CP-3126PROC

Programmable Video/Audio Proc Control Panel

User Guide

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IMPORTANT SAFETY INSTRUCTIONS

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "Dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product.

- Read these instructions
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING

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WARNING

DO NOT EXPOSE THIS EQUIPMENT TO DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS ARE PLACED ON THE EQUIPMENT.

WARNING

TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE.

WARNING

THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE.

INFORMATION TO USERS IN EUROPE

<u>NOTE</u>

CISPR 22 CLASS A DIGITAL DEVICE OR PERIPHERAL

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to the European Union EMC directive. 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 own expense.

INFORMATION TO USERS IN THE U.S.A.

<u>NOTE</u>

FCC CLASS A DIGITAL DEVICE OR PERIPHERAL

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 own expense.

WARNING

Changes or Modifications not expressly approved by Evertz Microsystems Ltd. could void the user's authority to operate the equipment.

Use of unshielded plugs or cables may cause radiation interference. Properly shielded interface cables with the shield connected to the chassis ground of the device must be used.



REVISION HISTORY

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DESCRIPTION

DATE

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1. OVERVIEW

The CP-3216PROC control panel is an optimized solution for video and audio proc applications. The CP-3216PROC features sixteen rotary shaft encoders for quick simultaneous access to sixteen unique video and audio proc control parameters. The CP-3216PROC also features an array of thirty-two dynamic LCD buttons. These LCD buttons can be configured to change the processing card that the panel actively controls. With this, operations staff may perform rapid adjustments on a large number of video/audio feeds. This makes the CP-3216PROC an ideal control panel for camera shading and ingest QA applications. These LCD buttons can also be configured to provide numerical feedback for its associated rotary shaft encoder.

The CP-3216-PR is a fully programmable SNMP-enabled video/audio control panel. The CP-3216PROC can provide a fully customized user interface through complete system hardware virtualization. The CP-3216-PROC is ideal for colour correction applications and can be used as a complete replacement for multiple DSU-CC colour correctors and their associated control panels.



Figure 1-1: CP-3216PROC Control Panel

Features:

- Optimized solution for audio/video proc applications
- Customized user interface through complete hardware virtualization
- Ideal for colour correction applications
- Complete replacement for multiple For-A DSU-CC panels/cards
- 32 x GPIs interface using DB15 connectors enabling virtual button pushes
- 16 scroll knobs with fully programmable link to module controls
- 32 x LCD buttons with programmable labelling/function/logical structure
- Fully SNMP enabled



2. INSTALLATION

2.1. REAR PANEL

Figure 2-1 shows the rear view of the CP-3216PROC control panel. The following is a list of the ports and controls on the rear panel:



Figure 2-1: CP-3216PROC Rear Panel

- **IEC POWER:** These two connectors are used for main and redundant supply of power to the CP-3216PROC.
- **JOYSTICK:** This connector is currently not supported.
- **GPIO1:** This connector is used to connect GPIOs to the CP3216-PROC. This connector supports GPI #1-16 and GPO #I-4.
- **GPIO2:** This connector is used to connect GPIOs to the CP3216-PROC. This connector supports GPI #17-32 and GPO #5-8.
- **DVI OUTPUT:** This DVI connector is used to connect the CP-3216PROC to a LCD monitor.
- **VIDEO OUTPUT:** This connector is currently not supported.
- **ETHERNET (A, B):** These RJ-45 connectors are used for Network connections to the CP-3216PROC.
- **USB (A, B, C, D):** These USB 2.0 Ports are used for USB-based mouse and/or keyboard connections to the CP-3216PROC.
- **SERIAL:** This connector is currently not supported.
- **KEYBOARD:** This connector is currently not supported.
- **MOUSE:** This connector is currently not supported.

2.2. FRONT CONTROL PANEL

The CP-3216PROC has both rotary encoders and programmable LCD buttons on its front panel. There are a total of 16 rotary shaft encoders and a total of 32 programmable LCD buttons. Rotary encoders are used to adjust card parameters. LCD buttons are used to select specific processing cards that the panel will control or give numerical feedback regarding card parameter values.

The mapping of rotary encoders to specific card parameters is defined using the on-board CP-3216PROC configuration tool. The function of the programmable LCD buttons is also defined using the on-board CP-3216PROC configuration tool.



