![Vaddio logo]
Camera and Electronic Products for Integrators

DOMEVIEW™

Integrated Indoor Pendant Mount Dome Systems and Indoor Pendant Mount Dome Enclosures for Sony® and Canon® PTZ Cameras

Figure 1:
Indoor Pendant Mount Dome shown with Smoke Tinted Dome (Clear is Standard)

OVERVIEW:

The Vaddio™ DomeVIEW Indoor Pendant Mount Domes (Figure 1) are integrated camera mounting systems that are attractive and easy to install. Designed for indoor security applications, the 7.3" (18.54cm) Indoor Pendant mount dome enclosure is outfitted with the internal brackets to support the option of using the Sony EVI-D70 or the Canon VC-C50iR robotic PTZ cameras.

The DomeVIEW Indoor Pendant Mount Dome Package is sold complete with the Camera. The DomeVIEW system for the Sony EVI-D70 and the VC-C50iR feature the standard Vaddio EZCamera Cabling System. The EZCamera cabling solution provides for fast and efficient installations using Cat. 5 cabling for video, power and control. The enclosures are also sold without the camera to accommodate an existing camera to be used with the Indoor Pendant Mount Dome enclosure without the EZCamera cabling system.

The Domes are formed from optical grade polycarbonate and are available in clear (standard) or smoked tint (optional). The DomeVIEW Indoor Pendant Mount Domes are excellent values that are high quality, attractive and durable solutions for indoor security applications.

This Manual covers the following Vaddio DomeVIEW Indoor Pendant Mount Dome Systems:
- 999-9100-050 DomeVIEW 50iR Indoor Pendant Dome with Canon VC-C50iR, EZCamera Cabling System and Internal Mounting Bracket
- 999-9100-070 DomeVIEW 70 Indoor Pendant Dome with Sony EVI-D70, EZCamera Cabling System and Internal Mounting Bracket

This Manual covers the following Indoor Pendant Mount Dome Enclosures:
- 998-9100-050 Indoor Pendant with Internal Mounting Bracket for VC-C50iR (Camera Not Included)
- 998-9100-070 Indoor Pendant with Internal Mounting Bracket for EVI-D70 (Camera Not Included)

Note: The Indoor Pendant Mount Domes mount to a 1-1/2" NPT Pipe, which are not part of the DomeVIEW packages or the Indoor Pendant Mount Dome enclosures.

INTENDED USE:

Before operating the DomeVIEW system, please read the entire manual thoroughly. The DomeVIEW Indoor Pendant Mount systems were designed, built and tested for use indoors and with the provided power supply. The use of a power supply other than the one provided or outdoor operation has not been tested and could damage the electronics and/or create a potentially unsafe operating condition.

SAVE THESE INSTRUCTIONS:

The information contained in this manual will help you install and operate your Vaddio DomeVIEW. If these instructions are misplaced, Vaddio keeps copies of Specifications, Installation and User Guides and most pertinent product drawings for the Vaddio product line on the website. These documents can be downloaded from www.vaddio.com free of charge.

IMPORTANT SAFEGUARDS:

Read and understand all instructions before using. Do not operate the system if it has been dropped or damaged. In this case, a Vaddio technician must examine the product before operating. To reduce the risk of electric shock, do not immerse in water or other liquids and avoid extremely humid conditions.

> ⚠️ **Use only the power supply (or power supplies) provided with the DomeVIEW systems. Use of any unauthorized power supply will void any and all warranties.**

> 🚫 **Do not use "pass-thru" RJ-45 connectors during installation. Use only standard RJ-45 connectors and test all terminated cables.**

UNPACKAGING – SYSTEM COMPONENT LISTS

Carefully remove all parts from the packaging. Unpack and identify the following parts for each product:

999-9100-050 DomeVIEW 50iR Indoor Pendant Mount Dome System includes:

QTY	Description
1	Canon VC-C50iR PTZ camera
1	Canon IR remote control
-	Camera bracket for Canon VC-C50iR PTZ camera
3	4.5" x .375 (114.3mm x 9.525mm) Hex shaped stand-offs
1	6" x 6" (15.24cm x 15.24cm) Camera mounting stage
3	8-32 x .5" Flat head screws (flush mount)
2	8-32 x .5" pan head screws
2	Lock washers for pan head screws
-	Indoor Pendant Mount Dome Enclosure
1	Indoor Pendant Housing Assembly (Metal can with white ABS shroud and 1-1/2" NPT fitting)
1	White twist and lock trim ring
1	Clear dome bubble mounted to trim ring
1	1-1/2" NPT Locknut
-	EZCamera Cabling Components
1	50 EZCamera Shoe (998-4411-001)
1	Quick-Connect (998-1105-001)
1	PowerRite Power Supply (998-1105-001)

