

NAVnet

TZ
touch

Model:

TZT9/14/BB

NAVnet

TZ2
touch

Model:

TZTL12F/15F

Utilizing FLIR M-Series

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1. Integration with FLIR M-Series

FLIR M-Series cameras can be integrated with **NavNet TZtouch** models **TZT9/14/BB** and **NavNet TZtouch2** models **TZTL12F/15F** to pan, tilt, zoom in/out, move, or lock a camera to a specific target.



This document describes how to utilize FLIR M-Series cameras on the TZT9/14/BB and TZTL12F/15F.

1-1 FLIR M-Series Models

For more information on the FLIR M-Series models, you can view the following FLIR website page.

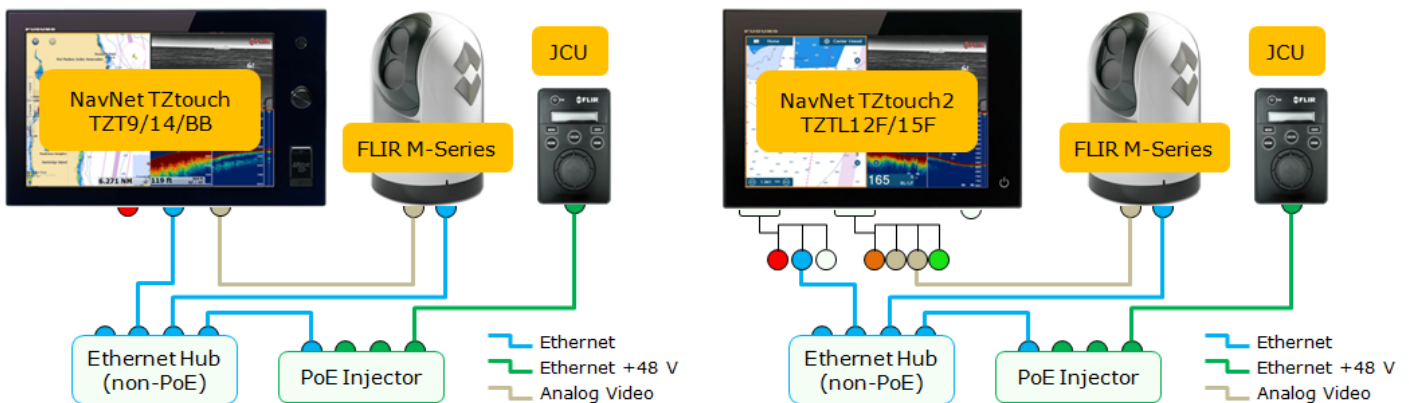
<http://www.flir.com/marine/display/?id=50777>

Note:

Controls for the latest model **M400** are **NOT** supported for by the TZT9/14/BB or TZTL12F/15F.

1-2 Network Overview

A FLIR M-Series can be networked to the TZT9/14/BB and TZTL12F/15F as shown below. While video images are provided from the camera directly to the TZT9/14/BB or TZTL12F/15F RCA video input jacks, control commands are communicated through the Ethernet network.



Notes:

- (1) A JCU (joystick control unit), included with the FLIR M-Series camera as standard and is necessary to turn on and off the camera and operate the camera for the functions not supported on the TZT9/14/BB or TZTL12F/15F.
- (2) For detailed setup procedures of FLIR M-Series, TZT9/14BB, and TZTL12F/15F, see the FLIR camera setup procedures document.

2. Utilizing FLIR M-Series

After all the setup procedures are complete, the TZT9/14/BB and TZTL12F/15F offers unique camera control features with the networked FLIR M-Series camera.

2-1 FLIR M-Series Controls on Camera Page

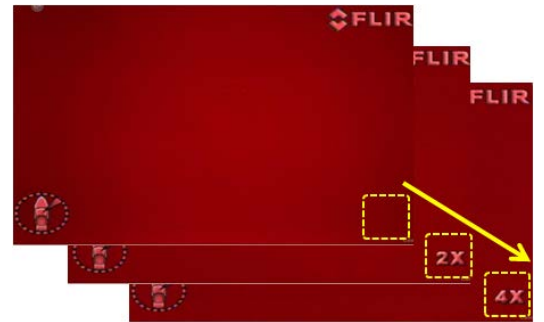
Pan and Tilt by Tap or Drag

The networked FLIR M-Series camera can be panned and tilted by tapping or dragging on the screen like PTZ-compatible Axis IP cameras.



