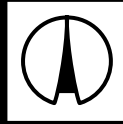


# AVALON DESIGN



PURE CLASS A MUSIC RECORDING SYSTEMS



The AD2022 is Avalon's fourth generation of fully Pure Class A microphone preamplifiers. The dual mono AD2022 includes all the original sonic capabilities and transparency of the M2, M22 and M5 preamplifiers plus several additional features, including selectable microphone source loading for optimized cable/mic matching, improved high-voltage Class A regulated power supplies, two HI-Z instrument inputs, variable-passive high pass filter, teflon/silver wiring and doubled plated circuit boards for superior low level signal transfer.

## MICROPHONE INPUT

The AD2022 incorporates the most advanced high-performance microphone transformer available. Split low-ratio primary windings are carefully combined within a custom mu-metal core for extended smooth frequency response and very low distortion. Sealer silver relays are used for minimal signal invasion. The input signal selector, high pass filter, polarity-phase reverse, +48v power and the 20dB input attenuator all utilize local sealed silver relay operation. A variable passive high pass filter provides a minimum phase shift design while eliminating low frequency rumble, wind noise and mechanical vibration at sub sonic frequencies.

## SYMMETRICAL PURE CLASS A DESIGN

Two 100% discrete, high-voltage, symmetrical Pure Class A signal amplifiers are utilized per channel. The first operates in a cascaded-cascode FET configuration while the second stage amplifier is fully bipolar. The twin amplifiers share the total available gain requirement. This shared architecture increases the high level headroom capability, improves transient response and doubles the internal bandwidth of the ultra high performance Pure Class A signal amplifiers.

## OUTPUT and METERING

High-current DC coupled, Class A discrete amplifiers are utilized for the output drive interface with +36dB capability into all known loads. Two large, high-quality analog VU meters indicate accurate signal readings while bi-color LED's offer peak indication at 0dB and +20dB. The M5 will make your recordings musical masterpieces!

# AD2022

DUAL MONO, PURE CLASS A  
PREAMPLIFIER

## AD2022 FEATURES

- Symmetrical Pure Class A design, two channels
- Microphone and Hi-Z instrument inputs
- Gain switched 4dB steps plus +/- 3dB fine output trim
- Selectable microphone input impedance matching
- Low noise -126dB EIN
- Very low noise -126dB
- Ultra high quality, low-ratio, balanced input transformer
- Balanced, high-current Class A output to +36dB
- Large illuminated analog VU meters and twin peak LED's
- Regulated phantom power supply +48v
- Input polarity phase reverse
- High headroom +36dB input before overload
- Input -20dB pad for high level signals
- Sealed silver relays for all signal routing
- External AC 150w toroidal power chassis
- Fully discrete Class A regulated audio power supplies
- External 150W toroidal power supply
- Deep, musical sound-stage, transparent amplification



Pure Class A music recording systems since 1985.



**AD2022 PREAMPLIFIER SPECIFICATIONS**

<b>Circuit topology</b>	Twin cascode FET and bipolar low level input signal stages. High-voltage, 100% discrete, symmetrical Pure Class A
<b>Input type and load</b>	Transformer balanced low-ratio, 50, 150, 600 and 1k5 ohm input load selection
<b>Maximum mic level</b>	+36dB balanced XLR pin 2 hot (with -20dB passive attenuator)
<b>Maximum instrument level</b>	+18dB at 100k ohms instrument input level, standard mono 1/4 inch jack
<b>Input attenuator</b>	-20dB resistive pre-transformer primary, sealed silver relay
<b>Phantom power</b>	+48v regulated 50mA capability, sealed silver relay
<b>High pass filter</b>	Passive, variable from 30Hz to 185Hz @ 6dB per octave, sealed silver relay
<b>Polarity reverse</b>	Sealed silver relay on microphone input
<b>Gain range input</b>	+20dB to +64dB in 4dB steps
<b>Gain output range</b>	+/- 3dB variable conductive plastic potentiometer
<b>Maximum output level</b>	+36dB balanced 600 ohms, DC coupled, discrete symmetrical Pure Class A
<b>Output type</b>	XLR connector, pin 2 hot
<b>Noise EIN unweighted</b>	-126dB 150 ohm
<b>Noise 20kHz unweighted</b>	-102dB
<b>Distortion THD, IMD</b>	0.05% nominal
<b>Frequency response -3dB</b>	1Hz to 120kHz transformer limit
<b>System bandwidth</b>	DC to 1MHz
<b>Output meter</b>	High quality, illuminated analog VU meter 0dB = +4dB
<b>Peak meter</b>	Bi-color LED's 0dB and +20dB peak detection circuit
<b>AC power supply B2T</b>	External toroidal 100V to 240V, 50-60Hz selectable, 150 watts maximum
<b>Cables</b>	15lbs (6.8kg)
<b>Dimensions-shipping carton</b>	24 x 21.5 x 7.5 in (610 x 546 x 190mm)
<b>Weight-packed</b>	25lbs (11.4kg) includes B2T power supply and cables
<b>AC power supply AD2022</b>	External toroidal 100V to 240V, 50-60Hz selectable, 150 watts maximum
<b>Cables</b>	1 x 8ft 4 pin ac cable, 1 x 8ft standard IEC cable included
<b>Dimensions</b>	5 x 7 x 3.25 in (127 x 177 x 83mm)
<b>Weight</b>	7lbs (3.2kg)
<b>AC power supply AD2022</b>	90V ac, 4 pin male power input connector, B2T required, internal DC regulation
<b>Dimensions</b>	19 x 12 x 3.5 in (482 x 305 x 89mm)
<b>Weight</b>	15lbs (6.8kg)
<b>Dimensions-shipping carton</b>	24 x 21.5 x 7.5 in (610 x 546 x 190mm)
<b>Weight-packed</b>	25lbs (11.4kg)



Pure Class A music recording systems since 1985.

