9000 Series - NEW! DIGITAL MATRIX MIXER/AMPLIFIERS

FEATURES =

- Modular Digital Matrix Mixer/Amplifiers for a multitude of applications including audio-visual, zone paging, room combining and many more
- Easy to Configure and Operate
- Exceptional Audio Quality
 - 24-bit, 48 kHz sampling
 - Ultra-Low Distortion 0.0008%
- Modular Mixer up to 8 mic/line inputs and 8 outputs
- Dual Channel Digital Signal Processor (DSP):
 - 10-Band Parametric EO
- High and Low Pass Filters
- Bass and Treble
- Loudness
- Compressor
- Delay (MIXER mode)
- TOA Speaker EO Presets
- Additional DSP included on D-001T and T-001T modules
- Single or Dual Channel Power Amplifiers 70.7 V, 25 V and low impedance models



- Flexible Output Power dual channel models allow 50% of either amplifier channel to be allocated to the other channel (Ex. A-9060DH: CH1:90W, CH2:30W)
- Dual Modes (MIXER and MATRIX) two separate feature sets to suit both simple mixing and complex multi-zone distribution applications
- Telephone Zone Paging access up to eight zones with optional ZP-001T module
- Ambient Noise Control automatically increase or reduce output levels in response to changes in ambient noise
- Multi-function Display allows programming and operation without a PC
- Rack-mount Kit Included (2RU)
- Five Year Warranty

MIXER Mode

- Ideal for Speech and Sound Reinforcement Applications in hotel meeting rooms, churches, and conference rooms
- Automatic Mixing
 - Automatically adjusts output level based on the total number of open microphones (NOM)
 - Adjustable output attenuation from 0 to 20logNOM
- 32 Programmable Scenes activate via front panel, switch closure, RS-232 or optional remote panels, models ZM-9001 and ZM-9002
- Flexible Input-to-Output Routing assign any input to one or more outputs with adjustable cross-point gain
- Stereo Link control two inputs with one volume control
- Paging Function
 - Assign outputs to up to four zones
 - Trigger paging function with VOX (one zone), control input (up to four zones) or optional ZP-001T module
 - Selectively disable outputs from programmed paging zone with contact closures

Flexible Remote Control

- Two Remote Volume Control Terminals
 - Assignable to any input or output channel
 - Control with 10k ohm linear potentiometer, 0-10 VDC or optional ZM-9001/ZM-9002 remote panels
- Four Control Inputs (expandable to twelve with C-001T module) — programmable to activate Memory, Volume Up/Down, Mute, Power On/Off, Emergency Mute or Synch On/Off
- Four Control Outputs (expandable to twelve with C-001T module) — programmable to activate external relays synchronized with Memory, Channel On/Off and Power On/Off
- RS-232 Port
 - Control protocol available for external devices (see protocol for controllable parameters)
 - AMX and Crestron control modules available

MATRIX Mode

- Multiple Simultaneous Event Activation for paging and BGM distribution applications
- Flexible Routing each audio input can be simultaneously routed to multiple outputs
- Eight Level Ducker assignable priority levels and mute depth attenuates all other lower priority input signals
- 32 Programmable Events activate via control input, RS-232 or optional remote panels, models ZM-9001 and ZM-9002
- Input Priority Modes sets priority order when multiple inputs with the same priority level are broadcast
 - First-In-First-Out (FIFO): input that occurs first is broadcast
 - Last-In-First-Out (LIFO): most recent input is broadcast
 - MIX: all inputs are mixed and broadcast
- Voice Operated (VOX) Event Activation with adjustable threshold/sensitivity and gate release time

Additional Features

- Mixer Out / Power Amp In Patching Loops (except M-9000) for connection of external processor(s)
- Software Utility for saving unit parameters to PC, updating unit firmware, virtual control activation and status indication
- MS Excel Programming Templates use Excel for off-site programming
- Keylock Security sets password-protected access to Input, Output, Utility & Power functions
- Input and Output Metering (D-001T module(s) required for input metering)
- Alphanumeric Channel and Memory Naming
- **Power Off Save Mode** saves adjusted volume levels when the power is switched off
- Power On Memory sets the Event/Scene selected when unit powers up
- Detachable IEC-type AC Cable
- UL and cUL Listed



