

PACKAGE CONTENTS

1. **CICLOMASTER CM 628i**
2. Handlebar bracket
(with O-ring for fixing)
3. Speed transmitter
(with O-ring for fixing)
4. Spoke magnet
5. Transmitter belt (heart rate transmitter)
6. Adjustable elastic chest belt



Congratulations on your purchase!

With the **CICLOMASTER CM 628i** you have acquired a radio-controlled electronic bike computer with heart rate measuring and with the highest level of precision and novel digital transmission technology. It possesses state-of-the-art electronics, is waterproof and has a durable and long service life. Its special feature: Transmission from transmitter to device is implemented on a digital communication level and this makes it extremely fault-resistant.

The **CM 628i** has a Two-in-One system. This means that you can use it with 2 bikes and have the recorded values displayed separately for either bike or as a total. In this case, the **CM 628i** automatically identifies immediately, after the first wheel rotations, which of the two bikes is being used.

In addition, the **CM 628i**, with the optional cadence transmitter, can display the cadence without wires. The **CM 628i** is also fitted with the brand new **CICLO[®]Zone** function which, on the basis of the users personal data and his/her daily fitness, calculates the ideal heart rate zone for optimum training (see Chap. 7). As well as many other functions, the **CM 628i** has the AutoScroll function as a further special feature: this means that it displays different images changing one after each other. In this way, you can avoid the distraction of switching functions whilst riding.

Please read through this operating manual carefully.

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1. GENERAL INFORMATION

Warning: whoever carries out sport should have a general medical check up on his/her general state of health - especially beginners, persons older than 35 years of age and anyone who has suffered from illnesses or injuries in the past. It is recommended that a doctor be consulted in any case in the presence of risk factors, such as smoking, high blood pressure, high cholesterol values, diabetes, lack of exercise and excess weight.

Pacemaker wearers should consult their doctor before using any heart rate measurement device!

Measurement of the heart rate is only possible if the transmitter belt is fitted correctly (see Chap. 2.4) and the **CM 628i** is within the transmitter's reception range (approx. 10 m).

The **CM 628i** has been set to receive the signals from the chest belt (see Chap. 4.6 – Initializing the receiver for heart rate monitoring).

The heart rate can be measured even when the **CM 628i** is not mounted on the bike. In this case start the heart rate transmitter search by short pressing both buttons when in heart rate mode ('H' in lower display).

If a ① appears in the top left of display, the indicated values apply to Bike 1. In order to display the values for Bike 2, press both buttons simultaneously for a brief period (the changeover is only possible if the speed = 0) and a ② will appear in the top left of display. To switch back to values for Bike 1 press both buttons simultaneous again briefly, and the display will show ①.

2. OPERATIONAL STARTUP

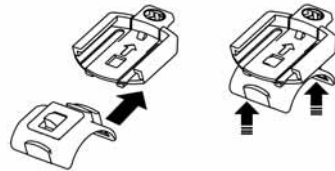
Insert battery (+ facing up), close battery cap. Press any button 2 x, display shows "Ini Scan". Now you can initialise the speed transmitter (see chap. 4.3).

If unintelligible characters appear in the display, press the AC button on the reverse side of the **CM 628i** (repeat if necessary) with the aid of a ballpoint pen (or similar).

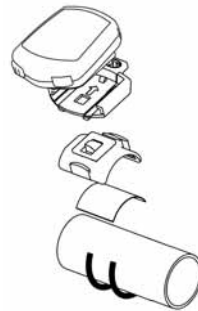
Caution: Longer pressing of the AC button (3 sec.) causes a total reset, i.e. all initialisations are also deleted with that, and so the speed, as well as the cadence- (if used) and heart rate transmitter, must be initialised again (see Chap. 4.3, 4.5 and 4.6).

2.1 Installing the handlebar bracket

The handlebar bracket can be attached to the handlebars or to the stem. To use on the stem, slide off the upper part of the handlebar bracket from the lower section by



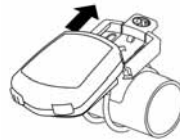
pressing the snap-closure mechanism (e.g. with a pin). Now rotate upper part through 90° and reconnect to the lower part, until the snap-closure mechanism engages audibly and visibly.



Remove the protective foil on the underside of the handlebar bracket and place the handlebar bracket at the required location on the handlebars (or on the

stem) and press slightly. Fasten with the O-ring.

Slide the **CM 628i** onto the bracket in the direction of the arrow until it engages audibly and visibly (release button must be at the initial position). In order to remove it again, press down the release button behind the **CM 628i** and remove the **CM 628i** with light pressure.



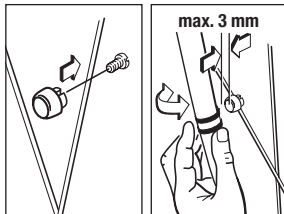
2.2 Installing the speed transmitter

Attach speed transmitter to the fork or to the rear construction with the aid of the attached O-ring (marked side of the transmitter must point to the spokes). Suspend the O-ring on one side of the transmitter, wrap it around the fork and likewise suspend on the opposite side.



