

exceeding expectations

DDA CS3

contents





The DDA CS3 console brings the DDA advantage of sonic transparency to a new and readily affordable level of advanced mixing performance. Designed for simplicity of operation, long-term reliability and high audio quality, the CS3 offers a portfolio of powerful, professional features that is truly exceptional at its price.

The CS3 has been developed, through extensive research and discussion with our world-wide users and distributors, as a compact but well-specified mixer for fixed installations, concert and theatre live sound and a host of other demanding applications. Simple to install, connect and operate, the versatile CS3's attractive mix of features and pricing gives you a significant advantage in choosing a console to take on a multitude of tasks with minimum fuss. What's more, with the highest standards of design and construction, this is a console that's built to work reliably for years to come. Which is also why we have the confidence in its durability to include a full 3-Year Warranty with every CS3.

The CS3's compact and ergonomically-friendly format makes the console simple to install and site, as well as making it easy to use by non-technical or untrained operators. Nonetheless, it combines class-leading performance with high quality design and construction.



The DDA advantage in console design is simple. It's all about transparency.

Because we believe that where audio electronics are concerned, the less we put in the way of your signal, the more your mix will shine through.

We apply that principle to every DDA console - and you'll find it at every stage in the CS3.

An elegant gain structure gives you generous headroom throughout, with 'minimal signal path' topology for accurate audio and a low noise floor.

High quality controls and switches, distributed decoupling and gold plated connectors enhance signal integrity.

All of these benefits and thoughtful, precision-built features and techniques are designed to give you maximum quality for an affordable price.

So wherever you're mixing, the audio quality and versatility of our consoles will be transparently obvious. That's the DDA advantage.



the **CS3** modules

input module 1a, 1b, 1c, 1d

master module 2a, 2b, 2c, 2d, 2e, 2f, 2g, 2h

output module 3a, 3b, 3c

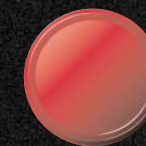
architect's and engineer's specification 4a, 4b, 4c

block diagram 5a

eq graphs 6a

dimensions 7a

technical specifications 8a

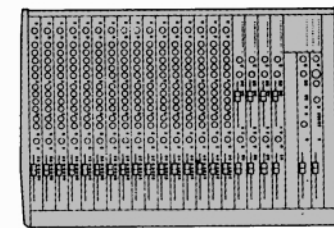




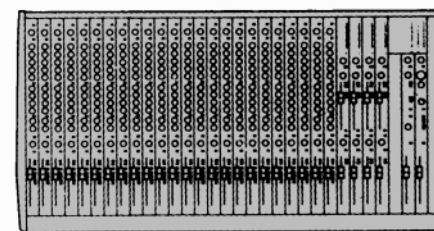
DIDA
CS3
CONSOLE



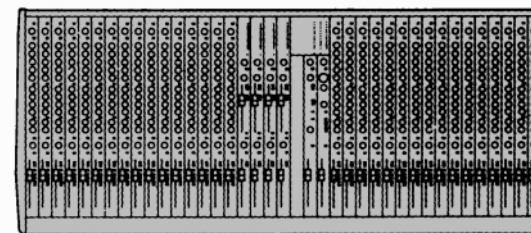
7a



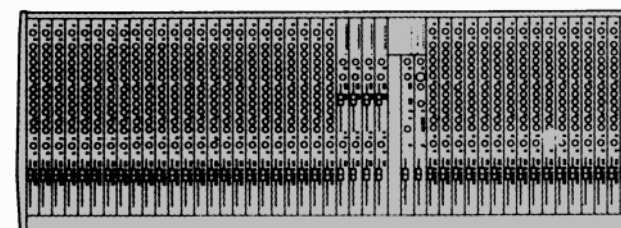
Width: 800mm (31.50") Depth: 565mm (22.24")
Max. Height (excluding feet): 195.5mm (7.69")
Nett Weight (unpacked): 23Kg (50lbs 11ozs)



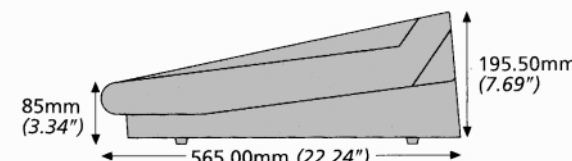
Width: 1049mm (41.30") Depth: 565mm (22.24")
Max. Height (excluding feet): 195.5mm (7.69")
Nett Weight (unpacked): 30Kg (66lbs 3ozs)



Width: 1298mm (51.1") Depth: 565mm (22.24")
Max. Height (excluding feet): 195.5mm (7.69")
Nett Weight (unpacked): 37Kg (81lbs 10ozs)



Width: 1547mm (60.90") Depth: 565mm (22.24")
Max. Height (excluding feet): 195.5mm (7.69")
Nett Weight (unpacked): 40Kg (88lbs 4ozs)



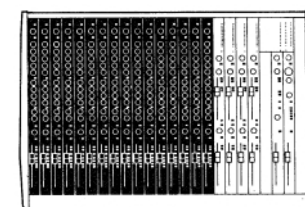
PSU: (Optional 2 U Rack Mounting)
4.4Kg (9lbs 11ozs) + 0.35Kg (12ozs) with additional a.c. mains lead.



DIDA
CS3
CONSOLE



1b



LINK OPTIONS

Link 3 is normally installed causing the signal fed to auxiliaries 1 and 2 to be pre fade, although they will mute if the channel is muted.

Link 4 will make the signal pre equaliser and independent of the mute.

Link 5 will enable the auxiliaries to send post fader signal. Link 10 allows auxiliaries 1 and 2 to be fed from an output of the pre switch and links 8 and 9 will then determine which pre signal is selected.

Link 8 is normally installed giving a pre fade, post cut signal.

Link 9 will give a pre equaliser feed.

AUX 3

Controls the level of the channel signal fed to Auxiliary 3.

AUX 4

Controls the level of the channel signal fed to Auxiliary 4.

PRE

Normally this operates on auxiliaries 3 and 4 to change them from a post fade feed to a pre fade feed.

LINK OPTIONS

Links 6 and 7 determine the pre feed fade. Link 6 is normally installed giving a pre fade, post cut signal. If link 7 is installed the PRE feed will be pre equaliser.

If link 10 is installed the PRE button will affect auxiliaries 1 and 2.

If link 12 is installed the PRE button will affect auxiliaries 5 and 6.

AUX 5

Controls the level of the channel signal fed to Auxiliary 5.

AUX 6

Controls the level of the channel signal fed to Auxiliary 6.

