

**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
Q	

### Default Login Information for DW Spectrum

Default login information for the server's OS

	Username: <b>admin</b>	Password: admin12345		Us
--	------------------------	----------------------	--	----

ername: dwuser Password: Dw5pectrum

	WHAT'S IN	N THE BOX		
Blackjack DX™ server	1	Keyboard and mouse	<b>B</b>	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<sup>®</sup> full manual for more information on features and functionality.



# 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



### Default Login Information for DW Spectrum

Default login information for the server's OS

PART NUME	BER	DW-BJDX31xxT (HW Rev. C)	DW-BJDX51xxT (HW Rev. C)	DW-BJDX71xxT			
Included IP I	icenses	4	4	4			
Form factor		Slim Desktop	Slim Desktop	Slim Desktop			
	Windows 11	DW-BJDX31XXT	DW-BJDX51XXT	DW-BJDX71XXT			
Operating system	Linux Ubuntu	DW-BJDX31XXT-LX	DW-BJDX51XXT-LX				
System	OS on SSD	m.2 SSD	m.2 SSD	m.2 SSD			
CPU		Intel i3 processor	Intel i5 processor	Intel i7 processor			
Memory		8GB 16GB		16GB			
Ethernet port		1x 1G Ethernet, 1x 2.5G Ethernet					
System	Max video storage rate (Mbps)	180 Mbps	360 Mbps	480 Mbps			
	Maximum HDD	2 x 3.5 SATA HDD	2 x 3.5 SATA HDD	2 x 3.5 SATA HDD			
Storage	Maximum storage	40TB	40TB	40TB			
	RAID options						
	USB interface	Yes	Yes	Yes			
	Outputs	1x true HD, 1x DP for	ay output at a time.				
Video-out	Video card		Onboard Intel HD Graphics				
	Resolution	True HD: 4096x21	20x3200@120Hz				
Pre-loaded VMS software		DW Spectrum Server					
Remote clier	nts	Cross-platform - Windows, Linux Ubuntu and Mac					
Mobile apps		iOS and Android					
Keyboard ar	nd mouse	Included					
Power suppl	ly	300W**	300W**	300W**			
Operating te	emperature		41°F~104°F (5°C~40°C)				
Operating h	umidity		20~90% RH				
Dimension (	WxDxH)		13.1" x 3.8" x 15.6" (334 x 97 x 402 mm)				
Other certifi	cation		FCC, CE, RoHS, NDAA, TAA				
Warranty		5 year limited	5 year limited	5 year limited			

# **SPECIFICATIONS**

SETTING UP THE SERVER

Connect external devices, power and network. STEP 1:

Connect a monitor, USB keyboard, USB mouse and network cable to one of the Ethernet ports (B15 on the diagram). 1. 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. Ð 2. Connect the server to an 100 appropriate power source.  $\odot$ A UPS system rated for (doo) 00000 600VA or higher per PSU is  $\phi \phi \phi \phi \phi \phi$ <u>nonono</u>n recommended.  $\bigcirc$ 

Connecting the power cable to 3. 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).



\* UPS recommended

Specifications and components mentioned are subject to change without notice.



### STEP 2: Configure date and time

Windows OS:

4.



- 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.

🔐 Time Zone Settings	×
Set the time zone:	
Time zone:	
(UTC-08:00) Pacific Time (US & Canada)	$\sim$
(UTC-08:00) Pacific Time (US & Canada) (UTC-07:00) Arizona	^
(UTC-07:00) Chihuahua, La Paz, Mazatlan (UTC-07:00) Mountain Time (US & Canada)	
(UTC-06:00) Central America (UTC-06:00) Central Time (US & Canada)	
(UTC-06:00) Easter Island (UTC-06:00) Guadalajara, Mexico City, Monterrey	
UTC-06:00) Saskatchewan (UTC-05:00) Bogota, Lima, Quito, Rio Branco	
(UTC-05:00) Chetumal (UTC-05:00) Eastern Time (US & Canada)	

- 3. Click **OK** after selecting the correct time zone.
  - Click **Change date and time...** to update the date and time if they are not correct. **Change date and time... 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.

