



Dominion® KX III

Quick Setup Guide

Thank for choosing the Dominion KX III, the industry's highest performance enterprise-class, secure, digital KVM (Keyboard, Video, Mouse) switch.

This Quick Setup Guide explains how to install and configure the KX III. For details on using the KX III, access online help from the application or the [Support page](#) on the Raritan website. Online help is your primary resource but a PDF version of the help is also available on the Support page.

Package Contents

Each KX III ships as a stand-alone product in a standard 1U or 2U 19" rackmount chassis, depending on your KX III model.

The KX III device ships with the following contents:

- 1 - KX III device
- 1 - KX III Quick Setup Guide
- 1 - Rackmount kit
- 2 - AC power cords
- 1 - Set of 4 rubber feet (for desktop use)
- 1 - Application note
- 1 - Warranty card

In Raritan products that require Rack Mounting, please follow these precautions:

- 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 online help.
- 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

The KX III can be mounted in 1U (1.75", 4.4 cm) of vertical space in a standard 19" equipment rack.

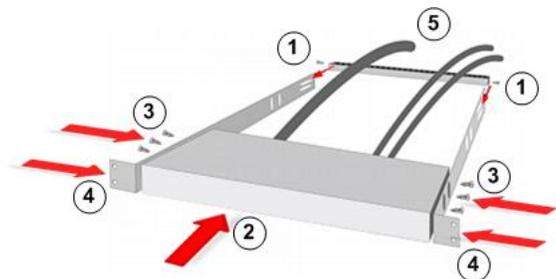
Note: The Raritan device depicted in the rack mounting diagrams is for example purposes only and may not depict

your device. The mounting instructions are specific to your device.

Forward Mount

The steps correspond to the numbers shown in the front rackmount diagrams.

1. Secure the cable-support bar to the back end of the side brackets using two of the included screws.
2. Slide the KX III 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 KX III 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 screws, bolts, cage nuts, and so on.
5. When connecting cables to the rear panel of the KX III, drape them over the cable-support bar.

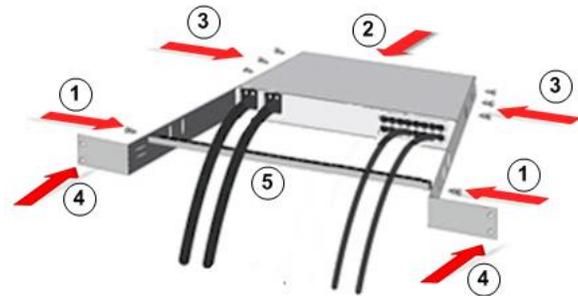


Rear Mount

The steps correspond to the numbers shown in the rear rackmount diagrams.

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.

- Slide the KX III 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.
- Secure the KX III to the side brackets using the remaining included screws (three on each side).
- Mount the entire assembly in your rack and secure the side brackets' ears to the rack's front rails with your own screws, bolts, cage nuts, and so on.
- When connecting cables to the rear panel of the user station or switch, drape them over the cable-support bar.



Step 1: Configuring Network Firewall Settings

TCP Port 5000

Enable remote access to KX III by allowing network and firewall communication on TCP Port 5000.

Alternatively, configure KX III to use a different TCP port, then allow network and firewall communication on that port.

TCP Port 443

Allow access to TCP Port 443 (Standard HTTPS) so you can access KX III via a web browser.

TCP Port 80

Allow access to TCP Port 80 (Standard HTTP) to enable automatic redirection of HTTP requests to HTTPS.

Step 2: Configuring KVM Target Servers

Mouse Settings

Raritan recommends using Absolute Mouse Synchronization to minimize mouse settings on target servers. For additional information, see [Additional Supported Mouse Settings](#) in Online Help.

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.