Link 11 is normally installed giving auxiliaries 5 and 6 a post fader feed.

LINK OPTIONS

If link 12 is installed the feed will depend on the PRE switch.

If link 13 is installed the feed will be pre-equaliser.

If link 14 is installed the feed will be pre fade, post cut.

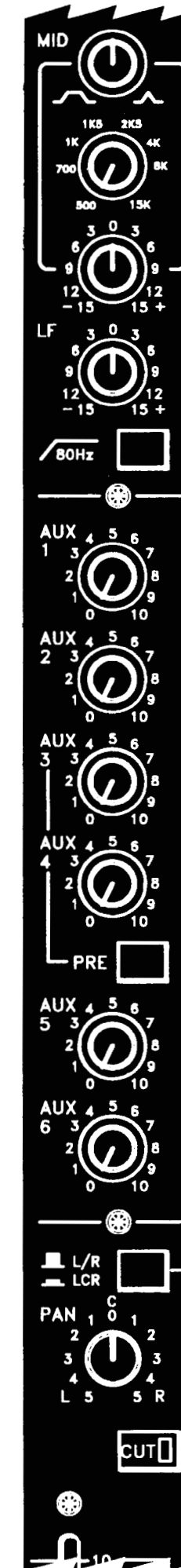
ROUTING AND SPECS

L/R (LCR)

This changes the pan pot into a left, centre, right pan pot. The signal now pans between left and centre or right and centre. It is not possible therefore to have signal on the left and right buses simultaneously from one module if LCR mode is selected. With the pan pot in the centre position there will only be signal on the centre output.

PAN

When PAN is set to centre in L/R mode, equal levels are sent to the left/right (odd/even) buses, with a 3dB drop relative to the fully clockwise or anticlockwise positions. Setting the PAN control fully anticlockwise sends full level to the Left bus, cutting the send to the Right bus. Fully clockwise rotation sends full level to the Right bus, cutting the feed to the Left bus.

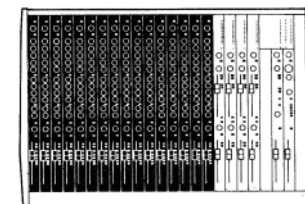




DIDA
CS3
CONSOLE



1d



CONNECTORS AND PIN DEFINITIONS

Mic Input : 3 Pin Female XLR type, Balanced
Nominal Input Level: -16dBu to -66dBu
Pin 2 : Signal +ve (Hot)
Pin 3 : Signal -ve (Cold)
Pin 1 : Ground
Input Impedance : >2 kOhm

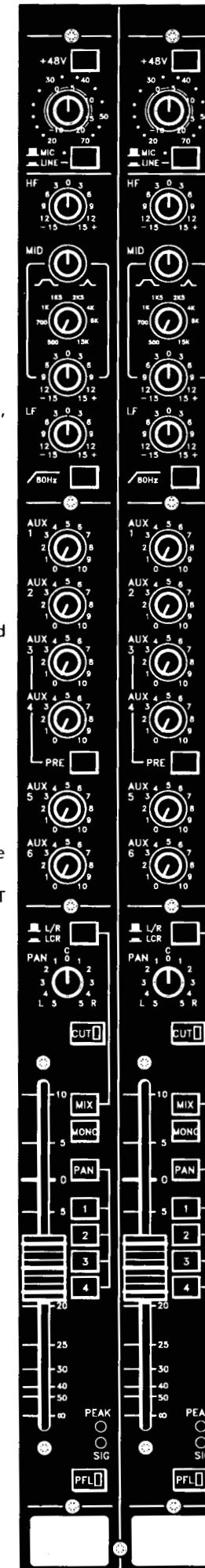
Line Input : 1/4" TRS Jack Socket, "A" Gauge, Balanced
Nominal Input Level: -16dBu to +14dBu
Tip : Signal +ve (Hot)
Ring : Signal -ve (Cold)
Sleeve : Ground
Input Impedance : >10 kOhm

Insert Point : 1/4" TRS Jack Socket, "A" Gauge, Unbalanced
Nominal Input/Output level: -2dBu
Tip : Insert Send
Ring : Insert Return
Sleeve : Ground
Output Impedance : <75 Ohm
Input Impedance : >10 kOhm

Direct Output : 1/4" TRS Jack Socket, "A" Gauge, Unbalanced
Nominal Output level: -2dBu
Tip : Signal
Ring : Ground
Sleeve : Ground
Output Impedance : <75 Ohm

Remote Connector

- 1 Ground
- 2 Mute Input. Grounding this pin mutes or cuts the channel.
- 3 Mute Output. This pin is grounded when the CUT switch is depressed.





DDA
CS3
CONSOLE



4c



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

a MIX/TAPE selector switch
 a LR switch enabling the stereo mix to be monitored
 a CENTRE switch enabling the MONO or CENTRE mix to be monitored on the stereo monitor outputs
 (the above two switches shall not be interlocked to enable monitoring of an LCR mix by pressing them both)
 LEFT, CENTRE and RIGHT meters with the left meter also being used to indicate PFL and AFL levels
 solo logic to allow audio monitoring and metering of PFL or AFL signals with input priority.
 Solo logic to enable operation of a solo in place mode on inputs balanced monitor outputs on XLR connectors a switch selectable headphone output

TALKBACK SECTION

An external talkback microphone shall be assignable to the auxiliary outputs in pairs, the left, right and mono (centre) buses of the console and the group buses
 the talkback microphone shall optionally be phantom powered by inserting a link in the module
 there shall be a TALKBACK GAIN control

There shall be a "scribble strip" area at the bottom of the channel.

POWER SUPPLY

The power supply shall feed regulated voltages of +48V and +/-18V DC to the console and shall optionally be rack mountable. Input voltage and frequency to the power supply shall be as follows:-

230V/120V AC at 50-60Hz.

The supply shall be CSA/UL/IEC65 approved for safety.

Accessories shall be available as follows :-

- Input balancing transformers
- Output balancing transformers
- Littlite
- Dustcover
- Technical Manual

The console shall conform to the EC directive for Electromagnetic Compatibility.

