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Sound Systems
Mixers
Guitars
Amps
Parts

Carvin Equipment Catalog

1978

The Q1608-MX16 is Carvin's offering for the "ultimate" in a Professional Recording/Road Board. Expandable from a 16 to a 32 Channel system, these consoles are designed to provide the sophistication necessary in the modern recording industry.

Fully-Balanced Differential Inputs, 3-Band Parametric Channel EQ, Joystick Quad Panning, Channel and Main Interrupt-Points, 8 Fully Balanced Main Outputs, Pink Noise Generator, Solid Teak Cabinetry—these are some of the features that make the Q1608 one of the most flexible production boards on the market.

The quality of the new Carvin "Quad," like that of all Carvin products, is the highest possible—from use of the best name-brand electronic components, through the craftsmanship of the cabinetry, to the vigorous inspection-testing procedures.

Naturally, the price remains low, as all Carvin Products are Designed, Manufactured and Sold Directly from Carvin, eliminating distributor and dealer profit costs.

Try the Q1608 for 10 days and if not fully impressed with its performance and quality, your money will be refunded. Call 714-747-1710 for more information.



MX16 Expander

Sugg. Retail \$4500

Your Cost \$1950

CARVIN

Q1608



Q1608 Mixer

Sugg. Retail \$7500

Your Cost \$2950

Q1608 & MX16 SPECIFICATIONS

Number of Inputs	16 or 32 Bal Input Channels, 1 Bal Talkback. All XLR Connectors.
Input Circuitry	Lo Impedance Bal 150 to 600 Ohms. Bipolar differential circuits utilizing selected, low-noise discrete devices.
Common Mode Rejection	Typically better than 75 dB.
Hum & Noise	-125 dBV Equivalent Input Noise (E.I.N.)
S/N Ratio	72 dB Master Fader at nominal level.
Main Output Voltages	1 thru 8 Mains, Cue, Monitor; 10 V RMS Maximum into 600 Ohms +22 dBm.
Output Headroom	18 dB above nominal level (+4 dBm).
Frequency Response	± 2 dB 15 Hz to 25 KHz at +10 dBm.
Distortion (THD)	Less than .05% nominal. Less than .15% at +10 dBm.
Voltage Gain	8 Main Outputs: 74 dB. Cue: 72 dB. Monitor: 72 dB.
Level Indicators	Individual Peak level LED's per channel (post EQ). Professional illuminated VU meters for all main outputs plus Cue. 0 VU = +4 dBm.
Sub Inputs	4 Sub Inputs switchable to Main or Cue (tape playback).
Channel Interrupt	16 or 32 outputs for multi-channel recordings plus break-in for effects.
Channel Assignment	QUAD. Each channel can be assigned to any 4 Mains or Turned off.
Channel Equalization	Each channel features a continuously variable 3 Band Parametric System. Read pg 7. Lo Band: Freq adjustable 40 to 400 Hz. Mid Band: Freq adjustable 400 to 4K Hz. Hi Band: Freq adjustable 2K to 20K Hz. Shelving on both Hi and Lo Bands. Bandpass on Mid Band. Boost and cut per each band: ± 16 dB.
Main Outputs	8 with 4 Main Outputs (post Joystick) plus 4 Sub Outputs (pre Joystick). All Bal. featuring XLR Connectors. Note: Joysticks can be bypassed.

Other Outputs	Cue and Stereo Monitor Outputs. Bal. Cue features XLR connector.
Main Interrupt	Main Interrupt Jacks for Compressing, Limiting, Aux EQ, etc.
Joystick Interrupt	Permits independent operation of Joysticks with individual channels.
Effects 1 (Reverb)	Built-in Hammond reverb system with 30-40 milli-seconds delay. Total 1.6 seconds tone decay.
Effects 2	Separate Buss for additional effects - Echo, phase shifter, etc.
Test Generator	Pseudo-random Pink Noise Generator switchable into cue or main.
Talkback System	Bal XLR in. Level Control. Switchable to Main or Cue.
Headphone Amps	Quad Outputs into stereo Headphone Amps. Level Control. 8 Ohms Imp.
Power Requirements	110-120 VAC 50-60 Hz. Grounded (Three Wire) plug.
Power Supply	Self-contained bipolar power supply, fully regulated and fused.
Construction	Solid $\frac{3}{4}$ " Teak Wood Cabinet (Not veneered) with Teak Formica bottom. Leatherette Handrest. 16 gauge steel Black finished chassis. See page 17 for construction details.
Dimensions	Width 39", Height 11", Depth 24 $\frac{1}{2}$ ". WEIGHT: 90 lbs.
WARRANTY	2 YEARS Parts and Labor. See pg. 60.

MX16 SPECIFICATIONS	16 Channel Expander board for 32 ch operation of the Q1608. All related specifications identical to the Q1608. Board to board connection with one multi-pin connector. The MX16 utilizes the Q1608 power supply.
Dimension	Width 29 $\frac{1}{2}$ ", Height 11", Depth 24 $\frac{1}{2}$ ". WEIGHT: 60 lbs.

Q1608 MIXER Direct \$2950 Sugg. Retail \$7500

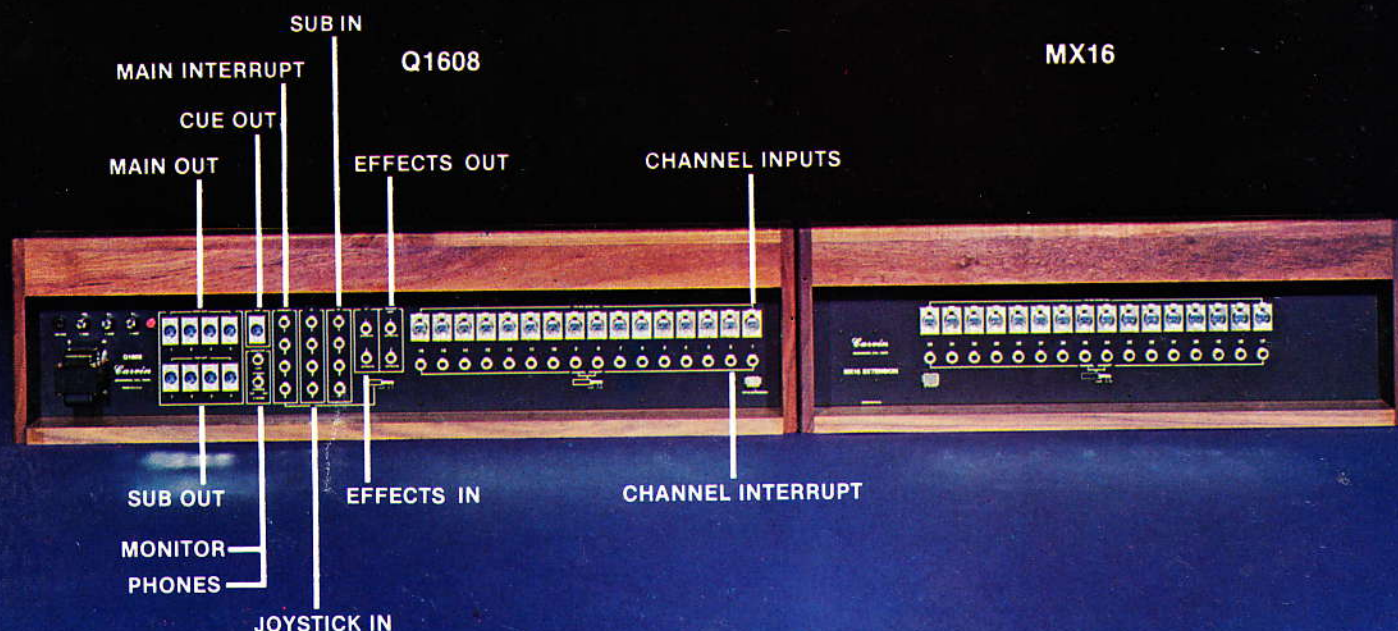
#A10 Flight Approved ANVIL Case. \$225

Note: The Q1608 will not be shipped without the #A10 Case.

