

FURUNO

INSTALLATION MANUAL

COLOR VIDEO PLOTTER GD-1700C
VIDEO PLOTTER GD-1700

NAVnet



SAFETY INSTRUCTIONS



WARNING



ELECTRICAL SHOCK HAZARD
Do not open the equipment unless totally familiar with electrical circuits and service manual.

Only qualified personnel should work inside the equipment.

Turn off the power at the switchboard before beginning the installation.

Fire or electrical shock can result if the power is left on.

Be sure that the power supply is compatible with the voltage rating of the equipment.

Connection of an incorrect power supply can cause fire or equipment damage. The voltage rating of the equipment appears on the label above the power connector.



CAUTION



Ground the equipment to prevent electrical shock and mutual interference.

Observe the following compass safe distances to prevent interference to a magnetic compass:

	Standard compass	Steering compass
Display unit	0.65 m	0.45 m

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EQUIPMENT LISTS

Standard supply

Name	Type	Code No.	Qty	Remarks
Display Unit	GD-1700	—	1	GD-1700
	GD-1700C	—		GD-1700C
Remote Controller Set	RMC-100	—	1 set	
Installation Materials*	CP03-22600	000-080-009	1	Cable assy. MJ-A3SPF0013-035 Cable assy. MJ-A6SPF0003-050 CP03-22601
Accessories*	FP03-09301	008-522-970	1 set	
Spare Parts*	SP03-13901	000-080-008	1set	

*: See the back of this manual for details.

Optional supply

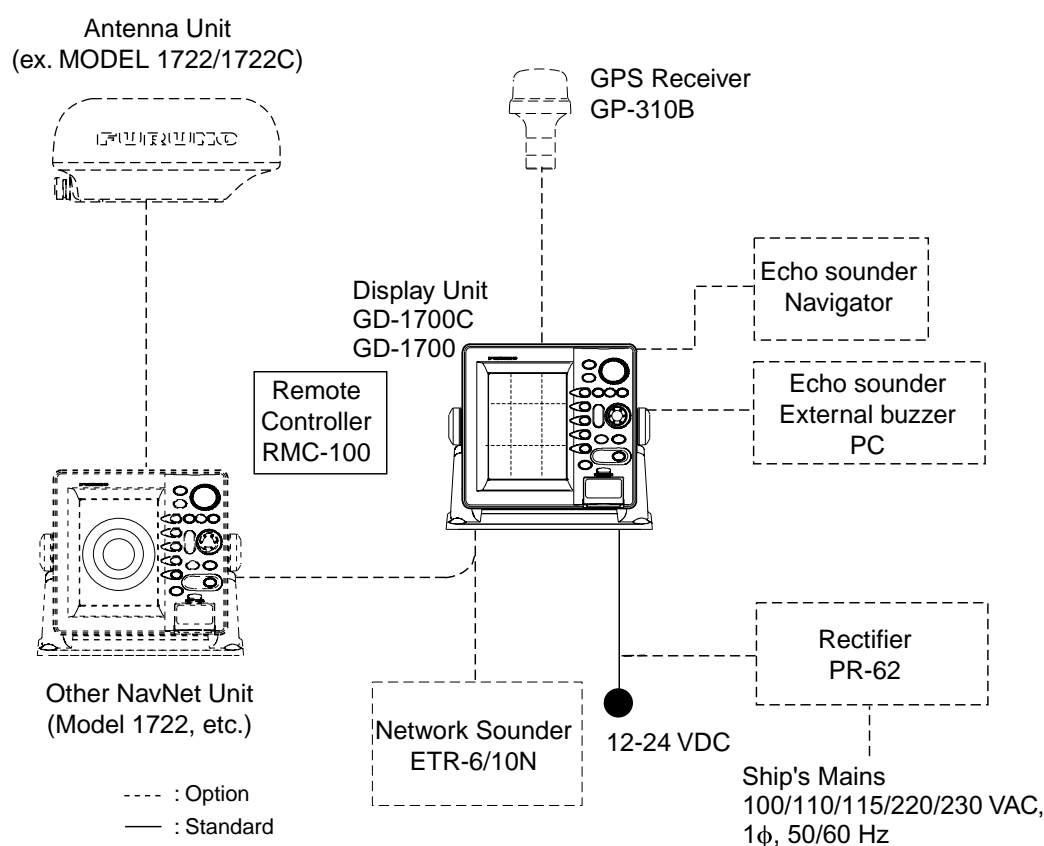
Name	Type	Code No.	Remarks	
Rectifier	PR-62	000-013-484	100 VAC	
	PR-62	000-013-485	110 VAC	
	PR-62	000-013-486	220 VAC	
	PR-62	000-013-487	230 VAC	
External Buzzer	OP03-136	000-086-443		
Signal Cable	MJ-A6SPF0012-050	000-134-424	For navigator, 5 m	
	MJ-A6SPF0012-100	000-133-817	For navigator, 10 m	
	MJ-A6SPF0007-100	000-125-237	For compass, 10 m	
	MJ-A6SPF0011-050	000-132-244	w/6P connector, 5 m	
	MJ-A6SPF0011-100	000-132-336	w/6P connector, 10 m	
	MJ-A7SPF0007-050	000-144-418	w/7P connector, 5 m, for external buzzer, PC, NMEA	
	MJ-A6SRMD/TM11AP8-005	000-144-463	Conversion cable for HUB	
	MJ-A6SPF0014-010	000-144-421	1 m	For NavNet
	MJ-A6SPF0014-050	000-144-422	5 m	
	MJ-A6SPF0014-100	000-144-423	10 m	
	MJ-A6SPF0014-200	000-144-424	20 m	
	MJ-A6SPF0014-300	000-144-425	30 m	
RAM Card	00RAM02MC-004	004-371-790	2 MB	
Chart Card	—	—	Specified when ordering	
Remote Controller Set	RMC-100	000-089-885		
Modification kit for C-map	MODEL17*2/C-MAP	008-525-200	See modification instruction E42-00005-x	

SYSTEM CONFIGURATIONS

All NavNet products incorporate a “network circuit board” to integrate each NavNet product on board through an optional LAN cable (Ethernet 10BASE-T). Each NavNet product is assigned an IP address to enable transfer of images between NavNet products. For example, video plotter pictures can be transferred to a radar and vice versa. Pictures received via the NavNet may be adjusted at the receiving end.

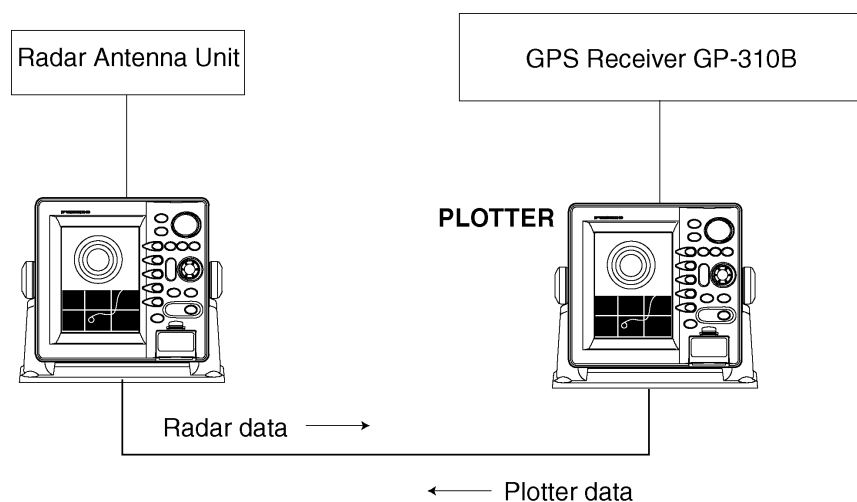
A NavNet system may consist of up to three display units and one network sounder. For a system incorporating three or more products a “hub” is required to process data.

