SAFETY INSTRUCTIONS

The user and installer must read the appropriate safety instructions before attempting to install or operate the equipment.

| WARNING | Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
| CAUTION | Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

Warning, Caution  Prohibitive Action  Mandatory Action

Safety instructions for the operator

**WARNING**

Do not open the equipment.

Only qualified personnel should work inside the equipment.

Immediately turn off the power at the switchboard if water leaks into the equipment or something is dropped into the equipment.

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

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.

Do not disassemble or modify the equipment.

Fire, electrical shock or serious injury can result.

**WARNING**

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

Fire or electrical shock can result if a liquid spills into the equipment.

Do not operate the equipment with wet hands.

Electrical shock can result.

Turn off the power immediately if you feel the equipment is behaving abnormally.

Turn off the power at the switchboard if the equipment becomes abnormally warm or is emitting odd noises. Contact a FURUNO dealer or agent for advice.

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

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

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

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

CAUTION

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

<table>
<thead>
<tr>
<th>Compass</th>
<th>Standard compass</th>
<th>Steering compass</th>
</tr>
</thead>
<tbody>
<tr>
<td>CU-300</td>
<td>0.70 m</td>
<td>0.45 m</td>
</tr>
</tbody>
</table>

Attach grounding securely to ship’s body.

The grounding is required to prevent electrical shock.
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The Memory Card Interface Unit CU-300 connects to a processor unit of MODEL18x4C-BB/19x4C-BB or GD-1920C-BB (NavNet VX2-BB) to provide a card drive(s) in a remote location(s). Power to the CU-300 is supplied from the processor unit. Maximum four units can be connected via a HUB. Note that the CU-300 can be connected only to the NavNet VX2 units which have the following software version No.

**C-MAP specification**

<table>
<thead>
<tr>
<th>Type</th>
<th>Version No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL 18x4C-BB/19x4C-BB, GD-1920C-BB</td>
<td>1950026-02.01 and after</td>
</tr>
<tr>
<td>MODEL 18x4C/19x4C, GD-1920C</td>
<td>1950024-02.01 and after</td>
</tr>
<tr>
<td>MODEL 17x4C, GD-1720C</td>
<td>1950028-02.01 and after</td>
</tr>
</tbody>
</table>

**NAVIONICS specification**

<table>
<thead>
<tr>
<th>Type</th>
<th>Version No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL 18x4C-BB/19x4C-BB, GD-1920C-BB</td>
<td>1950025-01.09 and after</td>
</tr>
<tr>
<td>MODEL 18x4C/19x4C, GD-1920C</td>
<td>1950023-01.09 and after</td>
</tr>
<tr>
<td>MODEL 17x4C, GD-1720C</td>
<td>1950027-01.09 and after</td>
</tr>
</tbody>
</table>
**Connection to single NavNet VX2-BB unit**

- CU-300
- Power cable: MJ-A3SPF0026-050C or 100C
- Ethernet cable: MJ-A6SPF0017-050C or 100C
- Model 18x4C-BB/19x4C-BB
- GD-1920C-BB

**Connection to multiple NavNet VX2-BB units**

- CU-300
- Power cable: MJ-A3SPF0026-050C or 100C
- LAN cable (CAT5, STP, straight)
- HUB

- Model 18x4C-BB/19x4C-BB, GD-1920C-BB
- Model 18x4C/19x4C, GD-1920C
- Model 17x4C or GD-1720C

- Model 18x4C-BB/19x4C-BB, GD-1920C-BB
- Model 18x4C/19x4C, GD-1920C
- Model 17x4C or GD-1720C

- HUB

- Standard supply
- Local supply
- NavNet VX2
- Option for NavNet VX2
Connection for two CU-300

Model 18x4C-BB/19x4C-BB
GD-1920C-BB

Power cable
MJ-A3SPF0026-050C
or 100C

LAN cable (CAT5, STP, straight)

HUB

: Standard supply
---: Local supply
----------: NavNet VX2
----------: Option for NavNet VX2
# EQUIPMENT LISTS

## Standard supply

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Code No.</th>
<th>Qty</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory Card Interface Unit</td>
<td>CU-300</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Installation Materials (Select one.)</td>
<td>CP03-27400</td>
<td>000-081-570</td>
<td>1 set</td>
<td>For 5 m, MJ-A6SPF0017-050C, MJ-A3SPF0026-050C, and CP03-27401</td>
</tr>
<tr>
<td></td>
<td>CP03-27410</td>
<td>000-081-571</td>
<td>1 set</td>
<td>For 10 m, MJ-A6SPF0017-100C, MJ-A3SPF0026-100C, and CP03-27401</td>
</tr>
<tr>
<td></td>
<td>CP03-27440</td>
<td>000-083-403</td>
<td>1 set</td>
<td>For 5 m, MJ-A3SPF0026-050C and CP03-27401</td>
</tr>
<tr>
<td></td>
<td>CP03-27450</td>
<td>000-010-245</td>
<td>1 set</td>
<td>For 10 m, MJ-A3SPF0026-100C and CP03-27401</td>
</tr>
</tbody>
</table>