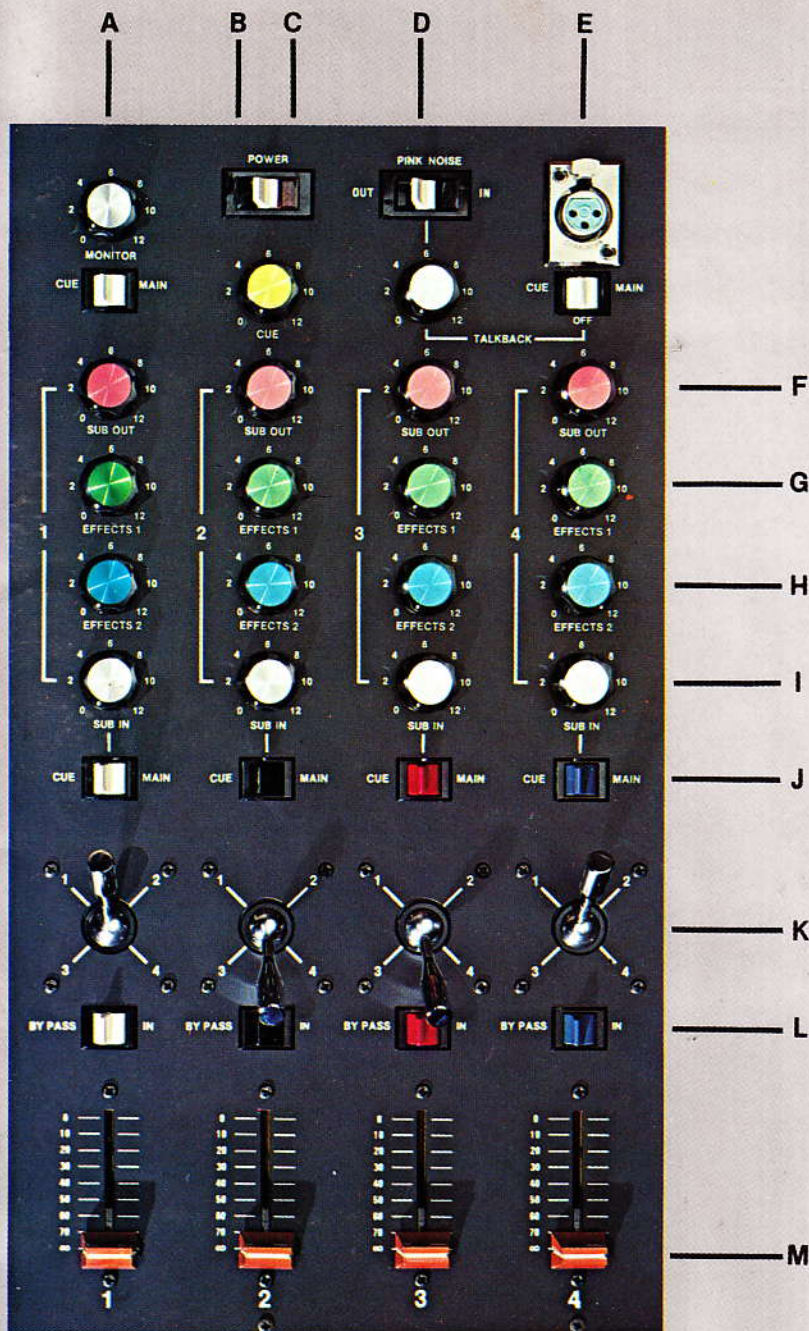
MX16 EXPANDER Direct \$1950 Sugg. Retail \$4500

#A5 Flight Approved ANVIL Case \$200.

Note: The MX16 will not be shipped without the #A5 Case.



MASTER DESCRIPTION



K. JOYSTICKS (1 thru 4) Each Joystick assigns its own main signal to any or all of the other Main Outputs. This allows for circular or X Quad Panning, or Intermixing mains for 4-Out Monaural or Stereo. Any main portion or portions can be inter-mixed.

Channel Quad Panning: The Joysticks can be electrically removed from their normal master function to any desired channel. This is accomplished by: (1) Switching the Joystick to BYPASS. (2) Running a patch cord from the Channel Interrupt Jack (Direct Out) into the Joystick IN Jack. The individual channel can now be Quad Panned directly into the Main outputs.

L. JOYSTICK BYPASS SWITCH (1 thru 4) The BYPASS position allows the main signal to be fed directly to the main outputs bypassing the Joysticks. The CENTER position turns the main signal off completely (for standby). The IN position allows the main signal to pass through the Joystick for Quad Panning and intermixing with other mains.

M. MAIN FADERS (1 thru 4) Set the overall volume levels for their respective outputs. Each Master Fader features a pre-fader Interrupt Jack which allows full access into the Master section for E.Q. Compression, etc.

The Main Faders drive the 4 Main Bal Outputs with their corresponding V.U. Meters.

A. The MONITOR LEVEL serves a dual purpose: (1) It controls the level of the built-in stereo headphone amplifiers—monitoring 1 & 3 on Left ear and 2 & 4 on Right ear. (2) It simultaneously controls the level of the Stereo Monitor Output Jack which will drive any stereo amp for room monitoring of the 4 main outputs in the same format as the headphone amps. The MONITOR SWITCH allows monitoring the Cue System as well as the Main System. Note: When monitoring the Cue, an intercom system to the stage is possible when using the Talk-Back system in the Cue position.

B. The CUE LEVEL controls the main fold-back signal to the stage monitors. This Cue Level is the master control into which all the individual Channel Cue Levels are mixed. The Cue Level drives 1 Bal. Cue Main Output and its corresponding V.U. meter.

C. The ILLUM. POWER SWITCH applies power to the complete board including the MX16 16 Channel expander board (if purchased).

D. The PINK NOISE SWITCH allows the operator to test the stage monitoring system or the main house system. The Pink Noise Generator is directed through the Talk-back System, using the level adjustment and assignment switch to Main or Cue. A Pink Noise Generator is far superior to a test tone because every frequency of the audio spectrum is produced simultaneously.

E. The TALKBACK SYSTEM features 1 XLR Balanced Mic Input with a level control and selector switch. The Cue-Main Talkback switch allows the operator to communicate directly to the performers on stage (Cue position) or to the Main Outputs (Main position) for editing recordings or making house announcements. A center "off" position is provided for standby.

F. SUB OUT LEVELS (1 thru 4) are set independently of the Main Faders and are pre-Joystick. This allows the operator to utilize the 4 Bal Sub Outputs and the 4 corresponding V.U. Meters in a conventional Quad arrangement while at the same time Quad panning the 4 MAIN OUTPUTS—providing a total of 8 outputs.

G. EFFECTS 1 LEVELS (1 thru 4) incorporates a dual purpose design: (1) It mixes the output of the Built-In Hammond Reverb System into the designated Main Output or (2) a separate effects such as Echo, Phase Shifter, etc., can be used as Effects 1. The reverb system is automatically terminated when the Effects 1 In-Jack is used.