Single-unit NavNet system



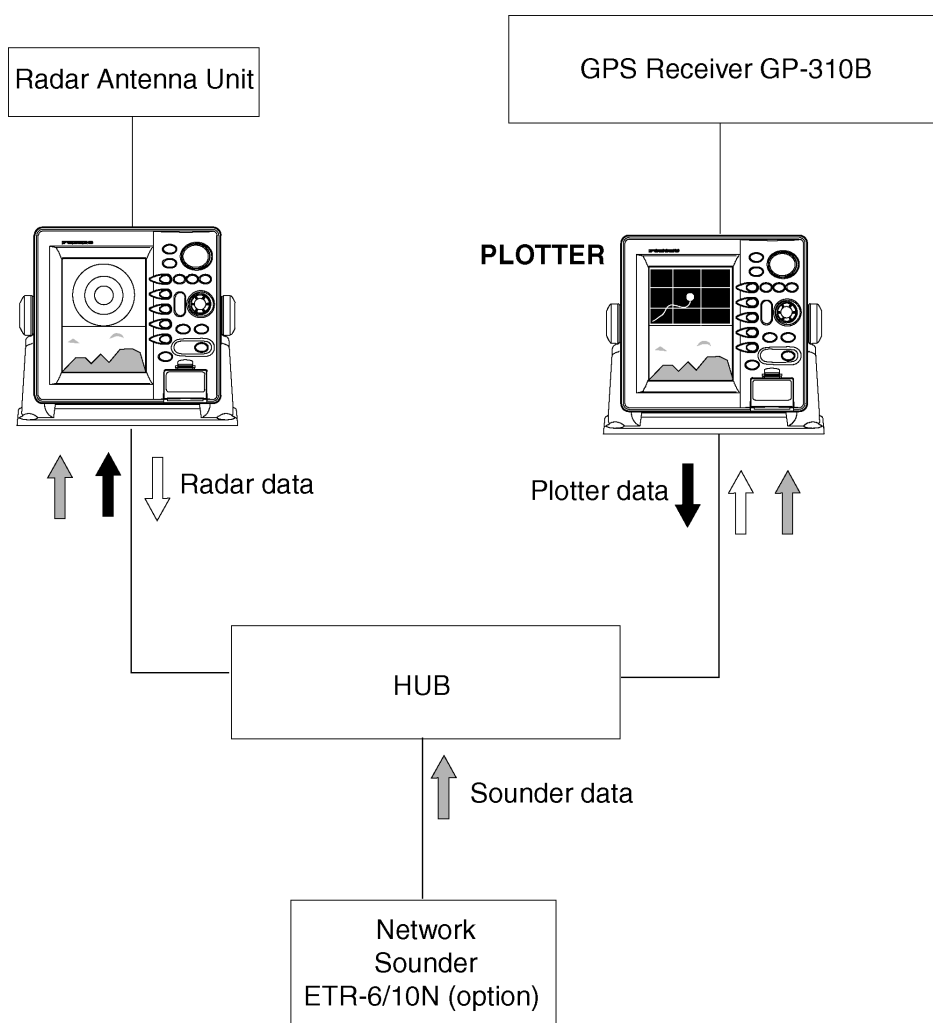
Single-unit NavNet system

Two-unit NavNet system



Two-unit NavNet system

Three-or-more-unit NavNet system (Max. 3 display units)



Three-or-more-unit NavNet system

1. DISPLAY UNIT INSTALLATION

1.1 Mounting Considerations

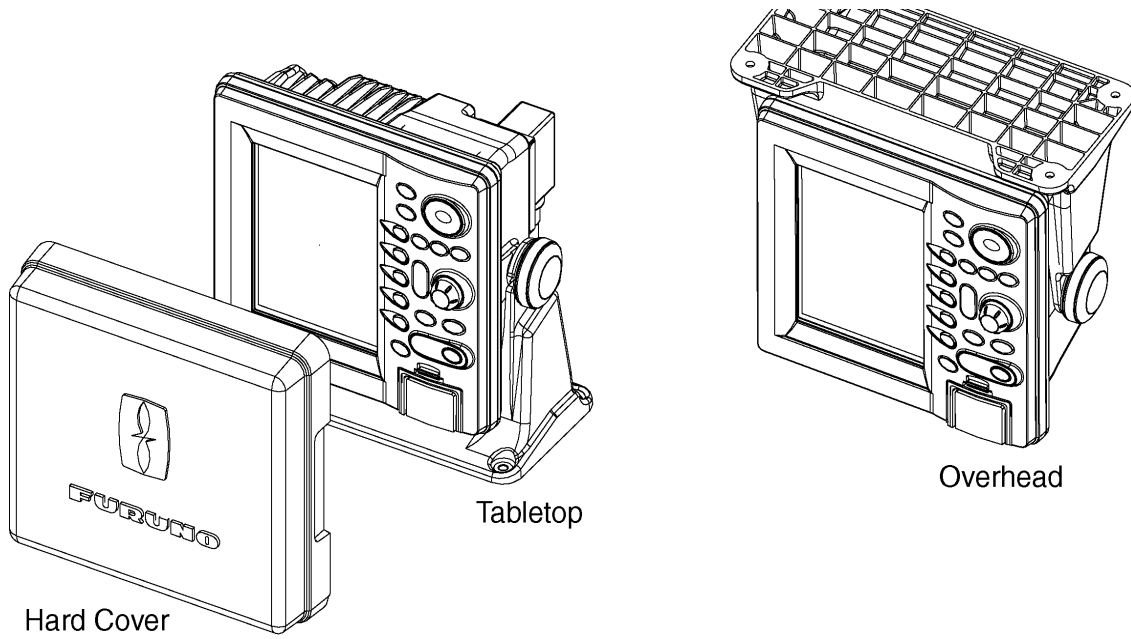
When selecting a mounting location for the display unit keep the following in mind:

- The display unit can be installed on a tabletop, on the overhead or flush mounted in a console or panel.
- Keep the display unit out of direct sunlight because heat can build up inside it.
- The temperature and humidity at the mounting location should be moderate and stable.
- Locate the unit away from exhaust pipes and vents.
- The mounting location should be well ventilated.
- Mount the unit where shock and vibration are minimal.
- Keep the unit away from electromagnetic field generating equipment such as a motor, generator.
- For maintenance and checking purposes, leave sufficient space at the sides and rear of the unit and leave slack in cables.
- A magnetic compass will be affected if the display unit is placed too close to it. Observe the following compass safe distances to prevent disturbance to the magnetic compass:
Standard: 0.65 m, Steering: 0.45 m.

1.2 Mounting

1.2.1 Tabletop and overhead mounting

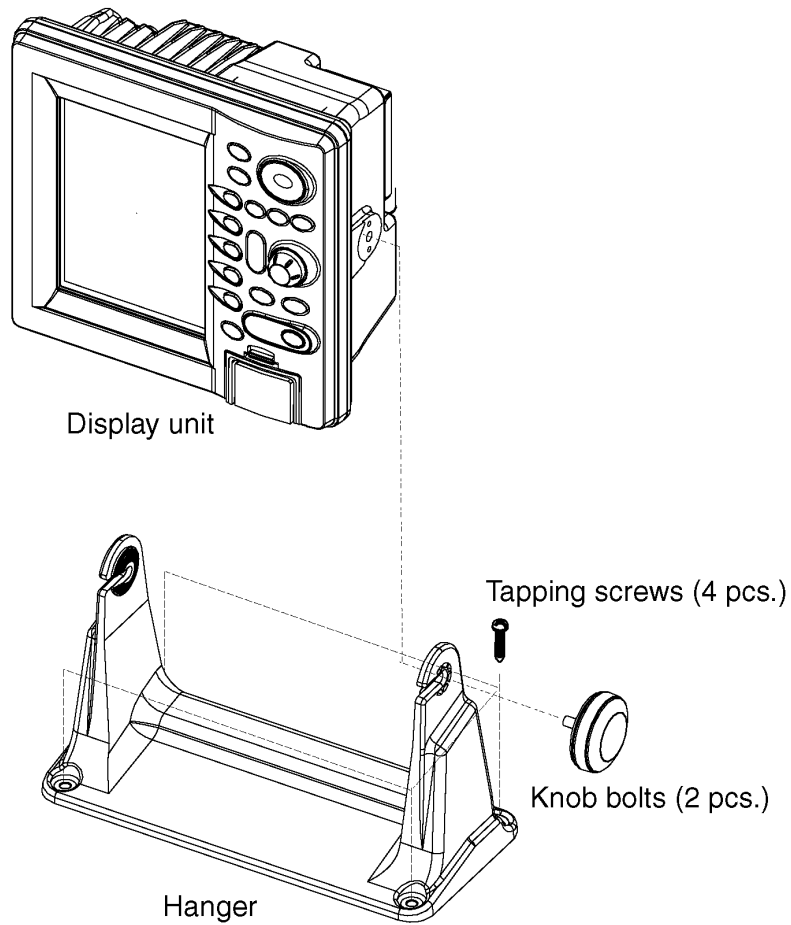
Below are tabletop and overhead mounting methods.



Tabletop, overhead mounting of display unit

Tabletop, overhead mounting procedure

1. Fix the hanger by four tapping screws.
2. Screw knob bolts in display unit, set it to hanger, then tighten knob bolts.
3. Attach hard cover to protect LCD.

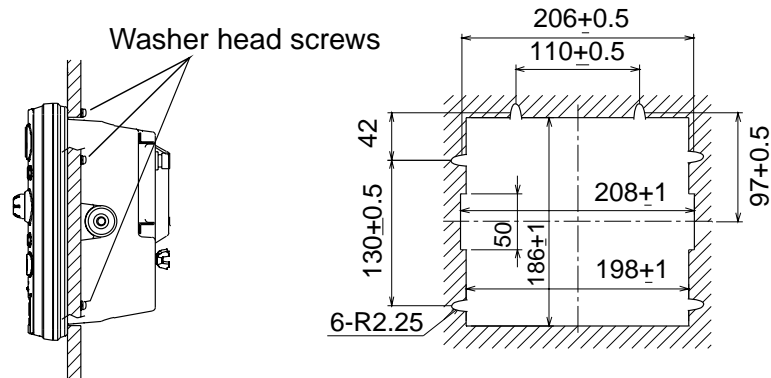


How to mount the display unit

1.2.2 Flush mounting

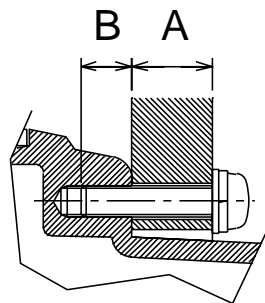
The display unit can be mounted in a panel or console, using the supplied washer head screws.

