CONFIGURATION INSTRUCTIONS

NV-EC1701 EoC transceivers transmit high bandwidth encrypted Ethernet signals over conventional coax cables. To provide utmost signal integrity and security, NVT EoC transceivers **must be configured** to communicate exclusively with other transceivers within their **Network Group.** This group typically consists of one NV-EC1701 located at the control room (usually connected to an ethernet switch or router), and up to four remote NV-EC1701 transceivers (usually connected to IP cameras).

Before connecting to the network, **each NV-EC1701 must learn which other NV-EC1701 transceivers are to be part of that group.** This simple process is called **Joining**. It is recommended that transceivers in each Network Group be configured **prior to deployment** using these instructions:

Step One: Gather Materials
- Up to five NV-EC1701 transceivers
- 48VDC power supply & line-cord (NV-PS48-60W)
- Coax jumper
- Small paper-clip, partially straightened
- Device labels
- IP Network Documentation Log

Step One: Gather Materials

Step Two: Connect Hardware
- Remove and discard the "Configure Before Use" labels.
- Connect two NV-EC1701 transceivers using a coax jumper.
- Connect 48VDC power supply to one transceiver; Apply power.
- After 20 seconds, verify that the green BNC LED on each transceiver is off.
- Verify that the green BNC LED on each transceiver is off.
  If a BNC LED is on, the transceiver has been previously joined.
  Perform the un-joining process below before proceeding.

Step Two: Remove Label; Connect Hardware

Step Three: Joining
- On one transceiver, using the straightened paper-clip, momentarily depress the small push-button located behind and slightly above the RJ45 LED. The RJ45 LED will begin blinking.
- Depress the same push-button on the second transceiver.
- Both transceivers are now in **Join Mode.** They will find each other and establish encrypted communication. In about 10 seconds, the BNC LEDs on both transceivers will illuminate (blinking or steady on), and the RJ45 LED will go off, indicating a successful **Join**.

Step Four: Adding Transceivers (if required)
- Disconnect one of the transceivers and replace it with a new un-joined transceiver.
- Repeat steps two and three to add additional (up to five total) transceivers to the same Network Group.

Step Five: Documentation
- Label the configured transceivers with a unique Network Group ID of your choice. This will help you identify them after they have been deployed.
- Record this Network Group information in your IP Network Documentation Log. This log may include essential documentation which will help you identify all system devices during and after deployment:

  - Camera Number
  - Camera Position/Location
  - Camera Make & Model
  - Camera MAC & IP Address
  - Camera Login & Password

  - Camera-end NVT Transceiver MAC Address
  - NVT Transceiver Network Group Name
  - Control Room NVT Transceiver MAC Address
  - Control Room Router Port Number

Step Three: Transparent view of push-button location

Un-Joining a Transceiver
If you need to move a transceiver from one Network Group to another, it must first un-learn its previous Network Group and be returned to an un-joined state. Do this by applying 48VDC power, and pressing the small push-button located behind and slightly above the RJ45 LED for four seconds until the BNC and RJ45 LEDs illuminate and then go out, about 4 seconds. The transceiver is now ready to be joined to a new Network Group, as outlined above.

Step Five: Transceiver MAC address