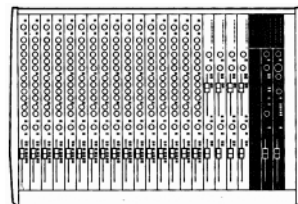
The console shall be a DDA CS3



DIDA
CS3
CONSOLE



2b



DIDA CS3

L-SOLO	C-MONO	R
<input type="radio"/> +12	<input type="radio"/> +12	<input type="radio"/>
<input type="radio"/> +9	<input type="radio"/> +9	<input type="radio"/>
<input type="radio"/> +6	<input type="radio"/> +6	<input type="radio"/>
<input type="radio"/> +3	<input type="radio"/> +3	<input type="radio"/>
<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/>
<input type="radio"/> -3	<input type="radio"/> -3	<input type="radio"/>
<input type="radio"/> -6	<input type="radio"/> -6	<input type="radio"/>
<input type="radio"/> -9	<input type="radio"/> -9	<input type="radio"/>
<input type="radio"/> -12	<input type="radio"/> -12	<input type="radio"/>
<input type="radio"/> -15	<input type="radio"/> -15	<input type="radio"/>
<input type="radio"/> -18	<input type="radio"/> -18	<input type="radio"/>
<input type="radio"/> -21	<input type="radio"/> -21	<input type="radio"/>

BUS PEAK L C R

AUX MASTER 5

AUX MASTER 5
0 1 2 3 4 5 6 7 8 9 10
AFL

TAPE LEVEL

TAPE LEVEL
0 1 2 3 4 5 6 7 8 9 10

L/R
MONO

AUX MASTER 6

AUX MASTER 6
0 1 2 3 4 5 6 7 8 9 10
AFL

NEUTRIK
0 1 2 3

TB LEVEL

TB LEVEL
0 1 2 3 4 5 6 7 8 9 10

+48V
+18V
-18V

L/R
CENTRE (MONO)

MONITOR LEVEL

MONITOR LEVEL
0 1 2 3 4 5 6 7 8 9 10

MONITOR SOURCE
MIX
TAPE

PHONES ON

SOLO IN PLACE

SOLO LEVEL

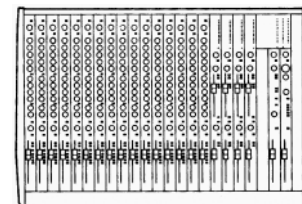
AUX 1-2
AUX 3-4
AUX 5-6



DIDA
CS3
CONSOLE



4a



The CS3 console shall be free standing and powered by an external power supply. It shall be capable of routing to four audio sub groups which can further be sub mixed to the main left centre and right outputs of the console. There shall be four frame sizes, each console shall have a master section and four group output sections in addition to 16, 24, 32 or 40 input channels. PFL, AFL and Solo In Place monitoring modes are available while an external tape input can be assigned to the mix outputs for use as an intermission playback facility.

INPUT CHANNEL

The input channel shall have the following facilities:-
a 48V phantom power switch operating on the microphone input
a rotary input gain control
a microphone/line input gain range selector switch
a three band equaliser with high and low pass shelving section and a parametric mid frequency section. The high frequency section shall operate at 12kHz and the low frequency section shall operate at 50Hz. The middle section shall be sweepable from 500Hz to 15kHz with Q continuously adjustable from 0.7 to 4.5.
a switchable 80Hz, 18dB/octave high pass filter
6 auxiliary sends with auxiliaries 1 and 2 normally configured to take a pre fade post cut signal, auxiliaries 3 and 4 to take either the post fader signal or the prefade post cut signal depending upon the position of the PRE switch and auxiliaries 5 and 6 to take the post signal. Links shall exist to allow any of the available signals (pre equaliser, pre fader post cut and post) to be made available for any of the auxiliary sends.
a pan pot which can be configured for L/R or LCR (Left, Centre, Right) operation and that can be selected to pan across the groups
an illuminating CUT switch
independent routing to 4 buses in addition to the L/R bus and the Mono (Centre) bus
peak and signal present indicators
an illuminating PFL switch
a long throw 100mm audio taper fader
a "scribble strip" area

There shall be an XLR connector for the microphone input with the line input normally connected through a TRS jack socket. When no jack is inserted the XLR signal shall be normalled through the jack to become the line input signal. There shall be an insert jack using the tip as the signal send and the ring as the signal return. There shall be a TRS jack for the direct output which shall be the post fade post cut signal.

Input channels shall be available in multiples of 4.

THE OUTPUT CHANNEL

The output channel shall contain a group output stage, an auxiliary output stage and a stereo line input.

THE STEREO LINE INPUT

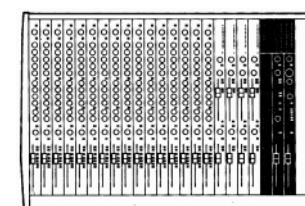
This shall contain the following:-
A balanced stereo line input stage
a balance control
a long throw 100mm fader for level control
paired routing to the groups
routing to the L/R and centre buses
an illuminating PFL switch
input connection shall be through a pair of TRS jacks linked such that a mono input, applied to the left input and with no connection to the right input, will be applied equally to the left and right signal paths of the return.



DIDA
CS3
CONSOLE



2d



CS3

-15 -15
 -18 -18
 -21 -21

BUS PEAK L C R

AUX MASTER 5 AFL

AUX MASTER 6 AFL

TAPE LEVEL

NEUTRIK

TB LEVEL

L/R

MONO

+48V
+18V
-18V

L/R

CENTRE (MONO)

MONITOR LEVEL

MONITOR SOURCE

MIX TAPE

PHONES ON

SOLO IN PLACE

SOLO LEVEL

INPUT
OUTPUT

L+R TO CENTRE

AUX 1-2
AUX 3-4
AUX 5-6
LCR MIX
GROUPS

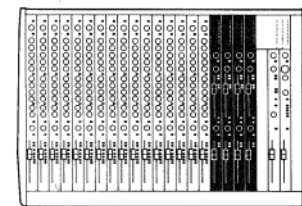
TALKBACK



DIDA
CS3
CONSOLE



3b



BUS PEAK

This indicates when the group mix bus level is very high and the signal is in danger of becoming distorted. The signals routed to the group should be reduced in level by pulling their faders down or reducing the input gain of the routed channels.

THE AUXILIARY MASTER SECTION (1 OF 4)

Each group output stage contains one auxiliary output section.

LEVEL

This controls the auxiliary output level.

AFL

This allows the auxiliary signal to be previewed. The post fade auxiliary signal is used and therefore it is dependent on the position of the output level control.

There is an auxiliary insert point allowing the insertion of an effect unit into the auxiliary signal path, pre the level control.

THE GROUP OUTPUT SECTION

L/R (LCR)

This changes the pan pot from standard mode to LCR mode where the signal will pan between left and centre or right and centre.

CUT

The CUT switch disables the channel signal path, and is indicated by a led in the switch when the group is muted.

PAN

This adjusts the relative levels of signal sent to the left and right outputs or the left, centre and right outputs depending upon the selected pan mode when MIX is pressed.

