FURUNO

OPERATOR'S MANUAL

RADIO CONSOLE

MODEL **RC-5000/8000-3T**

This manual covers the general description of the Radio Console. Refer to the separate manuals for detailed information on individual units mounted in the console.

FURUNO ELECTRIC CO., LTD.
NISHINOMIYA, JAPAN

9-52, Ashihara-cho,
Nishinomiya, Japan 662

Telephone: 0798-65-2111
Telefax: 0798-65-4200(GIII)

·Your Local Agent/Dealer

Initial : MAR 1992
F : NOV. 8, 1996

PUB. No. OME-55560
(KAOK) RC-5000/8000-3T

0008046230 0

⚠ SAFETY INSTRUCTIONS

"**DANGER**", "**WARNING**" and "**CAUTION**" notices appear throughout this manual. It is the responsibility of the operator 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.

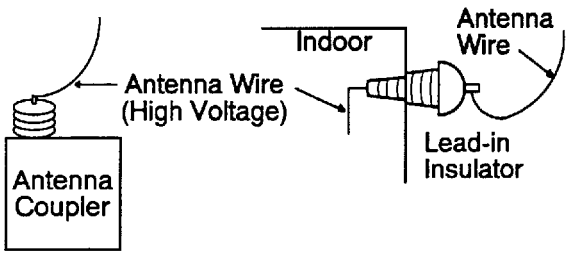
⚠ DANGER	This notice indicates a potentially hazardous situation which, if not avoided, will result in death or serious injury.
⚠ WARNING	This notice indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	This notice indicates a potentially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

⚠ DANGER

Never touch the MF/HF antenna, antenna coupler or lead-in insulator when the MF/HF radiotelephone is transmitting.

High voltage which can cause death is present at the above-mentioned locations when the MF/HF radiotelephone is transmitting.

Turn off the power before performing maintenance on the MF/HF antenna.



⚠ WARNING

Do not open the equipment.

This equipment uses high voltage electricity which can shock, burn or cause serious injury. Only qualified personnel should work inside the equipment.

Do not disassemble or modify the equipment.

Fire, electrical shock or serious injury can result.

Turn off the power immediately if water leaks into the equipment or the equipment is emitting smoke or fire.

Continued use of the equipment can cause fire or electrical shock.

PRECAUTIONS

The Radio Console accepts remote control commands from the Distress Message Controller (DMC) or the Remote VHF Station located in the conning place. Please take the following precautions.

- **Keep all the radio equipments powered and the antenna connected to respective radio to immediately respond for distress communications.**

- **Prior to checking the transmitter antenna, be sure to turn off the main switch at the AC/DC Radio Switch Box to avoid unexpected transmission which may otherwise be done from the remote equipments.**

- **Remote equipments may interrupt the current task at the console. Note that the key and switches on the console equipments may become inoperative during the remote control.**

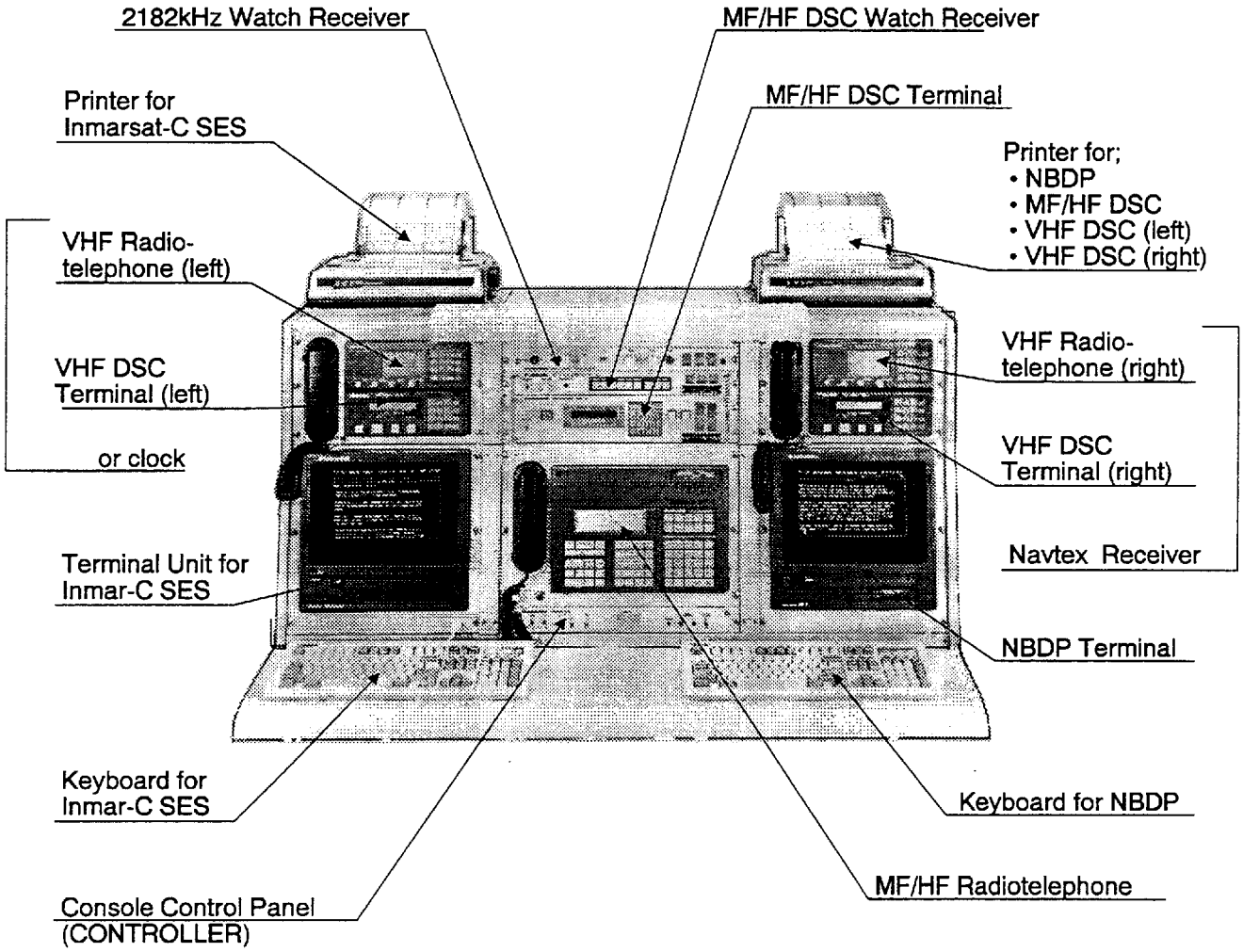
In the event of AC power failure, the radio battery automatically supplies power to the radio equipments. To allow six hours of battery operation, the transmission power of MF/HF Radiotelephone is reduced, and the Watch Receivers and the printers are automatically powered off.

Table of Contents

CHAPTER 1. INTRODUCTION

1-1. CONSOLE COMPONENTS

The RC-5000/8000-3T is a compact table-top radio console comprising a MF/HF radiotelephone with MF/HF DSC terminal, two sets of VHF radiotelephones with VHF DSC terminals, NBDP terminal, Inmarsat-C SES, 2182kHz watch receiver, MF/HF DSC watch receiver, and Navtex Receiver. Furthermore, the radio console accepts distress control commands from the distress message controller to activate distress calling sequences in multiple paths (VHF/MF/HF/Inmarsat-C). The type and number of the component differ from set to set.



NOTE: ***This manual does not provide detailed information on individual components in the radio console, except the CONTROLLER (panel) inherent to this console housing. For details on the other components, refer to the separate operator's manuals.***

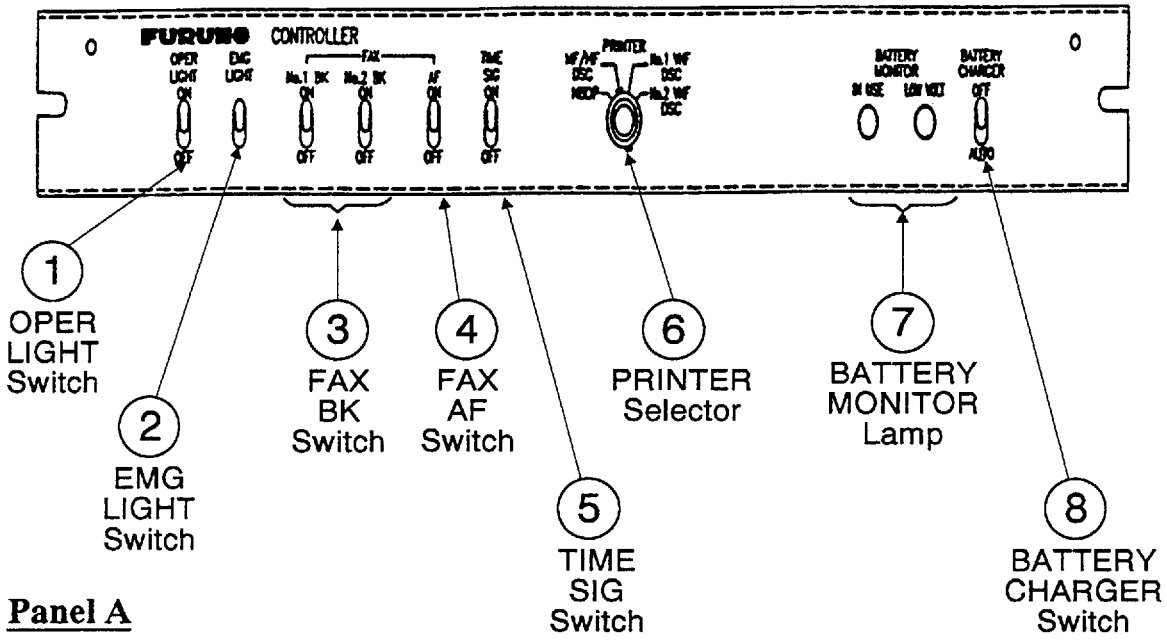
EQUIPMENTS MOUNTED IN RADIO CONSOLE

NAME	BRIEF DESCRIPTION
2182kHz Watch Receiver	Continuously watches 2182kHz distress frequency. Upon reception of a two-tone alarm signal it generates audible alarm and sends distress alert signal to the Distress Message Controller (wheelhouse).
MF/HF DSC Watch Receiver	Continuously scans 2187.5kHz, 8414.5kHz and other MF/HF DSC frequencies. Sends received signal to the MF/HF DSC Terminal for decoding DSC messages.
MF/HF DSC Terminal	Serves in initial calling sequences for distress and other communications on MF/HF radiotelephone. It decodes distress and safety calls through MF/HF DSC Watch Receiver and other calls addressed to own ship through MF/HF radiotelephone and sends distress alert to the Distress Message Controller upon reception of a distress call. Further, it activates distress call on the MF/HF radiotelephone under the remote control of the Distress Message Controller.
VHF Radiotelephone	Used for voice and DSC communications on the international marine VHF band. It also monitors CH70 with the built-in watch receiver and sends audio signal to the VHF DSC terminal for decoding DSC massages.
VHF DSC Terminal	Serves in initial calling sequences for distress and other DSC communications on VHF radiotelephone. It also decodes data received through CH70 board in the VHF (or in this unit for VHF DSC Terminal), and sends distress alert to the Distress Message Controller upon reception of a distress call. Further, it also activates distress call on the VHF radiotelephone under the remote control of the Distress Message Controller.
Inmarsat C SES	Sends and receives telex massages via satellites on stored-and-forward basis. It also handles distress messages.
NBDP Terminal	Sends and receives telex messages using MF/HF radiotelephone.
MF/HF Radiotelephone	Used for voice, telex, CW and DSC communications on MF and HF bands.
NAVTEX Receiver (NX-500)	Receives and prints navigational information sent from NAVTEX stations. Sends an alert signal to the Distress Message Controller upon reception of a SAR (Search And Rescue) message.
Control Panel (Controller)	Used for miscellaneous housekeeping controls for the radio console. (Light on/off, battery charger on/off, etc.)

