## Quick Contents



# Section 3: System Overview

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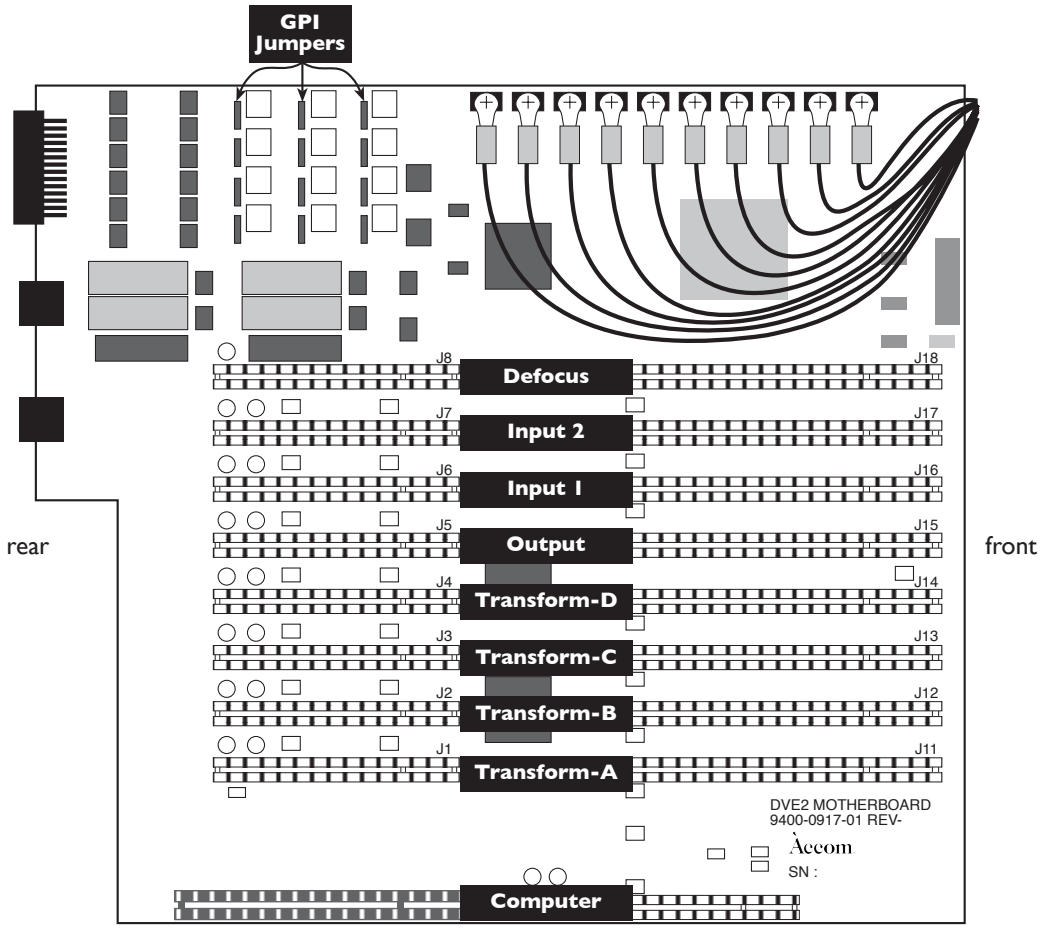
## Dveous/MX Main Chassis

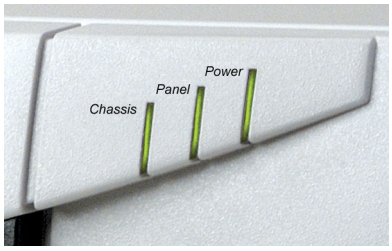
The Dveous/MX Main Chassis holds the primary circuit boards and the input and output cards.

Note: Do not insert or remove boards or modules when chassis is powered.



## Removing the Front Bezel


The Dveous/MX front bezel can be removed by grasping and firmly pulling forward. However, there is no need to remove this bezel unless the chassis will be rack mounted.




