



Model:

**TZT 9 / 14 / BB**



Model:

**TZTL - 12F / 15F  
TZT2BB**

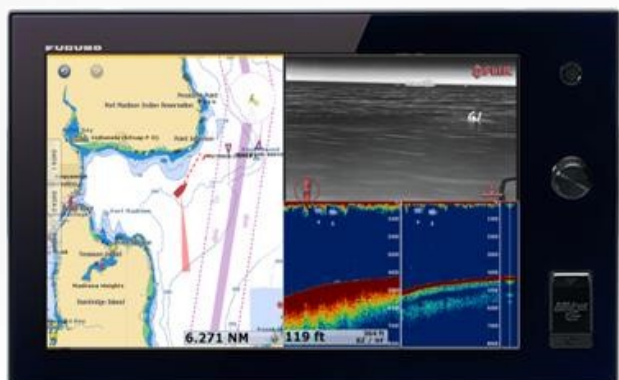
## **FLIR Camera Setup Procedures**

### **-IP Camera Type -**

**FOR COMPOSITE OUTPUT FLIR UNITS:**  
Please see our other support document (NavNet  
TZtouch and TZtouch2 FLIR camera setup)

**FURUNO**

1. Integration with FLIR M-Series
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3. Setting up FLIR M-Series (IP Camera Type)
  - 3.1. Assigning Static IP Address
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# 1. Integration with FLIR M-Series

Most FLIR M-Series cameras can be integrated with NavNet TZtouch and NavNet TZtouch2 MFDs to pan, tilt, zoom in/out, and move or lock a camera to a specific target. This document describes how to configure the IP type FLIR M-Series cameras before integrating them to the NavNet TZtouch and TZtouch2 network. **For composite output FLIR units** please see our other document (NavNet TZtouch and TZtouch2 FLIR camera setup procedures)

## FLIR M-Series Models – IP Camera

The FLIR M232 is the latest IP camera model compatible with pan/tilt/zoom. The M132 is also the IP type compatible with tilt/zoom, no panning.

**M232**

<https://www.flir.com/support/products/m232#Overview>

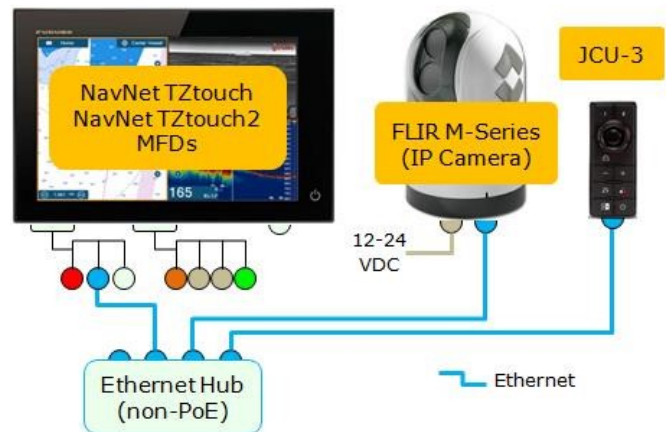


## 2. Network Overview

One (1) FLIR M-Series can be used on the TZT9/14/BB and/or TZTL12F/15F/2BB network as shown at right. Both video images and control commands are communicated via the Ethernet for the IP type cameras.

**Note:**

The JCU-3 (joystick control unit), normally included with the FLIR camera is necessary to turn on and off the camera and operate the camera for the functions not supported by the MFD. The JCU is considered a mandatory device.



