



User manual

Tibber Pulse KM

1. Download the Tibber app

Search for Tibber in the App Store/Google Play Store or scan the QR code.



2. Create a Tibber account

Create an account or log in if you have one already. Adding the energy deal from Tibber is always optional.

3. Pair the Pulse

Search for Tibber Pulse in the Power-ups section of the Tibber app and get started!

1. Intended use

Although we're sure there are many creative ways to use this product, the intended use of the Pulse KM is to read data from your electricity meter and transfer it to the Tibber app. At the time of writing, refreshing the data takes about 10 seconds. The Pulse KM is intended for domestic use and will serve as a splendid assistant to catch energy thieves at home.

1.1 How to use these instructions

Please read and understand this manual and its safety instructions before using the Pulse KM. Failure to do so can result in severe injury or death (definitely not our favorite thing to say, but the law requires us to add it here). Therefore, please follow all instructions to avoid fire, explosions, electric shocks or other hazards that may damage property. The Pulse KM should only be used by people who have fully read and understood the content of this user manual. You're well on your way, so please continue reading!

Make sure that every user of the Pulse KM has read these instructions before use and follows them. Keep all safety information and instructions for future reference and pass them on to the ones using the Pulse KM after you. As the manufacturer, we are not liable for cases of material damage or personal injury caused by incorrect handling or non-compliance with the safety instructions. In such cases, the warranty won't apply – so make sure to follow those instructions.

1.2 Latest version and comments

In case you're reading this in a different time and age, you can find the latest version of this manual at https://pulse.tibber.com/km_manual (available in multiple languages). If you have any comments or questions, you can always reach out to us via the chat in our app/on our website or via hello@tibber.com.

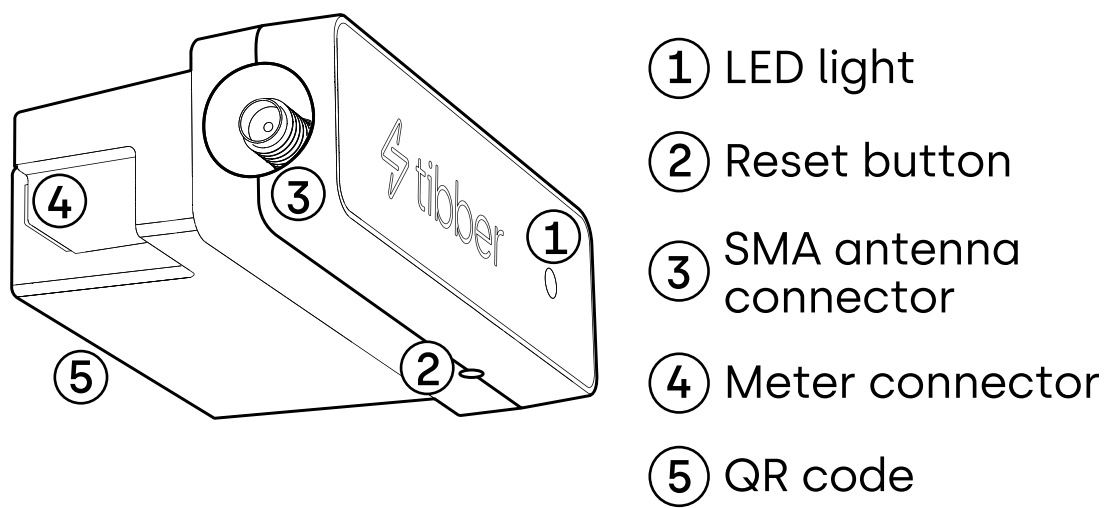
2. Description of the product

2.1 Technical details

The Pulse KM is designed to work with Kamstrup Omnipower® meters and fits the slot for the Kamstrup HAN/P1 module. Naturally, we also designed the Pulse KM to work with the Tibber app (App Store/Google Play Store or via the QR code on the first page of this manual). If you love diving into data, check out our API at <https://developer.tibber.com>.

We recommend only using the Pulse KM with the included antenna. All products inside the box are compliant with European standards. Using a different antenna may result in non-compliance and can cause damage.

