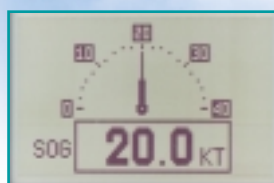


MARINE GPS/WAAS NAVIGATOR

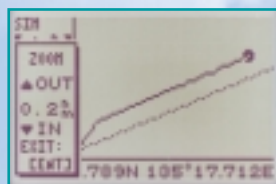
with VideoPlotter function

Model GP-32

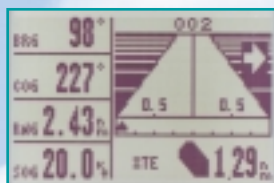
- Improved accuracy with built-in WAAS receiver
- 4.5" Silver Bright LCD display
- Multiple display modes to suit a variety of navigational requirements
- Up to 999 waypoints, 50 routes and 1,000 track points
- One-touch waypoint entry
- Customizable NavData screens
- Track Back feature stores waypoints at user defined intervals for early trace-back cruise
- Waypoint & Route upload/download through RS-232C port



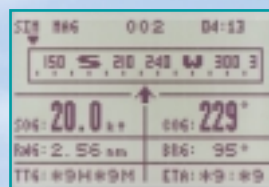
Speedometer



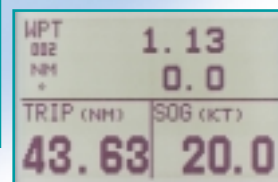
Plotter



Highway



Steering



Customizable display

The GP-32 is an advanced GPS navigator with a WAAS receiver designed for coastal ships, fishing boats and pleasure craft. The powerful processor performs high-speed processing of position fixing and augmentation using WAAS correction. It comes with an easy to use track plotter which stores up to 1,000 track points.

This compact and cost-effective unit offers extremely accurate position fixes. It is accurate to 10 meters, and with WAAS mode activated, it's accurate to within 3 meters.

The Display modes include Plotter, Nav Data, Steering, Highway, Speedometer and two customizable mode. The Steering Display provides an intuitive indication of course to steer and cross-track-error (XTE). The Highway mode is useful when you are heading for your fishing ground or following a series of waypoints along a planned route.

The user-friendly design permits easy and straightforward operation with minimum key strokes. The system has various alarm functions to warn of arrival to or departure from a predefined area (arrival/anchor watch), XTE exceeding a preset limit, Alarm Clock and more.

WAAS, Wide Area Augmentation System

is a GPS navigation system which applies correction data by means of geostationary satellites. The US FAA has been testing this system and others using Satellite-Based Augmentation Systems (SBAS); they expect more field tests in 2003. As the WAAS utilizes the same frequency as the GPS, a single antenna can receive GPS and WAAS signals. At the moment two Inmarsat GEOs are available, i.e., AOR-W and POR. Similar systems are under development in Japan (MSAS: MTSAT Satellite-based Augmentation System) and Europe (EGNOS: European Geostationary Navigation Overlay System). They are said to be fully interoperable and compatible. Major contributors of an error in a single frequency GPS system is a receiver clock drift and signal delays by refraction. The WAAS reference stations on the earth monitor the GPS constellation and route GPS error data to the WAAS satellite via the master earth station. The Inmarsat or communication satellite broadcasts the differential corrections to users.



For more info, visit the FAA web at <http://gps.faa.gov/>



The future today with FURUNO's electronics technology.

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Catalogue No. N-847a

TRADE MARK REGISTERED
MARCA REGISTRADA

SPECIFICATIONS OF GP-32

GPS/WAAS

Receiver Type

GPS: Twelve discrete channels, C/A code, all-in-view. WAAS receiver: standard fitted in Display Unit

Receive Frequency

L1 (1575.42 MHz)

Time to First Fix

12 seconds typical (Warm start)

Tracking Velocity

999 knots

Geodetic Systems

WGS-84 (and others)

DGPS

Reference Stations

Automatic or manual selection

Frequency Range

283.5 - 325.0 kHz (all ITU regions), 0.5 kHz steps

Accuracy

GPS

10 m (95%)

DGPS

5 m (95%)

WAAS

3 m (95%)

Display

4.5" diagonal 95(W) x 60(H) mm LCD, 120 x 64 pixels

Display Modes

Plotter, Highway, Steering, Speedometer, Nav Data and 2 pages Customizable display

Memory Capacity

1,000 ship's track points
999 waypoints with comments
50 routes, 30 waypoints/route

