MasterConsole Digital®

Quick Setup Guide

Thank you for purchasing the MasterConsole Digital (MCD) KVM switch or MCD-LED KVM combination switch and drawer. MCD is the most user-friendly 1U KVM switch for accessing 8 to 32 servers, and MCD-LED is a 1U KVM combination switch and drawer for accessing 8 to 16 servers.

Four MCD models are available: MCD-108/116 for one-user operation, and MCD-216/232 for dual-user operation. If establishing a *two-tier* MCD KVM system, you can even access a maximum of 1024 servers.

Two MCD-LED models are available: MCD-LED17108 and MCD-LED17116 for one-user operation.

This Quick Setup Guide explains how to quickly install and use either product. For further details on using this product, access its Online Help or User Guide on the Support page.

Package Contents

The MCD or MCD-LED comes with standard parts shown below. If anything is missing or damaged, contact Raritan Technical Support or the local vendor immediately.

- MCD KVM switch or MCD-LED KVM drawer x 1
- Power cord x 1
- Rackmount kit x 1 (including brackets and associated screws)
- DVI-I to VGA adapter x 1

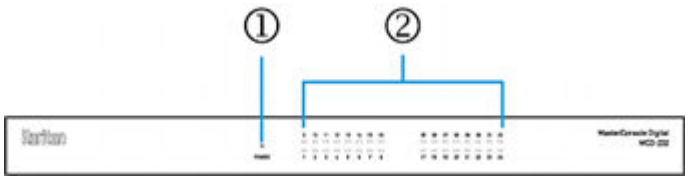
Note: This adapter can be used for connecting a VGA monitor or for connecting a 2nd-tier MCD switch via "MDUTP" cables. For details, see Step B: Connect the Keyboard/Mouse/Monitor (on page 8) or Establishing a Two-Tier System (on page 14).

- Quick Setup Guide x 1

MCD Structure Diagrams

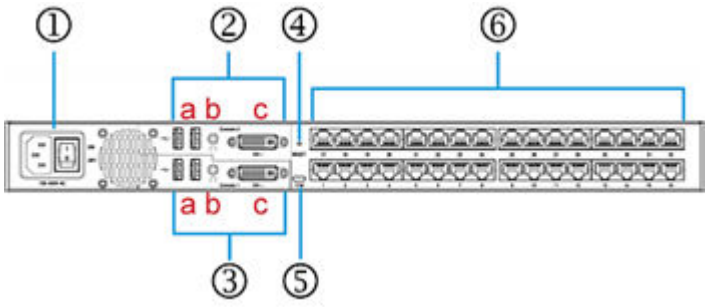
The following diagrams illustrate the dual-user model MCD-232.

Front View



1. Power LED
2. Channel LEDs

Rear View



1. Power socket and power switch
2. 'Console 2' connectors (available on dual-user models only):

a. Two USB-A ports
b. One audio output
c. One DVI-I connector

3. 'Console 1' connectors:
   a. Two USB-A ports
   b. One audio output
   c. One DVI-I connector
4. Reset button
5. Firmware upgrade connector
6. Channel ports

MCD Rackmount Procedure

MCD switches can be mounted in 1U (1.75", 4.4cm) of vertical space in a standard 19" equipment rack. To rack-mount it, use the brackets and screws that come with the device.

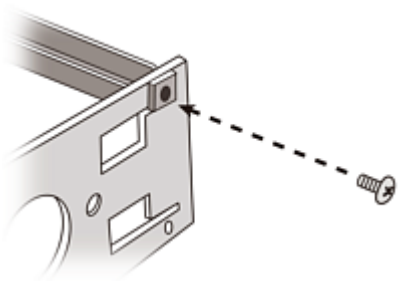
Step 1: Attach the Cable-Support Bar

You can install the cable-support bar onto the rackmount brackets to bear all cables connected to the MCD switch. The proper position to attach this bar depends on the switch's front panel position in the rack.

