FURURO OPERATOR'S MANUAL

MULTI-PURPOSE LCD DISPLAY

MODEL MU-151C



© FURUNO ELECTRIC CO., LTD.

9-52 Ashihara-cho, Nishinomiya 662-8580, JAPAN

 Telephone :
 0798-65-2111

 fax
 :
 0798-65-4200

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(YOTA) MU-151C

Your Local Agent/Dealer

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* O M E 2 0 3 2 0 A 0 0 *

IMPORTANT NOTICE

- No part of this manual may be copied or reproduced without written permission.
- If this manual is lost or worn, contact your dealer.
- The contents of this manual and equipment specifications are subject to change without notice.
- The example screens (or illustrations) shown in this manual may not match the screens you see on your display. The screen you see depends on your system configuration and equipment settings.
- This manual is intended for use by native speakers of English.
- FURUNO will assume no responsibility for the damage caused by improper use or modification of the equipment or claims of loss of profit by a third party.

▲ SAFETY INSTRUCTIONS

Safety Instructions for the Operator

🗥 WARNING



Do not open the equipment.

Only qualified personnel should work inside the equipment.

Do not disassemble or modify the equipment.

Fire, electrical shock or serious injury can result.

Use the proper fuse.

Fuse rating is shown on the equipment. Use of a wrong fuse can result in damage to the equipment.

Immediately turn off the power at the switchboard if the equipment is emitting smoke or fire.

Continued use of the equipment can cause fire or electrical shock. Contact a FURUNO agent for service.

A warning label is attached to the equipment. Do not remove the label. If the label is missing or damaged, contact a FURUNO agent or dealer.



Name: Warning Label (1) Type: 86-003-1011-1 Code No.: 100-236-231

- About the TFT LCD -

The TFT LCD is constructed using the latest LCD techniques, and displays 99.99% of its pixels. The remaining 0.01% of the pixels may drop out or blink, however this is not an indication of malfunction.

Safety Instructions for the Installer



Do not open the cover unless totally familiar with electrical circuits and service manual.

Improper handling can result in electrical shock.

Turn off the power at the switchboard before beginning the installation.

Fire or electrical shock can result if the power is left on.

Do not install the equipment where it may get wet from rain or water splash.

Water in the equipment can result in fire, electrical shock or damage to the equipment.



Ground the equipment to prevent mutual interference.

Observe the following compass safe distances to prevent interference to a magnetic compass:

	Standard compass	Steering compass
MU-151C	0.45 m	0.30 m

The surface of the LCD monitor is made of glass. Handle it with care.

When lifting the display unit, hold it together with the hardcover.

Grasping by the hardcover alone may allow the display unit to fall, resulting in possible injury or damage to the equipment.

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FOREWORD

A Word to the Owner of the MU-151C

FURUNO Electric Company thanks you for purchasing the MU-151C 15" Multi-Purpose LCD Display. We are confident you will discover why the FURUNO name has become synonymous with quality and reliability.

For over 50 years FURUNO Electric Company has enjoyed an enviable reputation for quality and reliability throughout the world. This dedication to excellence is furthered by our extensive global network of agents and dealers.

Your equipment is designed and constructed to meet the rigorous demands of the marine environment. However, no machine can perform its intended function unless properly installed and maintained. Please carefully read and follow the operation, installation and maintenance procedures set forth in this manual.

We would appreciate feedback from you, the end-user, about whether we are achieving our purposes.

Thank you for considering and purchasing FURUNO.

Features

- Main or remote display for radars, video sounders, sonars. Compatible equipment: FR-1500 MK3 series, FCV-1200L/LM, FCV-1500L, CH-250, CH-270, CSH-5L/8L, GD-280/380/680, etc.
- High resolution display of 1024x768 dot (XGA), 640x480 dot (VGA)
- Brightness of 350 cd/m² and minimum 250 cd/m² for comfortable viewing day and night
- Landscape orientation
- Wide viewing angle for observation by more than one person

SYSTEM CONFIGURATION



* = When connecting the FCV-1200L/LM, CH-250 or CH-270 as the main display unit, connect it to the MU-151C instead of the interface unit.

