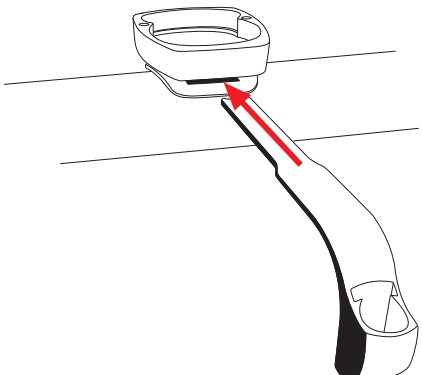
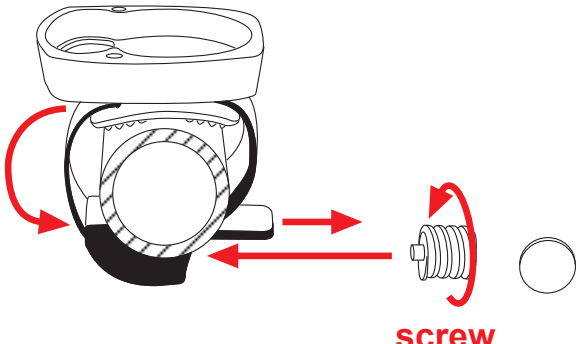
VDO

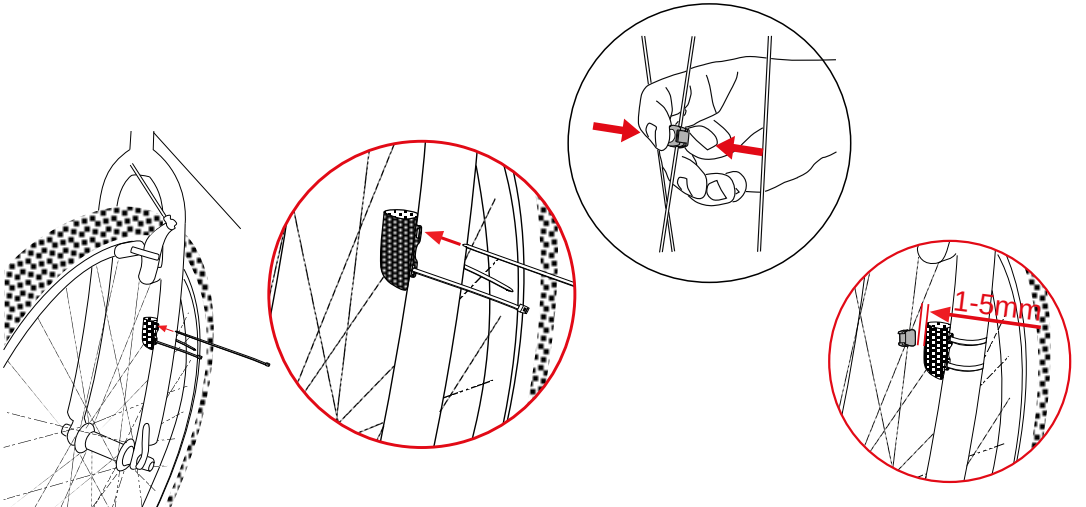
CYCLECOMPUTING

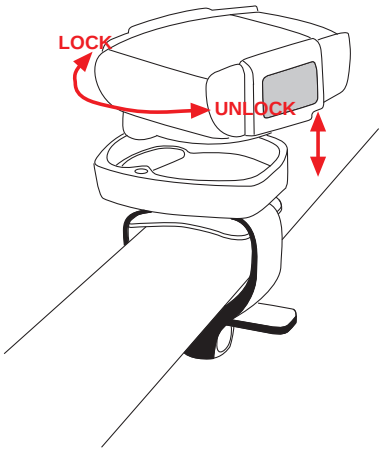
INSTRUCTION MANUAL
BEDIENUNGSANLEITUNG
MANUEL D´INSTALLATION ET D´UTILISATION
MANUALE D´INSTALLAZIONE E FUNZIONAMENTO
INSTALACION Y OPERACIÓN MANUAL
HANDLEIDING

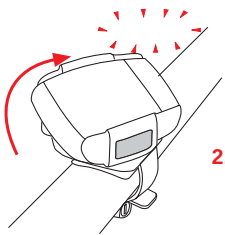
MC1.0+

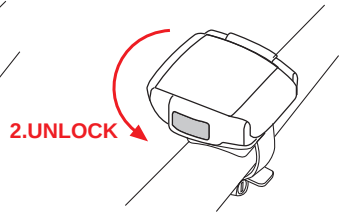


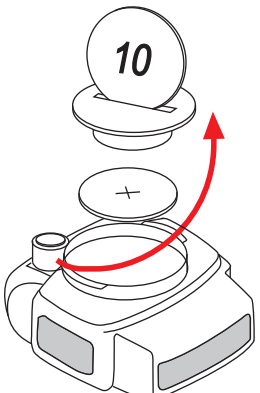

screw


1-5mm


LOCK
UNLOCK




2.UNLOCK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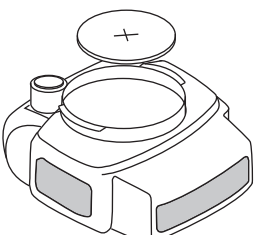