Avalon reserves the right to incorporate changes in design and in the specifications of this product without prior notice.

# AVALON DESIGN

PURE CLASS A MUSIC RECORDING SYSTEMS



## SONIC EXCELLENCE

The Avalon AD2044 Pure Class A opto-compressor is the most transparent, low noise optical-compressor available today. Designed to optimize absolute signal integrity and musical performance, the AD2044 combines advanced electronics with sonic excellence unequaled by lesser designs. The AD2044 is the perfect solution for two buss music-program compression, mastering applications, mono bass and instruments.

Features include state-of-the-art, balanced 100% discrete, Pure Class A signal amplifiers, practical "real-world" user features and rugged hardware designed to deliver true high performance audio for many years.

## LINEAR OPTICAL COMPRESSION

Computer matched, high speed linear opto elements provide the non invasive passive attenuator system for invisible gain reduction. The AD2044 incorporates a unique external control loop and current monitored optical driver for smooth control plus the benefits of traditional vintage LDR (light dependant resistor) compression.

## MINIMUM SIGNAL PATH DESIGN

Avalon's advanced true symmetry design offers high-voltage, large headroom, extended bandwidth and very low noise. The use of 100% discrete, Pure Class A signal amplifiers offer the serious music professional unlimited sonic character and a natural harmonic detail that enhances the program material and becomes one with the music itself.

The AD2044 can be found in the world's leading recording studio's, mastering facilities and artist/producers outboard racks. These professionals rely on the AD2044 daily to help them complete their "sonic signature" and turn recordings into musical masterpieces.

# AD2044

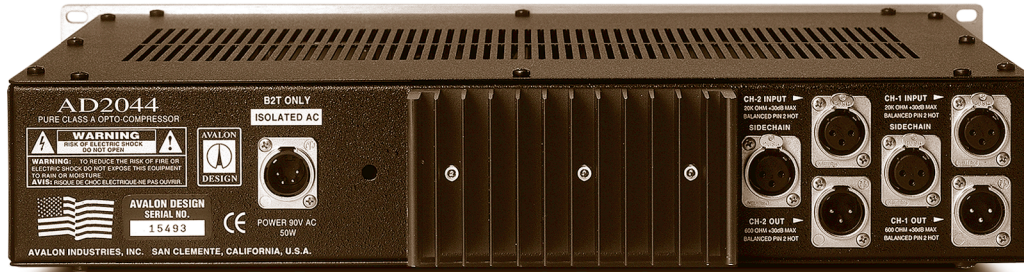
## OPTO-COMPRESSOR

### AD2044 FEATURES

- Smooth musical detail and sonic excellence
- Minimum audio signal path
- Pure Class A, 100% discrete design
- Dual mono or Stereo operation
- Transparent, non-invasive compression
- Very low noise -94dB
- High headroom +30dB
- Fully balanced inputs and outputs
- DC coupled, no transformers in audio path
- Variable threshold, ratio, attack & release
- Large accurate professional VU meters
- Wide bandwidth -3dB 1Hz to 450kHz
- Low distortion less than 0.5% THD and IMD
- External side-chain access XLR
- All signal routing with sealed silver relays
- 100% discrete power supplies for audio path
- External 150W toroidal power supply
- Long lasting, stainless steel hardware



*Pure Class A music recording systems since 1985.*



## AD2044 SPECIFICATIONS

<b>Circuit topology</b>	High-voltage 100% discrete, balanced and symmetrical Class A
<b>Output gain range</b>	Variable -10dB to +10dB, center detent 0dB
<b>Maximum input level</b>	+30dB balanced XLR pin 2 hot
<b>Maximum output level</b>	+32dB balanced 600 ohms, DC coupled, high-current discrete Class A
<b>Input-Output type</b>	XLR type, pin 2 hot balanced
<b>Noise 20kHz unweighted</b>	-94dB (compressor in)
<b>Distortion THD, IMD</b>	0.5% (typical 0.05% at +6dB 1kHz)
<b>Frequency response -3dB</b>	1Hz to 450kHz (input band limited)
<b>Gain reduction meter</b>	Illuminated gain reduction meter 0dB to -20dB range
<b>Output meter</b>	Professional moving coil type -20dB to +3dB (0VU=+4dB)
<b>Compressor type</b>	Optical passive attenuator
<b>Bypass</b>	Hard-wire relay bypass for compressor in-out
<b>Link switch</b>	Large illuminated push switch for stereo L-R linking
<b>Make-up gain</b>	Variable 20dB range (-10dB to +10dB)
<b>Threshold</b>	Threshold variable -24dB to +20dB
<b>Ratio</b>	Ratio-compression variable 1:1 to 20:1
<b>Attack</b>	Variable 0.5mS to 150mS
<b>Release</b>	Variable 80mS to 5 seconds for 12dB release
<b>Side-chain</b>	XLR type, pin 2 hot balanced (switch/relay selectable from front panel)
<b>AC-DC power (B2T power supply included)</b>	External AC supply, 150w toroidal transformer, 4 pin cable 90v isolated, 100-240v selectable 50/60Hz, 150w max
<b>Dimensions</b>	19 x 3.5 x 12 in (482 x 88 x 305mm)
<b>Shipping weight</b>	30lbs (13.6 kg)