Figure 2-2: CP-3216PROC Front Control Panel

Please note that the labels in Figure 2-2 will NOT be displayed on the front panel of your CP-3216PROC device. The labels listed above are for reference purposes only when describing the panel controls in the following sections of the manual. The following chart describes the label and function of the associated button.

Labels (s)	Description
B1 to B32	LCD Buttons #1 to 32
R1 to 16	Rotary shaft encoders #1 to 16



3. TECHNICAL DESCRIPTION

3.1. SPECIFICATIONS

3.1.1. Control

Ethernet:Dual 10/100 base T.RJ45 connectorSerial RS232/422:D9 female

3.1.2. Power

Supply:100 - 132V, 180 - 240V, 50/60HzConsumption:20 W

3.1.3. Physical

Height:	2RU, 88mm
Width:	19" rack mount
Depth:	120mm
Weight:	3.70kg
Operating Temp:	0 - 40°C



4. FRONT PANEL CONTROL

To enter the setup menu of the CP-3216PROC press and hold rotary encoders (R1 and R16) on the far left side and far right side of the panel for approximately 6 seconds. You will then be presented with five LCD buttons that are used to navigate the engineering menus.

B1 will be labelled "SETUP" B2 will be labelled "SHAFT test" B3 will be labelled "KEY test" B4 will be labelled "GPIO test" B5 will be labelled "EXIT"

4.1. ENGINEERING SETUP

Immediately after entering the engineering menu, press B1 labelled "SETUP". Once the engineering menu is selected, B1 through B3 will change so that B1 is labelled "setup", B2 will be labelled "save" and B3 will be labelled "back". In addition B17 will be labelled "bond nics". B17 is used to indicate the current control being set. B18 to B21 are used to indicate the value of the current control.

By rotating R1, you will be able to sequence through the following CP-3216PROC controls:

Bonds nics IP Msk Brd Gtw Mode

Once all settings have been configured as per sections 3.1.1 through 3.1.6 below, push the BACK button to exit the engineering setup menu.

4.1.1. Assigning BOND NICS

Bonding may be chosen if you want the CP-2200E to use the same IP address on BOTH Ethernet ports. This setting is ONLY to be used if ONE Ethernet cable is plugged into a single network OR if two completely isolated networks are in use.

Using bonding, and plugging both ports into the same switch will cause a network loop and unsavoury results on your network.

Rotate R2 to select between the ON and OFF settings. Once your selection is complete, push the SAVE button.



4.1.2. Setting the IP Address of the Control Panel

The **IP** menu item is used to set the IP address of the CP-3216PROC control panel.

The IP address is formatted in the following way aaa.bbb.ccc.ddd

To set the IP address, rotate encoder R2 through R5 to change the IP address values. R2 controls "aaa" values. R3 controls "bbb" values. R4 controls "ccc" values. R5 controls "ddd" values.

Once the IP address is set, push the SAVE button.

4.1.3. Setting the Netmask

The **Msk** menu item is used to set the netmask for the CP-3216PROC control panel.

The netmask is formatted in the following way aaa.bbb.ccc.ddd

To set the netmask, rotate encoder R2 through R5 to change the netmask values. R2 controls "aaa" values R2 controls "bbb" values R3 controls "ccc" values R4 controls "ddd" values

Once the netmask address is set, push the SAVE button.

4.1.4. Setting the Broadcast Address

The Brd menu item is used to set the broadcast address for the CP-3216PROC control panel.

The broadcast address is formatted in the following way aaa.bbb.ccc.ddd

To set the broadcast address, rotate encoder R2 through R5 to change the broadcast values. R2 controls "aaa" values R3 controls "bbb" values R4 controls "ccc" values R5 controls "ddd" values

Once the broadcast address is set, push the SAVE button.



4.1.5. Setting the Gateway

The Gtw menu item is used to set the gateway address for the CP-3216PROC control panel.

The gateway address is formatted in the following way aaa.bbb.ccc.ddd

To set the gateway, rotate encoder R2 through R5 to change the gateway values.

R2 controls "aaa" values R3 controls "bbb" values R4 controls "ccc" values R5 controls "ddd" values

Once the gateway address is set, push the SAVE button.