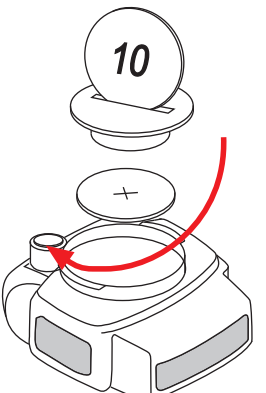
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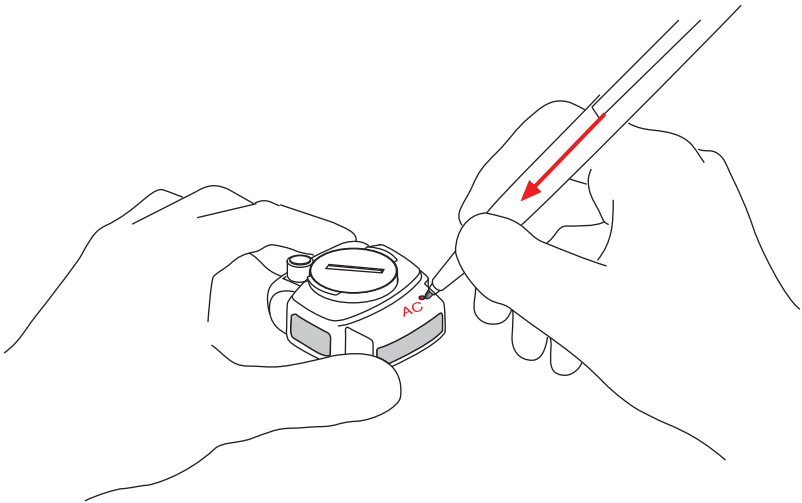
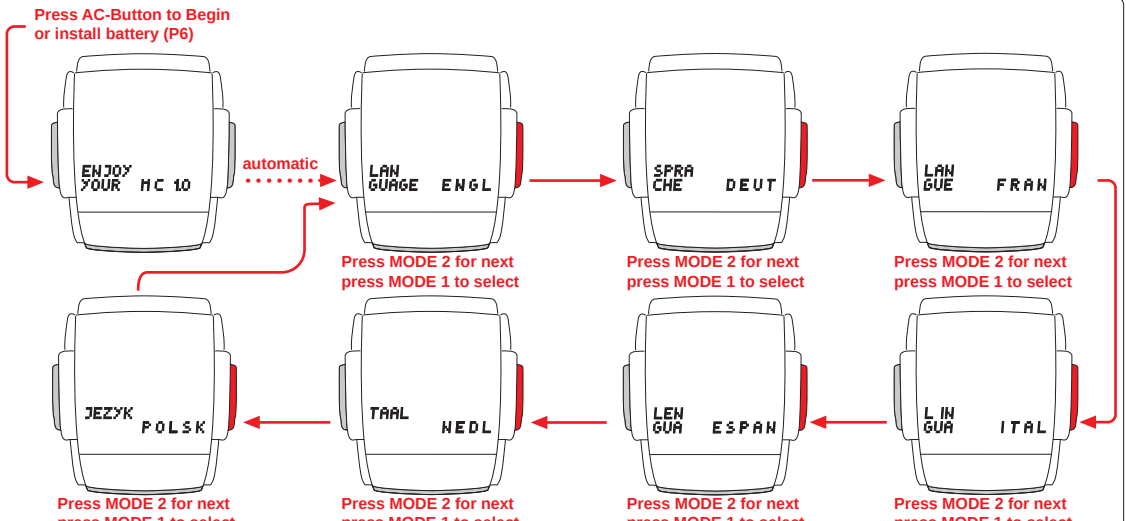
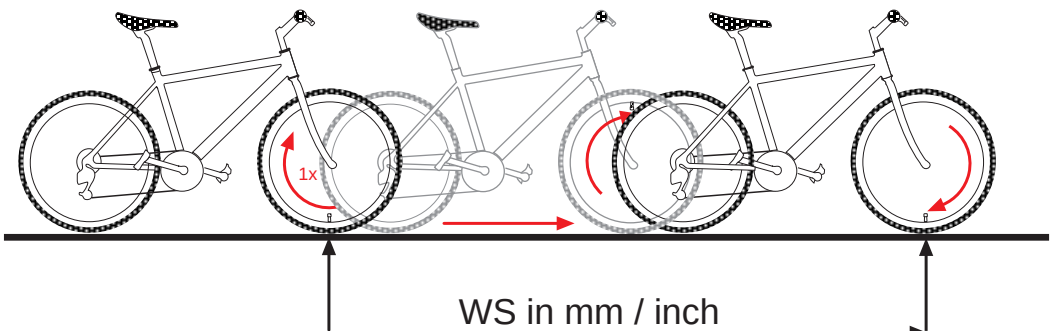
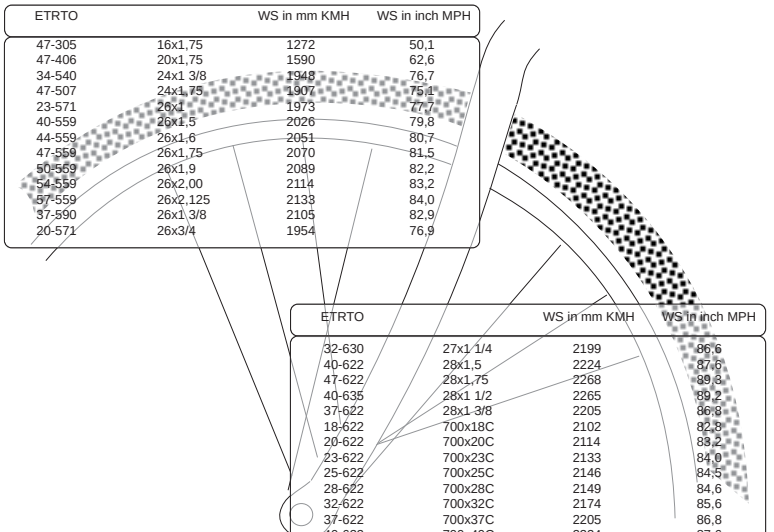