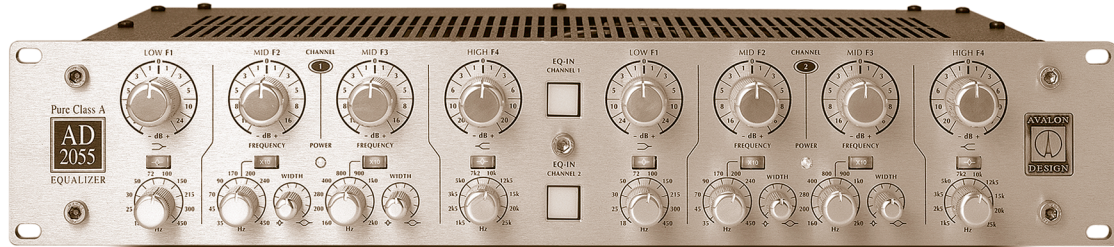


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# AVALON DESIGN

PURE CLASS A MUSIC RECORDING SYSTEMS



## SONIC EXCELLENCE

The Avalon AD2055 Pure Class A music equalizer is the most powerful, low noise parametric equalizer available today. Designed to optimize absolute signal integrity and musical performance, the AD2055 combines the best of active and passive filter topologies with sonic excellence unequalled by lesser designs. The AD2055 is the perfect solution for two buss music-program equalization, special instrument EQ and FX applications and ultra high performance mastering studios. Features include state-of-the-art, balanced 100% discrete, Pure Class A signal amplifiers, practical user features and rugged hardware designed to deliver true high performance audio for many years.

## PASSIVE-ACTIVE FILTER DESIGN

Avalon equalizers feature the unique combination of both active and passive filter EQ designs. This special combination enables the AD2055 to deliver high speed transient detail at the operational extremes of real-world equalization demands. The passive high and low bands offer alternate musical tone range to the full function active parametric mid bands. Passive equalizers have long been a favorite with music lovers around the world..full bodied, powerful (up to +/-32dB, 64dB range !) and sweet frequency selections are the benefits of the passive high-low EQ bands. The full bandwidth twin mid bands provide variable frequency selection (X10 frequency multipliers for very wide range), variable Q (width) and amplitude control.

## MINIMUM SIGNAL PATH DESIGN

Avalon's advanced true symmetry design offers high-voltage, large headroom, extended bandwidth and very low noise. The use of 100% discrete, Pure Class A signal amplifiers give the serious music professional unlimited sonic character and a natural harmonic detail that enhances the program material and becomes one with the music itself. The Avalon AD2055 breathes life!

# AD2055

## CLASS A EQUALIZER

### AD2055 FEATURES

- Smooth musical detail and sonic excellence
- Minimum audio signal path
- Pure Class A, 100% discrete design
- Dual mono operation
- Transparent active and passive filter design
- Very low noise -94dB
- High headroom +30dB
- Fully balanced inputs and outputs
- DC coupled, no transformers in audio path
- Switched frequencies in high and low bands
- Mid bands use X10 frequency for extended range
- Wide bandwidth -3dB 1Hz to 450kHz
- Low distortion less than 0.5% THD and IMD
- Conductive plastic potentiometers for low noise
- All signal routing with sealed silver relays
- 100% discrete power supplies for audio path
- External 150W toroidal power supply
- Long lasting, stainless steel hardware



