


Operator's Manual

SWITCHING HUB HUB-100

⚠ WARNING

 **Do not open the equipment.**
Only qualified personnel should work inside the equipment.


ELECTRICAL SHOCK HAZARD

Do not install the unit where it may get wet from rain or water splash.
Water in the unit can result in fire, electrical shock or damage the equipment.

Use only the specified power cable.
Fire or damage to the equipment can result if a different cable is used.

Do not disassemble or modify the equipment.
Fire, electrical shock or serious injury can result.

⚠ CAUTION

 **Attach securely protection earth to the ship's body.**
The protection earth (grounding) is required to the AC power supply to prevent electrical shock.

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

	Standard compass	Steering compass
HUB-100	1.0 m	0.60 m

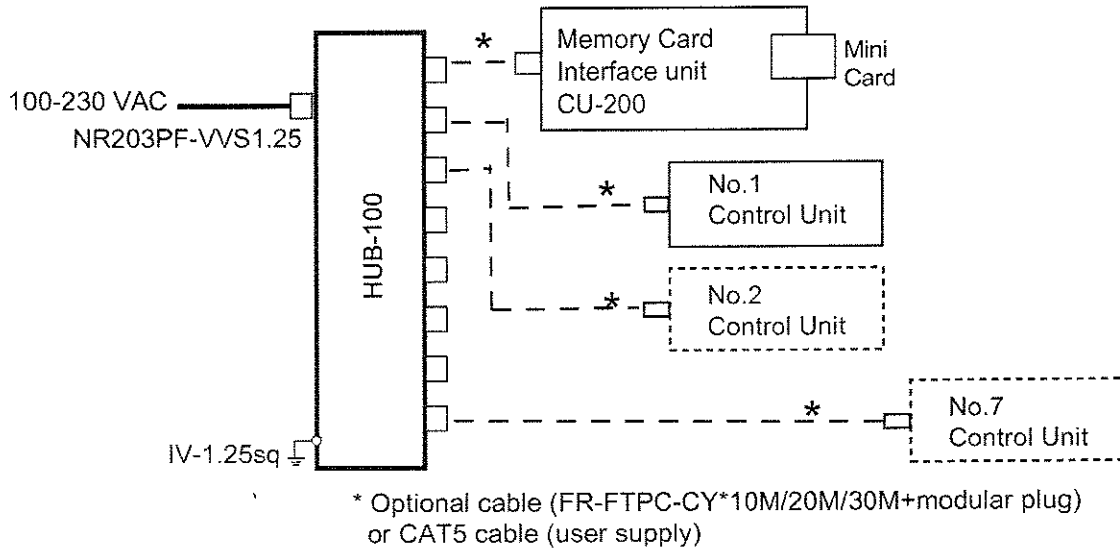


FURUNO ELECTRIC CO., LTD.
NISHINOMIYA, JAPAN



SYSTEM CONFIGURATION

The HB-100 Switching Hub uses an Ethernet interface (100BASE-TX/10BASE-T) to provide switching for the FAR-2117/FAR-2817 series radars or ECDIS FEA-2107 series. Eight ports are provided to connect a card interface unit and seven control units.



Specifications SWITCHING HUB HUB-100

- | | |
|-----------------------------|--|
| 1. Transmission Speed | Half-duplex: 10Mbps/100Mbps, Full-duplex: 20Mbps/200Mbps |
| 2. Ports | 8 ports |
| 3. Environmental Conditions | Ambient Temperature -15 to +55°C
Relative Humidity 95% (at 40°C)
EMC IEC 60945
Waterproofing IPX0 (IEC 60529) |
| 4. Power supply | 100-230 VAC/90-100mA |
| 5. Coating and Color | N3.0 |
| 6. Dimensions, Mass | 270(H)x47(H)x162(D), 1.5 kg |

	Name	Type	Code No.	Q'ty
1	Switching hub	HUB-100	-	1
2	Cable assy.	NR203PF-VSS 1.25	000-150-922	1
3	Self-tapping screw	4x6	000-802-080	4
4	Fuse	FGBO 1A	000-549-019	2
5	Document	OMC-35191-x	000-151-533	1

