1. Model: TZTBB

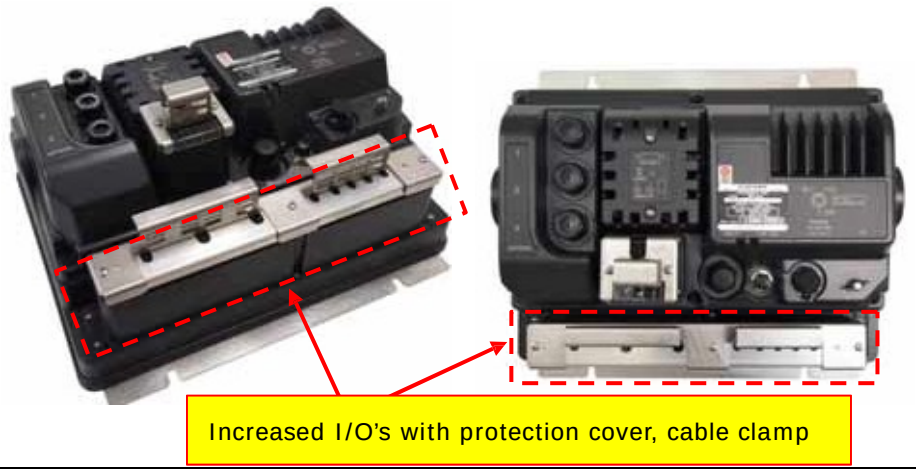
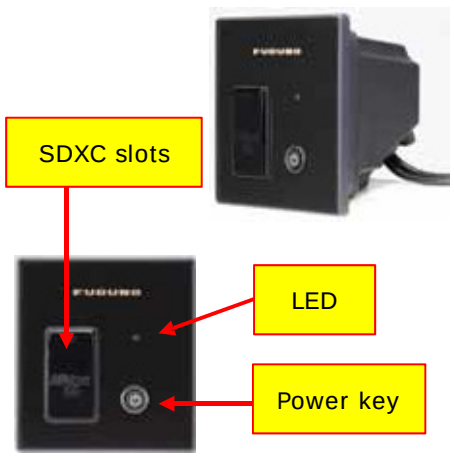
The TZTBB is a black box model of NavNet TZtouch series.

As boat hulls are getting thinner, lighter, but stronger, console spaces are also getting wider. Sometimes, 14” or 15” screens are not enough for such large console boats. The TZTBB offers the scalability to cope with requirements in many sizes of larger screens, as well as the solution to comprise a larger MFD by maintaining the performance of the TZT9/14 and multi touch UI and expanding I/O’s.

2. Overview

2-1. Outlook

The TZTBB comes with two major components: processor unit MPU-002 and switch box PSD-002. The processor unit MPU-002 is based on the TZT14 architecture with increased I/O’s. The switch box PSD-002 is used to turn on/off the system, consisting of power key, SDXC slots, LED lamp for status, and built-in buzzer for alarm/acknowledgement sounds. By connecting a multi touch monitor (locally arranged), the enhanced multi touch operations are available over a large screen. Unlike the conventional BB models, no dedicated control unit is supplied, while a multi touch monitor works as a control unit. In order to operate the system fully by touch, the dedicated UI for the TZTBB is also implemented.

Processor Unit MPU-002	Switch Box PSD-002
	

Note:

(1) Arrange multi touch monitors locally. See Section 4 for required specifications and other details about multi touch monitors.

(2) ee Section 3-2 for operations with a mouse/trackball with wheel especially for remote controls.

2-2. Specifications

(1) Standard Comprising

Comprising	Models	Remarks	Carton
Processor Unit	MPU-002	-	 L (540) W (430) H (450) 13.94 kg
Switch Box	PSD-002	-	
Including:	5 m power cable MJ-A3SPF0017-050ZC	10 A, same cable as TZT9/14	
	3 m network cable MOD-WPAS0001-030+	Water proof connector, same cable as MFD8/12 and TZT9/14	
	2 m multi cable FRUDD-18AFFM-L180	Same cable as MFD8/12/BB and TZT9/14	
	Installation materials and accessories		All the items are packed in one carton.

(2) Specifications

General	TZTBB	TZT14	TZT9
LCD Size	-	14.1-inch wide	9-inch wide
Resolution(s)	Supporting both **wide** and **non-wide**: 1280 x 720 (Wide – 16:9) 1280 x 800 (Wide – 16:10) 1280 x 960 (Non-Wide – 4:3) 1280 x 1024 (Non-Wide – 5:4) * (1)	1280×800 (WXGA)	800×480 (WVGA)
Brilliance	-	900 cd/㎡	
Touch Screen	-	Available (Multi touch, up to two contacts)	
Chart	Same as TZT9/14	Mapmedia mm3d format (Same chart as NavNet 3D)	
Chart Storage	Same as TZT9/14 * (2)	SDXC Cards (SD, SDHC, or SDXC)	
Wireless LAN	**USB-type** Built-in * (3), (4)	Built-in	
Language	Same as TZT9/14	English (USA), English (UK), French, Spanish, Germany, Italian, Portuguese, Swedish, Danish, Norwegian, Finish, Greek, Chinese, Japanese	
Environment	Same as TZT9/14	-15℃ to +55℃ (Built-in Wireless LAN: 0℃ to +55℃)	
Protection Level	Processor Unit: IP22 Switch Box: IP56 (front), IP22 (rear)	IP56 (IP22 with connector boot)	
Consumption	38.4 W	60 W	42 W

Note:

(1) ee Section 4-3 for detailed descriptions of resolutions.

(2) rrange SD, SDHC, and/or SDXC cards locally for chart storage.

(3) A USB-type Wireless LAN module (WLAN-USB-01-C) is inserted in one of the USB ports at factory. See Section 5-3 for details.

(4) The built-in Wireless LAN for TZTBB is approved for use in the US (FCC), Canada (IC), Europe (CE), Australia/New Zealand, and Japan only. Use an external router (local supply) for use in other areas. The China version has no Wireless LAN built-in.

I/O	TZTBB	TZT14	TZT9
LAN	3 ports (100 BASE-TX)	3 ports (100 BASE-TX)	1 port (100 BASE-TX)
CAN bus	1 port	1 port	
NMEA0183	No port	No port	
USB	**6 ports** (USB2.0) * (1)	1 port (USB2.0)	
Video Input (Composite)	2 ports (RCA)	2 ports (RCA)	
DVI-D Output	**2 ports (Clone Mode)** * (2)	1 port	
Power Output for DRS	No port (PSU-012/013 necessary) * (3)	No port (PSU-012/013 necessary)	
SD Card Slots (Front)	2 slots for SDXC (local supply) * (4)	2 slots for SDXC (local supply)	

Note:

(1) Five (5) USB ports are available on the I/O board and one (1) USB port is inside the processor unit. The internal USB port can be used to connect a locally-arranged USB-HDD. See Section 5-7 for more information.

(2) The extended mode is not available. See Section 5-6 for details.

(3) Radar power is supplied via an external power supply. The PSU-012 is necessary for DRS2D/4D/4A/6A/12A and PSU-013 for DRS25A.

(4) D slots are available on the switch box PSD-002.

Capacity	TZTBB	TZT9/14
Point	30,000 points 20 characters for name per point 64 characters for comment per point	
Route	200 routes w/500 points 20 characters for name per point 64 characters for comment per point	
Track	30,000 points	
ARPA	30 targets for display	
AIS	100 targets for display	

(3) Comparison with MFDBB

General	TZTBB	MFDBB
Resolution(s)	Supporting both **wide** and **non-wide**: 1280 x 720 (16:9) 1280 x 800 (16:10) 1280 x 960 (4:3) 1280 x 1024 (5:4)	Supporting non-wide: 800 x 600 (SVGA) 1024 x 768 (XGA) 1280 x 1024 (SXGA)
Touch Screen Capability	-	-
Chart	Mapmedia mm3d format	Mapmedia mm3d format
Chart Storage	SDXC Cards (SD, SDHC, or SDXC)	Internal HDD
Wireless LAN	**USB-type Built-in**	N/A
Language	English (USA), English (UK), French, Spanish, Germany, Italian, Portuguese, Swedish, Danish, Norwegian, Finish, Greek, Chinese, Japanese	English (USA), English (UK), French, Spanish, Germany, Italian, Portuguese, Swedish, Danish, Norwegian, Finish, Dutch, Greek, Chinese, Japanese
Environment	**-15℃ to +55℃** (Built-in Wireless LAN: 0℃ to +55℃)	Processor Unit: 0℃ to +45℃ Control Unit: -15℃ to +55℃
Protection Level	Processor Unit: **IP22** Switch Box: IP56 (front) **IP22** (rear)	Processor Unit: IP20 Control Unit: IP56 (front) IP20 (rear)
Consumption	**38.4 W**	104 W (no DRS connected)

I/O	TZTBB	MFDBB
LAN	3 ports (100 BASE-TX) - All the 3 ports for sensors	4 ports (100 BASE-TX) - 2 ports for MCU-002 - 2 ports for sensors
CAN bus	1 port	1 port
NMEA0183	No port	3 ports
USB	**6 ports** (USB2.0)	4 ports (USB2.0)
Video Input (Composite)	2 ports (RCA)	4 ports (BNC)
DVI-D Output	**2 ports (Clone Mode)**	**2 ports (Extended Mode)**
Power Output for DRS	No port (PSU-012/013 necessary)	1 port (Up to DRS12A)
SD Card Slots (Front)	2 slots for SDXC	2 slots for SD

Capacity	TZTBB	MFDBB
Point	30,000 points 20 characters for name per point 64 characters for comment per point	2,000 points 13 characters for name per point 64 characters for comment per point

Route	200 routes w/500 points 20 characters for name per point 64 characters for comment per point	200 routes w/100 points 13 characters for name per point 64 characters for comment per point
Track	30,000 points	10,000 points
ARPA	30 targets for display	30 targets for display
AIS	100 targets for display	100 targets for display

3. TZTBB Operations – User Interface

3-1. Basic User Interface

The TZTBB supports the same multi touch user interface as the TZT9/14 but more optimized for fully-touch operations with the following unique UI.