*Pure Class A music recording systems since 1985.*



## AD2055 SPECIFICATIONS

<b>Circuit topology</b>	High-voltage 100% discrete, balanced and symmetrical Class A
<b>Output gain range</b>	Unity gain
<b>Maximum input level</b>	+30dB balanced XLR pin 2 hot
<b>Maximum output level</b>	+32dB balanced 600 ohms, DC coupled, high-current discrete Class A
<b>Input-Output type</b>	XLR type, pin 2 hot balanced
<b>Noise 20kHz unweighted</b>	-94dB (EQ in)
<b>Distortion THD, IMD</b>	0.5% (typical 0.05% at +6dB 1kHz)
<b>Frequency response -3dB</b>	1Hz to 450kHz (input band limited)
<b>Equalizer type</b>	Passive high and low bands plus two fully parametric mid bands
<b>Bypass</b>	Hard-wire relay bypass for equalizer in-out
<b>Low band F1</b>	Passive, amplitude to -32dB to +32dB shelf or peak-dip curve
<b>F1 frequency range</b>	Switched 10 position 18Hz, 25, 30, 50, 72, 100, 150, 215, 300, 450Hz
<b>Mid band F2</b>	Active, amplitude to -16dB to +16dB peak-dip curve
<b>F2 frequency range</b>	Variable 35Hz to 450Hz (x10) 350Hz to 4k5Hz, Q (width) 0.3 to 3.0
<b>Mid band F3</b>	Active, amplitude to -16dB to +16dB peak-dip curve
<b>F3 frequency range</b>	Variable 160Hz to 2k0Hz (x10) 1k6Hz to 20kHz, Q (width) 0.3 to 3.0
<b>High band F4</b>	Passive, amplitude to -26dB to +26dB shelf or peak-dip curve
<b>F4 frequency range</b>	Switched 10 position 1k5Hz, 2k5, 3k5, 5k, 7k2, 10k, 12k5, 15k, 20k, 25kHz
<b>AC-DC power</b> <b>(B2T power supply included)</b>	External AC supply, 150w toroidal transformer, 4 pin cable 90v isolated, 100-240v selectable 50/60Hz, 150w max
<b>Dimensions</b>	19 x 3.5 x 12 in (482 x 88 x 305mm)
<b>Shipping weight</b>	30lbs (13.6 kg)



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# AVALON DESIGN

PURE CLASS A MUSIC RECORDING SYSTEMS



## SONIC EXCELLENCE

The Avalon AD2077 Pure Class A mastering equalizer is the most advanced, low noise, fully switched parametric equalizer available today. Designed for absolute signal integrity and musical performance, the AD2077 combines the best active and passive filter topologies for sonic excellence unequalled by lesser designs.° The AD2077 is the perfect solution for two buss music-program equalization and ultra-high performance analog mastering applications. Features include state-of-the-art, balanced 100% discrete, Pure Class A signal amplifiers, practical user features and rugged hardware designed to deliver true high performance audio for many years.°

## PASSIVE-ACTIVE FILTER DESIGN

Avalon equalizers feature the unique combination of both active and passive EQ filters. This special combination enables the AD2077 to deliver high speed transient detail at the operational extremes of real-world equalization demands.° The passive high and low bands offer alternate musical tone range to the full function active parametric mid bands. Passive equalizers have long been a favorite with music lovers around the world . . . full bodied, powerful (up to +/-20dB, 40dB° range !) and sweet frequency selections are the benefits of the passive high-low EQ bands. The full bandwidth twin mid bands provide switched frequency selection (X10 frequency multipliers for very wide range), switched Q (width) and amplitude control.°

## MINIMUM SIGNAL PATH DESIGN

Avalon's true symmetry design offers high-voltage, large headroom, extended bandwidth and very low noise. The use of 100% discrete, Pure Class A signal amplifiers give the serious mastering engineer unlimited sonic character and a natural harmonic detail that enhances the program material and becomes one with° the music itself.

# 2077

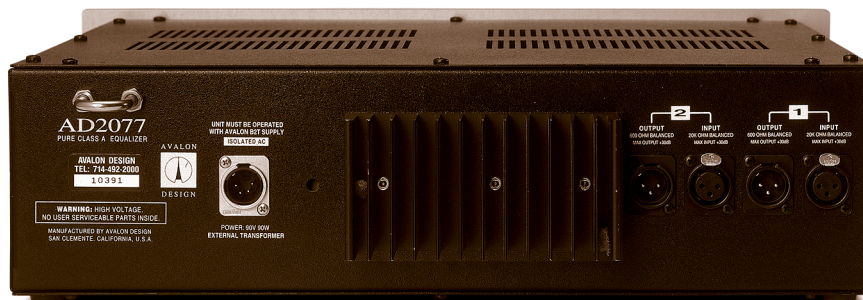
## MASTERING EQUALIZER

### AD2077 FEATURES

- Pure Class A, 100% discrete design
- Smooth musical detail and sonic excellence
- Minimum audio signal path
- Dual mono, fully switched controls
- Transparent active and passive filter design
- Very low noise -94dB
- High headroom +30dB
- Fully balanced inputs and outputs
- DC coupled, no transformers in audio path
- 104 switched frequencies per channel
- Mid bands use X10 frequency for extended range
- Wide bandwidth -3dB 1Hz to 450kHz
- Low distortion less than 0.5% THD and IMD
- Switched range control 0.5dB, 1dB and 2dB steps
- All signal routing with sealed silver relays°
- 100% discrete power supplies for audio path
- External 150W toroidal power supply
- Long lasting, stainless steel hardware



