

# **CP-1040E**

## **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**

TO REDUCE THE RISK OF FIRE OR ELECTRIC – SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

### **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**

### **NOTE**

#### **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.

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### **NOTE**

#### **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**

<b><u>REVISION</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>DATE</u></b>
1.0	First Release	Oct 2013

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## 1. OVERVIEW

The CP-1040E remote control panel features 40 full color dynamic LCD buttons in 1RU, all of which are fully programmable.

Each of the 40 LCD buttons is capable of displaying up to three rows of five characters. The panel can also be configured with a menu structure that allows quick navigation through the systems. When a menu button is pressed some or all of the buttons change their function and legend. Their operation is then defined by the configuration setup for this new menu.

The CP-1040E is a very sophisticated advanced panel that allows you to create a very powerful and very simple interface to your entire system. It is ideal for applications where a panel with more LCD buttons is critical based on number of sources, destinations, levels to control etc, is desired all in a smaller 1RU package. This makes it perfect in many different environments including Production areas, Technical Director areas, "Tape" areas, etc. Considering its small footprint the CP-1040E is perfect for use as an advanced control panel in truck and mobile applications.



**Figure 1-1: CP-1040E Control Panel**

### Features:

- Flexible feature or menu driven configurations providing quick and simple access
- Easily reconfigured for regularly changing environments
- Fully programmable buttons
- Shallow depth for console-installed applications

## 2. INSTALLATION

### 2.1. REAR PANEL

Figure 2-1 shows the rear view of the CP-1040E control panel. The CP-1040E is a 2RU panel with various connection ports. Sections 2.1.1 to 2.1.5 describe the function of the connectors on the rear panel.

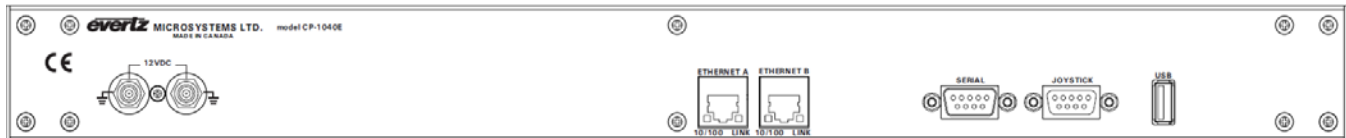


Figure 2-1: CP-1040E Rear Panel

#### 2.1.1. Serial Connections

**SERIAL:** Serial port 1, female 9 pin D connector that is used as the RS-232 console port.

#### 2.1.2. Joystick

This male DB9 connector is used for connection to a camera control unit to allow the joystick push buttons to switch router ports.

#### 2.1.3. USB Control

This USB 2.0 Port is used for USB-based firmware upgrades of the CP-1040E.

#### 2.1.4. 12VDC

**12VDC:** Two external 12 VDC inputs can be used to provide fully redundant powering of the unit. The DC input connector is a 0.218 inch diameter center positive miniature DC power jack.

To connect the 12 VDC supply use an AC to DC converter rated at 12 VDC, 3 A minimum. A power supply converter can be ordered from your Evertz Products dealer (Evertz part # VSHES34-120300). The DC cable of the voltage adapter should be connected to the DC power jack on the rear panel. The voltage adapter DC connector-fastening collar can be screwed to the DC power jack to prevent accidental disconnection.

### 2.1.5. Ethernet Connection

The panel uses 10Base-T (10 Mbps), 100Base-TX (100 Mbps) twisted pair Ethernet cabling systems. Ethernet Port A and Port B are not bonded redundant network connections. Only one Ethernet can be connected at one time. When connecting for 10Base-T systems, category 3, 4, or 5 UTP cable as well as EIA/TIA – 568 100Ω STP cable may be used. When connecting for 100Base-TX systems, category 5 UTP cable is required. The cable must be “straight-through” with an RJ-45 connector at each end. Establish the network connection by plugging one end of the cable into the RJ-45 receptacle of the card and the other end into a port of the supporting hub.

The straight-through RJ-45 cable can be purchased or can be constructed using the pin-out information in Table 2-1. A colour coded wiring table is provided in Table 2-1 for the current RJ-45 standards (AT&T 258A or EIA/TIA 258B colour coding shown). Also refer to the notes following the table for additional wiring guide information.

Pin #	Signal	EIA/TIA 568A	AT&T 258A or EIA/TIA 568B	10BaseT or 100BaseT
1	Transmit +	White/Green	White/Orange	X
2	Transmit –	Green/White or White	Orange/White or Orange	X
3	Receive +	White/Orange	White/Green	X
4	N/A	Blue/White or Blue	Blue/White or Blue	Not used (required)
5	N/A	White/Blue	White/Blue	Not used (required)
6	Receive –	Orange/White or Orange	Green/White or Green	X
7	N/A	White/Brown	White/Brown	Not used (required)
8	N/A	Brown/White or Brown	Brown/White or Brown	Not used (required)

**Table 2-1: Standard RJ-45 Wiring Colour Codes**

Note the following cabling information for this wiring guide:

- Only two pairs of wires are used in the 8-pin RJ-45 connector to carry Ethernet signals.
- Even though pins 4, 5, 7 and 8 are not used, it is mandatory that they be present in the cable.
- 10BaseT and 100BaseT use the same pins (a crossover cable made for one will also work with the other).
- Pairs may be solid colours and not have a stripe.
- Category 5 cable must use Category 5 rated connectors.

The maximum cable run between the router and the supporting hub is 300 ft (90 m). The maximum combined cable run between any two end points (i.e. router and PC/laptop via network hub) is 675 feet (205 m).

Devices on the Ethernet network continually monitor the receive data path for activity as a means of checking that the link is working correctly. When the network is idle, the devices also send a link test signal to one another to verify link integrity. The rear panel is fitted with two LEDs to monitor the Ethernet connection.

**100:** This Amber LED is ON when a 100Base-TX link is last detected. The LED is OFF when a 10Base-T link is last detected (the LINK LED is ON). Upon power-up the LED is OFF as the last detected rate is not known and therefore defaults to the 10Base-T state until rate detection is completed.

**LN/ACT:** This dual purpose Green LED indicates that the card has established a valid linkage to its hub, and it identifies whether the module is sending or receiving data. This LED will be ON when the module has established a good link to its supporting hub. This gives you a good indication that the segment is wired correctly. The LED will BLINK when the module is sending or receiving data. The LED will be OFF if there is no valid connection.



