

# FURUNO

# INSTALLATION MANUAL

## SSB RADIOTELEPHONE

FS-1570 (150 W)  
MODEL FS-2570 (250 W)



**FURUNO ELECTRIC CO., LTD.**  
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\* 0 0 0 8 0 9 3 4 2 0 0 \*



\* I M E 5 6 3 6 0 B 0 0 \*



# SAFETY INSTRUCTIONS



## DANGER



**Do not touch cable from the antenna coupler during transmission.**

Electrical shock, serious injury or death can result if the cables are touched during transmission.

Do not touch this point.



**Do not touch the whip antenna or wire antenna.**

Electrical shock, serious injury or death can result if the antenna is touched during transmission.



## WARNING



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

Hazardous voltage which can shock 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

**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 to the equipment. The voltage rating appears on the label at the rear of the display unit.



**Ground the equipment.**

Ungrounded equipment can give off or receive electromagnetic interference or cause electrical shock.

**Use copper strap with careful.**

An edge of it may harm your hand.

**Keep the following compass safe distances.**

		Standard compass	Steering compass
Transceiver Unit	FS-1570T	1.20 m	0.70 m
	FS-2570T	2.20 m	1.40 m
FS-2570C		0.70 m	0.40 m
HS-2001		1.30 m	0.90 m
PP-510		1.00 m	0.80 m
IC-302/303		0.80 m	0.60 m
SEM-21Q		2.20 m	1.50 m
PR-850A		1.00 m	0.70 m
PR-300		0.90 m	0.70 m
IB-581		1.4 m	1.0 m

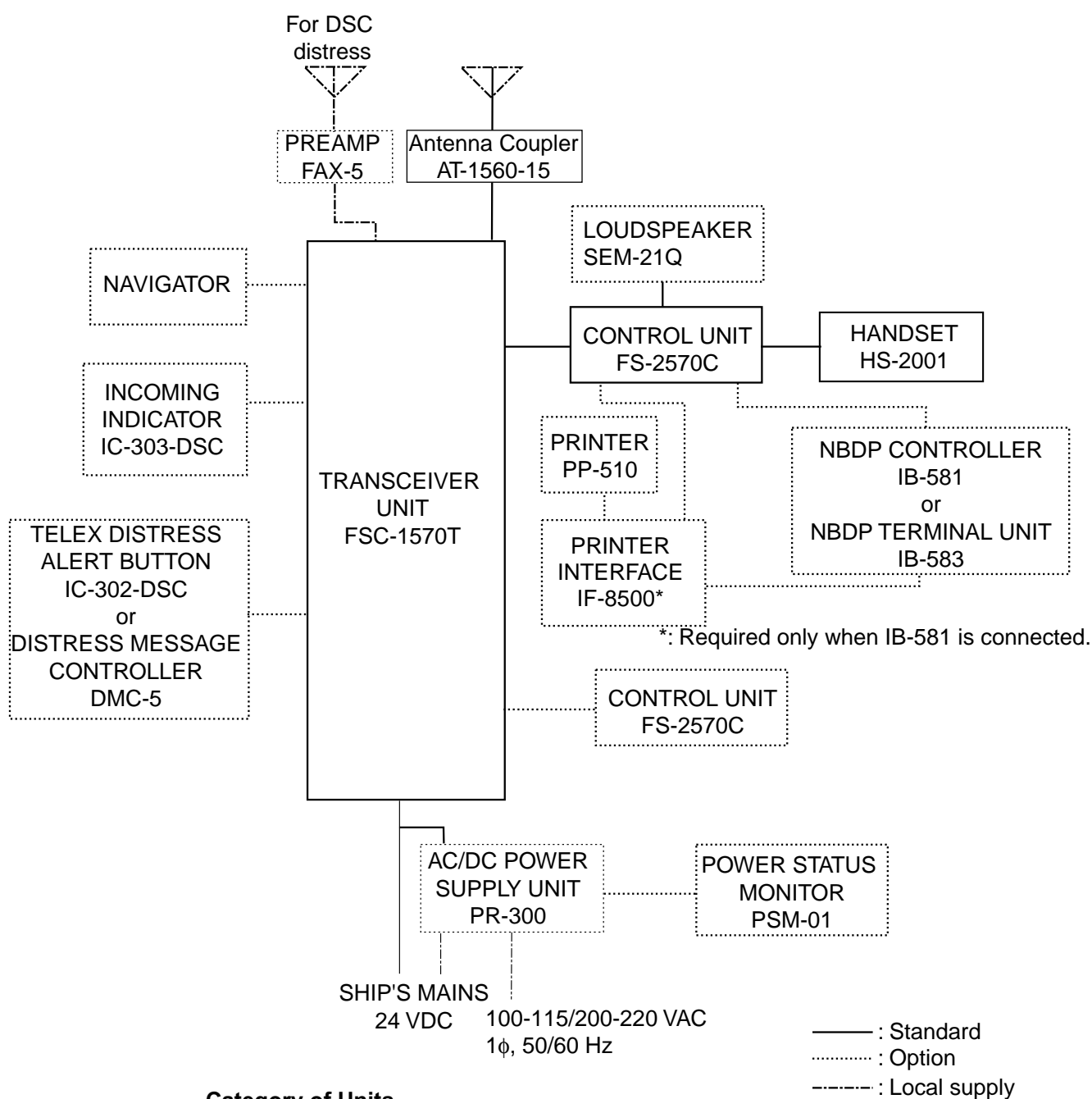
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# SYSTEM CONFIGURATION

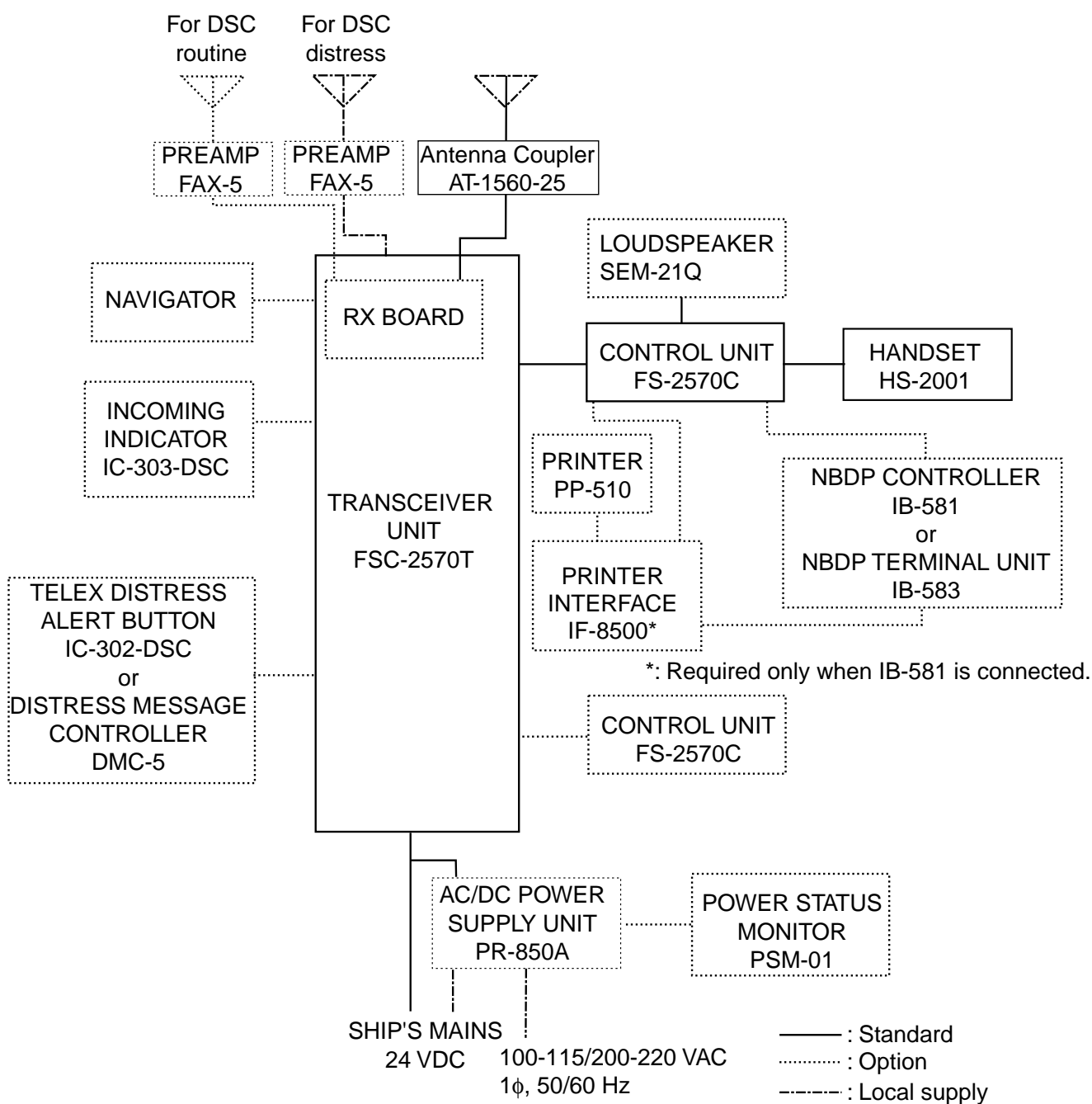
## FS-1570



### Category of Units

Unit	Category
Preamp Unit	Exposed to weather
Antenna Coupler	Exposed to weather
Other Units	Protected from weather

## FS-2570



### Category of Units

Unit	Category
Preamplifier Unit	Exposed to weather
Antenna Coupler	Exposed to weather
Other Units	Protected from weather

# EQUIPMENT LISTS

## Standard Supply

Name	Type	Code no.	Qty	Remarks		
Transceiver Unit	FS-1570T	-	1	For FS-1570 (150 W)		
	FS-2570T	-		For FS-2570 (250 W)		
Control Unit	FS-2570C	-	1			
Antenna Coupler	AT-1560-15-AAS	-	1	For FS-1570, Resin		
	AT-1560-15-SUS	-		For FS-1570, Stainless steel		
	AT-1560-25-AAS	-		For FS-2570, Resin		
	AT-1560-25-SUS	-		For FS-2570, stainless steel		
Accessories	FP05-05500*	000-056-947	1	Handset, bracket, etc.		
Installation Materials	CP05-08800	000-056-950	1 set	17JE23150-02 (D8C) 5 m cable	Between control unit & Transceiver unit.	
	CP05-08810	000-056-951		17JE23150-02 (D8C) 10 m cable		
	CP05-08820	000-056-952		17JE23150-02 (D8C) 20 m cable		
	CP05-08830	000-056-953		17JE23150-02 (D8C) 30 m cable		
	CP05-08840	000-056-954		17JE23150-02 (D8C) 40 m cable		
	CP05-08850	000-056-955		17JE23150-02 (D8C) 50 m cable		
	CP05-05700*	000-055-238	1 set	For antenna coupler		
	CP05-08801*	005-951-930	1 set	For control unit		
	CP05-08802*	005-952-180	1 set	For transceiver unit		
	05S0949 L-10	000-130-484	1	10 m	For antenna coupler	
	05S0949 L-20	000-130-485		20 m		
	05S0949 L-30	000-130-486		30 m		
	05S0949 L-40	000-130-487		40 m		
	05S0949 L-50	000-130-488		50 m		
	05S0462 L-10	000-113-360	1	10 m		
	05S0462 L-20	000-113-361		20 m		
	05S0462 L-30	000-113-362		30 m		
	05S0462 L-40	000-113-363		40 m		
	05S0462 L-50	000-113-364		50 m		

\*: See the lists on the back of this manual.

## Optional Equipment

Name	Type	Code no.	Qty	Remarks
AC-DC Power Supply Unit	PR-300	-	1	For FS-1570 (150 W)
	PR-850A	-	1	For FS-2570 (250 W)
Printer	PP-510	-	1 set	w/installation materials (CP16-01200), accessories (FP16-00100)
Printer Interface Kit	IF-8500	000-053-895	1	
Distress Alert Unit	IC-302-DSC	-	1 set	w/Installation materials
Incoming Indicator	IC-303-DSC	-	1 set	w/Installation materials
Whip Antenna	04S4176	000-112-845	1	2.6 meter
Preamp Unit	FAX-5	000-075-016	1 set	
External Loudspeaker	SEM-21Q	000-144-917	1	
Control Unit	FS-2570C	-	1 set	
NBDP Terminal Unit Set	OP05-96	000-056-949	1 set	Terminal Unit IB-581, DSP print, Accessories
	OP05-100	000-056-956	1 set	Terminal unit IB-583 (w/accessories, spare parts)
Handset	HS-2001	-	1 set	w/Bracket
Flush mount Kit	OP05-98	005-951-830	1	For control unit
W/R2 set	OP05-99	005-951-840	1 set	For FS-2570, P.C.B.
Cable assy.	17JE23150-02 (D8C) 5 m	000-146-015	1	5 m cable
	17JE23150-02 (D8C) 10 m	000-146-016		10 m cable
	17JE23150-02 (D8C) 20 m	000-146-017		20 m cable
	17JE23150-02 (D8C) 30 m	000-146-018		30 m cable
	17JE23150-02 (D8C) 40 m	000-146-019		40 m cable
	17JE23150-02 (D8C) 50 m	000-146-020		50 m cable

# 1. MOUNTING

## 1.1 Control Unit

### 1.1.1 Mounting methods

The control unit can be mounted one of four ways;

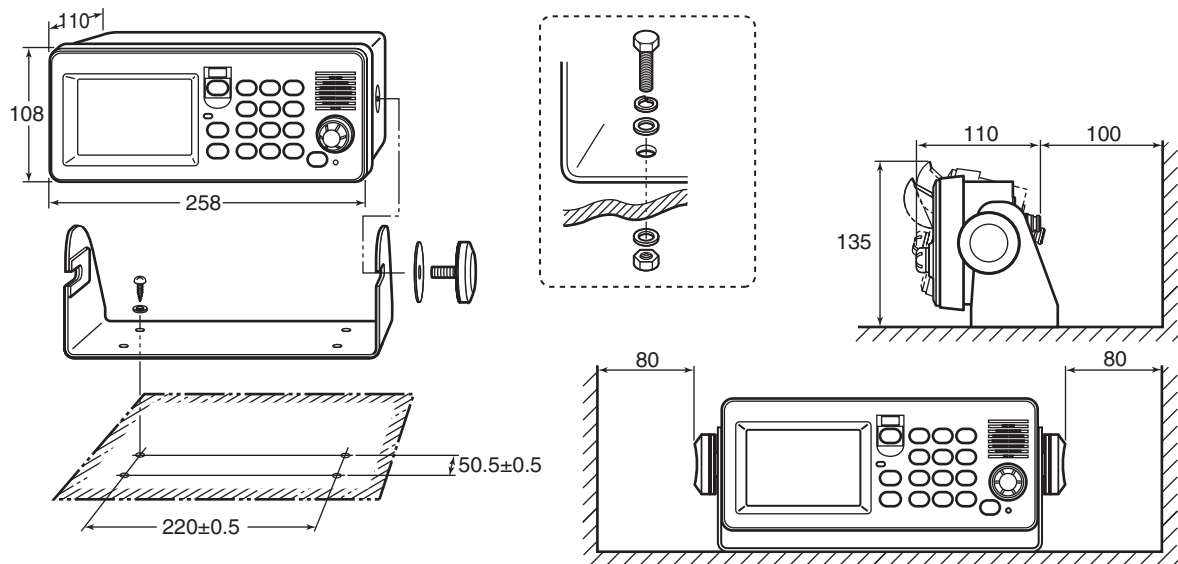
- In the hanger (overhead, bulkhead or tabletop)
- Flush mounting.

### 1.1.2 Mounting considerations

- Make sure the location is strong enough to support the unit under the conditions of continued vibration and shock normally encountered on the boat
- Locate the unit where it is easily accessible and does not interfere with personnel or operation of other equipment; for example, ship's wheel.

### 1.1.3 Hanger mounting

1. Fix the hanger with tapping screws (supplied).
2. Set the control unit to the hanger and fix it with the washers and knobs.



*Mounting the control unit*

## 1.1.4 Flush Mounting

Use the optional flush mount kit.

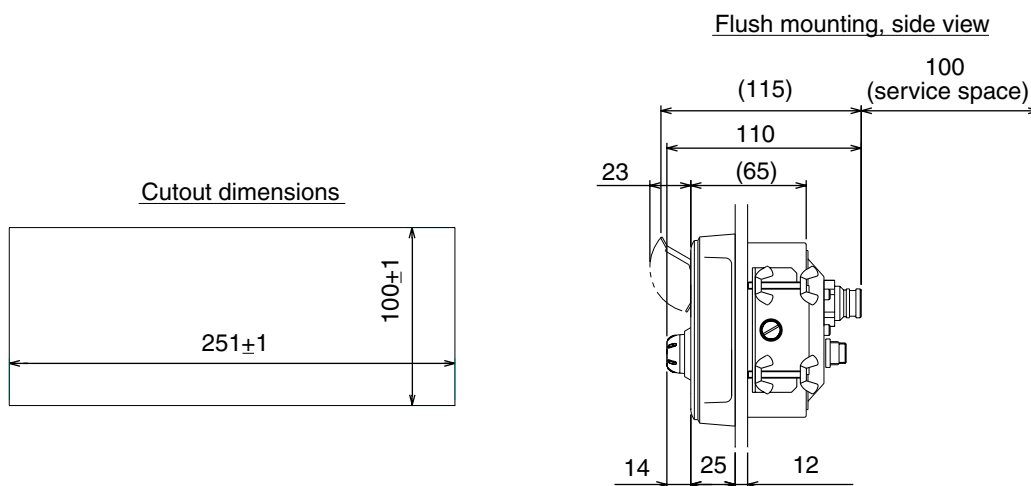
Name: Flush mount kit

Type: OP05-98

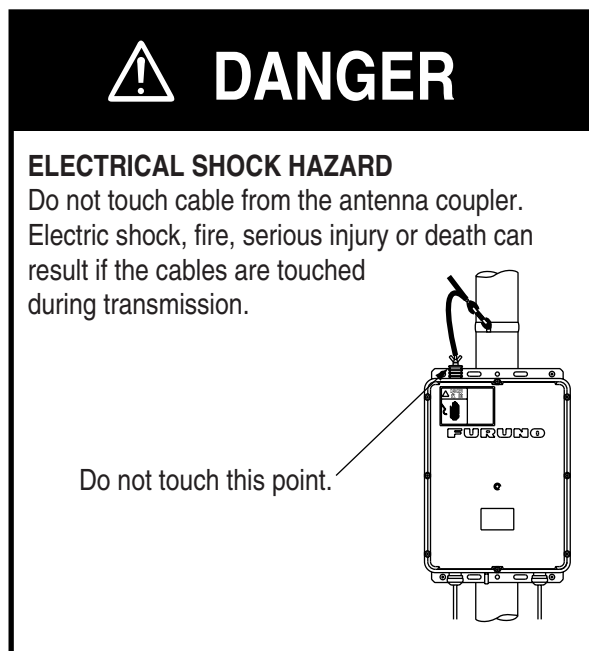
Code No.: 005-951-830

Name	Type	Code No.	Qty	Remarks
Mounting metal	05-089-1171	100-299-020	2	
Wing bolt	M4x30	000-804-799	4	
Wing nut	M4	000-863-306	4	
Hex. bolt	M6x12	000-862-127	2	
Spring washer	M6	000-864-260	2	

1. Make a cutout of 251 mm (W) x 100 mm (H).
2. Insert the control unit to the cutout.
3. Attach two mounting metal (supplied with kit) to the control unit with hex bolts (M6 x 12, supplied with kit) and spring washer (supplied with kit) from the rear side.
4. Screw four wing bolts (supplied with kit) to wing nuts (supplied).
5. Fasten the control unit to the mounting location with four wing bolts and nuts assembled at step 3.



## 1.2 Antenna Coupler



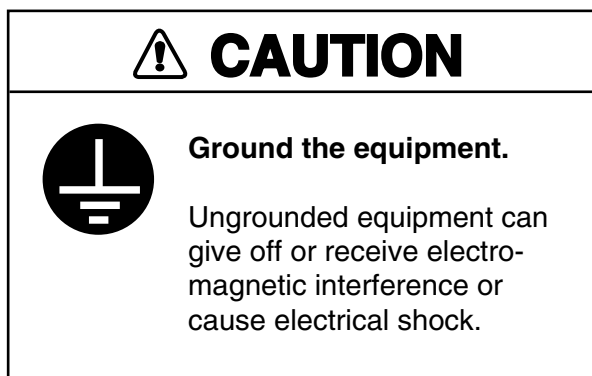
### 1.2.1 Introduction

The antenna coupler is installed between the antenna and the transceiver, 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.

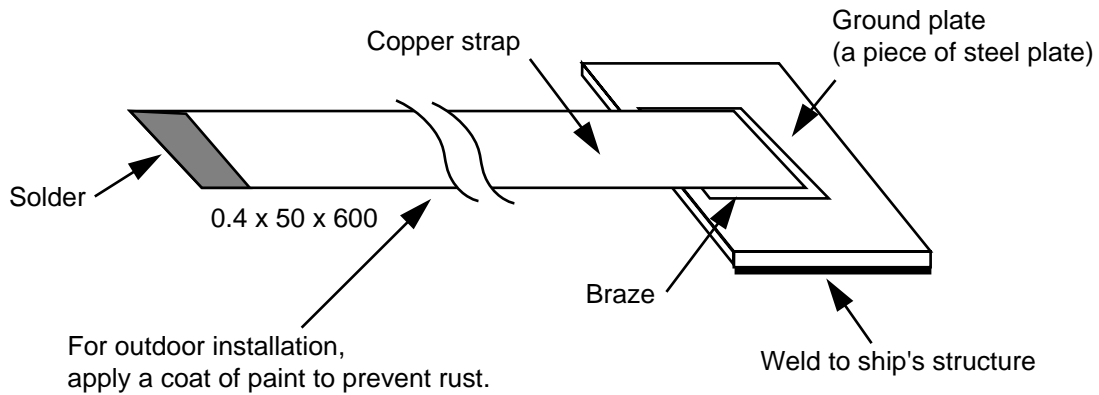
### 1.2.2 Ground System

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.



## **Grounding**

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



*Ground for metallic hull*

### **1.2.3 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**

- 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 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 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.
- Overhead mounting is available for indoor installation.

### **1.2.4 Anti-moisture measure (vent tube)**

The vent tube (attached) 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 coupler.

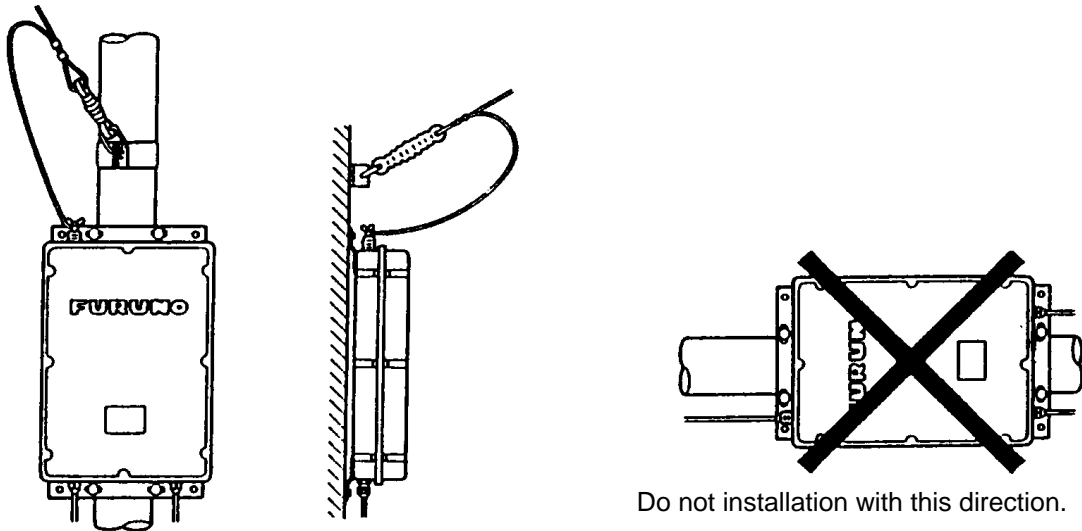
## **Vertical or horizontal installation**

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

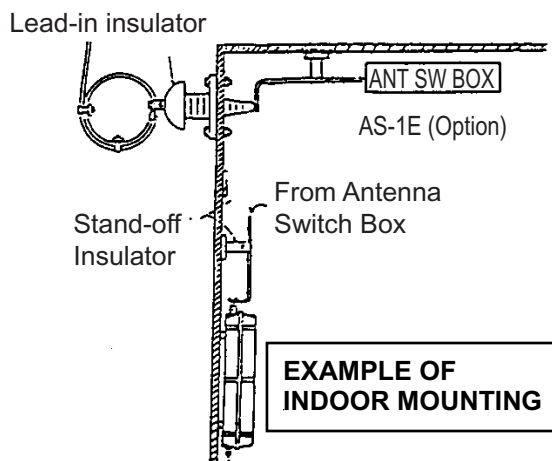
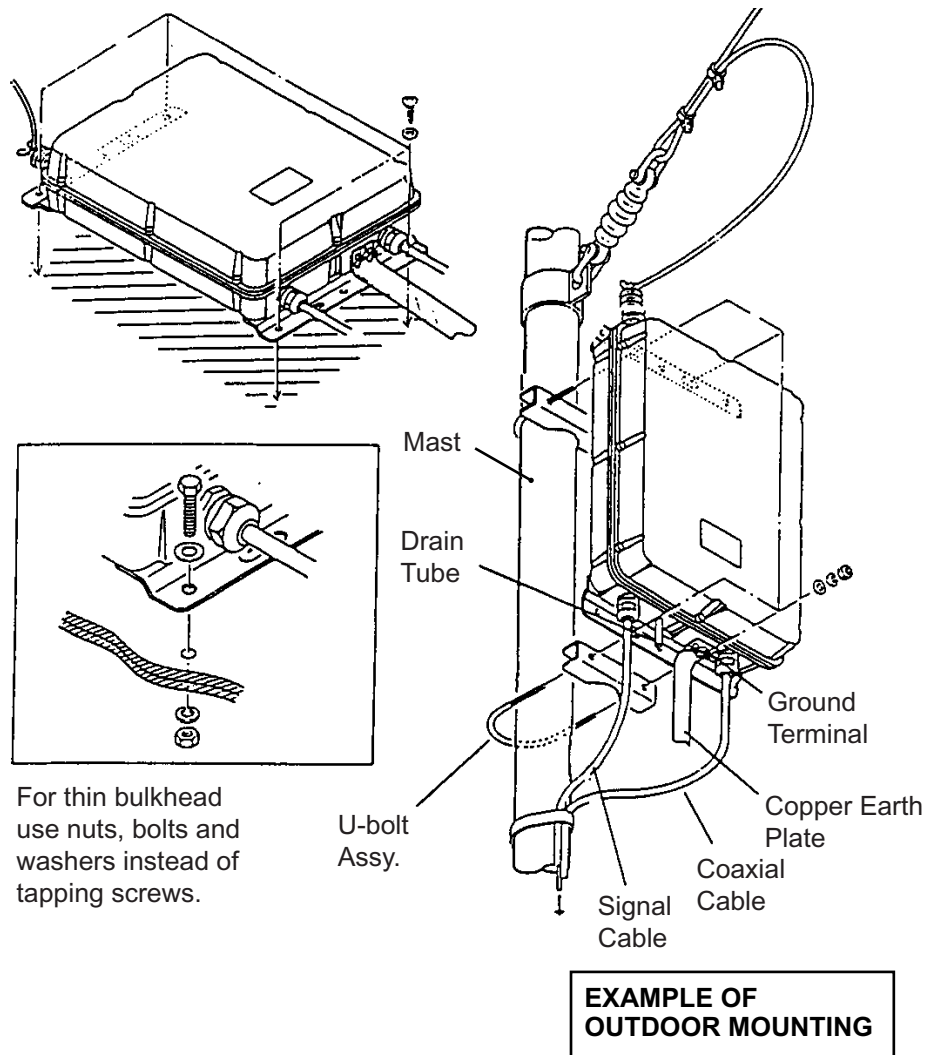
### 1.2.5 Mounting

The antenna coupler can be fixed to the floor, bulkhead, overhead or mast. For mounting on the bulkhead, fix the coupler with either tapping screws or M5 bolts and nuts. The resin type antenna coupler can be mounted on the mast, using two U-bolt (Type: OP05-12, Code No.: 005-923-680).

#### Example for installation



*Example for antenna coupler mounting*



*Mounting the antenna coupler*

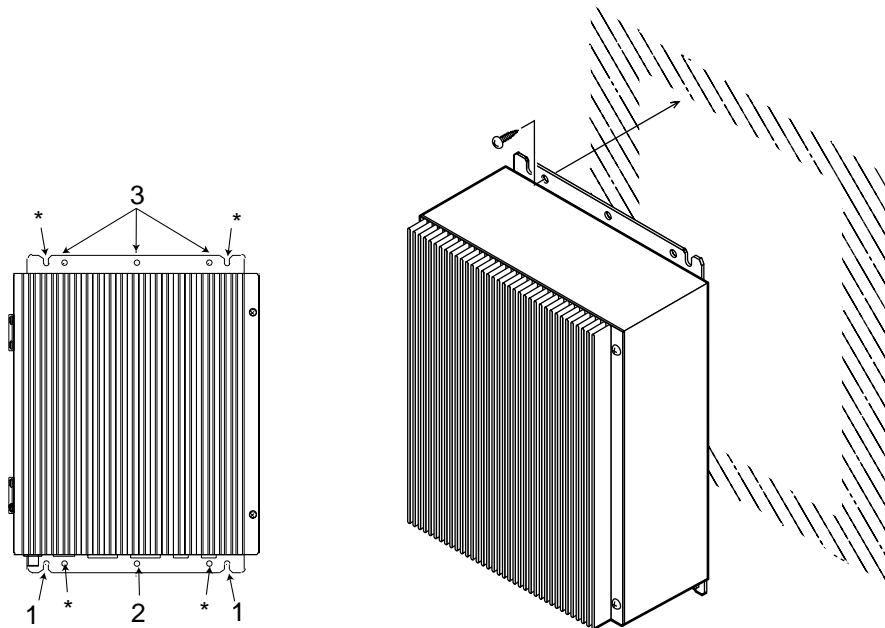
## 1.3 Transceiver Unit

- Bulkhead mounting only
- Select a location which provides adequate ventilation.
- The location must be clean and dry.
- The mounting location must be able to support the weight of the unit (FS-1570: 11.0 kg, FS-2570: 14.0 kg) under the continued conditions of vibration normally encountered aboard the vessel. If necessary, reinforce the mounting location.
- Secure the maintenance space shown in the outline drawing at the back of this manual, for ease of maintenance and service.

### Transceiver unit

Ground the transceiver unit with the cable assy (05S0479, supplied), to prevent interference.

Fasten the transceiver unit to the mounting location with six tapping screws in the order shown below. (Asterisk-marked holes are not used.) For details, refer to outline drawings at the back of this manual.

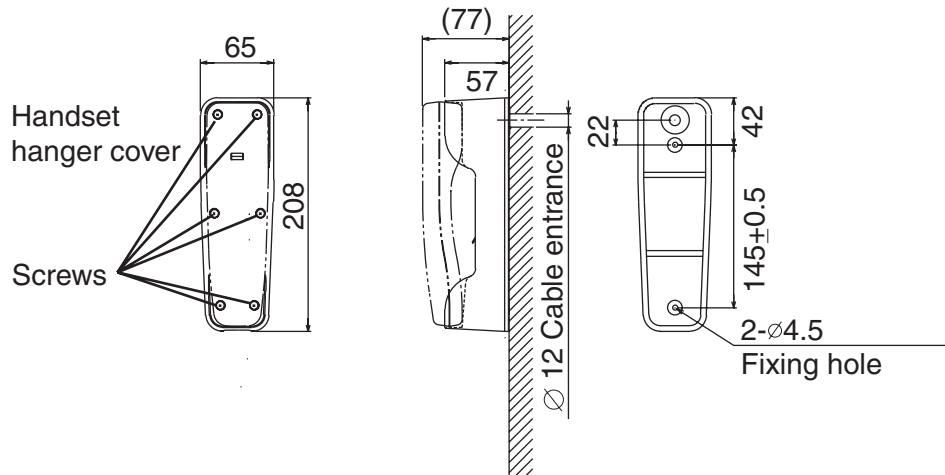


*Transceiver unit (ex. FS-1570T)*

## 1.4 Handset (w/bracket)

Unfasten six screws to remove the bracket cover, and fasten the bracket to the mounting location with two tapping screws 4 x 16 (supplied) on the desktop or bulkhead.

