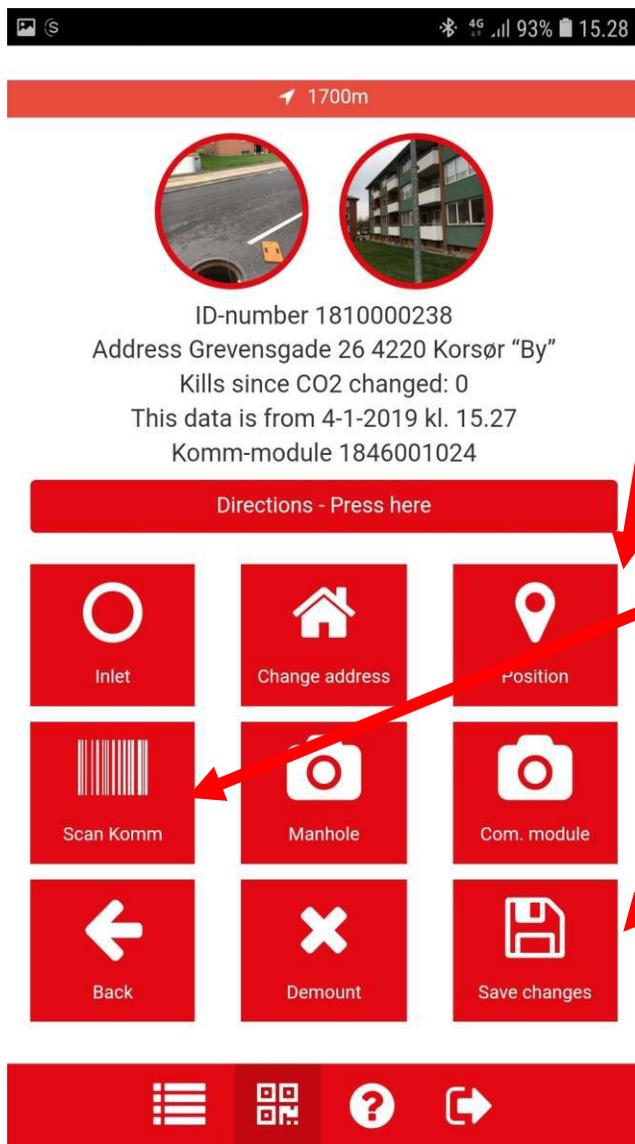
Back to [Preperation](#)

[Next](#)

[Back](#)

Back to [START](#)

2.5.4 Click on "new position" and save



Click on "new position" and await the green check mark

Click "Scan Com" to register the communication module

Click on save – now the trap is mounted in the APP

Back to [Preparation](#)

[Back](#)

Back to [START](#)

3. Mounting

3.1 Mounting - Concrete manhole [Go](#)

3.2 Mounting - PVC manhole [Go](#)

**3.3 Mounting – Bench trap
– all manholes** [Go](#)

NOTE that a valid authorization is required, under applicable legislation, to mount the RatTraps in the sewersystem

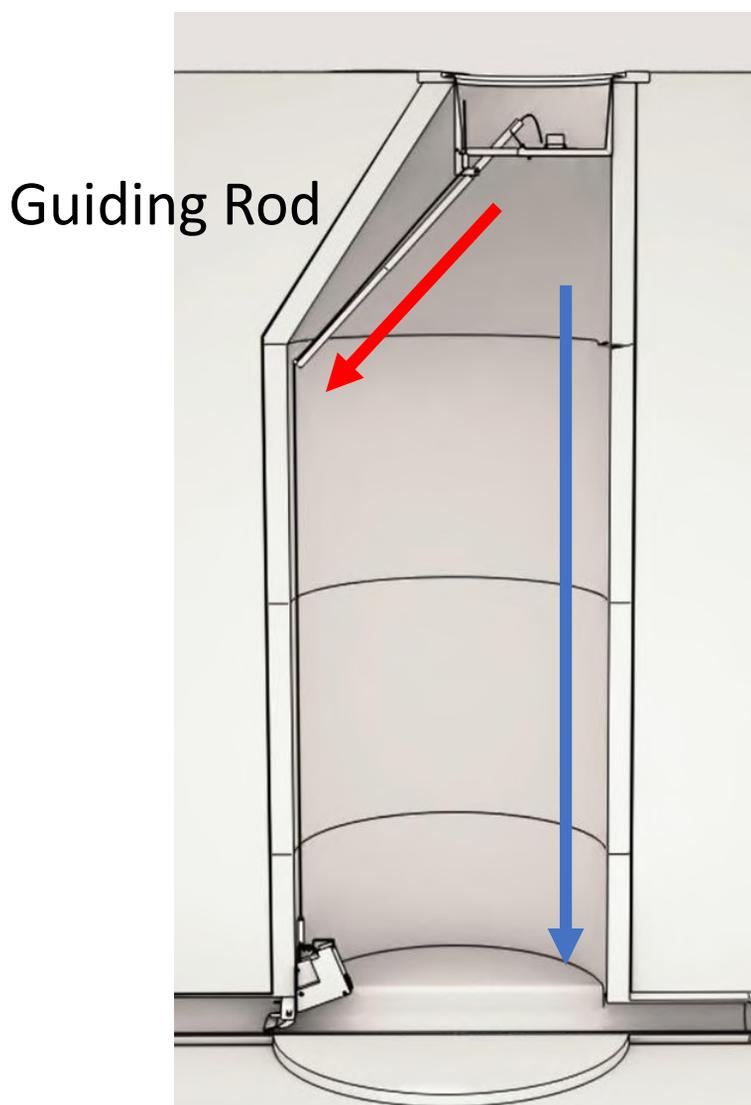
 ALWAYS remember to use Atex-labeled equipment in Atex zones (zone-classified areas), as well as to check that all Atex-labeled devices are intact and correctly assembled before mounting in Atex zones
Read about Atex zones [HERE](#)

Back to [START](#)

3.1 Mounting in Concrete manhole

- 3.1.1 Decide if guiding rod is needed [Go](#)
- 3.1.2 Place the mounting kit [Go](#)
- 3.1.3 Mount the guiding rod [Go](#)
- 3.1.4 Lower down the trap [Go](#)
- 3.1.5 Catch the wire with the guiding rod [Go](#)
- 3.1.6 Lock the guiding rod with the fabric cord [Go](#)
- 3.1.7 The Mounting-hook is used to insert the trap in the pipe [Go](#)
- 3.1.8 Tighten the wire so the trap is fastened [Go](#)
- 3.1.9 Fasten the wire in the wire lock [Go](#) [Back to Mounting](#)

3.1.1 Decide if guiding rod is needed



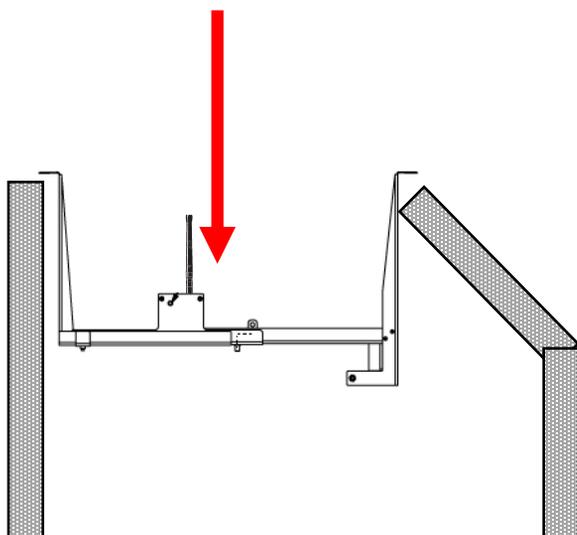
The guiding rod is used when the pipe is placed at the side of the manhole with a conical top piece (**red arrow**) – Otherwise there is no need for guiding rod (**blue arrow**)

Back to [Mounting in Concrete manhole](#)

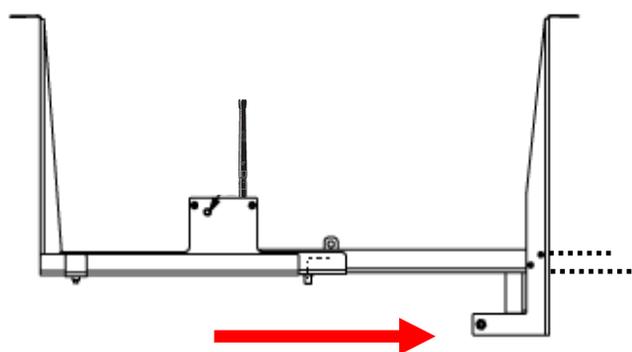
[Next](#)

Back to [START](#)

3.1.2 Place the mounting kit



Place the mounting kit in the manhole, so it rests on the edge of the manhole



The width of the Mounting kit is adjusted to the manhole's diameter. Slide out the supporting profile so it touches the side of the manhole. Tighten the wing nuts.

Back to [Mounting in Concrete manhole](#)

[Next](#)

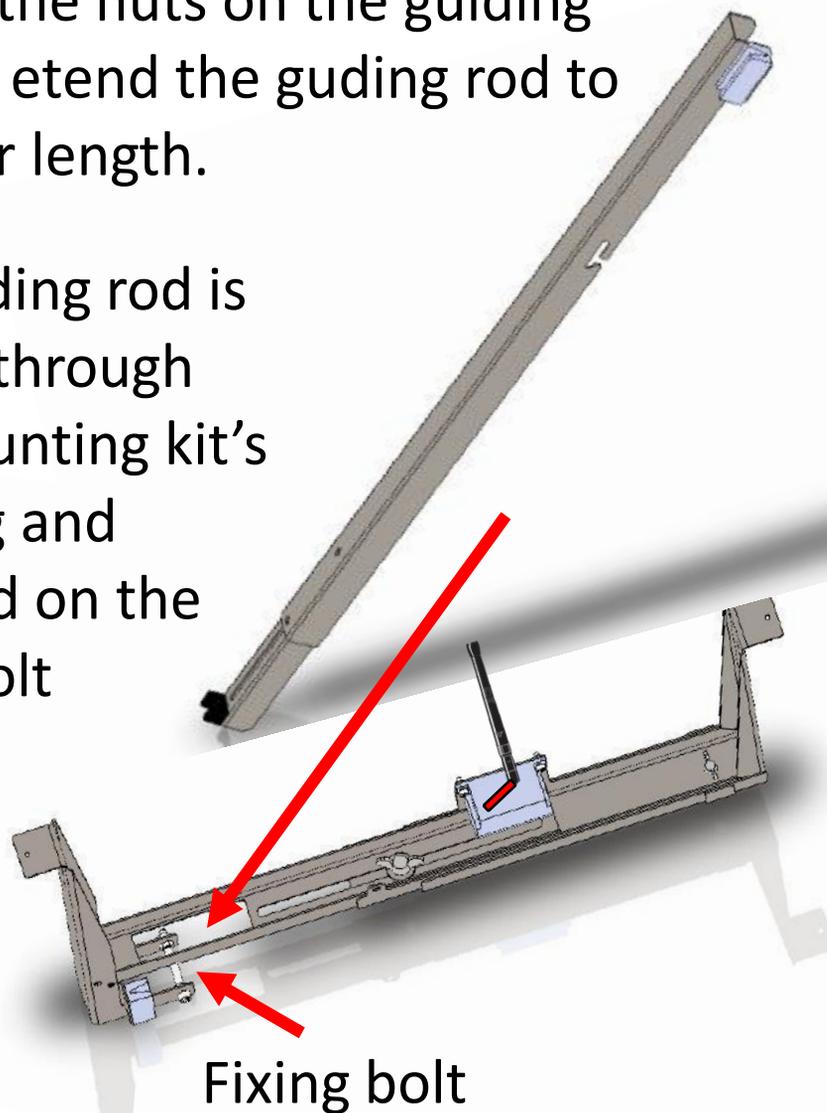
[Back](#)

Back to [START](#)

3.1.3 Mount the guiding rod

Loosen the nuts on the guiding rod and extend the guiding rod to a proper length.

The Guiding rod is passed through the Mounting kit's opening and fastened on the fixing bolt



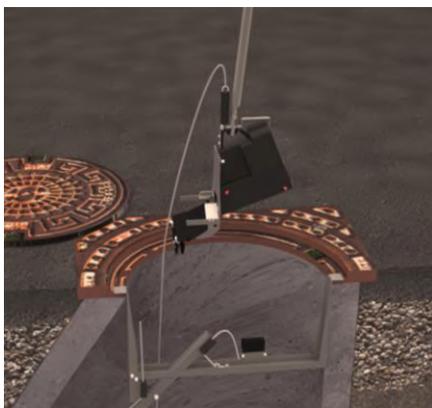
Back to [Mounting in Concrete manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

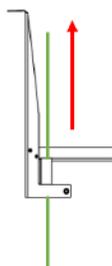
3.1.4 Lower down the trap



Using the Mounting-hook the trap is lowered down the manhole.



The trap should be lowered down on that side of the mounting kit where the wire lock is placed.



The wire is fastened in the Wire lock so the trap is not dropped in the following steps.

Back to [Mounting in Concrete manhole](#)

3.1.5 Catch the wire with the guiding rod

If using a guiding rod - catch the wire with the guiding rod's V-shaped end.

Now the wire can be guided to the side of the manhole.



Back to [Mounting in Concrete manhole](#)

[Next](#)

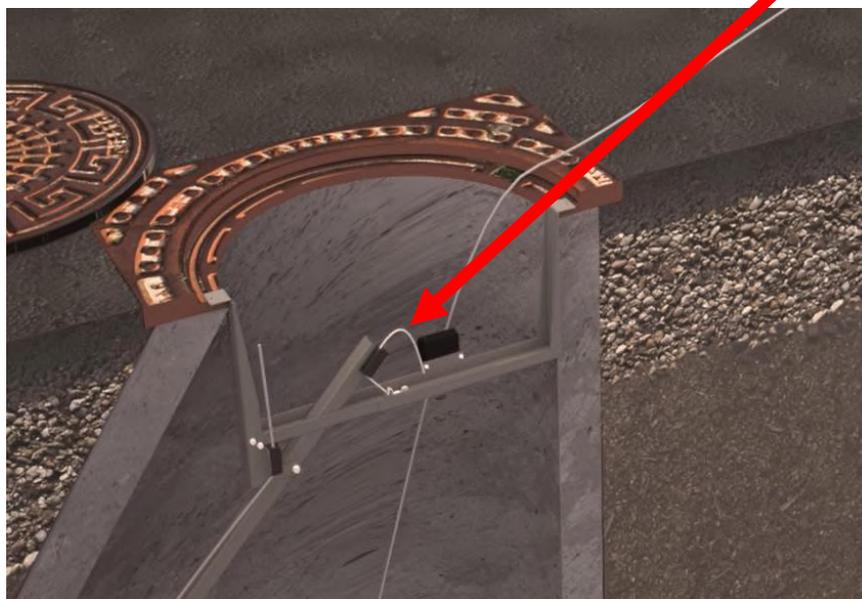
[Back](#)

Back to [START](#)

3.1.6 Lock the guiding rod with the fabric cord

If using a guiding rod - lock the guiding rod in its position with the fabric cord using the cord's lock.

Fabric cord



Back to [Mounting in Concrete manhole](#)

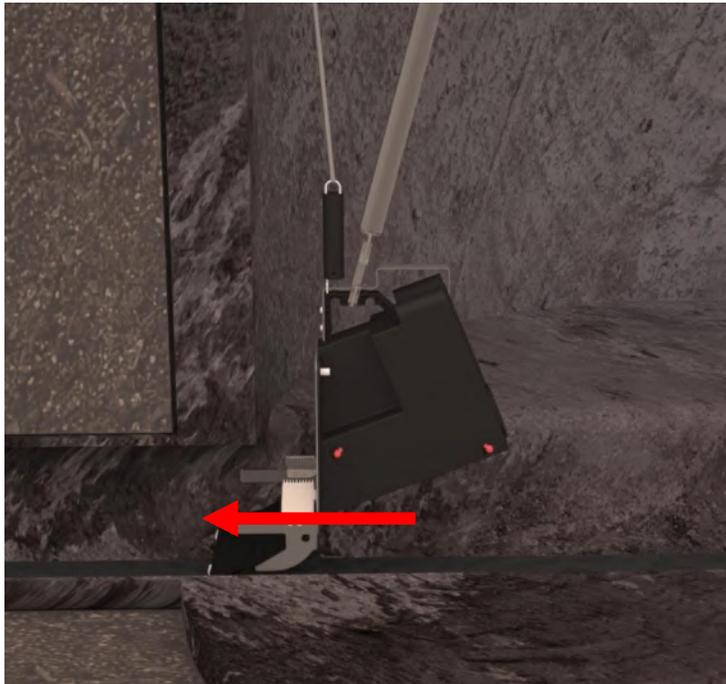
[Next](#)

[Back](#)

Back to [START](#)

3.1.7 The mounting-hook is used to insert the trap in the pipe

The wire is loosened a bit, and the mounting-hook is used to insert the trap in the pipe



Back to [Mounting in Concrete manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

3.1.8 Tighten the wire so the trap is fastened

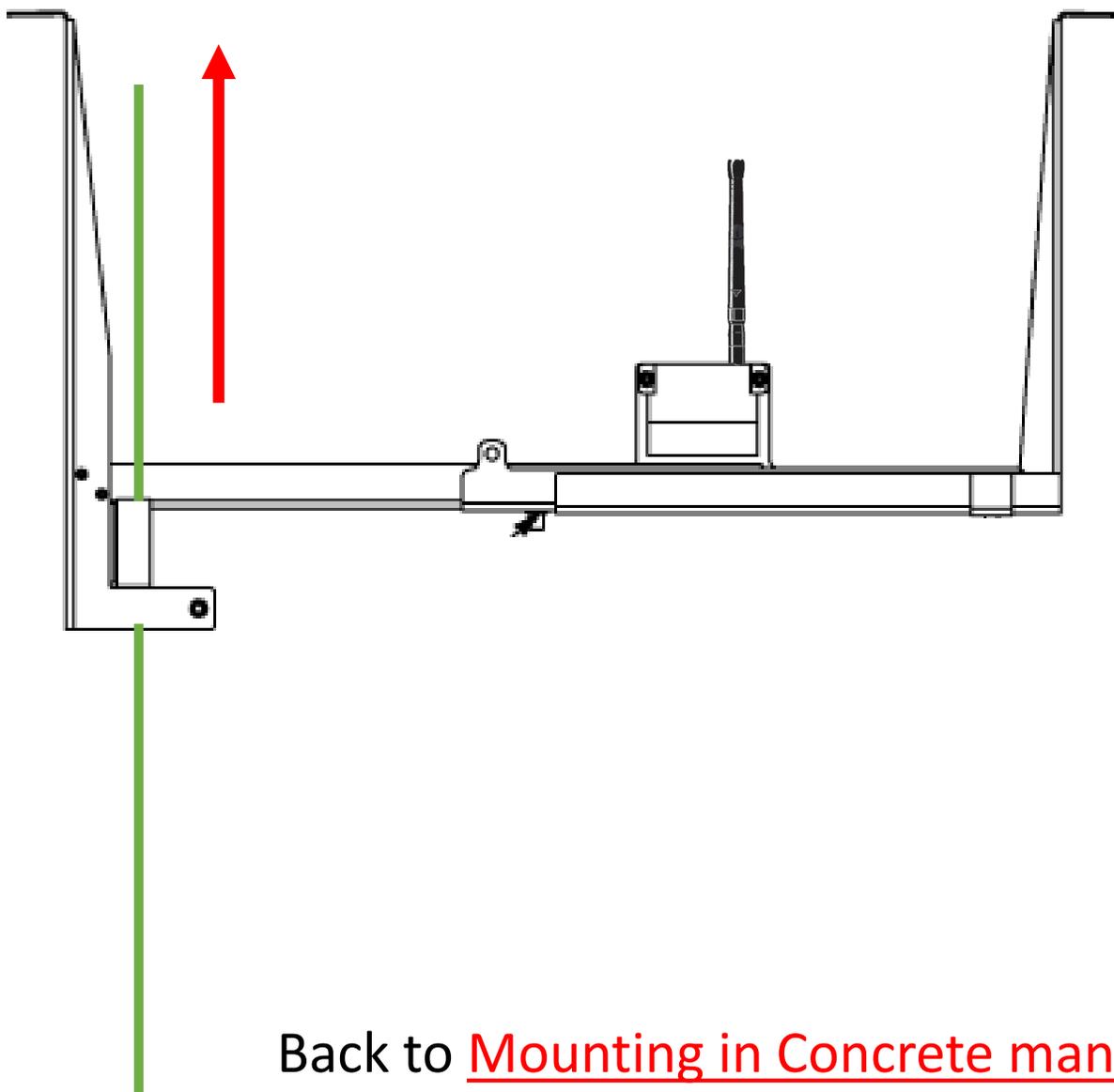
The wire is tightened so the spring in the spring handle is stretched so that you have a proper pull

Now the trap is kept tight and thereby fastened in the pipe



Back to [Mounting in Concrete manhole](#)

3.1.9 Fasten the wire in the wire lock



Back to [Mounting in Concrete manhole](#)

[Back](#)

Back to [START](#)

3.2 Mounting - PVC-manhole

- 3.2.1 Lower down the trap [Go](#)
- 3.2.2 Fasten the wire in the wire lock [Go](#)
- 3.2.3 Place the mounting kit [Go](#)
- 3.2.4 The mounting-hook is used to insert the trap in the pipe [Go](#)
- 3.2.5 Tighten the wire so the trap is fastened [Go](#)
- 3.2.6 Fasten the wire in the wire lock [Go](#)

Back to [Mounting](#)

Back to [START](#)

3.2.1 Lower down the trap



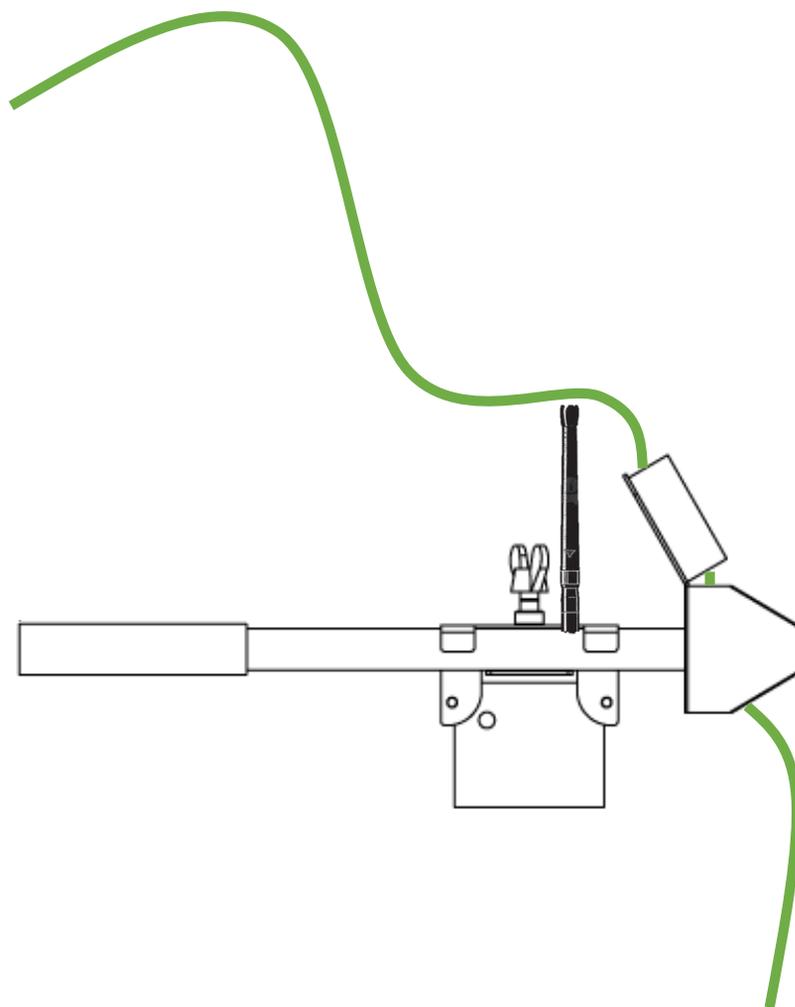
Using the Mounting-hook the trap is lowered down the manhole.

Back to [Mounting in PVC-manhole](#)

[Next](#)

Back to [START](#)

3.2.2 Fasten the wire in the wire lock



Back to [Mounting in PVC-manhole](#)

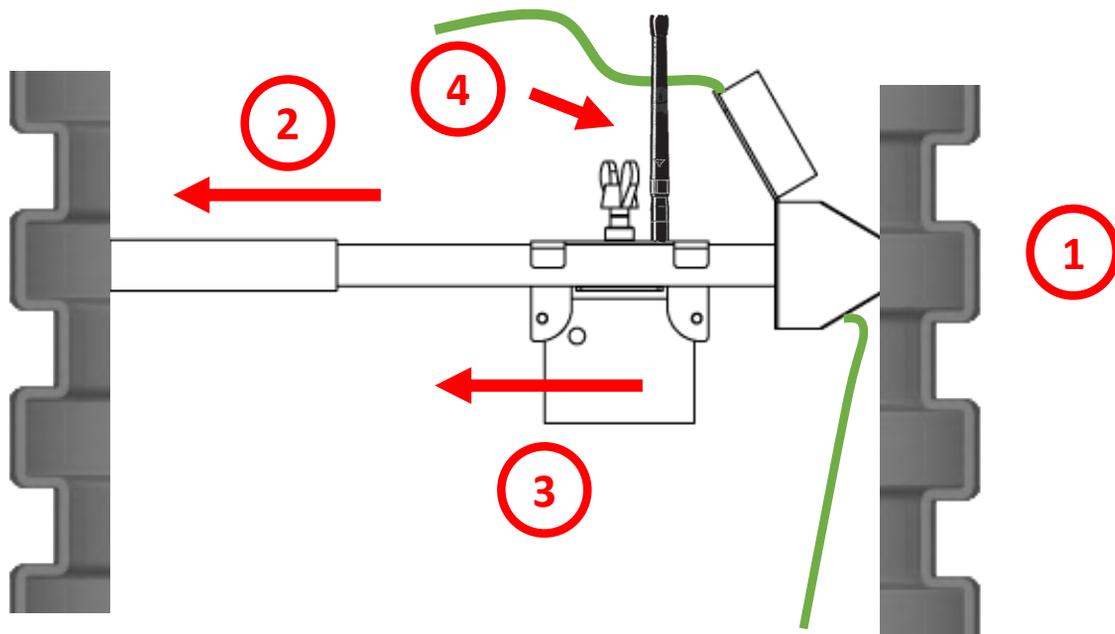
[Next](#)

[Back](#)

Back to [START](#)

3.2.3 Place the mounting kit

- ① The Mounting kit's triangular end is placed in the grooves in one side of the PVC-manhole.
- ② The extender is slid into to the grooves in the opposite side of the PVC-manhole.
- ③ The extender lock with the Repeater is slid towards the extender – and the
- +
④ wing nut is tightened.



Back to [Mounting in PVC-manhole](#)

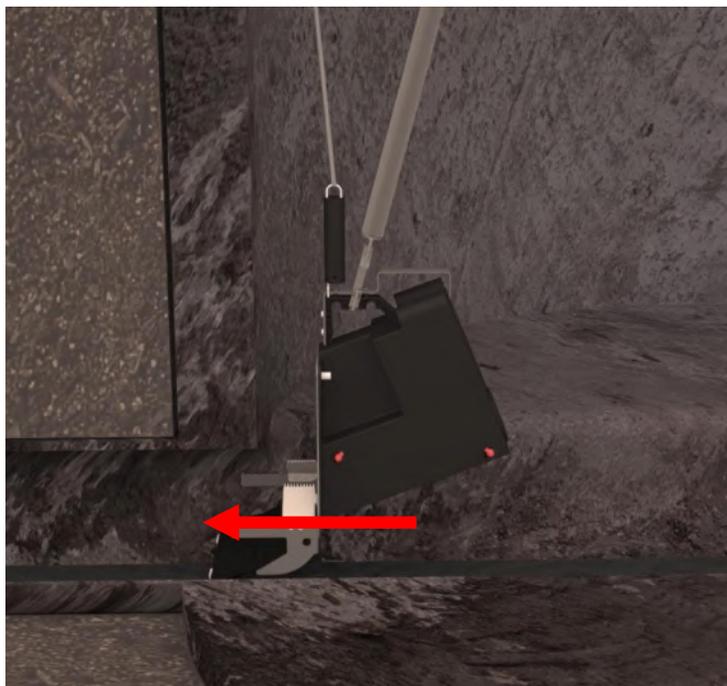
[Next](#)

[Back](#)

Back to [START](#)

3.2.4 The mounting-hook is used to insert the trap in the pipe

The mounting-hook is used to insert the trap in the pipe



Back to [Mounting in PVC-manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

3.2.5 Tighten the wire so the trap is fastened

The wire is tightened so the spring in the spring handle is stretched so that you have a proper pull

Now the trap is kept tight and thereby fastened in the pipe



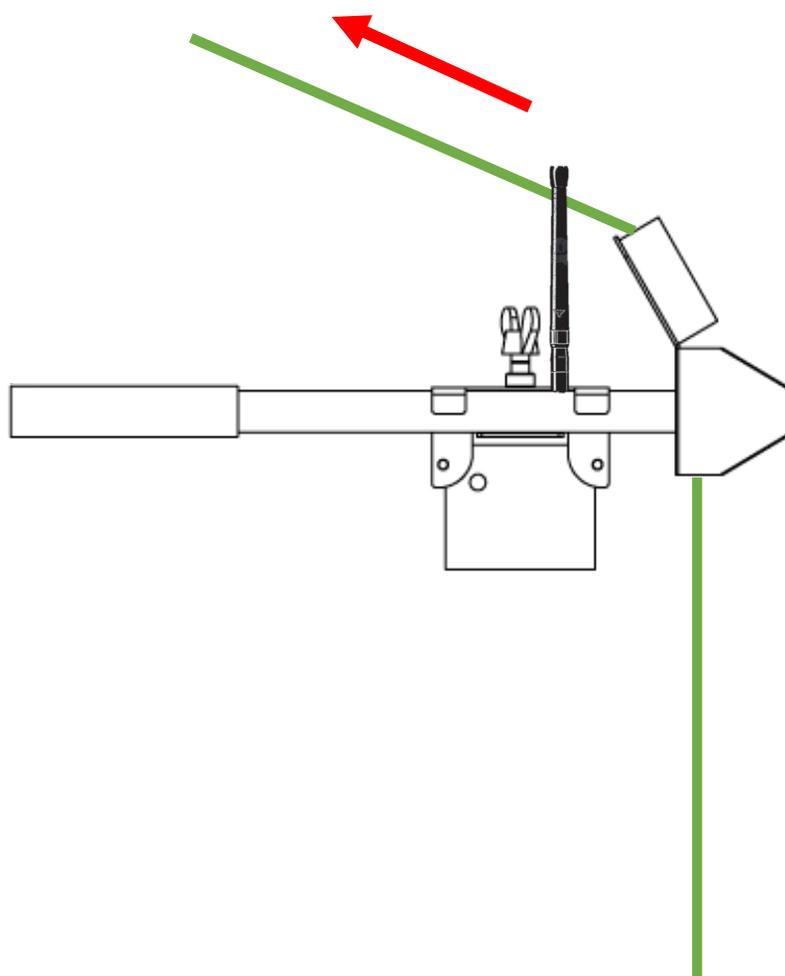
Back to [Mounting in PVC-manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

3.2.6 Fasten the wire in the wire lock



Back to [Mounting in PVC-manhole](#)

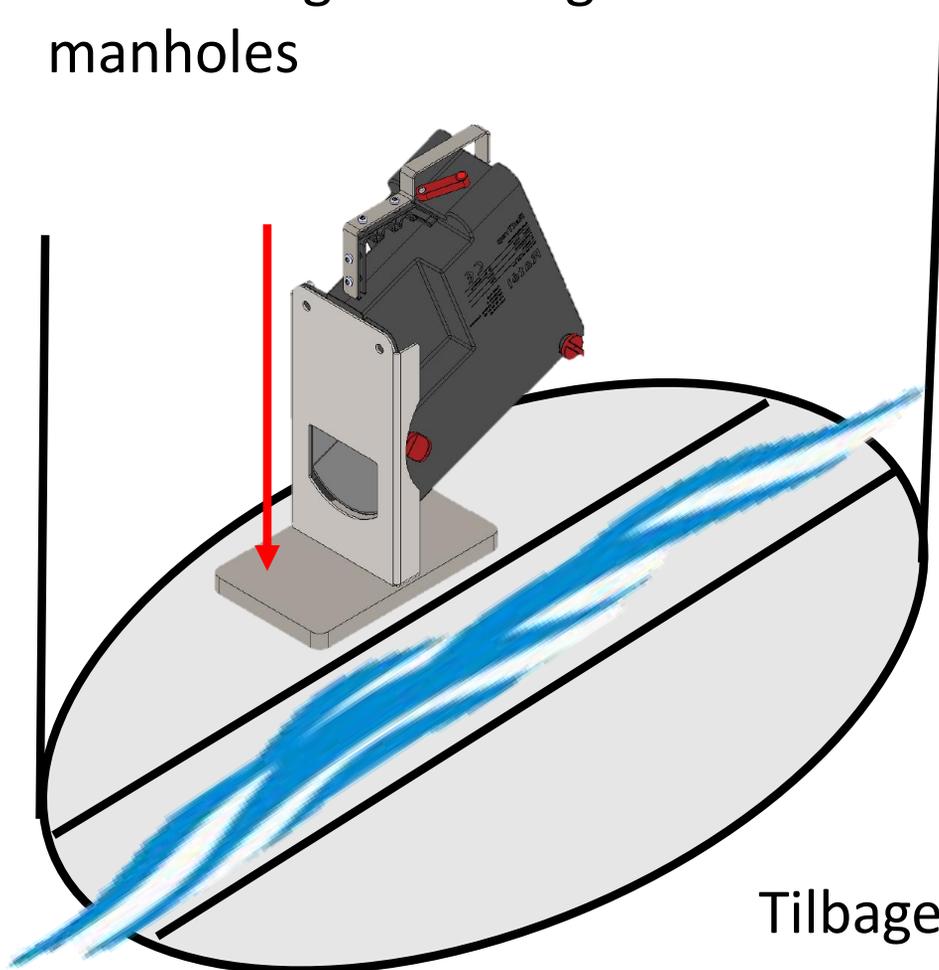
[Back](#)

Back to [START](#)

3.3 Mounting the Bench Trap All Manhole types

Place the trap so it touches the bench in the bottom of the manhole

Tighten the Wire as usual – see the sections concerning mounting in concrete and PVC manholes



Tilbage til [Mounting](#)

4. Test of system

4.1 The magnet is passed over the green marking on the Communication module

Go

4.1 The magnet is passed over the green marking on the Communication module



REMEMBER that the manhole cover must be put back on, while doing the test!

Place yourself as close to the chosen spot as possible. Pass the magnet over the green spot on the Communication module – from the front towards the transparent backside.

Await **BLUE** lights on the module's backside

If **NO BLUE** lights you need to bring the module closer to the manhole

Now the unit will show a red light – when it turns of all lights, the unit is ready for mounting.

Back to [Test of system](#)

[Next](#)

Back to [START](#)

5. Service

5.1 Demount the trap

5.1.1 PVC manhole

[Go](#)

5.1.2 Concrete manhole

[Go](#)

5.1.3 Bench Trap

[Go](#)

5.2 Change CO2 canister Inlet size Ø160

[Go](#)

5.3 Change CO2 canister

[Go](#)

Inlet size Ø200-Ø500 and bench trap

5.4 Reset the killing counter

[Go](#)

5.5 Remount trap

5.5.1 PVC manhole

NOTE that a valid authorization is required under applicable legislation to mount the RatTraps in the sewersystem

[Go](#)

5.5.2 Concrete manhole

 ALWAYS remember to use Atex-labeled equipment in Atex zones (zone-classified areas), as well as to check that all Atex-labeled devices are intact and correctly assembled before mounting in Atex zones. Read about Atex zones [HERE](#)

[Go](#)

5.5.3 Bench Trap

[Go](#)

5.6 Note service in the APP

[Go](#)

5.7 Check if Communication module is in proper place

[Go](#)

Back to [START](#)

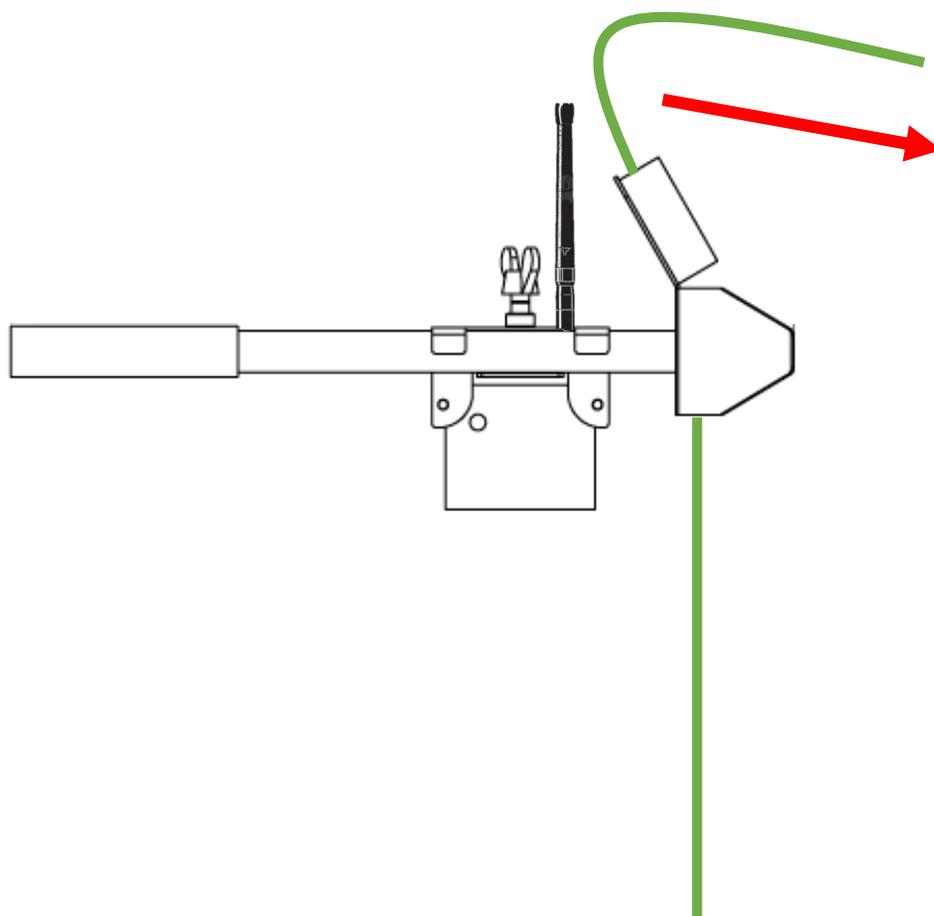
5.1.1 Demounting From PVC-manhole

- 5.1.1.1 Loosen the wire so the trap is released from the pipe [Go](#)
- 5.1.1.2 The Mounting-hook is used to pull out the trap From the pipe [Go](#)
- 5.1.1.3 Take up Mounting kit [Go](#)
- 5.1.1.4 The trap is lifted up from the manhole [Go](#)

Back to [Service](#)

Back to [START](#)

5.1.1.1 Loosen the wire so the trap is released from the pipe

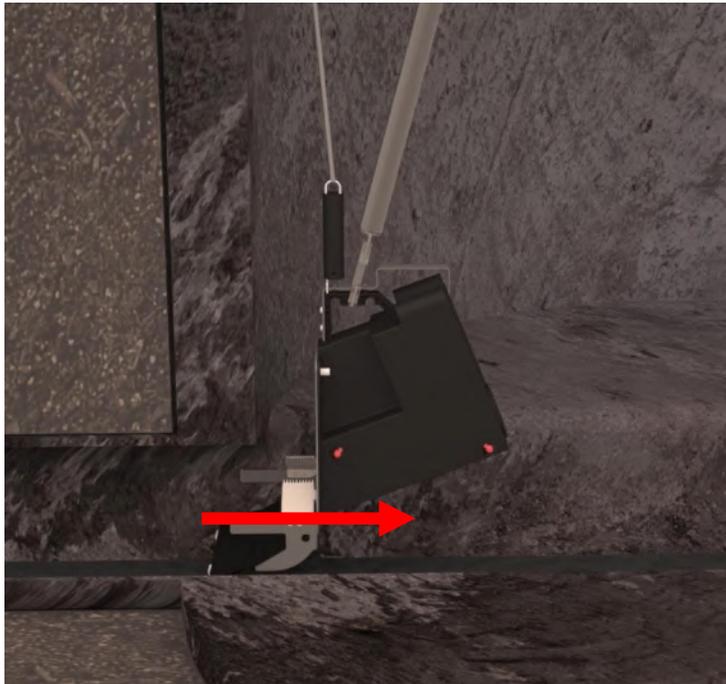


Back to [Demounting From PVC-manhole](#)

[Next](#)

Back to [START](#)

5.1.1.2 The Mounting-hook is used to pull out the trap From the pipe



Back to [Demounting From PVC-manhole](#)

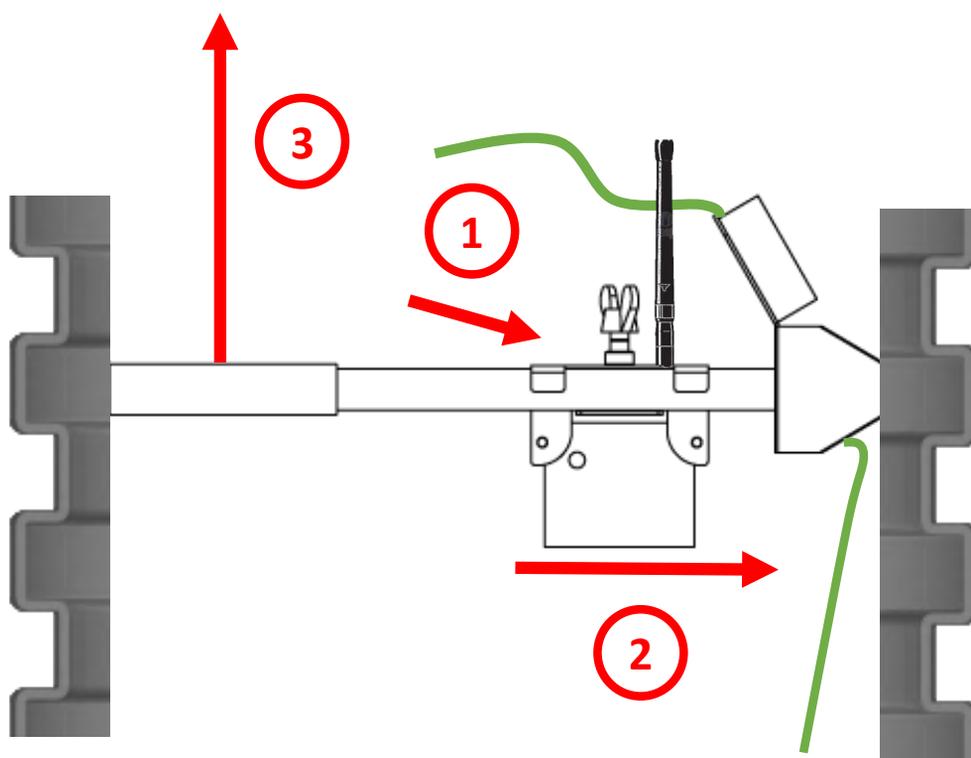
[Next](#)

[Back](#)

Back to [START](#)

5.1.1.3 Take up Mounting kit

- ① The wing nut is loosened
- ② The extender lock with repeater is slid towards the triangular part
- ③ Take up the mounting kit



Back to [Demounting From PVC-manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

5.1.1.4 The trap is lifted up from the manhole



Using the Mounting-hook the trap is lifted up from the manhole

Back to [Demounting From PVC-manhole](#)

[Back](#)

Back to [START](#)

5.1.2 Demounting From Concrete manhole

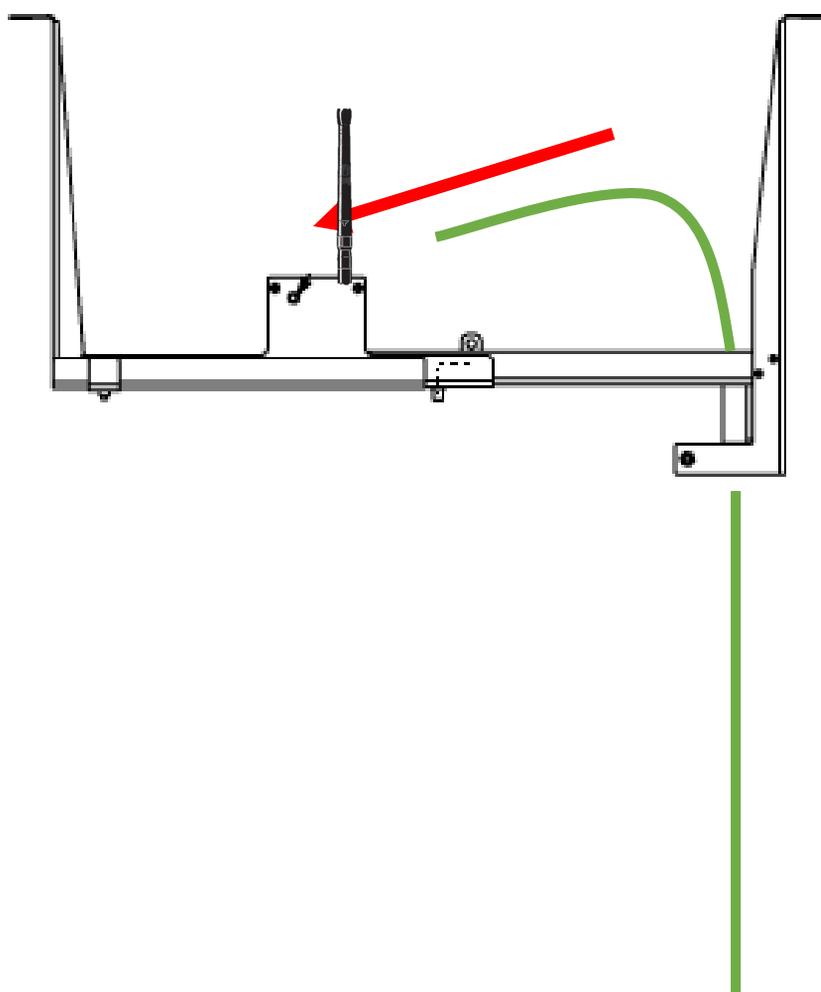
Mounting kit can normally stay mounted under service in a concrete manhole

- 5.1.2.1 Loosen the wire so the trap is released from the pipe [Go](#)
- 5.1.2.2 The Mounting-hook is used to pull out the trap From the pipe [Go](#)
- 5.1.2.3 If necessary loosen the fabric cord so the guiding rod is free [Go](#)
- 5.1.2.4 The trap is lifted up from the manhole [Go](#)

Back to [Service](#)

Back to [START](#)

5.1.2.1 Loosen the wire so the trap is released from the pipe

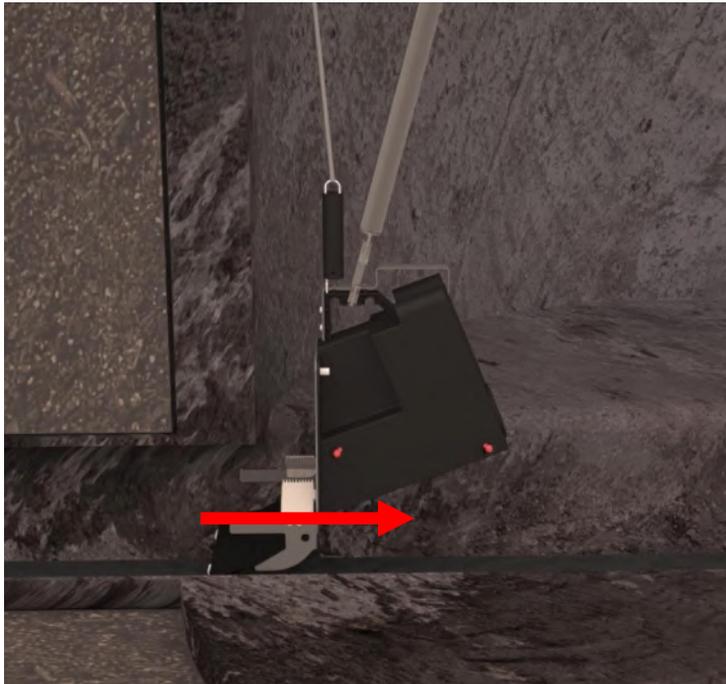


Back to [Demounting From Concrete manhole](#)

[Next](#)

Back to [START](#)

5.1.2.2 The Mounting-hook is used to pull out the trap From the pipe



Back to [Demounting From Concrete manhole](#)

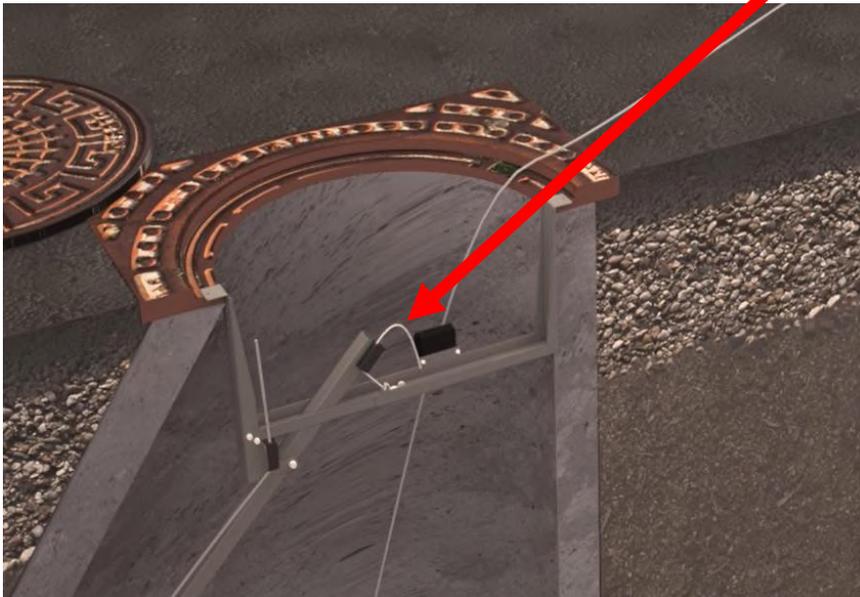
[Next](#)

[Back](#)

Back to [START](#)

5.1.2.3 If necessary loosen the fabric cord so the guiding rod is free

Fabric cord



Back to [Demounting From Concrete manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

5.1.2.4 The trap is lifted up from the manhole



Using the Mounting-hook the trap is lifted up from the manhole

Back to [Demounting From Concrete manhole](#)

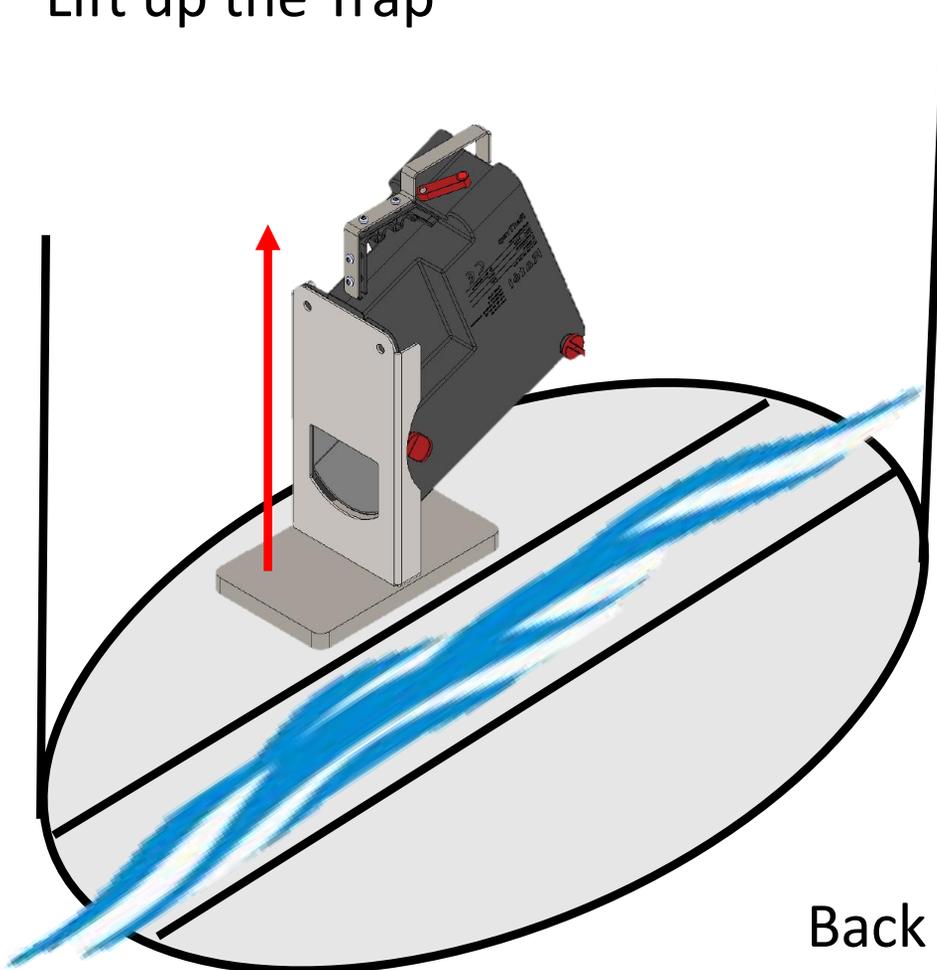
[Back](#)

Back to [START](#)

5.1.3 Lift up the Bench Trap

Loosen the Wire as usual – see the sections concerning demounting in concrete and PVC manholes.

