

Installation guide

Kamstrup READy Collector



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1. FCC Caution

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or Kamstrup directly.

2. Symbols used in this document

Warning

indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.

Caution

indicates a situation, which if not avoided, could result in damage to equipment, mild injury, damage to software, loss of data or invalid results.

Notes

important information, ex. Pre conditions, necessary steps before proceeding etc.

3. Installing the READy Collector top

NOTE: Only authorized personnel is allowed to perform an installation of this system.

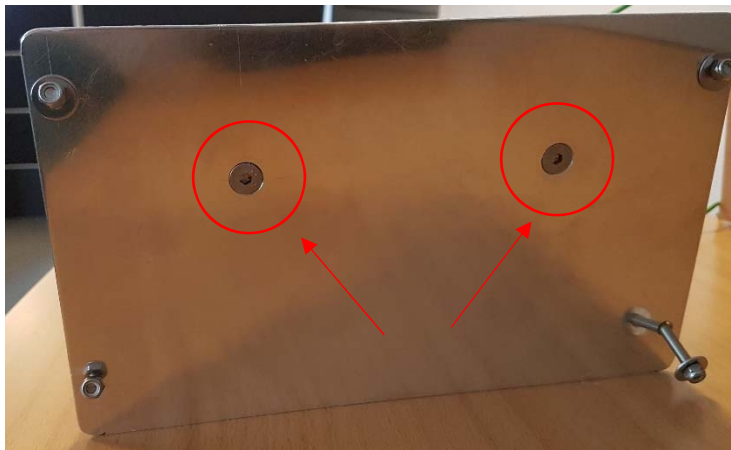
To install the Top box, use the small adaptor plate and the bracket illustrated below:



For installation on a wall, use the following plug and screws.

For installation on a pipe, use stainless steel clamps. (Not included)

1. Bolt the bracket and adaptor plate together using the screws located near the middle of the plate.

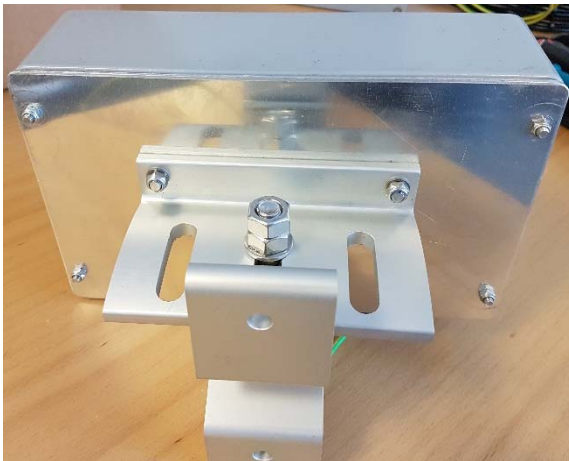


2. Install the assembly on the READy Collector top.
The box needs to be open in order to perform the installation.
Use the bolts installed on the adaptor plate.

NOTE: The cable openings must face down when installing the final product.



The result should look similar to this.



3. When closing the lid again, ensure the sealing is intact.

Tighten the nuts in a cross pattern to even out the pressure on the sealing.



4. To install the bracket on a wall,
Disassemble the bracket into two, by removing these bolts.



Install the bracket onto the wall using the following screws and plugs.

Or install the bracket on a pipe, using stainless steel clamps. (Optional).



4. Connecting the READY Collector Top.

Use a 24V DC power supply, capable of delivering a peak effect of 40W.

Make sure the cables are connected correctly.

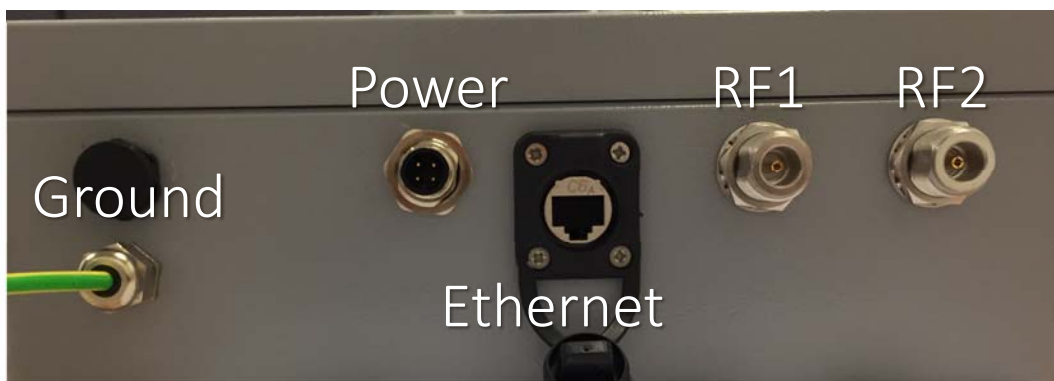
Note: the small marking in the power supply end.