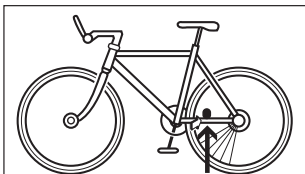
Mount the magnets on a spoke directly opposite the transmitter, so that the magnet points exactly to the marker on the transmitter. Do not over tighten the fixing screw on

magnet. Turn the transmitter so that the separation distance between transmitter and magnet is not more than 3 mm. To check for correct installation, rotate wheel a few times and check whether the computer receives a signal.



2.3 Installing the optional cadence transmitter

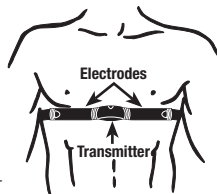
Attach cadence transmitter to a strut opposite the pedal crank with the aid of the O-ring. Hang the O-ring on one side of the transmitter, wrap around the strut and hook back on the opposite side.



Mount the magnets on the pedal crank directly opposite the transmitter with the aid of the cable tie (do not fully tighten at this time), so that the magnet points exactly to the marker on the transmitter. Turn the transmitter so that the separation distance between transmitter and magnet is not more than 3 mm. To check for correct installation, rotate the pedal a few times and check whether the computer receives a signal. Then tighten up cable ties.

2.4 Putting on the heart rate transmission belt

The transmitter belt is hung in the elastic chest belt and fastened around the upper body. The transmitter (the plastic part with the company logo) should lie over the middle of the upper stomach, immediately below the breastbone, so that the logo on the transmitter is legible (viewed from the front) (see illustration). The electrodes in the belt, to the right and left of the transmitter, must be in contact with the skin. Pull the belt tight so that it cannot slip and constant contact with the body is guaranteed during movement.



If the **CM 628i** fails to display any heart rate, it probably means that there is no contact between the skin and the electrodes. Moistening the electrodes and the underlying skin often helps. Best results are obtained if electrode gel is used (available from pharmacies).

3 .FUNCTIONALITY OF THE **CM 628i**

By means of the respective transmitter identification, the **CM 628i** can automatically identify on which bike it is being used.

For this, it is necessary that it is seated on the handlebar bracket and only in this way is the built-in movement sensor activated, which then initiates the transmitter search with the first registered movement of the bike. During the transmitter search a zero flashes in the upper display and, if a transmitter is found, the flashing stops. A non-flashing zero in the upper display means that a transmitter has been found, however, it is not transmitting any speed signal at this time i.e. the wheel is at a standstill.

The speed transmitter is activated with the first wheel rotation and the cadence transmitter through the first pedal rotation.

The transmitter search in the **CM 628i** can also be started manually (if the **CM 628i** is located on the handlebar bracket), this is done by pressing both buttons simultaneously for a short period.

The manual transmitter search functions only if no transmitter has yet been found ('-' in the upper display). If a transmitter has already been found, briefly pressing both buttons simultaneously changes between Bike 1 and Bike 2.

Only when a speed transmitter has been found (and if the cadence is switched on – setting adjustment mode 'C on'), is the relevant cadence also searched for automatically. If no cadence transmitter is mounted, this function should be switched off in the setting adjustment mode, since the cadence transmitter is normally searched for indefinitely (and this search will drain the battery quicker). After this the heart rate transmitter is searched (only when the heart rate is switched on – setting adjustment mode 'H on'). If heart rate measuring should be started without **CM 628i** being on the handlebar bracket, press both buttons short when lower display shows 'H -'.

Caution: Whilst not in use, or during transportation of the **CM 628i** e.g. in the car, the **CM 628i** should not remain on the handlebar bracket. Small movements will activate the movement sensor and start the transmitter search, which is a very demanding function on the battery, e.g. during a car journey of several hours, the battery life is greatly reduced if the **CM 628i** is still in position on the handlebar bracket and the transmitter search is activated indefinitely by the vibrations of the car during the journey.

4. BASIC SETTINGS

If the **CM 628i** is to be used with 2 bikes, some adjustments must be carried out separately for each bike. Ensure the respective Bike number is displayed before adjustments are commenced.

The heart rate measuring is independent from the set bike, so the values set for heart rate measuring are valid for bike 1 and bike 2.

For all adjustments, the following applies:

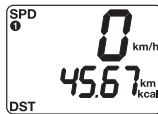
The flashing value can be changed with the right button, by short pressing of the left button this value is stored and the next value to be adjusted flashes or the next display appears.

The current adjusting mode can be prematurely ended by pressing the left button for 3 seconds. All adjustments and displays always refer to the corresponding bike (Display ① or ②).

4.1 Adjusting the unit of measure, the wheel circumference, the daily/total kilometres, switching on and off the cadence and switching on and off the heart rate measuring

Select the required bike (① or ②) through short simultaneous pressing of both buttons.

Then press the right button shortly until the following display appears:



By pressing the left button for 3 sec., this display now appears:



Unit of measure kilometers or miles

The preferred unit of measure for the display can be set here, kilometers or miles.

Change with right button (save setting and continue with left button).



Adjust daily kilometers 1 and 2

Set with right button, save and continue with left button.

