NAVnet TZtouch

Rev: 7

FURUNO Installation Checklist

NavNet TZtouch Installation Checklist

TZtouch MFD Network Installation (without NN3D):

☐ Connect all TZtouch MFDs to the Ethernet Network. If a HUB101 is used, set the internal HUB DIP switches to OFF (HUB101 DIP Switches are OFF by Default). TZtouch MFDs do not use "power-on" synchronization.

> *Note: If you use the internal HUB of the TZT14, realize that the HUB will only be able to relay Ethernet traffic when the MFD is turned ON. For multi-station network installations, we recommend using an external HUB (such as the Furuno HUB101) allowing redundancy in case an MFD is powered OFF.*

☐ Connect all TZtouch MFDs to a proper NMEA2000 backbone using drop cables (18 feet or less).

> *Note: TZtouch MFDs are fully NMEA2000 Certified and do not have an internal terminal resistor that can be switched ON or OFF. All connections to the NMEA2000 backbone must be "drop" connections (18 feet or less).*

☐ Make sure the DFF1 and DFF3 are set up for "fixed IP addresses" (See appendix for more information on setting up both)

☐ Connect the Radar Ethernet and Power cable to the PSU, then connect the second Ethernet port of the PSU to the HUB or directly to the TZtouch MFD. Make sure that a jumper is inserted inside the PSU on "J7". (This allows the PSU to start without a power synchronization signal).

> *Note: A sticker "Optional jumper for TZtouch included" is placed on all PSU units that include a jumper for "J7" in the packaging! You **MUST** still open the PSU and insert it. If you are utilizing an existing PSU, just order the jumper (part # 001-183-760-00) and insert it on J7 to make the PSU compatible with a TZtouch network.*

☐ Power ON the HUB, the PSU, the NMEA2000 backbone and all the sensors, then start the TZtouch MFDs.

> *Note: During the power ON sequence, the TZtouch MFDs display a black screen for 10-15 seconds: this is normal.*

NavNet TZtouch Installation Checklist

TZtouch MFD Network Installation (without NN3D):

☐ Once the TZtouch MFDs have started, press the "Home" button and touch "Menu" on each MFD to confirm that you see both a Radar and Sounder menu (assuming you have both a Sounder and a Radar connected to the Ethernet Network).

  ○ If you are missing the Sounder menu, make sure that the DFF1/DFF3 sounder DIP switch settings are correct and that you see good traffic (blinking green light) on the Ethernet port.

  ○ If you are missing the Radar menu, make sure the PSU is ON (Green LED). If the PSU is OFF, make sure jumper "J7" is inserted. If the PSU is ON but you cannot see the Radar menu, you will have to upgrade the Radar software to v1.16.

  ○ If the Radar screen shows "Power OFF" you may need to reset the DRS (follow the "TZtouch DRS Update" paragraph found on page 11 in the appendix.

    Note: All DRS Radar sensors shipped after 5/1/2012 are "TZtouch ready" (loaded with v1.16 software). If you have a DRS with older software, please follow the "TZtouch DRS Update" document found in the appendix.

    Note: There is no need to restart the TZtouch MFDs to have the Sounder and Radar appear in the menu. As soon as the Radar or Sounder are detected on the network, they will automatically update and appear in real time.

☐ Select the Radar menu and the Radar Source. Scroll down to the "Radar Initial Setup" to adjust, at minimum, the follow parameters:

  ○ Heading Alignment

  ○ Antenna Height

  ○ Radar Optimization

    Note: The radar must be transmitting to press the "Radar Optimization" button. Repeat if multiple DRS antennas are installed on any network by changing the "Radar Source" at the beginning of the Radar menu.

NavNet TZtouch Installation Checklist

TZtouch MFD Network Installation (without NN3D):

☐ IMPORTANT: All NavNet TZtouch installations are REQUIRED TO HAVE AN APPROPRIATE HEADING SENSOR CONNECTED TO THE SYSTEM.

☐ Select the Sounder menu and choose the Sounder Source. Scroll down to the "Sounder Initial Setup" to adjust at a minimum, the following parameters:
   - ○ Draft
   - ○ Transducer

☐ Select the preferred data/sensor sources for the network by pressing the "Data Source" button in the "Initial Setup" menu.

☐ Select the NMEA2000 PGNs that you want to output on the NMEA2000 backbone from the "PGN Output" button of the "Initial Setup" menu.

