



## BICYCLE COMPUTER WIRELESS WITH SOLAR



GB IE

PRODUCED IN CHINA FOR:  
ALDI STORES LTD. PO BOX 26, ATHERSTONE  
WARWICKSHIRE, CV9 2SH.

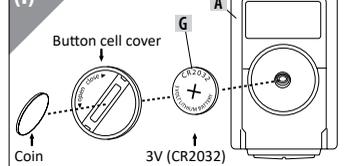
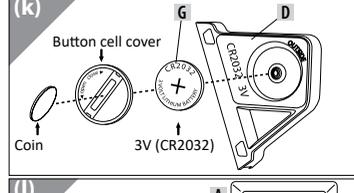
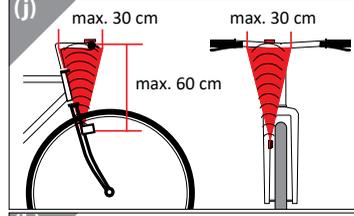
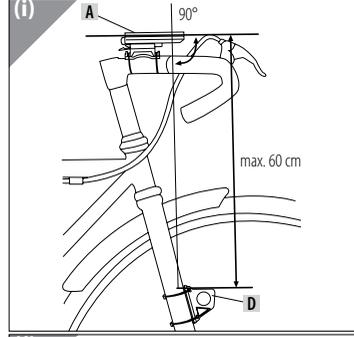
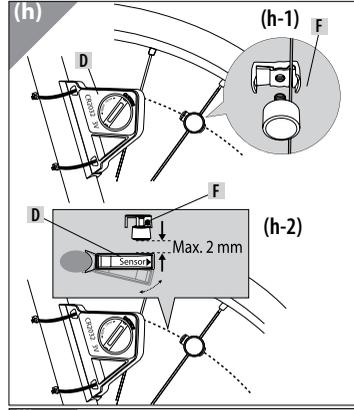
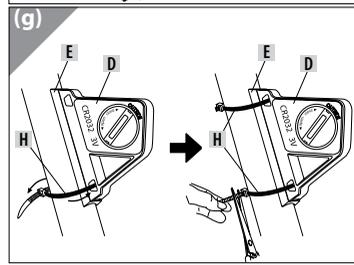
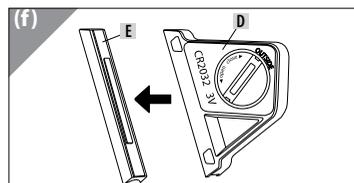
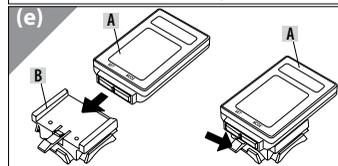
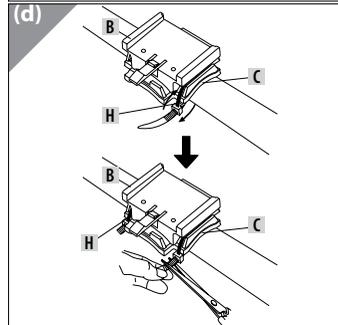
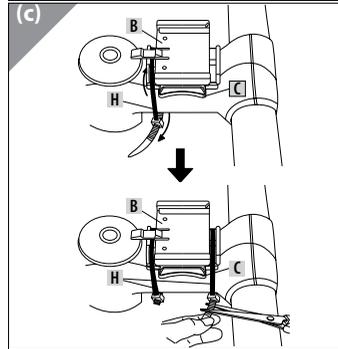
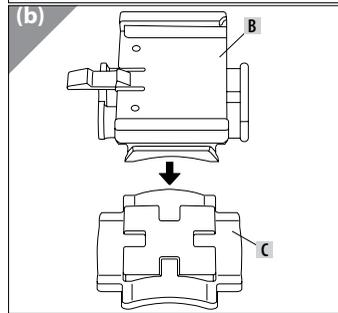
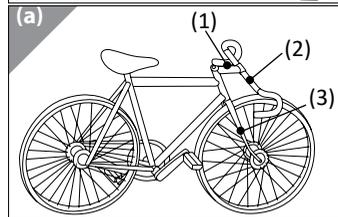
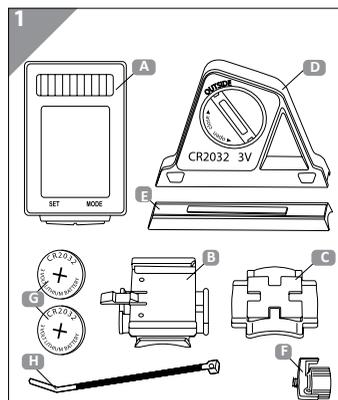
ALDI STORES (IRELAND) LTD.  
PO BOX 726, NAAS, CO. KILDARE.