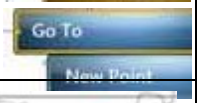
(1) RotoKey ™ items and contexts appearing at a tapped spot

(2) Slider bar

(3) Virtual Home key icon

(1) RotoKey ™ Items and Contexts at a tapped spot

When connecting a large screen, it can be difficult sometimes to select RotoKey ™ items or contexts shown at the right side of the screen. The TZTBB then offers RotoKey ™ items and contexts shown at a tapped spot. The following table briefly describes the difference between the TZTBB and TZT9/14.

Items	TZTBB	TZT9/14
RotoKey ™	Appears at a tapped spot in blue (See the following screenshots for details)	Appears at the right side of the screen in gold (after pressing the RotoKey ™) 
Contexts		Appears at the right side of the screen in blue (after tapping somewhere on the screen) 
Pop-up Window	Appears at a tapped spot with RotoKey ™ items and contexts	Appears at a tapped spot 

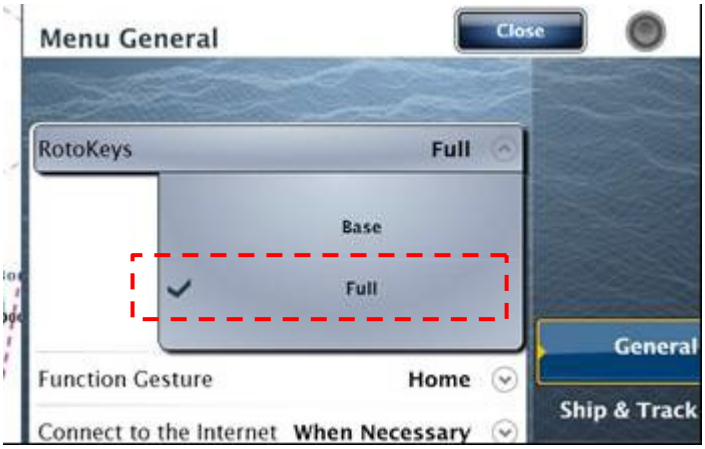
Pop-up window and contexts at a tapped spot	More indication
	
After tapping somewhere on the screen, three major contexts appear at a tapped spot with a pop-up information window. To show more items, tap [More…]. The contents of the RotoKey ™ items, which appear in gold with the TZT9/14, are also included in these contexts.	After pressing [More…], other selections are available. (*)

*** Note:**

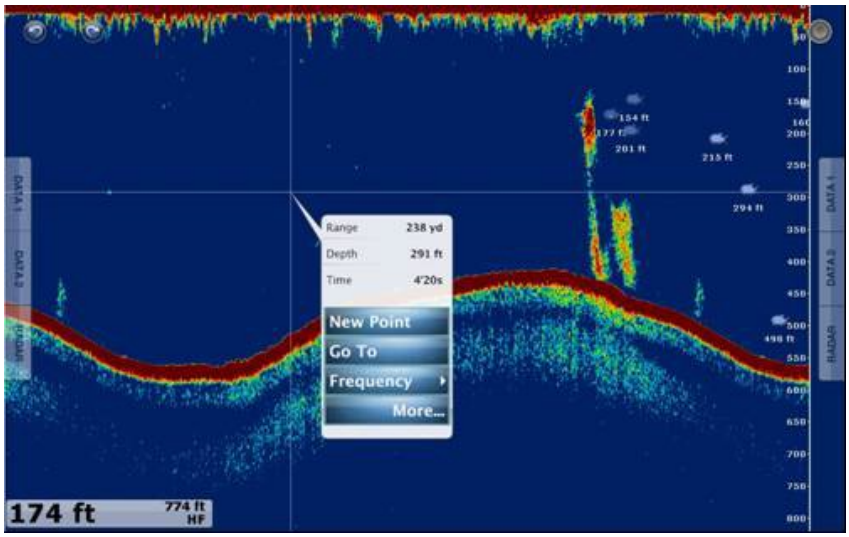
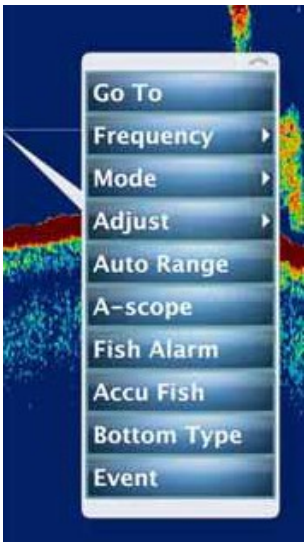
To show full items at the tapped spot after pressing [More…], it is recommended to set the RotoKey ™ items to be fully shown as shown at right.

[Menu] – [General] – [RotoKeys] – [**Full**]

With [Base] selected in RotoKey menu, not all the items will appear even after pressing [More…]. Long press the context to show all the items.



Here are more sample screens in other screen modes.

Pop-up window and contexts at a tapped spot	More indication
	
	

(2) Slider Bar

In addition to the Pinch-to-Zoom capability, a slider bar is also implemented to zoom-in/out the screen.

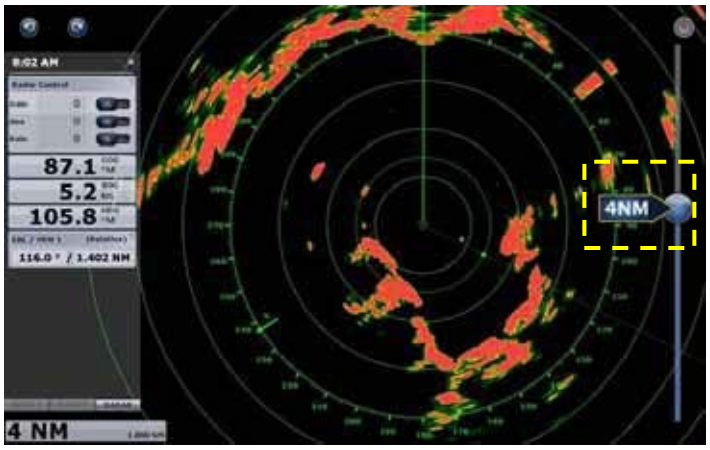
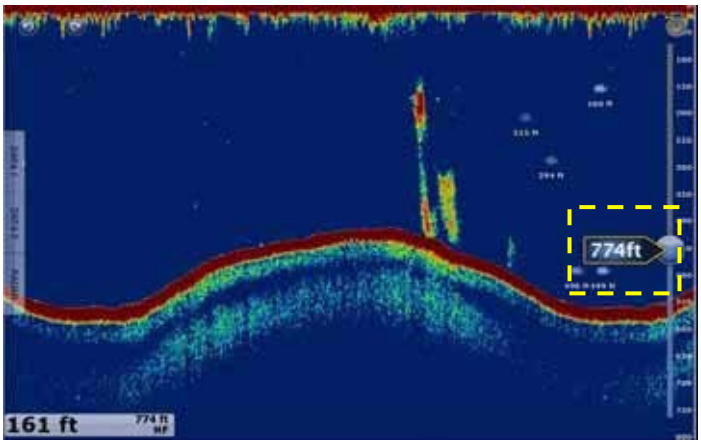
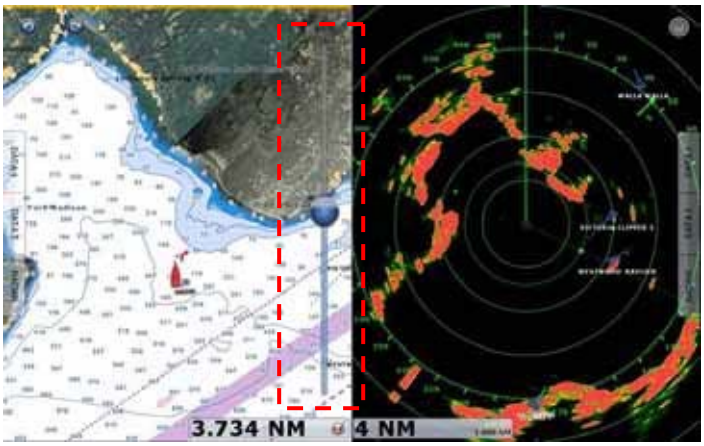
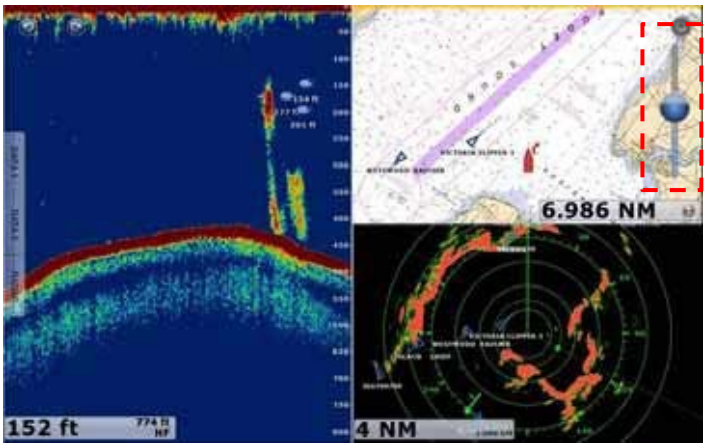
To show and operate the slider bar:

1. Tap the number in the range box, so that the slider bar appears.
2. Grab the ball on the slider and shift it up and down to dynamically zoom in/out the chart.
3. To zoom-in/out in short steps, just tap the bar above or below the ball.

Note:

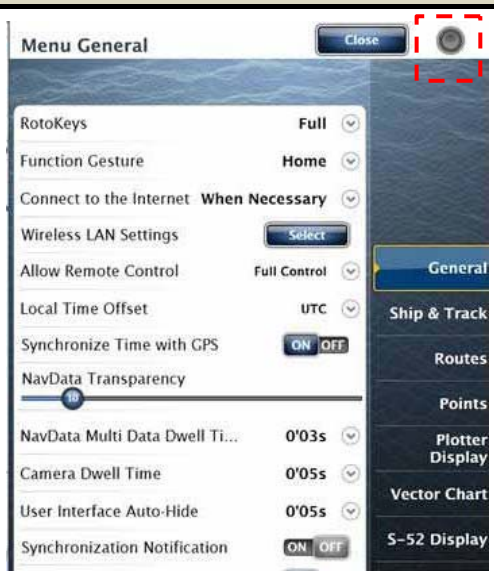
In the Plotter and Weather screen, the range box consists of number (range scale) and compass icon. Tap the number to show the slider bar and tap the compass icon to change the orientations between North-Up and Head-Up.

Here are other sample screenshots of slider bars in other screen modes.

