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FURUNO

INSTALLATION MANUAL

VHF REMOTE STATION

MODEL RB-700

(For ROM Version No. 1.05)

FURUNO ELECTRIC CO., LTD.
NISHINOMIYA, JAPAN

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·Your Local Agent/Dealer

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⚠ SAFETY INSTRUCTIONS

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

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

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SAFETY INFORMATION FOR THE INSTALLER

⚠ WARNING



Only qualified personnel should work inside the equipment.

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

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

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

⚠ CAUTION



Ground the equipment.

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

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

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

Observe the compss safe distances to prevent deviation of a magnetic compass.

Standard Compass 0.8 m
Steering Compass 0.6 m

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Installation

This chapter provides general guidelines for the mounting of this unit. For detailed instructions see page D-3. Installation consists mainly of mounting the unit and connecting it to the VHF radiotelephone.

For GMDSS vessels, be sure to secure sufficient space for GMDSS equipment; Distress Message Controller, etc.

Mounting Location

The RB-700 can be mounted on a tabletop, a bulkhead, or in a console (flush mount or semi-flush mount). When selecting a mounting location keep the following points in mind.

- Select a location where the controls and handset can be easily operated and do not interfere with other equipment.
- Select a location free of water splash and rain.
- Select a location where the temperature and humidity are moderate and stable.
- Select a location which is well ventilated.
- Locate the unit well away from air conditioners and exhaust vents.
- Select a location where vibration is minimal.
- The magnet in the handset will affect magnetic gyrocompass performance. Separate the RB-700 from the magnetic gyrocompass by at least the distances shown in table 1.

Table 1 Compass safe distances

Standard Compass	Steering Compass
0.8 m	0.6 m

- For flush mounting, determine the cable entrance location before installing the unit.

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Mounting

Cable gland (Cord lock) location

The MIF cable (interconnection cable) can be led into the RB-700 in one of four methods. See page D-3. If the cable lead-in location is changed later, be sure to cover the open cable glands with the seals provided.

Opening the unit

1. Remove the fixing screw covers (2 pcs.) and loosen the four fixing screws to open the cover. Be careful not to damage wiring when opening the cover.
2. Disconnect wires and cables on the MAIN board.

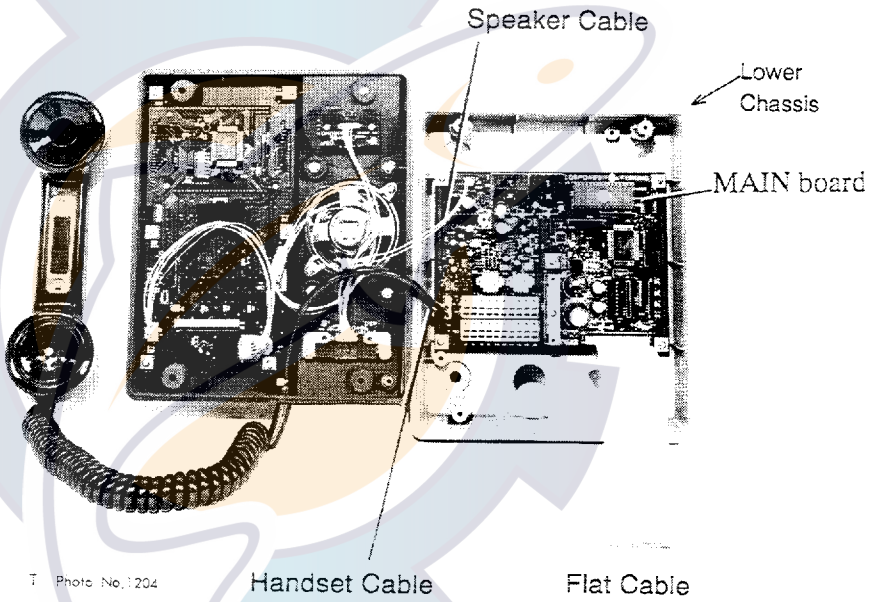


Figure 1 RB-700, cover opened

Flush mounting

The unit can be flush mounted (or semi-flush mounted) in a console. Prepare a cutout in the mounting location by consulting the outline drawing on page D-2.

Fixing the unit

Fix the unit to the mounting location with the seal washers and tapping screws (supplied).

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Connections

Fixing the MIF cable (10P)

For armored cable;

1. Determine cable length and remove a suitable amount of the armor.
2. Waterproof the cable at the cable gland.
3. Lead in the cable to the RB-700.
4. Fix the cable with the hose clamp supplied in the installation materials.

Hose clamp

A hose clamp is provided with the unit for fixing the MIF cable, inside the unit.

Processing the cable shield

To process the cable shield of armored cable;

1. Fold back the shield.
2. Solder an earth wire to the cable and connect the wire to the #5 terminal (F-GND) of TB1.
3. Fix cable with hose clamp.

Connection of MIF cable

1. Determine length of wires considering their locations on the terminal board.
2. Expose cores by about 5 mm.
3. Referring to the interconnection diagram, connect cores to terminal board, using the terminal opener attached inside the unit.

Fixing of the front panel

To fix the front panel;

1. Connect connectors.
2. Close unit. Be sure no foreign material is adhering to the rubber gasket before closing the unit.
3. Tighten fixing screws.
4. Replace fixing screw covers.

Earth

Tabletop or bulkhead mounting

Install a copper strap between the wall and the lower chassis and fix it with case fixing screws. Fix the other end of the strap to the nearest grounding point on the ship's hull.

Flush mounting

Fix a copper strap underneath the lower chassis and connect it to the nearest grounding point on the ship's hull.

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Adjustments at Installation

Priority setting (at FM-7000/ 7500 side)

Determine priority of the RB-700 according to mounting location and vessel regulations.

		RB-700 Priority	VHF Priority
Print Pattern on PANEL board of the FM-7000/7500		Short (Factory setting)	Open
Priority Order	#1	DSC distress alert transmission	
	#2	RB-700	DSC
	#3	DSC	VHF
	#4	VHF	RB-700

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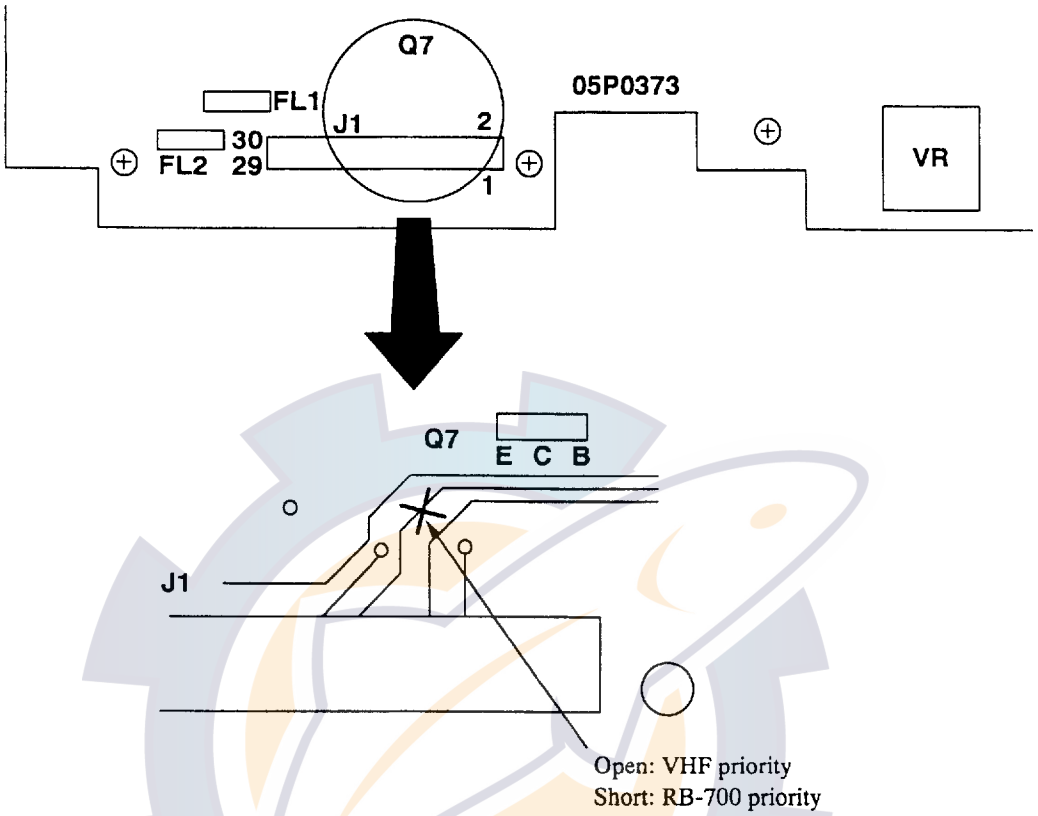


Figure 2 PANEL board on VHF radiotelephone FM-7000/FM-7500

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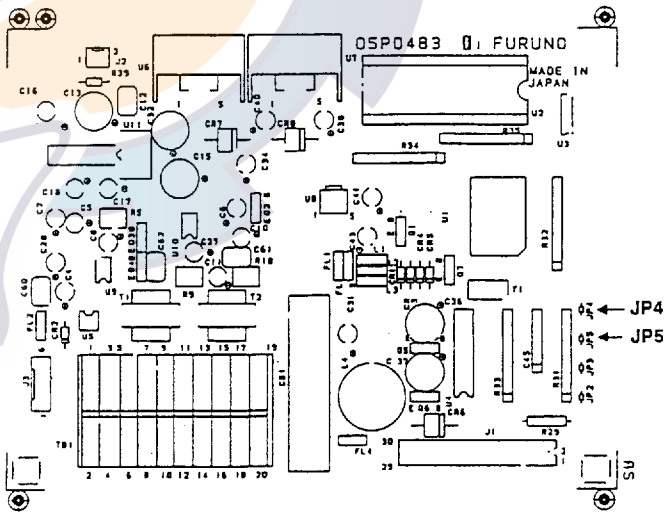
Jumper settings

The jumper settings shown below should be done at installation.

