



Kaleido-RCP2

Guide to Installation and Operation

Miranda

KALEIDO X

Part Number: M735-9902-102

19 April 2011

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Title	Kaleido-RCP2 Guide to Installation and Operation
Part Number	M735-9902-102
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Electromagnetic Compatibility



This equipment has been tested for verification of compliance with FCC Part 15, Subpart B requirements for class A digital devices.

Note: 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.



This equipment has been tested and found to comply with the requirements of the EMC directive 2004/108/CE:

- EN 55022 Class A Radiated and conducted emissions
- EN 61000-3-2 Limits for harmonic current emissions
- EN 61000-3-3 Limitation of voltage fluctuations and flicker
- EN 61000-4-2 Electrostatic discharge immunity
- EN 61000-4-3 Radiated electromagnetic field immunity—radio-frequencies
- EN 61000-4-4 Electrical fast transient immunity
- EN 61000-4-5 Surge transient immunity
- EN 61000-4-6 Conducted disturbances immunity
- EN 61000-4-11 Voltage dips, short interruptions and voltage variations immunity

Warranty Policies

Warranty information is available in the Support section of the Miranda Web site (www.miranda.com).



The Kaleido-RCP2 is a compact control panel for the Kaleido-X series multi-viewers.

Featuring direct key control for the most common commands, it provides easy multi-room, multi-operator control over Ethernet, with local connections for a mouse and a keyboard.

Description

The Kaleido-RCP2 is a compact, freestanding controller. All operating controls are located on the top of the unit. It requires only a single Ethernet cable for both connectivity and power. It also provides two USB ports allowing a USB mouse and one standard keyboard or numeric keypad to be connected.

Note: Multi-function keyboards or numeric keypads that have a built-in USB hub do not work when connected to the Kaleido-RCP2. No other device than a mouse, a numeric keypad without USB hub, a keyboard without USB hub or special function keys can be connected to the Kaleido-RCP2.

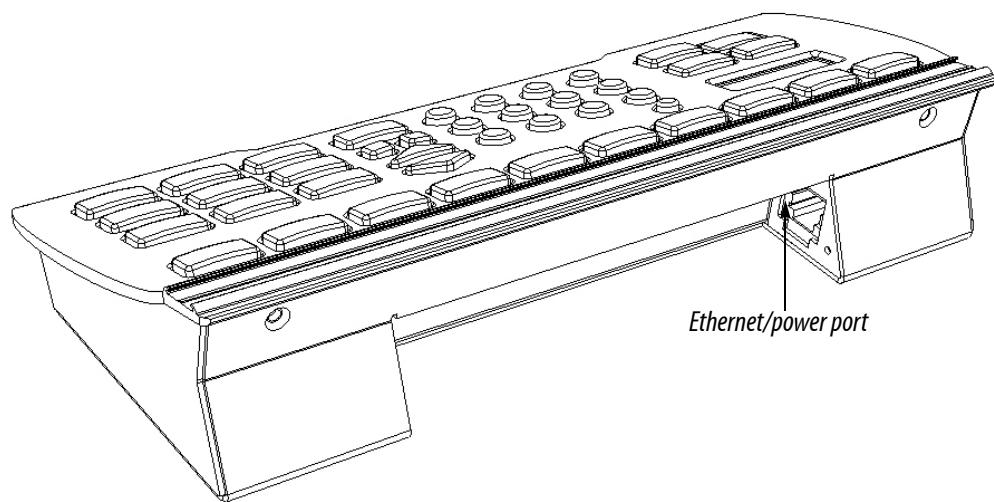
When logged on to a Kaleido-X series multi-viewer via the Kaleido-RCP2's Ethernet connection, you can control various operating features of the multi-viewer.

Connections

The Kaleido-RCP2 is equipped with three connectors, located on the inside rear supports of the case.

Ethernet / Power Port

The power for the Kaleido-RCP2 arrives on an RJ-45 connector, and shares this connector with an Ethernet interface. The Kaleido-RCP2 conforms to the IEEE 802.3af standard for powered devices.