### AFTER SALES SUPPORT

90305  
00800 / 68546854  
(free of charge, mobile networks may vary)  
monz-gb@teknihall.com / monz-ie@teknihall.com  
MODEL: 22970/PO30000529 04/2020



Great care has gone into the manufacture of this product and it should therefore provide you with years of good service when used properly. In the event of product failure within its intended use over the course of the first 3 years after date of purchase, we will remedy the problem as quickly as possible once it has been brought to our attention. In the unlikely event of such an occurrence, or if you require any information about the product, please contact us via our helpline support services, details of which are to be found both in this manual and on the product itself.



### Scope of delivery

- A Bicycle computer
- B Bracket for bicycle computer
- C Rubber base for bracket
- D Sensor
- E Rubber base for sensor
- F Magnet with magnet holder
- G 2 x button cell (2 x type CR2032)
- H 6 x cable tie

### Technical data

#### Bicycle computer, wireless with solar

Item No.: 90305  
Batch: P030000529  
Model number: 22970  
Power supply:  
Operating voltage: 3 V  
Sensor button cell: 3 V / Type: CR2032  
Bicycle computer button cell: 3 V / Type: CR2032  
Protection type: IP44 (splashproof)  
Transmission frequency and transmission power  
Bicycle computer: Frequency band: 12.5 kHz ± 10 kHz  
Sensor: Frequency band: 125 kHz ± 10 kHz  
Maximum transmittable power: < 5 dBm  
Weight: approx. 72 g (incl. accessories)  
Bicycle computer measurements:  
approx. 6.3 x 4 x 1.5 cm (L x W x D)  
Date of production: 2019  
Guarantee: 3 years

### 1. Introduction

#### Explanation of symbols

The following symbols and signal words are used in these operating instructions, on the bicycle computer or on the packaging.



This signal symbol/word indicates a hazard with a medium level of risk which, if not avoided, may result in death or serious injury.



This signal symbol/word indicates a hazard with a low level of risk which, if not avoided, may result in minor or moderate injury.



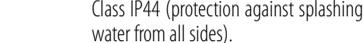
This signal word warns of possible property damage. This symbol provides you with useful additional information about operation.



This symbol indicates potential danger to children.



Conformity declaration (see Chapter "Conformity declaration"): Products that are marked with this symbol fulfil all applicable Community regulations of the European Economic Area.



This symbol indicates the Protection Class IP44 (protection against splashing water from all sides).



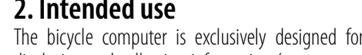
This sign indicates how the button cell is inserted.



This symbol indicates potential danger in relation to explosions.



This symbol indicates potential danger from handling batteries / rechargeable batteries.



This symbol indicates dangers of swallowing batteries.



These symbols inform you about the disposal of the packaging and product.

### 2. Intended use

The bicycle computer is exclusively designed for displaying and collecting information (e.g. average speed, time etc.) while using a bicycle. It is only intended for private use and is not suitable for the commercial sector. Only use the bicycle computer as described in these operating instructions. Any other use is considered to be improper use and may result in property damage or even personal injury. No liability is assumed for damage or injury resulting from non-observance of these operating instructions or improper use.

