SOP for CCTVs in SunGuide

AXIS Q6045-E Mk II and Q6055-E

This Standard Operating Procedure is to provide a standard configuration for CCTV cameras in District 5 for consistent operation in SunGuide, VLC and IVEDDS. Standard settings to check: Network settings, Video/Encoder settings, SNTP (time server type), IP addresses, PTZ settings, Date and Time, RTSP port, NTCIP (port and address), and On Screen Display (ODS).

CCTV cameras are shipped in an unknown state. In order to be uniform with a clean installation, the camera has to be set to a factory default state. A reset to factory default will reset all settings, including the IP address to the factory default values. Resetting a camera to factory default should be used with caution.

The following SOP is for the AXIS Q6045-E Mk II and Q6055-E IP cameras.

To set the camera to a default state do the following.

1. **Remove** the **protective dome** on the camera. **Take great caution** when removing the dome.
2. **Gently place the camera on its side** to expose the power button (#4) and the control button (#7). See diagram of hardware below.
3. **Connect the special shielded Ethernet cable from the midspan** (PoE injector/ power supply) **DATA & Power OUT port to the camera.**
4. **Connect the AC power cord to the midspan.**
5. **Power up the camera** with the appropriate power source (i.e. AC, DC, midspan PoE injector/power supply).
6. **Press and hold the control button (#7) and the power button (#4) for about 15-30 seconds** until the status **LED** indicator **flashes amber.**
7. **Release** the control button **(#7)** but **continue to hold down** the power button **(#4)** until the status **LED** indicator turns green.
8. **Release** the power button **(#4)** and turn OFF camera. Re-assemble the camera.

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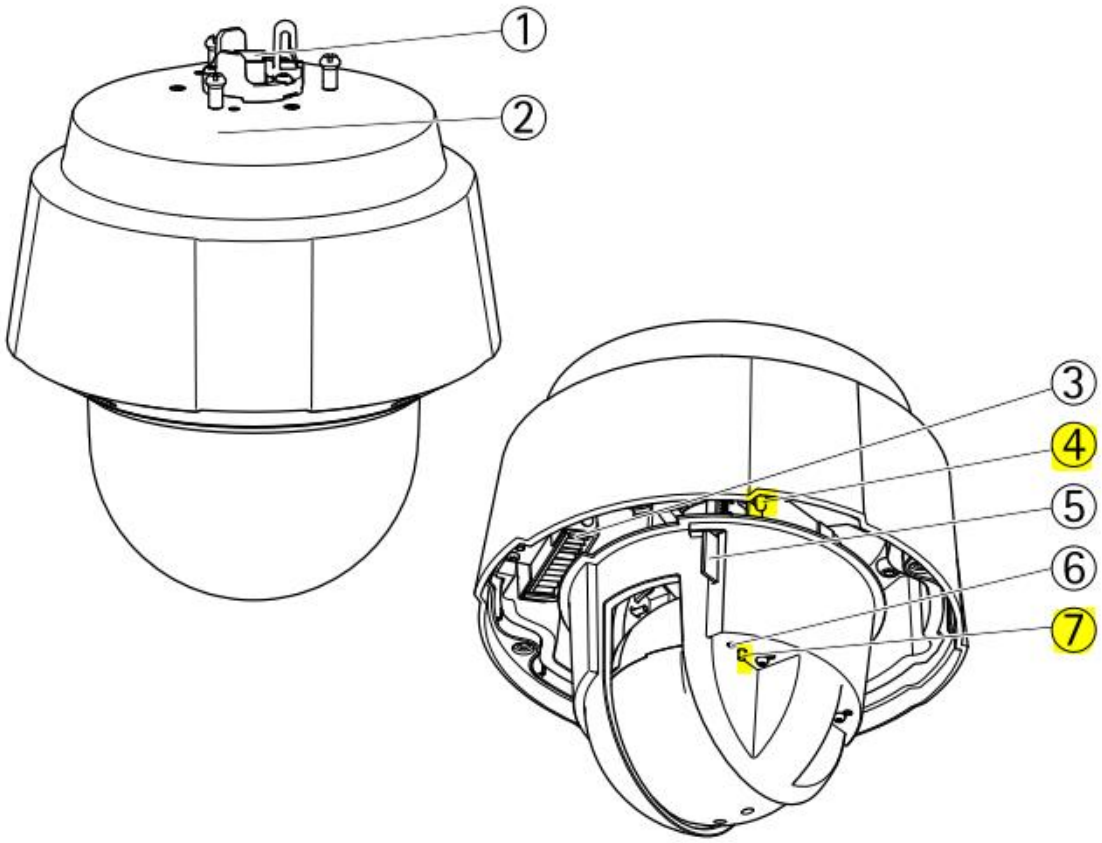
Hardware Overview



1 *Network connector (High PoE)*
2 *Part number (P/N) & Serial number (S/N)*
3 *Heater*
4 *Power button*
5 *SD card slot*
6 *Status LED indicator*
7 *Control button*

Connectors and Buttons

For technical specifications, see *page 58*.

Network Connector

RJ45 Push-pull Connector (IP66). Supports High Power over Ethernet (High PoE). Use the supplied midspan.

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After reassembling the camera, use a laptop to configure the camera.

Connect an Ethernet cable from the laptop Ethernet port to the DATA IN port on the midspan (PoE injector/ power supply) provided.

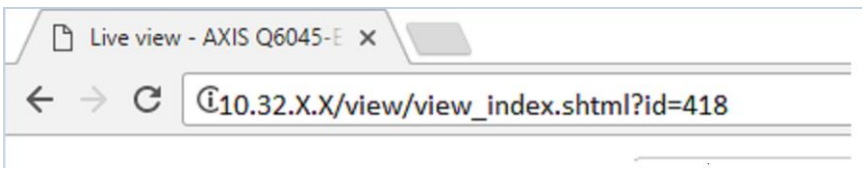
Connect the special shielded Ethernet cable from the midspan (PoE injector/ power supply) **DATA & Power OUT port to the camera.**

Connect the AC power cord to the midspan.

Apply on Power to the camera.

Once the camera is powered and the camera is in factory default state. The default IP address for the camera is 192.168.0.90.

Log into the camera, using Internet Explorer or Chrome to access the camera's user interface. Type in the default IP address.



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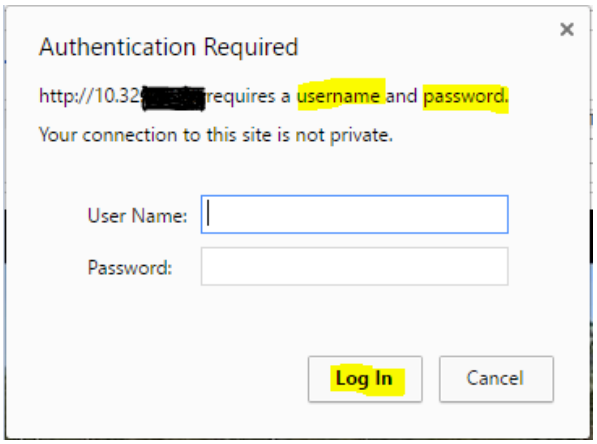
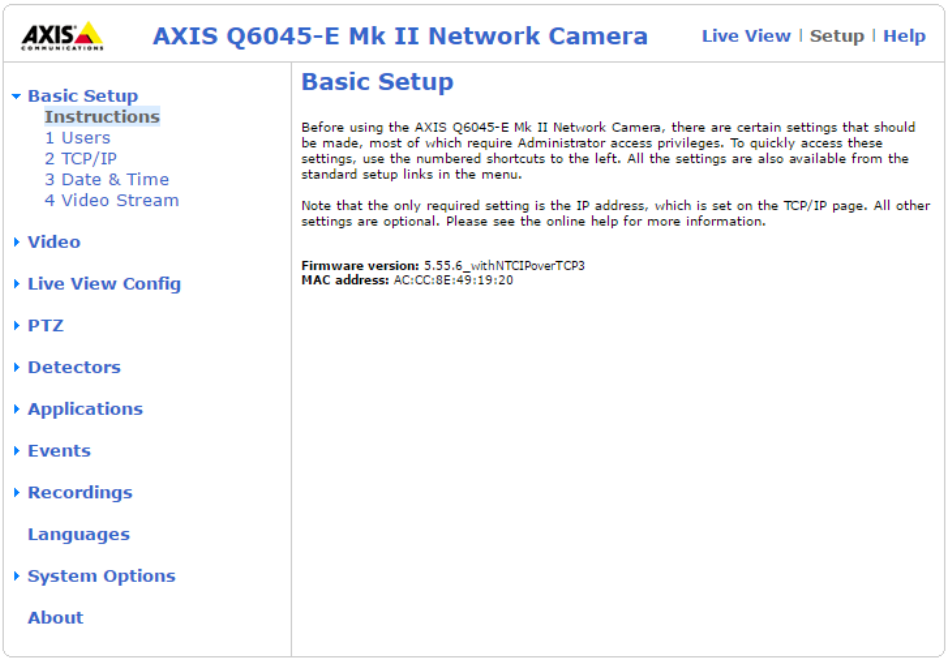
Click on Setup.

Enter the following and Log in:

Default user name: <Call ITS staff>

Default password: <Call ITS staff>





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Install Firmware.

