



## DIAGNOSTICS

INTERFACE-UNIT™ V1

INTERFACE-UNIT™ V2

INTERFACE-UNIT™ V3

INTERFACE-UNIT™ V4

# WARNING!

**ALWAYS** wear protective gloves and glasses while working on the bicycle.



# DIAGNOSTICS

## THIS TECHNICAL MANUAL IS INTENDED FOR USE BY PROFESSIONAL MECHANICS.

Anyone who is not professionally qualified to assemble bicycles should not attempt to install and operate on the components because of the risk of carrying out incorrect operations that could cause the components to malfunction with the consequent risk of accidents, physical injury or even death.

The actual product may differ from what is illustrated, as the specific purpose of these instructions is to explain the procedures for using the component.



## 1 - DIAGNOSTICS BY THE END CUSTOMER

The interface features an indicator LED which remains unlit during normal usage.

### WHEN LIT IT INDICATES:

#### • residual battery charge levels (low frequency flashing)

When the cycle is not in use and the EPS system is left on, the indicator lamp flashes red briefly at low frequency and at predetermined time intervals when residual battery charge reaches 6%.

When the bicycle is not used, the indicator lamp will flash briefly at a fixed predetermined time interval of 5 minutes when residual battery charge drops below 6%

#### • a functional fault, which is identifiable by the colour of the LED itself (high frequency flashing)

Since in some situations the cause of the LED on the power unit turning on due to malfunction may be temporary, the operations in the following table are suggested for the end customer.

**In the event in which the LED turns back on the customer must contact an authorised Service Centre.**

### INTERFACE UNIT V1 / V2 (11s)



### INTERFACE UNIT V3 (11s)











### INTERFACE UNIT V4 (12s)



### INTERFACE UNIT V4 (12s)



LED	PROBLEM	WHAT TO DO
 <b>WHITE LAMP</b> flashing at high frequency	Power Unit fault or, in the case of Power Unit V3/V4, the firmware update was not correctly installed.	In the case of Power Unit V3/V4, try again to update the firmware. The white LED will switch off automatically after about 1 minute and, in the event of a fault, it will switch back on the next time the control is activated. If the problem persists contact technical support.
 <b>YELLOW LAMP</b> flashing at high frequency		
 <b>GREEN LAMP</b> flashing at high frequency	Rear derailleur or Power Unit fault	To switch off the LED, short press mode button located on the rear derailleur control. The green LED will switch off automatically after about 1 minute and, in the event of a fault, it will switch back on the next time the control is activated. If the problem persists contact technical support.
 <b>PURPLE LAMP</b> flashing at high frequency		
 <b>BLUE LAMP</b> flashing at high frequency	Front derailleur control fault or Interface Unit fault	It can also switch on only if one of the levers has been pressed for more than 9 seconds. To switch off the LED, short press mode button located on the front derailleur control. The blue LED will switch off automatically after about 1 minute and, in the event of a fault, it will switch back on the next time the control is activated. If the problem persists contact technical support.
 <b>RED LAMP</b> flashing at high frequency		
 <b>WHITE LAMP</b> flashing at high frequency	Fault with the Interface Unit or the Power Unit	To switch off the LED, short press one of the two mode buttons located on the controls. The red LED will switch off automatically after about 1 minute and, in the event of a fault, it will switch back on the next time the control is activated. If the problem persists contact technical support.
 <b>YELLOW LAMP</b> flashing at high frequency		

