FURUNO®

COLOR VIDEO PLOTTER GD-3100 MARK-2
GPS COLOR PLOTTER GP-3100 MARK-2
Installation Manual

This manual provides the information necessary for the installation of the FURUNO GD-3100 MARK-2 Color Video Plotter and the GP-3100 MARK-2 GPS Color Plotter.

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(ETMI) GD/GP-3100 MARK-2

000807338 00

⚠ SAFETY INSTRUCTIONS

"DANGER", **"WARNING"** and **"CAUTION"** notices appear throughout this manual. It is the responsibility of the installer of the equipment to read, understand and follow these notices. If you have any questions regarding these safety instructions, please contact a FURUNO agent or dealer.

The level of risk appearing in the notices is defined as follows:

⚠ DANGER	This notice indicates a potentially hazardous situation which, if not avoided, will result in death or serious injury.
⚠ WARNING	This notice indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	This notice indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury, or property damage.

⚠ WARNING

Do not work inside the equipment unless totally familiar with electrical circuits.

Hazardous voltage which can shock, burn or cause serious injury exists inside the equipment.

Turn off the power at the mains switchboard before beginning the installation. Post a sign near the switch to indicate it should not be turned on while the equipment is being installed.

Fire, electrical shock or serious injury can result if the power is left on or is applied while the equipment is being installed.

⚠ CAUTION

Ground the equipment to prevent electrical shock and mutual interference.

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

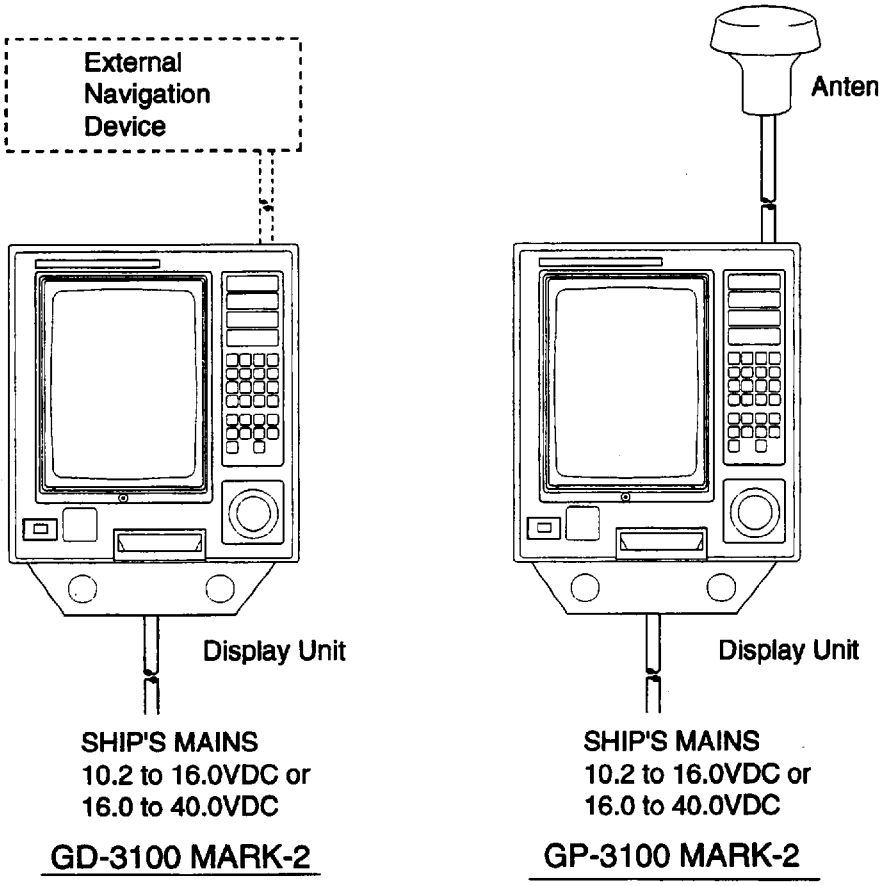
Connection to the wrong power supply can cause fire or equipment damage. The voltage rating appears on the label at the rear of the display unit.

Use the correct fuse.

Use of a wrong fuse can cause fire or equipment damage.

To avoid electrical shock, the specified technician can only do modification.

System configuration



Equipment Lists

Complete set

No.	Name	Type	Code No.	Qty	Remarks
1	Display Unit	GD-30220		1	GD-3100 MARK-2
		GP-30220		1	GP-3100 MARK-2
2	Antenna Unit	GPA-016		1	GP-3100 MARK-2 only
3	Accessories	FP03-04300	000-084-715	1	GP-3100/GD-3100 MARK-2
4	Spare Parts	SP14-01800	000-040-499	1	GP-3100/GD-3100 MARK-2
5	Installation Materials	CP14-04600	000-040-534	1	GP-3100 MARK-2
		CP14-03600	000-040-501		GD-3000 MARK-2

Optional Equipment (Items 8 to 13 are GP-3100 MARK-2 only.)

No.	Name	Type	Code No.	Remarks
1	Rectifier	RU-3423	000-030-443	for AC mains
2	RAM Card	00RAM256 C-001	004-321-070	256KB
		00RAM512 C-002	004-322-230	512KB
3	ROM Card (Electronic Chart)			factory-digitized chart
4	Dust Cover	14-043-2401-0	100-165-030	for display unit
5	EMI Filter	OP14-27	004-392-170	for display unit
6	Cover (w/louver)	14-043-2405-0	100-168-190	for display unit
7	Hood w/lens	OP03-90	008-445-050	for display unit
8	Right Angle Mounting Base	No.13-QA300	000-803-239	for antenna unit installation
9	L-angle Mounting Base	No.13-QA310	000-803-240	for antenna unit installation
10	Variagle Angle Mounting Base	No.13-QA100	000-803-241	for antenna unit installation
11	Handrail Mounting Base	No.13-RC5160	000-806-114	for antenna unit installation
12	Antenna Cable Set	CP14-04400	004-373-070	30m
13	Antenna Cable Set	CP14-04410	004-373-080	50m
14	Antenna Mounting Kit	CP20-01111	004-365-780	

Accessories FP03-04300 (Code No. 000-084-715)

No.	Name	Type	Code No.	Qty	Remarks
1	Hood Assy.	FP03-03120	008-239-110	1	
2	Blind Cap	FP03-04310	008-411-810	2	Type: 040-5025

Spare Parts SP14-01800 (Code No. 000-040-499)

No.	Name	Type	Code No.	Qty	Remarks
1	Fuse	FGBO 7A 125V AC	000-549-013	3	for 24V DC power supply
2	Fuse	FGBO 15A 125V AC	000-549-014	3	for 12V DC power supply

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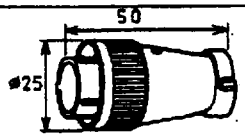
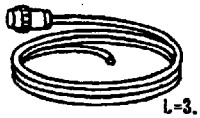
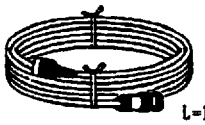
C4376-M01-B

CODE NO.	000-040-534	14BW-X-9401-
TYPE	CP14-04600	

工事材料表 INSTALLATION MATERIALS	GP-3100MARK-2	GPS プロッター GPS PLOTTER 貿易用

CP14-04601
004-392-700

番号 No.	名称 NAME	略図 OUTLINE	型名/規格 DESCRIPTIONS	数量 Q'TY	用途/備考 REMARKS
1	コネクタ CONNECTOR		SRCN6A16-10P CODE NO. 000-508-663	1	
2	アース銅板 COPPER STRAP		04S40801 (30X1200X0.3) CODE NO. 000-572-187	1	
3	信号ケーブル組品 SIGNAL CABLE ASSY.		MJカタ 6シンケーブルツキ コネクタ(EV-SA 7/0.16 X2P *5M*) CODE NO. 000-117-603	1	
4	電源ケーブル組品 POWER CABLE ASSY.		P14-7-3.5(2P) (VCTF 2.0X2C *3.5M*) CODE NO. 004-391-180	1	
5	アンテナケーブル組品 ANTENNA CABLE ASSY.		TBP-3D2V L-15M 20S0222-0 CODE NO. 000-134-444	1	