*Pure Class A music recording systems since 1985.*



## A D 2 0 7 7   S P E C I F I C A T I O N S

<b>Circuit topology</b>	High-voltage 100% discrete, balanced and symmetrical Class A
<b>Output gain range</b>	Unity gain
<b>Maximum input level</b>	+30dB balanced XLR pin 2 hot
<b>Maximum output level</b>	+32dB balanced 600 ohms, DC coupled, high-current discrete Class A
<b>Input-Output type</b>	XLR type, pin 2 hot balanced
<b>Noise 20kHz unweighted</b>	-94dB (EQ in)
<b>Distortion THD, IMD</b>	0.5% (typical 0.05% at +6dB 1kHz)
<b>Frequency response -3dB</b>	1Hz to 450kHz (input band limited)
<b>Equalizer type</b>	Passive high and low bands plus two fully parametric mid bands
<b>Bypass</b>	Hard-wire relay bypass for equalizer L-R in-out plus silent opto switch for seamless stereo bypass.
<b>Low band F1</b>	Passive, switched amplitude to -20dB to +20dB in 0.5dB, 1dB or 2dB steps
<b>F1 frequency range</b>	shelf or peak-dip curve, switched 18, 25, 30, 50, 72, 100, 150, 200, 300, 400Hz
<b>Mid band F2</b>	Active, switched amplitude to -10dB to +10dB in 0.5dB or 1dB steps
<b>F2 frequency range</b>	Switched 12, 15, 18, 21, 25, 30, 36, 42, 50, 60, 70, 84, 100, 120, 140, 170, 200, 240, 280, 340, 400Hz, (x10) 120, 150, 180, 210, 250, 300, 360, 420, 500, 600, 700, 840, 1k, 1k2, 1k4, 1k7, 2k, 2k4, 2k8, 3k4, 4 Hz Q (width) switched 5 positions 6, 9, 12, 15, 18dB per octave
<b>Mid band F3</b>	Active, switched amplitude to -10dB to +10dB in 0.5dB or 1dB steps,
<b>F3 frequency range</b>	Switched 140, 160, 180, 210, 250, 300, 350, 420, 500, 600, 700, 840, 1k, 1k2, 1k4, 1k5, 1k6, 1k8, 2k, 2k2, 2k4, (x10) 1k4, 1k6, 1k8, 2k1, 2k5, 3k, 3k5, 4k2, 5k, 6k, 7k, 8k4, 10k, 12k, 14k, 15k, 16k, 18k, 20k, 22k, 24kHz Q (width) switched 5 positions 6, 9, 12, 15, 18db per octave
<b>High band F4</b>	Passive, switched amplitude to -20dB to +20dB in 0.5dB, 1dB or 2dB steps,
<b>F4 frequency range</b>	shelf or peak-dip curve, switched 3k, 4k, 6k, 8k, 10k, 12k, 15k, 17k, 20k, 25kHz
<b>AC-DC power</b> <b>(B2T power supply included)</b>	External AC supply, 150w toroidal transformer, 4 pin cable 90v ac isolated 100-240v selectable 50/60Hz, 150w max
<b>Dimensions</b>	19 x 7 x 15 in (482 x 178 x 380mm)
<b>Shipping weight</b>	40lbs (13.6 kg)



*Pure Class A music recording systems since 1985.*

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# AVALON DESIGN

PURE CLASS A MUSIC RECORDING SYSTEMS



## SONIC EXCELLENCE

The Avalon U5 Pure Class A instrument DI & preamplifier is the most powerful direct box available today. Designed to optimize absolute signal integrity and musical performance, the U5 includes many features and sonic excellence unequalled by lesser designs. The U5 is ideal for bass guitar and acoustic instruments, electric guitars, keyboards, synthesizers and low output pickups. Features include state-of-the-art, high input impedance input stage for zero load effect on sensitive pickups and keyboards, 100% discrete, Pure Class A signal amplifiers, practical user features and rugged hardware designed to deliver true high performance audio for many years.

## DESIGNED FOR DEEP & CONTROLLED BASS

Avalon U5 DI-preamps have been in use around the world since 1995. They have found their way into the world's leading musicians rigs and recording sessions and been featured on thousands of the best selling (and sounding) albums and live performances.

## MINIMUM SIGNAL PATH DESIGN

The U5 includes a variable gain Class A preamplifier to boost low level pickup signals and a high level speaker input for capturing the live sound of the instruments amplifier. Six passive tone-EQ curves are also included to enhance a variety of acoustic and electric instruments. A high-cut switch eliminates unwanted acoustic pickup and high frequency noise, while a headphone monitor amp has been included for personal listening. Twin DC coupled Class A output amplifiers drive both low level microphone preamp inputs and high level +4dB inputs for direct to tape recording or processing. The active-to-thru switch selects either the instrument input directly or sends the boosted-equalized signal to the amplifier via the front panel jack. A ground isolation switch eliminates any possible earth loop or AC buzz problems with complete safety.

