



Caerbont Automotive Instruments

Instructions for Porsche PROLED Programmable Speedometer

- Speed in MPH or Km/h
- Odometer and trip in Miles or Kilometres

Application Notes

- For fitment to **NEGATIVE EARTH** petrol powered vehicles only.
- Operating voltage 10-16 volts DC.

Caution: Disconnect the negative battery cable prior to any installation.

Electrical Connections

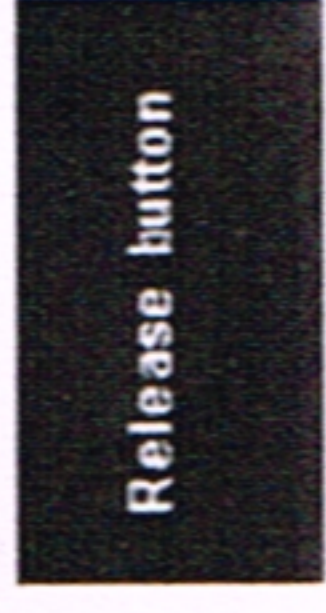
Lead	Connect to:
Green	Ignition +12Volts.
White/Black	Sine Wave Signal from sensor.
Red/Blue	Square Wave Signal from sensor.
Red/White	+12Volts for illumination.
Black	Ground.
Red	Pull up/down resistive load, works on White/Black input only
Brown	Reset / Trip Switch (momentary push switch to ground)
Blue/White	Main Beam warning light, input 12v

Green/Orange, Brown/Yellow & Red/Black not used.

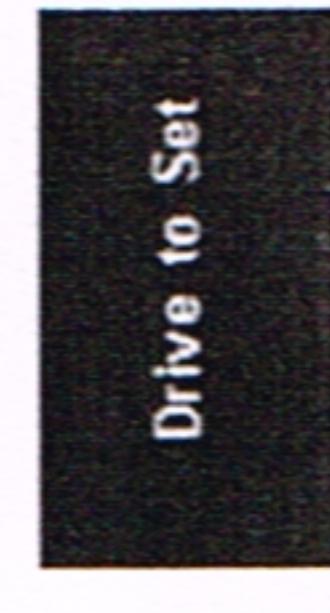
Programming

Once the electrical connections have been made, reconnect the battery cable. Hold the button in whilst switching the ignition on. The words 'Release Button' should be displayed on the OLED screen. The Speedometer is now in programming mode. Release the button & from now on, each momentary press of the button will increment through the programming menu in the following order.

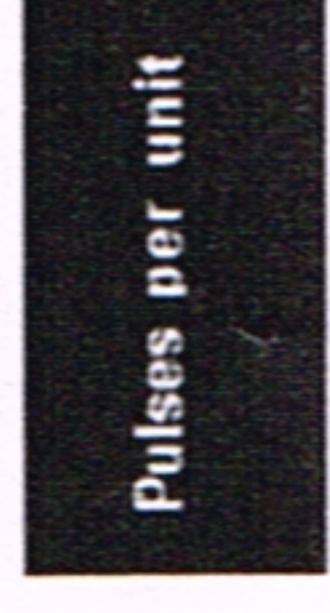
Release Button



Drive to set for speedo calibration.



Pulses per unit, alternative method of speedo calibration.



MPH Km/h, to set speed display in MPH or Km/h. The trip and odometer display automatically adjust for Miles or Kilometres.



Programming (continued)

Once in programming mode, each momentary press of the button moves through the major menu headings. With a major heading displayed, pushing and holding the button will take you into the programming section for that heading.

Speedometer Calibration

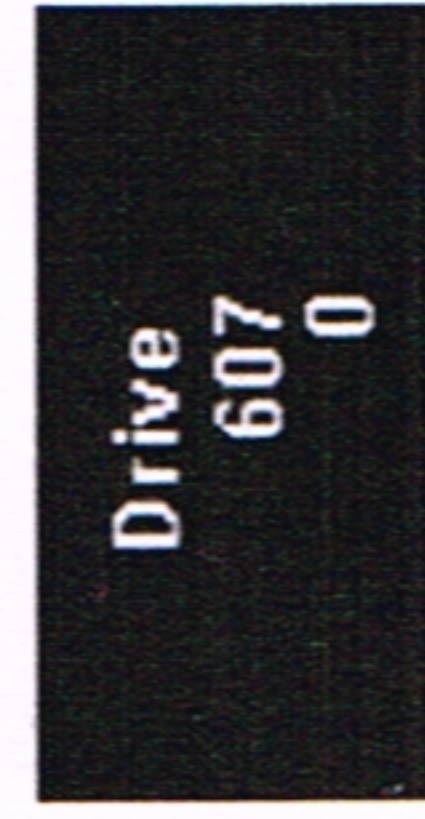
There are two methods of setting the speedometer calibration:

- Drive to set
- Manually input the PPU number

Page 1 of 2

Drive to Set

In programming mode, press the programming button momentarily until the display reads 'Drive to set'. Press the button until the display shows 'Drive' together with the current PPU (pulses per unit) count and a zero.



Now drive the vehicle exactly one KM and then press the button again. While driving, the speedo will count the number of pulses generated by the sender.

On the completion of the one KM trip, the display will still show the old PPU, the 'zero' will have incremented to the new PPU figure. Press the button momentarily and the display will read 'PPU SETxxxxx' where xxxxxx is the number just generated. After approximately five seconds the display returns to the main menu 'Drive to set' and the new PPU figure is implemented.



Note: The new PPU figure must be greater than 400 and less than 125,000 or no new figure will be stored.

Manually Inputting the PPU Number

(i) Calculate the PPU Number
To begin, you need to know the number of times your wheels revolve per kilometre. Stand the vehicle on a flat surface and mark the tyre at the closest point to the ground, mark the ground at the same point. Move the vehicle forward by one complete wheel revolution and measure the distance travelled.

Wheel revs per km. = 1000 divided by the distance travelled in metres.

To Calculate the PPU Number (pulses per mile)
- For magnetic sensor, magnets or bolt heads moving past the sensor (eg. prop shaft mounting).

PPU number = (wheel revs per mile/km) x (diff ratio) x (number of magnets or bolts).

- For sender driven from transmission cable drive.

Push vehicle forward on flat ground for 6 complete wheel revolutions and count the number of cable turns:

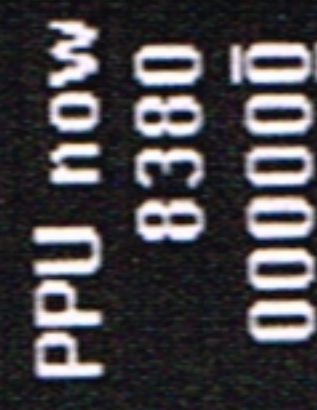
Cable turns per km = (Wheel revolutions per KM ÷ 6) x cable turns counted.

PPU number = Cable turns per km) x number of pulses per sender revolution.

(ii) **Input PPU Number**

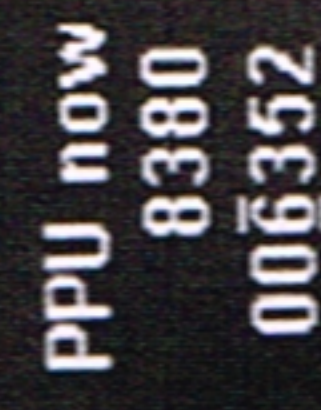
In programming mode, press the button momentarily until the main menu heading is 'Pulses per unit.'

Press the button until the display changes to show 'PPU Now' together with a number (showing current setting and row of six zeros, then release.



The row of zeros needs to be replaced with your newly calculated PPU number. Pressing the button momentarily will increment the last zero (the least significant figure) by one. Repeat the action until this digit matches the least significant figure of your new PPU number. When the two digits match, press and hold the button till the next digit in line is highlighted. Repeat momentarily pressing until the second digit matches that of the new PPU number. Press and hold the button to bring the third digit into play. Repeat the actions until the full PPU number is shown.

