SOP for CCTVs in SunGuide

BOSCH AutoDome 7000 HD

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).

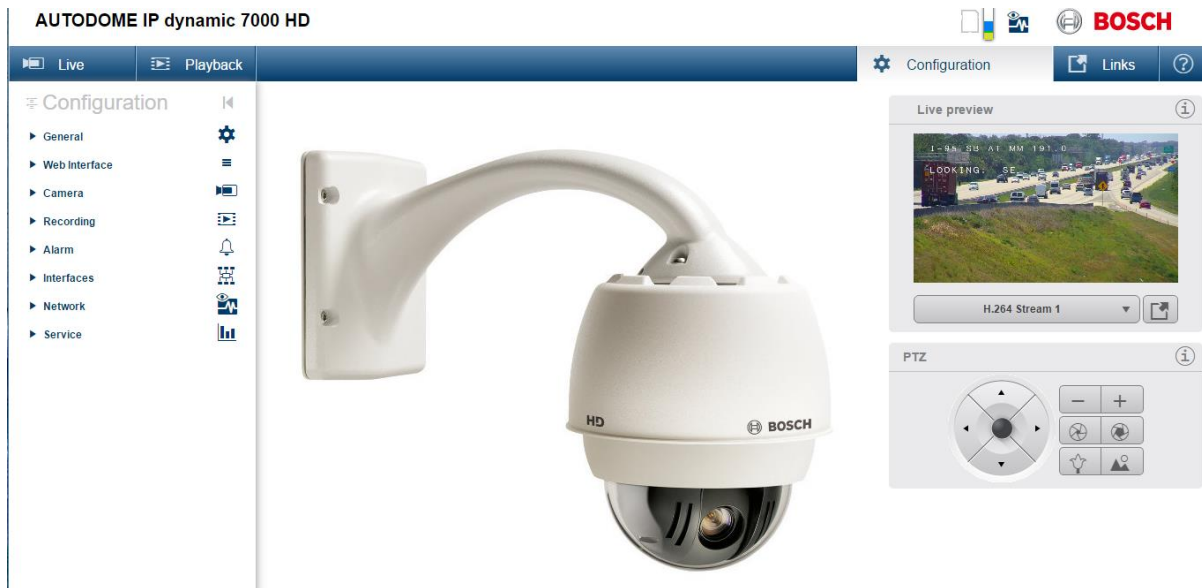The following SOP is for the BOSCH AutoDome 7000 HD (7230) IP camera.

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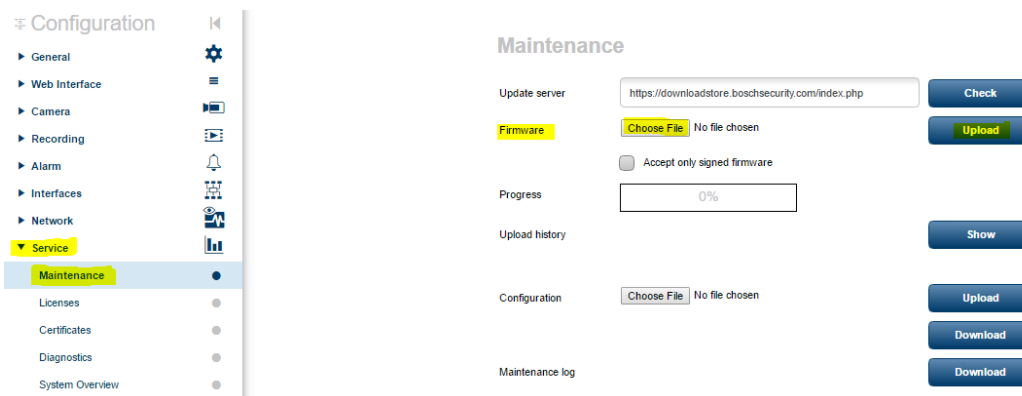

Click on "Configuration".

SOP for CCTVs in SunGuide

Click on "Service".

Click on "Maintenance".   Browse and Upload the provided Firmware file for the camera.

Click on "Service".

Click on "System Overview".   Check the System to see if the Firmware was loaded.

SOP for CCTVs in SunGuide

Click on "Network".

Click on "Network Services".

