GPS/GLONASS Trip Meter

GT1000C

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Introduction

Congratulations on your purchase of a GT1000C GPS/GLONASS Trip Meter. All products are manufactured to the highest standards of quality and will provide many years of reliable service.

Features

Utility

- 2 trip counters.
- Individual count up/down, freeze, reset.
- External reset switch.
- No connection to vehicle required.

Functionality

- Statistics display.
- Current position.
- Preloadable trips.

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Optional Accessories

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Package Contents

1 x GT1000C GPS/GLONASS Trip Meter

1 x GPS/GLONASS Antenna - Magnetic/SMA

1 x wiring loom – handheld reset switch, car power adapter, integrated fuse

1 x RAM 1“ diameter ball mount

1 x RAM suction cup base

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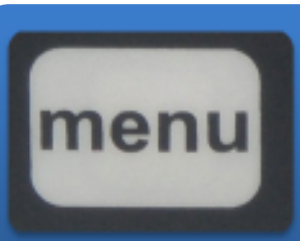
Installation

1) Ensure that power to the vehicle is isolated.
2) Mount the GT1000C Trip Meter on your preferred surface (e.g. dashboard) using the supplied ball or suction mount.
3) Insert the power connector into the vehicle's accessory power socket (12V DC or 24V DC).
4) Plug the 6-way connector on the wiring loom into the Trip Meter.
5) Screw the GPS/GLONASS antenna connector onto the female connector located on the back panel of the Trip Meter. Do not close the antenna cable in the door of the vehicle; in most applications, leaving the antenna on the dashboard of the car will surfice.
6) Restore power to the vehicle and apply power to the Trip Meter

The Trip Meter should, under normal circumstances, operate with at least 7 satellites. Should performance degrade inspect the GPS/GLONASS antenna for wear or damage. The antenna may require replacement after several years depending upon vehicular and environmental conditions.

Navigating the Menu



From the Main Display, the *Menu* key will enter the main menu; from the main menu, *Menu* is used to step back one level, the *arrow keys* navigate through a menu and ***Enter*** to select the highlighted item.

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Main Display

The main display shows the two trip counters, satellite count, current and average speed. The ***arrow keys*** select the direction of trip A or B if set to do so in the configuration menu (see below).

The odometric functions of the Trip Meter utilise GPS and GLONASS technology and, given good satellite coverage, achieve greater than 99% accuracy. The number of satellites currently tracked by the device is shown in the lower-right corner of the display; while four is the minimum number required to obtain speed readings, seven to ten is typical.

Main Menu

Reset Trip B	Resets trip B to zero.
Current Position	Displays the vehicle's current latitude and longitude. Press *Menu* to return to the menu. Change the displayed units using the Setup Menu.
Trip A Dir	Sets the direction of trip A. Press *Enter* to cycle between **Up**, **Down** or **Select**. **Select** enables the use of the *arrow keys* to change direction from the main display.
Trip B Dir	As above, but for trip B.

Average Based On:	Set the trip on which to base average speed. Press *Enter* to toggle between trip A and trip B.
Show Statistics	Display detailed trip information. Press *Menu* to return to the menu.
Preload Trips	Allows the user to preload either trip A or trip B.

Setup	Displays the general setup menu where the user can change units, switch function etc.

Preload Trips

Preload Trip A	Preload Trip A. Use the ***arrow keys*** to choose a number and the ***enter key*** to advance to the next digit.
Preload Trip B	Preload Trip B. Press the ***arrow keys*** to choose a number and the ***enter key*** to advance to the next digit. Press ***enter*** to exit and save.
Reset A…	Sets the action to take on trip B when Trip A is reset. In "**preload**" mode, trip B will be preloaded with the value set using the Preload Trip B function above. In "**leave**" mode, Trip B will remain at its current value. Press ***Enter*** to toggle between modes.

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Setup Menu

Unit	Set the display units to **kilometres**, **miles**, **nautical miles** or **metres per minute**. Press *Enter* to cycle.
Ext Switch	Press *Enter* to toggle between enabling and disabling the external reset switch.
Freeze Options Menu	Displays the **Freeze Setup Menu** which allows the user to optionally pause trips when the reset button is pressed.
Set Speed Warning	Displays the **Speed Warning Setup Menu** which allows the user to set a maximum speed above which the buzzer will sound.

