Accuphase

Class-A
MONOPHONIC POWER AMPLIFIER

A-300

● Class A driven output stage with 20-parallel push-pull power MOS-FETs ● Large linear output 125 W / 8 ohms, 250 W / 4 ohms, 500 W / 2 ohms, 1,000 W / 1 ohm ● Instrumentation amplifier principle ● Current feedback amplification circuits ● Balanced Remote Sensing ● Double MCS+ circuit ● High damping factor of 1,000 ● Speaker output protection ● Highly responsive large-scale bar graph power meter ● Connecting two pairs of A-300 supports bi-amping and bridged mode connection

Accuphase's 50th Anniversary model embodies power amplifier perfection

Created to mark our 50th anniversary, the A-300 redefines the ideal for Class A power amplifiers. 20-parallel push-pull power MOS-FETs in the output stage improves performance by 25% over conventional models with outputs of 125 W into 8 ohms, 250 W into 4 ohms, 500 W into 2 ohms, and 1,000 W into 1 ohm that set the stage for enviable constant-voltage drive. The fully discrete balanced input amplifier achieves a level of quietness that will make you forget you are using audio equipment for reproduction. The A-300's unmatched expressiveness lets you enjoy the most exquisite pieces from the world's greatest composers.

Groundbreaking technology

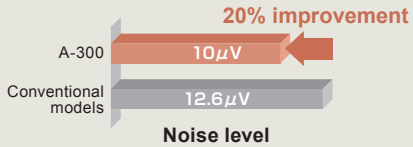
The A-300 employs sophisticated circuitry and hand-selected materials to create a power amplifier with well-honed expressiveness and cutting-edge technologies.

Ample output power

The Class A driven 20-parallel push-pull power MOS-FETs in the output stage produce linear output power of 125 W into 8 ohms, 250 W into 4 ohms, 500 W into 2 ohms, and a tremendous 1,000 W into 1 ohm of maximum output power.

Ultra low noise performance

Ideal gain distribution and other sophisticated techniques improve noise level suppression by 20% over conventional models.



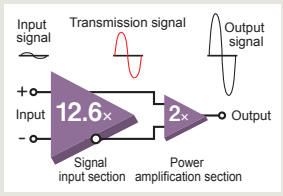
Noise level

High damping factor

With a damping factor of 1,000, the speakers can be driven with full control over the counter-electromotive forces to get the most out of your speakers.

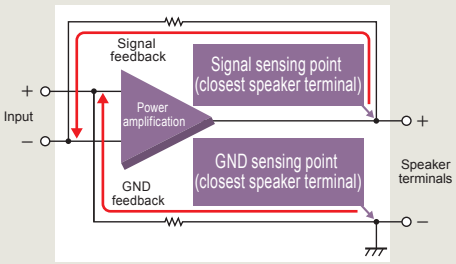
Ideal gain distribution

Noise level suppression has been dramatically improved by assigning a high gain (12.6×) in the signal input section with excellent noise figure results.



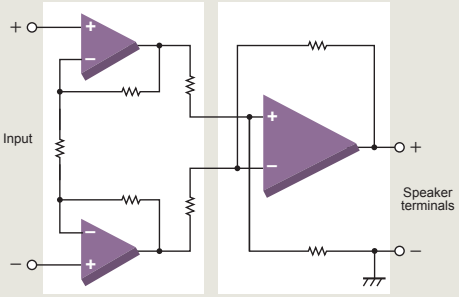
Balanced remote sensing

Balanced remote sensing improves damping factor by feeding back the GND at the same time as the signal output from speaker terminals.



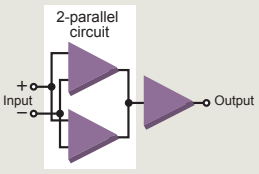
Instrumentation amplifier

With balanced circuits in the signal input section, the amplification stage is comprised entirely of an instrumentation amplifier principle that equalizes input impedance on the + and – sides, for excellent external noise suppression, and providing optimal circuitry for this high-end audio amplifier.

