operation manual

AZTEC

LIVE PERFORMANCE CONSOLE

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Contents

Systems Interfaces

Block schematics

IMPORTANT SAFETY INSTRUCTIONS

Please read all of these instructions and save them for later reference before attempting to connect the Aztec PSU to the AC power source.

EARTH	This unit is connected via its PSU power cord to the mains safety earth. NEVER OPERATE THE UNIT WITH THIS EARTH CONNECTION REMOVED.
COVERS	DO NOT remove the covers. Refer servicing to qualified personnel only.
VOLTAGE	CHECK that the correct operating voltage has been set for your AC mains supply.
FUSES	CHECK that the fuse fitted is the correct type for the mains voltage selected. ALWAYS replace fuse with the correct type.
MOISTURE	DO NOT expose the unit to rain or moisture. If the Aztec or its PSUs should become so exposed REMOVE the mains power immediately.
CABLES	PROTECT the mains power cord from damage though impact or abrasion.
HEAT	ALWAYS **s**ite the Aztec and its PSUs away from sources of heat including direct sunlight and ensure adequate ventilation around PSUs and around the ventilation grills on the console .

Designed specifically for the discerning sound reinforcement professional, and equally at home on the road or in a fixed installation, the new Aztec Live Performance Console rewrites the rules with class leading audio performance and features, an innovative rugged lightweight frame structure and remarkable affordability.

Aztec is available in three frame sizes providing 32, 40, 48 and 52 mono inputs, 2 additional stereo line inputs and a stereo ambience mic input. Console and extender linking is provided as standard.

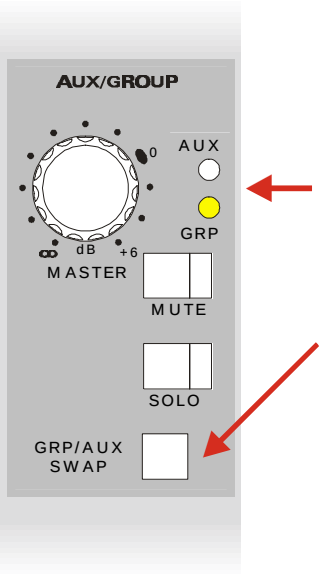
The extensive feature set is the result of long experience combined with the feedback of many respected sound reinforcement professionals.

- Separate L, C, and R buses with individual trims on each of the Main output faders.
- 12 VCA Sub Groups with VCA Solo.
- 8 Audio Sub Group outputs with balanced inserts.
- 8 Mono and 2 Stereo Auxiliary outputs with balanced inserts.
- 12 x 8 Matrix with balanced inserts.
- 4 band EQ with parametric mids, sweep HF and LF with switched Bell/Shelf curves plus Sweep Hi-Pass filter.
- Optional full stereo input modules.
- All inputs and outputs fully balanced (including +4dBu Inserts).
- Mute and VCA assignment automation as standard.
- Midi message output for control of outboard equip ment.
- Dedicated recorder interfaces for seamless performance archiving and post-production.
- Extensive peak reading LED metering.
- Flexible monitor outputs for headphones and engineers wedge.

FOH and Monitors

Aztec is configured primarily as a FOH console.

In this default mode the master levels for the 8 mono Auxiliary sends are set on rotary controls. The two Stereo Auxiliaries (which would normally be used for any IEM feeds) along with the 8 audio Sub-Groups, have 100mm faders for their master levels



However, when more monitor sends are required the Master level controls for each of the Sub-Group and Auxiliary outputs may be swapped by depressing the GRP/AUX swap buttons on each Sub-Group output module. The function of the rotary control and fader are shown by the LED adjacent to each. The Solo and Mute functions swap with the level control but output connections are unaffected.

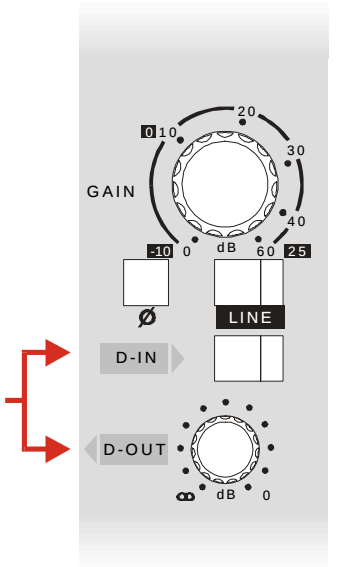
Recording

Recognising the increasing requirement to record performances, Aztec is unique amongst large format Live performance consoles in providing dedicated record and remix functions.

Recording *(continued)*

A fully balanced, level variable direct record out is available on jack and, in groups of 8 channels, on D-sub connectors wired in accordance with Tascam DA98 format. This allows simple connection to one or more 8 track recorders.

The provision of the fully balanced D-IN 'remix' input, again on D-Sub connectors in groups of 8, allows Aztec to be used for post-production of recorded performances preserving EQ and FX configurations used in the original show.



Audio Sub-Group outputs are available on a D-sub connector as well as XLRs, for rapid recorder connection if required.

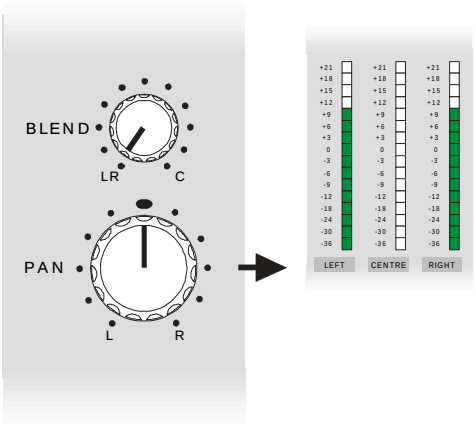
Using LCR

The Aztec LCR MAIN output bus routing system uses two controls - a Left/Right pan control and a Blend control. This allows a centre cluster to be used to 'anchor' a lead vocalist while still feeding the main Left/Right stacks to ensure adequate coverage.

The pan operates in the normal way with a constant-power law. The Blend control adjusts the proportion of the signal sent to the Left/Right buses and the Centre bus.

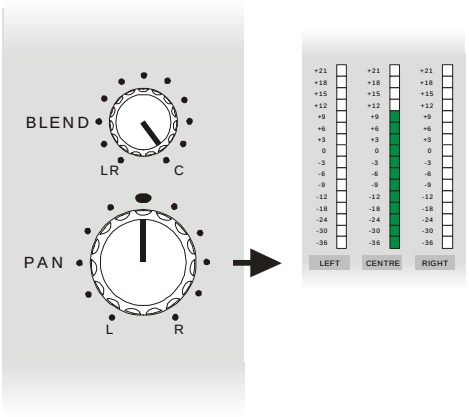
Using LCR *(continued)*

With Blend in the fully counter-clockwise position routing (and panning) is conventional Left and Right with no signal sent to the Centre bus.



With Blend set in the fully clockwise position only the Centre bus is fed.

With Blend at 12 o'clock all three buses are active.



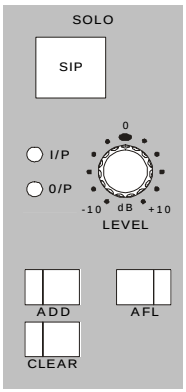
Mutes

All Mutes on the Aztec control surface with the exception of those for the three Main outputs are under central control. They can therefore be operated either by the Scene Automation system or locally by depressing the relevant physical Mute button. *Local operation always has priority.* Mutes operate (or release) on the button down-press. To isolate the Mute from central control depress the channel SAFE key

Solos

Aztec is equipped with a multi-function Solo System.

Three main modes are provided, PFL, AFL and Solo-in-place. These modes are set from the Master Module. Default mode is PFL, AFL is selected by depressing the AFL button. VCA Solos are also provided and these are explained in the 'VCA Masters' section. Solo-in-place mode can only be invoked by pressing and holding the large illuminated SIP button down for >3 seconds. In this mode all channels other than the one Solo'd and those with Safe selected will be muted.



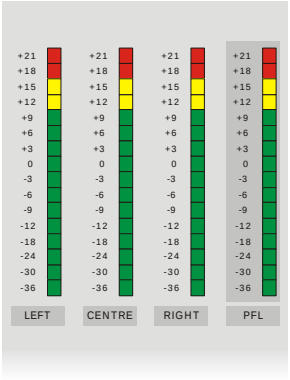
Solo button behaviour is dependant on press duration. A short press provides the usual latch-on, latch-off action. Depressing a Solo for > 2 seconds provides momentary operation - the Solo clears on button release.

Solos *(continued)*

Multiple Solos may be selected by setting the system to ADD mode. Active Solos can be cleared by a single press of the CLEAR button.

Input Solos and Output Solos have separate indicator LEDs and Input Solos are arranged so as to (temporarily) over-ride Output Solos.

Solo levels can be gain adjusted by +/- 10dB and are automatically monitored on both the Main Monitor and on the Headphones systems but automatic switching can be disabled for either by depressing the Solo OFF buttons in the Master module monitor sections.



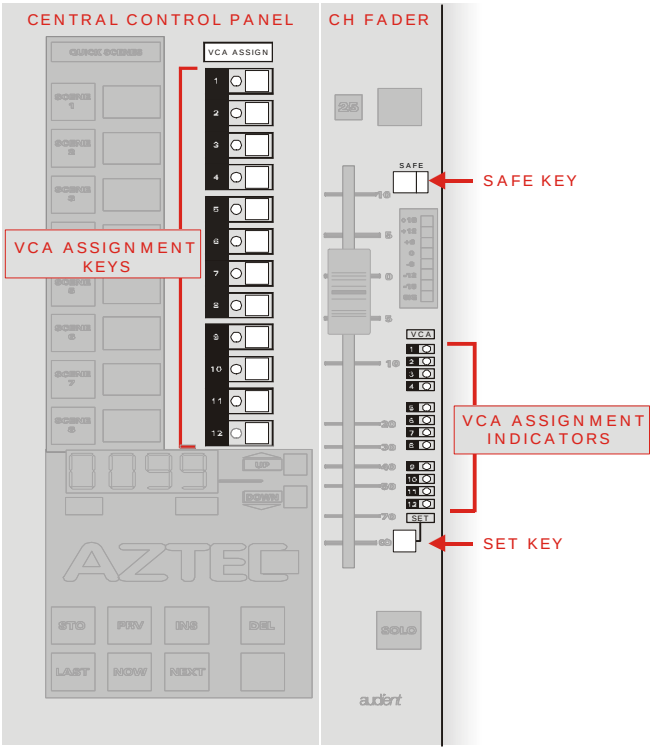
Solo'd AFL signals are metered on the L, C. R Master module LED bargraph displays. PFL has a dedicated bargraph display.

Assigning VCAs

Each Aztec Input channel can be assigned to any or all of the 12 VCA Sub-Groups using the Assignment keys on the Central Control panel and the SET key adjacent to the channel fader.

Pressing any of the VCA assignment keys enables assignment mode.

The VCA selection set using these keys can then be loaded to input channels by depressing the channel set key(s).



The stored assignment is displayed on the column of 12 LEDs adjacent to each channel fader.

Assigning VCAs *(continued)*

Assignment mode times-out if no key pushes are made for 1 minute.

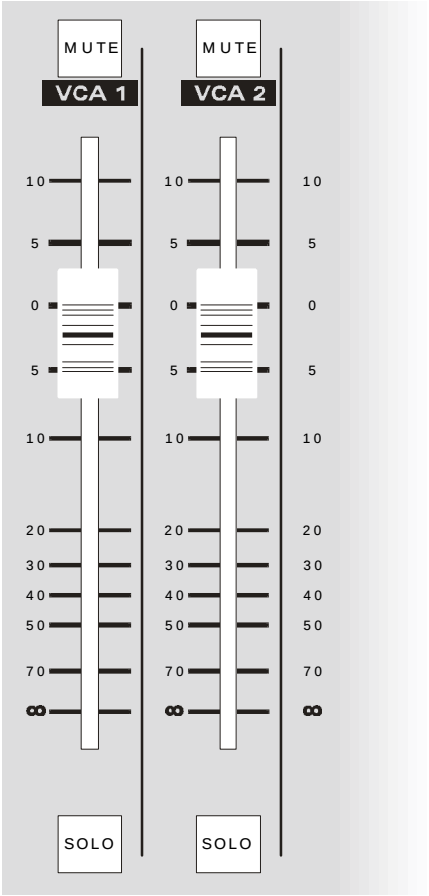
To clear a stored VCA assignment depress VCA assignment key 1 to enter Assignment mode, press it again to clear the assignment then finally press the channel set key to clear the channel settings .

Individual channels may be completely isolated from the Central Control commands by pressing the SAFE key.

