

Additional Information

This notice includes information related to your rosco_m68k Classic v2 68030 edition product. Please read this sheet carefully and retain for your reference.

1. CPU Selection

The rosco_m68k Classic v2 68030 edition is designed for use with an original Motorola 68030RC20 CPU in PGA169 (13x13) package. When sourcing this, we strongly recommend dealing with reputable suppliers – ask for help on Discord if you are not sure.

Higher speed-grades (the number after the 'RC') will work fine but will not provide a speed increase unless other upgrades are made to the board.

The 'EC' variants of the CPU may work but are not tested. Use of these variants may limit the software that your system can support.

We recommend sourcing an appropriate PGA socket to mount your CPU rather than soldering it directly to the board. Again, ask for help on Discord if unsure.

2. JP1/JP2 Jumper Setting

JP1 & JP2 are optional jumpers that allow the board to receive power via the FTDI module. Only one of these jumpers should be shorted at any given time, and it must only be shorted when the board is powered via the module. Connecting this jumper when external power is also connected, or shorting both jumpers at once, may damage your rosco_m68k, your FTDI module(s), power supply and any connected equipment.

Additionally, when powering the board via an FTDI module, you must ensure that the current requirements (No less than 500mA for the main board alone) are met. Where your computer or FTDI module are unable to supply the minimum current requirement, improper operation and (in rare cases) permanent damage may occur.

3. JP3 Jumper Setting

When shorted, JP3 is a hardware-enable for writing to the Flash ROMs. With this jumper shorted, special software (e.g., the firmware flash utility) will be able to write the ROMs and update your flash.

Although software write prevention measures are also in place to prevent accidental writes, leaving this jumper open may give additional peace of mind that writes cannot occur.

4. JP4 Jumper Setting

When shorted, JP4 changes the behaviour of the mainboard with respect to expansion RAM space. This jumper is only needed where the board is to be used with an original rosco_m68k memory expansion board and should be left open in all other configurations.

5. JP5 Jumper Setting

When shorted, JP5 disables the MC68030's on-chip memory management unit. This is an advanced setting with specific use-cases – it should not be necessary in normal usage.

6. JP6 Jumper Setting

When shorted, JP6 disables the MC68030's on-chip data and instruction caches. This is an advanced setting with specific use-cases – it should not be necessary in normal usage.

7. SD Card Connection

The SPI SD Card header provided on the board is 5V and will require an Arduino-compatible SD card adapter with level 5V<->3V3 conversion in order to operate. These are commonly available, and the pinout of the connected is designed to match them.

Attempting to use an SD card without an adapter, or with and adapter that does not have built-in level conversion, is likely to damage or destroy your SD card (and in rare cases may also damage your main board and connected peripherals).

8. Compliance Notices

All information contained in the product documentation (herein and online) and any additional information and documentation (including this notice) is correct as far as possible at the time of writing. Errors & omissions exempt.

To achieve compliance with local regulations regarding electro-magnetic interference (both transmission and receipt) the product may need to be operated in a suitable grounded enclosure with appropriate application-specific shielding. The Really Old-School Company Limited neither specify not supply such enclosures and recommend that expert guidance be sought where an enclosure is to be used.

The Really Old-School Company Limited does not authorize the use of any of its products in safety critical or life support applications where the failure or malfunction of the product can reasonably be expected to cause failure of the safety critical or life support system or to significantly affect its safety or effectiveness. This includes, but is not limited to, human life support, nuclear safety and control, air-traffic control, and vehicular control.

Products are not authorized for use in such applications under any circumstances.

All PCBs and components we supply are compliant with Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) regulations. Legacy ICs (the CPU) that you source may not be compliant with the modern regulation, and compliance in finished kits you build will also depend on your choice of solder when building your board. Please dispose of any waste in accordance with relevant Waste Electrical and Electronic Equipment recycling (WEEE) regulations in your jurisdiction.