   > **_Note:_** _The PGN output configuration is a global setting to the system (the PGN output settings are shared among all the TZtouch MFDs)._
   > _However, only one MFD will actually output data on the NMEA2000 bus (the one that was first powered ON). If that MFD is turned OFF, another TZtouch MFD will automatically replace it and start outputting the same PGNs onto the NMEA2000 backbone._

☐ Pick on TZtouch MFD as the Chart Master and select "ON" in the "Chart Master Device" setting from the "Initial Setup" menu.

☐ Proceed to the Unit adjustments from the "Units" menu.

☐ Proceed to the Time Offset adjustments using the "Time Zone" drop down of the "General" menu.

☐ If a Sirius Satellite Weather Receiver is installed in the network (BBWX1 or BBWX2), set the "Weather Data Server" to "Sirius" from the "Weather" menu.

NavNet TZtouch Installation Checklist

Mixed TZtouch MFD & NN3D MFD Network Installations:

☐ Make sure the NN3D network is fully operational. *(We strongly recommend that you update any existing NN3D MFDs with the latest software before integrating a new TZtouch MFD into a NN3D Network).*

☐ Connect the TZtouch to the NN3D Ethernet network.

　　__Note:__ Leave the HUB101 Dip Switch setting to OFF on the port(s) used to connect TZtouch MFDs.

☐ IMPORTANT: Do NOT connect any TZtouch MFDs to the NMEA2000 backbone! Only the NN3D MFDs are connected to the NMEA2000 backbone(s) in a mixed network!

☐ All NavNet TZtouch installations are recommended to have an appropriate heading sensor connected to the system for advanced features like radar overlay.

☐ If charts were purchased for the NN3D network, set one TZtouch MFD as Chart Master (from the "Initial Setup" menu), then communicate the NavNet3D System ID (SI..) and TZtouch System ID (N4..) to Furuno USA. This will generate new unlock codes for the TZtouch MFDs from the existing NN3D unlock codes. This is a free service provided by Furuno USA.
Proceed to the Unit adjustments from the "Units" menu.

☐ Proceed to the Time Offset adjustments using the "Time Offset" drop down of the "General" menu.
☐

　　If a Sirius Satellite Weather Receiver is installed in the Network (BBWX1 or BBWX2), set the "Weather Data Server" to "Sirius" from the "Weather" menu.
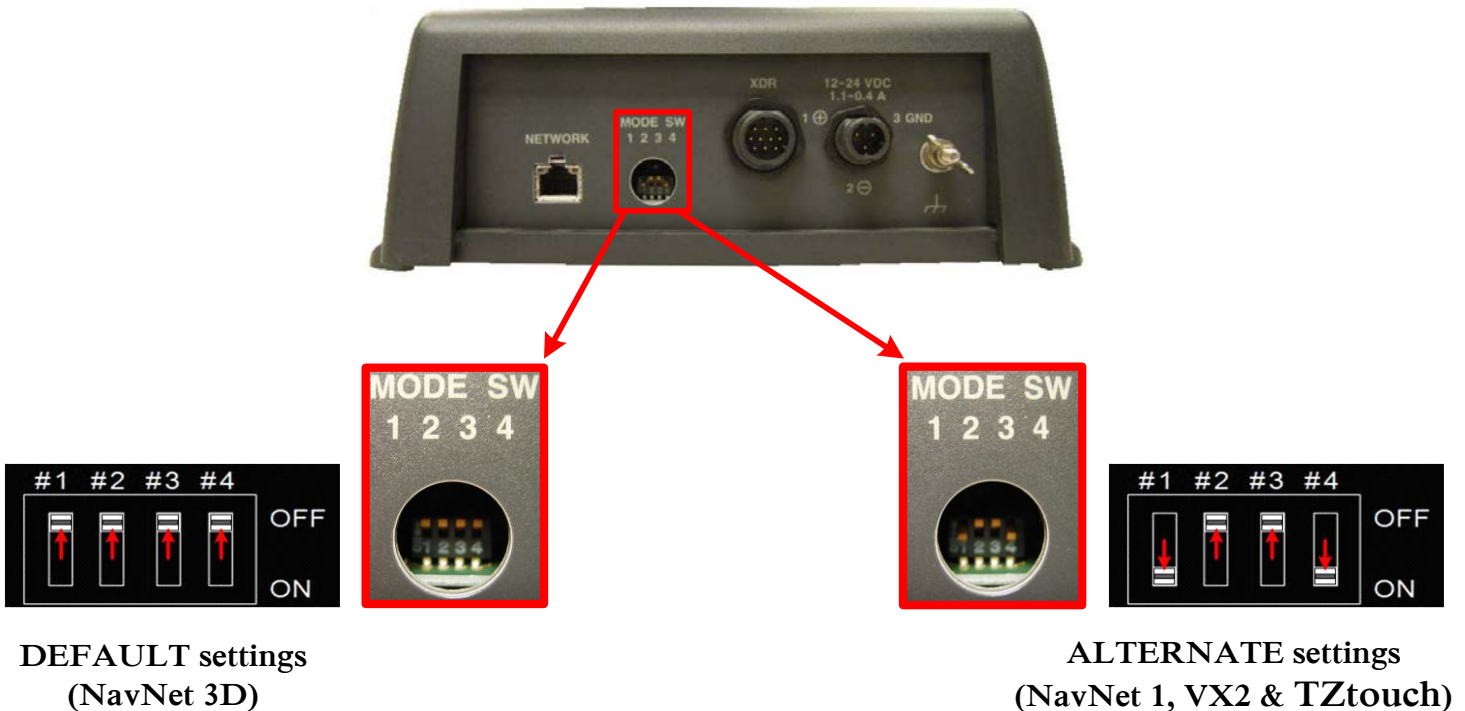☐