## 3. Setting up FLIR M-Series (IP Camera Type)

Static IP addresses should be assigned to the FLIR M-Series camera and JCU-3 to match with the NavNet TZtouch and TZtouch2 network. **Only properly configured units should be placed on the Furuno Ethernet.**

M-Series	IP Address	Subnet Mask
Camera	172.31.200.3 *	255.255.0.0
JCU-3	172.31.200.100 (e.g.)	255.255.0.0

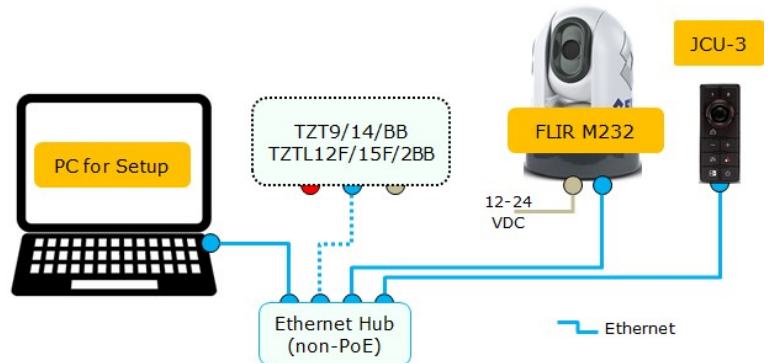
## 3.1. Assigning Static IP Address

For the FLIR camera, set the IP address to one of the addresses that an Axis IP camera would normally use in the system. Choose an address that isn't already in use. (Example provided in the earlier table). The IP address of JCU should be 172.31.xxx.xxx. The recommended IP addresses is shown in the prior table. You must avoid duplication with the IP addresses of FURUNO Ethernet sensors. For detailed setup, follow the steps below.

### Getting Started – Setting up a PC

(1) Connect a PC to the FLIR M-Series network.

(2) Set the PC to be in the same network domain as the FLIR M-Series.



#### Tips:

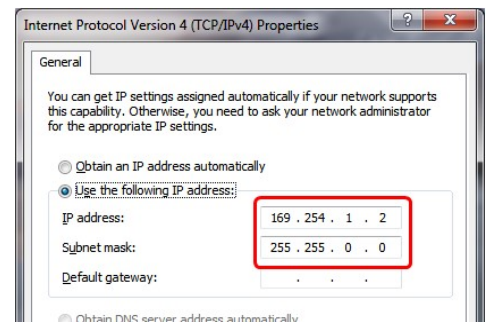
The FLIR M-Series and the JCU controller are UPnP-enabled devices. You can see the list of UPnP-enabled device on the PC by opening [Network] (Windows 7 and later). Note that devices such as M-Series cameras, JCUs, and AXIS converters will appear on the PC **only if they are in the same network domain**.

#### Tips:

When the PC is connected to the M-Series camera and JCU directly with Ethernet cables or via a hub (without a router or DHCP server in the network), the M-Series camera and JCU will automatically assign themselves an IP address of **169.254.xxx.xxx / 255.255.0.0**. In order to access the configuration page of the M-Series camera and JCU, **set up the IP address and subnet mask of the PC to 169.254.xxx.xxx and 255.255.0.0**.

#### Note:

If the PC is set to [Obtain an IP address automatically], an IP address of 169.254.xxx.xxx will be automatically assigned in approx. two (2) minutes. However, it is sometimes easier to manually fix the IP address. In this example, the IP address is manually fixed to **169.254.1.2** and subnet mask to **255.255.0.0** as shown at right.

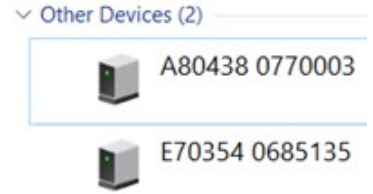


#### Note:

When networking the M-Series camera and JCU, which were previously assigned with other IP addresses, you can display the JCU IP address by pressing the COLOR button while pushing the puck. You can then assign an IP address to the PC accordingly and thus be able to access the M-Series camera and JCU configuration page.



- (3) Once the PC is in the same network domain as the M-Series camera and JCU, you will be able to see the M-Series camera and JCU icons under **[Network]** (Windows 7 and later). Host names are shown as device names. In this example, [A80438 0770003] is JCU-3 and [E70354 0685135] is M232.