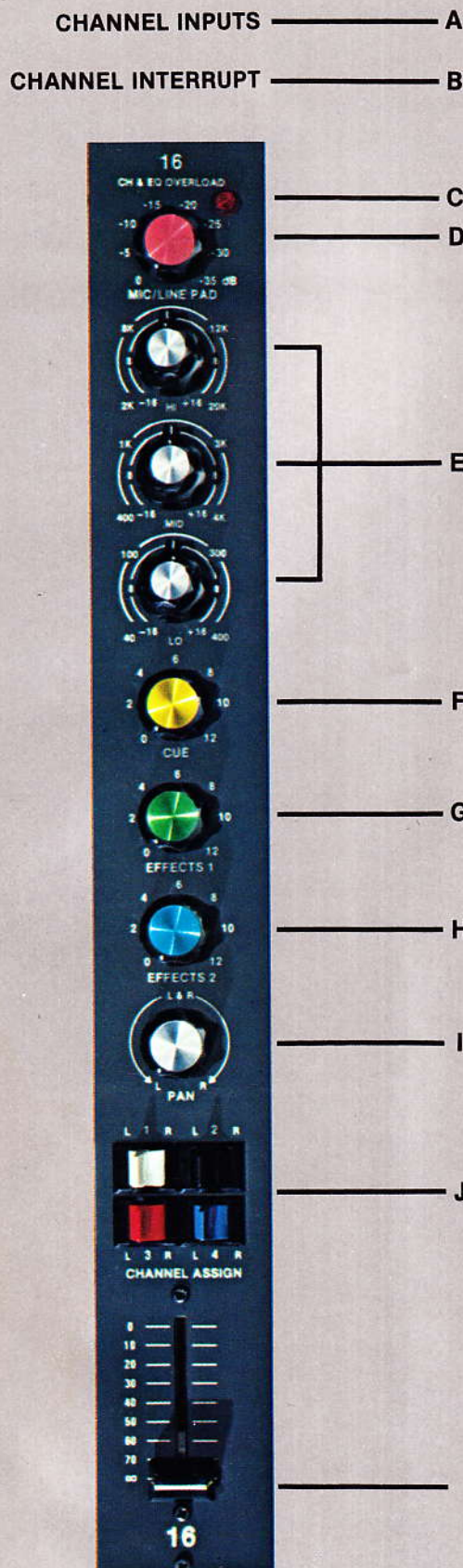
H. EFFECTS 2 LEVELS (1 thru 4) like Effects 1, mixes the incoming signal from the Effects 2 IN-Jack into the designated Main Output.

To use effects, simply plug the Effects-Channel Output Buss (1 or 2) into the effects device and the output of the device into the Effects (1 or 2) Main In effects jack(s).

I. SUB IN LEVELS (1 thru 4) permit a direct mix in to the 4 individual main outputs. The Sub-In is designed for equipment with line outputs such as Tape decks, auxiliary mixing systems, etc.

J. SUB IN SWITCH (1 thru 4) allows the Sub In to be directed to: (1) The Main for mix-in with the Main Outputs, or (2) to the Cue (foldback system) which is returned to the stage monitor system permitting musicians to perform directly with a recording. (3) A center "off" position turns the Sub-In to standby.

CHANNEL DESCRIPTION



A. XLR BAL INPUT (on rear) offers an exclusive Bipolar Differential Circuit which is fully Balanced and isolated from ground. Low noise discrete semiconductors incorporated in a unique input circuit offer super-low noise performance. See page 18. The Carvin Bipolar Discrete input is superior to input Transformers because of: (1) Lower THD Distortion and (2) increased frequency response at higher input levels. Note: Distortion increases with transformers as the input level increases. Example: THD may be .1% with 10 m.v. input but at 100 m.v. Input (a relatively high mic level), the THD is likely to be 1%. Likewise with freq response, transformer inputs are fine at lo input, but at higher input levels the response starts falling rapidly, especially at Lo Frequencies. The reason for transformer fall-off is Core Saturation caused by inadequate amounts of iron in the transformer core. This is one of the primary reasons we can offer a board with THD less than .05% at nominal output levels (.1% at 10 dBm). The effective Balancing of the Carvin BiPolar Input has a Common Mode Rejection typically better than 75 dB. This allows for infinite cable runs without hum or noise problems.

B. CHANNEL INTERRUPT A dual circuit jack on the rear panel provides a method of electrically detaching each channel from the board. A Direct Out and Return is useful in many ways, such as: special effects, multi-channel recording, or independent use of each mixer channel. The channel return is pre-fader.

C. The LED Peak Level Indicator has 2 functions: (1) It indicates distortion when the input stage is being over-loaded. (2) It also indicates distortion when any of the Channel Equalizers are over-driven. Note: EQ distortion can only occur when the input level is too high and EQ boost is full up.

D. The ATTENUATION CONTROL is variable up to -35 dB. This control is turned up as the LED starts to flash—preventing the Input Stage from being over-driven. Under full attenuation, up to 6 VAC can be fed into the input without overloading. Note: Common Mode Rejection is not affected by the Attenuator Control.

E. PARAMETRIC EQUALIZATION

F. The CUE LEVEL adjusts the amount of signal (foldback) desired for monitoring or sub mixing. The Cue Level is pre-fader in which the channel fader position does not affect the cue level. The Cue Buss is fed directly into the Master Cue level control.

G. EFFECTS 1 incorporates a quality Hammond Reverb System for exceptional reverberation effects. However, if external echo systems are desired, the Hammond Reverb System is automatically terminated when you plug into the Main Effect 1 return. Effect 1 and 2 are post-fader which means the channel fader controls the effects output along with the channel output. This provides simultaneous fade-outs of original signal and effects.

H. EFFECTS 2 is another, independently controlled buss for additional effects.

I. The PAN CONTROL will pan the channel Right or Left into the channel assign switches as described below. The Pan Control features special Log & Anti-Log tapers for a true panning effect.

J. ASSIGNMENT SWITCHES 1 thru 4: Each switch can assign the channel into the desired main output—1 thru 4. Other features include: The ability of each assign switch to select the Right or Left side of the pan control—sending that signal to the desired main output. A center off position is provided to place the channel in standby.

K. CHANNEL FADER controls the over-all volume level of the channel. The Fader does not affect the Cue send but does affect the Effects 1 and 2 send.

CARVIN PARAMETRIC

One of the most important features on any professional recording console is its equalization system. Equalizers help to simplify the sometimes "mystifying" combinations of microphones, speakers, tape decks, and room acoustics encountered on a daily basis by recording engineers. Circuits ranging from the simple, yet functional, tone controls to more complex, multi-band graphic equalizers are "standard equipment" on many models.

In the past few years, a new form of equalizing system has received a great deal of attention and, just recently, has begun to appear on a few of the most expensive recording consoles. Parametric equalizers represent an important break-through in integrated circuit technology. Named for their ability to produce dynamic changes in filter parameters, they provide independent control of center frequency, boost and cut, and a precisely set Q for critical audio applications.

TYPICAL APPLICATIONS:

- **FREQUENCY RESPONSE FLATTENING:**

Peaks and valleys in overall system response can be easily removed and a "flat" response restored. The ability to boost or cut continuously selectable frequencies makes pin-pointing and removing a problem area a relatively simple task. Each band can be boosted or cut up to 16 dB thus making even extreme response problems manageable.

- **REDUCING HUM AND NOISE:**

Fortunately, hum, hiss, scratchiness and other unwanted noise often occupy frequency areas above or below the program material itself. Shelving filters on the top and bottom bands allow the engineer to reduce hum and noise to near inaudibility while still retaining virtually all critical program material.

- **FEEDBACK SUPPRESSION:**

Feedback generally occurs from low to high midrange frequencies.

It is most effectively eliminated when the exact frequency is isolated and its relative level reduced. This is where a midrange filter with a tight bandwidth is a virtual necessity.

- **COMPENSATION OF TAPE AND PHONO SYSTEMS:**

Tape decks and turntables often exhibit non-ideal frequency response patterns. The right amount of boost or cut at the proper frequency will generally restore the program material to its original response.

- **MUSICAL INST. EQUALIZING:**

The direct recording of electronic instruments is perhaps the most challenging equalizing problem faced by a recording engineer. For example, an electric guitar generally requires a gently sloping, upward curve at higher frequencies.

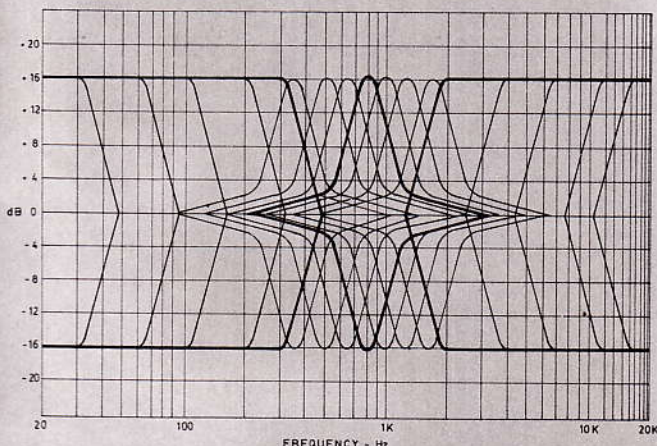
In short, creative use of parametric equalizers can make the difference between a recording that is merely adequate and one that is dynamic, professional, and "full of life".

