Avalon

D&R
mixing consoles

The D&R "AVALON" is a totally balanced, 32 buss in-line format recording and mixing console with so many features, and so thoroughly thought-out, we believe we've extended the limits of today's analog technology.

With the minimum of audio path, the circuitry not only provides tremendeous headroom and crystal clear sound, but noise and distortion so low that it almost matches the quality of a straight wire.

In creating "AVALON", D&R undertook comprehensive studies of both its own and competitors products, followed by a radical re-appraisal of every element of the design.

The AVALON's electronics incorporate advanced circuit components using the latest in computer aided design and assembling techniques resulting in a product unsurpassed in the electronic industry.

Avalon

AVALON - TOTALLY MODULAR DESIGN.

This "work of engineering art" is available in a choice of two chassis, either completely or partially loaded with modules, as required, and with optional patchbay, and 25 pin sub 'D' type connectors. Alternatively, either of the chassis's can be ordered with a small number of modules and the patchbay partially loaded, enabling gradual extension as required or afforded.

Being totally modular, the AVALON was designed with a wide range of customer's budgets in mind.

THE AVALON IN-LINE MODULE RETAINS D&R's TRADITIONAL FEATURES.

This module has so many functions and features we will attempt to wet your appetite with just a few.

All inputs/outputs are electronically balanced. The Avalon input module has a four band fully parametric constant "Q" equalizer with a monitor/channel switch on each band. The high pass filter is also switchable between monitor/channel.

There are 8 discrete aux sends per module, each pair being switchable between monitor/channel and pre/post fader.

In addition there are mute switches on aux 5/6 and 7/8, while aux 7/8 also has a level/pan control switchable to the first 16 busses allowing up to 24 aux send busses.

The monitor (with slide fader) is assignable to all 32 busses. The module also features fader reverse, seperate programmable solo system for channel and monitor (with flashing leds) and three mute groups on monitor and channel with local mutes also on each.

The seperate fader section enables easy installation of most moving fader automation systems available today. The modules are also prewired for installation of the **OPTIFILE or JMS C-MIX** fader/mute automation system which are suitable for automating the AVALON's integrated mute system.

A STARGROUND SYSTEM ON EACH CIRCUIT BOARD ON EVERY CHANNEL.

In addition to the use of the latest low noise integrated circuits, our design department incorporated a starground system on every board resulting in crosstalk figures rarely achieved with conventional techniques. There are also stabilizers fitted on each channel and modules in the master section.

CHANNEL IN-LINE MODULE.

The routing allows selection to the 32 multitrack output busses via a set of 10 push-buttons switches, as well as to the L/R chan mix bus.

MIX , (the record-mix status switch) selects the basic signal flow path in the module.
Record gives mic/line amp - long fader - channel panpot - routing, with tape source monitor mixing .
Equalizer and Aux sends being used as required.
MIX gives monitor (tape) - long fader - channel panpot - routing with the mic/line input switched to the small fader and / or L/R monitor. Equalizer and Aux sends being used as required.

Ultra high performance balanced microphone and line amplifiers are fitted. The mic amp has a gain range of +2 dB to +70 dB, with a 10 dB pad. Phantom power in/out, and phase reverse switch for both mic/line and tape input.

At the input of the equalizer is a 100Hz, 12 dB per octave high pass filter.
The Eq. is a four band fully parametric constant "Q" equalizer, with channel / monitor switch on each band.
The control ranges are:
HF: shelve/bell from 1.5 KHz to 20 KHz.
HMF: bell from 600 Hz to 7 KHz, with a "Q" ranging from 0.5 to 3.
LMF: bell from 200 Hz to 2.5 KHz, with a "Q" ranging from 0.5 to 3.
LF: shelve/bell from 30 Hz to 450 Hz.

Eight Aux sends are fitted expandable to 24 with the channel routing 1-16.

Aux 1-4 are per pair pre/post switchable and switchable between channel and monitor.