Connectable equipment

Equipment	Resolution*
FR-1500 MK3 series	XGA
FCV-1200L/LM	VGA
FCV-1500L	VGA
GD-280/380/680	VGA
CH-250	VGA
CH-270	VGA
CSH-5L/8L	XGA
CI-68/88	VGA

*: VGA: 640x480 dot, XGA: 1024x768 dot

Note: Portrait orientation equipment cannot be connected to the MU-151C.

Note: There are two ports for video signal, but they cannot be used simultaneously.

EQUIPMENT LISTS

Standard supply

Name	Туре	Code No.	Qty	Remarks
LCD Display Unit	MU-151C –		1	DC specification
			1	AC specification
Spare Parts*	SP19-00101	001-403-170	1 set	For DC
Spare Fails	SP06-01301	001-403-800	1 301	For AC
Installation Materials*	CP19-00100	000-012-630	1 set	For DC (MJ-A3SPF0025-035)
	CP06-01400	000-012-637		For AC (CP06-01401)
Accessories*	FP19-00801	001-410-510	1 set	Without hanger
700030003	FP19-00702	008-540-740	1 set	With hanger

Option

Name	Туре	Code No.	Qty	Remarks
Cable Assy	3COX-2P-6C 5M	000-146-500	1	Cable length: 5 m
Cable Assy	3COX-2P-6C 10M	000-146-501	1	Cable length: 10 m
Hanger Kit	FP19-00900	001-410-540	1	w/knob, self-tapping screws
Hood Kit	FP06-01301	001-403-820	1	

* = See packing list at the end of this manual.

1 MOUNTING

Refer to the outline drawing at the end of this manual for mounting dimensions.

Note: The surface of the LCD monitor is made of glass. Handle it with care.

1.1 Display Unit

The display unit may be mounted on a desktop or flush mounted in a panel.

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

- Locate the unit out of direct sunlight.
- Select a location where the display can be easily viewed and the controls can be easily operated.
- Leave sufficient space around the unit for servicing and maintenance. See the outline drawing for minimum servicing space.
- The unit weighs approximately 7.5 kg (flush mounting)/8.5 kg (desktop mounting). Be sure the mounting location is strong enough to support the weight of the unit.
- Locate the unit away from areas subject to water splash and rain.

Flush mounting

See the outline drawing at the end of this manual for mounting dimensions.



- 1. Remove the hard cover from the unit.
- 2. Using the paper template supplied in the installation materials, make a cutout in the mounting location.
- 3. Set the display unit to the cutout, and fasten it with four self-tapping screws (5x40, supplied as accessories).
- **Note:** Hex head bolts may also be used to fasten the display unit. However, their lengths must be 10 mm longer than the wall thickness.



Mounting dimensions

- 4. Attach the panel cover (supplied as accessories) to the display unit at the locations shown in the drawing above.
- 5. Attach the hard cover to protect the LCD.
- **Note**: If necessary, coat gap between the mounting panel and the display unit chassis with sealing material.

Desktop mounting

The display unit with hanger can be mounted on a desktop. If you purchased the unit without hanger, order the optional hanger kit (Type: FP19-00900, Code No.: 001-410-540).

Name	Туре	Code No.	Qty
Hanger	FP19-00901	001-410-550	1
Knob bolt	FP03-09204	008-523-650	2
Self-tapping screw	5x20	000-802-081	4

Contents	of	hanger	ki
00/110/110	01	nungor	111

Mounting procedure

- 1. Fasten the hanger to the mounting location with four self-tapping screws (supplied).
- 2. Screw knob bolts into the hanger, set the unit to the hanger, and tighten the knob bolts.
- 3. Attach the hard cover to protect the LCD.



Desktop mounting

Knob bolt

Hanger

Hood (option)

When it is too bright in the daytime, use the optional hood kit (Type: FP06-01301, Code No.: 001-403-820) to shade the screen.

Name	Туре	Code No.	Qty
Hood	06-024-2402	100-320-460	1
Fixing plate	06-024-2403	100-320-471	4
Cosmetic screw	M3x6	000-150-356	4
Upset screw	M5x25	000-808-427	4
Hex nut	M5	000-863-108	4
Flat washer	M6	000-864-129	4
Spring washer	M6	000-864-260	4

Contents	of	hood	kit
00/110/110	01	11000	1110

1. **Desktop mounting:** Fasten the fixing plates to the fixing holes with four upset screws (supplied), four flat washers (supplied), four spring washers (supplied) and four hex nuts (supplied).