999-9100-070 DomeVIEW 70 Indoor Pendant Mount Dome System includes:

QTY	Description
1	Sony EVI-D70C/W PTZ camera (platinum white)
1	Vaddio IR Remote Commander (for Sony cameras)
-	Camera bracket for Sony EVI-D70 PTZ camera
3	2.75" x .375 (69.85mm x 9.525mm) Hex shaped stand-offs
1	6" x 6" (15.24cm x 15.24cm) Camera mounting stage
3	8-32 x .5" Flat head screws (flush mount)
1	6" x 6" (15.24cm x 15.24cm) Camera mounting plate
1	¼"-20 x ½" Mounting screw (to attach camera to mounting plate)
4	8-32 x .5" pan head screws
2	#8 Lock washers for pan head screws
-	Indoor Pendant Mount Dome Enclosure
1	Indoor Pendant Housing Assembly (Metal can with white ABS shroud and 1-1/2" NPT fitting)
1	White twist and lock trim ring
1	Clear dome bubble mounted to trim ring
1	1-1/2" NPT Locknut
-	Vaddio EZCamera Cabling Components
1	70 EZCamera Cabling Shoe (998-2211-004)
1	Quick-Connect (998-1105-001)
1	PowerRite Power Supply (451-2750-018)

Indoor Pendant Mount Dome Enclosures Only (Cameras Not Included)

The Indoor Pendant Mount Dome Enclosures are for use with existing or standard Sony EVI-D70 and Canon VC-C50iR cameras. The Dome enclosures can also be used with the Vaddio Standard EZCamera Cable system for the EVI-D70 or the VC-C50i analog PTZ cameras. The dome enclosures without cameras are listed below:

998-9100-050 Indoor Pendant Mount Dome Enclosure includes:

QTY	Description
-	Indoor Pendant Mount Dome Enclosure
1	Indoor Pendant Housing Assembly (Metal can with white ABS shroud and 1-1/2" NPT fitting)
1	White twist and lock trim ring
1	Clear dome bubble mounted to trim ring
1	1-1/2" NPT Locknut
-	Camera bracket for Canon VC-C50iR PTZ camera (Camera Not Included)
3	4.5" x .375 (114.3mm x 9.525mm) Hex shaped stand-offs
1	6" x 6" (15.24cm x 15.24cm) Camera mounting stage
3	8-32 x .5" Flat head screws (flush mount)
2	8-32 x .5" pan head screws
2	Lock washers for pan head screws

998-9100-070 Indoor Pendant Mount Dome Enclosure includes:

QTY	Description
-	Indoor Pendant Mount Dome Enclosure
1	Indoor Pendant Housing Assembly (Metal can with white ABS shroud and 1-1/2" NPT fitting)
1	White twist and lock trim ring
1	Clear dome bubble mounted to trim ring
1	1-1/2" NPT Locknut
-	Camera bracket for Sony EVI-D70 PTZ camera (Camera Not Included)
3	2.75" x .375 (69.85mm x 9.525mm) Hex shaped stand-offs
1	6" x 6" (15.24cm x 15.24cm) Camera mounting stage
3	8-32 x .5" Flat head screws (flush mount)
1	6" x 6" (15.24cm x 15.24cm) Camera mounting plate (attaches to camera)
1	¼"-20 x ½" Mounting screw (to attach camera to mounting plate)
4	8-32 x .5" pan head screws
4	#8 Lock washers for pan head screws

INSTALLATION INSTRUCTIONS

DomeVIEW System Packages with Dome, Camera and Internal Mounting Bracket
999-9100-050 DomeVIEW 50iR Indoor Pendant Mount Dome System
999-9100-070 DomeVIEW 70 Indoor Pendant Mount Dome System
Indoor Pendant Mount Dome Enclosures
998-9100-050 for the Canon VC-C50iR PTZ Camera
998-9100-070 for the Sony EVI-D70 PTZ Camera

**Before Starting the Installation**
For cabling requirements, see the Cabling Requirements section. All installation work must conform to local building codes and should be performed by qualified personnel.

Step-by-Step Assembly Instructions:
1) Unpack and verify the contents of the packaging against the lists on pages 2 and 3 of this manual. Carefully remove all parts from the packaging and keep them together.

2) Remove the dome and trim ring assembly from the housing by rotating it counter clockwise until free. Use caution when handing the dome to avoid scratching or scuffing the dome bubble.

3) Thread on the three hex shaped stand-offs (7) on to the studs in the bottom of the metal back can (8) (See Figures 2 and 3).