Zoom In/Out by Context or Pinch

FLIR M-Series cameras can be zoomed by 2 or 4 times. The networked camera can be zoomed in/out from context menus or by pinch.



| TZT9/14/BB | TZTL12F/15F |
|--|---|
| A screenshot of the TZT9/14/BB camera page. The 'FLIR Mode' menu is open, showing 'Thermal' selected with a checkmark and 'Visible' below it. 'Zoom In' and 'Zoom Out' menus are also visible and highlighted with yellow boxes. | A screenshot of the TZTL12F/15F camera page. The 'Mode' menu is open, showing 'Thermal' selected with a checkmark. 'Zoom In' and 'Zoom Out' menus are also visible and highlighted with yellow boxes. |
| A screenshot of the TZT9/14/BB camera page. The 'FLIR Mode' menu is open, showing 'Visible' selected with a checkmark and 'Thermal' below it. 'Zoom In' and 'Zoom Out' menus are also visible and highlighted with yellow boxes. | A screenshot of the TZTL12F/15F camera page. The 'Mode' menu is open, showing 'Visible' selected with a checkmark. 'Zoom In' and 'Zoom Out' menus are also visible and highlighted with yellow boxes. |

Note:

The zoom function is available under the **Thermal** mode only. You can see that **[Zoom In]** and **[Zoom Out]** menus are accessible as shown at left.

The zoom function is **NOT** supported under the **Visible** mode. **[Zoom In]** and **[Zoom Out]** menus will be grayed out as shown at left.

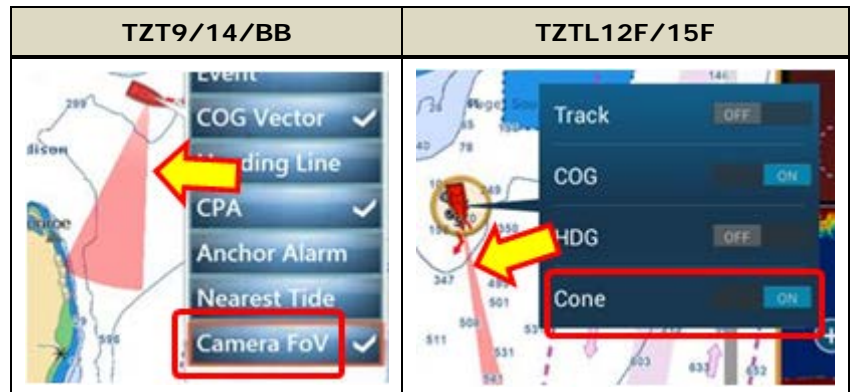
2-2 FLIR M-Series Controls on Plotter Page

The Plotter page has tight integration with the FLIR M-Series cameras.

Field of View Indication

The field of view is indicated on the screen to show the currently facing or tracking direction of the camera.

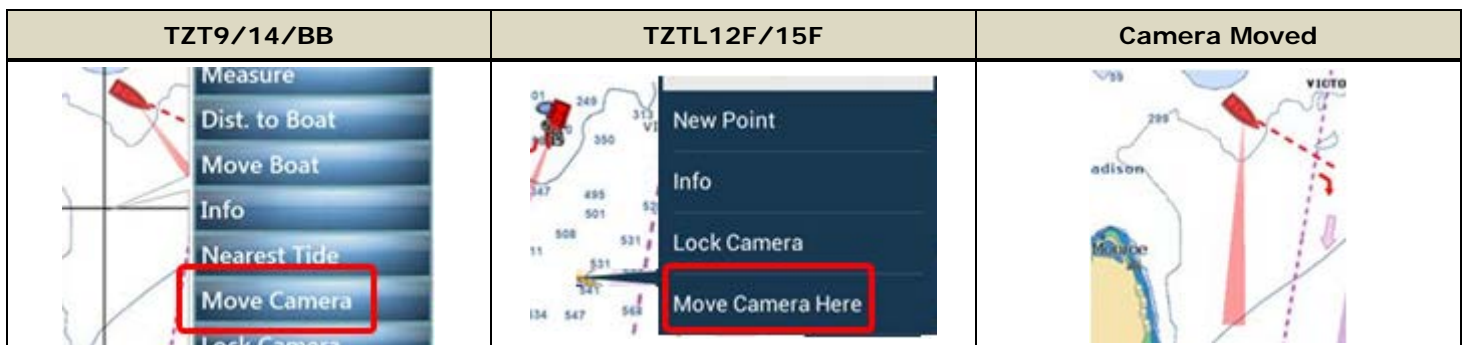
To show the field of view, tap the own ship icon and select **[Camera FoV]** (TZT9/14/BB) or turn on **[Cone]** (TZTL12F/15F) from the context menu.