FADER

The fader controls the level of the group output. As with the input module, fader operation close to the 0dB calibration point is expected and any large deviation from this would indicate that the signal from the modules feeding the group are too high or too low.

MIX

When MIX is pressed the group signal is sent to the stereo mix. The pan control can be switched to LCR mode and the centre bus will then be fed with the centre output of the pan pot without the MONO button being pressed.

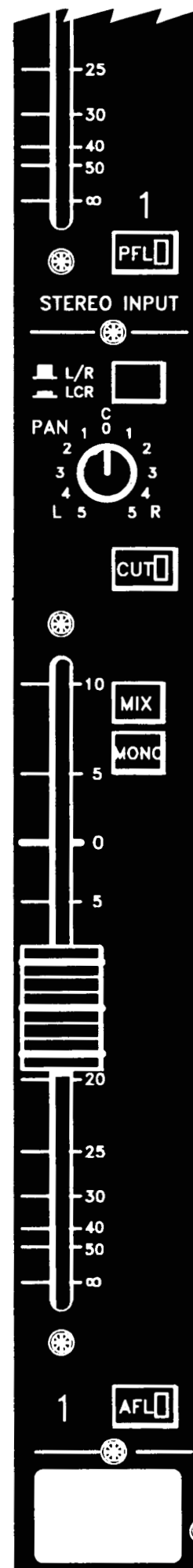
MONO

This feeds the post fade group signal to the mono or centre bus of the console when pressed. In LCR mode the centre output of the pan pot will be replaced by the post fader signal if this switch is pressed. In L/R mode the centre output will not receive a signal until this switch is pressed.

AFL

Allows the post fader pre cut group signal to be soloed. Thus the AFL level indicated on the solo meter will depend upon the group fader but not on the CUT switch.

There is a pre-fader group insert point allowing an effect unit or similar to be introduced into the signal path.

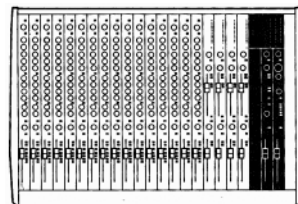




DDA
CS3
CONSOLE



2f



SOLO IN PLACE

SOLO LEVEL

INPUT OUTPUT

L+R TO CENTRE

AUX 1-2 AUX 3-4 AUX 5-6 LCR MIX GROUPS

TALKBACK

10 5 0 5 20 25 30 40 50 ∞

10 5 0 5 20 25 30 40 50 ∞

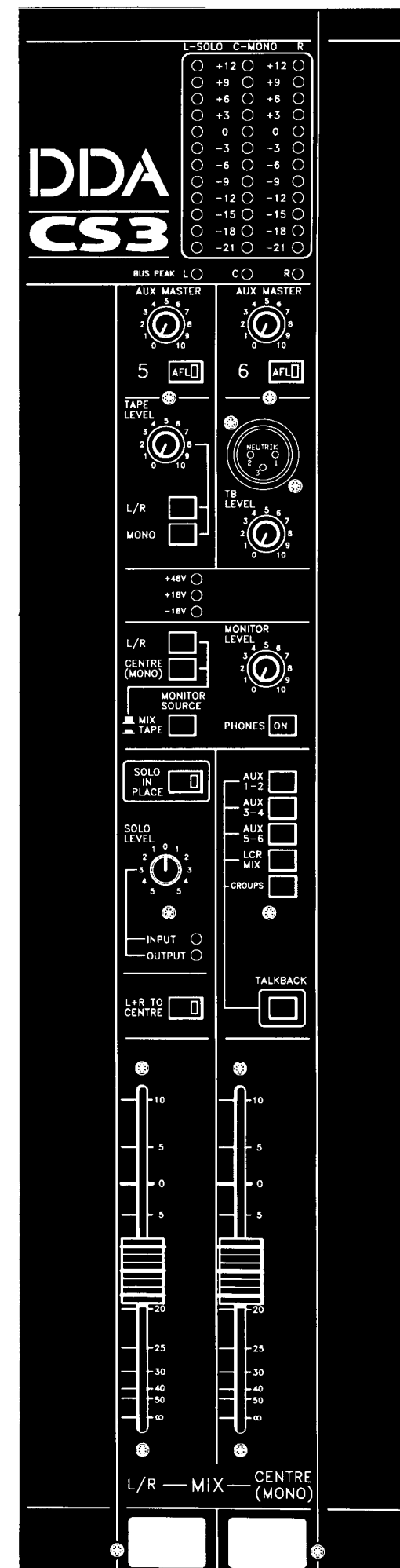
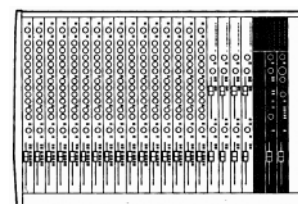
L/R — MIX — CENTRE (MONO)



DIDA
CS3
CONSOLE



2h

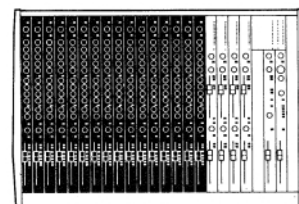




DIDA
CS3
CONSOLE



1a



+48V

Provides 48 volt phantom power for a condenser microphone, or D.I. box. Optional balancing transformers may be fitted on the Mic/Line input.

GAIN

The gain control is a wide range rotary potentiometer, and is active on both Mic and Line Inputs. With Mic selected the gain can be adjusted from 20dB to 70dB. For Line inputs, the adjustment is from -10dB to +20dB.

MIC/LINE

Switching this inserts an attenuator into circuit with the microphone/line input and alters the range of gain adjustment available. This should be pressed when high level or line level signals are connected to the channel through the line input jack. Note that if a jack is not inserted into the line input socket then the XLR connector may be used as the line input.

EQUALISER

The equaliser on the input module is a three band design, incorporating a parametric mid-range section and fixed frequency shelving high and low frequency sections.

HF

A high frequency equaliser, providing 15dB of boost or cut at 12kHz.

MID

A parametric middle frequency equaliser, providing 15dB of boost or cut. The frequency is adjustable from 500Hz to 15kHz and the Q or bandwidth can be swept between the values of 0.7 and 4.5. In octave values this means 2 octaves at the widest (low Q) setting and about a third of an octave at the narrowest (high Q) setting. This enables the part of the audio spectrum requiring adjustment to be targeted very precisely and reduces the effect on parts of the signal that require no modification.

LF

A low frequency equaliser, providing 15dB of boost or cut at 50Hz.