E. PARAMETRIC EQUALIZATION is perhaps the most useful equalizing system available today. Parametric Equalizing allows the operator to choose the frequency at which he wishes to boost or cut. The Carvin Parametric utilizes 3 Bands. Listed below are spec of each band along with a more comprehensive report on Parametric EQ.

HI BAND EQ: Selectable Range: 2K Hz to 20K Hz with shelving on top end. Boost or Cut: 16 dB at any selectable frequency.

MID BAND EQ: Selectable Range: 400 Hz to 4K Hz. Band Pass Filter with an optimized Q of 5 for precision tuning. Boost or Cut: 16 dB at any selectable frequency. Note: Overlapping frequency with other bands will give a boost or cut of 32 dB.

LO BAND EQ: Selectable Range: 40 Hz to 400 Hz with Shelving on bottom end. Boost or Cut: 16 dB at any selectable frequency.

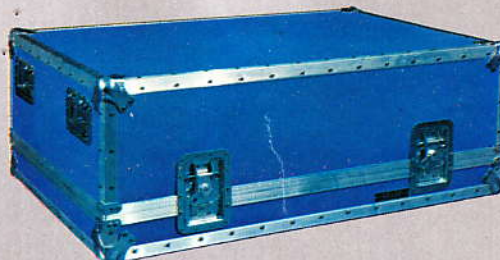


As the above chart indicates, channel response can be boosted or cut at any particular frequency. Note Shelving-type filters on left and right of chart. Shelving allows the operator to choose a Lo or Hi frequency point closer to the midrange area while maintaining full Boost or Cut at the extremes of the audio spectrum.

Anvil Cases



Carvin offers Flight Approved cases made by ANVIL. These cases will last a lifetime and are an important asset to both the Q1608 and MX16 Boards. Anvil case(s) must be purchased if Mixer(s) are shipped to you.



S1800 SPECIFICATIONS

Number of Inputs	18 Bal Input Channels, 1 Bal Talk-back, XLR connectors.
Input Circuitry	Lo Impedance Bal 150 to 600 Ohms. Bipolar differential circuits utilizing selected, low-noise discrete devices.
Common Mode Rejection	Typically better than 75 dB.
Attenuation	Variable to -35 dB for input voltages up to 6 VAC without input distortion.
Hum & Noise	-125 dBV Equivalent Input Noise (E.I.N.)
S/N Ratio	72 dB Master Fader at nominal level.
Main Output Voltages	A & B Mains, Cue: 10 VRMS Maximum into 600 Ohms (+22 dBm).
Output Headroom	18 dB above nominal level (+4 dBm).
Frequency Response	±2 dB 15 Hz to 25K Hz at +10 dBm.
Distortion (THD)	Less than .05% nominal. Less than .15% at +10 dBm.
Voltage Gain	A & B Outputs: 72 dB. Cue: 70 dB.
Level Indicators	Individual Peak Level LED's per channel. Professional illuminated V.U. meters for A & B Main Outputs plus Cue. 0 VU = +4 dBm.
Sub Inputs	A & B Sub Inputs for Cascading mixers or for tape line inputs.
Channel Interrupt	18 outputs for multi-channel recordings plus break-in for effects.
Channel Assign	Channels can be assigned to A or B or Both by Pan Control.
Channel Equalization	±12 dB Shelving at 100 Hz and 10K Hz.
Main Equalization	Two 10-Band Graphic Equalizers. ±12 dB with center frequencies at 30, 60, 120, 250, 500, 1K, 2K, 4K, 8K, 16K Hz. Features

Main Outputs	Gyrator simulated inductors for precise one octave bands. S/N Ratio better than 90 dB. 4 with 2 each for A and B Outputs plus Cue Output, all Bal. XLR Connectors.
Main Interrupt	Main Interrupt Jacks for Compressing, Limiting, Aux EQ, etc.
Effects/Reverb	Built-in Hammond reverb system with 30-40 milli-seconds delay with a Total 1.6 seconds tone decay. With a Master Reverb Level Control. Also, the same buss is used for additional effects—Echo, phase shifter, etc. with a separate Master Effects Level Control.
Talkback System	Bal XLR in. Level Control. Switchable to Main or Cue.
Headphone Amps	Built-in Stereo Headphone Amps with Level Control. 8 Ohms Imp. Switchable to Cue or Main.
Power Requirements	110-120 VAC 50-60 Hz. Grounded (Three Wire) plug.
Power Supply	Self-contained bipolar power supply, fully regulated and fused.
Construction	Solid 3/4" 7 ply marine plywood cabinet with detachable 3/4" Hard Cover. Black Tolex covering with large wrap-around steel corners. 16 gauge steel chassis Black finished. See page 17 for components.
Dimensions	Width 42", Height 11", Depth 18". WEIGHT: 75 lbs.
WARRANTY	2 YEARS Parts and Labor. See pg. 60.

FEATURES: LED peak indicator on each Channel • Professional V.U. Meters on genuine Teak Panel • Alum. Colored Knobs for easy identification • Two 10-Band Graphic Equalizers • Stereo Panning • Talkback System • Stereo Headphone Amplifier switchable to Main or Cue • Built-in Hammond Reverb System • Channel Break-In Jacks • Balanced XLR Outputs • Latchable Hard Cover •

The S1800 is a truly professional mixing console designed for recording applications. Its rugged design also makes it the perfect choice for live concert work where "road-worthiness" is a must. You can depend on it! Buy it on Carvin's 10 Day Money-Back Trial Period. Call 714-747-1710 for more information.

