

FURUNO

OPERATOR'S MANUAL

AIS INTERFACE

MODEL IF-1500AIS



FURUNO ELECTRIC CO., LTD.
NISHINOMIYA, JAPAN



SAFETY INSTRUCTIONS

Safety Instructions for the Operator

WARNING

Do not disassemble or modify the equipment.

Fire, electrical shock or serious injury can result.

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.

Make sure no rain or water splash leaks into the equipment.

Fire or electrical shock can result if water leaks in the equipment.

Keep heater away from equipment.

A heater may melt the power cord, which can result in fire or electrical shock.

Do not place liquid-filled containers on the top of the equipment.

Fire or electrical shock can result.

Safety Instructions for the Installer

WARNING

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 the equipment.

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

Connection of an incorrect power supply can cause fire or damage the equipment.

CAUTION

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

Standard compass	Steering compass
0.55 m	0.35 m

Foreword

FURUNO Electric Company thanks you for purchasing the IF-1500AIS AIS Interface. We are confident you will discover why the FURUNO name has become synonymous with quality and reliability.

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 installation and maintenance procedures set forth in this manual.

Thank you for considering and purchasing FURUNO.

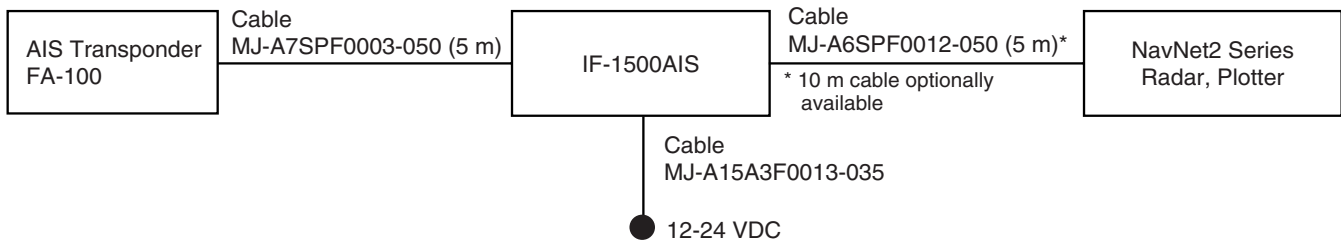
Features

The IF-1500AIS enables connection of the FURUNO AIS Transponder FA-100 to the NavNet2 Series radars to display AIS information on the radar and plotter displays. AIS target data input from the transponder are selected and sorted (by range, CPA/TCPA ,etc.), format-converted and then output to the NavNet2 series radar.

Equipment List

Name	Type	Code No.	Qty	Remarks
Standard supply				
AIS Interface	IF-1500AIS	—	1	
Installation Materials	CP14-06500	000-040-013	1 set	1) Cable assy. MJ-A15A3F0013-035-3A MJ-A7SPF0003-050 MJ-A6SPF0012-050 2) Self-tapping screws 4x16, 4 pcs.
Spare Parts	SP14-03301	004-000-730	1 set	
Optional supply				
Cable Assy.	MJ-A15A3F0013-035-3A	000-145-880	1	
Cable Assy.	MJ-A7SPF0003-050	000-136-730	1	
Cable Assy.	MJ-A6SPF0012-050	000-134-424	1	
Cable Assy.	MJ-A6SPF0012-100	000-133-817	1	

System Configuration



Mounting

The unit can be mounted on a desktop or a bulkhead. When choosing a mounting location, keep in mind the following points:

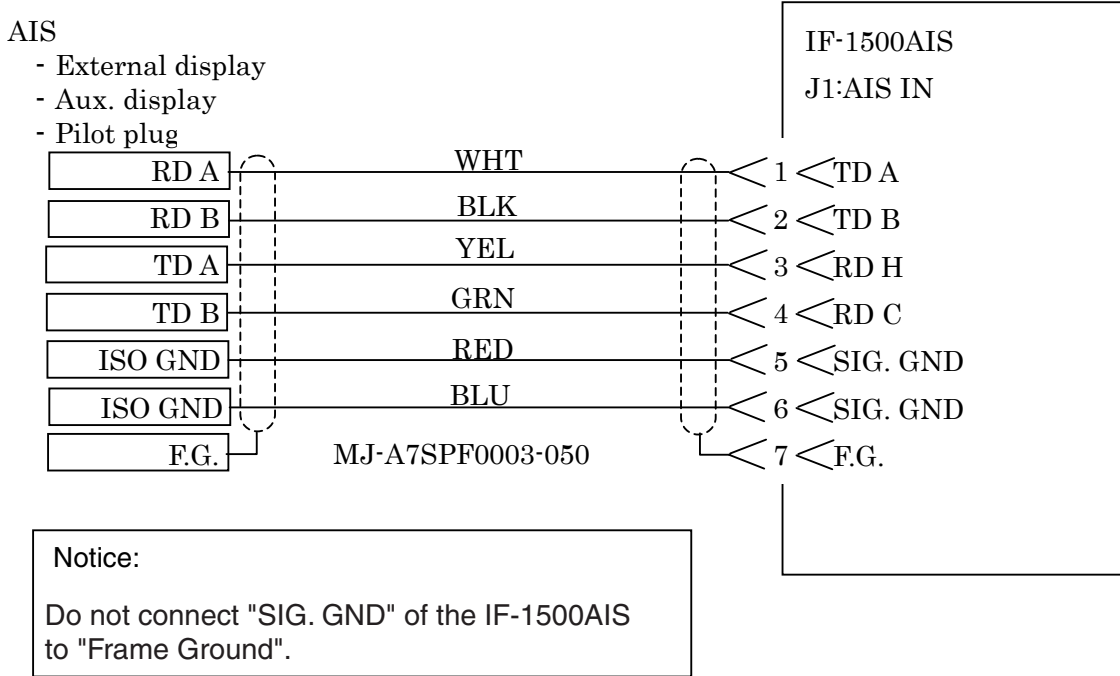
- Consider cable lengths.
- Choose a location away from rain and water splash and one which is not in direct sunlight.
- Observe the maintenance space noted in the outline drawing to facilitate servicing.
- Observe the compass safe distances noted in the safety instructions at the beginning of this manual.

Fix the unit to the mounting location with four self-tapping screws (4x16). Connect cables referring to the interconnection diagram. Run a ground wire (local supply) between the ground terminal and ship's superstructure.

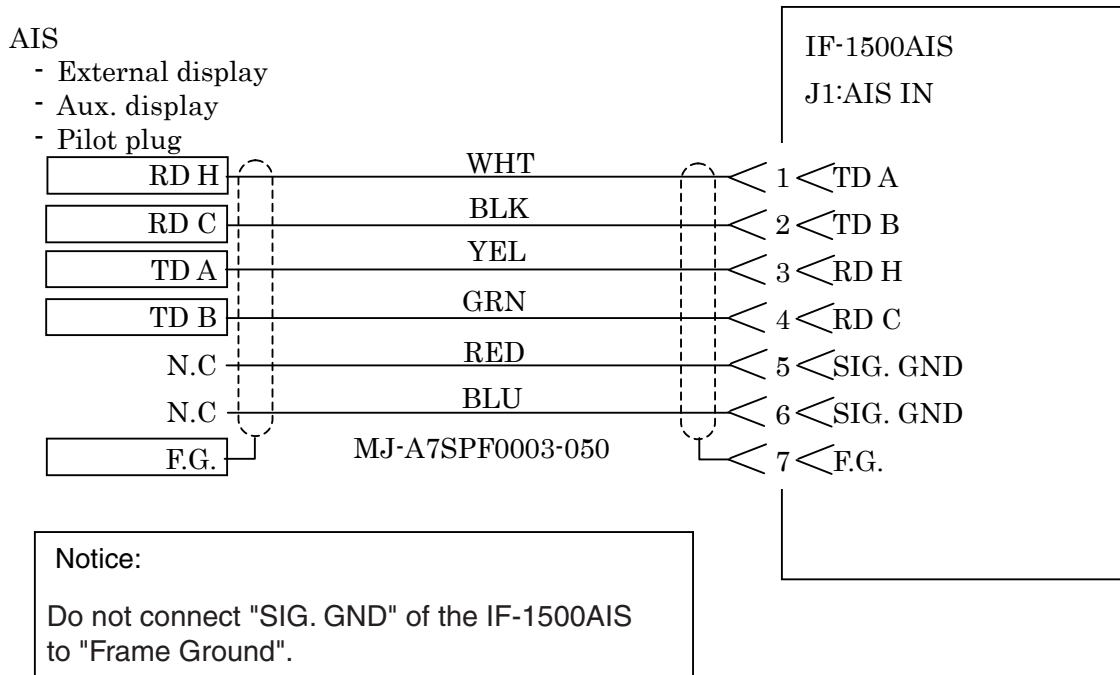
Wiring

Refer to the interconnection diagram at the back of this manual and the illustration below.