2.2 Product overview

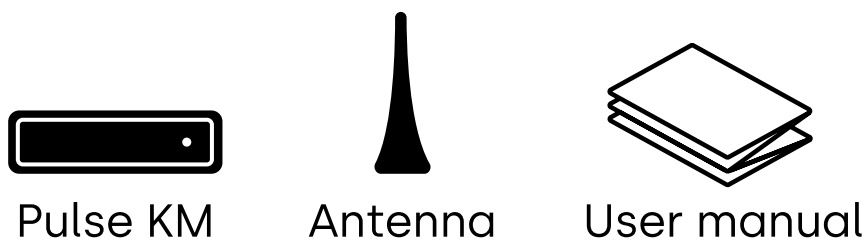


2.3 Product compliance

 Hereby, we – Tibber AS – declare that the radio equipment type Pulse KM is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at https://pulse.tibber.com/km_conformity.

2.4 What's in the box



2.5 Technical data

Pulse KM

Device name: Pulse

Model: KM/Greedo edition

Technical life span: > 5 years

Power usage: 300 mW during pairing,
240 mW during normal operation

Frequency band: 2401 MHz to 2483 MHz

Maximum power transmitted: 20 dBm

Weight: 35 g

Dimensions (HxWxD): 22.5 x 73 x 46.6 mm

Supported protocols: DLMS/COSEM (IEC 62056-53, IEC 62056-62)

Ingress protection (IP): IP20 (not waterproof)

Temperature range: -20 °C to 50 °C

Antenna

Connector: SMA

Impedance: 50 Ohm

Ingress protection (IP): IP65 (dust and water resistant)

3. Installation

To install the Pulse KM, follow the instructions on the first page of this manual. You'll be guided through the pairing process in the Tibber app, connecting the Pulse KM to your smart meter and Wi-Fi network. After that, it's time to play around! Turn on your toaster or coffee machine and check the effect on your energy consumption.

4. Troubleshooting

4.1 Explanation of LED signals on the Pulse KM

LED signals during normal operation

White/white blinking:	Pulse is starting
Green:	Pulse is ready to be paired
Green blinking:	Pulse is connected to a phone (only during pairing)
Blue blinking:	Pulse is trying to connect to the Wi-Fi and the Tibber server
Weak blue:	Pulse is connected to the Tibber server
Weak blue/short blue blinking:	Pulse transfers data to the Tibber server
Yellow blinking:	Pulse is updating firmware, do not disconnect from the power

4.2 Problem solving from LED signals

LED signals during errors

Problem

Pulse couldn't connect to the Wi-Fi. Usually, the light will switch between red and blue blinking when trying to connect to the Wi-Fi.

Continuous red:

Solution

Usually, this problem occurs when your Wi-Fi signal isn't strong enough. Try moving the antenna closer to your router, or placing it in a different direction.

Problem

Pulse is connected to the Wi-Fi but unable to reach the Tibber server.

Red blinking:

Solution

Try to reset your router. If the problem persists, try to reset the Pulse KM and restart the pairing process in the Tibber app.

4.3 Resetting the Pulse KM

To reset your Pulse KM, keep it plugged into your meter and look for a small hole on the underside. Insert the tip of a pen or paperclip into the hole and press for at least 5 seconds. The LED will first turn off and then light up white. When the LED turns green, your Pulse is ready to be paired again.

If you're experiencing problems, please have a look at our troubleshooting guide at https://pulse.tibber.com/km_troubleshoot. If the problem persists, you can always reach out to us via the chat in our app/on our website or via hello@tibber.com.

4.4 Maintenance

Handle your Pulse KM with care to let it last longer (and we'll be happy too, because we're quite fond of every Pulse we manufacture!). If you want to clean the Pulse KM or antenna, refrain from using any liquid and use a dry tissue or cloth instead.

5. IMPORTANT SAFETY INSTRUCTIONS



Read these instructions carefully and keep them for future reference. Pass them on to the ones using the Pulse KM after you.

When using electrical devices, make sure to always follow basic safety precautions to reduce the risk of fire, electric shock, and/or injury to persons, including the following:

- Supervise children to ensure they don't play with the device.
- Use original accessories only.
- Avoid the device to be in contact with water or any other liquids.
- Avoid exposing the device to heat, flames, humid conditions or extreme cold.
- Avoid opening the device or touching any of its electronic circuitry.
- Avoid using the device for any purpose other than its intended use.

WARNING

When accessing your fuse or meter cabinet, make sure to inspect the meter and its surroundings to ensure there are no loose cables, exposed copper or other objects that could cause an electric shock. If you encounter any of these, stop the installation process immediately and contact a qualified electrician. Make sure to also inspect the Pulse KM before use. If you spot any physical damage, stop the installation process immediately and reach out to us via the chat in our app/on our website or via hello@tibber.com.

