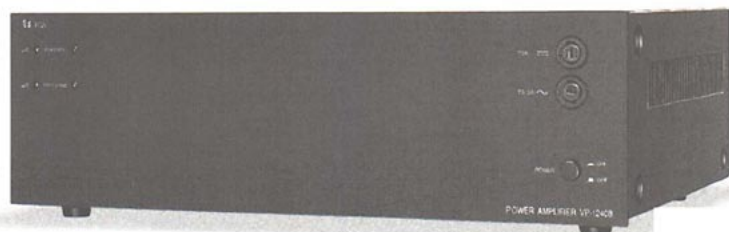


TOA V-1000 SERIES

POWER AMPLIFIERS

VP-1060B/VP-T120B/VP-1240B/PA-3640VB



VP-1240B



VP-1060B
VP-1120B



PA-3640VB

DESCRIPTION

The TOA V-1000 Series power amplifiers come in 4 output power ratings, from 60 watts to 360 watts. Both AC mains (50/60Hz) and DC 24V operation are possible, so performance can remain uninterrupted even during power outages. Two program inputs and two priority inputs are provided, with each pair parallel connected for cascade connection of amplifiers. The priority inputs takes precedence over the program inputs. In priority operation mode, a built-in relay contact allows emergency announcements to go through regardless of volume control settings in the 3-wire or 4-wire connection systems. The emergency announcement volume and the muting level are both adjustable with semi-fixed controls. Frequency response is from 40Hz to 16kHz (at 1/3 rated output), and total harmonic distortion is less than 1%, while the S/N ratio is better than 80dB. Four transformer-coupled outputs are provided: 4 ohms, 50V, 70V, and 100V. (Output terminals are pre-wired to 50V and 100V. 4 ohms output is not available on the VP-1240B and PA-3640VB.) An output current limiter enhances the unit's reliability. The YA-1000A fault detection circuit module (optional) can also be installed to detect faults in the

amplifier and the speaker line. All models except the PA-3640VB are designed for both desk-top use and rack mounting use. The PA-3640VB is exclusively designed for rack mounting.

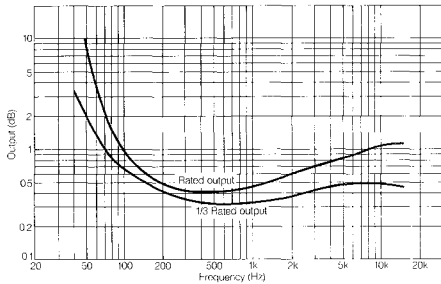
FEATURES

1. Rated output power: VP-1060B: 60W; VP-1120B: 120W; VP-1240B: 240W; PA-3640VB: 360W
2. Suitable for use in public address applications.
3. Two each of parallel-connected program and priority inputs. (Program inputs are muted during priority operation.)
4. Relay contact enables emergency announcements at any time.
5. Operates on both AC mains and 24V DC.
6. Wide 40Hz to 16kHz frequency response.
7. Distortion of less than 1% (at 1kHz, rated output).
8. Four transformer-coupled outputs: 100V, 70V, 50V and 4 ohms. (4 ohms output is not available on the VP-1240B and PA-3640VB.)
9. Output current limiter.

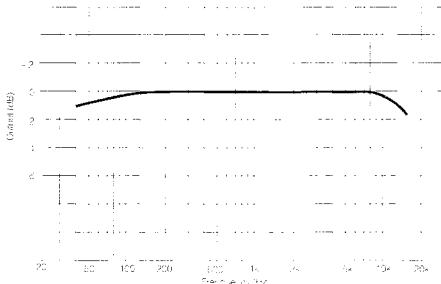
CHARACTERISTICS DIAGRAMS

VP-1060B

Distortion vs Frequency
(load: 167Ω)

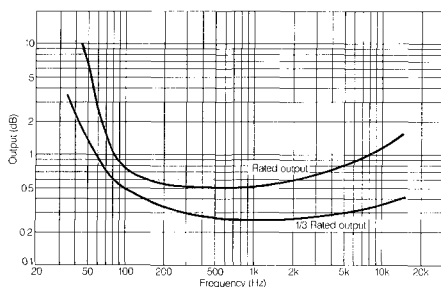


Frequency Response
at 1/3 rated output (load: 167Ω)