Ensure these options are checked with the appropriate port number under Services

SOP for CCTVs in SunGuide

The cogs direct you to later configuration changes within the SOP

Configuration	◁
▼ General	⚙
Identification	●
User Management	●
Date/Time	●
Display Stamping	●
GB/T 28181	●
▶ Web Interface	≡
▶ Camera	▶▣
▶ Recording	▣
▶ Alarm	🔔
▶ Interfaces	▦
▼ Network	⬟
Network Services	●
Network Access	●
DynDNS	●
Advanced	●
Network Management	●
Multicast	●
Image Posting	●

Network Services

Service	Enabled	Port	
HTTP	☑	(port 80)	⚙
HTTPS	☑	(port 443)	⚙
RTSP	☑	(port 554)	⚙
RCP	☑	(port 1756)	⚙
SNMP	☑	(port 161)	⚙
ISCSI	☑	(port 3260)	
UPNP	☐		⚙
NTP Server	☑		
Discover	☑	(port 1800)	⚙
ONVIF discovery	☑		
GB/T 28181	☐		⚙
Password reset mechanism	☑		
Ping Response	☑		

Set

Click on "Network Access".

SOP for CCTVs in SunGuide
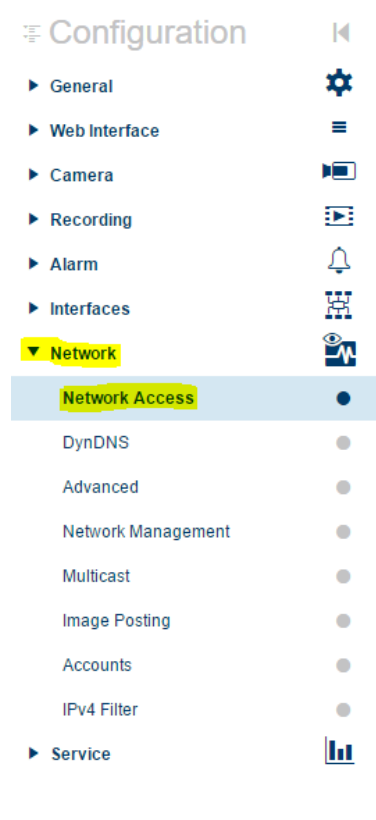
NOTE: Click Set/SAVE after every configuration setting for that window before moving to the next menu item.

1. **Network settings**:

   Set the following parameters for the "Network Access".

DHCP is disabled	\<Off>
IP address	\<10.X.X.X>
Subnet mask	\<255.255.255.X>
Gateway	\<10.X.X.X>
Network MTU (byte)	\<1500>

SOP for CCTVs in SunGuide

Network Access

Automatic IPv4 assignment

DHCP — Off

Ethernet

IPv4

IP address	0.0.0.0
Subnet mask	255.255.255.0
Gateway address	0.0.0.0

IPv6

Automatic address	::
IP address	fd00::7:5f87:801e:1
Prefix length	64
Gateway address	::

DNS server address 1	0.0.0.0
DNS server address 2	0.0.0.0
Video transmission	TCP (HTTP port)
TCP rate control	On
HTTP browser port	80
HTTPS browser port	443
HSTS	Off
RCP+ port 1756	On
Telnet support	Off

HSTS	Off
RCP+ port 1756	On
Telnet support	Off
Interface mode ETH	Auto
Network MSS [Byte]	1460
iSCSI MSS [Byte]	1460
Network MTU [Byte]	1500

Set

Click "Set and Reboot".

SOP for CCTVs in SunGuide

After Reboot, log into the camera, use Internet Explorer or Chrome to access the camera's user interface. Type in the assigned IP address.
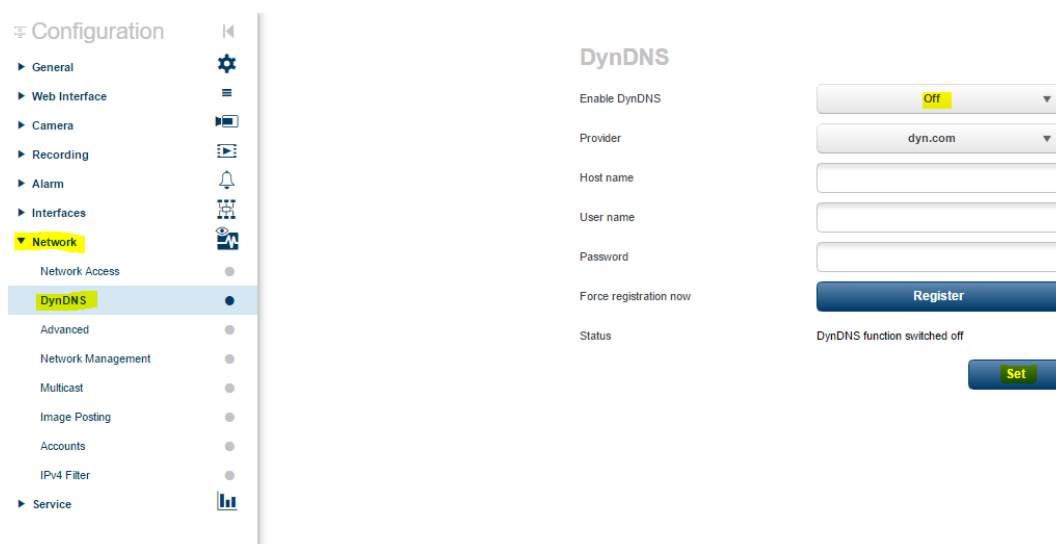

Click on "Configuration".

