

**DEVELCO  
PRODUCTS  
MDCWM-110  
Meter Data  
Concentrator**



# DEVELCO PRODUCTS MDCWM-110 Meter Data Concentrator Instruction Manual

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**DEVELCO PRODUCTS MDCWM-110 Meter Data Concentrator**



## Product Information

### Specifications

- **Model:** MDCWM-110
- **Wireless Communication:**
  - **Wireless M-Bus (C1/T1):** Frequency – 868.95 MHz
  - **Rx Cellular Networks:** LTE Cat M1/Cat NB2, GSM Band 2/3/8 (+GSM-R), LTE FDD Band 1/E-FDD Band 3/8/20/28
- **CE Certification:** Compliant with European Directives

## Product Usage Instructions

### Mounting the Gateway

1. Attach the gateway to a flat surface using 4mm PAN-head screws and rawl-plugs.
2. Ensure the gateway is protected from direct weather.

### Positioning of the Gateway

In general, install the gateway in any direction. Orienting the antenna towards the meter cluster may improve measurement coverage.

### Getting Started with Meter Cluster

1. Activate the gateway by holding a magnet close to the marked point.
2. Observe LED indications during data collection.
3. Commissioned gateway status can be checked by holding a magnet to the activation point.

### Battery Replacement

1. **Caution:** Battery replacement should be done by qualified personnel.
2. Open the Meter Data Concentrator with a screwdriver.
3. Replace the battery pack carefully.
4. Reconnect and secure the battery pack before closing the concentrator.

## **CE Certification**

The CE mark confirms compliance with European Directives and standards.

## **Wireless Communication**

Supports Wireless M-Bus and various cellular networks for communication.

## **FAQ**

### **Q: What should I do if the LED flashes quickly upon power on?**

**A:** If the LED flashes quickly, it indicates that the last upload failed. Check connections and try again if needed.

### **Q: How do I ensure proper battery replacement?**

**A:** Battery replacement should only be done by qualified personnel following the specified steps in the manual to avoid damage to electronic components.

## **Product Description**

The Meter Data Concentrator collects meter data and sends the data to the system server via cellular networks.

## **Disclaimers**

### **CAUTION:**

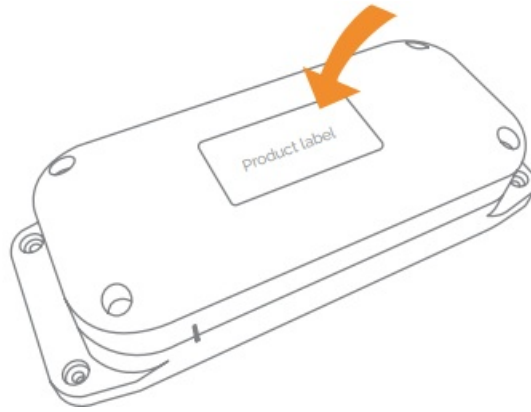
- Contains Lithium batteries
- Do not recharge, short-circuit, or expose to water/humid conditions
- Choking hazard! Keep away from children. Contains small parts.
- Please follow the guidelines thoroughly. The Meter Data Concentrator is a preventive, informing device, not a guarantee or insurance that sufficient warning or protection will be provided, or that no property damage, theft, injury, or any similar situation will take place. Develco Products cannot be held responsible in case any of the above-mentioned situations occur.

## **Precautions**

- To be protected against all verified adverse effects, the separation distance of at least 0.2m must be maintained between the antenna of the radio having max. 2dBi antenna and all persons. Hereby, Develco Products A/S declares that the radio equipment type MDCWM-110 complies with Directive 2014/53/EU. The full text of the

EU Declaration of Conformity is available at the following internet address: [www.develcoproducts.com](http://www.develcoproducts.com)

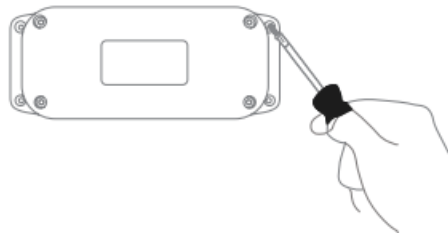
- Do not remove the product label as it contains important information.



## Mounting

### WALL OR CEILING MOUNTING

1. Attach the gateway to a flat surface with 4mm PAN-head screws, self-tapping, into rawl-plugs.
2. Use the gateway for outlining the mounting holes and drill appropriate holes for the raw plugs.



- **CAUTION:** If the surface is not perfectly flat, be careful not to deform the gateway by fastening it too tightly to the uneven surface.
- The Gateway shall be placed so it is protected from direct weather.

