

Accuphase

CLASS-A STEREO POWER AMPLIFIER

A-46

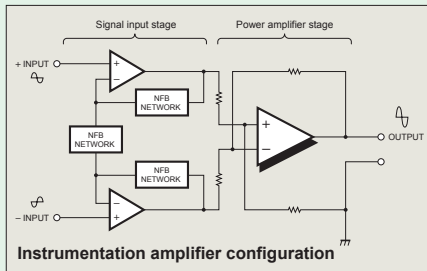
- Pure Class A operation delivers quality power: 45 watts x 2 into 8 ohms
- Power MOS-FET output stage features 6-parallel push-pull configuration
- Instrumentation amplifier principle ● Further improved MCS+ circuit topology
- Current feedback combines stable operation with outstanding sound
- Bridged mode allows upgrading to true monophonic amplifier
- Large high-efficiency toroidal transformer ● 4-step gain control



Instrumentation amplifier and further refined MCS+ topology

Instrumentation amp configuration allows fully balanced signal paths

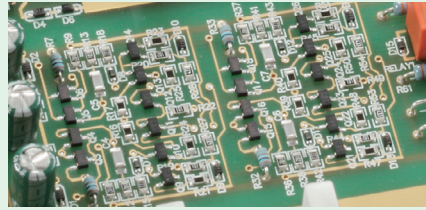
The advanced instrumentation amplifier principle used in the A-46 ensures that all signal paths from the inputs to the power amp stage are fully balanced. This results in excellent CMRR (common mode rejection ratio) and minimal distortion. Another significant advantage is that external noise and other external influences are virtually shut out. The result is a drastic improvement in operation stability and reliability.



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Further refined MCS+ topology for even lower noise

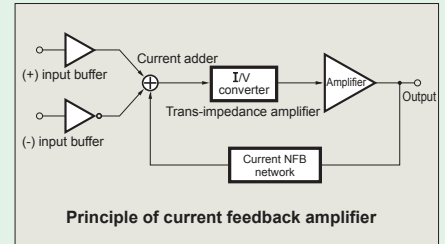
Accuphase's original MCS (Multiple Circuit Summing) configuration uses a number of identical circuits connected in parallel to achieve superior performance characteristics. MCS+ is a further refined version of this approach. By extending parallel operation to the class-A drive stage of the current/voltage converter, the noise floor has been lowered further.



■ Power amplifier assembly with six parallel push-pull power MOS-FET pairs per channel mounted directly to large heat sink, MCS+ circuitry, and current feedback amplifier.

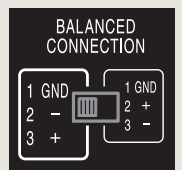
Current feedback principle assures excellent phase characteristics in high range

As shown in the illustration, the A-46 uses the output signal current rather than voltage for feedback. Since the impedance at the current feedback point is very low, there is almost no phase shift. A minimal amount of NFB therefore results in maximum improvement of circuit parameters.



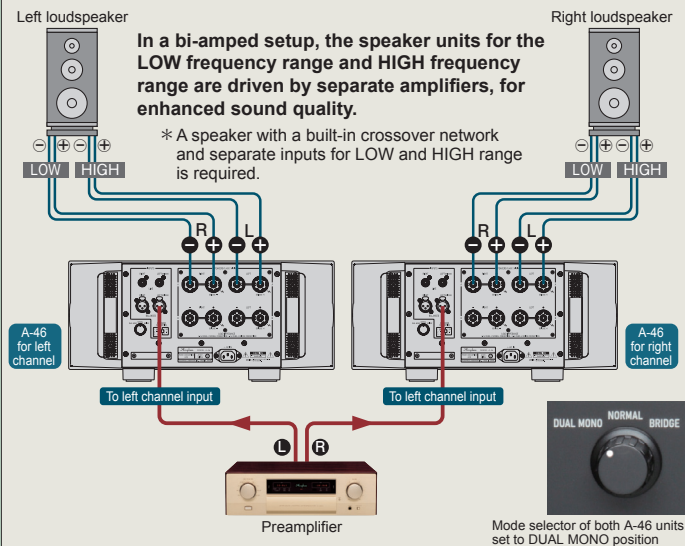
Phase selector for balanced input

- In the factory default condition, the switch is set to the left side ("pin 3 +"), as shown in the illustration.
- If the balanced output of the connected preamplifier has a "pin 2 +" arrangement, the switch should be set to the right side.

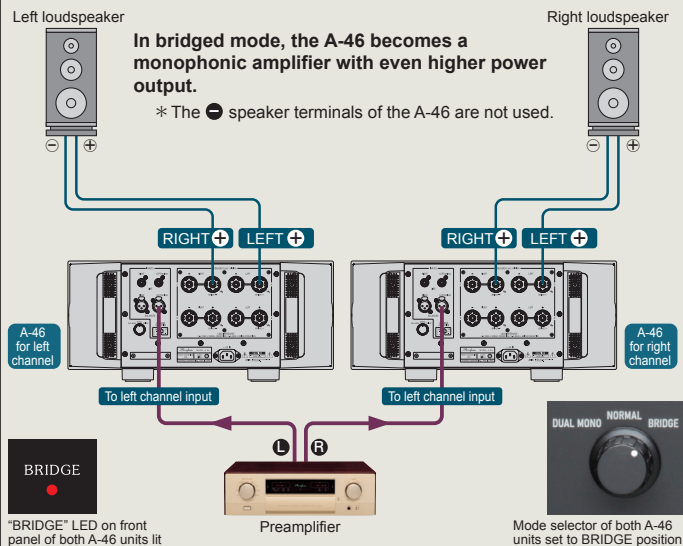


■ Using two A-46 units, bi-amping or bridged connection can be realized, for even higher performance. ■ In this case, only the LEFT input (BALANCED or LINE) of each unit is used.

