

# Engine Cooling Fan Control

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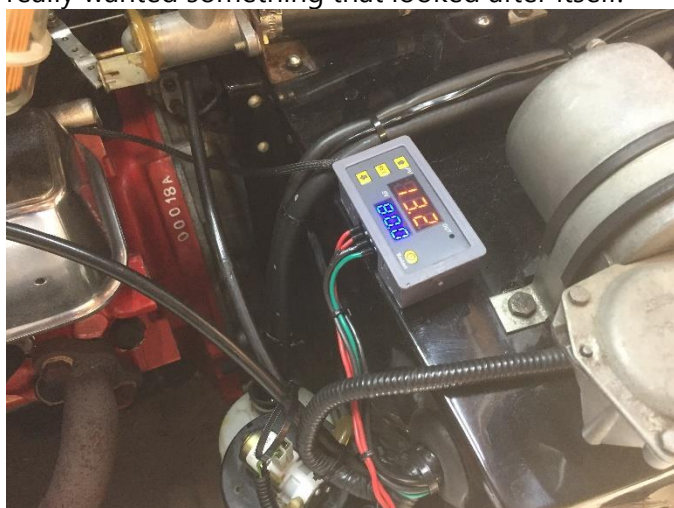
After completing an extensive maintenance overhaul on my 1985 +8, I finally got it back on the road in the height of summer. My maintenance work included removal of the radiator (with push-pull electric fans both sides) for cleaning and repair of a pin-hole leak; flushing the engine block; checking water pump bearings; fitting an Engine-Guard system that monitors block temp. and oil pressure; as well as replacing the thermostat with a Hi-Flow thermostat (78 degC) as recommended by Geoff Williams (see MOCA Tech Talk)

<https://www.morganownersclub.org.au/wp-content/uploads/2021/05/Keeping-Your-Plus-8-Engine-Cool.pdf>.

When I got the car back on the road, the engine was running at 95 to 105 degC, which gave me some concern.

Initially I tried finding a replacement for the thermo-switch installed in the bottom tank of the radiator. It had a 95 degC switch temperature and a M18 thread. Most switches however, are either M14 or M22. I was reluctant to have an adaptor made up. Then I remembered there was a toggle switch under the dashboard with wiring running up to the front of the car, with nothing connected to it. My guess was that a previous owner had it connected across the radiator thermo-switch for manual operation. So, I connected it up and it all worked fine.

But I was not really happy with the solution and really wanted something that looked after itself.



I contemplated systems available from Davies Craig, but was put off by the amount of rewiring and the bulky nature of the gear. Not to mention the cost. A little searching on the internet yielded a "12V DC LED Digital Thermostat Temperature Controller Temp Sensor Control Relay" for a little over \$13.00 inc. shipping (2021).

This unit basically performs the function of a manual override switch when connected to the ignition accessory power supply and the two switch connections (S1 & S2) are connected to either side of the radiator thermo-switch. I slipped the temperature pick-up (which comes with a 1 metre cable), under the clamp of the main radiator return hose, just after the Hi-Flow thermostat.

The system has a range of functions that allows switching of the radiator fan/s to be tuned to suit your particular situation.

My engine now runs at a steady 80 – 85 degC without having to worry about the driving conditions.

**W3230 温控**  
微电脑温度控制产品说明书  
Temperature control product introduction

温控范围(Range): -55°C~120°C  
温控精度(Precision): 0.1°C  
传感器(Sensor): NTC 10K 1% 3095  
继电器类型(Relay type): 常开式继电器 Normally open relay  
规格(specification): DC12V/240W(Max)  
DC24V/480W(Max)  
AC110V~220V/1500W(Max)

产品尺寸(Size): 79.2×41.9×26.3mm  
安装开孔尺寸(hole size): 72.1×39.2mm  
产品重量(Weight): 52g (DC12V/24V) 59g (AC110~220V)

Code	项目 Item	设置范围 Range	出厂 设置 Defaults
P0	加热/制冷 Heat/Cool	H/C	C
P1	迟滞 Backlash	0.5°C~30°C	2°C
P2	温度设置上限 Upper-temp limit	55°C~120°C	120°C
P3	温度设置下限 Lower-temp limit	-55°C~120°C	-55°C
P4	迟滞时间 Delayed start	0~120分钟	0分钟
P5	高温警告 Upper-temp warning	-55°C~120°C	120°C
P7	数据锁定 Data lock	ON/OFF	OFF
P8	恢复出厂设置 Reset	ON/OFF	OFF

工作模式及继电器通断状态  
Working mode and relay On-Off state

加热模式=Heat H

制冷模式=Cool C

注意: S1和S2无电源输出 负载回路要接电源  
Note: S1 and S2 have no power output, the load circuit must be connected to the power