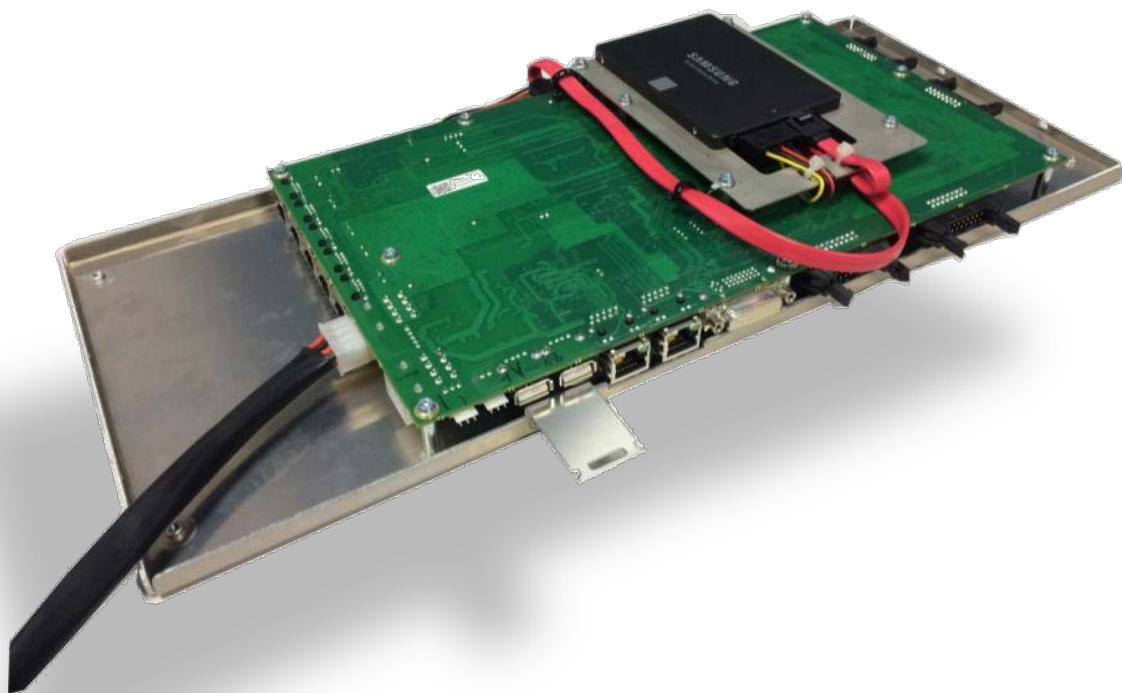


Soundcraft®

**Vi200™**  
**Vi400™**  
**Vi600™**

## VI200/400/600 SYSTEM CONTROL MODULE UPGRADE



# Installation Instructions

V1.2

PART NUMBER: 5061604-02

## INTRODUCTION

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The Vi2/4/600 System Control Module is designed to directly replace the Vi2/4/6 'silver box' Control Module and provide a faster processor (2.2GHz dual-core, 4GB RAM), more reliable performance with hard-soldered DisplayLink-based graphics outputs rather than the PCI graphics card of the original system.

The new module runs the same V6.1 (or later) software as the Vi5000/7000, but with a cut-down feature set, appropriate to the capabilities of the Vi2/4/6 surface and Local Rack. A useful application for this upgrade would be to give an existing Vi6 surface a new lease of life and allow it to function as an emergency backup surface, rather than being disposed of, when a full Vi5/7000 upgrade is purchased.

The control surface will externally remain a Vi2, 4 or 6, but will identify as a Vi200, 400 or 600 on its main Menu screen, and during boot-up.

Features available (at time of release) when a Vi2/4/6 is upgraded with this option:

- New 3D-Vistonics touchscreen graphics
- 30-second Fast-boot and faster surface response (e.g. on layer changes)
- Functioning Setup buttons for Vistonics and Fader Encoder assign and F1-6-key assign
- Shure Mic Monitoring
- Increased insert points (64) and tie lines (128)
- Ability to use Surface with a Vi4/6 'Classic' Local Rack, or a Vi5/7000 Local Rack\*
- Local I/O can either use original passive breakout box on Classic Local Rack, or ABB on Vi5/7000 Local Rack
- **Ability to benefit from future software updates on the V6.x software platform**  
*When we release software updates, we will announce which features are available on Vi2/4/600 – not all new features will necessarily be available.*

\*Features from Vi5/7000 that are NOT available with this upgrade are:

- 128 inputs **not** available (channel count remains at 96ch assuming 3 or 4 DSP cards in Classic rack, or 5 or 8 DSP cards in Vi5/7000 Local Rack).
- 96kHz operation **not** available
- BSS DPR 901ii Dynamic EQ **not** available

These 3 features are ONLY available by implementing a FULL Vi5000/7000 Upgrade.

Part number	Description
5064929.V	Vi200 Control Module Upgrade
5064930.V	Vi400 Control Module Upgrade
5064931.V	Vi600 Control Module Upgrade