Aux 5-8 have master status pre/post switching, mutes, and channel/monitor switching.
Aux 7/8 can be routed to bus 1-16 to extend the aux sends to 24 per channel.

The monitor section switches between buss out and monitor in with its own panpot, it can be routed to the 32 busses as well as the monitor stereo bus.

The group switch (GRP) lets you insert the monitor fader into the multitrack buss on that module.

REV reverses the long and small faders.

Both channel and monitor sections have their own stereo in-place solo systems.
Three mute groups, (which can be grouped or used individually), as well as local mutes.

A peak led indicates both positive and negative peaks, four dB below clipping, in both channel and monitor.

DUAL STEREO RETURN MODULE.

The routing allows selection to the 32 multitrack output busses via a set of 10 push-button switches. Two LED indicators display the selection of the bounce switches 9-16 (which alternates between 1-8 and 9-16) or 25-32 which alternates between 17-24 and 25-32.
The signal path to the stereo mix busses is determined by the Monitor (Mon.) or Channel (CHN.) switches which assign the signal to the stereo mix bus and/or the monitor mix bus.
The Left and Right (MNO) switches allow the inputs to be independantly placed in mono without effecting the other input's positioning.

The stereo GAIN control provides control of the two inputs with a range of +/- 20dB.
The WIDTH control provides the user with the ability to place the returned stereo image to begin and end at any point within the channel or monitor stereo image, instead of only extreme left and extreme right.

The EQ section is a fixed three band type with high and low shelving at 60Hz and 12kHz, and a peak/dip mid section at 1.5 kHz.
The EQ has an on/off switch with LED indicator.
The Auxiliary Section is comprised of up to 22 Aux send busses switchable from two stereo pots. Aux 1-2 (switchable to Aux 3-4) can be utilized as Pre or Post fader control. Aux 7-8 can also be utilized as Pre or Post fader control as well as being switched to 1-16 busses for ultimate control.

The Stereo Balance control is mounted to allow you to balance the two channels between the monitor mix, or the channel mix outputs, as well as the 32 multitrack busses when the 1-32 switch is depressed.
The Mute system is a three way (A,B,C.) soft muting integrated circuit, which is completely click-free. A local mute switch is also mounted to allow an overriding of the mute groups for particular channels.
The SFE (safe) switch makes the channel section insensitive to solo-in-place activities on other channels or monitors, which is a useful feature when using the module as an effects return.

The SOLO switch has two modes, pre-fade listen or stereo-in-place, (which mutes all other signals in the mix).

Section A and B are identical except for a 60mm stereo fader on section A, while section B is fitted with a seperate 100mm stereo fader which allows for easy installation of (moving) fader automation systems.

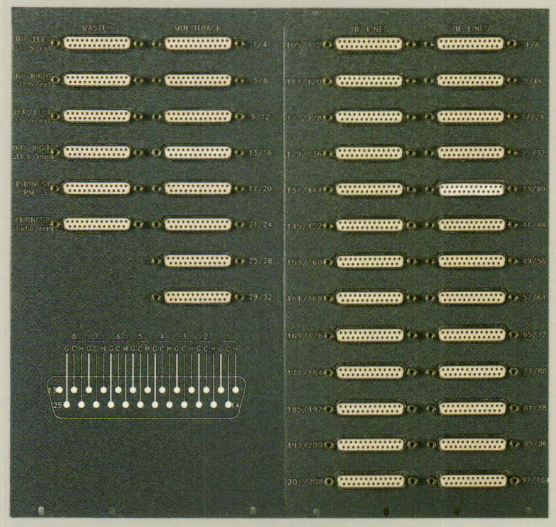
CONNECTOR PANELS FOR PATCHBAY.

All connectors are 25 pole female sub D type computer connectors, accepting eight balanced pairs of signals per connector.

The connector column labelled "MASTER" accepts all master in and outputs.

The connector column labelled "MULTITRACK" accepts all balanced in and outputs of the multitrack machine.

