

4K Network Video Recorder

Installation Manual



DRN-116-4TB shown



HDMI®
HIGH DEFINITION MULTIMEDIA INTERFACE



NDAA
COMPLIANT



ONVIF® | S



RoHS



CE



FCC

Model	Channels	Included HDD*	Internal storage capacity
DRN-104-2TB	4 channels	2TB SATA	1 SATA, up to 10TB
DRN-108-2TB	8 channels	2TB SATA	1 SATA, up to 10TB
DRN-116-4TB	16 channels	4TB SATA	2 SATA, up to 10TB each

*Other HDD sizes available by special order, including 1/2/4/6/8/10 TB

The ENFORCER Network Video Recorder offers 4K and H.265 High Efficiency Video Coding, reducing bandwidth and storage requirements without giving up video quality. These NVRs are perfect for a wide range of applications due to their cost-effectiveness and simple-to-install design.

- Compatible with 8MP (4K) IP Camera
- QR code and Wizard assistance for easier first-time setup
- Plug-and-Play
- Built-in PoE Ports (IEEE 802.3af/at)
- VGA and HDMI® output up to 4K resolution
- ONVIF® Profile S conformant
- Live view recording and playback up to 4K@30FPS
- P2P for simple remote connection using PC or mobile device
- Supports up to 9 AI functions, up to 12 when used with EV-N2806-2W4WQ

DRN-116-4TB Additional Features

- Supports up to two (2) HDDs
- Live view recording and playback up to 4K@45FPS
- 8 Sensor inputs, 1 alarm relay output

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Parts List

1x NVR	1x Mouse	1x 3' HDMI® Cable	4x Screws for 2.5" HDD*
1x Power supply	1x 3' Internet cable	1x Manual	

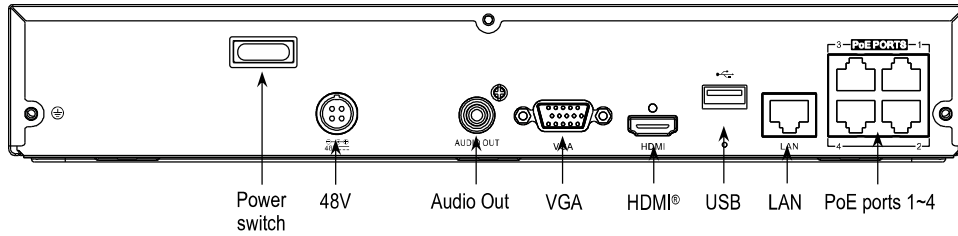
*DRN-116-4TB includes 8x mounting screws for 2.5" HDD and 4x mounting screws for 4.5" HDD.