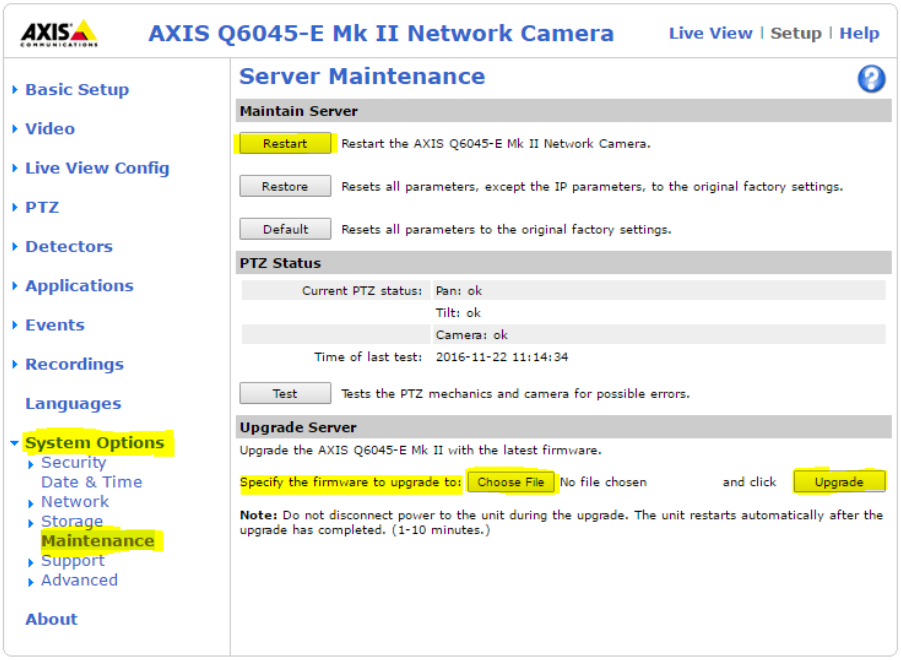
Click on “System Options”.

Click on “Maintenance”.

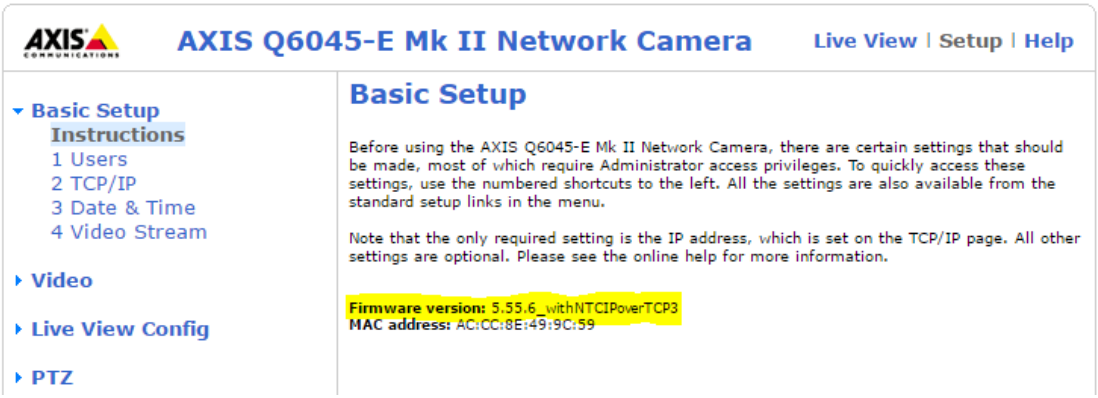
Upgrade Firmware: <Choose File>

Click on “Upgrade”.

Click on “Restart”.



Look for this Firmware version or a newer version with NTCIP in the name description.



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1. Basic TCP/IP settings:

Click on "2 TCP/IP".

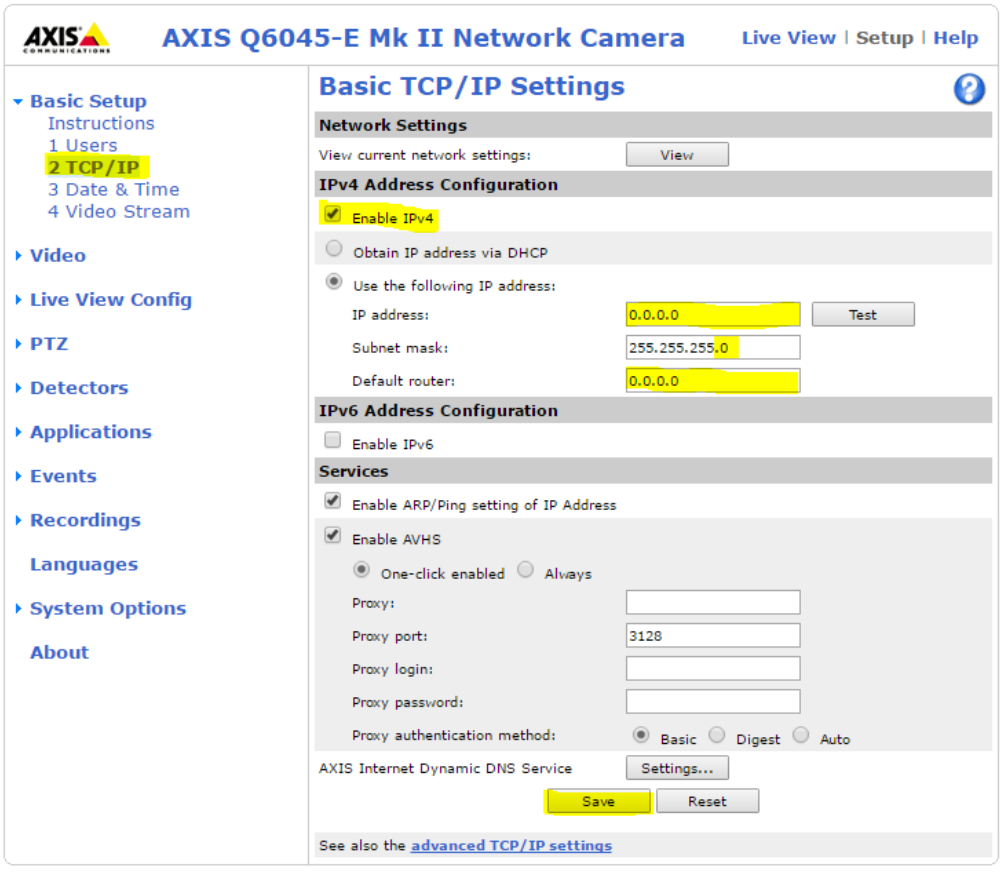
Set the following parameters for the Network.

IPv4 is enabled: <check box>

IP address: <10.32.X.X>

Subnet mask: <255.255.255.X>

Gateway (Default router): <10.32.X.X>



Click SAVE.

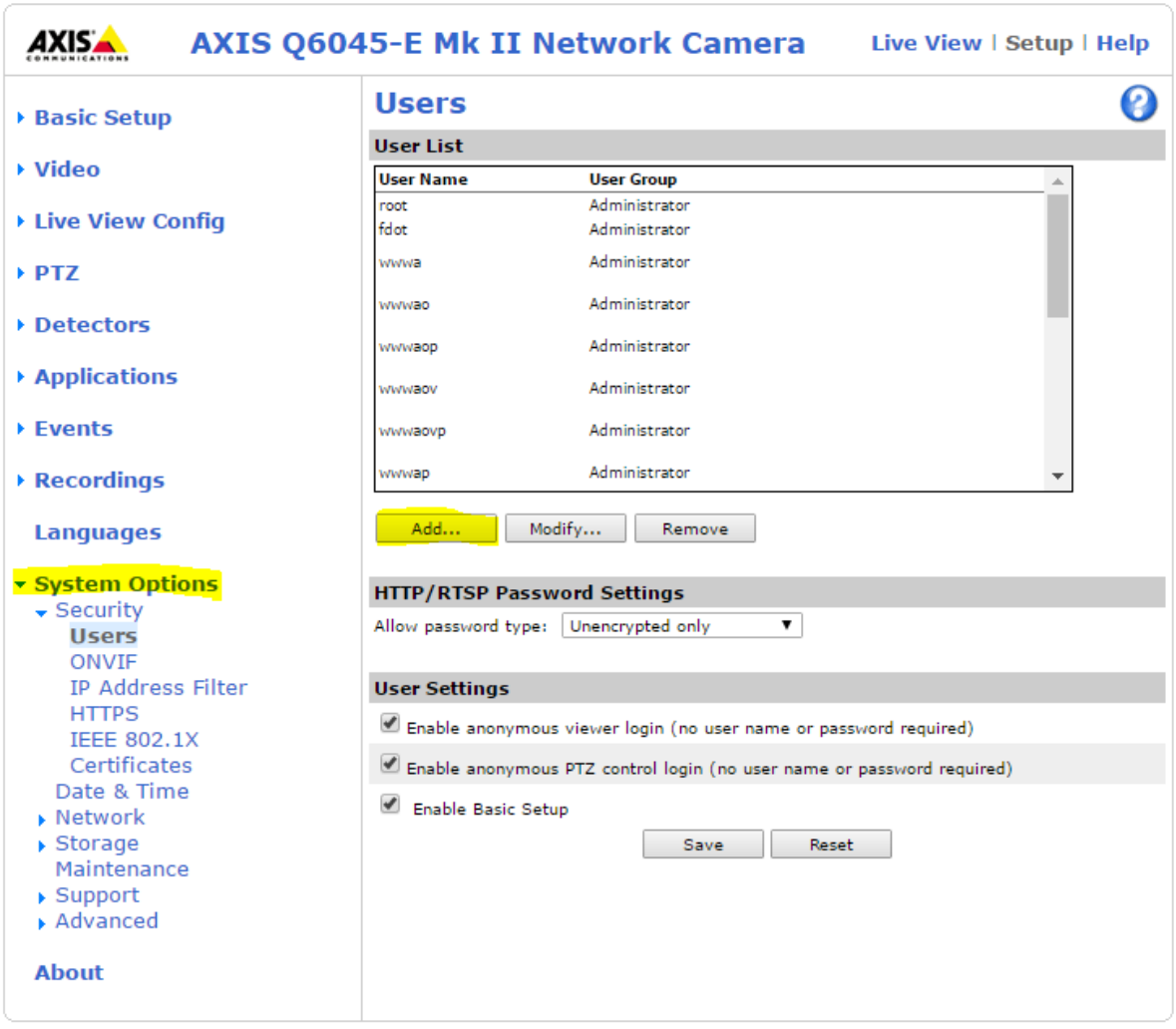
SOP for CCTVs in SunGuide

NOTE: Click SAVE after every configuration setting for that window before moving to the next menu item.