### 3. Safety instructions

Read the safety instructions thoroughly.

**This bicycle computer can be used by children from the age of eight and above, as well as by persons with impaired physical, sensory or mental capabilities or a lack of experience and knowledge, if they are supervised or have been briefed on the safe use of the forearm trainer and the resulting hazards. Children are not permitted to play with the bicycle computer. Cleaning and user maintenance must not be performed by children without supervision.**



**DANGER! RISK OF DEATH AND INJURY.**

Keep children away from packaging material. Danger of suffocation, amongst other things! The bicycle computer contains small parts. Children can swallow these while playing and choke on them. Keep the small parts away from children.

### DANGER FROM BUTTON CELLS!

The button cell operation occurs with button cell type CR2032.



**4. Risk of damage!**  
- Improper handling of the bicycle computer can

lead to damage.

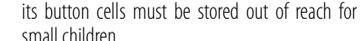
- Operate the bicycle computer in an ambient temperature of between -10° C and +50° C.
- Do not expose the bicycle computer to any permanent moisture.
- Avoid dust, heat and long-lasting direct sunlight
- Never repair the bicycle computer yourself. In case of technical problems, contact the service address provided on the guarantee card.
- If the button cell compartment can no longer be closed securely with the housing lid, dispose of the bicycle computer as described in the "Disposal" chapter.
- To avoid premature depletion of the button cell, the magnet should not be directly in contact with the sensor while the bike is left standing for a longer period of time. Please remove the button cells, if the bicycle computer is not being used for a longer period of time.

### 5. Safety instructions regarding button cells:



**THERE IS A RISK OF INJURY!**

- Button cells should be stored where they are inaccessible for children. Button cells may be fatal if swallowed, so this bicycle computer and its button cells must be stored out of reach for small children.



**EXPLOSION HAZARD: With improper replacement of the button cells.**

- Button cells to be replaced may only be replaced with the same type of button cells. Pay attention to the correct polarity, when replacing the button cells. If necessary, clean the button cell and the contacts of the bicycle computer prior to insertion.



**EXPLOSION HAZARD:** Never recharge non-rechargeable button cells, do not short-circuit and/or open them. This may result in overheating, risk of fire or bursting.



**ATTENTION!** Leaked or damaged button cells may cause acid burns if they come into contact with skin. Do not touch leaked button cells with bare hands; therefore, ensure that you wear appropriate protective gloves in such a case!

- If a button cell has been swallowed, please consult a doctor without delay.

- Only use CR2032 type button cells from the same manufacturer for the sensor and bicycle computer.

- Store button cells in a dry and cool, not damp, place.

- Never throw button cells into fire. Explosion hazard

- Never expose button cells to excessive heat. Increased risk of leakage!

- Do not deform button cells. Risk of explosions and possible injuries to persons.

- Disposable button cells also lose part of their energy during storage.

- Remove the button cells if the bicycle computer is not in use.

- Immediately remove depleted button cells from the bicycle computer and dispose of them correctly with your local collection centre.
- Store disposable button cells separately from discharged batteries, in order to avoid mix-ups.

### 6. Information about solar cells

This bicycle computer is fitted with solar cells, which convert light energy into electric current. This extends the service life of the button cell. Button cells are nevertheless required for the energy supply in case of darkness and those of the sensor.

### 7. Check bicycle computer

Prior to initial use, check whether the bicycle computer is complete and undamaged.

### 8. Assembly

#### 8.1 Assembly point on the bicycle /

There are 2 assembly points for the computer and 1 assembly point for the sensor/magnet, see Fig. (a).

#### 8.2 Assemble bracket and bicycle computer

##### Assembly on the stem / Fig. (b-c)

Insert the rubber base (C) under the bracket of the bicycle computer (B).

