Blackjack® **DX**™

PoE Servers Powered by DW Spectrum

State of the art hyper-optimized video management platform designed for ease, speed and efficiency.

Blackjack DX Slim Desktop Servers — Up to 480Mbps

DW-BJDX31xxT	DW-BJDX51xxT	DW-BJDX71xxT

Default Login Information for DW Spectrum		Default login information for the server's OS	
Username: **admin**	Password: **admin12345**	Username: **dwuser**	Password: **Dw5pectrum**

WHAT'S IN THE BOX					
Blackjack DX™ server		1	Keyboard and mouse		1 set
Quick start guide		1	Power cable		1

NOTE: Download all your support materials and tools in one place.

1. Go to: **http://www.digital-watchdog.com/support-download/.**
2. Search your product by entering the part number in the '**Search by Product**' search bar. Results for applicable part numbers will populate automatically based on the part number you enter.
3. Click '**Search**'. All supported materials, including manuals, Quick start guides (QSG), software and firmware will appear in the results.
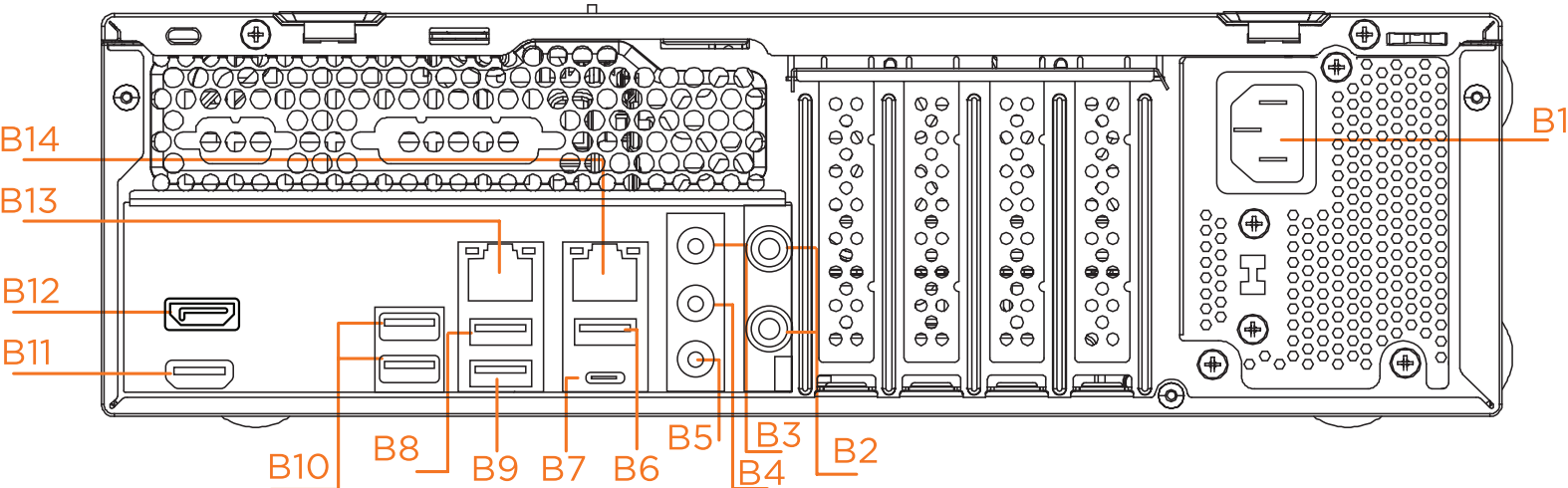
Attention: This document is intended to serve as a quick reference for initial setup.
See the DW Spectrum® full manual for more information on features and functionality.

