VADDIO™ PRODUCTIONVIEW™ FX

Camera Control Console with Video Switching, Video Transitions and Automated Control Functionality

Model Number 999-5200-000 (NTSC)
Model Number 999-5200-001 (PAL)

Touchboards

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ProductionVIEW FX Overview

Like the original ProductionVIEW, the ProductionVIEW FX incorporates all of the same matrix video switching, camera preset control and joystick camera control functionality that has made the ProductionVIEW one of the most fully featured video consoles on the market today. In addition to the ProductionVIEW's feature rich platform, the new ProductionVIEW FX (Figure 1) delivers user selectable, frame synchronized transitions that are completely seamless, professional and without compromise in quality.

Figure 1: ProductionVIEW FX Camera Control Console

Among the included transitions are straight cuts, fades (in and out), cross fades (one image fading into another) and wipes (up, down, side to side and corner). The user can select the transition and the transition time, up to four seconds, to automatically activate as the inputs are switched on the main and preview buses. The ProductionVIEW FX is extremely clean, extraordinarily powerful and remarkably easy to use. Once again, the overall value of the ProductionVIEW FX is unmatched in today's camera control, video mixing and video switching market.

- The ProductionVIEW FX's unique attributes start with Joystick control of up to six (6) PTZ cameras directly (without daisy chaining) and the six discrete camera control ports auto-sense the PTZ camera attached. Whether it is Sony® or Canon® or Vaddio PTZ cameras, the ProductionVIEW FX senses the cameras attached and provides for seamless control of the camera functions.
- Video transitions are user selectable and include the most popular, real world transition effects that are used every day in video productions. In the menus, the user can activate fades, cross fades, wipes as well as using the main bus off control to fade to black to end a video production segment. The transition times are assignable from zero (0) to four (4) seconds. The ProductionVIEW FX uses FPGAs (field programmable gate arrays) for producing both pristine cuts and exceptionally smooth transitions providing for a professional video performance and amazingly clean video throughput.
- The inclusion of an internal 6 x 2 Video Switcher (for Preview and Main) and a built-in 4" LCD Video screen set the ProductionVIEW FX apart allowing complete monitoring of both Main and Preview sources at the touch of a button. Both the Main and Preview outputs are given S-Video, Composite Video outputs and Stereo Audio outputs for Audio-follow-Video applications.
- Each of the six camera inputs has been provided with twelve (12) camera presets that are stored internally to the ProductionVIEW FX or six (6) in the camera and six (6) in the FX. Each input also has S-Video or composite video inputs. Inputs 5 & 6 have stereo audio inputs for DVD or VCR inputs.
- Each of the six cameras can also be adjusted individually for the environment in which it operates with auto/manual focus, auto/manual brightness, backlight compensation and one-push automatic white balance. The camera control ports are RJ-45F and are easily connected to the Vaddio camera packages using the Vaddio Cat. 5 wiring standard.
- The ProductionVIEW FX is equipped with an Automatic Camera Switching Mode like the Vaddio ControlVIEW products. Cameras 1 and 2 can have six presets each assigned to input triggers like TouchVIEW™ buttons, StepVIEW™ Mats or AutoVIEW™ Active IR ceiling mount sensors. Or, Camera 1 can be configured to respond to all 12 input triggers alone. Cameras 3 through 6 are configured to each accept a single trigger for preset activation as well.
- The ProductionVIEW FX also has 4 assignable Logic outputs for controlling external A/V or RGB switchers as well.

Key Technical Features:
- **Camera Auto-Sensing** - The ProductionVIEW FX is capable of identifying through auto-sensing of each camera attached. Control codes for the following cameras are built-in:
    - Vaddio WallVIEW Series Cameras
    - Vaddio CeilingVIEW 70 PTZ Series Cameras
    - Vaddio HideAway Series Cameras
    - Vaddio CeilingVIEW & CeilingVIEW Mega-Pro
    - Vaddio Model Series and PTZCam Series Cameras
    - Sony EVI-HD1, EVI-D30, EVI-D100 & EVI-D70 & Sony BRC-300 & BRC-H700
    - Canon VC-C50i & VC-C50iR

Key Technical Features (continued):

- **Video Transitions**
  Video transitions are truly seamless with exceptional video quality. The transition times are assignable from zero (0) to four (4) seconds and include:
  - Fades (in, out, fade to black with main off)
  - Cross Fades (one image fades into another)
  - Wipes (side to side, up and down and corner)
  - Straight Cuts

- **3-Axis Hall-Effect Joystick** - High quality Hall-Effect joystick allows for control of Pan/Tilt (X/Y coordinates) and the Zoom function (twist for Z or zoom axis). This non-contacting joystick uses industrial quality magnets and sensors, providing solid, consistent performance throughout its entire lifetime.
- **Operator (manual) and Presenter (automatic) modes** - In addition to a manual or "operator" mode, an Automatic Camera Switching mode for switching to camera presets assigned to Vaddio input triggers like the StepVIEW mats, AutoVIEW IR or TouchVIEW buttons is provided.
- **Camera Control -** Each camera input has individual control for Pan/Tilt/Zoom and auto/manual focus, auto/manual brightness, backlight compensation and one-push automatic white balance.
- **72 Total Camera Presets** – 12 Presets per camera input channel are stored internally and are not dependent on the internal presets of the camera.
- **Master RS-232 Control Port** - In addition to the six (6) discrete camera control ports, the Master control port can be used to control any of the internal functions of the ProductionVIEW FX or for software updates.