Jumper	Function	Open	Short
1 6	Setting of remote station number (used for intercom operation)	JP1 / JP6 / Remote station No. Short / Short / 1 (Channel data is always displayed) Open / Short / 2 Short / Open / 3 (Factory setting) Open / Open / 4	
4	Transmission time limit	Continuous transmission : 5 minutes	No limit (Factory setting)
5	Internal speaker can be automatically turned to "OFF", when the handset is taken from the hanger (OFF HOOK).	No change	ON HOOK SP: ON OFF HOOK SP: OFF (Factory setting)

■ **Note:** *Do not change the jumper settings of JP2 and JP3. (They are for factory adjustment.)*

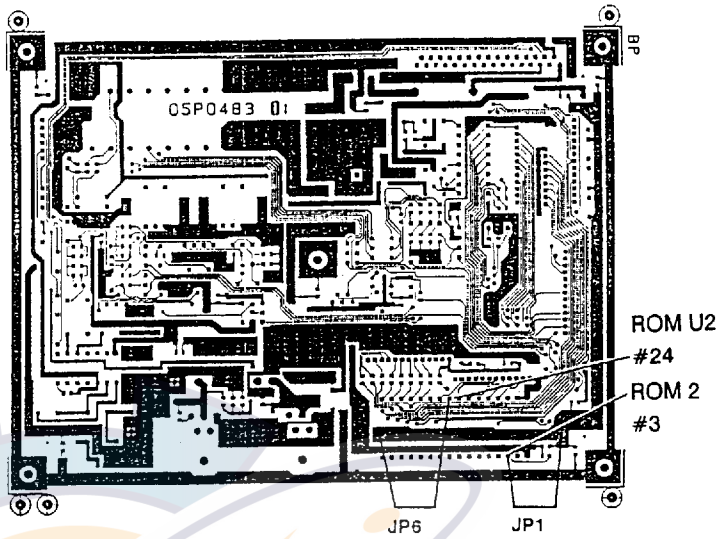
• Parts location of JP4 and JP5



MAIN board (Parts side)

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- Parts location of JP1 and JP6

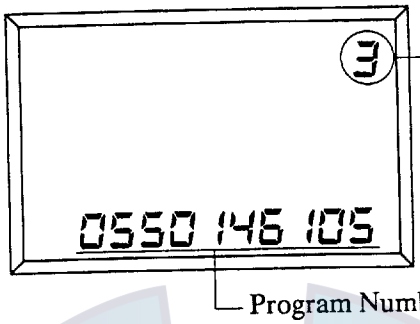


MAIN board (Soldering side)

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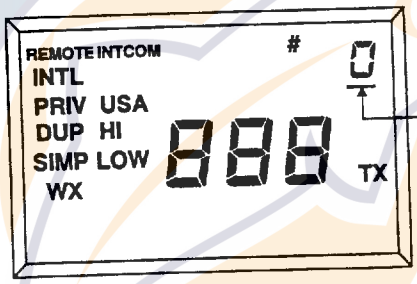
Confirmation of jumper settings

- To confirm the jumper settings of JP1 and JP6, turn on the power while pressing and holding down the **ENT** key.



No.	JP1	JP6
1	Short	Short
2	Open	Short
3	Short	Open
4	Open	Open

- To confirm the jumper settings of JP4 and JP5, turn on the power while pressing and holding down the **SHIFT** key.



No.	JP4	JP5
0	Short	Short
1	Open	Short
2	Short	Open
3	Open	Open

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Speaker volume

Adjust R18 to select desired speaker volume. Adjust it with the **VOLUME** control on the front panel set for maximum, so a signal can be heard clearly at all levels of volume.

Handset speaker volume

Adjust R9 to select desired handset speaker volume.

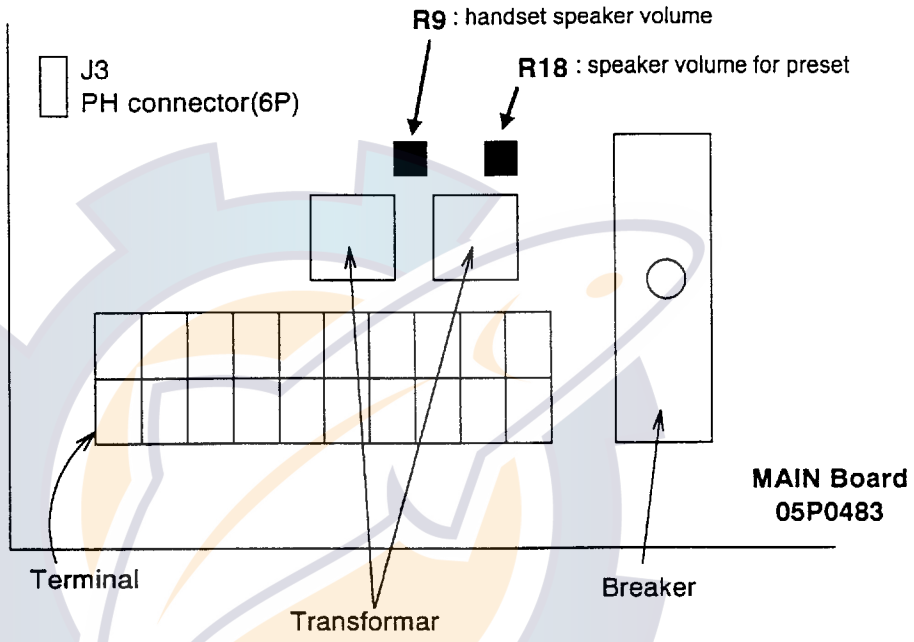


Figure 3 MAIN board, showing location of presets for adjustment of speaker and handset speaker volume

Priority order setting on FM-8000 and FM-8500

FM-8000
Priority order for FM-8000 is set on the system setting. This information is contained in the FM-8000's service manual. Contact your dealer for details.

FM-8500
Priority cannot be set; FM-8500 only.

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Specifications

The RB-700 provides for remote control of a FURUNO VHF radiotelephone equipped with FURUNO MIF radio interface.

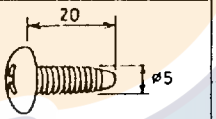
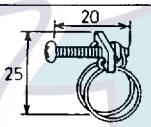
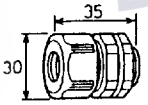
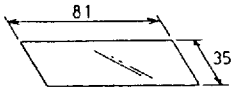
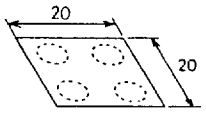
VHF Radiotelephone Connection	FM-7000, FM-7500
Control	Channel Rf output power Scanning Intercom
Display	LCD
Audio Output	Internal speaker: 1 W min. (8 ohms) External speaker: 1 W min. (8 ohms) Handset speaker: 1 mW min. (200 ohms), max. better than 10 mW
Line I/O	0 dBm, 600 ohms
Handset Input	-46 dBm (600 ohms)
Communications Interface	MIF (FURUNO radio interface) current loop
MIF Cable Length	50 m max. (100 m with Distributor DB-500)
Dimensions and Weight	190 (W) × 75 (H) × 220 (D) mm, 2.5 kg
Environmental Conditions	Temperature: -20°C to +55°C Relative humidity: 93% at +40°C Splashproof construction: Meets JIS (Japan Industrial Standard) C 0920
Power Supply and Power Consumption	12 VDC +30%, -10% (floating), less than 1A, supplied from VHF radiotelephone or Distributor DB-500.
Color	Panel: Munsell N3.0 Chassis: Munsell 2.5 GY 5/1.5