**The Ethernet ports on the CP-1040E are not redundant. Only one port must be wired and active.**

### 2.1.6. Power Connections

The CP-1040E power supply operates on a +12V and automatically senses the input voltage. Power should be applied by connecting a 3-wire grounding type power supply cord to the power entry module on the rear panel. The power cord should be minimum 18 AWG wire size; type SVT marked VW-1, maximum 2.5 m in length.

The IEC 320 power entry module combines a standard power inlet connector, two 5 x 20 mm fuse holders and an EMI line filter.



**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, GROUNDING OF THE GROUND PIN OF THE MAINS PLUG MUST BE MAINTAINED**

### 2.2. MOUNTING

The CP-1040E is equipped with rack mounting angles and fits into a 19 inch by 2.45 inch by 1.75 inch (483 mm x 62 mm x 45 mm) rack space.

Cooling is achieved by passive air flow across and through the panel chassis.

### **3. TECHNICAL DESCRIPTION**

#### **3.1. SPECIFICATIONS**

##### **3.1.1. Control**

**Joystick:** Parallel contact closure TTL levels, D9 male  
**Ethernet:** 10/100 base T, RJ45 connector

##### **3.1.2. Electrical**

**Configuration:** Dual redundant  
**Voltage:** 12V DC  
**Current:** 2A maximum  
**Power:** 24 Watts maximum  
**AC Power Adapter:**  
Auto-ranging 100V-240V AC, 50-60Hz

##### **3.1.3. Physical**

**Dimensions:** 19" W x 1.75" H x 2.45" D  
(483mm W x 45mm H x 62mm D)  
**Weight:** 2lbs (0.9kg)  
**Operating Temp:**  
0-40°C

##### **3.1.4. Compliance**

**Safety:** TÜV listed, complies with EU safety directives  
**EMI/RFI:** Complies with FCC Part 15 Class A regulations  
Complies with EU EMC directive

## 4. FRONT PANEL CONTROL

### 4.1. FRONT CONTROL PANEL

The CP-1040E has 40 programmable LED buttons as illustrated in Figure 4-1.

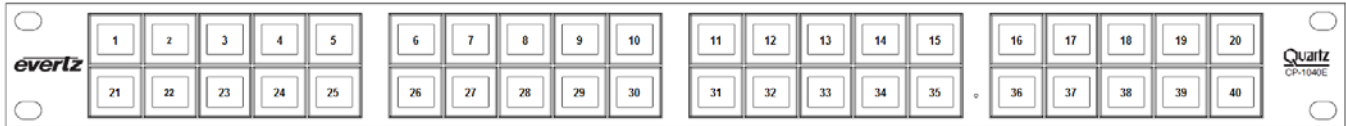


Figure 4-1: CP-1040E Front Control Panel

When depressed, the last top and last bottom buttons on the right side of the panel will enter a setup mode. Buttons labelled 20 and 40 as shown in Figure 4-1.

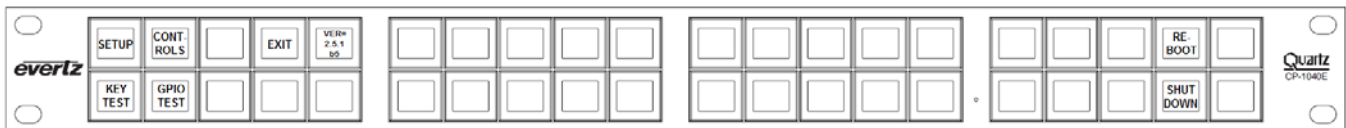


Figure 4-2: Main Interface

Setup mode will allow the user to configure Network Settings, LCD Intensity, Big Font, Inverted Text, and Bold Text. Setup mode will allow the user to also run Key and GPIO tests or reboot/shutdown the panel. This is shown in Figure 4-2.

#### 4.1.1. Controls Interface

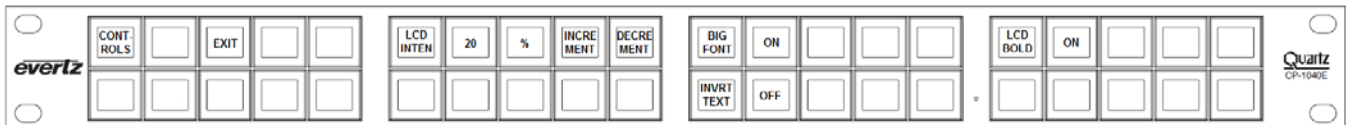


Figure 4-3: Controls Interface

Selecting the Controls menu option will allow the user to change the settings for LCD Intensity, Big Font, Invert Text, and LCD Bold. See Figure 4-6.

LCD Intensity is used to change the brightness level of the LCD buttons. To change the settings for LCD Intensity, push the button labelled Increment to increase the percentage of intensity or push the button labelled Decrement to decrease the percentage of intensity of the LCD buttons. See Figure 4-6.

Big Font is used to change the size of the text on the button. For instance, the text C1 will use a single line when Big Font is OFF, but will use 3 lines when Big Font is ON. To change the setting for Big Font, toggle the button next to Big Font from ON to OFF or vice versa. The value displayed is the active value.

Invert Text is used to enable or disable the inverting of the text on the LCD buttons. To change the setting for Invert Text, toggle the button next to Invert Text from ON to OFF or vice versa. The value displayed is the active value.

LCD Bold is used to enable or disable the bolding of the text on the LCD buttons. To change the setting for LCD Bold, toggle the button next to LCD Bold from ON to OFF or vice versa. The value displayed is the active value.

### 4.1.2. GPIO Interface

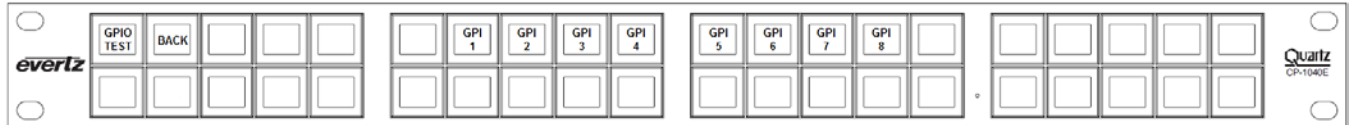


Figure 4-4: GPIO Interface

Selecting the GPIO menu option will allow the user to manually test the control panels GPIOs. See Figure 4-4. The GPIO interface on the panel is called the Joystick port. When a GPI is asserted on the Joystick port, the corresponding button in the GPIO menu will illuminate.