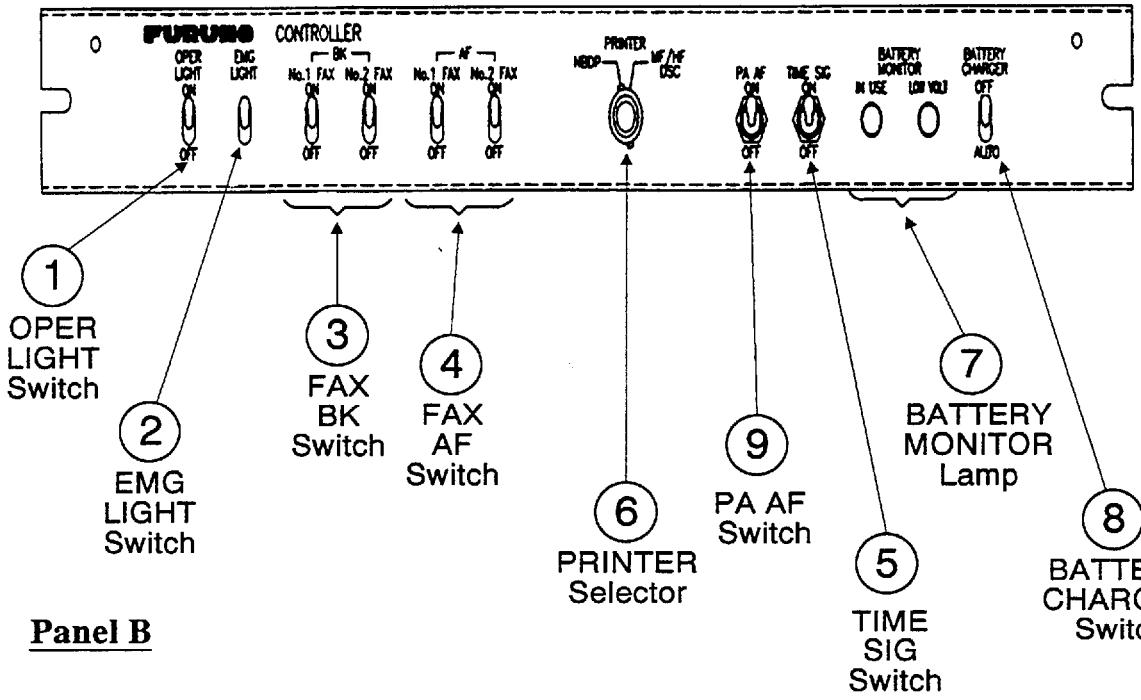
1-2. CONTROLLER (Console Control Panel)

1. Panel Layout

There are two types of control Panel as below.



Panel A



Panel B

2. Function of Switches and Lamps

① OPER LIGHT switch

Turns on and off the desk lamp (20W luminescence light) atop the radio console.

ON (up) : Light on **OFF**(down): Light off

The desk lamp will not light during the AC power failure. (Use the emergency light instead.)

② EMG LIGHT switch

Turns on and off the emergency lamp (20W tungsten lamp) atop the radio console. If an external emergency light switch is provided (at the entrance of the radio room), the emergency lamp can also be switched on and off by that remote switch. (Flipping the switch to the other side changes the state of the lamp; on or off. Upward position is not always on.) The emergency lamp can be used even when the AC power is alive.

③ FAX BK switch (No. 1 and No. 2)

Determines whether or not to deliver the break-in control signal from the MF/HF radiotelephone to facsimile receiver.

ON: Delivers beak-in signal of the MF/HF radiotelephone to facsimile receiver.
OFF: No break-in control for facsimile receiver

In general, this switch should be set to ON to protect the frontend of the facsimile receiver from being damaged by the RF induction. The switch may be set to OFF if the facsimile receiver is provided with the protective preamp unit and the antenna is located far apart from the MF/HF transmitter antenna.

④ FAX AF switch

Connects or disconnects the audio signal received on the MF/HF radiotelephone to the facsimile receiver. Turn this switch to ON to record facsimile charts using signals received on the MF/HF radiotelephone. Otherwise, set the switch to OFF.

⑤ TIME SIG switch

Connects or disconnects the audio signal received on the MF/HF radiotelephone to remote time signal speaker (usually installed on the bridge). When requested, turn this switch on to deliver standard time signal or any important information received on the radio.

ON: Remote speaker ON
OFF: Remote speaker OFF

⑥ PRINTER selector

Selects the input source equipment for the printer mounted on top-right of the radio console.

NBDP:	Connects the printer to the NBDP terminal.
MF/HF DSC:	Connects the printer to the MF/HF DSC terminal .
No.1 VHF DSC:	Connects the printer to No.1 VHF DSC terminal(left)
No.2 VHF DSC:	Connects the printer to No.2 VHF DSC terminal(right)

For general telex communications, set the switch to NBDP position. You may select the MF/HF DSC position to log communications made on MF/HF DSC terminal, or to print out the DSC's internal settings.
Do not turn the switch while printing. Garbled printout will result.

⑦ BATTERY MONITOR Lamp

IN USE lamp (AC power failure) [Orange]

Lights to alert that the AC power has failed and radio equipment are operating from the radio battery (DC) alone. When this lamp lights, only the equipment related to distress communications are powered. (MF/HF DSC watch receiver, 2182kHz watch receiver, printers and the desk lamp are off.)

LOW VOLT lamp [Red]

Lights to alert that the battery voltage is below 22.5VDC. (Audible alarm sounds until the voltage becomes 22.5VDC.)

⑧ BATTERY CHARGER switch

Turns on and off the battery charger. (The voltage meter is on the AC/DC Radio Switch Box.)

AUTO: Automatically turns on when the battery voltage is below 24VDC and turns off when the voltage exceeds 27.5VDC.

OFF: Disconnects the charger from the radio battery.

If the radio battery is MSE type (maintenance-free type), this switch may be set to AUTO always to keep the battery fully charged.

In the event of AC power failure, the radio battery automatically supplies power to the radio equipment regardless of this switch setting.

⑨ PA AF switch (AF signal for public addressor)

Turns on and off the audio signal of the MF/HF radiotelephone for the public addressor.

ON: AF signal of the radiotelephone is sent to the public addressor.

OFF: No AF signal of radiotelephone to the public addressor.

CHAPTER 2. OPERATING PROCEDURES

2-1. POWER ON/OFF

1. Power-on Sequence

To react immediately in distress situation, keep all the radio equipments powered during navigation.

1. At the AC/DC Radio Switch Box, turn on the breaker switches in the following sequence.

   1) Turn on the 440VAC (220VAC) SOURCE switch.
   2) Turn on the 100VAC SOURCE switch.
   3) Turn on the RADIO BATT. switch.
   4) Turn on all the other breaker switches for respective radio equipments.

2. At the Radio Console, turn on the power switches of all equipments.

3. Turn on the power switches of the other equipments related to the Radio Console. (GPS, Loran-C, etc.)

2. Power-off Sequence

To remove power from the radio system, turn off the equipments in the reverse order of the above power-on sequence. (last-on first-off)
Do not turn off the AC input switches (100/440VAC) before turning off the RADIO BATT switch. (The battery will be discharged otherwise.)

2-2. COMMUNICATIONS

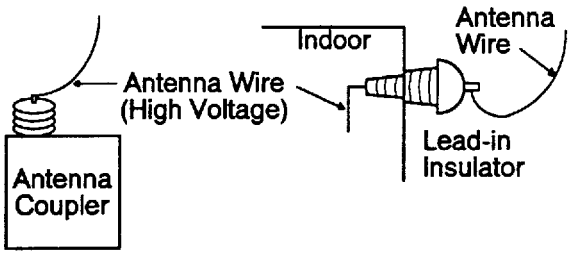
Refer to the separate operator's manuals for routine and distress communications on respective radio equipments. As for the distress calling procedures, you may refer to the separate short-form instruction cards.

⚠ DANGER

Never touch the MF/HF antenna, antenna coupler or lead-in insulator when the MF/HF radiotelephone is transmitting.

High voltage which can cause death is present at the above-mentioned locations when the MF/HF radiotelephone is transmitting.

Turn off the power before performing maintenance on the MF/HF antenna.



2-3. BATTERY CHARGING

During radio equipments are on, set the BATTERY CHARGER switch to AUTO at the Controller Panel of the Radio Console.

Note: If the AC power has failed, the radio battery automatically supplies power to the radio equipments regardless of the BATTERY CHARGER switch setting. The battery will not be consumed as long as the AC powers are alive.

2-4. MISCELLANEOUS OPERATIONS (at CONTROLLER)

1. Sending Audio Signal to Time Signal Speaker

When someone in the bridge needs standard time signal (for setting clock), send the receiver audio signal to the time signal speaker.

1) Tune the MF/HF receiver (MF/HF radiotelephone) for the signal requested by person at the remote speaker. (Standard time signal, weather forecast, navigational information, etc.)

2) Turn on the TIME SIG switch.

3) As necessary, adjust the sound volume at the remote speaker. (The volume control on the radiotelephone has no effect on the remote speaker volume.)

4) To stop sending signal, turn off the TIME SIG switch.

2. Sending Audio Signal to Facsimile Receiver

The built-in receiver of facsimile recorder will provide reasonable recordings in most cases. If facsimile signal is stronger and clearer on the MF/HF receiver or facsimile transmitting frequency has changed temporarily, you can send the audio signal of the MF/HF radiotelephone to the facsimile recorder.

1) Set up the facsimile recorder to accept an external AF input.

2) Tune the MF/HF receiver (MF/HF radiotelephone) to your desired facsimile frequency. (USB mode)

3) Turn on the FAX AF switch.

4) Operate the facsimile recorder to start recording.

5) As necessary, fine-tune the MF/HF receiver to obtain the best recording. If picture is recorded with black/white reversed, use the LSB mode. If you get heavy interference, try to use CW or TLX mode for narrow passband.

6) When finished recording, turn off the FAX AF switch.

3. Disabling Break-in Control of Facsimile Receiver

In general, all the MF/HF receiving equipments are BK-controlled for protection against high power induction from the MF/HF transmitter.

Under the following conditions, however, the BK control to facsimile receiver may be disabled to obtain clean recordings without Tx interruptions.

- o The facsimile receiver is provided with the protective preamp unit.
- o Facsimile antenna is located far apart from the transmitting antenna.
- o Transmitting and receiving frequencies are far apart, and they are not in harmonic relation.

If the above conditions are not fulfilled, do not set the FAX BK switch to OFF. Otherwise, the facsimile receiver may be damaged due to high power RF induction.

1) Turn off the FAX BK switch.

2) Try not to transmit on the MF/HF radiotelephone during reception of facsimile signals.

3) When finished, set the FAX BK switch back to ON position.

CHAPTER 3. MAINTENANCE

3-1. ROUTINE MAINTENANCE

Make the following checks regularly to maintain optimum performance. (As for the maintenance of individual radio equipments in the radio console, refer to the manuals provided for respective units.)

Before checking, make sure the power is off at the ship's mains switchboard.

⚠ WARNING

Do not open the equipment.

This equipment uses high voltage electricity which can shock, burn or cause serious injury. Only qualified personnel should work inside the equipment.

Do not disassemble or modify the equipment.

Fire, electrical shock or serious injury can result.

Turn off the power immediately if water leaks into the equipment or the equipment is emitting smoke or fire.

Continued use of the equipment can cause fire or electrical shock.

CHECK POINTS		PROCEDURE
Antenna	Lead-in Insulator/ Strain Insulators	Remove dirt or salt accumulation on all the insulators. (Replace if cracked.)
	Shackle/Thimble	Remove rust on metallic antenna materials. (Replace if corroded heavily.)
	Whip Antenna	Check antenna wire/coaxial cable connections. (Polish and reconnect if corroded.)
Ground	Grounding Strap	Check copper strap connections. (Polish and reconnect if corroded.)
	Cable Armor	Check clamping condition of cable armor. (Fasten tightly if loosened.)
Wire Connections	Terminal Boards	Check wire connections at terminal boards. (Polish if corroded. Fasten firmly if loosened. --- Carefully check the battery lines.)
	Connectors	Check connectors of each component unit. (Tighten if loosened.)

3-2. SELF-TESTS

It is requested by law to check the performance of the equipments related to DSC communications at least once a day during navigation.

Carry out the self-tests provided on respective equipments, referring to their separate operator's manuals. Note that when you conduct the self-test of the DSC terminal, set the frequency of MF/HF Radiotelephone other than 2182kHz. Otherwise, "NG" appears in the test result.

