IMPORTANT NOTICES

• The descriptions in this manual are intended for readers with a solid knowledge of English.

• No part of this manual may be copied or reproduced without written permission.

• If this manual is lost or worn, contact your dealer about replacement.

• The contents of this manual and equipment specifications are subject to change without notice.

• Store this manual in a convenient place for future reference.

• FURUNO will assume no responsibility for the damage caused by improper use or modification of the equipment (including software) by an unauthorized agent or a third party.

• When it is time to discard this product it must be done according to local regulations for disposal of industrial waste. For disposal in the USA, refer to the Electronics Industries Alliance (http://www.eiae.org/).

• The serial number for this equipment is recorded on the underside of the GPS receiver, which may not be visible depending on installation method. Record the serial number below for future use.

Serial No.
The operator of this equipment must read these safety instructions before attempting to operate the equipment.

### WARNING
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

### CAUTION
Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

<table>
<thead>
<tr>
<th>WARNING</th>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The input voltage must be 12 VDC. Any other input voltage will damage the equipment. Always wear safety goggles and a dust mask when installing to avoid personal injury.</td>
<td>Do not disassemble the unit. Disassembling the unit will damage the waterproof seal. Further, there are no user-serviceable parts inside. GPS position and velocity accuracies are controlled by the U.S. Department of Defense. Therefore, the position accuracy described in the specifications cannot be guaranteed. No one navigation device should ever be solely relied upon for the navigation of a vessel. Always confirm position against all available aids to navigation, for safety of vessel and crew. The compass safe distance for standard and steering compasses is 0.30 m. Observe this distance to prevent interference to a magnetic compass.</td>
</tr>
</tbody>
</table>
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Declaration of Conformity
FOREWORD

A Word to the Owner of the GP-330B

Congratulations on your choice of the FURUNO GP-330B GPS Receiver. We are confident you will see why the FURUNO name has become synonymous with quality and reliability.

For 60 years FURUNO Electric Company has enjoyed an enviable reputation for quality marine electronics equipment. This dedication to excellence is furthered by our extensive global network of agents and dealers.

This equipment is designed and constructed to meet the rigorous demands of the marine environment. However, no machine can perform its intended function unless installed, operated and maintained properly. Please carefully read and follow the recommended procedures for installation and maintenance.

Thank you for considering and purchasing FURUNO equipment.

Features

The GP-330B is a high performance GPS Receiver designed for any type of vessel. This compact and cost-effective receiver offers extremely accurate position fixes, within 3 meters with the WAAS mode activated.

• 12 channels for receiving 12 satellites simultaneously
• Output in NMEA 2000® or NMEA 0183 format
• Position fixed within approx. 60 seconds after start up
• Position updated every second
• Space-saving installation
• Ideal position-fixing sensor for NavNet®3D series
SYSTEM CONFIGURATION

GP-330B

NMEA 2000®

NavNet 3D Series
FI-50 Series Instruments

NMEA 0183

AIS
Autopilot
Current Indicator
ECDIS
Remote Display Unit
NavNet vx2 Series
Radar
Scanning Sonar
Video Plotter

: Standard supply
: Optional supply
: Local supply
1. INSTALLATION

1.1 Equipment Lists

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<tr>
<th>Name</th>
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<th>Remarks</th>
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<td>GP-330B</td>
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<tr>
<td>Installation</td>
<td>CP20-03200</td>
<td>000-012-581</td>
<td>1 set</td>
<td>With NMEA 2000 cable (6 m) See packing list at back of manual.</td>
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<tr>
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Optional Supply

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<td>6 m, for NMEA 2000®</td>
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<tr>
<td>Cable Assy.</td>
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<td>10 m, for NMEA 2000®</td>
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<td>Cable Assy.</td>
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<td>10 m, for NMEA 0183</td>
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<td>Cable Assy.</td>
<td>MJ-A7SPF/</td>
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<td></td>
<td>SRMD-100</td>
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<tr>
<td>Deck Mount Kit</td>
<td>001-037-640</td>
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</table>

1.2 Tools & Materials

- Mounting hardware with standard 1-14" UNS (Pole/Rail Mount installation) threads
- Safety goggles
- Dust mask
- Screwdrivers (Pole/Rail Mount or Deck Mount installation)
- Teflon pipe thread tape, 1/2" wide (some installations)
- Pencil (some installations)
- Electric drill (some installations)
- Drill bits (some installations):
  - Pilot hole - 3 mm or 1/8"
  - Deck mount screw holes - 5.1 mm or #7
  - Deck mount cable hole - 25 mm or 1"
  - Flush mount stud holes - 6 mm or 1/4"
  - Flush mount cable hole - 38 mm or 1-1/2"
- Loctite®242® or other removable thread locker (Flush Mount installation)
- Cable ties (some installations)
1.3 Choosing the Mounting Location

For a reliable GPS signal, selecting the best location for the receiver is very important. It can be mounted on a pole, rail, or flat surface. Choose a location that balances the requirements below.

