

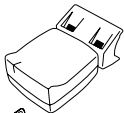
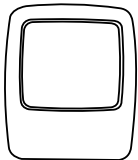
# VDO

**CYCLECOMPUTING**

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

***C1DS C2DS C3DS C4DS***

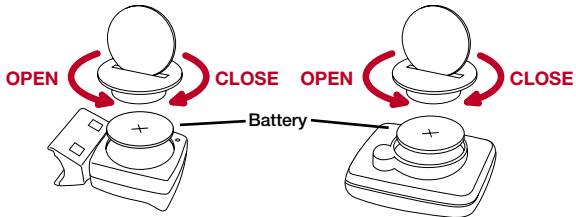
**P01**



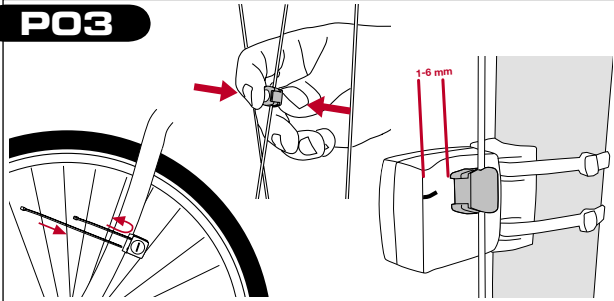
**\*Watch out:** old batteries require special disposal



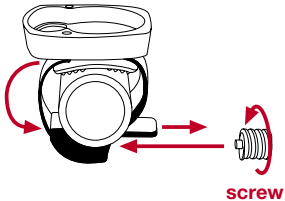
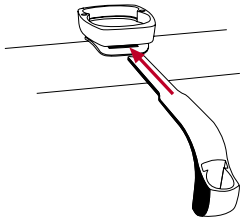
**P02**



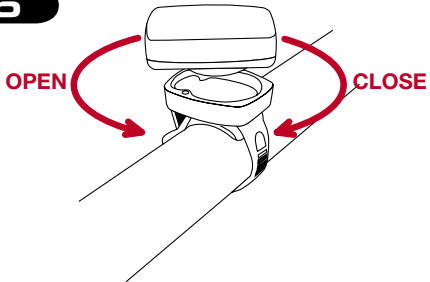
**P03**



**P04**

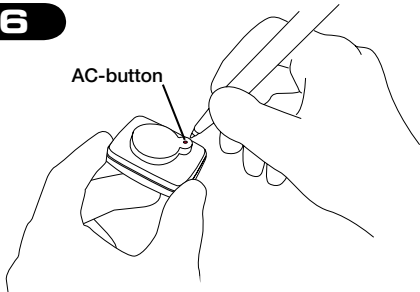


**P05**

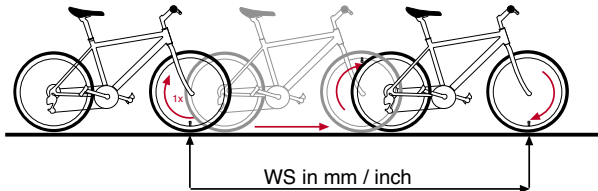


**P06**

AC-button



**P07**



# P08

Tire size		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

Tire size		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

**IMPORTANT!**

This information will help you understand how the digital transmission of your VDO computer works. You really must follow the initial set-up steps in the order described below.

**ATTENTION:**

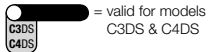
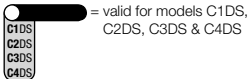
At a break during your ride the receiver will be switched off after 30 minutes (battery consumption). Before continuing your ride you need to switch on the receiver again = press M-button



**IMPORTANT HINT** for cell (mobile) phone brackets on the handlebar. The digital wireless transmission of you VDO DS computer is likely to be disturbed if you are operating a cell (mobile) phone too close to the computer. We highly recommend not mounting your phone on the handlebar.

**IMPORTANT: General hint to read this manual:**

This manual is valid for all VDO Series-C models. Some functions and features are not available with all models. The “flag” icon on the beginning of a chapter indicates which model this chapter is relevant for.



**Contents** >>> *P01*

C1DS

C2DS

C3DS

C4DS

Please check package contents for its completeness:

- 1 VDO computer
- 1 VDO digital transmitter
- 2 Battery 3V CR2032 for the computer and transmitter
- 2 Battery door for the computer and transmitter
- 1 Handle bar mount
- 1 Fixing clamp
- 1 Spoke magnet
- 4 Cable ties to fix transmitter

## Preface

C1DS  
C2DS  
C3DS  
C4DS

Congratulations!