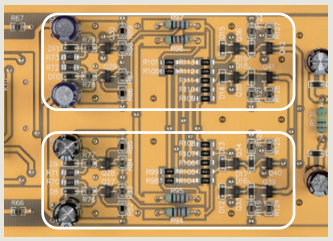


Double MCS+ circuit

By placing the voltage amplification stage in a two-parallel circuit layout, the MCS+ (Multiple Circuit Summing-up) circuit theoretically reduces the noise floor by about 30%. The A-300 comes with 2 MCS+ circuits in a Double MCS+ circuit configuration.



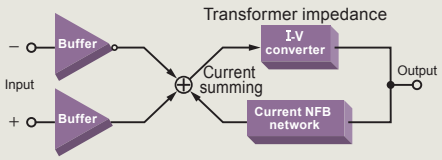
MCS+ circuitry

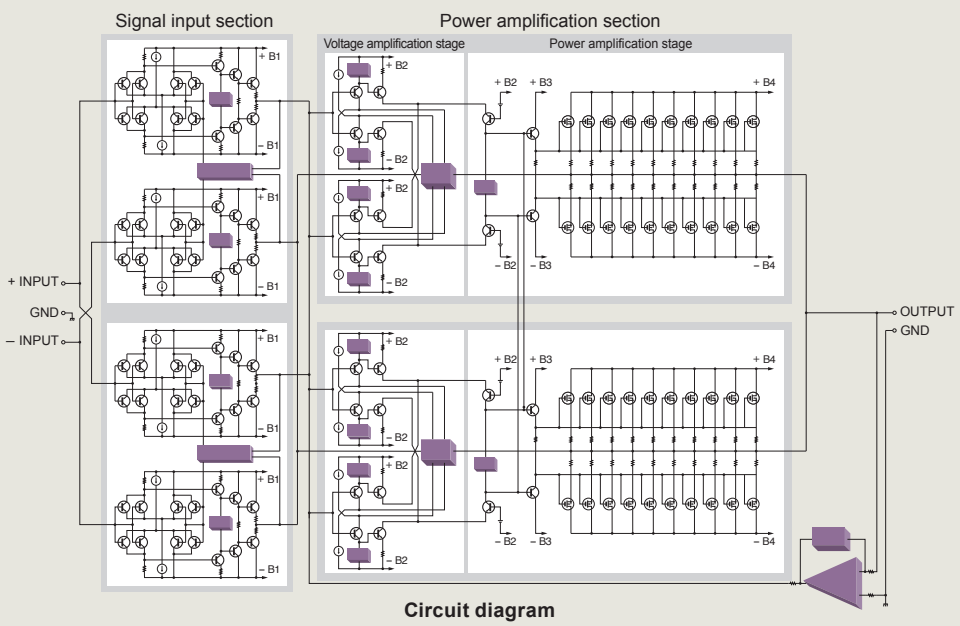


2-parallel circuit layout of MCS+ principle

Current feedback amplification topology

The current feedback amplification circuit offers excellent phase characteristics in the high-frequency range with almost no impact on the frequency response even when gain is switched, resulting in natural and dynamic driving of the speakers.





