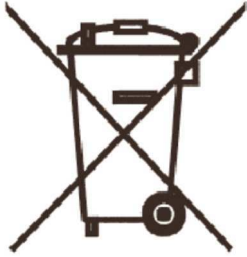


General Guidelines for Electronic Kits and Assembled Modules

Thank you for choosing one of our products. Please take some time to carefully read the important information below concerning use of this product. The assembly and operating instructions are on the following pages. Help with component identification can be found on our website at www.quasarelectronics.co.uk/componentid.htm. If you are unsure about any aspect of the assembly or use of this product please contact our Support Team before proceeding.



WEEE Directive (Waste Electrical and Electronic Equipment) Notice To All European Union Citizens. Important environmental information about this product.

The crossed out wheeled bin symbol on this product, package or documentation indicates that disposal of this product after its lifecycle could harm the environment. Do not dispose of this product (or batteries if used) as unsorted municipal waste. It should be disposed by a specialized company for recycling.

The unit should be returned to your distributor or to a local recycling service.

Please respect the local environmental rules. If in doubt contact your local authorities about waste disposal rules.

Safety: General rules concerning safe use of our Kits or Modules.

To ensure your safety, please observe these safety measures. In no way are these complete. As safety requirements vary, please check with your local authorities, in order to comply with local requirements. If in doubt, seek the help of a qualified person.

Battery or wall-adaptor operated devices are safe devices. They do not require special attention unless mains voltage is connected to an output e.g. a relay.



To ensure electrical safety, and also protection from fire or personal injury, make sure your mains operated equipment complies with these safety hints:

- Use a suitable plastic enclosure. If a metal enclosure is used, make sure it is properly earthed.
- Use a power switch if the device consumes more than 10W. Use a double pole switch for mains operated, transformer-less kits.
- Mount a fuse in series with the mains switch. Use a slow blow (T) 50mA fuse for transformers up to 10W and a 100mA fuse for transformers up to 20W.
- Use a mains input connector, or a robust power cord with a clamp.
- Internal wiring carrying mains voltages must have a minimum cross-sectional area of 0.5mm².

If supplied, attach the power rating label near the power cord of the device and fill-out the mains voltage, frequency, power consumption and fuse values.

Troubleshooting and Support

90% of non-working kits are due to poor soldering.

We operate a Get-You-Going service for non-working kits but there is a charge based on the time and components needed to complete the repair. Quite often it is not economically viable for us to repair and it is cheaper to supply a new ready-made product at full cost.

Disclaimer

Quasar Electronics reserves the right to change product specifications or to discontinue products without notice. Quasar Electronics cannot be held responsible for any loss or damage, direct or indirect, which might occur from the use of a product. Quasar Electronics Kits or Modules are intended for educational and demonstration purposes only. They are not intended for use in commercial applications. If they are used in such applications the purchaser assumes all responsibility for ensuring compliance with all local laws. In addition, they are not suitable for use as or as a part of life support systems, or systems that might create a hazardous situation of any kind.

General Description

This intermittent windscreen wiper controller is a very useful accessory for 12V negative earth vehicles that do not already have intermittent windscreen wiper function. It allows you to adjust the operating frequency of the wipers from anywhere between about once every 40 seconds to every 3 seconds.

This version has a switched potentiometer allowing the board electronics (only) to be turned on and off.

Technical Specifications

Working voltage:	12-14 Vdc
Current consumption:	40 mA maximum
Delay Time:	3 to 40 seconds approx.
Frequency of operation:	< 2 to 20 times per minute approx.
Output current rating:	5 Amps maximum as supplied *

* You can increase the current rating by soldering along the bare sections of the relay tracks. We have not tested how much this will raise the rating by. Bear in mind that the relay has a maximum current rating of 10 Amps.

Installation

Warning! The following installation information is generic in nature and intended to offer a general overview only. You will need to be familiar with your vehicles equipment, wiring and electrical systems so that you can ascertain if they apply to it. If in doubt, consult a qualified auto electrician for vehicle specific help.

