



# User Manual

## for Terratrip GeoTrip

<u>EN</u>	FR	DE
IT	ES	PT

Version V1.1, 06/02/13

User Manuals available at [www.terratrip.com/manuals.htm](http://www.terratrip.com/manuals.htm)

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# Terratrip GeoTrip® User Manual

## Features

Feature	303 GeoTrip
GPS	GPS
Probe inputs	2
5 Digit Calibration	✓✓
Total Distance	✓✓
Interval Distance	✓✓
Speed	✓✓
Average Speed	✓✓
Max Speed	✓✓
Time of Day	✓✓
Stop Watch	✓✓
Performance Timers x 3. With data logging.	✓✓
Miles or km	✓✓
Dis Fly speed adjust	✓✓
Auto easy Calibration	✓✓
Calibrate probe by GPS	✓✓
1 or 2 CAL	2
Languages, EN, FR, DE, IT, ES, PT	✓✓
Remote display	✓✓
AVS. Regularity target speed indicator on remote display	✓✓
RZU Foot / Hand	F + H

## 1.0 Probe Selection:

### 1.1 GPS receiver:

The Terratrip GeoTrip® has a removable cover on the rear case, this holds the GPS. GPS can be fitted to the GeoTrip® after purchase.

### 1.2 Wheel Probe, Part Number T005:

Compatible with all cars. 1.5mm Gap sensor fits to either your wheel assembly or a prop shaft on a 4x4 vehicle.

### 1.3 Wheel Probe, Part Number T005A:

Compatible with all cars. 3.5mm Gap sensor fits to either your wheel assembly or a prop shaft on a 4x4 vehicle.

### 1.4 Speedo Cable Probe, Probe No. T006:

Fits most mechanical speedo cables.

### ***1.5 Gear Box Probe, Probe No. T007:***

Fits M22 Gearbox speedometer cable drive. Japanese and some American car makers gearbox.

### ***1.6 Electronic speedometer probe (DSI), Part No. T014:***

Compatible with all cars that have an electronic speed signal (Not CANBUS).

## **2.0 Optional Extras:**

### ***2.1 Remote display. Part No. T016G:***

Remote graphical LCD display with LED backlight. This displays Speed, Average Speed & Distance. There are 7 LEDs that are used on regularity rallies. These indicate to the driver how far ahead or behind of the required target speed in seconds. This item can be connected to the tripmeter after purchase.

### ***2.2 Remote Zeroing unit. Part No. T008 (foot RZU), T011G (Hand operated):***

Remote zeroing unit comes in two models, foot remote for zeroing the Interval distance. Or a hand operated remote to change the displayed screen or clear both distance readouts. When fitting, follow figure 5

### ***2.3 Bracket. Part No. T009G:***

The bracket can be bolted to the cars dashboard or use the supplied suction cups for window fixing. The included sun visor can be removed.

## **3.0 Fitting GeoTrip® to vehicle.**

### ***3.1 Mounting GeoTrip®:***

Secure GeoTrip® to the car using optional accessory T009G bracket, use the screw mount brackets or suction cups to the vehicles windscreen.

### ***3.2 Power lead:***

Connect the power lead to the vehicles 12 volt power using the supplied 2 Ampere fuse. When connecting RZU (remote zeroing unit) or probes you will need to connect the cables to the back of the GeoTrip® using the 12 way connector, follow the wiring diagrams at the back of this manual.

## **4.0 Probe & RZU Installation:**

### ***4.1 Wheel/ Drive Shaft Probe T005 & T005A:***

*Also see Figure 1 & 2 for wiring and fitting diagrams.*

Make a bracket to mount the probe and position the probe so that it 'looks' at the steel heads of the bolts which secure the brake disc to the wheel hub of a non-driven wheel – see drawing. In some cases it might be more convenient to look at holes in a metal surface. The probe must be co-axial with the centre line of the bolts and the front face of the probe must be parallel with the heads of the bolts. Cup-head [Allen] head bolts do not give the probe a good signal and should not be used. Screw the probe on so that it touches the head of one of the bolts and then un-screw 1 to 1 1/2 turns(T005), 1 to 3 1/2 (T005A).

**Connections: See wiring diagram**

### ***4.2 Cable Drive Probe – T006:***

*Also see Figure 3 for wiring diagram.*

For fitting to a mechanical speedo cable.

Position the probe in a straight section of the speedometer cable. Remove the inner speedometer cable and cut out 42 mm section from the outer cable. Put the metal sleeves and ring nuts over each end of the outer cable. Push the inner cable through one outer half and then through the sensor. Put the inner cable through the other outer cable; tighten the two socket head screws in the rotor. Fasten the ring nuts.