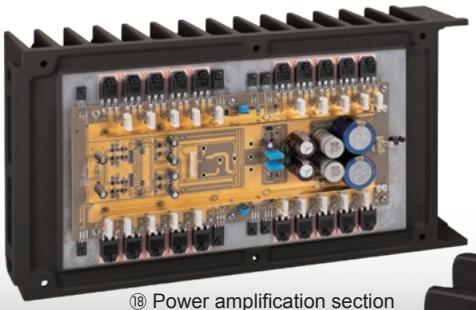
Circuit diagram

Impeccably Styled

Impeccable Sound

Advanced features

- Class A driven 20-parallel push-pull MOS-FET output stage
- 125 W into 8 ohms, 250 W into 4 ohms, 500 W into 2 ohms, and 1,000 W into 1 ohm large linear output power
- Instrumentation amplifier
- Current feedback amplification topology
- Balanced remote sensing
- Double MCS+ circuitry
- High damping factor of 1,000
- Meter display switching ····· ①
- Digital power meter display range switching ····· ②
- Hold time switching function that changes the meter peak display time ····· ③
- LINE / BALANCED input switching ····· ④
- 4-step gain control ····· ⑤
- Polarity switching of balanced input connectors ····· ⑥
- Bridge connection switching ····· ⑦
- Signal input section with a fully discrete configuration for low noise ····· ⑧
- Speaker output protection circuit guards against short-circuiting ····· ⑨
- Large speaker terminals connected directly to protection circuitry ····· ⑩
- Edgewise coils improve damping factor ····· ⑪
- Highly reliable MOS-FET switches with no mechanical connections ····· ⑫
- Large, high-efficiency toroidal transformer ····· ⑬
- High capacity 100,000 µF filtering capacitors ····· ⑭
- Aluminum hairline finish top plate ····· ⑮
- Highly responsive large-scale bar graph meter and digital power meter ····· ⑯
- High-carbon cast iron insulator feet with superior damping characteristics ····· ⑰
- Power amplification section on circuit boards using glass cloth fluorocarbon resin ····· ⑱

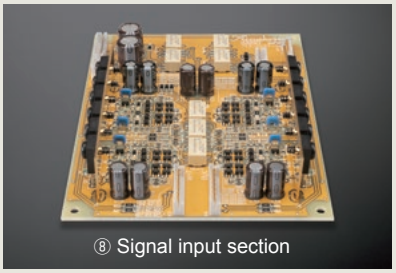


⑱ Power amplification section

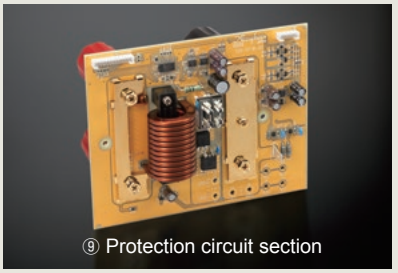
Sub Panel

Rear Panel

① Meter display selector ② Meter display range selector ③ Hold time selector ④ Input selector ⑤ Gain selector ⑥ Balanced input polarity selector ⑦ Operation mode selector



