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# OGCP-9000

## Remote Control Panel



# *Product Manual*

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**COBALT**

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**openGear®** is a registered trademark of Ross Video Limited. **DashBoard™** is a trademark of Ross Video Limited. Other product names or trademarks appearing in this manual are the property of their respective owners.

Congratulations on choosing the OGCP-9000 Remote Control Panel. Should you have questions pertaining to the installation or operation of your OGCP-9000 Remote Control Panel, please contact us at the contact information on the front cover.

<b>Manual No.:</b>	OGCP-9000-OM
<b>Document Version:</b>	V2.6
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<b>Description of product/manual changes:</b>	- Update manual for accessory DC power supply info and minor consistency edits.

# Important Safety Instructions

Read these instructions.

---

Keep these instructions.

---

Heed all warnings.

---

Follow all instructions.

---



**Warning**

Do not use this apparatus near water.

---

Clean only with a dry cloth.

---

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

---



**Warning**

Do not defeat the safety purpose of polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

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Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

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**Warning**

Only use attachments/accessories specified by the manufacturer and in this manual.

---

Unplug this apparatus during lightning storms or when unused for long periods of time.

---



**Warning**

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the 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**

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

---



**Warning**

The AC mains power receptacle on the rear of the apparatus shall only be connected by means of the power cord supplied with this apparatus. No other devices or cables shall be connected to this connector. If the supplied AC power cord is damaged or lost, it shall only be replaced using the AC power cord specified in this manual or by the manufacturer.

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To Reduce The Risk Of Fire Or Electric Shock, Do Not Expose This Apparatus To Rain Or Moisture.

---



**Warning**

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

---

To reduce the risk of fire, replacement fuses shall be the same type and rating as installed and as specified on the rear label adjacent to the power receptacle fuse holder.

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# (Français) Consignes de sécurité importantes

Lisez ces consignes.

Conservez ces consignes.

Observez tous les avertissements.

Suivez toutes les consignes.



**Avertissement**

N'utilisez pas cet appareil près de l'eau.

Nettoyez l'appareil avec un chiffon sec uniquement.



**Avertissement**

N'installez pas l'appareil près d'une source de chaleur (radiateurs, bouches d'air, poêle, amplificateurs, etc.).

Ne tentez pas de contourner la protection offerte par la fiche polarisée ou avec mise à la terre. Une fiche polarisée est dotée de deux lames dont l'une est plus large que l'autre. Une fiche avec mise à la terre est dotée de deux lames et d'une broche de mise à la terre. La lame large et la broche de mise à la terre sont des dispositifs de sécurité. Si la fiche de l'appareil ne convient pas à la prise murale, demandez à un électricien de remplacer celle-ci.

Ne placez pas le câble d'alimentation de façon qu'il soit possible de le piétiner ou de le pincer, surtout au niveau de la fiche, de la prise et de l'appareil.



**Avertissement**

Utilisez uniquement les fixations et accessoires spécifiés par le fabricant et dans le présent manuel.

Débranchez l'appareil durant les orages et lorsqu'il n'est pas utilisé durant de longues périodes.



**Avertissement**

Confiez toute réparation à du personnel qualifié. L'appareil doit être réparé s'il a été endommagé (appareil, câble d'alimentation ou fiche, liquide renversé ou chute d'objets à l'intérieur, exposition à l'humidité excessive ou à l'eau, mauvais fonctionnement ou chute de l'appareil).



**Avertissement**

Votre appareil ne doit pas être exposé aux fuites goutte à goutte ou aux éclaboussures et aucun objet rempli de liquide, par exemple un vase, ne doit être placée sur l'appareil.



**Avertissement**

La prise d'alimentation à l'arrière de l'appareil doit être utilisée uniquement avec le câble fourni. Aucun autre câble ne doit être branché sur cette prise. Si le câble d'alimentation fourni est perdu ou endommagé, il doit être remplacé par celui indiqué dans le présent manuel ou spécifié par le fabricant.



**Avertissement**

Pour réduire les risques d'incendie ou de choc électrique, ne pas exposer cet appareil à la pluie ou à l'humidité.

Danger d'explosion si la batterie est remplacée incorrectement. Remplacez uniquement avec le même type ou équivalent.

Pour réduire le risque d'incendie, le fusible doit être remplacé par un du même type et de la même capacité (voir l'étiquette apposée à côté du porte-fusible).

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# Introduction

## Overview

This manual provides installation and operating instructions for the OGCP-9000 Remote Control Panel (also referred to herein as the Control Panel).

The manual consists of the following chapters:

- **Chapter 1, “Introduction”** – Provides information about this manual and what is covered. Also provides general information regarding the OGCP-9000 Remote Control Panel.
- **Chapter 2, “Installation and Setup”** – Provides instructions for installing the OGCP-9000 Remote Control Panel, and connecting the OGCP-9000 Remote Control Panel to the system in which it is intended to operate.
- **Chapter 3, “Operating Instructions”** – Provides instructions for using the OGCP-9000 Remote Control Panel to monitor and control parameter values for cards.
- **Appendix A, “Supplemental Information”** – Provides supplemental information for configuring the Control Panel.

The OGCP-9000 Remote Control Panel conveniently and intuitively provides parameter monitor and control of video and audio processing terminal equipment meeting the open-architecture openGear<sup>®1</sup> standard for Cobalt<sup>®</sup> and other OEM cards meeting the openGear standard.

OGCP-9000 installs in a standard 19” EIA equipment rack, and is 2 RU high. All communication with the frame occurs over an Ethernet network, allowing fast interaction with multiple frames.

1. openGear<sup>®</sup> is a registered trademark of Ross Video Limited. DashBoard<sup>™</sup> is a trademark of Ross Video Limited.

In addition to circumventing the need for a computer to monitor and control signal processing cards, the OGCP-9000 allows quick and intuitive access to hundreds of cards in a facility, and can monitor and allows adjustment of up to eight parameters at one time. Two large format wide-angle LCDs show sharp and clear text for the currently visible parameters. Eight dials corresponding to each of the eight displayed parameters allow ease in accessing and controlling the displayed parameters.

The OGCP-9000 is totally compatible with the openGear® control software DashBoard™; any changes made with either system are reflected on the other.

This chapter contains the following information:

- **Manual Conventions, p. 1-2**
- **Safety Summary, p. 1-4**
- **Technical Specifications, p. 1-4**
- **Warranty and Service Information, p. 1-6**
- **Contact Cobalt Digital Inc., p. 1-7**

## Manual Conventions

In this manual, all keys, displays, and connectors are shown using the exact name shown on the Control Panel itself. Examples are provided below.

- Keys are shown like this: **Select Device**
- Display messages are shown like this:

<b>Gain</b> <b>98.9 dB</b>
-------------------------------

- Connector names are shown like this: **ETHERNET 10/100**

In this manual, the terms below are applicable as follows:

- **Control Panel** refers to the OGCP-9000 Control Panel.
- **Frame** refers to the HPF-9000, oGx, OG3-FR, 8321, or similar 20-slot frame that houses Cobalt® or other cards.
- **Device** and/or **Card** refers to a frame-installed card.
- **System** and/or **Video System** refers to the mix of interconnected production and terminal equipment in which the Control Panel and frame-installed cards operate.



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## Warnings, Cautions, and Notes

Certain items in this manual are highlighted by special messages. The definitions are provided below.

### Warnings

Warning messages indicate a possible hazard which, if not avoided, could result in personal injury or death.




### Cautions

Caution messages indicate a problem or incorrect practice which, if not avoided, could result in improper operation or damage to the product.

### Notes

Notes provide supplemental information to the accompanying text. Notes typically precede the text to which they apply.

## Labeling Symbol Definitions

	<p>To reduce risk of electric shock DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL</p> <p>CONNECT AC POWER CORD TO PROPERLY GROUNDED AC OUTLET</p> <p>THIS APPARATUS MUST BE EARTHED</p>
	<p>Attention, consult accompanying documents.</p>
	<p>Symbol (WEEE 2002/96/EC)</p> <p>For product disposal, ensure the following:</p> <ul style="list-style-type: none"><li>• Do not dispose of this product as unsorted municipal waste.</li><li>• Collect this product separately.</li><li>• Use collection and return systems available to you.</li></ul>

## Safety Summary

### Warnings

#### ! WARNING !

- To reduce risk of electric shock **DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**
- **CONNECT AC POWER CORD TO PROPERLY GROUNDED AC OUTLET.**

### Cautions

#### CAUTION

This device is intended for environmentally controlled use only in appropriate video terminal equipment operating environments.

#### CAUTION

Do not edit or alter the file contents preceding the ## start of Device Definitions ## section.

#### CAUTION

When performing the firmware update, use only the files provided by Cobalt Digital Inc. and obtained as described here.

## Technical Specifications

Table 1-1 lists the technical specifications for the OGCP-9000 Control Panel.

