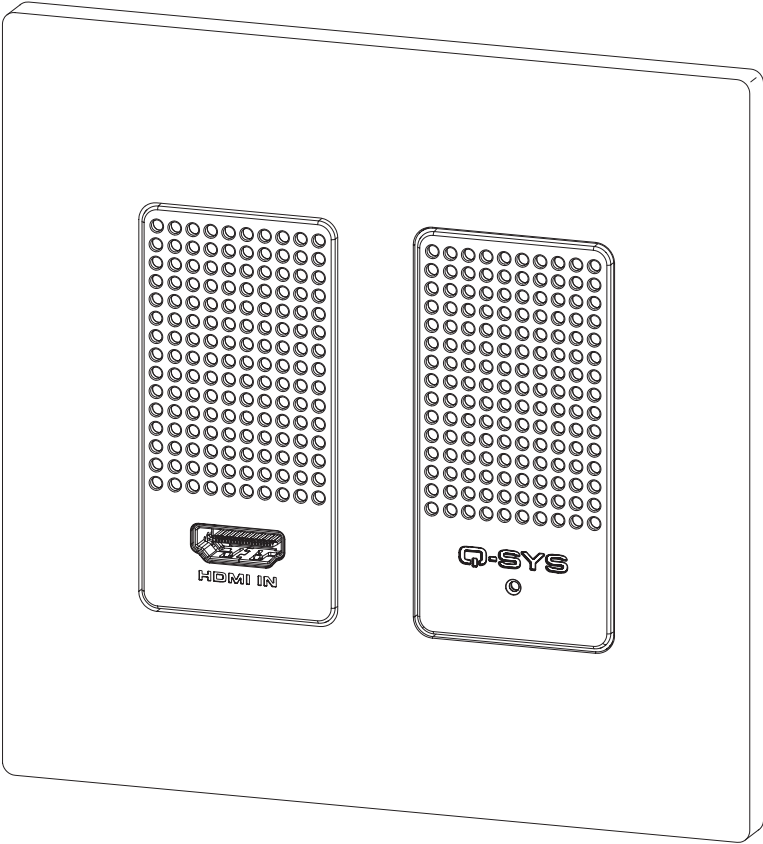# Hardware User Manual

Q-SYS™

NV-1-H-WE
4K60 Network Video Wall Plate Encoder for Q-SYS

EXPLANATION OF TERMS AND SYMBOLS

The term "**WARNING!**" indicates instructions regarding personal safety. If the instructions are not followed the result may be bodily injury or death.

The term "**CAUTION!**" indicates instructions regarding possible damage to physical equipment. If these instructions are not followed, it may result in damage to the equipment that may not be covered under the warranty.

The term "**IMPORTANT!**" indicates instructions or information that are vital to the successful completion of the procedure.

The term "**NOTE**" is used to indicate additional useful information.

The lightning flash with arrowhead symbol in a triangle alerts the user to the presence of uninsulated dangerous voltage within the product's enclosure that may constitute a risk of electric shock to humans.

The exclamation point within a triangle alerts the user to important safety, operating, and maintenance instructions in this manual.

IMPORTANT SAFETY INSTRUCTIONS

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

1. Read, follow, and keep these instructions.
2. Heed all warnings.
3. Do not use this apparatus near water.
4. Do not submerge the apparatus in water or liquids.
5. Do not use any aerosol spray, cleaner, disinfectant or fumigant on, near or into the apparatus.
6. Clean only with a dry cloth.
7. Do not block any ventilation opening. Install in accordance with the manufacturer's instructions.
8. Keep all ventilation openings free of dust or other matter.
9. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
10. Only use attachments/accessories specified by the manufacturer.
11. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
12. Adhere to all applicable, local codes.
13. Consult a licensed, professional engineer when any doubt or questions arise regarding a physical equipment installation.

Maintenance and Repair

Advanced technology, e.g., the use of modern materials and powerful electronics, requires specially adapted maintenance and repair methods. To avoid a danger of subsequent damage to the apparatus, injuries to persons and/or the creation of additional safety hazards, all maintenance or repair work on the apparatus should be performed only by a QSC authorized service station or an authorized QSC International Distributor. QSC is not responsible for any injury, harm or related damages arising from any failure of the customer, owner or user of the apparatus to facilitate those repairs.

