Autoline Speed Operating Instructions   V1.0

Features:
Continuous speed readout
Displays from 10 metres/hr to 100 kilometres/hr
Displays in Meters, Feet, Yards
Built in user settable speed alarm function
Automated calibration wizard
Excellent daylight visibility
Soft green backlighting for night use
Weather cover

General – Specifications

Minimum speed threshold	10m per hour
Power supply	+12/24 VDC
Maximum supply voltage	+30 VDC
Typical supply current consumption:	70mA
Operating temperature range	-5°C to $+60^{o}$C
IP rating	IP67 from the front provided the unit is mounted so the back is protected from moisture

Factory Default Settings
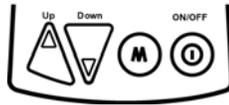Encoder Calibration Factor: 100 pulses/metre
Encoder pulses can be in the range 5 – 1000 pulses/metre
Units are in Metres
Speedo display is in Km/hour
Speed alarm is off
Backlight is on at full intensity

Setting up a new unit
1. **Set operating units**
2. **Set speed display units**
3. **Set calibration for encoder**
4. **Enable and adjust the speed alarm if needed**

Using the Autoline buttons in the menus

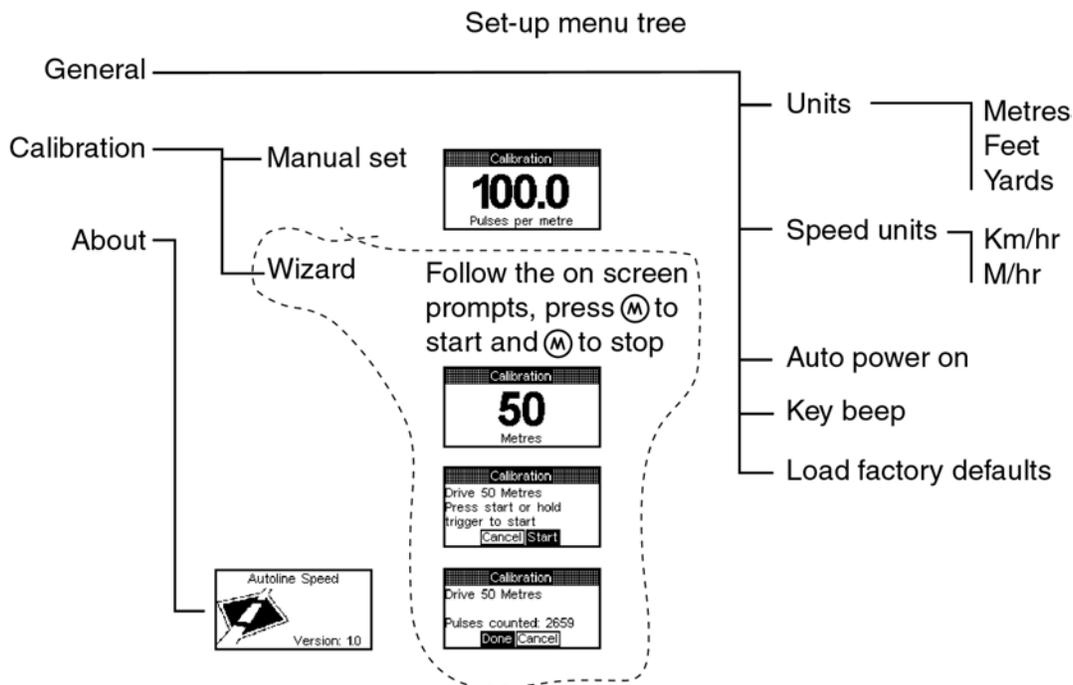To access the set up menu turn the unit off by pressing and holding the ⊙ button for 3 seconds

Hold together the Ⓜ + ⊙ buttons and release to display the set up menu

Use the △▽ buttons to navigate menus and make numerical adjustments

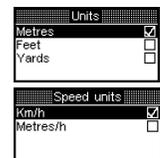Use the Ⓜ button to select the next menu or to ☑ check/uncheck/save the item

Navigate to the setting requiring to adjustment, (see exploded view of menu below)

Then exit/escape using the ⊙ button

Set-up menu tree

Set the operating units
Navigate to General and units to select the required operating units; Meters, Feet or Yards.
There is also an option to display the reading in Km/hr or M/hr for slower specialised applications.
Use the "M" and on/off buttons to save the new settings and exit.

Auto power on
This option simply means the display will always be on when the power is applied.

Load Factory Default Settings
Restores the unit to the original factory settings, all user settings will be replaced.

Calibration

Navigate to calibration and select "Manual set" or "Wizard"

The Autoline Speed must be calibrated to the encoder on the vehicle.   Calibration can be done manually or with the wizard. Follow the instructions below to calibrate the Autoline.

Automated calibration wizard

1. Accurately measure out and mark out a calibration distance. (We recommend at least 30metres)
2. Select a reference point on the vehicle to start/stop the calibration and align the vehicle to the start mark.
3. Having selected the wizard the first thing needed is to adjust is the calibration distance to be used Then:
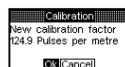4. Press (M) button to start the process
5. Select "Start" and Press (M) again

   Calibration
   Drive 50 Metres
   Press start or hold
   trigger to start
   Cancel Start

   Calibration
   50
   Metres

6. The display will now show pulses being counted

   Calibration
   Drive 50 Metres
   Pulses counted: 4310
   Done Cancel

7. Drive the measured distance. Press the (M) button when the vehicle reference point is on the finish line and the job is done.

   Calibration
   New calibration factor
   124.9 Pulses per metre
   Ok Cancel

8. Use the (M) and on/off buttons to save the new setting and exit.

Manual Calibration

1. Navigate to "Manual set" use the ⬆⬇ buttons to change the calibration value.
2. Use the (M) and on/off button to save the new setting and exit.

Other user settings

Can be accessed by pressing the (M) button during normal operation

   Setup
   Timed spot   100 ms
   Distance spot   0.050
   Target speed   Off
   Speed margin   1.0

Speed Alarm

This function is designed to assist with application rates and QA

This can be set to "off" or to a target speed value with the ⬆⬇ buttons

   Target speed
   8.3
   Km/h

The allowed speed margin can be adjusted with the ⬆⬇ buttons

   Target speed margin
   0.9
   Km/h

Example speed alarm results:

   6.96
   Too slow

   8.12

   9.28
   Too fast
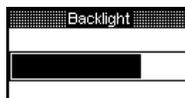
Backlight

Can be adjusted by the operator using the ⬆⬇ buttons to suit light current light conditions

   Backlight

To shut Down the Autoline

Press and hold the On/Off button for 3 seconds at any time to turn off the Autoline.