Vision 18.1W Upgrade Notes

• Release Date: April, 2018.

Feature Enhancements

A number of features have been added, or updated, to this version of software. This section provides a brief introduction to these features, and how to use them.

Advanced UltraChrome Mode Improvements

The advanced mode of UltraChrome has been improved to allow for more accurate adjustment of values. In the past, adjusting one value could change other values to ensure valid video, but it was difficult to identify which values were being changed. Now, when you adjust a value, only that value is changed.

New Devices Supported

The following devices were added or updated for this version of software:

- RossTalk TypeInCmd — The TypeInCmd feature of RossTalk has been expanded to accept up to 96 characters.
- AJA Kumo — support for the Kumo router has been added.
- CamBot — support for 999 shots has been added.

Known Issues and Limitations

Keep these notes in mind when upgrading your switcher to this version of software. Contact Ross Video Technical Support if you have any questions about performing a software upgrade.

External Devices

The following issues have been identified when working with external devices:

- TargetMachine Settings — Check all TargetMachine extra option settings after performing an upgrade. Extra option settings may revert to default values after an upgrade.
- Video Servers (VDCP) — You may experience communication problems after performing an upgrade. Please verify the channel and sub address settings for the video server on the BNC Menu. These values must match the settings on the video server you are trying to control.
- EVS maXS — If you experience pausing during clip playback, perform the following procedure whenever the Vision control panel is restarted:
  1. Set the Port Cmd option to Yes.
  2. On any bus, select each crosspoint that is associated with an EVS maXS channel.
  3. Set the Port Cmd option to No.
- Avid AirSpeed and OverDrive® — If you are using the Avid AirSpeed Video Server with the OverDrive Production Control System, you must set the Playback Mode to PB from the Extra Options on the Communications Menu 1-2 on the switcher.
- Video Servers, LoopRecueTime — The minimum LoopRecueTime from the Extra Options Menu has been lowered to 1 frame, instead of 7. The default value for the Ross Video SoftMetal™ Video Server has been lowered to 2.
- SoftMetal Video Server, version 4.3 — If you upgrade your SoftMetal Video Server to version 4.3, or higher, you must set the TargetMachine on the Communications Menu of the switcher to Ross SMS4.3 for proper communications.
- GVG Profile Video Server, Looping — The GVG Profile Video Server does not support Looping at this time. Turning looping on may cause undesired video aberrations when the loop is performed.
- Audio Memory Custom Control — The Euphonix Audio Mixer does not support Audio Memory Custom Controls at this time.
- Harris Inscriber CG Custom Controls — When you create a custom control for the Inscriber, you cannot include Select Effect or Run Effects commands.
- Harris Inscriber Before Version 5.0 — If the Inscriber is set to before 5.0 on the Communications Menu, the switcher may stop loading pages on the CG correctly. Setting the Inscriber to 5.0 or later, confirming, and then back to before 5.0 should clear the problem.
- Harris Inscriber G-Scribe Strata Layers — For the G-Scribe, you do not need to set the Strata Layers, the software will configure this automatically.
• Robotic Camera Control and Editors/OverDrive — If you are using the Robotic Camera Control Menu while the Editor Remote Enable is active, you may experience menu errors.
• FlexDevice Drivers — If there is a FlexDevice driver for a device connected to the switcher, we recommend using the FlexDevice driver over the legacy integrated driver. The FlexDevice driver includes the most recent features and bug fixes.
• Avid Deko — If you are trying to control the Avid Deko from the switcher over ethernet, please contact Ross Video Technical Support for information on interface issues.
• Gallery Sienna Looping Clips — Looping of a clip from the switcher is not supported at this time.
• Gallery Sienna Clip Control — Selecting and cueing a clip from the switcher is not supported at this time. Only basic transport commands such as play, pause, stop, rewind, and fast forward are supported.
• ExecuteMacro Custom Control Command Length — The command field for the execute macro custom controls only allows you to enter 62 characters, and not the 64 that are indicated on the menu.
• ExecuteMacro Custom Control Commands — When you create a custom control with multiple Execute Macro commands in it, you must insert a 10-15 frame pause between all the Execute Macro commands.
• Miranda HMP-1801 Clip Names — The cumulative size of all clip names on the HMP-1801 must be less than 100 characters for the switcher to properly interface with it.
• Miranda HMP-1801 Recorded Clip Names — When you record a clip on the HMP-1801 from the switcher, the clip is named the same as the last clip you recorded on the HMP-1801. You must rename the clip after it has been captured.
• GPI Outputs on Reboot — The GPI outputs may trigger, or come up in an unknown state, when the switcher is restarted or rebooted.
• Canon Camera Manual Control — The Canon Cameras do not report their current state to the switcher. Under manual control, this means that the expected value that the switcher has, and the actual value on the camera, may not be the same. This can result in a small adjustment to a value from the switcher causing a dramatic change on the camera as the switcher and camera synchronize values.
• Canon Camera Iris Control — In Manual mode, the iris control from the switcher controls the iris function of the camera. In Auto mode, the iris control from the switcher controls the AE level of the camera.

