

HAIBIKE

FLYON drive system



Operating manual

Version 05/2019 EN

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1 INTRODUCTION

1.1 Notes on the operating manual



This original operating manual contains basic instructions that must be observed when setting up and operating the FLYON drive system.

- ▶ Please read the entire manual before starting up and using the FLYON drive system. This will prevent hazards and errors.
- ▶ Keep the manual for future reference. This operating manual is an integral part of the product and must be passed on or sold to third parties.

NOTE

- This manual is not intended to be a comprehensive manual for operation, service, repair and maintenance.
- Have your dealer perform any service, repair, or maintenance work. Your dealer can also inform you about courses, advice centres or books on vehicle use, servicing, repair or maintenance.



WARNING

- ▶ It is imperative that you observe all hazard statements, warnings and notes on precautionary measures.
- ▶ Read section “2 Safety” on page 16 carefully.

1.2 Overview



Fig. 1: Components of the FLYON drive system

No. in Fig. 1	Designation
1	Haibike HPR 120S drive unit (mid-drive motor)
2	Haibike SkidPlate
3	Lock to secure the battery
4	Haibike Intube battery 630 Wh
5	Speed Sensor Disc with Speed Sensor
6	Haibike Twin Tail Lights (only for certain FLYON models)
7	Haibike Skybeamer (only for certain FLYON models)
8	Haibike Remote
9	Haibike HMI & System Control

1.2.1 Haibike HPR 120S drive unit

The Haibike drive unit HPR 120S is designed for use in models with motor assistance up to 25 km/h.

Providing up to 120 Nm torque, the drive is currently one of the most powerful mid-drive motors on the market and is very compact.

1.2.2 Haibike SkidPlate

The Haibike SkidPlate (No. 2 in Fig. 1) is a motor cover made of fibre-reinforced plastic and protects the motor effectively from direct impacts when you ride over obstacles as well as from dirt and impacts from stones and other trail debris.

1.2.3 Battery lock

The battery lock (No. 3 in Fig. 1) can be used to secure the Haibike Intube battery against theft.

1.2.4 Haibike Intube battery 630 Wh

The lithium-ion battery (No. 4 in Fig. 1) has a capacity of 630 Wh at 48 V and is located in the down tube of the frame. The plug connection between the battery and the wiring harness of the FLYON drive system is fixed in place by magnet. The battery level can be checked via a touch sensor or, alternatively, using the Haibike HMI & System Control. The battery IP67 certification can be charged via a 4 amp charger or an optionally available 10 amp charger either conveniently through the bike or separately when removed.

1.2.5 Speed Sensor Disc

The Speed Sensor Disc (No. 5 in Fig. 1) sends 18 signals per rotation of the wheel to the system and measures the current speed extremely accurately. In this way, the system is able to react significantly faster and more dynamically to changing requirements and recognises acceleration even at slow speeds, e.g. hill starts. The sensor itself is safely positioned out of the way of harm and integrated in the left frame dropout.

1.2.6 Haibike Twin Tail Lights

The Haibike Twin Tail Lights (No. 6 in Fig. 1 on page 8) each have eight highly-efficient LEDs and make the eBike easily visible from a distance and also from the side.

1.2.7 Haibike Skybeamer

The Skybeamer (No. 7 in Fig. 1 on page 8) is available in three versions with 150, 300 or 5000 lumen. With the Skybeamer 5000, Haibike developed an independent system with automatic daytime cycling light, which provides a classic low beam as well as a high beam light with over 5000 lumen. The light can be operated manually via remote or fully automatically via a brightness sensor in the Haibike HMI & System Control.

1.2.8 Haibike Remote

The Haibike Remote (No. 8 in Fig. 1 on page 8) forms the central interface between the rider and the FLYON drive system. The mode switch is positioned below the handlebar and can be reached via thumb during the ride. The mode display on the Haibike HMI & System Control serves as feedback, along with a clearly visible LED strip on the remote, which changes colour depending on the level of assistance.

1.2.9 Haibike HMI & System Control

The colour display centrally positioned above the stem (No. 9 in Fig. 1 on page 8) is easy to read in every situation due to the transreflective design. Current riding data and system information are displayed on five changeable screens. It is also possible to display and analyse training-relevant data such as pulse measurement, cadence or calorie consumption.

1.3 Intended use

The components of the FLYON drive system may only be used as a complete system for the intended application.

- The drive system, consisting of the Haibike HPR 120S drive unit, Haibike Intube battery 630 Wh and Speed Sensor Disc + Speed Sensor, is intended exclusively for riding your pedelec and must not be used for other purposes.
- Haibike HMI & System Control is designed to display riding data and system information.
- The Haibike Remote is intended to control the drive system and display the operating status.

Any other use or any use beyond this is considered improper use and will result in loss of warranty. Winora-Staiger GmbH accepts no liability for any damage that may occur in the event of improper use and no warranty is given for the faultless and functional operation of the product.

Intended use also includes observing these instructions and all of the information contained therein as well as the information on intended use in the Winora Group Original Operating Manual.

Proper and safe operation of the product requires proper transport, storage, installation and start-up.

1.4 Type plates and seals

1.4.1 Haibike drive unit

- No. 1 in Fig. 3 shows the position of the type plate and No. 2 in Fig. 3 shows the position of the seal (not visible when installed).
- No. 1 in Fig. 2 shows the position of the serial number.

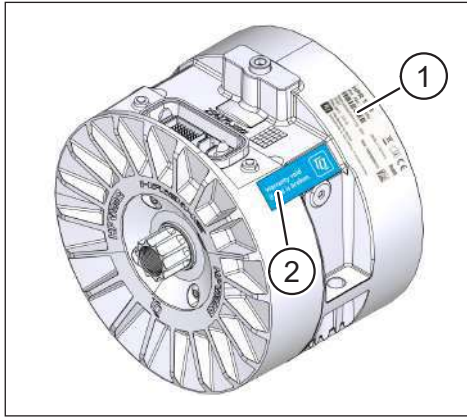


Fig. 3: Type plate and seal on Haibike drive unit



Fig. 2: Serial number on Haibike HPR 120S

1.4.2 Haibike HMI & System Control

No. 1 in Fig. 4 shows the position of the type plate.

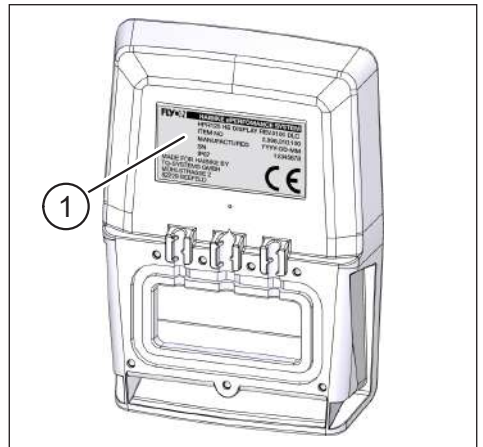


Fig. 4: Type plate on Haibike HMI & System Control

1.4.3 Haibike Remote

No. 1 in Fig. 5 shows the position of the type plate.

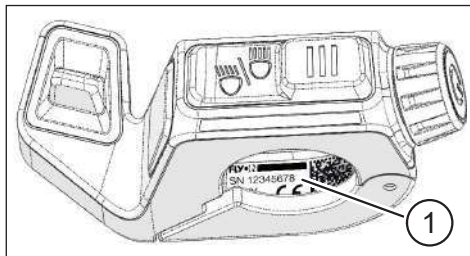


Fig. 5: Type plate on Haibike Remote

1.4.4 Haibike Intube battery 630 Wh

No. 1 in Fig. 6 shows the position of the type plate.

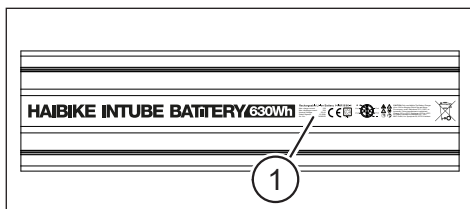


Fig. 6: Type plate on Haibike Intube battery 630 Wh

1.4.5 Haibike The Battery Charger 4A

No. 1 in Fig. 7 shows the position of the type plate.



Fig. 7: Type plate on Haibike The Battery Charger 4A

1.5 Transport

1.5.1 Pedelec

WARNING

Short circuit and fire hazard due to damaged battery

The Haibike Intube battery 630 Wh may be damaged by knocks or impacts while being transported.