AC

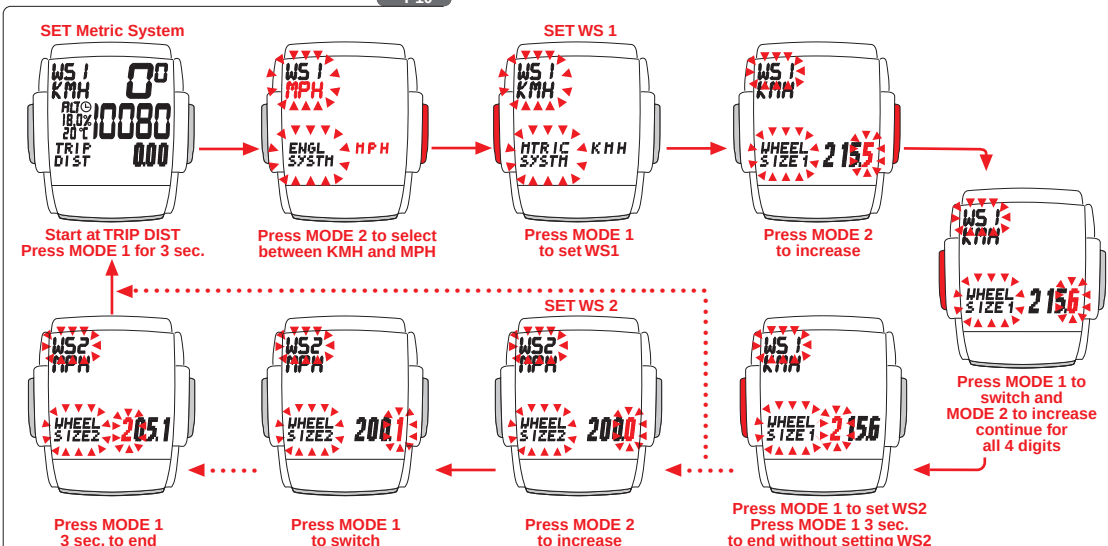

Press AC-Button to Begin
or install battery (P6)
ENJOY
YOUR MC 10
automatic
LAN
GUAGE ENGL
Press MODE 2 for next
press MODE 1 to select
SPRA
CHE DEUT
Press MODE 2 for next
press MODE 1 to select
LAN
GUE FRAN
Press MODE 2 for next
press MODE 1 to select
L IN
GUA ITAL
Press MODE 2 for next
press MODE 1 to select
LEN
GUA ESPAN
Press MODE 2 for next
press MODE 1 to select
TAAL NEDL
Press MODE 2 for next
press MODE 1 to select
JEZYK
POLSK
Press MODE 2 for next
press MODE 1 to select


1x
WS in mm / inch

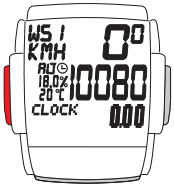


ETRTO		WS in mm KMH	WS in inch MPH
47-305	16x1,75	1272	50,1
47-406	20x1,75	1590	62,6
34-540	24x1 3/8	1948	76,7
47-507	24x1,75	1907	75,1
23-571	26x1	1973	77,7
40-559	26x1,5	2026	79,8
44-559	26x1,6	2051	80,7
47-559	26x1,75	2070	81,5
50-559	26x1,9	2089	82,2
54-559	26x2,00	2114	83,2
57-559	26x2,125	2133	84,0
37-590	26x1 3/8	2105	82,9
20-571	26x3/4	1954	76,9

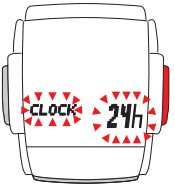
ETRTO		WS in mm KMH	WS in inch MPH
32-630	27x1 1/4	2199	86,6
40-622	28x1,5	2224	87,6
47-622	28x1,75	2268	89,3
40-635	28x1 1/2	2265	89,2
37-622	28x1 3/8	2205	86,8
18-622	700x18C	2102	82,8
20-622	700x20C	2114	83,2
23-622	700x23C	2133	84,0
25-622	700x25C	2146	84,5
28-622	700x28C	2149	84,6
32-622	700x32C	2174	85,6
37-622	700x37C	2205	86,8
40-622	700x40C	2224	87,6


SET Metric System
WS 1
KMH
0°
ALT
18.0K
20.1
10080
TRIP
DIST
0.00
Start at TRIP DIST
Press MODE 1 for 3 sec.
WS 1
MPH
ENGL
SYSTM
MPH
Press MODE 2 to select
between KMH and MPH
SET WS 1
WS 1
KMH
MTRIC
SYSTM
KMH
Press MODE 1
to set WS1
WS 1
KMH
WHEEL
SIZE 1
2155
Press MODE 2
to increase
WS 1
KMH
WHEEL
SIZE 1
2156
Press MODE 1 to
switch and
MODE 2 to increase
continue for
all 4 digits
WS 1
KMH
WHEEL
SIZE 1
2156
Press MODE 1 to set WS2
Press MODE 1 3 sec.
to end without setting WS2
SET WS 2
WS2
MPH
WHEEL
SIZE2
2080
Press MODE 2
to increase
WS2
MPH
WHEEL
SIZE2
2081
Press MODE 1
to switch
WS2
MPH
WHEEL
SIZE2
2051
Press MODE 1
3 sec. to end

