Omneon MediaDeck™
Component Replacement Guide

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Omneon MediaDeck™ Component Replacement Guide

September, 2011

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FCC Compliance
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. Shielded cables must be used to ensure compliance with the FCC
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English: This digital apparatus does not exceed the Class A limits for the
radio noise emissions from digital apparatus set out in the Radio
Interference Regulations of the Canadian Department of Commerce.
French:
Le présent appareil numérique n’émet pas de bruits radioélectriques
dépassant les limites applicables aux appareils numériques de la classe A
prescrites dans le Règlement sur le brouillage radioélectrique édicté par le
ministère des Communications du Canada.

Omneon, Now Part of Harmonic
**EU Manufacturer’s Declaration of Conformity**

We: Harmonic Inc.

Declare under our sole responsibility that the products identified below comply with the following EU Directives and Harmonized Standards stated.

Applicable EU Directives for the Omneon MediaDeck:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
<th>Detail</th>
</tr>
</thead>
</table>

The Technical File is available to proper authorities and the product is marked.
Safety

For the Omneon MediaDeck, the 5000 Series SD MPEG-2/ DV MediaDeck Module (MDM-5001), the 5220 Series SD MPEG-2 Dual I/O MediaDeck Module (MDM-5221), and the 5320 Series HD/SD MPEG-2 Dual I/O MediaDeck Module (MDM-5321), the 5400 Series HD/SD MPEG-2/ DV Simulcast MediaDeck Module (MDM-5401), the 5500 Series HD/SD MPEG-2 Playback MediaDeck Module (MDM-5501):

- UL 670950-1, 1st Edition
- CSA C22.2 No. 60950-1-03, 1st Edition

Additional Certification, Compliance and EMC Data

Additional certification, compliance and EMC data is listed in the Omneon MediaDeck™ User’s Guide.

Important Safeguards and Notices:

This section topic provides important safety guidelines for both the Operator and Service Personnel. Specific warnings and cautions are found throughout the guide where they apply, but may not appear here. Please read and follow the important safety information, noting especially those instructions related to risk of fire, electric shock or injury to persons.

Safety Symbols

Hazardous Voltage symbol:

Caution symbol:
The product is marked with this symbol when it is necessary to refer to the manuals to prevent damage to the product.

**Warnings**

![Warning Symbol](image)

Please observe the following important warnings:

- Any instructions in this guide that require opening the chassis, changing a power supply, or removing a board should be performed by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing unless you are qualified to do so.

- Heed all warnings on the unit and in the operating instructions.

- Do not use this product in or near water. Disconnect AC power before installing any options or servicing the unit unless instructed to do so by this manual.

- This product is grounded through the power cord grounding conductor. To avoid electric shock, plug the power cord into a properly wired receptacle before connecting the product inputs or outputs.

- Route power cords and other cables so that they are not likely to be damaged. Disconnect power before cleaning. Do not use liquid or aerosol cleaners; use only a damp cloth.

- Dangerous voltages exist at several points in this product. To avoid personal injury, do not touch exposed connections and components while power is on. Do not insert anything into either of the system’s two power supply cavities with power connected.
• Do not wear hand jewelry or watches when troubleshooting high current circuits, such as the power supplies.

• To avoid fire hazard, use only the specified correct type, voltage and current rating as referenced in the appropriate parts list for this product. Always refer fuse replacement to qualified service personnel.

Cautions

Please observe the following important cautions:

• When installing this equipment, always comply with the National Electrical Standard and local electrical standard for attachment of the power cords.

• Risk of explosion if battery is replaced incorrectly or with an incorrect type. There are no user-serviceable batteries inside Omneon products. Refer servicing to Omneon qualified personnel only. Dispose of batteries according to the instructions.

• Use only specified replacement parts.

• Follow static precautions at all times when handling this equipment.

• Slots and openings in the chassis are provided for ventilation. Do not block them. Leave the back of the frame clear for air exhaust cooling and to allow room for cabling — a minimum of 6 inches (15.25 cm) of clearance is recommended.
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Introduction

This document provides the following component replacement instructions for the Omneon MediaDeck:

- Replacing the Bezel
- Replacing a Disk Drive
- Replacing a Power Supply
- Replacing the Drive Cage
- Replacing an I/O Module
- Replacing the Processor Module
- Replacing the Chassis
Technical Support

Omneon provides many ways for you to obtain technical support. In addition to contacting your Distributor, System Integrator, or Omneon Account Manager, you can contact the Omneon Technical Support department as follows:

For support in the Americas:

- Telephone (Toll Free): +1(888) OVN SPT1 (686 7781)
- Telephone (Local): +1(408) 585 5200
- Fax: +1 (408) 521 2191
- Email: support@omneon.com
- http://www.omneon.com/service-support

For support in Europe, Middle East, and Africa:

- Telephone: +44 1252 555 450
- Fax: +44 (0) 1252 377 171
- Email: emeasupport@omneon.com
- http://www.omneon.com/service-support

For support in Russia and CIS

- Telephone Number: +7 495 506 5981
- Fax: +7 495 937 8290
- Email: RUsupport@omneon.com
- http://www.omneon.com/service-support
For support in Japan:

- Telephone: +81 3 5565 6737
- Fax: +81 3 5565 6736
- Email: japansupport@omneon.com
- http://www.omneon.com/service-support
- ftp:/ftp.omneon.com/Updates/Omneon/Current/

For support in China (mainland):

- Telephone: +86 10 8391 3313
- Fax: +86 10 8391 3688
- Email: chinasupport@omneon.com
- http://www.omneon.com/service-support
- ftp:/ftp.omneon.com/Updates/Omneon/Current/

For support in Asia Pacific (other territories):

- Telephone: +65 6671 1499
- Fax: +65 6671 1454
- Email: apacsupport@omneon.com
- http://www.omneon.com/service-support
- ftp:/ftp.omneon.com/Updates/Omneon/Current/

Company Address

Harmonic Inc.
4300 North First Street
San Jose, CA 95134  U.S.A.
CHAPTER 1
Replacing the Bezel

This section provides instructions for replacing the front bezel of the Omneon MediaDeck.

CAUTION: Observe all conventional ESD precautions when handling Omneon MediaDeck components. Avoid contact with backplane components and connectors.

To remove the front bezel:
1. Loosen the four captive thumb screws that secure the bezel to the chassis.
2. Pull the bezel directly away from the chassis.

Figure 1 Removing the Bezel
Replacing the Bezel

To install the new bezel:

1. Unpack the bezel.

2. Align the bezel in front of the chassis so that the Omneon logo appears in the top-left corner, and the metal corners of the bezel are level with the rack ears of the chassis.

3. Keeping the corners aligned, press the bezel straight onto the chassis. The top and bottom edges of the bezel should slide over the top and bottom edges of the chassis. The LED connector inside the bottom right-hand corner of the bezel should connect to the LED card inside the chassis.

4. Hand-tighten the four captive thumb screws to secure the bezel in place.

**NOTE:** Do not overtighten the thumb screws.

![Figure 2 Installing the Bezel](image-url)
CHAPTER 2
Replacing a Disk Drive

This section provides instructions for replacing an Omneon MediaDeck disk drive. The Omneon MediaDeck contains high-performance SATA disk drives that can be hot-swapped during operation without interrupting the use of the system.

**NOTE:** To avoid potential audio/video disruption stemming from hot-swapping a disk, the disk in question should be removed from the RAID set using SystemManager prior to removing it from the disk enclosure.

**NOTE:** The procedure in this section applies to SystemManager version 5.19. If you are running a different version of SystemManager, some steps may vary. Refer to the Omneon SystemManager Release Notes for instructions on upgrading SystemManager.

In the event of disk drive failure, replacement disk drives are available from Omneon. Refer to the Technical Support section for information on how to request technical support.

To assist in drive problem diagnosis and remediation, please gather the following information for use by Omneon Technical Support before you remove the failing/failed disk drive:

- Site Location
- Server Name
- Date of Failure
- Time of Failure
- Description of Failure
Replacing a Disk Drive

- From the MediaDeck Properties page for your Omneon MediaDeck on SystemManager:
  - Firmware Version
  - Host Name
  - Serial Number

  **Tip:** To view MediaDeck Properties, from the System Diagram page of the Configuration tab, click the icon for your Omneon MediaDeck. Then, from the Physical Configuration page, click the icon for your Omneon MediaDeck.

- From the Drive Properties page for your Omneon MediaDeck on SystemManager:
  - Disk GUID
  - Disk Serial Number
  - Disk Size (GB)

  **Tip:** To view Drive Properties, from the Configuration tab, click Disk Utilities, then click the icon for your Omneon MediaDeck. From the second Disk Utilities page, click the icon for the drive that has failed.