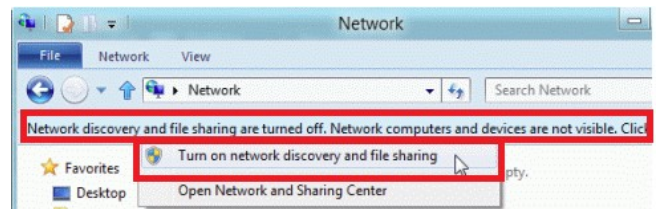
Verify that the M-Series camera and JCU icons are available.

**Note:**

If the devices do not appear, check if the PC is set up to display UPnP notifications.

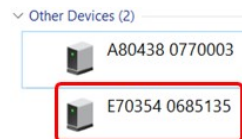
**Windows 7 and later**

- In the [Network] page, turn on **[Network Discovery]**.



**Assigning Static IP Address to M-Series Camera**

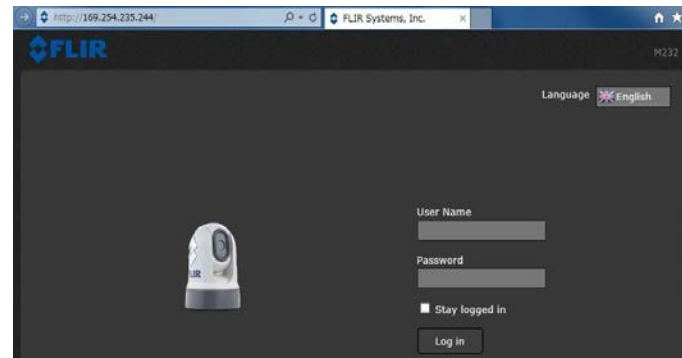
- (4) Double click the M-Series camera icon to open its configuration page.



- (5) Enter the following default user name and password to log in.

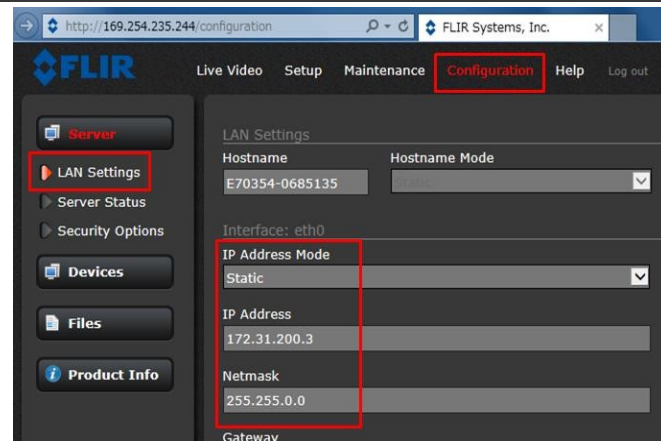
User Name: **"expert"**

Password: **"expert"**



- (6) Access the **[Configuration]** tab – **[LAN Settings]** and set the IP address mode, IP address, and subnet mask as follows.

- [IP Address Mode]: **[Static]** (default [DHCP]).
- [IP Address]: **[172.31.200.3]**
- [Netmask]: **[255.255.0.0]**



- (7) Scroll down to the bottom of the page and click [**Save**].
- (8) Restart the network or restart the camera by recycling the power.



**Note:**  
 You will not be able to access the M-Series camera configuration page anymore after changing its IP address unless the IP address and subnet mask of the PC is changed in step (14).