⑧ Signal input section



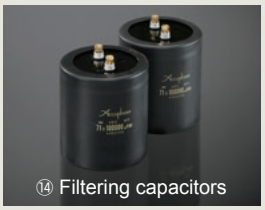
⑨ Protection circuit section

⑩ Speaker terminals

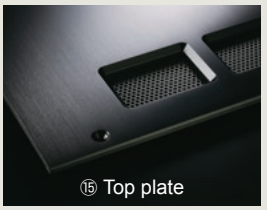
⑪ Edgewise coil

⑫ MOS-FET switches

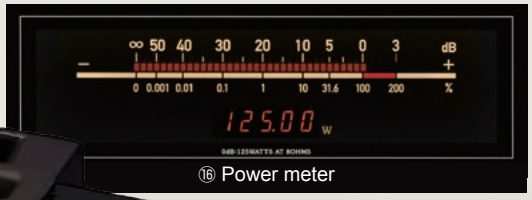
⑬ Toroidal transformer



⑭ Filtering capacitors



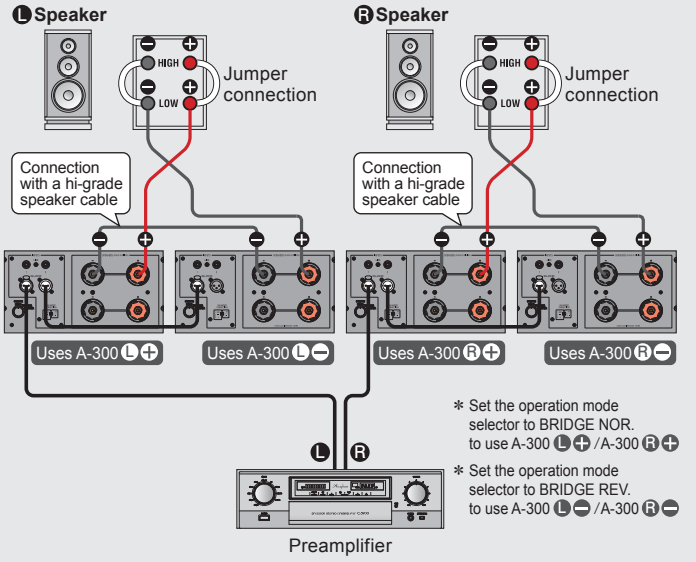
⑮ Top plate



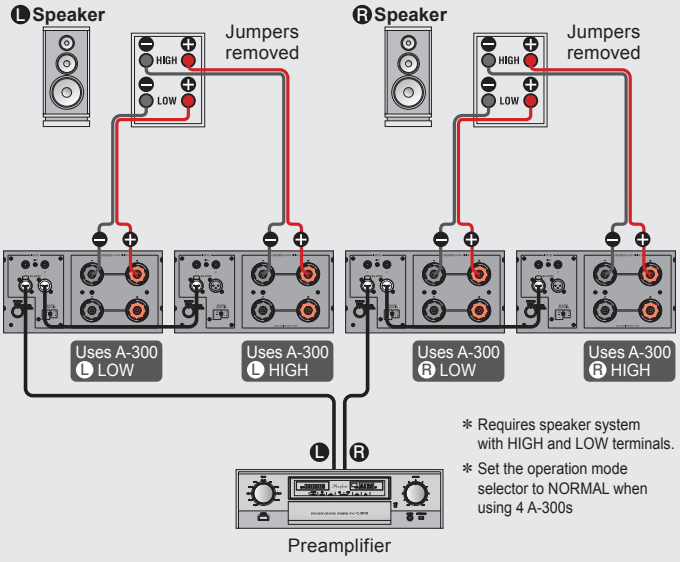
⑯ Power meter

⑰ Insulator feet

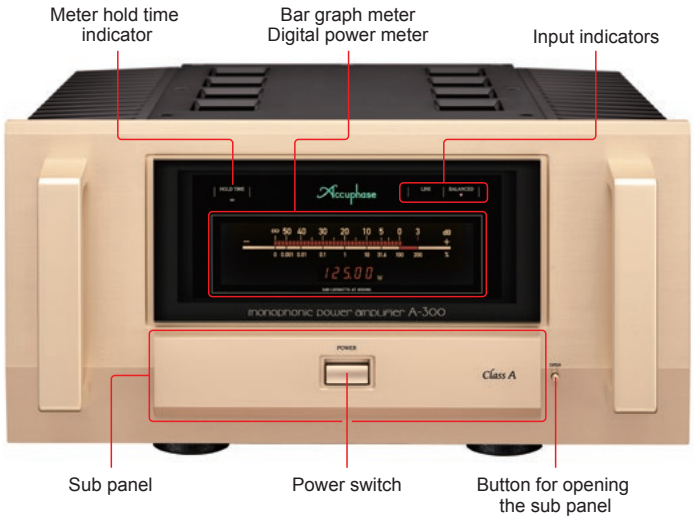
Bridged connection (4× greater power output)



Bi-amping Connection (High quality performance eliminates interaction between high and low ranges)