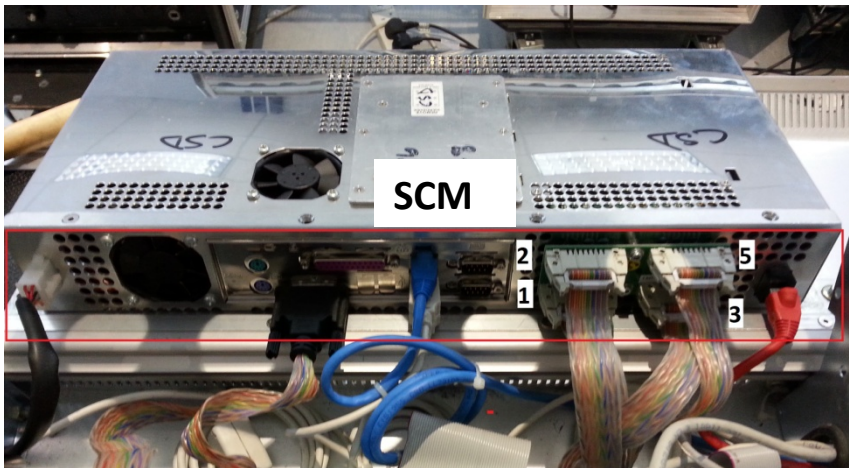
## UPGRADE INSTRUCTIONS

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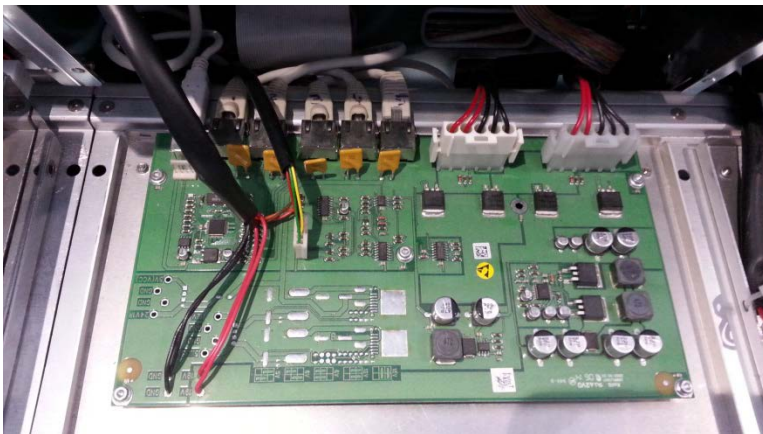
The following instructions explain how to replace the "silver box" style System Control Module with an updated version, using the Vi200, 400 or 600 Upgrade Kit.

**The following instructions are for Vi6 modification, Vi4 and Vi2 are similar, see Appendix II for significant differences.**

- 1) Locate and remove 21x hex screws and drop down the left/right-hand rear panels.
- 2) Remove all connections to the SCM, taking note of the multi-coloured video cables, and which bay they serve (see picture) then remove the SCM complete with its mounting plate, by unscrewing the 4 countersunk screws fixing the mounting plate to the rear panel.



- 3) Locate the Power/Distribution board, behind bay 3 (bay 2 on Vi4, under fader panel on Vi2). Unplug the Cat5e patch cables and the small white 5-way molex connection, which is attached to the front panel POWER switch – these cables will be connected to the new SCM later.



**4) Ensure Mains power is disconnected from both power inlet sockets before proceeding!**

Trace the two large MOLEX power connector cables from the Distribution board to where they connect to the two main Power Supply units, and unscrew the PSU terminals and remove the black and red connections. Pull the disconnected power cables through the bulkheads as required to free them, cutting any tie wraps that secure them. The Distribution board, along with the 2 power cables and USB cable still attached to it, should then be unscrewed and removed from the console. It is no longer required.

5) It is now necessary to re-route various CAT5, DVI, USB and Ethernet cables so that they can reach their new locations of the SCM.

Follow the routing shown in the diagram(s) on the next page. Note cable routing differs with console type Vi2/4/6.

On the Vi6, it will be necessary to remove the DVI cable connected to Bay5 from the trunking and route it directly through the rubber grommet in the bulkhead, in order that it will reach the designated connector on the new SCM. Cut the cable-ties securing the Master Bay (Bay4 on Vi6) DVI cable so that it can be extended to full length and will reach its new destination.

6) Vi6 only: At this stage you will need to locate and swap the CAT5 patch cables for bay #2 and #4, in order that they can reach the new module.

7) All console types: Unplug the Red and Blue CAT5 cables from the Monitor Board, cut the cable-ties securing them and swap these two cables (Blue connects to left side of Monitor board, Red to right side). This is to allow sufficient length to reach connectors on new SCM.

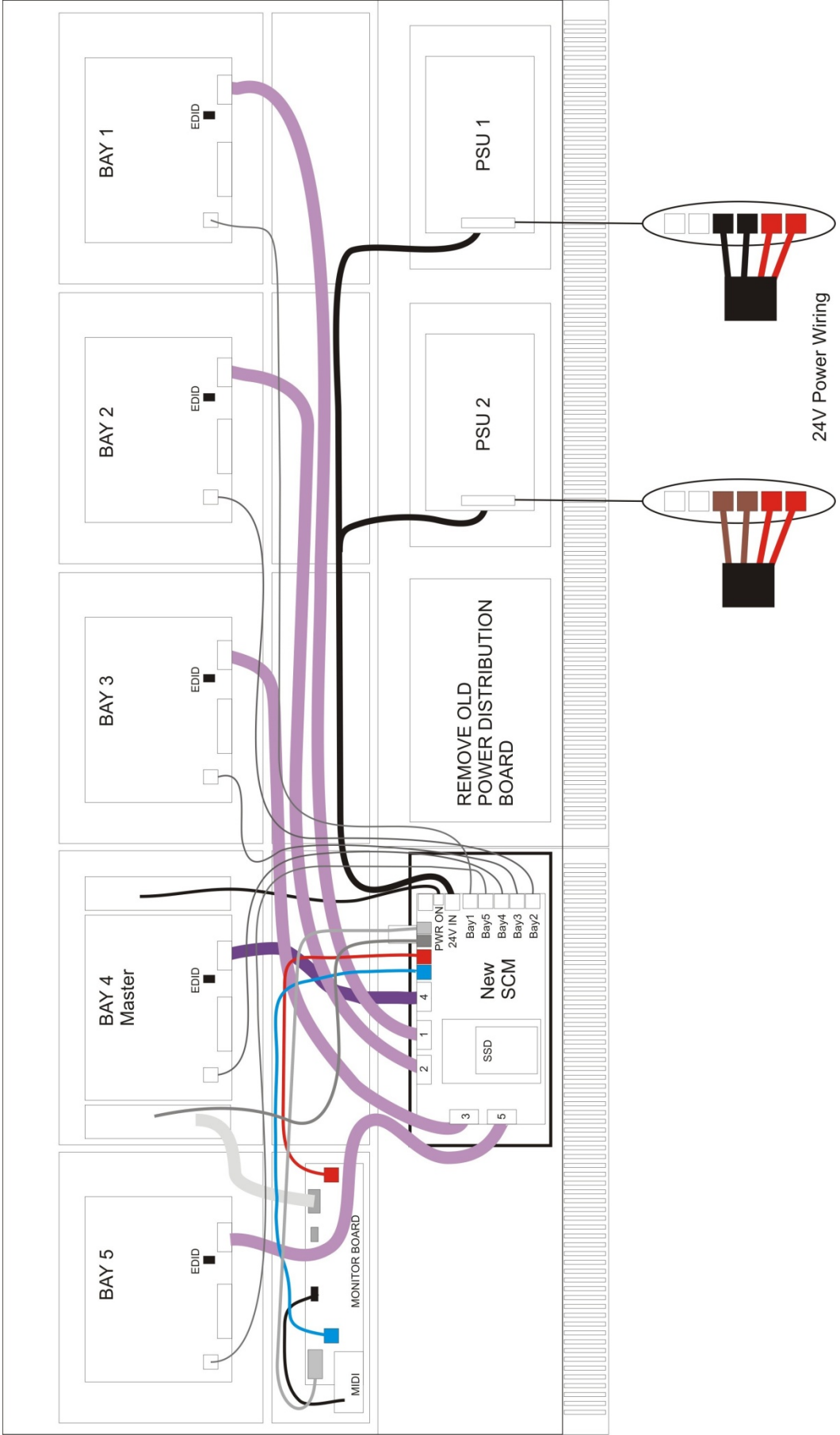
8) Unplug the USB cable that connects the front panel USB socket with the Monitor Board, from the Monitor board, and re-route this cable ready to be plugged into the LEFT-HAND USB socket on the new SCM.

