Instruction manual for pedal-assist bicycle

Introduction

Thank you for choosing our product. Before using the bicycle, we recommend that you read the "Usage and Maintenance" booklet provided to you as well as this specific EPAC booklet very carefully. The latter contains all the specific technical and safety information for the electrical components; you can find all the necessary information relating to the mechanical parts in the Usage and Maintenance Booklet.

Regulatory Requirements

Meets European Directive 2001/95/EC
Commission Decision 2015/681/EC
Meets international standard
EN ISO 4210 (1 to 9):2014
EPAC is the acronym adopted by European Standard UNI EN15194:2012: “Electrically Power Assisted Cycle”

The functional characteristics of EPACs required by Italian and European regulations are:

- The electric motor provides assistance only when the cyclist is pedalling in a forward direction
- The assistance stops when the cyclist stops pedalling in a forward direction

- The assistance gradually decreases and eventually stops when the vehicle reaches the maximum speed of 25 km/h

Before using your bicycle

- Before using your EPAC, carefully examine all its parts and components using the manual that you will find attached to your bicycle for reference.
- Specifically, please ensure that:
    a) the tyres are inflated to the correct level
    b) the brakes work properly
    c) the various screws and bolts are sufficiently tight
    d) the saddle and handlebars are adjusted as necessary
    e) the lights work properly
    f) the battery is positioned correctly in the housing provided and is fixed to the frame using the safety lock
    g) the battery is charged
- If you have any doubts or issues, please contact your dealer.
- While using your EPAC, we strongly recommend that you comply with the traffic laws of the country in which you are located.

- We advise you not to carry out any maintenance work on parts or components, nor to dismantle them, particularly
  the electrical parts. Should this be necessary, you are advised to consult your dealer.
- Original spare parts must be used.
- It is dangerous to cycle through deep puddles, which may form on the roadway in the event of heavy rain. Water may enter the engine/hub or other electrical components, causing short circuits and irreparable damage.
- Do not touch electrical contacts. Do not allow
  metal parts of terminals to come into contact; this will avoid electrical discharges that could cause burns and/or damage to the battery or other electrical parts.

Quick-Start Guide to use your electric pedal-assist bicycle immediately

The bike is supplied with the battery not fully charged. You must therefore charge the battery first.

Charge the battery for the first time using the charger provided. First, connect the charger cable to the battery and then insert the charger plug into a 220 V / 50 Hz socket.
Once the battery is fully charged (when the charger LED turns green), disconnect the charger plug from the mains and then remove the cable from the battery. It is very important that you never carry out these steps in reverse order to avoid damaging the battery.

To maximise the range of your battery, you must fully charge and discharge it three times to activate its internal chemistry.

Place the battery back on the bicycle, ensuring that it is sitting correctly in its housing, and lock it in place with the key.

SYMBOLS USED

Warning: symbol indicates possible danger and risk, including potential personal injury.

Symbol indicates that the user must perform an operation or adjustment.

These symbols will appear in the remainder of this manual with no further explanation.

COMPONENTS OF THE ELECTRICAL SYSTEM

RM5.0 36 V / 250 W REAR MOTOR

10INR18/65-4 FLAT 36 V BATTERY with calibration/adjustment capabilities, charging socket, housing with safety lock and box for control unit/controller

LED DISPLAY WITH BUTTONS for motor control, handlebar positioning and assist level selection

OR

LCD DISPLAY with buttons for motor control, handlebar positioning, speedometer functions, battery charge display and assist level selection

36 V / 12 A MOTOR CONTROLLER/CONTROL UNIT

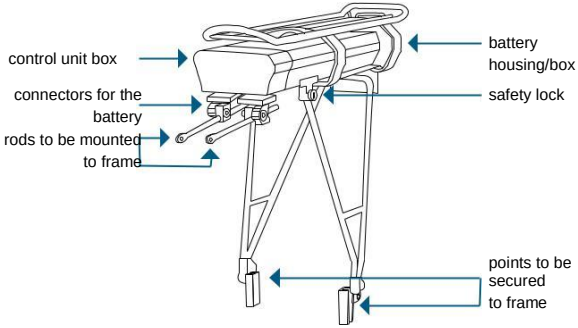
PEDAL SENSOR with magnet(s)

