FURUNO

INSTALLATION MANUAL

SSB RADIOTELEPHONE

MODEL FS-1562-15(150W)
FS-1562-25(250W)

After installation, if necessary, enter user channels and adjust output power referring to separate Service Manual.

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FIRST EDITION : NOV. 1993
K : AUG. 6, 2001

PUB. No. IME-55722-K
FS-1562-15/25

(TENI)

00080552900

⚠ 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.

⚠ 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.

SAFETY INFORMATION FOR THE INSTALLER

⚠ WARNING

Only qualified personnel should work inside the equipment.

This equipment uses high voltage electricity which can shock, burn, or cause death.

Turn off the power at the ship's mains switchboard before beginning the installation. Post a warning sign near the switchboard to ensure that the power will not be applied while the equipment is being installed.

Serious injury or death can result if the power is not turned off, or is applied while the equipment is being installed.

⚠ CAUTION

Ground the equipment.

Ungrounded equipment can give off or receive electro-magnetic interference or cause electrical shock.

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 equipment.

Table of Contents

Specifications

GENERAL

Communication System	Simplex or semi-duplex
Frequency Range	1.6 to 27.5 MHz (transmit) 0.1 to 30 MHz (receive)
Frequency Resolution	Transmit: 100 Hz Receive: 10 Hz
Class of Emission	J3E (LSB) J3E (USB) H3E (AM compatible) F1B, J2B (for DSC, NBDP terminal) J3C (weather facsimile, reception only)
Frequency Stability	±10 Hz
Number Of Channels	User Channel: 200 ITU SSB/Telex Channel 2182 kHz (single action)
Ambient Temperature Range	-20°C to +55°C
Relative Humidity	93% at 40°C
Power Supply & Power Consumption	24VDC +30 -10% Receive: 2A Transmit(max.): FS-1562-15 ...20 A FS-1562-25 ...40 A
Frequency Selection	Key or dial encoder
Dimmer	Illumination for Keyboard and LCD (four levels incl. off)
Dimensions and Mass	Transceiver 105 mm(W) x 256 mm(H) x 300 mm(D), 6.4kg Power Amp 290mm(W) x 146mm(H) x 294mm(D), 6.0kg

RECEIVER

Receiving System

Double-conversion superheterodyne
IF: 54.455 MHz and 455 kHz

Sensitivity

Input level to produce SINAD 20 dB

	J3E	H3E	F1B
0.1 to 0.3 MHz (*1)	+40	+54	
0.3 to 1.6 MHz (*1)	+25	+39	
1.6 to 4 MHz (*1)	+16	+30	6
4 to 30 MHz (*2)	+3		-7
			(dBμV)

(*1): at 10 ohms + 250pF (*2): at 50 ohms

Selectivity

2.4 kHz at -6 dB (J3E)
6.0 kHz at -6 dB (H3E)
300 Hz at -6 dB (F1B)

Spurious Response

Better than 70 dB

Intermodulation

Better than 80 dB

Audio Output

Internal speaker: 1 W/ 8 ohm
External speaker: 5 W/ 4 ohm
Line output: 0 dBm / 600 ohm

Other Features

RF Gain: Adjustable
Squelch: ON/OFF, Activated by voice/signal strength
Dimmer: OFF/Low/Medium/High
Speaker: ON/OFF (Handset always alive)
AGC: ON/OFF
Noise blanker: always ON

TRANSMITTER

Output Impedance

50 ohms

Output Power

J3E/H3E: FS-1562-15...150Wpep
FS-1562-25...250Wpep
F1B: FS-1562-15...150W
FS-1562-25...250W
Tune: 10 to 20 W approx.

Power Reduction

60W

Controls

Output HI/LOW, test/send of two-tone alarm generator, 2182kHz single action key

ANTENNA COUPLER

Tuning System	CPU controlled fully automatic tuning system
Frequency Range	1.6 to 27.5 MHz
Input Impedance	50 ohms (viewed from transceiver)
Antenna Required	7 to 30 m wire or whip
Power Capability	FS-1562-15...150W FS-1562-25...250W
Tuning Power	10 to 20 W
VSWR	Less than 1.5
Tuning Time	Within 2 to 15 seconds Within 0.5 second on pretuned bands
Dummy Load	Mounted in the COUPLER (10 ohms + 250pF)
Power Requirement	15VDC 0.6A (supplied from transceiver)
Ambient Temperature	-30°C to + 70°C at 93% relative humidity
Construction	Waterproof plastic cabinet, stainless steel mount
Dimensions and Mass	297 mm (W) x 390 mm (H) x 90 mm (D), 3.1 kg approx.

POWER AMP UNIT(PA-2500, only for FS-1562-25)

Input Power	60W
Output Power	250W
Input/Output Impedance	50 ohms
Ambient Temperature	- 20 to + 55 °C
Power Supply	24VDC, 30A

EQUIPMENT LIST

Complete Set

No.	Name	Type	Code No.	Qty	Remarks
1	Transceiver Unit	FS-1562-15	000-055-239	1	For 150W
		FS-1562-25	000-057-206		For 250W
2	Antenna Coupler	AT-1560-15-AAS	000-055-245	1	For 150W, Resin
		AT-1560-15-SUS	000-055-263		For 250W, Stainless steel
		AT-1560-25-AAS	000-055-255		For 150W, Resin
		AT-1560-25-SUS	000-055-265		For 250W, Stainless steel
3	Power Amp Unit	PA-2500	000-057-201	1	For 250W
4	Accessories	FP05-02010	000-055-201	1 set	For handset
		FP05-02010	000-055-200		For microphone (option)
		FP05-02020	000-055-202		For noise-canceling microphone (option)
5	Spare Parts	SP05-03700	000-055-240	1 set	For transceiver unit
		SP05-04100	000-057-203	1 set	For PA-2500
6	Installation Materials	CP05-05600	000-054-241	1 set	For trans. unit
		CP05-05700	000-055-238	1 set	For ant. coupler
		CP05-06700	000-057-204	1 set	For PA-2500
7	Cable Assembly				Control/Coax-cable
8	BK relay kit				For FS-1562-25

Complete Set

No.	Name	Type	Code No.	Qty	Remarks
1	Power Supply	PR-300	000-130-431	1	For 150W
		PR-850	000-129-040		For 250W
		PR-850A			
2	Fan Kit	OP05-54	005-944-630	1 set	
3	Piggy-mount Hanger	OP05-95	005-950-660	1	
4	Piggy-mount Hanger w/Fan Kit	OP05-69	005-955-650	1 set	
5	Doublet Antenna	E-22	000-050-632	1 set	
6	Single Wire Antenna	E-24	000-050-634	1 set	
7	Double-span Antenna	E-25	000-050-635	1 set	
8	Whip Antenna Lead-in	E-26	000-050-636	1 set	
9	Whip Antenna Feeder	E-27	000-050-637	1 set	
10	Whip Antenna	FAW-6D	000-572-128	1 set	
		FAW-6R2	000-572-108		
		FAW-6R2A	000-107-921		
11	BK Interface	BK-300	000-055-478	1 set	
14	AC FAIL Board	05P0657	005-945-870	1 set	
15	Coupler Installation Materials	OP05-12	005-923-680	1 set	U-bolts for fixing antenna coupler
16	External Speaker	SEM-21Q	000-144-917	1	
17	REMOTE-B Kit	OP05-40	005-920-320		Current loop, for RB-500/DB-500
18	BK Relay Kit				Refer to page 3-2 for FS-1562-15.

Accessories for transceiver unit (FP05-02010; handset type)

No.	Name	Type	Code No.	Qty	Remarks
1	Hanger	FP05-02001	005-922-690	1	
2	Tapping Screw	6x20 SUS304	000-800-414	6	
3	Knob Bolt	KG-B2 M8x20 SUS304	000-800-601	2	
4	Flat Washer	M6 SUS304	000-864-129	6	
5	Hanger Washer	05-029-0132	100-087-911	2	
6	Knob Washer	05-029-0135	100-100-390	2	
7	Handset Hanger	05-024-1001	100-095-691	2	
8	Stopper	05-024-1002	100-095-701	1	
9	Template	05-024-1003	100-095-711	1	
10	Tapping Screw	3x20 SUS304	000-801-662	6	
11	Handset	HS-6000FZ5	000-112-623	1	

Accessories for transceiver unit (FP05-02000; hand-microphone type option)

No.	Name	Type	Code No.	Qty	Remarks
1	Hanger	FP05-02001	005-922-690	1	
2	Tapping Screw	6x20 SUS304	000-800-414	6	
3	Knob Bolt	KG-B2 M8x20 SUS304	000-800-601	2	
4	Flat Washer	M6 SUS304	000-864-129	6	
5	Hanger Washer	05-029-0132	100-087-911	2	
6	Knob Washer	05-029-0135	100-100-390	2	
7	Microphone	DM1620FZI	000-112-622	1	

Accessories for transceiver unit (FP05-02020; noise-canceling mic. type, option)

No.	Name	Type	Code No.	Qty	Remarks
1	Hanger	FP05-02001	005-922-690	1	
2	Tapping Screw	6x20 SUS304	000-800-414	6	

3	Knob Bolt	KG-B2 M8 x 20 SUS 304	000-800-601	2	
4	Flat Washer	M6 SUS304	000-864-129	6	
5	Hanger Washer	05-029-0132	100-087-911	2	
6	Knob Washer	05-029-0135	100-100-390	2	
7	Noise-canceling Microphone	M112D4509910	000-116-487	1	

Installation Materials for transceiver unit (CP05-05600)

No.	Name	Type	Code No.	Qty	Remarks
1	Power Cable	05S0932	000-130-430	1	with 20A fuse, 2m
2	Ground Wire	05S0479	000-113-348	1	2m

Installation Materials for antenna coupler (CP05-05700)

No.	Name	Type	Code No.	Qty	Remarks
1	Tapping Screw	5 x 16 SUS304	000-805-494	4	
2	Pipe Seal	05S0938	000-130-472	1	
3	Copper Strap	04S0801	000-572-187	1	30 x1200x 0.3mm
4	Blind Plug	05-039-6325CR	100-164-380	1	

Installation Materials for antenna coupler (cable assembly)

No.	Name	Type	Code No.	Qty	Remarks
1	Control Cable Assy.	05S0949, 10m	000-130-484	1	10m cable suppied, if cable length is not specified.
		05S0949, 20m	000-130-485		
		05S0949, 30m	000-130-486		
		05S0949, 40m	000-130-487		
		05S0949, 50m	000-130-488		
2	Coax. Cable Assy.	05S0462, 10m	000-113-360	1	10m cable suppied, if cable length is not specified.
		05S0462, 20m	000-113-361		
		05S0462, 30m	000-113-362		
		05S0462, 40m	000-113-363		
		05S0462, 50m	000-113-364		

Installation Materials for power amp unit (PA-2500, CP05-06700)

No.	Name	Type	Code No.	Qty	Remarks
1	Power Cable	05S0414-1	000-113-347	1	
2	Ground Wire	05S0479-0	000-113-348	1	2m

3	Control Cable Assy.	05S9082-0, 2m	000-134-198	1	Select one. (Between PA-2500 and transceiver)
		05S9082-0, 5m	000-135-121		
		05S9082-0, 10m	000-135-123		
4	Coax. Cable Assy.	05S9081-0, 2m	000-134-199	1	Select one. (Between PA-2500 and transceiver)
		05S9081-0, 5m	000-135-117		
		05S9081-0, 10m	000-135-119		

Spare Parts for transceiver unit (SP05-03700)

No.	Name	Type	Code No.	Qty	Remarks
1	Fuse	FGBO 20A 125 VAC	000-549-015	2	

Spare Parts for Power Amp unit (SP05-04100)

No.	Name	Type	Code No.	Qty	Remarks
1	Fuse	FGBO 30A 125 VAC	000-549-017	2	

Chapter 1 Installation

1.1 Transceiver

Mounting methods

The transceiver can be mounted one of four ways:

- in the hanger (overhead, bulkhead or tabletop) or
- flush mounting.

Mounting considerations

When selecting a mounting location;

- Make sure the location is strong enough to support the unit under the conditions of continued vibration and shock normally encountered on the boat. Where necessary, reinforce the mounting location by lining block or doubling plate.
- Locate the unit where it is easily accessible and does not interfere with personnel or operation of other equipment; for example, ship's wheel.
- Select a location where temperature and humidity are moderate and stable. For added ventilation, install the Fan Kit. See page 1-7.

■ **NOTE:** *The piggy-mount hanger (option) permits piggyback mounting the transceiver together with the FURUNO DSC-60 DSC terminal. See page 1-7.*

Hanger mounting

To mount the transceiver by using the hanger;

1. Using the hanger as a template, mark mounting hole locations.
2. Fix the hanger with tapping screws (supplied). (For extra support, drill six pilot holes and use M5 bolts, nuts and washers instead of the tapping screws.)
3. Set the transceiver to the hanger and fix it with the washers and knobs.

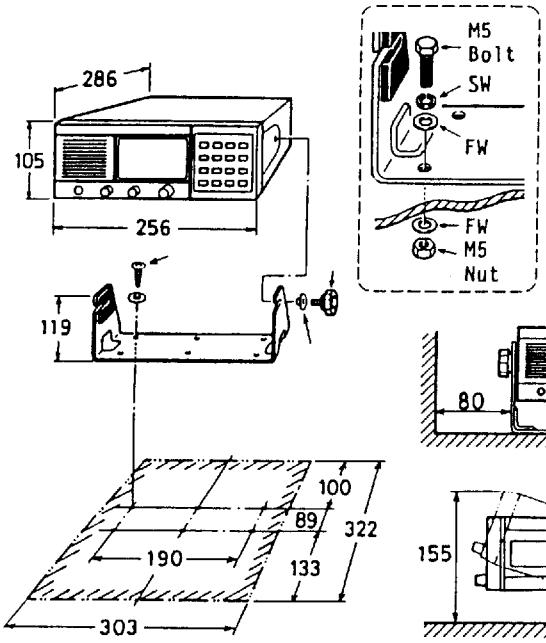


Figure 1-1 Installing the transceiver *Figure 1-2 Service clearance*

Flush mounting

When selecting a mounting location;

- The mounting location should be strong enough to support the weight of the unit. If necessary, fix the unit to a suitable doubling plate.
- Select a place where the LCD can be easily viewed, keeping in mind that the LCD viewing angle is as shown in Figure 1-3.
- Leave sufficient space around the unit to permit dispersal of heat after long transmission.

Mounting

This method does not require any additional kit. However, the mounting dimensions must be accurate since the hanger also is installed.

Prepare a cutout in the mounting location as shown in Figure 1-3.

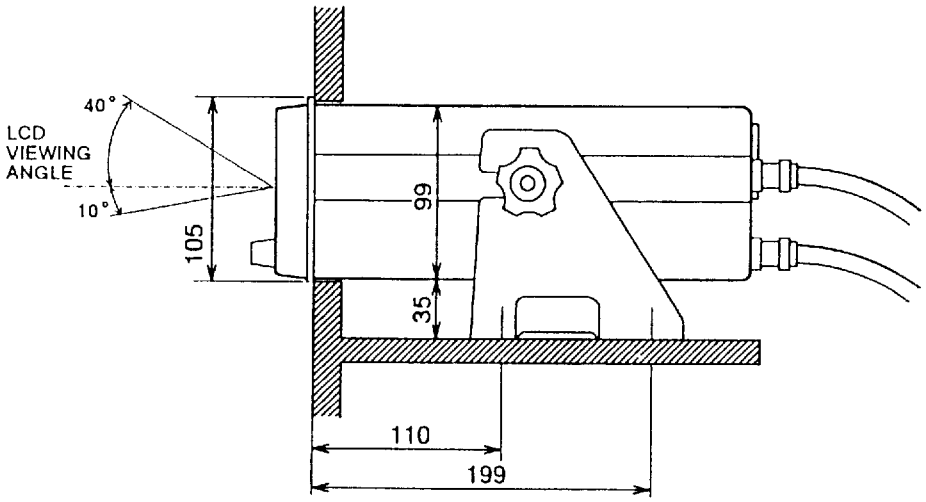


Figure 1-3 Mounting dimensions for flush mount

1.2 Antenna Coupler

Introduction

The antenna coupler is installed between the antenna and the transceiver (or power amp unit for 250W set), and tunes the antenna to the transmitter.

The importance of a good ground system cannot be overemphasized. Without a good ground, this unit will not work properly—if at all.

Mounting considerations

The splashproof construction of the antenna coupler permits installation either indoors or outdoors. When selecting a location, keep in mind the following points.

Outdoor installation

- The antenna coupler is splashproof, however it is not designed to take a continual soaking. If necessary, seal any opening in the top or sides with silicone sealant.
- Select a location not exposed to salt water spray. Salt water on the antenna insulator may cause unstable operation of the coupler and in the worst case prevent transmission.
- All wires from the coupler to the antenna radiate radio energy. They should be routed away from any grounded conductors such as lifelines, mast shrouds, or fittings.
- For optimum radio energy, locate the coupler as near to the ground as possible.
- The length of the vertical portion of the antenna should be as long as possible.
- Leave enough space around the sides of the unit to permit maintenance and checking.
- Total antenna length should be 7 to 30 meters.

Indoor installation

- Locate the unit away from GPS and Satnav receivers and radio equipment to avoid mutual interference.
- The lead-in wire should be as near to the unit as possible.
- Select a place where the unit can be easily maintained, but where it will not interfere with crew or passengers.

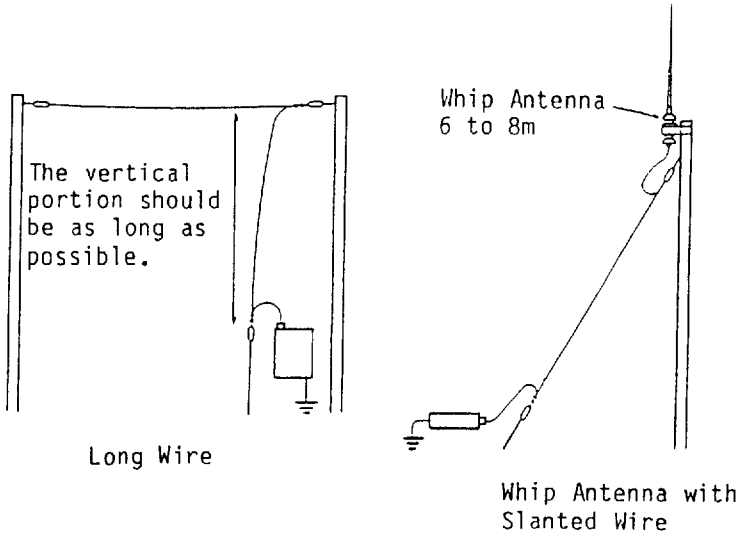


Figure 1-4 Long wire and whip antenna installations

Anti-moisture measure (vent tube)

The vent tube (supplied) prevents moisture from being drawn into the enclosure during atmospheric pressure changes and allows trapped humid air to escape. Install it according to coupler installation method, before mounting the coupler.

Vertical or horizontal installation

Two vent holes are provided on the coupler, one at the bottom and one on the rear. These are vent holes Ⓑ and Ⓐ in Figure 1-5. The vent tube is set to vent hole Ⓑ at the factory. This location is for vertical installation of the coupler. For horizontal installation, remove the vent tube from vent hole Ⓑ and set it to vent hole Ⓐ. Cover vent hold Ⓑ with seal (supplied), from inside the coupler.

Overhead installation

Drill a hole of 8 mm diameter in the front cover and mount the vent tube there. See Figure 1-5.

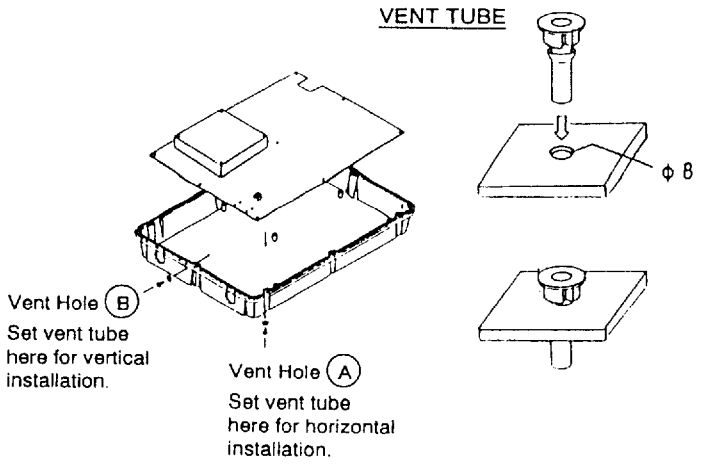


Figure 1-5 Mounting the vent tube

Mounting

The antenna coupler can be fixed to the floor, bulkhead, overhead or mast. For mounting on the bulkhead, floor or ceiling, fix the coupler with either tapping screws or M5 bolts and nuts. For mounting on the mast, use two U-bolts (optional supply).