Radar	Fish Finder
	
On the slider bar, the current range scale also appears beside the ball	
2-Split Screen	**3-Split Screen**
	
The slider bar appears at the right side of each split screen.	

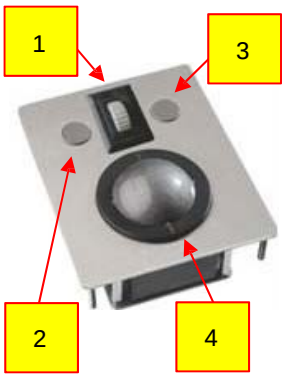
(3) Virtual Home Key Icon

The virtual home key icon is available at the right top of the screen as shown in the following sample screenshots: Tap the icon to go to the Home page.

Plotter Screen	Menu Page
	

3-2. What Can You Do With a Mouse / Trackball with Wheel?

The TZTBB is installed with an HID driver. A generic HID-mouse (USB-mouse) or a trackball with a wheel can cope with the conventional request on operations in a remote place from a screen or with a non-touch monitor for retrofit. Each component works as follows:

Components		Functions
 (Sample shot: LTSX50 from NSI, Belgium)	1. Wheel	Acts as the **RotoKey ™ of TZT9 / 14**: (1) Rotate to zoom in/out. (2) Push to show RotoKey ™ items in gold at the right side of the screen as shown at right. (3) elect RotoKey ™ items or contexts 
	2. Left-click	**Single tap**, **drag / scroll** with trackball
	3. Right-click	Acts as **Function Gesture**: Right-click to activate the preset function in [Menu] – [General] – [Function Gesture].
	4. Trackball	**Select a spot** to be tapped, **drag / scroll** with left-click

Limitation and Notes

The NavNet TZtouch system is optimized for the multi touch user interface. Although most operations are available only with a mouse/trackball and wheel, take the following limitation and notes.

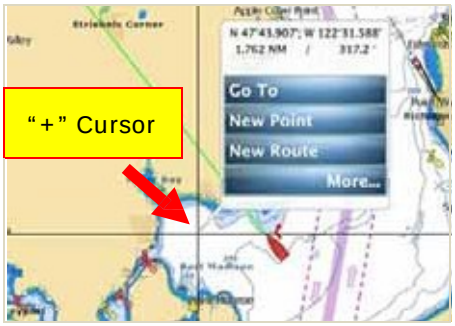
1. Limitation in 3D Mode – Pan / Tilt

You can turn the screen mode into the 3D mode by selecting [3D Mode] from the context. However, **you cannot pan / tilt the chart with a mouse** because sliding the screen with two fingers is the only way to pan/tilt it. The chart in 3D is always in the default angle as shown at right. Or if you have paned/tilted the chart with two fingers before, the screen will be in the previously-set angle. This is the only inaccessible function with a mouse/trackball

2. Note on Active Window

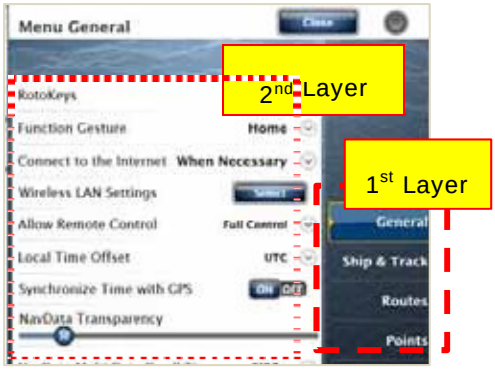
In the split screen mode, even if you place a cursor on a different screen, the window will not be active. Ensure to left-click on the screen like you tap the screen to activate.

3. Note on "+" Cursor



The "+" cursor is shown at a tapped spot in Plotter, Radar, Fish Finder, and Weather page. Just placing or moving the cursor does not show the "+" cursor. Ensure to left-click to show pop-up windows like you tap the screen.

4. Note on Menu – Second Layer



The first layer of the Menu can also be scrolled with the RotoKey ™ or mouse wheel, while the RotoKey ™ is not used for the second layer. Ensure to drag the second layer of the Menu page with the left-click like you drag with a single finger, or just click the arrow keys on the top/bottom of the layer.

5. Note on Cursor Operation and Touch Operation

While a cursor is in motion, touch operations are not available. When you switch to the touch operation, ensure to stop the mouse/trackball cursor operation.

4. About Monitors and TZTBB Supporting Resolutions

4-1. Required Specifications of Multi Touch Monitors for TZTBB

When arranging multi touch monitors locally for the TZTBB, ensure to meet the following specifications:

1. Compatible with DVI-D input

* The TZTBB outputs images via DVI-D like the TZT9/14.

2. "Capacitive" type recommended for multi touch rather than "Optical" type.

* The capacitive type offers better sense of multi touch than the optical type. Lets you control the TZTBB at your finger tip!

3. USB interface for multi touch

* Multi touch commands are communicated via USB between the TZTBB and a monitor like the TZT9 and TZT14.
* Windows 7 compatible monitors are equipped with a USB interface for multi touch.

4. No dedicated driver installation required for multi touch function

* The TZT9, TZT14, and TZTBB do not accept an external driver to be installed. No dedicated driver can be installed on the TZT9/14/BB locally.
* When arranging a multi touch monitor, ensure to confirm that **the multi touch interface is available without installing a dedicated driver**.
* Some monitors may require dedicated drivers to be installed for the multi touch interface. If you connect such a monitor to the TZTBB, multi touch capabilities will not work although images are shown.

4-2. Introducing Tested Monitors at FEC

Several monitor models have been tested at FEC during the development process and used at some boat shows. Some of them are introduced with screenshots below.

Hatteland Display

Series-X: HD 17T21 (17"), HD 19T21 (19"), and HD 24T21 (24" Wide)

http://www.hatteland-display.com/index.php

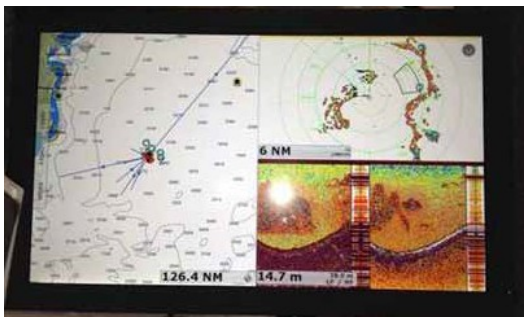
In the following example, three TZTBB processors are connected to 17", 19" and 24" wide monitors. The TZTBB images are properly shown on both wide and non-wide monitors.

HD 17T21 (17”)	HD 19T21 (19”)	HD 24T21 (24” Wide)
		

Olorin (Sweden)
VL221D (22” Wide)

http://www.olorin.com/images/userfiles/products/431.pdf

The “VL221D” consists of several part numbers according to specifications. The one shown at right is “VL22176SPCAP” with a sunlight readable AR film (550 cd).



Sharp
PN-L702B (70” Wide)

http://www.sharp-world.com/products/professional-monitors/products/pn-l802b_l702b_l602b/index.html

This model is not for marine use, but has been used at some boat shows to demonstrate the TZTBB for visitors. Note that the touch screen is the optical type.

Yokohama International Boat Show 2012

Boot Dusseldorf 2013

Miami International Boat Show 2013

4-3. TZTBB Supporting Resolutions

The TZTBB has the following native resolutions, supporting both **wide** and **non-wide** resolutions.

No	Pixels	Aspect Ratio
(1)	1280 x 720	Wide – 16:9
(2)	1280 x 800	Wide – 16:10
(3)	1280 x 960	Non-Wide – 4:3
(4)	1280 x 1024	Non-Wide – 5:4

As you can see, the horizontal line is fixed to 1280 pixels, while multiple pixels are prepared for the vertical line to cope with different aspect ratios. The following illustration compares all the native resolutions.

Comparison – Native Resolutions

(1) 1280 x 720 (Wide, 16:9)