## Optional supply

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Code No.</th>
<th>Qty</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hanger</td>
<td>FP03-10201</td>
<td>008-539-530</td>
<td>1 set</td>
<td>For desktop mounting</td>
</tr>
<tr>
<td>Console Mounting Kit</td>
<td>FP03-10203</td>
<td>001-011-710</td>
<td>1 set</td>
<td>For bulkhead mounting</td>
</tr>
<tr>
<td>Cable Assy</td>
<td>MJ-A3SPF0026-050C</td>
<td>000-157-944-10</td>
<td>1</td>
<td>5 m, power cable</td>
</tr>
<tr>
<td></td>
<td>MJ-A3SPF0026-100C</td>
<td>000-157-945-10</td>
<td>1</td>
<td>10 m, power cable</td>
</tr>
<tr>
<td></td>
<td>MJ-A6SPF0017-050C</td>
<td>000-159-705-11</td>
<td>1</td>
<td>5 m, Ethernet cable</td>
</tr>
<tr>
<td></td>
<td>MJ-A6SPF0017-100C</td>
<td>000-159-706-11</td>
<td>1</td>
<td>10 m, Ethernet cable</td>
</tr>
</tbody>
</table>
1. **MOUNTING**

The memory card interface unit can be flush mounted in a console, or mounted on a desktop or the overhead.

Choose a mounting location for the unit considering the following points:

- Leave sufficient space around the unit to facilitate checking and maintenance. See outline drawing at the back of this manual for recommended maintenance space.
- Locate the unit well away from exhaust gases and other active gases.
- The location should be well ventilated.
- Choose a location where shock and vibration are minimal.
- Only the front panel is waterproofed.

**Note:** For flush mount or bulkhead mount, the DIP switch setting should be completed before mounting. See page 8.

1.1 **Flush Mounting**

1. Prepare a cutout in the mounting location as below.

2. Screw four threaded rod (M4×50, supplied) into holes on the front panel (reverse side).

3. Insert the unit into the cutout made at step 1.

4. Fix the unit with four spring, flat washers, and hex. nuts.
1.2 Desktop Mounting
This method requires the optional hanger FP03-10201.

Name: Hanger (Type: FP03-10201, Code no.: 008-539-530)

Contents of kit FP03-10201

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Code No.</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hanger</td>
<td>19-023-3081</td>
<td>100-316-250</td>
<td>1</td>
</tr>
<tr>
<td>Self-tapping screw</td>
<td>φ5×20, SUS304</td>
<td>000-162-608-10</td>
<td>4</td>
</tr>
<tr>
<td>Pan head screw</td>
<td>M4×10, C2700W</td>
<td>000-163-167-10</td>
<td>4</td>
</tr>
</tbody>
</table>

1. Fasten four pan head screws (M4×10) to fix the hanger to the unit.
2. Fix the hanger with unit to the mounting location with four self-tapping screws (φ5×20).
1.3 Overhead Mounting

This method requires the optional kit FP03-10203.

Name: Console mounting kit (Type: FP03-10203, Code no.: 001-011-710)

Contents of kit FP03-10203

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Code No.</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mounting plate</td>
<td>19-023-3091</td>
<td>100-316-260</td>
<td>1</td>
</tr>
<tr>
<td>Pan head screw</td>
<td>M4×10 C2700W</td>
<td>000-163-167-10</td>
<td>4</td>
</tr>
<tr>
<td>Hex. nut</td>
<td>M4 SUS304</td>
<td>000-863-106</td>
<td>4</td>
</tr>
<tr>
<td>Flat washer</td>
<td>M4 SUS304</td>
<td>000-864-126</td>
<td>4</td>
</tr>
<tr>
<td>Spring washer</td>
<td>M4 SUS304</td>
<td>000-864-256</td>
<td>4</td>
</tr>
</tbody>
</table>
1. Prepare four fixing holes in the bulkhead whose dimensions are as shown below.

2. Fasten four pan head screws (M4) to fix the mounting plate to the unit.

3. Insert four studs at the top of the mounting plate in fixing holes made at step 1, and then pass spring washers, flat washers and hex. nuts onto in that order from inside the bulkhead.