INSTALLATION

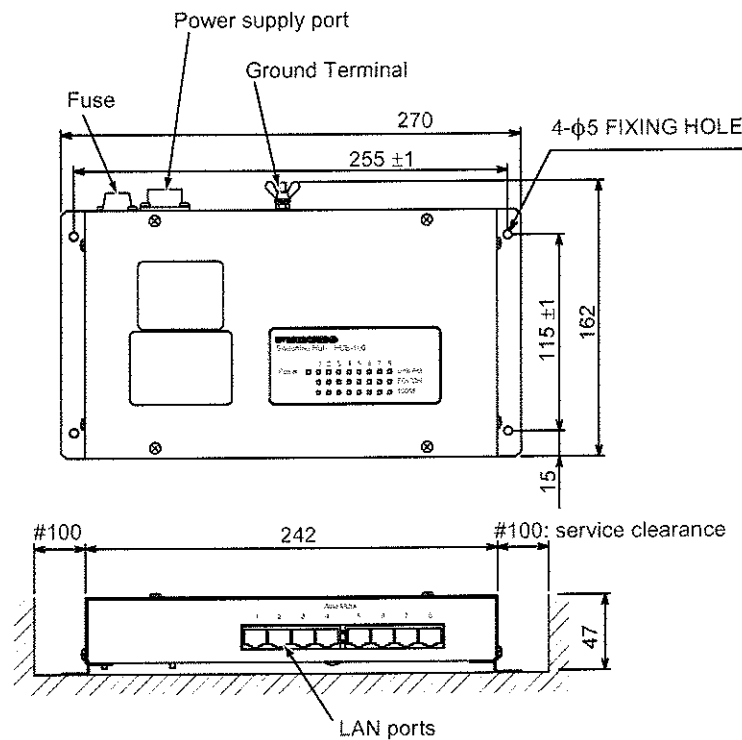
Mounting Considerations

The HUB-100 can be mounted on a desktop or a bulkhead or in the console of the RCN-003/RCN-004. When choosing a mounting location for desktop or bulkhead mounting, keep in mind the following points:

- Locate the unit well away from areas subject to water splash and rain.
- Keep the unit out of direct sunlight because of heat that can build up inside the cabinet.

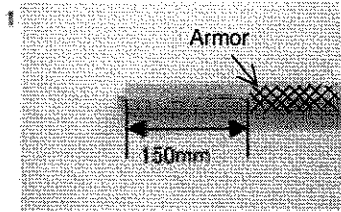
Mounting, Wiring

Fix the unit to the mounting location with four self-tapping screws (4x16). Connect the power source to the Hub with the power cable supplied. Run a ground wire between the ground terminal on the Hub and ship's superstructure.

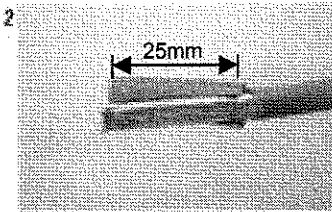


Fabricating LAN cable

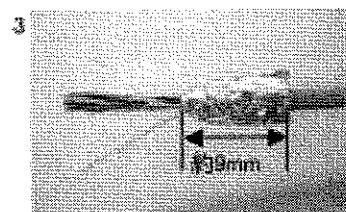
In case of LAN cable kit with armor (CP03-28900/28910/28920), cut armor by approx. 150 mm and then follow the instruction below. (Wrap both edges of armor with vinyl tape.)



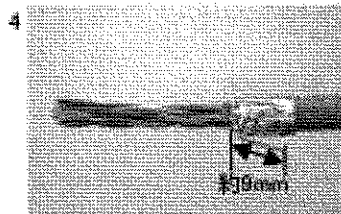
1 Remove armor of LAN cable by approx 150 mm.



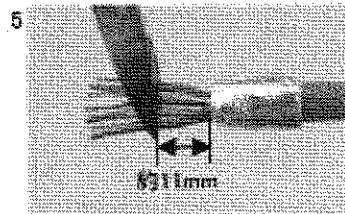
2 Remove the outer sheath by approx 25 mm . Be careful not to damage inner shield and cores.



3 Fold back the shield and wrap it onto the outer sheath and cut it, leaving 9 mm.



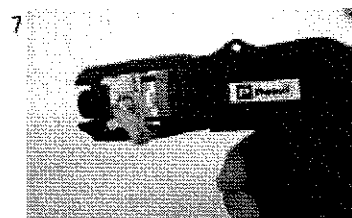
4 Fold back drain wire and cut it, leaving 9 mm.