- ▶ Remove the battery from the pedelec before transporting it (see chapter 4.1 on page 24).
- ▶ Then cover the battery contacts (e.g. with insulating tape) to protect them against a short circuit.
- ▶ Transport the battery with special care and protect it from knocks or falls.

1.5.2 Haibike Intube battery 630 Wh

NOTE

- Lithium rechargeable batteries with a rated energy output of more than 100 Wh are considered dangerous goods.
 - Undamaged batteries can be transported on the road by the private user without further requirements.
-
- Find out about the country-specific and regional regulations that apply to transporting hazardous goods.
 - The battery must not be carried as hand luggage on an aircraft.
 - When transporting the battery, observe the special requirements for packaging and labelling, e.g. for air transport or shipping orders.
 - Find out about how to transport the battery and about suitable transport packaging, e.g. directly from a transport company or a specialist dealer.
 - Make sure that batteries that are transported in hand luggage or a backpack, e.g. as spare batteries, are protected against contact with liquids and against short circuits.
 - Do not use rechargeable batteries after a drop or fall. Have the batteries checked before you use them again.

1.6 Environmentally friendly disposal

Please refer to the information on environmentally friendly disposal in the Winora Group Original Operating Manual.

1.7 Trademarks

The Bluetooth® word mark and logos are registered trademarks of the Bluetooth Special Interest Group (SIG).

1.8 Overview of the versions

Manual	Version	Language
Operating manual for the FLYON drive system	05/2019	EN

Tab. 1: Overview of the versions

1.9 Supplementary documents

Manual
Winora Group Original Operating Manual
FLYON Quick Start Guide Battery and Control Unit
eConnect Quick Start Guide

Tab. 2: Supplementary documents

The documents listed in Tab. 2 are included with the pedelec. Further supplementary documents and information can be downloaded from the Internet at <https://winora-group.com/service/>.

1.10 Explanation of symbols

- ▶ This character indicates an action.
- This character marks enumerations.

2 SAFETY

This manual contains instructions that you must follow for your personal safety and to avoid personal injury and damage to property. They are highlighted by warning triangles and shown below depending on the degree of danger.

2.1 Hazard classification

DANGER

This signal word indicates a hazard with a **high** risk level that will result in death or serious injury unless avoided.

WARNING

This signal word indicates a hazard with a **medium** risk level that will result in death or serious injury unless avoided.

CAUTION

This signal word indicates a hazard with a **low** risk level that will result in slight or moderate injury unless avoided.

NOTE

A note as defined in this manual is important information about the product or the respective part of the manual, which should be given special attention.

2.2 Safety instructions for working on the pedelec

- Before carrying out any work on the pedelec (inspection, repair, assembly, maintenance, work on the chain etc.), ensure that the FLYON drive system is no longer supplied with power:
 - ▶ Turn off the system on the remote (see section 5.1.2 on page 32) and wait until the Haibike HMI & System Control goes out.
 - ▶ Remove the battery from the pedelec (see section 4.1 on page 24).
 - ▶ Cover the contacts on the battery with insulating tape.

Otherwise, the following dangers exist:

- The drive may start up in an uncontrolled manner and cause serious injury, e.g. crushing, clamping or shearing of the hands.
- An arc may form if the battery is removed from the down tube while the system is on.
- The battery may be damaged during assembly.

2.3 Safety instructions for the Haibike drive unit

- Do not make any changes to the Haibike drive unit that affect the performance or maximum supported speed of your drive. You will be endangering yourself and others and may be breaking the law. It also voids the warranty.
- The pushing aid may only be used to push the pedelec. Make sure that both of the pedelec's wheels are touching the ground. Otherwise, there is the risk of injury!
- When the pushing aid is activated, make sure that your legs are at a safe distance from the pedals. Otherwise, there is a risk of injury from the rotating pedals.
- The Haibike drive unit can heat up during operation, depending on the load. Make sure the drive has cooled down before touching it. Otherwise, there is a risk of burns.

NOTE

- The housing of the Haibike drive unit must not be opened.
- The warranty period expires automatically when the housing of the Haibike drive unit is opened or when the seal on the drive is damaged (see No. 2 in Fig. 2 on page 12).
- The Haibike drive unit may only be removed and installed by a specialist workshop.

2.4 Safety instructions for the Haibike Intube battery 630 Wh

- Risk of explosion and fire if the battery housing is damaged
 - Be sure to replace batteries that have damaged housings, even if the battery is still functioning.
 - Do not attempt to repair the battery.
 - Never open the battery housing.
- Risk of explosion and fire if the battery terminals are short-circuited
 - Avoid the risk of accidental short circuits between the battery terminals by insulating them with insulating tape.
 - Never connect the battery terminals directly to an electrical conductor.
- Risk of explosion and fire if exposed to extreme heat or water
 - Avoid excessive heating of the battery, e.g. due to prolonged exposure to direct sunlight.
 - Do not allow the battery to come into contact with water.
- Short circuit hazard – contact plug between battery and wiring harness
The contact plug between the battery and the wiring harness is magnetic. When replacing the battery, make sure that no metal chips or other metallic parts (screws, etc.) get into the down tube.
- Danger of suffocation due to smouldering, smoke formation and short-circuiting during charging
Only charge the battery in well-ventilated rooms.

Handling a damaged battery

- Danger of poisoning from gases produced by a smoking or burning battery
 - Place the damaged battery in a metal box filled with sand and cover the battery with sand.
 - Place the metal box in a dry outdoor location.
 - Take care not to inhale the highly toxic gases emitted by a smoking or burning battery.
- Risk of injury from damaged batteries
 - Place the damaged batteries in a metal box filled with sand and cover the batteries with sand.
 - Place the metal box in a dry outdoor location.

2.5 Safety instructions for the charger

- The Haibike Battery Charger 4A may be used by children 8 years of age and older and by people with reduced physical, sensory or mental abilities or lack of experience and knowledge if they have been supervised or instructed in the safe use of the device and understand the resulting hazards. Do not allow children to play with the device.
- Only use the Haibike Battery Charger 4A / 10A to charge the battery.
- Do not operate the charger with a damaged cable or plug. Otherwise there is a risk of electric shock.
- Make sure that the cables are not rolled up during the charging process.
- Observe the safety instructions enclosed with the charger documentation.

2.6 Safety instructions for using Bluetooth

- Do not use Bluetooth technology in areas where the use of electronic devices with wireless technologies is prohibited, such as hospitals or medical facilities. Otherwise, medical devices such as pacemakers may be disrupted by radio waves and endanger patients.
- People with medical devices such as pacemakers or defibrillators should check with their manufacturers in advance that Bluetooth technology does not interfere with the function of the medical devices.
- Do not use Bluetooth technology near devices with automatic control systems, such as automatic doors or fire alarms. Otherwise, the radio waves may affect the devices and cause an accident due to a possible malfunction or accidental operation.

2.7 Safety instructions when riding

- Risk of injury from falling when starting in low gears with high torque
 - Always wear a suitable helmet each time you ride.
 - When starting off, consider the potentially high torque of the drive.
 - Select a suitable gear ratio or pedal assistance to start off in order to avoid the risk of a wheelie (front wheel lifts off) or rollover.
- Danger of burns from the heating of the Haibike drive unit

The Haibike drive unit can heat up during operation, depending on the load. Make sure the drive has cooled down before touching it. Otherwise, there is a risk of burns.

2.8 Warning signs on the Haibike drive system

There are warning signs on various components of the Haibike drive system – such as the drive unit, Haibike Intube battery or Haibike The Battery Charger – that contain important information for safe and proper operation.

- ▶ Ensure that the warning signs are always clearly visible and never remove them from the product.