Flush mounting: Fasten the display unit to the mounting location, and then attach the fixing plates with four self-tapping screws.



- 2. Attach four panel covers (supplied as accessories) to the display unit.
- 3. Locate the hood over the display unit (the hood is outside of the fixing plates).
- 4. Fasten the hood to the fixing plates with four cosmetic screws (supplied).

2 WIRING

2.1 Wiring

Connect equipment to the MU-151C by referring to the drawings in this section and the interconnection diagram at the back of this manual. A cable with a connector at both ends is provided to connect equipment.

General-purpose monitor

To use the MU-151C as a general-purpose monitor, connect equipment with the optional cable assy, 3COX-2P-6C (5 or 10 m). In this case do not connect a navigator to the NMEA port. Nav data is output through the D-SUB 25P connector.



- **Note:** Even when the power switch is off, the electric current flows slightly. Connect the power line via a double-contact breaker.
- **Note:** If one line of AC is grounded, connect one line to the "C" (Common) terminal and the other line to the "H" (Hot) terminal.
 - *: Solder connector SRCN6A13-3S (supplied in installation materials) to the power cable (DPYCY-1.5 (Japan Industrial Standard) or equivalent).



Connecting FCV-1200L/1500L or CH-250/270



- The cover of the D-sub connector of the cable 06S4078 may be removed to pass the cable through tubing, bulkhead, etc. Use vinyl tape to bind connector wiring and rubber cover. This allows the cable to be passed through a hole having a diameter of 30 mm.
- Cable 06S4078 is of waterproof construction, however, the rear panel of the MU-151C is not waterproof (specification IP20). Therefore, remove rubber cover and fixing metal from the display unit side of the cable.



3 ADJUSTMENTS

3.1 Menu Settings

The menu contains items for adjustment of the display.

- 1. Press the [MENU] key to show the menu.
- 2. Choose XGA or VGA at "Resolution" at the top of the menu depending on the equipment connected (see page iv).

Resolution	XGA
Contrast	255
H Total	127
Phase	61
H Position	52
V Position	39
ContrastRed	255
ContrastGrn	255
ContrastBlu	255
AutoAdjust	
AutoColor	
Default	

Main menu

- Press [▼] to select [Default], and then press the [MENU] key.
 "Default" is usually used to restore default settings; however, execute it at this time.
- 4. Execute the [AutoAdjust], referring to page 9.
- 5. Execute the [AutoColor], referring to page 9.
- If necessary, press [▲] or [▼] to select the menu item you want to adjust, and then press [◄] or [▶] to adjust.
- 7. Press the [MENU] key to close the menu.

Menu item	Function	Available range
Contrast	Increases or decreases contrast level. Adjusts the gain value of RGB together.	0-255
H Total	Adjusts the image size horizontally. If the setting value is inappropriate too much, nothing may appear on the screen.	0-127
Phase	Adjusts the characters and graphic lines.	0-61
H Position	Moves the image position horizontally.	-
V Position	Moves the image position vertically.	-
ContrastRed	Adjusts red color contrast.	0-255
ContrastGrn	Adjusts green color contrast.	0-255
ContrastBlu	Adjusts blue color contrast.	0-255
AutoAdjust	Adjusts timing automatically for H Total, Phase, H Position and V Position.	
AutoColor	Increases or decreases contrast level automatically.	
Default	Initializes settings. When nothing or "AutoAdjust ERROR" appears on the screen in adjusting, select [Default] and press the [MENU] key.	

Contents of menu item

AutoAdjust and AutoColor may not function depending on equipment connected. Refer to the table below.

Equipment	AutoAdjust	AutoColor
FCV-1200L/LM	Yes	Yes
FCV-1500L	Yes	Yes
CH-250	Yes	Yes
CH-270	Yes	Yes
CSH-5L/8L	Yes	Yes
CI-68/88	Yes	Yes
GD-280/380/680	No	Yes
FR-1500 MARK-3 series	Yes	No

<u>AutoAdjust</u>

1. Operate the external equipment connected to the MU-151C to show the frame test pattern. Refer to each manual for how to show the test pattern. AutoAdjust is inoperative if the frame test pattern is not available. In this case, adjust the timing manually.