**Note:** The magnet inside the bracket may pull the screwdriver when mounting the hanger.



*Handset (w/bracket)*

## 1.5 The Antenna

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.

### 1.5.1 Types of 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. A whip antenna is installed as high as possible, away from any nearby objects.

### 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 for FS-1570 or YA-218 for FS-2570) 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 Mounting of Optional Equipment

### 1.6.1 AC-DC power supply unit

#### 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: 14.5 kg, PR-850A: 35 kg) under the continued conditions of vibration normally encountered aboard the vessel.
- A magnetic compass will be affected if the power supply unit is placed too close to it. Observe the following compass safe distances to prevent disturbance to the magnetic compass: For PR-300, standard: 0.90 m, steering: 0.70 m, for PR-850A, standard: 1.00 m, steering: 0.70 m.

#### Mounting

Refer to the outline drawings at the back of this manual.

### 1.6.2 Preamp unit FAX-5

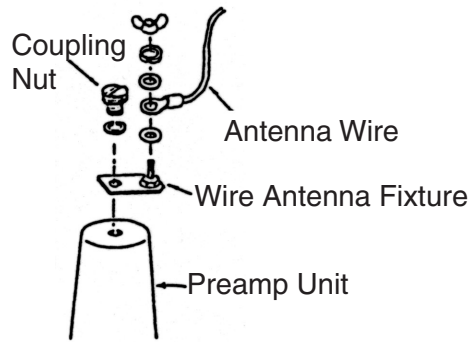
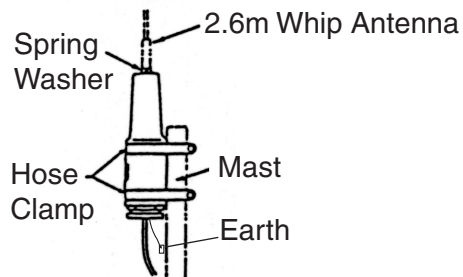
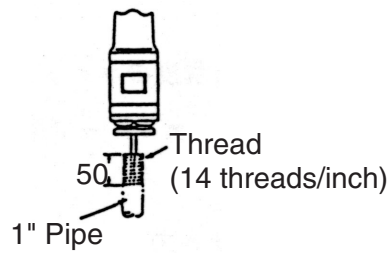
The body of preamp unit can be mounted two ways:

1. The bottom of the preamp unit is designed to accept a threaded extension mast of 1 inch diameter. The pitch of the thread should be 14 threads per inch. To prevent undue flexing of the mast in heavy winds, the mast should not be longer than 5 feet (1.5 m).
2. The side of the preamp unit has a molded channel so that it may be mounted directly to a stub mast with two stainless steel hose clamps. Hose clamps must be arranged locally.

Screw the 2.6 m whip antenna (option) tightly onto the preamp unit and waterproof the junction and other exposed metallic parts with sealing compound (silicone rubber, putty, etc.)

Note that a wire antenna of 2 to 3 meters length may be used instead of the whip antenna.

**Note:** The preamp unit requires 9 VDC power. See paragraph 3.5 for how to provide power to the preamp unit.



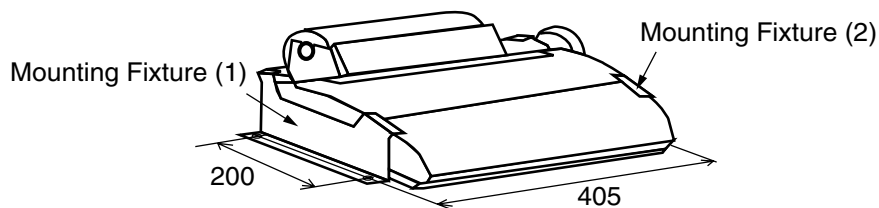
*Mounting of preamp unit*

### 1.6.3 Printer PP-510

Install the unit with the two mounting fixtures (supplied). Refer to the outline drawing at the end of this manual. Connect the interconnection cable between the printer and the transceiver unit. For how to load paper and set ribbon cassette, refer to the Operator's Manual of the printer.

#### **Mounting**

1. Select a flat surface. (Compass safe distance: Standard, 1.0 meters, Steering, 0.8 meters).
2. Fix the printer to the mounting location with two mounting fixtures.

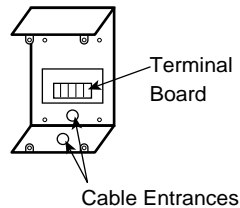


*Dimensions of printer PP-510*

### 1.6.4 Distress alert unit IC-302-DSC/Incoming indicator IC-303-DSC

Select the mounting location where the button on the unit can be operated easily in an emergency. See the back of the manual for mounting dimensions and recommended clearance space. (Compass safe distance: Standard, 0.8 meters, Steering, 0.6 meters)

1. Unfasten four screws to remove the cover.



*IC-302-DSC/IC-303-DSC*

2. Fasten the unit with four tapping screws.
3. Pass the cable through appropriate entrance to connect to the terminal board. There are two cable entrances, one at the bottom and one on the back. Select one.
4. Attach the cover with four screws.
5. Clamp the cable outside of the unit with cable clamp (local supply).

### 1.6.5 External loudspeaker

The external loudspeaker can be installed on a tabletop, the overhead or bulkhead. Fasten the loudspeaker to the mounting location with tapping screws, or nuts, bolts and washers. For mounting dimensions, see the outline drawing at the back of this manual.

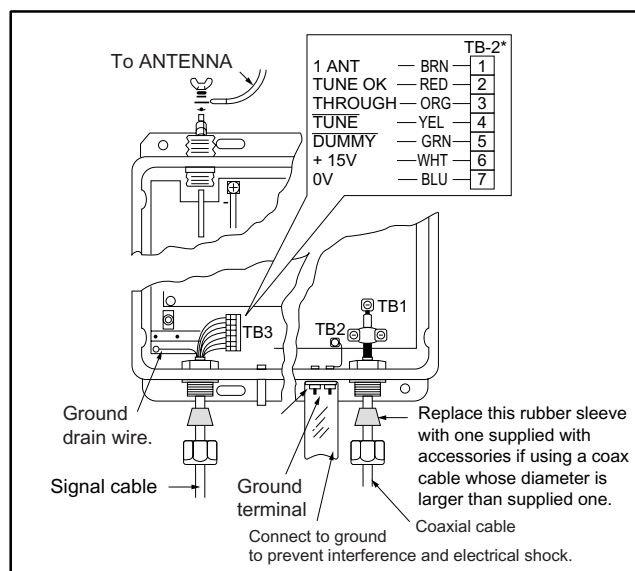
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# 2. WIRING

## 2.1 Wiring

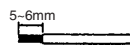
### 2.1.1 Standard wiring

For further details, refer to the interconnection diagram at the end of this manual.

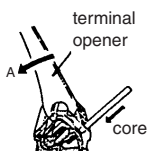


#### \*: How to Use Terminal Opener at TB-2

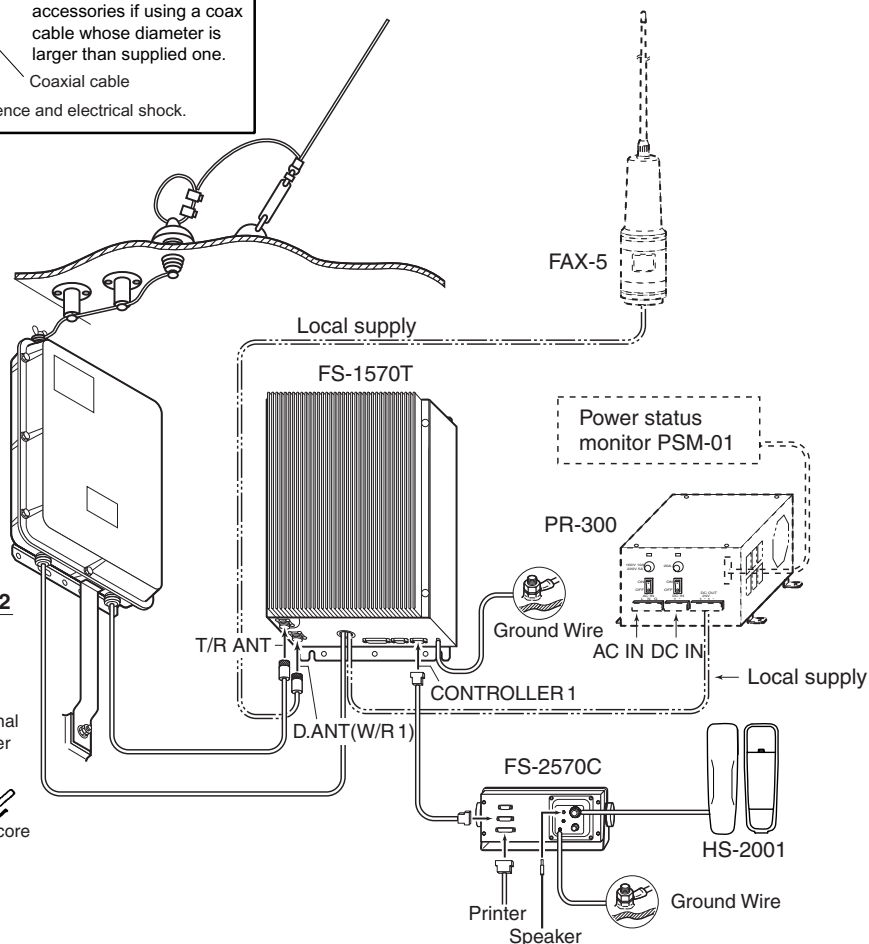
1. Remove the end of each core by 5-6 mm.



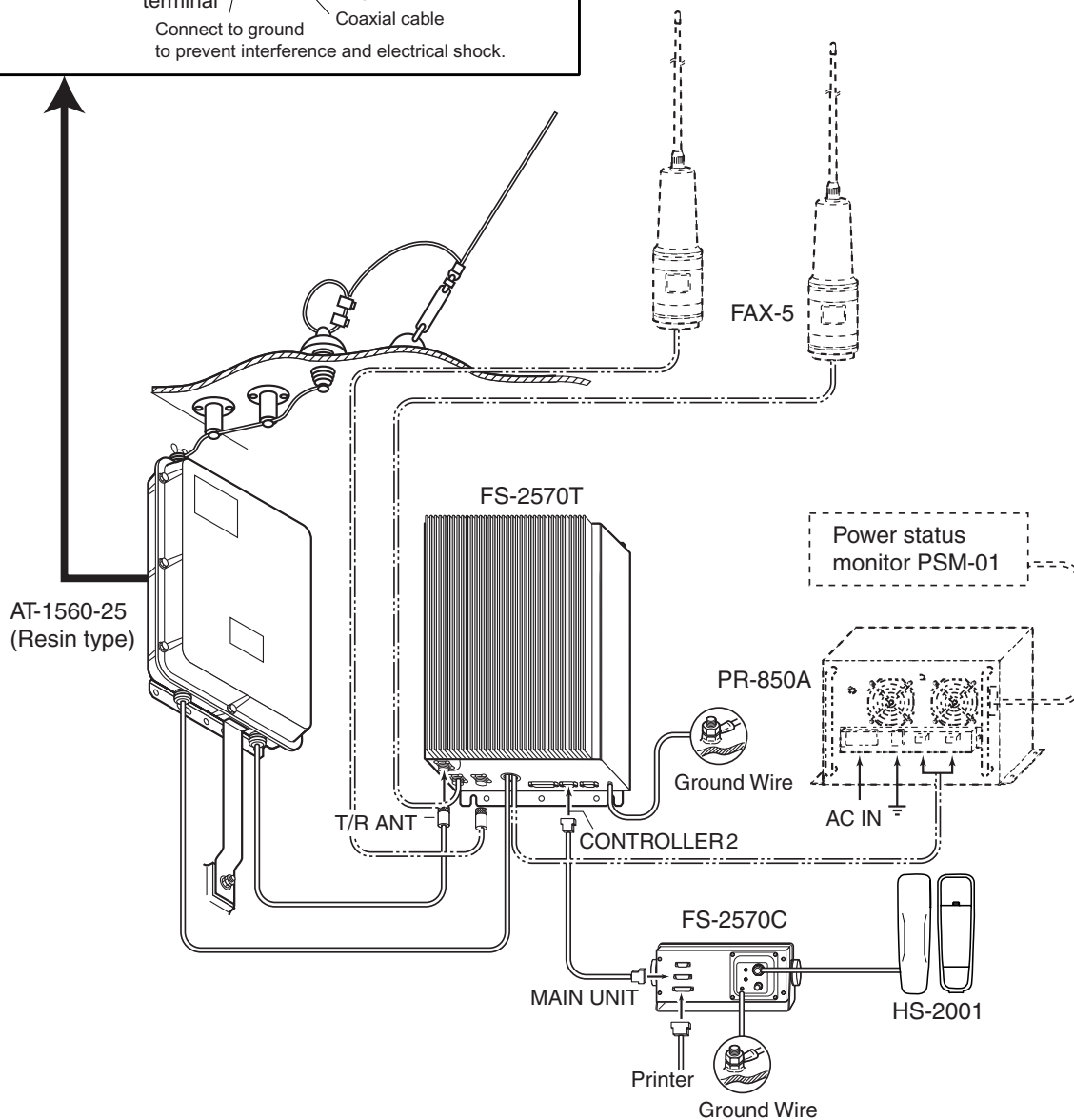
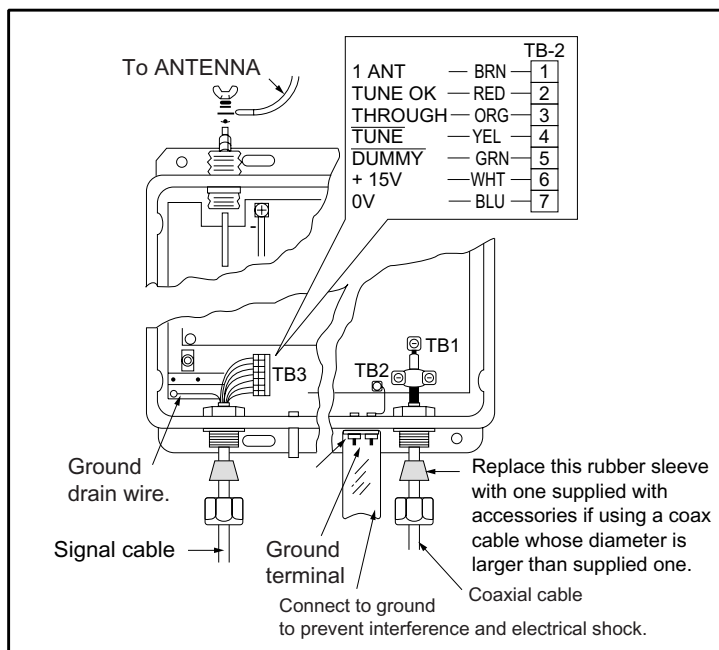
2. As shown in the figure, set the opener in a terminal. While pulling the opener downward, insert the core.



3. Release the opener. Tug on the core to confirm it is inserted properly.



Wiring (FS-1570)



Wiring (FS-2570)

## 2.1.2 Connection on the transceiver unit

### Power cable

Cut the rubber bush to the form of cross with knife.

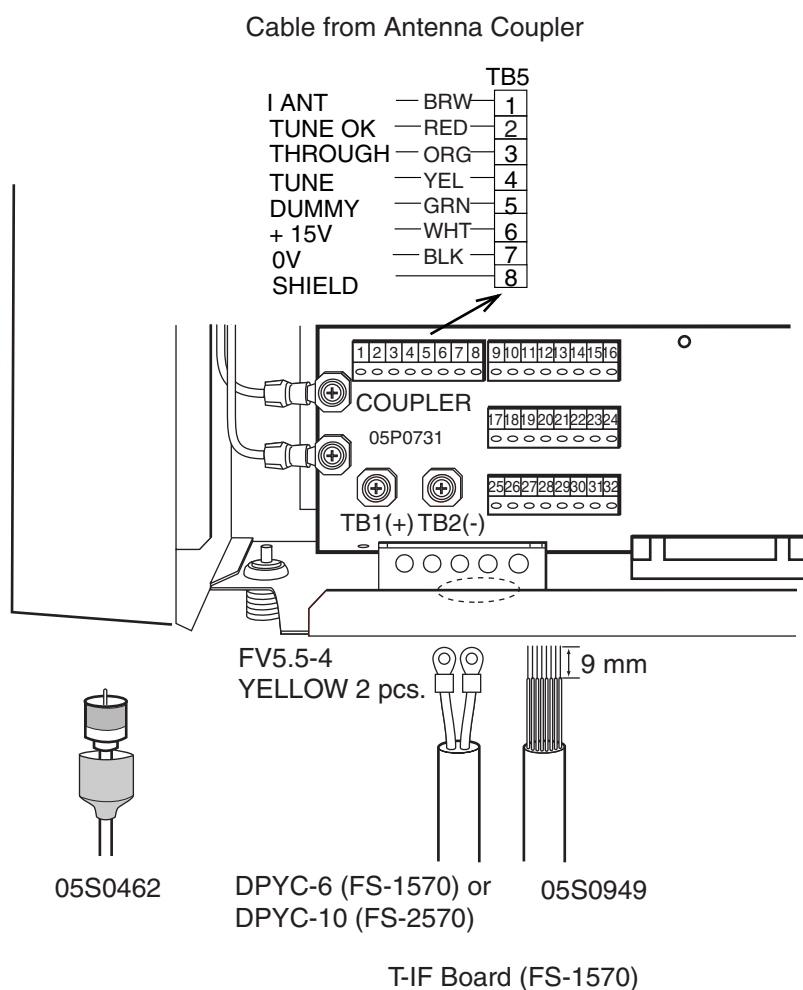
Pass the power cable (supplied) through the hole at the bottom of the transducer unit, and fasten it to the TB1 and 2. Fasten it to the fixing plate at cable entrance with a cable tie (local supply.) When connecting to the optional AC-DC power supply unit PR-300 (FS-1570) or 850A (FS-2570), supply AC power and DC power to the PR-300/850A. See paragraph "2.3 Connection of AC-DC Power Supply Unit" for detail.

### Antenna coupler cable

Cut the rubber bush to the form of cross with knife.

Cut the connector of the signal cable (05S0949) off, pass the cable to the rubber bush, and then connect the cable to TB5 on the T-IF Board (05P0731) (See Note 1.). Wrap vinyl tape or attach an insulating tube to the shield wire to prevent the shorting to the board. Fasten the signal cable to the fixing plate with a cable tie (local supply.)

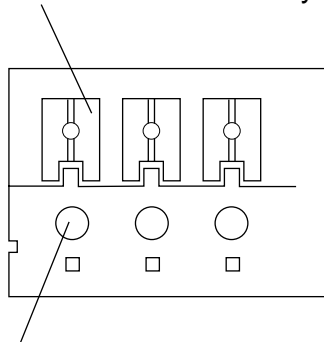
Attach the M-type connector of the coaxial cable 05S0462, from the antenna coupler) to T/R ANT port. Note that when running the coaxial cable, attach it with slack for opening/closing the lid.



*Connection of transceiver unit*

**Note1:** How to connect cable to the terminal board.

1. Press this downward by finger or screw driver.



2. Insert a core of cable.

3. Release the finger or screw driver.

### **Control unit**

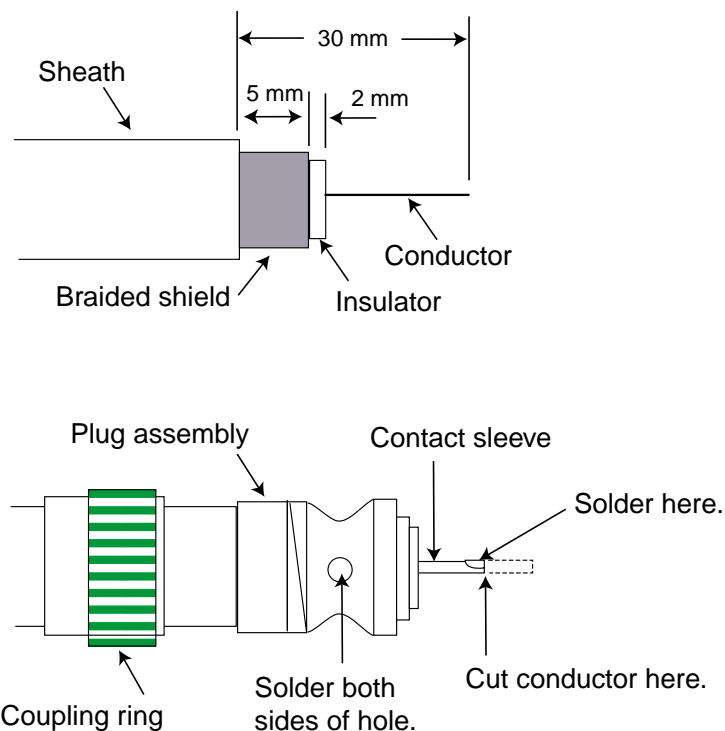
Connect the transceiver unit and the control unit by the supplied cable with D-sub 15 pin connector for both ends. The control unit connected to the CONTROLLER 1 port has priority.

Connect the handset HS-2001 to the HANDSET 1 port at the rear of the control unit. For other handset or microphone, connect to the HANDSET2/MIC port. Note that these two ports can not be used at the same time.

### **Antennas**

The antenna for DSC distress (mandatory) and DSC routine frequency (option for FS-2570 only) are connected to the transceiver unit with a 50 ohm coaxial cable, type RG-8/U or equivalent. Be sure to leave some slack in the cable for future service and maintenance. Lay the coaxial cable and attach an M-type plug to the cable as follows.

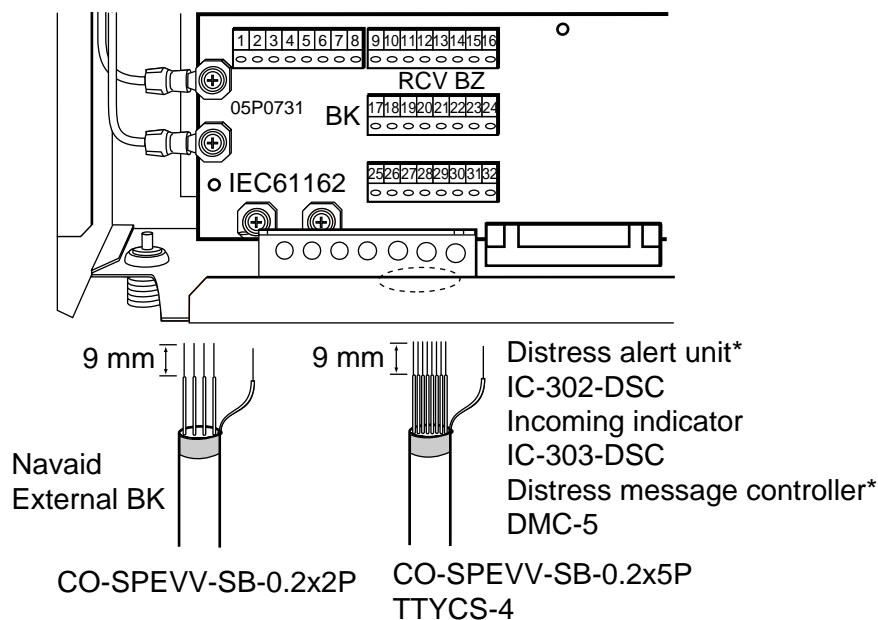
1. Remove the sheath by 30 mm.
2. Bare 23 mm of the center conductor. Trim braided shield by 5 mm and tin.
3. Slide coupling ring onto cable.
4. Screw the plug assembly on the cable.
5. Solder plug assembly to braided shield through solder holes. Solder contact sleeve to conductor.
6. Screw coupling ring into plug assembly.
7. Screw the plug into the D. ANT (W/R 1) port for DSC distress and ANT (W/R 2 port) for DSC routine frequency (option) at the bottom of the transceiver unit.



*Fabrication of 50 ohm coaxial cable*

## 2.2 External Equipment

Cables for the external equipment are connected to the terminal board in the transceiver unit. For location, see the interconnection diagram at the back of this manual.



T-IF Board (FS-1570)

\*Select one.

*Connection of external equipment*

### **IEC61162-1 (NMEA) equipment**

Connects a navigator to the terminal box in the transceiver unit. The FS-1570/2570 can receive the following sentences in IEC-61162-1 (ed.2nd) format. Use the interconnection cable type CO-SPEVV-SB-C 0.2x2P (option).

- GLL: Latitude and longitude
- RMC: Generic navigation information
- GGA: GPS position, UTC
- ZDA: UTC, day, month, and year
- RMA: Minimum Loran-C data

**Priority:** GGA>RMC>GLL      Priority is kept for one minute.

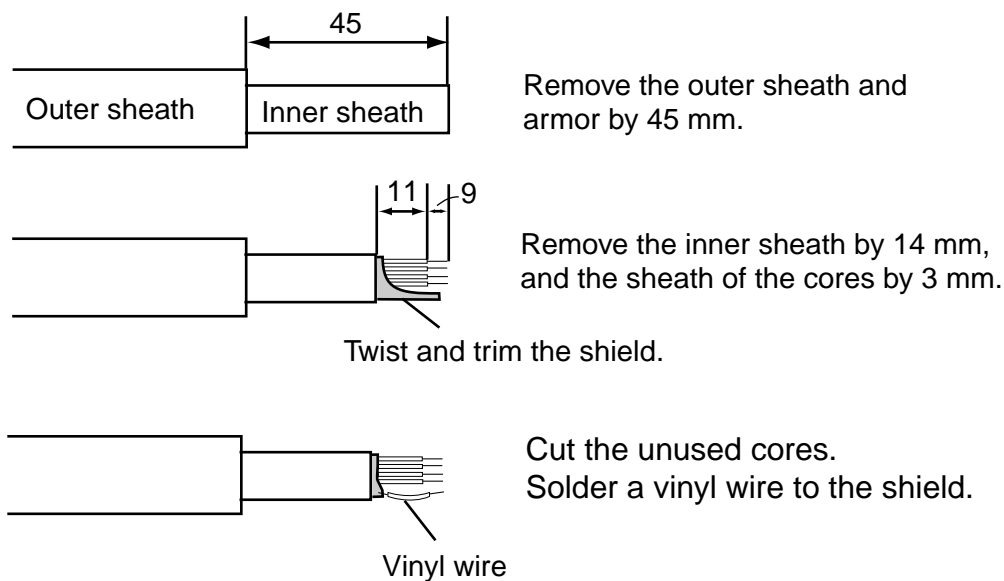
- TLL (Lat./Long. of ship in distress) can be output to the navigator connected.

### **Distress alert IC-302**

Use CO-SPEVV-SB-0.2X5P cable (option). For the fabrication, see the figure in below.

### **Indicator IC-303**

Use CO-SPEVV-SB-C 0.2X5P cable (option) and fabricate it as below.

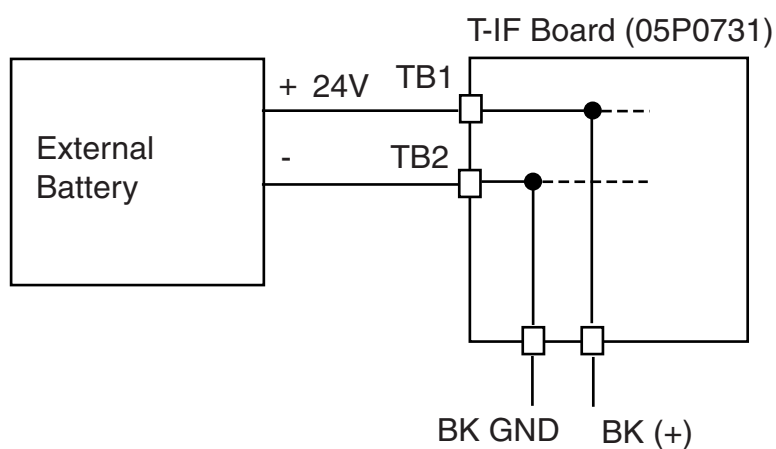


*Fabrication of CO-SPEVV-SB-C for connect to the transceiver unit*

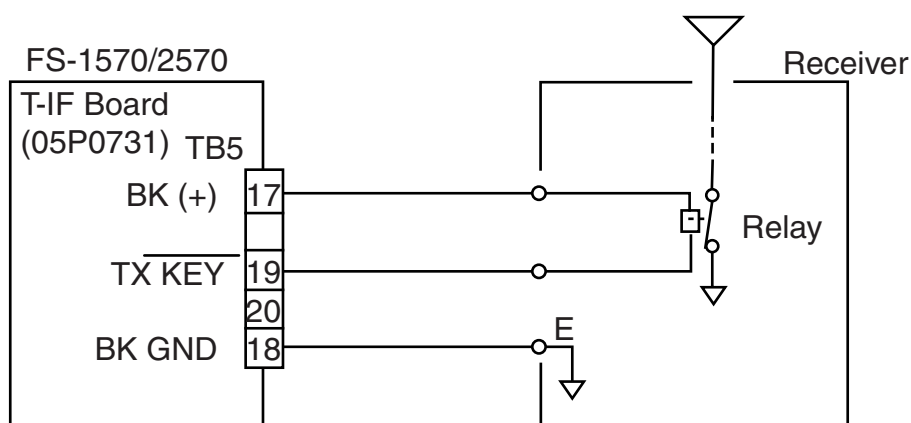
## External BK

Terminal No.	Signal name	Function	Object
17	BK (+)	Output voltage: 24 VDC	Power of relay BK for other radiotelephone
18	BK GND	GND	0 V
19	Tx_KEY	Go to GND on transmitting.	BK control for other radiotelephone
20	Rx_MUTE	Receiver unit goes to off when this line is GND.	BK control from other transceiver unit
21	SHIELD		

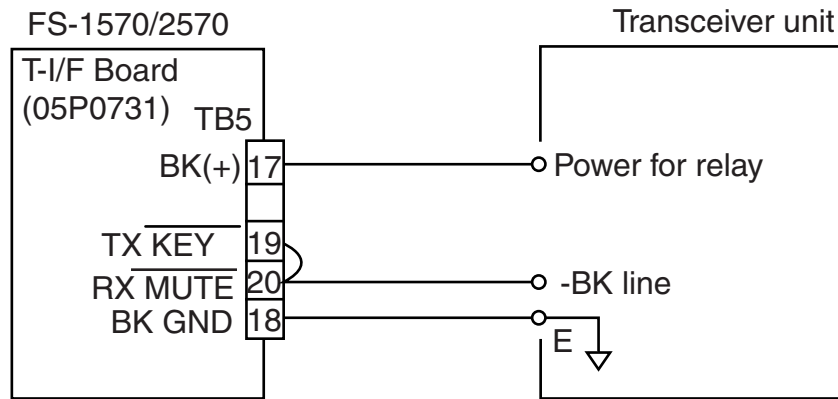
**Note:** When GND line from other radiotelephone is connected to the chassis, float the ground.