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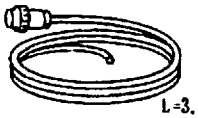
C4348-M01-C

CODE NO.	000-040-501	14BM-X-9401-
TYPE	CP14-03600	

工事材料表 INSTALLATION MATERIALS	GD-3000 GD-3100 GD-3100MARK-2	カラービデオプロッタ COLOR VIDEO PLOTTER

番号 No.	名称 NAME	略図 OUTLINE	型名/規格 DESCRIPTIONS	数量 Q'TY	用途/備考 REMARKS
1	アース銅板 COPPER STRAP		04S40801 (30X1200X0.3) CODE NO. 000-572-187	1	
2	信号ケーブル組品 SIGNAL CABLE ASSY.		MJカタ 6シンケーブルツキ コネクタ(EV-SA 7/0.16 X2P *5M*) CODE NO. 000-117-603	1	
3	電源ケーブル組品 POWER CABLE ASSY.		P14-7-3.5(2P) (VCTF 2.0X2C *3.5M*) CODE NO. 004-391-180	1	

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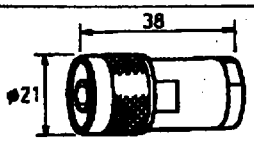
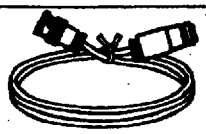
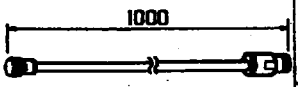
C0014-M22-A

CODE NO.	004-373-070
TYPE	CP14-04400

工事材料表 INSTALLATION MATERIALS	アンテナケーブルセット ANTENNA CABLE SET			
番号 No.	名称 NAME	略図 OUTLINE	型名／規格 DESCRIPTIONS	数量 Q'TY	用途／備考 REMARKS
1	同軸コネクタ COAX. CONNECTOR		N-P-8DFB CODE NO. 000-111-549	1	
2	ｱﾝﾃﾅｹｰﾌﾞﾙ組品 ANTENNA CABLE ASSY.		NJBP-3DXV-1 (3D-XV *1M*) CODE NO. 000-117-602	1	
3	変換ｹｰﾌﾞﾙ組品 COAX. COUPLING CABLE ASSY.		NJ-TP-3DXV-1 (3D-XV *1M*) CODE NO. 000-123-809	1	
4	ｱﾝﾃﾅｹｰﾌﾞﾙ組品 ANTENNA CABLE ASSY.		8D-FB-CV *30M* CODE NO. 000-111-547	1	

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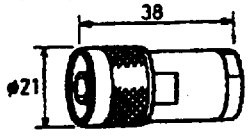
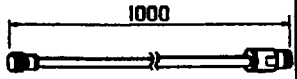
C0014-M23-A

CODE NO.	004-373-080
TYPE	CP14-04410

工事材料表 INSTALLATION MATERIALS	アンテナケーブルセット ANTENNA CABLE SET			
番号 No.	名称 NAME	略図 OUTLINE	型名／規格 DESCRIPTIONS	数量 Q'TY	用途／備考 REMARKS
1	同軸コネクタ COAX. CONNECTOR		N-P-8DFB CODE NO. 000-111-549	1	
2	ｱﾝﾃﾅｹｰﾌﾞﾙ組品 ANTENNA CABLE ASSY.		NJBP-3DXV-1 (3D-XV *1M*) CODE NO. 000-117-602	1	
3	変換ｹｰﾌﾞﾙ組品 COAX. COUPLING CABLE ASSY.		NJ-TP-3DXV-1 (3D-XV *1M*) CODE NO. 000-123-809	1	
4	ｱﾝﾃﾅｹｰﾌﾞﾙ組品 ANTENNA CABLE ASSY.		8D-FB-CV *50M* CODE NO. 000-117-599	1	

1. Display Unit Installation

Mounting considerations

The display unit can be installed on a tabletop or on the overhead.Install the unit where it can be easily viewed and operated.

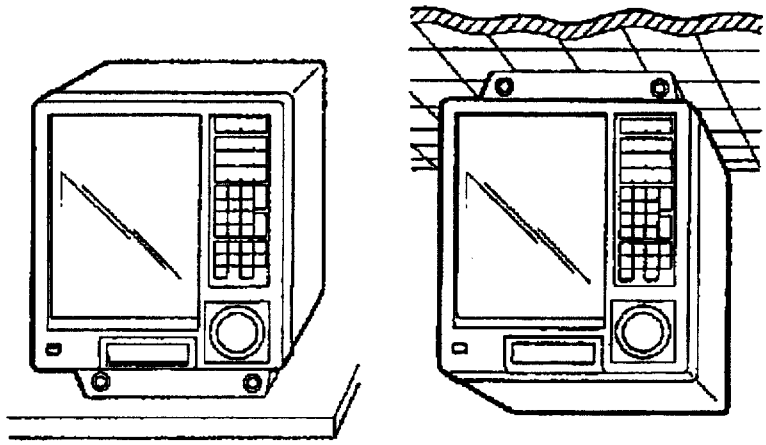


Table Mounting

Overhead Mounting

When selecting a mounting location keep in mind the following points.

- Keep the unit out of direct sunlight.
- Locate the unit well away from a place exposed to rain or water splash.
- Locate the unit away from air-conditioner or heater.
- Select a location where vibration is minimal.
- Be sure the mounting area is well ventilated.
- Select a mounting location of moderate temperature and low humidity.
- Locate the unit well away from equipment which generate a magnetic field.
- The CRT horizontal and vertical synchronization frequencies of this unit are 30.5 kHz and 60 Hz, respectively. If the CRT is installed near another CRT having different synchronous frequencies separate them at least 10 cm, to prevent picture distortion.
- Be sure the mounting location is strong enough to support the weight of the unit. If necessary, reinforce the mounting area.

Tabletop mounting

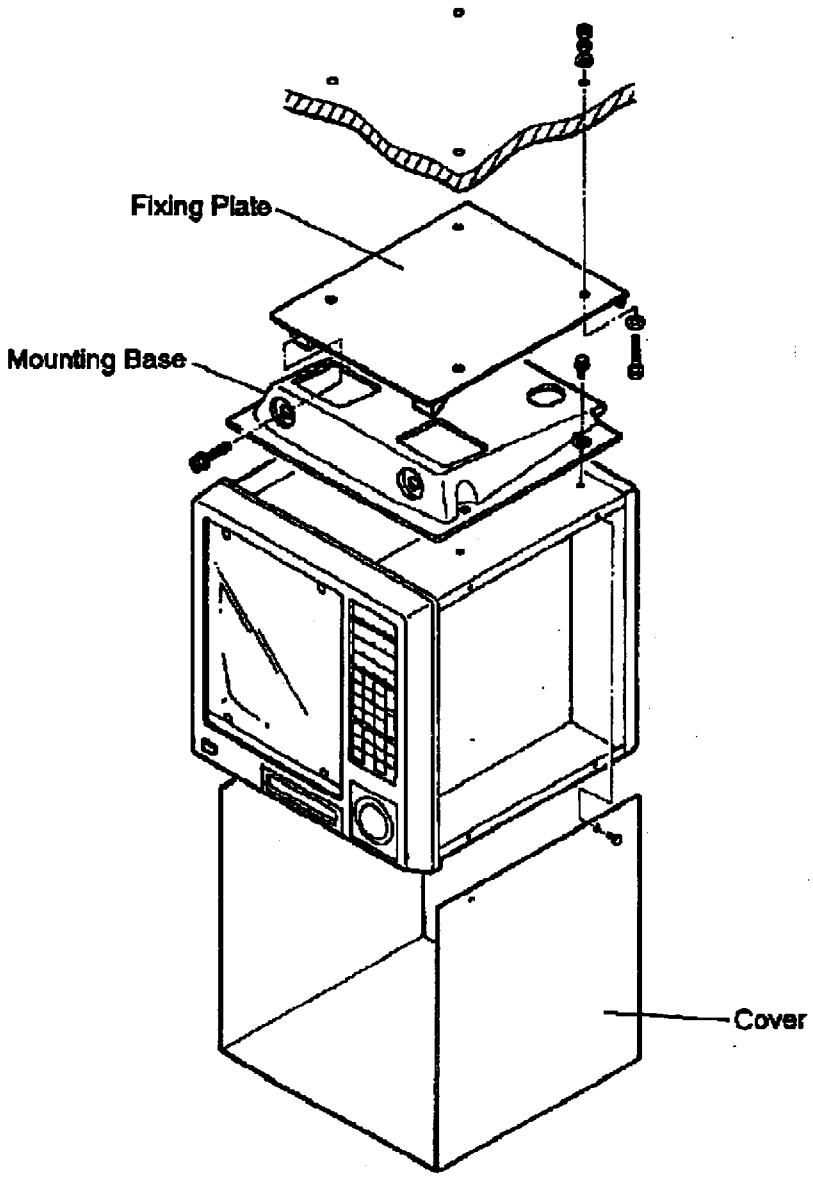
Follow the procedure below to mount the display unit on a tabletop.