Column three and four are 208 balanced tie-line connections.

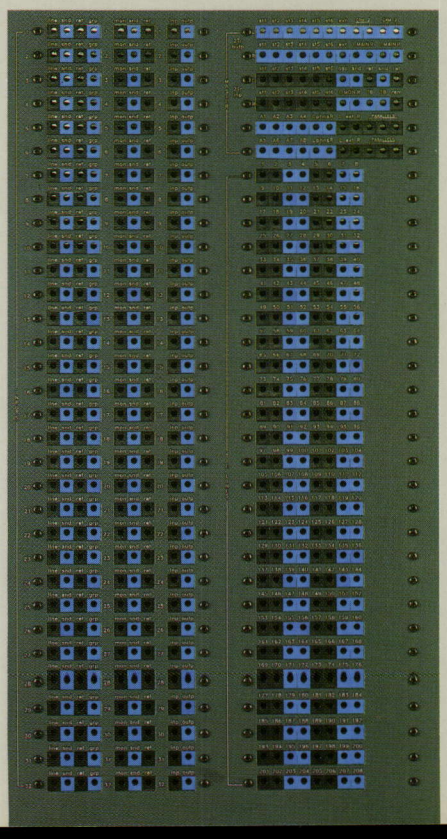


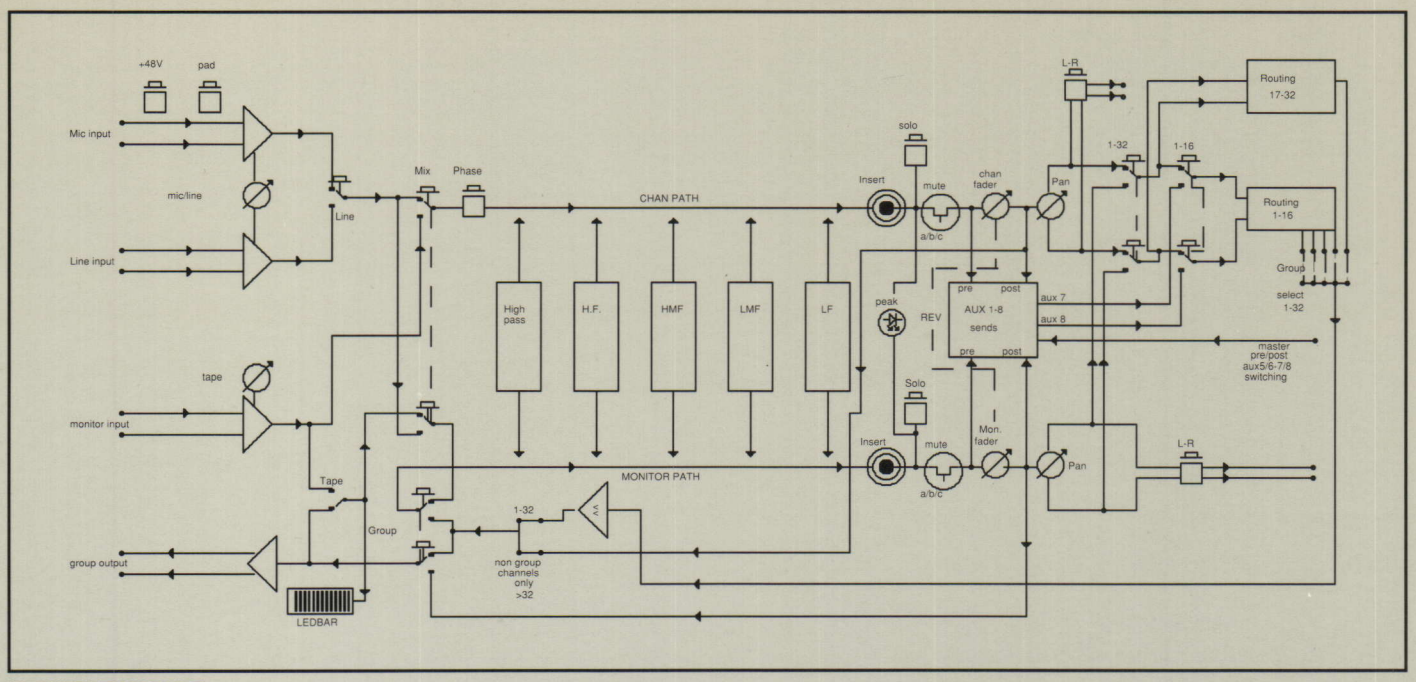
PATCH-BAY FOR CHANNELS 1-32.