2. System Options settings:

Click on "System Options".

Click on the "Add…" button.



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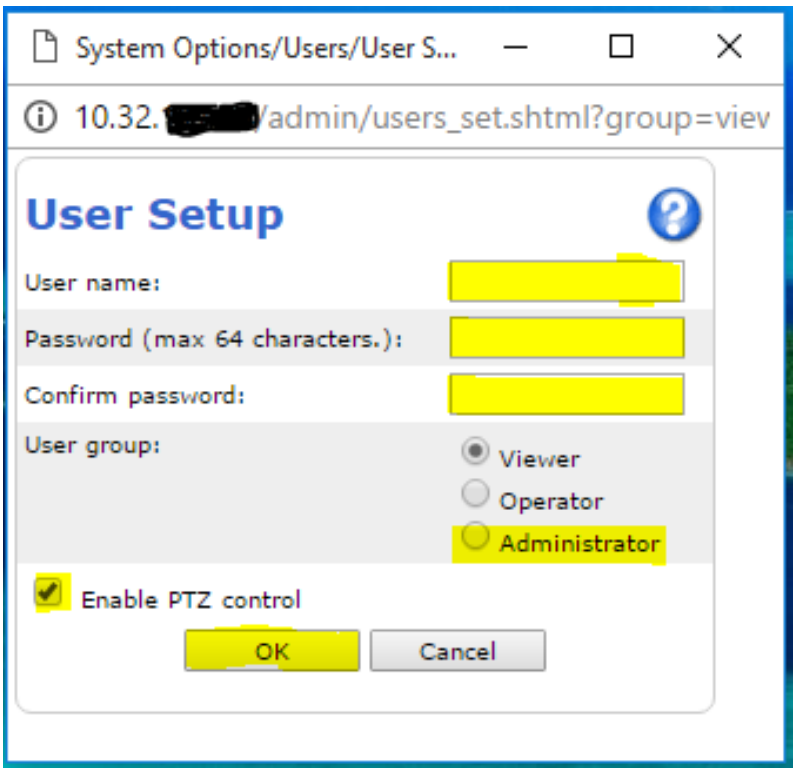
Set the following parameters for User Setup.

User name:	<fdot>
Password:	<Call ITS for password>
Confirm password:	<Call ITS for password>
Enable PTZ control:	<check the box>
Select User group:	<Administrator>



Click "OK".

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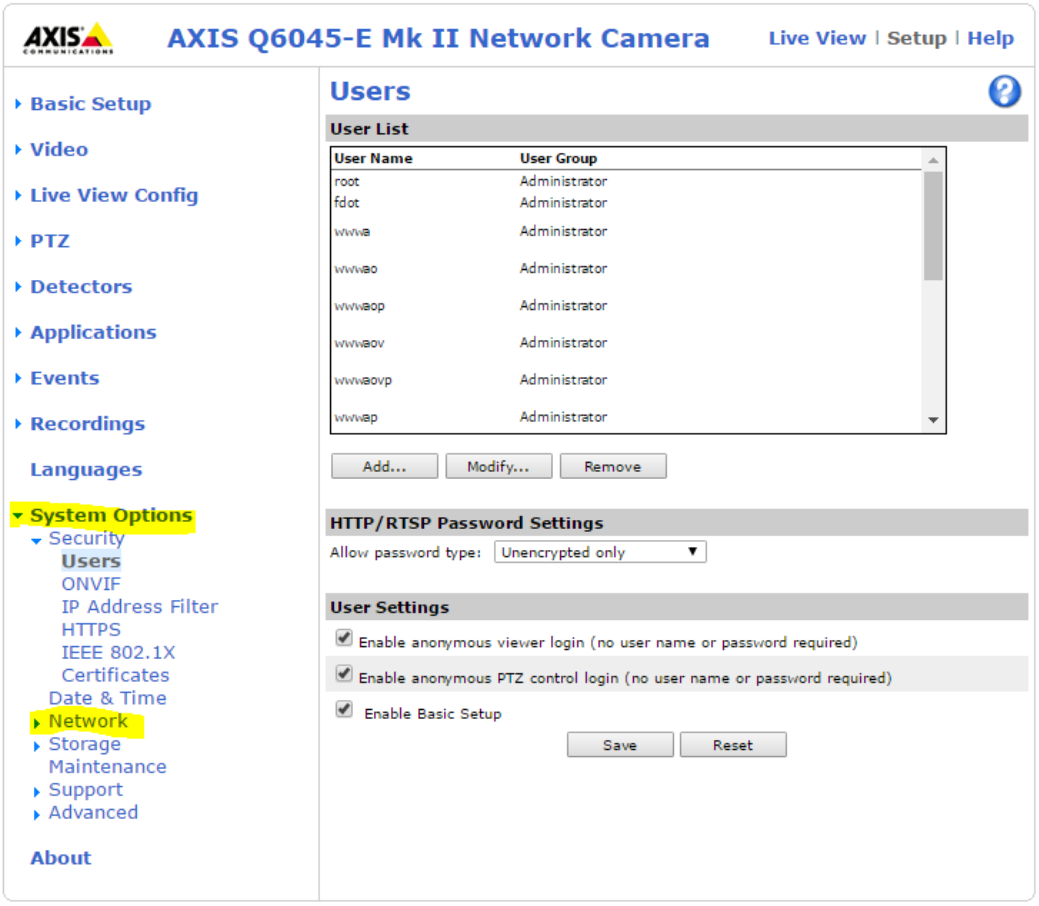
Click on “System Options”.

Click on “Network”.



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Click on “Advanced”.

Check the following settings.

NTP Configuration:	< (Enter IP address of NTP server 10.32.0.22)>
FTP Enable:	<check the box>
RTSP Enable:	<check the box>
RTSP port:	<554>

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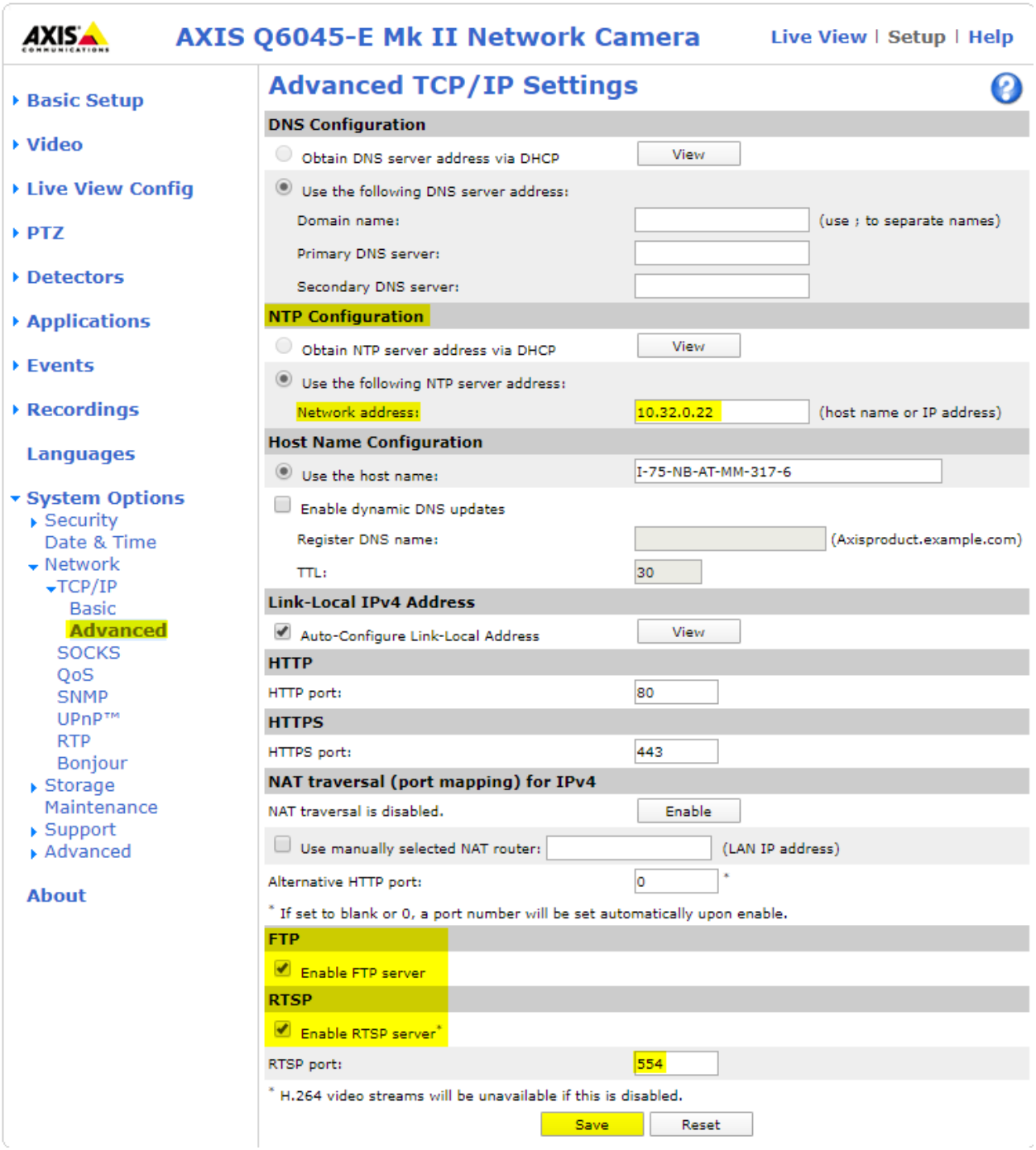

Click SAVE.

Click on “Date & Time”.