1. Detach the fixing plate (inside the mounting base).
2. Fasten fixing plate to tabletop.
3. Fasten display unit to fixing plate.

Overhead mounting

To mount the display unit on the overhead;

1. Detach the fixing plate.
2. Remove the cover.
3. Detach the mounting base.
4. Fasten mounting base to top of display unit.
5. Mount the cover.
6. Fasten fixing plate to overhead.
7. Fasten display unit to fixing plate.



2. ANTENNA UNIT

Mounting

Install the antenna unit referring to the installation diagram on page D-1. When selecting a mounting location for the antenna unit, keep in mind the following points.

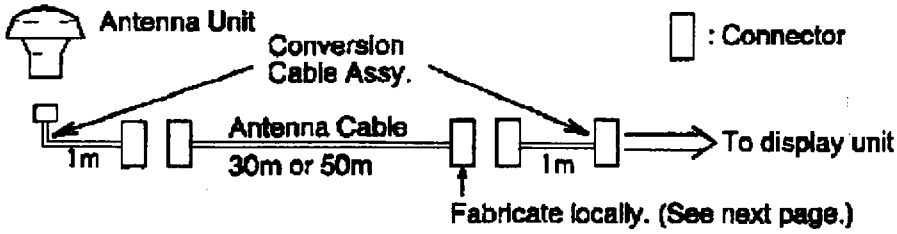
- **Select a location out of the radar beam.** The radar beam will obstruct or prevent reception of the GPS satellite signal.
- **Be sure the location offers a clean line-of-sight to satellite.** Objects within line-of-sight to a satellite, for example, a mast or funnel, block reception and cause prolonged acquiring time or interruption of positon fix.
- **Mount the unit as high as possible.** Mounting the antenna as high as possible keeps it free of water spray, which can intercept reception of GPS satellite signal, if water spray is frozen.

Extending Antenna Cable Length

The standard cable is 15m long. 30m and 50m long extension cable sets are optionally available. See page 2.

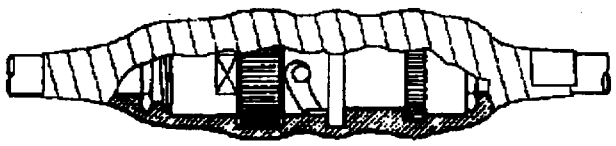
♦ Extension cable line-up

Fabricate the end of antenna cable and attach the coaxial connector. Details are shown on next page.

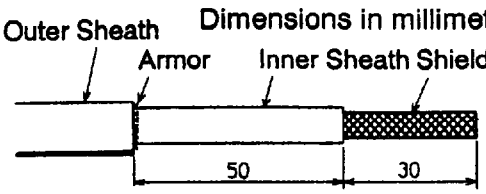


♦ Waterproofing connector

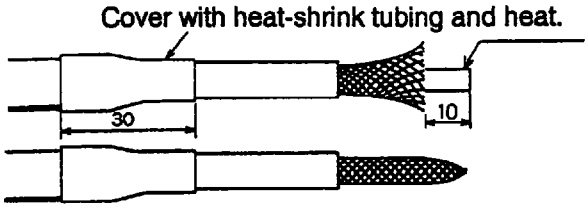
Wrap connector with vulcanizing tape and then vinyl tape. Bind the tape end with cable-tie.



How to attach the N-P-8DFB connector

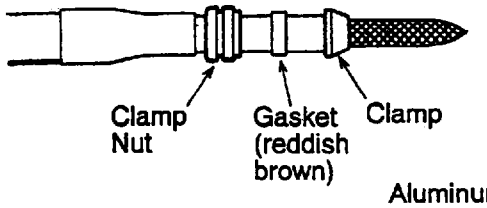


Remove outer sheath and armor by the dimensions shown left.
Expose inner sheath and shield by the dimensions shown left.

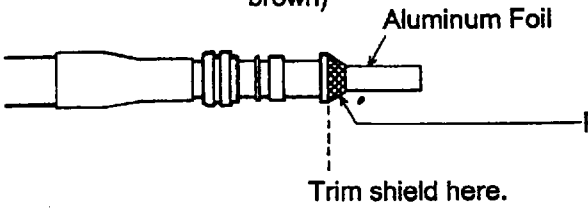


Cut off insulator and core by 10mm.

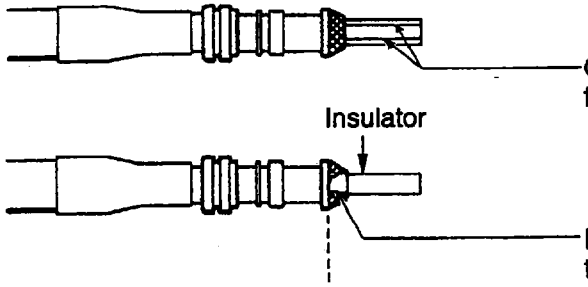
Twist shield end.



Slip on clamp nut, gasket and clamp as shown left.

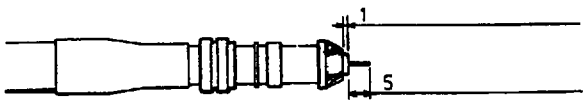


Fold back shield over clamp and trim.



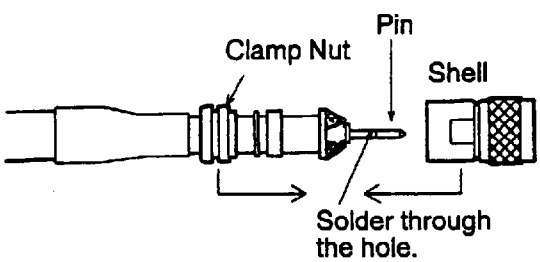
Cut aluminum foil at four places, 90° from one another.

Fold back aluminum foil onto shield and trim.



Expose the insulator by 1mm.