For IEC 61162-2

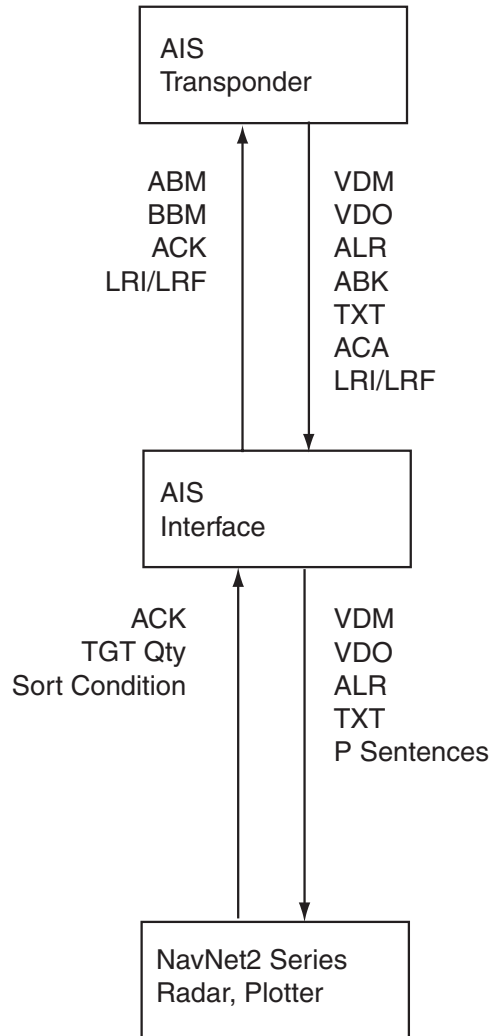


For IEC 61162-1, NMEA-0183



Data Sentences

The following data sentences are input to and output from the AIS Interface.



Operation

No operation is required of the user. All AIS-related operations are carried out from the NavNet2 series radar or plotter.

Cleaning

Dust may be removed from the cabinet with a soft dry cloth. For stubborn dirt, water-diluted mild detergent may be used. Do not use chemical-based cleaning agents to clean the cabinet; they can remove paint and markings.

Replacement of Fuse

The 3A fuse in the power cable protects the equipment from reverse polarity and equipment trouble. If the fuse blows, find the cause before replacing the fuse. If it blows after replacement request service.

WARNING

Use the proper fuse.

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

SPECIFICATIONS OF AIS INTERFACE IF-1500AIS

1. PORTS

- | | | |
|-----|----------------------|--|
| 1.1 | Number of ports | 2 ports (IN/OUT) |
| 1.2 | Baud rate | 38,400 bps |
| 1.3 | AIS IN port (RS-485) | Input data: VDM, VDO, ALR, ABK, TXT, ACA, LRI/LRF
Output data: ABM, BBM, ACK, LRI/LRF |
| 1.4 | DATA OUT port | Input data: ACK, Target quantity, Sort condition
Output data: VDM, VDO, ALR, TXT, P-sentences |
| 1.5 | Digital interface | IEC 61162-2 |

2. ENVIRONMENTAL CONDITIONS

- | | | |
|-----|---------------------|---------------|
| 2.1 | Useable temperature | -15°C to 55°C |
| 2.2 | Relative humidity | 95%(40°C) |
| 2.3 | EMC | IEC 60945 |
| 2.4 | Waterproofing | IP20 |

3. POWER SUPPLY

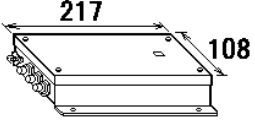
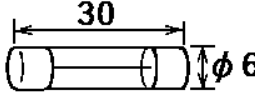



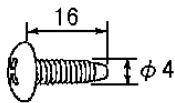
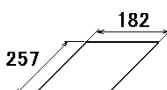
12-24 VDC, 0.2-0.1 A

