

Dealer Catalogue 2010



## www.vdocyclecomputing.com Visit our website!

## **Product Comparison**

Comparison of two models in table form.



## **Product Advisor**

The adviser guides you intuitively through a selection process and at the end tells you which is the right bike computer for you based on your selections.



## **Distributor Search**

No matter where - Your retail customers will find you by our country by country locator.



## **Microsite Series-Z**

## www.vdo-series-z.com

Check out our special website for Series-Z.



## **ICONS**



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## Dear Bicycle Retailer,

For 2010 we are providing a line of cycle computers ranging from A to Z, from entry level model to high-end device for the ambitious cyclist.

## A

The Series-A provides you with wired and wireless models at an excellent cost/performance ratio. A4 and A4+ are the bestsellers. Few functions and easy handling make these models your clients computer of choice. Models A8 and A8+ feature the essential functions at a very low price level. The A8+ is about the best value wireless cycle computer in the market.

## M

The MC 1.0 (wired) is the best value for a cycle computer w/altimeter. The wireless version MC 1.0+ has been a classic for years. That's why this legend will remain in the 2010 program.

## X

With our Series-X models we are offering you two wired and three wireless mid-price models equipped with most recent digital wireless technology. For the wireless transmission we are reverting back to an already proven system. Any wireless Series-X model (X1DW, X2DW, X3DW) is cadence ready and can subsequently be upgraded with wireless cadence equipment. The Series-XDW wireless models are targeting the ambitious hobby cyclist.

## 7

The Series-Z featuring altimeter, heart rate monitor, cadence, calorie consumption, virtual power and PC-evaluation software is meeting the demands of the performance oriented cyclist. The ANT+ wireless transmission is among the best interference resistant systems currently available on the market

## Ε

With a close eye to environmental protection we are assuring that our products comply with the European Materials Act (REACH). None of our products contain any hazardous of harmful substances indicated therein.

## 0

We have been improving our quality management in the past years. The quality aspect needs to be incorporated into the manufacturing at the earliest possible stage, the product development. During the various steps of production we are taking care that the quality level of our component assembly is monitored permanentely. This is how the VDO-Quality of the finished product is generated.

We wish you lots of success with our product line 2010.

With kind regards,

H.J. Noenen Managing Director

## SERIES-A



# THE SERIES-A

The models in the Series-A have been designed for cyclists of all age groups, hobby cyclists, those cycling on long trips, sporty holidays, weekend excursions and to and from work, but also for serious cyclists. For an entry-level price, even the cost-conscious sports and leisure cyclist can now get hold of the advanced technology and fine design from VDO.

## 

## Large display

We have place particular emphasis on developing the display. With a size of 25 x 27 mm, we will also meet the demands of the older target groups for a practical computer that can easily be read.



Ø 35 mm

## Large buttons

Large buttons with a well defined pressure point ensure easy operation, even with gloves.



## Simple operation

Operation is made particularly simple using two generous, soft-touch buttons – one for accessing the functions and one for accessing the setting modes.

## Setting mode

Pressing SET button for three seconds activates setting mode



## **Cycling Functions**

- o current speed
   o

- total odometer
- average speed
- trip ride time
- comparison of current and average speed

## **Analogue wireless technology**

Radio waves represent speed.



Number of waves (signals) per unit

# slow speed 20 km/h (12.5 mph)

high speed 40 km/h (25 mph)

# Data saved when changing the battery

When changing the battery all programmed values remain saved for up to 20 seconds – enough time therefore to insert the new battery.



# Universal mount for assembly to handlebars or stem

All models in the Series-A come with the universal mount for handlebars or stem.



## **Packaging**











**A8** 





## **Cycling Functions**

- o current speed
   o
- trip counter
- o total odometer

## **Further Features**

- o programmable odometer
- sleep mode (display shutdown)
- auto start / stop
   universal Twist-Click-Mounting
   for handlebar & stem
   easy fitting spoke magnet

- data storage during battery replacement

## Contents of packaging

Computer, Battery 3V 2032, Battery door, Universal mount with wire and sensor, rubber shim, magnet, cable ties

## **Cycling Functions**

- o current speed
   o
- trip counter
- clock
- o total odometer
- average speedmaximum speed
- trip ride timer
- comparison of current and average speed

## **Further Features**

- programmable odometer
- sleep mode (display shutdown)
- auto start / stop

- universal Twist-Click-Mounting for handlebar & stem
- easy fitting spoke magnet
- data storage during battery replacement

## Contents of packaging

Computer, Battery 3V 2032, Battery door, Universal mount with wire and sensor, rubber shim, magnet, cable ties

## SERIES-A / WIRELESS MODELS / A4+ / A8+











A4+







**48**+



## **Cycling Functions**

- current speed
- trip counter
- clock total odometer

## **Further Features**

- wireless, analogue programmable odometer
- sleep mode
- (display shut-down)

   auto start / stop up to 3 hrs.
- universal Twist-Click-Mounting for handlebar & stem
- $\odot$  easy fitting spoke magnet

- data storage during battery replacement

## Contents of packaging

Computer, analogue wireless transmitter, Battery 3V 2032, Battery 12V, Battery door for computer and transmitter. Universal mount, rubber shim, magnet, cable ties

## **Cycling Functions**

- ourrent speed
- trip counter
- clock
- average speed
- maximum speed
- trip ride timer comparison of current and average speed

## **Further Features**

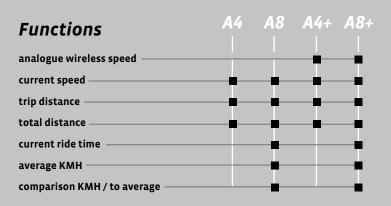
## 😥 wireless, analogue

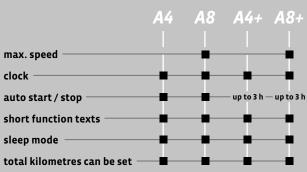
- programmable odometer
- sleep mode (display shutdown)

- o auto start / stop up to 3 hrs.
- universal Twist-Click-Mounting for Handlebar & Stem
- easy fitting spoke magnet
- data storage during battery replacement

## Contents of packaging

Computer, analogue wireless transmitter, Battery 3V 2032, Battery 12V, Battery door for computer and transmitter, Universal mount, rubber shim, magnet, cable ties





## **ACCESSORIES**

## General - A4/A8/A4+/A8+



## BAT 3V

Item No.: 1013

Battery 3V, Type 2032 Contents of packaging: Battery 3V



## CMAG S/M

Item No.: 4410

Clip-Magnet S/M for round spokes up to 2,3 mm/ flat spokes up to 3,4 mm.
Contents of packaging: Clip magnet

## CMAG L/XL

Item No.: 4412

Clip-Magnet L/XL for round spokes up to 3,2 mm/ flat spokes up to 5,4 mm. Contents of packaging: Clip magnet