FILTER

The Filter switch inserts a 80Hz highpass filter with a rolloff of 18dB per octave into circuit after the input amplifier. This may be used to eliminate unwanted low-frequency noises transmitted to the microphone through a floorstand for example.

An insert point is located after the EQ section allowing the introduction of an effect unit or similar into the signal path..

AUXILIARIES

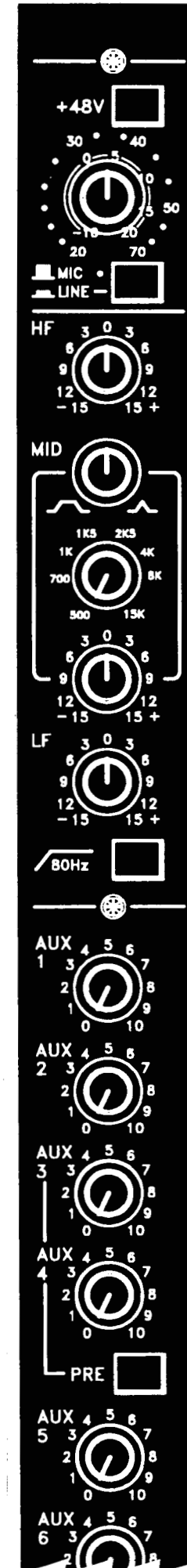
There are six auxiliary outputs. Additionally, the channel direct output may be used to provide a dedicated auxiliary send.

AUX 1

Controls the level of the channel signal fed to Auxiliary 1. This signal is normally pre-fader.

AUX 2

Controls the level of the channel signal fed to Auxiliary 2. This signal is normally pre-fader.

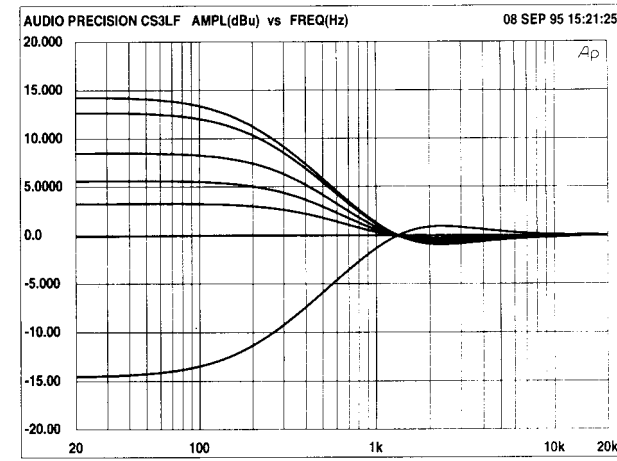




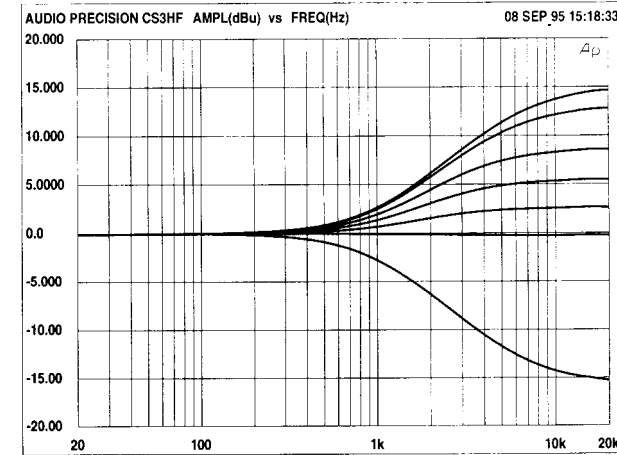
DIDA
CS3
CONSOLE



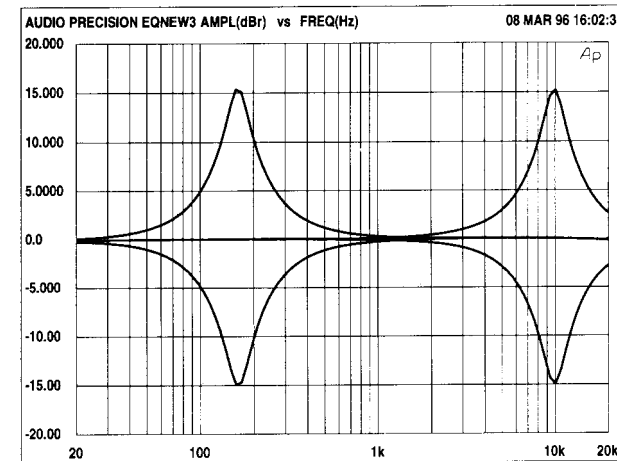
6a



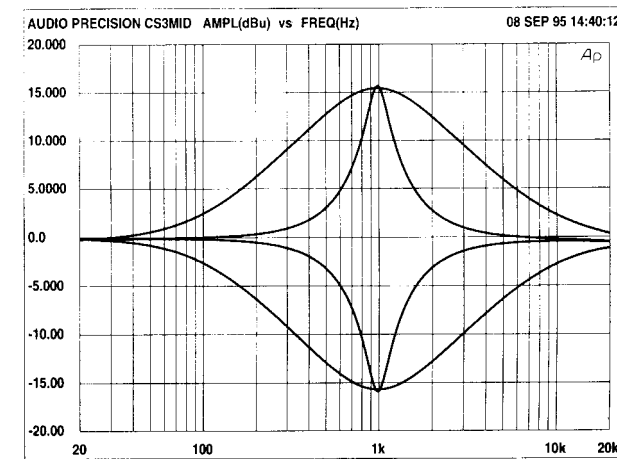
LOW FREQUENCY EQUALISER RESPONSE



HIGH FREQUENCY EQUALISER RESPONSE



MID FREQUENCY EQUALISER RESPONSE SHOWING SWEEP RANGE



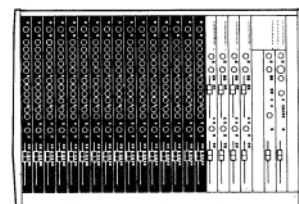
MID FREQUENCY EQUALISER RESPONSE SHOWING BANDWIDTH RANGE



DIDA
CS3
CONSOLE



1c



CUT

The CUT switch disables the channel signal path, and is indicated by an led in the switch when the channel is muted. When CUT, all post-fade auxiliary sends and routing assignments are muted in addition to the pre fade, post cut sends.

MIX

Routes the post-fade, post-pan channel signal to the stereo mix bus or the left, centre and right buses if LCR panning is selected.

