

Dominion® LX II

DLX2-108	DLX2-108-LED
DLX2-116	DLX2-116-LED
DLX2-216	DLX2-216-LED



Thank you for choosing the Dominion LX II switch, or Dominion LX II integrated switch/LED drawer, designed for economical, reliable and secure remote access and management. This Quick Setup Guide explains how to install and configure your LX II.

These second-generation KVM-over-IP switches and integrated switch / LED drawer models give one/two remote users and one local user, Java-free, BIOS-level access and control of 8 or 16 servers. Optional management of 2 to 8 serial devices is also available. Standard productivity features such as virtual media, absolute mouse synchronization, directory server authentication, and PC Share are all included.

Package Contents

► **Switch-only models: DLX2-108, DLX2-116, DLX2-216**

- 1 - LX II switch-only device
- 1 - Rackmount kit
- 1 - AC power cord
- 1 - Set of 4 rubber feet for desktop use

► **Integrated switch/LED drawer models: DLX2-108-LED, DLX2-116-LED, DLX2-216-LED**

- 1 - LX II integrated switch/LED drawer device
- 1 - Rackmount kit with sliding rails
- 1 - AC power cord

- Operation temperature in a closed rack environment may be greater than room temperature. Do not exceed the rated maximum ambient temperature of the appliances. See **Specifications** in Administrators Guide.
- Ensure sufficient airflow through the rack environment.
- Mount equipment in the rack carefully to avoid uneven mechanical loading.
- Connect equipment to the supply circuit carefully to avoid overloading circuits.
- Ground all equipment properly, especially supply connections, such as power strips (other than direct connections), to the branch circuit.

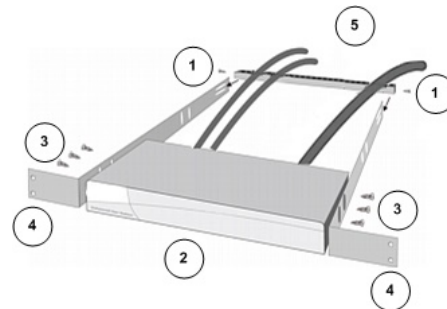
Rack Mounting - Switch-Only Models - DLX2-108, DLX2-116, DLX2-216

LX II switch-only models can be mounted in 1U (1.73", 44 mm) of vertical space in a standard 19" equipment rack, facing the front of the rack or facing the rear of the rack.

Use the brackets and screws shipped with the device.

Forward Mount - Switch-Only Models - DLX2-108, DLX2-116, DLX2-216

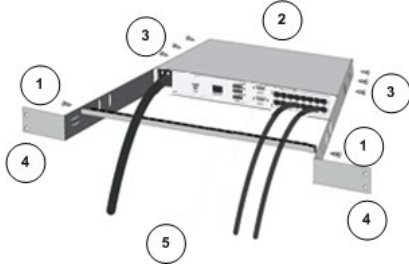
Numbered steps correspond to the numbers in the diagram.



1. Secure the cable-support bar to the back end of the side brackets using two of the included screws.
2. Slide the LX II between the side brackets, with its rear panel facing the cable-support bar, until its front panel is flush with the "ears" of the side brackets.
3. Secure the LX II to the side brackets using the remaining included screws (three on each side).
4. Mount the entire assembly in your rack and secure the side brackets' ears to the rack's front rails with your own fasteners.
5. When connecting cables to the rear panel, drape them over the cable-support bar.

Rear Mount - Switch-Only Models - DLX2-108, DLX2-116, DLX2-216

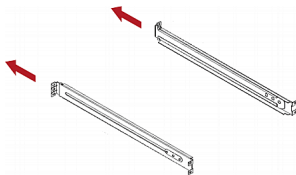
Numbered steps correspond to the numbers in the diagram.