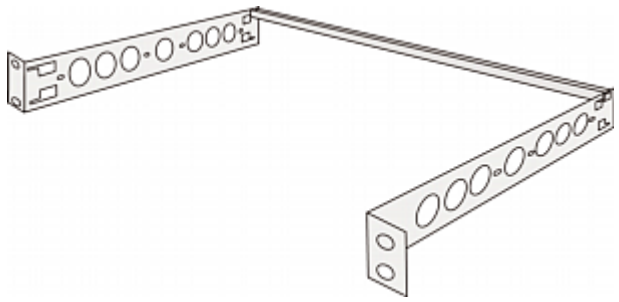
- If the front panel will face the front of the rack, fasten the bar to the L-shaped holes *far from* the ears of the rackmount brackets.
- If the front panel will face the rear of the rack, fasten the bar to the L-shaped holes *close to* the ears of the rackmount brackets.

► *To attach the cable-support bar:*

1. Insert either end of the cable-support bar into one of the L-shaped holes on a rackmount bracket.
2. Align the bar's threaded hole with the threaded hole at the end of the rackmount bracket. Then secure the bar with one of the included cap screws.



3. Repeat the above steps for attaching the other bracket.

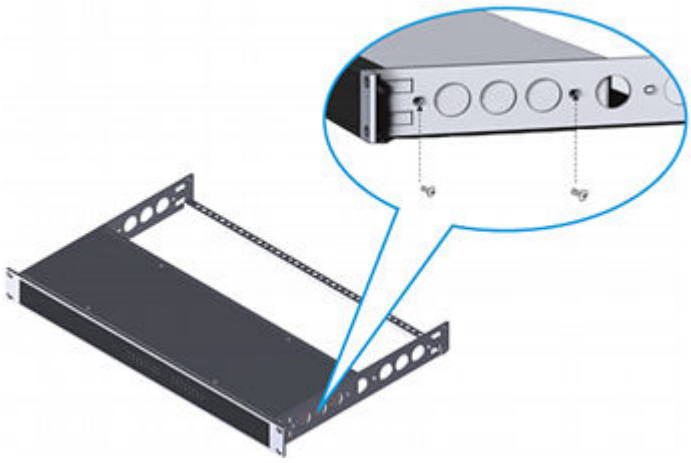


Step 2: Rack Mount the MCD

When rack-mounting the MCD switch, you can let it face either the front or the rear of the rack to meet your needs.

► *To rack-mount the MCD:*

1. Slide the MCD switch between the two rackmount brackets.
2. Align two little holes of the bracket with two threaded holes on one side of the MCD switch.
3. Secure the bracket to the MCD switch with two of the included screws.

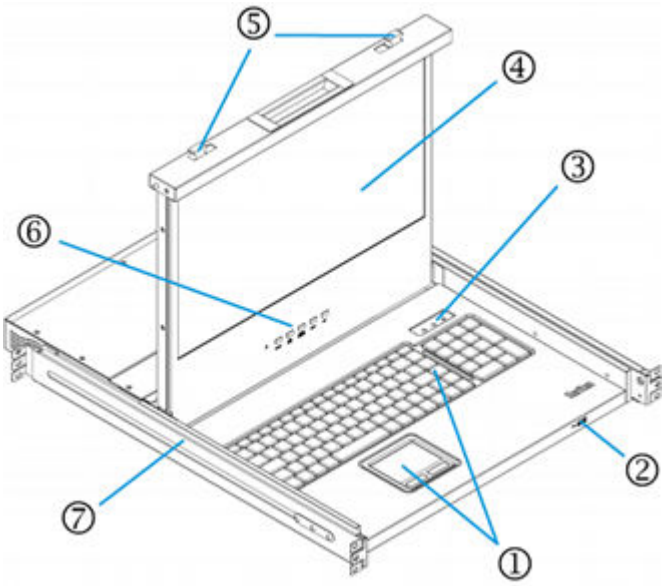


4. Repeat the same steps for attaching the other bracket.
5. Mount the MCD switch in the rack by securing the brackets' ears to the rack's front rails with your own fasteners.