Assigning channels to VCA Sub-Groups:

To set:	{VCA assignment key(s)}{Channel set key}
To clear:	{VCA assignment key 1 x 2}{Channel set key}

The VCA Masters



The 12 VCA master faders are fitted centrally in the console fader section below the audio Sub-Group output modules. Each VCA master fader has an associated Mute and Solo switch.

The central control of the VCA assignment and Mute operation has enabled full VCA Solo functionality to be provided.

Selecting a VCA Master Solo key will automatically Solo all input channels assigned to that VCA Master.

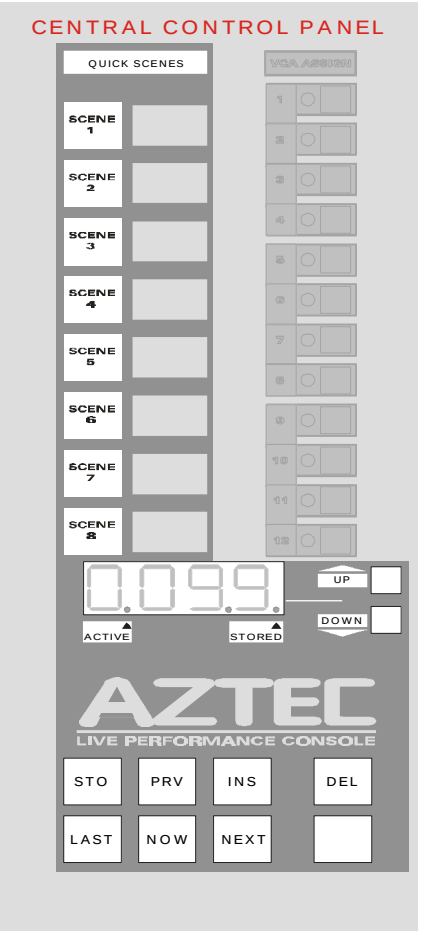
Automation - Overview

Aztec Automation stores VCA assignments and Mute status in any of 999 'Scene' memory locations. These can then be recalled either sequentially using the NEXT (or LAST) keys or randomly using the UP⇑ and DOWN⇓ keys (followed by the NOW key).

Up to 9 additional Scenes may be inserted between two existing locations.

Scenes may be previewed sequentially by pressing PRV and then using the NEXT and LAST keys or randomly using the UP⇑ and DOWN⇓ keys. A previewed scene can be loaded by simply pressing the NOW key.

Whether stored as a Scene or not the control surface status is stored every ~ 10 seconds. The latest stored settings before a power-down are recalled after power-up.

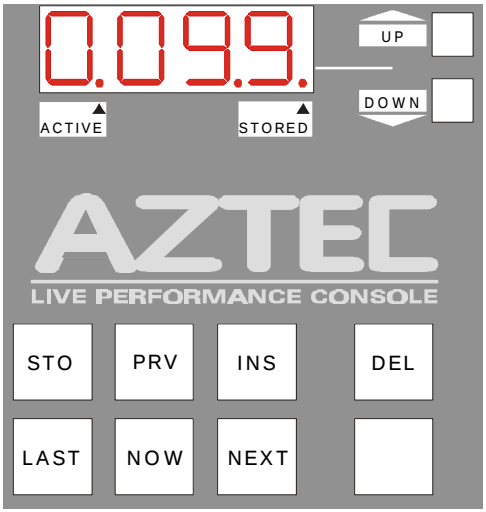


Each block of 8 input channel faders, the VCA Master fader block and the Central Control panel are provided with Isolate switches to enable continued working in the event of a partial failure. These switches are located under the armrest on the front surface of the console behind black cover plugs. Push the switches to isolate.

Automation - Storing Scenes

Pressing the STO (Store) key will copy the current console surface VCA assignments and Mute status into a memory at the displayed Scene number for later recall.

The displayed Scene number can be selected using the UP⇑ and DOWN⇓ keys. If the Scene number chosen is already used the STO key will flash and the right-hand decimal point indicator in the display will be lit.



To over-write the existing stored Scene depress STO and hold it down for ~ 2 seconds until the display stops flashing.

To insert a Scene between two existing Scenes press the INS (insert) key and then the UP⇑/DOWN⇓ keys to select one of the 9 Sub-Scenes (nnn.1 to nnn.9) and then press STO.

When scrolling through Scenes using the UP⇑/DOWN⇓ keys the currently active Scene is indicated by illumination of the left-hand decimal point indicator in the display.

Storing Scenes:

{⇑⇓}{STO}	Stores to the selected Scene
{⇑⇓}{STO 2s}	Overwrites the selected Scene
{⇑⇓}{INS} {⇑⇓}{STO}	Inserts a Sub-Scene

Automation - Recalling Scenes

The LAST, NEXT and NOW keys allow stored Scenes to be recalled easily and quickly. The LAST and NEXT keys recall Scenes in numerical order with unused locations being skipped.

To recall a specific Scene (out of sequence) use the UP⇑/DOWN⇓ keys to select the required Scene and then press NOW to recall it. When scrolling through Scene memories in this way the scroll speed will increase if the UP⇑/DOWN⇓ keys are held down. Unused locations are again skipped and the currently active Scene is indicated by illumination of the left-hand decimal point indicator in the display.

Recalling Scenes:

{NEXT}	Recalls the next stored Scene
{LAST}	Recalls the previous stored Scene
{⇑⇓}{NOW}	Recalls the displayed Scene

Automation - Previewing Scenes

Pressing the PRV (Preview) key puts the automation system into Preview mode. The PRV key flashes to indicate this. The LAST, NEXT and UP⇑/DOWN⇓ keys can then be used to preview Scene stores *without* loading the stored assignments. The Previewed Scene can be edited in this mode and re-stored. To make the Previewed Scene active and exit Preview mode press the NOW key.

Automation - Previewing Scenes *(cont)*

Previewing Scenes:

{PRV}{⇑⇓}{PRV}	Previews the displayed scene
{PRV}{NEXT}	Previews the next stored scene
{PRV}{NEXT}{NOW}	Previews the next stored scene and then makes it active.

Automation - Deleting Scenes

Holding down the DEL (Delete) key for 4 seconds clears the displayed scene store.

To clear all stores ready for a new show hold down the NOW key for 4 seconds, the DEL key for 4 seconds and then the NOW key again for a further 4 seconds.

Deleting Scenes:

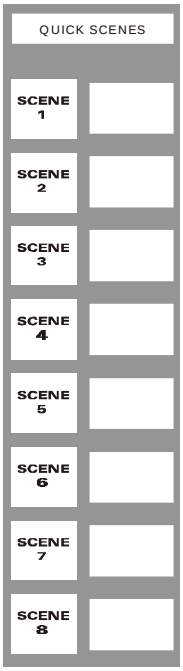
{Ý ß }{DEL 4s}	Clears the displayed Scene
{NOW 4s}{DEL 4s}{NOW 4s}	Clears all Scene memories

Automation - Using Quick Scenes

8 Quick Scenes keys can be allocated to any numerical Scene numbers to provide quick access to the next major assignment. Pressing and holding a Quick Scene key for ~2 seconds until it starts flashing will assign the currently displayed Scene number to that Quick Scene key.

To recall the Scene assigned to the Quick Scene key simply depress that key.

Quick Scene assignments can be deleted by pressing the Quick Scene Key and then depressing it again for ~ 2seconds. *Note that this action deletes only the Quick scene assignment and not the numerically stored Scene.*



Quick Scenes:

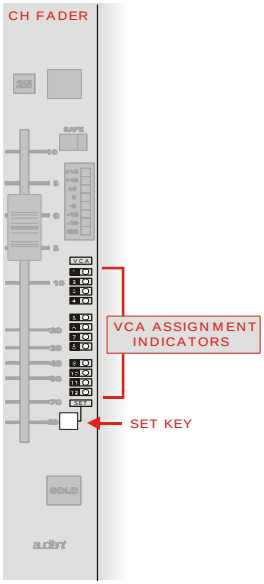
{ÝßQUICK SCENE 1-8 2s}	Assigns the selected Scene to the selected QUICK SCENE
{QUICK SCENE 1-8 }	Recalls the Scene as signed to the Quick Scene key
{QUICK SCENE 1-8} QUICK SCENE 1-8 2secs}	Deletes the Quick Scene

Midi

Each Aztec Input channel is represented by MIDI notes 1-48.

To set up MIDI messaging first select the required Scene number (it is not necessary to make the scene active).

Now depress and hold the illuminated key at the front right of the Automation Control Panel (the MIDI key) until it illuminates. The 7-segment display will now be blank.



Then, to view or edit midi message settings, depress the SET switch on the relevant Aztec Input channel. The active MIDI channel number (0-15) is shown in the 7-segment display and this can be modified using the UP⇑ and DOWN⇓ keys.

Once the MIDI channel number has been selected, depressing the Input channel SET key will toggle the MIDI message from NOTE ON to NOTE OFF to no message to NOTE ON again. The NOTE setting is shown by the status of channel VCA Assignment indicator LEDs. NOTE ON being indicated by LEDs 1/2 flashing, NOTE OFF by LEDS 11/12 flashing.

No VCA Assignment LEDs flash if the 'no message' condition is set.

To exit MIDI mode and save the changes as part of the indicated scene depress the MIDI key.

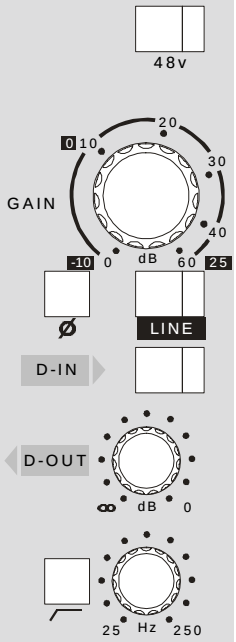
Note that up to 8 MIDI messages can be stored within each Scene. Once this number has been reached pressing a Channel set key while in MIDI mode will have no effect.

Setting MIDI messages:

{MIDI}	Sets MIDI mode
{ÝßÞ}	Selects MIDI Channel
{CH SET}	Edits and displays NOTE ON/NOTE OFF settings
{MIDI}	Stores MIDI settings and exits MIDI mode

module functions

Mono Input module - Preamplifier and Filter



48v enables phantom powering. A master isolator is provided on the rear connector panel.

High performance transconductance balanced microphone amplifier with gain variable from unity to 60dB.

Ø inverts the polarity of the Mic and Line inputs.

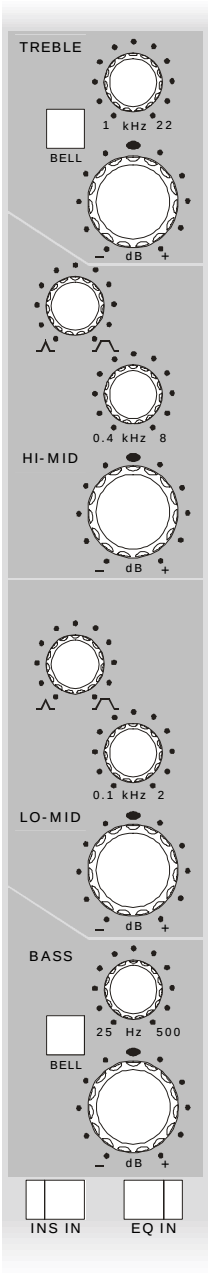
LINE selects balanced line level input with gain range from -10dB to +25dB.

D-IN selects direct post-mic amp balanced D-sub input for easy show archive remix.

D-OUT direct, variable level, post mic amp balanced output with jack and D-sub interfaces for easy interface to recorders.

12dB per octave Hi-pass filter adjustable from 25Hz to 250Hz and in/out switch.

Mono Input module - Equaliser



TREBLE equaliser with +/-15dB boost and cut variable from 1kHz to 22kHz and selectable bell or shelving characteristics.

Boost/cut controls on all equaliser bands have carefully designed laws for optimal 'real world' performance.

HI-MID equaliser with +/-15dB boost and cut variable from 0.4kHz to 8kHz with Q variable from 0.7 to 4 providing fine musical control or incisive problem-solving power.

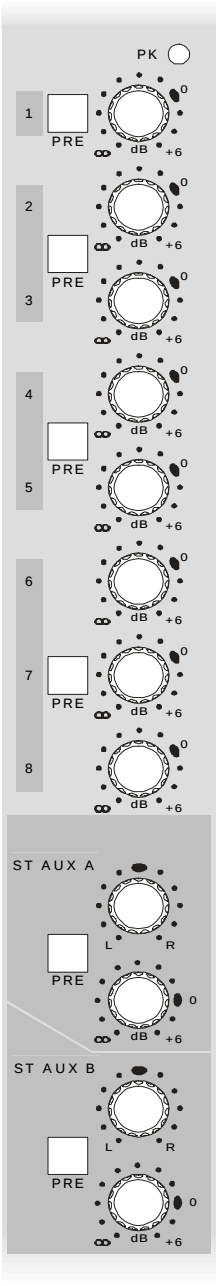
LO-MID equaliser with +/-15dB boost and cut variable from 0.1kHz to 2kHz with Q variable from 0.7 to 4 providing fine musical control or incisive problem-solving power.