SET Clock

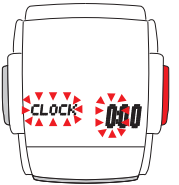


Press MODE 1
3sec.to start

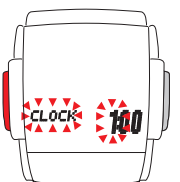


Press MODE 2 to
switch between
24h or 12h

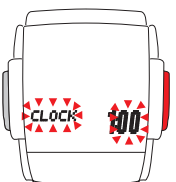
Press MODE 1
to set the hours



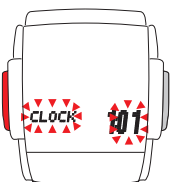
MODE 2 to
increase the hours



Press MODE 1
to set the minutes

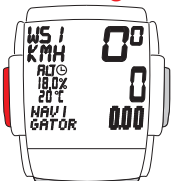


Press MODE 2
to increase the
minutes



Press MODE 1
3 sec. to end

Set Navigator



Press MODE 1
3sec.to start

Press MODE 2
to increase

Press MODE 1
to switch

Press MODE1 3 sec. to end
after you set the navigator

Reset Navigator

Important:
Navigator in Display

Press MODE 2
to reset

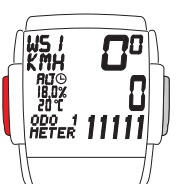
Set ODOMETER

Press MODE 1
3sec.to start

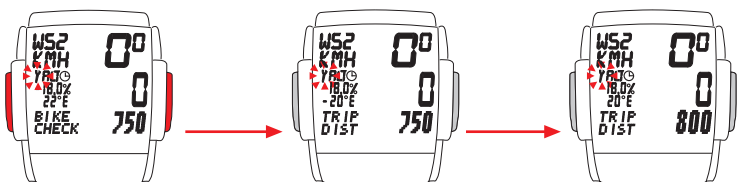
Press MODE 2
to increase

Press MODE 1
to switch

Press MODE1
3 sec. to end
after you set
the odometer



BIKE CHECK

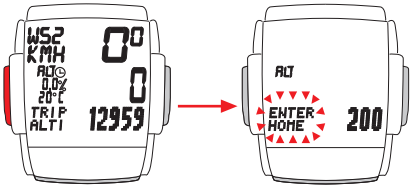


Press any button
BIKE CHECK disappears

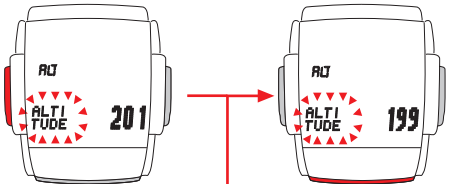
The service icon will remain flashing.
Another 50 km/35 mi.

Then the service interval
icon will also disappear

Set Home altitude



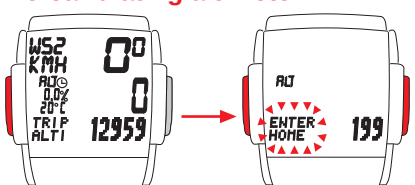
Press MODE 1
3sec.to Enter Home Altitude



Press MODE 1
to decrease privious value
Hold down to quickly scroll

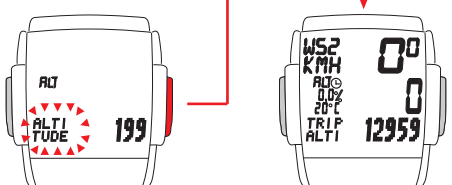
Press ALTI
3sec. to end

Re-calibrating altimeter



Press MODE 1
3sec.to Enter Home Altitude

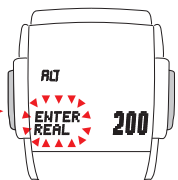
Press MODE1+MODE2
3sec. to recalibration



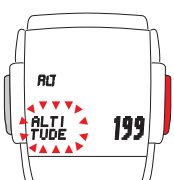
Press MODE 2
to increase privious value
Hold down to quickly scroll

Correction of actual altitude

Press ALTI
3sec.to Enter Real Altitude



Press MODE 1
to decrease privious value
Hold down to quickly scroll



Press MODE 2
to increase privious value
Hold down to quickly scroll

Press ALTI
3sec. to end

Index

Preface

Thank you very much for buying a VDO MC 1.0 bicycle computer featuring an altimeter. The more familiar you get with this model, the more enjoyable your trips are going to be.

Hence, our urgent request:
Please read thoroughly all the information provided in this manual. You are getting important and useful hints for operation to make you fully benefit from all the technical features of your VDO MC 1.0.

We wish you enjoyable trips and rides on your bike with VDO
CYCLE PARTS GMBH

Important information about the altimeter

The altitude calculation works by measuring barometric pressure. Your VDO MC 1.0 converts the data of current barometric pressure into the respective altitude. Depending on the barometric pressure (weather) different altitude readouts for the same location may be displayed. That these barometric changes do not reflect in your altitude readout, your VDO MC 1.0 features an easy-to use barometric pressure re-calibration (see chapter 6.1.3)

Accurate calculation of altitude requires the precise determination of home or basis altitude.

To process barometric pressure data, there is a hole drilled into the bottom of the housing of your VDO MC 1.0.
This hole must never be clogged or taped over.
Please do check on its cleanliness regularly and free the hole carefully if needed.
You must never poke a pointed instrument into the hole.

1.Mounting

1.1 Mounting the handlebar holder

The handlebar holder fits handlebars of any diameter. Before mounting the system, decide if you will be using your left or right hand to operate the computer and then mount the handlebar holder on the respective side. Position the handlebar holder, insert the strap and adjust is by tightening the screw.

Warning: Before tightening the handlebar holder, make sure to adjust the position of the computer head (inclination) when the LCD-display is best visible for you. Only when you find the best position tighten the screw.

P1

1.2 Mounting the speed transmitter / sender

The sensor should be mounted on the same side of the fork as the holder is on the handlebar. Make sure to position the respective rubber shim between fork and sender, position the curved back of the sender next to the spokes and make sure the sender is aimed at the receiver (computer head).

Important: Do not tighten the cable ties yet. Accurately position the sensor and the spoke magnet first, then tighten the cable ties.

1.3 Mounting the spoke magnet

Distance between magnet and sensor should be approx. 1-5 mm. In case this distance is not achievable in the current position, slide the sensor and the magnet on the fork or spoke accordingly. The center of the magnet must be positioned to the marking on the sender. See fig.

P2+P3

1.4 Twist-Click mounting of computer on to holder

The Twist-Click mounting has been exclusively developed for the new line of VDO CYTEC computers. The VDO MC 1.0 also features the Twist-Click-System. The computerhead is put onto the handlebar and by a right turn of the computerhead (TWIST) fixed to the holder (CLICK).