BRAKE LEVER for mechanical brakes complete with cut-off for motor disconnection (where available)

ORIGINAL ANSMANN CHARGER for 36 V battery

HOUSING FOR RACK-MOUNTED BATTERY

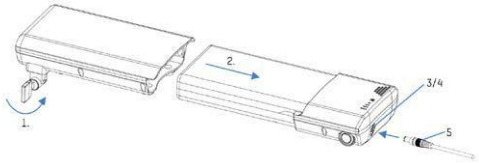
The housing for the rack-mounted battery and the box for the control unit are supplied together with the luggage rack. The cables to connect the control unit are already assembled inside the battery housing. The luggage rack must be attached to the bicycle in the appropriate position, as shown in the instructions.



USING THE BATTERY AND CHARGER

Fully charge the battery before using it for the first time!!! The battery can be charged while mounted to the bike, or separately. The lock is used to fix the battery to the bicycle in the correct position. If it is not fixed in place, it could be damaged and/or stolen. Turn the lock to remove the battery.

To remove the rack-mounted battery, first open the lock by turning it anti-clockwise (1), then push the battery out of its casing/housing. Once you have placed the battery back in its case, turn the safety lock clockwise to lock it in place and prevent it from falling out or being stolen.



To charge the battery, open the cap (3) on the socket (4) and connect the charger (5).

After connecting the charger to the battery, connect the charger to the electrical outlet. The charger LED flashes red while the battery is charging; once it is charged, the LED turns green. A flashing LED on the battery's capacity indicator also indicates that charging is taking place (☞ only on the down tube battery).

Temperature:	**from 0°C to 45°C**	
Charging time:	**Approx. 5/7 hours**	(depending on the battery's capacity)
Storage temperature:	**from 5°C to 25°C**	(recommended)
Storage temperature:	**-20°C to 45°C**	(max. limits)

We recommend that you recharge the battery after each use. If you are not planning to use the battery for a long period of time (e.g. during winter), charge it completely before storing it. To avoid damage to the battery, recharge it every 12 weeks. Store it in a dry place and observe the temperatures indicated above.

Avoid direct sunlight and excessive temperatures

Keep the battery away from fire

CE mark (conformity): this battery is built in line with European standards

The cells contain lithium

Do not dispose of as household waste. Dispose of at an authorised waste collection point

- Use only original Ansmann chargers to charge the battery
- Avoid short circuits
- While charging, place the battery on an inflammable and heat-resistant surface. There should be no flammable or combustible objects nearby
- Never leave the battery unattended while charging
- Batteries are not a toy - Keep out of reach of children!
- The original Ansmann cables and sockets must not be cut or modified under any circumstances!

Improper use may lead to explosion, overheating or fire. Using this product incorrectly and failing to follow the instructions provided in this manual may result in defects or premature wear. Keep the instruction manual in a safe place and always hand it over along with the battery.

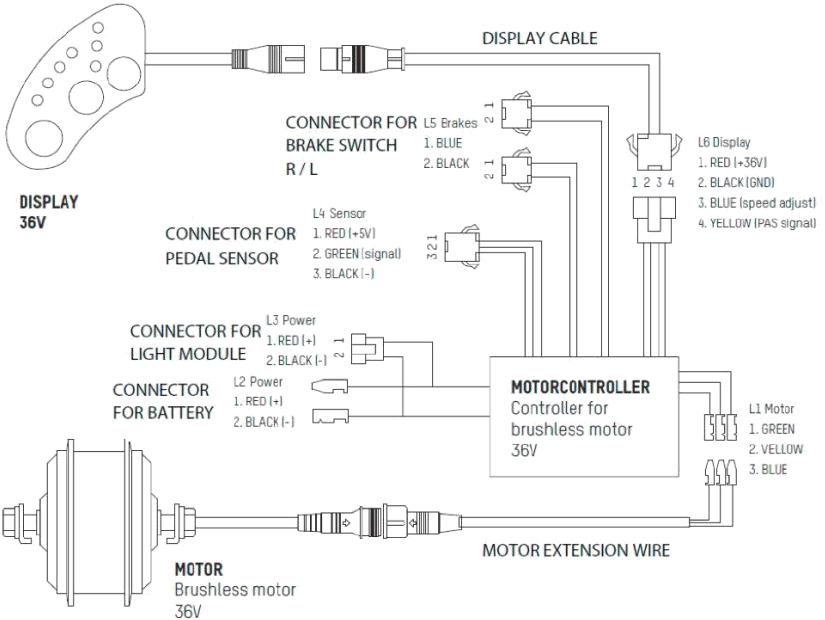
After charging the battery, unplug the charger from the electrical outlet and disconnect it from the battery. Close the battery socket cap to prevent water from entering and avoid corrosion.