• The GPS receiver must have a clear view of the sky to the horizon in all directions. Note that frozen water spray may degrade reception.
• Referring to the figure below for distances, mount away from any VHF radio, satellite communications equipment, radar, or other antennas to avoid mutual interference.
• Mount above or below any radar beam. Do not mount within a radar beam.
• Mount reasonably level with the earth’s surface—not tilted to one side.
• Do not mount on top of a sailboat mast. The sway will cause jitter in the data.
• Do not mount where the GPS receiver could be a tripping hazard or tread upon.
1.4 Mounting

1.4.1 Pole/Rail (Pipe) Mount

The nut assembly supplied has standard 1-14" UNS threads that can be screwed to a standard marine antenna mount, extension pole, or rail-mount bracket. Before beginning the installation, plan for securing the pole/rail bracket to the boat and purchase locally all the necessary hardware. It may be helpful to fasten the pole/rail bracket to the boat before proceeding.

1. Unscrew the mount base (part C) from the surface bracket (part E). (The surface bracket is not used in this installation. See the next page for part (E)).

2. Remove the label from the GPS receiver’s socket (underside of receiver). The label may be discarded.

Fasten the mount base (part C) to the GPS receiver (part A) with the supplied two panhead screws, flat washers and spring washers. The torque for the screws is 1.35 N•m.

3. Decide if you want the cable to exit through the center or along the side of the pole/rail bracket. Slide the nut assembly (captive nut and adaptor) onto the cable at the 9-pin GPS connector end. Do not connect the GPS receiver at this time.

1) Center exit—Pass the instrument connector end of the cable down through the center of the pole. Be sure to leave several inches of cable extending beyond the nut assembly.

2) Side exit—Place the cable side-exit adaptor (part D) over the cable. Being sure the cable is passing through the slot in the side, screw the nut assembly onto the adaptor. Hand-tighten only. Do not over tighten.

Note: Use the adaptor supplied as it has smooth edges that will not chafe the cable. Do not use a purchased part.

CAUTION: If you use a thread locker, use teflon pipe thread tape. Do not use a liquid thread locker as it may weaken the plastic, causing it to swell and crack.

4. Screw the extension pole/rail bracket onto the nut assembly / cable side-exit adaptor. Hand-tighten only. Do not over tighten.
5. Remove the protective cap from the GPS connector on the cable. (Save the cap to protect the connector, when the receiver is removed.) Plug the cable firmly into the GPS receiver.

6. With the alignment tab on the GPS receiver facing forward, slide the captive nut upward and screw it onto the mount base. **Hand-tighten only. Do not overtighten.**

### 1.4.2 Deck Mount

See the outline drawing for mounting hole dimensions and fixing instructions.

1. Unscrew the mount base (part C) from the surface bracket (part E) (see figure above). Remove the label from over the GPS receiver’s socket. (The label may be discarded.) Fasten the mount base (part C) to the GPS receiver (part A) with the supplied panhead screws, flat washers and spring washers. The torque for the screws is 1.35 N·m.

2. Screw the surface bracket (part E) onto the mount base of the assembled GPS receiver. Use a pencil to extend the alignment tab onto the surface bracket. Unscrew the surface bracket.

3. At the selected location, position the surface bracket with the pencil mark facing forward. Using it as a template, mark the position for the three mounting screws and the center hole for the cable.

4. Using a 3 mm or 1/8" bit, drill the pilot holes. Using 5.1 mm or #7 bit, drill the three mounting holes. Drill the cable hole with a 25 mm or 1" bit. **Fiberglass**—Minimize surface cracking by running the drill in reverse until the gelcoat is penetrated.