IMPORTANT! 802.3at Type 2 Class 4 PoE+ (30W from PSE, 25.5W at NV-1-H-WE) power input required.

Environmental

- **Expected Product Life Cycle**: 10 years
- **Storage Temperature Range**: -20°C to +70°C (-4°F to 158°F)
- **Storage Humidity Range**: 5% to 90% RH non-condensing
- **Operating Temperature Range**: 0°C to 40°C (32°F to 104°F)
- **Operating Humidity Range**: 5% to 90% RH non-condensing

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RoHS Statements

The QSC Q-SYS NV-1-H-WE is in compliance with European RoHS Directive.

The QSC Q-SYS NV-1-H-WE is in compliance with "China RoHS" directives. The following table is provided for product use in China and its territories.

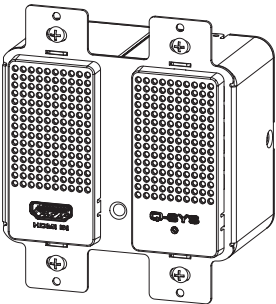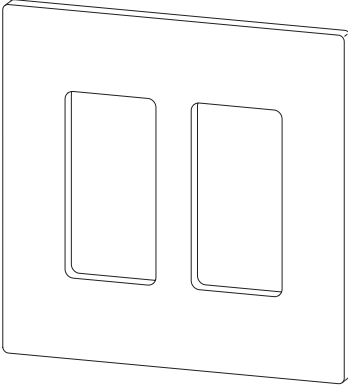| 部件名称 (Part Name)	QSC Q-SYS NV-1-H-WE					
	有害物质 (Hazardous Substances)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(vi))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
电路板组件 (PCB Assemblies)	X	O	O	O	O	O
机壳装配件 (Chassis Assemblies)	X	O	O	O	O	O
本表格依据 SJ/T 11364 的规定编制。 O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。 X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。 （目前由于技术或经济的原因暂时无法实现替代或减量化。）						
This table is prepared following the requirement of SJ/T 11364. O: Indicates that the concentration of the substance in all homogeneous materials of the part is below the relevant threshold specified in GB/T 26572. X: Indicates that the concentration of the substance in at least one of all homogeneous materials of the part is above the relevant threshold specified in GB/T 26572. (Replacement and reduction of content cannot be achieved currently because of the technical or economic reason.)						

What's in the Box

(1x) NV-1-H-WE	(1x) Decora Screwless Wallplate Kit (White)
(1x) Warranty TD-000453	(1x) Safety Information TD-001672

Introduction

The Q-SYS NV-1-H-WE wall-mount HDMI encoder enhances and extends the NV Series network video distribution into flexible and reconfigurable spaces, providing a single platform for network video distribution across every room type. The NV-1-H-WE can be used alongside other Q-SYS NV Series network video endpoints, providing system design flexibility. Like all Q-SYS products, the NV-1-H-WE offers native integration into the Q-SYS platform, reducing complexity and accelerating deployment by tightly integrating device configuration, control and audio routing capabilities.
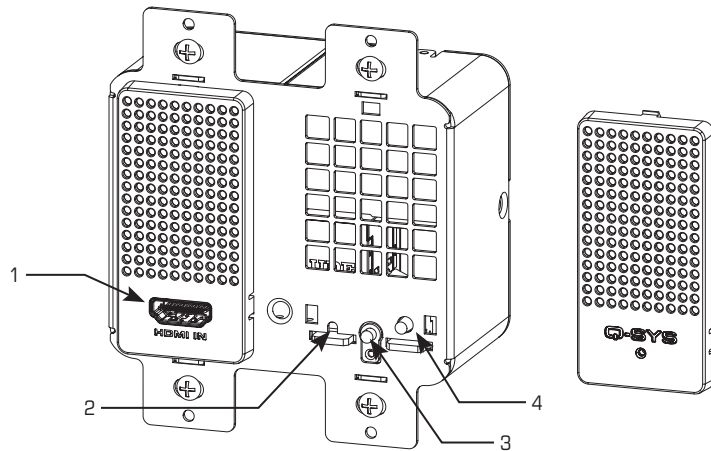
⚠️ **NOTE:** NV-1-H-WE network video endpoints require a Q-SYS Core processor and Q-SYS Designer Software (QDS) version 9.13 and later for configuration and operation. Information about the QDS components related to the NV-1-H-WE, including their properties and controls, can be found in Q-SYS Help at help.qsys.com. Or, simply drag an NV-1-H-WE component from the Inventory into the Schematic and press F1.