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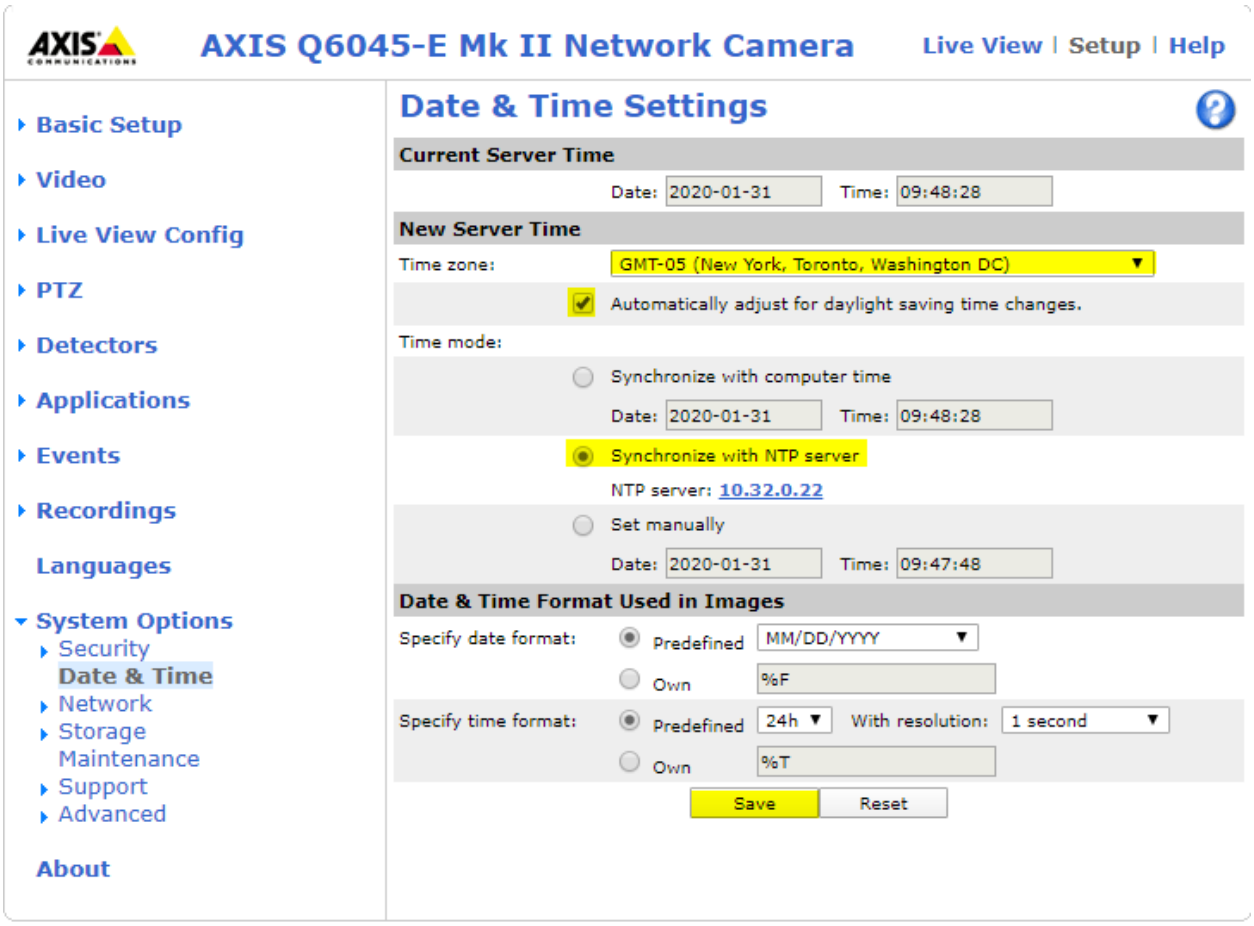
Set the following parameters for Date and Time.

Time Zone select: <GMT-05 (New York, Toronto, Washington DC)>

Time mode select: <Synchronize with NTP server>



Click SAVE.

Click on “Network”.

Click on “SNMP”.

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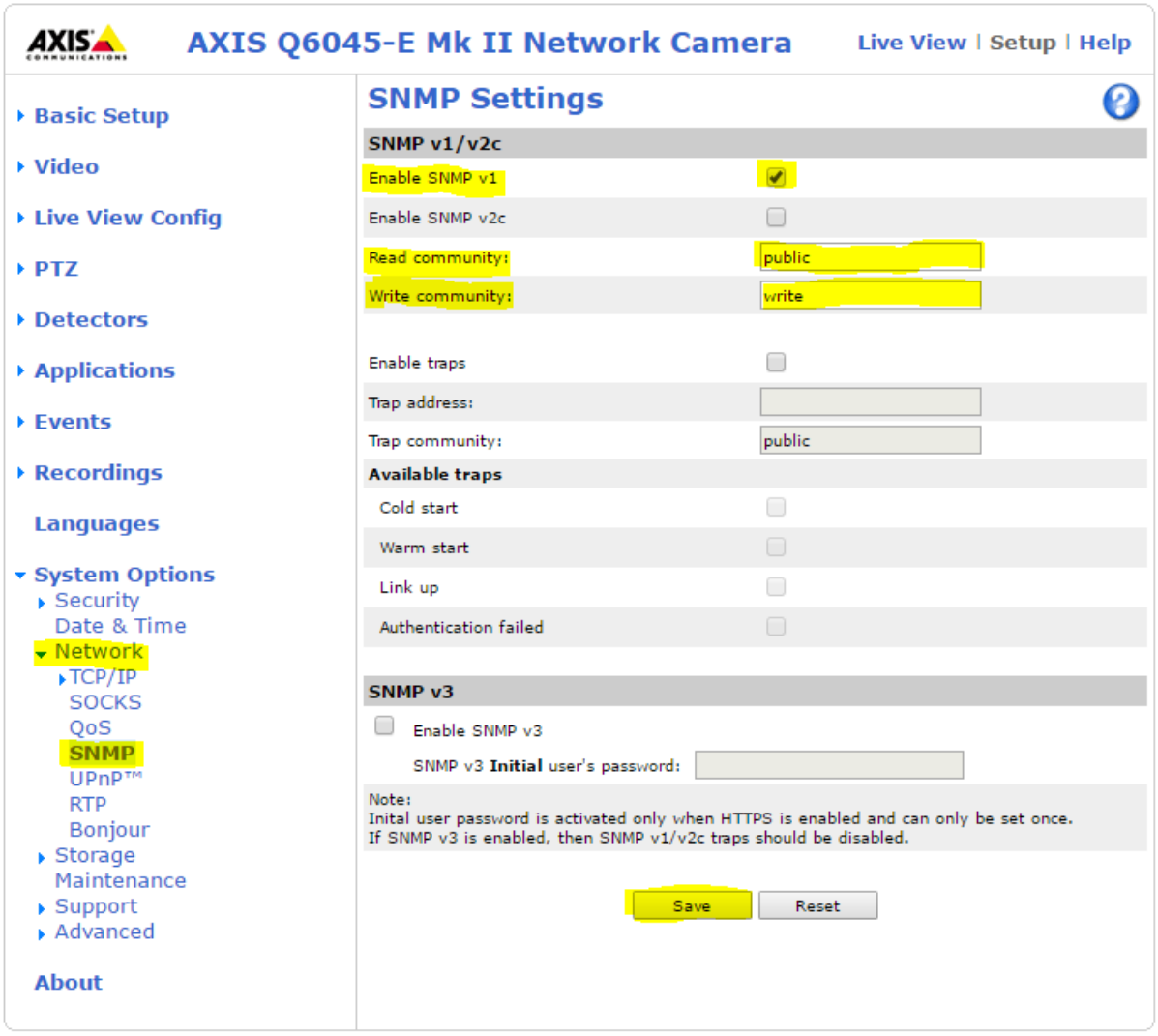
Set the following parameters for SNMP settings.

Enable SNMP v1: <check the box>

Read community: <public>

Write community: <write>



Click SAVE.

Click on "RTP".

Set the following parameters for RTP Multicast settings.

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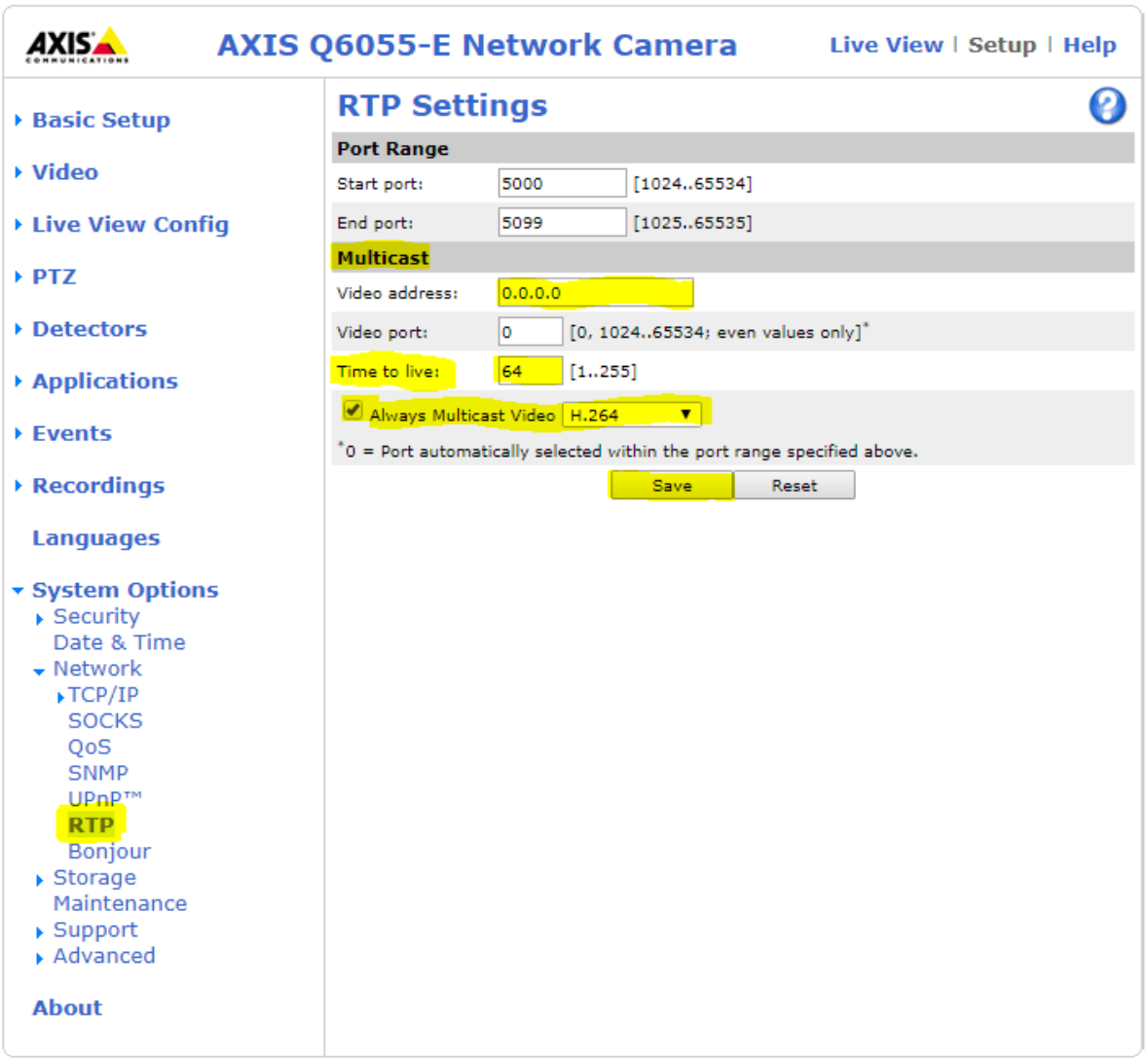
Video address: < Enter Multicast address 232.X.X.X >