Place the bracket (B) with the rubber base (C) on the stem (Assembly Point (1)) and insert two cable ties (H) through the designated guides on the bracket (B). Pull the cable ties (H) tightly, so that the entire bracket is firmly attached. Cut off the excess ends of both cable ties (H) with scissors. The bracket is now assembled.

##### Assembly on the handlebar stem / Fig. (d)

Place the bracket (B) with the rubber base (C) on the handlebar stem (Assembly Point (2)) and insert two cable ties (H) through the designated guides on the bracket (B). Pull the cable ties (H) tightly, so that the entire bracket is firmly attached. Cut off the excess ends of both cable ties (H) with scissors. The bracket is now assembled.

##### Assembly of the bicycle computer / Fig. (e)

Slide the bicycle computer (A) onto the bracket (B) until it clicks into place. To remove the bicycle computer from the bracket, press the locking hook downwards and pull the bicycle computer out of the bracket.

##### Assembly of the sensor and magnet

##### Assembly of the sensor / Fig. (f-g)

Place the rubber base (E) on the sensor (D).

##### NOTE!

The battery cover of the sensor must be facing away from the spokes during assembly.

##### 8.3. Assemble the sensor and magnet

Hold the sensor (D) with the rubber base (E) on the fork tube (Assembly Point (3)) and insert two cable ties (H) through the designated guides on the sensor (D). Pull the cable ties (H) tightly, so that the rubber base (E) and sensor (D) are firmly attached. Cut off the excess ends of both cable ties (H) with scissors. The sensor is now assembled.

## Assembly of the magnet / Fig. (h)

Screw the magnet apart with the magnet holder **F** and attach it as shown to a spoke of the front wheel at the height of the sensor **D**. Make sure that the distance between the sensor **D** and the magnet holder **F** is not more than 2 mm. For this, turn the sensor **D** accordingly on the fork tube (see Fig. h-1).

Make sure that the magnet **F** passes the sensor **D** at the arrow mark on the sensor (see Fig. h-2).

### NOTE!

## 8.4. Adjustment / Fig. (i)

Make sure that the bicycle computer **A** and the sensor **D** are at a 90° angle to one another. The distance between the bicycle computer **A** and the sensor **D** should be a maximum of 60 cm.

**Prior to assembling the sensor, mark the maximum distance on the fork tube!**

Make sure that the computer is installed in the marked transmission range of the sensor, **Fig. (j)**

## 9. Start-up

Prior to starting up the bicycle computer and the sensor for the first time, the button cells must be inserted.

## Insertion of the button cell into the sensor (Fig. k) and bicycle computer / Fig. (l)

Open the cover of the button cell compartment on the sensor **D** with a coin by turning it clockwise. The cover must be pressed lightly downwards with the coin.

Avoid direct skin contact with the surfaces of the button cells. This can cause them to discharge.

Insert the button cell **G** surfaces so that the + polarity is visible. Close the cover using the coin, after you have inserted the button cells.

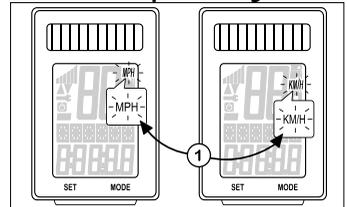
The same procedure is used for the bicycle computer **A**. You may need to remove the bicycle computer off of the bracket for this, **Fig. (e)**. Please do not insert the button cells loosely, as otherwise the functions cannot be displayed.

## 9.1 Menu languages

Before setting the computer, remove the protective film from the display.

After inserting the button cells, the setting will light up for selecting the menu languages. German, English and French are available to choose from. Press the MODE key to switch between the languages. Confirm your selection with the SET key.

## 9.2 km/h or mp/h setting

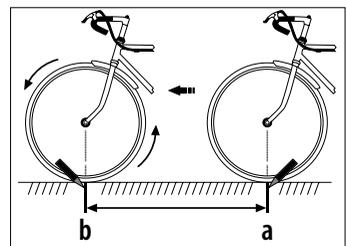


You can select here between km/h (kilometres) and mp/h (miles). "SET KM" flashes in the display. Use the MODE key to switch between the units of measurement. Confirm your selection with the SET key.