## 1.1 - DISENGAGEMENT MECHANISM

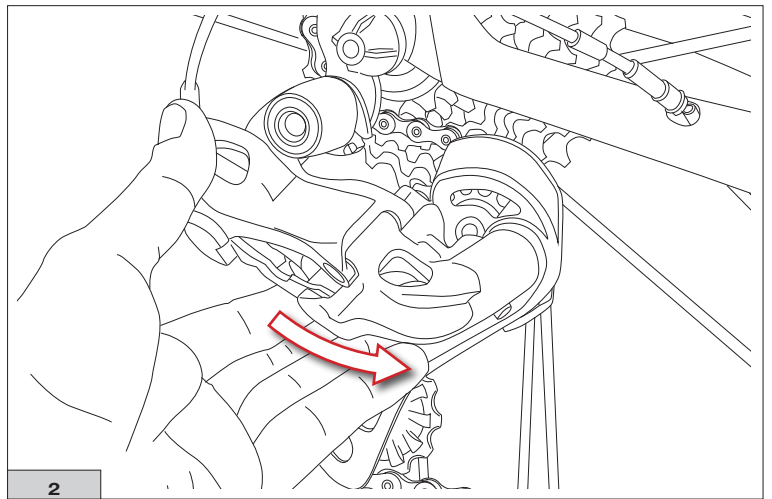
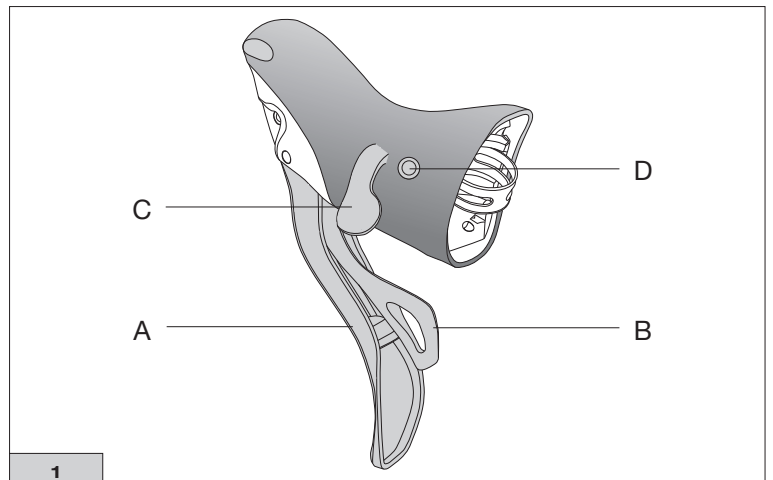
In the case of a fall or accidental impact, the rear derailleur “disengagement” mechanism may activate. If this has happened, the rear derailleur does not move down to the smallest sprockets and certainly not to the 1st sprocket.

The following procedure is recommended:

- shift down to the smallest sprocket possible,
- stop pedalling
- operate lever B (Fig.1) repeatedly.

If this doesn't work, re-engage manually, gripping the upper body of the rear derailleur and pulling the lower body of the rear derailleur towards you (Fig. 2).

After re-engaging, for safety, also check the drop-out/ rear derailleur hanger alignment and that the rear derailleur itself is operating correctly.

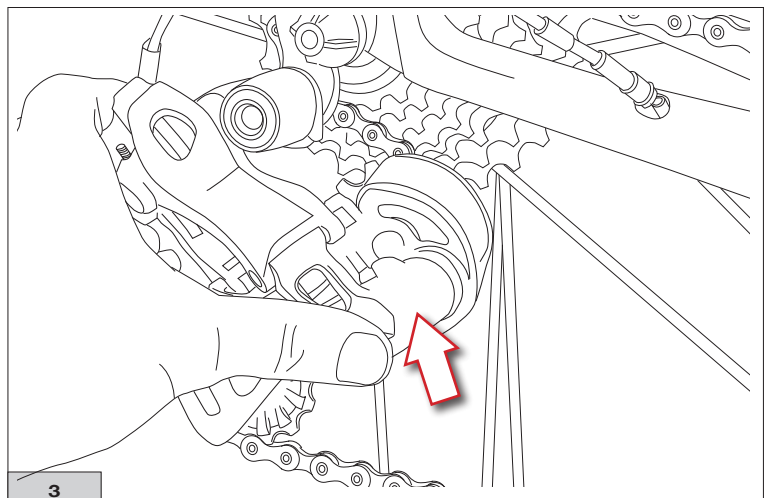


## 1.2 - “RIDE BACK HOME” FUNCTION







If the battery charge runs out while riding or a problem occurs with rear derailleur operation, the “disengagement” mechanism of the rear derailleur can be used to position the rear derailleur on the preferred sprocket. If you think that the battery charge is about to run out, try to use the smallest sprockets so that you can then use all the sprockets higher than the current rear derailleur position when the battery runs out.