1. Prepare a cutout in the mounting location whose dimensions are as shown below.
2. Fix the display unit with four washer head screws (M4X20).
3. Attach hard cover to protect LCD.



Flush mounting of display unit

Note: Use supplied washer head screws when the thickness of the bulkhead is from 11 to 14 mm. For bulkhead which exceeds 14 mm in thickness the length of the washer head screws (local supply) should be bulkhead thickness ("A" below) plus 7.3 ± 1.5 mm. Also the length of "B" in the figure below should be max. 7 mm.



Fixing screw, side view

2. WIRING

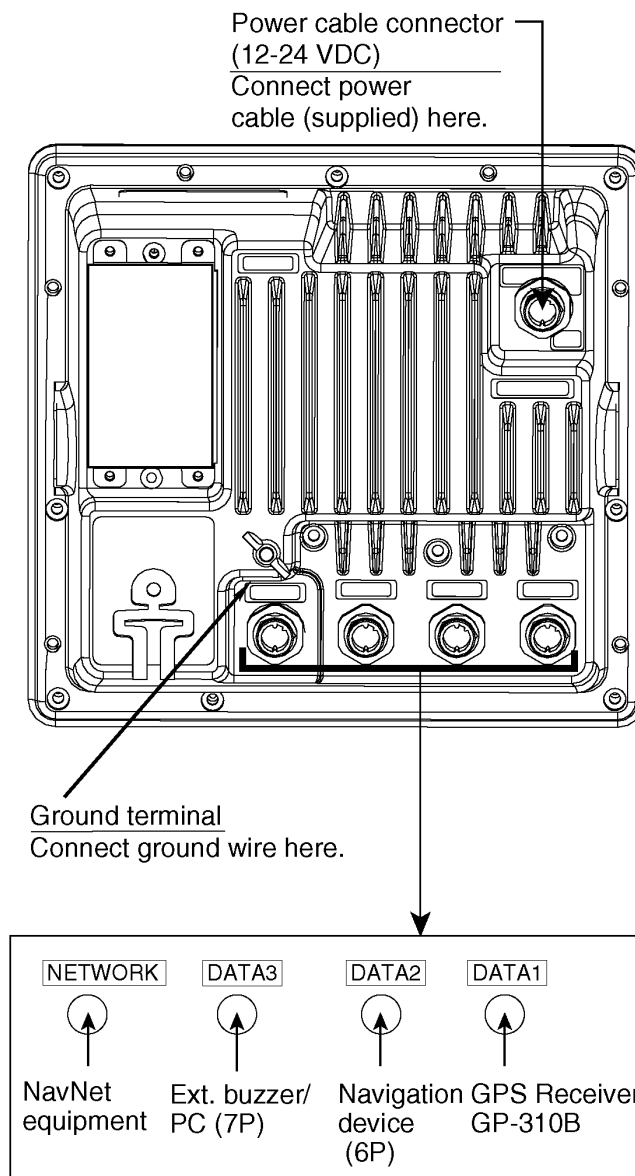
All wiring are terminated at the rear of the display unit.

CAUTION

The default power supply setting is 24 V. To power the GD-1700C with 12 V power, replace the fuse on the power cable with a 5A fuse. Attach "5A fuse label" to the fuse cover on the power cable.

CAUTION

Ground the equipment to prevent interference.



Display unit, rear view

2.1 Wiring

Power cable

Connect the power cable to the POWER connector. If the GD-1700C is to operate from 12 VDC power replace the power fuse with a 5A fuse (supplied) and attach the “5A fuse label” to the fuse cover on the power cable.

Earth terminal

Connect the earth wire (local supply, IV-2sq) between the earth terminal and ship’s ground.

Data ports (DATA1 – DATA3)

External equipment may be connected to these ports as below.

DATA1 (7P)	DATA2 (6P)	DATA3 (7P)
NMEA 0183 (IN/OUT) GPS Receiver GPS-310B, navaid, echo sounder, etc.	NMEA 0183 (IN/OUT) Navaid, radar, etc.	NMEA 0183 (IN/OUT) External buzzer, PC, echo sounder, etc.

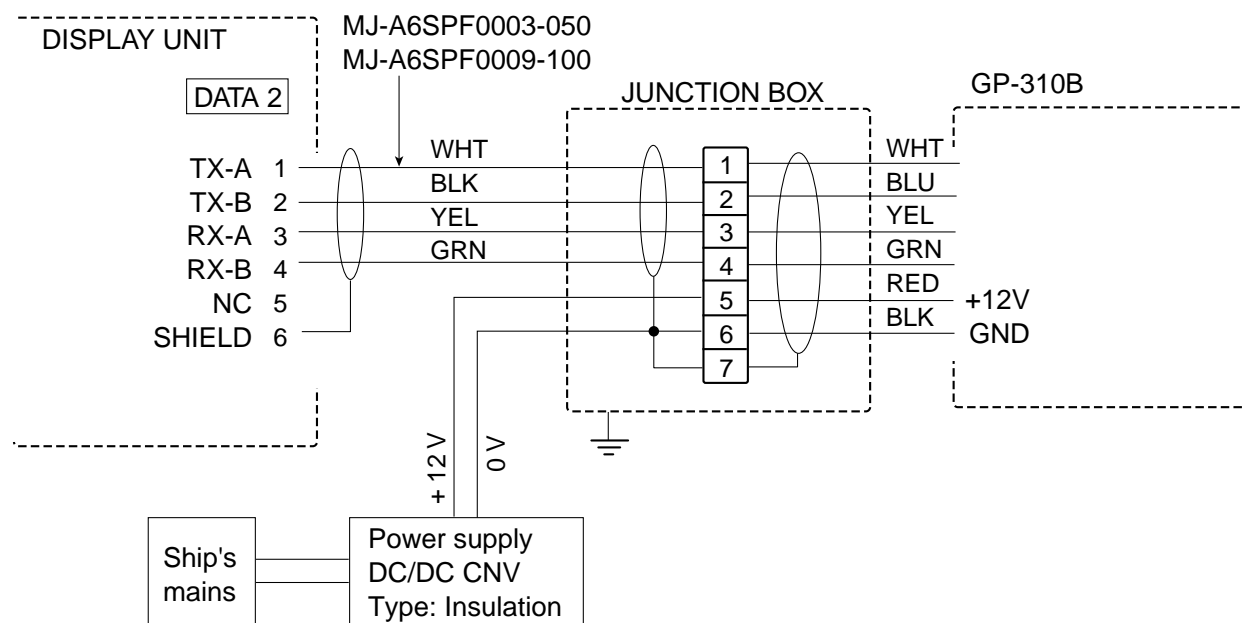
This equipment can receive the following NMEA 0183 format sentences from external equipment.

- Own ship’s position: GGA>RMC>RMA>GLL
- Ship’s speed: RMC>RMA>VTG>VHW
- External waypoint: RMB>WPL>BWR>BWC
- Heading (True): HDT>HDG>HDM>VHW
- Heading (Magnetic): HDM>HDG>HDT>VHW
- Course: RMC>RMA>VTG
- Depth: DPT>DBT (>DBS>DBK)
- Temperature: MTW
- Time: ZDA
- Other ship’s information: TTM
- Insight satellite information: GSV
- Beacon receiving information: MSS
- Target L/L: TLL

You will need the optional NMEA cable to connect with other equipment.

Connecting GP-310B to DATA2 port

The GPS Receiver GP-310B is usually connected to the DATA 1 port, however it may also be connected to the DATA 2 port as shown below. A junction box and optional cable MJ-A6SPF0003-050 or MJ-A6SPF0009-100 are required.



How to connect GP-310B to DATA 2 port

NETWORK port

Other NavNet equipment should be connected to the NETWORK port, with the optional NavNet cable. Available equipment are shown below.

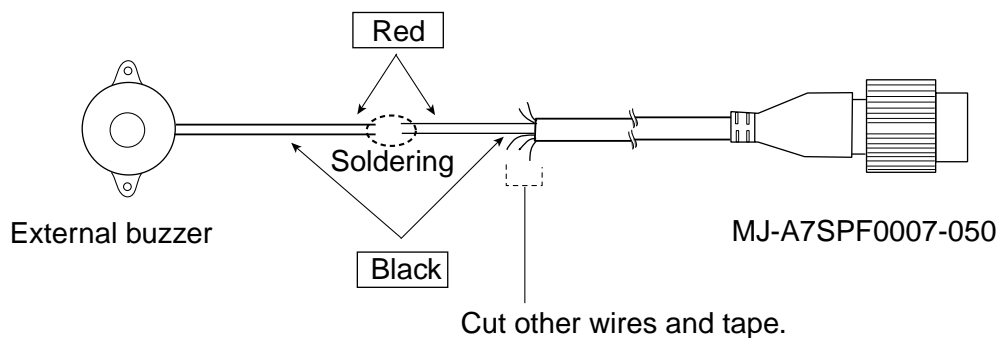
Radar	Plotter	Network Sounder	Other
MODEL1722/1732/ 1742/1762/1722C/ 1732C/1742C/1762C/ 1833/1933/1943/ 1833C/1933C/1943C	GD-1700/1700C/ 1900C	ETR-6/10N	HUB (used when more than two NavNet units are connected.)