SET KM

SET MPH

## 9.3 Tyre size setting



You can determine your tyre size as follows:

1. Make sure that the tyres are inflated correctly.
2. Turn the front tyre valve to the low-

est position and mark the position of the valve on the ground **(a)**.

3. Move the bicycle forward by one tyre rotation, until the valve has reached the lowest position again **(b)**.

4. Measure the distance travelled. You have determined the tyre size.

In the display, the base setting is shown for the tyre size "2155" (in mm). The thousand figure can only be set from 1 to 2. By pressing the MODE key, the thousand figure flashes. By pressing the MODE key, this figure is increased step-by-step by a value of one. The selection is confirmed by pressing the SET key. The subsequent numbers are set accordingly. The one, ten and hundred figures can be set to a number between 0 and 9.

## 9.4 Setting the total distance

The base setting "00000" appears in the display. The base setting is confirmed by pressing the SET key. The ten thousand figure flashes by pressing the MODE key. By continuing to press the MODE key, the figure can be increased step-by-step by a value of one. The selection is confirmed by pressing the SET key. The one, ten, hundred, thousand and ten thousand figure can take on a value of between 0 - 9.

## 9.5 Setting the inspection interval

The base setting "000" appears in the display. This corresponds to the distance in km until the next bicycle inspection. The hundred figure flashes by pressing the MODE key. Press the MODE key, to increase the one, ten or hundred figure step-by-step by the value of one. The selection is confirmed by pressing the SET key. In order to display a due inspection, a spanner is displayed when the set kilometres have been reached.

## 9.6 Setting the weight

"KG" (kilogram) flashes in the display. Switch to "LB" (pounds) by pressing the MODE key. Confirm with the SET key. After this, the base setting "065" appears in the display. The hundred figure flashes first. You increase this value with the MODE key and confirm with the SET key. Proceed in the same way for the one and ten figure.

## 9.7 Display of CO<sup>2</sup>-KG emission reduction

This function is for the calculation of the CO<sub>2</sub> emission reduction. This calculates how much CO<sub>2</sub> would had been produced, if the distance has been travelled with a car, instead of with a bicycle. Find the emission value in g/km in the technical documentation for your car. Or use the base setting "160" (g/km). The hundred figure flashes by pressing the MODE key. Press the MODE key, to increase the one, ten or hundred figure step-by-step by the value of one. The selection is confirmed by pressing the SET key.

## 9.8 Setting the 12 / 24 hour display

"24" flashes in the display (24 hour time format). Switch to "12" by pressing the MODE key. Confirm with the SET key.

## 9.9 Setting the clock

The hours flash in the display. Continue pressing the MODE key until the correct number is displayed. Confirm with the SET key and thereby automatically reach the minutes display. Proceed in the same way for this. You can reach Point 9.8 again by pressing and holding the SET key for 3 seconds. Proceed as already described. Afterwards, you can set the time and the background lighting again.

## 9.10 Setting the background lighting

"ON" flashes in the display. Press the MODE key to switch between "ON" and "OFF". If you switch off the background lighting, you will reach the main function display. After confirming the background lighting, specify the time period (start and end time) during which this function should be switched on. The hours flash in the display. Continue pressing the MODE key until the correct number is displayed. Confirm with the SET key (thereby automatically switching to the minutes display). Proceed in the same way for this. The background lighting will switch on for approx. 3 seconds at a time, as soon as the MODE or SET key is pressed within the set time period.

## 10. Checking the bicycle computer

Use the SET or MODE key to activate the bicycle computer. If you now rotate the front wheel of the bicycle, the speed will be measured. If no speed is displayed, check and repeat the assembly, if necessary.