The sensor is designed for 3.2mm [1/8 inch] inner cables. If your cable is larger remove the two socket head screws from the rotor and fit a M2.5 mm screw in one of the rotors screw holes. Carefully drill out the rotor with a sharp drill with your drill rotating at low speed.

Some cars have an inner cable which cannot easily be removed. In this case cut through both inner and outer cable. Remove 21 mm from each end of the outer cable. Push the metal sleeve and ring nut on to each end of the outer cable. Push the inner cable in to each end of the sensor and tighten the rotor screws and then the ring nuts.

### ***4.3 Japanese Gearbox Probe – T007:***

*See Figure 3 for wiring diagram.*

Unscrew the car speedometer cable from the gearbox. Push the forked peg into the probe from the end of the probe with ring nut, push square peg into probe from other end so that it engages into the forked peg. Screw the Japanese probe into the gearbox (thread must be M22) tighten by hand only. Screw the car speedometer cable into the opposite end of the probe.

#### 4.4 Electronic Probe (DSI) - T014:

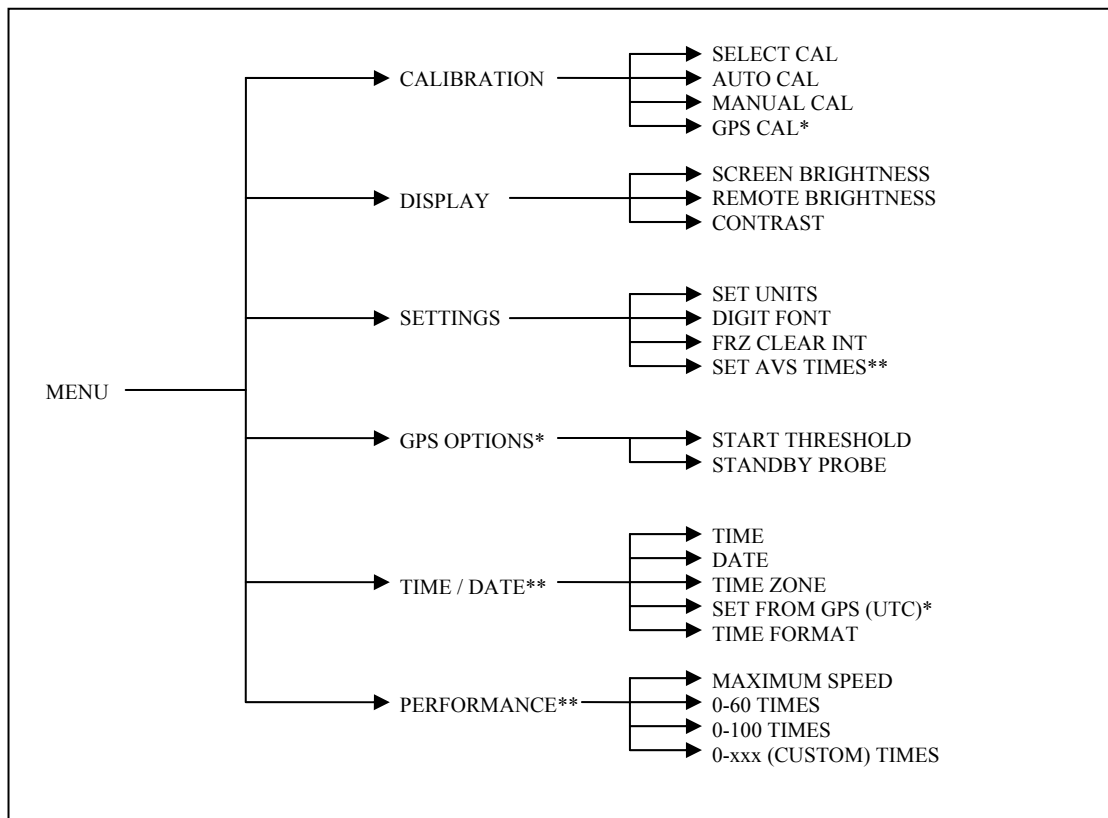
Connect as per the instructions that come with the DSI. Also see figure 5 for wiring diagram for connections to the GeoTrip®. **Note** the connections to the GeoTrip® are not the same as the 202PLUS/ 303PLUS.

#### 4.5 Remote zeroing unit – T008 & T011G:

When installing, follow figure 5.

Fit terminal pins to RZU cable and follow wiring diagram for terminal connections.

### 5.0 Menu Layout on GeoTrip®:



\*Only available with GeoTrip® GPS module fitted.

\*\*Only available on the 303 GeoTrip®.

### 6.0 Calibration:

The GeoTrip® offers two calibration methods, automatic and manual calibration with the option to calibrate from GPS.

Before calibration select either CAL1 or CAL2 from the Calibration menu, and the correct units (km or miles) are selected from the settings menu. This is most important if you are calibrating from GPS, as the unit needs to know the correct distance travelled in km or miles.

