



Where simplicity meets innovation...



*audient*

# overview

ASP8024 was designed by one of the world's most experienced and successful console engineering teams, headed by David Dearden and Gareth Davies – the founders of DDA, whose designs such as DMR12, AMR24 and DCM232 are still regarded as amongst the best sounding consoles ever made.

In creating ASP8024, Dearden and Davies set out to achieve a straightforward goal - to use their expertise and experience, cutting-edge design, manufacturing techniques and the best component technologies to establish a new 'standard' in cost effect analogue mixing – delivering a product that would be truly 'technology proof' while at the same time providing familiar functionality and outstanding audio quality.

Since its introduction, ASP8024 has decisively established itself as the benchmark analogue console in its market segment and is now used in hundreds of professional facilities worldwide.

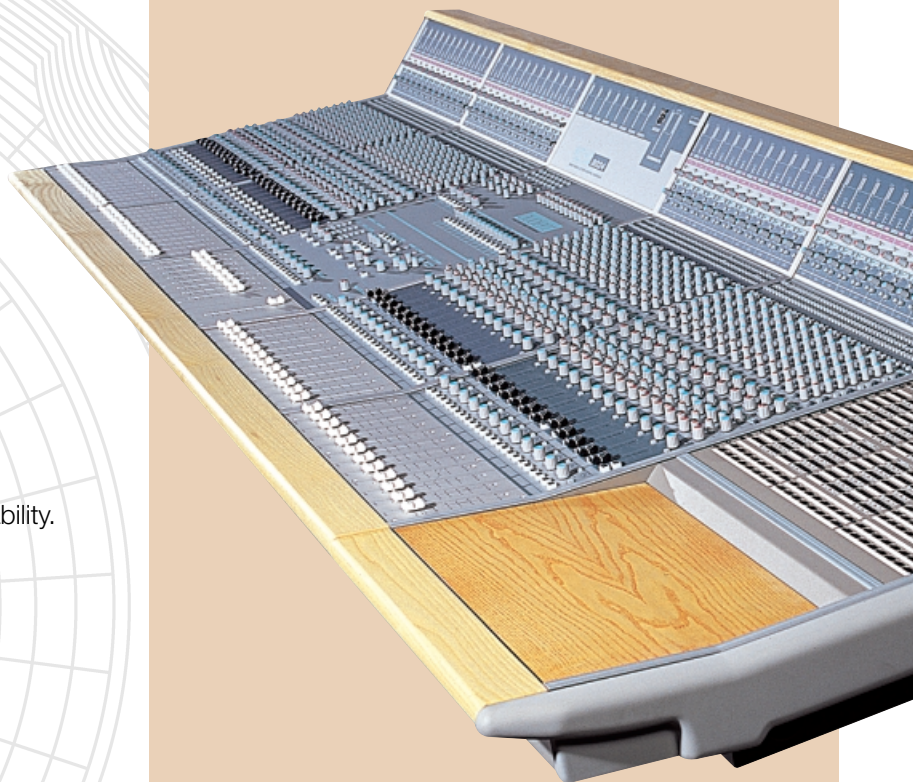
## Key Features - ASP802

- State of the art 'future-proof' performance.
- Full-feature in-line architecture.
- 80 inputs in standard 2m long frame.
- Full 24-track routing.
- Ergonomic control surface with clear status feedback.
- Extended range, splittable equalisers.
- 14 auxiliary buses.
- Comprehensive 'audiophile' master section.
- Unique modular construction for easy serviceability.
- Integral Compressors on stereo bus.
- Selection for Main plus 3 alternate control room speakers.
- Comprehensive communications.
- Separate fader section for flexible automation options.

# design

## Control

Form and function are inter-dependent and must coexist harmoniously. It is important that all controls are within easy reach of the engineer and with sufficient space for fingers to operate them.





## Inputs

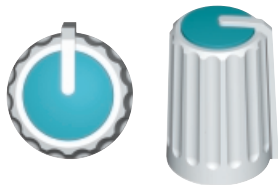
To avoid an excessively long reach and to improve visibility, all input related functions that normally tend to be pre-set are located in the lower part of the meter bridge directly facing the engineer and within arms length. This also enables isolation of the no-compromise microphone amplifier design, which has a performance equivalent to many high priced outboard units.