Intended Use:
Before operating the Vaddio ProductionVIEW FX, 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.

Save These Instructions:
The information contained in this manual will help you install and operate your Vaddio ProductionVIEW FX. 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 Vaddio 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 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 ProductionVIEW FX system. Use of any unauthorized power supply will void any and all warranties.**

UNPACKING:
Carefully remove the device and all of the parts from the packaging.
Unpack and identify the following parts:
- One (1) ProductionVIEW FX Camera Control Console, Part Number 999-5200-000
- One (1) Vaddio PowerRite 18 VDC, 2.75A Power Supply
- One (1) Vaddio AC Cord Set
- Documentation and Manuals

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ProductionVIEW FX Front Panel Controls (Figure 2):
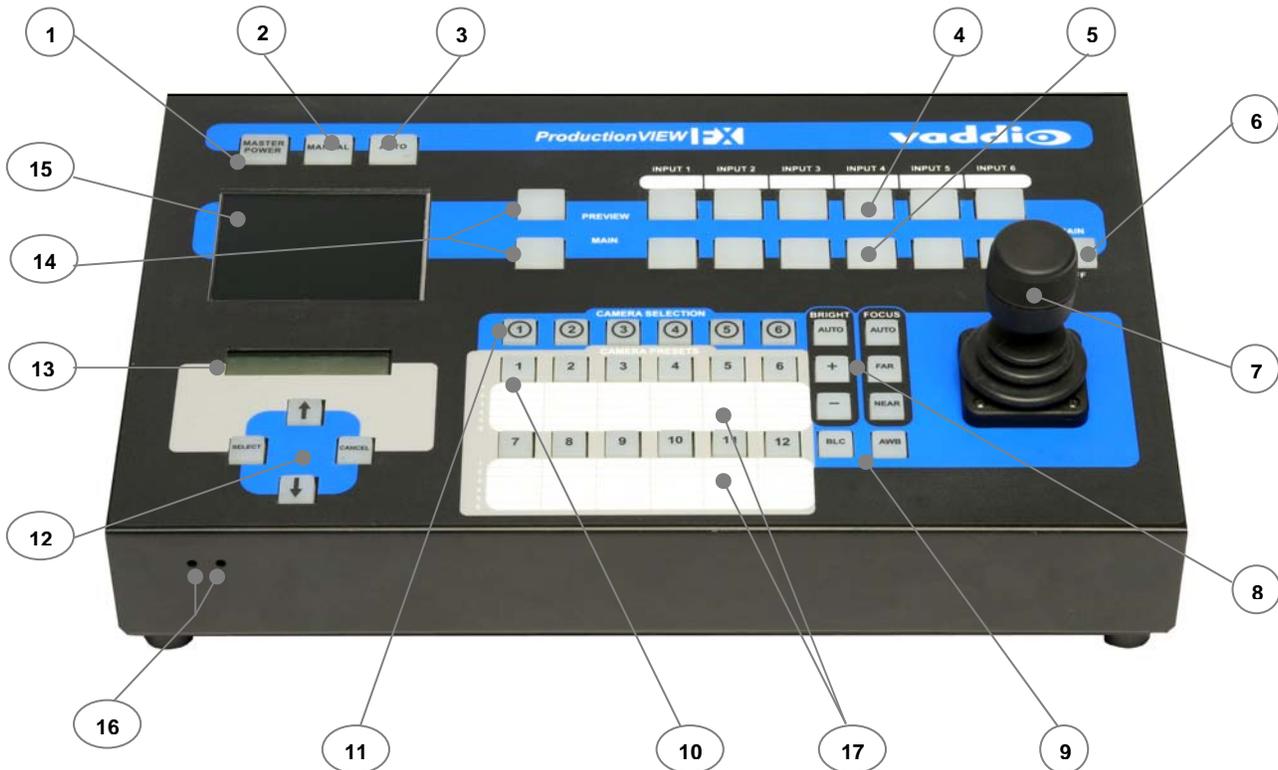
1) **System Power Switch** (system on/off)
2) **Manual Mode Switch**
   a. Console is in manual or "Operator Mode" and all video switching is manual
3) **Automatic Mode Switch**
   a. Console is in automatic or "Presenter Mode" and the video switching is handled with the trigger inputs
4) **PREVIEW Input Select**
   a. Selects the camera input to be sent to the PREVIEW Output
5) **MAIN Input Select Switch**
   a. Selects the camera input to be sent to the MAIN Output
6) **MAIN OFF Switch**
   a. Turns MAIN output off (outputs black) and places the PTZ cameras in standby mode
7) **3-Axis Hall-Effect Joystick controller**
   a. Pan (left, right), Tilt (up, down), Zoom (twist +, -)
8) **Camera Controls**
   a. Brightness (+, -)
   b. Focus (Far, Near)
9) **Camera Controls**
   a. BLC – Back Light Compensation
   b. AWB – Automatic White Balance
10) **Camera Preset Switches**
    a. Twelve (12) camera presets per camera can be saved under the Camera Preset switches
11) **Camera Selection Switches**
    a. Selects camera to be controlled by Joystick and camera controls (brightness, focus, BLC, AWB)
12) **Menu Controls**
    a. Select, up, down and Cancel used to navigate menu system (see pages 9 & 10)
13) **LCD Display for Menu Control**
    a. See Appendix 1 for detailed description

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Front Panel Controls (continued)

14) PREVIEW and MAIN Selection Switches
   a. PREVIEW assigns the PREVIEW camera input to be displayed on the 4" Monitor
   b. MAIN assigns the MAIN camera input to be displayed on the 4" Monitor
   c. NEITHER picked, displays neither
   IMPORTANT NOTE: With no panel selection switch selected, the LCD Monitor will turn off.

