

RaliTripp®

Installation

RaliTripp®

RaliTripp Tripmeter



Installation Contents

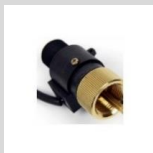
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Connections Overview



- The connections into the RaliTripp tripmeter are:
 - Main Battery – from the main vehicle battery
 - Auxiliary Battery – normally from a compact 12v battery
 - Sensors - proximity/wheel bolt, gearbox, pulse and magnetic types
 - Remote Unit – for operating the most common tripmeter functions
 - Remote Display – normally in front of the driver
- The batteries and sensors are connected via Molex connectors and looms supplied with the tripmeter - this booklet describes how to connect the looms to the batteries and the different types of sensors.
- Up to 4 sensors can be connected to RaliTripp at the same time:
 - Up to 2 inductive proximity sensors (typically known as “wheel sensors”) as Sensor 1 and Sensor 2
 - Up to 2 sensors that produce pulses (“speedo cable sensors”, “electronic speedo connections” etc) as Sensor 3 or Sensor 4
- The Remote Unit has a cable terminating in a miniature jack plug which can be plugged into the side of the tripmeter. An adaptor cable (jack socket to Molex) is also supplied to allow the Remote Unit to be plugged into the rear of the tripmeter if required.
- The Remote Display has a cable terminating in a Molex connector which is simply plugged into the rear of the tripmeter.

Connections Overview

Can be connected to the rear Molex connector or the jack socket on the side of the tripmeter using the cable/adaptor supplied with the main tripmeter

Remote Unit
(optional)



Connect to the rear Molex connector using the cable supplied with the Remote Display

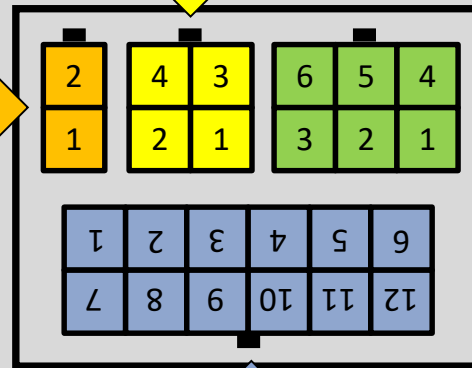
Remote Display
(optional)



Auxiliary Battery
(optional)

Page 6

Connect via the loom supplied with the tripmeter



Main Battery
and Sensors

Pages 5 to 10

Connect via the loom supplied with the tripmeter

Using Molex plug pin numbers

Looking into rear of unit

Pin	Colour	Connection	Direction	Pin set
1	Red	Main battery +12v	In	1 / 7
2	Black	Sensor S3 (3-wire)	In	2 / 3 / 8
3	Brown	Sensor S3 (3-wire) +5v feed	Out	2 / 3 / 8
4	Brown	Sensor S4 (3-wire) +5v feed	Out	4 / 9 / 10
5	Brown	Sensor S1 (2-wire)	In	5 / 11
6	Brown	Sensor S2 (2-wire)	In	6 / 12
7	Black	Main battery ground	n/a	1 / 7
8	Blue	Sensor S3 (3-wire) ground	n/a	2 / 3 / 8
9	Blue	Sensor S4 (3-wire) ground	n/a	4 / 9 / 10
10	Black	Sensor S4 (3-wire)	In	4 / 9 / 10
11	Blue	Sensor S1 (2-wire) ground	n/a	5 / 11
12	Blue	Sensor S2 (2-wire) ground	n/a	6 / 12



Details of how to connect the different types of sensor to the S1/S2/S3/S4 loom connections are shown in pages 7 to 10

Using Molex plug pin numbers

Main

Pin	Connection
1	Main battery +12v
7	Main battery ground

!! The main battery +12v connection can be directly from the battery or via a master switch. It should be protected with a 3 or 5 amp inline fuse

Auxiliary

Pin	Connection
1	Aux battery ground
2	Aux battery +12v in

!! An auxiliary battery allows the tripmeter to continue operation if the Main Battery Connection fails and/or can be useful in a Service Area when the Main Battery is disconnected via a master switch

Using Molex plug pin numbers

**2 wire**

Sensor signal wire – usually **brown**
 Sensor ground wire – usually **blue**

**!! Check manufacturer/
 supplier specifications
 for your sensor(s)**

3 wire NPN or PNP

Sensor supply wire – usually **brown**
 Sensor signal wire – usually **black**
 Sensor ground wire – usually **blue**