External buzzer OP03-136 (option)

The optional external buzzer provides a louder alert when the guard alarm is violated. You will need the external buzzer kit (Type OP03-136, Code no. 000-086-443).

Further, you will need the optional cable assy MJ-A7SPF0007-050 (w/7P connector, 5 m, code no. 000-144-418).

1. Attach the MJ-A7SPF0007-050 cable assy (option) to the DATA 3 port at the rear of the display unit.
2. Shorten the XH connector of the external buzzer cable with appropriate length.
3. Solder the cables made at step 2 with MJ-A7SPF0007-050 cable as shown below.

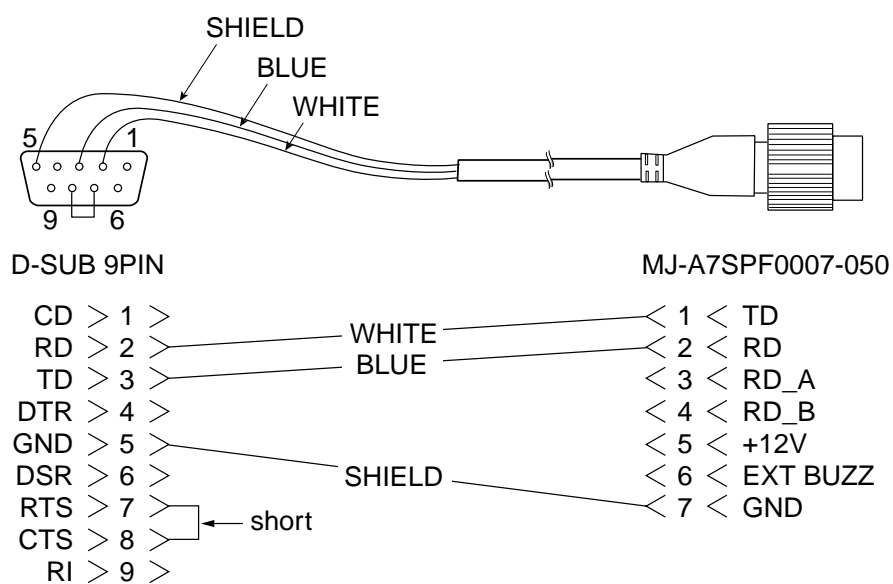


Connection of external buzzer

4. Fasten the buzzer with the double-sided tape or two tapping screws (3X15 or 3X20, local supply).

2.2 How to Connect a PC

To connect a pc, prepare the optional cable assy MJ-A7SPF0007-050 and D-sub 9 pins plug (local supply) and connect them as follows.



How to modify cable assy. MJ-A7SPF0007-050 for connection of pc

3. INITIAL SETTINGS

The equipment is set up from the installation menu, which you may access as below.

3.1 How to Access the Installation Menu

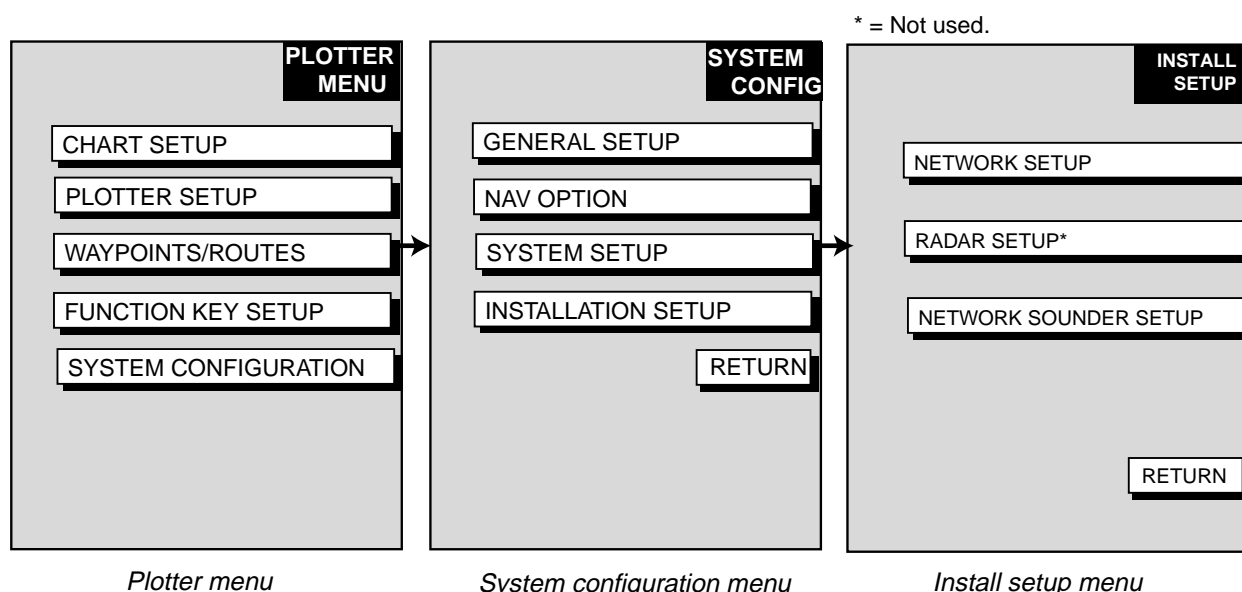
This paragraph shows you how to access the installation menus, which you will need to do to set up the equipment.

1. Press the [POWER/BRILL] key with a touch-and-release action while pressing and holding down the [MENU] key. Release the [POWER/BRILL] key when you hear a beep.
2. Release the [MENU] key when the message “STARTING INSTALLATION MODE” appears.

Note: You are asked if you want to start the simulation mode, which provides simulated operation of the equipment, the first time you turn on the power or you turn on the power after clearing the memory. Push the [ENTER] knob to start the simulation mode, or press the [CLEAR] key to start normal operation. For further details about the simulation mode, see the operator’s manual.

START
SIMULATION MODE?
YES ... PUSH ENTER KNOB
NO ... PUSH CLEAR KEY
TO SKIP.

3. Press any key twice to show the plotter screen.
4. Press the [MENU] key followed by the SYSTEM CONFIGURATION soft key to show the SYSTEM CONFIG menu.
5. Press the INSTALLATION SETUP soft key to display the INSTALL SETUP menu.

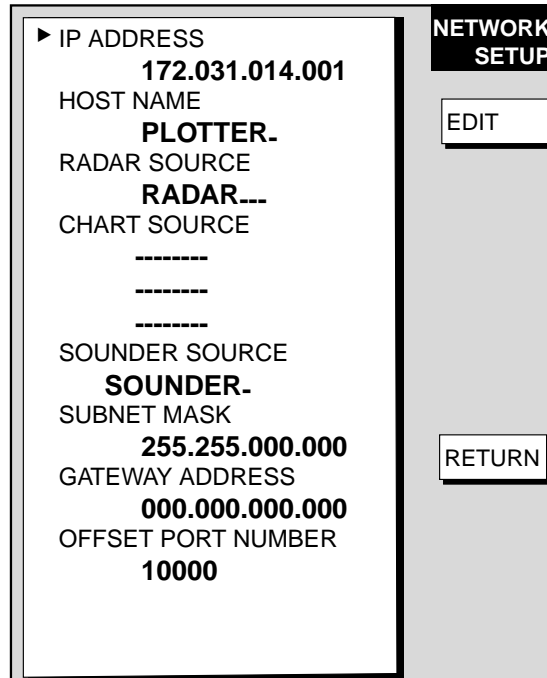


Menus

3.2 Network Setup

Complete the procedure below if other NavNet equipment is connected.

1. Open the INSTALL SETUP menu.
2. Press the NETWORK SETUP soft key.



The image shows a screen titled "NETWORK SETUP" in the top right corner. The main area contains the following text:

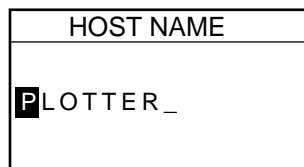
- IP ADDRESS
172.031.014.001
- HOST NAME
PLOTTER_
- RADAR SOURCE
RADAR---
- CHART SOURCE

- SOUNDER SOURCE
SOUNDER-
- SUBNET MASK
255.255.000.000
- GATEWAY ADDRESS
000.000.000.000
- OFFSET PORT NUMBER
10000

On the right side, there are two buttons: "EDIT" and "RETURN".

Network setup menu

3. Select menu option and press the EDIT soft key. For example, select HOST NAME.



The image shows a window titled "HOST NAME". Inside the window, the text "PLOTTER_" is displayed, with a cursor positioned at the end of the text.

Host name window

4. Use the cursor pad to select location and rotate the [ENTER] knob to set alphanumeric character.
5. Press the ENTER soft key to finish.
6. Repeat steps 3-5 for other items, referring to the table on the next page for details.
7. Press the [MENU] key to finish.