MCD-LED Structure Diagrams

The following diagrams illustrate MCD-LED17116.

Front View



1. Touchpad and keyboard
2. USB port for connecting a USB HID-compliant keyboard/mouse -- wired or wireless

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Note: This USB port does not support a USB storage drive.

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3. Indicators for Num Lock, Caps Lock and Scroll Lock
4. TFT LCD display
5. Locking latches
6. OSD buttons, power button and indicator lamp
7. Adjustable mounting brackets

Rear View

1. Power socket and power switch
2. Firmware upgrade connector
3. Channel ports

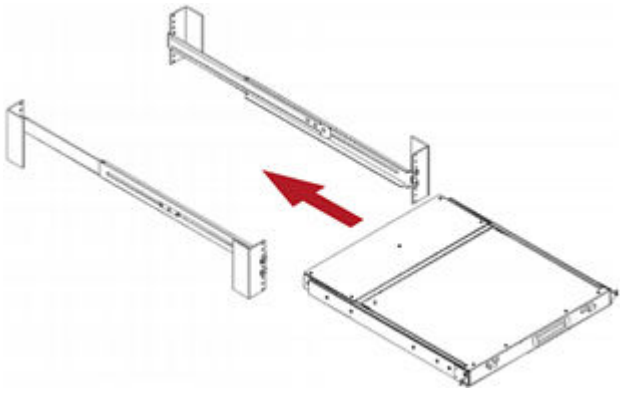
MCD-LED Rackmount Procedure

MCD-LED KVM drawers can be mounted in 1U (1.75", 4.4cm) of vertical space in a standard 19" equipment rack. To rack-mount it, use the brackets and screws that come with the device.

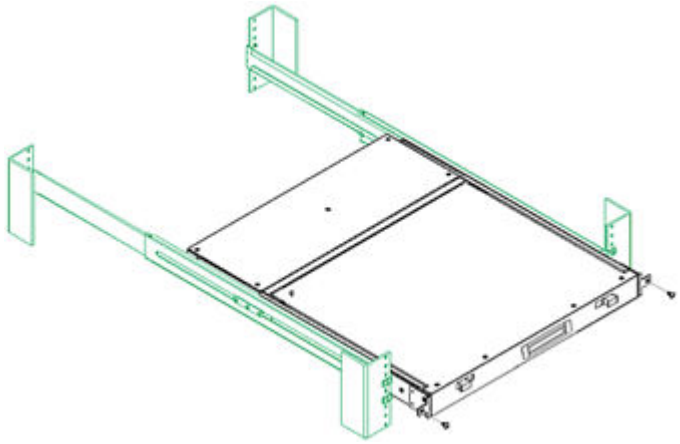
1. Adjust the length of both brackets to match the mounting depth of your rack.

2. Fasten the brackets to the rack rails securely with your own fasteners.

3. Slide the MCD-LED between the brackets.



4. Fasten the MCD-LED to the rack.



Basic Installation

For MCD, follow steps A, B, and C. For MCD-LED, follow steps A and C.

Step A: Select Proper MDCIMs or MDUTPs

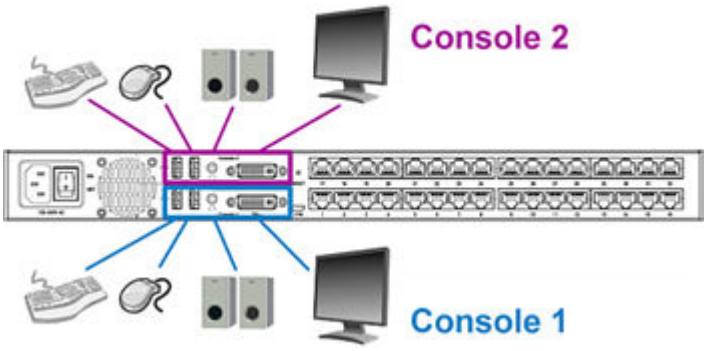
Choose appropriate MDCIMs or MDUTP cables according to the server's video port and your audio requirements.