ate							Time:
4		М	ay 20	18		•	New York
Su 20	Mo 30	Tu 1	We 2	Th	Fr	Sa	
6	7	8	9	10	11	12	
13 20	14 21	15 22	16 23	17 24	18 25	19 26	
27	28	29	30	31	1	2	N. C. LOUX
3	4	5	6	7	8	9	11:16:22 AM
							11.10.32.8m
har	ide ci	alen	dar si	etting	10		
	ige ei	arcin	301.3				

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

Automatic Date & Time Requires internet access	
Automatic Time Zone Requires location services enabled and internet access	$\bigcirc$
Date & Time	16 February 2023, 10:39
Time Zone	PST (Los Angeles, United States)
Time Format	24-hour 👻

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

		Di	ate & Time				×
+		+	Month	Febru	ary	•	
10	:	42	Day	16	-	+	
-		-	Year	2023	-	+	

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	

 $^{\ast}$  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.  $\triangleleft$ 



2. Right-click Ethernet (connected) and click Properties.



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

This connection uses the following items:				
Client for Microsoft Networks Client for Microsoft Networks File and Printer Sharing for Microsoft Networks QoS Packet Scheduler Internet Protocol Version 4 (TCP/IPv4) Internet Protocol Version 4 (TCP/IPv4)	^			
Microsoft LLDP Protocol Driver				
Install Uninstall 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.

This connection uses the following items:						
Client for Microsoft Networks File and Printer Sharing for Microsoft Networks QoS Packet Scheduler Internet Protocol Version 4 (TCP/IPv4) I Microsoft Network Adapter Multiplexor Protocol	^					
Microsoft LLDP Protocol Driver						
< >						
Install Uninstall 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 B16 (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.

۹	Settings 🗏	Network		8
0				
B	Bluetooth	Intel Ethernet	+	
Q	Background	Connected - 1000 Mb/s	0	
ę	Appearance	Realtek Ethernet	+	
0	Notifications	Cable unplugged	0	
Q	Search			

- 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.

Connected - 1000 Mb/s	ON	۵
-----------------------	----	---

**NOTE** If you are not connecting to the Blackjack<sup>\*</sup> 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



### 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**.

wspectrum				trum <sup>®</sup>	
			BJAIHDX		
			localhost:7001		
BJAIHDX	-		admin		
Kooshoet 7011	<b>E</b> ?				
Log in to biv cloud	Connect to server		•••••		
		Â			<b>_</b>
		Log in to DW Cloud	Connect		Connect to Server

#### **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**.

III NewLaport1 x +		○ < ? = Ø ×	W Server Settings - Server DW-BJAHDX5108T - DW Spectrum Client	×
Q,- Seenth		👃 NETFEATING 🔣 🕱 🗛		
A BUNNEX 1 admin		Chick as DWClast - connect to	General Storage Management Storage Analytics Backup	
- E Server Die GAARDIGSTO	there haven	pour System Eron anywheret Learn more Connect		
Web Pages	Show Proceed Resources	A Great server is not set	Name Server DW-BJAJHDX51081	
<ul> <li></li></ul>	Manitor Manitor in New Tab	Automatic client splates New client only suddres will be installed	IP Address 192.168.5.165	Ping
	Marilar In New Window	autonatically visi can change this in the settings.		
<ul> <li></li></ul>	Revene F2	Upskies Settings		
MON-GREE	Anna Anna Anna Anna Anna Anna Anna Anna		Certificate  W Spectrum	
+ & MPOW-6001	Terrer Lope		Autodetect built-in and USB webcams	
License	Sarver Kind Plage.		Cos Failover O	
	enortriim <sup>*</sup>			
		8	Max cameras on this server: 256 🗘	
			Server Location ID: 0	
			Failover Priority	
		0		

#### 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.

New Layout 1 $\times$ +	~
Connect to Another Server	Ctrl+Shift+C
Disconnect from Server	Ctrl+Shift+D
New	>
Open	>
Start Screen Recording	Alt+R
- System Administration	Ctrl+Alt+A
User Management	
Local Settings	
Audit Trail	
Bookmark Log	Ctrl+B

\* 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.