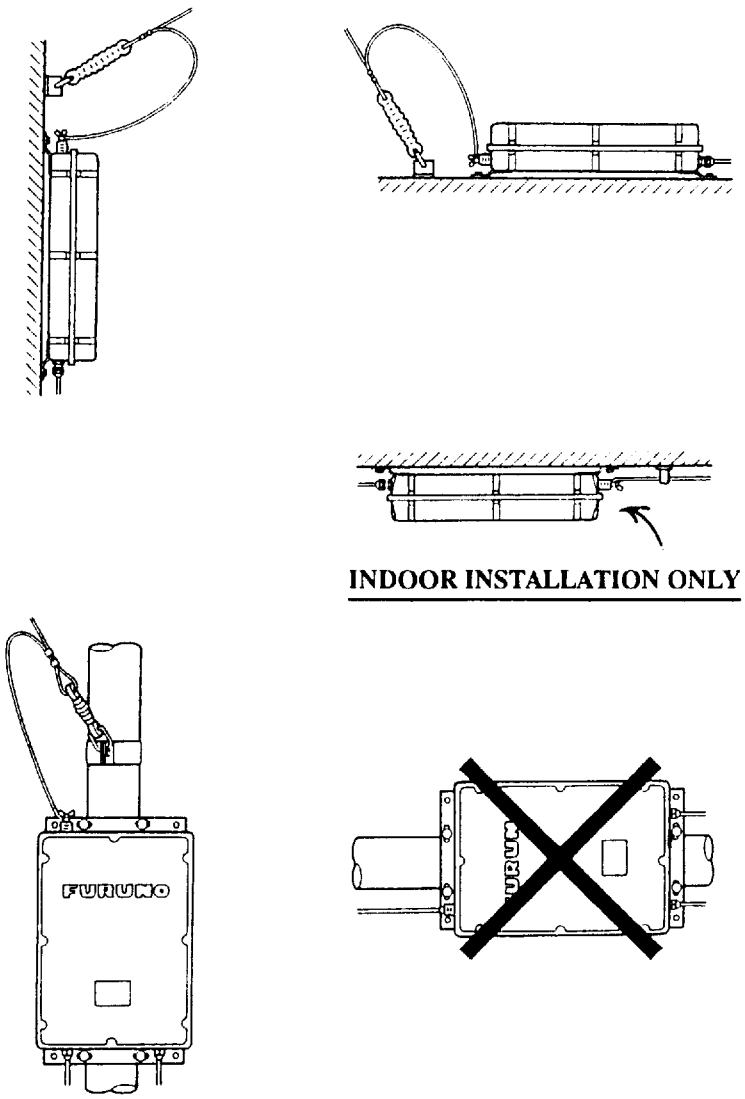


Figure 1-6 Typical antenna coupler installations

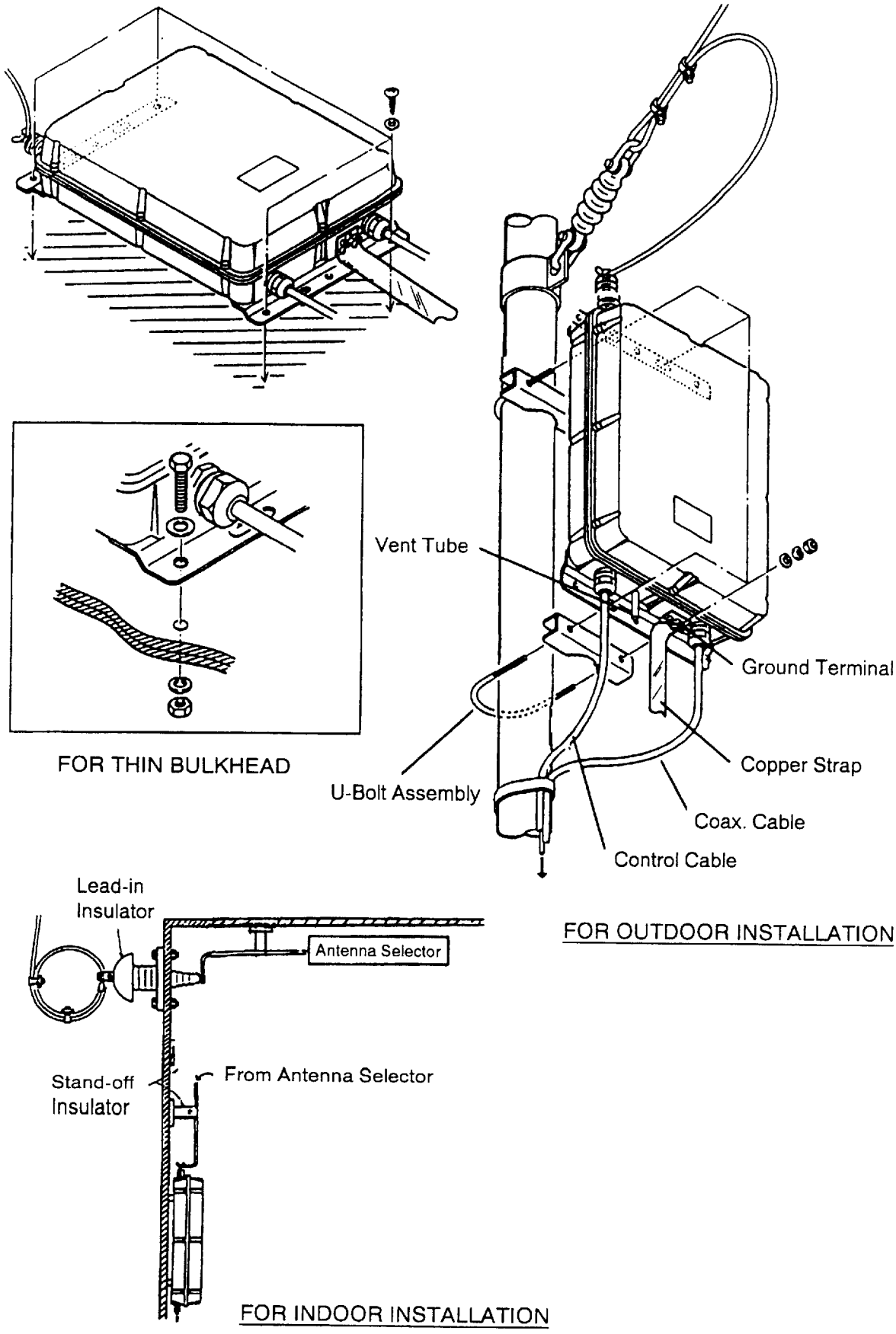


Figure 1-7 Mounting the antenna coupler

1.3 Fan Kit and Piggy-Mount Hanger

Fan kit

Mounting

The Fan Kit provides cooling air for the transceiver. Install it by referring to the outline drawing on page D-6.

Connection

Insert the 2P connector from the Fan Kit into the "FAN" cable entrance at the rear of the lower chassis of the transceiver as shown below. Connect it to the FAN terminal J16 of the TX/RX board.

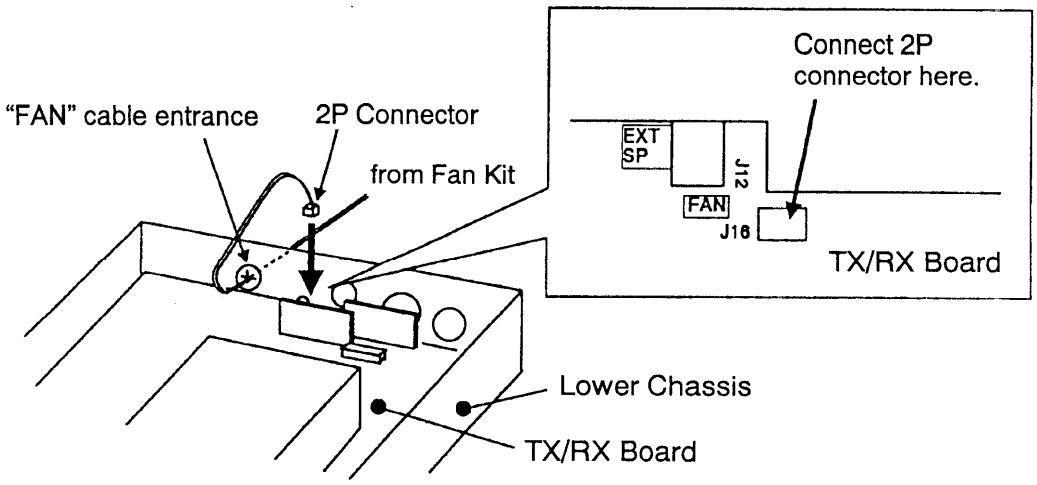


Figure 1-8 Connection of the Fan Kit

Piggy-mount hanger

The piggy-mount hanger permits piggyback mounting of the transceiver together with the FURUNO DSC-60 DSC Terminal. Install it by referring to the outline drawing on page D-7.

When the Fan Kit is required, connect it to the FS-1562 referring to the procedure shown above. If the fan kit is not installed, only the top cover is supplied.

1.4 Ground System

Introduction

A good antenna can work well only when an efficient RF ground is provided. Without a good ground system, the full potential of this radio cannot be realized.

⚠ CAUTION

Ground the equipment.

Ungrounded equipment can give off or receive electro-magnetic interference or cause electrical shock.

■ **CAUTION:** *Lack of ground connection or a long ground lead may allow the ground terminal of the antenna coupler to reach a high RF voltage with respect to ground, resulting in a safety hazard.*

Ground for metallic hull

Run a copper strap (supplied) between the ground terminal of the antenna coupler and the ship's superstructure.

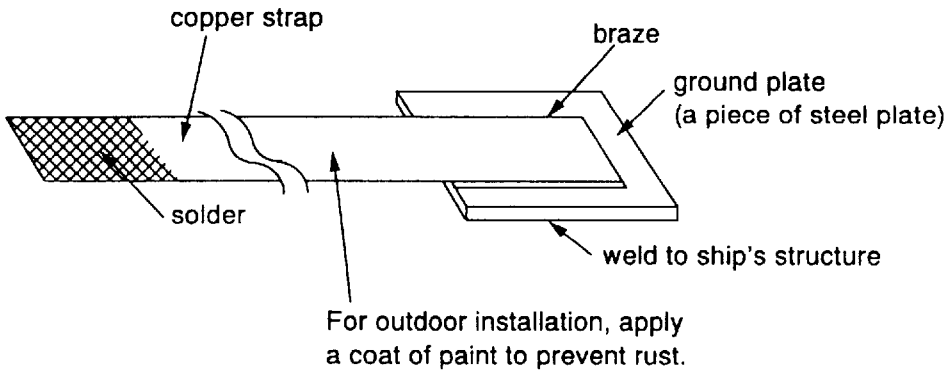


Figure 1-9 Ground for metallic hull

Ground for non-metallic hull

Run a copper strap (supplied) between the ground terminal of the antenna coupler and the radio ground system.

Transceiver / Power Amp ground

Ground the transceiver and the power amp unit with the ground wire (supplied), to prevent interference and protect against lightning.

1.5 The Antenna

Introduction

The antenna plays the most important role in radio communication. If it cannot receive or transmit effectively because of improper installation, even the most sophisticated transceiver will be rendered useless.

Types of antennas

There are various types of SSB antennas. The most commonly used are a long wire and a whip. Whatever antenna is to be used, the antenna coupler can tune a long wire or whip whose total length is 7 to 30 meters (23.3 to 100 feet). Although a longer antenna is preferable when the radio is operated only on low frequencies, use this size of antenna to ensure stable automatic tuning on all bands.

Long wire antenna

A long wire antenna is inexpensive and in general provides better performance than a whip antenna, provided the vertical part is long enough.

Whip antenna

A whip antenna is easier than a long wire antenna to install and provides good overall coverage of most SSB frequencies. In fact, if you don't plan to venture more than 500 miles from shore and the ground system is excellent, a simple 7 meter (23 feet) whip antenna will probably suffice. A whip is installed as high as possible, away from any nearby objects.

■ **WARNING:** *Touching a transmitting SSB antenna can cause severe burn or shock.*

Mounting considerations

When selecting a mounting location;

- The length of the vertical portion should be longer than 4 meters, and the slant angle of that part should be within 10 degrees. Separate it as far as possible from:
  stays
  metallic objects
  direction finder antenna
  INMARSAT radome antenna
- Locate the insulator away from funnels and masts.
- If the antenna coupler is installed outdoors, use a lead-in insulator (FURUNO type YA-150(150W) or YA-218(250W)) to make the connection. If necessary, use a high quality antenna switch and stand-off insulator.
- If the antenna is connected directly to the coupler, use a strain insulator to prevent insulator fatigue.

1.6 Power Amp Unit (PA-2500, 250W only)

Mounting Considerations

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

- Select a location which provides adequate ventilation.
- The location should be clean and dry.
- The mounting location must be able to support the weight of the unit(6kg) under the conditions of vibration normally encountered aboard the vessel.

Mounting

The mounting dimensions of the Power Amp Unit are shown in Figure1-10.

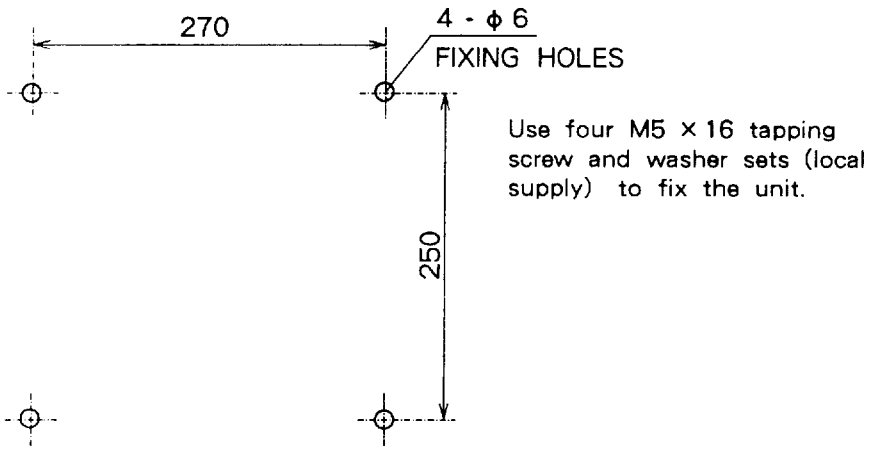


Figure 1-10 The mounting dimensions of Power Amp Unit

1.7 Power Supply Unit (option)

Mounting Considerations

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

- Select a location which provides adequate ventilation.
- The location should be clean and dry.
- The mounting location must be able to support the weight of the unit (PR-300:14.5kg, PR-850/PR-850A:35kg) under the continued conditions of vibration normally encountered aboard the vessel.

Mounting

Refer to the outline drawings attached.

Chapter 2 Connections

2.1 Connection of Units

Refer to the interconnection diagram on page 2-4 to 2-6.

2.2 Power Cable

The FS-1562 comes with a 2-meter power cable with built-in 20A fuses. If a longer cable is necessary, it should be as thick as possible to prevent voltage drop.

2.3 AC-DC Power Supply Unit (PR-300 for 150W set)

Introduction

To the AC-DC Power Supply Unit (PR-300), both 100/110/200/220VAC and 24VDC are supplied. When AC input fails, DC power is directly supplied.

For GMDSS vessels, 24VDC power must be supplied through the radio battery.

Changing tap connections

Change the tap connections of the transformer as shown below, in accordance with the input voltage.

Changing fuse

Change the fuse as shown below, in accordance with the ship's mains.

100/110 VAC	10A
200/220 VAC	5A

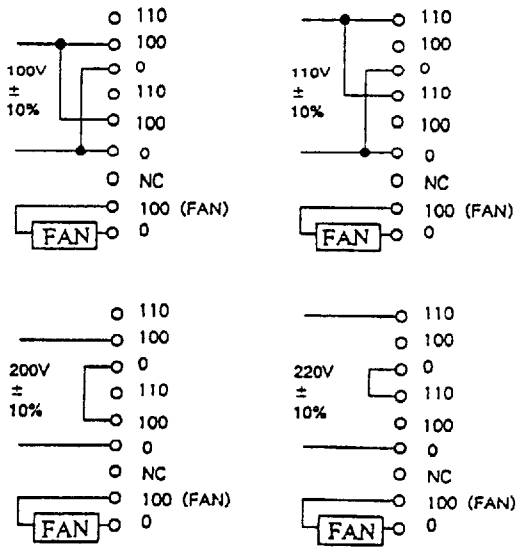


Figure 2-1 Tap connections in the PR-300

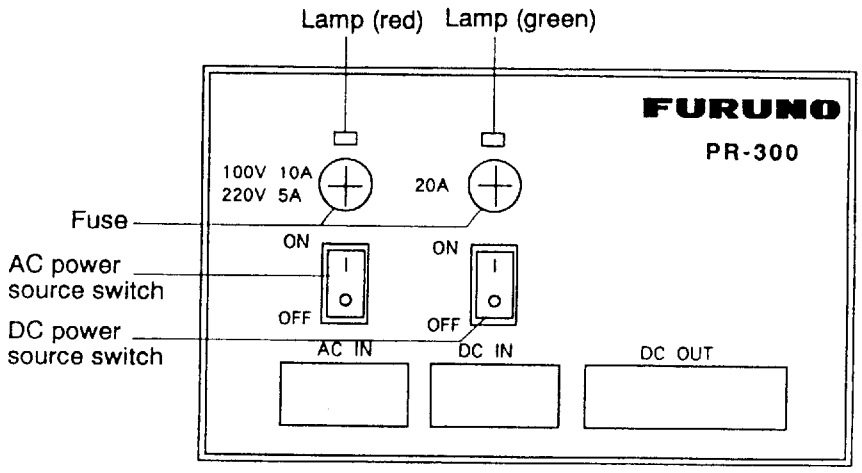


Figure 2-2 AC-DC power supply unit PR-300

Ground

Connect a ground wire between ship's superstructure and a fixing hole on the PR-300.

2.4 Power Supply Unit (PR-850/PR-850A for 250W set)

Introduction

To the Power Supply Unit PR-850, 100/110/120/200/220/240VAC is supplied.
To the Power Supply Unit PR-850A, both 100/110/120/200/220/240VAC and 24VDC are supplied. When AC input fails, DC power is directly supplied. For GMDSS vessels, 24VDC power must be supplied through the radio battery.

Wiring

Connect cables to the input terminal on the front panel, using crimp-on lugs. For connections to output terminals, bend crimp-on lugs so they do not contact the terminal board cover.

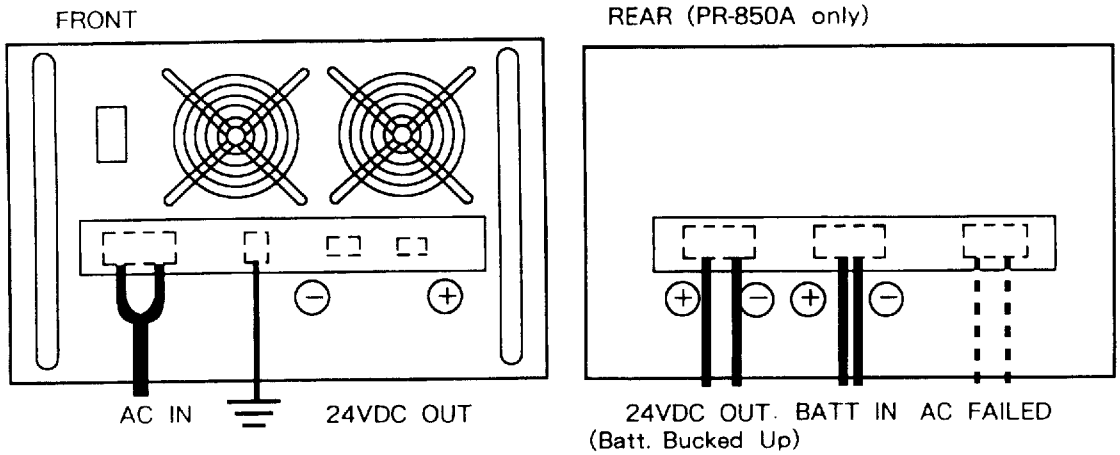


Fig. 2-3 Connections on PR-850/PR-850A

Selection of Input Voltage

The input voltage is adjustable for 100/110/120/200/220/240 VAC, and is factory-set for 220 VAC. To select other input voltages, open the top cover and change the wiring according to the figure below. After changing the input voltage, correct the front panel sticker accordingly.

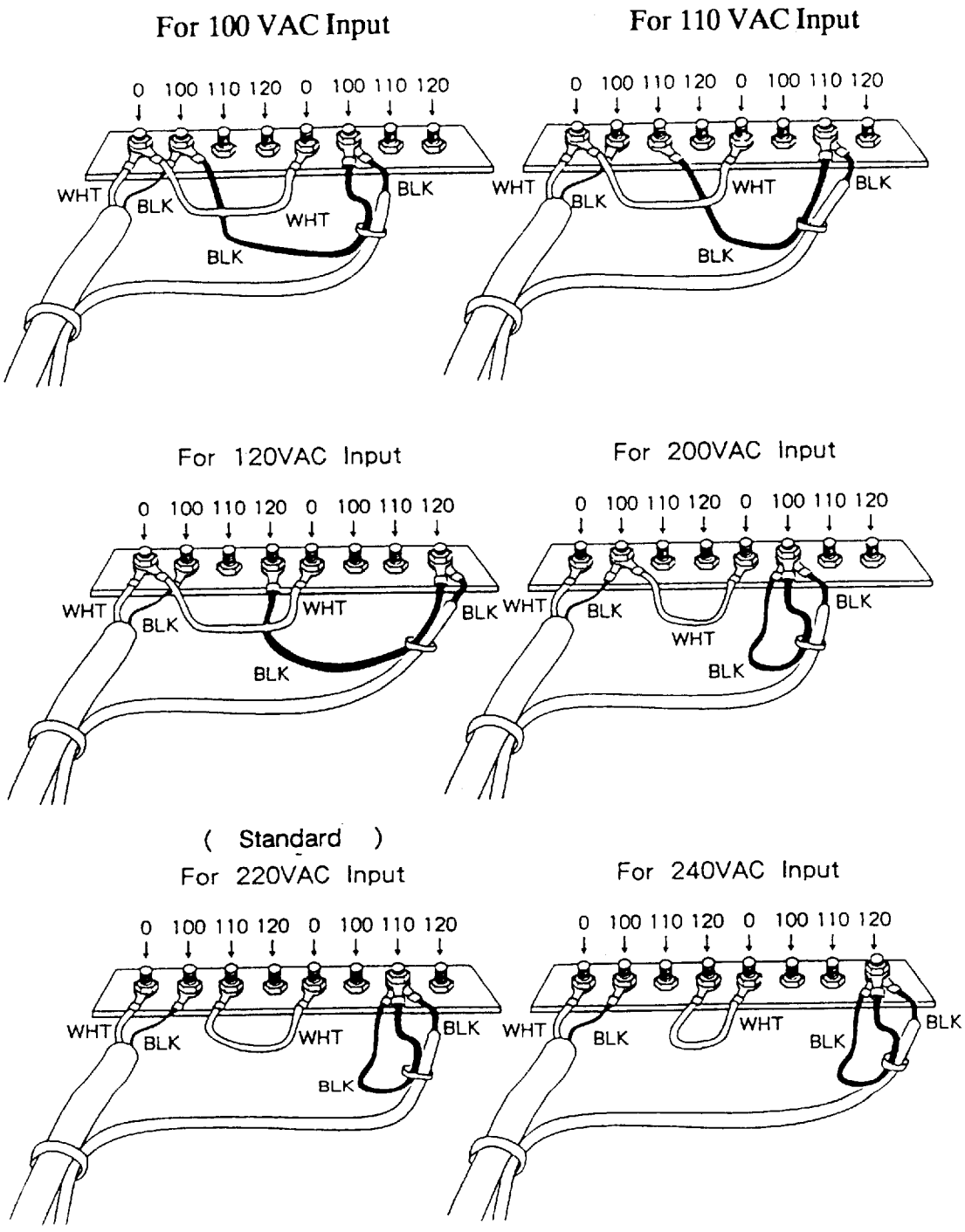


Figure 2-4 Selection of Input Voltage on PR-850/PR-850A

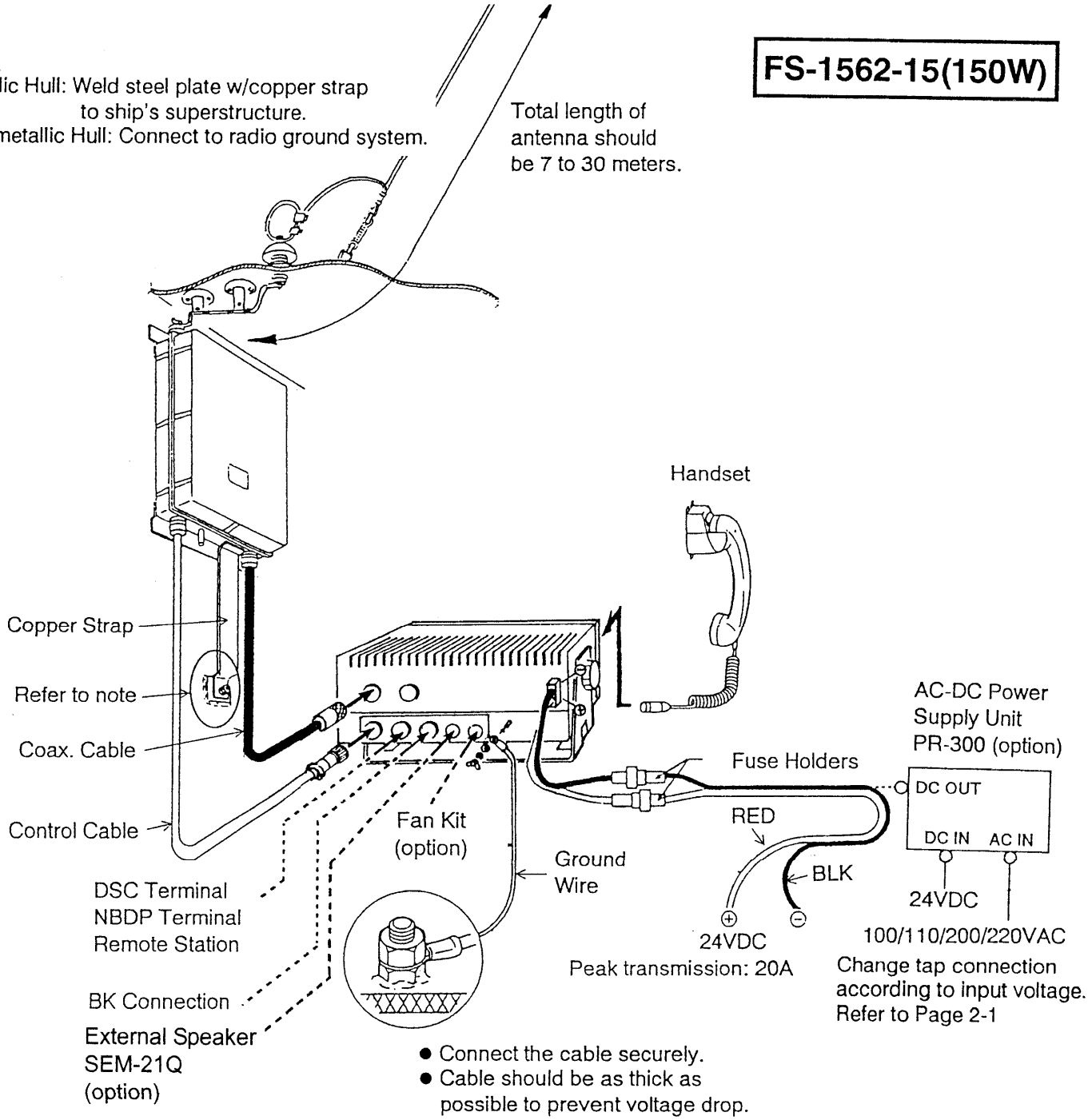
Ground

Connect a ground wire between ship's superstructure and a fixing hole on the PR-850/PR-850A.