# U5

## INSTRUMENT DI-PREAMP

### U5 FEATURES

- Smooth musical detail and sonic excellence
- Variable gain preamp to +30dB.
- Pure Class A, 100% discrete design
- Dual microphone and line outputs
- Hi-Z 3,000,000 ohm input impedance
- Very low noise -100dB
- High headroom +30dB
- Six tone bank selections
- DC coupled Class A output for superior bass
- High cut switch (low pass filter) eliminates hiss
- LED active signal indicator
- Headphone monitor output jack
- Low distortion less than 0.5% THD and IMD
- High level 400 watt speaker input
- Active to thru selector - ground isolation switch
- 100% discrete power supplies for audio path
- Internal toroidal power supply for low noise
- Long lasting, stainless steel hardware



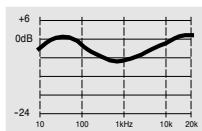
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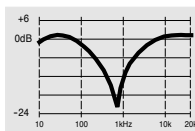
## U 5 S P E C I F I C A T I O N S

<b>Circuit topology</b>	100% discrete, high-voltage Class A
<b>Gain</b>	Switched 3dB steps, maximum gain +30dB
<b>Input impedance</b>	3,000,000 ohm unbalanced (single ended)
<b>Maximum input level</b>	+24dBu unbalanced, 400w speaker input
<b>Output connectors (2)</b>	XLR type, pin 2 hot electronic balanced
<b>Maximum output level (Class A)</b>	+30dBu DC coupled, balanced 600 ohms (mic and line out)
<b>Headphone output</b>	0.5w into 600 ohms
<b>Noise 20kHz unweighted</b>	-100dBu minimum gain position
<b>Distortion THD, IMD</b>	0.1% at +10dB
<b>Frequency response, +/-0.5dB</b>	5Hz to 100kHz
<b>Frequency response, -3dB</b>	1Hz to 500kHz (input band limited)
<b>High cut filter</b>	-3dB at 8kHz minimum phase design

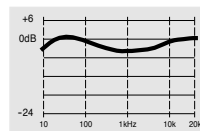
**Tone selector** Six position rotary switch, all passive filters



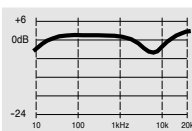
**1** acoustic and string instruments, electric bass and keyboards



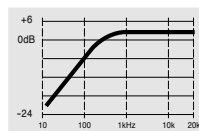
**2** electric bass guitar



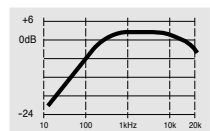
**3** acoustics, strings, electric and bass guitar and keyboards



**4** acoustics, strings electric and bass guitar and keyboards



**5** acoustic and electric guitar



**6** electric and bass guitar

<b>AC power</b>	Internal toroidal AC supply 115-230v selectable 50/60Hz, 40w max
<b>Dimensions</b>	8.5 x 3.5 x 12 in (216 x 88 x 305mm)
<b>Weight-packed</b>	12lbs (5.4kg)
<b>Rack mount kit (1) RM-1</b>	Single U5 19 inch rack mount kit (holds one half rack unit)
<b>Rack mount kit (2) RM-2</b>	Dual U5 19 inch rack mount kit (holds two half rack units)



Pure Class A music recording systems since 1985.

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# AVALON DESIGN



PURE CLASS A MUSIC RECORDING SYSTEMS



## SONIC EXCELLENCE

The Avalon M5 Pure Class A microphone preamplifier is the most musical, low noise full function preamplifier available today. Designed to optimize absolute signal integrity and musical performance, the M5 combines an advanced transformer input stage with twin high performance Class A cascode FET and bipolar discrete amplifiers for sonic excellence unequaled by lesser designs. The M5 is ideal for vocal and acoustic instruments, active DI input for the direct recording of bass, guitars and keyboards.

Features include state-of-the-art, balanced 100% discrete, Pure Class A signal amplifiers, practical user features and rugged hardware designed to deliver true high performance audio for many years.

## DESIGNED FOR ULTIMATE MUSIC RECORDING

Avalon preamplifiers have been in use since 1989. They have found their way into the world's most famous lead vocalists recording sessions and studios and been featured on thousands of the best selling (and sounding) albums and live performances.

## MINIMUM SIGNAL PATH DESIGN

Avalon's advanced true symmetry design offers high-voltage, large headroom, extended bandwidth and very low noise. The use of 100% discrete, Pure Class A signal amplifiers give the serious music professional unlimited sonic character and a natural harmonic detail that enhances the program material and becomes one with the music itself.

## VOCALISTS DREAM MACHINE

The M5 microphone preamplifier is the first choice when you are looking to capture a full bodied, dynamic, musical performance from the intimate depths within the artist. The M5 will make your recordings musical masterpieces!

# M5

## MICROPHONE PREAMP

### M5 FEATURES

- Smooth musical detail and sonic excellence
- Minimum audio signal path
- Pure Class A, 100% discrete design
- High performance input transformer
- Microphone and Hi-Z inputs to +36dB
- Very low noise -126dB
- High headroom +30dB
- Gain switched in 2dB steps to +64dB
- DC coupled Pure Class A output
- Large illuminated professional VU meter
- Twin LED peak signal indicators
- Regulated +48v phantom power supply
- Low distortion less than 0.5% THD and IMD
- Variable passive high pass (bass cut) filter
- All signal routing with sealed silver relays
- 100% discrete power supplies for audio path
- External 150W toroidal power supply
- Long lasting, stainless steel hardware