*Power of BK*



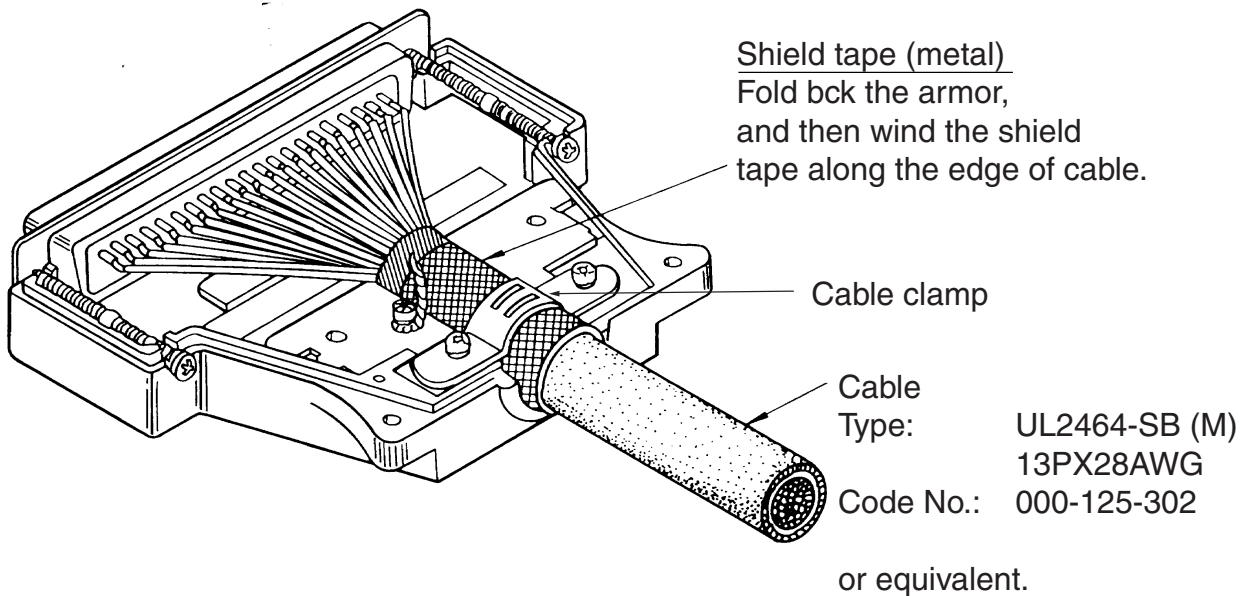
*Example of connection with receiver*



*Example of connection with Tx/Rx unit*

### **MIF unit (future addition)**

Use 17JE-13250-02 connector (supplied as installation materials) to connect MIF unit to REMOTE port on transceiver unit.



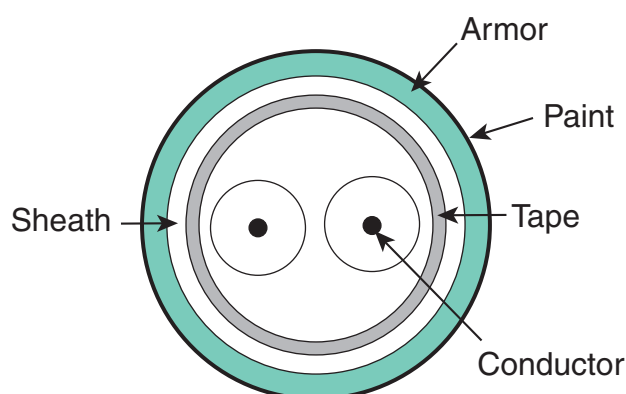
*Fabrication of cable for MIF unit*

## 2.3 Connection of AC-DC Power Supply Unit (option)

When connecting to an AC and DC ship's mains, the optional AC-DC power supply unit PR-300 (FS-1570) or PR-850A (FS-2570) is required. Attach the crimp-on lug FV5.5-S4 (local supply) to the power cable (local supply) for connection with the power supply unit.

Use the power cable having the specifications shown in the illustration below.

- Between PR-300 and FS-1570 DPYC-6 (Japan Industrial Standard) or equivalent
- Between PR-850A and FS-2570 DPYC-10 (Japan Industrial Standard) or equivalent



(DPYC-6)	(DPYC-10)
$S = 6.0 \text{ mm}^2$	$S = 10.0 \text{ mm}^2$
$\phi = 3.12 \text{ mm}$	$\phi = 4.05 \text{ mm}$

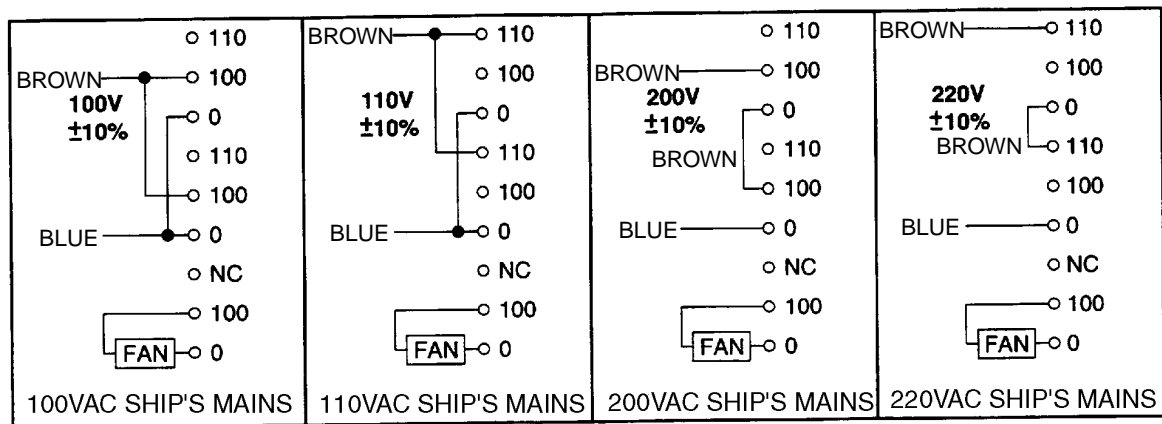
*DPYC, sectional view*

### 2.3.1 PR-300 for FS-1570

Both 100/110/200/220 VAC and 24 VDC are supplied to the AC-DC power supply unit PR-300. When AC input fails, DC power is supplied.

#### Changing tap connections

The transformer tap for input voltage has been set to 220 VAC (fuse 5A) at the factory. If necessary, change the transformer taps setting according to ship's mains.

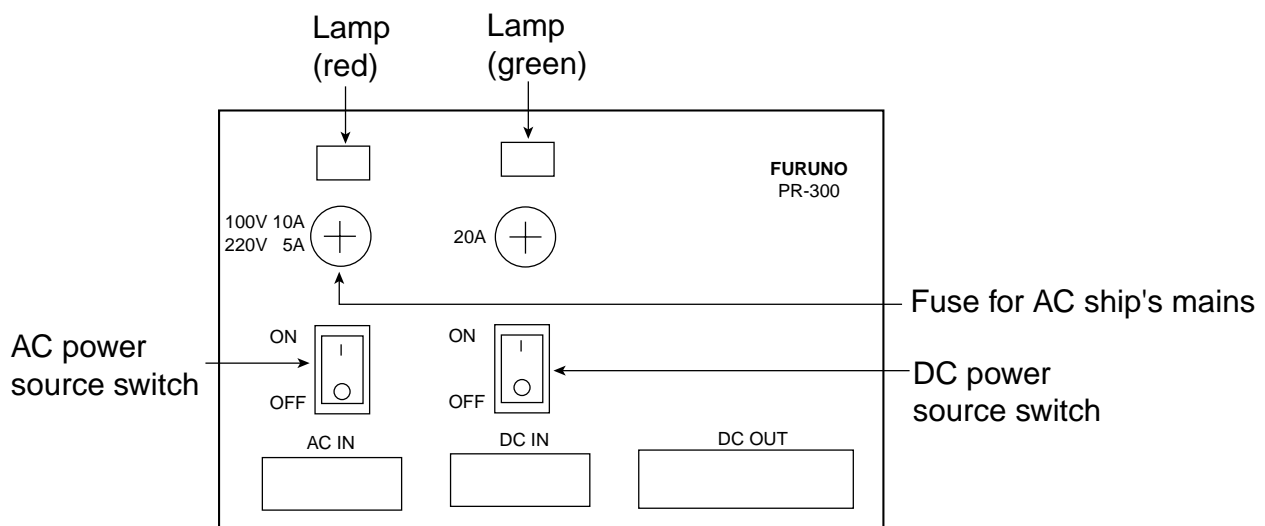


*Tap connections in the PR-300*

#### Changing the power fuse

Change the power fuse according to AC input voltage as follows.

AC ship's mains	Fuse
100/110 VAC	10 A
200/220 VAC	5 A



*AC-DC power supply unit PR-300, rear view*

#### Grounding

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

### 2.3.2 PR-850A for FS-2570

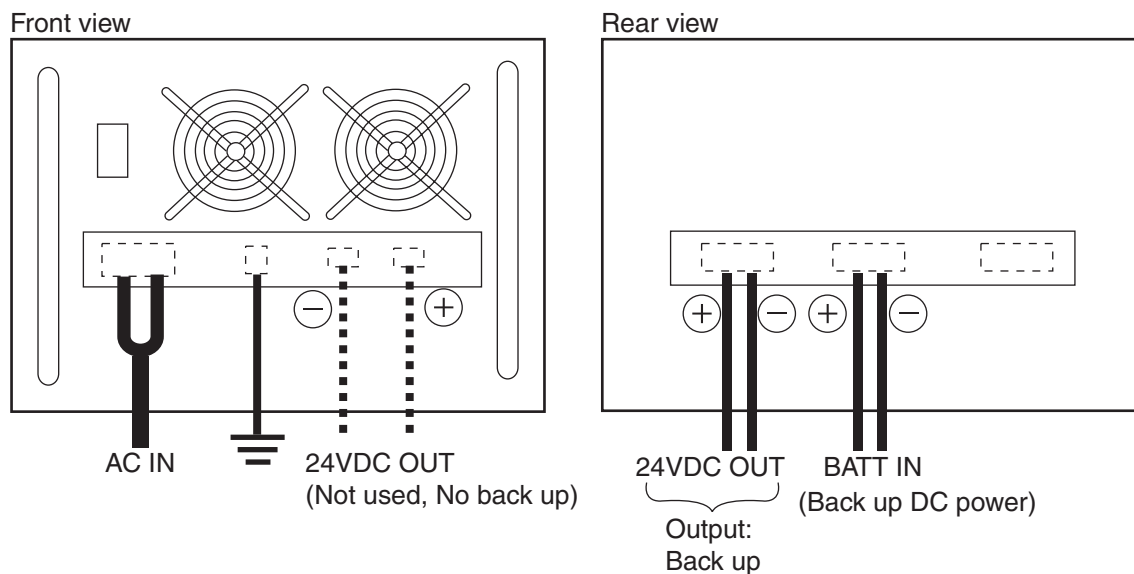
Both 100/110/120/200/220/240 VAC and 24 VDC are supplied to the PR-850A. When AC input fails, DC power is directly supplied. For GMDSS vessels, 24 VDC power must be supplied through the radio battery.

#### Wiring

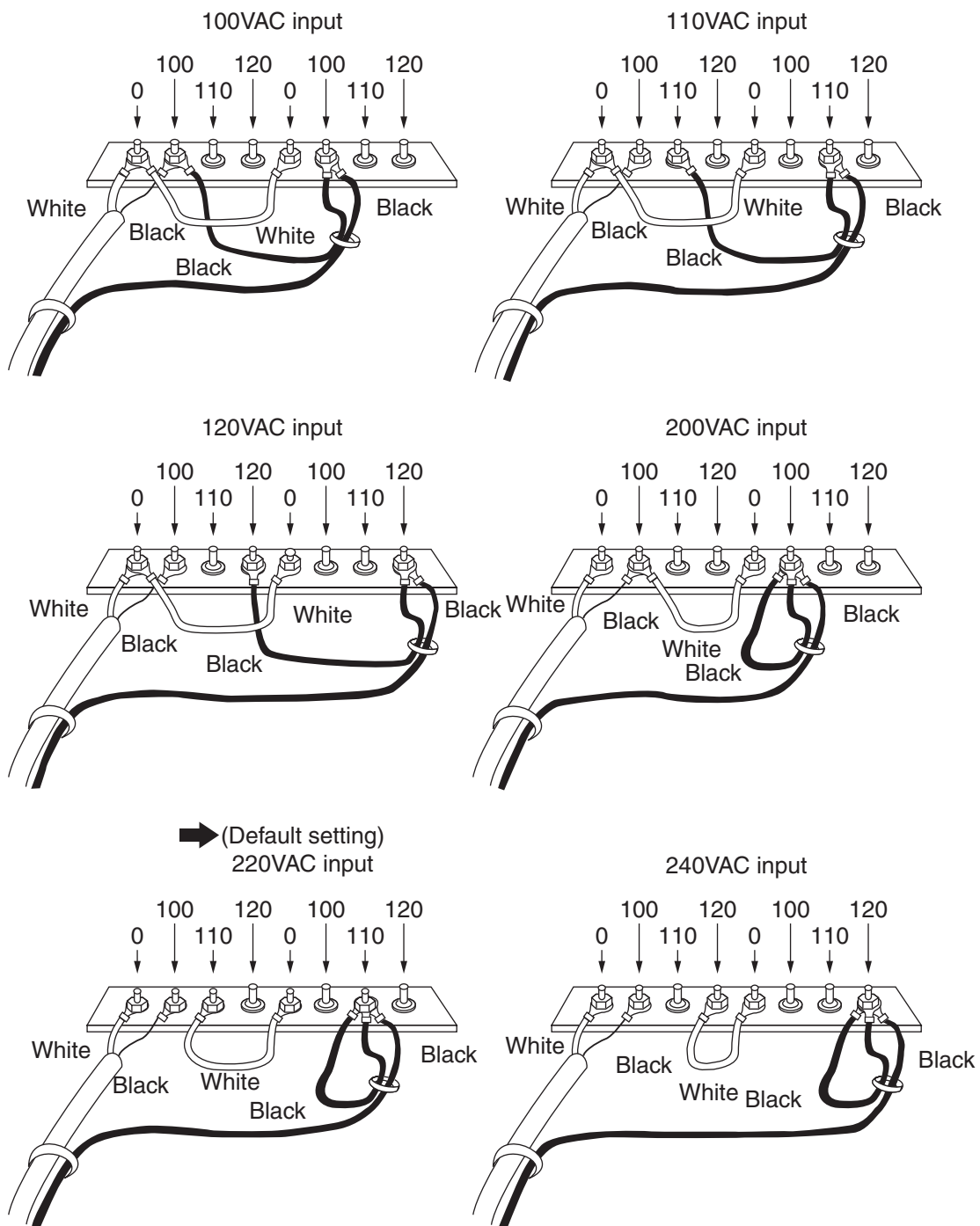
Connect cables to the input terminal on the front panel, using crimp-on lugs.

#### 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.



*Connection of PR-850A*



Selection of input voltage on PR-850A

## Ground

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

## 3. INITIAL SETTING

After completing the installation, check the all connection before applying the power.

### 3.1 Performance Check

#### Receiver

1. Set the unit as follows.
  - a) Speaker: ON
  - b) Squelch: OFF
  - c) AGC: FAST
  - d) 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.

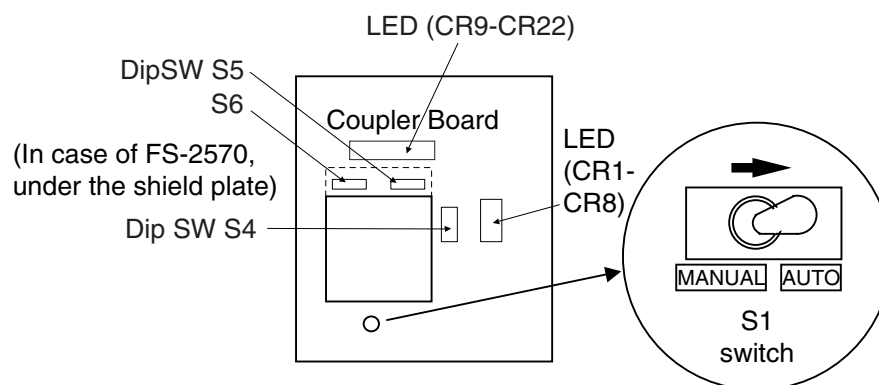
#### Transmitter

1. On each band, confirm that the antenna is automatically tuned when the [LOG/TUNE] key is pressed. Automatic tuning time of the antenna should take no longer than 15 seconds to tune, recheck antenna length.
2. Communicate with the handset, confirming that antenna current (IA) changes with voice level.

### 3.2 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 S1 switch (Coupler Board) to AUTO.



*S1 switch on the COUPLER Board*

2. Turn the transceiver unit on.
3. Press the [1/RT/2182] key down for two seconds.

4. Press the [LOG/TUNE] key. "TUNE" appears on the LCD. "TUNING: OK" appears when tuning is completed. Record the status (on or off) of LEDs CR1 – CR22 (on the COUPLER Board).
5. Set S1 switch to MANUAL.
6. Set S4, S5, S6 DIP switches so that LEDs become the status is the same as in step 4. The relations between the DIP switch and LED are shown on the next page. When a DIP switch is turned on, the appropriate LED lights.

DIP switch		LED No.	LED status
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	

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

### For technician

Please pass on the following information to the customer.

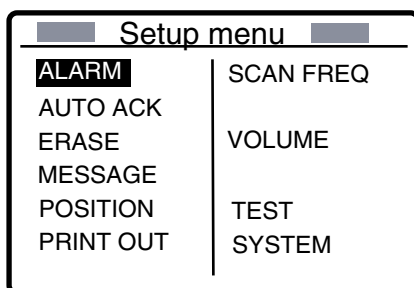
- When the auto tuning circuit is broken, transmission is available by the manual tuning (setting the S1 switch to MANUAL).
- Do not change the settings of DIP switch in the antenna coupler.

## 3.3 System Setup

Enter system settings as below after the installation. To prevent accidental transmission of the distress alert, disconnect the antenna. These settings should be entered by a qualified technician. Under no circumstances shall the operator enter ship's ID.

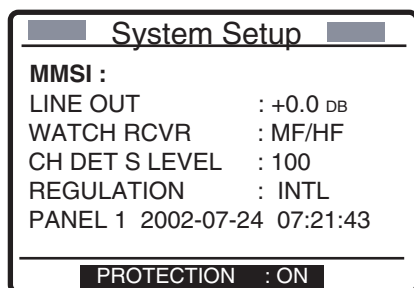
### 3.3.1 Opening the System Setup menu (DSC)

1. Show the DSC standby screen by pressing the [6] key if the screen is not already shown. Press [SETUP] key to display the Setup menu.



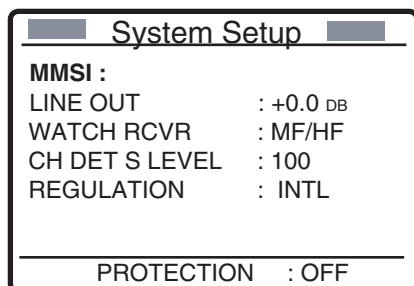
*Setup menu*

2. Rotate [ENTER] knob to select "SYSTEM".
3. Press the [ENTER] knob to display the System setup menu.



*System setup menu (Protection: on)*

4. Enter the password referring to appropriate FURUNO INFORMATION.

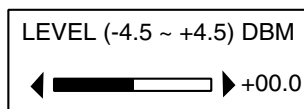


*System setup menu (Protection: off)*

### 3.3.2 Line out level for DSC signal setting

Set line out level. For FURUNO SSB (600  $\Omega$ ), set 0 dBm.

1. On the System setup menu, rotate the [ENTER] knob to select "LINE OUT".
2. Press the [ENTER] knob.



*Line out level pop-up window*

3. Rotate the [ENTER] knob to adjust the indicator bar (1.5 dBm step).
4. Press the [ENTER] knob to finish.

### 3.3.3 Watch receiver frequency band

Set the watch receiver function as below.

1. On the System setup menu, rotate the [ENTER] knob to select "WATCH RCVR".
2. Press the [ENTER] knob to display the pop-up window.



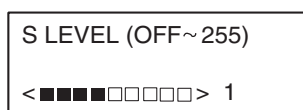
*Watch receiver pop-up window*

3. Select "MF/HF" or "MF" as appropriate.  
MF/HF: Maximum six distress/safety frequencies are available. (A1, A2, A3 and A4 area)  
MF: Distress/safety frequency is 2187.5 kHz only (A1 and A2 area)
4. Press the [ENTER] knob to finish.

### 3.3.4 DSC signal strength

CH DET S LEVEL judges whether the DSC frequency to use to send a DSC message (Routine and Business only) is in use or not. The DSC message is not transmitted when the signal strength on the DSC frequency is higher than that set here. When the DSC frequency becomes clear, the DSC message is automatically transmitted. The setting range is OFF - 250 and the default setting is 100.

1. On the System setup menu, rotate the [ENTER] knob to select "CH DET S LEVEL".
2. Press the [ENTER] knob to display the CH DET S LEVEL pop-up window.



*CH DET S LEVEL pop-up window*

3. Rotate the [ENTER] knob to adjust the indicator bar. Too low a setting stops transmission of a DSC message because it detects noise on the DSC frequency. Alternately, too high a setting transmits the DSC message though low signal level is present on the DSC frequency used.
4. Press the [ENTER] knob to finish.

### 3.3.5 Regulation setting

Set the regulation to be used.

1. On the System setup menu, rotate the [ENTER] knob to select "REGULATION".
2. Press the [ENTER] knob.

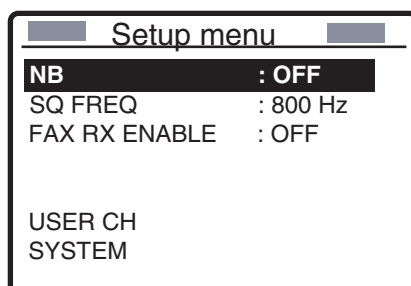


*DSC regulation pop-up window.*

3. Rotate the [ENTER] knob to select "INTL" or "RUSSIA".  
Only for Russia registry, select "RUSSIA".
4. Press the [ENTER] knob to finish.

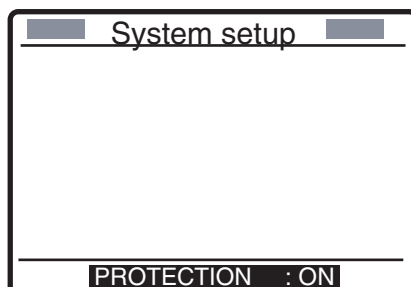
### 3.3.6 System setup (RT)

1. Press the [1] key to show the radiotelephone screen, and then press the [SETUP] key.



*Setup menu (RT)*

2. Rotate the [ENTER] knob to select "SYSTEM", and then press the [ENTER] knob.



*System setup menu (RT, protection: on)*

3. Enter the password referring to the appropriate FURUNO INFORMATION.

System setup	
REGULATION	: INTL
TX FREQ	: FREE
RX FREQ	: FREE
USER CH	: TRX
AM ENABLE	: RX
▼	
PROTECTION	: OFF

System setup	
▲	
LSB ENABLE	: OFF
TX TUNE	: ON
COUPLER THROU	: RCVD
TONE	
▼	
PROTECTION : OFF	

System setup	
▲	
TX POWER (FREQ)	
TX POWER (USER CH)	
PROTECTION : OFF	

*System setup menu (RT, protection: off)*

### 3.3.7 System setting of RT

Set the RT similarly with DSC. Do the setting at System setup menu at the transceiver unit.

#### System setting (RT)

Item	Description	Setting
REGULATION	Selects the national regulation to change the frequency, user channel, etc.	INTL, RUSSIA, USA, THAI
TX FREQ RX FREQ	Selects the frequency to transmit. FREE: Any frequency and radio type can be set. MARINE/USER: Can use the frequency and radio type set in the marine band and the user channel. ITU/USER: Can use the frequency and radio type set in the user channel or permitted with ITU channel. USER: Can use the frequency and radio type set in the user channel.	FREE, MARINE/USER, ITU/USER, USER
USER CH	Select the availability of the user channel.	OFF, ON
AM ENABLE	Select the method of AM (H3E). OFF: Tx/Rx are not available. TRX: Tx/Rx are available. RX: Rx only is available.	OFF, TRX, RX
LSB ENABLE	Select ON to transmit/receive LSB.	OFF, ON
TX TUNE	Turn the tuning of the antenna coupler on/off.	OFF, ON
COUPLER THROU	Selects the route on receiving. OFF: Runs via antenna coupler. RCVD: Does not run via antenna coupler. DIFF: Does not run via antenna coupler only when Tx frequency and Rx frequency is difference.	OFF, RCVD, DIFF
TONE	For maintenance.	
TX POWER (FREQ)	See 3.3.8 Setting of Tx power.	
TX POWER (USER CH)	See 3.3.8 Setting of tx power.	

### 3.3.8 Setting of Tx power

Set the Tx power at Tx power setup menu.

#### Tx power setup

Item	Description	Setting
TX MODE	Select the radio band to set the power of transmitting.	SSB: Modulated in 1785 Hz TLX: Common with DSC, modulated in 1785 Hz
TX FREQUENCY	Select the frequency to set the power of transmitting.	
TX POWER	Select the output to set the power of transmitting.	LOW, MID, HIGH
TX POWER ADJ	Set the Tx power.	0 – 255
TX POWER TUNE	Set the tuning power.	0 – 140.
SAVE TX POWER	Memorize power data settings.	
ERASE TX POWER	Return power settings to default.	

#### Setting of TX POWER

	Hil Power		MID Power		LOW Power	
	SSB (LSB)	TLX (DSC)	SSB (LSB)	TLX (DSC)	SSB (LSB)	TLX (DSC)
Band						
1.6 – 1.9999	●	●	●	●	●	●
2.0 – 2.4999	●	●	●	●	●	●
2.5 – 2.9999	●	●	●	●	●	●
3.0 – 4.9999	●	●	●	●	●	●
4.0 – 5.9999	●	●	●	●	●	●
6.0 – 7.9999	●	●	●	●	●	●
8.0 – 11.9999	●	●	●	●	●	●
12.0 – 15.9999	●	●	●	●	●	●
16.0 – 17.9999	●	●	●	●	●	●
18.0 – 21.9999	●	●	●	●	●	●
22.0 – 24.9999	●	●	●	●	●	●
25.0 – 26.9999	●	●	●	●	●	●
27.0 – 27.4999	●	●	●	●	●	●
ITU channel (SSB/TLX)						
	Same as power data of band.					
User channel						
0 – 25 band	Each channel			Same as power data of band		

●: Can be set individually.

**Note:** Power data (High/Low) input to the user channel are common to all radio type.

After the setting Tx power, save it as below.

1. Rotate the [ENTER] knob to select "SAVE TX POWER".

Tx power setup	
TX MODE	: SSB
TX FREQUENCY	: 2182.0HZ
TX POWER	: HIGH
TX POWER ADJ	: 240
TX POWER TUNE	: 100
<b>SAVE TX POWER</b>	
ERASE TX POWER	

*Tx power setup menu*

2. Press the [ENTER] knob.

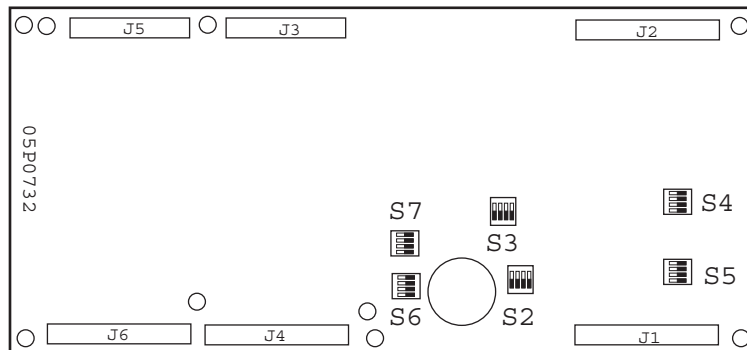
SAVE TX POWER.
ARE YOU SURE ?
YES <b>NO</b>

*Saving the Tx power pop-up menu*

3. Select "YES" by the [ENTER] knob.
4. Press the [ENTER] knob.

## 3.4 Setting DIP Switches

### Location of DIP Switches



*CPU Board (05P0732)*

### 3.4.1 IEC (NMEA)/DMC/MIF data receiving line (S2)

#### IEC (NMEA)

	RS-422	Current Loop
S2-#1	ON	OFF

#### DMC

	RS-422	Current Loop
S2-#2	ON	OFF

#### MIF

	RS-422/232C		Current Loop
	RS-422	RS-232C	
S2-#3	ON	-	OFF
S3-#1, 2	ON	OFF	-
S3-#3, 4	OFF	ON	-

**Note:** S2-#4 is no used.

### 3.4.2 Incoming indicator IC-303

S4				S5			
#1	#2	#3	#4	#1	#2	#3	#4
OFF	OFF	OFF	OFF	ON	ON	ON	ON

### 3.4.3 Connection to DMC-5, IC-302-DSC

The above equipment can be connected to the DMC port at the back of the main unit. For these units, set DIP switches as below.

#### DMC

Set to RS-422 as follows.

S6				S7			
#1	#2	#3	#4	#1	#2	#3	#4
ON	ON	ON	ON	OFF	OFF	OFF	OFF

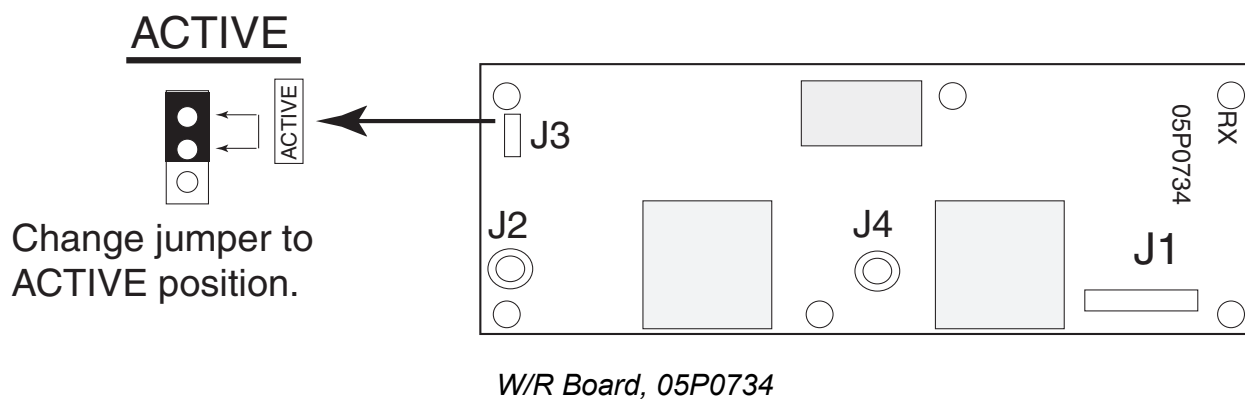
#### IC-302-DSC

Set to Current Loop for IC-302 connection.

S6				S7			
#1	#2	#3	#4	#1	#2	#3	#4
OFF	OFF	OFF	OFF	ON	ON	ON	ON

## 3.5 Preamp Setting (For FAX-5)

When using the preamp for the watch receiver antenna, set J3 on the W/R Board to ACTIVE in the transceiver unit.



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## 4. OPTION KIT

### 4.1 DSC Routine Frequency Board

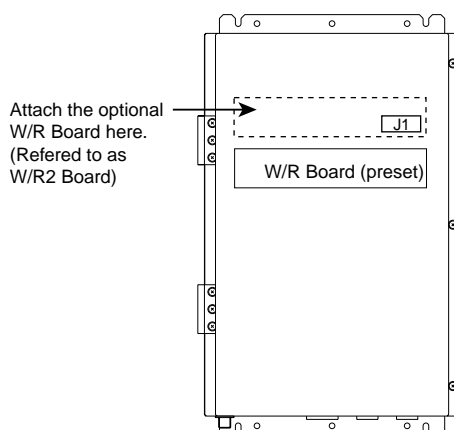
**For FS-2570**, the W/R Board 05P0734 (option) enables reception of DSC routine frequencies without the SSB radiotelephone connection. For complete modification, the whip antenna for DSC routine frequency is necessary.

