

TOURATECH

TOURING RALLYE RACING TECHNOLOGY

Rally Computer IMO-100R50 RALLYE

Operating Manual and Assembly Instructions

The IMO-100 R50 Rallye is an electronic all-in-one instrument panel that fits in your vehicle. It can replace the whole instrument panel, or it can be used as an additional instrument. You have several mileometers available, which you can use where route descriptions or roadbooks are needed. As a rally computer it's an invaluable assistant for the toughest rallies in the world.



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1 In general

Your IMO-100R50 Rallye has two different displays. You can switch between these using the arrow key .

1.1 Basic mode:

In Basic mode, the speedometer, Total kms. counter, the clock and the Partial route kms. counters are visible.

Hit the arrow key to clear the Partial route kms. counter.

- Speed
- Partial route km.
- Total km
- Clock.



1.2 Roadbook mode:

The Roadbook mode has been especially developed for rallies and roadbook routes.

The displays are:

- Total kms.
- Partial route kms.

Total kms. and Partial route kms. can be used as additional kilometre counters.



1.3 Button functions in general:

The E button:

This button takes you into the Edit mode where you can manually change values in RALLYE COMPUTER.

You can switch from editing field to editing field using this button, ending the editing procedure by pressing the Enter button.

The arrow button changes displays:

- to Roadbook mode (see 1.2)
- to Basic mode (see 1.1)

In Roadbook mode, the arrow button will zeroise the Partial route kms. counter.

In Basic mode, you can also zeroise the Partial route kms. counter by holding down the arrow button a little longer.

In Edit mode, the arrow button changes individual values.

2 Basic settings of the IMO-100R50 Rallye (to match your vehicle):

2.1 Start in Basic mode

Are you in Basic mode? "Editing parameters" (2.2)

Are you in Roadbook mode? Use the arrow button to enter Edit mode.

2.2 Editing parameters:

Hold down the E button for approx. 1 second.

You're now in the first editing field "Clock Hours". Every time you press the E button, you'll see the next field that can be edited (for more on Editing, also see 1.3.1)

2.2.1 Clock-Hours:

The Hour display will blink change the number using the arrow button. Press E again to go to access and edit the Minutes field.

2.2.2 Wheel circumference in mm: (setting the wheel circumference)

This is where you enter the measured wheel circumference; use the arrow button to edit all the fields accessed by pressing the E button. Probably the best way of measuring wheel circumference is to put a piece of string around the wheel and measure that.

2.2.3 Language:

Use the arrow button to select a system language, either English or German.

2.2.4 KM/Miles:

Use the arrow button to select either kilometres or miles. When you switch, the IMO recalculates all displays and speeds.

2.2.5 12/24 Hours display: (Clock)

Here you can select either a 12 hour or a 24-hour display.

2.2.6 Total kilometres travelled:

This is the total distance in kilometres that your motor bike has travelled.

Enter the number of kilometres (same principle as for the wheel circumference field).

2.2.7 Display lighting:

Here you can select whether the background lighting of your Rallye-Computer (in battery mode) should be switched on or off. Remember that the batteries will last longer if the background lighting is off. When the Rallye Computer is powered by the vehicle electrical system, background lighting is always on, regardless of how it is set

2.2.8 Roadbook mode:

Here you can select whether Partial route kms.: Large, or Total kms.: Large will be displayed in Roadbook mode.

2.2.9 Roadbook correction: (for our remote control users)

You have the choice of setting steps of 10, 50 or 100 m (or 0,01, 0,05 or 0,1 Miles) here. Using this step size, the Total kms. can be corrected later with the help of the remote control.

2.2.10 Ending parameter editing:

After the last entry, press the E button - the display will show "Saving data please wait". The values you entered are now being entered into a memory which is not dependent on the built-in battery for its power supply - meaning that if the battery should fail, your data will be OK. You can change and save values using the above steps, any time you like.

3 Operation in Roadbook mode:

3.1 Display:

Please note that if you selected e.g., Total kms. while editing, this will be displayed in large font, while Partial route will be displayed in smaller font underneath – and vice versa.

3.2 Changing the Total km. display:

Press the E button to edit the kilometre numbers. The blinking thousands number can be changed by using the arrow button. Press the E button again to bring up the hundreds, etc. When you've changed the last number, close editing by pressing the E button again. If you have a remote control unit connected to the system during editing, pressing the '0' button will zeroise the Total kms. Display.