SPECIFICATIONS

1. Radio Console Components:

The following components are selectable.
1) Inmarsat-C SES with printer
2) SSB Radiotelephone
3) NBDP Terminal
4) MF/HF DSC Terminal
5) MF/HF DSC Watch Receiver
6) VHF Radiotelephone with CH 70 watch receiver
7) VHF DSC Terminal
8) 2182kHz Watch Receiver
9) Navtex Receiver
10) Printer

2. Power Supply:

Main Source	100/110/115/220/230VAC, 1 ϕ , 50/60Hz
Reserve Source	24VDC, 130A (200AH battery)
Battery Charger Source	220/440VAC, 1 ϕ /3 ϕ , 50/60Hz

3. Environmental Condition:

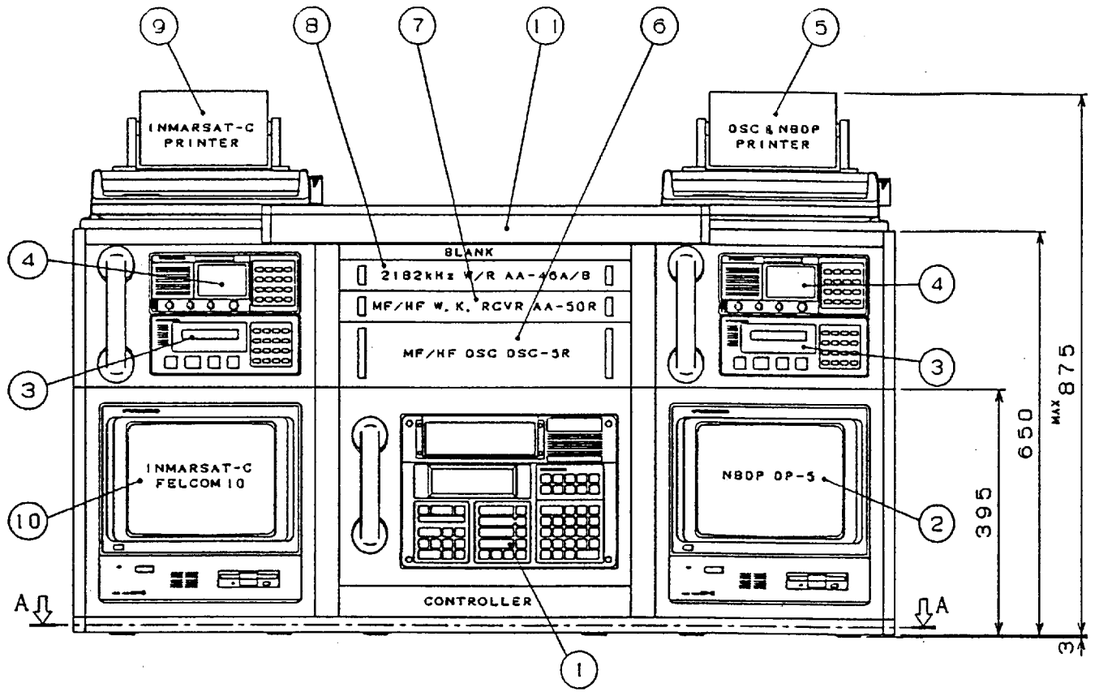
Ambient Temperature;	- 15 ℃ to +55 ℃
Relative Humidity;	95% at 40 ℃

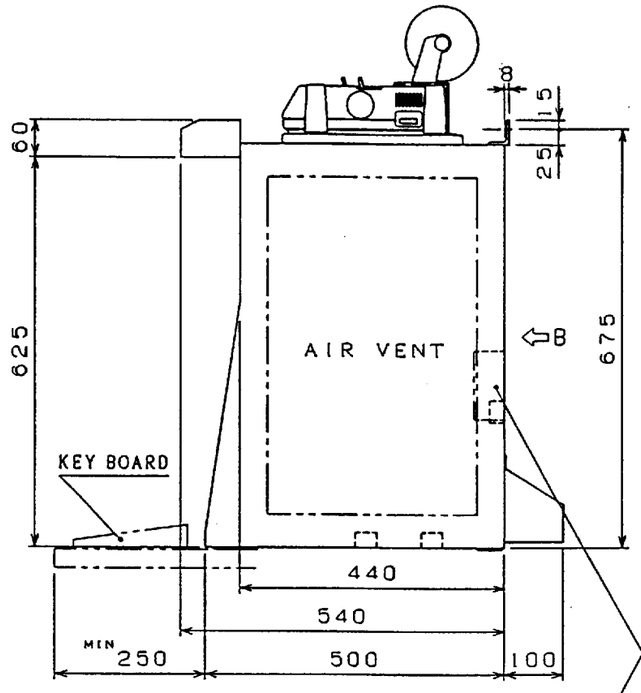
4. Dimensions

Main console;	1360 (W) × 875 (H) × 500 (D)mm
Power supply;	520 (W) × 890 (H) × 530 (D)mm

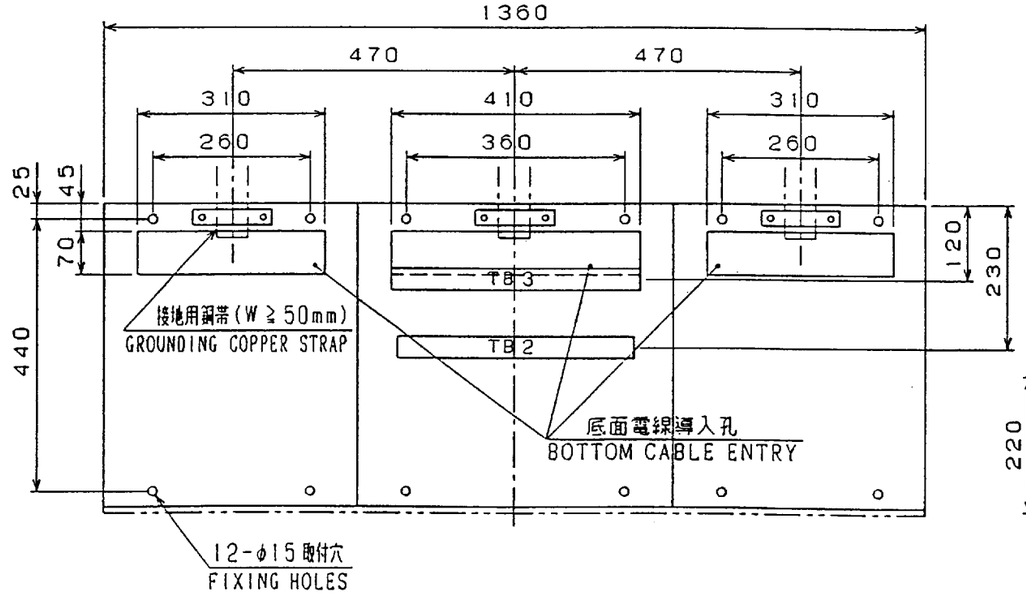
FURUNO

D-1

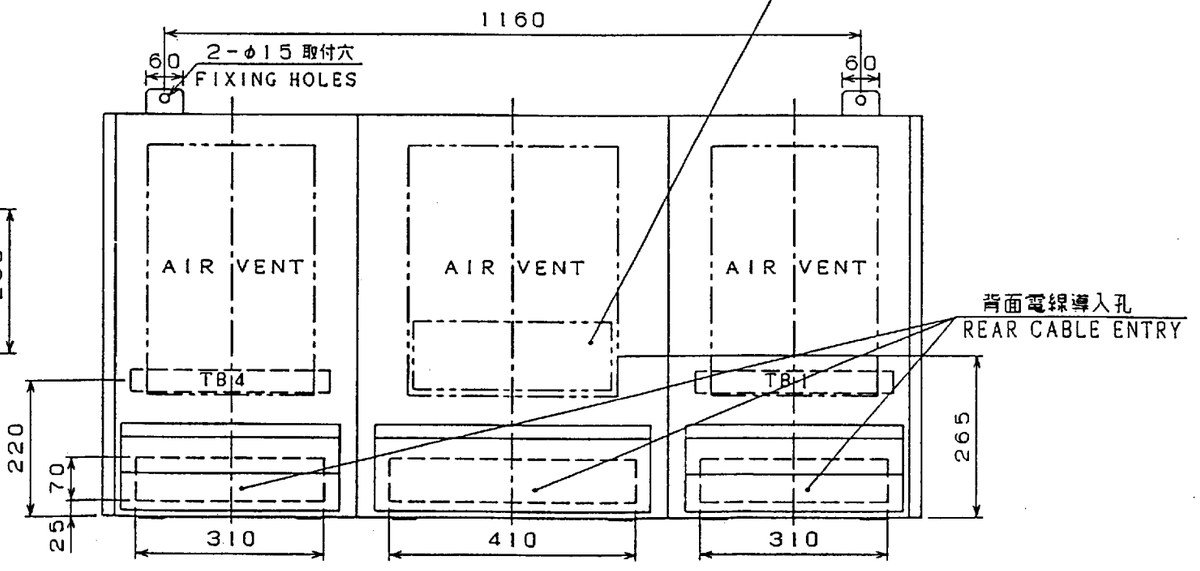




No.	NAME	MODEL
11	ILLUMINATION LAMP	
10	INMARSAT-C TERMINAL	FELCOM 10
9	INMARSAT-C PRINTER	PP-500
8	2182kHz WATCH RECEIVER	AA-46A/B
7	MF/HF DSC RECEIVER	AA-50R
6	MF/HF DSC TERMINAL	DSC-5R
5	DSC&N8DP PRINTER	PP-500
4	MARINE VHF RADIOTELEPHONE	FM-7000
3	VHF DSC TERMINAL	DSC-5
2	N8DP TERMINAL	DP-500
1	SSB CONTROLLER/FS-5000C	FS-5000/8000



本体取付寸法図（断面A－A）
MOUNTING DIMENSIONS(A-A SECTIONAL VIEW)

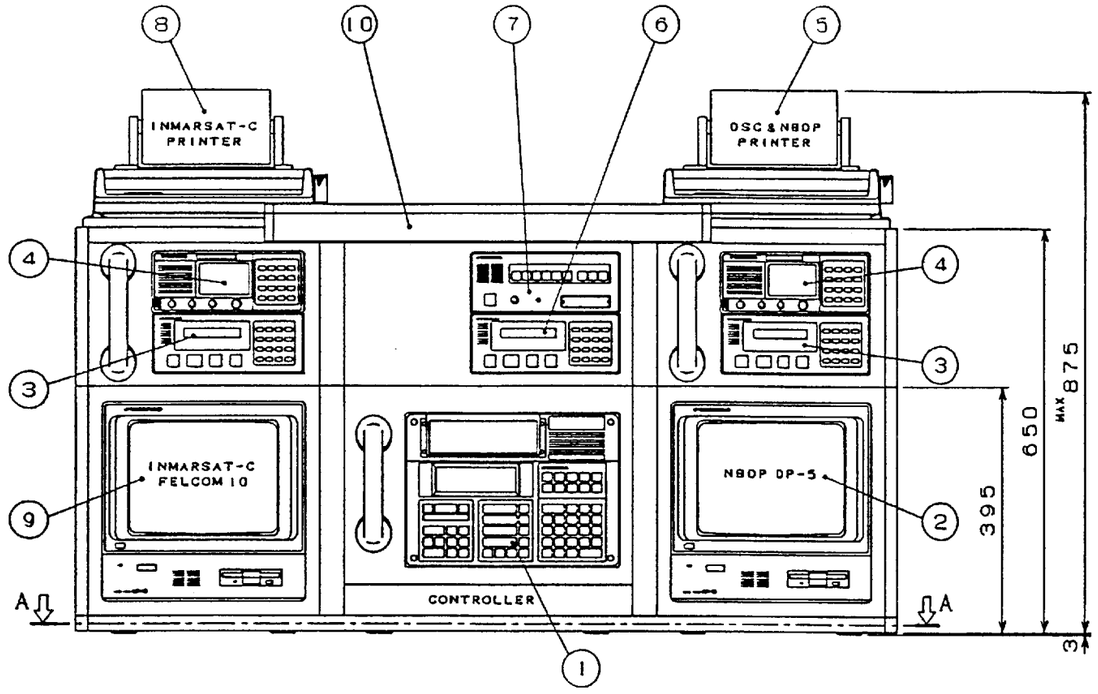


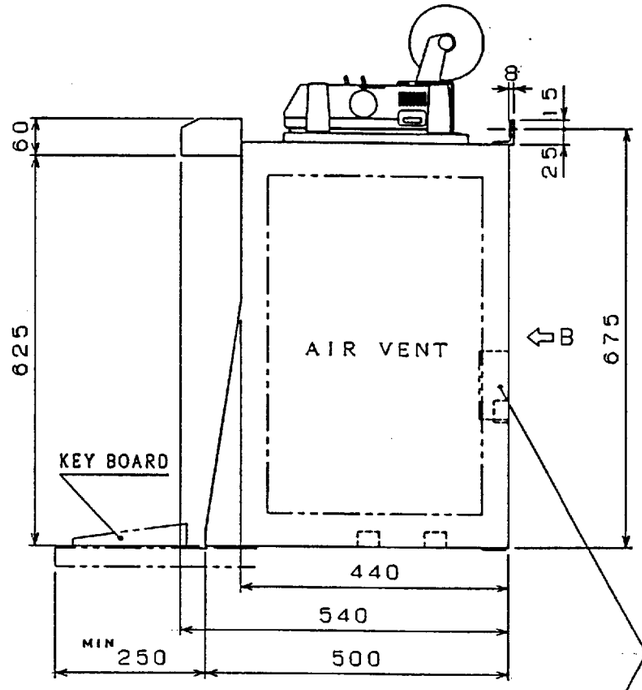
矢視 B
B VIEW

注）ケーブル導入口は、背面 又は 底面の何れか選択可能。
NOTE : SELECT THE CABLE ENTRY EITHER REAR PANEL OR BOTTOM.