Move Camera to a Specific Spot

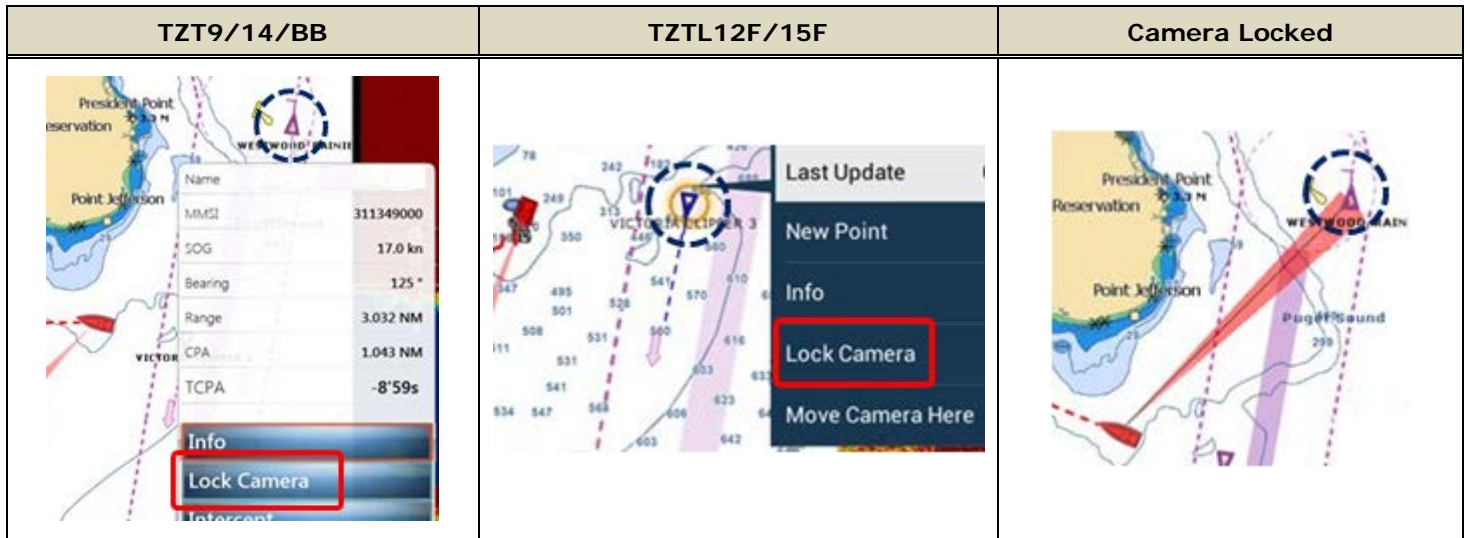
When you need to look at a specific area, you can move the camera from the Plotter page.

Tap a required spot to move the camera to and select **[Move Camera]** from the context menu. The camera will keep the angle while you continue to navigate.



Lock Camera to Specific Target

You can track a specific target with the camera. In this example, an AIS target will be tracked. Operation is very simple: Tap an AIS target and select **[Lock Camera]** from the context menu. The camera will follow the moving target while you continue to navigate.



Lock to Active waypoint, route, or MOB

Once a waypoint, route, or MOB is activated, the camera can be set to automatically track the active waypoint, route, and/or MOB.



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