MCD CIM type	Video type	Audio transmission
MDUTP cables	VGA	Support analog audio
MDCIM-VGA	VGA	Support analog audio
MDCIM-DVI	DVI	NO support
MDCIM-HDMI	HDMI	Support digital audio
MDCIM-DP	Display Port	NO support

Tip: If the MDCIM or MDUTP cable you purchase is not compatible with the video port on your server, the alternative solution is to connect a video converter or adapter to MDCIM or MDUTP.

Step B: Connect the Keyboard/Mouse/Monitor

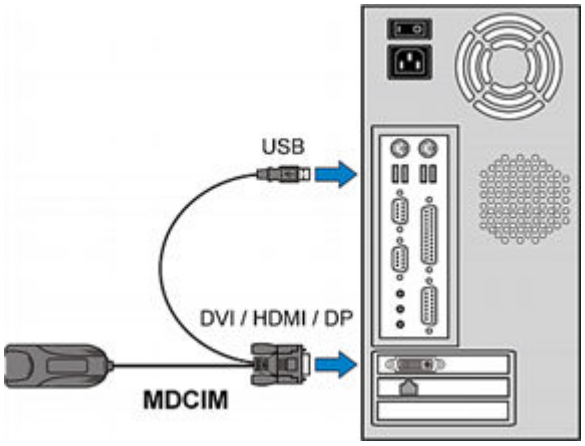
1. Turn OFF all devices, including the MCD switch and servers.
2. Connect a keyboard, mouse and monitor to the 'Console' connectors on the MCD switch.
   - If using a VGA monitor, a DVI-I to VGA adapter is required.
   - The headphone or speakers are optional.
   - If your MCD is a dual-user model, you can connect an additional keyboard, mouse and monitor to the other 'Console' connectors.



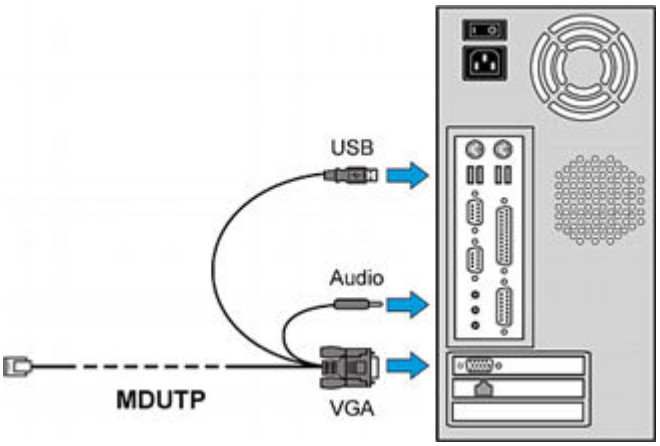
Step C: Connect Servers

1. Connect one MDCIM or MDUTP cable to the server.
   a. Plug the MDCIM or MDUTP cable's USB connector into one of the server's USB ports.
   b. Plug the MDCIM or MDUTP cable's video connector into the server's video port.

Make sure the MDCIM or MDUTP cable's video type matches your server's. See Step A: Select Proper MDCIMs or MDUTPs (on page 8).



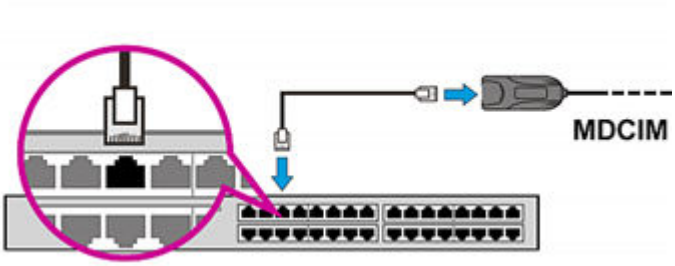
- Optionally, plug the MDUTP cable's audio connector into the server's audio output port.



