starlink.case mini

Original – Operating Instructions

Please fully charge the battery before using it for the first time!

CE

Table of contents

1. General information 3
2. Technical data 5
3. Explanation of symbols 6
4. General safety instructions 7
5. Warranty and liability disclaimer 10
6. Maintenance, troubleshooting, and repair 10
7. Operation 13
7.1 Permissible environment 13
7.2 Charging the device 14
7.3 Preparing for operation 17
7.4 Operation 17
7.5 Transporting the device 20
7.6 Storing the device 20
8. Disposing of the device 21
9. Declaration of conformity 22

1. General information

Contents:

- Device
- Accessories

Important information:

The device is EMC-certified according to EN55011 Class A - industrial environment. Use in residential areas must be avoided. If radio or TV reception is disrupted, the device must be placed at a greater distance from the object causing the interference.

B&W Customer Service:

Phone: 05451-8946-0
Email: info@b-w-international.com

Purpose of this document:

This operating manual familiarizes the user with

- the operating mode,
- operation,
- the safety instructions for the device

Description of permitted users

The device is not intended for use by persons, including children, with limited physical, sensory, or reduced mental capabilities, lack of experience, and/or lack of knowledge, unless they are supervised by a person responsible for their safety and have been instructed by that person on how to use the device. Children should always be supervised to ensure that they use the device properly.

Important note:

These operating instructions are an important document that must be kept in a safe place so that you can refer to them at any time for information on the proper use of the device!

Imprint:

Junkendiek 5
49479 Ibbenbüren
Germany

2. Technical data

Case type	PP – 4000
Dimensions	420 x 325 x 180 mm
Tightness	IP54 – open and closed
Connections	1x power supply Starlink Mini antenna
	1x charging input
Charging options	230V power supply (included)
	Optional car charging cable
	Optional solar cell
Battery capacity	400 Wh or 90 Wh
Operating time with antenna connected	12 hours or 3 hours
Weight	6,2 kg or 4,2 kg
Operating temperature	-10°C to +60°C
Charging temperature	0°C to +45°C
Storage temperature	-10 to +45°C
Status indicator	Ring light colors Main switch
Safety systems	Case made of flame-retardant material UL94 V-0
	Certified according to CE and UN 38.3
	BMS Overvoltage, overcharge,
	Overtemperature and short-circuit protection

3. Explanation of symbols

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

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

The following symbol indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

The following symbol indicates a situation that may result in damage to the device if ignored.

The following symbol warns of dangerous electrical voltage in addition to any symbols that may already be present.

The following symbol warns of a significant tripping hazard in addition to any other symbols that may already be present.

4. General safety instructions

This operating manual contains the most important information for using the device safely. The safety instructions in this section and throughout the operating manual apply to all activities carried out on and with the device. The descriptions contain safety instructions that warn of specific hazardous situations. For the protection of the respective user, it is very important that these instructions are always followed.

The device may only be used for its intended purpose and in a condition that is safe to use. Any malfunctions that could compromise safety must be rectified immediately!

Intended use:

Intended use consists of using the device to operate the current Starlink Mini version from SpaceX. Other consumers must not be connected. Intended use also includes observing all instructions in the operating manual, complying with the operating and maintenance specifications, and taking foreseeable misuse into account.

Any use other than that specified above is considered improper use! Improper use may result in hazards. Improper use includes, for example, using the device as a power source for other consumers, unauthorized modifications or alterations to the device, failure to observe the safety instructions, use or operation of the device other than as described, work on the device by unqualified personnel, failure to comply with general safety and operating instructions as well as occupational safety and accident prevention regulations, or disregard of legal requirements.

The device must also not be operated in potentially explosive environments where flammable liquids, gases, or dusts are present.

The device's 230V charger must not be used outdoors or in damp environments. The device may only be connected to fully functional consumers whose safety devices are in perfect condition. In particular, the cables and plugs of a consumer should be checked before each use!

Touching parts that are still under residual voltage poses a risk of a slight electric shock, which in turn can lead to secondary accidents due to shock. Avoid touching the plug contacts after the 230V charger has been disconnected.