品番 ITEM	品名 NAME	材質 MATERIAL	数量 Q'TY	図番 DWG.NO.	摘要 REMARKS
承認 APPROVED	三角法 THIRD ANGLE PROJECTION	名称 TITLE	RC-5000-3T 卓上型無線コンソール RC-8000-3T RADIO RACK CONSOLE (TABLETOP MOUNT)		
検図 CHECKED	尺度 SCALE 1/10				
製図 DRAWN	質量 MASS 120 kg	図番 DWG.NO.	C5556-G03-C		

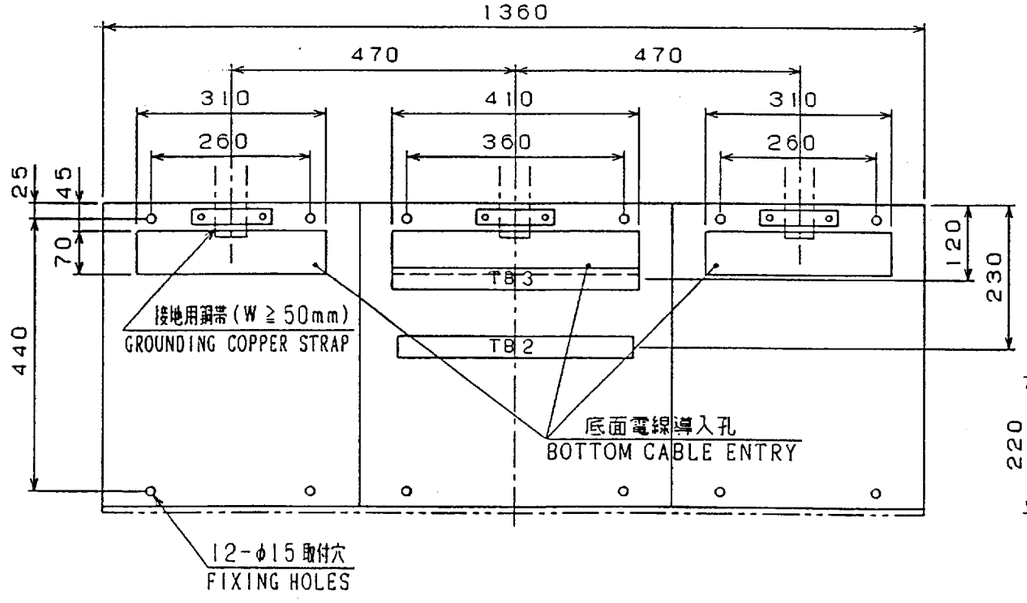
FURUNO ELECTRIC CO., LTD.



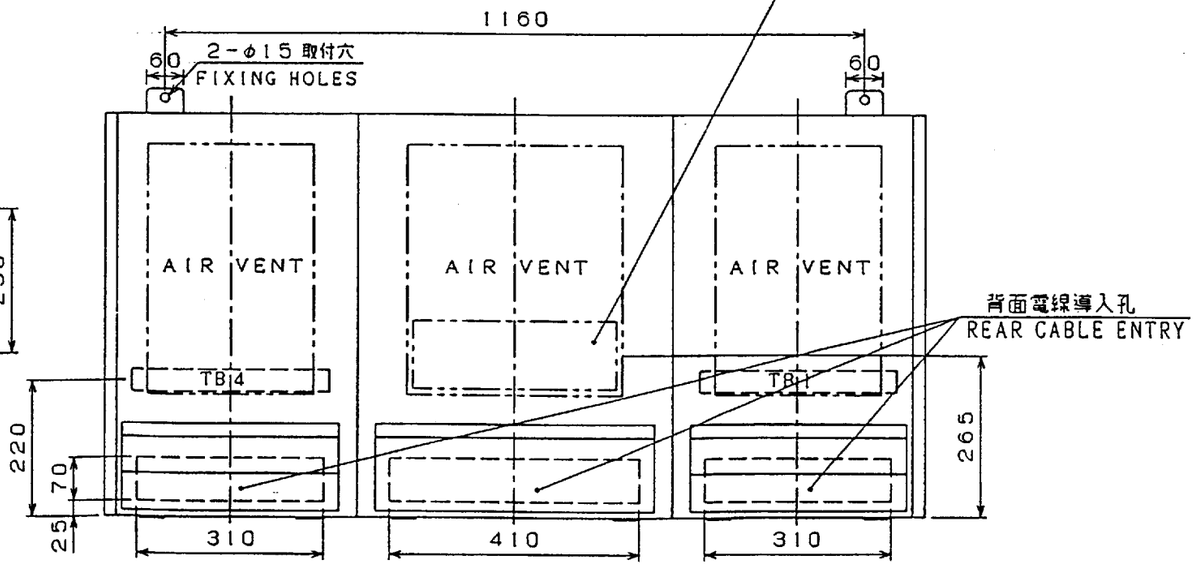


No.	NAME	MODEL
10	ILLUMINATION LAMP	
9	INMARSAT-C TERMINAL	FELCOM 10
8	INMARSAT-C PRINTER	PP-500
7	MF/HF DSC RECEIVER	AA-50
6	MF/HF DSC TERMINAL	DSC-5
5	DSC&NBDP PRINTER	PP-500
4	MARINE VHF RADIOTELEPHONE	FM-7000
3	VHF DSC TERMINAL	DSC-5
2	NBDP TERMINAL	DP-500
1	SSB CONTROLLER/FS-5000C	FS-5000/8000

空中線接続コネクタ
ANTENNA CONNECTORS



本体取付寸法図（断面Ａ－Ａ）
MOUNTING DIMENSIONS (A-A SECTIONAL VIEW)

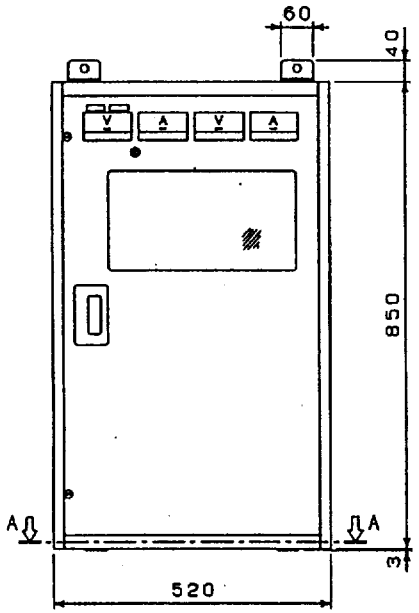


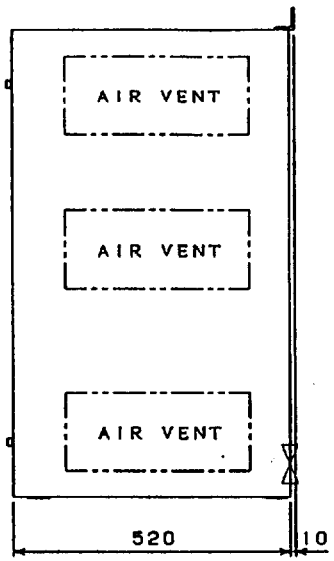
矢視 B
B VIEW

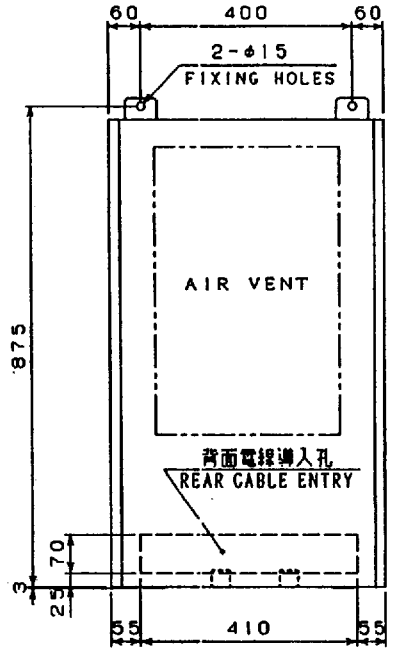
注）ケーブル導入口は、背面 又は 底面の何れか選択可能。
NOTE : SELECT THE CABLE ENTRY EITHER REAR PANEL OR BOTTOM.

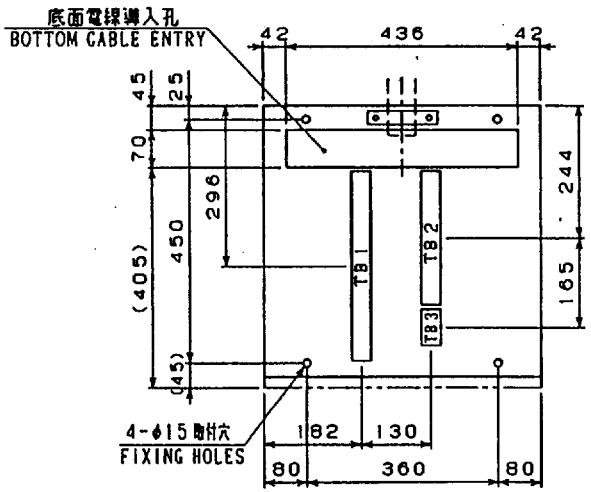
品番 ITEM	品名 NAME	材質 MATERIAL	数量 Q'TY	図番 DWG.NO.	摘要 REMARKS
承認 APPROVED		三角法 THIRD ANGLE PROJECTION		名称 TITLE	RC-5000-3T 卓上型無線コンソール RC-8000-3T RADIO RACK CONSOLE (TABLETOP MOUNT)
検図 CHECKED		尺度 SCALE	1/10		
製図 DRAWN		質量 MASS	120 kg	図番 DWG.NO.	C5556-G04-D