24 Track assignment switches are at the top of the module allowing more frequently used controls to be placed closer to the engineer. Controls are arranged in ergonomic functional groups and carefully designed custom moulded knobs along with a consistent and logical colour coded backlit panel design provide exceptional tactile and visual feedback of control status.

Panel legending is reverse screened on polycarbonate overlays and is not subject to wear.



Cut and Solo buttons in the long and short fader paths are large illuminated custom designed items, with a wide viewing-angle.



# [function]

The common claim for all in-line consoles is that there are two signal paths per channel. Frequently the second signal path is useful only for basic applications due to lack of functionality. Where functionality has been provided, it is often accompanied by an operational complexity that just leads to frustration.

As most track laying is performed with the console effectively in a mix mode, it makes sense to use the long fader path as the mix path, while the short fader path performs the input/tracking function, controlling levels to the recording medium. The short fader path will normally require the minimum of facilities, and all shared circuitry can normalise into the long fader path. ASP8024 allows great flexibility in the allocation of shared facilities but also uses a number of unique design features to avoid the operational complexity this usually entails.



Fabrizio Ronco studios, Italy.



Richard Marx, Chigago.



The Barge studios England.

ASP 8024.  
Analogue designed  
for the 21st century

As well as sonic quality, Audient's research soon identified other shortcomings with existing product offerings, in both the digital and analogue domains, such as minimalist monitoring, difficult to use control surfaces and lack of serviceability. When user aspirations were compiled into a wish list, it became apparent that to meet the target requirements the design task would require a fundamental review of all aspects of traditional console design, both physical and electronic, with particular attention to the user interface, as well as to manufacturing processes.



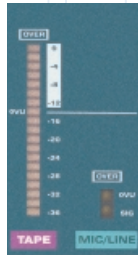
# features



## Equalisers

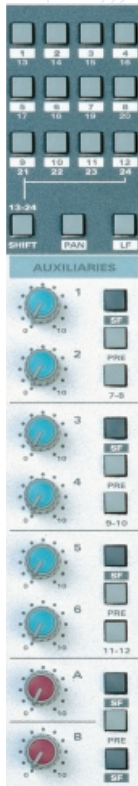
During the mix phase the short fader path is often used to provide extra inputs to the mix, any or all of which may require EQ and Effects processing. To cater for this situation, the ASP8024 EQ can be split into two parts. The upper part handles shelving high and low frequency controls, and the lower section is a pair of fully parametric mids. Each section can be individually switched into the short fader path.

Should this be insufficient, or if specific external processing (limiter, noise gate, de-esser etc.) is needed, each path has been provided with an individual switched insert point.



## Signal Metering

Signal metering in the channel is handled by a 20 segment peak reading led bargraph which is normalised in the long fader path, and a 3 segment led bargraph indicating signal present, normal level, and overload, in the short fader path. The meter functions can be reversed if required.



## Multitrack Buses

Multitrack buses are assigned via 12 individual switches in combination with a shift button allowing access to buses 13-24. The assignment section can be accessed from either the short or long fader paths, pre or post pan.

## Auxiliary Buses

A total of 14 Auxiliary send buses can be accessed via 8 controls. Controls 1 to 6 can be reassigned to buses 7 to 12, and are switched in pairs to the short fader path and also pre / post the relevant fader. This leaves 2 controls permanently assigned to Auxiliary A and B buses, individually switched to the short fader path. These are normally used for artists foldback purposes, although they can be switched post fader if required for extra sends.

A flexible Auxiliary bus combining facility on the Master module allows the 2 independent signals within a channel to access the same Effects device. Should extra sends be

needed, a single button push will allow the short fader to become a post long fader send accessing the 24 track assignment buses, with or without panning.

This flexibility and more, is achieved clearly and simply by having consistently positioned and labelled controls, together with informative backlit indication of which signal source is in which signal path.