Cable end label says: "0" for negative connection (0 VDC)

"1" for positive connection (24VDC)



Connect a LAN cable to grant the READY Collector Top access to the internet and access to Kamstrup systems.



Connect the Ground wire to a solid ground accessible near the installation site.

5. Installing the antennas

When installing the antennas, ensure you keep **at least** the minimum distance between the antennas:

Minimum distance between the antennas: 30 inches

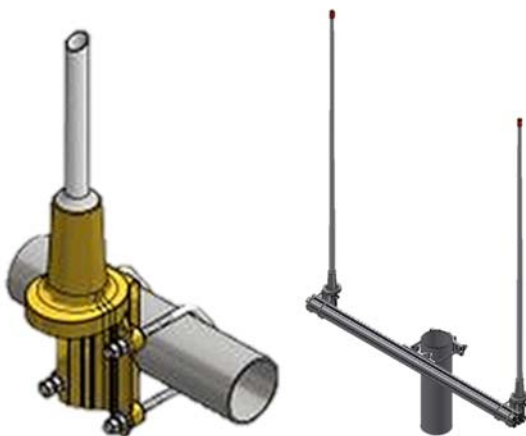
Use the Antenna beam (5000 474) and Brackets (5000 475).

5. Install the Bracket on the beam
6. Install the beam on the pole or mast

The antennas comes with brackets from manufacture; use these in according to the next step.

7. Install the antennas with the correct distance. (Min. 30 inches)

Example of installation:



8. Connect the RF Cable to antenna 1 and RF1 on the READy Collector Top.
9. Connect the RF Cable to antenna 2 and RF2 on the READy Collector Top.



This concludes the setup of the READy Collector Top.

6. Maximum ERP

Caution: Before starting work on the antennas, turn off the power to the system.

Kamstrup US AMI solution use Data Collectors to collect data from meters and end-devices. The data is sent on an uplink frequency and received by the collector. Based on decisions made by the READy head end system, the collector acknowledge the reception of the data by transmitting back to the meter or end-device using the downlink frequency.

The data collector is capable of transmitting up to 5 Watt output power, which is amplified by the gain in the antenna used on the data collector site (if antenna gain is >0dBi).

Based on the radio propagation study, a data collector site is tailored to fit the needs. The antenna is selected (amplifies the signal) and the antenna cable and length is selected (loss – attenuation on the signal).

The transmitter must at no time transmit higher than the allowed maximum output power (measured at the antenna connector of the data collector top box) and it must at no time radiate more power (ERP) than the granted license specify.

WARNING

The maximum output power in W dictates the maximum output power a data collector can transmit with and it is adjustable in READy up to the specified maximum. If the selected antenna have a gain which result in a higher radiated power (ERP) than allowed by the license, the maximum output power in W filled in the Frequency License service must be decreased accordingly!

Max ERP – antenna gain + cable loss = max output power (if lower or equal to FCC license max.)

The calculation must be made by Kamstrup based on the selected antenna and cable for the data collector site.

7. Troubleshooting

Power cable not installed correctly:

1. Check there is activity on the Ethernet port to the READy Collector Top

Collector not visible in LSR tool:

Faulty connection in the READy Collector Base

Power cable not installed correctly:

2. Check there is activity on the Ethernet port to the READy Collector Top
3. Check there is power to the READy Collector Top

Collector not visible in READy Manager.

4. Check there is activity on the Ethernet port to the READy Collector Top
5. Check there is activity on the Ethernet port for outgoing data.
6. If using a SIERRA Wireless modem, check the data activity LED.

No cellular connection

7. Check the GSM antenna is plugged in the right channel "Cellular".
8. For further trouble shooting on the modem, go to the service guide.

No wired internet connection/no activity on LAN port.

9. Check all connections in the READy Collector Base.
10. Test the connection on a pc.

If no connection, contact you network provider.

No data visible in READy Manager

11. Check if the frequency service is setup.
12. Perform an installation frame (at the meter site)

-----Subject to alteration