Blackjack®DX™

FRONT PANEL
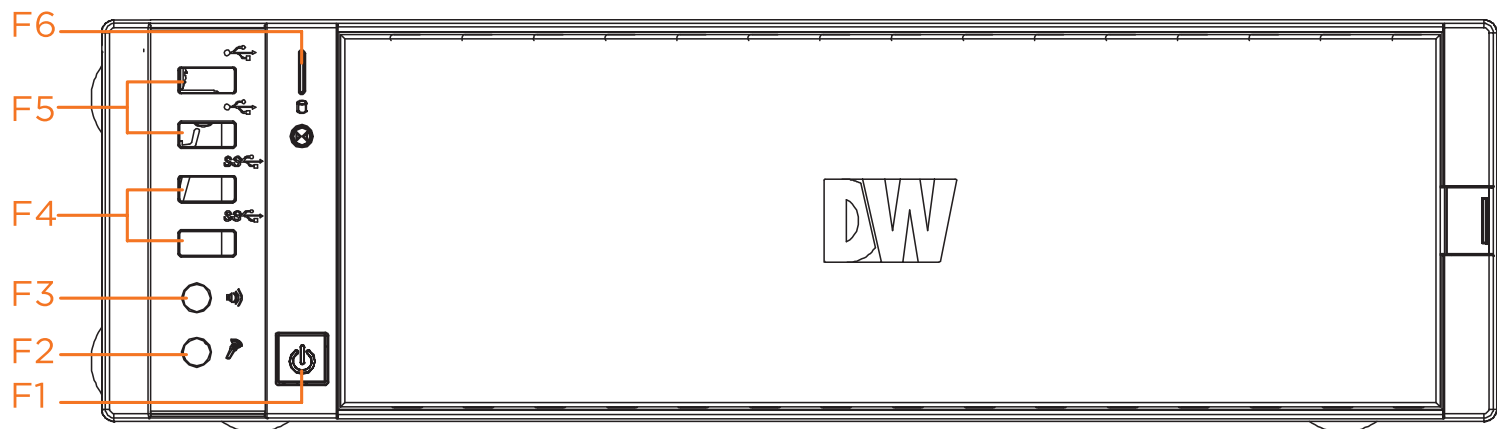
F1	Power Button/Power LED
F2	Mic in (3.5mm)
F3	Audio out (3.5mm)
F4	2x USB 3.0 ports
F5	2x USB 2.0 ports
F6	HDD Activity LED

REAR PANEL

B1	Power port
B2	Antenna ports (not used)
B3	Microphone (pink)
B4	Line in (light blue)
B5	Front speaker (lime)
B6	USB 3.2 Gen2 Type-A port

B7	USB 3.2 Gen2x2 Type-C port
B8	USB 2.0 port
B9	USB 3.2 Gen2 port
B10	2x USB 2.0 ports
B11	True HD video output
B12	DisplayPort 1.4 video output

B13	1G LAN RJ45 Port
B14	2.5G LAN RJ45 port

Default Login Information for DW Spectrum
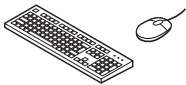
Username: **admin**	Password: **admin12345**

Default login information for the server's OS

Username: **dwuser**	Password: **Dw5pectrum**

SPECIFICATIONS

PART NUMBER		DW-BJDX31xxT (HW Rev. D)	DW-BJDX51xxT (HW Rev. D)	DW-BJDX71xxT (HW Rev. B)
Included IP licenses		4	4	4
Form factor		Slim Desktop	Slim Desktop	Slim Desktop
Operating system	Windows 11	DW-BJDX31XXT	DW-BJDX51XXT	DW-BJDX71XXT
	Linux Ubuntu	DW-BJDX31XXT-LX	DW-BJDX51XXT-LX	---
	OS on SSD	m.2 SSD	m.2 SSD	m.2 SSD
CPU		Intel i3 processor	Intel i5 processor	Intel i7 processor
Memory		DW-BJDX31xxT-LX: 8GB DW-BJDX31xxT: 16GB	16GB	16GB
Ethernet port		1x 1G Ethernet, 1x 2.5G Ethernet		
System	Max video storage rate (Mbps)	180 Mbps	360 Mbps	480 Mbps
Storage	Maximum HDD	2 x 3.5 SATA HDD	2 x 3.5 SATA HDD	2 x 3.5 SATA HDD
	Maximum storage	40TB	40TB	40TB
	RAID options	---	---	---
	USB interface	Yes	Yes	Yes
Video-out	Outputs	1x true HD, 1x DP for system configuration. Maximum 1 display output at a time.		
	Video card	Onboard Intel HD Graphics		
	Resolution	True HD: 4096x2160@60Hz , DP: 7680x4320@60Hz / 5120x3200@120Hz		
Pre-loaded VMS software		DW Spectrum Server		
Remote clients		Cross-platform - Windows, Linux Ubuntu and Mac		
Mobile apps		iOS and Android		
Keyboard and mouse		Included		
Power supply		300W**	300W**	300W**
Operating temperature		41°F~104°F (5°C~40°C)		
Operating humidity		20~90% RH		
Dimension (WxDxH)		13.1" x 3.8" x 15.6" (334 x 97 x 402 mm)		
Other certification		FCC, CE, RoHS, NDAA, TAA		
Warranty		5 year limited	5 year limited	5 year limited

* UPS recommended
Specifications and components mentioned are subject to change without notice.

SETTING UP THE SERVER

STEP 1: **Connect external devices, power and network.**

1. Connect a monitor, USB keyboard, USB mouse and network cable to one of the Ethernet ports (B13 on the diagram).
Configure the camera's network first, then configure the server's local network.