2. Connect the server to the MCD switch.

The distance can be up to 45 meters (147.6 feet).

- *MDCIM:* Use a standard network patch cable (Cat5e/6 UTP) to connect the MDCIM attached with the server to the MCD channel ports.

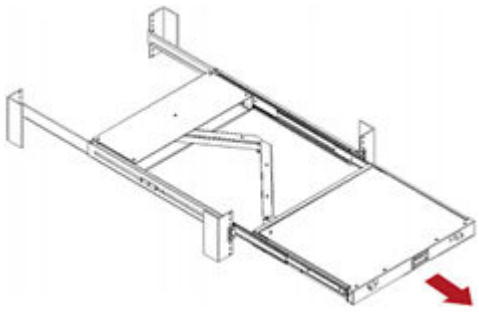


- *MDUTP cable:* Simply plug the RJ-45 end of the MDUTP cable into any channel port.

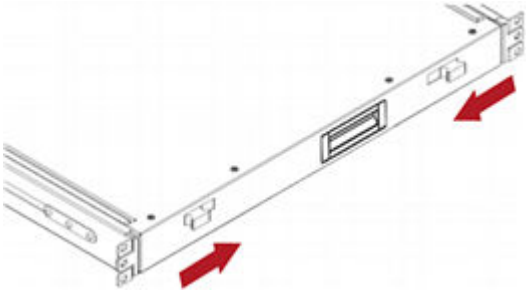
3. Repeat the above steps to connect more servers.
4. Power on all devices.

Using the MCD-LED

1. Pull out the MCD-LED.



2. Push the locking latches toward the center.



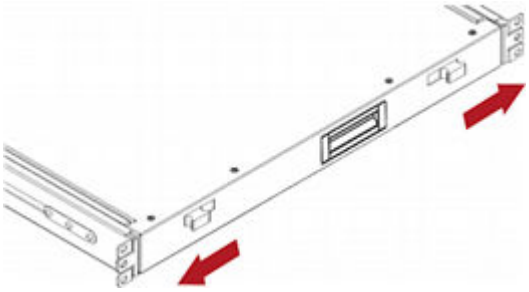
3. Flip up the LCD display, and press the power button on the LCD display.

4. To fine tune the video quality after accessing a server, do either below:
   - Press the UP/AUTO button on the LCD display.
   - Press MENU, make sure Auto Adjust has been selected, and press MENU to confirm.

   Note: For instructions on accessing a server, see Accessing a Server (on page 13).

5. To close and lock the LCD display, push the locking latches toward the edges.

Warning: When closing the MCD-LED, keep your fingers clear of it.



OSD Operation

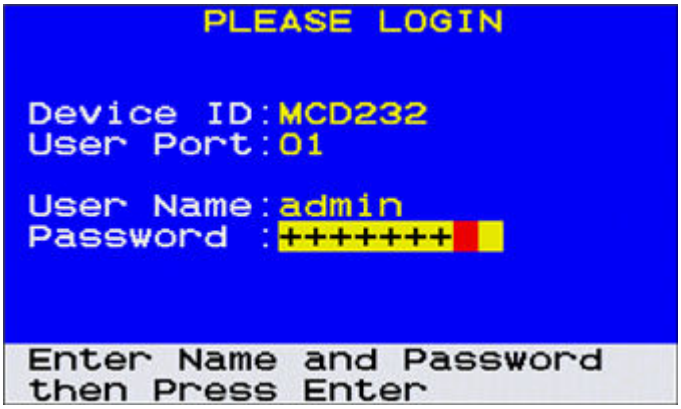
MCD and MCD-LED share the same OSD operations.

