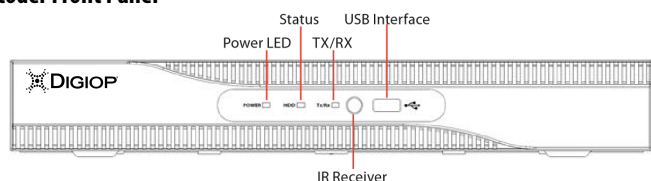




This guide provides instructions to initially setup DIGIOP's HD16 Encoder. This supports:

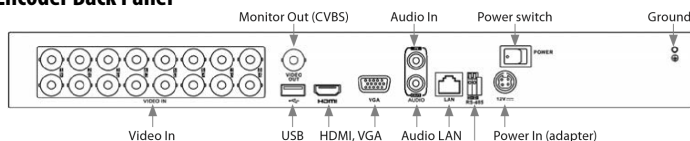
- Self-adaptive HD-TVI / HD-CVI / AHD / CVBS signal input
- H.265+/H.265/H.264+/H.264 encoding
- Simultaneous HDMI / VGA / CVBS monitor output

Encoder Front Panel



Item:	Usage:
Power LED	Indicator turns green when Encoder is powered up.
TX / RX	Indicator blinks green when network connection is functioning properly.
IR Receiver	Sensor for the remote control.
USB Interface	This port can be used for a USB mouse for USB flash memory devices.

Encoder Back Panel



Item:	Description:
VIDEO IN	BNC connectors for camera video channels in. Number of channels is dependent on the model of Encoder.
Monitor Out (CVBS)	BNC connector for CVBS video monitor.
AUDIO IN	RCA connector for audio in cable.
On/ OFF switch	Switching for powering encoder on and off.
USB device	Use this port for a USB mouse or USB memory such as a flash drive or DVD burner. A USB port is also located on the front panel.
HDMI	Connector HDMI monitor cable.
VGA	Connector VGA monitor cable.
AUDIO OUT	RCA connector for audio out cable.
LAN	RJ-45 connector for Ethernet drop cable.
RS-485 terminations	Connector for RS-485 devices. Connect the D+ and the D- terminals to T+ and T- of PTZ receiver respectively.
12 Vdc	Plug for 12 Vdc power adapter.
GND terminal	Ground terminal post.

Mouse Control

A standard 3-button (left/right/scroll-wheel) USB mouse can also be used with this encoder. To use a USB mouse:

1. Plug the USB mouse into either the front panel or back panel USB connector.
2. The mouse will be automatically detected. If the mouse is not detected, the mouse may not be compatible. Please refer to the recommended device list from DIGIOP.

Action:	Effect:
Left click	Single click: Live view Menu: Select and enter.
	Double click: Live view. Switch between single-screen and multi-screen.
	Tamper-proof, privacy mask and motion detection: See target area. Digital zoom-in: Drag and elect target area. Live view Drag channel / time bar
Right click	Live view: Show menu. Menu: Exit current menu to upper level menu.
Scroll Wheel	Scroll up: Live view: Next screen. Menu: Previous screen.
	Scroll down: Live view: Next screen. Menu: Next item.

Installing the System

Step 1. Getting Started: Unpacking the Equipment

What's in the box

Your system includes:

- DIGIOP HD16 Series encoder
- USB mouse
- HDMI cable
- Power adapter for Encoder
- Ethernet cable

Remove the equipment from its packaging and place it on a flat, clean surface. Inspect each item. If any visible damage is present, contact your supplier for a replacement. Verify that your order is complete.

What you need

Although each security system installation is different, most require the following items not included with your system components:

- Cameras and cables compatible with the encoder. The Video Input ports on the back panel support most analog CCTV camera brands and HD-TVI, AHD and 960H analog cameras (up to 2MP cameras.)
- Tools to install the cameras and route power, video and audio cables
- Fasteners to attach the cameras to the mounting surfaces, caulking.
- VGA or HDMI compatible computer monitor to connect to the Encoder (An HDMI cable is provided.)
- Uninterruptible power supply (UPS) is recommended. This device is used to ensure system stability during voltage surges, sags, and outages. If a UPS is not available, a power strip with strong surge protection is highly recommended.

Step 2. Install the Encoder

For the following steps, refer to the back panel photo above for the location of the connectors.

1. Place the Encoder in a location that is secure, well ventilated and clean. The Encoder should be positioned such that the back panel connectors are accessible and the ventilation holes on the sides are not blocked.

2. Connect the ground terminal on the back of the Encoder to an earth ground. Refer to local codes for proper grounding.

Step 3. Install a monitor, mouse, power

For the following steps, refer to the back panel photo for the location of connectors.

1. Install and setup your monitor in accordance with the instructions provided with the monitor. Do not power it on at this time.
2. Cable the HDMI or VGA connector to your monitor's VGA or HDMI input. The HDMI interface provides the best performance.
3. Plug the mouse into the USB connector on the front or back of the Encoder.
4. Plug a drop cable from your local area network (LAN) into the RJ45 LAN connector on the back of the Encoder.
5. Connect the power cord to the power connector on the back panel of the encoder, and then into a UPS (recommended) or surge protector.

Step 4. Install cameras

Install your security cameras. Always follow the installation instructions provided with the camera.

