

1. Introduction

This Quick Installation Guide provides instructions for installing and performing the initial configuration on the DVTeI EV Series multi-port encoders. Read the encoder user manuals for complete details on installation, usage and functionality.

2. Package Contents

- One EV-116, EV-208, EV-208-A, EV-216, or EV-216-A video encoder featuring H.264 technology.
- One set of rack-mount brackets with four screws (Philips M3 x 6mm pan head).
- This EV Series Multi-port Encoder Quick Installation Guide.

3. Optional Accessories

- DVT-PWR-40W: Power supply, 12VDC, 40W for a single multi-port encoder.
- DVT-PWR-275RM1: Power supply without meters, rack-mount, 12VDC. 275W for up to 8 multi-channel encoders. Requires one DVT-WH-4UA per three units.
- DVT-PWR-275RM2: Dual power supply without meters, rack-mount (550W total), 12VDC. 275W per supply for up to 16 multi-channel encoders. Requires one DVT-WH-4UA for three devices.
- DVT-WH-4UA: 8A fused wiring harness for up to three multi-port encoders.

4. Hardware Overview

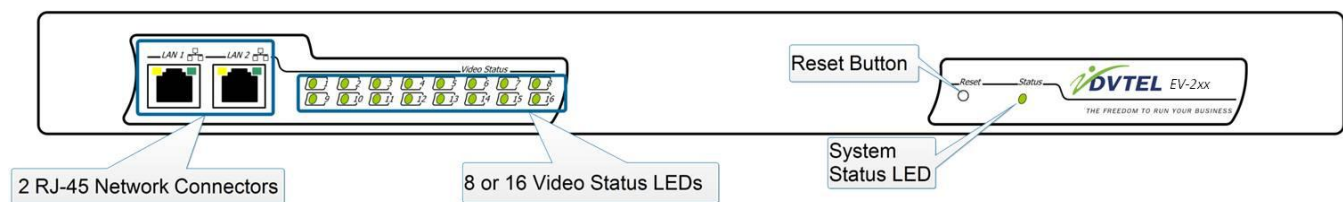
The DVTeI EV Series multi-port encoders are available in five models: EV-116, EV-208, EV-208-A, EV-216, and EV-216-A. The EV-208 and EV-208-A are eight-port models. The EV-116, EV-216, and EV-216-A are 16-port models. Only the “-A” models support audio.

Prior to adding the EV-116 encoder to the Latitude VMS, use the EV Device SConfigurator software to set the mode of the unit. The change takes effect after rebooting the unit. For information on changing the setting, see [Setting the EV116 H.264 Encoding Mode](#).

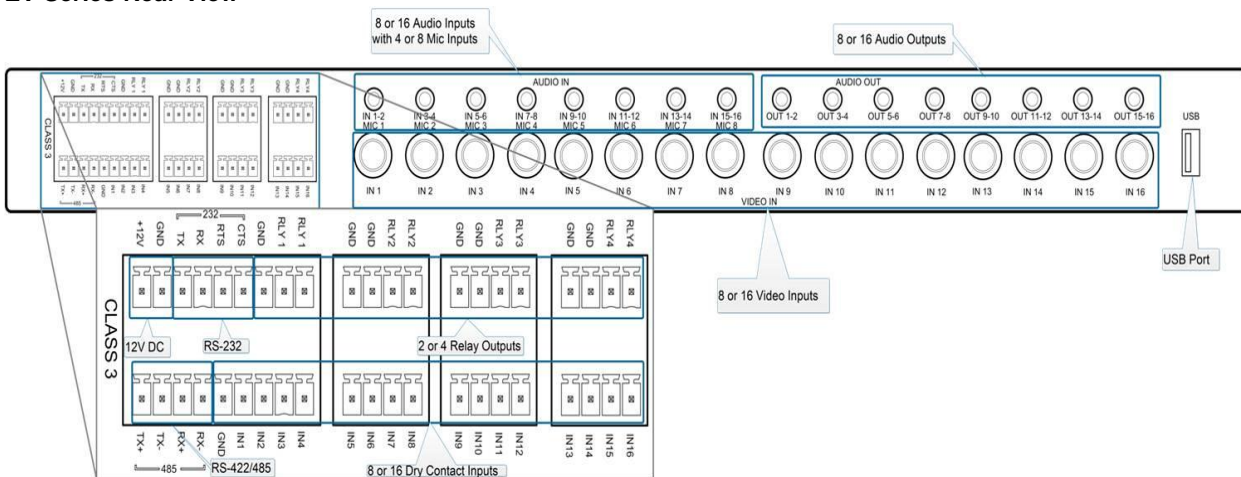
For information on configuring the encoder to operate with Latitude, see [Configuring Latitude NVMS](#).

