



## Cockpit small

OPERATING MANUAL



## IDENTIFICATION

### PRODUKT

Modell: Cockpit small  
BMZ Art. Nr. 40494 + 40494-1  
Country of Origin: Germany  
Mark: CE

### MANUFACTURER

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### CUSTOMER SERVICE

If you experience any problems using the product,  
contact your dealer or the manufacturer.

### DOCUMENT

Operating Manual Cockpit small  
Version: 1.1  
As of: 06.08.2019  
Subject to change.

## IMPORTANT NOTES ON THE OPERATING INSTRUCTIONS

### **WARNING**



Read these instructions carefully before using  
the cockpit.

Failure to follow safety instructions and  
instructions may result in electric shock, fire  
and/or serious injury.

The instructions enable the end user safe and  
error-free operation of the cockpit.

Keep this manual available to all users for future  
reference.

### MEANING OF SYMBOLS

Symbols	Meaning
 <b>WARNING</b>	Non-compliance may result in serious injury or death. Medium risk level.
 <b>CAUTION</b>	Non-compliance may result in minor or moderate injury. Low risk level.
<b>NOTICE</b>	Non-compliance can lead to property damage.
<b>i</b>	This symbol indicates information about the handling of the product or particularly important contents.

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# 1 PRODUCT DESCRIPTION

## 1.1 INTRODUCTION

The cockpit is a functional operative unit for pedelecs.

### FUNCTIONS:

- Setting and display of the support level.
- Switching the headlights on and off.
- Display of driving and battery data.
- Turning off the System.

## 1.2 OVERVIEW

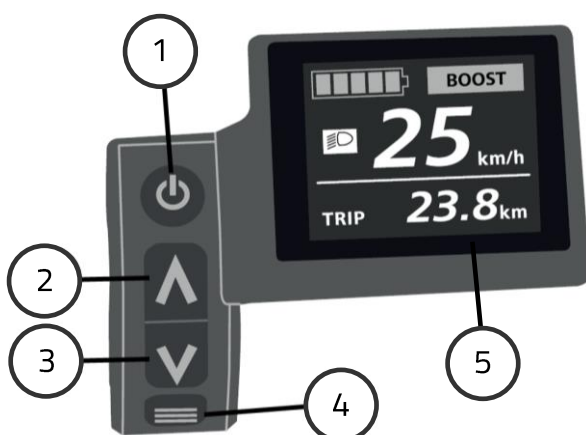


FIGURE 1: OVERVIEW

1. On/Off-button (⏻)
2. Up-button (⬆)
3. Down-button (⬇)
4. Menu-button (≡)
5. Display

## 1.3 INTENDED USE

The cockpit is designed for operation in pedelec systems with Brose engines and BMZ batteries.

## 1.4 TECHNICAL DATA

Operating voltage / current input	2 V (±2 V) / Typ. 75 mA
Integrated rechargeable battery as a backup battery for the clock	3 V / 11 mAh Battery life: 3-6 months (with fully charged battery)
Technology	TFT, transmissiv
Size	1.77"

Temperature range	-10 °C - +40 °C
Humidity range	0 - 100 %

## 1.5 DISPLAY

### 1.5.1 MAIN SCREEN OVERVIEW



FIGURE 2: MAIN SCREEN

1. State of charge of the battery (see 1.5.3.)
2. Selected support level (setting see 4.4)
3. Current speed
4. Info-Line (see 1.5.2)
5. light symbol when light is switched on (setting see 4.3)

### 1.5.2 INFO LINE

<b>i</b>	Briefly pressing the menu key (≡) changes the info line display.
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Display	Description
TRIP 23.8km	TRIP route (km/mi) Displays the distance travelled since the value was reset.
TRIP 1h 14m	TRIP time (hh/mm) Displays the travel time since the value was reset.
TOTAL 634km	Total Distance TOTAL (km/mi) Displays the total distance covered by the pedelec.

Display	Description
<b>RADIUS 112 km</b>	Range RADIUS (km/mi) Displays the remaining range of coverage with the currently selected support level.
<b>Ø km/h 12.4 km/h</b>	Average Speed Ø (km/mi) Displays the average speed of the distance travelled since the value was reset.
<b>MAX 27,9 km/h</b>	Maximum Speed MAX (km/mi) Displays the highest speed of the distance travelled since the value was reset.
<b>KADENZ 65 rpm</b>	Pedal Frequency KADENZ (rpm) Displays the current pedaling frequency.
<b>UHRZEIT 9:32</b>	TIME (hh:mm) Displays the time in 24-hour format.