Type	Wire to sensor	12-way connector pins	Notes
2-wire	S1 or S2	S1 - Signal – pin 5 – brown S1 - Ground – pin 11 – blue S2 - Signal – pin 6 – brown S2 - Ground – pin 12 – blue	
3-wire NPN	S1 or S2	S1 - Signal – pin 5 – brown S1 - Ground – pin 11 – blue	Connect sensor supply wire to +12v
		S2 - Signal – pin 6 – brown S2 - Ground – pin 12 – blue	Connect sensor supply wire to +12v
3-wire PNP	S3 or S4	S3 - Signal – pin 2 – black S3 - Ground – pin 8 – blue	Connect sensor supply wire to +12v
		S4 - Signal – pin 10 – black S4 - Ground – pin 9 – blue	Connect sensor supply wire to +12v

Speedo Cable / Gearbox Sensors

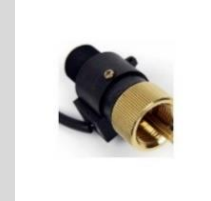


Sensors with wires attached:

Sensor supply wire – usually **brown** or **red**

Sensor signal wire – usually black or possibly white in the case of “industrial” type sensors

Sensor ground wire – usually **blue** or the cable’s copper screen/braid



!! Check manufacturer/
supplier specifications
for your sensor(s)

Sensors with ¼” spade tags:

Sensor supply wire – usually **brown** dot

Sensor signal wire – usually **blue** dot

Sensor ground wire – usually **green** or **yellow** dot



Type	Wire to sensor	12-way connector pins	Notes
3-wire	S3 or S4	<p>S3 - +5v supply – pin 3 – brown S3 - Signal – pin 2 – black S3 - Ground – pin 8 – blue</p> <p>S4 - +5v supply – pin 4 – brown S4 - Signal – pin 10 – black S4 - Ground – pin 9 – blue</p>	

For example, electronic speedos/radio speed-sensitive volume pulses/ODBC interfaces/GPS sensors etc

Pulses can be between 4v and 12v amplitude

The ground reference for pulse source will normally be connected to the RaliTripp via the main battery ground (pin 7) by the vehicle wiring

The recommendation is to use single core screened wire, with the screen connected to RaliTripp ground (pin 8 or pin 9) at the main unit end of the wire and for the screen not to be connected at the pulse source end

**!! Check manufacturer/
supplier specifications
for your pulse sources**

**!! It is your responsibility to ensure that
connecting the vehicle pulse source
to RaliTripp will not have any safety
or security impacts on your vehicle**

Type	Wire to sensor	12-way connector pins	Notes
Various	S3 or S4	<p>S3 - Signal – pin 2 – black S3 - Ground – pin 8 – blue</p> <p>S4 - Signal – pin 10 – black S4 - Ground – pin 9 – blue</p>	

Prop Shaft / Magnetic Sensors



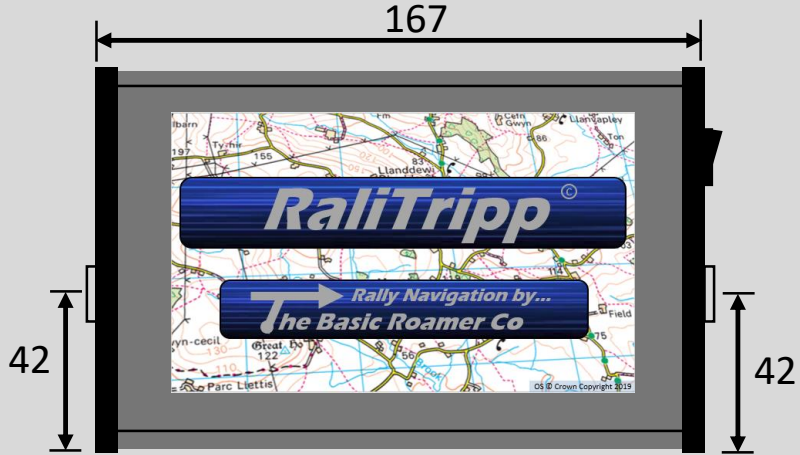
Sensor signal wire – usually **brown**
Sensor ground wire – usually white

**!! Check manufacturer/
supplier specifications
for your sensor(s)**

Type	Wire to sensor	12-way connector pins	Notes
2-wire	S1 or S2	S1 - Signal – pin 5 – brown S1 - Ground – pin 11 – blue S2 - Signal – pin 6 – brown S2 - Ground – pin 12 – blue	The sensor brass body is usually isolated from both wires