15) 4" Diagonal LCD Monitor
   a. (10.16cm diagonal) switches between PREVIEW, MAIN and NEITHER (black)

16) LCD Display Controls (recessed mini screw driver adjustments) on front edge panel
   a. Left – Color Saturation (up, down)
   b. Right – Brightness (up, down)

17) Dry Erase - White labeling areas
   a. To notate positions, presets, functions, etc..., use dry erase pens only

ProductionVIEW FX Back Panel I/O and Controls (Figure 3):

Pin 2: TX
Pin 3: RX
Pin 5: GND

1) Power Input
   a. (*Note: Use only the 18 VDC, 2.75A power supply provided with the ProductionVIEW FX*)

2) 3-Axis Hall-Effect Joystick
   a. Pan/Tilt/Zoom Control, Side view - shown with rubber boot

3) Camera Control Ports on RJ-45 connectors
   a. One camera control port per camera (no daisy-chaining required)

4) Input 5 and 6 Stereo Audio Inputs (audio-follow video)
   a. Inputs 5 and 6 have line level stereo audio inputs for use with DVD, VCR, etc…

5) Control Port Input
   a. DB-9 for RS-232 control of internal functions (Pin 2 = TX, Pin 3 = RX, Pin 5 = GND)

6) Input Triggers for use in AUTOMATIC mode
   a. Input Triggers for input channels 1 and 2
   b. Configurable in two modes (6 triggers for Input 1 and 6 triggers for Input 2, or 12 triggers for input 1 only)
   c. Supports Vaddio AutoVIEW IR, StepVIEW, TouchVIEW and MicVIEW trigger inputs

7) Multifunction Triggers (assignable either as input triggers or logic outputs)
   a. Input Triggers for input channels 3, 4 5 & 6 with GND
      i. Memory locations 3-1, 4-1, 5-1, 6-1
   b. Logic outputs follows MAIN Outputs 1 through 4 with GND
   c. Additional GND connector for multiple trigger configurations

Back Panel I/O and Controls (continued)

8) **PREVIEW OUT**
   a. Outputs S-Video, composite Video and Stereo Audio of selected PREVIEW Input on Front Panel

9) **MAIN OUT**
   a. Outputs S-Video, composite Video and Stereo Audio of selected MAIN Input on Front Panel

10) **S-Video Input**
    a. Each Input channel (1 through 6) has a S-Video Input

11) **Composite Video Input**
    a. Each Input channel (1 through 6) has a composite video Input

12) **RJ-45 Pin–out diagram**
    a. Pin-out reference for RS-232 control over Cat-5 (Cat. 5e) cabling
       - Pin 2: TX (out to RX of Camera)
       - Pin 3: RX (in from TX of Camera)
       - Pin 5: GND

### First Time Set-up with the ProductionVIEW FX:

ProductionVIEW FX was designed to be exceptionally easy to use and operate right out of the box. The controls are intuitive and logical and the connectivity or pin-outs are printed on the back panel for most product connections (especially the Vaddio cabling standard using Cat. 5 cabling.) All of the Vaddio standards for using video, power and control over Cat. 5 cabling are also well documented and are available free of charge from the Vaddio website.

Getting Started:

Generally the best way to understand ProductionVIEW FX is to start using it. Connect a couple of cameras to the ProductionVIEW FX using the Cat. 5 cable for control, and connect your choice of S-Video or composite video from the camera, Quick Connect box or (Quick Connect 4) to the video inputs. Connect power to the cameras with the Quick Connect system and then, when the cameras have power and are on, turn on the ProductionVIEW FX. The ProductionVIEW FX will auto-detect the cameras that are on and connected (RS-232 and video) and program itself to control, store presets and change camera settings like brightness and focus for the specific camera attached.
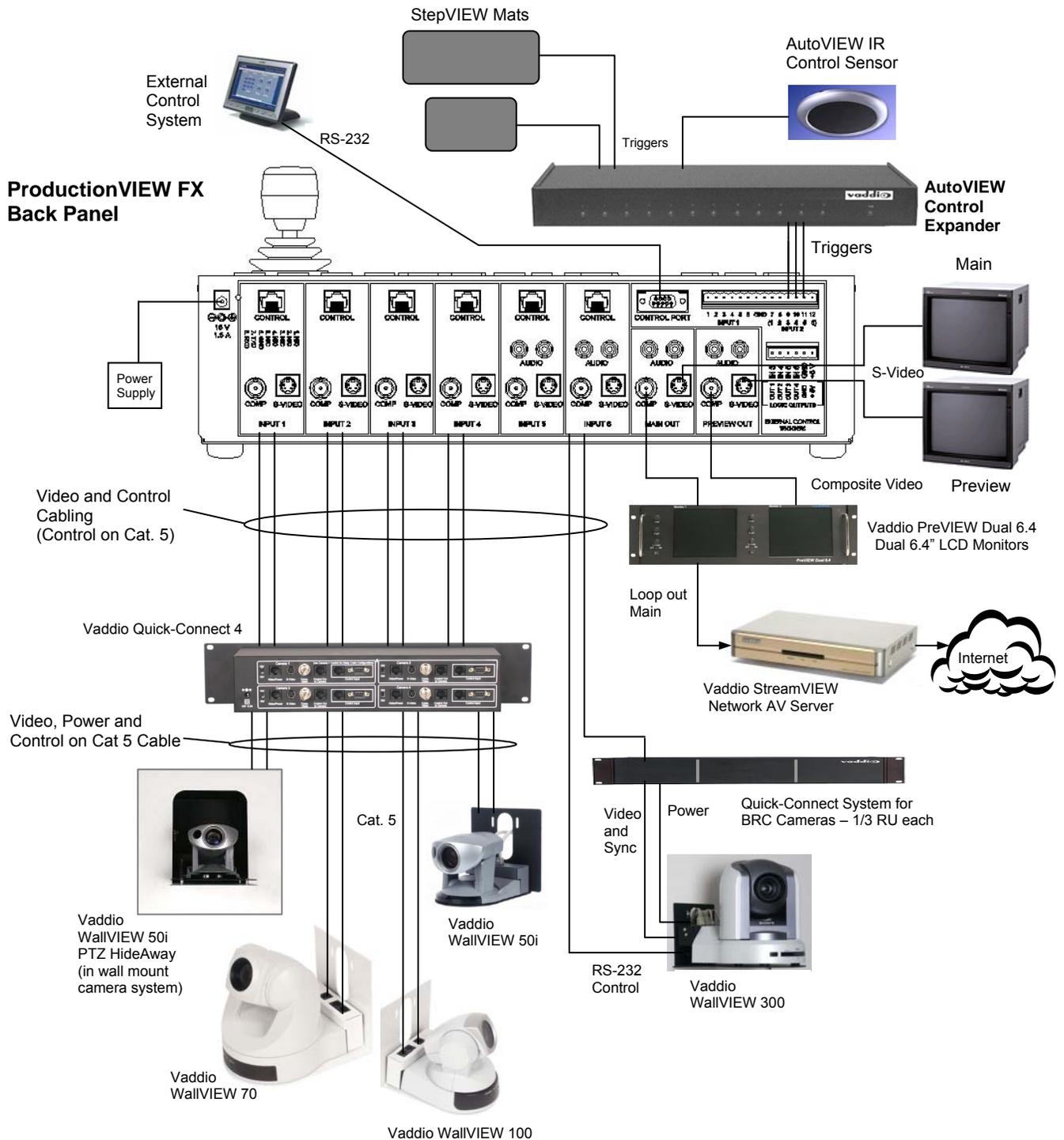
Figure 4: Basic Quick Configuration

Showing a two (2) camera system using different Quick connect systems (not to scale)
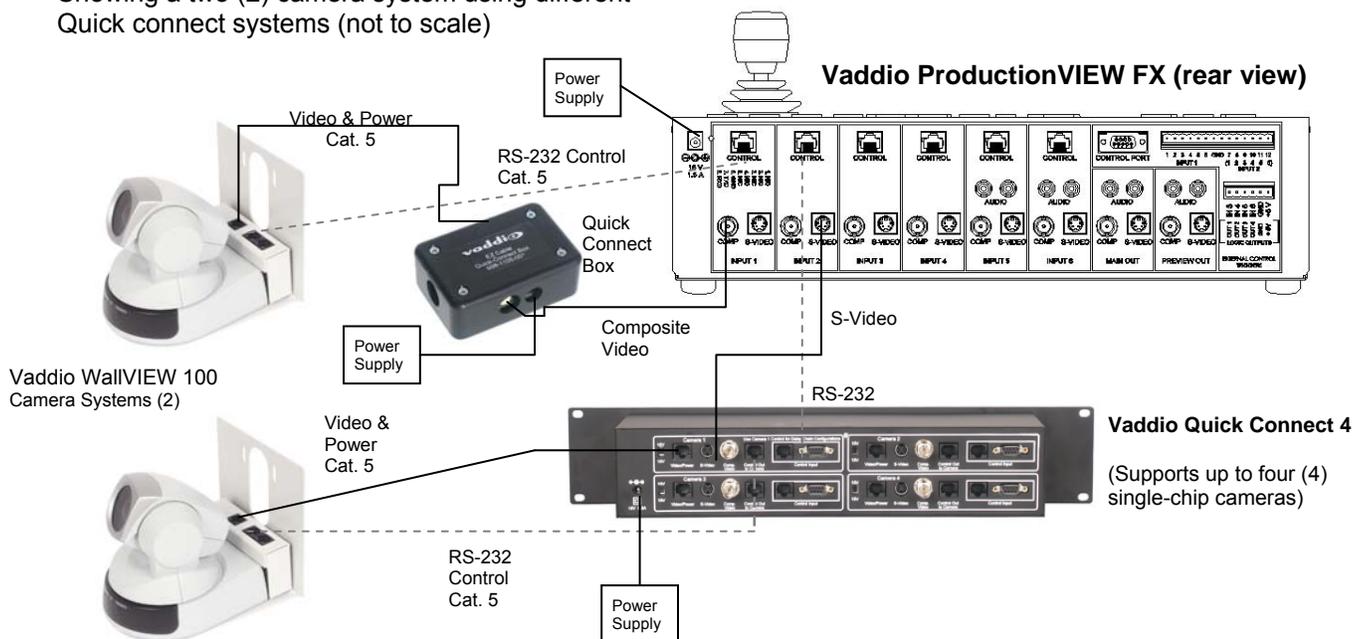
Figure 5: In-depth ProductionVIEW FX Camera Control System Examples
The ProductionVIEW FX is ideal for controlling a few cameras or more complicated systems (mixed brand and mixed model PTZ cameras with external triggers) as outlined below.