BASS equaliser with +/-15dB boost and cut variable from 25Hz to 500Hz and selectable bell or shelving characteristics.

INS IN opens the pre-EQ/pre-fader balanced insertion point with separate send/return jacks.

EQ IN inserts the 4 band equaliser into the signal path.

Mono Input module - Auxiliary sends



PK LED monitors signal levels at mic amp output, insert return and equaliser output warning of levels within 3dB of clip.

Sends to Mono Auxiliary buses 1-8 with pre/post switching for 1, 2/3, 4/5, and 6/7/8.

All sends have 6db of gain available.

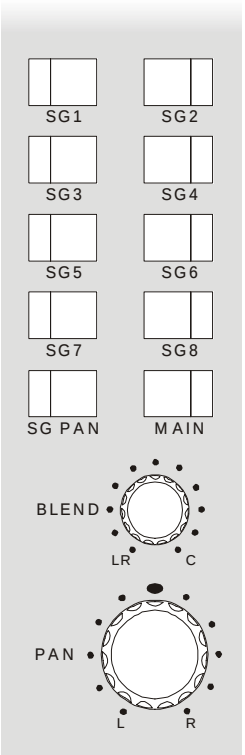
Send to Stereo Auxiliary bus A with level, pan and pre/post switching.

The send control has 6dB of gain available

Send to Stereo Auxiliary bus B with level, pan and pre/post switching.

The send control has 6dB of gain available

Mono Input module - Routing and Pan



Advanced 'virtual bus reference' design ensures outstanding bus crosstalk and noise performance

Individual routing to each audio Sub-Group.

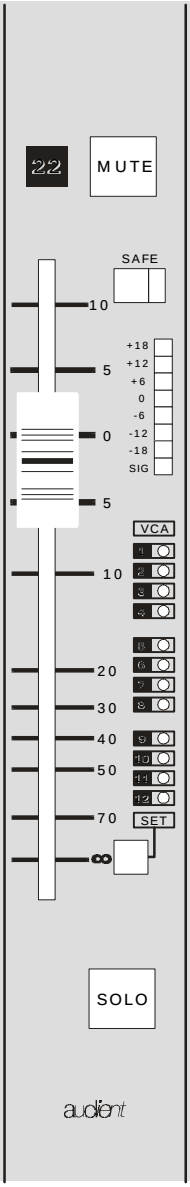
SG PAN enables panning between odd and even Sub-Groups.

MAIN routes the post-pan signal to the L,C,R buses.

BLEND adjusts the relative levels of signals sent to the L/R and C Main buses allowing for accurate L/R panning as well as centre-image enhancement.

Left/Right (and odd/even) PAN pot with 3dB centre drop.

Mono Input - Fader section



Aztec Input faders are arranged in 8 channel wide panels. There is a single larger panel for the 12 VCA Master faders and the 3 Main Output faders are fitted on the Master output module.

The Input fader contains the VCA Assignment controls as well as the channel fader, it's associated automation controlled MUTE, the SOLO switch and the 8 LED peak-reading channel meter .

VCAs are assigned by first enabling the required VCA Sub Group or Groups on the Central control panel below the Master module and then simply using the SET button to load the VCA selection into the channel's memory.

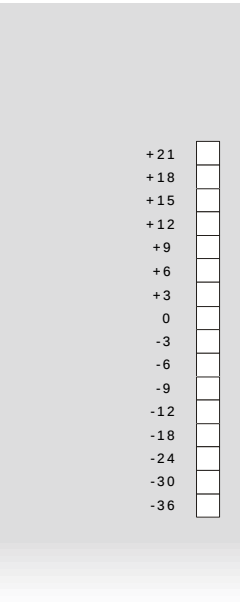
The VCA assignment along with the Mute status can be stored as part of any one of the 999 Automation scene stores.

Whether stored as part of a Scene or not, the Channel VCA assignments and Mute/ Solo settings are automatically saved and then restored when the console is next powered-up.

Channels may be completely isolated from automation control by depressing the SAFE switch.

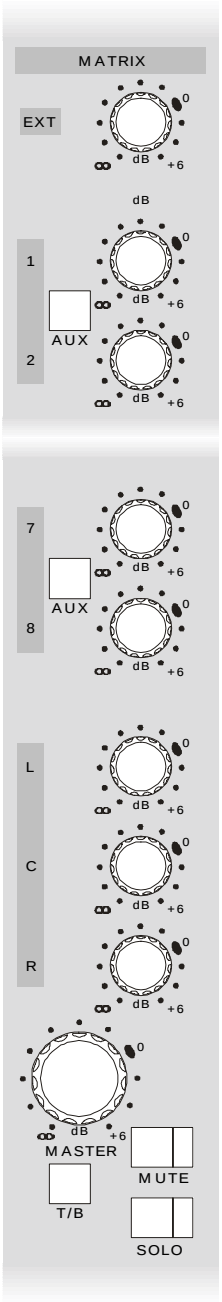
Sub-Group module - Metering

8 Sub-Group output modules are fitted in each Aztec console.



The 16 LED peak-reading meter can be set to monitor Sub-Group, Auxiliary or Matrix outputs using the METER SELECT switches on the adjacent Stereo Auxiliary output module.

Sub-Group module - Matrix



Each of the eight Sub-Group output modules has a 12-way Matrix section.

The 12 rotary controls set the input to the relevant Matrix bus from any of the Sub-Group, Auxiliary or Main L,C,R outputs as well as from an external balanced XLR input.

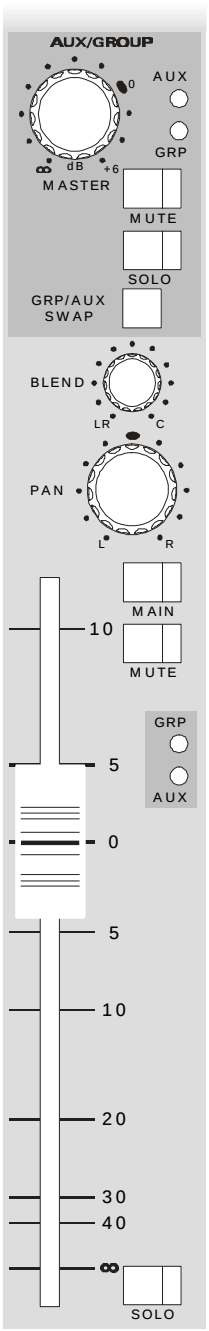
Matrix input level controls 1-8 (1-2 and 7-8 are shown other pairs are identical) can be switched in pairs to derive their signals from either the Sub-Group or Auxiliary output buses. All controls have 6dB of gain available.

Matrix input level controls with feeds from the Main L,C,R buses.

The Matrix output has a MASTER Level control with 6dB of gain available along with associated automation controlled MUTE and SOLO switch.

T/B assigns the internal talkback bus to the Matrix output.

Sub-Group module - Aux and Group Masters



In the default setting the Auxiliary Master output level is set using this rotary control with 6dB of gain available. There is an associated automation controlled MUTE and a SOLO switch.

The GRP/AUX SWAP switch allows the functions of the Auxiliary and Sub-Group Master sections to be interchanged. With this switch depressed the Sub-Group output level is controlled by the rotary control and the Auxiliary output level by the fader.

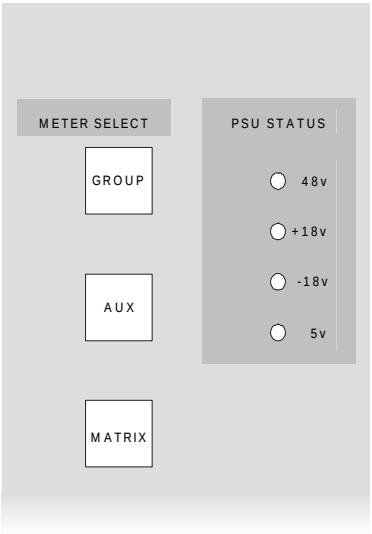
Associated SOLO and MUTE switches swap with the level controls. The pair of LEDs in each of the Auxiliary and Sub-Group sections indicates the current status.

In the default setting the Sub-Group Master output level is set using the 100mm fader with 10dB of gain available. There is an associated automation controlled MUTE and a SOLO switch.

The Sub-Group output (or Auxiliary output if the GRP/AUX SWAP switch is depressed) can be assigned to the MAIN outputs with the same PAN and BLEND functions as the input module.

Stereo Auxiliary module - Meter Select and PSU status

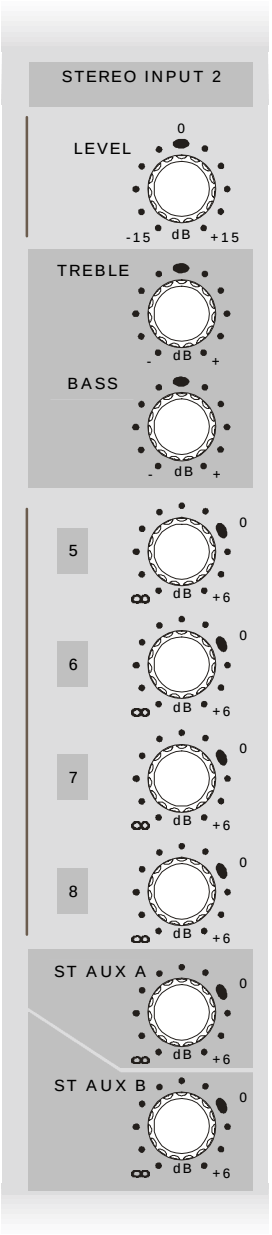
1 dual Stereo Auxiliary module is fitted in each Aztec console.



4 LEDs indicate the status of the incoming PSU rails. All Aztec PSUs have on-board switching to allow a second back-up supply to be used.

Large illuminated METER SELECT switches set the meters on the 8 Sub-Group output modules to read either the Sub-Group, Auxiliary or Matrix output levels.

Stereo Auxiliary module - Stereo Input gain and Auxiliaries



Two identical, general purpose, fully balanced Stereo inputs are provided (only one is shown here).

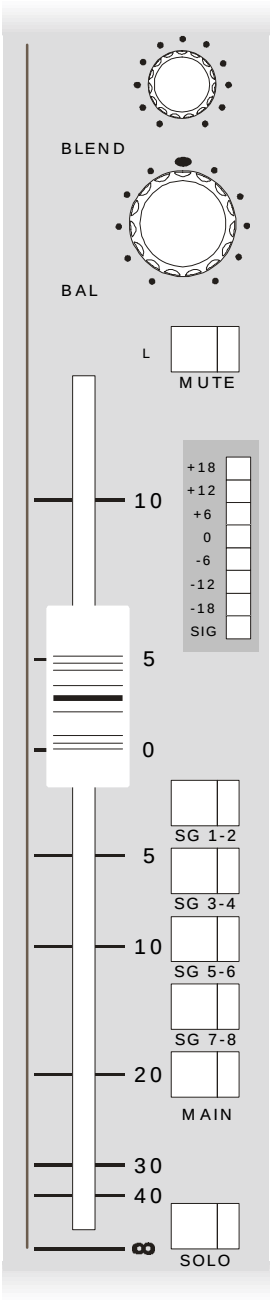
LEVEL provides +/- 15dB input gain adjustment.

TREBLE equaliser centred on 12kHz with 15dB of boost/cut

BASS equaliser centred on 50Hz with 15dB of boost/cut

Sends to 4 of the Mono Auxiliary buses and both the Stereo Auxiliary buses.

Stereo Auxiliary module - Stereo Input routing and fader



BLEND adjusts the relative levels of signals sent to the L/R and C Main buses.

BAL adjusts the Main L/R balance.

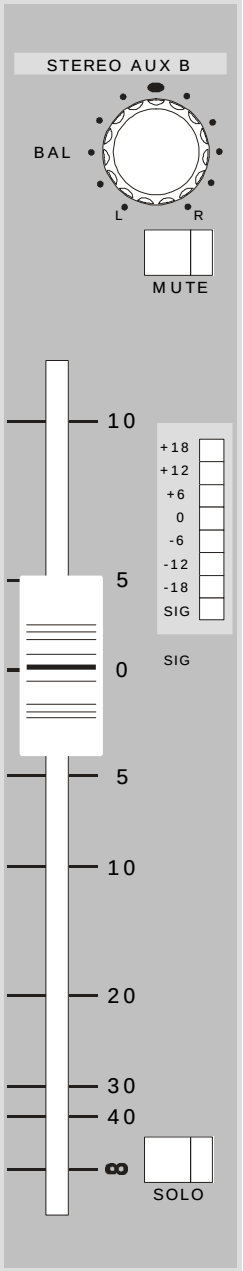
The overall level of the stereo input signal is controlled by a 100mm fader with 10dB gain available and an associated automation controlled MUTE along with a SOLO switch.