With your choice of a VDO cycle computer, you have decided to own the most advanced technology available.

To enjoy the full potential of your computer and benefit from all the technical features, we recommend you thoroughly study this manual. You will find crucial hints for its operation as well as many more tips.

We wish you many enjoyable rides and trips on your bike with your VDO cycle computer.

CYCLE PARTS GMBH

## Index part I

- C1DS** 1.0 VDO DIGITAL SYTEM
- C2DS** 1.1 Welcome to the club: your VDO-USER-CARD
- C3DS** 1.2 Functions
- C4DS** 1.3 Optional features
- 2. Installation
  - 2.1 Battery installation (computer and transmitter)
  - 2.2 Mounting sensor and magnet
  - 2.3 Mounting cable and VDO any-size handlebar mount
  - 2.4 TWIST-CLICK mounting of the computer
  - 2.5 The 4-line VDO display
  - 2.6 The VDO EMC-operating-system (Easy-Menu-Control)
  - 2.7 Functions / menu structure
- Fundamental instructions to read this manual
- 3. Initial operation, AC-"auto-clear"
  - 3.1 Manual Transmitter Search – DIGI CONNECT RESET

- 4 Basic settings
  - 4.1 Language selection
  - 4.2 Measuring and setting the wheel size(s)
  - 4.3 Setting the clock
  - 4.4 Setting the odometer
  - 4.5 Changing wheel sizes from bike 1 to bike 2
  - 4.6 Reset functions
- 5. Service-Interval-Indicator
- 6. Sleep-Mode
- 7. Cadence (optional)

## Index part II

C2DS  
C3DS

- 8. Stopwatch

### Important hint:

„>>> **P04**“ links at the beginning of a chapter are related to the respective picture in the picture book!

 Index part III

**C3DS** 9. NAVIGATOR functions  
**C4DS**

 Index part IV

**C4DS** 10. Timing functions  
10.1 Selecting timing functions  
10.2 Timer/countdown programming  
10.3 Timer/countdown/stop watch start/stop/reset  
10.4 Additional countdown functions

 Index part V

**C1DS** 11. Troubleshooting  
**C2DS** 12. Warranty disclaimer  
**C3DS** 13. Technical specifications  
**C4DS**

## 1.0 VDO DIGITAL SYTEM

C1DS  
C2DS  
C3DS  
C4DS

Your VDO cycle computer operates on digitally coded, wireless transmission. Different from analogue radio transmission, data is digitally transmitted (data packages step-by-step). With your actual speed varying, the reading will change stepwise. Individual coding of the signals ensures that only data coming from your transmitter is processed. No interference with signals coming from transmitters other than yours. Very rarely, even digital transmission may be interfered by high-voltage power lines, mobile phone poles, remote controls (car doors openers, garage door openers).

### **What happens when digital transmission is interfered with?**

- speed display will read zero (0)
- trip distance stops counting
- ride timer stops counting

The digital VDO transmitter features an internal memory, that stores up to 45 sec of data at a speed of 20 KMH (12,5 MPH). At a rare interference, no data is lost! The related data pack-

ages are sent after, once the interference is over.

**Following data is immediately updated when the re-send data is received :**

- trip distance
- riding time
- average speed
- maximum speed
- odometer

Hence, your current data may change erratically after a interference = Update of your computer.

**After a battery change, a new coding is automatically generated in the transmitter. The computer must learn this new coding. Therefore, you have to activate the manual transmitter search DIGI CONNECT RESET (3.1. Manual Transmitter Search – DIGI CONNECT RESET)**

## 1.1 The VDO-USER-CARD

C1DS  
C2DS  
C3DS  
C4DS

Welcome to the Club. With the purchase of this product, you have become a member of the VDO-USER Club. The VDO-USER-CARD gives you three advantages:

- A. The white boxes allow you to write down your personal wheel size settings, if you have several bikes or if you use different tires.
- B. The VDO-User-ID allows you access to the restricted VDO-User area on the VDO Homepage [www.vdocyclecomputer.com](http://www.vdocyclecomputer.com).  
Here you can find many useful information and additional hints.
- C. The quick-reference manual helps you if you have not used your computer for a while and can't remember how to use it.