### 4.1.3. Key Test Interface

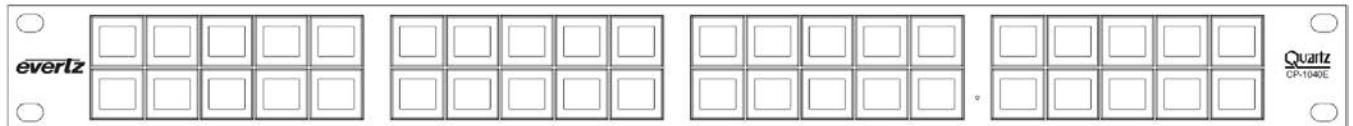


Figure 4-5: Key Test Interface

Selecting the Key Test menu option will allow the user to manually test the LCD colours, text, and responsiveness of the buttons. When entering the Key Test menu all LCD buttons should automatically alternate between red, green, blue and white. Pressing any button will stop the alternating colours and allow the user to manually test the colours on an individual button. The text on the button is used to register button depress and button release, the number will increment with each successful action. To exit the Key Test mode, press and hold any button on the panel.

### 4.1.4. Setup Interface

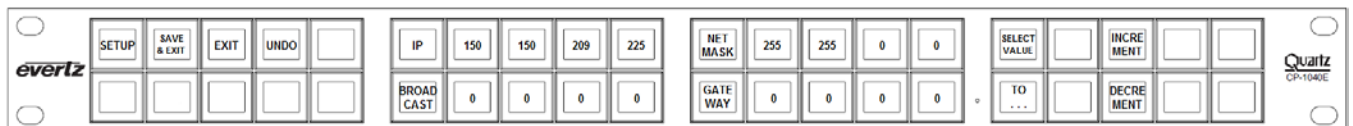


Figure 4-6: Setup Interface

Selecting the Setup menu will allow the user to configure the network settings for the control panel. This is shown in Figure 4-6.

IP is used to configure the IP address of the control panel. The IP address is displayed in the format of aaa.bbb.ccc.ddd across four LCD buttons next to the button labelled IP. To change the values of the IP address, press the button representing the octet (button will highlight) that needs to be changed, and use the buttons labelled Increment or Decrement to change the value. Repeat for each octet that needs to be changed.

Broadcast is used to configure the Broadcast address of the control panel. The Broadcast address is displayed in the format of aaa.bbb.ccc.ddd across four LCD buttons next to the button labelled Broadcast. To change the values of the Broadcast address, press the button representing the octet (button will highlight) that needs to be changed, and use the buttons labelled Increment or Decrement to change the value. Repeat for each octet that needs to be changed.

Netmask is used to configure the Netmask of the control panel. The Netmask is displayed in the format of aaa.bbb.ccc.ddd across four LCD buttons next to the button labelled Netmask. To change the values of the Netmask, press the button representing the octet (button will highlight) that needs to be changed, and use the buttons labelled Increment or Decrement to change the value. Repeat for each octet that needs to be changed.

Gateway is used to configure the Gateway address of the control panel. The Gateway address is displayed in the format of aaa.bbb.ccc.ddd across four LCD buttons next to the button labelled Gateway. To change the values of the Gateway address, press the button representing the octet (button will highlight) that needs to be changed, and use the buttons labelled Increment or Decrement to change the value. Repeat for each octet that needs to be changed.

The SAVE&EXIT button when pressed will save all changes made in the Setup Menu and will return the user to the main menu.

The EXIT button when pressed will not save any changes made in the Setup Menu and will return the user to the main menu.

The UNDO button when pressed will revert any changes made in the Setup Menu to the last changed values.



## 5. SYSTEM CONFIGURATION

### 5.1. UPGRADING THE CP-1040E PANEL

#### 5.1.1. System Requirements

1. The user must have a laptop or PC connected to the same network as the CP-1040E.
2. Must have one of the following browsers installed on your machine: Firefox, Chrome or Safari.

#### 5.1.2. Identifying the IP Address

The IP Address can be identified using the procedure outlined below:

1. To identify the IP address, hold down the top and bottom buttons (BM20 and BM40) for approximately 6 seconds.
2. When the main engineering menu appears, push to the **SETUP** menu button.
3. The IP address of the control panel will be displayed next to the button called IP
4. At this time, ensure that one of the above mentioned browsers from section 5.1.1 is installed on your machine.



Please note that the CP-1040E and the PC must be on the same network.

#### 5.1.3. Upgrading Firmware on the CP-1040E

1. To upgrade firmware using the web interface, open a firefox web browser and enter the IP address of the CP-1040E into the address field, and then press the <enter> key. The *CP-1040E Web Updater* screen will appear, as shown in Figure 5-1.