NOTE: The RX of the PTZ camera should be connected to the RX of the encoder. For camera feedback, the TX of the PTZ camera should be connected to the TX of the encoder.

EV Series Front View



EV Series Rear View



NOTE: Only the EV-208-A and EV-216-A include audio inputs and outputs. Only the odd-numbered audio inputs (i.e., IN1, IN3, etc.) are available for use.

5. Installing the DVTel EV Series Encoder

This section explains how to install a DVTel EV Series encoder on a desktop or flat surface and how to mount the encoder in a rack.

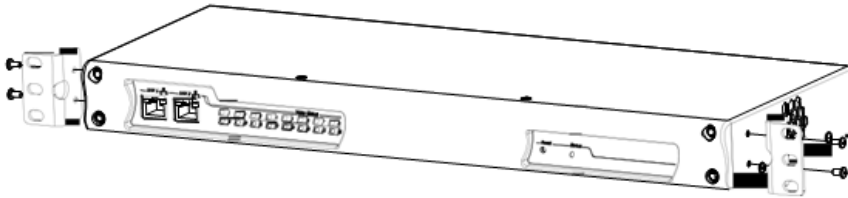
NOTE: This equipment must be used in compliance with local laws and regulations.

► **To install the DVTel EV Series encoder on a flat surface:**

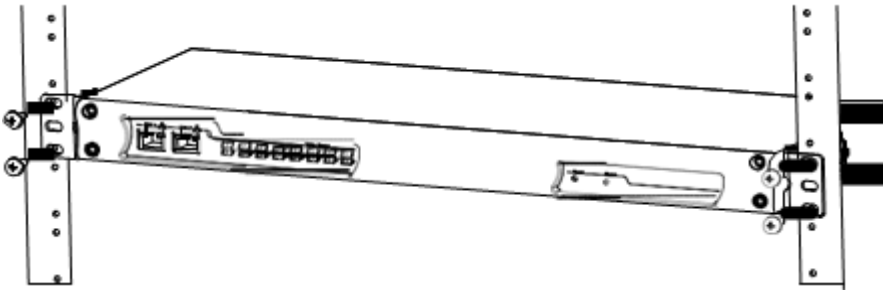
1. Remove any debris and dust from the surface as well as the surrounding area.
2. Place the encoder on the flat surface.
3. Ensure that you have access to both the front and rear of the encoder and that the fan airflow is not blocked.

► **To install the DVTel EV Series encoder on a rack:**

- Align the rack-mount brackets with the holes on the side of the encoder.



2. Screw the rack-mount brackets to the encoder using 5 in-lb (0.56 N-m) force with the provided screws.
3. Slide the encoder into the 1U mounting space in the rack cabinet and ensure that the fan airflow is not blocked.
4. Secure the encoder to the rack cabinet using the screws supplied with the rack.

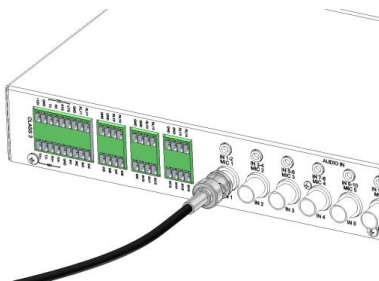


6. Connecting the DVTel EV Series Encoder

This section explains how to connect the video, network and power cables to the DVTel EV Series encoder.