## 1.2 Functions

C1DS  
C2DS  
C3DS  
C4DS

### Information-Functions C1DS, C2DS, C3DS, C4DS:

TRIPDISTANCE	trip distance
ODO BIKE1/2	total odometer for bike 1/2
ODO TOTAL	total odometer for bike 1+2
RIDE TIME	trip ride timer

AVG SPEED                      average speed

**Information-Functions C2DS, C3DS, C4DS:**

MAX SPEED                    maximum speed

STOPWATCH                   stop watch

**Information-Functions C3DS, C4DS:**

SUM RIDE TM1/2              total ride timer (bike 1 / bike 2)

TOT RIDE TM                total ride time for bikes 1 + 2

NAVIGATOR                   second, programmable trip counter

**Information-Functions C4DS:**

TIMER 1/2                    Timer 1 / Timer 2

COUNTDOWN                countdown timer

FORECAST KM(MI)           trip distance prediction (at countdown)

REMAIN KM(MI)            trip distance remainder (at countdown)

**Additional Functions C1DS, C2DS, C3DS, C4DS:**

DIGI CONNECT RESET - Manual Transmitter Search

CLOCK                        time display in 12 or 24 h mode

comparison between actual and average speed by indicators

WS1/2 - 2 wheel sizes programmable for bike 1 + bike 2

7 languages selectable, full text display

Service-Interval-Indicator (wrench symbol)

**Additional Function C2DS, C3DS, C4DS:** Timing Indicator

**Additional Function C4DS:** Audible signal (beeper) for timing-functions

### 1.3 Optional features

C1DS  
C2DS  
C3DS  
C4DS

The following genuine VDO parts are available at your Bike Shop

- set transmitter/magnet/handlebar mount
- cadence set
- stem mount

## 2.1 Installing the batteries in the digital transmitter and the computer >>> P02

Both, your VDO computer and your VDO transmitter are coming with a 3 V battery (type 2032).

### A. First install the battery in the digital transmitter

- Step 1. Place the battery into the transmitter housing, +pole face-up.
- Step 2. Make sure the battery is not edged over.
- Step 3. Check if the rubber washer is flatly positioned on the battery door.
- Step 4. Place the battery door on the compartment, take a coin and twist it to the right until detent (approx. 1/3 turn).

### B. Install the battery in the computer immediatly after the installation of the battery in the transmitter.

At the initial putting into operation, the computer is automatically trying to find the transmitter. By this, the computer also learns the transmitters coding

**IMPORTANT:** On inserting the battery into the transmitter, the coding of the digital signals is automatically generated. The computer is only able to find the coded signal at the initial putting into operation. After a battery change, a new coding is generated in the transmitter. In this case, the computer won't find the coded signal and a manual transmitter search is required (DIGI CONNECT RESET) – see chapter 3.1.

**After every start a green LED at the transmitter flashes for 20 sec. only The flashing LED indicates a working transmitter.**

TIP for battery change: VDO recommends an annual battery change. Buy a spare battery in due time to avoid unwanted loss of data. When changing the battery, all basic settings are reset to default values. Note your individual wheel sizes and accumulated mileages (odometer WS 1 / odometer WS 2) for both bikes before you remove the battery. Reprogram this data after the new battery has been installed.

## 2.2 Mounting transmitter and magnet >>> P03

C1DS  
C2DS  
C3DS  
C4DS

important mounting instructions:

- a) maximum distance transmitter – computer = 150 cm (59 in)
- b) distance transmitter - magnet: 3 to max 10 mm (up to 0.04 in)
- c) mount the transmitter on the fork leg, same side where you want the computer to be on the handlebar. (not applicable for stem mounting with optional stem holder).

**Step 1** Prefix the transmitter on the fork leg with cable ties (do not tighten yet)

**Step 2** Put the magnet around a spoke, do not fix

**Step 3** Direct the magnet to the marking on the transmitter at a distance of around 3 mm and shut the clip-mechanism

**Step 4** Align transmitter and magnet and tighten the transmitter's cable ties. Clip off the cable tie ends not needed.

### 2.3 Mounting the VDO any-size handlebar holder >>> P04

C1DS  
C2DS  
C3DS  
C4DS

**Step 1** Position the holder socket on the handlebar (stem optionally).

**Step 2** Feed the fixing clamp through the slot below the holder socket, pass the clamp around the handlebar (stem optionally) and tighten it with a little screw driver. Do not overstress, the plastic screw might be damaged.

### 2.4 Twist-Click mounting of the computer >>> P05

C1DS  
C2DS  
C3DS  
C4DS

The VDO Twist-Click-System securely connects the computer with the handlebar holder.