FS-1562-15(150W)

Note:
Metallic Hull: Weld steel plate w/copper strap to ship's superstructure.
Non-metallic Hull: Connect to radio ground system.

Total length of antenna should be 7 to 30 meters.



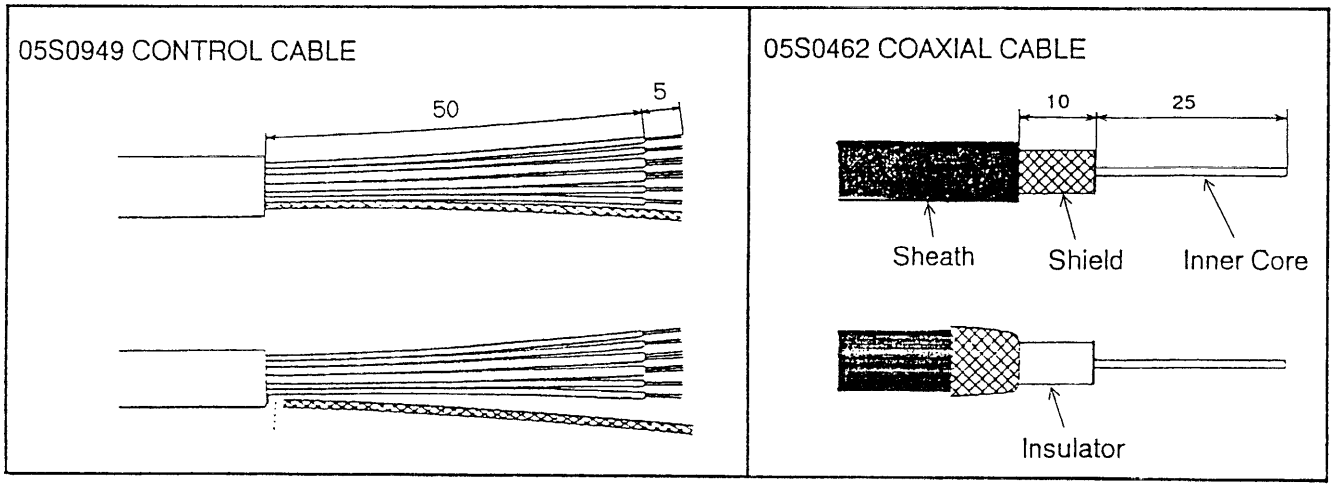


Figure 2-5 Connections for FS-1562-15(150W) set

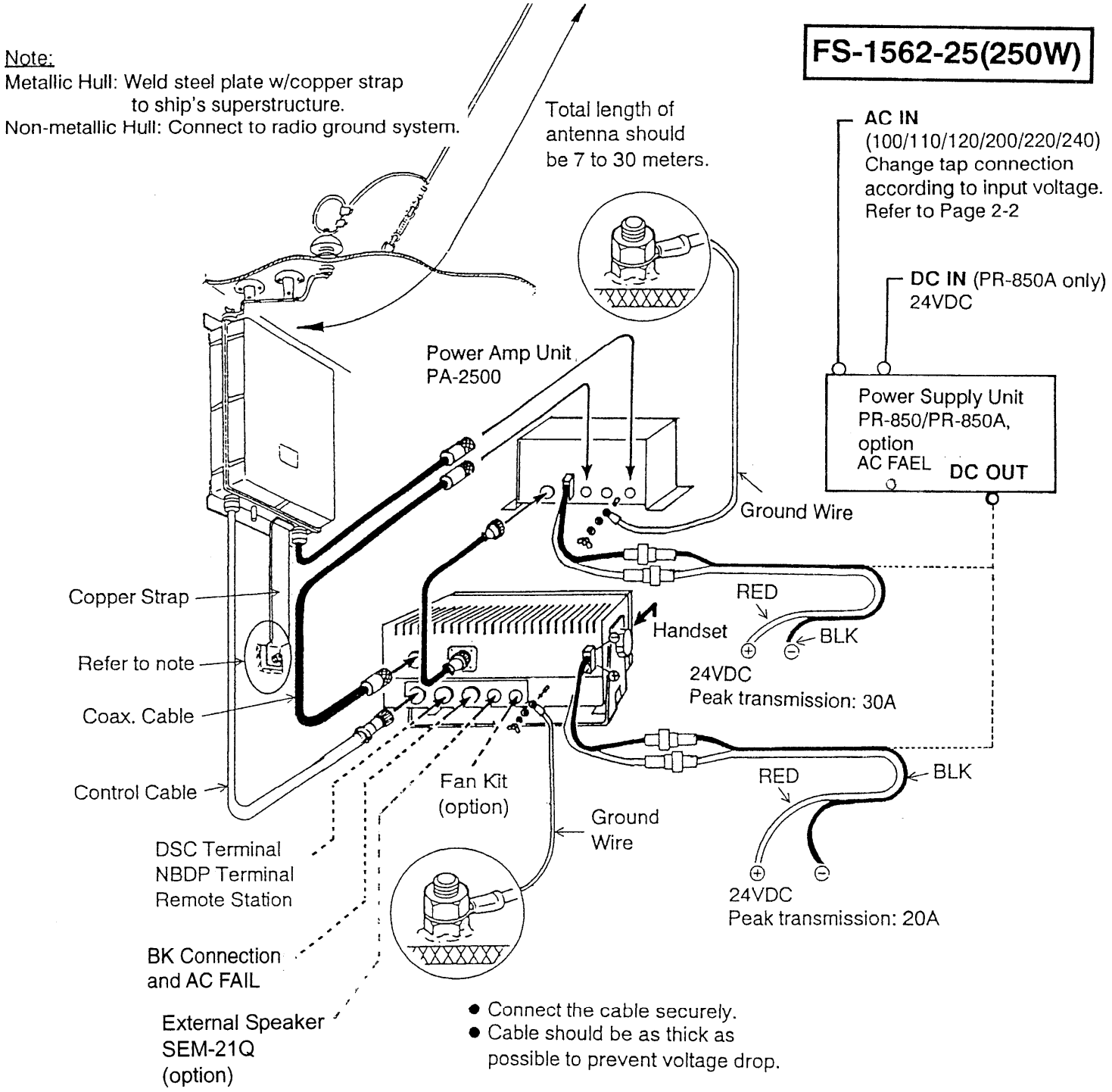


Figure 2-6 Connectons for FS-1562-25(250W) set

AT-1560-15
AT-1560-25

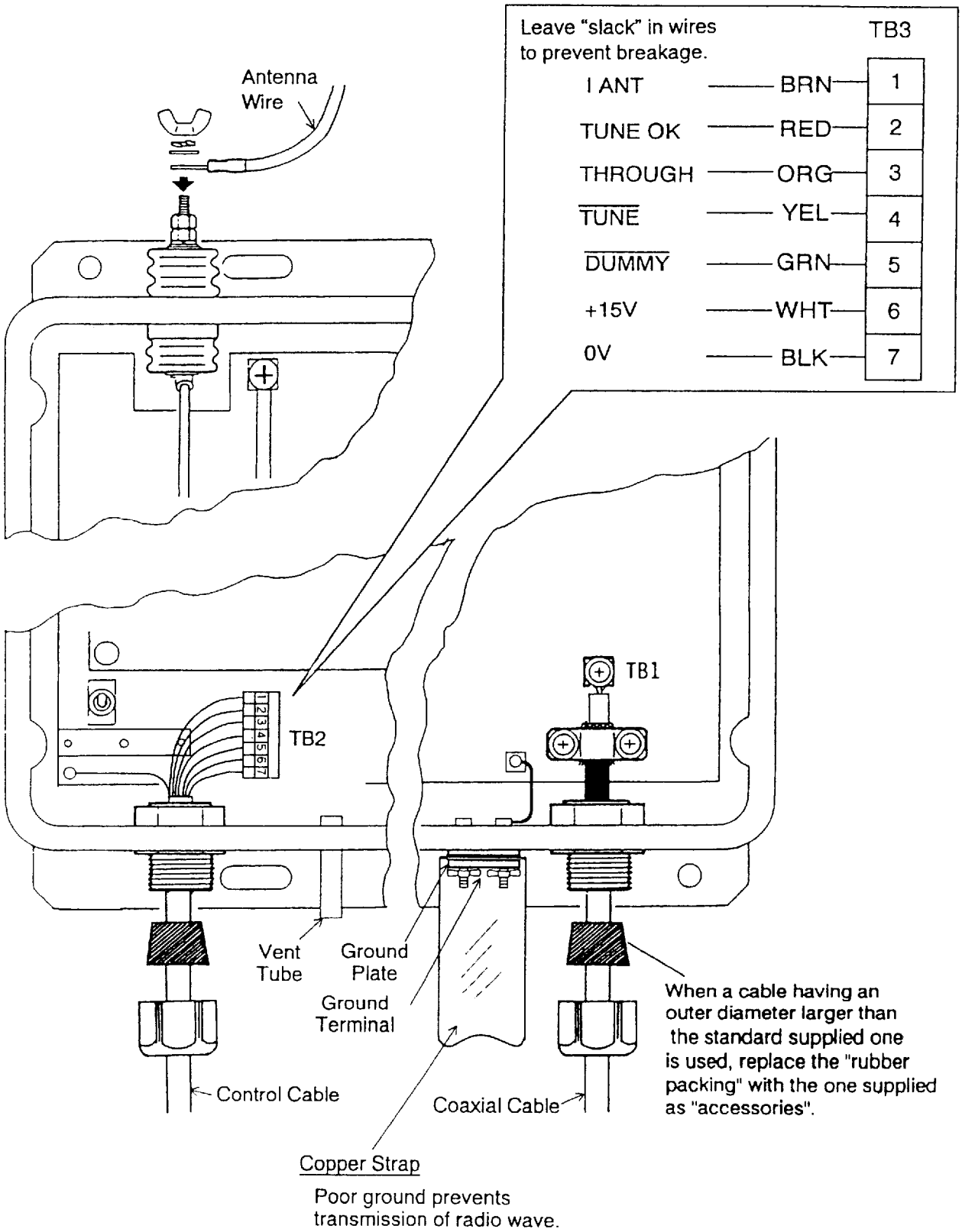


Figure 2-7 Wirering on the Antenna Coupler

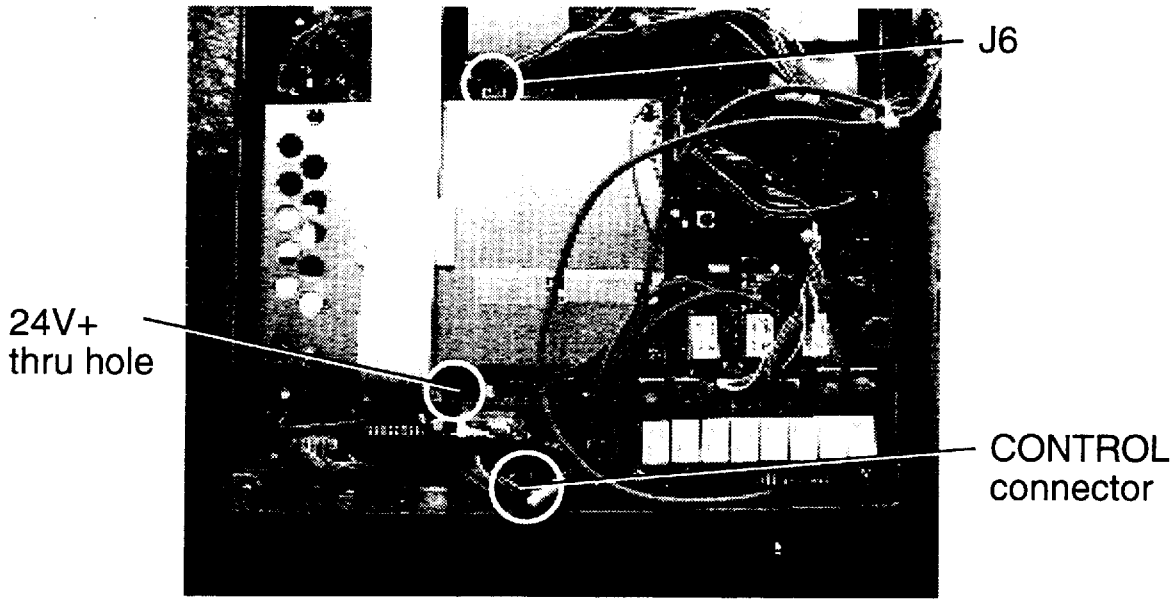
2.5 Installation of the AC FAIL Board (option)

The AC FAIL Board functions to, when the FS-1562 operates on AC power through Rectifer PR-850A, automatically reduce Tx Power when AC power fails.

Procedure

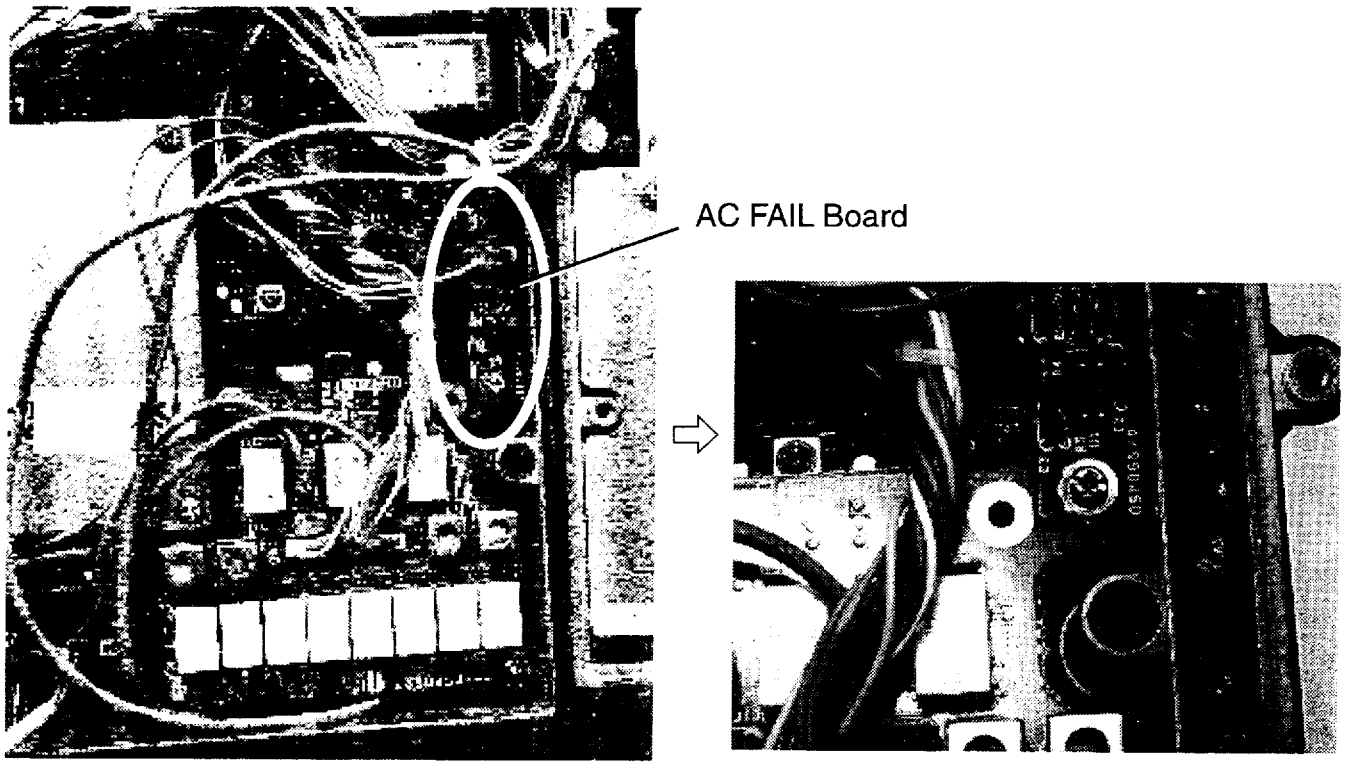
1. Turn off the power. Disconnect the antenna and power cable.

2. Unfasten two screws on the upper chassis and four screws on the lower chassis to open the upper chassis.



Top view of the lower chassis

3. Fasten the AC FAIL Board with a screw from the PRESELECTOR Board as shown below.

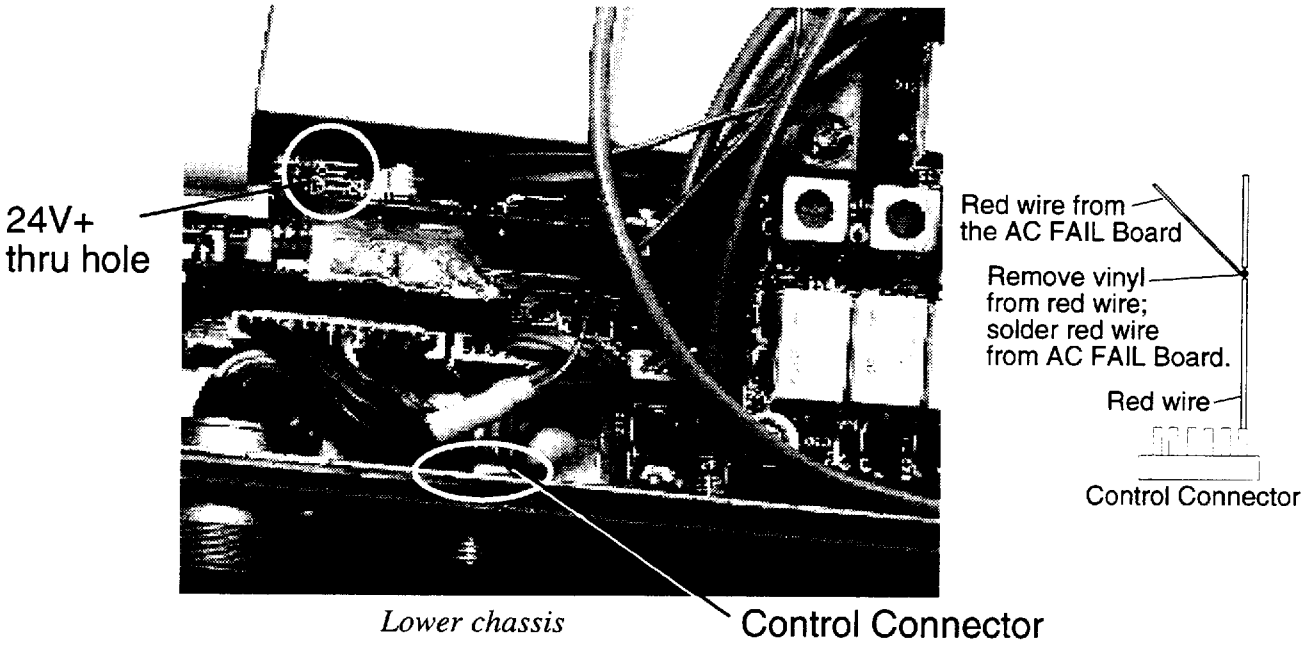


Lower chassis, AC FAIL Board installed

4. Solder the brown wire from the AC FAIL Board to the "24V+" thru hole on the TX/RX Board as shown below.

5. Remove small section of vinyl form red wire of control connector.

6. Solder the red wire from the AC FAIL Board to the red wire of control connector (Refer to page S-5).



7. Tape soldered part.

8. Remove small section of vinyl from yellow wire of J6 on the TX/RX Board.

9. Solder the blue wire from the AC FAIL Board to the yellow wire of J6 on the TX/RX Board.

10. Tape soldered part.

11. Remove small section of vinyl from red wire of J6 on the TX/RX Board.

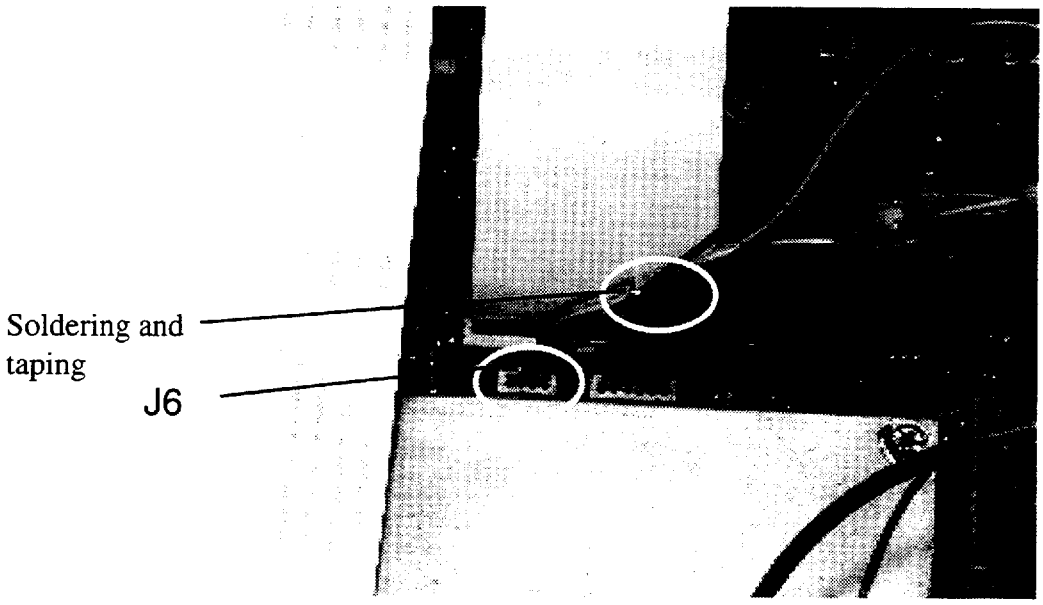
12. Solder the green wire from the AC FAIL Board to the red wire of J6 on the TX/RX Board.