   NOTE See page 2 for detailed back panel breakdown for each model.

2. Connect the server to an appropriate power source. A UPS system rated for 600VA or higher per PSU is recommended.

PoE switch for cameras

3. Connecting the power cable to a live power source may turn on the server automatically. If the server does not turn on automatically, press the power button on the front of the server (F1 on the diagram).
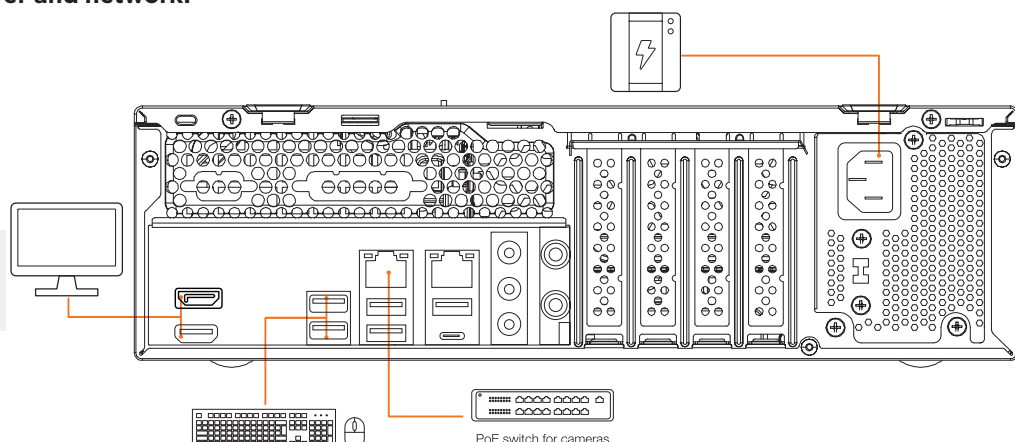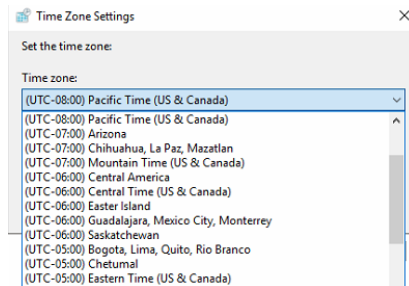
**STEP 2:   Configure date and time**

Windows OS:

1. Double-click on the **Date and Time** icon on the desktop.

2. The default time zone is UTC-08:00 Pacific Time. Click **Change time zone...** to change to the correct time zone.


3. Click **OK** after selecting the correct time zone.

4. Click **Change date and time...** to update the date and time if they are not correct.
    NOTE: Verify the time zone before updating the date and time. Time may show 2 or 3 hours off due to an incorrect time zone.
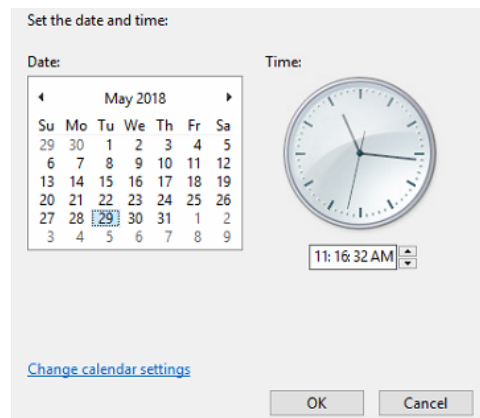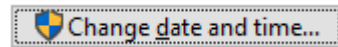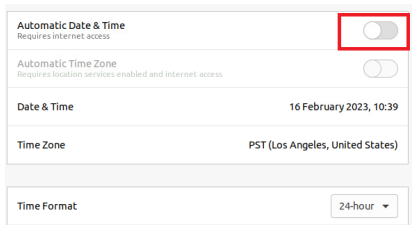

5. Press **OK** after adjusting to the correct date and/or time. Press **OK** to close the date and time when done.
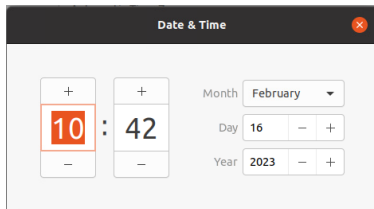
Linux OS:

1. Open Settings and go to Details > Date &Time.
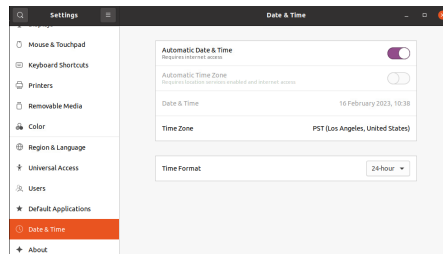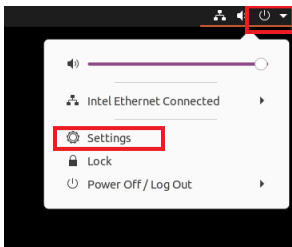
2. Turn OFF Automatic Date & Time and Automatic Time Zone

4

3. Click Date & Time and set correct date and time.

4. Click Time Zone and set to correct Time zone. (Type one of the largest cities in the time zone).

5. Close Settings.

STEP 3: Configure network

Please have the following information ready before starting the network configuration.