**step 1** Hold the computer in the 10 O'clock position (approx. 45° to the left) and place it into the socket.

**step 2** turn the computer to the right "twist" until it engages in the socket.

**step 3** for removal turn the computer to the left (do not press or yank)

## 2.5 The new 4-line VDO display

C1DS  
C2DS  
C3DS  
C4DS

### Indicator elements (Icons)

Service Indicator, TIMING Indicator, Indicator Bike 1/Bike 2 and measuring system (km or mi), comparison of actual and average speed, Menu control indicator (flashes for further menu options selectable)

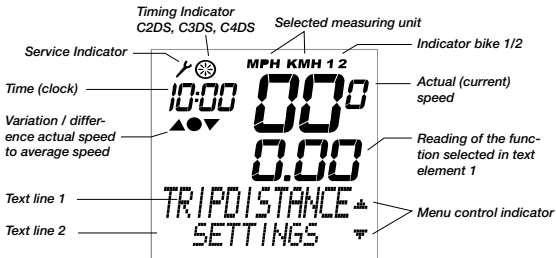
### Digit elements

Time (clock), Speed, Chosen display function

### Text lines

Upper text line: full text description of the information displayed  
or in set-up menu: description of set-up function

Lower text line: indicates the sub-menu to enter by pushing the M-key or in set-up menu: indicates available set-up menus to be Entered.



## 2.6 The VDO EMC-operating system

C1DS  
C2DS  
C3DS  
C4DS

EMC = Easy Menu Control







EMC eases operating the computer by a full text menu control well known from most cellular phones. 4 keys combined with the 4-line display provide comfortable and user-friendly operation.

Menu indicators will always show further menu options by flashing.

In fact, you do not need the manual any more from here. Your VDO computer leads you step by step through all the menus.

Enjoy navigating!

The 4 keys and their functions:

-  Menu navigation upwards  
or in SET-mode (number flashes): increase number
-  Menu navigation downwards  
or in SET-mode (number flashes): decrease number
-  choose/accept option displayed (enter next menu level)
-  (push once) cancel last entry / go back one menu level  
(hold) return to main menu

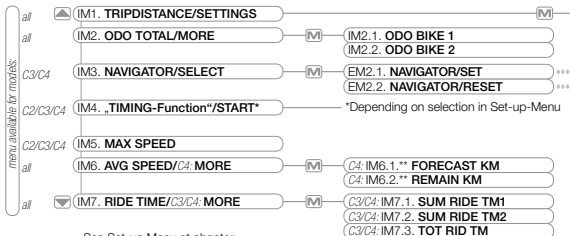
## 2.7 Functions / menu structure

C1DS  
C2DS  
C3DS  
C4DS

IMPORTANT: In information menu (IM1 to IM7, see below) the lower text line indicates the entry to a sub-menu. Within such a sub-menu the upper text line indicates the chosen information while the lower text line may offer available options (START/STOP/RESET).

IM = Information Menu • EM = Set- or sub-menu

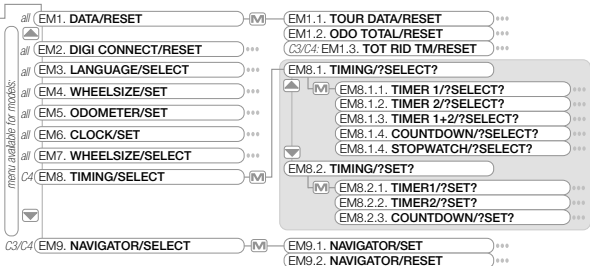
## 2.7.1 Information Menus



... = See Set-up Menu at chapter.....

\*\* Only if COUNTDOWN has been selected

## 2.7.2 Set Menus



General hint to read the following chapters:



In the following you will often see this icon. Whenever you see this icon, use the UP/DOWN keys to find the relevant menu option and accept it by pushing the M-key.

### 3. Initial operation, AC-("Auto clear")-button >>> P06

C1DS

C2DS

C3DS

C4DS

After installing the battery, your VDO computer brings up an English main menu.  
Select your language to begin with.

"TRIPDISTANCE / SETTINGS"

"LANGUAGE / SELECT"

choose your language

The computer then automatically returns to the main menu TRIPDISTANCE/SETTINGS (in your selected language).

Should your computer not function properly after installing the battery or you want to reset it to default values, push the AC-button on the rear of the housing.