Always Multicast Video: <check the box>

Select Stream: <H.264>



Click SAVE.

Click on “Advanced”.

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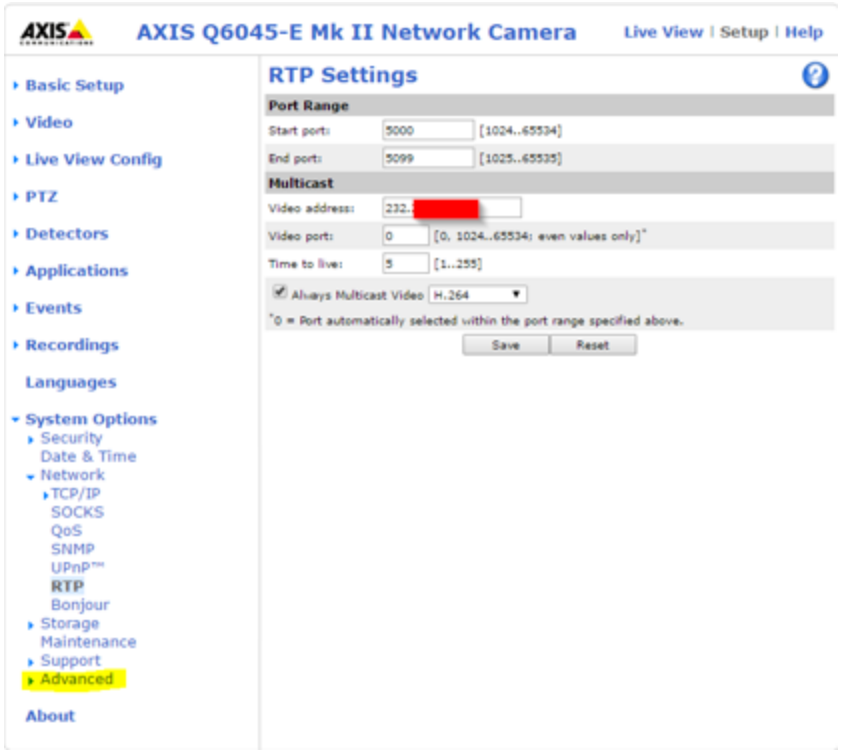
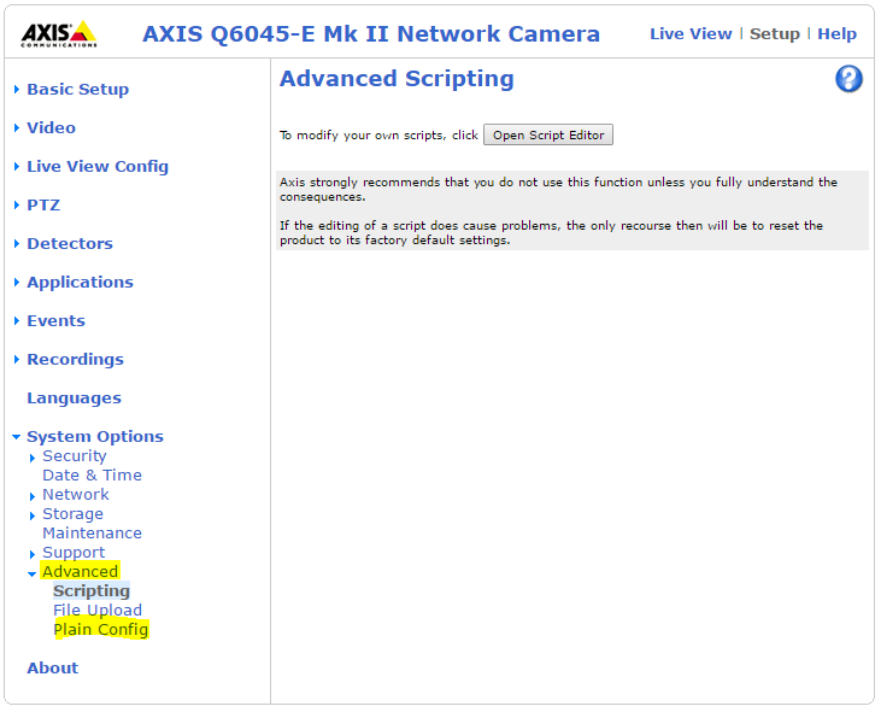


Click on “Plain Config”.



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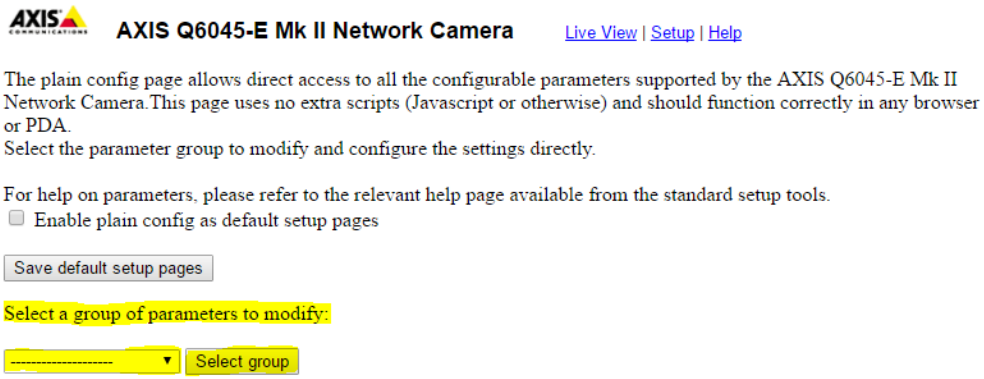
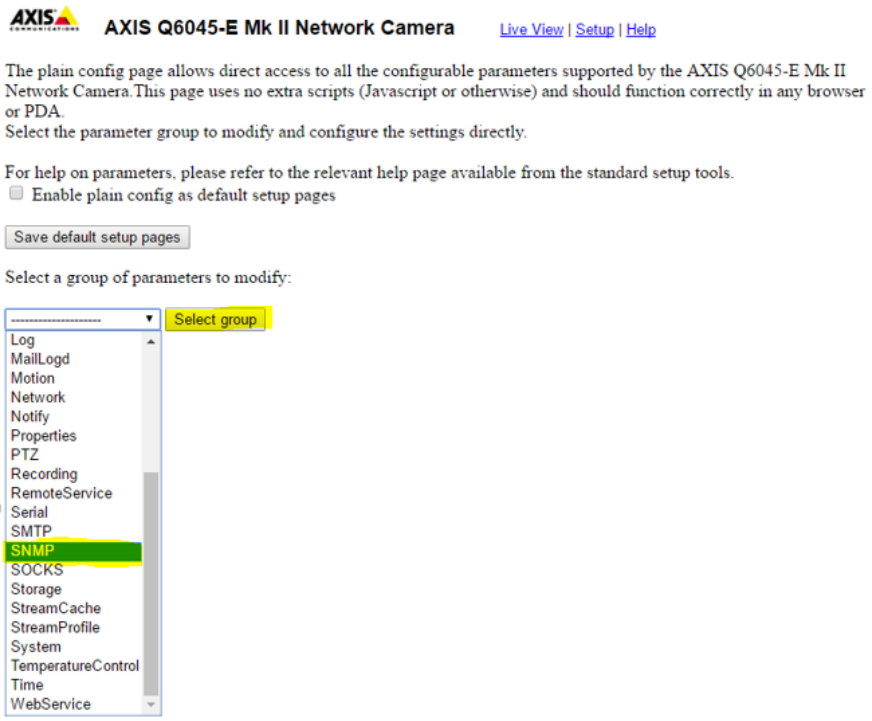
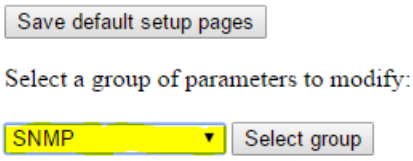


Click on the drop down menu, scroll down and select "SNMP".



Click "Select group".



Ensure that the following parameters are set.