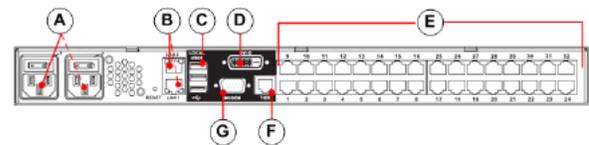
Absolute Mouse Synchronization requires the use of a virtual media CIM -

- D2CIM-VUSB
- D2CIM-DVUSB
- D2CIM-DVUSB-DVI
- D2CIM-DVUSB-HDMI
- D2CIM-DVUSB-DP

Target Server Video Resolutions

For a list of supported target video server resolutions, see [KX III Supported Target Server Video Resolutions](#) in Online Help.

Step 3: Connecting the Equipment



A. AC Power



- Use the power cords that came with the KX III. Attach the female end of the AC power cord to an KX III power port and plug the male end into an AC power outlet.
- For dual-power failover protection, plug the female end of the second AC power cord in to the second KX III power port. Plug the male end into a different power source than the first power cord.

B. Network Port

The KX III provides two Ethernet ports for failover purposes - not for load-balancing.

By default, only LAN1 is active and the automatic failover is disabled.

When you enable network failover, LAN2 uses the same IP address if the KX III internal network interface or the network switch the KX III is connected to become unavailable.

- 1 Connect a standard Ethernet cable from the LAN1 network port on the KX III to an Ethernet switch, hub, or router.

► To enable the optional KX III Ethernet failover capabilities:

- 2 Connect a standard Ethernet cable from the LAN2 network port on the KX III to an Ethernet switch, hub, or router.
Log in to the KX III Remote Console.
Select Device Settings > Network Settings to open the Network Configuration page.
Select the 'Automatic Failover' checkbox.

C. Local User Port (Local Console)

► To connect the keyboard and mouse:

- Connect a USB keyboard and mouse to the respective Local User ports on the back of the KX III.

Use the KX III Local User port for administrative and target server access at the rack via a graphical user interface.

The Local User port is required for installation and setup, but is optional for subsequent use.

D. Local DVI-D Port

A single link DVI cable is used to connect to a local DVI monitor or keyboard tray (not included with the KX III).

Connect to the DVI port on Raritan's T1700-LED keyboard tray.

Use a required DVI-D to VGA converter to connect to VGA monitors. See [Connect to a VGA Monitor \(Optional\)](#) in Online Help

Connect to a DVI Monitor

The local monitor must support a minimum 1024x768 resolution.

► To connect to a DVI monitor:

- 1 Connect a USB keyboard and mouse to the respective Local User ports on the back of the KX III device.

- 2 Connect one end of a DVI cable into the DVI-D port on the back of the KX III.
- 3 Connect the other end of the DVI cable into the DVI port on the DVI monitor.

E. Connect Target Servers to the KX III

► To connect a target server to the KX III:

- 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 KX III via a Cat5/5e/6 cable.

F. Tier (Optional)

See [Configuring and Enabling Tiering](#) in Online Help.

G. Modem Port (Optional)

See [Configuring Modem Settings](#) in Online Help.

Step 4: Configuring the KX III

For the following steps, you must change the default password and assign the KX III its IP address at the Local Console.

All other steps can be performed either from the Local Console, or the KX III Remote Console via a supported web browser using the KX III's default IP address.

Java™ 1.7 is required to use the Java-based Virtual KVM Client.

Microsoft .NET® 3.5 (or later) is required to use KX III with the Microsoft Windows®-based Active KVM Client (AKC).

Change the Default Password

The first time you start the KX III device, you are required to change the default password.

1. Once the unit has booted, enter the default username `admin` and password `raritan`.
2. Click Login.
3. Enter the old password `raritan`, then enter and reenter a new password.
4. Passwords can be up to 64 characters in length consisting of English alphanumeric characters and special characters.
5. Click Apply.
6. Click OK on the Confirmation page.

Assign the KX III a Device Name

Choose Device Settings > Network. The Basic Network Settings page opens.