### 3.1 Manual Transmitter Search – DIGI CONNECT RESET

C1DS  
C2DS  
C3DS  
C4DS

After a battery change, a new coding is automatically generated in the **transmitter**. The **computer** must learn this new coding. Therefore, you have to activate the manual **transmitter** search DIGI CONNECT RESET:

- ↔ **M** call SETTINGS and accept
- ↔ **M** call DIGI CONNECT and accept  
?RESET? appears in display
- M** accepts

Now, an additional check back secures that you really want to reset the digital coding of your **computer** (?RESET? flashes), **M** accepts.

**If you start riding or turn the front wheel now, the computer automatically learns the transmitters new coding. This procedure may take a few seconds.**

#### 4. Basic settings

C1DS  
C2DS  
C3DS  
C4DS

Basic settings are settings crucial to data measuring and operating the computer. Such as **language, wheel size(s), clock.**

**WATCH OUT:** Any SET procedure must be completed (menu question ?SET OK? gets accepted by pushing **M**). Should a SET procedure not be completed, any data entered is not stored.

##### 4.1 Language selection

C1DS  
C2DS  
C3DS  
C4DS

In case you want to change the language at any time, proceed as described under chapter 3.

## 4.2 Measuring and setting the wheel size(s) >>>P07

C1DS  
C2DS  
C3DS  
C4DS

In order for your VDO computer to precisely calculate speed and distance, you have to measure the circumference of your wheels. With an incorrect wheel size set, all related values like speed, trip distance, odometer etc. come out false. To make the use of your VDO computers possible on 2 bikes, i.e. Mountain Bike and Road Bike, you are able to set up 2 different wheel sizes.

### Measuring both wheel circumferences:

- step 1** Place the front wheel valve perpendicular to the ground
- step 2** Mark this spot on the ground for example with chalk
- step 3** Turn the wheel forward for one full circle until the valve is perpendicular to the ground again
- step 4** Also mark this spot.
- step 5** Measure the distance between the two spots (markings)  
This is your wheel size.
- step 6** Set-up your wheel size in your VDO computer as described below.

If you have selected the Metric system (KM) you have to enter your wheel size/s in millimeters. If you have selected English system (MI) you have to enter your wheel size/s in inches.

**TIP:** Write down your wheel sizes on your VDO-User-Card for easy reference. The values listed in the chart >>>**P08** are approximate. Depending on the tire brand, it is possible that these numbers deviate from your real tire circumference since height and tread pattern are likely to be different.


### Setting the wheel sizes :

  "TRIPDISTANCE/SETTINGS"

  "WHEELSIZE/SET"

  "KMH-DISPLAY" or " MPH-DISPLAY" to be selected


**<<actual wheel size 1 flashes>>**

 set wheel size 1 in [mm] or [in]  
(Press up/down key briefly for 1 mm, keep pressing key for fast forward run)

 "?SET OK?" accept or return by pressing  and correct your entries. "WHEELSIZE 1 / SET DONE" pops up briefly, to indicate data storage.

Your computer now wants you to set wheel size 2.

If applicable, enter wheel size 2 as described above

If you don't need to enter the second wheel size, hold the  key until the computer returns to main menu TRIPDISTANCE/SETTINGS.

**Watch out: Default settings for the wheel sizes are as follows: Bike 1 = 2155 mm and Bike 2 = 2000 mm. In case you don't set your individual wheel sizes, the computer works with default values. Readings for speed therefore are likely to deviate significantly from the actual values.**

## 4.3 Setting the clock

C1DS  
C2DS  
C3DS  
C4DS

- ➡ M "TRIPDISTANCE / SETTINGS"
  - ➡ M "CLOCK / SET"
  - ➡ M "CLOCK 24-H-DISPLAY" or "CLOCK 12-H-DISPLAY"
- <<flashing numbers>> are ready to be set:**
- ➡ set hours
  - M "?CONTINUE?" for minutes
  - ➡ M set minutes
  - M "?SET OK?" accept (or ➡ to return and correct entries)

Your VDO-Computer automatically returns to main menu TRIPDISTANCE/SETTINGS.

#### 4.4 Setting the odometers

C1DS  
C2DS  
C3DS  
C4DS

You can set odometers anytime or after a battery change. Note the odometer readings for bike 1 and 2 before changing the battery

- ➡ M "TRIPDISTANCE/SETTINGS"
- ➡ M "ODOMETER / SET"
- ➡ M "ODO BIKE 1 / SET" or "ODO BIKE 2 / SET"
- <<flashing numbers>> are ready to be set**
- ➡ set value
- M "?NEXT DIGIT?"
- After you have set the last number on the left = first of your value
- M "?SET OK?" accept "SET DONE"

Your VDO-Computer automatically returns to main menu TRIPDISTANCE/SETTINGS.

