TECHNICAL MANUAL

SUPER RECORD 12s WIRELESS

PROCEDURES

· BLUETOOTH COUPLING WITH THE COMPONENTS

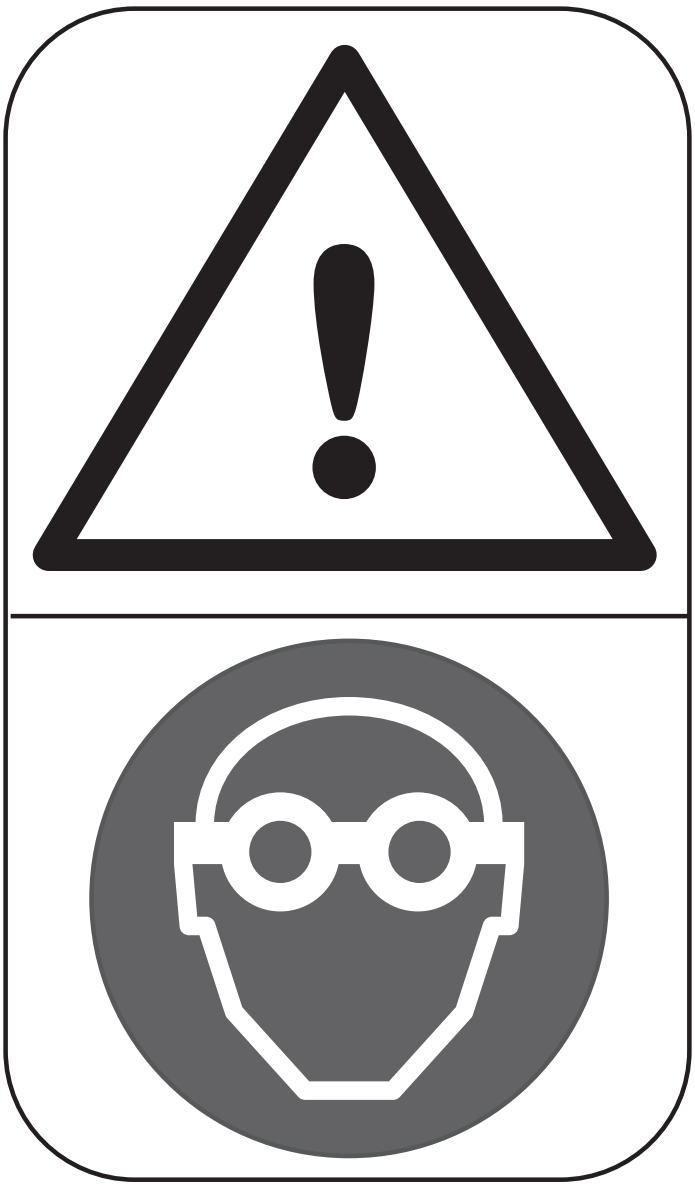
· FITTING

· ADJUSTMENTS

· DIAGNOSTICS

CAUTION!

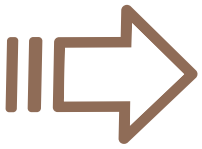
ALWAYS wear protective gloves and glasses while working on the bicycle.



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

BLUETOOTH COUPLING WITH THE COMPONENTS

1 - LEGEND

LEDS ON CONTROLS ERGOPOWER		LEDS ON REAR DERAILLEUR AND FRONT DERAILLEUR	
CONTINUOUS PRESSURE		FAST PRESSURE	
HIGH FREQUENCY FLASHING		LOW FREQUENCY FLASHING	
FIXED LED		LED OFF	
TIME LIMIT / ACTIVATION TIME	X s		

2 – INITIALIZATION

2.1 PRELIMINARY OPERATIONS

Remove the components from their boxes and place them next to each other.

IMPORTANT!
The rear derailleur and front derailleur are delivered without the battery inserted; batteries are sold in a dedicated package. Insert the batteries according to the sequence shown on page 5.

Ergopower controls are delivered with the batteries already inserted.

2.2 – CHARGING THE FRONT DERAILLEUR AND REAR DERAILLEUR BATTERIES

IMPORTANT! Before the first use, fully charge the rechargeable battery until all the LEDs switch off (Fig.1 / Fig.2).

• Use only 5V, 2A battery chargers certified according to IEC 62368-1.