DFF1 MODE Switch settings
For connection to NavNet 1, VX2, NN3D & TZtouch

The DFF1 comes defaulted to work with the NavNet 3D MFDs. If you are connecting the DFF1 to an original NavNet, NavNet VX2 or TZtouch only system, you need to change the MODE switches as shown below.

If the DFF1 will be installed in a system comprised of a NavNet 3D MFD8, MFD12 or MFDBB *AND* either of the TZtouch displays, the DIP Switches must remain in the DEFAULT (NavNet 3D) position shown below.

Please confirm the dip switch selection for your type of NavNet display. To access the dip switches, remove the rubber cap on the front of the DFF1 unit.

DEFAULT settings
(NavNet 3D)

ALTERNATE settings
(NavNet 1, VX2 & TZtouch)

DEFAULT settings:	This setting is used when connecting the DFF1 directly to a NN3D MFD or to a NN3D network using the HUB101.

|	
ALTERNATE settings:	This setting is used when connecting the DFF1 to the NavNet 1, NavNet VX2 and TZtouch. This setting must also be used when connecting to a NN3D network using an Ethernet Hub or Switch, other than the HUB101.

If you have more than one network sounder in the system, please contact Furuno Tech Support for setup information.

DFF3 MODE Switch settings
## For connection to NavNet 1, VX2, NN3D & TZtouch

The DFF3 comes defaulted to work with the NavNet 3D MFDs. If you are connecting the DFF3 to an original NavNet, NavNet VX2 or TZtouch only system, you need to change the MODE switches as shown below.

If the DFF3 will be installed in a mixed system comprised of a NavNet 3D (MFD8, MFD12 or MFDBB) *AND* TZtouch, the DIP Switches must remain in the DEFAULT (NavNet 3D) position shown below.
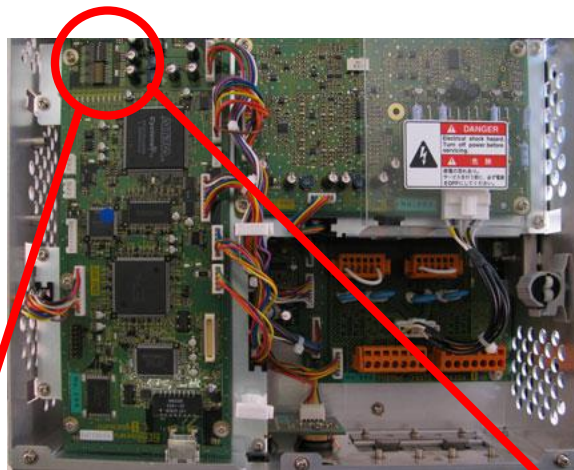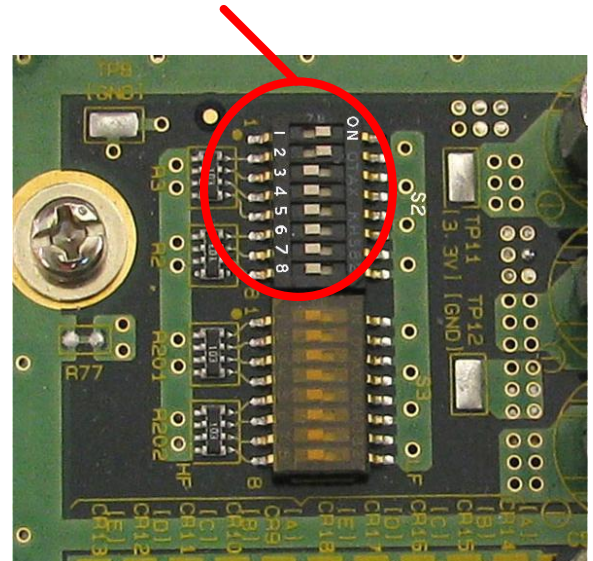