13. Tape soldered part.

14. Remove small section of vinyl from orange wire of J6 on the TX/RX Board.

15. Connect the yellow wire from the AC FAIL Board to the orange wire of J6 on the TX/RX Board.

16. Tape soldered part.



Lower chassis

Chapter 3 Connection of External Equipment

3.1 NBDP Terminal DP-6

The DP-6 has a remote control function which automatically sets class of emission and frequency data at the FS-1562.

Remarks on connection

Connect the DP-6 to the FS-1562 with a 13-pair twisted cable. FURUNO can supply this cable in lengths of 1 m, 3 m or 5 m and with or without connector. For the cable with no connectors, attach connector types SRCN (FS-1562 side) and D-sub (DP-6 side). And for the cable with connectors, detach the D-sub connector at the FS-1562 end of the cable and connect the wires to the SRCN connector on the FS-1562.

3.2 DSC Terminal DSC-60

Connect the DSC-60 to the REMOTE terminal of the FS-1562.

Remarks on connection

When both the DP-6 and DSC-60 are to be connected, connect via the Distributor DB-120. Refer to page S-3.

3.3 Remote Station RB-500

To enable connection of the RB-500, the REMOTE-A Board is replaced at the factory with the REMOTE-B Board (current loop). If more than two RB-500s are to be installed, connect them via the Distributor DB-500. Refer to page S-2 for connection.

3.4 Distributors(DB-500/DB-120)

DB-500

The DB-500 enables connection of four external equipment: one NBDP, one DSC and two remote stations (see Figure 3-1), or four remote stations. For further details, refer to the installation manual for the DB-500.

DB-120

The DB-120 enables connection of two external equipment: one NBDP and one DSC terminal. Refer to the interconnection diagram on page S-4.

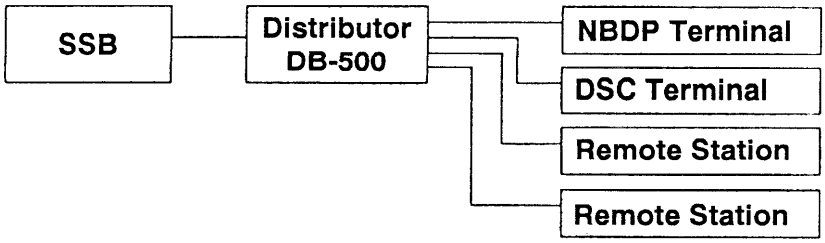


Figure 3-1 Connection of Distributor DB-500

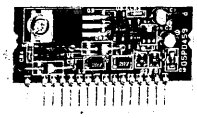
3.5 BK (Break-in) Connection

Introduction

BK connections necessary when the FS-1562 is installed together with a HF receiver or transceiver. The BK relay (circuit) functions to mete the receiver when it and the FS-1562 are operated together. With no BK connection, the receiver or transceiver may generate noise or its front end may be damaged by strong signals when the radio is transmitted. For connection of BK Interface (BK-300) with FS-1562, refer to Installation manual of BK Interface (IMC-50830).

Parts required

The BK relay kit consists of the following parts. (FS-1562-15 optionally supplied)

Name	Type	Code No.	Figure
CONTROL Board	05P0459	005-517-520	
Connector Assy.	05S0846-0	000-125-319	
Gasket	05-029-0122-2	100-878-420	
Washer	16.2x22.0x0.5 SUS 304	000-801-849	

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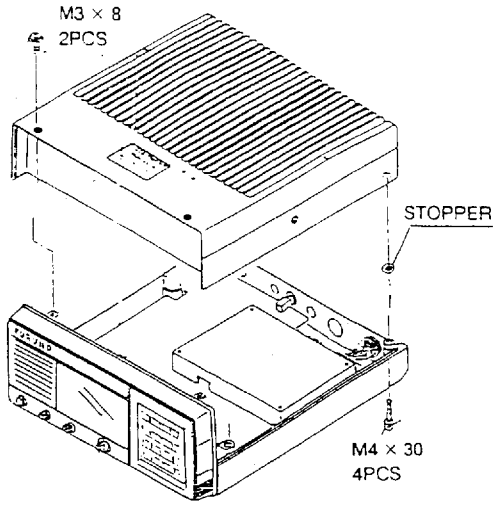
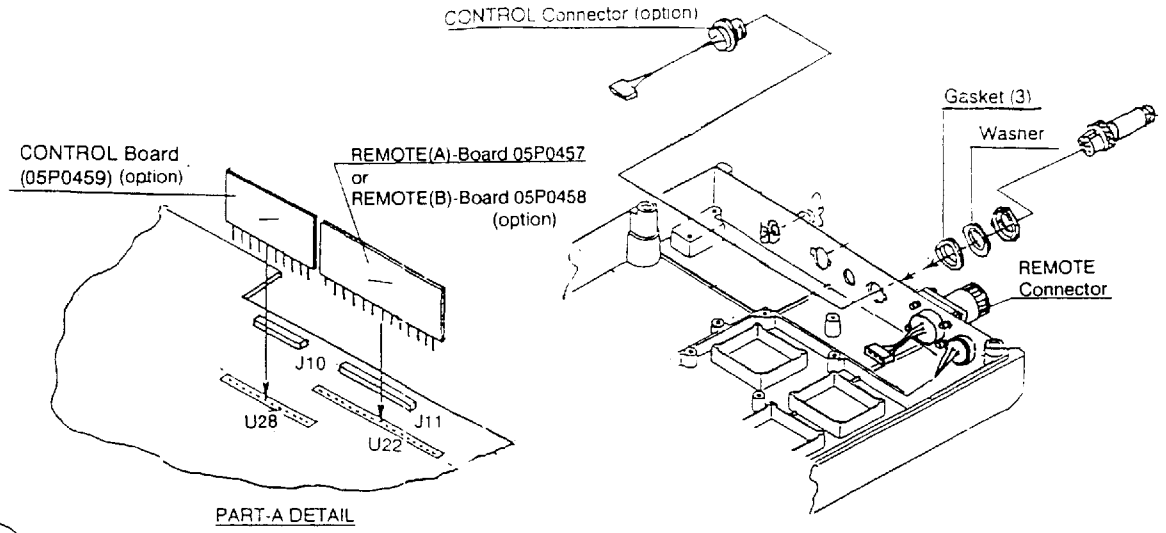
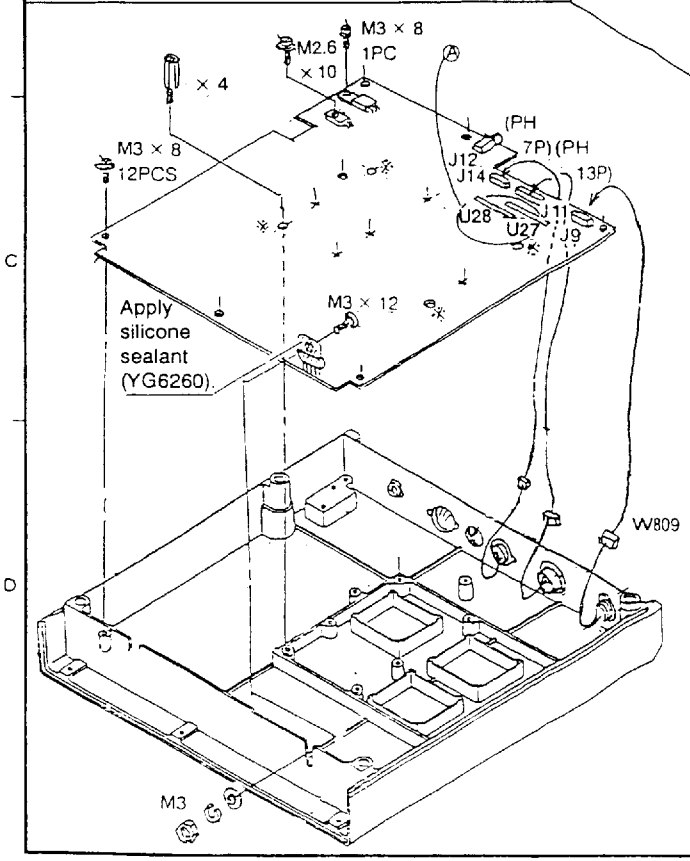
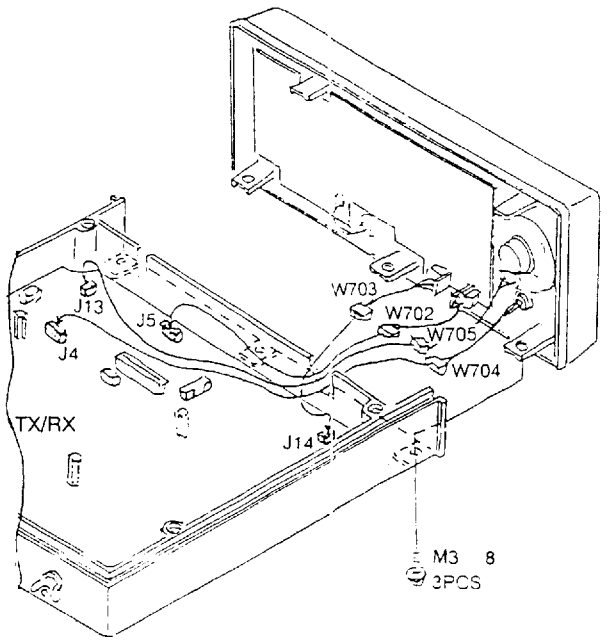
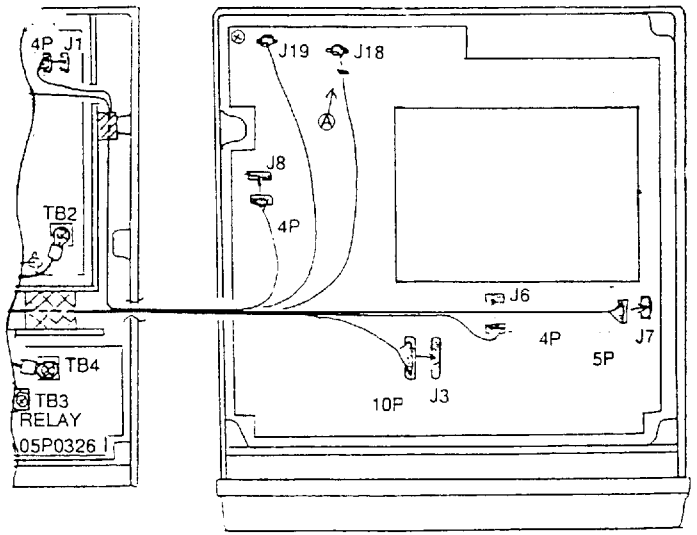




PART-A DETAIL







APPROVED	TITLE: GUIDE FOR FIXING REMOTE & CONTROL BOARDS AND CONNECTORS
CHECKED	
DRAWN	DWG. NO.

Connection of floating ground radiotelephone (FS-5000, etc.)

Connect the FS-1562 to the FS-5000 with a connection cable of 0.75mm^2 or larger (3C cable, or equivalent), as shown in Figure 3-2.

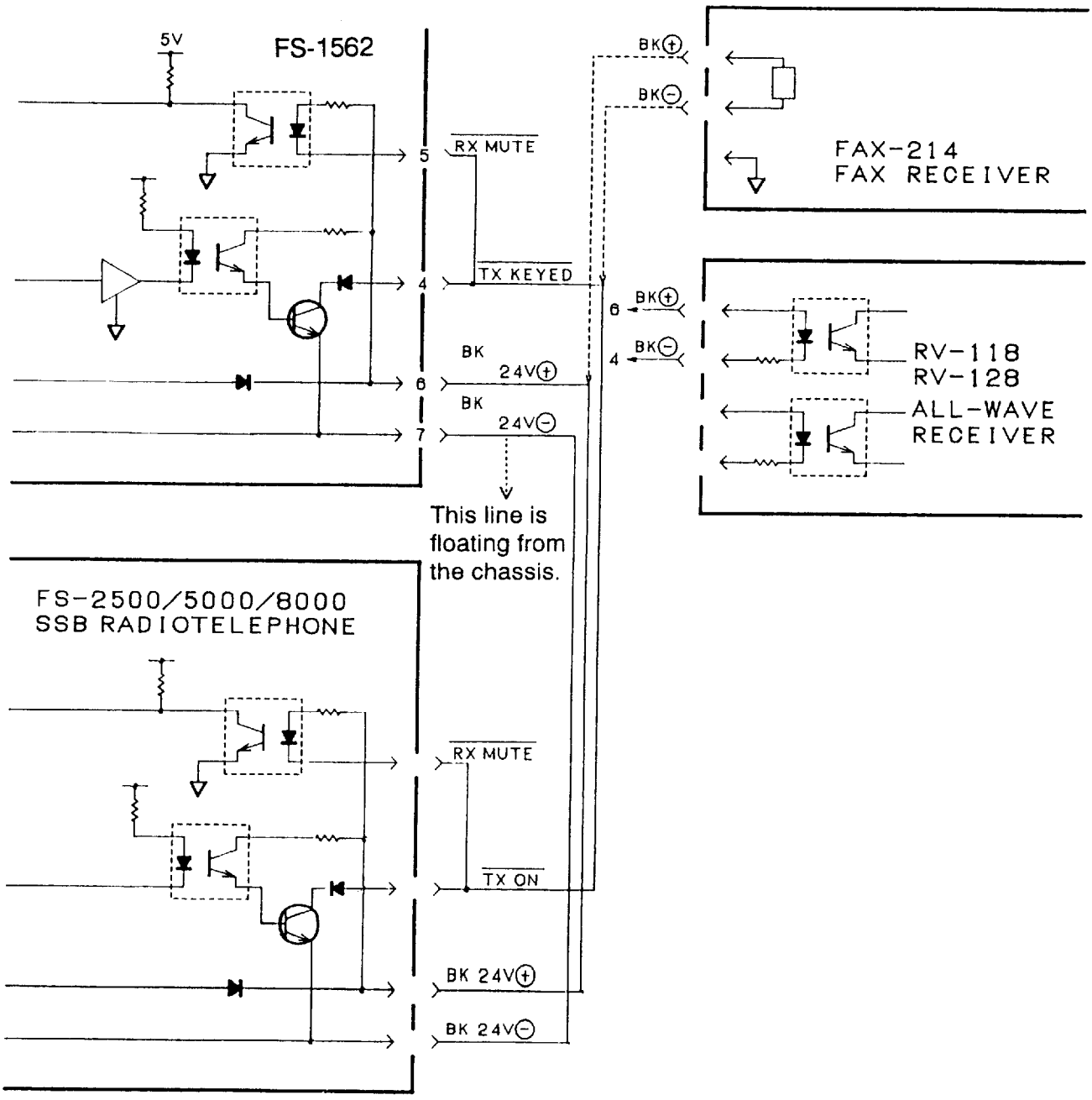


Figure 3-2 Connection of floating ground radiotelephone

Chapter 4 Installation Checks

4.1 Introduction

After completing the installation, check the FS-1562 and all units connected to it for proper connection and operation.

4.2 Visual Check

Before turning on the radiotelephone, visually check it as follows.

Antenna

- Are fixing bolts, wire clips, shackles securely tightened?
- Are the antenna and/or coaxial lead-in waterproofed?
- Is the antenna wire securely connected to the coupler?
- Make sure no mechanical stress is applied to the antenna terminal of the antenna coupler.

Antenna coupler

- Is the unit perfectly grounded by using a copper strap?
- Is the vent tube installed in proper location?
- Are all wirings correctly made?

Transceiver

- Is the unit grounded with the supplied ground wire? Length of the wire is as short as possible? If length of the wire is long, use copper strap. (local supply)
- Are all wirings correctly made?
- Are all connectors securely tightened?

Power Amp Unit (250W only)

- Is the unit grounded with the supplied ground wire? Length of the wire is as short as possible? If length of the wire is long, use copper strap. (local supply)
- Are all wirings correctly made?
- Are all connectors securely tightened?

4.3 Self-test

Carry out self-test, referring to PART 2 of the Operator's Manual.

4.4 Performance Check

Receiver

1) Set the controls on the front panel as follows.

Speaker:	ON	Squelch:	OFF
AGC:	ON	Sensitivity:	Max

2) Confirm that a signal can be received on each band. If noise or signal is weak, check the antenna lead-in section, coaxial cable connection and ground connections.

Transmitter

1) On each band, confirm that the antenna is automatically tuned when the [TX TUNE] key is pressed. ("OK" appears when tuning is completed successfully.) Automatic tuning time of the antenna should take no longer than 15 seconds. If you find a channel which takes more than 15 seconds to tune, recheck antenna length.

2) Communicate with the handset, confirming that antenna current (IA) changes with voice level.

4.5 User Channel

Register permitted frequency, referring to the Service Manual.

4.6 Manual 2182 kHz Tuning Preset

For safety measure, it is required that 2182 kHz be tunable both automatically and manually. The setup to enable manual tuning, in the event the antenna tuner system fails, is made with the DIP switches in the Antenna Coupler.
Call a coast station and tell your situation. Be sure not to transmit during silent period (00 to 03 min. 30 to 33 min. of every hour).

1. Remove the top cover of the Antenna Coupler. Set the Manual- AUTO switch (Coupler Board) to AUTO.

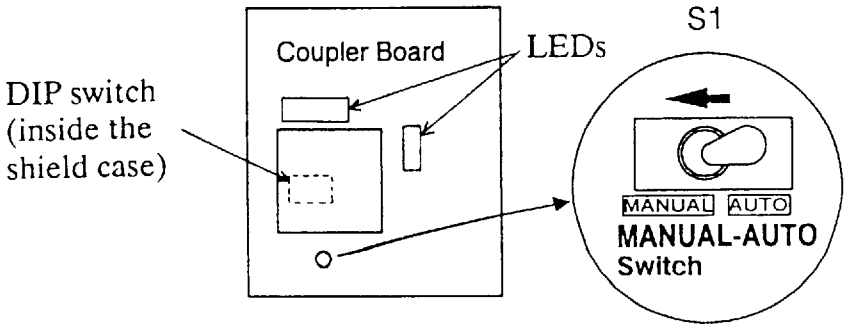


Figure 4-1 MANUAL-AUTO Switch on the Coupler Board

2. Turn the Transceiver on.
3. Press the **2182** key.
4. Press the **TX TUNE** key. "TUNE" appears on the LCD. "OK" appears when tuning is completed. Record the status (on or off) of LEDs CR1-CR22 on the Coupler board.
5. Set S1 to MANUAL.

6. Set DIP Switches S4 thru S6 according to LED status recorded in step 4.

DIP Switch		LED
S4	#8	CR1
	7	CR2
	6	CR3
	5	CR4
	4	CR5
	3	CR6
	2	CR7
	1	CR8
S5	#8	CR9
	7	CR10
	6	CR11
	5	CR12
	4	CR13
	3	CR14
	2	CR15
	1	CR16
S6	#8	CR17
	7	CR18
	6	CR19
	5	CR20
	4	CR21
	3	CR22

Be sure that S6 #1 is set to "OFF" any time.

7. Return the switch to AUTO, confirming that LEDs do not change. If different, repeat step 6.
8. Set S1 to MANUAL.
9. Making sure it is not silent time, communicate with the handset. Confirm that IA changes with voice level.
10. Set S1 to AUTO. Close the cover of the Antenna Coupler.

■ **Note**: *If necessary a frequency other than 2182 kHz can be selected as manual tuning frequency. Similar to the above procedure record the status of LEDs CR1-CR22 during automatic tuning of an often-used frequency and set DIP Switches S4 to S6 according to LED status.*

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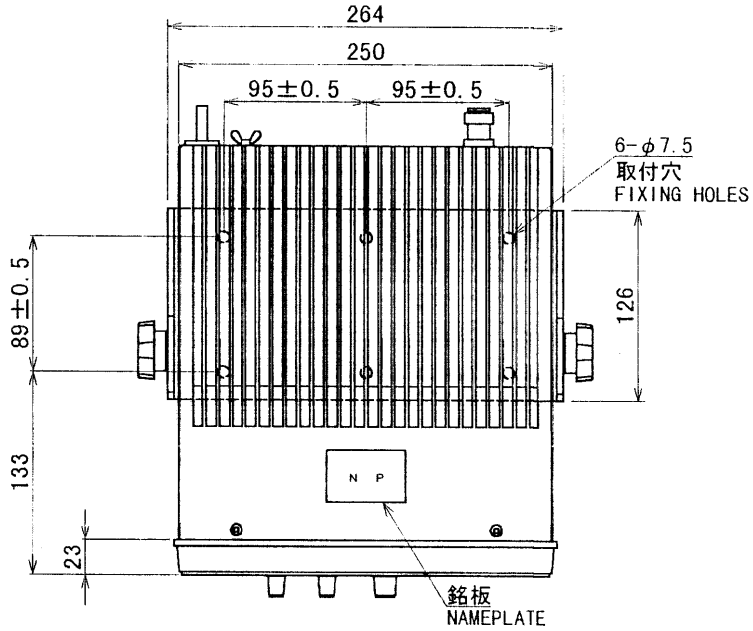
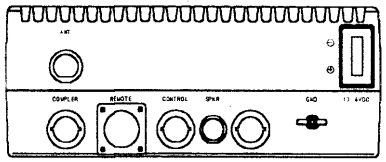
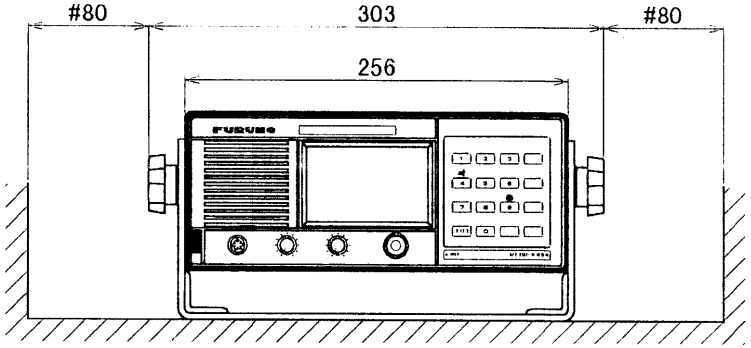


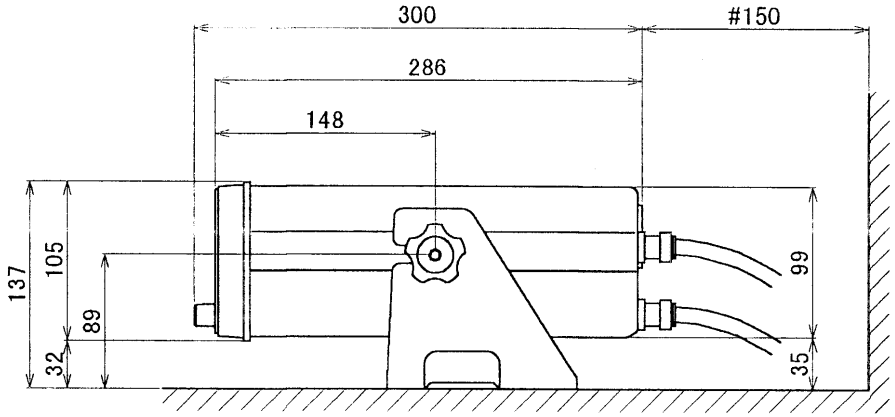


背面図
REAR VIEW

寸法区分 (mm) DIMENSION	公差 (mm) TOLERANCE
0 ＜ L ≦ 50	±1．5
50 ＜ L ≦ 100	±2．5
100 ＜ L ≦ 500	±3

表 1
TABLE 1





注 記 1） #印寸法は最小サービス空間寸法とする。
2） 指定外の寸法公差は表１による。
3） 取付用ネジはＭ６ボルトまたはコーチボルト呼び径６を使用のこと。
4） 装備ケーブルはサービス時、本体を前方に十分引き出せるよう余裕を持たせること。

NOTE 1. #: RECOMMENDED SERVICE CLEARANCE.
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.
3. USE M6 BOLTS OR COACH BOLTS φ6 FOR FIXING UNIT.
4. KEEP ENOUGH CABLE LENGTH BEHIND UNIT.