Login

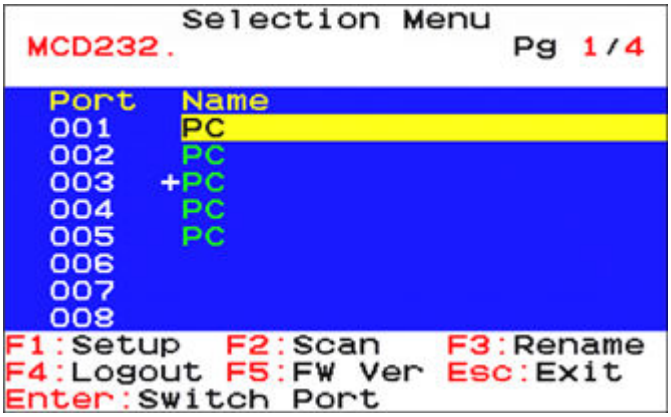
After turning on the device, the login screen displays. For initial login, use the built-in administrator account.

► *To log in:*

1. Type the default user credentials and press Enter. User credentials are case sensitive.
   - User Name: `admin`
   - Default Password: `raritan`



2. The Selection Menu displays, indicating the login is successful.
   - To select a channel, see Using the Channel Selection Menu (on page 13).



Important: It is strongly recommended to change the default password for the security of your MCD system. For details, refer to "User Management" in the User Guide.

Accessing a Server

After login, you can select any channel to view and/or control the connected server. There are two methods for channel selection.

- Selection Menu of the On-Screen Display (OSD)
- Hot keys

Using the Channel Selection Menu

You must use the OSD hot key to trigger the OSD. The default hot key is 'Scroll Lock.'

► *To select a channel via the Selection Menu:*

1. Press 'Scroll Lock' 3 times. The Selection Menu appears, showing a list of channels.
2. If the desired channel is not shown on the current page, press Page Down or Page Up.
3. Press ↓ or ↑ to select one of the "active" channels, and press Enter.
   - Channels with channel names displayed are "active" channels. The default name is 'PC'.

Note: To return to the 1st-tier Selection Menu, press the letter 'R' while the 2nd-tier Selection Menu is being displayed.

Using Hot Keys

You can switch between channels without triggering the OSD.

► *To access any channel, using hot keys:*

1. Make sure there is no OSD shown onscreen. If yes, press Esc to exit.
2. To select any channel, press 'Scroll Lock' twice, then the channel number, and press Enter.

For example, to access channel 15, press the following keys.

```
Scroll Lock > Scroll Lock > 15 > Enter
```

Important: If you do not press Enter, no channel switching occurs.

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3. The video of the accessed server displays onscreen. Now you can control the server with the keyboard and mouse.
4. To use the hotkey combination for the second layer, you first need to know the port number of the target PC connected to the first layer, as well as the port number of the second layer. Press the following keys.

```
Scroll Lock > Scroll Lock > T > (first layer port number) > T > (second layer port number) > Enter.
```

► *To access the next or prior "active" channel, using hot keys:*

1. Make sure there is no OSD shown onscreen.
2. To select the next "active" channel, press the RIGHT 'Ctrl' key twice.
3. To select the prior "active" channel, press the LEFT 'Ctrl' key twice.

Logout

After completing your tasks, you should log out to prevent unauthorized people from accessing the MCD KVM system.

► *To log out of the MCD KVM system:*

1. If the OSD is not displayed onscreen, press 'Scroll Lock' 3 times.
2. Press F4.
3. The Login screen appears, indicating that you have successfully logged out.

Establishing a Two-Tier System

To increase the total number of servers a user can access, establish a two-tier system.

In the two-tier system, the 1st tier comprises only one MCD switch, which is called 'base switch' in the following context. The 2nd tier comprises 1 to 32 additional MCD switches.

Tip: You can also use one MCD-LED KVM drawer as the base switch, but this product cannot be a 2nd-tier KVM switch because it does not have a console port.

- STEP (a): Connect the 2nd-tier switch(es) to the base switch
- STEP (b): Connect the keyboard, mouse, monitor and audio devices to the base switch
- STEP (c): Connect servers to the two-tier system

Step (a): Connect 2nd-Tier Switches to the Base Switch

You can mix identical or different MCD models in a two-tier system. For example, you may connect a MCD-116 switch to a MCD-232 base switch.

