# **FURUNO®**

Cost-effective, Compact, High-performance

# MARINE GPS NAVIGATOR

With the FURUNO GP-70, smaller craft can enjoy highly-accurate, all-weather real-time GPS navigation.

Model GP-70



The GP-70 is a new, cost-effective navigator which brings the latest GPS technology into pleasure or smaller craft.

The GP-70 comprises a new design, slim profile antenna and a compact display. The sensitive, dual-channel receiver tracks up to eight satellites simultaneously to provide exceptional computation speed. In addition, an 8-state Kalman filter is utilized for optimum accuracy in determination of vessel position, course and speed.

The large, backlit, wide view-angle LCD displays various alphanumeric data on a user arranged layout, such as ship's Speed/Course or Velocity to a waypoint, Range/Bearing or ETA/TTG to a waypoint, selected waypoint no. or route no., and ship's position in Lat/Long. A row of stars at the top of the LCD indicates the number of satellites being tracked. The unique graphic indicator at the left gives see-at-a-glance information on ship's Course and Bearing to a waypoint, and Course/Bearing offset or Cross-track error.

In case of man-overboard or other event requiring fast storage of location, the event position and present time can be instantly memorized by pressing [SAVE] key (20 points max.). Operator can register up to 100 waypoints (incl. present position) and 10 routes each containing up to 10 waypoints.

The GP-70 operates from a 10-40 VDC universal supply and power drain is less than 10 W.

- Large, wide view-angle LCD (100 x 87 mm) displays various nav information in alphanumerics and graphics. It may be illuminated for nighttime viewing.
- Compact, sturdy aluminum display cabinet and slim profile 500-gram antenna allow flexible installation
- Two user-programmable ports for outputting data in NMEA 0180S, NMEA 0183, or FURUNO CIF format
- LCD display and keypad functions can be customized by the user to suit his particular requirements

## Deck Water-Tight

Display cabinet, cable and connectors exceed IEC Pub. 529 IPX6.

IPX6 states "Water from heavy seas or water projected in powerful jets shall not enter the enclosure in harmful quantities."



Catalogue No. N-820b



The future today with FURUNO's electronics technology.

# FURUNO ELECTRIC CO., LTD.

9-52 Ashihara-cho, Nishinomiya City, Japan Telephone: (0798) 65-2111 Telex: 5644-325, Telefax: (0798) 65-4200, 66-4622, 66-4623

TRADE MARK REGISTERED MARCA REGISTRADA

## **SPECIFICATIONS OF GP-70**

#### RECEIVER CHARACTERISTICS

#### 1. Receiving System

C/A code. 5-satellite tracking on dual channels by using high-speed time-division multiplex

## 2. Receiving Frequency

L1 (1575.42 MHz)

## 3. Position Accuracy (HDOP≤3)\*

15 m rms without SA (Selective Availability) 50 m rms with SA implemented

#### 4. Velocity Accuracy (HDOP≤3)\*

0.1 knots rms without SA, 0.3 knots rms with SA

## 5. Tracking Velocity

250 knots

\*Accuracy depends on the current satellites' status. GPS accuracy subject to change (SA turned on or off) in accordance with the policy of the US Government.

### PROCESSOR/DISPLAY CHARACTERISTICS

#### 1. Display

100 (w) x 87 (H) mm, backlit, super twist LCD

#### 2. Date/Time

Date, Hour, Minute, and Second in GMT or Local

#### Memory of Waypoints and Voyage Plan

Total 100 waypoints\* can be registered.

- (1) Waypoint Navigation: you can select any waypoint as a
- (2) Routing Navigation: you can register up to 10 routes each containing up to 10 waypoints

Range/bearing to the selected waypoint shown digitally.