• **The approximate time required for a full battery charge is 1 hour.**

Fig.1

Fig. 2

3 – BLUETOOTH COUPLING WITH THE COMPONENTS

IMPORTANT!
During the Bluetooth pairing procedure with the components, ensure you keep them active by moving them and operating the control levers.

3.1 - SWITCHING ON THE ERGOPOWER CONTROLS

• The Ergopower controls ON button is inside a hole in the control body (protected by the support cover); therefore, an object with flat nose and 3-4 mm diameter is required to access the control (Fig.3).

• Activate the controls: The BLUE LED will flash in high frequency for 90 sec in the search status.

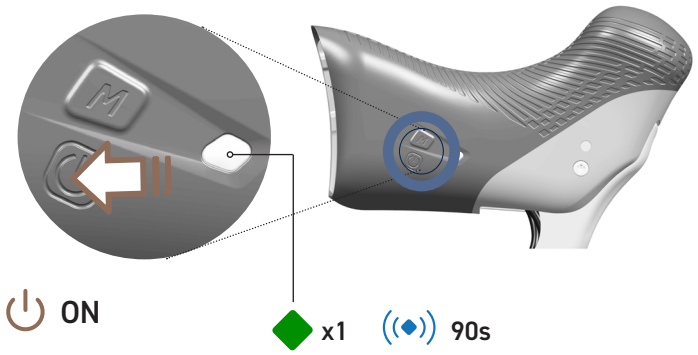


Fig.3

3.2 - INSERTING THE BATTERY AND SWITCHING ON THE FRONT DERAILLEUR

• Use only the Campagnolo battery designed for this component, identified by PU23-SR12FD.

• Insert the lower battery tab into the front derailleur, then close the locking lever. The BLUE LED will flash in high frequency for 90 sec in the search status (Fig.4).

Fig.4

3.3 - INSERTING THE BATTERY AND SWITCHING ON THE REAR DERAILLEUR

• Use only the Campagnolo battery designed for this component, identified by PU23-SR12RD.

• Insert the battery into the rear derailleur, making it slide from the bottom up, and lock the battery sliding the locking button until it engages with the pivot (Fig. 5). The BLUE LED will switch on fixed for 45 sec in the search status.

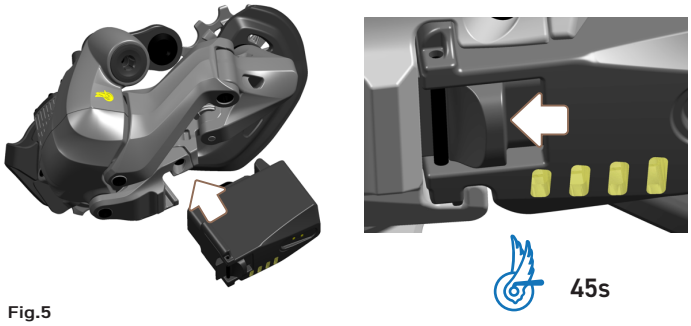


Fig.5

3.4 - LED BEHAVIOUR DURING AN ATTEMPT TO COUPLE THE BLUETOOTH WITH THE COMPONENTS

The LED remains on fixed for **45 s in any case**, regardless if the other 3 components are being coupled or if one or more components are not coupled.

The LED remains flashing in high frequency **until the front derailleur is coupled to the rear derailleur**: after **90 s**, if it is not coupled, the LED turns off.

The LED remains flashing in high frequency **until the control is coupled to the rear derailleur**: if after **90 s** it continues to flash, and therefore it is not coupled, the LED turns off.

If ALL THE COMPONENTS have been coupled, the LEDs behave as follows:

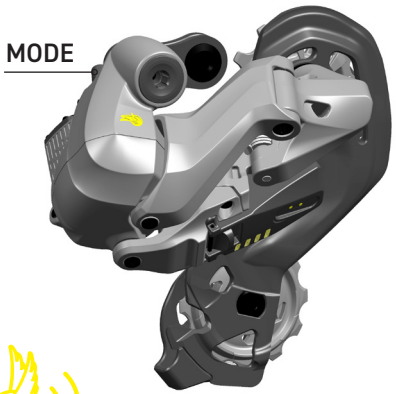
The rear derailleur LED flashes at low frequency.

The front derailleur LED flashes at low frequency.

The control LEDs are off and turn on only when activating a lever or pressing the MODE button.

3.5 - ERASING THE REAR DERAILLEUR MEMORY

IMPORTANT! The component must be switched ON.