The AVALON has a Bantam type patch-bay , with the following patchpoints. Balanced input patch row: Line, channel send, channel return, group output (normalled to tape input), monitor (normalled to tape output), monitor send and return, tape input, tape output.

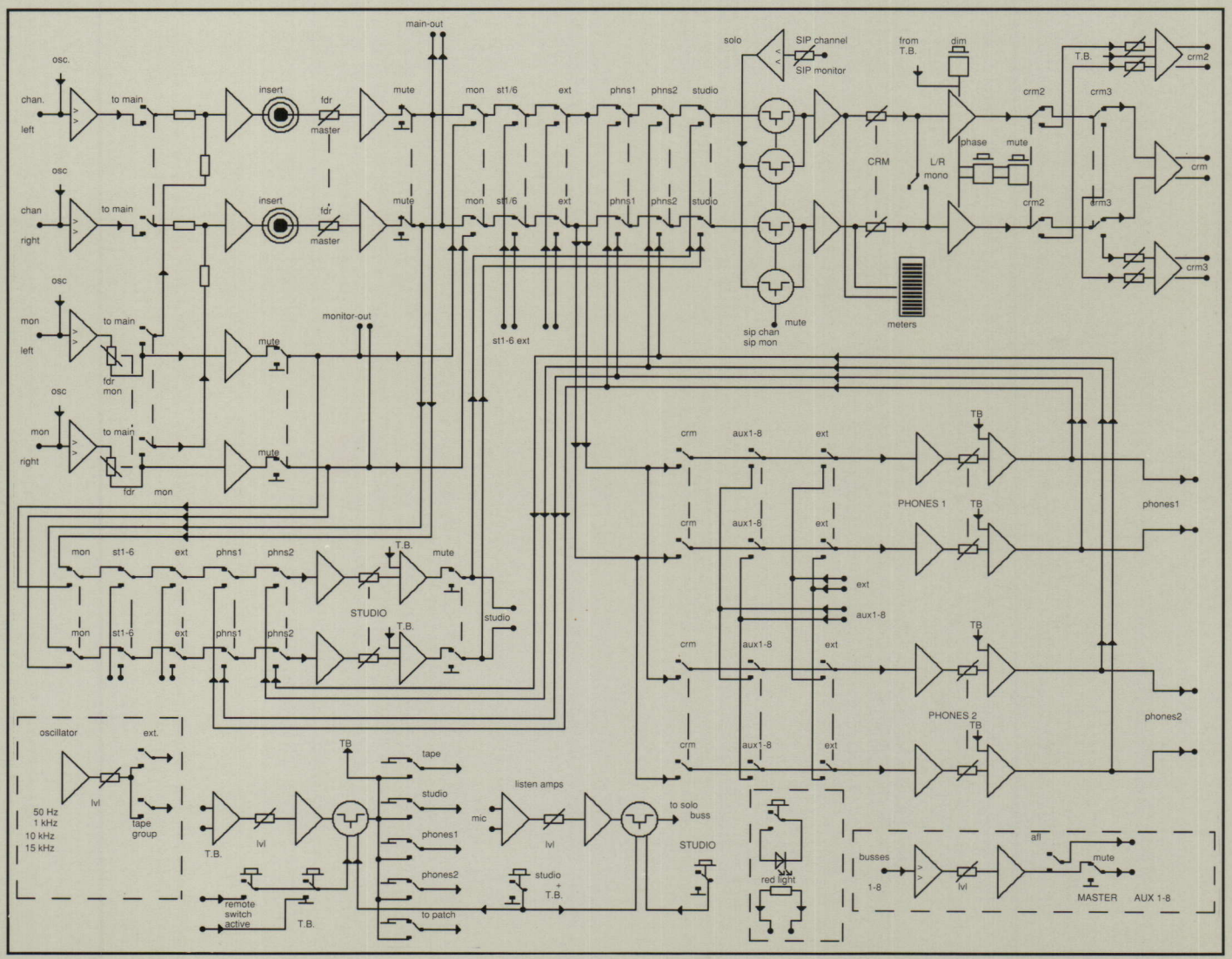
Master patchpoints for: Seven stereo machines, main outputs, insert send and returns, monitor outputs, CRM 2and 3 outputs, Talkback output and remote, Aux 1-8, phones 1 and 2 with external inputs, and two rows with balanced parallels.