### 1.5.3 INDICATION OF CHARGING STATUS

During the charging process of the battery in the pedelec, the symbol of a plug appears next to the charge status display.

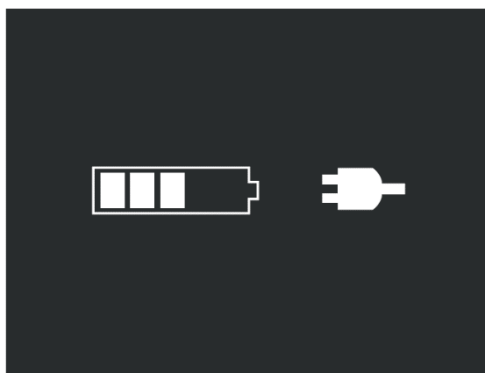


FIGURE 3: SCREEN DURING CHARGING

The charge status of the battery is displayed on the screen in 20 % increments.

Display	Description
	80 – 100 % charged

Display	Description
	60 – 80 % charged
	40 – 60 % charged
	20 – 40 % charged
	10 – 20 % charged
	0 – 10 % charged

## 1.6 LABELLING

The label on the bottom of the product shows the following:



### EXPLANATION OF SYMBOLS

Symbol	Significance
	Conforms to the relevant European directives.
	Do not dispose of in household waste.

## 1.7 CONFORMITY

See Declaration of Conformity in the Appendix, Chapter 7.

## 2 SAFETY INSTRUCTIONS

### WARNING

Change cockpit settings only when vehicle is standing.

Distracted riding endangers yourself and other road users.

Do not be distracted by the cockpit display. Focus on the traffic to avoid accidents. While riding, only check the displayed elements, change the support level, activate the pushing aid and turn the lights on or off.

To change the settings, stop and enter the appropriate data.

Do not open the cockpit. It could be damaged and void the warranty.

Do not use the cockpit as a handle. Lifting the pedelec by the cockpit may damage the cockpit.

Do not place the bicycle upside down on the handlebars. The cockpit may be damaged. Use a suitable mounting stand for repairs.

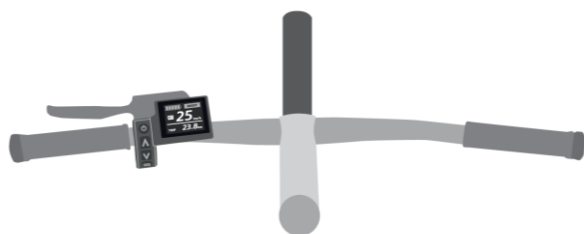
Do not tamper with or modify the cockpit.



Before starting your first ride, familiarize yourself with the functions of the pedelec and the operation of the cockpit.

## 3 ASSEMBLY

The cockpit must be installed next to the left handlebar so that the hand can remain on the handlebar grip while the thumb operates the control buttons.



Install cockpit with hexagon socket SW2.5 and 0.3-0.5 N m.

## 4 OPERATION

### 4.1 INTRODUCTION

In addition to the functions described here, it is possible that software changes may be introduced at any time for troubleshooting and functional extensions.

### 4.2 SWITCH SYSTEM ON AND OFF

#### SWITCH ON SYSTEM

Press the ON/OFF button on your battery until the start screen appears on the cockpit. This activates the electrical system and switches on the cockpit.



FIGURE 4: ON/OFF BUTTON ON BATTERY (EXEMPLARY)

After switching on the cockpit, "SERVICE" appears on the display for approx. 5 seconds. This indicates the number of kilometers after which the next service is to be carried out. The display then switches to the main screen.