Click on "Network."

Click on "DynDNS."

Set the following parameters for the "DynDNS" setting.
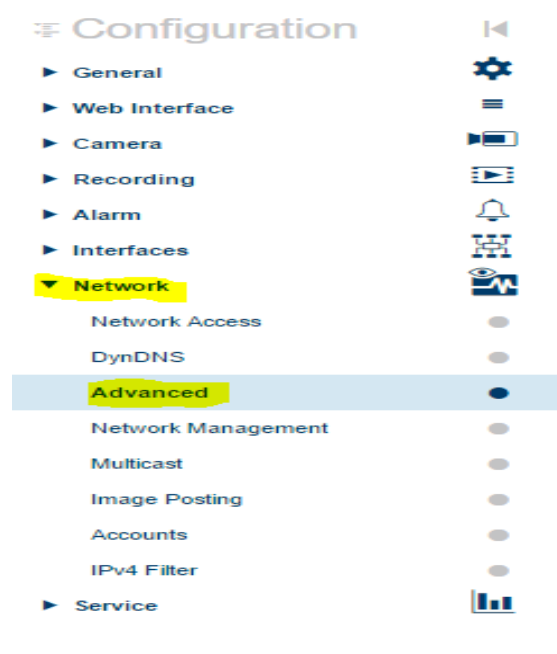
DynDNS is disabled   <Off>

SOP for CCTVs in SunGuide

Click "Set".

Click on "Network."

Click on "Advanced."

Set the following parameters for the "Advanced" setting.

RTSP Port:	< 554 >
NTCIP Port:	< 4439 >
NTCIP Address:	< 1 >

SOP for CCTVs in SunGuide

Advanced

Cloud-based services

Operation	Auto ▼

RTSP

RTSP port	554 ▼

802.1x

Authentication	Off ▼
Identity	
Password [EAP-MD5]	
Certificates [EAP-TLS]	No server certificate No client certificate **Configure**

NTCIP

Port	4439 ▼
Address	1 ▼

TCP metadata input

TCP port	Off ▼
Sender IP address	0.0.0.0

Set

Click "Set".

Click on "Network".

Click on "Network Management".

Set the following parameters for the "Network Management" setting.

SOP for CCTVs in SunGuide

SNMP: < On > **OR** <SNMP v1 Legacy>

                          Updated firmware will have SNMP v1 Legacy

UPnP: < Off >

Click "Set".

SOP for CCTVs in SunGuide

Click on "Network."

Click on "Multicast"

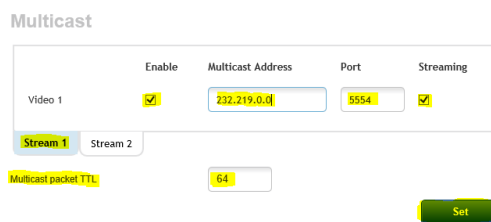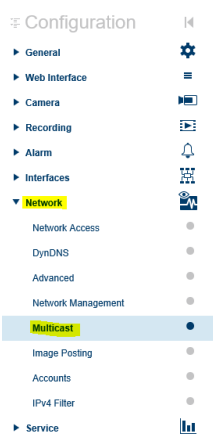**Set the following parameters for the "Multicast" setting Stream 1 and Stream 2.**

Enable: < check box >

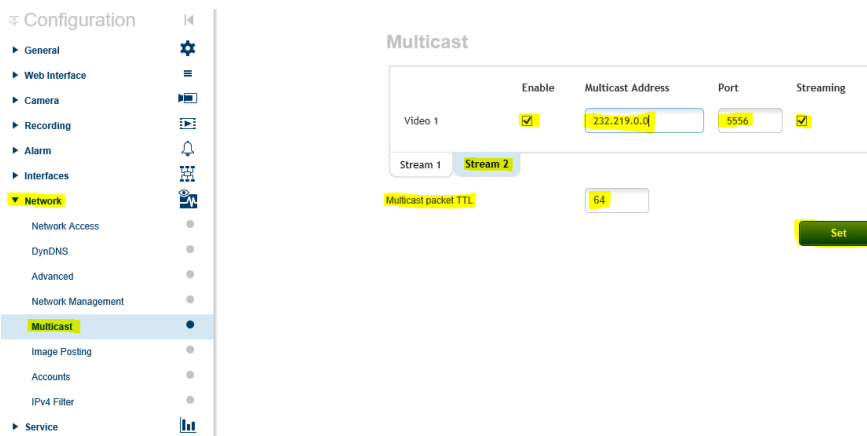*Multicast Address:* < If provided   232.219.X.X >