Lift up the Trap



Back to [Service](#)

[Back](#)

Back to [START](#)

5.2 Change CO2 canister Inlet size Ø160

- 5.2.1 Demount Inlet [Go](#)
- 5.2.2 Take out the Lock pins [Go](#)
- 5.2.3 Lift of the Outer container [Go](#)
- 5.2.4 Take out the CO2 canister [Go](#)
- 5.2.5 Insert the CO2 canister [Go](#)
- 5.2.6 Put back the Outer container [Go](#)
- 5.2.7 Insert the Lock pins [Go](#)
- 5.2.8 Remount Inlet [Go](#)

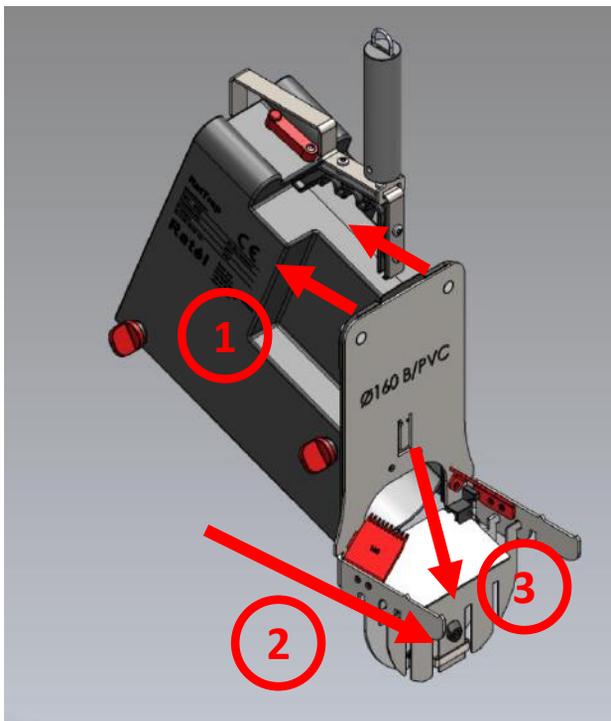
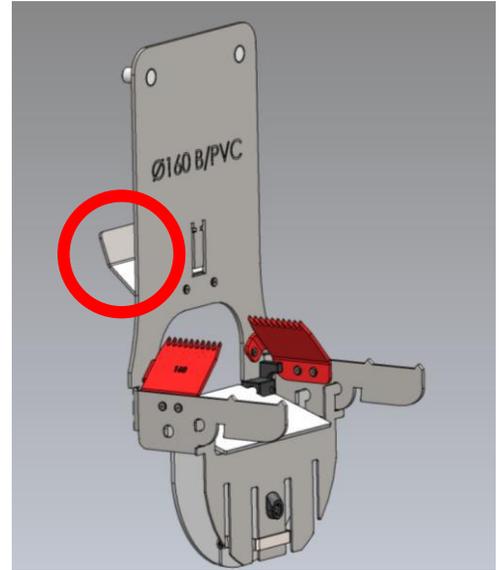
 NOTE that insert and replacement of the CO2 canister in ATEX labeled equipment must NOT be performed within the ATEX zones (zone classified areas).
Read about ATEX zones [HERE](#)

Back to [Service](#)

Back to [START](#)

5.2.1 Demount Inlet

On the backside of the Ø160 Inlets is a little angle plate. These Inlets must therefore be angled out of the trap, *after* the bolts are released from the holes.



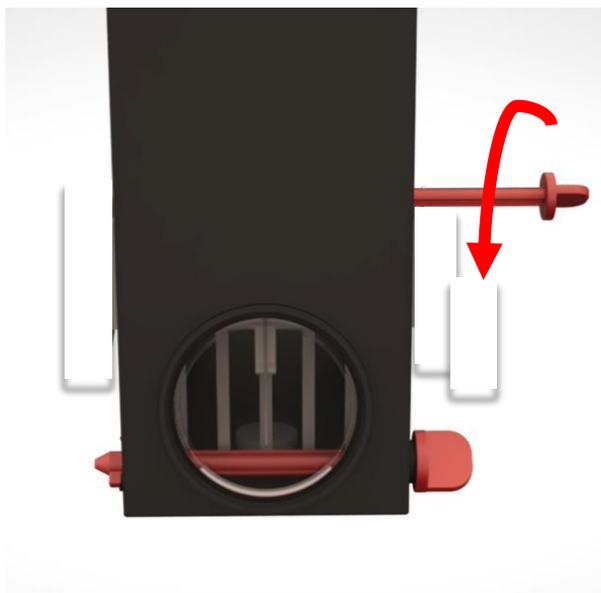
1. Loosen the nuts
2. Pull backwards the bolts
3. Angle the inlet out from the trap

Back to [Change CO2](#)

[Next](#)

Back to [START](#)

5.2.2 Take out the Lock pins



Turn the Lock pins



Pull out the Lock pins

Back to [Change CO2](#)

[Next](#)

[Back](#)

Back to [START](#)

5.2.3 Lift of the Outer container



Back to [Change CO2](#)

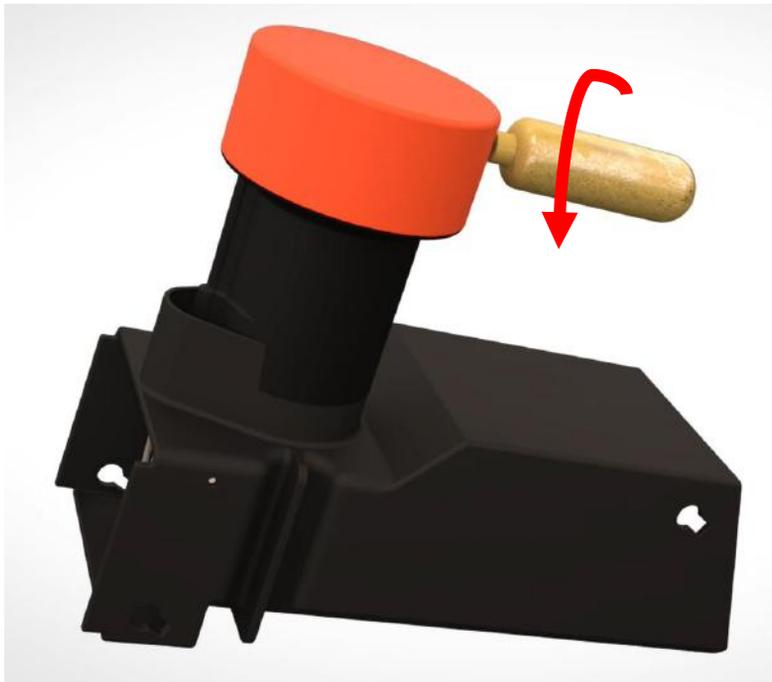
[Next](#)

[Back](#)

Back to [START](#)

5.2.4 Take out the CO2 canister

Screw out the canister counter clockwise – If there are CO2 left in the canister, it will now seep out – leaving the canister **VERY COLD**



Back to [Change CO2](#)

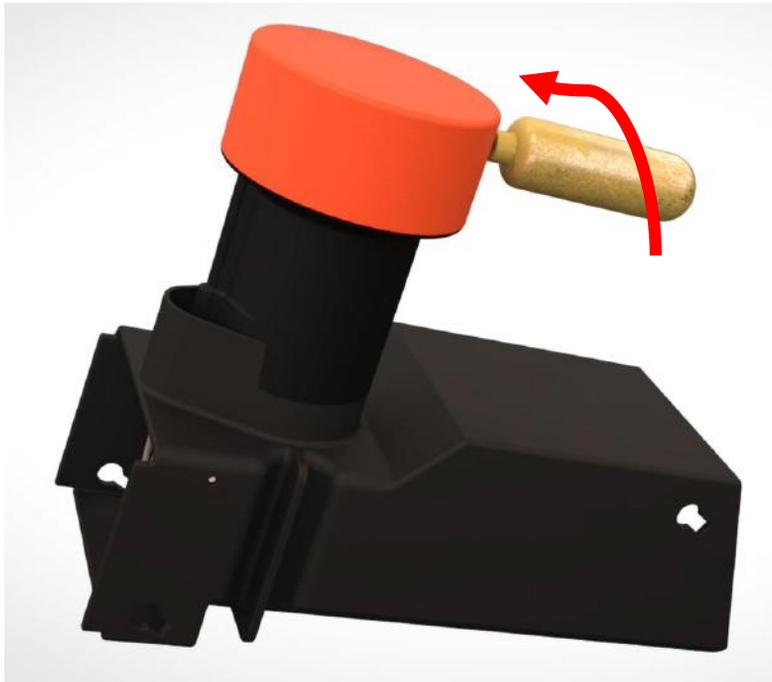
[Next](#)

[Back](#)

Back to [START](#)

5.2.5 Insert the CO2 canister

Screw in the canister clockwise – the canister must be tightened *as quickly as possible* to avoid the CO2 from leaking out



Back to [Change CO2](#)

[Next](#)

[Back](#)

Back to [START](#)

5.2.6 Put back the Outer container



Back to [Change CO2](#)

[Next](#)

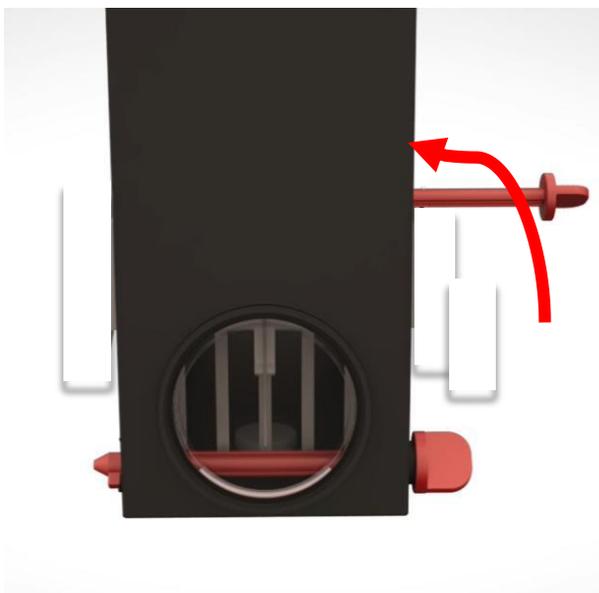
[Back](#)

Back to [START](#)

5.2.7 Insert the Lock pins



Mount the Lock pins from the front of the trap (the side with the nameplate)

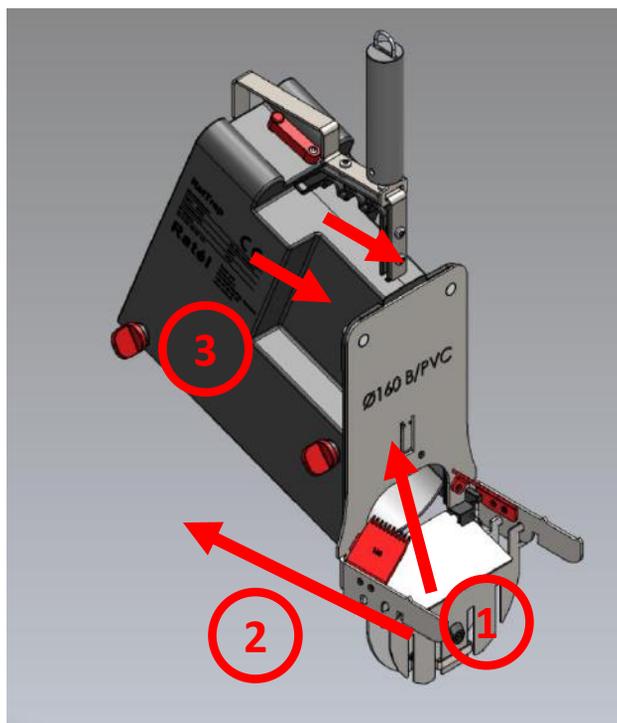
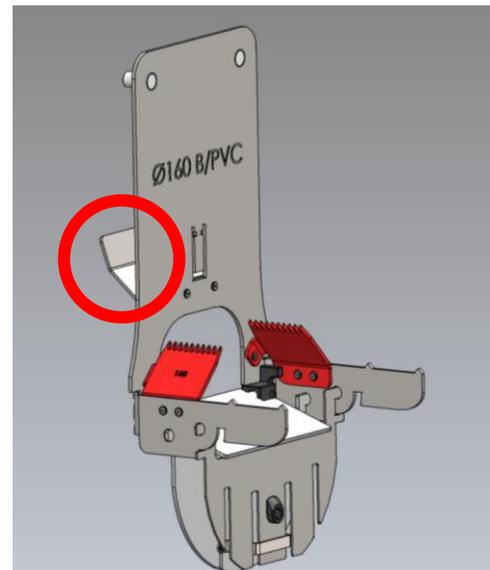


Turn the Lock pins back in place

Back to [Change CO2](#)

5.2.8 Remount Inlet

On the backside of the Ø160 Inlets is a little angle plate. These Inlets must therefore be angled into the trap, before the bolts can be fitted in the holes.



1. Inlet i angled into the trap
2. Inlet is put into place
3. Nuts are tightened

Back to [Change CO2](#)

[Back](#)

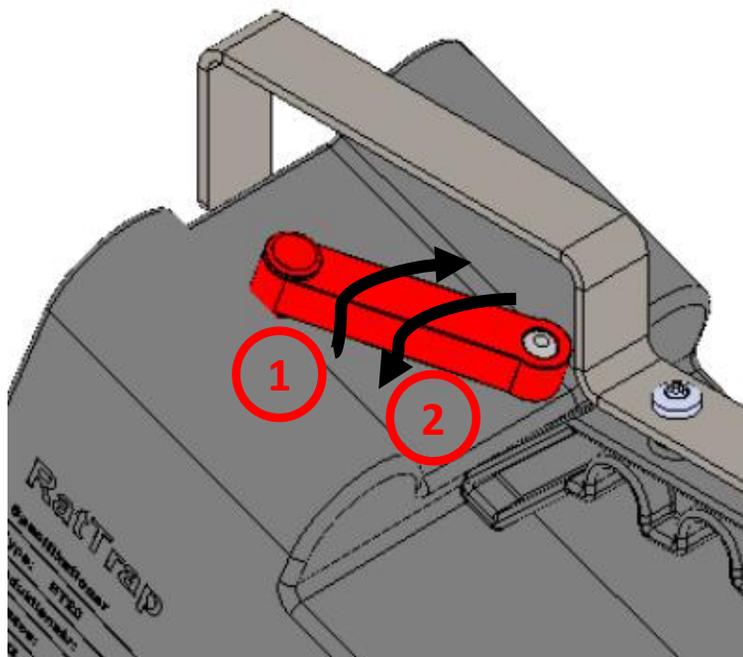
Back to [START](#)

5.4 Reset the killing counter

Move the contactarm slowly over the contact with a light push.

Hold it for app. 3 seconds – whereafter slowly letting the contactarm go back to it's "on" position.

Now the killing counter is reset.



Back to Service

Back to START

5.3 Change CO2 canister

Inlet size Ø200-Ø500 and Bench Inlet

- 5.3.1 Take out the Lock pins [Go](#)
- 5.3.2 Lift of the Outer container [Go](#)
- 5.3.3 Take out the CO2 canister [Go](#)
- 5.3.4 Insert the CO2 canister [Go](#)
- 5.3.5 Put back the Outer container [Go](#)
- 5.3.6 Insert the Lock pins [Go](#)

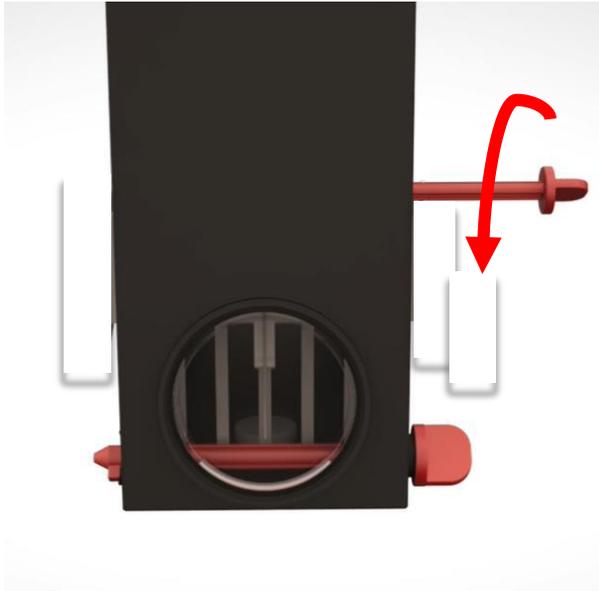
 NOTE that insert and replacement of the CO2 canister in ATEX labeled equipment must NOT be performed within the ATEX zones (zone classified areas).

Read about ATEX zones [HERE](#)

Back to [Service](#)

Back to [START](#)

5.3.1 Take out the Lock pins



Turn the Lock pins



Pull out the Lock pins

Back to [Change CO2](#)

[Next](#)

Back to [START](#)

5.3.2 Lift of the Outer container



Back to [Change CO2](#)

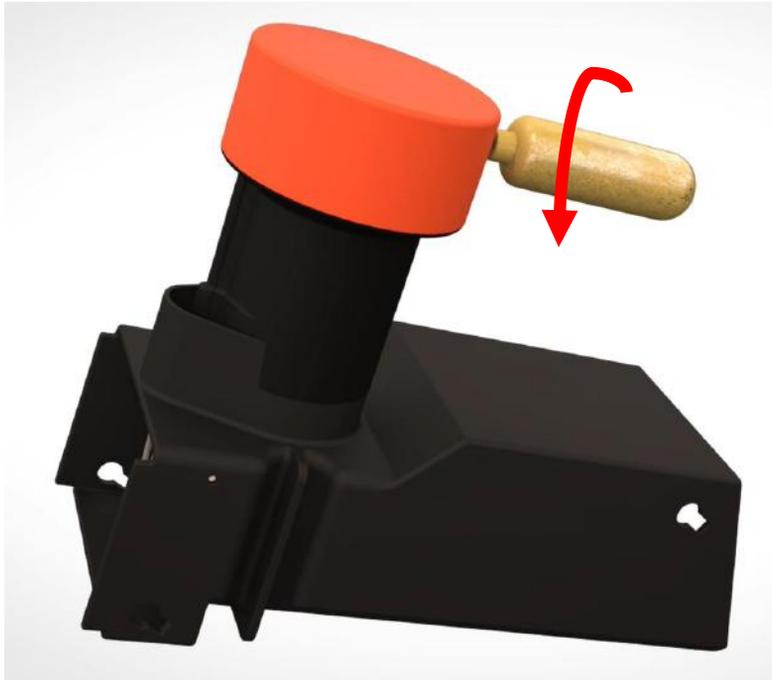
[Next](#)

[Back](#)

Back to [START](#)

5.3.3 Take out the CO2 canister

Screw out the canister counter clockwise – If there are CO2 left in the canister, it will now seep out – leaving the canister **VERY COLD**



Back to [Change CO2](#)

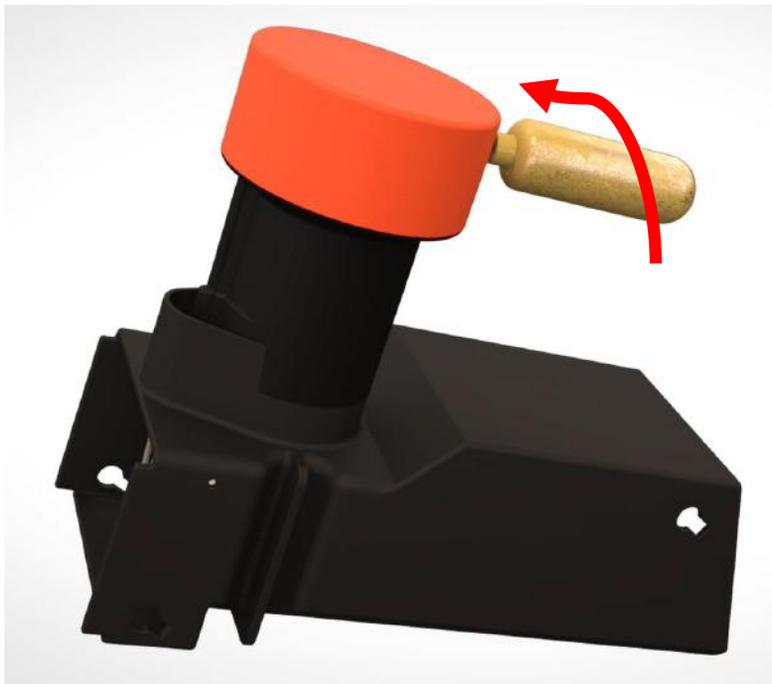
[Next](#)

[Back](#)

Back to [START](#)

5.3.4 Insert the CO2 canister

Screw in the canister clockwise – the canister must be tightened *as quickly as possible* to avoid that the CO2 seeps out



Back to [Change CO2](#)

[Next](#)

[Back](#)

Back to [START](#)

5.3.5 Put back the Outer container



Back to [Change CO2](#)

[Next](#)

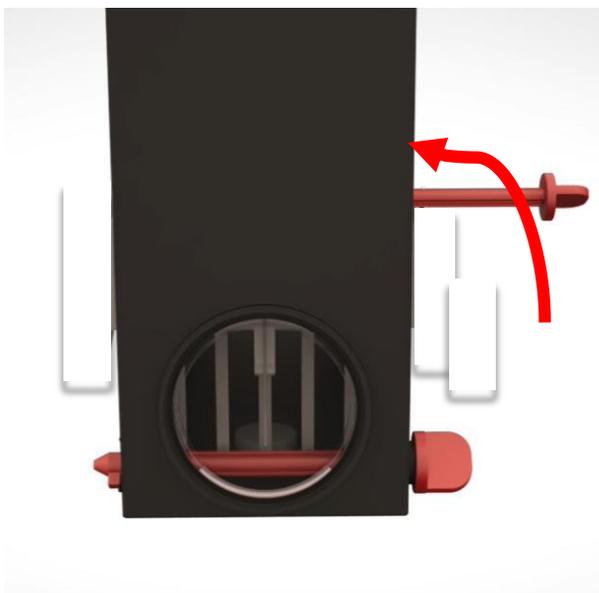
[Back](#)

Back to [START](#)

5.3.6 Insert the Lock pins



Mount the Lock pins from the front of the trap (the side with the nameplate)



Turn the Lock pins back in place

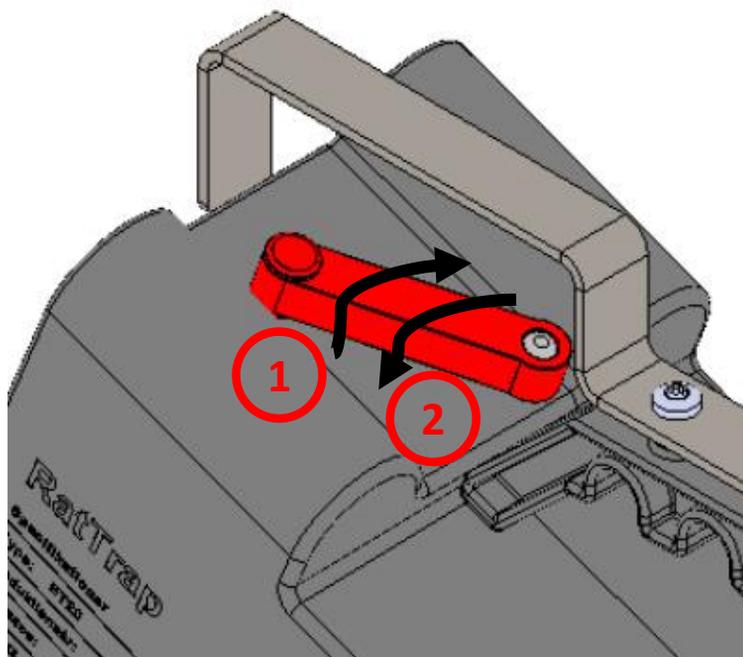
Back to [Change CO2](#)

5.4 Reset the killing counter

Move the contactarm slowly over the contact with a light push.

Hold it for app. 3 seconds – whereafter slowly letting the contactarm go back to it's "on" position.

Now the killing counter is reset.



Back to Service

Back to START

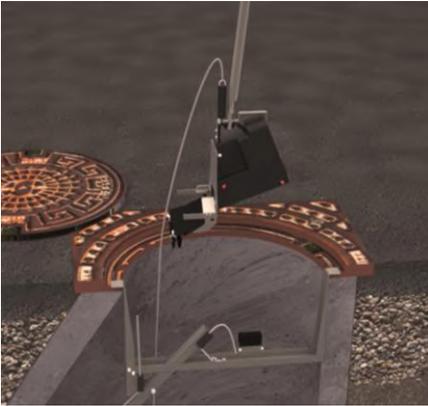
5.5.1 Mounting in PVC-manhole

- 5.5.1.1 Lower down the trap [Go](#)
- 5.5.1.2 Fasten the wire in the wire lock [Go](#)
- 5.5.1.3 Place the mounting kit [Go](#)
- 5.5.1.4 The mounting-hook is used to insert the trap in the pipe [Go](#)
- 5.5.1.5 Tighten the wire so the trap is fastened [Go](#)
- 5.5.1.6 Fasten the wire in the wire lock [Go](#)

Back to [Service](#)

Back to [START](#)

5.5.1.1 Lower down the trap



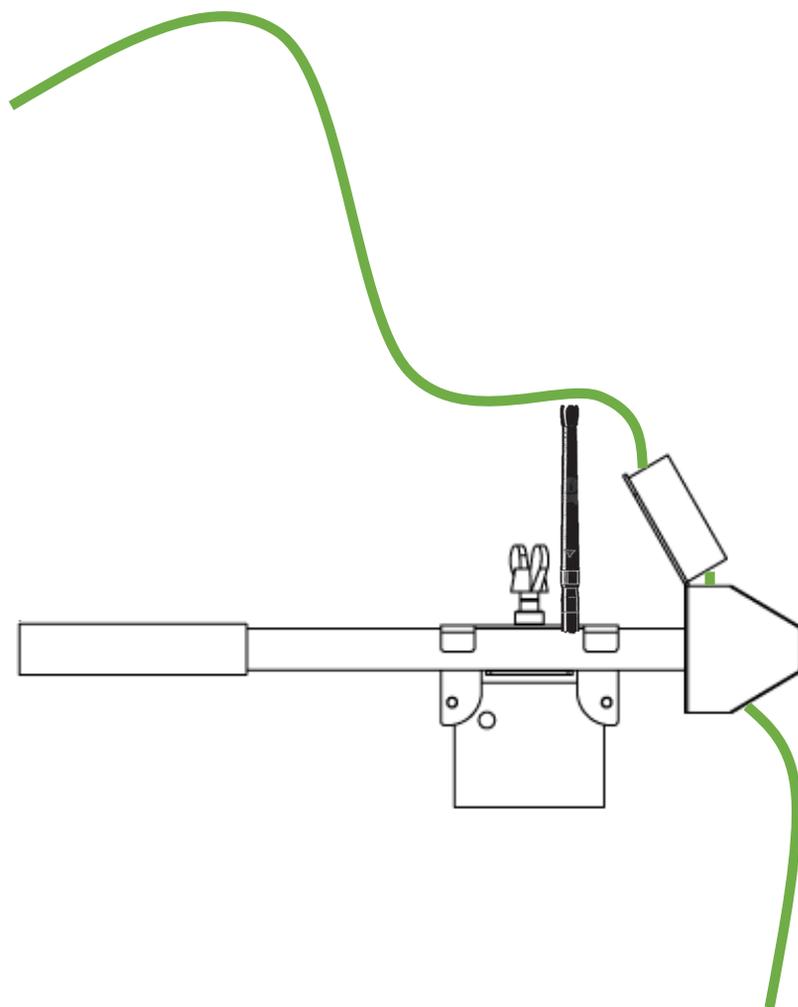
Using the Mounting-hook the trap is lowered down the manhole.

Back to [Mounting](#) in PVC-manhole

[Next](#)

Back to [START](#)

5.5.1.2 Fasten the wire in the wire lock



Back to [Mounting](#) in PVC-manhole

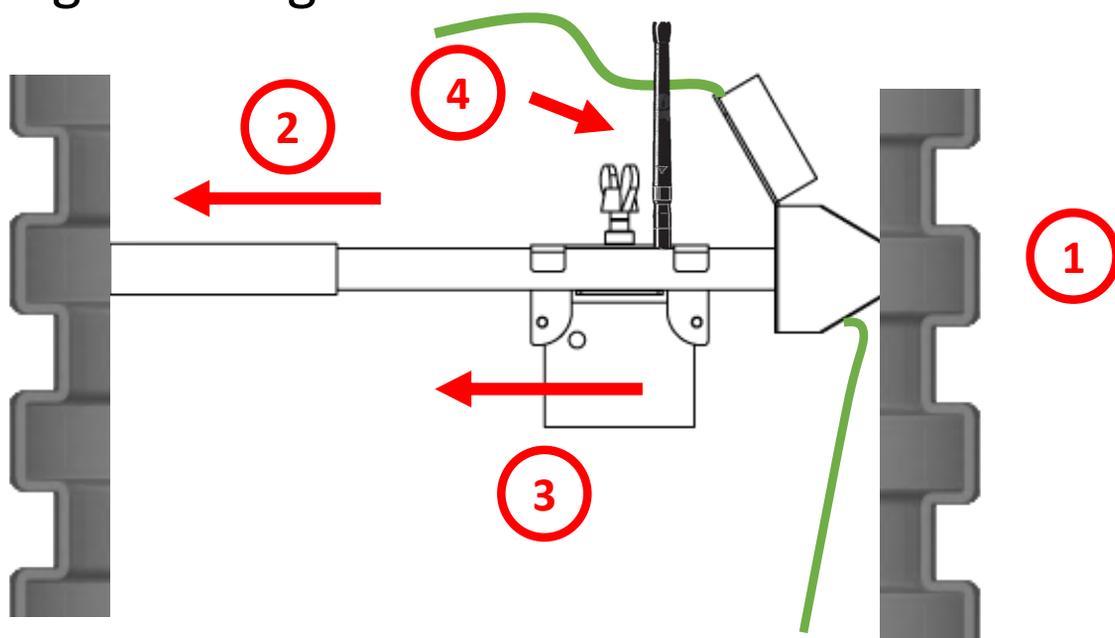
[Next](#)

[Back](#)

Back to [START](#)

5.5.1.3 Place the mounting kit

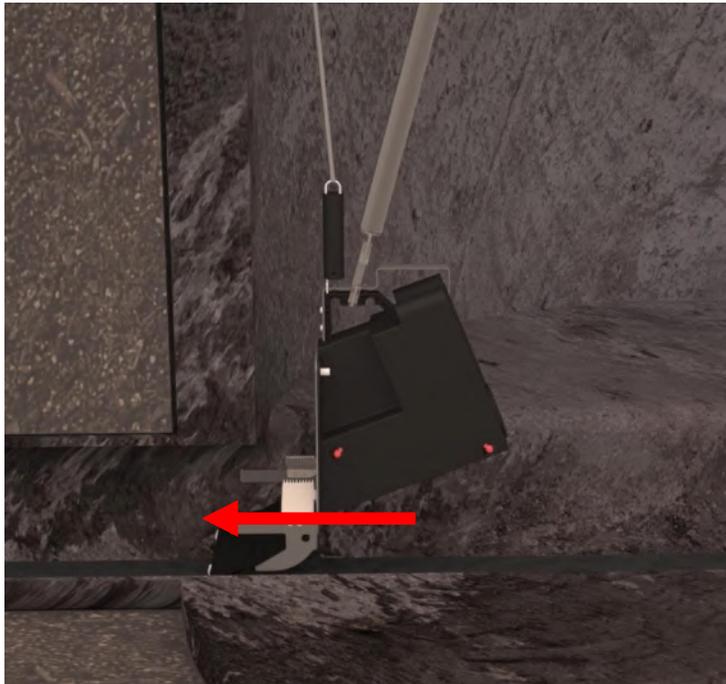
- ① The Mounting kit's triangular end is placed in the grooves in one side of the PVC-manhole.
- ② The extender is slid into to the grooves in the opposite side of the PVC-manhole.
- ③ The extender lock with the Repeater is slid towards the extender – and the
- ④ wing nut is tightened.



Back to [Mounting](#) in PVC-manhole

5.5.1.4 The mounting-hook is used to insert the trap in the pipe

The mounting-hook is used to insert the trap in the pipe



Back to [Mounting](#) in PVC-manhole

[Next](#)

[Back](#)

Back to [START](#)

5.5.1.5 Tighten the wire so the trap is fastened

The wire is tightened so the spring in the spring handle is stretched so that you have a proper pull

Now the trap is kept tight and thereby fastened in the pipe



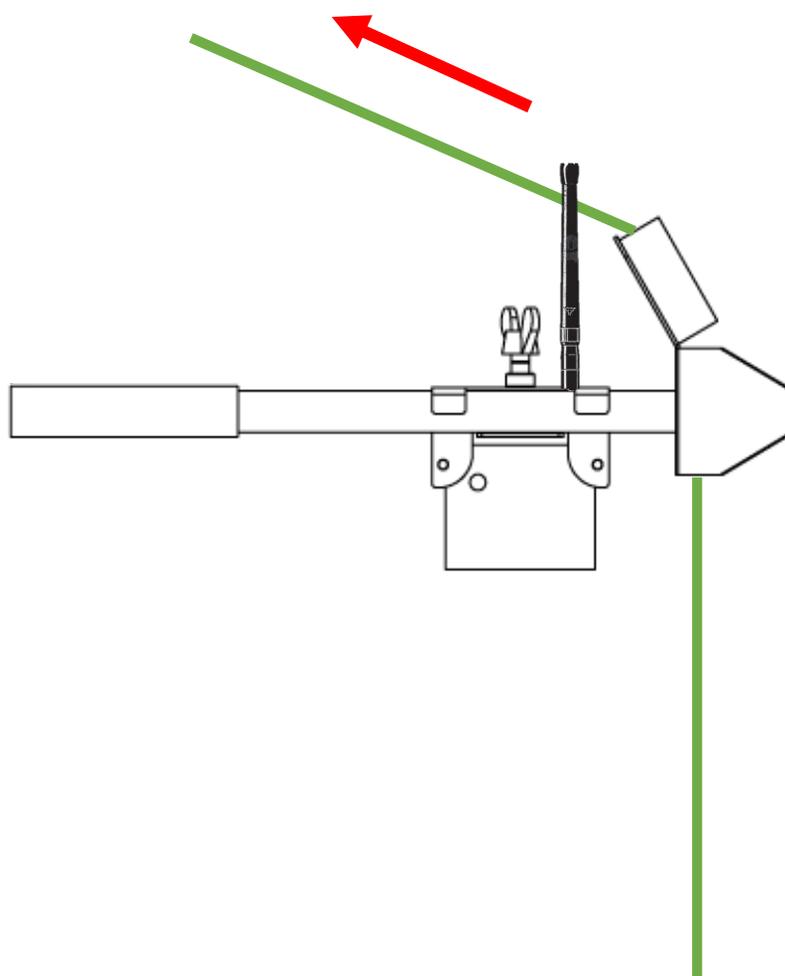
Back to [Mounting](#) in PVC-manhole

[Next](#)

[Back](#)

Back to [START](#)

5.5.1.6 Fasten the wire in the wire lock



Back to [Mounting](#) in PVC-manhole

[Back](#)

Back to [START](#)

5.5.2 Mounting in Concrete manhole

- 5.5.2.1 Lower down the trap [Go](#)
- 5.5.2.2 The mounting-hook is used to insert the trap in the pipe [Go](#)
- 5.5.2.3 Tighten the wire so the trap is fastened [Go](#)
- 5.5.2.4 Fasten the wire in the wire lock [Go](#)

Back to [Service](#)

Back to [START](#)

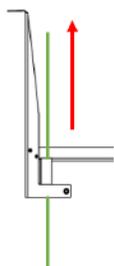
5.5.2.1 Lower down the trap



Using the Mounting-hook the trap is lowered down the manhole.



The trap should be lowered down on that side of the mounting kit where the wire lock is placed.



The wire is fastened in the Wire lock so the trap is not dropped in the following steps.

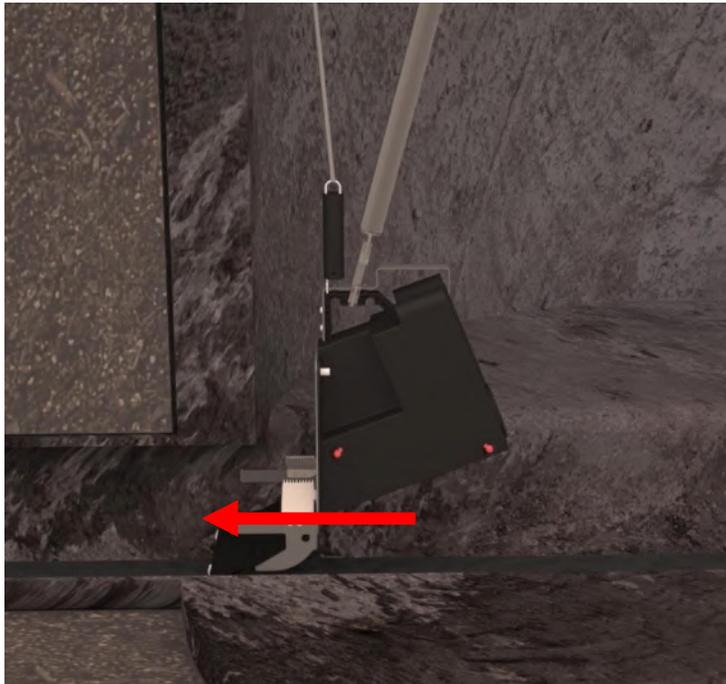
Back to [Mounting](#) in Concrete manhole

[Next](#)

Back to [START](#)

5.5.2.2 The mounting-hook is used to insert the trap in the pipe

The wire is loosened a bit, and the mounting-hook is used to insert the trap in the pipe



Back to [Mounting](#) in Concrete manhole

[Next](#)

[Back](#)

Back to [START](#)

5.5.2.3 Tighten the wire so the trap is fastened

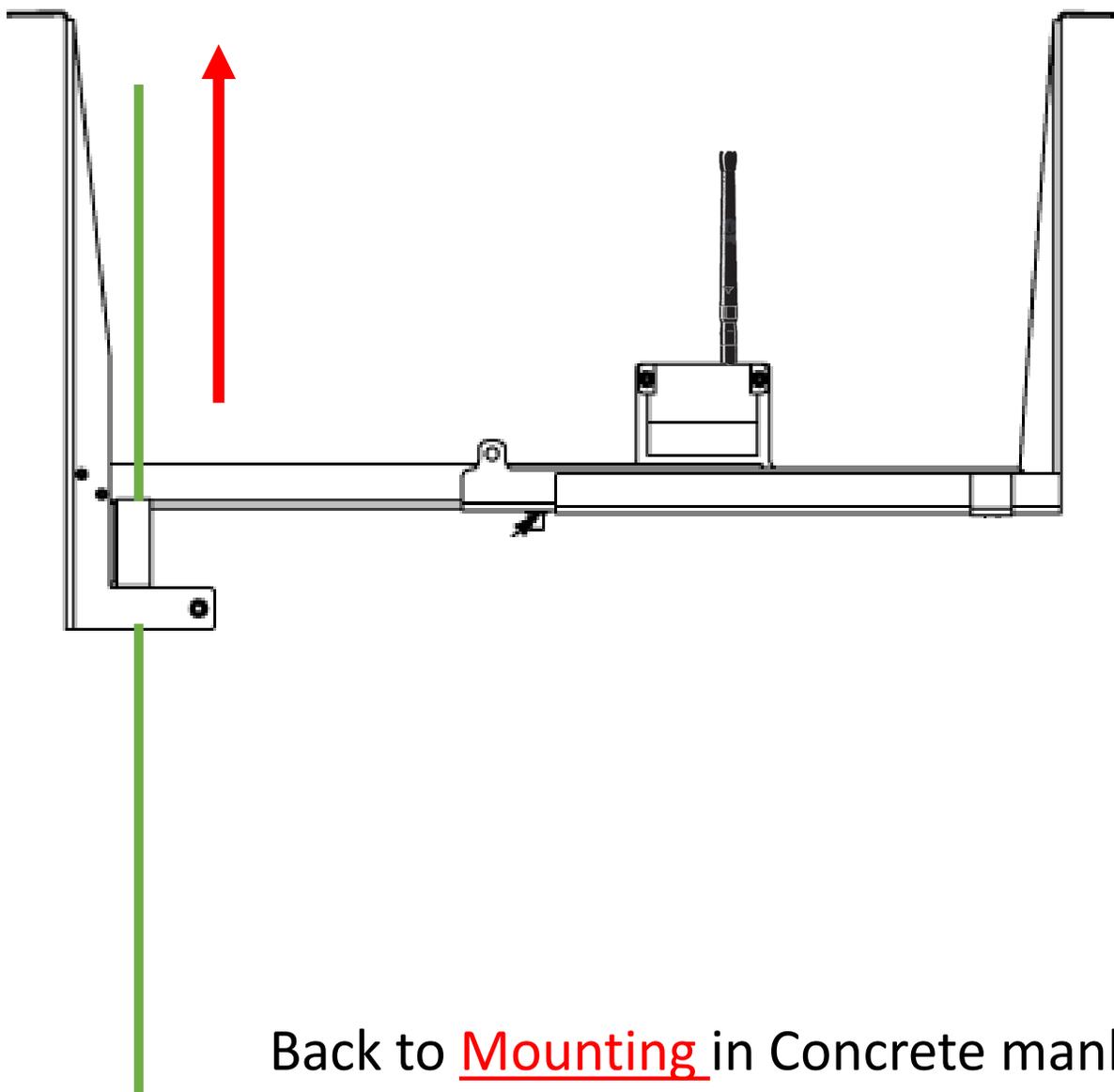
The wire is tightened so the spring in the spring handle is stretched so that you have a proper pull

Now the trap is kept tight and thereby fastened in the pipe



Back to [Mounting](#) in Concrete manhole

5.5.2.4 Fasten the wire in the wire lock



Back to [Mounting](#) in Concrete manhole

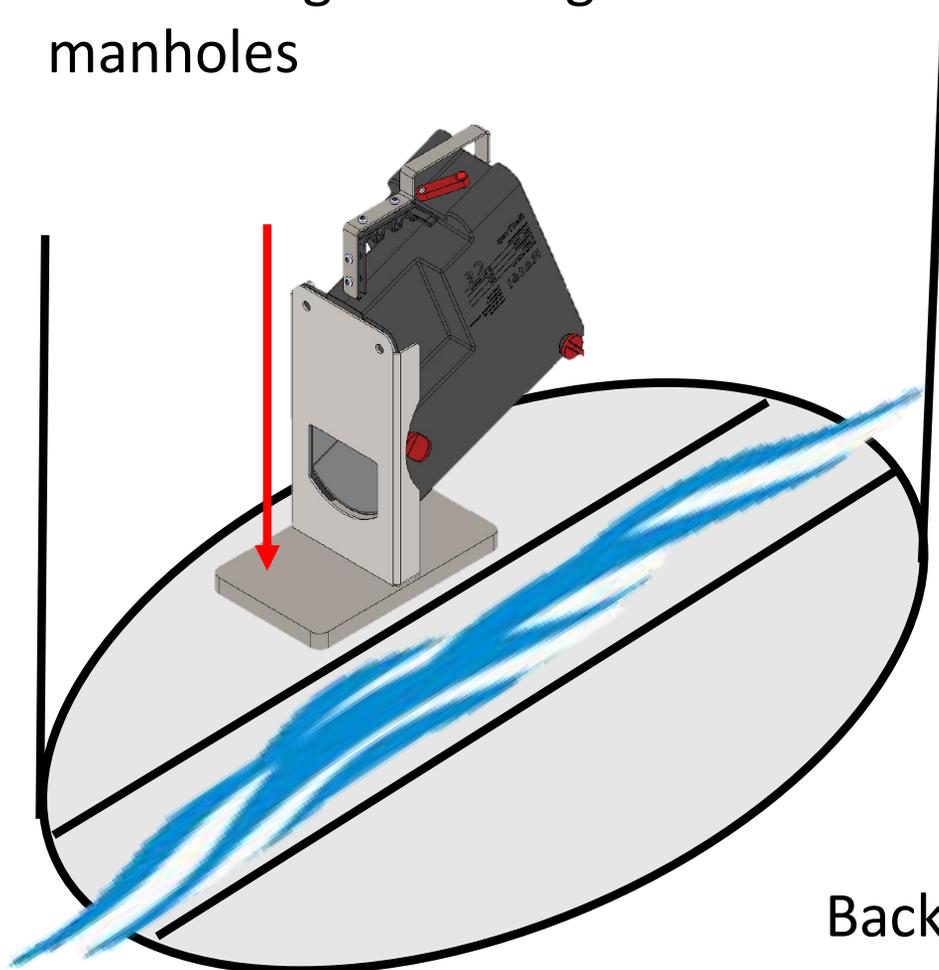
[Back](#)

Back to [START](#)

5.5.3 Mounting the Bench Trap All Manhole types

Place the trap so it touches the bench in the bottom of the manhole

Tighten the Wire as usual – see the sections concerning mounting in concrete and PVC manholes

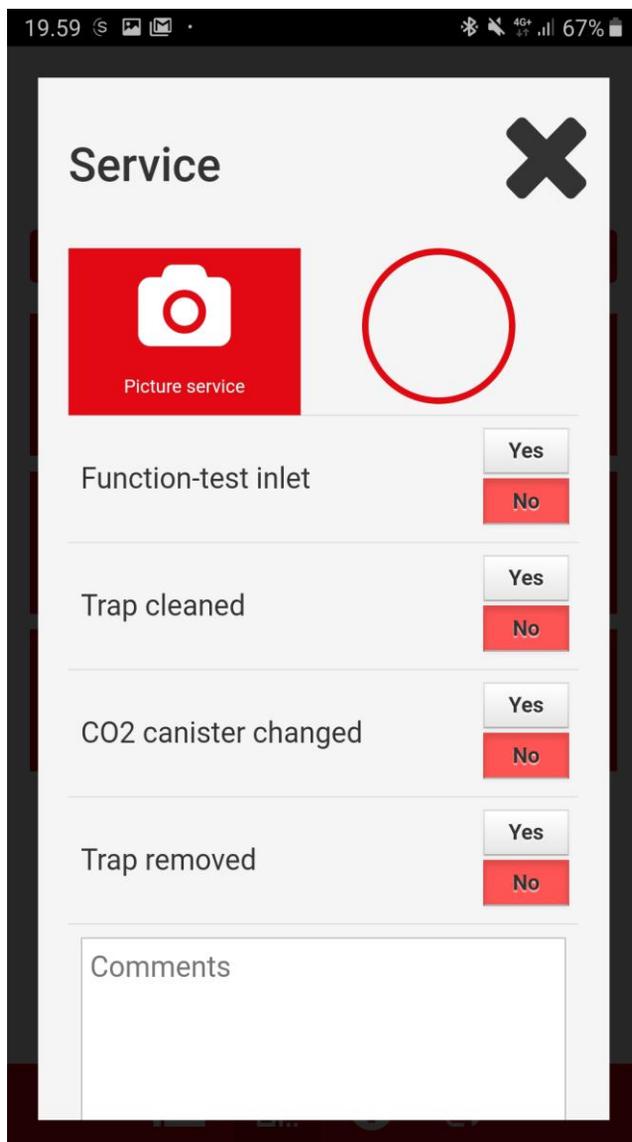


Back to [Service](#)

[Back](#)

Back to [START](#)

5.6 Note service in the APP



The screenshot shows a mobile application interface titled "Service". At the top left, the time is 19:59 and the battery level is 67%. The interface includes a red camera icon labeled "Picture service" and a red circle icon. Below these are four rows of service notes, each with a "Yes" and "No" button. The "No" buttons are highlighted in red. At the bottom, there is a "Comments" text input field.

Service Note	Yes	No
Function-test inlet	<input type="button" value="Yes"/>	<input checked="" type="button" value="No"/>
Trap cleaned	<input type="button" value="Yes"/>	<input checked="" type="button" value="No"/>
CO2 canister changed	<input type="button" value="Yes"/>	<input checked="" type="button" value="No"/>
Trap removed	<input type="button" value="Yes"/>	<input checked="" type="button" value="No"/>

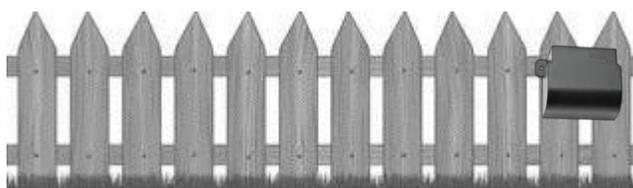
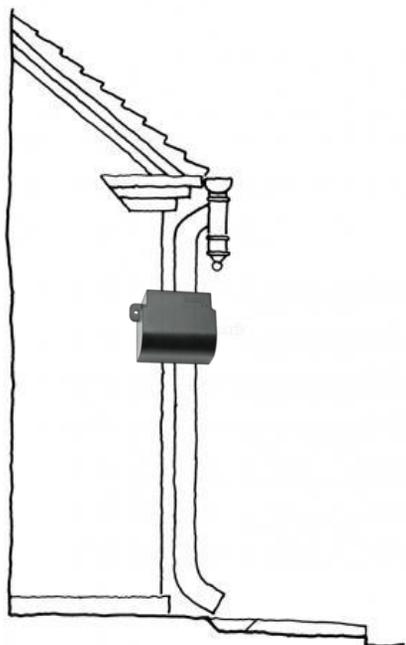
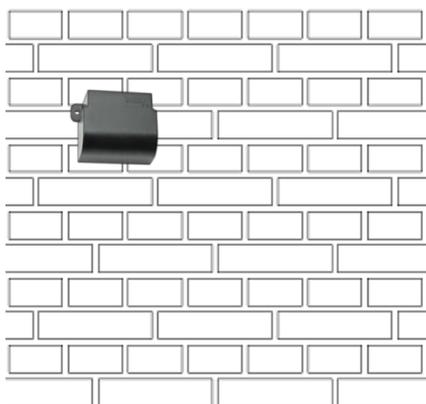
Comments

See the full guide to note service in the APP [HERE](#)

Back to [Service](#)

Back to [START](#)

5.7 Check if Communication module is in proper place



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Back to [Service](#)

Back to [START](#)

6. Demounting

6.1 Demounting From Concrete manhole [Go](#)

6.2 Demounting From PVC manhole [Go](#)

6.3 Demounting Bench Trap [Go](#)

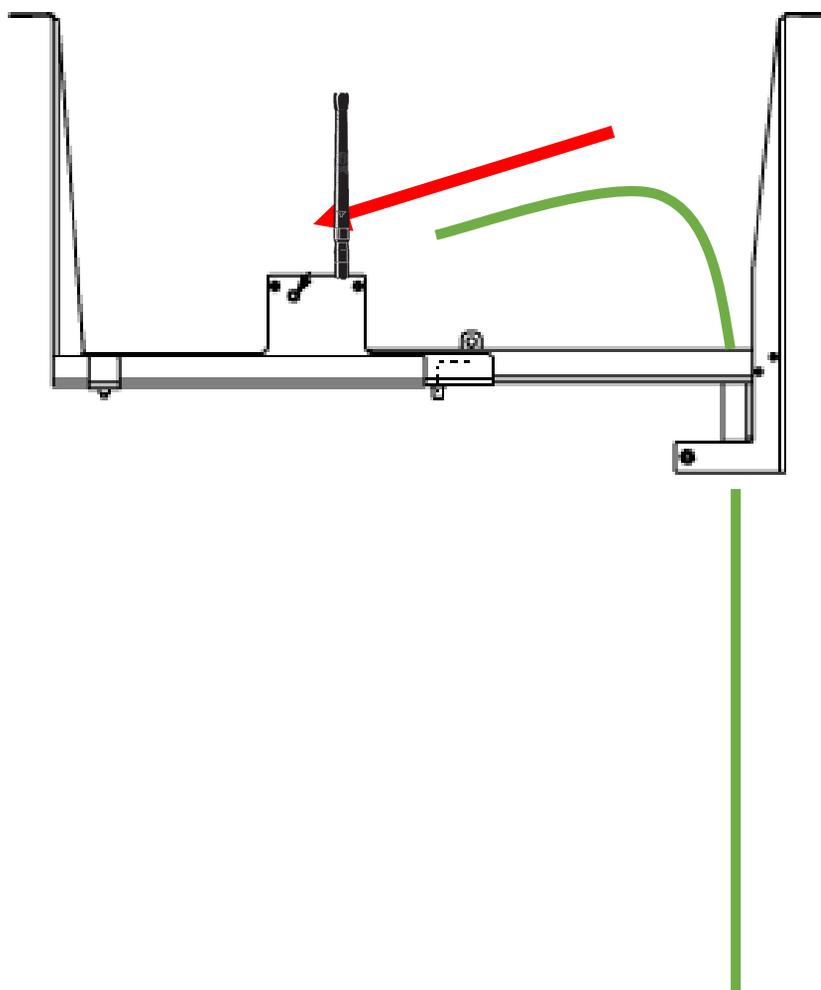
6.1 Demounting From Concrete manhole

- 6.1.1 Loosen the wire so the trap is released from the pipe [Go](#)
- 6.1.2 The Mounting-hook is used to pull out the trap From the pipe [Go](#)
- 6.1.3 If necessary loosen the fabric cord so the guiding rod is free [Go](#)
- 6.1.4 The trap is lifted up from the manhole [Go](#)
- 6.1.5 Take up Mounting kit [Go](#)

Back to [Demounting](#)

Back to [START](#)

6.1.1 Loosen the wire so the trap is released from the pipe



Back to [Demounting From Concrete manhole](#)

[Next](#)

Back to [START](#)

6.1.2 The Mounting-hook is used to pull out the trap From the pipe



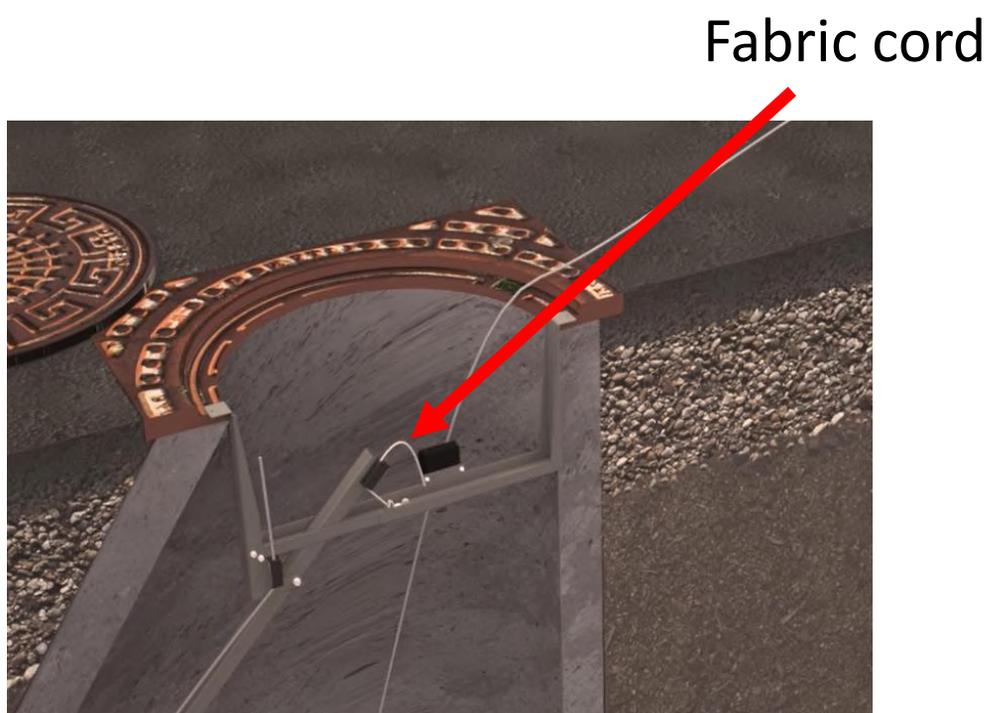
Back to [Demounting From Concrete manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

6.1.3 If necessary loosen the fabric cord so the guiding rod is free



Back to [Demounting From Concrete manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

6.1.4 The trap is lifted up from the manhole



Using the Mounting-hook the trap is lifted up from the manhole

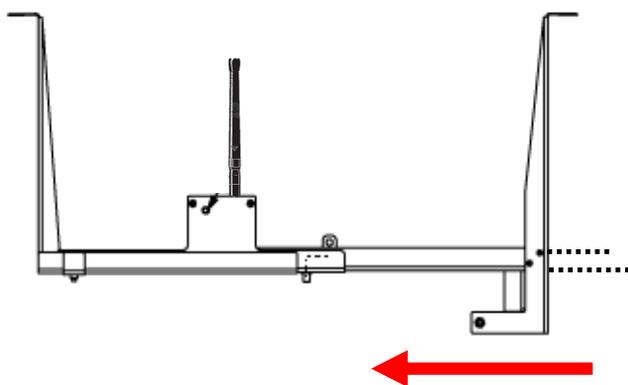
Back to [Demounting From Concrete manhole](#)

[Next](#)

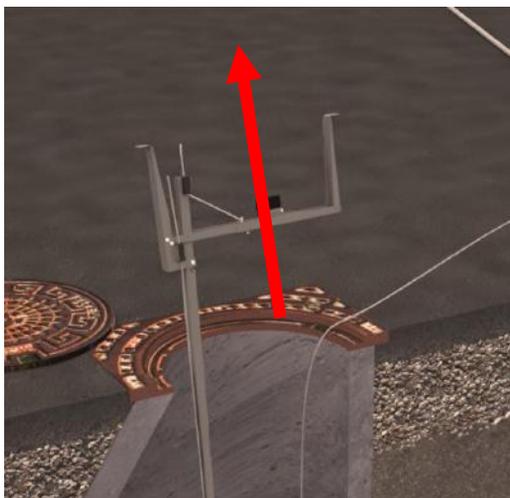
[Back](#)

Back to [START](#)

6.1.5 Take up Mounting kit



Loosen the Wing nuts so that the supporting profile can slide back and the mounting kit can adjust to a smaller width.