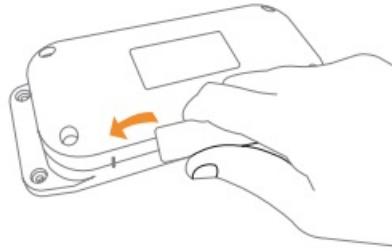
### POSITIONING OF THE GATEWAY

- In general, an installation in every direction is possible. However, in some cases, an orientation of the antenna towards the meter cluster might help to get even better measurement coverage.
- This is due to the placement of the antenna inside the gateway.



## Getting started

1. Hold a magnet close to the activation point marked by a notch on the side of the gateway and hold the magnet there.



2. The red LED on the gateway will turn on for a few seconds.
3. When the LED turns off, remove the magnet
4. The LED will then blink every 10 seconds during the capture period while it collects the first round of data from the meters.
5. When the LED has stopped flashing, the Meter Data Concentrator is commissioned and in standard reception mode.

## LED INDICATION DURING POWER ON

If there is an error upon powering on, the LED will blink as follows.

1. **Flash:** Battery not new. Indicates potential mistakes when installing the battery or installation of the wrong battery. The device starts fully functional.
2. **Flashes:** SIM card error. Indicates a potentially incorrect or missing SIM card. The device starts fully functional, but a cellular connection will not work.
3. **Flashes:** Battery insufficient. The device will not start fully.
  - **Continuous Flashes:** An internal hardware error was detected. The device will not start up fully.

## Gateway status check

- To check the status of a commissioned gateway, hold a magnet to the activation point (see figure).
- **LED TURNS ON:** the last upload was successful.
- **LED FLASHES QUICKLY:** last upload failed

## Battery replacement

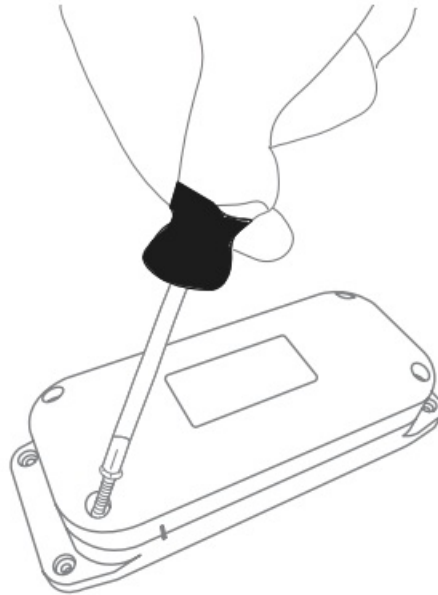
- You can replace the battery pack in the following way.
- **WARNING:** Battery replacement should only be carried out by qualified personnel.

## CAUTION:

- Do not attempt to recharge or open the batteries.
- Risk of explosion if batteries are replaced by an incorrect type.
- Dispose of a battery in a fire or a hot oven, or mechanically crushing or cutting a battery can result in an explosion
- Leaving a battery in an extremely high temperature surrounding environment can result in an explosion or the leakage of flammable liquid or gas.
- A battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas

- Maximum operation temperature is 50°C / 122°F
- If you experience leakage from the batteries, immediately wash your hands and/or any affected area of your body thoroughly!
- **CAUTION:** When removing the cover for battery change – Electrostatic Discharge (ESD) can harm electronic components inside

1. Open the Meter Data Concentrator with a screwdriver.



2. Disconnect the connector of the battery.
3. Replace the battery pack
4. Reconnect the connector and make sure that the battery pack sits in place firmly.
5. Close the Meter Data Concentrator, tighten the screws, and initiate the start-up process.

## Disposal

- Dispose of the product properly at the end of life. This is electronic waste that should be recycled.
- This gateway includes a Lithium battery. Please dispose of the battery according to your local regulations.

## CE certification

- The CE mark affixed to this product confirms its compliance with the European Directives which apply to the product and, in particular, its compliance with the harmonized standards and specifications.

## IN ACCORDANCE WITH THE DIRECTIVES

- **Radio Equipment Directive (RED) 2014/53/EU**
- **RoHS Directive 2015/863/EU** amending 2011/65/EU

## Wireless communication

- **Wireless M-Bus (C1/T1):** Frequency: 868.95 MHz Rx
- **Cellular networks:** LTE Cat M1/ Cat NB2

## GSM

- Band 2, Band 3 Band 8 (+GSM-R)


## LTE

- FDD Band1

## E-FDD

- Band 3 Band 8, Band 20, Band 28
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## Documents / Resources

	<b><a href="#">DEVELCO PRODUCTS MDCWM-110 Meter Data Concentrator</a></b> [pdf] Instruction Manual MDCWM-110 Meter Data Concentrator, MDCWM-110, Meter Data Concentrator, Data Concentrator, Concentrator
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## References

- [Develco Products - White label products for security, home care, and energy management.](#)
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