There are 3 LEDs that can be seen through the front bezel (from left to right):

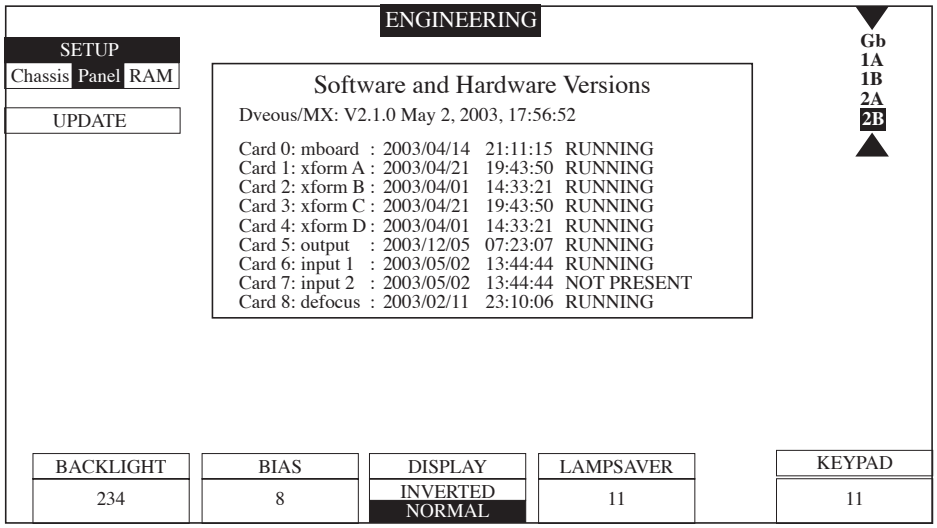
- Chassis - Flashes to show that the internal CPU is running. No LED or solid illumination indicates a problem. Contact Accom technical support.
- Panel - Flashes to show communication between the control panel and the main chassis. No LED or solid illumination indicates a problem. Contact Accom technical support.
- Power - Solid illumination shows that power is being supplied to the main chassis. Flashing or no LED indicates a problem. Contact Accom technical support.

## Configurations

There are three basic configurations of the Dveous/MX system (refer to Section 1, Introduction, System Description of this Technical Guide or the Dveous/MX Operations manual for more information).

The configuration is relevant to the number of HD channels present in the chassis. This is directly proportional to the number of transform boards present in the main chassis.

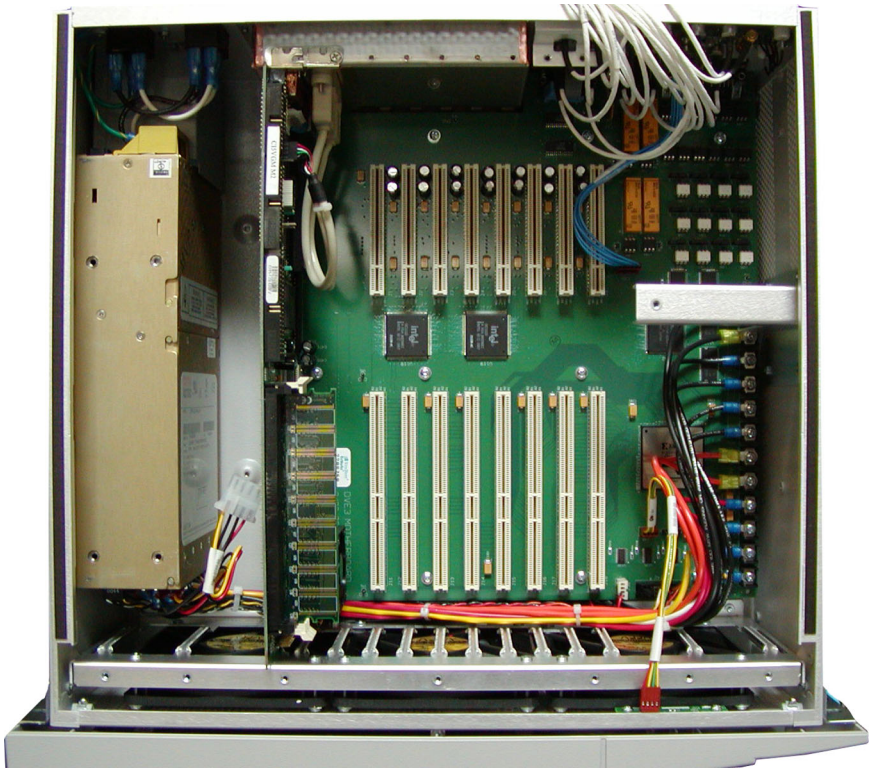
Select the ENG MENU to display a list of all the boards the system has detected in the chassis. The following illustration shows the ENG MENU of a Dveous/MX Dual Twin HD system.