#### 4.5 Changing wheel sizes from bike 1 to bike 2

If you have programmed 2 wheel sizes for 2 bikes you have to adjust your computer accordingly prior to your trip.

- ➡ M „TRIPDISTANCE/SETTINGS“
- ➡ M „WHEELSIZE/SELECT“, accepted by M
- ➡ M „WHEELSIZE 1“ or „WHEELSIZE 2“
- M accept / select

Change of wheel size is confirmed by WHEELSIZE 1-2 DONE.

**WATCH OUT:** Changing to the other wheel size automatically results in resetting / deleting all data of your last tour (trip distance, ride time, average and maximum speed) of the previous wheel size setting.

#### 4.6 Reset functions

C1DS  
C2DS  
C3DS  
C4DS

To reset / delete certain or all tour data

➡ **M** "TRIPDISTANCE/SETTINGS"

➡ **M** "DATA / RESET"

➡ "TOUR DATA / RESET"

or "ODO TOTAL / RESET"

or "TOT RIDE TM / RESET" (only C3DS, C4DS)

**M** accept / select "RESET"

**Safety check back: Are you sure you want to reset?**

**M** accepts "?RESET?" and deletes

NOTE: Accepting the reset by pressing **M** deletes the respective data. This step can not be made undone.

"RESET DONE" appears briefly and your VDO-Computer automatically returns to main menu TRIPDISTANCE/SETTINGS.

Following data is deleted by these corresponding reset modes:

TOUR DATA RESET: trip distance, ride time, average speed, maximum speed.

ODO TOTAL RESET: odo total, km/mi bike 1, km/mi bike 2

TOT RID TM RESET: total ride time, ride time bike 1, ride time bike 2 (C3DS, C4DS)

### 5. Service-Interval-Indicator

C1DS  
C2DS  
C3DS  
C4DS

Your VDO computer features a Service-Interval-Indicator for bike 1 and bike 2. Like the indicator in some cars, the Service-Interval-Indicator reminds you to have your bike checked and serviced in a shop.

When you reach 750 km/mi on one bike:

- The Service-Interval symbol (wrench) flashes in the display
- The information line displays "BIKE CHECK"

Now it is suggested to either service your bike yourself or take it to a pro shop of your choice to have it checked.

Press any key. The text "BIKE CHECK" will disappear again

After further 50 km/mi the Service-Interval-Indicator symbol (wrench) will also disappear.


## 6. Sleep-Mode

C1DS  
C2DS  
C3DS  
C4DS

Your VDO-Computer features a sleep mode function to save battery power. During Sleep Mode the major portion of your display is shut down to save battery power. Only the clock, the Service-Interval-Indicator (if applicable) and the TIMER symbol (if activated) are displayed.

- The computer will go into Sleep-Mode when no speed impulses have been processed for 5 minutes and no key has been pressed during that time.
- Sleep-Mode is cancelled once speed impulses are processed (you start riding) or any key is pressed.

### **ATTENTION:**

**At a break during your ride the receiver will be switched off after 30 minutes (battery consumption). Before continuing your ride you need to switch on the Computer again = press -button**

## 7. Cadence (optional)

C1DS  
C2DS  
C3DS  
C4DS

Your VDO computer is prepared for cadence measuring. To make use of these functions, you need to purchase the optional CADENCE KIT (Articlecode: 4402) at your Bike-Dealer.

Operating instructions for cadence functions are described in detail in the CADENCE KIT's extra manual.

Contents of the optional kit "CADENCE" (Articlecode: 4402):

Cadence transmitter and mounting parts, cadence-magnet, mounting parts

## 8. Stopwatch

C2DS  
C3DS


Manual stop watch to measure riding time of certain trip sections.

Starting Stopwatch



Select STOPWATCH in your information display:

 "STOPWATCH /START"

 "START" / "STOP"

Indicator Symbol <<>>

Resetting Stopwatch:

-  STOPWATCH select the appropriate menu.
-  **Hold for 3 seconds**

After 3 seconds the STOPWATCH is reset to zero.

## 9. NAVIGATOR functions

C3DS  
C4DS

Your VDO computer features a NAVIGATOR function that makes it possible to follow route (Road-Book) instructions. Road-books are trip maps outlining mileage values based on certain landmarks.

Your VDO-Navigator is a further independent trip counter, it either counts forward or backwards. Mileage can be set at any point of the trip. You might as well get in on a trip or adjust your mileage in case you have gotten lost.