	Camera network	Local network (LAN)
IP address		
Subnet mask / Netmask		
Default gateway / Gateway	N/A	
DNS servers	N/A	

* Camera network and local network cannot be on the same network.

NOTE The Blackjack server's network settings are set to DHCP by default.

NOTE If you are not sure what information to enter, contact your Network Administrator or Internet Service Provider.
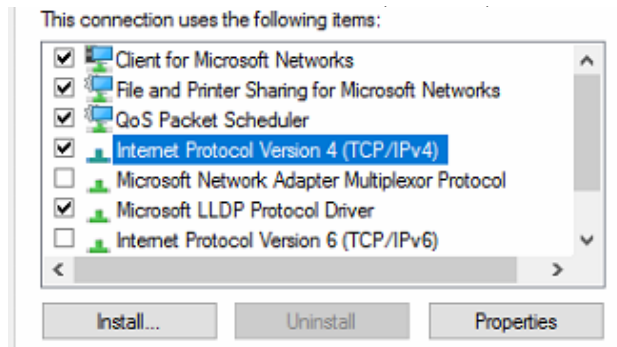
Windows OS:

1. Double-click on **Network Connections** on the desktop.
2. Right-click **Ethernet** (connected) and click **Properties**.
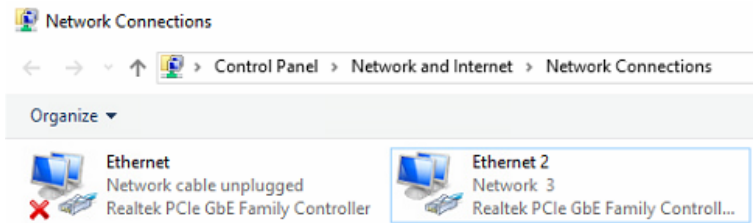
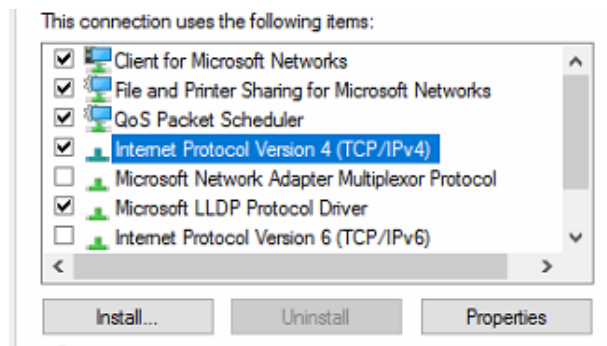3. Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.

4. Click the **Use the following IP address:** radio button – **Use the following DNS server addresses:** will be selected automatically.

5. Enter the IP address, subnet mask, and preferred and alternate DNS server addresses for the local network.

6. Click **OK** to close the window, and again for the properties window.

> **NOTE** It must be the same network as the cameras and must not be the same network as the local network. Contact your network administrator for more information.

Local Network

7. Right-click on the **Ethernet** (Network cable unplugged) and click **Properties**.

8. Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.

9. Click the **Use the following IP address:** radio button – **Use the following DNS server addresses:** will be selected automatically.

10. Enter the IP address and subnet mask of the camera network. Leave the default gateway and preferred and alternate DNS server fields blank.

11. Click **OK** to close the window, and again for the properties window.

12. Connect a network cable to Ethernet port B14 (2.5G LAN) on the rear panel diagram to activate the local network connection.