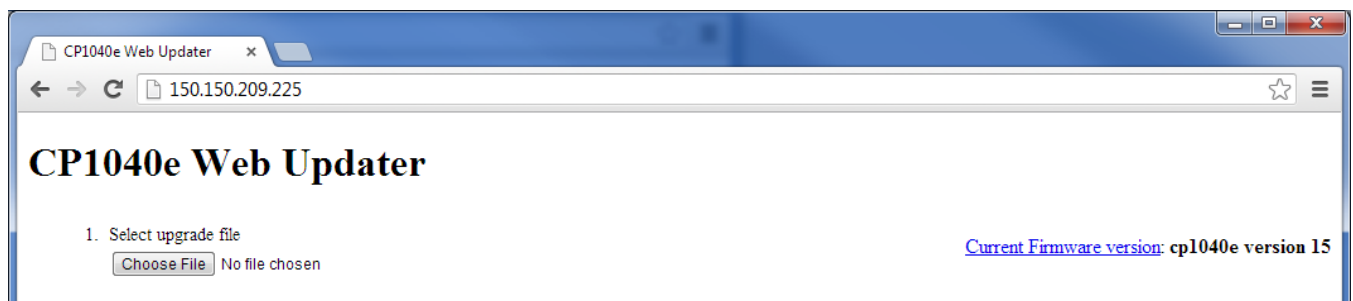
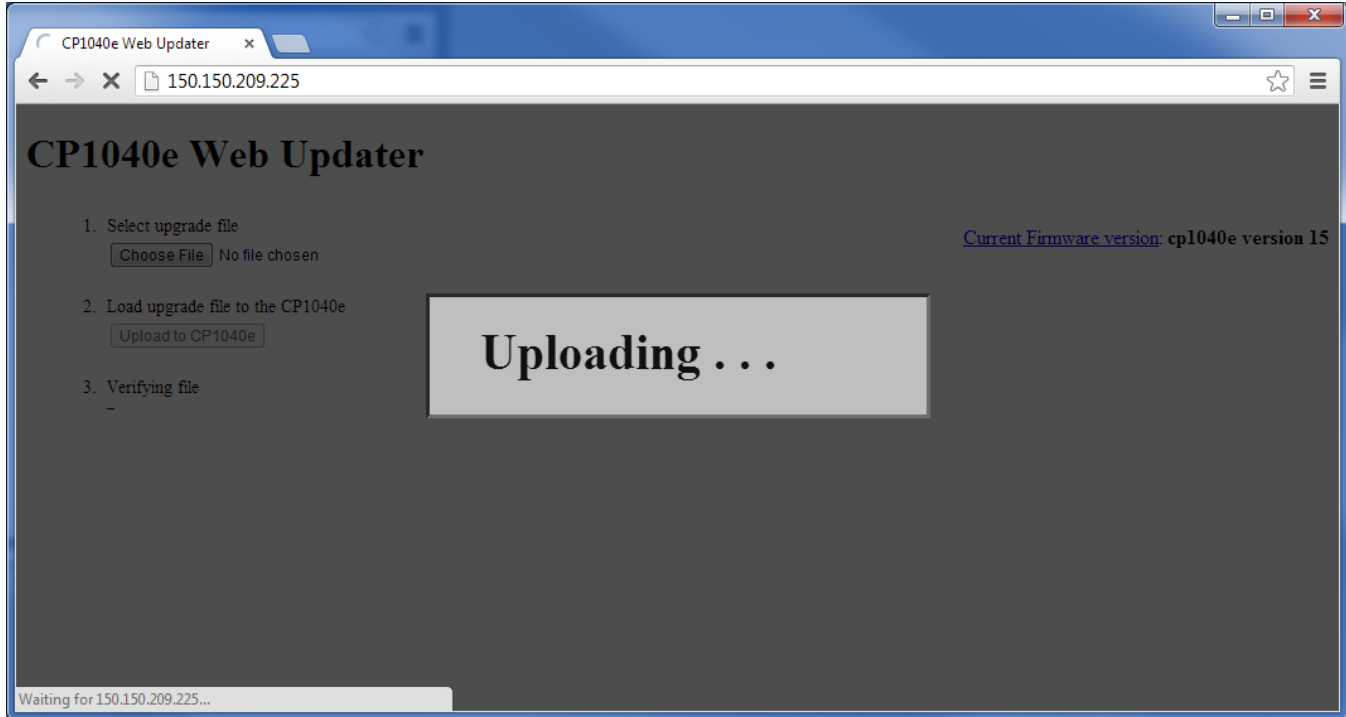


Figure 5-1: CP1040e Main Screen

2. Using the **Browse...** button, navigate to the .img firmware file that you wish to update (Example: up-1.1.0.img).

- The user can load the upgrade file to the CP-1040E control panel by pressing the **Upload to CP1040e** button that appears once the file is selected. The firmware on the panel will now be updated and an uploading message will be displayed in the window as shown in Figure 5-2. Please be patient as this process may take several minutes.



**Figure 5-2: Uploading Progress Window**

- When the firmware has been successfully uploaded, click on the **Upgrade the CP1040e** button, as shown in Figure 5-3. Selecting this button will upgrade the firmware file using the .img file you previously loaded.