9000 Series Models

Model	Mic/Line Inputs	Digital Signal Processor	Power Amplifier Output(s)	Line Outputs
A-9060DH	Up to 8 (4x D-001T)	2 Channels	2x 60 W @ 70V	Up to 6 (3x T-001T)
A-9120DH	Up to 8 (4x D-001T)	2 Channels	2x 120 W @ 70V	Up to 6 (3x T-001T)
A-9120DL	Up to 8 (4x D-001T)	2 Channels	2x 120 W @ 4 ohms	Up to 6 (3x T-001T)
A-9060S	Up to 8 (4x D-001T)	2 Channels	1x 60 W @ 25/70V, 4/8 ohms	Up to 7 (1 built-in plus 3x T-001T)
A-9120S	Up to 8 (4x D-001T)	2 Channels	1x 120 W @ 25/70V, 4/8 ohms	Up to 7 (1 built-in plus 3x T-001T)
A-9240SH	Up to 8 (4x D-001T)	2 Channels	1x 240 W @ 70V	Up to 7 (1 built-in plus 3x T-001T)
M-9000	Up to 8 (4x D-001T)	2 Channels	2x Line Level	Up to 8 (2 built-in plus 3x T-001T)

9000 Series Modules and Accessories - NEW!

D-001T

DUAL MIC/LINE INPUT W/ DSP

- Two Balanced Mic / Line Inputs
- Digital Signal Processing (10-Band Parametric EQ, Bass/ Treble, Loudness, High and Low Pass Filters, Compressor)
- Adjustable Sensitivity (nine levels, -60 to -10 dBV)
- Phantom Power (24 VDC)
- Removable Terminal Block
- Maximum four per chassis
- · Required for VOX function and input metering



ZP-001T

TELEPHONE DTMF ZONE PAGING

- Telephone Access Paging to up to eight zones • Uses DTMF dialing to access amplifier and/or line
- · Dial up to eight output zones in one operation
- Analog extension or page port compatible
- Page port operation requires contact closure activation
- RJ-11 Telephone Jack and Removable Terminal Blocks
- Maximum one per chassis



T-001T

DUAL LINE OUTPUT EXPANSION W/DSP

- Two Balanced Line Outputs
- Digital Signal Processing (10-Band Parametric EQ, Bass/ Treble, Loudness, High and Low Pass Filters, Compressor, TOA speaker EQ presets)
- Removable Terminal Block
- Maximum three per chassis



C-001T

INPUT/OUTPUT CONTROL EXPANSION

- Eight assignable control inputs for activating Event, Volume Up/Down, Mute, Power On/Off, Emergency
 Materials Conference Mute or Synch On/Off
- · Eight assignable control outputs for activating external
- Removable Terminal Block
- Maximum one per chassis



AN-001T

AMBIENT NOISE CONTROLLER MODULE

- Automatically adjusts output gain to compensate for changes in ambient noise level
- Each input can be assigned to control a specific output
- Two inputs with +24VDC phantom power for condenser mics
- 14 preset gain ratios
- Accessory sensing microphone available, model AN-9001
- Maximum two per chassis



AN-9001

AMBIENT NOISE SENSING MICROPHONE

- Ceiling or wall-mount condenser microphone
- Fits one gang electrical box
- Use with AN-001T module or DP-L2 processor



ZM-9001

REMOTE PANEL

- Six buttons to activate preset selection or volume up/down
- Wiring: only one pair to chassis Remote Volume terminals
- Max. loop resistance: 100 ohms (3000 ft. 22AWG)
- Fits one gang electrical box
- Maximum two ZM-9001/ZM-9002 per chassis



ZM-9002 REMOTE PANEL

- Four push buttons to activate preset selection or volume up/down
- Volume control knob
- Wiring: only one pair to chassis Remote Volume terminals
- Max. loop resistance: 100 ohms (3000 ft. 22AWG)
- Fits one gang electrical box
- Maximum two ZM-9001/ZM-9002 per chassis



SS-9001

SPEAKER SELECTOR

- Switch up to four speaker lines on one amplifier output
- Two amplifier inputs for Paging/BGM applications
- Triggered by ZP-001T module control outputs
- Wall-mount bracket included
- Requires optional 24VDC power supply, model AD-246



9000 SERIES APPLICATION GUIDE

The TOA 9000 Series Application Guide is a great selling tool and gives several application examples to help you take advantage of the powerful flexibility of the 9000 Series Digital Matrix Mixer/Amplifiers. The guide covers both matrix and mixer modes.