• Hold down the MODE button on the rear derailleur (for at least 10 seconds). After 5 seconds, the LED flashes in pink.

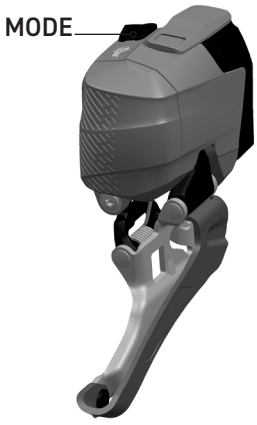
• Continue to hold the Mode button until the LED switches on alternately for 2s, with the following colour sequence, starting with blue, for 45s.

• With the BLUE LED on, quickly press the MODE button. The following colour sequence will switch on.

• Disconnect the battery to confirm the rear derailleur memory erasure.

3.6 - ERASING THE FRONT DERAILLEUR MEMORY

IMPORTANT! The component must be switched ON.



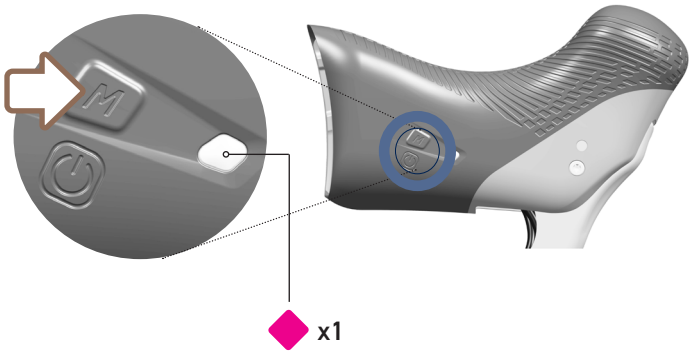
• Hold down the MODE button on the front derailleur (for at least 10 seconds). After 5 seconds, the LED flashes in pink.

• Continue to hold the Mode button until the LED switches on alternately for 2s, with the following colour sequence, starting with blue, for 45s.

• With the BLUE LED on, quickly press the MODE button. The following colour sequence will switch on.

3.7 - ERASING THE MEMORY OF THE ERGOPOWER CONTROLS

IMPORTANT! The component must be switched ON.



• Hold down the MODE button on the relevant Ergopower control (for at least 10 seconds). After 5 seconds, the LED flashes in pink.

• Then, the LED comes on alternately for 2s, with the following colour sequence starting from blue, for 30s.

• With the BLUE LED switched on:
- if the control firmware is lower than 0.0.44, quickly press the MODE button
- if the control firmware is 0.0.44 or higher, quickly press the ON button.
The following colour sequence will start.

Now you can refit the battery in the rear derailleur and attempt to connect to the other components again.
IMPORTANT! Make sure the components are not in standby.

3.8 - NO COMPONENT COUPLED TO THE REAR DERAILLEUR

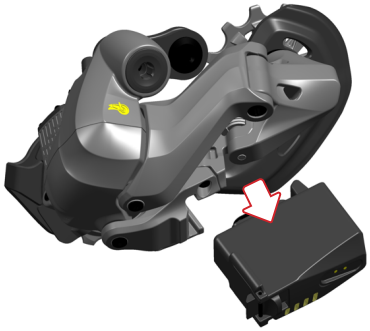
If no component is coupled to the rear derailleur, the LEDs behave as follows:

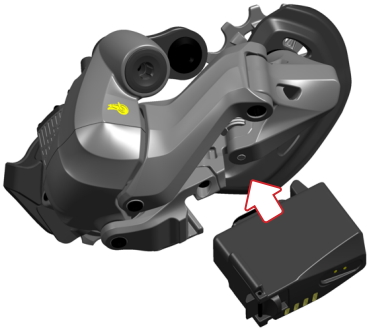
The rear derailleur LED flashes (yellow) in high frequency.

The front derailleur LED flashes (blue) in high frequency.

The control LEDs flash (blue) in high frequency to indicate the failed coupling.

In this case, simply remove the rear derailleur battery and refit it: the rear derailleur will reattempt connection with all the components.





1 – ERGOPOWER CONTROL LEVERS

Install the controls on the handlebar following the installation procedure given in the “Ergopower 12s/13s Controls” technical manual.