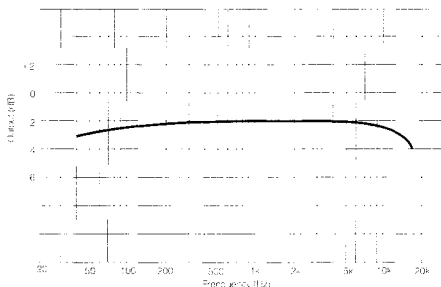


VP-1120B

Distortion vs Frequency
(load: 83Ω)

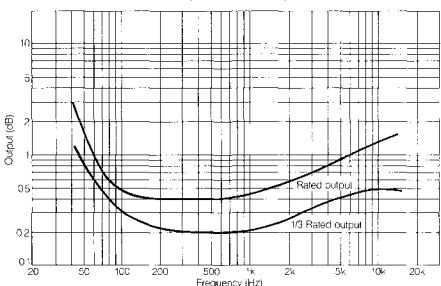


Frequency Response
at 1/3 rated output (load: 83Ω)

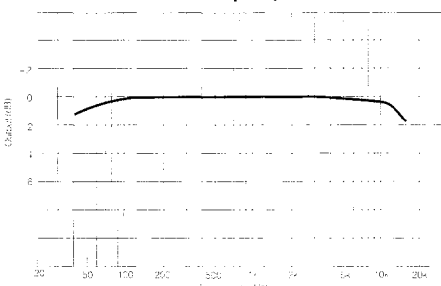


VP-1240B

Distortion vs Frequency
(load: 42Ω)

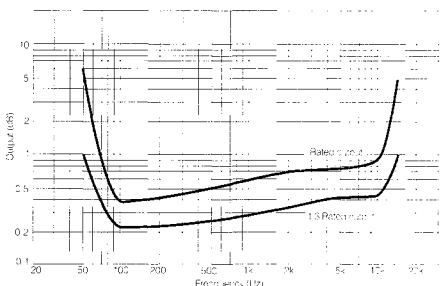


Frequency Response
at 1/3 rated output (load: 42Ω)

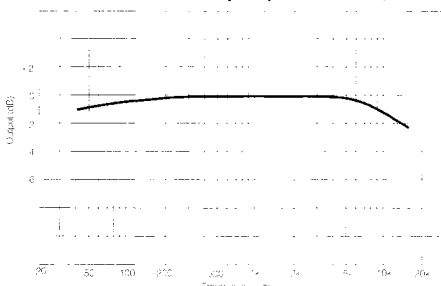


VP-3640VB

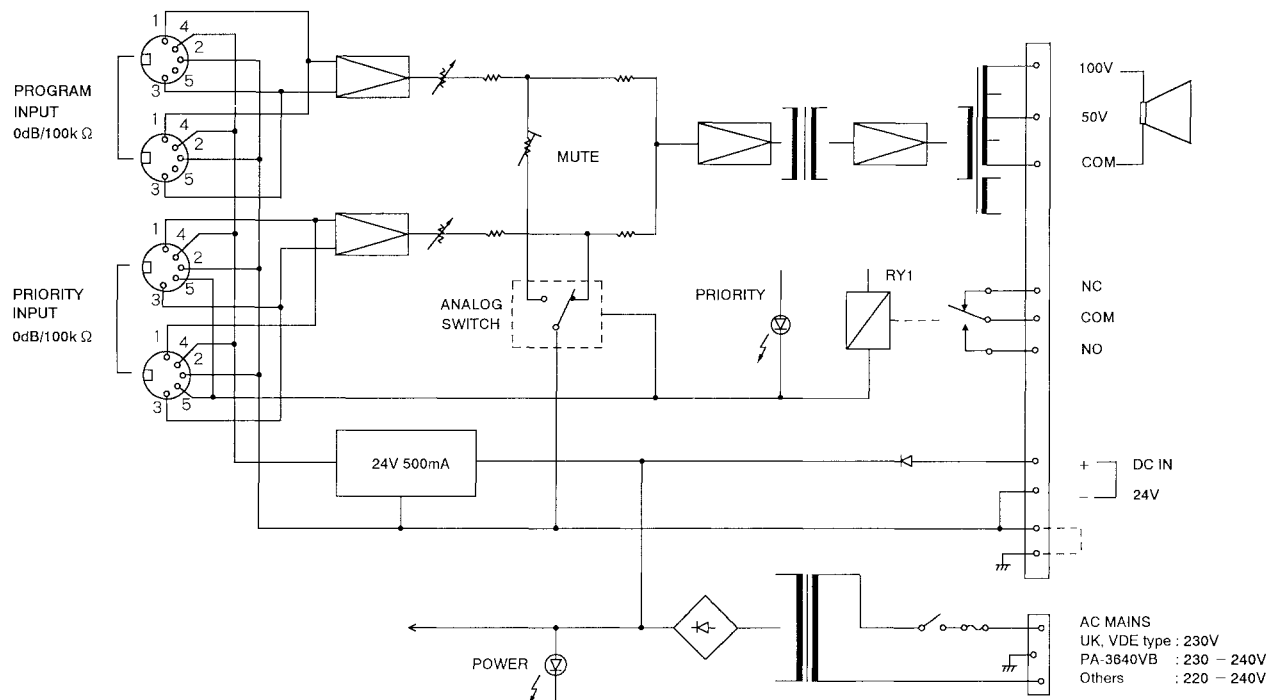
Distortion vs Frequency
(load: 27.8Ω)