4. Tighten hex nuts to fix the unit.

Dimensions for overhead mounting
2. WIRING

There are three types of connections:

• Connection between one processor unit and memory card interface unit.
• Connection between one memory card interface unit and multiple processor units
• Connection between two memory card interface units and two processor units.

Note that the total number of card slots is maximum four in a series.

2.1 Connection between One Processor Unit and One Memory Card Interface Unit

Power cable
MJ-A3SPF0026-050C or 100C

Ground wire
IV-1.25sq
(Local supply)
2.2 Connection between One Memory Card Interface Unit and Multiple Processor Units (Max. Three Units)

Prepare the following cables and connectors:

- Commercial LAN cable (CAT5, STC, straight)
- Cable assy, MJ-A6SPF0014-010C/050C/100C/200C/300C (option for NavNet VX2)
- Converter connector, MJA6SRMD/TM11AP8-005 (option for NavNet VX2)
2.3 Connection between Two Memory Card Interface Units and Two Processor Units

Prepare the following cables and connectors:

- Commercial LAN cable (CAT5, STP, straight)
- Cable assy, MJ-A6SPF0014-010C/050C/100C/200C/300C (option for NavNet VX2)
- Converter connector, MJA6SERMD/TM11AP8-005 (option for NavNet VX2)
**Setting of the IP address for the second memory card interface unit**

When connecting two memory card interface units, change the DIP switch setting on the second unit as below to change its IP address. Note that the second unit is exclusively for reading chart card.

1. Unfasten two pan head screws (M3x8), a wing bolt and a washer for MJ connector at the rear of the unit.
2. Unfasten four screws and the connector at the location shown below to remove the front panel.

3. Unfasten four pan head screws at the inner front chassis to remove it.
4. Pull out the inner chassis to it.
5. Set the #4 segment of DIP switch S1 as below.

6. Re-assemble the unit.
3. OPERATION

3.1 Basic Operation

Card drive
Insert the appropriate chart SD card (or memory card) for your area as below. For details of SD cards, see the operator’s manual for NavNet VX-2.

1. Open the card drive.
2. Insert the card (label side up) prior to turning on the power at NavNet VX2-BB.
3. Close the lid.

To remove the card, follow the instructions shown on the display of NavNet VX2 and then confirm that the power lamp on the front panel lights. Do not read/write the data.

Power lamp
Lights (green): The power is on.
Blinks: The unit is reading/writing data.

Card box
You can store two SD cards here.

Note 1: When the connection between NavNet VX2-BB and memory card interface unit is wrong, the NavNet VX2-BB searches for chart data in the SD card for 50 seconds, and then returns to the normal operation. The display looks frozen, however normal operation will be restarted after the search is completed.

Note 2: To prevent loss of card data if the power suddenly goes off, it is recommended that you periodically back up data to an SD card.
3.2 Priority of Card Drives

The priority of card drives is automatically set after turning the power on. This priority order varies depending on the number of card drives connected.

One memory card interface unit

Unit and available chart card and memory card locations

The numbers in the table refer to the corresponding units in the figure above.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Available chart card locations</th>
<th>Available memory card location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1  2  3  4</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>NavNet VX2 or NavNet VX2-BB</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>1  2  3  4</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>NavNet VX2 or NavNet VX2-BB</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1  2  3  4</td>
<td>2</td>
</tr>
</tbody>
</table>
Two memory card interface units

Unit and available chart card and memory card locations
The numbers in the table refer to the corresponding units in the figure above.

<table>
<thead>
<tr>
<th>Unit (priority)</th>
<th>Available chart card locations</th>
<th>Available memory card location</th>
</tr>
</thead>
<tbody>
<tr>
<td>①</td>
<td>1 2 3 4</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>1 2 3 4</td>
<td>2</td>
</tr>
</tbody>
</table>

*: For the second CU-300, DIP switch setting is necessary.
SPECIFICATIONS OF MEMORY CARD INTERFACE UNIT
CU-300

1 GENERAL
1.1 Number of card slot  1
1.2 Card storage  2 SD-card
1.3 Ethernet  100BASE-TX/10BASE-T, auto-negotiation
1.4 Cable Connection  RJ-45, STP LAN (CAT5)
1.5 Card type  (at February 2007)
   ADTEC  AD-SDH512/1G/2G, AD-SDPS128M/256M/512M/1G
   BUFFALO  RSDC-S64M/S128M/S256M/S512M/S1G/S2G/G512M/G1G/G2G
   HAGIWARASYS-COM  HPC-SD256M/SD512M2/SD1GM2/SD2GM2/SD256TP/SD512TP/
   SD1GTP/SD128T/SD256T/SD512T/SD1GT/SD2GT
   I/O DATA  SD-128M/256M/512M/1G/2G, SDP-256M/512M/1G/2G
   Kingston  SD/1GBFE, SD/2GBFE
   LEXER  SD256/512/1GB-231
   PANASONIC  RP-SDR512/01G/02G-J1A, RP-SD128ML1A, RP-SD256BJ1A,
               RP-SDK512/01G/02G-J1A
   PQI  QSDS-256/512/1G/2G
   SANDISK  SDSDB-256/512/1024/2048-J60, SDSDH-512/1024/2048-903