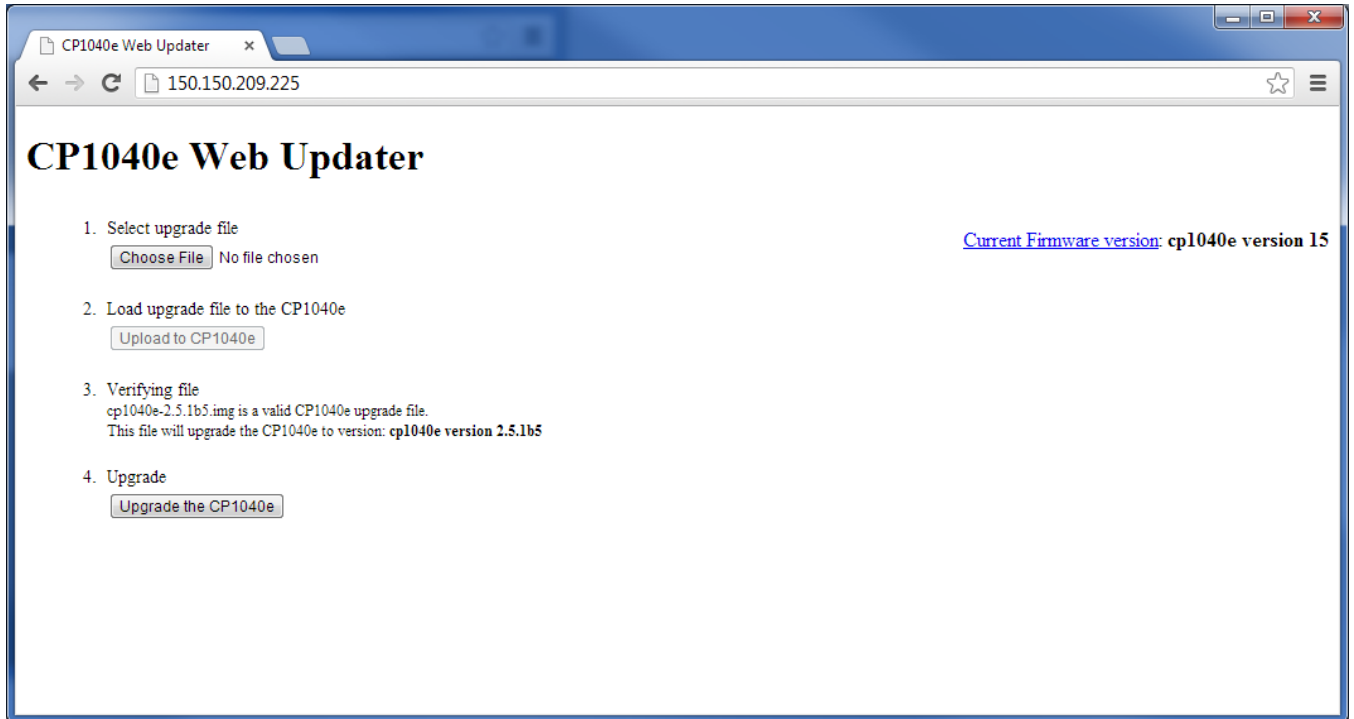


Figure 5-3: Upgrade the CP1040e

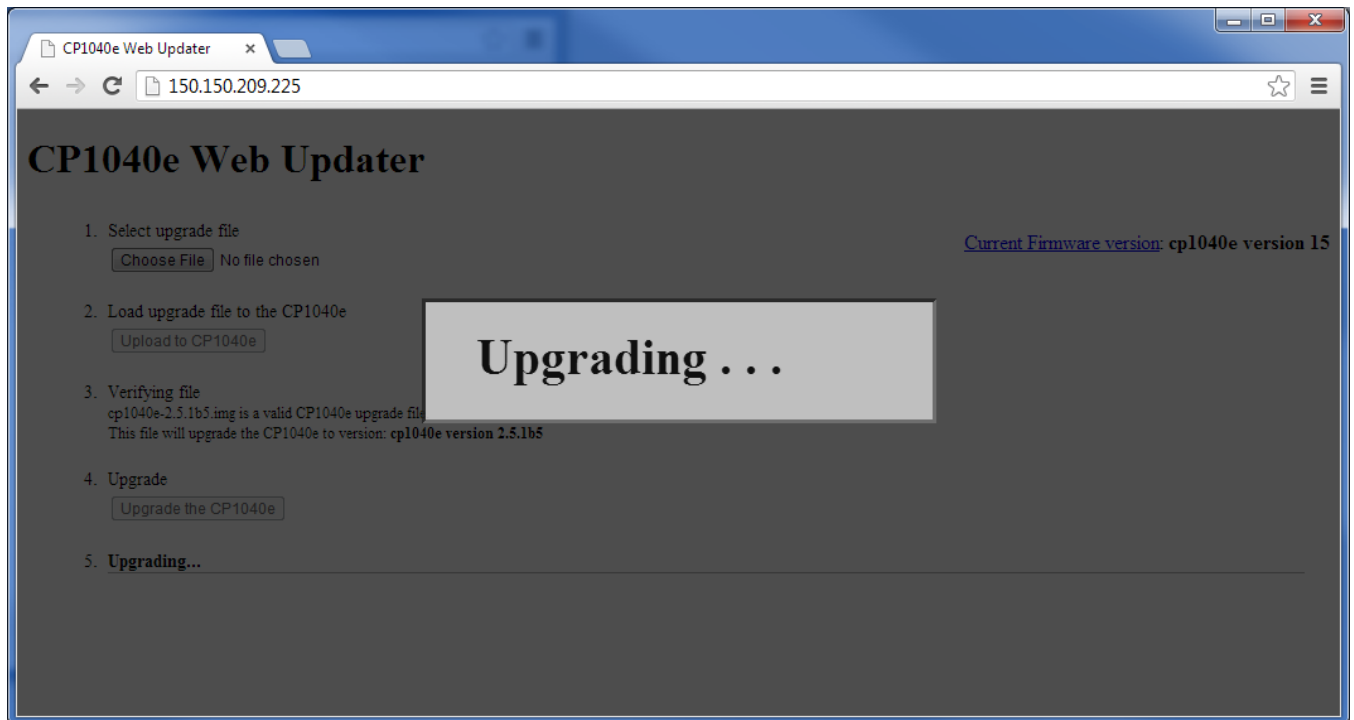


Figure 5-4: Upgrading Progress Window

5. Once the panel has been upgraded a message will be displayed to inform the user of a successful upgrade, as shown in Figure 5-5.

6. In order for firmware changes to take effect, the user must restart the CP-1040E control panel.

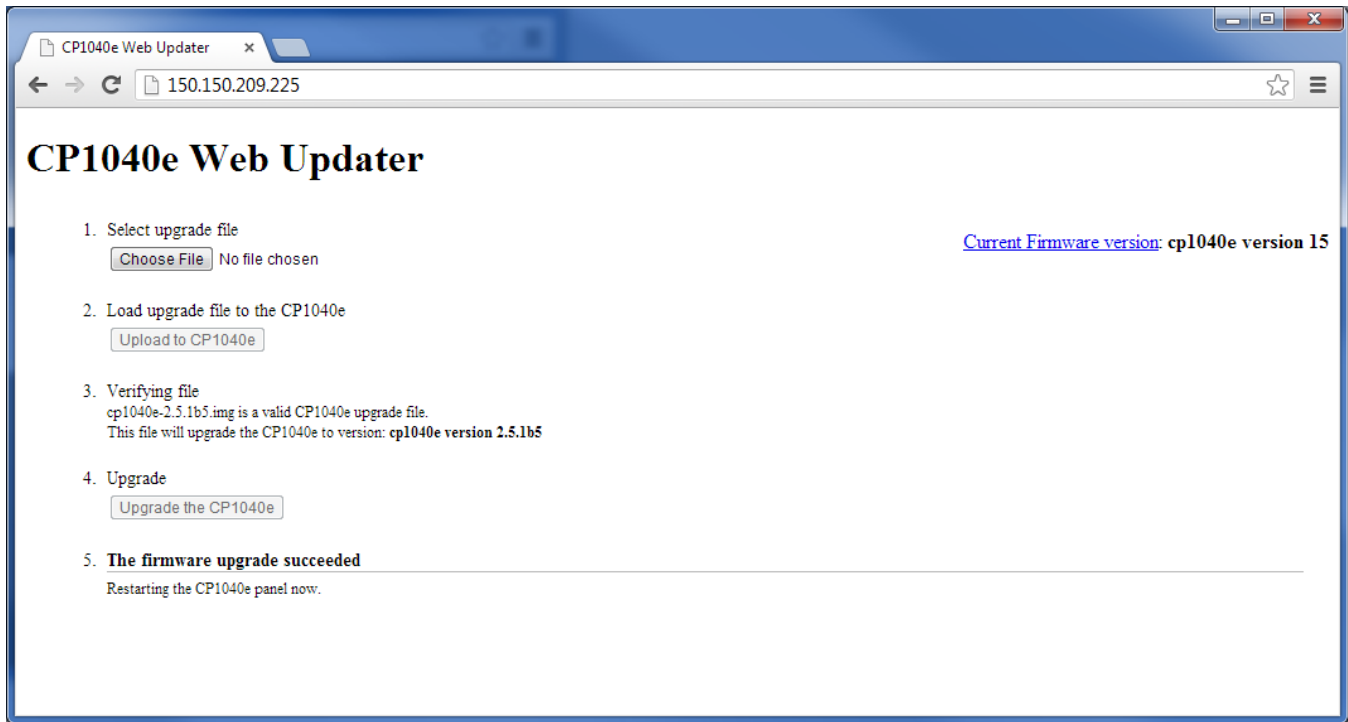
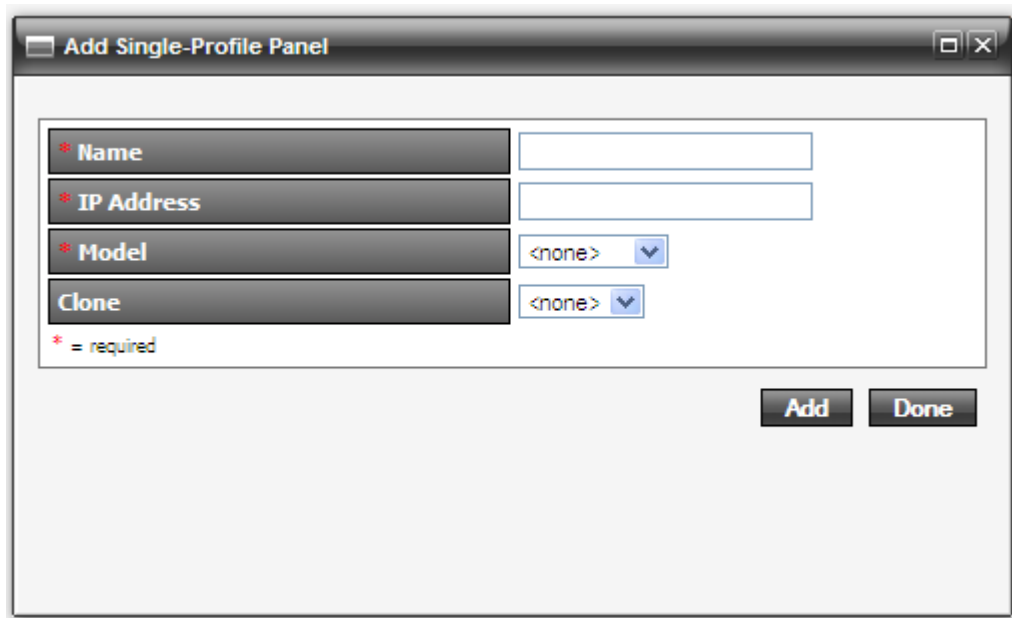