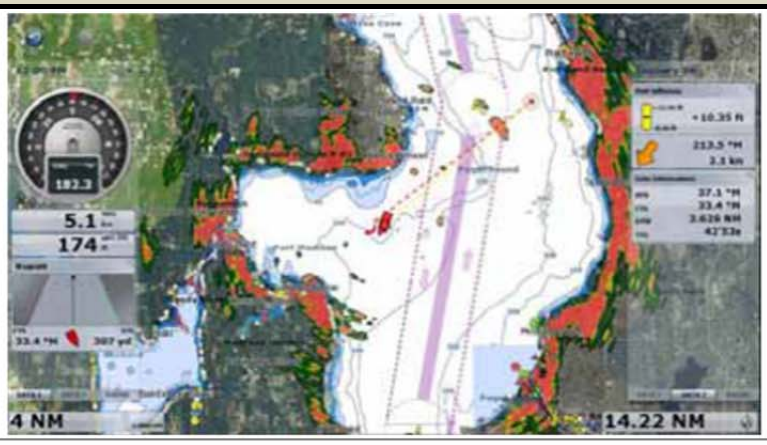
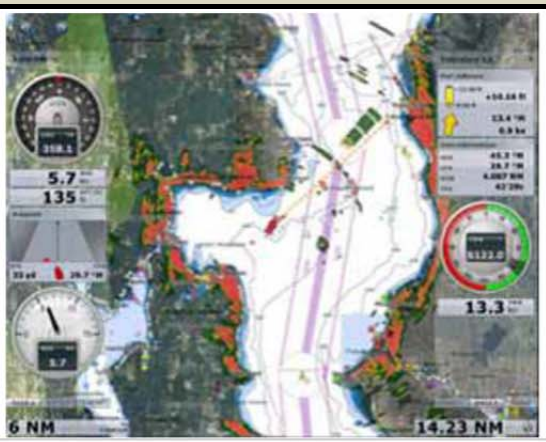
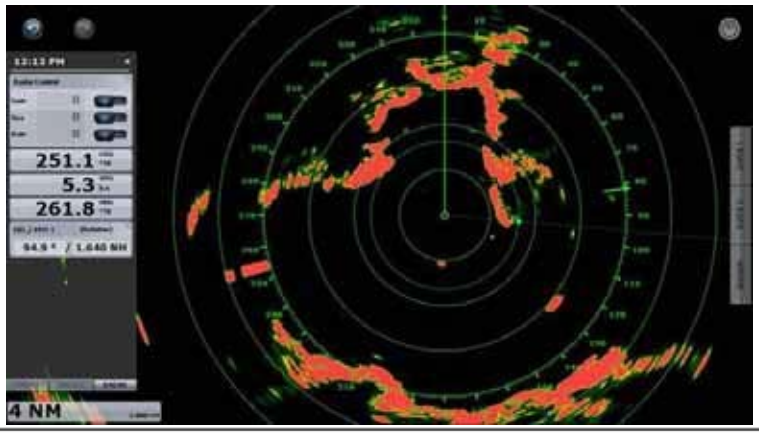
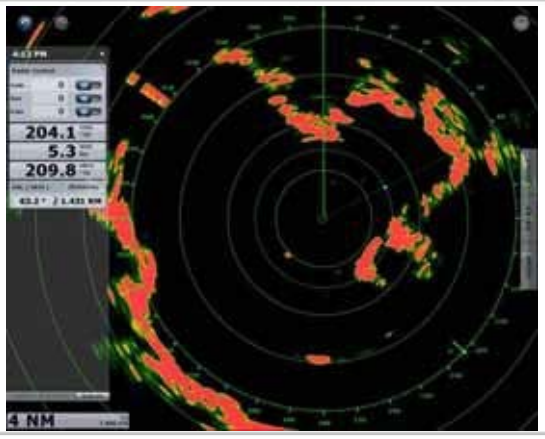
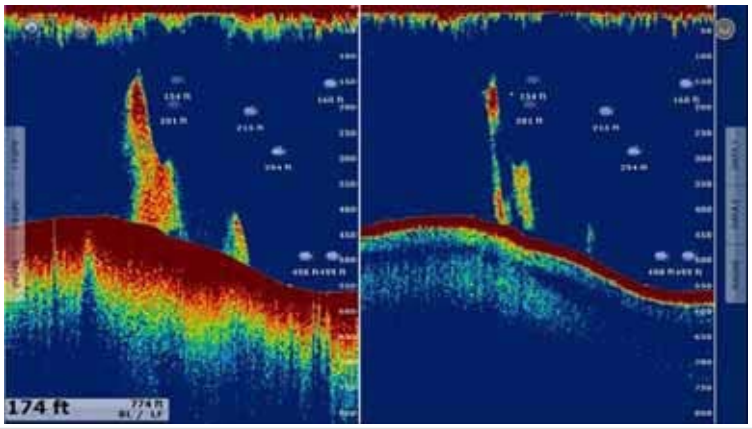
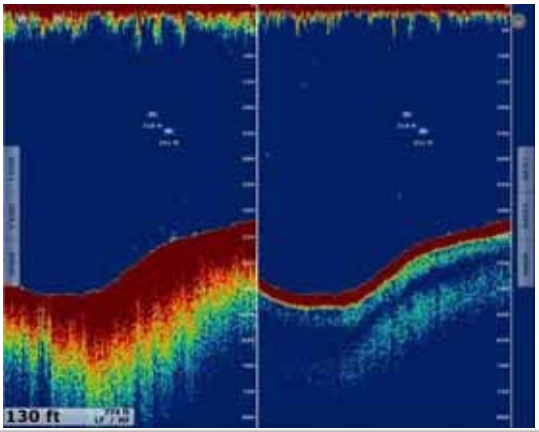
(2) 1280 x 800 (Wide, 16:10)

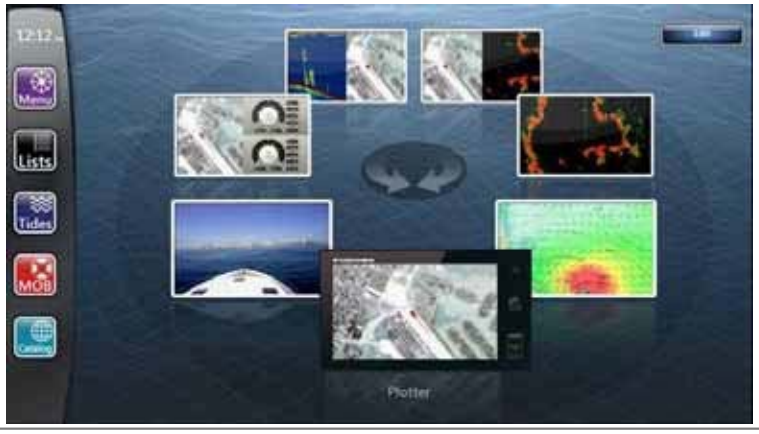
(3) 1280 x 960 (Non-Wide, 4:3)

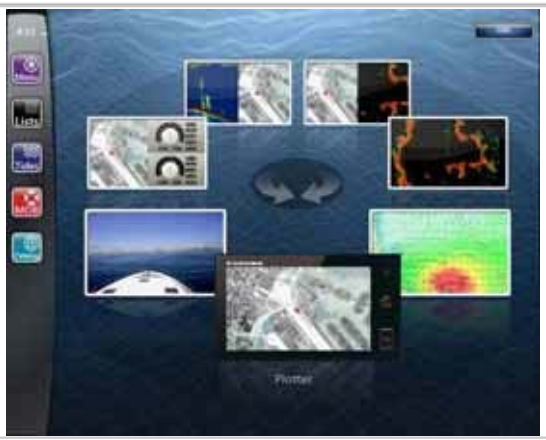
(4) 1280 x 1024 (Non-Wide, 5:4)

The TZTBB automatically selects either one of the resolutions above and outputs images to the monitor by scaling according to monitor's resolution. As an example, if the connected monitor is compatible with the resolution of 1920 x 1080 (16:9), the TZTBB shows 1280 x 720 pixels images on the screen by scaling the native resolution.

The following screenshots show the comparison between wide and non-wide resolutions. Different aspect ratios between wide and non-wide resolutions provide slightly different screen layouts.

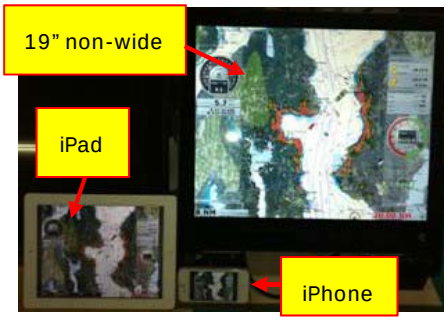
Native Wide Resolution **1280 x 720 (16:9)**	**Native Non-Wide Resolution** **1280 x 1024 (5:4)**
Displayed on 24” wide monitor (1920 x 1080) by scaling	**Displayed on 19” monitor (1280 x 1024)**
	
	
	





Tips: Non-Wide Images with NavNet Remote App

When non-wide monitors are connected to the TZTBB, screen images shown on the NavNet Remote app will be as follows. Both edges will be blank due to different aspect ratios from iOS devices, but images fit in the screens of iOS devices. The following screenshots compare iPad screen layouts when connected to the TZTBB with non-wide monitor and TZTBB with wide monitor.

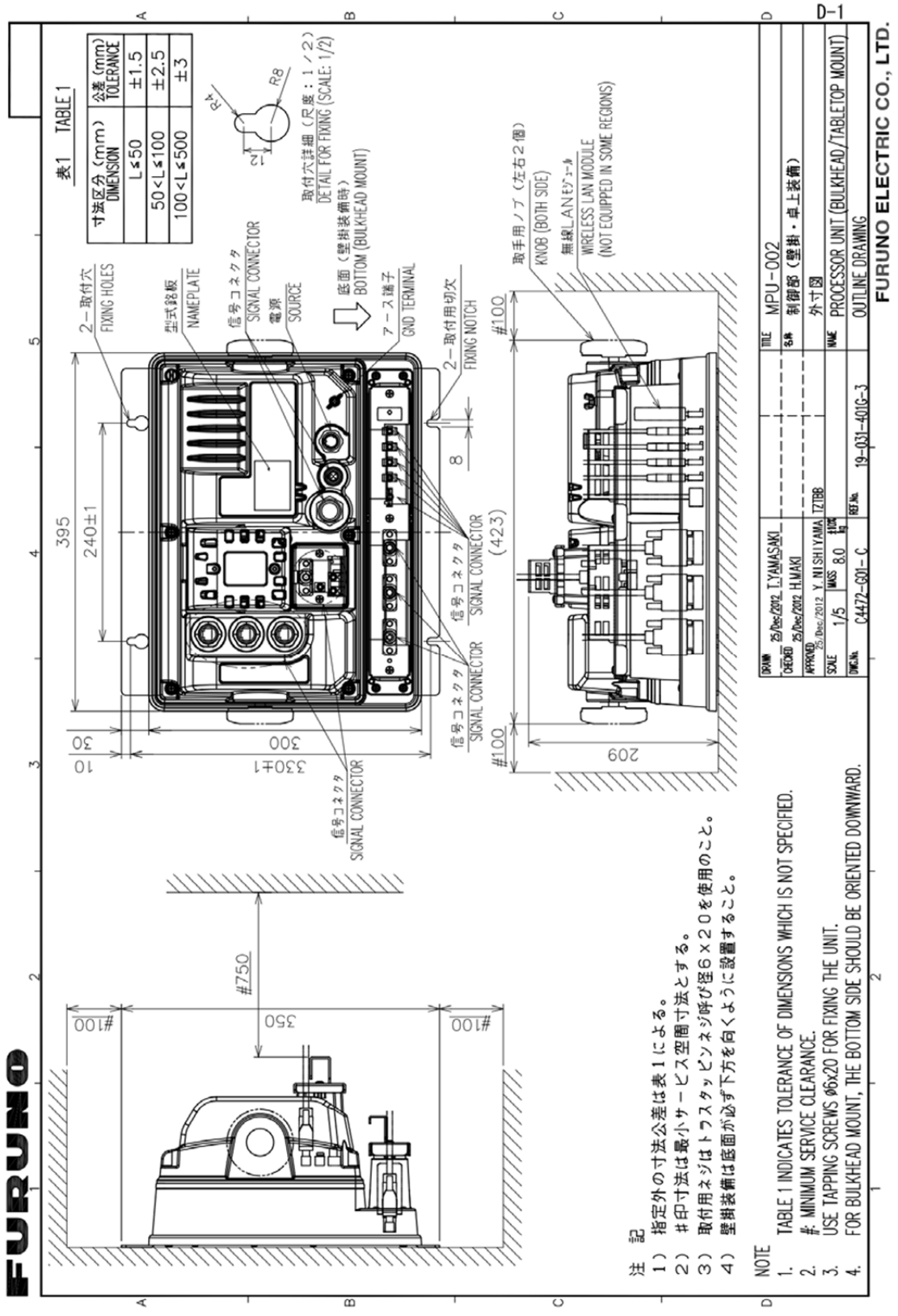
Photos – TZTBB w/19" Non-Wide	iPad – TZTBB w/Non-Wide	iPad – TZTBB w/Wide
		
The TZTBB is connected to a 19" non-wide monitor (aspect ratio 5:4). However, the NavNet Remote app's screen images are shown on both iPad and iPhone	TZBB images fit in the iPad screen. TZBB icons overlap the screen.	When the TZTBB is connected to a wide monitor (aspect ratio 16:9), the NavNet Remote app shows images as above.