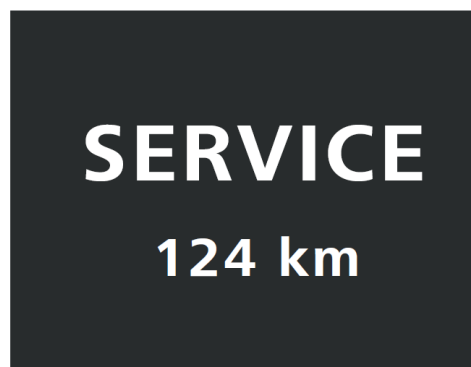


FIGURE 5: SERVICE DISPLAY

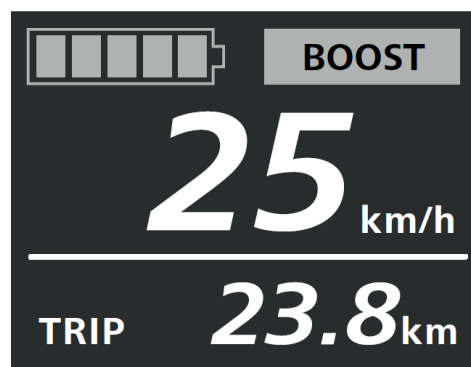


FIGURE 6: MAIN SCREEN

## SWITCH OFF SYSTEM

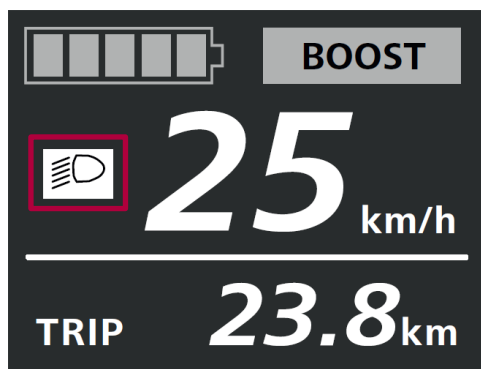
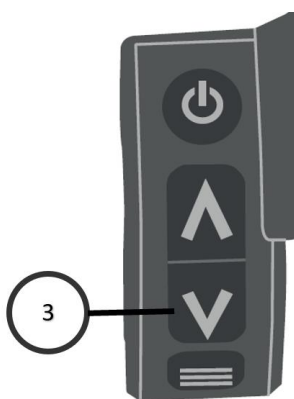
Press the ON/OFF button on your battery or the ON/OFF button (⏻) on the cockpit. This will turn off the electrical system and the cockpit at the same time.

If you park your pedelec without switching off the system, the cockpit and the electrical system will switch off after 15 minutes.

## 4.3 SWITCHING THE LIGHTS ON AND OFF

### SWITCH ON THE LIGHTS

Press the Down button (V) for about 2 seconds. The light symbol appears on the screen and the lights are switched on.



### SWITCH OFF THE LIGHTS

To turn off the light, press the Down button (V) for more than 2 seconds. The light icon disappears from the screen.

## 4.4 CHANGE SUPPORT LEVEL

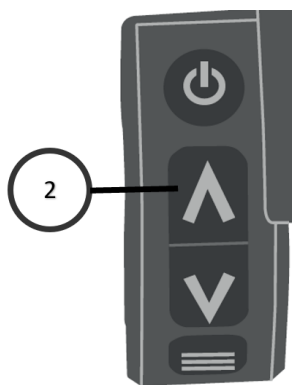
The electric motor of your pedelec supports your pedalling performance.

The following support levels are available:

Support level	DESCRIPTION
OFF	Normal cycling mode - the engine is not active
ECO	Moderate support for maximum battery range
TOUR	Ongoing support for long distances with large battery range
SPORT	Sporty driving on medium to short distances
BOOST	Strong support on steep stretches or short stretches in urban traffic

To increase the motor support, press the up button. (Λ).

To decrease it, press the down button. (V).



## 4.5 ACTIVATE PUSHING AID

i	The pushing aid can only be used if a motor support is activated (ECO, TOUR, SPORT, BOOST). The motor assists you in pushing your pedelec at a speed of up to 6 km/h, regardless of the support level selected.
i	The pushing aid serves as support if you have to overcome a steep ramp i.e. from an underground car park or underpass. You should not use it for driving.
i	The pushing aid is not a starting aid! If you operate the pushing aid under a heavy load, your engine will start jerking or even perform an emergency stop!

1. Press and release the Up button (Λ) for approx. 2 seconds.  
⇒ Figure 6 appears in the display.



2. Press and hold the Up button (Λ) to push the pedelec with pushing aid.  
⇒ Figure 7 appears in the display.
3. Release the Up button (Λ) to end the pushing assistance.  
⇒ The main screen reappears.



FIGURE 7: DISPLAY AFTER ACTIVATION OF THE PUSHING AID



FIGURE 8: DISPLAY DURING USE OF THE PUSHING AID

## 4.6 CHANGE SETTINGS



Settings on your cockpit can only be made when the vehicle is not in motion.