4.1.6. Setting the Mode

The **mode** menu item is used to set the CP-3216PROC operating mode. Use encoder R2 to select between MODE 1, MODE 2 and MODE 3

MODE 1 is used when all LCD buttons are used to select a specific SNMP service mapping for R1 to R16. No sub-menus are displayed once a particular button is pushed. A button push simply selects a specific SNMP service for R1 to R16. In this mode, no numerical feedback is given on the panel for the value a particular rotary encoder is setting on a processing card.

MODE 2 is used when all LCD buttons are used to select a different SNMP service mapping for R1 to R16. Once a button is pushed, the panel will enter a sub-menu mode where the numerical feedback for R1 to R16 is presented on buttons B17 to B32. Button B16 is used as the BACK button. The BACK button returns the panel back to the top-level menu where different SNMP service mapping for R1 to 16 are selected.

MODE 3 is used when buttons B1 to B16 are used to select a different SNMP mapping service for R1 to R16. At the same time, B17 to B32 are used to provide numerical feedback for R1 to R16. No submenus are displayed once a particular button is pushed.

Once a MODE is selected, push the SAVE button.

4.2. TESTING THE CP-3216PROC

To enter the testing mode for the CP-3216PROC press and hold the far right and far left rotary encoders (R1 and R16) of the panel for approximately 6 seconds. You will then be presented with five light up LCD buttons that are used to navigate the engineering menus.

B1 will be labelled "SETUP" B2 will be labelled "SHAFT test" B3 will be labelled "KEY test" B4 will be labelled "GPIO test" B5 will be labelled "EXIT"

B2, B3, B4 and B5 can then be pushed to enter specific test modes of the CP-3216PROC control panel.



4.2.1. Performing a SHAFT Test

Pushing the SHAFT test button enables the user to enter the test mode that tests the rotary encoders of the CP-3216PROC control panel. When this is done, buttons B1 to B16 will light up in a purple colour and show two numerical values in each button (one on top of the other). In addition, buttons B17-B32 will light up in an orange colour and show two numerical values in each button (one on top of the other).

To test rotary encoder #1, turn R1 to the left. On button B17, the bottom number should show "-1" and the top number should decrease in one-unit increments. Following this, turn rotary encoder R1 to the right. On button B17, the bottom number should show "1" and the top number should increase in one-unit increments. Finally, pushing R1 in should cause button B1 to increase.

The same process can be used for R2 using B2 and B18. The same process can be used for R3 using B3 and B19. The same process can be used for R4 using B2 and B20. The same process can be used for R5 using B2 and B21. The same process can be used for R6 using B2 and B22. The same process can be used for R7 using B2 and B23. The same process can be used for R8 using B2 and B23. The same process can be used for R9 using B2 and B24. The same process can be used for R10 using B2 and B25. The same process can be used for R10 using B2 and B26. The same process can be used for R11 using B2 and B27. The same process can be used for R12 using B2 and B28. The same process can be used for R13 using B2 and B28. The same process can be used for R13 using B2 and B28. The same process can be used for R14 using B2 and B30. The same process can be used for R15 using B2 and B31. The same process can be used for R16 using B2 and B31.

Push any LCD button to exit from this test mode and you will be returned to the main engineering menu.

4.2.2. Performing a KEY Test

After pressing the KEY test button, LCD buttons B1 to B32 will cycle through a pattern of colours. B1 to B32 should be completely filled with a particular colour when it is displayed.

The buttons will automatically cycle through colours RED -> GREEN -> BLUE -> WHITE -> BLACK.

Push any LCD button to exit the colour cycle test mode. Following this, you will enter a test mode where buttons B1 through B32 are filled with a RED colour and two numerical values (one on top of the other).

When an LCD button is operating correctly, you may push that button and it will sequence through different colours each time the button is pushed (RED -> GREEN -> BLUE -> WHITE -> BLACK). Simultaneously, each time the button is pushed the two numerical numbers displayed in the button should increment as well.

To exit this test mode, press rotary encoder R1 in once and you will return to the main engineering menu.