- Necessary Parts :W/R2 Board Kit, Type :OP05-99, Code No. :005-951-840

Name	Type	Code No.	Qty	Remarks
W/R Board	05P0734	005-952-060	1	
Coaxial plug	FM-MP-7	000-108-859	1	
Cable assy. with mini-pin	L-500	000-146-064	1	
Cable assy. with mini-pin	L-770	000-138-023	1	Not used

### Mounting

1. When using the preamplifier, set J3 on W/R board in the kit to ACTIVE (See previous page).
2. Open the transceiver unit.
3. Remove the shield cover where the W/R board should be fixed in the transceiver unit.
4. Insert the W/R2 Board (hereafter referred to as "W/R2 Board") to the position shown below so that J1 connector on the W/R2 Board mates with to P1201 in the transceiver unit and fasten it with six screws.



*FS-2570T, cover opened*

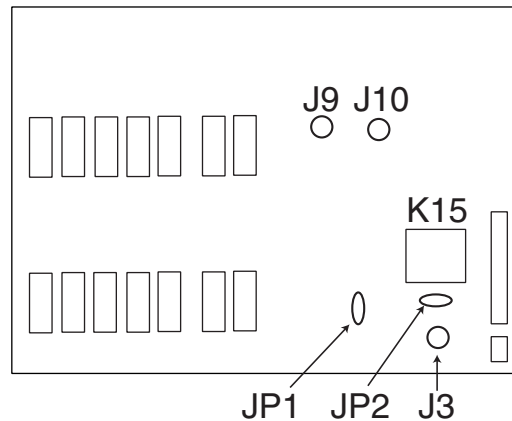
5. Insert the mini-pin plug, coming from the coaxial connector ANT W/R2, to J2 on the W/R2 board.
6. Connect the cable assy with mini-pin between J4 on the W/R2 board and J7 on the TX-RX board 05P0733.
7. Attach the shield cover which removed at step 3.

## **How to use SSB antenna for DSC routine frequency receive**

To use the SSB radiotelephone antenna for routine watch keeping, the following modification is necessary.

### **On the TX\_FIL Board (05P0736)**

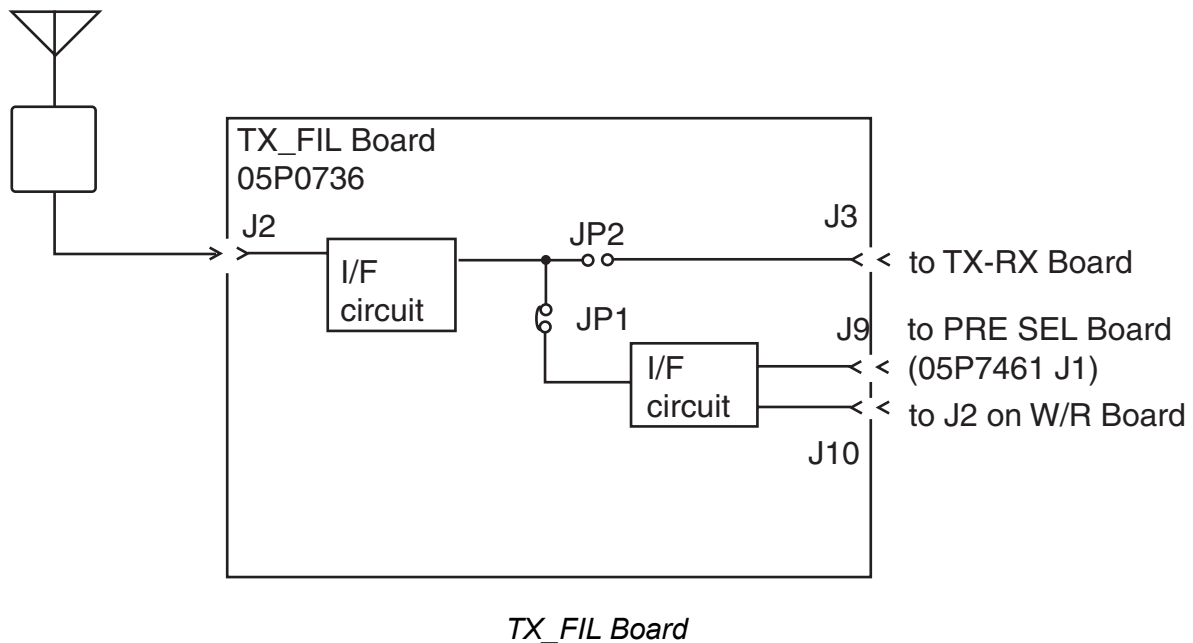
1. Attach the jumper wire to JP1 on the TX-FIL board.
2. Disconnect the coaxial cable from J3, and reconnect it to J9.
3. Connect the coaxial cable, coming from J2 on the W/R2 board, to J10 on the TX-FIL board.



*TX\_FIL Board, 05P0736*

### **On the W/R2 Board (05P0734)**

1. Disconnect the coaxial cable from J4 on the W/R2 board, and then tie it with the cable tie (local supply) with the other cable.
2. Connect the coaxial cable from the TX\_FILL Board to J4.



*TX\_FIL Board*

## 4.2 Connecting of NBDP Terminal Unit OP05-96 (IB-581)/OP05-100 (IB-583)

To use this equipment for the telex, the NBDP terminal unit is required.

Name: NBDP terminal set, Type: OP05-96, Code No.: 000-056-949

Name	Type	Code No.	Qty	Remarks
Terminal unit	IB-581-02	000-043-350	1 set	w/installation materials
DSP Board	OP05-97	005-951-820	1	05P0751A

Name: NBDP terminal set, Type: OP05-100, Code No.: 000-056-956

Name	Type	Code No.	Qty	Remarks
Terminal unit	IB-583	000-043-435	1	w/installation materials
DSP Board	OP05-97	005-951-820	1 set	05P0751A

### Inserting the DSP Board

1. Open the cover of the transceiver unit.
2. Remove the shield cover from the T-CPU Board (05P0732).
3. Attach the DSC Board (supplied) on J5 and J6 of the T-CPU Board.
4. Re-mount the shield cover.
5. Close the cover of the transceiver unit.

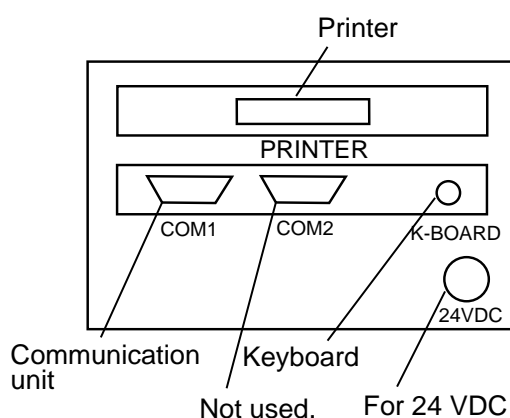
### Mounting location for terminal unit

- Leave sufficient space around the unit for operation and maintenance.
- The temperature and humidity of the mounting location should be stable and moderate.
- Keep the unit away from the high power radiotelephone and it's feeder wire so that RFI (Radio Frequency Interference) is minimum.

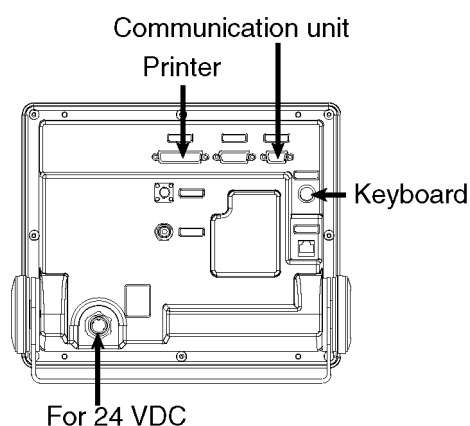
### Mounting

Refer to the outline drawing at the back of this manual.

1. Fix the hanger by using five (IB-583: four) tapping screws (supplied with option kit).
2. Attach connectors to the rear of the terminal unit.



*Terminal unit (IB-581), rear view*



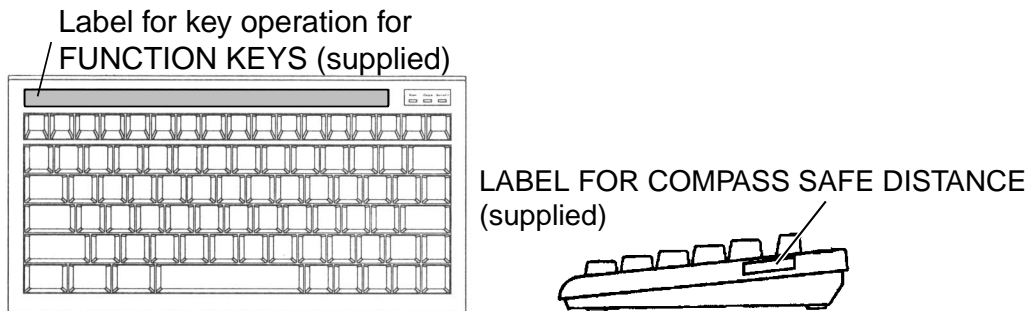
*Terminal unit (IB-583), rear view*

3. Screw knobs to fix the terminal unit to the hanger.

4. Use the 17JE-573-10 to connect the NBDP port of the control unit and COM1 port of the NBDP terminal unit.

### **Keyboard**

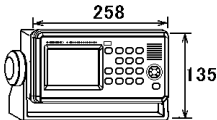

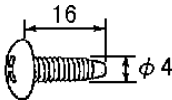
1. Attach the labels for NBDP and the compass safe distance to the appropriate locations shown below.



2. Attach four fasteners (small, supplied with the optional kit) to the bottom of the keyboard.
3. Attach four fasteners (large, supplied with the optional kit) to the small fasteners used in step 3.
4. Peel the paper from four fasteners.
5. Mount the keyboard on the location selected, and then fix it.

## P A C K I N G L I S T

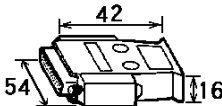
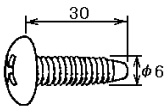
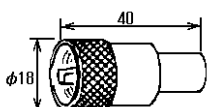

FS-2570C

N A M E		O U T L I N E		DESCRIPTION/CODE No.		Q ' T Y	
ユニット		UNIT					
操作部  CONTROL UNIT				FS-2570C		1	
				000-056-946			
工事材料		INSTALLATION MATERIALS		CP05-08801			
ホリカワワッシャー  WASHER				M4		4	
				000-864-937			
+トラスタツピンネジ  +TAPPING SCREW				4X16 SUS304 1ｼﾅ		4	
				000-802-080			

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

**FURUNO**

CODE NO.	005-952-180	05DZ-X-9402 -2 1/1
TYPE	CP05-08802	

工事材料表 INSTALLATION MATERIALS					
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 (17JE) CONNECTOR		17JE-13250-02 (D8C)	1	
			CODE NO. 000-119-318		
2	+トラスタツピンネジ 1種 TAPPING SCREW		6X30 SUS304	6	
			CODE NO. 000-802-085		
3	同軸プラグ COAX. PLUG		FM-MP-7	2	
			CODE NO. 000-108-859		
4	ホリカワッシャー WASHER		M6	6	
			CODE NO. 000-801-974		

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

**FURUNO**

CODE NO.	000-055-238	05CS-X-9402 -2
TYPE	CP05-05700	1/1

工事材料表 INSTALLATION MATERIALS					
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-ス銅板 COPPER STRAP		04S40801	1	
			CODE NO. 000-572-187		
2	ブ ラ イ ント リ ッ ト BLIND PLUG		05-039-6325-0	1	
			CODE NO. 100-164-380		
3	ゴ ム ス リ ー ブ RUBBER SLEEVE		05S0938	1	
			CODE NO. 000-130-472		
4	+トラスタビ+ンネシ+ +TAPPING SCREW		5X16 SUS304 1種	4	
			CODE NO. 000-805-494		

DWG NO.

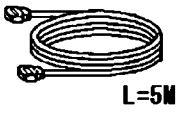
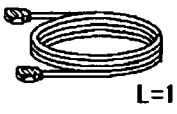
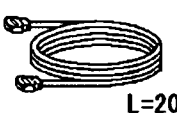
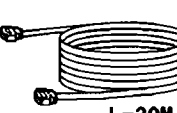
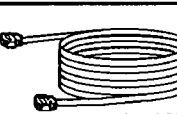
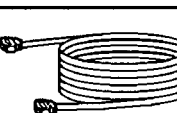
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FURUNO ELECTRIC CO., LTD.

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

**FURUNO**






CODE NO.		05DZ-X-9401 -0
TYPE		1/1

工事材料表		FS-1570/2570				
INSTALLATION MATERIALS						
番号 NO.	名 称 NAME	略 図 OUTLINE	型名／規格 DESCRIPTIONS		数量 Q' TY	用途／備考 REMARKS
1	ケーブル組品 CABLE ASSY.	 L=5M	17JE23150-02(D8C)		1	選択 TO BE SELECTED
			CODE NO.	000-146-015		
2	ケーブル組品 CABLE ASSY.	 L=10M	17JE23150-02(D8C)		1	選択 TO BE SELECTED
			CODE NO.	000-146-016		
3	ケーブル組品 CABLE ASSY.	 L=20M	17JE23150-02(D8C)		1	選択 TO BE SELECTED
			CODE NO.	000-146-017		
4	ケーブル組品 CABLE ASSY.	 L=30M	17JE23150-02(D8C)		1	選択 TO BE SELECTED
			CODE NO.	000-146-018		
5	ケーブル組品 CABLE ASSY.	 L=40M	17JE23150-02(D8C)		1	選択 TO BE SELECTED
			CODE NO.	000-146-019		
6	ケーブル組品 CABLE ASSY.	 L=50M	17JE23150-02(D8C)		1	選択 TO BE SELECTED
			CODE NO.	000-146-020		

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



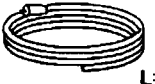


**FURUNO**

CODE NO.		05CS-X-9403 -1
TYPE		1/1

工事材料表		FS-1562/75/15/1570/2570				
INSTALLATION MATERIALS						
番 号 NO.	名 称 NAME	略 図 OUTLINE	型名／規格 DESCRIPTIONS		数量 Q' TY	用途／備考 REMARKS
1	ケーブル組品 CABLE ASSY.	 L=10M	05S0949 L-10M		1	
			CODE NO.	000-130-484		
2	ケーブル組品 CABLE ASSY.	 L=20M	05S0949 L-20M		1	
			CODE NO.	000-130-485		
3	ケーブル組品 CABLE ASSY.	 L=30M	05S0949 L-30M		1	
			CODE NO.	000-130-486		
4	ケーブル組品 CABLE ASSY.	 L=40M	05S0949 L-40M		1	
			CODE NO.	000-130-487		
5	ケーブル組品 CABLE ASSY.	 L=50M	05S0949 L-50M		1	
			CODE NO.	000-130-488		

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

**FURUNO**

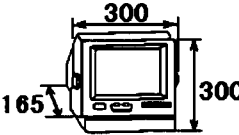
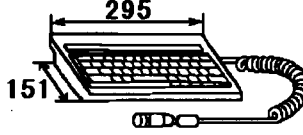
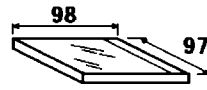
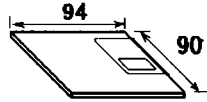
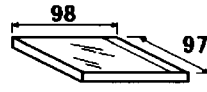
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		TYPE		1/1	
<b>工事材料表</b> INSTALLATION MATERIALS		FS-1562/75/15/1570/2570			
番号 NO.	名称 NAME	略図 OUTLINE	型名／規格 DESCRIPTIONS	数量 Q' TY	用途／備考 REMARKS
1	ケーブル組品 CABLE ASSY.	 L=10M	05S0462 L-10M	1	
			CODE NO. 000-113-360		
2	ケーブル組品 CABLE ASSY.	 L=20M	05S0462 L-20M	1	
			CODE NO. 000-113-361		
3	ケーブル組品 CABLE ASSY.	 L=30M	05S0462 L-30M	1	
			CODE NO. 000-113-362		
4	ケーブル組品 CABLE ASSY.	 L=40M	05S0462 L-40M	1	
			CODE NO. 000-113-363		
5	ケーブル組品 CABLE ASSY.	 L=50M	05S0462 L-50M	1	
			CODE NO. 000-113-364		

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

## P A C K I N G L I S T

16AF-X-9852 -6 1/1

IB-581 (DP-6)




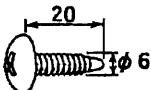
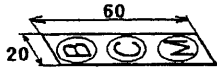
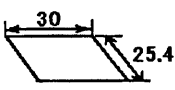
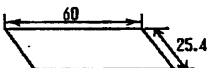
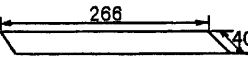
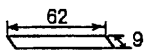
N A M E	O U T L I N E	DESCRIPTION/CODE No.	Q' T Y
ユニット UNIT			
ターミナルユニット TERMINAL UNIT		IB-581-02-2.5GY 000-055-405 **	1
付属品 ACCESSORIES			
ミニキーボード MINI KEYBOARD		BTC-5100C PS/2 004-442-400	1
フロッピーディスク(書き込品) FLOPPY DISK		05-501-891 004-447-090	1
フロッピーディスク Floppy Disk		MF2-HD DOS18 B40P 000-141-772	1 (*1)
FDケース FLOPPY DISK CASE		PK-1 000-146-107	1 (*2)

注記) 1.コード番号末尾の[\*\*]は、共通機種種の代表コード番号を表します。  
CODE NUMBER ENDED BY "\*\*" INDICATES THE NUMBER OF TYPICAL MODEL  
2.(\*1),(\*2)は、セットされています。  
(\*1)and(\*2)are a set.

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

**FURUNO**

CODE NO.	000-043-259	16AF-X-9410 -1 1/1
TYPE	CP16-01150	

工事材料表 INSTALLATION MATERIALS		1B-581 ターミナルユニット TERMINAL UNIT			
番号 NO.	名称 NAME	略図 OUTLINE	型名/規格 DESCRIPTIONS	数量 Q'TY	用途/備考 REMARKS
1	アース線 GROUNDING WIRE	 L=2M	08S0087	1	
			CODE NO. 000-108-138		
2	電源ケーブルDC用 POWER CABLE (FOR DC MAINS)	 L=3M	VCTF0.75X2C *3M*	1	
			CODE NO. 000-112-543		
3	ケーブル組品 CABLE	 L=5M	17JE-573-10ハネス 16S0068 *5M*	1	
			CODE NO. 000-127-108		
4	プラスタッピングネジ +TAPPING SCREW		6X20 SUS304 1種	4	
			CODE NO. 000-802-084		
5	ハリマーク(INMAR) LABEL (INMAR)		16-007-6919-0	1	
			CODE NO. 100-217-010		
6	フアスター(3) HOOK LOOP FASTENER		16-007-6814-0	4	
			CODE NO. 100-237-670		
7	フアスター(4) HOOK LOOP FASTENER		16-007-6815-0	4	
			CODE NO. 100-237-680		
8	ハリマーク LABEL		16-011-5803-1	1	
			CODE NO. 100-248-051		
9	ハリマーク(C.S.D) LABEL (C.S.D)		16-011-5804-0	1	
			CODE NO. 100-248-060		

DWG NO.

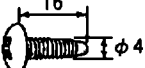

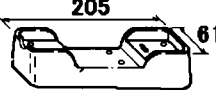
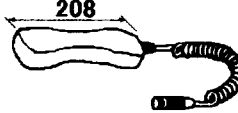
C5609-M06- G

FURUNO ELECTRIC CO., LTD.

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

**FURUNO**

CODE NO.	000-056-947	05DZ-X-9501 -1
TYPE	FP05-05500	1/1

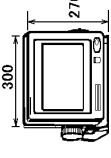

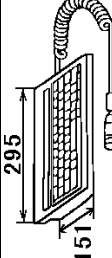
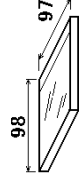
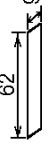


付属品表 ACCESSORIES						
番号 NO.	名称 NAME	略図 OUTLINE	型名／規格 DESCRIPTIONS		数量 Q'TY	用途／備考 REMARKS
1	+トラスタビ <sup>®</sup> ネジ <sup>®</sup> +TAPPING SCREW		4X16 SUS304 1ｼｬ		2	
			CODE NO.	000-802-080		
2	+ワッシャー +WASHER		M4		2	
			CODE NO.	000-864-937		
3	+ハンドセットハンカ <sup>®</sup> -組品 +BRACKET FOR HANDSET		FP05-05510		1	
			CODE NO.	005-951-790		
4	+ハンドセット +HANDSET		HS-2001		1	
			CODE NO.	000-056-948		

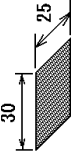


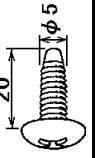
FP05-05511 FP05-05511

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

# PACKING LIST IB-583

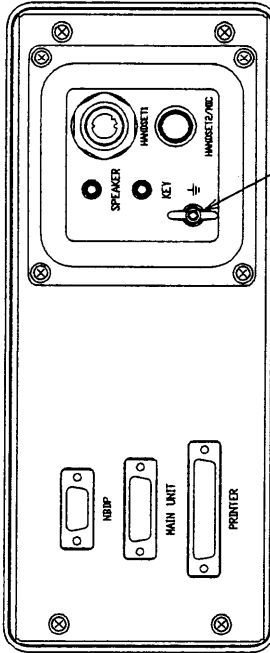
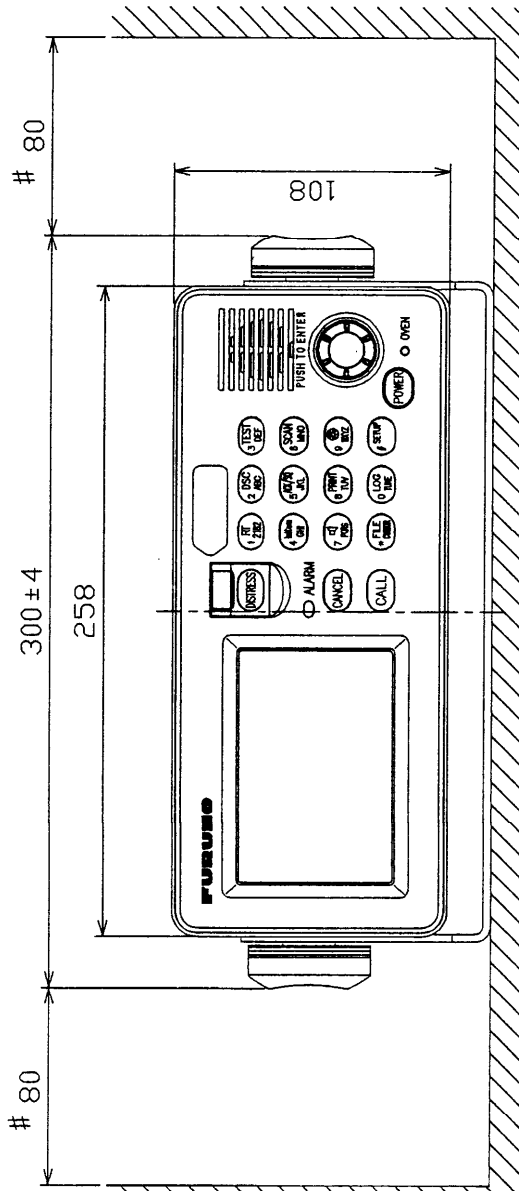
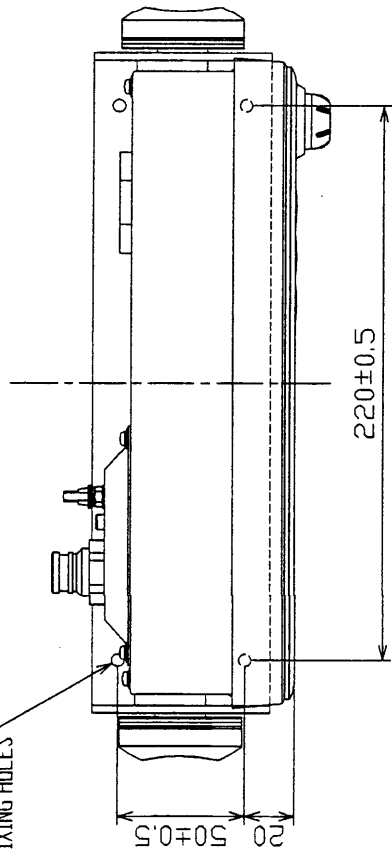
05DZ-X-9853-0 1/1

NAME	OUTLINE	DESCRIPTION/CODE	Q'TY
<b>ユニット UNIT</b>			
ターミナルユニット TERMINAL UNIT		IB-583	1
		000-043-436	
<b>予備品 SPARE PARTS SP05-05001</b>			
ヒューズ FUSE		FG80-A 3A AC125V	1
		000-549-063	
<b>付属品 ACCESSORIES FP16-00600</b>			
ミニポート MINI KEYBOARD		BTC-5100C PS/2	1
		004-442-400	
フロッピーディスク組品 FLOPPY DISK		FP16-00601	1
		004-439-400	
<b>工事材料 INSTALLATION MATERIALS CP16-02302</b>			
ラベル (C.S.D) LABEL (C.S.D)		16-011-5804-0	1
		100-248-060	
ラベル LABEL		16-011-5803-1	1
		100-248-051	
フアスター (4) HOOK LOOP FASTENER		16-007-6815-0	4
		100-237-680	

NAME	OUTLINE	DESCRIPTION/CODE	Q'TY
フアスター (3) HOOK LOOP FASTENER		16-007-6814-0	4
		100-237-670	
<b>工事材料 INSTALLATION MATERIALS CP05-08901</b>			
ケーブル組品MJ CABLE ASSY.		MJ-A3SPF0023-050Z	1
		000-146-610	
アース線 GROUNDING WIRE		08S0087	1
		000-108-138	
トラサップ・ソネジ +TAPPING SCREW		5X20 SUS304 1/2	4
		000-802-081	

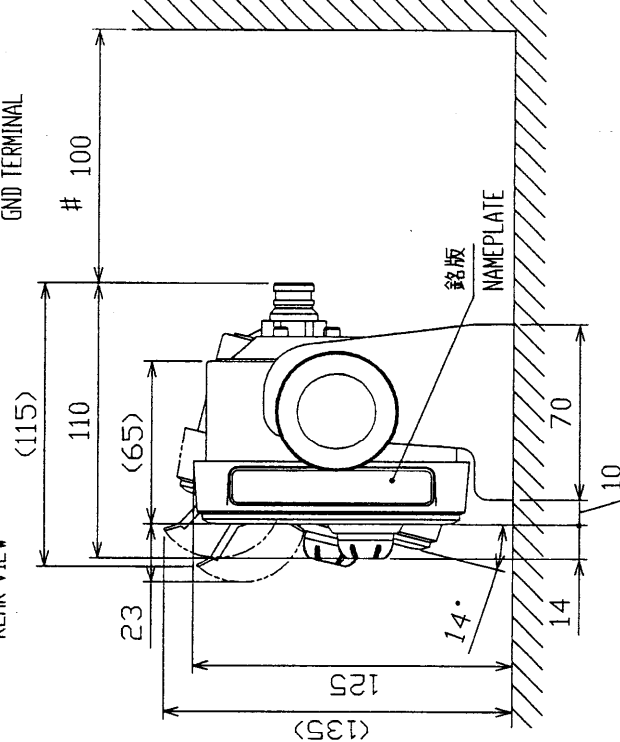
(略図の寸法は、参考値です。 DIMENSIONS IN DRAWING FOR REFERENCE ONLY.)

取付穴 4-φ5  
FIXING HOLES



背面図  
REAR VIEW

7-ス端子  
GND TERMINAL



銘版  
NAMEPLATE

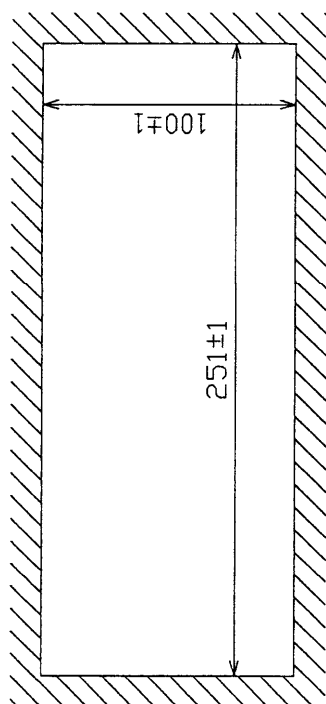
寸法区分 (mm) DIMENSION	公差 (mm) TOLERANCE
L ≤ 50	± 1.5
50 < L ≤ 100	± 2.5
100 < L ≤ 500	± 3

表 1  
TABLE 1

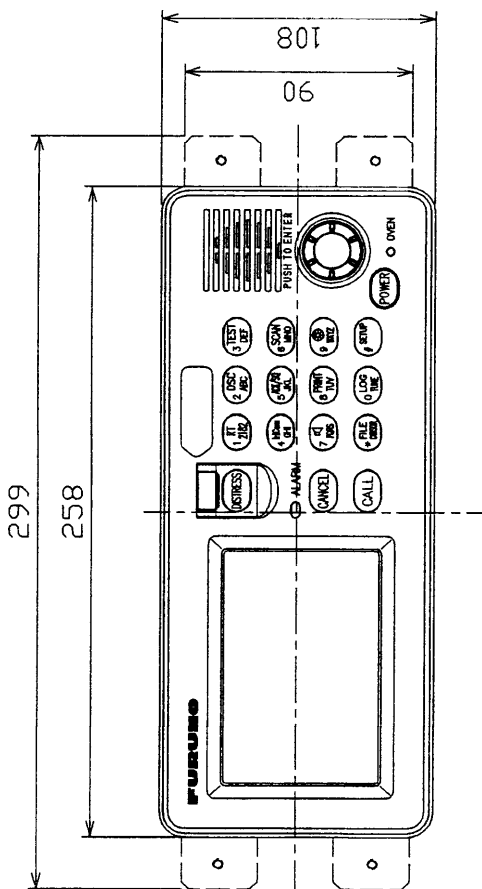
- 注 記 1) # 印寸法は最小サービス空間寸法とする。  
2) 指定外の寸法公差は表 1 による。  
3) 取付用ネジは +トラスタツピンネジ 4 x 16 を使用のこと。
- NOTE 1. # RECOMMENDED SERVICE CLEARANCE.  
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.  
3. USE TAPPING SCREWS 4x16 FOR FIXING THE UNIT.

DRAWN	Aug. 22 '82	T. YAMASAKI	TITLE	FS-2570C
CHECKED	Aug. 22 '82	Y. K.	名称	操作部 (卓上装備)
APPROVED	Aug. 22 '82	Y. K.	外寸図	
SCALE	1/3	WSS 1.8 kg	WWE	CONTROL UNIT (DESKTOP MOUNT)
DWG. No.	C5636-G01-B			OUTLINE DRAWING
	05-089-100G-4			

FURUNO ELECTRIC CO., LTD.