MONO

Routes the post fader signal to the mono or centre bus. In L/R pan mode with MIX selected no signal will be routed to the mono output if this switch is not depressed. With the pan control in LCR mode and MIX selected the centre output of the pan pot is routed to the mono or centre bus without this button being pressed. If the button is pressed the the pan pot output will be replaced by the post fade signal.

PAN

Pressing this allows the output of the pan pot to be sent to the groups. An odd and an even group should be used when panning across groups and the pan control will operate as described for the left and right buses above. If this switch is not pressed then the selected groups will receive identical mono signals which are not dependent upon the pan pot position. Pan mode should be set for L/R operation.

1 (OR 2,3,4)

Routes the post-fade, (post-pan if selected) channel signal to output group 1 (or 2, 3, 4).

PFL

The PFL button feeds the post insert return signal to the Monitor Section (loudspeakers or headphones), replacing the selected monitor source. The main stereo and centre outputs of the console are not affected. The led in the PFL switch will illuminate when the PFL function is active and PFL signals from different channels that are active simultaneously will be mixed together. If Solo In Place mode is selected (on the master module) then all other channels on the console will be muted while only the channel initiating the solo will be heard. This allows signals to be previewed exactly as they will appear in a mix but in isolation. Note that this is no longer pfl.

PEAK

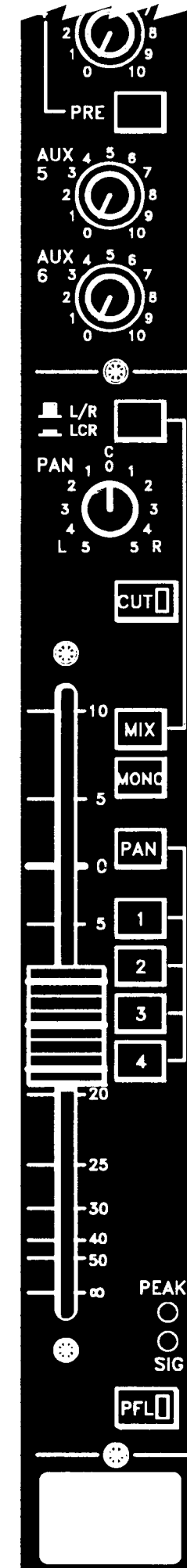
This led (light emitting diode) indicates when the signal is getting close to clipping level. If clipping occurs the signal will be severely distorted and the channel input gain should be reduced.

SIGNAL

This led shows when signal is present in the channel and is simply a useful aid on occasions when no output can be found from the console. It establishes that there is input signal and that maybe there is a routing or some other problem.

FADER

The fader is the main signal level control for the channel, and is a long-throw type giving smooth control of the channel level. Note that the fader is calibrated and the normal operating position is expected to be close to the 0dB mark.

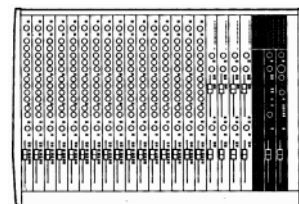




DIDA
CS3
CONSOLE



2a



The Stereo Master module contains the main stereo and centre outputs, two Auxiliary master outputs, the monitoring section and a talkback microphone input. In addition, an XLR connector is provided for a gooseneck light if the console is to be operated under low or poor lighting conditions (maximum power, 5 Watts at 12V).

Insert points are provided pre-fader in the left, right and centre output signal paths. Plugging in a jack automatically breaks the normal signal path to insert the external equipment.

The Stereo Mix, Group, and Auxiliary outputs have a nominal operating level of +4dBu and can be transformer balanced.

The three led bargraph meters follow the output of the stereo mix under normal operating conditions. If any PFL or AFL button is pressed, the left meter shows the level of the soloed signal.

There is also an unbalanced stereo output on phono connectors taken from before the mix insert points which can be used to feed a tape recorder or DAT machine for example. The nominal operating level is -10dBV. This allows the feed to the tape recorder to remain unaffected by any device connected to the master module insert points and to be independent of the master faders

COMMUNICATIONS

TALKBACK MIC

A microphone may be plugged in to this socket to provide talkback facilities to the output buses. The microphone may be a dynamic type, or by using an internal link for phantom powering, may be a condenser microphone.

TB LEVEL

This adjusts the level of the talkback microphone signal.

AUX 1-2

If 1-2 is pressed, the talkback microphone signal is routed to the Auxiliary 1 and 2 buses.

AUX 3-4

If 3-4 is pressed, the talkback microphone signal is routed to the Auxiliary 3 and 4 buses.

AUX 5-6

If 5-6 is pressed, the talkback microphone signal is routed to the Auxiliary 5 and 6 buses.

MIX

If pressed the talkback signal is routed to the L/R and Mono (centre) buses.

BUS

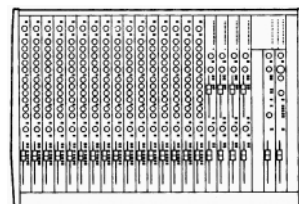
If pressed the talkback microphone signal is routed to all the group outputs.



DIDA
CS3
CONSOLE



4b



THE AUXILIARY MASTER SECTION

This shall contain the following:-
an unbalanced pre fader insert point with the send on the tip and the return on the ring
a rotary level control
a balanced output available on an XLR connector
an illuminating AFL switch

THE GROUP OUTPUT SECTION

This shall contain the following:-
an unbalanced pre fader insert point with the send on the tip and the return on the ring
a long throw 100mm audio taper fader for level control
a balanced output available on an XLR connector
an illuminating AFL switch
a BUS PEAK indicator to warn of impending summing amplifier overload
a 12 segment meter on the output
routing of the group to the L/R bus or the Mono (Centre) bus of the console
a PAN control switchable between L/R and LCR mode for use in sub mixing the group to the L/R or L/R and Centre mix outputs.

There shall be a "scribble strip" area at the bottom of the module.

THE MASTER MODULE

The master module shall consist of a Left, Centre, Right master output section, two auxiliary master output sections, a talkback section and a monitor section.