S1800 DIRECT \$1295

Sugg. Retail \$2600



Stereo 18 Channel

Optional Vinyl Cover #CV-18M \$18

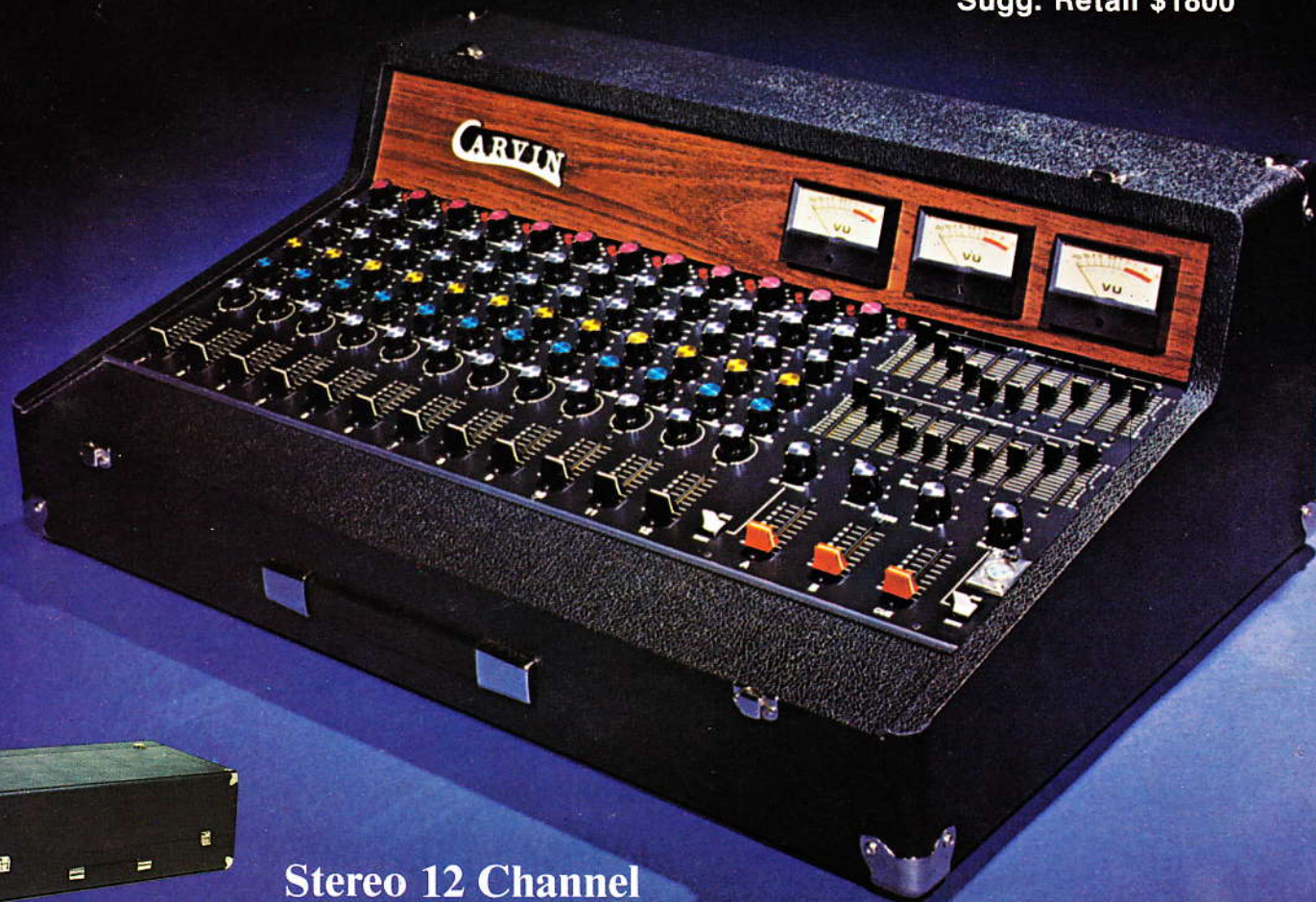
S1200 SPECIFICATIONS

Number of Inputs	12 Bal Input Channels, 1 Bal Talk-back, XLR connectors.	Gyrator simulated inductors for precise one octave bands. S/N Ratio better than 90 dB.
Input Circuitry	Lo Impedance Bal 150 to 600 Ohms. Bipolar differential circuits utilizing selected, low-noise discrete devices.	4 with 2 each for A and B Outputs plus Cue Output, all Bal. XLR Connectors.
Common Mode Rejection	Typically better than 75 dB.	Main Interrupt
Attenuation	Variable to -35 dB for input voltages up to 6 VAC without input distortion.	Main Interrupt Jacks for Compressing, Limiting, Aux EQ, etc.
Hum & Noise	-125 dBV Equivalent Input Noise (E.I.N.)	Effects/Reverb
S/N Ratio	72 dB Master Fader at nominal level.	Built-in Hammond reverb system with 30-40 milli-seconds delay with a Total 1.6 seconds tone decay. With a Master Reverb Level Control. Also, the same buss is used for additional effects—Echo, phase shifter, etc. with a separate Master Effects Level Control.
Main Output Voltages	A & B Mains, Cue: 10 VRMS Maximum into 600 Ohms (+22 dBm).	Talkback System
Output Headroom	18 dB above nominal level (+4 dBm).	Bal XLR in. Level Control. Switchable to Main or Cue.
Frequency Response	±2 dB 15 Hz to 25K Hz at +10 dBm.	Headphone Amps
Distortion (THD)	Less than .05% nominal. Less than .15% at +10 dBm.	Built-in Stereo Headphone Amps with Level Control. 8 Ohms Imp. Switchable to Cue or Main.
Voltage Gain	A & B Outputs: 72 dB. Cue: 70 dB.	Power Requirements
Level Indicators	Individual Peak Level LED's per channel. Professional illuminated V.U. meters for A & B Main Outputs plus Cue. 0 VU = +4 dBm.	110-120 VAC 50-60 Hz. Grounded (Three Wire) plug.
Sub Inputs	A & B Sub Inputs for Cascading mixers or for tape line inputs.	Power Supply
Channel Interrupt	12 outputs for multi-channel recordings plus break-in for effects.	Self-contained bipolar power supply, fully regulated and fused.
Channel Assign	Channels can be assigned to A or B or Both by Pan Control.	Construction
Channel Equalization	±12 dB Shelving at 100 Hz and 10K Hz.	Solid 3/4" 7 ply marine plywood cabinet with detachable 3/4" Hard Cover. Black Tolex covering with large wrap-around steel corners. 16 gauge steel chassis Black finished. See page 17 for components.
Main Equalization	Two 10-Band Graphic Equalizers. ±12 dB with center frequencies at 30, 60, 120, 250, 500, 1K, 2K, 4K, 8K, 16K Hz. Features	Dimensions
		Width 32", Height 11", Depth 18". WEIGHT: 60 lbs.
		WARRANTY
		2 YEARS Parts and Labor. See pg. 60.

FEATURES: LED peak indicator on each Channel • Professional V.U. Meters on genuine Teak Panel • Alum. Colored Knobs for easy identification • Two 10-Band Graphic Equalizers • Stereo Panning • Talkback System • Stereo Headphone Amplifier switchable to Main or Cue • Built-in Hammond Reverb System • Channel Break-In Jacks • Balanced XLR Outputs • Latchable Hard Cover •

The S1200, like the S1800, is a truly professional mixing console designed for recording applications. Its rugged design also makes it the perfect choice for live concert work where "road-worthiness" is a must. You can depend on it! Buy it on Carvin's 10 Day Money-Back Trial Period. Call 714-747-1710 for more information.

S1200 DIRECT \$950
Sugg. Retail \$1800

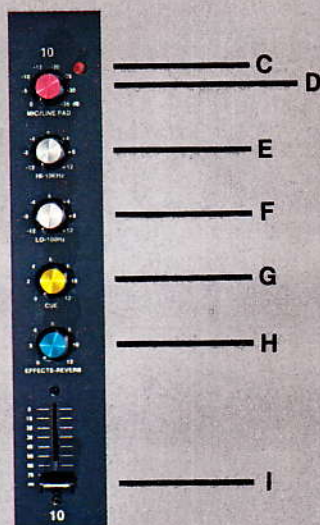


Stereo 12 Channel

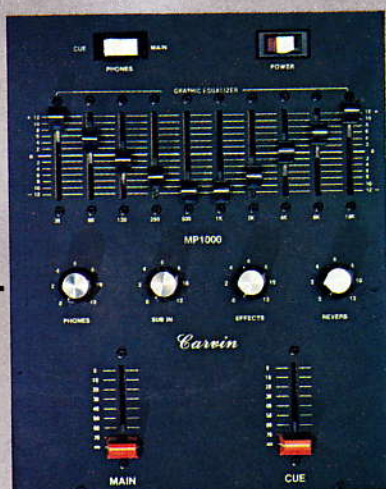
Optional Vinyl Cover #CV-10M \$16

MP600 & MP1000

BAL INPUTS _____ A
HI IMP INPUTS _____ B



A
B



H G F E

CHANNEL DESCRIPTION

A. XLR BAL INPUT (on rear) offers an exclusive Bipolar Differential Input Circuit. Low noise discrete semiconductors incorporated into a unique differential circuit offer super-low noise performance.

B. HIGH IMPEDANCE INPUT (on rear) is provided on each channel for high impedance mics and instruments.

C. The LED Peak Level Indicator indicates distortion when the input stage is being overloaded.

D. The ATTENUATION CONTROL is variable up to -35 dB. This control is turned up as the LED starts to flash—preventing the Input Stage from being over-driven.

E & F. LO & HI EQUALIZATION feature ± 12 dB boost and cut at 100 Hz and 10K Hz respectively. Both networks are Shelving for proper contouring.

G. The CUE LEVEL adjusts the amount of signal (foldback) desired for monitoring or sub-mixing.

H. The EFFECTS/REVERB CONTROL serves two purposes: (1) it controls the amount of reverb fed into the Master Reverb Control from the built-in Hammond Reverb system, or (2) it controls the amount of special effects that is fed into the Master Effects Control. Both can be used simultaneously.

I. CHANNEL FADER controls the over-all volume level of the channel. The Fader does not affect the Cue send but does control the Effects/Reverb send.

MASTER DESCRIPTION

A. HEADPHONE SWITCH allows phone monitoring of Cue (pre-fader) or Main Output (post-fader).

B. ILLUMINATED POWER SWITCH

C. GRAPHIC EQUALIZER: A 10-Band Graphic Equalizer is featured for precise tone and feedback tuning of the Main output. Sharp 1 octave filters incorporate Gyrator IC's for exceptional low noise (better than 90 dB).