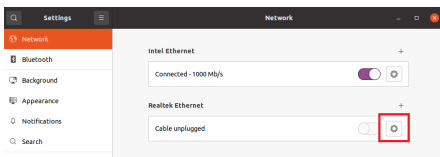13. Close the network connections window.
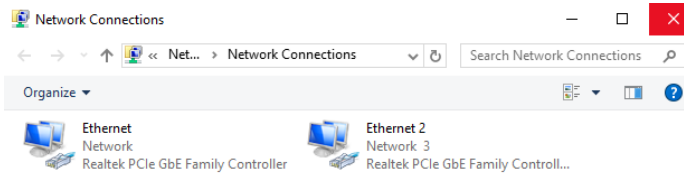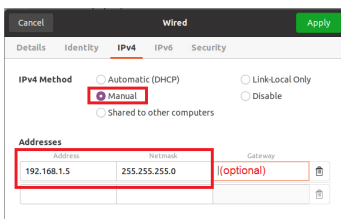

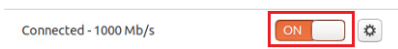**Linux OS:**

1. Open Settings > Network
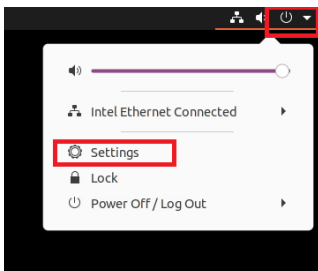

2. Click Setting of the Realtek Ethernet.

3. Change to Manual then enter Address, Netmask , Gateway.
   * Do not enter Gateway information if there is no Gateway in this network.
4. Click Apply to save.

5. Restart the connection by switching OFF then turn ON. If the connection is off, connect the network cable.

6. Click Settings of the Intel Ethernet.

7. Change the settings if needed to access the Internet and for remote access from a local network.

8. Click Apply to save.

9. Restart the connection by switching OFF then turn ON. If the connection is off, connect the network cable.
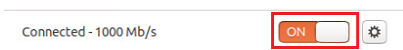
NOTE If you are not connecting to the Blackjack® from the same network, you may be required to perform port forwarding on your router to access the server. Contact your Network Administrator or Installer for additional information

Blackjack®DX™

CONFIGURE CAMERAS USING DW IP FINDER
Refer to the camera's QSG to configure any DW IP camera's IP address using DW IP finder.
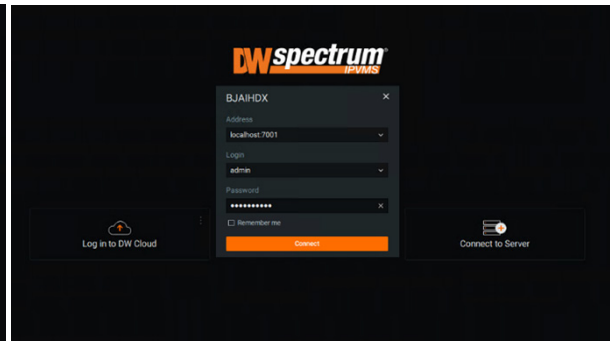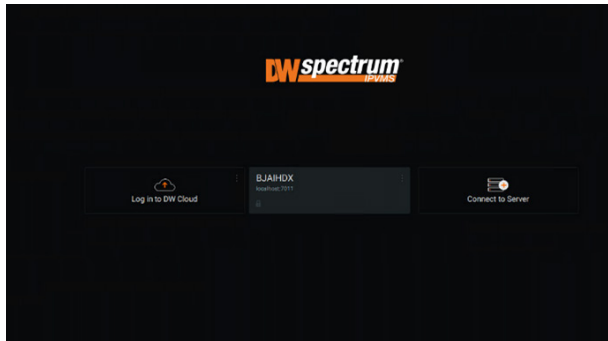
SETTING UP DW SPECTRUM MEDIA SERVER

Login: **admin**
Password: **admin12345**
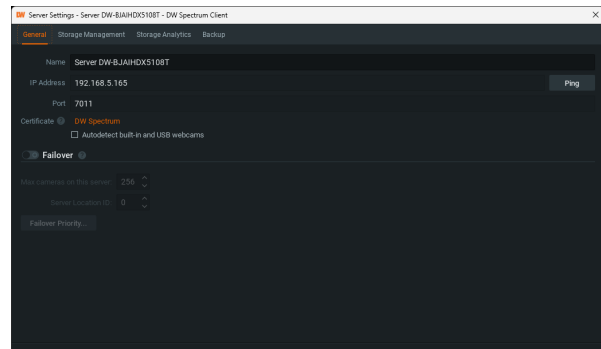
STEP 1: **Login from the Blackjack® server**

1. Open the DW Spectrum client.
2. Click on the pre-configured server.
3. If it does not log in automatically, enter the default password and click **Connect**.