Figure 5-5: Successful Firmware Upgrade

### 5.1.4. Navigating to the Panel Configuration Page

The user can configure the CP-1040E using the MAGNUM Web Configuration Tool. The CP1040E will display “No Comms” if the panel cannot connect to the MAGNUM server.

1. Launch your MAGNUM Web Configuration Tool in a web browser and log in to the server.
2. Navigate to the **Interfaces** menu, Single Profile and then select the **Add** button.
3. Enter the Name and IP address of the panel, select CP1040E as the panel type.



The screenshot shows a window titled "Add Single-Profile Panel". It contains the following fields:

- Name**: A text input field with an asterisk indicating it is required.
- IP Address**: A text input field with an asterisk indicating it is required.
- Model**: A dropdown menu with "<none>" selected and a downward arrow.
- Clone**: A dropdown menu with "<none>" selected and a downward arrow.

Below the fields, there is a legend: **\* = required**. At the bottom right of the window, there are two buttons: **Add** and **Done**.

4. Click the **Add** button to complete the panel addition.
5. Select the newly added CP1040E on the **Interface** page and click the edit button.
6. An **Interface Layout: CP-1040E** page will appear enabling the user to apply button key settings to the panel.

The screenshot shows the MAGNUM web interface for configuring the CP-1040E. The browser address bar shows the URL: 150.150.11.109/magnum/panel/paneLayout?panelid=195&cache=1375118479986. The interface includes a navigation menu with options like HOME, SYSTEM, NAMES, TALLY, INTERFACES, REPORTS, CONTROLS, ADMIN, PLUGINS, and HELP. The main title is "Interface Layout: CP-1040E".

Below the title is a grid of buttons representing the interface layout. To the right of the grid are "Menu" and "Copy/Paste" buttons. Below the grid is a "Sources" section with tabs for "Sources", "Destinations", and "Name Sets". The "Sources" tab is active, showing a table of configuration items.

Order	Availability	Device	Port	Global Name	Nameset Name	View
	Unavailable	VIRTUAL	1	Edit 1	Edit 1	Global
	Unavailable	DATA	74	EDIT 33_DATA	EDIT 33_DATA	
	Unavailable	DATA	142	EDIT 59_DATA	EDIT 59_DATA	
	Unavailable	DATA	64	EDIT 15_DATA	EDIT 15_DATA	
	Unavailable	DATA	42	GFX MACs 1-3	GFX MACs 1-3	
	Unavailable	DATA	49	GFX Design Room 3	GFX Design Room 3	
	Unavailable	DATA	73	EDIT 32_DATA	EDIT 32_DATA	
	Unavailable	DATA	141	EDIT 58_DATA	EDIT 58_DATA	
	Unavailable	DATA	92	GFX OFFICE 4	GFX OFFICE 4	
	Unavailable	DATA	82	EDIT 47_DATA	EDIT 47_DATA	
	Unavailable	DATA	84	EDIT 50_DATA	EDIT 50_DATA	
	Unavailable	DATA	48	GFX Design Room 2	GFX Design Room 2	
	Unavailable	DATA	65	EDIT 16_DATA	EDIT 16_DATA	
	Unavailable	DATA	72	EDIT 31_DATA	EDIT 31_DATA	
	Unavailable	DATA	143	EDIT 60_DATA	EDIT 60_DATA	
	Unavailable	DATA	140	EDIT 57_DATA	EDIT 57_DATA	
	Unavailable	DATA	75	EDIT 40_DATA	EDIT 40_DATA	
	Unavailable	DATA	91	GFX OFFICE 3	GFX OFFICE 3	
	Unavailable	DATA	56	EDIT 7_DATA	EDIT 7_DATA	
	Unavailable	DATA	81	EDIT 46_DATA	EDIT 46_DATA	
	Unavailable	DATA	85	EDIT 51_DATA	EDIT 51_DATA	

On the right side of the interface, there are two panels: "Key Settings" and "Subpanel Defaults". The "Key Settings" panel includes fields for Type (Not Used), Auto-Menu, Data Legend, Attachment (Static), and Subpanel (1). The "Subpanel Defaults" panel includes fields for Subpanel (1), Highlight, Level(s) (Video, A1, LTC, DATA, MRS, QRS, DUB), and Destination.

