

R8_____1K 1/2W Trimmer Cermet (optional)

C1_____470nF 63V Polyester Capacitor
 C2,C5_____100µF 3V Tantalum bead Capacitors
 C3,C4_____470µF 25V Electrolytic Capacitors
 C6_____100nF 63V Polyester Capacitor

D1_____1N4148 75V 150mA Diode

IC1_____TLE2141C Low noise,high voltage,high slew-rate Op-amp

Q1_____BC182 50V 100mA NPN Transistor
 Q2_____BC212 50V 100mA PNP Transistor
 Q3_____TIP42A 60V 6A PNP Transistor
 Q4_____TIP41A 60V 6A NPN Transistor

J1_____RCA audio input socket

Power supply parts:

R9_____2K2 1/4W Resistor

C7,C8_____4700µF 25V Electrolytic Capacitors

D2_____100V 4A Diode bridge
 D3_____5mm. Red LED

T1_____220V Primary, 15 + 15V Secondary 50VA Mains transformer

PL1_____Male Mains plug

SW1_____SPST Mains switch

Notes:

- | Can be directly connected to CD players, tuners and tape recorders.
 - | Don't exceed 23 + 23V supply.
 - | Q3 and Q4 must be mounted on heatsink.
 - | D1 must be in thermal contact with Q1.
 - | Quiescent current (best measured with an Avo-meter in series with Q3 Emitter) is not critical.
 - | Adjust R3 to read a current between 20 to 30 mA with no input signal.
 - | To facilitate current setting add R8 (optional).
 - | A correct grounding is very important to eliminate hum and ground loops. Connect in the same point the ground sides of J1, P1, C2, C3 &C4. Connect C6 at the output ground.
 - | Then connect separately the input and output grounds at the power supply ground.
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Technical data:

Output power: 18 Watt RMS @ 8 Ohm (1KHz sinewave)

Sensitivity: 150mV input for 18W output

Frequency response: 30Hz to 20KHz -1dB

Total harmonic distortion @ 1KHz: 0.1W 0.02% 1W 0.01% 5W 0.01% 10W 0.03%

Total harmonic distortion @10KHz: 0.1W 0.04% 1W 0.05% 5W 0.06% 10W 0.15%

Unconditionally stable on capacitive loads