DRAWN Feb 3'00 T.YAMAZAKI			TITLE FS-15/75/2550/1552/1562
CHECKED Feb 4'00 K.Fujiwara			名称 デジタルMF/HF送受信装置
APPROVED Feb 4'00 K.Fujiwara			外寸図
SCALE 1/5	MASS ±10% 6.4 kg		NAME SSB TRANSCEIVER
DWG. No. C5574-G02- C		05-062-3200-G0	OUTLINE DRAWING

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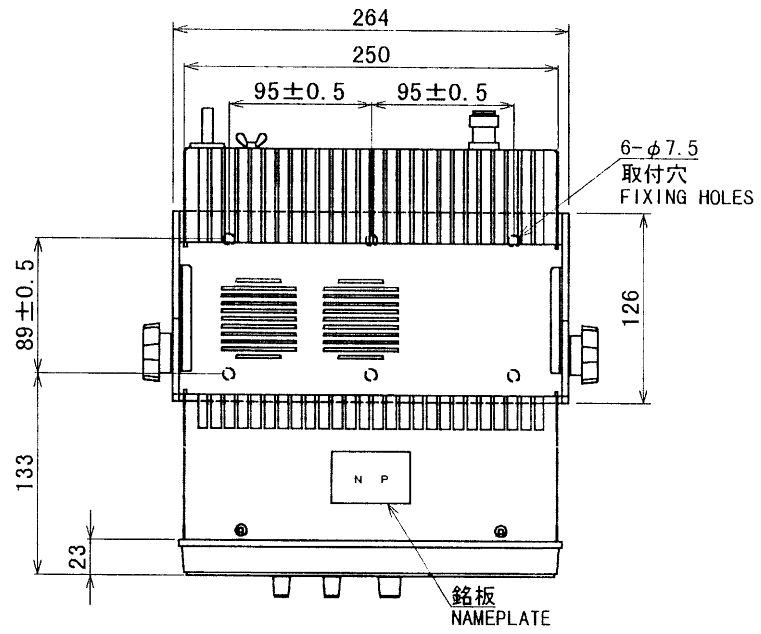
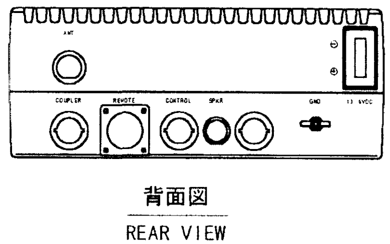
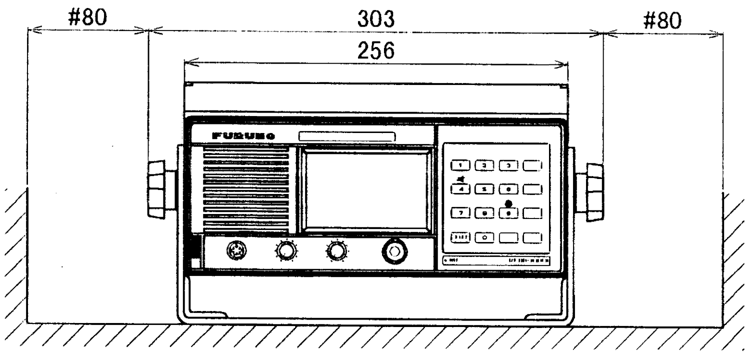
D-1

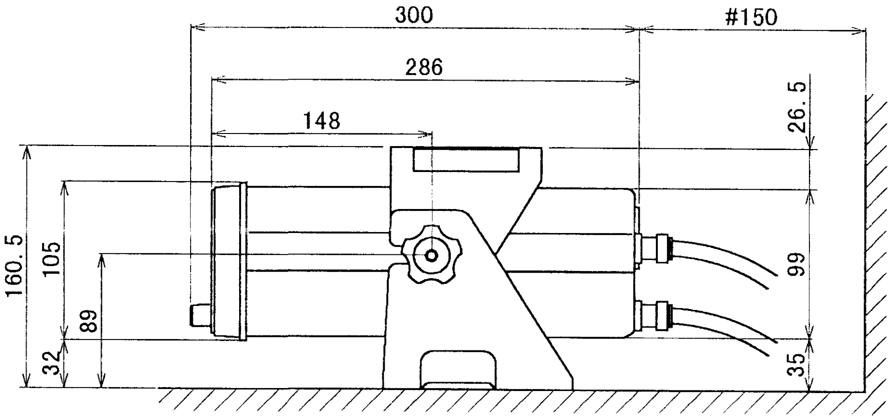




寸法区分 (mm) DIMENSION	公差 (mm) TOLERANCE
0 ＜ L ≦ 50	±1．5
50 ＜ L ≦ 100	±2．5
100 ＜ L ≦ 500	±3

表 1
TABLE 1





注　記　1） #印寸法は最小サービス空間寸法とする。
2） 指定外の寸法公差は表１による。
3） 取付用ネジはM６ボルトまたはコーチボルト呼び径６を使用のこと。
4） 装備ケーブルはサービス時、本体を前方に十分引き出せるよう余裕を持たせること。

NOTE
1. #: RECOMMENDED SERVICE CLEARANCE.
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.
3. USE M6 BOLTS OR COACH BOLTS φ6 FOR FIXING UNIT.
4. KEEP ENOUGH CABLE LENGTH BEHIND UNIT.

DRAWN	Feb 3 '00 T.YAMASAKI	
CHECKED	Feb 4 '00	
APPROVED	Feb 8 '00	
SCALE 1/5	MASS 6.5 kg ±10%	
DWG. No.	C5573-G02- E	
TITLE	FS-15/75/2550/1552/1562	
名称	デジタルMF/HF送受信装置（冷却ファン付） 外寸図	
NAME	SSB TRANSCEIVER W/ HANGER & FAN KIT OUTLINE DRAWING	

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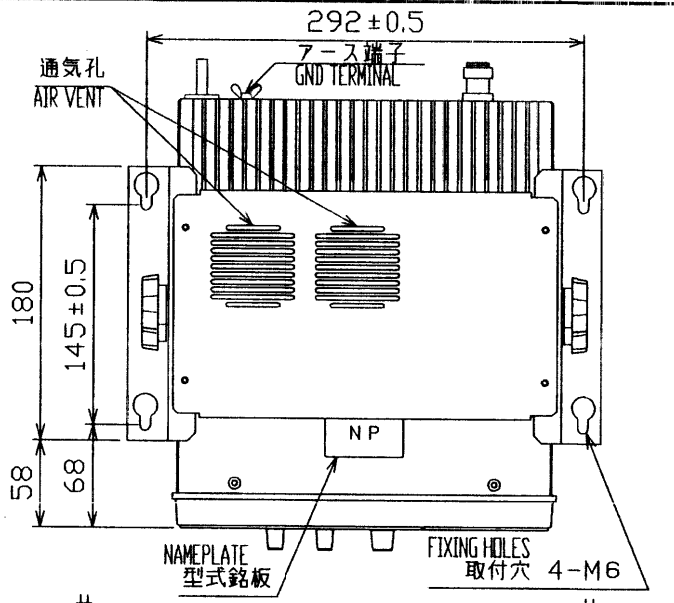
FURUNO



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

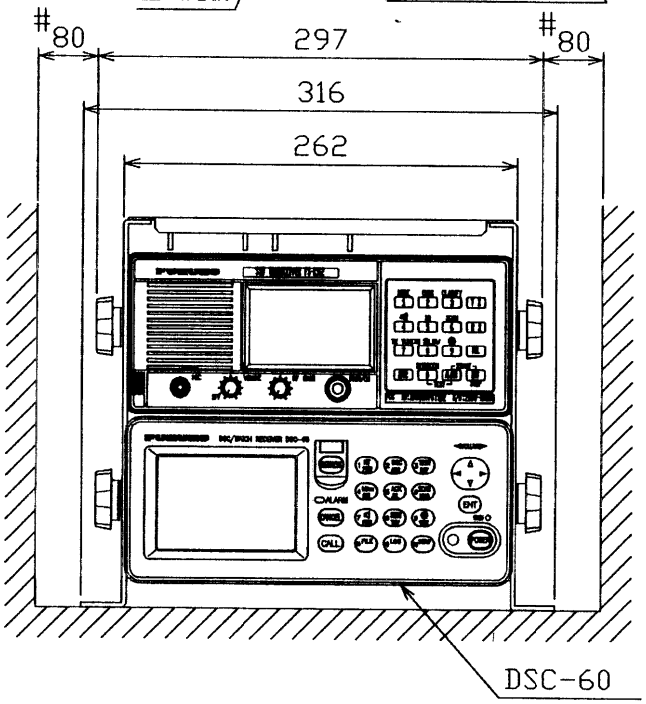
表1 TABLE1

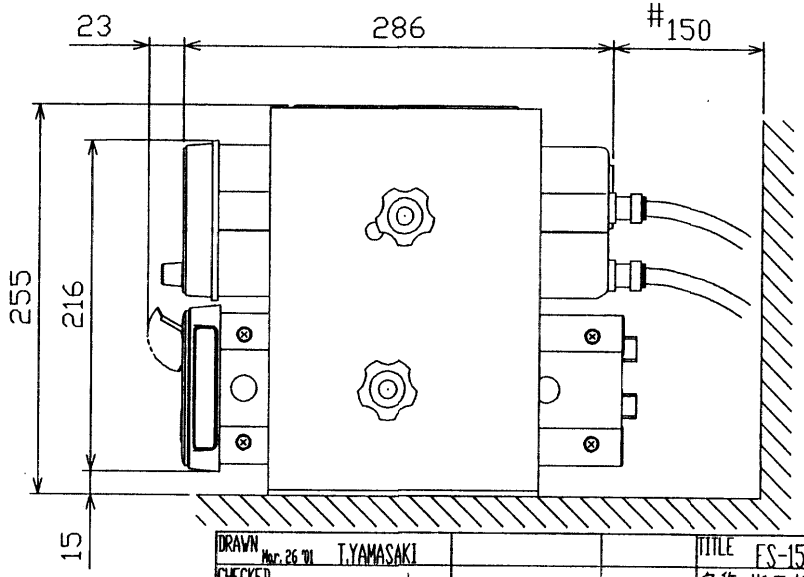
注　記

1）＃印寸法は最小サービス空間寸法とする。
2）指定外の寸法公差は表1による。
3）取付用ネジはM6ボルト、またはコーチボルト呼び径6を使用のこと。
4）装備ケーブルはサービス時、指示部を前方に十分引き出せるよう余裕を持たせること。

NOTE

1. #: RECOMMENDED SERVICE CLEARANCE.
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.
3. USE M6 BOLTS OR COARCH SCREWS φ6 FOR FIXING THE UNIT.
4. KEEP SUFFICIENT CABLE LENGTH BEHIND THE UNIT.





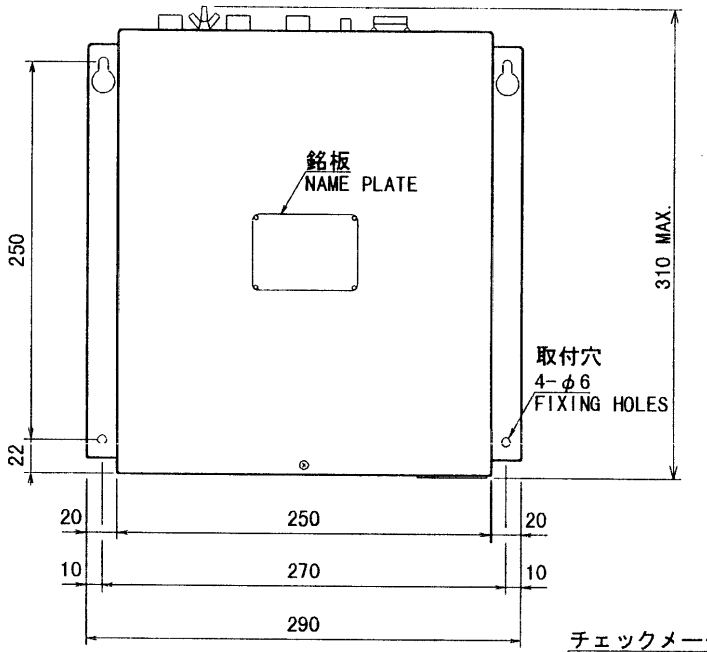
DRAWN Mar. 26 '01 T.YAMASAKI			TITLE FS-1562
CHECKED Mar 27 '01 Y.K			名称 指示部（二段ハンガー）外寸図
APPROVED Mar 28 '01 S.Yokoyama			NAME DISPLAY UNIT W/ HANGER OUTLINE DRAWING
SCALE 1/5	MASS 12 ±10% kg		
DWG No. C5573-G03-A		05-062-330G-0	

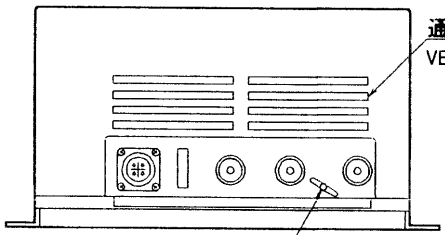
FURUNO ELECTRIC CO., LTD.

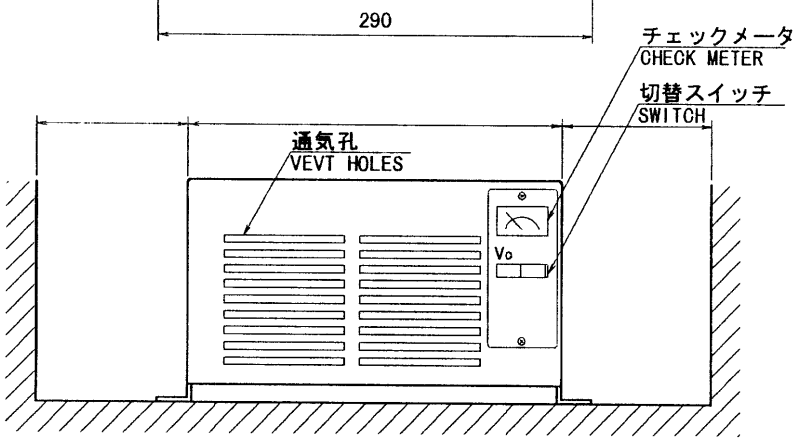
FURUNO

表1 TABLE 1

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

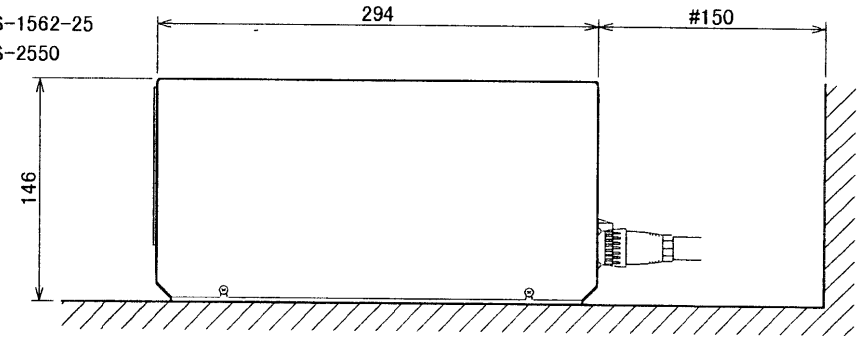






FOR PA-2500J ONLY
PA-2500Jのみ

PA-2500— FS-1562-25
PA-2500J— FS-2550



注記
1）指定なき寸法公差は表1による。
2）取付には＋トラスタッピンネジ呼び径5x20を使用のこと。

NOTE
1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.
2. USE TAPPING SCREWS 5x20 FOR INSTALLATION.

DRAWN June.26'00 T.YAMASAKI			TITLE PA-2500, PA-2500J
CHECKED June26'00 Y.Kim			名称 パワーブスター
APPROVED June26'00 Y.Kim		FS-2550 FS-1562	外寸図
SCALE 1/5	MASS 6 ±10% kg		NAME POWER BOOSTER
DWG. No. C5596-G01- D			OUTLINE DRAWING

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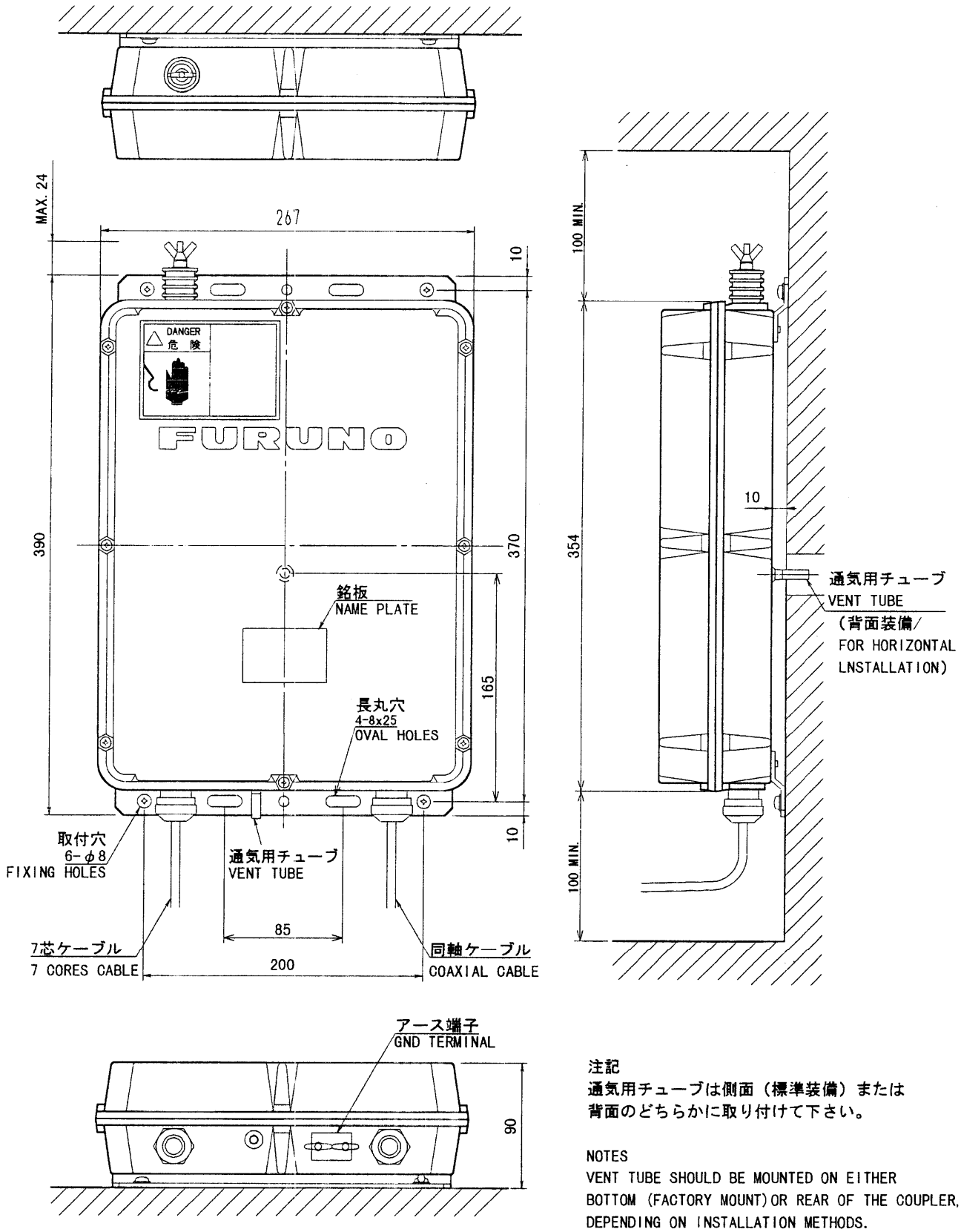


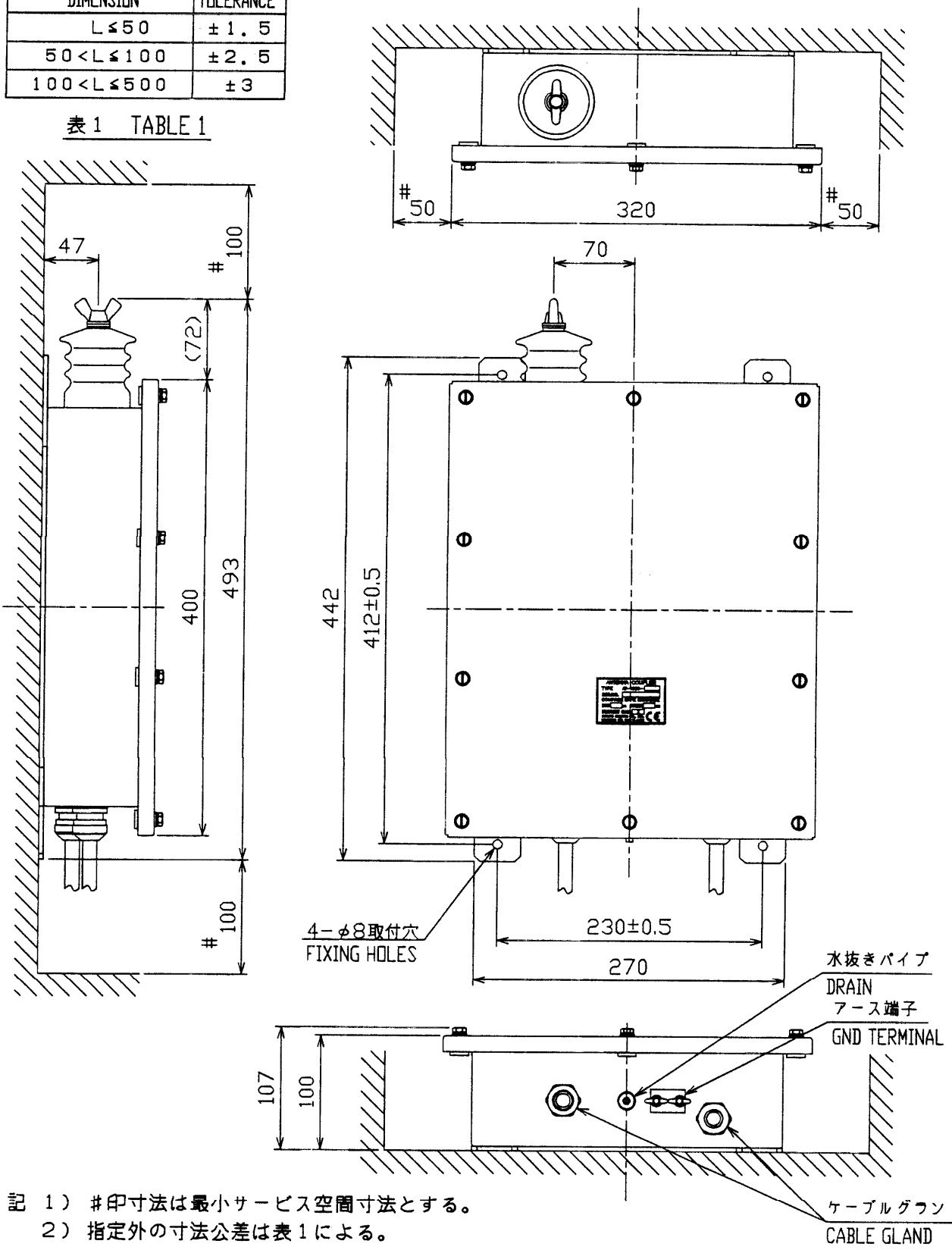
注記
通気用チューブは側面（標準装備）または
背面のどちらかに取り付けて下さい。

NOTES
VENT TUBE SHOULD BE MOUNTED ON EITHER
BOTTOM (FACTORY MOUNT) OR REAR OF THE COUPLER,
DEPENDING ON INSTALLATION METHODS.