► **To connect the cables for video and network:**

1. Plug the video cables from the analog cameras to the BNC connectors on the rear of the encoder.

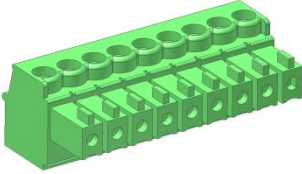


2. Plug an Ethernet cable into the LAN 1 network (RJ-45) connector on the front of the encoder. LAN 2 on the encoder is used by DVTel support for debugging purposes.

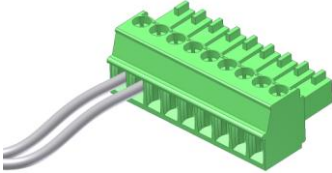
► **To connect the wiring for power:**

NOTE: You can use the DW-PWR-40W or any other certified power supply to connect to the DVTel EV Series encoder. If you plan on using a power supply other than the DW-PWR-40W, ensure that it is certified with an output voltage rating of 12V DC and an output current rating of 1.8A up to 3A. The power wire gauge should be in the wire range of 16-28 AWG in order to properly engage the terminal block plug.

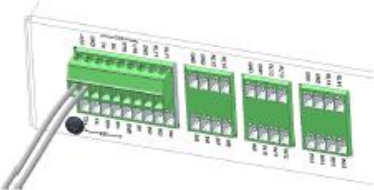
1. Remove the terminal block plug from the rear of the encoder.



2. Verify the polarity of each wire from the power supply according to the attached label.
3. Connect the positive power wire in the corresponding +12V pole and the negative power wire in the corresponding GND pole on the terminal block plug and screw them into place using 1.7 in-lb (0.19 N-m) force.



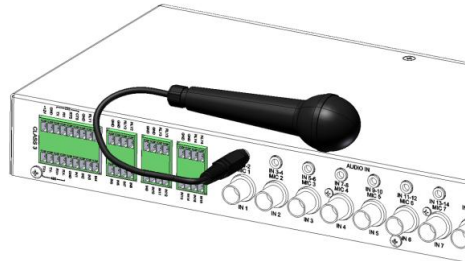
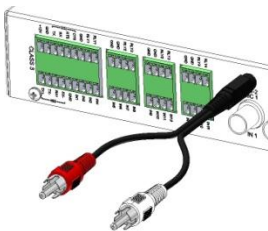
4. Connect the terminal block plug to the on the rear of the encoder.



5. Connect the power supply to an outlet or UPS.
6. If required, connect the serial ports of the DVTel EV Series encoder to the PTZ cameras.

► **To connect an audio cable from an audio source for the EV-208-A and EV-216-A:**

- Plug the audio cable from an audio source such as a microphone to the audio/MIC input connectors on the rear of the encoder.



7. Obtaining the IP Address

By default, all DVTel EV Series encoders support DHCP (Dynamic Host Configuration Protocol). Use SConfigurator to obtain the IP address of the encoder. If you have a DHCP server, the encoder automatically obtains a valid IP configuration. Otherwise, you need to manually enter an IP address.

► **To obtain the IP address of the encoder:**

1. Download the latest version of SConfigurator from www.DVTel.com.
2. Extract the executable file (SConfigurator.exe) to the desktop of the computer.
3. Start SConfigurator by double-clicking SConfigurator.exe on the desktop.

4. In the General tab, click Program Options.

5. Check Detect All Units on LAN.

6. Ensure that the VSIP Port is 5510; otherwise, click **Default**.

7. Ensure that the Discovery IP Address is 255.255.255.255; otherwise, click **Reset to Broadcast**.

8. Click **OK**.

9. Select the **Units** tab, then click **Discover**. The information displayed for the DVTel EV Series encoder will vary depending on whether your network is using a DHCP server.

In a DHCP environment, the **Unit Name** column in the **Units** box displays the model name and a unique alpha-numeric value that corresponds to the MAC address of the encoder.