8 LED peak-reading meter shows post-fade signal level.

Routing to each pair of audio Sub-Groups.

MAIN routes the post-balance/post-blend signal to the L,C,R Main buses.

Stereo Auxiliary module - Stereo Auxiliary Master



Stereo Auxiliary outputs A and B are identical (B shown).

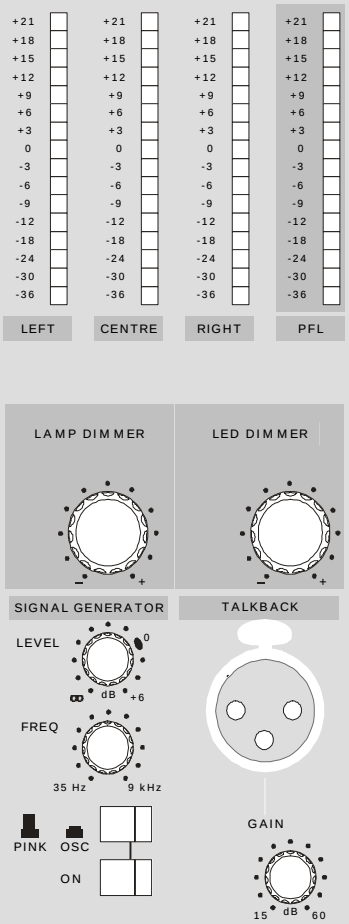
BAL adjusts the Stereo Auxiliary L/R balance.

The overall level of the Stereo Auxiliary signal is controlled by a 100mm fader with 10dB gain available and an associated automation controlled MUTE along with a SOLO switch.

8 LED peak-reading meter shows post-fade signal level.

Master module - Metering, Dimmers and Comms

One Master Module is fitted in each Aztec console



16 LED peak-reading meters for the Left, Centre and Right Main outputs.

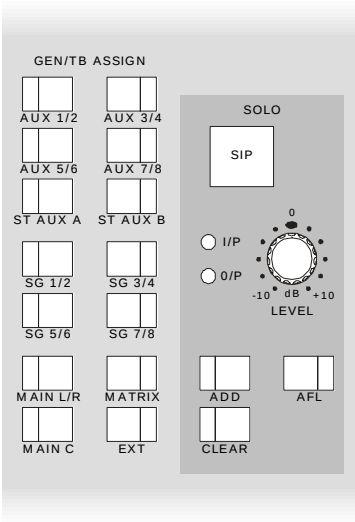
These meters automatically switch to indicate Left, Centre and Right AFL SOLO levels when a solo is active. PFL solo levels are indicated by the fourth meter.

DIMMERS allow the brightness of the console lamps and LED status indicators to be independently controlled ensuring optimum visibility in bright daylight while allowing discrete illumination in darkened auditoriums.

The front panel TALKBACK microphone XLR is duplicated on the Master output connector panel. The input is 48v phantom powered and is followed by a high quality variable gain pre-amplifier.

A SIGNAL GENERATOR is provided, with switchable sine-wave and pink noise modes.

Master module - Comms Assign and Solo



Comprehensive internal assignment of Talkback and Signal generator outputs is provided, along with the ability to send a balanced output to the rear-mounted XLR by depressing the EXT button.

Aztec boasts three SOLO modes ; PFL, AFL and Solo-in-place. Default is mono PFL, depressing the AFL switch selects post-fade stereo AFL. The destructive Solo-in-place over-rides AFL/PFL but can only be engaged by holding down the illuminated SIP button for 3 seconds or more.

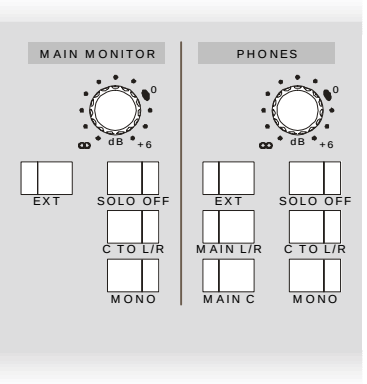
ADD enables any number of solos to be selected.

The system is sensitive to the duration of Solo depression. A short push will latch, a push > 1sec will cancel when released.

Input Solos temporarily over-ride previously selected output Solos - indicated by the two LEDS adjacent to the SOLO level control.

CLEAR flashes to indicate an active Solo and cancels all solos when depressed.

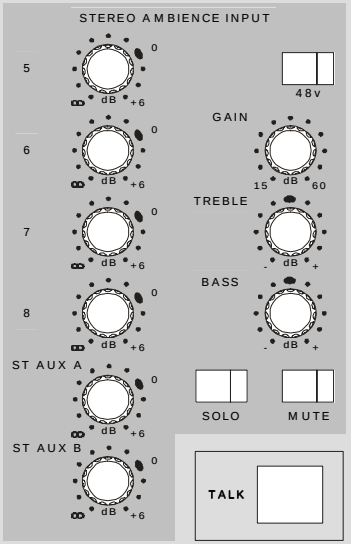
Master module - Monitors, Ambience Input and T/B key



Two stereo monitor sections are provided.

The MAIN MONITOR drives balanced XLRs and unbalanced RCA phono connectors. The PHONES output uses monolithic power amplifiers to drive a 1/4 inch jack outlet under the armrest.

Each monitor has a LEVEL control with 6dB of gain available. EXT selects the external monitor input on both balanced XLRs and unbalanced RCA phonos. C to L/R mixes the Main C signal equally to L and R. MONO sums L and R. SOLO OFF disables the automatic Solo monitor switching and for added flexibility the feeds from the MAIN L/R and C outputs on the Phones monitor can be selected separately.



The STEREO AMBIENCE INPUT provides full facilities for creating a stereo audience mix for In-Ear monitor feeds.

The mic input has switchable 48v powering with a high quality pre-amp offering up to 60dB gain.

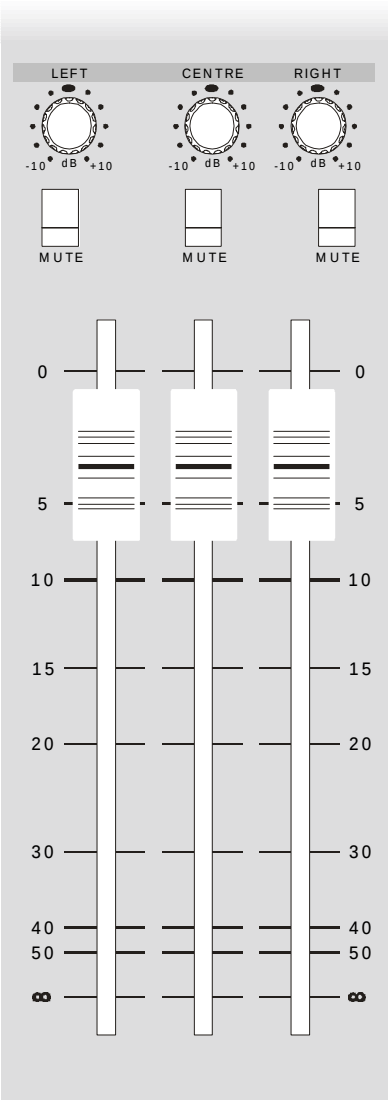
TREBLE equaliser centred on 12kHz with 15dB of boost/cut.

BASS equaliser centred on 50Hz with 15dB of boost/cut

Sends to 4 of the Mono Auxiliary buses and both the Stereo Auxiliary buses.

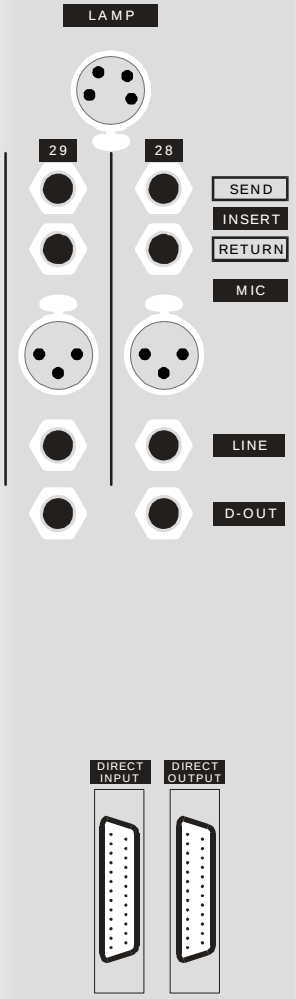
TALKBACK activates the talkback assignments set at the top of this module.

Master module - Main outputs



The Main L,C,R outputs are each equipped with a 100mm fader, a MUTE and a TRIM control providing an additional +/- 10dB of gain adjustment. The TRIM feature allows the faders to always be operated at the desired position without having to use them to adjust L/C/R balance.

Mono Input



Aztec Input module connector panels are arranged in 8 channel wide panels.

All inputs and outputs are fully electronically balanced

XLRs are wired Pin 2 hot, Jacks are Tip hot.

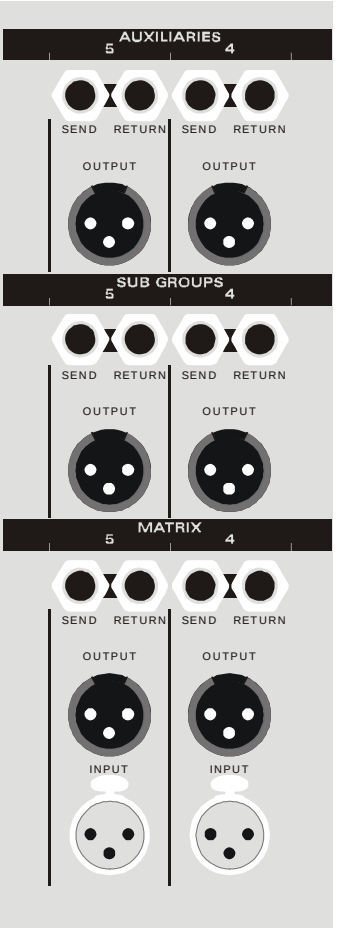
Pin 1 of all XLRs and the sleeves of all Jacks are connected to chassis.

Nominal levels are +4dBu.

25-pin female D-sub connectors for D-In and D-OUT are wired according to Tascam DA98 standard.

Lamp connectors are 4-pin female XLRs with pins 3 and 4 wired.

Sub-Group module connections



Aztec Sub-Group output module connections are arranged on a single panel along with those for the Master module and Stereo Auxiliary module interfaces.

All inputs and outputs are fully electronically balanced.

XLRs are wired Pin 2 hot, Jacks are Tip hot.

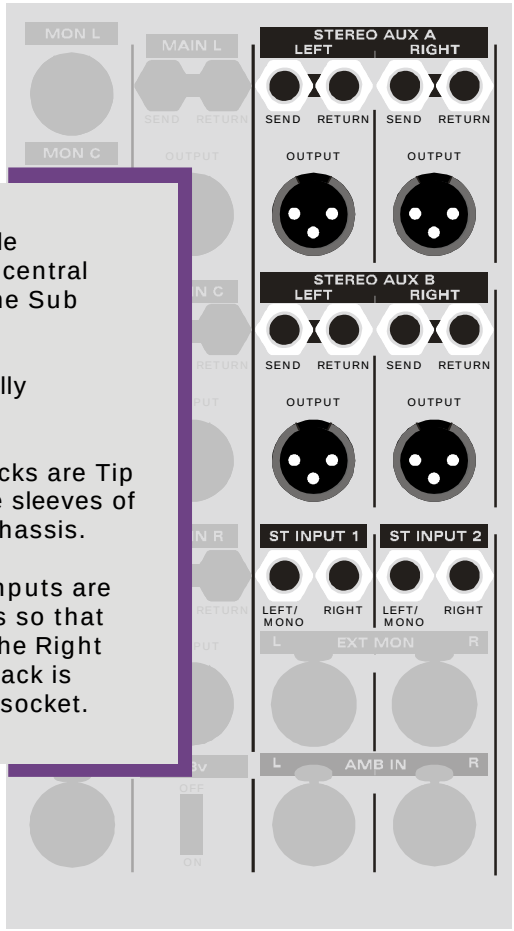
Pin 1 of all XLRs and the sleeves of all Jacks are connected to chassis.

