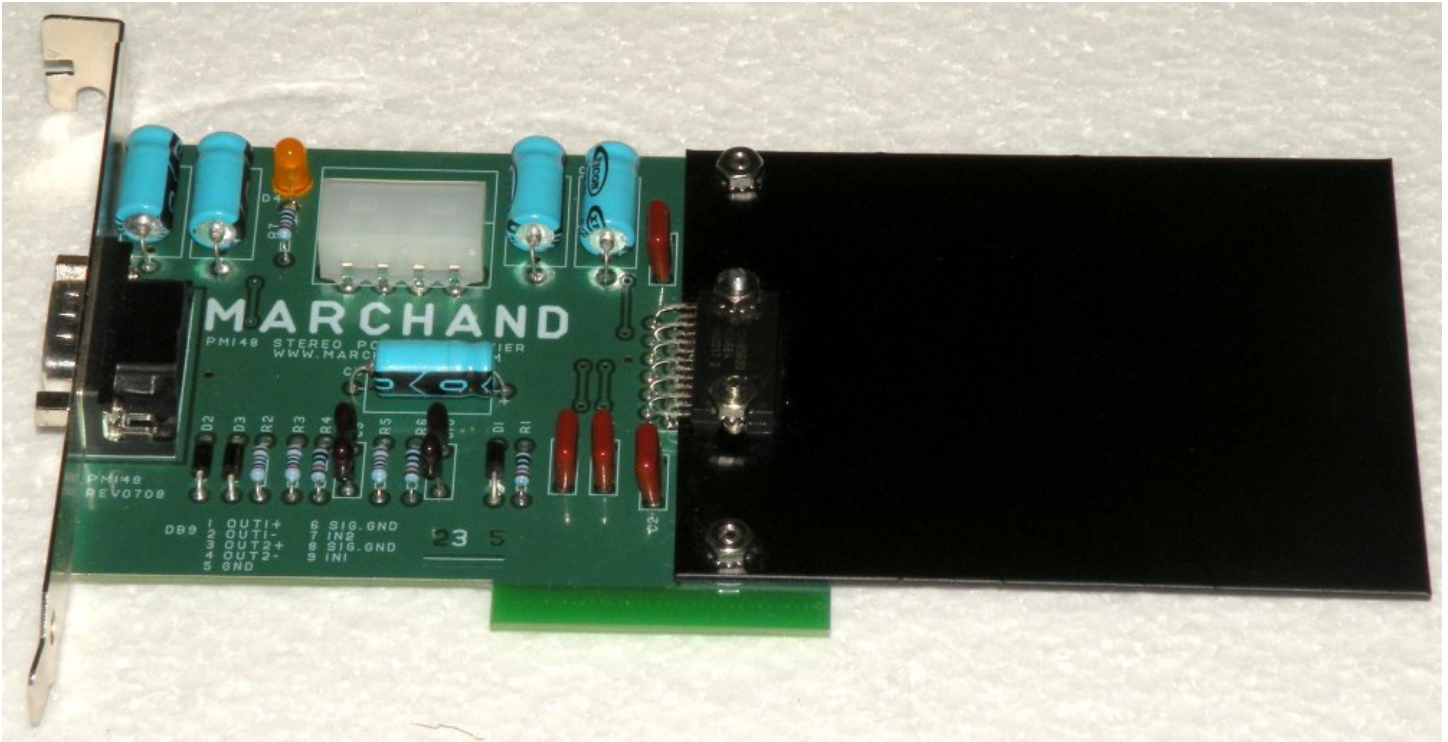


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PM148 2x12W power amplifier for PC



Features

PM148 2x12 Watt Stereo Amplifier for PC
Fits directly into PCI slot.
Connects directly to soundcard with single cable.
Uses internal 12V power supply.
Connections for standard 'home' loudspeaker for superior sound
Low Distortion (0.1% @ 1WRMS)
12 Watt per channel into 4 Ohm load
6 Watt per channel into 8 Ohm load

The PM148 stereo power amplifier allows the use of quality home type loudspeaker with the Personal Computer soundcard. This results in a dramatic improvement in sound quality compared with the usual amplified speaker. The PM148 connects to the sound card using a simple patch cable with 3.5mm phono plugs. The PM148 plugs directly into an unused slot in your computer. The power comes from the internal power supply of the PC, using the same connector that is used to power optional disk drives. Most PC's have plenty of power reserves in the power supply to power the PM148. The PM148 has a 9-pin connector for input and to connect to the loudspeakers. The power amplifier on the PM148 is the TDA8563Q made by Philips Semiconductor. This device has internal protections against short circuits (in case the loudspeaker wires get shorted) and overheating, so it is completely safe.