5. SYSTEM CONFIGURATION

5.1. UPGRADING THE CP-3216PROC PANEL

5.1.1. Requirements

- 1. The user must have a laptop or PC connected to the same network as the CP-3216PROC.
- 2. The user must obtain upgrade files from Evertz Personnel.
 - a. Your computer must be running the Mozilla firefox web browser located at: <u>http://www.mozilla.com/en-US/firefox/</u>
 - b. This browser is also available in Chinese simplified and traditional, if preferred, by clicking the "other languages…" option under the download link.
- It is highly recommended that the user have the Java runtime environment installed on their machine. The JRE must be installed AFTER firefox. This file can be downloaded from the following location:

http://java.com/

5.1.2. Identifying the IP Address

The IP Address can be identified using the procedure outlined below or by referring to section 4.1.2.

- 1. To identify the IP address, hold down the far left and right most rotary encoders (R1 and R16) for 10 seconds.
- 2. An Engineering menu will appear. Press the **SETUP** button (B1).
- 3. Using rotary encoder R1, rotate the knob until the IP information is displayed on buttons B2 to B5.
- 4. Obtain the IP Address displayed on the LCD button screen.
- 5. At this time, ensure that firefox is installed on your machine. If not, please review section 5.1.1 for instructions on installing firefox.



Note: It is highly recommended that java JRE is installed on your machine. Please see section 5.1.1 for instructions on installing java.



5.1.3. Upgrading Firmware on the CP-3216PROC

1. To upgrade firmware using the web interface, open a firefox web browser and enter the IP address of the CP-3216PROC, then press the *<enter>* key. The CP-3216PROC screen will appear, as shown in Figure 5-1.

CP220	0e	Restart Panel Software
Firmware Manager	Configuration	
Upgrade Firmwar	e	
	Browse Install	

Figure 5-1: CP2200e Main Screen

- 2. Using the *Firmware Manager*, select the **Browse** button and navigate to the .efp firmware file to be updated (Example: CP-3216-1.4Orc3.efp).
- 3. Once the file has been selected, press the **OPEN** button and then select the **INSTALL** button from the main interface. The firmware on the panel will now be updated. Please be patient as this process may take a few minutes.
- 4. When the firmware has been successfully installed, a message similar to the following will be displayed "Successfully installed CP3216, version 1.4.0 rc3".
- 5. The panel will automatically reboot.
- 6. Once the panel has rebooted you are ready to configure the CP-3216PROC.



5.1.4. Navigating to the Panel Configuration Page

The user can configure the CP-3216PROC using the Control Panel Configuration Web Interface. To access the Configuration Web Interface for the CP-3216PROC, follow the instructions outlined below:

- 1. Launch a Mozilla Firefox web browser.
- 2. In the web browser, enter the relevant IP address of your CP-3216PROC, followed by ":8181" into the IP address line.

For example, if your panel IP address is 10.101.1.82, enter the following address into the web browser address line:

10.101.1.82:8181

3. The **CP3216** web interface will appear displaying the Control Panel buttons, dials and configuration tabs.

CP	3216						
Buttons	Service Templates	Other Settings	Upload Products	Import/Export			Restart Panel Software
Buttor	Mode: Pages of 14						Save
Button	Label			IP	Slot	Service Template	
				Page	1		
1	PROC/ # 01			10.101.1.	99 2	PROC PARAMETER	
2	PROC/ # 02			10.101.1.	99 4	PROC PARAMETER	
3	PROC/ # 03			10.101.1.	99 6	PROC PARAMETER	
4	PROC/ # 04			10.101.1.	99 8	PROC PARAMETER	
5	PROC/ # 05			10.101.1.	99 10	PROC PARAMETER	
6	PROC/ # 06			10.101.1.	99 12	PROC PARAMETER	
7	PROC/ # 07			10.101.1.	99 14	PROC PARAMETER	
8	PROC/ # 08			10.101.1.	100 3	PROC PARAMETER	
9							
10							
11							
12							
13							
14							
Page	1						
(p) #	ROC 01 # 02 # 03	PROC # 04	PROC PROC # 06	PROC # 07 # 08			<< >>
			6 6	0 0	0	0 0 0	15 (6

Figure 5-2: CP3216 Web Interface



5.2. UPLOAD PRODUCTS TAB

The **Upload Products** tab allows the user to upload xml product files to the control panel. Uploading the product files will provide access to the specific product parameters and enable configuration.