Figure 5-6: CP-1040E Configuration Interface in MAGNUM Server

- The user can assign a function to each button on the control panel by selecting the button on the interface and then using the **Type** drop down menu in the *Key Settings* window to select an item from the list. The drop down menu provides various functions to choose from as shown in Figure 5-7 and described in Table 5-1.

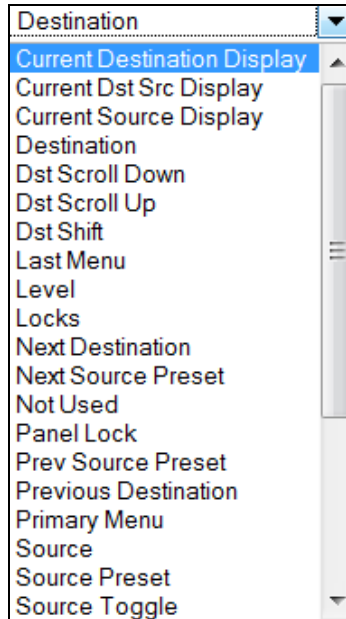


Figure 5-7: Type Drop Down Menu

Type	Description
<b>Add String</b>	This will clear the preset string and add the name field string defined for this key to it.
<b>Add String/Character</b>	This key will perform two different functions dependant on the content of the preset string. If the preset string is empty then it will add the name string defined for this key to it, otherwise it will append the single character defined for this key to the preset string providing there are less than 8 characters already in the string.
<b>Append String</b>	This will append a name field string to the current content of the preset string
<b>Current Destination Display</b>	Displays the name of the current destination selected.
<b>Current Dst Src Display</b>	Displays the name of the source routed on the current selected destination.
<b>Current Source Display</b>	Displays the name of the current source routed on a specific destination. The specific destination is defined during configuration.
<b>Delete Last Character</b>	Deletes the last character in a string
<b>Destination Mode</b>	Toggles the preset window between source and destination mode
<b>Destination</b>	Destination button.
<b>Dst Scroll Down</b>	Scroll down to the next available page of destinations.
<b>Dst Scroll Up</b>	Scroll up to the next available page of destinations.
<b>Last Menu</b>	Revert back to last selected menu.

<b>Level</b>	Toggles the level <i>on/off</i> to affect possible breakaways on subsequent takes. Displays the level name.
<b>Locks</b>	Allows access to the locks functionality.
<b>Next Destination</b>	Select the next available destination.
<b>Next Source Preset</b>	Select the next preset source.
<b>Not Used</b>	Defines the button as not being used.
<b>Panel Lock</b>	Locks the panel from accidental button pushes.
<b>Preset Clear</b>	This key will clear the current preset string
<b>Prev Source Preset</b>	Select the previous preset source.
<b>Previous Destination</b>	Select the previous preset destination.
<b>Primary Menu</b>	Allow creation of menus for source or destination groupings.
<b>Source</b>	Source button.
<b>Source Preset</b>	Preset a source, requires a Take confirmation before source is routed.
<b>Source Toggle</b>	This key toggles sources.
<b>Src Scroll Down</b>	Scroll down to the next available page of destinations.
<b>Src Scroll Up</b>	Scroll up to the next available page of destinations.
<b>Static Destination</b>	Destination button is not affected by destination order list changes; it will always be locked to the assigned position.
<b>Static Source</b>	Source button is not affected by source order list changes; it will always be locked to the assigned position.
<b>Static Source Preset</b>	Source Preset button is not affected by source order list changes; it will always be locked to the assigned position.
<b>System Salvo</b>	This key type allows one of the system salvos (defined by the salvo combo box) to be fired.
<b>Take</b>	This key takes the current preset source selection to the current destination on all the currently enabled levels. The button will display the currently routed source on the lowest enabled level, unless a legend is given to this key.
<b>Take Clear</b>	Clears the source preset after take.