取付穴寸法図(参考図)  
CUTOUT DIMENSIONS



背面図  
REAR VIEW

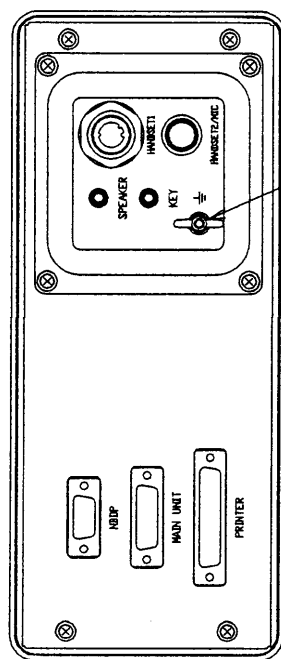
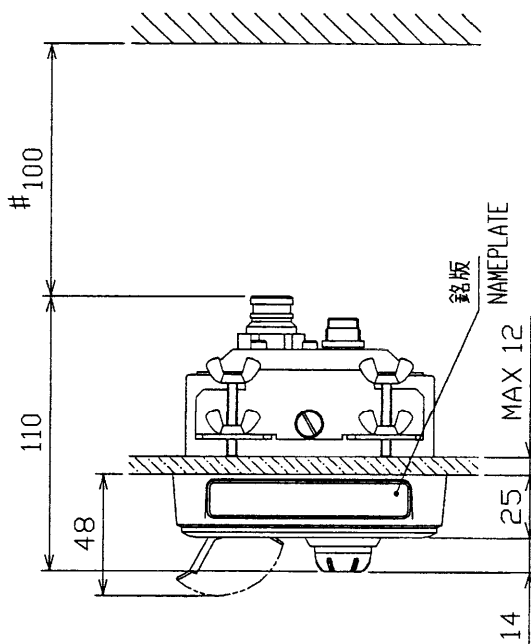


表 1  
TABLE 1

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



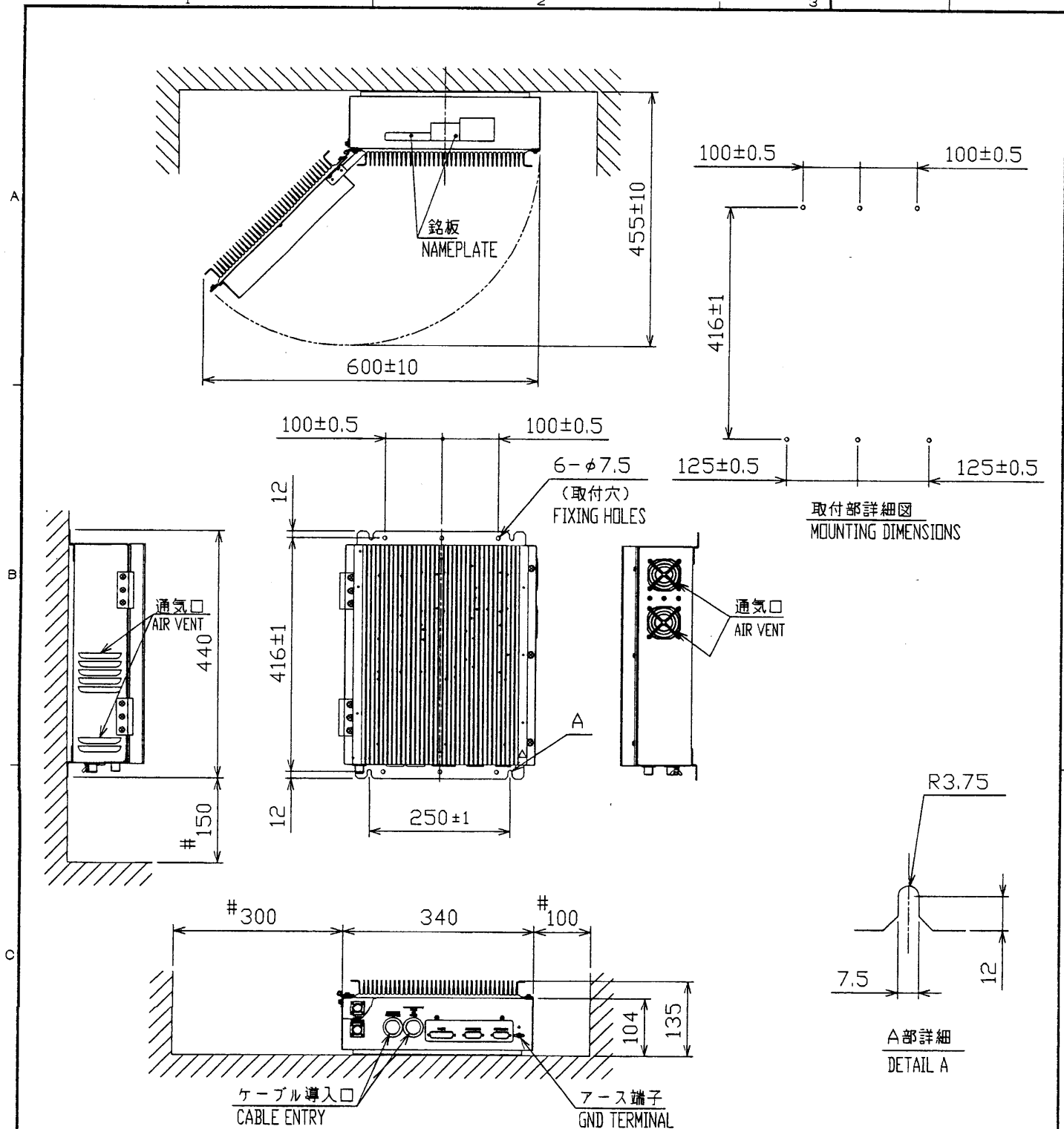
注 記 1) # 印寸法は最小サービス空間寸法とする。

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	Aug. 22 '82 T. YAMASAKI	TITLE	FS-2570C
CHECKED	Aug. 22 '82 Y. K.	名称	操作部 (埋込装備)
APPROVED	Aug. 22 '82 Y. K.	外寸図	
SCALE	1/3	NAME	CONTROL UNIT (FLUSH MOUNT)
DATE	05-089-1106-3	DRAWING	



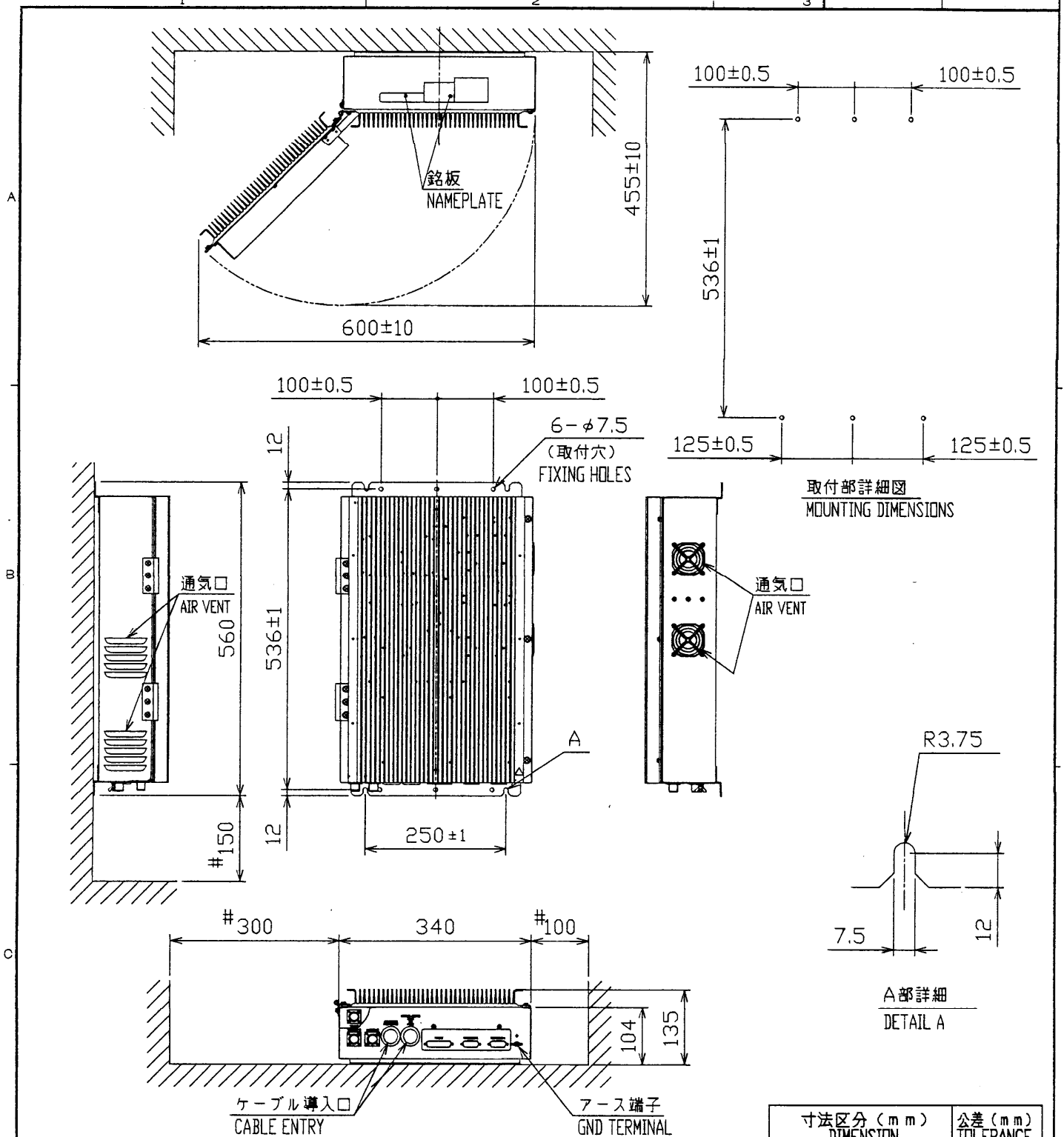
- 注 記 1) #印寸法は最小サービス空周寸法とする。  
 2) 指定外の寸法公差は表1による。  
 3) 取付用ネジは+トラスタッピンネジ6×20を使用のこと。

- NOTE 1. # RECOMMENDED SERVICE CLEARANCE.  
 2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.  
 3. USE TAPPING SCREWS 6x20 FOR FIXING THE UNIT.

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

表 1 TABLE 1

DRAWN Aug. 22 '02 T.YAMASAKI		TITLE FS-1570T
CHECKED Aug. 22 '02 Y.K.		名称 送受信部
APPROVED Aug. 22 '02 Y.K.	FS-1570	外寸図
SCALE 1/10	MASS 1 $\pm 10\%$ kg	NAME TRANSCIVER UNIT
DWG.No. C5636-G03-B	05-089-200G-6	OUTLINE DRAWING



- 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+トラスタッピンネジ  $6 \times 20$  を使用のこと。

- NOTE 1. # RECOMMENDED SERVICE CLEARANCE.  
 2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.  
 3. USE TAPPING SCREWS  $6 \times 20$  FOR FIXING THE UNIT.

寸法区分 (mm) DIMENSION	公差 (mm) TOLERANCE
$L \leq 50$	$\pm 1.5$
$50 < L \leq 100$	$\pm 2.5$
$100 < L \leq 500$	$\pm 3$
$500 < L \leq 1000$	$\pm 4$

表 1 TABLE 1

DRAWN Aug. 22 '02 T.YAMASAKI		TITLE FS-2570T
CHECKED Aug. 22 '02 Y.K.		名称 送受信部
APPROVED Sep. 22 '02 Y.K.	FS-2570	外寸図
SCALE 1/10	MASS 15 $\pm 10\%$ kg	NAME TRANSCIEVER UNIT
DWG.No. C5637-G01-B	05-089-300G- 6	OUTLINE DRAWING

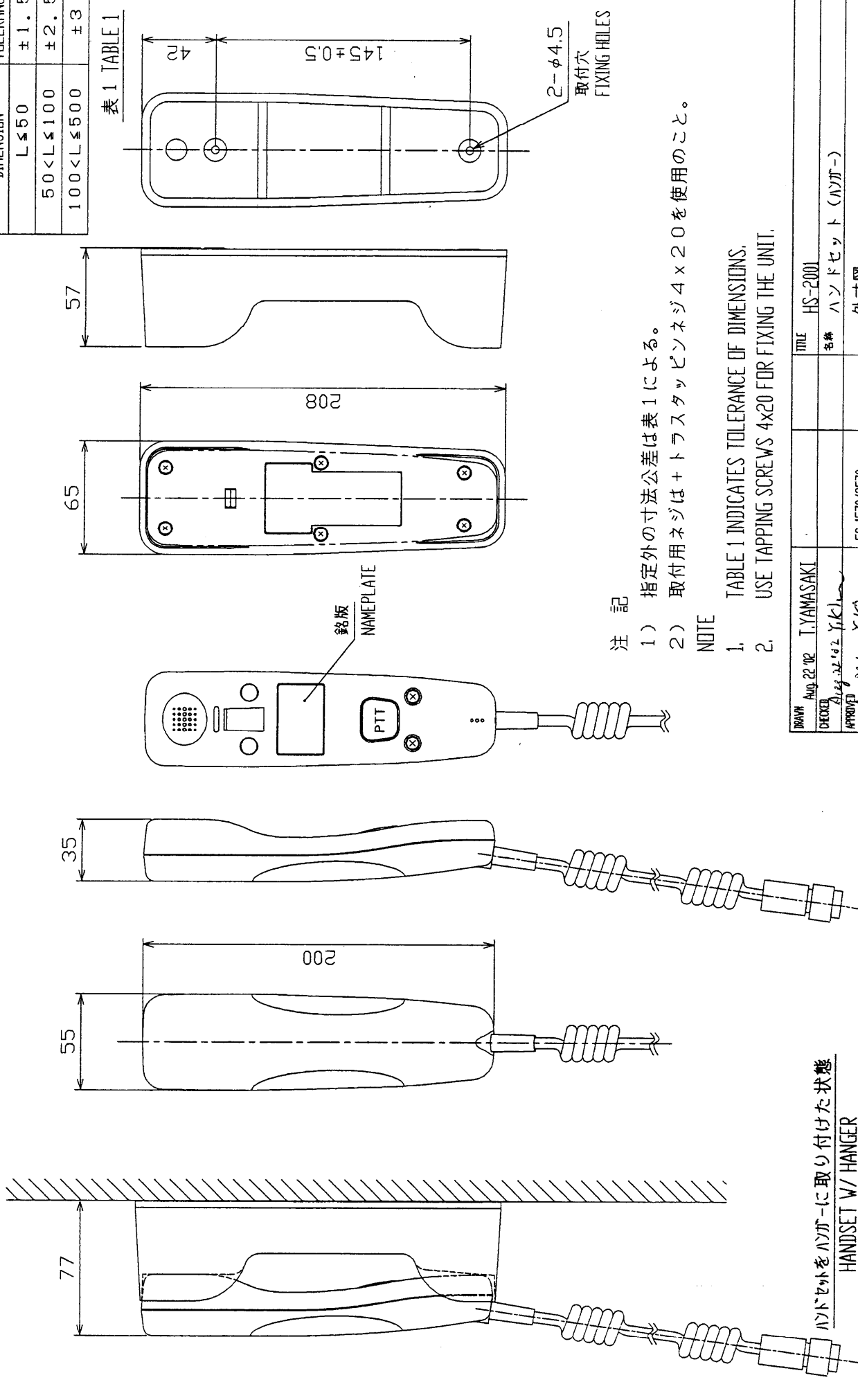


表 1 TABLE 1

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

注 記

- 1) 指定外の寸法公差は表 1 による。
- 2) 取付用ネジは + トラスタップネジ 4 x 2.0 を使用のこと。

NOTE

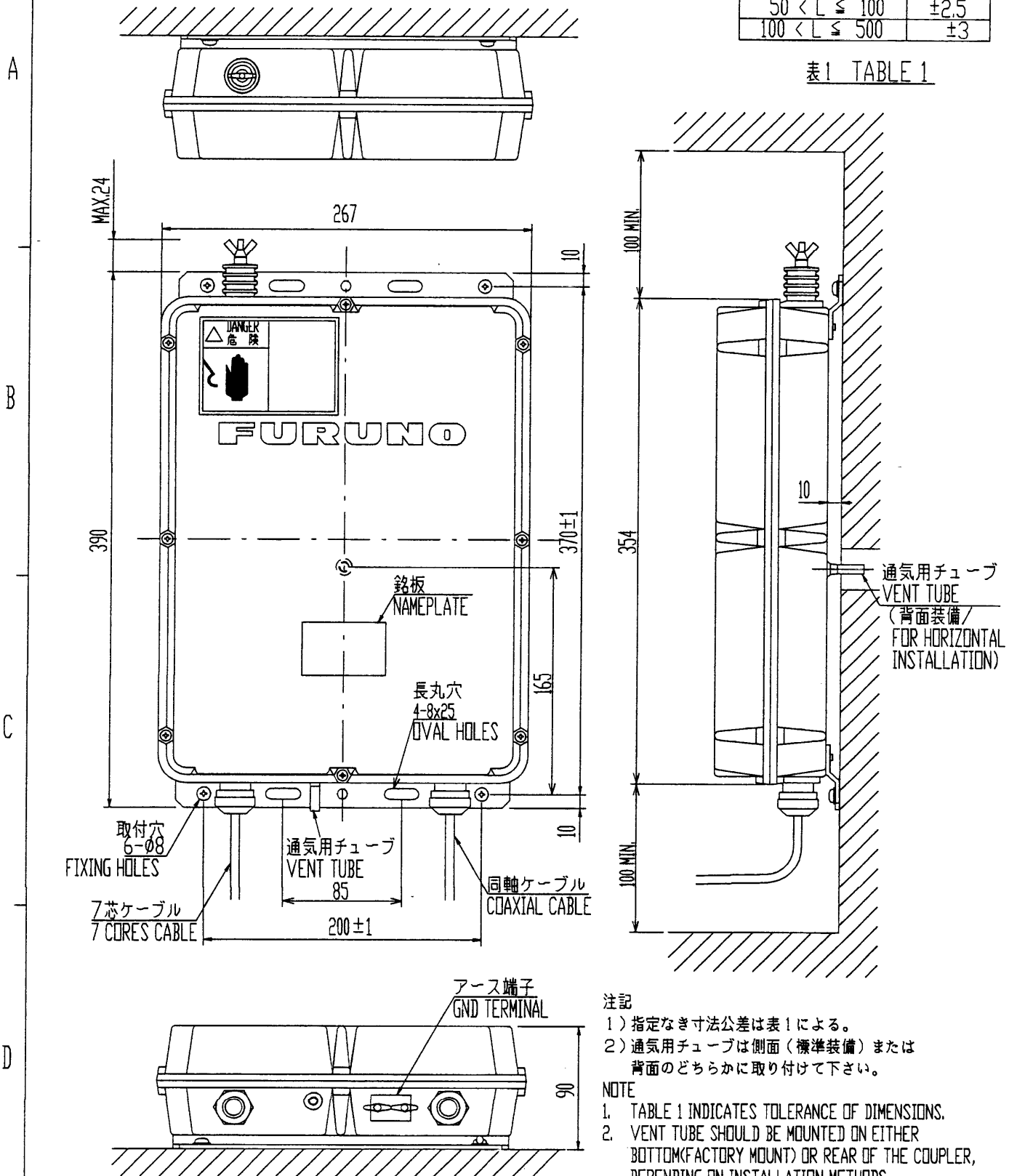
1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.
2. USE TAPPING SCREWS 4x2.0 FOR FIXING THE UNIT.

DRAWN	Aug. 22 '92	T. YAMASAKI	TITLE	HS-2001
CHECKED	2012.12.12	Y. K.	名称	ハンドセット (ハンガー)
APPROVED	2012.12.12	Y. K.	外寸図	
SCALE	1/3	質量 0.54 kg ±10% FS-1570/2570 質量 0.53 kg ±10% 質量 V / CABLE AND HANGER.	NAME	HANDSET / HANGER
FIG. No.	C5636-604-B	05-089-400G-3	OUTLINE DRAWING	

ハンドセットをハンガーに取り付けた状態  
HANDSET W/ HANGER

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) 指定なき寸法公差は表1による。
- 2) 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。

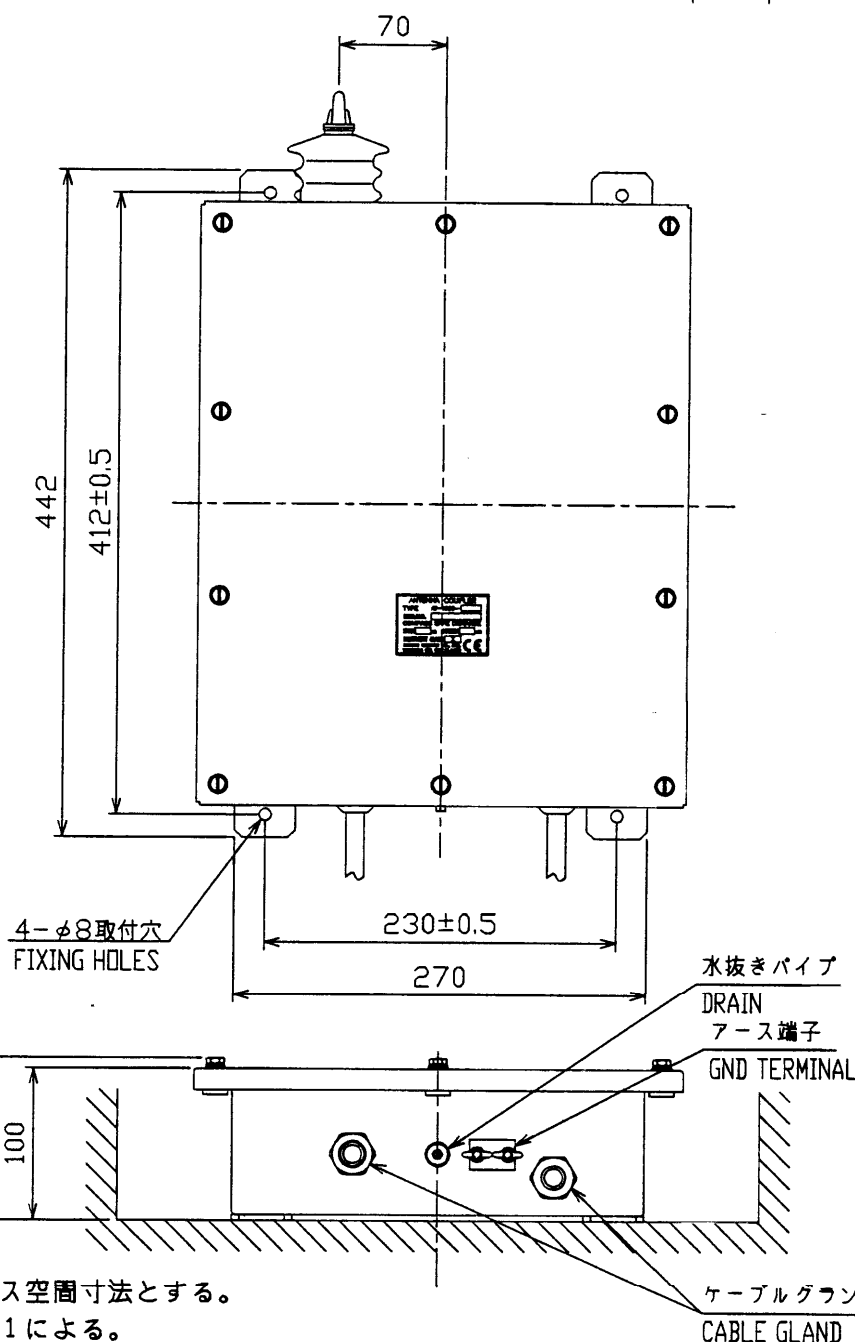
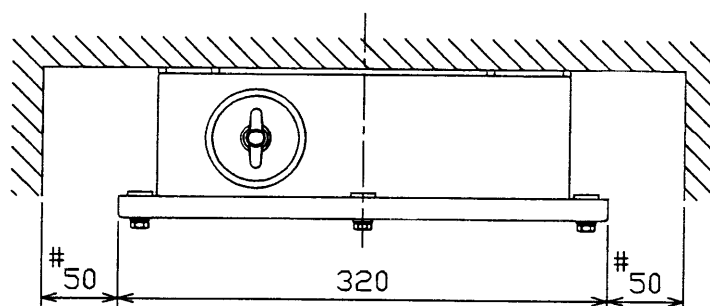
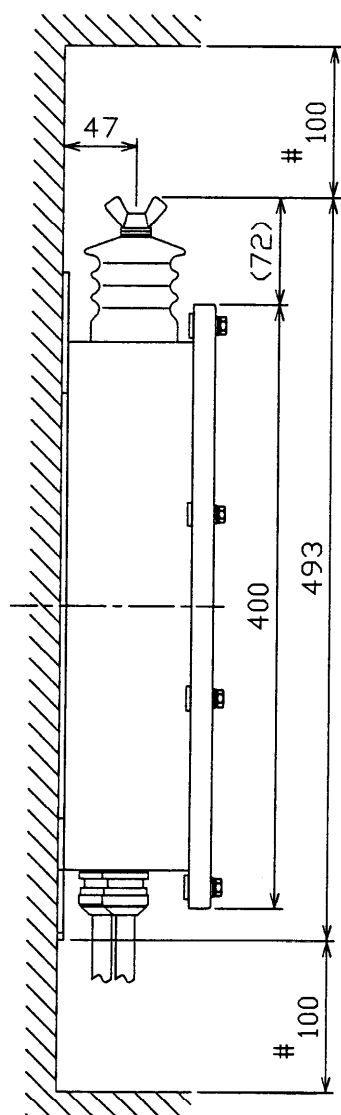
## NOTE

1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.
2. VENT TUBE SHOULD BE MOUNTED ON EITHER BOTTOM(FACORY MOUNT) OR REAR OF THE COUPLER, DEPENDING ON INSTALLATION METHODS.

DRAWN Sep. 12 '01 I.YAMASAKI		TITLE AT-1560-15/25-AAS
CHECKED Sep. 13 '01 Y.K.		名称 アンテナカプラー
APPROVED Sep. 13 '01 Y.K.	FS-2550 FS-15/75 FS-1562-15/25	外寸図
SCALE 1/4	MASS 3.2 ±10% kg	NAME ANTENNA COUPLER
DWG.No. C5574-G01-E		OUTLINE DRAWING

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

表 1 TABLE 1



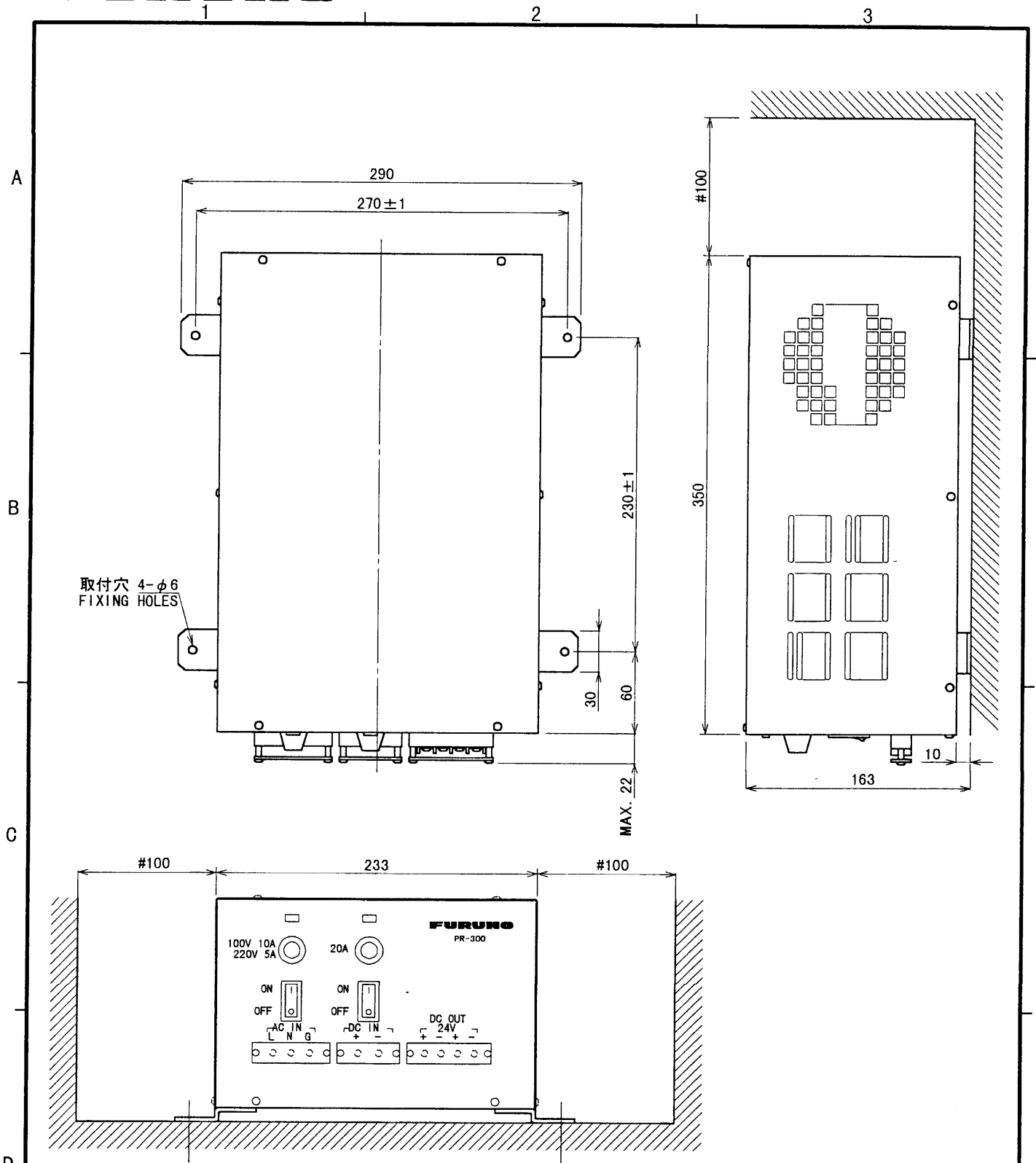
注 記 1) #印寸法は最小サービス空間寸法とする。

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 16 '01 Y.K.		名称 アンテナカプラー
APPROVED July 16 '01 Y.K.		外寸図
SCALE 1/5 MASS 8.7 ±10% kg	FS-1562-15/25	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。

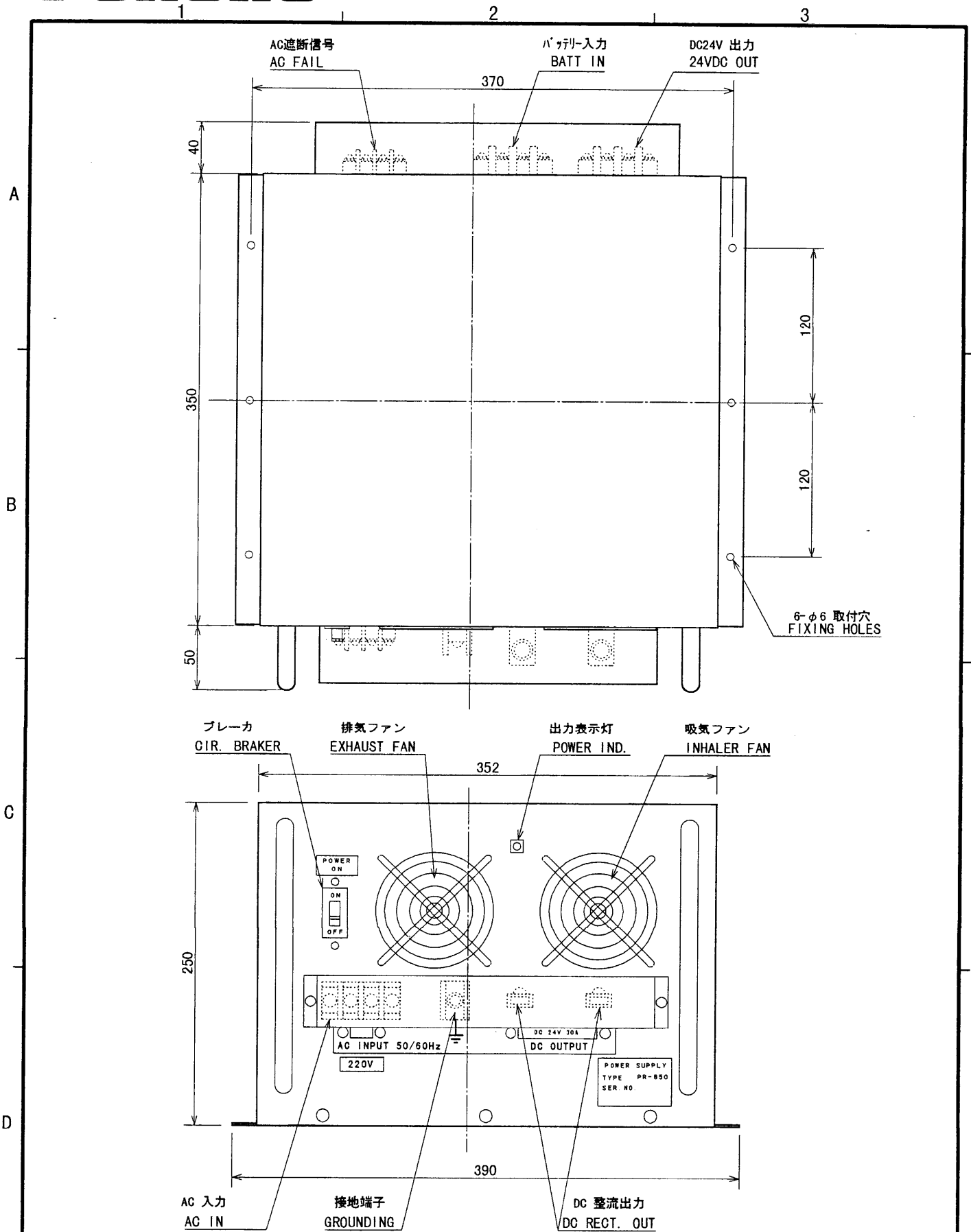
## NOTE:

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

表 1 TABLE 1

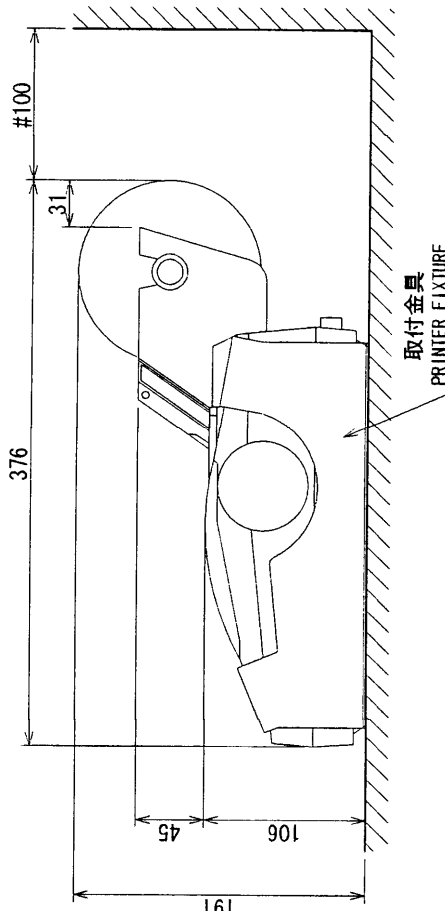
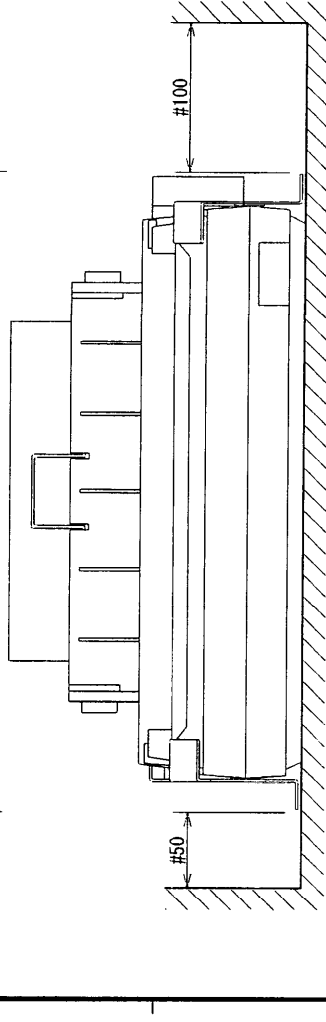
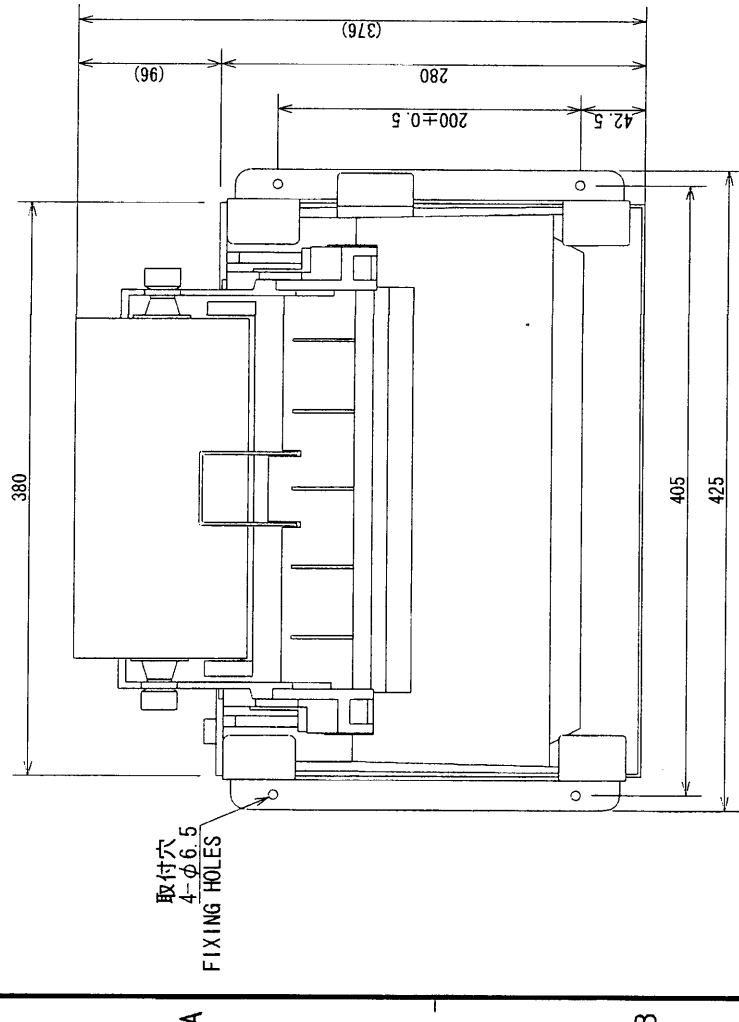
寸法範囲 (mm) DIMENSION	公差 (mm) TOLERANCE
0 < L ≤ 50	±1.5 mm
50 < L ≤ 100	±2.5 mm
100 < L ≤ 500	±3 mm

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



DRAWN  
June 27 '80 T. YAMASAKI  
CHECKED  
June 27 '80 T. Kuri  
APPROVED  
June 27 '80 T. Kuri  
SCALE 1/4 MASS 35 kg  
DWG. No. C5519-G11-E

TITLE PR-850A  
名称 AC-DC電源ユニット  
外寸図  
NAME AC-DC POWER SUPPLY UNIT  
OUTLINE DRAWING

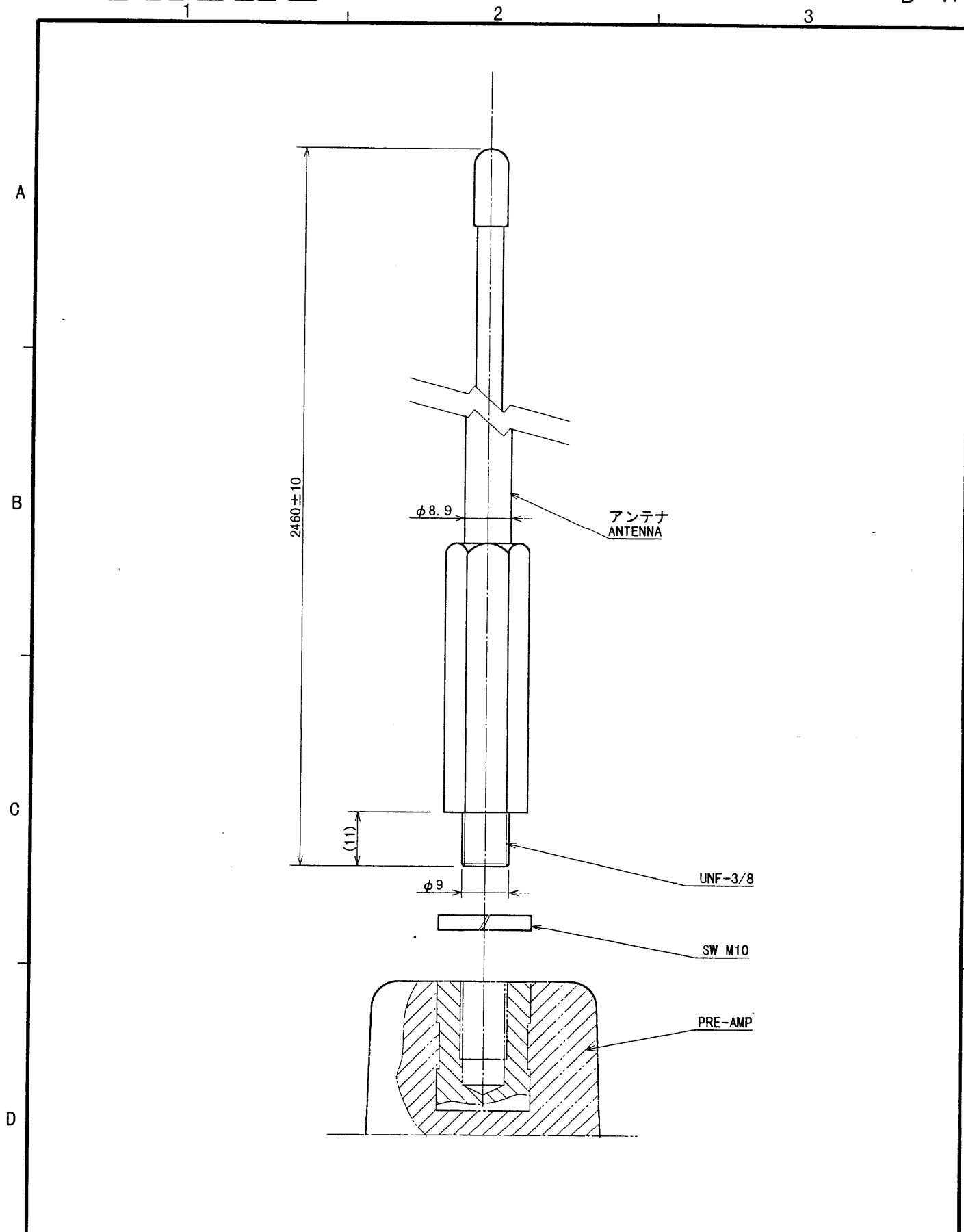


寸法区分 (mm) DIMENSION	公差 (mm) TOLERANCE
0 < L ≤ 50	± 1. 5
50 < L ≤ 100	± 2. 5
100 < L ≤ 500	± 3

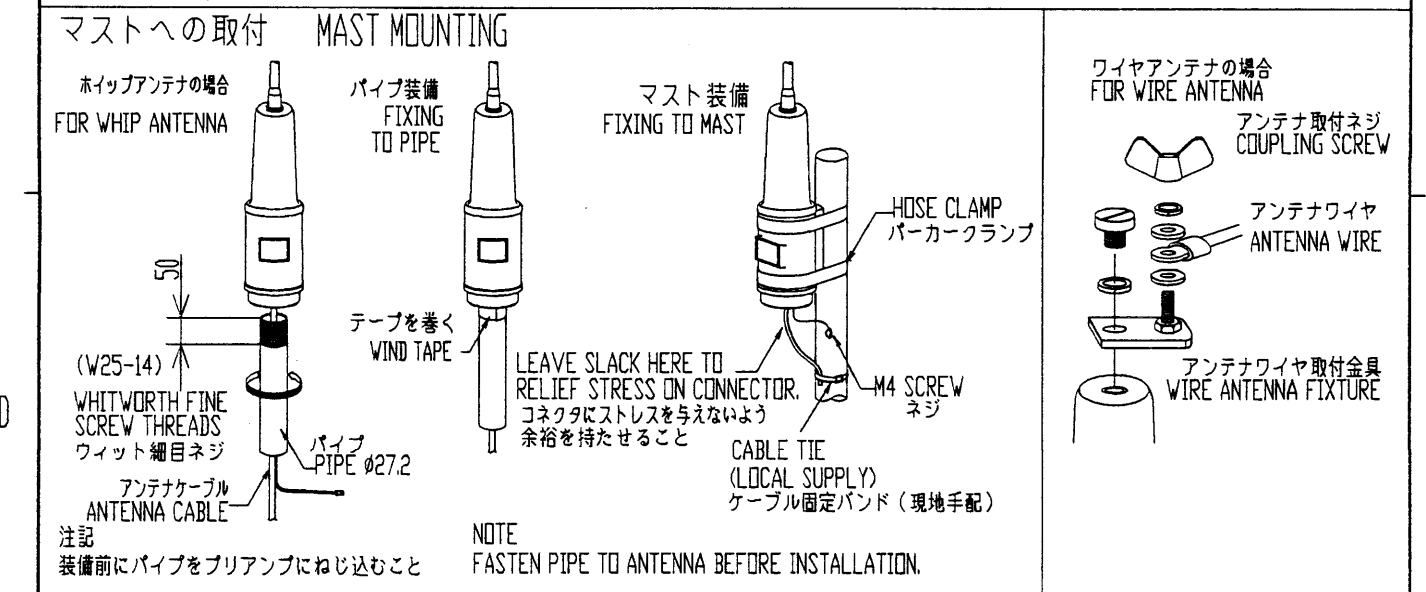
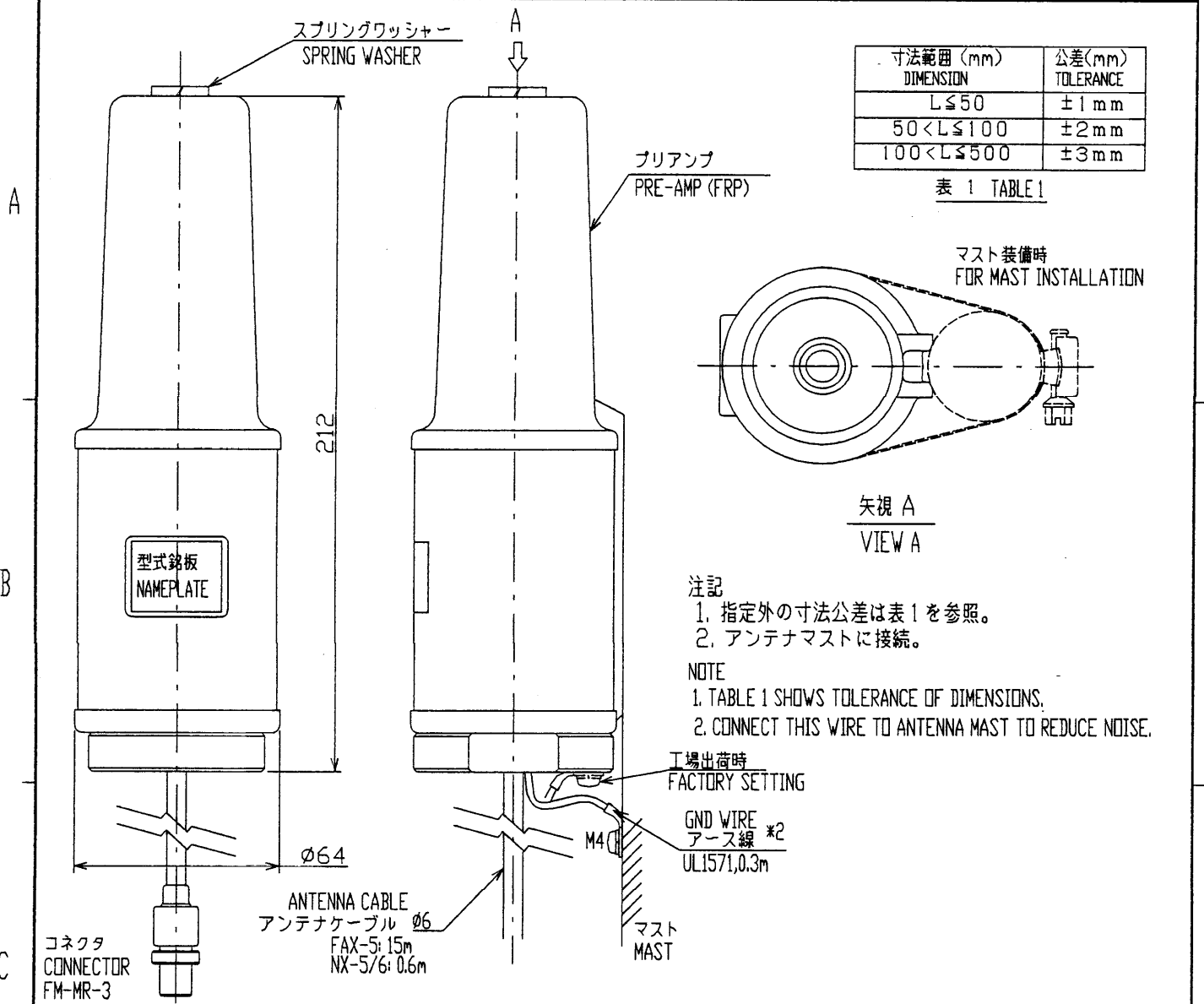
表 1  
TABLE 1

- 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 M 6 ボルトまたはコーチボルト呼び径 6 を使用のこと。
- NOTE 1. #: RECOMMENDED SERVICE CLEARANCE.  
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.  
3. USE M6 BOLTS OR COACH BOLTS φ6 FOR FIXING UNIT.

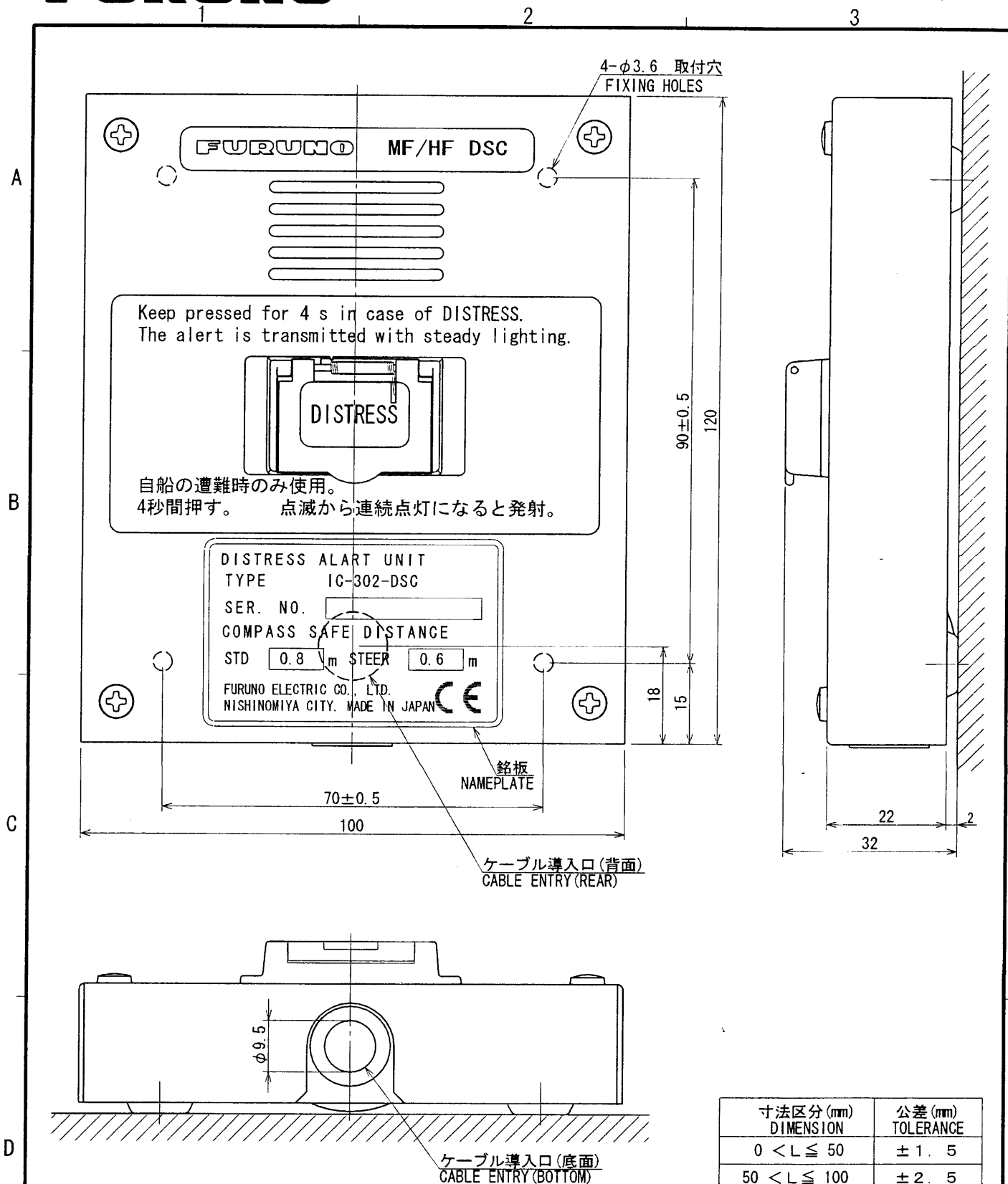
DRAWN	Checked	TITLE	PP-510
CHECKED	APPROVED	名称	プリンタ
SCALE	1/5	NAME	外寸図
MASS	3.8 kg	PRINTER	
DWG. No.	C5589-608-H	16-007-660G-2	OUTLINE DRAWING



DRAWN June 27 '60 T. YAMASAKI		TITLE 04S4176-1
CHECKED June 27 '60 Y. Kim		名称 2.6m ホイップアンテナ
APPROVED June 27 '60 Y. Kim		外寸図
SCALE 1/1	MASS 0.5 kg	NAME 2.6m WHIP ANTENNA
DWG. No. C4002-018-F		OUTLINE DRAWING



DRAWN Aug. 23 '02 T. YAMASAKI		TITLE FAX-5, NX-5/6
CHECKED Aug. 26 '02 Y. K. I.		名称 プリアンプ
APPROVED Aug. 26 '02 Y. K. I.		外寸図
SCALE 1/2	MASS 0.6 ±10% kg	NAME PRE-AMP UNIT
DWG No. C6244-003-K	質量はケーブルを含まず。 MASS W/O CABLE.	OUTLINE DRAWING



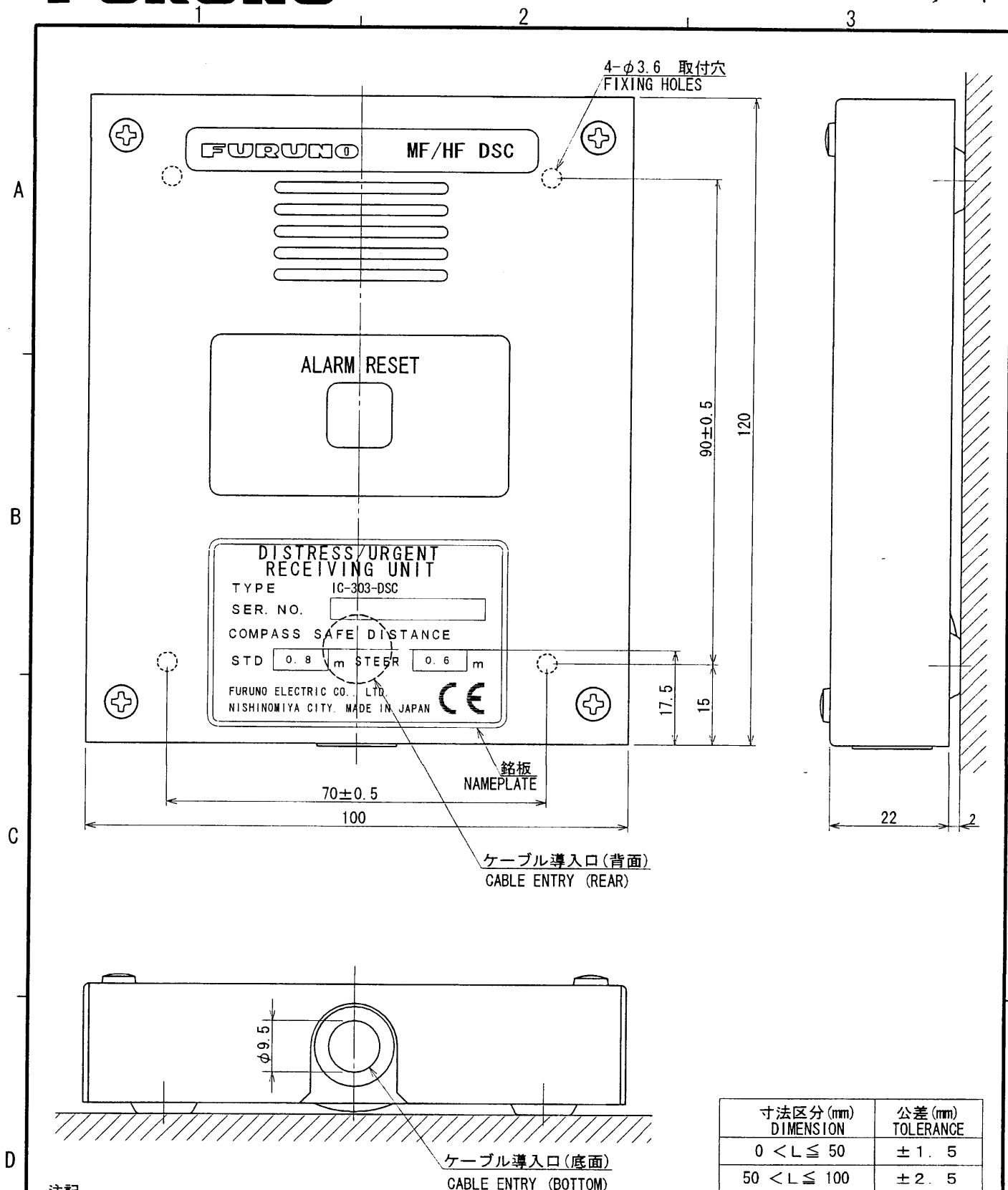
注記 1 ) 指定外寸法公差は表 1 による

NOTE 1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.

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

DRAWN Aug 30 '00 T. YAMASAKI		TITLE IC-302-DSC
CHECKED Aug 30 '00 T. K. K.		名称 遭難警報発呼器
APPROVED Aug 30 '00 T. K. K.	DSC-60	外寸図
SCALE 1/1	MASS ±10% 0.33 kg	NAME DISTRESS ALERT UNIT
DWG. No. C5628-G02- B	16-013-3110-G2	OUTLINE DRAWING



## 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.

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

DRAWN Aug 30 '00 T. KINAKI		TITLE IC-303-DSC
CHECKED Aug 30 '00 T. KINAKI		名称 着信指示器 (遭難警報用)
APPROVED Aug 30 '00 T. KINAKI	DSC-60	外 寸 図
SCALE 1/1	MASS ±10% 0.33 kg	NAME DISTRESS/URGENT RECEIVING UNIT
DWG. No. C5628-G03- B	16-013-3120-G2	OUTLINE DRAWING

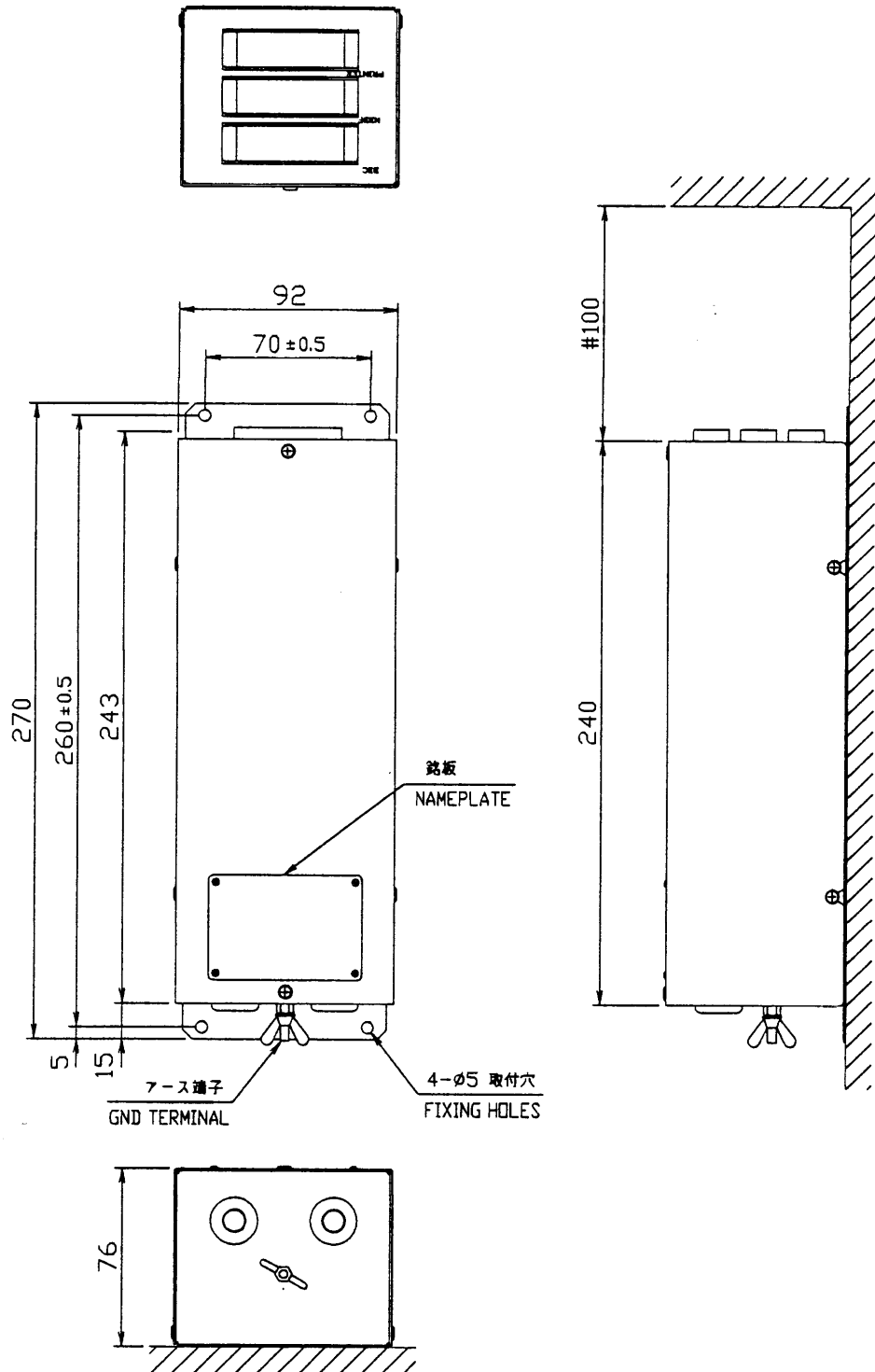


A

B

C

D



## 注記

- 1) 指定なき寸法公差は表1による。  
 2) #: 推奨するサービス空間寸法。

## NOTE

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

表1 TABLE 1

寸法区分(mm) DIMENSION	公差(mm) TOLERANCE
$0 < L \leq 50$	$\pm 1.5$
$50 < L \leq 100$	$\pm 2.5$
$100 < L \leq 500$	$\pm 3$

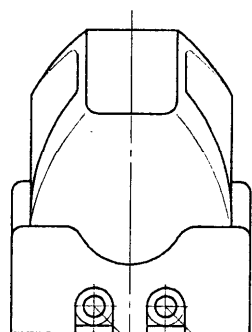
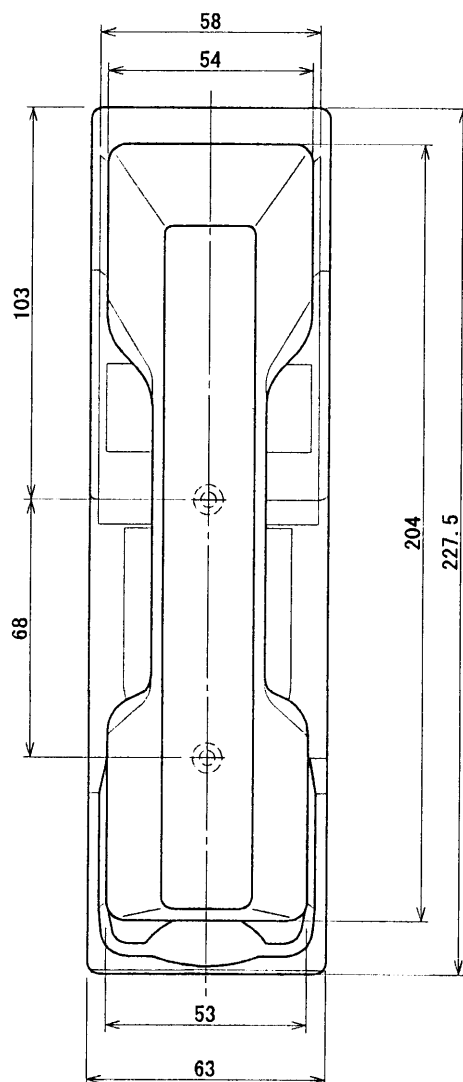
DRAWN Jun. 27 '01 T. YAMASAKI		TITLE IF-8500
CHECKED Jun. 27 '01 Y. KIMURA		名称 プリンタインターフェイス
APPROVED Jun. 27 '01 Y. KIMURA	FM-8500	外寸図
SCALE 1/3	MASS $\pm 10\%$ kg	NAME PRINTER INTERFACE
DWG.No. C5603-G05-B	05-073-2100-G1	OUTLINE DRAWING

A

B

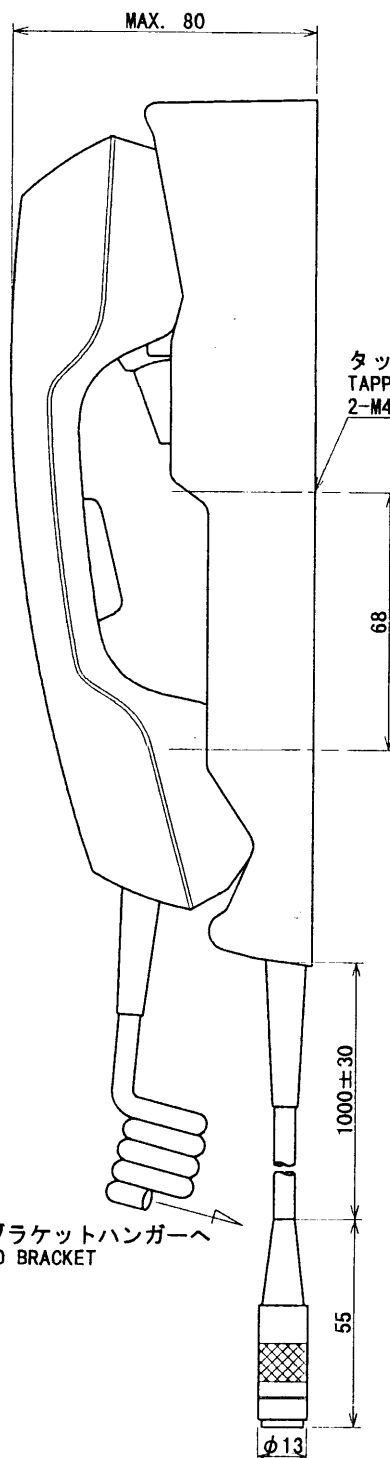
C

D



送受信機へ  
TO RADIO

ハンドセットへ  
TO HANDSET



タッピンネジ  
TAPPING SCREW  
2-M4x16

ブラケットハンガーへ  
TO BRACKET

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.