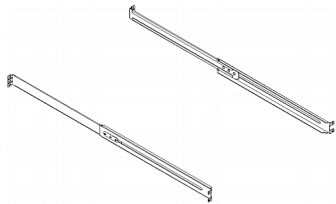
1. Secure the cable-support bar to the front end of the side brackets, near the side brackets' "ears," using two of the included screws.
2. Slide the LX II between the side brackets, with its rear panel facing the cable-support bar, until its front panel is flush with the back edges of the side brackets.
3. Secure the LX II to the side brackets using the remaining included screws (three on each side).
4. Mount the entire assembly in your rack and secure the side brackets' ears to the rack's front rails with your own fasteners.
5. When connecting cables to the rear panel, drape them over the cable-support bar.

Rack Mounting - Integrated Switch/LED Drawer Models - DLX2-108-LED, DLX2-116-LED, DLX2-216-LED

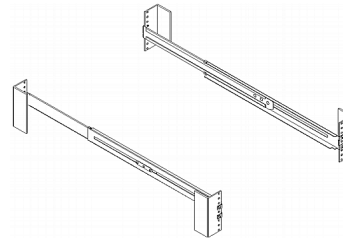
1. Adjust the length of the brackets to match the mounting depth of your rack. Brackets are labeled Left Front and Right Front.



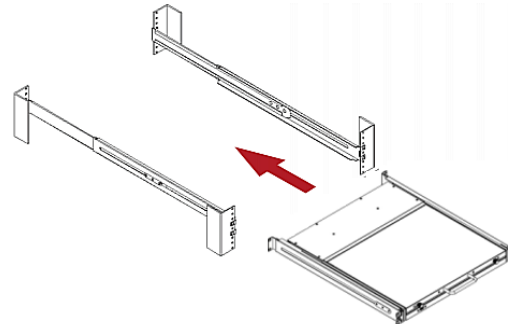
Now the brackets look similar to the following.



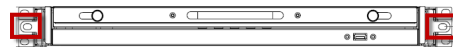
2. Fasten the brackets to the rack rails securely with your own screws or cage nuts.



3. Slide the LX II between the brackets.



4. Fasten the LX II to the rack using screws.



Step 1: Configuring Network Firewall Settings

- TCP Port 5000: Allow network and firewall communication to enable remote access.
- TCP Port 443: Allow access to the standard HTTPS port to enable access via web browser.
- TCP Port 80: Allow access to the standard HTTP port to enable redirection of HTTP requests.

Step 2: Configuring KVM Target Servers

Mouse Settings

Absolute Mouse Synchronization is recommended to minimize mouse settings on target servers.

In this mode, absolute coordinates are used to keep the client and target cursors in synch, even when the target mouse is set to a different acceleration or speed. This mode is supported on servers with USB ports and is the default mode for virtual media CIMs.

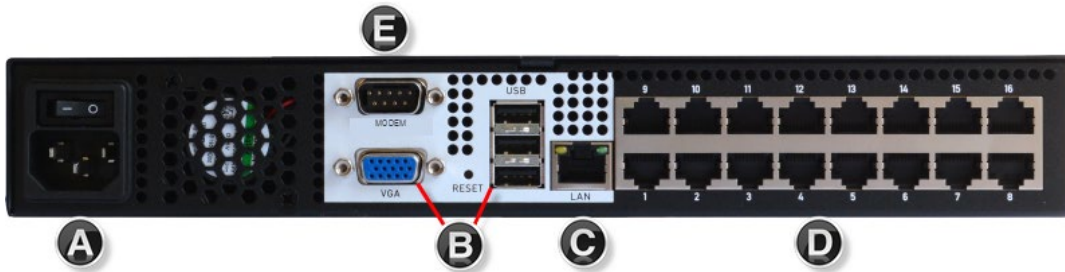
- Absolute Mouse Synchronization requires the use of a virtual media CIM - D2CIM-VUSB, D2CIM-DVUSB, D2CIM-DVUSB-DVI, D2CIM-DVUSB-HDMI, D2CIM-DVUSB-DP, D2CIM-VUSB-USBC

Target Server Video Resolutions

See **Supported Target Server Video Resolutions** in **Online Help**.

