

D-901

The digital mixer shall use digital signal processing for all mixing and signal processing functions and shall be modular for flexibility in system configuration. The mixer shall comply with the limits for a Class A computing device pursuant to FCC Part 15, Subject J. The mixer shall have a frequency response from 20 to 20k Hz, +/-1 dB.

The mixer shall utilize a modular architecture and be capable of up to twelve inputs and eight outputs. Module ports shall include six input ports and two output ports. Each input port shall accept two input channels and each output port shall provide up to four output channels. The mixer shall have eight independent mixing busses plus a separate bus for mic processing.

All software-based settings shall be accessible from the front panel controls as well as from PC-based setup software. At least 16 FLASH memory presets shall be available and each memory shall store all software-based settings used in a given configuration. Memory selection, channel volume and mute control shall also be selectable by simple dry contact closure using an optional remote control card.

Each mixer input bus shall feature all of the following signal processing capabilities: Gain trim stage, variable high pass filter, 2-band parametric equalization filters, dynamics control selectable as either compressor or leveler, gating, ducking, group-assigned automixing, and group-assignable input level fader.

Each input dynamics processing section shall be selectable as either compressor or leveler. The compressor settings shall include variable threshold, variable compression ratio, variable attack and release times, and variable gain settings. The leveler settings shall include variable target level, maximum gain and variable attack and release times.

Each input gate shall have separately adjustable signal level detection attack and release (integration) times, gate attack and release times, and gate hold time, as well as gate depth, threshold and hysteresis levels. Controls for each gate shall include an on/off switch.

Each mixer input shall be optionally assignable to one of up to four auto-mix groups. Each auto-mix group shall be automatically attenuated by a user-defined amount based upon the number of "open microphones" (i.e. ungated input channels) in that group (NOM attenuation). Each input shall also be optionally assignable to one of eight ducking priority levels within the same auto-mix group.

All mixer outputs shall feature all of the following signal processing capabilities: Group-assignable output level fader, filter section selectable as either a six-band multi-function equalizer or a multi-way crossover, full-featured compressor, and variable-increment signal delay.

Crossover filter slopes shall be selectable as either 6, 12, 18, or 24 dB per octave. Crossover filter characteristic (excluding 6 dB per octave slope) shall be selectable as either Butterworth, Bessel, Linkwitz-Riley, or variable Q (Linkwitz-Riley applies to 12 and 24 dB per octave only). Variable Q crossover filters shall have a Q-factor that is adjustable from 0.5 to 2.563.

Each output channel not assigned to a crossover section shall pass through six user-configurable equalization filters. Each user-configurable filter shall be selectable as either high pass, low pass, all pass, shelving, horn compensation EQ, notch filter, or fully parametric peak/dip filter.

All parametric peak/dip filters shall have a center frequency that is adjustable over the range of 20 to 20k Hz, a Q-factor that is adjustable from 0.267 to 69.249, and a gain range of +15 dB to -15 dB in 0.1 dB increments. All high/low pass and shelving filters shall have a center frequency that is adjustable over the range of 20 to 20k Hz.

Each input bus shall be assignable to each output bus using a cross-point gain matrix to allow for full matrix mixing of inputs to outputs, up to 12 x 8 channels.

A mic processing bus shall be available for assignment to any or all input and output channels, providing up to twelve narrow-band feedback suppression filters. Each feedback suppression filter shall be assignable as either automatic or dynamic in function. The mixer shall be capable of automatically testing the sound system for feedback through the assigned input and output

channels, and automatically setting the assigned filters to reduce the feedback tendency.

Windows-based PC control software shall be provided at no extra cost and shall allow for adjustment of mixer settings by computer via standard RS-232 port. The software shall provide for both off-line editing and storage of setup files, as well as live, real-time adjustment of setup parameters. The software shall allow the saving of setup configurations to the mixer's resident memory banks.

Setup software shall visually indicate the status of all programmable setup parameters and shall provide visual indication of both input and output levels. Audio levels on each input bus and output bus shall be indicated by on-screen two-color signal level indicators. On-screen indicators shall also indicate input channel gate status and fan status.

The unit shall include rack-mountable in standard equipment rack. Dimensions (W x H x D) shall be 19.0" x 5.22" x 12.6" (482.6 x 132.6 x 320 mm) and weight shall be 15.2 lbs. (6.9 kg).

The digital mixer shall be TOA model D-901.

The remote controller shall be TOA model D-911. (note: requires D-984VC module)

The two channel 24-bit mic/line input module shall be TOA model D-921E.

The two channel 24-bit mic/line input module shall be TOA model D-921F.

The two channel 20-bit mic/line input module shall be TOA model D-922E.

The two channel 20-bit mic/line input module shall be TOA model D-922F.

The two channel auxiliary input module shall be TOA model D-936R.

The two channel digital (AES/EBU) input module shall be TOA model D-923AE.

The two channel digital (S/PDIF) input module shall be TOA model D-937SP.

The four channel line output module shall be TOA model D-971M.

The four channel line output module shall be TOA model D-971E.

The four channel line output module shall be TOA model D-971R.

The four channel digital (S/PDIF) output module shall be TOA model D-961SP.

The four channel digital (AES/EBU) output module shall be TOA model D-972AE.

The remote control and monitoring module (8/8 I/O) shall be TOA model D-981.

The remote control and monitoring module (24/16 I/O) shall be TOA model D-983.

The VCA control module shall be TOA model D-984VC.