Item	Description	Default Setting
IP ADDRESS	This address is assigned at the factory. Change the address (last three digits; 001 to 254) when like models are connected directly or through the hub. Do this before connecting this equipment to other equipment or hub to distinguish them. Do not set the same IP address for multiple equipment.	Monochrome: 172. 031. 014. 001
		Color: 172. 031. 014. 001
HOST NAME	Set the name for your display unit to distinguish it from others in the NavNet system. Be sure not to use the same name as other NavNet equipment.	PLOTTER
RADAR SOURCE	Enter name of radar source.	RADAR
CHART SOURCE	Enter name of equipment which is to function as the chart source. (Max. three units, excluding own.)	None
SOUNDER SOURCE	Enter the host name of the network sounder ETR-6/10N to use for the video sounder display. Erase the host name, with the [CLEAR] key, when no network sounder is connected.	SOUNDER
SUBNET MASK	Not used. Reserved for future use.	255.255.000.000
GATEWAY ADDRESS		000.000.000.000
OFFSET PORT NUMBER		10000

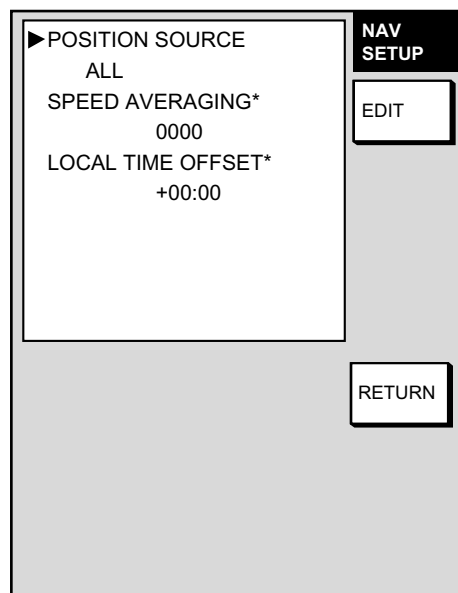
NavNet equipment IP address and host name default settings

Model	IP ADDRESS	HOST NAME
MODEL1722/1732/1742/1762	172.031.003.004	RADAR
MODEL1722C/1732C/1742C/1762C	172.031.003.001	RADAR
MODEL1833C/1933C/1943C	172.031.003.003	RADAR
MODEL1833/1933/1943	172.031.003.002	RADAR
GD-1900C	172.031.003.003	PLOTTER
GD-1700C/GD-1700	172.031.014.001	PLOTTER

3.3 Navigation Data Source

The NAV SOURCE SETTINGS menu mainly selects the source of nav data. For navigator other than the FURUNO GP-310B, speed averaging and local time offset (to use local time instead of UTC time) are also available from this menu.

1. Press the [MENU] key.
2. Press the SYSTEM CONFIGURATION, NAV OPTION and NAV OPTION soft keys to display the NAV SETUP menu.

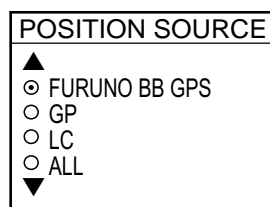


The NAV SETUP menu is displayed on a screen. At the top right, there is a black header with the text "NAV SETUP" in white. The main area is divided into two sections. The top section is a white box with a black border containing the following text: "► POSITION SOURCE", "ALL", "SPEED AVERAGING*", "0000", "LOCAL TIME OFFSET*", and "+00:00". To the right of this box is a black button with the text "EDIT" in white. The bottom section is a gray box with a black border containing a black button with the text "RETURN" in white.

* For GPS receiver other than GP-310B.

Nav setup menu

3. Select POSITION SOURCE and press the EDIT soft key.



The POSITION SOURCE window is displayed on a screen. It has a black header with the text "POSITION SOURCE" in white. Below the header is a list of options: "FURUNO BB GPS", "GP", "LC", and "ALL". Each option is preceded by a radio button. The "FURUNO BB GPS" option is selected, indicated by a filled circle. Above the list is a black triangle pointing up, and below the list is a black triangle pointing down.

Position source window

4. Select FURUNO BB GPS, GP, LC or ALL as appropriate and press the ENTER soft key.
FURUNO BB GPS: GPS Receiver GP-310B
GP: GPS navigator (via NETWORK, DATA 1 or DATA 2 port)
LC: Loran C (via NETWORK, DATA 1 or DATA 2 port)
ALL: Multiple navaid connection (via NETWORK, DATA 1 or DATA 2 port)
5. For GPS receiver other than the GP-310B you may adjust speed averaging and use local time as follows:
 - a) Choose desired item and press the EDIT soft key.
 - b) Use the cursor pad to select location and rotate the [ENTER] knob to set value. For time, use the +<- ->- soft key to switch from plus to minus and vice versa.
 - c) Press the ENTER soft key.

Speed Averaging: Calculation of ETA is based on average ship's speed over a given period. If the period is too long or too short calculation error will result. Change this setting if the ETA readout seems wrong. The range of adjustment is 0-9999(sec).

Local Time Offset: GPS uses UTC time. If you would rather use local time enter the time difference between it and UTC. The range of offset is -13:30 to +13:30 and the default setting is zero (no offset).

6. Press the RETURN soft key followed by the [MENU] key to finish.

3.4 Setting up GPS Receiver GP-310B

Set up the GPS Receiver GP-310B as follows:

1. Press the [MENU] key.
2. Press the SYSTEM CONFIGURATION, NAV OPTION and GPS SENSOR SETTINGS soft keys.

GPS SETUP	
▶ LOCAL TIME OFFSET +00:00	EDIT
GEODETIC DATUM WGS-84	
POSITION SMOOTHING 000 second(s)	GPS STATUS
SPD/CSE SMOOTHING 005 second(s)	
GPS SPEED AVERAGING 060 second(s)	RETURN
LATITUDE OFFSET 0.000°N	
LONGITUDE OFFSET 0.000°E	
DISABLE SATELLITE	

LATITUDE 45°35.000' N	
LONGITUDE 125°00.000' W	
ANTENNA HEIGHT 005 m	
GPS FIX MODE 2D/3D	
COLD START NO	

GPS setup menu

3. Select ANTENNA HEIGHT and press the EDIT soft key.

ANTENNA HEIGHT
005 m

Antenna height window

4. Enter the height of the GPS antenna unit above sea surface. Use the cursor pad to select digit and rotate the [ENTER] knob to set value. The default height is 5 m.
5. Press the ENTER soft key.
6. Choose and set other items as appropriate, referring to Chapter 5 of the operator's manual.
7. Press the [MENU] key to close the menu.

3.5 Setting up Data Ports

Setup the data ports according to the equipment connected to them as follows.

1. Press the [MENU] key to open the menu.
2. Press the SYSTEM CONFIGURATION, SYSTEM SETUP and PORT SETUP soft keys.
3. Press the GPS/NMEA PORT soft key for DATA 1 port, NMEA PORT soft key for DATA 2 port or PC/NMEA/EXT. BUZZ PORT soft key for DATA 3 port as appropriate. One of the following displays appear depending on your selection.

GPS/ PORT	NMEA PORT	NMEA PORT
<p>► FURUNO GPS SENSOR</p> <p>NO</p> <p>OUTPUT FORMAT</p> <p>NMEA0183 Ver. 2.0</p> <p>LAT/LON FORMAT</p> <p>DD° MM.MMM'</p> <p>OUTPUT DESTINATION</p> <p>NO</p> <p>WIRING INFORMATION</p> <p>TD-A >1>---WHITE</p> <p>TD-B >2>---BLUE</p> <p>RD-A >3>---YELLOW</p> <p>RD-B >4>---GREEN</p> <p>+12V >5>---RED</p> <p>GND >6>---BLACK</p> <p>FG >7>---SHIELD</p>	<p>► FURUNO GPS SENSOR</p> <p>NO</p> <p>OUTPUT FORMAT</p> <p>NMEA0183 Ver. 2.0</p> <p>LAT/LON FORMAT</p> <p>DD° MM.MMM'</p> <p>OUTPUT DESTINATION</p> <p>NO</p> <p>WIRING INFORMATION</p> <p>TD-A >1>---WHITE</p> <p>TD-B >2>---BLUE</p> <p>RD-A >3>---YELLOW</p> <p>RD-B >4>---GREEN</p> <p>NC >5>---</p> <p>FG >6>---SHIELD</p>	<p>► NMEA OUTPUT FORMAT</p> <p>NMEA Ver. 2.0</p> <p>BAUD RATE</p> <p>4800 bps</p> <p>BIT LENGTH</p> <p>8 bits</p> <p>STOP BIT</p> <p>1 bit</p> <p>PARITY</p> <p>NONE</p> <p>(CONTROL: Xon/Xoff)</p> <p>WIRING INFORMATION</p> <p>TxD >1>---WHITE</p> <p>RxD >2>---BLUE</p> <p>RD-A >3>---YELLOW</p> <p>RD-B >4>---GREEN</p> <p>+12V >5>---RED</p> <p>EXT BUZZ >6>---BLACK</p> <p>GND >7>---SHIELD</p>
<p>EDIT</p> <p>SELECT SNTNC</p> <p>RETURN</p>	<p>EDIT</p> <p>SELECT SNTNC</p> <p>RETURN</p>	<p>EDIT</p> <p>SELECT SNTNC</p> <p>RETURN</p>
PORT 1 port	PORT 2 port	PORT 3 port

GPS/NMEA, NMEA and PC/NMEA/EXT. BUZZ port setup menus

4. Select item and press the EDIT soft key.
5. Set option referring to the tables on pages 16 and 17.
6. To select NMEA data sentences to output, press the SELECT SNTNC soft key.