4. COLOR

N3.0

PACKING LIST

IF-1500AIS

NAME	OUTLINE	DESCRIPTION/CODE	Q'TY
ユニット	UNIT		
AISインターフェイス AIS INTERFACE		IF-1500AIS 000-152-849	1
予備品	SPARE PARTS	SP14-03301	
ヒューズ FUSE		FGBO-A 3A AC125V 000-549-063	2
工事材料	INSTALLATION MATERIALS	CP14-06500	
ケーブル組品MJ POWER CABLE		MJ-A15A3F0013-035-3A 000-145-880	1
ケーブル組品MJ CABLE ASSY.		MJ-A7SPF0003-050 000-136-730	1
ケーブル組品MJ SIGNAL CABLE ASSEMBLY		MJ-A6SPF0012-050 000-134-424	1
+トラスタップネジ SELF-TAPPING SCREW		4X16 SUS304 1ヶ 000-802-080	4
図書	DOCUMENT		
取扱説明書 OPERATOR'S MANUAL		OMC-44350- 000-152-852	1

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

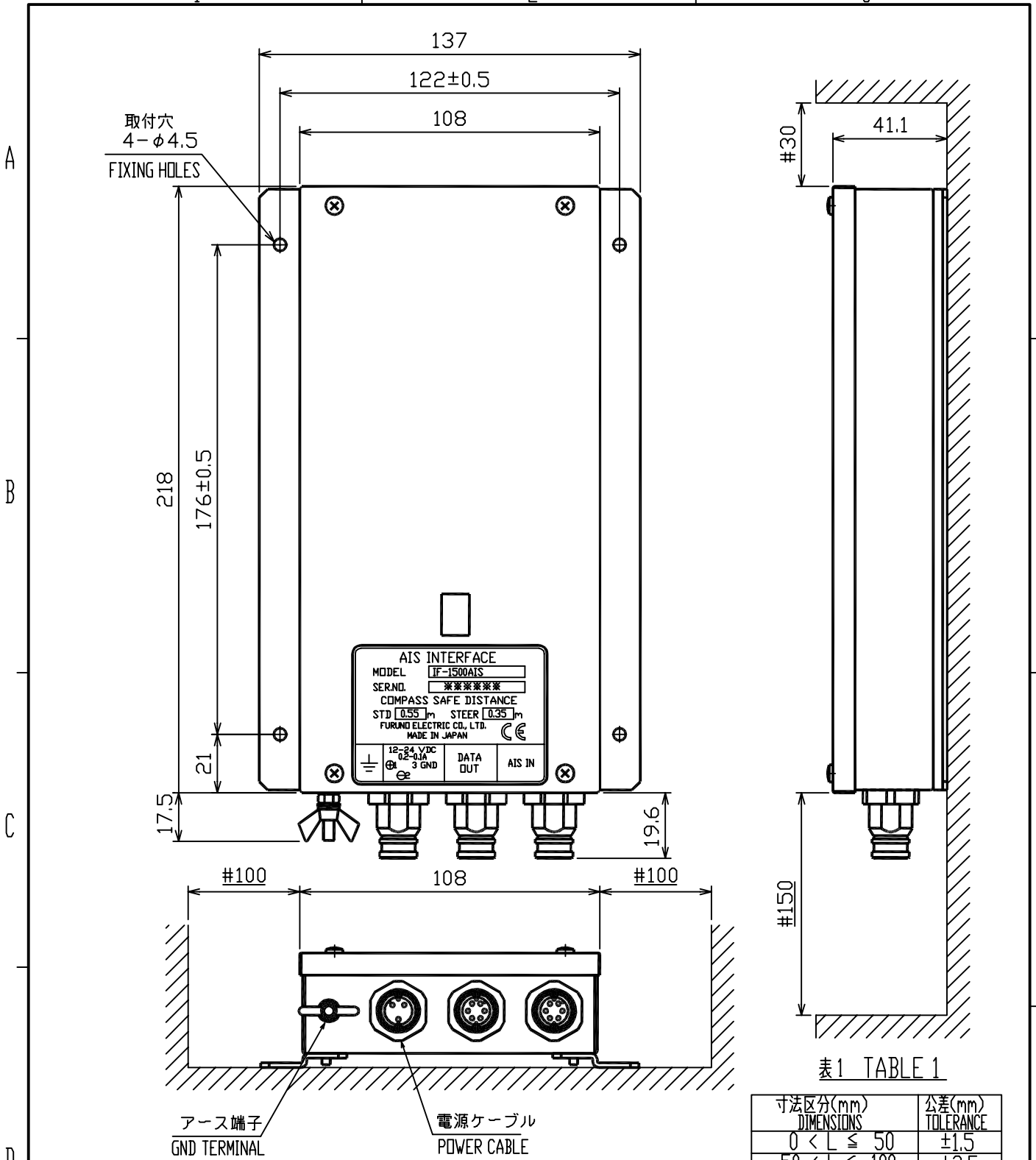


表1 TABLE 1

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

注記

- 1) #印寸法は最小サービス空間寸法とする。
- 2) 指定外の寸法公差は表1による。
- 3) 取付用ネジはトラスタッピンネジ呼び径4×16を使用のこと。

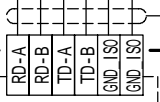
NOTE

1. #: MINIMUM SERVICE CLEARANCE.
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.
3. USE SELF-TAPPING SCREWS 4x16 FOR FIXING THE UNIT.

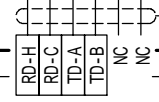
DRAWN MAY 10, '05 E. MIYOSHI	TITLE IF-1500AIS
CHECKED TAKAHASHI, T	名称 AISインターフェイス
APPROVED Y. Hatai	外寸図
SCALE 1/2 MASS 0.80 ±10% kg	NAME AIS INTERFACE UNIT
DWG.No. C4435-G01-C	OUTLINE DRAWING