3 SPECIFICATIONS

3.1 Haibike drive unit

3.1.1 Electrical connection values

Nominal voltage	48 V DC
Continuous rated power	250 W
Peak motor power	950 W

Tab. 3: *Electrical connection values*

3.1.2 Mechanical data

Dimensions	
— Diameter	144 mm
— Width over the bottom bracket spindle	147 mm
Weight	3.9 kg
Torque	120 Nm
Maximum revolution speed	119 rpm
Degree of protection	IP67

Tab. 4: *Mechanical data*

3.1.3 Environmental conditions

Operating temperature	-20°C to +55°C
Storage temperature	-20°C to +60°C

Tab. 5: *Environmental conditions*

3.2 Haibike Remote

Housing colour	Black
Supply voltage	3.3 V DC
Operating temperature	-20°C to +55°C
Storage temperature	-20°C to +60°C

Tab. 6: Specifications – Haibike Remote

3.3 Haibike HMI & System Control

Characteristic data	<ul style="list-style-type: none"> — Transflective display with 16-bit colour depth (RGB565) — Resolution QVGA (240x320), portrait format — Pixel grid 0.2235x0.2235 mm — 32kB video RAM — LED backlight
Housing colour	Black
Supply voltage	24 V DC
Degree of protection	IP67
Operating temperature	-20°C to +55°C
Storage temperature	-20°C to +60°C

Tab. 7: Specifications – Haibike HMI & System Control

3.4 Haibike Intube battery 630 Wh

Nominal voltage	48 V DC
Capacity	630 Wh
Operating temperature	-20°C to +55°C
Charging temperature	-2°C to +62°C
Degree of protection	IP67

Tab. 8: Specifications – Haibike Intube battery 630 Wh

3.5 Speed Sensor

Degree of protection	IP67
Operating temperature	-20°C to +55°C
Storage temperature	-20°C to +60°C
Tightening torque	5 Nm
Cable bending radius	> 25 mm
Cable length	500 mm

Tab. 9: Specifications – Speed-Sensor

4 HANDLING THE HAIBIKE INTUBE BATTERY 630 WH

4.1 Removing the battery

4.1.1 Removing the SkidPlate and unlocking the battery lock

To remove the battery, you must remove the SkidPlate (No. 1 in Fig. 8).

- ▶ Press the catch spring (No. 1 in Fig. 9) in the direction of the front wheel to unlock the SkidPlate.

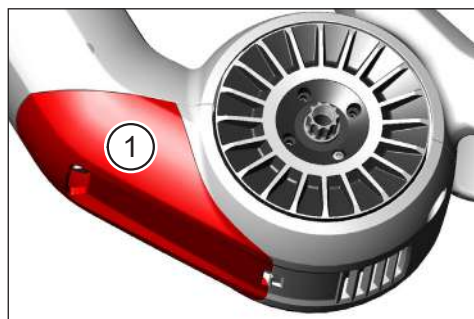


Fig. 8: Location of the SkidPlate

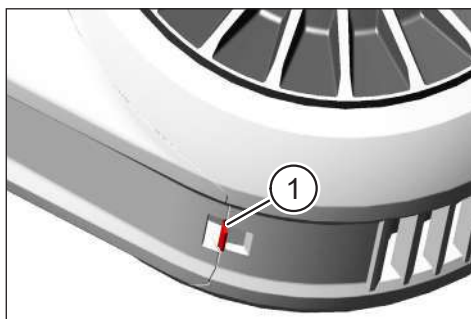


Fig. 9: Catch spring on SkidPlate

- ▶ Swing the SkidPlate slightly downwards (see No. 1 in Fig. 10).
- ▶ Pull off the SkidPlate.
- ▶ Unlock the battery lock (No. 1 in Fig. 11) by turning the key (No. 2 in Fig. 11) clockwise as far as it will go.



Fig. 10: Removing the SkidPlate

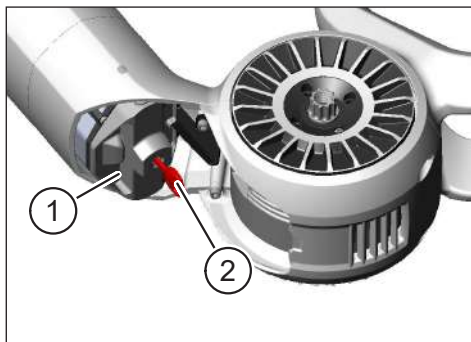


Fig. 11: Unlocking the battery lock

4.1.2 Removing the battery lock and battery

- ▶ Remove the battery lock (see No. 1 in Fig. 12).

NOTE

At the same time, hold the battery (see No. 2 in Fig. 12) with one hand to ensure that it does not fall out of the down tube.

- ▶ Use the recessed grip to pull the battery (No. 1 in Fig. 13) out of the down tube (No. 2 in Fig. 13).

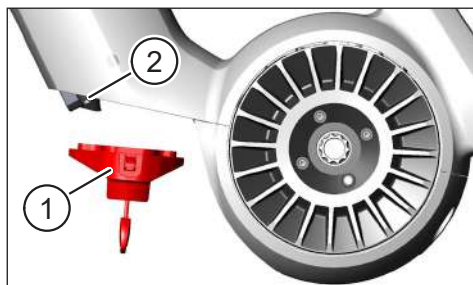


Fig. 12: Removing the battery lock

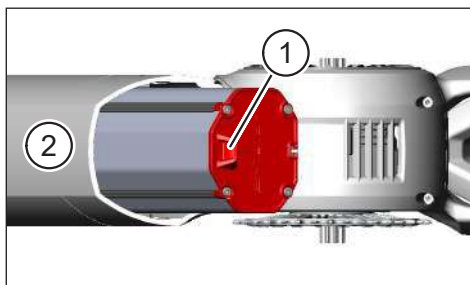


Fig. 13: Removing the battery from the down tube

4.2 Inserting the battery

4.2.1 Aligning the battery and inserting it into the down tube

- ▶ Align the battery (No. 1 in Fig. 14) so that the groove (No. 2 in Fig. 14) in the battery is aligned with the guide in the down tube.
- ▶ Insert the battery into the down tube (see Fig. 15).

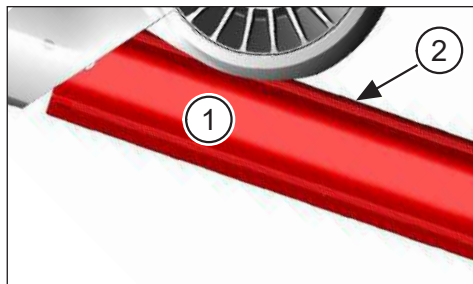


Fig. 14: Aligning the battery

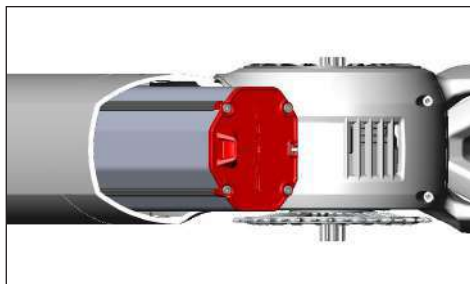


Fig. 15: Inserting the battery into the down tube

4.2.2 Inserting and locking the battery lock

NOTE

- Make sure that the battery is pushed into the down tube as far as it will go.
- While inserting the battery lock: At the same time, hold the battery with one hand to ensure that it does not fall out of the down tube.

- ▶ Align the battery lock (No. 1 in Fig. 16) so that the opening provided (No. 2 in Fig. 16) is aligned with the recessed grip (No. 3 in Fig. 16) on the battery.
- ▶ Place the battery lock on the lower end of the battery (see No. 1 in Fig. 17).
- ▶ Press the battery lock against the battery until it audibly engages.
- ▶ Turn the key (see No. 2 in Fig. 17) anticlockwise as far as it will go.

NOTE

- ▶ Check that the battery lock is securely engaged and that the battery is locked in place.

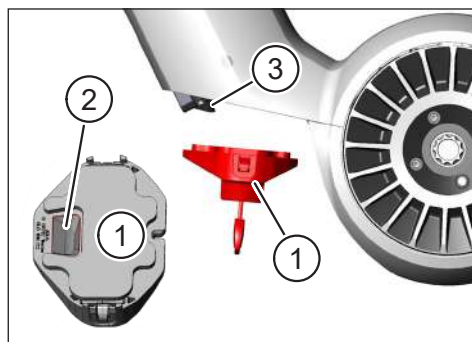


Fig. 16: Aligning the battery lock

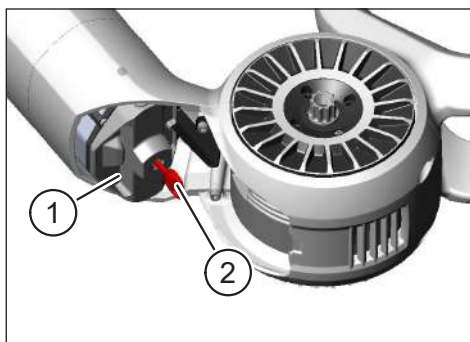


Fig. 17: Locking the battery lock

4.2.3 Using the SkidPlate

- ▶ Insert the SkidPlate (No. 1 in Fig. 18) into the down tube (No. 2 in Fig. 18).
- ▶ Make sure that the lugs (No. 1 in Fig. 19) of the SkidPlate slide into the holders on the down tube.