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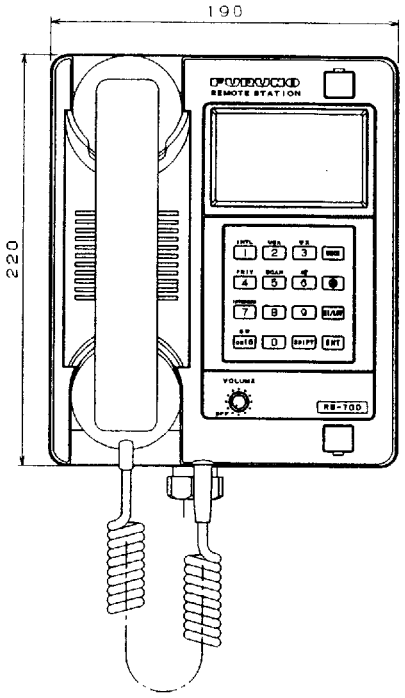
Complete Set

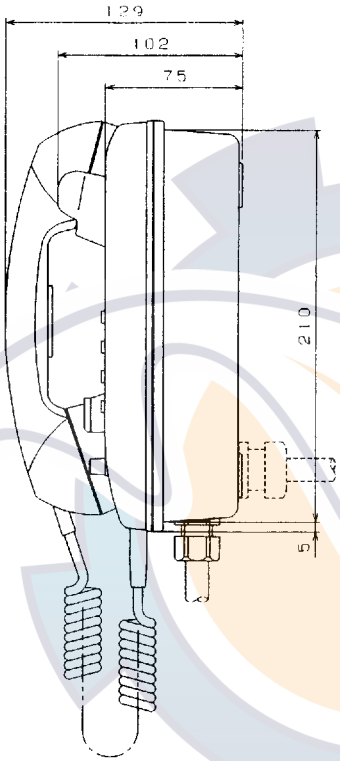
No.	Name	Type		Weight	Q"ty	Remarks
1	Remote Station	RB-700		2.5kg	1	
2	Installation Materials				1 set	
3	Interconnection Cable	CO-SPEVV-SB-C 0.2 × 10P				5/10/20/30/40/50m (Option)
4	Cosmetic Panel	OP05-46	005-711-280			2.5GY5/1.5, option
		OP05-47	005-711-290			7.5BG7/2, option
		OP05-50	005-711-300			2.5G7/2, option

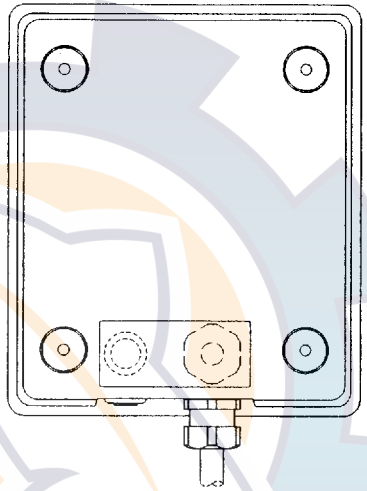
Installation Materials

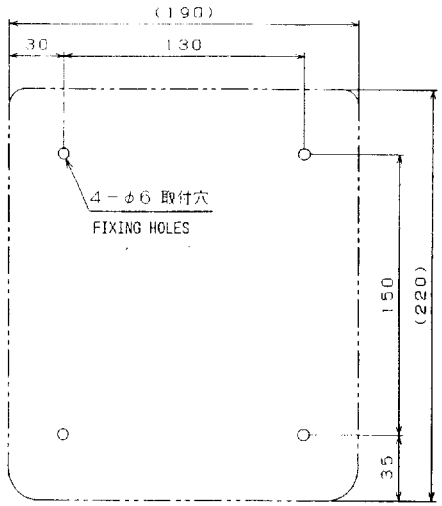
番号 No	名称 NAME	略図 OUTLINE	型名／規格 DESCRIPTIONS	数量 Q'TY
1	シールワッシャ SEAL WASHER		W5-SUS CODE NO 000-800-870	4
2	+トラスタッピングネジ TAPPING SCREW		5X20 1種 SUS304 CODE NO 000-802-081	4
3	ワイヤー型ホースバンド HOSE CLAMP		TM-145SS NO.14 CODE NO 000-803-129	1
4	コードロック CORD LOCK		SCL-14A CODE NO 000-111-305	1
5	フタ PLASTIC SEAL		05-055-0009-2 CODE NO 100-156-552	1
6	銀シール ALUMINUM SEAL		05-055-0029-1 CODE NO 100-162-501	1

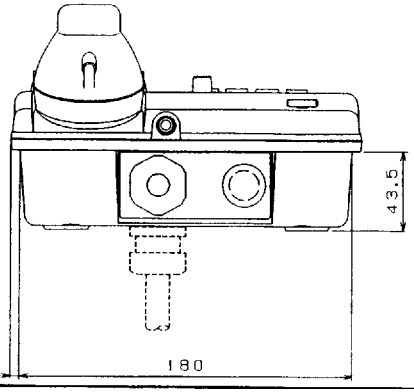
FURUNO









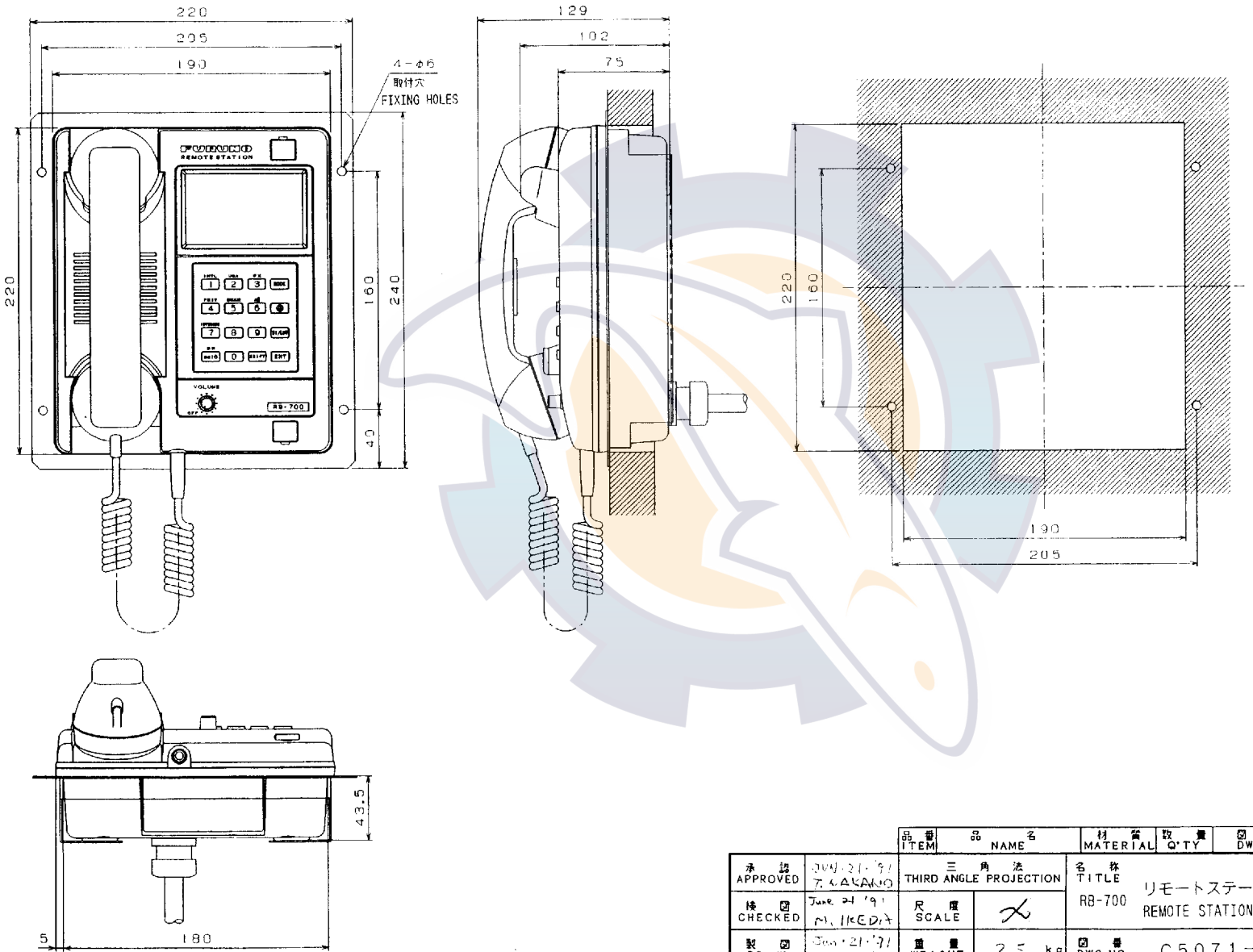


品番 ITEM	品名 NAME	材質 MATERIAL	数量 Q'TY	図番 DWG.NO.	摘要 REMARKS

承認 APPROVED	JUN·21·'91 T. NAKANO	三角法 THIRD ANGLE PROJECTION		名称 TITLE	リモートステーション (壁掛型)
検図 CHECKED	June 21 '91 M. IKEDA	R度 SCALE	X	RB-700	REMOTE STATION (BULKHEAD MOUNT)
製図 DRAWN	JUN·21·'91 M. OSAKO	重量 WEIGHT	2.5 kg	図番 DWG.NO.	C5071-G01-E