DRAWN June.26'00 T.YAMASAKI		TITLE	AT-1560, AT-1560-25
CHECKED June 26 '00 Y.Kina	FS-2550	名称	アンテナカプラー
APPROVED June 26 '00 Y.Kina	FS-15/75 FS-1562-15/25		外寸図
SCALE 1/4	MASS 3.2 kg	NAME	ANTTENA COUPLER
DWG. No. C5574-G01- D			OUTLINE DRAWING

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

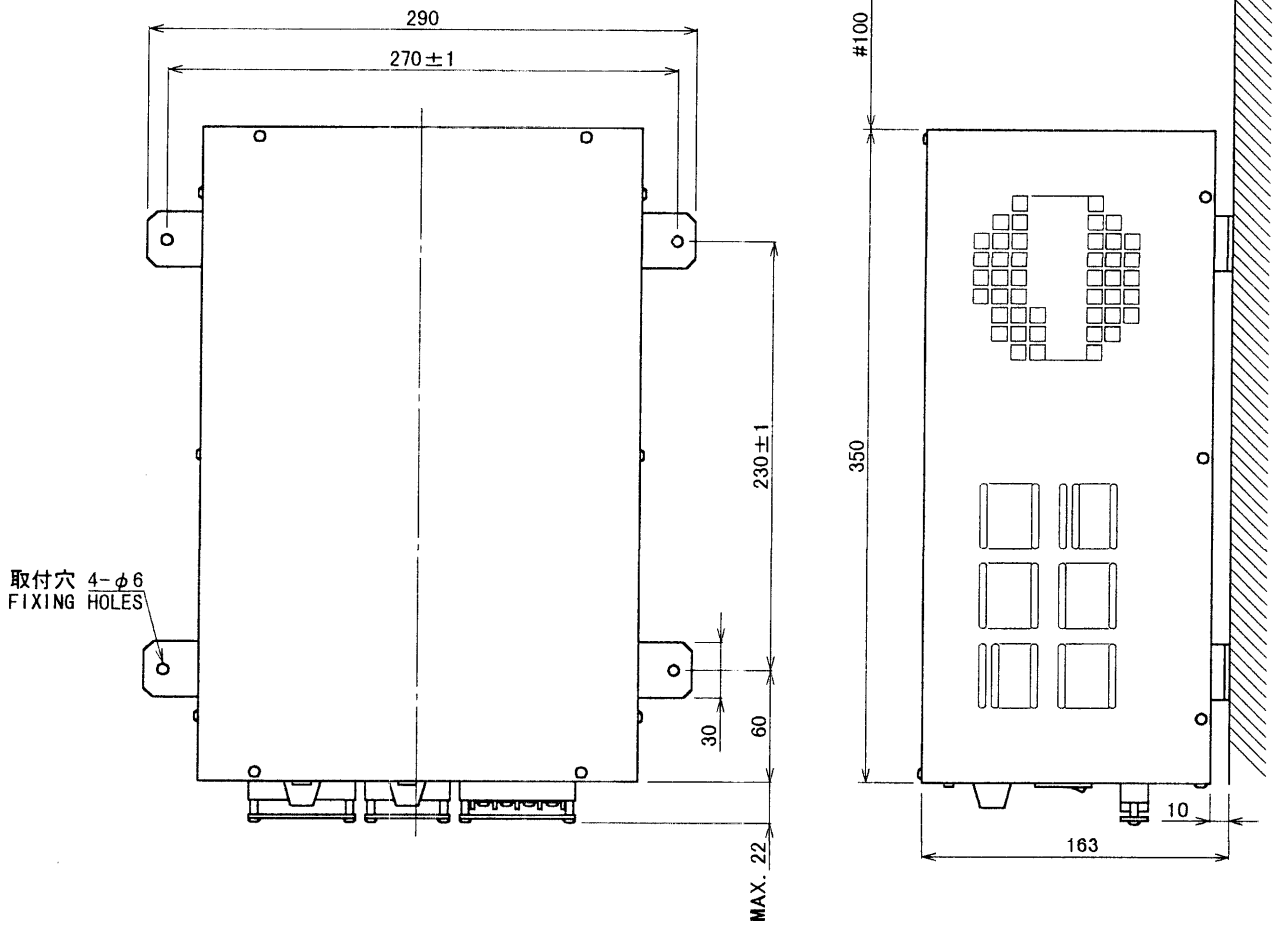
表1 TABLE 1

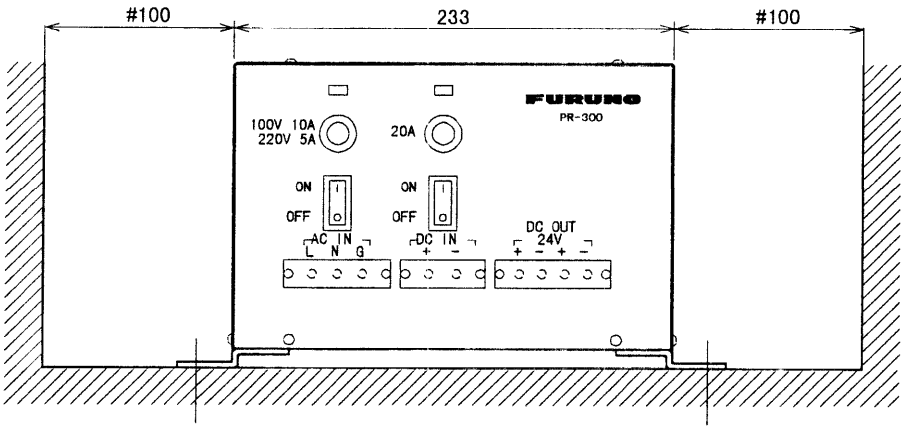


注 記 1） #印寸法は最小サービス空間寸法とする。
2） 指定外の寸法公差は表1による。

NOTE 1. #: RECOMMENDED SERVICE CLEARANCE.
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.

DRAWN Jul.16 '01 T.YAMASAKI			TITLE AT-1560-15/25-SUS
CHECKED July/6'01 Y.K			名称 アンテナカプラー
APPROVED July/6'01 Y.H		FS-1562-15/25	外寸図
SCALE 1/5	MASS 8.7 ±10% kg		NAME ANTENNA COUPLER
DWG.No. C5572-G03-A		05-029-030G-2	OUTLINE DRAWING





注記

1）#：推奨する最小サービス空間寸法。

2）指定なき寸法公差は表1による。

NOTE:

1. #: RECOMMENDED SERVICE CLEARANCE.
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.

表1 TABLE 1

寸法範囲 (mm) DIMENSION	公差 (mm) TOLERANCE
0 < L ≦ 50	±1.5 mm
50 < L ≦ 100	±2.5 mm
100 < L ≦ 500	±3 mm

DRAWN June.19'00 T.YAMASAKI	TITLE	PR-300
CHECKED June 19 '00 T. Kuno	名称	AC-DC電源ユニット
APPROVED June 19 '00 T. Kuno		外寸図
SCALE 1/4	MASS ±10% 14.5 kg	NAME AC-DC POWER SUPPLY UNIT
DWG. No. C5003-G02- D		OUTLINE DRAWING

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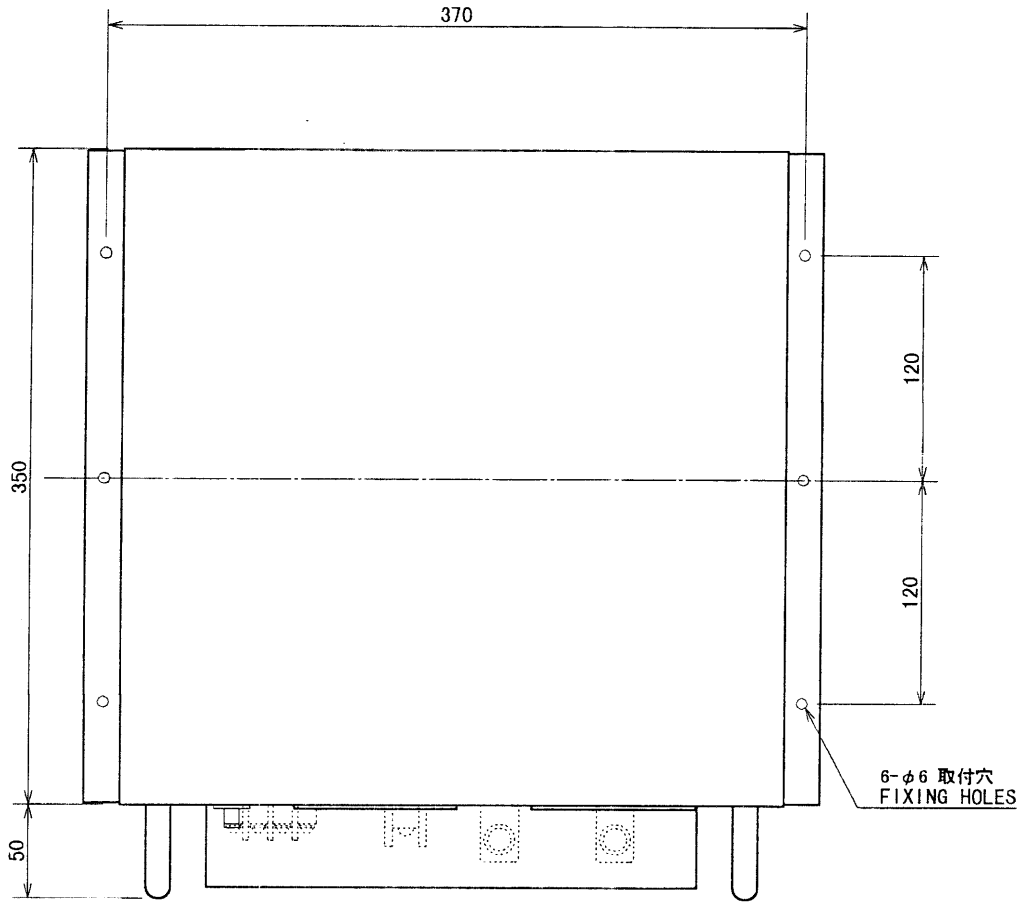
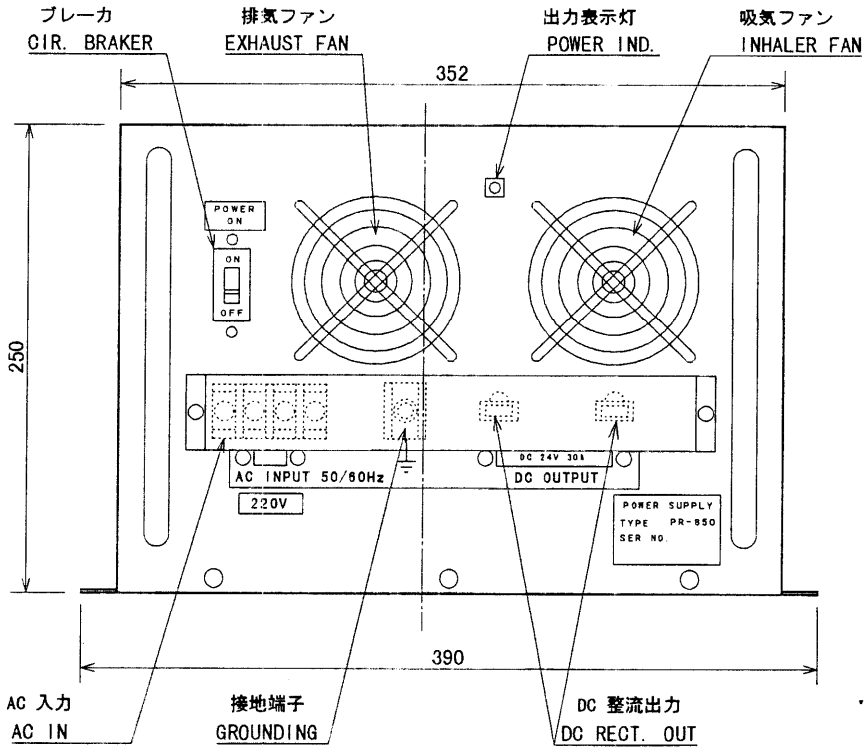
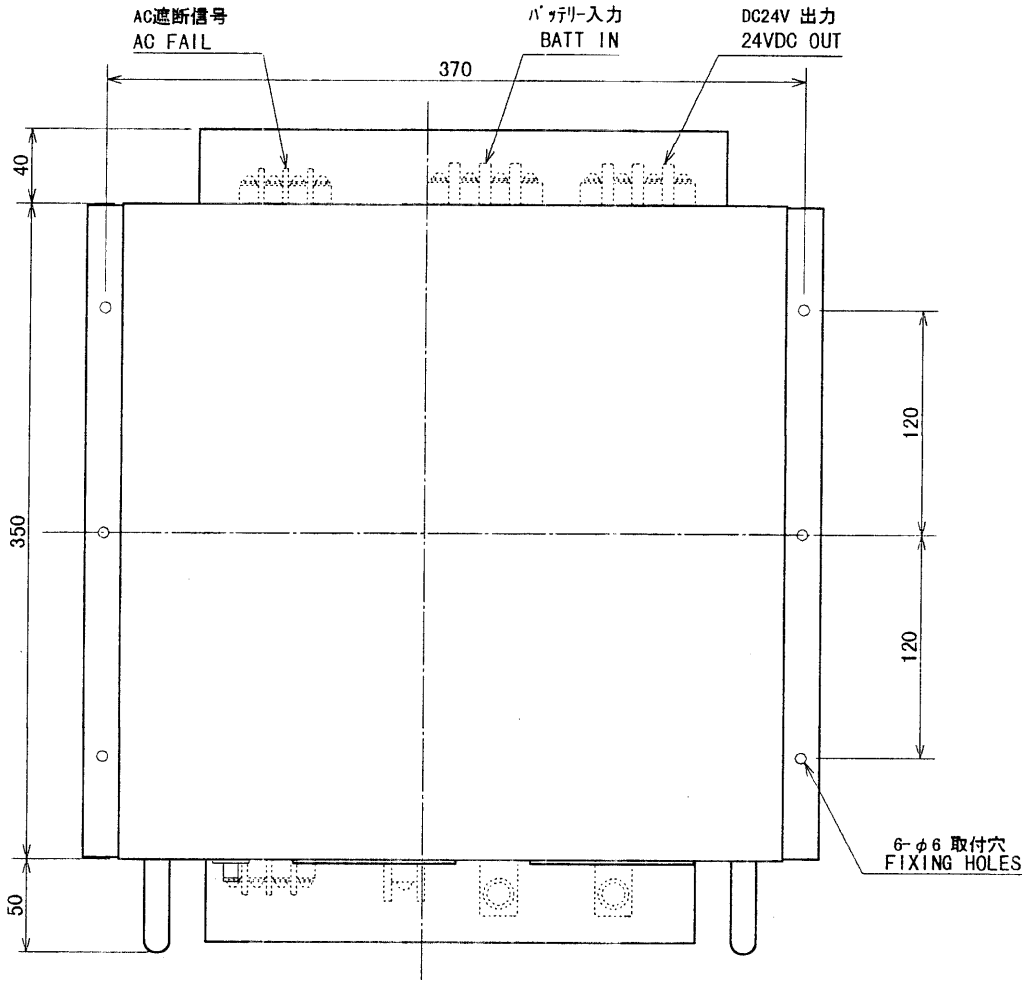
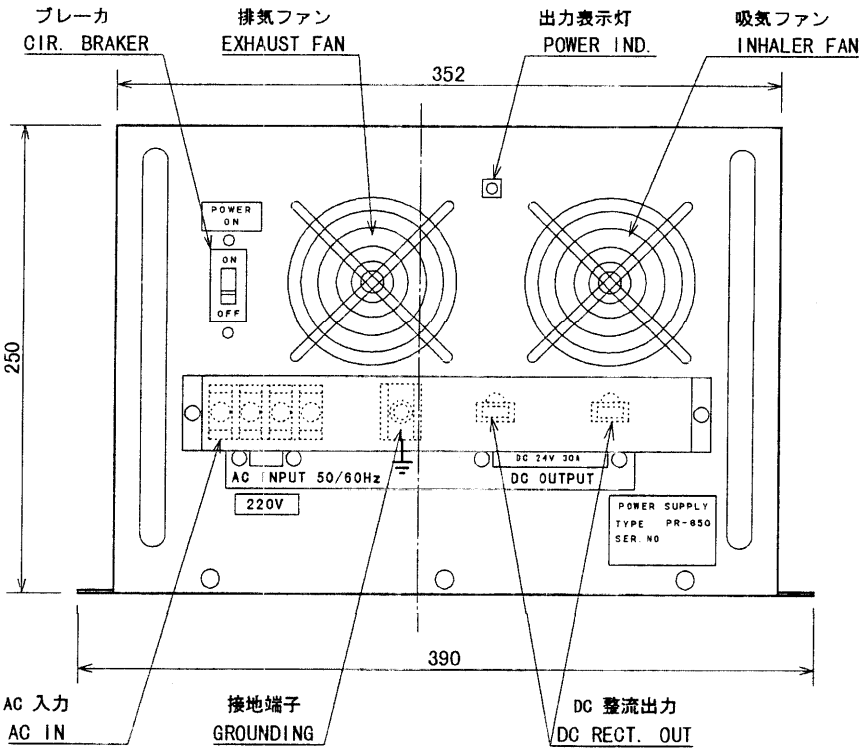




DRAWN June.27'00 T.YAMASAKI		TITLE	PR-850
CHECKED June27'00 T.Kim		名称	AC電源ユニット
APPROVED June27'00 T.Kim			外寸図
SCALE 1/4	MASS 35 kg	NAME	AC POWER SUPPLY UNIT
DWG. No. C5519-G04-C			OUTLINE DRAWING

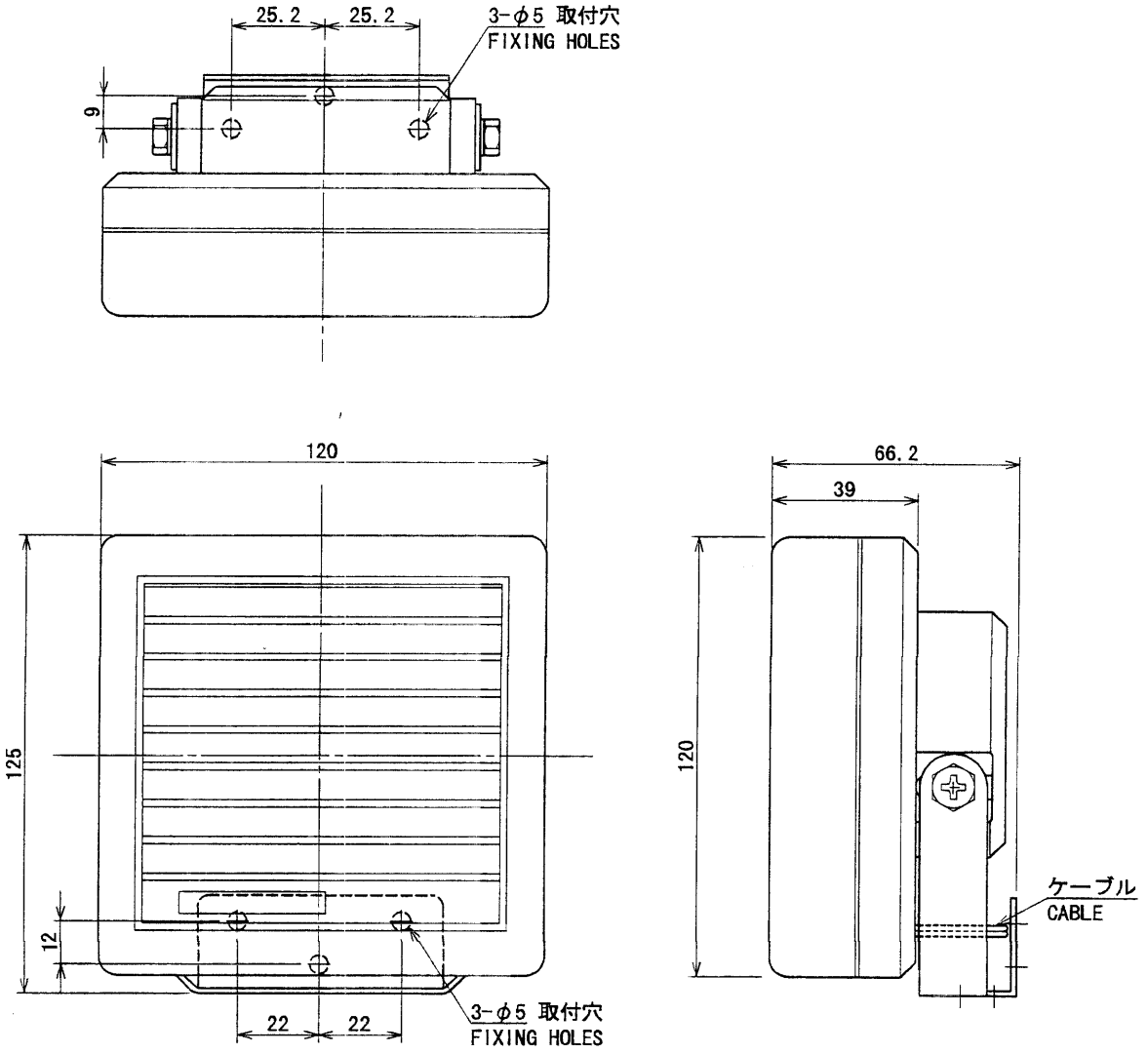




DRAWN June 27 '00 T. YAMASAKI		TITLE	PR-850A
CHECKED June 27 '00 T. Kuni		名称	AC-DC電源ユニット
APPROVED June 27 '00 T. Kuni			外寸図
SCALE 1/4	MASS 35 kg	NAME	AC-DC POWER SUPPLY UNIT
DWG. No. C5519-G11-E			OUTLINE DRAWING