### 6.1 Select Cal:

The display shows the current calibration by placing a solid dot next to the selected calibration figure.

Select Cal : ●-CAL 1 ○-CAL 2
---------------------------------

\*(CAL 1 is selected)

Press **ENTER** to switch between calibration figures, and **MENU** to exit.

### 6.2 Auto Cal:

Auto cal can be used to calibrate the unit from a set distance, e.g. a measured mile or kilometre or a calibration distance from a road-book.

Note: If the GPS probe is selected, the unit will exit auto calibration automatically. You do not need to calibrate the GPS!

How to use auto calibration:

1. Press **MENU**.
2. Select CALIBRATION then press **ENTER**.
3. Select Auto Cal.
4. The auto calibration screen displays '00000'.
5. Press **ENTER** and start to drive.
6. The display will show 'Now drive to set distance' briefly and shows an animated arrow running across the screen. If there is no pulses being received from the probe, or the incorrect probe is selected the figure will remain at 00000. If this is the case, you need to exit auto calibration and select a different probe using KEY 8 (Probe).
7. Press **ENTER** at the end of the measured distance, and the unit will prompt you to enter the distance driven. E.g. if you have driven 1.2km, enter 0120 using the number keys. Then press **ENTER**.
8. The display will now show the calibration figure that has been calculated from the driven distance. Press **ENTER** to accept the calibration to the shown figure or **MENU** to exit, and leave calibration as it was previously.

### 6.3 Manual Cal:

If you know the calibration figure (impulses per kilometre or mile) for your vehicle then you can enter the figure manually.

The Manual Calibration screen will show the current calibration number, and calibration value followed by 00000. Use the number keys to enter a value i.e. if the calibration value is 1540, press 1, 5, 4, 0 then **ENTER**. If a mistake is made, the digits will scroll, so entering 0, 1, 5, 4, 0 will reset all the digits shown to 01540.

To exit the menu without setting a calibration, figure press the upper **CLR**.

## **6.4 GPS Cal:**

GPS calibration lets you calibrate a wheel probe, gearbox probe, speedo cable or electronics probe (DSI) via the GPS. It is important that the correct units for calibration i.e. kilometres or miles are selected, as if they are not correct the calibration will not be correct.

The GPS calibration menu will only be enabled once the GPS has a valid satellite fix, and is receiving position data. We recommend that you turn the tripmeter on for one or two minutes before calibration, this will enable a full satellite fix.

How to use GPS calibration:

1. Press **MENU**.
2. Select CALIBRATION, then press **ENTER**.
3. Select GPS cal then press **ENTER**.
4. The GPS calibration screen shows '00000'.
5. Press **ENTER** and start to drive.
6. The display will show 'Now drive to set distance' briefly and show an animated arrow running across the screen. If there are no pulses being received from the probe, or the incorrect probe is selected the figure will remain at 00000. If this is the case, you need to exit auto calibration and select a different probe using KEY 8 (Probe).
7. After driving approximately 1 km/mi press **ENTER** at the end of the driven distance.
8. The display will now show the calibration figure that has been calculated from the driven distance. Press **ENTER** to accept and set the calibration to the shown figure or **MENU** to exit, and leave calibration at the previous value.

## **7.0 Display Menu:**

The display menu contains brightness and contrast settings for the internal screen and the Remote Display, if fitted.

### **7.1 Screen Brightness:**

Use the up and down keys (^ and \) to set the screen brightness, and **ENTER** to set. **MENU** exits without setting the screen brightness and the previous set level will restore.



## ***7.2 Remote Brightness:***

Use the up and down keys (^ and v) to set the remote brightness, and **ENTER** to accept the new level. **MENU** exits without changing the screen brightness and the previous set level will restore.

The Remote Brightness also sets the intensity of the AVS indicator LED's when connected to a 303 GeoTrip®.

## ***7.3 Contrast:***

Use the up and down keys (^ and v) to set the screen contrast. Higher the contrast value, the darker the screen and text are and it can make the screen easier to view from above. Lower the contrast value, the lighter the screen and it can make the screen easier to read from below.

Adjust the contrast to make the display as sharp and clear as possible depending on the angle that the unit is mounted.

**ENTER** will set the contrast, **MENU** exits without changing the contrast.

## **8.0 Settings menu:**

The settings menu contains options to set the display units, characters and various options for timing.

### ***8.1 Set Units:***

Changes the current units (km or mi) set in the trip meter. Current selection has a solid dot next to the units. Press **ENTER** to change the selection, **MENU** exits the settings menu. This setting does not just change the displayed text, but makes the GPS probe calculate distance and speed as required in kilometres, or miles.