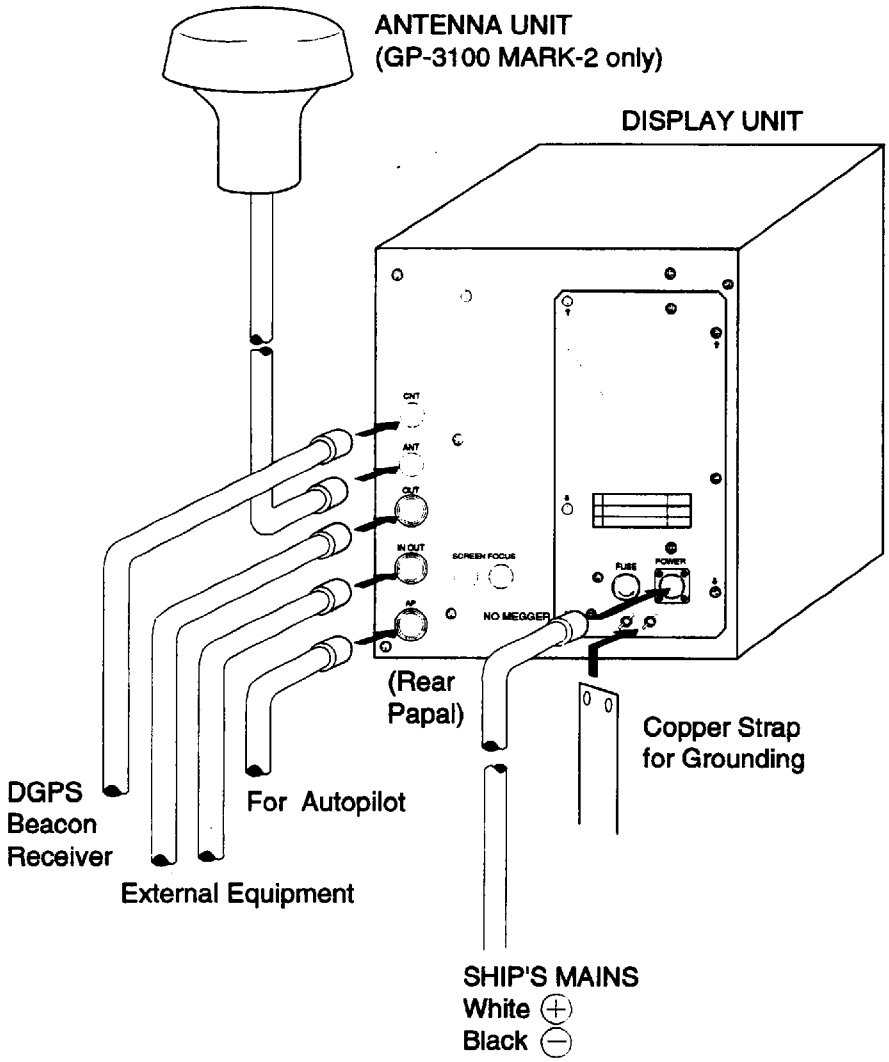
Expose the core by 5mm.



Slip the pin onto the conductor. Solder them together through the hole on the pin.

Insert the pin into the shell. Screw the clamp nut into the shell.
(Tighten by turning the clamp nut. Do not tighten by turning the shell.)

The figure below shows the connection of cables on rear of display unit.



Grounding

The display unit contains CPU circuit. While they are operating, they radiate noise, which can interfere with other radio equipment. Ground the unit as follows to prevent it.

- The grounding copper strap should be 30mm width or larger.
- The grounding wire should be as short as possible.

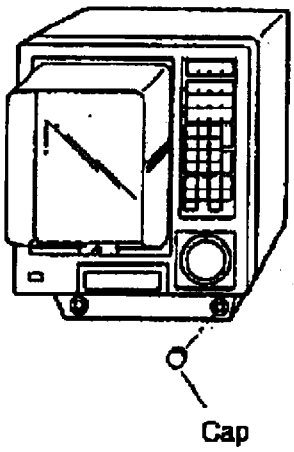
External Equipment

The NMEA port is used to connect an external equipment such as autopilot, navigation equipment, DGPS beacon receiver.

4. Installation of Accessories

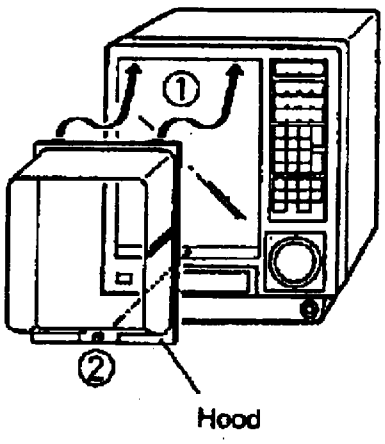
Bolt caps

Two caps are supplied with the accessories package. Attach them to the fixing bolts at the front of the display unit.



Viewing hood

The viewing hood(supplied) shields the display from extraneous light. If its function is required attach it as shown in below.



5. Change of Power Supply Specification

> **⚠ CAUTION**
>
> **To avoid electrical shock, the specified technician can only do modification.**

Converting from 24V to 12V

The 3100 MARK-2 can be powered by a 12V or 24V DC power supply. It is shipped from the factory ready for connection to a 24V DC power supply. If the unit is to be powered by a 12V DC power supply, you will need to do the following:

- Attach a jumper wire to the solder side of the POWER Board (see next page for location of jumpers), and
- replace power fuse.

1. Detach the display unit cover.
2. Remove jumper wires J2 and J5 from the solder side of the POWER Board (left side of display unit.)
3. Solder jumper wires to J1, J3 and J4 on the solder side of the POWER Board.
4. Install the cover.
5. Replace the power fuse on the rear of the unit with a **15A** fuse (supplied).
6. Near the power connector, suitably note that the unit operates by 12V power, to prevent connection to 24V power supply. Connection to 24V power supply (if not modified for connection) will damage the unit's power section.

■ **NOTE:** *If a longer power cable is necessary, the diameter of the cable should be about 2.0mm to prevent power loss.*

Converting from 12V to 24V

To convert from 12V to 24V.

1. Detach the display unit cover.
2. Remove jumper wires J1, J3 and J4 on the solder side of the POWER Board.
3. Solder jumper wires to J2 and J5 on the solder side of the POWER Board.
4. Install the cover.
5. Replace the power fuse on the rear of the unit with a **7A** fuse (supplied).

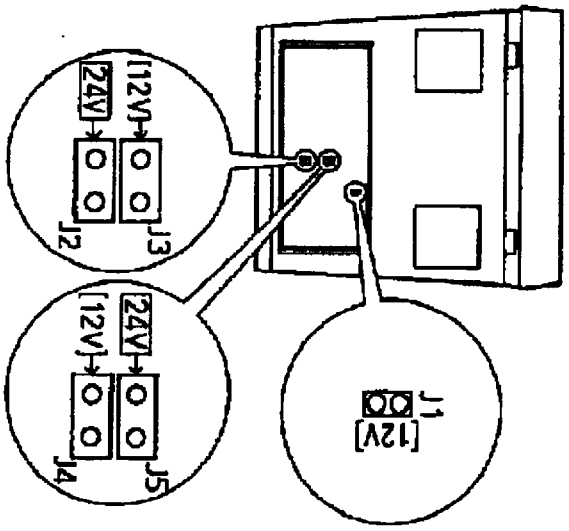


Figure 14 Display unit, left side view, showing location of jumper wires on the POWER board

Setting of jumper wires

Ship's Mains	12V	24V
J1	ON	OFF
J2	OFF	ON
J3	ON	OFF
J4	ON	OFF
J5	OFF	ON
Fuse	15A	7A

ON: Solder jumper wire
OFF: Cut jumper wire

Receiving the almanac (GP-3100 MARK-2)

The GP-3100 MARK-2 is shipped from the factory with no Almanac inside. Follow the procedure below to receive the Almanac, to fix your position.