Step 3: Connecting the Equipment

- ▶ **LX II switch-only models: DLX2-108, DLX2-116, DLX2-216**



- ▶ **LX II integrated switch/LED drawer models: DLX2-108-LED, DLX2-116-LED, DLX2-216-LED**



A. AC Power

- ▶ **To connect the power supply:**
 - Attach the included AC power cord to the LX II and plug it into an AC power outlet.

B: USB Ports and Additional Local Access Port on Switch-Only Models

- ▶ **To connect a local console to a Switch-Only Model:**

Attach a multi-sync VGA monitor, and USB mouse and keyboard.
 Note: VGA Port not available on integrated switch/LED drawer models.

C: Network Port

- ▶ **To connect the network:**
 - Connect a standard Ethernet cable from the network port to an Ethernet switch, hub, or router.

D: Target Server Ports

- ▶ **To connect target servers:**
 1. Connect the keyboard, mouse and video plugs on the CIM to the corresponding ports on the target server.
 2. Connect the CIM to an available target server port on the back of the LX II via a Cat5/5e/6 cable.

E: Modem Port (Optional)

See Configuring Modem Settings, in the **Online Help**.

F: Power Switch (Integrated Switch/LED Drawer Models Only)

Use the On/Off switch to operate the integrated LED screen.

Step 4: Configuring the LX II

For the following steps, you must change the default password and assign the LX II its IP address at the Local Console. All other steps can be performed either from the Local Console, or the LX II Remote Console in a web browser using the LX II's IP address.

Default Login - Change the Password

The LX II device is shipped with the following default settings. You are forced to change the password at first login. Up to 64 English alphanumeric and special characters allowed.

- Username = `admin`
- Password = `raritan`
- IP address = `192.168.0.192`


Important: For backup and business continuity purposes, it is strongly recommended you create a backup administrator username and password, and keep that information in a secure location.

Assign the LX II a Device Name

Choose Device Settings > Network to go to the Basic Network Settings page in the LX II Remote client.

Basic Network Settings

Device Name *

Name 

IPv4 Address

IP Address	Subnet Mask
192.168.61.160	255.255.255.0
Default Gateway	IP Auto Configuration
192.168.61.126	None ▼

- Specify a meaningful Device Name for your LX II device.
 - Up to 32 alphanumeric and valid special characters, no spaces between characters.
- Next, configure the IP address and DNS settings.

Configure the Network: IPv4 and IPv6 Settings

- Set the IP Auto Configuration to None in the IPv4 section.
- Enter the IP address you want to use to connect to the LX II LAN1. The default IP address is 192.168.0.192.
- Enter the IPv4 Subnet Mask. The default subnet mask is 255.255.255.0.
- Complete the IPv6 sections, if applicable.
- Select the IP Auto Configuration. If None is selected, you must manually specify -
 - Global/Unique IP Address - this is the IP address assigned to LX II.
 - Prefix Length - this is the number of bits used in the IPv6 address.
 - Gateway IP Address.

Select Router Discovery to locate a Global or Unique IPv6 address instead of a Link-Local subnet. Once located, the address is automatically applied.

Note that the following additional, read-only information appears in this section -

 - Link-Local IP Address - this address is automatically assigned to the device. It is used for neighbor discovery or when no routers are present.
 - Zone ID - Identifies the device the address is associated with. Read-Only
- Select "Use the Following DNS Server Addresses" and enter the Primary DNS Server IP Address and Secondary DNS Server IP Address. The secondary address is used if the primary DNS server connection is lost due to an outage.

Note: "Obtain DNS Server Address Automatically" and "Preferred DHCP Host Name" are only enabled when LX II is configured in DHCP mode


- When finished, click OK. Your LX II device is now accessible via the LAN IP address.

Name Your Target Servers

- Connect all of the target servers if you have not already done so.
- Select Device Settings > Port Configuration, then click the Port Name of the target server you want to name.

Port 2

Type: DVM-DP Sub Type: Standard KVM Port
 KVM Switch

Name: Dominion_LX2_Port2 

- Enter a name for the server. Up to 32 alphanumeric and special characters. Click OK.

Configure Date/Time Settings

The date and time settings impact SSL certificate validation if LDAPS is enabled. Configuring the date and time also ensures your audit logs will be timestamped correctly.