Alarms

Arrival, Anchor watch, XTE, Speed, WAAS/DGPS, Time, Trip, Odometer

Language

English, Spanish, French, German, Dutch, Italian, Portuguese, Vietnamese, Japanese

Interface

Output (NMEA 0183 ver 1.5/2.0):

AAM, APB, BOD, BWC, GGA, GLL, GTD, RMA, RMB, RMC, VTG, XTE, ZDA

Input:

YMWPL (YEOMAN wpt data in NMEA 0183)

DGPS data in RTCM SC104 ver 2.1

DGPS Capability

RTCM SC104 v.2.1 format in RS232C from FURUNO GR-80 DGPS Beacon Receiver

ENVIRONMENT (IEC 60945 test method)

Temperature

Display unit: -15°C to +55°C

Antenna unit: -25°C to +70°C

Waterproofing

Display unit: IPX5 (IEC 60529), CFR46 (USCG)

Antenna unit: IPX6 (IEC 60529)

POWER SUPPLY

12-24 VDC, 240-120 mA

EQUIPMENT LIST

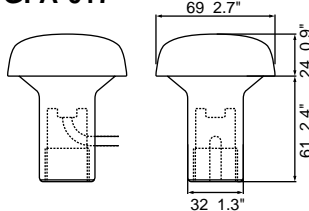
Standard

1. Display unit accommodating WAAS receiver 1 unit
2. Antenna unit GPA-017 with 10 m cable 1 set
3. Installation materials and spare parts 1 set

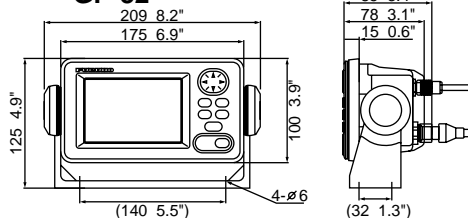
Option

1. Antenna base
CP20-01111 (Pipe mount), No. 13-QA330 (Deck mount),
No. 13-QA310 (Offset bracket), No. 13-RC5160 (Handrail mount)
2. Flush mount kit F type (OP20-18/29) or S type (OP20-17)

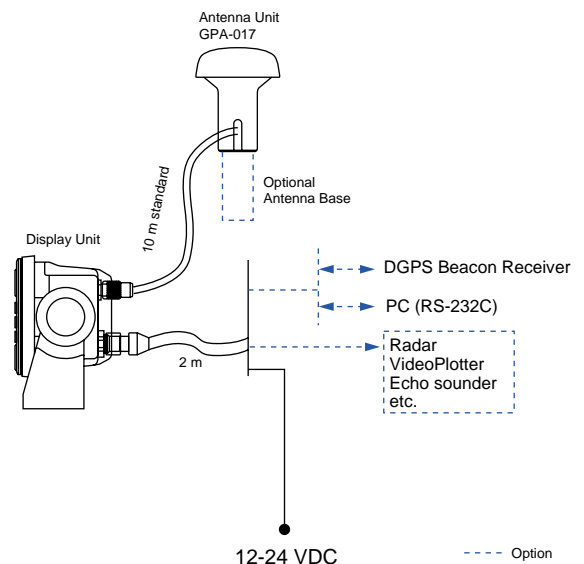
Antenna Unit 0.15 kg 0.3 lb GPA-017



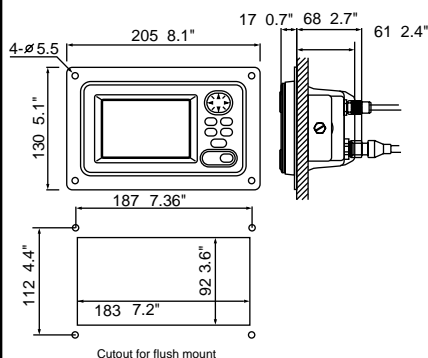
Display Unit 0.54 kg 1.2 lb GP-32



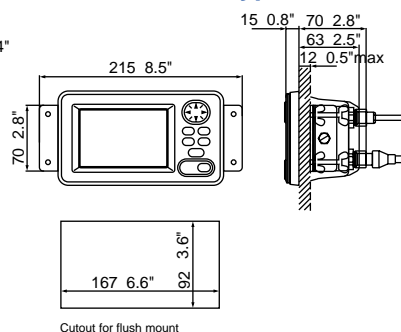
Interconnection Diagram



Flush mount kit F-type



Flush mount kit S-type



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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