Operating the ProductionVIEW FX:
Most of the console functions and controls are easy and intuitive. However, there are some more involved procedures listed below.

Master Power Switch
- When the Master Power Switch is powered down, all of the attached cameras will be placed in standby.
- When the Master Power Switch is powered up, all attached cameras will activate and select default camera and preset information as defined in the menu. The ProductionVIEW FX will scan the inputs for camera type and video signal type and auto-configure accordingly. This can take up to one minute and is normal operation.
- *Important Note: When the camera control ports are changed or reconfigured, the ProductionVIEW FX must be restarted to rescan the cameras for type and reload the proper control codes. If only the video inputs are changed, then activate the Rescan Video function in the Main Menu to reset the video input priorities.*

Setting Camera Presets per Channel:
- Press and hold the desired camera selection button for 4 seconds.
- The unused camera presets and camera selection button will flash at this time.
- Touching a flashing camera preset button, the unit will store all the information available via the camera at this time.   A non-flashing or already saved preset location (not-flashing camera preset button) can be overwritten.
- Camera presets contain all the camera information besides the Pan/Tilt/Zoom position including brightness, focus, backlight, zoom-speed and others as well. The particular control saved under each camera preset is a function of the parameters available on a per camera basis.

Preset Location Storage Options
This feature allows the user to store 12 camera presets in the ProductionVIEW FX or have the option of storing 6 camera presets (1 through 6) in the camera and 6 presets (7 through 12) in the ProductionVIEW FX. When storing the presets in the camera, the user is allowed to speed switch, or switch away from the moving camera in order to follow the participants in an animated discussion. Please see the ProductionVIEW FX Menu Structure, System Menu for access to the Preset location parameter.

Select Follows Preview:
This function is another speed switching function. When "Select Follows Preview" is activated, the camera selected for control is the camera selected by the Preview bus selection. The operator selects the camera to be previewed, and control (joystick and camera controls) is transferred to that camera. See Menu Structure on page 10.

Using the Onboard 4" (10.16cm) LCD Monitor:
The LCD monitor is a convenience feature and the ProductionVIEW FX is generally expected to be used with additional higher resolution monitors. When the LCD is in PREVIEW mode, PREVIEW cameras or inputs will be displayed when lit. When the LCD is in MAIN mode, MAIN cameras or inputs will be displayed when lit. When the MAIN Out is turned off, then no main signal will be present. Also, if neither PREVIEW nor MAIN switch is backlit, then no signal is sent to the LCD monitor. Note: The LCD is covered with a thin protective film, please remove this film carefully.

The 3-Axis Joystick:
Within the menus, the 3-axis joystick is programmable for pan, tilt and zoom direction control. The zoom-in/zoom-out, tilt-up/tilt-down and pan-left/pan-right commands can be inverted on all 3-axis to customize control of the PTZ cameras attached to ProductionVIEW FX.

ProductionVIEW FX Menu Structure

The ProductionVIEW FX has a back lit, 2-line LCD that displays the system menus. The menus are traversed with the up/down arrows, select and cancel buttons. The menu structure is as follows:

Menu
Section

1st Screen   ProductionVIEW FX
V02.01.0X (software version 0X)

Transition Menu
>Select
>Effect Select: Selected transition, or transition in use, will be the first transition displayed
None

Corner	UL	→	BR	Corner Wipe, Upper Left to Bottom Right
Corner	BR	→	UL	Corner Wipe, Bottom Right to Upper Left
Vertical	B	→	T	Vertical Wipe, Bottom to Top
Vertical	T	→	B	Vertical Wipe, Top to Bottom
Horiz	L	→	R	Horizontal Wipe, Left to Right
Horiz	R	→	L	Horizontal Wipe, Right to Left
Crossfade				Crossfade between Camera Inputs

Selected transition, or transition in use, will be the first transition displayed

>Time Interval
0.0 -4.0   Transition Timer, 0.0 to 4.0 seconds

>Main Off Time
0.0 – 4.0 Main off Fade to Black Timer, 0.0 to 4.0 seconds

>Return to Main
>Select   Returns to Main Menu

Rescan Video
>Select
>Start - Rescans video inputs 1 through 6, Use if video inputs are changed or reconfigured, S-Video has priority

Rescan Cameras
>Select
>Start - Rescans control ports 1 through 6 to find the cameras connected

Default Camera (Automatic and Start-up Modes)
>Select
> 01 – 06
Selects camera 1 through 6 as the default camera (default is 01)

Default Preset (Automatic and Start-up Modes)
>Select
> 01 – 12
Assigns camera preset 1 through 12 as Default Preset on the default camera (default is 01)

Pan Sensitivity
>Select
>01 - 24
Adjusts the sensitivity of the Pan command from the
joystick (default is 24)

Tilt Sensitivity
>Select
>01 - 24
Adjusts the sensitivity of the Tilt command from the joystick (default is 24)

Def Idle Rtn (Automatic Mode only)
>Select
>00 – 60
Default Camera Idle Return Timer - with no other trigger input, the system returns to the Default Camera and Default Preset after this time elapses (default is 10, 00 disables function)