SPECIFICATIONS:

Frequency response: 20Hz to 20 KHz, +/- 1 dB
Insertion gain: 24 dB
Input signal for full output: 0.45VRMS typ.
Harmonic distortion at 1 KHz: better than 0.1%
Output power: 12W/channel into 4 Ohm
Signal-to-noise ratio: better than 100 dB
Input impedance: 10K Typ.
Output load capability: 2 Ohm min (4 or 8 Ohm typical).
Power supply voltage: 12 VDC
Dimensions: 8" x 4.75" x 0.75"
Weight: approx. 1/4 pounds (.12 Kg)
Input/Output Connector: DSUB9 male

| DB 9 Input Output Connector | | |
|-----------------------------|---------------|-----------------------|
| 1 | OUT Left + | To Speaker Left + |
| 2 | OUT Right + | To Speaker Right + |
| 3 | Case Ground | Not used |
| 4 | In Right | Input from Soundcard |
| 5 | In Left | Input from Soundcard |
| 6 | OUT Left - | To Speaker Left - |
| 7 | OUT Right - | To Speaker Right - |
| 8 | Signal Ground | Ground from Soundcard |
| 9 | Signal Ground | Not used |

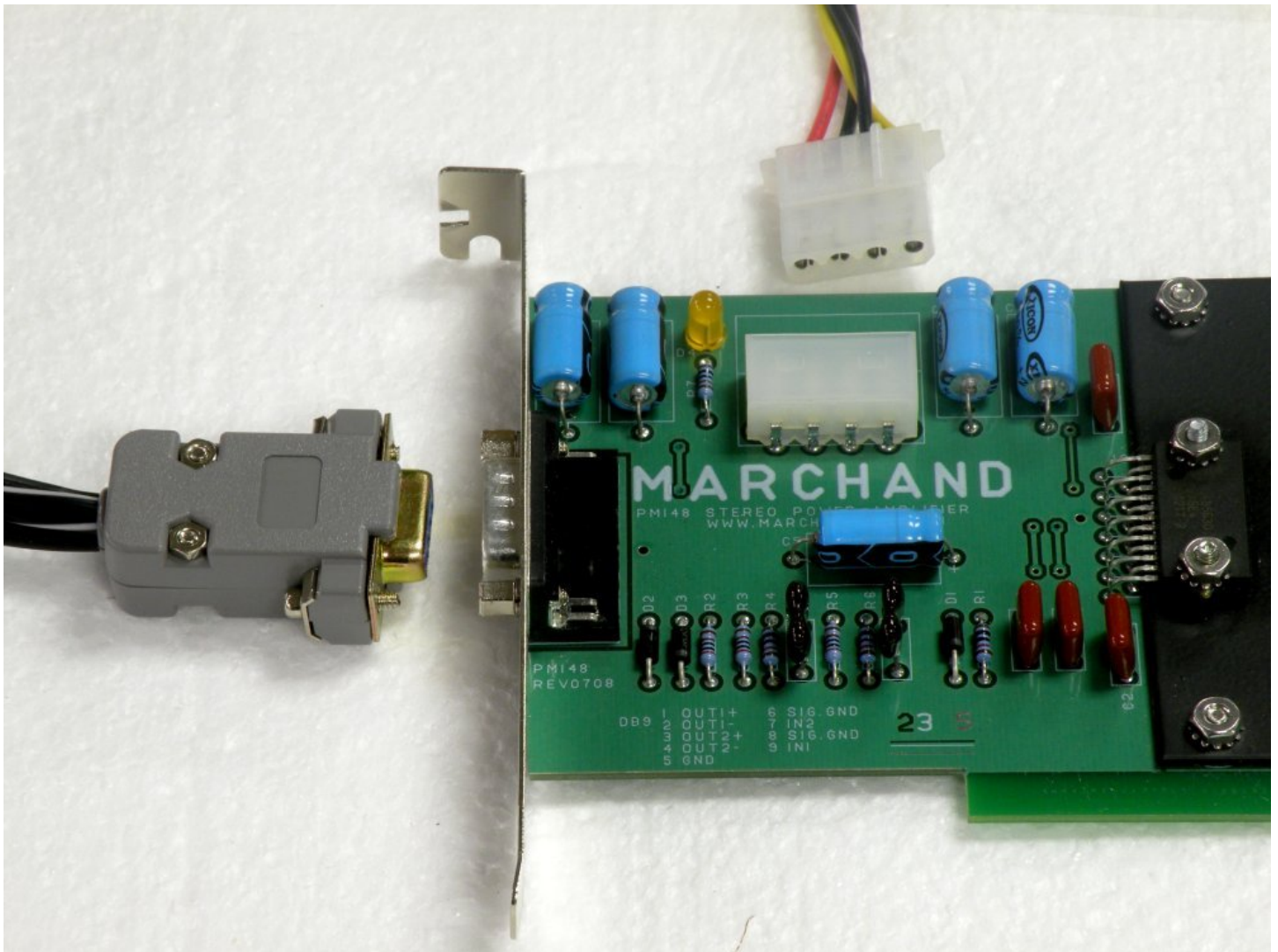
Installation

- 1: Plug PM148 into empty slot in PC and fasten the mounting screw.
- 2: Insert power supply connector into top of PM148.
Most PC's have one or more spare connectors.
If not Y-splices are available at most computer stores.
- 3: Connect speaker wires to the loudspeaker.
- 4: Connect the patch cord with the 3.5mm phono plug into the 'line-out' connector on the soundcard.
The line-out connector is usually the green connector
- 5: Enjoy the music