### ***8.2 Digit Font:***

Changes the display font used on the main screens. Current selection has a solid dot next to it. Normal is a rounded bold font (default setting) and digital shows a 7 segment type display. Press **ENTER** to change the selection, **MENU** exits the settings menu.

### ***8.3 FRZ clears INT:***

This option selects what happens when FRZ is pressed. The default setting when FRZ is pressed, the interval distance counter clears, and starts counting in the background from zero whilst the displays are frozen. When FRZ is pressed again, the distance counters resume, showing distance in real time (Split Freeze).

If the option is set to 'Off' the interval distance will not zero when FRZ is pressed.

Selection is shown by a solid dot next to the option (on/off). Press **ENTER** to change the selection, **MENU** exits the settings menu.

## 8.4 Set AVS Times:

*Note: This option is only for 303 models with the remote display fitted. This option allows you to change the average speed indicator times on the optional remote display (Part No. T016G), so that it can be adjusted to your preferences.*

When AVS is turned on, the LEDs on the remote display show target timing in seconds. The LEDs displayed relate to your target average speed error in seconds as set below.

Example: If target speed/time is within +/-1s of the calculated time then just the Green LED will be lit. If then the driver slows down, and the target time goes greater than 3 seconds, the first yellow LED to the left of the Green LED will also light. If the driver is still driving slower than the calculated target, and the target time goes greater than 6 seconds, the 2nd yellow LED's to the left of the green LED will be lit. This continues until the target time goes over 15seconds where all the LED's to the left of the Green LED will be lit.

If the driver is driving faster than the target speed then the exact same will happen except that the LED's will illuminate to the right of the Green LED to indicate that the speed is greater than calculated.

The display shows:

Green	:	+/-01s
1 <sup>st</sup> Yellow	:	+/-03s
2 <sup>nd</sup> Yellow	:	+/-06s
Red	:	+/-15s

Press **ENTER** on the relevant line to set the time in seconds after which the relevant LED will light up. Use the number keys to enter the time, and press **ENTER** once more to set, or the upper **CLR** to cancel editing.

## 9.0 GPS Options:

The GPS menu will not be accessible unless the GPS module is fitted. Please refer to 'Fitting GPS module' if you are fitting a module to an existing GeoTrip®.

### 9.1 Start Threshold:

Start threshold is the speed at which the GPS probe will start recording distance.

In most cases, the factory setting is best, however if the GPS signal is poor, or being affected by terrain, then the setting can be changed to make the unit less sensitive to such interference.

To set the threshold in an environment where the GPS signal is causing the unit to count without moving, raise the start threshold in 0.1 increments and check the distance display. Stop incrementing the threshold when the distance display remains stable. Likewise, the start threshold can be reduced if necessary; however we have found the optimum value to be 0.5.

## ***9.2 Standby Probe:***

Our GPS is very accurate, however there maybe circumstances where the environment where you are driving can cause errors in readings through loss of signal. For example tunnels, steep rock faces next to the road, and dense tree cover can all interfere with the GPS signal.

To combat problems with loss of signal, you can make the unit 'revert' to a fixed mechanical probe in the event of signal loss. Once the signal returns the unit will automatically switch back to GPS mode. (Note. You need a wheel, gearbox, Electronic probe (DSI) or speedometer cable probe fitted to the car, and calibrated to use this feature.)

If the standby probe setting is 'Off' then the GPS probe will remain selected, and the unit will not use a secondary probe to correct the distance driven, instead the GPS will calculate the distance from the last known position once a satellite reception is re-established.

## **10.0 Time / Date:**

Note: Time and date settings are available only on the 303.

### ***10.1 Time:***

Time is adjusted by pressing **MENU**, use the **▼** key to select 'Time / Date', then press **ENTER**. If Time is highlighted in black press **ENTER**, otherwise use **^** **▼** to select time before pressing **ENTER**. The current time will freeze, and a black indicator will appear on the hours. Use the number keys to enter the time in 24 hour format. I.e. for 18:05:30, press 1, 8, 0, 5, 3 and 0 then press **ENTER** to set. After setting time press **MENU** to exit. Press upper **CLR** at any time to cancel.

### ***10.2 Date:***

Date adjustment is located in the 'Time / Date' menu. Press **MENU**, use the **▼** key to select 'Time / Date', then press **ENTER**.

Select Date by pressing the **▼** key and then press **ENTER**. Use the number keys to enter the date in YY/MM/DD format. I.e. for (20)13 / 12 / 20, press 1, 3, 1, 2, 2, and 0 then press **ENTER** to set. The time will resume counting just before the date is set.

Time is not affected by setting the date. After setting date press **MENU** to exit. Press **CLR** at any time to cancel.