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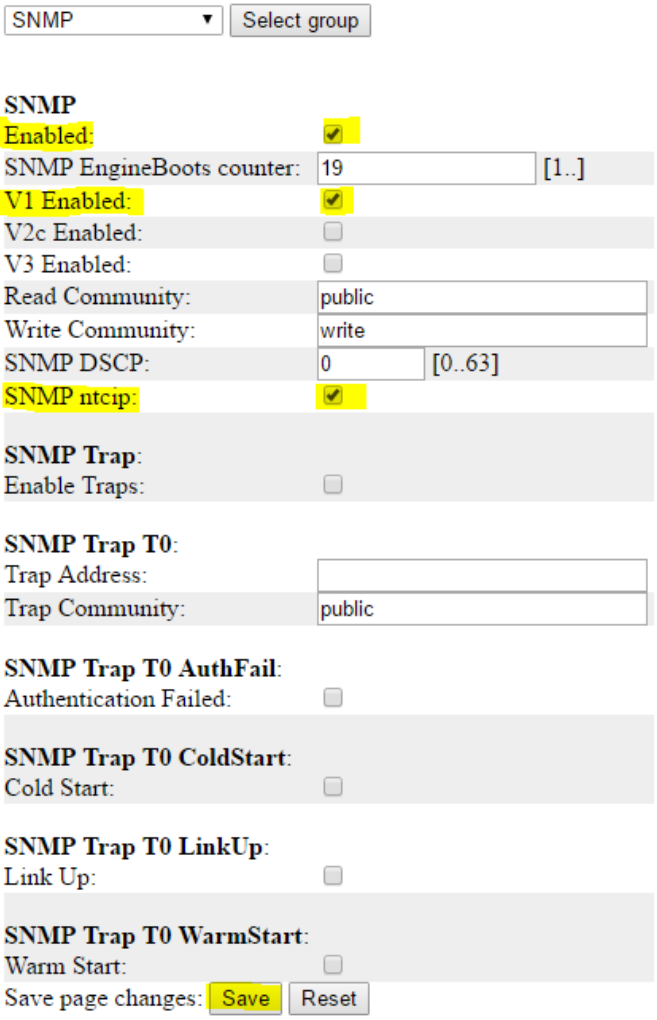
Enabled: <box is checked>

V1 *Enabled:* <box is checked>

SNMP ntcip: <box is checked>



Click Save and then click Setup.

3. <u>Video Stream settings</u>:

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Click on “Video”.

Set the following parameters for the Video Stream.

Maximum frame rate: <Unlimited>

Overlay settings: <check the box>

Include text: <Roadway, Direction, at Mile Marker 000.0>

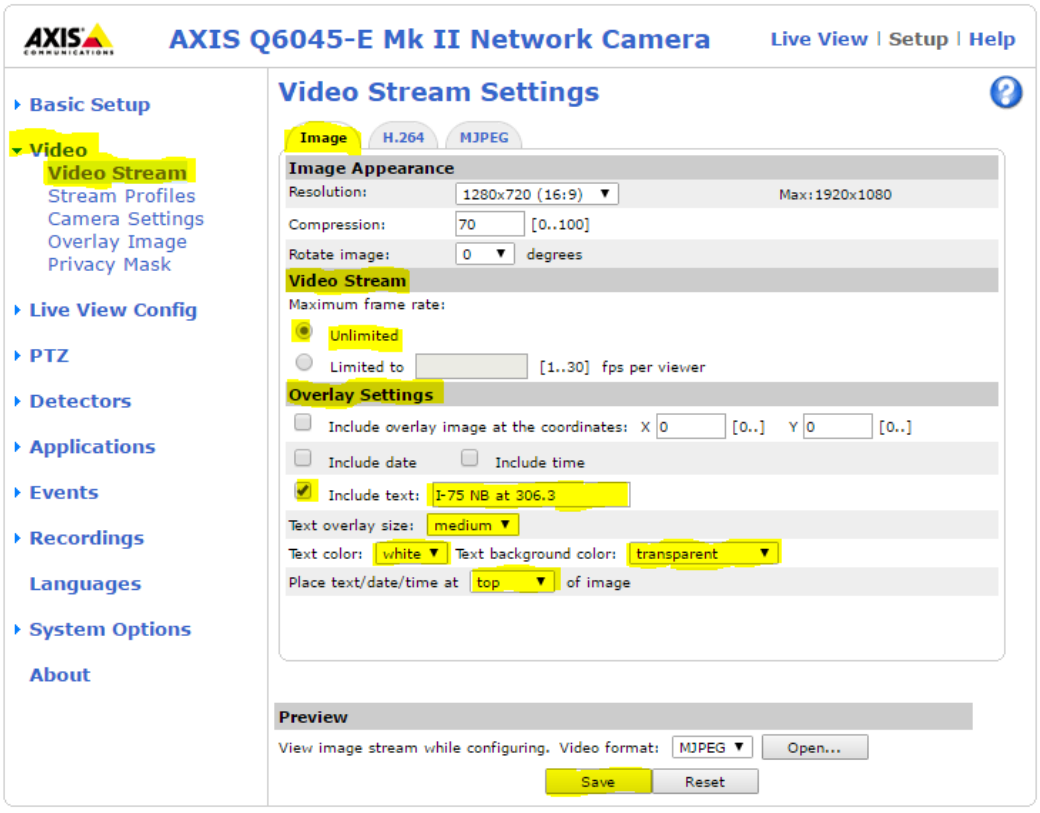
For example: <*I-75_NB_at_MM_354.3*>

Text overlay size: <medium>

Text color: <white>

Text background color: <transparent>

Place text/date/time positions: <top >



Click Save.

Click on “H.264” tab.

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Set the following parameters for the Video Stream Encoder Settings and Bit Rate Control.

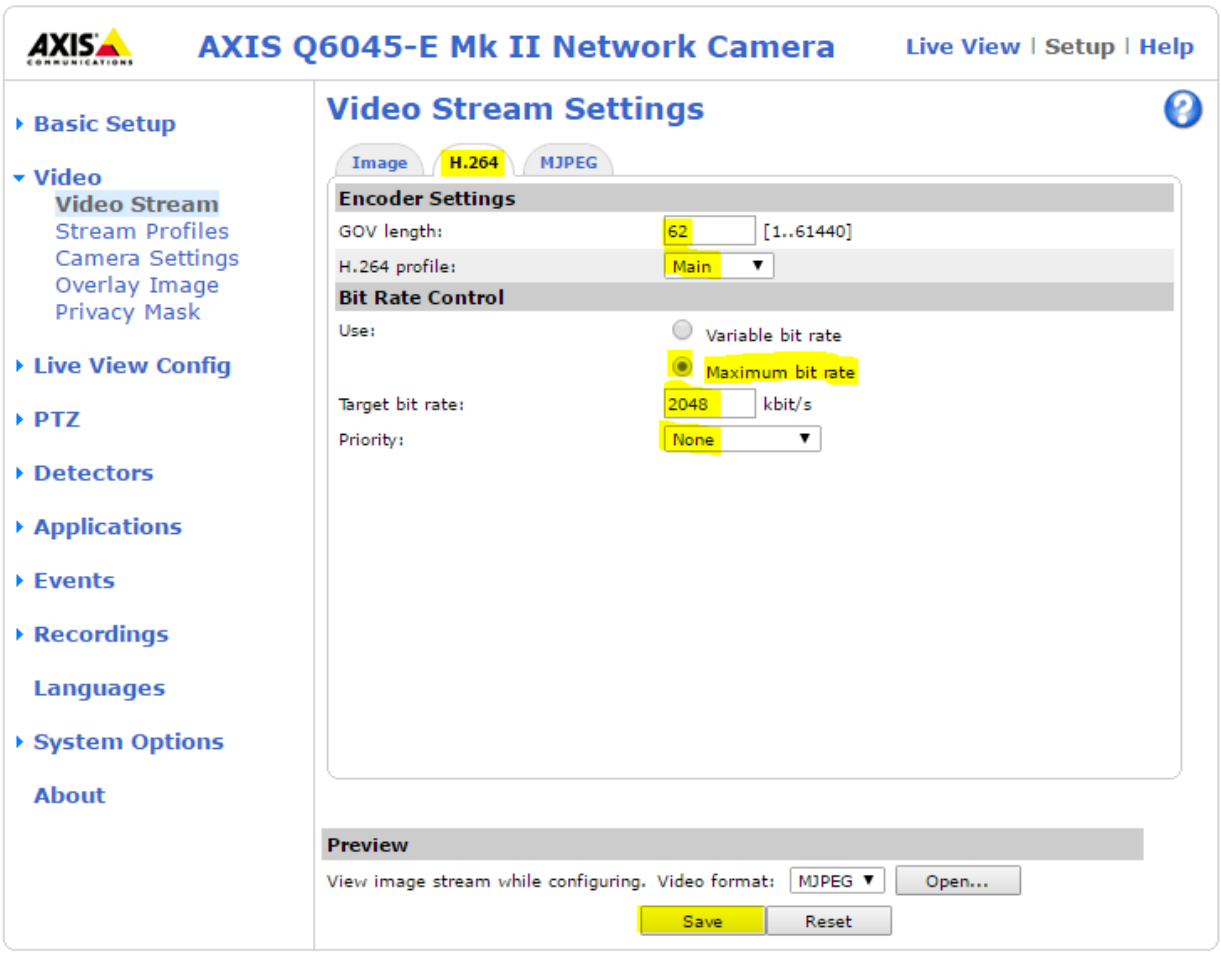
GOV length: <62>

H.264 profile: <Main>

Use: <Maximum bit rate>

Target bit rate: <2048> kbit/s

Priority: <None>



Click Save.