Power Requirements

- 802.3at Type 2 Class 4 PoE+ (30W from PSE, 25.5W at NV-1-H-WE) power input required.
- You must follow the safety instructions for the PSE.
- The PSE power supply cord shall be connected to a socket-outlet with an earthing connection.
- The NV-1-H-WE is intended to be powered by a Listed (Certificate) power supply compliant with LPS or PS2, output rated 56 VDC, 0.42A minimum (PoE), maximum ambient temperature (TMA) of 40 C°, and maximum altitude of 2000m. Contact QSC if assistance is needed.
- The NV-1-H-WE is to be connected only to a PoE network that does not contain routing to the outdoors.
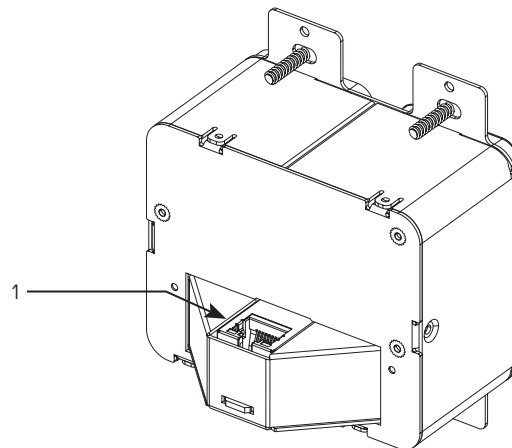
Connections and Callouts

Front Panel

— Figure 1 —

1. **HDMI In** – HDMI 2.0 input with support for HDCP 2.3 and HDCP 1.4.
2. **Reset Button** – (Behind perforated cover, recessed) Use a paper clip, or similar tool, to press and hold the reset button for 10 seconds to reset the NV-1-H-WE to factory values.
3. **Power/ID LED** – Illuminates blue when the NV-1-H-WE is powered on. Blinks green when placed into ID Mode via ID Button or Q-SYS Peripheral Manager. Solid Green indicates valid HDMI input.
4. **ID Button** – (Behind perforated cover) Locates the NV-1-H-WE in Q-SYS Designer Software and Q-SYS Peripheral Manager.

Rear Panel

— Figure 2 —

1. **LAN / PoE** – RJ-45 connector, 2.5GbE, 802.3at Type 2 Class 4 (30W from PSE, 25.5W at NV-1-H-WE. For connection to Q-LAN.
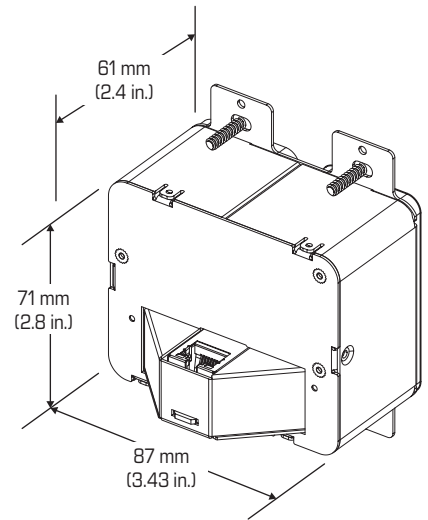
Installation

The NV-1-H-WE is designed to be installed into dual gang electrical boxes that are common in North America. A variety of alternate electrical boxes and brackets with similar mounting hole placement may be accommodated, though mounting procedures for these alternate solutions are not documented here.

Ensure installation meets the following:
- Environment A per IEEE 802.3at
- Wiring methods and materials shall be in accordance with NFPA 70, the National Electrical Code (NEC), in particular Section 725.130.
- Conductors and equipment shall be installed in accordance with NFPA 70, the National Electrical Code (NEC), in particular Section 725.133.