### ***10.3 Time Zone:***

Time Zone adjustment is located in the 'Time / Date' menu. Press **MENU**, use the **▼** key to select 'Time / Date', then press **ENTER**. Select Time Zone by pressing **▼ ▲** and press **ENTER**, and use the **▼ ▲** to adjust the time zone. Once the correct zone is selected (-12 hours to +12 hours) then press **ENTER** to set. If the time is set from the GPS, then use the time zone facility to adjust UTC. After setting Time Zone press **MENU** to exit. Press **CLR** at any time to cancel.

### ***10.4 Set from GPS (UTC):***

Note: Only Available when GPS module is fitted, and locked onto a valid signal.

To set the Time from the GPS: Press **MENU**, use the **▼** key to select 'Time / Date', then press **ENTER**. Select 'Set from GPS (UTC)' using the **▼** key. Press **ENTER** to set the current time and date from UTC. (Universal coordinated time) UTC is transmitted from the GPS satellite. Press **MENU** or upper **CLR** to exit.

### ***10.5 Time format:***

The selected format changes the clock and the stopwatch to display time in either Standard Format (HH:MM:SS) or Decimal Time (HH:MM:100ths seconds).

To adjust the Time format: Press **MENU**, use the **▼** key to select 'Time / Date', then press **ENTER**. Press **▼** 4 times. Press **ENTER** to set the time format. A solid dot will be displayed next to the current set format. Press **MENU** or upper **CLR** to exit.

## **11.0 Performance:**

Note: Only available on 303 GeoTrip®.

The performance menu provides performance timing for acceleration and deceleration timing to a set speed whilst in normal operation, and also direct real time performance timing from within the menu itself. The GeoTrip® will record 8 results into memory for 0-60, 0-100 and 0-custom speed. All results are given in time to reach target speed, and time to reach zero speed from target speed. When the memories are full, the trip meter will stop recording performance data, so it is important to clear the memories before any performance testing is performed.

### ***11.1 Maximum Speed:***

The maximum speed is continuously recorded in all modes of operation, and is displayed next to the maximum speed menu text. Maximum speed is saved to memory.

Press upper **CLR** to clear the maximum speed memory whilst it is highlighted.

NOTE: If you are performing performance testing, and wish to record an accurate maximum speed it is best to clear the memory before the testing takes place.

### ***11.2 0-60 times:***

### ***11.3 0-100 times:***

### ***11.4 0-(custom) times:***

0-60, 0-100 or 0-custom (kph or mph depending on units set) is recorded in all modes of operation. The unit starts recording time when the vehicle moves away from standstill, and stops recording acceleration when the vehicle achieves the target speed. Once the unit has recorded the acceleration time, it waits for the speed to drop below the target speed, and then to reach zero during which time the unit is recording deceleration time.

If at any time during the acceleration the speed returns to zero, the 303 will reset the timer and not record a time, as the vehicle did not achieve the target speed.

Once all 8 memories are full, the unit will not record any more performance times until the memories are erased.

There are 8 memories each for 0-60 times, 0-100 times, and 0-custom times.

To clear the stored memories press upper **CLR** whilst 0-60 times, 0-100 times or 0-custom is highlighted, and this will clear the stored times selected.

Press **ENTER** when any of the performance time menu items are highlighted (e.g. '0-60 Times'), and you can view the saved performance times. The time and date of the record is shown as well as the times recorded for acceleration and deceleration. Use the up and down keys to look through the stored records.

Press **MENU** to return to the performance menu.

Press **ENTER** whilst 0-60 times, 0-100 times or 0-custom time results are being displayed and the 303 will go into live performance measuring mode. The screen will display the current speed, acceleration time, and deceleration time. At standstill the speed will be highlighted, and once the vehicle moves away from zero, the highlight will move to the acceleration time. Once the target speed is reached, the highlight will return to the speed.

As soon as the speed drops below the target speed, the highlight will move to the deceleration time, and stay there until the vehicle comes to a standstill.

Once a valid time has been recorded the screen will show the record that has just been created.

At any time pressing **ENTER** will return to the records,

#### 0-(custom) times only

To set the custom speed for 0-(custom) time performance – Highlight '0- (custom) times' line in the performance menu, then press the down arrow. This will highlight only the speed rather than the whole line. Press **ENTER**, and set the speed with the

number keys. You can enter 3 digits, so for a speed of 30 (kph or mph), press 0, 3, 0 and press **ENTER** once more to set. At any point press the upper **CLR** to exit.

## **12.0 Key Functions:**

The main functions of the keys are given below, but the 10 keys to the left of the display also function as number keys.

### **12.1 FRZ:**

Press **FRZ** to hold the displays.

- In distance mode, the total distance display will freeze and carry on counting in the background, the interval display will freeze, clear and carry on counting in the background\*.
- In the Time screen the stopwatch will freeze, zero and continue counting in the background.
- In TSD screen 4 the average speed display will freeze on the current value, reset to zero and carry on counting in the background.