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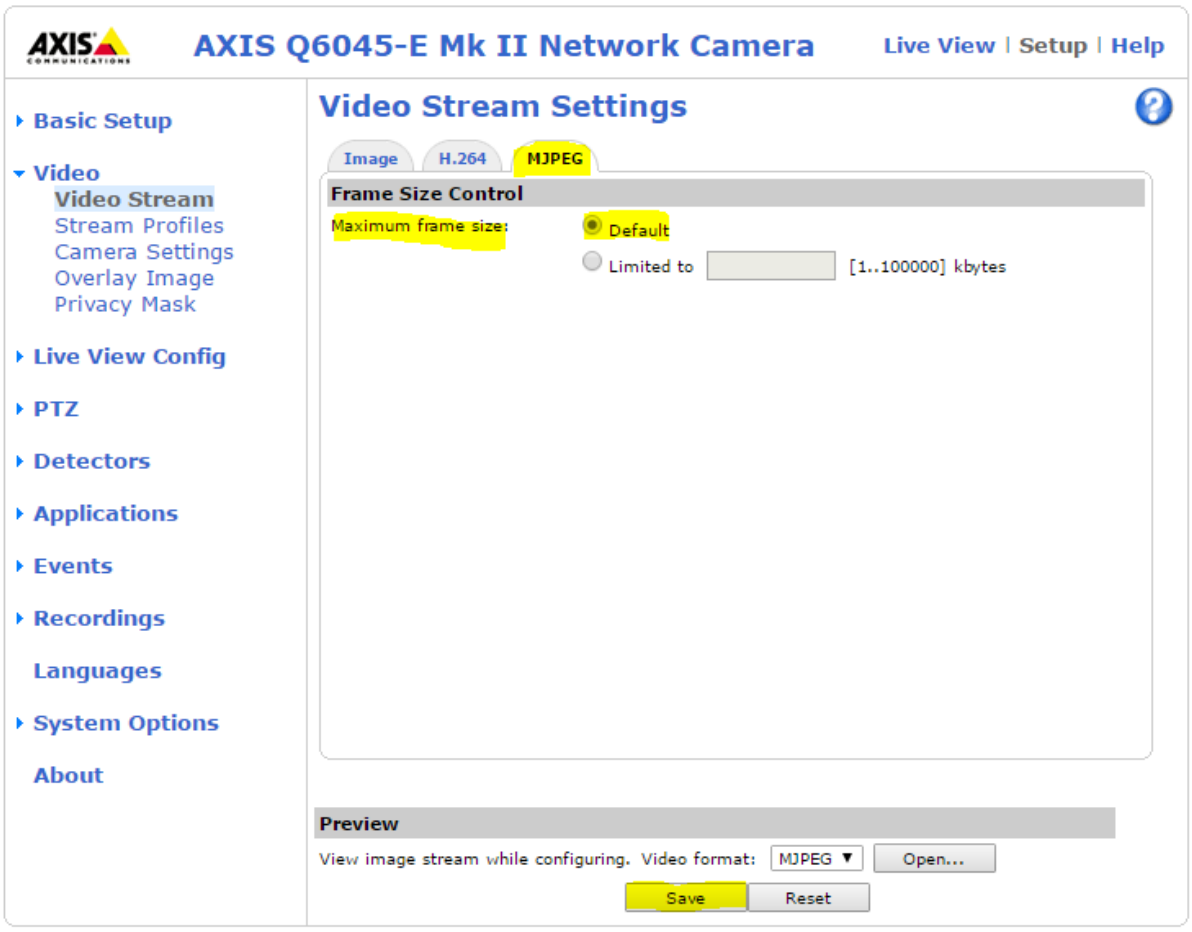
Click on “MJPEG” tab.

Verify that the following parameters are set.



Click Save.

Click on “Camera Settings”.

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Set the following parameters.

Capture mode: <1080p 1920x1080 (16:9) @ 30fps>

White balance: <Automatic Outdoor>

Exposure control: <Automatic>

Max exposure time: <1/30 s>

Allow slow shutter: <check the box>

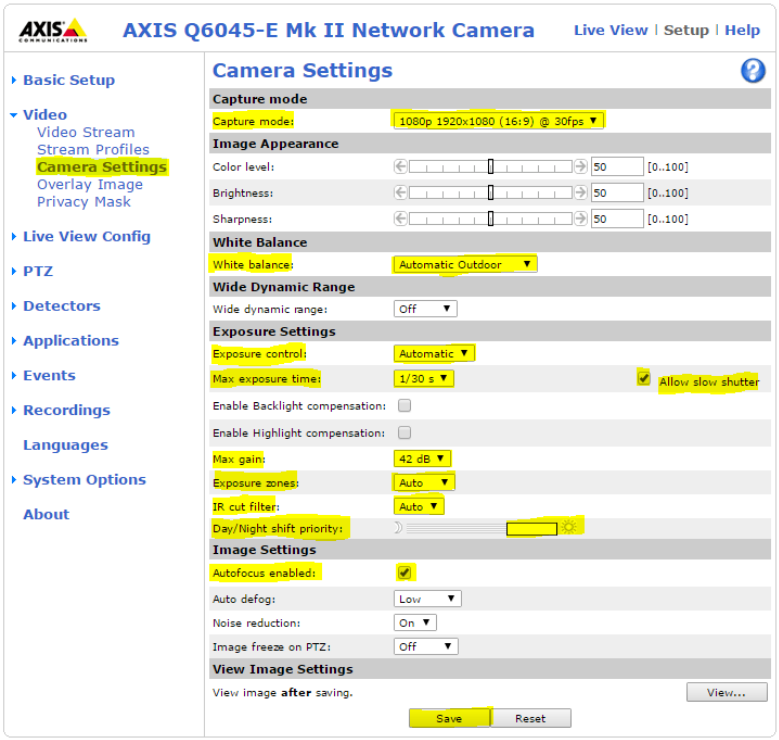
Max gain: <42 dB>

Exposure Zones: <Auto>

IR cut filter: <Auto>

Day/Night shift priority: <Day>

Autofocus Enabled: <check the box>



Click Save.

4. Live View Config settings:

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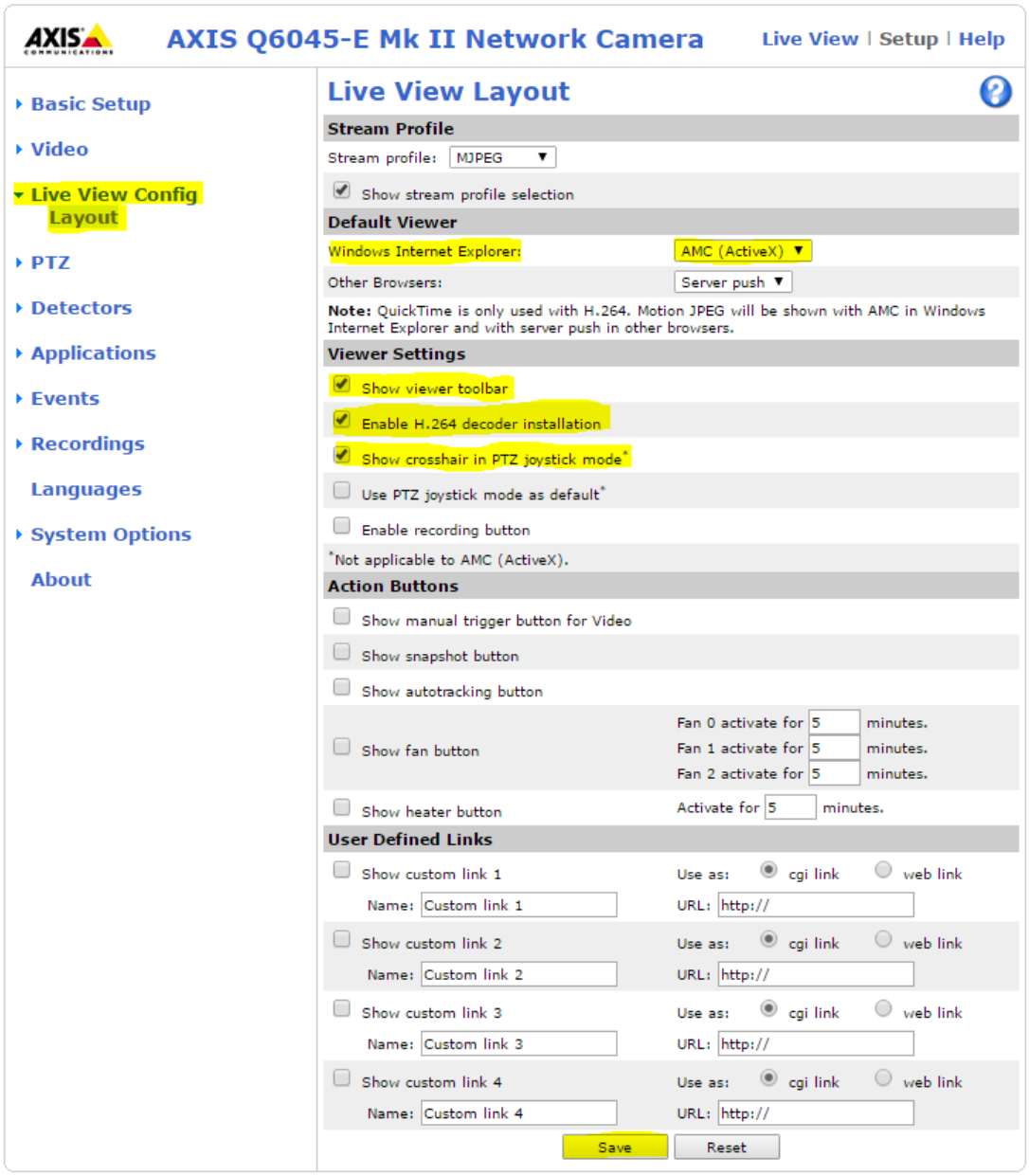
Click on “Live View Config”.

Click on “Layout”.

Verify that the following parameters are set.



Click Save.