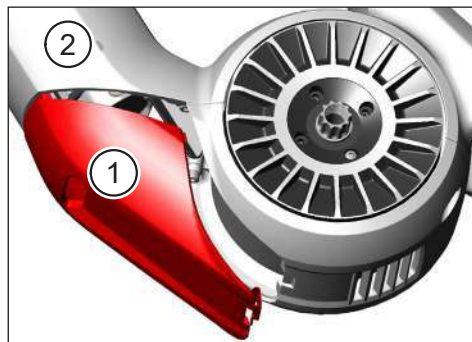


Fig. 18: Inserting the SkidPlate into the down tube



Fig. 19: Lugs on the SkidPlate

- ▶ Press the SkidPlate (No. 1 in Fig. 21) firmly in place at the lower end (see No. 2 in Fig. 21). The catch spring (No. 1 in Fig. 20) must engage audibly.

NOTE

- ▶ Check that the catch spring is correctly engaged. Otherwise, the SkidPlate may become detached while the bicycle is in use.

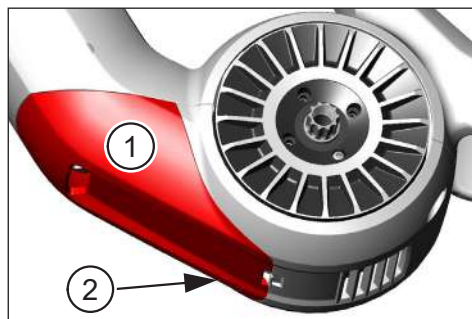


Fig. 21: Pressing the SkidPlate

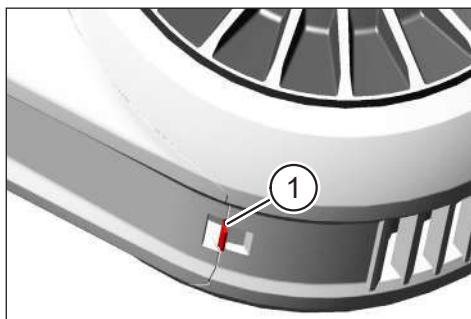


Fig. 20: Catch spring on SkidPlate

4.3 Charging the battery

4.3.1 Charging the battery via the charging port in the bicycle frame or when removed.

There are two ways to charge the battery:

- If the battery is installed in the down tube, you can charge it via the charging port in the bicycle frame (see Fig. 22).
- If the battery has been removed from the down tube, it can be connected directly to the charger (Fig. 23).

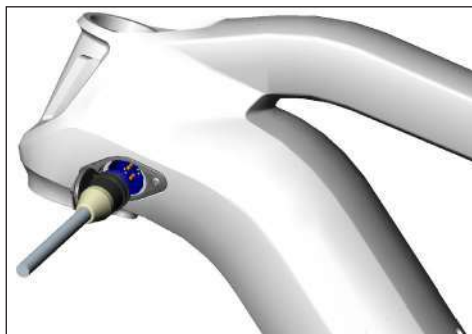


Fig. 22: Charging the battery via the charging port in the bicycle frame



Fig. 23: Charging the battery when removed

NOTE

- The connections on the charger, charging port and battery have reverse polarity protection. Observe the connector coding (No. 1 and No. 2 in Fig. 24) when connecting the charger.
- Please note that you can only charge the battery in a temperature range between -2°C and $+62^{\circ}\text{C}$.
- Low temperatures reduce the volume of the battery cells. Therefore, it may not be possible to achieve a battery level of 100%.

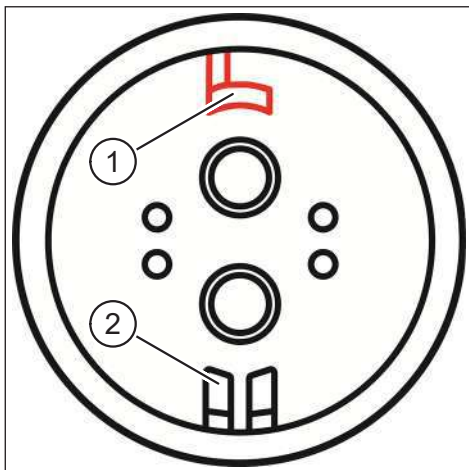


Fig. 24: Connector coding

4.3.2 Battery level indicators

4.3.2.1 Haibike HMI & System Control

The current charging progress is displayed numerically (No. 1 in Fig. 25) and graphically (No. 2 in Fig. 25) on the Haibike HMI & System Control. The expected remaining charging time is also displayed (No. 3 in Fig. 25).

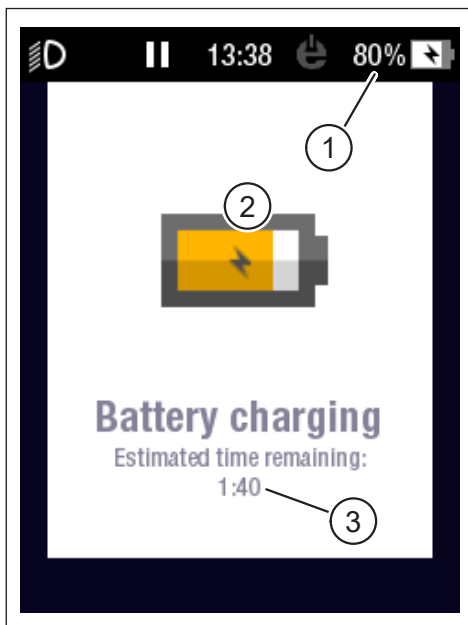


Fig. 25: Battery level indicator on the Haibike HMI & System Control

4.3.2.2 Haibike Intube battery 630 Wh

During charging, five green LEDs (No. 1 in Fig. 26) indicate the charging level of the battery in 20% increments. When the battery is fully charged, the LEDs go out.

If the battery is not currently charged, the battery level can be checked by pressing the button (No. 2 in Fig. 26) next to the LEDs.

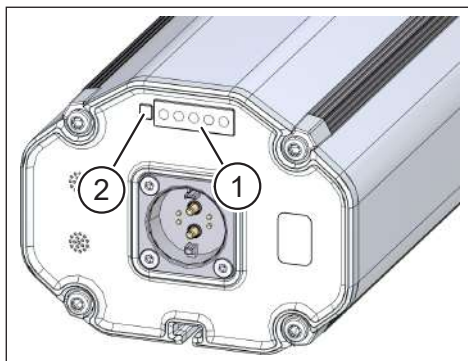


Fig. 26: Battery level indicator on the Haibike Intube battery 630 Wh

4.3.2.3 Haibike The Battery Charger 4A

The charger has a green LED (No. 1 in Fig. 27) and a red LED (No. 2 in Fig. 27) to indicate the operating states (see Tab. 10).

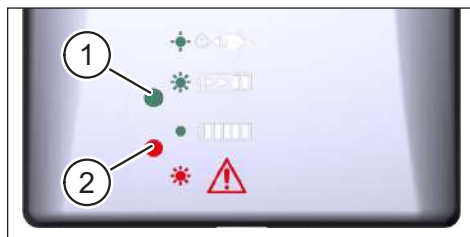






Fig. 27: Green and red LED on Haibike The Battery Charger 4A

Haibike The Battery Charger 4A	Status
	Charger on standby
	Battery charging
	Battery fully charged
	Error

Tab. 10: Operating states of the Haibike The Battery Charger 4A

5 CONTROL AND INDICATOR ELEMENTS

5.1 Haibike Remote

5.1.1 Overview

The Haibike Remote forms the central interface between the rider and the FLYON drive system.

