

# AP4020 & AP4040 • Power Amplifiers



AP4040 shown, AP4020 identical except for nameplate

- Stereo/Mono/Bridge Mode Switchable
- 2 x 1200 W @ 2 or 4 Ohms (AP4020/AP4040)
- Advanced Protection Circuitry, Soft Turn-On
- Defeatable Limiter, High Pass Filter
- Ultra Quiet Internal Cooling Fan & Filter
- XLR and 1/4" TRS Input Connectors
- Speakon™ and Binding Post Output Connectors
- Computer Designed & Tested

The AP4020 and AP4040 power amplifiers draw on Yorkville's 35 years of music industry expertise and experience. Their design includes the features most demanded by audio professionals in a package that is functional, rugged, compact and reasonably priced.

These redesigned Audiopro amplifiers deliver 1200 Watts per channel (AP4020 at 2 Ohms / AP4040 at 4 Ohms). Their two tier power conversion approaches efficiency levels normally associated with switching power technology but provides the superior transient response and low distortion of the best analog designs. The internal signal path has been optimized and a toroidal transformer is used – both of which serve to reduce hum and noise while keeping weight to a minimum.

The amplifier designs, while unique, are conservative with regard to the power handling capabilities of the output devices. To further assure trouble-free operation all AP amps undergo a thorough computer monitored, temperature cycled, burn-in period to test for any deviation from design parameters.

Controls are well thought out and include rear mounted, switches for ground lift, limiter, high pass filter (40 Hz, 12 dB/octave) and stereo/mono/bridge modes. The front panel has clip, activity, power and protection LED indicators and large volume controls – all recessed for safety and resistance to damage.

The amplifiers feature advanced protection mechanisms including DC, load, thermal and breaker protection as well as a user-defeatable peak limiter which is transparent below clipping levels. A 'soft turn-on' circuit eliminates damage to attached components and prevents nuisance breaker-tripping.

The computer-optimized front-to-back heat dissipation system incorporates an ultra quiet, variable speed internal fan and is designed to ensure that excessive thermal stress will not occur. For ease of maintenance and to ensure efficient cooling the units are supplied with a long-life, faceplate-mounted, easily cleaned, air intake filter.

Connectivity with existing equipment is excellent. Input is via two 1/4" TRS or two XLR jacks while output is via binding posts or three Speakon™ SP-4 (left, right and bridge) connectors. Sturdy all-steel construction with a baked-on, black finish is used throughout and for ease of integration the amplifiers feature reinforced mounting ears and a compact two rack space design.

Yorkville's famous two year, no-fault transferable warranty\* covers these amps. If anything goes wrong within two years, we'll fix it for free... even if you break it!

*\* Warranty valid in USA and Canada Only*

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# AP4020 & AP4040 Power Amplifiers

	AP4020	AP4040
<b>Continuous Average Power:</b>	(both channels driven - 0.1% THD, 1kHz)	
Watts @ 8 Ohms:	475 (x2)	750 (x2)
Watts @ 4 Ohms:	750 (x2)	1200 (x2)
Watts @ 2 Ohms:	1200 (x2)	NA
Watts Bridged @ 4 or 8 Ohms:	2400 @ 4 Ohms	2400 @ 8 Ohms
<b>Burst Average Power:</b>	(both channels driven - 0.1% THD, 1kHz)	
Watts @ 8 Ohms:	625 (x2)	1200 (x2)
Watts @ 4 Ohms:	1200 (x2)	2175 (x2)
Watts @ 2 Ohms:	2175 (x2)	NA
Watts Bridged @ 4 or 8 Ohms:	4350 @ 4 Ohms	4350 @ 8 Ohms
<b>Frequency Response (+/- 1 dB):</b>	20 Hz - 20 kHz	20 Hz - 20 kHz
<b>Hum &amp; Noise (unweighted):</b>	-103 dB	-103 dB
THD (1 kHz, 4 Ohms):	< 0.01%	< 0.01%
THD (20-20 kHz, 4 Ohms):	< 0.1%	< 0.1%
Slew Rate (V/uS):	25 (50 bridged)	25 (50 bridged)
<b>Damping Factor (20-400 Hz @ 8 Ohms):</b>	> 600	> 600
<b>Crosstalk (1 kHz / 20-20 kHz):</b>	-75 dB / -60 dB	-75 dB / -60 dB
<b>Input Impedance (Bal/Unbal):</b>	20 kOhms/10 kOhms	20 kOhms/10 kOhms
<b>Input Sensitivity (VRMS Sine):</b>	1.4 V (36 dB gain)	1.4 V (39 dB gain)
<b>CMRR @ 60Hz (Typ/Min):</b>	48 dB/56 dB	48 dB/56 dB
<b>Max Voltage Gain:</b>	36 dB	39 dB
<b>Stereo, Mono or Bridged Modes:</b>	User selectable via switch	User selectable via switch
<b>Max. Output Current (Repetitive/Cont.):</b>	100A / 50A	70A / 35A
<b>Power Consumption (Typ/Max):</b>	800W / 1440W	800W / 1440W
<b>Transformer:</b>	Toroidal	Toroidal
<b>Protection:</b>	DC, Load, Thermal User defeatable peak limiter High pass filter (40 Hz, 12 dB/octave)	DC, Load, Thermal User defeatable limiter High pass filter (40 Hz, 12 dB/octave)
<b>Cooling:</b>	Variable speed DC fan (front to back path)	Variable speed DC fan (front to back path)
<b>Filter:</b>	Faceplate mounted, easily cleaned replaceable element	Faceplate mounted, easily cleaned replaceable element
<b>Input Connectors:</b>	XLR (x2) and 1/4" Phone (TRS) (x2)	XLR (x2) and 1/4" Phone (TRS) (x2)
<b>Output Connectors:</b>	Binding Post (x2) and Speakon™ SP-4 (x3)	Binding Post (x2) and Speakon™ SP-4 (x3)
<b>Rack Spaces:</b>	Two	Two
<b>Finish:</b>	Baked-On, Black Painted Steel	Baked-On, Black Painted Steel
<b>Dimensions:</b>	16.5 x 19.0 x 3.5 inches	16.5 x 19.0 x 3.5 inches
(W x D x H):	41.9 x 48.5 x 9.0 cm	41.9 x 48.5 x 9.0 cm
<b>Shipping Volume:</b>	~ 6.6 ft³ (0.19 m³)	~ 6.6 ft³ (0.19 m³)
<b>Weight:</b>	42.0 lbs (19.1 kg)	45.5 lbs (20.7 kg)