**Table 1-1 Technical Specifications**

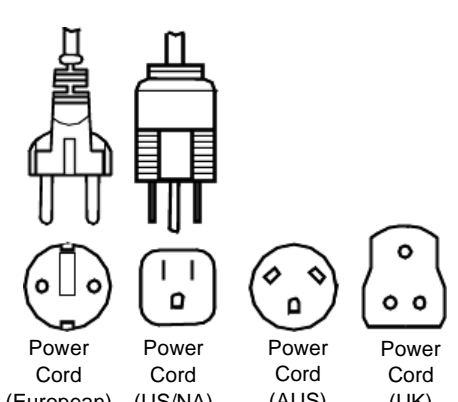
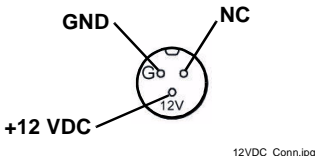
Item	Characteristic
Part number, nomenclature	OGCP-9000 Remote Control Panel
AC power requirements	90 to 264 VAC, 47-63 Hz (automatically sensed)
AC power inlet	IEC C14 chassis receptacle with 2-position integral fuse holder. Fuse type: Two, 500 mA, 250 V, 5 x 20 mm fast-action
AC power cord (standard and available alternatives)	 <p>Power Cord (European)    Power Cord (US/NA)    Power Cord (AUS)    Power Cord (UK)</p> <p><b>Note:</b> Standard US/North America power cord supplied with unit. Alternate cords shown here can be specified upon unit purchase.</p>

Table 1-1 Technical Specifications — continued

Item	Characteristic
Auxiliary DC power inlet  Connector Polarity (as viewed from rear panel) <b>Note:</b> Optional mating male connector not supplied. Order Cobalt PN 5030-0002-000R or Conxall PN 16282-3SG-311.	Locking connector, 12 VDC @ 1 A max   <p>The diagram shows a circular connector with three terminals. The top terminal is labeled 'GND', the right terminal is labeled 'NC', and the bottom terminal is labeled '+12 VDC'. A small '12V' label is also present near the bottom terminal. The file name '12VDC_Conn.jpg' is written below the diagram.</p>
Power consumption	9 Watts maximum
Accessory power supply	Cobalt PS-24 Input: Universal IEC; 100-240V, 60/50 Hz Output: 12 VDC @ >30 W  (Connects to DC inlet described above and can provide redundant or basic power for OGCP-9000; accessory power supply not furnished standard with OGCP-9000.)
Environmental: Operating temperature: Relative humidity (operating or storage):	32° – 104° F (0° – 40° C) < 95%, non-condensing
Installation dimensions	Standard EIA 19 in. rack mounting 2RU height 5 in. (127 mm) depth (not including component projections)
Frame communication	10/100 Mbps Ethernet with Auto-MDIX using RJ-45 receptacle. DC isolation provided.
Auxiliary communication ports	<ul style="list-style-type: none"> <li>• GPIO; 12 GPI (opto-isolated), 16 GPO</li> <li>• TIA/EIA-422 and TIA/EIA-485 using Phoenix terminal blocks</li> <li>• TIA/EIA-232 using female DB-9 receptacle</li> <li>• Two USB ports (reserved)</li> </ul>
Displays	Two identical LCD displays, each as follows: <ul style="list-style-type: none"> <li>• 3.75 x 2.25 in. W x H (95 x 57 mm)</li> <li>• 500 cd/m<sup>2</sup>, 300:1 contrast ratio. Adjustable brightness.</li> </ul>
Controls	<ul style="list-style-type: none"> <li>• Eight control knobs; flexible function based on operating mode.</li> <li>• Numeric keypad and control buttons</li> </ul>

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## Warranty and Service Information

### Cobalt Digital Inc. Limited Warranty

This product is warranted to be free from defects in material and workmanship for a period of five (5) years from the date of shipment to the original purchaser, except that 4000, 5000, 6000, 8000 series power supplies, and Dolby® modules (where applicable) are warranted to be free from defects in material and workmanship for a period of one (1) year.

Cobalt Digital Inc.'s ("Cobalt") sole obligation under this warranty shall be limited to, at its option, (i) the repair or (ii) replacement of the product, and the determination of whether a defect is covered under this limited warranty shall be made at the sole discretion of Cobalt.

This limited warranty applies only to the original end-purchaser of the product, and is not assignable or transferrable therefrom. This warranty is limited to defects in material and workmanship, and shall not apply to acts of God, accidents, or negligence on behalf of the purchaser, and shall be voided upon the misuse, abuse, alteration, or modification of the product. Only Cobalt authorized factory representatives are authorized to make repairs to the product, and any unauthorized attempt to repair this product shall immediately void the warranty. Please contact Cobalt Technical Support for more information.

To facilitate the resolution of warranty related issues, Cobalt recommends registering the product by completing and returning a product registration form. In the event of a warrantable defect, the purchaser shall notify Cobalt with a description of the problem, and Cobalt shall provide the purchaser with a Return Material Authorization ("RMA"). For return, defective products should be double boxed, and sufficiently protected, in the original packaging, or equivalent, and shipped to the Cobalt Factory Service Center, postage prepaid and insured for the purchase price. The purchaser should include the RMA number, description of the problem encountered, date purchased, name of dealer purchased from, and serial number with the shipment.

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## Contact Cobalt Digital Inc.

Feel free to contact our friendly and professional support representatives for any of the following:

- Name and address of your local dealer
- Product information and pricing
- Technical support
- Upcoming trade show information

<b>Phone:</b>	(217) 344-1243
<b>Fax:</b>	(217) 344-1245
<b>Web:</b>	<a href="http://www.cobaltdigital.com">www.cobaltdigital.com</a>
<b>General Information:</b>	info@cobaltdigital.com
<b>Technical Support:</b>	support@cobaltdigital.com

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# Installation and Setup

## Overview

This chapter contains the following information:

- Installing the Control Panel in Equipment Rack, p. 2-1
- Connecting the Control Panel Cabling, p. 2-2

## Installing the Control Panel in Equipment Rack

Install the Control Panel in an equipment rack as follows:

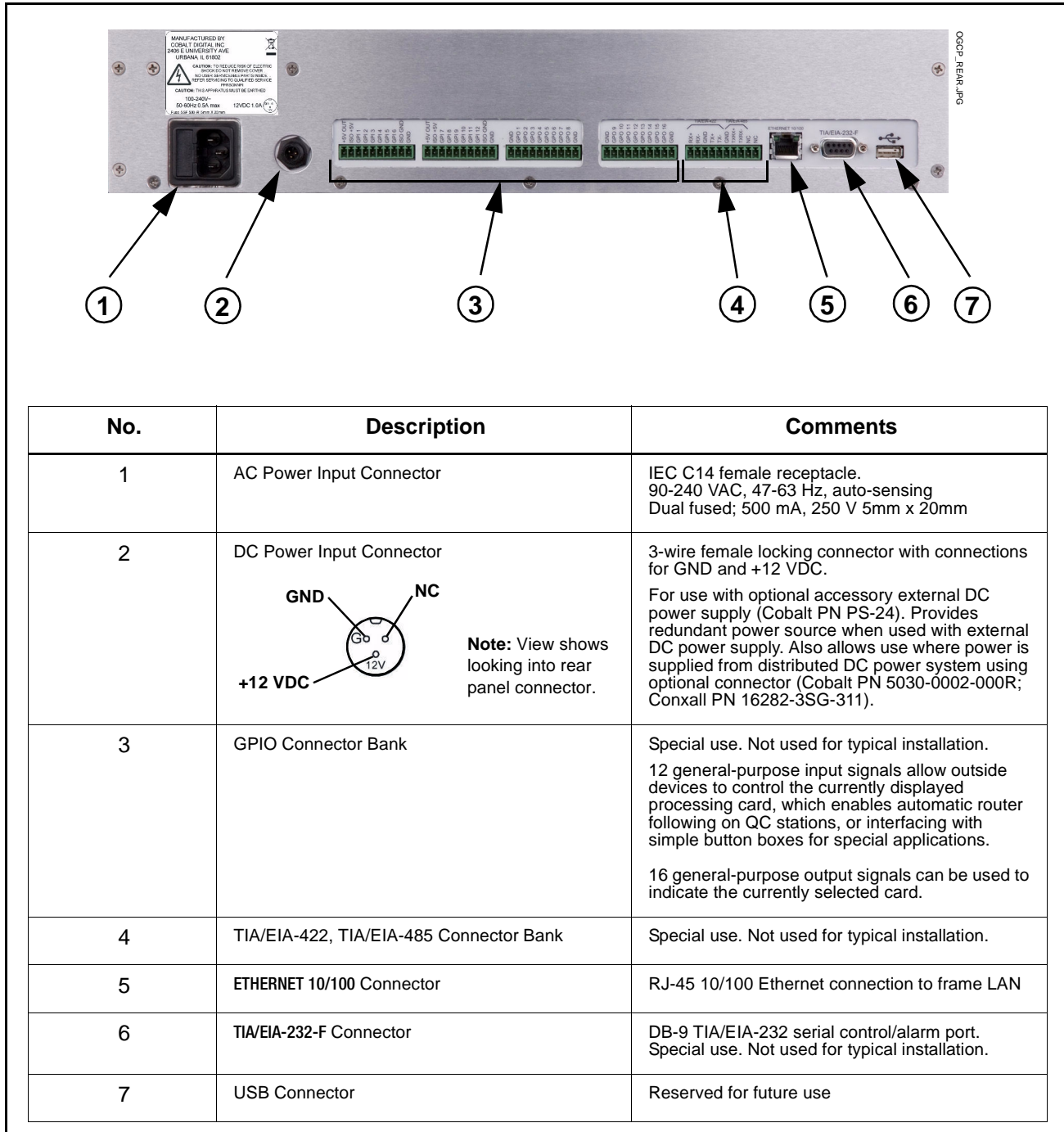
1. Select a mounting location within the rack that offers proper access and meets the following requirements:
  - Standard EIA 19 in. rack mounting
  - 2RU height
  - 7 in. (17.8 cm) minimum available depth

**Note:** The Control Panel does not require any special ventilation clearance.

2. Place the Control Panel in rack mounting position. Start four 10-32 x 3/4 machine screws and nylon washers which secure the Control Panel to the rack.
3. Evenly tighten the four Control Panel securing screws.