3.3 Zeroising the Partial route display:

Press the arrow button to zeroise Partial route kilometres.

4 The remote control (optional):

4.1 Operation:

The remote control operates as follows in Roadbook mode:

The "+" and "-" buttons will correct the Total kms.

The size of the steps will be the same as the values you selected while editing (2.2.9).

The "0" button zeroises the Partial route kms.

If you want to zeroise and not simply correct the Total kms., press the E button for roughly 1 second until the first position blinks, then press '0' on your remote control (also see 3.2).

In Basic mode you can use the remote control to zeroise the Partial Route kms.

5 Included in delivery:

5.1.1 IMO-100R50 Rallye

5.1.2 Wheel sensor with mounting kit

5.1.3 Magnet, self-adhesive

5.1.4 Battery holder with connecting cable

5.1.5 Mounting kit - polycarbonate spacer plate,

2 M4 locknuts,

2 M4 large washers,

5 small cable clips,

5 large cable clips,

2 cable splices,

connecting cable for vehicle electrical system).

5.1.6 Operating manual

6 Assembling the IMO-100R50 Rallye:

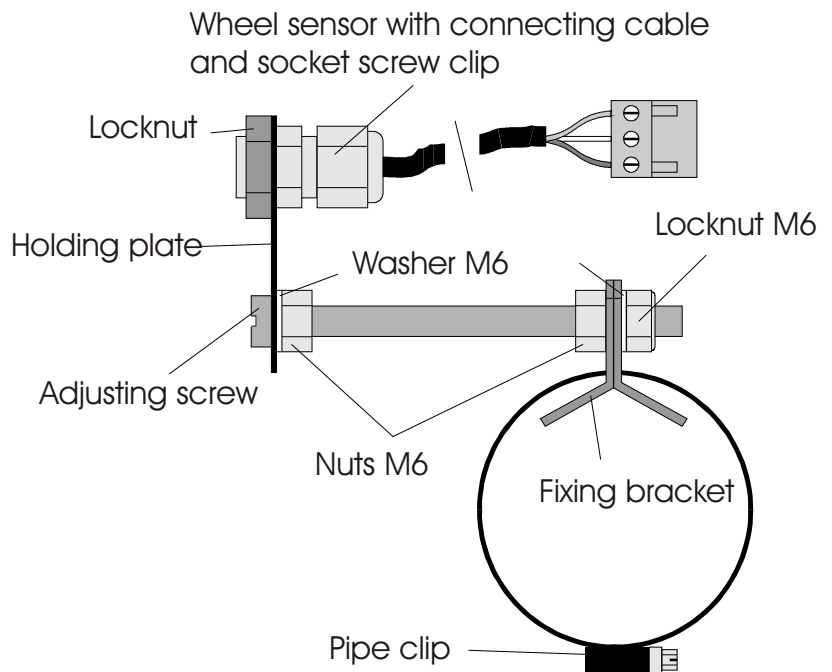
Using the included washers and locknuts, you can screw the IMO-100R50 Rallye on to any suitable spacer plate. Please note that the included polycarbonate spacer (plate) must be between your chosen plate and the IMO-100R50 Rallye. TOURATECH has special adapter plates available, with which you can mount your IMO-100R50 Rallye on to a Roadbook holder, RB-TT.

Find out more at www.touratech.de

7 Assembling the universal wheel sensor:

7.1 Assembly:

Assemble the wheel sensor as shown in the diagram. Don't forget the washers.