P4

It is just as easy to remove the computerhead from the handlebar holder. Slightly push the computerhead down, twist it to the left, remove computerhead from handlebar holder.

P5

Watch out: Please remove the computerhead from the handelbar holder when you intend not to use your bike for a longer period of time. **(battery power)**

1.5 Installing the 3V battery (type 2032) into the computer head

To save battery power, your VDO MC 1.0 comes with the battery not yet fitted. Prior to initial use the batteries will first have to be installed with the positve pole on top.

Warning: Once the battery is installed your VDO MC 1.0 starts the set-up of display language (see also chapter 2.4 for details).

P6

If you find the computer is not functioning properly after the battery is changed, push the AC-button (Auto Clear) on the rear side of the computer to reset.

P7

2. Initial set-up of your VDO MC 1.0

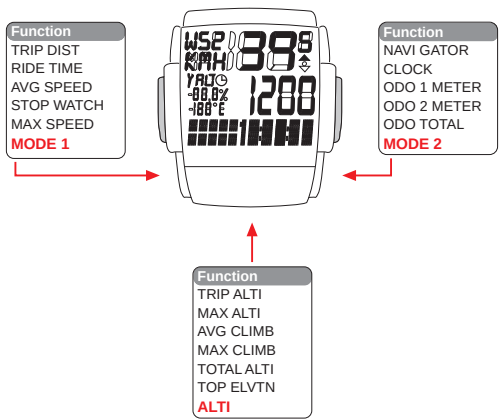
2.1 Basic information on how to operate your VDO MC 1.0

Make sure you are familiar with the computers basic operating instructions before the initial set-up and use.

Your VDO MC 1.0 features 3 keys / buttons

Left ..... Center.....Right
MODE1..... ALTI..... MODE2

The display
The following information is permanentely displayed:
- Current / actual speed in KMH or MPH accurate to +/- 0.5 KMH / MPH
- Symbol (MPH or KMH) for the measuring system selected,
- Wheelsize selected: Bike 1 (WS1) or Bike 2 (WS2)
- Symbols to compare actual speed and average speed (up-arrow, down-arrow, dot)
- ALTI - display of current / actual altitude
- Current grade / inclination climbed or descended in %
- Current temperature in °C or °F



2.2 Interrogating information

With the **MODE1** button you call up following information: TRIP DIST - RIDE TIME - AVG SPEED - STOP WATCH - MAX SPEED

TRIP DIST trip counter for your individual trip, counting to 999.99 km or mi
RIDE TIME trip timer featuring automatic start/stop function up to 19:59:59 h
AVG SPEED average speed, accurate to two decimal points
STOP WATCH manually operated stop watch counting up to 19:59:59
MAX SPEED maximum speed achieved during a ride up to 199.5 km/h or mph

Important: If the ride timer overflows 19:59:59 h, it is automatically reset to 00:00:00. Simultaneously, your average speed counter AVG SPEED is reset to zero. If your trip counter overflows 999.99 KM or M, it is automatically reset to 000.00 Simultaneously, your average speed counter AVG SPEED and your ride timer RIDE TIME are reset to zero.

With the **MODE2** button you call up following information: NAVI GATOR - CLOCK - ODO1 METER - ODO2 METER - ODO TOTAL

NAVI GATOR Second, manual trip counter, can be reset to zero individually, can be preset and counting up from there on.
CLOCK Time of the day in 12h or 24h mode
ODO 1 METER Odometer (sum of all trips) on Bike 1, up to 99.999 km or mi.
ODO 2 METER Odometer (sum of all trips) on Bike 2, up to 99.999 km or mi.
ODO TOTAL Odometer (sum of all trips on both bikes), sum of Bike 1 and Bike 2, up to 199.999 km or mi.

Important: Switching conversions from mi to km at odometer 62.111 mi and up leads to a reset to zero of the odometer. (62.111 mi converts to approx 100.000 km but the display only holds 99.999 km max.)

With the **ALTI** button you call up following information: TRIP ALTI - MAX ALTI - AVG CLIMB - MAX CLIMB - TOTAL ALTI - TOP ELVTN

TRIP ALTI Indicaton of altitute gained / elevation climbed during the current trip as long as speed impulses are processed. Descended altitude is not counted.
MAX ALTI Indication of highest elevation reached during the current trip.
AVG CLIMB Indication of average inclination (in %) during the currrent trip.
MAX CLIMB Indication of maximum inclination (in %) during the current trip.
TOTAL ALTI Indication of total altitude climbed on all your trips for both wheelsizes WS1 + WS2
TOP ELVTN Indication of highest elevation reached for all your trips for both wheelsizes WS1 + WS2

2.3 Calling up set-up modes for computer / speedometer functions

Other than calling up various functions and informations, the MODE 1 key calls up any set-up mode. Calling up the set-up modes requires a 3 sec pressing of the MODE 1 key.
Set-up modes can be entered from various information displays:

You want to set up:	Display Information needed
Wheelsize 1 or Wheelsize 2	TRIP DIST
Clock	CLOCK
Odometer for Bike 1	ODO 1 METER
Odometer for Bike 2	ODO 2 METER
Navigator, second trip counter	NAVIGATOR

2.3.1 Button / key covering in set-up mode

Once you have entered a set-up mode with MODE 1, the keys have the following (different) functions.

MODE 1 key: jump from digit to digit; exit set-up mode (pressing MODE 1 for 3 sec.)

MODE 2 key: increase/change of digit selected; selecting display symbols

2.4 Selecting your language

After installing the battery or pressing the AC-button your VDO MC 1.0 automatically requests a display language to be selected.

After installing the battery, your VDO MC 1.0 first greets you in English (by default) displaying "ENJOY YOUR MC1.0"

The VDO MC 1.0 will then automatically request you to select your display language.
The VDO MC 1.0 subsequently displays 7 languages:
ENTER LANGUAGE, -- EINGABE SPRACHE--CHOIX LANGUE--REGOL LINGUA--ENTER TAAL--AJUST LENGUA--USTAW JEZYK.