The battery has a capacity indicator to allow you to check the charge level. Tap the button on the capacity indicator. The charge level is briefly displayed by means of LEDs that illuminate. While riding, you can check the battery charge level on the handlebar display (the devices need to be calibrated, so the charge shown on the display may be different from the level displayed by the battery indicator).

CONNECTIONS

The controller/control unit is the central component of the electrical system. The various components, including the motor, display, brake levers, battery and pedal sensor, must be connected to the control unit as per the following electrical diagram. Each connector is a different shape and/or size to avoid incorrect connections. Only the motor cables need to be connected based on their colours. Ensure that all cables are connected correctly and securely to avoid malfunctions caused by a lack of contact.

The control unit and all the cables must then be stored inside the control unit box. Optional: the light module can be connected to the L3 (power) terminal.

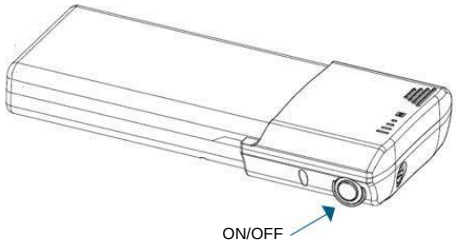

DISPLAY CABLE
DISPLAY
36V
CONNECTOR FOR
BRAKE SWITCH
R / L
L5 Brakes
1. BLUE
2. BLACK
2 1
2 1
L6 Display
1. RED (+36V)
2. BLACK (GND)
3. BLUE (speed adjust)
4. YELLOW (PAS signal)
1 2 3 4
CONNECTOR FOR
PEDAL SENSOR
L4 Sensor
1. RED (+5V)
2. GREEN (signal)
3. BLACK (-)
3 2 1
CONNECTOR FOR
LIGHT MODULE
L3 Power
1. RED (+)
2. BLACK (-)
2 1
CONNECTOR
FOR BATTERY
L2 Power
1. RED (+)
2. BLACK (-)
MOTORCONTROLLER
Controller for
brushless motor
36V
L1 Motor
1. GREEN
2. YELLOW
3. BLUE
MOTOR EXTENSION WIRE
MOTOR
Brushless motor
36V

START-UP

Once the battery is fully charged and securely fixed in the support case or the luggage rack box, the electrical system is ready to be used.

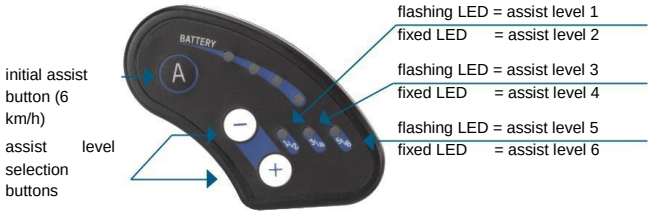
POWER ON/OFF

For the rack-mounted battery, use the battery's ON/OFF button to switch the system on. To switch off the system, press the OFF button on the battery.



If your system comes with the LED display, the riding features can be selected from this display.

The display shows the LEDs indicating the battery charge level and the motor assist level. All the features can be selected using the 3 buttons on the display.



When the system is switched on by turning on the battery, the assist level is automatically set to 2. Using the "+" and "**-**" keys, the motor assist level can be changed from zero (no assistance) or from 1 to the maximum of 6. Depending on the chosen level, the motor will turn at a different speed. If you press the "**A**" button, the motor will assist you up to 6 km/h without the need to pedal (initial assist feature) for as long as you continue to hold down the button.

LCD DISPLAY

If your system comes with the LCD display, the riding features can be selected from this display. The LCD display is equipped with a speedometer feature.

You can select the assist level and the speedometer features using the 3 buttons on the display.