## Master Section

It is in the Master section that the shortcomings of most consoles become apparent, with rudimentary monitoring, metering and foldback selection. The monitoring path is perhaps the most important section of a console, for this is the reference through which everything else is heard. To ensure pristine audio quality, all monitor source selection on ASP8024 is performed using high quality gas filled relays without the use of solid state analogue switches, and as everywhere else in the system, a shortest signal path approach is used.



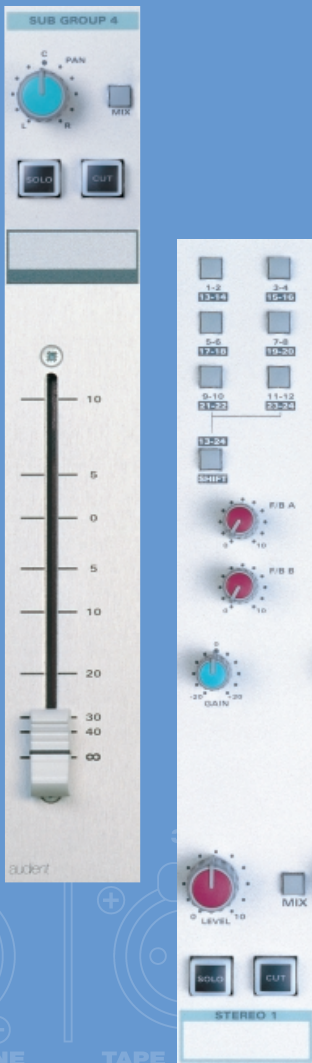
## Studio

Studio and artist foldback is also well catered for with stereo outputs for Studio Monitors and 2 Foldback systems. Source selection for each of these outputs is independent and can follow the Control Room selection as well as being combined with Auxiliaries A and B buses and 2 external stereo sources.

This is a versatile system which facilitates the direct playback of a demo tape to the artist, a foldback mix consisting of the Control Room mix (the backing track), plus contributions from the Auxiliary A or B buses (the artist's contribution), and perhaps even a personal reverb return via 1 of the 4 stereo input channels.

## Sub Groups

Most in-line mixing consoles allow the formation of sub groups, but usually at the expense of losing a channel. To avoid this, ASP8024 has 8 independent sub groups, each of which has an insert point should external processing be required. The output of each sub group can be panned across the mix, or even used as the record signal to an 8 Track recorder, metered by a 20 segment peak reading led bargraph.



## Compressor

A useful feature that would normally require the use of an external device is a dedicated high quality limiter/compressor, with a dynamic characteristic optimised for final mix processing. Switched ratio, attack and release times as well as a program dependent auto setting make setting up easy and repeatable.



## Control Room

Control Room Monitor source selection switches provide a choice between the Main Mix and three external stereo sources. A 30 segment peak reading led bargraph follows the source selection. The Main Monitor outputs are supplemented by 3 sets of Alternate Speaker outputs, each with its own level control.



## Stereo Inputs

To avoid unnecessarily tying up two mono inputs for each stereo return signal ASP8024 has a total of 4 dedicated Stereo inputs equipped with full Multitrack/Mix routing and solo/cut facilities. A wide range input gain control is used to maximise the versatility of these channels which also have direct access to the two foldback systems via rotary send controls.

## Communications

Full communications facilities are provided with assignments to Mix and Bus outputs (Slate), Studio Loudspeakers and the Foldback systems.

## Solo

The ASP8024 Solo system is particularly versatile, providing PFL, AFL and Solo-in-Place functions. The 'Solo in Front' feature allows the Solo signal to be heard either in isolation or with some of the mix signal in the background.



## Confidence

Audient's designers worked closely with both component designers and manufacturing companies to optimise the choice of component types and assembly methods. Passive components are generally 'high tech' surface mount devices, allowing a high density component layout optimised for low noise and crosstalk. Active components such as integrated circuits, and also potentiometers, switches and connectors are 'pin in hole' types to ensure easy serviceability.

