

Rally computer 2+

Rally computer2+.GPS \*

Rally computer 2+.AZI and 2+.GPS.AZI

Installation and configuration.

Instruction Manual.

\* Content marked [GPS] only for versions with built-in GPS or an external device connected Garmin. Working with an external GPS module, such as the Garmin does not provide such precision as the built-in GPS.

\*\* Content marked [azi] only for the version with the possibility of routing azimuths

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## Description

### Purpose

tripmeter Rally Series Computer 2 is a professional device for use in flat races, off- road and navigation. The functionality and the ability to reset odometer on the handlebar predisposes to motorcycles and ATVs.

Aluminum waterproof housing provides protection against external factors.

High-end electronics ensure reliable operation and high precision measurement.

Measurement results are presented on a super-bright LED displays red.

Tripmeter Service is performed with a 3-button keypad and via 3-button Reseter which buttons have permanently assigned most measurement functions.

**rally computer 2 + is used to measure road speed in the voltage of the vehicle and [GPS] course.**

### functions.

- precise distance measurement using kasownego meter road TRIP with a resolution of = 10 meter. TRIP meter range 999.99 km. The counter value can be reset TRIP road.
- Precise distance measurement using kasownego road ODO meter resolution = 10 m range ODO meter 999.99 km. The counter value can be reset ODO road, adjust the value in increments of 10 m for each press of the dedicated buttons
- when the vehicle is moving backward tripmeter counts down the distance. Changing the direction of charging takes place automatically after switching on the reverse of the vehicle. it is necessary to connect the cable to reverse reversing light bulb
- current speed measurement with a resolution of 1 km / h
- measurement in the voltage of the car.
- adjust the brightness of the display and keypad illumination
- measurements of current non-volatile memory with unlimited time to maintain the
- record of memory in 10 sizes calibrate the road
- can change the ratio when measuring
- the ability to connect an external Reseter one or three-button
- [GPS], the rate
- [azi] azimuths routing the cable connected Garmin device, based on the number of files containing the grid, the course and distance to the target

# installation and configuration.

## Mounting Instructions

### Mounting

Metromierz be installed in conspicuous and allows seamless access to the front panel. Tripmeter has on the back of the two M5 screws.

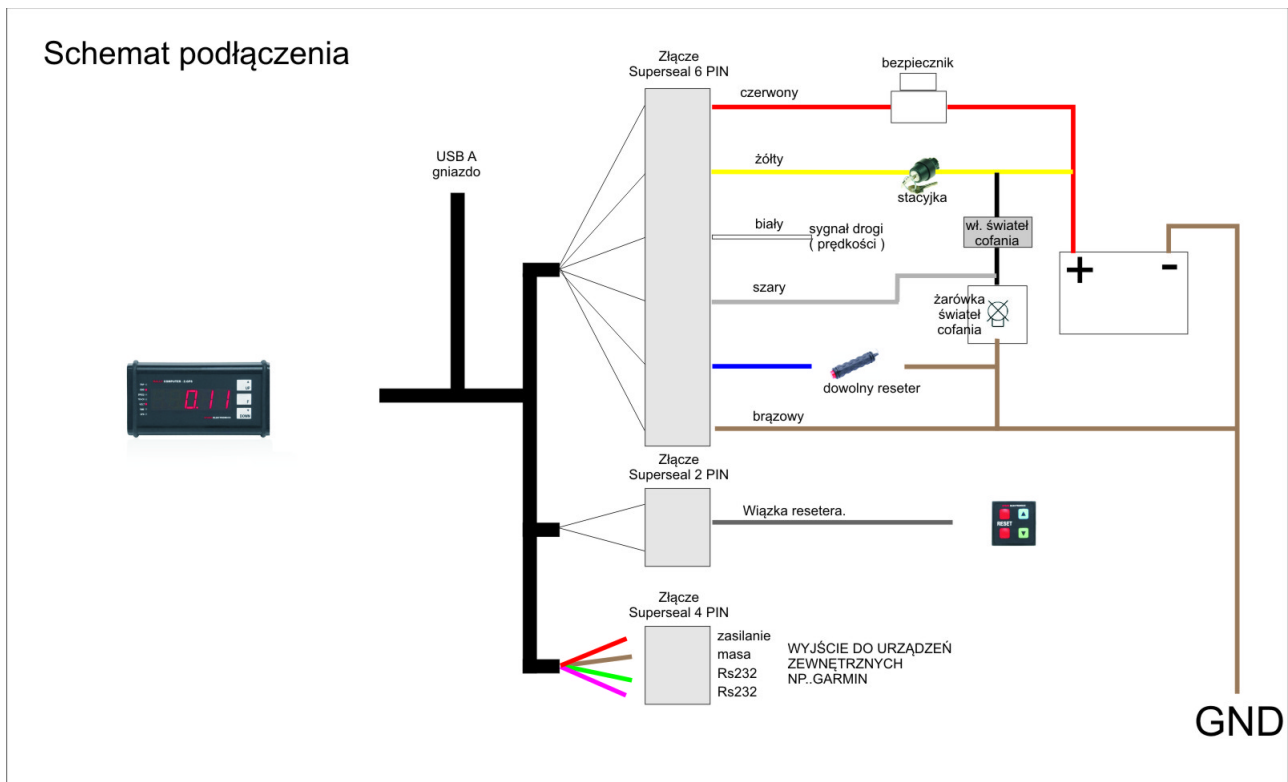
Boltis 40 mm.