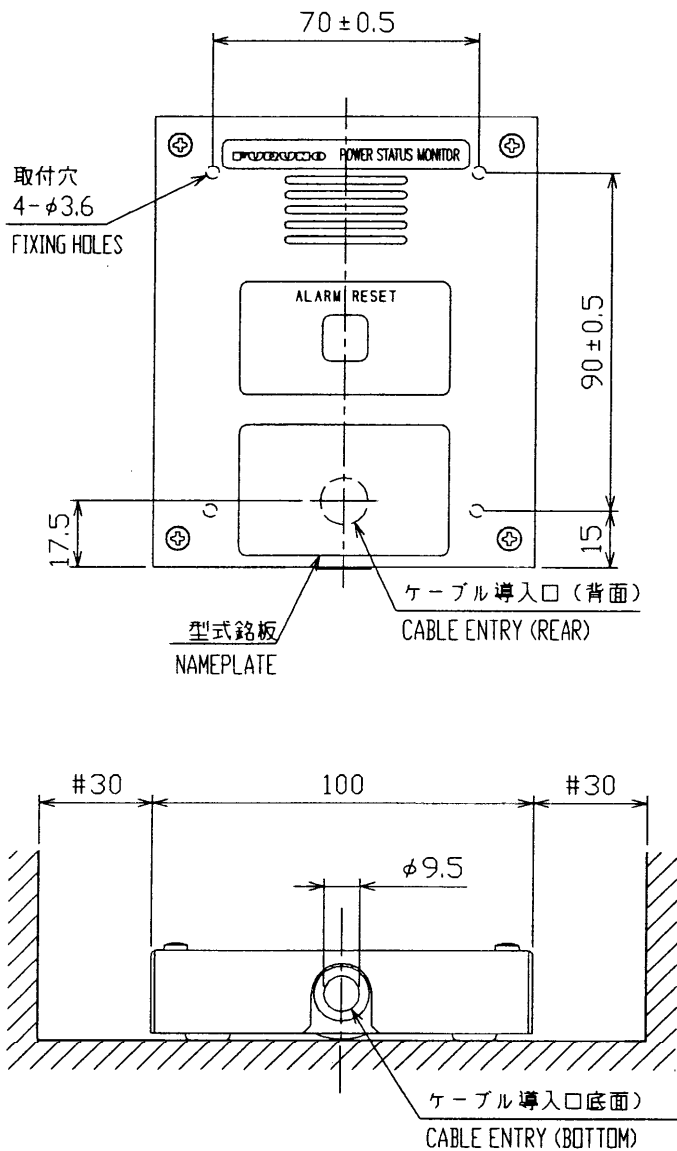
表 1 TABLE 1

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

DRAWN Nov 16 '99 T. YAMASAKI		TITLE HSC701K-B20	
CHECKED Nov 16 '99 K. Kusumoku		名称 ハンドセット (ブラケット付)	
APPROVED Nov 16 '99 K. Kusumoku		外寸図	
SCALE 1/2	MASS 0.65 kg ±10%	NAME HANDSET W/ BLACKET	
DWG. No. C5603-G06- D		OUTLINE DRAWING	

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

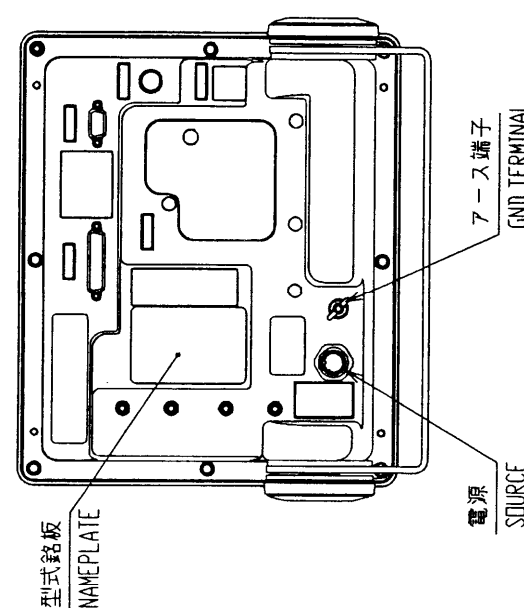
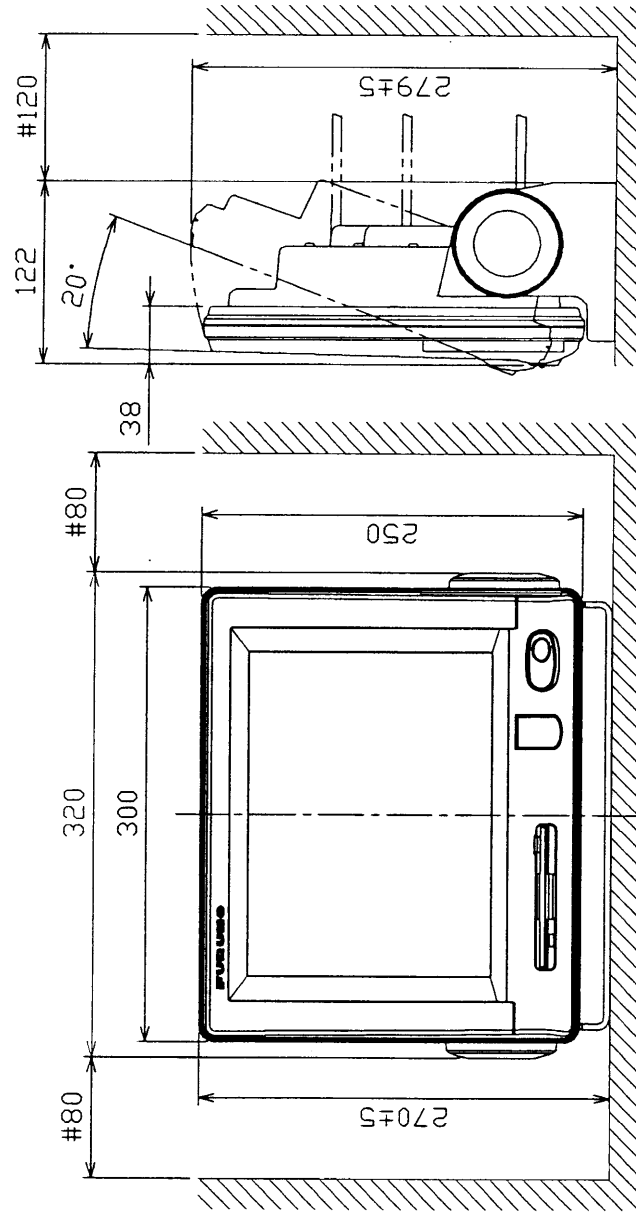
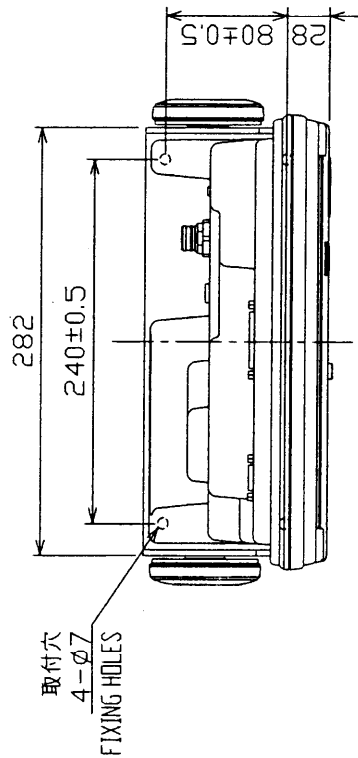
表 1 TABLE 1



- 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 Aug. 21 '02 T. YAMASAKI		TITLE PSM-01
CHECKED Aug. 27 '02 Y. K. I.		名称 パワーステータスモニター
APPROVED Aug. 22 '02 Y. K. I.	FS-1570/2570	外寸図
SCALE 1/2	MASS $0.33 \pm 10\%$ kg	NAME POWER STATES MONITOR
DWG. No. C5636-G05-A	05-087-196G-0	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

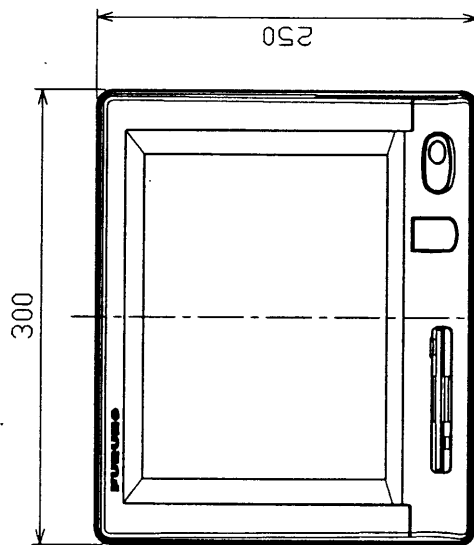
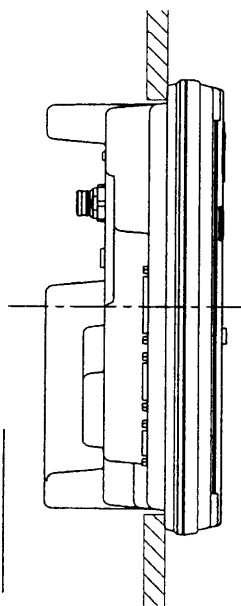
表 1 TABLE 1

- 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。  
 3) 取付用ネジは + トラスタッピンネジ呼び径 5 × 2.0 を使用のこと
- NOTE 1. #: RECOMMENDED SERVICE CLEARANCE.  
 2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.  
 3. USE TAPPING SCREWS 5x2.0 FOR FIXING THE UNIT.

DRAWN	Aug. 22 '92	T. YAMASAKI	TITLE	IB-583
CHECKED	Aug. 22 '92	Y. K. I.	名称	ターミナル部 (卓上装備)
APPROVED	Aug. 22 '92	Y. K. I.	外寸図	
SCALE	1/5	WSS 3.9 110%	NAME	TERMINAL UNIT (DESKTOP MOUNT)
INVENTOR	C5636-C06-A	05-089-600G-2	OUTLINE DRAWING	

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

表 1 TABLE 1



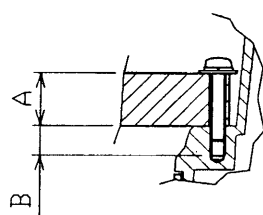
- 注 記 1) #印寸法は最小サージス空間寸法とする。  
 2) 指定外の寸法公差は表1による。  
 3) 取付用ネジは、セムスネジB M4×2.0を使用のこと。  
 壁の厚さ(A)は  $11 \leq A \leq 14$  とする。それ以外の壁に  
 装備する場合、使用するネジ長さは  $(A+7.8) \pm 2$  とする。  
 筐体にはネジ部を8mm以上入れないこと。(B $\leq$ 8)

NOTE 1. # RECOMMENDED SERVICE CLEARANCE.

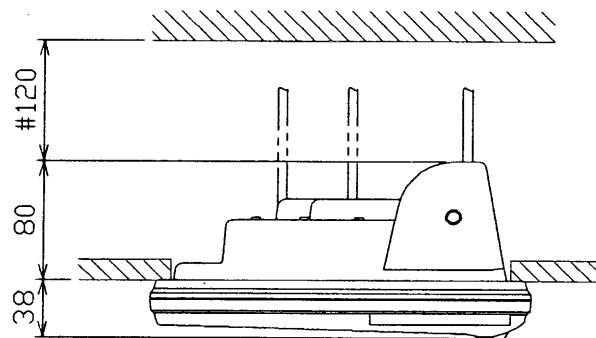
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.

3. USE SEMS SCREWS M4×2.0 FOR FIXING THE UNIT.

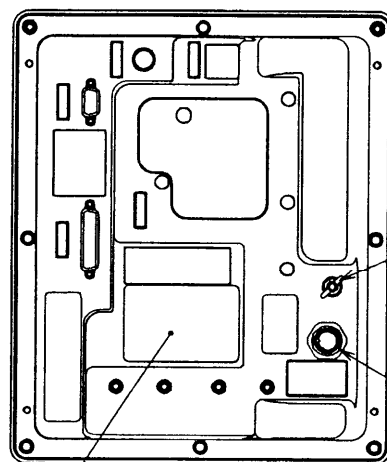
THICKNESS A:  $11 \leq A \leq 14$  OR SCREW LENGTH:  $(A+7.8) \pm 2$ .  
 DO NOT FASTEN SCREWS INTO UNIT MORE THAN 8 mm.



取付ネジ部断面 尺度 1/2  
DETAIL FOR FASTENING (SCALE 1/2)



取付穴寸法図  
CUTOUT DIMENSIONS



型式銘板  
NAMEPLATE

電源  
SOURCE

アース端子  
GND TERMINAL

DRAW	Aug. 22 '02	T. YAMASAKI	TITLE	IB-583
CHECK	Aug. 22 '02	Y. K. L.	名称	ターミナル部 (埋込装備)
APPROVED	Aug. 22 '02	Y. K. L.	外寸図	
SCALE	1/5	WMS 3.3 1108	WAVE	TERMINAL UNIT (FLUSH MOUNT)
INQ. No.	C5636-G07-A	05-089-610G-2	OUTLINE DRAWING	

A

B

C

D

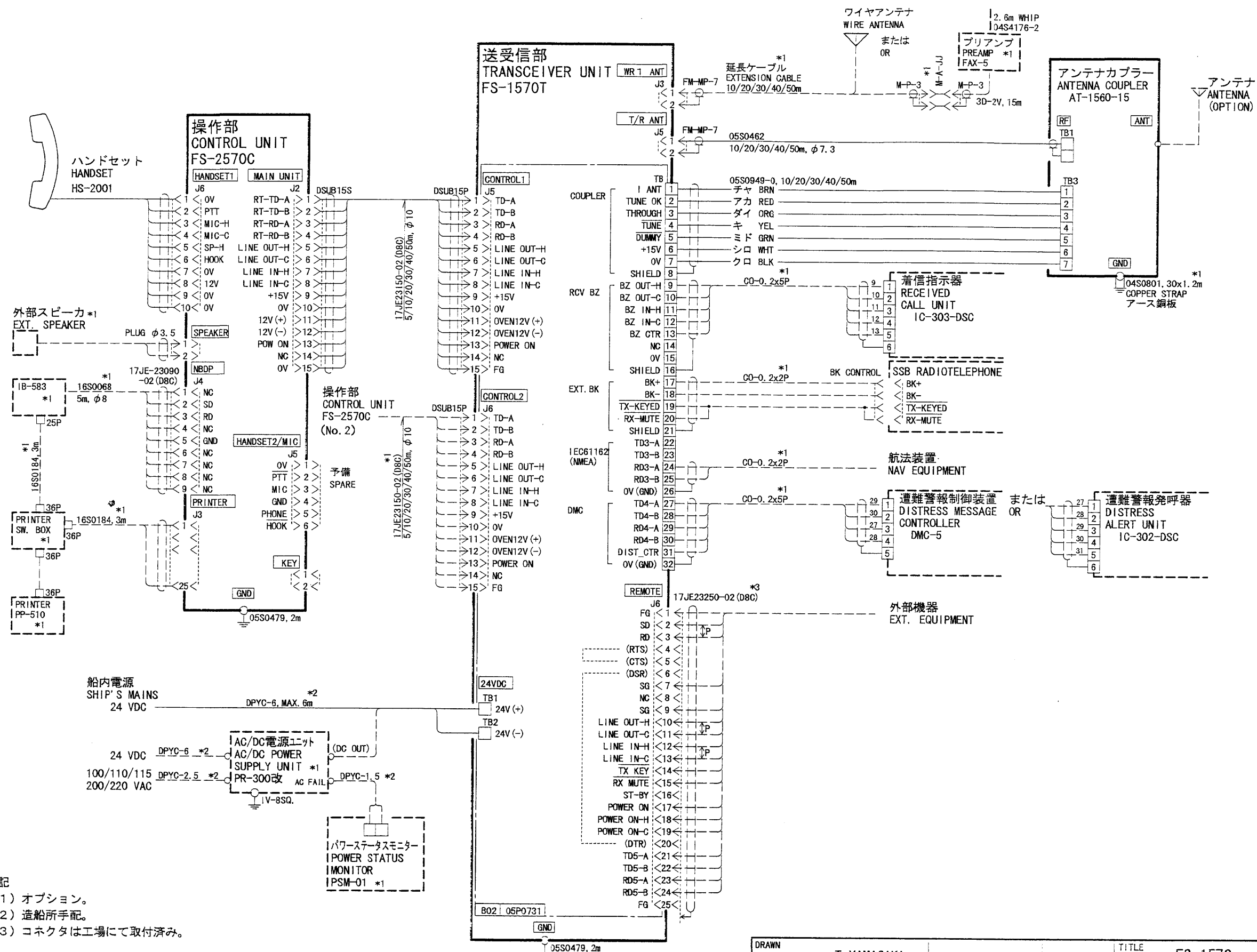
## 注記

- \* 1) オプション。
- \* 2) 造船所手配。
- \* 3) コネクタは工場にて取付済み。

## NOTE

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

CO-0, 2x2P: CO-SPEVV-SB-C 0, 2x2P, φ 10, 5  
CO-0, 2x5P: CO-SPEVV-SB-C 0, 2x5P, φ 13, 5



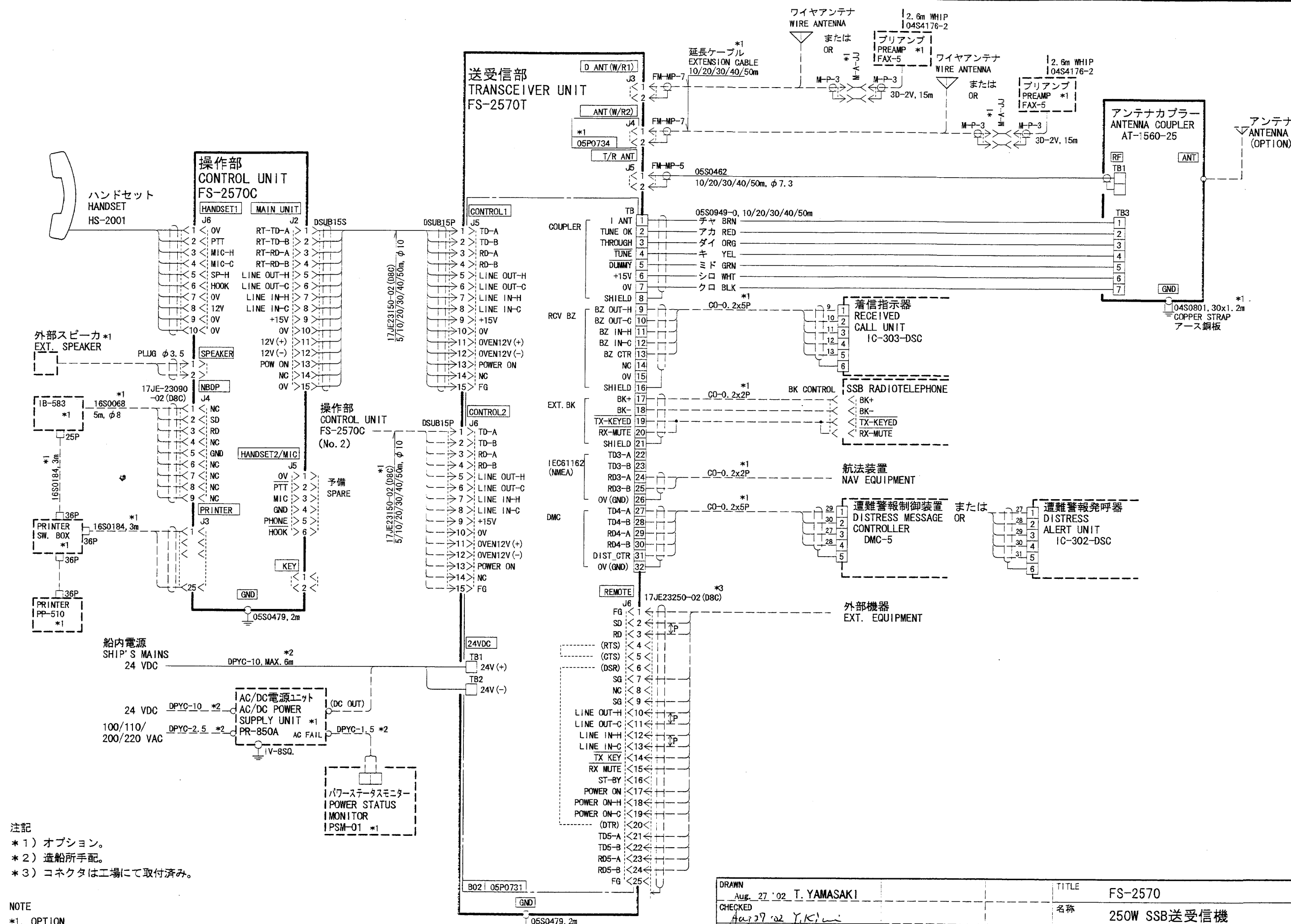
DRAWN	Aug. 27 '02 T. YAMASAKI	TITLE	FS-1570
CHECKED	Aug. 27 '02 Y. K.	名称	150W SSB送受信機
APPROVED	Aug. 27 '02 Y. K.	相互結線図	
SCALE	MASS	NAME	SSB TRANSCEIVER
DWG No.	C5636-C01- C		INTERCONNECTION DIAGRAM

A

B

C

D

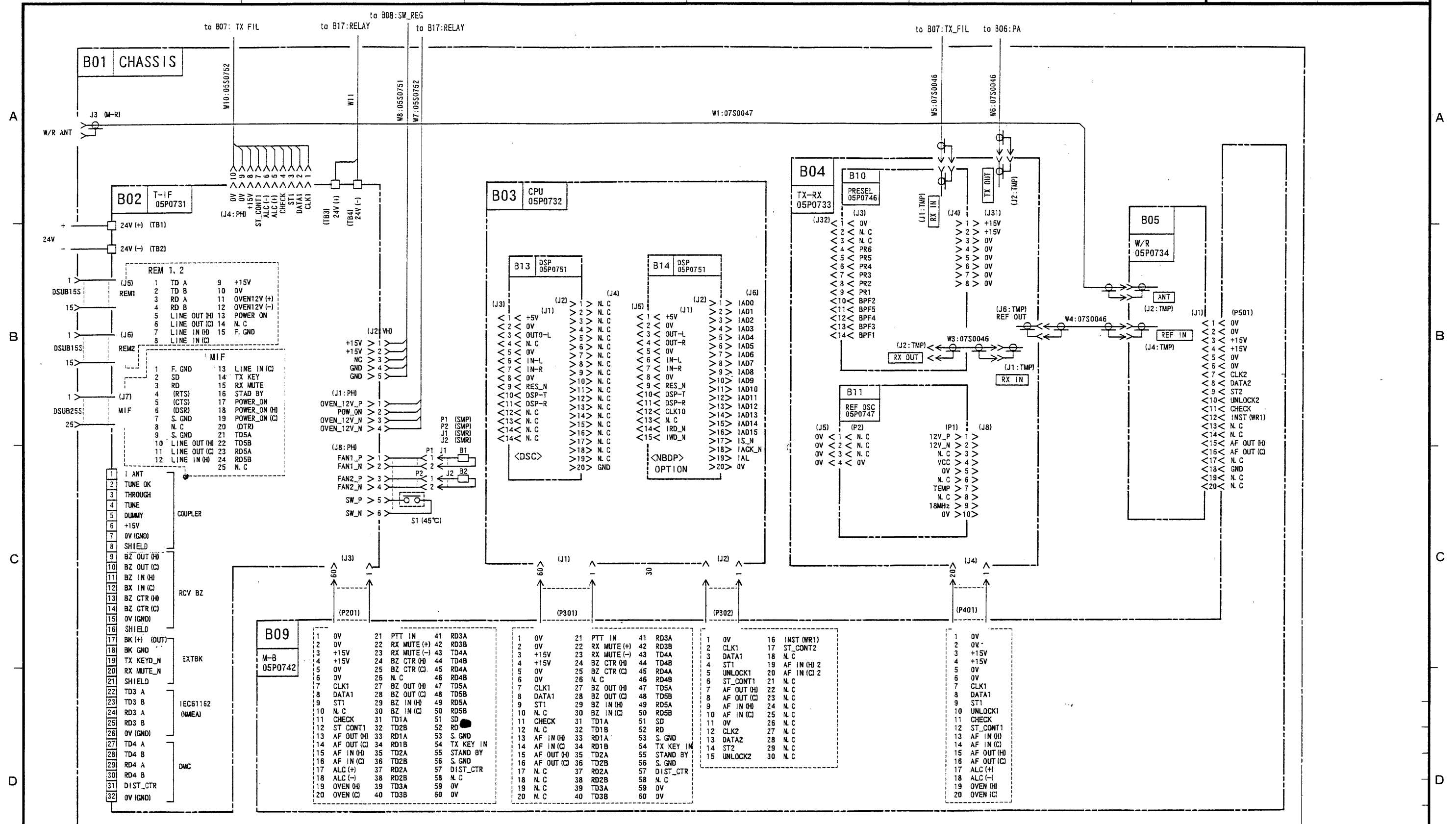


注記  
 \*1) オプション。  
 \*2) 造船所手配。  
 \*3) コネクタは工場にて取付済み。

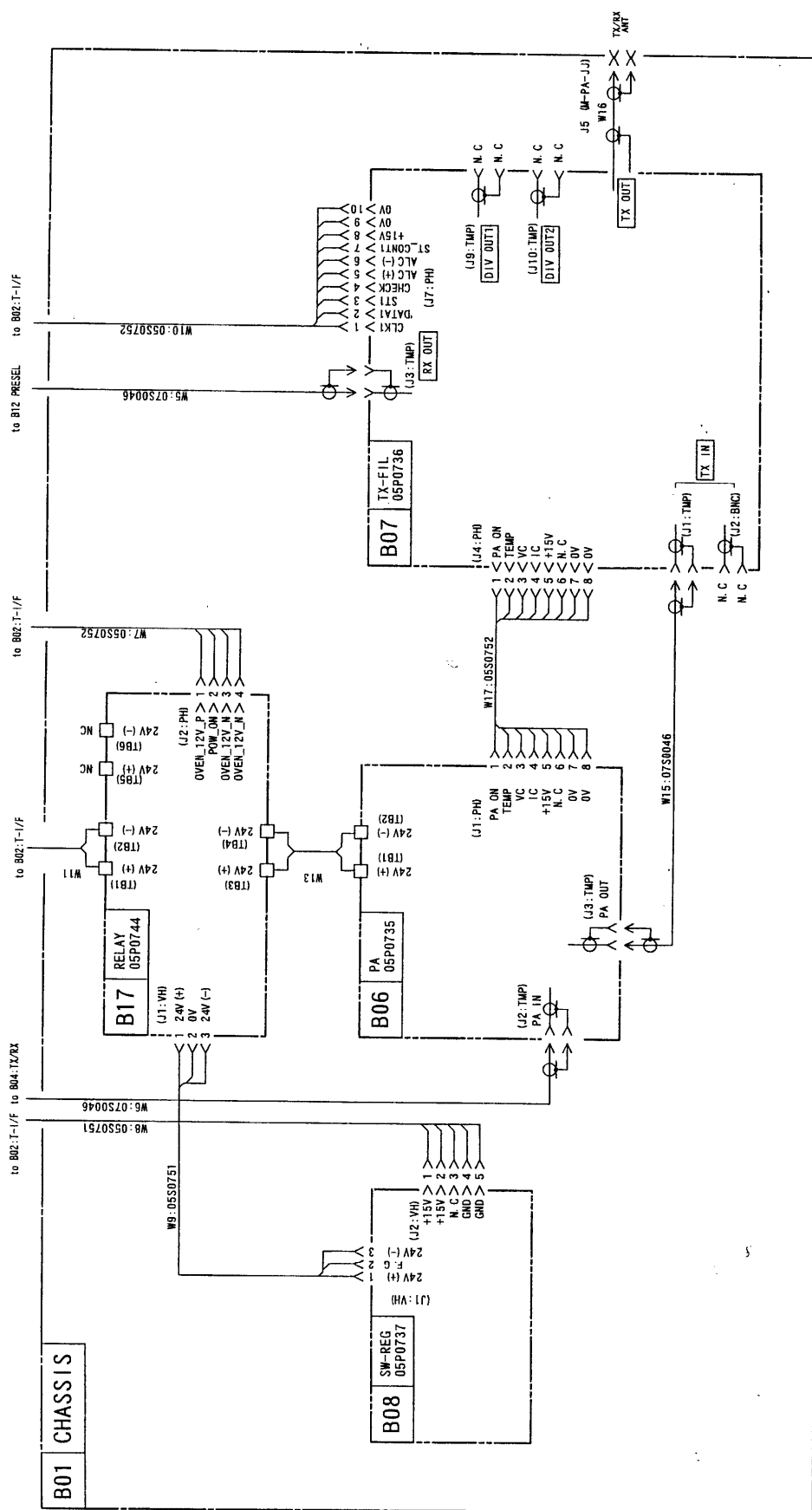
NOTE  
 \*1. OPTION.  
 \*2. SHIPYARD SUPPLY.  
 \*3. CONNECTOR PLUGS FITTED AT FACTORY.