**Table 5-1: Type Drop Down Menu**

8. A fully populated interface will look similar to the configuration shown in Figure 5-8.



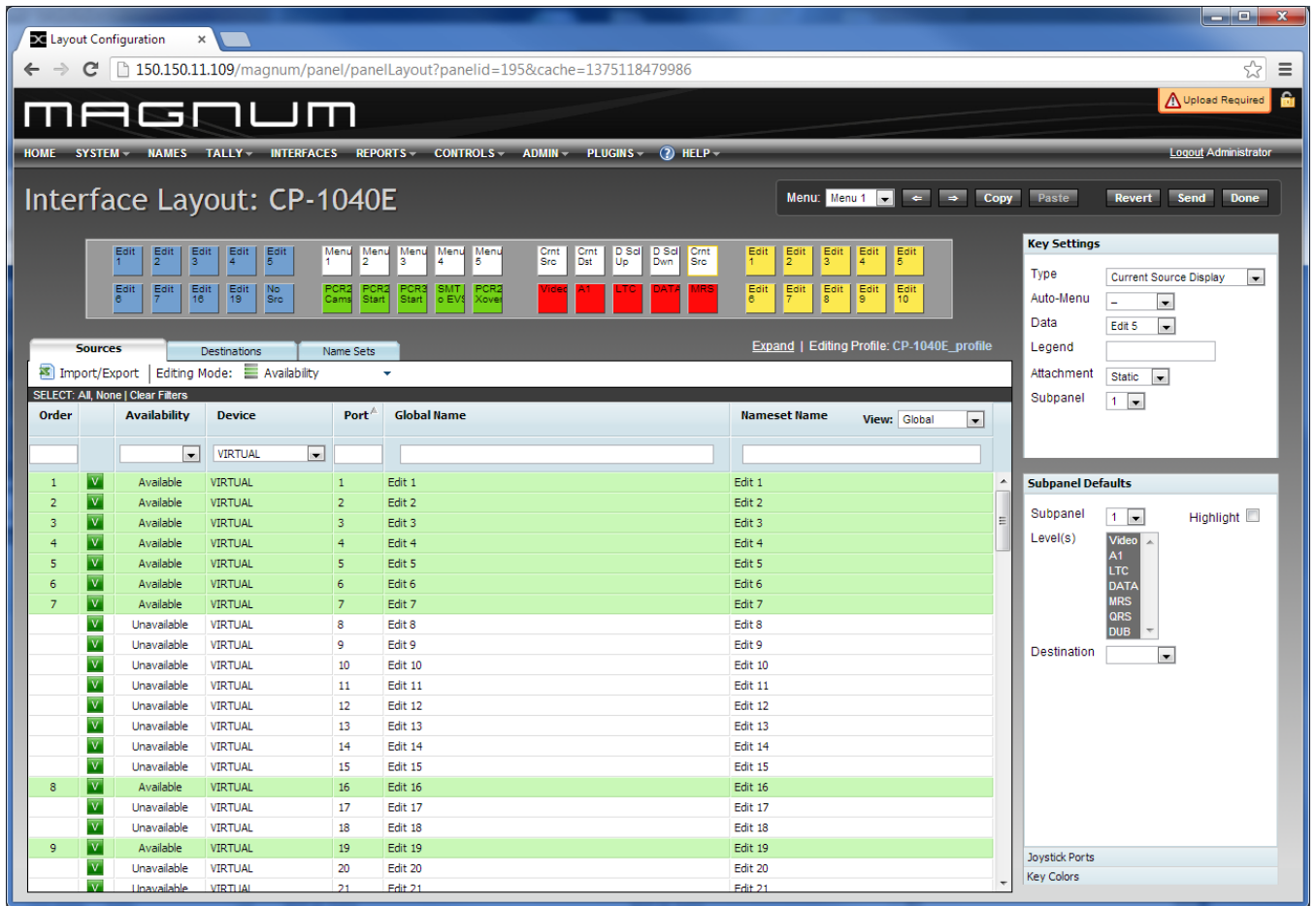


Figure 5-8: Populated Control Panel Interface

- The user can move the location of the buttons by selecting a button and holding the mouse down, then dragging the button to the desired location and releasing the mouse button to drop the button into place. Please refer to Figure 5-9.

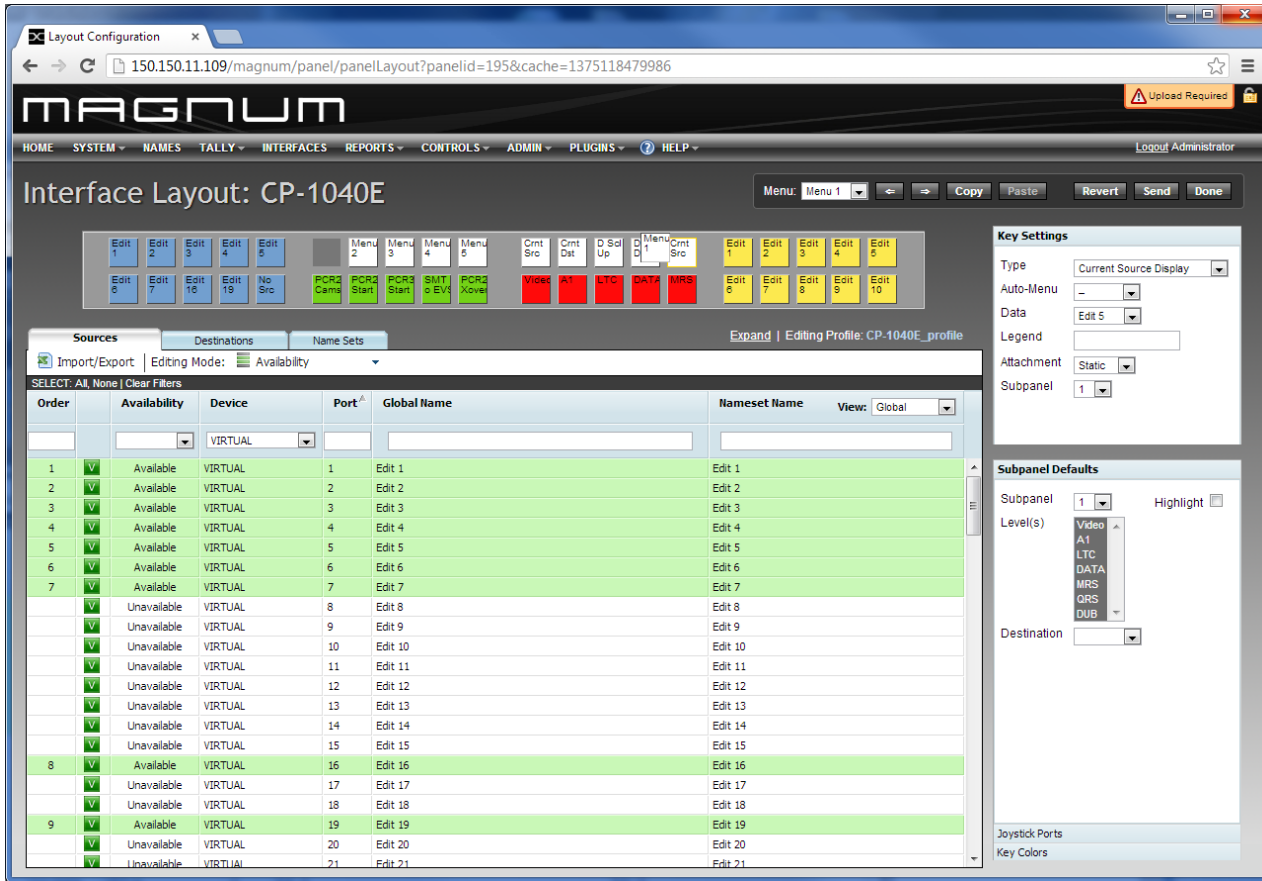


Figure 5-9: Moving Buttons using Drag and Drop

10. In order to save and send the changes made on the interface to the actual CP-1040E panel, the user must select the **Send** button. When the **Send** button is selected, the button assignments will be transferred to the physical CP-1040E control panel.



Figure 5-10: Control Buttons

11. If the user has made changes and wishes to revert to the original panel layout, select the **Revert** button to clear the panel and switch back to its original configuration.
12. Once all the changes are complete and have been sent to the physical CP-1040E control panel, the user can select the **Done** button to save the configuration and return to the main interface page.
13. The CP1040E will display “Loading Configuration” on the buttons when the configuration has been sent to the panel.
14. Once the configuration has been loaded successfully and the panel is able to connect to MAGNUM, the panel will display the configured layout and allow the user to operate the control panel.