STEP 2: **To rename the server**

1. Right click on the server name in the resource list on the left side and click **Server Settings...**
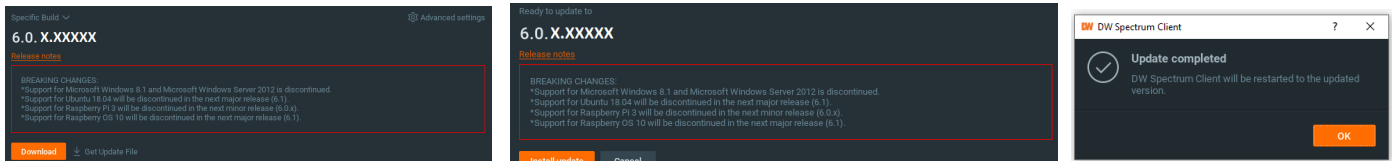2. Enter the new server name in the name field and click **OK**.

STEP 3: **To check for updates**

1. Click the **main menu icon** in the upper-left corner of the DW Spectrum window, and click **System Administration...**
2. Click the **Updates** tab. If the system needs to be updated, click on the **Update** button.
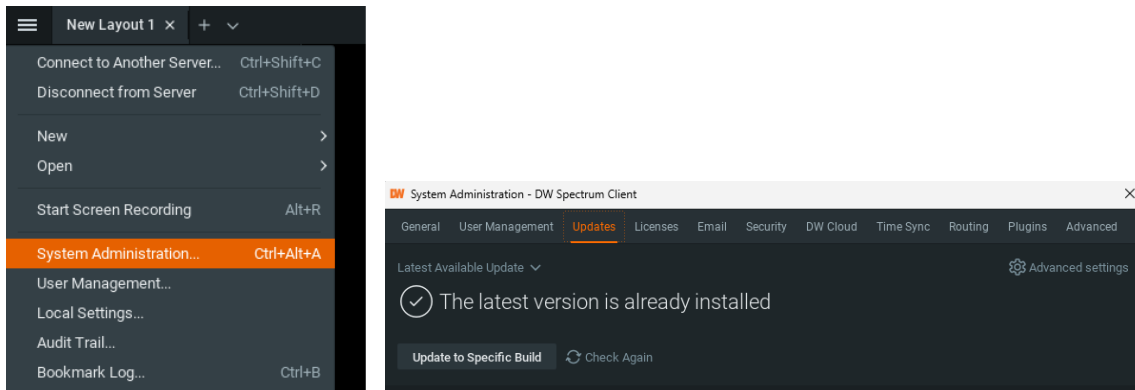
* If the latest version is already installed, the message "The latest version is already installed" will be visible at the top.
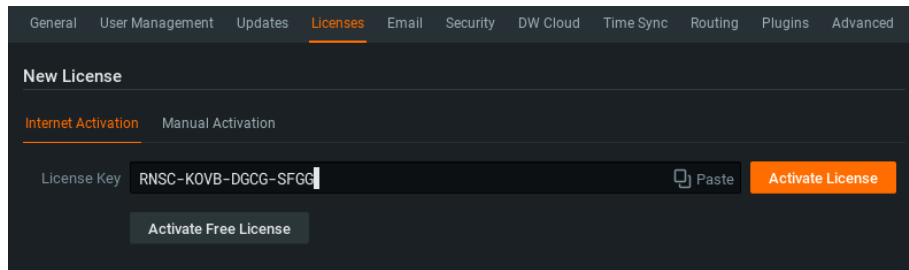
3. Click **OK** when the update is complete.


STEP 4: **Activate licenses**

NOTE An active Internet connection is required.

1. Click the **main menu icon** in the upper-left corner of the DW Spectrum window, and click **System Administration...**
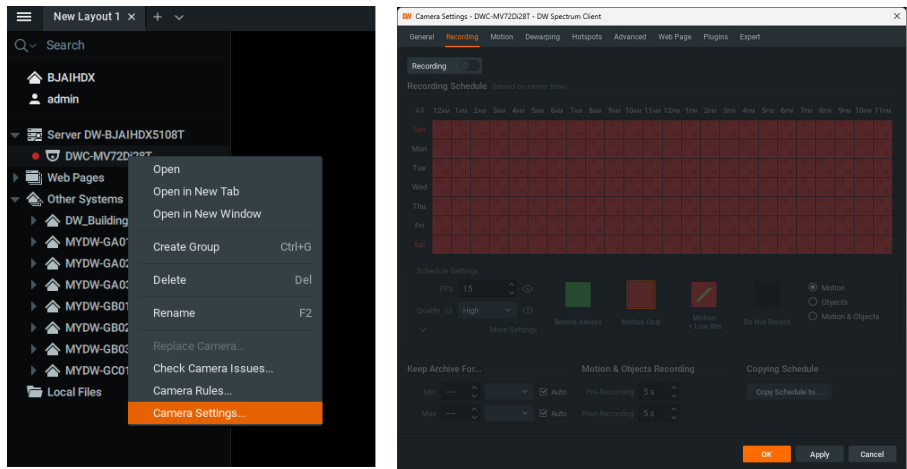2. Click the **Licenses** tab. Enter the license key and click **Activate License**.