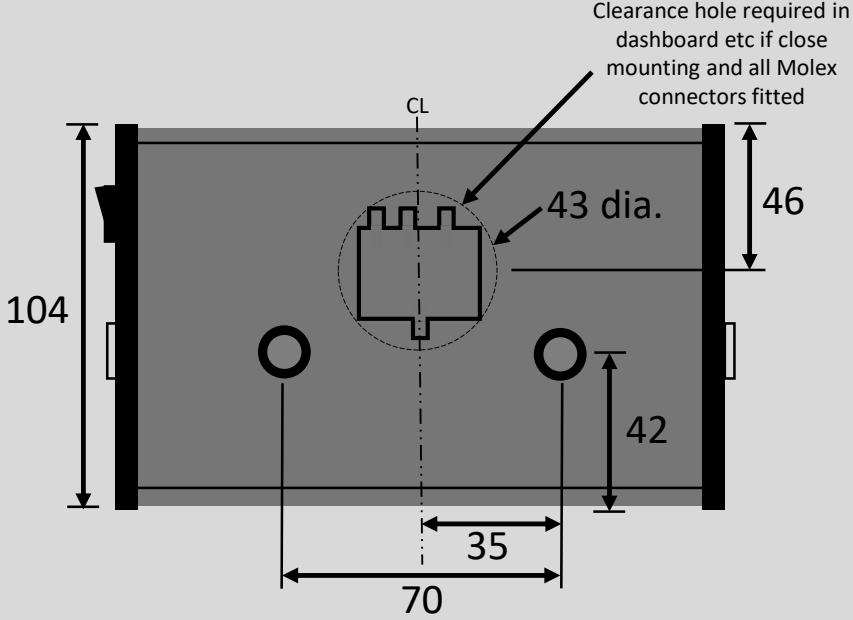
Main Display



All rivnuts are M6 thread

!! Do not insert anything more than: **!!**

- 10mm long into the rear rivnuts
- 20 mm long into the side rivnuts

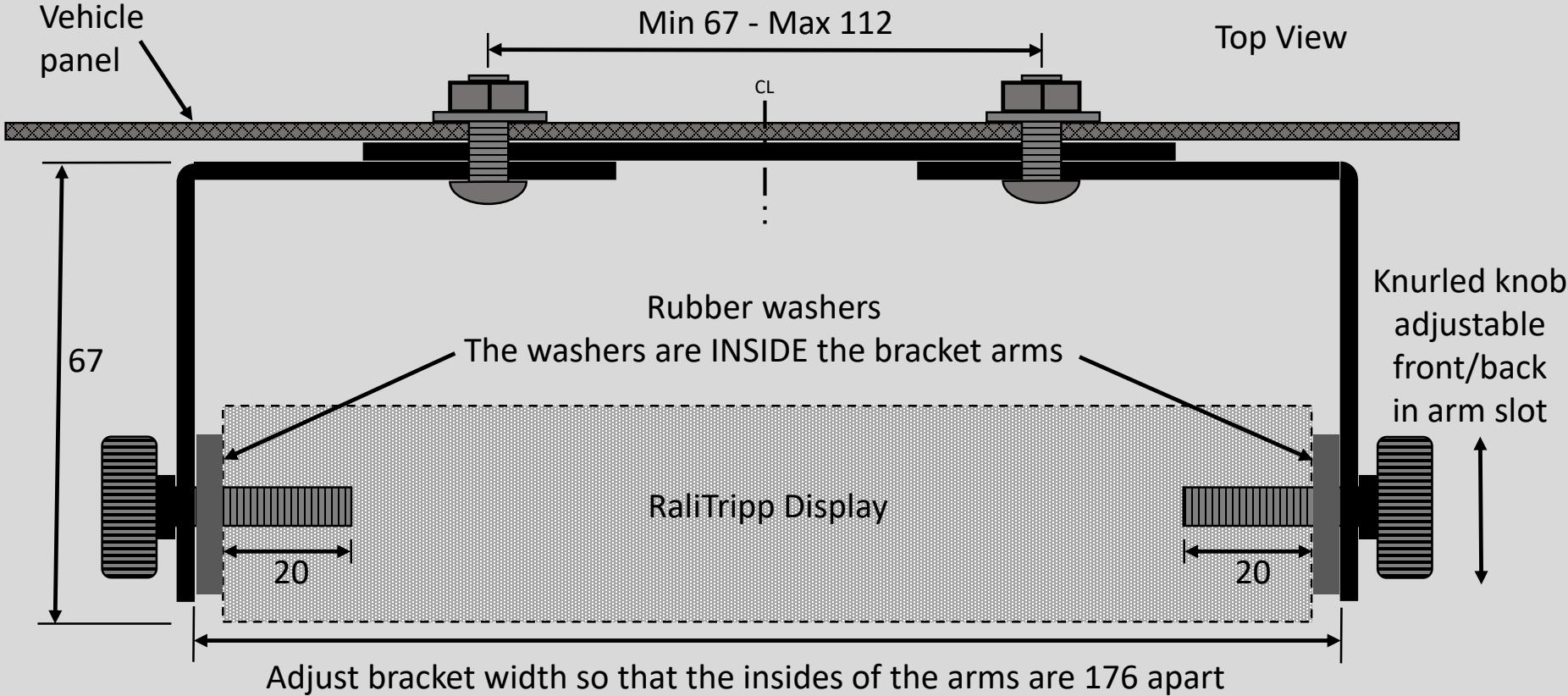


Display depth is 34mm max

All dimensions to nearest mm

Not to scale

Mounting Bracket

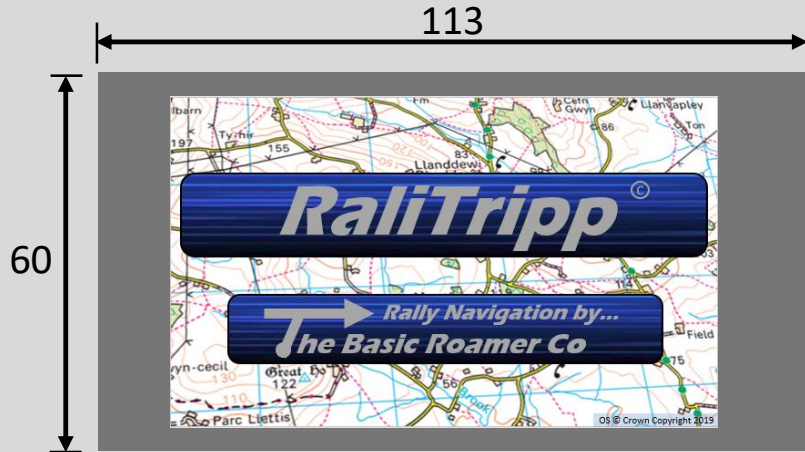


!! For best viewing angle, adjust the display tilt so that you are looking straight at the display

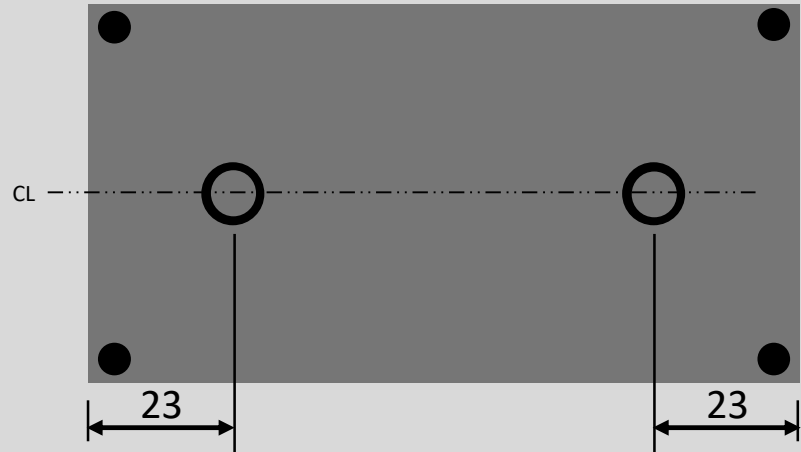
All dimensions to nearest mm
Not to scale



Remote Display



Display depth is 24mm



Rivnuts are M4 thread



Do not drill into the case or screw/bolt anything into it



All dimensions to nearest mm
Not to scale



Notes



A series of horizontal dotted lines for writing notes, consisting of 18 rows of evenly spaced dots.

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RaliTripp Tripmeter

Road Mode

Rally Mode

Regularity Mode

Jogularity Mode

Stage Mode

Time Mode

Service Mode

Totals Mode

It's a Navigator's Thing