

96/72 CHANNEL VERSION

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On a Vi Series console running V3.0 software or later, the console may be upgraded to 96 (Vi6) or 72 (Vi4) mixing channels, by fitting an additional DSP card to the Local Rack. This upgrade may either be factory fitted at time of order, or can be retrofitted to existing consoles.

This User Guide refers to the standard 64 or 48 channel version in most cases, but the information below describes the differences with the 96/72ch version.

Accessing the Additional 32 (24) channels

If a third DSP card is fitted to the Local Rack, the C layer button in the Fader page control section of the surface allows access to the extra channels, and the corresponding additional row of input meters input meters will appear in the main screen (see below).



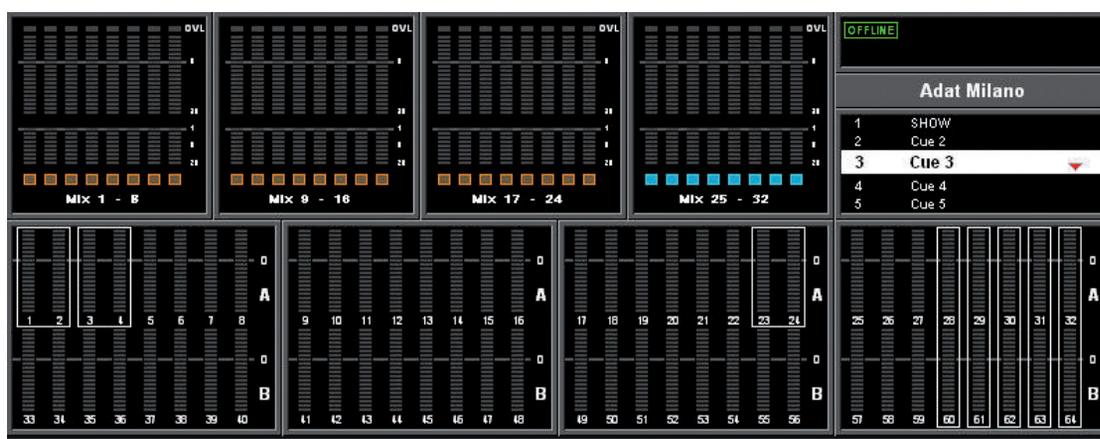
To make full use of the extra channels on the 96ch Vi6, you may wish to add an additional stagebox; this feature was already introduced in the last update (V2.1).

A second stagebox can easily be connected to the spare MADI card in the Local Rack, the only thing to be aware of is that if your desk has a Cat5 Stagebox link, the second MADI card will be optical and therefore you may want to change this card to a Cat5 version, and also purchase an additional breakout panel. Note also that a DIP switch setting will need to be changed in order for the second card to detect a stagebox. See later information for instructions on how to do this.

Busses

The number of busses on the Vi6 remains at 32, with or without the DSP upgrade.

On the Vi4 however, the busses have been increased to 32, which means that if a Vi6 show is loaded onto a Vi4 running V3.0 or later software, all 32 busses will be usable in the same mode as they were on the Vi6 (eg Matrix outs on 25-32).



Hints on using the DSP Upgrade's additional 32/24 channels

When the Vi Series is upgraded with the DSP card addition, there are two ways to use the additional channels:

1. Making more use of the existing I/O

The Vi6 already has 64 mic ins from the stagebox, plus 16 line inputs, 3 mic inputs, 16 AES/EBU inputs and up to 64 MAD I inputs in the Local Rack, plus the returns from the 8 built-in stereo Lexicon FX units. This is a total of 179 sources!

This means that there are already plenty of spare physical inputs that can be used to access the additional 32 mixing channels.

Just being able to connect the FX return channels without eating into the Stagebox inputs will be a major benefit.

With this in mind, the new Default Shows provided with the V3.0 and later software have been programmed with the sources for channels 65-80 set to the Local Rack Line inputs.

The last 16 channels 81-96 have been left free to use for FX returns since there are different preferences on the vertical or horizontal pairing of these.

2. Add another Stagebox

Alternatively if you require more than 64 inputs from the stage, a second Stagebox can added to the desk, either by connecting it to the existing second MAD I card, or adding a third MAD I card. (In this case you need to remove the AES/EBU card or 2 line in or line out cards to make room for the MAD I card). As mentioned previously, you may need to obtain additional breakout panels for use with a second Stagebox.