FURUNO







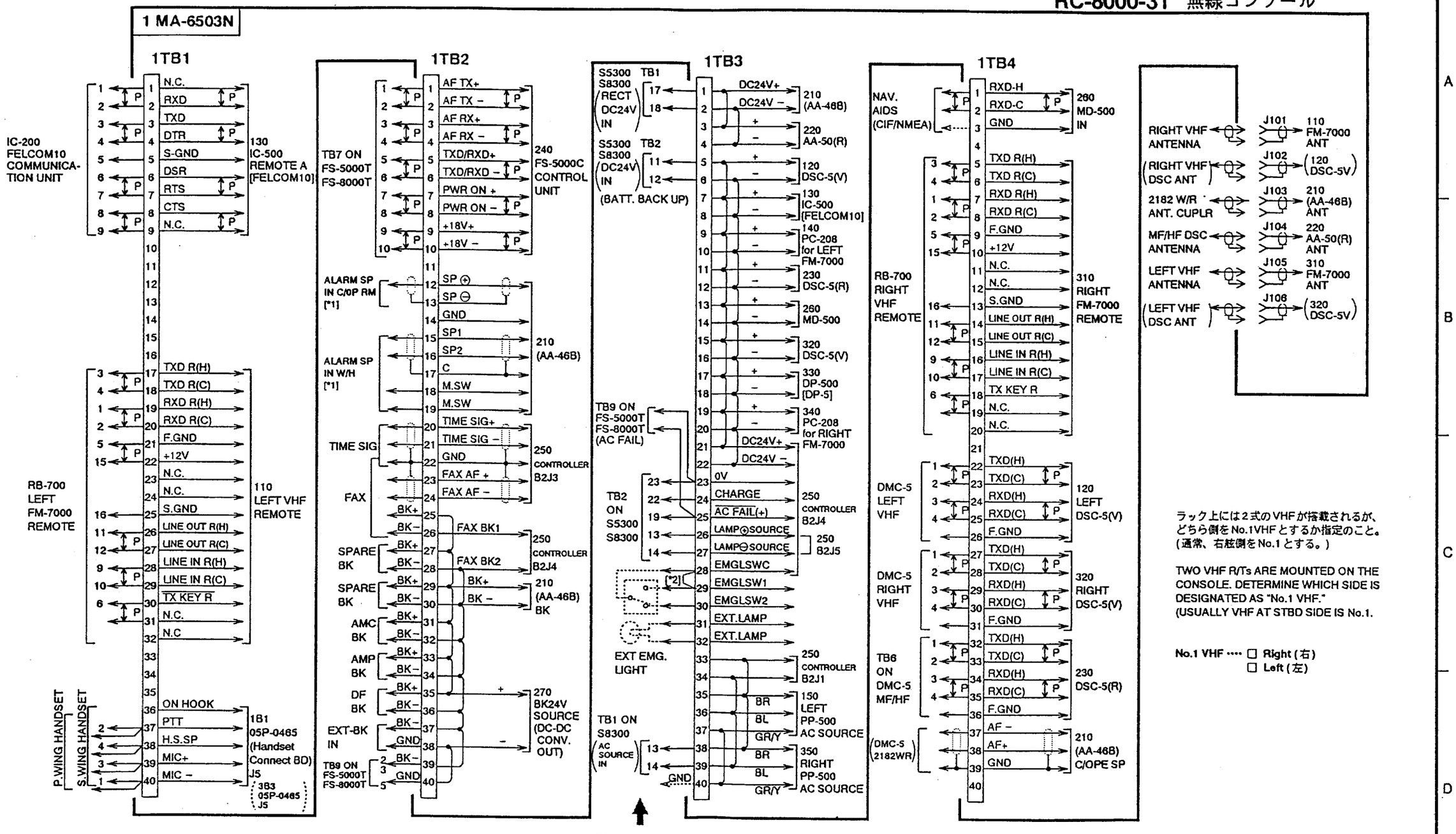


本体取付寸法図（断面A－A）
MOUNTING DIMENSIONS (A-A SECTIONAL VIEW)

REMARKS				TYPE S5300/8300
DRAWN	APPROVED Ikeda July 14'94			名称 無線スイッチボックス
				NAME AC/DC RADIO SWITCH BOX
SCALE	MASS 85/110 kg	APPLICABLE TO: (MODEL)	BLOCK NO.	DWG NO. C5556-G02- C

D-3

RC-5000-3T RADIO CONSOLE
RC-8000-3T 無線コンソール



ラック上には2式のVHFが搭載されるが、どちら側をNo.1VHFとするか指定のこと。
(通常、右舷側をNo.1とする。)

TWO VHF R/Ts ARE MOUNTED ON THE CONSOLE. DETERMINE WHICH SIDE IS DESIGNATED AS "No.1 VHF."
(USUALLY VHF AT STBD SIDE IS No.1.

No.1 VHF ···· ☐ Right (右)
☐ Left (左)

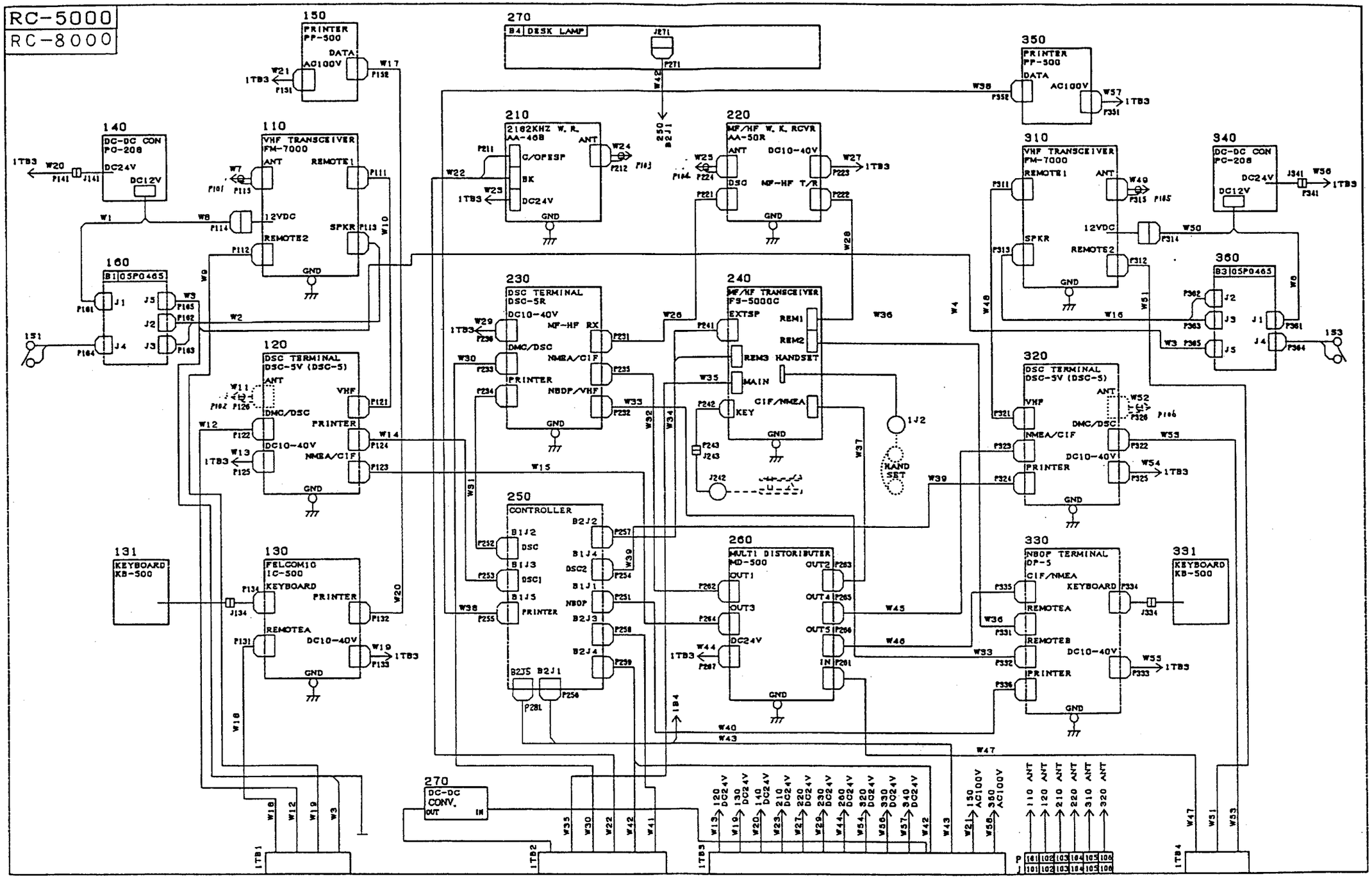
NOTE:
[*1] 通常2182kHzのALARM SPの接続は不要。
IT IS NOT COMPULSORY TO CONNECT EXTERNAL ALARM SPEAKERS FOR 2182kHz WATCH KEEPER. (ALARM CAN BE MONITORED ON DMC-5.)
[*2] 非常灯の外部スイッチを付けない場合は、TB3の#28-#29間にジャンパを接続する。
CONNECT A JUMPER LINK BETWEEN TB3 #28 AND #29, IF NO EXTERNAL SWITCH FOR EMG LAMP IS INSTALLED.

TB1/2:
電源配電盤上の端子台
TERMINAL BOARDS ON RADIO SWITCH BOX

承認 APPROVED	MAY·13·'93 M.IKEDA	名称 TITLE	TERMINAL CONNECTIONS (GENERAL)
検図 CHECKED	MAY·13·'93 T.SAITO		RC-5000-3T RC-8000-3T 端子台接続図(総合)
製図 DRAWN	MAY·13·'93 Y.HAMANO	図番 DWG.NO	C5556 − K06 − D

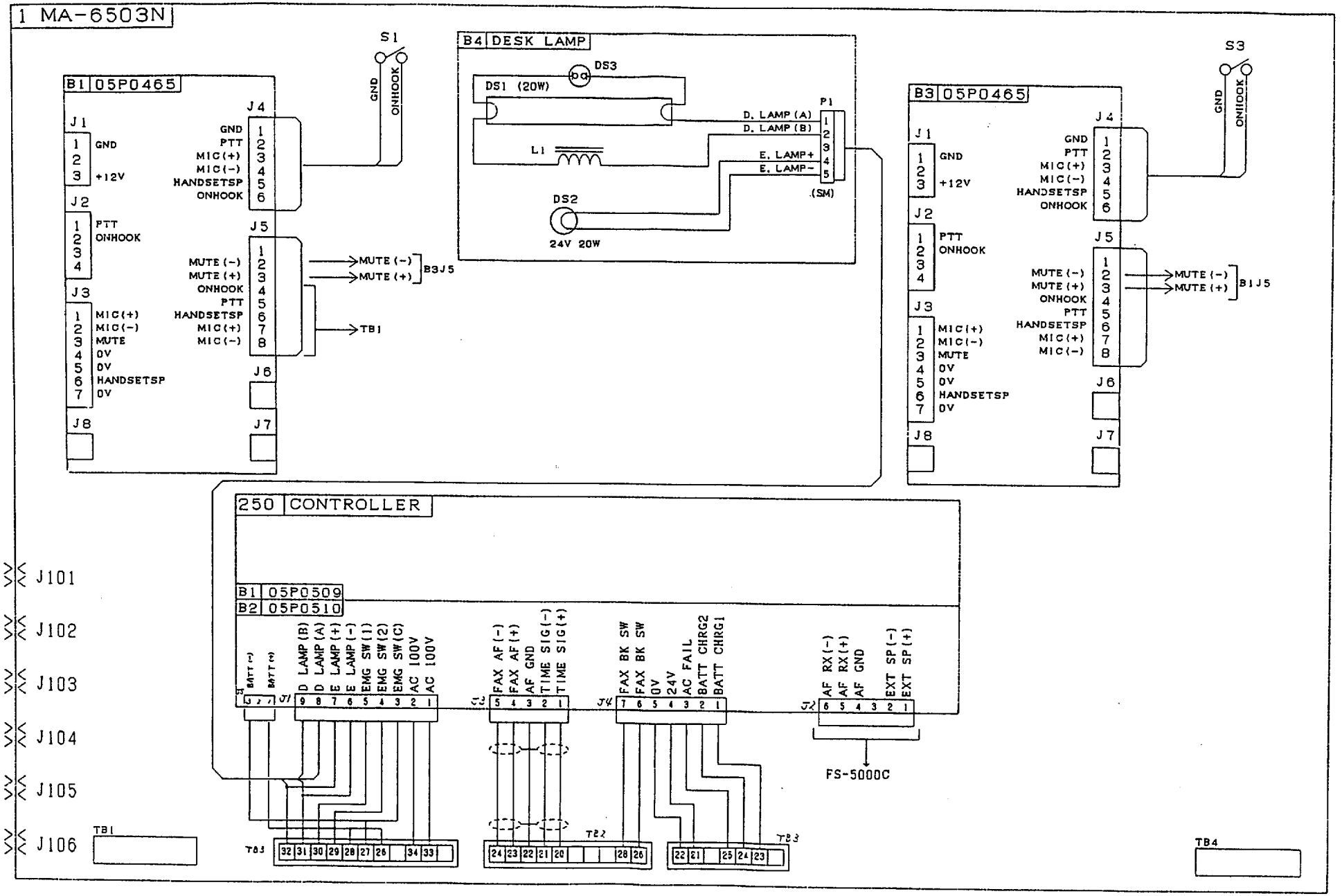
FURUNO ELECTRIC CO., LTD.

RC-5000
RC-8000



変更通知書番号	符号	訂正年月日	訂正記事	担当
	△	. .		
	△	. .		
	△	. .		
	△	. .		
	△	. .		