► *To cascade MCD switches:*

1. Turn OFF all MCD switches, including the base switch.
2. Connect the 2nd-tier MCD switch to the base switch via one MDCIM-DVI.

Note: If support for audio transmission with the 2nd-tier switch is required, you must use the MDUTP cable and a Raritan's DVI-I to VGA adapter to connect the 2nd tier.

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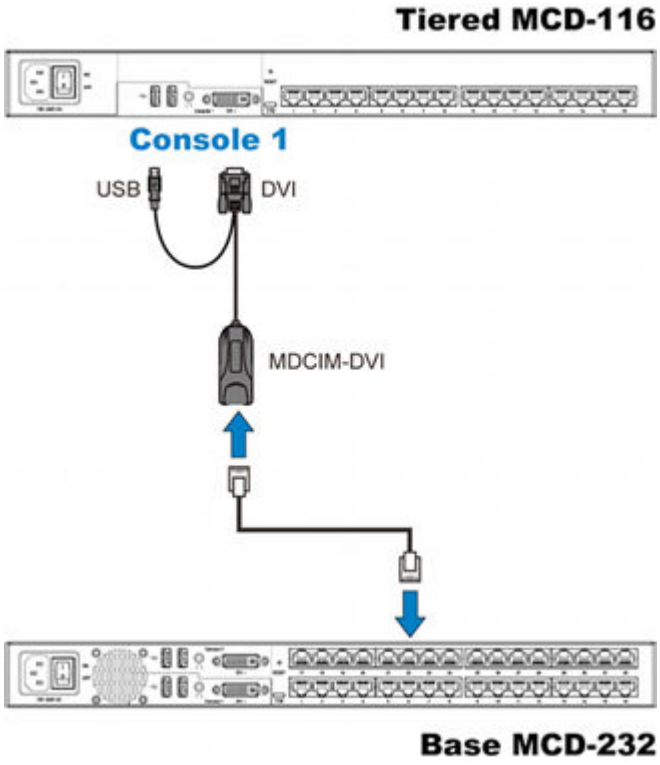
a. Plug the connectors of the MDCIM or MDUTP into the 'Console 1' connectors of the 2nd-tier switch. <var10>
b. Use a standard network patch cable (Cat5e/6 UTP) to connect the 2nd-tier MDCIM to any channel port of the base switch.



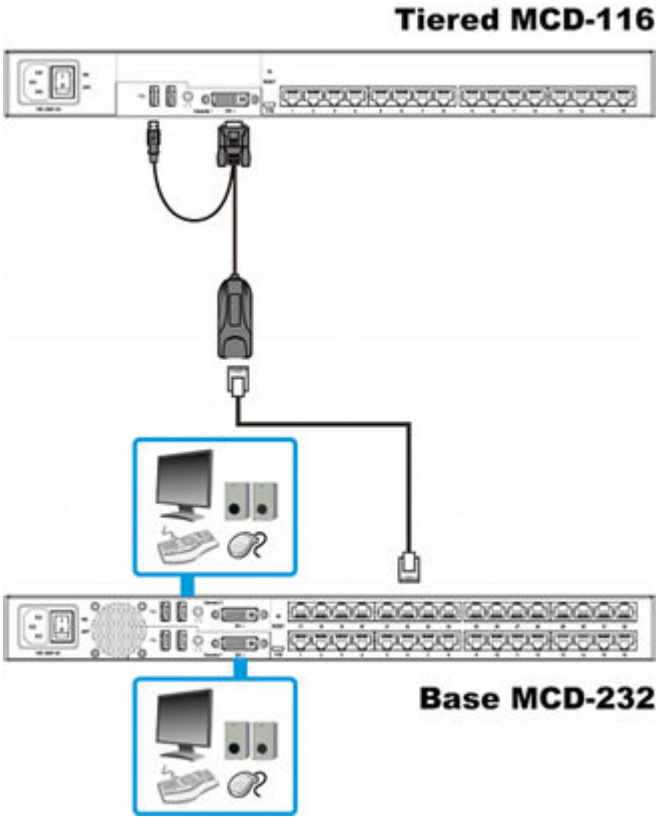
3. Repeat the above step to connect more 2nd-tier switches to the base switch.
4. Turn on all "2nd-tier" switches.
5. Turn on the base switch.