There are two ways to do this:

- Manually set the date and time.

Date/Time Settings

Time Zone: (GMT -05:00) US Eastern ▼

Adjust for daylight savings time

User Specified Time 

Date (Month, Day, Year)
 February ▼ 19, 2019

Time (Hour, Minute)
 03 : 22 : 19 (hh:mm:ss)

Synchronize with NTP Server

Primary Time Server

Secondary Time Server

- Synchronize the date and time with a Network Time Protocol (NTP) server.

Date/Time Settings

Time Zone

(GMT -05:00) US Eastern ▼

Adjust for daylight savings time

User Specified Time

Date (Month, Day, Year)

February ▼ 19 2019

Time (Hour, Minute)

03 : 26 : 37 (hh:mm:ss)

Synchronize with NTP Server 

Primary Time Server

192.168.22.222

Secondary Time Server

192.168.22.224

OK

Reset To Defaults

Cancel

► To configure date/time settings:

1. Choose Device Settings > Date/Time to open the Date/Time Settings page.
2. Choose your time zone from the Time Zone drop-down list.
3. Adjust for daylight savings time by checking the "Adjust for daylight savings time" checkbox.
4. Choose the method to use to set the date and time:
 - User Specified Time - use this option to input the date and time manually. For the User Specified Time option, enter the date and time. For the time, use the hh:mm format (using a 24-hour clock).
 - Synchronize with NTP Server - use this option to synchronize the date and time with the Network Time Protocol (NTP) Server.
 - For the Synchronize with NTP Server option:
 - Enter the IP address or hostname of the Primary Time server.
 - Enter the IP address or hostname of the Secondary Time server. **Optional**

Note: If DHCP is selected for the Network Settings on the Network page, the NTP server IP address is automatically retrieved from the DHCP server by default. Manually enter the NTP server IP address by selecting the Override DHCP checkbox.

5. Click OK.

Step 5: Launching the Remote Console

1. Launch a supported web browser, and enter the IP address assigned to the LX II. A default client is launched based on your pc and browser settings. See the online help for details about clients.
2. Enter your username and password, then click Login.
3. Accept the user agreement (if applicable).
4. If security warnings appear, click to accept.

Access and Control Target Servers Remotely

The LX II Port Access page provides a list of all LX II ports.

The page also lists all of the target servers connected to the LX II along with their status and availability.

Access a Target Server from the LX II

Port Access

Click on the individual port name to see allowable operations. 0 / 2 Remote KVM channels currently in use.

View By Port	Set Scan	No.	Name	Type	Status	Availability
		1	Connect Dominion_LX2_Port1	VM	up	idle
		2	Dominion_LX2_Port2	Not Available	down	idle
		3	Dominion_LX2_Port3	Not Available	down	idle

1. On the Port Access page, click the Port Name of the target you want to access. The Port Action Menu is displayed.
2. Choose Connect from the Port Action menu.

A KVM window opens with a connection to the target.

Switch between Target Servers

Port Access

Click on the individual port name to see allowable operations. 1 / 2 Remote KVM channels currently in use.

View By Port	Set Scan	Switch From Dominion_LX2_Por...		Type	Status	Availability
		Connect		VM	up	busy
		2	Dominion_LX2_Port2	DVM-DP	up	idle
		3	Dominion_LX2_Port3	Not Available	down	idle
		4	Dominion_LX2_Port4	Not Available	down	idle

1. While already using a target server, access the LX II Port Access page.
2. Click the port name of the target you want to access. The Port Action menu appears.
3. Choose Switch From. The new target server you selected is displayed.

Disconnect from a Target Server

► To disconnect a target:

- On the Port Access page, click the port name of the target you want to disconnect from, then click Disconnect on the Port Action menu when it appears.
- Or
- Close the client window.

Step 6: Configuring the Keyboard Language (Optional)

If you are using a non-US language, the keyboard must be configured for the appropriate language. Also, the keyboard language for the client machine and the KVM target servers must match. Consult your operating system documentation for information about changing the keyboard layout.

Step 7: Create and Install an SSL Certificate

It is strongly recommended to install your own SSL Certificate in each LX II device.