CP32	16						
Buttons Servio	ce Templates	Other Settings	Upload Products	Import/Export			Restart Panel Software
Select a proc	duct xml file	to upload					
	Brow	se Upload					
Products on	Panel						
UCHD7712 ((1.3.6.1.4.1.68	827.100.163.2.1	.1.1)				

Figure 5-3: Upload Products Tab

The Upload Products page has two control buttons, which are listed below:

- **BROWSE:** Selecting the *Browse* button will open a dialog box that enables the user to navigate to the desired xml file. Once the file is selected and opened, the filename will be displayed in the field to the left of the *Browse* button.
- **UPLOAD:** Selecting the *Upload* button will upload the selected file.

The items listed under the *Products on Panel* heading identifies the product files that are currently loaded on the control panel. If a product is loaded onto the panel, the product will be accessible in the product drop down menu of the *Service Templates* tab.

5.2.1. Configuring the CP-3216PROC to Support Specific Products

- 1. Navigate to the **Upload Products** control tab.
- 2. Click the **BROWSE** button and navigate to the appropriate .xml file for your specific product (ie. evertz_FSHD7746_configcomps.xml) and then press the **OPEN** button.
- 3. Once the file is displayed, press the **UPLOAD** button.



5.3. SERVICE TEMPLATES TAB

A *Service Templates* tab enables the user to create a template, which can be loaded onto the CP-3216PROC control panel. This template defines and assigns button functions to the control panel buttons.

CP	3216							
Buttons	Service Templates	Other Settings	Upload Products	Import/Export	t			Restart Panel Software
Serv	ice Template Name							
🗌 New T	emplate							
PROC	PARAMETER							
2								

Figure 5-4: Service Template

The user can add, copy or remove a template using the *Service Templates* buttons listed below in Table 5-1:

Button	Image	Description
New Template		The <i>New Template</i> button enables the user to add and create a new template. Selecting this button will open a new template page as shown in Figure 5-6.
Duplicate Template		The <i>Duplicate Template</i> button enables the user to duplicate the selected template. Place a check mark beside the template that you wish to copy and then press the <i>Duplicate Template</i> button to create a replica of that template.
Delete Template		The <i>Delete Template</i> button enables the user to completely remove the currently selected template. Place a check mark beside the template that you wish to delete and then press the <i>Delete Template</i> button to remove the template.

Table 5-1: Service Template Buttons

The templates that currently exist will be listed under the *Service Template Name* heading as shown in Figure 5-5.

Service Template Name
New Template
PROC PARAMETER

Figure 5-5: Service Template List

CP-3216PROC Programmable Video/Audio Proc Control Panel



Once a template is selected or the user creates a new template, a new template page will appear (as shown in Figure 5-6) enabling the user to assign parameters to the sixteen rotary encoders.

CP3216					
Buttons Service Templates	Other Settings Up	load Products Import/Export			Restart Panel Software
New Template		Product: UCHD7712 -	P		Save Save & Close
Dial Parameter		Short Na	ne Default	Increment	Search Parameter Tree 🔍
1 C_lev 2 Down Mix Type 3 LFE Gain 4 LFE Mixing 5 LR_lev 6 Ls_lev_L 7 Ls_lev_R 8 Output Gain 9 Output Scaling Mode 10 Rs_lev_L 11 Rs_lev_R 12 Surround Phase 13 14 15 16		5 6 7 8			AFD ARC AFD Control Audio 5.1 Down Mix Audio 5.1 Down Mix Audio 5.1 Down Mix Audio Input Audio Input Audio Input Audio ProcCh1-Ch4 AudioProcCh3-Ch12 AudioProcCh3-Ch12 AudioProcCh3-Ch12 AudioProcCh3-Ch12 Cord ClosedCaptioningControl CommercialInsertControl DelhterlacerControl DolbyMetadataEncoderControl DolbyProgram Control 1 DolbyProgram Control 2 DolbyProgram Control 3 DolbyProgram Control 4 Enhancement FaultTraps 1 13 14 15 16

Figure 5-6: Customizing a Template

5.3.1. Service Template Controls

To modify the template, use the **Service Templates** controls as listed below:

- New Template: To assign a name to the template, enter a unique name into the NEW TEMPLATE field.
- **Product:** The *Product* drop down menu provides a list of available products. Once the desired product is selected, the parameter tree will reflect the available parameter items for the selected product. More products can be added to this list by uploading product xml files using the *Upload Products* tab.
- **Hide Tree View:** Pressing the *Hide Tree View* button will hide the parameter tree view. Selecting this button again will show the parameter tree view.