Take up the mounting kit

Back to [Demounting From Concrete manhole](#)

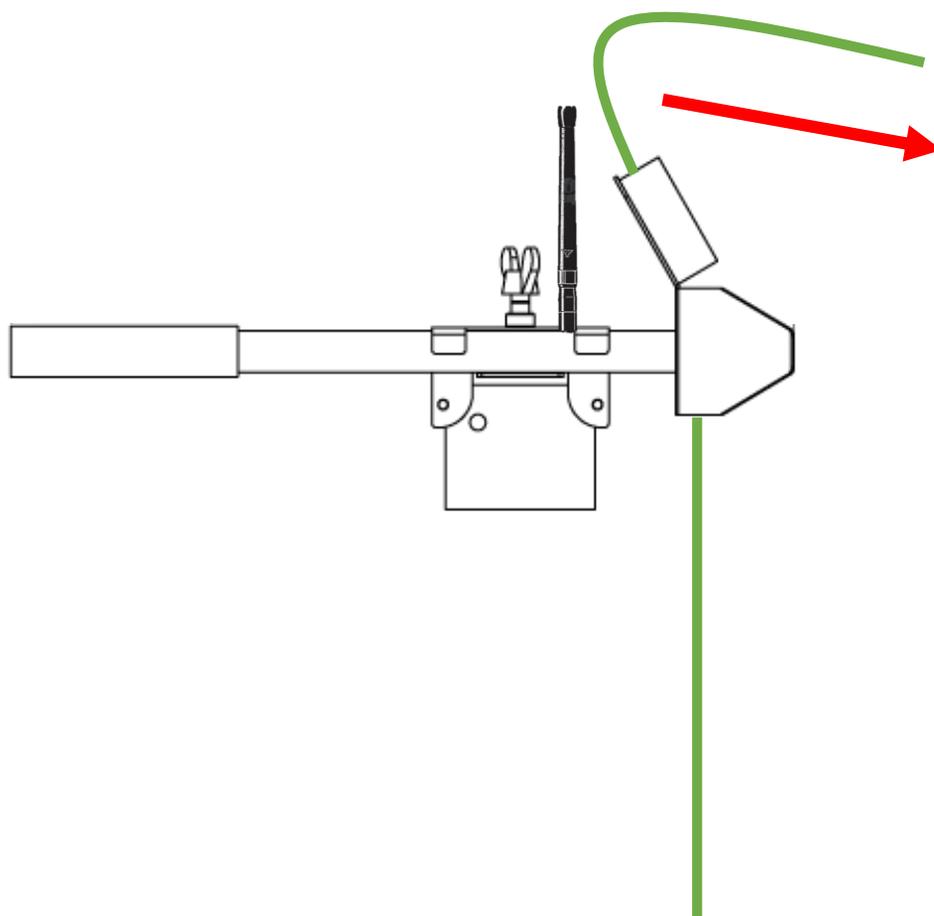
6.2 Demounting From PVC-manhole

- 6.2.1 Loosen the wire so the trap is released from the pipe [Go](#)
- 6.2.2 The Mounting-hook is used to pull out the trap From the pipe [Go](#)
- 6.2.3 Take up Mounting kit [Go](#)
- 6.2.4 The trap is lifted up from the manhole [Go](#)

Back to [Demounting](#)

Back to [START](#)

6.2.1 Loosen the wire so the trap is released from the pipe

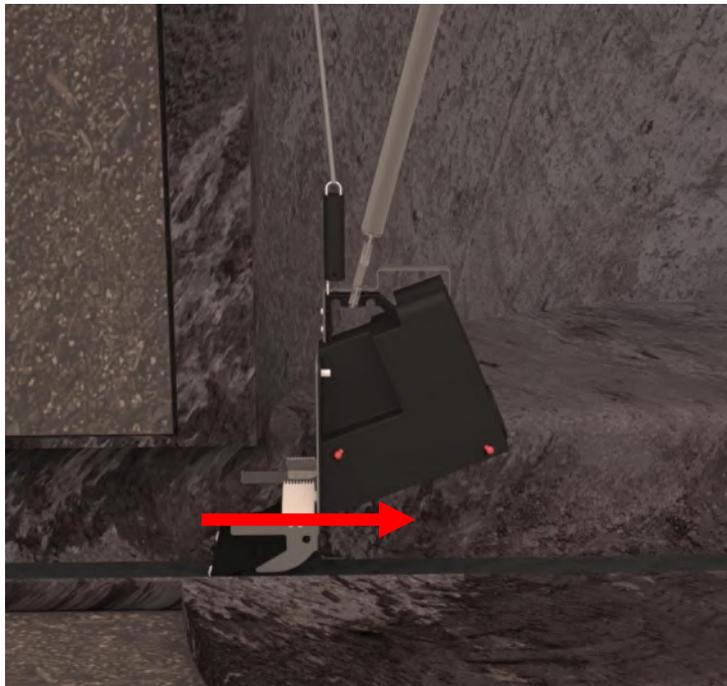


Back to [Demounting From PVC-manhole](#)

[Next](#)

Back to [START](#)

6.2.2 The Mounting-hook is used to pull out the trap From the pipe



Back to [Demounting From PVC-manhole](#)

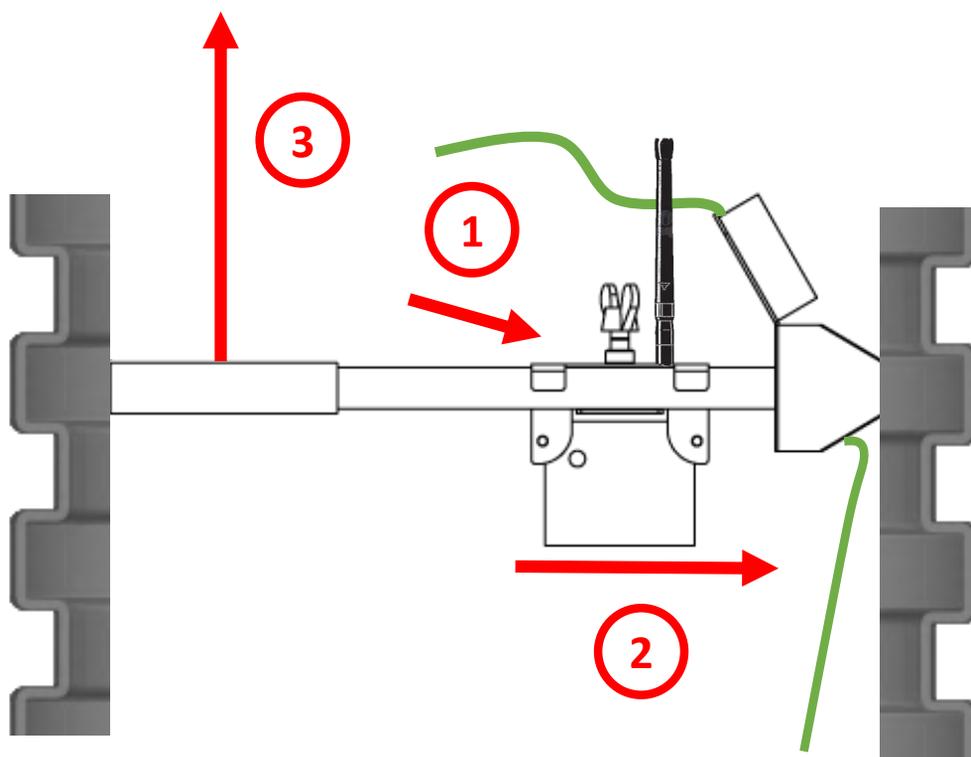
[Next](#)

[Back](#)

Back to [START](#)

6.2.3 Take up Mounting kit

- 1 The wing nut is loosened
- 2 The extender lock with repeater is slid towards the triangular part
- 3 Take up the mounting kit



Back to [Demounting From PVC-manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

6.2.4 The trap is lifted up from the manhole



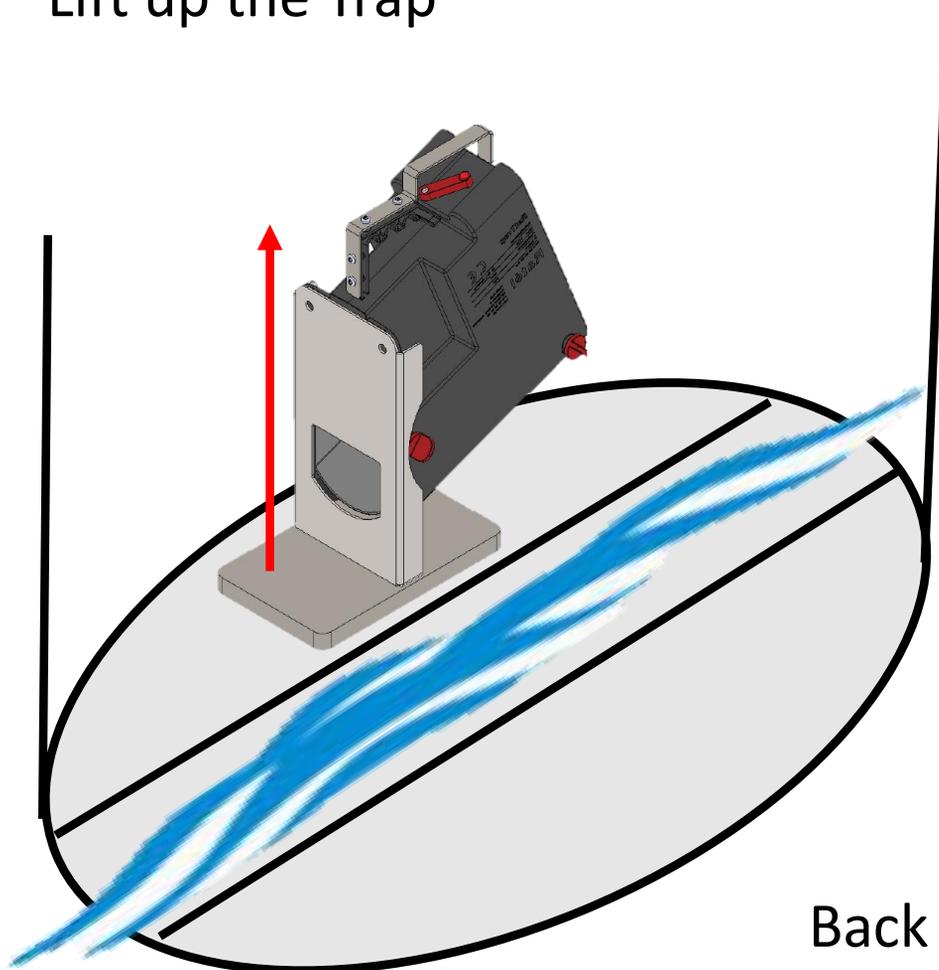
Using the Mounting-hook the trap is lifted up from the manhole

Back to [Demounting From PVC-manhole](#)

6.3 Lift up the Bench Trap

Loosen the Wire as usual – see the sections concerning demounting in concrete and PVC manholes.

Lift up the Trap



Back to [Demounting](#)

[Back](#)

Back to [START](#)

7. New Location

7.1 Demount the trap

7.1.1 PVC manhole

[Go](#)

7.1.2 Concrete manhole

[Go](#)

7.1.3 Bench Trap

[Go](#)

7.2 Fix the contactarm over the contact on the trap

[Go](#)

7.3 Demount the trap in the APP

[Go](#)

7.4 Turn off the repeater

[Go](#)

7.5 Take down the Communication module

[Go](#)

7.6 Move all parts to the new location

[Go](#)

7.7 Prepare the trap for mounting

[Go](#)

7.8 Remount trap

7.8.1 PVC manhole

7.8.2 Concrete manhole

7.8.3 Bench Trap

NOTE that a valid authorization is required under applicable legislation to mount the RatTraps in the sewersystem

 ALWAYS remember to use ATEX-labeled equipment in ATEX zones (zone-classified areas), as well as to check that all ATEX-labeled devices are intact and correctly assembled before mounting in ATEX zones
Read about ATEX zones [HERE](#)

[Go](#)

[Go](#)

[Go](#)

Back to [START](#)

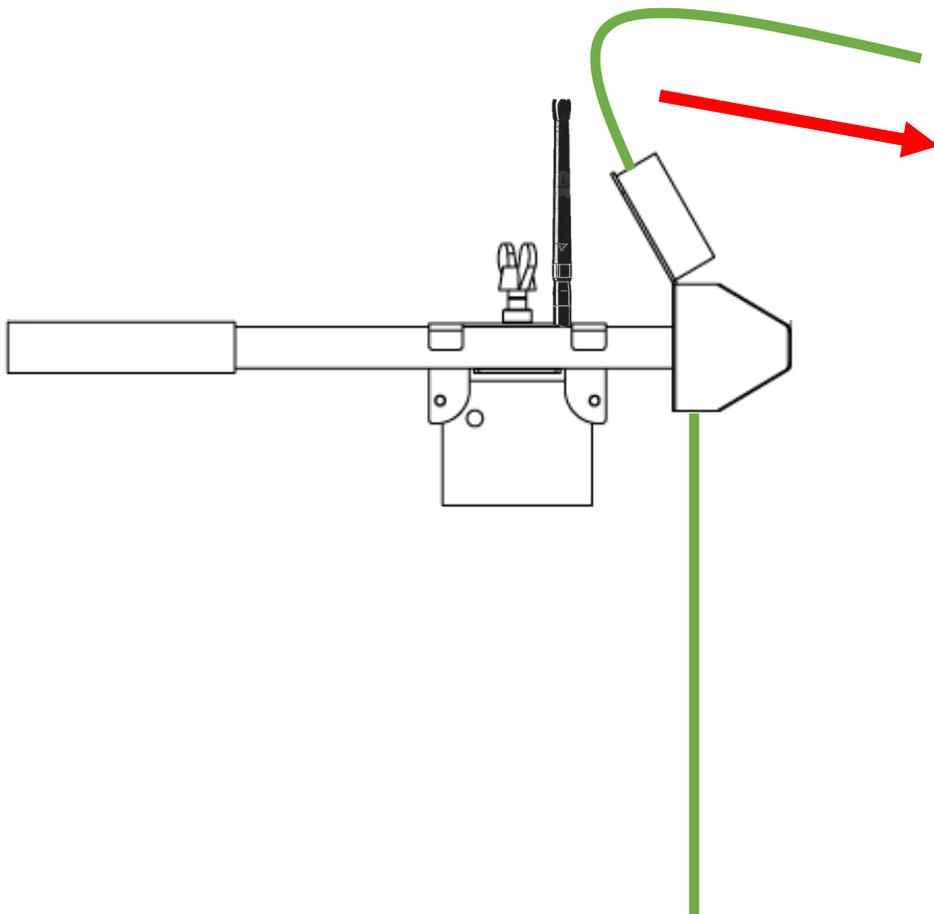
7.1.1 Demounting From PVC-manhole

- 7.1.1.1 Loosen the wire so the trap is released from the pipe [Go](#)
- 7.1.1.2 The Mounting-hook is used to pull out the trap From the pipe [Go](#)
- 7.1.1.3 Take up Mounting kit [Go](#)
- 7.1.1.4 The trap is lifted up from the manhole [Go](#)

Back to [New Location](#)

Back to [START](#)

7.1.1.1 Loosen the wire so the trap is released from the pipe

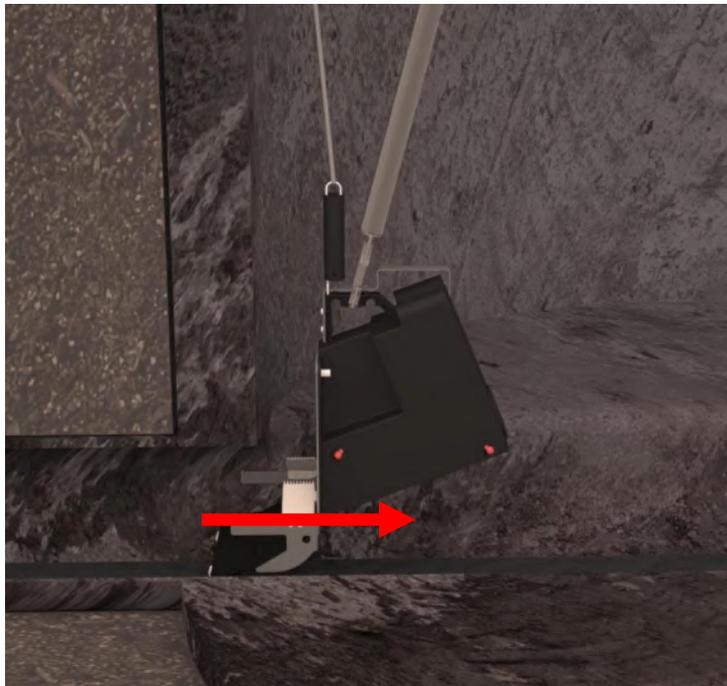


Back to [Demounting From PVC-manhole](#)

[Next](#)

Back to [START](#)

7.1.1.2 The Mounting-hook is used to pull out the trap From the pipe



Back to [Demounting From PVC-manhole](#)

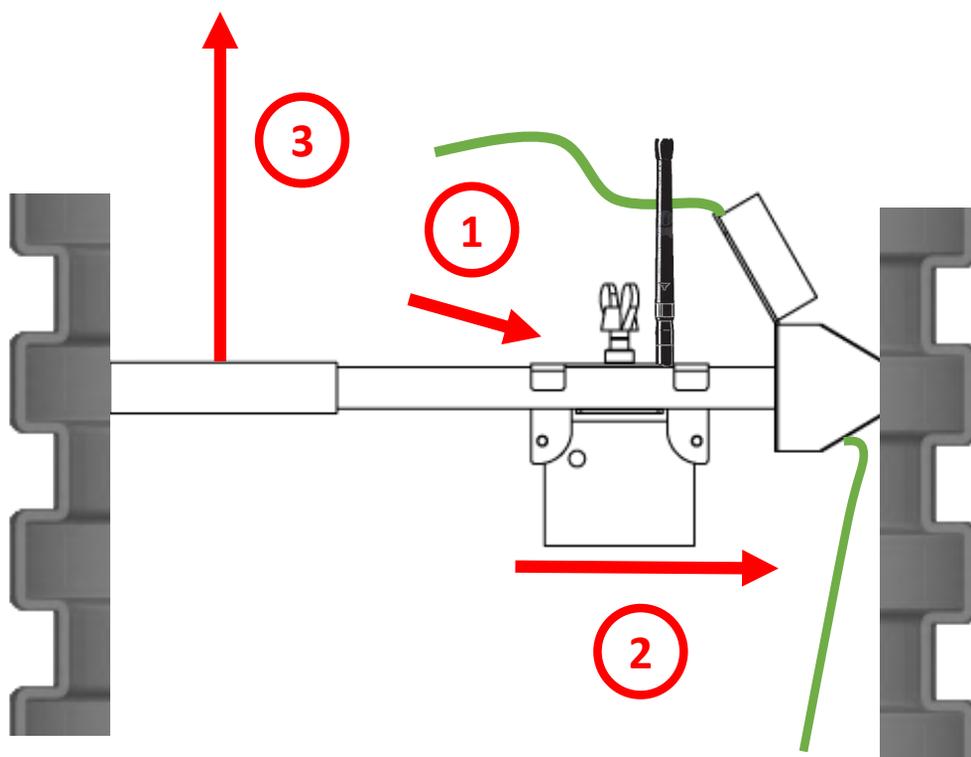
[Next](#)

[Back](#)

Back to [START](#)

7.1.1.3 Take up Mounting kit

- 1 The wing nut is loosened
- 2 The extender lock with repeater is slid towards the triangular part
- 3 Take up the mounting kit



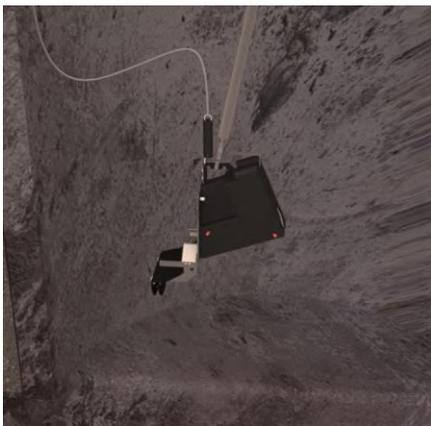
Back to [Demounting From PVC-manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

7.1.1.4 The trap is lifted up from the manhole



Using the Mounting-hook the trap is lifted up from the manhole

Back to [Demounting From PVC-manhole](#)

[Back](#)

Back to [START](#)

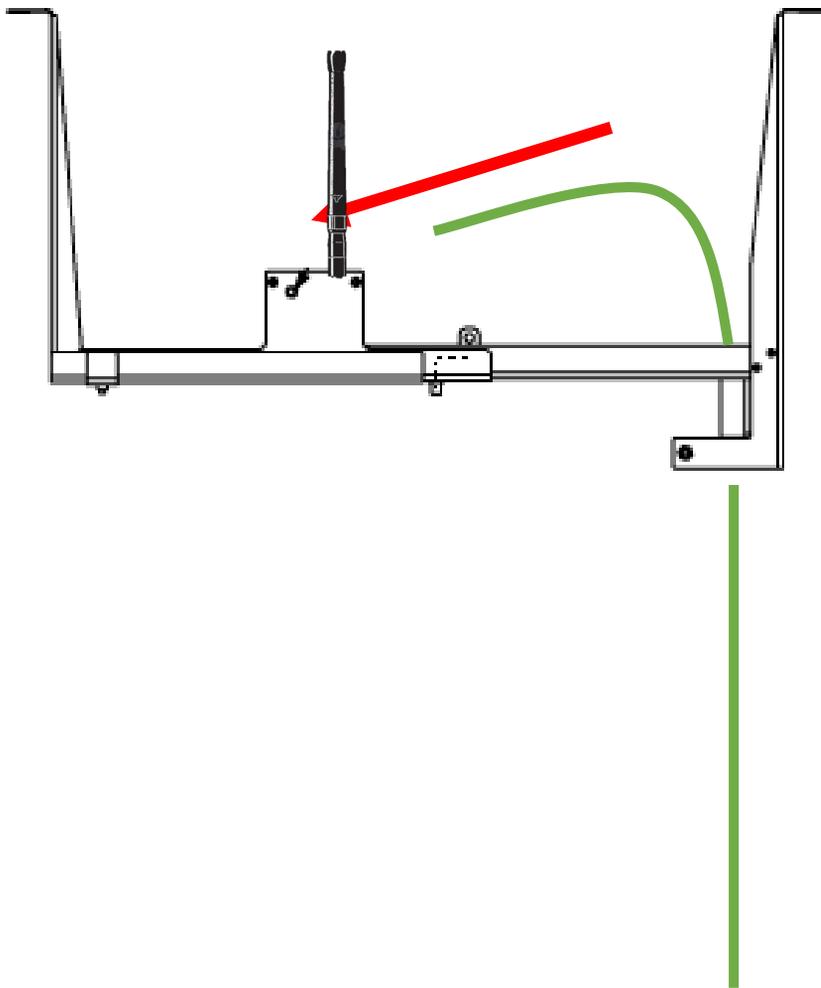
7.1.2 Demounting From Concrete manhole

- 7.1.2.1 Loosen the wire so the trap is released from the pipe [Go](#)
- 7.1.2.2 The Mounting-hook is used to pull out the trap From the pipe [Go](#)
- 7.1.2.3 If necessary loosen the fabric cord so the guiding rod is free [Go](#)
- 7.1.2.4 The trap is lifted up from the manhole [Go](#)
- 7.1.2.5 Take up Mounting kit [Go](#)

Back to [New Location](#)

Back to [START](#)

7.1.2.1 Loosen the wire so the trap is released from the pipe

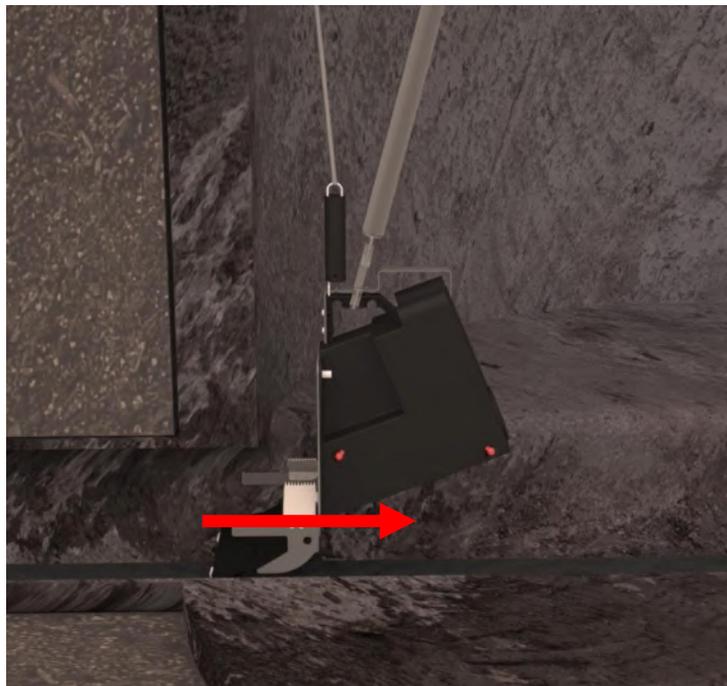


Back to [Demounting From Concrete manhole](#)

[Next](#)

Back to [START](#)

7.1.2.2 The Mounting-hook is used to pull out the trap From the pipe



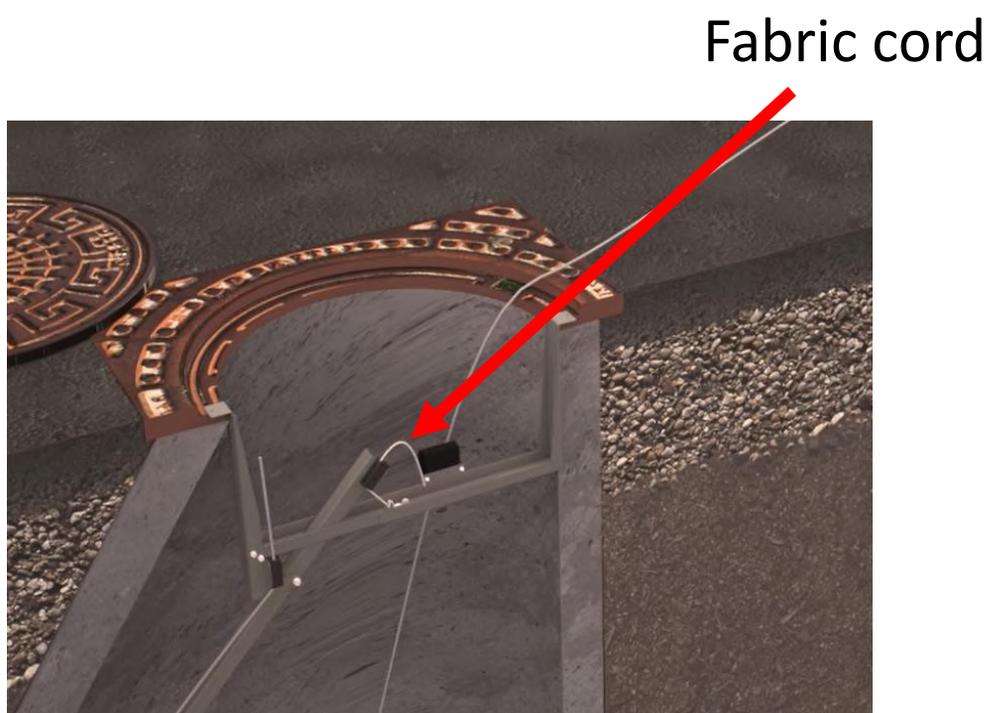
Back to [Demounting From Concrete manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

7.1.2.3 If necessary loosen the fabric cord so the guiding rod is free



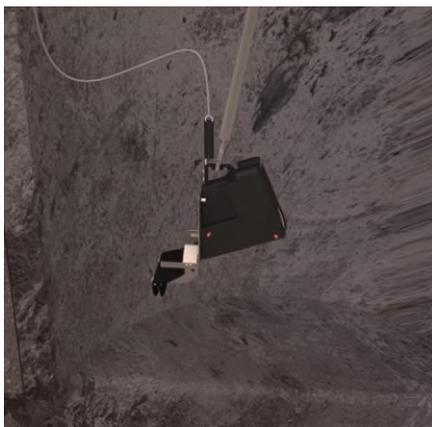
Back to [Demounting From Concrete manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

7.1.2.4 The trap is lifted up from the manhole



Using the Mounting-hook the trap is lifted up from the manhole

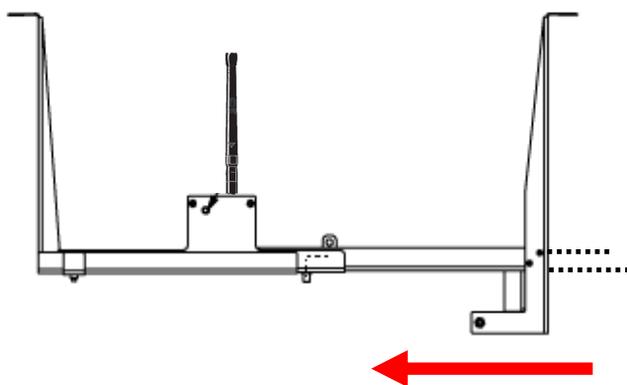
Back to [Demounting From Concrete manhole](#)

[Next](#)

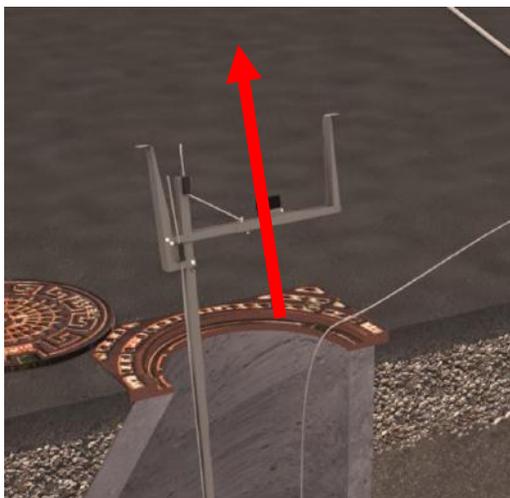
[Back](#)

Back to [START](#)

7.1.2.5 Take up Mounting kit



Loosen the Wing nuts so that the supporting profile can slide back and the mounting kit can adjust to a smaller width.



Take up the Mounting kit

Back to [Demounting From Concrete manhole](#)

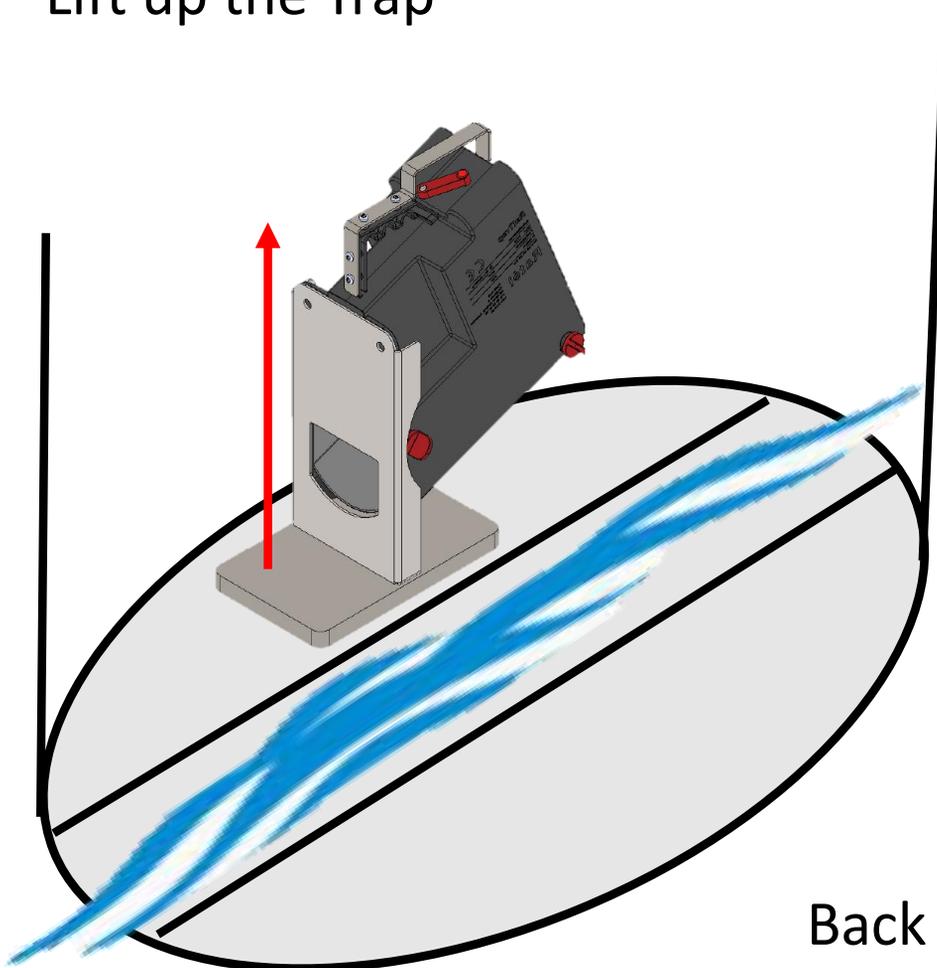
[Back](#)

Back to [START](#)

7.1.3 Lift up the Bench Trap

Loosen the Wire as usual – see the sections concerning demounting in concrete and PVC manholes.

Lift up the Trap



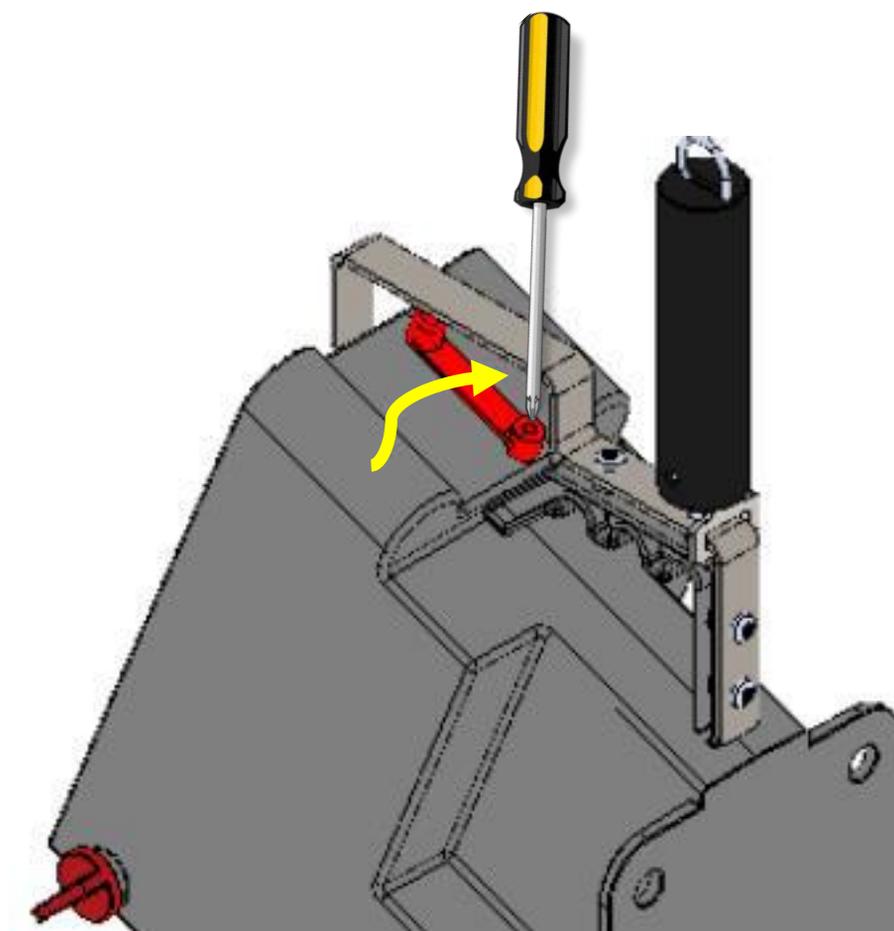
Back to [New location](#)

[Back](#)

Back to [START](#)

7.2 Fix the contactarm over the contact on the trap

Now the transmitter is turned off

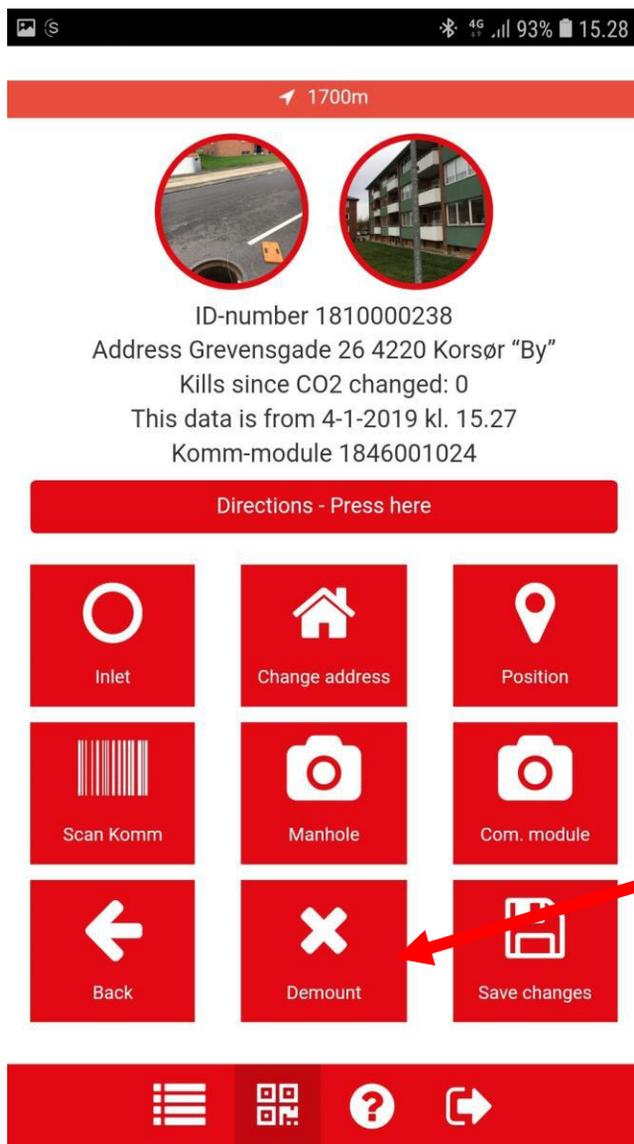


Back to [New Location](#)

[Next](#)

Back to [START](#)

7.3 Demount the trap in the APP



Back to [New Location](#)

[Next](#)

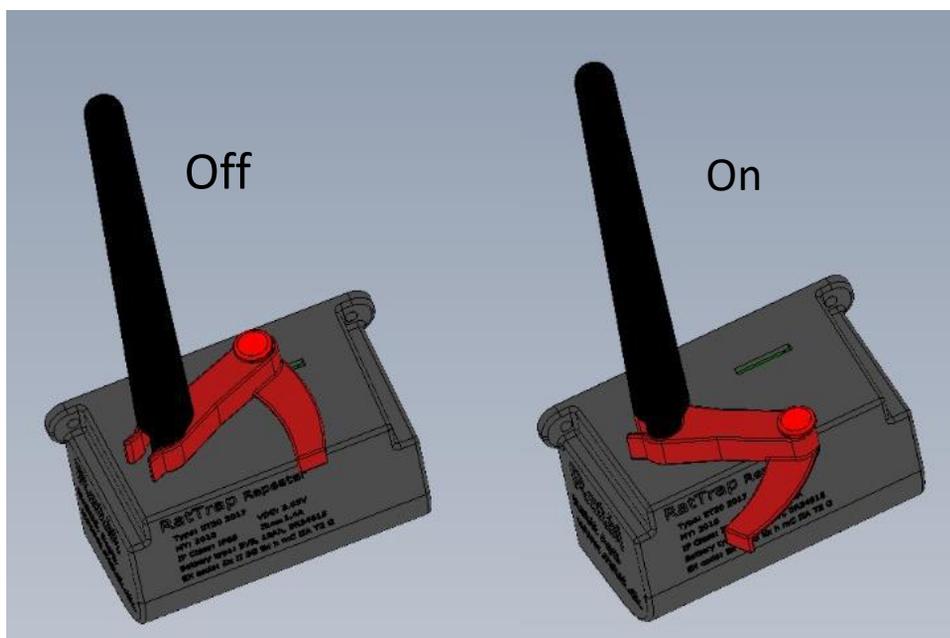
[Back](#)

Back to [START](#)

7.4 Turn off the repeater

The Repeater is mounted on the mounting kits both PVC and concrete

Turn the arm – then the reapeater is turned off



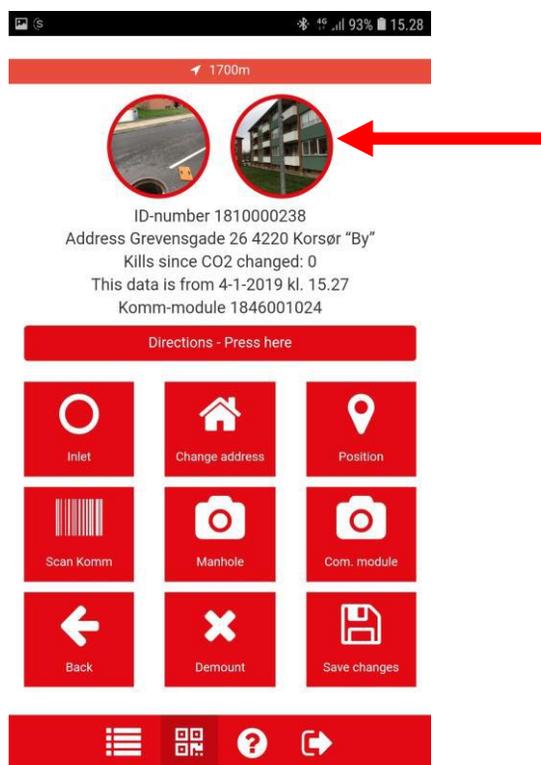
Back to [New Location](#)

[Next](#)

[Back](#)

Back to [START](#)

7.5 Take down the Communication module



If you can not find the Communication module, use the APP pictures to see the locations

The Communication module is not to be turned off. It can be transported to the new location without further actions.

Back to [New Location](#)

[Next](#)

[Back](#)

Back to [START](#)

7.6 Move all parts to the new location

REMEMBER:

1. Fix the contactarm over the contact on the trap
2. Turn off the repeater
3. Clean relevant parts before moving



Back to New Location

Next

Back

Back to START

7.7 Preparation before mounting

7.7.1 Mount CO2 canister [Go](#)

7.7.2 Choose Inlet [Go](#)

7.7.3 Prepare electronics [Go](#)

7.7.4 Mount the wire on the trap [Go](#)

7.7.5 Create the trap in the APP [Go](#)

Back to [New Location](#)

Back to [START](#)

7.7.1 Mount CO2 canister

- 7.7.1.1 Take out the Lock pins [Go](#)
- 7.7.1.2 Lift of the Outer container [Go](#)
- 7.7.1.3 Insert the CO2 canister [Go](#)
- 7.7.1.4 Put back the Outer container [Go](#)
- 7.7.1.5 Insert the Lock pins [Go](#)

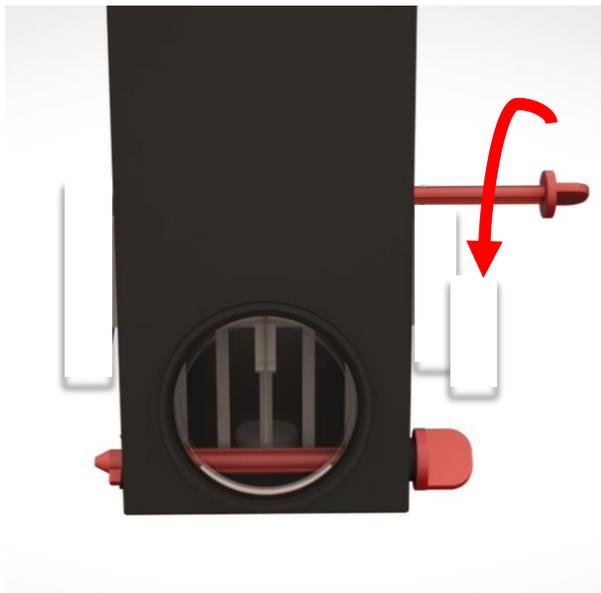
 NOTE that insert and replacement of the CO2 canister in ATEX labeled equipment must NOT be performed within the ATEX zones (zone classified areas).

Read about ATEX zones [HERE](#)

Back to [Preparation](#)

Back to [START](#)

7.7.1.1 Take out the Lock pins



Turn the Lock pins



Pull out the Lock pins

Back to Preparation

Next

Back to START

7.7.1.2 Lift of the Outer container



Back to [Preparation](#)

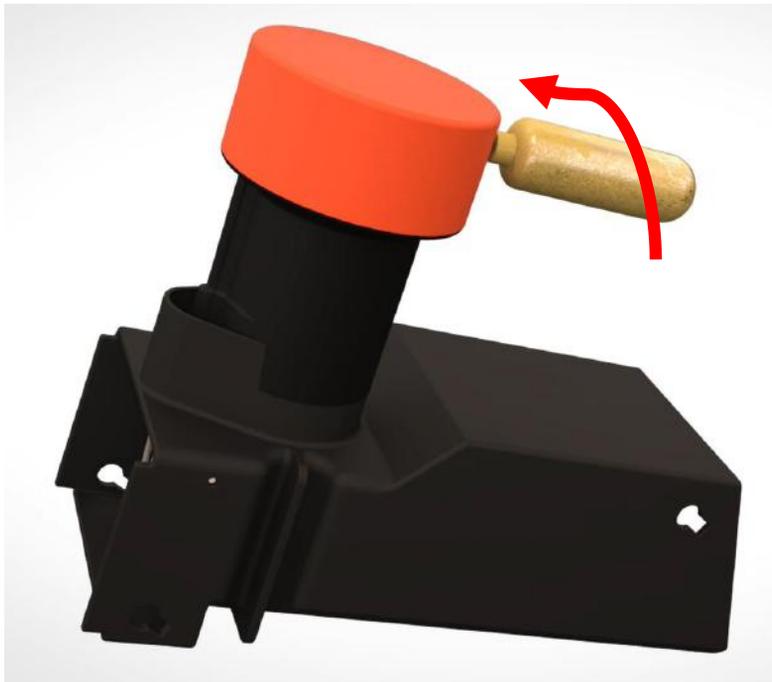
[Next](#)

[Back](#)

Back to [START](#)

7.7.1.3 Insert the CO2 canister

Screw in the canister clockwise – the canister must be tightened *as quickly as possible* to avoid the CO2 from leaking out



Back to [Preparation](#)

[Next](#)

[Back](#)

Back to [START](#)

7.7.1.4 Put back the Outer container



Back to [Preparation](#)

[Next](#)

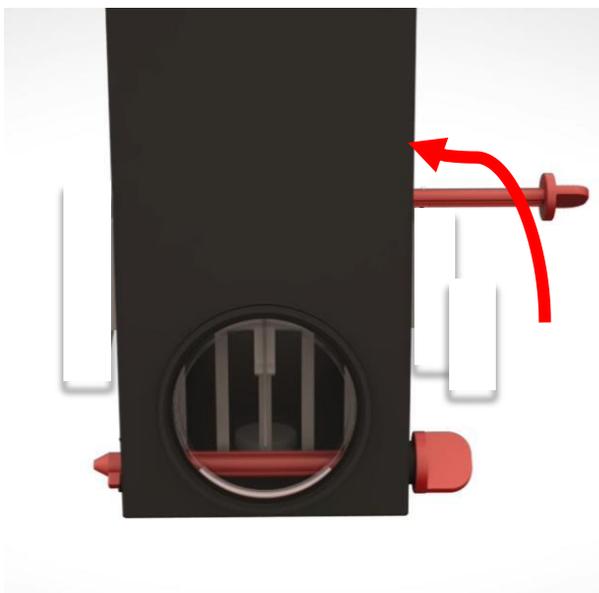
[Back](#)

Back to [START](#)

7.7.1.5 Insert the Lock pins



Mount the Lock pins from the front of the trap (the side with the nameplate)



Turn the Lock pins back in place

Back to [Preparation](#)

7.7.2 Choose and mount an Inlet

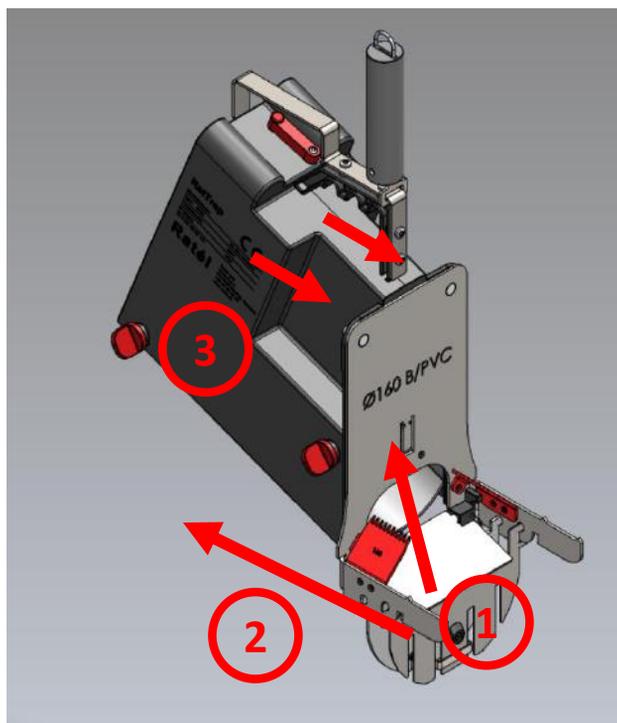
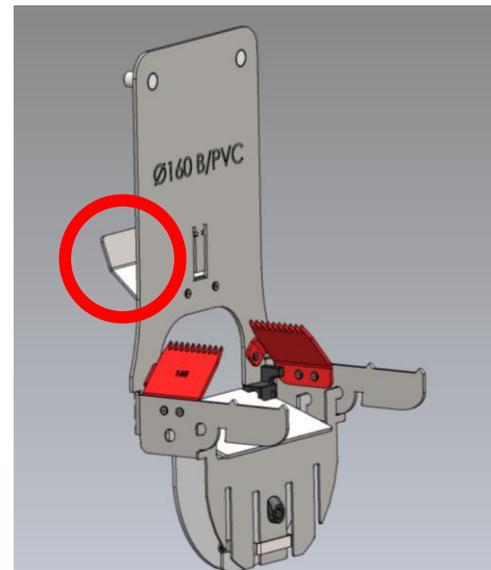
- 7.7.2.1 Pipe-size Ø160 [Go](#)
- 7.7.2.2 Pipe-size Ø200 - Ø500 [Go](#)
- 7.7.2.3 Bench Inlet [Go](#)

Back to [Preparation](#)

Back to [START](#)

7.7.2.1 Pipe-size Ø160

On the backside of the Ø160 Inlets is a little angle plate. These Inlets must therefore be angled into the trap, before the bolts can be fitted in the holes.



1. Inlet is angled into the trap
2. Inlet is put into place
3. Nuts are tightened

Back to [Preparation](#)

Back to [START](#)

7.7.2.2 Pipe-size $\varnothing 200$ - $\varnothing 500$

The Inlet is put into place and fastened with the nuts.



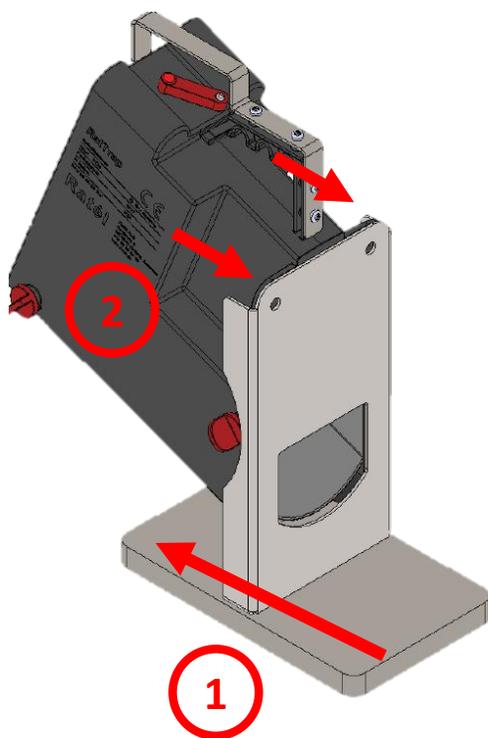
1. Inlet is put into place
2. Nuts are tightened

Back to [Preparation](#)

Back to [START](#)

7.7.2.3 Bench Inlet

The Inlet is put into place and fastened with the nuts.



