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THE ART OF EASY

Installation Guide for
PCC Premier
Precision Camera Controller

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Contents

About this Guide

This guide provides information about the PCC Premier precision camera controller, part number 999-5750-000/North America and 999-5750-001/international.

This guide covers:
- Unpacking the controller
- Tips for a successful installation
- Information on connecting the controller and cameras
- Camera and controller power-on

Complete product information is available in the Integrator's Complete Guide to PCC Premier.

Product Overview

The Vaddio PCC Premier precision camera controller brings PTZ camera control to the network while maintaining the demanding precision control needed for production environments. The PCC Premier eliminates the need to be in the room with the cameras, making it ideal for live production events, remote studios, and campus network operations centers (NOCs).

Precision control for up to 16 PTZ cameras at once, including up to 8 connected locally via RS-232. Instantly access all PTZ camera related functions ranging from image settings to presets to dynamic positioning from a single device. Use the integrated H.264 decoder to view the live IP stream from the currently selected IP camera from the courtesy HDMI output.

Features

Full control of up to 16 PTZ cameras (2 groups of 8 each) at a time:
- Up to 8 PTZ cameras via wired RS-232 connection
- Virtually connect up to 16 RoboSHOT or ClearSHOT cameras at a time, anywhere on the IP network
- Vaddio's CCU scene macros and full preset store/recall functions
- Internal H.264 decoder and courtesy HDMI output to monitor the IP stream of the selected remote camera

Precision controls for the most demanding camera operation environments:
- Three-axis Hall effect joystick
- Pan, tilt, and zoom speed control knobs
- Illuminated pushbuttons for camera selection
- Large knobs for fine focus control and menu navigation, with push-to-select function

Intuitive camera access and addressing through powerful console and web interfaces:
- Full camera image controls via easy-to-read 7 in. touch-panel interface
- Web interface for complete administrative control from anywhere, using your browser
- Store up to 11 camera groups in the Address Book - 10 IP and/or RS-232 control, plus one predefined RS-232-only group
- Individual control of all cameras in any two camera groups for immediate control of up to 16 cameras at a time

Versatile power solution using PoE+ (Power over Ethernet)

Unpacking the Camera Controller

Make sure you received all the items you expected. Here are the packing lists for the PCC Premier camera controller.

North America: PCC Premier, part number 999-5750-000

- PCC Premier, part number 998-5750-000
- Mid-span power injector with US cord set, part number 451-0800-055
- Cat-5e patch cable, 10 ft (3 m), part number 802-3012
- Quick Start Guide, part number 342-1134

International: PCC Premier, part number 999-5750-001

- PCC Premier, part number 998-5750-000
- Mid-span power injector with UK and European cord sets, part number 451-0800-155
- Cat-5e patch cable, 10 ft (3 m), part number 802-3012
- Quick Start Guide, part number 342-1134

Installation

This section covers how to install and connect the controller. It also provides safety information and other guidance related to installing the controller.

Don't Void Your Warranty!

Caution
This product is for indoor use. Do not install it outdoors or in a humid environment without the appropriate protective enclosure. Do not allow it to come into contact with any liquid.

Do not install or operate this product if it has been dropped, damaged, or exposed to liquids. If any of these things happen, return it to Vaddio for safety and functional testing.

Learn more at www.vaddio.com/products.

Operation, Storage, and Care

For smears or smudges on the product, wipe with a clean, soft cloth. Do not use any abrasive chemicals.

Keep this device away from food and liquids.

Do not operate or store the device under any of the following conditions:
- Temperatures above 40°C (104°F) or below 0°C (32°F)
- High humidity, condensing or wet environments
- Inclement weather
- Severe vibration
- Dry environments with an excess of static discharge

Do not attempt to take this product apart. There are no user-serviceable components inside.

Cabling Notes

RS-232 cables may be up to 500 ft (152.4 m).

For RS-232 cabling, use Cat-5e or better cable and standard RJ-45 connectors (568B termination).

We recommend using high-quality connectors and a high-quality crimping tool.

Note
Do not use pass-through RJ-45 connectors. These can cause intermittent connections and degraded signal quality, resulting in problems that may be hard to diagnose. Use standard RJ-45 connectors and test all cables for proper pin-outs and continuity before you connect them to Vaddio products.

Connector Panel

From left to right:

Ethernet/PoE+ connector – PoE+ Gigabit Ethernet port provides access to the controller's web interface and to cameras on the network, and powers the controller.

HDMI connector – Monitor the camera you are currently controlling. Video can only be displayed for cameras with IP streaming capability.

RS-232 ports – Connect up to 8 cameras locally.