- From your SystemManager Platform or client PC running SystemManager, use Windows Explorer to navigate to:
  ```\IPADDR\FSNAME\omD7NNNNN\logs```

  IPADDR = IP Address or host name if using DNS
  FSNAME = File System Name
  D7 = Omneon MediaDeck model type
  NNNNN = Serial number of unit

  and locate the following:
  - Badblockhistory.txt
Replacing a Disk Drive

- syslog_D7_NNNNH0_YYYY_MM_DD_hh_mm_ss.log
  NNNN = Serial number of unit
  YYYY = Year of log start
  MM = Month of log start
  DD = Day of log start
  hh = Hour of log start
  mm = Minute of log start
  ss = Second of log start

Once you obtain a Return Authorization (RA) number from Omneon Technical Support, email a copy of these files to support@Omneon.com and quote the RA number in your email.

CAUTION: Observe all conventional ESD precautions when handling Omneon MediaDeck components. Avoid contact with backplane components and connectors.

CAUTION: Drive spin-down. Damage can occur to a drive if it is removed while still spinning. We recommend that you perform all steps in the following procedure. Before removing a drive from an enclosure, wait 30 seconds to ensure that the drive has stopped spinning.

To replace (hot swap) a disk drive in the Omneon MediaDeck:

1. Ensure that you have a replacement drive from Omneon on hand.

   IMPORTANT: Use ONLY Omneon-supplied replacement disk drives. Disk drives from any other source will be excluded from coverage under the Omneon product limited warranty and maintenance services programs. In addition, any errors or damages caused by the use of disk drives provided from any other source will cause the entire product to be excluded from coverage under the Omneon product limited warranty and maintenance services programs.

   THE PERFORMANCE OF YOUR MEDIADeCK MAY BE ADVERSELY AFFECTED BY THE USE OF COMPONENTS NOT SUPPLIED BY OMNEON.
Replacing a Disk Drive

**NOTE:** The drive size (in GB) and form factor must match the other drives in the enclosure. Replacement drives should have the same or greater drive capacity as those they are replacing.

2. Remove the bezel. For instructions, refer to Replacing the Bezel.

3. In SystemManager, from the **Drive Properties** page for the drive, click **Fail drive** to fail the drive.

   View the **Disk Utilities** page for the Omneon MediaDeck to verify that the drive state is reported as **Dead, Failed**.

4. From the **Disk Utilities** page, find the physical location of the drive and note the state of the LEDs for this drive as follows:
   a. The top Activity LED should be steady green, indicating that the drive is not being actively used. If it is blinking, this is the wrong drive to remove.
   b. The bottom Status LED should be off.

5. If you identify the same drive when performing steps 4a and 4b, proceed to the next step. If not, call Omneon Technical Support and do not continue with this procedure.

6. Wait 30 seconds before unlatching the drive at the physical location indicated in **Step 4**. Wait an additional 30 seconds before removing the drive from the Omneon MediaDeck enclosure. To remove the disk drive:
   a. Open the latch on the front of the disk drive by pressing the tab to the right while pulling the lever back as shown in **Figure 3a**.
   b. Slide the disk drive out of the drive bay.
7. Open the **Add/Remove Drives** page, and then click the **Remove** button next to the drive you wish to remove. This will “hide” the drive from view on the **Disk Utilities** page.

   **Tip:** To open the **Add/Remove Drives** page, click **Disk Utilities** in the left-hand column, and then click the icon for the Omneon MediaDeck with the required disk drive(s) to display the associated drive views. Click the link that begins with **RaidSet** to open the **RAID utilities** page. Scroll to the bottom and click **ADD/Remove Drives**.

8. Compare the serial number found on the top of the drive with the serial number found on the **Drive Properties** page.

   If the serial numbers match, continue to the next step.

   If the serial numbers do not match, wait at least 15 seconds after removal, then reinsert the drive. Call Omneon **Technical Support** immediately, and do not continue with this procedure.

   **NOTE:** It is critical that you identify the correct disk drive. Comparing the serial number on the disk drive to the serial number displayed in SystemManager is the best way to do this.
Replacing a Disk Drive

9. Insert a replacement drive according to the following steps:
   a. Open the latch on the front of the disk drive by pressing the tab to the right while pulling the lever back as shown in Figure 4a.

   **Note:** Keep in mind that the lever should always open from the right.

   b. Using the slot guides in the enclosure to guide the drive, insert the disk drive all the way into the drive bay until the camming lever on the left side of the carrier stops it.

   c. Gently push the camming lever towards the enclosure until it clicks into a closed position.

![Figure 4 Installing a Disk Drive](image)

10. Within three minutes, the new drive should appear on the Disk Utilities page on the SystemManager application. Verify that the drive is reported as Alive by the Omneon MediaDeck. Continue to Step 11.

   If the drive is not reported as Alive by the Omneon MediaDeck, bypass the drive (following the instructions in Step 3), remove the drive, and replace with another drive if available. Repeat this step and, if successful, continue to Step 11.
Replacing a Disk Drive

If you do not have another drive available, contact Omneon Technical Support.

An automatic rebuild will commence on this drive. Continue to Step 11. If an automatic rebuild does not commence on this drive, contact Omneon Technical Support.

11. On the RAID Utilities page, monitor the status for the RAID set.

The status should change from Compromised to Rebuilding immediately. If it does not, start the rebuild manually by clicking on Start Rebuild.

12. Periodically monitor the rebuild until complete. Once complete, RAID set status will change to Normal, Attached, Viable.

This completes the procedure.