## Wired models - A4/A8



## **UMW 75**

Item No.: 5502

Universal Mount for handlebar or stem Wire: 0,75 m

- Contents of packaging:
  1 universal mount with wire and sensor,
- 1 rubber shim, cable ties



## **UMW 150**

Item No.: 5504

Universal Mount for handlebar or stem Wire: 1,5 m

- Contents of packaging:
  1 universal mount with wire and sensor,
  1 rubber shim, cable ties



## **UMW KIT**

Item No.: 5505

Wired mount kit, including magnet Contents of packaging:

- universal mount with wire and sensor,
- rubber shim,
- 1 clip magnet, cable ties

## Wireless models - A4+/A8+



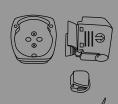
## UMWL

Item No.: 5503



Universal Mount for handlebar or stem Wireless

Contents of packaging: 1 universal mount, cable ties



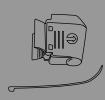
## UMWL-KIT A

Item No.: 5506



Mount-Kit wireless Series-A including magnet

- 1 universal mount,
- analogue transmitter Series-A, incl. battery 12V 1 rubber shim,
- 1 clip magnet, cable ties,



## **AWTM**

Item No.: 5501



Series-A-speed transmitter analogue Contents of packaging:

- 1 analogue transmitter1 rubber shim, cable ties

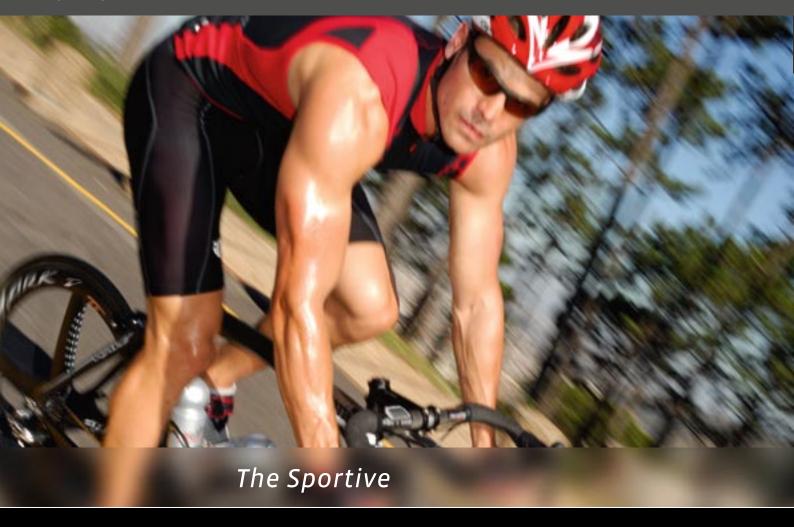


## BAT 12V

Item No.: 1014



Batterie 12V, Type 23 AE Contents of packaging: Batterie 12V



# THE SERIES-X

The Series-X was designed for hobby sportspeople and ambitious racing bike and mountain bike cyclists.

The Series-X occupies the mid-range above the entry-level segment of the Series-A.

Main differences to the Series-A:

- Full text menu display
- EMC menu operation
- Time permanently displayed
- Digital wireless transmission
- Cadence optional on all wireless models
- Automatic bike recognition bike 1 / bike 2 on the wireless models
- Data permanently saved when battery changed (except X1 and X1DW)
- Wheel sizes can either be set using millimetres (wheel circumference) or tyre size table (stored in computer)
- SSB Smart Set Box for quick basic settings at dealer, including test function

## Recommended use

# Downhill Freeride X-Country Marathon Road Bike Track Cycling Touren / Trekking City Commuting



X1 X2

X1 DW X2 X3 DW DW

# Easy-to-use by the EMC menu control

Simple and intuitive, the EMC operating system enables operation whilst riding and the computer settings to be made when first used. All settings can be accessed from a combined menu.

## Digital wireless transmission



# DW stands for "Digital Wireless" and "Double Wireless"

The Series-X comes with digitally encoded wireless transmission, which is based on established industry modules.

"DW" also stands for Double Wireless; speed and cadence (optional) are sent to the computer wirelessly.

- Each transmitter generates its own encoding. This effectively eliminates "cross-talking" when riding in a group.
- The transmitters are automatically paired with the computer on the Series-X.
- Place the computer into the handlebar mount, ride off and the computer does the pairing itself.

Also new is the **automatic transmitter recognition**. It notices when the computer is being used on **bike 1** or **bike 2**.

With a range of 75 cm for the speed transmitter and 90 cm for the cadence, all normal assembly scenarios are covered.

## SERIES-X



## Large display

The display on the Series-X has got even bigger. This has made it possible to increase the size of the digits for the speed and the other data. The text on the display has also been made easier to read. The time is permanently shown on the display. On the wireless models, the current cadence (option) is permanently displayed. The important details can thus be seen at a glance.



Ø 45 mm

## Wheel size setting using tyre size

On the Series-X the wheel size can either be selected from a tyre size table or, as previous, set in millimetres. This makes setting the wheel size more convenient.



20 x 1,75 24 x 1 <sup>3</sup>/<sub>8</sub> 30 - 622

37 - 622



## Variable service intervals

Separate service intervals can be set for two bikes.

Once the set number of kilometres\* is reached, the display shows that a bike service\*\* is needed.

This function can also be switched off.





## New stopwatch functions

Besides stopwatch, countdown, timer 1, timer 2, timer 1+2, the Series-X features a time trial timer and a lap timer.

On the time trial timer the time trial distance is entered. After the start the timer works out the expected time required and shows the distance still to be cycled. The data is updated every 3 seconds.

The lap timer saves the time, the distance cycled and the average for 30 laps.

The laps can either be started manually or automatically after reaching a defined distance.

## Time Trial Timer



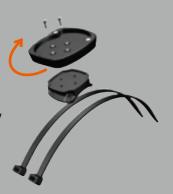
## **Lap Timer**

in 15 minutes



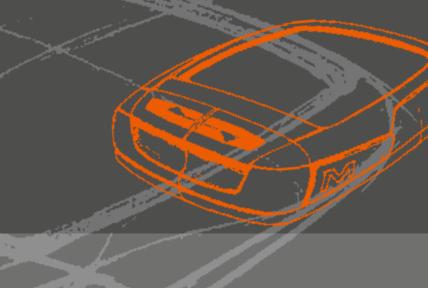
## Familiar handlebar mount

The Series-X comes with the familiar universal mount.
The universal mount can either be fitted on the handlebars or the stem. The mount is fixed quickly and simply with cable ties.



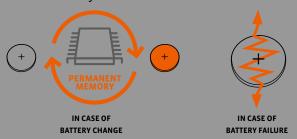
## Racy design

Taste can divide opinions. For the new Series-X we asked the designer for racy lines and great curves. Decide for yourself. We think the Series-X has a good profile.





When the battery is changed, all settings (wheel size) and all data (total kilometres, ride time) are saved. A permanent memory ensures that the data is not lost even if the battery fails.

