Magellan Introduces Anywhere to Anywhere Communication



THE MAGELLAN GSC 100: The First Hand-Held Global Satellite Communicator

Over the horizon. Out of bounds. Beyond the reach of civilization.

Your life takes you to places that few others can even imagine. There are no phone lines in these places. No cell towers, couriers



or mailboxes. Only you and your need to communicate.

Until now, you've had no practical or affordable way to communicate from the jungle, the outback, the desert, or the open sea. With Magellan's new GSC 100 the world's first hand-held global satellite communicator you have the ability to send and receive important text messages to and from anywhere on Earth. And with its integrated GPS (Global Positioning System) receiver, the GSC 100 keeps track of where

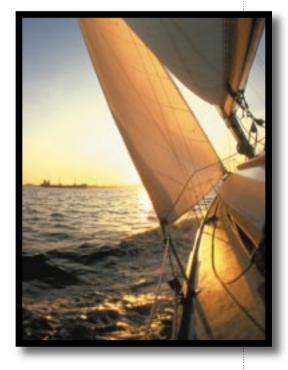


you where you want to go, and relays your position however remote to anyone, at any e-mail address, anywhere.

you are, takes

WHAT IT DOES

Global Communications When your passion or profession puts you out of reach, there's no longer a reason to be out of touch. With the GSC 100, you can now send and receive short, personal messages called GlobalGrams to or from anywhere on Earth. Using standard e-mail protocols, communicating with any Internet e-mail address or another GSC 100 is easy.



With ORBCOMM service enhancements such as ORB2You and ORBWeather, communication with the GSC 100 is more flexible and informative. ORBY2You allows you to send a GlobalGram to a dispatch center that relays the message via phone or facsimile to anyone; and similarly, anyone can contact the dispatch center via phone or facsimile and have a GlobalGram delivered to a GSC 100. ORBWeather allows weather information to be delivered to your GSC 100 based on your GPS coordinates.

GPS Navigation The GSC 100 also features a fully integrated GPS receiver for reliable position determination and navigation, worldwide. Like all quality Magellan GPS units, the GSC 100 uses satellite navigation to guide you anywhere

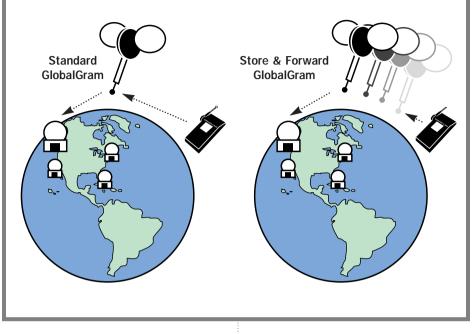
> you want to go and back again at the push of a button. The GSC 100 will identify your position, plot and track your course, and store up to 200 waypoints. And it will communicate this information to any e-mail address in the world.

HOW IT WORKS

The GSC 100 uses the ORBCOMM network the world's first commercial, two-way, global, satellite messaging system to put worldwide communication capability in the palm of your hand.

The GSC 100 communicates with ORBCOMM satellites on a standard, narrow-band VHF frequency. Your GlobalGram[™] message is relayed, via satellite, to a Gateway Earth Station, then routed to its final destination, using conventional telecommunication methods. To retrieve incoming messages, just turn on your

THERE ARE TWO GLOBALGRAM FORMATS:



GSC 100, request a message check, and an **ORBCOMM** satellite will get your messages to you.

A Standard GlobalGram in which the ORBCOMM satellite is in contact with both a Gateway Earth Station and the GSC 100 gives you rapid transmission and reception of messages up to 2,000 characters in length.

A Store-and-Forward GlobalGram

in which the ORBCOMM satellite sees the GSC 100, but not the Gateway Earth Station is a shorter message of up to 229 characters, which is stored onboard the satellite and downloaded when the Gateway comes into view to complete the transmission.