4) Attach the camera mounting stage (6) to the stand offs (7) with three 8-32 x .5" flat head screws (5).
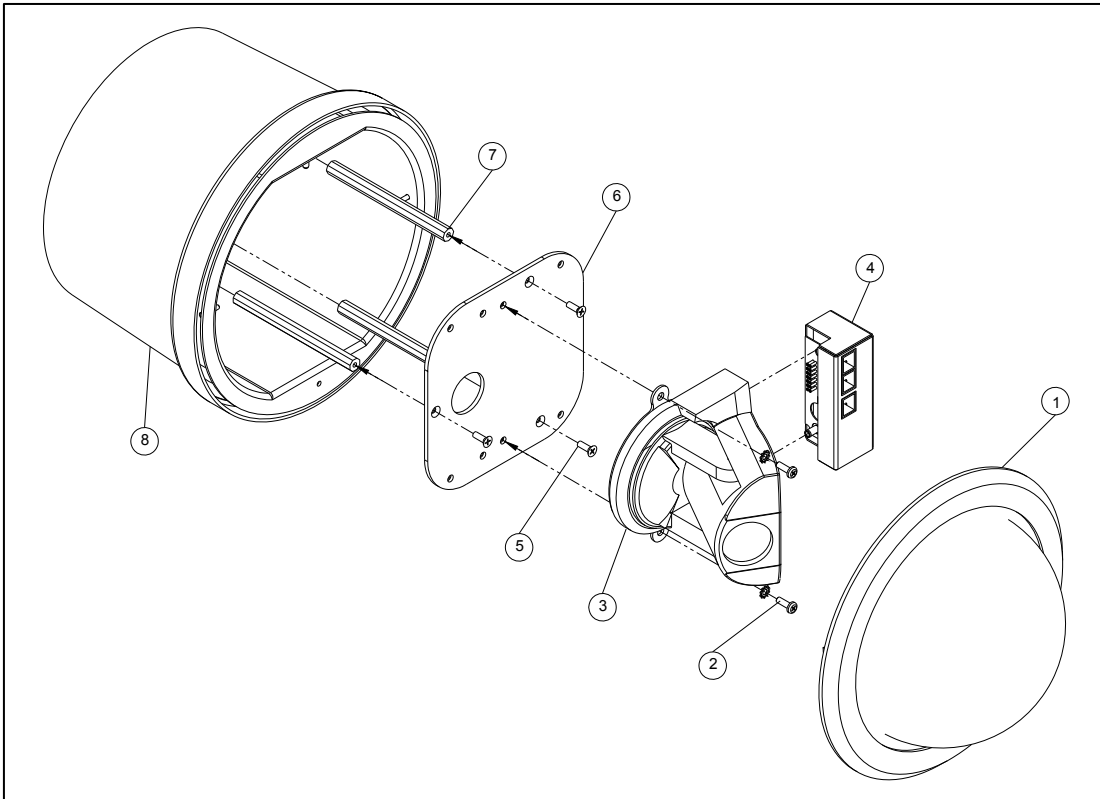
Figure 2: Exploded View of DomeVIEW Indoor Pendant Mount Dome for Canon VC-C50iR
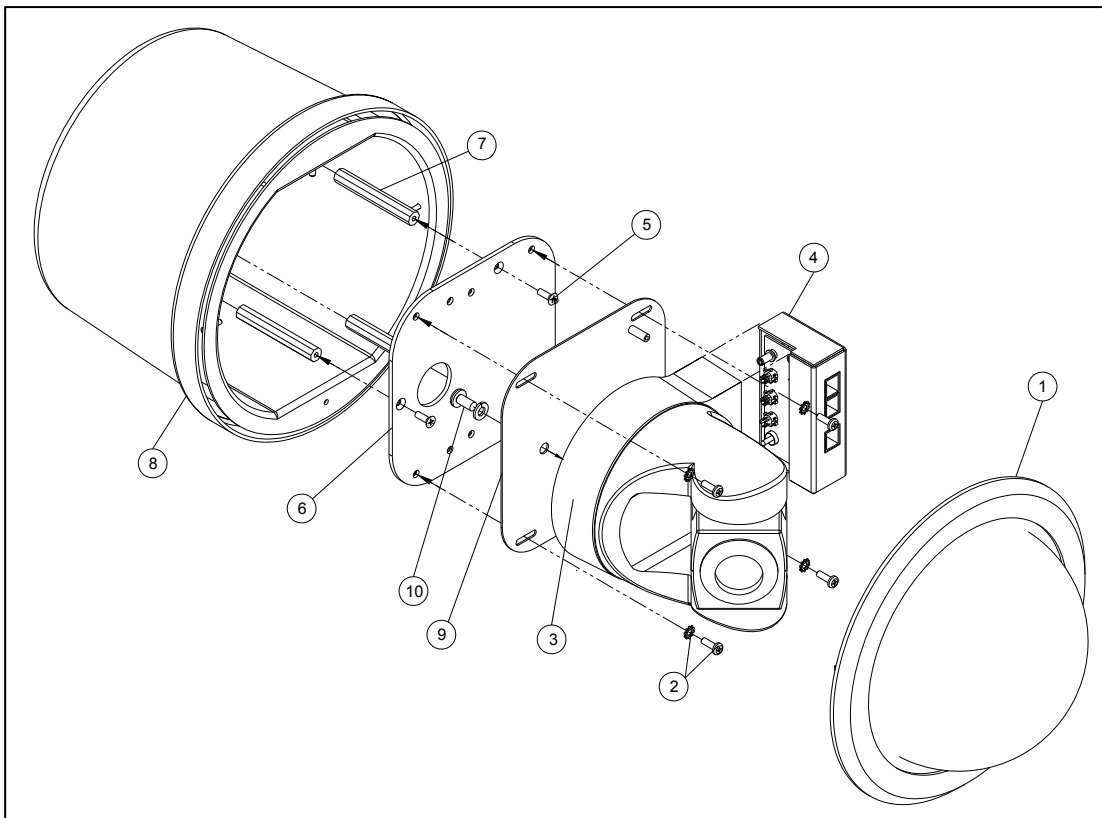
Figure 3: Exploded View of DomeVIEW Indoor Pendant Mount Dome for Sony EVI-D70