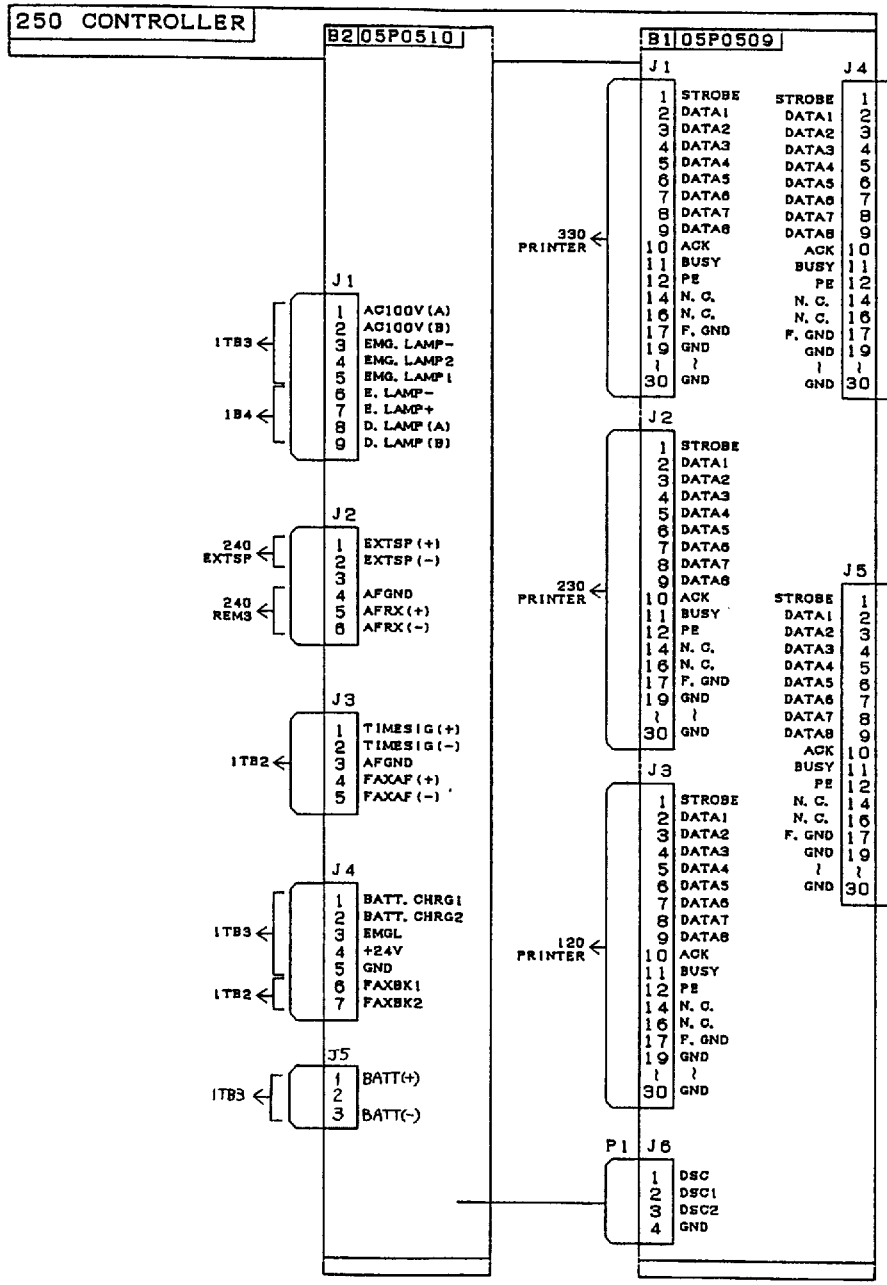
主機種	RC-5000 RC-8000	コード		SHEET NO.	
課長	検図	設計	製図	分類	名称 RC-5000/8000-3T INTERNAL CONNECTION(1/3)
前原 4.6.11 大助	前原 92.6.11	92.6.10	92.6.10 前原		図番 C5556-K02-C (05 001 20711)



変更通知書番号	符号	訂正年月日	訂正記事	担当
	△	. .		
	△	. .		
	△	. .		
	△	. .		

主機種	RC-5000	コード				SHEET NO.	
課長	検図	設計	製図	分類	名称	RC-5000/8000-3T INTERNAL CONNECTION(2/3)	
					図番	C5556-K03-B (05001207111)	

S-13



変更通知書番号	符号	訂正年月日	訂正記事	担当
	△	. .		
	△	. .		
	△	. .		
	△	. .		

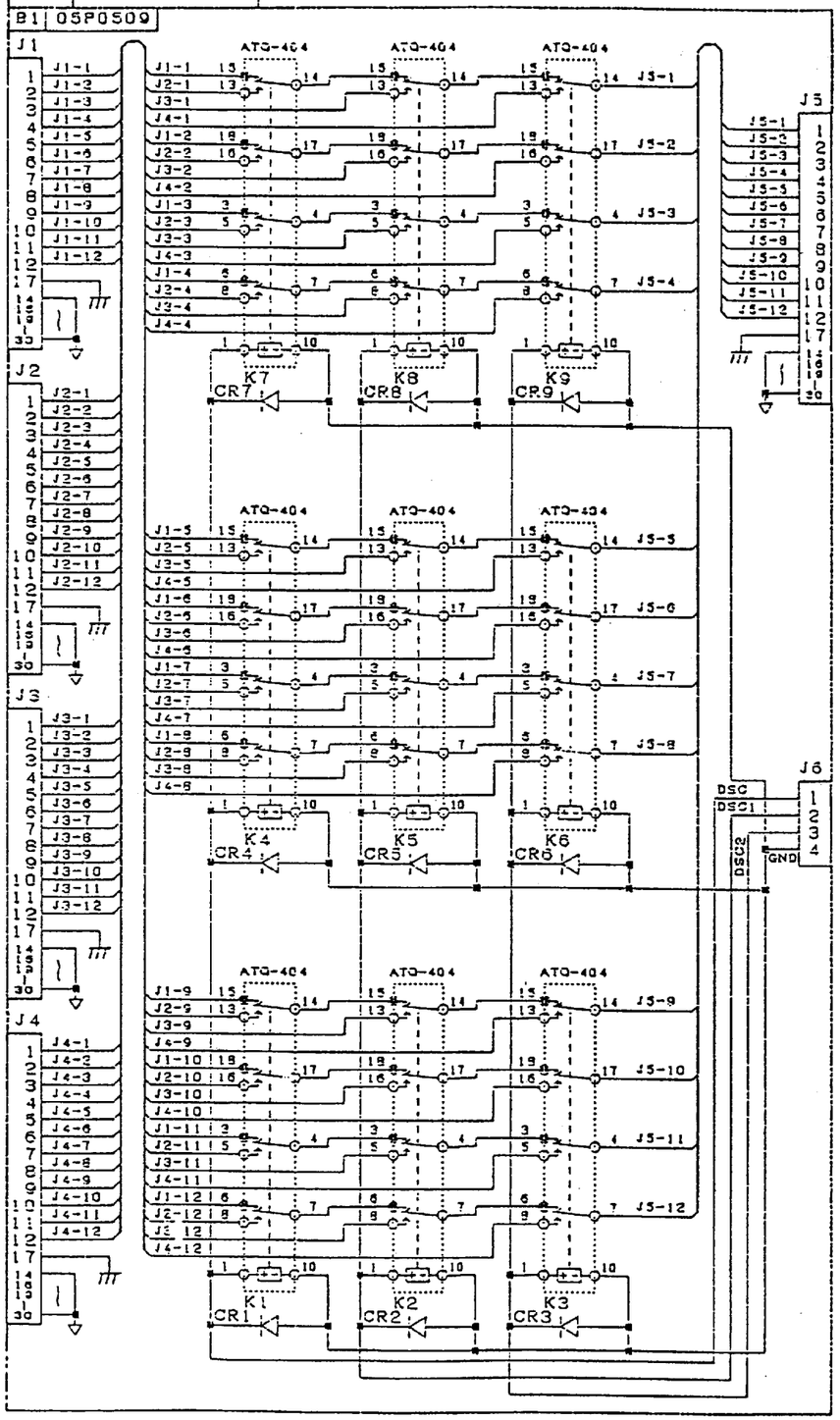
主機種	RC-5000	コード		SHEET NO.
		型名		

課長	検図	設計	製図	分類	名称	RC-5000/8000-3T INTERNAL CONNECTION(3/3)
3.12.18 大島	99.12.3	99.12.3	99.12.3		図番	C5556-K04-β (05 001 20711)

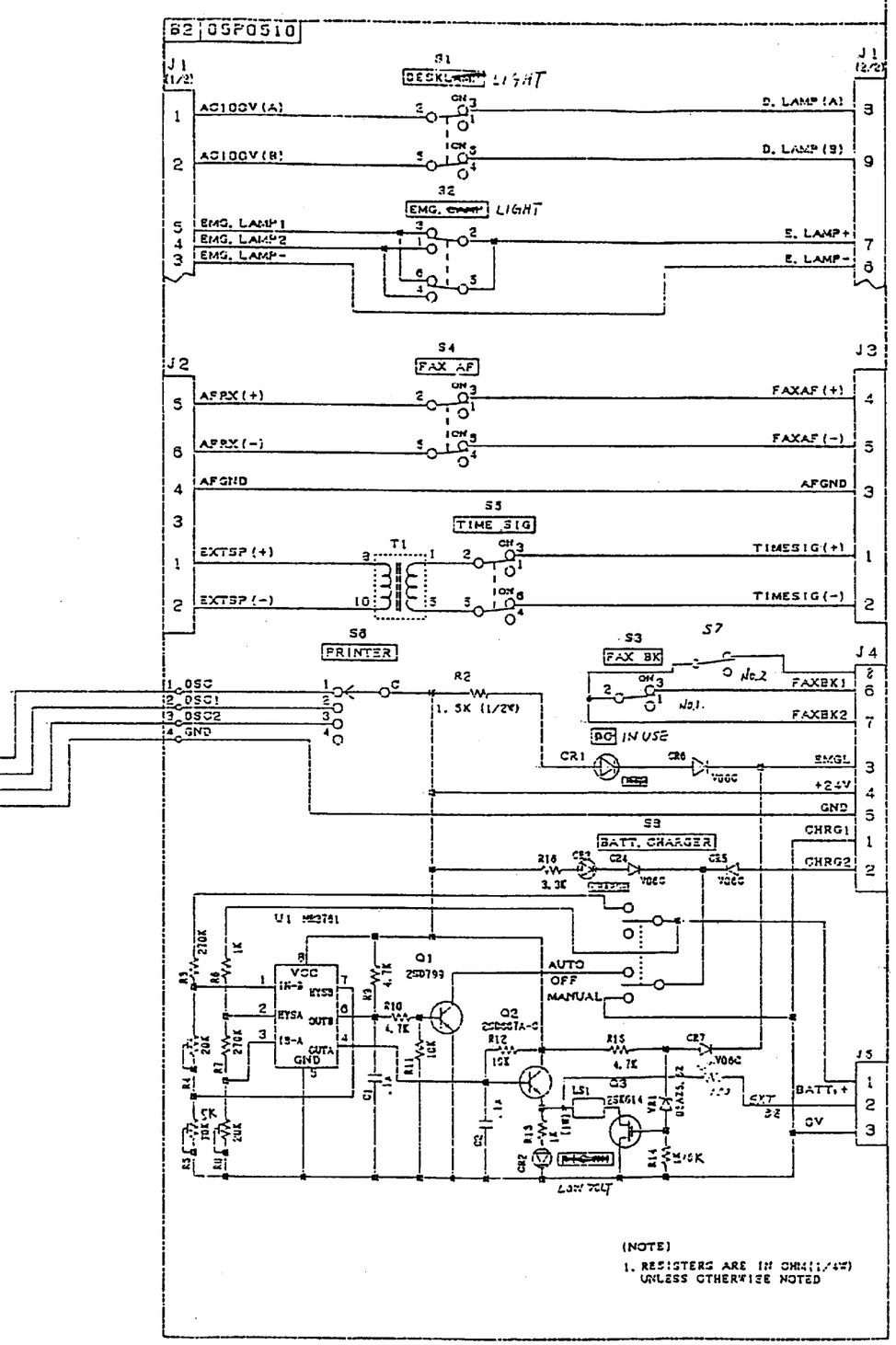
U 1 4

250 CONTROLLER

B1 05P0509



B2 05P0510



(NOTE)