5. Warranty and liability disclaimer

Warranty claims and liability claims are excluded for personal injury and property damage if they are attributable to one or more of the following causes:

- Improper use of the device
- improper installation, commissioning, or operation of the device
- Operation of the device despite defective safety devices or improperly installed or non-functional safety and protective devices
- Failure to observe the instructions in this operating manual regarding transport, commissioning, use, repair, or disassembly/disposal
- Unauthorized structural modifications to the device
- Improperly performed repairs
- Disasters caused by foreign objects and force majeure

6. Maintenance, troubleshooting, and repair

The device should be cleaned regularly or as needed, paying particular attention to ensuring that the device and all connections are properly sealed! A soft, damp but not wet cloth with a little washing-up liquid is recommended for cleaning.

When cleaning, make sure that the device is always switched off and disconnected from the 230V charger! There is a risk of fatal electric shock!

It is strongly recommended that the device be serviced by the manufacturer once a year!

Malfunction or malfunction message

1. The ring light flashes red in particularly hot environments
2. The device no longer outputs power
3. The device can no longer be charged in cold weather and the ring light flashes red.
4. The device has switched off after connecting or operating the consumer

Troubleshooting

1. The device is too hot for operation and/or charging - Switch off the device using the main switch, disconnect it from any charging devices and connected consumers, and allow it to cool down in a cool place.

2. Charge the device completely and disconnect the charger at least 8 hours after the battery indicator shows 100%.

3. The temperature inside the device is too low to charge it. Carefully warm up the device until the charging process starts.

4. Perform step 2 or use a different charger.

   Note: If the problem cannot be resolved or is not listed here, contact the manufacturer immediately.

Repairs may only be carried out by B&W International specialist personnel or by external specialist personnel instructed by B&W International! There is also a risk of injury if unauthorized spare parts are used. Incorrect or faulty spare parts can lead to damage, malfunctions, or total failure, and can also compromise safety. As a general rule, check the device for defects before each use, switch off the device immediately if you find any defects, and arrange for the necessary repairs to be carried out by . Please also note that B&W International GmbH's warranty for the safety and functionality of the device will be void if: spare

parts that do not correspond to the original parts are installed in the device, repairs are carried out by unqualified personnel, the device is not positioned correctly during operation or storage, or other instructions in this operating manual are not followed.

7. Operation

7.1 Permissible environment

First, ensure that the environment is suitable for operating the device. The surface on which the device is placed must be level and stable. The ambient temperatures must correspond to those specified in the technical data (see page 5) and the environment must not be potentially explosive. In addition, ensure that the device is always placed horizontally and not vertically.

Warning of injury to legs or feet: If the device tips over or falls from a table or similar elevated surface, it may cause injury to legs or feet.

The device must never be placed in direct sunlight, especially for long periods of time. Uncontrolled overheating can cause serious damage to the batteries.

The device may only be operated if all fixed protective devices are properly installed. These include the housing itself, all correctly installed additional insulation for cables and wires, and the separate touch protection for electrical components inside. All components, including the protective devices, must always be in perfect condition. Safety signs on the device must not be removed and must be replaced immediately by qualified personnel from B&W International GmbH or appropriately trained external personnel if they are damaged or dirty. Protective devices must not be removed or disabled under any circumstances!

7.2 Charging the device

The device can be charged using various power sources. However, it should be noted that the charging time varies, as certain systems can deliver less power than others. As a result, charging via a car cigarette lighter takes significantly longer than charging with the 230V charger.

Charging with the 230V charger:

The device can be charged most quickly using the 230V charger. It is best for the battery if the device does not consume any energy while charging.

The 230V charger may only be used in a completely dry environment!

The device must never be left unattended during charging!

To prevent damage to the battery, the device should be discharged to approx. 10% at least once a month and then fully recharged using the charger supplied!

Charging in the car

The device can also be charged in the car using the separately available car charging cable. However, it should be noted that the charging time varies, as certain systems can deliver less energy than others. As a result, charging via a car's cigarette lighter takes significantly longer than charging with the 230V charger.

Vehicles can sometimes get very hot! The permissible operating temperatures must be observed in all cases.

The device must never be left unattended during charging!

To avoid damage to the battery, the device should be discharged to approx. 10% at least once a month and then fully recharged using the charger supplied!

Charging with a solar cell

The device can also be charged with a solar cell. When setting up the solar cell, it is essential to ensure that the surface of the solar cell is free of dust and dirt and that no shadows fall on the solar cell, as even a very small shadow significantly reduces the solar yield. Under certain conditions, self-sufficient continuous operation is possible. The device must not be placed in direct sunlight.