Default = 0 km or last adjusted value

Setting range min. = 0.00 km
Setting range max. = 999.99 km or 624.99 miles



The daily kilometers can be adjusted here, e.g. as a starting point in case of tours according to a tour guide-book, if the tour was not entered at "0" km.

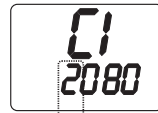
Wheel circumference 1 and 2

Set with right button, save and continue with left button.

Default = 2080 mm (Bike 1) and 2050 mm (Bike 2) or last adjusted value

Setting range min. = 0 mm

Setting range max. = 9999 mm



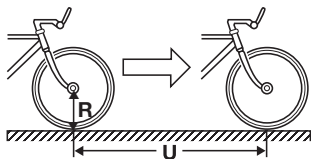
Wheel circumference tire size (mm)

The wheel circumference can be taken from the following table or measured by yourself.

Tire size	Circumference	Tire size	Circumference
40-559	26 x 1,5 2026 mm	40-622	28 x 1,5 2224 mm
44-559	26 x 1,6 2051 mm	47-622	28 x 1,75 2268 mm
47-559	26 x 1,75 2070 mm	40-635	28 x 1 1/2 2265 mm
50-559	26 x 1,9 2026 mm	37-622	28 x 1 3/8 2205 mm
54-559	26 x 2,00 2089 mm	20-622	700 x 20C 2114 mm
57-559	26 x 2,125 2114 mm	23-622	700 x 23C 2133 mm
37-590	26 x 1 3/8 2105 mm	25-622	700 x 25C 2146 mm
32-620	27 x 1 1/4 2199 mm	28-622	700 x 28C 2149 mm
		32-622	700 x 32C 2174 mm

Measurement of the wheel circumference (U)

(for more precise adjustment):



Make a marker on the front tire and on the floor (e.g. with chalk). Move the bike straight ahead by exactly one tire rotation (for a more precise measurement ensure tire pressures are correct and be seated on the bike) and mark the location on the floor. Now measure the distance exactly between the two markers on the floor to give you the wheel circumference (in mm)

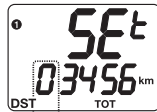
Adjust total kilometers 1 and 2

Set with right button, save and continue with left button.

Default = 0 km or last adjusted value.

Setting range max. = 99999 km or 62499 miles.

The total amount of kilometers travelled up to now can be adjusted here.



Cadence On/Off switching (ON/OFF)

Switch On and Off with right button (continue with left button).

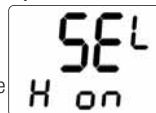
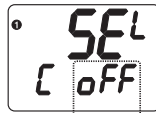
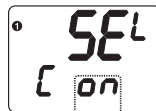
Here, the cadence can be switched On and Off. The cadence should be switched on only when a cadence transmitter is also used (mounted), since the **CM 628i** will normally search for the relevant transmitter indefinitely.

The default setting is 'off'.

Heart rate On/Off switching (ON/OFF)

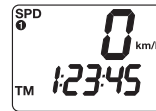
Switch On and Off with right button (continue with left button).

Here, the heart rate measuring can be switched On and Off. The heart rate measuring should be switched on only when a heart rate transmitter is also used, since the **CM 628i** will normally search for the relevant transmitter indefinitely. The default setting is 'on'.

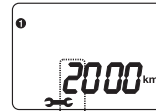


4.2 Setting of the service interval

Press the right button until the following display appears:



By pressing the left button for 3 sec, this display now appears:




Setting of the service interval

Set with right button, save and continue with left button.

Default = 1000 (km or 625 miles) or the remaining value up to the next service.

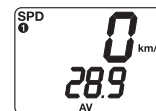
Range = 0 - 9999 km or 6249 miles

The service interval can be adjusted here, e.g. after how many kilometers travelled should the brakes be checked or similar. The service interval will count down until it reaches zero. The service symbol  will then appear in the display.

Following this, a new service interval can be entered. The service symbol is then deleted from the display.

4.3 Initialization of the speed transmitter

Press the right button until the following display appears:



By pressing the left button for 3 sec., this display now appears:



Initialization of the speed transmitter

The initialisation display appears.

If no speed transmitter is initialised (e.g. after a battery change without power-saving mode, or if the **CM 628i** is to be used on a second bike), start the initialisation now by short pressing of both buttons (see below).

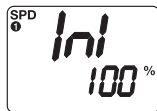
If a speed transmitter has already been initialised, change into the operating mode through short pressing of the left button.

Before the transmitter search, allow the magnet to pass in front of the speed transmitter once (1 wheel rotation).

This will start the Transmitter and emit a signal for approx. 3 minutes.

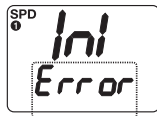
Start the transmitter search in the **CM 628i** by pressing both buttons for a short time.

A percentage value runs up in the display during the initialisation (see Fig.)



After a successful initialisation, the **CM 628i** changes automatically into the normal operating mode and the indication SPD/AV appears in the display.

In the case of an unsuccessful initialisation (see Fig.), the transmitter search can be started again by repeated short pressing of both buttons.