Port: (Stream 1) < 5554 >, (Stream 2) < 5556 >

Streaming: < check box >

Multicast packet TTL: < 64 >

(NOTE: The same multicast IP is used for both stream 1 and stream2)
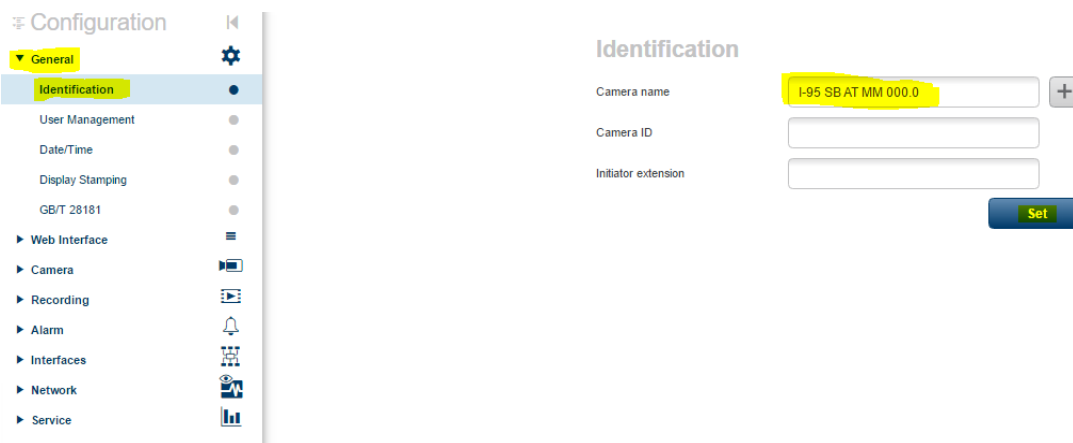
SOP for CCTVs in SunGuide

Click "Set".

Click on "General".

Click on "Identification".

Type the Camera Name or Camera Location.

> *Camera name:*   <Example: I-95 NB AT MM 000.0>
>
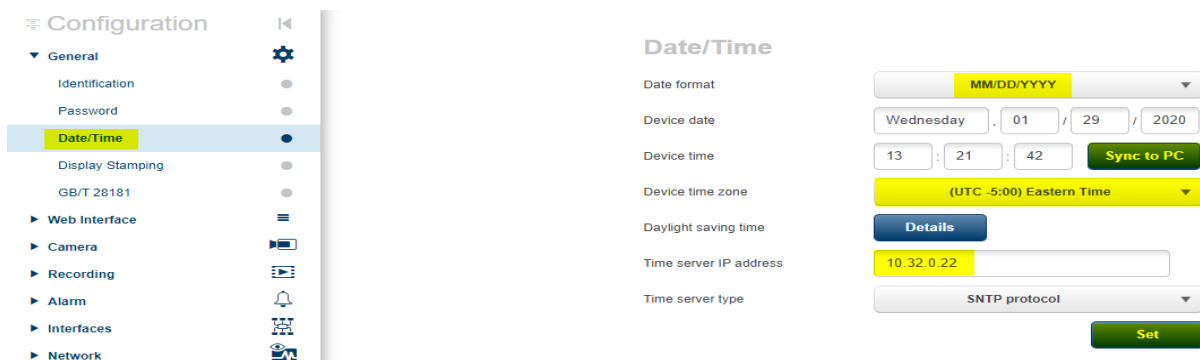> *Camera name:*   <Example: SR 50 at JYP>

Click "Set".

SOP for CCTVs in SunGuide

Click "Date/Time".   Set the following parameters for the "Date/Time".

Date format: < MM/DD/YYYY>

Device Time Zone: < Select (UTC -5:00) Eastern Time >

Device Time format: < Select Sync to PC >

Time Server IP Address   <10.32.0.22>

Click "Set".

Click "Display Stamping".   Set the following parameters for the "Display Stamping".