Nominal levels are +4dBu.

Sub-Group and Solo outputs are also available on 25-pin female D-sub connectors.

Balanced BUS inputs are provided on 25-Pin female D-sub connectors to allow easy console-to-console linking.

Stereo Auxiliary module connections



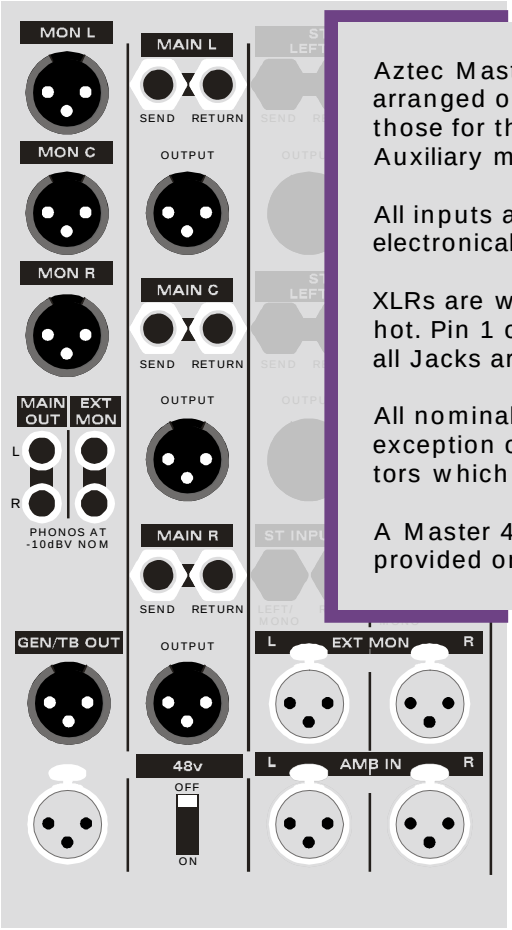
Aztec Stereo Auxiliary module interfaces are arranged on a central panel along with those for the Sub Group and Master modules.

All inputs and outputs are fully electronically balanced

XLRs are wired Pin 2 hot, Jacks are Tip hot. Pin 1 of all XLRs and the sleeves of all Jacks are connected to chassis.

Connections for the Stereo inputs are arranged on normalled Jacks so that the Left input will also feed the Right input in the case where no Jack is inserted into the Right input socket.

Master module connections



Aztec Master module interfaces are arranged on a central panel along with those for the Sub-Group and Stereo Auxiliary modules.

All inputs and outputs are fully electronically balanced.

XLRs are wired Pin 2 hot, Jacks are Tip hot. Pin 1 of all XLRs and the sleeves of all Jacks are connected to chassis.

All nominal levels are +4dBu with the exception of the four RCA phono connectors which are at -10dBV nominal.

A Master 48V isolate switch is also provided on this panel

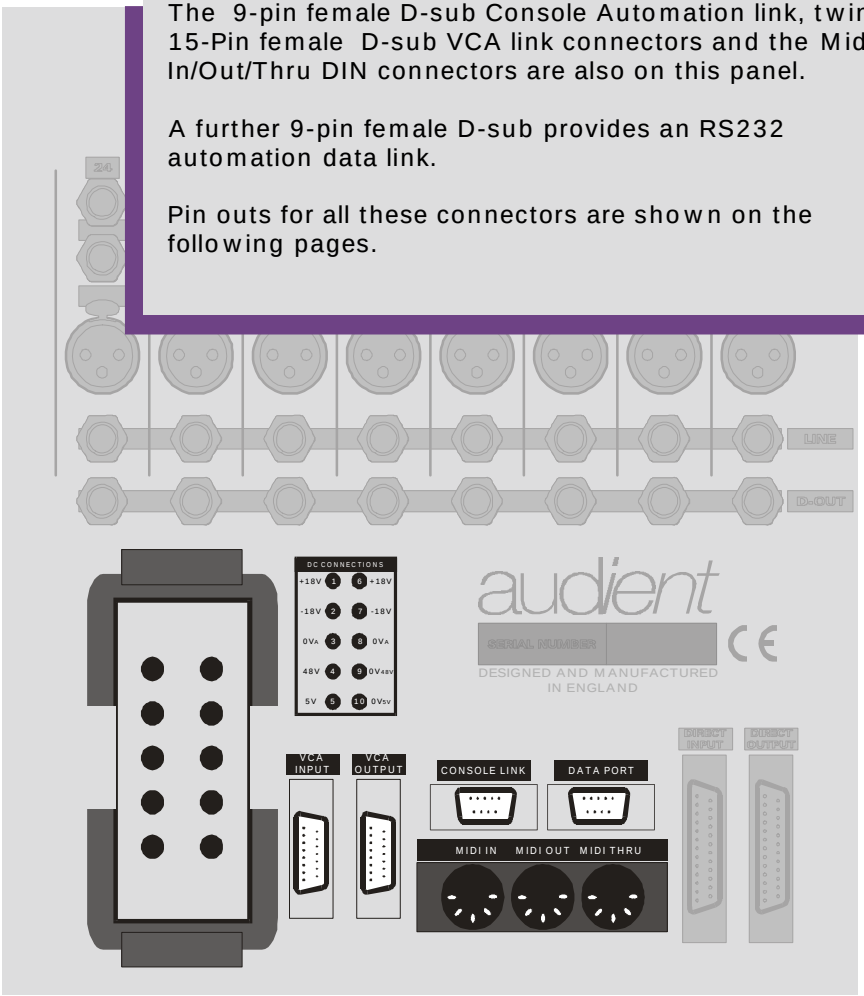
PSU and Link and Automation connections

The 10-pin heavy duty Harting type PSU connector is sited on the Channel 17-24 Input connector panel on all frame configurations.

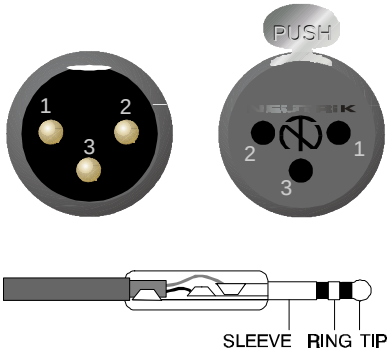
The 9-pin female D-sub Console Automation link, twin 15-Pin female D-sub VCA link connectors and the Midi In/Out/Thru DIN connectors are also on this panel.

A further 9-pin female D-sub provides an RS232 automation data link.

Pin outs for all these connectors are shown on the following pages.



Connector wiring details - Audio connections



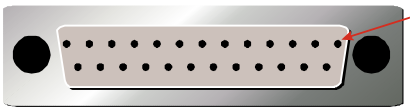
All XLR inputs and outputs are fully electronically balanced and are wired Pin 2 hot. Pin 1 in all cases is connected directly to the console chassis.

Jack connections are also fully electronically balanced and are wired Tip hot. The sleeve is connected to the console chassis.

Nominal level is +4dBu with the exception of the unbalanced RCA phono connections for Main Out and Monitor In which are at -10dBV.

Audio D-Sub connectors are 25-pin females wired to Tascam DA98 standard.

VIEWED FROM MATING SIDE OF FEMALE CONNECTOR



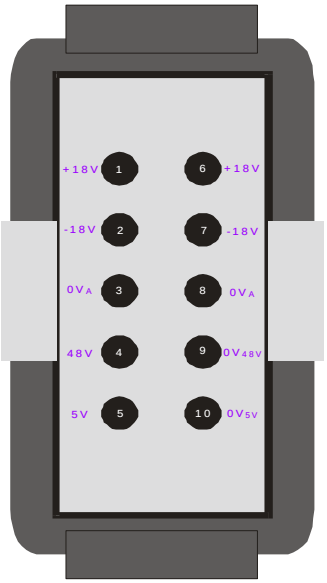
SIGNAL NUMBER	+VE SIGNAL	-VE SIGNAL	SCREEN
	D-SUB PIN		
1	24	12	25
2	10	23	11
3	21	9	22
4	7	20	8
5	18	6	19
6	4	17	5
7	15	3	16
8	1	14	2

Note: All undesignated pins are unconnected. All screen connections are joined inside the unit and connected to metalwork earth.

Connector wiring details - Audio connections (*continued*)

SIGNAL ASSIGNMENTS							
SIGNAL NUMBER	**D-OUT**	**D-IN**	**SUB-GROUP OUTPUTS**	**SUB-GROUP BUS-INPUTS**	**AUX 1-8 BUS-INPUTS**	**AUX A/B AND MAIN LCR BUS-INPUTS**	**SOLO BUS INPUTS/OUTPUTS**
1	CH 1	CH 1	SG 1	SG 1	AUX 1	ST AUX A LEFT	PFL INPUT
2	CH 2	CH 2	SG 2	SG 2	AUX 2	ST AUX A RIGHT	AFL LEFT INPUT
3	CH 3	CH 3	SG 3	SG 3	AUX 3	ST AUX B LEFT	AFL CENTRE INPUT
4	CH 4	CH 4	SG 4	SG 4	AUX 4	ST AUX B RIGHT	AFL RIGHT INPUT
5	CH 5	CH 5	SG 5	SG 5	AUX 5	MAIN LEFT	PFL OUTPUT
6	CH 6	CH 6	SG 6	SG 6	AUX 6	MAIN CENTRE	AFL LEFT OUTPUT
7	CH 7	CH 7	SG 7	SG 7	AUX 7	MAIN RIGHT	AFL CENTRE OUTPUT
8	CH 8	CH 8	SG 8	SG 8	AUX 8	NOT USED	AFL RIGHT OUTPUT

Connector wiring details - DC connections



Aztec PSU connector viewed from mating side of console mounted chassis connector.

The ASP8120L PSU is provided with twin Harting DC outlet sockets to allow a back-up supply to be used. The two outlets are wired in parallel and the Aztec can be connected to either outlet.

To prevent loudspeaker damage be sure to turn-off any power amplifiers connected to the Aztec console before turning PSUs on or off.

Console Linking

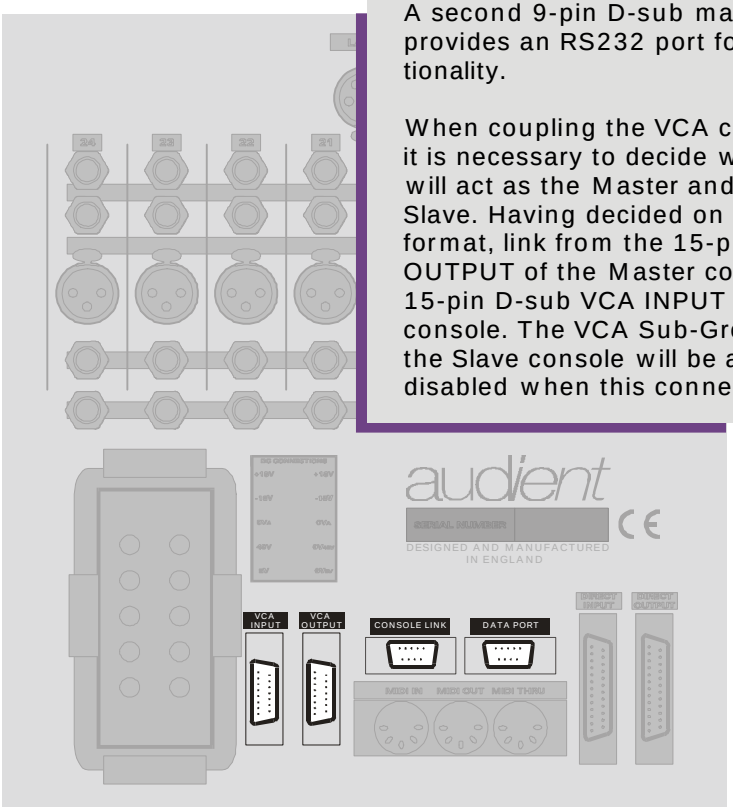
Any Aztec console can be linked to a second console when large numbers of inputs are required.

Audio buses can be linked by simply plugging from the balanced bus outputs of the 'Slave console' which are available on XLRs or 25-pin D-sub connectors to the balanced bus inputs of the 'Master console' which are also on 25-pin D-sub connectors. All of these connectors are located on the Master/Output connector panel.

Console Linking *(continued)*

When linking consoles, it is usually necessary to couple the **VCA and Automation systems.** To link the automation controllers simply connect the 9-pin D-sub female 'Console link' connectors housed on the Input/PSU connector panel. When linked, the two automation controllers operate completely in parallel with no Master/Slave hierarchy imposed. A second 9-pin D-sub male connector provides an RS232 port for future functionality.