Specifications

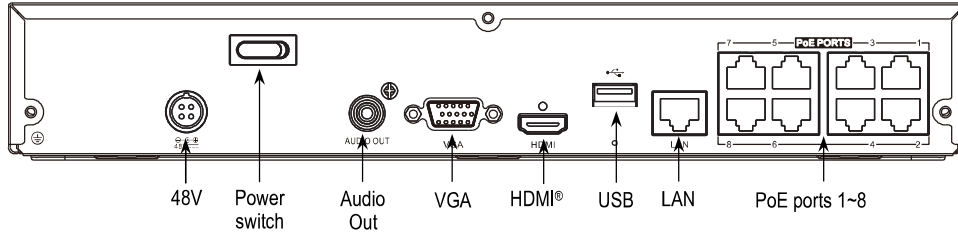
Model	DRN-104-2TB		DRN-108-2TB	DRN-116-4TB
Video				
Resolution	8MP (4K), 5MP, 2MP (1080p), 1.3MP (960p), 1.0MP (720p)			
Incoming bandwidth	50Mbps	76Mbps	112Mbps	
Outgoing bandwidth	48Mbps	32Mbps	96Mbps	
HDMI® output	1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080, 2560x1440, 3840x2160 (4K)			
VGA output	1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080			
Frame rate	4K: Up to 30FPS 4MP: Up to 60FPS 2MP: Up to 120FPS		4K: Up to 45FPS 4MP: Up to 90FPS 2MP: Up to 180FPS	
Compression	H.265+/H.265/H.264+/H.264			
AI	Support			
Playback function	Fast forward / backward (2x,4x, 8x, 16x)			
	Slow forward (1/2x, 1/4x, 1/8x, 1/16x)			
User Interface				
Local	UI5.0			
Web	IE10/11			
	Safari V12.1 above			
	Firefox V.52 above			
	Google Chrome V.57 above			
	Edge V.79 above			
Auxiliary Interface				
HDMI® output	1 Output			
VGA output	1 Output			
POE input	4xRJ45	8xRJ45	16xRJ45	
USB	USB2.0 x 1 front & 1 rear			
Alarm I/O	None	None	8 In / 1 Out	
Included HDD	2TB SATA		4TB SATA	
Internal storage capacity	1 SATA HDD, up to 10TB		2 SATA HDD, up to 10TB	
General				
Power supply	48VDC@1.2A	48VDC@1.5A	48VDC@3.75A	
Power consumption	5W	6W	8W	
Dimensions	11 ¹³ / ₁₆ "x8 ¹⁵ / ₁₆ "x2 ¹ / ₁₆ " (300x227x53 mm)		14 ⁷ / ₈ "x13 ³ / ₈ "x2" (378x340x50 mm)	
Operating temperature	32°~104°F (0°~40°C)			
Humidity	Less than 90%RH			

Overview

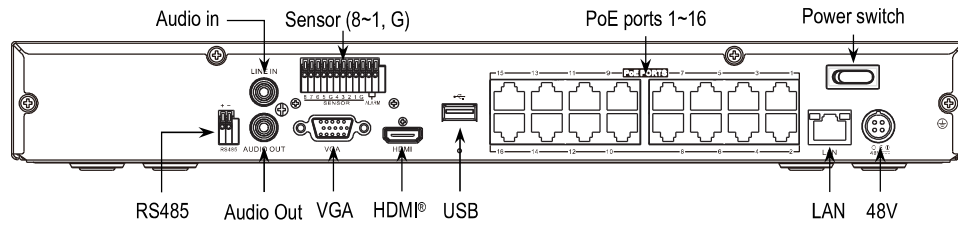
DRN-104-2TB



DRN-108-2TB



DRN-116-4TB

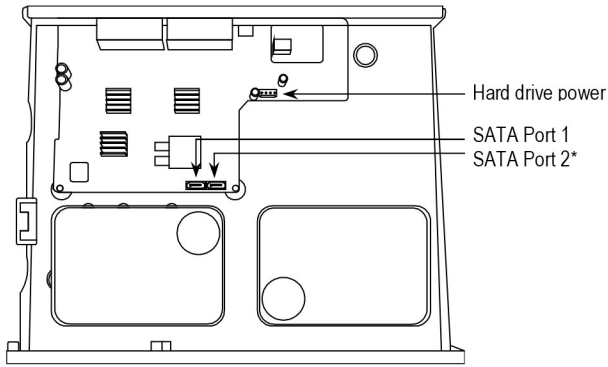


Rear Panel Feature Descriptions

- **48V** – Connect the included power supply
- **LAN** – Connect to the internet router
- **PoE Ports** – Connect to the PoE IP Cameras
- **USB** – Connect the included mouse
- **HDMI®** – Connect to a monitor via an HDMI® connection
- **VGA** – Connect to a monitor via a VGA connection
- **Alarm** – Connect to an external alarm output device such as a strobe or siren
- **Sensor (8~1, G)** – Connect to external alarm sensors
- **Audio Out** – Connect to speakers
- **Audio In** – Connect to a microphone
- **RS485** – Connect to an RS485 device