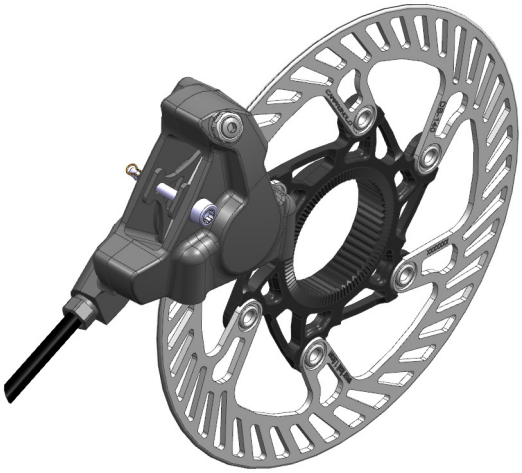
• The controls must be correctly oriented in order not to negatively affect the bike’s aerodynamics

• Fix the control to the handlebar, tightening the screw to **8 Nm (71 in.lbs)**, using a Torx T25 bit.

2 – HYDRAULIC SYSTEM

Install the brake callipers and make the hydraulic connection to the controls, following the installation procedure given in the “11s-12s-13s Disc Brake Hydraulic System” technical manual.

IMPORTANT!
Some brands supply their own adapter for the front caliper with the frame. This adapter is produced by the frame manufacturer.
Unlike the standard front 160 calliper, the 140 caliper must be installed on the Campagnolo adapter.
To connect the adapter with the 140 calliper, the **CAMPAGNOLO EC-DB013** fastening screws must be used.



3 – CUPS

Install the PRO-TECH cups in accordance with the installation instructions given in the “Pro-Tech / Ultra torque / Power Torque Cups” technical manual.

4 - CRANKSET

Install the crankset as specified in the “Ultra Torque 12s Crankset” technical manual.

5 - FRONT DERAILLEUR

Install the front derailleur as specified in the “12s front derailleur – mechanical groupsets” technical manual.

6 - REAR DERAILLEUR

Install the rear derailleur following the procedure given in the “12s rear derailleur – mechanical groupsets” technical manual.

7 - CHAIN

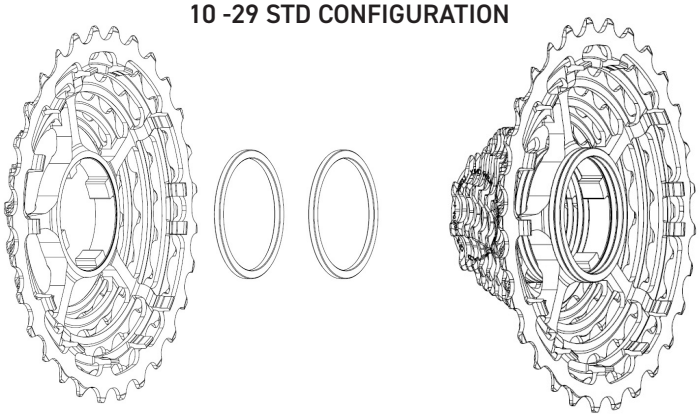
Install the chain as described in the “11s / 12s Chain” technical manual.

8 - SPROCKET CASSETTE

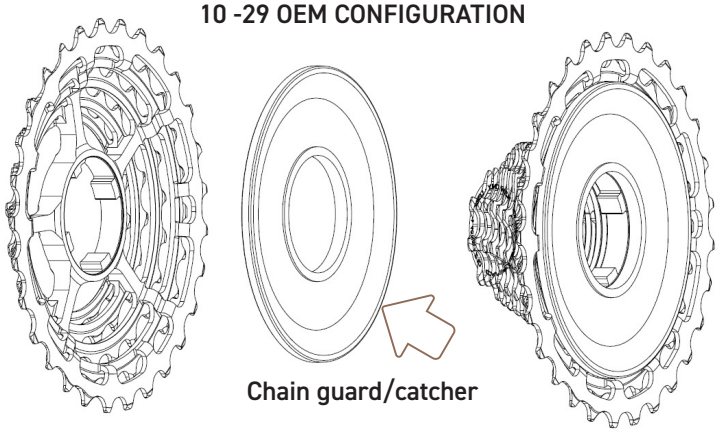
Install the sprockets as described in the “12s sprocket cassette” user manual.

For the 10-29 OEM version only, the configuration includes a chain guard/catcher which allows the installation of the spoke guard disc.
For the AM version, the configuration is the STD one with the chain-drop prevention teeth.