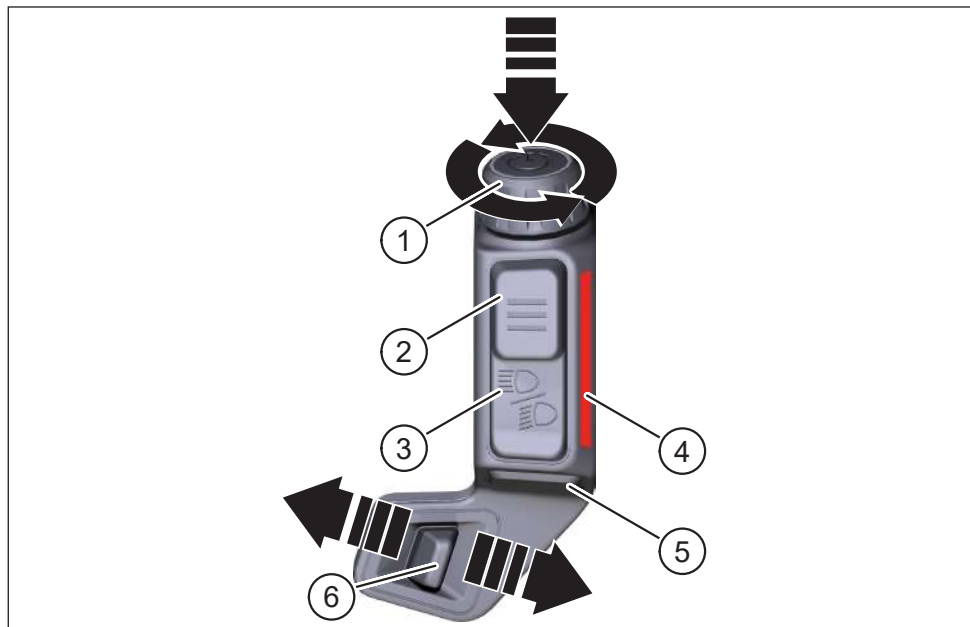












Fig. 28: Haibike Remote

No. in Fig. 28	Designation
1	Knob with push button
2	Menu button
3	Light sensor
4	LED light strip, indicates selected assistance level
5	Pushing aid button
6	Mode switch

5.1.2 Functions

Control element	Action	Function
Knob with push button (No. 1 in Fig. 28 on page 31)	 > 1 s	Turn drive system on/off
	 < 1 s	<ul style="list-style-type: none"> — Confirm a selection in the menu — Reset average and maximum values (only on “Averages” [see section 5.2.2.4 on page 39] and “Maximum” screens [see section 5.2.2.5 on page 40])
		<ul style="list-style-type: none"> — Switch to next screen (see section 5.2.2 on page 35) — Select next menu item
		<ul style="list-style-type: none"> — Switch to previous screen (see section 5.2.2 on page 35) — Select previous menu item
Menu button (No. 2 in Fig. 28 on page 31)	 < 1 s	<ul style="list-style-type: none"> — Open/close information menu (see section 5.2.3 on page 41), only possible at speeds <5 km/h — Exit current menu level = back
Light sensor (No. 3 in Fig. 28 on page 31)	 < 1 s	Only if the headlight offers the function: Switch between low beam and high beam
	 > 1 s	Turn light on/off
LED light strip (No. 4 in Fig. 28 on page 31)	–	Colour-coded indication of the currently selected assistance level, colour display corresponds to the colour in the Haibike HMI& System Control
Pushing aid button (No. 5 in Fig. 28 on page 31)		Only with WALK assistance level selected: Press and hold button to activate pushing aid
Mode switch (No. 6 in Fig. 28 on page 31)		Switch between assistance levels: WALK ↔ OFF ↔ ECO ↔ LOW ↔ MID ↔ HIGH ↔ XTREME
		

Tab. 11: Overview of the control and indicator elements on the Haibike Remote

5.2 Haibike HMI & System Control

The Haibike HMI & System Control is a transfective colour display centrally positioned above the stem that is easy to read in every situation. Current riding data and system information are displayed on five changeable screens. It is also possible to display and analyse training-relevant data such as pulse measurement, cadence or calorie consumption.

The colour scheme of the information displayed adapts to the currently selected assistance level.



Fig. 29: Haibike HMI & System Control

5.2.1 Structure of the display

The display is divided into three sections:

- Status bar (No. 1 in Fig. 30)
- Currently selected screen (No. 2 in Fig. 30)
- Information bar (No. 3 in Fig. 30)

The contents displayed in the status and information bar are independent of the currently selected screen.

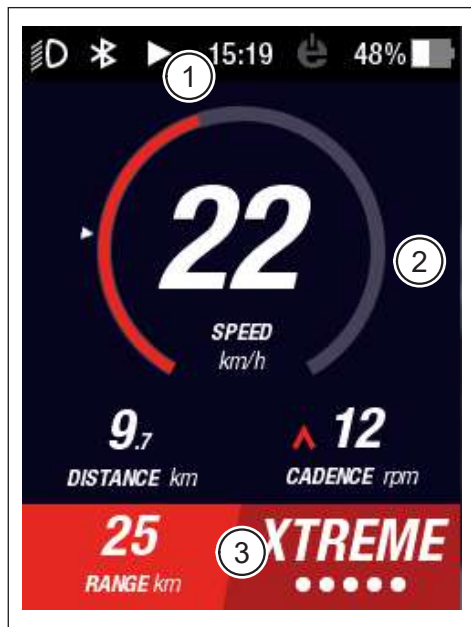














Fig. 30: Structure of the display with three sections

5.2.1.1 Symbols in the status bar

The symbols in the status bar (No. 1 in Fig. 30 on page 33) have the following meaning:

Symbol	Description
	Low beam switched on
	Only for Skybeamer 5000: High beam switched on
	Bluetooth enabled
	Ride recording in progress
	Ride recording paused
	Ride recording finished
	Time in 12/24-hour format (depending on setting)
	eConnect: no GSM/GPS connection
	eConnect: GPS connection only
	eConnect: GSM connection only
	eConnect: GSM and GPS connection
	Colour-coded battery level indicator (alphanumeric and graphic)

Tab. 12: Symbols in the status bar

5.2.1.2 Information bar

The information bar (No. 3 in Fig. 30 on page 33) displays the following contents:

- Estimated remaining range in km
- Currently selected assistance level (see section 5.2.4 on page 44)

5.2.2 Screens

A total of five screens are available, which contain information designed for different purposes. You can switch between the individual screens by turning the knob on the Remote (No. 1 in Fig. 28 on page 31) clockwise or anticlockwise. Future updates may cause the displayed screens to differ.

Special symbols and representations

- A white arrow (No. 1 in Fig. 32) next to a scale represents the average value of the displayed parameter.
- The red symbol pointing up or down next to the cadence indicator (No. 2 in Fig. 32) indicates to the rider whether the cadence should be increased or decreased to operate the motor in a more efficient speed range.
- The current screen is shaded when ride recording is paused (see Fig. 31).



Fig. 32: Arrow on scale to indicate average value

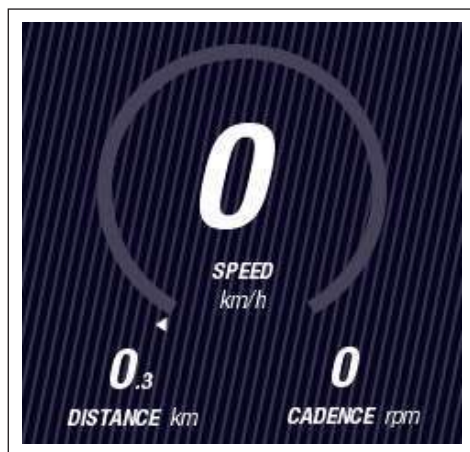


Fig. 31: Screen with shading

5.2.2.1 Dynamic

The Dynamic screen displays the following information:

No. in Fig. 33	Designation
1	Travelling speed, arrow on scale indicates average value
2	Distance travelled (resettable)
3	Current cadence with gear-shift recommendation

No. in Fig. 34	Designation
1	Dynamic travelling speed at high speeds (selectable from 25, 30 or 35 km/h)



Fig. 33: Dynamic screen

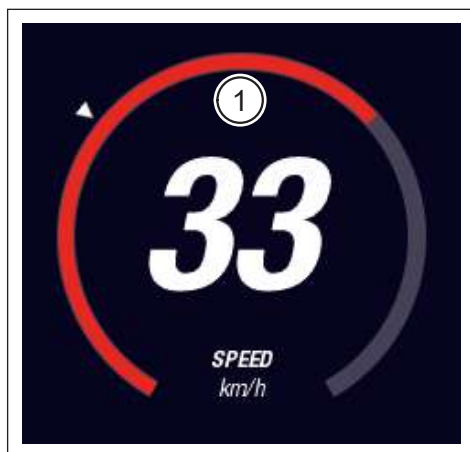


Fig. 34: Dynamic screen at high speeds

5.2.2.2 Training

The Training screen displays the following information:

No. in Fig. 35	Designation
1	Travelling speed
2	Current motor power
3	Ride time (resettable)
4	Current rider power
5	Distance travelled (resettable)
6	Current cadence with gear-shift recommendation

No. in Fig. 36	Designation
7	Calorie consumption, only if a profile was created (resettable)
8	Current heart rate, only if a heart rate monitor is connected via Bluetooth

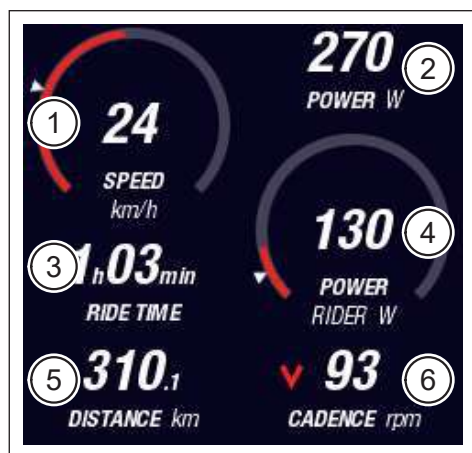


Fig. 35: Training screen without profile and heart rate monitor



Fig. 36: Training screen with profile and heart rate monitor

5.2.2.3 Performance

The Performance screen displays the following information:

No. in Fig. 37	Designation
1	Travelling speed
2	Current motor power
3	Current motor torque
4	Current rider torque
5	Distance travelled (resettable)
6	Current cadence with gear-shift recommendation

No. in Fig. 38	Designation
7	Current heart rate, only if a heart rate monitor is connected via Bluetooth

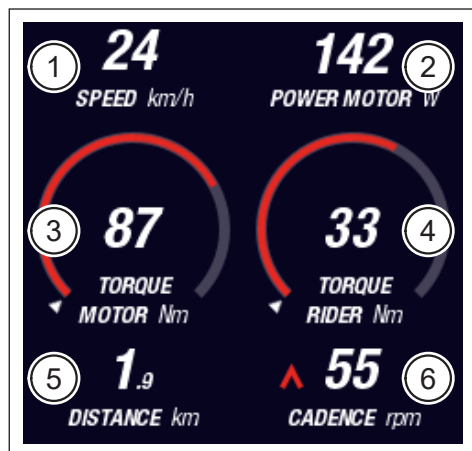


Fig. 37: Performance screen without heart rate monitor

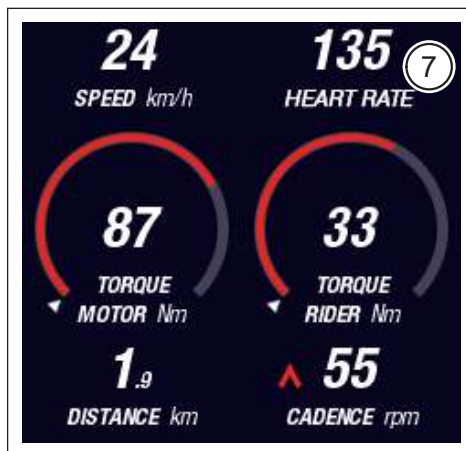


Fig. 38: Performance screen without heart rate monitor

5.2.2.4 Averages

The Averages screen displays the following information:

No. in Fig. 39	Designation
1	Average speed (resettable)
2	Average motor power (resettable)
3	Average motor torque (resettable)
4	Average rider torque (resettable)
5	Ride time (resettable)
6	Average rider power (resettable)
7	Distance travelled (resettable)
8	Average cadence (resettable)

No. in Fig. 40	Designation
9	Average heart rate, only if a heart rate monitor is connected via Bluetooth (resettable)

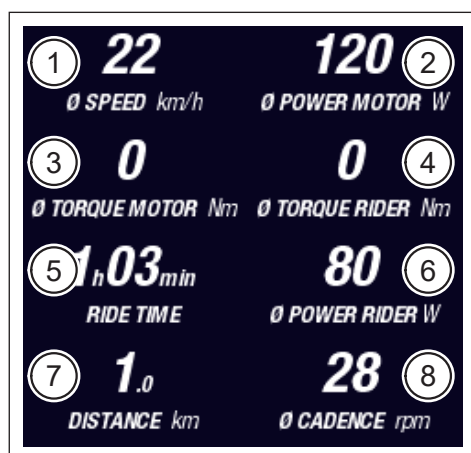


Fig. 39: Averages screen without heart rate monitor

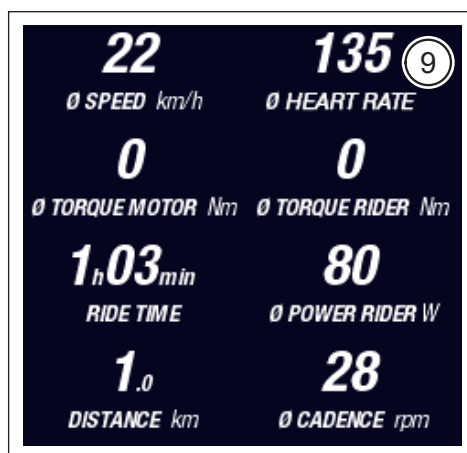


Fig. 40: Averages screen with heart rate monitor

5.2.2.5 Maximum

The Maximum screen displays the following information:

No. in Fig. 41	Designation
1	Maximum speed (resettable)
2	Maximum motor power (resettable)
3	Maximum motor torque (resettable)
4	Maximum rider torque (resettable)
5	Operating hours
6	Maximum rider power (resettable)
7	Total distance
8	Maximum cadence (resettable)

No. in Fig. 42	Designation
9	Maximum heart rate, only if a heart rate monitor is connected via Bluetooth (resettable)

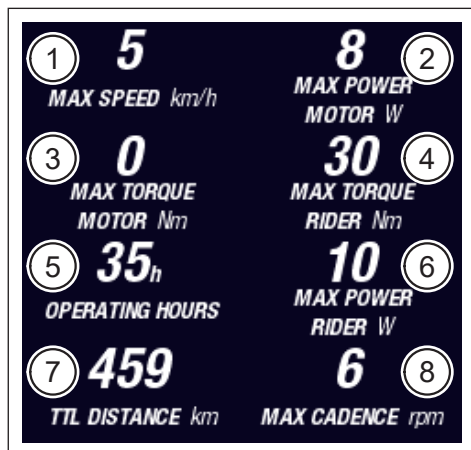


Fig. 41: Maximum screen without heart rate monitor

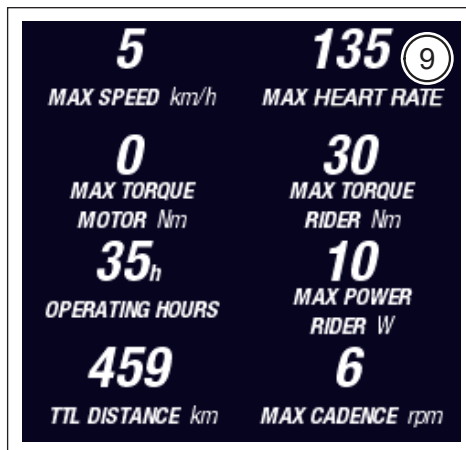


Fig. 42: Maximum screen with heart rate monitor

5.2.3 Information menu

By pressing the menu button (No. 2 in Fig. 28 on page 31) on the Remote, the information menu (see Fig. 43) can be opened (only possible at speeds below 5 km/h). This covers the currently selected screen.

You can navigate through the menus by turning the knob on the Remote (No. 1 in Fig. 28 on page 31) clockwise or anticlockwise. Press the knob to activate the corresponding selection or switch to the selected submenu.

Press the menu button on the Remote again to leave the current menu level or close the information menu.