Frame test pattern

- 2. Press the [MENU] key on the MU-151C.
- 3. Press [▲] or [▼] to select [AutoAdjust], and then press the [MENU] key. "OK" or "ERROR" appears on the screen after a few seconds. When "OK" appears, confirm that the corners of the frame are placed in respective corners on the screen. If the frame is misaligned or "ERROR" appears, adjust the H Total, H Position and V Position manually.

Confirm that small characters are shown clearly. If not, adjust the Phase.

AutoColor

1. Operate the external equipment connected to the MU-151C to show the white test pattern. Refer to each manual for how to show the test pattern.

AutoColor is inoperative if the white test pattern is not available. In this case, adjust the contrast manually.



White test pattern

- 2. Press the [MENU] key on the MU-151C.
- 3. Press [▲] or [▼] to select [AutoColor], and then press the [MENU] key. "OK" or "ERROR" appears on the screen after a few seconds. If "ERROR" appears, adjust the Contrast manually, observing the screen. When there is a great difference in the contrast level among red, green and blue, adjust ContrastRed,

ContrastGrn and ContrastBlu.

3.2 Low Brilliance Setting and Brilliance Control Mode

Low brilliance is adjusted with the DIP switch (S1) on the CON board (06P0265). Brilliance control mode is selected with the slide switch (S2). Two control modes are available: internal and external. These switches are on the left side of the rear panel of the display unit. Remove the round cap from the connector mounting plate to access the switches.



Low brilliance setting (S1 switch)

Adjust the display brilliance on low brilliance.

DIP switch			Sotting value		
2 ⁰	2 ¹	2 ²	Setting value		
OFF	OFF	OFF	0		
ON	OFF	OFF	1		
OFF	ON	OFF	2		
ON	ON	OFF	3		
OFF	OFF	ON	4		
ON	OFF	ON	5		
OFF	ON	ON	6		
ON	ON	ON	7		

- Usually the MU-151C is operated on default setting (setting value of the DIP switch is indeterminate).
- The default brilliance with the brilliance control 1 (second lowest setting) is 0.3 cd/m².
- If the display brilliance as 1 is too bright at night, decrease the brilliance level with the DIP switch.
- If the display brilliance as 1 is too dark at night, increase the brilliance level with the DIP switch.
- If the maximum level of the brilliance (10) is same regardless of the setting on the DIP switch.

Brilliance control mode (S2 switch)

- Usually the MU-151C is operated using the default brilliance mode setting ("INT" (internal)). The display brilliance is adjusted with the [BRILL] key on the MU-151C.
- With the CH250/270 or FCV-1200L/1500L the display brilliance is adjusted from their control unit. Set the control mode for "EXT" (external). The [BRILL] key on the MU-151C is inoperative.

4 OPERATION



Key/LED	Function
\bigcirc	Turns the power on/off.
	Adjusts the display brilliance (lowest: 0, highest: 10).
फ – फ +	-: Decreases the display brilliance.
	+: Increases the display brilliance.
MENU	Opens/closes the main menu.
ESC	Escapes from current screen.
Arrow keys (▲)(▼)	Selects menu items.
Arrow keys (◄)(►)*	Adjusts settings.
LED	Changes color according to signal status as below.
	Green: The selected signal is input from the external device.
	Orange: The selected signal is not input from the external device.

*: These keys may be pressed and held down to change setting faster.

Note: Even if the power switch is off, electricity flows through the equipment. Won't be used for a long time, turn off the breaker switch at ship's power distribution box. This is especially important for DC equipment to avoid battery consumption.

5 MAINTENANCE, TROUBLESHOOTING

🖄 WARNING

ELECTRICAL SHOCK HAZARD Do not open the equipment.

Only qualified personnel should work inside the equipment.

5.1 Maintenance

Routine maintenance

Regular maintenance is important for good performance. Check the following on a regular basis to keep the equipment in good operating condition.

- Check that the connectors at the rear of the display unit are tightly fastened.
- Check the ground wire and ground terminal for rust. Clean if necessary. Confirm that the ground wire is tightly fastened.
- Remove dust and dirt from the display unit and LCD with a dry, soft cloth. Do not use chemical cleaners to clean any part of the display unit they can remove paint and markings.
- Wipe the LCD carefully to prevent scratching, using tissue paper and an LCD cleaner. To remove dirt or salt deposits, use an LCD cleaner, wiping slowly with tissue paper so as to dissolve the dirt or salt. Change paper frequently so the salt or dirt will not scratch the LCD. Do not use solvents such as thinner, acetone or benzene for cleaning.