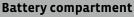


\* n/a for models X1 and X1DW



## **Speed transmitter**

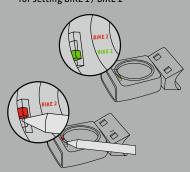
The speed transmitters has a sliding switch in the battery compartment. The sliding switch is used to set the transmitter to bike 1 or bike 2. The computer then automatically detects the transmitter from bike 1 or bike 2.





## Sliding switch

for setting BIKE 1 / BIKE 2





## **New SSB SMART SET BOX**

For the Series-X we have developed the Smart Set Box. The SSB sets the computer for you in no time at all. Language, time, wheel size and total kilometres can be set by pressing a few buttons. Setting the computer now takes just seconds.

You can also do the RESET with the SSB.
The SSB can be used to do an overall reset, kilometres

or ride time reset, just as you please.

Furthermore you can use the SSB as a test station in the workshop.





## The complete entry-level model with simple operation

## The intelligent tourer

## **Cycling Functions**

- o current speed
   o

- o ride time
- maximum speed

## **Further Features**

- FULL TEXT with 7 languages D, GB, F, I, E, NL, PL
- sleep mode (switches off display)
- variable service intervals for BIKE 1 and BIKE 2
- wheel sizes can be set using tyre size
- or manually in mm
  can be used for 2 bikes

## For dealers

## **Cycling Functions**

- o current speed
   o
- trip distance
- total kilometres bike 1/bike 2/totals
- ride time
- o total ride time bike 1 / bike 2 / totals
- average speed

   o

   o

   average speed

   o

   average speed

   o

   average speed

   average speed
- maximum speed
- stopwatch
- navigator (2<sup>nd</sup> programmable daily kilometre counter, counts forwards or backwards)

## **Further Features**

- EMC menu operation system
   FULL TEXT with 7 languages D, GB, F, I, E, NL, PL
   sleep mode (switches off display)
   stopwatch indicator, shows running stopwatch
- variable service intervals for BIKE 1 and BIKE 2
- wheel sizes can be set using tyre size
- or manually in mm can be set for 2 bikes

























## The digital wireless entry-level model

## The intelligent tourer with digital wireless

## The super sports computer

## **Cycling Functions**

- current speed
- trip distance
- o total kilometres bike 1/ bike 2/ totals
- ride time
- maximum speed
- clock

## Wireless

- Odigital, encoded wireless transmission "Digital Wireless" DW, Double Wireless for speed and cadence (option)
- automatic pairing,
- automatic bike recognition for bike 1 / bike 2

## **Further Features**

- FULL TEXT with 7 languages D, GB, F, I, E, NL, PL sleep mode (switches off display)
- variable service intervals for BIKE 1 and BIKE 2
- wheel sizes can be set using tyre size or manually in mm
- can be set for 2 bikes

## **Cycling Functions**

current speed

X2DW

Item No.: 7112

- trip distance total kilometres bike 1/bike 2/totals
- ride time
- total ride time bike 1/bike 2/totals
- average speed
- maximum speed
- stopwatch
- navigator (2<sup>nd</sup> programmable daily kilometre counter, counts forwards or backwards)

- odigital, encoded wireless transmission "Digital Wireless" DW, Double Wireless for speed and cadence (option)
- automatic pairing,
- automatic bike recognition for bike 1/bike 2

## **Further Features**

- EMC menu operation system
   FULL TEXT with 7 languages D, GB, F, I, E, NL, PL
- sleep mode (switches off display)
- stopwatch indicator, shows running stopwatch
- variable service intervals for BIKE 1 and BIKE 2
- wheel sizes can be set using tyre size or manually in mm
- can be set for 2 bikes

## For dealers

Can be set using SSB SMART SET BOX

## **Cycling Functions**

- current speed
  - trip distance
- total kilometres bike 1/bike 2/totals
- ride time
- total ride time bike 1/bike 2/totals
- average speed
- maximum speed
- stopwatch
- timer 1, timer 2 timer 1+2 with up to 99 repetitions
- countdown timer
- time trial timer with variable distance
- lap timer for 30 laps, time, distance,
- average per lap, start lap automatically or manually
- navigator (2<sup>nd</sup> programmable daily kilometre counter, counts forwards or backwards)
- wake-up alarm, variable wake-up or reminder alarm

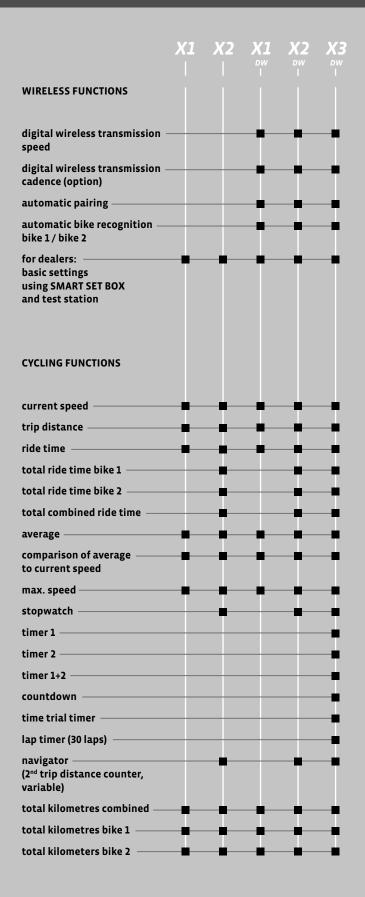
- Odigital, encoded wireless transmission "Digital Wireless" DW, Double Wireless for speed and cadence (option)
- automatic pairing
- automatic bike recognition for bike 1 / bike 2

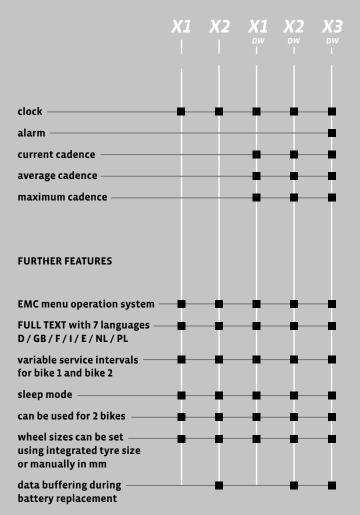
## **Further Features**

- EMC menu operation system
- FULL TEXT with 7 languages D, GB, F, I, E, NL, PL
- sleep mode (switches off display)
- stopwatch indicator, shows running timer
- beeper for timer and wake-up alarm
- variable service intervals for BIKE 1 and BIKE 2
   wheel sizes can be set using tyre size or manually in mm
- can be set for 2 bikes

## For dealers

o can be set using SSB SMART SET BOX





## General - x1/x1DW/x2/x2DW/x3DW



## BAT 3V

Item No.: 1013

Battery 3V, Type 2032 Contents of packaging: Battery 3V



## CMAG S/M

Item No.: 4410

Clip-Magnet S/M for round spokes up to 2,3 mm/ flat spokes up to 3,4 mm. Contents of packaging: Clip magnet