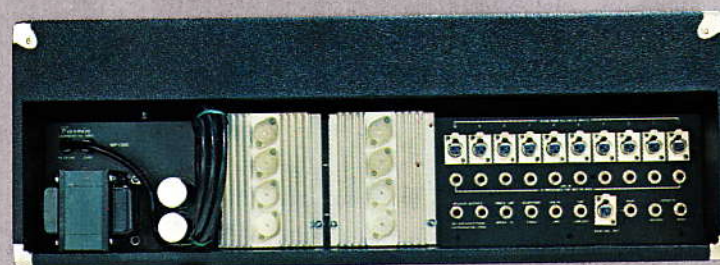
D. REVERB LEVEL mixes the output of the Built-in Hammond Reverb System.

E. & H. MAIN-CUE FADERS set the overall volume levels. These Faders drive the Cue and Main Outputs with their corresponding V.U. Meters.

F. EFFECTS LEVEL mixes the incoming effects signal from the Effects-In Jack into the Main Output.

G. SUB IN LEVEL for cascading other mixers or line input for tape recorder.

I. The HEADPHONE LEVEL controls the level of the built-in headphone amplifier.



_____ BAL INPUTS
_____ HI IMP INPUTS

EXTERNAL FILTERS
POWER SUPPLY
SPK
BREAK-IN
PHONES
SUB IN
CUE OUT
MAIN OUT
EFFECTS IN-OUT

MP1000 SPECIFICATIONS

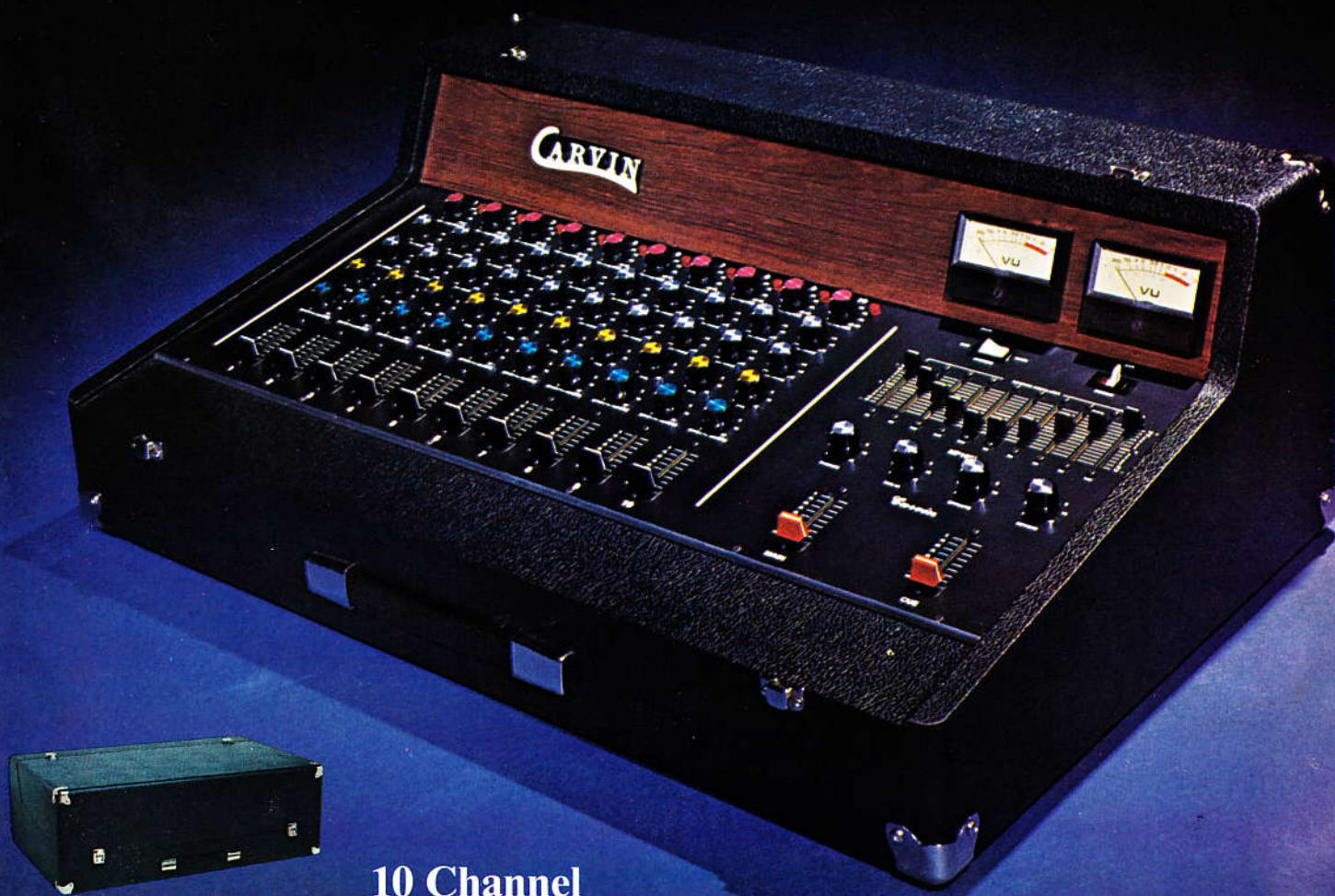
Power Output (powered model only)	250W RMS at 2 Ohms - Monaural. THD less than .25%. Frequency Response: 20 Hz to 20K Hz ± 2 dB. 8 Premium RCA 150W Transistors mounted on 640 sq. inches of external heat sinks. 2 Speaker Output Jacks plus Break-in Jack for independent operation of Power Amp.	Sub Input	1 Sub Input for Cascading mixers or for tape line inputs.
MIXER SPECIFICATIONS		Channel Equalization	± 12 dB Shelving at 100 Hz and 10K Hz.
Number of Inputs	10 Bal Input Channels, with XLR connectors. 10 High Impedance Inputs with standard $\frac{1}{4}$ " phone jacks.	Main Equalization	One 10-Band Graphic Equalizer. ± 12 dB with center frequencies at 30, 60, 120, 250, 500, 1K, 2K, 4K, 8K, 16K Hz. Features Gyrator simulated inductors for precise one octave bands. S/N Ratio better than 90 dB.
Input Circuitry	Lo Impedance Bal 150 to 600 Ohms. Bipolar differential circuits utilizing selected, low-noise discrete devices.	Main Outputs	1 Main with XLR Connector and Cue Output.
Common Mode Rejection	Typically better than 75 dB.	Effects/Reverb	Built-in Hammond reverb system with 30-40 milli-seconds delay with a Total 1.6 seconds tone decay. With a Master Reverb Level Control. Also, the same buss is used for additional effects—Echo, phase shifter, etc. with a separate Master Effects Level Control.
Attenuation	Variable to -35 dB for input voltages up to 6 VAC without input distortion.	Headphone Amp	Built-in Headphone Amp with Level control. 8 Ohms Imp. Switchable to Cue or Main.
Hum & Noise	-125 dBV Equivalent Input Noise (E.I.N.)	Power Requirements	110-120 VAC 50-60 Hz. Grounded (three wire) plug.
S/N Ratio	72 dB Master Fader at nominal level.	Power Supply	Self-contained bipolar power supply, fully regulated and fused.
Main Output Voltages	Main and Cue: 10 VRMS Maximum into 600 Ohms (+22 dBm).	Construction	Solid $\frac{3}{4}$ " 7 ply marine plywood cabinet with detachable $\frac{3}{4}$ " Hard Cover. Black TOLEX covering with large wrap-around steel corners. 16 gauge steel chassis Black finished. See pg. 17 for components.
Output Headroom	18 dB above nominal level (+4 dBm).	Dimensions	Width 32", Height 11", Depth 18". WEIGHT: 70 lbs.
Frequency Response	± 2 dB 15 Hz to 25K Hz at +10 dBm.	WARRANTY	2 YEARS Parts and Labor. See pg. 60.
Distortion (THD)	Less than .05% nominal. Less than .15% at +10 dBm.		
Voltage Gain	Main Output: 72 dB. Cue: 70 dB.		
Level Indicators	Individual Peak Level LED's per channel. Professional illuminated V.U. Meters for Main Output and Cue. 0 VU = +4 dBm.		