\* If 'FRZ clear INT' (see menu 8.3) is turned on in the settings menu, otherwise interval distance will freeze, and continue counting in the background.

Press **FRZ** again, and the displays will resume.

### **12.2 DIS SET:**

Press **DIS SET** to enter / adjust the total distance display. Use the number keys to enter the required distance, and press **ENTER** to set. If you do not press a key within 5 seconds the unit will return to the previous screen, and the total distance will not be adjusted.

### **12.3 SCREEN:**

202 GeoTrip® Classic – There is only one screen showing Total and Interval distance.

202 GeoTrip® – **SCREEN** button cycles between DIST screen, and SPEED screen.

303 GeoTrip® – **SCREEN** button cycles between DIST screen, TIME screen and TSD screen.

In TSD mode, the up and down buttons move through the 4 TSD screens which show:

- TSD 1 – Stopwatch and Interval Distance.
- TSD 2 – Time of Day and Interval Distance.
- TSD 3 – Total Distance and Current Speed.
- TSD 4 – Average speed and interval distance.

## **12.4 DIS FLY:**

Press **DIS FLY** and the ‘on the fly’ distance adjustment indicators will be shown over the 1/10ths of the Total distance display. Pressing **DIS FLY** again will move the fly adjustment to the 1/100ths of the Total display. Press  $\wedge$  or  $\vee$  to adjust the distance. If **DIS FLY** is pressed and no adjustments are made, then after 3 seconds the fly adjustment will move back 1/100ths on the Total display.

DIS FLY adjustment can be disabled by holding **DIS FLY** whilst turning the unit on. One of the following indicators will be shown DIS  $\wedge$ / $\vee$  - On or DIS  $\wedge$ / $\vee$  - Off. When DIS  $\wedge$ / $\vee$  - Off is shown, DIS FLY is disabled.

If **DIS FLY** is pressed and held for 3 seconds then the remote display (if fitted) will switch between Interval distance, speed and average speed (303 only), and Interval distance and speed. The remote display will show only interval distance on the 202 Classic.

## **12.5 +/-:**

Changes count direction for the trip meter. If the display shows ‘Count +’ then the tripmeter will count up, and if it shows ‘Count -’ or ‘REVERSE’ it will count down. The tripmeter will only show ‘REVERSE’ if the external reverse signal is connected to the reversing lights on the vehicle (see: **15.5 Fig 5. T011G Hand held RZU & T008 Foot operated RZU** for connections and the pin number).

## **12.6 PWR**

Press **PWR** briefly to turn the unit on.

Press and hold **PWR** for approximately 5 seconds, and after a long beep the tripmeter will power down.

Note: The tripmeter will not power down whilst in any menu setting screens.

## **12.7 $\wedge$ / $\vee$ :**

Pressing ‘up’ in distance mode will ‘nudge’ the hundredths up. In menu items, ‘up’ is used to navigate or select various menu items.

## **12.8 PROBE:**

Pressing **PROBE** will cycle between probes off, probe 1 and probe 2. If **PROBE** is held for 2 seconds, and the unit has a GPS module fitted then the unit will select the GPS probe. A short press on **PROBE** will return to standard probes.

## **12.9 √:**

Pressing ‘down’ in distance mode will ‘nudge’ the hundredths down. In menu items, ‘down’ is used to navigate or set various items.

## **13.0 MENU / EXIT:**

Press **MENU** to enter the main menu. In most menu items pressing **MENU** a second time will exit the menu. Please see the section **5.0 Menu Layout** for a detailed description of the menu.

## **13.1 CLR:**

Upper **CLR** is the top right hand clear key, and its primary function is to clear the total distance counter in the DIST screen. **CLR** is also used to exit out of a setting or menu item that requires the numeric keys for input.

To clear the total distance counter, press and hold the **CLR** key for 2 seconds.

303 only: In other screens, the key has slightly different functions:

- DIST – Clear total distance counter.
- TIME – Freeze/resume time of day.
- TSD 1 – Operates stopwatch. Short press – Pause/Resume stopwatch, Long press – Reset stopwatch.
- TSD 2 – Freeze/resume time of day.
- TSD 3 – Clear total distance counter.
- TSD 4 – No function.

## **13.2 CLR / ENTER:**

**CLR / ENTER** is the key in the bottom right of the display, and its primary function is to clear the interval counter in the DIST screen. **CLR / ENTER** is also used as the **ENTER** key to select or set various functions or menu options.

303 only: In other screens, the key has slightly different functions:

- DIST – Clear interval distance counter (short press).
- TIME – Operates stopwatch. Short press – Pause/Resume stopwatch, Long press – Reset stopwatch.
- TSD 1 – Clear interval distance counter (short press).
- TSD 2 – Clear interval distance counter (short press).
- TSD 3 – No function.
- TSD 4 – Clear interval distance counter (short press).