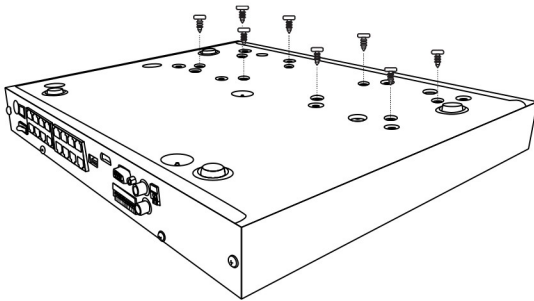
Hard Drive Installation

1. Connect the data and power cables to the hard drive.



*DRN-116-4TB only

2. Carefully flip the NVR and secure the hard drive with screws (4 screws for each hard drive).

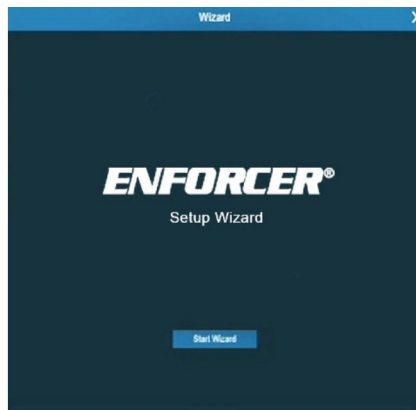


CAUTION: DO NOT install or remove the hard drive while the unit is powered on.

Startup Wizard

Click the **Start Wizard** to proceed to the next step.

NOTE: Screen images in this manual are simulated.



Network Configuration

The screenshot shows a 'Wizard' window for network configuration. It has a close button (X) in the top right corner. The main content area is titled 'Network' and contains several sections:

- Local Connection:**
 - DHCP:** A checked checkbox.
 - IP Address:** 192.168.0.06.028
 - Subnet Mask:** 255.255.255.000
 - Gateway:** 192.168.0.06.001
- DNS:**
 - DNS1:** 192.168.0.01.001
 - DNS2:** 008.008.008.008
- Port:**
 - Web Port:** 00080
 - Client Port:** 09000
 - RTSP Port:** 00554
- UPNP:** A checked checkbox.

At the bottom right, there are two buttons: 'Next' and 'Cancel'.

- **DHCP** – Recommended for first time setup. An empty IP address will be assigned to the NVR. Disable DHCP to use a static IP address and fill in the Subnet Mask, Gateway, DNS1, and DNS2.
- **IP Address** – Set IP address.
- **Subnet Mask** – Set subnet mask.
- **Gateway** – Set gateway.
- **DNS1** – Set primary DNS server.
- **DNS2** – Set secondary DNS server.
- **Web Port** – Default: 80
- **Client Port** – Default: 9000
- **RTSP Port** – Default: 554
- **UPNP** – Set On/Off.

Date/Time

- **Date** – Click on the calendar icon to set the date.
- **Time** – Set time.
- **Date Format** – Choose the date format.
- **Time Format** – Choose the time format.
- **Time Zone** – Set the time zone.

Date and Time	NTP	DST
Date	10/25/2017	
Time	15:39:21	
Date Format	MM/DD/YY	▼
Time Format	24Hour	▼
Time Zone	GMT+08:00	▼

NTP

- **Enable NTP** – Enable to synchronize the date and time automatically over the Internet.
- **Server Address** – Select the server to synchronize date and time.