An extender patch-bay for channels 33 to 64 is available.





IN/OUTPUT MODULE.



MASTER MODULE

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MASTER PRE/POST STATUS SWITCHING FOR AUX 5-8.

Other features on the Avalon in-line module are: clickfree phantom powering, tape/mic line reverse, (input reverse), phase reverse on both mic/line and tape inputs, clickless input pad, adjustable tape input, and aux 5-8 are pre/post switchable via master status switching.

The monitor section can be fed by the mic/line input and also simultaneously routed to bus 1-32 and the left/right stereo mix busses.

The group switch lets you use the monitor fader as a group master to the multitrack buss.

The "AVALON" is completely modular and service friendly using two high quality, double sided (plated through) channel boards linked by a flexible locking IDC connector system.

The mic-amp pre-amp uses a new breakthrough in pre-amp circuit design technology. Due to advanced integrated circuit technology the mute functions are completely free from clicks and pops.

THE MASTER SECTION IS VERY USER FRIENDLY WITH A HOST OF FEATURES.

After several years of research, the D&R design team developed this most comprehensive master control section, yet still kept it very "user friendly". Being a service technicians dream (six separate modules), it has 8 aux send masters each with mute and afl (with led indicators), two seperate stereo cue systems capable of being fed by the CRM, any aux busses, an external source, or all of the above mixed (in any combination) together.

Also included are three control room monitor systems with independent level controls, extensive CRM and studio source switching, a (four frequency) low distortion oscillator, remote switching for multitrack and master tape machines, master status switching for mute groups A/B/C and separate master pre/post switching for aux 5/6 and 7/8.

The comprehensive talk-back section includes remote T/B switching (which is activated and controlled by the engineer) with an extensive communications system.

The monitor section has its own stereo mix master fader with seperate outputs and is assignable to the channel stereo mix master.

The solo system with level control is individually switchable between pfl and stereo in-place solo for both the monitor and channel.

The meters are high resolution peak reading bargraph type in the master section together with a phase meter and lower resolution meters for the in-output channels. Higher resolution meters and analog VU meters are optional.

PATCHPANEL HAS BANTAM TYPE SOCKETS.

The compact patchbay with bantam jack sockets is optional and modular. Patchpoints per channel are: line input, channel insert send and returns, group output (normalled to tape input), monitor input, (normalled from tape output), monitor insert send and returns, and multi-track inputs and outputs.

The standard patch bay has a maximum of 208 tie lines and up to 32 channel in/output capacity. The extender patchbay can accept the 33 to 64 channel in/outputs and only takes four module positions.