- Show Details: Pressing the Show Details button will toggle the content of the Parameter field. When the user presses the Show Details button, the path of the parameter and the abbreviated name will be displayed in the Parameter field (ie. VideoControl > Video Control > H Phase Offset (HPhaseOffset). If the user wishes to only display the Parameter name, then press the same button again (now identified as Hide Details).
- **Save:** Press the *Save* button to save all the changes you have made.
- Save & Close: Press the Save & Close button to save all your changes and close the template.

5.3.2. Service Template Parameter Tree

The Service Template *Parameter Tree* is used to select parameters and apply them to rotary dials. The user can navigate through the parameter tree by pressing the plus (+) and minus (-) buttons to expand or collapse the parameter items. Once the user has located their desired parameter, they can transfer it to a specific dial by dragging the parameter from the tree and dropping it onto one of the sixteen dials.

To quickly locate a parameter, type the parameter name into the *Search Parameter Tree...* field and press the <enter> key on your keyboard. The search tool will expand the parameter tree to reveal the location of the parameter you entered.

Search Parameter Tree	P
- Video Proc	-
🗄 Video Proc	
- B Gain (BGain)	
Blue Gamma Level (bGamma)	
- Cb Gain (CbGain)	
Cb Offset (CbOffset)	
— Cr Gain (CrGain)	
- Cr Offset (CrOffset)	
— Gamma Adjust (GammaEn)	
— Gamma Level (GammaLevel)	
— G Gain (GGain)	
— Green Gamma Level (gGamma)	
Hue (Hue)	
Red Gamma Level (rGamma)	
R Gain (RGain)	
RGB Clip (RgbClipEn)	
 Saturation Gain (SaturationGain) 	
Video Gain (VideoGain)	
Vid Proc Reset (VidProcReset)	
Y Gain (YGain)	
····· Y Offset (Black Level) (YOffset)	–

Figure 5-7: Parameter Tree



5.3.3. Rotary Dial Properties

The user can adjust the properties of each dial by entering the appropriate information into the fields below:

- **Dial:** This field identifies the dial number.
- **Parameter:** This field identifies the parameter name and displays the location of the parameter in the parameter tree (when the *Show Details* button is selected). This information will automatically be listed when the parameter is dragged onto a rotary dial.
- Short Name: This field displays the name that is shown on the LCD button for each control parameter. The user can customize the buttons by entering a new name into this field.
- **Default:** This field displays the default level for the selected parameter. The user can enter the appropriate unit into this field.
- Increment: Entering a number in this field will assign a number value that the encoder will increment when it is rotated. For example, if this value is set to **2**, each time the rotary encoder is turned (clicked over once) the value will increment by 2 instead of a regular default unit of 1.

5.3.4. Rotary Dial Display

At the bottom of the **Service Templates** page, the user will be presented with a graphical representation of rotary dials on the control panel, as shown in Figure 5-8. This illustration is provided to help identify the rotary encoders in relation to how they are identified in the web interface.



Figure 5-8: Rotary Dial Illustration

5.3.5. Designing a Service Template

To create a new template follow the procedure outlined below:

1. Navigate to the **Service Templates** control tab and click on the **New Template** button. Parameters for the specific product series will be uploaded (this process will take a few seconds).

A screen similar to the image shown in Figure 5-6 will be displayed.

- 2. Assign a new name to the template by entering a name into the field labeled **NEW TEMPLATE**.
- 3. For each dial listed, drag and drop a card parameter from the right hand side control parameter tree to one of the sixteen dials on the left side of the screen. Refer to Figure 5-9.