* Click **Activate Free License** to use a free, four channel license for 30 days.

3. Click **OK** when all necessary license keys are activated.
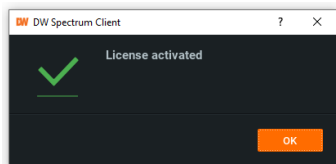
STEP 5: **Configure recording**

1. Right click a camera in the resource list on the left side and click **Camera Settings...**
2. Click the **Recording** tab.

3. Click the **Recording** toggle to activate recording for that camera.
4. Set quality, FPS, and recording type.
5. Click and drag over the recording schedule to apply the settings to any number of days and times.
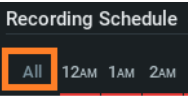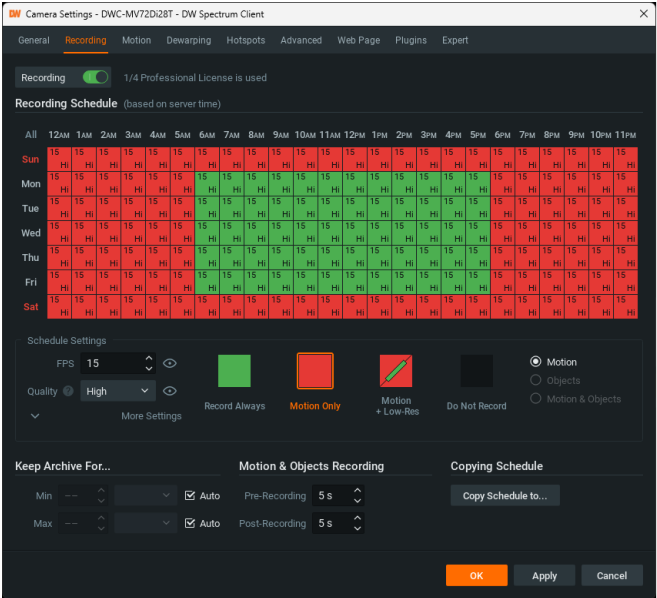
* Click **All** to apply the recording settings to the entire schedule.
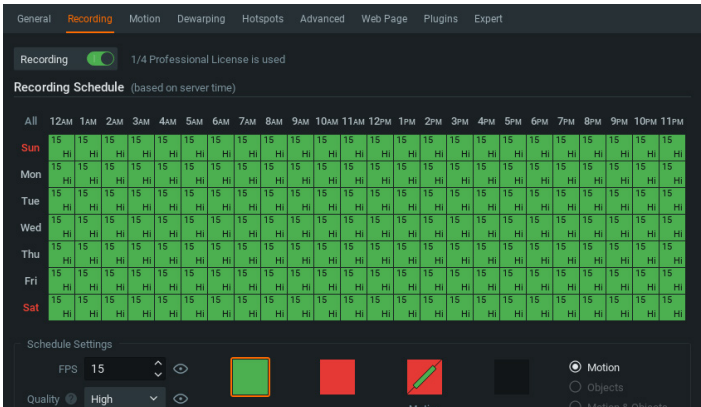
6. Click **OK** when the necessary recording schedule is set. A red circle will appear next to the camera in the resource list.

> **NOTE:** A Recording License is required to allow a camera to record to the archive.

STEP 6: **Backup database**

1. Click the **main menu icon** in the upper-left corner of the DW Spectrum window, and click **System Administration…**
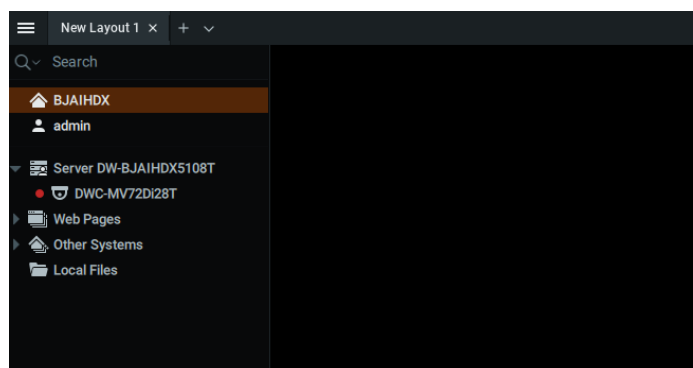2. Click the **Advanced** tab. Click **Create Backup…**
3. Select the location to save the database, and enter a name for the backup file. Click **Save**.