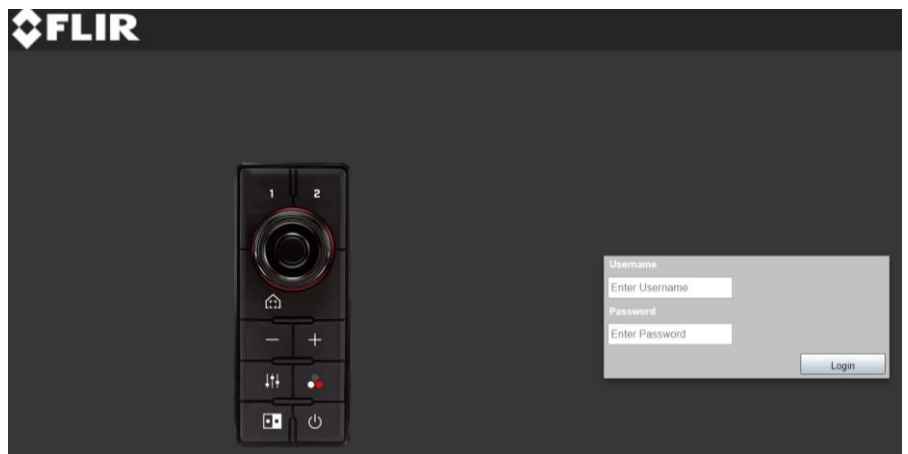
**Assigning Static IP Address to JCU**

- (9) Go back to [**Network**] (Windows 7 and later) of the PC and double click the **JCU** icon to open its configuration page.

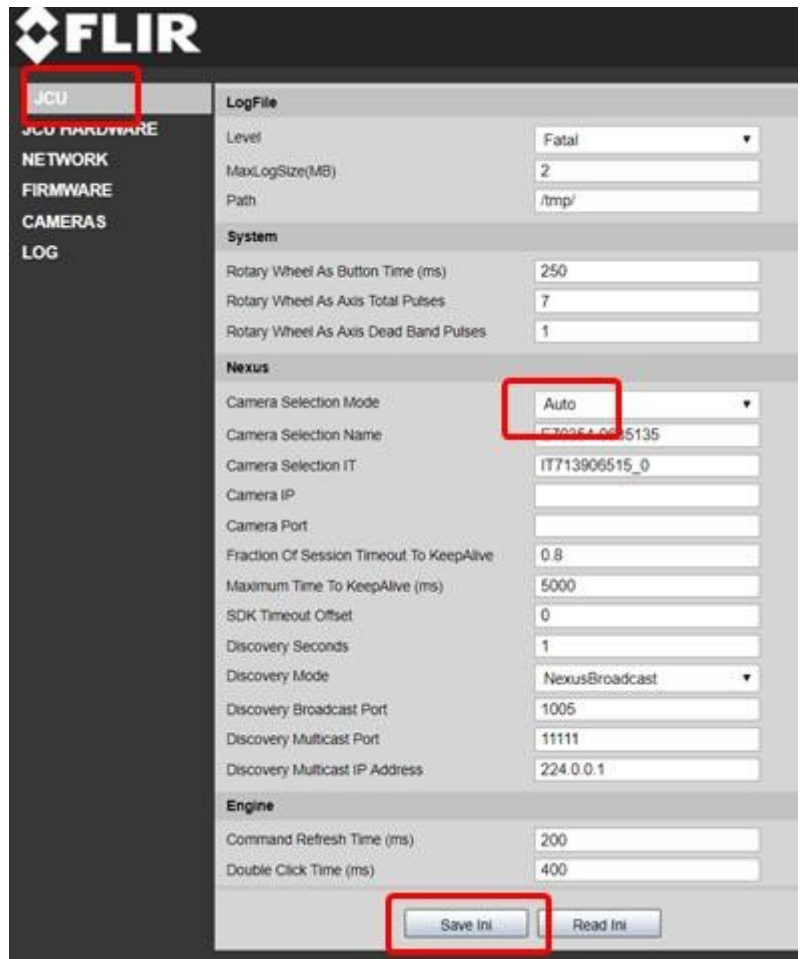


- (10) Enter the following default user name and password to enter the page.

User Name: **“expert”** (or “admin”)  
 Password: **“expert”** (or “fliradmin”)



(11) In the [JCU] page, set the [Camera Selection Mode] to [Auto] and click [Save ini].