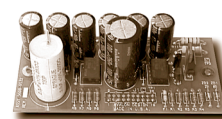


*Pure Class A music recording systems since 1985.*



## M 5 S P E C I F I C A T I O N S

<b>Circuit topology</b>	Twin cascode FET and bipolar low level input signal stages. High-voltage, 100% discrete, symmetrical high-bias Pure Class A amplifiers
<b>Input type and load</b>	Superior transformer, balanced low-ratio 1500 ohm input load
<b>Maximum mic level</b>	+36dB balanced XLR pin 2 hot (with -20dB passive attenuator)
<b>Maximum instrument level</b>	+18dB at 100k ohms instrument input level, standard mono 1/4 inch jack
<b>Input attenuator</b>	-20dB resistive pre-transformer primary, sealed silver relay
<b>Phantom power</b>	+48v regulated 50mA capability, sealed silver relay
<b>High pass filter</b>	Passive, variable from 30Hz to 185Hz @ 6dB per octave, sealed silver relay
<b>Polarity reverse</b>	Sealed silver relay on microphone input
<b>Gain range input</b>	+20dB to +64dB in 2dB steps
<b>Maximum output level</b>	+30dB unbalanced 600 ohms, DC coupled, discrete symmetrical Pure Class A
<b>Output type</b>	XLR connector, pin 2 hot (optional balanced JT-1 transformer)
<b>Noise EIN unweighted</b>	-126dB 150 ohm
<b>Noise 20kHz unweighted</b>	-100dB
<b>Distortion THD, IMD</b>	0.05% nominal
<b>Frequency response -3dB</b>	1Hz to 120kHz transformer limit
<b>System bandwidth</b>	DC to 1MHz
<b>Output meter</b>	High quality, illuminated analog VU meter 0dB = +4dB
<b>Peak meter</b>	Bi-color LED's 0dB and +20dB peak detection circuit
<b>Options</b>	BK-1 high-voltage plug in card for B&K 130v microphones
<b>M5 dimensions</b>	8.5 x 3.5 x 12 in (216 x 88 x 305mm) half rack width
<b>Weight</b>	15lbs (6.8kg)
<b>Dimensions-shipping carton</b>	24 x 21.5 x 7.5 in (610 x 546 x 190mm)
<b>Weight-packed</b>	25lbs (11.4kg) includes B2T power supply and cables
<b>AC power supply B2T</b>	External toroidal 100V to 240V, 50-60Hz selectable, 150 watts maximum
<b>Cables</b>	1 x 8ft 4 pin ac cable, 1 x 8ft standard IEC cable included
<b>Dimensions</b>	5 x 7 x 3.25 in (127 x 177 x 83mm)
<b>Weight</b>	7lbs (3.2kg)
<b>Rack mount kit (1) RM-1</b>	Single M5 19 inch rack mount kit (holds one half rack unit)
<b>Rack mount kit (2) RM-2</b>	Dual M5 19 inch rack mount kit (holds two half rack units)



BK-1 130v power card option



Pure Class A music recording systems since 1985.

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AVALON



DESIGN®

PURE CLASS A MUSIC RECORDING SYSTEMS



### SONIC EXCELLENCE

The Avalon V5 DI-RE-MIC PREAMPLIFIER is an ultra-high performance professional preamplifier, DI and *RE-amp*. Created for maximum versatility, the V5's sonic signature - "*Deep and Controlled Bass, Musical Mid-Range and enhanced Vocal Projection*" combine with a unique set of user features including, 100% discrete Pure Class A amplification, Avalon's unique "*passive*" TONE-BANK™, professional VU meter with dual peak LED's, multiple outputs including an instrument level transformer isolated Re-amp. Designed to optimize absolute signal integrity and musical performance, the V5 is ideal for ribbon, dynamic and condenser microphones, bass guitar, acoustic instruments, electric guitars, keyboards, synthesizers and very low output passive pickups.

The state-of-the-art DI input stage, provides a very-high impedance "*zero-load*" effect on sensitive pickups and keyboards, while maintaining massive input headroom to +36dB before overload.

### RICH HARMONICS

Avalon DI-preamplifiers have been in use around the world since 1985. They have found their way into the world's leading musician's rigs and recording sessions and have been featured on thousands of the best selling (and sounding) albums, downloads and live performances. The V5 includes the best of the Avalon U5 DI functions with a studio quality preamplifier and "*a new sonic addition*". Two alternate solid-state topologies are cascaded to provide a rich, low mid-range harmonic content not offered in other Avalon preamplifiers. This feature empowers the V5 with a new scale of sonic character.

### MINIMUM SIGNAL PATH DESIGN

The V5 includes a very high quality input transformer (same as the Avalon VT-737sp) with dual microphone input impedance loading for perfect mic/cable matching, high-cut switch for eliminating unwanted acoustic pickup and high frequency noise, headphone monitor amp and DC coupled, 100% Class A output amplifiers for defined bass control. A buffered "thru" output for *zero-instrument-load* tuners or power amp inputs, internal toroidal power transformer with discrete high-voltage power supplies for low noise and sealed silver relays for transparent signal routing.