Pan Speed
>Select
>01 – 24
Sets the Pan Speed on all cameras between camera presets (24 is fastest) (default is 18)
(This parameter does not affect the Pan Speed or sensitivity of the Joystick)

Pan Dir Menu (Pan Direction Menu)
>Select
>All Ports: Normal or Invert (default is Normal) Inverts the Joystick Pan Direction (Inverted - left = right)
>Port 01: Normal or Invert
>Port 02: Normal or Invert
>Port 03: Normal or Invert
>Port 04: Normal or Invert
>Port 05: Normal or Invert
>Port 06: Normal or Invert
>Return to Main
>Select   Returns to Main Menu

Tilt Speed
>Select
>01 – 20 (default is 15)
Sets Tilt Speed on all cameras between camera presets (20 is fastest)
(This parameter does not affect the Tilt Speed on the Joystick)

Tilt Dir Menu (Tilt Direction Menu)
>Select
>All Ports: Normal or Invert (default is Normal) Inverts the Joystick Tilt Direction (Inverted - up = down)
>Port 01: Normal or Invert
>Port 02: Normal or Invert
>Port 03: Normal or Invert
>Port 04: Normal or Invert
>Port 05: Normal or Invert
>Port 06: Normal or Invert
>Return to Main
>Select   Returns to Main Menu

Zoom Direction
>Select
>Normal or Invert (default is Normal)
Inverts the Joystick Zoom Direction (Inverted - Clockwise twist = zoom out)

Ext Triggers (Automatic Mode)
>Select
>6 Cam 1, 6 Cam 2
>All 12 Cam 1
External Trigger Assignment - 6 triggers each for cameras 1 and 2, or all 12 triggers for camera 1 presets (6 & 6 is default)

Ext Preset Dir
>Select
>Input or Output
For Multi-function Triggers
Input = Triggers for channels 3 through 6, triggering Preset 1 for each camera only
Output = Logic outputs for channels 3 through 6 on the main bus (default is Input Triggers)

Sel Follow Prv (Select Follows Preview)
>Select
>Yes or No
Camera Selection follows Preview Input Selection – Recommended "Yes" selection
When activated, camera selection switching follows the Preview bus selection, immediately transferring joystick and camera control directly to the camera selected on the Preview bus (default is No or off)

Panel Lights
>Select or Cancel
>00 through 50
Panel Light Brightness (all lights - 50 is the brightest) (default is 25, off is 00)

System Menu
>Select
>Serial Input
>Select
>Yes or No
Turns on or off serial input (default is Yes or On)

System Menu *(continued)*

>Serial Echo
>Select

>Yes or No
Turns Serial Echo on or off (default is Yes or On)

>Clear Memory
>Select

>Start
Clears the camera preset memories and sets all parameters to default settings

>Clear Presets
>Select

>Start
Clears the camera preset memory only

>Serial Info
>Select

>On or Off
Reports button pushes on front panel out the serial port (default is off)
(Does not report joy stick position)

>Idle Display
>Select

Color Bars or Black
Assigns Color Bars or Black screen to channels without video inputs (default is Black)

>Video Format
>Select

>NTSC or PAL (Selects Video Format)
Selects between video formats

>Power Up Preset
>Select

>Home Camera
>Select - Upon power up, all cameras will go to their home position
>Preset 12
> Select - Upon power up, all cameras will go to Preset 12

>Preset Location
>Local
>6 InCam 6 Local
In "Local" mode, the ProductionVIEW stores all 12 presets internally
In "6 InCam 6 Local" mode, the presets 1 through 6 will be stored in the cameras.
Presets 7 through 12 will be stored in the ProductionVIEW.

Note: The "6 InCam 6 Local" mode allows for switching video sources when cameras are moving to preset locations. Since Presets are stored in Camera, the system does not have to wait for position feedback before allowing another command to be entered.

>PC Expander (New with firmware release V02.01.07)
>Select (When PC Expander is detected, S-Video is chosen as default input)
>Composite
>S-Video
>None

When PC Expander is connected to camera control port 6, the ProductionVIEW or ProductionVIEW FX will auto-detect it and setup control of the PC Expander. On the MAIN bus assignment, buttons 1 through 5 switch the video inputs to the MAIN output like normal and route the video signal through the PC Expander which scales the video signal to a PC or HDTV resolution for display on a large format screen or projector. When MAIN bus button 6 is selected, then the PC Expander will switch the PC input (connected to the PC Expander) to the large format screen or projector. The video resolution and the PC resolution are matched and switchable from the front panel of the ProductionVIEW consoles in this mode.

S-Video is the default and recommended. If composite video is required by the user, then this menu must be changed to Composite. None returns the ProductionVIEW back to normal operation when power cycled.

>Return to Main
>Select
Returns to Main Menu

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Compliance and CE Declaration of Conformity

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 EN 55103-1/2 standards for Emissions and Immunity and meets the requirements for E4 environment.
This product complies with Class A (E4 environment). 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 55103-1   Electromagnetic Compatibility - Emissions

EN 55103-2   Electromagnetic Compatibility - Immunity

EN 55022A   Conducted and Radiated Emissions

EN 61000-3-2 Limits for Harmonic Current Emmissions

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

Annex A   Magnetic Field Immunity

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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 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 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. 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.

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 in the ProductionVIEW FX
- Keep this device away from food and liquid
- For smears or smudges on the console, wipe with a clean, soft cloth with a light duty household cleaner that leaves no residue. Repeated use of a "Windex®" type product with vigorous pressure may remove some of the silk screening and this will void the warranty.
- Do not use any abrasive chemicals.