Specific Build ~	ট্টি Advanced settings	Ready to update to 6.0.X.XXXXX	DW DW S	pectrum Client	?	? ×
Release roles      BREARING CHANGES:     **Support for Microsoft Windows & Server 2012 Is discontinued.     **Support for Microsoft Windows & B.1 and Microsoft Windows & Server 2012 Is discontinued.     *Support for Microsoft Windows & B.1 and Microsoft Windows & Server 2012 Is discontinued.		RefLave notes BREATING CHANGES: *Support for Microsoft Windows 8.1 and Microsoft Windows Server 2012 is discontinued. *Support for Mucrosoft and be discontinued in the next major nelesse (6.1).	$\odot$	Update completed DW Spectrum Client will be resta version.		
Support for Respilerry US 10 will be discontinued in the next major release (6.1).      Download <u>U</u> Get Update File		*Support for Ranpberry F13 will be discontinued in the most major release (6.0.1, *Support for Ranpberry G13 via bid discontinued in the rest major release (6.1).				ок

### **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.

DW DW Spectrum	Client	?	×
$\checkmark$	License activated		
		ок	

### 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.

# **Blackjack<sup>®</sup>DX<sup>™</sup>**

E Nev	v Layout 1 🗙			DW Cam	era Settings - DW	C-MV72Di28	IT - DW Spec	trum Client					×
Q~ Sear				Genera									
▲ BJAI ▲ admi	HDX in			Reco Recor									
✓ Servi	er DW-BJAIHD	X5108T		All Sun Mon									
Veb →   Web →   Othe	Pages r Systems	Open Open in New Ta Open in New W	ıb indow	Tue Wed Thu									
) 🛆 N	NDW GAO	Create Group	Ctrl+G	Sat									
▶ 🕋 N	IYDW-GA0	Delete	Del	Sch									
► ▲ N ► ▲ N	IYDW-GB01 IYDW-GB02	Rename	F2	Qua									
) ▲ N ) ▲ N	IYDW-GB03	Replace Camer Check Camera	a Issues	Keep									
🔚 Loca	l Files	Camera Rules Camera Setting	s	1. Ma									
										ок	Арр	sly	Cancel

- 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.

	ral R	ecordi	ng																					
Reco	ording	Caba																						
Reco	ruing	Sche	uule	(base																				
	12ам		2ам	Зам	4ам	5ам	бам	7ам	8ам	9ам	10ам		12рм		2рм	Зрм	4рм	5рм	брм	7рм	8рм	9рм	10рм	
	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi
Mon	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Tue	Hi	Hi	Hi	Hi	Hi	Hi	н	Hi	Hi	Hi	Hi	Hi	Hi	н	н	н	Hi	Hi	Hi	н	н	н	Hi	Hi
	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Wed	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi
Thu	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
ma	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi
	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	16	15	15	15	15 HI	15	15	15	15	15	15	15 HI	15	15	15	15	15	15	15 HI	15	15	15	15 HI	16
	Hi	ні	н	ні	ні	ні	н	Hi	ні	Hi	ні	Hi	ні	н	Hi	н	Hi	ні	Hi	н	н	Hi	ні	Hi
		Settin																						
									_															
		s 15			0 0										1					O	) Mot	ion		
														×										

6. Click OK when the necessary recording schedule is set. A red circle will appear next to the camera in the resource list.

### **Quick Start Guide**



**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.

		Look in:	C:\Users\DWUSER\Documents	$\checkmark$ $\leftarrow$ $\rightarrow$ $\uparrow$	C; ≡ 88
		My Computer	Name <u>=_</u>	Size Type D	ate Modified
		DWUSER			
General User Management Update	s Licenses Email Security DW Cloud Time Sync Routing Plugins Advanced				
Buckeye and Buckeye	Create a backun of System management data, or restore System management data from an				
Logs Management	existing backup	File <u>n</u> ame: DB_	Backup_02142025		Save
Logo management	Create Backup Restore from Backup	Files of type: Data	abase Backup Files (*.db)		<ul> <li>✓ Cancel</li> </ul>

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

## **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 x1Gbps
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 20.04 LTS: "Bionic Beaver"         Ubuntu 20.04 LTS: "Focal Fossa"         Ubuntu 20.04 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 110, 111, 112 "Big Sur"         •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.

Tel: +1 (866) 446-3595

Fax: (813) 888-9262

DW

www.digital-watchdog.com sales@digital-watchdog.com