1. Inlet is put into place
2. Nuts are tightened

Back to [Preperation](#)

Back to [START](#)

7.7.3 Prepare electronics

- 7.7.3.1 Loosen the Switch on the trap [Go](#)
- 7.7.3.2 Turn on the repeater [Go](#)
- 7.7.3.3 Consider where to place the Communication module - max 10 metres form the manhole [Go](#)
- 7.7.3.4 Examples of possible placings of the Communication module [Go](#)



ALWAYS remember to use Atex-labeled equipment in Atex zones (zone-classified areas), as well as to check that all Atex-labeled devices are intact and correctly assembled before mounting in Atex zones
Read about Atex zones [HERE](#)

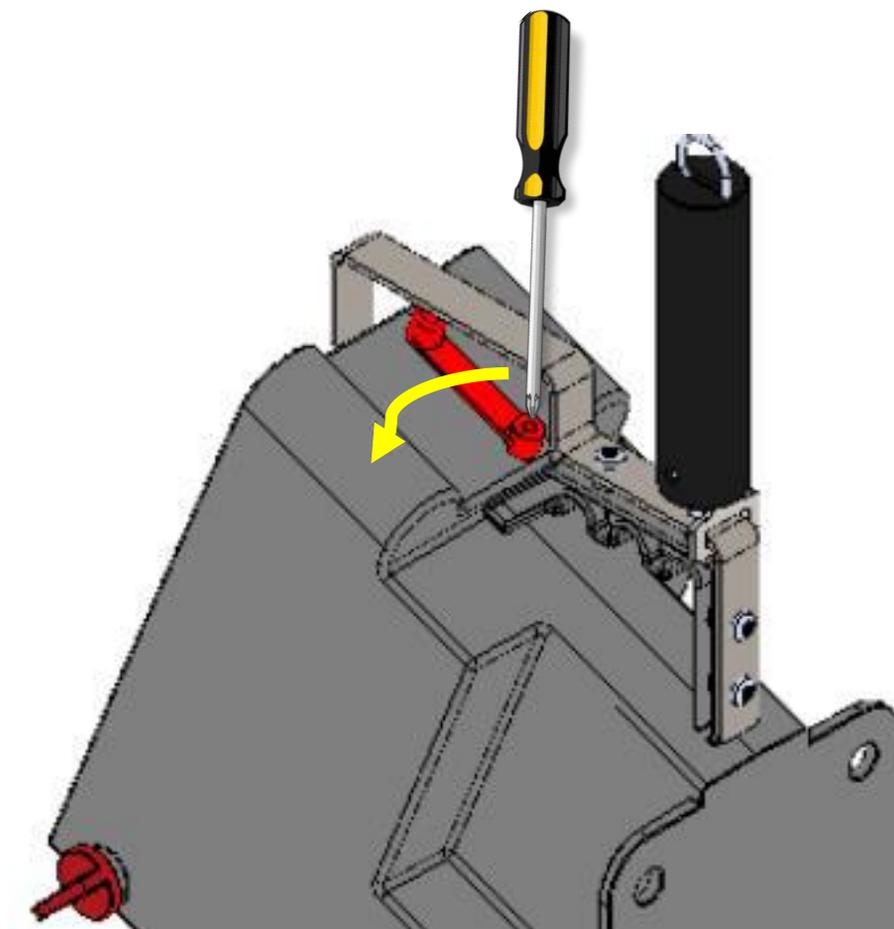
Back to [Preparation](#)

Back to [START](#)

7.7.3.1 Loosen the Switch on the trap

The screw on the Switch is loosened, so that the switch can move freely.

Now the transmitter is active



Back to [Preparation](#)

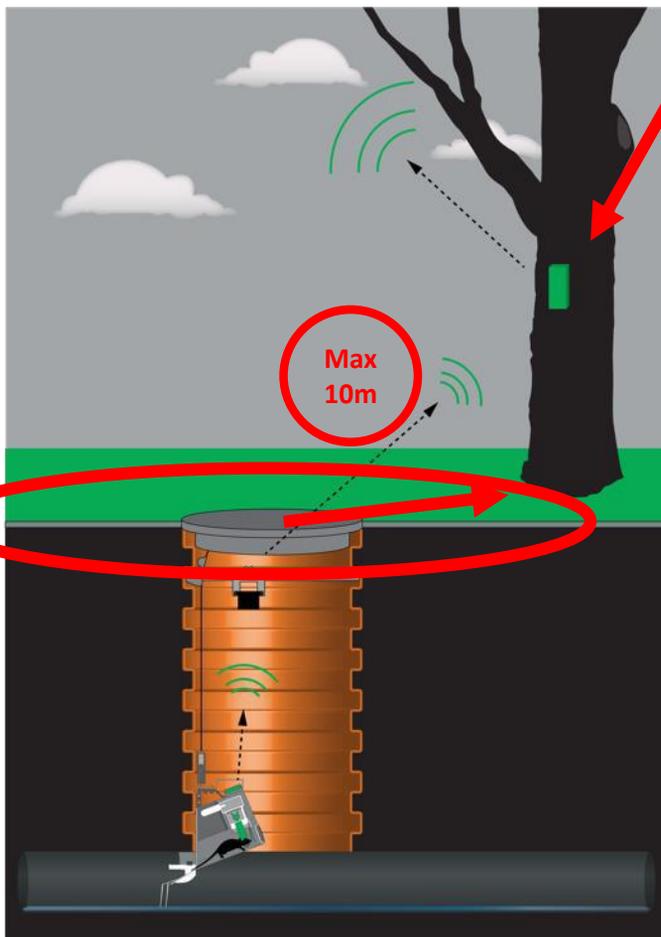
[Next](#)

Back to [START](#)

7.7.3.3 Consider where to place the Communication module - max 10 metres form the manhole



The Communication module is active from the production – no further actions



Communication module

Consider where to place the Communication module - max 10 metres form the manhole

Examples

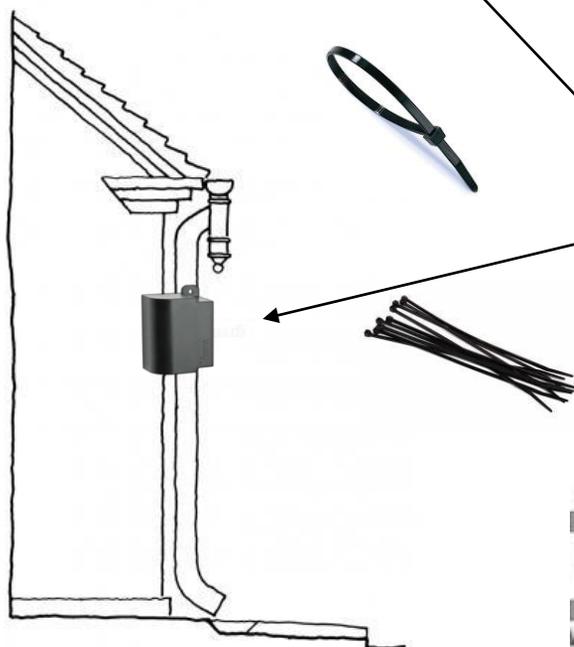
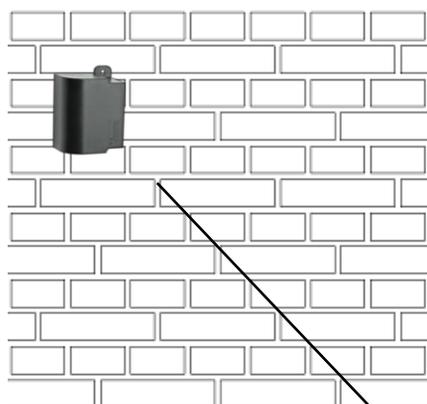
Back to Preparation

Next

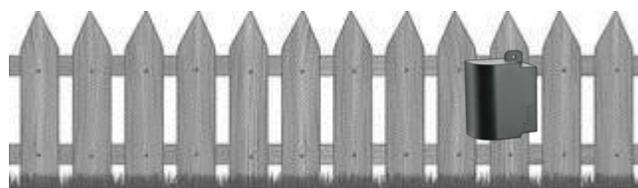
Back

Back to START

7.7.3.4 Examples of possible placings of the Communication module



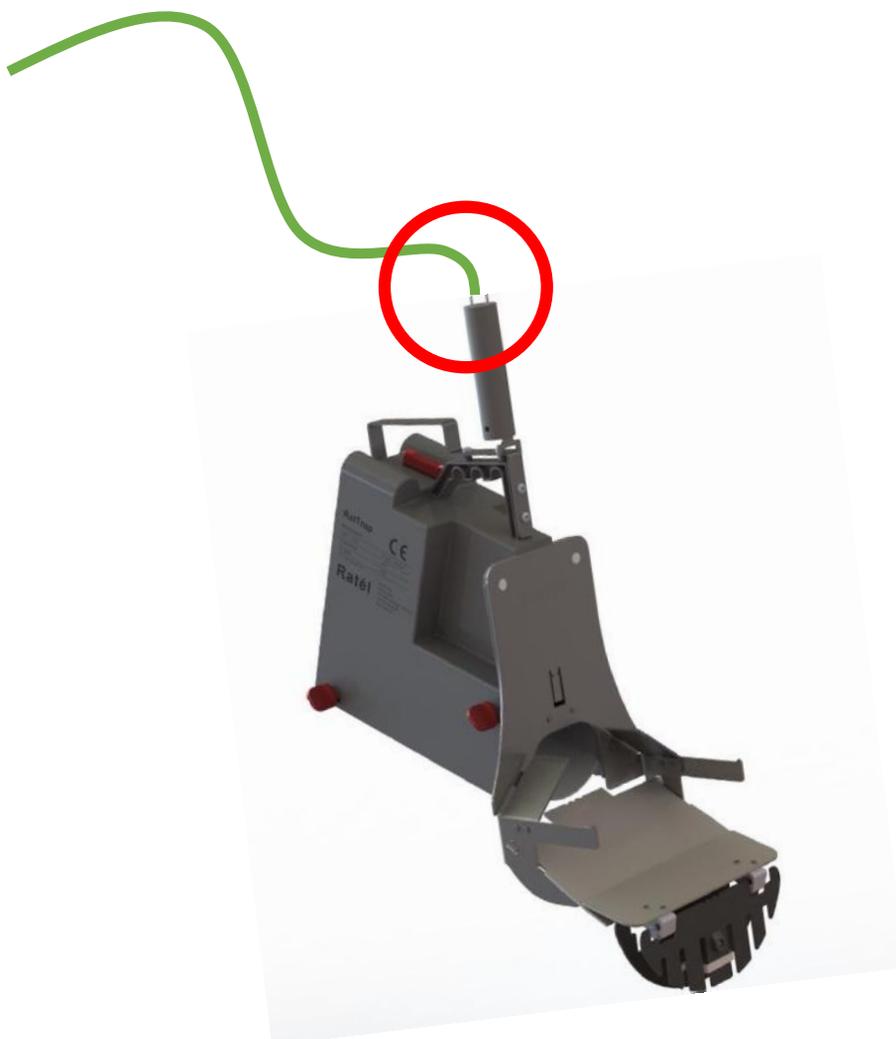
one can advantageously mount place the module in an angel of 90 degrees relative to screw holes



Back to [Preparation](#)

7.7.4 Mounting the Wire

- Mount The wire on the trap using the snap hook on the spring handle



Back to [Preparation](#)

Back to [START](#)

7.7.5 Create the trap in the APP

- 7.7.5.1 Click on the trap on the list or scan the QR code on the trap [Go](#)
- 7.7.5.2 Take pictures of the manhole and surroundings as well as the chosen spot for the Communication module [Go](#)
- 7.7.5.3 Choose Inlet and Change address [Go](#)
- 7.7.5.4 Click on "new position" and save [Go](#)

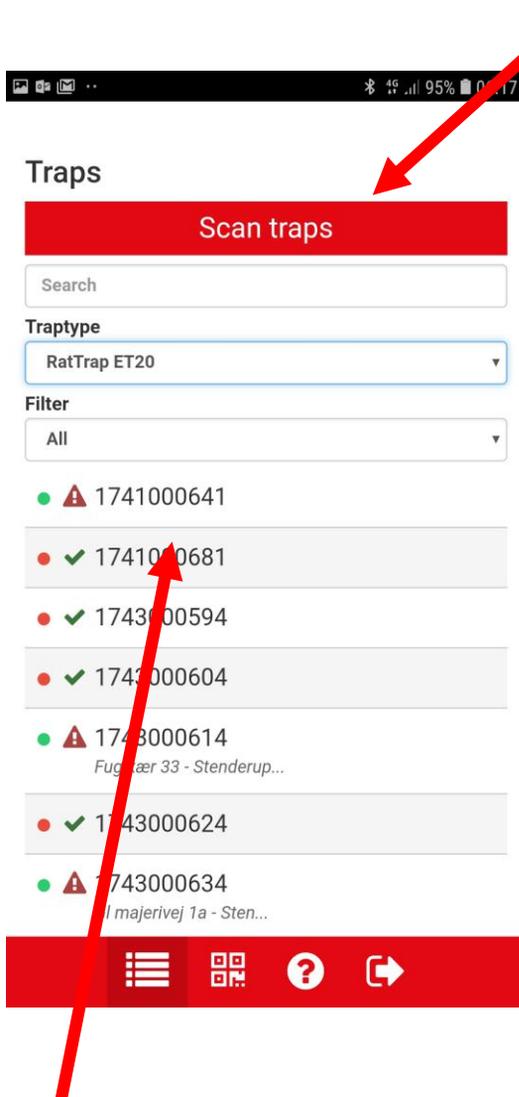
See the full guide to the APP [HERE](#)

Back to [Preparation](#)

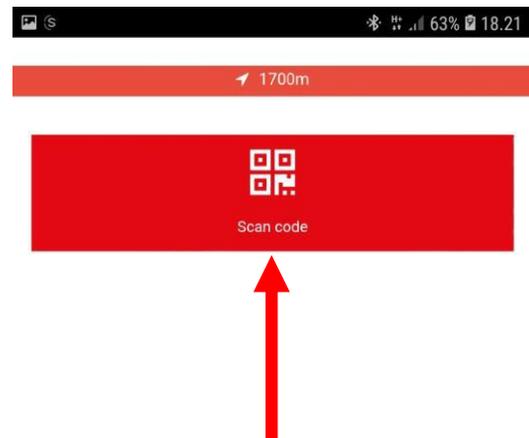
Back to [START](#)

7.7.5.1 Click on the trap on the list or scan the QR code on the trap

or click "Mounting" to go to the QR-side



Choose from the list



Click on the QR symbol

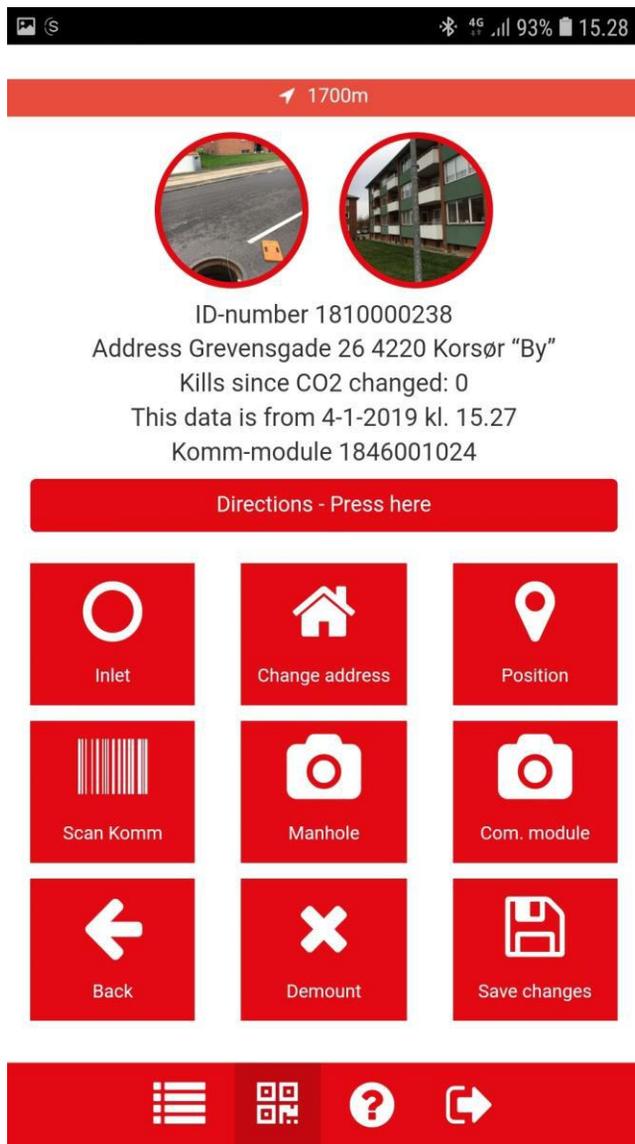


Back to Preparation

Next

Back to START

7.7.5.2 Take pictures of the manhole and surroundings as well as the chosen spot for the Communication module



First click on the foto icon "manhole" – take picture of manhole and surroundings and click "ok"

Second click on the foto icon "Com.Module"-modul" – take picture of the chosen spot for the Communication module and click "ok"

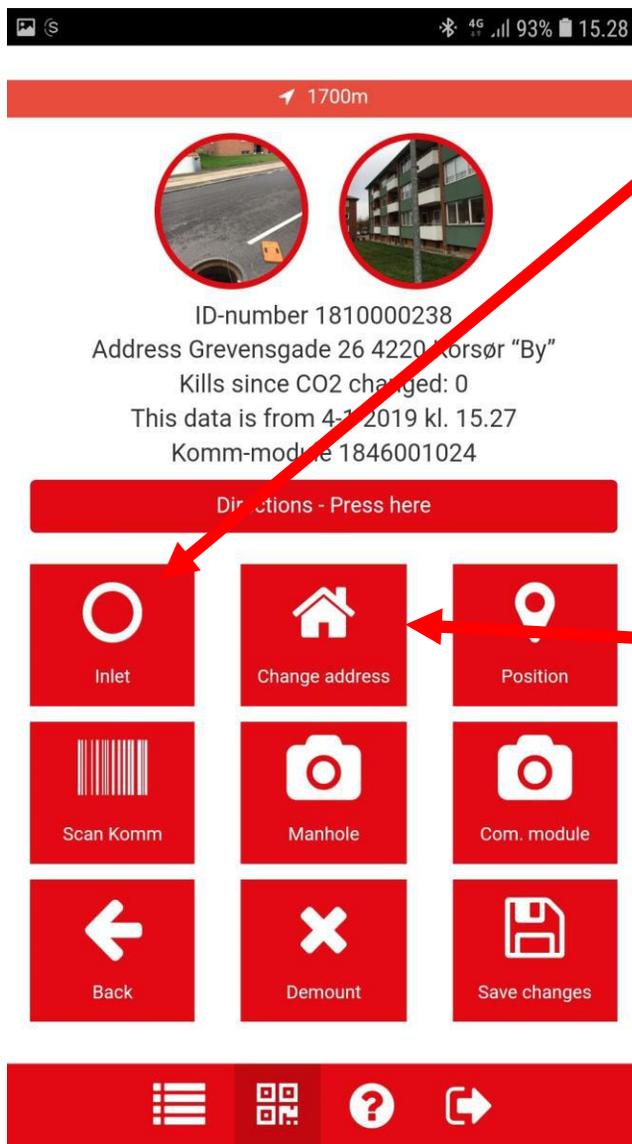
Back to [Preparation](#)

[Next](#)

[Back](#)

Back to [START](#)

7.7.5.3 Choose Inlet and change address



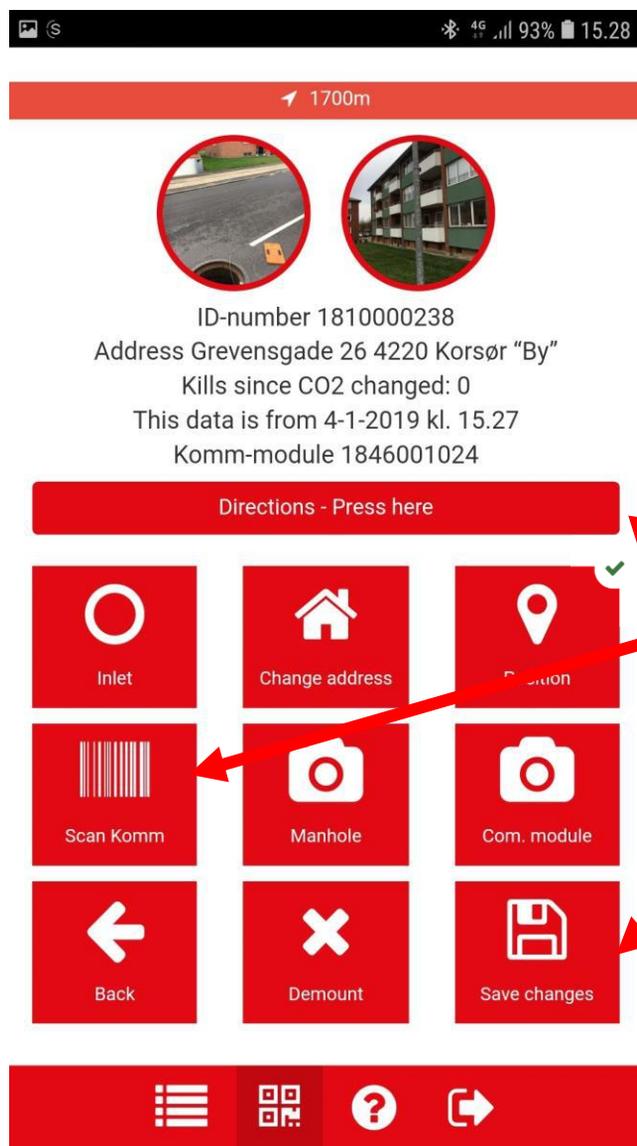
First Click the Inlet icon and choose Inlet type

Next click the icon "change address" and note the address

This field is a free text field and can therefore be used to note eg the manhole ID or other relevant issues.

Back to [Preperation](#)

7.7.5.4 Click on "new position" and save



Click on "new position" and await the green check mark

Click "Scan Com" to register the communication module

Click on save – now the trap is mounted in the APP

Back to [Preparation](#)

[Back](#)

Back to [START](#)

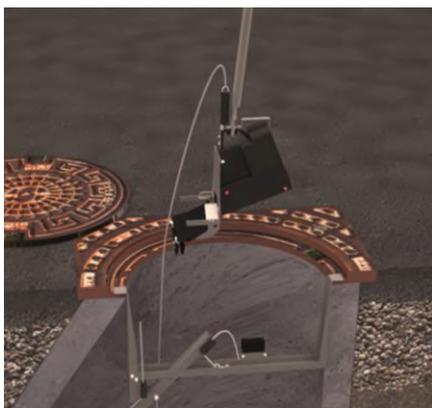
7.8.1 Mounting in PVC-manhole

- 7.8.1.1 Lower down the trap [Go](#)
- 7.8.1.2 Fasten the wire in the wire lock [Go](#)
- 7.8.1.3 Place the mounting kit [Go](#)
- 7.8.1.4 The mounting-hook is used to insert the trap in the pipe [Go](#)
- 7.8.1.5 Tighten the wire so the trap is fastened [Go](#)
- 7.8.1.6 Fasten the wire in the wire lock [Go](#)

Back to [New Location](#)

Back to [START](#)

7.8.1.1 Lower down the trap



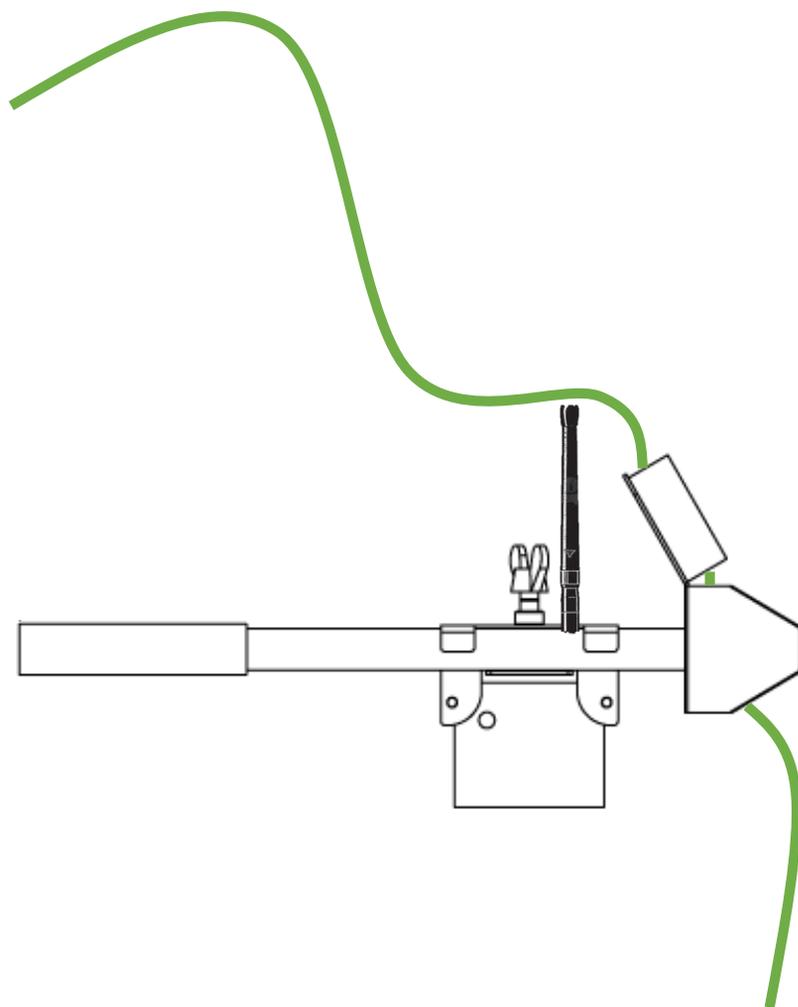
Using the Mounting-hook the trap is lowered down the manhole.

Back to [Mounting](#) in PVC-manhole

[Next](#)

Back to [START](#)

7.8.1.2 Fasten the wire in the wire lock



Back to [Mounting](#) in PVC-manhole

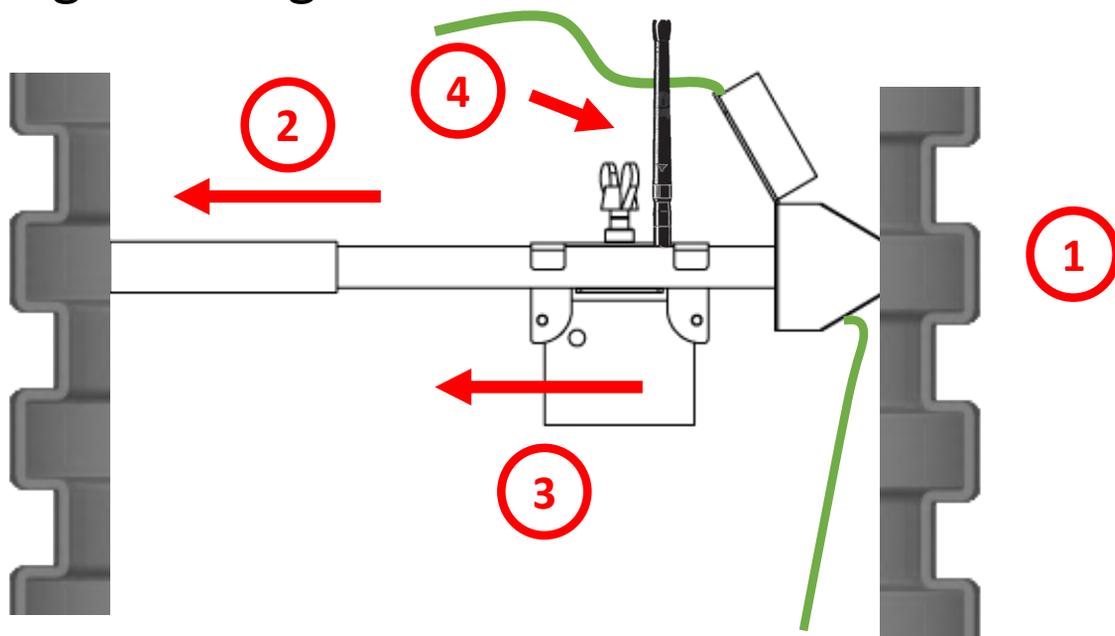
[Next](#)

[Back](#)

Back to [START](#)

7.8.1.3 Place the mounting kit

- ① The Mounting kit's triangular end is placed in the grooves in one side of the PVC-manhole.
- ② The extender is slid into to the grooves in the opposite side of the PVC-manhole.
- ③ The extender lock with the Repeater is slid towards the extender – and the
- +
④ wing nut is tightened.



Back to [Mounting](#) in PVC-manhole

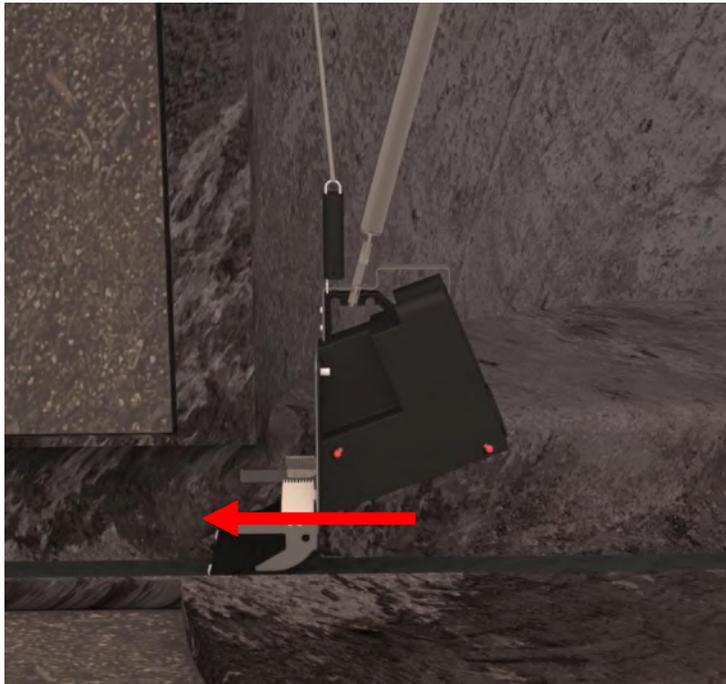
[Next](#)

[Back](#)

Back to [START](#)

7.8.1.4 The mounting-hook is used to insert the trap in the pipe

The mounting-hook is used to insert the trap in the pipe



Back to [Mounting](#) in PVC-manhole

[Next](#)

[Back](#)

Back to [START](#)

7.8.1.5 Tighten the wire so the trap is fastened

The wire is tightened so the spring in the spring handle is stretched so that you have a proper pull

Now the trap is kept tight and thereby fastened in the pipe



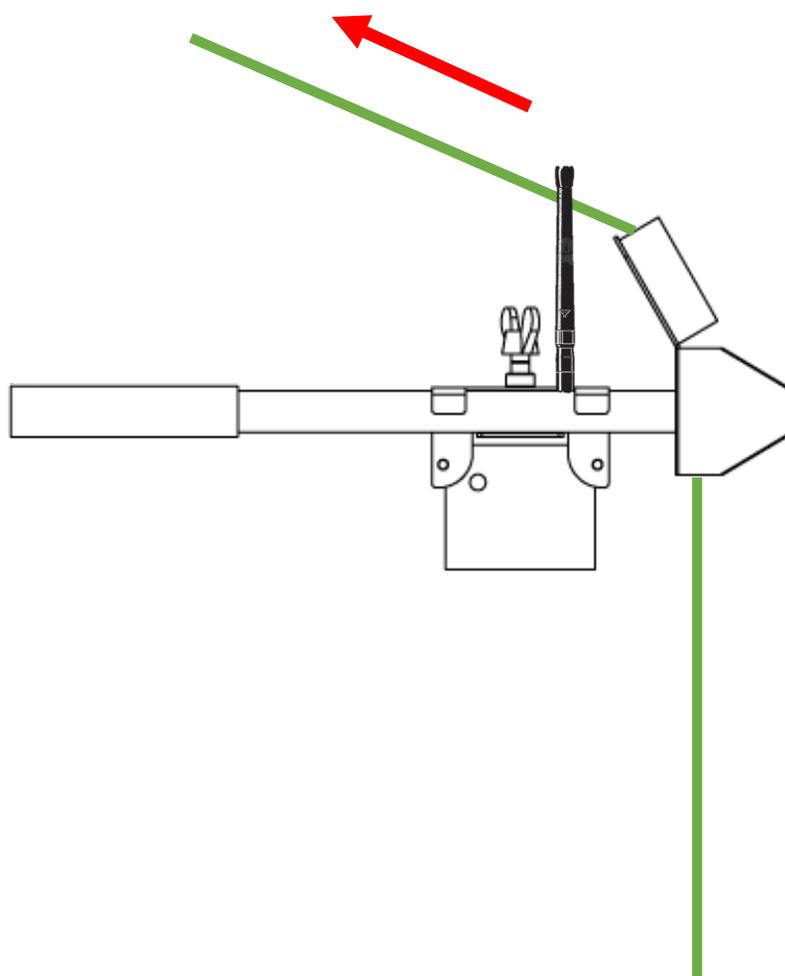
Back to [Mounting](#) in PVC-manhole

[Next](#)

[Back](#)

Back to [START](#)

7.8.1.6 Fasten the wire in the wire lock



Back to [Mounting](#) in PVC-manhole

[Back](#)

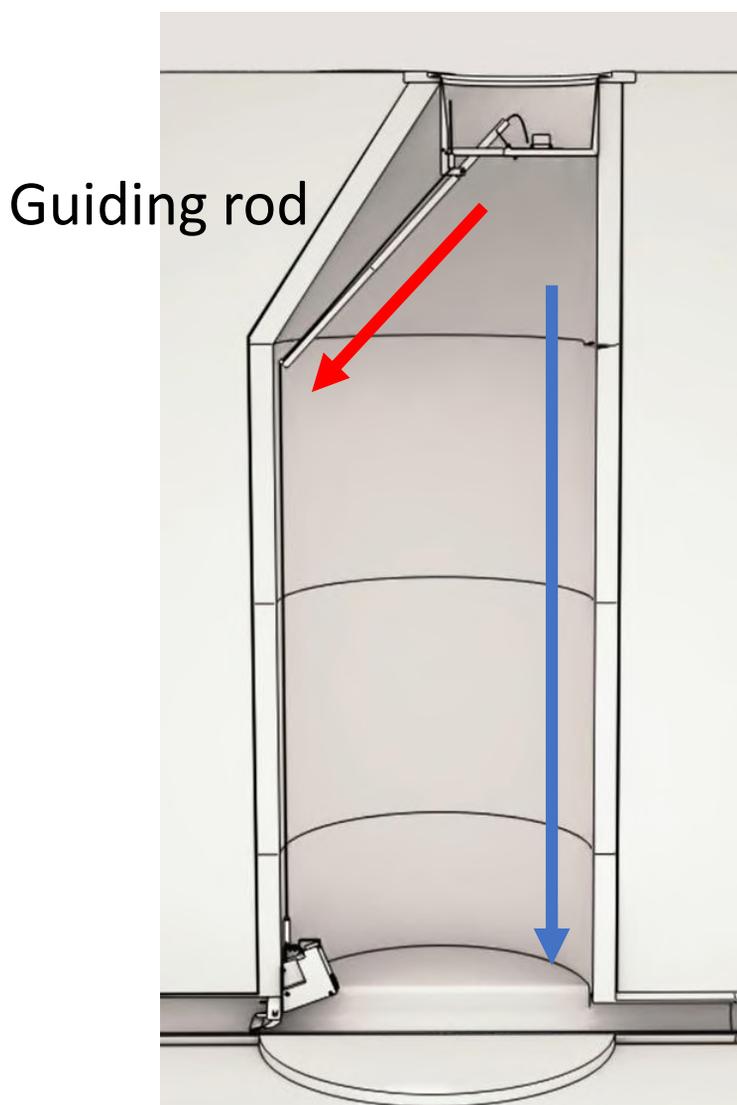
Back to [START](#)

7.8.2 Mounting in Concrete manhole

- 7.8.2.1 Decide if guiding rod is needed [Go](#)
 - 7.8.2.2 Place the mounting kit [Go](#)
 - 7.8.2.3 Mount the guiding rod [Go](#)
 - 7.8.2.4 Lower down the trap [Go](#)
 - 7.8.2.5 Catch the wire with the guiding rod [Go](#)
 - 7.8.2.6 Lock the guiding rod with the fabric cord [Go](#)
 - 7.8.2.7 The mounting-hook is used to insert the trap in the pipe [Go](#)
 - 7.8.2.8 Tighten the wire so the trap is fastened [Go](#)
 - 7.8.2.9 Fasten the wire in the wire lock [Go](#)
- Back to [New Location](#)

Back to [START](#)

7.8.2.1 Decide if guiding rod is needed



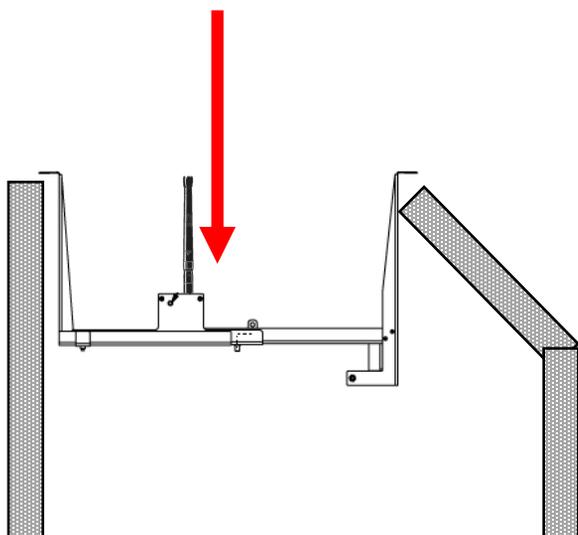
The guiding rod is used when the pipe is placed in the side of the manhole with a conical top piece (**red arrow**) – Otherwise there is no need for guiding rod (**blue arrow**)

Back to [Mounting](#) in Concrete manhole

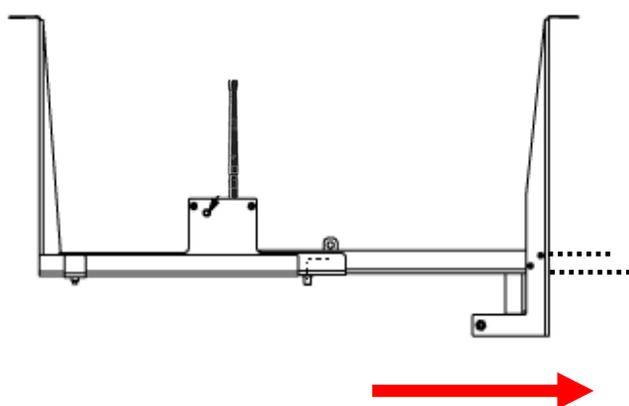
[Next](#)

Back to [START](#)

7.8.2.2 Place the mounting kit



Place the mounting kit in the manhole so it rests on the edge of the manhole



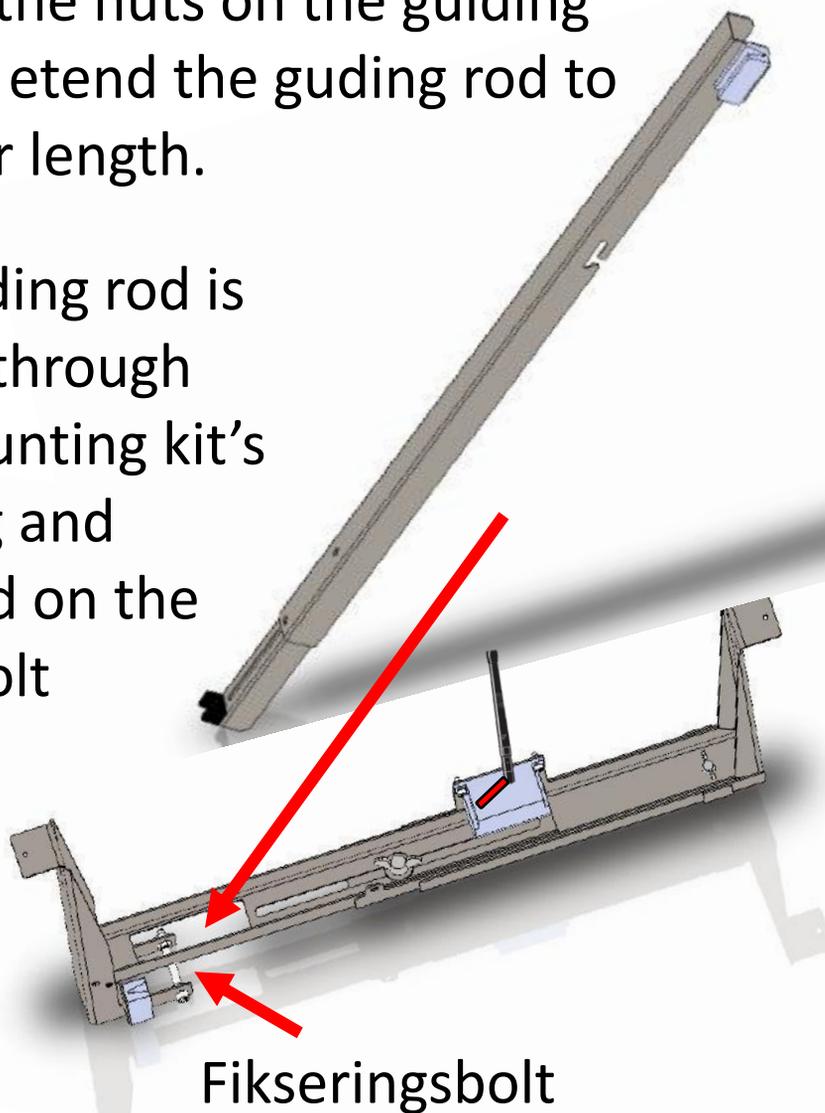
The width of the Mounting kit is adjusted to the manhole's diameter. Slide out the supporting profile so it touches the side of the manhole. Tighten the wing nuts.

Back to [Mounting](#) in Concrete manhole

7.8.2.3 Mount the guiding rod

Loosen the nuts on the guiding rod and extend the guiding rod to a proper length.

The Guiding rod is passed through the Mounting kit's opening and fastened on the fixing bolt



Back to [Mounting](#) in Concrete manhole

[Next](#)

[Back](#)

Back to [START](#)

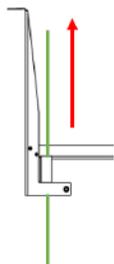
7.8.2.4 Lower down the trap



Using the Mounting-hook the trap is lowered down the manhole.



The trap should be lowered down on that side of the mounting kit where the wire lock is placed.



The wire is fastened in the Wire lock so the trap is not dropped in the following steps.

Back to [Mounting](#) in Concrete manhole

7.8.2.5 Catch the wire with the guiding rod

If using a guiding rod - catch the wire with the guiding rod's V-shaped end.

Now the wire can be guided to the side of the manhole.



Back to [Mounting](#) in Concrete manhole

[Next](#)

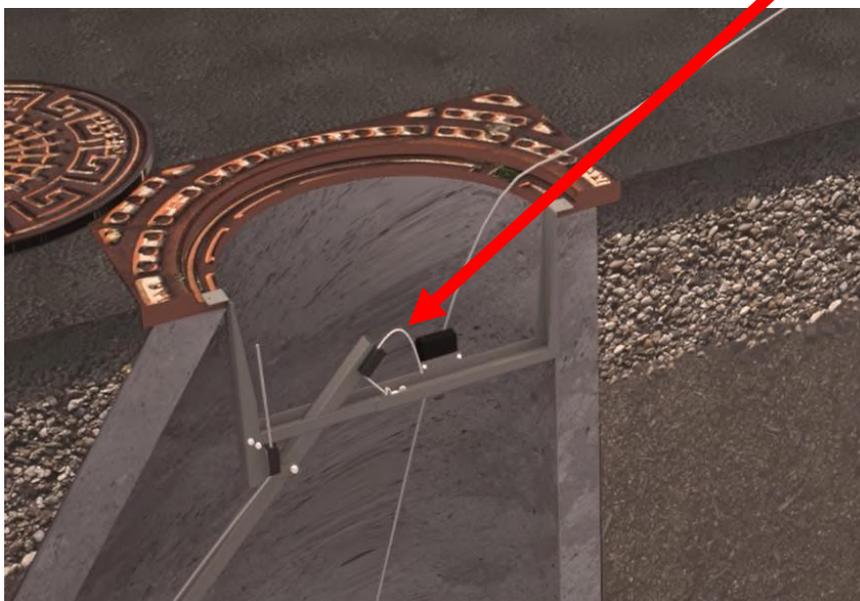
[Back](#)

Back to [START](#)

7.8.2.6 Lock the guiding rod with the fabric cord

If using a guiding rod - lock the guiding rod in its position with the fabric cord using the cord's lock.

Fabric cord



Back to [Mounting](#) in Concrete manhole

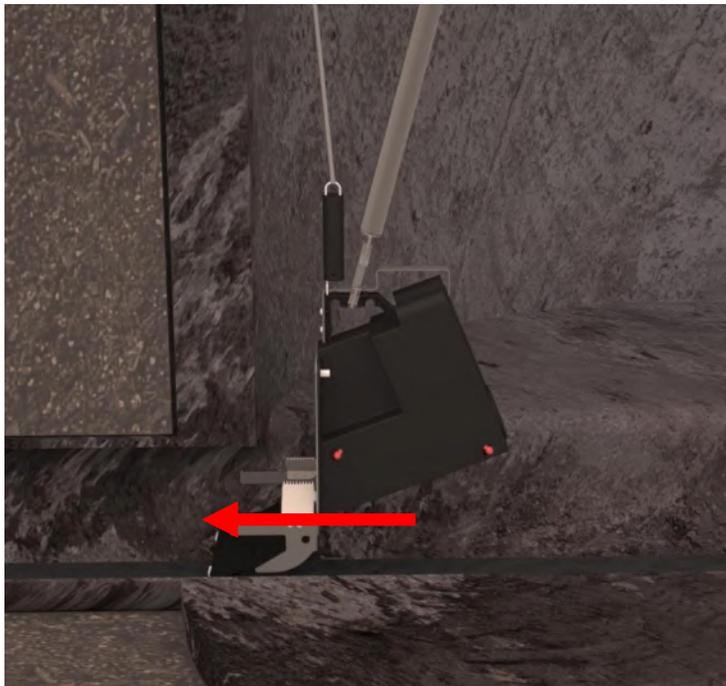
[Next](#)

[Back](#)

Back to [START](#)

7.8.2.7 The mounting-hook is used to insert the trap in the pipe

The wire is loosened a bit, and the mounting-hook is used to insert the trap in the pipe



Back to [Mounting](#) in Concrete manhole

[Next](#)

[Back](#)

Back to [START](#)

7.8.2.8 Tighten the wire so the trap is fastened

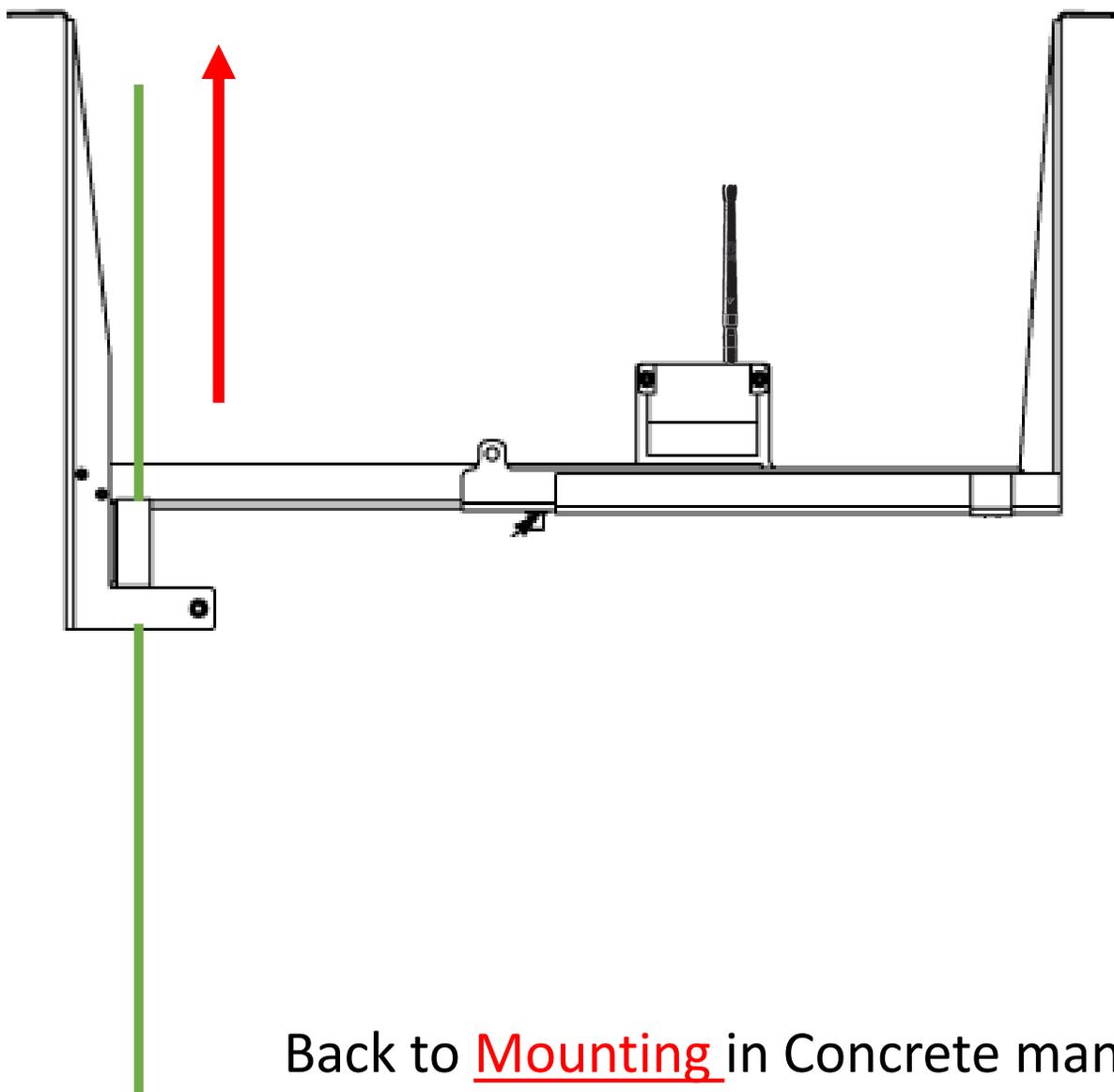
The wire is tightened so the spring in the spring handle is stretched so that you have a proper pull

Now the trap is kept tight and thereby fastened in the pipe



Back to [Mounting](#) in Concrete manhole

7.8.2.9 Fasten the wire in the wire lock



Back to [Mounting](#) in Concrete manhole

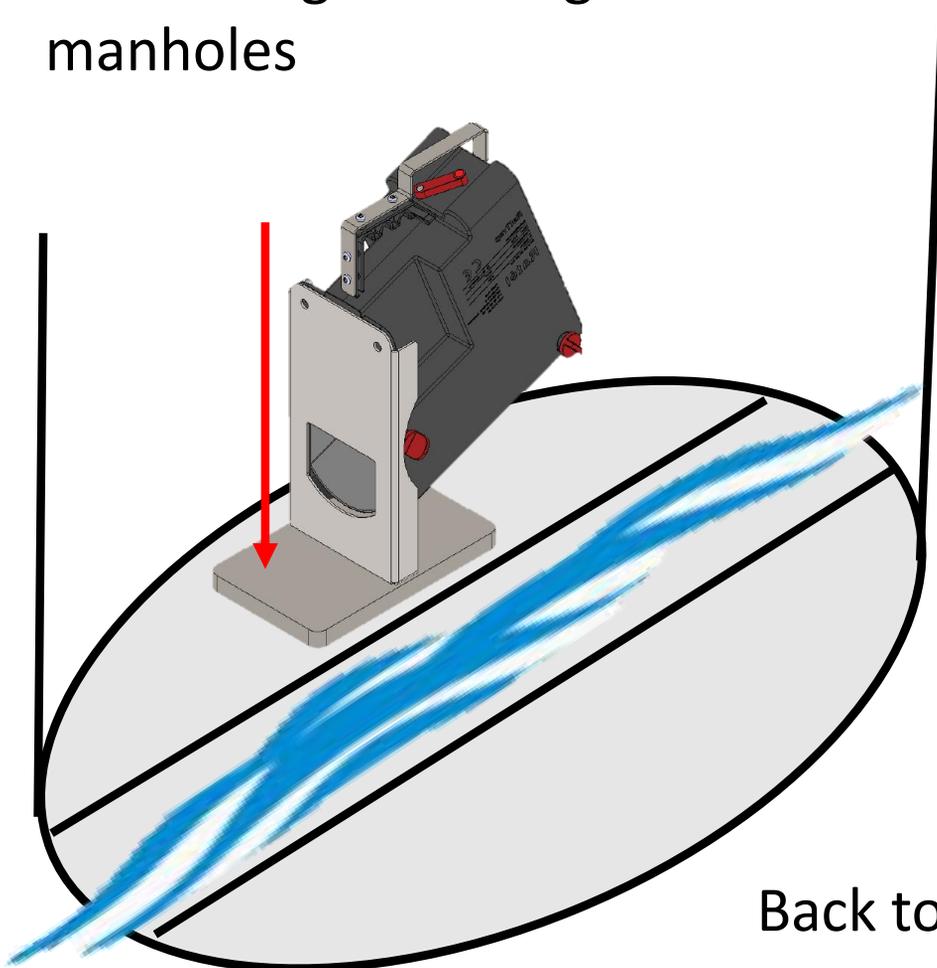
[Back](#)

Back to [START](#)

7.8.3 Mounting the Bench Trap All Manhole types

Place the trap so it touches the bench in the bottom of the manhole

Tighten the Wire as usual – see the sections concerning mounting in concrete and PVC manholes



Back to [New location](#)

[Back](#)

Back to [START](#)

8. Repair – changing the outer container/transmitter

8.1 Demount the trap

8.1.1 PVC manhole

[Go](#)

8.1.2 Concrete manhole

[Go](#)

8.1.3 Bench Trap

[Go](#)

8.2 Fix the contactarm over the contact on the trap

[Go](#)

8.3 Prepare the new trap

[Go](#)

8.4 Use the "change trap" function in the APP

[Go](#)

8.5 Mount the new trap

8.5.1 PVC manhole

8.5.2 Concrete manhole

8.5.3 Bench Trap

NOTE that a valid authorization is required under applicable legislation to mount the RatTraps in the sewersystem

 ALWAYS remember to use Atex-labeled equipment in Atex zones (zone-classified areas), as well as to check that all Atex-labeled devices are intact and correctly assembled before mounting in Atex zones
Read about Atex zones [HERE](#)

[Go](#)[Go](#)[Go](#)

Back to [START](#)