### OVERVIEW

Main Menu	Menu Option	Description
LIGHT	ON	Light on.
	OFF	Light off.
BRIGHTNESS	BRIGHT	Display brighter.
	AUTO	Display brightness adjusts itself to the brightness of the environment.
	DARK	Display darker.

Main Menu	Menu Option	Description
TIME	hh : mm	Set the time with the Up button (Λ) or down button (V). First set hours, then minutes with the menu button (≡)..
DELETION	TRIP	Deletes the TRIP data (distance travelled, average speed, maximum speed).
LANGUAGE	GERMAN ENGLISH FRENCH DUTCH SPANISH ITALIAN	Sets the system language to the selected setting.
UNIT	KM	Display with metric units.
	MILE	Display with Anglo-American units.
		Return to main screen without saving last selection.

### INSTRUCTIONS

1. press and hold the menu button for approx. 2 seconds to get to the main menu.
2. use the Up key (Λ) or Down key (V) to navigate to the desired menu item.
3. confirm selection with menu key (≡).
4. select settings with Up (Λ) or Down (V) button.
5. save settings with menu key (≡).



Settings are saved automatically with a delay of appr. 10 seconds. Exception: Language selection.

## 5 ERROR CODES



If any errors occur, the first error that occurred is displayed. Pressing the menu key (≡) switches to the next error or, after the last error, to the trip data. After switching on, the display starts with the error indication, in case of one or more errors. After that, trip data can be accessed again.

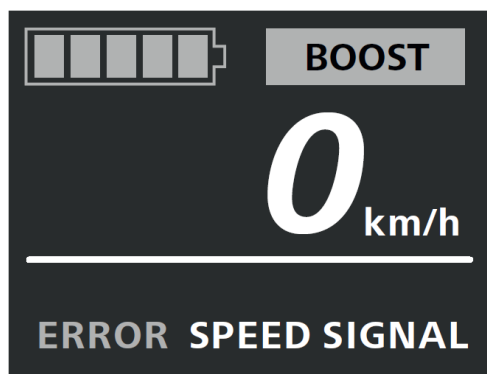


FIGURE 9: EXAMPLE OF AN ERROR MESSAGE

Display	Error description	Solution
ERROR Speed Signal	Speed sensor does not send a signal.	Switch off the electrical system.
ERROR Chk Light	Current consumption of the light is greater than 2.2 A.	Check the cables and plugs of all components.
ERROR DU Overtemp	Maximum temperature has been exceeded.	Reduce the motor support and/or switch off the electrical system.
ERROR Turn off/on	More than 2 unknown system resets were detected.	Switch off the electrical system.
ERROR ChkBrLight	Current consumption of the brake light is greater than 0.3 A.	Check the cables and plugs of all components.

If the problem persists, contact your retailer.

## 6 DISPOSAL

Electrical appliances, batteries and packaging need to be recycled in an environmentally friendly manner. Do not throw electrical appliances and batteries into the household waste. In accordance with the European Directives 2012/19/EU and 2006/66/EC, electrical appliances and batteries that can no longer be used must be collected

separately and reused in an environmentally sound manner.

In the EU, you can return old appliances and batteries to public collection sites or to your dealer free of charge.

Outside the EU, please refer to public information about applicable directives.

## 7 APPENDIX



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### EC Declaration of Conformity 2019



EN

<b>Date:</b>	29.01.2019
<b>Manufacturer:</b>	Metz mecatech GmbH Ohmstraße 55 90513 Zirndorf, Germany Phone +49 (0) 911 / 9706-0
<b>Product description:</b>	Cockpit small
<b>Order No.</b>	Metz mecatech GmbH 093180142 (BMZ 40494)
<b>Year of manufacture:</b>	from 2019

This declaration of conformity is issued under the sole responsibility of Metz mecatech GmbH.

The products comply with the requirements of the following European directives:

<b>2014/30/EU</b>	Directive on electromagnetic compatibility
<b>2011/65/EU</b>	Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment

The following standards have been applied:

<b>EN 15194: 2017 – EMC attachment C</b>	Note: EMC testing of the DUT as a single component
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<b>Technical documentation filed at:</b>	Metz mecatech GmbH Ohmstraße 55 90513 Zirndorf, Germany
<b>Drawer:</b>	Metz mecatech GmbH
<b>Place, date:</b>	Zirndorf, dated 29.01.2019



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