Serviceability in general was a key design focus. A simple but highly effective arrangement was developed allowing each

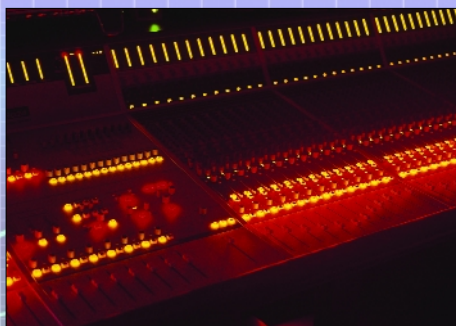
twelve channel wide section to hinge upwards, while still in an operational state. Removal of a small number of connectors allows the entire unit to be easily removed and replaced if necessary.

The frame design was developed 'from a clean sheet of paper'.

The use of a lateral construction reduces the depth needed in the frame, reducing weight and the amount of material used. A welded all-steel structure containing an innovative internal dual torsion tube construction, achieves rigidity and torsional strength without a significant increase in either depth or weight.



John Rivers of Woodbine Street studios, England.



Floating Point studios, Australia.

## Quality

At Audient, quality is the first commandment. So delivering the desired feature set for ASP8024 at an affordable price could not involve compromising audio integrity. This meant that economies could not be effected in either circuit topology or component integrity. Indeed, in certain areas such as the microphone/input amplifier a new advanced design was called for in order to meet our stringent performance targets of common mode rejection, noise and distortion.

Major cost reductions could only be achieved by using efficient manufacturing

methods, innovative design, and economies of scale.

Traditional analogue consoles typically utilise single or multiple printed circuit boards, mounted perpendicular to the control surface, assembled in individual metalwork modules, and interlinked by connectors into either a fixed motherboard or a floating ribbon cable. While convenient for maintenance, this is expensive, heavy, and involves the use of large numbers of potentially unreliable connectors. Audient chose an alternative approach for the ASP8024 with printed circuit boards

mounted parallel to the control surface, spanning twelve channels. In other words, the boards are arranged on a functional basis instead of a channel basis.

Metalwork design was thereby simplified and handling times during fabrication reduced, while assembly can benefit by more efficient use of higher speed auto insertion and pick/place machinery.

An equally important benefit is a reduction in the number of interconnections by a factor of 12, improving reliability and signal integrity.

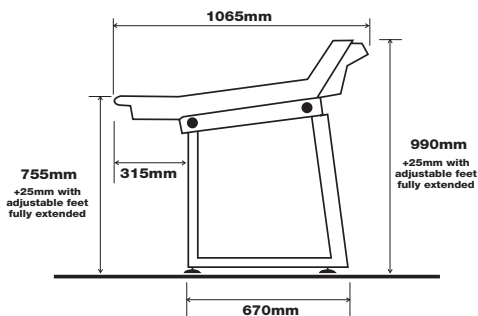
La Mole studios, Turin.



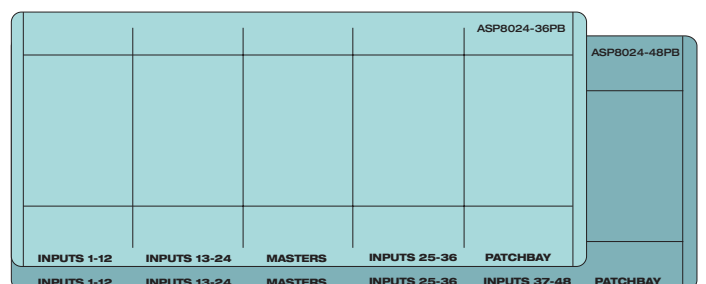
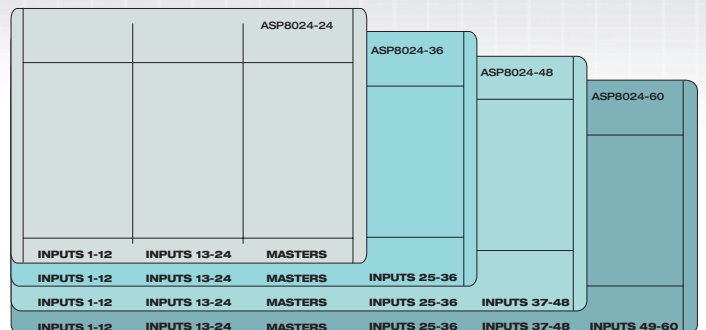
We believe the ASP 8024 truly sets a new standard in music recording and mixing technology. We're proud of the ASP8024- of its outstanding features, its future-proof performance and of the way it looks and feels. We're proud of the engineering and design innovations we've used, which allows us to deliver this extraordinary product at a rather ordinary price.