Operational Notes
The following issues have been identified when working with the switcher:
• Custom Control Sources — Custom Controls created in version 10.0d, or higher, now record specific Bus Map Sources. This allows a custom control created with one Bus Map to be run with a different Bus Map, as long as the same Bus Map Source exists in the different Bus Map. Custom Controls created prior to version 10.0d only record the source button that was pressed, not the Bus Map Source that the button was mapped to in the Bus Map. All custom controls created in version 10.0e, or lower, should be edited so that source button selections are replaced with the new Bus Map sources.
• Relative Custom Control (MultiPanel) — You cannot run the same relative custom control on different control panels at the same time.
• Stopping Custom Controls (MultiPanel) — Only the control panel that starts a custom control can stop that custom control.
• External Power Supplies — When connecting power to a switcher component that uses an external power supply (such as the Touchscreen), always connect the power supply to the switcher component before connecting it to the AC mains power. Connecting the power supply to the AC mains power before connecting to the switcher component could damage the switcher component.
• MLE-Store Animation Playback — If you change any values in the Installation Menu while an MLE-Store animation is playing, the animation will re-start when you confirm the Installation Menu changes. Global-Store animations are unaffected.
• QMD/X Power Supplies — The 500 Watt (4800AR-014) and 700 Watt (4800AR-024) Power Supplies cannot be used in the same frame at the same time; doing so may damage the Power Supply, the
Frame, or both. Completely power off the QMD or QMD-X frame before replacing all the 500 Watt Power Supplies with the 700 Watt Power Supplies.

- **Select Custom Control Bank** — The Select Custom Control Bank custom control command is not available at this time.

- **Key 4 Mode Configuration (Vision QMD/X Only)** — There are a number of changes to the normal operation of the switcher, depending on how the Key 4 Mode is set.
  1. If the Key 4 Mode is set to an Internal Mode from the Installation Menu, an All+All reset does not select Black for Key 4.
  2. If the Key 4 Mode is set to Internal Mode 2, the Clean Feeds for that MLE show Key 4 Video and Alpha.
  3. If the Key 4 Mode is set to Internal Mode 3, and you assign a Color Corrector to an Aux Bus, selecting a different Key 4 Mode locks the Aux Bus to Black. You must remove the color correction from the Aux Bus before changing the Key 4 Mode.
  4. If the Key 4 Mode is set to External Mode, Utility Mask and Utility Wash show Key 4 Video and Alpha.

- **Border/Trails Video Delay** — Turning Borders or Trails on for a key will cause a one (1) frame delay in the video on the keyer.

- **Switching Between Borders and Trails** — If you switch between a Trails mode to a Border mode and back again, the key may flash when a Trails mode is selected the second time.

- **Key Trails on a Flying Key** — If you apply a Key Trail or Key Smear Trail to a Shaped Flying Key, a visible black line may be displayed next to the key.

- **Bus Maps Assigned to New MLEs** — When you add an MLE to the switcher, the default settings are applied to it, including Bus Maps.

- **Using the Keypad to Select a Pattern** — You cannot select a pattern from the Global Memory Module for a Preset Pattern wipe, or Pattern Mask.

- **Serial Tally for MultiDSK Keys 5 and 6** — The Serial Tally protocol does not support more than 4 keys. You cannot use the serial tally protocol to tally MultiDSK keyers 5 and 6.

- **Preview Output on Vision 1 Preview Module** — The MLE PV and MLE PGM buttons select the main Program (PGM) and Preview (PV) assigned to the control panel, and not the selected MLE.