## Connecting the Control Panel Cabling

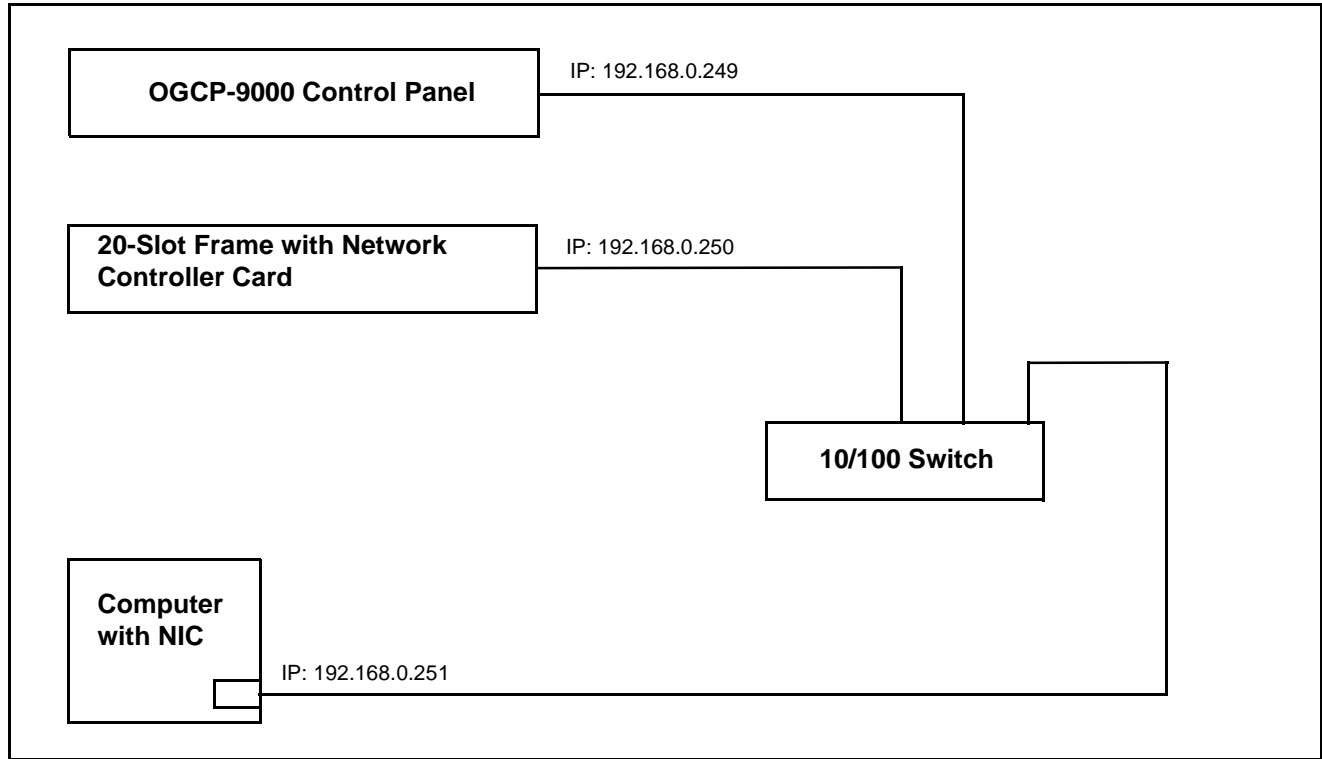
Refer to Figure 2-1 for the Control Panel rear panel connectors. Perform Control Panel connections as described below.



**Figure 2-1 Control Panel Rear Panel Connectors**



1. Using a CAT5 RJ-45 jumper cable (not supplied), connect the **ETHERNET 10/100** connector to the Ethernet switch that links the Control Panel to the LAN. Figure 2-2 shows an example LAN interconnection used with the Control Panel and a frame equipped with a required optional Network Controller Card (Cobalt PN HPF-FC or equivalent).



**Figure 2-2 Example Control Panel LAN Interconnections**

2. Connect the power cord (supplied) to the rack power strip, but do not apply power yet. Connect the IEC connector on the power cord to the female IEC on the Control Panel.
3. Apply power to the cord connected to the Control Panel.  
Upon power-up verify that the COBALT® opening screen (shown below) is shown on both Control Panel front panel screens. This verifies the Control Panel self-test.



4. Proceed to Chapter 3, “Operating Instructions”.

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# Operating Instructions

## Overview

This chapter contains the following information:

- Control and Display Descriptions, p. 3-1
- Network Setup, p. 3-3
- Using the Control Panel To Select and Monitor Frame Cards, p. 3-3
- Troubleshooting, p. 3-13

## Control and Display Descriptions

In its normal operating use, the Control Panel allows the user to simultaneously display up to eight parameter settings of a selected card and, in turn, remotely adjust the parameter value or selection using the control knob adjacent to the displayed parameter with no keypad intervention being required. Figure 3-1 provides an example and describes this function.

Just like a potentiometer on a console, rotating the control knob adjacent to its display area (in this example, "Color Gain" and its corresponding knob) changes the value of the displayed numeric parameter.

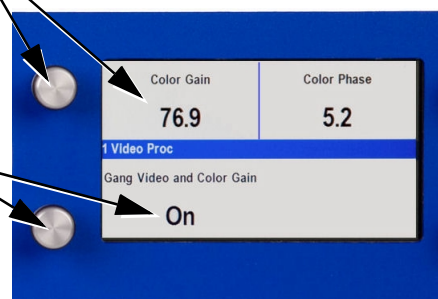
In this example, rotating the knob clockwise increases the Color Gain value in tenth-unit steps. Rotating the knob counter-clockwise similarly reduces the value of the corresponding parameter.

Where the display shows a selection choice, the knob acts as a rotary selector switch.

In this example, rotating the knob selects between **On** and **Off** for Gang Video and Color Gain.

**Note:**

- Values displayed at any time is the actual value as set on the card.
- Units characters (such as "dB" or "deg") are displayed per ordered configuration preference and may not appear on some control panel displays.



**Figure 3-1 Basic Display/Knob Function**

Figure 3-2 shows and describes the front panel control knobs, keys, and displays.

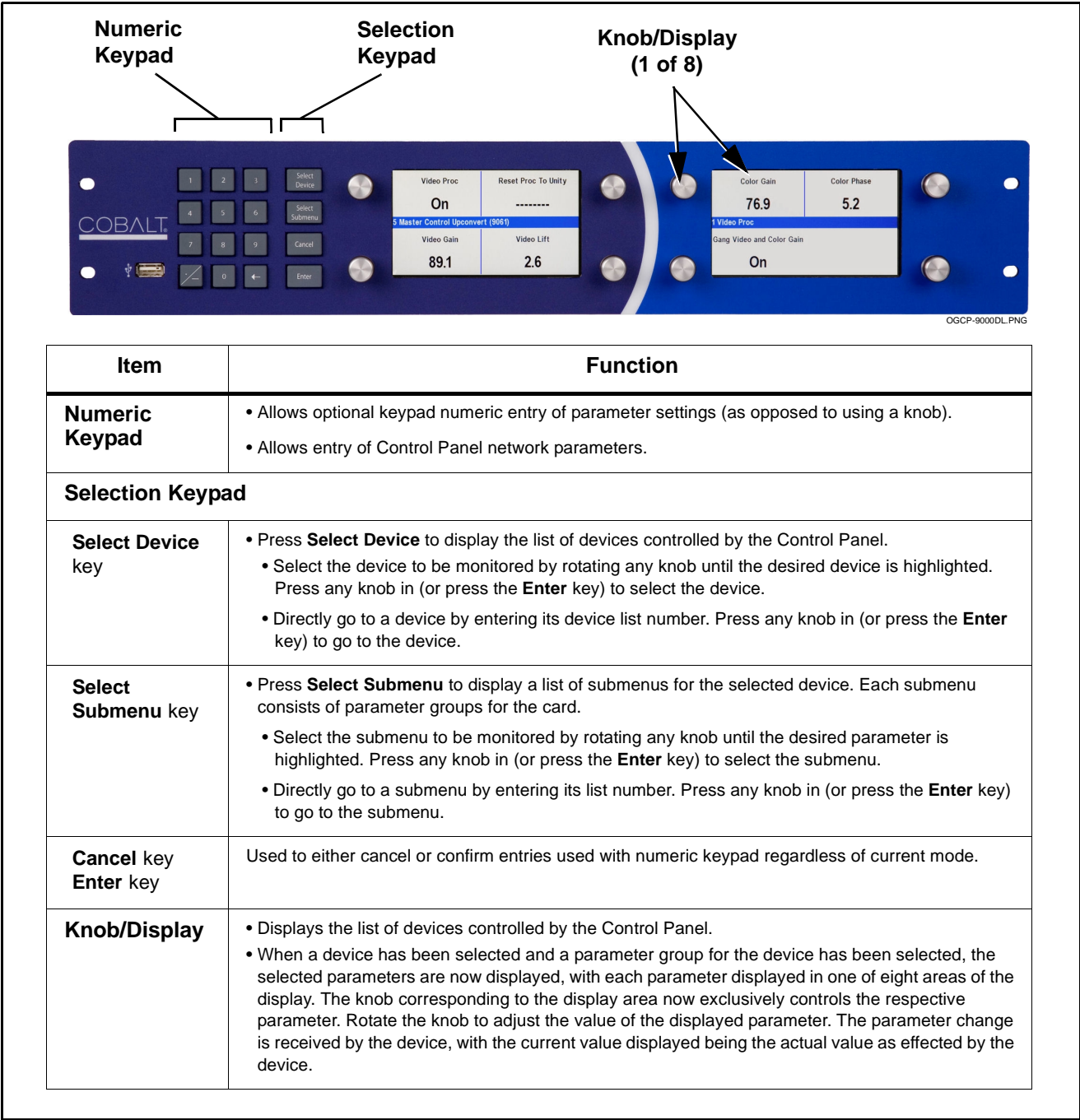


Figure 3-2 OGCP-9000 Remote Control Panel Controls and Displays

- Note:**
- Although the keypad and **Enter** key can always be used to enter a selection, where the Control Panel displays a list of selection options it is more convenient to simply rotate a knob to select the option, and then press the knob in to enter the selection.
  - For numeric parameters (such as level settings), the knob ballistics are such that rapid rotation of the knob yields coarse wide-span adjustment of the parameter. Slower or incremental rotation of the knob yields correspondingly finer adjustment, eventually providing step adjustment corresponding to the decimal precision of the displayed value.
  - The keypad keys are backlit in modes where the key can be used. If a key is not applicable to a particular mode or configuration of the Control Panel, the key is not backlit.

## Network Setup

Typically, your Control Panel is delivered with all network settings and card assignments configured per your instructions for your frames and cards that are to be controlled by the Control Panel. This is facilitated by the “Setting Up Your Cobalt® Remote Control Panel” fill-in sheet that we offer you, or per your instructions.

- If your Control Panel **is** configured with your custom settings, it is now ready for use. Proceed to Using the Control Panel To Select and Monitor Frame Cards below.
- If your Control Panel **is not** configured with your custom settings, the Control Panel must first be configured to work with your network and the frames to be controlled by the Control Panel. These configuration changes are easily accomplished using the instructions in Appendix A, Supplemental Information.