Frequency Response
at 1/3 rated output (load: 27.8Ω)



BLOCK DIAGRAM

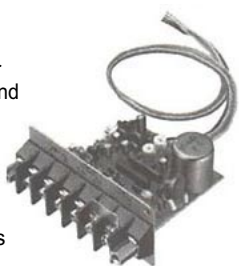


OPTIONAL ACCESSORIES

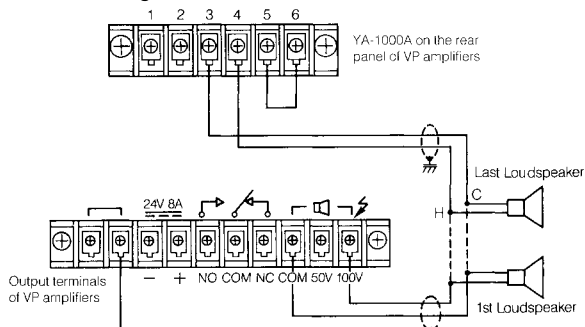
YA-1000A

Fault Detection Circuit Module

The YA-1000A module is designed for use with VP Series power amplifiers and VM Series mixer power amplifiers. It detects breakages in the speaker-amplifier line loop by means of a 20kHz pilot signal. If there is any breakage, the amplifier **POWER** LED indicator goes out, activating the unit's relay output.



Connection Diagram



YM-003LB Rack Mounting Bracket



Left/right pairs of brackets for mounting VP amplifiers in 19" cabinet racks

Dimensions (W x H x D): 25 x 133 x 300mm
Weight: 500g Color: Black

YB-121B Rack Mounting Bracket



Designed for single rack mounting bracket for half-sized (19") power amplifiers (VP amplifiers).

Dimensions (W x H x D): 24.5 x 133 x 40mm
Weight: 290g Color: Black

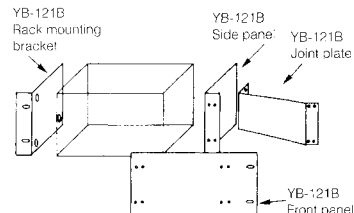
YJ-120B Joint Metal Plate



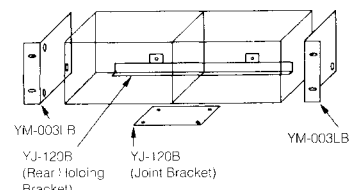
Designed to mount side-by-side with 2 half-sized (19") amplifiers (VP amplifiers) in 19" cabinet rack.

Rack Mounting Procedure

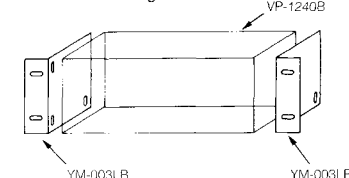
- When mounting one half-width VP amplifier.



- When mounting two half-width VP amplifiers (side-by-side mounting).



- When mounting VP-1240B.



YM-06A/09A/12A Stacking Brackets

Pairs of brackets for stacking up to 4 VP amplifiers.



YM-06A: A pair of brackets for stacking 2 equipment units of 3-unit size.
Dimensions (W x H): 30 x 273.5mm (6-size)
Weight: 290g Color: Dark gray

YM-09A: A pair of brackets for stacking 3 equipment units of 3-unit size.
Dimensions (W x H): 30 x 415mm (9-size)
Weight: 430g Color: Dark gray

YM-12A: A pair of brackets for stacking 4 equipment units of 3-unit size.
Dimensions (W x H): 30 x 556.5mm (12-size)
Weight: 580g Color: Dark gray

YR-1005/1010/1020 Connecting Cables with 5-Pin DIN Socket

YR-1005: 50cm long
YR-1010: 100cm long
YR-1020: 200cm long

Connector: 5-pin DIN socket
Cable: Multi-Cable; 1 shielded cable and 2 cables



YR-1000 Connecting Cable with 8-Pin DIN Socket

Length: 70cm
Using with V-1090B interface module.