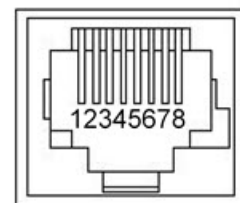## RS-232 Serial Communication Settings and Port Pin-out

The RS-232 serial ports (color-coded blue) on the PCC Premier back panel allow you to connect up to 8 cameras directly.

RS-232 communication parameters are as follows:

Parameter	Value
Communication Speed	9600 bps (default)
Start bits	1
Stop bits	1
Data bits	8
Parity	None
Flow control	None

Connector pin-out:

- Pin 1: Not used
- Pin 2: Not used
- Pin 3: Not used
- Pin 4: Not used
- Pin 5: Not used
- Pin 6: GND
- Pin 7: TXD (to RXD of camera)
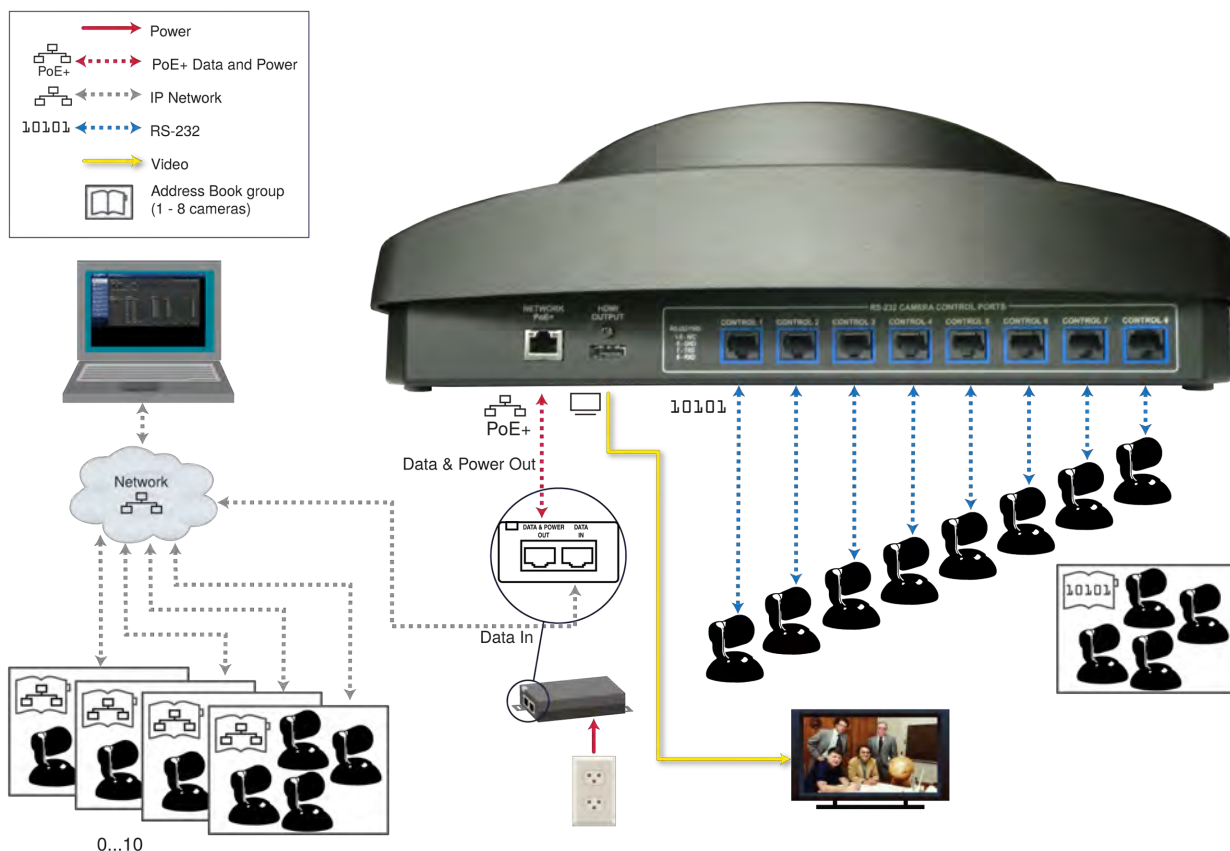- Pin 8: RXD (from TXD of camera)

Caution:
Check Cat-5 cables for continuity before using them. Using the wrong pin-out may damage the camera system and void the warranty. Pro tip: Label your cables.

Connecting the Controller

Set up all cameras and make all physical connections first. You will be able to add network-controlled cameras after the cameras and controller are fully operational.