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

承認 APPROVED	30Jul.'91 T.SAKANO	三角法 THIRD ANGLE PROJECTION		名称 TITLE	RB-700 リモートステーション (埋込型) REMOTE STATION (FLUSH MOUNT)
検図 CHECKED	June 21 '91 M.IKEDA	R 尺度 SCALE	X		
製図 DRAWN	30Jul.'91 T.SAKAI	重量 WEIGHT	2.5 kg	図番 DWG.NO.	C5071-G02-E

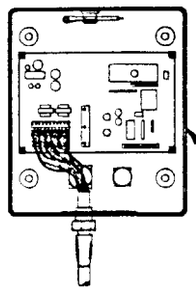
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SELECTION OF CABLE ENTRANCE (4 types)

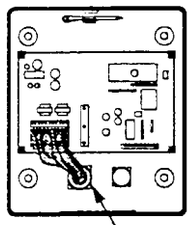
Ⓐ TYPE



Point

Cover spare holes for cord lock (cable gland) in lower chassis with seals (supplied).

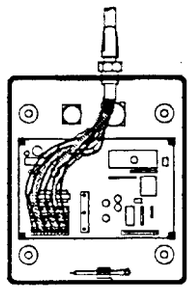
Ⓑ TYPE



Point

Cover spare holes for cable gland with seals (supplied).

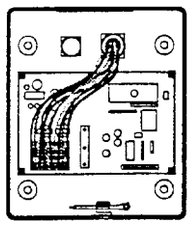
Ⓒ TYPE



Procedure

① Disconnect connectors on MAIN Board.
② Unfasten chassis retaining string
③ Separate upper chassis from lower chassis.
④ Dismount MAIN Board.
⑤ Re-mount MAIN Board upside down.
⑥ Connect connectors to MAIN Board.
⑦ Cover spare holes for cable gland in lower chassis with seals (supplied).

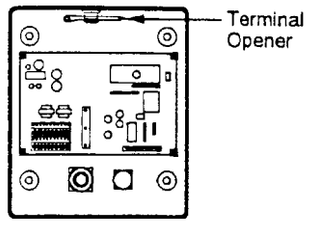
Ⓓ TYPE



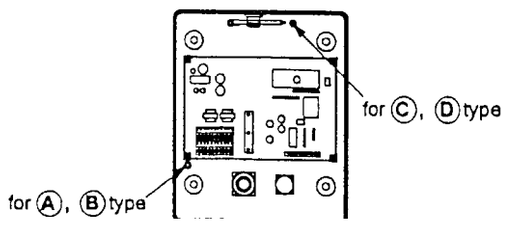
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⑥ Connect connectors to MAIN Board.
⑦ Cover spare holes for cable gland in lower chassis with seals (supplied).

Location of Terminal Opener



Location of Chassis Retaining String

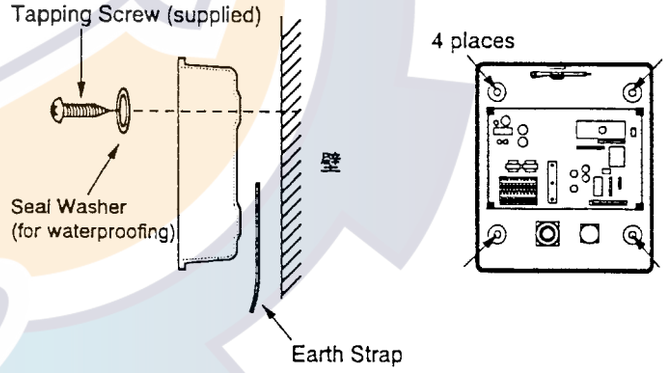


Mounting

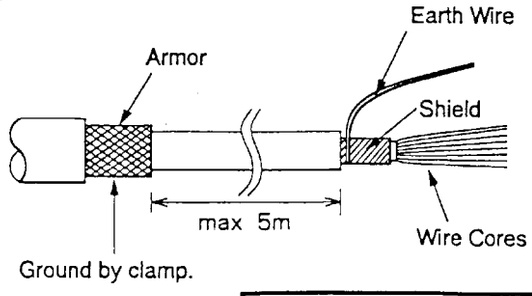
1. DISASSEMBLING THE UPPER CHASSIS

① Disconnect connectors on MAIN Board.
② Unfasten chassis retaining string
③ Separate upper chassis from lower chassis.

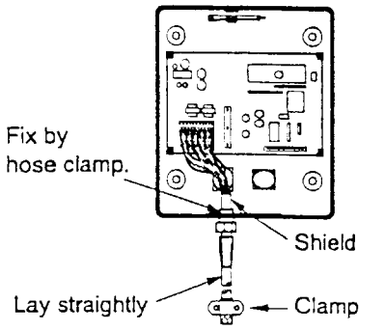
2. BULKHEAD MOUNTING



3. PROCESSING OF MIF CABLE



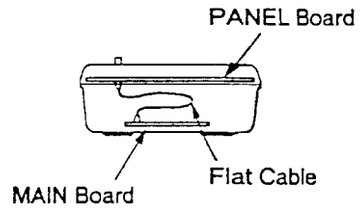
4. FIXING OF MIF CABLE



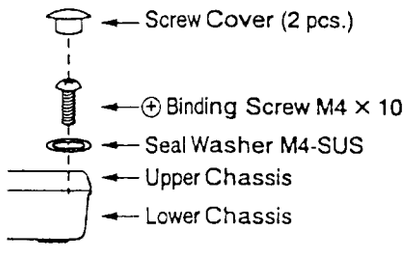
5. TERMINAL BOARD CONNECTIONS

See interconnection diagram.