5. At the location shown in the figure above, coat the surface bracket (part E) with silicone sealant.

6. Apply silicone sealant to the three #10 x 1/2" self-tapping screws to seal the deck. With the pencil mark facing forward, fasten the surface bracket in place. **Do not block the drain slots.** They will allow any water that accumulates inside the surface bracket to escape. **CAUTION:** Do not use a liquid thread locker as it may weaken the plastic, causing it to swell and crack.
7. Wrap pipe thread tape around the threads of the mount base two times to seal it tightly to the surface bracket.

8. Coat the part of the GPS connector shown in the figure on page 4 with silicone sealant. Pass the GPS connector end of the cable up through the hole in the surface bracket.

9. Remove the protective cap from the cable’s GPS connector. (Save the cap to protect the connector, when the receiver is removed.) Plug the cable firmly into the GPS receiver.

10. Counterclockwise twist the cable three and one-half turns. Then screw the GPS receiver onto the installed surface bracket. **Hand-tighten only. Do not over tighten.**

### 1.4.3 Flush Mount

See the outline drawing for mounting hole dimensions and fixing instructions.

1. Remove the label from over the GPS receiver’s socket. (The label may be discarded.) Apply removable thread locker to the two studs supplied. Screw the studs into the underside of the GPS receiver (part A).

2. Using the gasket (part B) as a template, position it at the selected mounting location **upside down** with the arrow facing forward. Mark the position for the two mounting holes and the center hole for the cable.

3. Using a 3mm or 1/8" bit, drill the pilot holes. Using a 6mm or 1/4" bit, drill the two mounting holes for the studs. Drill the cable hole with a 38mm or 1-1/2" bit. **Fiberglass**—Minimize surface cracking by running the drill in reverse until the gelcoat is penetrated.

4. Pass the instrument connector-end of the cable through the center of the gasket and down through the center mounting hole in the boat.

5. Plug the cable firmly into the GPS receiver.

6. Orient the gasket with the arrow facing in the same direction as the alignment tab on the GPS receiver. Push the gasket onto the studs and slide it over the connector.

   **Note:** The gasket fits one way only. A groove in the gasket fits over the alignment tab on the connector.

7. With the GPS receiver alignment tab pointing forward, push the studs through the mounting surface. **Check to be sure the gasket is tucked under the lip of the unit.** From underneath the mounting surface, fasten the studs with the thumb nuts. **Hand-tighten** only. **Do not over tighten.**
2. WIRING, SETTINGS

2.1 NMEA 2000® Connection

The LEN (Load Equivalency Number) for this equipment is 3.

2.1.1 Direct Connection

Insert the contact pin (supplied) into the #5 socket of the GPS Receiver connector to activate the termination resistor. (See page 8 for location of #5 socket.) Route the cable assembly to the NMEA 2000® device. Coil any excess cable and secure it with a cable tie to prevent damage. Connect the cable assembly to the NMEA 2000® device.

- NavNet 3D Series MFD
- Radar Sensor*
- FI-50 Series Instrument

* Cut plug from cable and connect wires to terminal/connector.
2.1.2 Network Connection

Drop cable connection

A drop cable is connected to a backbone cable with T-type connectors*. The backbone cable is of the “light” type. Attach a terminator at the ends of the backbone cable. Only two termination resistors are required on an NMEA 2000® network. More than two will degrade performance.

* Recommended type: LTWSS-050505-FMF-TS001 (LTW Technology, Inc.), or equivalent

Backbone cable connection

Use this connection method to connect the GP330B at the final node in the backbone cable. Use T-type connectors to connect equipment to the backbone cable.
Connect the GPS Receiver at the last node in the network. Insert the contact pin (supplied) into the #5 socket of the GPS Receiver connector to activate the termination resistor.

2.1.3 Routing and Connecting the Cable Assembly

Route the cable assembly to the NMEA 2000® device. Coil any excess cable and secure it with a cable tie to prevent damage. Connect the cable assembly to the NMEA 2000® device.
2.2 NMEA 0183 Connection

**Wiring outline**

![Diagram of NMEA 0183 Connection]

GP-330B

NMEA 0183 Cable Assembly (22-910-03, 10 m, option)

Extension cable (MJ-A7SPF/SRMD-100, option)
max. length: 50 m

Remote Display Unit (RD-30)

NavNet vx2 Series

Waterproof connectors by wrapping them with vulcanizing tape and then vinyl tape. Bind tape ends with suitable cable ties.