## **13.3 AVS SELECT:**



Note: 303 GeoTrip® with External Display Fitted, used for regularity target speed rallies.

10 regularity target speeds can be pre programmed into the unit, and can be selected with a single button press or the target speed can be entered on the fly without pre-programming.

AVS SELECT opens the Average speed indicator select / setting menu.

**Example 1: To Set up to 10 AVS speeds into memory:**

- Press **AVS SELECT** and use the up and down keys to select the required memory (1-10).
- Press **AVS SELECT** and the speed on the current memory will be highlighted. Use the number keys to enter a desired target speed.
- Press **AVS SELECT** to set the speed into the memory, or upper **CLR** to exit.

Repeat this procedure to fill the memories if you are pre programming target speeds, but ensure that target speeds are placed in order of use in memory.

**Example 2: To Set an AVS speed ‘on the fly’:**

- Press **AVS SELECT TWICE** and the speed on the current memory will be highlighted. Use the number keys to enter a desired target speed.
- Press **AVS SELECT** to set the speed into the memory, or upper **CLR** to exit.
- The speed you have entered will be stored for next activation.

Whilst the Average speed indicator screen is showing pressing **AVS SET** will start the average speed display with the currently shown target speed.

If no keys are pressed whilst the Average speed indicator screen is being displayed it will revert to the previous screen after 5 seconds.

**13.4 AVS SET:**

Note: 303 ONLY with External display Fitted.

**AVS SET** Activates the average speed indicator to the current memory selected with the **AVS SELECT** key. Subsequent presses of the **AVS SET** key will increment the average speed indicator memory, and activates the next target speed.

If the target speed of the current memory is ‘0.00’ then the average speed indicator will turn off.

**14.0 Special Functions:**

**14.1 Language:**

To select operating language, turn the unit on whilst holding the **MENU** key. Keep holding **MENU** until the language setting screen appears.

Use Up and Down to select the language you require, and press **ENTER**.

### ***14.2 Factory Reset:***

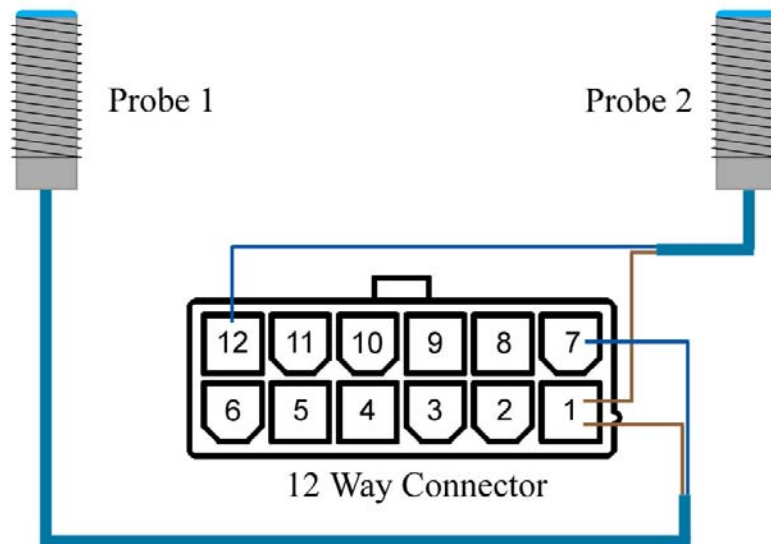
Press and hold upper **CLR** whilst turning the unit on. Wait until you hear a long bleep, and the unit will return to factory settings.