NOTE: If you replaced a failed drive with a new drive from Omneon, use the packaging materials (carton, cushion, and electrostatic sensitive bag) from the replacement disk drive to carefully repack the failed drive and return it promptly to Omneon for analysis. Contact Omneon Technical Support for a Return Authorization Number (RA) before shipping the drive back to Omneon. Refer to Technical Support for contact information and a shipping address.
CHAPTER 3
Replacing a Power Supply

This section provides instructions for replacing a power supply for the Omneon MediaDeck. The Omneon MediaDeck is equipped with two hot-swappable power supplies, each with an independent AC connector. If one supply fails, the load is transferred to the remaining supply without interruption to service. To take full advantage of the redundant supplies, Omneon recommends that you use separate, isolated power sources for each AC input.

CAUTION: Observe all conventional ESD precautions when handling Omneon MediaDeck components.

To remove a power supply:

1. Disconnect the AC power cable.

Figure 5 Disconnecting the Power Cable
Replacing a Power Supply

2. Press the release lever to the right and pull the handle to remove the power supply as shown Figure 6.

![Figure 6 Removing the Power Supply](image)

To install a new power supply:

1. Unpack the power supply.

2. Using the handle, slide the power supply into the empty chassis slot. The release lever will click to indicate that the unit is locked in place.

![Figure 7 Installing the Power Supply](image)

3. Connect the AC power cable.
CHAPTER 4
Replacing the Drive Cage

This section provides instructions for replacing the drive cage for the Omneon MediaDeck.

CAUTION: Observe all conventional ESD precautions when handling Omneon MediaDeck components.

CAUTION: Make sure the Omneon MediaDeck is powered down completely before replacing the drive cage. Refer to Powering Down the Omneon MediaDeck for instructions on powering down.

Powering Down the Omneon MediaDeck

Before removing power to your Omneon MediaDeck, Omneon recommends that you first stop the file system. Once you reconnect power to your MediaDeck, you must then start the file system again.
Replacing the Drive Cage

1. From the **Configuration** tab in SystemManager, click the **Disk Utilities** icon in the left-hand column. The **Disk Utilities** page displays all MediaDcks or MediaDirectors on the network and the status of their file systems.

2. Click on the name of the MediaDeck you wish to power down. The **Disk Utilities** page for that MediaDeck appears. There are two columns displayed, the **Physical View** and **Logical View**. At the top of the **Logical View** column, there is a link to the file system, as shown in **Figure 8**.

   ![Figure 8 Opening the File System Utilities Page](image)

3. Click on the link to the file system (**fs0**) to open the **Filesystem utilities** page (see **Figure 9**).
Replacing the Drive Cage

4. If the **Status** field in the Information section shows **Started**, click the **Stop FS** button to stop the file system (see **Figure 9**).

5. Verify that the status has changed to **Stopped**.

6. Remove power from the Omneon MediaDeck by disconnecting each of the attached AC cords from their power sources.

**Removing the Drive Cage**

**To remove the drive cage:**

1. Remove the front bezel. Refer to **Replacing the Bezel** for instructions.

2. Remove each of the disk drives. Refer to **Replacing a Disk Drive** for instructions.
Replacing the Drive Cage

3. Using a screwdriver, loosen the left and right-hand captive screws located on the inside of the drive cage, as shown in Figure 10.

![Figure 10 Loosening the Drive Cage Screws]

**CAUTION:** Do not bend or damage the LED card located below the right-hand screw.

4. Making sure the chassis is adequately braced, grip the captive screws inside the drive cage with each hand and slide it out of the chassis, as shown in Figure 11.
Installing the Drive Cage

To install the drive cage:

1. Unpack the drive cage.

2. Making sure the chassis is adequately braced, grip the front of the drive cage with both hands and slide it into the chassis until the front of the drive cage is flush with the chassis.

   **NOTE:** Make sure the drive cage is aligned properly; the front panel LED card should be in the lower right-hand corner.

3. Tighten the left and right-hand captive screws.

   **NOTE:** Do not over-tighten the captive screws.

4. Install each of the disk drives. Refer to *Replacing a Disk Drive* for instructions.

5. Install the front bezel. Refer to *Replacing the Bezel* for instructions.

6. Apply power to the Omneon MediaDeck by connecting the AC power cords to the separate, isolated power sources.
Replacing the Drive Cage

7. Start the file system. To start the file system:
   a. From the **Configuration** tab in SystemManager, click the **Disk Utilities** icon in the left-hand column to display the **Disk Utilities** page.
   b. Click the icon for the Omneon MediaDeck which contains the file system you want to start. The **Disk Utilities** page for that MediaDeck appears.
   c. Click the **Filesystem** hyperlink to display the **Filesystem Utilities** page (see Figure 8).
   d. At the bottom of the page, click the **Start FS** button.

   **IMPORTANT:** Do not click 'Initialize FS'. This will wipe out the entire file system.

   e. When the **Start Filesystem** page appears, make sure that the first option, **Use NVRAM Journaling for this filesystem**, is checked, and that all other options are unchecked. Click the **Start** button.

   f. On the **Filesystem utilities** page, the **Mode** field should now indicate **Read/Write**, the **Sharing with other MediaDirectors** field should indicate **Off**, and the **Mountpoint** field should indicate **/fs0**.

   g. From the **Configuration** tab, click the **Disk Utilities** icon and verify that the file system status for this MediaDeck is shown as **Started**.
CHAPTER 5
Replacing an I/O Module

This section provides instructions for replacing an I/O module (Omneon MediaDeck Module).

CAUTION: Observe all conventional ESD precautions when handling Omneon MediaDeck components.

NOTE: The procedures in this section apply to SystemManager version 5.19. If you are running a different version of SystemManager, some steps may vary. Refer to the Omneon SystemManager Release Notes for instructions on upgrading SystemManager.