Fuse replacement

The 4 A fuse (AC spec.) or 7 A fuse (DC spec.) on the rear panel or in the power cable protects the equipment from internal fault and overcurrent. If the fuse blows, find the cause before replacing it. If the fuse blows again after replacement, request service.

A WARNING

Use the proper fuse.

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

5.2 Troubleshooting

The table below provides troubleshooting procedures to use when no picture appears. If you cannot restore the picture, do not attempt to check inside the equipment – there are no user serviceable parts inside. Refer any work to a qualified technician.

Reason for no picture	Remedy
Battery voltage too high.	Check battery voltage.
Fuse has blown.	Replace fuse (AC: on the rear of the display unit, DC: in the power cable).
Cable between MU-151C and external equipment has loosened.	Refasten cable.
Power cable has loosened.	Refasten cable.
The brilliance is too low.	Increase the brilliance.

Troubleshooting table

SPECIFICATIONS OF MULTI-PURPOSE LCD DISPLAY MU-151C

1 GENERAL

1.1	Display	15-inch XGA color TFT-LCD, 304x228 mm
1.2	Brightness	350 cd/m ² typical, 250 cd/m ² minimum
1.3	Resolution	XGA (1,024x768), Magnified for VGA
1.4	Viewing Angle	up: 75°, down: 65°, left/right: 80°
1.5	Input Signal	RGB port: VESA (VGA, XGA)
		(1.0 Vp-p (0.7 Vp-p is also possible), Synchronization: TTL level)

2 POWER SUPPLY

2.1	Rated Voltage	100-220 VAC: 0.5 A, 1Ф, 50-60 Hz
		or
		12-24 VDC, 4.0-2.0 A

3 ENVIRONMENTAL CONDITION

- 3.1 Ambient Temperature Display unit: -15°C to +55°C, Storage: -20°C to +60°C
- 3.2 Relative Humidity 93% at 40°C
- 3.3 Waterproofing Display unit front panel: IP25

(IEC 60529) Display unit rear panel: IP20

- 3.4Vibration
(IEC 60945 ed.4)• 2 5 Hz and up to 13.2 Hz with an excursion of ±1 mm ±10%
(7 m/s² maximum acceleration at 13.2 Hz)
 - 13.2 100 Hz with a constant maximum acceleration of 7 $\mbox{m/s}^2$

4 COATING COLOR

4.1 Display Unit N3.0

MU-151C-J-DC-N/MU-151C-E-DC-N

A-1

N A M E	OUT	LINE	DESCRIPTION/CODE No.	Q' TY
ユニット UN	T		• • • • • • • • • • • • • • • • • • •	
LCD表示器		420 ①	MU-151C-DC-N	1
MOLTI-FORFOSE LOD DISPLAT	F	URUNO	000-012-635	-
予備品 SP/	RE PARTS		1	
予備品			SP19-00101	
SPARE PARTS		\gg		1
			001-403-170	
付属品 ACC	ESSORIES			
付属品		\sim	FP19-00801	
ACCESSORIES		\rightarrow		1
			001-410-510	
	TALLATION MATERIAL	S		
ケーブル組品MJ			MJ-A3SPF0025-035	
CABLE ASSY.				
		L=3.5M	000-149-147	
	UMENT		· · · · · · · · · · · · · · · · · · ·	
型紙		10	C22-00401-*	
TEMPLATE	297			
	<u>د</u>		000-149-701	
取扱説明書		10	0MJ-20320-*	
OPERATOR'S MANUAL	297			1
	<u> </u>		000-149-991 **	

コート 番号末尾の[**]は、選択品の代表型式/コートを表します。 CODE NUMBER ENDED BY "**" INDICATES THE NUMBER OF TYPICAL MATERIAL.