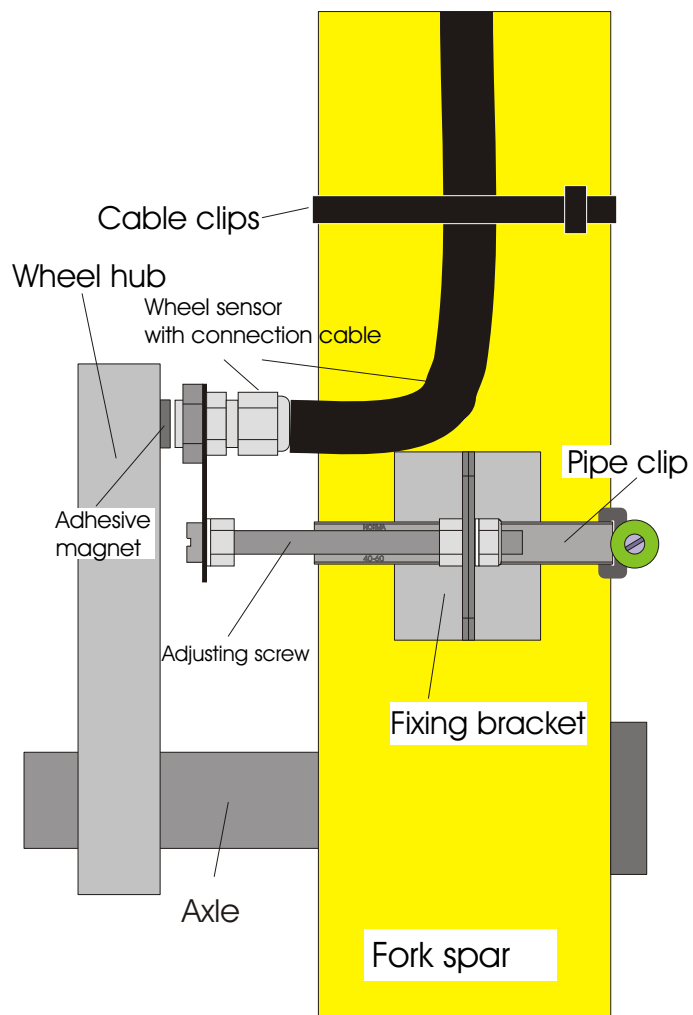
7.2 Fitting:

- Place the self-adhesive magnet as close to the wheel hub as possible the yellow side facing out. The surface must be clean and grease-free. We recommend using a contact adhesive for rough surfaces.

- Fix the pre-fitted wheel sensor to the fork (or elsewhere) with the pipe clamp.

- The wheel sensor must point directly at the magnet and must not be more than 1 mm away from it: Set the distance from the magnet with the adjusting screw and align the height with the holding plate.

- The connection cable must be fixed securely to the fork with the cable clips. Make sure that the cable is not under any tension even when the fork is extended fully and the handlebars are fully turned.



7.2.1 If you want to use a magnet made by another manufacturer, the south pole must point in the direction of the wheel sensor!

8 Electrical connection:

8.1 Caution!

Before beginning work disconnect the vehicle battery!

- The IMO-100R50 Rallye can take either DC or AC current between 6 and 30 volts!
- With vehicles without batteries you must make sure that a controller is installed.

8.2. General:

- The IMO-100R50 Rallye only needs two leads to connect to the on-board electrical system, one earth lead and one power supply.
- The IMO 100R50 Rallye remains on when the battery pack is connected even when the ignition is off. You must disconnect the IMO and the battery pack in order to turn the unit off. Take care otherwise the battery will soon be dead. (An ALKALI MANGANESE battery set only lasts 50 hours when the illumination is switched off). When the illumination is switched on (see section 2.2.7), the battery only lasts 14 hours.
- If the motorbike is not being used no electrical supply is necessary. The unit's built-in battery ensures that the clock runs for at least five years.
- You can extract individual leads from the motor bike cable tree with the cable separator (red folding parts) supplied. The important thing here is to ensure that leads with a cross-section of more than 1 mm² are not clamped. The external diameter of the leads used should not be more than 2.8 mm.

8.3 Connection:

Connections to the IMO-100R50 Rallye:

1 2-pin plug for connecting the on-board electrical system. Pin 1 is + and red. Pin 2 is GND (-) and black (or blue on the cable to the on-board electrical system).

2 2-pin female connectors to connect the battery pack. Pin 1 is + and pink (red on the battery pack). Pin 2 is GND (-) and yellow (black on the battery pack).

3 3-pin plugs for connecting the remote control unit. Pin 1 is blue (blue on the remote control unit). Pin 2 is mauve (red on the remote control unit). Pin 3 is grey (green on the remote control unit).

4 3-pin female connectors for connecting the wheel sensor.

Pin 1 is brown (GND).

Pin 2 is white (Signal).

Pin 3 is green (power supply). The wheel sensor has the same colours.