Two kinds of power sources are supported:

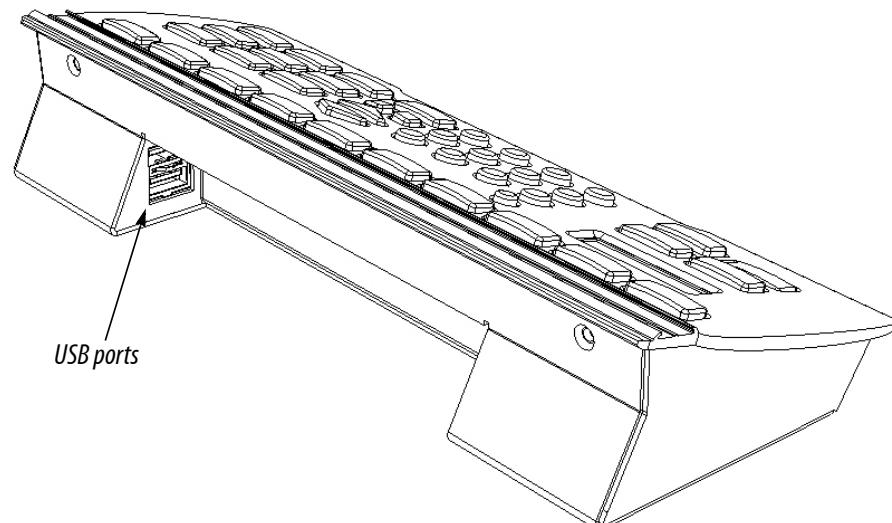
- midspan power source injector into an existing Ethernet network, and
- power sourcing Ethernet switch.

Full redundancy is obtained with both supplies present at the same time.

Ethernet connectivity is 10/100 Mbps.

2 USB Ports

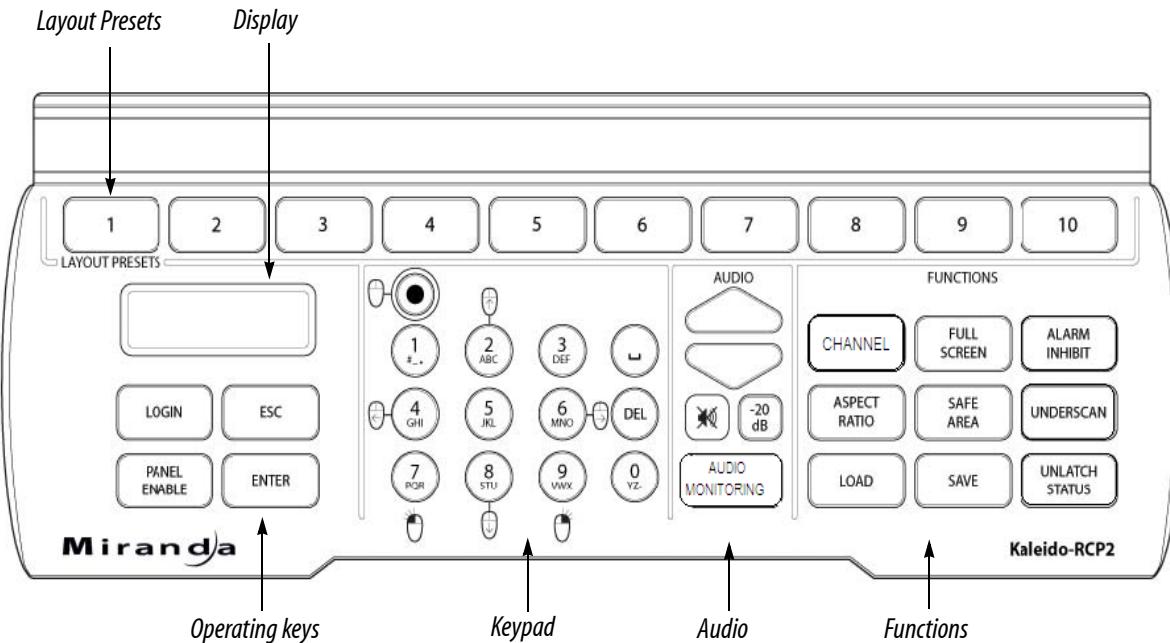
These ports are used to connect a mouse and keyboard, which may be used in operating the multi-viewer.



Note: Other USB devices (e.g. memory sticks) are not supported.

Control Surface Layout

The operating controls are laid out in functional groups:



Layout Presets

The ten numbered keys laid out across the top of the panel are used to recall saved layouts to the monitor wall, and are also used to save layouts.

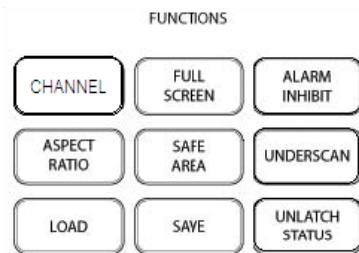
- Pressing and holding one of the preset buttons for 8 seconds will store the current layout to that button, allowing the user to easily return to it later.
- The layout associated with each button can be configured beforehand in XEdit.

You can insert a labeled strip into the built-in slot located above the keys to identify the saved layouts.

Functions

These function keys activate operating modes or functions on the multi-viewer.