(iPad and iPhone are trademarks of Apple Inc.)

5. Installing TZTBB

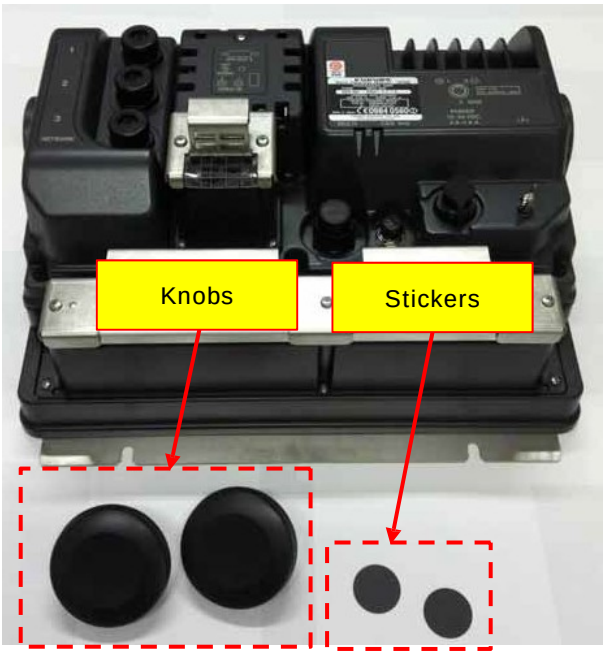
5-1. Dimensions

(1) Processor Unit MPU-002

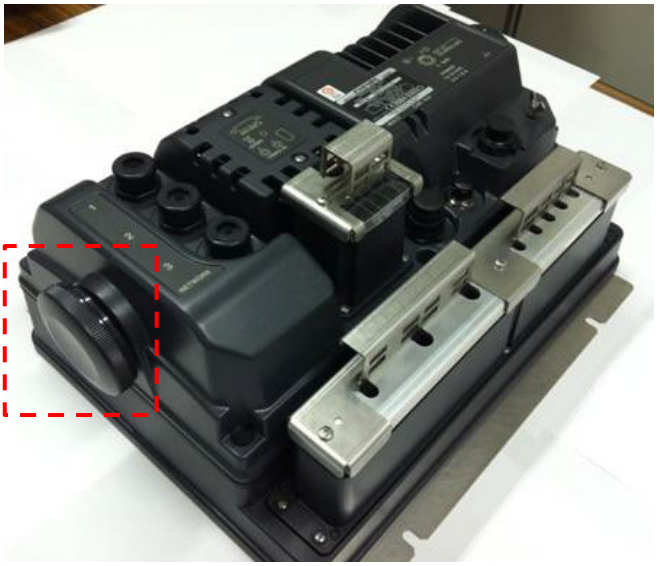


Note:

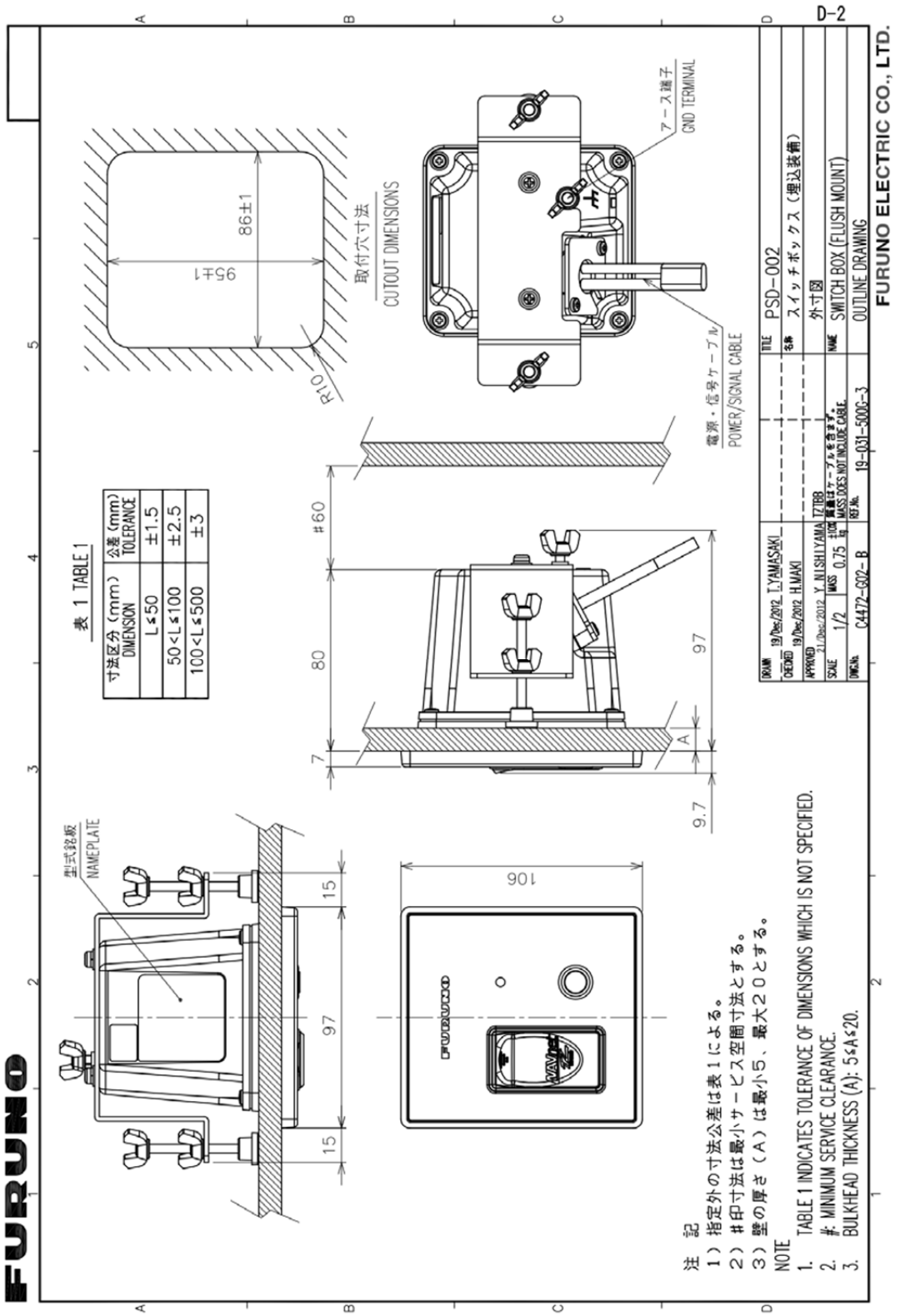
Pairs of knobs and stickers are supplied as standard. With knobs attached to the both sides of the processor unit, it will be easier to hold and carry the processor unit. When knobs are not necessary, you can hide the holes with stickers.



Stickers pasted on both sides of the processor



Knobs attached to both sides of the processor: Easier to hold and carry the processor unit