Connector: 8-pin DIN socket
Cable: Multi-Cable; 1 shielded cable and 5 cables, 70 cm long



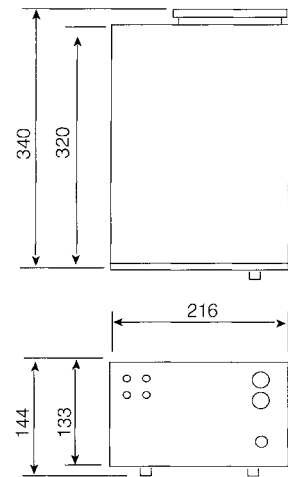
SPECIFICATIONS

Model	VP-1060 B		VP-1120 B	VP-1240 B	PA-3640V B
Rated Output Power	60W RMS		120W RMS	240W RMS	360W RMS
Frequency Response	40Hz—16kHz ±2dB (at 1/3 rated output)				40Hz—16kHz ±3dB (at 1/3 rated output)
Distortion	Less than 1% (at rated output f=1kHz)				
Inputs	2 Program Inputs (parallel); 0dB 100k ohms (balanced) 2 Priority Inputs (parallel); 0dB 100k ohms (balanced)				
S/N Ratio	Better than 80dB				
Indicators	Green LED Power Indicator, Red LED Priority Indicator				
Outputs and Load Impedance	100V/167 ohms , 50V/42 ohms (70V/83 ohms, 4 ohms)	100V/83 ohms , 50V/21 ohms (70V/42 ohms, 4 ohms)	100V/42 ohms, 50V/10 ohms (70V/21 ohms)	100V/27.8 ohms, 50V/6.9 ohms (70V/13.9 ohms)	
Power Consumption	25VA		29 VA	35VA	60VA
At No-Signal	200VA		350 VA	650VA	780VA
At Rated Output	220-240V AC 50/60 Hz, 24V DC				
Power Requirement	220-240V AC 50/60 Hz, 24V DC				230/240V AC 50/60 Hz, 24V DC
Dimensions	216(W)x 144(H)x340(D)mm			433.5(W) x 144.0(H) x 340 0(D)mm	483.0(W) x 177 0(H) x 315.5(D)mm
Weight	8.5kg		10.3kg	20.8kg	22.2kg
Color	Black				
Environmental Conditions	Operating temperature: -10°C to +50°C Storage temperature: -40°C to +70°C Relative humidity: Less than 95%				

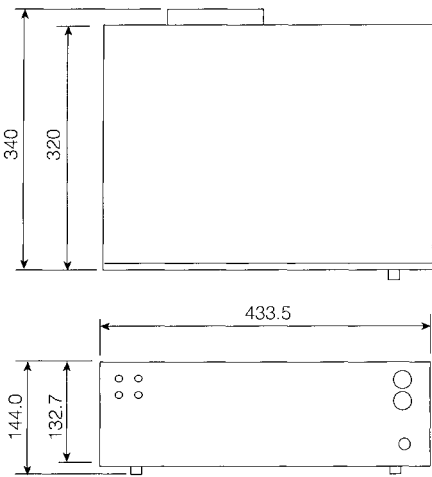
*Specifications are subject to change without notice.
*Specifications are measured at environmental condition of 20°C.

APPEARANCE AND DIMENSIONAL DIAGRAM

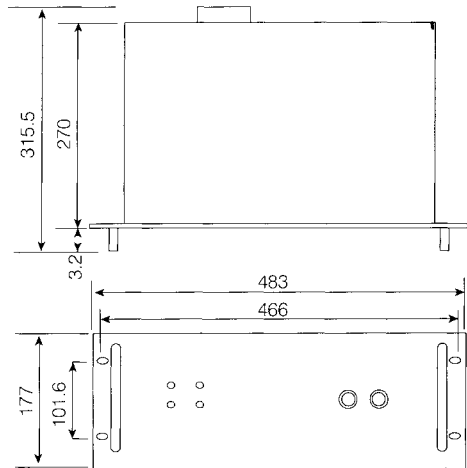
VP-1060B/1120B



VP-1240B



PA-3640VB



Unit: mm