9) Re-route the CAT5 patch cables through the central bulkhead bulkhead/cable tray to emerge behind the master/control bay ready for fitting to the new SCM.

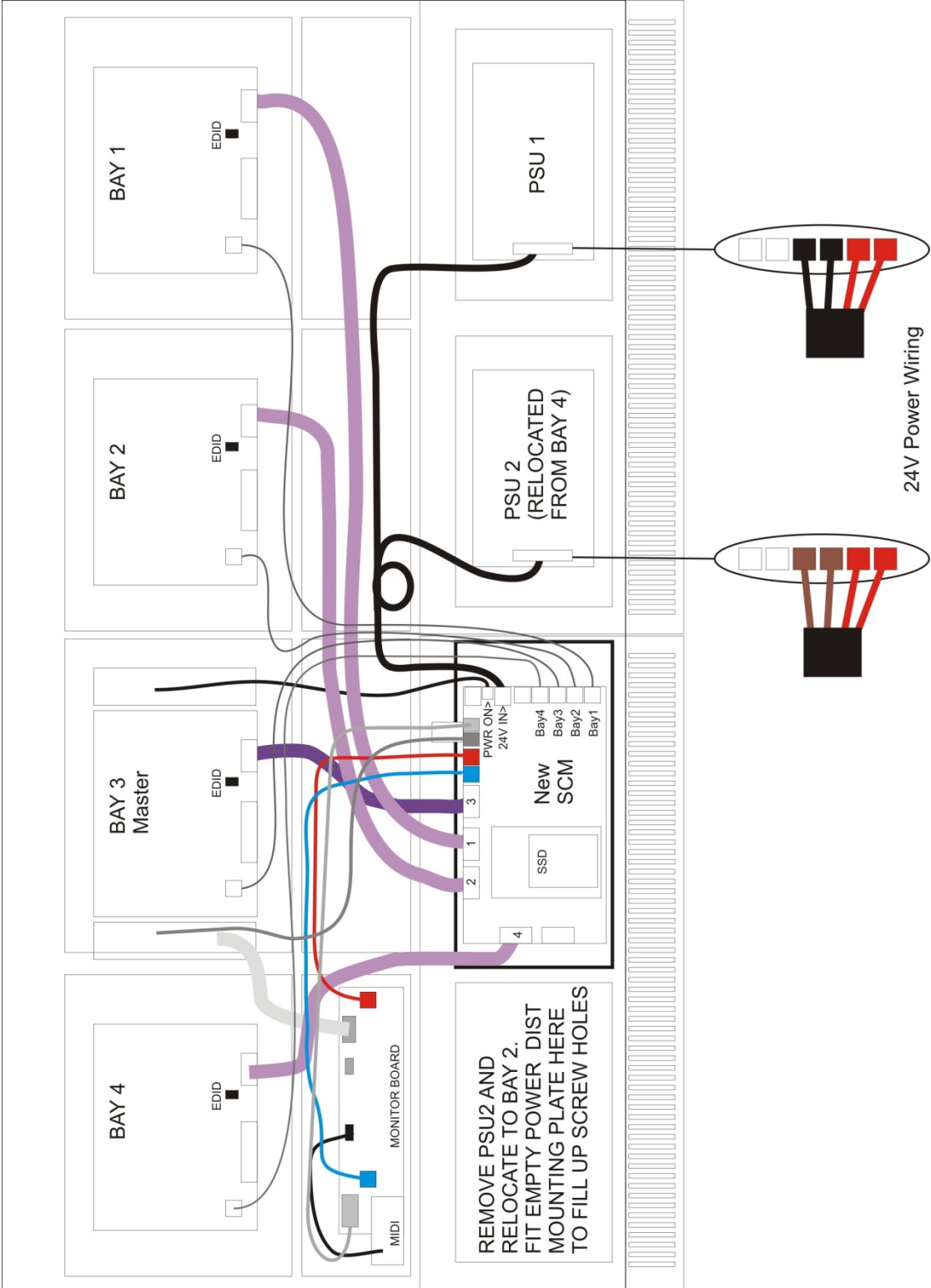
10) Thread the free ends of the new supplied power wireform through the black bulkhead grommets to the screw-down terminals on each PSU. Secure the cable to the PSU carrier plate with a cable tie (not supplied). The MOLEX-terminated end should be behind the console master/control bay, ready for fitting to the new SCM. For Vi2 & Vi4 consoles, please refer to the specific wiring schematics and to Appendix II "Differences between Vi2/4/6 consoles".