2 POWER SUPPLY
   12 VDC: 0.14 A, 1.7 W or less

3 ENVIRONMENTAL CONDITIONS
3.1 Ambient temperature  -15°C to +55°C
3.2 Relative humidity  93% at 40°C
3.3 Degree of protection  IP22 (IP55: flush mount or front panel only)
3.4 Bearing vibration  IEC 60945-4
3.5 CE marking  IEC 60945-4

4 COATING COLOR
   N3.0
### PACKING LIST

<table>
<thead>
<tr>
<th>ユニット</th>
<th>サブ</th>
<th>品名</th>
<th>数量</th>
</tr>
</thead>
<tbody>
<tr>
<td>メモリカード インタフェイス</td>
<td>1</td>
<td>MEMORY CARD INTERFACE UNIT</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CU-300-000-010-244-00</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CP03-27440/27450</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MJ-A3SPF0026-050</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CP03-27440/27450</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MJ-A3SPF0026-100</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CP03-27440/27450</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MJ-A3SPF0026-100C</td>
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<td></td>
<td></td>
<td>CP03-27401</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OME-35501-*</td>
<td>1</td>
</tr>
<tr>
<td>管材</td>
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</tr>
<tr>
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<td></td>
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<tr>
<td>図書</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*（1）インストレーションマテリアルを示します。

---

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。

（略図の寸法は参考値です。）
<table>
<thead>
<tr>
<th>番号</th>
<th>名称</th>
<th>略図</th>
<th>型名/規格</th>
<th>数量</th>
<th>用途/備考</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>六角ナット 一種</td>
<td><img src="image" alt="六角ナット" /></td>
<td>M4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>エンプレス平座金</td>
<td><img src="image" alt="エンプレス平座金" /></td>
<td>φ9</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ノコギリ座金</td>
<td><img src="image" alt="ノコギリ座金" /></td>
<td>8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>寸切パント</td>
<td><img src="image" alt="寸切パント" /></td>
<td>50</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

（略図の寸法は、参考値です。）
### 注 記
1) 指定外の寸法公差は表1による。
2) #印寸法は最小サービス空間寸法とする。
3) 取付用ネジは ±トラススタビネジ呼び径 5 × 20 を使用のこと。

### NOTE
1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.
2. # MINIMUM SERVICE CLEARANCE.
3. USE TAPPING SCREWS Ø5x20 FOR FIXING THE UNIT.

### 表1 TABLE 1

<table>
<thead>
<tr>
<th>尺寸区分 (mm)</th>
<th>公差 (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSION</td>
<td>TOLERANCE</td>
</tr>
<tr>
<td>L ≤ 50</td>
<td>± 1.5</td>
</tr>
<tr>
<td>50 &lt; L ≤ 100</td>
<td>± 2.5</td>
</tr>
<tr>
<td>100 &lt; L ≤ 500</td>
<td>± 3</td>
</tr>
</tbody>
</table>

---

![Diagram](image-url)
注記
1）指定外の寸法公差は表1による。
2）#印寸法は最少サービス空間寸法とする。
3）取付にはM4ナットを使用のこと。
4）取付板厚は最大8mmとする。

NOTE
1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.
2. #: MINIMUM SERVICE CLEARANCE.
3. USE M4 NUTS FOR FIXING THE UNIT.
4. THICKNESS OF BULKHEAD: MAX.8 mm.
表 1  TABLE 1

<table>
<thead>
<tr>
<th>尺寸單位 (mm)</th>
<th>公差 (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L ≤ 50</td>
<td>± 1.5</td>
</tr>
<tr>
<td>50 &lt; L ≤ 100</td>
<td>± 2.5</td>
</tr>
<tr>
<td>100 &lt; L ≤ 500</td>
<td>± 3</td>
</tr>
</tbody>
</table>

注記
1) 指定外の寸法公差は表1による。
2) #印寸法は最小サービス空間寸法とする。
3) 取付はM4X50寸切りボルト、M4平座金、M4パネ座金、M4ナット使用のこと。

NOTE
1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.
2. #: MINIMUM SERVICE CLEARANCE.
3. USE M4x50 STUDS, M4 P.W. + S.W. AND NUTS.
The paper used in this manual is elemental chlorine free.