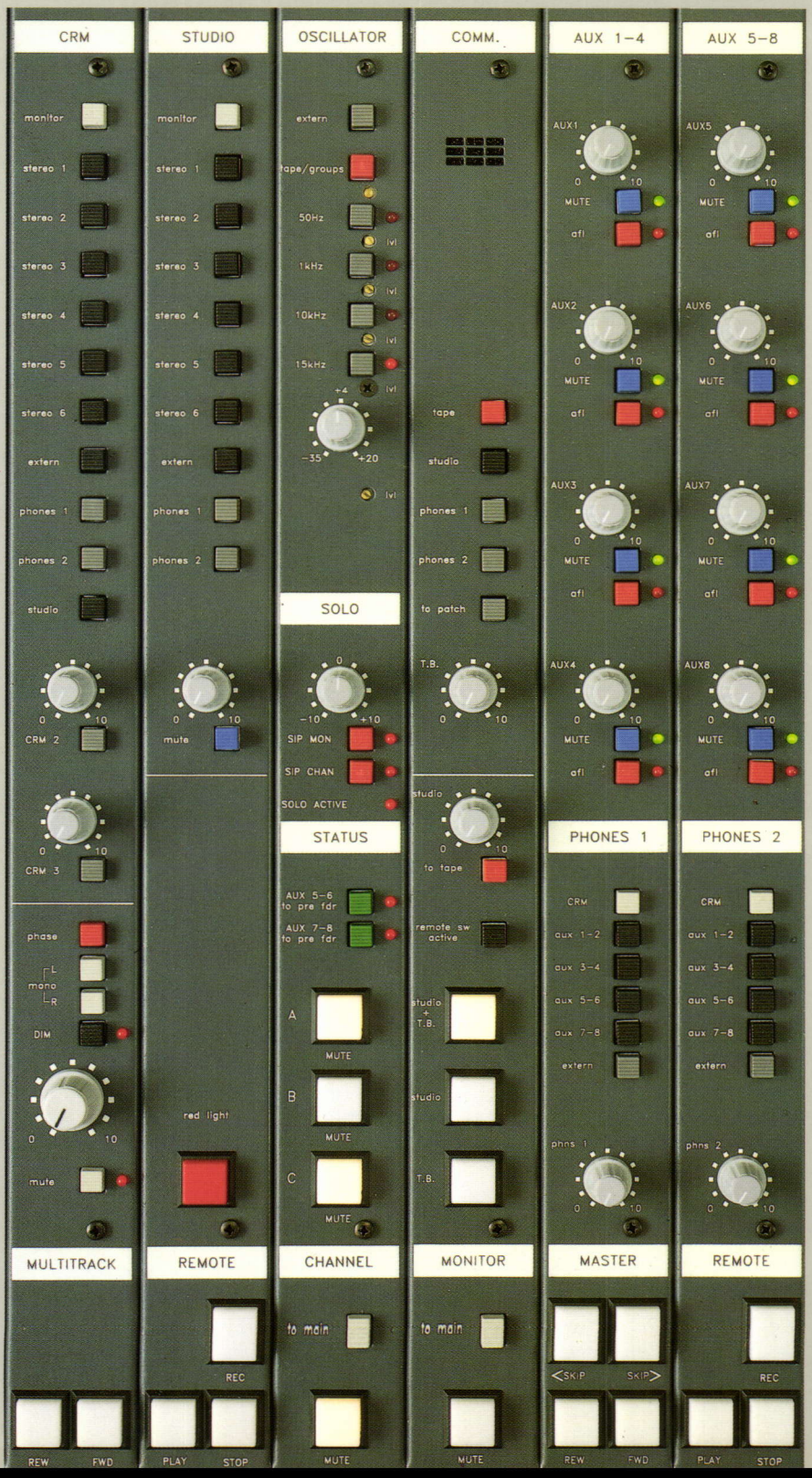
THE WELDED STEEL CHASSIS YIELDS EXCEPTIONAL SHIELDING.

The welded steel chassis yields remarkable shielding against R.F. interference. Integral cable trunk allows for a neat appearance when installing the AVALON.

The AVALON's cosmetics are of the highest order with recessed patchbay and meter section covered by smoked plexiglass.

