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
Pure Class A power amplifiers from Accuphase have long been blending the purity of class A operation with the superior performance of power MOS-FETs. Acclaimed by audiophiles the world over, these products reflect a level of technical know-how that is second to none. Each model in the A-65/A-45/A-35 lineup has received high praise, both for sound quality and performance. The A-46 is a minor-change successor to the A-45, positioned as the medium power level model of the series. Naturally, the A-46 also demonstrates the same unwavering dedication to sound quality and outstanding design policy which are the hallmark of Accuphase. This pure class A stereo power amplifier with its distinctive external heat sinks is built for the true enjoyment of music.

The A-46 uses latest instrumentation amplifier topology throughout, which allows fully balanced transmission in all signal handling stages. The power amplifier section features further improved MCS+ topology and the renowned current feedback approach. This results in electrical characteristics that surpass even the demanding standards set by its predecessors. Employing only highest grade materials and strictly selected parts, the A-46 realizes very low output impedance which ensures that constant drive voltage is available for the speakers.

The output stage features power MOS-FETs renowned for their excellent sound and superior reliability. For each channel, six of these devices are arranged in a parallel push-pull class A arrangement. MOS-FETs have excellent frequency response characteristics and high input impedance, which reduces the load of the preceding (drive) stage. Driving these devices in pure class A means that constant power is always supplied, regardless of the presence or absence of a musical signal. This makes the amplifier completely immune to external influences and ensures stable operation at all times. The large heat sinks mounted on the outside reliably prevent internal heat buildup, allowing the amplifier to sustain output levels of as much as 360 watts per channel into 1 ohm (with music signals). If even higher power is required, bridged mode turns the A-46 into a high-grade monophonic power amplifier.

Power modules with 6-parallel push-pull arrangement of power MOS-FETs deliver a guaranteed linear output of 360 watts per channel into 1 ohm (music signals only), 180 watts into 2 ohms, 90 watts into 4 ohms, or 45 watts into 8 ohms.

Amply dimensioned power supply with high-efficiency toroidal transformer and two large 47,000 µF filtering capacitors.

Bridged mode allows upgrading to monophonic amplifier with 720 watts into 2 ohms (music signals only), 360 watts into 4 ohms, or 180 watts into 8 ohms.

Revised NFB design minimizes output impedance and increases damping factor, resulting in further improved sound quality.

Fully balanced input stage shuts out external noise interference.

Mode selector for easy switching between dual mono/stereo/bridged operation.

Front panel input type selector (line/balanced).

4-step gain control (MAX, -3 dB, -6 dB, -12 dB) minimizes residual noise.

Large analog power meters with operation/illumination and sensitivity selector.

Speaker protection uses semiconductor (MOS-FET) switch. Elimination of mechanical switches assures long-term reliability and improved signal purity, resulting in further improved sound quality.

PCB copper foil and all major signal path components are gold-plated.

Two sets of speaker outputs, with large terminals that accept also Y lugs.

In conclusion, the Accuphase A-46 demonstrates the same unwavering dedication to sound quality and reliability established by its predecessors. Employing only highest grade materials and strictly selected parts, the A-46 realizes very low output impedance which ensures that constant power is always supplied, regardless of the presence or absence of a musical signal. This makes the amplifier completely immune to external influences and ensures stable operation at all times. The large heat sinks mounted on the outside reliably prevent internal heat buildup, allowing the amplifier to sustain output levels of as much as 360 watts per channel into 1 ohm (with music signals). If even higher power is required, bridged mode turns the A-46 into a high-grade monophonic power amplifier.
**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.

**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.

**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 1+"), as shown in the illustration.
- If the balanced output of the connected preamplifier has a "pin 1+" arrangement, the switch should be set to the right side.
In a bi-amped setup, the speaker units for the LOW frequency range and HIGH frequency range are driven by separate amplifiers, for enhanced sound quality.

A speaker with a built-in crossover network and separate inputs for LOW and HIGH range is required.

**Front panel**

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

**Rear panel**

- **1** AC power supply connector
- **2** Speaker selector buttons
  - A: ON/OFF, B: ON/OFF
- **3** Power switch
- **4** Input selector button
  - LINE, BALANCED
- **5** AC power supply connector

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**A-46 Guaranteed Specifications**

- **Continuous Average Output Power (20 - 20,000 Hz)**
  - Stereo operation (both channels driven)
    - 360 watts per channel into 1 ohm
    - 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**
  - Stereo operation: 2 to 16 ohms
  - Bridged operation: 4 to 16 ohms

- **Output Load impedance**
  - Stereo operation: 2 to 16 ohms
  - Bridged operation: 4 to 16 ohms

- **Gain**
  - Stereo operation (MAX, –3 dB, –6 dB, –12 dB)
  - Monophonic operation (bridged connection)
  - 28.0 dB (with GAIN selector at MAX)

- **Input Sensitivity** (with 8-ohm load, GAIN selector in MAX position)
  - Stereo operation: 0.76 V for rated output
  - Bridged operation: 1.51 V for rated output
  - 0.2 V for 1 ohm operation

- **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)

- **Frequency Response**
  - Stereo operation (both channels driven)
    - 20 - 20,000 Hz
  - Bridged operation: 1.51 V for rated output

- **Gain Selection**
  - Stereo operation: 20 – 20,000 Hz
  - Bridged operation: 1–20,000 Hz

- **Damping Factor**
  - 500

- **Sensitivity with 8-ohm load, GAIN selector in MAX position**
  - Stereo operation: 0.76 V for rated output
  - Bridged operation: 1.51 V for rated output

- **Power Requirements**
  - AC 120 V/220 V/230 V 50/60 Hz

- **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)

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**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 AC plugs and outlet type depend on the voltage rating and destination country.

**Specifications and design subject to change without notice for improvements.**