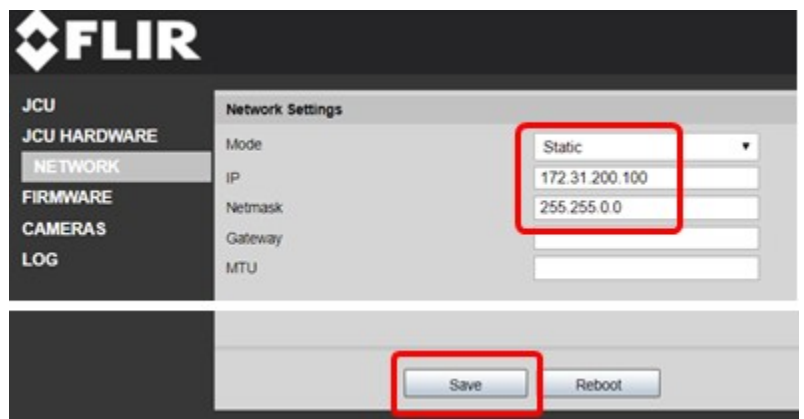


(12) In the [NETWORK] page, set the IP address mode, IP address, and subnet mask as follows.

[Mode]: [Static]

[IP Address]: [172.31.200.100] (any IP of 172.31.200.xxx without duplication with others)

[Netmask]: [255.255.0.0]



(13) Click [Save] and [Reboot].

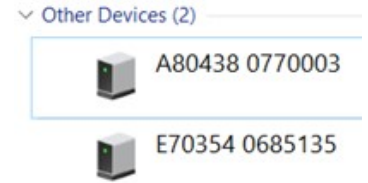
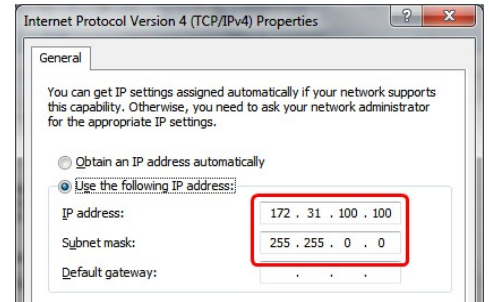
**Note:**

You will not be able to access the M-Series JCU configuration page anymore after changing its IP address unless the IP address and subnet mask of the PC is changed to 172.31.xxx.xxx / 255.255.0.0. In order to proceed to the next steps, you will need to change the IP address and subnet mask of the PC to the new structure.

## Adjusting the PC's IP Address to a New Domain

(14) After changing the IP address of the M-Series camera and JCU, assign the PC with an IP address of **172.31.xxx.xxx** and subnet mask of **255.255.0.0** to match with the new domain.

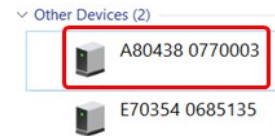
In this example, the IP address **172.31.100.100** and subnet mask **255.255.0.0** are assigned as shown at right.



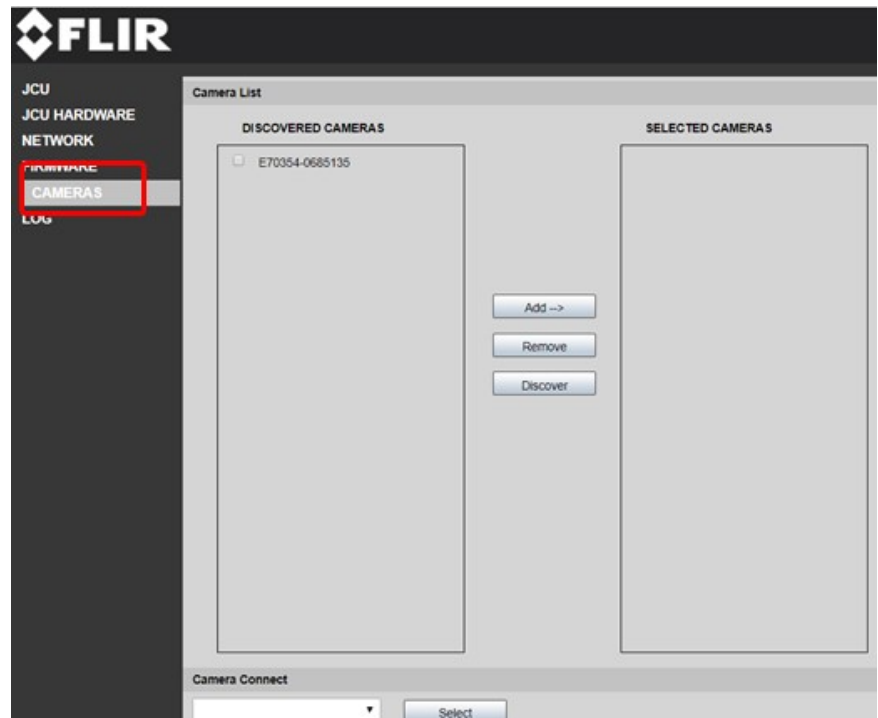
After the static IP addresses are assigned to all the devices in the same domain, you will be able to see the M-Series camera and JCU icons again in [**Network**] (Window 7 or later).