## Dimensions and Weight

	Console Dims (mm)	Weight (kg)
ASP 8024-24	1470 x 1065 x 990	100
ASP 8024-24 (Packed)	1600 x 1210 x 770	200 (1.5m <sup>3</sup> )
ASP 8024-36	1930 x 1065 x 990	133
ASP 8024-36 (Packed)	2060 x 1210 x 770	262 (1.92m <sup>3</sup> )
ASP 8024-36PB	2390 x 1065 x 990	166
ASP 8024-36PB (Packed)	2520 x 1210 x 770	330 (2.4m <sup>3</sup> )
ASP 8024-48	2390 x 1065 x 990	166
ASP 8024-48 (Packed)	2520 x 1210 x 770	330 (2.4m <sup>3</sup> )
ASP 8024-48PB	2850 x 1065 x 990	200
ASP 8024-48PB (Packed)	2980 x 1210 x 770	400 (2.8m <sup>3</sup> )
ASP 8024-60	2850 x 1065 x 990	200
ASP 8024-60 (Packed)	2980 x 1210 x 770	400 (2.8m <sup>3</sup> )



Stand height can be increased by up to 25mm with adjustable feet fully extended.



## Specifications

### FREQUENCY RESPONSE

Mic input to Mix output  
< +0, -0.3dB      20Hz-20kHz @ 6-40dB gain.  
Line input to Mix output  
< +0, -0.3dB      20Hz-20kHz @ 0dB gain.

### THD AND NOISE AT +20dB OUTPUT

Mic XLR input to any output      < 0.005% at 1kHz  
Line input to any output      < 0.005% at 1kHz  
Tape input to any output      < 0.003% at 1kHz

### NOISE

Mic EIN (20-20kHz, 150R source)      < -127.5dBu  
Bus noise (no inputs routed)      < -93dBu  
Bus noise (36 inputs routed)      < -78dBu

### MIC CMRR

70dB (Min gain)      75dB (Max gain)

### CROSSTALK AND MUTE ATTENUATION AT 1kHz

Short fader Mute      > 90dB  
Long fader Mute      > 90dB  
Mix assign      > 90dB  
Bus assign      > 90dB

### MAXIMUM INPUT

Mic      > +21dBu (min gain)  
Line      > +30dBu (min gain)  
Insert return      > +21dBu

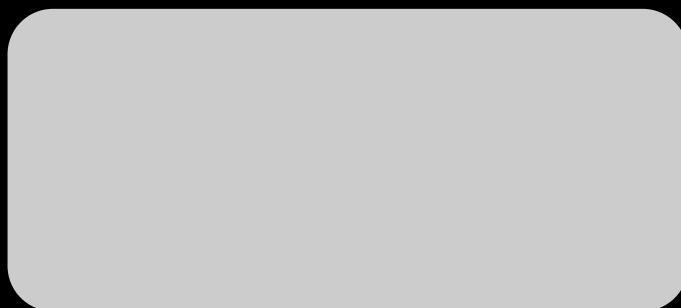
### MAXIMUM OUTPUT INTO 2k OHMS

Mix output      > +26dBu  
Bus output      > +26dBu  
Aux output      > +26dBu  
Insert send      > +21dBu  
Monitor, Studio, F/B outputs      > +21dBu

## System Interfaces

Mic input - XLR (electronically balanced)  
Line input - TRS Jack (electronically balanced)  
Tape returns - TRS Jack (electronically balanced)  
Insert sends - TRS Jack (ground sensing)  
Insert returns - TRS Jack (electronically balanced)  
Multitrack sends - D-sub\* (electronically balanced)  
Sub-Group outputs - D-sub\* (electronically balanced)  
Auxiliary outputs - XLR (electronically balanced)  
2-track sends/returns - XLR (electronically balanced)  
Control room/studio/foldback outputs - XLR (ground sensing)  
Talkback Mic input - Front panel XLR (electronically balanced)

\* 56pin EDACs available as a cost option



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