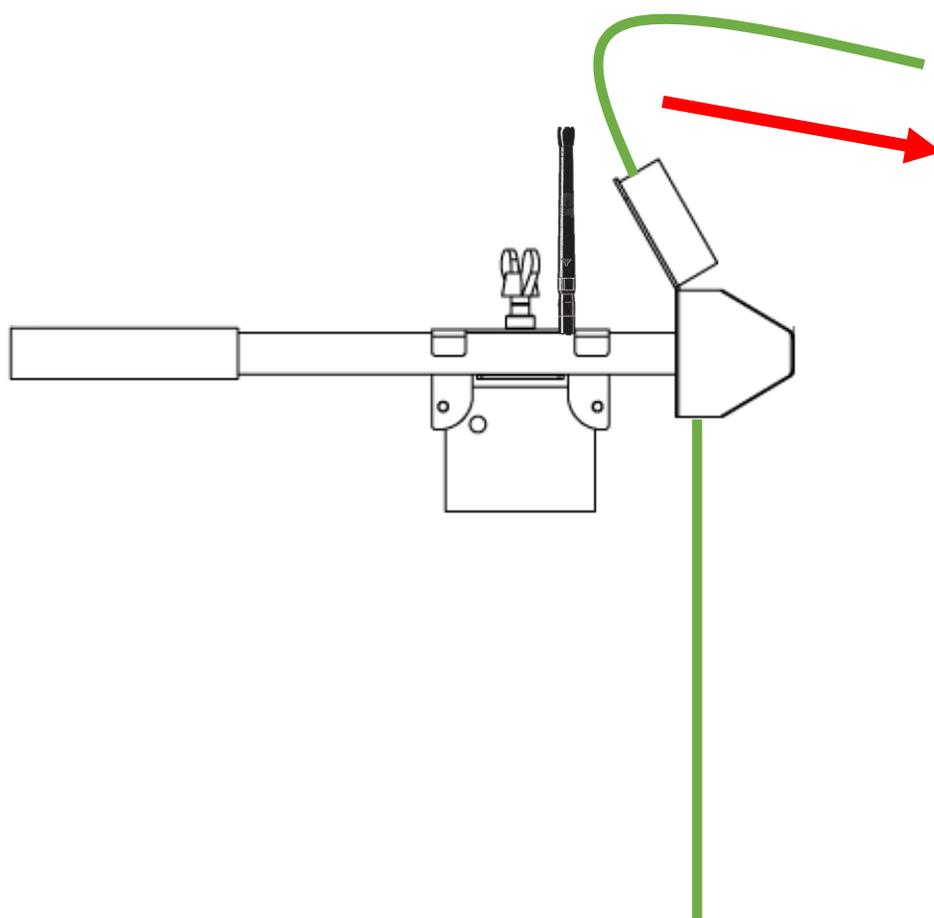
8.1.1 Demounting From PVC-manhole

- 8.1.1.1 Loosen the wire so the trap is released from the pipe [Go](#)
- 8.1.1.2 The Mounting-hook is used to pull out the trap From the pipe [Go](#)
- 8.1.1.3 Take up Mounting kit [Go](#)
- 8.1.1.4 The trap is lifted up from the manhole [Go](#)

Back to [Changing outer container](#)

Back to [START](#)

8.1.1.1 Loosen the wire so the trap is released from the pipe

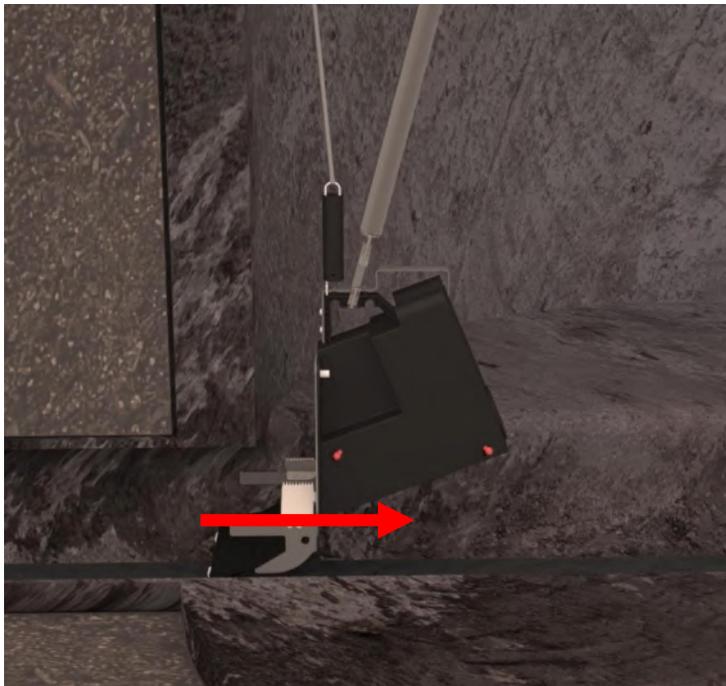


Back to [Demounting From PVC-manhole](#)

[Next](#)

Back to [START](#)

8.1.1.2 The Mounting-hook is used to pull out the trap From the pipe



Back to [Demounting From PVC-manhole](#)

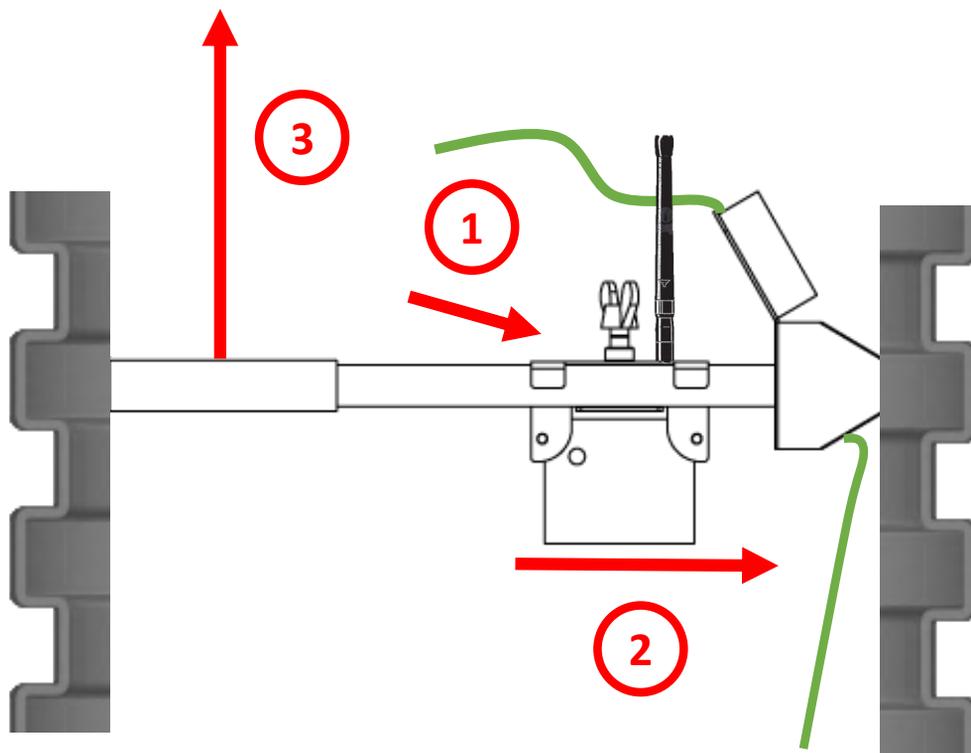
[Next](#)

[Back](#)

Back to [START](#)

8.1.1.3 Take up Mounting kit

- 1 The wing nut is loosened
- 2 The extender lock with repeater is slid towards the triangular part
- 3 Take up the mounting kit



Back to [Demounting From PVC-manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

8.1.1.4 The trap is lifted up from the manhole



Using the Mounting-hook the trap is lifted up from the manhole

Back to [Demounting From PVC-manhole](#)

8.1.2 Demounting From Concrete manhole

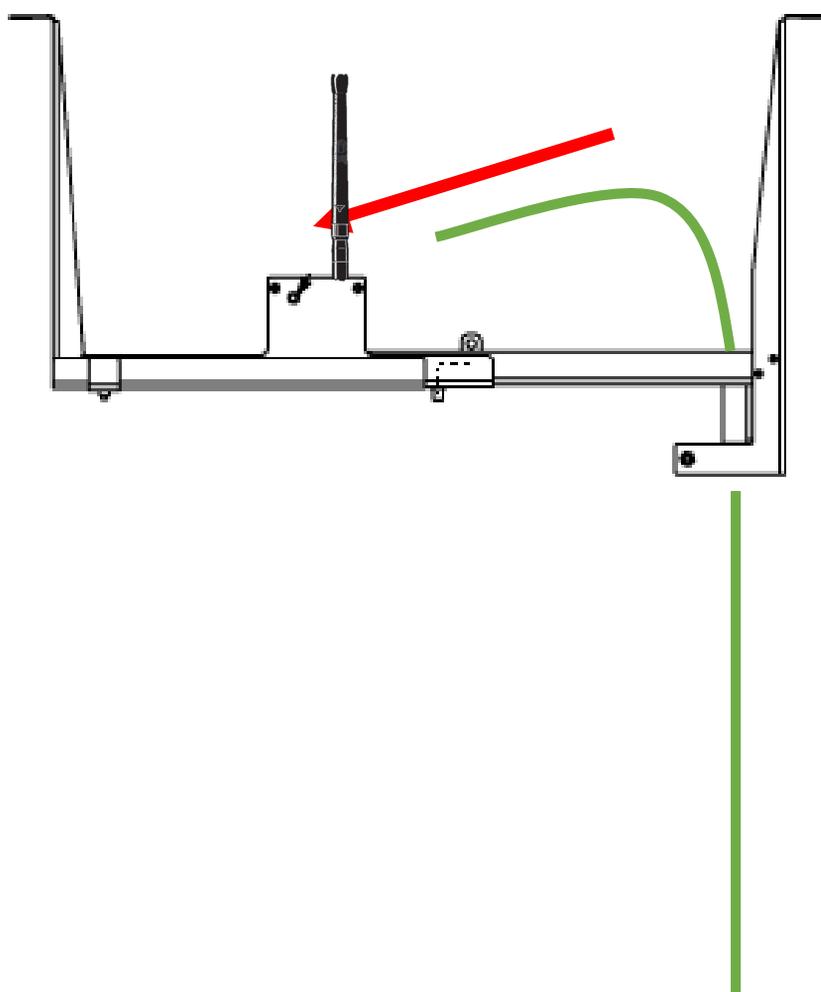
Mounting kit can normally stay mounted under service in a concrete manhole

- 8.1.2.1 Loosen the wire so the trap is released from the pipe [Go](#)
- 8.1.2.2 The Mounting-hook is used to pull out the trap From the pipe [Go](#)
- 8.1.2.3 If necessary loosen the fabric cord so the guiding rod is free [Go](#)
- 8.1.2.4 The trap is lifted up from the manhole [Go](#)

Back to [Changing outer container](#)

Back to [START](#)

8.1.2.1 Loosen the wire so the trap is released from the pipe

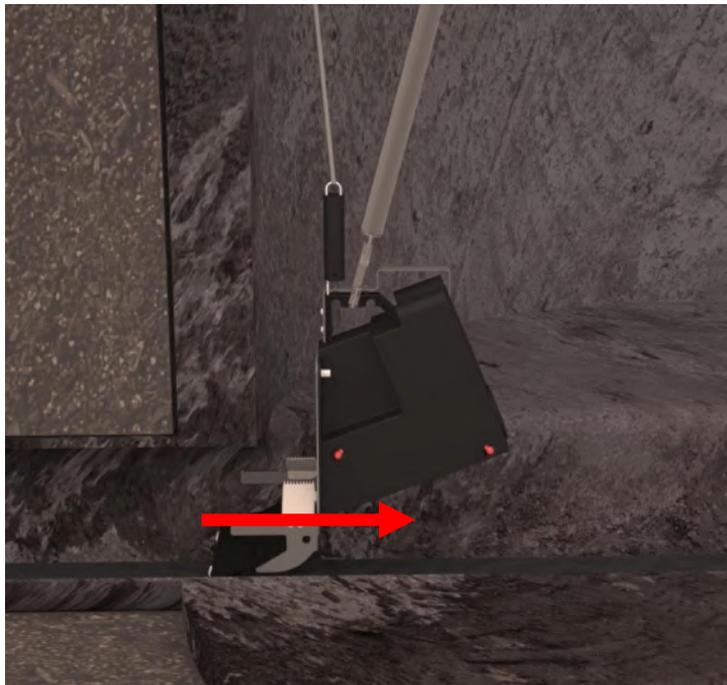


Back to [Demounting From Concrete manhole](#)

[Next](#)

Back to [START](#)

8.1.2.2 The Mounting-hook is used to pull out the trap From the pipe



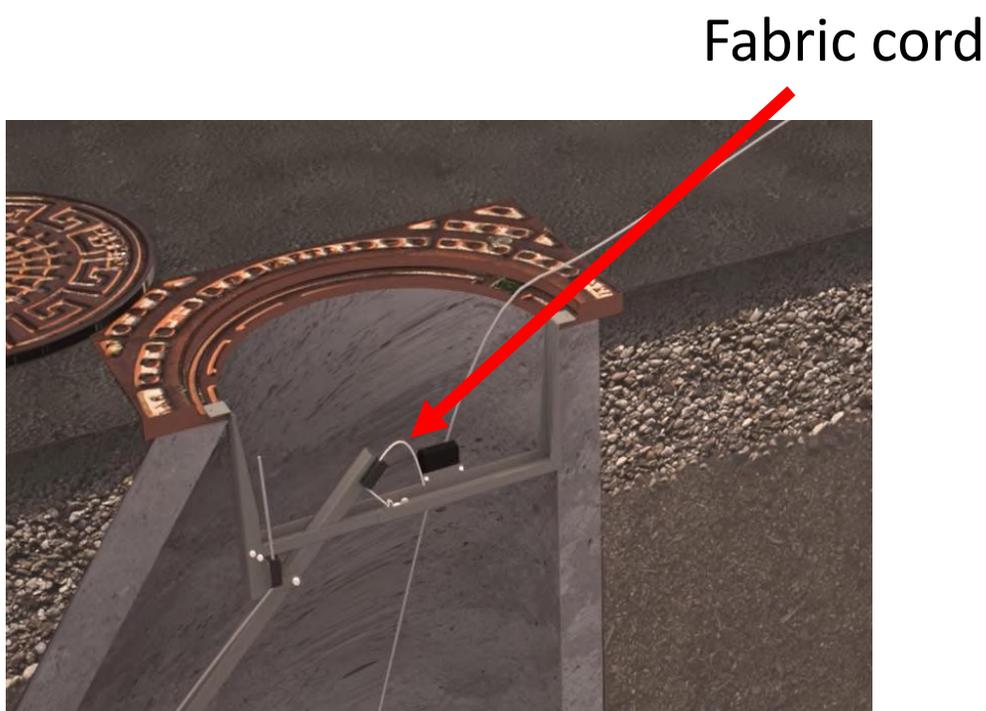
Back to [Demounting From Concrete manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

8.1.2.3 If necessary loosen the fabric cord so the guiding rod is free



Back to [Demounting From Concrete manhole](#)

[Next](#)

[Back](#)

Back to [START](#)

8.1.2.4 The trap is lifted up from the manhole



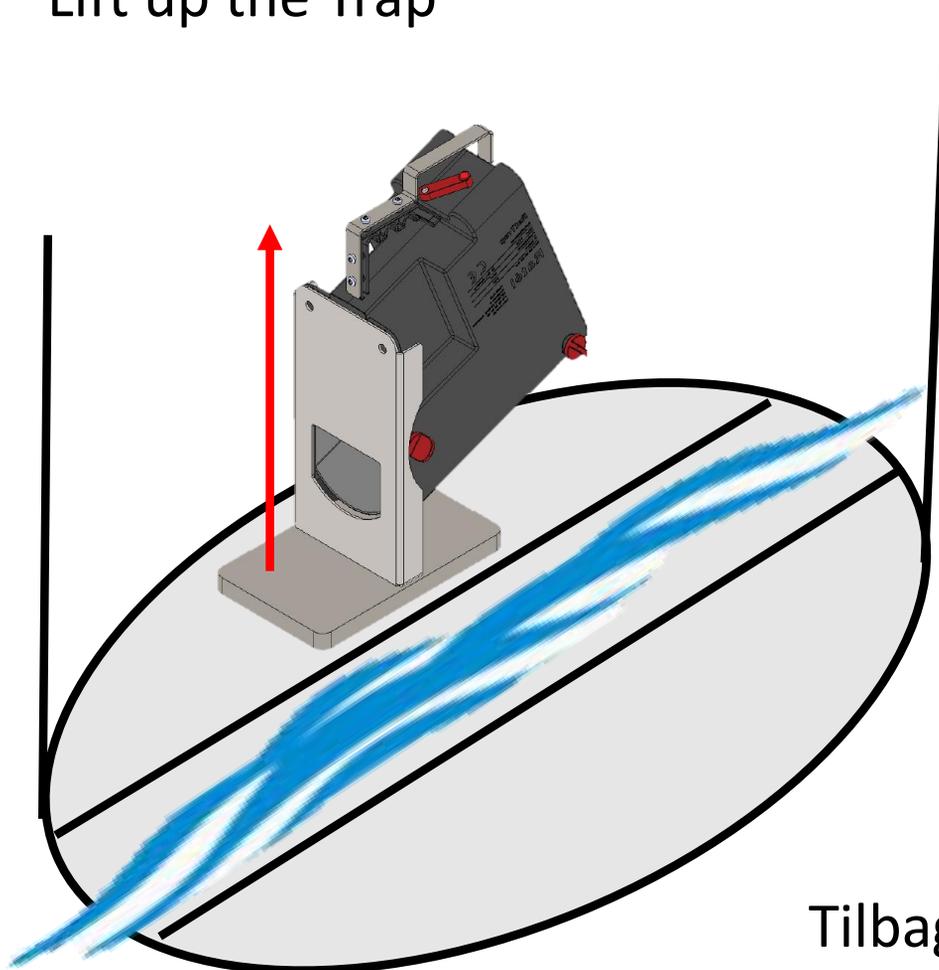
Using the Mounting-hook the trap is lifted up from the manhole

Back to [Demounting From Concrete manhole](#)

8.1.3 Lift up the Bench Trap

Loosen the Wire as usual – see the sections concerning demounting in concrete and PVC manholes.

Lift up the Trap



Tilbage til [Repair](#)

[Back](#)

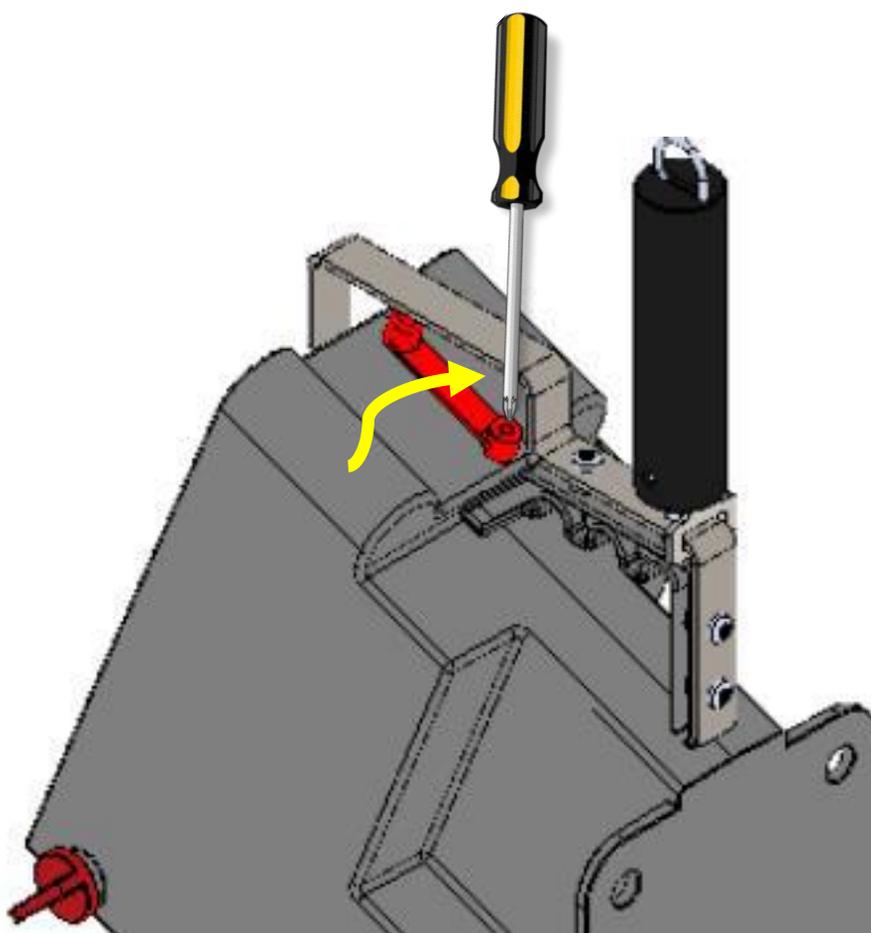
Back to [START](#)

8.2 Fix the contactarm over the contact on the trap



Never attempt to repair
Atex-labeled equipment yourself.

Read more about Atex [HERE](#)



Back to [Changing outer container](#)

[Next](#)

Back to [START](#)

8.3 Prepare the new trap

8.3.1 Mount CO2 canister (if necessary) [Go](#)

8.3.2 Mount Inlet on new Outer container [Go](#)

8.3.3 Prepare electronics [Go](#)

8.3.4 Mount the wire on the trap [Go](#)

Back to [Changing outer container](#)

Back to [START](#)

8.3.1 Mount CO2 canister

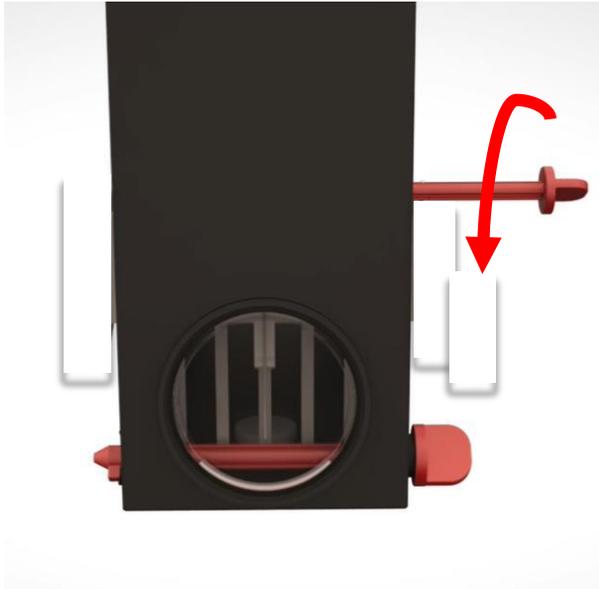
- 8.3.1.1 Take out the Lock pins [Go](#)
- 8.3.1.2 Lift of the Outer container [Go](#)
- 8.3.1.3 Insert the CO2 canister [Go](#)
- 8.3.1.4 Put back the Outer container [Go](#)
- 8.3.1.5 Insert the Lock pins [Go](#)

 NOTE that insert and replacement of the CO2 canister in ATEX labeled equipment must NOT be performed within the ATEX zones (zone classified areas). Read about ATEX zones [HERE](#)

Back to [Preparation](#)

Back to [START](#)

8.3.1.1 Take out the Lock pins



Turn the Lock pins



Pull out the Lock pins

Back to [Preparation](#)

[Next](#)

Back to [START](#)

8.3.1.2 Lift of the Outer container



Back to [Preparation](#)

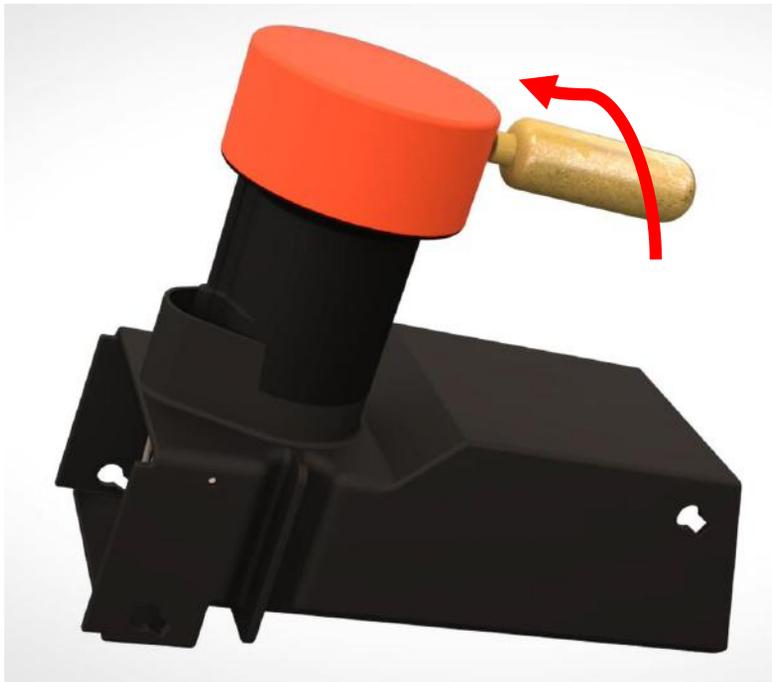
[Next](#)

[Back](#)

Back to [START](#)

8.3.1.3 Insert the CO2 canister

Screw in the canister clockwise – the canister must be tightened *as quickly as possible* to avoid the CO2 from leaking out



Back to [Preparation](#)

[Next](#)

[Back](#)

Back to [START](#)

8.3.1.4 Put back the Outer container



Back to [Preparation](#)

[Next](#)

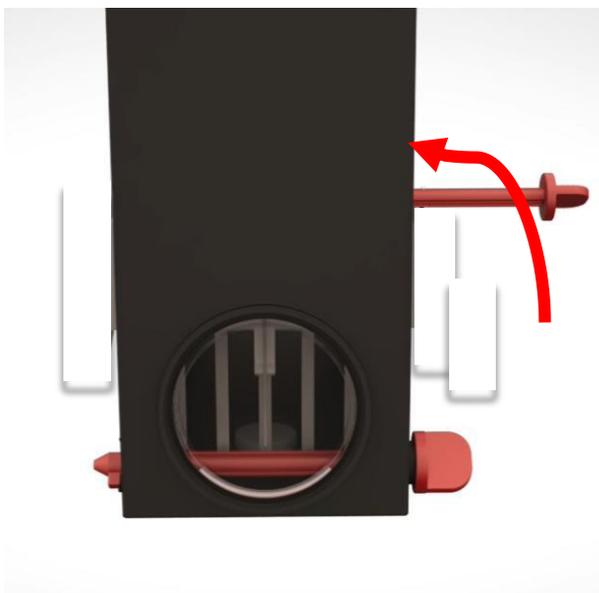
[Back](#)

Back to [START](#)

8.3.1.5 Insert the Lock pins



Mount the Lock pins from the front of the trap (the side with the nameplate)



Turn the Lock pins back in place

Back to [Preparation](#)

8.3.2 Choose and mount an Inlet

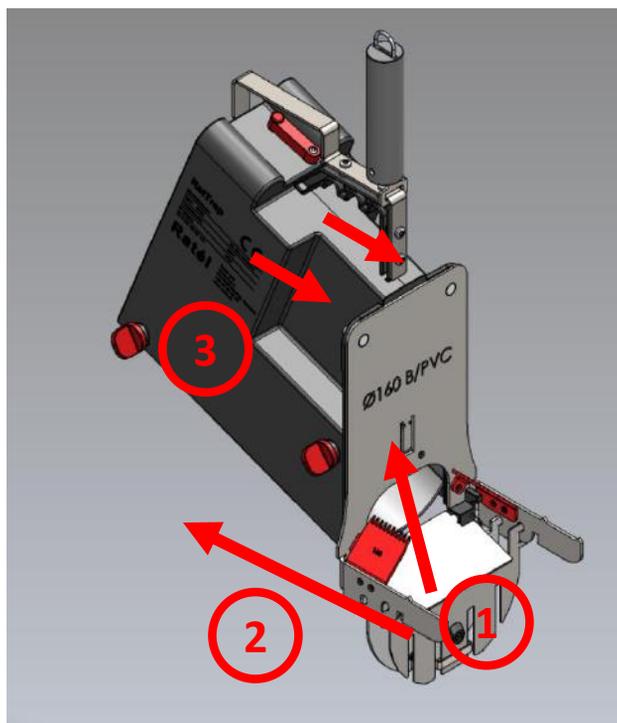
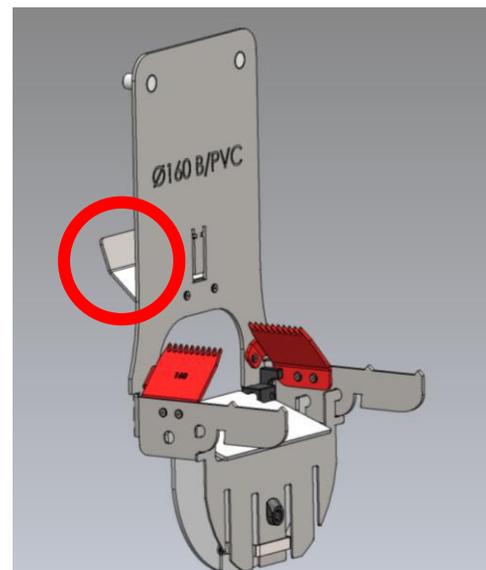
- 8.3.2.1 Pipe-size Ø160 [Go](#)
- 8.3.2.2 Pipe-size Ø200 - Ø500 [Go](#)
- 8.3.2.3 Bench Inlet [Go](#)

Back to [Preparation](#)

Back to [START](#)

8.3.2.1 Pipe-size Ø160

On the backside of the Ø160 Inlets is a little angle plate. These Inlets must therefore be angled into the trap, before the bolts can be fitted in the holes.



1. Inlet is angled into the trap
2. Inlet is put into place
3. Nuts are tightened

Back to [Preparation](#)

Back to [START](#)

8.3.2.2 Pipe-size $\varnothing 200$ - $\varnothing 500$

The Inlet is put into place and fastened with the nuts.



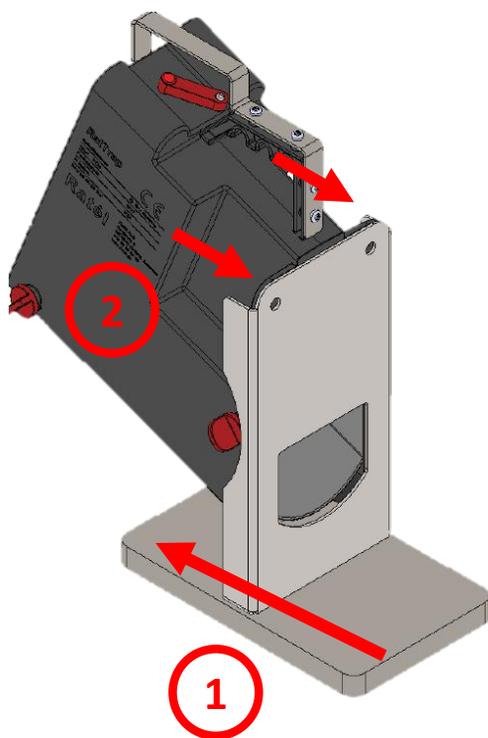
1. Inlet is put into place
2. Nuts are tightened

Back to [Preparation](#)

Back to [START](#)

8.3.2.3 Bench Inlet

The Inlet is put into place and fastened with the nuts.



1. Inlet is put into place
2. Nuts are tightened

Back to [Preparation](#)

Back to [START](#)

8.3.3 Loosen the Switch on the trap

The screw on the Switch is loosened, so that the switch can move freely.

Now the transmitter is active

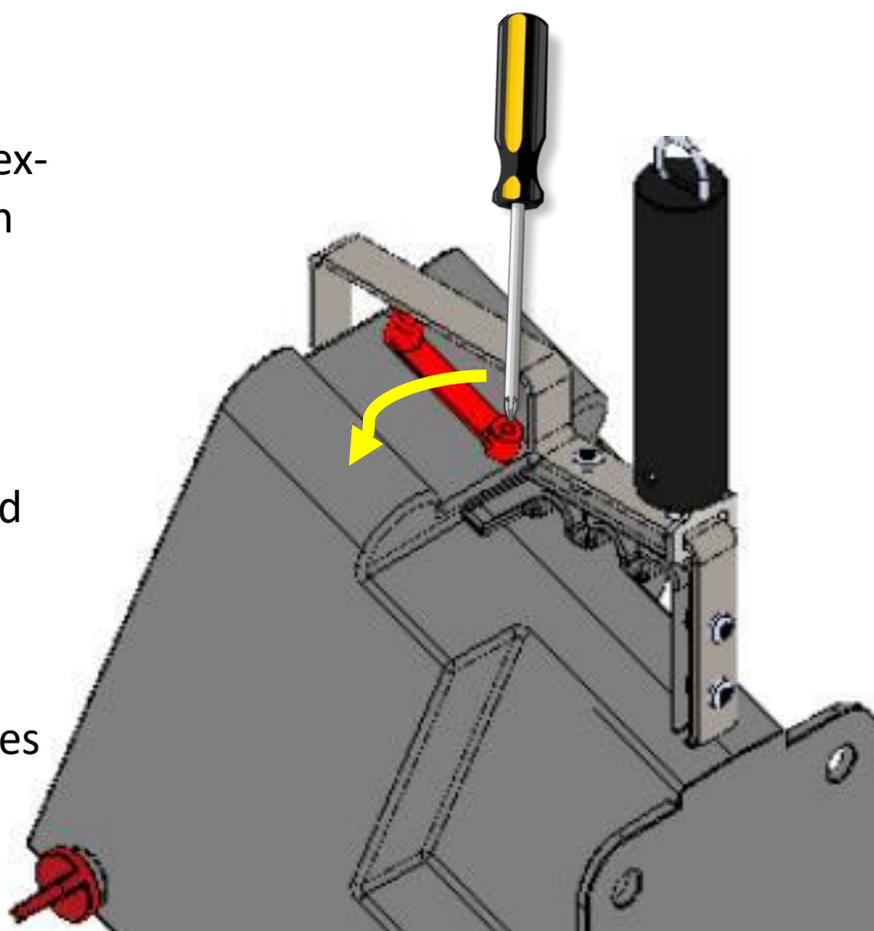


ALWAYS

remember to use ATEX-labeled equipment in ATEX zones (zone-classified areas), as well as to check that all ATEX-labeled devices are intact and correctly assembled before mounting in ATEX zones

Read about ATEX zones

[HERE](#)



Back to [Preparation](#)

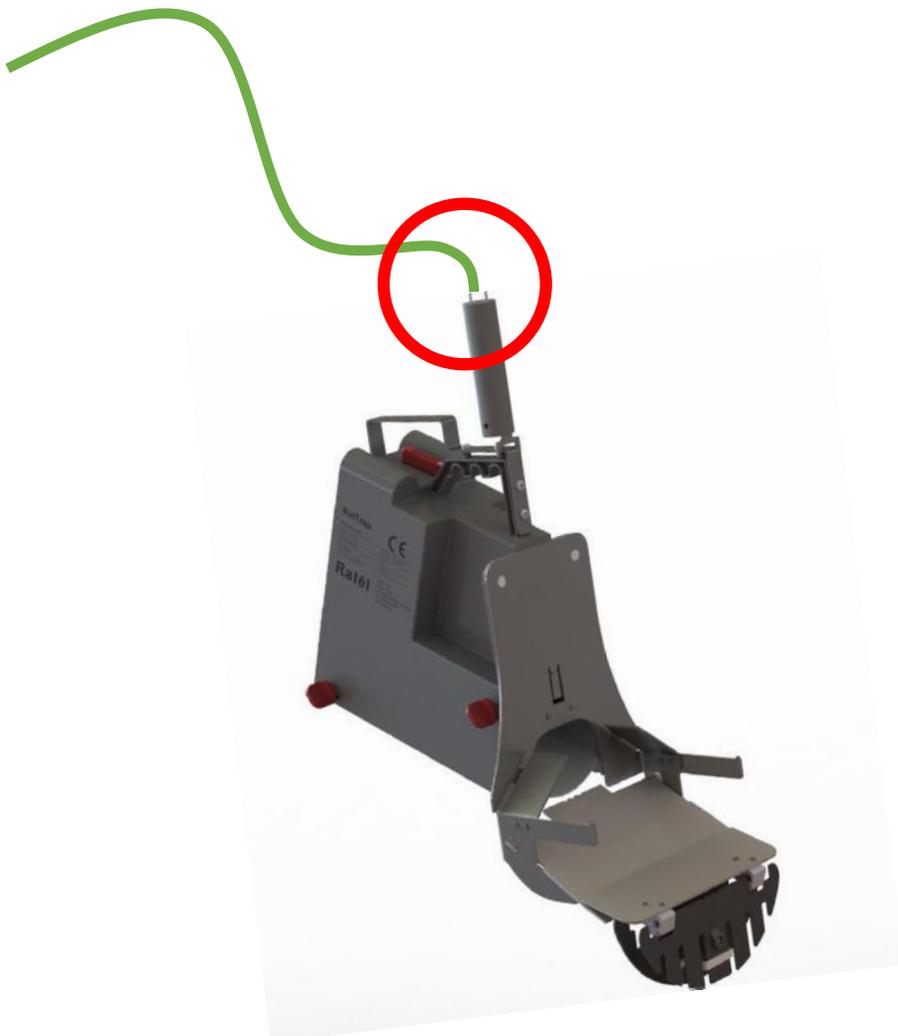
[Next](#)

[Back](#)

Back to [START](#)

8.3.4 Mounting the Wire

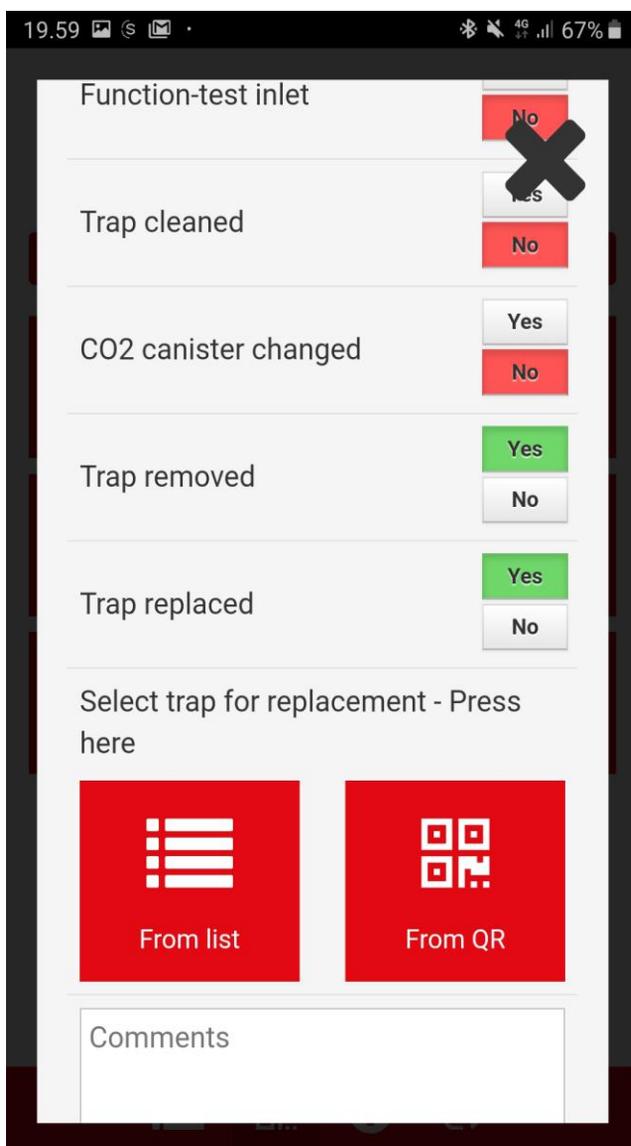
- Mount The wire on the trap using the snap hook on the spring handle



Back to [Preparation](#)

Back to [START](#)

8.4 Use the "change trap" function in the APP



The screenshot shows the app interface with the following elements:

- Function-test inlet: No (red button)
- Trap cleaned: No (red button)
- CO2 canister changed: Yes (white button), No (red button)
- Trap removed: Yes (green button), No (white button)
- Trap replaced: Yes (green button), No (white button)

Below the list, there is a section titled "Select trap for replacement - Press here" with two red buttons: "From list" (with a list icon) and "From QR" (with a QR code icon). At the bottom, there is a "Comments" text input field.

See the full guide to the change function in the APP [HERE](#)

Back to [Changing outer container](#)

[Back](#)

Back to [START](#)

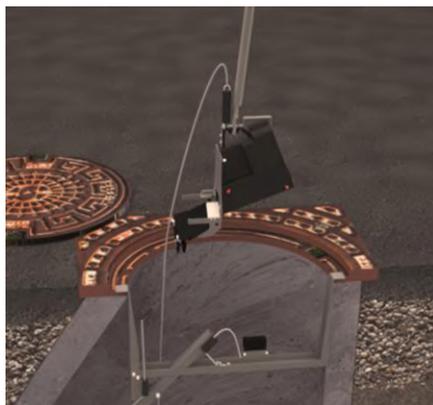
8.5.1 Mounting in PVC-manhole

- 8.5.1.1 Lower down the trap [Go](#)
- 8.5.1.2 Fasten the wire in the wire lock [Go](#)
- 8.5.1.3 Place the mounting kit [Go](#)
- 8.5.1.4 The mounting-hook is used to insert the trap in the pipe [Go](#)
- 8.5.1.5 Tighten the wire so the trap is fastened [Go](#)
- 8.5.1.6 Fasten the wire in the wire lock [Go](#)

Back to [Changing outer container](#)

Back to [START](#)

8.5.1.1 Lower down the trap



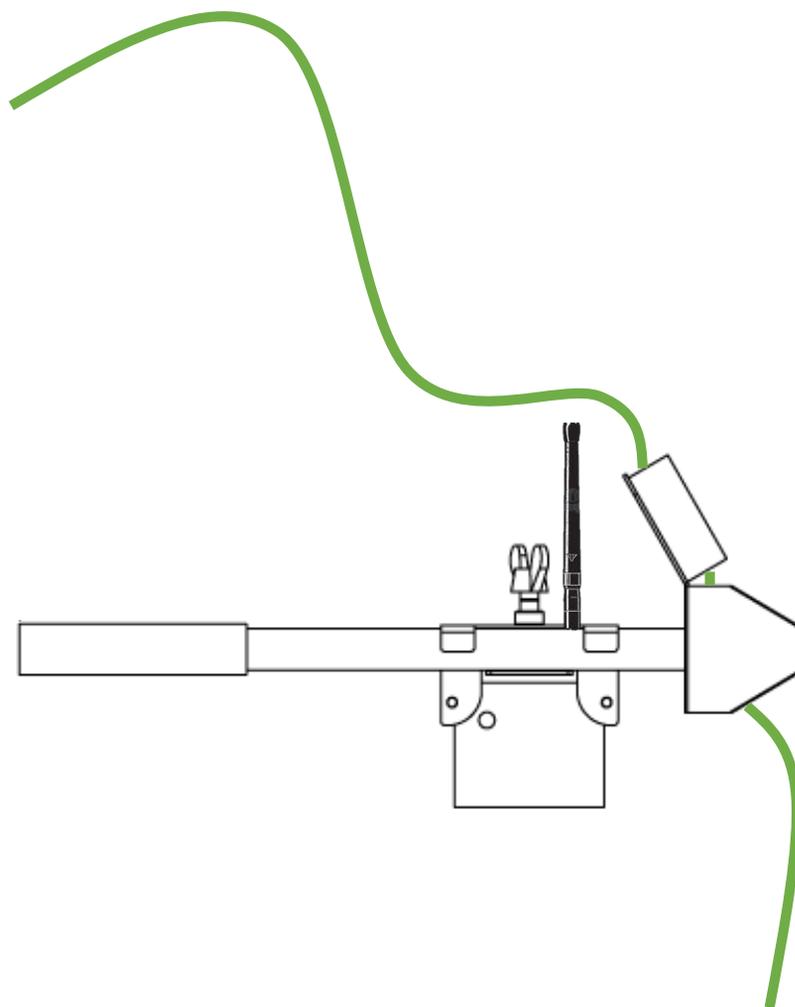
Using the Mounting-hook the trap is lowered down the manhole.

Back to [Mounting](#) in PVC-manhole

[Next](#)

Back to [START](#)

8.5.1.2 Fasten the wire in the wire lock



Back to [Mounting](#) in PVC-manhole

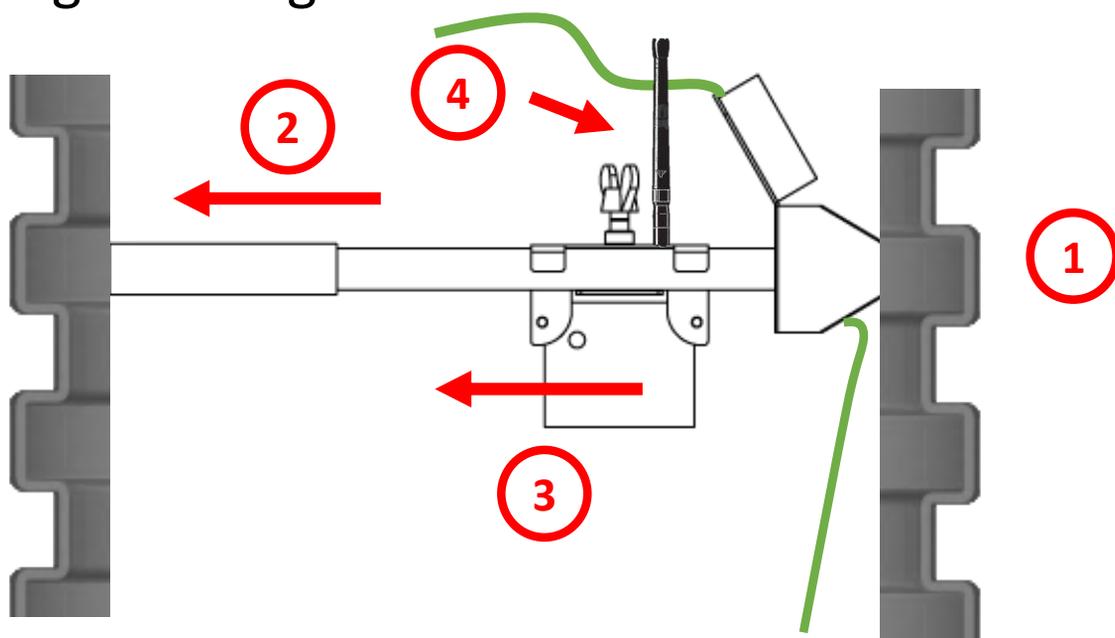
[Next](#)

[Back](#)

Back to [START](#)

8.5.1.3 Place the mounting kit

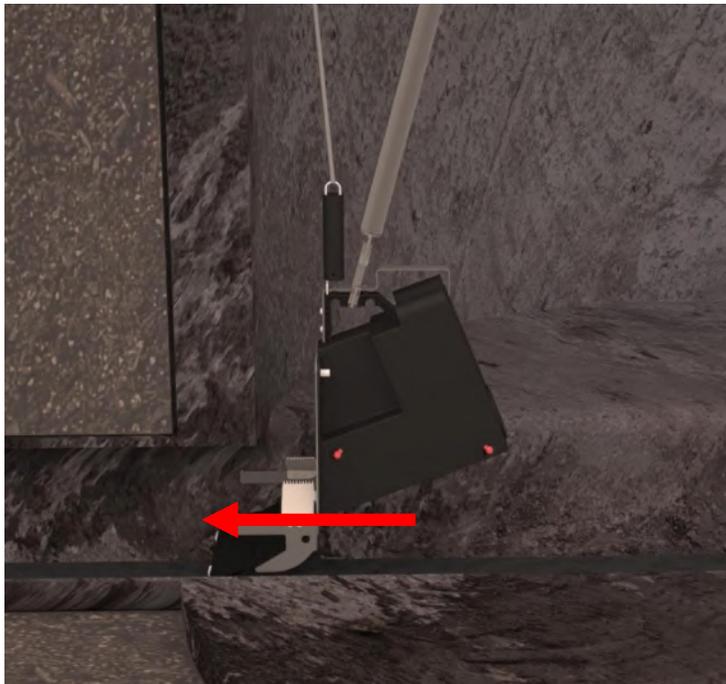
- ① The Mounting kit's triangular end is placed in the grooves in one side of the PVC-manhole.
- ② The extender is slid into to the grooves in the opposite side of the PVC-manhole.
- ③ The extender lock with the Repeater is slid towards the extender – and the
- ④ wing nut is tightened.



Back to [Mounting](#) in PVC-manhole

8.5.1.4 The mounting-hook is used to insert the trap in the pipe

The mounting-hook is used to insert the trap in the pipe



Back to [Mounting](#) in PVC-manhole

[Next](#)

[Back](#)

Back to [START](#)

8.5.1.5 Tighten the wire so the trap is fastened

The wire is tightened so the spring in the spring handle is stretched so that you have a proper pull

Now the trap is kept tight and thereby fastened in the pipe



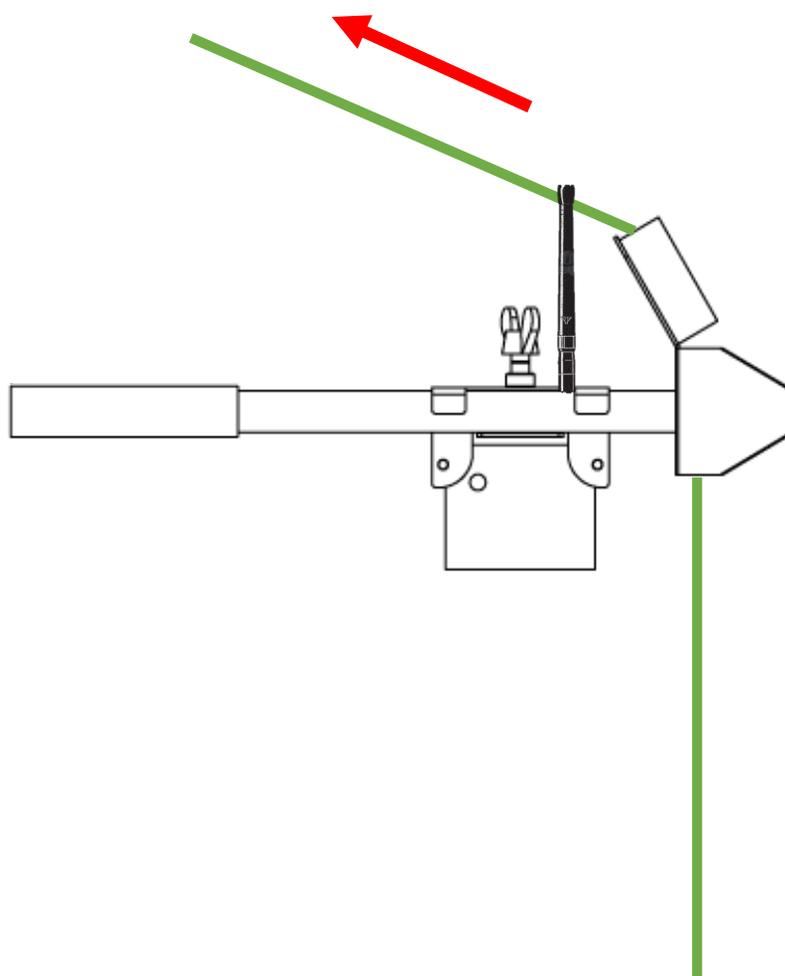
Back to [Mounting](#) in PVC-manhole

[Next](#)

[Back](#)

Back to [START](#)

8.5.1.6 Fasten the wire in the wire lock



Back to [Mounting](#) in PVC-manhole

[Back](#)

Back to [START](#)

8.5.2 Mounting in Concrete manhole

- 8.5.2.1 Lower down the trap [Go](#)
- 8.5.2.2 The mounting-hook is used to insert the trap in the pipe [Go](#)
- 8.5.2.3 Tighten the wire so the trap is fastened [Go](#)
- 8.5.2.4 Fasten the wire in the wire lock [Go](#)

Back to [Changing outer container](#)

Back to [START](#)

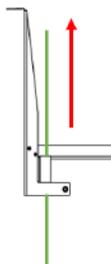
8.5.2.1 Lower down the trap



Using the Mounting-hook the trap is lowered down the manhole.



The trap should be lowered down on that side of the mounting kit where the wire lock is placed.



The wire is fastened in the Wire lock so the trap is not dropped in the following steps.