11) NOTE: RED = +24V, BLACK = 0V (right hand PSU1), BROWN = 0V (left-hand PSU2).

# Vi6 Wiring Schematic

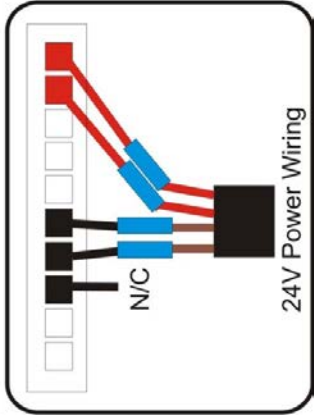
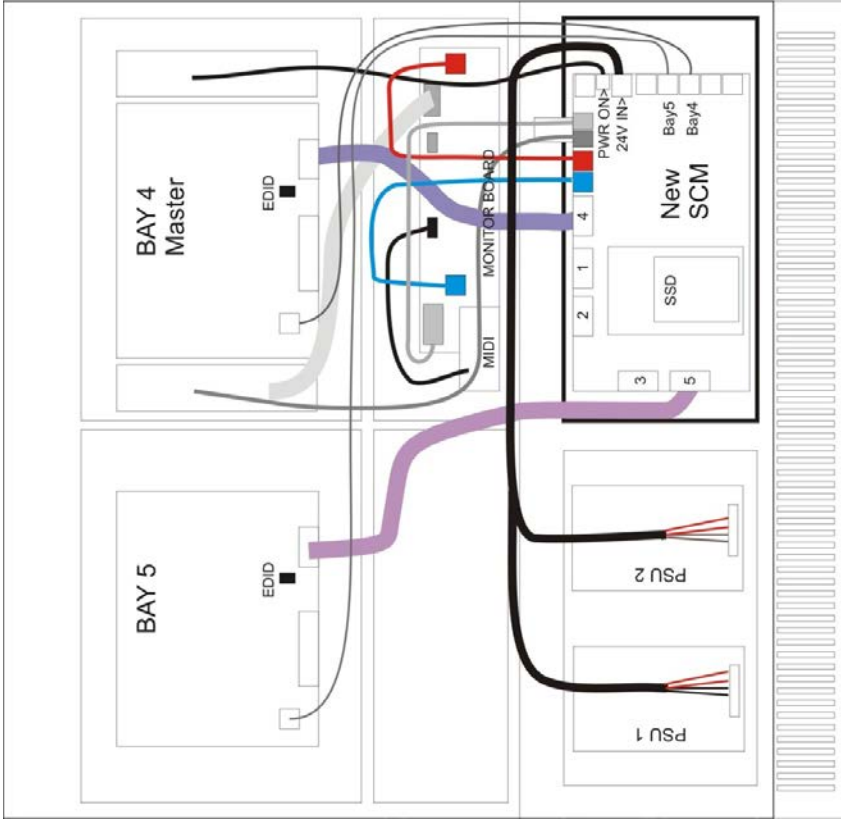


**Vi4 Wiring Schematic**



# Vi2 Wiring Schematic

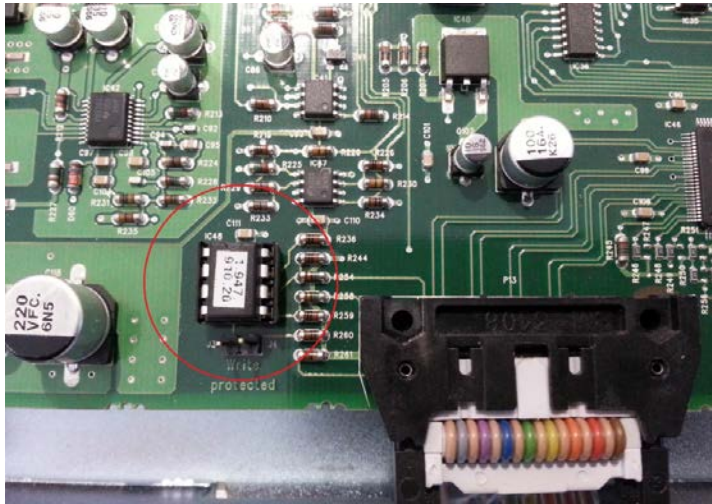
SWAP RED AND BLUE CAT5 CABLES ON MONITOR BOARD!



CUT WHITE MOLEX CONNECTORS FROM OLD POWER LOOM AND RE-USE THE CONNECTORS BY SOLDERING/CRIMPING TO NEW POWER LOOM

note: Black wires replace brown on PSU2 connection

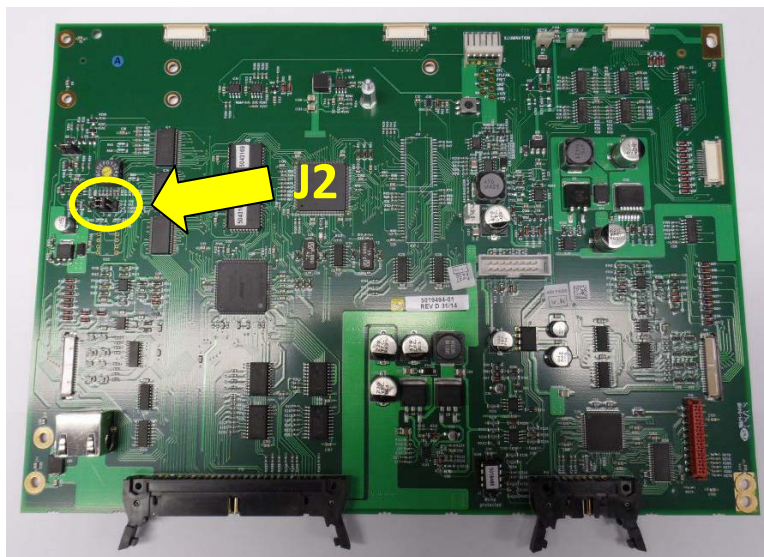
- 12) Locate the EDID chip (IC48) on each Visonics Control board (the board mounted behind each TFT screen) check the version of this and replace if necessary with the new devices supplied in the upgrade kit (1 per Visonics board). Pay close attention to the orientation of the device (notch should be at top).