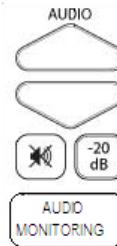
CHANNEL	FULL SCREEN	ALARM INHIBIT
ASPECT RATIO	SAFE AREA	UNDERSCAN
LOAD	SAVE	UNLATCH STATUS



Note: The exact functionality of these buttons is determined by the configuration of the Kaleido-X system.

Audio

UP ARROW	Increase the audio monitoring volume
DOWN ARROW	Decrease the audio monitoring volume
MUTE	Mute the audio monitoring (push on/push off)
-20dB	Attenuate the audio monitoring gain by 20dB (push on/push off)
AUDIO MONITORING	Audio source selection

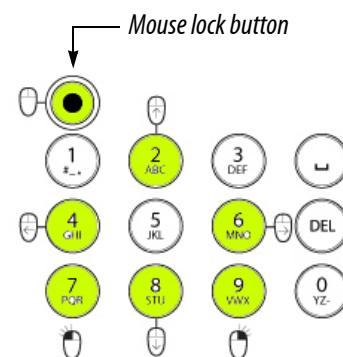


Keypad

The keypad buttons have double functions. Use the MOUSE LOCK button (top left) to switch between the two modes:

Numeric	All buttons at low brightness, alpha-numeric function as printed on each button is enabled.
Mouse	Numeric function disabled, and some keys are assigned mouse-equivalent functions. The MOUSE LOCK button and the mouse-function keys are bright.

Numeric key #	Mouse-equivalent function
2	Pointer up
8	Pointer down
4	Pointer left



Numeric key #	Mouse-equivalent function
6	Pointer right
7	Click
9	Right-click

Display and Operating Keys

The operating keys let you connect to a Kaleido-X system, navigate menus, and control the behavior of your Kaleido-RCP2's functions.

DISPLAY	The LCD display shows messages and text entries
LOGIN	Log on to a multi-viewer system through the Ethernet interface
ESC	Menu navigation
ENTER	Menu navigation
PANEL ENABLE	Enable/disable all other keys on this control panel, to prevent accidental operation

Note: To reset the control panel, simultaneously press ESC, ENTER, and DEL.

Configuration

Before you can use your Kaleido-RCP2 to operate your Kaleido-X system, you must set up the Ethernet connection between the two devices.

Note: The Kaleido-RCP2 is powered through the RJ-45 Ethernet connector. There is no power ON/OFF button, so the device is ON when a powered Ethernet cable is connected.

Ethernet Configuration

By default, the Kaleido-RCP2 is shipped with DHCP enabled, so it will automatically be assigned an IP address by a DHCP server.

- If no DHCP server can be found, the Kaleido-RCP2 will default to its static IP address.
- The time-out period before the Kaleido-RCP2 defaults to its static address is about 1 minute. To speed up the initialization, disable the DHCP option (see "Enabling or Disabling DHCP" on page 8).
- The default static IP address is 10.0.3.191, but this can be changed (see "Setting an IP Address, Subnet Mask and Gateway" on page 9).

- If you need to operate with a fixed IP address, you must use the **Configuration** menu to disable DHCP and set up the correct IP address, Network Mask and Gateway.
- To access Kaleido-X “rooms” located in other subnets, the Kaleido-RCP2 must be configured with the appropriate unicast IP addresses (see “Configuring Unicast IP Addresses” on page 11).

Room Selection

Before you can use your Kaleido-RCP2 to operate a Kaleido-X system, you must select the room in which to operate. Use the **Configuration** menu to access the list of available rooms and select the one you wish to control. See “Selecting a Position and Logging On” on page 16 for details.