AUXILIARY MASTER SECTION

Each of the two auxiliary master sections shall contain the following:-
an unbalanced pre fader insert point with the send on the tip and the return on the ring
a rotary level control
a balanced output available on an XLR connector
an illuminating AFL switch

LEFT, RIGHT MASTER SECTION

This section shall contain the following :-
BUS PEAK indicators for left and right signal paths
warning of impending summing amplifier overload
unbalanced pre fader insert points with the send on the tip and the return on the ring
a pre fader/pre insert stereo output to Tape Recorder at a level of -10dBV
a long throw 100mm stereo, audio taper fader for level control of the L/R signal
two balanced output stages to XLR connectors
a switch enabling the L/R mix to be monoed onto the centre bus of the console

MONO (CENTRE) MASTER SECTION

This section shall contain the following :-
a BUS PEAK indicator warning of impending summing amplifier overload
an unbalanced pre fader insert point with the send on the tip and the return on the ring
a long throw 100mm mono, audio taper fader for level control
a balanced output stage to XLR connector

MONITOR SECTION

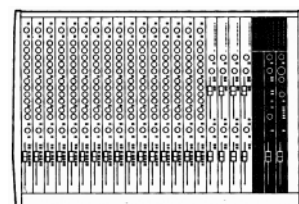
This section shall contain the following :-
an external TAPE INPUT assignable to the L/R or CENTRE outputs of the console in addition to the monitoring system



DIDA
CS3
CONSOLE



2c



TALKBACK

This allows the talkback signal to pass to the selected destination. When pressed the monitor output of the console will dim by 10dB to reduce the possibility of feedback. In normal operation only this switch would be pressed when talkback is required while the routing switches would be left assigned to the required destinations.

MONITORING

MONITOR LEVEL

This controls the level of the local monitor or headphone output.

PHONES ON

Pressing this enables alternative monitoring through stereo headphones.

MONITOR SOURCE

This switch selects the tape input as the source for the monitoring system when pressed.

L/R

This selects the Left/Right outputs of the console to the monitoring system when MIX is the selected source, (Monitor Source UP).

CENTRE (MONO)

This selects the centre bus to the monitoring system where it is mixed equally onto the left and right monitor signal paths. If TAPE is selected the centre feed is cut off and no signal will indicate on the centre meter.

TAPE LEVEL

This controls the level of the stereo tape return signal when selected by the following switches to feed the left, right or centre outputs of the console.

L/R

The feeds the tape return signal onto the master left and right outputs of the console. Note that this feed is injected after the master faders and the level is adjusted by the TAPE LEVEL control.

MONO

This feeds the tape return signal onto the mono or centre output of the console. Note that this feed is injected after the master faders and the level is adjusted by the TAPE LEVEL control.

The above facilities may be referred to as an intermission playback facility.

AFL/PFL/SIP

Selection of any SOLO (AFL/PFL/SIP) signal will override the monitor selection.

SOLO LEVEL

This control allows the audio level of a soloed (PFL/AFL) signal to be adjusted. This will not affect the solo meter reading.

INPUT SOLO

This led will indicate when a solo has been selected on an input to the console.

OUTPUT SOLO

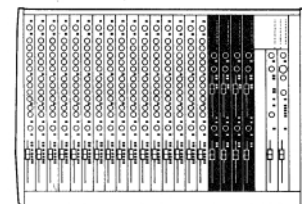
This led will indicate when a solo has been selected on an auxiliary output or group output.



DIDA
CS3
CONSOLE



3c



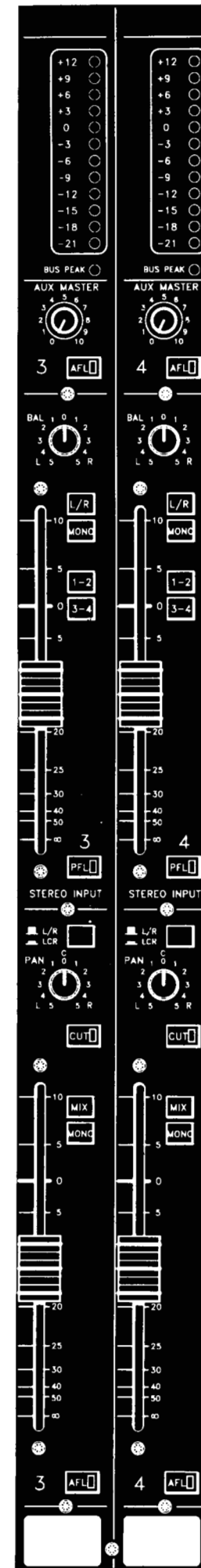
CONNECTORS AND PIN ASSIGNMENTS

Group Output : 3 Pin Male XLR Type, Balanced
Nominal Output Level: +4dBu
Pin 2 : Signal +ve (Hot)
Pin 3 : Signal -ve (Cold)
Pin 1 : Ground
Output Impedance : <75 Ohm

Auxiliary Output : 3 Pin Male XLR Type, Balanced
Nominal Output Level: +4dBu
Pin 2 : Signal +ve (Hot)
Pin 3 : Signal -ve (Cold)
Pin 1 : Ground
Output Impedance : <75 Ohm

Stereo Inputs : TRS Jack Socket, "A" Gauge, Balanced
Nominal Input Level: +4dBu
Tip : Signal +ve (Hot)
Ring : Signal -ve (Cold)
Sleeve: Ground
Input Impedance : >10 kOhm

Insert Points : TRS Jack Socket, "A" Gauge, Unbalanced
Nominal Input Level: -2dBu
Tip : Insert Send
Ring : Insert Return
Sleeve: Ground
Output Impedance : <75 Ohm
Input Impedance : >10 kOhm

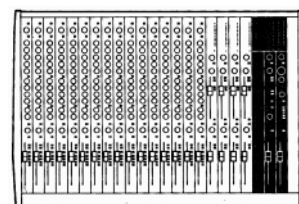




DIDA
CS3
CONSOLE



2e



Priority is given to an input solo. If an output solo is active and an input solo is then activated the output solo cannot be heard for the duration of the input solo.

SOLO IN PLACE

Solo In Place is a solo mode where the monitor system does not change over to listen to the solo bus. For SIP mode to operate the monitor selection must be set to MIX. The monitor system remains listening to the mix outputs and when a solo on an input module is requested a signal is sent from the master module to mute all other input modules. Thus only the channel with the solo key pressed will be heard. Output solos will continue to operate as normal and will take priority over input solos. More than one channel can be SIPed at any one time.

L+R TO CENTRE

This mixes the post fader left and right outputs onto the centre output of the console.

+18/-18/+48

These 3 leds indicate the presence of the two power rails and the phantom voltage supply.

FADERS

A stereo LEFT/RIGHT fader and a CENTRE (MONO) fader are provided, giving smooth control of the output signals.

HEADPHONES

Stereo headphones with impedances from 100 ohms to 600 ohms may be plugged into the headphone socket. This socket is located below the armrest and to the right hand side of the console.

METERS

The three meters indicate the levels of the left, centre (mono) and right outputs of the console. The left meter is additionally used to indicate solo levels in which case the remaining two meters will not indicate.