Only original B&W solar cells may be used! Other cells can damage the device and cause considerable damage to the control system!

The device must never be left unattended during the charging process!

To avoid damage to the battery, the device should be discharged to approx. 10% at least once a month and then fully recharged using the charger supplied!

Cables connected for power consumption by external devices or for charging the device's batteries can be trip hazards. Care must be taken to ensure that they are laid safely!

7.3 Preparation for operation

Before each start-up, it must be ensured that all safety requirements are met and that the device is in perfect condition. The connected consumer must also be checked for proper functioning and safe condition.

7.4 Operation

Description and structure

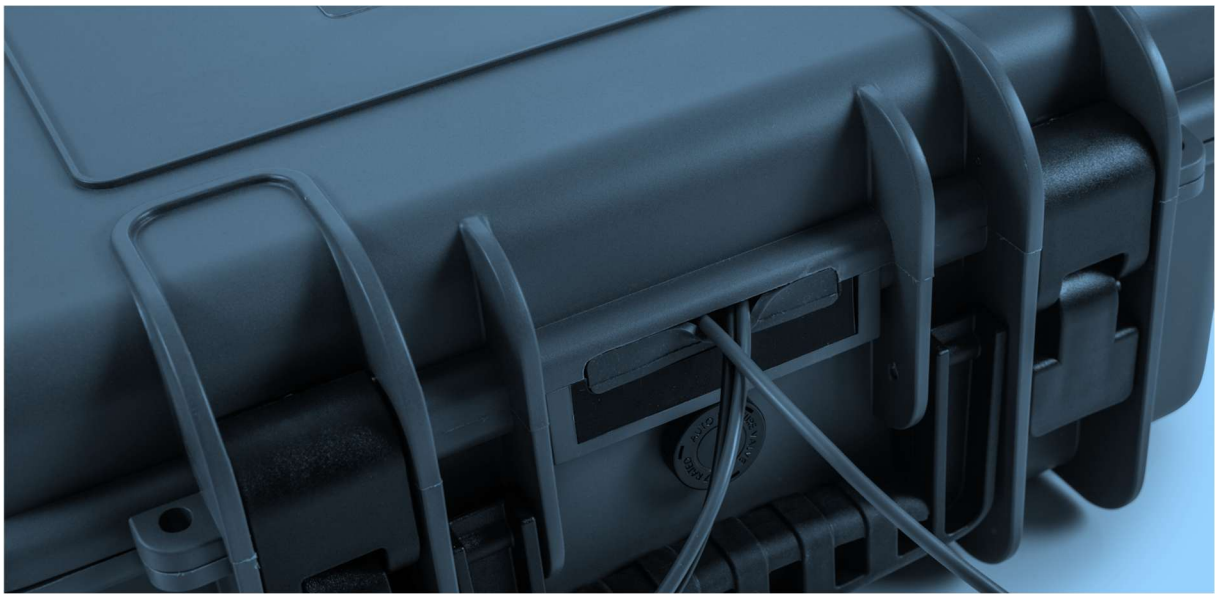
The starlink.case mini offers space for all the essential components required to operate the Starlink Mini antenna. On the left-hand side, there is a precisely fitting compartment in the foam for the 230V charger. The corresponding 230V power cable is stored on the right-hand side.

Below the antenna, there is additional storage space where the power cable supplied by Starlink/SpaceX can be neatly rolled up and stored. The antenna itself is placed above this compartment so that it is optimally protected during transport and storage. When placing the antenna, make sure that the beveled side with the connections faces down toward the cable outlet and the flat top faces up toward the lid.

Start-up

To switch on, press the main switch until it clicks into place. The colored ring light will then activate, indicating the current charge status of the internal battery. The connection directly below the main switch is used to operate the Starlink Mini antenna. The original cable of the Starlink Mini antenna is plugged in here. The lower connection, near the handle, is the charging connection for the starlink.case mini.

Cables (e.g., the antenna cable) are fed through the flexible rubber lip at the front. This allows the case to remain closed during operation, while the interior remains splash-proof.



Protection class and operating instructions

The case itself meets the requirements of protection class IP54. The internal unit—the black box with the main switch and connections—also complies with IP54 when the protective caps are in place and the plugs are inserted.