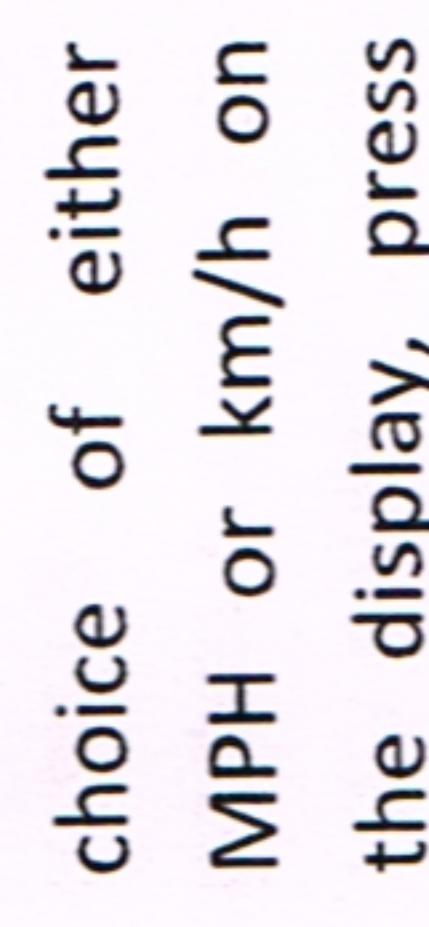
Note: All six digits must be set ie. including any zeros. Pressing and holding the brown lead to earth when the last digit is set will result in the display reading 'PPU Set xxxxxx'. Where xxxxxx is your new PPU number. After approximately five seconds the display will return to the main menu 'Pulses per unit' heading. The new PPU number is now in force.



MPH or km/h

To set the digital speed indication, navigate to the MPH KPH display, as described in the Programming section.

press the button to display the MPH setting. Each press will effectively toggle between MPH and km/h. With your



choice of either MPH or km/h on the display, press and hold the button to select. The trip and total odometer display naturally follows the selection.

SETODO

If the NEW Speedometer has a manufacturing date of 01 20 or later on its part number label there is a possibility it has a new function allowing a one off attempt at adding the existing mileage from your old speedometer to the new gauge.

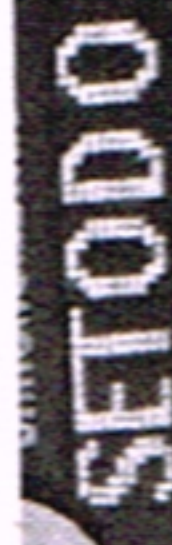
This must be done **BEFORE** the odometer has recorded **100 Miles or Kilometres**; this allows enough time to calibrate your speedometer first. Once this total is reached the Software locks out this new function.

If you make a mistake entering the numbers just power off and no changes will be saved.

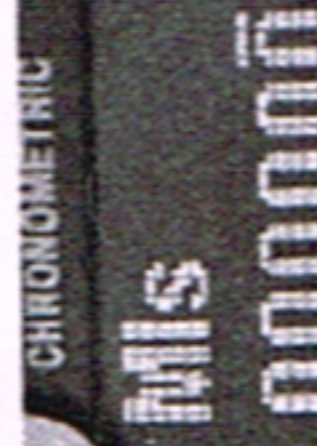
If you have saved an incorrect number and it is greater than 000100 you will NOT be able to change it and the speedometer will need to be returned to Caerbont to be either corrected or set back to zero. There would be a charge for doing this.

Setting the Odometer to an existing mileage.

Enter programming mode as previously described and navigate round the menu until it displays SETODO is displayed.



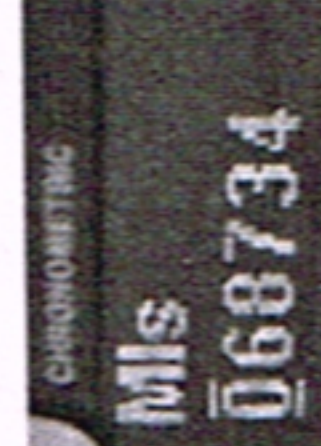
Now press & hold the button until the display shows 6 zeros and then release the button.



Momentarily pressing and releasing the reset button each number (extreme right side first) can be incremented to your desired value. Include leading zeros e.g.009582. When the value for the digit is correct press and hold the button for 3 seconds



The next number to change will be highlighted, increment the same way until all the numbers are programmed to your new odometer reading.



At the end of the sequence press and hold the button for 3 seconds and release, the display will go back to the setup menu. Power the gauge off and on to pickup the new settings.