Canon VC-C50iR Camera only:
5) Attach the EZCamera Cabling Shoe, (4) in Figure 2, to the Canon VC-C50iR.
    a. When mounting the Canon VC-C50iR without the EZCamera cabling system - skip this step.
6) Attach the camera (3) to the camera mounting stage (6) with two 8-32 x .5" pan head screws (2) and two #8 lock washers (see Figure 2). Skip to step 11.

Sony EVI-D70 Camera only:
7) Image Flip Switch, IR Select Switch and other Mode switches (set switches prior to powering up camera)
    a. Set the Image Flip dipswitch on the back of the EVI-D70 camera to the ON position. The camera will be inverted in the dome enclosure and the image needs to be flipped.
    b. When using the IR Remote control in an environment with multiple cameras, set the IR Select Switch frequency setting to 1, 2 or 3 to avoid having the IR remote control more than one camera at a time.
    c. Check the full-length manual for the EVI-D70 camera for other mode switch settings. The manual is available on the Vaddio website (www.vaddio.com).
8) Attach the EZCamera Cabling Shoe, (4) in Figure 3, to the Sony EVI-D70 camera.
    a. When mounting a Sony EVI-D70 without the EZCamera Cable System - skip this step.
9) Attach the Camera Base Plate (9) to the camera (3) with the provided ¼"-20 x .5" screw (10).
10) Attach the camera (3) and camera base plate (9) to the camera mounting stage (6) with four 8-32 x .5" pan head screws (2) and four #8 lock washers (see Figure 3).

Installing the dome to a pendant mount or pipe extension:
When the camera is mounted in the dome enclosure, the dome can be mounted to a 1-1/2" NPT pipe extension attached to the Vaddio Ceiling Pendant Mount (part # 998-9300-002) or Curved Wall Mount (part # 998-9300-000). These mounts are sold separately. To install the dome to a 1-1/2" NPT Pipe Extension or to a 1-1/2" NPT Curved Wall Mount:

11) Thread locking nut onto pendant 1-1/2" NPT extension pipe (extension pipe not supplied but readily at the local hardware store).

12) Feed the power, video and control cabling through the 1-1/2" pipe coupling on the top of the dome housing. Do not terminate the cabling yet.

13) Thread housing onto the pendant extension pipe and rotate the dome until snug.

14) Position the dome for preferred viewing angle and thread down the locking nut to engage the housing and tighten down the locking nut.

15) Terminate the camera and pull the cable slack back through the pendant extension pipe or curved wall mount. Position the cabling to avoid interference with the PTZ range of the camera.