### ***14.3 Road Survey / high precision mode:***

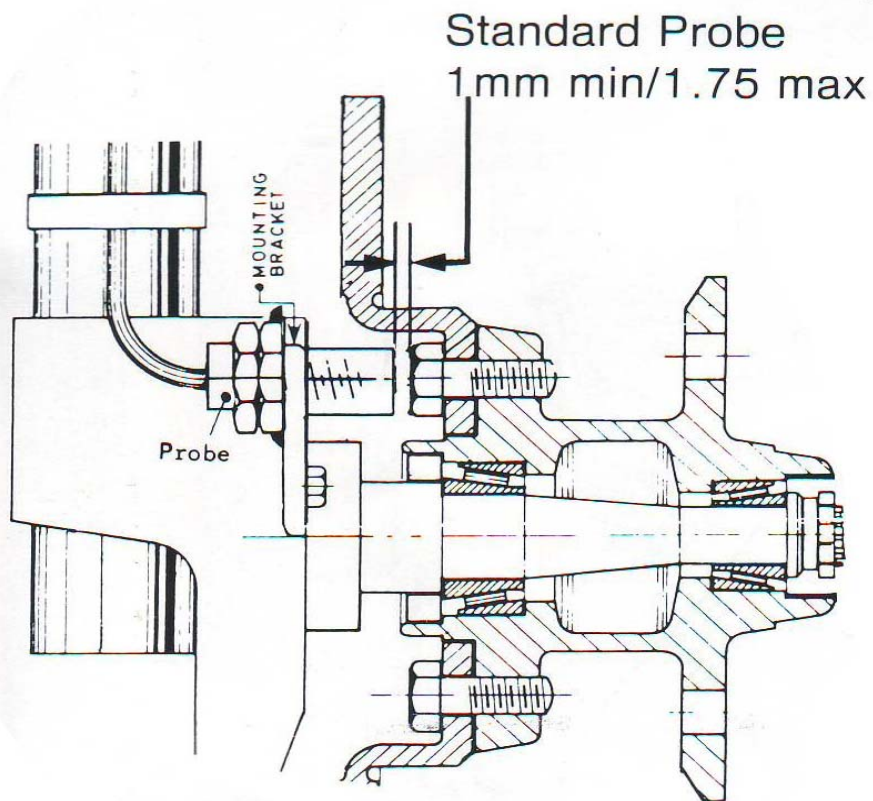
Press and hold **DIS SET** and **ENTER** for 2 seconds, and the decimal place will change on the display. With 3 numbers after the decimal place, the unit is in Road Survey / high precision mode. This mode is for commercial road surveying and is of no practical use in rallies.

## **15.0 Electrical Connections & probe mounting:**

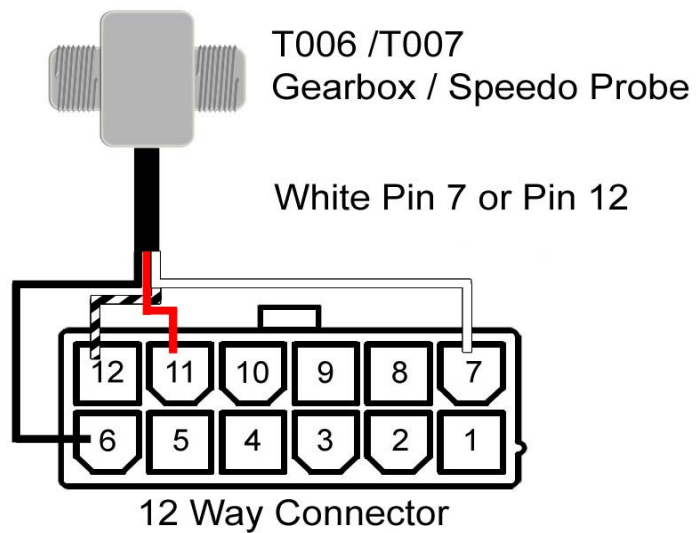
### ***15.1 Fig 1. Probe connections T005 & T005A:***



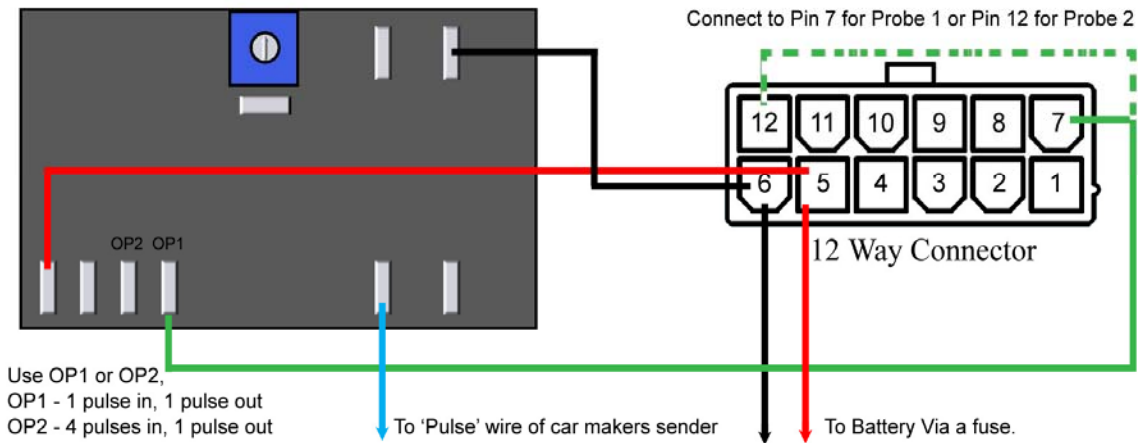
**15.2 Fig 2. Mounting T005 & T005A:**



**15.3 Fig 3. T006 & T007. Gearbox / Speedo cable connections:**



**15.4 Fig 4. T014 Electronic Probe (DSI) Connections:**



**15.5 Fig 5. T011G Hand held RZU & T008 Foot operated RZU:**