CO-0, 2x2P: CO-SPEV-SB-C 0.2x2P, φ 10.5  
 CO-0, 2x5P: CO-SPEV-SB-C 0.2x5P, φ 13.5

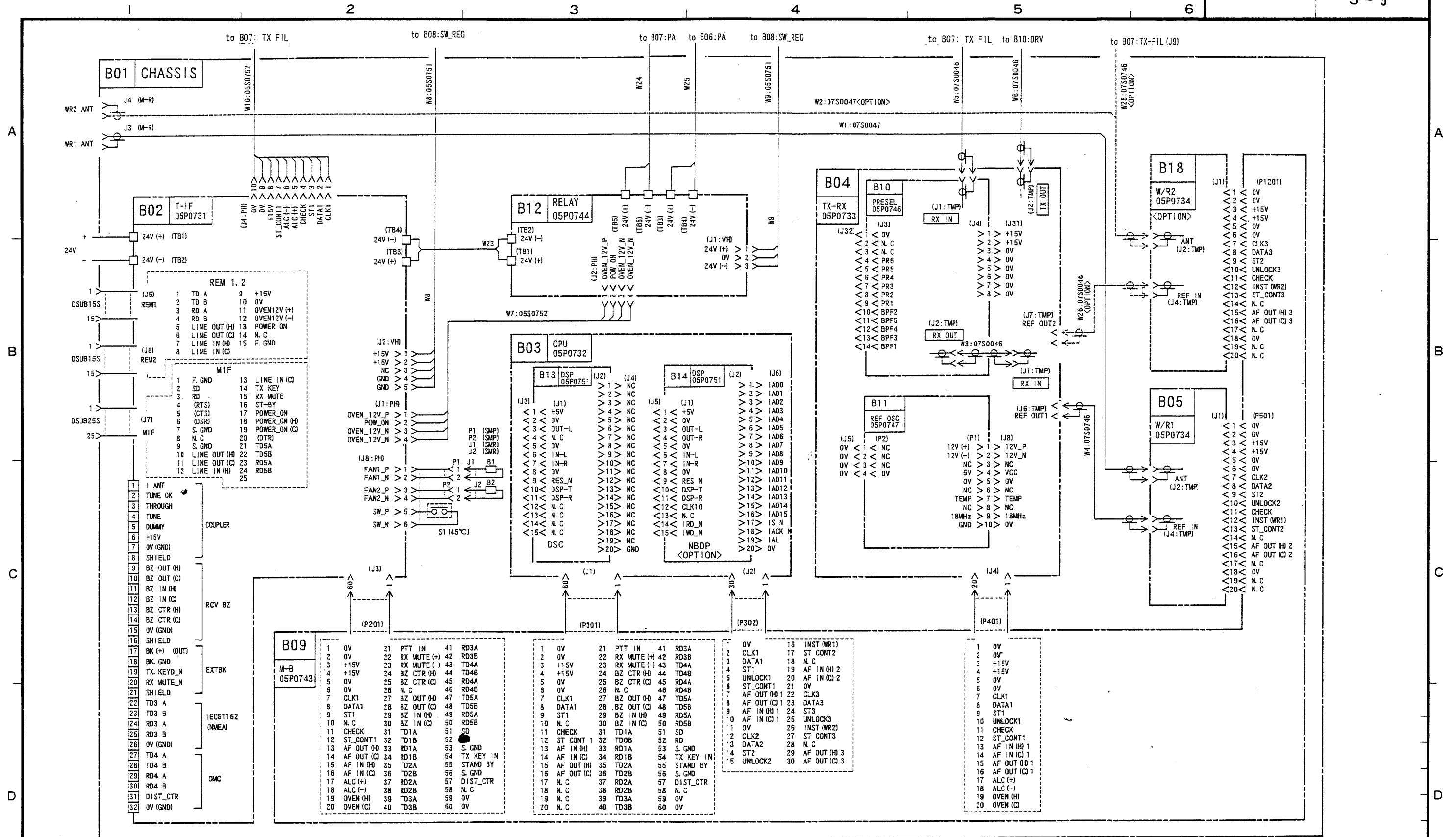
DRAWN	Aug. 27 '02 T. YAMASAKI	TITLE	FS-2570
CHECKED	Aug. 27 '02 Y. K. I.	名称	250W SSB送受信機
APPROVED	Aug. 27 '02 Y. K. I.		相互結線図
SCALE	MASS	NAME	SSB TRANSCEIVER
DWG No.	C5637-C01- C		INTERCONNECTION DIAGRAM



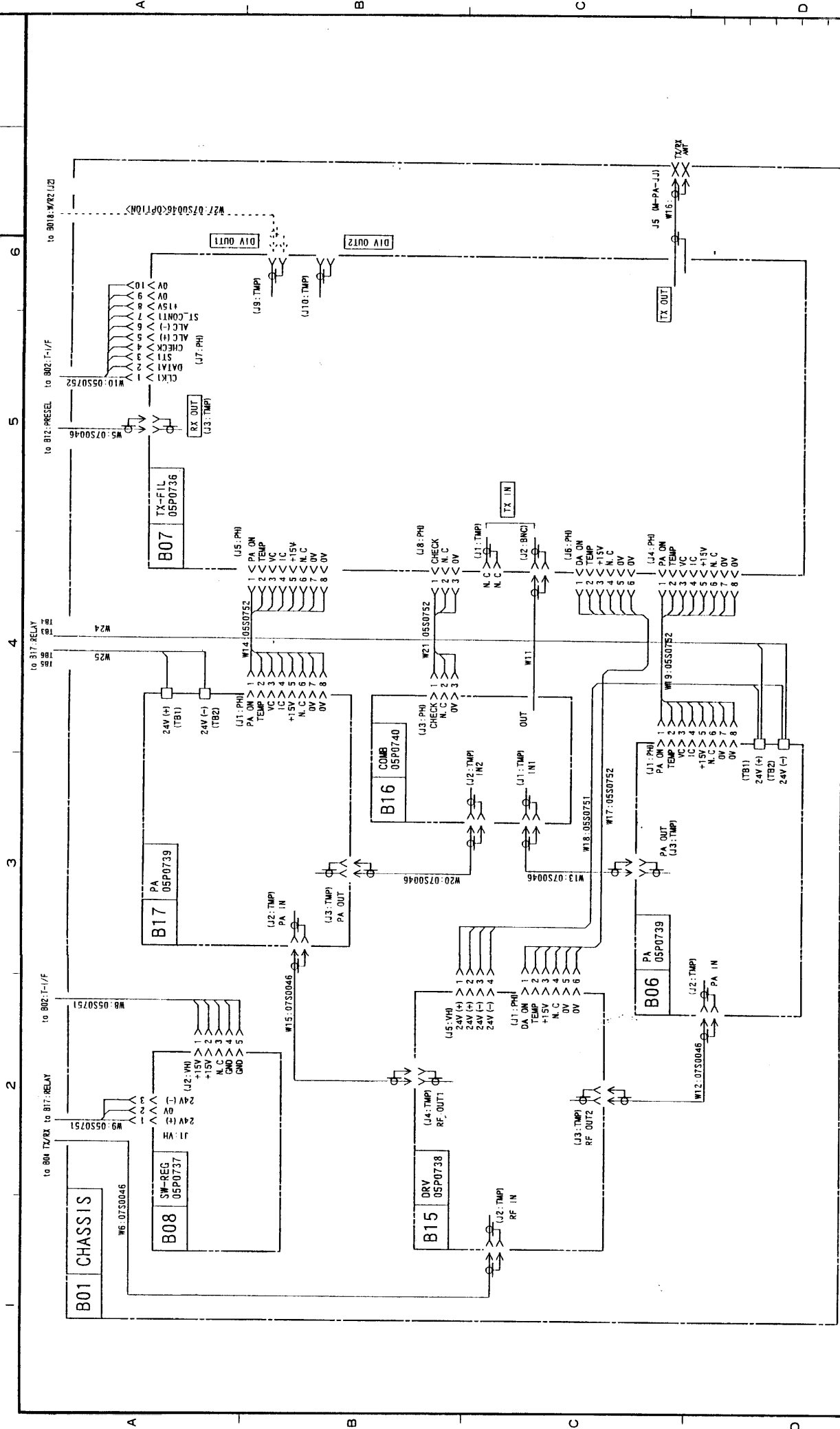
DRAWN 02/10/09 T. YAMASAKI	TYPE FS-1570T (1/2)
CHECKED 02/10/09 Y. K. Iwano	名称 トランシーバユニット
APPROVED 02/10/09 Y. K. Iwano	回路図
SCALE MASS	MODEL BLOCK No.
Dwg No. C5636-K01- B	NAME TRANSCIEVER UNIT
05-001-3859-0	SCHEMATIC DIAGRAM



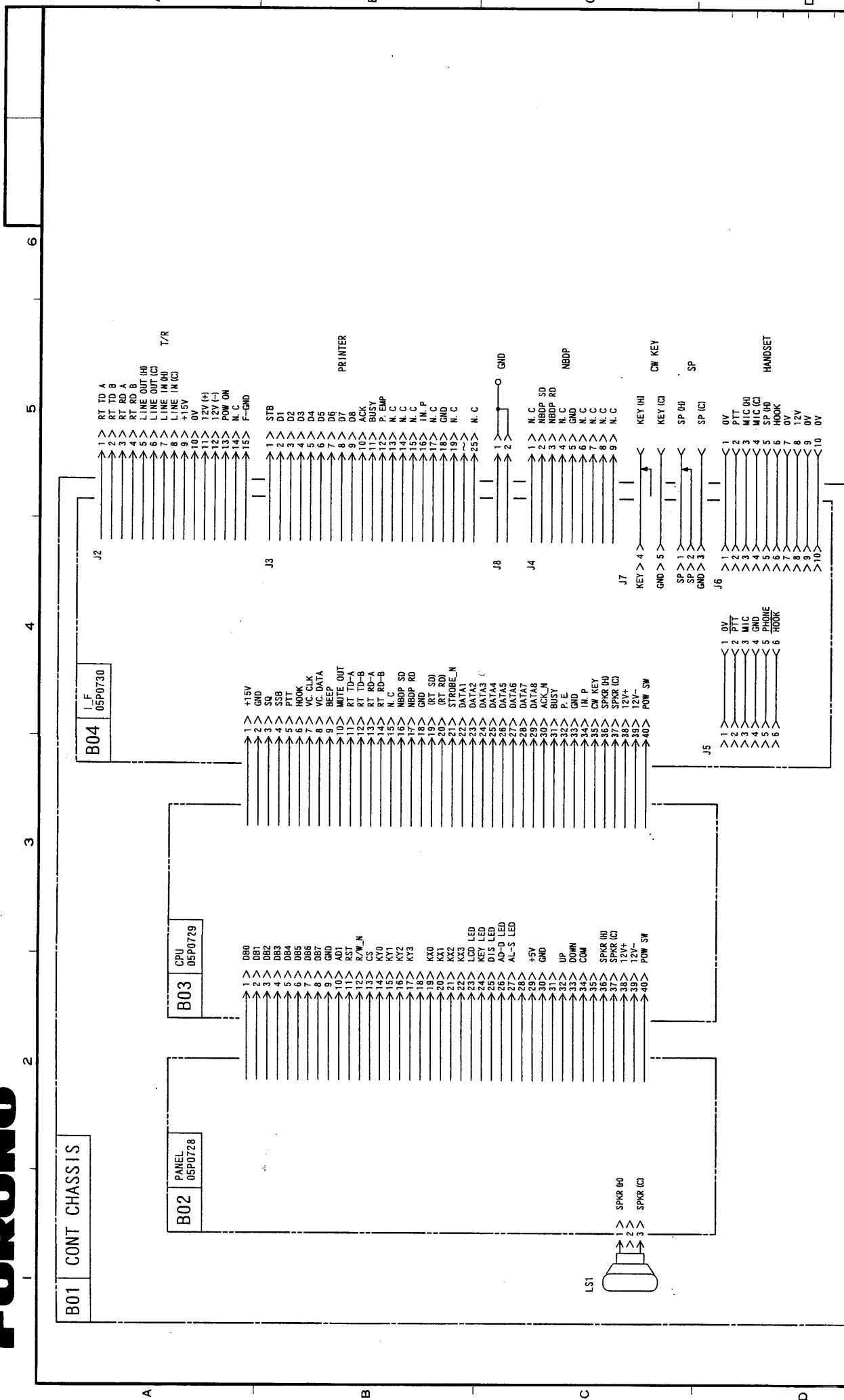
DRAWN	02/04/26	I. YAMASAKI			TYPE	FS-1570T (2/2)
CHECKED	02/04/26	Y. K. I.			名称	トランシーバユニット
APPROVED	02/04/26	Y. K. I.				
SCALE		1/1	FS-1570	BLOCK No.	回路図	
		MASS	MODEL		NAME	TRANSCEIVER UNIT
Dwg No.	05636-K02-A		05-001-3859-0			SCHEMATIC DIAGRAM



DRAWN 02/10/09 T. YAMASAKI	TYPE FS-2570T (1/2)
CHECKED 02/10/09 Y. Kikawa	名称 トランシーバユニット
APPROVED 02/10/09 Y. Kikawa	回路図
SCALE MASS	MODEL FS-2570
BLOCK No.	NAME TRANSCEIVER UNIT
Dwg No. C5637-K01- C	05-001-3869-1
	SCHEMATIC DIAGRAM

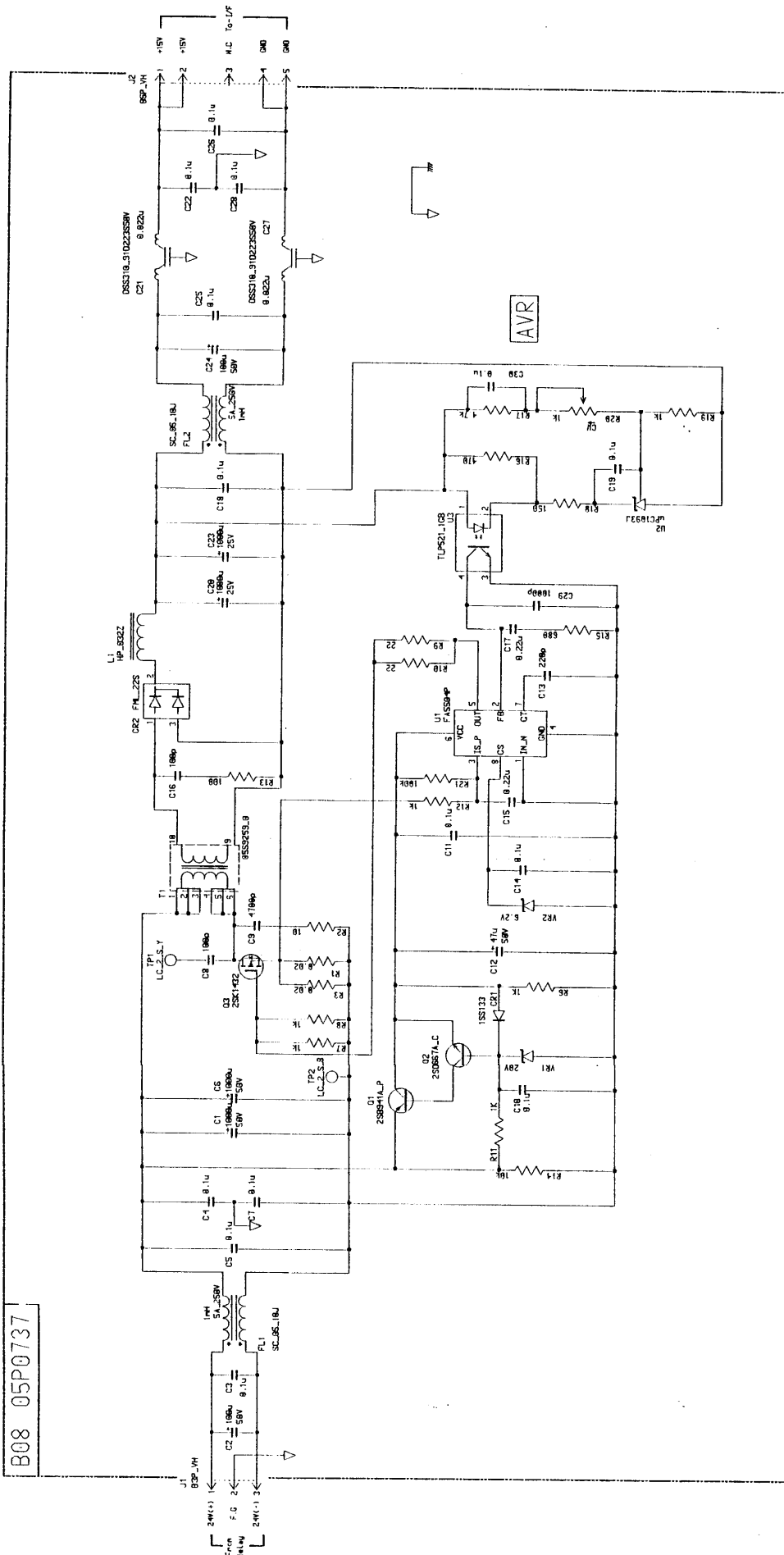


DRAWN 02/06/06 T. YAMASAKI	TYPE FS-2570T (2/2)
CHECKED 02/16/07 Y.K.	名称 トランシーバユニット
APPROVED 02/16/07 Y.K.	回路図
SCALE MASS	MODEL FS-2570
Divg No. C5637-K02-B	BLOCK No.
	NAME TRANSCIEVER UNIT
	SCHMATIC DIAGRAM



DRAWN 02/04/26 CHECKED 02/04/26 APPROVED 02/04/26 SCALE MASS	T. YAMASAKI	TYPE FS-2570G 名称 コントロールユニット 回路図 NAME CONTROL UNIT BLOCK No. FS-1570/2570 MODEL 05-001-3854-0 Dwg No. C5636-K03-A	SCHEMATIC DIAGRAM
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B08 05P0737



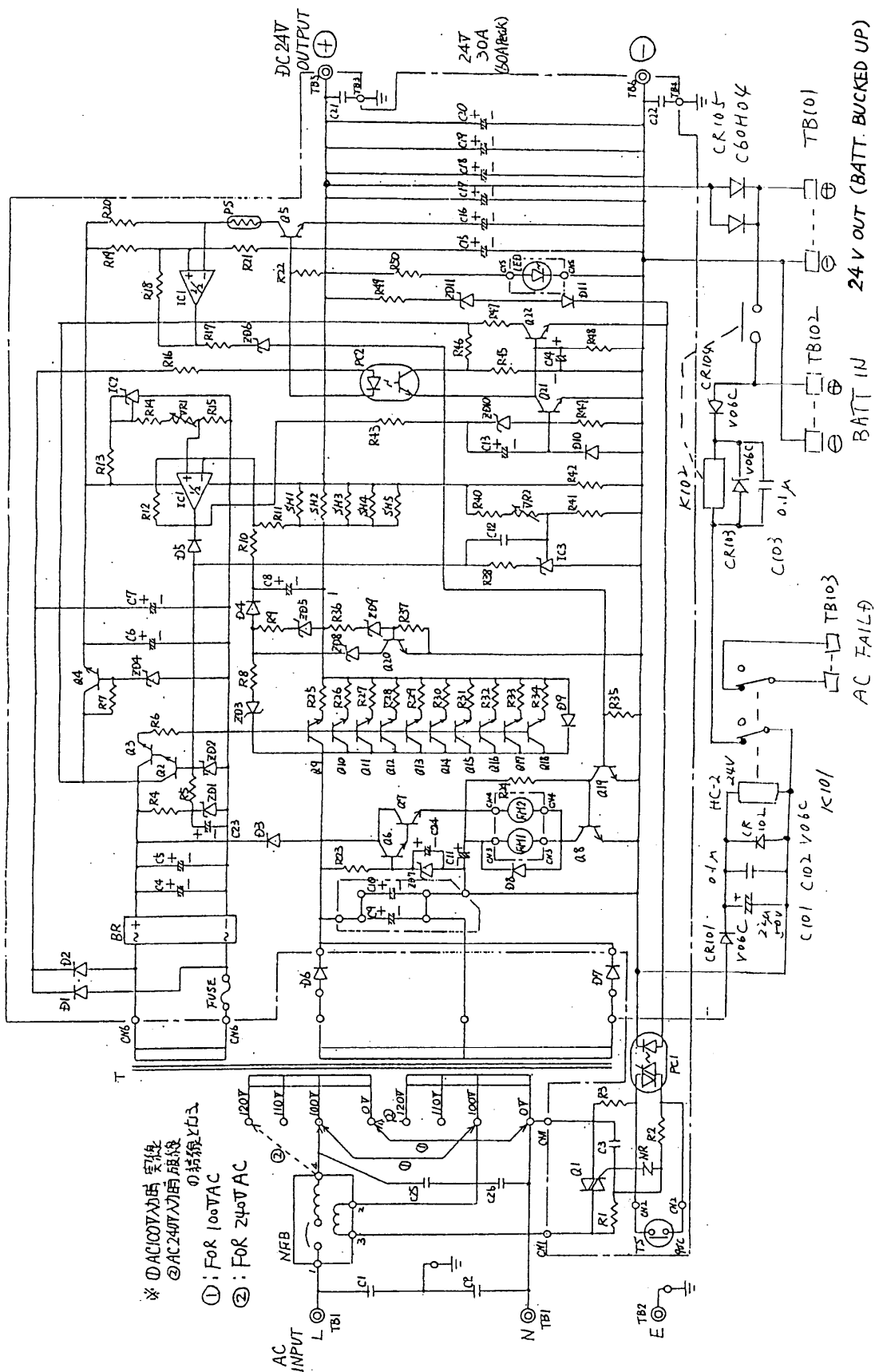
DRAWN	02/04/26	T. YAMASAKI	TYPE	05P0737
CHECKED	01/04/06	Y. K1	名称	SW REG基板
APPROVED	02/04/04	Y. K1	回路図	
SCALE	MASS		MODEL	FS-1570T/2570T IB 8
Dwg No	C5636-K04- A		BLOCK No.	
			NAME	SW REG PCB
				SCHEMATIC DIAGRAM

A

B

C

D



※ ① AC100V用 実線  
② AC240V用 点線  
③ 100VAC  
④ 240VAC

①: For 100VAC  
②: For 240VAC

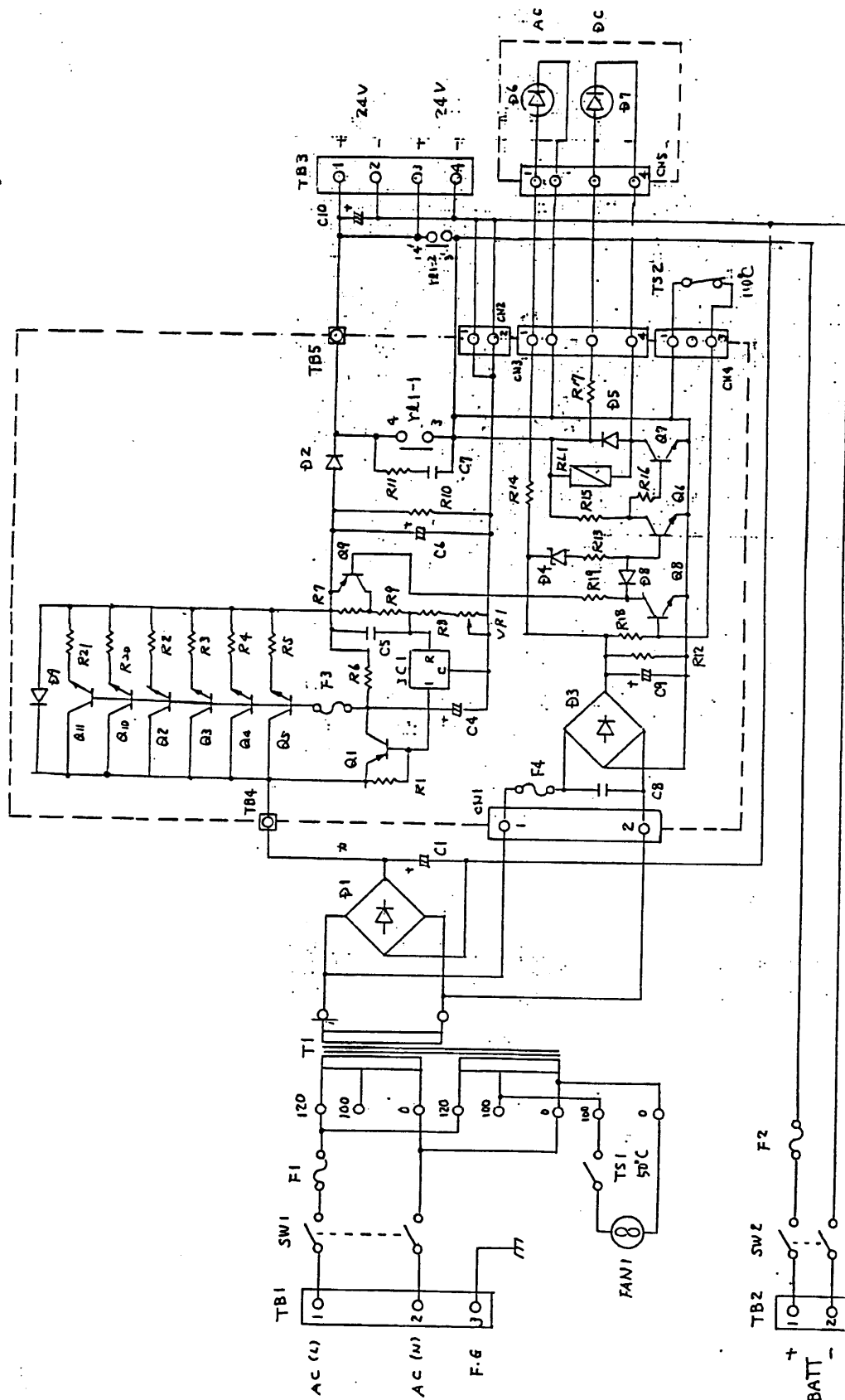
REMARKS			TYPE PR850A		
DRAWN T.Y.			名称 AC電源ユニット		
APPROVED JUL 15 1994 KED			NAME AC POWER UNIT		
RC1500-1T			DWG NO. C5519-K24- A		
APPLICABLE TO; (MODEL)			BLOCK NO.		
SCALE			MASS kg		

A

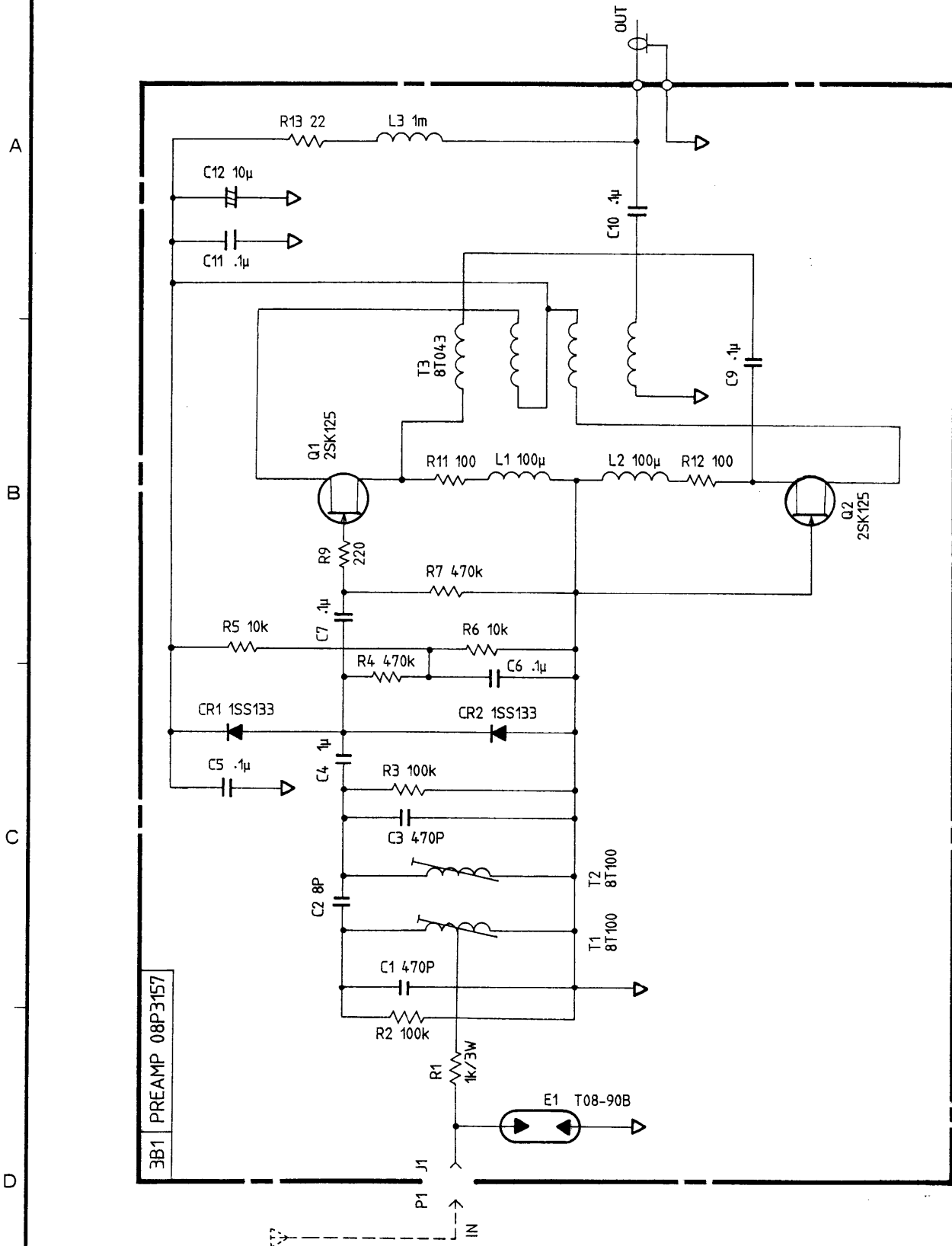
B

C

D



DRAWN Dec. 21, '95 S. Yamashita		TYPE PR-300
CHECKED Dec. 21, '95 K. Kusunoki	RC15001T FS-75	名称 AC-DC電源ユニット
APPROVED Dec 21, '95 K. Ota	FS-15 FS1562-15	回路図
SCALE /	MASS 14.5 kg	NAME AC-DC POWER SUPPLY UNIT
DWG NO. C5572-K17- A	APPLICABLE TO: (MODEL) 3P-M1-0990A	SCHEMATIC DIAGRAM



FAX-208/288 MK2

FAX-210 NX-500

品番 ITEM	品名 NAME	材質 MATERIAL	数量 Q'TY	図番 DWG.NO.	摘要 REMARKS
承認 APPROVED	JUN. 5 '89 T. NAKANO	三角法 THIRD ANGLE PROJECTION	名称 TITLE	08P3157	プリアンプ基板 PREAMP BOARD
検 CHECKED	June 5 '89 M. IKEDA	尺 SCALE			
製 DRAWN	29 MAY '89 M. OSAKO	重 WEIGHT	kg	図番 DWG.NO.	C 5 5 0 9 = K 0 1 - B