## Using the Control Panel To Select and Monitor Frame Cards

Select devices (cards) and monitor/adjust the card parameters as described in this section.

### Device and Parameter Submenu Overview

Each device has its user parameters organized into **submenu** groups, as shown in the example on the next page.

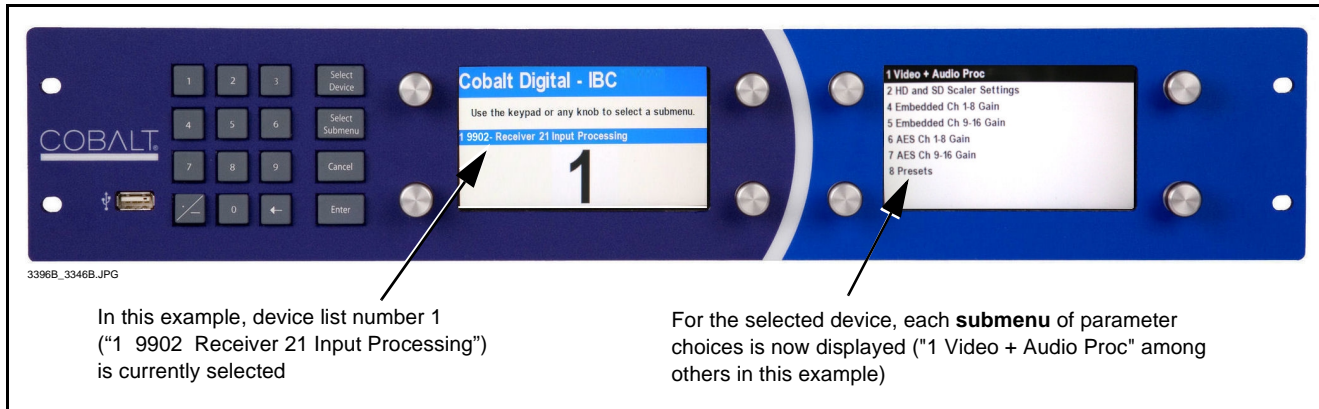
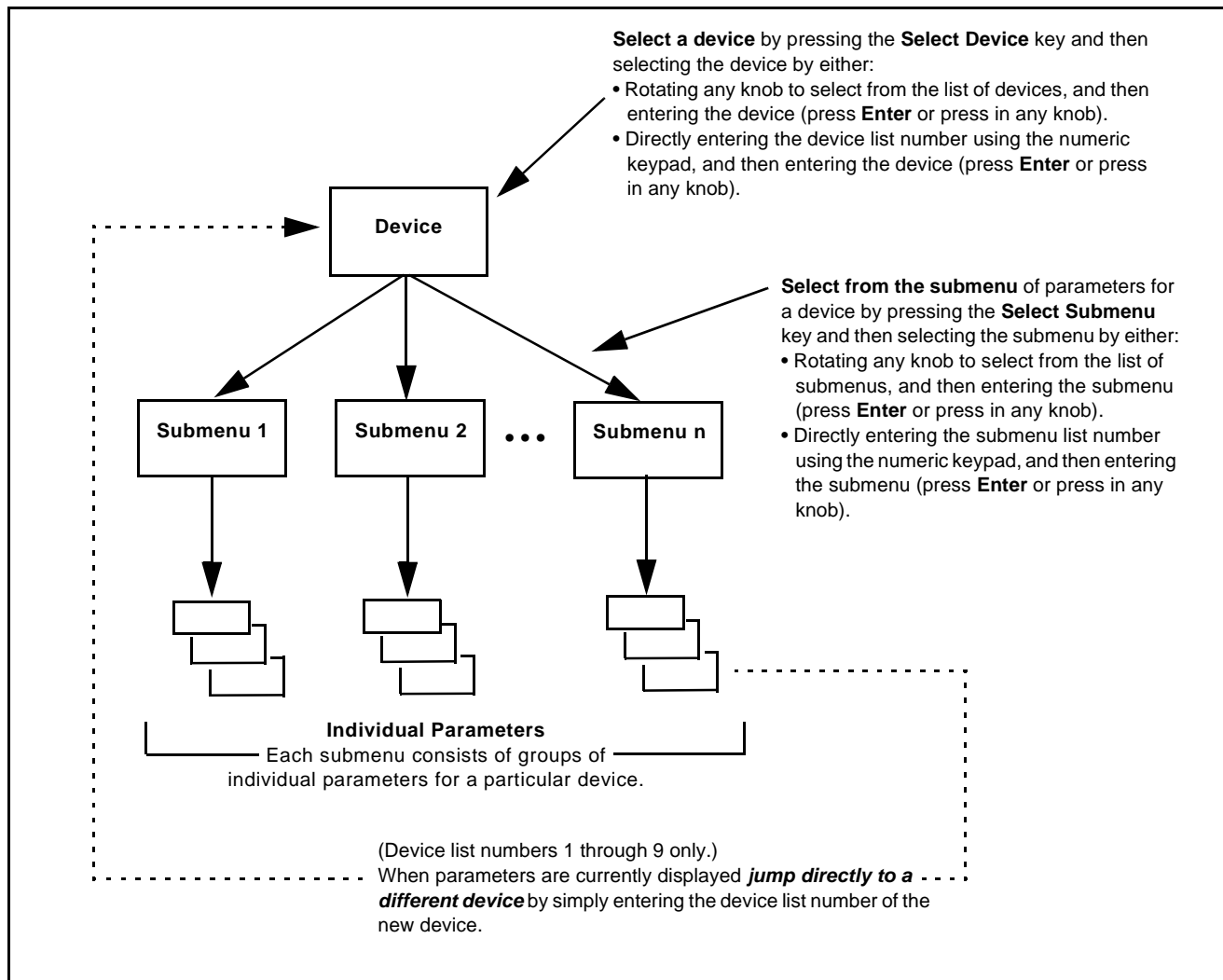



Figure 3-3 shows how a device and its respective submenus are organized, and also provides an overview of how to navigate between devices and submenus.



**Figure 3-3 Device and Parameter Submenu Overview**

### Selecting a Device

1. Press the **Select Device** key. The Select Device screen is displayed (as shown in the example below).



This display shows the list order number of the device that is ready for selection

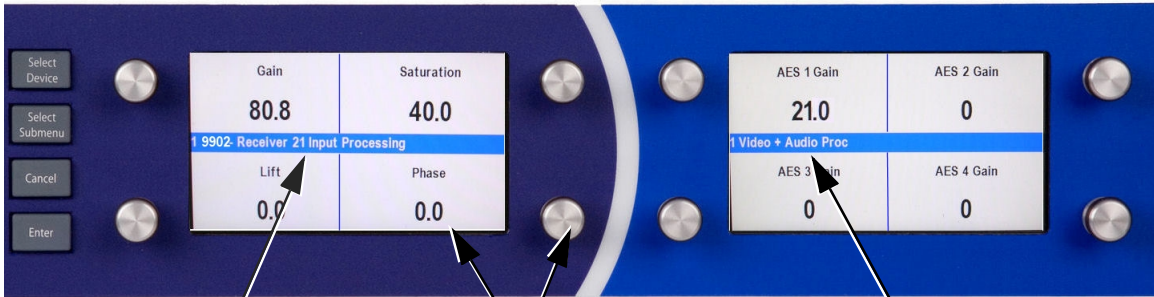
This display shows the devices assigned to the Control Panel.

- Rotate any knob to select from the list of devices. The device selected using a knob is displayed with a reversed background (in this example, "1 9902 - Receiver 21 Input Processing"). Press any knob in to select the device.
- Directly enter a device by entering its list number using the numeric keypad, and then pressing **Enter** or pressing in any knob).

2. Select a device by either:

- Rotating any knob to select from the list of devices. When the desired device is selected in the right display, press any knob in to display the device.
- Directly entering the device list number using the numeric keypad, and then pressing **Enter** or pressing in any knob).

When the selected device is displayed, device parameters are displayed (as shown in the example below).



The currently displayed device and its list order is shown here

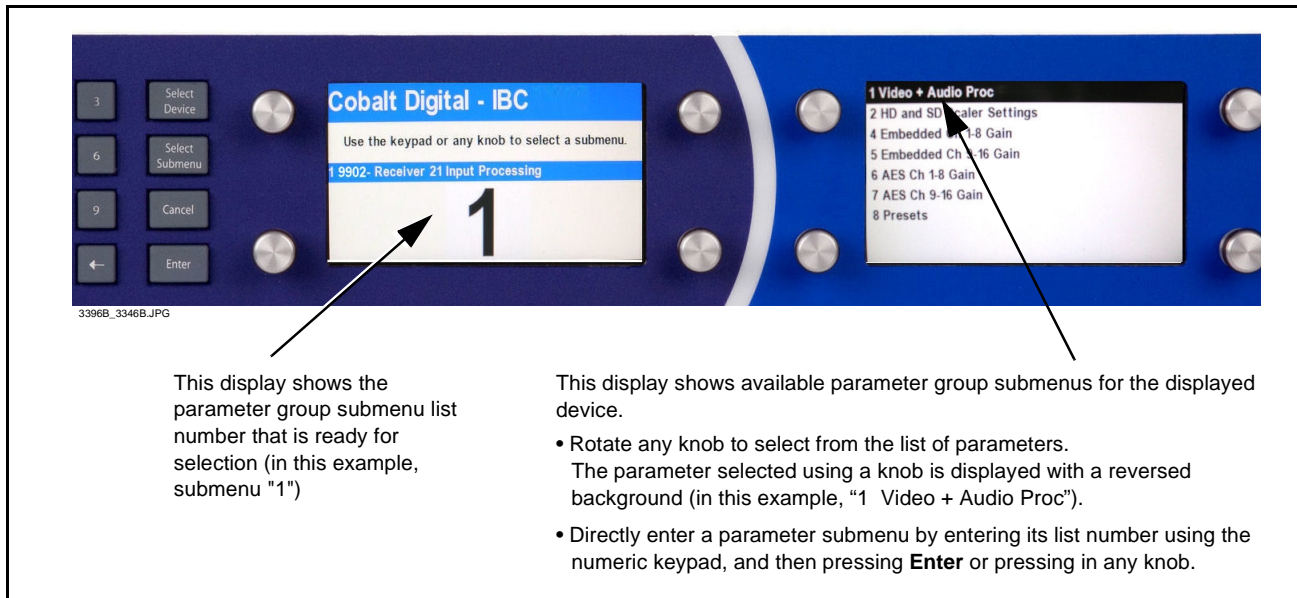
Displayed parameter and its associated control knob ("Phase", being 1 of 8 parameters shown in this example)