SELECT SNTNC	
► AAM	--
APB	ON
BOD	--
BWR#	ON
DPT*	--
GGA	--
GLL	ON
GTD	--
MTW	--
RMA	--
RMB	ON
RMC	ON
VHW	--
VTG	ON
WPL	--
XTE	--
ZDA	ON
HDT	--
HDG	--
MWV	--
TTM	--

ON/OFF

RETURN

= BWR for rhumb line, BWC for great circle

* = DBT for NMEA 0183 Version No. 1.5

Data sentences for NMEA 0183 version no. 2

7. Select sentence and press the ON/OFF soft key to show ON (output) or " - " (no output) as appropriate.
8. Press the ENTER soft key.
9. Press the RETURN soft key followed by the [MENU] key to finish.

Contents of GPS/NMEA PORT and NMEA PORT menus

Item	Description	Settings	Default Setting
FURUNO GPS Sensor	Selects whether the GPS Receiver GP-310B is connected to the GPS/NMEA port or not.	Yes, No	No (both ports)
Output Format	Selects NMEA output version of GPS sensor.	NMEA Ver. 1.5, NMEA Ver. 2.0	NMEA Ver. 2.0
Lat/Lon Format	Selects latitude/longitude format to output.	DD°MM.MM', DD°MM.MMM, DD°MM.MMMM'	DD°MM.MMM'
Output Destination	Selects whether to output route (data sentence RTE) and waypoint data (data sentence WPL) when destination is set.	Yes, No	No
SELECT SNTNC soft key	Selects data sentence(s) to output. Select sentence with the cursor pad and press the ON/OFF soft key to show ON or " - " (OFF) as appropriate.		

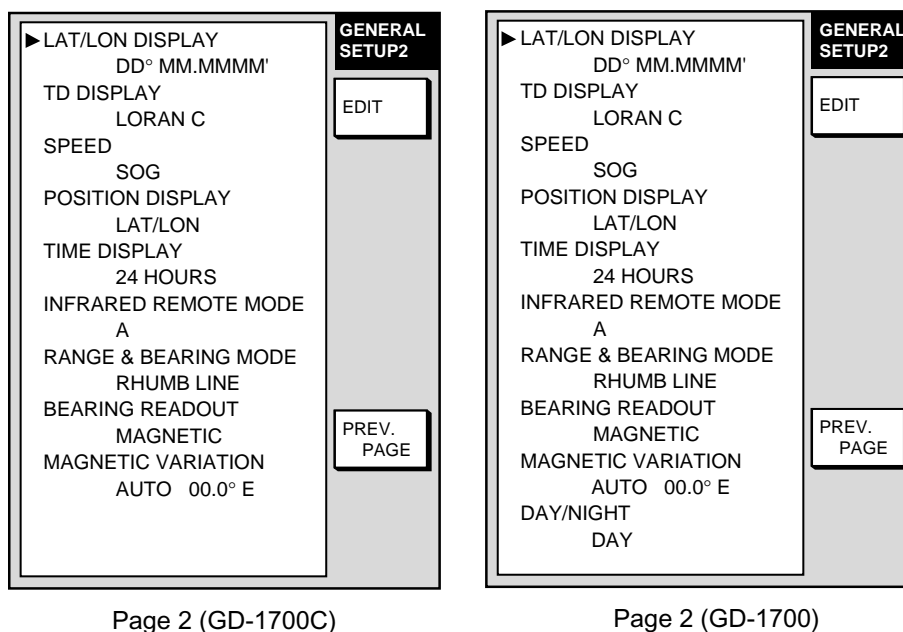
Contents of PC/NMEA/EXT. BUZZ PORT menu

Item	Description	Settings	Default Setting
NMEA Output Format	Selects NMEA output format for PC.	NMEA Ver. 1.5, NMEA Ver. 2.0	NMEA Ver. 2.0
Baud Rate	Sets baud rate.	4800, 9600, 19200 (bps)	4800(bps)
Bit Length	Sets character length.	8 bits, 7 bits	8 bits
Stop Bit	Sets number of stop bits.	1 bit, 2 bits	1 bit
Parity	Sets parity bit.	Even, Odd, None	None
SELECT SNTNC soft key	Selects data sentence(s) to output. Select sentence with the cursor pad and press the ON/OFF soft key to show ON or " - " (OFF) as appropriate.		

3.6 Remote Controller Setting

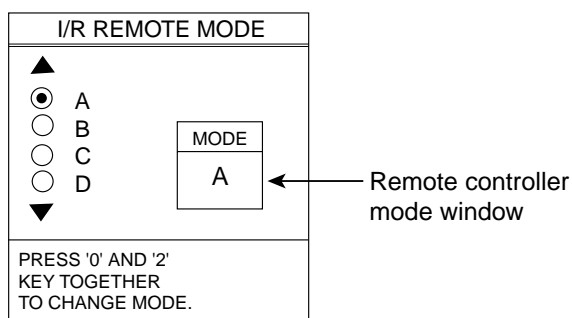
A remote controller can be set exclusively for use with a specific display unit, in the case of multiple NavNet display units. Set the remote controller mode desired on the menu and attach appropriate label (supplied with accessories) to the remote controller and display unit.

1. Press the [MENU] key, followed by SYSTEM CONFIGURATION soft key and GENERAL SETUP soft key to show the GENERAL SETUP menu.
2. Press the NEXT PAGE soft key.



GENERAL SETUP menu, page 2

3. Select INFRARED REMOTE MODE, then press the EDIT soft key to show the I/R REMOTE MODE window.
4. Point the remote controller toward the display unit, and press any key on the remote controller. The remote controller mode appears in the MODE window. In the example below the remote controller mode is "A."



I/R REMOTE MODE window

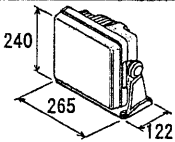
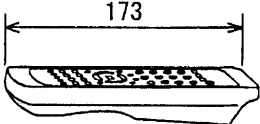
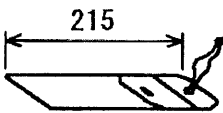
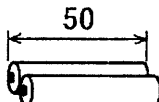
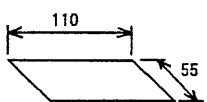
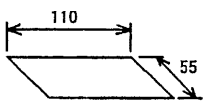
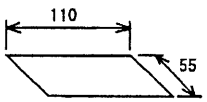
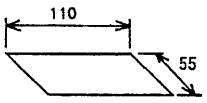
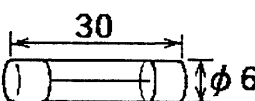
5. Press the [0] and [2] keys together on the remote controller to change the remote controller mode setting among A, B, C and D.
6. Operate the cursor pad to set the same display mode for the display unit as you did for the remote controller.
7. Press the ENTER soft key, then press the [MENU] key to close the menu.

PACKING LIST

19AK-X-9852 -3

1/2

GD-1700/GD-1700C

NAME	OUTLINE	DESCRIPTION/CODE No.	Q'TY
ユニット	UNIT		
指示器 DISPLAY UNIT		GD-1700-E-N 000-080-004 **	1
リモコンセット	REMOTE CONTROLLER SET		
リモコンキーユニット REMOTE CONTROLLER		RMC-100 000-144-471	1
リモコンビニールケース VINYL CASE FOR REMOTE CONTROLLER		14-034-2075-1 100-292-801	1
BATT(MN) SIZE AA BATTERY		R6PKRCP-2 000-142-527	1
リモコンシール(1) LABEL FOR REMOTE CONTROLLER		03-153-1314-0 100-292-790	1
リモコンシール(2) LABEL FOR REMOTE CONTROLLER		03-153-1315-0 100-292-820	1
リモコンシール(3) LABEL FOR REMOTE CONTROLLER		03-153-1316-0 100-292-830	1
リモコンシール(4) LABEL FOR REMOTE CONTROLLER		03-153-1317-0 100-292-840	1
予備品	SPARE PARTS	SP03-13901	
ヒューズ FUSE		FGBO 3A AC250V 000-549-021	3

注記) コード末尾に[**]の付いたユニットは代表の型式/コードを表示しています。
DOUBLE ASTERISK DENOTES COMMONLY USED EQUIPMENT.

DWG NO.

C4409-Z01-C

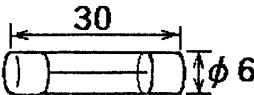
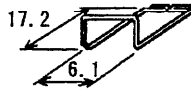
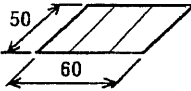
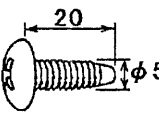
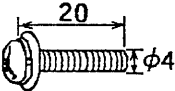
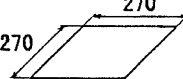


(略図の寸法は、参考値です。 DIMENSIONS IN DRAWING FOR REFERENCE ONLY.)