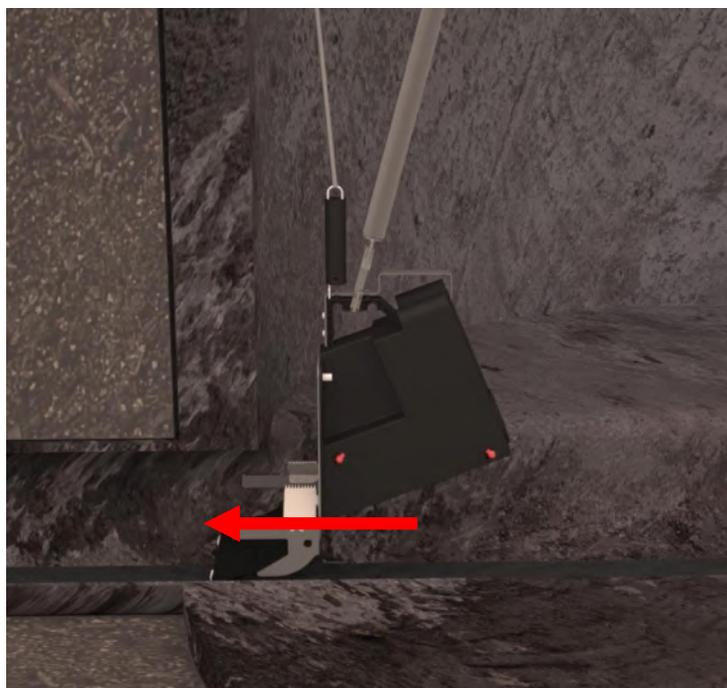
Back to [Mounting](#) in Concrete manhole

[Next](#)

Back to [START](#)

8.5.2.2 The mounting-hook is used to insert the trap in the pipe

The wire is loosened a bit, and the mounting-hook is used to insert the trap in the pipe



Back to [Mounting](#) in Concrete manhole

[Next](#)

[Back](#)

Back to [START](#)

8.5.2.3 Tighten the wire so the trap is fastened

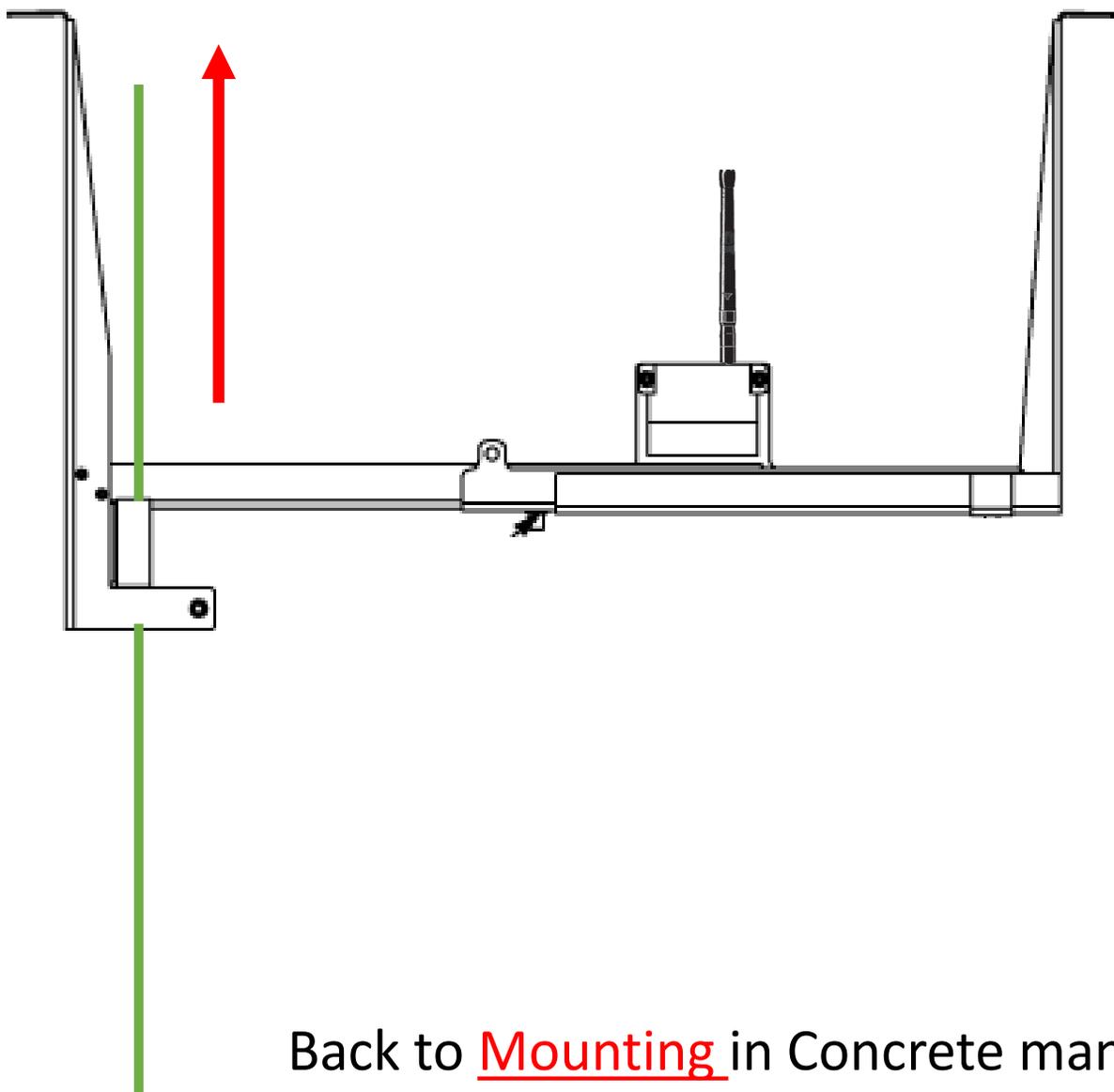
The wire is tightened so the spring in the spring handle is stretched so that you have a proper pull

Now the trap is kept tight and thereby fastened in the pipe



Back to [Mounting](#) in Concrete manhole

8.5.2.4 Fasten the wire in the wire lock



Back to [Mounting](#) in Concrete manhole

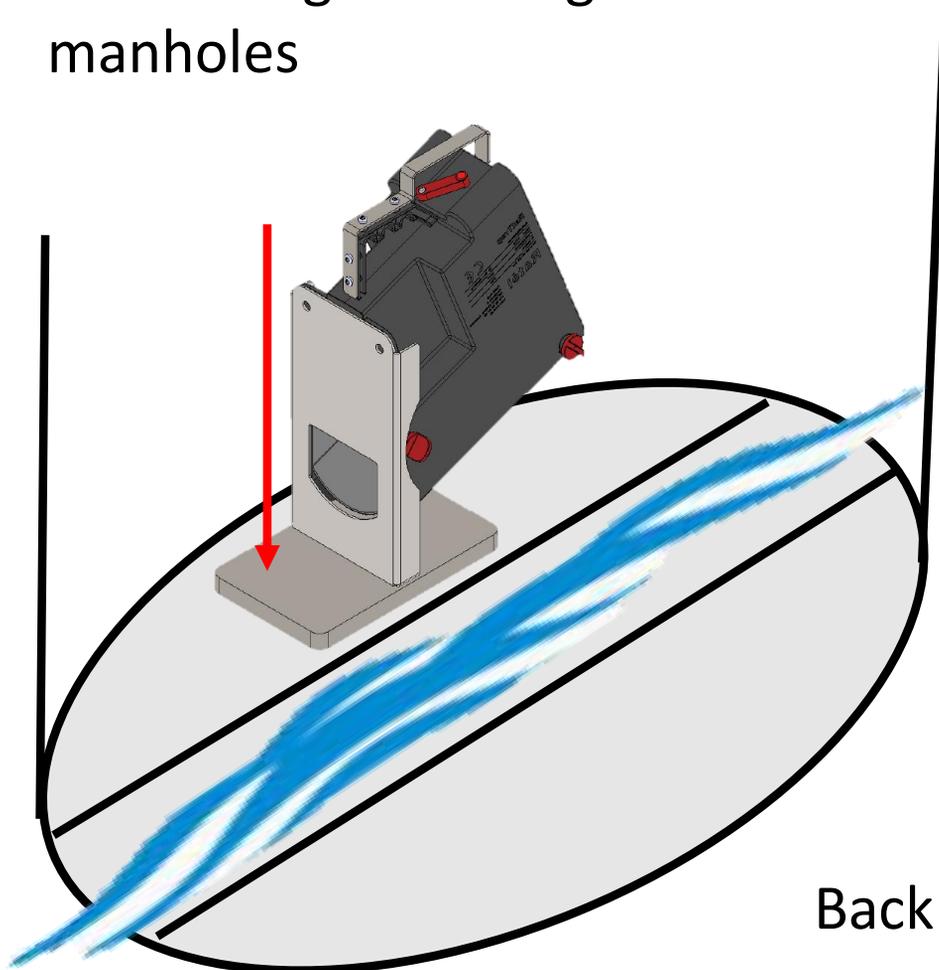
[Back](#)

Back to [START](#)

8.5.3 Mounting the Bench Trap All Manhole types

Place the trap so it touches the bench in the bottom of the manhole

Tighten the Wire as usual – see the sections concerning mounting in concrete and PVC manholes



Back to [Repair](#)

[Back](#)

Back to [START](#)

9. APP

9.1 Download and Login [Go](#)

9.2 Mount new trap [Go](#)

9.3 Service trap [Go](#)

9.4 Demount trap [Go](#)

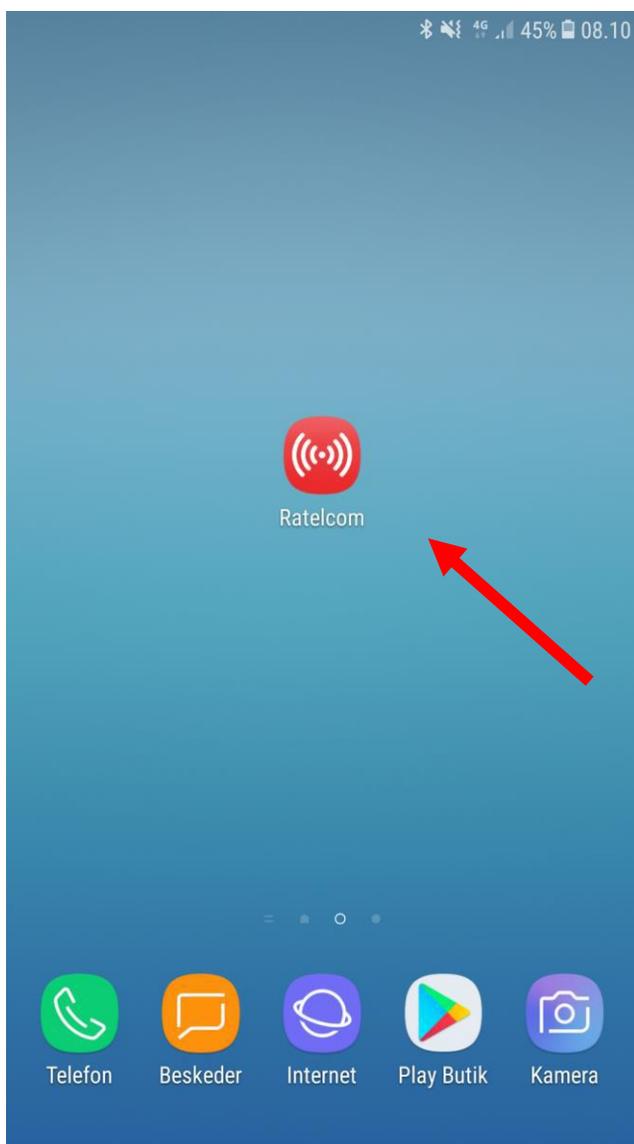
9.5 Change trap [Go](#)

9.6 Move trap [Go](#)

9.7 Alarms [Go](#)

9.8 Help [Go](#)

9.1 Download and Login



The APP is downloaded from where you normally download APPs for your phone.

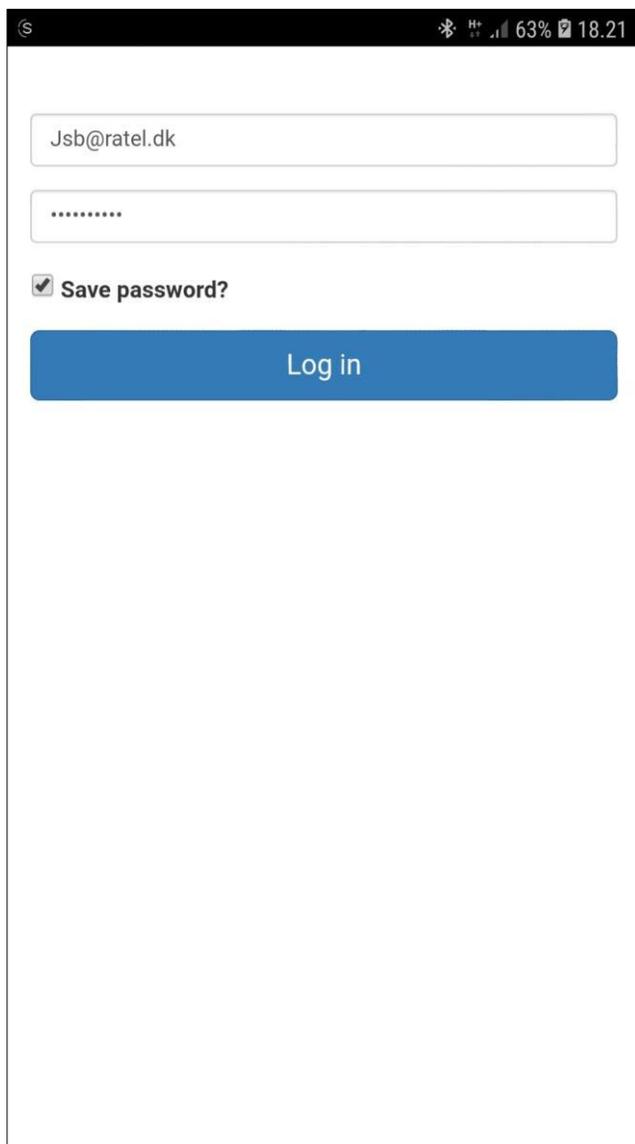
APP store for Iphones
Google Play for Android
Phones (Samsung, HTC,
Sony etc.)

When the APP is downloaded, the logo will look as shown on the picture

Now the APP is ready for use and is opened by clicking the logo

Back to [APP](#)

9.1.1 Login



The screenshot shows a mobile web browser interface for the login page. At the top, there is a status bar with a signal strength icon, 'H+', a battery icon at 63%, and the time 18.21. Below the status bar, there is a search icon in the top left corner. The main content area contains two input fields: the first is for the email address, containing 'Jsb@ratel.dk', and the second is for the password, containing a series of dots. Below the password field is a checkbox labeled 'Save password?' which is checked. At the bottom of the form is a blue button labeled 'Log in'.

The login informations are received on e-mail, when you have been created as a user in Raté!lcom's webplatform

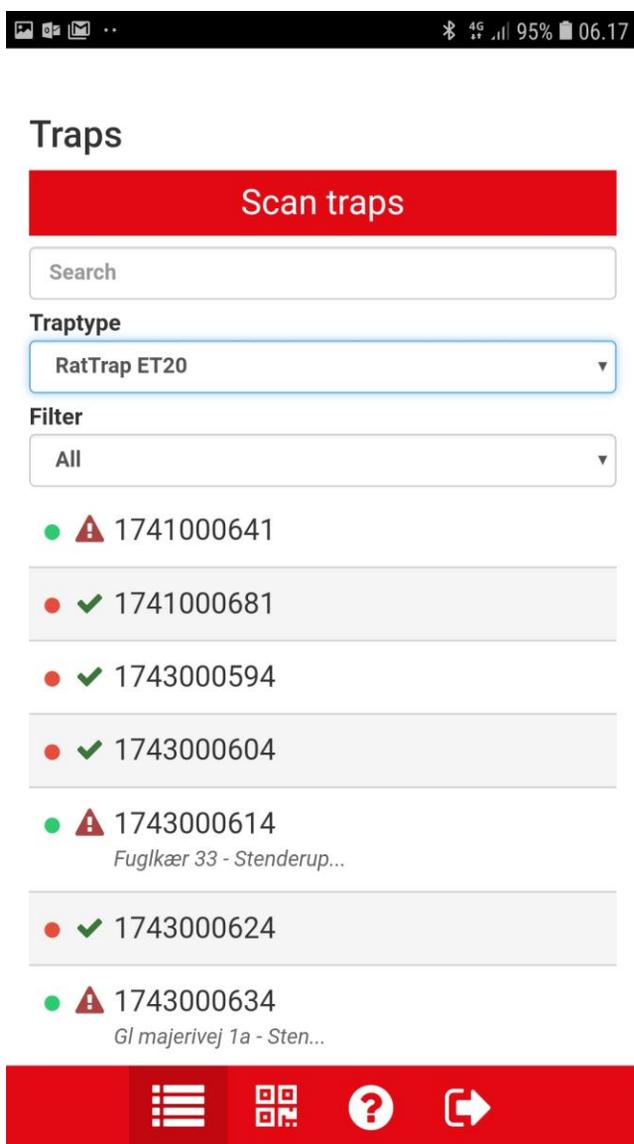
The login informations are typed in the boxes – now click Login to enter the APP

Back to [APP](#)

[Back](#)

Back to [START](#)

9.2 Mount new trap



On this side you choose if you will find the trap to be monted via the list or the QR code

Choosing the list – start choosing the trap type

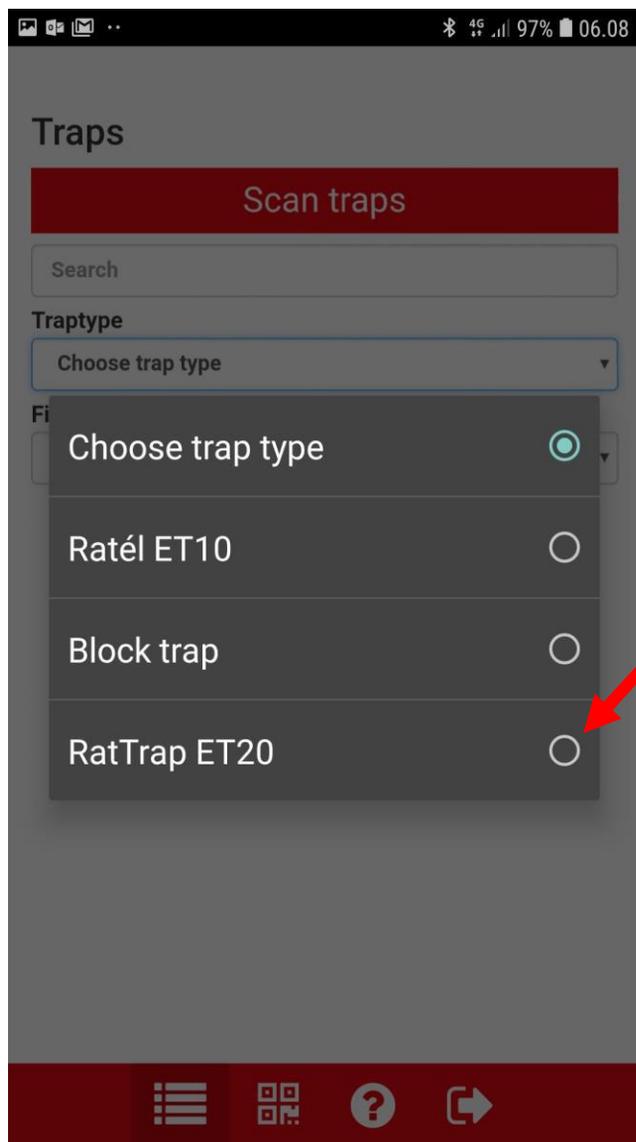
Choosing QR code- Click on "Mounting"

Back to [APP](#)

[Next](#)

Back to [START](#)

9.2.1 Choose trap type



Choose "RatTrap ET
20"

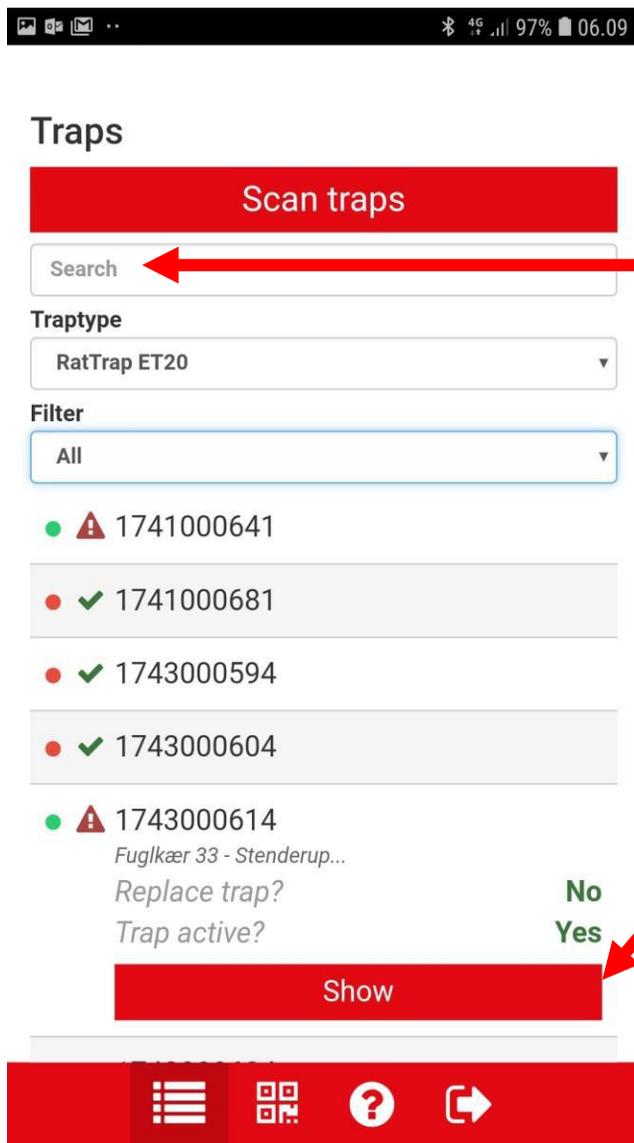
Back to [APP](#)

[Next](#)

[Back](#)

Back to [START](#)

9.2.2 List view



You can use the search function to find a trap – ypu need to type **3 digits** before the search starts

Click on the chosen trap on the list, and click "Show"

Back to [APP](#)

[Next](#)

[Back](#)

Back to [START](#)

9.2.3 QR code



Click on the QR code icon



Scan the QR code and click "OK"



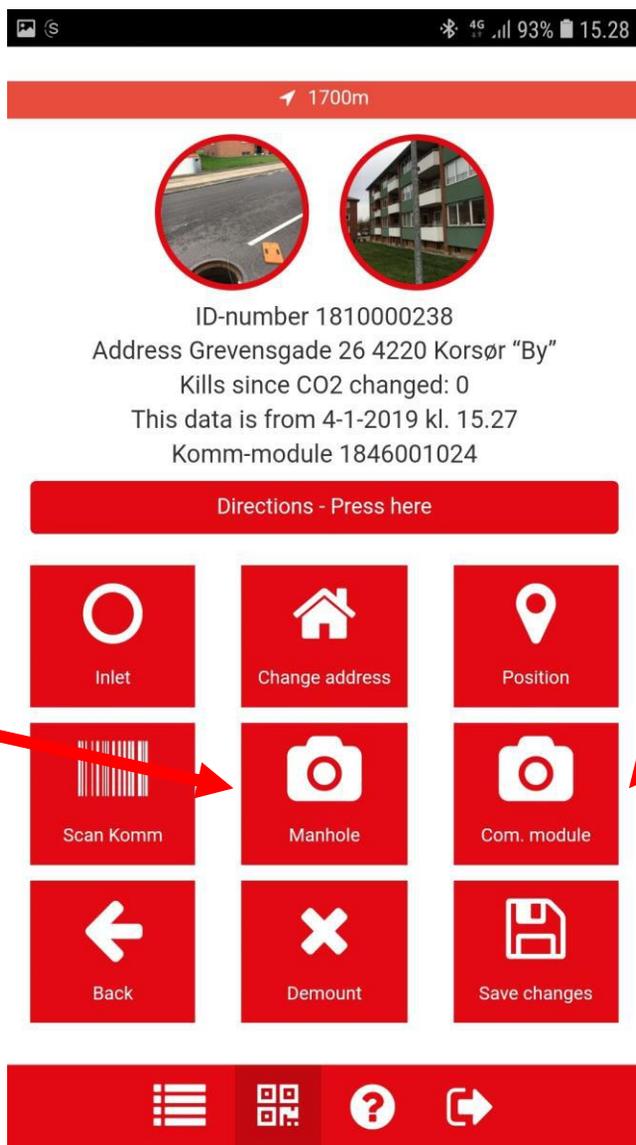
Back to [APP](#)

[Next](#)

[Back](#)

Back to [START](#)

9.2.4 Take pictures of the manhole and surroundings as well as the chosen spot for the Communication module

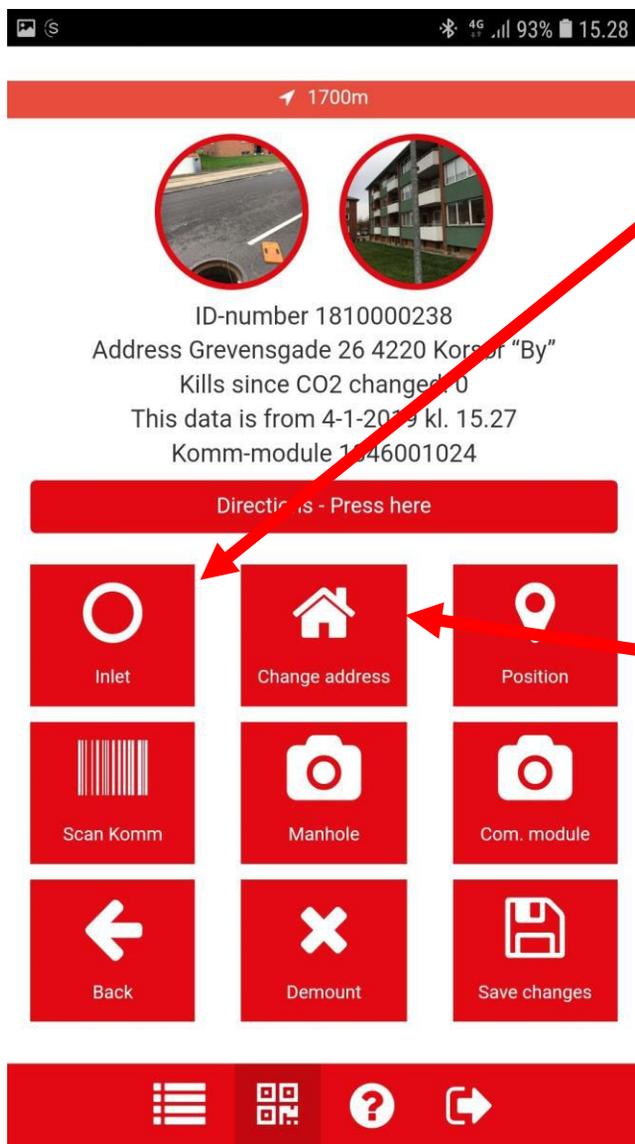


First click on the foto icon "manhole" – take picture of manhole and surroundings and click "ok"

Second click on the foto icon "Com.Module"-modul" – take picture of the chosen spot for the Communication module and click "ok"

Back to [APP](#)

9.2.5 Choose Inlet and change address



First Click the Inlet icon and choose Inlet type

Next click the icon "change address" and note the address

This field is a free text field and can therefore be used to note eg. the manhole ID or other relevant issues.

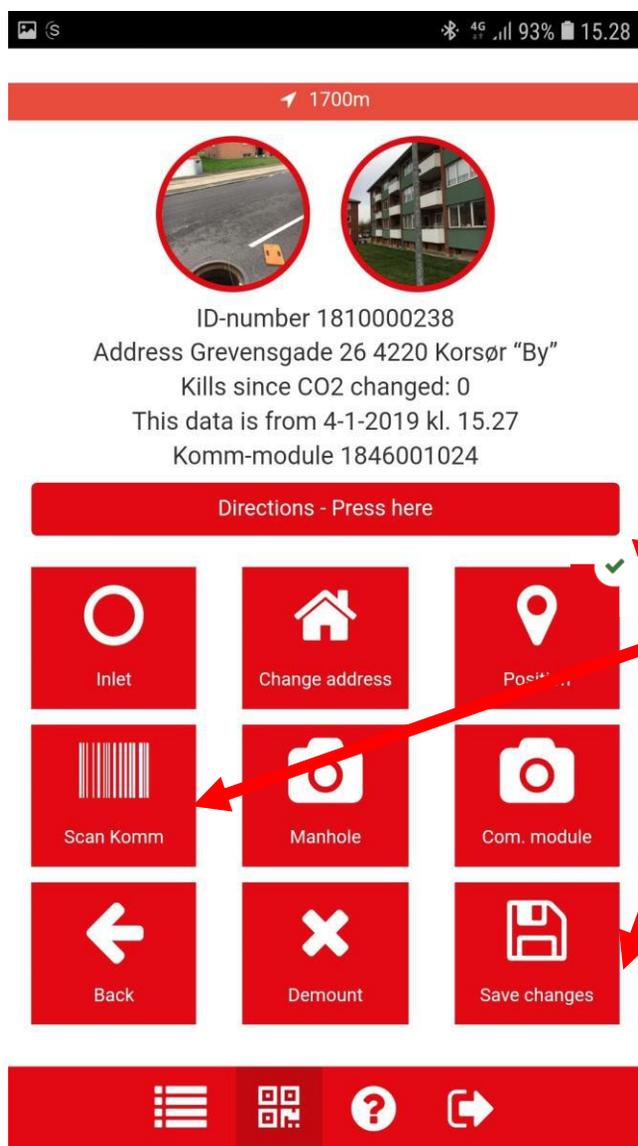
Back to [APP](#)

[Next](#)

[Back](#)

Back to [START](#)

9.2.6 Click on "new position" and save



Click on "new position" and await the green check mark

Click "Scan Com" to register the communication module

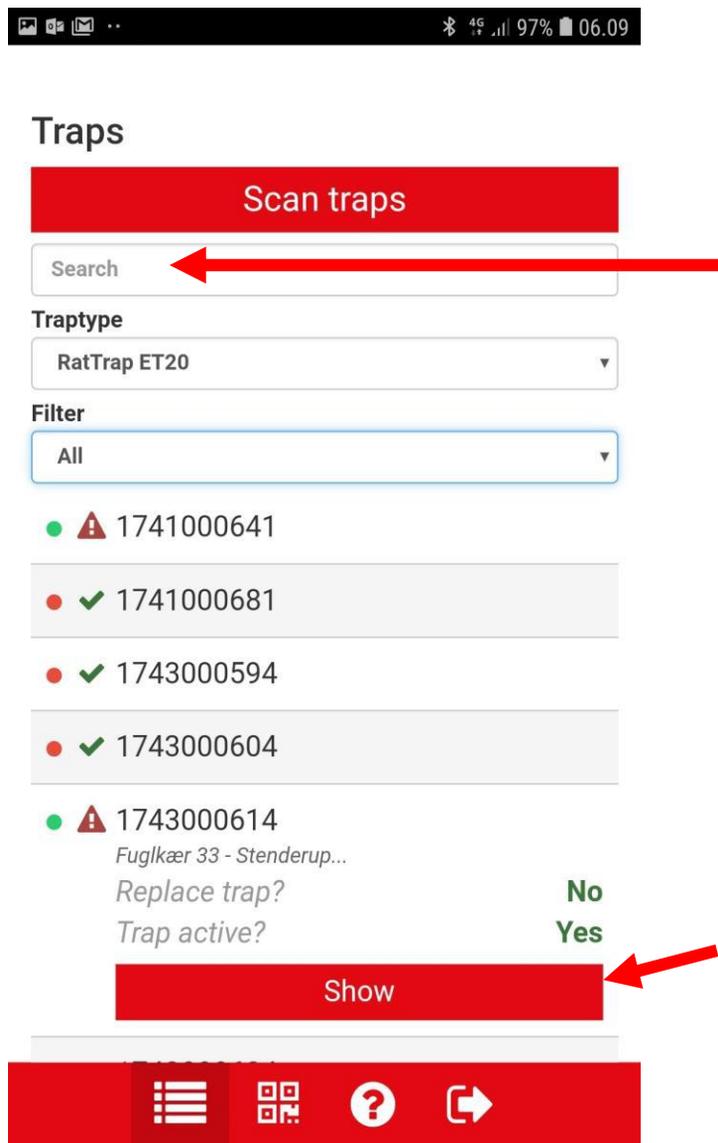
Click on save – now the trap is mounted in the APP

Back to [APP](#)

[Back](#)

Back to [START](#)

9.3 Service function



You can use the search function to find a trap – you need to type **3 digits** before the search starts

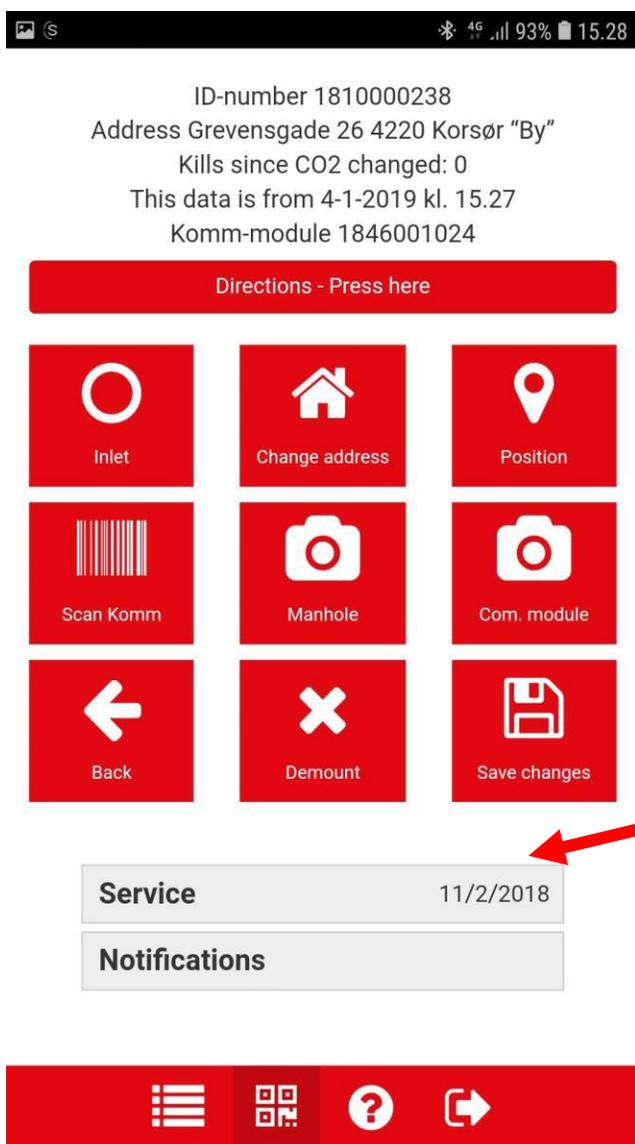
Click on the trap, that needs service – choosing either the list view or the QR code

Back to [APP](#)

[Next](#)

Back to [START](#)

9.3.1 Scroll down and click "Service"



When the trap is displayed scroll to the bottom and click the grey bar "Service"

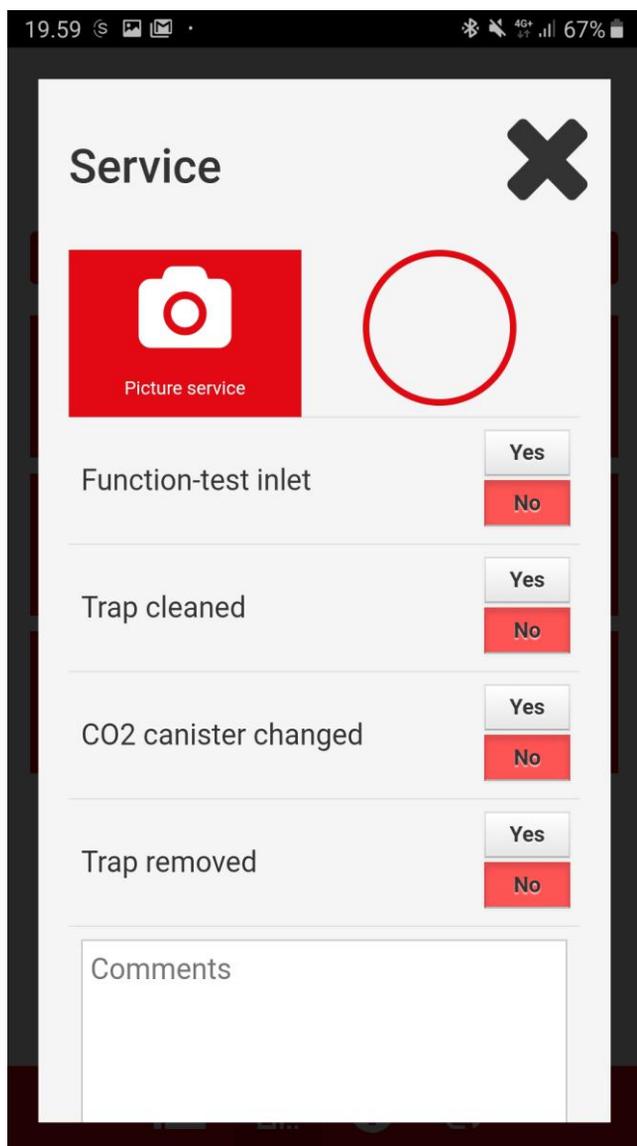
Back to [APP](#)

[Next](#)

[Back](#)

Back to [START](#)

9.3.2 Do Service and tick the tasks (also see the next page)



The screenshot shows a mobile application interface titled "Service" with a close button (X) in the top right corner. Below the title is a red square icon with a white camera symbol and the text "Picture service". To the right of this icon is a red circle. Below these are four rows of tasks, each with a "Yes" button (white) and a "No" button (red):

Task	Yes	No
Function-test inlet	<input type="checkbox"/>	<input type="checkbox"/>
Trap cleaned	<input type="checkbox"/>	<input type="checkbox"/>
CO2 canister changed	<input type="checkbox"/>	<input type="checkbox"/>
Trap removed	<input type="checkbox"/>	<input type="checkbox"/>

At the bottom of the form is a text input field labeled "Comments".

Take picture if relevant

Tick "Yes" in the boxes as the tasks are done

Tick "yes" if the trap is removed – "no" if not

Note if anything to note

Back to [APP](#)

[Next](#)

[Back](#)

Back to [START](#)

9.3.3 Save Service

20.13 4G+ 65%

Service

Picture service

Function-test inlet Yes No

Trap cleaned Yes No

CO2 canister changed Yes No

Trap removed Yes No

Comments

Last – scroll down to the bottom of the view and click "Save"

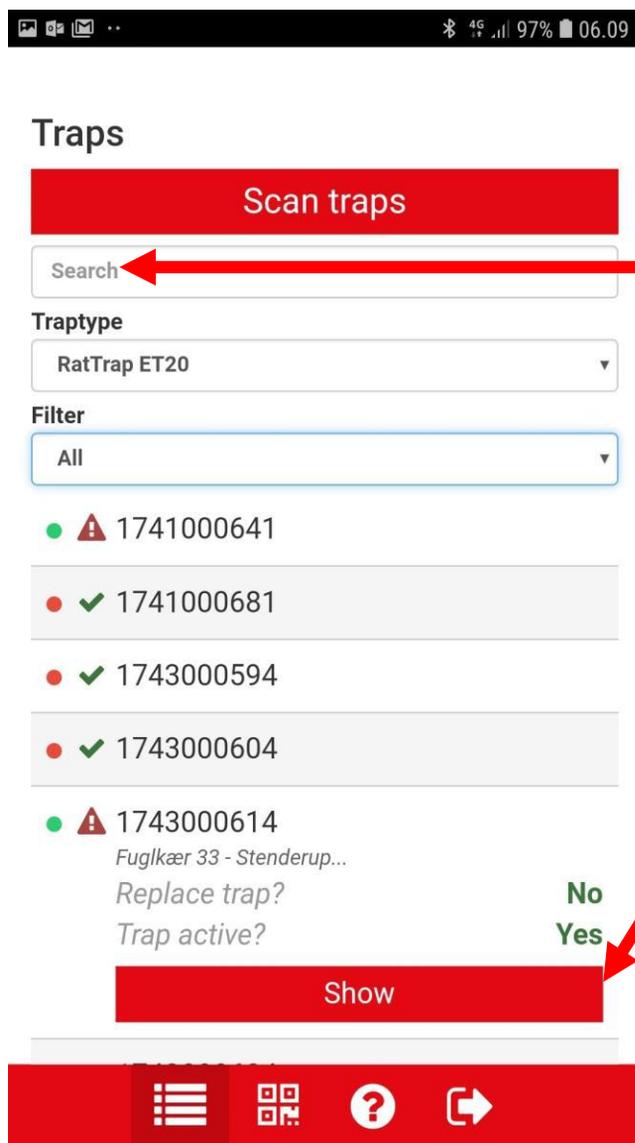
Now the service report is available in Raté!lcom's webplatform

Back to [APP](#)

[Back](#)

Back to [START](#)

9.4 Demount trap



You can use the search function to find a trap – you need to type **3 digits** before the search starts

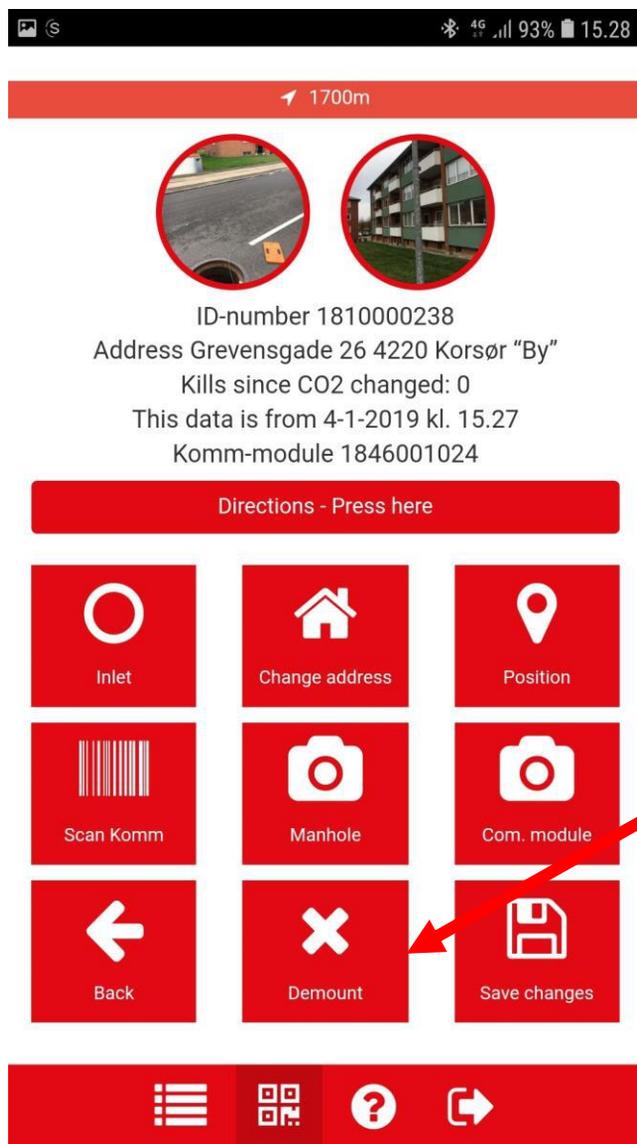
Click on the trap, that needs demount – choosing either the list view or the QR code

Back to [APP](#)

[Next](#)

Back to [START](#)

9.4.1 Click "Demount"



Click "Demount"

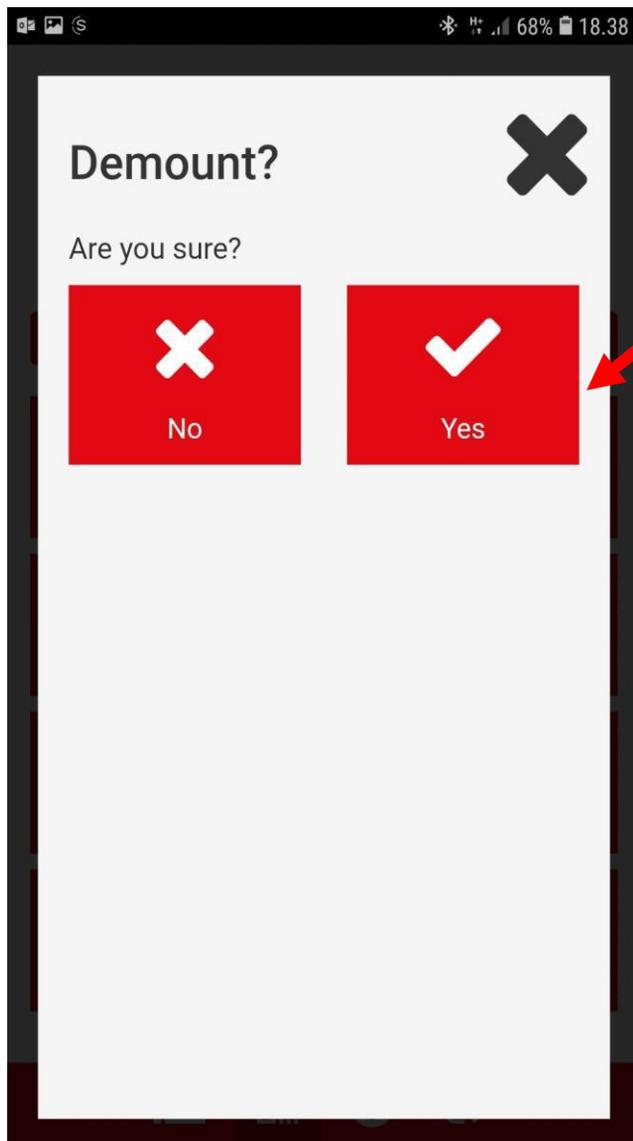
Back to [APP](#)

[Next](#)

[Back](#)

Back to [START](#)

9.4.2 Confirm Demounting



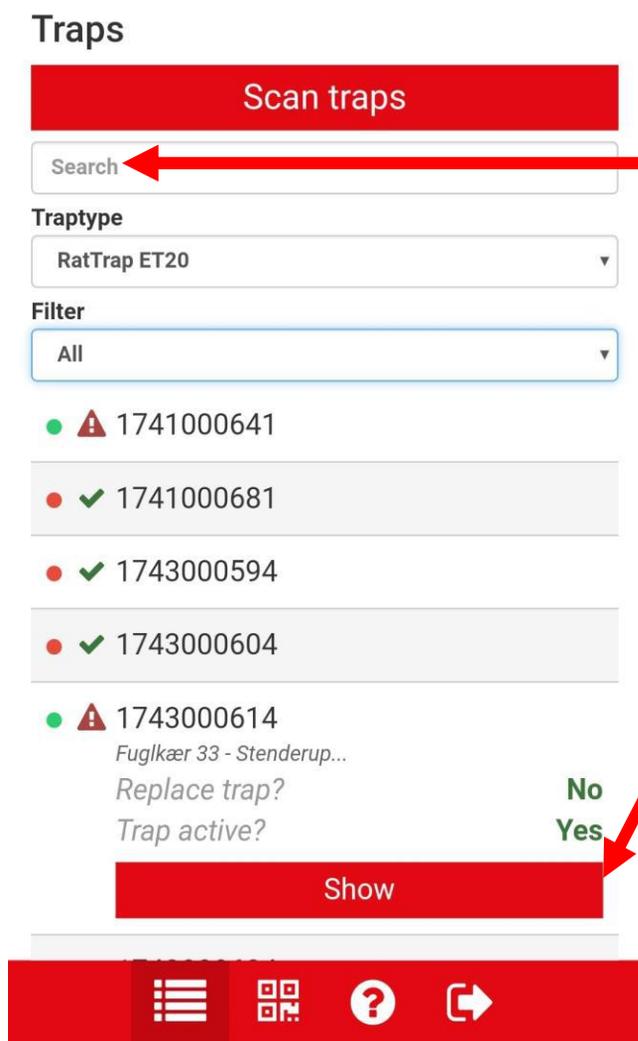
Confirm the
demounting

Back to [APP](#)

[Back](#)

Back to [START](#)

9.5 Replace trap with another trap



You can use the search function to find a trap – you need to type **3 digits** before the search starts

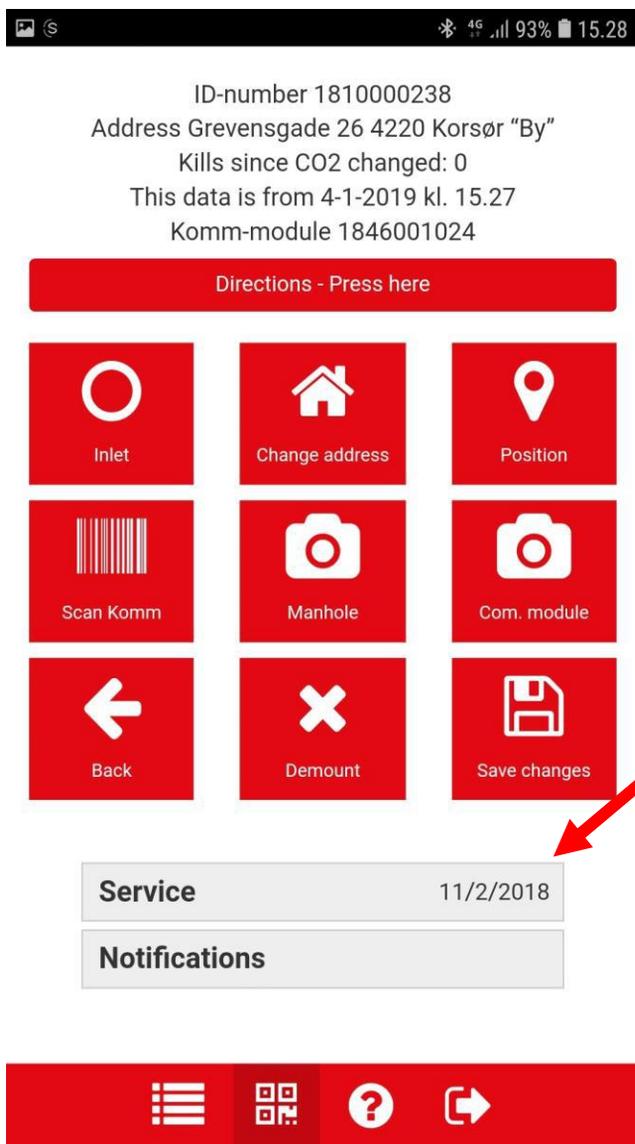
Click on the trap, that needs to be changed – choosing either the list view or the QR code

Back to [APP](#)

[Next](#)

Back to [START](#)

9.5.1 Scroll down and choose "Service"



Scroll down and choose "Service"

Back to [APP](#)

[Next](#)

[Back](#)

Back to [START](#)

9.5.2 Scroll down – and tick as shown

19.59 4G 67%

Function-test inlet No Yes

Trap cleaned No Yes

CO2 canister changed Yes No

Trap removed Yes No

Trap replaced Yes No

Select trap for replacement - Press here

Comments

Click "Yes" for "trap removed" and click "Yes" for "trap replaced"

Then choose the new trap - either from the list view or the QR code

Click "Save"

If you click "No" for "trap replaced" the trap will be normally demounted

Back to [APP](#)

[Back](#)

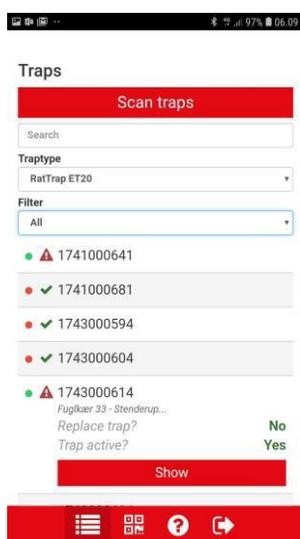
Back to [START](#)

9.6 Move trap



Demount the trap as shown in section 9.4

Move the trap to the new position

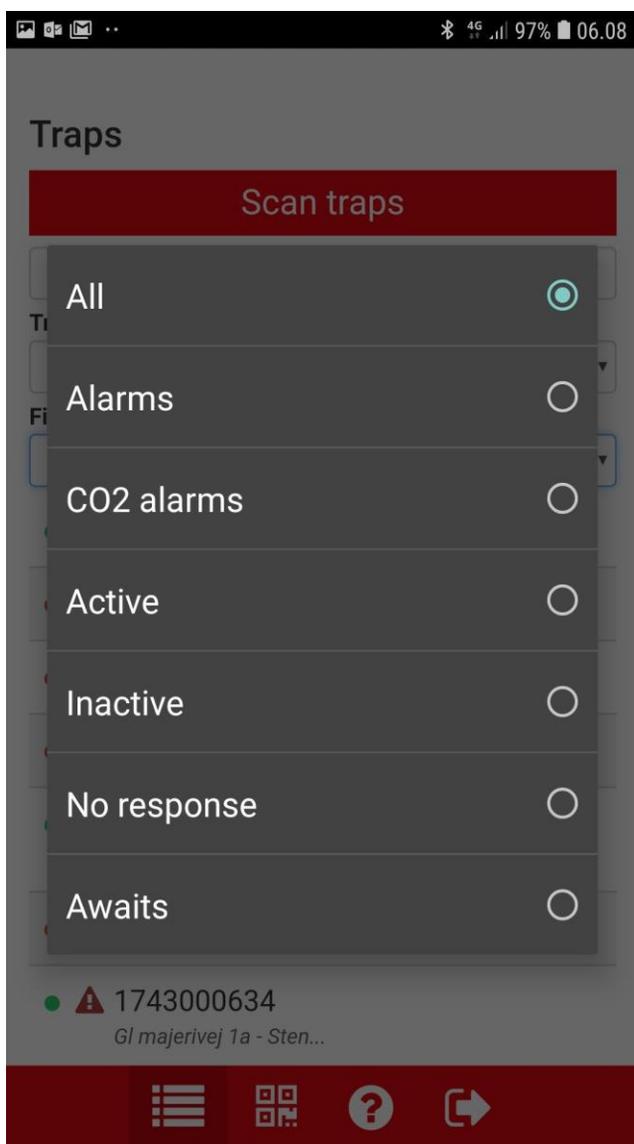


Mount the trap as shown in section 9.2

Back to [APP](#)

Back to [START](#)

9.7 Alarms



Choose trap type

Use the filter to show which traps are having an alarm

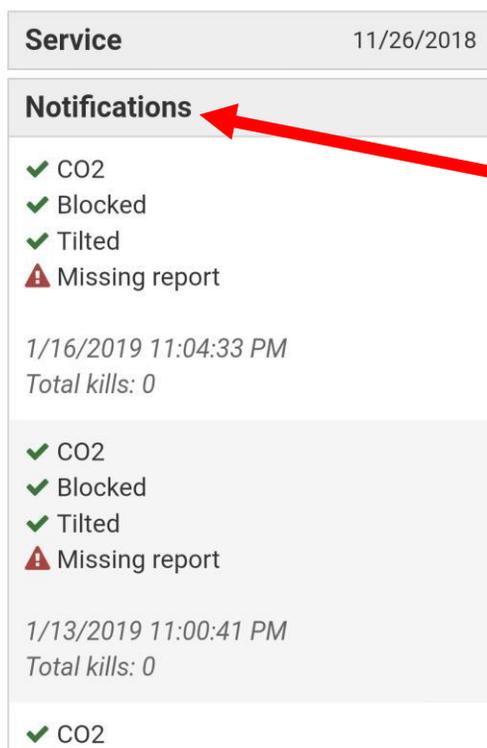
Click on a trap with alarm, to see the details

Back to [APP](#)

[Next](#)

Back to [START](#)

9.7.1 Deal with the alarm



Scroll to the bottom of the view and click "notifications" to see the alarms

Deal with the alarm by doing a "Service"

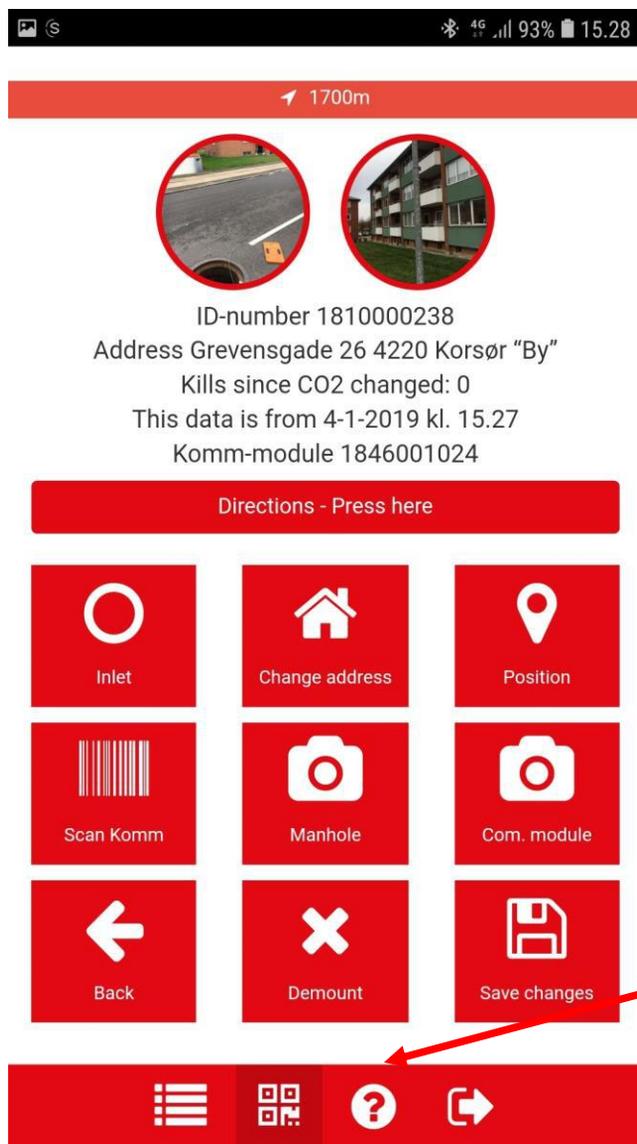


Back to [APP](#)

[Back](#)

Back to [START](#)

9.8 Help



By clicking "?" you access the full manual for RatTrap ET20

Choose "download file" on android phones for activating the manual's link functions

Back to [APP](#)

[Back](#)

Back to [START](#)

10. Raté!lcom

10. 1 Raté!lcom for Representatives [Go](#)

10.2 Raté!lcom for End Customer [Go](#)

10.3 Raté!lcom for Technicians [Go](#)

10.1 Raté!lcom for Representatives

10.1.1 Login [Go](#)

10.1.2 The Frontpage [Go](#)

10.1.3 Companies [Go](#)

10.1.4 Employees [Go](#)

10.1.5 Manage Products [Go](#)

10. 1.6 Trap Groups [Go](#)

10.1.7 Alarms [Go](#)

10.1.8 Vacation [Go](#)

10.1.9 Traps [Go](#)

10.1.10 Change Password [Go](#)

Back to [Raté!lcom](#)

Back to [START](#)

10.1.1 Login



The login informations are received on e-mail, when you have been created as a user in Ratélc(om)m's webplatform (first login is received directly from Raté's customer support when receiving your first products)

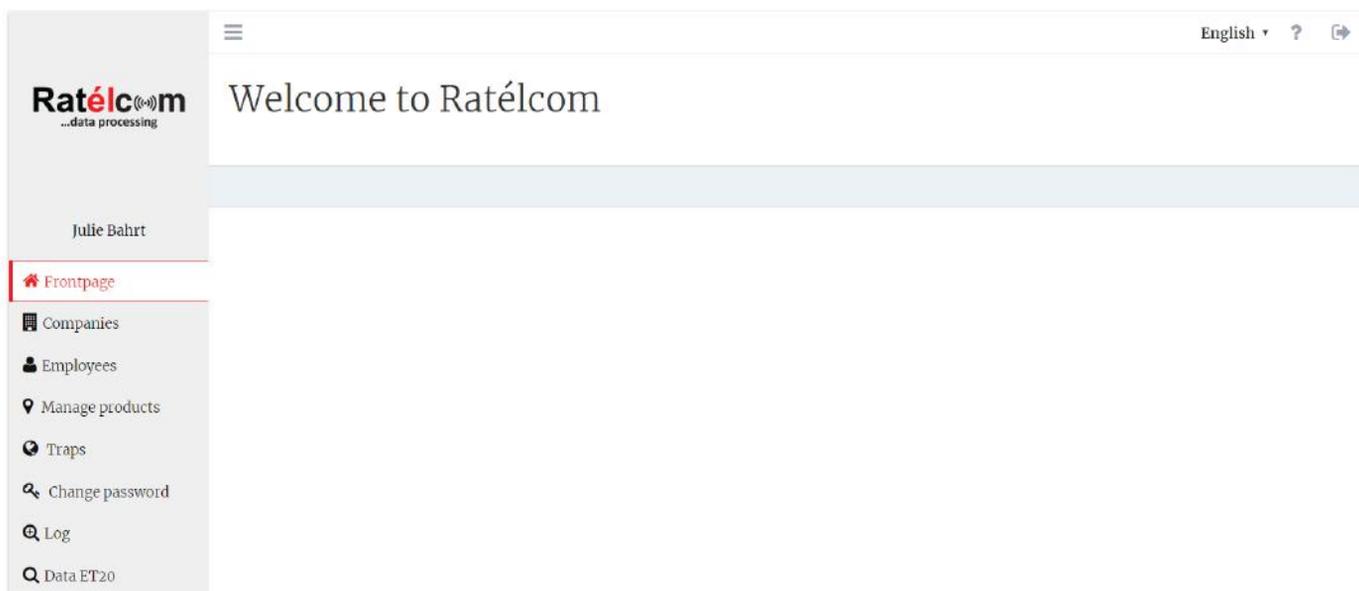
The login informations are used for both Ratélc(om)m's webplatform and the Ratélc(om)m APP

Back to [Representatives](#)

[Next](#)

Back to [START](#)

10.1.2 The Frontpage



On the frontpage you see the menu structure on the left.