MU-151C-J-DC-A/MU-151C-E-DC-A

A-2

NAME		OUTLINE	DESCRIPTION/CODE No.	Q' TY
ユニット	UNIT		• • • • • • • • • • • • • • • • • • • •	k
LCD表示器	N 4.1/		MU-151C-DC-A	1
MULIT-PURPUSE LCD DISP	'LAT		000-012-646	
予備品	SPARE PA	RTS		
予備品		\sim	SP19-00101	1
SPARE PARTS			001-403-170	
付属品	ACCESSOR	IES	• · · · · · · · · · · · · · · · · · · ·	
付属品			FP19-00702	1
ACCESSORIES			008-540-740	
工事材料	INSTALLA	TION MATERIALS	I	
ケーフ [°] ル組品MJ			MJ-A3SPF0025-035	1
CABLE ASSY.				1
		L=3.5M	000-149-147	
	DOCUMENT		· · · · · · · · · · · · · · · · · · ·	
型紙		<u>210</u>	C22-00401-*	1
TEMPLATE		297	000-149-701	_
		210		
取扱説明書 		T	0MJ-20320-*	1
OPERATOR'S MANUAL		297		
			000-149-991 **	

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MU-151C-J-AC-A/MU-151C-E-AC-A

A-3

NAME	OUTLINE	DESCRIPTION/CODE No.	Q' TY
ユニット UNIT	.		1
LCD表示器	420	MU-151C-AC-A	1
MULTI-PURPOSE LCD DISPLAY	FURUNO	000-012-647	-
予備品 SPARE PA	RTS	1	I
予備品		SP06-01301	1
SPARE PARTS			4
		001-403-800	
付属品ACCESSOR	IES		,
付属品		FP19-00702	
ACCESSORIES		000 510 710	-
		008-540-740	
工事材料 INSTALLA	TION MATERIALS	·	1
工事材料		CP06-01401	
INSTALLATION MATERIALS			1
		001-403-810	
		•	
型紙 	Z10	C22-00401-*	1
TEMPLATE	297	000-149-701	-
取扱説明書	210	0MJ-20320-*	-
OPERATOR'S MANUAL	297		
		000-149-991 **	

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MU-151C-J-AC-N/MU-151C-E-AC-N

A-4

NAME		OUTLINE	DESCRIPTION/CODE No.	Q' TY
ユニット	UNIT		•	
LCD表示器	,	420	MU-151C-AC-N	
			000-012-636	-
予備品	SPARE PAI	RTS	1	
予備品		~	SP06-01301	
SPARE PARTS		\sim		1
		Ý	001-403-800	
付属品	ACCESSOR	IES		F
付属品			FP19-00801	
ACCESSORIES		$\langle \rangle$		1
			001-410-510	
工事材料	INSTALLA	TION MATERIALS		
工事材料		~	CP06-01401	
INSTALLATION MATERIALS		\sim		1
			001-403-810	
図書	DOCUMENT		• · · · · · · · · · · · · · · · · · · ·	
型紙		×210	C22-00401-*	1
TEMPLATE		297		_ '
			000-149-701	
取扱説明書		210	0MJ-20320-*	
OPERATOR'S MANUAL		297		
			000-149-991 **	

コート 番号末尾の[**]は、選択品の代表型式/コートを表します。 CODE NUMBER ENDED BY "**" INDICATES THE NUMBER OF TYPICAL MATERIAL.

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let <u>e</u> n ^{an}	URUF		CODE NO.	001-410-510		19AS-X-9501 -1
		1	TYPE	FP19-00801		1/1
付属品表						
ACCES	SSORIES					
番 号 NO.	名 称 NAME	略 図 OUTLINE	型: DESC	名/規格 RIPTIONS	数量 Q' TY	用途/備考 REMARKS
1	バネルカバー(15) COSMETIC CAP	20	19-024-22 CODE NO.	41-0 100-317-180	4	
2	+ナベタッピンネジ SELF-TAPPING SCREW	φ 5	5X40 SUS3 CODE NO.	04 1>1 000-150-355	4	

19AS-X-9501

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

A-6	
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FURUR			CODE NO.	008-540-740		19AR-X-9503 -0	
(十层口主				FP19-00702			1/1
1小周山衣 ACCESSORIES		卓上装備用 For table top mounting					
番 号 NO.	名 称 NAME	略 図 OUTLINE	型: DESC	名/規格 RIPTIONS	数量 Q' TY	用途/備考 REMARKS	
	+トラスタッビ [、] ンネジ [*] 1種 SELF-TAPPING SCREW		5X20 SUS3 CODE NO.	000-802-081	4		

19AR-X-9503

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

			CODE NO.	001-403-810)	06AU-X-9401 -0	
			TYPE	CP06-01401		1	1/1
T INST	事材料表 ALLATION MATERIALS	ACセット用 For AC set					
番 号 NO.	名 称 NAME	略 図 OUTLINE	型 DESC	名/規格 CRIPTIONS	数量 Q' TY	用途/備考 REMARKS	
1	コネクタ (SRCN) CONNECTOR	¢21	SRCN6A13- CODE NO.	-3S 000-508-665	1		