## 11. Restart

If you would like to reset the settings, press the SET and MODE key at the same time for approx. 4 seconds. Afterwards, wait for approx. 3 seconds until the language setting "DEUT." flashes. After restarting/resetting, the bicycle computer will be in the base setting and all settings must be entered again.

## 12. Automatic display switch-off

After approx. one minute of standstill, the bicycle computer automatically switches to standby mode, in order to save energy (time will continue to be displayed). By pressing any key or with vigorous vibration, you can reactivate the bicycle computer.

## 13. Automatic start-stop function

After the first-time activation from standby mode, all functions will show an automatic start-stop function (exception: stopwatch and time). This will start, the first time the magnet passes the sensor. If the bicycle stands still, approx. 3 seconds will remain for a new signal. If there is no further signal, the measurement will stop automatically.

## 14. Functions

After the bicycle computer starts up the speed and time will be displayed. The speed is constantly updated and will appear in the middle of the display. The measurement range is 0.1-99.9.

### TRIP (daily kilometres)

Automatic start at the beginning of the ride. Maximum measurement range: 999.99.

### RIDE TM (riding time)

The total riding time is displayed since the last restart. Maximum measurement range: 9:59:59.

### AV SPEED (average speed)

Maximum measurement range: 99.9 km/h or mp/h

### MAXSPD (maximum speed)

The maximum reached speed is stored. Maximum measurement range: 99.9 km/h or mp/h

### ODO (total distance)

The total kilometres (miles) ridden are stored. Maximum measurement range: 99999. You can reach the base settings again by pressing and holding the SET key for 3 seconds. Proceed as explained in Point 9.1 to 9.6.

### TMP°C (Temperature)

The temperature is measured approx. every 5 minutes and updated. Press and hold the SET key for approx. 3 seconds to switch to °F (Fahrenheit). After approx. 2 seconds, the relevant value is converted.

## 15. EXPERT MODE

You can activate additional functions in EXPERT MODE. To do this, press and hold the MODE key for approx. 5 seconds. Confirm again with MODE. You are now in EXPERT mode.

You can switch between OFF and ON by pressing the MODE key. The selection is confirmed by pressing the SET key.

### STW (stopwatch) - EXPERT

Maximum measurement range: 9:59:59. Press the SET key to start the stopwatch. A stopwatch symbol  appears on the left in the display. By pressing the SET key again, the counter is stopped. Press and hold the SET key for approx. 3 seconds, to set the stopwatch to 0.

### MNTEMP & MXTEMP (minimum & maximal measured temperature)

You can only set to F (Fahrenheit) in the current temperature display.



### CAL (calorie counter) - EXPERT

The current calorie consumption (kcal) is displayed. Maximum measurement range: 999.9. You can reach Point 9.6 by pressing and holding the SET key pressed for 3 seconds. You can set the weight again here, if needed. The calorie display is purely for motivation.

### KCAL (total calorie counter) - EXPERT

The total calorie consumption (kcal) is displayed since the last restart. Maximum measurement range: 99999.

### FAT (fat burned) - EXPERT

The accumulated burned fat is displayed in grams. Maximum measurement range: 999.9.

### SPD.CO total speed comparison - EXPERT

Calculates the difference between the current speed and average speed in one-second intervals. If you are riding slower than the average, a "-" symbol appears AND the arrow under the bar of the speed tendency points downwards. If you are riding faster than the average, the arrow points upwards. The "-" arrow disappears.

### CO<sup>2</sup>-KG emission reduction - EXPERT

By pressing and holding the SET key for 3 seconds, you will reach the base setting at Point 9.7 to change the initial value.

### SCAN - EXPERT

In this mode, the TRIP, RIDE TM and AV SPEED functions are automatically displayed consecutively at 2-second intervals. You can reach the next function by pressing the MODE key.

**Low battery indicator:** Low Battery symbol appears at the top right of the display , if the voltage of the button cell falls below 2.7 V (initial value 3 V).