Grip the upper body of the rear derailleur and push the lower part with your thumb (Fig. 3). While doing this, turn the hand crank slowly to facilitate the shifting of the chain to the larger sprockets.

Once back home, remember to re-engage the rear derailleur (Fig. 2) and charge the battery.



## 2 - DIAGNOSTICS BY TECHNICAL SUPPORT SERVICE



LED	PROBLEM	WHAT TO DO
 <b>WHITE LAMP</b> flashing at high frequency	Power Unit fault or, in the case of Power Unit V3/V4, the firmware update was not correctly installed.	Replace the component or, in the case of Power Unit V3/V4, try again to update the firmware. If the new component has been installed, the reset procedures must be carried out again for the rear and front derailleur as the memory of their positions is stored there.
 <b>YELLOW LAMP</b> flashing at high frequency	Front derailleur or Power Unit fault (connector disconnected, damaged cabling (cable or terminal) and / or malfunctioning electric motor). <b>Only for EPS 12s groupset.</b> Also refer to section: "2.1 - Rear and front derailleur blocked (rear or front derailleur malfunction LED does not turn off)".	Visually check that the connector is properly connected, disconnect it, check to see whether there are traces of water, dirt, oxidation or abnormalities in the pins and reconnect the connector, after eliminating any abnormalities found. If necessary, use antioxidizing products. If this does not work and the LED remains on, check the entire cable that goes from the front derailleur to the power unit to ensure that there are no cuts, crushed sections or other abnormalities. If an abnormality has been detected with the power system cable, replace the power unit. If an abnormality has been detected with the front derailleur cable or if no abnormality is detected, replace the front derailleur. Once the new component is installed, the front derailleur reset procedure must be carried out again.
 <b>GREEN LAMP</b> flashing at high frequency	Rear derailleur or Power Unit fault (connector disconnected, damaged cabling (cable or terminal) and / or malfunctioning electric motor) <b>Only for EPS 12s groupset.</b> Also refer to section: "2.1 - Rear and front derailleur blocked (rear or front derailleur malfunction LED does not turn off)".	Visually check that the connector is properly connected, disconnect it, check to see whether there are traces of water, dirt, oxidation or abnormalities in the pins and reconnect the connector, after eliminating any abnormalities found. If necessary, use antioxidizing products. If this does not work and the LED remains on, check the entire cable that goes from the front derailleur to the power unit to ensure that there are no cuts, crushed sections or other abnormalities. If an abnormality has been detected with the power system cable, replace the power unit. If an abnormality has been detected with the rear derailleur cable or if no abnormality is detected, replace the rear derailleur. Once the new component is installed, the rear derailleur reset procedure must be carried out again.
 <b>PURPLE LAMP</b> flashing at high frequency	Rear derailleur control fault or Interface Unit fault (one or more of the 3 circuits remain constantly closed - pressed buttons mechanically 'stuck', dome deformed, short circuit in cabling, water causing a short circuit).	Check that the control hoods do not press on the lever in an abnormal way or foul levers 2 and 3. Visually check that the connector is properly connected, disconnect it, check to see whether there are traces of water, dirt, oxidation or abnormalities in the pins and reconnect the connector, after eliminating any abnormalities found. If necessary use antioxidizing products. If it operates correctly, turn the LED off by short-pressing the MODE button. If an abnormality with the interface system cable has been detected replace the interface system. If an abnormality has been detected to the control cable or if no abnormality was detected replace the control. Once the new component is installed the error must be cancelled by short-pressing the MODE button.
 <b>BLUE LAMP</b> flashing at high frequency	Front derailleur control fault or Interface Unit fault (one or more of the 3 circuits remain constantly closed - pressed buttons mechanically 'stuck', dome deformed, short circuit in cabling, water causing a short circuit).	Check that the control hoods do not press on the lever in an abnormal way or foul levers 2 and 3. Visually check that the connector is properly connected, disconnect it, check to see whether there are traces of water, dirt, oxidation or abnormalities in the pins and reconnect the connector, after eliminating any abnormalities found. If necessary use antioxidizing products. If it operates correctly, turn the LED off by short-pressing the MODE button. If an abnormality with the interface system cable has been detected replace the interface system. If an abnormality has been detected to the control cable or if no abnormality was detected replace the control. Once the new component is installed the error must be cancelled by short-pressing the MODE button.
 <b>RED LAMP</b> flashing at high frequency	Fault with the Interface Unit or the Power Unit (damaged cabling / connector, problems with the Interface Unit electronics).	Lighting of the LED, or detection, only when the system switches on. Visually ensure that the connector is correctly connected. Disconnect it, check for traces of water, dirt, oxidation or abnormalities with the pins. Reconnect the connector and eliminate any problems found. Position the magnet (or magnetic strip). Wait about 30 seconds and remove the magnet (or the magnetic strip). If the LED lights up again check the entire cable that runs from the interface to the Power Unit, ensuring that there are no cuts, crushed sections or abnormalities. If a fault is found in the Power Unit cable, replace the Power Unit. If a fault is found in the interface system cable or if no fault is found, replace the Power Unit. Once the new component is installed the error must be cancelled.