16) Take the Dome Bubble and the Twist & Lock White Trim Ring and twist it on to the dome enclosure clockwise (two hooks on the trim ring will slide over the two pegs on the metal enclosure and lock the trim ring and dome into place) to cover the camera. Be careful to position the safety tether wire to avoid contact with the PTZ mechanism of the camera (Figure 4a).
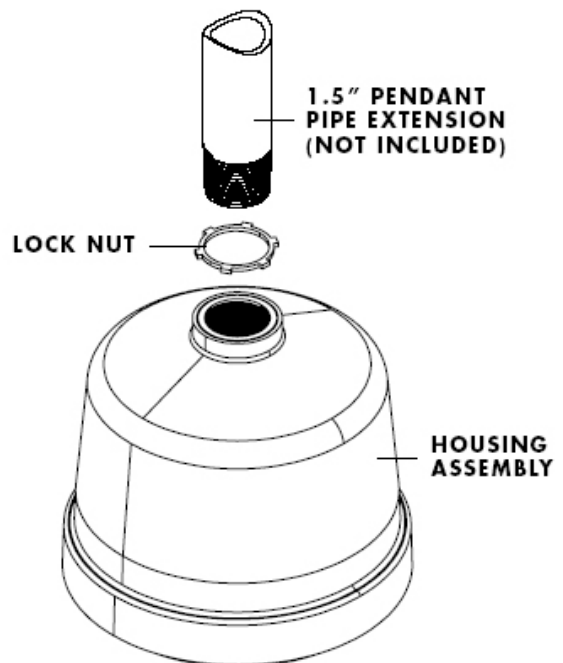

Figure 4: Indoor Pendant Mount shown with 1-1/2" NPT pipe (not included), 1-1/2" NPT Lock Nut and Housing Assembly

Figure 4a:
Attach the Dome Bubble (Clear is standard – smoke tinted is optional) and White Trim Ring. The assembly has a twist and lock attachment which provides a secure connection of the ring to the back can.

Important Note:
Tuck the safety tether inside the enclosure to avoid interference to the PTZ camera movement.
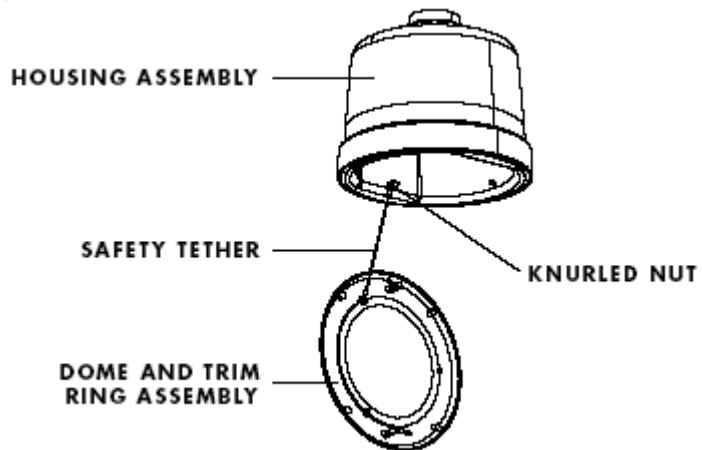
EZCamera SYSTEM COMPONENTS

The DomeVIEW Systems are built around either the Sony EVI-D70 (999-9100-070) or the Canon VC-C50iR (999-9100-050) and are shipped with the standard Quick-Connect, PowerRite and EZCamera Cabling Shoe.

DomeVIEW 50iR Cabling Distances with Standard and Optional Power Supplies

The DomeVIEW 50iR can transmit video up to 185 feet using the supplied 18 VDC PowerRite power supply, and from 185 feet to 275 feet using the optional 24 VDC PowerRite power supply (part# 451-2000-024). This EZ Camera Cabling system provides both S-video and composite video.

DomeVIEW 70 Cabling Distances with Standard and Optional Power Supplies

The DomeVIEW 70 can transmit video up to 200 feet using the supplied 18 VDC PowerRite power supply, and from 200 feet to 300 feet using the optional 24 VDC PowerRite power supply (part# 451-2000-024). This EZ Camera Cabling system provides both S-video and composite video.