**Wiring procedure**

Route the cable assembly to the display. Coil any excess cable and secure it with a cable tie to prevent damage. Connect the GPS Receiver to your NMEA 0183 display.
2.3 Settings for NavNet vx2

The following items in the NavNet vx2 menu system are applicable to the GP-330B. For details and operating procedure, see the Installation Manual for your NavNet vx2 model.

**NAV SETUP menu**

Set POSITION SOURCE to GPS or ALL.

**GPS SETUP menu**

- **GEODETIC DATUM**
  Select your chart type. WGS-84 is the GPS standard.
- **ANTENNA HEIGHT**
  Set the height of the GPS receiver unit above the sea surface.
- **FIX MODE**
  Select position fixing mode from 2D (three satellites in view) or 2D/3D (three or four satellites in view).
- **COLD START**
  Clear the Almanac currently stored in the GPS receiver to receive the latest Almanac.

**WAAS SETUP menu**

- **WAAS MODE**
  Select ON to use the WAAS mode.
- **WAAS SEARCH**
  Select WAAS satellite search method, automatic or manual.
- **CORRECTIONS DATA**
  Select the type of message for WAAS connection, 00 for North America, 02 elsewhere.

WAAS settings effective from the version numbers shown below.

<table>
<thead>
<tr>
<th>C-MAP specification</th>
<th>NAVIO specification</th>
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<td>Program No.</td>
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<td>1950026-03.02</td>
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<td>1950024-03.02</td>
<td>Model 1804C</td>
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<tr>
<td>1950028-03.02</td>
<td>Model 1704C</td>
</tr>
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</table>
3. MAINTENANCE, TROUBLESHOOTING

3.1 Maintenance

The GP-330B is virtually maintenance free. However, it is recommended to wipe it with a water-moistened cloth periodically to remove accumulated dirt and water deposits.

3.2 Troubleshooting

If position is not found within a reasonable amount of time, check the following items.

- Is there power to the GPS receiver? (Check unit that is supplying power to the GP-330B.)
- Are all the connections tight?
- Does the GPS receiver have a clear view of the sky?
- Is there interference from other antennas or instruments?
- Is cabling damaged?
- Is the cable-run free of kinks or damage?
- Is there damage to the GPS receiver?
- Is there ice on the GPS receiver?

**NOTICE**

Do not apply paint, anti-corrosive sealant or contact spray to coating or plastic parts of the equipment.

Those items contain organic solvents that can damage coating and plastic parts, especially plastic connectors.

**CAUTION**

Do not disassemble the unit.

Disassembling the unit will damage the waterproof seal. Further, there are no user-serviceable parts inside.
4. TECHNICAL INFORMATION

4.1 NMEA 0183 Sentences

Transmitted NMEA 0183 Sentences

$GPDTM* Datum Reference
$GPGGA* GPS Fix Data
$GPGLL* Geographic Position –Latitude/Longitude
$GPGSA GNSS DOP and Active Satellites
$GPGSV GNSS Satellites in View
$GPRMC* Recommended Minimum Specific GNSS Data
$GPVTG* Course Over Ground and Ground Speed
$GPZDA* Time and Date

* Default output

Received NMEA 0183 Sentences and Commands

$PAMTC,ALT Setting related to the altitude of the sensor
$PAMTC,BAUD Change the baud rate from the nominal 4800 baud to 38400 baud
$PAMTC,DATUM Define local datum
$PAMTC,EN Enable/disable transmission of specific sentences, and change their rate of transmission
$PAMTC,ERST Reset the user portion of nonvolatile EEPROM to factory defaults
$PAMTC,OPTIOm WAAS ON/OFF. Set 2d/3d/Auto mode. Set WAAS Satellite. Set WAAS Tzz Parameter.
$PAMTC,POST Set Query Power On Self Test function
$PAMTC,QPS Query part number and serial number versions
$PAMTC,QV Query GPS hardware and firmware versions
$PAMTC,RESET Reset the GP-330B
$PAMTC,SIM Enable/disable Simulate Mode
$PAMTX Pause or resume all automatic transmission of messages
$PFEC,pireq Request to $PFEC,pidat
4.2 NMEA 2000® PGN Commands