The TOA 9000 Series Application Guide is available for download from: www.toaelectronics.com





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MIXER/AMPLIFIERS

900 Series





A-903MK2 A-906MK2 A-912MK2

30/60/120 WATT 8-CHANNEL MIXER/AMPLIFIERS

- Modular eight channel mixer/amplifiers for paging, background/ foreground music distribution and music/messaging-on-hold
- Engineered for high performance with wide frequency response, very low noise and distortion, and excellent output regulation
- Three models: A-903MK2 (30 W), A-906MK2 (60 W), A-912MK2 (120 W)
- Eight module slots accept any combination of TOA plug-in modules for custom system configurations
- 25 V, 70.7 V and 8 ohm transformer-isolated speaker outputs with screw terminal connector and protective cover plate (A-903MK2: 4 ohm)
- Direct low-impedance output mode bypasses output xfmr
- Dual mute bus permits multiple levels of paging priority using optional mute-type modules
- External mute terminals for activating mute function with external switch-closure
- Remote master volume terminals for control with an external 10k ohm linear-taper potentiometer
- Individual channel and master volume controls
- Bass/treble tone controls with tone defeat switch
- Low cut switch to limit low frequency response
- Auxiliary output for connecting an external mixer or recording device
- Insert jacks for connecting external signal processing
- Bridging input/output for input expansion or recording device
- Normal, clip, power, protect, and signal indicators provide unit status
- Rear panel AC convenience outlet for powering external equipment
- Turn-on delay disconnects output during power-up
- Over-current and thermal protection circuitry prevents potential damage from overload, short-circuit and over-heating
- Volume control security knobs included (4)
- Optional rack-mount kit, model MB-25B (2 RU)
- UL / cUL listed
- Five year warranty

See pages 7 - 9 for modules.





60/120/240 WATT POWER AMPLIFIERS

P-906MK2 P-912MK2

P-924MK2

- Modular single channel power amplifiers for paging, background/ foreground music distribution and music/messaging-on-hold
- Engineered for high performance with wide frequency response, very low noise and distortion, and excellent output regulation
- Three models: P-906MK2 (60 W), P-912MK2 (120 W), P-924MK2 (240 W)
- Input module slot accepts most TOA plug-in modules for custom system configurations
- 25 V, 70.7 V and 8 ohm transformer-isolated speaker outputs with screw terminal connector and protective cover plate
- Direct low-impedance output mode bypasses output xfmr
- Direct line input with selectable input sensitivity for connecting an external mixer or other source
- Master volume control
- Low cut switch to limit low frequency response
- Normal, clip, power, protect, and signal indicators provide unit status
- Rear panel AC convenience outlet for powering external equipment
- Turn-on delay disconnects output during power-up
- Over-current and thermal protection circuitry prevents potential damage from overload, short-circuit, or over-heating
- Volume control security knob included
- Optional rack-mount kits: P-906/P-912MK2: MB-25B (2 RU)
 P-924MK2: MB-35B (3 RU)
- UL / cUL listed
- Five year warranty

See pages 7 - 9 for modules.







M-900MK2

8-CHANNEL MODULAR MIXER

- Eight module slots accept any combination of TOA plug-in modules for custom system configurations
- Balanced, transformer-isolated output w/selectable impedance, screw terminal connector & protective cover plate
- Dual mute bus permits multiple levels of paging priority using optional mute-type modules
- External mute terminals
- Remote master volume terminals
- Individual channel and master volume controls
- Bass/treble tone controls with tone defeat switch
- Auxiliary output for connecting an external mixer or recording device
- Bridging input/output for input expansion or recording device
- Normal, clip, power, protect, and signal indicators provide unit status
- Rear panel AC convenience outlet for powering external equipment
- Turn-on delay disconnects output during power-up
- Volume control security knobs included (4)
- Optional rack-mount kit, model MB-25B (2 RU)
- UL / cUL listed
- Five year warranty

See pages 7 - 9 for modules.