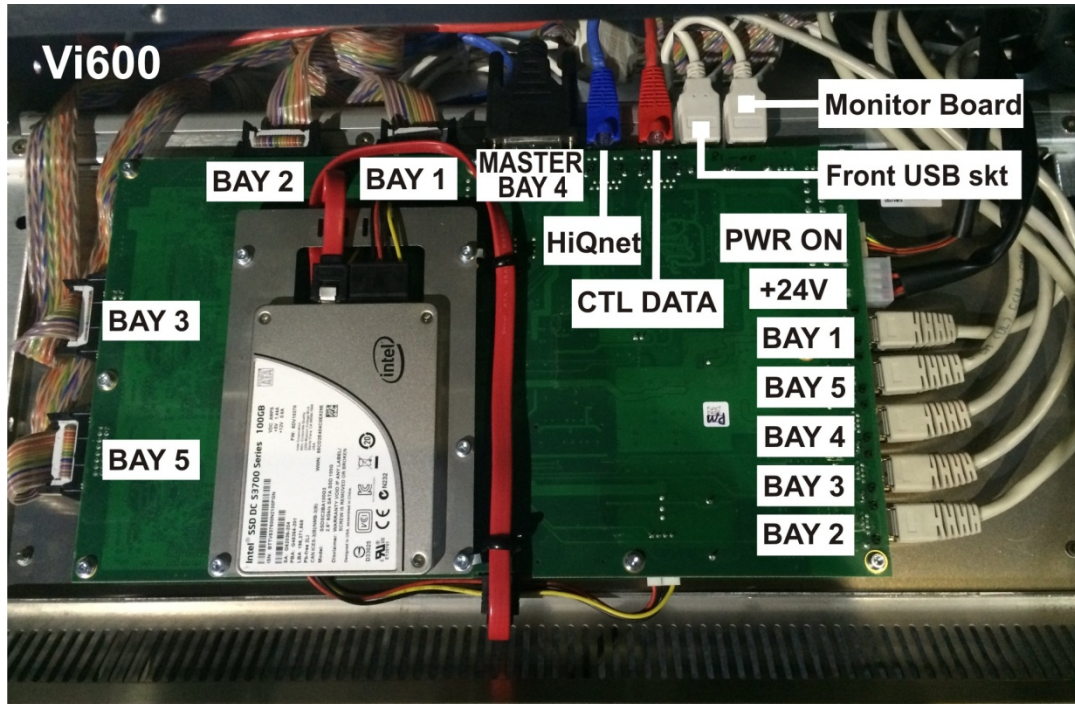
If the console contains EDID chips with the version number **S947.091020**, replace the chips with the ones in the kit (**5019468**).

(Some recent consoles may already have the new version chips fitted, in this case there is no need to replace).

- 13) At the same time as fitting the new EDID devices, check the setting of the jumper J2 on each Visonics Control board. The UPPER jumper must be set in position 4-5 (marked Vi6) on all boards. This should already be correct but if not, change to the Vi6 setting. Note that the lower jumper (1/2/3) should not be changed, and will be set differently depending on whether the board is on an input screen or master screen.



- 14) Place the new SCM on the rear panel. To make plugging-in easier, do not fix to rear panel at this stage. Plug the cables in as shown below, ensuring that all latches are pushed closed. The photo below shows Vi600 wiring. For photos and further notes on Vi2 & Vi4 consoles, please refer to Appendix II "Differences between Vi2/4/6 consoles". Also see the wiring schematics on previous pages for differences in DVI and CAT5 cable connection positions for these consoles.



- 15) Fix the new SCM to the rear panel (Note: black screws are supplied with the kit – if these are used it will help to identify from the outside that the console has been upgraded) and, with the rear door fully open, secure the USB connector and RJ45 patch cables to the adjacent metalwork with cable ties (not supplied).

Arrange the bunch of CAT5 cables on the right so that they are fixed to the SCM mounting plate with a tip-wrap and are not trapped when the rear panel is closed.

- 16) Re-check all connections before applying AC power. **In particular, check that the 24V power cable is connected to the position shown above and the USB cable coming from the Monitor Board is connected to the right-hand USB on SCM, and the USB cable coming from the Front Panel USB socket is connected to the left-hand USB on SCM. Also check that the red and blue CAT5 cables have been swapped at the Monitor board.**

- 17) Refer now to Software Installation instructions in Appendix 1, before closing and fixing rear panels. *Note that at this stage, when power is applied and the console switched on, the desk will not boot fully but will show all black screens with a white mouse pointer in the centre of the master screen – this is normal. The software image must be set up, following the instructions in Appendix 1, before the console will boot normally.*

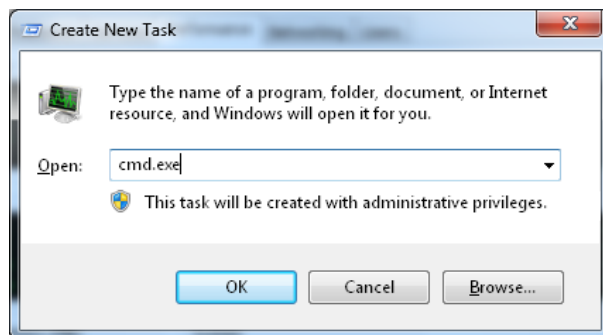
## APPENDIX I

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Your ViX00 upgrade kit comprises the hardware and software required to run on your existing ViX control surface. You will need to allow your new computer hardware to scan and update in its new environment, before locking down the Windows partition by enabling 'EWF', and creating a HORM (Hibernate Once Read Many) image so you can enjoy fast boot times. Follow these instructions carefully to complete the setup.