1. Turn on the unit.
2. Press **MENU** and **8** to display the INITIAL SETTINGS menu.
3. Press [↑] to place cursor on PAGE CHANGE (TO GPS INITIAL SETTINGS).
4. Press [↓] to select LATITUDE.
5. Enter latitude to within ±10° accuracy.
6. Press [↓] to send the cursor to LONGITUDE.
7. Enter longitude to within ±10° accuracy.
8. Press [↓] to select ANTENNA HEIGHT.
9. Enter antenna height above the waterline
10. If you know a GPS satellite which is currently in line-of-sight, press [↓] to choose SELECT SAT NO. and then enter satellite number. (This is not necessary, but it shortens the time necessary for receiving a GPS satellite.)
11. Press arrow keys to select YES on the COLD START line.
12. Press the **NAV DATA** key on the front panel.

    "CST" appears on the display while the Almanac is being acquired. When acquisition is completed, "CST" is replaced by "2D".

Navigator selection

Position information, which is used to plot ship's track, can be fed from the internal GPS receiver (GP-3100 MARK-2 only) or an external navigator. Select one as follows.

1. Press **MENU** and **8** to display the INITIAL SETTINGS menu.

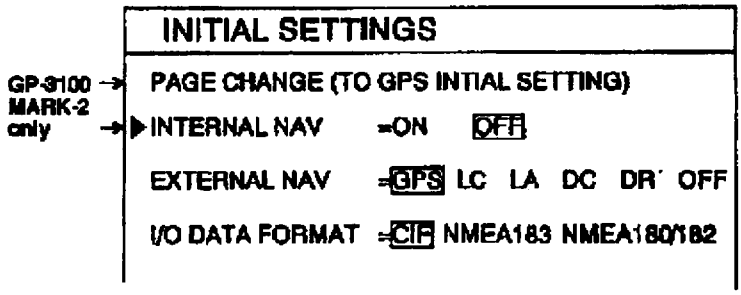


Figure 15 INITIAL SETTINGS menu

2. If you are going to use the internal GPS receiver (GP3100 MARK-2), simply confirm that INTERNAL NAV is set to ON.

3. To select external navigator, press [↓] to select EXTERNAL NAV.

4. Press [←] /[→] to select navigator; GPS, Loran C, Loran A, Decca, Dead Reckoning.

I/O data format

If position data is fed from an external navigator, select the output format of the navigator as follows.

5. Press [↓] to select I/O DATA FORMAT.

6. Press [←] /[→] to select I/O data format of navigator connected.

■ **NOTE1:** *Input and output cannot be selected independently.*
■ **NOTE2:** *I/O data talker (GP) cannot be changed.*

Time and date

Enter time and date.

7. Press [↓] to advance the cursor to DATE.

8. Enter date in the order of year, month and day. Enter leading zeroes in case of single digit month or day.

9. Press [↓] to select TIME.

10. Enter UTC time.

Autopilot information display

Autopilot information can be shown on the display of the 3100 with autopilot connection. You can turn on or off autopilot information as follows.

11. Press arrow keys to select ON or OFF on the AUTOPILOT DISPLAY line.

Loran TD indication

Loran TDs are preprogrammed in this unit and can be displayed on the screen.

13. Press [↓] to select TD INDICATION.

14. Press [←] /[→] to select indicator; Loran A, Loran C or OFF (none).

15. Press [↓] to so STATION PAIR.

16. Enter station pair for Loran A, or GRI for Loran C.

After confirming your selections, press **ENT** to register them.

7. Selecting Output Data

The data to be output by the #1 and #2 pins of the OUT connector can be selected by jumper block JP6 on the GDC Board. The default setting outputs external navigator position data. Input and output data formats cannot be selected independently.

Jumper block JP6 has two settings:

OUTER: Outputs external navigator position data (default setting).

INNER: GP-3100 MARK-2 -- Output internal GPS receiver position data.

GD-3100 MARK-2 -- Outputs event data.

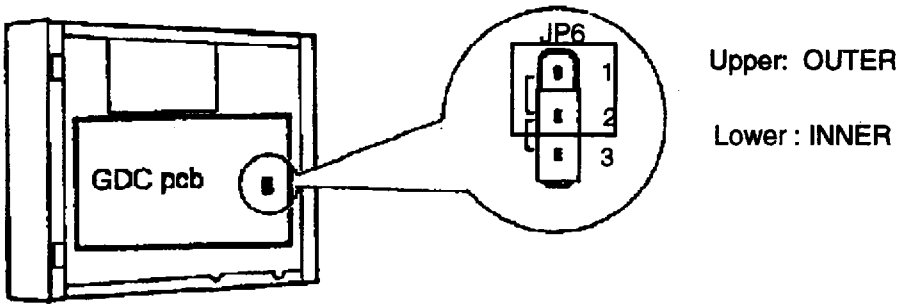


Figure 16 Display unit, cover removed, right side view

■ **NOTE:** *When no external navigator device is connected to the GP-3100 MARK-2 JP6 must be set for " INNER" to output position data.*

8. Jumper Wire and DIP SW Settings on GDC Board

The GDC Board has a jumper wire, jumper block and a DIP switch which tailor the specifications of the 3100 MARK-2. Table 4 shows the specifications available by the jumpers and DIP switch.

Table 4 Specifications of jumpers and DIP SW on GDC board

Jumper Wire /DIP SW	Setting	Specification
JP6	INNER	GP-3100 MARK-2: #1 and #2 pins of OUT connector output position data from internal GPS receiver. GD-3100 MARK-2: #1 and #2 pins of OUT connector output event data in CIF format.
	OUTER	#1 and #2 pins of OUT connector output external navigator position data.
DIP SW1	#1	Clear all memories. (Switch normally off.) Turn on after change of program, or when keyboard locks.
	#2	OFF (GP-3100 MARK-2 Specificaion). ON (GD-3100 MARK-2 Specification).
	#3	OFF: Display factory-digitized chart on video pilot display. ON: No display of factory-digitized chart on video pilot display.
	#4	OFF (factory setting).

9. I/O Data Description

IN/OUT Port
#1, #2 Data Output (D0)
#3, #4 Data Input (D1)

OUT Port
#1, #2 Data Output (D2)
#3, #4 Data Output (D3)

AP Port
#1, #2 Output Data (NMEA0183 or NMEA0180S*)
#3, #4 Data Input (NMEA0183) for FAP-330

*NMEA 0180S output should be version 03 or higher

D0 (Internal data: Data produced by GD-3100/GP-3100 MARK-2)
The data formats shown in the table which follows are available through the menu.

Format	Details
CIF	Navaid: GPS (fixed) Data: system time and date, position, speed, heading, waypoint, GPS data (altitude, DOP), event data
NMEA 0183	Talker: GP (GPS only) Sentence: GLL, VTG, RMC, WPL
NMEA 0182/0180C	L/L ($MP fixed data)

D1 (External data: Data input by external equipment)
one of CIF, NMEA 0183, NMEA 0182/0180C

D2 (Data output to external equipment through #1 and #2 pins of OUT port)
Can select D0 or D1 (above) through jumper wire JP6.
JP6g INNERh setting: D2 = D0 (internal data)
JP6g OUTERh setting: D2 = D1 (external data)

D3 (Data output to external equipment through #3 and #4 pins of OUT port)
D3 = D0 (regardless of JP6 setting)

Autopilot output port (data output to autopilot through #1 and #2 pins of AP port)
The following data formats are available through the menu.

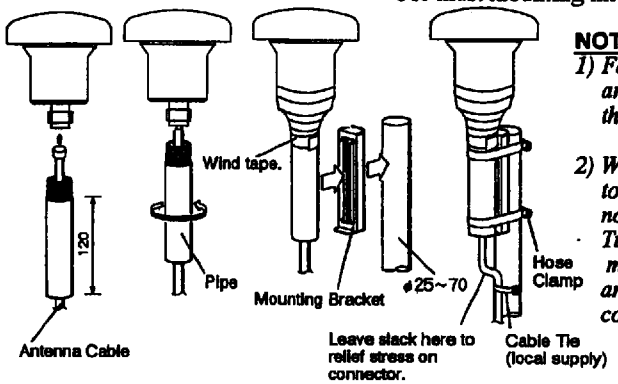
NMEA 0183 Talker: GP (GPS only)
Sentences: AAM, BOD, VTG, XTE

NMEA0180S Course error data

FURUNO

A) Mast mounting

Use mast mounting kit CP20-01111.