Click on the individual sections to proceed.

In the upper right corner you choose between languages.

By clicking "?" you access the full manual for RatTrap ET20

Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.3 Companies

The screenshot displays the 'Companies' management interface. At the top, there is a 'Create' button and a search bar. Below the search bar is a table listing several companies. Each row in the table includes a 'Send report' and an 'Edit' button.

Job/Contract no.	Companyname	Zipcode	City	Contactperson	Email	Telephone	Send report	Edit
A0	Alle Fælder	6000	Kolding				Send report	Edit
A1	Pelias Norsk Skadedyrkontorll DA	2409	Elverum	Bjorn Eide	be@pelias.no		Send report	Edit
	Agekil AB	436 32	Askim	Marcus Cissig	marcus@agekil.se	+46031762 8812	Send report	Edit
	Antipest	6990	Ulfborg	Jakob Vandborg / Jens Stougaard	jv@antipest.dk	30 44 22 45	Send report	Edit
	Arne Hansens Eft. ApS	3540	Lynge	Anders From	info@ahetft.dk		Send report	Edit
	Bjarne Madsen ApS	7323	Give				Send report	Edit
	Dansk Beton Renovering	3480	Fredensborg	Jesper Sørensen	jis.dbr@gmail.com		Send report	Edit

In the section "Companies" you see a list of the companies, that are created by you as a representative.

From this section you can create new companies, send reports to already existing companies and correct data registered on already existing companies.

Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.3.1 Create company

The screenshot shows the 'Create Company' form in the Raté!l system. The form is organized into several columns and rows. The left sidebar contains navigation options: Frontpage, Companies (highlighted), Employees, Manage products, Traps, Change password, Log, and Data ET20. The main form area has a header with 'Raté!l ...data processing' and 'Create Company'. The form fields are as follows:

- Job/Contract no. (Required)
- Zipcode (Required)
- Email
- Companyname (Required)
- City (Required)
- Telephone
- Address 1 (Required)
- Contactperson
- Mobile
- Address 2
- Jobdescription
- Rent traps (checkbox)
- Country (Dropdown menu, currently set to Denmark)
- Accesslevel (Dropdown menu, currently set to Level 0)
- Print alarms on report (checkbox)
- Address warehouse (Text input with Search button)

At the bottom of the form, there are two buttons: 'Save company' and 'Cancel'.

When creating a new company you should as a minimum fill in the boxes marked with "Required".

Tick the box "Service contract" if you are the company servicing the traps.

Tick the box "print alarms on report" if needed.

Remember to click "Save company".

Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.3.2 Send report to Companies



Choose the time interval you wish for the report – and click "Send report".

Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.3.3 Correct company

The screenshot shows the 'Edit company' interface. On the left is a navigation menu with 'Companies' selected. The main area contains the following fields and controls:

- Job/Contract no. (empty)
- Zipcode: 6000 (Required)
- Email (empty)
- Companyname: Ao Alle Fælder (Required)
- City: Kolding (Required)
- Telephone (empty)
- Address 1: Centervej 2 (Required)
- Contactperson (empty)
- Mobile (empty)
- Address 2 (empty)
- Jobdescription (empty)
- Rent traps:
- Country: Denmark
- Accesslevel: Representative
- Print alarms on report:
- Address warehouse: Search
- Buttons: Save company, Cancel

In this section you can correct already existing companies data.

Remember to click "Save company".

Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.4 Employees

The screenshot displays the 'Employees' management interface. At the top left, there is a 'Create' button. Below it, a 'Company' dropdown menu is set to 'Ratel ApS'. To the right is a search bar with the placeholder 'Search text' and a 'Search' button. The main area contains a table of employees:

Employee	Active	Report responsible	User level	Email	Mobile	Edit	Send login	Report interval	Traps
Hans Knudsen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	hk@ratel.dk	40533636	Edit	Send login		
Jan Nørskov	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	jnl@care4all.dk	40503999	Edit	Send login		
Jens Spedsbjerg	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	js@datasign.dk	31250750	Edit	Send login		
Julie Bahrt	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	jsb@ratel.dk	53641803	Edit	Send login		
Nikolaj Rasmussen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	produktion@camro.dk	20 35 50 35	Edit	Send login		

In the section "Employees" you see the list of employees affiliated with the individual companies. Both on your representative level and on the end customer level.

Choose the company with which employees you want to see or change

Now the relevant employees are shown in the list

From this section you can create new employees and correct data registered on already existing employees – and send login/new login to employees.

Back to [Representatives](#)

10.1.4.1 Create employee

The screenshot shows the 'Create Employee' form in the Raté!l system. The form is titled 'Create Employee' and is located in the 'Employees' section of the sidebar. The form includes the following fields and options:

- Firstname** (Required)
- Mobile** (Required)
- Middelame(s)**
- Address**
- Lastname** (Required)
- City**
- Email** (Required)
- Zipcode**
- Company** (Dropdown menu, currently set to 'Ratel ApS')
- User level** (Dropdown menu, currently set to 'Level 0')

At the bottom of the form, there are two buttons: 'Save employee' and 'Cancel'. The sidebar on the left contains the following navigation options: Frontpage, Companies, **Employees**, Manage products, Traps, Change password, and Log.

When creating a new employee you should as a minimum fill in the boxes marked with "Required".

Choose the user level so it fits the relevant employee

Your own employees incl. technicians are created in you own company name.

End customers with a service contract should have created employees with only "read rights"

End customers who are servicing their own traps shold have created an employee with administrator rights – so they can manage and create there own employees in the future.

Remember to click "Save employee" Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.4.2 Send Login

Email er afsendt

The screenshot shows the Raté web interface. At the top, a green bar displays the message "Email er afsendt". Below this, the interface includes a sidebar with the Raté logo and navigation options like "Frontpage" and "Companies". The main area features a "Create" button, a "Company" dropdown menu set to "Ratel ApS", and a search bar. A table lists employees with columns for "Employee", "Active", "Report responsible", "User level", "Email", "Mobile", "Edit", "Send login", "Report interval", and "Traps". The "Send login" button is highlighted for each employee.

Employee	Active	Report responsible	User level	Email	Mobile	Edit	Send login	Report interval	Traps
Hans Knudsen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	hk@ratel.dk	40533636	Edit	Send login		
Jan Nørskov	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	jnl@care4all.dk	40503999	Edit	Send login		
Jens Sødsbiera	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	is@datason.dk	31250750	Edit	Send login		

When clicking "Send Login", you will send the relevant employee a login/new login on email.

When you see the green bar in the top of the side, the email has been sent correctly.

Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.4.3 Correct employee

The screenshot shows the 'Edit Employee' interface. On the left is a navigation menu with 'Employees' selected. The main form has the following fields and values:

Field	Value	Required
Firstname	Hans	Yes
Mobile	40533636	Yes
Company	Raté!l ApS	No
Middlename(s)		No
Address		No
User level	Level 0	No
Lastname	Knudsen	Yes
City		No
Active	<input checked="" type="checkbox"/>	No
Email	hk@ratel.dk	Yes
Zipcode		No
Report responsible	<input type="checkbox"/>	No

Buttons: Save employee, Cancel

In this section you can correct an existing employees data.

An employee can deactivated by one click using the "active" box. The employee is still in the database, and be activated again with another tick in the box.

Remember to click "Save employee".

Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.5 Manage Products

The screenshot displays the 'Manage products' interface in the Ratélc application. The left sidebar shows the user 'Julie Bahrt' and navigation options: Frontpage, Companies, Employees, **Manage products**, Traps, Change password, Log, and Data ET20. The main content area features a header with 'Create' and 'Create from Barcode' buttons, and dropdown menus for 'Company' (Ratel ApS) and 'Traptype' (RatTrap ET20). Below this is a search bar and 'Mark all' and 'Move company' buttons. The main table lists traps with the following data:

	ID-number	Inlet	Address	Active	Delivery date	Total kills	
<input checked="" type="checkbox"/>	1741000681	Ingen valgt		<input type="checkbox"/>		0	Edit
<input checked="" type="checkbox"/>	1745001724	Ingen valgt	Test	<input checked="" type="checkbox"/>		11	Edit
<input type="checkbox"/>	1748000024	Ingen valgt		<input type="checkbox"/>		0	Edit
<input type="checkbox"/>	1748000914	Ingen valgt		<input type="checkbox"/>		0	Edit

In this sections you have an overview of all your traps.

From here you can filter the view so you can manage the traps.

You can change company and trapgroup - and it is in this section you add alarm receivers to the traps using "add user".

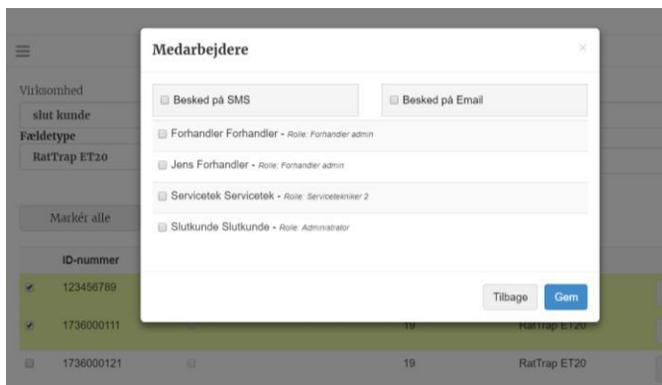
Back to [Representatives](#)

[Next](#)

[Back](#)

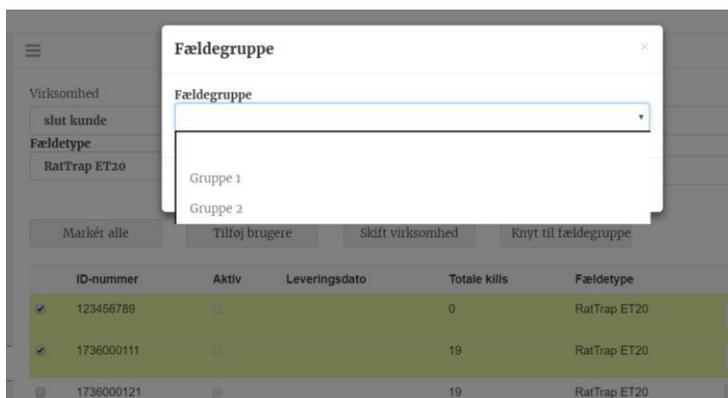
Back to [START](#)

10.1.5.1 Manage Products continued



Employees "using" the traps are alarmreceivers

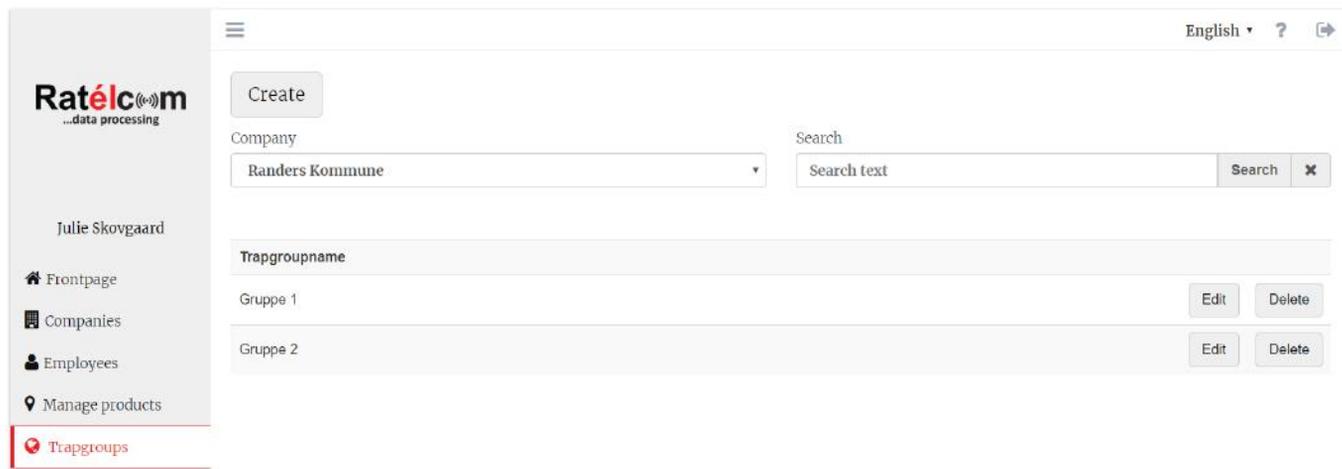
Connect a trap to a trap group



Move a trap from your stock to an end customer/company

Back to [Representatives](#)

10.1.6 Trap Groups



The screenshot shows the Raté!l web application interface. On the left is a sidebar with the logo 'Raté!l ...data processing' and the user name 'Julie Skovgaard'. Below the name are navigation links: 'Frontpage', 'Companies', 'Employees', 'Manage products', and 'Trapgroups' (which is highlighted with a red border). The main content area has a 'Create' button at the top left. Below it is a 'Company' dropdown menu set to 'Randers Kommune'. To the right is a search bar with the text 'Search text' and a 'Search' button. Below the search bar is a table with two rows, each representing a trap group. The first row is 'Gruppe 1' and the second is 'Gruppe 2'. Each row has 'Edit' and 'Delete' buttons to its right. The top right of the interface shows 'English' and a help icon.

Here you see a list of the already created Trap groups – if any.

Trap Groups are to further group traps if you have many traps to handle in one login.

The traps can be arrange in different trap groups across company order – and are searchable in the free text field .

From this section you can create new trap groups. Ypu can correct existing trapg group's data – and you can delete existing trap groups.

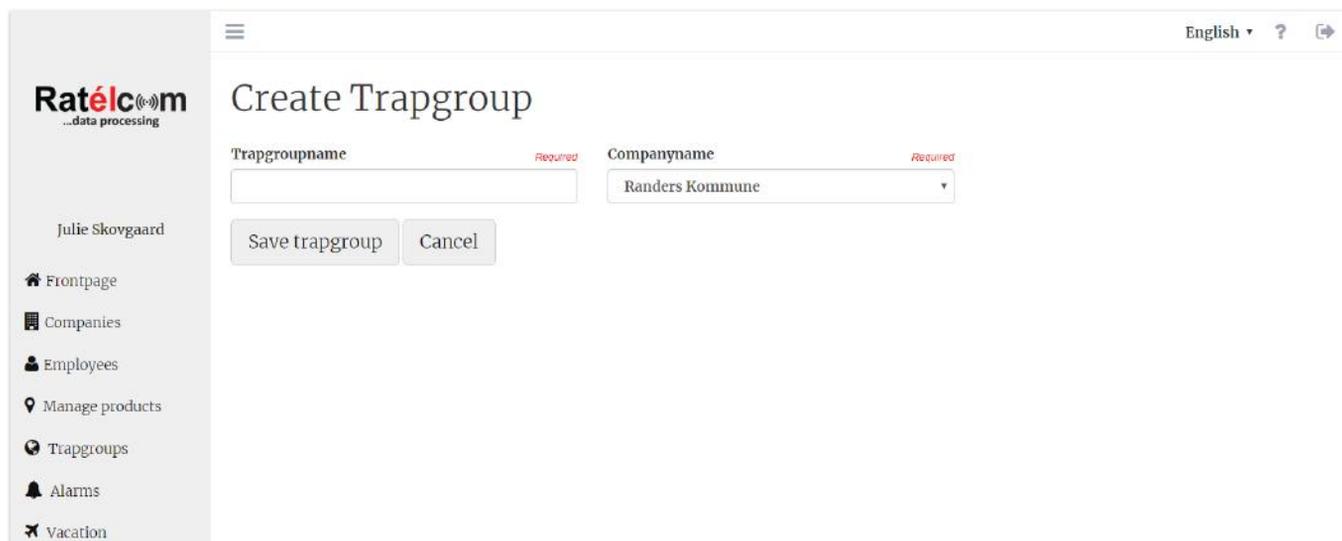
Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.6.1 Create trap group



The screenshot shows the 'Create Trapgroup' form in the Raté!l web application. The form has two input fields: 'Trapgroupname' and 'Companyname', both marked as 'Required'. The 'Companyname' field is a dropdown menu with 'Randers Kommune' selected. Below the fields are two buttons: 'Save trapgroup' and 'Cancel'. The left sidebar shows the user 'Julie Skovgaard' and a navigation menu with items: Frontpage, Companies, Employees, Manage products, Trapgroups, Alarms, and Vacation. The top right corner shows 'English' and a help icon.

Boxes marked with "Required" is filled out

Remember to click "Save Trap Group"

Hereafter traps can be added to the group via [Manage Products](#)

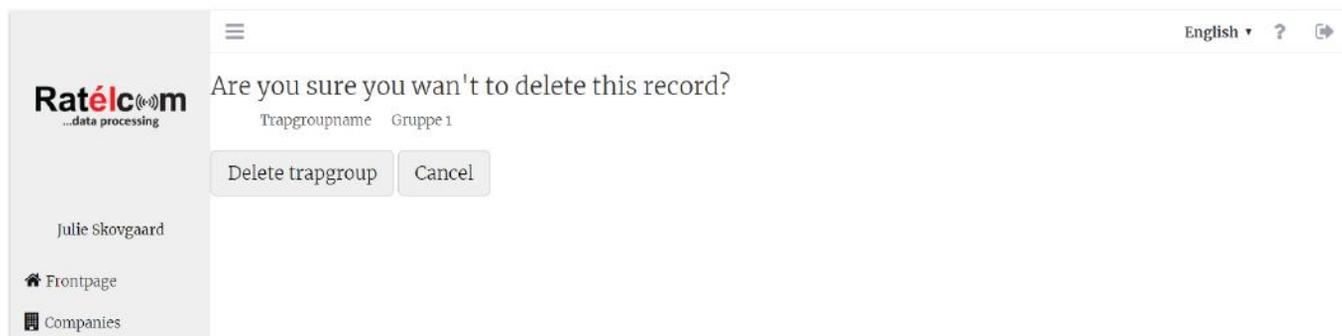
Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.6.2 Delete trap group



Here you can delete a trap group by clicking "delete trap group"

The traps are still available for you, companies and user – only no longer in a searchable group.

Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.6.3 Correct trap group

The screenshot shows the 'Edit Trapgroup' page in the Raté!l system. The sidebar on the left contains the following navigation items: Frontpage, Companies, Employees, Manage products, **Trapgroups** (highlighted), Alarms, and Vacation. The main content area has a header with the title 'Edit Trapgroup' and a language selector set to 'English'. Below the title, there are two input fields: 'Trapgroupname' with the value 'Gruppe 1' and 'Companyname' with a dropdown menu showing 'Randers Kommune' selected. The 'Companyname' dropdown menu lists the following options: Randers Kommune, Furesø Kommune, Hedensted Spildevand, Randers Kommune (highlighted), Raté!l forhandler, Slagelse Kommune, and Sorø Forsyning. Below the input fields are two buttons: 'Edit trapgroup' and 'Cancel'.

Here you can correct a trap group's name or affiliation to a customer.

Click "Correct trap group", when your changes are made.

Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.7 Alarms

The screenshot shows the 'Alarmer' section of the Raté!l interface. It includes a sidebar with navigation options like 'Forside', 'Virksomheder', 'Medarbejdere', 'Administrér produkt', 'Fældegrupper', 'Alarmer', 'Ferie', 'Fælder', and 'Skift kodeord'. The main area displays a table of alarms with the following columns: ID-nummer, Adresse, Dato, Oversvømmelser, CO2 patron, Væltet, Ingen respons, and Medarbejdere på fælde. Each row represents an alarm event with corresponding data and status indicators (green and red dots).

ID-nummer	Adresse	Dato	Oversvømmelser	CO2 patron	Væltet	Ingen respons	Medarbejdere på fælde
1741000691		06-11-2017 00:58:49	●	●	●		Vis
1736000111		06-11-2017 00:34:15	●	●	●		Vis
1741000671		06-11-2017 00:34:15	●	●	●		Vis
1736000111		05-11-2017 23:32:52	●	●	●		Vis
1741000671		05-11-2017 23:32:52	●	●	●		Vis
1736000111		05-11-2017 23:27:08	●	●	●		Vis
1741000671		05-11-2017 23:27:08	●	●	●		Vis
1736000111		05-11-2017 22:49:05	●	●	●		Vis

In the section "Alarms" all traps with Alarms which are not yet handled shown. The alarms are displayed with a red indicator in the relevant column of alarmtype

Click "Show" in the right column to know which technician who was the receiver of the alarm

Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.8 Vacation

The screenshot shows the 'Vacation' management interface. At the top right, there is a language dropdown set to 'English'. The main heading is 'Vacation'. A 'Create' button is visible. Below it, there are two date input fields: 'From date' with the value '11/23/2018' and 'Date to' with the value '12/7/2018'. Below the date fields is a table with the following structure:

User on holiday	Replacement	From date	To date

The left sidebar contains the Raté!l logo, the user name 'Julie Skovgaard', and navigation links for 'Frontpage', 'Companies', and 'Employees'.

In this view you see a list showing employees on vacation. Click "Create" to note further employees on vacation

The screenshot shows the 'Create vacation' form. It includes a 'User on holiday' dropdown menu with 'No user selected' and a 'Required' label. Below it is a 'From date' input field, also with a 'Required' label. To the right is a 'Replacement' dropdown menu with 'No user selected' and a 'Required' label. The replacement dropdown is open, showing a list of employees: 'No user selected', 'Jens Spedsbjerg', and 'Julie Skovgaard'. Below the form are 'Save vacation' and 'Cancel' buttons. The left sidebar shows the user 'Julie Skovgaard' and navigation links for 'Frontpage', 'Companies', 'Employees', and 'Manage products'.

Fill in the boxes and click "Save Vacation"

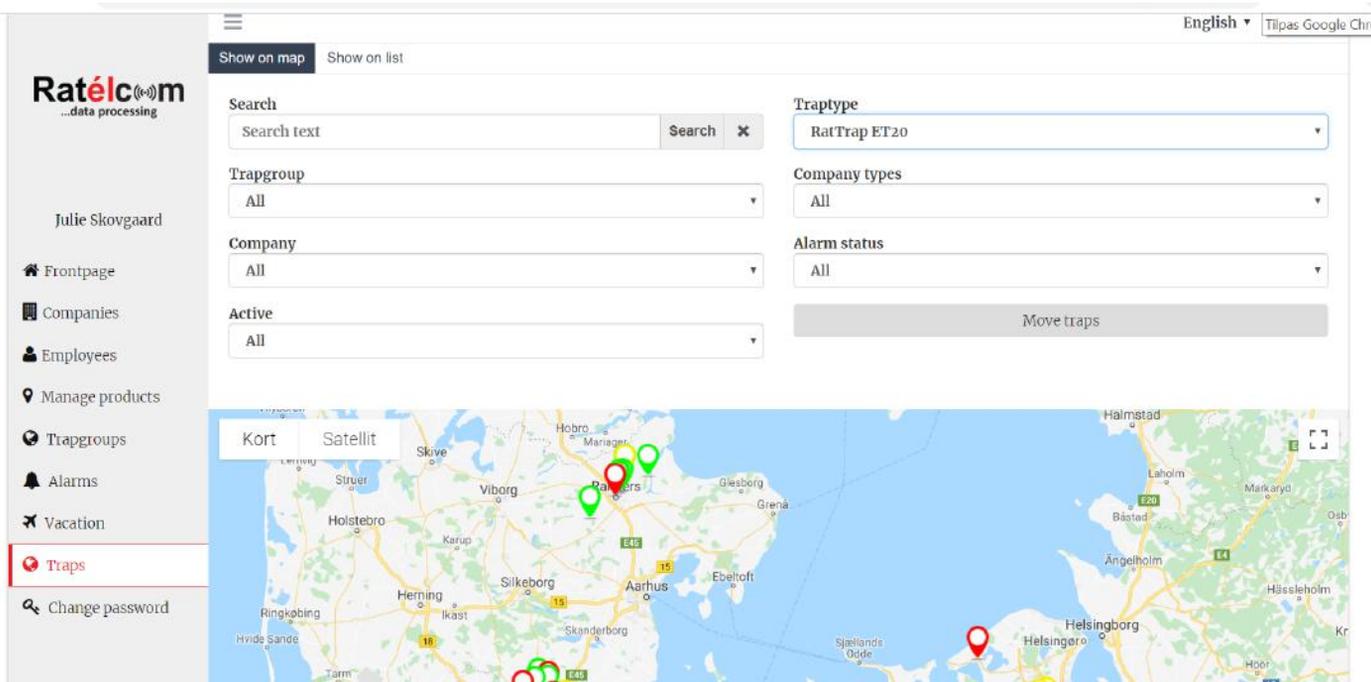
Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.9 Traps



In the section Traps you can view alle the traps you are servicing. Traps can be shown either on a map or in a list.

The dropdown menus allow you to search across company; trap group; trap type etc to narrow your search

In the listview you are able to sort the columns within the different categories "Inlet", "com module", "company" etc.

Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.9.1 Click on a trap for details

- Alarms
- Vacation
- Traps
- Change password

ID-number	Inlet	Address	changed	Total kills	Active	status	Companyname
1743000594	Ingen valgt		0	0	<input type="checkbox"/>	●	Hedensted Spildevand
1743000604	Ingen valgt		0	0	<input type="checkbox"/>	●	Hedensted Spildevand
1743000614	Ingen valgt	Fuglkær 33 - Stenderup	1	1	<input checked="" type="checkbox"/>	●	Hedensted Spildevand
1743000624	Ingen valgt		0	0	<input type="checkbox"/>	●	Hedensted Spildevand

Manhole



Com. module



Details

1743000614

ID-number: 1743000614

- Total kills 1
- Link No link
- Address Fuglkær 33 - Stenderup
- Latitude 55.7919797
- Longitude 9.8035072
- Latitude 55° 47' 31"
- Longitude 9° 48' 12"

By clicking a trap either on the list or on the map – you will get an overall status on the trap – click on the pictures to enlarge them

Date from Date to Report type

Data **Graph** **Service reports** **Trap historic**

Date	Komm. module	Kills	Total kills	Flooded	Blocked	CO2	Tilted	Missing report
11/22/2018 12:31:16 PM	1802000554	1	1	0	●	●	●	
11/21/2018 11:04:39 PM		0	0	0				
11/18/2018 11:01:44 PM		0	0	0				

By clicking "details" you will get a short menu, where the trap's graphs, service reports and historics can be shown for a given time interval.

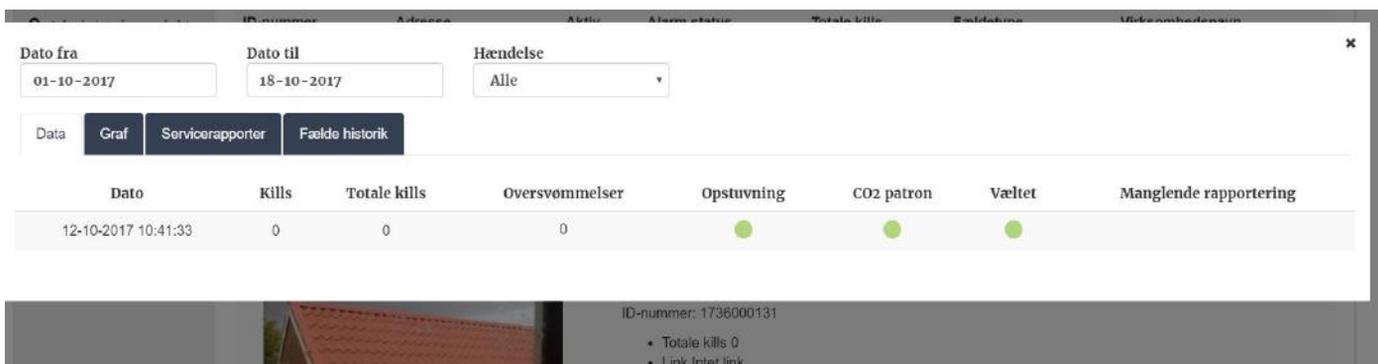
Back to [Representatives](#)

[Next](#)

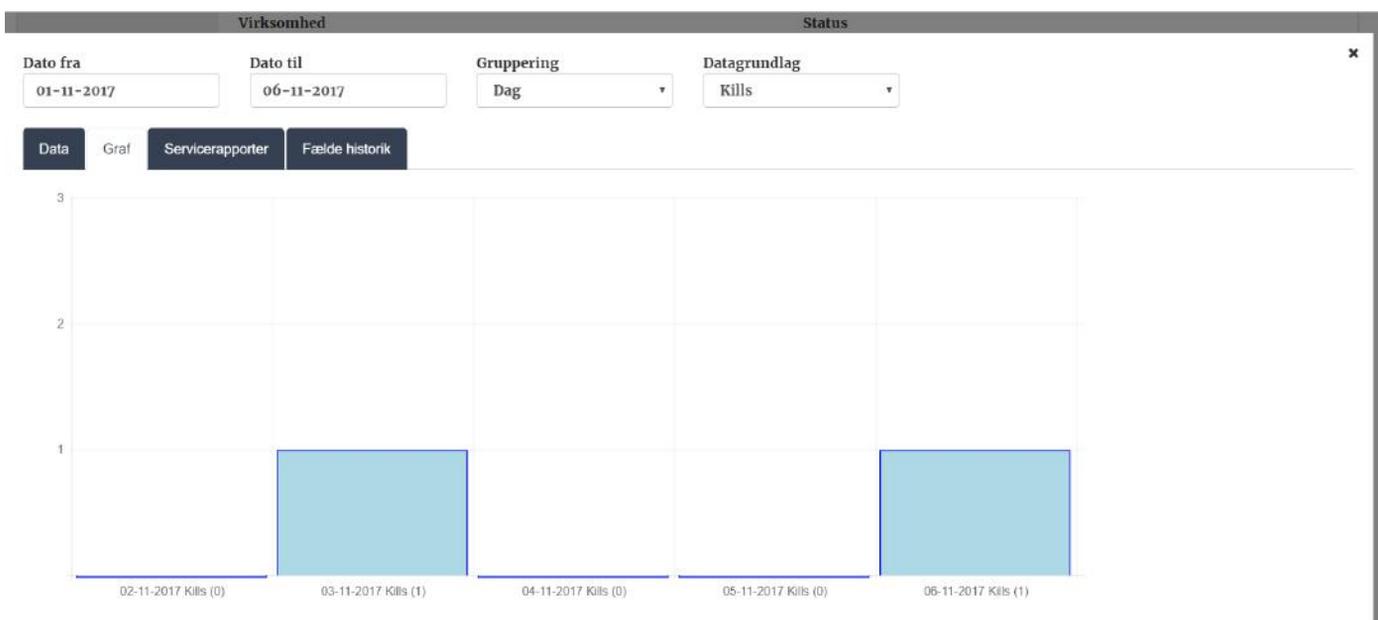
[Back](#)

Back to [START](#)

10.1.9.2 Service reports etc



The "Data" tab will show you all messages from the Communications Module



Example of a graph created in the "Graph" tab

Back to [Representatives](#)

10.1.9.3 Service reports etc continued

Dato fra: 01-11-2017 Dato til: 06-11-2017

Data Graf **Service rapporter** Fælde historik

Markér alle Print markerede Send markerede

Dato	Medarbejder	Service data	Kommentar
<input type="checkbox"/> kl. 15:01 06.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej	<input type="button" value="Print"/> <input type="button" value="Send"/>
<input type="checkbox"/> kl. 12:31 06.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej	<input type="button" value="Print"/> <input type="button" value="Send"/>
<input type="checkbox"/> kl. 12:30 06.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej	<input type="button" value="Print"/> <input type="button" value="Send"/>
<input type="checkbox"/> kl. 11:55 03.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej	<input type="button" value="Print"/> <input type="button" value="Send"/>

The "Service report" tab list the service reports on the trap

Dato fra: 01-11-2017 Dato til: 06-11-2017

Data Graf **Service rapporter** Fælde historik

Rettet af	Rettet dato	Ændringer	Virksomhed	Detaljer
Serviceetek Serviceetek	06-11-2017 12:31:57		slut kunde	<input type="button" value="Vis"/>
Forhandler Forhandler	02-11-2017 08:03:07	Ny lokation	slut kunde	<input type="button" value="Vis"/>

The "Trap History" fan gives you an overview of the trap's handling over time

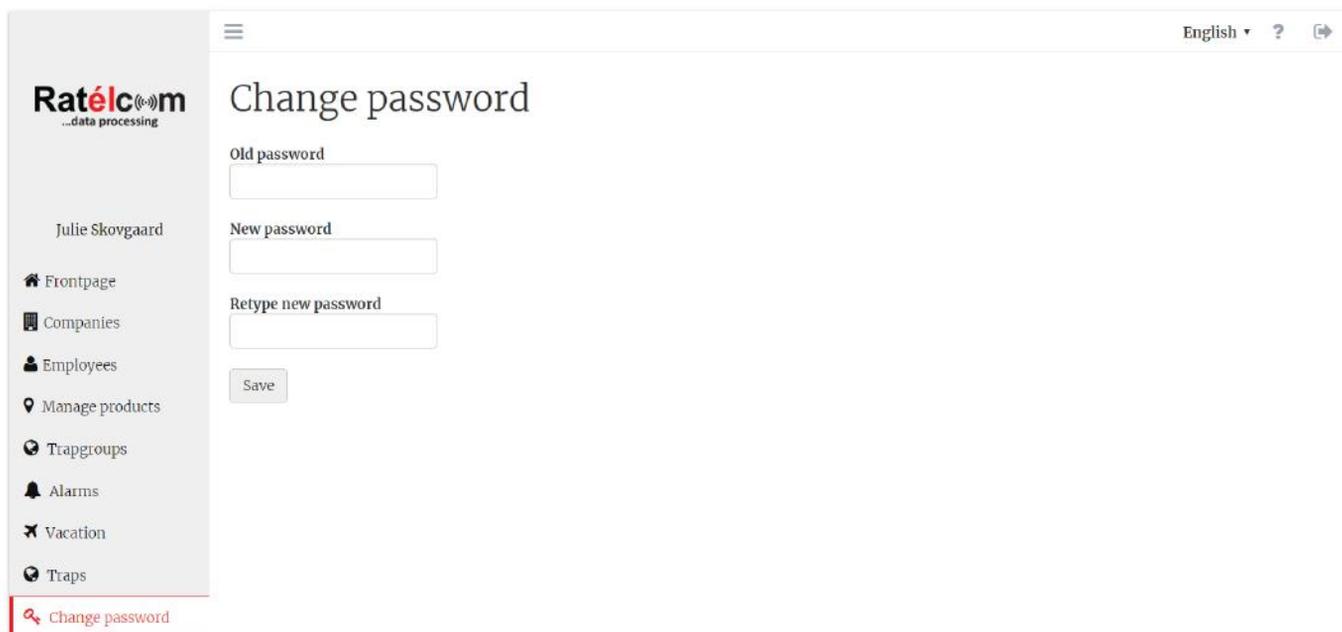
Back to [Representatives](#)

[Next](#)

[Back](#)

Back to [START](#)

10.1.10 Change Password



The screenshot shows the 'Change password' page in the Raté!l system. The page has a header with the Raté!l logo and the text '...data processing'. On the left, there is a navigation menu with the user name 'Julie Skovgaard' and several menu items: Frontpage, Companies, Employees, Manage products, Trapgroups, Alarms, Vacation, and Traps. The main content area is titled 'Change password' and contains three input fields: 'Old password', 'New password', and 'Retype new password'. Below these fields is a 'Save' button. In the top right corner, there is a language selector set to 'English' and a help icon. At the bottom left of the page, there is a search bar with the text 'Change password'.

Type your present password in the first box

Type the wanted password in the next two boxes

Click "Save"

Back to [Representatives](#)

[Back](#)

Back to [START](#)

10.2 Raté!lcom for End Customer

10.2.1 Login [Go](#)

10.2.2 The Frontpage [Go](#)

10.2.3 Companies [Go](#)

10.2.4 Employees [Go](#)

10.2.5 Manage Products [Go](#)

10.2.6 Trap Groups [Go](#)

10.2.7 Alarms [Go](#)

10.2.8 Vacations [Go](#)

10.2.9 Traps [Go](#)

10.2.10 Change Password [Go](#)

Back to [Raté!lcom](#)

Back to [START](#)

10.2.1 Login



The login informations are received on e-mail, when you have been created as a user in Ratélc(om)m's webplatform (first login is received directly from Raté's customer support when receiving your first products)

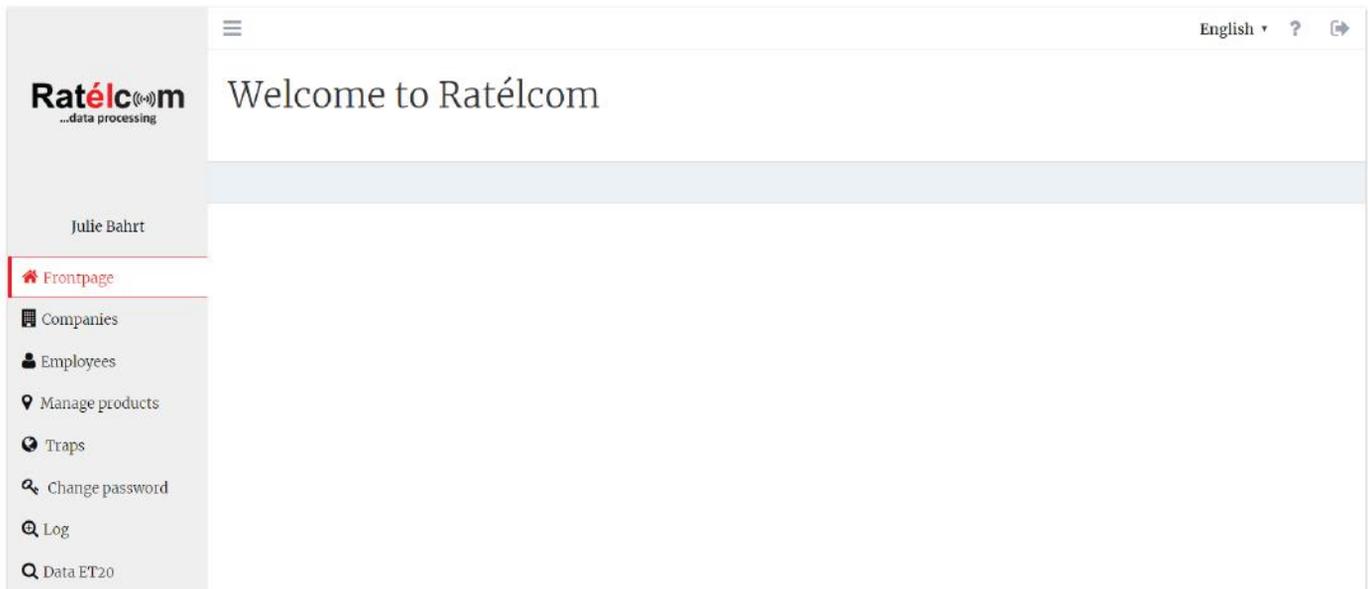
The login informations are used for both Ratélc(om)m's webplatform and the Ratélc(om)m APP

Back to [End Customer](#)

[Next](#)

Back to [START](#)

10.2.2 The Frontpage



On the frontpage you see the menu structure on the left.

Click on the individual sections to proceed.

In the upper right corner you choose between languages.

By clicking "?" you access the full manual for RatTrap ET20

Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.3 Companies

The screenshot shows the 'Edit company' form in the Raté!l system. The form is organized into several columns and rows. The left sidebar contains a navigation menu with the following items: Frontpage, Companies (highlighted), Employees, Manage products, Traps, Change password, Log, and Data ET20. The main form area has the following fields and controls:

- Job/Contract no. (text input)
- Zipcode (text input, value: 6000, marked as Required)
- Email (text input)
- Companyname (text input, value: A0 Alle Fælder, marked as Required)
- City (text input, value: Kolding, marked as Required)
- Telephone (text input)
- Address 1 (text input, value: Centervej 2, marked as Required)
- Contactperson (text input)
- Mobile (text input)
- Address 2 (text input)
- Jobdescription (text input)
- Rent traps (checkbox, checked)
- Country (dropdown menu, value: Denmark)
- Accesslevel (dropdown menu, value: Representative)
- Print alarms on report (checkbox, unchecked)
- Address warehouse (text input with Search button)

At the bottom of the form, there are two buttons: 'Save company' and 'Cancel'.

In this section you can correct your company's data if needed

Remember to click "Save Company" when you have made corrections når rettelserne er foretaget.

Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.4 Employees

Employee	Active	Report responsible	User level	Email	Mobile	Edit	Send login	Report interval	Traps
Hans Knudsen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	hk@ratel.dk	40533636	Edit	Send login		
Jan Nørskov	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	jnl@care4all.dk	40503999	Edit	Send login		
Jens Spedsbjerg	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	js@datasign.dk	31250750	Edit	Send login		
Julie Bahrt	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	jsb@ratel.dk	53641803	Edit	Send login		
Nikolaj Rasmussen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	produktion@camro.dk	20 35 50 35	Edit	Send login		

In the section "Employees" you see the list of your employees.

From this section you can create new employees and correct data registered on already existing employees – and send login/new login to employees.

Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.4.1 Create employee

The screenshot shows the 'Create Employee' form in the Raté!l system. The form is titled 'Create Employee' and is located in the 'Employees' section of the sidebar. The sidebar also shows other navigation options: Frontpage, Companies, Manage products, Traps, Change password, and Log. The form fields are: Firstname (Required), Mobile (Required), Middelame(s), Address, Lastname (Required), City, Email (Required), and Zipcode. There are also dropdown menus for Company (Ratel ApS) and User level (Level 0). The 'User level' dropdown is open, showing options: Level 0, Level_0_5, Representative, Administrator, User, Servicetekniker, and Read only. At the bottom of the form are 'Save employee' and 'Cancel' buttons.

When creating a new employee you should as a minimum fill in the boxes marked with "Required".

Choose the user level so it fits the relevant employee

Remember to click "Save employee"

Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.4.2 Send Login

Email er afsendt

The screenshot shows the Raté!l user management interface. At the top, a green bar displays the message "Email er afsendt". The interface includes a sidebar with the Raté!l logo and navigation options like "Frontpage" and "Companies". The main area shows a "Create" button, a "Company" dropdown menu set to "Ratel ApS", and a search bar. Below this is a table of employees with columns for Employee, Active, Report responsible, User level, Email, Mobile, Edit, Send login, Report interval, and Traps. The table lists three employees: Hans Knudsen, Jan Nørskov, and Jans Soedsbjerg. Each row has a "Send login" button.

Employee	Active	Report responsible	User level	Email	Mobile	Edit	Send login	Report interval	Traps
Hans Knudsen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	hk@ratel.dk	40533636	Edit	Send login		
Jan Nørskov	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	jnl@care4all.dk	40503999	Edit	Send login		
Jans Soedsbjerg	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Level 0	is@datason.dk	31250750	Edit	Send login		

When clicking "Send Login", you will send the relevant employee a login/new login on email.

When you see the green bar in the top of the side, the email has been sent correctly.

Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.4.3 Correct employee

The screenshot shows the 'Edit Employee' form in the Raté!l system. The form is divided into several sections:

- Header:** Raté!l logo, user name 'Julie Bahrt', and navigation menu (Frontpage, Companies, Employees, Manage products, Traps, Change password, Log, Data ET20).
- Form Fields:**
 - Firstname:** Hans (Required)
 - Mobile:** 40533636 (Required)
 - Company:** Ratel ApS (Dropdown)
 - Middlename(s):** (Empty)
 - Address:** (Empty)
 - User level:** Level 0 (Dropdown)
 - Lastname:** Knudsen (Required)
 - City:** (Empty)
 - Active:**
 - Email:** hk@ratel.dk (Required)
 - Zipcode:** (Empty)
 - Report responsible:**
- Buttons:** Save employee, Cancel

In this section you can correct an existing employees data.

An employee can deactivated by one click using the "active" box. The employee is still in the database, and be activated again with another tick in the box.

Remember to click "Save employee".

Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.5 Manage Products

	ID-number	Inlet	Address	Active	Delivery date	Total kills	
<input checked="" type="checkbox"/>	1741000681	Ingen valgt		<input type="checkbox"/>		0	Edit
<input checked="" type="checkbox"/>	1745001724	Ingen valgt	Test	<input checked="" type="checkbox"/>		11	Edit
<input type="checkbox"/>	1748000024	Ingen valgt		<input type="checkbox"/>		0	Edit
<input type="checkbox"/>	1748000914	Ingen valgt		<input type="checkbox"/>		0	Edit

In this sections you have an overview of all your traps.

From here you can filter the view so you can manage the traps.

You can change company and trapgroup - and it is in this section you add alarm receivers to the traps using "add user".

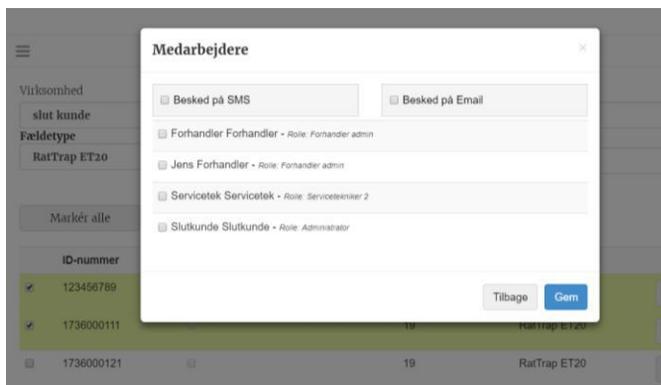
Back to [End Customer](#)

[Next](#)

[Back](#)

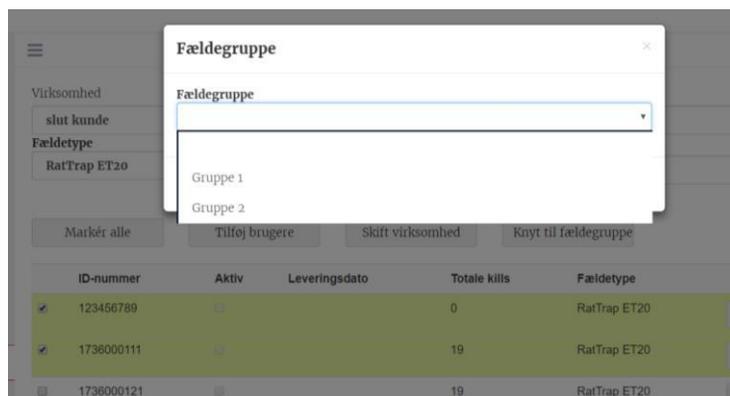
Back to [START](#)

10.2.5.1 Manage Products continued



Employees "using" the traps are alarmreceivers

Connect a trap to a trap group



Back to [End Customer](#)

10.2.6 Trap Groups

The screenshot shows the Raté!l web application interface. On the left is a sidebar with the logo 'Raté!l ...data processing' and the user name 'Julie Skovgaard'. Below the name are navigation links: 'Frontpage', 'Companies', 'Employees', 'Manage products', and 'Trapgroups' (which is highlighted with a red border). The main content area has a 'Create' button at the top left. Below it is a 'Company' dropdown menu currently showing 'Randers Kommune'. To the right of the dropdown is a search field with the placeholder 'Search text' and a 'Search' button. Below the search field is a table with the following structure:

Trapgroupname	
Gruppe 1	Edit Delete
Gruppe 2	Edit Delete

Here you see a list of the already created Trap groups – if any.

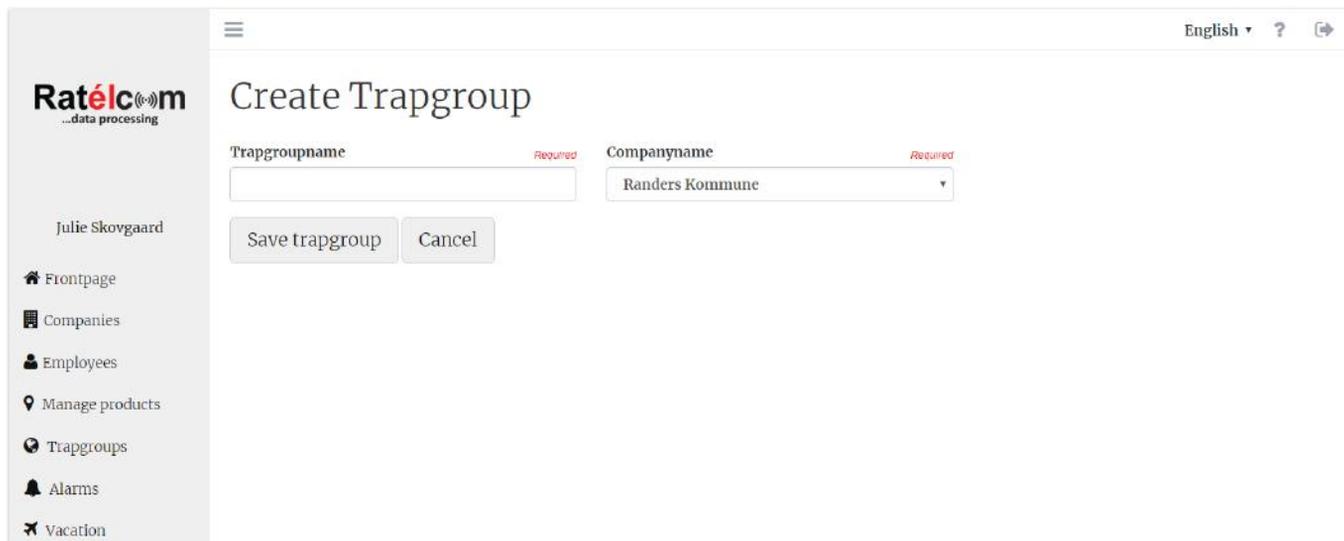
Trap Groups are to further group traps if you have many traps to handle in one login.

The traps can be arranged in different trap groups across company order – and are searchable in the free text field .

From this section you can create new trap groups. You can correct existing trap group's data – and you can delete existing trap groups.

Back to [End Customer](#)

10.2.6.1 Create trap group



The screenshot shows the 'Create Trapgroup' form in the Raté!l web application. The form has two input fields: 'Trapgroupname' and 'Companyname', both marked as 'Required'. The 'Companyname' field is a dropdown menu with 'Randers Kommune' selected. Below the fields are two buttons: 'Save trapgroup' and 'Cancel'. The left sidebar shows the user 'Julie Skovgaard' and a navigation menu with items: Frontpage, Companies, Employees, Manage products, Trapgroups, Alarms, and Vacation. The top right corner shows 'English' and a help icon.