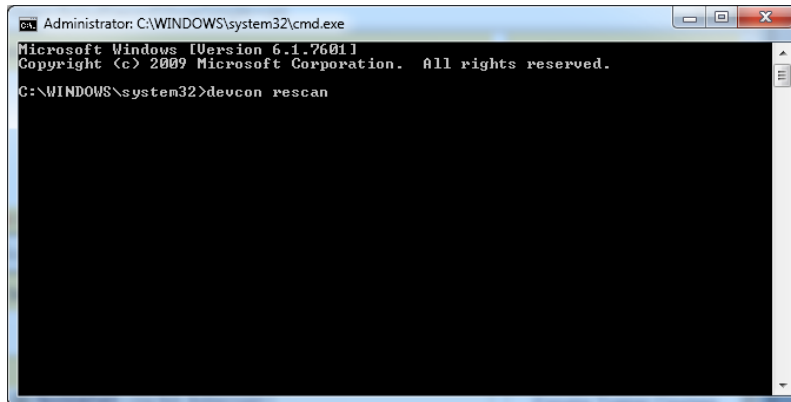
### System installation instructions:

1. Remove external Ethernet network cable and any USB storage devices from console
2. Attach a standard USB keyboard and mouse
3. Plug-in mains cable and press "POWER ON" button to switch on console
4. The console starts up with only a white centred cursor on a black controlbay (master) screen, all other screens are black.
5. Press [Ctrl]+[Shift]+[Esc] on USB keyboard to open Windows Task Manager
6. Select from menu: "File" + "New Task and open "cmd.exe"  
A black 'DOS'-style Command window appears.



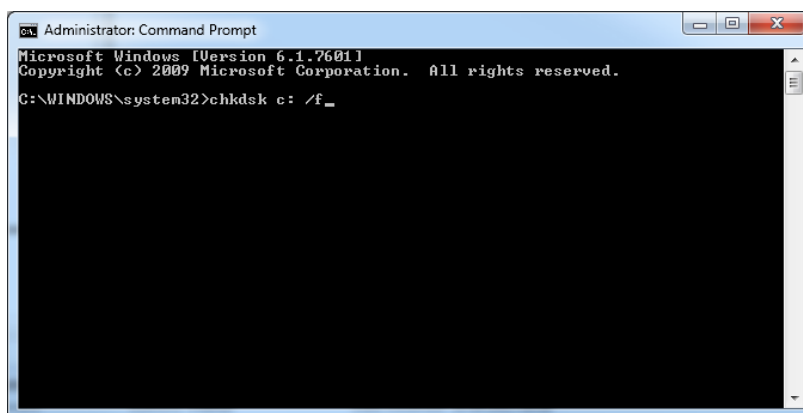
Note that the black Command window will appear on the screen immediately to the left of the Master screen. If it appears in the Central Screen, use the mouse to drag the screen to the left-hand adjacent screen (right-hand screen in the case of Vi2). Close the Task Manager window so the master screen is empty.

- At the cursor in the black DOS-style window, type **devcon rescan** and hit **'Enter'**.  
Wait until scanning completed.  
If the console shows a dialog window on centre screen saying **"The Computer must be restarted to apply changes"**, press ok to restart console.



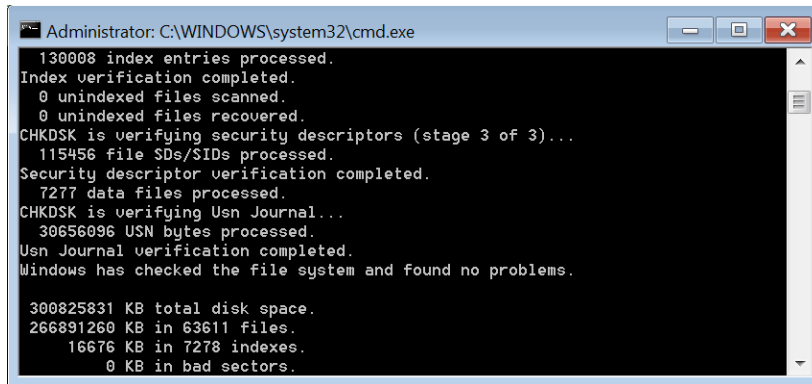
```
Administrator: C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\WINDOWS\system32>devcon rescan
```

- Wait approximate 3 minutes.  
**Note: If the OS opens a dialog window "The Computer must be restarted to apply changes", press ok to restart the OS. Then wait again approximate 3 minutes.**
- If you had to restart the console in the previous step, the console will again show black screens with a centred cursor.  
Press **[Ctrl]+[Shift]+[Esc]** again to open Windows Task Manager and select from menu: **[File] + [New Task]** and open **"cmd.exe"**  
**Note: If the console does not open a 'computer must be restarted' dialog within 3 minutes, just continue with next steps.**
- Type **chkdsk c:** and press Enter key



```
Administrator: Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\WINDOWS\system32>chkdsk c: /f_
```