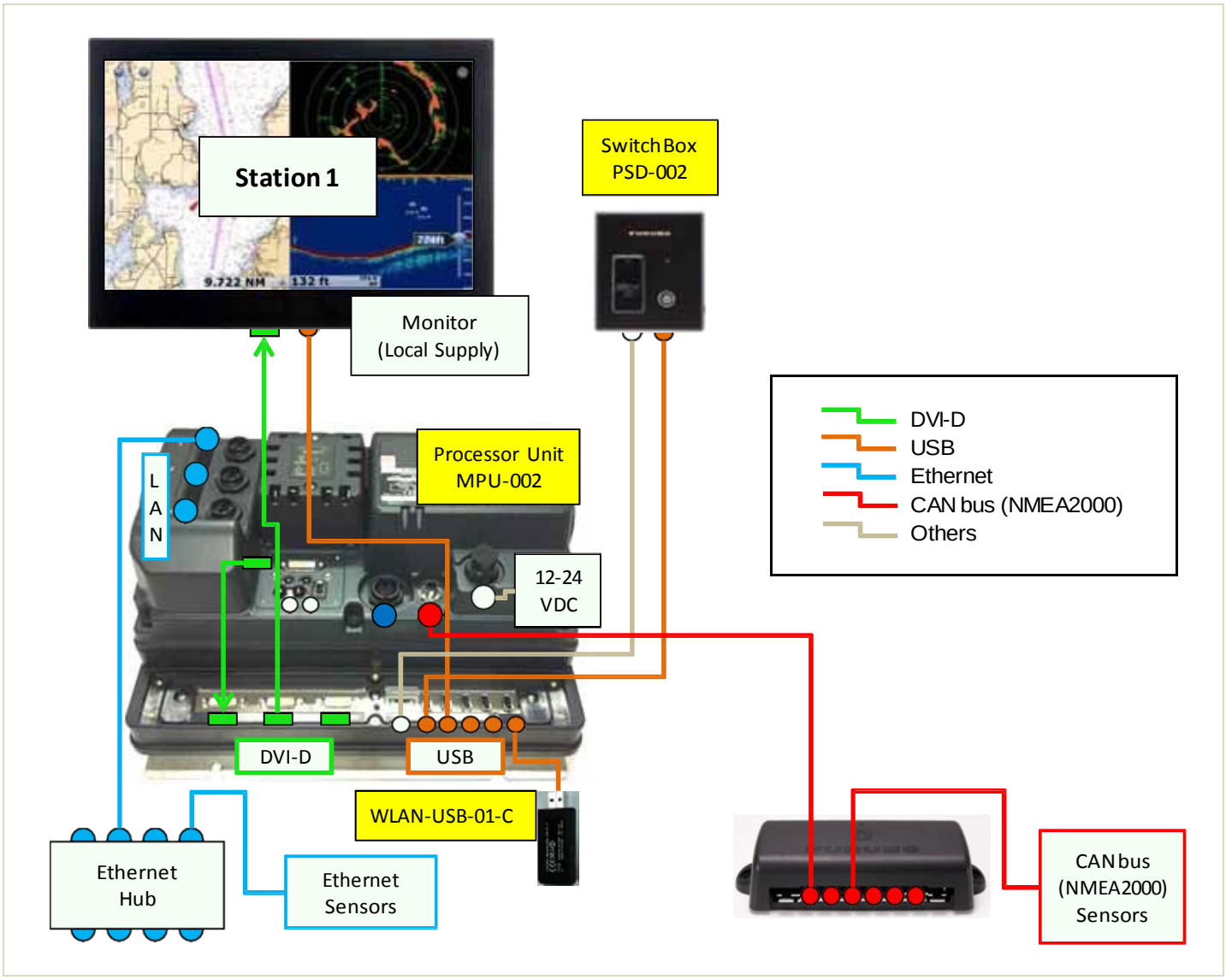
5-2. Compatible Sensors

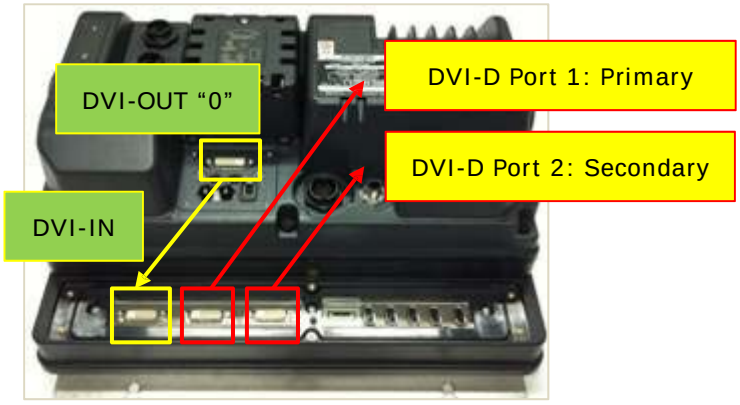
The same sensors used for NavNet 3D and TZT9/14 can be networked with the TZTBB.

5-3. Interconnection

(1) Single Station

The following drawing shows the configuration of single station: One processor with one monitor.



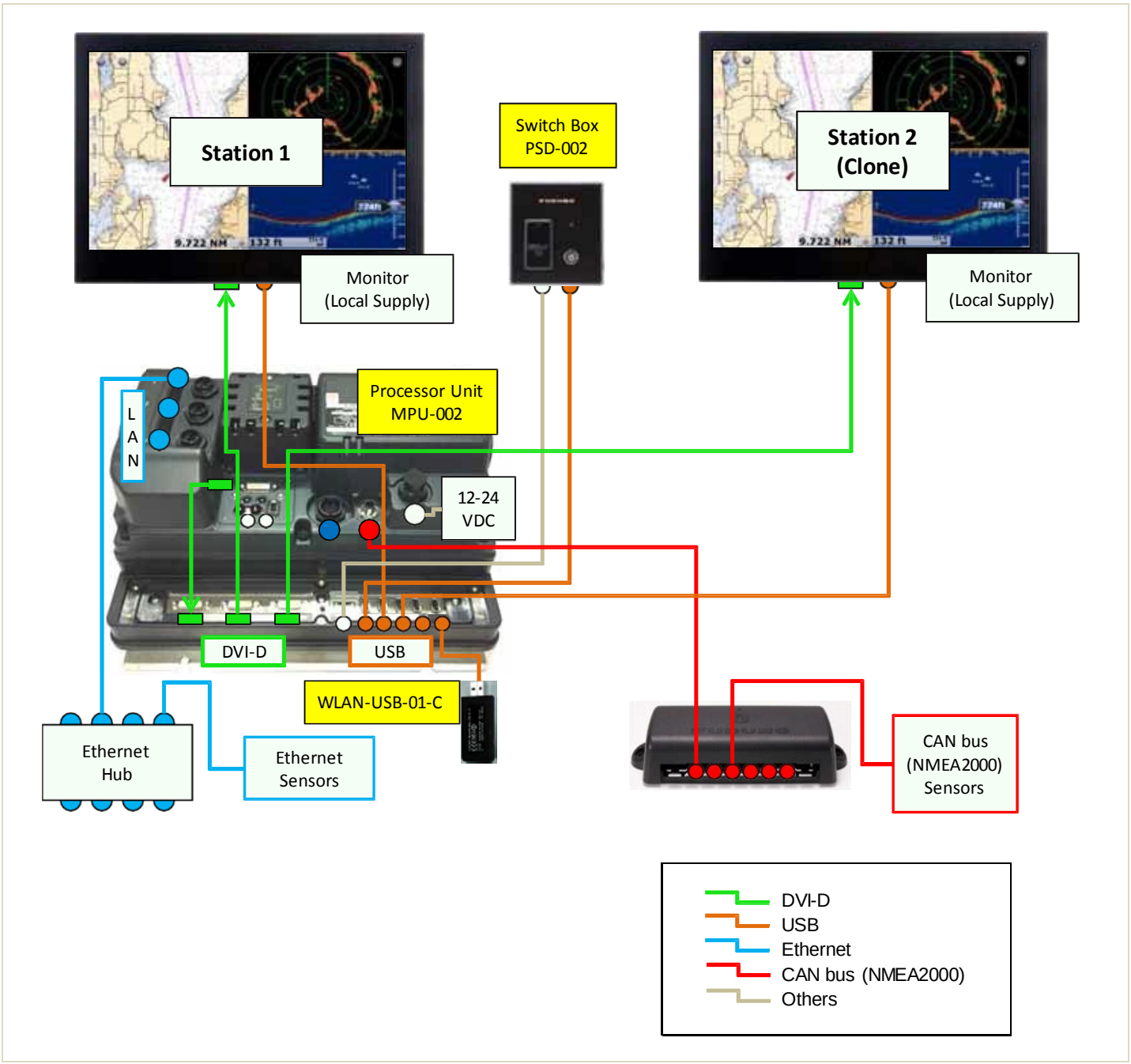


Note:

There are four (4) DVI-D ports physically. The DVI-D ports on the bottom I/O board works as a DVI splitter. The DVI-D images are output from DVI-OUT "0" and provided to the DVI-IN. These images are split into both DVI-D Port1 and Port 2. See the next pages for dual station configurations.

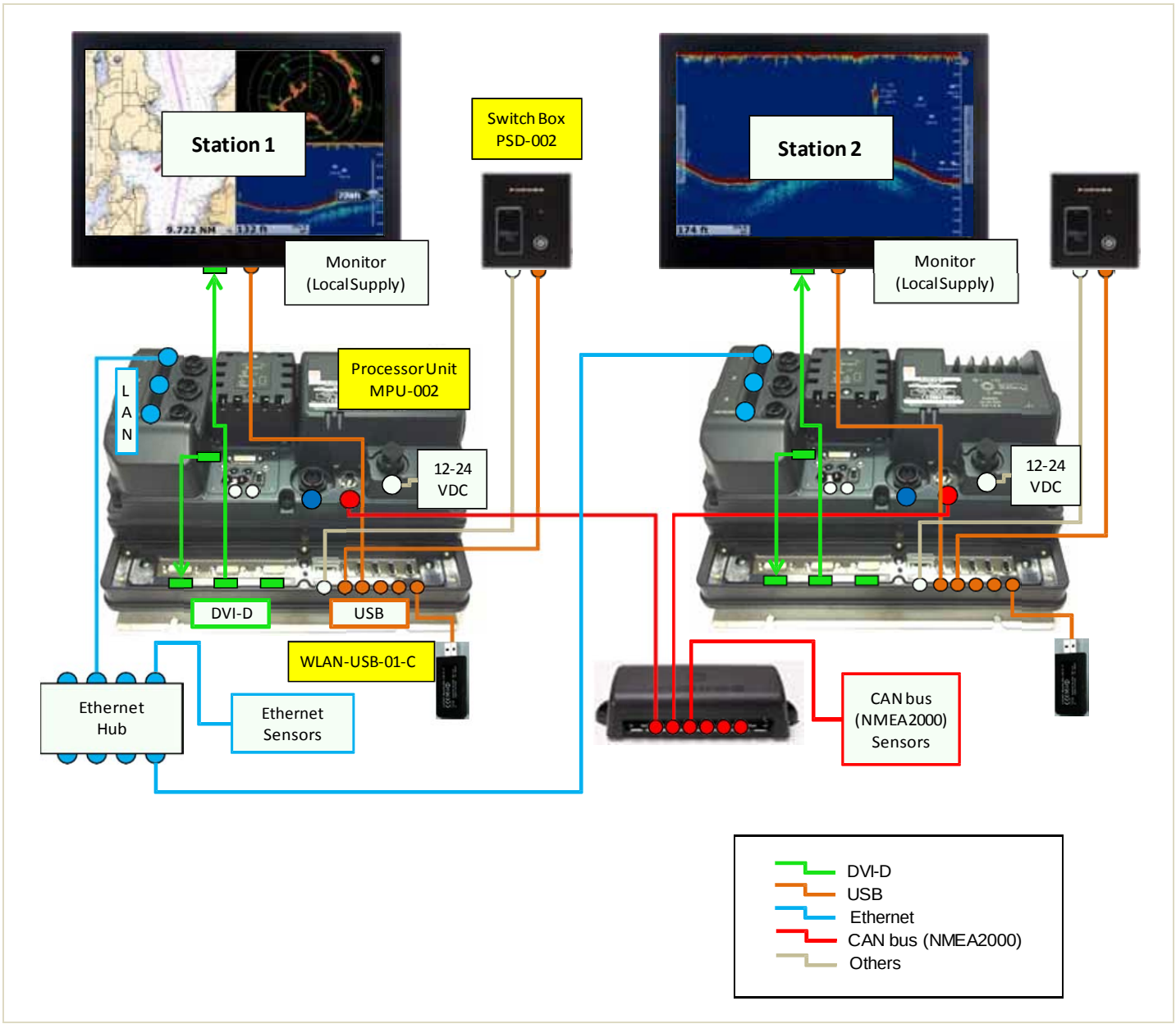
(2) Dual Station – One Processor in Clone Mode

The following drawing shows the dual station: One processor unit (MPU-002) and switch box (PSD-002) with two monitors. In this configuration, the Station 2 is in clone mode, showing the same images as the Station 1. Unlike the MFDBB, the extended mode is not available. For notes on the clone mode, see Section 5-6.