- **Satellite Control Panels and NTP Servers** — If the switcher is connected to a Network Time Protocol (NTP) server, the satellite panels only receive date and time information when they first connect to the frame.

- **Video Input Board with Reference in QMD** — Do not install a Video Input Board with Reference into Slot E of the QMD frame. Doing so may cause the frame to not lock to reference.

- **Still Approximate Size** — The approximate size of stills reported on the Still-Store Cache Menu is the uncompressed size in RAM of the original image, before the image is converted to the video format the switcher is operating in. The actual size of the image in cache can be different than the size of the uncompressed image in RAM, depending on the format that the original image was captured in.

- **Applying Warp Effect to Chroma Key** — If you apply a Page Roll or Magnify Squeeze & Tease Warp effect to a chroma key, some distortion may be visible around the edges of the key when the key is flown towards the screen, or zoomed in.

- **MultiViewer Overlay Cropping** — The overlay borders on the MultiViewer output cover a portion of the active video. This is equal to 24 lines per frame on the large boxes, and 48 lines per frame on the smaller boxes. This only effects the MultiViewer output.

- **Pre-MultiViewer Switcher Setups** — If you are upgrading to a MultiViewer configuration, your existing switcher setups containing the Installation register should be re-saved with the MultiViewer active.

- **MultiViewer Hardware Support** — The MultiViewer requires the Video Processor Board (4800AR-041), and is not supported by the Video Processor Board (4800AR-040).

- **MultiViewer Source Names** — If you change your switcher installation, or source names, the names shown on the MultiViewer output may be incorrect. Enter the MultiViewer Layout Editor Menu and
re-assign the sources to the MultiViewer Layout to update the source names on the MultiViewer output.

- **Recall Installation May Reboot Boards** — If you recall an Installation Register that requires a hardware reconfiguration, the required boards will reboot when the recall is confirmed.

- **Key 4 Configuration** — MLEs that are not present in the switcher may be listed on the **Key 4 Configuration Menu** if the Video Processor supporting those MLEs is configured as a MultiViewer.

- **MultiViewer Upgrades** — If you are upgrading to a MultiViewer setup, each MultiViewer option must be purchased in order. When the MultiViewer is installed, the MLE, and any Squeeze & Tease resources that were supporting that MLE, become unavailable as long as the MultiViewer is active.

- **All-All Reset in Custom Controls** — If you include an ALL+ALL reset of the control panel in a custom control, it must be the last or only event in the custom control.

- **Simple Pattern Generators** — The 4 simple pattern generators per MLE have been removed.

- **Windows® 7 WebDAV Connection** — If you create a connection from a Windows 7 computer to transfer stills to the switcher. The computer may not be able to connect to the switcher after the computer has been rebooted. You must re-create the WebDAV connection to re-establish connection.

- **OverDrive Assigned Channel Names** — OverDrive can assign names to channels, and channels to faders on the Audio Control module. These setting persist even after the Editor has been disabled. You must perform an All+All reset to return the names and fader assignments to the switcher default assignments.

- **Global-Store Capture Won’t Complete** — If you perform a Global-Store capture and the capture complete message does not appear (the **Capture button remains gray**), you must restart your switcher to regain the capture functionality.

- **MLE-Store Cannot be used for Video Wash** — If an MLE-Store is selected on the bus that is selected for a video wash, a Global-Store channel is shown instead. The menus and mnemonics are not updated to show which Global-Store is selected instead.

  - **Time Needed for Custom Control Events** — When a custom control is run, the switcher tries to execute all the commands in the custom control as quickly as possible. However, the switcher does not wait for a command to be completed before it executes the next one. If you create a custom control that contains conflicting events, or run two separate custom controls that have conflicting events, there can be an unexpected outcome. For example, if you create a custom control to eject the media items from all MLE-Stores and then load media items into all of the MLE-Stores, you must insert a pause between the eject commands and the load commands to allow the switcher time to finish ejecting. If there is no pause, the switcher may be attempting to load media items into MLE-Store channels at the same time it is trying to eject them. The same applies if the eject and load commands are in separate custom controls that are executed one right after the other.

### Software Upgrade

Software upgrades are performed from the web interface to the switcher frame. You must download the upgrade files and have them on a computer connected to the switcher over Ethernet to perform the upgrade.