## Pairing JCU-3 with Camera

(15) Access the JCU-3 page again to set the controllable camera to be operated with the JCU-3. Click the JCU-3 icon.



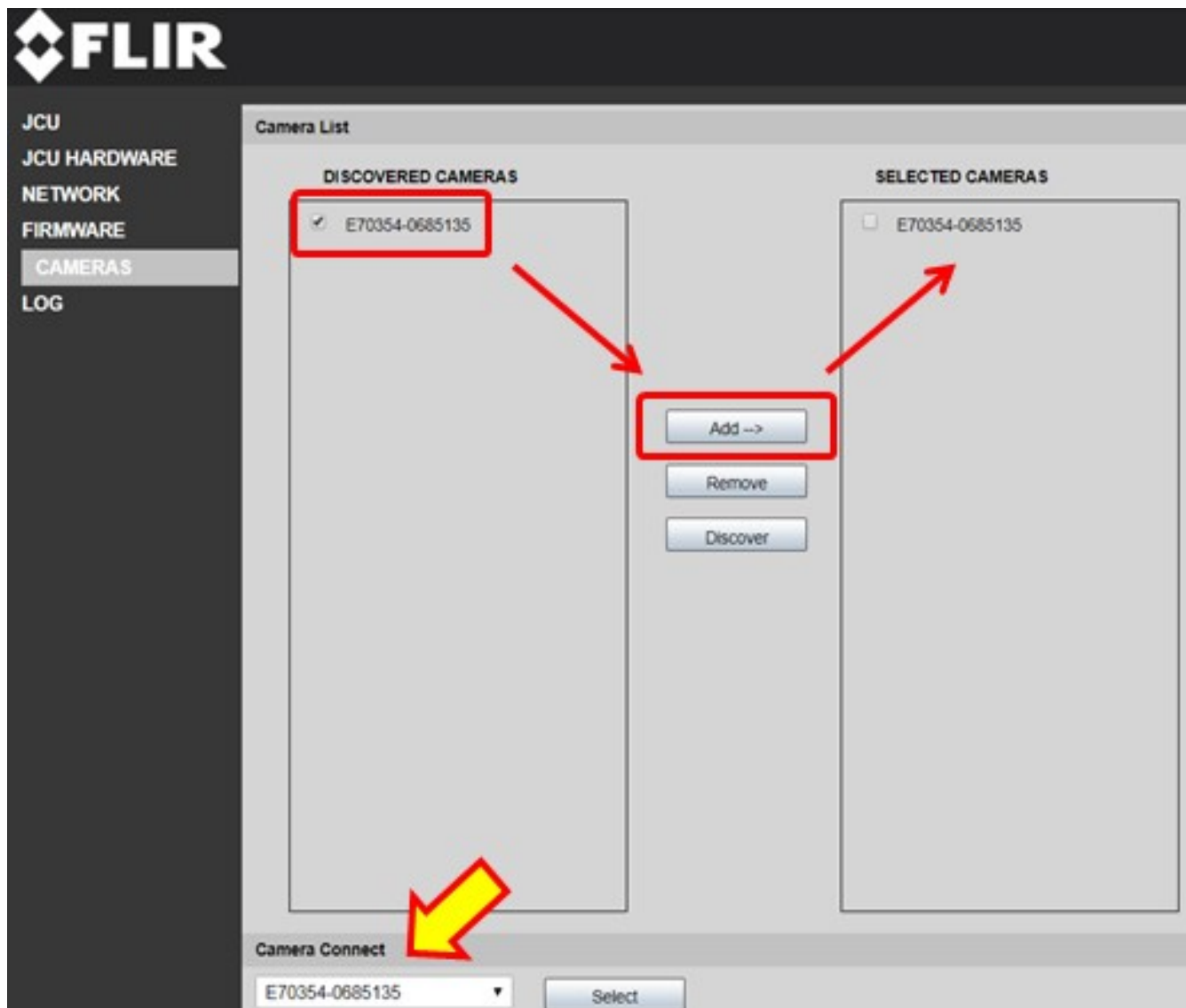
(16) Access [**CAMERAS**]