Clearance Requirements

A dual gang rectangular box with minimum dimensions shown in **Figure 3** is recommended. For more information, refer to the product drawings at qsys.com.
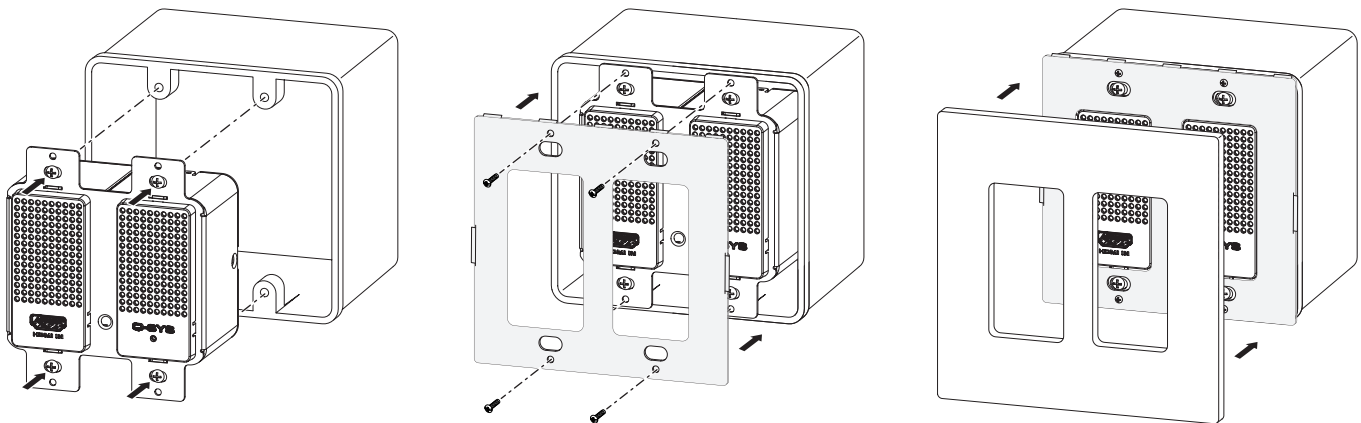
61 mm (2.4 in.)

71 mm (2.8 in.)

87 mm (3.43 in.)

— Figure 3 —

Ventilation Requirements

IMPORTANT!   Ensure that the inflow and outflow perforations do not become blocked.

Installation Steps

1. Connect the network cable to the LAN / PoE port on the rear of the NV-1-H-WE.
2. Ensuring that the NV-1-H-WE is oriented in the "up" direction (with HDMI connector on the bottom), attach the unit to the dual gang electrical box using the four (4) pre-attached 6-32 x 3/4" screws.
3. From the Decora Screwless Wallplate Kit, attach the subplate to the NV-1-H-WE using the provided screws from the kit.
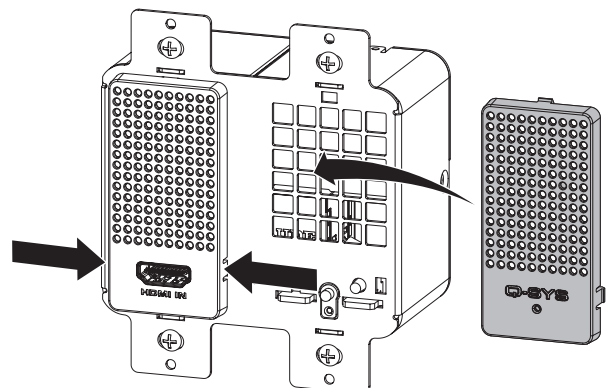4. Snap the Decora Screwless Wallplate onto the unit to complete the installation.

— Figure 4 —

Perforated Insert Cover Replacement

White Perforated Inserts can be swapped out with the Black Perforated Inserts to match decor.

To remove existing white insert, pinch the bottom of the insert and rotate the bottom of the insert upwards to remove.

To install the new insert, angle the top of the insert into the slot towards the top and rotate downwards until the insert clicks into place.

— Figure 5 —

Q-SYS™

Knowledge Base

Find answers to common questions, troubleshooting information, tips, and application notes. Link to support policies and resources, including Q-SYS Help, software and firmware, product documents, and training videos. Create support cases.
support.qsys.com

Customer Support

Refer to the Contact Us page on the Q-SYS website for Technical Support and Customer Care, including their phone numbers and hours of operation. qsys.com/contact-us/

Warranty

For a copy of the QSC Limited Warranty, go to:
qsys.com/support/warranty-statement/

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