FA-100 接続箱 CB-100
Junction Box
外部表示器/パイロットブラグなどの端子台
Terminal for External Display/
Aux. Display/Pilot Plug.

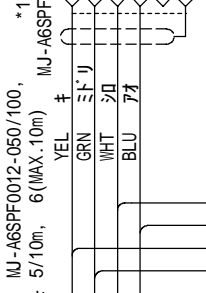
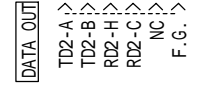
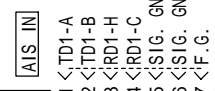
IEC-61162-2の場合
For IEC-61162-2



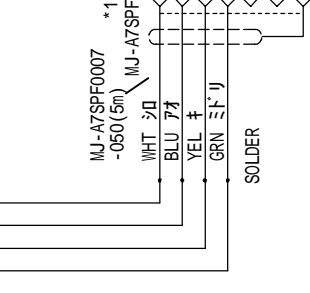
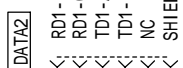
IEC-61162-1/NMEA-0183の場合
For IEC-61162-1/NMEA-0183



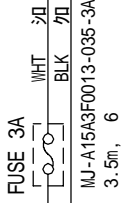
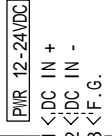
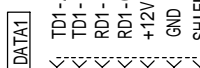
AIS インターフェイスユニット
AIS INTERFACE UNIT
IF-1500AIS



NavNet2 船舶用レーダー/プロッタ
NavNet2 MARINE RADAR/PLOTTER
MODEL 18X4C, 19X4C SERIES



NavNet2 船舶用レーダー/プロッタ
NavNet2 MARINE RADAR/PLOTTER
MODEL 17X4C SERIES, FR-8002 SERIES



IF-1500 AISのSIG. GNDはFG(フレームグラウンド)に接続しないこと。
DO NOT CONNECT "SIG. GND" of IF-1500AIS to "FG" (Frame Ground).



注記

- *1) コネクタは工場にて取付済み。
- *2) 造船所手配。

NOTE

- *1. CONNECTOR PLUG FITTED AT FACTORY.
- *2. SHIPYARD SUPPLY.

DRAWN	MAY 20 05 D. MILLS	TYPE	IF-1500AIS
CHECKED	TAKAHASHI, T	名称	AISインターフェイス
APPROVED	Y. Hatai		相互結線図
SCALE	MASS	NAME	AIS INTERFACE UNIT
DWG. No.	C4435-C01- B		INTERCONNECTION DIAGRAM



この図書には環境配慮型漂白方式の用紙を使用しています。

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