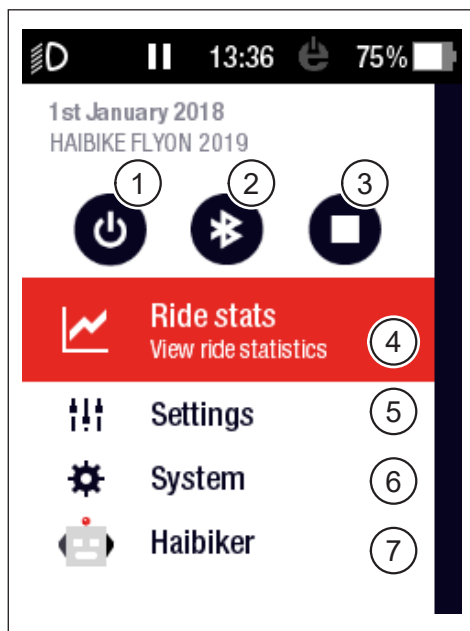


Fig. 43: Information menu

The following functions and menu items are available for selection:

No. in Fig. 43	Description
1	Turn off drive system
2	Activate/deactivate Bluetooth
3	Start/end ride recording
4	Open the “Ride statistics” menu (see section 5.2.3.1 on page 42)
5	Open “Settings” menu (see section 5.2.3.2 on page 42)
6	Open “System” menu (see section 5.2.3.3 on page 43)
7	Open “Haibiker” menu (= profile) (see section 5.2.3.4 on page 44)

5.2.3.1 “Ride statistics” menu

Accessible via: “Information menu” → “Ride statistics”

The “Ride statistics” menu contains an overview of all of the recorded rides with the date, distance travelled and ride time.

When a particular ride is selected, further details such as time and performance data are displayed. Recorded rides can also be deleted or combined with subsequent rides.

5.2.3.2 “Settings” menu

Accessible via: “Information menu” → “Settings”

In the “Settings” menu, you can configure your pedelec however you like. The options that can be set are categorised in the following submenus:

- “Screens”
- “Defaults”
- “Notifications”
- “General”

In addition, the pedelec configuration can be reset to the factory settings with the menu item “Factory Reset”.

“Views” submenu

Accessible via: “Information menu” → “Settings” → “Views”

In the “Views” submenu, you can choose which screens (see section 5.2.2 on page 35) can be selected. The “Training”, “Performance”, “Averages” and “Maximum” screens are available for selection. The “Dynamic” screen cannot be deactivated.

“Preferences” submenu

Accessible via: “Information menu” → “Settings” → “Preferences”

In the “Preferences” submenu, options are available in the following categories:

- “Ride pause and end”

This menu item allows you to configure the details of the ride recording. This allows you to select whether active ride recording is automatically paused when you come to a standstill and to define when a ride recording is stopped.
- “Lock screen”

In this menu item, you can enter a 4-digit lock code and deactivate it if necessary (code = “OFF”). You can also select whether the code must be

entered again when the drive system is started up or after a certain standby time. Operation of the drive system remains disabled until the correct code has been entered.

— “Dynamic screen”

In this menu item, you can define the speed from which the tacho display in the “Dynamic” screen occupies the entire screen area (see Fig. 34 on page 36).

— “Lighting”

In this menu item, you can select whether the light is automatically activated and deactivated depending on the ambient brightness.

You can also make settings for the daytime cycling light.

“Notifications” submenu

Accessible via: “Information menu” → “Settings” → “Notifications”

In this submenu, you can select whether an acoustic signal sounds when notifications are received or when the assistance level is changed. You can also set whether a warning is issued when the battery level drops below 20%.

“General” submenu

Accessible via: “Information menu” → “Settings” → “General”

You can make the following settings in this submenu:

- Select the user interface language
- Enter the current date and specify the format of the date display
- Enter the current time and specify the format of time display
- Display units in metric or imperial measurements

5.2.3.3 “System” menu

Accessible via: “Information menu” → “System”

The “System” menu contains detailed information (serial number, software version, charging cycles, etc.) on the individual components of the drive system.

You can also use the “Bluetooth devices” submenu to connect accessories such as heart rate monitors to the pedelec via Bluetooth and determine whether paired Bluetooth devices are automatically connected.

5.2.3.4 “Haibiker” menu (= profile)

Accessible via: “Information menu” → “Haibiker”

In the “Haibiker” menu, you can create the profile with your personal data such as name, weight and height to personalise your pedelec. You can also select a profile picture and delete the profile.

The profile data must be entered in order to calculate the calories consumed (see “Training” screen in 5.2.2.2 on page 37).

5.2.4 Assistance levels

With the mode switch on the Haibike Remote (No. 6 in Fig. 28 on page 31), you can choose between the different assistance levels. The currently selected assistance level is displayed on the information bar on the Haibike HMI & System Control together with the estimated remaining range in km (RANGE).

5.2.5 Activate pushing aid

- ▶ Use the mode switch on the Haibike Remote (No. 6 in Fig. 28 on page 31) to select the assistance level “WALK”.
- ▶ Hold down the pushing aid button (No. 5 in Fig. 28 on page 31) to activate the pushing aid.

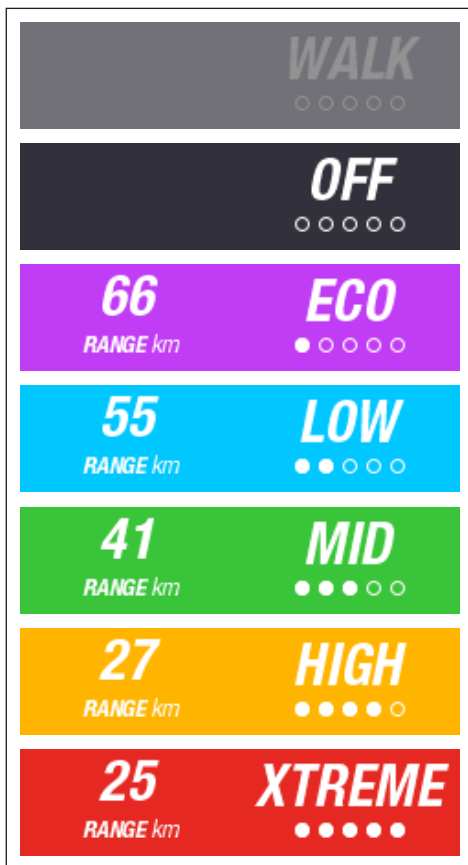


Fig. 44: Assistance levels

6 START-UP

6.1 Inserting and charging the Haibike Intube battery 630 Wh

- ▶ Install the battery in the down tube of the pedelec (see section 4.2 on page 25).
- ▶ Charge the battery (see section 4.3 on page 28).

6.2 Starting up and configuring the FLYON drive system

- ▶ Start up the drive with a longer press (> 1 s) of the knob on the Haibike Remote (see section 5.1.2 on page 32).
After the drive system is started up for the **first** time, a short video sequence (see Fig. 45) about the main functions of the Remote appears on the Haibike HMI & System Control.
- ▶ In the next step, select your preferred language for the user interface (see Fig. 46).



Fig. 45: Video sequence for operation with the Haibike Remote

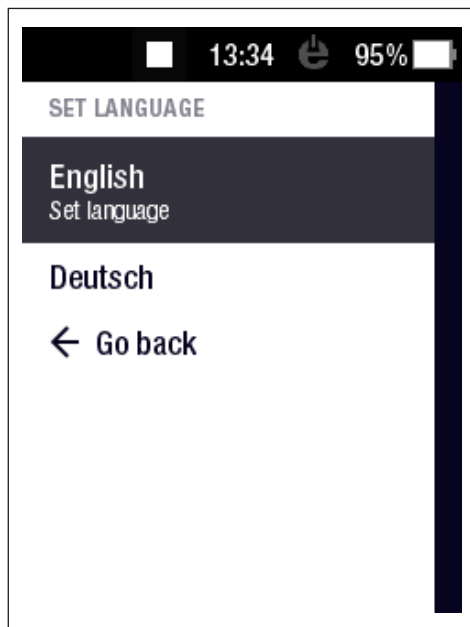


Fig. 46: Selecting language for user interface

- ▶ Create a profile with your data (profile picture, name, gender, height, weight and birthday) to personalise your pedelec (see Fig. 47 and Fig. 48). If you wish, you can skip this step and complete it later.