Set Display Contrast	Displays the **Contrast Setup Menu.**
Set Display Brightness	Displays the **Backlight Setup Menu.**
Calibrate Tripmeter	Displays the **Calibration Menu** which allows the user to scale distance to match it to another instrument if required.
Decimal Places-A	Press *Enter* to cycle from 0 to 3 decimal places shown.

Decimal Places-B	Press *Enter* to cycle from 0 to 3 decimal places shown.
LAT/LON in…	Press *Enter* to toggle between DEG (degrees) and DMS (degrees, minutes, seconds).
Up/Down:…	Selects the function of the *arrow keys* on the main display. Press *Enter* to toggle between Direction and Distance.
TripB: Small/Enlarged	Press *Enter* to toggle between a small or enlarged trip B.
Set to Defaults	Restore all settings to defaults.

Factory Config	*For administrative use only.*
Rev	Displays the software revision number.

Freeze Setup Menu

Freeze…	The freeze function allows one to freeze the current trip value on the screen when the reset button is pressed. Press ***Enter*** to cycle between: **Disabled** - no freeze function **A Enabled** - freeze enabled on trip A only **B Enabled** - freeze enabled on trip A only **AB Enabled** - freeze enabled on trip A and trip B
Count/Halt During Freeze	Press ***Enter*** to toggle between continued counting during freeze and stopping the count during freeze. If counting is stopped during freeze, any distance travelled between enabling and disabling freeze will not be measured.
Auto Unfreeze	Press ***Enter*** to enable or disable automatic un-freezing after 3 seconds.

Speed Limit Setup Menu

Limit	Use the ***arrow keys*** to set.
Press Enter To Save	The setting will be retained when the unit is powered off.
Press Menu To Exit	The previous setting is retained.

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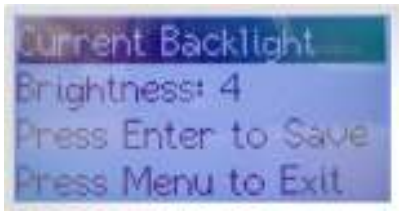
Contrast Setup Menu

Contrast	Use the ***arrow keys*** to set the display contrast.
Press Enter To Save	The setting will be retained when the unit is powered off.
Press Menu To Exit	The previous setting is retained.

Backlight Setup Menu



Brightness	Use the ***arrow keys*** to set display brightness
Press Enter To Save	The setting will be retained when the unit is powered off.
Press Menu To Exit	The previous setting is retained.

Calibrate Tripmeter

Adjust Tripmeter by:	Use the ***arrow keys*** to set the percentage by which the displayed trip will be adjusted. The unit does not require calibration to measure and display distance accurately. This function can however be used to adjust the display to another instrument.
Press Enter To Save	The setting will be retained when the unit is powered off.
Press Menu To Exit	The previous setting is retained.

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Technical Specifications

Speed range	Minimum 2km/h; maximum 499km/h (or mi/h)
General	50 channel tracking receiver
Update rate	10Hz
Accuracy, horizontal	< 5m (50%), < 8 (90%)
Accuracy, altitude	< 10m (50%), < 16 m (90%)
Accuracy, velocity	< 0.06m/sec = 0.22km/h
Acquisition, after loss of lock	< 2s (90%)
Acquisition, first time power applied	< 38s (50%), < 42s (90%)
Acquisition, temporary loss of power	< 10s (50%), < 13s (90%)
Operational limits, altitude	18000m
Operational limits, velocity	1000km/h
Input voltage	9V to 36V
Power consumption	Maximum 1.2W (100mA @ 12V), including antenna
Dimensions	110mm (width), 80mm (height), 30mm (depth); face 82mm wide
GPS/GLOASS Antenna dimensions	51mm (L), 42mm (W), 14mm (H)
GPS/GLONASS Antenna cable length	5m
GPS/GLONASS Antenna connector	Male SMA
Operating temperature	-20˚C to +55˚C
Storage temperature	-40˚C to +85˚C
Humidity	5% to 95% R.H. non condensing at 60˚C
CE Compliance	ETSI EN 301489-1 V1.9.2 (2011-09) ETSI EN 301489-19 V1.2.1 (2002-11) ETS 300487: 1996+A1: 1997 EN 60950-1: 2006+ A11: 2009 + A1: 2010+A12: 2011

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