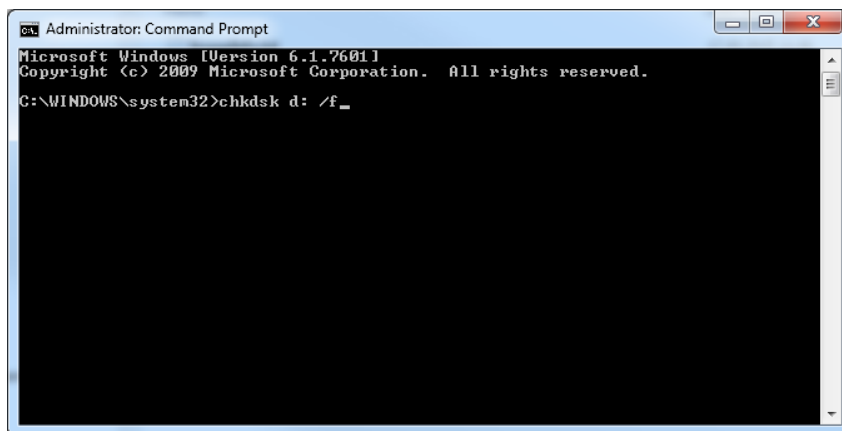
After the CHKDSK operation has completed, a summary text will be displayed, look for the text: **"Windows has checked the file system and found no problems"**



```
Administrator: C:\WINDOWS\system32\cmd.exe
130008 index entries processed.
Index verification completed.
0 unindexed files scanned.
0 unindexed files recovered.
CHKDSK is verifying security descriptors (stage 3 of 3)...
115456 file SDs/SIDs processed.
Security descriptor verification completed.
7277 data files processed.
CHKDSK is verifying Usn Journal...
30656096 USN bytes processed.
Usn Journal verification completed.
Windows has checked the file system and found no problems.

300825831 KB total disk space.
266891260 KB in 63611 files.
16676 KB in 7278 indexes.
0 KB in bad sectors.
```

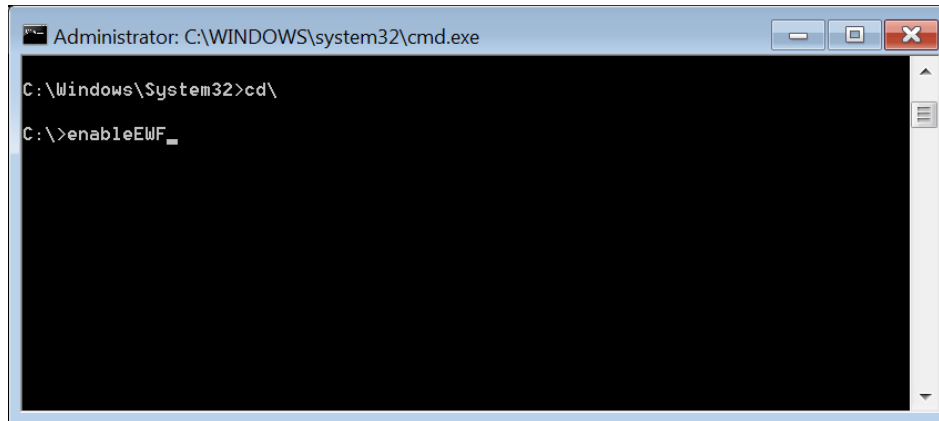
11. If the message reports any problems have been found, note this fact but continue to the next step.
12. Type **chkdsk d:** and press Enter key



```
Administrator: Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\WINDOWS\system32>chkdsk d: /f _
```

After the CHKDSK operation has completed, a summary text will be displayed, look for the text: “Windows has checked the file system and found no problems” as highlighted in screenshot for Step 12.

13. If the message for either of the 2 previous steps reports any problems have been found on C: or D:, remove the SSD and repeat the image restoration process using Image for Windows. Then repeat these installation instructions from the start. If no problems were reported in either steps, continue with the next step.
14. In cmd shell window, type: **cd\** and press **Enter** key (the on-screen prompt changes to C:\)  
Type: **enableEFW** and press **Enter** key.



Console shuts down and restarts. **Detach mouse and keyboard during restart!**

15. While console is restarting, **remove keyboard and mouse & check no other USB or Ethernet devices are connected.**

The console starts up with message "Installing...".

**Note: Do not touch the console during installation process**

After the console has installed the new software, it will appear to have booted, but after approx 5 seconds all screens will fade out and the console will shut down.

**Note: Wait and do not touch console until it switches off completely!**

**The screens may be off but the fader panels will remain lit for some time afterwards.**

When the console has completely switched off, only the "POWER ON" button is blinking.

16. Wait approximate 10 seconds
17. Attach HiQnet Ethernet network cable and any USB devices – if used
18. Press "POWER ON" button on console
19. The console starts up – after approximate 30 seconds, the console is ready to use
20. Press Menu button and select "Main" page
21. Verify Platform version 7.1.7.3 or later is shown in the main Menu page
22. Update the application software as per the latest version hosted here <http://www.soundcraft.com/products/vi7000>
23. It is recommended to test the functionality of the MIDI interface after the upgrade (create two Cues, one which transmits a Program change msg on Out1/ch1 and the other which receives the same Program change on ch1, connect a MIDI cable from MIDI Out1 to MIDI In, and check that recalling the first Cue automatically triggers the second).

## TROUBLESHOOTING

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If any problems are experienced during the installation, switch the console off and double-check all cable routing is according to the info and drawings in the instructions.

Some likely issues are described here:

1. **When first powered up after installing new Control Module, all screens are black and Master screen has a white/grey display covering all or part of screen.**

Check that the EDID chips have been replaced with the ones supplied, and they are correctly fitted with the indentation on the top of the chip.

Check that the new chips are labeled with the number: 5019468

2. **The USB keyboard or mouse does not work/is not recognised**

In this case it will not be possible to carry out Steps 5 onwards in Appendix 1.

Look at the Monitor board in the rear of the console base (to the far left looking at the back, this is the board containing the external USB sockets and XLR connectors). When the console is powered up there should be a flashing or constant yellow LED illuminated on this board, after initial boot. If this LED only flashes during boot then remains off, check the connection of the USB cable that is connected to the new Control module – note that there are two USB ports on the new module, the cable must only be attached to the RIGHT-HAND USB socket as seen from the rear of the console (as shown in the connection diagrams in this document).