When adding additional MAD I cards and Stageboxes, keep in mind that there is a limit to the maximum number of I/O channels that the DSP core can accept – this is 192 inputs and 192 outputs. The total of all the input cards fitted in the local rack must not exceed these numbers. It is possible to add a MAD I card and restrict the number of channels it uses, from 64 down to say 32, using internal switches.

Refer to your Soundcraft distributor for further advice on special I/O configurations.

MIC A01	MIC A07	MIC B05	MIC C03	MIC D01	MIC D07	MIC E05	MIC F03	MIC G01	MIC G07	MIC H05		EXIT	
1	7	13	19	25	31	37	43	49	55	61			
MIC A02	MIC A08	MIC B06	MIC C04	MIC D02	MIC D08	MIC E06	MIC F04	MIC G02	MIC G08	MIC H06		L	R
2	8	14	20	26	32	38	44	50	56	62			
MIC A03	MIC B01	MIC B07	MIC C05	MIC D03	MIC E01	MIC E07	MIC F05	MIC G03	MIC H01	MIC H07		Lexicon Out	
3	9	15	21	27	33	39	45	51	57	63			
MIC A04	MIC B02	MIC B08	MIC C06	MIC D04	MIC E02	MIC E08	MIC F06	MIC G04	MIC H02	MIC H08		MADI	
4	10	16	22	28	34	40	46	52	58	64			
MIC A05	MIC B03	MIC C01	MIC C07	MIC D05	MIC E03	MIC F01	MIC F07	MIC G05	MIC H03			StageBox	
5	11	17	23	29	35	41	47	53	59				
MIC A06	MIC B04	MIC C02	MIC C08	MIC D06	MIC E04	MIC F02	MIC F08	MIC G06	MIC H04		NONE	Local	
6	12	18	24	30	36	42	48	54	60				

Installing a Third DSP card for 96ch operation

In order to take advantage of the mixing channel upgrade of the V3.0 software, an third DSP card needs to be installed in the Local Rack.

Although DSP cards will work in any of the free slots in the upper section of the Local Rack, it is recommended to fit the additional card in such a way that there is one free slot in between all of the cards, in order to maximize efficient airflow in the rack.

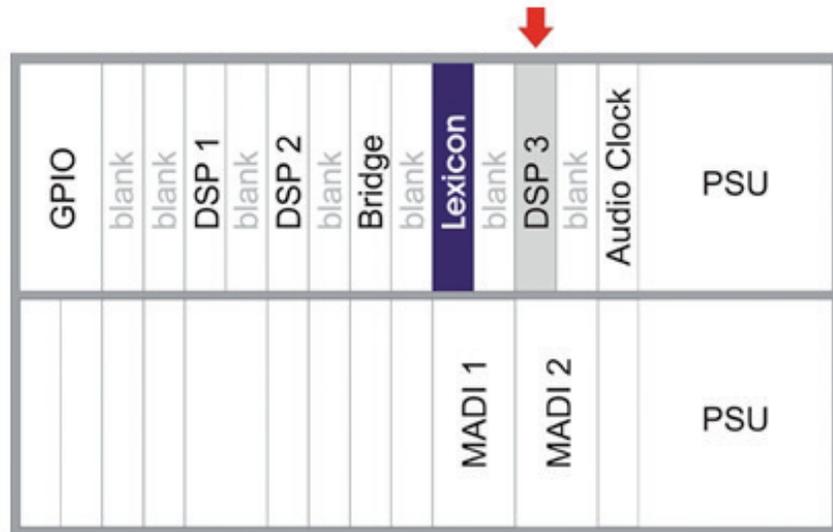
The new DSP card should therefore be fitted to the right of the Lexicon/BSS FX card, as shown in the diagram below (DSP 3 card, indicated with arrow).

Note that the FX card may have to be moved one slot to the left, depending on how it was installed from the factory. If the FX card is already in the position shown below, go straight to step 5.

Instructions for moving FX card and fitting DSP card

Remove any breakout panels to allow access to the top section of the Local Rack.