Transmitted NMEA 2000® PGNs

- PGN 059392 ISO Acknowledgment
- PGN 060928 ISO Address Claim
- PGN 065285 Proprietary: Boot State Acknowledgment
- PGN 065287 Proprietary: Access Level
- PGN 126208 Acknowledge Group Function
- PGN 126464 PGN List - Transmit/Received PGN's Group
- PGN 126720 Addressable Multi-Frame Proprietary
- PGN 126992 System Time
- PGN 126996 Product Information
- PGN 126998 Configuration Information
- PGN 127258 Magnetic Variation
- PGN 129025 Position, Rapid Update
- PGN 129026 COG & SOG, Rapid Update
- PGN 129029 GNSS Position Data
- PGN 129033 Time & Date
- PGN 129044 Datum
- PGN 129538 GNSS Control Status
- PGN 129539 GNSS DOPs
- PGN 129540 GNSS Sats in View

Received NMEA 2000® PGNs

- PGN 059904 ISO Request
- PGN 060928 ISO Address Claim
- PGN 126208 Request Group Function
- PGN 126208 Command Group Function
- PGN 126720 Addressable Multi-Frame Proprietary
SPECIFICATIONS OF GPS RECEIVER
GP-330B

1 GENERAL
1.1 Receiving frequency 1575.42 MHz
1.2 Tracking code C/A code, WAAS
1.3 Number of channels GPS: 12 channels parallel, 12 satellites; WAAS: 2 channels
1.4 Position fixing method All in view, 8-state Kalman filter
1.5 Accuracy GPS: 10m approx. (2drms)
           WAAS: 3m approx. (2drms)
1.6 Position fixing time 60 s typical (cold start)
1.7 Tracking velocity 999 kt
1.8 Position update interval 1 s

2 INTERFACE
2.1 Data format NMEA2000 or NMEA0183 Ver.3.1 (selected by cable)
2.2 NMEA0183 format
       Output sentences DTM, GGA, GLL, GSA, GSV, RMC, VTG, ZDA
2.3 NMEA2000 format
       Input PGN 059904, 060928, 065280/281, 126028/208/720
       Output PGN 059392, 060928, 065285/287,126208/464/720/992/996/998
           127258, 129025/026/029/033/044/538/539/540, 130822/823/944

3 POWER SUPPLY
12 VDC: 175 mA max. (LEN=3)

4 ENVIRONMENTAL CONDITION
4.1 Ambient temperature -25°C to +55°C
4.2 Relative humidity 95% at 40°C
4.3 Degree of protection IP56
4.4 Bearing vibration IEC 60945

5 UNIT COLOR
N9.5
### PACKING LIST  GP-330B-A

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(略図の寸法は、参考値です。 DIMENSIONS IN DRAWING FOR REFERENCE ONLY.)

(*1),(*2),(*3)は、それぞれ組立てられています。

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<td>GPS受信機</td>
<td>GP-330B</td>
<td>000-012-580-00</td>
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<td>管取付金具</td>
<td>PIPE MOUNT KIT.</td>
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<td>ケーブルサイドエキスアダプタ</td>
<td>CABLE SIDE-EXIT ADAPTOR</td>
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<td>アダプター</td>
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<tr>
<td>ナット</td>
<td>CAPTIVE NUT</td>
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<td>世界ネジ</td>
<td>PANHEAD SCREW</td>
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<td>バネ座金</td>
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<td>平座金</td>
<td>FLAT WASHER</td>
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<td>フラッシュマウントキット</td>
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<td>ロット</td>
<td>STUD</td>
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<tr>
<td>ナット</td>
<td>THUMB NUT</td>
<td>000-168-934-10</td>
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<td>デッキマウント</td>
<td>DECK MOUNT KIT.</td>
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<td>スタッピンネジ</td>
<td>SELF-TAPPING SCREW</td>
<td>#10X1/2</td>
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<tr>
<td>ブラケット</td>
<td>SURFACE BRACKET</td>
<td>000-168-930-10</td>
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<td>工事材料</td>
<td>INSTALLATION MATERIALS</td>
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<td>図書</td>
<td>DOCUMENT</td>
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<td>取扱説明書</td>
<td>OPERATOR'S MANUAL</td>
<td>000-168-896-1*</td>
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</table>

(※1),(※2),(※3)は、それぞれ組立てられています。
(※1),(※2),(※3) PRE-ASSEMBLED.

(略図の寸法は、参考値です。DIMENSIONS IN DRAWING FOR REFERENCE ONLY.)

型式/コード番号が2段の場合、下段より上段に代わる過渡期品であり、どちらかが入っています。なお、品質は変わりません。

TWO TYPES AND CODES MAY BE LISTED FOR AN ITEM. THE LOWER PRODUCT MAY BE SHIPPED IN PLACE OF THE UPPER PRODUCT. QUALITY IS THE SAME.
1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.