Depending on the version of software you are upgrading from, your menus may be arranged or appear differently. Refer to the switcher documentation that came with your current version of software for more information on your menus.

**Important:** Version 17.1 requires Vision OS38, or higher. To confirm the current OS version, press **Home > Setup > Installed Options > Panel Boards**. If the Vision OS is not v38, or higher, please contact Ross Video Technical Support for information on upgrading your Vision OS.

### Upgrade Compatibility

Before upgrading your switcher, review the following version compatibility information.

**Table 1: Upgrade Compatibility**

<table>
<thead>
<tr>
<th>Product</th>
<th>Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>OverDrive® Production Control System</td>
<td>This version of software has been tested with OverDrive.</td>
</tr>
</tbody>
</table>
Compatibility

The Synergy control panel is not supported by this version of software.

Synergy to Vision
To upgrade to the new Vision control panel, you must first upgrade to version 6.0 or 6.1. Once you have upgraded to version 6.0 or 6.1, you must upgrade to version 7.1b, or higher, to support your Vision control panel. Contact Ross Video Technical Support for assistance before starting the upgrade.

Vision 17.1a or higher
After you have performed the upgrade and restored your memory registers from the setup, you must store the memory registers again and then recall them to gain full access to all 50 memory banks. When you store the memory registers in 17.1, the additional memory banks are added. You then recall this memory register set to add the additional memory banks to the switcher.

Vision 11.0a or higher
You must set the GlobStorChand option, on the Personality Menu, to Pwv Overlay before performing the upgrade. If Global-Store channel 4 (Still-Store) is active during the upgrade to v14.1b, you must factory default the switcher after the upgrade to regain the preview overlay.

Vision 11.0a or lower
Program MLE settings of Automatic will be replaced with MLE 8 when you restore your settings, even if MLE 8 is not installed. After you restore your settings, you must manually set the Program MLE for each panel. Ross Video also recommends that the Program MLE be set to MLE 1 for Satellite Panels that are not installed.

Vision 7.0 or higher
• Pre-MultiViewer Switcher Setups — If you are upgrading to a MultiViewer configuration, your existing switcher setups containing the installation register should be re-saved with the MultiViewer active, instead of the MLE.
• Ancillary Data Passed — If the Ancillary Data is set to Strip (default) before the upgrade, it will be set to Pass after the upgrade. If custom settings have been applied to the Ancillary Data handling, these settings are preserved.

Vision 6.1 or lower
• SmartConversion™ settings may need to be reconfigured after upgrading. Please note your SmartConversion settings before upgrading so that you may restore them once the upgrade is complete. Refer to the Vision Engineering Manual for detailed instructions on configuring SmartConversion.
• AuxKeys™ (Aux Mix/Keyers and Aux Mixers) will need to be reconfigured after upgrading. Please note your AuxKeys (Aux Mix/Keyers and Aux Mixers) settings before upgrading that you may restore them once the upgrade is complete. Refer to the Vision Engineering Manual for instructions on AuxKeys.

Downgrade Compatibility
For information on downgrading to a previous version, contact Ross Video Technical Support.

Note: Always check the hardware compatibility. Hardware Compatibility on page 5, to make sure that the boards are cards in your switcher are compatible with the software version you are downgrading to.

• If your switcher was shipped with the new Frame CPU Board (4800AR-002) with the Frame CPU Processor Card (4800AR-003), you cannot downgrade past v14.0a.
• Corrupt Custom Controls — A custom control created in v15.0, or higher, cannot be used with a previous version of software.
• Custom Control Buffer — The custom control buffer has been increased in v18.1i, allowing you to create custom controls with more events than in previous versions. If you are using more than 50% of the custom control buffer in v18.1i, you cannot downgrade to a previous version of software. You must edit your custom controls (or recall the CC registers from a previous software version) to get the buffer usage to below 50% before you can downgrade.

Hardware Compatibility
Before upgrading or downgrading your switcher, review the following hardware compatibility information.

Table 2: Hardware Compatibility

<table>
<thead>
<tr>
<th>Version</th>
<th>Hardware</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.0 or higher</td>
<td>• 4800AR-043-03 — 3G Video Processor Board (The 4800AR-043-03 is not compatible with the Squeeze &amp; Tease Carrier Board)</td>
</tr>
<tr>
<td>16.0 or higher</td>
<td>• V-100B — Vision Touchscreen Display</td>
</tr>
<tr>
<td>14.0a or higher</td>
<td>• 4800AR-002 — Frame CPU Board</td>
</tr>
<tr>
<td></td>
<td>• 4800AR-003 — Frame CPU Processor Card</td>
</tr>
<tr>
<td>11.0a or higher</td>
<td>• 4800AR-066 — Video Output Board</td>
</tr>
<tr>
<td>10.1i or higher</td>
<td>• 4800AR-041-02 — Video Processor Board</td>
</tr>
<tr>
<td>10.1g or higher</td>
<td>• 4800AR-019 — QMD-X Midplane</td>
</tr>
<tr>
<td>10.1c or higher</td>
<td>• 4400AR-061 — Video Input Board with crosspoint and reference (16 Input)</td>
</tr>
<tr>
<td></td>
<td>• 4800AR-047A — Squeeze &amp; Tease Carrier Board</td>
</tr>
<tr>
<td>10.0b or higher</td>
<td>• 4800AR-061A — Video Input Board with reference (16 Input)</td>
</tr>
<tr>
<td></td>
<td>• 4800AR-061B — Video Input Board without reference (16 Input)</td>
</tr>
<tr>
<td></td>
<td>• 4800AR-061C — Video Input Board without reference (10 Input)</td>
</tr>
</tbody>
</table>
Backup Switcher Registers
Because the software upgrade process automatically returns the switcher to default values, it is important that you back up all switcher registers to the hard drive.

To Back up Switcher Registers
1. Press HOME > Disk.
2. Press Dest/Source.
3. Use the Disk Type knob to select Hard Drive.
4. Use the Set Names knob to select the Setup you want to store the registers to.
5. Press Store.
6. Press All to store all categories of registers to the selected Setup.

Prepare the Switcher Before an Upgrade
Recalling the factory default settings for the switcher before the upgrade ensures that all the boards, cards, and modules on the switcher are in a known state, and are ready to accept an upgrade. The switcher must then be set back to the proper reference format before the upgrade.

To Perform a Factory Default
2. Press Personality > Yes to recall the factory default setting for the personality registers.
3. Press Memories > Yes to recall the factory default setting for the memory registers.
4. Press Switcher > Yes to recall the factory default setting for the switcher registers.
5. Press Installation > Yes to recall the factory default setting for the installation registers.
6. Press Custom Controls > Yes to recall the factory default setting for the custom control registers.
7. Press Default VTR Clips > Yes to recall the factory default setting for the clip registers.
8. Press Default NV-RAM > Yes to recall the factory default setting for the NV-RAM.
9. Press Default S&T > Yes to recall the factory default setting for the Squeeze & Tease registers.
10. Press Default Bus Maps > Yes to recall the factory default Bus Maps.
11. Press Default Shot Box Pages > Yes to recall the factory default Shot Box Pages.
12. Press Camera File > Yes to recall the factory default Camera Files.
13. Press CC/Macro Attachments > Yes to remove custom control attachments.
14. Press Default MultiViewer > Yes to recall the factory default MultiViewer settings.
15. Press Default CC Variables > Yes to default the custom control variables.
16. Press HOME > Confirm.

Power Down all Satellite Panels
To ensure that all control panels upgrade properly, you should power down any satellite panels before performing the upgrade. After the upgrade has been completed, you can power on each of your satellite panels and upgrade them.

To Set Video Reference
The factory default procedure resets the reference format. You must set the reference back to the input reference that is connected to the switcher before starting the upgrade.

1. Press HOME > Setup > Installation > More > Reference.
2. Use the Input Board knob to select the Video Input Board that reference is connected to.
3. Use the Ref Format knob to select the reference format of the input reference.
4. Use the Video Format knob to select the video format that is connected to the switcher.
5. Press HOME > Confirm.

Performing the Upgrade
Depending on the number of boards, cards and modules in the switcher, and the current version of software on them, it will take between 15 and 40 minutes to complete the upgrade.

Note: After the Factory Default is performed, the Bus Maps and Output BNC settings have been changed to the default settings.
To Upgrade the Switcher Software

1. On your computer, open your Web Browser and, in the address bar, enter the IP address of your frame and press Enter. The Web Interface Splash Screen is displayed.

2. Enter your username and password as follows when the Login Dialog Box appears. The default Name is user and Password is password.