## CMAG L/XL

Item No.: 4412

Clip-Magnet L/XL for round spokes up to 3,2 mm/ flat spokes up to 5,4 mm. Contents of packaging: Clip magnet

## Wired models - x1/x2



## **UMW 75**

Item No.: 5502

Universal mount for handlebars and stem Cable length: 0.75 m
Contents of packaging:

- universal mount with cable and sensor,
- 1 rubber pad, cable ties



## **UMW 150**

Item No.: 5504

Universal mount for handlebars and stem Cable length: 1.5 m

Contents of packaging:

- 1 universal mount with 1 rubber pad, cable ties universal mount with cable and sensor,



## UMW KIT

Item No.: 5505

Assembly kit cables, including magnet

Contents of packaging:

- universal mount with cable and sensor,
- clip magnet, cable ties

## Wireless models - X1DW/X2DW/X3DW



## X-SENDER

Item No.: 7701



Transmitter for Series-X, Digital speed transmitter, including battery 3V Contents of packaging:

- 1 digital tran 1 battery 3V, digital transmitter,
- cable ties



## UMWL-KIT X

Item No.: 7703

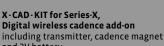


Assembly kit wireless Series-X, including magnet

Contents of packaging:

- universal mount, X-transmitter including 3V battery,
- clip magnet, cable ties





# and 3V battery Contents of packaging:

- cadence transmitter, 3V battery, cadence magnet,
- cable ties



## CAD-MAG

Item No.: 4411



Cadence magnet for assembly on the foot pedal, for Series-X DW Contents of packaging:

1 cadence magnet, cable ties





**UMWL** 

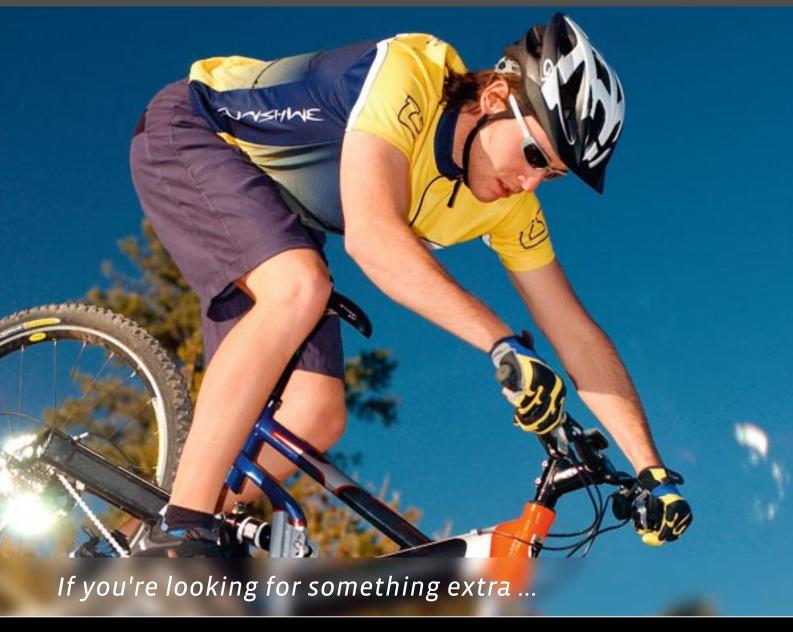
Item No.: 5503

Universal mount for handlebars and stem Contents of packaging:

1 universal mount.

cable ties





# THE SERIES-Z

In the Series-Z we bring you computer models with heart rate measurement, altitude measurement, cadence and PC analysis. The Series-Z is aimed at ambitious cyclists who wants to check their performance and also document and analyse it with the PC-Link models. All models in the Series-Z come with 3-channel, 2.4 GHz digital wireless technology for speed, heart rate and cadence. For the wireless protocol we rely on the established ANT+ protocol. This makes the models in the Series-Z compatible with products from other suppliers, which also use the ANT+ protocol. Innovative, top-class design makes the new Series-Z models into real head-turners. Besides the bike, heart rate, cadence and altitude functions, the Series-Z models also measure performance in WATT and calculate calorie consumption. The comprehensive PC evaluation program enables trips to be analysed in detail and allows individual training to be planned.

## Recommended use

## Downhill Freeride X-Country Marathon **Road Bike Track Cycling** Touren / Trekking City Commuting Z2 PC-LINK Z3 PC-LINK **Z1 Z**2 **Z**3

## **Cycling Functions**

- Ourrent trip data: trip distance, ride time, average, max. speed
- Total values (total kilometres, ride time, are saved separately for 2 bikes)
- Speed display with 0.1 decimal place
- Ride time counter up to 24 hours, with auto start / stop during breaks
- 2<sup>nd</sup> daily distance counter, freely adjustable, counts forwards or backwards

## Altitude measurement





- Gain / loss in altitude
   Annual altitude difference uphill and downhill separate for bike 1 / bike 2 / hiking mode
   Annual altitude difference can be set
   Distance cycled uphill and downhill
   Current altitude / gradient / temperature permanently displayed
   Average / max. gradient uphill / downhill
   Simple starting altitude recalibration (button short cut)
   Possible to adjust the current altitude





## Heart rate measurement

- 3 training zones can be defined
- Training zones automatically calculated based on personal HRmax or can be set individually
- Personal HRmax automatically calculated based on personal details or can be set individually
- Current heart rate is also shown as % of HRmax (enables easy check on training specification)
- Calorie consumption display
- Recovery heart rate and recovery time measurement, both methods can be selected
- Wattage, displays current performance in Watt
- Display of training times in, under and above the set training zone
- Acoustic warning when going over or below the set training zone limits (can be switched off)







# FOR SERIES<sup>.Z:</sup> SOFT BELT HEART RATE TRANSMITTER

## **COMFORT GEAR**

Soft Belt is a conductive and elastic strap material providing supreme wearing comfort

- Soft Belt easily fits to any body shape
- No pressure spots caused by hard plastics
- Perfect fit even for women's extra small sizes

## Technical Specifications:

- Transmission Protocol: ANT+
- Fits: Z2, Z2 PC-Link, Z3, Z3 PC-Link



## Transmitter front view





## Transmitter rear view



# All information quickly at hand

## **Operating concept**

- Clear allocation of functions to certain buttons
- Button A: Altitude functions
- Button P: Heart ratefunctions and timer
- Button 1: Bike functions for current trip
- Button 2: Bike functions, totals from all trips
- Button STW: Start / stop the selected timer
- Buttons with clearly defined pressure point, can even be operated with gloves
- Menu-controlled EMC system in setting mode
- Reply from system when setting is finished



### **Altimeter Functions**

- current altitude
- current gradient uphill / downhill
   current temperature
- day's altitude difference uphill / downhill
- day's distance uphill / downhill
   annual altitude difference
   uphill / downhill
   highest point