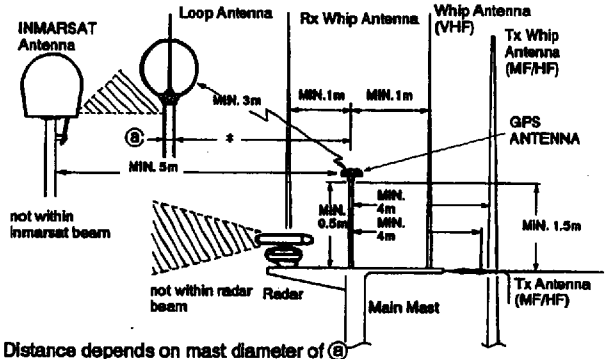
NOTES

1) Fasten pipe to antenna first then fix them to mast.

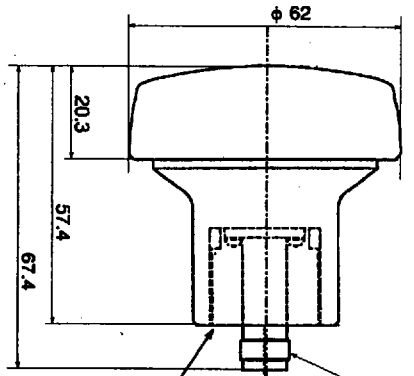
2) When fixing antenna to pipe, turn pipe; not the antenna. Turning the antenna may twist the cable and place stress on connector.

Mounting location

The figure below shows the recommended separation distances from other antennas to avoid mutual interference.

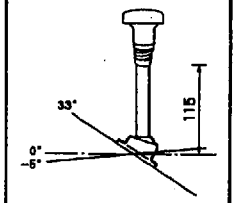
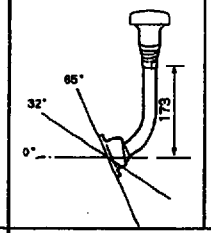
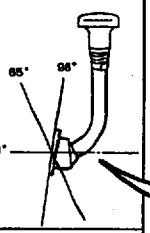


* Distance depends on mast diameter of ⑧
⑧ mast diameter 10cm : minimum 1.5m
⑧ mast diameter 30cm : minimum 3m

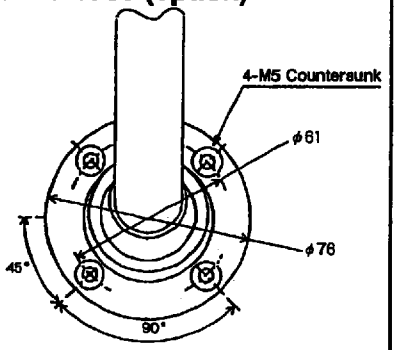


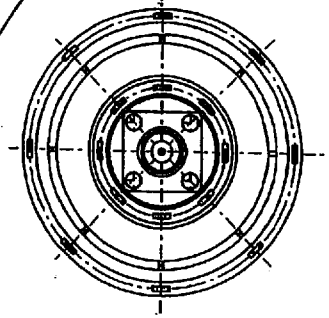
B) Antenna base mounting

Use optional antenna base No.13-QA300 or No.13-QA310.

Inclination -5° to 33°	32° to 65°	65° to 98°
		
Right angle antenna base No.13-QA300 (code No. 000-803-239)	L-type antenna base No.13-QA310 (code No. 000-803-240)	

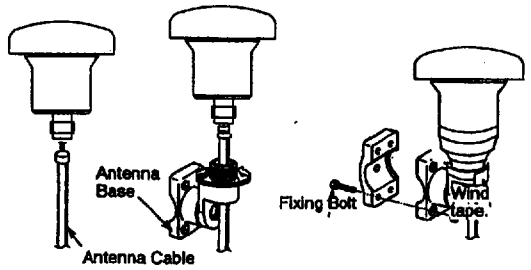
Mounting dimensions of antenna base (option)





Thread Type	Threads per 25.4 mm (1 Inch)	Pitch	Thread Length	Pitch Diameter
1 × 14UNS1B	14	1.8143 mm	15.17 mm	24.17 mm

C) Handrail mounting



Use handrail mounting base No.13-RC5160 (Code No. 000-861-114, option). The diameter of the handrail may be from ϕ19mm to ϕ32mm.

NOTES

1) Fasten antenna base to antenna first then fix them to handrail.

2) When fixing antenna to antenna base, turn antenna base; not the antenna. Turning the antenna may twist the cable and place stress on connector.

DRAWN: Oct 3. '95 T. Yamasaki		GP-50MK3 PS-8000M2 GP-1600/F GP-8000M2 GP-3100M2 GP-80		TYPE: GPA016
CHECKED: Oct 6 '95 TAKAHASHI				名称: 空中線部
APPROVED: Oct 11 '95 K. OTA				外寸図
SCALE: 1/2	MASS: 0.1kg	APPLICABLE TO: (MODEL)	BLOCK NO.	NAME: ANTENNA UNIT OUTLINE DRAWING
DWG NO.: E4374-G04- D				

D-1

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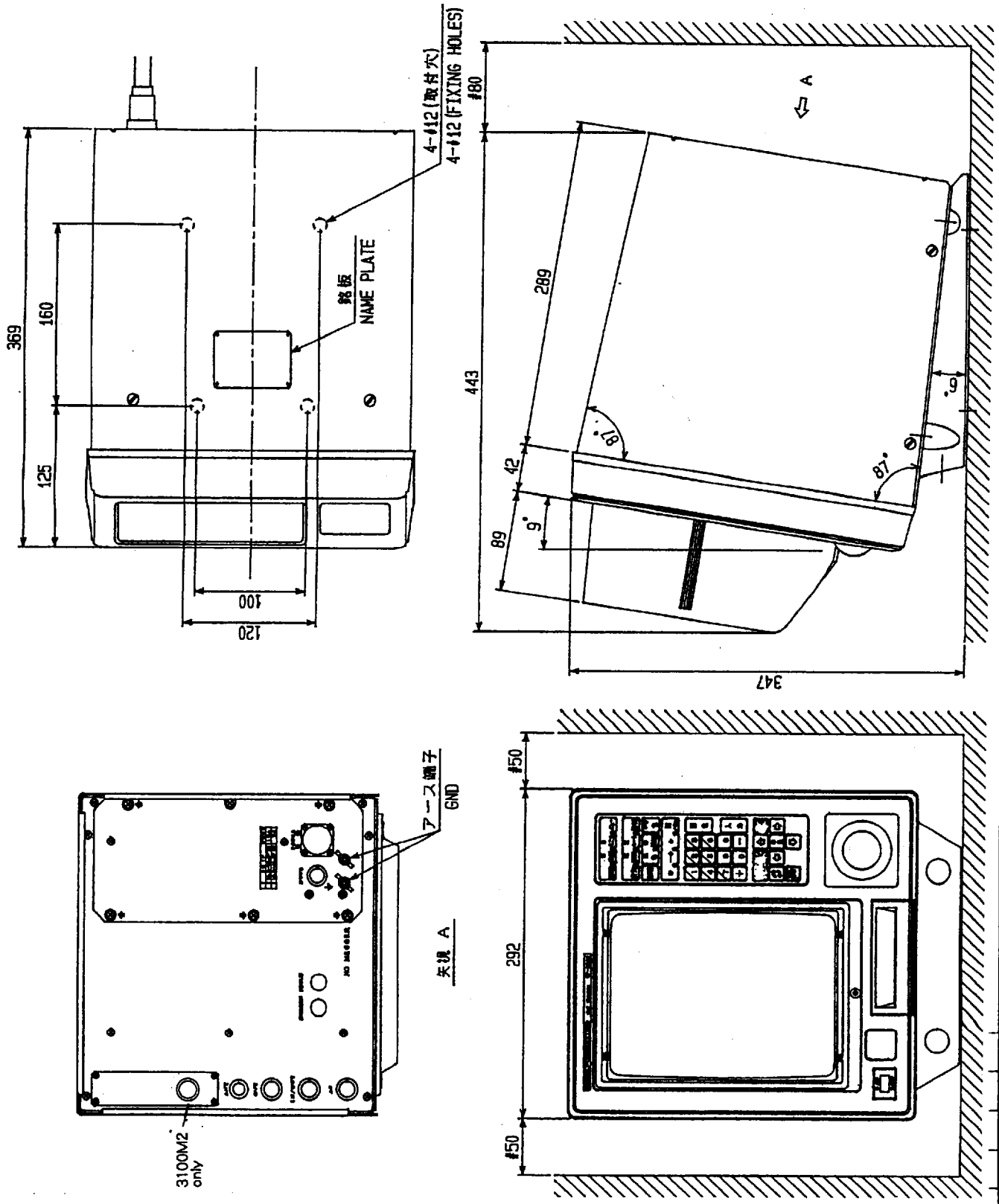
D - 2