When charging the device, the lid should remain open to prevent the charging plug from kinking or being damaged and to reduce heat build-up during charging.

Battery capacity indicator (ring light)

The ring lighting on the main switch indicates the current charge status of the battery using different colors:

green:	**50–100%**	**Battery capacity**
orange:	**20–49%**	**Battery capacity**
red:	**10–19%**	**Battery capacity**
Red, slow flashing:	**below 10%**	**Battery capacity**

During charging, the ring light also indicates the current capacity range using the color scale described above. The light flashes until the battery is fully charged. Once the battery is fully charged, the flashing stops immediately.

After use, all connections and outputs must always be carefully closed with the respective caps! Otherwise, there is a risk of moisture entering the device.

If the device can be opened, the following must be observed when using it in cold environments: When moving the device from a cold to a warm environment, condensation may form inside the device. Before starting up the device, make sure that there is no condensation inside or on the outside of the device!

7.5 Transporting the device

When transporting the device in a vehicle, it must be securely fastened to prevent it from slipping. When transporting the device in vehicles or other means of transport, always observe the legal regulations and regional requirements!

7.6 Storing the device

The device must always be fully charged before it is stored and should be fully charged using the 230V charger after six months at the latest. It should also be noted that the device may only be stored indoors and must always be securely locked during storage. All caps must also be placed on the connections.

The device may only be stored within the temperature range specified in the technical data. For storage periods longer than one month, the maximum temperature must not exceed +45°C!

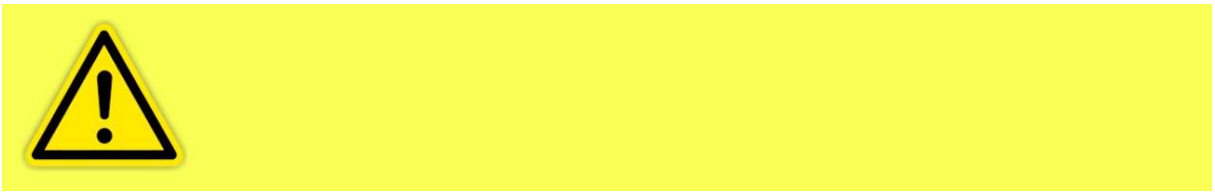
The device must always be stored in a horizontal position! Storing it upright can cause damage to the battery chemistry in the medium term!

To avoid damage to the battery, the device should be discharged to approx. 10% at least once a month and then fully recharged using the charger supplied!

8. Disposing of the device

If it is determined that the device has reached the end of its service life, it must be disposed of immediately. We will be happy to take care of the proper disposal of the device—free of charge, of course. To do so, the device must be returned to the address listed in the imprint.

The device may only be dismantled by specially trained personnel. All safety instructions for operation must be strictly observed.



Old devices do not belong in household waste. In accordance with the Directive on Waste Electrical and Electronic Equipment (2012/19/EU) and national laws, this product must not be disposed of with household waste! This product must be handed in at a designated collection point.

9. Declaration of conformity

The following directives were applied:

Low Voltage Directive 2014/35/EU
EMC Directive 2014/30/EU
ROHS 2011/65/EU

The following standards were applied:

EN ISO 12100:2011	Safety of machinery – Basic concepts: general principles for design
DIN EN 60204-1:2014	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
ISO 7010	Graphical symbols – Safety colors and safety signs – Registered safety signs
DIN 4844-2	Warning signs – Prohibition signs
DIN EN 55011 (A)	Industrial, scientific, and medical equipment – Radio disturbance limits and measurement methods (interference radiation) from 30 MHz to 1 GHz

The built-in LiFePo4 battery, including battery management, has been certified according to the following specifications:

UN 38.3	Test standard for safe transport, including all prescribed tests
UN 3480	Labeling in accordance with applicable dangerous goods regulations
MSDS	Material Safety Data Sheet

Certifications carried out

Certificate of Conformity	No.: RKEYS250522312
Certificate of Conformity	No.: RKEYS250527316
Test Report CE EMC	No.: RKEYS250522312
Test Report CE EMC	No.: RKEYS250527316

Manufacturer information

Manufacturer	B&W International GmbH Junkendiek 5 49479 Ibbenbüren