- average gradient uphill / downhillmax. gradient uphill / downhill

## Permanently\*\* in display

- speed
- heart rate
- altitude
- temperature
- gradient● cadence\*\*
- comparison of average to current speed



## **Heart Rate Functions**



- current heart rate
- timer (6 timers can be selected)
- average pulse
- max. pulse
- heart rate as % of max. hr
- $\odot$  times in, over and under the limit
- calorie consumption
- wattage
- recovery pulse / recovery time

## **Cycling Functions**

- \* On Z3 / Z3 PC-Link \*\* Varies according to model

## Start / stop all Timer Functions

START/ STOP



- clock
   navigator (2<sup>nd</sup> daily distance counter)
   total km bike 1

- total km bike 2
  total km bike 1+2
  ride time bike 1
  ride time bike 2
  total ride time bike 1+2





## Timer

- 6 different timers can be selected depending on the training situation
- All timers can be programmed up to 24 hrs
- Stopwatch
- Countdown
- ▼ Timer 1
- ▼ Timer 2
- Timer 1+2 (combination for interval training, number of interval repetitions can be set)
- Lap timer for 50 laps, for each lap the following is saved:
   lap time, average heart rate, average speed. Lap data is saved separately from normal data when recorded (PC-Link models)







## Hiking mode

VDO Series-Z has been developed as cycle computer that can also be used for hiking, running, walking and other sports.

- All models can be switched from bike mode to hiking mode
- For hiking mode the computer can be changed into a sports watch with a precisely fitting wrist strap.
- $\ensuremath{ \odot}$  Heart rate measurement is fully available in hiking mode
- In hiking mode, metres walked uphill and downhill are saved in the special hiking mode memory.
- The results can be accessed separately and set after a battery change for example











## Cadence

- All models can be retrofitted with cadence
- Current cadence / average cadence / max. cadence
- With cadence: possible to display Watts on models Z1, Z3, Z3 PC-Link



## Service interval display

Individually variable service intervals, separate for bike 1 / bike 2

## Universal handlebar mount

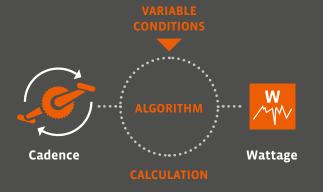
For assembly on handlebars or stem quick assembly with cable ties

## **Battery life-span**

With three-channel wireless reception, the battery in the computer lasts approx. 4.000 til 6.000 KM, whilst the batteries in the transmitters last between 8.000 KM and 12.000 KM

## Watt Display (Virtual Power)

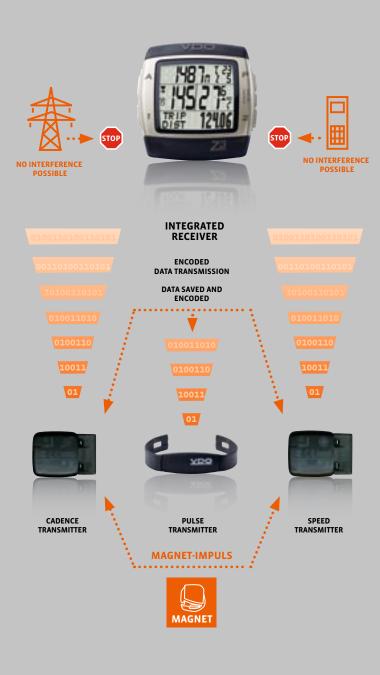
- Watt display using mathematical algorithm with variable factors
  - Weight
  - Roll resistance (via tyre type)
  - Air resistance (via seating position)
- Under the same conditions, comparable wattages, training progress / time analysis is possible



## Wireless transmission

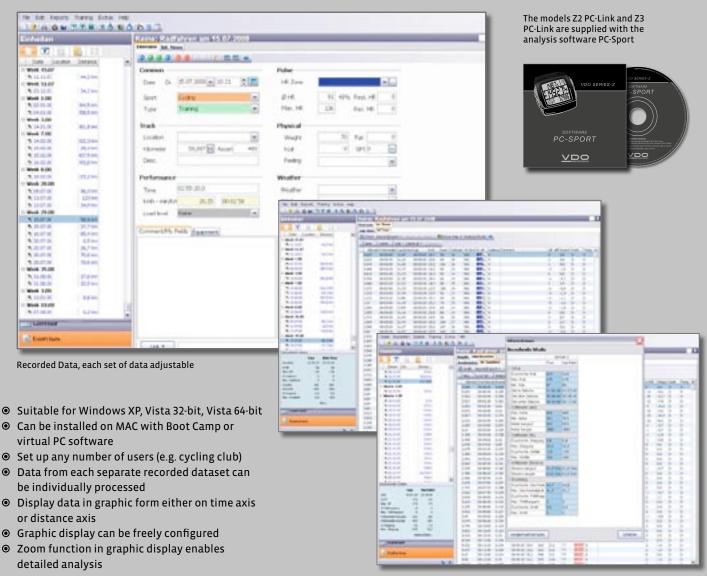


- Fully digital 3-channel wireless transmission for speed, heart rate and cadence
- ANT+ wireless protocol: extremely fast and secure wireless protocol
- 2.4 GHz radio frequency: very reliable frequency
- Compatible with other devices that also use the ANT+ wireless protocol
- Fixed transmitter pairing for 5 transmitters (bike 1 / bike 2 / cadence 1 / cadence 2 / heart rate)
   (Pairing remains in place until next battery change).
- Data update after radio interference, up to 60 seconds
- Large signal range

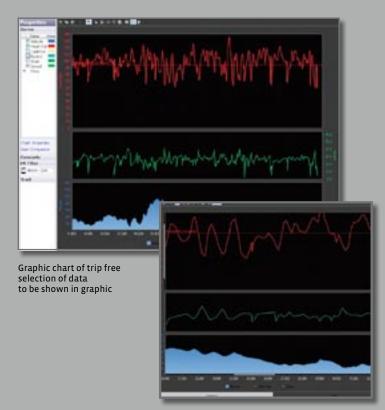




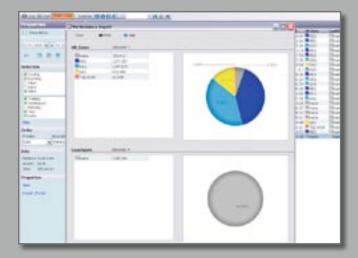
## PC analysis software



- A data editor can be added to the graph. In the data editor, the data belonging to the graph are shown if you move over the graph with the mouse
- From the graph, a double click brings you to the dataset table for the dataset clicked on in the graph
- 2 training units can be compared with each other in table or graph form
- Several training units (e.g. morning / afternoon) can be put together to make one unit
- Training blocks can be defined for different types of sport (e.g. triathlon)
- Course manager allows training courses to be managed
- Equipment manager allows bikes used in training to be managed
- Extensive training analysis possible: period analysis, strain analysis, strain styles analysis
- Training planning / comparison of plan to actual
- Simple operation



Graph with zoom window and data editor



Exercise statistics for defined period



Calendar-Display, showing training sessions

## Data recording on the PC-Link models

- 2 recording intervals can be selected:
   10 seconds / 20 seconds
- 10 seconds / 20 seconds

   Memory capacity: 100 hours with 20 second interval, 68 hours with 10 second interval
- Recording stop during breaks, automatic continuation of recording after a break







## The mountaineer

The Z1 features bike and altimeter functions. The Z1 is the legitimate successor to the MC 1.0+. The Z1 offers digital wireless transmission plus cadence (as an option). In the altimeter area the Z1 provides more extensive information than the MC 1.0+.