Boxes marked with "Required" is filled out

Remember to click "Save Trap Group"

Hereafter traps can be added to the group via [Manage Products](#)

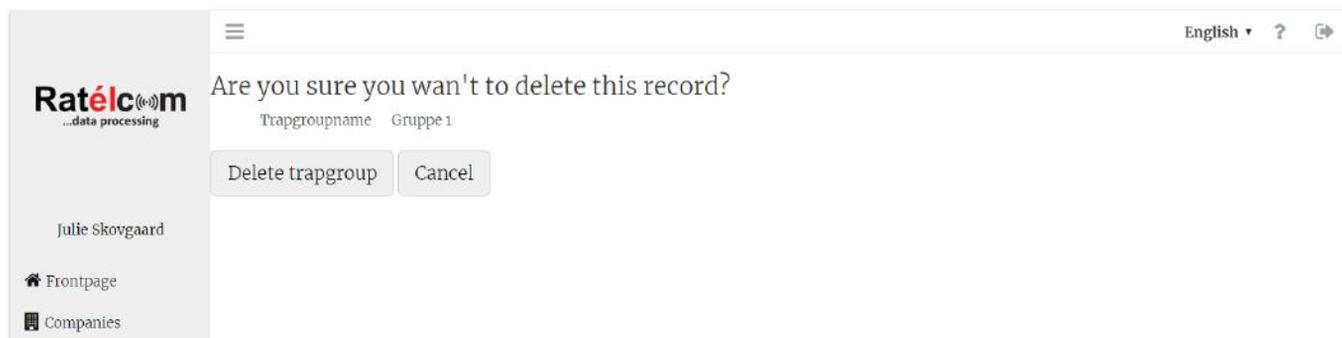
Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.6.2 Delete trap group



Here you can delete a trap group by clicking "delete trap group"

The traps are still available for you, companies and user – only no longer in a searchable group.

Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.6.3 Correct trap group

English ? ↗

Edit Trapgroup

Trapgroupname

Edit trapgroup Cancel

Companyname Required

- Randers Kommune
- Furesø Kommune
- Hedensted Spildevand
- Randers Kommune**
- Raté!l forhandler
- Slagelse Kommune
- Sorø Forsyning

Julie Skovgaard

- Frontpage
- Companies
- Employees
- Manage products
- Trapgroups**
- Alarms
- Vacation

Here you can correct a trap group's name or affiliation to a customer.

Click "Correct trap group", when your changes are made.

Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.7 Alarms

The screenshot shows the 'Alarmer' section of the Raté!l interface. It includes a sidebar with navigation options like 'Forside', 'Virksomheder', 'Medarbejdere', 'Administrér produkt', 'Fældegrupper', 'Alarmer', 'Ferie', 'Fælder', and 'Skift kodeord'. The main area displays a table of traps with columns for ID-nummer, Adresse, Dato, Oversvømmelser, CO2 patron, Væltet, Ingen respons, and Medarbejdere på fælde. The 'Alarmer' column uses green and red dots to indicate status.

ID-nummer	Adresse	Dato	Oversvømmelser	CO2 patron	Væltet	Ingen respons	Medarbejdere på fælde
1741000691		06-11-2017 00:58:49	●	●	●		Vis
1736000111		06-11-2017 00:34:15	●	●	●		Vis
1741000671		06-11-2017 00:34:15	●	●	●		Vis
1736000111		05-11-2017 23:32:52	●	●	●		Vis
1741000671		05-11-2017 23:32:52	●	●	●		Vis
1736000111		05-11-2017 23:27:08	●	●	●		Vis
1741000671		05-11-2017 23:27:08	●	●	●		Vis
1736000111		05-11-2017 22:49:05	●	●	●		Vis

In the section "Alarms" all traps with Alarms which are not yet handled shown. The alarms are displayed with a red indicator in the relevant column of alarmtype

Click "Show" in the right column to know which technician who was the receiver of the alarm

Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.8 Vacation

Vacation

Create

From date: 11/23/2018 Date to: 12/7/2018

User on holiday	Replacement	From date	To date
-----------------	-------------	-----------	---------

In this view you see a list showing employees on vacation. Click "Create" to note further employees on vacation

Create vacation

User on holiday: No user selected Required

From date: Required

Replacement: No user selected Required

Jens Spedsbjerg

Julie Skovgaard

Save vacation Cancel

Fill in the boxes and click "Save Vacation"

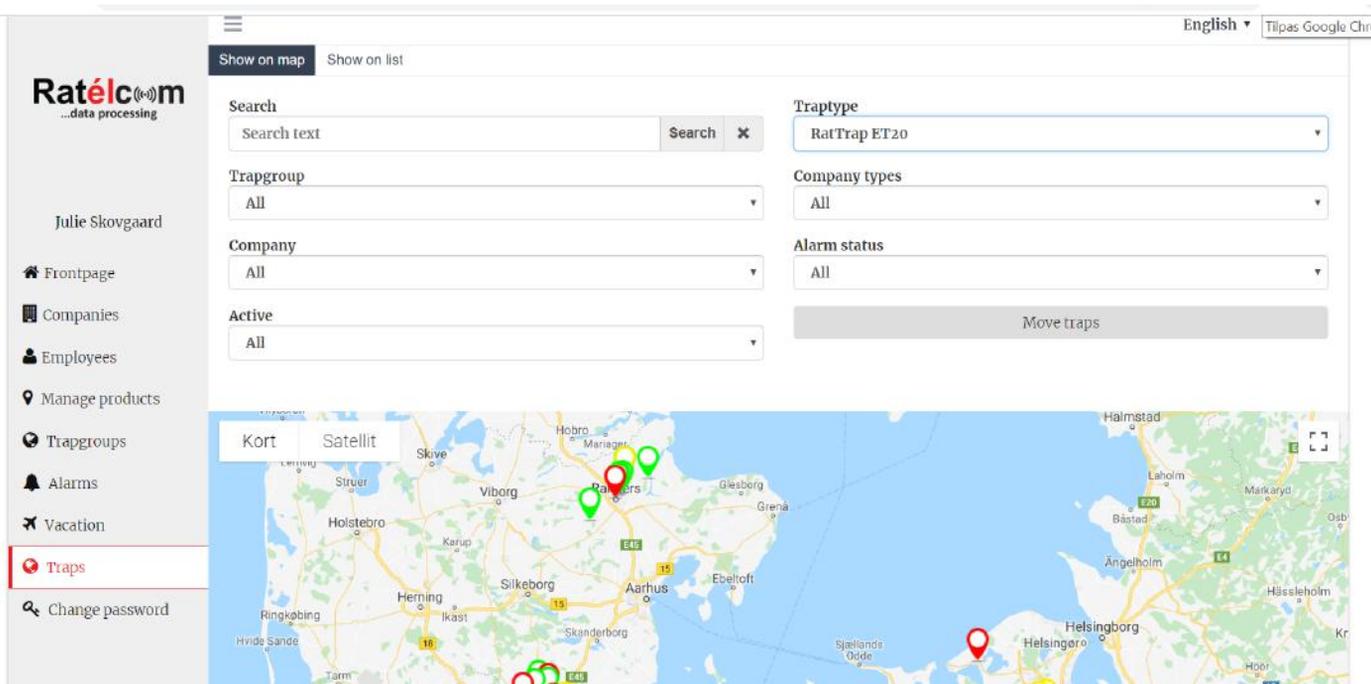
Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.9 Traps



In the section Traps you can view alle the traps you are servicing. Traps can be shown either on a map or in a list.

The dropdown menus allow you to search across company; trap group; trap type etc to narrow your search

In the listview you are able to sort the columns within the different categories "Inlet", "com module", "company" etc.

Back to [End Customer](#)

10.2.9.1 Click on trap for details

- Alarms
- Vacation
- Traps
- Change password

ID-number	Inlet	Address	changed	Total kills	Active	status	Companyname
1743000594	Ingen valgt		0	0	<input type="checkbox"/>	●	Hedensted Spildevand
1743000604	Ingen valgt		0	0	<input type="checkbox"/>	●	Hedensted Spildevand
1743000614	Ingen valgt	Fuglkær 33 - Stenderup	1	1	<input checked="" type="checkbox"/>	●	Hedensted Spildevand

Manhole



Com. module



Details

1743000614

ID-number: 1743000614

- Total kills 1
- Link No link
- Address Fuglkær 33 - Stenderup
- Latitude 55.7919797
- Longitude 9.8035072
- Latitude 55° 47' 31"
- Longitude 9° 48' 12"

1743000624	Ingen valgt		0	0	<input type="checkbox"/>	●	Hedensted Spildevand
------------	-------------	--	---	---	--------------------------	--------------------------------------	----------------------

By clicking a trap either on the list or on the map – you will get an overall status on the trap – click on the pictures to enlarge them

Date from

Date to

Report type

Data

Graph

Service reports

Trap historic

Date	Komm. module	Kills	Total kills	Flooded	Blocked	CO2	Tilted	Missing report
11/22/2018 12:31:16 PM	1802000554	1	1	0	●	●	●	
11/21/2018 11:04:39 PM		0	0	0				
11/18/2018 11:01:44 PM		0	0	0				

By clicking "details" you will get a short menu, where the trap's graphs, service reports and historics can be shown for a given time interval.

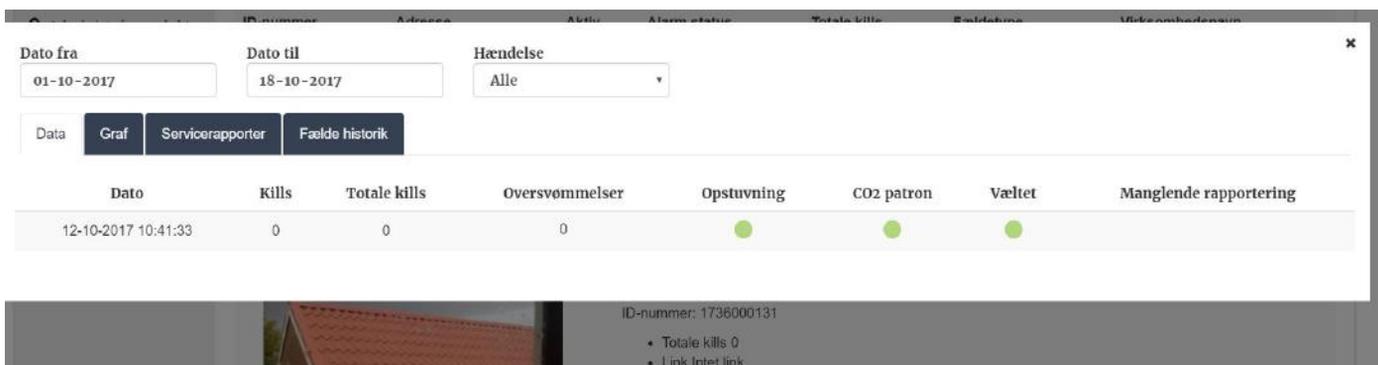
Back to [End Customer](#)

[Next](#)

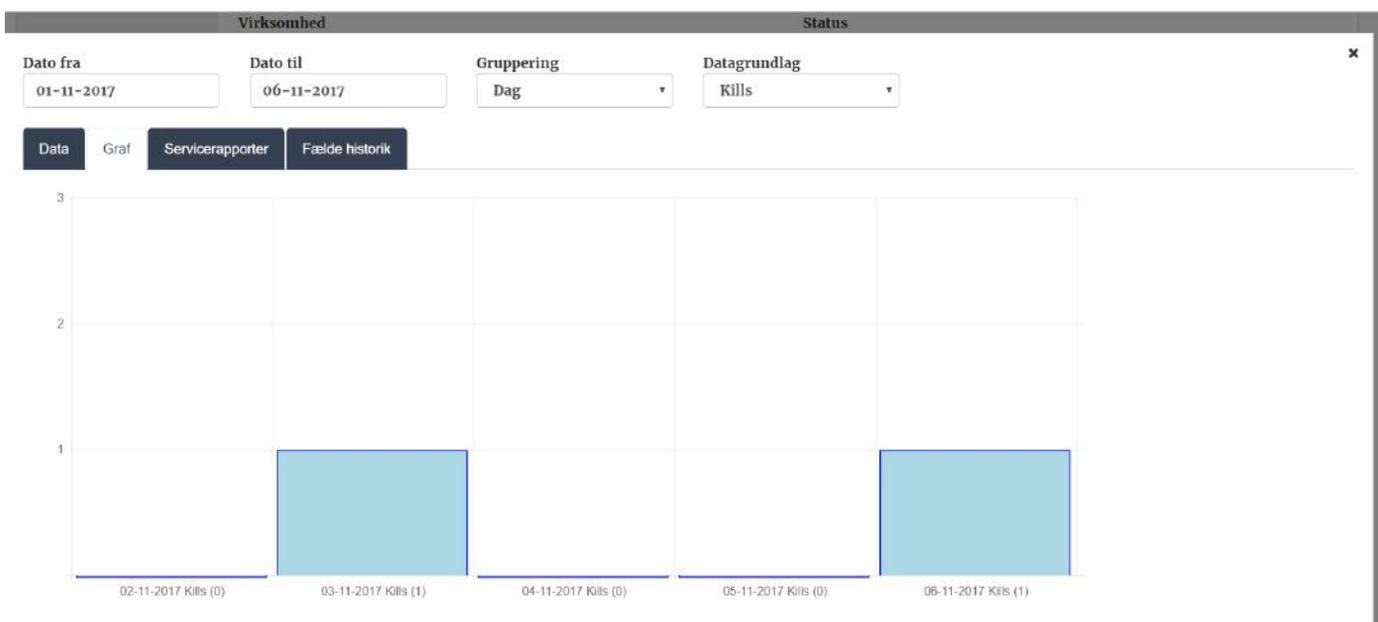
[Back](#)

Back to [START](#)

10.2.9.2 Service reports etc



The "Data" tab will show you all messages from the Communications Module



Example of a graph created in the "Graph" tab

Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.9.3 Service reports etc continued

Dato fra: 01-11-2017 Dato til: 06-11-2017

Data Graf **Service rapporter** Fælde historik

Markér alle Print markerede Send markerede

Dato	Medarbejder	Service data	Kommentar		
<input type="checkbox"/> kl. 15:01 06.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej		Print	Send
<input type="checkbox"/> kl. 12:31 06.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej		Print	Send
<input type="checkbox"/> kl. 12:30 06.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej		Print	Send
<input type="checkbox"/> kl. 11:55 03.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej		Print	Send

The "Service report" tab list the service reports on the trap

Dato fra: 01-11-2017 Dato til: 06-11-2017

Data Graf **Service rapporter** Fælde historik

Rettet af	Rettet dato	Ændringer	Virksomhed	Detaljer
Serviceetek Serviceetek	06-11-2017 12:31:57		slut kunde	Vis
Forhandler Forhandler	02-11-2017 08:03:07	Ny lokation	slut kunde	Vis

The "Trap History" fan gives you an overview of the trap's handling over time

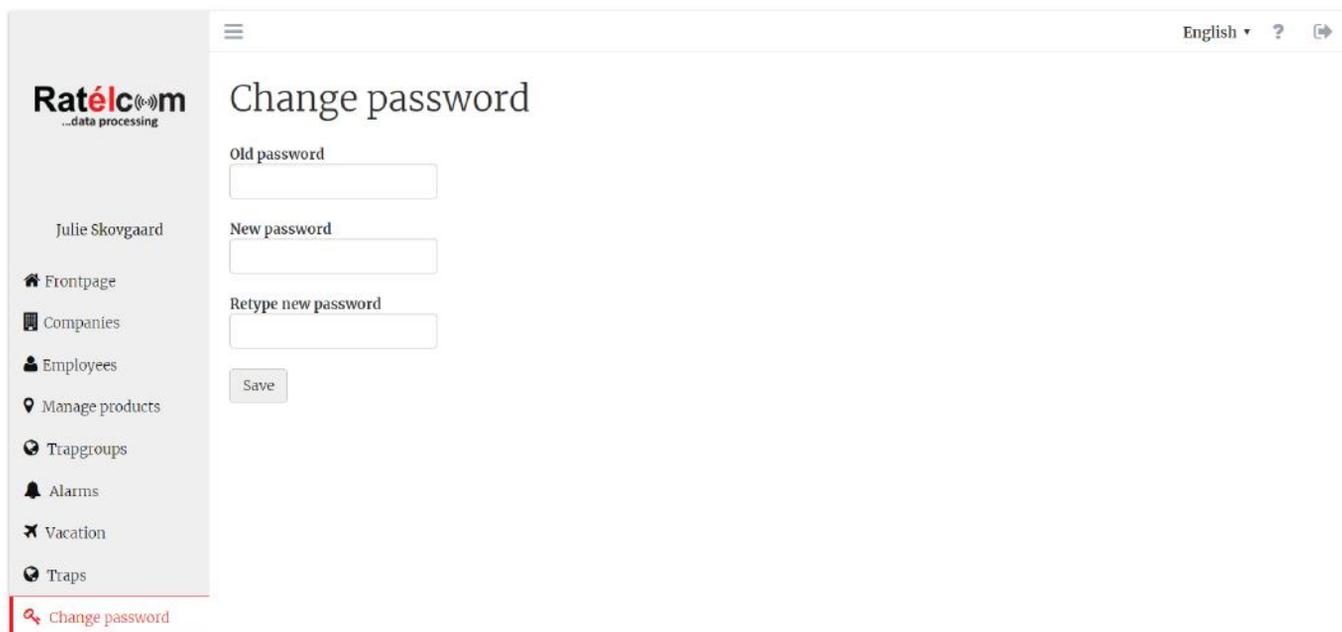
Back to [End Customer](#)

[Next](#)

[Back](#)

Back to [START](#)

10.2.10 Change Password



The screenshot shows the 'Change password' page in the Raté!l web application. The page has a header with the Raté!l logo and the tagline '...data processing'. The user's name, 'Julie Skovgaard', is displayed. A sidebar menu on the left contains various navigation options: Frontpage, Companies, Employees, Manage products, Trapgroups, Alarms, Vacation, and Traps. The main content area is titled 'Change password' and contains three input fields: 'Old password', 'New password', and 'Retype new password'. A 'Save' button is located below the input fields. The language is set to 'English'.

Type your present password in the first box

Type the wanted password in the next two boxes

Click "Save"

Back to [End Customer](#)

[Back](#)

Back to [START](#)

10.3 Raté!lcom for Technicians

10.3.1 Login [Go](#)

10.3.2 The Frontpage [Go](#)

10.3.3 Manage Products [Go](#)

10.3.4 Trap Groups [Go](#)

10.3.5 Alarms [Go](#)

10.3.6 Traps [Go](#)

10.3.7 Change Password [Go](#)

Back to [Raté!lcom](#)

Back to [START](#)

10.3.1 Login

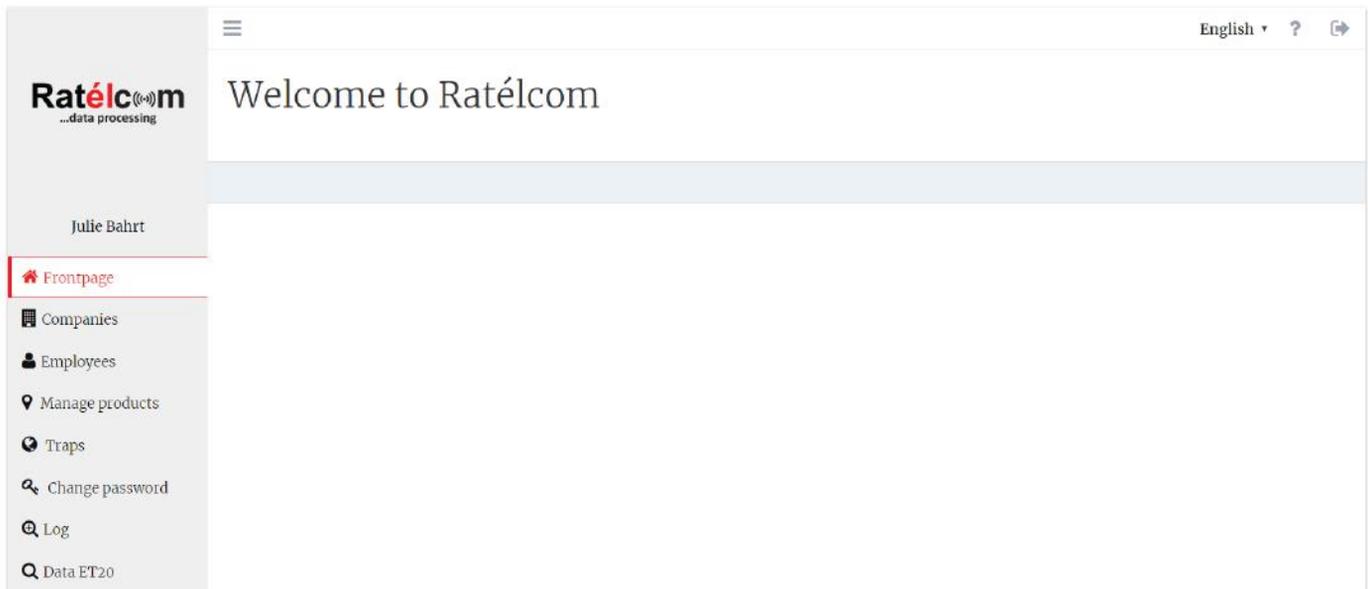


The login informations are received on e-mail, when you have been created as a user in Ratécom's webplatform (first login is received directly from Raté's customer support when receiving your first products)

The login informations are used for both Ratécom's webplatform and the Ratécom APP

Back to [Technicians](#)

10.3.2 The Frontpage



On the frontpage you see the menu structure on the left.

Click on the individual sections to proceed.

In the upper right corner you choose between languages.

By clicking "?" you access the full manual for RatTrap ET20

Back to [Technicians](#)

[Next](#)

[Back](#)

Back to [START](#)

10.3.3 Manage Products

The screenshot shows the 'Manage products' section of the Raté!l application. The sidebar on the left includes the user name 'Julie Bahrt' and navigation links for Frontpage, Companies, Employees, Manage products (highlighted), Traps, Change password, Log, and Data ET20. The main content area features a header with 'Create' and 'Create from Barcode' buttons, and dropdown menus for 'Company' (set to 'Ratel ApS') and 'Traptype' (set to 'RatTrap ET20'). Below these are search and action buttons ('Mark all', 'Move company'). The central table displays a list of traps with columns for ID-number, Inlet, Address, Active status, Delivery date, and Total kills. Each row includes an 'Edit' button.

	ID-number	Inlet	Address	Active	Delivery date	Total kills	
<input checked="" type="checkbox"/>	1741000681	Ingen valgt		<input type="checkbox"/>		0	Edit
<input checked="" type="checkbox"/>	1745001724	Ingen valgt	Test	<input checked="" type="checkbox"/>		11	Edit
<input type="checkbox"/>	1748000024	Ingen valgt		<input type="checkbox"/>		0	Edit
<input type="checkbox"/>	1748000914	Ingen valgt		<input type="checkbox"/>		0	Edit

In this sections you have an overview of all your traps.

From here you can filter the view so you can manage the traps.

You can change company and trapgroup

Back to [Technicians](#)

[Next](#)

[Back](#)

Back to [START](#)

10.3.3.1 Manage Products continued

Change address on a trap

Connect a trap to a trap group

ID-nummer	Aktiv	Leveringsdato	Totale kills	Fældetype
123456789	<input type="checkbox"/>		0	RatTrap ET20
1736000111	<input type="checkbox"/>		19	RatTrap ET20
1736000121	<input type="checkbox"/>		19	RatTrap ET20

Back to [Technicians](#)

[Next](#)

[Back](#)

Back to [START](#)

10.3.4 Trap Groups

The screenshot shows the Raté! web application interface. On the left is a sidebar with the Raté! logo and navigation links: Frontpage, Companies, Employees, Manage products, and Trapgroups (highlighted). The main content area has a 'Create' button, a 'Company' dropdown menu set to 'Randers Kommune', and a search bar. Below these is a table with two rows, each representing a trap group: 'Gruppe 1' and 'Gruppe 2'. Each row has 'Edit' and 'Delete' buttons.

Here you see a list of the already created Trap groups – if any.

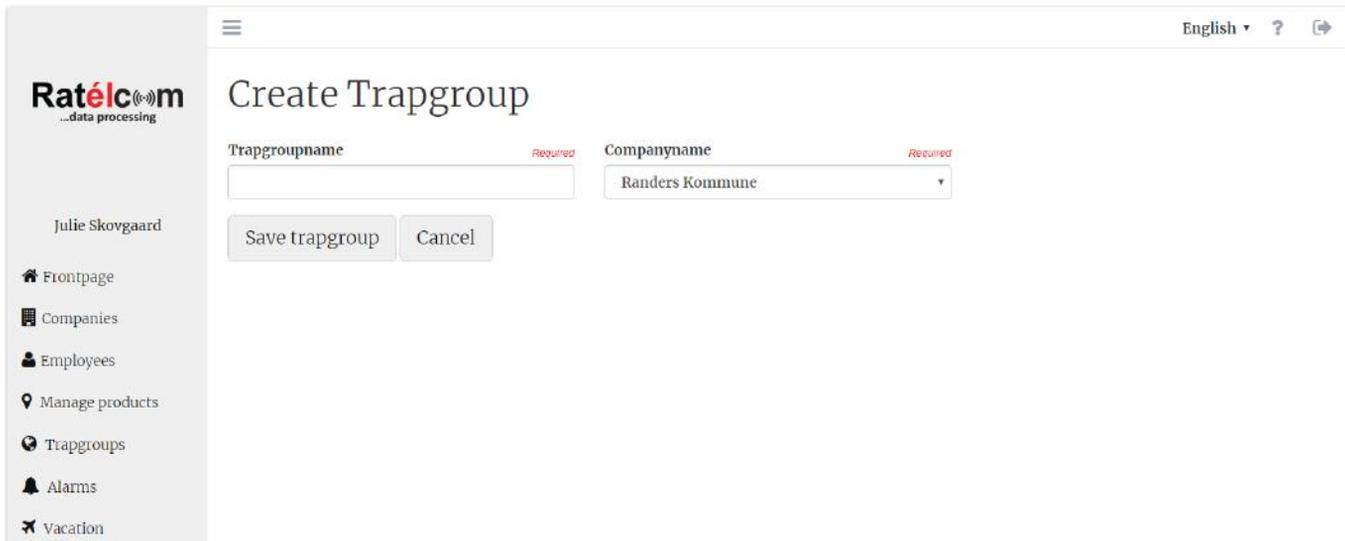
Trap Groups are to further group traps if you have many traps to handle in one login.

The traps can be arranged in different trap groups across company order – and are searchable in the free text field.

From this section you can create new trap groups. You can correct existing trap group's data – and you can delete existing trap groups.

Back to [Technicians](#)

10.3.4.1 Create trap group



The screenshot shows the 'Create Trapgroup' form in the Raté!l web application. The form has two input fields: 'Trapgroupname' and 'Companyname', both marked as 'Required'. The 'Companyname' field is a dropdown menu with 'Randers Kommune' selected. Below the fields are two buttons: 'Save trapgroup' and 'Cancel'. The left sidebar shows the user 'Julie Skovgaard' and a navigation menu with options: Frontpage, Companies, Employees, Manage products, Trapgroups, Alarms, and Vacation. The top right corner shows 'English' and a help icon.

Boxes marked with "Required" is filled out

Remember to click "Save Trap Group"

Herafter traps can be added to the group via [Manage Products](#)

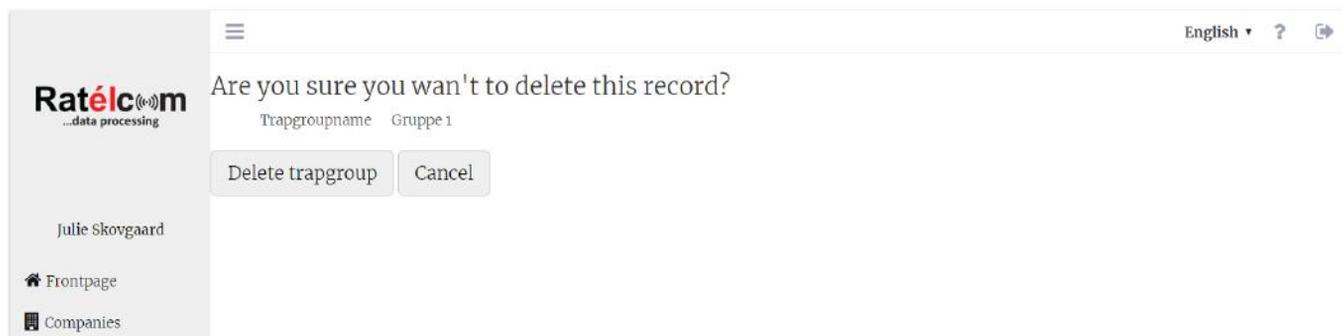
Back to [Technicians](#)

[Next](#)

[Back](#)

Back to [START](#)

10.3.4.2 Delete trap group



Here you can delete a trap group by clicking "delete trap group"

The traps are still available for you, companies and user – only no longer in a searchable group.

Back to [Technicians](#)

[Next](#)

[Back](#)

Back to [START](#)

10.3.4.3 Correct trap group

English ? ↗

Edit Trapgroup

Trapgroupname

Edit trapgroup Cancel

Companyname Required

- Randers Kommune
- Furesø Kommune
- Hedensted Spildevand
- Randers Kommune**
- Raté!l forhandler
- Slagelse Kommune
- Sorø Forsyning

Julie Skovgaard

- Frontpage
- Companies
- Employees
- Manage products
- Trapgroups**
- Alarms
- Vacation

Here you can correct a trap group's name

Click "Correct trap group", when your changes are made.

Back to [Technicians](#)

[Next](#)

[Back](#)

Back to [START](#)

10.3.5 Alarms

The screenshot shows the 'Alarmer' section of the Raté!l interface. It features a sidebar with navigation options and a main table of traps. The table columns are: ID-nummer, Adresse, Dato, Oversvømmelser, CO2 patron, Væltet, Ingen respons, and Medarbejdere på fælde. The 'Oversvømmelser' column uses green circles for 'Ingen respons' and red circles for 'Medarbejdere på fælde'. The 'Væltet' column uses green circles for 'Ingen respons' and red circles for 'Medarbejdere på fælde'. The 'Medarbejdere på fælde' column contains 'Vis' buttons for each row.

ID-nummer	Adresse	Dato	Oversvømmelser	CO2 patron	Væltet	Ingen respons	Medarbejdere på fælde
1741000691		06-11-2017 00:58:49	●	●	●		Vis
1736000111		06-11-2017 00:34:15	●	●	●		Vis
1741000671		06-11-2017 00:34:15	●	●	●		Vis
1736000111		05-11-2017 23:32:52	●	●	●		Vis
1741000671		05-11-2017 23:32:52	●	●	●		Vis
1736000111		05-11-2017 23:27:08	●	●	●		Vis
1741000671		05-11-2017 23:27:08	●	●	●		Vis
1736000111		05-11-2017 22:49:05	●	●	●		Vis

In the section "Alarms" all traps with Alarms which are not yet handled shown. The alarms are displayed with a red indicator in the relevant column of alarmtype

Click "Show" in the right column to know which technician who was the receiver of the alarm

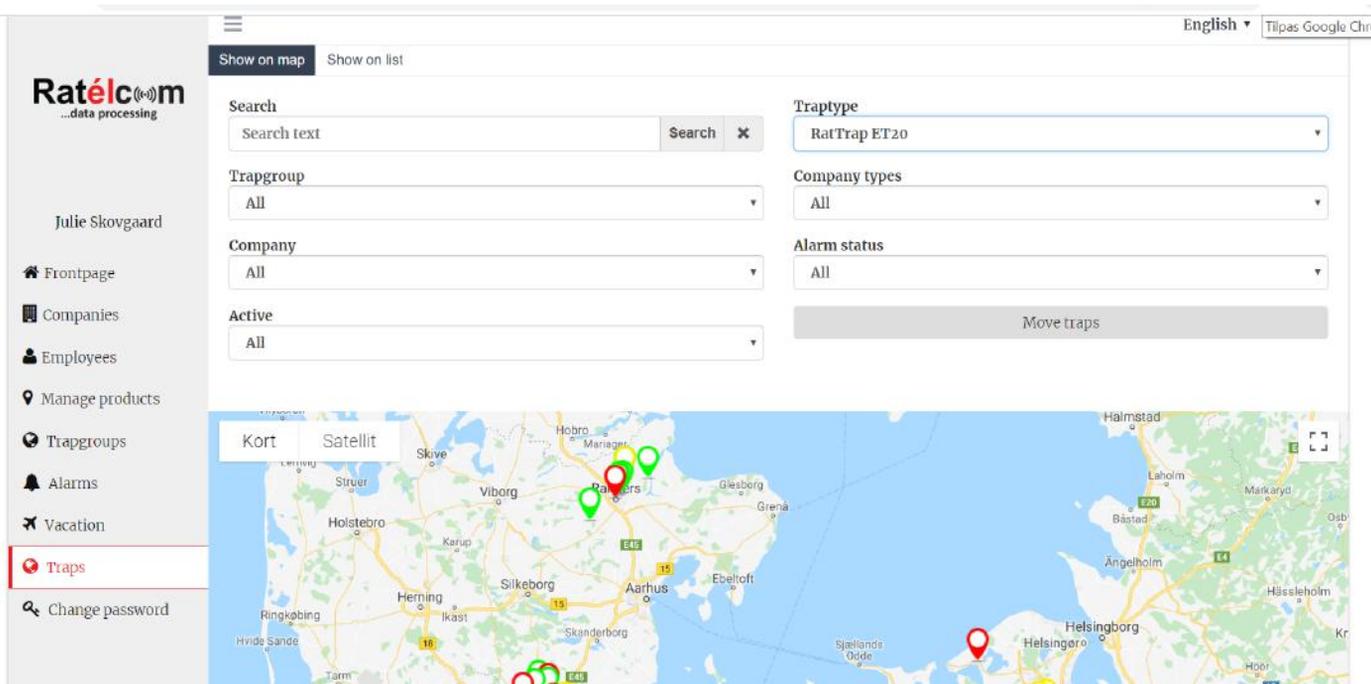
Back to [Technicians](#)

[Next](#)

[Back](#)

Back to [START](#)

10.3.6 Traps



In the section Traps you can view alle the traps you are servicing. Traps can be shown either on a map or in a list.

The dropdown menus allow you to search across company; trap group; trap type etc to narrow your search

In the listview you are able to sort the columns within the different categories "Inlet", "com module", "company" etc.

Back to [Technicians](#)

10.3.6.1 Click on trap for details

- Alarms
- Vacation
- Traps
- Change password

ID-number	Inlet	Address	changed	Total kills	Active	status	Companyname
1743000594	Ingen valgt		0	0	<input type="checkbox"/>	●	Hedensted Spildevand
1743000604	Ingen valgt		0	0	<input type="checkbox"/>	●	Hedensted Spildevand
1743000614	Ingen valgt	Fuglkær 33 - Stenderup	1	1	<input checked="" type="checkbox"/>	●	Hedensted Spildevand

Manhole



Com. module



Details

1743000614

ID-number: 1743000614

- Total kills 1
- Link No link
- Address Fuglkær 33 - Stenderup
- Latitude 55.7919797
- Longitude 9.8035072
- Latitude 55° 47' 31"
- Longitude 9° 48' 12"

1743000624	Ingen valgt		0	0	<input type="checkbox"/>	●	Hedensted Spildevand
------------	-------------	--	---	---	--------------------------	--------------------------------------	----------------------

By clicking a trap either on the list or on the map – you will get an overall status on the trap – click on the pictures to enlarge them

Date from

Date to

Report type

Data

Graph

Service reports

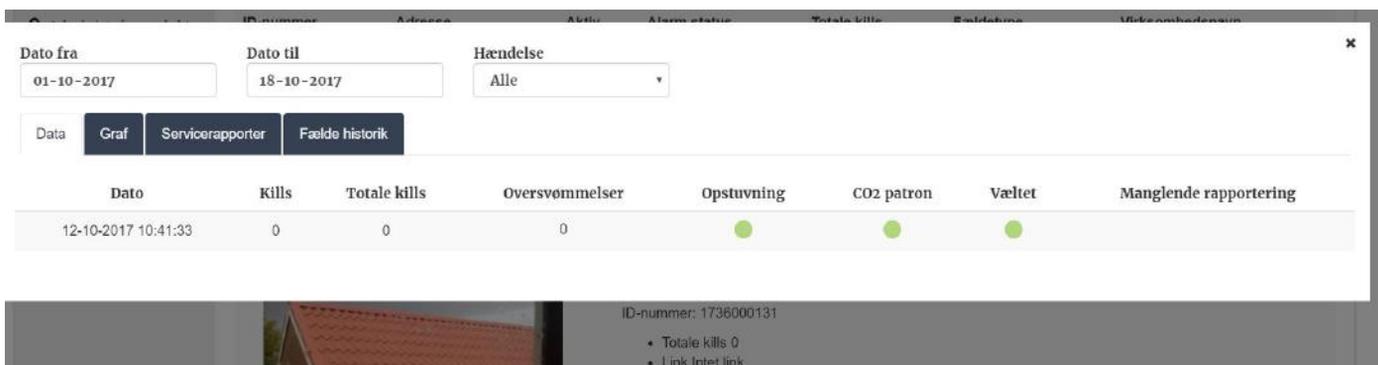
Trap historic

Date	Komm. module	Kills	Total kills	Flooded	Blocked	CO2	Tilted	Missing report
11/22/2018 12:31:16 PM	1802000554	1	1	0	●	●	●	
11/21/2018 11:04:39 PM		0	0	0				
11/18/2018 11:01:44 PM		0	0	0				

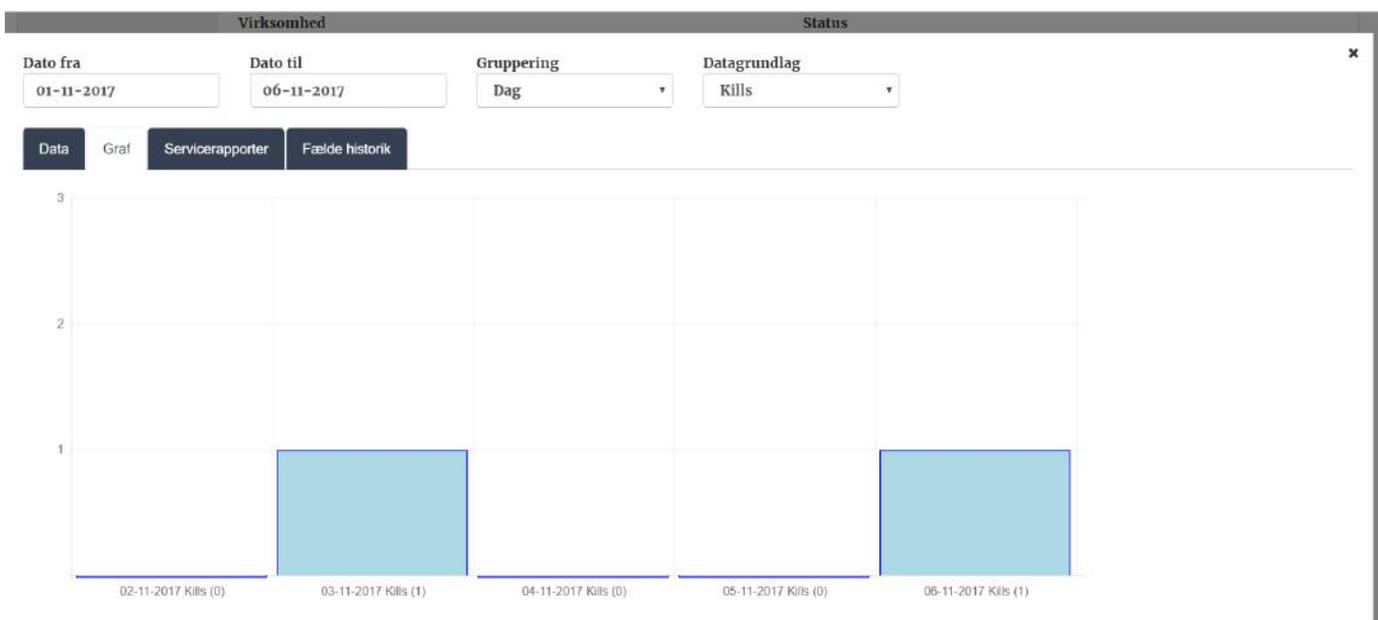
By clicking "details" you will get a short menu, where the trap's graphs, service reports and historics can be shown for a given time interval.

Back to [Technicians](#)

10.3.6.2 Service reports etc



The "Data" tab will show you all messages from the Communications Module



Example of a graph created in the "Graph" tab
 Back to [Technicians](#)

10.3.6.3 Service reports etc continued

Dato fra: 01-11-2017 Dato til: 06-11-2017

Data Graf **Service rapporter** Fælde historik

Markér alle Print markerede Send markerede

Dato	Medarbejder	Service data	Kommentar
<input type="checkbox"/> kl. 15:01 06.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej	Print Send
<input type="checkbox"/> kl. 12:31 06.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej	Print Send
<input type="checkbox"/> kl. 12:30 06.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej	Print Send
<input type="checkbox"/> kl. 11:55 03.11.2017	Serviceetek Serviceetek	Alarm nulstillet:Nej	Print Send

The "Service report" tab list the service reports on the trap

Dato fra: 01-11-2017 Dato til: 06-11-2017

Data Graf **Service rapporter** Fælde historik

Rettet af	Rettet dato	Ændringer	Virksomhed	Detaljer
Serviceetek Serviceetek	06-11-2017 12:31:57		slut kunde	Vis
Forhandler Forhandler	02-11-2017 08:03:07	Ny lokation	slut kunde	Vis

The "Trap History" fan gives you an overview of the trap's handling over time

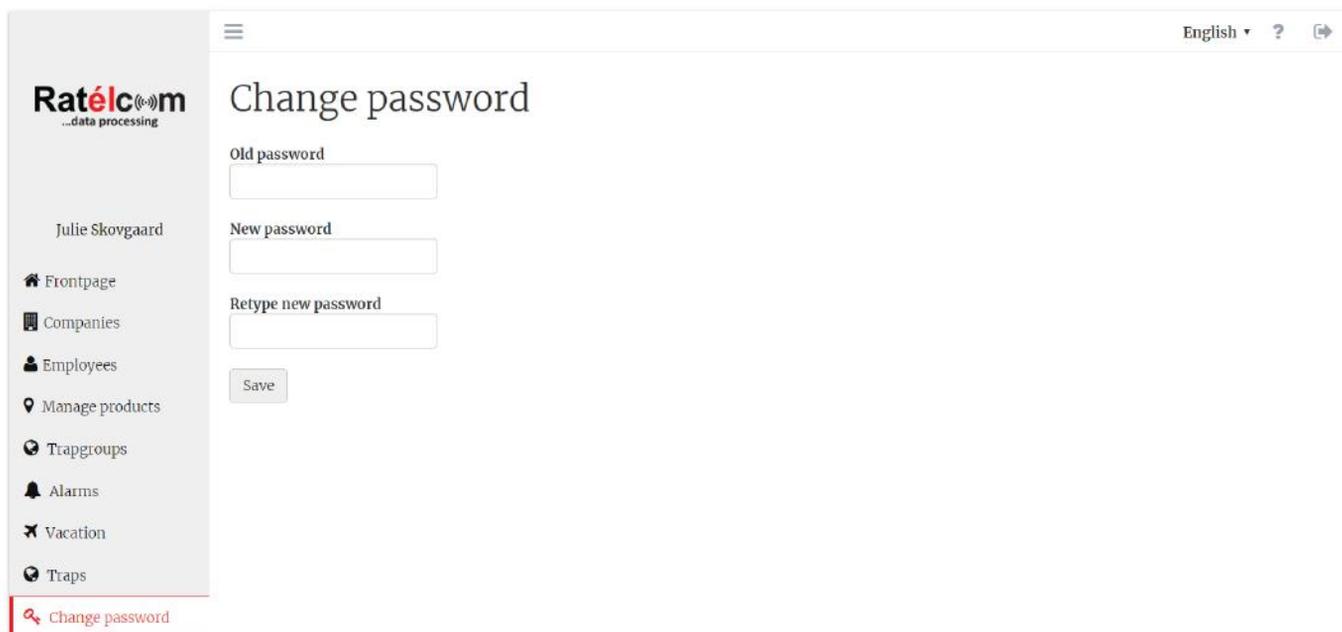
Back to [Technicians](#)

[Next](#)

[Back](#)

Back to [START](#)

10.3.7 Change Password



The screenshot shows the 'Change password' page in the Raté!l web application. The page has a header with the Raté!l logo and the text '...data processing'. The user's name, 'Julie Skovgaard', is displayed. A sidebar menu on the left contains several options: Frontpage, Companies, Employees, Manage products, Trapgroups, Alarms, Vacation, and Traps. The 'Change password' option is highlighted in red. The main content area is titled 'Change password' and contains three input fields: 'Old password', 'New password', and 'Retype new password'. A 'Save' button is located below the input fields. The top right corner of the page shows 'English' with a dropdown arrow, a question mark, and a refresh icon.

Type your present password in the first box

Type the wanted password in the next two boxes

Click "Save"

Back to [Technicians](#)

[Back](#)

Back to [START](#)

CE-certification



Raté!l

EU-Overensstemmelseserklæring

Fabrikant:

Raté!l ApS
Centervej 2
DK-6000 Kolding
Tlf: +45 69 89 86 86

Erklærer hermed, at følgende udstyr:

Betegnelse: RatTrap, Giftfri Rottefælde
Type nr.: ET20

Er i overensstemmelse med følgende direktiver:

- EMC direktivet 2014/30/EU af 26. februar 2014: Harmonisering af medlemsstaternes lovgivning om elektromagnetisk kapabilitet
- Maskindirektivet 2006/42/EF af 17. maj 2006
- RoHS-direktivet 2011/65/EU af 21. juli 2011

Er i overensstemmelse med følgende harmoniserede standarder:

- DS/EN ISO 12100:2011 - Generelle principper for konstruktion - Risikovurdering og risikonedsettelse
- DS/ISO 14121-2:2012 - Maskinsikkerhed - Risikovurdering - Del 2: Praktisk vejledning og metodeeksempler

Ovenfor nævnte standarder er kun anvendt i det omfang, det er relevant i forbindelse med rottefældens anvendelse.

8/11-2017

Kolding
Sted og dato

Hans Knudsen
CEO

Atex Certification



Raté!l

EU-Declaration of conformity

Manufacturer:

Raté!l ApS
Centervej 2
DK-6000 Kolding
Tlf: +45 69 89 86 86

Declares hereby, that the following equipment:

Name: RatTrap, Non-toxic Rattraps
Type number: ET20 2017

Is in conformity with the following directives:

- EMC Directive 2014/30/EU of 26 February 2014: Harmonization of laws of the Member States relating to electromagnetic compatibility
- Machinery Directive 2006/42/EC of 17 May 2006
- RoHS-Directive 2011/65/EU of 8 June 2011
- ATEX Directive 2014/34/EU of 26 February 2014

Is in conformity with the following standards:

- DS/EN ISO 12100:2011 – Safety of machinery – General principles for design – Risk assessment and risk reduction
- ISO/TR 14121-2:2012 – Safety of machinery – Risk assessment – Part 2: Practical guidance and examples of methods
- DS/EN 60079-0:2012 – Explosive atmospheres – Part 0: Equipment – General requirements
- DS/EN 60079-18:2015 - Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
- DS/EN ISO 80079-36:2016 - Explosive atmospheres – Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements
- DS/EN ISO 80079-37:2016 - Explosive atmospheres – Part 37: Non-electrical equipment for explosive atmospheres

Above mentioned standards are only used in the scope, which is relevant in association with the rattraps application.

14/8 - 2018

Kolding
Place and date


Hans Knudsen
CEO

Atex – and Atex zones



Raté!l at all times recommends that you have acquired basic knowledge of the Atex concept before mounting equipment in an Atex zone.

The RatTrap ET20 Atex certification allows you to install RatTrap ET20 in explosive environments - in this case, in what is called Atex Zone 2.

Zone 2 is a zone where explosive gases rarely occur - and only for a shorter period of time. In the sewer systems there are seldomly large amounts of explosive gasses, and when they occur, it will normally have a rather short duration.

We define zone 2 in the sewer systems as under the manhole cover and downwards.

The approval applies to the RatTrap itself and the Repeater, since these are the parts mounted in the Atex zone.

The Atex approved equipment is marked with  or  - always check if the mark is visible on the device when you mount a trap where the ATEX approval is required.

You should never work with open fire or power tools in an Atex zone.

Always make sure that Atex labeled equipment is intact and correctly assembled before mounting - never attempt to repair Atex-labeled equipment yourself.

RatTrap  

Specifications ID. No.:

Type: ET20 2017

Production year: 2018

Voltage: 3,65V *I_{kmax}*: 0,6A

Battery type: EVE, 3,6Ah, ER17505

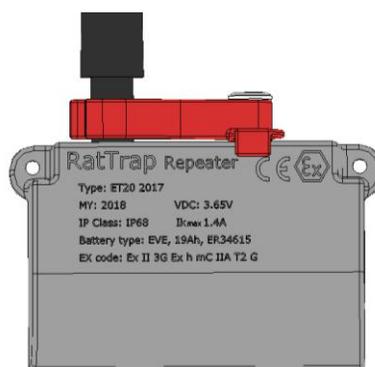
IP class: IP68

EX code: Ex II 3G Ex h mC IIA T2 Gc

SE Approval: S58

Raté!l Raté!l ApS
Amboltten 41A
DK-6000 Kolding, Denmark
+45 69 89 86 86
www.ratel.dk

Nameplate RatTrap – design may vary



VA-certification

	 Godkendelse VA 2.99/20415 Udstedt: 2017.11.17 Gyldig til: 2021.01.01 Oplyder kravene i BR 15 Incl. tilfæg	
GODKENDELSESINDEHAVER: Ratél ApS Centervej 2 DK-8000 Kolding Telefon: +45 88 88 88 88 Internet: www.ratel.dk	Rottespærre til vandret afløbsledning RATÉL model ET – 10 og ET – 20 dim. ø110, ø160, ø200 og ø250	
FABRIKAT: Ratél ApS, Danmark MÆRKNING: <ul style="list-style-type: none"> • Type • Godkendelsesnummer • Godkendelsesmærke:  KVALITETSKONTROL: Godkendelsesindehaver opretholder obligatorisk kontrolaftale med Teknologisk Institut, Aarhus.	BETINGELSER FOR MONTERING OG BRUG: Rottespærren monteres i vandretliggende afløbsledninger ved overgange til rense- og inspektionsbrønde samt nedgangsbrønde. Rottespærren er kombineret med elektronisk enhed, der afliver rotter. Rottespærren kan tilsluttes forskellige rørtyper og montering af rottespærren skal udføres i henhold til godkendelsesindehaverens anvisninger. Montering af rottespærren skal udføres i henhold til godkendelsesindehaverens anvisninger. BESKRIVELSE OG TEKNISKE DATA: Rottespærrene er udført i syrefast rustfrit stål. Rottespærrene består af et U-formet profil med ophængte klapper. Klapperne, der sidder sidst i vandstrømmens retning, er forsynet med en låseanordning, der kan låse klapperne, så rotterne ikke kan passere. Når en rotte møder spærren i fældemodell ET 10 på samme måde ledes den ind i et kammer hvor den aflives med højspænding medens den i fældemodell ET 20 på samme måde ledes ind i et kammer, men her aflives den med et stempel, der rammer rotten med stor kraft. Efterfølgende fjernes rotten af spildevandsstrømmen. Enheden kan monteres, betjenes og demonteres uden at man skal ned i den aktuelle brønd.	
Side 1 af 1		
ETA-Danmark A/S Göteborg Plads 1 DK-2150 Nordhavn	Telefon: +45 72 24 59 00 Telefax: +45 72 24 59 02	E-mail: eta@etadanmark.dk Internet: www.etadanmark.dk

Quick Guide RatTrap

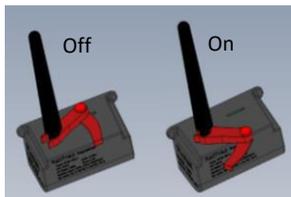


Remember the rules for ATEX-labeled equipment - please refer to the manual



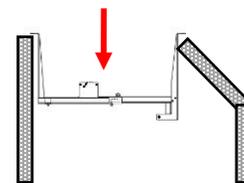
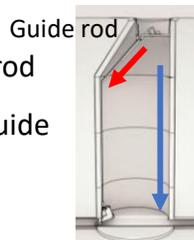
Preparation:

- Insert the CO2 canister
- Secure the wire to the trap
- Select and mount the inlet
- Prepare the electronics
- Configure the trap in the app

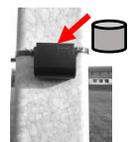


Mounting in concrete manhole

- Determine need for a guide rod
- Position mounting kit (and guide rod)
- Mount the trap
- Lock the wire and fabric cord
- Test the system

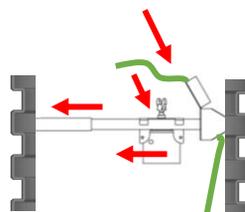


Magnet is passed over communications module

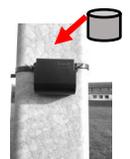


Mounting in PVC manhole

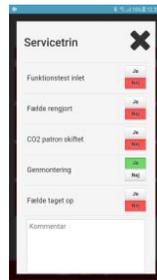
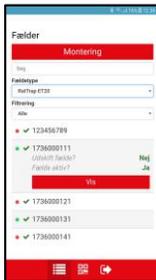
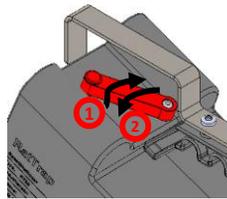
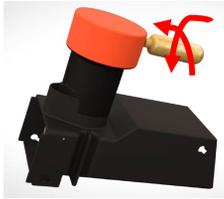
- Position mounting kit
- Mount the trap
- Lock the wire
- Test the system



Magnet is passed over communications module



Quick Guide RatTrap



Remember the rules for ATEX-labeled equipment - please refer to the manual

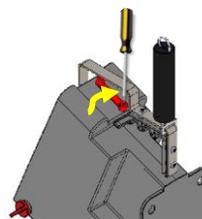
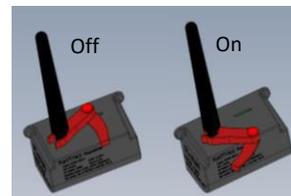


Service

- Demount the trap
- Change the CO2 canister
- Reset the kill counter
- Note it in the app
- Mount the trap

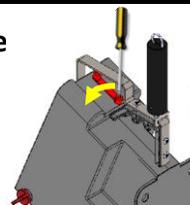
Relocating a trap

- Demount the trap and mounting kit
- Place magnet in repeater - use tape
- Deactivate transmitter in the trap
- Demount communications module
- Demount the trap in the app
- And all in reverse on the new



Replacement of the outer container or killing device

- Demount the trap
 - Replace the outer container
- or
- Replace the killing device without further action
 - Mount the trap



New unit is activated as per general preparation



The "Replace" function in the service menu in the app is used