All boards should display as RUNNING unless the board is not installed. If the panel displays NOT PRESENT, check to see that the board is installed. If needed, contact Accom technical support.

## Board Overview

This section discusses the functionality of each board in the Dveous/MX system from input to output. Shown below is a photo of the inside of the Dveous/MX chassis. For a detailed drawing of the motherboard, please see the drawing earlier in this section.



## Input Board

Serial digital inputs 1-6 are located on input card #1. Optional inputs 7-12 are located on input card #2. The ENG Menu will list input card #2 as “Not Present” unless this optional board is installed.

All inputs in the Dveous/MX are independent. Input boards send video to the mother board.

## Motherboard

The following features and functionality resides on the motherboard:

- Video Input Selection
- Pattern Store
- Color Corrector
- Color Modify
- Supermatte
- Remote Serial Ports
- GPI I/O

The motherboard receives video from the input card(s) and defocus card and sends video to the defocus and transform card(s).

Refer to the drawing earlier in this section for a picture of the motherboard. Refer to Section 2, Installation for more information on Dveous/MX GPIs.

## Defocus Card

The defocus card provides two channels of wide range defocus. It receives video from and sends video to the motherboard.

## Transform Cards

The number of transform cards present in a Dveous/MX chassis is dependent upon the system configuration. Transform card A is present in any Dveous/MX configuration. Transform card B is only present in Single and Dual Twin HD configurations. Transform cards C and D are only present in Dual Twin HD configurations.

The following features and functionality resides on the transform cards:

- Lighting
- Textures
- Borders
- Horizontal and Vertical Filtering
- Blur
- Freeze
- Motion Detection
- Warps

- 2D and 3D Global Transforms
- Crop
- Mosaic and Multipic

The transform card(s) receive video from the motherboard and sends video to the output board.

## Output Card

The following features and functionality are functions of the output card:

- All Combiner Functionality
- Target Frame Store
- Cursor
- Z Address Generators
- Output Selection
- Shadow Matte for Video, Key and Shadow
- Reference and Master Oscillator

The output card receives video from the transform card(s), receives the background from the motherboard and sends video to the six SDI video outputs.

## Powering Up Dveous/MX

This section assumes that your Dveous/MX system is properly installed. Power up Dveous/MX as follows:

1. The main power switch is located on the rear of the Signal Chassis. The Signal Chassis takes less than two minutes to load its operating software. Then it is ready for use.

Dveous/MX initially powers up in Standard Definition format. This also occurs after giving the system a First Birthday. After this initial startup or First Birthday, Dveous/MX will power up in the format you last used.

When you power up Dveous/MX, channel 1A appears full size at the video output, with input 1 as its source video. The key output is a full-raster white field that duplicates the size of the transformed source video. You can change this default by reconfiguring the channels, as described in the Operations Manual.

2. If the cable connecting the Signal Chassis to the Control Panel is less than 33 ft. (10 meters), the Control Panel gets its power from the Signal Chassis, and boots up at the same time as the Signal Chassis.

   If the Control Panel cable is more than 33 ft. (10 meters) long, an external power supply is necessary. The external supply (Accom P/N 2800-0063) DIN connector plugs into the Control Panel connector labeled "POWER." The external supply AC cord then plugs into a standard AC socket to power the Control Panel. (The external power supply is auto-ranging, accommodating 115 or 230 VAC at 50 or 60 Hz.) The Control Panel takes about five seconds to load its operating software, then is ready for use.