## **Cycling Functions**

- ⊙ Current / ave. / max. kmh
- ride time (total bike 1 / bike 2 / bike 1+2)
- trip (total bike 1 / bike 2 / bike 1+2)
- o cadence current / avg. / max. (option)
- power measurement (watt)
- 5 different training timers can be selected

## **Altimeter Functions**

- current altitude / gradient / temperature
- distance uphill / downhill
- average / max. gradient uphill / downhill

- highest point current/all trips
   annual altitude difference uphill/downhill
   hiking/jogging/nordic walking mode can be set
   also records altitude in hiking mode

## **Further Features**

- ② 2-channel digital wireless on 2.4 GHz for speed and cadence
- 6 functions at a time on the display
- 7 languages can be selected
- sleep mode
- o clock / alarm
- service interval display (programmable)
- o for use on two bikes
- hiking mode can be selected
- o can be worn as a sports watch with wrist strap

## Have your finger on the pulse

The Z2 features bike and heart rate functions. The Z2 is aimed at all keen cyclists who want to monitor and document their performance without altitude measurement.



## **Cycling Functions**

- current / avg. / max. kmh
  ride time (total bike 1 / bike 2 / bike 1+2)
- trip (total bike 1 / bike 2 / bike 1+2) 2<sup>nd</sup> trip distance
- o cadence current / ave. / max. (option)

## **Heart Rate Functions**

- current/average/maximum heart rate
- heart rate as a % of personal max. heart rate
- 3 training zones can be set
- training times in, over and under the limit
- 6 different training timers can be selected
- calorie consumption
- recovery measurement (time or target heart rate)

## **Further Features**

- 3-channel digital wireless on 2.4 GHz for speed, heart rate and cadence
- up to 5 functions at a time on the display
- 7 languages can be selected
- o clock / alarm
   o clock / alarm
- service interval display (programmable)
- o for use on two bikes
- hiking mode can be selected
- o can be worn as a sports watch with wrist strap

## \* Z2 PC-Link

All functions as on Z2, plus

- 2 recording intervals can be selected 10 sec. / 20 sec.
- comprehensive software for PC data-Analysis
- Docking station for PC download









## Control is better

The Z3 features bike, heart rate and altimeter functions. With optional cadence, power measurement in watts is also available.

## **Cycling Functions**

- current/avg./max.kmh
   ride time (total bike 1/bike 2/bike 1+2)
   trip (total bike 1/bike 2/bike 1+2)
- 2<sup>nd</sup> trip distance
- cadence current / avb. / max. (option)

## **Heart Rate Functions**

- current/average/maximum heart rate
  heart rate as a % of personal max. heart rate
- 3 training zones can be set
- training times in, over and under the limit
- 6 different training timers can be selected
- calorie consumption
- recovery measurement (time or target heart rate)
- power measurement (Watt)

## **Altimeter Functions**

- o current altitude / gradient / temperature
- altitude difference uphill / downhill
   distance uphill / downhill
   average / max. gradient uphill / downhill
- highest point current / all trips
- annual altitude difference uphill / downhill
- o also records altitude in hiking mode



## **Further Features**

- 3-channel digital wireless on 2.4 GHz
- for speed, heart rate and cadence
- 6 functions at a time on the display
- 7 languages can be selected
- sleep mode clock/alarm
- service interval display (programmable)
   for use on two bikes
- hiking mode can be selected
- can be worn as a sports watch with wrist strap

## \*\* Z3 PC-Link

- All functions as on Z3, plus

  o data memory for up to 100 hours ride time

  o 2 recording intervals can be selected 10 sec. / 20 sec.
- comprehensive software for PC data analysis
- Docking station for PC download







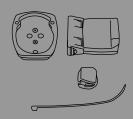
## UMWL

Item No.: 5503

Universal mount for handlebars and stem

Contents of packaging:

1 universal mount, cable ties



## UMWL-KIT Z

Item No.: 6601

Mount-Kit wireless Series-Z including magnet Contents of packaging:

universal mount.

- Z-speed transmitter incl. battery 3V
- clip magnet, cable ties

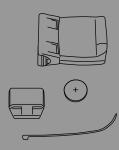


## **Z-SENDER**

Item No.: 6602

Transmitter for Series-Z, digital wireless speed transmitter incuding battery 3V Contents of packaging:

- digital speed transmitter, battery 3V 2032, cable ties



## **Z-CAD-KIT**

Item No.: 6603

Series-Z CAD - digital wireless cadence option, for Series-Z incl. transmitter, cadence magnet and battery 3V Contents of packaging:

- digital cadence transmitter, battery 3V 2032,
- cadence magnet, cable ties



## CAD-MAG

Item No.: 4411

Cadence magnet for assembly on the crank, for Series-Z Contents of packaging:

cadence magnet, cable ties



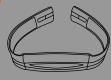


## **PULSE Z**

Item No.: 6604

Series-Z Pulse - chestbelt transmitter, digital Contents of packaging:
1 chestbelt transmitter digital, incl. battery





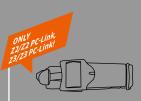
## **PULSE KIT Z**

Item No.: 6605

Series-Z Puls - chestbelt transmitter and elastic strap including battery

Contents of packaging:

- Chestbelt transmitter incl. battery
- 1 elastic strap



## **ELASTIK Z**

Item No.: 6606

Elastic strap for Pulse-transmitter Series-Z

Contents of packaging:

1 elastic strap



## COMFORT GEAR Item No.: 6610

Soft Belt Pulse - chestbelt transmitter Contents of packaging:

1 chestbelt transmitter, incl. battery 1 elastic strap



## **Z-WRIST**

Item No.: 6607-S (Black) Item No.: 6607-B (Brown)

Wrist band holder "Black" Contents of packaging:

1 wrist band holder black

Wrist band holder "Brown"

Contents of packaging:

1 wrist band holder brown



## **Z-WRIST-LOCK**

Item No.: 6608-S (Black) Item No.: 6608-B (Brown)

Lid-Lock for wristband "Black" Contents of packaging: 1 Lid-Lock black

Lid-Lock for wristband "Brown" Contents of packaging: 1 Lid-Lock brown

## DOCK

Item No.: 6609

**Docking Station Series-Z** for Data-Download to PC Contents of packaging: 1 Docking-Station with USB-connector



## BAT 3V

Item No.: 1013

Battery 3V, Type 2032 Contents of packaging: Battery 3V



## CMAG S/M

Item No.: 4410

Clip-Magnet S/M for round spokes up to 2,3 mm/ flat spokes up to 3,4 mm. Contents of packaging: Clip magnet

CMAG L/XL

Item No.: 4412

Clip-Magnet L/XL for round spokes up to 3,2 mm/ flat spokes up to 5,4 mm. Contents of packaging: Clip magnet



# THE SERIES-HC / -MC

Even after seven years the HC and MC models are still part of the range. The HC still offers excellent value for money for the cost-conscious hobby cyclist looking for a simple bike computer with heart rate measurement.

