CCU IMAGE CONTROLLER* FOR CEILINGVIEW™ HD-18 DOCCAM

Part Number: 999-1105-023 Worldwide
(Includes North American, Euro and UK Power Cables)

Front Panel

Rear Panel

CeilingVIEW HD-18 DocCAM - Sold Separately

*Also compatible with Vaddio HD-18 and HD-20 PTZ cameras using the CeilingVIEW HD HideAway motorized lift system and enclosure.

Inside Front Cover - Blank

CCU Image Controller for CeilingVIEW HD-18 DocCAM

Front Panel View:

Rear Panel View:

Overview:

The CCU Image Controller was designed to provide color/image control to the CeilingVIEW HD-18 DocCAM packages. It is also can be used as an image controller for the HD-18 or HD-20 PTZ cameras used in the CeilingVIEW HD HideAway motorized lift system. This CCU Image Controller differs from the original Quick-Connect CCU in that it does not provide power to the camera, nor does it have the HSDS™ differential video I/O. The power and video are handled by the HD-18 Quick-Connect - SR Interface or the Quick-Connect DVI/HDMI - SR Interface packaged with the CeilingVIEW HD-18 DocCAM. The CCU Image Controller works in conjunction with the Control I/O of each of the Quick-Connect SR Interfaces allowing image control including Detail (sharpness), Color (red and blue gain), White Balance (auto/manual), Iris (auto/manual), Gain, Pedestal, Chroma, Gamma, Knee and allows for three (3) preset scenes.

CeilingVIEW HD-18 DocCAM - Sold Separately

Intended Use:

Before operating the device, please read the entire manual thoroughly. The system was designed, built and tested for use indoors, and with the provided power supply and cabling. The use of a power supply other than the one provided or outdoor operation has not been tested and could damage the camera and/or create a potentially unsafe operating condition.

Important Safeguards:

Read and understand all instructions before using. Do not operate any device 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 provided with the system. Use of any unauthorized power supply will void any and all warranties.

Please do not use "pass-thru" type RJ-45 connectors. These pass-thru type connectors do not work well for professional installations and can be the cause of intermittent connections which can result in the RS-232 control line failing and locking up, and/or compromising the HSDS™ signals. For best results please use standard RJ-45 connectors and test all cables for proper pin-outs prior to use and connection to Vaddio product.

Save These Instructions:

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

Unpacking:
The 999-1105-022 System is Packaged as a Worldwide* Product and Includes:
- One (1) 998-1105-022 CCU Image Controller for CeilingVIEW HD-18 DocCAM
- One (1) 12 VDC, 1.0 Amp Switching Power Supply
- One (1) North American AC Cord Set
- One (1) Euro AC Cord Set
- One (1) UK AC Cord Set
- One (1) Manual

*Worldwide Packages contain North American and International Power Cords

CCU Image Controller Front Panel Controls (left to right):

Tally Light:
The blue LED tally light on the front panel is tied to the tally contacts on the rear panel allowing the user to easily track which CCU is being used in a multi-camera system by supplying a simple contact closure (i.e. from ProductionVIEW Precision Camera Controller or ProductionVIEW HD).

LCD Display:
Backlit (blue) display indicates which parameter (iris, detail, etc.) is being adjusted. When a rotary encoder is moved, the name of the control being adjusted and the value of that assigned parameter will be displayed.

Scenes A, B & C:
Three camera adjustment scenes (A, B & C) can be stored into microprocessor memory. When lit (backlit blue SPDT button), the scene is activated. To store a scene, the user adjusts the controls and touches and holds the scene button down until the button blinks.

Detail:
The Detail control sharpens or softens objects in the frame.

Red & Blue Gain Controls:
The Red and Blue Gain encoders adjust the red and blue gain of the signal when AWB is disengaged.

AWB:
The Automatic White Balance controls/adjusts the color levels automatically when engaged. Turn off AWB to manually adjust the Red and Blue levels, as well as Red, Green and Blue Enhance.

SHIFT:
Pressing Shift illuminates the button and changes the Pedestal adjustment knob to Knee adjustment. Knee adjustment allows bright objects that are easily overexposed to be reproduced more accurately. Pressing the Shift button a second time turns the light off, and the knob reverts to Pedestal adjustment.