The currently displayed parameter submenu and its list order number is shown here



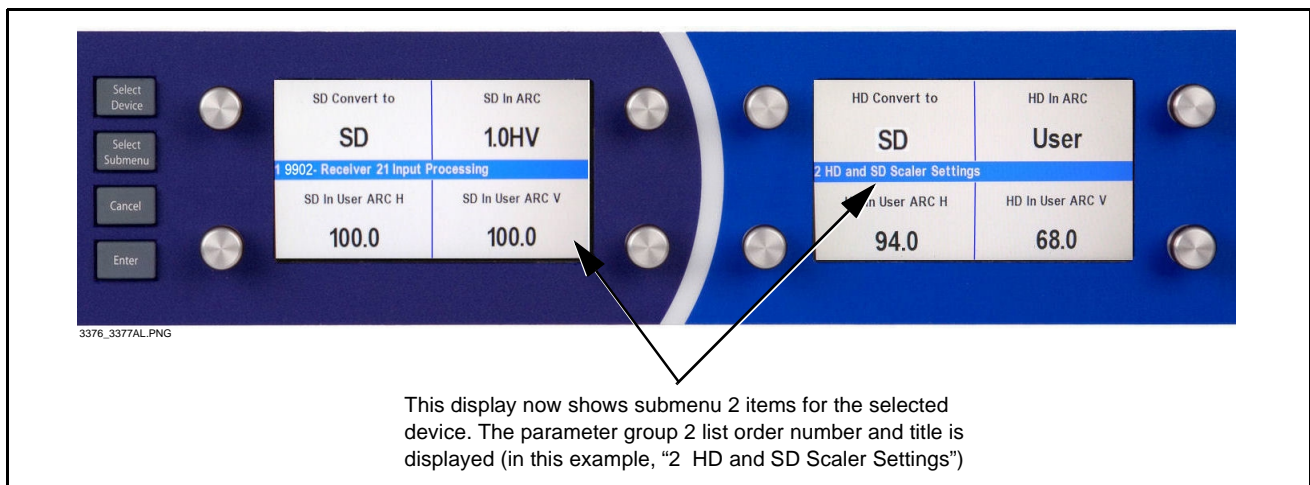
## Displaying and Adjusting Device Parameters

1. Display parameter submenus by pressing the **Select Submenu** key. The available parameter group choices are displayed on the right display (as shown in the example below).




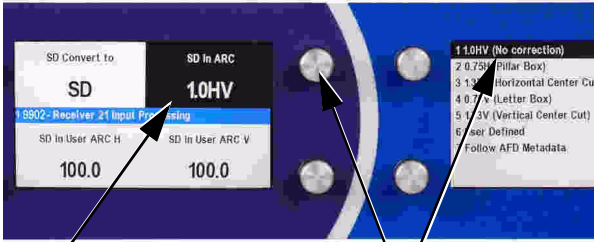
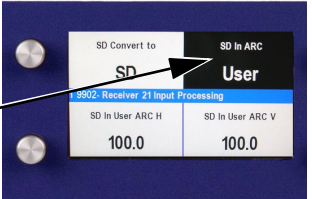
2. Select a submenu by either:

- Rotating any knob to select from the list of submenus. When the desired submenu is selected in the right display, press any knob in to display the submenu. (The example below now shows submenu 2 displayed.) Enter the submenu by pressing any knob in.
- Directly entering the submenu list number using the numeric keypad, and then pressing **Enter** or pressing in any knob).





- Depending on the type of parameter displayed, change the setting as follows:

Parameter Type:	Change setting by:	
<p><b>Numeric (scalar) value</b> using knob to adjust</p>	<ul style="list-style-type: none"> <li>Rotate the knob adjacent to the parameter to select the desired setting. The displayed value is now the current setting for the parameter.</li> <li><b>Note:</b> Holding knob in sets value to default setting where applicable.</li> </ul>	<p>Rotate the knob clockwise to increase the value of the corresponding parameter</p> <p>Rotate the knob counter-clockwise to reduce the value</p>  <p>OGCP-9000C.JPG</p>
<p><b>Selection from list</b> using knob to select</p>	<ul style="list-style-type: none"> <li>Press the knob adjacent to the parameter. The parameter is now displayed in reversed background, indicating a selection can now be made.</li> <li>The available choices for the parameter are now displayed on the opposite display. Rotate the knob adjacent to the parameter to select from the available choices.</li> <li>After selecting a change, press the knob adjacent to the parameter to apply the change. The changed value is now the current setting (as shown in the example here).</li> </ul>	 <p>Reversed background indicates parameter is selected</p> <p>Rotate the knob adjacent to the parameter to select from available choices</p> <p>3378_3380.JPG</p> <hr/>  <p>Changed value</p> <p>3383BL.PNG</p>
<p><b>Numeric value or selection from list</b> using keypad</p>	<ul style="list-style-type: none"> <li>Press the knob adjacent to the parameter. The parameter is now displayed in reversed background, indicating a change can now be made.</li> <li>Using the numeric keypad, enter the desired changed numeric value (or selection from list). The <b>←</b> key clears each keystroke. The <b>Cancel</b> key clears the entire entry and reverts to the original setting.</li> <li>Press the knob adjacent to the parameter (or press the <b>Enter</b> key) to apply the change.</li> <li><b>Note:</b> Out-of-range entries are indicated by red text being displayed. Press <b>Cancel</b> key to clear the entry.</li> </ul>	

4. To select another parameter group for the currently displayed device, press **Select Submenu** and select the parameter group as described in steps 1 and 2 above.
5. To select another device, press **Select Device** and select the device as described in Selecting a Device, p. 3-5.

**Note:** If a different device is selected, submenu and parameter value settings are retained for the previous device. When the previous device is again selected, its settings are again displayed and take effect.

## System Information/User Interface Functions

The System Information/User Interface Functions mode allows the user to:

- Check current network settings of the Control Panel.
- Check system information related to the Control Panel.
- Set user preferences such as backlight brightness (“Backlight Level”) of the Control Panel displays.

This mode has no effect on functional operation of the Control Panel.

### Checking Current Network Settings



Check current network settings of the Control Panel as follows:

1. Press the **Select Device** key and then press the **0** key.
2. Press the **Select Submenu** key. The Control Panel Submenu selection screen is now displayed.
3. Rotate any knob to select



#### 1 Current Network Settings

4. Press any knob in to display current network settings. An example of this display is shown on the next page.

**Note:** Where the Lock icon (  ) appears, this indicates values cannot be changed in the currently displayed screen. Where the “P” icon (  ) appears, this indicates to press the adjacent knob to open the value for editing.



5. Exit the Current Network Settings screen as follows:

- Press the **Select Submenu** key to go to other Control Panel Submenu choices.
- Press the **Select Device** key to exit the Control Panel Submenu.

### Checking System Information

The System Information screen shows application build, kernel build, and processor version information for the Control Panel. Check system information as follows:

1. Press the **Select Device** key and then press the **0** key.
2. Press the **Select Submenu** key. The Control Panel Submenu selection screen is now displayed.
3. Rotate any knob to select

**3 System Information**

4. Press any knob in to display current system information. An example of this display is shown below.



5. Exit the Current Settings screen as follows:

6. Exit the Current Network Settings screen as follows:

- Press the **Select Submenu** key to go to other Control Panel Submenu choices.
- Press the **Select Device** key to exit the Control Panel Submenu.

## Setting User Interface Preferences

The Control Panel User Interface submenu allows display appearance and knob/key hold time preferences to be set as described below.

Adjust the backlight brightness level of the displays as follows:

1. Press the **Select Device** key and then press the **0** key.
2. Press the **Select Submenu** key. The Control Panel Submenu selection screen is now displayed.
3. Rotate any knob to select

### 4 User Interface

4. Press any knob in to enter User Interface mode.
5. Select the desired User Interface item (described below) by pressing the knob adjacent to the item and rotating the knob.

Item	Function
<b>Color Theme</b>	<ul style="list-style-type: none"><li>• <b>Bright</b> setting provides white background with black text.</li><li>• <b>Dim</b> setting provides reversed background with white text and black background.</li></ul>
<b>Backlight Level</b>	With Color Theme set to Bright, adjusts the saturation of both the text and the background. With Color Theme set to Dim, adjusts the brightness of the text (background is always full black).
<b>Key/knob hold time</b>	Sets the required time (in seconds) that a knob or key must be held for the respective setting to return to its default value.

6. Exit the User Interface screen as follows:
  - Press the **Select Submenu** key to save the changes and go to other User Interface submenu choices.
  - Press the **Select Device** key to save the changes and exit the User Interface submenu screen.

## Setting Knob Ballistics

The default knob ballistics provides rapid access to values across the range of an item while providing ease of fine adjustment. The ballistics can be tailored using the submenu described below.

- Note:**
- This submenu may not be present on all Control Panels.
  - Settings resulting in very large adjustment spans may require very slow knob increment/decrement rotation to make a desired selection (especially for items in a list). Always test knob action when making changes. Knob ballistic setting can be reset to default by holding knob in.

1. Press the **Select Device** key and then press the **0** key.
2. Press the **Select Submenu** key. The Control Panel Submenu selection screen is now displayed.
3. Rotate any knob to select

### 5 Knob Ballistics

4. Press any knob in to enter Knob Ballistics mode.
5. Listed and described below are the knob ballistics controls. Select the desired item by pressing the knob adjacent to the item and rotating the knob.