										_
C	P3216							Unsaved C	hanges To This Page	
Butto	ns Service Templates	Other Settings	Upload Products	Import/Export					Restart Panel Softw	are
PR	OC PARAMETER		Product:	CHD7712 🔽 🛛 🍢	0				Save Save & Cl	ose
1										
Dial	Parameter			Short Name	Default	Increment	Sea	rch Parameter Tree		Q
1	R Gain			RGain		1	⊡ A	FD ARC		
2	Aspect Ratio Conversion			GGain		1	Ė	- AFD2		
3	B Gain			BGain		1		AFD Stamp (AfdSt	amp3)	
4	Y Gain			YGain		1		Aspect Ratio Com	version (AfdARC3)	
5	Cr Gain			CrGain		1		Input H Start (Afd)	nputHStart3)	
6	Cb Gain			CbGain		1		Input H Stop (Aldin	nputHStop3)	
7	Y Offset (Black Level)			YOff		1		- Input V Stop (Afdir	iputVStop3)	
8	Cr Offset			CrOff		1		Output H Start (Afo	iOutputHStart3)	
9	Cb Offset			CbOff		1		- Output H Stop (Afd	iOutputHStop3)	
10	Hue			HUE		1		— Output V Start (Afd	OutputVStart3)	
11	Saturation Gain			SAT		1		- Output V Stop (Afd	OutputVStop3)	
12	Video Gain			BRGHT		1	+	H AFD3		
13	Red Gamma Level			RGam		1		E AFD4		
14	Green Gamma Level			GGam		1	+	- AFD9		
15	Blue Gamma Level			BGam		1	±	AFD10		
16	AFC) Stamp (AfdStamp	3)				ŧ	- AFD11		
	<u></u>						±	AFD13		
							+	HAFD14		
								IF AFD15		•
	1 2		6	7 8	9 10	11	12 13	14 15 (16	

Figure 5-9: Assigning a Parameter to a Rotary Encoder

- 4. For each parameter that is applied to a dial, the user can fill in the five properties displayed (ie. dial, parameter, short name, default, and increment).
- 5. Click the **SAVE** button on the right hand side of the screen to save the template.



Please note that the user must press the "Save" button in order for changes to be saved and then select "Restart Panel Software" to apply the changes to the control panel.



5.4. BUTTONS TAB

The **Buttons** tab enables the user to set the parameters for the associated buttons. Using the **Buttons** tab, the user can assign a service template to a button. Doing this enables the user to successfully, set and control parameters for specific cards and frames. The **Buttons** tab enables the user to define the IP address of a frame, pin point a card in a particular slot, and assign a service template to that button.

CP	3216						
Buttons	Service Templates	Other Settings	Upload Products	Import/Export			Restart Panel Software
Buttor	Mode: Pages of 14						Save
Button	Label			IP	Slot	Service Template	
				Pag	e 1		
1	PROC/ # 01			10.101.1	.,99 2	PROC PARAMETER	
2	PROC/ # 02			10.101.1	.99 4	PROC PARAMETER	
3	PROC/ # 03			10.101.1	.99 6	PROC PARAMETER	
4	PROC/ # 04			10.101.1	.99 8	PROC PARAMETER	
5	PROC/ # 05			10.101.1	.99 10	PROC PARAMETER	
6	PROC/ # 06			10.101.1	.99 12	PROC PARAMETER	
7	PROC/ # 07			10.101.1	.99 14	PROC PARAMETER	
8	PROC/ # 08			10.101.1	.100 3	PROC PARAMETER	
9							
10							
11							
12							
13							
14							
Page	1						
(p) #	ROC 01 PROC # 02 PROC # 03	PROC # 04	PROC # 05 PROC # 06	PROC # 07 PROC # 08			<< >>
			0 0	0 0	9	0 0	15 (6

Figure 5-10: Buttons Tab

The **Button Mode** drop down menu enables the user to select the number of buttons that should be displayed on the page. The options are: *Pages of 14* and *One Page of 32*.

Pages of 14 💌
Pages of 14
One Page of 32

Figure 5-11: Button Mode Drop Down Menu



There are three page controls listed under the Buttons tab. The page controls include:

Button	Image	Description
Add Page		The Add Page button enables the user to add a new page to the screen.
Duplicate Page		The <i>Duplicate Page</i> button enables the user to copy the properties of the current page and create a replica of that page.
Delete Page		The <i>Delete Page</i> button enables the user to remove the currently selected page.

Table 5-2: Page Controls

The user can adjust the parameters of the button by changing the properties in the following columns:

- **Button:** This column displays the button number.
- Label: Assigns a name to the selected button. This name will be displayed on the corresponding control panel LCD button screen.
- IP: This column identifies the IP address of the frame that the control panel is accessing. Entering a frame IP address into this field will link the selected button to the corresponding frame.
- **Slot:** This column identifies the slot number of the card in the frame that the control panel is connected to. The user can assign a specific button to a specific card by entering the corresponding slot number of the desired card into the slot number field.