Date/Time	
Date and Time	
NTP	
DST	
Enable NTP	☒
Server Address	pool.ntp.org ▼
Update Now	

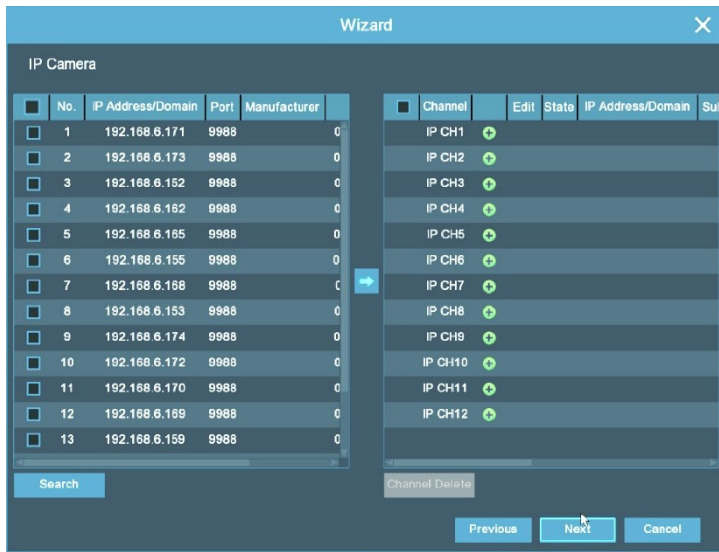
DST

- **Enable DST** – Enable Daylight Saving Time function.
- **Time Offset** – Select the amount of time offset.
- **DST Mode** – Choose to set the DST in weeks or days.
- **Start Time/End Time** – set the Start Time and End Time for DST.

Date and Time	NTP	DST
Enable DST	☒	
Time Offset	1Hour ▼	
DST Mode	Week ▼	
Start Time	Mar. ▼	The 2nd ▼ Sun. ▼ 02:00:00
End Time	Nov. ▼	The 1st ▼ Sun. ▼ 02:00:00

IP Camera

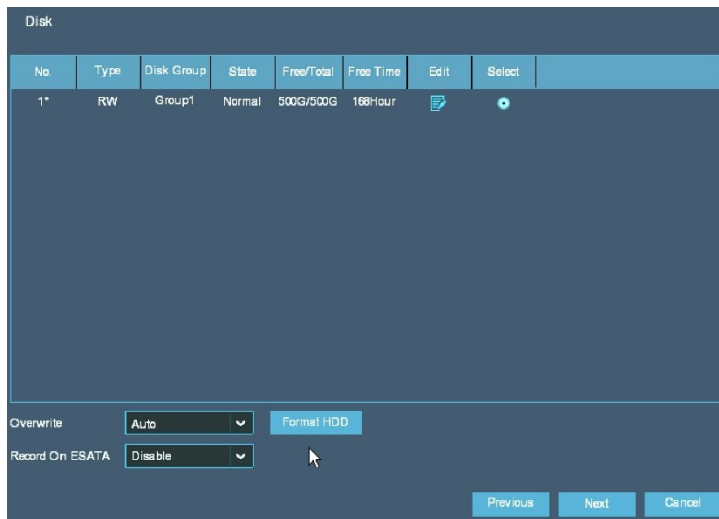
This menu allows you to add an IP camera (IPC) to the NVR by searching for compatible cameras on the same network. Make sure you have the correct information from the IPC, such as the username and password, before entering them into the NVR.



Disk

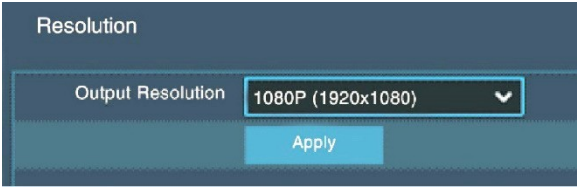
For the first time setup, the HDD must be formatted. Select the HDD and then click Format HDD.

- **Overwrite** – Overwrite the oldest recordings on the HDD when HDD is full.
- **Record on ESATA** – Does not apply and is disabled.



Resolution

Choose the output resolution to match the monitor’s resolution.



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THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.
IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user’s authority to operate the device.

IMPORTANT: Users and installers of this product are responsible for ensuring this product complies with all national, state, and local laws and statutes related to monitoring and recording audio and video signals. SECO-LARM will not be held responsible for the use of this product in violation of any current laws or statutes.

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