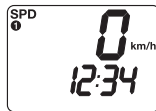
The initialisation can be interrupted after a fault by short pressing of the left button, the **CM 628i** then switches to the normal operating mode.

Pay attention during the initialisation that no second speed transmitter is located nearby (currently active).

A transmitter already initialised to Bike 1 cannot also be initialised for Bike 2 (or vice-versa).

4.4 Setting the time and date

Press the right button shortly until the following display appears:



By pressing the left button for 3 sec., this display now appears:

Time-of-day display: 24-hour or 12-hour (AM/ PM) indication.

Adjust with right button (save and continue with left button).

If the 12-hour indication is selected, a "P" appears before the time in case of PM time.



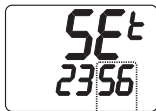
Setting the time

Adjust with right and left button (save and continue with left button).

Time range = 00:00 - 23:59

Here the current time is set in the 24-hour format. (If the 12-hour display had been selected,

00:00 - 12:59 AM/PM can also be entered; a "P" appears before the time in case of PM time)



If the 12-hour display is selected later, the **CM 628i** converts the time automatically.

Setting the year

Set with right button, save and continue with left button.

Year range = 2000 - 2099



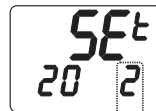
Setting the day/month

Set with right button, save and continue with left button.

Day range = 1 - 31

Month range = 1 - 12

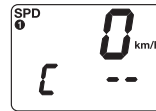
Now the current date can be set (with 24-hour display in the day/month format, with 12-hour display in the month/day format).



The following adjustment (Chap. 4.5) appears only if the cadence has been switched on (see Chap. 4.1).

4.5 Initialization of the cadence transmitter

Press the right button until the following display appears:



By pressing the left button for 3 sec., this display now appears:



Initialization of the cadence transmitter

The initialisation display for the cadence appears in the display (= Cadence).

If no cadence transmitter has been initialised for the actual bike, start the initialisation now (see below).

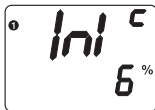
If a cadence transmitter has already been initialised, change into the operating mode through short pressing of the left button.

Before the transmitter search, allow the magnet to pass in front of the cadence transmitter once (1 pedal rotation).

This will start the Transmitter and emit a signal for approx. 3 minutes.

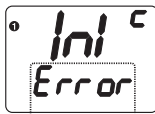
Start the transmitter search in the CM 628 by pressing both buttons for a short time.

A percentage value runs up in the display during the initialisation.



In case of successful initialisation, the **CM 628i** changes automatically into the normal operating mode and the indication SPD/AV appears in the display.

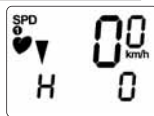
In case of unsuccessful initialisation, the transmitter search can be started again by repeated short pressing of both buttons.



The initialisation is interrupted after a fault by short pressing of the left button and the **CM 628i** then likewise changes into the normal operating mode. Pay attention during the initialisation that no second cadence transmitter is located nearby (currently active).

4.6 Calculation of *CICLOZone*, setting of the heart rate limits /fitness level /sex / weight / year of birth and initialisation of the heart rate transmitter

Press the right button until the following display appears:



By pressing the left button for 3 sec., this display now appears:



By pressing both buttons short simultaneously the *CICLOZone*-calculation is started (see Chap. 7 *CICLOZone*).

N.B.: when the **CM 628i** is used for the first time, the *CICLOZone* function should not be started at once, since in order to obtain an exact calculation it is necessary to insert the personal data relative to sex, weight and age (these values are also necessary for calculation of the calorie consumption).

After setting these values, the *CICLOZone*-calculation can be started (see page 51).

To set the needed values for the calculation press left button short:



Heart rate lower limit

Adjust with right and left button (save and continue with left button)

Default setting – 100 bpm (beats per minute) or with *CICLOZone* calculated value.

Range: 20 – 240

A lower heart rate limit can be set here or (after *CICLOZone*-calculation) the calculated value is shown.

When the actual heart rate is lower than this value, the **CM 628i** gives an optical alarm (display shows blinking heart rate with 'lo' = low).

Heart rate upper limit

Adjust with right and left button (save and continue with left button)

Default setting – 160 bpm (beats per minute) or with *CICLOZone* calculated value.

Range: 20 – 240



An upper heart rate limit can be set here or (after *CICLOZone*-calculation) the calculated value is shown.

When the actual heart rate is higher than this value, the **CM 628i** gives an optical alarm (display shows blinking heart rate with 'Hi' = High).

Maximum heart rate

Adjust with right and left button (save and continue with left button)

Default setting – 190 bpm (beats per minute) or with *CICLOZone* calculated value.

Range: 30 – 240

Shows the maximum heart rate, calculated with *CICLOZone*.



Fitness level

Set with right button, save and continue with left button.

Range 1-4, corresponding to the following levels:

- 1 – poor fitness
- 2 – average fitness
- 3 – good fitness
- 4 – high fitness



Here you set your personal fitness level, necessary for the **CICLO_{Zone}**-calculation.

Sex

Set with right button, save and continue with left button.

Change between m = male and f = female.