Important: Turn on 2nd-tier switches prior to the base switch so that the base switch downloads up-to-date channel data from the 2nd tier.

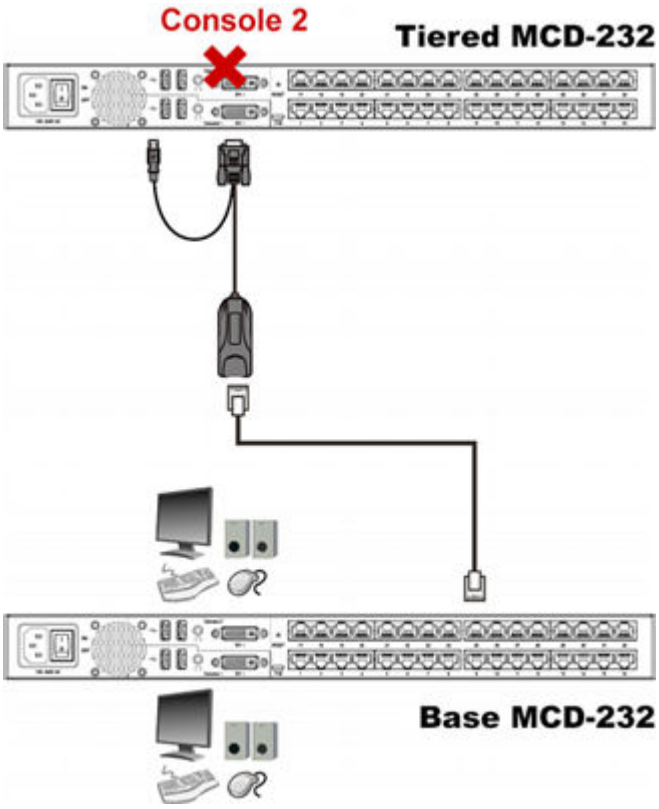
Step (b): Connect Keyboards, Mice, Monitors and Audio Devices

You must connect one or two sets of keyboards, mice and monitors to the base switch.

For details on connecting keyboards, mice, monitors and optional audio input devices, see Step B: Connect the Keyboard/ Mouse/Monitor (on page 8).

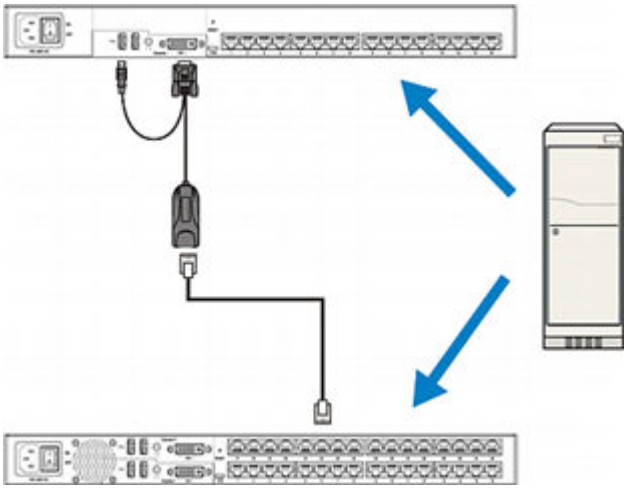


Warning: If any 2nd-tier switch is a dual-user MCD model, DO NOT connect a keyboard, mouse and monitor to Console 2 because Console 2 is disabled.



Step (c): Connect Servers

You can connect servers to any channel ports in the two-tier system, including those on the base and second-tier switches.



For details on server connections, see Basic Installation (on page 8).

Additional Information

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