### Speed tendency

Constant display of the speed development. A bar symbol appears on the left in the display . When accelerating, the number of bars increases (maximum of 5) and when reducing speed, the number of bars decline (minimum of 1).

### Reset data (TRIP, RIDE TM, AV SPEED, MAX-KMH, KCAL, FETV) - EXPERT

Continue pressing the MODE key until the appropriate function is displayed. Press and hold the SET key for approx. 3 seconds to reset all of the values (except for temperature and time).

## 16. Cleaning and care

**CAUTION!**  
**DANGER OF SHORT-CIRCUITING!** A short-circuit can be caused by moisture penetrating the housing.

### NOTE!

- Never immerse the bicycle computer in liquid.
- Make sure that no liquid enters into the housing.

## RISK OF DAMAGE! Improper cleaning can cause the bicycle computer to become damaged.

- Do not use aggressive cleaning agents, brushes with metal or nylon bristles, or sharp or metallic cleaning items, such as knives, hard spatulas, etc. These can damage the surfaces.
- Never put the bicycle computer in the dishwasher. This would destroy it.

Wipe the bicycle computer off with a lint-free, dry cloth.

## 17. Storage

- All parts must be completely dry before storage.
- Always store the bicycle computer in a dry place.
- Protect the bicycle computer from direct sunlight.
- Store the bicycle computer in a place that is inaccessible for children, securely locked and at a storage temperature of between -10° C and +50° C.

## 18. Fault description

### NOTE!

Prior to each ride, check the attachment of the bicycle computer, sensor and magnet.

#### - No speed display:

- Check the alignment of the sensor and the magnet.
- Check the distance between the magnet and the sensor (max. 2 mm) and the distance and angle between the bicycle computer and sensor (90°/ max. 60 cm).
- Is the computer within the transmissionrange of the sensor, Fig. (j).
- Check the button cell of the bicycle computer and the sensor.
- Replace the button cell.

#### - Incorrect speed measurement:

- Check the setting of the tyre size.
- Check kilometre/mile setting.
- Check the alignment of the sensor and the magnet.

#### - Black display:

- Check whether the display has become too hot. Let it cool down.

#### - Display shows irregular numbers:

- Remove and reinsert the button cell. Pay attention to the correct polarity.

#### - Weak or no display:

- Check positioning of the button cell.
- Replace the button cell.

## 19. Conformity declaration

We, Monz Handelsgesellschaft International mbH & Co. KG, Schöndorfer Straße 60-62 | 54292 Trier | Germany, declare under sole responsibility, that the product: Bicycle computer, Model No.: 22970, to which this declaration refers, complies with the requirements of Directives 2011/65/EG and 2014/53/EU. The CE symbol confirms conformity with EU directives. You can find the complete declaration of conformity at: <https://www.monz-international.de/index.php/en/customer-support/downloads/category/37-2020>

## 20. Disposal Dispose of the packaging unmix

The packaging and operating instructions are made of 100 % environmentally friendly materials, which you may dispose of at local recycling centres.

## Disposal of the old device

(Applicable in the European Union and other European countries with systems for separate collection of recyclable materials)

## Old devices should not be disposed of with household waste!

If the bicycle computer can no longer be used, every consumer is legally obligated to dispose of old devices separately from household waste, e.g. with a collection centre of his municipality/district. This will ensure that old devices are recycled properly and negative implications are avoided for the environment. That is why electrical devices are marked with the adjacent symbol.

## Disposal of button cells

Button cells and rechargeable batteries are not permitted to be disposed of with household waste. They contain harmful heavy metals. Marking: Pb (= lead), Hg (= mercury), Cd (= cadmium). You are legally obligated to return used button cells and rechargeable batteries. After use, you can either return the button cells to our point of sale or in the direct vicinity (e.g. with a retailer or in municipal collection centres) free of charge. Button cells and rechargeable batteries are marked with a crossed-out waste bin.