When coupling the VCA control voltages it is necessary to decide which console will act as the Master and which as the Slave. Having decided on the required format, link from the 15-pin D-sub VCA OUTPUT of the Master console to the 15-pin D-sub VCA INPUT of the Slave console. The VCA Sub-Group faders of the Slave console will be automatically disabled when this connection is made.

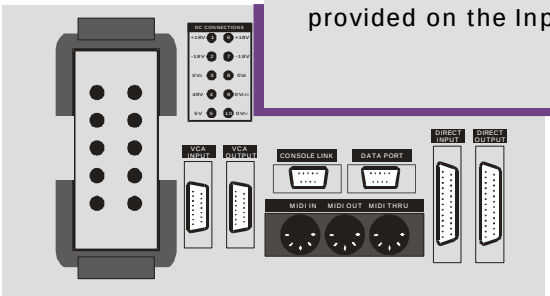


Connector wiring details - Data connections

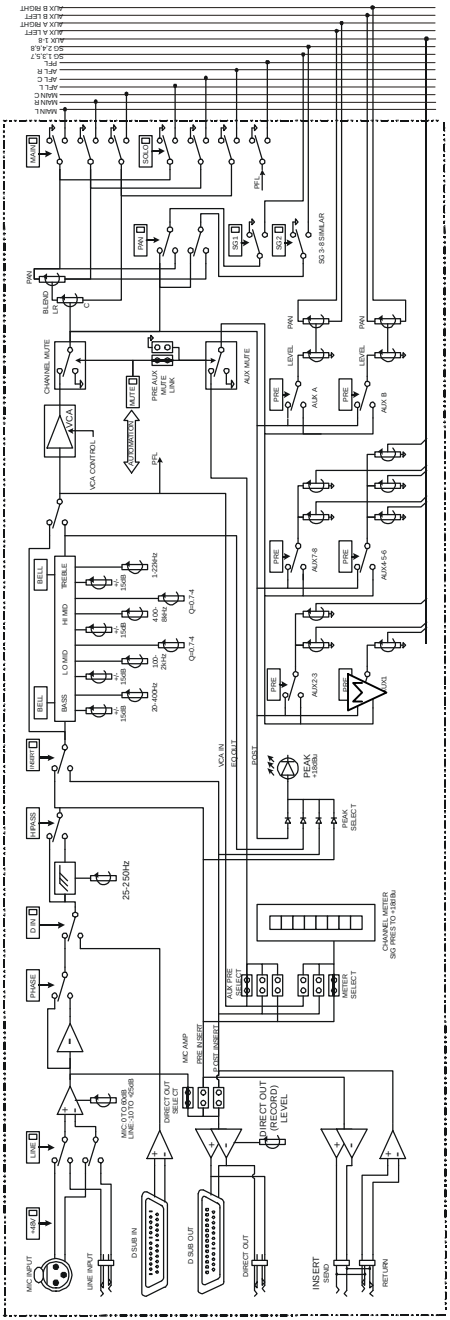
D-sub PIN	Console Link	Data Port	VCA INPUT	VCA OUTPUT
	9-pin fml D-sub	9-pin ml D-sub	15-pin fml D-sub	15-pin ml D-sub
1	Rx +	N/C	VCA 1	VCA 1
2	N/C	T1 OUT	VCA 2	VCA 2
3	N/C	R1 IN	VCA 3	VCA 3
4	Tx -	N/C	VCA 4	VCA 4
5	0v	0v	VCA 5	VCA 5
6	Tx +	N/C	VCA 6	VCA 6
7	N/C	N/C	VCA 7	VCA 7
8	Rx -	N/C	VCA 8	VCA 8
9	N/C	N/C	VCA 9	VCA 9
10			VCA 10	VCA 10
11			VCA 11	VCA 11
12			VCA 12	VCA 12
13			COM	COM
14			SLAVE COM	SLAVE LINK
15			SLAVE ENABLE	SLAVE LINK

Connector wiring details - Midi connections

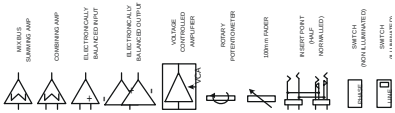
Aztec has powerful Midi messaging capabilities which are described elsewhere in this manual. The usual Midi IN/OUT/THRU connections are provided on the Input/PSU connector panel.