The MC has achieved reference status in the meantime. This is confirmed by many tests.

The most important altimeter functions, packaged in a timeless design, at good value for money justify the continuation of these legends.

The MC 1.0 is also the only wire-operated computer with altitude measurement.











HC 12.6 Item No.: 2020

Wired speed-input Analogue wireless HR









Wired speed input











MC 1.0+

Item No.: 2030



Analogue wireless speed-input





## **Cycling Functions**

- actual speed
- trip counter
- odometer WS 1 odometer WS 2
- odometer total
- ride timer
- average speed
- maximum speed
- o comparison of actual speed and average speed
- NAVIGATOR second programmable trip counter

## **Heart Rate Functions**

- o actual heart rate
- heart rate stopwatch
- average heart rate o maximum heart rate
- time in training zone
- time above training zone
- o beeper for heart rate limits
- high and low limit pre-settable
- visible indication for heart rate transmission

## **Further Features**

- full text display in 7 (selectable) languages
- Service-Interval indicator
- auto start / stop
- sleep mode (display shutdown)
- programmable odometer
- Twist-Click mounting

## Contents of packaging

Computer, HRM chest transmitter and elastic strap, Battery 3V 2032, Battery door, handlebar mount with wire and sensor, rubber shim, magnet, cable ties

## **Cycling Functions**

- actual speed
- trip counter
- odometer WS 1
- odometer WS 2 odometer total
- orde timer
- average speed
- maximum speed
- stopwatch
- comparison of actual speed and average speed
- NAVIGATOR second programmable trip counter
- 2 wheel sizes

## **Altimeter Functions**

- actual gradient
- actual temperature
- altitude gain on actual trip
- maximum altitude reached on trip
- average gradient on trip
- maximum gradient on trip
- total altitude gain on all trips, separate for wheel size 1/ wheel size 2
- maximum altitude reached on all trips, separate for wheel size 1/ wheel size 2
- adjustable home altitude
- recalibration of home altitude
- actual altitude correction mode

## **Further Features**

- full text display in 7 (selectable) languages
   Service-Interval indicator
- auto start/stop
- sleep mode (display shutdown)
- stop watch indicator
- programmable odometer
- Twist-Click mounting

## Contents of packaging

Computer, Battery 3V 2032, Battery door, handlebar mount with Heavy Duty Wire and sensor, rubber shim, magnet, cable ties

## **Cycling Functions**

- actual speed
- trip counter
- odometer WS 1 odometer WS 2
- odometer total
- o ride timer
- clock
- average speed
- maximum speed
- stopwatch
- comparison of actual speed and average speed NAVIGATOR second programmable
- trip counter

## **Altimeter Functions**

- actual gradient
- actual temperaturealtitude gain on actual trip
- maximum altitude reached on trip
- average gradient on trip
- maximum gradient on trip
- total altitude gain on all trips, separate for wheel size 1/ wheel size 2
- maximum altitude reached on all trips, separate for wheel size 1/ wheel size 2
- adjustable home altitude
- recalibration of home altitude
- actual altitude correction mode

## **Further Features**

## o wireless, analogue speed transmission

- full text display in 7 (selectable) languages Service-Interval indicator
- auto start/stop
- sleep mode (display shutdown) • stopwatch indicator
- 0 programmable odometer Twist-Click mounting

## Contents of packaging

Computer, analogue wireless transmitter, Battery 3V 2032, Battery 12V, Battery door computer and transmitter, handlebar mount wireless, rubber shim, magnet, cable ties



## General - HC 12.6 / MC 1.0 / MC 1.0+



## BAT 3V

Item No.: 1013

Battery 3V, Type 2032 Contents of packaging: Battery 3V



## CMAG S/M

Item No.: 4410

Clip-Magnet S/M for round spokes up to 2,3 mm/ flat spokes up to 3,4 mm. Contents of packaging: Clip magnet

## CMAG L/XL

Item No.: 4412

Clip-Magnet L/XL for round spokes up to 3,2 mm/ flat spokes up to 5,4 mm. Contents of packaging: Clip magnet

## Wired Models - HC 12.6 / MC 1.0

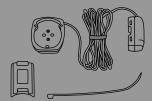


## UMW 75-HC-MC

Item No.: 5508

Universal Mount for handlebar or stem Wire: 0,75 m

- Contents of packaging:
  1 universal mount with wire and sensor,
- 1 rubber shim, cable ties



## UMW 150-HC-MC

Item No.: 5510

Universal Mount for handlebar or stem Wire: 1,5 m

Contents of packaging:

- universal mount with wire and sensor,
- 1 rubber shim, cable ties



## UMW-KIT-HC-MC

Item No.: 5511

Mount-Kit HC 12.6 / MC 1.0 wired for handlebar or stem Contents of packaging:

- universal mount with wire and sensor,
- rubber shim,
- clip magnet, cable ties



## CLH-HEAVY

Item No.: 1028

Wired mounting Kit with reinforced wire Contents of packaging:

- handlebar mount with wire and sensor,
- screw type clamp, rubber shim, cable ties



## **PULSE-SENDER**

Item No.: 1022

Chestbelt transmitter for HC 12.6 Contents of packaging:

1 chestbelt transmitter, incl. battery



## **PULSE-KIT**

Item No.: 1024

Chestbelt transmitter and elastic strap, for HC 12.6, including battery Contents of packaging:

1 chestbelt transmitter incl. battery

1 elastic strap



## **ELASTIK-HC**

Item No.: 1023

Elastic strap for Pulse-transmitter HC 12.6 Contents of packaging: 1 elastic strap



## WRIST

Item No.: 1021

Wrist band holder HC12.6 / MC 1.0 / MC1.0+ Contents of packaging:

1 wrist band holder

## Wireless Model - MC 1.0 +



## UMWL-KIT-MC

Item No.: 5512

Mount-Kit wireless for MC 1.0+/C05+ including magnet

Contents of packaging:

- 1 universal mount wireless and sensor,
- analogue transmitter,
- rubber shim,
- 1 clip magnet, cable ties



## **UMWL-MC**

Item No.: 5509



Universal Mount for MC 1.0+/C05+ for handlebar or stem wireless Contents of packaging:

1 universal mount,

cable ties



## WTM

Item No.: 1009



Analogue transmitter for MC 1.0+/C05+

- Contents of packaging: 1 analogue transmitter,
- rubber shim, cable ties

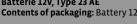


BAT 12V

Item No.: 1014



Batterie 12V, Type 23 AE Contents of packaging: Battery 12V



## POS material to boost sales

## **DEMOBOX** Series-A

Item No.: 5513

Small but good! That's the countertop display for Series-A. Series-A Demobox is small and compact and supports your sales in the counter area. All functions of the wired models can be tested. Fitted with wired models Series-A:





# POSTER Series-A Item No.: POSTER A

A VDO for any case. Poster for Series-A. Dimensions: ca. 120 x 30 cm Ask for availability in your language!