1. RESISTERS ARE IN OHM(1/4W) UNLESS OTHERWISE NOTED

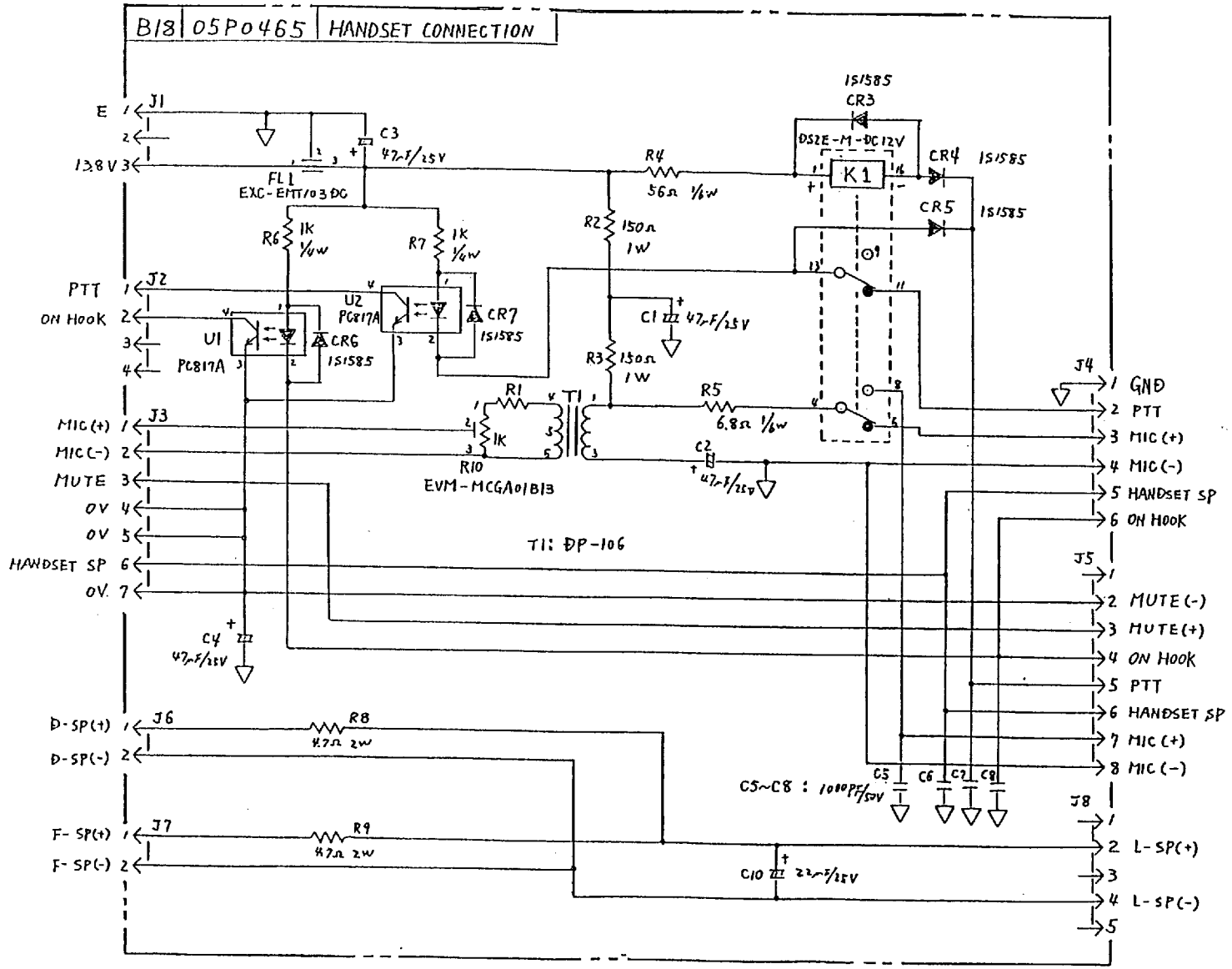
(RC-5000/8000-3T)
(RC-8000-3T-6)

変更通知書番号	符号	訂正年月日	訂正記事	担当

主機種	RC-5000	コード			SHEET NO.	
		型名				
課長	検図	設計	製図	分類	名称	RC-5000/8000-3T CONTROLLER PANEL
3.12.18		9.12.5	9.12.5		図番	C5556-K05-B

古野電気株式会社

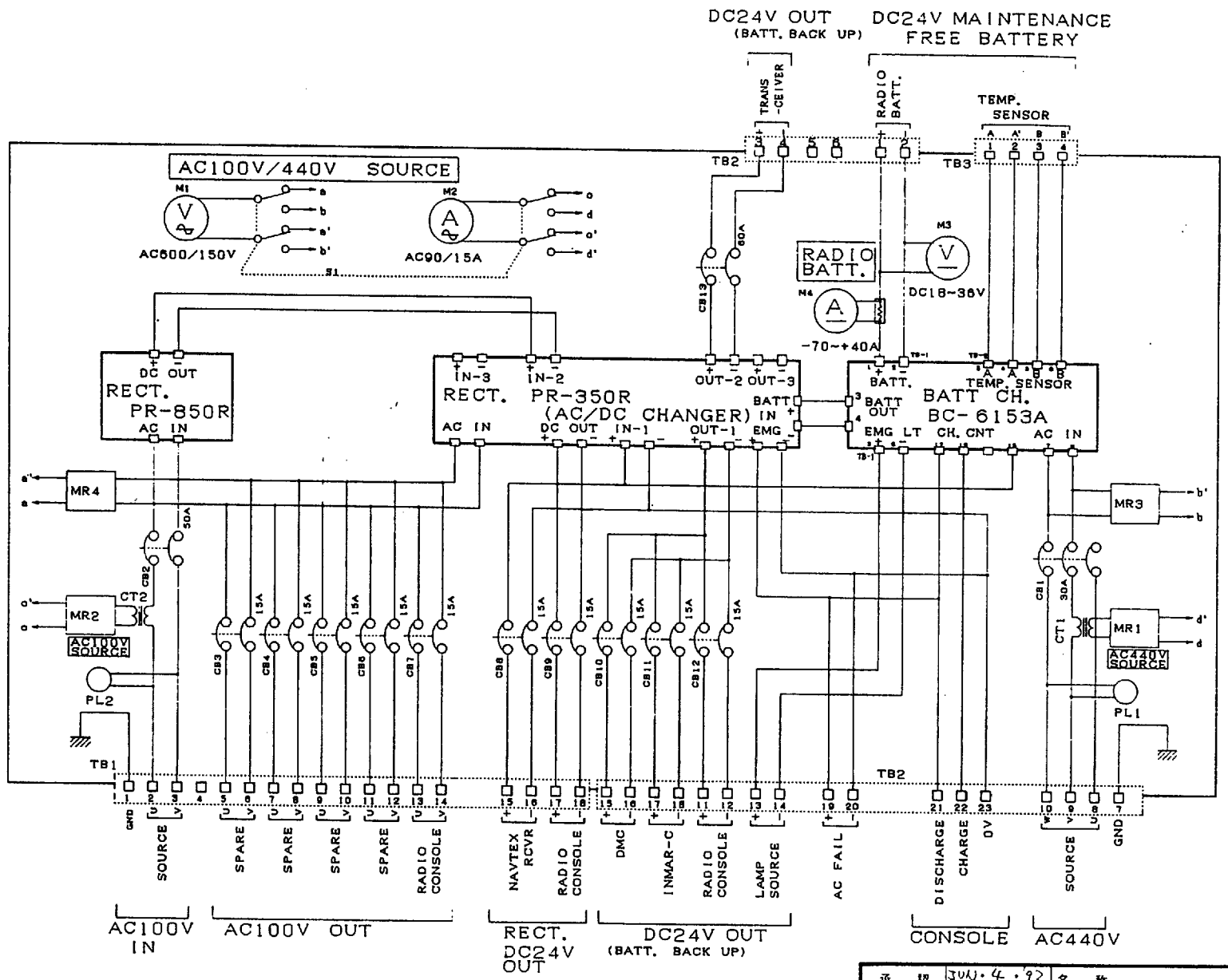
FURUNO



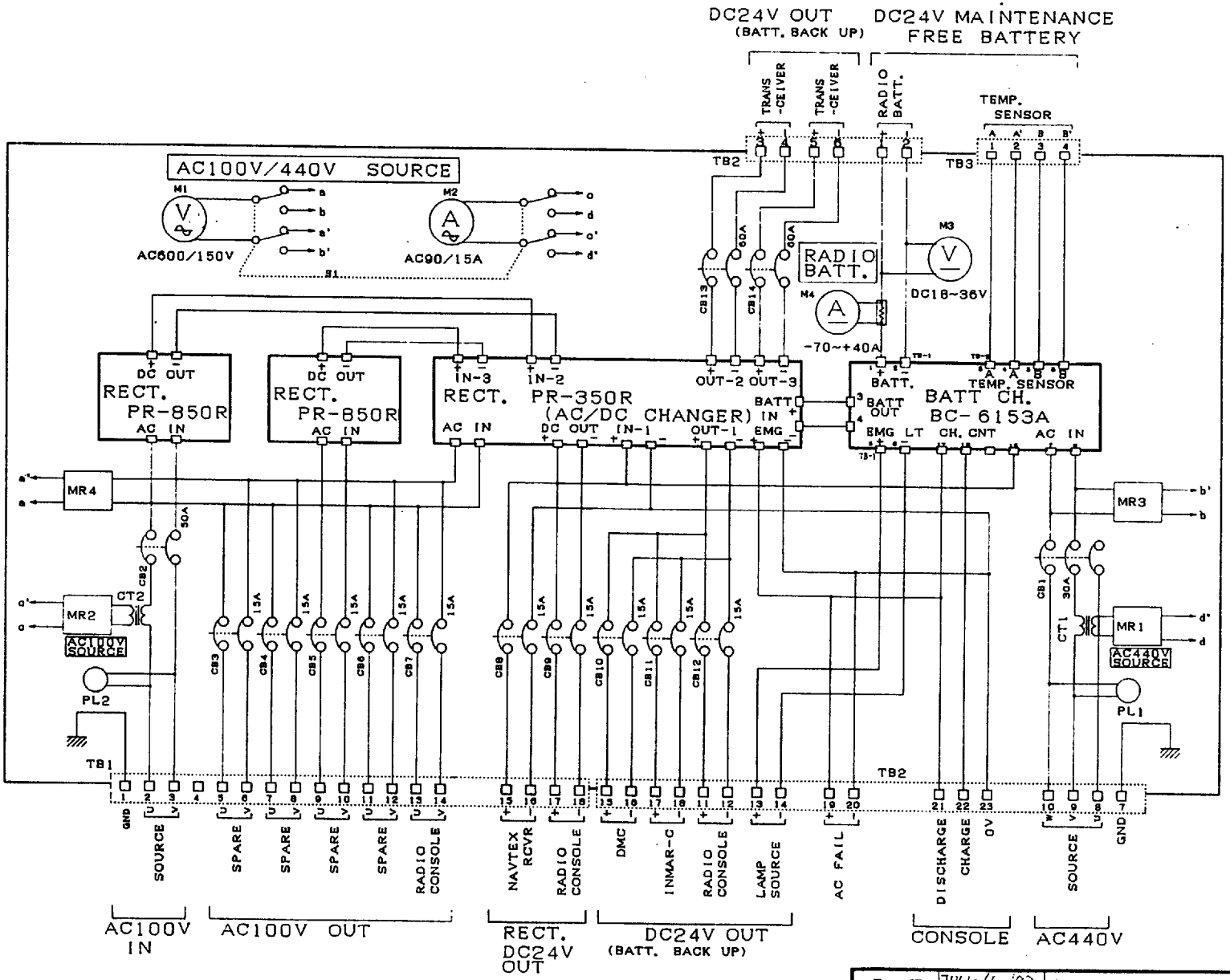
承認 APPROVED	Nov·12·'91 T.NAKANO	名称 TITLE B18 05P0465	ハンドセット接続基板 HANDSET CONNECTION BOARD
検図 CHECKED	Nov·12·'91 M.IKEDA		
製図 DRAWN	Nov·8·'91 M.OSAKO	図番 DWG.NO.	C5537-K05-B