Stopping Players that Use the I/O Module to be Replaced

Before removing an I/O module, you must stop all players that use the I/O module you wish to replace.
Replacing an I/O Module

To stop players that use the I/O module you wish to replace:

1. From SystemManager, click the Player Configuration button in the left-hand column to view the Player Configuration window.

2. From the Player Configuration window, click the icon for the Omneon MediaDeck which contains the I/O module you wish to replace. The Player List window appears showing a list of players that reside on the selected Omneon MediaDeck.

3. Click the check boxes next to the Players that use the I/O module you wish to replace. Then click the Deactivate Selected button.

4. Verify which players use the I/O module to be replaced by clicking the Edit link for each player, and then clicking Attached Devices. The Device column displays all attached devices.

5. Uncheck the Attach check box for the I/O module to be replaced. Then click Done.

6. Repeat Step 5 for all tracks of the Player associated with that respective I/O module.

NOTE: Once the new I/O module is installed, you must attach the new device to the players, and then re-activate the players.

Verifying Which I/O Module to Remove

If you are using more than one Omneon MediaDeck, use the Wink function to identify the Omneon MediaDeck that contains the I/O module to be replaced, and then wink the I/O module to identify the correct one. If you have already identified the correct Omneon MediaDeck, continue to Winking the I/O Module.
Winking the Omneon MediaDeck

To wink the Omneon MediaDeck:
1. From SystemManager, click the Configuration tab to display the Configuration page and System Diagram.
2. Click the icon for the Omneon MediaDeck you wish to wink. The MediaDeck Properties page appears.
3. Scroll down to the General Properties section of the page to view the Wink State.
4. Change the Wink State as desired:
   - If currently Off, click Wink On to start winking the light bar on the front panel of the Omneon MediaDeck and the status LED on the back of the processor module.
   - If currently On, click Wink Off to stop winking the Omneon MediaDeck.

Winking the I/O Module

To wink the I/O module:
1. From SystemManager, click the Configuration tab to display the Configuration page and System Diagram.
2. Click the icon for the I/O module you wish to wink. The Properties page appears.
3. From the General Information section of the page, view the Wink State.
   - If currently Off, click Wink On to start winking the status LED on the back of the I/O module.
   - If currently On, click Wink Off to stop winking the status LED on the back of the I/O module.
Removing the I/O Module

Removing the I/O Module from the Chassis

To remove an I/O module from the chassis:

1. Disconnect any cables from the I/O module.

2. Using a screwdriver, loosen the three screws on the rear panel of the I/O module as shown. The screws are captive and will not come out completely.

3. Using both hands to grip the screws, gently pull out the I/O module from the chassis as shown in Figure 13.

Figure 12 Loosening the I/O Module Screws

Figure 13 Removing the I/O Module from the Chassis
Replacing an I/O Module

Deleting the Removed I/O Module from SystemManager

Once you have removed the I/O module from the chassis, delete the removed I/O module from SystemManager:

To remove an I/O module from SystemManager:

1. Click the Diagnostics tab to display the Diagnostics page.

2. From the Device Maintenance section in the left-hand column, click the Remove Device icon to display the Remove Device page.

3. Scroll to the MediaPorts section of the page and locate the I/O module you wish to remove.

NOTE: In SystemManager, MediaDeck Module information is sometimes displayed as MediaPort information.
Replacing an I/O Module

4. From the Select column, click the check box for the I/O module you wish to remove, and then click the Remove MediaPorts button. When a confirmation message appears, click OK. After a brief pause, a message appears indicating that the device has been removed (it has also been removed from the System diagram).

5. Click OK to return to the Remove Device page.

Installing the New I/O Module

To install an I/O module:

1. Unpack the I/O module.

2. Using both hands to grip the rear panel of the I/O module, gently slide the module into the chassis until the rear panel is flush with the rear of the chassis.

3. Using a screwdriver, tighten the three screws on the rear panel of the I/O module.

   NOTE: Do not over-tighten the screws.

4. From the Configuration tab of SystemManager, view the System Diagram page and verify that the new I/O module appears.


Attaching the I/O Module to the Existing Players

Once you have installed the new I/O module, use the Attach Devices feature in SystemManager to attach the I/O module to the existing players.
Replacing an I/O Module

To attach the new I/O module to existing players:

1. Open the Player List for the Omneon MediaDeck, and then click the Edit link for any player that will use the new I/O module.

Tip: To open the Player List, click the Player Configuration icon in the left-hand column, and then click the icon for your Omneon MediaDeck.

2. For each track, click the Attach Devices button (within each track section) to display the Attach Devices page as shown in Figure 14.

3. In the Attach column, click the check box for the device (Omneon MediaDeck Module) that you wish to connect, and then click Done.

The Edit Player page appears. The ID of the new I/O module will appear (in the following format: MDM-5001_XXXXX) next to the attached tracks.

NOTE: For help with modifying settings on either the Edit Player page or the Attach Devices page, refer to “Creating a Player” in the SystemManager User’s Guide.

4. Click Done to return to the Player List page.

5. Repeat steps 1-4 for each player that uses the new I/O module.
Activating Players

Once you have completed the previous section, activate the players on your Omneon MediaDeck.

To activate players:

1. From SystemManager, click the Configuration tab, then click the Player Configuration button in the left-hand column to view the Player Configuration window.