10 -29 STD CONFIGURATION



10 -29 OEM CONFIGURATION

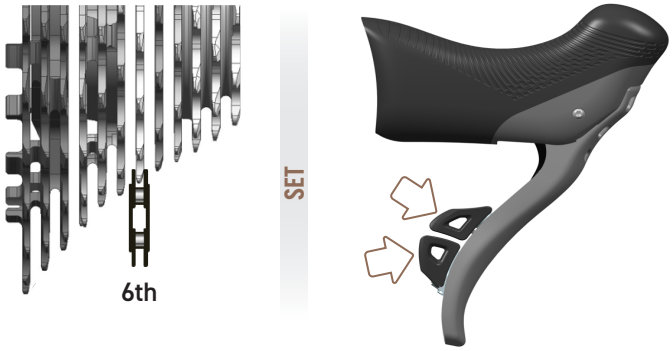


1 – ADJUSTMENT OF THE REAR DERAILLEUR

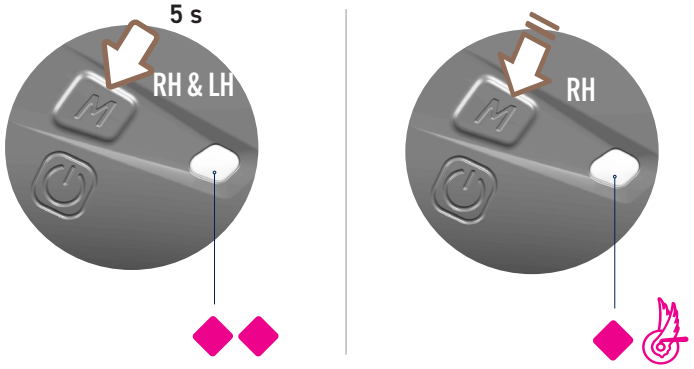
IMPORTANT! Make sure when making the adjustment that the rear derailleur is not disengaged.
It can be re-engaged manually or by operating the levers of the Ergopower controls.

PROBLEM	DESCRIPTION	SOLUTION
DISENGAGEMENT TOWARDS THE OUTSIDE	The rear derailleur does not move on the larger sprockets.	**Move it down to the smallest sprocket**, continuing to operate the rear derailleur multiple times until it re-engages. Then check that it functions correctly.
DISENGAGEMENT TOWARDS THE INSIDE	The rear derailleur does not move on the smallest sprockets.	**Move it up to the largest sprocket**, continuing to operate the rear derailleur multiple times until it re-engages. Then check that it functions correctly.

1) To perform the adjustment procedure, position the rear derailleur on the 6th sprocket.

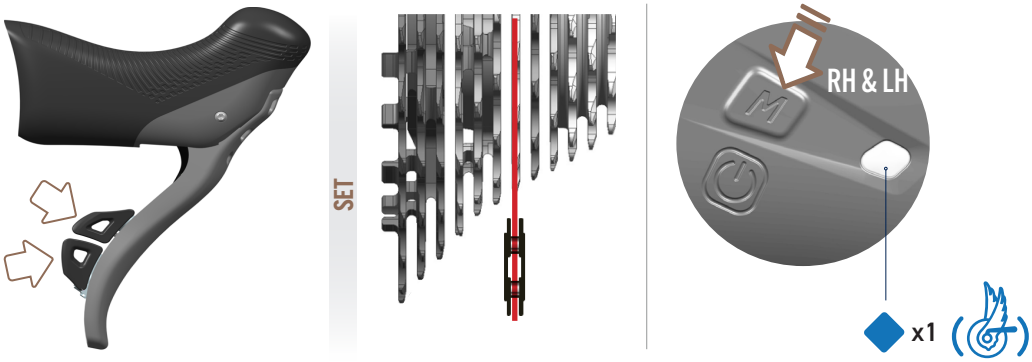


2) Hold down the right and left Ergopower control MODE buttons at the same time for approx. 5 seconds until the PINK led turns on.
Press the right Ergopower control MODE within 1 second.
The rear derailleur LED lights up fixed PINK.



3) Adjust the position of the rear derailleur until the chain is aligned with the sprocket.