Basic Network Settings

Device Name *
 Dominion51-220

IPv4 Address

IP Address 192.168.61.13	Subnet Mask 255.255.255.0
Default Gateway 192.168.61.126	Preferred DHCP Host Name

IP Auto Configuration
 DHCP
 None
 DHCP

- Specify a meaningful Device Name for your KX III device.
 Up to 32 alphanumeric and valid special characters, no spaces between characters.

Next, configure the IP address and DNS settings. See -

- **Configure the IPv4 Settings** (on page 4)
- **Configure the IPv6 Settings** (on page 5)
- **Configure the DNS Settings** (on page 5)

Configure the IPv4 Settings

In the IPv4 section, enter or select the appropriate IPv4-specific network settings.

Basic Network Settings

Device Name *
 Dominion51-220

IPv4 Address

IP Address 192.168.0.192	Subnet Mask 255.255.255.0
Default Gateway 192.168.61.126	Preferred DHCP Host Name

IP Auto Configuration
 None

- Enter the IP Address, if needed.
 The default IP address is 192.168.0.192.
- Enter the Subnet Mask.
 The default subnet mask is 255.255.255.0.
- Set up your IP Auto Configuration by selecting - None or DHCP

Basic Network Settings

Device Name *
 Dominion51-220

IPv4 Address

IP Address 192.168.0.192	Subnet Mask 255.255.255.0
Default Gateway 192.168.61.126	Preferred DHCP Host Name

IP Auto Configuration
 None

- None - for a static IP.
 Default selection.

Recommended option.

If None is selected, you must manually specify the network parameters by entering the Default Gateway.

Leaving the selection set to None -

- Lets you set the network parameters since KX III is part of your network infrastructure and you most likely do not want its IP address to change frequently.
- Ensure redundant failover capabilities should the primary Ethernet port or the switch/router to which it is connected fail.

If a failure occurs, KX III fails over to the secondary network port with the same IP address so there is no interruption.

Basic Network Settings

Device Name *
 Dominion51-220

IPv4 Address

IP Address	Subnet Mask 255.255.255.0
Default Gateway 192.168.61.126	Preferred DHCP Host Name 192.168.61.13

IP Auto Configuration
 DHCP

- DHCP - with this option, the IP address is automatically assigned by a DHCP server.

Dynamic Host Configuration Protocol is used by networked computers (clients) to obtain unique IP addresses and other parameters from a DHCP server.

Enter the Preferred DHCP Host Name if DHCP is selected from the IP Auto Configuration drop-down.

Up to 63 characters.

Next -

- **Configure the IPv6 Settings** (on page 5)
- **Configure the DNS Settings** (on page 5)

Configure the IPv6 Settings

If using IPv6, enter or select the appropriate IPv6-specific network settings in the IPv6 section.

- 1 Select the IPv6 checkbox to activate the fields in the section and enable IPv6 on the device.
- 2 Select an IP Auto Configuration option - None or Router Discovery.

Link-Local IP Address

This address is automatically assigned to the device. The address is used for neighbor discovery or when no routers are present. **Read-Only**

Zone ID

Identifies the device the address is associated with. **Read-Only**

- A **None** - for a static IP. Default selection. **Recommended** option.
If **None** is selected, you must manually specify -
 - Global/Unique IP Address - this is the IP address assigned to KX III
 - Prefix Length - this is the number of bits used in the IPv6 address
 - Gateway IP Address

See IPv4 for details on leaving the selection set to **None**.

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

Next - **Configure the DNS Settings** (on page 5)

Configure the DNS Settings

- 1 Do one of the following to configure DNS -
 - "Obtain DNS Server Address Automatically"
 - "Use the Following DNS Server Addresses"

- A Select "Obtain DNS Server Address Automatically" if DHCP is selected.
The DNS information is then provided by the DHCP server that is used.
When finished, click OK. Your KX III device is now network accessible.



B Enter the following information if the "Use the Following DNS Server Addresses" is selected -

Primary DNS Server IP Address
Secondary DNS Server IP Address

These addresses are the primary and secondary DNS addresses used if the primary DNS server connection is lost due to an outage.

Even if DHCP is selected in the IPv4 section, enter the primary and secondary addresses since these addresses are used to connect to the DNS server.