Pedestal / Knee, Chroma & Gamma:
The Pedestal adjustment controls the absolute black level of an image. Chroma controls the overall color of the image being captured. Gamma adjusts the overall brightness of an image. See SHIFT for information on Knee.

Auto Iris:
The Auto Iris mode automatically adjusts the iris and gain of the camera. To manually adjust the iris or gain, turn off this control.

Manual Iris:
The Manual Iris control allows the user to set the iris manual to one of the 18 settings available.

Gain:
The Gain control boosts the signal level when the iris is open all the way, and there is not enough lighting available. To manually adjust the Gain, Auto Iris must be off.

CCU Image Controller Rear Panel Connections (left to right):

Power Input:
5.5mm OD x 2.5mm ID, Positive Center 12 VDC, 1.0 Amp, Power Jack
Use with Provided 12 VDC, 1.0 Amp Power supply only.

RS-232 IN:
Control input from Joystick Controller (i.e. Precision Camera Controller, ProductionVIEW HD, etc…), control system or codec. This input provides for camera control other than CCU controls.

RS-232 OUT (To Camera):
Attach to CeilingVIEW HD-18 DocCAM's RS-232 Port for CCU Control.

Tally Contact:
Local front panel tally - lights up Blue LED on front panel when shorted.

Camera Settings:
10-position dip switch for added functions and future control parameters.

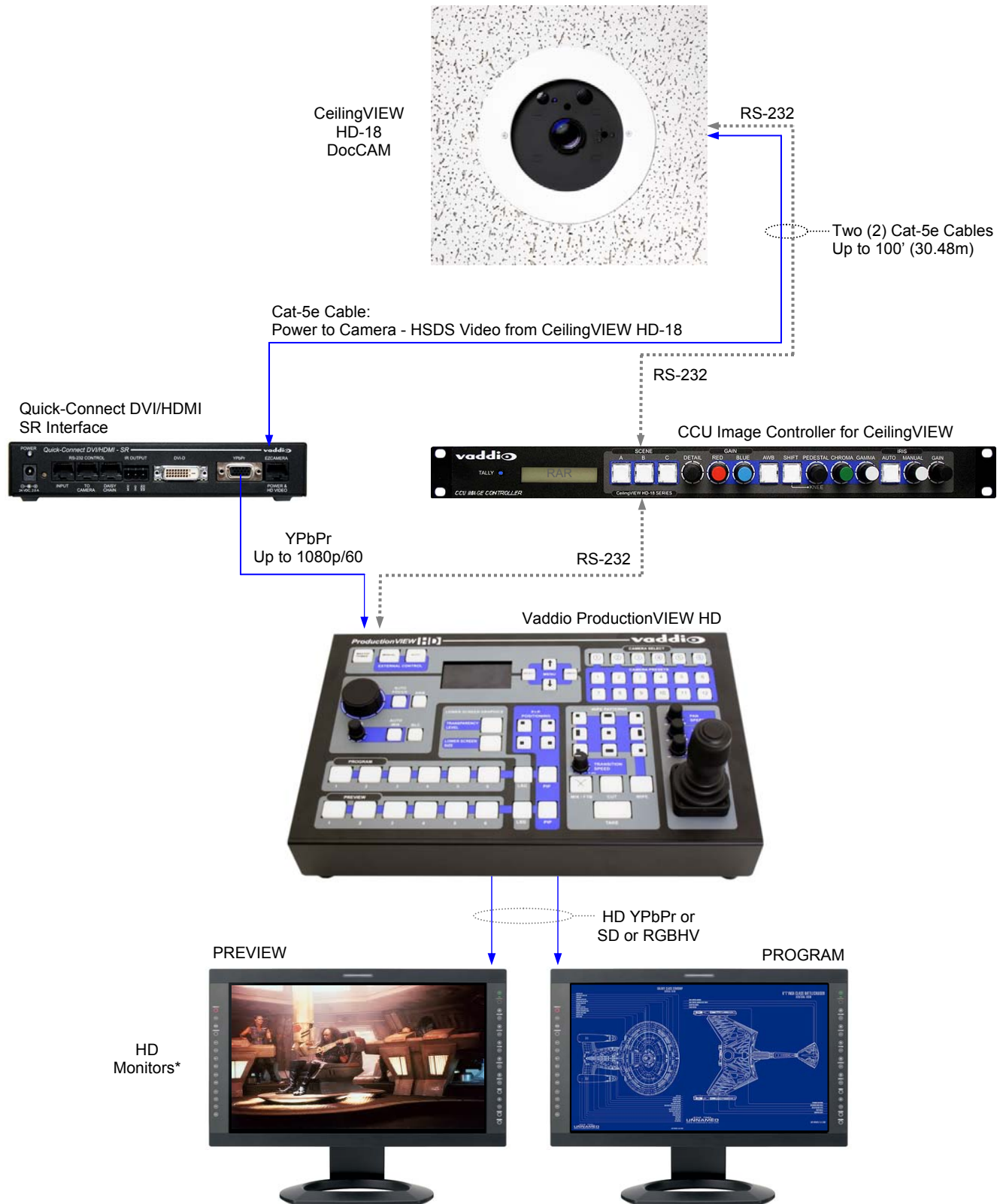## Instructions for using the CCU Image Controller:

Power-Up Order: When using the CCU Image Controller, power up the CeilingVIEW HD-18 DocCAM first, the CCU Image Controller second, and lastly the control system (ProductionVIEW HD, AutoPresenter, Precision Camera Controller, etc...). The CCU Image Controller and Vaddio camera controllers will auto-detect the camera attached, so naturally the CeilingVIEW has to be ON first.

Monitor Set Up: Verify that the video monitor used in conjunction with the CCU Image Controller is set up correctly and is delivering accurate color reproduction.

Initial CCU Set Up:
- Adjust the Iris level of the camera so that brighter areas are not washed out.
- Adjust the Pedestal level so that the black levels are not too dark, and not too light.
- When those levels are set, adjust the Red & Blue Gain, Gamma, Detail, Knee and Chroma.
- NOTE: Gain (next to Iris) should be left at zero (0) unless lighting is inadequate, then turn it to a level where the signal brightness is at an appropriate level. Higher Gain levels add additional noise (grain) to the video signal.

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System Connectivity Example: Featuring the CeilingVIEW HD-18 DocCAM, Quick-Connect DVI/HDMI SR Interface, CeilingVIEW HD-18 Series CCU Image Controller & ProductionVIEW HD

CeilingVIEW
HD-18
DocCAM

RS-232

Two (2) Cat-5e Cables
Up to 100' (30.48m)

Cat-5e Cable:
Power to Camera - HSDS Video from CeilingVIEW HD-18

RS-232

Quick-Connect DVI/HDMI
SR Interface

CCU Image Controller for CeilingVIEW

YPbPr
Up to 1080p/60

RS-232

Vaddio ProductionVIEW HD

HD YPbPr or
SD or RGBHV

PREVIEW

PROGRAM

HD
Monitors*

*Simulated Video Feeds

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General Specifications:

CCU Image Controller P/N: 999-1105-023	
Connectors:	• Power Connector: 5.5mm OD x 2.5mm ID • RS-232 IN RJ-45: Accepts RS-232 from ProductionVIEW or other non-daisy-chain control systems • RS-232 OUT RJ-45: Sends/Receives RS-232 to the CeilingVIEW HD-18 DocCAM • Tally: 2-Pin Phoenix type spring cage connector
LCD Display	2-Line Blue Back-lit Character Display
RS-232 Cat-5e Cable Distance	Up to 100' (30.48m), Note: Quick-Connect SR and Quick-Connect DVI/HDMI SR will supply power to the camera and return video at 100' (30.48m).
Baud Rate	9600 bps (9600 bps - best over distance)
Power Supply	12 VDC, 1.0 Amp Switching Power Supply
Power Cables	**Worldwide Package** includes North American, Euro and UK power cables
Dimensions	1-RU Rack Mount - 1.72" (43.69mm) H x 18.93" (480.82mm W x 6" (152.4mm) D
Weight	3.20 lbs (1.45149568 kg)
Operating Range	Temperatures above 40°C (104°F) or temperatures below 0°C (32°F)
Compatible Cameras (Works with other Vaddio Cameras)	CeilingVIEW HD-18 DocCAM with Quick-Connect SR Interface CeilingVIEW HD-18 DocCAM with Quick-Connect DVI/HDMI SR Interface ClearVIEW HD-18 PTZ Camera ClearVIEW HD-20 PTZ Camera ClearVIEW HD-18 PTZ Camera with Quick-Connect SR Interface* ClearVIEW HD-18 PTZ Camera with Quick-Connect DVI/HDMI SR Interface* ClearVIEW HD-20 PTZ Camera with Quick-Connect SR Interface* ClearVIEW HD-20 PTZ Camera with Quick-Connect DVI/HDMI SR Interface* *Also Compatible with Vaddio HD-18 and HD-20 cameras using the CeilingVIEW HD HideAway motorized lift system and enclosure.