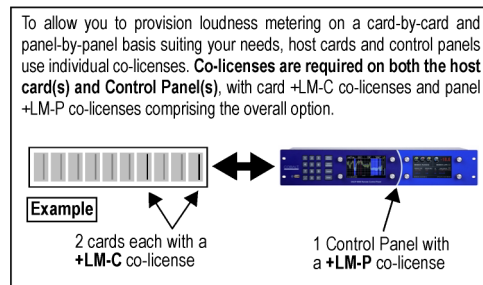
Item	Function
<b>Jump Interval (major and minor)</b>	<ul style="list-style-type: none"><li>• Greater settings allow for greater value increment or decrement accumulation while knob is being rotated.</li><li>• Lesser settings allow for finer value increment or decrement accumulation while knob is being rotated.</li></ul>
<b>Jump Multiplier (major and minor)</b>	<ul style="list-style-type: none"><li>• Greater settings allow for greater spans in value increment or decrement while knob is being rotated.</li><li>• Lesser settings allow for smaller spans in value increment or decrement while knob is being rotated.</li></ul>

## Loudness Metering Option

Audio Loudness Meter option (+LM) can be installed as a software upgrade to any of several Cobalt® cards and the OGCP-9000 Remote Control Panel. As such, with the option installed on a host card and the Control Panel, the option provides an audio loudness meter function. Note that the host card and Control Panel retain all of their normal functions; the Audio Loudness Meter functions are available as seamlessly added submenu selections on the Control Panel.

See “+LM Audio Loudness Meter Software” on our web site or catalog for more information.

**Note:** Host card(s) and control panel(s) use separate option licensing as shown below.

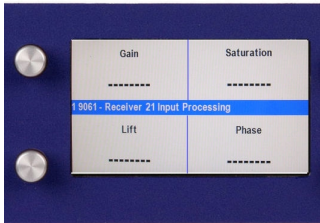


**Figure 3-4 Typical Loudness Metering Display with Option +LM-P**

## Troubleshooting

In the event that the Control Panel does not function as described in this manual or as expected, use Table 3-1 to perform basic troubleshooting.

**Table 3-1 Troubleshooting by Symptom**

Symptom	Check	Corrective Action
Displays are blank and not illuminated	<ul style="list-style-type: none"> <li>Make certain AC power (or auxiliary DC power if used) is present</li> </ul>	<ul style="list-style-type: none"> <li>Fix power as required.</li> </ul>
	<ul style="list-style-type: none"> <li>Blown fuse (located in IEC AC receptacle housing)</li> </ul>	<ul style="list-style-type: none"> <li>The IEC AC receptacle on the rear of the Control Panel contains two fuses. Access the fuses by removing the power cord and opening the fuse door adjacent to the receptacle using a small flat-blade screwdriver.</li> </ul> <p>Check both fuses for continuity. Replace fuse(s) with the same value and type fuse (as identified on the label adjacent to the receptacle).</p> <div style="background-color: black; color: white; padding: 5px; text-align: center;"><b>CAUTION</b></div> <p><b>Replace fuses only with the same value and type as specified on the rear panel label.</b></p> <ul style="list-style-type: none"> <li>Power up the Control Panel again. If fuse(s) blow again, contact Cobalt Digital Inc. Technical Support Department.</li> </ul>
<p>Display item shows dashes or blank spaces instead of value or selection (see example below). This indicates Control Panel may not be connecting with selected device.</p> 	<ul style="list-style-type: none"> <li>Select another device and check the displays.</li> </ul>	<ul style="list-style-type: none"> <li><b>If other devices display properly</b>, the device showing dashes or blanks may not be communicating with the Control Panel. Check the following: <ul style="list-style-type: none"> <li>Make certain the card is installed in the intended frame and slot location.</li> </ul> </li> <li><b>If all other devices do not display properly</b>, the Control Panel may not be connecting to the LAN. Check the following: <ul style="list-style-type: none"> <li>Make certain the Control Panel network settings are as expected. Apply the correct settings if required.</li> </ul> </li> </ul> <p><b>Note:</b> Refer to Changing the Control Panel Network Settings in Appendix A, "Supplemental Information" for Control Panel configuration instructions.</p> <ul style="list-style-type: none"> <li>Make certain the Control Panel Ethernet cable is properly connected and showing activity on the LAN switch. Use <code>ping</code> to check the connection.</li> </ul>

**Table 3-1 Troubleshooting by Symptom — continued**

Symptom	Check	Corrective Action
Upon power-up, COBALT® opening screen is not displayed.		<ul style="list-style-type: none"> <li>With power applied to the Control Panel, reset the Control Panel by simultaneously holding the following keys: <ul style="list-style-type: none"> <li>- <b>1</b></li> <li>- <b>. / -</b></li> <li>- <b>Enter</b></li> </ul> </li> <li>If the action above does not correct the problem, contact Cobalt Digital Inc. Technical Support Department.</li> </ul>

## In Case of Problems

Should any problem arise with your Control Panel that was not solved by the information in this section, please contact the Cobalt Digital Inc. Technical Support Department. (Contact information is supplied on the front cover of this manual.)

If required, a Return Material Authorization number (RMA) will be issued to you, as well as specific shipping instructions. If required, a temporary replacement Control Panel will be made available at a nominal charge. Any shipping costs incurred are the customer's responsibility. All products shipped to you from Cobalt Digital Inc. will be shipped collect.

The Cobalt Digital Inc. Technical Support Department will continue to provide advice on any product manufactured by Cobalt Digital Inc., beyond the warranty period without charge, for the life of the equipment.

See Contact Cobalt Digital Inc., p. 1-7 in Chapter 1, "Introduction" for contact information.



# *Supplemental Information*

## Overview

Typically, your Control Panel is typically delivered with all network settings and card assignments configured per your instructions for your frames and cards that are to be controlled by the Control Panel. This is facilitated by the “Setting Up Your Cobalt® Remote Control Panel” fill-in sheet that we offer you, or per your instructions.

An example of a filled-in sheet is shown in Figure A-1. As shown, this information consists of the following:

- IP address of the Control Panel itself
- IP address of the frame(s) connecting to the Control Panel
- Card assignments for each frame(s)

By providing us this information before you receive your Control Panel, your Control Panel will be immediately ready to use.

Should the need arise to change any of the following, use the instructions in this appendix.

- Changing the Control Panel Network Settings, p. A-2
- Changing Frame Network Settings and/or Card Assignments, p. A-5

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The form below can be used to sort out and arrange the setup of your Control Panel. Print or photocopy as many as needed.

<p><b>Customer Name:</b> <u>XYZ Inc.</u></p> <p><b>Area/Plant:</b> <u>Post 1A</u></p> <p><b>PO Number:</b> <u>CDI-CP-XYZ</u></p> <p><b>Date:</b> <u>10/2/09</u></p> <p><b>Control Panel Name:</b> <u>Post 1A-5</u></p> <p><b>Control Panel IP Address:</b> <u>192.168.0.249</u></p>	<p style="text-align: center;">8310-C Frame with MFC-8310-N network controller card (FRONT VIEW)</p>
---	--

Frame Name/Number:		
Slot	Card Model	Name/Description
1	9061	Post 1A Format
2	9083	Post 1A Audio/F5
3	9323	Post 1A Audio #2
4	9323	Post 1A Audio #3
5	9323	Post 1A Audio #4
6	9323	Post 1A Audio #5
7		
8		
9		
10		
Frame IP Address: 192.168.0.55		

*Figure A-1 Example “Setting Up Your Cobalt® Remote Control Panel” Sheet*

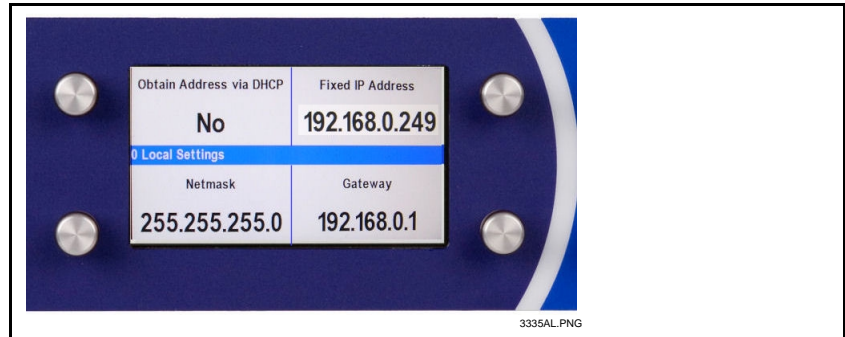
## Changing the Control Panel Network Settings

Change the network settings to desired settings as described below.

1. Press the **Select Device** key and then press the **0** key.
2. Press the **Select Submenu** key. The Control Panel Submenu selection screen is now displayed.
3. Rotate any knob to select

**2 Configure Network Settings**

4. Press any knob in. The current network settings for the Control Panel are now displayed (as shown in the example below). Note at this point that the setting selection items on the screens are now adjacent to respective knobs.



**Note:** Where the Lock icon (🔒) appears, this indicates values cannot be changed in the currently displayed screen. Where the "P" icon (🔒) appears, this indicates to press the adjacent knob to open the value for editing.

5. Noting the setting selection item to be changed and its respective knob, press the knob in to open the item for editing. The setting selection item is now displayed in reversed background, indicating a selection can now be made.

**Note:** **Obtain Address via DHCP** item should first be set. If set to **Yes**, manually entered static values for a static IP address will not take effect.

