

BUOYTRACKER



GPS-GSM LOCATION SYSTEM

Who's watching over your buoy tonight



BUOYTRACKER is a unique system for remotely checking the precise location of your buoy or other valuable asset, large or small.

BUOYTRACKER uses the Navstar GPS satellite positioning system, together with your cellphone text service (GSM SMS) and allows users to check the position of their buoy from a standard mobile phone anywhere in the international GSM network; no special software or PC is required. For larger networks, a PC based autotracker program is available to automatically locate any number of buoys or assets with information presented on chart or map. In addition, Buoytracker will watch over your buoy and alert you by SMS if it should wander by more than 500m. **BUOYTRACKER** now features a low voltage alarm that will send a text if the host power falls below 10.5 volts, ideal for monitoring solar power packs.

BUOYTRACKER has user controllable input and output functions that can be monitored and activated via the cellphone so users can monitor digital sensors such as impact or tilt, and activate remote devices such as lights, sounders etc.

BUOYTRACKER is small, and installation is quick and simple. The device can be included at build time to be completely covert. Both the GPS antenna and GSM antenna can be fitted inside plastic or GRP buoys. The system is extremely low power and can be supplied from a small re-chargeable backup battery to ensure that the system continues to function for extended periods even if the main buoy power is removed.

BUOYTRACKER can be supplied packaged with internal batteries or external power, and as a portable unit for temporary installation if required.

FEATURES:

- Compact design
- Easy to install and hide
- Simple to operate no PC needed
- Low power
- Dual band GSM
- 12 Channel GPS
- Low battery Alarm
- 2 Alarm inputs
- 6 Auxiliary outputs
- Boxed versions available
- Built to military specs

APPLICATIONS:

- Buoy position peace of mind monitoring
- Buoy network monitoring
- Covert monitoring
- Delivery monitoring
- Remote activation of lights, racons, fog signals etc
- Remote notification of alarm conditions, flood, tilt, impact.

OPERATION:

In operation, a user simply sends an SMS message to the device which then checks its position, and responds with an SMS message to the users mobile giving latitude and longitude to within 10 m accuracy. The system can be used to monitor moored buoys, boats, boats underway, or other assets. Coverage is anywhere within the international GSM network, which generally extends to 15 - 20 kms offshore. The system can use one of the "Pay As You Go" services so there is no monthly rental charge and the card can be topped up from a land phone at any time.

The system can be put into watch mode. Sending a special SMS code to the device, instructs it to check its present position. This position is then confirmed every few hours, and if the system detects a difference of more than 0.5 kms, an SMS alarm message will be sent to the user, who can then track its movement to arrange a timely recovery. A "waypoint" mode is also available, whereby the unit will send a message when it has arrived at a given location, ideal for monitoring buoy deliveries or transits.

Because we use the GSM SMS service, even if your phone is switched off or **BUOYTRACKER** is out of coverage range, you will eventually receive the message as soon as you switch on or **BUOYTRACKER** comes back into range. The system also incorporates digital inputs and outputs that allow remote control of lights, racons, foghorns etc and monitoring of inputs such as tilt sensors, hull flood detectors, mooring detectors in addition to the position related functions.

Check SMS coverage in your area before ordering.

SPECIFICATIONS:

ELECTRICAL

Input Voltage Range:	+6V to +30Vdc
Power (Typical):	Active: 1.6W (135mA @ 12Vdc) Idle: GSM connected to network, 35mW (3mA @ 12Vdc) Quiescent: GSM Module off 7mW (600µA @ 12Vdc)
Temperature Range:	Operating: -40°C to +85°C Storage: -50°C to +105°C
Alarm inputs:	2
Auxiliary outputs:	6

GSM MODULE

Frequency Bands:	Dual Band EGSM900 and GSM1800 (GSM Phase 2+)
Transmit power:	Class 4 (2W) for EGSM900 Class 1 (1W) for GSM1800
Audio Interface:	Analog (Microphone)
Speech codec:	Triple rate codec
SMS:	TEXT and PDU mode
Digital Interface:	RS232
SIM Voltage Levels:	Selectable baud rate: 300bps...115kbps 3V/1.8V

MECHANICAL

Length:	93mm
Width:	93mm
Height:	20mm
Weight:	200g

GPS MODULE

Type:	12 Parallel Channel
Accuracy:	10m (nominal)
Update Rate:	1 second
Protocol:	Binary or NMEA-0183
Sensitivity:	-130 to -163dBW