Step 5. Connecting it together – initial system setup

1. Plug the coaxial cables from the cameras into the BNC camera input connectors on the back of the Encoder.
2. Power on your cameras.
3. Power on the Encoder using the power on / off switch on the back panel.
4. Power on the monitor.

Note: Some monitors have multiple inputs including VGA, HDMI, BNC, etc. If you are using this kind of monitor, configure your monitor to display the input connected to your Encoder (HDMI or VGA).

Step 6. Using the Wizard for basic configuration setup

Power on the Encoder. Normally, a DIGIOP logo splash screen appears within two minutes.

The default password is Digiop123

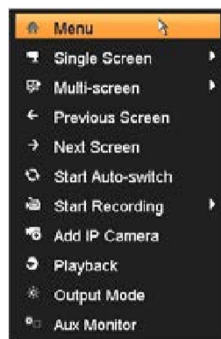
Important notes for using Wizard:

When configuring the encoder, consider the following:

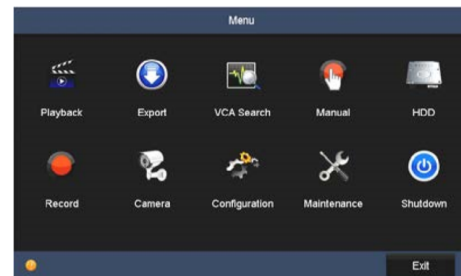
- **Password** When logging into the Encoder for the first time, create a “Strong” administrator user password. Follow the on-screen instructions and save this password, and the GUID file created by the firmware in a secure location.
- **Date and Time:** Set the time zone, date and time correctly.
- **Network Settings:** By default, the recorder acquires its network settings using DHCP (dynamic host configuration protocol). Depending on the network, these settings may change. To easily change the DHCP acquired network settings to fixed network settings, un-check the **Enable DHCP** option in the network setup menu, and then click Apply.

Step 7. Access the Menu System

After the initial setup of your Encoder using the Wizard, the Menu interface enables you to refine your configuration settings and expand the functionality of the system. To use most menus, the user must log into the firmware system, either locally or remotely, with administrative privileges. To open the Menu system from the Live View screen, right click anywhere in the screen, then click **Menu**



If ID Authentication is not disabled (see the Menu | Configuration | General settings), a login window will open. In the Login window, select a User Name with administrative privileges, enter its password, then Click OK. A window of Menu icons will open.



Specifications	
Model	Encoder-HD16
Video compression	H.265+/H.265/H.264 OVC/H.264
Video input	16-ch BNC interface (1.0 Vp-p, 75Ω), supporting coaxitron connection
Supported HD-TVI input	2 MP (channels 1, 2, 3, 4 only), 1080p30, 720p60, 720p30
AHD input	1080p30, 720p30
HD-CVI input	1080p30, 720p30
Audio compression	G.711u
Audio input	1-ch, RCA (2.0 Vp-p, 1KΩ)
CVBS output	1 channel, (1.0 Vp-p, 75Ω), resolution 704x480
HDMI / VGA output	VGA: 1-ch, 1920 x 1080/60 Hz, 1280 x 1024/60 Hz, 1280 x 720/60 Hz, 1024 x 768/60 Hz. HDMI: 1-ch, 4k (3840 x 2160)/30 Hz, 2k (2560 x 1440)/60 Hz, 1920 x 1080/60 Hz, 1280 x 1024/60 Hz, 1024 x 768/60 Hz
Encoding resolution	When 1080 Lite mode not enabled: 2MP / 1080p/720p / VGA / WD1 / 4CIF / CIF; When 1080p Lite mode enabled: 2MP / 1080p lite/720p lite, VGA/WD1, 4CIF / CIF
Frame rate	Mainstream when 1080p Lite mode not enabled: for 2MP stream access: 2MP / 1080/720p / VGA / WD1 / 4CIF / CIF; For 1080p stream access: 1080p/720p @15 fps; VGA / WD1 / 4CIF / CIF @ 30 fps For 720p stream access: 720p / VGA / WD1 / 4CIF / CIF @ 30 fps When 1080p Lite mode enabled: 2MP @ 15 fps, 1080p lite/720p lite VGA / WD1 / 4CIF / CIF @ 30 fps
Video bit rate	32 Kbps to 6 Mbps
Audio output	1-ch, RCA (linear, 1KΩ)

Model	Encoder-HD16
Audio bit rate	64 Kbps
Dual Stream	Support
Stream type	Video, Video & Audio
Synchronous playback	16- channel
Remote connections	128
Network protocols	TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, SADP, UPnP, HTTPS, ONVIF
Network interface	1 x RJ45 10M/100M/1000M self-adaptive Ethernet interface
USB interface	Front panel: 1 x USB 2.0 Rear panel: 1 x USB 3.0
Serial interface	RS-485 (half-duplex)
Power supply	12 Vdc
Consumption	≤ 25 W
Working temperature	+14° F ~ +131° F (-10° C to +55° C)
Working humidity	10% to 90%
Dimensions (w x d x h)	15 x 12.6 x 1.9 inch (380 x 320 x 48 cm)



DIGIOP
Intelligence Inspired

Contact DIGIOP for sales and support needs:
800.968.3606 | www.digiop.com