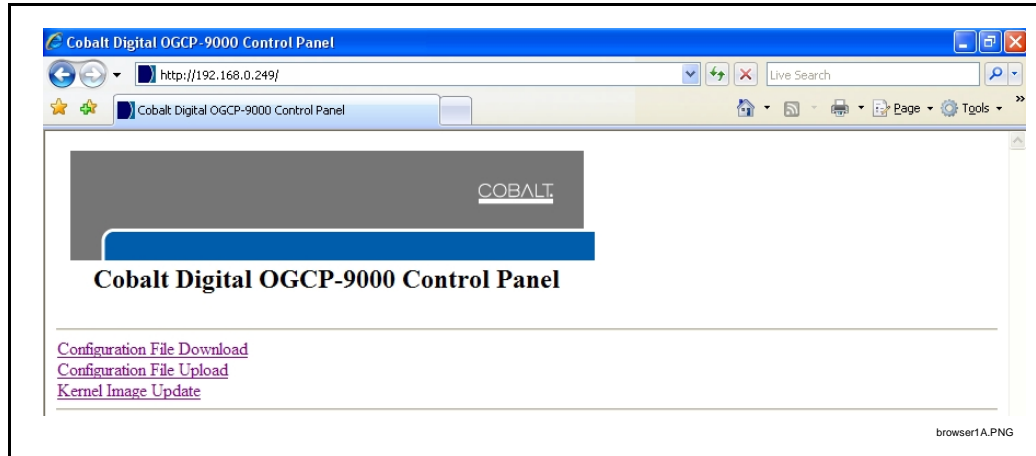
6. Rotate the knob adjacent to the parameter to select from a list of choices (or use the keypad and **Enter** key for numeric string settings) to enter the desired change. Reject or enter the change as follows:
  - **Cancel** the entry or selection by pressing the **Cancel** key.
  - **Execute** the entry or selection by either pressing the corresponding knob in again (or pressing the **Enter** key). The changed entry now appears in the respective item field.
7. Repeat steps 5 and 6 for all four setting selection items displayed (and listed below), making certain all four setting selection items are set as intended.
  - **Obtain Address via DHCP** (Y/N?)
  - **Fixed IP Address**
  - **Netmask**
  - **Gateway**

**Note:** Static IP addresses are recommended for the Control Panel and the frame(s) that the Control Panel is to communicate with.

8. Save changes by pressing the **Select Device** or **Select Submenu** key. **Saving Changes** and **Restarting** is displayed. The Control Panel now restarts (followed by the power-up COBALT® opening screen).

9. Test the Control Panel configuration setting and connectivity performed above by going to a computer on the LAN where the Control Panel resides. Use the Control Panel embedded web browser to access the Control Panel as follows:

- 9.1 Open a browser window and enter the Control Panel IP address.
- 9.2 On the computer, the Control Panel screen should now appear (as shown below).



10. If desired, the Control Panel network settings can also be checked as follows:

- 10.1 Press the **Select Device** key and then press the **0** key.
- 10.2 Press the **Select Submenu** key. The Control Panel Submenu selection screen is now displayed.
- 10.3 Rotate any knob to select

**1 Current Network Settings**

- 10.4 Press any knob in to display current network settings. An example of this display is shown below.



---

## Changing Frame Network Settings and/or Card Assignments

The Control Panel uses a configuration file to perform the following:

- Connect the Control Panel to its intended frame(s).
- Configure the Control Panel to provide control functions applicable to particular cards. In this manner, the Control Panel displays and provides the control functions applicable to the cards controlled by the Control Panel.
- Correlate the card model list displayed on the Control Panel with the physical order/assignment of cards within the frame.

Therefore, to change the configuration of your Control Panel, a new (or edited) configuration file that contains the desired changes must be **uploaded** to the Control Panel.

- Cobalt® can prepare an edited configuration file to implement the changes you require. Contact Cobalt Support (see “Contact Cobalt Digital Inc.” in Chapter 1 of this manual) to obtain a new configuration file. The file will be sent to you via e-mail.

When the file is received, it can be uploaded to the Control Panel as described in “Uploading a Configuration File to the Control Panel” below.

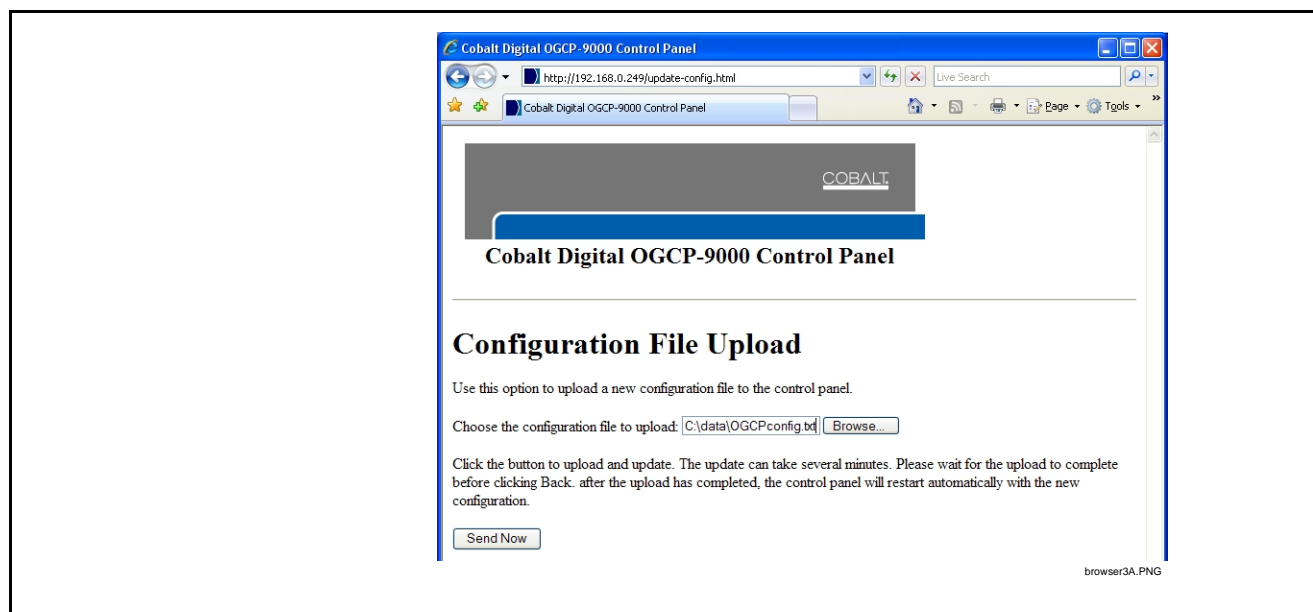
- If you desire, you can perform minor edits to a configuration file to change a frame IP address, or card slot locations and/or additions within a frame. Contact Cobalt Support (see “Contact Cobalt Digital Inc.” in Chapter 1 of this manual) to obtain your configuration file. The file will be sent to you via e-mail. You can edit the file as described in Editing a Configuration File, p. A-7. When the file is ready, it can then be uploaded to the Control Panel as described in “Uploading a Configuration File to the Control Panel” below.

### Uploading a Configuration File to the Control Panel

1. Open a browser window and enter the Control Panel IP address on a computer connected to the frame LAN (“192.168.0.249” in the example shown below).
2. When the screen shown below appears on the computer, click on Configuration File Upload.



3. The screen shown below now appears. Using the **Browse...** button, browse to the location of the saved configuration file (C:\data\OGCPconfig.txt in the example below).



4. Click the **Send Now** button. Wait while the edited configuration is fully uploaded to the Control Panel.

After the upload has completed, the Control Panel will restart automatically displaying the power-up COBALT® opening screen and show the new configuration. The browser can now be closed.

### CAUTION

**Do not power down the Control Panel or disturb the upload until it is complete. Improper upload will result if upload is not allowed to properly complete.**

## Editing a Configuration File

The Control Panel configuration file can be field-edited to change frame IP addresses or card assignments and/or slot locations as described below.

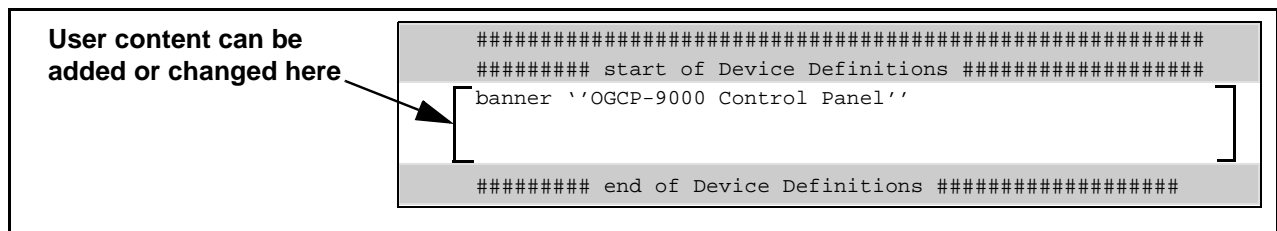
**Note:** If it is desired to edit the configuration file that currently resides in the Control Panel, in the browser described on the previous page, click [Configuration File Download](#) and browse to the location where you want it to be downloaded. Perform edits on the file and upload when done as described below.

**Note:** Always save an edited configuration file using a unique name, thereby preserving the original file should it be necessary to use the original file.

1. Shown below is the section of the configuration file where the user defines frame IP address and card assignments to suit the installation.

The user-editable area of the file is defined by the  
## start of Device Definitions ## and the  
## end of Device Definitions ## boundaries as shown below.

In the default configuration file, this area is empty (as shown below).



### CAUTION

**Do not edit or alter the file contents preceding the**

## start of Device Definitions ## **section.**

2. Note the convention used for entering user definitions, as shown in the example in Figure A-2.
3. Noting the convention described in Figure A-2, configure the Control Panel by adding configuration content to the downloaded configuration file as follows:

**Note:** For additional reference if desired, Figure A-3 on page A-10 shows an example configuration file and the resulting Control Panel configuration setup.