### Setting the NAVIGATOR


➡ M "NAVIGATOR / SELECT"


➡ M "NAVIGATOR / SET"

➡ M "FORWARD" or "BACKWARD" to be selected

**<<flashing numbers>> are ready to be set:**

➡ enter / set

M "?NEXT DIGIT?" accept or return by 

continue with next digit or correct previous entry 

At the end of the set procedure you will be asked

M "?SET OK?" accept

"SET DONE" appears briefly and your VDO-Computer automatically returns to main menu TRIPDISTANCE/SETTINGS.

Note: the NAVIGATOR is always counting, even if you don't set it.

**Reset NAVIGATOR to zero.**

"NAVIGATOR / SELECT"



"NAVIGATOR / RESET"


Check back: "NAVIGATOR ?RESET?"



accept

"RESET DONE" appears briefly and your VDO-Computer automatically returns to main menu TRIPDISTANCE/SETTINGS.

**10. Timing functions****C4DS**

Your VDO-Computer features 5 individual timing functions. With any of the functions selected the TIMING indicator <<>> is activated in the upper left part of the display.

Set-/measuring range for all timing functions:

0:00:00 h to 24:00:00 h

**TIMER 1:** You can program a time window, i.e. for interval training. TIMER 1 counts on from zero. A single beep indicates the end of TIMER 1.

**TIMER 2:** You can program another time window, i.e. for a break in your interval training. TIMER 2 counts on from zero. A double beep indicates the end of TIMER 2.

**TIMER 1+2:** With this TIMING-function selected, TIMER 1 and TIMER 2 time windows are continuously cycled one after the other. A single beep indicates the end of TIMER 1, a double beep indicates the end of TIMER 2. TIMER 1+2 is activated, until you stop TIMER 1+2 by pressing the M-key.

**COUNTDOWN:** You can program a time window from which is counted backwards. A single beep indicates the end of the COUNTDOWN timer. Only with COUNTDOWN selected and started you have access to additional functions MORE in AVG SPEED menu. See also 10.4.

**STOPWATCH:** manual stop watch to measure riding time of certain trip sections.

## 10.1 Selecting timing functions

C4DS

- ⇐ M "TRIPDISTANCE / SETTINGS"
- ⇐ M "TIMING / SELECT"
- M "TIMING / ?SELECT?"

Note: By accepting "?SELECT?" either default setting STOPWATCH or last selected timing function is displayed .

- ⇐ "STOPWATCH" / "COUNTDOWN" / "TIMER 1" / "TIMER 2" or "TIMER 1+2"
- M SELECTION to be confirmed / accepted

"DONE" appears briefly and your VDO-Computer automatically returns to main menu TRIPDISTANCE/SETTINGS. The TIMER function of your choice is then displayed in your information menu IM4.

With TIMER or COUNTDOWN selected, you have to program your time window, otherwise your information menu displays the hint "TIMER ERROR" or "COUNTDOWN ERROR".

## 10.2 TIMER/COUNTDOWN programming

C4DS

While the STOPWATCH does not need any further presetting, for the TIMER and COUNTDOWN functions the time windows have to be programmed in the first place

➡ M "TRIPDISTANCE / SETTINGS"

➡ M "TIMING / SELECT"

➡ M "TIMING / ?SET?"

➡ "TIMER 1" or "TIMER 2" or „COUNTDOWN“

M accept / select

**<<flashing numbers>> are ready to be set**

➡ M hours ➡ M minutes ➡ M seconds

M „?SET OK?“ accept

"TIMER1/TIMER2/COUNTDOWN SET DONE" appears briefly and your VDO-Computer automatically returns to main menu TRIPDISTANCE/SETTINGS.

### 10.3 Timer/Countdown/Stopwatch start, stop and reset / Beep

C4DS

#### Starting Timer/Countdown/Stopwatch

Select the timing-function of your choice in your information display:

- ⏮ "TIMER 1 /START" or "TIMER 2/START" or "TIMER1+2/START" or  
"COUNTDOWN /START" or "STOPWATCH /START"
- ⏸ "START" / "STOP"

#### Resetting Timer/Countdown/Stopwatch

Timer and Countdown feature a "fast reset" function:

- ⏮ TIMER1/TIMER2/TIMER1+2/COUNTDOWN/STOPWATCH select the appropriate menu.
- ⏸ **Hold for 3 seconds**

After 3 seconds the TIMER is reset to zero or the COUNTDOWN is reset to the previously programmed START time.