* Creating a database backup to external storage before and after every update is strongly recommended.
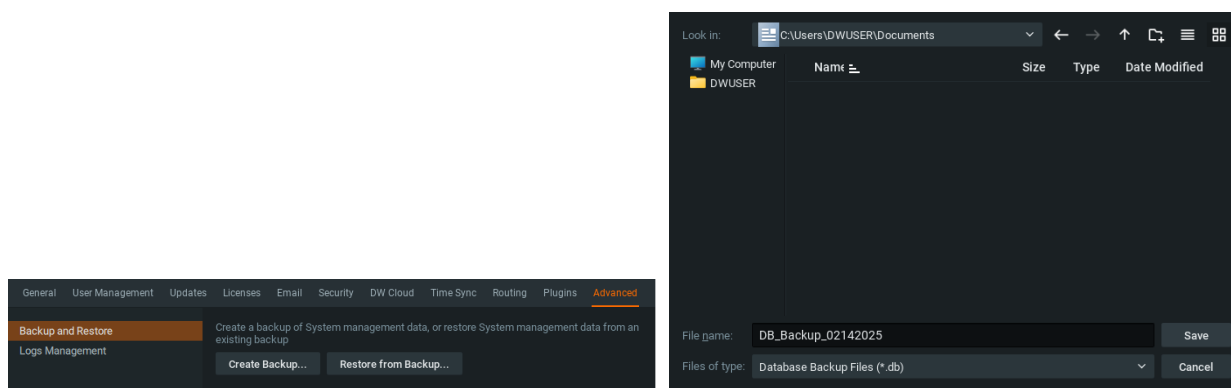
> **NOTE:** More information and instructions are available in the DW Spectrum® user manual.

> **NOTE:** This products is covered by one or more claims of the HEVC Patents listed at patentlist.accessadvance.com.

TROUBLESHOOTING TIPS

Problem	Possible solutions
A camera or other device is not automatically discovered.	1. The device must be on the same local network as the media server. 2. The device must be compatible with DW Spectrum. Refer to the full list of supported cameras on digital-watchdog.com 3. Update the device with the latest firmware. 4. Ensure ONVIF is enabled on the device. 5. Add the camera manually. 6. Reboot the server after installation. Allow up to 2 minutes for the server to detect all supported devices.
Slow video	1. The same camera(s) could be accessed by multiple clients simultaneously. 2. Check network speed.
Device appears disconnected	1. Ensure the username and password are correct in device settings. 2. Click the ping button in device settings to ensure the camera is connected to the network. 3. Reboot or restore the device to the factory default if its web page is available. 4. Update the device with the latest firmware. 5. The device must be on the same local network as the media server. 6. Ensure ONVIF is enabled on the device. 7. The user may not have the necessary permissions to view that device.
Cannot view archived video	1. Ensure there is an active network connection between the client and server. 2. The user may not have the necessary permissions to view archive from that device. 3. The camera may be set to a recording mode that did not record video for the selected time and environment. 4. Check the log on the media server to ensure the device did not unexpectedly disconnect.
"Unauthorized" message on device	1. Ensure the username and password are correct in the device's settings. 2. Reboot the camera.

DW SPECTRUM SYSTEM REQUIREMENTS

Recommended specs for the full client

	Minimum	Recommended
Processor	Intel i5 8th gen processor (or higher)	Intel Core i7 8th gen processor (or higher)
System RAM	8GB RAM	16GB RAM
Video card	Integrated Intel graphics	GeForce GTX 1650 or better
Network interface	2 x 1 Gbps	2 x 1 Gbps
OS Drive	256GB HDD	Dedicated 256GB SSD or larger
OS supported	**Microsoft Windows OS** (supported by both DW Spectrum® Server and Client). • Windows 10 • Windows 11 • Windows Server 2016 • Windows Server 2019 • Windows Server 2022 **NOTE: DW Spectrum for Windows can be installed as a software bundle, or the Server and Client software can be installed separately. **Ubuntu (Debian-based Linux) OS** (supported by both DW Spectrum Server and Client). • Ubuntu 18.04 LTS "Bionic Beaver" • Ubuntu 20.04 LTS: "Focal Fossa" • Ubuntu 22.04 LTS: "Jammy Jellyfish" **NOTE: DW Spectrum for Ubuntu is only available for separate installations (not bundled). **Macintosh OS** (supported only by the DW Spectrum Client. DW Spectrum Server is not available for macOS). • macOS 11.0, 11.1, 11.2 "Big Sur" • macOS 12 "Monterey" • macOS 12 "Monterey" • macOS 12 "Monterey" **NOTE: DW Spectrum for macOS is only supported by the DW Spectrum Client.	

* Except Storage Server version

Important: OS not listed will be not be supported by DW® Tech Support.

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DW®

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