Camera name stamping: < Top>

Camera OSD: < On >

Transparent Background: <Check box>

SOP for CCTVs in SunGuide

Display Stamping

Camera name stamping	Top ▼	
Logo	(?) Choose File No file chosen	Upload
Logo position	Off ▼	
Time stamping	Off ▼	
Display milliseconds	Off ▼	
Alarm mode stamping	Off ▼	
Alarm message		(max. 31 characters)
Title OSD	Momentary ▼ Position (XY) 0 / 0 (0...255)	
Camera OSD	On ▼ Position (XY) 0 / 240 (0...255)	
Transparent background	☑	
Video authentication	Off ▼	
Signature interval [s]	0	

Set

Click "Set".

2. **Camera Video/Encoder settings**:

   Click on "Camera".

   Click on "Encoder Profile".

SOP for CCTVs in SunGuide

Configuration

- ▶ General
- ▶ Web Interface
- ▼ Camera
    - Installer Menu
    - Positioning
    - Encoder Profile
    - Encoder Streams
    - Encoder Regions
    - Privacy Masks
    - Picture Settings
    - Lens Settings
    - PTZ Settings
    - Prepositions and Tours
    - Preposition mapping
    - Sectors
    - Miscellaneous
    - Audio
    - Pixel Counter
- ▶ Recording
- ▶ Alarm
- ▶ Interfaces
- ▶ Network
- ▶ Service

Encoder Profile

| Profile 1 | Profile 2 | Profile 3 | Profile 4 | Profile 5 | Profile 6 | Profile 7 | Profile 8 |

Profile name	HD Image Optimized
Target bit rate	8000 kbps
Maximum bit rate	12000 kbps
Encoding interval	◄► (30.00 fps)
Video resolution	432p ▼ (only for SD streams)

Expert Settings >>

Default   Set

Click on "Profile 6".

Set the following parameters for the Profile 6 Tab.

SOP for CCTVs in SunGuide

Profile name: < iVEDDS >

Target bit rate: < 500 kbps>

Maximum bit rate: < 1100 kbps>

Encoding Interval: <30.00 fps>

Video resolution: < 240p >

Click "Expert Settings".

GOP Structure: <IBBP>

SOP for CCTVs in SunGuide

Click "Set".

Click on "Profile 8".

Set the following parameters for the Profile 8 Tab.

Profile name:	< ITS >
Target bit rate:	< 1500 kbps>
Maximum bit rate:	< 6000 kbps>
Encoding Interval:	<30.00 fps>
Video resolution:	< 240p >

SOP for CCTVs in SunGuide

Click "Expert Settings".

GOP Structure: <IBBP>

Click "Set".

SOP for CCTVs in SunGuide

Click on "Encoder Streams".

Set the following parameters for the "Encoder Streams".

Property Stream 1:	< H.264 MP 720p50/60 fixed >
Non-recording profile:	< 8: ITS >
Property Stream 2:	< H.264 MP SD >
Non-recording profile:	< 6: iVEDDS >
JPEG Stream:	<Max>
Max. Frame Rate:	<25 fps>

SOP for CCTVs in SunGuide

Click "Set".

SOP for CCTVs in SunGuide

Click on "Picture Settings".

Ensure that the following parameters for the "Picture Settings" are set.

Configuration

- ► General
- ► Web Interface
- ▼ Camera
  - Installer Menu
  - Positioning
  - Encoder Profile
  - Encoder Streams
  - Encoder Regions
  - Privacy Masks
  - Picture Settings
  - Lens Settings
  - PTZ Settings
  - Prepositions and Tours
  - Preposition mapping
  - Sectors
  - Miscellaneous
  - Audio
  - Pixel Counter
- ► Recording
- ► Alarm
- ► Interfaces
- ► Network
- ► Service

Picture Settings

Setting	Value
Current mode	Custom
White balance	ATW
Red gain	0
Blue gain	0
Saturation	170%
Color hue	0°
Intelligent DNR	● On ○ Off
Gain control	● AGC ○ Fixed
Fixed gain	2
Maximum gain level	High
AE-response speed	Medium
Sharpness	12
Shutter mode	Automatic exposure
Shutter	1/60
Maximum automatic exposure	1/4
Top shutter speed	1/10000
Backlight compensation	○ On ● Off
High sensitivity	○ On ● Off
Stabilization	○ On ● Off
High dynamic range	○ On ● Off
Night mode	Auto
Night mode threshold	30

SOP for CCTVs in SunGuide

Click on "Lens Settings".

Ensure that the following parameters for the "Lens Settings" are set.

Click on "PTZ Settings".

Ensure that the following parameters for the "PTZ Settings" are set.

SOP for CCTVs in SunGuide

Click on Live and PTZ camera.

Log out of camera.