When connecting the power note attached to a voltage source was reliable and stable (providing a value between 8 to 30 V).

Tripmeter Do not install in places that threaten its damage or misusing action such as: the pillows air, on the air outlets and also in the possibility of causing interference vehicle safety.

ATTENTION. Turn off the device does not cut it completely from the power supply. We continue to draw current (reduced to a minimum). When the device is not used, it is advisable to disconnect the car installation. This will prevent discharging the battery. It is best to install an external switch that disconnects the power supply unit in a complete way.

## Connection



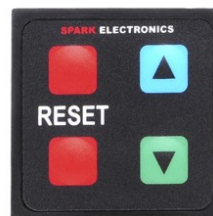
### [azi] Connection to the Garmin

connection is made via cables Garmin equipped by us Superseal connector matching the odometer. The transmission is performed using the RS232 standard.

Wires used to Garmin devices:

- cable010-10513-00
- cable010-11131-00
- 010-10082-00 cable

## manual configuration and maintenance of the device view



### LEDs

TRIP  
ODO  
SPEED  
TRACK  
VOLT  
RUN  
GPS

### Swich

[UP] [ ] - allows the adjustment of ODO - each press of 10 m or holding down the 50 m / s

[F] - press briefly deletes or recall the way a short TRIP. pressed long calls can view other functions by a short press

[DOWN] [ ] - allows the adjustment of ODO - each press of -10 m or holding down the 50 m / sec

### Reseter

[blue] - the [UP] to metromierzu

[red] - like [ F ] on metromierzu

[green] - like [DOWN] to metromierzu

## on / off

device does not have a power switch. After the power supply is ready for operation. The items unrelated to direct the work, with no tension on the cable yellow ("ignition") goes to sleep. You can connect the yellow wire to the power which will disable this functionality.

Upon power:

- the odometer was turned off when not realized measurements - automatically starts measuring, presenting a short TRIP way
- the odometer was off when the realized measurements (in any mode and any measurement function) is the reconnecting the power measurements will further continue

with the startup screen position odometer will turn off automatically after 1 minute. if the wire yellow designed to connect the ignition will not tension.

With each function by long press CLR (about 6 seconds) can lead to the appearance of the home screen and interrupt the measurement.

Complete shutdown odometer of the buttons is not possible

## configuration tripmeter.

NOTE Setting up a new tripmeter complies with the card settings included in the scope.

### Calling the setup menu

to turn on the configuration menu should be:

#### first method.

1. Bring to the appearance of the home screen that is \_\_\_\_\_ on all displays, by pressing the button for 6 seconds F. (if you see \_\_\_\_\_ it means that you are in the start screen and you skip this step)
2. Turn off the power tripmeter
3. Read this section carefully before powering tripmeter. After reconnecting the power on all displays immediately show up 888888 and then in the display window will display the currently selected calibration factor constant k of the vehicle. During this time, press 3 times the [UP] and [DOWN] - are only 4 sec. When you do, wait and on the display Conf
4. If you wait too long and starts to repeat the measurement point. 1 - 3

#### second method.

1. Bring to the appearance of the home screen that is \_\_\_\_\_ on all displays, by pressing the button for 6 seconds F. (if you see a \_\_\_\_\_ it means that you are in the start screen and disregard the this Press

2. point)(not letting go of the previous year) in order buttons F, then the UP, DOWN and then another (at the end of the operation will be held 3 buttons at once). henWonly pressed the third button will reset the odometer
3. onall displays immediately show up 888888 and then in the display window will display the currently selected calibration factor constant k of the vehicle. During this time, press 3 times the [UP] and [DOWN] - are only 4 sec. When you do, wait and on the display Conf
4. If you wait too long and starts to repeat the measurement point. 1 - 4

## configuration menu

after menu move by pressing [UP] to enter the selected function by pressing [DOWN]. , The change make by pressing [UP] and confirm by pressing [DOWN]. Parameter change is confirmed by a flash of the display.