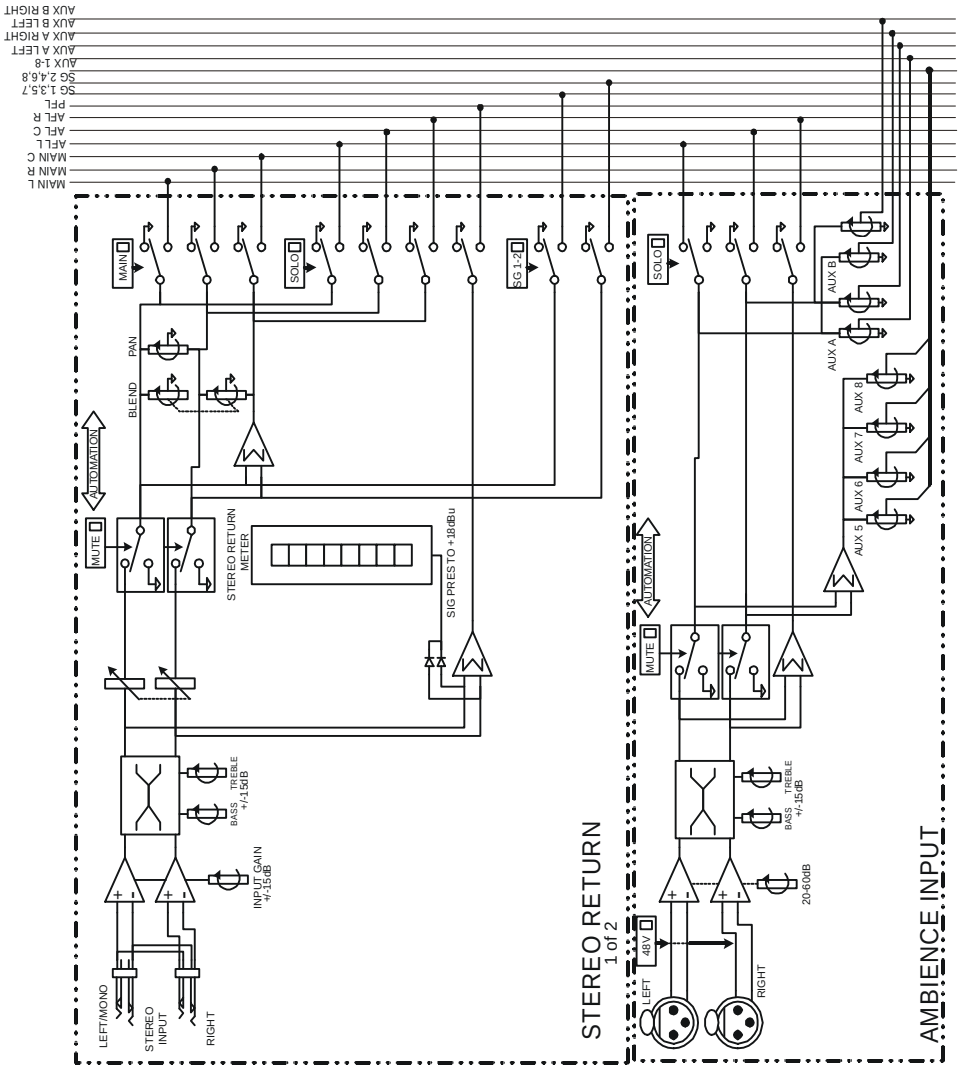
Mono input



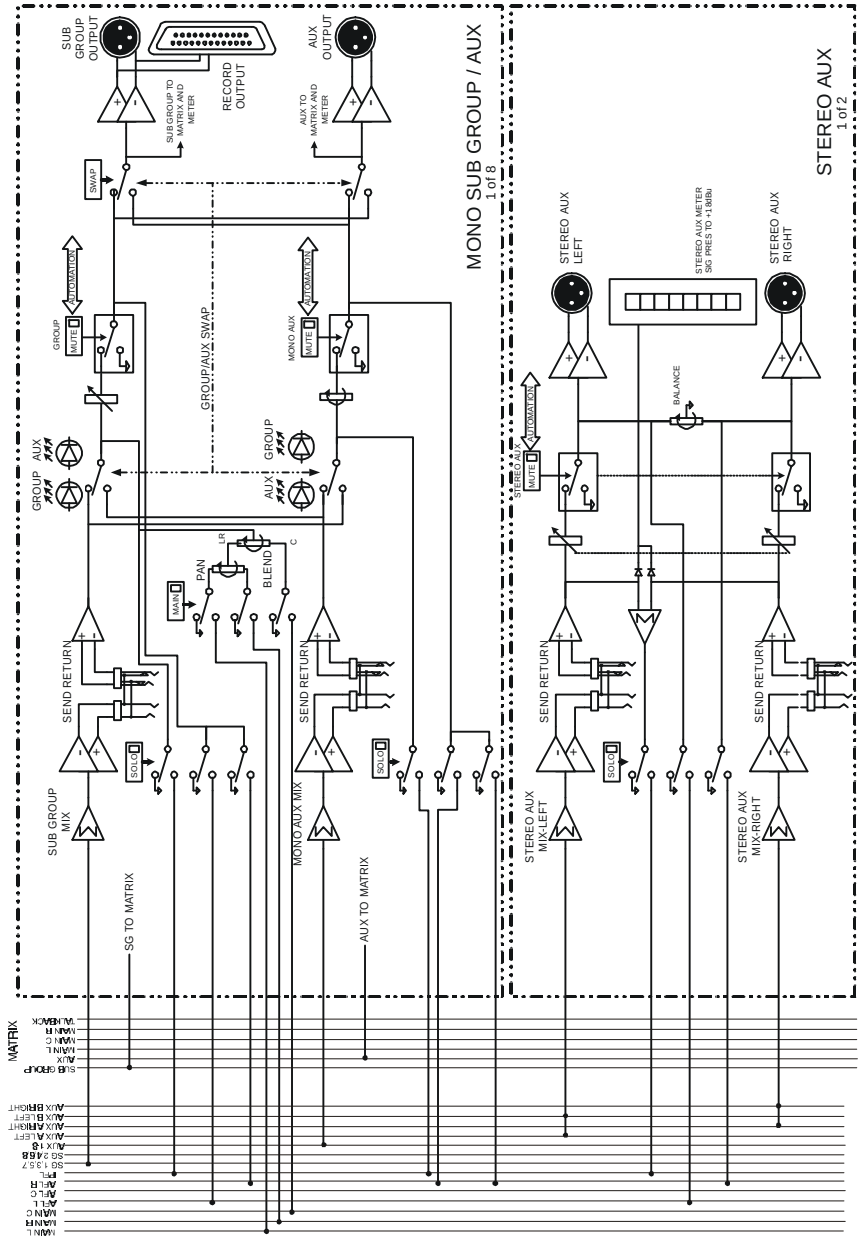
Key



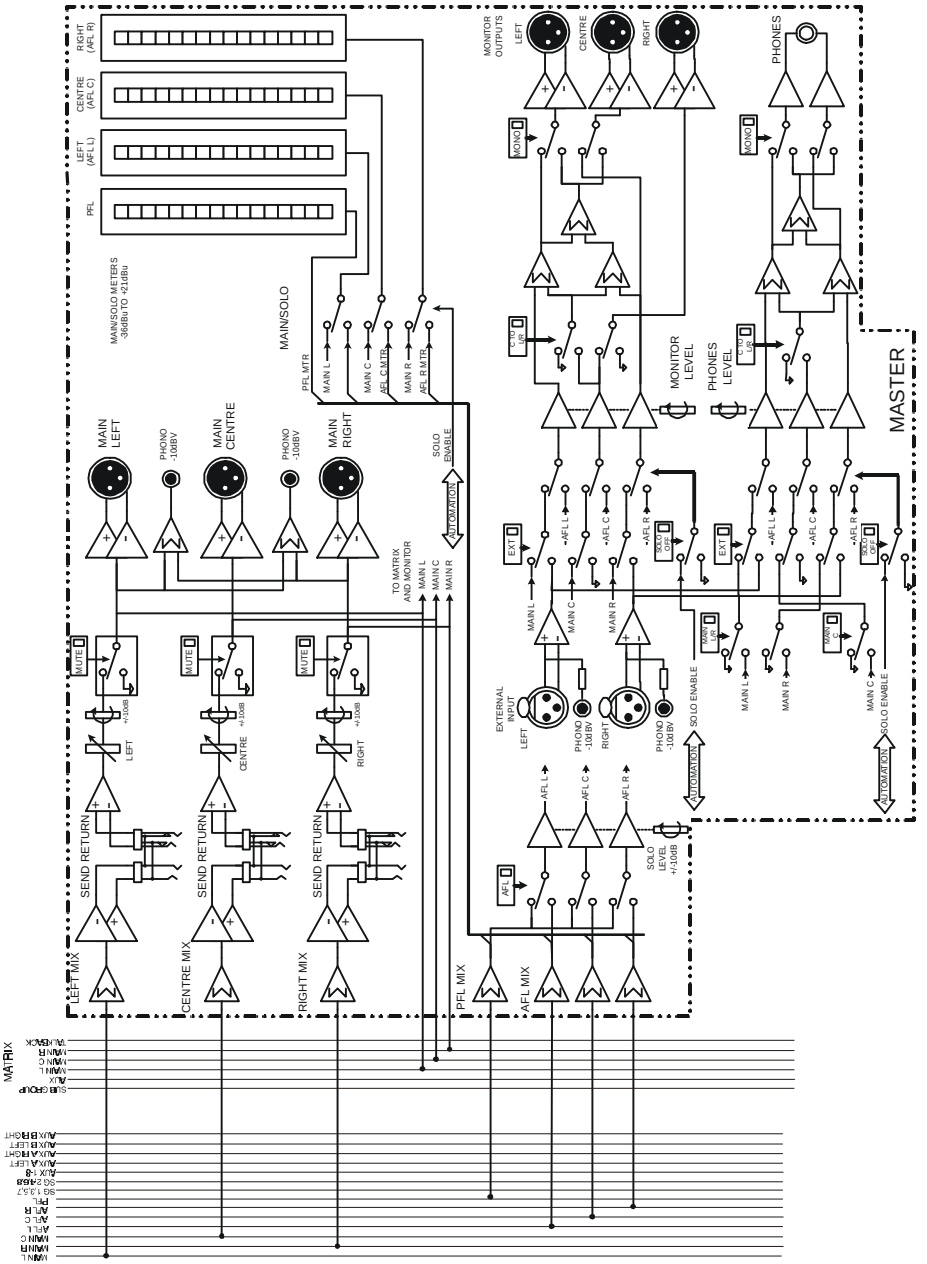
Stereo Return and Ambience input



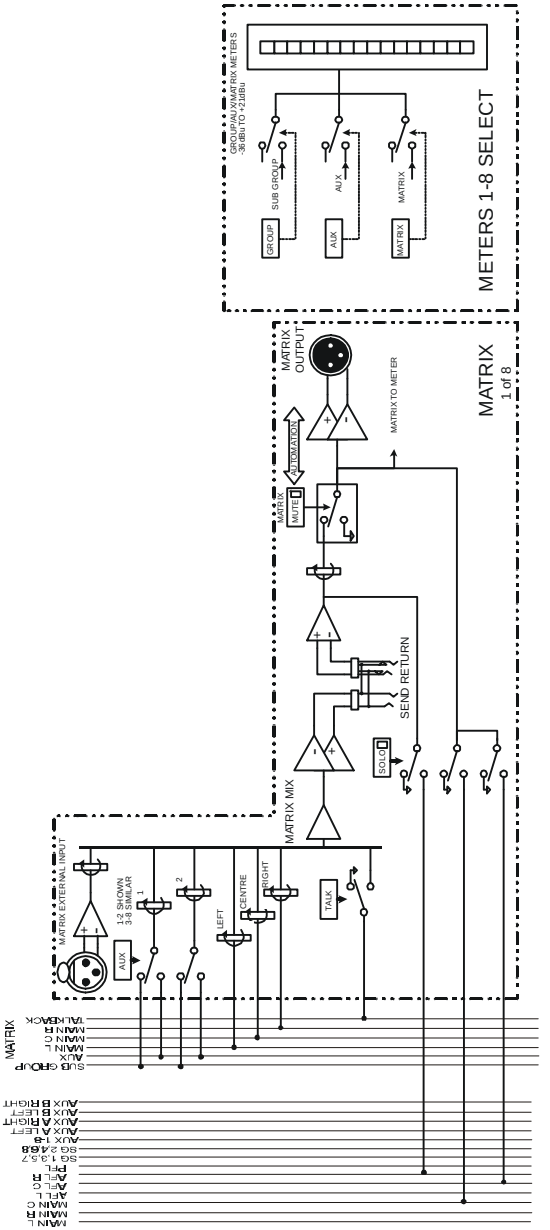
Sub-Group and Auxiliary outputs



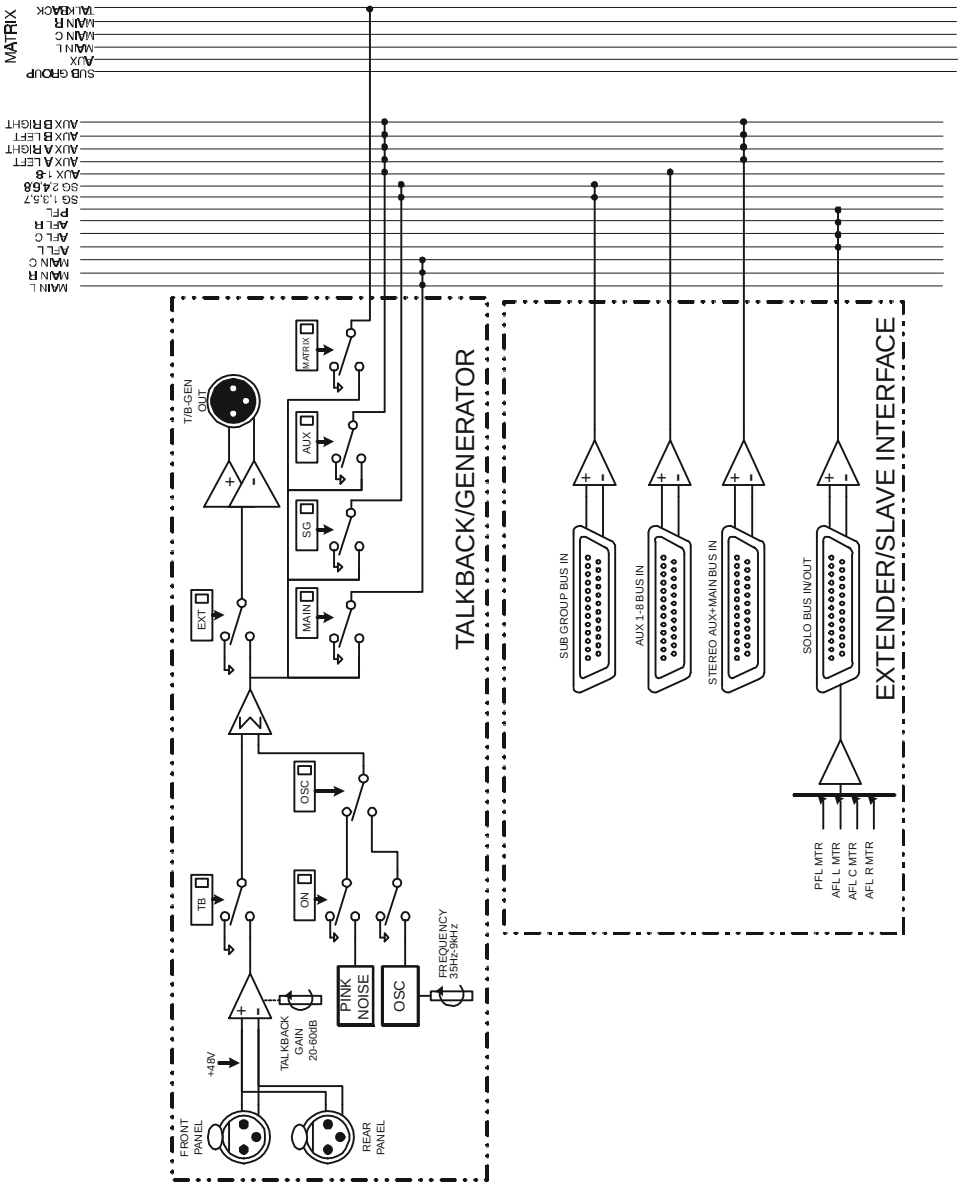
Main outputs



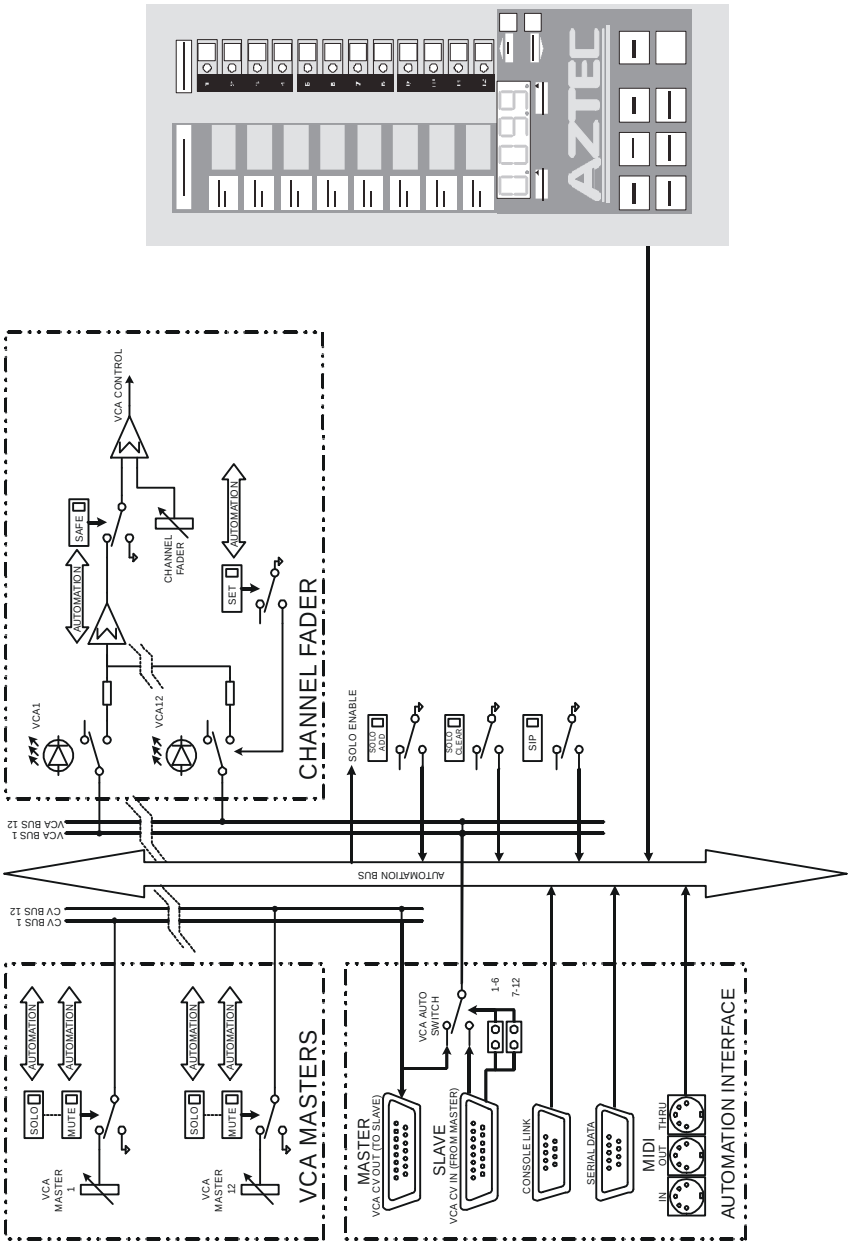
Matrix and Meter select



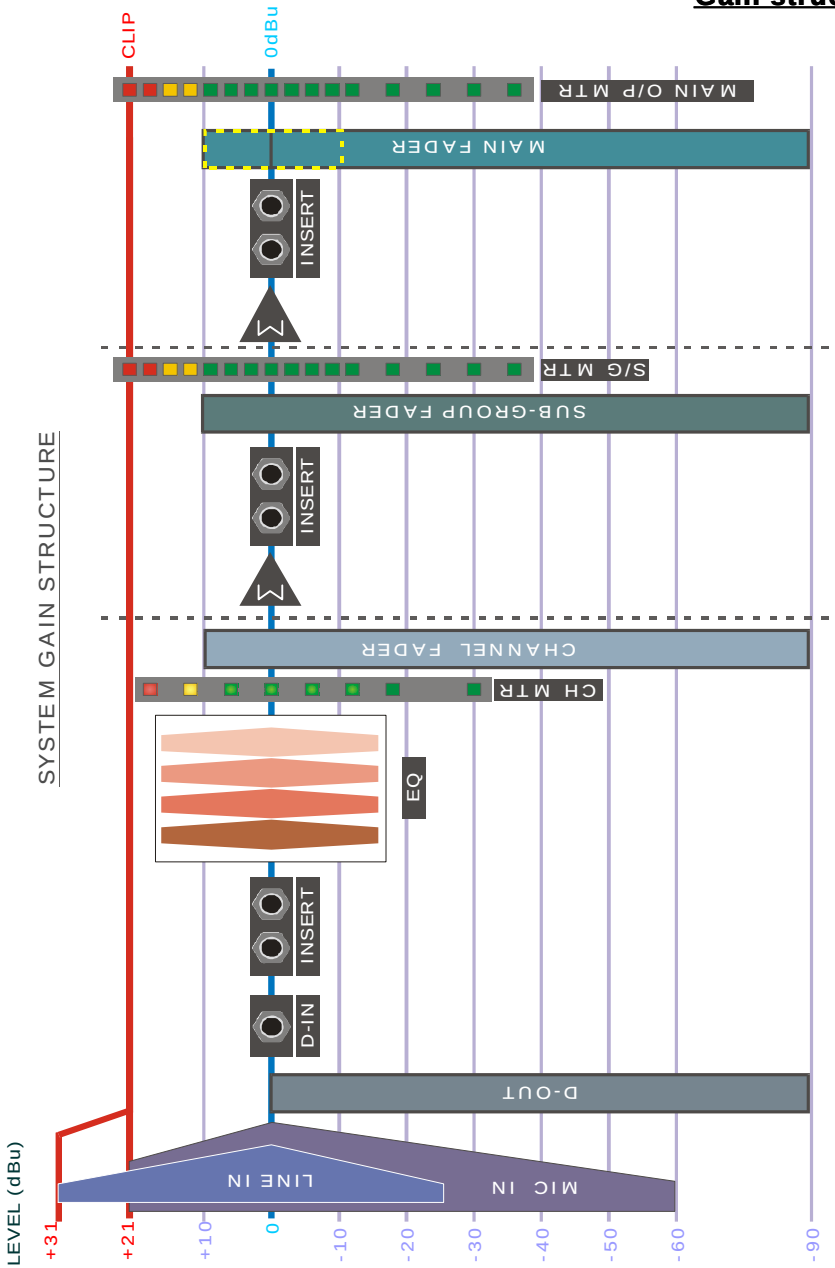
Talkback, Signal generator and Linking



Automation


VCA CONTROL
SAFE
AUTOMATION
CHANNEL FADER
AUTOMATION
SET
VCA1
VCA12
CHANNEL FADER
SOLO ENABLE
SOLO ADD
SOLO CLEAR
SIP
VCA BUS 1
VCA BUS 12
AUTOMATION BUS
CV BUS 1
CV BUS 12
AUTOMATION
AUTOMATION
SOLO
MUTE
VCA MASTER 1
AUTOMATION
AUTOMATION
SOLO
MUTE
VCA MASTER 12
VCA MASTERS
VCA AUTO SWITCH
1-6
7-12
MASTER
VCA CV OUT (TO SLAVE)
SLAVE
VCA CV IN (FROM MASTER)
CONSOLE LINK
SERIAL DATA
MIDI
IN
OUT
THRU
AUTOMATION INTERFACE

Gain structure



Specifications

FREQUENCY RESPONSE
Mic input to Main outputs
+0 - 0.3dB 20Hz-20kHz @0-40dB gain.

THD at +20dBu output
Mic input to any output <0.05% at 1kHz

NOISE

Mic EIN (20-20kHz, 150R source)	<-127.5dBu
Main Bus noise (no inputs routed)	<-95dBu
Main Bus noise (48 inputs routed)	<-80dBu

CROSSTALK AND MUTE ATTENUATION @ 1kHz

Fader Mute	>90dB
Main bus assign	>90dB

Mic CMRR
70dB (Min gain)
75dB (Max gain)

INPUTS (all electronically balanced)

	Maximum level
Mic (> 2k Ohms)	>+21dBu (min gain)
Line (> 10k Ohms)	>+35dBu (min gain)
Insert return (> 10k Ohms)	>+21dBu

OUTPUTS (all electronically balanced)

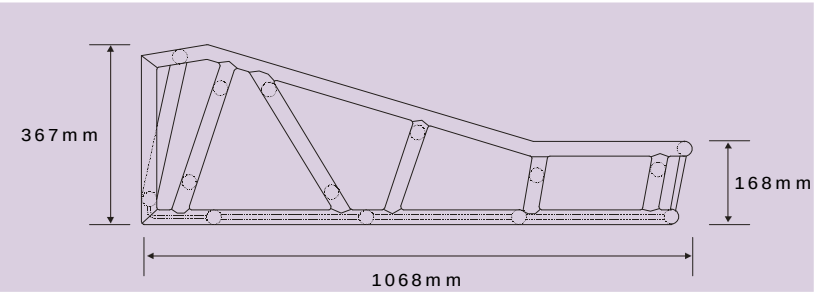
	Maximum level
All outputs (<75 Ohms)	>+21dBu (into 600 Ohms)

WEIGHTS

	Console	Flight case
52 ch	120 kgs	150 kgs
48 ch	105 kgs	139 kgs
40 ch	92 kgs	121 kgs
32 ch	80 kgs	112 kgs

DIMENSIONS

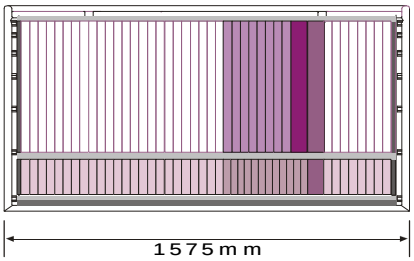
	Console
52ch	1068 x 2215 x 367
48 ch	1068 x 2087 x 367
40 ch	1068 x 1831 x 367
32 ch	1068 x 1575 x 367



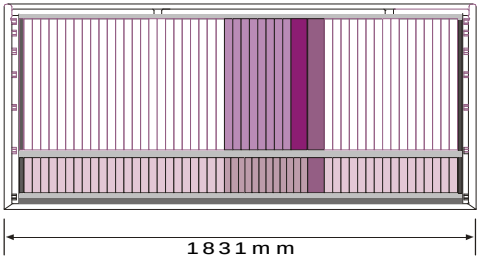
	Flight case (inc wheels)
52ch	1500 x 2318 x 480
48 ch	1500 x 2190 x 480
40 ch	1500 x 1938 x 480
32 ch	1500 x 1678 x 480

LAYOUTS

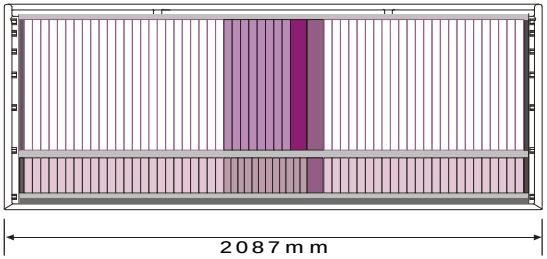
32CH FRAME



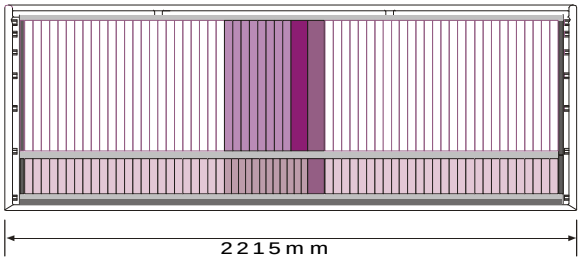
40CH FRAME



48CH FRAME



52CH FRAME



Cleaning

The Aztec control surface can be kept clean of dust using a soft long-haired brush. Be careful to brush away from the front of the console to avoid any possible contamination of the faders.

Marks can be removed using a soft lint-free cloth damped with Isopropyl alcohol if necessary. DO NOT USE ANY OTHER FORM OF CHEMICAL CLEANING AGENT.

Areas are left at the top and bottom of the Aztec fader panels for fixing marking tape - any adhesive residue left by such tape can usually be remove as described above but it is wise not to leave tape attached to the console surface for prolonged periods.

Removing modules

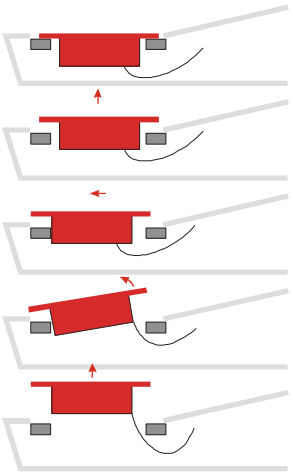
Always disconnect the Aztec PSU from the mains supply and from the Aztec console before attempting to remove any of the modules from the frame.

Modules are retained using either 2 or 4 M4 x 16 socket head screws. Once removed modules can be pulled up vertically revealing the ribbon cables that connect them to the console infra-structure. These cables are long enough to allow the module to be lifted just clear of the console surface - be careful not to strain them by trying to pull the module too far out. The ribbon cables can then be disconnected making sure the orientation for reconnection has been memorised.

When replacing modules be careful to dress the ribbon cables so that they fold neatly down between the adjacent modules and do not snag on any of the component legs of these modules.

Removing fader blocks

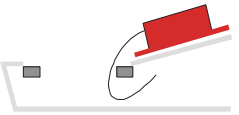
Fader panels are in 8 channel wide blocks and are retained using 8 M4 x 10 socket head screws.



After removing these screws carefully lift the panel by ~20mm then pull it forward slightly being careful to avoid damage to the isolate switch at the front edge of the module.

The fader block can then be removed by tilting it upwards at its main module end to clear the frame extrusion and then lifting clear, being careful to avoid damage to any of the linking ribbon cables.