2. From the Player Configuration window, click the icon for the Omneon MediaDeck. The Player List window appears, showing a list of players that reside on the selected Omneon MediaDeck.

3. Click the check boxes next to the Players you wish to activate and then click the Activate Selected button.
CHAPTER 6
Replacing the Processor Module

This section provides instructions for replacing the Omneon MediaDeck processor module.

The SystemManager uses IP addresses to uniquely identify an Omneon MediaDeck processor module. If you need to replace a processor module (for example, because of unit failure), SystemManager requires that the new processor module automatically assume different IP addresses from the replaced unit. This allows the SystemManager to simultaneously display both units, and allows you to move Players from the original unit to the new one, using the Move Player function. If you wish to use the same IP addresses on the new unit as on the original one, follow each of the procedures below in order. Then, once you have moved your players to the new processor module, continue to the instructions for replacing a processor module using the same IP addresses.

CAUTION: Observe all conventional ESD precautions when handling Omneon MediaDeck components.

CAUTION: Make sure the Omneon MediaDeck is powered down completely before replacing a processor module. Refer to Powering Down the Omneon MediaDeck for instructions on powering down.
NOTE: The procedures in this section apply to SystemManager version 5.19. If you are running a different version of SystemManager, some steps may vary. Refer to the Omneon SystemManager Release Notes for instructions on upgrading SystemManager.

Powering Down the Omneon MediaDeck

Before removing power to your Omneon MediaDeck, Omneon recommends that you first stop the file system. Once you reconnect power to your MediaDeck, you must then start the file system again.

1. From the Configuration tab in SystemManager, click the Disk Utilities icon in the left-hand column. The Disk Utilities page displays all MediaDecks or MediaDirectors on the network and the status of their file systems.

2. Click on the name of the MediaDeck you wish to power down. The Disk Utilities page for that MediaDeck appears. There are two columns displayed, the Physical View and Logical View. At the top of the Logical View column, there is a link to the file system, as shown in Figure 15.
Replacing the Processor Module

3. Click on the link to the file system (fs0) to open the Filesystem utilities page (see Figure 16).
Replacing the Processor Module

![Stopping the File System](image)

**Figure 16 Stopping the File System**

4. If the **Status** field in the Information section shows **Started**, click the **Stop FS** button to stop the file system (see **Figure 16**).

5. Verify that the status has changed to **Stopped**.

6. Remove power from the Omneon MediaDeck by disconnecting each of the attached AC cords from their power sources.
Removing the Processor Module

To remove the Omneon MediaDeck processor module:

1. Disconnect any cables from the processor module.

2. Loosen the three screws on the rear panel of the processor module as shown. The screws are captive and will not come out completely.

   ![Loosening the Processor Module Screws](image)

3. Using both hands to grip the captive screws, gently pull out the processor module halfway from the chassis.

   **IMPORTANT:** Do not attempt to pull out the module completely.

4. Locate the SAS (Serial Attached SCSI) connector on the processor module board. Refer to the Figure 18.

   ![Figure 17 Loosening the Processor Module Screws](image)
Replacing the Processor Module

5. Press down on the top latch of the SAS connector and disconnect the SAS cable, as shown in Figure 19.

Figure 18  Locating the SAS Connector

Figure 19  Disconnecting the SAS Cable
6. Once the SAS cable has been disconnected, continue removing the processor module from the chassis.

**IMPORTANT:** Be careful not to let the SAS cable catch on the processor module as it’s being pulled out.

**Installing the Replacement Processor Module**

**To install the Omneon MediaDeck processor module:**

1. Unpack the processor module.

2. Gently slide the module halfway into the chassis. Make sure to keep the SAS cable above the processor board as you slide in the module.

3. Connect the SAS cable to the SAS connector. (Refer to Step 4 in the previous section to locate the SAS connector).

   **NOTE:** The SAS connector will “click” when properly connected.

4. Continue sliding the processor module into the chassis, keeping the SAS cable clear, until the rear panel of the module is flush with the rear of the chassis.

5. Tighten the three screws on the rear panel of the processor module.

   **NOTE:** Do not over-tighten the screws.

6. Reconnect all network and ethernet cables to the processor module. Refer to the Omneon MediaDeck™ Installation Guide for instructions.

7. Power up the Omneon MediaDeck.
Replacing the Processor Module

8. If DHCP services are available, the processor module should allocate a new IP address. From the Configuration tab of SystemManager, view the System Diagram page. Verify that the new processor module appears, and is shown as Connected. To identify the new Omneon MediaDeck in your network, use the Wink function as described in the next section, Winking the Omneon MediaDeck.

NOTE: If there are no DHCP services, or the Omneon MediaDeck does not allocate a new IP address, or the Omneon MediaDeck does not appear in the System Diagram, please contact Technical Support for assistance.

Winking the Omneon MediaDeck

To wink the Omneon MediaDeck:

1. From SystemManager, click the Configuration tab to display the Configuration page and System Diagram.

2. Click the icon for the Omneon MediaDeck you wish to Wink. The MediaDeck Properties page appears.

3. Scroll down to the General Properties section to view the Wink State.

4. Change the Wink State as desired:
   - If currently Off, click Wink On to start winking the light bar on the front panel of the Omneon MediaDeck and the status LED on the back of the processor module.