Exitparameter setting performed by pressing [F]. From the menu to the normal operating mode also come out with the [F] which will reset the tripmeter, save the settings and start measuring mode.

Available settings are:

1. Units - is displayed on the display UNIT - selection of units which will be presented measurements of the road - km or pleasantly
  - 1.1. meter - metric
  - 1.2. imperial - imperial system (ny) or English
2. pulses - the display shows the IMPS - dialing mode - with the pulses of the road and only GPS or
  - 2.1. GPS-and-off- work with only the GPS system - measuring is done only from 5 km / h
  - 2.2. and-on - work using pulses obtained from the road car or an additional sensor and GPS system - this measurement provides the most accurate
3. GPS - GPS signal source selection
  - 3.1. none - disable the GPS
  - 3.2. [GPS] int - Work with internal module GPS
  - 3.3. call - work with an external GPS module
4. GPS d - withałączenie / exclusion of GPS in calculating way
  - 4.1. off - odometer will work only with the pulse of the wheels
  - 4.2. on - the GPS will support road charging
5. UTC -, the display is UTC - select the time zone in which the device operates. The choices are 24 zones (from +12 to -12) Changes in the zone we press [F] to confirm selection [DOWN]
6. DST - the display shows the DST - to activate or deactivate daylight saving time
  - 6.1. on - active
  - 6.2. off - inactive
7. Multi k - the display shows null k - activation work with multiple calibration coefficients
  - 7.1. on - working with multiple coefficients
  - 7.2. off - work with one factor

When all values when we are in the main branch, press [F]. Long beep and reset the tripmeter indicates the setting.

## Configuration distance measurement

### calibration factor of the vehicle.

This is the number of pulses counted from the vehicle corresponding to the crossing 1,000 m measured ratio can be:

- make the stretch of any length but the odometer, enter the number of pulses in relation to 1000 m
- measure the circumference of the wheel and then knowing the number of pulses per circuit to calculate the coefficient for 1000 m
- [GPS] to make the auto-calibration using the built-in GPS module

### calibration factor - the measurement.

metromierzu there is the possibility of measuring the number of pulses for the stretch of road of any length. To start the measurement must be in the position of the home screen, press and hold the [DOWN] and then additionally press the [UP]. The appearance of the 0-values confirms the launch function.

Now:

[UP] clears the measured values and immediately begin recounting

[DOWN] stores the measurement and passes to enter the preset number under which you save the calibration of the measured value (only when the Multi k is ON. When Multi k OFF is the record will be made at the default value and a window to enter the preset number will not show Version

up)- Film: <http://www.rajdowe-haldy.pl/wsparcie/video-instrukcje.html>

### calibration factor - typing

When the calibration factor is known, you can enter its value to the odometer. To start typing in a position to be the home screen, press and hold the [DOWN] and then additionally press the [F]. The appearance of the 0-values confirms the launch function.

Now:

[UP] increases the value of the digit

[DOWN] pressed briefly digit moves to the left and allows you to enter the next digit (when typing a factor of more than 5 digits, when he first left digit will be off the screen light up all the dots to indicate the sytyacje)

[DOWN] long pressed and saves the measurement passes to enter the preset number under which you save the calibration of the measured value (only when the Multi k is ON. When Multi k is set to OFF to save is to be made under the default value and a window to enter the preset number will not show Version

up)- Film: <http://www.rajdowe-haldy.pl/wsparcie/video-instrukcje.html>

### selection of the calibration factor

to the calibration factor was active, select it from memory. Selecting the aspect ratio is stable - it will be used for calculation until you select a different value.

