VIOLECTRIC

HEADPHONE AMPLIFIER

VIOLECTRIC HPA V202

Short Form Manual

POWER SUPPLY

Mains power is provided via a three-pin IEC/CEE socket and mating "cold-appliance" mains cord with Schuko-type plug for units purchased in middle Europe.
The device is set to 230V mains, whereas the actual voltage may vary between 190 and 240 volts for flawless operation.
The mains voltage may be altered to 115 V AC supply inside the unit with the aid of a mains voltage selector. In this case, stable operation is granted in a range of 85 to 120 V.

THE POWER-SWITCH

The unit is put into operation by means of the power switch.
The power-on procedure takes some seconds.
During this time the outputs are muted.
Any unregular behaviour will cause the outputs to stay in mute state.

THE ANALOGUE SIGNAL INPUTS

are RCA sockets and XLR connectors, both gold plated. They are labelled as " UNBAL IN L/R " and "BAL IN RIGHT/LEFT". Input impedance is 10 kohms. The maximum signal level is +21 dBu.

HEADPHONE AMP PRE-GAIN

With the "Right/Left PRE-Gain" switches an additional gain or attenuation can be set to adapt the HPA V202 to any source and any headphone whilst maintaining maximum dynamic range and minimum noise. Settings can be made for the left and right channel - they shall not be different from each other.

SELECTING / ACTIVATING AN INPUT

With the "INPUT" switch on the front of the amp one of the two analogue inputs may be selected.

THE VOLUME ATTENUATOR

is to set the desired volume for the left and right channel simultaneously. The use of the high-grade ALPS RK 27 potentiometer with its 41-detent together with a solid 38 mm aluminum knob provides a smooth feeling when adjusting the volume.

UNBALANCED (TRS) HEADPHONE OUTPUT (left)

Here, "standard" headphones with 6.3mm (1/4") jack may be connected.

THE PENTACONN (TRRRS) HEADPHONE OUTPUT (right)

serves to connect headphones with 4.4 mm Pentaconn jack.

THE AMPLIFIERS

The input signals are fed to a special stereo amplifier which is equipped with two power stages per channel to generate true balanced signals. The amp circuitry is derived from the famous and

multiple test winners Violectric HPA V200, V280 and V281. They are offering a natural and pleasant sound which made their predecessors famous.
The individual channel design provides optimum crosstalk rejection. The amplifier's frequency range stretches from DC to over 250 kHz (-0,5 dB cut-off frequency) in order to obtain absolutely linear characteristics within the audible range. The amplifier gain is set to +2 dB in unbalanced mode respectively +8 dB in balanced mode. By this measure the self-generated noise is minimized.

TECHNICHAL DATA VIOLECTRIC HPA V202

All measurements RMS unwtd., 20 Hz - 20 kHz, Pre-Gain set to 0 dB

Input parameter analogue

Inputs (stereo, analogue):	1 x RCA, unbalanced; 1 x XLR, balanced
Max. input voltage:	+ 21 dBu
Input impedance:	10 kohm

Headphone amp parameter

Amp gain:	+8 dB
PRE-GAIN:	-18 / -12 / -6 / 0 / +6 / +12 / +18 dBr
Frequency range:	5 Hz ... 250 kHz (- 0,5 dB)
Output impedance:	0,25 Ohm unbal. / 0,5 Ohm bal.
Damping factor (Load 50 Ohm):	200 unbal. / 100 bal.
Dynamic range:	> 128 dB (A-wtd)
Noise:	< -100 dBu (A-wtd)
THD+N (1kHz/2x10V/100R = 1W)	< -100 dB / < 0,001 %
THD+N (1kHz/2x4V/32R = 0,5W)	< -103 dB / < 0.0007 %
Crosstalk:	-100 dB (1 kHz) / -95 dB (15 kHz)
Headphone outputs:	1 x 1/4" (6.3 mm) TRS Jack 1 x 4.4 mm Pentaconn (TRRRS)

Max. output level:
(balanced outputs)
Conditions:
Both channels driven
THD < 0,1 % @ 1 kHz

R_L	U_a (dBu)	U_a (V)	P_a (mW)
600	27,0	17,3	500
300	26,7	16,7	930
100	25,5	14,5	2100
50	24,0	12,2	3000
32	22,2	10,0	3100
16	16,5	5,2	1700

AC supply voltage:	230 V AC / 115 VAC, max. 15 VA
Front, Back:	5 mm / 2.5 mm Aluminum, black anodized
Case :	4 mm Aluminum, black anodized
Case dimensions:	170 x 54 x 228 mm (WxHxD) / 6,7" x 2,1" x 9,0" (WxHxD)
Overall dimensions:	170 x 65 x 252 mm (WxHxD) / 6,7" x 2,6" x 9,9" (WxHxD)