After this automatic scroll you can then select your language.
I.e. "LANGUAGE ENGL" will be in display
By pressing the MODE 2 key (right), the various languages will be displayed.

Process: LANGUAGE ENGL -M2-SPRACHE DEUT- M2-LANGUE FRAN -M2-LINGUA ITAL- M2-TAAL NEDL -M2-LENGUA ESPAN -M2- JEZYK POLSK

Once your language is displayed, press the MODE 1 key for 3 sec.
Your selected language is now stored, any further information is displayed in that language.
The display now shows TRIP DIST, if you have chosen English for your language.

2.5 Selecting the wheel circumference (wheelsize)

Your computer VDO MC 1.0 indicates your wheel size as WS (Wheelsize) = wheel circumference. Your VDO MC 1.0 is able to process two different wheelsizes for two different bikes (i.e. road bike and mountainbike) The following default values are preset

Wheelsize 1 WS1 = 2155 mm wheel circumference
Wheelsize 2 WS2 = 2000 mm wheel circumference

Warning: After a battery change the above defaults are automatically applied. After a battery change, you have to re-enter the precise values for your bike(s).

2.5.1 How to determine the precise wheelsize

Place the front wheel of your bike with the valve at the bottom, mark this position with a line and push your bike ahead until exactly one rotation of the front wheel is completed. Draw another line where the valve now is. Take a ruler and measure the distance between marks 1 and 2 which reflects the wheelsize = wheel-circumference. The figure measured (inches or mm) is the wheelsize to be entered into your computer. see fig.

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If you have selected MPH readout you must enter your wheelsize in inches. Hence, altitude is displayed in ft and temperature in °F.
If you have selected KMH readout you must enter your wheelsize in mm. Hence, altitude is displayed in m and temperature in °C.

Standard wheelsizes and respective values in mm and inches are shown in chart 1 (see page .....)

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2.5.2 Entering (programming) the wheelsize(s)

Step 1: By pressing MODE 1 call TRIP DIST in your display.

Step 2: Press MODE 1 for 3 sec. In the upper part of the display you see "WS1" and "KMH" or "MPH" flashing. The lower part of the display alternately shows "ENTER MTRIC SYSTM" and "KMH" or “ENTER ENGL SYSTM” and “MPH”.

Step 3: With MODE 2 you choose whether you want kilometers=KMH oder miles=MPH as a measuring unit.

Step 4: Once the conversion of KMH or MPH has been chosen, you proceed by briefly pressing (0.1 sec) MODE 1. The lower part of the display now alternates "ENTER WHEELSIZE1" and 2155. The last number "5" flashing.

Step 5: With MODE 1 and MODE 2 you enter your measured wheelsize 1 (bike1). MODE 2 increases the flashing number MODE 1 jumps to the next number, see set-up mode.

Step 6: Once you have entered the last number of wheelsize 1 and press the MODE 1 button, the computer automatically jumps to the setup mode for wheelsize 2. The lower part of the display alternately shows "ENTER WHEELSIZE2" and 2000 with the last number "0" flashing.
Enter your wheelsize 2 as described in Step 5.

Step 7: Once you have entered wheelsize 2, press MODE 1 for 3 sec to exit set-up mode. The computer will return to displaying TRIP DIST.

Warning: Exiting setup procedure before having completely entered the precise wheelsize may lead to faulty readouts.

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2.5.3 Switching wheelsizes (changing from WS1 to WS2)

To change from wheelsize 1 to wheelsize 2 and vice versa press and hold MODE1 and MODE2 simultaneously for 3 sec.

Warning: Once you have switched from wheelsize 1 to wheelsize 2 or vice versa following Tripdata of wheelsize 1 or 2 is automatically reset to zero: TRIP DIST, RIDE TIME, AVG SPEED, MAX SPEED, TRIP ALTI, AVG CLIMB, MAX ALTI, MAX CLIMB. All of these values are newly calcualted after switching the wheelsize.

2.6 Setting the clock CLK

Your VDO MC 1.0 features a clock with hour and minute display in either 12 h or 24 h mode.

To access the clock setup mode proceed as follows:

Step 1: MODE 2 calls the CLK information into your display

Step 2: Press the MODE 1 for 3 sec. The set-up mode for the clock starts. The lower part of the display alternately shows "ENTER CLOCK" and "24" and “12”

Step 3: With MODE 2 you choose whether you want your time in a 24 or 12 hour mode.

Step 4: With MODE 1 you start the hour setup. The hour display will be flashing and can be changed with MODE 2.

Step 5: With MODE 1 you start the minute setup. The minute display will be flashing and can be changed with MODE 2.

Step 6: Once hours and minutes are correctly entered, you exit CLK set-up mode by pressing MODE 1 for 3 sec.

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2.7 The NAVIGATOR

The NAVIGATOR is a second, individual trip distance counter that can be:
• manually reset to zero
• preset to a certain value, the trip distance is then counted from this value.

The NAVIGATOR is very helpful following road book instructions or tour suggestions of bike magazines.
For example, your road book tour wants you "to go straight for a mile and then make a right turn, then go on for half a mile and make a sharp left turn". These instructions can be precisely followed by using the NAVIGATOR. Once you have arrived at the first intersection after the first mile, you reset the NAVIGATOR to zero and and follow the next leg for half of a mile. At the second intersection you reset to zero again and follow the next instruction of your road book.

The NAVIGATOR can be preset and proceed from this individual value. For example, you are unable to start your tour at the point 0 km/m, but at 5.3 km. This value can be preset / entered into the NAVIGATOR. The NAVIGATOR will then count on from 5.3 km. Should you have made a wrong turn, return to that spot and enter your leg distance anew, continue to follow your roadbook instructions

2.7.1 Presetting the NAVIGATOR

Step 1: MODE 2 calls NAVIGATOR into display

Step 2: Press MODE 1 for 3 sec. The lower part of the display alternetely shows "ENTER NAVIGATOR" and "000.00" with the last digit "0" flashing.