NOTE

1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.

DRAWN 10/MAR/08. I. YAMASAKI
CHECKED 10/MAR/08. T. TAKENO
APPROVED

SCALE 1/2 MASS 0.18 kg
NAME GPS RECEIVER (PIPE MOUNT)
**Table 1**

<table>
<thead>
<tr>
<th>Dimension (mm)</th>
<th>Tolerance</th>
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</thead>
<tbody>
<tr>
<td>L ≤ 50</td>
<td>±1.5</td>
</tr>
<tr>
<td>50 &lt; L ≤ 100</td>
<td>±2.5</td>
</tr>
</tbody>
</table>

**Notes:**
1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.
2. MINIMUM SERVICE CLEARANCE.
3. USE TAPPING SCREWS #5 FOR FIXING THE UNIT.

---

1. 指定外の寸法公差は表1による。
2. 影印寸法は最小サービス空間寸法とする。
3. 取付用ネジはカップリングネジ呼び径5を使用のこと。
注記
1) 指定外の寸法公差は表1による。
2) #印寸法は最小サービス空間寸法とする。
3) 取付にはM5×40寸切りボルトを使用のこと。

NOTE
1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.
2. #: MINIMUM SERVICE CLEARANCE.
3. USE M5×40 STUD BOLTS FOR FIXING THE UNIT.

DRAWN
10/Mar/08 T.YAMASAKI

CHECKED
10/Mar/08 T.TAKENO

APPROVED

SCALE
1/2

MATERIAL

NAME

OUTLINE DRAWING
GP-330B

**NAVNET**

**RADAR SENSOR**
- NMEA2000
  - RSB-118 (DRS4D/6D)
- Junction Box
  - FI-5002 (FI-501 series)

**JEAP-330B**
- GPS Receiver
  - GPS受信機

**注記**
- *1) オプション。
- *2) プラグを切断して各線を端子（コネクタピン）に接続する。
- *3) 延長ケーブルを使用して、最大50mまで延長が可能。
- *4) バックボーン接続時のみ使用可能。

**NOTE**
- *1: OPTION.
- *2: CUT PLUG OFF FROM CABLE AND CONNECT WIRES TO TERMINAL/CONNECTOR.
- *3: MAX.50m LENGTH AVAILABLE BY USING EXTENSION CABLE.
- *4: FOR ONLY BACKBONE CONNECTION.

**DRAWN**
- 24/Mar/08 T.YAMASAKI

**APPROVED**
- 24/Mar/08 T.TAKENO

**SCALE**
- 24/Mar/08 R.Esumi

**NAME**
- GPS RECEIVER

**INTERCONNECTION DIAGRAM**

**NUMBER**
- D4452-C01-A

**S-1**
Declaration of Conformity

We, FURUNO ELECTRIC CO., LTD. (Manufacturer)
9-52 Ashihara-Cho, Nishinomiya City, 662-8580, Hyogo, Japan (Address)

declare under our sole responsibility that the product
GPS receiver type: GP-330B*

(*: GP-330B is supplied by AIRMAR technology Corporation on an OEM basis and is mechanically and electronically identical to their G2183.

is in conformity with the essential requirements as described in Article 10.3 and Annex II of the Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment (R&TTE Directive) and satisfies all the technical regulations applicable to the product within this Directive

IEC 60945 Fourth edition: 2002-08 Sub-clauses 9.2, 9.3, 10.3, 10.4, 10.5, 10.8, 10.9 and 12.1
IEC 60950-1 First edition: 2001-10
Draft EN 300 440-1 V1.4.1 Sub-clause 8.3

For assessment, see
• Declaration of conformity of September 19, 2007 issued by AIRMAR Technology Corporation, the USA
• EMC TEST REPORT 3130244BOX-001 of September 12, 2007 prepared by Intertek – ETL SEMKO, the USA

On behalf of Furuno Electric Co., Ltd.

Hiroaki Komatsu
Manager,
International Rules and Regulations

Nishinomiya City, Japan
March 19, 2008

(Place and date of issue) (name and signature or equivalent marking of authorized person)
The paper used in this manual is elemental chlorine free.

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A : MAR. 2008

FURUNO Authorized Distributor/Dealer

(DAM1) GP-330B