When the system is switched on by turning on the battery, the assist level is automatically set to 2. Using the "+" and "-" keys, the motor assist level can be changed from zero (no assistance) or from 1 to the maximum of 6.

assist level 0 = PAS 0

assist level 1 = PAS 1

assist level 2 = PAS 2 / ECO

assist level 3 = PAS 3 / CITY

assist level 4 = PAS 4 / TOUR

assist level 5 = PAS 5 / POWER

assist level 6 = PAS 6 / BOOST

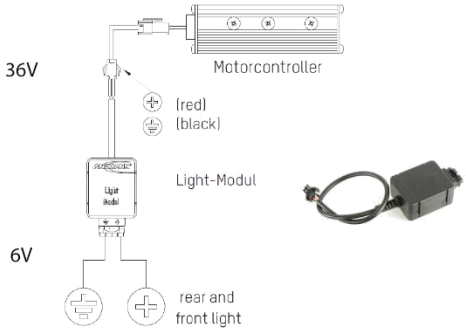
The motor will turn at different speeds depending on the assist level. If you hold down the "**-**" button, the motor will assist you up to 6 km/h without the need to pedal until you release the button. Pressing the "**+**" button for a few seconds activates/deactivates the backlight. Tapping the "**M**" button allows you to cycle through the speedometer features: SPEED, AVERAGE SPEED, MAXIMUM SPEED, ODOMETER, DISTANCE, JOURNEY TIME. When the system is switched on, the speed is automatically selected.

The precise speed and precise number of kilometres travelled are displayed after you have selected the correct wheel size before using the bicycle.

By pressing the "**-**" and "**+**" keys simultaneously for a few seconds, you will enter the Settings mode (turn on the system first). The first parameter that can be adjusted is the brightness of the backlight by pressing "**-**" or "**+**" (**bl - 1, bl - 2**, **bl - 3**). Tapping the "**M**" button will take you to the wheel settings (wheel size in mm). The flashing values can be selected using the "**-**" and "**+**" keys. Tapping the "**M**" button will allow you to set the next value. The wheel to be selected must correspond to the size of the wheel used (spin the wheel and measure the distance with a tape measure). You can exit the Settings menu by holding down the **"M"** key for longer than a few seconds. When you exit the menu, your changes are automatically saved.

LIGHTS (OPTIONAL)

As previously described in the CONNECTIONS section, the system is compatible with the Ansmann light module. This light module already has the connectors set up for connection to the control unit. You can then connect the front and rear lights to the light module directly (LUXURY VERSION).
To turn the lights on, use the switch on the front light.



MOTOR ASSIST

Turning on the battery turns the system on. Level 2 is automatically selected, but this can be changed at any time (even before you begin riding). The motor provides assistance only while the rider is pedalling (this is a legal requirement). However, when the 6 km/h initial assist is activated, the motor does provide assistance without the need to pedal. Selecting the assist level selects the motor speed, up to a maximum of 25 km/h.

If you are not used to the bicycle and have not yet familiarised yourself with it, we advise that you start pedalling with the level at zero, i.e. with no motor assist. Once you feel safe on the bicycle, you can then select an assist level above zero.

Thanks to the motor's freewheel, you can use the bicycle with the electric system (pedelec) like a normal bicycle, i.e. without the battery or with the battery switched off. Additional force when pedalling is not required.

TECHNICAL SPECIFICATIONS

MOTOR	brushless DC (with gear)
Voltage	36 V
Current	max. 12 A
Power	250 W (continuous rated power) 400 W (peak power)
Control	6 assist levels up to a max. of 25 km/h initial assist up to 6 km/h
Torque	up to 30 Nm
BATTERY	Lithium-ion battery
Model	10INR18/65-4 or 10INR18/65-5
Charge	from 10.4 Ah to 11.6 Ah
Cells	18650 type
CHARGER	lithium-ion charger, CC/CV system
Input	100-240 V AC
Input	42 V DC, 1.35 A

ACCESSORIES/SPARE PARTS

To ensure that the bicycle and the electric riding system remain safe and reliable, only use original Ansmann accessories and spare parts intended for this purpose. All the necessary accessories and parts are included with the bicycle. Spare parts can be purchased later in the event of wear or loss.

NOTES

WARRANTY CERTIFICATE

Buyer details

First name:

Surname:

Address:

Postcode, city:

Telephone:

Email:

Bicycle details

Model:

Colour/Size:

Frame number:

Motor number:

Battery number:

shop stamp