(17) Select the camera and click [Add -->].

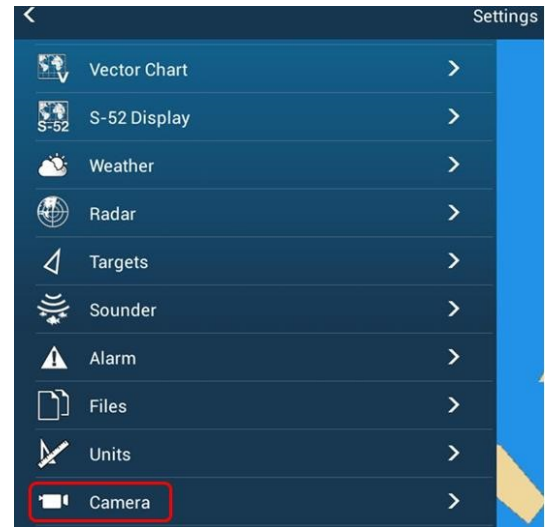
(18) See that the [Camera Connect] section shows the selected camera model.



## 4. Setting up NavNet TZtouch and TZtouch2

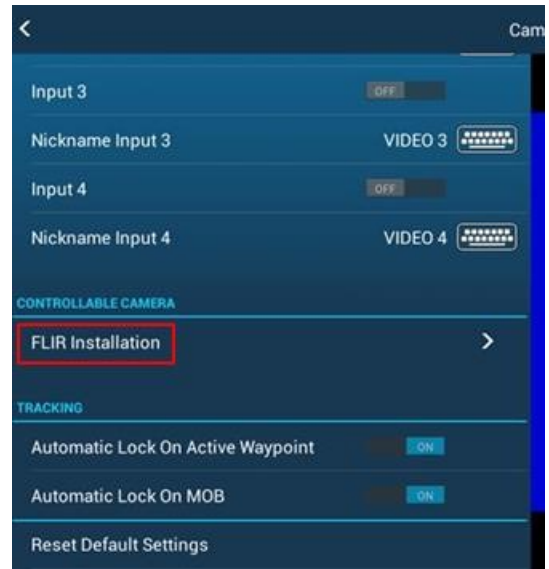
After the FLIR M-Series setup is complete, the TZT9/14/BB and TZTL12F/15F should be set to detect the camera. The procedure is described with screenshots as shown from a TZTL15F with v6.21 software.

(1) Access [Home] – [Settings] – [Camera].



(2) Tap [FLIR Installation].

At this stage, the IP address of the camera is not detected yet. You will see no IP address indication in [FLIR IP].



(3) Tap [Scan IP].

(4) If the M-Series camera is properly detected, you will see the message [FLIR DETECTED: SELECT FLIR MODEL] (TZT9/14/BB v6.01 and TZTL12F/15F/2BB v6.21 and later). Select [FLIR M200] and also see that the IP address of the camera appears.



(5) Set the [Video Source] to [IP CAMERA 1]. (or of the corresponding IP camera that you used the address of)



You may adjust the setting options related to FLIR M-Series controls are available at the bottom of the FLIR Installation menu.



Compatibility is subject to change. If you have any questions about compatibility contact Technical Support directly for most current information.

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