   - If currently On, click Wink Off to stop winking the Omneon MediaDeck.
Replacing the Processor Module

Upgrading the MediaDeck Firmware

Now that the new MediaDeck is connected, make sure that all the MediaDecks and MediaDeck Modules in your system are running the same version of firmware. If necessary, follow the instructions in “Upgrading Firmware” in the Omneon MediaDeck™ User’s Guide to upgrade your MediaDeck and MediaDeck Module firmware. After the upgrade, the new MediaDeck will need to be restarted. Once you have verified that all the MediaDecks and MediaDeck Modules in your system are running the same version of firmware, continue to the next step.

Checking the File System

Once you have powered up the new MediaDeck, check the status of the file system by doing the following:

1. From the Configuration tab in SystemManager, click the Disk Utilities icon in the left-hand column. The Disk Utilities page displays all MediaDecks or MediaDirectors on the network and the status of their file systems.

2. Click on the name of the new MediaDeck. This will take you to the Disk Utilities page for the new MediaDeck. There are two columns displayed, the Physical View and Logical View. At the top of the Logical View column, there is a link to the file system, as shown in Figure 20.
3. Click on the link to the file system name listed (fs0) to open the Filesystem utilities page (see Figure 21).
4. Depending on the version of software, the **Status field** may appear as **Started** or **Not Started**. Even if the file system is Started, you must stop the file system and then start it again to ensure that the correct settings take effect.

   • If the Status field shows **Started**, click the **Stop FS** button to stop the file system. Once the file system is stopped, click the **Start FS** button to start the file system.

   • If the Status field shows **Not started**, click the **Start FS** button to start the file system.

**IMPORTANT:** Do not click ‘Initialize FS’. This will wipe out the entire file system.
Replacing the Processor Module

5. When the Start Filesystem page appears, make sure that the first option, Use NVRAM Journaling for this filesystem, is checked, and that all other options are unchecked. Click the Start button.

6. On the Filesystem utilities page, the Mode field should now indicate Read/Write, the Sharing with other MediaDirectors field should indicate Off, and the Mountpoint field should indicate / fs0.

7. From the Configuration tab, click the Disk Utilities icon and verify that the new MediaDeck is shown as Started.

Moving Players to the New MediaDeck in SystemManager

To move players from the previous MediaDeck to the new one in SystemManager:

1. Navigate to the Player List for the new destination Omneon MediaDeck.

   **Tip:** From the left-hand column, click Player Configuration, and then click the icon for your Omneon MediaDeck.

2. Scroll to the bottom of the window and select the source Omneon MediaDeck that is being replaced from the drop-down box. Then click Select Players to display the Select Players... page as shown in Figure 22.
3. Choose the Players that you wish to move between Omneon MediaDecks by clicking the appropriate check boxes, which should all be marked as Active. You can also click Select all Players or Clear Selection as desired.

4. Click Move to perform the Move function between Omneon MediaDecks. The selected Players will disappear from the list.

5. Click Done to complete and return to the new Omneon MediaDeck Player List.

6. From the Player List, select the recently moved player(s) and click Activate Selected.

7. Verify the players are usable by recording or playing material using those players.
Removing the Original MediaDeck from SystemManager

Now that you have moved the players to the new MediaDeck, remove the original MediaDeck from SystemManager by doing the following:

1. In SystemManager, click the Diagnostic tab, and then from the left-hand column, click the Remove Device icon. The Remove Devices page appears.

2. In the section for Not Responding, the original MediaDeck will be shown. Using the drop-down menu, select the host for that MediaDeck, and then click Remove until the MediaDeck no longer appears.

Changing vDHCP Settings

NOTE: If you wish to use the same IP addresses on the new processor module as on the original one, continue to Replacing a Processor Module Using the Same IP Addresses.

Once you have removed the original MediaDeck from SystemManager, the vDHCP settings must be changed to match the Ethernet (MAC) addresses of the new MediaDeck.

1. Determine the MediaDeck's new IP and Ethernet (MAC) addresses by doing the following:
   a. From the System Diagram page in SystemManager, click the MediaDeck heading (or icon) to open the Physical Configuration page. Click the icon of the MediaDeck to display the MediaDeck Properties page.
   b. In the Host Properties section of the MediaDeck Properties page, make a note of both Host IP addresses and the corresponding Ethernet (MAC) addresses.
2. From your SystemManager Platform or client PC, launch the vDHCP application by double-clicking the small vDHCP icon located in the task bar.

3. From the vDHCP Settings dialog box, click the Reservations tab. The Host names and IP Addresses of the new MediaDeck will be shown in the main window. See Figure 23 for an example.

4. Click the first Host under HostName, select MAC Addr, and then type or copy and paste the new MAC address from the Host Properties page into the MAC Addr field.

5. Repeat step 4 for the second Host and then click Set.

6. Restart the MediaDeck.

Clearing Alarms

Since the new MediaDeck has just been connected, there will probably be Error Alarms in the system. To clear the alarms from the SystemManager, click on the word ALARM that is flashing in
Replacing the Processor Module

the top right corner of the web browser. This will take you to the
Alarms page.
To acknowledge and delete the alarms, click the Delete All button. This will delete them from the SystemManager interface. However, the alarms will still be saved in a log file on the system.

Replacing a Processor Module Using the Same IP Addresses

IMPORTANT: Only follow this procedure if you wish to use the same IP addresses on the new processor module as on the original one.

