



# 900 SERIES

## POWER AMPLIFIERS:

P-906MK2

P-912MK2

P-924MK2

THE TOA 900 SERIES are widely recognized as the industry standard in installed sound system amplification. When reliability and performance are critical – such as in paging and music distribution for airport, hospital, and industrial sound systems – you can count on the TOA 900 Series to perform consistently, day-in and day-out.

The P-906MK2 (60 W), P-912MK2 (120 W) and P-924MK2 (240 W) **Single Channel Power Amplifiers** are engineered for high performance with wide frequency response, very low noise and distortion, and excellent output regulation. A single module slot allows you to easily configure custom configurations using TOA plug-in modules with an extensive array of features and connector types. Outputs include transformer-isolated 25 V, 70 V and 8 ohm plus a direct low-impedance mode if non-transformer operation is required.

Other features include a direct input, selectable input sensitivity, low-cut switch and protection circuitry.

The 900 Series Power Amplifiers are UL and cUL Listed and carry a five year warranty.



## HIGHLIGHTS

- **Modular Single Channel Power Amplifiers** for paging, background/foreground music distribution and music/messaging-on-hold.
- **Proven TOA Quality and Reliability**
- **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 V and 8 Ohm Transformer-Isolated Speaker Outputs** with screw terminal connector and protective cover plate.
- **Direct Low-Impedance Output Mode** bypasses output transformer.
- **Direct Input** for connecting an external mixer or other source.
- **Selectable Input Sensitivity** to accommodate high or low input levels.
- **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 overheating.
- **Volume Control Security Knob Included**
- **Optional Rack-Mount Kits**
- **UL / cUL Listed**
- **Five Year Warranty**

## OPTIONAL ACCESSORIES

Plug-in Modules (see individual module specifications)

MB-25B	Rack-mount Kit (2 RU): P-906MK2 / P-912MK2
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MB-35B	Rack-mount Kit (3 RU): P-924MK2
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PF-511	Perforated Rack Panel (2 RU)
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YA-920	Volume Control Security Knob
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900 Series Module Guide available from <http://www.toaelectronics.com>

# SPECIFICATIONS

900 SERIES  
POWER AMPLIFIERS

Tel: 800-733-7088  
Fax: 800-733-9766  
www.toaelectronics.com



<b>Type</b>	Power amplifier
<b>Output Power</b>	<b>P-906MK2:</b> 60 W RMS; <b>P-912MK2:</b> 120 W RMS <b>P-924MK2:</b> 240 W RMS
<b>Power Bandwidth</b>	(D) 20 - 20k Hz, 0.5% THD; (T) 50 - 20k Hz, 0.5% THD
<b>Frequency Response</b>	(D) 20 - 20k Hz, $\pm 1$ dB; (T) 20 - 15k Hz, $\pm 1$ dB (T) 20 - 20k Hz, +1 dB / -3 dB
<b>Total Harmonic Distortion</b>	0.01% at 1k Hz, rated output
<b>Inputs</b>	1 modular input port 1 direct input Use only one of direct input or modular input port.
<b>Input Sensitivity &amp; Impedance</b>	Input port: 100 mV or 1000 mV (switchable)/10k $\Omega$ Direct input: 100 mV or 1000 mV (switchable)/10k $\Omega$
<b>Outputs</b> (T)=Transformer, (D)=Direct	Main (T): 8 $\Omega$ , 25 V & 70 V, balanced Main (D): 4 $\Omega$ , unbalanced
<b>Output Regulation</b> (1k Hz)	(D): Less than 0.5 dB, no load to full load (T): Less than 1.0 dB, no load to full load
<b>Dynamic Range</b> (Band Pass: 20 - 20k Hz, with Tone Controls centered)	Input level switch in 0 dBV (1000 mV) position: 108 dB Input level switch in -20 dBV (100 mV) position: 90 dB
<b>Indicators</b>	Normal, Peak, Power, Protect, and Signal LEDs
<b>Protection</b>	<b>P-906/912MK2:</b> Self-protection, with internal AC fuse <b>P-924MK2:</b> Self-protection, with 2 AC fuses (1 internal) and 2 DC fuses.
<b>Power Consumption</b>	<b>P-906MK2:</b> 100 W; <b>P-912MK2:</b> 180 W; <b>P-924MK2:</b> 120V/3A
<b>Temperature Range</b>	12° F to 140° F (-10° C to +60° C)
<b>Color</b>	Black
<b>Dimensions (W x H x D)</b>	<b>P-906/912MK2:</b> 16.5" x 3.9" x 14.1" (420 x 99.1 x 358 mm) <b>P-924MK2:</b> 16.5" x 6.0" x 13.2" (420 x 151.3 x 334.2 mm)
<b>Weight (without modules)</b>	<b>P-906MK2:</b> 20.1 lbs (9.1 kg); <b>P-912MK2:</b> 24.0 lbs (10.9 kg) <b>P-924MK2:</b> 43.0 lbs (19.5 kg)
<b>Other Features</b>	Output connects approx. 5 seconds after switching power on.

## APPLICATIONS

A/V Rentals  
Airports  
Audio/Visual  
Auditoriums / Theatres  
Banks  
Bars / Lounges / Nightclubs  
Boardrooms  
Business Music  
Conference Facilities  
Convenience Stores  
Educational Facilities  
Fitness Clubs / Gymnasiums  
Hotels / Hospitality  
Houses of Worship  
Industrial / Warehouses  
Museums  
Music Distribution  
Offices  
Public Address  
Restaurants  
Retail Stores  
Theme Parks  
Training Rooms

Visit [www.toaelectronics.com](http://www.toaelectronics.com) to download:

900 Series Architect and Engineering Specifications  
900 Series Installation Manual  
900 Series CAD Files  
900 Series Module Guide



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# MODULE SELECTION

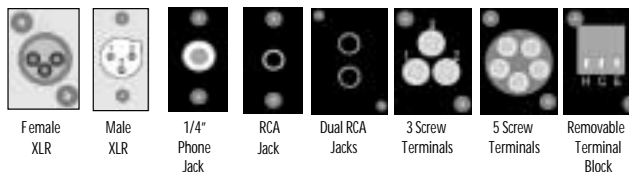


Model	Type	Description
<b>M-01F</b>	MIC	Microphone Input Module, Balanced, 200 $\Omega$ , Lo/Hi-Cut Filters, Female XLR
<b>M-01M</b>	MIC	Same as M-01F with Male XLR
<b>M-01P</b>	MIC	Same as M-01F with Phone Jack
<b>M-01S</b>	MIC	Same as M-01F with Screw Terminals
<b>M-03P</b>	MIC	Microphone Input Module, HiZ, Unbalanced, 50k $\Omega$ , Lo/Hi-Cut Filters, Phone Jack
<b>M-21S</b>	MIC	Microphone Input Module, Balanced, 200 $\Omega$ , Lo/Hi-Cut Filters, Remote Vol. Control, Screw Terminals
<b>M-51F</b>	MIC	Microphone Input Module, Balanced, 200 $\Omega$ , Lo-Cut Filter, Voice Gate, Female XLR
<b>M-51S</b>	MIC	Same as M-51F with Screw Terminals
<b>M-61F</b>	MIC	Microphone Input Module, Balanced, 200 $\Omega$ , Lo/Hi-Cut Filters, Compressor, Female XLR
<b>M-61S</b>	MIC	Same as M-61F with Screw Terminals
<b>B-01F</b>	LINE	Balanced Line Input Module, 10k $\Omega$ Transformer, Female XLR
<b>B-01S</b>	LINE	Balanced Line Input Module, 10k $\Omega$ Transformer, Screw Terminals
<b>B-21S</b>	LINE	Balanced Line Input Module, 10k $\Omega$ Transformer, Remote Volume Control, Screw Terminals
<b>L-01F</b>	LINE	Line Matching Input Module, 600 $\Omega$ Transformer, Balanced, Female XLR
<b>L-01S</b>	LINE	Same as L-01F with Screw Terminals
<b>U-01F</b>	LINE	Line Input Module, Unbalanced, 220k $\Omega$ , Female XLR
<b>U-01P</b>	LINE	Same as U-01F with Phone Jack
<b>U-01R</b>	LINE	Same as U-01F with RCA Jack
<b>U-01S</b>	LINE	Same as U-01F with Screw Terminals
<b>U-03R</b>	LINE	Stereo Line Input Module, Lo/Hi-Cut Filters, Stereo Summing Dual RCA Jacks
<b>U-03S</b>	LINE	Line Input Module, Lo/Hi-Cut Filters, Screw Terminals
<b>U-21S</b>	LINE	Line Input Module, Unbalanced, 220k $\Omega$ , Remote Volume Control, Screw Terminals
<b>U-61S</b>	LINE	Line Input Module, Unbalanced, 220k $\Omega$ , Compressor, Screw Terminals
<b>E-03R</b>	SPECIAL FUNCTION	900 Series Processor Module for F-121C/CM Speakers, Dual RCA Jacks
<b>E-04R</b>	SPECIAL FUNCTION	900 Series Processor Module for H-1 Speakers, Dual RCA Jacks
<b>E-05R</b>	SPECIAL FUNCTION	900 Series Processor Module for H-2/H-2WP Speakers, Dual RCA Jacks
<b>E-06R</b>	SPECIAL FUNCTION	900 Series Processor Module for H-3/H-3WP Speakers, Dual RCA Jacks
<b>S-01S</b>	SPECIAL FUNCTION	Signal Generator Module, 1 kHz Sine Wave, Screw Terminals
<b>S-02S</b>	SPECIAL FUNCTION	Signal Generator Module, Buzzer/Yelp, Screw Terminals
<b>S-04S</b>	SPECIAL FUNCTION	Signal Generator Module, 8 Selectable Tones, Screw Terminals
<b>T-02S</b>	SPECIAL FUNCTION	Line Input Module for Music-on-Hold, Unbalanced, 220k $\Omega$ Input, 600 $\Omega$ Balanced Output, Screw Terminals



TOA ELECTRONICS, INC.  
601 GATEWAY BLVD., SUITE 300  
SOUTH SAN FRANCISCO, CA 94080  
TEL: 800-733-7088  
FAX: 800-733-9766  
[www.toaelectronics.com](http://www.toaelectronics.com)

## 900 SERIES POWER AMPLIFIERS



### 900 SERIES MODULE CHART

		Female XLR	Male XLR	1/4\" Phone Jack	RCA Jack	Dual RCA Jacks	3 Screw Terminals	5 Screw Terminals	Removable Terminal Block
Microphone Input Modules	Standard with high/low cut filters	M-01F	M-01M	M-01P			M-01S		
	Voice Gate with low cut filters	M-51F					M-51S		
	Compressor with high/low cut filters	M-61F					M-61S		
	Remote Volume Control with high/low filters							M-21S	
	For high-Z mic. only w/ high/low cut filters			M-03P					
Line Input Modules*	Standard, no special features	L-01F B-01F U-01F		U-01P	U-01R		L-01S B-01S U-01S		
	Standard with high/low cut filters					U-03R			U-03S
	Remote Volume Control							B-21S U-21S	
	Compressor						U-61S		
	Line output						T-01S		
Special Function Modules	Line input with Music-On-Hold (MOH) output							T-02S	
	1 kHz Sine Wave test tone						S-01S		
	Buzzer/Yelp signal tone						S-02S		
	Switch-selectable tone						S-04S		
	Equalizer for F-121C/CM Speakers					E-03R			
	Equalizer for H-1 Speakers					E-04R			
	Equalizer for H-2/H-2WP Speakers					E-05R			
	Equalizer for H-3/H-3WP Speakers					E-06R			

\*For Line Input Modules: Use "B" modules w/ transformer isolation for balanced/unbalanced sources. Use "L" modules only for 600 ohm impedance matching. Use "U" for unbalanced sources w/ short cables ( $\leq 15$  feet).