Other General Information:

Care and Cleaning
Do not attempt to take this product apart at any time. There are no user-serviceable components inside.
- Do not spill liquids or liquid type substances onto the device.
- Keep this device away from food or liquid.
- Clean the whiteboard regularly with a good quality whiteboard cleaner, but do not spray on the electronics
- For smears or smudges on the devices, wipe with a clean, soft cloth.
- Do not use any abrasive pads or caustic chemicals at any time on any Vaddio equipment.

Operating and Storage Conditions:
Do not store or operate the device under the following conditions:
- Temperatures above 40°C (104°F) or temperatures below 0°C (32°F)
- High humidity, condensing or wet environments
- In inclement weather
- Dry environments with an excess of static discharge
- In outer space (under normal circumstances)
- Under severe vibration
- High humidity, condensing or wet environments or in a swimming pool
- Dusty environments or outside in direct sunlight

Compliance and CE Declaration of Conformity - Vaddio CCU Image Controller

FCC Part 15 Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference including interference that may cause undesired operation of the device. Changes or modifications not expressly approved by Vaddio can affect emission compliance and could void the user's authority to operate this equipment.

ICES-003 Compliance

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'emet pas de bruits radioélectriques dépassant les limites applicables aux appareils numeriques de la classe A préscrites dans le Règlement sur le brouillage radioélectrique édicte par le ministère des Communications du Canada.

European Compliance

This product has been evaluated for Electromagnetic Compatibility under the EMC Directive for Emissions and Immunity and meets the requirements for a Class A digital device. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Standard(s) To Which Conformity Is Declared:
EMC Directive 89/336/EEC

EN 55022A: September 1998, A1 October 2000 - Conducted and Radiated Emissions

EN 55024: 1998 + Amendment A1: 2001 - Electromagnetic Compatibility - Immunity

EN 61000-4-2	Electrostatic Discharge Requirements
EN 61000-4-3	Radiated Electromagnetic Field Requirement
EN 61000-4-4	Electrical Fast Transients / Burst Requirements
EN 61000-4-5	Surge Requirements
EN 61000-4-6	Conducted Immunity Requirements
EN 61000-4-8	Power Frequency Magnetic Field Requirements
EN 61000-4-11	Voltage Dips, Interrupts and Fluctuations Requirements

Warranty Information:
(See Vaddio Warranty Policies posted on vaddio.com for complete details):

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 from Vaddio. If Vaddio receives notice of such defects during the warranty period, they will, at their option, repair or replace products that prove to be defective.

Exclusions: The above warranty shall not apply to defects resulting from: improper or inadequate maintenance by the customer, customer applied software or interfacing, unauthorized modifications or misuse, operation outside the normal environmental specifications for the product, use of the incorrect power supply, improper extension of the power supply cable 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 and is found to be defective. 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 and describe the reason for repairs or returns as well as the date of purchase and proof of purchase. Include your assigned RMA number in all correspondence with Vaddio. Write your assigned RMA number on the shipping label when returning the product. All returns are subject to a restocking fee without exception (see warranty policies at vaddio.com).

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. Cutting the power supply cable on the secondary side (low voltage side) to extend the power to the device (camera or controller) voids the warranty for that device.

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 for 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.

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CCU Image Controller Notes:

Inside Back Cover - Blank

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