FM-7500

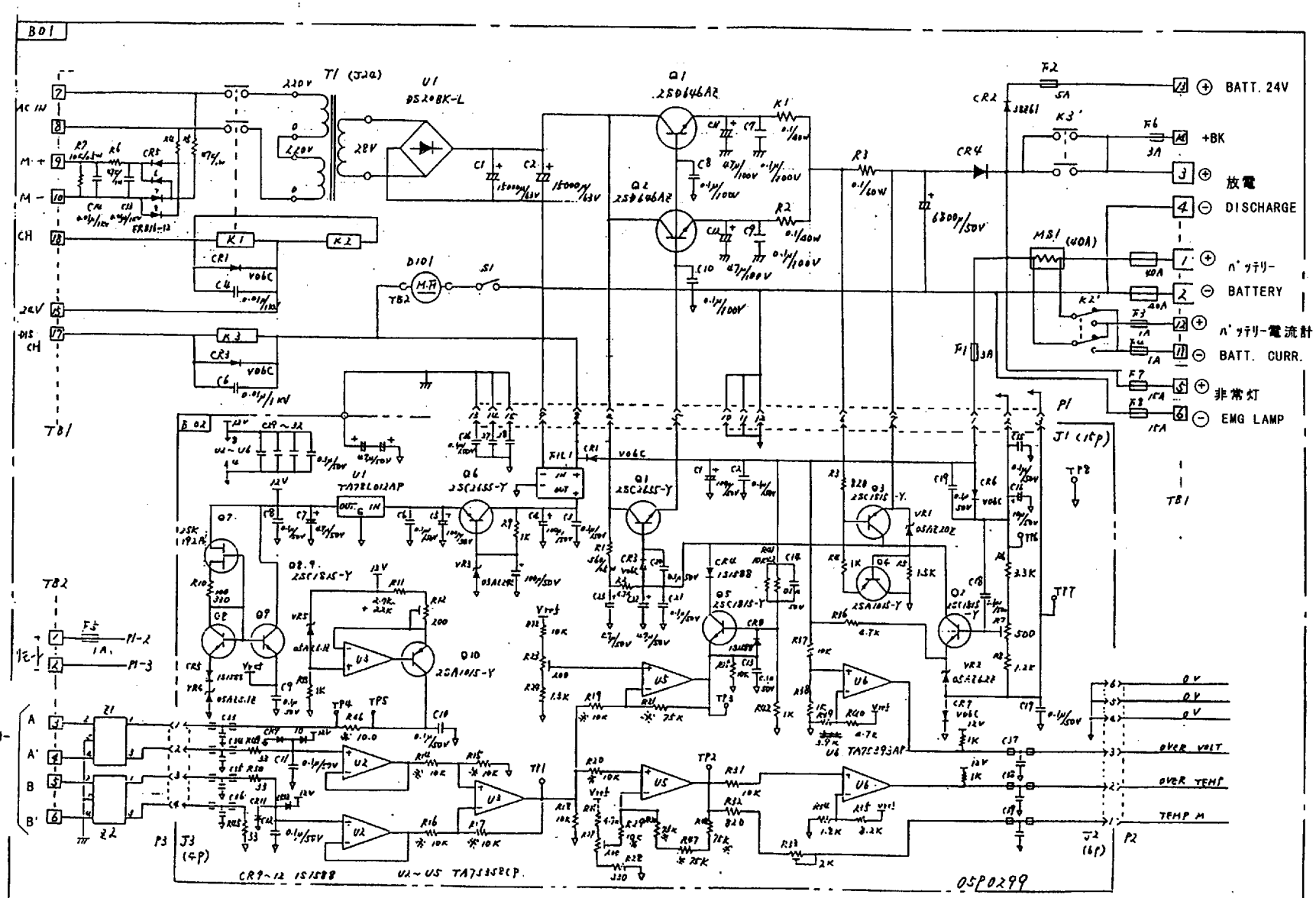
FURUNO



承認 APPROVED	JUN・4・'92 T.NAKAJO	名称 TITLE	AC/DC CHANGEOVER UNIT (AC/DC RADIO SWITCH BOX)
検図 CHECKED	June・4・'92 M.IKEDA	S-5300	無線配電盤
製図 DRAWN	Jun・04・'92 K.Kusunoki	図番 DWG.NO.	C5075 – K05 – B



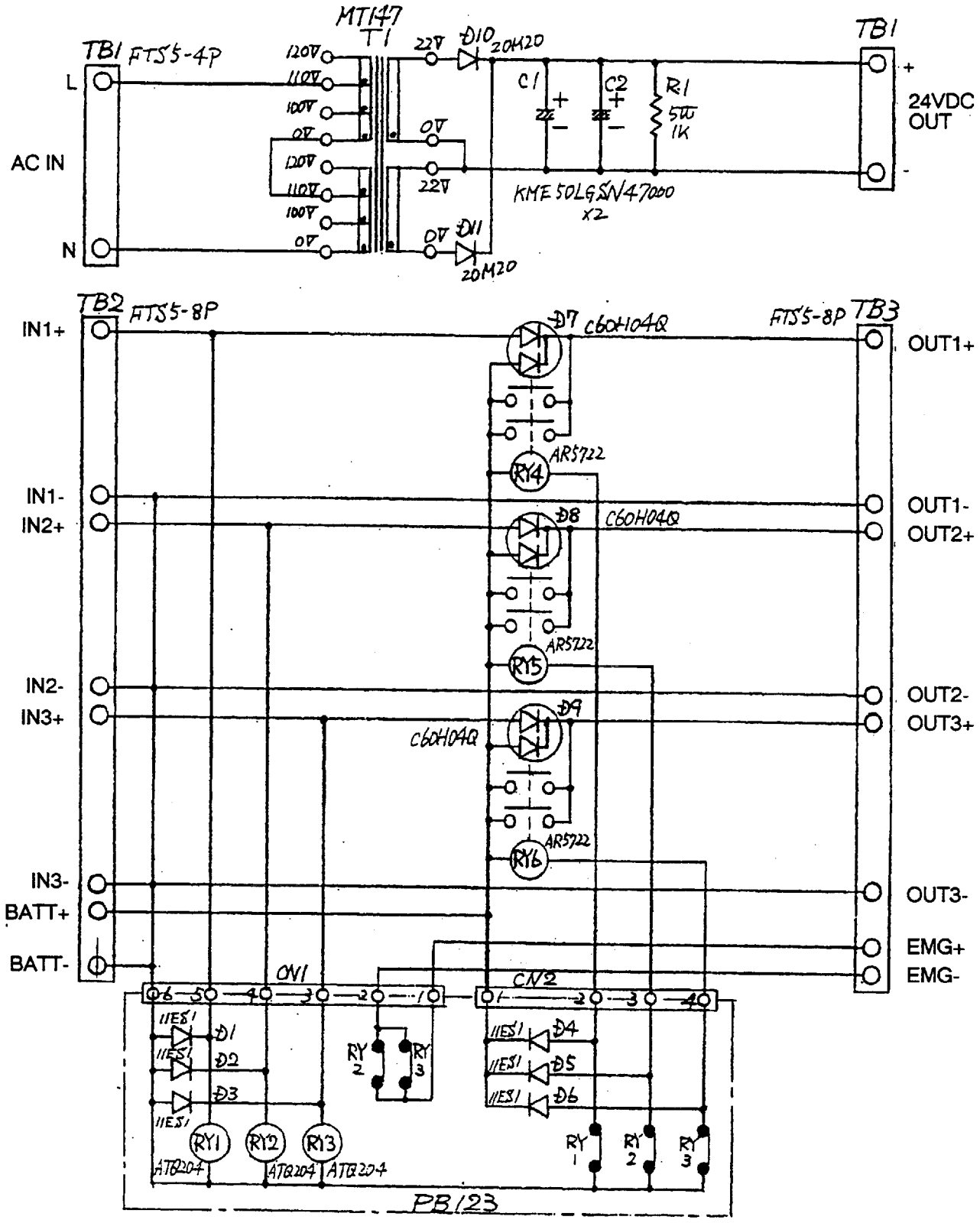
承認 APPROVED	Jul. 4. '92 T.NAKANO	名称 TITLE	AC/DC CHANGEOVER UNIT (AC/DC RADIO SWITCH BOX)
検図 CHECKED	Jun. 4. '92 M. IKUDA	S-8300 無線配電盤	
製図 DRAWN	Jun. 04. '92 K. Kusunoki	図番 DWG. NO.	C5075 – K04 – B



注). 表印の抵抗は、誤差 ±1%とする。

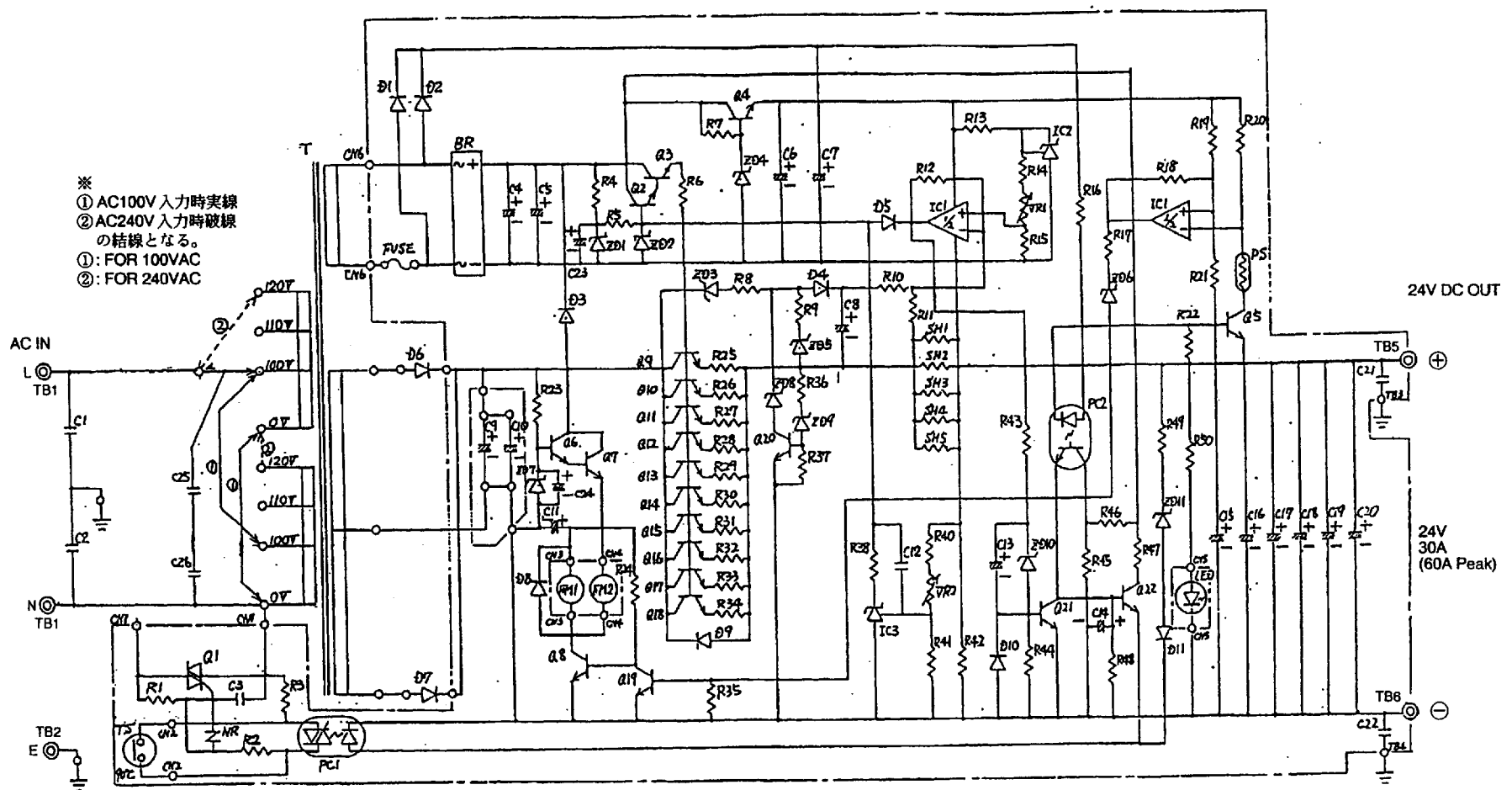
承認 APPROVED	17 Jun '88	名称 TITLE	BC-6153A バッテリー充電器 BATTERY CHARGER
検図 CHECKED	17 Jun '88		
製図 DRAWN	17 Jun '88	図番 DWG.NO.	C5075-K03-C (3-130895-00)

FURUNO ELECTRIC CO., LTD.



承認 APPROVED	Jan·28·'94 IKEDA	三角法 THIRD ANGLE		名称 TITLE	AC/DC切替ユニット
検図 CHECKED	Jan·28·'94 T.SAITO	尺度 SCALE	/	PR-350R	AC/DC CHANGER
製図 DRAWN	Jan·28·'94 T. NISHINO	重量 WEIGHT	kg	図番 DWG.NO	C5075-K02-B

FURUNO ELECTRIC CO., LTD.



承認 APPROVED	Jan·28·'94 IKEDA	三角法 THIRD ANGLE		名称 TITLE	PR-850R 定電圧電源 REGULATED POWER SUPPLY
検図 CHECKED	Jan·28·'94 T. SAITO	R度 SCALE	/		
製図 DRAWN	Jan·28·'94 T. NISHINO	重量 WEIGHT	kg	図番 DWG.NO	C5565-K03-B

FURUNO ELECTRIC CO.. LTD.