The sex is needed for the **CICLO_{Zone}**-calculation and the calorie consumption.



Weight

Adjust with right and left button (save and continue with left button)

Range 20 – 299 kg

The actual weight is needed for the **CICLO_{Zone}**-calculation and the calorie consumption.



Year of birth:

Adjust with right and left button (save and continue with left button)

Range 1920 – 1999

The year of birth is necessary for the **CICLO_{Zone}**-calculation.



Initialization of the heart rate transmitter

The initialisation display for the heart rate appears in the display.

If no heart rate transmitter has been initialised, start the initialisation now (see below).

If a heart rate transmitter has already been initialised, change into the operating mode through short pressing of the left button.

Before the transmitter search, put on the transmitter belt (see Chap. 2.4). Contact with skin will start the transmitter. Start the transmitter search in the **CM 628i** by pressing both buttons for a short time.

A percentage value runs up in the display during the initialisation.

In case of successful initialisation, the **CM 628i** changes automatically into the normal operating mode and the indication SPD/H appears in the display.

In case of unsuccessful initialisation, the transmitter search can be started again by repeated short pressing of both buttons.



The initialisation is interrupted after a fault by short pressing of the left button and the **CM 628i** then likewise changes into the normal operating mode.

Pay attention during the initialisation that no second heart rate transmitter is located nearby (currently active).

Calculation of the CICLO_{Zone}-Berechnung (see also Chap. 7)

In order to correctly calculate ones personal **CICLO_{Zone}**, it is necessary to firstly introduce personal information regarding sex, weight, age and fitness level.

In order to calculate the **CICLO_{Zone}** position the chest belt correctly, take up a rest position (remain seated and relaxed) and start the **CICLO_{Zone}** calculation ('InZonE' will appear on the display. Press both buttons short to start the calculation).

The **CM 628i** heart rate monitor will then start to time 5 minutes. During this time, stay seated, relaxed and calm, as the **CM 628i** will measure the minimum heart rate reached during this period (heart rate at rest) and will store this value for the subsequent calculation. The lowest



measured heart rate during this 5 minutes is always shown in the upper display.

After the 5 minutes the lower value of the calculated personal **CICLO_{Zone}** appears in the display.

With always short pressing of the left button the upper value of the calculated personal **CICLO_{Zone}** appears.

By pressing left button for three seconds the **CM 628i** leaves the setting mode and display shows normal mode (SPD/H).

By short pressing of left button the **CICLO_{Zone}**-calculation can be ended premature.

The basic settings are now ready.

If the **CM 628i** is to be used for two bikes, the bike-specific settings must be carried out again for the second bike.

5. FUNCTIONS

The individual primary functions can be called up by short pressing of the right or left button, one after each other. Through pressing the right button for 3 sec., the first sub-function is called up in each case and, through subsequent short pressing of the right button, further sub-functions appear.

In travel operating mode, the instantaneous speed is displayed simultaneously with all functions above in the display.

All functions (except for stopwatch and time) have an automatic start/stop in the travel operating mode (if the **CM 628i** is located on the handlebar bracket), i.e. the measurement starts shortly after the first wheel (or pedal) rotational motion and ends a few seconds after the last wheel (or pedal) rotational motion.

The sub-functions of the heart rate (average/maximum heart rate, calorie consumption, fat burn in % and times within/without the set limits) are only calculated when the stopwatch is running.

The daily values for the respective bike are reset to zero through simultaneous pressing of both buttons for 3 sec. (best done directly before beginning a new tour). The indication 'Reset' will appear in the display for a short period.

This reset does not work in the stopwatch function. There only the stopwatch (and with this the sub functions of the heart rate) are reset by pressing both buttons for 3 sec.

The total values can be deleted through a total reset (press AC button on the reverse side for 3 sec. – all adjustments and the transmitter initialisations are then also deleted) or through battery removal for a longer period.

The individual functions and their meanings are explained in the text below.

(To better distinguish the primary functions from the sub-functions, the **primary functions** are printed in bold text while **sub-functions** in bold, italic text.)

Current speed (SPD)

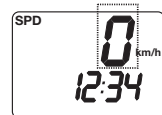
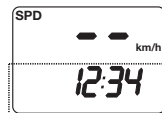
Indicates the current speed in km/h (or mph = miles per hour) and is always displayed with all primary functions in the upper display. In this case, the arrows (to the left in the display) indicate whether the travel speed is faster (▲) or slower (▼) than the instantaneous average speed. If both arrows are displayed, the travel speed is in the range of the instantaneous average speed.

Range: 0 - 999 km/h or 624 mph (depending on the adjusted wheel circumference).

The display shows the speed up to 200 km/h or mph with a decimal place, above that without a decimal place (in this case, the third location is then displayed to the right above, where the decimal place is normally located).

If " — " is indicated in the display, this means that no active speed transmitter has been found. The automatic transmitter search is started through the insertion of the CM 628 into the handlebar bracket and then a zero flashes in the upper display.

The display again returns to " — ", this means that no transmitter has

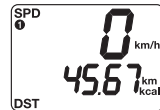


been found. Then rotate the wheel once slowly (in order to switch on the transmitter) and start the transmitter search again by small movement of the bike or manually by pressing both buttons short.