3. Click Upgrade. The Upgrade Page lists all the previous upgrade packages that were stored on the hard drive of the frame.

4. Enter a name for the upgrade package in the New_Name field. This must be unique and descriptive enough to allow you to easily identify it at a later point. Upgrade package names can only include numbers, letters, periods, and underscores or dashes. Spaces and other symbols are not allowed.

5. Click Browse.

6. Locate the upgrade package file you want to upload to the switcher on your computer. The file is named mdx-<version><build>.tgz.

7. Click Open/Choose to select the file. The file path and name appears in the Select File to Upload field.

8. Click Upgrade Selected Version. The upgrade package is uploaded to the switcher and verified. The panel file is then requested.

9. Click Browse.

10. Locate the Vision upgrade package file you want to upload to the switcher on your computer. The file is named vision-<version>-<build>.tgz.

11. Click Open/Choose to select the file. The file path and name appear in the Select File to Upload field. If the switcher is unable to verify that the file is an upgrade package, an error message is displayed.

12. Click Add This File to add the selected file to the software upgrade package.

13. Wait while the switcher installs the software version. This may take a few minutes. When the software version has been installed, the Additional Files page is displayed.

   Note: If you receive a warning that the upgrade has failed because the flash is full (Rsync failed, is flash full?), check the remaining Application Flash in the Storage Capacity section of the System Info page. If the remaining capacity is less than 2M, you must delete a number of FlexDevice drivers to free up space for the upgrade. You can re-install the FlexDevice drivers after the upgrade. Once you have freed up the required space, try the upgrade again.

14. Click Reboot Now to restart the switcher. This cycles the logs on the switcher and propagates the upgrade to all the boards, cards and modules on the switcher.

   Note: If a message asking you to Reboot the control panel appears on the menus of the Touchscreen display, click Cancel. You will be rebooting the entire switcher in a later step.

15. Allow the switcher to propagate the upgrade to all the boards and cards by waiting at least 20 mins before proceeding to the next step.

16. Wait for the System Information page to be displayed and the upgrade to complete.

   • Periodically reload/refresh the System Information page until all the items listed have Done as their Status.

   • Verify that the switcher is passing video properly by selecting different crosspoints. This ensures that the upgrade has completed. If the switcher is not passing video properly, check the System Information page again to ensure all items are done.

Upgrade Errors

<table>
<thead>
<tr>
<th>Error Message</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the message The software versions of the panel and frame do not match is shown, you need to upgrade your panel.</td>
<td>Press HOME &gt; System Shutdown &gt; Upgrade Panel.</td>
</tr>
<tr>
<td>If the message PMCs need to be upgraded; please go to Panel Modules &gt; Upgrade PMCs.</td>
<td>Press HOME &gt; Setup &gt; More &gt; Panel Modules &gt; Upgrade PMCs.</td>
</tr>
</tbody>
</table>
### Restoring the Switcher After the Upgrade

Rebooting the switcher after the upgrade ensures that all the boards, cards, and modules on the switcher are properly upgraded and initialized. If a board, card or module was not properly upgraded, the switcher attempts to upgrade and initialize it again with the reboot. Once the upgrade is complete, you can restore your switcher registers.

#### To Reboot the Switcher

2. Toggle the power switches in the QMD/X frame and Vision control panel to Off.
3. Wait at least 6 seconds for the System Status Indicators on the frame to go out.
4. Toggle the power switches in the Vision control panel and the QMD/ X frame, to On.
5. Toggle the power switch on the Vision control panel CPU Module to On.

#### Upgrading Satellite Panels

With the upgrade complete, you can power on each of the Satellite Panels, connect them to the frame, and upgrade them. Power on each Satellite Panel, in order, to upgrade it. Ensure that a Satellite Panel is upgraded properly before powering on the next one.

Refer to the Vision Engineering Manual, for information on adding Satellite Panels to the switcher.

**Tip:** If the message The software versions of the panel and frame do not match is shown, restart the Satellite Panel to trigger the upgrade.

#### To Restore Switcher Registers

1. Press HOME > Disk.
2. Press Dest/Source.
3. Use the Disk Type knob to select Hard Drive.
4. Use the Set Names knob to select the Setup you want to store the registers to.

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<table>
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<tr>
<td>Panel Modules menu is shown, you need to upgrade your PMCs.</td>
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</table>