| DEFAULT settings (NavNet 3D) | ALTERNATE settings (NavNet 1, VX2 & TZtouch) |
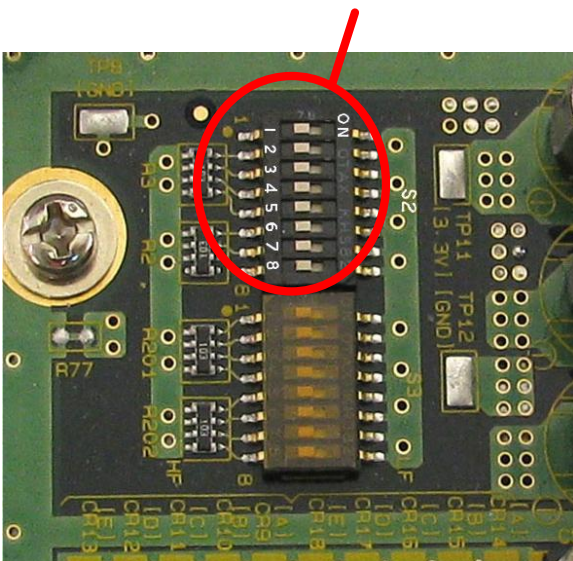
Only change Dip Switch settings in S2. Do not change settings for S3.

If you have more than one network sounder in the system, please contact Furuno Tech Support for setup information.
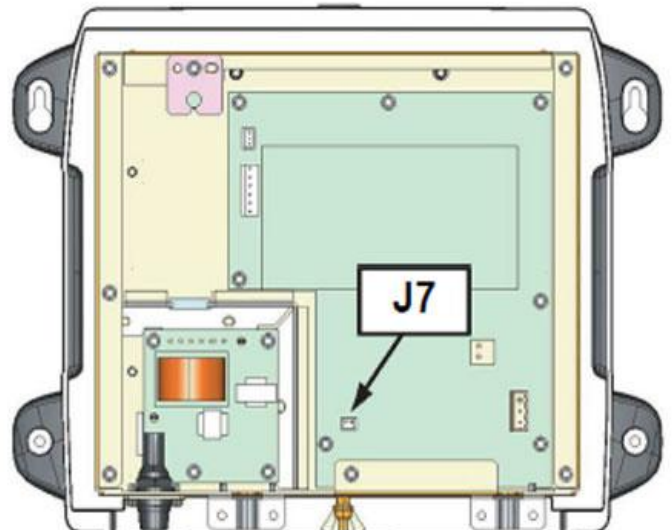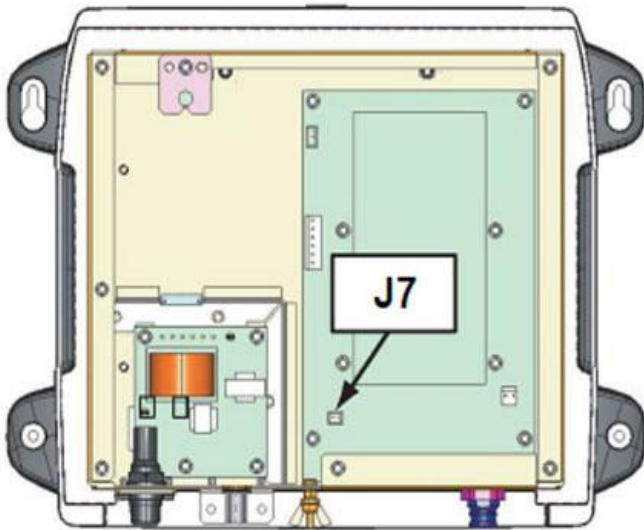
PSU-012 / 013

Jumper location for TZT 9 / 14 Installations

When the power supply unit PSU-012 / 013 is connected to the TZT 9 / 14, attach the shorting jumper (supplied) to J7 on the PWR Board.