3. When both the Signal Chassis and Control Panel are powered up and running, the local 3D Trans menu appears in the Control Panel display.


Note: If the Signal Chassis and Control Panel are not communicating, the menu display remains blank or states that communication is lost. If this is the case, check the cable connection at both the Control Panel and the Chassis.

4. If a single Control Panel is connected to the Signal Chassis, its ACQUIRE button LED lights automatically. If there is more than one Control Panel connected, the first Control Panel to communicate with the Signal Chassis has control of the system, and its ACQUIRE button LED lights. To use another Control Panel, hold the lit ACQUIRE button on the active Control Panel and press the Chassis menu softkey to release control and turn off its LED. Then press and hold the ACQUIRE button on the Control Panel you want to use and press the Chassis menu softkey. Dveous/MX is now ready to use.

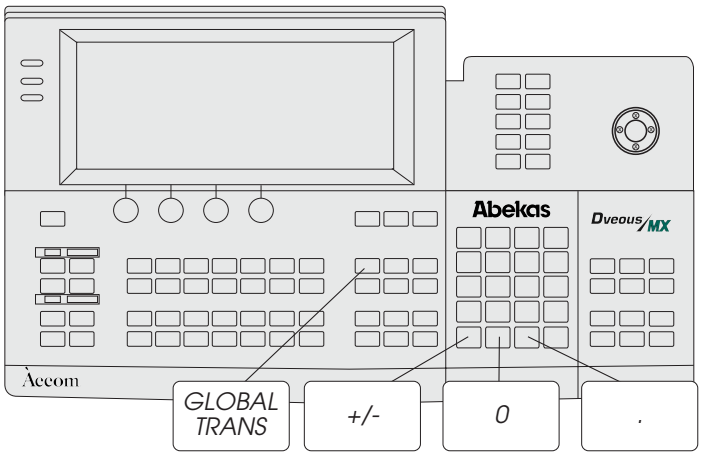
# Updating Software

## Chassis Software Installation

1. Insert the first Chassis Software Diskette.
2. Go to the Engineering Menu and select Chassis under the SETUP softbutton.
3. Press UPDATE. You will be prompted to enter the first of five diskettes.
4. Press CONFIRM to read in the contents of that diskette. A progress meter will be displayed on the control panel, with an ABORT soft-button if you want to exit this procedure prematurely. Each diskette takes approximately eight minutes to load.
5. After the first diskette completes you will be prompted for the second. Load that diskette and press UPDATE and CONFIRM again. Repeat for all five diskettes. Once all five are loaded press UPDATE and CONFIRM once more to finalize the installation and reboot the machine.

## Panel Software Installation

1. Insert the Control Panel Software Diskette.
2. Press and hold the red GLOBAL button and the three buttons along the bottom row of the numeric keypad (+/-,0 and .) simultaneously to reboot the Control Panel. Alternately, in the Engineering menu, go to Setup, select Panel and press the Update Software softkey.




3. When the Control Panel reboots, Press the B button (on the numeric keypad) immediately to load the new software. It will take approximately three minutes to load the software from the diskette.
4. Remove the diskette and reboot the panel.