表1　TABLE 1

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



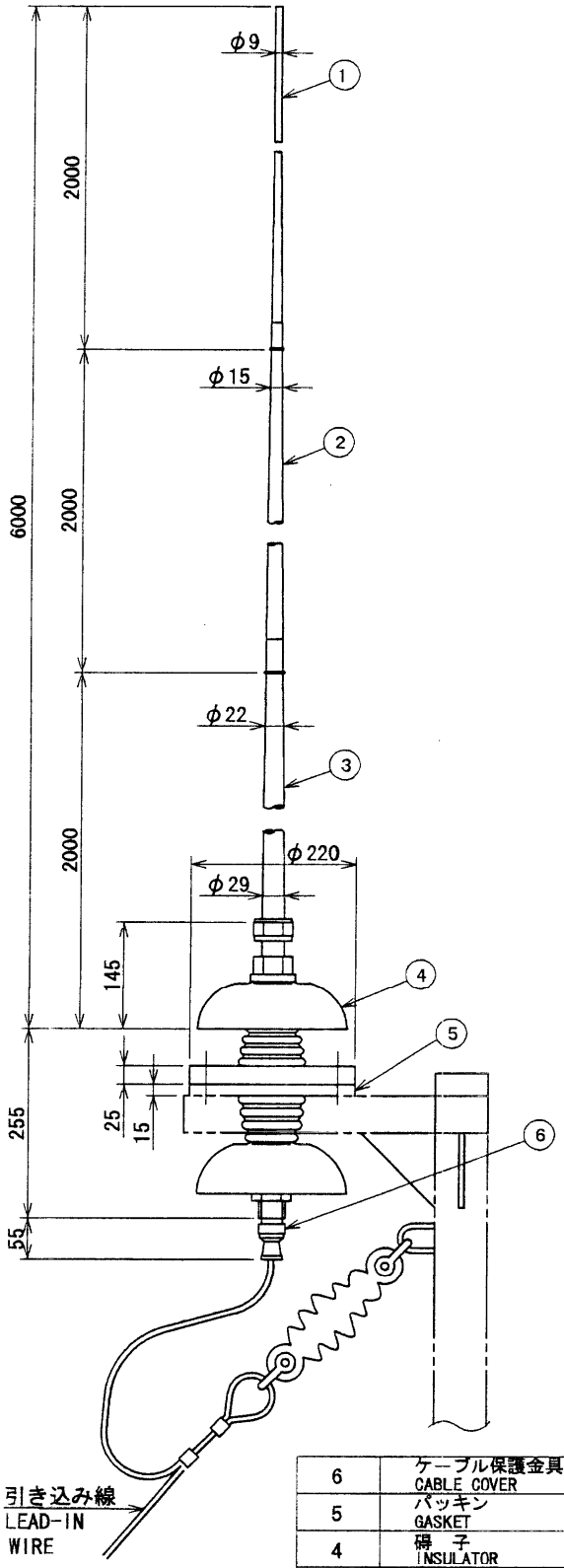
注記

1）指定なき寸法公差は表1による。

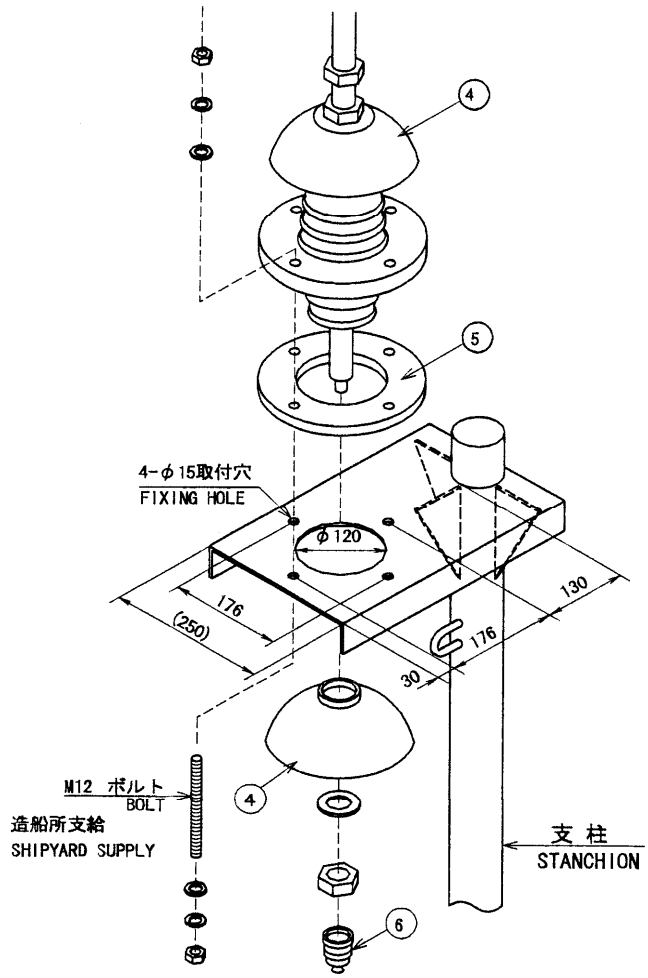
NOTE

1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.

DRAWN May 23 '01 T. YAMASAKI		TITLE SEM-21Q
CHECKED May 24 '01 T. Kim		名称 スピーカ
APPROVED May 25 '01 Y. Kim		外寸図
SCALE 1/2 MASS 0.54 kg ±10%	質量は2.8mケーブルを含む MASS W/ 2.8m CABLE	NAME LOUDSPEAKER
DWG. No. C5016-G07- A		OUTLINE DRAWING



取付金具（造船所手配）装備例
FABRICATION OF MOUNTING BASE
(SHIPYARD SUPPLY)



ITEM 品番	NAME 品名	MATERIAL 材質	Q'TY 数量	DWG. No 図番	REMARKS 摘要
6	ケーブル保護金具 CABLE COVER	BRASS	1		
5	パッキン GASKET	CR	1		φ220x15t
4	碍子 INSULATOR	RESIN	1		
3	基部素子 BASE ELEMENT	FIBERGLASS	1		
2	継素子 MIDDLE ELEMENT	FIBERGLASS	1		
1	上部素子 TOP ELEMENT	FIBERGLASS	1		

DRAWN	Sep27 '00 TYAMASAKI
CHECKED	Sep27 '00 Y.Kuni
APPROVED	Sep27 '00 Y.Kuni
SCALE	1/10
MASS	10 kg ±10%
DWG. No.	C5011-034- B
TITLE	FAW-6D
名称	6 m ホイップアンテナ 外寸図
NAME	6 m WHIP ANTENNA OUTLINE DRAWING

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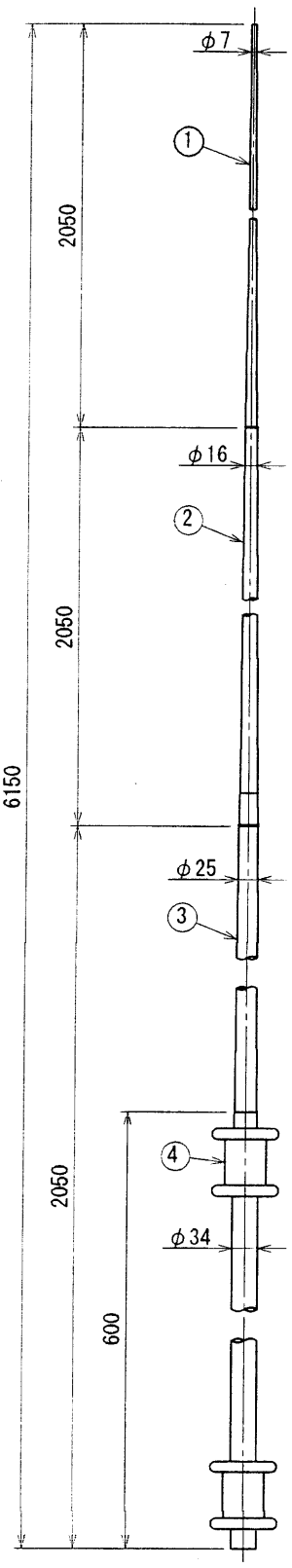
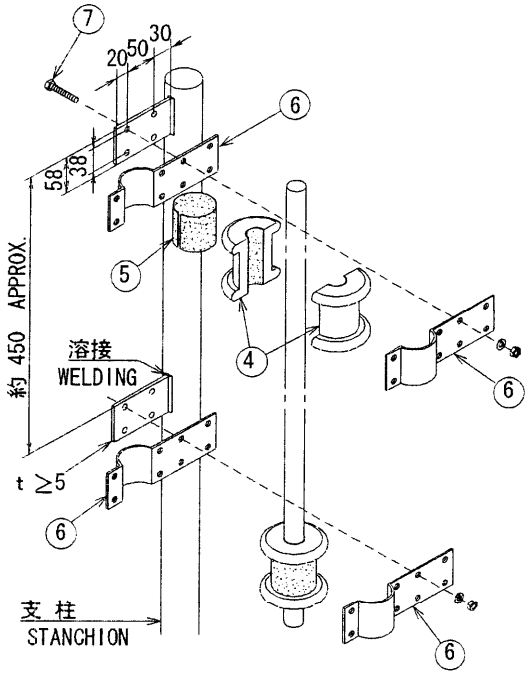
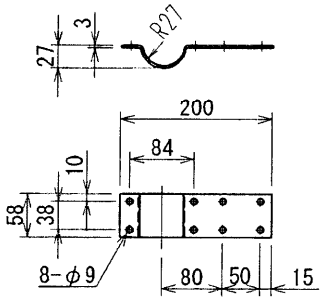


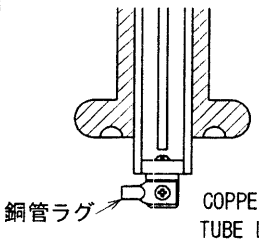


装備例 （支柱造船所手配）
EXAMPLE OF INSTLLATION

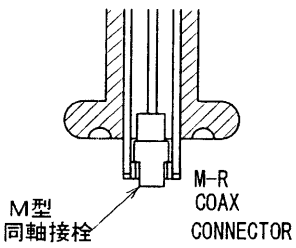
取 付 金 具
BRACKET



FAW-6R2



FAW-6RP2



品番 ITEM	品名 NAME	材質 MATERIAL	数量 Q'TY	図番 DWG.No	摘要 REMARKS
7	ボルト／ナット BOLT/NUT	SUS	16 PAIRS	BRACKET (000-571-590)	M8
6	取付金具 SUPPORT ARM	SUS	2 PAIRS		t=3mm
5	緩衝ゴム板 CUSHION RUBBER	ネオプレンゴム NEOPRENE	1	FAW-6R2 (000-572-109) OR FAW-6RP2 (000-572-108)	t=2mm
4	上部ホルダー UPPER HOLDER	FRP	1/2x2		
3	基部素子 LOWER ELEMENT	グラスファイバ FIBERGLASS	1		
2	継素子 MIDDLE ELEMENT	グラスファイバ FIBERGLASS	1		
1	上部素子 UPPER ELEMENT	グラスファイバ FIBERGLASS	1		

DRAWN	Sep 27 '00 T.YAMASAKI	TITLE	FAW-6R2/6RP2
CHECKED	Sep 27 '00 T.K	名称	ホイップアンテナ
APPROVED	Sep 27 '00 T.K		外寸図
SCALE	1/10	MASS	±10% ELEMENT:3 kg
		NAME	WHIP ANTENNA
DWG. No.	C5011-038- D		OUTLINE DRAWING

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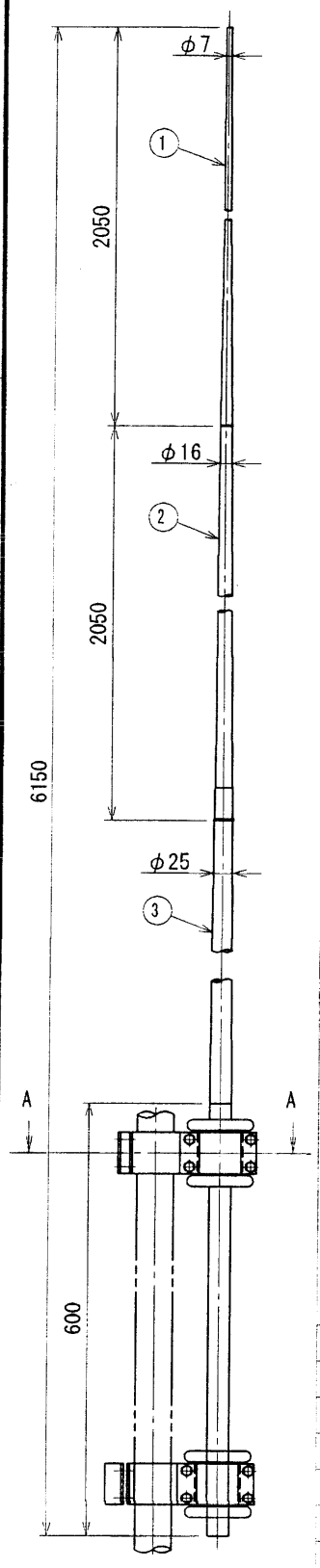
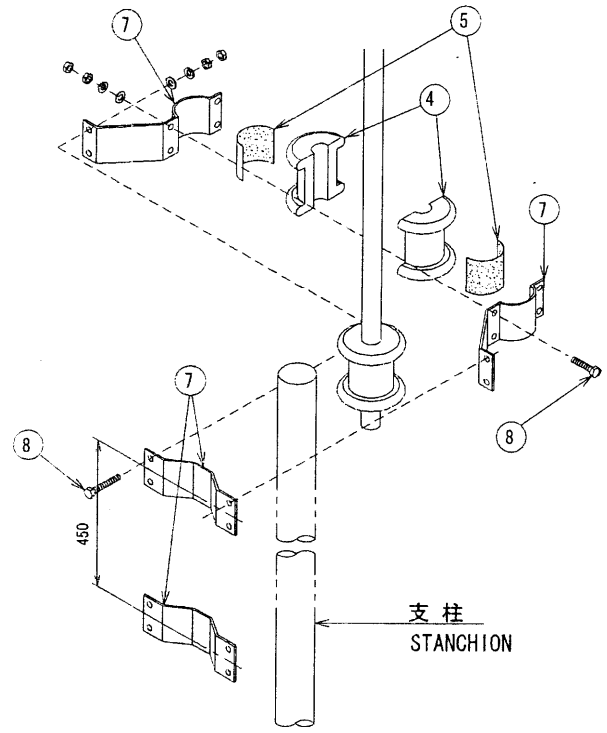
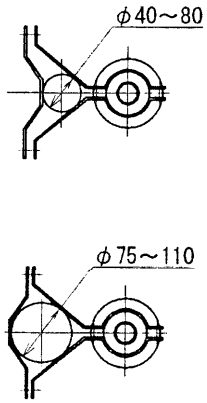
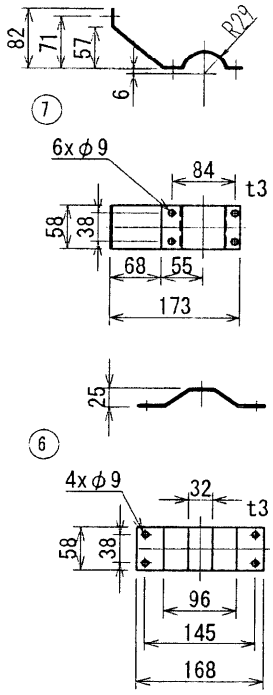




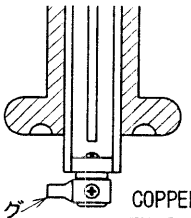
装備例 （支柱造船所手配）
EXAMPLE OF INSTALLATION

矢視
SECTION A-A

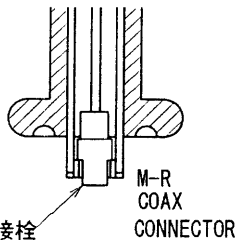




FAW-6R2A



FAW-6RP2A



ITEM 品番	NAME 品名	MATERIAL 材質	Q'TY 数量	DWG No 図番	REMARKS 摘要
8	ボルト／ナット BOLT/NUT	SUS305	8 PAIRS 8 PAIRS	AKB-6HA (000-107-691)	M8x80 M8x35
7	取付金具 SUPPORT ARM	SUS305	4		t=3mm
6	押え金具 FIXING BRACKET	SUS305	2		t=3mm
5	緩衝ゴム板 CUSHION RUBBER	ネオプレンゴム NEOPREN	1	FAW-6R2 (000-572-109) OR FAW-6RP2 (000-572-108)	
4	上部ホルダー UPPER HOLDER	FRP	1/2x2		
3	基部素子 LOWER ELEMENT	グラスファイバ FIBER GLASS	1		
2	継素子 MIDDLE ELEMENT	グラスファイバ FIBER GLASS	1		
1	上部素子 UPPER ELEMENT	グラスファイバ FIBER GLASS	1		

DRAWN	Sep 27 '00 T.YAMASAKI
CHECKED	Sep 27 '00 T.K
APPROVED	Sep 27 '00 T.K
SCALE	1/10
MASS	ELEMENT: 3 ±10% BRACKET: 1 kg
DWG. No.	C5011-040- C
TITLE	FAR-6R2A/6RP2A
名称	ホイップアンテナ 外寸図
NAME	WHIP ANTENNA OUTLINE DRAWING

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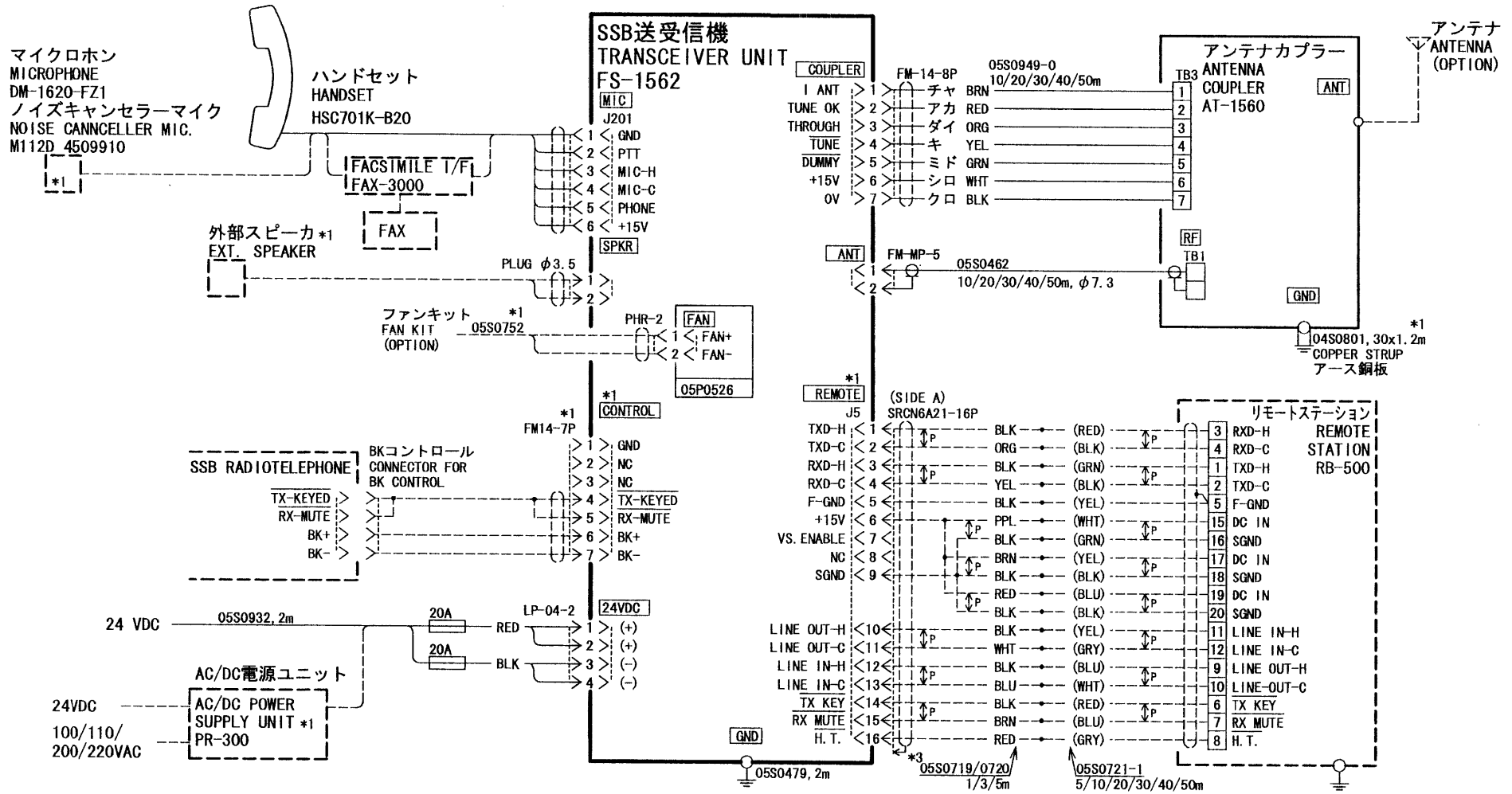

注記

＊1）オプション。

＊2）造船所手配。

＊3）シールドをコネクタクランプでアースする。

NOTE

*1. OPTION.

*2. SHIPYARD SUPPLY.

*3. GROUND THRU CONNECTOR CLAMP.

DRAWN Aug. 9 '01 T. YAMASAKI			TITLE FS-1562
CHECKED Aug 9 '01 K. K			名称 SSB 送受信機
APPROVED Aug 9 '01 K. K			相互結線図
SCALE	MASS kg		NAME RADIOTELEPHONE
DWG. No. C5572-C01- H			INTERCONNECTION DIAGRAM

FURUNO ELECTRIC CO., LTD.