(PSU-012 = 03P9481)   (PSU-013: 03P9483)

How to Update a DRS radar sensor using a TZT9 or TZT14 MFD display

1. Create the Program Update SD-Card

A blank 128MB or larger SD Card is needed for the update. Furuno highly recommends using "SanDisk" SD Cards.

a) Download the Zip File located under any DRS radar sensor software tab.

b) Unzip the files on your computer. Open the folder you just unzipped. You will see a folder named "UPLOADER".

c) Insert an SD Card into your computer. If the SD Card folder automatically opens, close it. Click START and select "My Computer".

d) Select the folder you unzipped in step b) and then copy it by pressing (CTRL -C).

e) Open the SD Card and paste the "UPLOADER" folder to the root of the SD Card by pressing (CTRL-V).

2. Update Procedure

a) Turn ON the MFD and make sure that power is applied to the radar PSU.

b) Insert the SD Card into the right slot card reader of the MFD.

c) Press the (HOME) button. Now press "Menu" and then turn the RotoKey clockwise to the select the "Initial Setup" menu.

d) Scroll down to the bottom of the "Initial Setup" page using your finger and click on the "Launch" button in front of "Update Network Equipment".

e) The screen of the MFD will turn black and display "Initialize".

2. Update Procedure *(continued)*

    f) If you don't see the DRS listed after the initialization, proceed to the following steps:
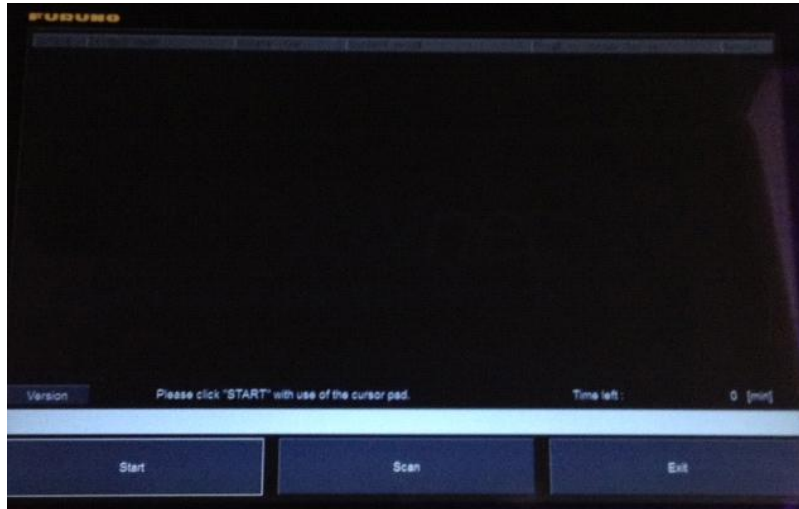
      a. Power the DRS OFF and then back ON. This can be done by cutting the power to the PSU or by disconnecting and then reconnecting the power cable to the DRS.

      b. Wait for 2 minutes.

      c. Click "Scan" on the MFD to refresh the list.

    g) Click on "START" to begin to update the DRS.

    h) At the end of the process, click on "OK" when the message "Ready to shut down to complete update" appears.

DRS Radar Menu Reset

After updating the software in an existing DRS Radar Sensor to version 1.16 or installing a new DRS Radar Sensor, the Radar Menu in the TZtouch MFD must be reset to default settings.

Before you begin, confirm that the DRS Radar sensor and the TZtouch MFD display are properly connected, the TZtouch MFD display is powered on and there is a Radar selection option showing on the Home screen.

Now you are ready to follow the steps below to reset the TZtouch Radar Menu to default settings.

1. Press the (**Home)** key and then press the "**Menu**" soft key.

2. Turn the (**Rotokey**) clockwise to "**Initial Setup**".

3. Scroll down to view the selections for "**Data Acquisition**" and press the "**Select**" soft key next to "**Sensor List**".

4. Confirm that the radar antenna is listed and that the software version is current. **16:03:03:02**.

5. Press the "**Close**" soft key to return to the "**Initial Setup**" menu.

6. Turn the (**Rotokey**) counter-clockwise to "**Radar**".

7. Scroll down to "**Reset Default Settings**" at the bottom of the "**Radar**" menu.

8. Press the "**Reset**" soft key and then select "**Yes**" when asked, "**Are you sure you want to reset to default settings?** "

9. Scroll up to "**Radar Source**" at the top of the menu.

10. Press the radar model that is listed for "**Radar Source**" to reselect it and then click the "**Close**" soft key.

11. If **ST-BY**, **ON TIME** and **TX TIME** appear at the center of the Radar screen, press the (**Rotokey**) and then select "**TX Radar**" from the (**Rotokey**) menu.

Note: It may take a few extra seconds for the radar antenna to begin rotating the first time, but after that, the radar will begin rotating as soon as you press "**TX Radar**"**.**

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