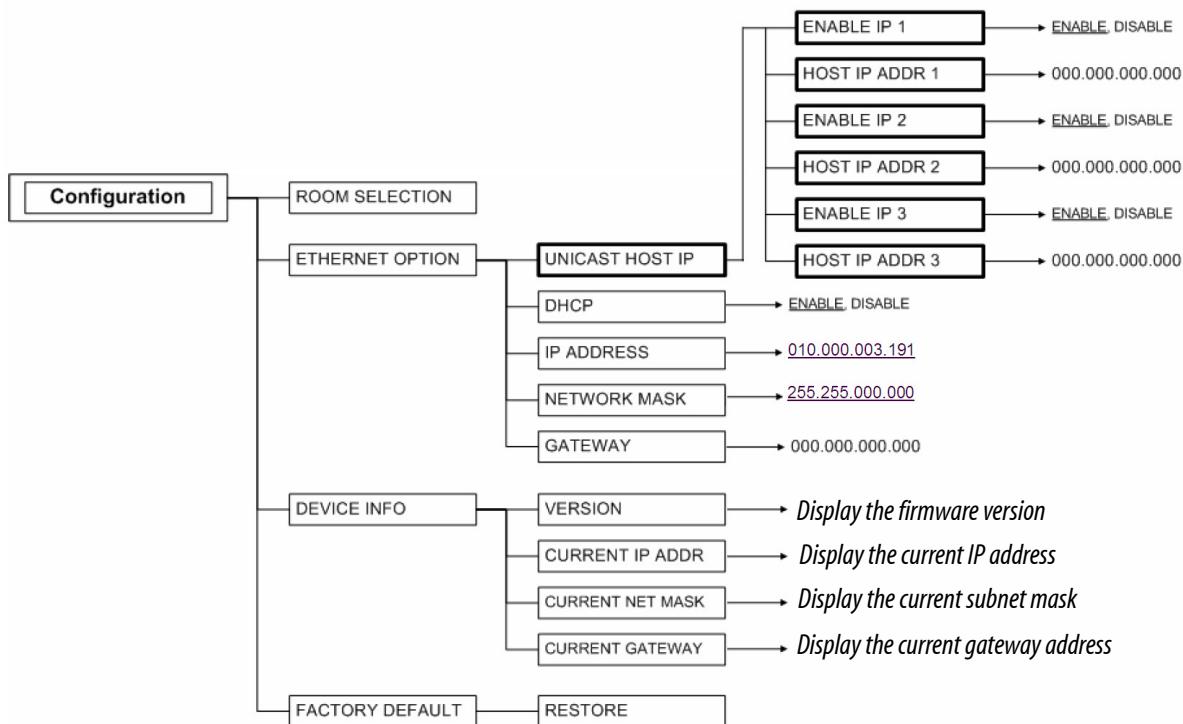
Note: To log on to a room that is part of a Kaleido-X system configured in a different subnet, the Kaleido-RCP2 must be configured with the appropriate unicast IP addresses (see “Configuring Unicast IP Addresses” on page 11).

Navigating the Configuration Menu

Resources for setting up the Kaleido-RCP2 to operate the Kaleido-X system are available through the Kaleido-RCP2’s **Configuration** menu. The current menu selection is shown on the LCD display. To access the menu press and hold the ENTER button until the ESC button lights up, and then use the keys to navigate, as indicated below:

2	Move UP
8	Move DOWN
ENTER	Access the submenu, or select the displayed value
ESC	Go back to the previous menu level, or cancel a value selection

Note: These keys are lit when menu access is enabled.



Kaleido-RCP2 Configuration menu summary

Selecting a Room

Use the **Configuration** menu to select the room you wish to access with your Kaleido-RCP2—the *ON AIR* room, for example. Once you select the room, you can log on as a specific user, corresponding to one of the login positions that are available for this room only. In the example described below, the three rooms that are available, are listed in this sequence: *RMA*, *RMB*, *RMC*. We will select room *RMC*.

Action	LCD indication	Other buttons
Press and hold the ENTER button until the ESC button lights up to access the Configuration menu.	Configuration ROOM SELECTION	Digit keys 2 (UP) and 8 (DOWN), and the ENTER and ESC buttons are lit; other digit keys are dimmed.
Press ENTER again to obtain the list of rooms from all Kaleido-X systems currently available on the network.	For some time until the list is received: Acquiring room list... Once the room list is received: ROOM Select RMA	
Press the 8 key twice, until the room you wish to select (i.e. RMC) appears on the display. (Press 2 to scroll in the opposite direction.)	ROOM Select RMC	
Once the display shows the desired room name, you can: <ul style="list-style-type: none">•press ENTER to select this room;•press ESC to cancel the selection and return to the previous menu level in the menu.	Configuration ROOM SELECTION	Digit keys 2 (UP) and 8 (DOWN), and the ENTER and ESC buttons are lit; other digit keys are dimmed.
Press ESC to exit the Configuration menu.	RMC	All buttons are dimmed.

Enabling or Disabling DHCP

The following table shows how to enable or disable the automatic allocation of an IP address from a server. This option is commonly called DHCP (the protocol that is used for address allocation). In our example, we suppose that the DHCP option is enabled, and must be disabled. This task is performed by using the Configuration menu.

Action	LCD indication	Other Buttons
Press and hold the ENTER button until the ESC button lights up to access the Configuration menu.	Configuration ROOM SELECTION	Digit keys 2 (UP) and 8 (DOWN), and the ENTER and ESC buttons are lit; other digit keys are dimmed.
Press 8 once to go to the ETHERNET OPTIONS submenu.	Configuration ETHERNET OPTION	
Press ENTER to open the Ethernet parameter menu.	ETHERNET OPTIONS DHCP	
Press ENTER again to see the current DHCP status.	DHCP ENABLE	
Press 8 to go to the DISABLE option. (Press 2 to go back to the previous selection.)	DHCP DISABLE	
Press ENTER to select this option, or press ESC to cancel. In either case, you will return to the previous menu level.	ETHERNET OPTIONS DHCP	
Press ESC twice to exit the Configuration menu. Note: If you changed the DHCP parameter, the Kaleido-RCP2 unit will reboot.	RMC	All buttons are dimmed.

When you change the DHCP mode, the device must be restarted for the new option to take effect. This is done automatically but only after you exit the **Configuration** menu. You can make other changes using the **Configuration** menu, and only exit, once you are done with the changes.

Setting an IP Address, Subnet Mask and Gateway

The table below shows how to set a fixed IP address for a Kaleido-RCP2 unit. As an example, the IP address will be changed from 10.0.3.191 to 192.168.0.10. This task is performed by using the **Configuration** menu.

Note: The method is the same for the **Subnet Mask** and **Gateway** menus.

Action	LCD indication	Other Buttons
Press and hold the ENTER button until the ESC button lights up to access the Configuration menu.	Configuration ROOM SELECTION	Digit keys 2 (UP) and 8 (DOWN), and the ENTER and ESC buttons are lit; other digit keys are dimmed.
Press 8 once to go to the ETHERNET OPTIONS submenu.	Configuration ETHERNET OPTIONS	
Press ENTER to open the Ethernet parameter menu.	ETHERNET OPTIONS DHCP	
Press 8 to go to the next option in the menu. (Press 2 to return to the previous option.)	ETHERNET OPTIONS IP ADDRESS	
Press ENTER again to select this option and display the current IP address. You can move the cursor to the next digit position by pressing the space  key. Use the DEL key to move the cursor back to the previous position.	IP ADDRESS 010.000.003.191 The cursor blinks, alternating between a black square and the digit.	All digit keys are lit as well as the ENTER, ESC, DEL and space  key.
Use the digit keys to change the current value. Once you pressed a digit key, the cursor moves to the next position.	IP ADDRESS 192.168.000.010 The cursor blinks, alternating between a black square and the digit.	
When done, press ENTER to confirm the address, or ESC to cancel the change and go back to the previous menu level.	ETHERNET OPTIONS IP ADDRESS	All buttons are dimmed.
Press ESC twice to exit the Configuration menu. Note: If you changed any of the network parameters (IP address, subnet mask or gateway), the Kaleido-RCP2 unit will reboot.	RMC (the current room)	

When you change the DHCP mode, the device must be restarted for the new option to take effect. This is done automatically but only after you exit the **Configuration** menu. You can make other changes using the **Configuration** menu, and only exit, once you are done with the changes.

Configuring Unicast IP Addresses

The unicast IP feature enables a Kaleido-RCP2 to find up to three Kaleido-X systems on different subnets and connect to them (via network gateways), while maintaining connections to Kaleido-X systems in its own subnet.

Notes

- To navigate the Kaleido-RCP2 menu, press the **2** key to move up, or the **8** key to move down.
 - There is no need to configure unicast IP addresses for Kaleido-X systems on the same subnet as the Kaleido-RCP2.
-

To configure a unicast IP address on the Kaleido-RCP2, do the following:

1. Press and hold the ENTER button until the ESC button lights up to access the **Configuration** menu.
2. Select ETHERNET OPTIONS on the LCD display, and then press ENTER.
3. Select **Unicast host IP**, and then press ENTER.
4. Select **Enable IP 1**, and then press ENTER.

The “Enable IP n” parameter instructs the Kaleido-RCP2 to query the Kaleido-X system at the selected IP address for a list of rooms.

5. Select **Host IP ADDR**, and then press ENTER.
6. Using the numeric keypad, type the IP address of a Kaleido-X system on a remote subnet, and then press ENTER.
7. Repeat step 4 to 6 to add unicast IP addresses for up to three remote Kaleido-X systems.

Restoring Default Parameters

The Kaleido-RCP2’s **Configuration** menu provides an option to restore the device’s default parameters. This option is called **FACTORY DEFAULT**.

Selecting this option will revert the following elements to their default values:

- The network parameters.
- The room selection.
- The login position.

Once you exit the **Configuration** menu, the device will restart.

Here are the default parameter values:

DHCP	Enable
IP address	10.0.3.191
Subnet mask	255.255.0.0
Gateway	0.0.0.0

In addition, the current room and login position are erased from the Kaleido-RCP2 memory.