PACKING LIST

19AK-X-9852 -3

2/2

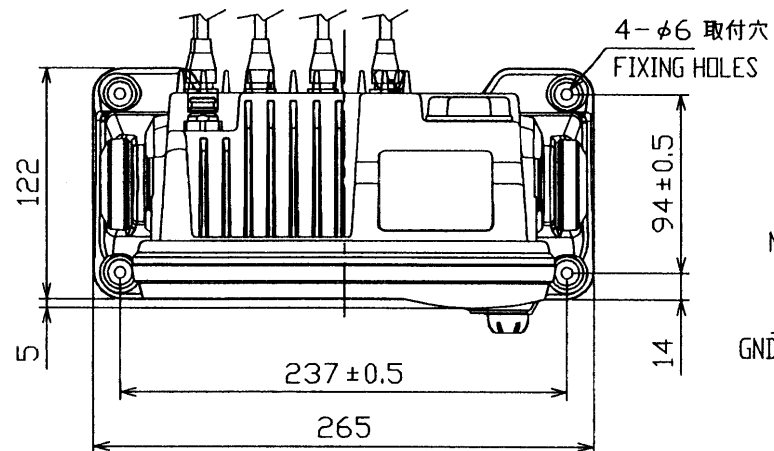
GD-1700/GD-1700C

NAME	OUTLINE	DESCRIPTION/CODE No.	Q'TY
ヒューズ FUSE		FGB0 5A AC250V 000-549-022	3
付属品 ACCESSORIES FP03-09301			
カード用ピン CARD REMOVER		03-153-1311-0 100-292-130	1
工事材料 INSTALLATION MATERIALS CP03-22601			
ヒューズバリマーク FUSE LABEL		03-153-1312-0 100-292-140	1
+トラスタップネジ +TAPPING SCREW		5X20 SUS304 1/2 000-802-081	4
+ナベセムスネジB WASHER HEAD SCREW		M4X20 SUS304 000-804-742	6
型紙 TEMPLATE SHEET		03-153-1313-0 100-292-780	1
その他工材 OTHER INSTALLATION MATERIALS			
ケーブル組品MJ CABLE ASSY.		MJ-A3SPF0013-035 000-129-613	1
ケーブル組品MJ CABLE ASSY.		MJ-A6SPF0003-050 000-117-603	1

注記) コード末尾に[**]の付いたユニットは代表の型式/コードを表示しています。
DOUBLE ASTERISK DENOTES COMMONLY USED EQUIPMENT.

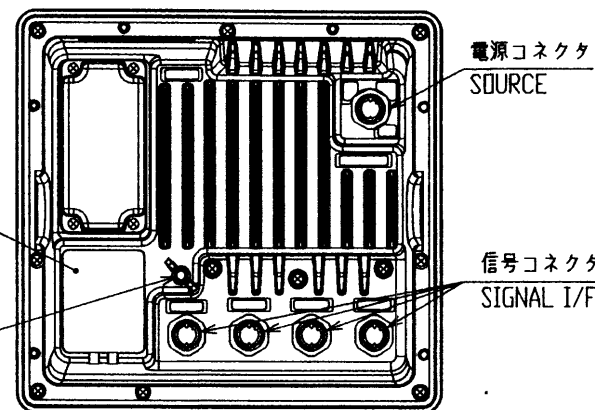
DWG. NO. C4409-Z02-C

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



型式銘板
NAMEPLATE

アース端子
GND TERMINAL

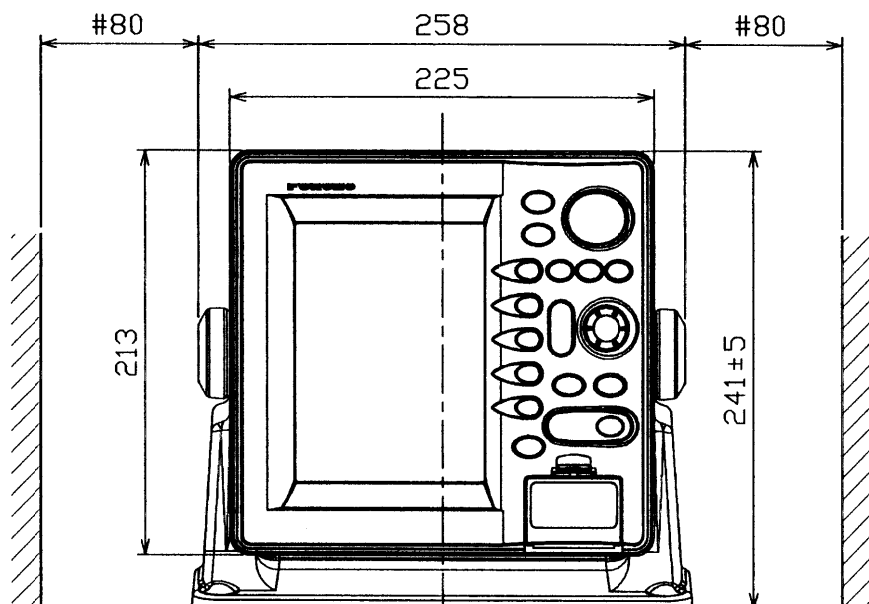


寸法区分 (mm) DIMENSION	公差 (mm) TOLERANCE
$L \leq 50$	± 1.5
$50 < L \leq 100$	± 2.5
$100 < L \leq 500$	± 3

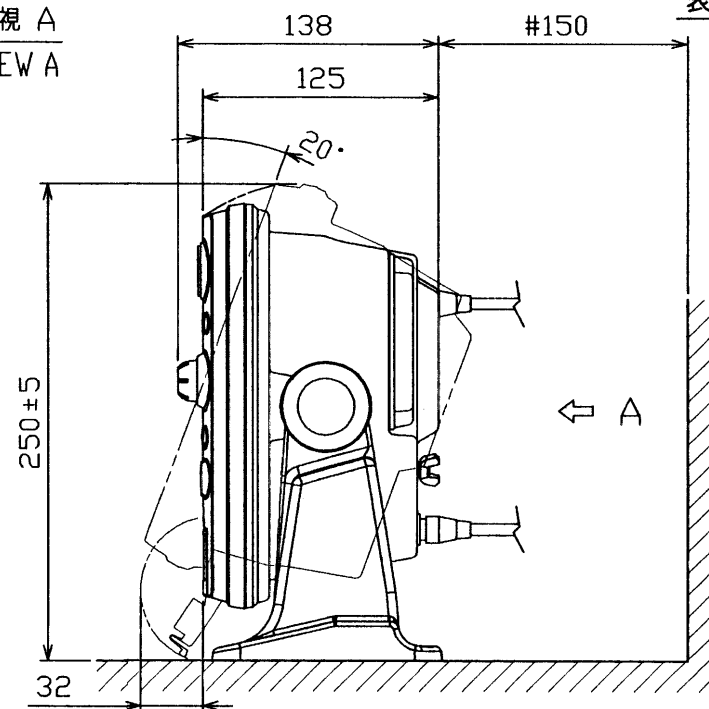
表 1 TABLE 1

型式 MODEL	質量 (kg) MASS
GD-1700	$3.0 \pm 10\%$
GD-1700C	$3.0 \pm 10\%$

表 2 TABLE 2



矢視 A
VIEW A

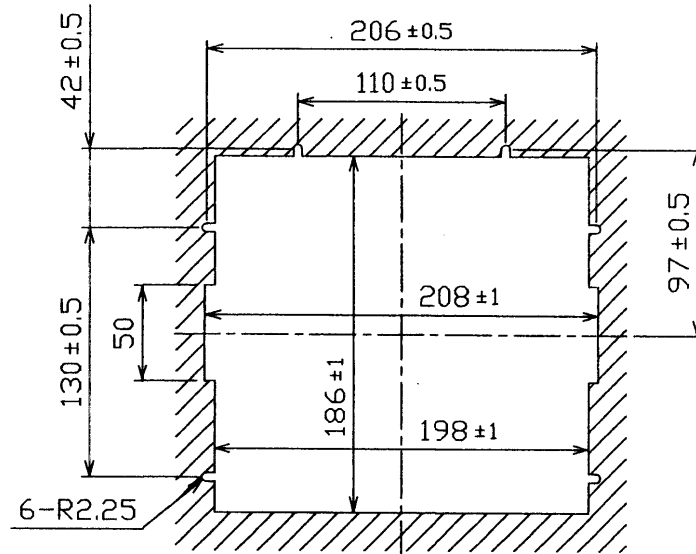
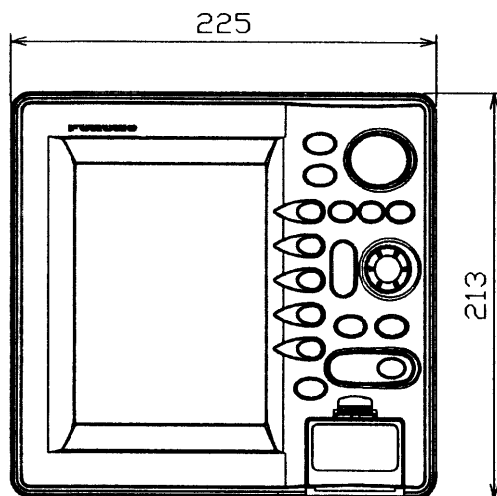
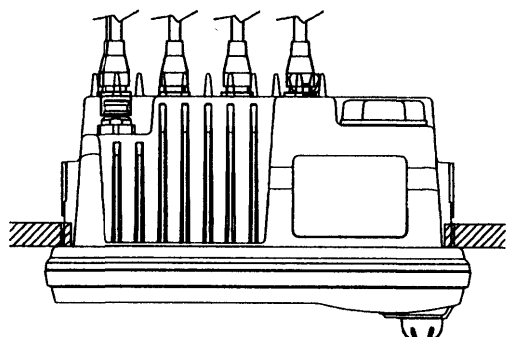


- 注 記
- 1) #印寸法は最小サービス空間とする。
 - 2) 指定外寸法公差は表 1 による。
 - 3) 取付用ネジは+トラスタップピンネジ呼び径5×20を使用のこと。
- NOTE
1. # RECOMMENDED SERVICE CLEARANCE.
 2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.
 3. USE TAPPING SCREWS 5x20 FOR FIXING THE UNIT.