FEATURES: 10 Channels with LED peak level indicator on each channel • Available in 2 models—with 250W RMS output (MP1000) or non-powered output (MC1000) • Professional V.U. Meters on genuine Teak Panel • Alum. Colored Knobs for easy identification • 10-Band Graphic Equalizer • Headphone Amplifier switchable to Main or Cue • Built-In Hammond Reverb System • Latchable Hard Cover •

The MP-MC1000 is a professional board designed for groups requiring a larger board with built-in power or as a monaural board for large church or hall installations. Call 714-747-1710 for further information.

Powered MP1000 Direct \$750
Sugg. Retail \$1400

Non-Powered MC1000 Direct \$595
Sugg. Retail \$1150



10 Channel

Optional Vinyl Cover #CV-10M \$16

SP600 SPECIFICATIONS

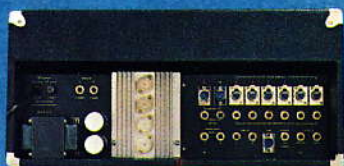
Power Output (powered model only)	Stereo—75W RMS per Channel (150W RMS Total). THD less than .25% Frequency Response: 20 Hz to 20K Hz ± 2 dB. 4 Premium RCA 150W Transistors mounted on 320 sq. inches of external Heat Sinks. 2 Speaker Output Jacks plus Break-In Jack for independent operation of Power Amps.	Channel Assignment	Channels can be assigned to A or B or Both by Pan Control.
MIXER SPECIFICATIONS		Channel Equalization	± 12 dB Shelving at 100 Hz and 10K Hz.
Number of Inputs	6 Bal Input Channels, XLR connectors.	Main Equalization	Two 10-Band Graphic Equalizers. ± 12 dB with center frequencies at 30, 60, 120, 250, 500, 1K, 2K, 4K, 8K, 16K Hz. Features Gyrator simulated inductors for precise one octave bands. S/N Ratio better than 90 dB.
Input Circuitry	Lo Impedance Bal 150 to 600 Ohms. Bipolar differential circuits utilizing selected, low-noise discrete devices.	Main Outputs	2 with 1 each for A and B Outputs plus Cue Output, all Bal. XLR Connectors.
Common Mode Rejection	Typically better than 75 dB.	Effects/Reverb	Built-in Hammond reverb system with 30-40 milli-seconds delay with a Total 1.6 seconds tone decay. With a Master Reverb Level Control. Also, the same buss is used for additional effects—Echo, phase shifter, etc. with a separate Master Effects Level Control.
Attenuation	Variable to -35 dB for input voltages up to 6 VAC without input distortion.	Headphone Amps	Built-in Stereo Headphone Amps with Level Control. 8 Ohms Imp. Switchable to Cue or Main.
Hum & Noise	-125 dBV Equivalent Input Noise (E.I.N.)	Power Requirements	110-120 VAC 50-60 Hz. Grounded (Three Wire) plug.
S/N Ratio	72 dB Master Fader at nominal level.	Power Supply	Self-contained bipolar power supply, fully regulated and fused.
Main Output Voltages	A & B Mains, Cue: 10 VRMS Maximum into 600 Ohms (+22 dBm).	Construction	Solid $\frac{3}{4}$ " 7 ply marine plywood cabinet with detachable $\frac{3}{4}$ " Hard Cover. Black Tolex covering with large wrap-around steel corners. 16 gauge steel chassis Black finished. See page 17 for components.
Output Headroom	18 dB above nominal level (+4 dBm).	Dimensions	Width 22", Height 11", Depth 18". WEIGHT: 55 lbs.
Frequency Response	± 2 dB 15 Hz to 25K Hz at +10 dBm.	WARRANTY	2 YEARS Parts and Labor. See pg. 60.
Distortion (THD)	Less than .05% nominal. Less than .15% at +10 dBm.		
Voltage Gain	A & B Outputs: 72 dB. Cue: 70 dB.		
Level Indicators	Individual Peak Level LED's per channel. Professional illuminated V.U. meters for A & B Main Outputs 0 VU = +4 dBm.		
Sub Inputs	A & B Sub Inputs for Cascading mixers or for tape line inputs.		
Channel Interrupt	6 outputs for multi-channel recordings plus break-in for effects.		

FEATURES: 6 Channels with LED peak indicator on each Channel • Available in 2 models: with 150W RMS Stereo Power (SP600), or as a non-powered mixer (S600) • Professional V.U. Meters on genuine Teak Panel • Alum. Colored Knobs for easy identification • Two 10-Band Graphic Equalizers • Stereo Panning • Stereo Headphone Amplifier switchable to Main or Cue • Built-In Hammond Reverb System • Channel Break-In Jacks • Balanced XLR Outputs • Latchable Hard Cover •

Like its big brothers the S1200 & S1800, the SP600 is a professional board designed for smaller stereo recording or playback requirements. For further information, call 714-747-1710

Stereo Powered SP600 Direct \$595
Sugg. Retail \$950

Non-Powered S600 Direct \$480
Sugg. Retail \$700



Stereo 6 Channel

Optional Vinyl Cover #CV-6M \$15

Control Identifications on pages 10 & 11 (except Talkback).

MP600 SPECIFICATIONS

Power Output (powered model only) Monaural—150W RMS at 4 Ohms. THD less than .25%. Frequency Response: 20 Hz to 20K Hz ± 2 dB. 4 Premium RCA 150W Transistors mounted on 320 sq inches of external heat sinks. 2 Speaker Output Jacks plus Break-In Jack for independent operation of power amp.

MIXER SPECIFICATIONS

Number of Inputs 6 Bal Input Channels, with XLR connectors. 6 High Impedance Inputs with standard $\frac{1}{4}$ " phone jacks.

Input Circuitry Lo Impedance Bal 150 to 600 Ohms. Bipolar differential circuits utilizing selected, low-noise discrete devices.

Common Mode Rejection Typically better than 75 dB.

Attenuation Variable to -35 dB for input voltages up to 6 VAC without input distortion.

Hum & Noise -125 dBV Equivalent Input Noise (E.I.N.)

S/N Ratio 72 dB Master Fader at nominal level.

Main Output Voltages Main and Cue: 10 VRMS Maximum into 600 Ohms (+22 dBm).

Output Headroom 18 dB above nominal level (+4 dBm).

Frequency Response ± 2 dB 15 Hz to 25K Hz at +10 dBm.

Distortion (THD) Less than .05% nominal. Less than .15% at +10 dBm.

Voltage Gain Main Output: 72 dB. Cue: 70 dB.

Level Indicators Individual Peak Level LED's per channel. Professional illuminated V.U. Meter for Main Output 0 VU = +4 dBm.

Channel Equalization ± 12 dB Shelving at 100 Hz and 10K Hz.

Main Equalization One 7-Band Graphic Equalizer. ± 12 dB with center frequencies at 60, 125, 800, 1.5K, 3K, 6K, 12K Hz. Features Gyrator simulated inductors for precise one-octave bands.

Sub Input 1 Sub Input for Cascading mixers or for tape line inputs.

Main Outputs 1 Main and Cue Output.

Effects/Reverb Built-in Hammond reverb system with 30-40 milli-seconds delay with a Total 1.6 seconds tone decay. With a Master Reverb Level Control. Also, the same buss is used for additional effects—Echo, phase shifter, etc. with a separate Master Effects Level Control.

Headphone Amp Built-in Headphone Amp with Level control. 8 Ohms Imp. Switchable to Cue or Main.

Power Requirements 110-120 VAC 50-60 Hz. Grounded (three wire) plug.

Power Supply Self-contained bipolar power supply, fully regulated and fused.

Construction Solid $\frac{3}{4}$ " 7 ply marine plywood cabinet with detachable $\frac{3}{4}$ " Hard Cover. Black TOLEX covering with large wrap-around steel corners. 16 guage steel chassis Black finished. See pg. 17 for components.