Unit Name	Host Name	Type	Address	Port	Product
S-00079a020018	S00079a020018	Receiver	172.22.118.165	5510	1880
S-00079a180102	S179a180102	Transmitter	172.22.35.64	5510	1881
S-00079a180104	S179a180104	Transmitter	172.22.25.70	5510	1881
S-00079a180152	S179a180152	Transmitter	172.22.118.27	5510	1881
DN IP Camera VGA	S50N IP Camera VGA	Transmitter	172.22.97.11	10000	5000
FD IP Camera VGA	3FD IP Camera VGA	Transmitter	172.22.97.13	10000	5000
S50N IP Camera VGA	VGA-DN IP Camera VGA	Transmitter	172.22.97.12	10000	5000

In APIPA mode, the **Unit Name** column in the **Units** box displays **Unknown** and the first two octets of the IP address in the **Address** column are 169.254. Use the following procedure to set the IP address for the encoder.

Unit Name	Host Name	Type	Address	Port	Product
8020100079	S0001200	Receiver	172.22.118.165	5510	8080
180102	180102	Transmitter	172.22.35.64	5510	818
Unknown	169.254.97.16	Unknown	169.254.97.16	5510	Unknown
79a180152	181-00079	Transmitter	172.22.118.27	5510	816e
Camera-DN IP Camera VGA	IP Camera	Transmitter	172.22.97.11	10000	5003BXX-D
5003 IP Camera VGA	5000	Transmitter	172.22.97.13	10000	5003FF
IP Camera	IP Camera VGA	Transmitter	172.22.97.12	10000	50003F

▶ To set the IP address of the encoder manually:

1. Select the device in the **Units** box and click **Configure**.
2. In the **Unit Name** box, type a name for the encoder.
3. In the tree view, expand the **Network** node and click **IP**.

4. In the **IP Address** box, type an IP address for the encoder.

5. In the **Subnet Mask** box, type the address specifying in which subnet the IP address of the encoder belongs.

6. In the **Gateway** box, type the IP address of the server that acts as an access point to another network.

NOTE: You do not need to use a gateway if the encoder communicates with other devices on the same subnet.

7. Click **OK**.

8. Click **Exit** to close SConfigurator.

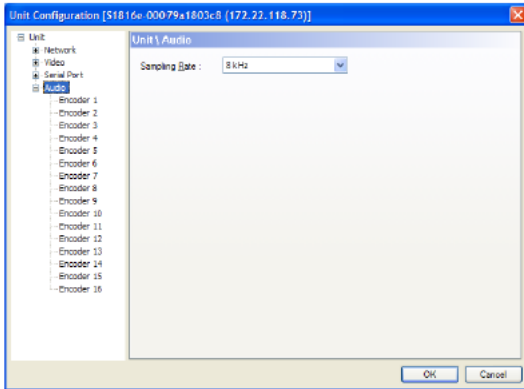
NOTE: Any configuration changes made to the encoder using DVTel Latitude override the changes made using SConfigurator or the Web Interface.

8. Configuring Audio on the EV-208-A and EV-216-A

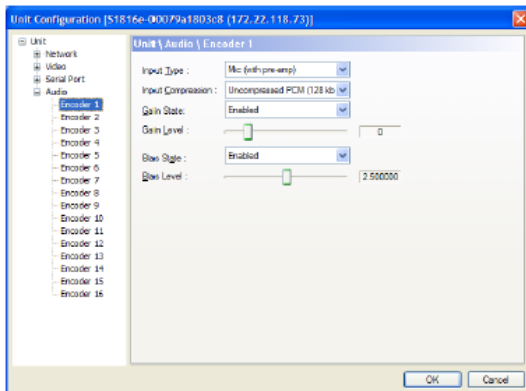
Only the EV-208-A and EV-216-A encoders support audio. Use SConfigurator to set the audio settings.

► To configure the audio:

1. Double-click `SConfigurator.exe` to start SConfigurator.
2. Select the **Units** tab, then click **Discover**.
3. Select the EV-208-A or EV-216-A encoder and click **Configure**.
4. In the tree view, click the **Audio** node.