5. Pan/Tilt/Zoom (PTZ) settings:

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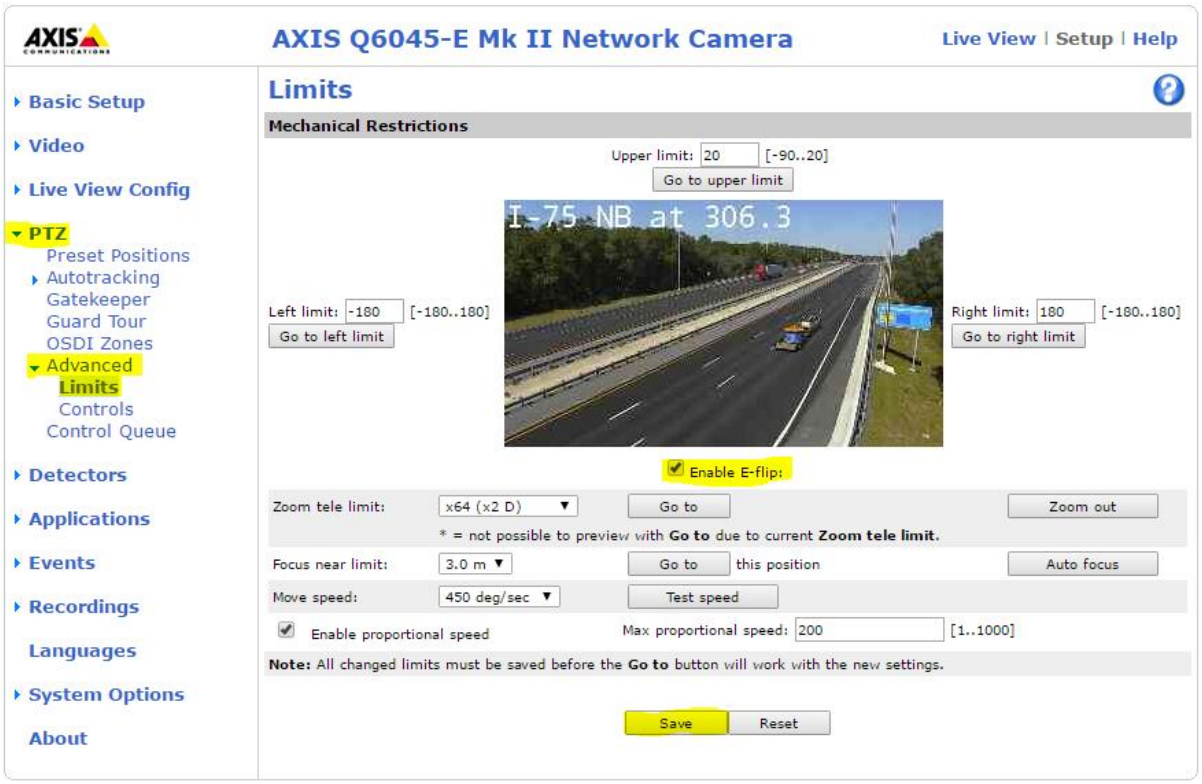
Click on “PTZ”.

Click on “Advanced”.

Set the Limits for the E-flip.

Enable E-flip: <check the box>



Click Save.

Click on “Controls”.

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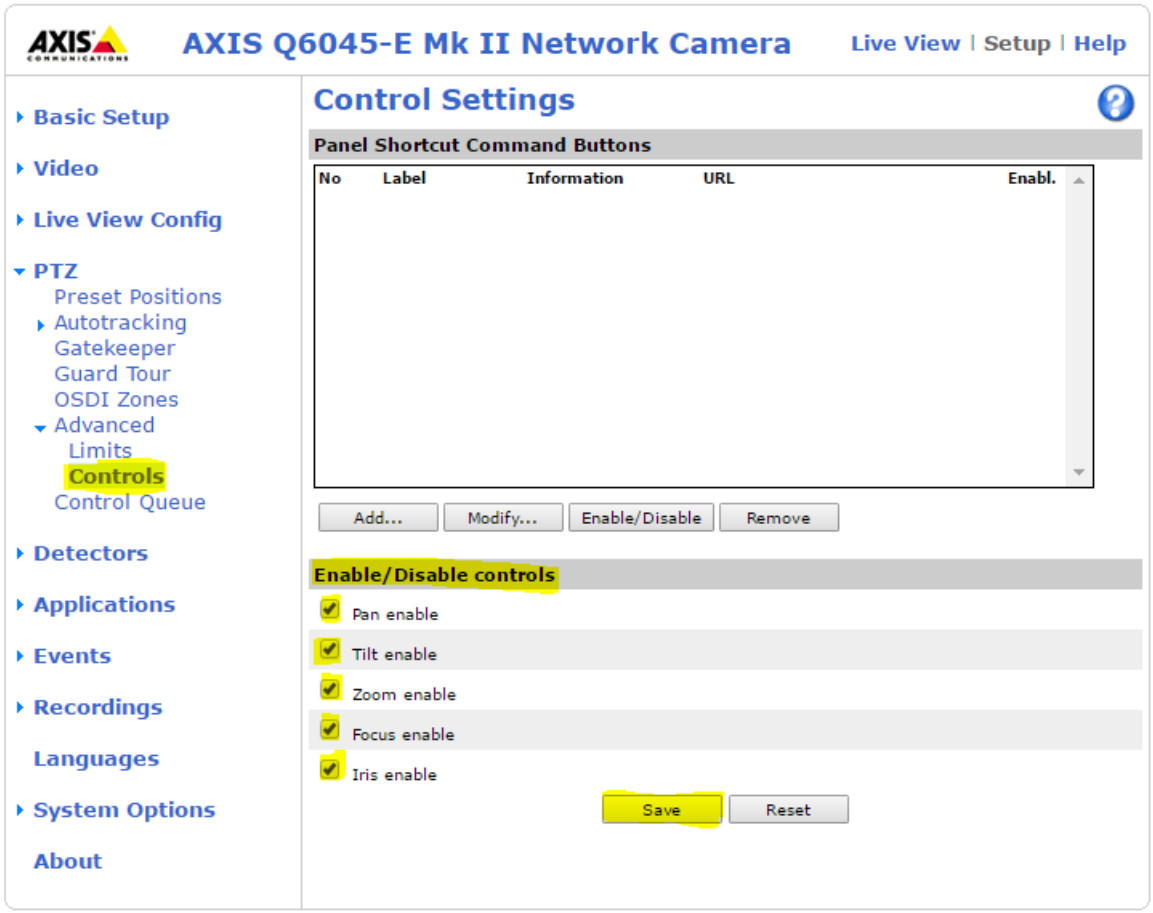
Verify that the following parameters are set.



Click Save.

6. **<u>Logging Out of device</u>**:

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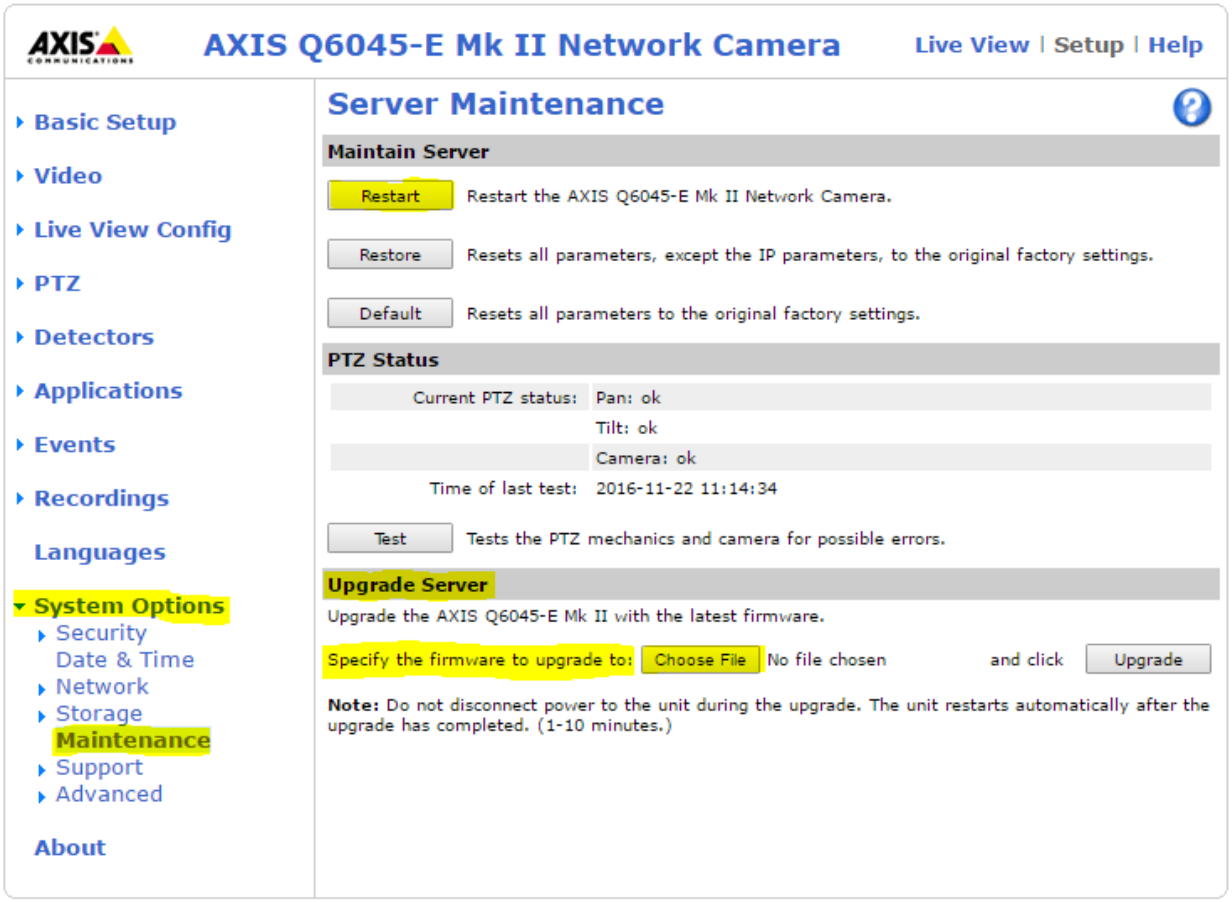
Click on “System Options”.

Click on “Maintenance”.

Click on “Restart”.

Turn off power to the camera.



<u>Camera is configured and ready to be installed.</u>