5 Straighten the cores and cut them, leaving 11 mm.

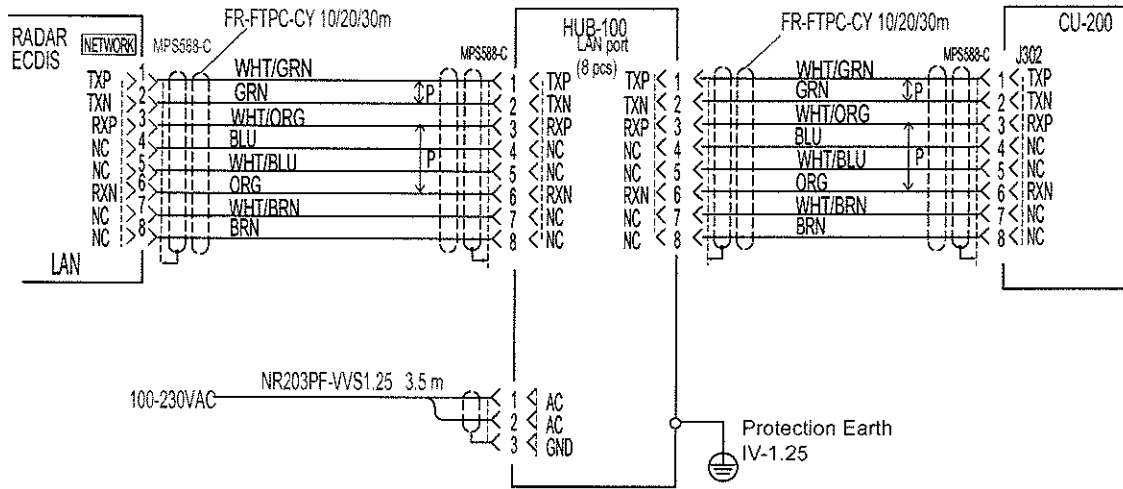


6 Insert the cable to the modular plug so that the folded part of the shield enters into the plug housing. The drain wire should be located on the tab side of the jack.



7 Using special crimping tool MPT5-8 (PANDUIT CORP.), crimp the modular plug. Finally check the plug visually.

Interconnection

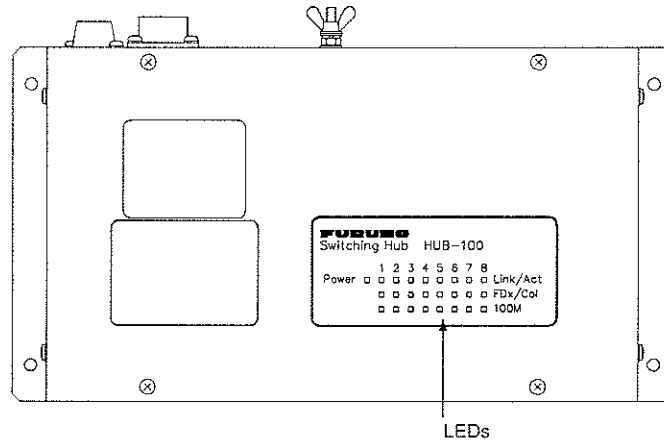


OPERATION, MAINTENANCE

No operation is required for the user. Simply turn on the HUB-100's AC power source to power it.

LED Display

The LEDs on the top of the unit light, blink or go off according to equipment status. The LEDs display link, mode (full-duplex or half-duplex) and collision statuses. When the equipment is powered all LEDs light and then go off.



LED status and meaning

LED	Status	Meaning
Power	Lit	Equipment powered
	Off	Equipment off
Link/Act	Lit	Connection with terminal normal
	Off	Connection with terminal disconnected
	Blinking	Data TX or RX
FDx/Col	Lit	Full-duplex
	Off	Half-duplex
	Blinking	Collision
100M	Lit	100Mbps connection
	Off	10Mbps connection

Cleaning the Unit

Dust or dirt on the unit may be wiped off with a soft, clean cloth. Do not use chemical cleaners to clean the unit; they can remove paint and markings.

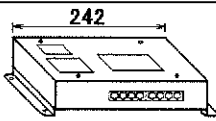



Replacement of Fuse

The 1A fuse on the rear panel protects the equipment from overcurrent and equipment fault. If the power cannot be turned on, check if the fuse has blown. If the fuse blows after replacement, request service.

PACKING LIST

03GL-X-9866 -1 1/1

HUB-100

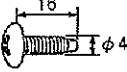
NAME	OUTLINE	DESCRIPTION/CODE No.	Q'TY
ユニット UNIT			
スイッチング ハブ SWITCHING HUB		HUB-100 000-083-354	1
予備品 SPARE PARTS			
予備品 SPARE PARTS		SP03-15001 008-543-730	1
工事材料 INSTALLATION MATERIALS			
工事材料 INSTALLATION MATERIALS		CP03-29401 008-543-740	1
工事材料 INSTALLATION MATERIALS			
ケーブル組品 CABLE ASSY.		NR203PF-VVS1.25 3.5M 000-150-922	1

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

C3519-Z12-B

FURUNO

CODE NO.	008-543-740-00	03GL-X-9414 -2
TYPE	CP03-29401	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	トラスタップネジ 171 SELF-TAPPING SCREW		4X16 SUS304 ----- 4X16 SUS304 171 CODE NO. 000-162-605-10 000-802-080-00	4	

型式/コード番号が2段の場合、下段より上段に代わる過渡期品であり、どちらかが入っています。なお、品質は変わりません。

TWO TYPES AND CODES MAY BE LISTED FOR AN ITEM. THE LOWER PRODUCT MAY BE SHIPPED IN PLACE OF THE UPPER PRODUCT. QUALITY IS THE SAME.

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