The ribbon cables that link from block to block can be unplugged once the module is lifted which allows the fader block to be inverted and rested on the main module surface without having to remove any of the cables that link to the main modules.



If the fader block has been removed to update software by fitting new PIC(s), this is now quite straightforward. On Input fader blocks remove the screws securing the fader motherboard and carefully unplug it from the individual fader cards. The processor chip is now accessible. On the VCA fader block and the small Automation Control block the processor chips are immediately accessible once the block is removed from the console.

If, at any time, a fader block has to be completely replaced simply unplug the ribbon cables from the main modules (at the module end) and lift the fader block clear.

To refit a fader block simply reverse the procedure detailed above being careful to feed the module linking cables back into the fader tray as the block is lowered into position.

Removing Connector panels

Like the fader blocks, Aztec input connector panels are arranged in 8-wide panels with a larger single connector panel for the output and master section interfaces.

Substantially all connectors are PCB mounted. There are no active electronics on any of the connector boards, so the only service requirement might be to replace a connector that has become damaged. If this does become necessary it is recommended that a factory service replacement assembly be requested so that the entire connector assembly can exchanged.

The connector panels are released by removing 8 or 10 M4 x 10 socket head screws. Ribbon cables linking the connector assembly to the relevant modules are then exposed and can be unplugged so that the replacement can be installed.

PSU

Always refer maintenance of the Aztec PSU to a qualified service agent .

Disconnect the Aztec PSU from the mains supply and from the Aztec console before proceeding with any of the following tasks.

The Aztec PSU is fan cooled. The ventilation arrangement is filter free so no specific regular maintenance is required. However, after prolonged use in dusty environments it is worthwhile to check and if necessary remove any dust build up.

The Aztec PSU has electronic current limiting and an associated reset switch for the +/- 18v rails The 5v and 48v rails have front panel fuse protection. Additionally the AC transformer output is protected by 20 amp automotive style fuses mounted inside the PSU case.

A mains fuse is located on the rear of the chassis. Note that the mains fuse ratings for the two voltage ranges are different 1.25" T8A the 230v setting and 1.25" T16A for the 115v setting. Always replace fuses with the same type as marked on the PSU housing .

PSU - *continued*

Aztec PSU fuses are very unlikely to fail under normal use and caution should be exercised if a failure should occur. Check the mains voltage setting, condition of the mains cord and integrity of the mains supply before replacing the mains fuse. Disconnect the console and check the condition of the PSU cable before replacing any of the low voltage fuses or using the +/-18v reset switch.

Warranty

Your Aztec console is covered by a manufacturer's warranty for one year from the date of despatch to the end user.

The warranty covers faults due to defective materials used in manufacture and faulty workmanship only.

During this warranty period Audient will repair or at its discretion replace faulty parts provided the console or relevant sub-assembly is returned carriage paid to an authorised Audient service centre.

We will not provide warranty repair if in our opinion the fault has resulted from unauthorised modification, misuse, negligence, act of God or accident.

We accept a liability to repair or replace your Aztec as described above. We do not accept any additional liability.

This warranty does not affect any legal rights you may have against the person who supplied this product – it is additional to those rights.