NOTE:

If these are not connected properly the wheel sensor will be damaged.

8.4 Connecting to the on-board electrical system:

8.4.1 Preparation:

The lead supplied with the fitting material (the one with the 2-pin female connector) is used to connect to the on-board electrical system. To do this you can use the cable separator supplied).

8.4.2 GND (1)

Connect the earth lead to the vehicle earthing point on the frame or on the battery.

8.4.3 Power supply (1)

Now we will deal with the IMO-100R50 Rallye power supply. This lead must be connected to the ignition switch. On a motorbike it is normally lead 15.

8.4.4 Wheel sensor (4)

The wheel sensor 3-pin female connector is plugged in here.

8.4.5 Remote control unit (3)

The remote control unit 3-pin plug is plugged in here (optional).

8.4.6 Battery pack (2)

The additional battery pack 2-pin female connector is plugged in here.

The IMO 100R50 Rallye remains on when the battery pack is connected even when the ignition is off. You must disconnect the IMO and the battery pack in order to turn the unit off. Take care otherwise the battery will soon be dead. (An ALKALI MANGANESE battery set only lasts 50 hours when the illumination is switched off). When the illumination is switched on (see section 2.2.7), the battery only lasts 14 hours.

9 Remote control unit (optional):

9.1 Fitting:

The remote control unit is fitted next to the instrument unit on the handlebars, or on the mirror with an adapter unit.

The plug connector is plugged into the IMO-100R50 Rallye 3-pin plug (point 8.3).

9.2 Operation:

The remote control unit only works in Roadbook mode.

In the basic mode you can only reset the partial route counter with the "0 button".

·The whole journey is corrected with the "+" and "-" buttons. The step width depends on the settings you've made (point 2.2.6).

·The "0" button resets the section to zero.

·If you don't want to correct the whole trip but also want to set to zero, then press the E button for about 1 second until the first position flashes and then the "0" button on the remote control unit.



The functions of the "+" and "-" buttons can be swapped over. To do this you must swap over leads 2 (red) and 3 (green) on the remote control unit.

10 Troubleshooting - when something goes wrong:

| Error description: | Cause and remedy: |
|---|---|
| Illumination does not work | Battery operation and "illumination off" set:Please change this setting. (point 2.2.7) |
| No speed display | The distance between the wheel sensor and the magnet is too great or the magnet has been connected up the wrong way. Please make sure that the maximum distance is no more than 0.5 mm. Only use original magnets and ensure that the south pole points towards the sensor. |
| The unit asks for the time every time it is switched on | The lithium battery in the unit is dead.Please send the unit in and have the battery replaced. |
| The clock keeps running slower | Each time you go into the settings to make a change the seconds on the clock are set to zero. This means that any time you make a change the clock could lose up to 60 seconds. |

11 Notes:

12 Special features of the IMO-100R50 Rallye:

12.1 Housing:

Never open the housing of your IMO-100R50 Rallye.
The housing has a special seal which is lost when the unit is opened.
In addition, any guarantee will be void if units are opened.

12.2 Display:

The display can become lighter at very low temperatures and it becomes sluggish. At very high temperatures the display may become somewhat darker. This is normal with graphic LC displays.

| | |
|---|--|
| Dimensions | 97 mm x 60 mm x 33 mm |
| Weight | approx. 240 g (not including bracket) |
| Type of protection | IP 64 (water protected) |
| Operating voltage | 5 – 36 volt AC or DC |
| Power consumption (ignition off) | 0 mA |
| Power consumption (ignition on) | 140 mA with illumination with 6 volt power supply |
| Power consumption from the battery pack | 40 mA without illumination 140 mA with illumination. |
| Battery life (ALKALINE 2000 mA/h) | Without illumination approx. 50 hours. With illumination approx. 14 hours. When the battery is being used the battery capacity times reduce accordingly. |
| When operating with the battery pack (4 x LR6 / AA) Mignon | |
| Clock life | approx. 5 years (for each lithium battery) |
| Clock tolerance | +/- 2 seconds per day |
| Display | LC graphic display (128 x 64 pixels) |
| Illumination of display and buttons | Green LED illumination |
| Maximum speed | 500 km/h |
| Temperature range | -20°C to +80°C |

All speeds and distances as well as deviations from these values depend on the wheel circumference set.

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