W-906A W-912A

60/120 WATT 6-CHANNEL IN-WALL MIXER/AMPLIFIERS

- Modular design allows fast and easy custom configurations
- Engineered for high performance with wide frequency response, very low noise and distortion, and excellent output regulation
- Six module slots accept TOA plug-in modules for unmatched flexibility, expandable to eight slots with optional kit, model WE-2
- 25 V, 70.7 V and 4 ohm transformer-isolated speaker outputs
- Flush or surface-mount with optional back boxes -BX-9F (flush-mount) and BX-9S (surface-mount)
- One octave nine band equalizer
- High and low pass filters
- Compressor prevents overload and distortion
- Thermal, DC and overload protection with muting during power up
- Peak and power indicators
- Muting function for input priority override (requires mute modules)
- Five year warranty

See pages 7 - 9 for modules.

900 Series Modules - MICROPHONE INPUT MODULES

ML-11T - NEW!

MIC/LINE INPUT W/ MUTE/SEND RECEIVE

- Switchable mic/line input
- Adjustable Mute-Send threshold (VOX sensitivity)
- High and Low Cut Filters
- Assign Mute Send or Receive to each mute bus

M-01 Series MICROPHONE INPUT

- For balanced, low impedance microphone
- High and low cut filters for tone control
- Phantom power for condenser-type microphones
- Connectors: female XLR (M-01F), male XLR (M-01M), 1/4" phone jack (M-01P), removable terminal block (M-01S)



M-11S

MICROPHONE INPUT WITH MUTE-RECEIVE

- For balanced, low impedance microphone
- High and low cut filters for tone control
- Phantom power for condenser-type microphones
- Responds to mute bus activation via mute send module or switch-closure
- Two mute response modes: Normally-on (OFF during mute activation) or Normally-off (ON during mute activation)
- · Connector: removable terminal block



M-21S

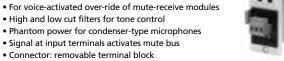
MICROPHONE PREAMPLIFIER WITH REMOTE VOLUME CONTROL

- For balanced, low impedance microphone
- High and low cut filters for tone control
- Phantom power for condenser-type microphones
- Allows remote control of input signal using an external 10k ohm linear-taper potentiometer
- Connector: screw terminal



MICROPHONE PAGING INPUT WITH MUTE-SEND

- For balanced, low impedance microphones
- For voice-activated over-ride of mute-receive modules
- High and low cut filters for tone control
- Phantom power for condenser-type microphones
- Connector: removable terminal block



M-51 Series

MICROPHONE INPUT WITH VOICE GATE

- For balanced, low impedance microphones
- Low cut filter for tone control
- Phantom power for condenser-type microphones
- · Gate function keeps module muted until input signal exceeds threshold
- Connectors: female XLR (M-51F), removable terminal block (M-51S)



M-61 Series

MICROPHONE INPUT WITH COMPRESSOR

- For balanced, low impedance microphones
- High and low cut filters for tone control
- Phantom power for condenser-type microphones
- Compressor function prevents overload and distortion
- Connectors: female XLR (M-61F) or removable terminal block (M-61S)



HIGH IMPEDANCE MICROPHONE INPUT

- For unbalanced, high impedance mics
- High and low cut filters for tone control • Connector: 1/4" phone jack







900 Series Modules - LINE INPUT MODULES

B-01 Series BALANCED LINE INPUT

- For balanced or unbalanced line level sources such as mixer outputs, signal processors and wireless microphone receivers
- Transformer isolation (10k ohms)
- Connector: female XLR (B-01F), removable terminal block (B-01S)



B-11S

BALANCED LINE INPUT WITH MUTE-RECEIVE

- For balanced or unbalanced line level sources such as mixer outputs, signal processors and wireless microphone receivers
- Transformer isolation (10k ohms)
- Responds to mute bus activation via mute send module or switch-closure
- Connector: removable terminal block



B-21S

BALANCED LINE INPUT WITH REMOTE VOLUME CONTROL

- For balanced or unbalanced, line level equipment such as tuners, tape decks and CD players
- Transformer isolation (10k ohms)
- Allows remote control of input signal using an external 10k ohm linear-taper potentiometer
- Connector: screw terminal