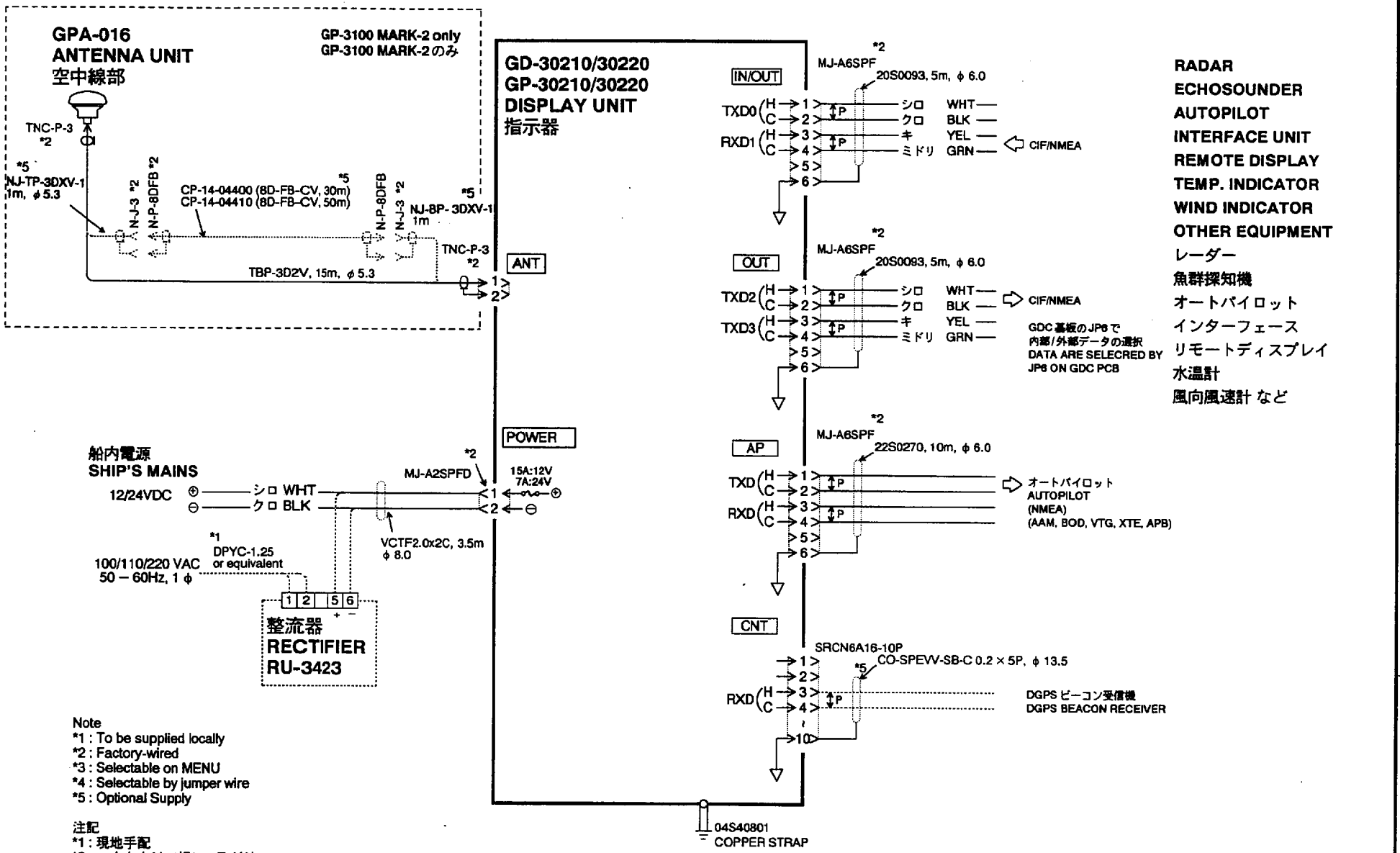
GP-3000/3100/3100 M2
GD-3000/3100/3100 M2

品番 ITEM	品名 NAME	材質 MATERIAL	数量 Q'TY	図番 DWG.NO.	摘要 REMARKS

承認 APPROVED	AUG.11.'92 T.KAWADA	三角法 THIRD ANGLE PROJECTION		名称 TITLE	GP-30010/31010/ 30210/30220 GD-30010/31010/ 30210/30220 指示部外寸図 DISPLAY UNIT
検図 CHECKED	AUG.11.'92 N.SAITO	尺度 SCALE	1/5		
製図 DRAWN	July.17.'92 OKAMOTO	重量 WEIGHT	12.5 kg	図番 DWG.NO	C4348 - G01 - D

FURUNO ELECTRIC CO., LTD.