## Performing a First Birthday

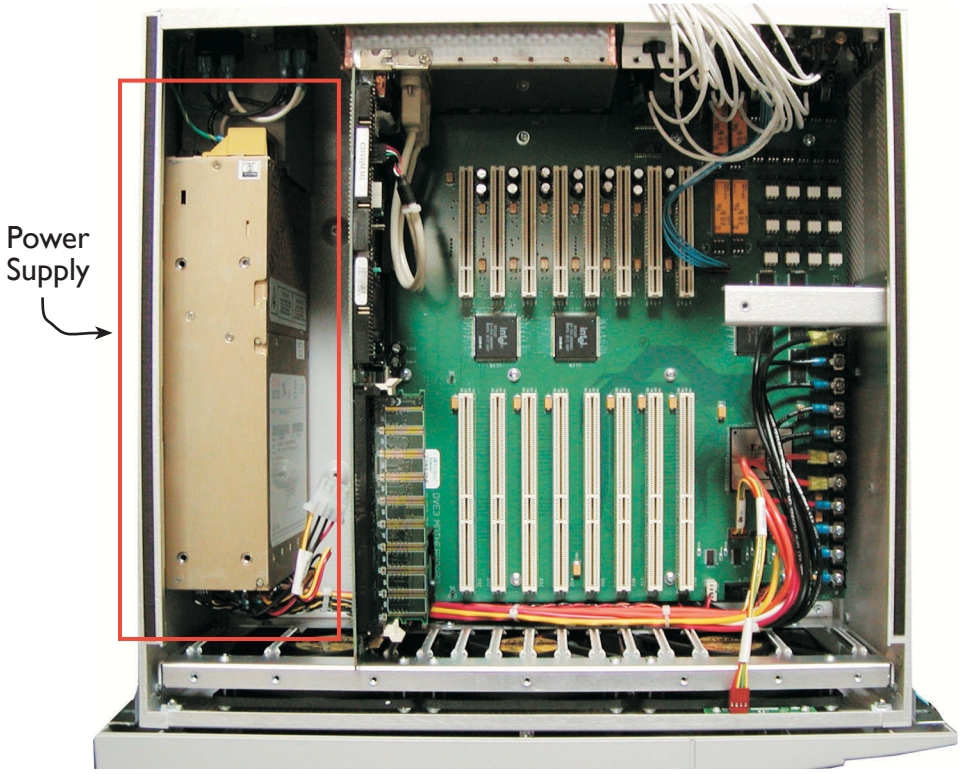
First Birthday is the process for resetting the Dveous/MX to factory settings. To perform a First Birthday:

1. Go to the *Engineering* menu.
2. Select RAM under the Setup softbutton.
3. Press UPDATE and then CONFIRM. All modified system parameters will be set to original values.
4. The machine will reboot automatically.


Note: After performing a First Birthday, the system powers up in Standard Definition format.

## Power Supply Removal

Follow the steps below to change the power supply in the Dveous/MX chassis. The photograph below shows the location of the power supply.




Note: Proper static guard precautions MUST be observed throughout this procedure. Allow 1 hour for this procedure.

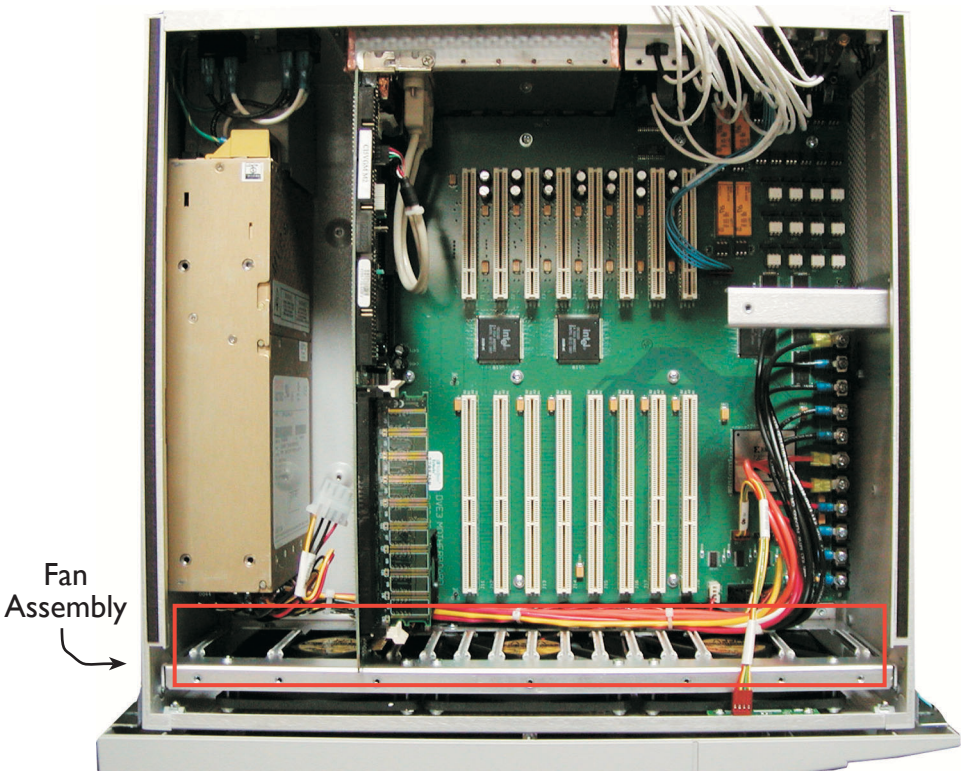
1. Disconnect all cables from Dveous/MX and remove chassis from rack. Place on clean static free workspace with front of chassis facing you.
2. Make sure NO POWER IS CONNECTED!
3. Remove 5 screws from rear of chassis that hold top cover in place. Remove top cover by sliding towards rear of unit then lifting off of chassis.
4. Remove the board retaining bar across the board set and set aside.
5. Remove the board edge retainer at the front of the boards.
6. Disconnect the 4-wire cable harness (red, yellow and 2 black wires) from the disk drive on the left side of the chassis.