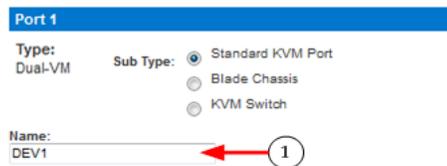
When finished, click OK. Your KX III device is now network accessible.

Next, configure LAN interface settings as needed. See LAN Interface Settings

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.



1 Enter a name for the server up to 32 alphanumeric and special characters. Click OK.

Specify Power Supply Autodetection

KX III provides dual power supplies.

When both power supplies are used, KX III automatically detects them and notifies you of their status.

Additionally, both the PowerIn1 and PowerIn2 Auto Detect checkboxes are automatically selected on the Power Supply Setup page (select Device Settings > Power Supply Setup).

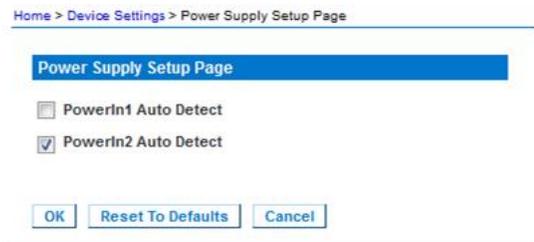
If you are using only one power supply, you can enable automatic detection for only the power supply in use.

When only one power input is connected, the Power LED on the front of the KX III device is Red, regardless of the selection you make on the Power Supply Setup page.

► **To enable automatic detection for the power supply in use:**

1 Select the PowerIn1 Auto Detect option if you are plugging power input into power supply number one. (The left-most power supply at the back of the device when you are facing rear of the device.)

Or



2 Select the PowerIn2 Auto Detect option if you are plugging power input into power supply number two. (The right-most power supply at the back of the device when you are facing rear of the device.)
Click OK.

Configure Date/Time Settings (Optional)

Optionally, configure the date and time settings.

The date and time settings impact SSL certificate validation if LDAPS is enabled.

Use the Date/Time Settings page to specify the date and time for KX III.

There are two ways to do this:

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

Choose Device Settings > Date/Time to open the Date/Time Settings page.

Date/Time Settings

- 1 Choose your time zone from the Time Zone drop-down list.
- 2 Adjust for daylight savings time by checking the "Adjust for daylight savings time" checkbox.
- 3 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.
- 4 For the Synchronize with NTP Server option:
 - Enter the IP address of the Primary Time server.
 - Enter the IP address 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.

Click OK.

Step 5: Launching the KX III Remote Console

Log in to your KX III Remote Console from any workstation with network connectivity that has Microsoft .NET® and/or Java Runtime Environment™ installed.

► **To launch the KX III Remote Console:**

1. Launch a supported web browser.
2. Enter either:
 - The URL - `http://IP-ADDRESS` to use the Java-based Virtual KVM Client
 - Or
 - `http://IP-ADDRESS/akc` for the Microsoft .NET-based Active KVM Client

IP-ADDRESS is the IP address assigned to your KX III

You can also use HTTPS, or the DNS name of the KX III assigned by your administrator (if applicable).
3. You are always redirected to the IP address from HTTP to HTTPS.
4. Enter your username and password. Click Login.

Access and Control Target Servers Remotely

The KX III Port Access page provides a list of all KX III ports.

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

Access a Target Server from the KX III

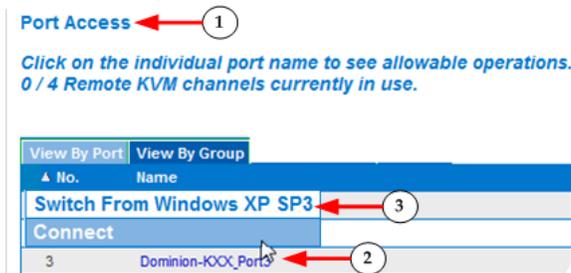
Port Access

Click on the individual port name to see allowable operations.
0 / 4 Remote KVM channels currently in use.