06AU-X-9401

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



						CODE NO	·	001-403	3-170	19	9AR-X-9301	-0 171
		Nink-Arran				TYPE		SP19-00)101	BO	X NO. P	
SHIP NO. SPARE PARTS LIST FOR				U -		VESSEL	ER					
		_			DC 1 For	セット用 DC set						
					DWG.	DWG NO		QUANTI	ГҮ	REM	ARKS/CODE	NO.
ITEM	NAME	0F	OF OUTLINE		OR TYPE NO.	WORKING						
NU.	PART		VUILINE	NO.		PER SET	PER VES	SPARE				
1	tı−ズ FUSE		⊨ ())-	<u>30</u>]) <u>↓</u> ¢ 6	FGBO 7A	AC125V			3	000-5	49-013	
										000-0		•
				<u>k none nitri na se ti se na </u>	<u> </u>							
					<u> </u>							
					<u> </u>							
					<u></u>							
MFR'	S NAME		FURUNO	ELECTRIC C	0., LTD.		DWG	NO.	19AR-X-9	9301		1/1
		(略図のう	†法は、参	考値です。 DIM	ENSIONS	IN DRAW	ING	FOR REF	ERENCE C	NLY.)		



				CODE NO.		001-403-800			0	6AU-X-	9301 -0 1/1			
·····						TYPE	1		SP	06-01	301	BO	X NO.	Р
SHIP	NO.	SPAF	E PARTS	LIST FOR				U	S	E			SE VE	TS PER SSEL
						ACセッ For AC	ト用 set]						
								01		Y	REM	APKS/CO	DE NO	
ITEM	NAME	OF				OR OR	VU.	WORKING		' T	112.00		DL NO.	
NO.	NO. PART		UUILINE			TYPE NO.	10. P S	PER SET	Τ	PER VES	SPARE			
1	ヒュース* FUSE		Ď	<u>20</u> ↓ ∲ 5	F	GMB 4A AC2	50V				3	000-1	49-936	
		1.11000				·····								
														· · · · · · · · · · · · · · · · · · ·
				- <u>Autorita</u>		Milen et								
						19 mili ini								
MFR'S	S NAME		FURUNO	ELECTRIC	CO.,	LTD.		DWG	NO	. 0	6AU-X-9	301		1/1

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









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Image: Sector Secto	IN D-SUB15P EN < 2	9 :04 K.MIYAZAWA IIILE MU-151C ED TAKAHASHI. T 4 m 15型力ラーLCD表示器 //D A m 15型力ラーLCD表示器 //D Multi-PURPOSE LCD DISPLAY //D Multi-PURPOSE LCD DISPLAY //D INTERCONNECTION DIAGRAM //D INTERCONNECTION DIAGRAM
LCD表示器 LCD表示器 LCD D1SPLAY MU-151C CONT CONT CONT RTRXTD_A CONTD_A FTRXTD_A CONTD_A FTRXTD_A CONTD_A FTRXTD_A CONTD_A FSW_C FS	HERE HERE HERE HERE HERE GIND HERE GINE	● *1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1
擬在部 CONTROL UNIT 擬在部 CONTROL UNIT CH-252 (CH-250/270) CH-252 (CH-250/270) CH-252 (CH-250/270) CONT A> 1 TRXTD A> 1 TR	AC仕様 *4 SPEC 100-220 VAC DPYCY-1.5 *1 SRCN6A13-35 「 AC SPEC 100-220 VAC DPYCY-1.5 *1 SRCN6A13-35 「 1 0, 50-60Hz ************************************	* 4) 交流電源のトカがゲーイに始っている場合によ、そのフォノを 6 (コモン) 端子に接続し、他方はH(ホット) 端子に接続します。 NOTE *1. SHIPYARD SUPPLY. *2. OPTION. *3. FITTED AT FACTORY. *4. IF ONE LINE OF AC IS GROUNDED, CONNECT IT TO *4. IF ONE LINE OF AC IS GROUNDED, CONNECT IT TO "6"(COMMON)TERMINAL AND THE OTHER LINE TO "H"(HOT).

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