Daily kilometers (DST)

Indication of the kilometers travelled up to now.

Range: 0 - 999.99 km or 624.99 miles



Sub-functions:

1. Actual daily kilometers

Sub-function of the function daily kilometers.

If the daily kilometers were changed in the basic setting, the daily kilometers actually travelled are displayed here. The symbol of the respective bike appears in the display in this case.



If the daily kilometers were not changed, the sum of the daily kilometers of Bike 1 and Bike 2 is displayed (① and ② in



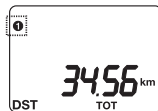
the display).
Range: 0 - 999.99 km or 624.99 miles

2. Total kilometers

Sub-function of the function daily kilometers.

Display of the total kilometers travelled up to now.

Range: 0 - 99999 km or 62499 miles



3. Sum of the total kilometers (Bike 1 + Bike 2)

Sub-function of the function daily kilometers.

This indicates the total kilometer sum travelled up to now by Bike 1 and Bike 2.

Range: 0 - 99999 km or miles



Note: On reaching the maximum value with the functions daily kilometers and actual daily kilometers (and/or sum of the daily kilometers), the value is automatically reset to zero for these functions. Simultaneously, the daily travel time is also reset to zero.

On reaching the maximum value with the function total

kilometers, the value is also automatically reset to zero. Simultaneously, the value of the total travel time function is reset to zero.

Daily travel time (TM)

Indicates the time travelled up to now (without standstill times, i.e. no wheel rotation is implemented, this time is not calculated). The measurement starts with the first wheel rotation and stops a few seconds after the last wheel rotation.

Range: 0 - 999:59 h (up to 9:59:59 seconds are also displayed, after that only hours and minutes)

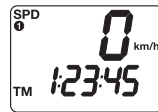
Sub-functions:

1. Sum of the daily travel time

Sub-function of the daily travel time function.

Indicates the sum (Bike 1 and Bike 2) of the daily travel time travelled up to now.

Range: 0 - 999:59 h (up to 9:59:59 seconds are also displayed, after that only hours and minutes).



2. Total travel time

Sub-function of the daily travel time function.

Indicates the accumulated total time travelled up to now.

Range: 0 - 999:59 h (up to 9:59:59, seconds are also displayed, after that only hours and minutes)

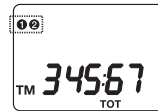


3. Sum of the total travel time

Sub-function of the daily travel time function.

Indicates the sum (Bike 1 and Bike 2) of the total travel time travelled up to now.

Range: 0 - 999:59 h (up to 9:59:59, seconds are also displayed, after that only hours and minutes)



Note: On reaching the maximum value with the functions daily travel time and sum of the daily travel time, the value is automatically reset to zero for these functions. Simultaneously, the daily kilometers are also reset to zero. On reaching the maximum value with the total travel time function, the total travel time and the total kilometers are also automatically reset to zero.

Stopwatch (TM - flashing)

Here, the stopwatch can be started and stopped (by pressing the right button for 3 sec.).

Range: 0 - 9:59:59 h

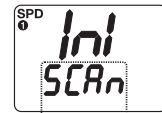
The stopwatch (and the sub-functions of heart rate: average/maximum heart rate, current calorie consumption/fat burn in % and the times within/without the set limits) are reset to zero by pressing both buttons for 3 sec. in this function.

If the daily values of a bike are reset, the stopwatch is also automatically reset to zero.

Since the stopwatch runs independently of the bike (for Bike 1 and Bike 2), it is not possible to change between bike1 and bike 2 in this function and likewise no bike (① or ②) is indicated in the display to the left above.

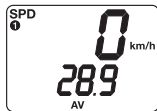
After starting the stopwatch, a switch into every other function can be made whilst the stopwatch continues in the background.

If no speed transmitter has yet been initialised, the initialisation display is indicated instead of the next function (see adjusting mode Chap. 4.3).



Average speed (AV)

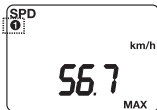
Indicates the average speed.
Range: 0 - 999 km/h or 624 mph
(dependent on the wheel
circumference adjusted)



Sub-function:

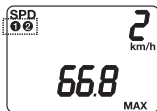
1. Maximum speed

Sub-function of the average speed
function.
Indicates the highest speed
travelled up to now (with the bike
adjusted).
Range: 0 - 999 km/h or 624 mph (dependent on the wheel
circumference adjusted)



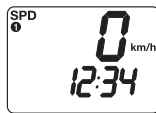
2. Maximum speed Bike 1 or Bike 2

Sub-function of the average speed
function.
Indicates the highest speed
travelled up to now in total and also
with which bike it was achieved.
Range: 0 - 999 km/h or 624 mph (dependent on the wheel
circumference adjusted).



Time

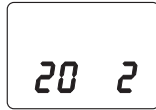
Indicates the current time.
Range: 00:00 - 23:59 or 00:00 -
12:00 AM/PM (a "P" is placed
before the time in case of PM)



Sub-function:

1. Date

Sub-function of the time function.
Indicates the current date (leap
years are considered). With 24-hour
display in the format TT MM
(Day/Month), with the 12-hour
display in the format MM TT (Month/Day).