This security best practice reduces the number of browser and Java™ warning messages, and avoids man-in-the-middle attacks.

It also prevents future Java versions and browser versions from blocking access to your LX II device.

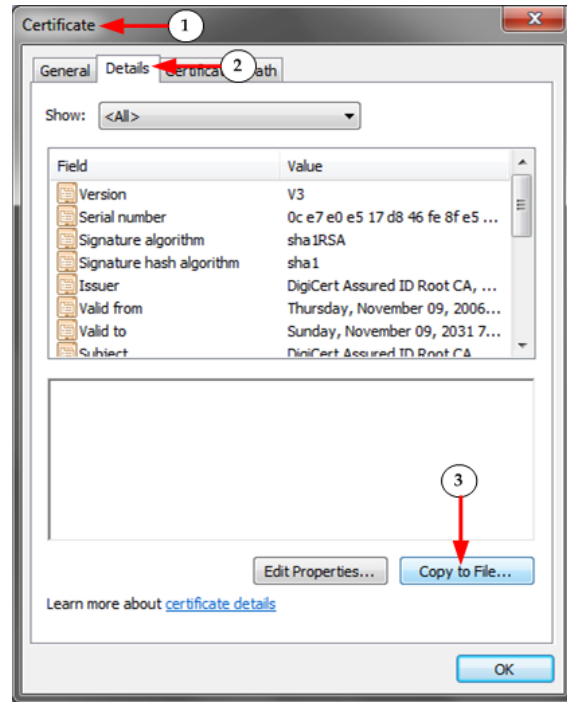
For information on creating and installing SSL certificates, see LX II **Online Help**.

Converting a Binary Certificate to a Base64-Encoded DER Certificate (Optional)

LX II requires an SSL certificate in either Base64-Encoded DER format or PEM format.

If you are using an SSL certificate in binary format, you cannot install it.

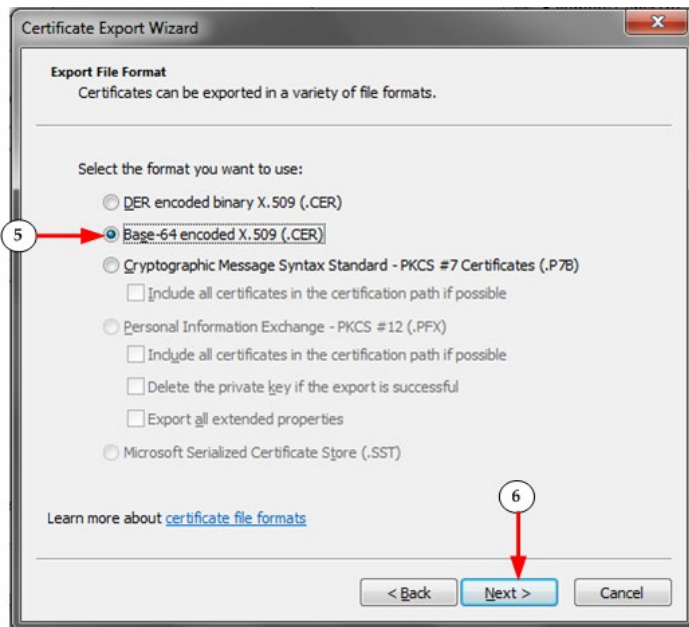
However, you can convert your binary SSL certificate.



1. Locate the DEGHKVM0001.cer binary file on your Windows machine.
Double-click on the DEGHKVM0001.cer file to open its Certificate dialog.
2. Click the Detail tab.
3. Click "Copy to File..."



- The Certificate Export Wizard opens. Click Next to start the Wizard.



- Select "Base-64 encoded X.509" in the second Wizard dialog.
- Click Next to save the file as a Base-64 encoded X.509.

You can now install the certificate on your LX II.

Additional Information

For more information about LX II and the entire Raritan product line, see Raritan's website (www.raritan.com). For technical issues, contact Raritan Technical Support. See the Contact Support page in the Support section on Raritan's website for technical support contact information worldwide.

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