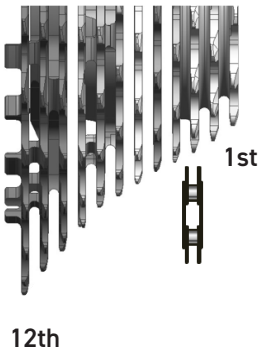
4) Quickly press the right and left Ergopower control MODE buttons at the same time to confirm the position.
The LEDs will turn on BLUE as follows:
- A pulse on the control
- Low frequency flashing on the rear derailleur

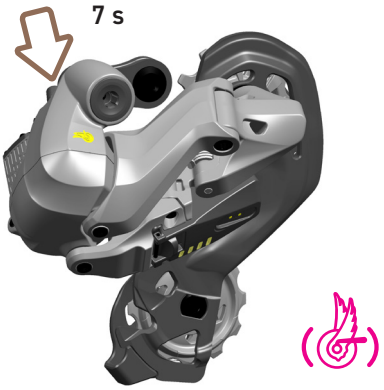


1.1 – ADJUSTMENT OF THE REAR DERAILLEUR ON THE SINGLE SPROCKET

1) Position the rear derailleur on the sprocket to be adjusted.

2) Hold down the rear derailleur MODE button for approx. 7s until the PINK led turns on.
Release the button.
The rear derailleur LED turns on flashing PINK at a low frequency.

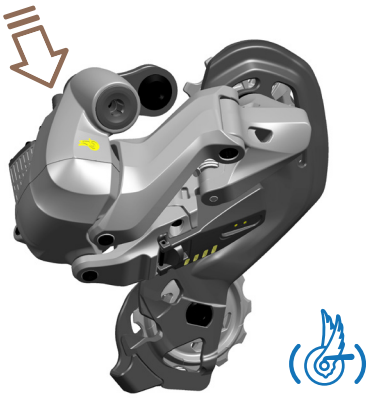




IMPORTANT!
The operation indicated below must be carried out if the rear derailleur adjustment was not performed correctly.

3) Adjust the position of the rear derailleur until the chain is aligned with the sprocket.

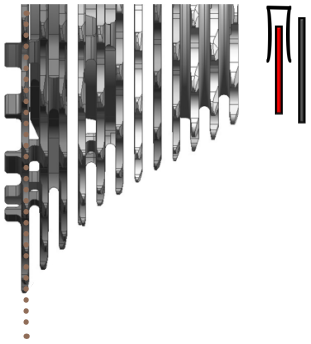
4) Press the rear derailleur MODE button to confirm the position.
The LED lights up blue flashing at a low frequency.



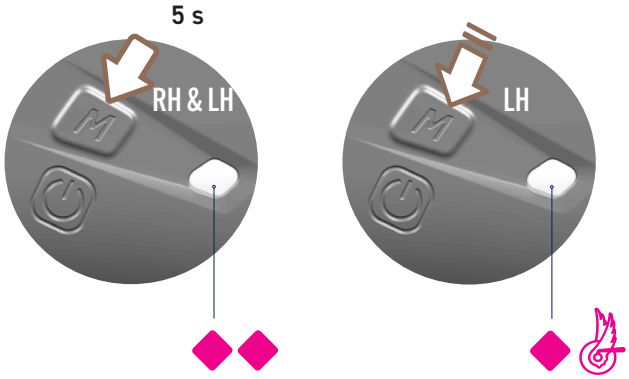
2 – RESETTING THE FRONT DERAILLEUR

2.1 – INTERNAL PHASE

1) Position the chain on the 12th sprocket and on the smallest chainring.

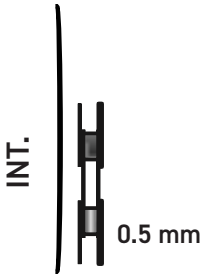


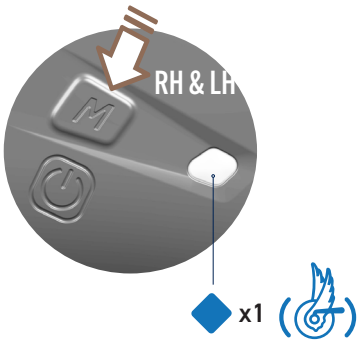
2) Hold down the right and left Ergopower control MODE buttons at the same time for approx. 5 seconds until the PINK led turns on.
Press the left Ergopower control MODE button within 1 second.
The front derailleur LED lights up fixed PINK.



3) Position the inner semi-cage 0.5 mm from the chain.