To make a choice:



- when measuring simultaneously press the [UP] and [DOWN] which brings to the screen aktualny calibration factor
  - then the [UP] or [DOWN] to select a new factor from
  - memory, press the [F] to save your selection shortly
- measurements will be continued by the new calibration factor.

manufacturing method - Film: <http://www.rajdowe-haldy.pl/wsparcie/video-instrukcje.html>

## Use

### Selection modes

to choose from we have 1 option:

- o DISTANCE - space-saver mode, navigation, offroadowy

From the home screen press the [UP]. The window shows the name of the mode. Accept by pressing Additional

### [DOWN].features and operation of the

|  |                             |
|--|-----------------------------|
| <p>[F] or [red button] - deleting road TRIP - When the displays are presented other parameters, first press the [F] evokes TRIP indication on the screen.</p>  | <p>action<br/>Direct</p>    |
| <p>Pressing and holding the [F] or [red button] for 3 sec. This causes the flashing display and the ability to navigate through the menu with a short pressing action button [F] or [red button]. The menu presented in the following order:<br/>                 [TRACK] - course - shows the course if you have connected a GPS. In the first box to the left lit degree mark and the right value of the deviation from the north in degrees.<br/>                 [BAT] - mains voltage of the vehicle - the firstfield displays showing the letter U, which indicates that it is a voltage measured on the right<br/>                 [TIME] - the time synchronized with GPS system displayed on the 5 positions of the display with a resolution of 10 seconds.<br/>                 [LED] - when we are in the function of the [UP] or [blue button] and [DOWN] or [black] button changes the brightness.<br/>                 [SPEED] - speed - For the first box on the left displays the letter S on the right indicate the current speed.</p> | <p>Through the</p>          |
| <p>[UP] or [blue button] and [DOWN] or [black] button-road ODO - When the displays are presented other parameters, pressing buttons brings up a long road [ODO]. Each time you press the adjustment of the value ODO of + or - 10 m When you hold the adjustment is automatic.<br/><br/>                 If you recall the screen ODO, to reset the ODO press the F button until the until the display begins flashing (about 3 seconds) and then presented to blink. It is then reset the ODO.</p>  | <p>Operation<br/>Direct</p> |

|  |  |
|--|--|
|  |  |
|--|--|

Process: Film: <http://www.rajdowe-haldy.pl/wsparcie/video-instrukcje.html>

## routing function of azimuth in Garmin

### [azi] Create a file with azimuths PC

Using Notepad Create a file as in the following example:

```
9=341.1/3659
34=160.9/900
67=100.9/1400
71=99.9/23000
90=359.0/100
134=1.9/2500
999=34.5/905
```

For example, the first line can be seen:

9 - number of grids in the road-book in which is recorded the first azimuth

341.1 - rate entered in the grid azimuth

3659 - distance in meters squared entered azimuth

**rc2.txt Name the file** and you perform a file on a memory stick.

### [azi] Copying the file to the odometer

tripmeter Bring to the position startup screen, then insert the memory stick into the USB connector odometer. Copy will automatically confirm the inscription File at around

### [azi] Communication Settings on your device Garmin

Garmin device must be set in such a way that serial assured bidirectional data transmission.

Format data: NMEA IN / NMEA OUT

Baud rate: 4800

### [azi] Functional Configuration Garmin

During the first waypoint to send wytrasowanego Garmin built in his memory waypoint called RC2. Use the menu to select Garmin navigation to that point. Each subsequent sending wytrasowanego waypoint will automatically change its parameters.

Choose Waypoints menu, select the waypoint RC2, choose go on the map, we see the purple dash from the point where we are at the point of destination.

### [Azi] The sequence of actions before and during the rally - the abbreviation before the rally:

- Connect the device in accordance with the diagrams

- Perform configuration settings on the device Garmin
- Carry out test wytrasowanego send waypoint to Garmin to set up a waypoint called RC2
- Set in Garmin navigation to that point

during the rally:

- According to roadbookiem, at times driving on Azymuth, select from the active file storage the correct azimuth and start navigating to it.

Navigating start automatically in metromierzu as well as Garmin.

### **[azi] function call AZI in metromierzu**

- hold down the button for 3 seconds F which will display flashing
- briefly pressing the F button to call a function AZI (this is the first function with selectable via menu)
- with the [UP] or [DOWN] to select the preset memory "box" of azimuth
- press the [F] button to trace the Garmin waypoint. This is only possible in the presence of GPS and connected device Garmin

## Technical and operational

- supply 7-30V
- dimensions W57xS110xG32 mm
- power consumption - max. 200 mA

## Warranty

Warranty is for **a period of 60 months from the date of sale** device. Warranty will be considered only in case of use of the product for its intended purpose. Warranty against defects in the product to prevent its further use as intended. Are not subject to warranty defects resulting from mechanical damage, alteration, normal wear items, etc.

The warranty is valid only with proof of purchase.

Name and Type: .....

Date of sale : .....

number: .....

instructions

to download from the website: [http:// rajdowe-haldy.pl/wsparcie/instrukcje.html](http://rajdowe-haldy.pl/wsparcie/instrukcje.html)