The EZCamera Cable Shoe for the Sony EVI-D70 and Canon VC-C50iR

The EZCamera Cable Shoe attaches to the back of the Canon VC-C50iR camera and changes the native power, video and control connectors to RJ-45s for use with Cat. 5 cabling. The Shoe has a voltage regulator and transformers (baluns) to optimize the video signal for use over Cat. 5 cable. The RS-232C control cabling uses 5-wires to provide for bi-directional control signaling and daisy chain control of multiple cameras.
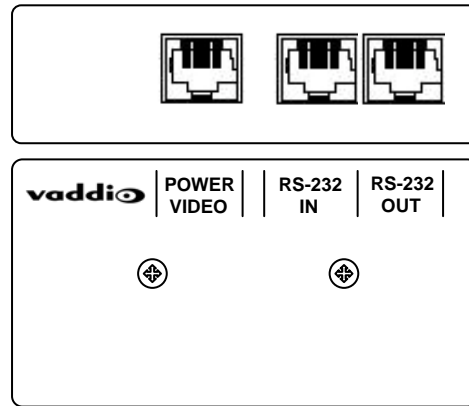
Figure 9:
The Canon VC-C50iR and Sony EVI-D70 are shown with the EZCamera Cabling Shoes attached.
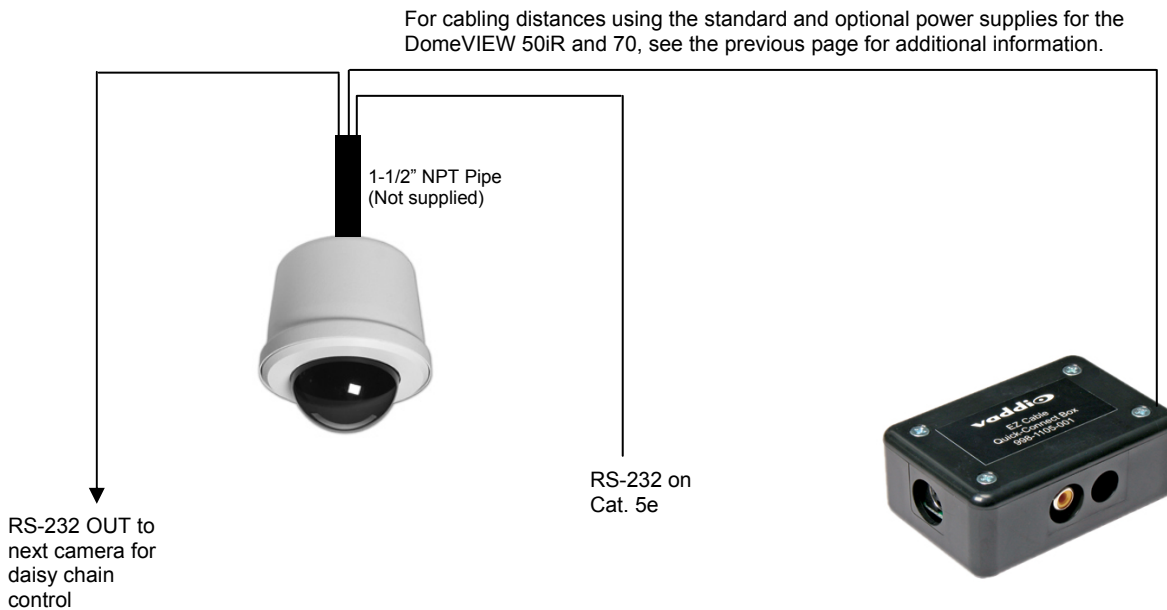
The RJ-45 connectors are:
1) Power/Video
2) RS-232 IN
3) RS-232 OUT

Figure 10:
EZCamera Cable Shoe for the DomeVIEW 70 shows RJ-45 connections for Power/Video, RS-232 IN and RS-232 OUT on the top of the Shoe (upper image). The back of the Shoe (lower image) shows the connector labeling. See Appendix A for pin-out information.

Figure 11: Basic wiring diagram for the DomeVIEW Indoor Pendant Mount.

For cabling distances using the standard and optional power supplies for the DomeVIEW 50iR and 70, see the previous page for additional information.

1-1/2" NPT Pipe (Not supplied)

RS-232 on Cat. 5e

RS-232 OUT to next camera for daisy chain control

CAMERA CONTROL

For the DomeVIEW 50iR Indoor Pendant Mount Dome and DomeVIEW 70 PTZ Indoor Pendant Mount Dome Systems, the RS-232 control programming information is in the technical manuals for the Sony EVI-D70 (VISCA control protocol) and Canon VC-C50iR PTZ which can be found on the Vaddio website (www.vaddio.com) under the TechNotes tab and under the PTZ Camera product grouping. Control system manufacturers' also have programs readily available for these cameras to be used with their control systems (i.e. Crestron® and AMX®). Please contact those companies for the demo programs and for modifying or debugging of the programs that they provide to you. They will be more familiar with their bugs than we will.

Both the DomeVIEW 50iR Indoor Pendant and the DomeVIEW 70 Indoor Pendant are shipped with IR remote controllers for camera control. The camera base with the IR window is recessed inside the dome enclosure and the acceptance angle of the IR control signaling is affected. The angle of acceptance for the IR remote control is narrower and more directional. Please take this into account when controlling the cameras with an IR remote.