### Check back COUNTDOWN

With COUNTDOWN-time elapsed an automatic check back appears: ?RESET?.

If you accept this by pressing **M**, the previously programmed COUNTDOWN time is displayed.

The COUNTDOWN is now ready to be started again.

### 10.4 Additional Countdown Functions

C4DS

In COUNTDOWN mode you get to FORECAST KM/MI and REMAIN KM/MI by information menu AVG SPEED:

**⇐ M** "AVG SPEED/MORE"

**⇐** "FORECAST KM or MI"

**⇐** "REMAIN KM or MI"

**Note:** The forecasted km/mi reflect your computers projection for the distance you accomplish at the end of your countdown time. This information is determined by your actual average speed during the countdown time period. Respective data is updated

every 10 seconds. Remaining km/mi is your estimated distance left in the remaining countdown time. Here also, respective data is updated every 10 seconds. As long as you have not reset your COUNTDOWN by ?RESET?, you are able to review the projected FORECAST KM/MI of your last COUNTDOWN by the "FORECAST KM/MI" menu option.

## 11. Troubleshooting

Here's a listing of possible malfunctions, the probable causes and suggested solutions.

Malfunction	Probable Cause	Remedy / Repair
Partial text segments in display (i.e. after battery change)	Computer-software is not running smoothly after battery change	Reset the software by pressing the AC-button on the rear housing
No speed reading in display	Transmitter and magnet are too far apart	Readjust position of transmitter and magnet

C1DS  
C2DS  
C3DS  
C4DS

No speed reading in display	Transmitter battery has been changed	Activate manual transmitter search (DIGI CONNECT RESET) see chapter 3.1
No speed reading in display	Wheel size is not correctly set up = Wheel size is ZERO	Program your wheel size
Display fades	Battery is weak	Check battery, and replace eventually
Display fades	Temperatures below 5° C (41° F) make your LCD display fade	Higher temperatures will make your display work properly

C1DS  
C2DS  
C3DS  
C4DS

## 12. Warranty disclaimer

VDO Cycle Parts warrants your VDO-Computer for 5 years from date of purchase. This war-

warranty covers defects in material and workmanship. Defects on cables, senders, transmitters and mounting materials resulting from normal wear and tear, improper care, accidents, abuse or alteration are not covered by our warranty. Opening the computer housing (except for the battery door) is considered abuse, thus not covered by our 5 year warranty.

**Please keep your sales receipt to prove that your computer is covered under the warranty in case of legitimate complaints.**

In case of legitimate complaints you are entitled to have your computer either repaired or replaced with a comparable model. Due to possible model changes, your model might have been discontinued.

In the event that you should have a complaint, please first contact the retailer where you purchased your VDO computer. If the retailer is unable to help, you can return your computer to:  
**Cycle Parts GmbH, Große Ahlmühle 33, D-76865 Rohrbach.**

In case of technical queries, please contact our customer-service-hotline: +49-6349-9635-10. Further technical information is available on our website: <http://www.vdocyclecomputer.com>  
Technical specifications of our computers are subject to change without notice.

### 13. Technical Specifications

C1DS  
C2DS  
C3DS  
C4DS

**Computer:** approx. 45 x 52 x 16 mm, weight 45 g

**Handlebar holder:** weight 15 g

**Transmitter:** weight 20 g

**Battery:** 3V, Type 2032 (Computer), 3V Type 2032 (Transmitter)

**Battery life:** 300 hours of use, approx. 6000 km (3940 mi) only speedtransmitter use  
250 hours of use, approx. 5000 km (3106 mi) speed plus cadence-transmitter use.  
Digital speed transmitter: 600 h

**Operating temperature of LCD display:** -15 °C to +60 °C (5° F to 140° F)

**Speed reading range:** at wheel size 2155 mm (84.8 in)  
min 2.5 km/h (1.55 mi) / max 120 km/h (74 mi)

**Riding Time Measuring Range:** up to 23:59:59 HH:MM:SS

**Stop Watch Measuring Range (only C2DS, C3DS, C4DS):** up to 23:59:59 HH:MM:SS

**Trip Distance Counter Measuring Range:** up to 999.99 km or mi

**NAVIGATOR Measuring Range (only C3DS, C4DS):** up to 999.99 km or mi

**Total odometer either Bike 1 or 2 Measuring Range:** Up to 99.999 km or mi

**Total Odometer measuring Range:** up to 199.999 km or mi

**Wheel size Set Range:** 100 mm (3.9 in) minimum / 3999 mm (157.4 in) maximum