FURUNO

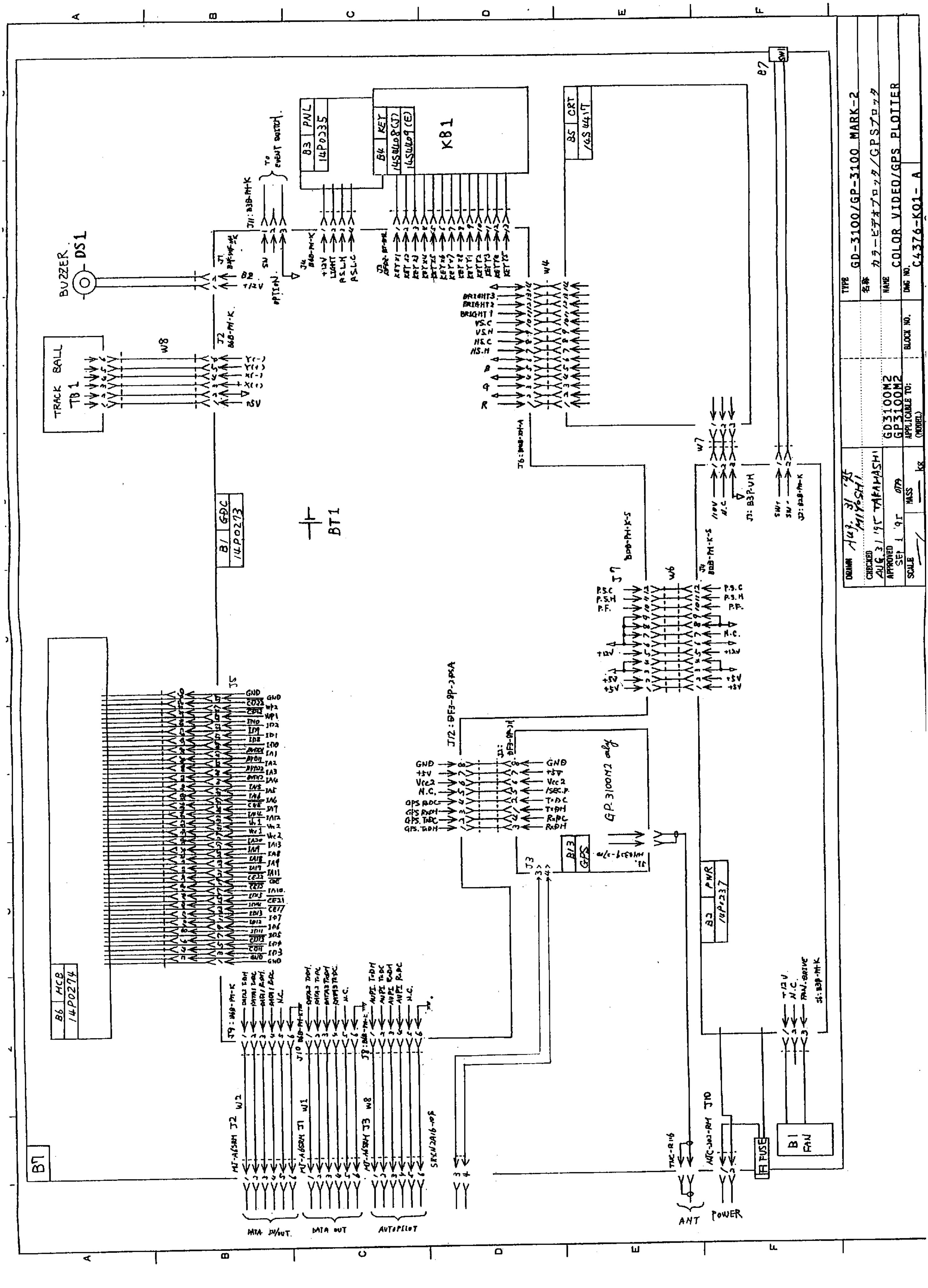


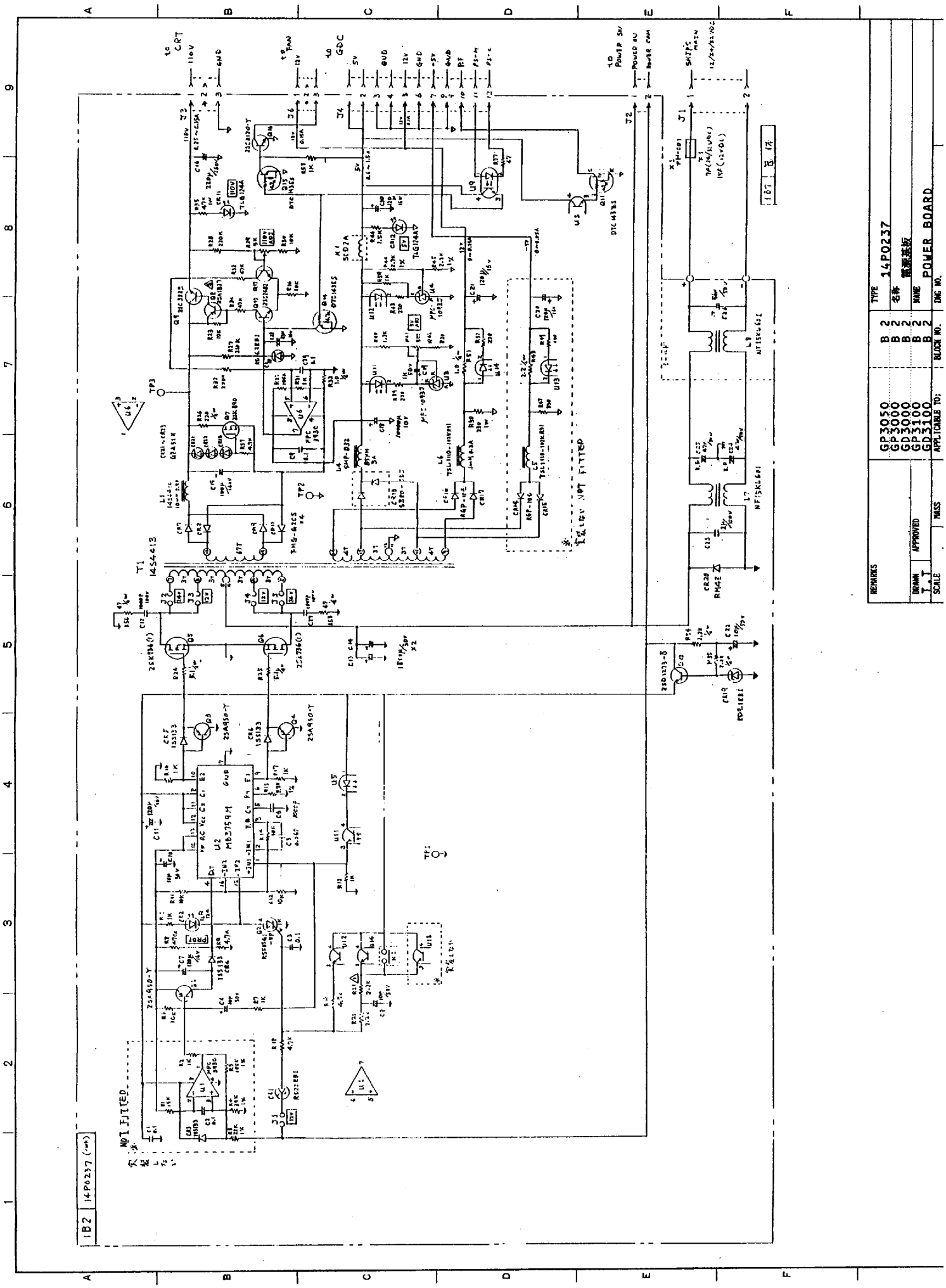
Note
*1 : To be supplied locally
*2 : Factory-wired
*3 : Selectable on MENU
*4 : Selectable by jumper wire
*5 : Optional Supply

注記
*1 : 現地手配
*2 : コネクタは工場にて取付済
*3 : メニューにて選択
*4 : ジャンパー線にて選択
*5 : オプション

DRAWN Jun 10'96 T.KAWAGUCHI			TYPE GD/GP-3100 MARK-2
CHECKED JUN 17,'96 TAKAHASHI			名称 カラービデオ／GPSプロッタ
APPROVED Jun 7 '96 K.YAMAMOTO	GD3100M2 GP3100M2		相互結線図
SCALE / MASS kg	APPLICABLE TO: (MODEL)	BLOCK NO.	NAME COLOR VIDEO/GPS PLOTTER
DWG NO. C4376-C01- D			INTERCONNECTION DIAGRAM

S-1-1


GD-3100/GP-3100 MARK-2
カラービデオブロック/GPSブロック
COLOR VIDEO/GPS PLOTTER
C4376-K01- A
GD3100M2
GP3100M2
DRAWN
CHECKED
APPROVED
SCALE
MASS
TYPE
NAME
DWG NO.
BLOCK NO.
APPLICABLE TO: (MODEL)
BUZZER DS1
TRACK BALL TB1
B3 PNL 14P0235
B4 KEY
KB1
B5 CRT
B1 GDC 14P0273
BT1
B6 MCB 14P0274
B13 GPS
B2 PWR 14P0237
B1 FAN
FUSE
GP-3100M2 only
DATA IN/OUT
DATA OUT
AUTOPILOT
ANT
POWER
TO EVENT SWITCH
OPTION


TYPE 14P0237
名称 電源基板
NAME POWER BOARD
DWG NO.
BLOCK NO. B 2
APPLICABLE TO: GP3050 GP3000 GD3000 GP3100 GD3100
MASS
APPROVED
DRAWN T.T
SCALE
REMARKS
NOT FITTED
1B2 14P0237 (mm)