Attaching speaker wire to speaker.

note: No software needs to be installed for the PM148.

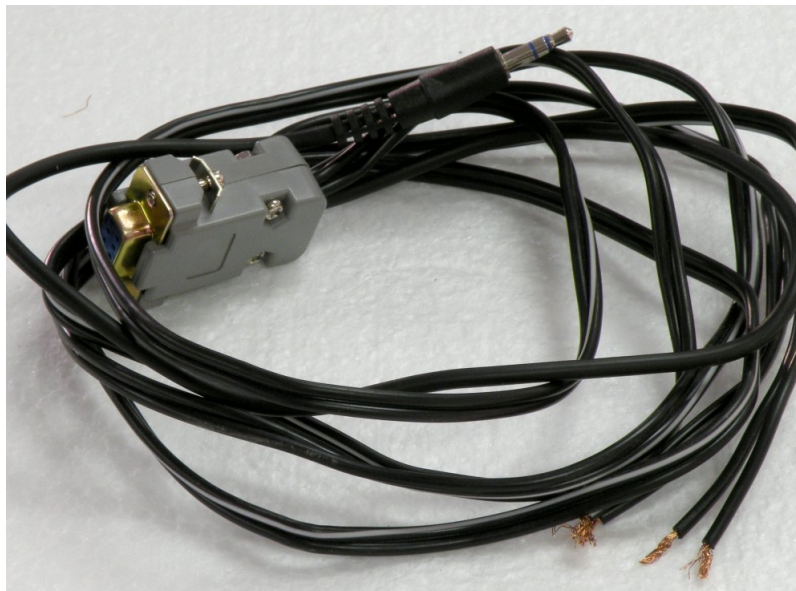


Parts list

| | | | | | |
|----|--------|------------------------------|-----|----------|------------------------------------|
| R1 | 10.0K | 1/4W, 1% metal film resistor | C2 | 0.22uF | Stacked film capacitor |
| R2 | 2.00K | 1/4W, 1% metal film resistor | C3 | 0.22uF | Stacked film capacitor |
| R3 | 2.00K | 1/4W, 1% metal film resistor | C4 | 0.22uF | Stacked film capacitor |
| R4 | 10.0K | 1/4W, 1% metal film resistor | C5 | 220uF | 25V, radial electrolytic capacitor |
| R5 | 2.00K | 1/4W, 1% metal film resistor | C6 | 220uF | 25V, radial electrolytic capacitor |
| R6 | 10.0K | 1/4W, 1% metal film resistor | C7 | 220uF | 25V, radial electrolytic capacitor |
| R7 | 2.00K | 1/4W, 1% metal film resistor | C8 | 220uF | 25V, radial electrolytic capacitor |
| D1 | 1N4937 | 1A diode | C9 | 220pF | film capacitor |
| D2 | 1N4937 | 1A diode | C10 | 220pF | film capacitor |
| D3 | 1N4937 | 1A diode | C11 | 220uF | 25V, radial electrolytic capacitor |
| C4 | | LED | IC1 | TDA8563Q | amplifier |
| C1 | 0.22uF | Stacked film capacitor | | | |

Contents of Kit

| | | | | |
|---|--------------------|------------------------------------|--------|--|
| 4 | 2.00K | 1/4W, 1% metal film resistor | 1 | heatsink |
| 3 | 10.0K | 1/4W, 1% metal film resistor | 1 | circuit board PM148 |
| 3 | 1N4937 | 1A diode | 4 | 4/40x1/4 PHMS |
| 4 | 0.22uF | Stacked film capacitor | 2 | 4/40x7/16 PHMS |
| 5 | 220uF | 25V, radial electrolytic capacitor | 6 | #4 kepsnut |
| 2 | 220pF | film capacitor | 1 | heatsink compound |
| 1 | LED, amber | | Notes: | Heatsink compound between IC1 and heatsink |
| 1 | TDA8563Q amplifier | | | Press tabs of P1 through hole with long-nose |
| 1 | connector DB9male | | | plyers. No heat! |
| 1 | P.C. bracket | | | |



Custom cable