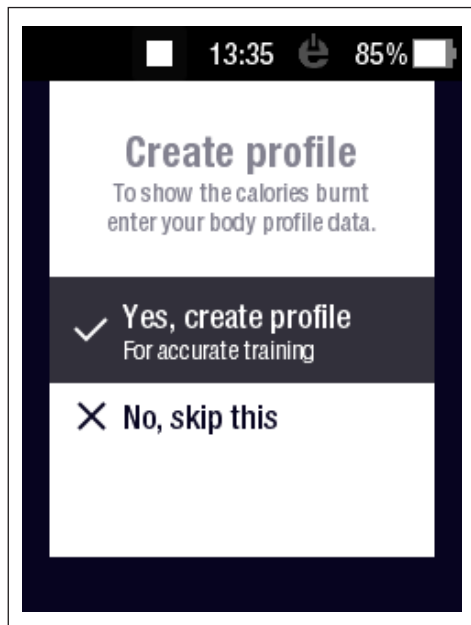


Fig. 47: Creating profile

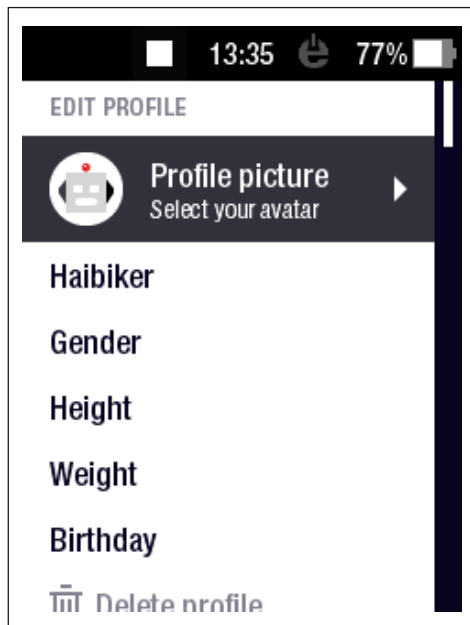


Fig. 48: Data input for profile

This concludes the configuration of the FLYON drive system. The standard screen appears on the Haibike HMI & System Control (see section 5.2.1 on page 33).

6.3 Important information for the first rides

6.3.1 Getting to know pedelecs

NOTE

When starting up the FLYON drive system, do not place your feet on the pedals. If you do, a “Sensor” message will appear on the Haibike HMI & System Control.

- ▶ Start up the FLYON drive system first before sitting on the pedelec.

CAUTION

Risk of injury

Initially practice using the pedelec and its functions in assistance level OFF. Then gradually increase the assistance level.

6.3.2 Configuring the Haibike Intube battery 630 Wh

- The battery must be configured once in order to calibrate the battery level.
 - ▶ Initially charge the battery once to a battery level of 100%.
- Thanks to its precise manufacture, the Haibike HPR 120S drive unit is configured to achieve optimum efficiency within 5-10 battery charges.
- The remaining range display adapts to your riding style. After a few battery charges, the system is configured so that the remaining range is displayed according to your riding behaviour.

7 STORAGE

7.1 Pedelec

Do not permanently expose the pedelec to extreme weather conditions if you store it for an extended period of time.

7.2 Haibike Intube battery 630 Wh

Store the Haibike Intube battery 630 Wh in a dry place at a room temperature of approximately 20°C. Avoid very low or very high temperatures. Otherwise, you will shorten the battery life.

If you are storing the pedelec for an extended period of time, store the battery at a battery level of 50 - 60%.

NOTE

Observe the safety instructions in section 2.4 on page 18.

8 CLEANING

8.1 General information

- The components of the FLYON drive system must not be cleaned with a high-pressure cleaner.
- Before cleaning the pedelec, check that the cover (No. 1 in Fig. 49) on the charging port in the bicycle frame is closed and engaged.
- After cleaning, check that the charging port (No. 2 in Fig. 49) in the bicycle frame is dry. If there are drops of water on the contacts in the charging port, it may not be possible to start up the pedelec.

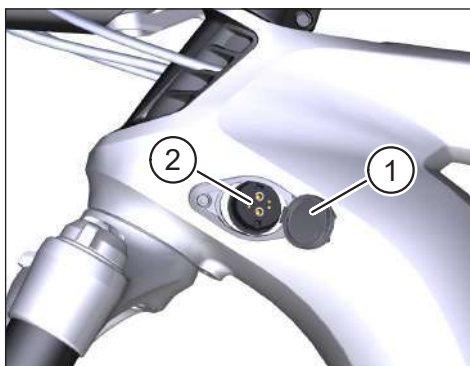


Fig. 49: Charging port in the bicycle frame

8.2 Ventilation valves with membranes

NOTE

The following components have ventilation valves with membranes:

- Haibike drive unit
- Haibike HMI & System Control
- Haibike Remote

The moisture is expelled via the membranes (No. 1 in Fig. 50, Fig. 51, and Fig. 52).

Under no circumstances should these membranes be punctured!

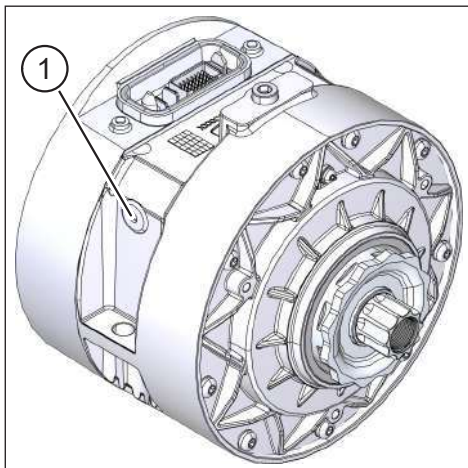


Fig. 50: Ventilation valve with membrane on the Haibike drive unit

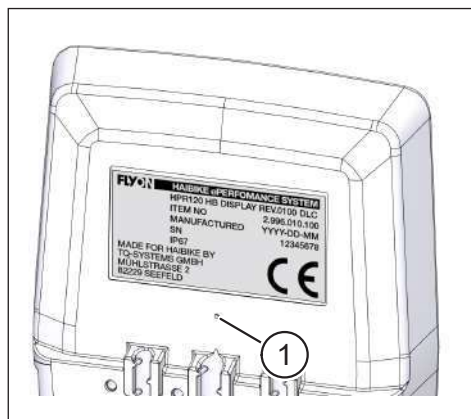


Fig. 51: Ventilation valve with membrane on the Haibike HMI & System Control

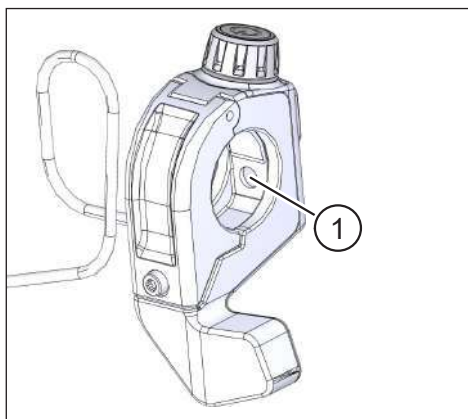


Fig. 52: Ventilation valve with membrane on the Haibike Remote

9 TROUBLESHOOTING

Error messages are issued with instructions on the Haibike HMI & System Control.

NOTE

If a critical error is displayed, please contact your dealer.

9.1 General errors

- The FLYON drive system cannot be started up after cleaning.
 - ▶ Check the charging port for moisture and dry it.
- The message “Charging” appears while the bicycle is in use.
 - ▶ Turn off the FLYON drive system, check the charging port for moisture and dry it.
- The following message is displayed: “The motor power is reduced because the Speed Sensor indicates a problem.”
 - ▶ Please check the Speed Sensor Disc and the Speed Sensor. The Speed Sensor should be at least 0.7 mm from the Speed Sensor Disc.

9.2 Error IDs

The following errors may occur and are displayed on the Haibike HMI & System Control:

Error ID	Error group	Possible cause	Solution by rider
73	SENSOR	Force applied to pedals at system start-up	Start up the FLYON drive system first before sitting on the pedelec.
75	RETURN	Battery timeout	Reinsert the battery and check that the battery lock is seated correctly.
88	BATTERY	Faulty charger	Replace the charger.
117	BATTERY	Battery error	Check that the battery and battery lock are seated correctly.

Tab. 13: Error IDs

Space for notes

HAIBIKE

We have checked the contents of this publication for conformity with the product described. Nevertheless, deviations cannot be excluded, so we do not assume any liability for complete conformity and correctness.

The information in this publication is checked regularly and necessary corrections are included in subsequent editions.

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