Operating and Storage Conditions:
Do not store or operate the ProductionVIEW FX under the following conditions:
- Temperatures above 40°C (104°F) or temperatures below 0°C (32°F)
- High humidity, condensing or wet environments or In inclement weather
- Dusty environments
- Under severe vibration

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Appendix 1
A)   RS-232 Control

The ProductionVIEW FX has six (6) discrete camera control ports which eliminates the need for daisy-chaining control cabling.   With both the ProductionVIEW and ProductionVIEW FX, all cabling configurations are home-run type or "star" wiring configurations. Each Channel will auto-configure the input channel for video signal and control for the camera attached.

Vaddio uses very simple control protocols to accomplish custom programming with the ProductionVIEW and ProductionVIEW FX. The Communication Specification, API and Programming Language are listed below and definitions are listed on the next page thereafter.

Communication Specification
Communication Speed: 9600 bps (default)
Start bit: 1
Stop bit: 1
Data bits: 8
Parity: None

Female DB-9 Control Port Pin-outs
Pin 2:   TXD
Pin 3:   RXD
Pin 5:   GND

API and Programming Language (Firmware Version V02.01.07)

```
+------------------------------------------------------------------------+
|                      Vaddio ProductionVIEW FX                          |
+------------------------------------------------------------------------+
|?          - This menu                                                  |
+-------------- System -----------------------------------------------+
|SetDefault x- Set Default Preset(1-12)  |Config     - List Config Settings|
|DefaultCam x- Set Default Camera(1-6)   |ClearAll   - Clear all presets  |
|ExtTrigger x- Combine (AllCam1/Cam1&2)  |Reset      - 'CPU'Reset         |
|ExtDir     x- Ext Preset Dir(In/Out)    |TimeDelay  x- Default Timer(0-60)|
|Rescan     - Re-Scan for Cameras        |RescanV    - Re-Scan video Ports|
|DspCams    x- List connected cameras    |Version    - Firmware Version   |
|Power      x- Power(On/Off)             |PreviewIn  x- Preview Source (1-6)|
|Display    x- Display (Main/Preview/Off)|MainIn     x- Main Src(0,1-6)0=Off|
|CamFolPrv  x- CamSel->Preview (Yes/No)  |SerialEcho x- Echo Serial (Yes/No)|
|CBIdleDsp  x- ColorBars on No Cam(On/Off)|SysMode    x- (Manual/Auto)    |
|MainOffTm  x- Time in tenths (00-40)    |SerialInfo x- Status (On/Off)   |
|TiltMaxSpd x- Tilt Speed Range (1-24)   |PanMaxSpd  x- Pan Spd Range(1-24)|
|PresetLoc  x- Store Preset (InCam/Lcl)  |VideoMode  x- Video Mode(NTSC/PAL)|
|TranTime   x- Time in tenths (00-40)    |                                |
|TranSel    x- Effect select: 0:None, 1:CrossFade, 2:Horiz R>L, 3:Horiz L>R, |
|              4:Vert T>B,  5:Vert B>T, 6:Corner UL>BR, 7:Corner BR>UL    |
+-------------- Pan, Tilt, Zoom----------+------------------------------|
|InvertPan  x- Invert Pan Dir(Yes/No)    |PanSpeed   x-Pan Speed(1-24)   |
|InvertTilt x- Invert TIlt Dir(Yes/No)   |TiltSpeed  x-Tilt Speed(1-20)  |
|InvertZoom x- Invert Zoom Dir(Yes/No)   |OnCamInit  x- (Home/Preset12)  |
+-------------- Camera -----------------+------------------------------|
|Camera     x- Switch to Camera(1-6)     |Preset     x-Go to Preset(1-12) |
|Zoom       x- Zoom (In/Out/Stop)        |Store      x-Store Preset(1-12) |
|Focus      x- Focus(Auto/Near/Far/Stop) |BLC        x-BacklightComp(On,Off)|
|Bright     x- Bright(Auto,Up,Down)      |AWB        x-AutoWhiteBal(On,Off) |
|Move       x- Move(Up,Down,Stop,Left,Right)|Pass(cr)(Camera command string) |
+------------------------------------------------------------------------+
```

Appendix 1 (continued)