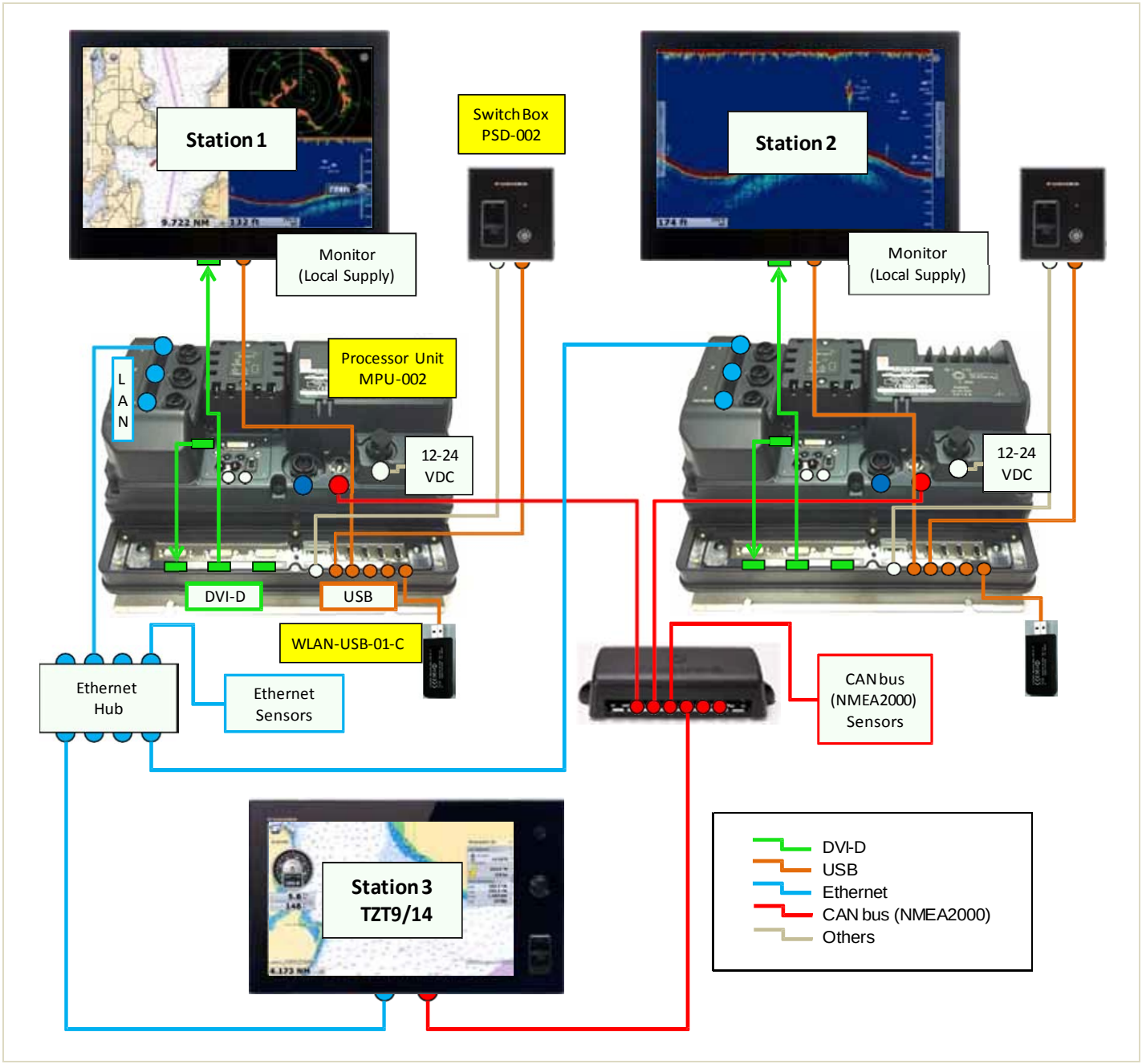
(3) Dual Station – Two Processors

The following drawing shows the dual station: Two processor units MPU-002 and switch boxes PSD-002 with two monitors. When each monitor should show difference images and be operated separately, install two processors as follows.



(4) Multiple Stations – TZTBB and TZT9/14

The TZTBB and TZT9/14 can be networked via Ethernet and CAN bus (NMEA2000) as follows.



(5) Notes

Switch Box PSD-002:

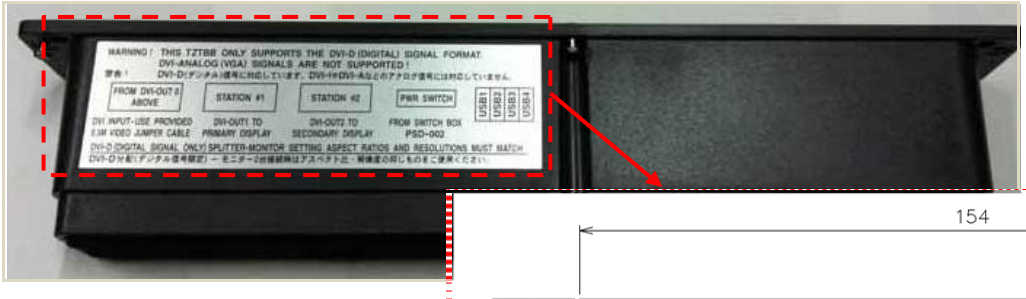
The PSD-002 comes with the 5 m cable already fit at the rear side and protected with rubber and metal plate. The 5 m cable consists of two lines bind in one: USB line for SDXC card readers and power line for power on/off. These two lines can be split at the processor side.

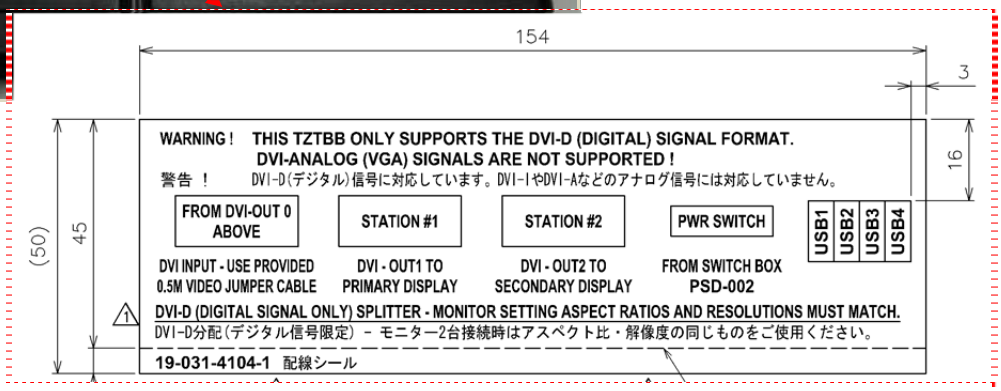
 Switch box PSD-002 Front side	 Rear side: 5 m cable fit and protected with rubber and metal plate
 Bind cable (The Furuno pen to compare the cable thickness)	 Wires split for connection to the processor unit

Processor Unit MPU-002:

(1) A USB-type Wireless LAN module (WLAN-USB-01-C) is inserted in one of the USB ports at factory as shown at right. Note that the China version has no Wireless LAN built-in.

(2) There is a sticker on the protection cover of the bottom I/O board for WARNING to remind you of correct interconnection. Ensure to use DVI-D cables, not RGB.

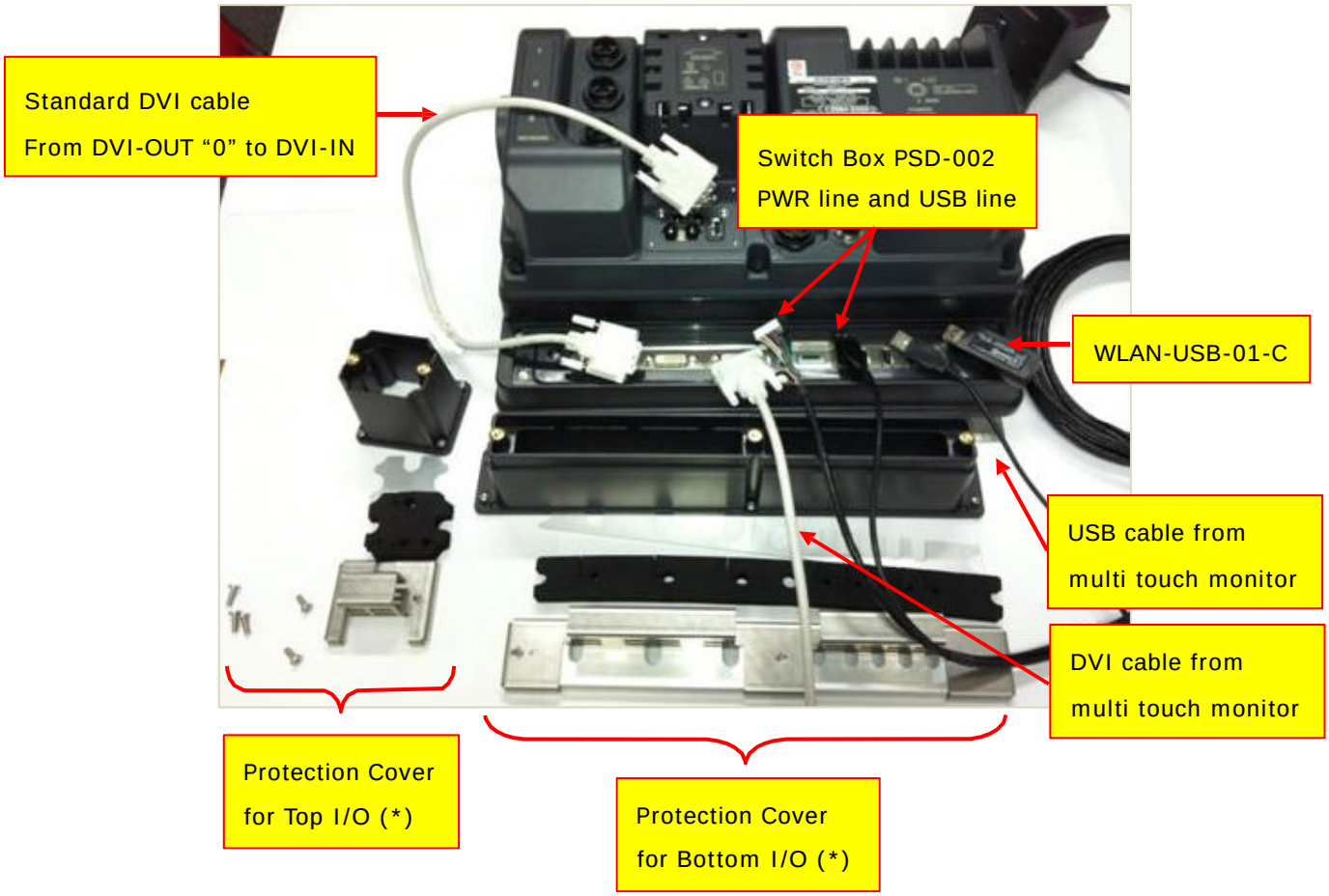




5-4. I/O – Cabling at I/O

The following photos show the cabling of single station configuration at each I/O.

