TECHNICAL NOTE

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SD- RACK (also SD7 local IO)

ANALOGUE INPUTS AND OUTPUTS "0dB" LEVEL HARDWARE ADJUSTMENT
P16050 input P16232 input & P16051 output PCB's

The operating levels within the digital domain of digital mixers are of course fixed with respect to digital full scale (FS) representing the largest 24 bit number available. However, to allow for maximum analogue headroom the modules are shipped set for FS =+22dBu (0dBu=775mV rms) on both input and outputs modules.

Users may choose to operate at an alternative analogue reference level, with consequent changes in headroom and noise performance. The change can be made by changing 1 jumper position in each channel of each analogue module (i.e. 8 jumpers per rack module).

It is strongly recommended that ALL analogue inputs AND outputs on any 1 console are modified together.

P16050 & P16051 PCB's have 8 sets of links. Move the jumper to the required position. Do not operate with no link installed.

Input P16050 CN 9,10,11,12,13,14,15,16
The G5 position is nearest the top of the PCB as installed in a normal SD-Rack (refer to printing on the front panel). Each set of links operate on the adjacent channel.

Output P16051 CN 7,9,8,10,11,12,14,15
The G5 position is nearest to the connector panel. Each set of links operate on the adjacent channel.

The following link settings are changed for the value shown for the required level.

FS reference	+24dBu (NTSC)	+22dBu (standard)	+20dBu (Dolby Film)	+18dBu (EBU)	+15dBu (DIN)
Input P16050	G5	G4	G3	G2	G1
Output P16051	G5	G4	G3	G2	G1

P16132 32 bit PCB has a single jumper for software control of the gain. This is marked PL3. There are 3 link positions A B & C.

The following link settings are changed for the value shown for the required level.

FS reference	+24dBu (NTSC)	+22dBu (standard)	+20dBu (Dolby Film)	+18dBu (EBU)	+15dBu (DIN)
Input P16132	C	No links set	A	B	A & B

Note jumpers PL1 and PL2 are not users settings and should not be altered.

Cont/

SD7 Local I/O operating level adjustment

V532+ B version supports variable operating levels in the local Input via software as well as the outputs using the jumpers.

The inputs can be set as follows
They need to make the following entry in the d:\sd7\sd7.ini file on BOTH engines

LocalOpLevel = 24 (for +24dB operating) or other figure as required,

24dBu NTSC
22dBu (factory standard)
20dBu Dolby film
18dBu EBU
15dBu DIN

The figures relate to 0dB FS digital equivalence.

Add this line within the lines under [sd7] Not under [windows] or other headings.

At the same time remove the local IO cards (with the power OFF !!)
Change the output IC jumpers to the *__matching__* position in dB.

For each of the 4 outputs there are 5 jumper positions and 6th 2 pin position, numbered 1-6 from the rear panel side towards the fader side (number 1 closest to panel).

1 24dBu NTSC
2 22dBu (factory standard)
3 20dBu Dolby film
4 18dBu EBU
5 15dBu DIN
6 provision for custom setting resistor

Note up to 0.25dB error in to out is considered an acceptable convertor scaling error.