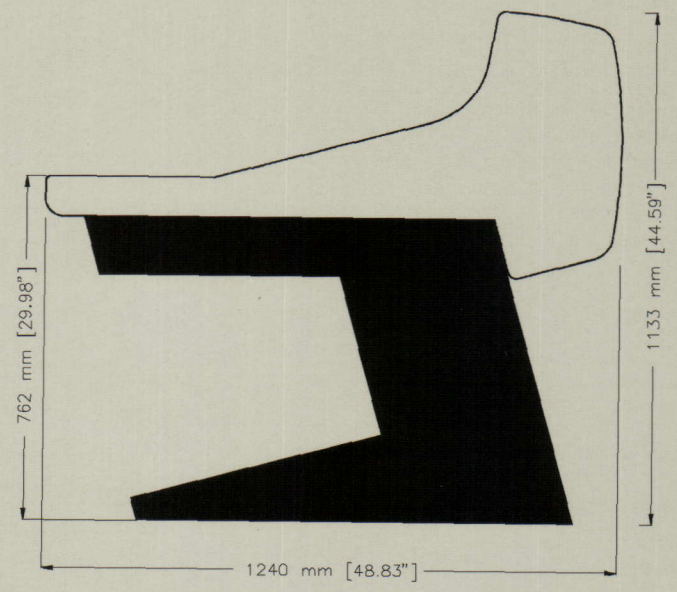
Your creativity deserves the AVALON, and putting it to work will be the boost you've been dreaming of.

...Take total control with the "AVALON"...



SPECIFICATIONS

INPUTS.	Mic input. Balanced, (R.F. suppressed), 2 kOhm. C.M.M.R. at 50Hz, -78dB. Sensitivity: -80 dBu max. for +4 dBu output. Noise Mic: -129.5 dBu, 150 Ohm source.	Line / tape inputs: Balanced, 10 kOhm, -20dBu to +20 dBu. Monitor/channel inserts: Send: semi- balanced 47ohm, 0dBu. Return: balanced 10 kOhm, 0dBu.
OUTPUTS.	Channel / group , main outputs: +4 dBu / -10 dBV at 47 Ohm balanced. All other outputs: +4 dBu balanced, 47 Ohm.	CRM 2/3 semi balanced (ground compensated) Noise: 32 chan. assigned: -86dBr (A-weighted). Noise: 64 chan. assigned: -82dBr(A-weighted).
EQUALIZER.	High pass filter: -3dB at 100 Hz. H F: + / - 16 dB from 1.5K to 20kHz, shelve/bell selectable. L F: + / - 16 dB from 30 Hz to 450 Hz, shelve/bell selectable.	All four equalizer sections individually switchable between channel and monitor. HMF: + / - 16 dB from 600Hz to 7kHz bell, Variable Q from 0.5 to 3. LMF: + / - 16dB from 200Hz to 2.5kHz, bell, Variable Q from 0.5 to 3.
OVERALL.	Nominal internal operating level: 0 dBu. Frequency response, any input to any output: (20-20.000Hz) +0.0, -0.5dB. (100kHz, -3dB) Total harmonic distortion: mic input to group output: 1kHz: < 0.006%, 10kHz: < 0.007%	Max output +26dBu into 600 Ohm. Max headroom: not less than + 22/26 dB.
CROSSTALK.	Mic to line: < -90 dB at 1 kHz. Channel mute: < -90 dB at 1kHz. Pan-pot isolation: < -80dB at 1 kHz.	Channel routing: < -96dB at 1 kHz. Channel fader: < -97dB at 1kHz. Aux send kill: < -85 dB at 1 kHz.
WEIGHT.	Avalon 36 Frame: 375 kg / 825 lbs. Avalon 54 Frame: 450 kg / 990 lbs.	
OPTIONS.	High resolution 37 segment meters, V.U. meters. Custom sized frames.	Conductive plastic faders. (Moving) Fader/mute automation.



AVALON CHASSIS DIMENSIONS.

Avalon 36 chassis = 2450mm / 96.46"
Avalon 54 chassis = 3330mm / 131.10"

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