In this example, cameras are directly connected to the RS-232 ports, and the controller is set up to manage several address book groups of cameras remotely via the IP network. A display connected to the courtesy HDMI port allows the operator to monitor the camera currently selected, if it is an IP streaming camera. The mid-span power injector provides power and network connectivity.

Powering Up the Cameras and Controller

Power up all cameras to be used with the controller.

When you connect the PCC Premier to the network for the first time, it will only identify supported cameras that are directly connected via RS-232. After the Address Book has been set up, the controller tries to establish contact with all IP-connected cameras in its address book when it powers up.

Next Steps

The PCC Premier is now ready to configure. This includes setting up its address book to manage cameras via the IP network. Until the product is fully configured, its full functionality is not available.

This information is available in the **Integrator's Complete Guide to PCC Premier**.

Download manuals, dimensional drawings, and other information from www.vaddio.com/support.

Compliance Statements and Declarations of Conformity

Compliance testing was performed to the following regulations:

FCC Part 15 (15.107, 15.109), Subpart B	Class A
ICES-003, Issue 54: 2012	Class A
EMC Directive 2004/108/EC	Class A
EN 55022: December 2010	Class A
EN 55024: November 2010	Class A
KN22 2008 (CISPR 22: 2006)	Class A
KN24 2008 (CISPR 24: 1997 + A1: 2000 + A2: 2002)	Class A
IEC 60950-1:2005 (2nd Edition); Am 1: 2009 + Am 2: 2013	Safety
EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013	Safety

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, Subpart B, 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.
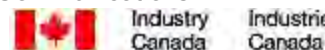
Changes or modifications not expressly approved by Vaddio can affect emission compliance and could void the user's authority to operate this equipment.

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:

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EMC Directive 2004/108/EC	
EN 55022: December 2010	Conducted and Radiated Emissions
EN 55024: November 2010	Immunity
EN 61000-4-2: 1995 + Amendments A1: 1998 + A2: 2001	Electrostatic Discharge
EN 61000-4-3: 2006 + A1: 2008	Radiated Immunity
EN 61000-4-4: 2004 + Corrigendum 2006	Electrical Fast Transients
EN 61000-4-5: 2006	Surge Immunity
EN 61000-4-6: 2009	Conducted Immunity
EN 61000-4-8: 2010	Power Frequency Magnetic Field
EN 61000-4-11: 2004	Voltage Dips, Interrupts and Fluctuations
KN22 2008 (CISPR 22: 2006)	Conducted and Radiated Emissions
KN24 2008 (CISPR 24: 1997 + A1: 2000 + A2: 2002)	IT Immunity Characteristics
EN 61000-4-2	Electrostatic Discharge
EN 61000-4-3	Radiated Immunity
EN 61000-4-4	Electrical Fast Transients
EN 61000-4-5	Surge Immunity
EN 61000-4-6	Conducted Immunity
EN 61000-4-8	Power Frequency Magnetic Field
EN 61000-4-11	Voltage Dips, Interrupts and Fluctuations
IEC 60950-1: 2005 (2nd Edition); Am 1: 2009 + Am 2: 2013	Safety
EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013	Safety

Warranty Information

See Vaddio Warranty, Service and Return Policies posted on support.vaddio.com for complete details.

Hardware* warranty: Two (2) year limited warranty on all parts and labor for Vaddio manufactured products. Vaddio warrants its manufactured products against defects in materials and workmanship for a period of two years from the day of purchase, to the original purchaser, if Vaddio receives notice of such defects during the warranty. Vaddio, at its option, will repair or replace products that prove to be defective. Vaddio manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry standard practices.

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, mishandling, operation outside the normal environmental specifications for the product, use of the incorrect power supply, modified power supply or improper site operation and maintenance. OEM and special order products manufactured by other companies are excluded and are covered by the manufacturer's warranty.

Vaddio Service Department: 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 by email at support@vaddio.com or by phone at one of the phone numbers listed on support.vaddio.com.

Return Material Authorization (RMA) number: Before returning a product for repair or replacement request an RMA from Vaddio's technical support. Provide the technician with a return phone number, e-mail address, shipping address, product serial numbers and original purchase order number. Describe the reason for repairs or returns as well as the date of purchase. See the General RMA Terms and Procedures section for more information. RMAs are valid for 30 days and will be issued to Vaddio dealers only. End users must return products through Vaddio dealers. Include the assigned RMA number in all correspondence with Vaddio. Write the assigned RMA number clearly on the shipping label of the box when returning the product. All products returned for credit are subject to a restocking charge. Special order product are non-cancelable and not returnable.

Voided varranty: 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, use of incorrect power supply, use of a modified power supply 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 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.

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131 Cheshire Ln., Suite 500

Minnetonka, MN 55305