2. Year

Sub-function of the time function.
Indicates the current year.



**The following function appears only if the heart rate
measuring was switched on in the adjusting mode
and a heart rate transmitter was initialised.**

If no heart rate transmitter has yet
been initialised, the initialisation
display is indicated instead of the
next function (see adjusting mode
Chap. 4.6).



Heart rate

Shows the actual heart rate.
Range: 20 - 240 bpm



NB: the following sub-functions are only calculated when
the stopwatch is running.

Sub-function:

1. Average/maximum heart rate

Sub-function of the heart rate
function.
Indicates the average heart rate in
the upper display and (flashing) the
maximum heart rate in the lower
display.



2. Current calorie consumption/fat burn in %

Sub-function of the heart rate
function.
Indicates the current calorie
consumption in the lower display and
(flashing) the current fat burn (in %) in
the upper display.



3. Training time above the upper limit set for heart rate

Sub-function of the heart rate
measurement function.
Indicates the training time during
which heart rate exceeded the upper
limit set.



4. Training time within the limits set for heart rate

Sub-function of the heart rate
measurement function.
Indicates the training time during
which heart rate was within the limits
set.



5. Training time below the lower limit set for heart rate

Sub-function of the heart rate measurement function. Displays the training time during which heart rate dropped below the lower limit set.



6. Total calorie

Indicates the total calorie consumption. Total calories can be set to zero only by pressing AC-button on the reverse side for 3 sec. (caution: this causes a total reset of the **CM 628i**, that means all values and settings are set to zero or the default value).



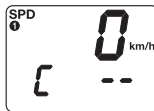
The following function appears only if the cadence was switched on in the adjusting mode and a cadence transmitter was initialised.

If no cadence transmitter has yet been initialised, the initialisation display is indicated instead of the next function (see adjusting mode Chap. 4.5).



Cadence

Indicates the current cadence. Range: 20 - 260 rotational motions per minute



Sub-functions:

1. Average cadence

Sub-function of the cadence function. Indicates the average cadence.



2. Maximum cadence

Sub-function of the cadence function. Indicates the maximum cadence achieved.

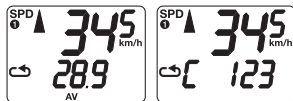
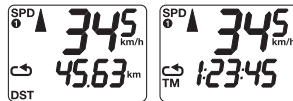


AutoScroll function

Indicates the following values in 3 sec. cycle in the lower display (in this case, the symbol appears to the left in the display below):

Daily kilometers - Travel time - Average speed - Heart rate

(if switched on) - Cadence (if switched on). The AutoScroll function is ended by short pressing of the left button.



6. ACTIVATION OF THE POWER-SAVING MODE

The **CM 628i** can be switched into power-saving mode, i.e. the display will go blank, however it retains all stored data (apart from time and date). This mode is appropriate e.g. when changing the battery, or when the **CM 628i** is not used for a long period.

Press the right button shortly until the stopwatch display appears (TM flashing):



By pressing the left button for 3 sec., this display now appears:



Switching on power-saving mode:

The power-saving mode is switched on by short pressing both buttons simultaneous and switched off by any button press.

7. CICLOInZone®

Philosophy and use.

CICLOInZone® is a solution for the very best personalisation of your training routine.

It is possible to calculate the optimum training threshold with the **CICLOInZone®** function on the basis of your personal data and your pulse rate when at rest.

CICLOInZone® is the ideal solution for personalised cardio training applied to any sport, from jogging and cross-country running to road and indoor cycling. Improve your fitness? – Lose weight? – Train whilst always taking your health into consideration? Everyone will find

the correct aim to follow in their training. But how do you train to achieve those aims in the most efficient possible manner? How do you find the right intensity of effort during the training? **CICLO[™]Zone[®]** is the optimum training ZONE for effort, resistance and weight loss.

What does **CICLO[™]Zone[®]** do?

It calculates the optimum training zone for effort, resistance and weight loss.

The values vary from person to person and they offer a valid training support - always staying between 70% and 85% of the maximum heart rate.

(+/- 5% of tolerance, taking into consideration the actual heart rate when at rest and the level of training).

The question of burning fat is seen in the "correct" light with **CICLO[™]Zone[®]** – on the basis of the personal data collected.

8. BATTERY CHANGE

If the values and adjustments of the **CM 628i** are to be maintained during the battery change, the unit must be switched into the power-saving mode before carrying out a battery change (see Chap. 6). In addition, the new battery

must be inserted within 20 sec. after removal of the old battery, otherwise the data will be deleted (in spite of power-saving mode).

CICLOMASTER CM 628i:

Unscrew anti-clockwise the screwed cap on the reverse side of the computer with the aid of a coin. Remove the old battery and insert new 3-volt lithium battery Type CR 2032 with the positive terminal Up. Close screw cap again.

Do not overtwist battery cover!

Speed and cadence transmitter:

The battery in the transmitters has a life of approx. 5 years with normal use. For battery change, please send in the transmitter (for address, see Chap. 11).