Step 3: By pressing MODE 2 you increase the flashing number, by pressing MODE 1 you jump to the next number 000.00, etc.

Step 4: Once the NAVIGATOR is preset, exit setup mode by pressing MODE 1 for 3 sec. The display shows NAVIGATOR and the preset value. Your VDO MC 1.0 will be counting on from this preset value.

2.7.2 Resetting the NAVIGATOR to zero

Step 1: MODE 2 calls NAVIGATOR into display
Step 2: Press MODE 2 for 3 sec., the value indicated is being reset to zero. Your VDO MC 1.0 will be counting on from zero.

Warning: Before resetting to zero, make sure the information NAVIGATOR is called in. If NAVIGATOR is not in the display, you are accidentally re-setting other information to zero.

2.8 Presetting (programming) the odometer

After a battery change, you can re-enter previous odometer values (for both bikes) into your VDO MC 1.0.

Step 1: With MODE 2 call "ODO1 METER" or "ODO2 METER" into display, depending which one of these values you want to re-enter.

Step 2: Press MODE 1 for 3 sec. The lower part of the display alternately shows "ENTER ODO1 METER" or "ENTER ODO2 METER" plus the respective value with the last number flashing.

Step 3: With MODE 2 you increase the number, with MODE 1 you jump to the next number etc.

Step 4: Once you have entered your values for ODOMETER 1 and ODOMETER 2, you exit set-up mode by pressing MODE 1 for 3 sec.

2.9 Manual operation of the STOPWATCH

Your VDO MC 1.0 features a manual stopwatch in addition to the ride-timer with automatic Start/Stop function. The manual stopwatch is counting up to 19:59:59 HH:MM:SS There are two ways to call in the stopwatch and simultaneously start it:

Direct Start: By pressing M1 and M2 briefly the stopwatch is called in and started simultaneously. Starting downhill a brief pressing of M1 and M2 will do to call in the stopwatch and start it at the same moment.

Delayed Start: By pressing MODE1 the stopwatch is called in. By then pressing MODE1 and MODE2 briefly the stopwatch is started. With the stopwatch running you might as well call further information in your display. The stopwatch will keep running in the background. Display indication will show that the stopwatch is running.

3. Resetting information to zero

By pushing **MODE2** for 3 sec information / data is reset to zero.

Following trip data is simultaneously reset to zero:
TRIP DIST--RIDE TIME--AVG SPEED--MAX SPEED--TRIP ALTI--MAX ALTI--AVG CLIMB--MAX CLIMB

Following data may be individually reset to zero, if desired so:

NAVI GATOR
Call NAVI GATOR information in your display. Push M2 for 3 sec to reset this data to zero.

STOP WATCH
Call STOP WATCH information in your display. Push M2 for 3 sec to reset this data to zero.

TOTAL ALTI--TOP ELVTN--ODO TOTAL
These summarizing functions (total altitude climbed / highest elevation reached Total Odometer) are especially protected to unintended erasing / resetting. These informations can only be reset by changing battery or by pressing AC-button on backside of computer.

4. Service Interval Indicator

Your VDO MC 1.0 features a Service Interval Indicator to remind you to have your bike serviced at your trusted bike shop.

The service interval reminder is indicated separately for both your bikes.
Every 750 km / 468 mi, the service icon is activated.
The service icon flashes and the lower part of the display shows "BIKE CHECK"

By pressing any of the buttons, the "BIKE CHECK" information disappears. Other information can still be reviewed
The flashing service icon will remain in display.

After another 50 km / 35 mi, the service interval icon will also disappear.

5. Sleep-Mode

Your VDO MC 1.0 features SLEEP-Mode. During SLEEP-Mode the display is shut down. The clock, and if activated, the service interval icon and/or the stopwatch icon, remain displayed.

Your VDO MC 1.0 automatically goes into SLEEP-Mode after 5 min if
• no buttons are pressed
• no speed impulses are processed

SLEEP-Mode is terminated if
• any button is pressed
• speed impulses are processed

Watch out! As long as the computer is mounted to the handlebar-holder, the receiver for wireless transmission remains in ON-position. Take the computer off the handlebar-holder when you don't ride your bike, this will save battery power!

6. Altimeter information of your VDO MC 1.0

Your VDO MC 1.0 does permanentely display following altimeter-information:
- current altitude in meters of feet
- current incline or grade in %
- current temperature in °C or °F

Important: Current incline or grade is displayed in increments of 1%. A negative grade (descent) is indicated by a negative sign.

The current incline / grade information is calculated every 4 sec (display refresh) by incorporating the TRIP DIST and TRIP ALTI information of the last 12 sec. Should you have climbed AND descended during the last 12 sec due to hilly conditions, the correct indication may be delayed.

Information to be called in by pushing the **ALTI** button
TRIP ALTI--MAX ALTI--AVG CLIMB--MAX CLIMB--TOTAL ALTI--TOP ELVTN

TRIP ALTI	Indication of altitude climbed during the current / actual trip. Only positive changes in altitude are measured when speed impulses are processed simultaneously.
MAX ALTI	Indication of the highest altitude reached during the current / actual trip.
AVG CLIMB	Indication of the average grade (in %) for the current / actual trip.
MAX CLIMB	Indication of the maximum grade (in %) for the current / actual trip.
TOTAL ALTI	Indication of total altitude climbed during ALL previous trips.
TOP ELVTN	Indication of the highest elevation reached during ALL previous trips.