B-41S

BALANCED LINE INPUT WITH MUTE-SEND

- For balanced or unbalanced, line level equipment
- For signal-actived over-ride of mute-receive modules
- Transformer isolation (10k ohms)
- Signal at input terminals activates mute bus
- Connector: removable terminal block
- Recommended for phone paging applications



L-01 Series

LINE MATCHING INPUT

- For applications requiring 600 ohm line-matching
- Transformer isolation (600 ohms)
- Connector: female XLR (L-01F), removable terminal block (L-01S)



L-11S

LINE MATCHING INPUT WITH MUTE-RECEIVE

- For applications requiring 600 ohm line-matching
- Responds to mute bus activation
- Transformer isolation (600 ohms)
- Responds to mute bus activation via mute send module or switch-closure
- Connector: removable terminal block



L-41S

LINE MATCHING INPUT WITH MUTE-SEND

- For applications requiring 600 ohm line-matching
- Responds to mute bus activation
- Transformer isolation (600 ohms)
- Signal at input terminals activates mute bus
- Connector: removable terminal block



U-01 Series UNBALANCED LINE INPUT

• For unbalanced, line level sources such as tuners, cassette

- For unbalanced, line level sources such as tuners, cassette decks, CD players, computer sound cards, jukeboxes, mixers and satellite receivers
- Use for adjacent sources (less than 15 feet from the host unit)
- Connectors: female XLR (U-01F), 1/4" phone jack (U-01P), RCA jack (U-01R), removable terminal block (U-01S)



U-03 Series

UNBALANCED LINE INPUT WITH HIGH/LOW CUT FILTERS

- For unbalanced, line level sources such as tuners, cassette decks, CD players, computer sound cards, jukeboxes, mixers and satellite receivers
- Use for adjacent sources (less than 15 feet from the host unit)
- High and low cut filters for tone control
- Connectors: dual RCA jack w/ passive summing (U-03R), removable terminal block (U-03S)



U-11 Series

UNBALANCED LINE INPUT WITH MUTE-RECEIVE

- For unbalanced, line level sources such as tuners, cassette decks, CD players, computer sound cards, jukeboxes, mixers and satellite receivers
- Use for adjacent sources (less than 15 feet from the host unit)
- Responds to mute bus activation via mute send module or switch-closure
- Connectors: RCA jack (U-11R), removable terminal block (U-11S)



U-12S

UNBALANCED LINE INPUT WITH VARIABLE MUTE-RECEIVE DEPTH

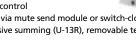
- For unbalanced, line level sources such as tuners, cassette decks, CD players, computer sound cards, jukeboxes, mixers and satellite receivers
- Use for adjacent sources (less than 15 feet from the host unit)
- Responds to mute bus activation via mute send module or switch-closure
- Adjustable depth provides "ducking" rather than full muting
- Connector: removable terminal block



U-13 Series

UNBALANCED LINE INPUT WITH HIGH/LOW CUT FILTERS AND MUTE-RECEIVE

- For unbalanced, line level sources such as tuners, cassette decks, CD players, computer sound cards, jukeboxes, mixers and satellite receivers
- Use for adjacent sources (less than 15 feet from the host unit)
- High and low cut filters for tone control
- Responds to mute bus activation via mute send module or switch-closure
- Connectors: dual RCA jack w/passive summing (U-13R), removable terminal block (U-13S)



II-14R

DUAL INPUT PRIORITY MODULE W/AGC & MUTE RECEIVE

- Dual input module for applications with business music plus an on-premises CD jukebox or other source
- Two line inputs Jukebox and BGM
- Auto-mute function with adjustable mute threshold (jukebox overrides BGM)
- Automatic Gain Control (AGC) on jukebox input for consistent signal levels
- Individual input level controls
- Stereo-summing dual RCA jacks



U-21S UNBALANCED LINE INPUT WITH REMOTE VOLUME CONTROL

- For unbalanced, line level sources such as tuners, cassette decks, CD players, computer sound cards, jukeboxes, mixers and satellite receivers
- Use for adjacent sources (less than 15 feet from the host unit)
- Allows remote control of input signal using an external 10k ohm linear-taper potentiometer
- Master Remote Volume mode
- Connector: screw terminal





900 Series Modules - LINE INPUT MODULES (CONTINUED)

U-43 Series UNBALANCED LINE INPUT WITH HIGH/LOW FILTERS AND MUTE-SEND

- For unbalanced, line level sources such as tuners, cassette decks, CD players, computer sound cards, jukeboxes, mixers and satellite receivers
- Use for adjacent sources (less than 15 feet from the host unit)
- High and low cut filters for tone control
- Signal at input terminals activates mute bus
- Connectors: dual RCA jack w/ passive summing (U-43R), removable terminal block (U-43S)



U-61S

UNBALANCED LINE INPUT WITH COMPRESSOR

- For unbalanced, line level sources such as tuners, cassette decks, CD players, computer sound cards, jukeboxes, mixers and satellite receivers
- For adjacent sources (less than 15 feet from the host unit)
- Compressor function prevents overload and distortion
- Master compressor mode
- · Connector: removable terminal block



900 Series Modules - Special function modules

T-01S

BALANCED LINE OUTPUT

- Transformer-Isolated line output of the mixing bus signal to feed other remote mixers, amplifiers, and tape recorders
- Output level control
- · Connector: removable terminal block



UNBALANCED LINE INPUT WITH MUSIC-ON-HOLD OUTPUT

- Unbalanced line input for AM/FM tuners, cassette decks, CD players, computer sound cards, jukeboxes, mixers and satellite receivers
- Balanced transformer-isolated uninterrupted output of module's input signal
- · Output level control for adjusting the MOH output signal level
- · Connector: screw terminal



T-12S

UNBALANCED LINE INPUT WITH MUSIC-ON-HOLD **OUTPUT AND INPUT MUTE-RECEIVE**

- Unbalanced line input for AM/FM tuners, cassette decks, CD players, computer sound cards, jukeboxes, mixers and satellite receivers
- · Balanced transformer-isolated uninterrupted output of module's input signal
- · Output level control for adjusting the MOH output signal level
- Responds to mute bus activation via mute send module or switch-closure
- Connector: screw terminal

E-03R (F-122CU), E-04R (H-1), E-05R (H-2/H-2WP),

E-06R (H-3/H-3WP), E-07S (FB-100 and HB-1)* **EQUALIZATION FOR TOA SPEAKERS**

- Optimized preset equalization curve for TOA speakers
- Connects between pre-amp output and power amp input (except E-07S)
- Dual RCA cable included
- Connector: dual RCA (in/out); removable terminal block (E-
- * The E-07S is a low-pass-filter output module with a mix bus output to drive a dedicated external subwoofer amplifier



S-01S

1 kHz SINE WAVE TEST TONE

- Generates 1 kHz sine wave tone via switch-closure. Ideal as a test tone for the audio system
- · Connector: removable terminal block



BUZZER/YELP TONE GENERATOR

- Generates buzzer or yelp tones via switch-closure
- Connector: removable terminal block



S-04S

SWITCH-SELECTABLE TONE GENERATOR

- Generates one of eight tones via switch-closure
- Single or continuous tone activation
- Connector: removable terminal block



DIGITAL MESSAGE/TONE MODULE W/USB

- Digital audio storage module for messaging and tonesignaling applications
- USB interface for fast audio file transfer between PC and module
- Three minutes of CD quality digital storage 50 to 20k Hz frequency response
- Versatile CD-ROM tone library included
- Accepts four audio files 44.1 kHz, 16 bit PCM monaural WAV format
- External activation for single or repeating playback
- Automatic priority overrides current message
- Stop function immediately cancels playback
- Selectable repeat interval for each message
- Auto-mute function priority over mute-receive modules
- Adjustable level control
- CD-ROM tone library, software and USB cable included





REMOTE MASTER VOLUME CONTROL (VCA) MODULE

- Voltage Controlled Amplifier (VCA) for applications requiring preset remote master volume control
- Line input and output connect to host amplifier's pre-amp output and power amp input • 24 VDC output and control input interfaces directly to RDL
- RLC3 remote level control • RCA and phoenix-style connectors
- For 10k potentiometer volume control, use U-21S