CABLING REQUIREMENTS

For the DomeVIEW 70 and 50iR Indoor Pendant Dome that uses the EZCamera Cabling system, the cabling requirements are as follows:

One (1) - Cat. 5 Cable for Power/Video

One (1) - Cat. 5 Cable for RS-232 control input

One (1) - Cat 5 Cable for RS-232 control output for daisy chaining

For the Indoor Pendant Mount Dome Enclosures that do not use the EZCamera Cabling system, the native connections on the cameras and original power supply must be used. Custom cables for Power (12 VDC, video (S-video or composite video) and control signaling must be fabricated.

Note: The RS-232 requires at least 5 wires – preferably paired for TXD and RXD as well as DTR/DSR for Sony control daisy chain and CTS/RTS for Canon control daisy chain. The native control connections of the Sony EVI-D70 uses the 8-pin mini-din female connector for RS-232 in and RS-232 out, and the Canon uses a proprietary 20-pin connector and also has an adapter available to convert the 20-pins into 8-pin mini-din although it is pin differently than the Sony 8-pin mini-din. Please see power supply cable extension disclaimer above.

GENERAL SPECIFICATIONS

Mechanical:

Pendant Housing: Steel construction with black powder-coat finish with high-impact, white plastic
                     styrene shroud; Meets UBC 4305-A

Dome: Optical-grade polycarbonate

Trim Ring: White ABS plastic

Weight: Dome only 5.4lbs (2.45Kg)

Environment: Indoor Only

Optional Accessories:

998-9300-000 Curved Wall Mount

998-9300-001 Curved Wall Mount and Pole Mount Kit

998-9300-002 Ceiling Pendant Mount

451-2000-024 PowerRite 24 VDC power supply

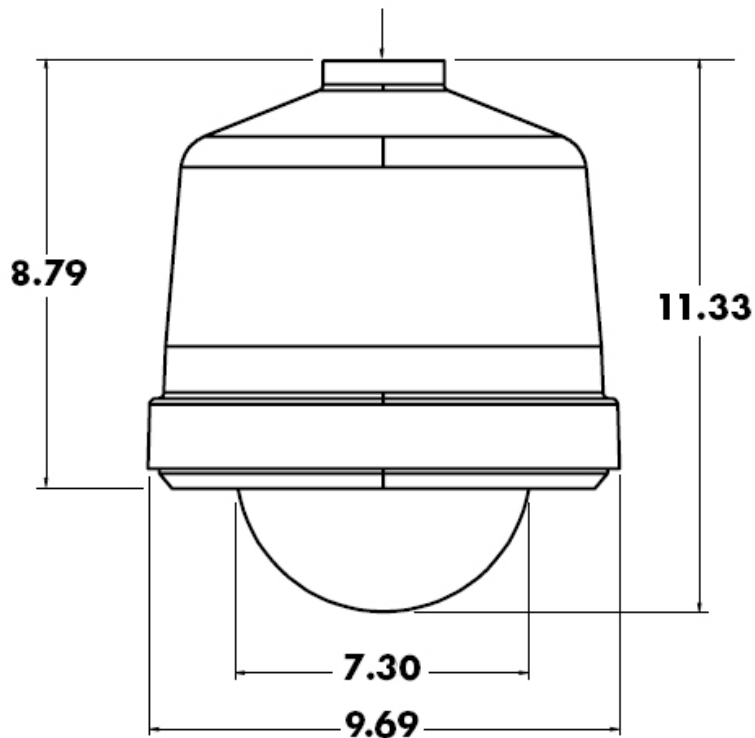Note: see page 6 for cabling distances with standard and optional power supplies.

Dimensions:

Dimensions in inches, reference conversion 1" = 2.54cm

Figure 12:
Line drawings of Indoor
Pendant Dome Housing
with dimensions

ATTACHES TO 1.5" NPT

8.79

11.33

7.30

9.69
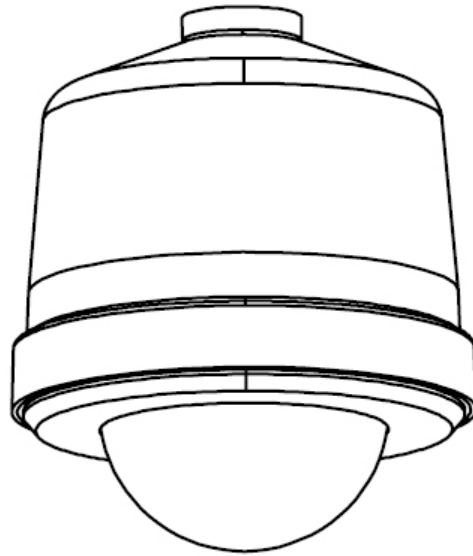
WARRANTY INFORMATION

Hardware* Warranty - One year limited warranty on all parts. Vaddio warrants this product against defects in materials and workmanship for a period of one year from the day of purchase if Vaddio receives notice of such defects during the warranty. They will, at its option, repair or replace products that prove to be defective. See Warranty and RMA Policy documentation on the Vaddio website www.vaddio.com.