7. Disconnect the ribbon cable from the SBC board (this is the far left board) and note the correct connector for replacement later.
8. Disconnect the 4 pin connector from the SBC to the USB ports.
9. Starting from the SBC board (far left) remove the screw in the rear mounting bracket and carefully remove the board from the system by carefully lifting straight up. Set this board aside on static free station.
10. Repeat step 9 with the next 4 boards from left to right. These are the transform boards A-D. Not all boards may be present in your particular Dveous/MX system.
11. Remove the 3 screws connecting the disk drive assembly. There are two screws into the bottom of the chassis as well as two screws on the outside left panel. Remove assembly and set aside.
12. Disconnect the black and the white AC cables from the rear power switch that go to the supply. Also disconnect the green ground cable from the rear of the chassis.
13. Remove the 4 screws from the outside left panel that hold the power supply in place. You should now be able to lift the power supply carefully out of the unit, far enough to gain access to the front and rear connectors. (Be careful of the DC power harness as you lift the supply out as not to damage cables or boards).
14. On the front of the supply, disconnect the three multi-pin cables (P1,P2, P3) from the supply.
15. Disconnect all DC cables from front of supply as well as 4-wire multi-connector for disk drive. You may now remove the old supply from the system.

Reverse these steps to install the new power supply.

## Fan Assembly Removal

Follow the steps below to change the fan assembly in the Dveous/MX chassis. The photograph below shows the location of the fan assembly.




Note: Proper static guard precautions MUST be observed throughout this procedure. Allow 1 hour for this procedure.

1. Disconnect all cables from Dveous/MX and remove chassis from rack. Place on clean static free workspace with front of chassis facing you.
2. Make sure NO POWER IS CONNECTED!
3. Remove 5 screws from rear of chassis that hold top cover in place. Remove top cover by sliding towards rear of unit then lifting off of chassis.
4. Remove the board retaining bar across the board set and set aside.
5. Remove the board edge retainer at the front of the boards.
6. Disconnect the ribbon cable and USB cables from SBC board.

7. Remove all video cables from the input and output boards and move out of the way. Make note of cable labeling to insure proper reconnection.
8. Remove the 4 pin connector (for the front bezel LEDs) from inside front right of chassis.
9. Remove all boards from the system. You must unscrew the retaining screw at the rear of each board.
10. Disconnect the fan power cable from connector J36 on the bottom of the motherboard.
11. Remove the 6 screws holding fan assembly in place. Four can be accessed from the bottom of the chassis and the other two from the sides (1 on each side).
12. Carefully slide fan assembly up and out of the chassis.