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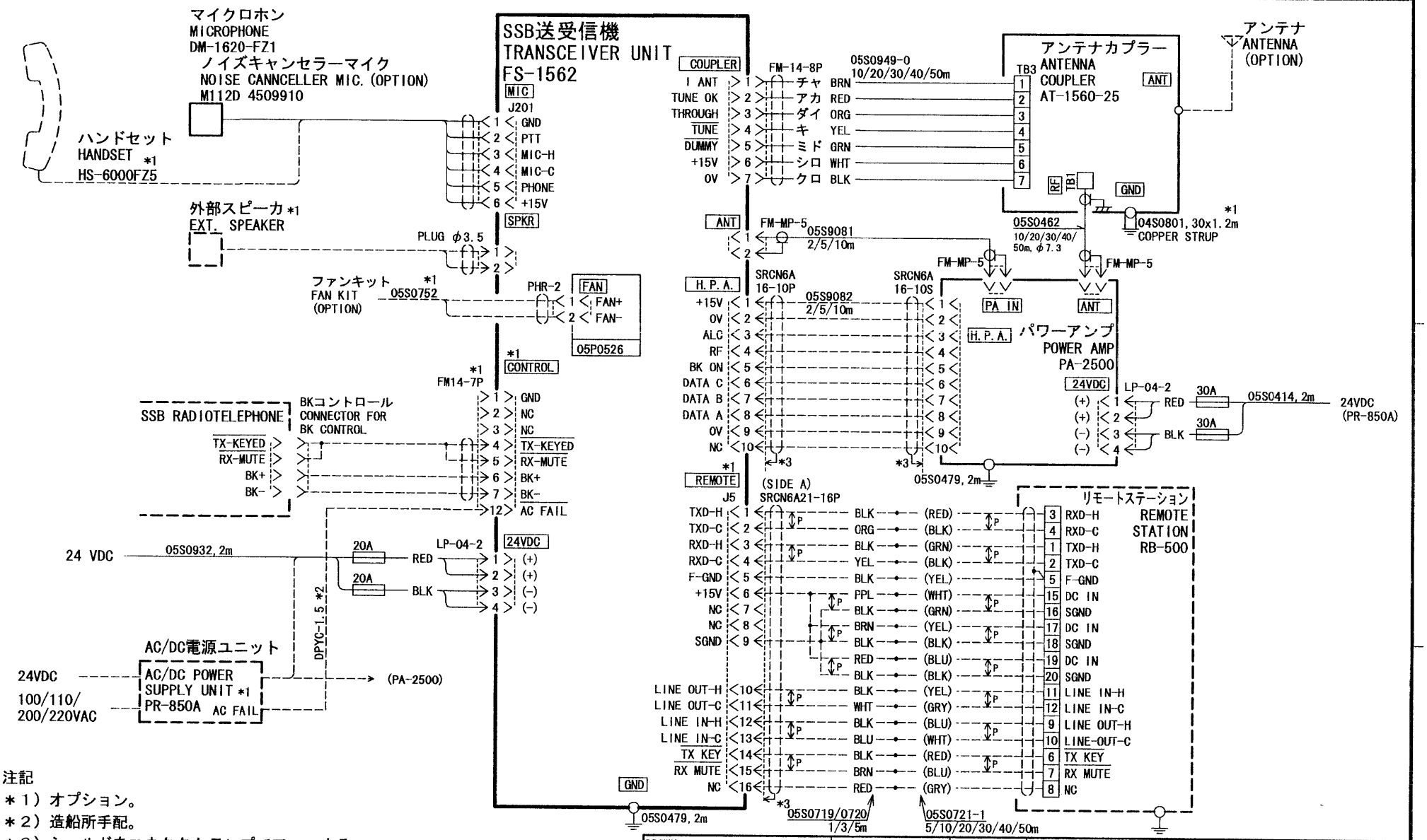


注記

＊1）オプション。

＊2）造船所手配。

＊3）シールドをコネクタクランプでアースする。

NOTE

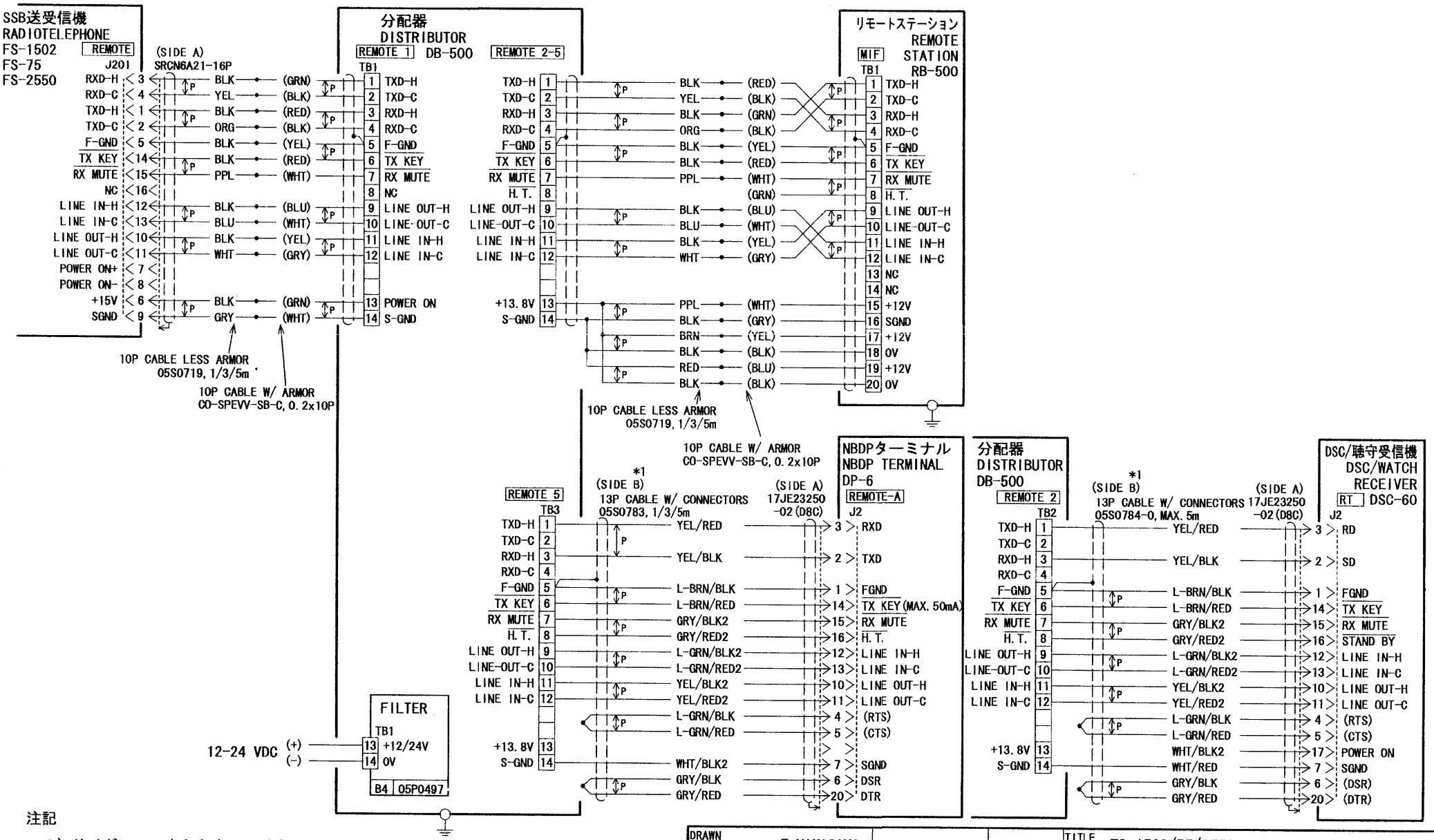
*1. OPTIONAL SUPPLY.

*2. SHIPYARD SUPPLY.

*3. GROUND THRU CONNECTOR CLAMP.

DRAWN Aug. 9 '01 T. YAMASAKI			TITLE FS-1562-25
CHECKED Aug 9 '01 T.K			名称 SSB 送受信機
APPROVED Aug 9 '01 T.K			相互結線図
SCALE / MASS kg			NAME RADIOTELEPHONE
DWG. No. C5596-C01- D			INTERCONNECTION DIAGRAM

FURUNO



注記

＊1）サイドBのコネクタを取り外す。

NOTE

*1. REMOVE CONNECTOR PLAG AT SIDE B.

DRAWN Aug. 9 '01 T. YAMASAKI		TITLE FS-1562/75/2550 + DB-500
CHECKED Aug 9 '01		名称 SSB送受信機
APPROVED Aug 9 '01		相互結線図
SCALE / MASS kg		NAME SSB RADIOTELEPHONE
DWG No. C5596-C02- A		INTERCONNECTION DIAGRAM

FURUNO ELECTRIC CO., LTD.

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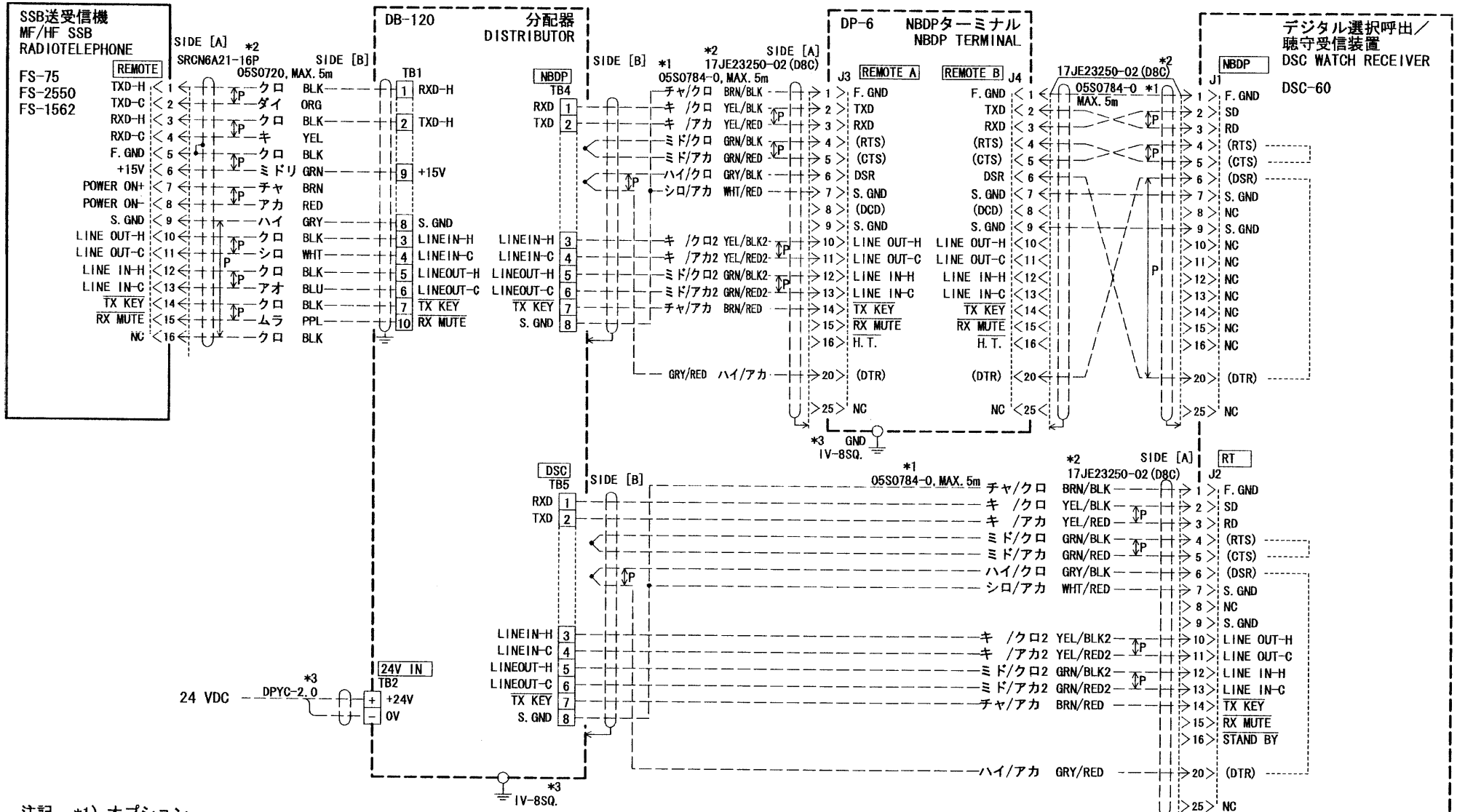
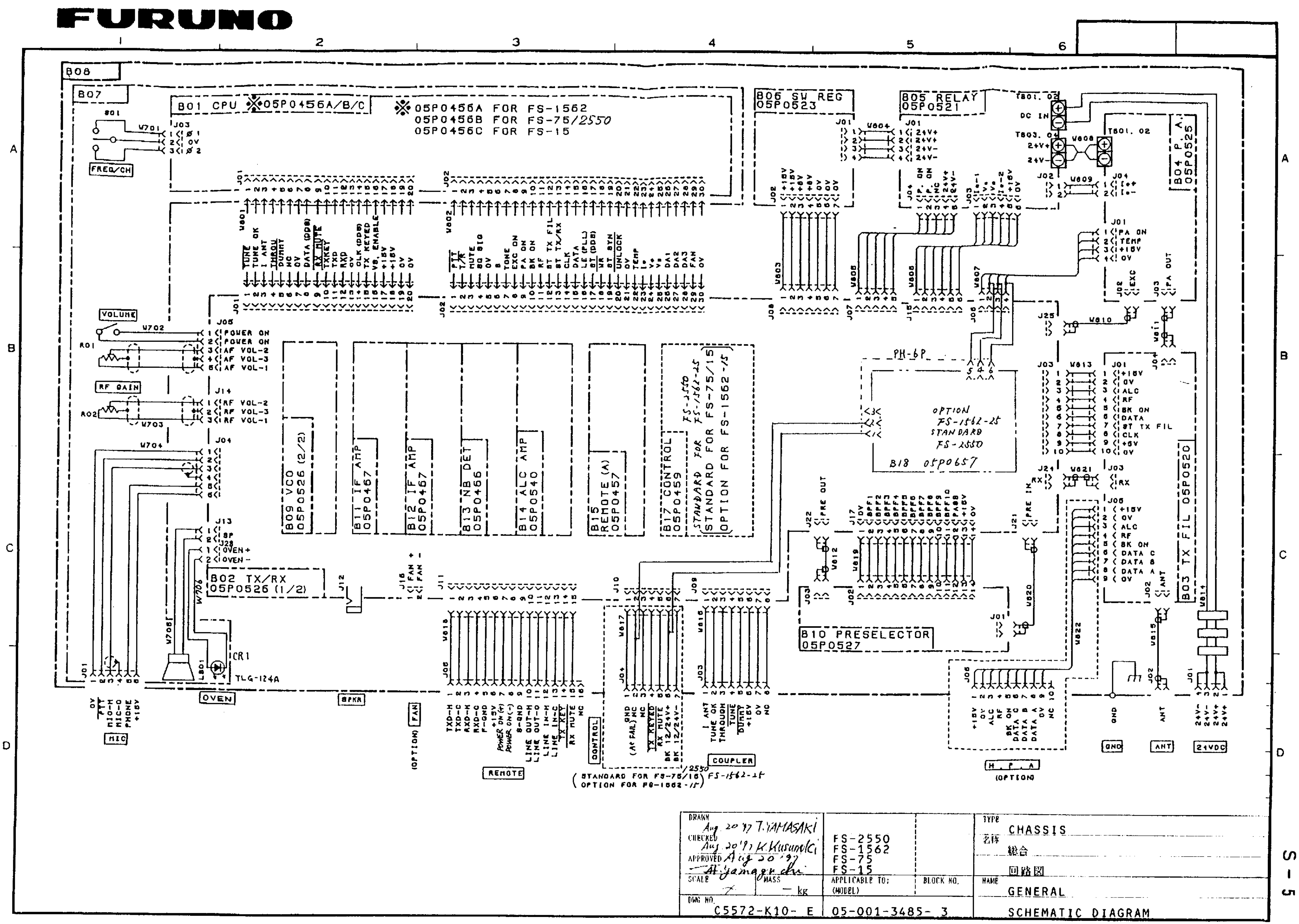
FURUNO



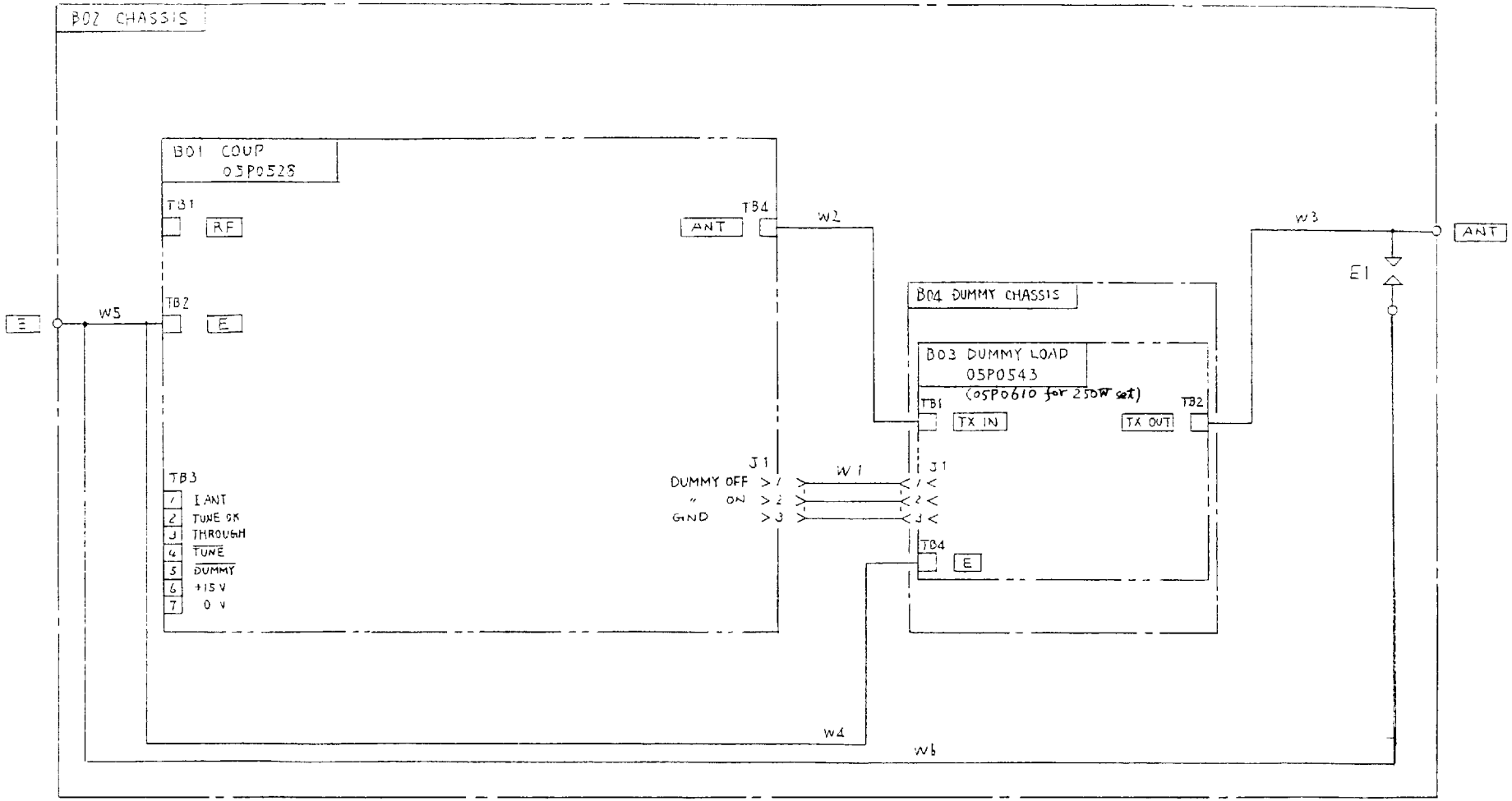
注記　*1）オプション
　　*2）コネクタは工場で取付済み。
　　*3）造船所手配。

NOTE　*1. OPTION
　　*2. CONNECTOR PLUGS FITTED AT FACTORY.
　　*3. SHIPYARD SUPPLY.

DRAWN Aug. 8 '01 T. YAMASAKI		TITLE	DSC-60 (REMOTE)
CHECKED Aug 9 '01 Y.K		名称	デジタル選択呼出／聴守受信装置
APPROVED Aug 9 '01 Y.K			相互結線図
SCALE	MASS kg	NAME	DSC/WATCH RECEIVER
DWG No. C5628-C06- A			INTERCONNECTION DIAGRAM


FURUNO
B01 CPU ※05P0456A/B/C
※ 05P0456A FOR FS-1562
05P0456B FOR FS-75/2550
05P0456C FOR FS-15
B02 TX/RX 05P0526 (1/2)
B03 TX FIL 05P0520
B04 P. A. 05P0525
B05 RELAY 05P0521
B06 SW REG 05P0523
B07
B08
B09 VCO 05P0526 (2/2)
B10 PRESELECTOR 05P0527
B11 IF AMP 05P0467
B12 IF AMP 05P0467
B13 NB DET 05P0466
B14 ALC AMP 05P0540
B15 REMOTE (A) 05P0457
B17 CONTROL 05P0459
STANDARD FOR FS-75/15
OPTION FOR FS-1562-1/5
B18 05P0657
24VDC
ANT
GND
H. P. A (OPTION)
COUPLER
CONTROL
REMOTE
FAN
SPKR
OVEN
MIC
VOLUME
RF GAIN
FREQ/CH
TLG-124A
CHASSIS
GENERAL
SCHEMATIC DIAGRAM
FS-2550
FS-1562
FS-75
FS-15
C5572-K10- E
05-001-3485- 3
S - 5

FURUNO



承認 APPROVED	May. 31. '93 M. IKEDA	名称 TITLE	アンテナカプラー ANTENNA COUPLER
検図 CHECKED	May-31-'93 T. SHITO	2B02 AT-1560	
製図 DRAWN	May-31-'93	図番 DWG.NO.	C5572-K03-B

FS-1562
FS-15/75/2550

FURUNO ELECTRIC CO., LTD.

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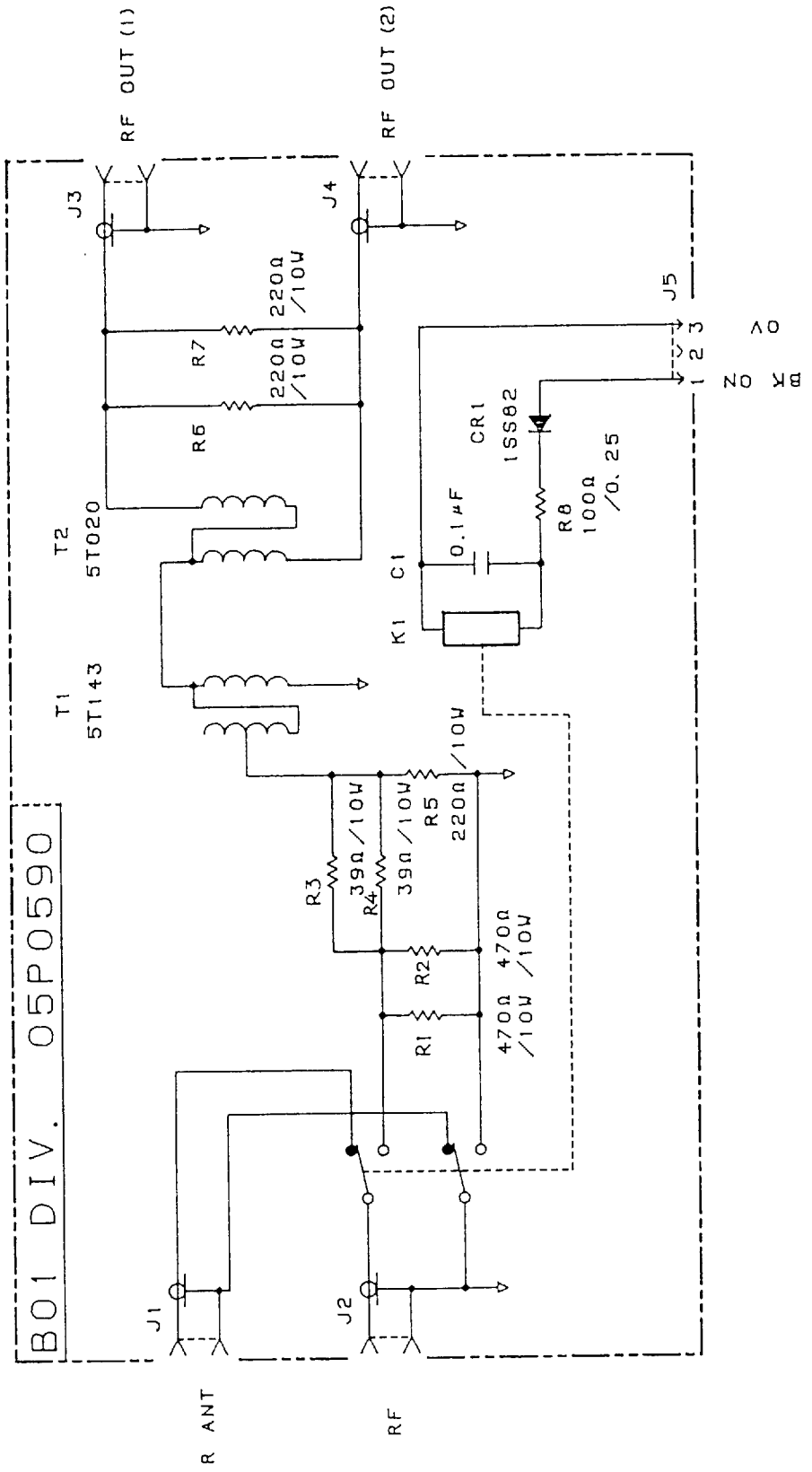

REMARKS			TYPE 05P0590	
			名称 分配基板	
DRAWN T.Y / APPROVED TSATO	PA-2500	B 1	NAME DIVIDER BOARD	
SCALE ∞ / MASS — kg	APPLICABLE TO: (MODEL)	BLOCK NO.	DWG NO. C5596-K02-	B