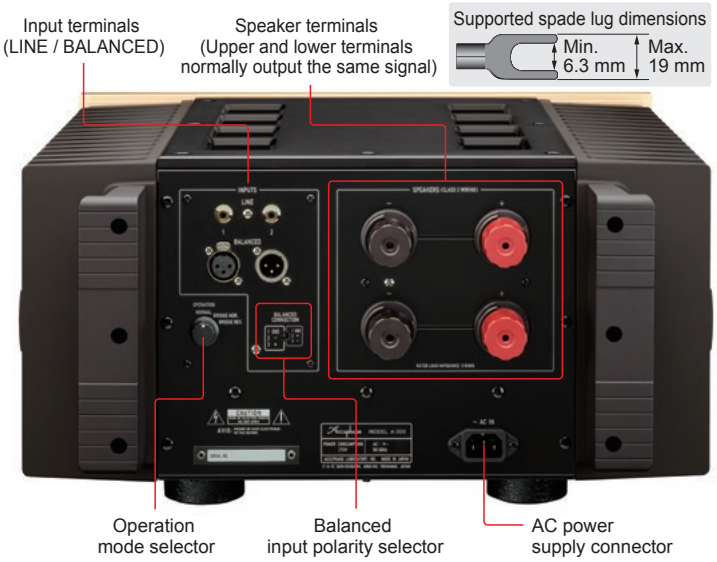


Front Panel



* See the previous page for information on the controls in the sub panel.

Rear Panel



A-300 Guaranteed Specifications

Rated Output (20 – 20,000 Hz, 0.05%)	Load	8 ohms	4 ohms	2 ohms	1 ohm
	Normal / bi-amping connection	125 W	250 W*1	500 W*1	1,000W*1
	Bridged connection	500 W*1	1,000 W*1	2,000 W*1	—
Total Harmonic Distortion (20 – 20,000 Hz)	Normal / bi-amping connection	2 ohms		0.05%	
		4 to 16 ohms		0.03%	
	Bridged connection	4 to 16 ohms		0.05%	
Intermodulation Distortion	0.01%				
Frequency Response	At rated output	20 – 20,000 Hz (+0, –0.2 dB)			
	At 1 W output	0.5 – 160,000 Hz (+0, –3.0 dB)			
Damping Factor	1,000 or greater				
Input Impedance	BALANCED / LINE input	40 kilohms / 20 kilohms			
Input Sensitivity	Output	At rated output		At 1 W output	
	Normal / bi-amping connection	1.26 V		0.11 V	
	Bridged connection	1.26 V		0.056 V	
Signal-to-Noise Ratio (A-weighted, input shorted)	Gain switch at MAX / –12 dB	130 dB / 135 dB			

Gain	Gain switch	MAX	−3 dB	−6 dB	−12 dB
	Normal / bi-amping connection	28 dB	25 dB	22 dB	16 dB
Power Meter	Format	Logarithmic scale, with illumination off switch			
	Display range	−∞ ~ +3 dB			
	Hold time	1 sec. / ∞ switchable			
Power Requirements	120/220/230 V AC, 50/60 Hz (Voltage as indicated on rear panel)				
Power Consumption	Idle	230 W			
	In accordance with IEC 62368-1	270 W			
	Stand-by	0.3 W			
Maximum Dimensions	Width 465 mm (18.3") × Height 240 mm (9.4") × Depth 515 mm (20.3")				
Mass	Net	46.0 kg (101.4 lbs)			
	In shipping carton	55 kg (122 lbs)			

● "Normal connection" indicates standard operation.

∗1: Limited to music signals

Supplied accessories
- **AC power cord**

Remarks

★ *This product is available in versions for 120/220/230 V AC. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.*

★ *The 230 V version has an Eco Mode that switches power off after 120 minutes of inactivity.*

★ *The shape of the plug of the supplied AC power cord depends on the voltage rating and destination country.*

• The specifications and appearance of this product are subject to change without notice.

https://www.accuphase.com/

ACCUPHASE LABORATORY, INC.

K2204Y 850-2234-00 (B1) PRINTED IN JAPAN