View By Port	View By Group	View By Search	Set Scan
▲ No.	Name		
1	Dominion_Port1		
2	DP-0 Connect port13		
3	Dominion-KXX_Port3		

- 1 On the KX III 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



- ① While already using a target server, access the KX III 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 server:

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

Step 6: Configuring the Keyboard Language (Optional)

Note: This step is not required if you are using the US/International language keyboard.

If you are using a non-US language, the keyboard must be configured for the appropriate language.

Additionally, the keyboard language for the client machine and the KVM target servers must match.

Consult your operating system documentation for additional information about changing the keyboard layout.

Step 7: Create and Install an SSL Certificate

Raritan strongly recommends you install your own SSL Certificate in each KX III device.

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

It also prevents future Java versions and browser versions from blocking access to your KX III device.

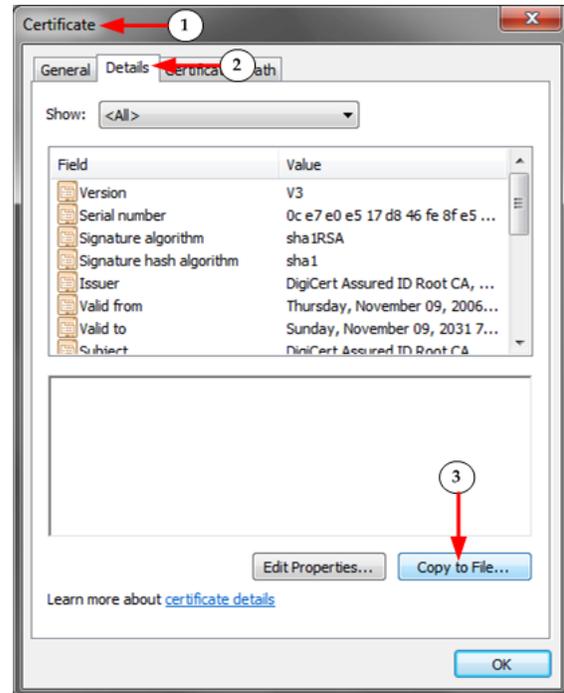
For information creating and installing SSL certificates, see [SSL Certificates](#) KX III Online Help.

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

KX III 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.

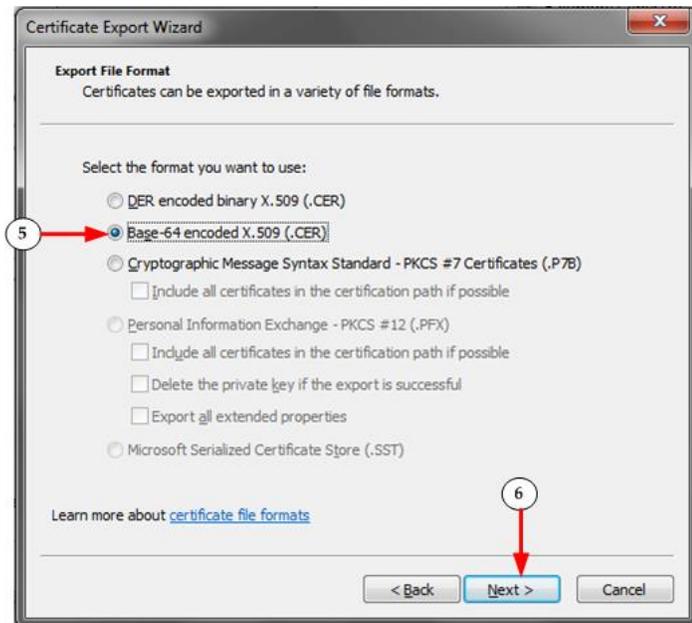
However, you can convert your binary SSL certificate.



- 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..."



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



- 5 Select "Base-64 encoded X.509" in the second Wizard dialog.

- 6 Click Next to save the file as a Base-64 encoded X.509.

You can now install the certificate on your KX III.

Additional Information

For more information about the KX III 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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