6. CONNECT CONNECTORS; FIX CHASSIS RETAINING STRING



7. FIXING OF COVER

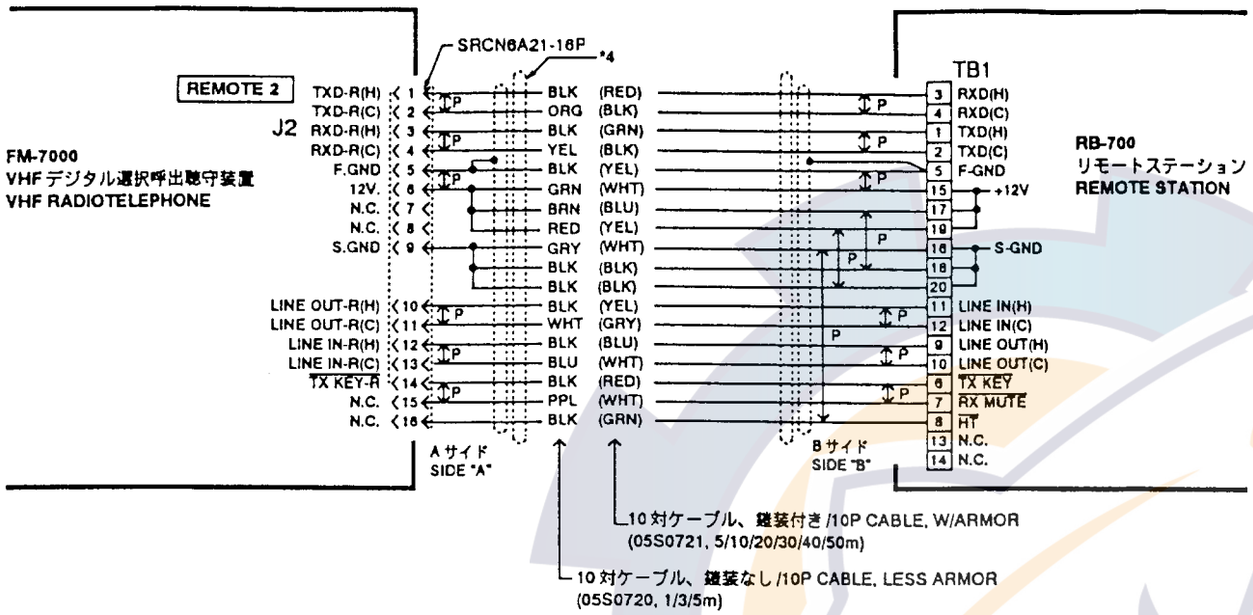


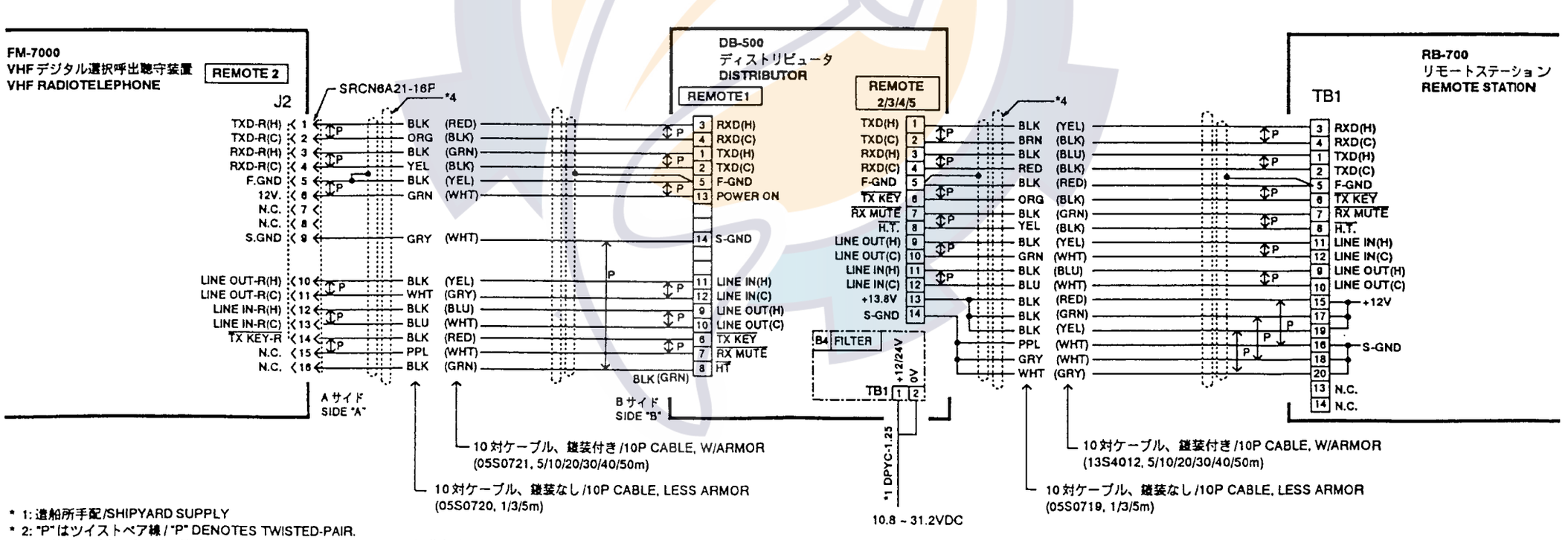
承認 APPROVED	Feb・10・'93 M. IKEDA	名称 TITLE	RB-500/700 INSTALLATION INSTRUCTIONS
検図 CHECKED	Feb・10・'93 M. OSAKO		
製図 DRAWN	Feb・10・'93	図番 DWG NO.	C5070-Y01-B

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FURUNO

S - 1





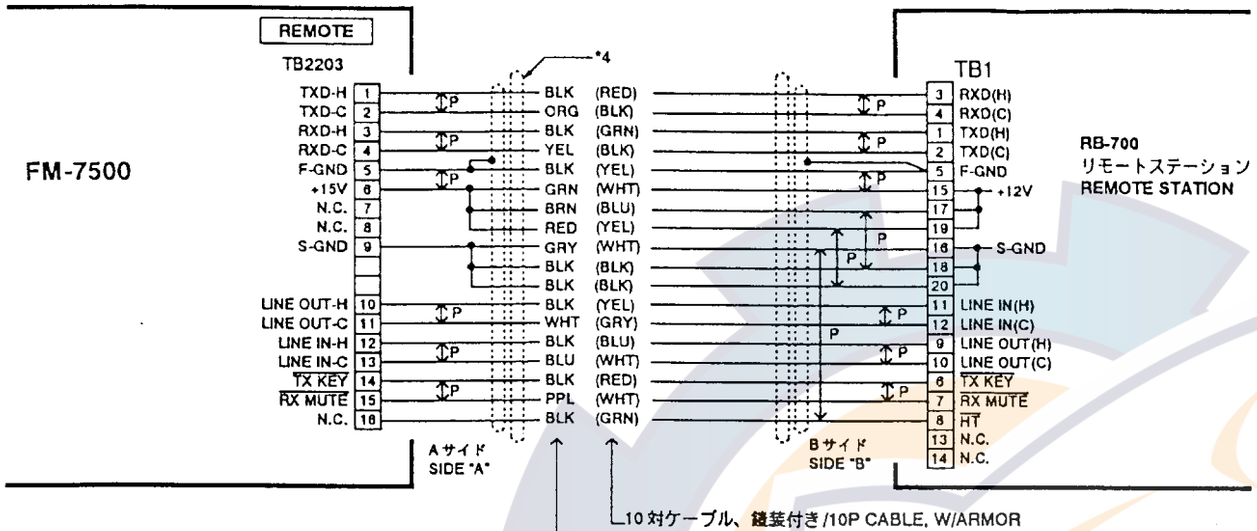
* 1: 造船所手配/SHIPYARD SUPPLY
* 2: "P" はツイストペア線 / "P" DENOTES TWISTED-PAIR.
* 3: 鎧装ケーブルの場合は、鎧装をコネクタのクランプ経由でアースに落とす。
  WHEN ARMORED CABLE IS USED, GROUND CABLE ARMOR THROUGH CONNECTOR CLAMP.
* 4: シールド付ペアケーブルを使用すること。
  10対ケーブル(コネクターなし 又は両端コネクター付)をオプション支給可。(鎧装付のものもオプション支給可。)
  USE TWISTED PAIR CABLE WITH SHIELD. 10P TWISTED PAIR CABLE (WITHOUT CONNECTOR OR WITH CONNECTORS AT BOTH ENDS) CAN BE OPTIONALLY SUPPLIED (VINYL SHEATHED ARMORED CABLE CAN ALSO BE SUPPLIED)

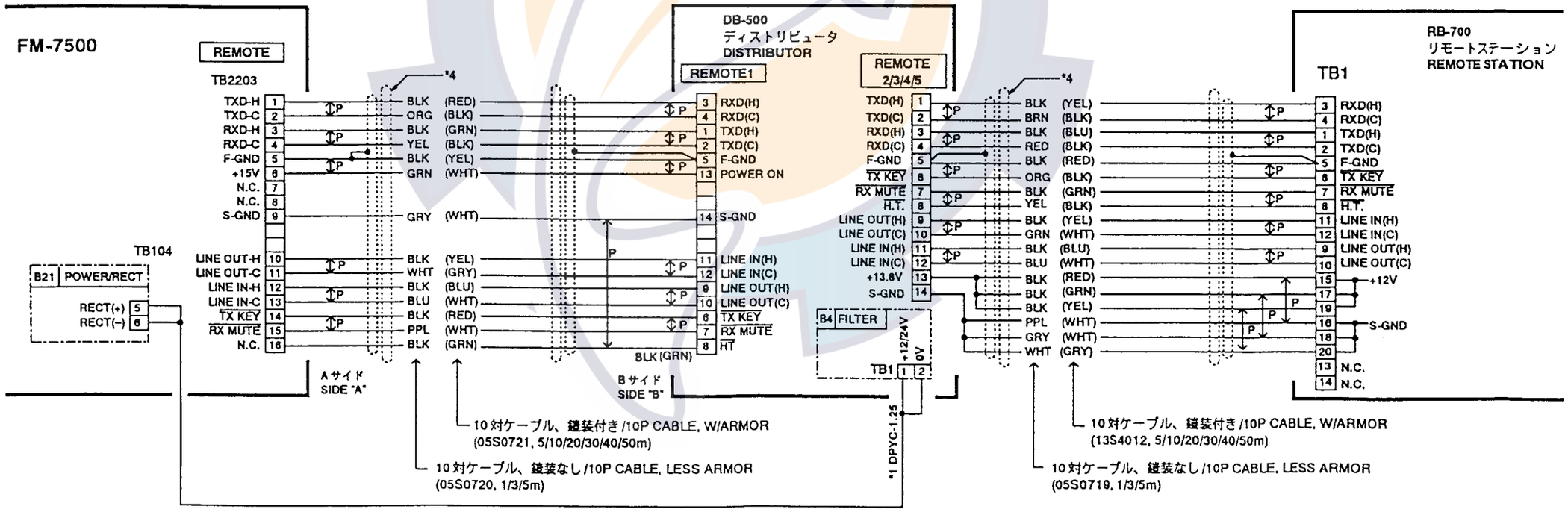
承認 APPROVED	MAY·25·'92 T.NAKANO	名称 TITLE	相互結線図 INTERCONNECTION DIAGRAM
検図 CHECKED	MAY 22·'92 M.IKEDA		
製図	MAY·21·'92	図番	