Exclusions - The above warranty shall not apply to defects resulting from: improper or inadequate maintenance by the customer, customers applied software or interfacing, unauthorized modifications or misuse, operation outside the normal environmental specifications for the product, use of the incorrect power supply, or improper site operation and maintenance.

Vaddio Customer service – Vaddio will test, repair, or replace the product or products without charge if the unit is under warranty. If the product is out of warranty, Vaddio will test then repair the product or products. The cost of parts and labor charge will be estimated by a technician and confirmed by the customer prior to repair. All components must be returned for testing as a complete unit. Vaddio will not accept responsibility for shipment after it has left the premises.

Vaddio Technical support - Vaddio technicians will determine and discuss with the customer the criteria for repair costs and/or replacement. Vaddio Technical Support can be contacted through one of the following resources: e-mail support at support@vaddio.com or online at www.vaddio.com.

Return Material Authorization (RMA) number - Before returning a product for repair or replacement request an RMA from Vaddio's technical support. Provide a technician with a return phone number, e-mail address, shipping address, and product serial numbers. Describe the reason for repairs or returns as well as the date of purchase. Include your assigned RMA number in all correspondence with Vaddio. Write your assigned RMA number on the outside of the box when returning the product.

Voided warranty – The warranty does not apply if the original serial number has been removed or if the product has been disassembled or damaged through misuse, accident, modifications, or unauthorized repair.

Shipping and handling - Vaddio will not pay for inbound shipping transportation or insurance charges or accept any responsibility for laws and ordinances from inbound transit. Vaddio will pay for outbound shipping, transportation, and insurance charges all items under warranty but will not assume responsibility for loss and/or damage by the outbound freight carrier.
- If the return shipment appears damaged, retain the original boxes and packing material for inspection by the carrier.
  - Contact your carrier immediately.

Products not under warranty - Payment arrangements are required before outbound shipment for all out of warranty products.

*Vaddio manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry standard practices.

Appendix 1:
Vaddio Power, Video and Control Pin-outs
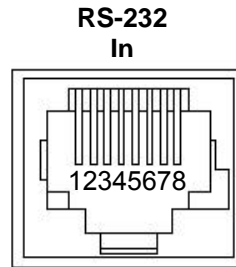**For Vaddio DomeVIEW 70 and 50iR**

Power/Video Connection RJ-45 – Camera Shoe

#	Pins
1)	Power (+)
2)	Power GND
3)	Video GND
4)	Y (luminance)
5)	Video GND
6)	C (Chrominance)
7)	Video GND
8)	Composite Video

Power Video

12345678
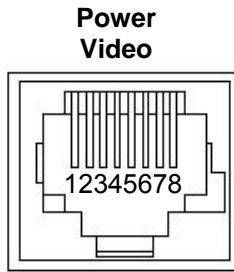
RS-232 Connector IN – Camera Shoe

#	Pins
1)	DTR (Sony® Daisy chain to DSR)
2)	DSR (Sony Daisy chain from DTR)
3)	CTS (Canon® Daisy chain to RTS)
4)	RTS (Canon Daisy chain from CTS)
5)	Unused
6)	Digital GND
7)	RXD (from TXD of control source)
8)	TXD (to RXD of control source)

RS-232 In

12345678

RS-232 Connector Out – Camera Shoe

#	Pins
1)	DSR (Sony Daisy chain from DTR)
2)	DTR (Sony Daisy chain to DSR)
3)	RTS (Canon Daisy chain from CTS)
4)	CTS (Canon Daisy chain to RTS)
5)	Unused
6)	Digital GND
7)	TXD (to RXD of control source)
8)	RXD (from TXD of control source)

RS-232 Out

12345678
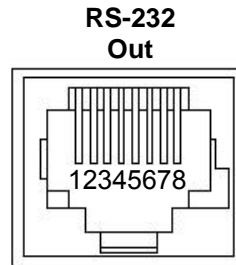
Power/Video Connection – RJ-45 – Quick-Connect Box

#	Pins
1)	Power +
2)	Power GND
3)	Video GND
4)	Y (luminance)
5)	Video GND
6)	C (Chrominance)
7)	Video GND
8)	Composite Video

Power Video

12345678
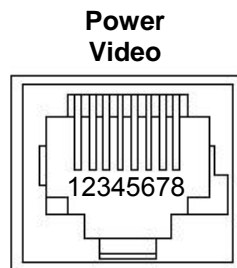
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