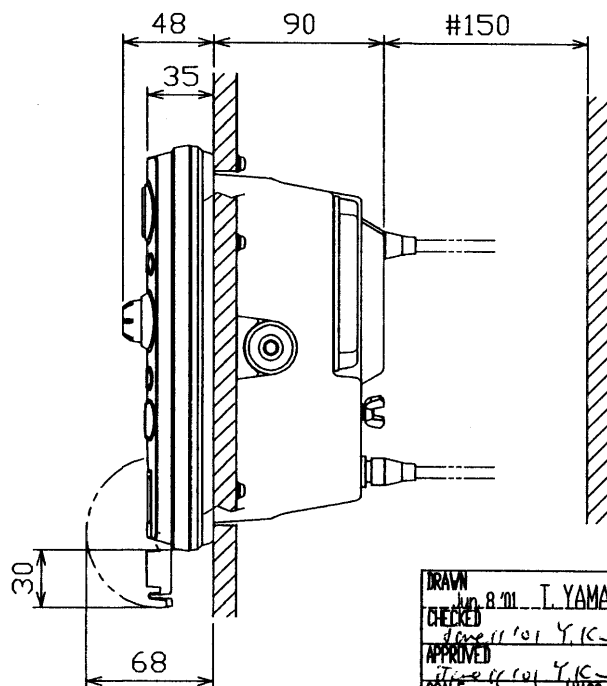
DRAWN B-01 T. YAMASAKI	TITLE GD-1700/C
CHECKED T. YAMASAKI	名前 指示部 (卓上装備)
APPROVED T. YAMASAKI	外寸図
SCALE 1/4	NAME DISPLAY UNIT (DESKTOP MOUNT)
DWG. No. C4409-G01-B	03-153-150G-4
表 2 kg	OUTLINE DRAWING

型式 MODEL	質量 (kg) MASS
GD-1700	2.7±10%
GD-1700C	2.7±10%

表2 TABLE 2



取付穴寸法図 CUTOUT DIMENSIONS

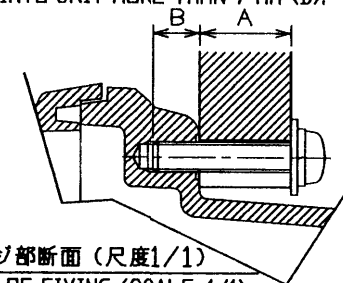


- 注 記 1) #印寸法は最小サービス空間とする。
2) 指定外寸法公差は表1による。
3) 取付用ネジはセムスネジB M4×20を使用のこと。
壁の厚さ(A)は11≦A≦14とする。これ以外の壁に装備するとき、
ネジの長さは(A+7.3)±1.5とする。(セムスネジBを使用)
筐体にはネジ部を7mm以上入れないこと。(B部)

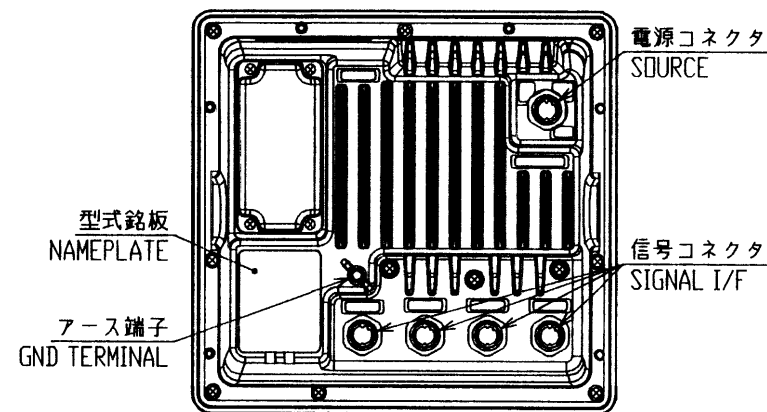
- NOTE 1. # RECOMMENDED SERVICE CLEARANCE.
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.
3. USE M4x20 SCREWS FOR FIXING THE UNIT.
BULKHEAD THICKNESS (A): 11≦A≦14.
OTHERWISE SCREW LENGTH: (A+7.3)±1.5
DO NOT FASTEN SCREWS INTO UNIT MORE THAN 7 mm (B).

寸法区分 (mm) DIMENSION	公差 (mm) TOLERANCE
L ≦ 50	±1.5
50 < L ≦ 100	±2.5
100 < L ≦ 500	±3

表1 TABLE 1



取付ネジ部断面 (尺度1/1)
DETAIL OF FIXING (SCALE: 1/1)



DRAWN 8.11. I. YAMASAKI		TITLE GD-1700/C
CHECKED 8.11.101 Y. IC		名前 指示部 (埋込装備)
APPROVED 8.11.101 Y. IC	GD-1700/C	外寸図
SCALE 1/4 MASS 表2 kg		NAME DISPLAY UNIT (FLUSH MOUNT)
DWG. No. C4409-G02-B	03-153-160G-3	OUTLINE DRAWING

A

B

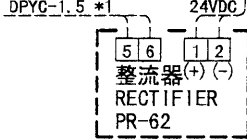
C

D

船内電源
SHIP'S MAINS
12-24 VDC

100/110/220/230VAC
1 ϕ , 50/60Hz

MJ-A3SPF0013
(03S9148-0), 3.5m, ϕ 10
(VV-S 2.0x2C)



FUSE
5A (GD-1700C 12V)
3A

シロ WHT
クロ BLK

*2 MJ-A3SRMD
1 < (+)
2 < (-)
3 < GND

指示部 DISPLAY UNIT
GD-1700/1700C

J1351
1 < (+)
2 < (-)
3 < GND

GPS受信機
GPS RECEIVER
GP-310B

10m

*2 MJ-A7SRMD
1 < TD2-A
2 < TD2-B
3 < RD2-A
4 < RD2-B
5 < +12V
6 < GND
7 < SHIELD

DATA1
J1352

航法・レーダー
NAV/RADAR

MJ-A6SPF0009, 10m
MJ-A6SPF0003, 5m
MJ-A6SPF0012, 5m (6P-6P)
 ϕ 6

*2 MJ-A6SRMD
シロ WHT
クロ BLK
キ YEL
ミド GRN
1 < TD1-A
2 < TD1-B
3 < RD1-A
4 < RD1-B
5 < NC
6 < SHIELD

DATA2
J1353

魚群探知機・PC
ECHO SOUNDER
PC (RS232C)

MJ-A7SPF0007, 5m, ϕ 7

*2 MJ-A7SRMD
シロ WHT
クロ BLK
キ YEL
ミド GRN
アカ RED
アオ BLU
1 < TD_DT
2 < RD_DT
3 < RD3-A
4 < RD3-B
5 < +12V
6 < EXT. BUZZ
7 < SHIELD/GND

DATA3
J1354

NMEA0183

外部ブザー
EXT. BUZZER
OP03-136

外部装置
EXT. EQUIP.
GP-1700/C
ETR-6/10N

MJ-A6SPF0014, ϕ 6
MAX. 30m

*2 MJ-A6SRMD
1 < E_TD_P
2 < E_TD_N
3 < E_RD_P
4 < E_RD_N
5 < NC
6 < SHIELD

NETWORK
J1360

*1 HUB

MJ-A6SRMD/TM11AP8
(19S1005), 0.5m
MAX. 30m

GND
1V-2SQ. *1

注記

- *1) 造船所手配
- *2) コネクタは工場にて取付済み。

NOTE

- *1. SHIPYARD SUPPLY
- *2. CONNECTOR PLUG FITTED AT FACTORY.

DRAWN Oct. 1 '01 I. YAMASAKI		TITLE GD-1700/1700C
CHECKED O. J. O. I. K.		名称 ビデオプロッタ
APPROVED O. J. O. I. K.		相互結線図
SCALE MASS $\pm 10\%$ kg		NAME VIDEO PLOTTER
DWG. No. C4409-C01- B	03-153-6009-0	INTERCONNECTION DIAGRAM

C