Please familiarise yourself with the board's operation prior to installation.

The board needs to be supplied with 12V power via the "+V" and "GND" terminals to work. This power is just to make the board function and is electrically isolated from the "Mv" and "Wm" terminals. We strongly recommend that you fit an 100mA inline fuse to the positive supply going to the "V+" Terminal of the board.

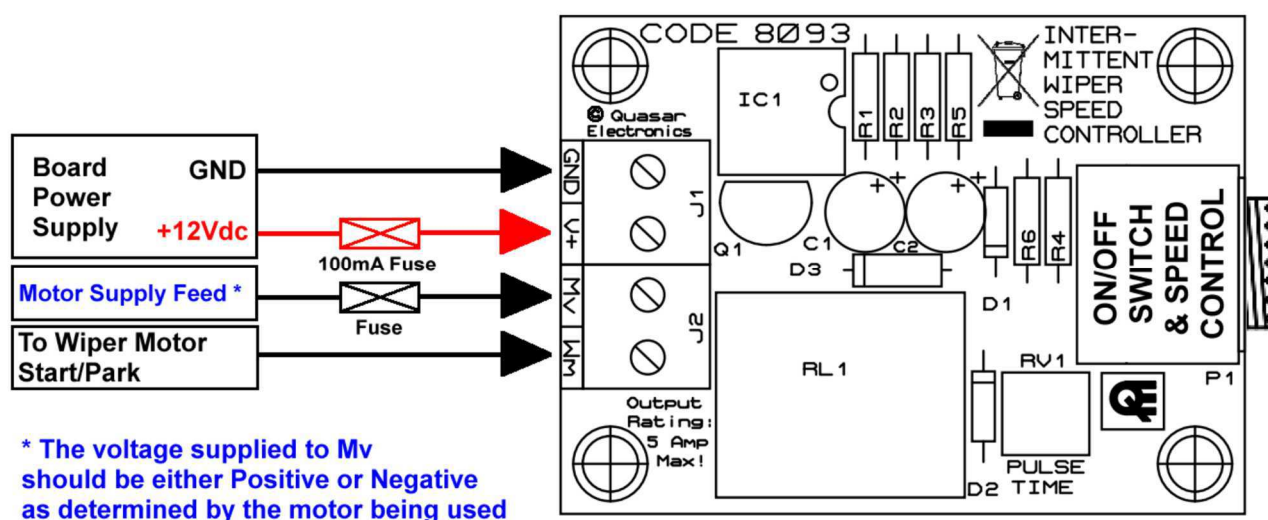
Now identify the "Start/Park" input and the "Main Track" input of your self-parking wiper motor (or the relay control inputs that control power going to them). You need to establish if they connect to +12V or Ground. This determines if +12V or Ground is connected to the "Mv" terminal of the board. We also recommend fitting an inline fuse of a suitable value to the "Mv" input in case you inadvertently make a mistake.

QUASAR CODE # AS8093SW - WINDSCREEN WIPER CONTROLLER – SWITCHED VERSION

Connect “Wm” terminal to the “Start/Park” input of the motor (or it’s control relay).

If necessary, the length of the pulse time can be adjusted using the small trimmer RV1.

Connection Diagram



Circuit Operation

When power is applied to “+V” and “GND” terminals of the board and the pot P1 is switched to the ‘On’ position, the relay will pulse on briefly at intervals. Turn clockwise for maximum speed. The feed connected to “Mv” will be present on “Wm” when the relay pulses on.

The pulse coming out of “Wm” will push the motor off the Start/Park section and on to the main sweep (which needs to be permanently powered when the 8093 is in operation). The wipers will return and park. The cycle will repeat each time the 8093 board sends out a new pulse.

If it does not work

Check again all external connections to and from the circuit to see if there is a problem, making sure the supply has the correct voltage and is connected the right way round.

If everything checks out and your project still fails to work, you can contact our support staff at support@QuasarElectronics.co.uk.

Please note that we are unable to provide vehicle specific installation advice. Please consult your vehicle wiring diagram or an auto electrician.

Circuit Diagram