FM-7000/RB-700

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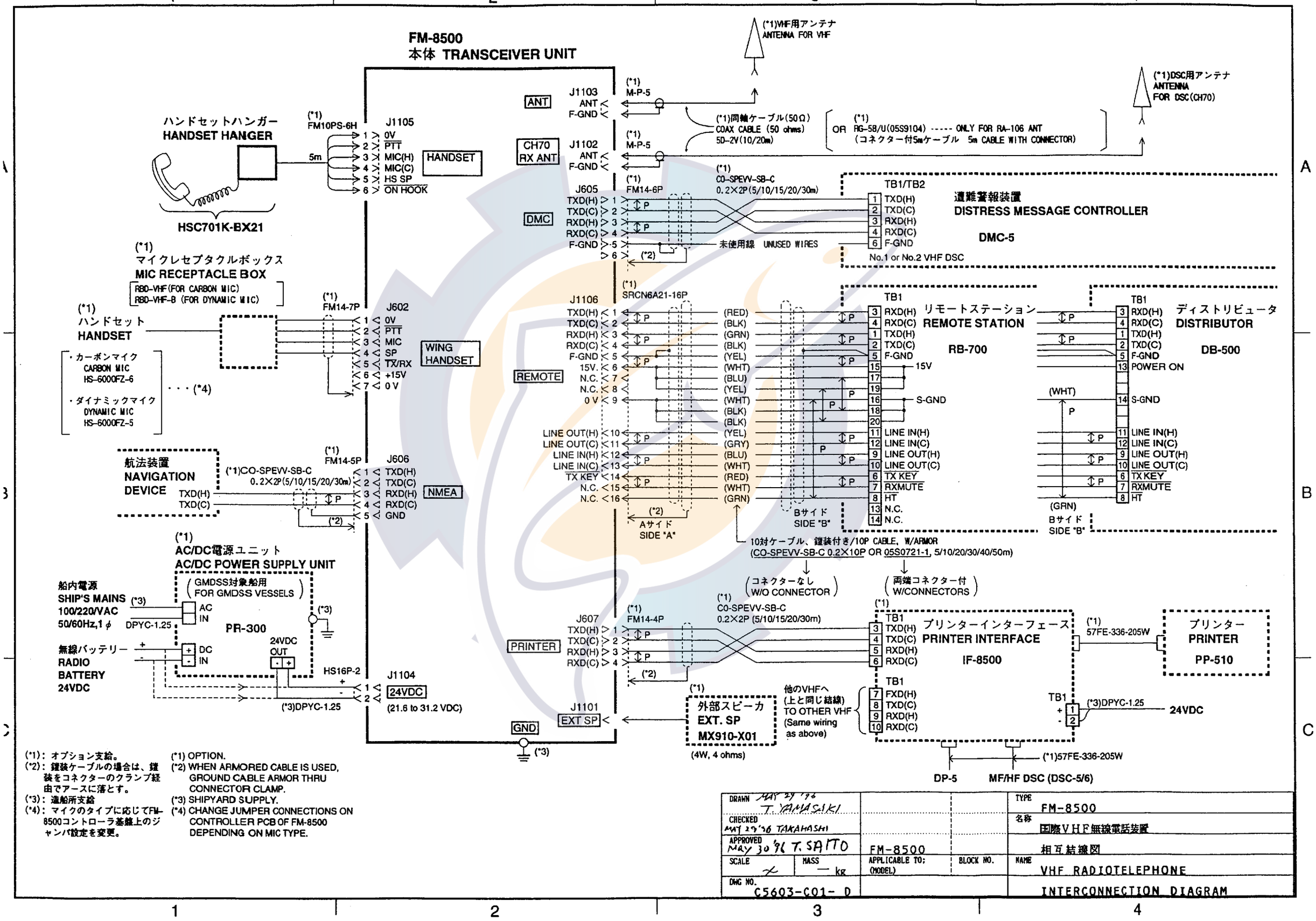


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WHEN ARMORED CABLE IS USED, GROUND CABLE ARMOR THROUGH CONNECTOR CLAMP.
* 4: シールド付ペアケーブルを使用すること。
10 対ケーブル (コネクターなし 又は両端コネクター付) をオプション支給可。
(鎧装付のものもオプション支給可。)
USE TWISTED PAIR CABLE WITH SHIELD. 10P TWISTED PAIR CABLE (WITHOUT CONNECTOR OR WITH CONNECTORS AT BOTH ENDS) CAN BE OPTIONALLY SUPPLIED (VINYL SHEATHED ARMORED CABLE CAN ALSO BE SUPPLIED).

FM-7500/RB-700
FM-7500/DB-500/RB-700

承認 APPROVED	Sep.7.'92 M.IKEDA	名称 TITLE	相互結線図 INTERCONNECTION DIAGRAM
検図 CHECKED	Sep.7.'92 T.SAITO		
製図 DRAWN	Sep.7.'92	図番 DWG NO.	C5071-C02-A

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(*1)：オプション支給。
(*2)：鎧装ケーブルの場合は、鎧装をコネクターのクランプ経由でアースに落とす。
(*3)：造船所支給
(*4)：マイクのタイプに応じてFM-8500コントローラ基盤上のジャンパ設定を変更。

(*1) OPTION.
(*2) WHEN ARMORED CABLE IS USED, GROUND CABLE ARMOR THRU CONNECTOR CLAMP.
(*3) SHIPYARD SUPPLY.
(*4) CHANGE JUMPER CONNECTIONS ON CONTROLLER PCB OF FM-8500 DEPENDING ON MIC TYPE.

DRAWN May 29 '96 T.YAMASAKI			TYPE FM-8500
CHECKED May 29'96 TAKAHASHI			名称 国際VHF無線電話装置
APPROVED May 30'96 T.SAITO	FM-8500		相互結線図
SCALE —	MASS — kg	APPLICABLE TO: (MODEL)	BLOCK NO.	NAME VHF RADIOTELEPHONE
DWG NO. C5603-C01- D				INTERCONNECTION DIAGRAM

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アンテナ型式 ANTENNA	同軸ケーブルおよびコネクタ COAX CABLE & CONNECTOR		備考 REMARKS
FAB-151D	RG10/U, RG10/UY	M-P-7	造船所支給 SHIPYARD SUPPLY
150M-W2VN	5D-2V, 10/20m	M-P-5	オプション OPTIONAL SUPPLY
RA-106 相当 OR EQUIVALENT	RG-58/U(05S9104), 5m	M-P-5	オプション OPTIONAL SUPPLY

FM-8500
本体 TRANSCEIVER UNIT

(*1)VHF用アンテナ ANTENNA FOR VHF

(*1)DSC用アンテナ ANTENNA FOR DSC(CH70)

(*1)同軸ケーブル(50Ω) COAX CABLE (50 ohms)

ANT J1103: ANT, F-GND

CH70 RX ANT J1102: ANT, F-GND

ハンドセットハンガー HANDSET HANGER

HSC701K-BX21

(*1) FM10PS-6H — 5m — J1105: 1 0V, 2 PTT SW, 3 MIC(H), 4 MIC(C), 5 HS SP, 6 HOOK SW — HANDSET MIC

(*1) マイクレセプタクルボックス MIC RECEPTACLE BOX
RBD-VHF(FOR CARBON MIC)
RBD-VHF-B (FOR DYNAMIC MIC)

(*1) ハンドセット HANDSET
・カーボンマイク CARBON MIC HS-6000FZ-6
・ダイナミックマイク DYNAMIC MIC HS-6000FZ-5
・・・(*4)

(*1) FM14-7P — J602: 1 0V, 2 W_PTT_SW, 3 W_MIC, 4 W_SP, 5 TX/RX, 6 +15V, 7 0 V — WING HANDSET

DMC J605: TXD(H) 1, TXD(C) 2, RXD(H) 3, RXD(C) 4, F-GND 5, 6 — (*1) FM14-6P — (*1) CO-SPEVV-SB-C 0.2×2P(5/10/15/20/30m) — (*2) — 未使用線 UNUSED WIRES

TB1/TB2
遭難警報装置
DISTRESS MESSAGE CONTROLLER
DMC-5
No.1 or No.2 VHF DSC
1 TXD(H), 2 TXD(C), 3 RXD(H), 4 RXD(C), 6 F-GND

REMOTE J1106: TXD(H) 1, TXD(C) 2, RXD(H) 3, RXD(C) 4, F-GND 5, 15V. 6, N.C. 7, N.C. 8, 0 V 9, LINE OUT(H) 10, LINE OUT(C) 11, LINE IN(H) 12, LINE IN(C) 13, TX KEY 14, N.C. 15, N.C. 16 — (*1) SRCN6A21-16P — (*2) Aサイド SIDE "A"

(RED), (BLK), (GRN), (BLK), (YEL), (WHT), (BLU), (YEL), (WHT), (BLK), (BLK), (YEL), (GRY), (BLU), (WHT), (RED), (WHT), (GRN)