At the bottom of the **Buttons** page, the user will be presented with an illustrated representation of control panel, as shown in Figure 5-12. The label name from the selected page will be displayed on the corresponding button of the control panel.



Figure 5-12: Button Display



5.4.1. Assigning a Service Template to a Button

- 1. Navigate to the **Buttons** control tab.
- 2. For each button, click on the **Services Template** box and begin typing the name of the Service Template that you want to assign that button to. The name of the service template will start to appear automatically.
- 3. Select the desired template so that it shows up permanently in the Service Template column.
- 4. For each button assign a label, IP and Slot number.
- 5. To apply these changes, select the **Save** button in the top right hand corner.



Please note that the user must press the "Save" button in order for changes to be saved and then select "Restart Panel Software" to apply the changes to the control panel.

5.5. IMPORT/EXPORT TAB

The **Import/Export** tab enables the user to export the configuration and import it for use on other control panels.

CP:	3216						
Buttons	Service Templates	Other Settings	Upload Products	Import/Export			Restart Panel Software
Select	a previously expo	orted file to im	port (i.e. cp3216	6_web.zf)			
	Brows	se Import	Export				

Figure 5-13: Import/Export Tab

The Import/Export tab identifies three control buttons:

- Browse: Selecting the *Browse* button will open a dialog box which enables the user to navigate to the appropriate file, for which they wish to import. Once the file is selected and opened, the filename will be displayed in the field to the left of the *Browse* button.
- **Import:** Selecting the *Import* button will execute the process of importing the selected file.
- **Export:** Selecting the *Export* button will enable the user to save the current control panel configuration to a specific location.



5.5.1. Exporting a Configuration to Use on Other Panels

To export a configuration, follow the instructions outlined below:

- 1. Navigate to the Import/Export control tab and select the Export button.
- 2. An *export* dialog box will appear, as shown in the Figure 5-14. Save the file in a known location.

CP3	216							
Buttons	Service Templates	Other Settings	Upload Products	Import/Export				Restart Panel Software
Select a	previously expo Brow	orted file to im se Import [You have chose You have chose CP3216 which is a from: htt What should C Open C Save Do th	5_config.zf n to open _config.zf :: ZF file p://10.101.1.83:81 =irefox do with this with	181 file? files like this from now or	h.		

Figure 5-14: Exporting File

5.5.2. Importing a Configuration to Use on Other Panels

To import a configuration follow the instructions outlined below:

- 1. Select the **Browse** button and navigate to the appropriate config file and then select the **Open** button.
- 2. Once the file name is displayed in the field next to the **Browse** button, select the **Import** button.
- 3. The panel must be restarted when a file is imported. Click the **Restart Panel Software** button in the top right hand corner.



5.6. OTHER SETTINGS TAB

The Other Settings tab enables the user to control the refresh rate of the module and the parameter.

CPE	3216					
Buttons	Service Templates	Other Settings	Upload Products	Import/Export		Restart Panel Software
						Save
Setting	s					
Module R Paramete	efresh Rate 1 er Refresh Rate 1	0				

Figure 5-15: Other Settings Tab

The following settings can be controlled:

- **Module Refresh Rate:** This parameter enables the user to set the rate at which the module refreshes.
- **Parameter Refresh Rate:** This parameter enables the user to set the rate at which the parameter refreshes.



Please note that the user must press the "Save" button in order for changes to be saved and then select "Restart Panel Software" to apply the changes to the control panel.



5.7. CONNECTING THE CP-3216PROC TO A FRAME OF EQUIPMENT

- 1. Ensure that the panel and the frames to which it needs to communicate with are on the same subnet.
- 2. The control panel should automatically discover all cards in the frame.
- 3. If the exclamation mark symbol "!" appears under the related button name on the 3216 front panel, then this indicates that the card has not been discovered by the panel.

If the exclamation mark symbol "!" does not appear under the related button name on the 3216 front panel, then this indicates that the card has been discovered by the panel.

- 4. Push each button on the top row and you will automatically switch between the different cards that you have in your system.
- 5. The control parameters assigned for that card will automatically show up on the second row of buttons along with current value being displayed.
- 6. If a card is not found or the parameter is invalid for that card, a question mark symbol "?" will appear in place of the control panel.



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