6.1. The home altitude or basis altitude of choice

6.1.1. Significance of the home or basis altitude

The altitude calculation works by measuring barometric pressure. Your VDO MC 1.0 converts the data of current barometric pressure into the respective altitude. In order for your VDO MC 1.0 to indicate altitude and climbing precisely, your home or basis altitude must be entered before. The current barometric pressure is allocated to the home altitude entered. Changes in barometric pressure due to weather changes require a re-calibration (= changed barometric pressure allocated to home altitude).

Your VDO MC 1.0 features the easy-to-use ALTI-correction (see chapter 6.1.3). Based on this this new home altitude (=changed barometric pressure of start location) all further measurings are calculated.

For your home altitude you enter the altitude of your start location (i.e. home) which can be obtained from topographical maps or inquired for at nearby airports. Changes in barometric pressure are only converted to altitude climbed when speed impulses are processed at the same time. This avoids changes in weather conditions reflect in changes of the gained altitude indication.

Accurate calculation of altitude requires the precise determination of home or basis altitude.

To process barometric pressure data, there is a hole drilled into the bottom of the housing of your VDO MC 1.0.
This hole must never be clogged or taped over.

Please do check on its cleanliness regularly and free the hole carefully if needed. You must never poke a pointed instrument into the hole.

6.1.2. Setting up / entering your home or basis altitude

Step 1: By pressing ALTI call TRIP ALTI in the display. Push MODE1 for 3 sec ENTER HOME ALTI TUDE and its previous value will be displayed.

Step 2: By pressing MODE2 the previous value is increased. Hold down the button to quickly scroll. By pressing MODE1 the previous value is decreased. Hold down the button to quickly scroll. Display capacity from -300 to +6000 meters / -984 to +19685 feet.

Step 3: Once you have entered your home altitude, terminate set-up by pressing ALTI for 3 sec. TRIP ALTI information will be back in display. Depending on the home altitude entered the actual altitude may read out differently.

6.1.3. Re-calibrating the altimeter to absorb changes in barometric pressure

Changes in barometric pressure make your VDO MC 1.0 change the readout of the current / actual altitude. This new readout may differ from the value you have determined for your home altitude (= same location but changed barometric pressure). So before you go out for a ride, readjust the actual displayed altitude to your home altitude. The easy-to-use re-calibration feature allocates the changes in barometric pressure to the home altitude you have entered.

Step 1: Get TRIP ALTI in display

Step 2: Press Mode 1 for 3 sec will bring “ENTER HOME ALTITUDE in Display

Step 3: Press Mode1+Mode2-button for 3 sec.

Automatic recalibration of actual air pressure to your home altitude setting will be done, after that the display will show TRIP ALTI again.

6.2 Correction of actual altitude

While you ride, the airpressure changes due to your gain in altitude as well as due to a wether change.To correct that influence of the wether change you can also adjust the actual altitude display at your MC 1.0.Should you see a sign indicating actual altitude and should this altitude differ from the display readout at your MC 1.0, you can manually correct the actual altitude.

Step 1: Get any of the ALTI-informations in display
Step 2: Press the ALTI-button for 3 sec, the display will show “ENTER REAL ALTITUDE” and the actual value of the altitude.
Step 3: MODE 1 will decrease the value , MODE 2 will increase the value.
Step 4: After you have entered the corect real altitude, you leave the setting procedure by pressing ALTI-button for 3 sec.

7. Troubleshooting

This chart outlines possible malfunctions, their causes and removal.

malfunctions	most likely cause	removal solutions
irregular LCD readout (i.e. after battery change)	computer software is not running smoothly	press AC-button at the rear of computer head to reset
no speed display	check for proper distance between sender and magnet	readjust sender and magnet
	battery in sender is empty	check battery and replace if necessary.
	computerhead is incorrectly twisted onto handlebarholder	place computerhead on handlebar holder and twist until detent (CLICK)
	no wheelsize value entered	enter wheelsize number
Display fades or disappears	battery in computer empty	check battery and replace if necessary.
	temperatures below -15°C (40°F) dull display readout	Back in normal temperatures, display picks up working correctly.
No altitude readout	computer in sleep-mode, not activated	press any button to activate computer
No altitude climbed indication	no speed impulses processed	see infomation "no speed display" above

8. Warranty

We warranty VDO MC 1.0 (sensor, computer head and handlebar holder) to the original purchaser for five years from date of purchase against defects in material and workmanship. This does not cover the batteries and defects resulting from normal wear and tear, improper care, accidents, abuse or alteration.

Please take care to retain your receipt of purchase.

In case of legitimate complaints, you are entitled to receive a comparable replacement model. Due to possible model changes, your model might not be available any more.

You may contact your retailer or store where you purchased your VDO MC 1.0 or send the computer directly to us:
CYCLE PARTS GMBH
Grosse Ahlmuehle 33
76865 Rohrbach / Germany

In case of technical queries, call our consumer-service-hotline (German only) Phone
+49-6349-990597.

Technical specifications of VDO MC 1.0 are subject to change.

9. Technical data

computer	45 x 52 x 16 mm	45 g
handlebar holder		15 g
sender/transmitter		20 g
batteries	computer	3V, type 2032
	sender	12 V, type V23GA
operating temperatures	LCD-display	-15 °C to +80 °C
speed range	min 2.5 km/h	max 120 km/h
trip distance counter		up to 999.99 km or mi
NAVIGATOR		up to 999.99 km or mi
Odometers 1 and 2		up to 99,999 km or mi
total odometer		up to 199,999 km or mi
wheelsize	100 mm minimum	3999 mm maximum
altitude range	-380 m / -1247 ft	6500 m / 21325 ft
temperature range	-19 °C / -4 °F	60 °C / 140 °F
time window for inclinometer / display refresh	min 4 sec	max 20 sec

10. Contents

1 computer head
1 handlebar holder with screw
1 wireless transmitter with battery 12 V, type V23GA
1 rubber shim for sensor mount
1 spoke magnet
5 cable ties
1 battery 3 V, type CR 2032
1 installation and operation manual