CAUTION: Make sure you have completed each of the previous procedures in this chapter, except “Changing vDHCP Settings” before beginning this procedure.

To replace the processor module using the same IP addresses:

1. If you are using static IP addresses on the Omneon MediaDeck (not assigned by a DHCP server), contact Omneon Technical Support for help with the replacement steps.
   If you are using DHCP, continue to Step 2.
2. From the Diagnostics tab of SystemManager, click Remove Device and remove both hosts (H0 and H1) for both the new and original Omneon MediaDecks.
3. On the DHCP server, allocate the original IP addresses to the new Omneon MediaDeck processor module's Ethernet MAC addresses.
4. Power down the Omneon MediaDeck (refer to Powering Down the Omneon MediaDeck).
5. On the DHCP server, delete the current active leases for the new IP addresses.
6. Power up the Omneon MediaDeck processor module. It should receive the original IP addresses from the DHCP server.

7. The new Omneon MediaDeck processor module will appear on the System Diagram page of SystemManager. It should display the original IP addresses and the original Players. You may modify the host names to match those given to the original Omneon MediaDeck processor module. Verify that all the Players are Active.

**NOTE:** If the new processor module does not receive the original IP addresses, contact Omneon Technical Support.
Replacing the Processor Module
CHAPTER 7
Replacing the Chassis

This section provides instructions for replacing the Omneon MediaDeck chassis.

CAUTION: Observe all conventional ESD precautions when handling Omneon MediaDeck components.

CAUTION: Make sure the Omneon MediaDeck is powered down completely before replacing the chassis. Refer to Powering Down the Omneon MediaDeck for instructions on powering down.

Powering Down the Omneon MediaDeck

Before removing power to your Omneon MediaDeck, Omneon recommends that you first stop the file system. Once you reconnect power to your MediaDeck, you must then start the file system again.
Replacing the Chassis

1. From the **Configuration** tab in SystemManager, click the **Disk Utilities** icon in the left-hand column. The **Disk Utilities** page displays all MediaDecks or MediaDirectors on the network and the status of their file systems.

2. Click on the name of the MediaDeck you wish to power down. The **Disk Utilities** page for that MediaDeck appears. There are two columns displayed, the **Physical View** and **Logical View**. At the top of the **Logical View** column, there is a link to the file system, as shown in **Figure 24**.

![Figure 24 Opening the File System Utilities Page](image)

3. Click on the link to the file system (**fs0**) to open the **Filesystem utilities** page (see **Figure 25**).
4. If the **Status** field in the **Information** section shows **Started**, click the **Stop FS** button to stop the file system (see **Figure 25**).

5. Verify that the status has changed to **Stopped**.

6. Remove power from the Omneon MediaDeck by disconnecting each of the attached AC cords from their power sources.

**Removing the Omneon MediaDeck Chassis**

**NOTE:** When replacing the chassis, Omneon Customer Service may instruct you to leave certain components installed.

**To remove the chassis:**
Replacing the Chassis

1. Disconnect any cables from the Omneon MediaDeck.
2. Remove the bezel. Refer to Replacing the Bezel for instructions.
3. Remove the disk drives. Refer to Replacing a Disk Drive for instructions.
4. Remove the drive cage. Refer to Replacing the Drive Cage for instructions.
5. Remove the I/O module(s). Refer to Replacing an I/O Module for instructions.
6. Remove the processor module. Refer to Replacing the Processor Module for instructions.
7. Remove the power supplies. Refer to Replacing a Power Supply for instructions.
8. If your Omneon MediaDeck is currently rack mounted, remove the chassis from the rack. Refer to the instructions provided with the rack kit or the Omneon MediaDeck™ User’s Guide.

Installing the Omneon MediaDeck Chassis

**NOTE:** Certain components may already be installed in the replacement chassis.

To install the replacement chassis:

1. Unpack the Omneon MediaDeck chassis.
2. Rack mount the Omneon MediaDeck chassis according to the instructions provided with the rack kit or the Omneon MediaDeck™ User’s Guide.
3. Install the drive cage. Refer to Replacing the Drive Cage for instructions.
4. Install the disk drives. Refer to **Replacing a Disk Drive** for instructions.

5. Install the bezel. Refer to **Replacing the Bezel** for instructions.

6. Install the I/O modules. Refer to **Replacing an I/O Module** for instructions.

7. Install the processor module. Refer to **Replacing the Processor Module** for instructions.

8. Install the power supplies. Refer to **Replacing a Power Supply** for instructions.

9. Apply power to the Omneon MediaDeck by connecting the AC power cords to the separate, isolated power sources.

10. Start the file system. To start the file system:

    a. From the **Configuration** tab in SystemManager, click the **Disk Utilities** icon in the left-hand column to display the **Disk Utilities** page.

    b. Click the icon for the Omneon MediaDeck which contains the file system you want to start. The **Disk Utilities** page for that MediaDeck appears.

    c. Click the **Filesystem** hyperlink to display the **Filesystem Utilities** page (see **Figure 24**).

    d. At the bottom of the page, click the **Start FS** button.

    **IMPORTANT:** Do not click 'Initialize FS'. This will wipe out the entire file system.

    e. When the **Start Filesystem** page appears, make sure that the first option, **Use NVRAM Journaling for this filesystem**, is checked, and that all other options are unchecked. Click the **Start** button.
Replacing the Chassis

f. On the **Filesystem utilities** page, the **Mode** field should now indicate **Read/Write**, the **Sharing with other MediaDirectors** field should indicate **Off**, and the **Mountpoint** field should indicate **/fs0**.

g. From the **Configuration** tab, click the **Disk Utilities** icon and verify that the file system status for this MediaDeck is shown as **Started**.