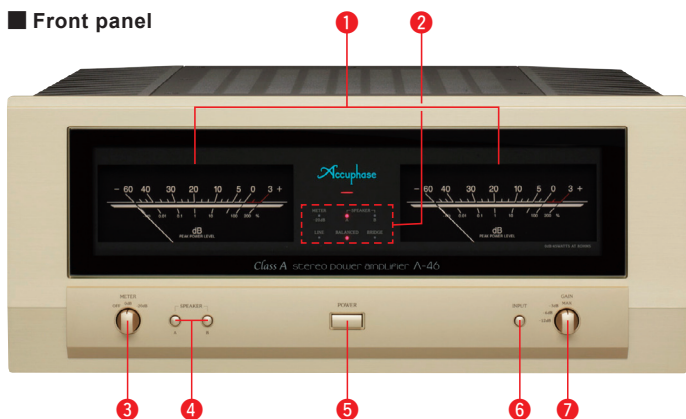
Connection example for bi-amping setup



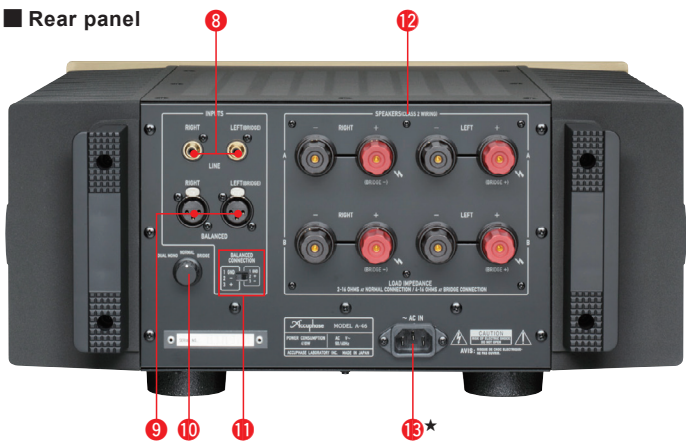
Connection example for bridged setup



Front panel



Rear panel



- 1 Right/left-channel output power meters (dB and % scale)
- 2 Function indicators
METER -20 dB SPEAKER A, B
LINE BALANCED BRIDGE
- 3 Meter operation/illumination and sensitivity selector
OFF, 0 dB, -20 dB
- 4 Speaker selector buttons
A: ON/OFF, B: ON/OFF
- 5 Power switch
- 6 Input selector button
LINE, BALANCED
- 7 Gain selector
MAX, -3 dB, -6 dB, -12 dB
- 8 Line inputs
- 9 Balanced inputs
Pin (2) - Pin (3) +
(Can be switched with phase selector switch 11)
- 10 Mode selector
DUAL MONO, NORMAL, BRIDGE
- 11 Balanced input phase selector switch
- 12 Right/left-channel speaker output terminals
A/B, 2 sets
- 13 AC power supply connector*

A-46 Guaranteed Specifications

[Guaranteed specifications are measured according to EIA standard RS-490.]

- **Continuous Average Output Power (20 - 20,000 Hz)**
Note: Load ratings marked (*) apply only to operation with music signals.

Stereo operation (both channels driven)	360 watts per channel into	1 ohm (*)
	180 watts per channel into	2 ohms
	90 watts per channel into	4 ohms
	45 watts per channel into	8 ohms
Monophonic operation (bridged connection)	720 watts into	2 ohms (*)
	360 watts into	4 ohms
	180 watts into	8 ohms
- **Total Harmonic Distortion**

Stereo operation (both channels driven)	0.05% with 2 ohms load
	0.03% with 4 to 16 ohms load
Monophonic operation (bridged connection)	0.05% with 4 to 16 ohms load
- **Intermodulation Distortion** 0.01%
- **Frequency Response** At rated output: 20 - 20,000 Hz +0, -0.2 dB
At 1 watt output: 0.5 - 160,000 Hz +0, -3.0 dB
- **Gain** 28.0 dB (with GAIN selector at MAX)
(in stereo and bridged operation)
- **Gain Selection** MAX, -3 dB, -6 dB, -12 dB
- **Output Load impedance** Stereo operation: 2 to 16 ohms
Bridged operation: 4 to 16 ohms
[With music signals only, 1-ohm loads are permissible for stereo operation and 2-ohm loads for bridged operation.]
- **Damping Factor** 500
- **Input Sensitivity (with 8-ohm load, GAIN selector in MAX position)**

Stereo operation:	0.76 V for rated output
	0.11 V for 1 watt output
Bridged operation:	1.51 V for rated output
	0.11 V for 1 watt output
- **Input Impedance** Line: 20 kilohms Balanced: 40 kilohms
- **Signal-to-Noise Ratio (A-weighted, input shorted)** 115 dB (GAIN selector in MAX position)
120 dB (GAIN selector in -12 dB position)
At rated output
- **Speaker leakage level at OFF setting** -55 dB or less (10 kHz, 8 ohm load)
- **Output Level Meters** -60 dB to +3 dB (indication in dB and %)
Logarithmic scale, with illumination off switch and sensitivity selector (-20 dB)
- **Power Requirements** AC 120 V/220 V/230 V, 50/60 Hz
(Voltage as indicated on rear panel)
- **Power Consumption** 200 watts idle
410 watts in accordance with IEC 60065
- **Maximum Dimensions** Width 465 mm (18-5/16")
Height 211 mm (8-5/16")
Depth 464 mm (18-1/4")
- **Mass** 31.9 kg (70.3 lbs) net
39.0 kg (86.0 lbs) in shipping carton

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

- **Supplied accessory**
 - AC power cord



ACCUPHASE LABORATORY, INC.