## **DEMOBOX Series-X**

Item No.: 7902

The cheapest sales assistant that you employ

The Demobox Series-X actively helps your sales. All functions on the Series-X can be tested on the demobox.

Features the models:

X1, X2, X3DW-DEMO (X3DW wired version for demobox only)



## PREMIUM POSTER Series-X

Item No.: 7903

You are a premium VDO dealer. Bring your premium display up to date with the Series-X poster.



Item No.: 7904

The POS wobbler's movement and colour are attracting your customers to the Series-X shelf.





## **LARGE POSTER Series-Z**

Item No.: 6901

Catches the eye and helps your sales.
Dimensions: approx. 120 x 30 cm



## PREMIUM POSTER Series-Z

Item No.: 6902

You are a premium VDO dealer. Bring your premium display up to date with the Series-Z poster.



## **FLYER Series-Z**

Item No.: 6903

The Series-Z flyer, provides quick information for your customers. 60 in a pack.



## **BIKE TAG Series-Z**

Item No.: 6904

The bike tag discreetly tells your customers that a Series-Z computer would go well with this bike. 30 in a pack.



## STICKER

Item No.:PREMIUM-STICK.

Premium Dealer Sticker Show your customers: We have competence in VDO.



## The VDO Test stations



## TESTER I (analog)

Item No.: 1017

Fits VDO models HC 12.6, MC 1.0, MC 1.0+, C05, C05+, and older CYTEC Series.
Test of analogue transmission possible

## Suitable for following models:

C05/C05+ HC 12.6 MC 1.0 MC 1.0+



## SSB SMART SET BOX for Series-X

Item No.: 7901

With the SSB, all models in the Series-X can be set (language, time, wheel size, total kilometres)

o reset (trip distance, ride time, total kilometres)

o tested (speed, cadence, transmitter test)

## Suitable for following models:

X1 X2 X1DW X2DW

# The VDO Service Support

A high-tech product demands a high-class service. Our customer-service centre will try to make your job as easy as possible.

## Contact us for

- ▼ Technical advice
- Instruction manuals
- Specific spare parts
- Help in analysing customer returns
- Help in use of the test stations

This is what we call high-class service for a high tech product. We help you to proof your competence in VDO.

## Telephone hotline

If you need advice, feel free to call our service hotline (only English). Just call us and we are available to assist you.

## Service Hotline +49 (0) 6349-9635-10

## **VDO Test Stations**

The test stations will help you diagnose warranty returns.

- Ooes the computer work?
- Open Does the wireless transmission work?
- What is wrong?

These questions can reliably be answered by using the test station.

There are various test stations available for the various model lines.

- Tester I (analog)
- SMART SET BOX SSB









## **ACCESSORIES SERIES-C**

## General - C1/C1DS/C2/C2DS/C3/C3DS/C4/C4DS



## **BAT3V**

Item No.: 1013

Battery 3V, Type 2032 Contents of packaging: Battery 3V

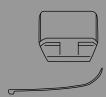


## CMAG S/M

Item No.: 4410

Clip Magnet S/M for round spokes up to 2,3 mm/ flat spokes up to 3,4 mm.

Contents of packaging: Clip magnet



## CAD-MAG

Item No.: 4411

Cadence magnet for assembly on the foot pedal Contents of packaging:

cadence magnet,

cable ties

## Wired models - c1/c2/c3/c4



## **UMW 75**

Item No.: 5502

Universal mount for handlebars and stem Cable length: 0.75 m

Contents of packaging:

- universal mount with cable and sensor,
- rubber pad, cable ties



## **UMW 150**

Item No.: 5504

Universal mount for handlebars and stem Cable length: 1.5 m

Contents of packaging:

- universal mount with cable and sensor,
- cable ties



## **UMW-KIT**

Item No.: 5505

Assembly kit cables,

including magnet

Contents of packaging:

universal mount with cable and sensor,

- rubber pad,
- clip magnet, cable ties

## Wireless models - c1DS/C2DS/C3DS/C4DS



## **UMWL**

Item No.: 5503

Universal mount for handlebars and stem

Contents of packaging:

1 universal mount, cable ties



## **DS-KIT**

Item No.: 5507

Universal Mount Kit (second bike kit) including magnet Contents of packaging:
1 universal mount, wireless

- DS-speed transmitter Series-C, incl. battery 3V
- 1 clip magnet, cable ties



## **DS-CAD-KIT**

Item No.: 4402

Digital wireless cadence option incl. transmitter, cadence magnet and battery 3V Contents of packaging:

- 1 digital cadence transmitter,
- 1 cadence magnet,
- 1 battery 3V



## **DS-SENDER**

Item No.: 4401

Digital wireless speed transmitter incl. battery 3V Contents of packaging:

1 digital speed transmitter, 1 battery 3V



VDO QUALITY MANAGEMENT

## **QUALITY MANAGEMENT**







Abrasion test





Test station

## **Planned quality**

For each new series of models, we are already thinking about the quality during the development stage. Quality criteria are determined for each component and quality tests defined for each phase of production. In addition we have equipped the computers with an automatic test routine. The display, wireless transmission, transmitter pairing and data download are tested automatically. This facilitates the quality control process during and after production.

The wireless transmitters are also tested thoroughly for perfect wireless transmission during manufacture using specially designed test software.

## Quality is based in production

Quality has to be produced. To do that successfully, quality controls are continually conducted during the entire production process. Printed circuit boards are checked, displays inspected and receiver chips must show that they can receive data. Only then are all the parts put together to make a model.

## Full final inspection

At the end of production, a complete check on the function of each computer is made by our own quality inspection team. Wireless transmission, button function, software check, data download, rain test and climate chamber are just some of the stages in the final inspection.

## Functional test before despatch

Only once this final inspection has been passed are the computers prepared for despatch. Before packing, another check is made on each appliance using an automatic test station.



Petra Jung Sales Manager





Kirstin Poth Domestic Sales



Alexandra Schwarz Accounting



Manuella Wiedemann-Drouy

Always at your service!

YOUR VDO TEAM

## Headquarters

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## Your national distributor