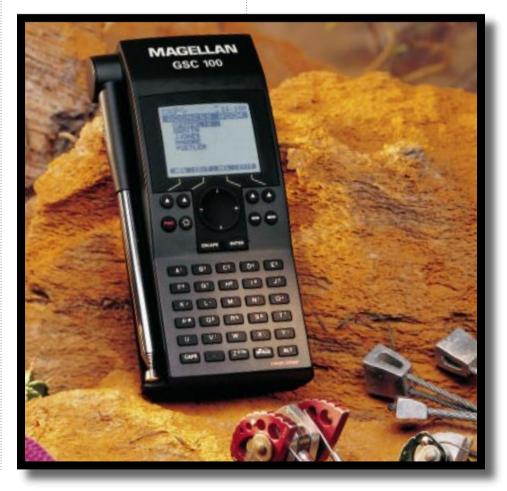
Unlike traditional land-line, cellular and paging systems, the ORBCOMM satellite network employing 36 Low-Earth-Orbiting satellites offers complete global coverage, providing seamless, worldwide messaging.

GETTING YOU THERE AND KEEPING YOU IN TOUCH

With the ORBCOMM satellite network, the Magellan GSC 100 is a convenient, reliable and affordable way to communicate and navigate to and from anywhere in the world.



To learn more, visit our Web site at www.magellangps.com. Or visit the ORBCOMMWeb site at www.orbcomm.com for information on the satellite network and authorized ORBCOMM international service providers.



Note: International usage is determined by international agreement of participating countries. GlobalGram[™] is a registered Service Mark of ORBCOMM Global, L.P. © 1999 Magellan Corporation

Magellan—Getting You There and Keeping You in Touch

The GSC 100 is the world s first hand-held global satellite communicator. Plus, with its integrated GPS capability, it s a global nagivator, too. It s convenient, reliable, affordable, and available only from Magellan.

The GSC 100 Ships With

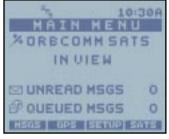
- Telescopic Whip Antenna
- Rechargeable NiCad Battery Pack
- Universal AC Converter
- Data/Power Extension Cable
- Software Update Cable
- User Manual
- Activation Instructions
- Quick Reference Guide

Messaging Features

- · Create, forward, and reply to e-mail messages
- · Easy-to-use, menu-driven interface with softkeys
- Store 100 messages and 150 addresses
- Three font sizes
- Message status icons
- Insert current GPS position information into message

GPS Features

- 6 graphic navigation displays
- · Full-featured track plotter
- Stores 200 user-defined waypoints
- 5 reversible routes with up to 15 legs



Main Menu displays ORBCOMM satellite availability and message statús



Messages are displayed in standard e-mail format in your choice of three font sizes.



Status icons let you know if e-mail message has been received, sent, read, or is a draft

CHARACTERISTICS	
GPS Performance: Position Accuracy	15 meters* (49 feet) RMS in 2D without SA
Velocity	0 to 825 knots (99 mph)
Time to First Fix Warm Start Cold Start	Approx. 20 seconds Approx. 55 seconds
Update Rate	1 second (2D) typical
Navigational Modes	2D, 3D
* Accuracy subject to degradation of 100m 2D RMS under the United States Department of Defense imposed selective availability.	
Power Source:	9.6 VDC Rechargeable NiCad Battery Pack 10-30 VDC External Power
Physical: Size Weight	8" x 3.5" x 1.75" Approx. 32 oz.
Temp Range Operating	14°F to 140°F (-10°C to 60°C)
Storage	-40°F to 167°F (-40°C to 75°C)
Case	Splashproof
Antennas	GPS Internal Patch ORBCOMM Telescoping Whip

· 6 coordinate systems including LAT/LON, UTM, OSGB

- NMEA outputs (0180/0183)
- Differential ready
- Sunrise/sunset and lunar calculations

Optional Accessories

- Additional NiCad Battery Pack
- DC Power Cable w/Cigarette Plug
- Carrying Case
- Mounting Bracket
- PC Software Kit
- Data/Power Cable
- External GPS Antenna
- External VHF Antenna (Vehicular or Marine)
- AC Converter, International Plug Kit



Integrated GPS constantly updates your position and navigation information

ORBCOMM Specifications

Data Rate	2,400 bps Inbound 4,800 bps Outbound
Frequencies Uplink Downlink	148.00 - 150.05 MHz 137.00 - 138.00 MHz
Addressing	Internet X.400
Message Size	Character Maximum
Standard	2,000
Store & Forward	182 Inbound
	229 Outbound
Space Segment Spacecraft	229 Outbound 4 Near Polar 32 Inclined 45°



SATELLITE ACCESS TECHNOLOGY



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