TB1 リモートステーション REMOTE STATION RB-700
3 RXD(H), 4 RXD(C), 1 TXD(H), 2 TXD(C), 5 F-GND, 15 15V, 17, 19, 16 S-GND, 18, 20, 11 LINE IN(H), 12 LINE IN(C), 9 LINE OUT(H), 10 LINE OUT(C), 6 TX KEY, 7 RXMUTE, 8 HT, 13 N.C., 14 N.C.
Bサイド SIDE "B"

TB1 ディストリビュータ DISTRIBUTOR DB-500
3 RXD(H), 4 RXD(C), 1 TXD(H), 2 TXD(C), 5 F-GND, 13 POWER ON, 14 S-GND, 11 LINE IN(H), 12 LINE IN(C), 9 LINE OUT(H), 10 LINE OUT(C), 6 TX KEY, 7 RXMUTE, 8 HT
(WHT), (GRN)
Bサイド SIDE "B"

10対ケーブル、鎧装付き/10P CABLE, W/ARMOR
(CO-SPEVV-SB-C 0.2×10P OR 05S0721-1, 5/10/20/30/40/50m)
(コネクターなし W/O CONNECTOR) (両端コネクター付 W/CONNECTORS)

航法装置 NAVIGATION DEVICE
(*1) FM14-5P — (*1)CO-SPEVV-SB-C 0.2×2P(5/10/15/20/30m) — J606: 1 TXD(H), 2 TXD(C), 3 RXD(H), 4 RXD(C), 5 GND — NMEA
TXD(H), TXD(C), (*2)

(*1) AC/DC電源ユニット AC/DC POWER SUPPLY UNIT
(GMDSS対象船用 FOR GMDSS VESSELS)
船内電源 SHIP'S MAINS 100/220/VAC 50/60Hz,1φ — (*3) — DPYC-1.25 — AC IN — PR-300/PR-240 — (*3)
無線バッテリー または 船内電源 RADIO BATTERY OR SHIP'S MAINS 24VDC — DC IN
24VDC OUT — HS16P-2 — J1104: 1 +, 2 - — 24VDC (21.6 to 31.2 VDC)
(*3)DPYC-2.0, (*3)DPYC-2.0

PRINTER J607: TXD(H) 1, TXD(C) 2, RXD(H) 3, RXD(C) 4 — FM14-4P — (*1) C0-SPEVV-SB-C 0.2×2P (5/10/15/20/30m) — (*2)

(*1) TB1 プリンターインターフェース PRINTER INTERFACE IF-8500
3 TXD(H), 4 TXD(C), 5 RXD(H), 6 RXD(C)
TB1 7 FXD(H), 8 TXD(C), 9 RXD(H), 10 RXD(C)
他のVHFへ (上と同じ結線) TO OTHER VHF (Same wiring as above)

(*1) 57FE-336-205W — プリンター PRINTER PP-510

TB1 + 1, - 2 — (*3)DPYC-1.25 — 24VDC

(*1)57FE-336-205W — DP-5/6, MF/HF DSC (DSC-5/6)

GND (*3)

J1101 EXT SP — (*1) 外部スピーカ EXT. SP MX910-X01 (4W, 4 ohms)

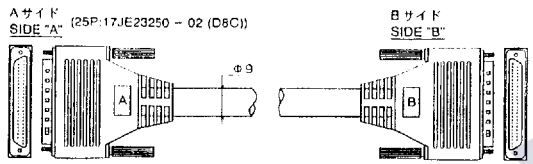
(*1): オプション支給。
(*2): 鎧装ケーブルの場合は、鎧装をコネクターのクランプ経由でアースに落とす。
(*3): 造船所支給
(*4): マイクのタイプに応じてFM-8500コントローラ基盤上のジャンパ設定を変更。

(*1) OPTION.
(*2) WHEN ARMORED CABLE IS USED, GROUND CABLE ARMOR THRU CONNECTOR CLAMP.
(*3) SHIPYARD SUPPLY.
(*4) CHANGE JUMPER CONNECTIONS ON CONTROLLER PCB OF FM-8500 DEPENDING ON MIC TYPE.

DRAWN Sep. 3 '97 T.YAMASAKI		TYPE FM-8500
CHECKED Sep. 5. '97 T. Shishido		名称 国際VHF無線電話装置
APPROVED Sep. 5 '97 H. Yamaguchi		相互結線図
SCALE — MASS — kg	APPLICABLE TO: (MODEL) / BLOCK NO.	NAME VHF RADIOTELEPHONE INTERCONNECTION DIAGRAM
DWG NO. C5603-C01- H		

FURUNO

複合13対ケーブル　13P TWISTED PAIR CABLE



結　線

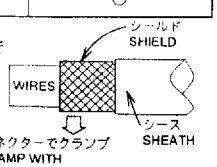
ペアNo.	"A"サイド ピンNo.	線色	ドットマーク	"B"サイド ピンNo.
①	1	茶	■ 黒	1
	14		□ 赤	14
②	2	黄	■	3
	3		□	2
③	4	若草	■	5
	5		□	4
④	6	灰	■	20
	20		□	6
⑤	7	白	■	7
	7		□	7
⑥	8	茶	■■	8
	9		□□	9
⑦	10	黄	■■	12
	11		□□	13
⑧	12	若草	■■	10
	13		□□	11
⑨	15	灰	■■	15
	16		□□	16
⑩	17	白	■■	17
	18		□□	18
⑪	19	茶	■■■	19
	21		□□□	21
⑫	22	黄	■■■	22
	23		□□□	23
⑬	24	若草	■■■	24
	25		□□□	25

WIRING

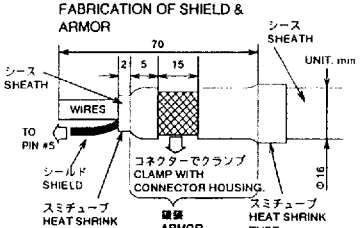
Pair No.	Side "A" Pin No.	Wire color	Marking	Side "B" Pin No.
①	1	BRN	■BLK	1
	14		□RED	14
②	2	YEL	■	3
	3		□	2
③	4	GRN	■	5
	5		□	4
④	6	GRY	■	20
	20		□	6
⑤	7	WHT	■	7
	7		□	7
⑥	8	BRN	■■	8
	9		□□	9
⑦	10	YEL	■■	12
	11		□□	13
⑧	12	GRN	■■	10
	13		□□	11
⑨	15	GRY	■■	15
	16		□□	16
⑩	17	WHT	■■	17
	18		□□	18
⑪	19	BRN	■■■	19
	21		□□□	21
⑫	22	YEL	■■■	22
	23		□□□	23
⑬	24	GRN	■■■	24
	25		□□□	25

型式/TYPE	ケーブル長/LENGTH	コネクタ/CONNECTORS
05S0783	1m / 3m / 5m	×
05S0784	1m / 3m / 5m	○

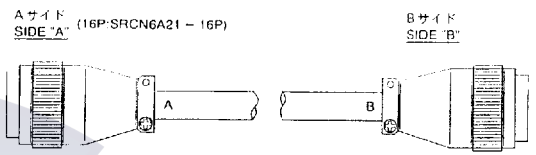
(注) シールド線はコネクターでクランプする。
CLAMP SHIELD WITH CONNECTOR HOUSING.



シールド/鎧装の処理
FABRICATION OF SHIELD & ARMOR



複合10対ケーブル　10P TWISTED PAIR CABLE



鎧装なしケーブルの時　VINYL SHEATHED CABLE

型名 TYPE	05S0719	05S0720
ケーブル名 CABLE	CO-SPEV SB-(A) 0.3×10P	CO-SPEV-SB-(A) 0.3×10P
鎧装 ARMOR	×	×
コネクタ CONNECTOR	×	○
ケーブル長 LENGTH	1/3/5m	1/3/5m
ケーブル径 DIAMETER	φ13	φ13

Pair No.	Side "A" Pin No.	Wire Color	Side "B" Pin No.
①	N.C.	黒 BLK	N.C.
	N.C.	茶 BRN	N.C.
②	N.C.	黒 BLK	N.C.
	N.C.	赤 RED	N.C.
③	1	黒 BLK	3
	2	橙 ORG	4
④	3	黒 BLK	1
	4	黄 YEL	2
⑤	5	黒 BLK	5
	6	緑 GRN	6
⑥	12	黒 BLK	10
	13	青 BLU	11
⑦	14	黒 BLK	14
	15	紫 PPL	15
⑧	16	黒 BLK	16
	9	灰 GRY	9
⑨	10	黒 BLK	12
	11	白 WHT	13
⑩	7	茶 BRN	7
	8	赤 RED	8

鎧装ケーブルの時　ARMORED CABLE

型名 TYPE	13S4012	05S0721
ケーブル名 CABLE	CO-SPEVV SB-C 0.2×10P	CO-SPEVV SB-C 0.2×10P
鎧装 ARMOR	○	○
コネクタ CONNECTOR	×	○
ケーブル長 LENGTH	5/10/20/30/40/50m	5/10/20/30/40/50m
ケーブル径 DIAMETER	φ16	φ16