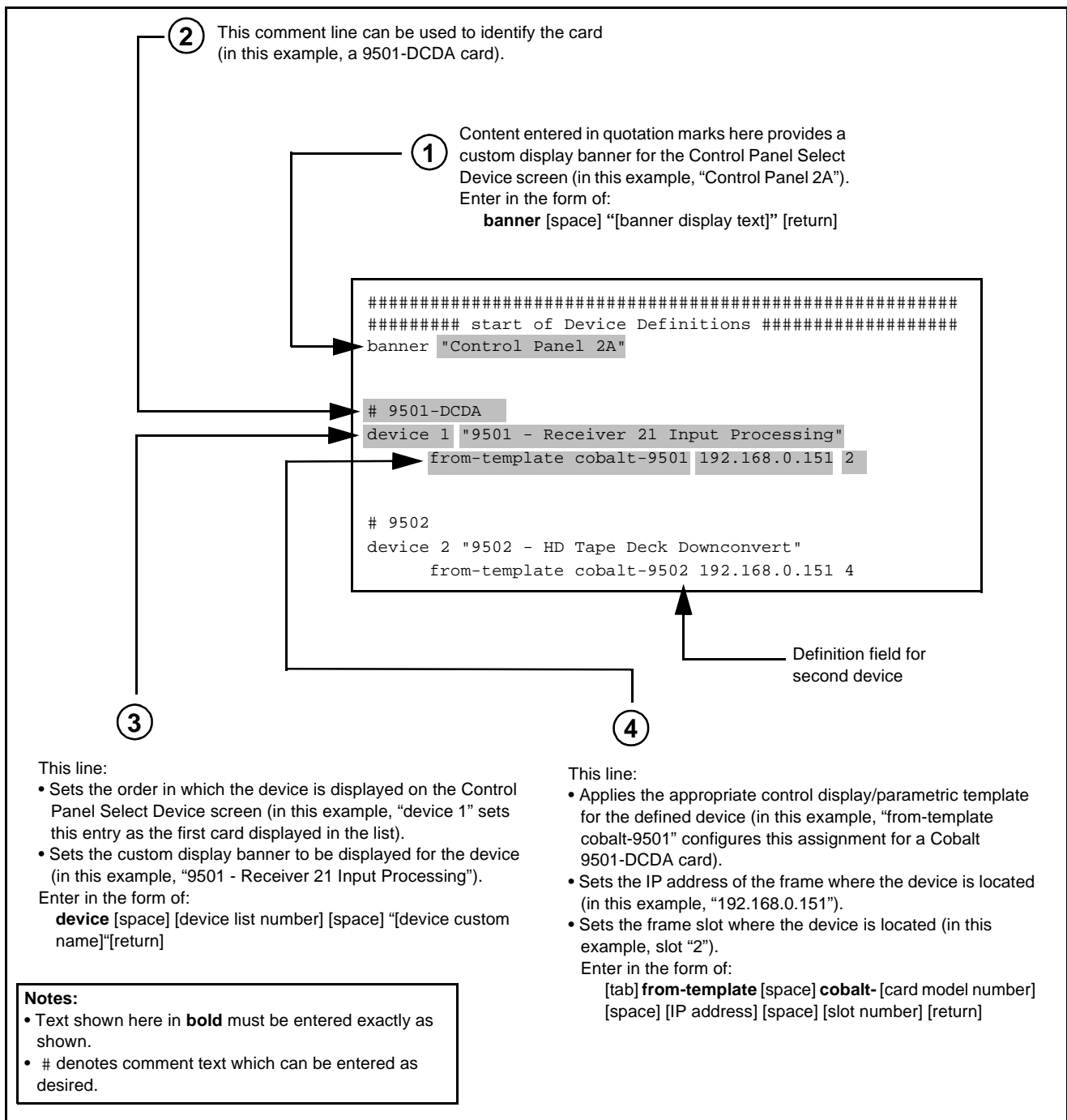


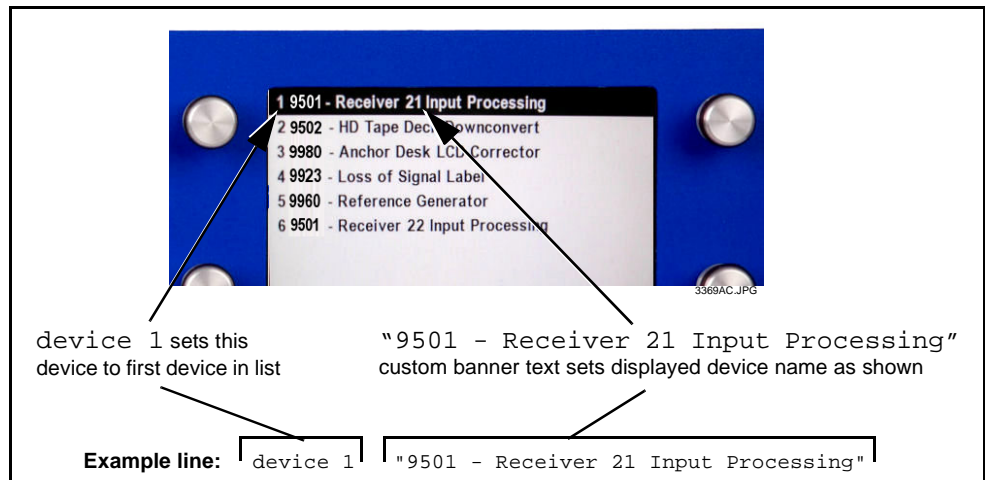
Figure A-2 Device Definition Field Descriptions

### 3.1 Enter the banner text to be displayed for the Control Panel Select Device screen ( **1** in Figure A-2).

Enter any text as desired to help identify the Control Panel and its specific function.



- 3.2 For the first device (card) to be added, if desired enter the device model number or other identifying information ( ② in Figure A-2).
- 3.3 Assign and enter the device list number and the device custom display banner text for the first device. ( ③ in Figure A-2).  
This sets the order in which the device appears in the Select Device display list, as well as its displayed name. ( ③ in Figure A-2).  
Enter any text as desired to help identify the device and its specific function. An example is shown below.



- 3.4 Apply the appropriate control display/parametric template for the added device ( ④ in Figure A-2).
- 3.5 Set the IP address of the frame where the device is to be located ( ④ in Figure A-2).
- 3.6 Set the frame slot where the device is to be located ( ④ in Figure A-2).
- 3.7 Repeat steps 3.2 through 3.6 for additional devices.
- 3.8 Save the edited configuration file.
4. Upload the edited configuration file to the Control Panel as described in Uploading a Configuration File to the Control Panel, p. A-5.

**Note:**

- Any number of configuration files may be renamed and saved as desired. It is recommended to save all viable configuration files in case a previous setup may be required in the future.
- A saved configuration can be used to identically configure additional Control Panels if desired.

```
#####
##### start of Device Definitions #####
banner "Cobalt Digital - IBC 2008"

# 9501
device 1 "9501 - Receiver 21 Input Processing"
    from-template cobalt-9501 192.168.0.151 2
# 9502
device 2 "9502 - HD Tape Deck Downconvert"
    from-template cobalt-9502 192.168.0.151 4
# 9980
device 3 "9980 - Anchor Desk LCD Corrector"
    from-template cobalt-9980 192.168.0.151 5
# 9923
device 4 "9923 - Loss of Signal Label"
    from-template cobalt-9923 192.168.0.152 6
# 9960
device 5 "9960 - Reference Generator"
    from-template cobalt-9960 192.168.0.152 7
# 9501
device 6 "9501 - Receiver 22 Input Processing"
    from-template cobalt-9501 192.168.0.152 9

##### end of Device Definitions #####
```

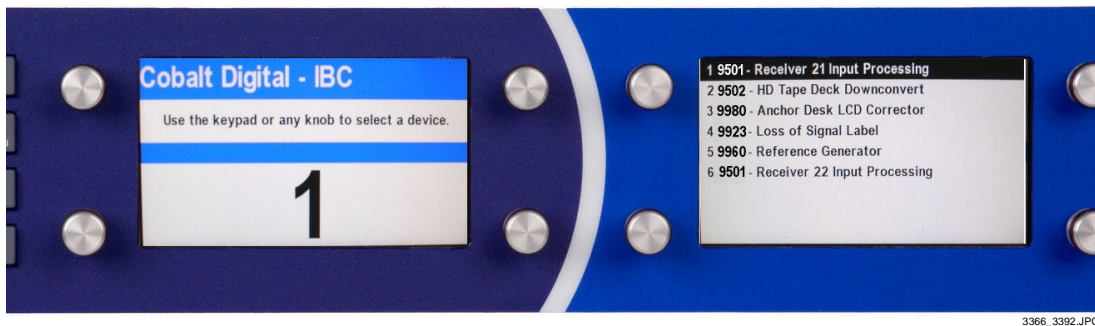
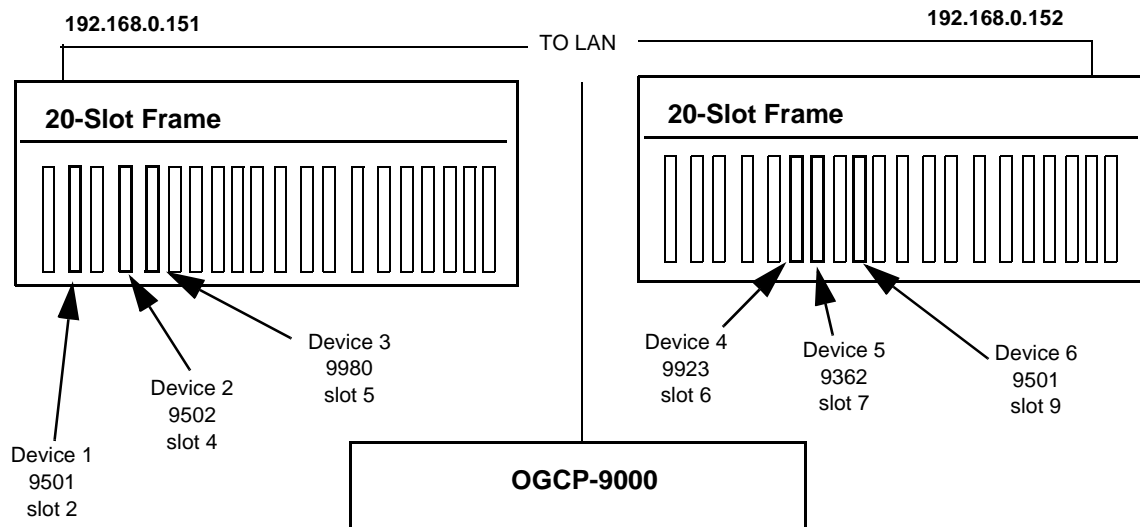


Figure A-3 Example Configuration File and Resulting Setup





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