Dimensions Width 22", Height 11", Depth 18". WEIGHT: 50 lbs.

WARRANTY 2 YEARS Parts and Labor. See pg. 60.

FEATURES: 6 Channels with LED peak level indicator on each channel • Available in 2 models—with 150W RMS output (MP600) or non-powered output (MC600) • Professional V.U. Meter on genuine Teak Panel • Alum. Colored Knobs for easy identification • 7-Band Graphic Equalizer • Headphone Amplifier switchable to Main or Cue • Built-In Hammond Reverb System • Latchable Hard Cover •

The MP-MC600 is a professional board designed for groups requiring a small monaural board with built-in power that outperforms other boards with the same equivalent features. Call 714-747-1710 for further information.

Mono Powered MP600 Direct \$475
Sugg. Retail \$850

Non-Powered MC600 Direct \$350
Sugg. Retail \$600

6 Channel



Optional Vinyl Cover #CV-6M \$15

Control Identifications on page 12.



MP410 SPECIFICATIONS

Power Output 125W RMS at 4 Ohms—Monaural. THD less than .25%. Frequency Response: 20 Hz to 20K Hz ± 2 dB. 4 Premium RCA 150W Transistors mounted on 320 sq inches of external heat sinks. 2 Speaker Output Jacks.

MIXER SPECIFICATIONS

Number of Inputs 4 Input Channels, with 4 High or Low Impedance Inputs. 4 Hi Level Line Inputs, all featuring standard $\frac{1}{4}$ " phone jacks (8 total).
Hum & Noise -117 dBV Equivalent Input Noise (E.I.N.)
S/N Ratio 64 dB Master Fader at nominal level.
Main Output Voltages Main and Cue: 5 VRMS Maximum into 600 Ohms (+22 dBm).
Output Headroom 14 dB above nominal level (+4 dBm).
Frequency Response ± 2 dB 20 Hz to 20K Hz at +10 dBm.
Distortion (THD) Less than .1% nominal. Less than .25% at +10 dBm.
Voltage Gain Main Output: 68 dB. Cue: 68 dB.
Sub Input 1 Sub Input for cascading mixers or for tape line inputs.
Channel Equalization ± 12 dB Shelving at 100 Hz and 10K Hz.
Main Outputs 1 Main and 1 Cue Output.

Channel Effects/Reverb Built-In Hammond Reverb System with 30-40 milli-seconds delay with a Total 1.6 seconds tone decay. With a Master Reverb Level Control. Also, the same buss is used for additional effects—Echo, phase shifter, etc. with a separate Master Effects Level Control.

Channel Cue Level A control to adjust the amount of signal (foldback) for monitoring or sub-mixing.

Headphone Amp Built-In Headphone Amp with Level Control. 8 Ohms Imp.

Power Requirements 110-120 VAC 50-60 Hz. Grounded (three wire) plug.

Power Supply Self-contained power supply, fully regulated and fused.

Construction Solid $\frac{3}{4}$ " 7 ply marine plywood cabinet. Black TOLEX covering with large wrap-around steel corners. 16 gauge steel chassis Black finished. See pg 17 for components.

Dimensions Width 19 $\frac{1}{2}$ ", Height 11", Depth 16".

Weight 35 lbs.

WARRANTY 2 YEARS Parts & Labor. See pg 60.

FEATURES: Separate Cue (monitor) control for each channel • 7-Band Graphic Equalizer • Professional V.U. Meter on genuine Teak Panel • Alum. Colored Knobs • Built-In Headphone Amplifier • Built-In Hammond Reverb System •

The MP410 is a 4 channel powered mixer that incorporates professional features that most other 4 Channel boards do not offer. Also, professional results can be expected from the MP410 as Carvin uses only the best components—even in our most inexpensive model. Call 714-747-1710 for further information.

Powered MP410 Direct \$325

Sugg. Retail \$595



4 Channel

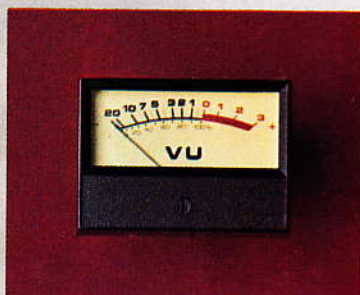
Optional Vinyl Cover #CV-4M \$12.

Special Mixer Features

EXPERIENCE

Years of Engineering, Constructing, and working directly with groups has given us much practical experience in designing boards for professional use. Our new line has been carefully selected and engineered to fulfill the requirements for both stage and studio mixing systems.

Large Professional V.U. Meters are standard in every Carvin Mixer. These meters feature a precision Alnico V Movement with two Jewels for high accuracy readings. A Large expanded scale allows for easy readings. All meters are illuminated.



Heavy-Duty Power Transformers are utilized for continual 24 hour operation. Large Filtering Networks assure hum-free performance. The entire Power Supply is fuse-protected. A Heavy-Duty Grounded A.C. cord assures positive grounding on the entire Board.

PORTABILITY

Intelligent mechanical design and quality construction are the major ingredients of reliable portable mixers. Carvin utilizes Solid-Core Plywood, eliminating enclosure failures caused by the use of partial board (read page 58).

Circuit boards are solidly attached and made of .062 Glass Epoxy for maximum strength. All mixing boards are kept to a minimum size by incorporating miniature components (where quality is not sacrificed) and utilizing close channel and component layouts.

Carvin boards are road-worthy, designed for continuing reliable performance.



Precision Instrument Knobs feature Colored Aluminum Inserts

QUALITY PERFORMANCE

High Quality Close Tolerance components are utilized throughout every Carvin board for reliable, professional results. Low-noise Discrete semi-conductors are retested at Carvin to obtain the highest possible signal-to-noise ratios. Each channel features hand-wired discrete circuitry. All Components are of the best quality to assure the Widest Frequency Response, Highest Signal to Noise Ratios, and most important, Reliable Operation.



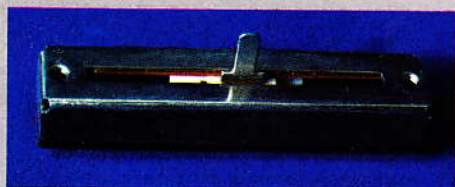
All Potentiometers feature close tolerance bearings dampened with Viscous Oil, eliminating the "Sloppy Control" feeling.



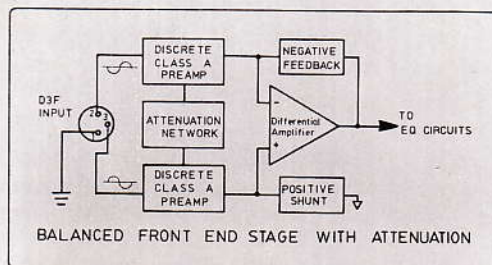
All Carvin Mixers incorporate the large 4C Hammond Reverb Tank which produces a 30-40 millisecond delay with a 1.4 second tone delay for studio quality reverberation.



Orange-Dipped Mylar Film Capacitors are utilized throughout for their close tolerances, very low leakage and high voltage ratings.



All Fader controls feature a special Taper for proper recording "Fade Outs". Viscous-dampened Slider bearings produce an exceptionally smooth sliding action eliminating shaft play.



The above Black diagram shows the new Carvin Bipolar Differential Input Circuit. This new circuit is superior to transformer inputs, increasing frequency response and decreasing distortion as much as 40% under certain conditions. Both inputs are isolated from ground. Common mode rejection is better than 75 dB for maximum cable lengths. For more information, read A. Bal. XLR INPUTS page 6. All Carvin Mixers employ BiPolar input except the MP410.



Precision Film resistors have close tolerances for stable pre-amp operation. The noise factor is considerably better than Carbon composition resistors.

SIMPLICITY

With the current explosion of electronic technology offering an incredible variety of devices and products, it is all too easy to get carried away with the glitter, offering more than can normally be used, and demanding the necessary price. We have tried to evaluate every possible feature, with the help of customer feedback, to provide the most functional mixers possible. Each mixing board offers exceptional flexibility, yet retains basic simplicity, both in internal design and outward layout. Carvin Mixers are easy to get to know.