Pair No.	Side "A" Pin No.	Wire Color	Side "B" Pin No.
①	N.C.	黄 YEL	N.C.
	N.C.	黒 BLK	N.C.
②	N.C.	青 BLU	N.C.
	N.C.	黒 BLK	N.C.
③	1	赤 RED	3
	2	黒 BLK	4
④	3	緑 GRN	1
	4	黒 BLK	2
⑤	5	黄 YEL	5
	6	白 WHT	6
⑥	12	青 BLU	10
	13	白 WHT	11
⑦	14	赤 RED	14
	15	白 WHT	15
⑧	16	緑 GRN	16
	9	白 WHT	9
⑨	10	黄 YEL	12
	11	灰 GRY	13
⑩	7	青 BLU	7
	8	灰 GRY	8

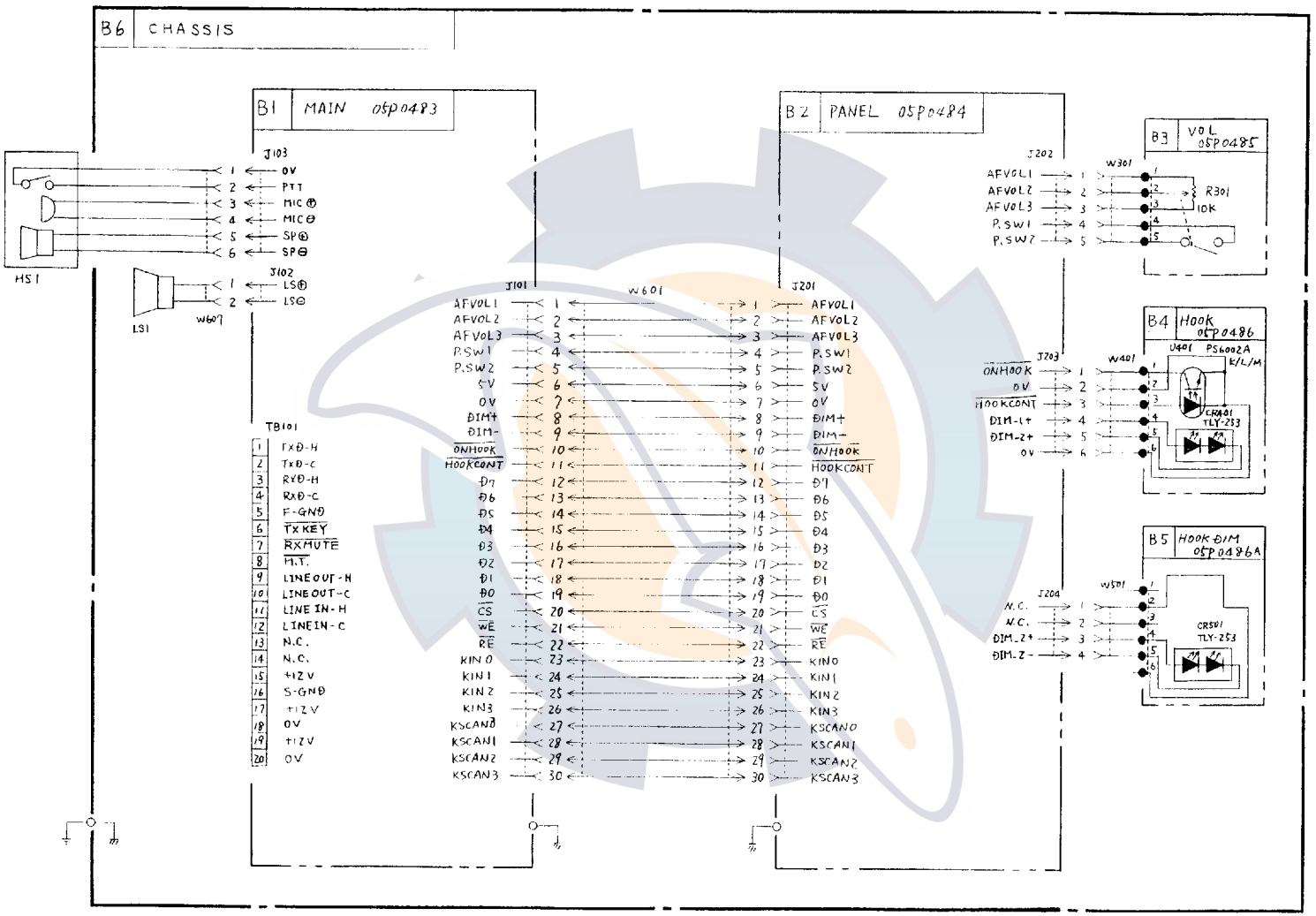
DSC-5 SERIES,
DMC-5, AA-50(R), DP-5

REVISION 91/9

承認 APPROVED	FEB・25・'91 T.NAKAO	名称 TITLE	10対/13対 ケーブル接続図
検図 CHECKED	FEB 25 '91 M.IKEDA		10P/13P CABLE FABRICATION
製図 DRAWN	FEB・25・'91 T.SAITO	図番 DWG.NO.	C5522-Y01-C

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FURUNO



注意 :抵抗の単位はΩ。
RESISTANCE IN OHMS.

RB-500/700

承認 APPROVED		名称 TITLE	総合回路図
検図 CHECKED	Nov.13.'91	RB-500/700	GENERAL SCHEMATIC DIAGRAM
製図 DRAWN		図番 DWG.NO.	C5071-K01-B

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www.reelschematic.com

MARINE VHF CHANNEL FREQUENCIES

■ INTERNATIONAL CHANNELS

CH	TX	RX	CH	TX	RX
01	156.050	160.650	60	156.025	160.625
02	156.100	160.700	61	156.075	160.675
03	156.150	160.750	62	156.125	160.725
04	156.200	160.800	63	156.175	160.775
05	156.250	160.850	64	156.225	160.825
06	156.300	156.300	65	156.275	160.875
07	156.350	160.950	66	156.325	160.925
08	156.400	156.400	67	156.375	156.375
09	156.450	156.450	68	156.425	156.425
10	156.500	156.500	69	156.475	156.475
11	156.550	156.550	70	156.525	156.525
12	156.600	156.600	71	156.575	156.575
13	156.650	156.650	72	156.625	156.625
14	156.700	156.700	73	156.675	156.675
15	156.750	156.750	74	156.725	156.725
16	156.800	156.800	77	156.875	156.875
17	156.850	156.850	78	156.925	161.525
18	156.900	161.500	79	156.975	161.575
19	156.950	161.550	80	157.025	161.625
20	157.000	161.600	81	157.075	161.675
21	157.050	161.650	82	157.125	161.725
22	157.100	161.700	83	157.175	161.775
23	157.150	161.750	84	157.225	161.825
24	157.200	161.800	85	157.275	161.875
25	157.250	161.850	86	157.325	161.925
26	157.300	161.900	87	157.375	161.975
27	157.350	161.950	88	157.425	162.025
28	157.400	162.000			

(MHz)

■ USA CHANNELS

CH	TX	RX	CH	TX	RX
01A	156.050	156.050	60	156.025	160.625
02A	156.100	156.100	61	156.075	160.675
03A	156.150	156.150	62	156.125	160.725
04A	156.200	156.200	63A	156.175	156.175
05A	156.250	156.250	64	156.225	160.825
06	156.300	156.300	65A	156.275	156.275
07A	156.350	156.350	66A	156.325	156.325
08	156.400	156.400	67	156.375	156.375
09	156.450	156.450	68	156.425	156.425
10	156.500	156.500	69	156.475	156.475
11	156.550	156.550	70	156.525	156.525
12	156.600	156.600	71	156.575	156.575
13	156.650	156.650	72	156.625	156.625
14	156.700	156.700	73	156.675	156.675
15	—	156.750	74	156.725	156.725
16	156.800	156.800	77	156.875	156.875
17	156.850	156.850	78A	156.925	156.925
18A	156.900	156.900	79A	156.975	156.975
19A	156.950	156.950	80A	157.025	157.025
20	157.000	161.600	81A	157.075	157.075
21A	157.050	157.050	82A	157.125	157.125
22A	157.100	157.100	83A	157.175	157.175
23A	157.150	157.150	84	157.225	161.825
24	157.200	161.800	85	157.275	161.875
25	157.250	161.850	86	157.325	161.925
26	157.300	161.900	87	157.375	161.975
27	157.350	161.950	88A	157.425	157.425
28	157.400	162.000			

(MHz)

■ WEATHER CHANNELS

CH	RX
WX0	162.550
WX1	162.400
WX2	162.475
WX3	162.425
WX4	162.450
WX5	162.500
WX6	162.525
WX7	161.650
WX8	161.775
WX9	163.275

(MHz)