(1) Before Cabling

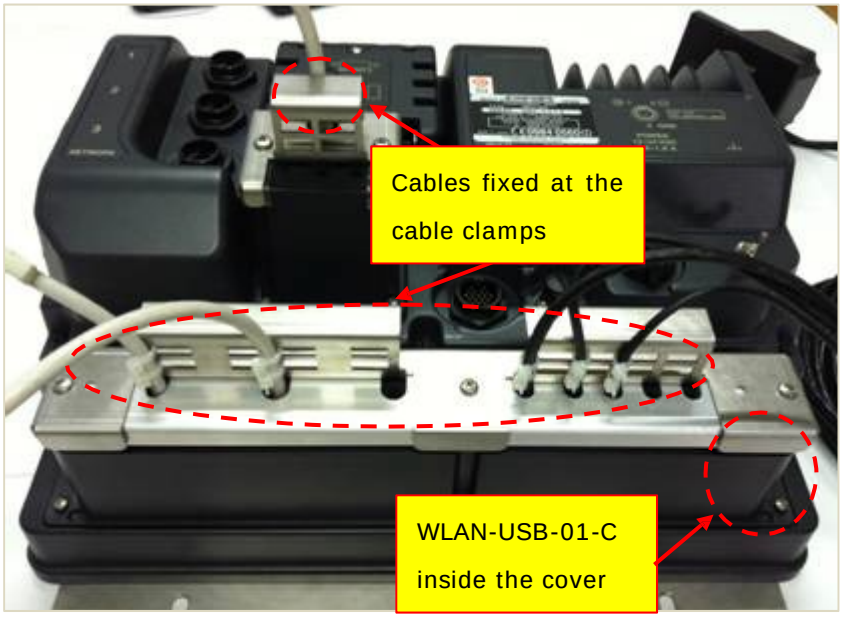


*** Note:**

Protection covers consist of case, sponge, metal plate, and cable clamp.

Protection Cover – Top I/O	Protection Cover – Bottom I/O
	

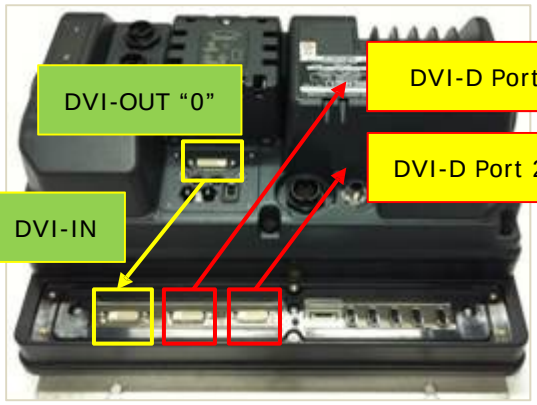
(2) After Cabling



All the connectors and WLAN-USB-01-C are inserted into each port and protected with

5-6. Clone Output from Two (2) DVI-D Ports

Note that two (2) DVI-D output ports support the clone mode only: The same images are shown on both screens.



DVI-D Output **Port 1**:

For **Primary** Monitor – Station 1 (e.g. at main bridge)

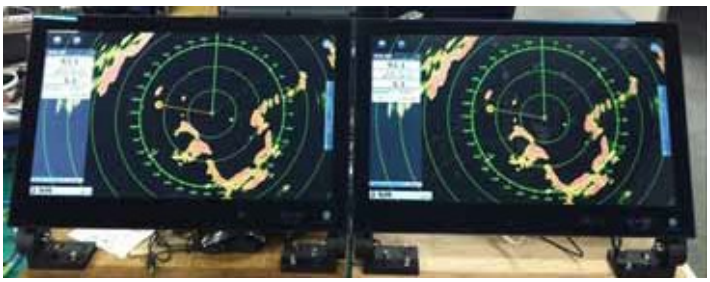
DVI-D Output **Port 2**:

For **Secondary** Monitor – Station 2 (e.g. at fly bridge)

The aspect ratio and resolution of the monitor connected to Port 1 applies to Port 2. To show images properly on both monitors, ensure that the aspect ratios and resolutions of two monitors match. See the following descriptions and photos for good and not-good examples.

(1) GOOD – Two monitors (same screen size) with same resolutions and aspect ratios

In this example, the same 24" wide monitor models (Hatteland Series-X HD 24T21) are connected to the TZTBB, showing the same images properly.

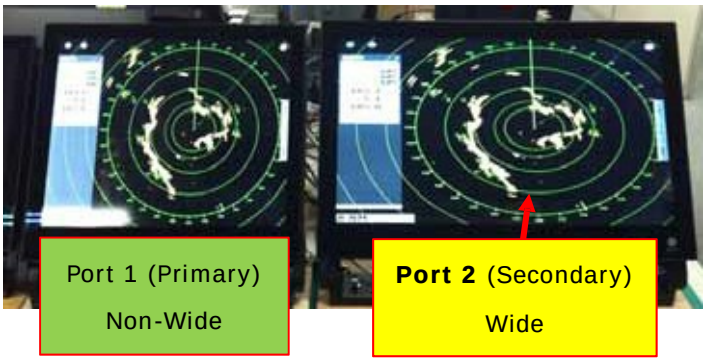


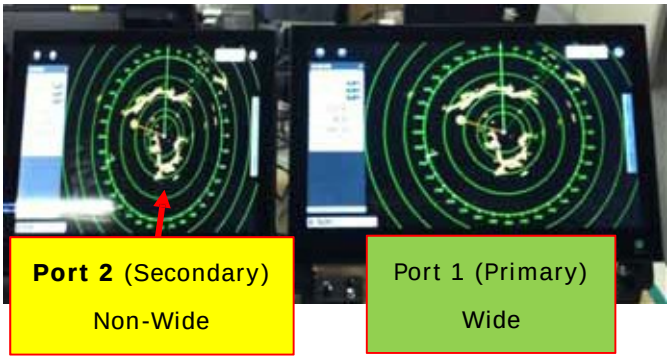
(2) GOOD – Two monitors (different screen size) with same resolutions and aspect ratios

In this example, the Hatteland 17" monitor (HD 17T21) and 19" monitor (HD 19T21) are connected to the TZTBB. These monitors support the same resolution and aspect ratio although screen sizes are different. Plotter and Radar images are shown properly in the clone mode.

(3) NOT GOOD – Two monitors with different resolutions and aspect ratios

When two monitors with different resolutions and/or aspect ratios are connected to the TZTBB, the secondary monitor connected to DVI-D Port 2 will not be shown properly. In the following example, the Hatteland 19" (HD 19T21, aspect ratio 5:4) and 24" wide (HD 24T21, aspect ratio 16:9) are connected, showing that the secondary monitor does not show images properly (Radar rings are oval) because the resolution and aspect ratio of the primary monitor applies to the secondary.



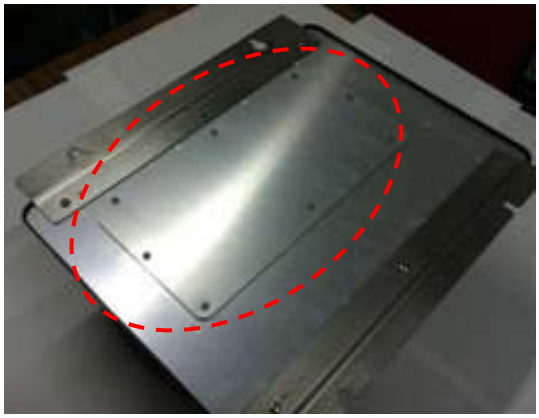


5-7. HDD Pocket

The TZT9/14/BB can also read charts from a USB drive. For the large amount of charts to be required, you may use a USB-HDD with large capacity as a chart source. The TZTBB processor unit MPU-002 has a space accessible from the rear side in order to fix a locally-arranged USB-HDD. The following photos show that a generic USB-HDD at right is fixed inside the MPU-002.

Note:

The HDD size should be **90 x 134 x 20 mm** **(W x H x D)** to fit in the case.

MPU-002 rear side	HDD fixed inside MPU-002
	
The pocket is covered by a metal plate fixed with screws.	The USB-HDD can be fixed inside with the USB cable inserted into the internal port.

*** Note:**

It is more convenient to use a USB-HDD with its cable running straight from the top side of the HDD than the one with its cable running sideways.

	
More convenient: USB cable running straight from the top	USB able running sideways

5-8. USB Ports

There are six (6) USB ports available: five (5) ports on the I/O board and one (1) port inside the case to be able to connect a USB-HDD. As an example, these USB ports can be used as follows:

1	PSD-002 (USB line)	4	Wireless LAN (USB type, inserted at factory)
2	Multi touch monitor (USB line)	5	Mouse or trackball device with wheel
3	Multi touch monitor (USB line), for clone	6	USB-HDD, connected to the internal USB port

6. Software Versions – TZT9/14 and TZTBB

The TZTBB is installed with the software v2.02 at factory. There is no difference from the TZT9/14 in functionalities, but the graphic driver is updated from the v2.01 software to cope with connecting dual monitors. The next software versions will be in common with all the TZT9, TZT14, and TZTBB.

Models	Versions	Future Version
TZT9 and TZT14	v2.01	Common versions
TZTBB	v2.02	

--- END ---