Action	LCD indication	Other Buttons
Press and hold the ENTER button until the ESC button lights up to access the Configuration menu.	Configuration ROOM SELECTION	Digit keys 2 (UP) and 8 (DOWN), and the ENTER and ESC buttons are lit; other digit keys are dimmed.
Press 8 three times to go to the FACTORY DEFAULT submenu.	Configuration FACTORY DEFAULT	
Press ENTER to open the FACTORY DEFAULT submenu.	FACTORY DEFAULT RESTORE	
Press ENTER to select the RESTORE option, or press ESC to return to the previous menu level without restoring the factory values.		
Press ENTER again to restore the factory defaults.	Configuration FACTORY DEFAULT	
Press ESC once to reboot the Kaleido-RCP2.	The LCD screen is blank after reboot.	All buttons are dimmed.

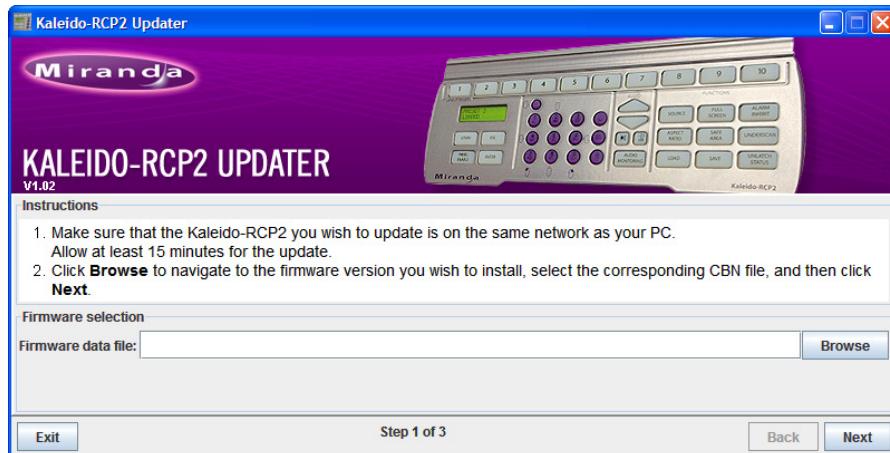
Updating the Kaleido-RCP2 Firmware

Firmware updates for the Kaleido-RCP2 are issued occasionally, usually with the release of a new version of the Kaleido-X Software. The firmware update package, including the Kaleido-RCP2 Updater utility, is provided on the Kaleido-X DVD.

Note: Visit Miranda's Web site to obtain the latest firmware data file.

To determine if you need to update your Kaleido-RCP2, check its firmware version (refer to the diagram under “Navigating the Configuration Menu” on page 6), and compare it with the version of the firmware update file indicated in the Kaleido-X Release Notes under “Software and Firmware”.

The Kaleido-RCP2 firmware can be updated over the Ethernet connection, and this may take as long as 15 minutes to complete. The **Kaleido-RCP2 Updater** window includes step-by-step instructions:



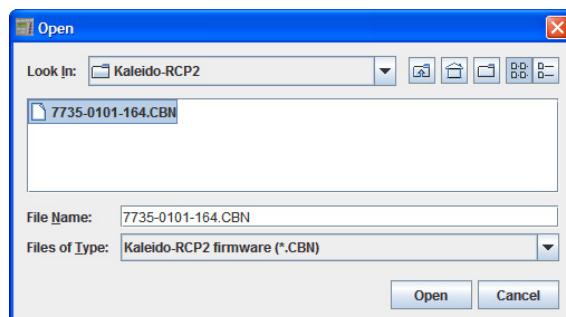
Firmware Selection (Step 1 of 3)

REQUIREMENTS: Make sure you fulfill the following conditions before beginning this procedure:

- You have a PC connected to the same subnetwork as your Kaleido-RCP2 unit.
- A copy of the Kaleido-RCP2 Updater utility is on the PC.
- A copy of the Kaleido-RCP2 firmware update file is on the PC.

To prepare the firmware update, do the following:

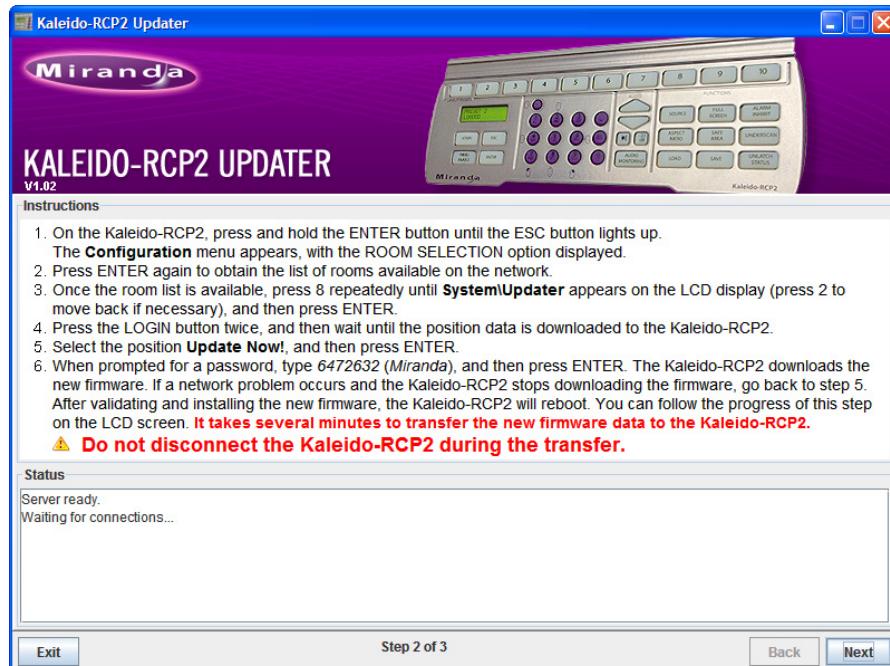
1. Open the Kaleido-RCP2 Updater utility from a PC located on the same network as the Kaleido-RCP2 you wish to update.
2. Type the name of the firmware data file you wish to use to upgrade your RCP2 unit in the **Firmware data file** box. Alternatively, click **Browse** to locate the appropriate file:



Firmware Update (Step 2 of 3)

3. Click **Next**.

The next window includes step-by-step instructions for uploading the data file to the Kaleido-RCP2:

**Firmware Update (Step 2 of 3)**

To proceed with the firmware update, do the following:

1. On the Kaleido-RCP2, press and hold the ENTER button until the ESC button lights up to access the **Configuration** menu.
2. Press ENTER to select the first option: ROOM SELECTION, and then wait until the room list is downloaded to the Kaleido-RCP2.
3. Once the room list is available, press 8 repeatedly until *System\Updater* appears on the LCD display (press 2 to move back if necessary), and then press ENTER.
4. Press the LOGIN button twice, and then wait until the position data is downloaded to the Kaleido-RCP2.
5. Once the position data is available, select the position *Update Now!*, and press ENTER.
The Kaleido-RCP2 prompts you for a password.
6. Type "6472632" (i.e. "Miranda"), and then press ENTER.

The Kaleido-RCP2 downloads the new firmware from your PC. Progress information is shown in the **Status** section of the **Kaleido-RCP2 Updater** window on your PC.

Note: If a network problem occurs and the Kaleido-RCP2 stops downloading the firmware, go back to step 5.

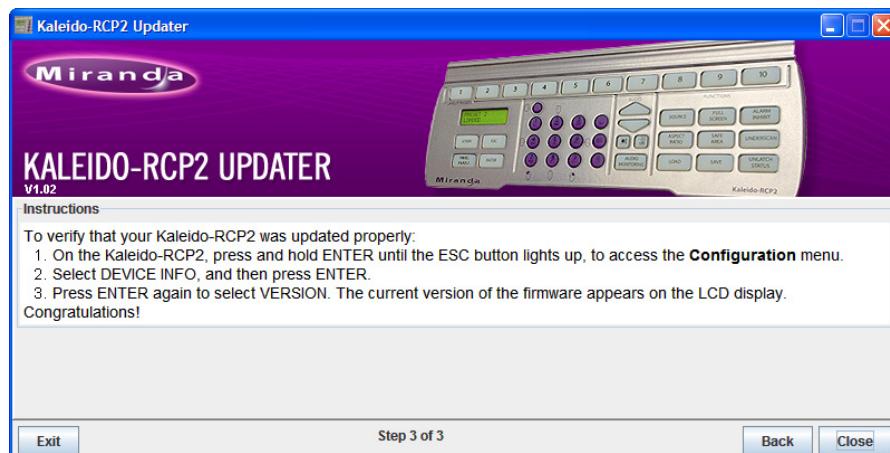
The Kaleido-RCP2 validates the data, copies it into the main memory and then reboots. You can follow the progress of this step on the Kaleido-RCP2 screen.

Note: It takes several minutes to transfer the new firmware data to the main memory.

IMPORTANT: *Do not disconnect the Kaleido-RCP2 while it is updating its firmware, as this may result in a fatal error. In this event, it will be necessary to return the unit to Miranda to be reprogrammed.*

- Once the Kaleido-RCP2 has rebooted following the successful firmware upgrade, click **Next** in the **Kaleido-RCP2 Updater** window, on the PC.

The final screen includes instructions for verifying that the new firmware is installed and functional:



Verification (step 3 of 3)

To verify that your RCP2 is updated properly, do the following:

- On the Kaleido-RCP2, press and hold ENTER until the ESC button lights up, to access the **Configuration** menu.
- Select the option **DEVICE INFO**, and then press ENTER.
- Select the first option, **VERSION**, by pressing ENTER again.