If this does not solve the problem, consult Soundcraft Support on [csd@soundcraft.com](mailto:csd@soundcraft.com)

## NOTE ON REAR-PANEL USB SOCKET FUNCTIONALITY

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Different types of USB hub chip have been used within Vi2/4/6 consoles of various ages. Consoles with early version Monitor Boards may have a problem after the SCM upgrade where the two rear USB sockets are able to function normally with keyboard/mouse connection, but do not recognise some USB storage devices. In this case the front panel USB socket only should be used for USB storage. If it is necessary to connect more than one USB storage device and the rear sockets must be used, a self-powered external USB hub should be connected between the storage device and the rear USB sockets.

## APPENDIX II Variations to these instructions for Vi4 and Vi2 console types

### Vi4

#### PSU Location

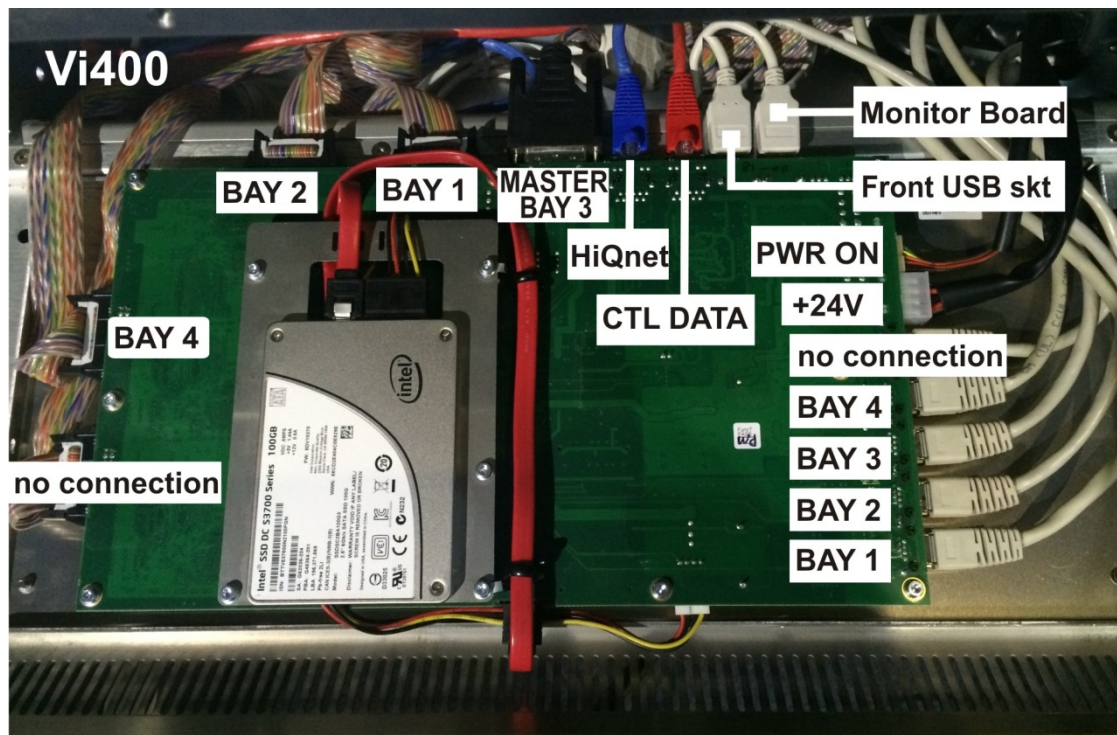
A universal type of DC power harness is supplied in your upgrade kit. This is designed to connect to the two PSUs mounted behind adjacent bays 1&2, on a Vi6.

On Vi4, the second PSU is located at the opposite end of the console and so one branch of the supplied power harness will not reach. However since the Power/Distribution board (behind bay #2) will be removed during the upgrade, the second PSU can be relocated to this position. Ensure that the aluminium mounting plate for the Power Distribution board has also been removed, then remove the screws holding the second PSU's mounting plate to the rear panel at the far end of the console, and re-attach the second PSU to this old Distribution board position (the fixing holes on the rear panel will line up). Re-route the mains inlet cable to the second PSU as required, the excess length of this should be folded up and secured with tie-wraps in a safe location (*Ensure re-routed mains voltage wiring cannot be trapped by movement of hinged rear panels*).

It should now be possible to connect the new Power harness as described in the main instructions. Refit the old Power Distribution mounting plate in the original PSU2 position, in order to avoid empty screw holes in the back panel.

#### Wiring connections to System Control Module for Vi4

The photo on page 9 of these instructions shows Vi6 wiring. The following picture shows the connections for Vi4 consoles: (use in conjunction with wiring diagram on page 6)



## Vi2

### PSU Location and Connection

On Vi2, the two Primary PSUs are mounted adjacent to one another, behind the Input Bay screen. The supplied power wireform has enough length to reach these; there will be some excess length which can be cut off or coiled and tied up.

The connection to the Vi2 Power supplies' DC output is via Molex connectors rather than screw terminals as on the other products, and these are **not included** on the supplied Power wireform. It is therefore recommended that the existing power wireform be cut and joined to the ends of the new wireform with soldered and sleeved connections, or suitable tubular crimped insulated connectors (not supplied). The connection is best made close to the Power supply. Note that the crimped ferrules should be cut off the ends of the new wireform and the ends stripped before soldering or crimping.

### Power Distribution board location on Vi2

On Vi2 consoles the Power/Distribution board is located under the fader panel. This should be disconnected and completely removed as part of the upgrade, along with the 2 MOLEX power wireforms (but note the small white Molex connectors need to be salvaged, see previous section). The USB cable connecting it to the old Control System module should also be removed and discarded, and the 2 CAT5 cables re-routed into the rear of the console for connection to the new Control Module.

### Wiring connections to System Control Module for Vi2

The photo on page 9 of these instructions shows Vi6 wiring. The following picture shows the connections for Vi2 consoles: (use in conjunction with wiring diagram on page 7)