Note: when removing, refitting and handling DSP and FX cards in the Vi Series rack, observe anti-static precautions: Either wear a grounded wristband or regularly touch the metal chassis of the rack to discharge any static build-up. Keep the new card in its antistatic bag until the last moment.



Local Rack – Rear View

1. Firstly, remove one blanking panel on each side of the FX card.
2. To remove the FX card, unscrew the two small fixing screws at the extreme top and bottom ends of the card (Do not unscrew the two larger extended screws).
3. Release the FX card from the backplane connector by pulling on the two large extended screws. Carefully slide the card from the rack on its mounting rails.
4. Refit the FX card one slot to the left of its previous position. It should then be in the position shown in the diagram above.
5. Fit the new DSP card (DSP 3 in above diagram) to the right of the FX card with one empty space in between.
6. When refitting the FX and DSP cards, engage the pcb carefully with the mounting rails and slide the card into the rack. There should be very little friction if the card is correctly running on the mounting rails. When resistance is felt, press on the two large extended screws to engage the card the last 5mm into the backplane connector. When fully seated, press the floating fascia panel into the rack and tighten the two small fixing screws at top and bottom.
7. The blanking plates should not be refitted until after the FX and DSP cards are fitted, to avoid catching components on the cards on the metalwork as they are slid in and out.

MADI Card Settings for additional Stageboxes

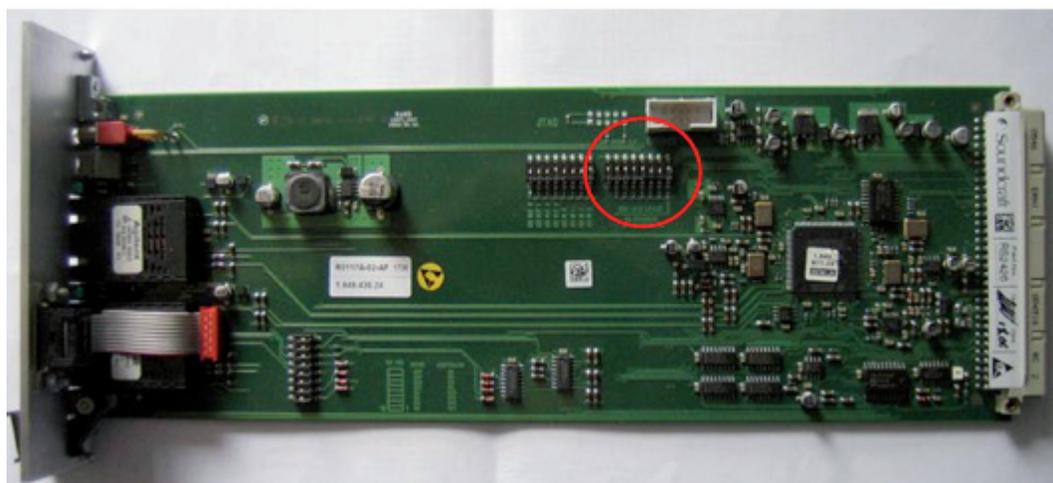
The MADI cards on the Vi4 and 6 contain a DIP switch setting which has to be set differently depending on whether the card is to be used for a Stagebox, or as a simple MADI connection for recording. This setting is necessary because the messages that the card sends out in order to communicate with a stagebox need to be disabled if the card is used to feed a device such as a hard disk recorder, otherwise this can cause problems.

When the consoles are shipped, the first MADI card (left-hand position) is set for Stagebox detection, and the second MADI card (right hand position) is set for Hard Disk recording.

If you want to add another Stagebox and connect this to the second MADI card, the DIP switches on the second card will have to be changed to enable Stagebox detection, as described below.

Checking and Resetting the DIP switches

Remove the optical MADI card from the console, observing anti-static handling procedures. Locate the required DIP switch using the picture below. The switch has text adjacent to it saying '96k AUX USAGE'.



Use a small implement to change the settings of S2 and S3 on this DIP switch as follows:

	Stagebox Detection enabled	Recording Mode (S/Box detection disabled)
S2	OFF	ON
S3	OFF	ON

All other switches should be left in the OFF position.

NOTE: the DIP switch is fitted upside down in relation to the text on the pcb – ensure the correct switch numbers are changed (the numbers and 'ON' position are marked on the switch body, but are very small).

See picture on the right:

