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TOA 900 MK2 SERIES

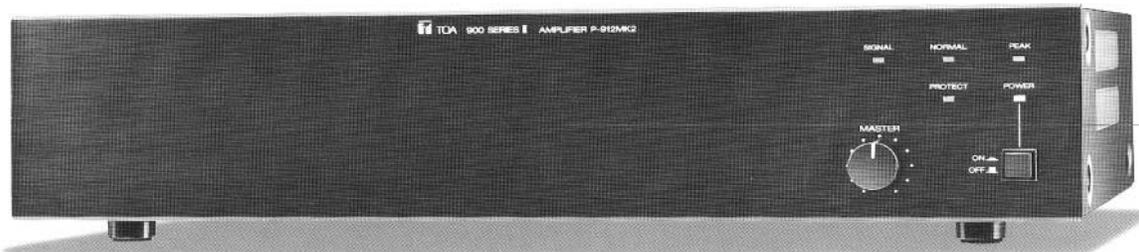
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# POWER AMPLIFIER (120-WATT)

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## P-912MK2

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### DESCRIPTION

The TOA P-912MK2 Power Amplifier delivers up to 120 watts of power at less than 0.5% total harmonic distortion (THD) from 20 to 20,000Hz (transformerless 4-ohm output). Optional plug-in modules are available for use with the P-912MK2 to provide a full range of operating applications. The use of edge connectors on the rear of the unit permits selection from a wide assortment of TOA plug-in modules.

A low-cut switch for a cutoff frequency of 60Hz and an input level switch for an input sensitivity of 1V (0dBV) or 0.1V (-20dBV) are provided. The P-912MK2 has output terminals to match 4- or 8-ohm speaker systems and 25- or 70-volt constant voltage speaker distribution systems. An optional rack mounting bracket is available.

### FEATURES

1. Output power: 120 watts RMS
2. Wide frequency response: 20 to 20,000Hz  $\pm$  1dB
3. Low distortion and noise level
4. Excellent output regulation
5. Built-in protection circuitry when heat sink temperature overheats
6. Separate output terminals for 4 and 8 ohms, 25 and 70 volts constant voltage speaker distribution systems
7. Full range of plug-in modules
8. Input level switch (1,000mV/100mV)
9. Mountable in two EIA standard rack units with optional rack mounting bracket





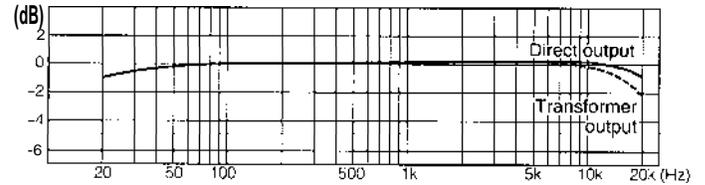
## SPECIFICATIONS

Type	Power amplifier
Output Power	120 watts RMS
Power Bandwidth	(D) 20-20,000Hz, 0.5% THD (T) 50-20,000Hz, 0.5% THD
Frequency Response	(D) 20-20,000Hz, $\pm 1$ dB (T) 20-15,000Hz, $\pm 1$ dB (T) 20-20,000Hz, $\pm 1$ dB/-3dB
Total Harmonic Distortion	0.01% at 1kHz, rated output
Inputs	One input port Port accepts any input module except T-01 One direct input <b>Note:</b> Use of direct input prohibits use of modular input port.
Input Sensitivity/Impedance	Input port: 100mV or 1000mV( switchable)/10k ohms Direct input: 100mV or 1000mV( switchable)/10k ohms
Source Impedance	200 ohms with M-01/M-11/M-21/M-51/M-61 modules (balanced Lo-Z microphone preamplifier) 50k ohms with M-03P module (unbalanced Hi-Z microphone preamplifier). R-01 module (mag. phono preamplifier). 220k ohms with U-01/U-11/U-21/U-61 modules (auxiliary preamplifier) 10k ohms with B-01 module (bridging transformer) 600 ohms with L-01 module (line matching transformer), I-01 module (paging input)
outputs (T)=Transformer (D)=Direct	Main (T): 8 ohms, 25 and 70 volts, balanced Main (D): 4 ohms, unbalanced
Output Regulation (1kHz)	(D): Less than 0.5dB, no load to full load (T): Less than 1.0dB, no load to full load
Signal-to-Noise Ratio (Band Pass: 20-20,000Hz) With Tone Controls Centered	Input level switch in 0dBV (1000mV) position: 108dB Input level switch in -20dBV (100mV) position: 90dB
Controls	1 input gain control, 1 input level switch, 1 power ON/OFF switch, 1 low-cut switch
Indicators	1 power LED, 1 protect LED, 1 signal LED, 1 normal LED, 1 peak LED
Protection	Self-protection, with AC fuse (inside)
Connectors	Inputs: Card-edge connector and screw-terminal strip Output: Screw-terminal strip AC power cord/plug: SJT, 3-prong type AC outlet 3-pin grounding type
Power Consumption	180 watts
Temperature Range	12°F to 140°F (-10°C to +60°C)
Dimensions	16.5"(W) x 3.9"(H) x 14.1" (D) (420 x 99.1 x 358mm)
Weight (without input modules)	24.0lbs. (10.9kg)
Color	Black
Standard Accessory	1 volume control cover (YA-920), 1 input port cover
Other Features	Output disconnected for approx. 5 seconds after switching power on
Optional Accessories	Plug-in modules (see specifications for individual modules), Rack mounting bracket model MB-25B

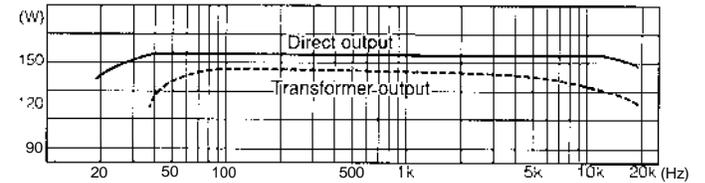
Specifications are subject to change without notice.

**NOTE: MODULE WITH MUTING FUNCTION CANNOT BE UTILIZED IN P SERIES AMPLIFIERS.**

## Frequency Response at 1/10 rated output (Direct output: 4-ohm load, transformer output: 41-ohm load)



## Power Output vs. Frequency at 0.5% THD (Direct output: 4-ohm load, transformer output: 41-ohm load)



## Architects and Engineers Specifications

The power amplifier shall be capable of operation from a 120V, 50/60Hz line. Either direct input or plug-in module connections shall be available on the rear panel. The amplifier shall meet the following performance criteria. Input sensitivity for rated output shall be available at 0.1V or 1.0V for module input and direct input. Power output shall be 120W at less than 0.5% THD from 20 to 20,000Hz (direct output) or 50 to 20,000Hz (transformer output).

Frequency response shall be  $\pm 1$ dB from 20 to 20,000Hz (direct output) or 20 to 15,000Hz (transformer output). Input impedance shall be 10,000 ohms for module input and direct input.

Source impedance shall be 200/50k ohms with a microphone preamplifier, 50k ohms with a mag. phono preamplifier, 220k ohms with an auxiliary preamplifier, 10k ohms with a bridging transformer, 600 ohms with a line matching transformer and 600 ohms with a paging input. Load impedance shall be 4, 8, 5.2 (25V line) or 40.8 (70V line) ohms. Load voltage shall be 21.9, 31.0, 25 or 70 volts.

Equivalent input noise shall be -126dBm with a Lo-Z microphone preamplifier. Output noise shall be 90dB below rated output when all gain controls are off.

TOA plug-in accessory modules designed for use with the power amplifier shall utilize the latest in surface mount component technology and include the following modules: the M Series microphone preamplifiers available with remote volume control, voice gate and compressor options; the U Series auxiliary preamplifiers available with remote volume control and compressor options; the R-01 magnetic phono preamplifier; the B Series bridging transformers; the L Series line matching transformers; the S Series signal generator modules, and the I-01 TOA intercom system interface paging module.

The power amplifier shall be rack mounted using the TOA MB-25B rack mounting bracket. The amplifier's dimensions shall be 16.5"(W) x 3.9"(H) x 14.1"(D) (420 x 99.1 x 358mm) and its weight shall be 24.0lbs. (10.9kg). The power amplifier shall be TOA model P-912MK2.



TOA Corporation