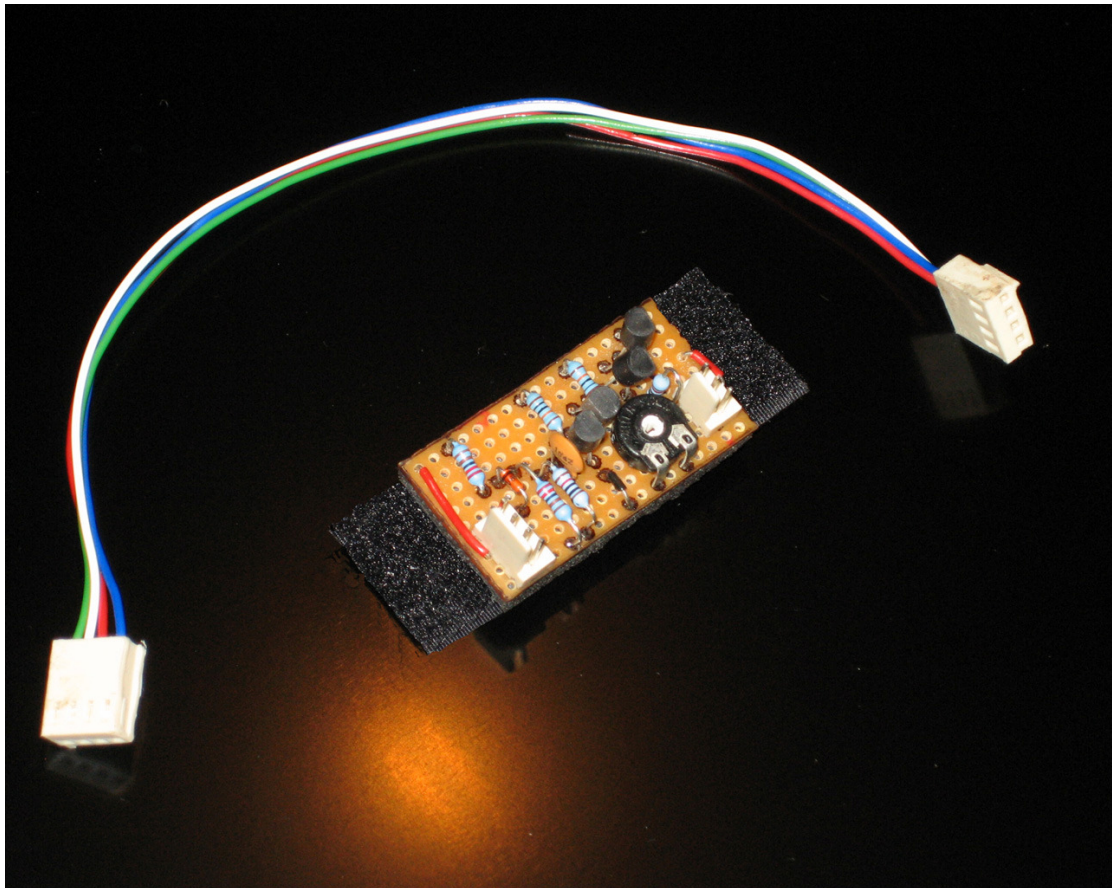
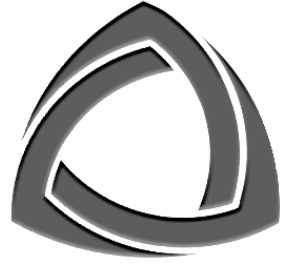


PaQ PWM->DC Converter

The PaQ PWM->DC is a circuit that takes a 4pin PWM fan signal and turns it into a variable voltage 3pin fan signal so that you can use a 3pin fan on a motherboard with a 4pin PWM fan header.



PaQ PWM->DC Converter



FAQ

What is PWM?

PWM stands for Pulse Width Modulation. It is a new way of controlling fans. It is mainly used for CPU fans using a header that looks similar to the older 3pin type, but with an extra pin.

The power pin now always puts out 12v and the new 4th pin put out a signal which switches rapidly between on and off to tell the fan how fast to go. By contrast the 3pin fan speed was controlled by varying the voltage of the power (nominal 12v) supply.

What does the PaQ PWM->DC converter do for me?

It enables your Motherboard to control a 3pin fan speed connected to a 4pin PWM header on the Motherboard. In effect it turns a 3 pin fan into a 4pin PWM fan. If the Motherboard outputs a PWM signal on the PWM fan header the PaQ PWM->DC circuit will convert that to a variable DC voltage to control the fan.

What is the Potentiometer for?

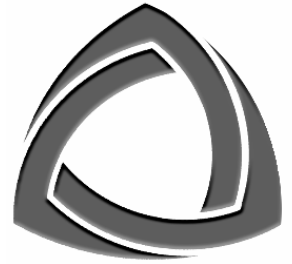
The potentiometer allows you to control the minimum fan speed. We suggest you set it so that the fan always starts and runs, but as slowly as possible, - around 450 rpm for a 1400mm fan and 600rpm for a 1200mm - when the machine is cool or on idle.

What does the Package Include?

You get:

1. Circuit board mounted on a thin layer of rubber and Velcro Backing.
2. Self Adhesive Velcro Strip for mounting inside the case
3. Four Pin to Four Pin cable
4. This Guide

PaQ PWM->DC Converter



How should I connect the PaQ PWM->DC?

1. Connect either end of the 4pin to 4pin cable to the PWM Motherboard CPU header, and the other end to the 4pin header on the circuit board.
Note: If access to the PWM header is difficult you can do this with the motherboard out of the case - that's why the cable has a connector at both ends rather than being permanently attached to the converter.
2. Connect a 3pin fan to the 3pin header on the circuit board
3. Adjust the potentiometer so that the fan starts reliably and runs smoothly but as slowly as possible when the machine is cool
Note: you will need a small screwdriver or a knife blade to turn the potentiometer
4. Attach the self adhesive Velcro to a convenient place inside your case
5. Mount the circuit on the Velcro - the circuit has a Velcro back.

Isn't the 4pin PWM header in the Motherboard a special shape?

Yes - it is a cross between an ordinary 3pin header and a 4pin header. It's actually a 4pin header with one locating tab moved to the 3pin position. This means that you can attach a 3pin fan connector to a PWM header, as well as a PWM connector, but you can also attach a standard 4pin connector to the header.

Warning - you must connect a 4pin connector to a PWM header so that all four pins are inserted. Because of the moved locking tab it is possible to physically insert a 4pin connector offset by one pin. The connector and header must line up.

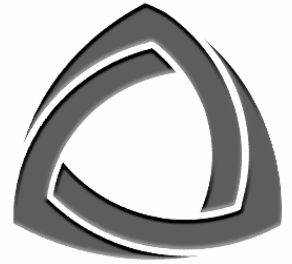
What is the maximum output of the PaQ PWM->DC converter?

500mA. A typical CPU fan draws 2W to 3W, or a maximum of 250mA at 12V.

Who or What is PaQ?

PaQ stands for "Powerful and Quiet". PaQ Ltd is a new company dedicated to producing quiet computers and computer components without compromise to performance.

PaQ PWM->DC Converter



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