BUS PEAK LEDS

There are three leds to indicate peak level on the left, centre and right buses. Any indication here will mean that the level from the input modules, the groups if sub-mixed into the main outputs, or the stereo inputs is too high and should be reduced to avoid distortion.

THE AUXILIARY MASTER SECTION

Auxiliary master 5 and 6 are located here.

LEVEL

This controls the auxiliary output level.

AFL

This allows the auxiliary signal to be previewed. The post fade auxiliary signal is used and therefore it is dependent on the position of the output level control.

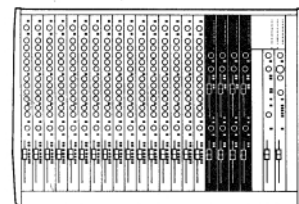
There is a pre-fader auxiliary insert point allowing the introduction of an effect unit or similar into the auxiliary signal path.



DIDA
CS3
CONSOLE



3a



Each Group Output Module contains a Group Output stage, an Auxiliary Output stage and also a Stereo Input, for use, for example, with external effects devices. The group and auxiliary outputs are electronically balanced and may optionally be transformer balanced.

The stereo input can be routed to the stereo mix, the centre bus or the group buses. Insert points are provided in the group and auxiliary send signal paths allowing the connection of external processing devices such as limiter/compressor units.

A twelve segment led meter reads the signal present on the Group output. It is post fade and post cut and therefore will show no signal if the fader is down or the group is muted.

The group outputs can be used in their own right as console outputs to be fed to loudspeaker systems or tape machine inputs. They can also be sub mixed onto the main left, right and centre buses of the console creating the ability to control the level of several input channels onto the main buses with one (group) fader.

STEREO INPUT SECTION

This is a high (line) level stereo input that can be routed to the left, right, centre and group buses of the console. It could be used to bring a tape machine into the console without tying up two modules or the output of an effect device whether stereo or mono. The input of the effect device would normally be fed from an auxiliary output of the console.

BALANCE

Adjusts the relative left/right levels of the return signal. This is not to be confused with the balance referred to in the case of balanced inputs for example !

Note that if a mono signal is connected to the left input and nothing is plugged into the right input the signal will be sent to the left and right signal paths. This saves a special cable having to be made or used for mono signal sources. If a mono input is connected to the right input then only the right signal path will receive this signal.

FADER

This is the level control for the return signal, and adjusts the amount of level sent to the routed outputs.

L/R

Routes the return signal to the L/R stereo mix.

MONO

Routes the return signal to the mono or centre mix. The left and right signals are combined to mono for this.

1-2, (3-4)

Routes the return signal to groups 1 and 2 (or 3 and 4).

PFL

This allows the pre fade auxiliary return signal to be soloed. The solo is pre fader and therefore will not depend on the position of the stereo input fader. In effect it allows the input signal to be viewed on the solo meter and monitored.

METER

This meter indicates the level of the group output. It has a VU characteristic.

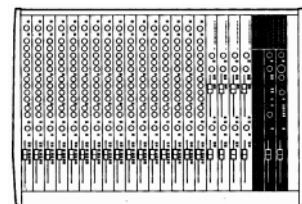




DIDA
CS3
CONSOLE



2g



CONNECTORS AND PIN DEFINITIONS

Left and Right Outputs : 3 Pin XLR type, Balanced
Nominal Output Level: +4dBu
Pin 2 : Signal +ve (Hot)
Pin 3 : Signal -ve (Cold)
Pin 1 : Ground
Output Impedance : <75 Ohm

Mono (Centre) Output : 3 Pin XLR type, Balanced
Nominal Output Level: +4dBu
Pin 2 : Signal +ve (Hot)
Pin 3 : Signal -ve (Cold)
Pin 1 : Ground
Output Impedance : <75 Ohm

Tape Play Inputs : Phono Sockets
Nominal Input Level: -10dBV
Tip : Signal +ve (Hot)
Sleeve: Ground
Input Impedance : >40 kOhm

Tape Record Outputs : Phono Sockets
Nominal Output Level: -10dBV
Tip : Signal +ve (Hot)
Sleeve: Ground
Output Impedance : 1k5 Ohm

Insert Points : 1/4" TRS Jack socket, "A" Gauge, Unbalanced
Nominal Input level : -2dBu
Tip : Insert Send
Ring : Insert Return
Sleeve: Ground
Output Impedance : <75 Ohm
Input Impedance : >10 kOhm

Monitor Outputs : 3 Pin XLR type, Balanced
Pin 2 : Signal +ve (Hot)
Pin 3 : Signal -ve (Cold)
Pin 1 : Ground
Output Impedance : <75 Ohm
Nominal Output level: +4dBu

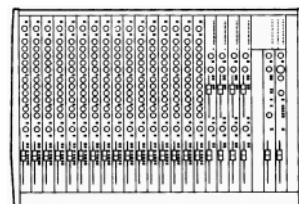
Headphone Output : TRS Jack Socket, "A" Gauge
Nominal Output level: +14dBu
Tip : Left Channel
Ring : Right Channel
Sleeve: Ground



DIDA
CS3
CONSOLE



8a



FREQUENCY RESPONSE

20Hz-20kHz +/-1dB
(Equaliser in circuit, any input to any output)

MAXIMUM INPUT LEVEL

Mic Input 0dBu
(+30 Bu when line switch is depressed)
Line Input +30dBu

MAXIMUM OUTPUT LEVEL

Better than +26dBu
on all balanced outputs into 10kohms
Better than +24dbu
on all balanced outputs into 600 ohms
Better than +20dBu
on all unbalanced outputs into 10kohms

MICROPHONE INPUT

EIN	-127.5dBu	ref 200 ohms
	-128.7dBu	ref 150 ohms
	-129.7dBV	ref 200 ohms
	-130.9dBV	ref 150 ohms

MICROPHONE INPUT DISTORTION

Maximum gain	+20dB out 0.007% at 1kHz
Minimum gain	+20dB out 0.003% at 1kHz

LINE INPUT DISTORTION

Maximum gain	+20dB out 0.005%
Minimum gain	+20dB out 0.003%

Signal Present LED	On at -18dBu
Peak LED	On 3dBu below clipping

Mute attenuation > -95dB
Signal to noise ratio > 76dB ref.+4dBu
(measured with 16 inputs, faders at 0dB, unity gain,
equaliser in)

Maximum Power Consumption – 200W

Current demand for +18V, -18V rails

16/4/2	1.4 Amps
24/4/2	1.8 Amps
32/4/2	2.2 Amps
40/4/2	2.6 Amps



DDA
CS3
CONSOLE



5a