5. From the **Sampling Rate** list, select **8 kHz**.
6. Expand the Audio node.
7. Select an encoder to configure.



8. Set the value for the following settings:
 - Input Type: Select Line-in or Mic (with pre-amp).
 - Input Compression: Select Uncompressed PCM (128 kbps) or μ -LAW (64 kbps).
 - Gain State: Select **Enabled** or **Disabled**.
 - Gain Level: Move the slider to the left or right.
 - Bias State: Select **Enabled** or **Disabled**.
 - Bias Level: Move the slider to the left or right.
9. Repeat Step 7 and Step 8 for the remaining encoders.
10. Click **OK**.
11. Click **Exit** to close SConfigurator.

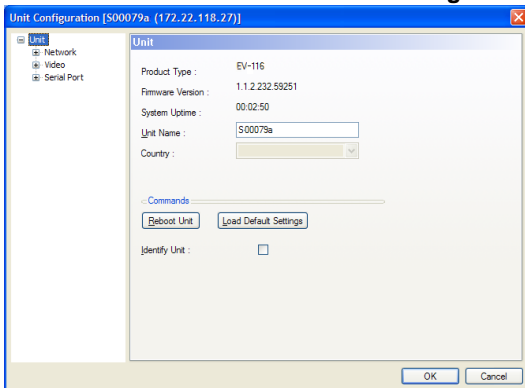
9. Setting the EV116 H.264 Encoding Mode

The EV116 supports H.264 and MPEG-4 video on all 16 ports and can be configured in single or dual stream modes. By default, the EV116 is set to single stream mode consisting of a single high-performance H.264 stream and a single MPEG-4 stream per video input. However, you can set it to dual stream mode consisting of two H.264 streams with lower resolution and frame rate and a single MPEG-4 stream per video input.

NOTE: Prior to adding the EV-116 encoder to Latitude, use the Device Configurator to set the mode of the unit. The change takes effect after rebooting the unit.

► **To change the encoding mode for the EV116:**

1. Double-click the 'EV Device Configurator .exe' to start the Device Configurator.
2. Select the **Units** tab, then click **Discover**.
3. Select the EV116 encoder and click **Configure**.



4. In the **Unit Name** box, from the **Performance Mode** list, select **H.264 streaming mode**. You can select from:
 - Single H.264: One H.265 stream and one MPEG-4 stream per video input.
 - Dual H.264: Two H.264 streams with lower resolution and frame rate and one MPEG-4 stream per video input.
5. Click **Reboot Unit** for the change to take effect.
6. Click **OK** to close the Unit Configuration dialog box.
7. Click **Exit** to close the Device Configurator.

NOTE: Once you have added the EV116 to the Latitude AdminCenter, changing the EV116 mode requires that you (1) delete the device from the Latitude AdminCenter and (2) then use the Device Configurator to change the mode. You will have to add the device again in the Latitude AdminCenter.

10. Configuring the Encoder to Operate with Latitude NVMS

In order to configure an EV Series device to operate with the Latitude Network Video Management System (NVMS):

- If you have single server that is pre-licensed, pre-configured and pre-loaded with the Latitude software, refer to the *Latitude Lite Installation Guide*.
- If you have a license for multiple servers, refer to the *iSOC NVMS Quick Start Guide*.
- If you are the License Administrator of the Latitude AdminCenter, refer to the *Latitude AdminCenter Quick Start Guide*.

How to contact DVTel:

North America: 1-888-DVTel77
Latin America: +52 443 279 3746
EMEA: +44 (0) 1494 430240
APAC: +65 6389 1815
China: +86 10 8586 8836
India: +91 11 2620 9202
ANZ/Pacific: +61 8 8235 9211

For assistance, email us at support@dvtel.com or visit <http://www.dvtel.com/support>.

© DVTel Inc. All rights reserved worldwide. Printed February 2012.

Part Number: 23-500-0077 rev. A00