\*Waypoint no. 00: present position

#### 4. Memory of Event Positions (Man overboard)

Total 20 points (L/L and date/time)

### 5. Alarms (audio-visual)

- (1) Cross-track error or Approach to border
  - (2) Arrival or Anchor watch
- (3) Speed faster or slower than, or between preset value(s)
- (4) Distance-run over preset value

#### 6. Data Update Rate

Every second

#### 7. Data Output

2 ports are provided for:

- (1) NMEA 0183 (\$\*\*AAM, \$\*\*APA, \$\*\*APB, \$\*\*BOD, \$\*\*BWC, \$\*\*BWW, \$\*\*GGA, \$\*\*GLL, \$\*\*RMB, \$\*\*RMC, \$\*\*VTG, \$\*\*WCV, \$\*\*WNC, \$\*\*WPL, \$\*\*XTE, \$\*\*ZDA, \$\*\*ZLZ, \$\*\*ZTG, \*\*: any talker selectable)
- (2) NMEA 0180S (XTE)
- (3) FURUNO CIF (Date/time, L/L, Speed/Course, Wpt L/L, Range/ bearing to wpt, Altitude, Event, Route)

#### 8. Geodetic System

WGS-84, WGS-72, Tokyo, North American 1927, European 1950, Australian Geodetic 1984

9. Environment

IEC 529 IPX6 (Deck-watertight)

#### **POWER SUPPLY**

- 10-40 VDC, less than 10 W
- 110/220 VAC, 50-60 Hz, w/optional rectifier PR-62

#### **EQUIPMENT LIST**

#### Standard

1. Display Unit GPR-015

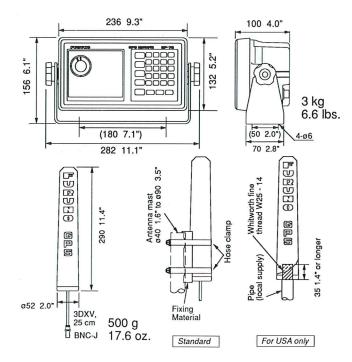
1 unit

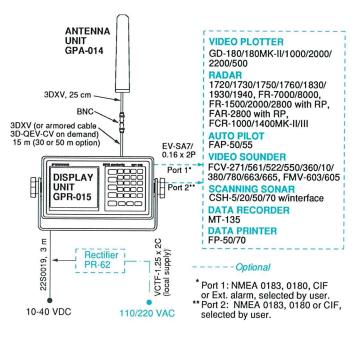
- 3. Installation Materials and Standard Spare Parts
- 1 unit 1 set

1. Rectifier PR-62 for 110/220 VAC supply

2. Antenna Unit GPA-014 w/15 m ant. cable

- 2. Armored Type Ant Cable Set CP20-3 (30 m) or CP20-5 (50 m)
- 3. Flush Mount Kit





SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

#### FURUNO U.S.A., INC.

271 Harbor Way, South San Francisco, California U.S.A. Phone: (415)873-9393 Telex: 331-419 Telefax: (415)872-3403

FURUNO (UK) LIMITED 187 Albert Quay, Aberdeen AB1 2QA, U.K. Phone: 0224-595351 Telex: 739512 Telefax: 0224-575794

## **FURUNO FRANCE S.A.**

Parc Technologique Carnot, 20 Avenue Edouard Herriot, 92356 Le Plessis Robinson, France. Phone: (1) 40 94 67 00 Telex: 631 362 Telefax: (1) 40 94 69 10

FURUNO DANMARK AS Hammerholmen 44-48, DK-2650 Hvidovre, Denmark. Phone: 36 77 45 00 Telex: 27289 Telefax: 36 77 45 01

FURUNO NORGE A/S Ystnegst. 30-32, N-6001 Ålesund, Norway. Phone: (071)25642 Telex: 40677 Telefax: (071)27021

FURUNO SVERIGE AB Gruvgatan 23, Box 165, 421 22 V. Frölunda, Sweden. Phone: 031-490220 Telex: 21452 Telefax: 031-497093

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