## 2.1 - REAR AND FRONT DERAILLEUR BLOCKED (REAR OR FRONT DERAILLEUR MAL-FUNCTION LED THAT DOES NOT TURN OFF)

Normally, if you press one of the two MODE buttons, the LED turns off and turns on again only when you try to operate the defective component again.

If, on the other hand, the LED continues to flash when a MODE button is pressed, it is necessary to intervene as described below.

A further clue is that, in this case, both components do not work, that is:

	if the green LED is on, indicating a problem with the rear derailleur, the front derailleur doesn't work either
	if the yellow LED is on, indicating a problem with the front derailleur, the rear derailleur doesn't work either

### 2.1.1 - CAUSE OF THE PROBLEM

The cause of this problem may be:

- reset performed with an 11s rear or front derailleur
- an unsuccessful reset with 12s rear or front derailleur

### 2.1.2 - PROCEDURE TO RESOLVE PROBLEM

- Try to reset the component presenting a malfunction, depending on the colour of the flashing LED.
- Enter reset mode (by pressing both MODE buttons at the same time) and carry out the reset procedure for the malfunctioning component.
- If the component is working correctly, after pressing a MODE button to conclude the procedure, the LED should:  
**rear derailleur:** flash blue 3 times - pause - flash blue once  
**front derailleur:** flash blue 3 times - pause - flash blue twice

The LED should flash again with the error indication still present, but now it should turn off when a MODE button is pressed. If the LED continues to flash, the malfunction is present inside the rear derailleur/front derailleur depending on the colour of the LED and it is therefore necessary to contact the Service network.

## 2.2 - MALFUNCTIONS WITHOUT THE LEDS TURNING ON

In some cases, EPS malfunctions occur without the LEDs on the Power Unit turning on:

### 1) ONE OR MORE CIRCUITS OF THE REAR AND FRONT DERAILLEUR ARE INTERRUPTED

In this case, when the defective circuit lever is activated the system will therefore not carry out the requested command. The system is not capable of indicating this type of malfunction.

If you have a V3 / V4 Power Unit and V3 / V4 Interface Unit you can use the MyCampy™ App in the “Diagnostics, errors & tests, commands” section to see whether operation of the levers is detected by the Interface and consequently identify which, if any, line is malfunctioning.

Check the entire cable that goes from the Interface Unit to the rear or front derailleur control, ensuring that there are no cuts, crushed sections or abnormalities. Visually ensure that the connector is correctly connected. Disconnect it, check for traces of dirt, oxidation or abnormalities with the pins and reconnect the connector.

If the system is on, the battery is charged and no fault is detected with the cables, replace the control.

### 2) BATTERY IS COMPLETELY FLAT

The system does not have sufficient energy to indicate the excessively low charge level of the battery.

### 3) CABLE COMPLETELY DISCONNECTED BETWEEN INTERFACE UNIT AND POWER UNIT

Because the Interface Unit does not have its own battery, if it is not powered by the Power Unit it is not capable of lighting the LED to indicate the fault.