4) Quickly press the right and left Ergopower control MODE buttons at the same time to confirm the position.
The LEDs will turn on BLUE as follows:
- A pulse on the control
- Low frequency flashing on the front derailleur

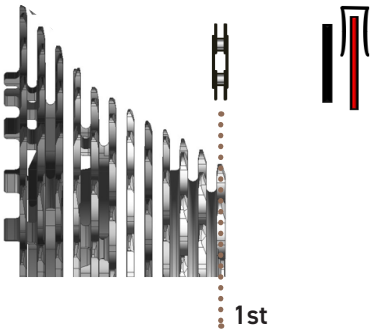




2.2 – EXTERNAL PHASE (ADJUSTMENT)

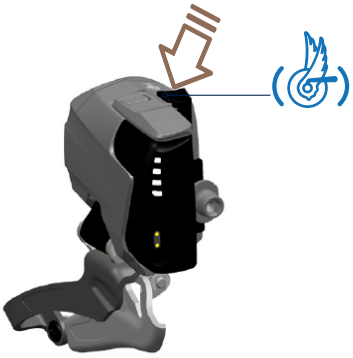
1) Position the chain on the 1st sprocket and on the largest chainring.

2) Hold down the front derailleur MODE button for approx. 7s until the PINK led turns on. Release the button.
The front derailleur LED turns on flashing PINK at a low frequency.



3) Position the external semi-cage 0.5-0.7 mm from the chain.

4) Press the front derailleur MODE button to confirm the position.
The front derailleur LED turns on flashing BLUE at a low frequency.



1 – DIAGNOSTICS

1.1 - ERROR MESSAGES ON THE REAR / FRONT DERAILLEUR

LED COLOUR	LED SWITCH-ON FREQUENCY	PROBLEM	SOLUTION
RED	SINGLE FLASH (it switches on by activating one of the two Ergopower controls, or by pressing the component MODE button)	• Movement error due to a low battery voltage • Mechanical motor block.	Charge the battery. Check whether you can remove the cause of the mechanical block. Remove and refit the battery to switch the component off and back on again.
	HIGH FREQUENCY (it switches on by activating one of the two Ergopower controls, or by pressing the component MODE button)	• Communication error of the position sensor (when turning on) • Positioning error due to a short-circuiting motor or due to excessive current absorption (during movement) • Positioning error due to a motor with open circuit (during movement)	Check whether you can remove the cause of the mechanical block. Remove and refit the battery to switch the component off and back on again.

1.2 - REAR/FRONT DERAILLEUR BATTERY FIRMWARE UPDATE

LED COLOUR	LED SWITCH-ON FREQUENCY	PROBLEM	SOLUTION
WHITE	LOW FREQUENCY (it flashes in low frequency, on the rear / front derailleur, during the battery firmware update phase)	• After updating the rear/front derailleur firmware, the component detects that a new battery firmware update is available.	If the battery is removed from the component during the firmware update, the update re-starts automatically when it is refit. The required time is about 1 min.

1.3 - ERROR MESSAGES ON THE REAR / FRONT DERAILLEUR BATTERIES

LED	PROBLEM	SOLUTION
ALL battery LEDs are FLASHING	• Internal battery error	Try to charge the battery with a 5V, 2A battery charger, as devices with an output value lower than 2A could cause a temporary internal battery error. If the LEDs continue to flash, replace the battery.

1.4 - ERROR MESSAGES ON ERGOPOWER CONTROLS

LED COLOUR	LED SWITCH-ON FREQUENCY	PROBLEM	SOLUTION
YELLOW	**SINGLE FLASH** (it is switched on by activating one of the two Ergopower controls)	• Movement error due to a low battery voltage • Mechanical motor block.	Charge the battery. Check whether you can remove the cause of the mechanical block. Remove and refit the battery to switch the component off and back on again.

LED COLOUR	LED SWITCH-ON FREQUENCY	PROBLEM	SOLUTION
RED	**SINGLE FLASH** (it is switched on by activating one of the two Ergopower controls)	• Battery voltage too low **NOTE**: the red LED turns on also to confirm that the control turned off after I pressed the control ON/OFF button for 3 s	Replace the battery with a charged battery.
	HIGH FREQUENCY (it switches on by holding and pressing the activation levers)	• Communication error of the position sensor (when turning on) • One or more levers are pressed for longer than 15 s (when the system no longer detects that the lever is pressed, the LED turns off)	Turn the control off and back on Remove and refit the battery to switch the component off and back on again.