The Kaleido-RCP2 displays the currently-installed version of the firmware.

If this number matches the version number in the updater file you selected in the in the first step (see “Firmware Selection (Step 1 of 3)” on page 13), then the update has been successful.

4. In the **Kaleido-RCP2 Updater** window on your PC, click **Close** to exit the updater.

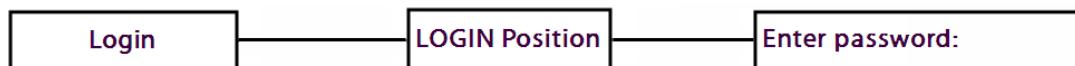
Operation

Many of the operational functions of the Kaleido-RCP2 are determined by the configuration of the Kaleido-X operating environment, and are explained in the *Kaleido-X User's Manual*.

Selecting a Position and Logging On

To use your Kaleido-RCP2, you must validate your access to the Kaleido-X system. Press the LOGIN key, and select the appropriate position that corresponds to the type of user you are. You may require a password to log on. A room is supposed to be already set through the configuration menu of the device.

Here is a graphical summary of the login menu as it appears on the Kaleido-RCP2's LCD display:



To display the Login menu on the LCD, press the LOGIN key. Then, you can access any submenu, or select values, by pressing ENTER. Press ESC to cancel a selection, or to return to the previous menu level. Press 8 to navigate from one menu option to the next. Press 2 to go back to the previous option.

The available login positions depend on the room you selected from the Configuration menu. Scroll up and down the list, by pressing the 8 and 2 buttons.

The password can include up to 8 digits, that you can type by pressing the digit buttons on the keypad. If you make an error, press DEL and type the password again. When you are done press ENTER to validate the password.

The following table shows how to change the login position. As an example, the position will be changed from TD01 to TC01. To accomplish this task, you must have first selected a room (see "Selecting a Room" on page 7).

Action	LCD indication	Other buttons
Press LOGIN.	Until the unit receives the list of login positions from the Kaleido system: Acquiring login list...	Lit (depending on the Kaleido system's configuration)
	Once the list of login positions is available: LOGIN Position [first list item]	Digit keys 2 and 8 are lit to indicate that they can be used to scroll the list
	If the list of login position is not available, the following message displays for 3 seconds: No login list available	Lit (depending on the Kaleido system's configuration)
	If the Kaleido system is not active, the following message displays for 3 seconds: Target system is offline	Dimmed (depending on the Kaleido system's configuration)
Press 8 repeatedly to scroll the list until you reach the position you wish to log on to, and then press ENTER to select the new position.	Enter password:	Digit buttons are lit as well as the ENTER and ESC buttons
Type the password using the digit keys (up to 8 digits), and then press ENTER.	Enter password: **** (one asterisk appears for each digit you type)	
	If the password is valid, the following message displays for 2 seconds: Access granted and then: RMC TC01	Dimmed (depending on the Kaleido system's configuration)
	If the password is wrong, the following message displays for 2 seconds: Access is denied and then: RMC TD01	Lit (depending on the Kaleido system's configuration)

Enabling/Disabling the Kaleido-RCP2 User Interface

The PANEL ENABLE button cycles the Kaleido-RCP2 between ENABLE and DISABLE modes.

In the DISABLE mode:

- The PANEL ENABLE LED is flashing.
- All other keys on the Kaleido-RCP2 are disabled (LEDs off).
- The LCD display is off.
- Any peripherals (e.g. mouse, keyboard) connected to the Kaleido-RCP2's USB ports are also disabled.

The purpose of the panel enable function is to lock the user interface of the remote, thus avoiding any accidental access to the Kaleido-X system.

Resetting the Kaleido-RCP2

The Kaleido-RCP2 can be reset by the following means:

- Press ENTER + ESC + DEL simultaneously to restart the device.
- Disconnect and reconnect the Kaleido-RCP2's Ethernet cable to power cycle the device.
- The device will be reset automatically in case of software or hardware failure of its internal controller.

Specifications

ETHERNET PORT	
SIGNAL	100/10 BASE-T, (IEEE 802.3AF)
CONNECTOR	RJ-45 with LED and 48 V power

USB PORTS	
SIGNAL	USB 2.0 (for low speed HID devices only, compatible with 1.1)
CONNECTOR	2 USB host connectors (mouse and keyboard only)
DIMENSIONS	78 mm × 203 mm × 32 mm (3.5 in × 8 in × 1 in)
VOLTAGE	48 V
POWER	5 W Max for RCP2 itself + 5 W Max for USB Devices



Contact Us!

Miranda Technical Support

For technical assistance, please contact the Miranda Technical Support center nearest you:

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