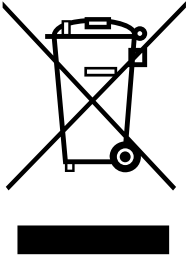
CAUTION

Only use the included antenna to avoid damage to the Pulse KM and/or your smart meter. If you spot any physical damage on the antenna, reach out to us to receive a new one. Avoid placing the Pulse KM in an environment that's humid or outside of the specified temperature range (-20 °C to 50 °C); this might reduce its life span or cause malfunctions.

The Pulse KM is not waterproof; never place it outdoors in the rain or snow. The antenna is water resistant and can be placed outdoors or outside the meter cabinet, but make sure that water can't flow into the cabinet via the cable. Don't open the Pulse KM or the antenna to avoid damage.

6. Disposal

6.1 Disposal of electronic components



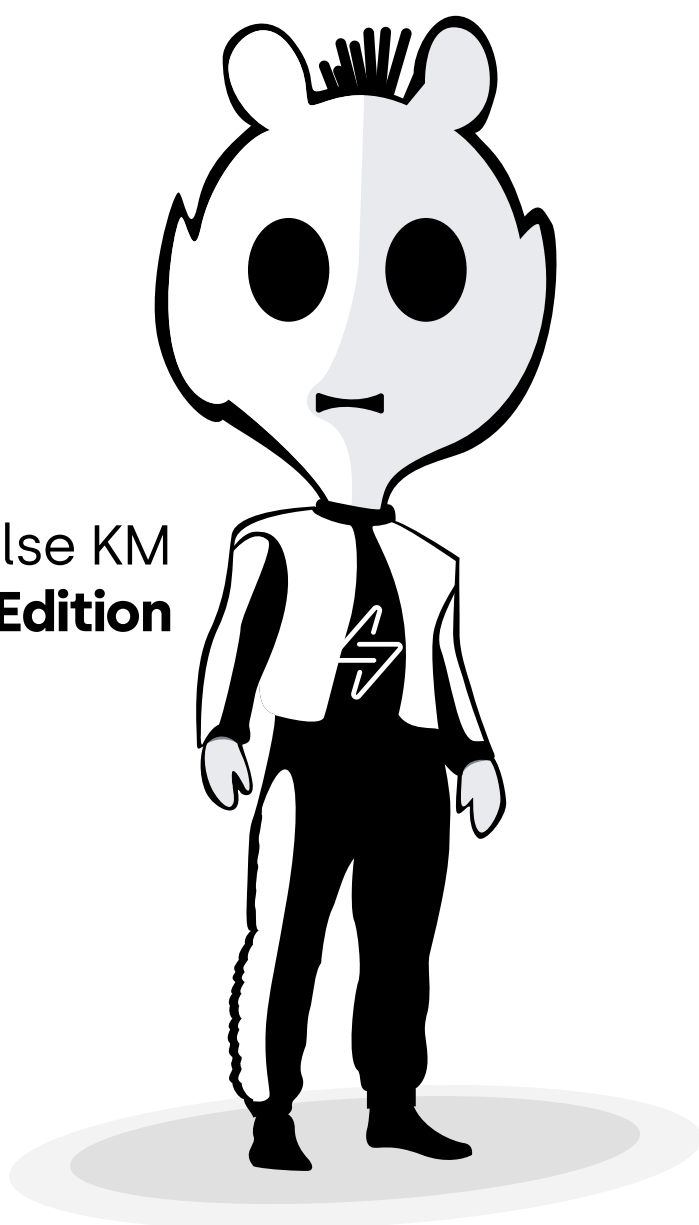
If you look closely, you see this symbol on the Pulse KM. It means the device shouldn't be treated as unsorted municipal waste and that it should be disposed of separately.

If you live within the EU or another European country that collects electronic waste and equipment separately, we advise you to bring both the Pulse KM and the antenna to your local recycling facility at the end of their lifespan. By properly disposing of the devices, you help avoid any environmental and public health hazards that could be caused by not handling waste equipment properly. The recycling of materials also contributes to the conservation of natural resources.

6.2 Disposal of packaging waste

The packaging is made of environmentally friendly materials, which you can dispose of at your local recycling facility. By properly disposing of the packaging and packaging waste, you help avoid possible environmental and public health hazards. And again, nature will be thankful!

Pulse KM
Greedo Edition



Tibber AS, Hafstadvegen 23, 6800 Førde, Norway
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