B) Command Structure Definitions

Command	Description
AWB x	(On/Off) Turns auto white balance on or off on controlled camera.
BLC x	(On/Off) Turns backlight compensation on or off on controlled camera.
Bright x	(UP) Turns brightness up one increment.(Down) Turns brightness down one increment (Auto) restore auto brightness on controlled camera.
Camera x	(1-6) Switch control function to camera x.
CamFolPrv	(Yes) selecting preview camera source will automatically select camera control for that camera (No) camera control must be selected manually.
CBIdleDsp	(On) Displays Color bars on selected ports if no video is present, (Off) Displays dark screen.
ClearAll	Clears ALL presets.
Config	Displays the current configuration.
DefaultCam x	(1-6) When in Automatic mode, this camera will be activated at expiration of Time Delay. At startup, unit will switch to this camera.
Display x	(Main/Preview/Off) Selects what will be viewed on the internal LCD screen.
DspCams x	Lists connected cameras
ExtTrigger x	(AllCam1) 12 presets for camera 1, (Cam1&2) 6 presets for camera 1, 6 for camera 2
ExtDir x	(In) accepts triggers from external source as MicVIEW, StepVIEW, AutoVIEW IR, TouchVIEW, or third party gated microphone mixers.(Out) provides "logic out " on out 1-4 pins to indicate camera in use.
Focus x	(Auto) restores auto-focus, (Near) focus near, (Far) focus far, (Stop) stops near and far focus
InvertPan x	(Yes) Changes pan direction on all cameras. (No) Normal direction.
InvertTilt x	(Yes) Changes tilt direction on all cameras. (No) Normal direction.
InvertZoom x	(Yes) Changes zoom direction (No) Normal direction.
MainIn x	(0-6) Selects the main out source 0=off.
MainOffTm x	Main Off Timer 00 to 40 in tenths (0.0 to 4.0 seconds), for independent fade to black timer
Move x	Up/Down/Stop/Left/Right Moves or stops controlled camera.
PanSpeed x	(1-24) Changes pan speed on all cameras 24=fastest. This is the pan speed between presets only.
Pass(cr)	Passes next string to controlled camera (camera response, if any, is not passed back)
Power x	(On) Starts ProductionVIEW FX, (Off) Places ProductionVIEW FX and all controlled cameras into standby mode
Preset x	(1-12) Go to preset x on controlled camera.
PreviewIn x	(1-6)Selects the preview out source.
Rescan	Rescans for attached cameras.
RescanV	Re-Scan Video Ports when input are reconfigured
Reset	Reboots system.
SerialEcho x	(Yes) Serial commands sent to the ProductionVIEW FX will be echoed back. (No) Not echoed.
SerialInfo x	(On) Shows console button pushes to RS232 host port. These commands the same as the input serial commands (Off) Does not show these button pushes.
SetDefault x	(1-12) When in Automatic mode, this preset will be activated at expiration of Time Delay. At startup, unit will switch to this preset.
Store x	(1-12) Stores preset x for the controlled camera.
SysMode x	(Manual) External triggers and default presets have no effect. (Automatic) External triggers will activate presets and cameras. Default camera, preset and timer applies after initial trigger.
TiltSpeed x	(1-20) Changes tilt speed on all cameras 20 = fastest. This is the tilt speed between presets only.
TimeDelay x	(0-60 seconds) Default timer setting for default camera and preset when in automatic mode.0=off. Trigger must be activated and released for timer to take effect.
TranSel X	Transition Select, 0:None, 1:Crossfade, 2:Horiz R>L, 3:Horiz L>R , 4:Vert T>B, 5:Vert B>T, 6:Corner UL>BR, 7:Corner BR>UL
TranTime x	Transition Timer, 00 to 40 in tenths (0.0 to 4.0 seconds)
Version	Displays Firmware version installed
Video Mode x	Video Mode (NTSC or PAL) *(Note: Not used for programming – requires power cycle)*
Zoom x	(In) Zooms in (Out) Zooms out (Stop) Stops Zoom - On controlled camera.

ProductionVIEW FX Back Panel

Connectors:

Power:	18 VDC, 1.5A (5.5mm OD x 2.5mm ID)
Inputs 1-4:	S-Video (4-pin mini din), Composite (BNC), RS-232C Port (RJ-45)
Inputs 5 & 6:	S-Video (4-pin mini din), Composite (BNC), RS-232C Port (RJ-45), Audio L & R (2-RCA)
Main Out:	S-Video (4-pin mini din), Composite (BNC), Audio L & R (2-RCA)
Preview Out:	S-Video (4-pin mini din), Composite (BNC), Audio L & R (2-RCA)
Control Port:	DB-9 F
Triggers:	Phoenix type connectors

General Specifications:

ProductionVIEW FX	
Model Number:	999-5200-000

Compatible Cameras:	Vaddio, Sony and Canon
	    Vaddio WallVIEW Series Cameras
	    Vaddio CeilingVIEW 70 PTZ Series Cameras
	    Vaddio HideAway Series Cameras
	    Vaddio CeilingVIEW & CeilingVIEW Mega-Pro
	    Vaddio Model Series and PTZCam Series Cameras
	    Sony EVI-HD1, EVI-D30, EVI-D100 & EVI-D70 & Sony BRC-
	    300 & BRC-H700
	    Canon VC-C50i & VC-C50iR

Video Formats Supported:	NTSC and PAL
Video Switcher:	6x2, Audio-follow Video on Channel 5 and 6
Video Inputs:	S-Video and Composite on all Channels
Video Outputs:	Preview and Main, composite (BNC) & Y/C (4-Pin mini din)
Camera Control Ports:	RS-232C on RJ-45F per channel (eliminates daisy-chaining)
Control Interface:	RS-232 on DB9F (for control systems)
LCD Monitor:	4" (10.16cm) Diagonal, Switchable between Main and Preview
Transitions Supported:	Straight cuts, Fades (in and out), cross fades (one image fading into another) and wipes (up, down, side to side and corner)
Transition Time	0.0 to 4.0 seconds
Power Requirements	PowerRite 18 VDC Switching type (provided)
Trigger Inputs for Automatic Mode	<u>Inputs 1 & 2:</u> Six (6) presets triggers each -or- Camera 1 can have all 12 preset triggers <u>Inputs 3 through 6:</u> one Preset each, or Configurable (programmable) as Logic Outputs for Main 1-4
Weight:	8.5lbs/3.85kg
Dimensions (H x W x D):	4"/10.2cm x 16"/40.6cm x 10"/25.4cm