Transmitter belt battery:

Unscrew the battery cover in an anti-clockwise direction and remove the old battery. Fit a new CR2032 lithium battery, with the plus sign (+) facing upwards, and replace the cover.

Please do not dispose of used batteries in domestic waste, but dispose of according to regulations.

9. CARE AND MAINTENANCE

Do not expose the device to direct sunlight, or to low or high temperatures (below 0°C or above 50°C).

Keep the heart rate transmission belt clean:

Do not wash the transmitter belt in a washing machine, due to the electrodes which are attached. To clean the transmitter belt, wipe it carefully with a detergent for synthetic fabrics. Do not dry in direct sunlight. The elastic chest belt is washable, but it must be carefully dried before use.

10. TROUBLE SHOOTING

Faulty display or no indication in the display No reaction from the pushbuttons

- Press AC button on the underside of the device once or repeatedly

Caution: Pressing the AC button for 3 sec. deletes all values and adjustments

- Check and/or renew battery

Instantaneous speed is not displayed Speed too high or too low

- Check transmitter and magnet for correct installation
- Check whether magnet is correctly mounted on the spoke (directly opposite the marker of the transmitter with max. 3 mm separation distance)
- Transmitter battery empty or transmitter defective
- Check distance between handlebar bracket and transmitter (max. 2 m)
- Check adjusted wheel circumference
- Check unit of measure

Cadence is not displayed

- Check whether switched on in the adjusting mode
- Check transmitter and magnet for correct installation
- Transmitter battery empty or transmitter defective

No heart rate displayed or values displayed are incorrect or unstable

- proof whether heart rate is switched on in the setting mode
- Check transmitter belt (battery)
- Skin too dry or cold
- Distance between CM 628 and transmitter belt is too great (max. 10 m)

Manual changeover to 2nd bike does not function

- Check whether the speed is at zero (only then is a changeover possible)

Initialization runs only very slowly and is then interrupted with 'Error'

- Transmitter battery empty or transmitter defective
- Transmitter is already initialised for other bike. If, in spite of this, the transmitter should be initialised for this bike, a total reset must be made (press AC button for 3 sec.), so that the already existing initialisation is deleted.

Caution: With this, all settings and total values are also deleted!

Automatic transmitter search does not start when bike is in motion/moved.

- **CM 628i** is not seated (or is not seated correctly) on the handlebar bracket
- A transmitter has already been received (SPD 0 in the display), which can happen e.g., when a change is made from one bike to another. As long as the **CM 628i** is still located in the area of the first transmitter, the indication 0 remains in the display. Only when the **CM 628i** is outside of the range of the first transmitter does the indication ' - ' appear. With the next movement, the transmitter search then starts automatically.

Individual values (e.g. distance or average speed) still change at the end of the tour, although the wheel is at a standstill and displays the speed 0.

- The **CM 628i** has a built-in correction function, so that all values are checked again at the end of the tour (if no further signal comes in – SPD 0) and corrected, where appropriate. It can happen through this correction function that, at the end of a tour, individual values change once again – both Up and Down.

11. GUARANTEE

We offer a guarantee for 24 months from the date of purchase on the **CM 628i**. The guarantee is limited to material and processing faults. The batteries are excluded from the guarantee.

The guarantee is valid only if the computer, with accessories, has been handled and maintained carefully and according to operating instructions.

To return the **CM 628i** under conditions/terms of the guarantee, please refer to your dealer, your local distributor or send the computer with the proof of purchase(date) and all accessories, and with sufficient postage, to:

CICLO SPORT SERVICE
K. W. Hochschorner GmbH
Konrad-Zuse-Bogen 8
D-82152 Krailling

Phone: 0049 180 /5 00 47 43 (EUR 0,12 min.)

Fax: 0049 89 / 714 07 83

E-Mail: ciclo-service@ciclosport.de

Please read through the operating manual again carefully before sending in the device and check the battery. In case of valid guarantee claims, the repaired device or a replacement device will be returned free of charge.

Repair

If your **CM 628i** is sent in for repair (or battery change) or if a guarantee claim is not valid, repairs up to EUR 19.- will be carried out automatically.

In case of higher repair costs you will be notified. The repaired device will be sent back COD.

12. TECHNICAL DATA

CM 628i

Operating temperature:

0°C to 50°C

Battery:

Lithium CR2032

Average battery life:

1 year (based on average use of 1 hour per day)

Transmitter belt

Reach:

Up to 10 m

Operating temperature:

0°C to 50°C

Battery:

Lithium CR2032

Average battery life:

1 year (based on average use of 1 hour per day)

Transmission frequency:

868 MHz

Speed and Cadence transmitter

Reach:

Up to 2 m

Operating temperature:

-10°C to 50°C

Average battery life:

5 years (based on average use of 1 hour per day)

Transmission frequency:

868 MHz

13. WARRANTY CERTIFICATE

Sender:

Surname, First name

Street address

Post code/Zip code, Town/City

Telephone (daytime)

E-mail

Reason for sending in:

After expiry of the warranty:

Repairs are carried out up to a maxim value of EURO