V5

DI-RE-PREAMPLIFIER

### V5 FEATURES

- Forward musical detail and sonic excellence
- High quality transformer input & isolated output
- Switched 2dB, high-gain preamplifier to +66dB.
- 100% discrete, high-voltage, Pure Class A
- Dual microphone impedance selection
- Hi-Z 10,000,000 Ω Instrument-DI input
- Very low noise -100dB
- High output headroom to +30dB
- RE-preamplifier with line, DI or microphone input
- Ten "*passive*" TONE-BANK™ selections
- Polarity (phase) reverse on all input-outputs
- DC coupled Class A outputs for superior bass
- High cut switch (low pass filter) eliminates hiss
- LED active & peak signal indicator
- Headphone monitor output jack
- Low distortion - less than 0.5% THD and IMD
- Professional VU meter -30dB to +18dB
- Buffered DI output & ground isolation switch
- 100% discrete power supplies for audio path
- Internal toroidal power supply for low noise
- Long lasting, stainless steel hardware



Pure Class A  
Music Recording Systems since 1985.  
MADE IN U.S.A.



V 5 S P E C I F I C A T I O N S

**Audio circuit topology**

**Gain**

**Input modes (4)**

**LINE** (transformer)

**INSTRUMENT ~ DI**

**MICROPHONE HiZ** (transformer)

**MICROPHONE LoZ** (transformer)

**PAD** (passive input attenuator)

**Phantom power**

**Thru output**

**Maximum line output level**

**Maximum isolated output level**

**Headphone output**

**Noise 20kHz unweighted**

**Noise (EIN) 22Hz-22kHz**

**Distortion THD, IMD**

**Frequency response, +/-0.5dB**

**Frequency response, -3dB**

**VU meter**

**Signal LED's**

**High cut filter**

**Polarity reverse** (phase)

**Tone shape**

100% discrete, high-voltage, Class A

Switched 2dB steps, +/- 0.15dB

Line, Instrument-DI, Microphone high-Z & low-Z

Balanced 6,000 Ω, XLR~TRS, gain -3dB ~ 36dB, max. input 47dB

Unbalanced 10,000,000 Ω, TRS, gain 2dB ~ 42dB, max. input 36dB

Balanced 6,700 Ω, XLR, gain 20dB ~ 60dB, max. input 23dB

Balanced 1,760 Ω, XLR, gain 26dB ~ 66dB, max. input 19dB

Line -13dB, Instrument -10dB & Microphone -15dB

48V regulated @10mA, blue=power ON, red=phantom ON

Unbalanced, impedance buffered TRS

+30dB DC coupled, balanced 600 Ω, XLR~TRS

+12dB transformer balanced high Z output, TRS

0.5w into 600 Ω, TRS

-100dBu minimum gain position

-128dB @ 40dB gain (low Z microphone input)

0.05% at +10dB output

5Hz to 50kHz

2Hz to 500kHz (input band limited)

Professional moving coil VU, wide range -33dB ~ 18dB

Peak capture, blue=0dB, red=20dB

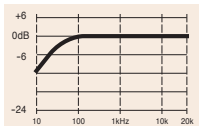
-3dB at 4kHz minimum phase design

All outputs relay switched (including isolated output)

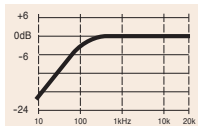
Ten "passive" voices for improved clarity, problem solving

and musical enhancement.

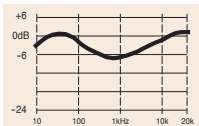
TONE selections 1 through 6 are identical to the TONE-BANK™ options in the Avalon U5 "Ultra-Five" Direct Box-preamplifier.



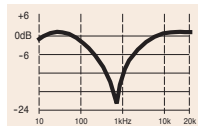
vocals and instruments, high pass, rumble filter 50Hz @ 6dB/octave



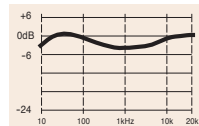
vocals and instruments, high pass, rumble filter 90Hz @ 6dB/octave



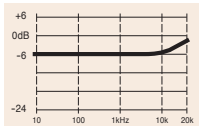
**1** acoustic and string instruments, electric bass and keyboards



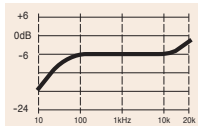
**2** electric bass guitar with mid scoop



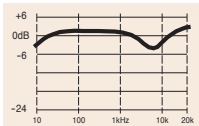
**3** acoustics, strings, electric and bass guitar and keyboards



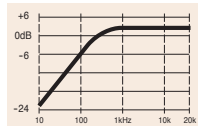
AIR-LIFT vocals, acoustic-electric instruments



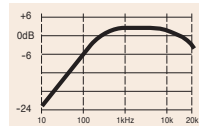
AIR-LIFT & LOW-CUT vocals, acoustic-electric instruments



**4** acoustics, strings, electric and bass guitar and keyboards



**5** acoustic and electric instruments



**6** electric and bass guitar

**AC power**

Internal toroidal AC supply, dual voltage, 115 or 230v selectable 50/60Hz, 35w max

**Dimensions**

8.5 x 3.5 x 12 in (216 x 88 x 305mm)

**Weight (packed)**

12lbs (5.4kg)

**Rack mount kit RM-1**

**Single V5** 19 inch rack mount kit (holds one half rack unit)

**Rack mount kit RM-2**

**Dual V5** 19 inch rack mount kit (holds two half rack units)



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