

# Megger<sup>®</sup>

## BM5200 Firmware Upgrade Manual



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## Revision History

Date	Revision	Description	Author
12.08.2010	1	First issue released on CN24131	C.Nicholls

## DEFINITION OF TERMS

The following terms are used in this document.

**MUST** – Used to indicate instructions that if not followed will expose the user to unnecessary risk.

*Should* – Used to indicate a recommended approach.

## SAFETY WARNINGS AND HAZARDS



When upgrading the firmware on the **BM5200** the user will require access to the PCB. The following warnings **MUST** be observed.

When the unit is powered the PCB has high voltages present on it. Suitable precautions **MUST** be taken i.e. disconnect all test leads and the battery connector.



The PCB assembly contains static sensitive components. Suitable precautions *should* be taken when handling this item.

## DISASSEMBLING THE BM5200

When assembling or disassembling the MTB7671 please refer to the following photographs and notes.

### REMOVING THE REAR CASE.



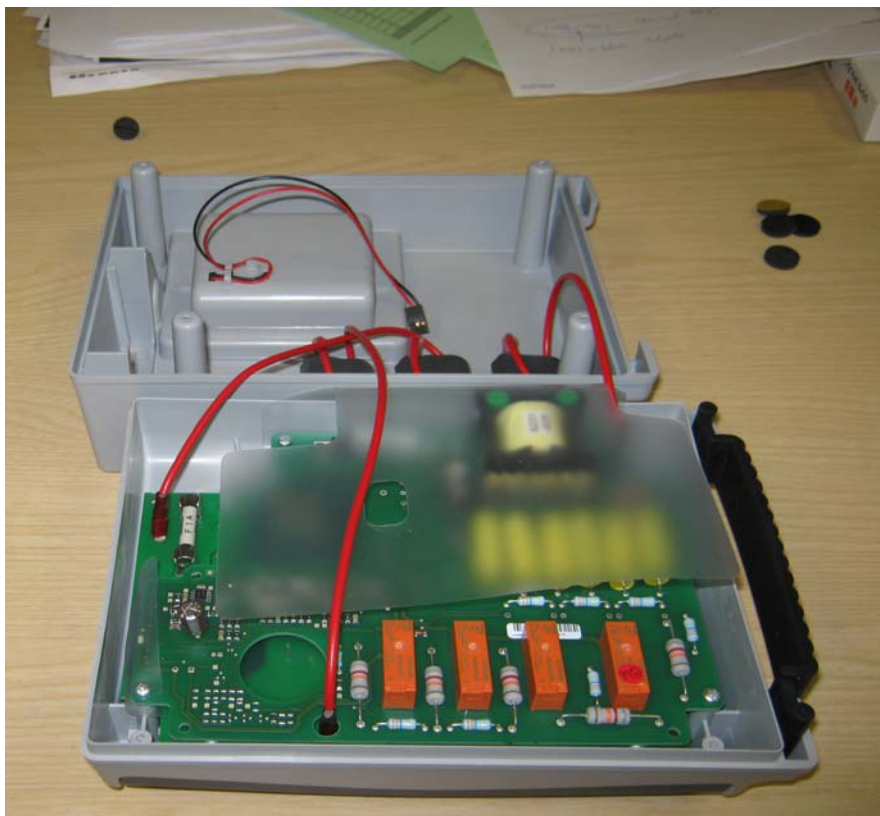
- The instrument **must** be switched to the **OFF** position.
- Remove the rubber feet (4 – off). These are adhesive fixed.



- Remove crosshead screws (4 – off)



- Carefully remove the rear case moulding.
- Disconnect the battery connector from the PCB. Note orientation.
- The HV wires connecting the terminals to the PCB **must** not be disconnected.



## RENESAS R8A DEBUGGER.

To update the firmware on the **BM5200** a Renesas R8a debugger (R0E0008AKCE00) is required.

This equipment is supplied complete with PC software and a connecting lead.

The PC software 'Renesas Flash Development Toolkit' needs to be V4.01 release 01 or greater in order to support the microprocessor used on the **BM5200**.

If the CD contains an earlier version of software the latest version can be downloaded from:

[http://www.renesas.com/products/tools/flash\\_prom\\_programming/fdt/download\\_search\\_results.jsp](http://www.renesas.com/products/tools/flash_prom_programming/fdt/download_search_results.jsp).

The software should be installed on a PC following the manufacturer's instructions.

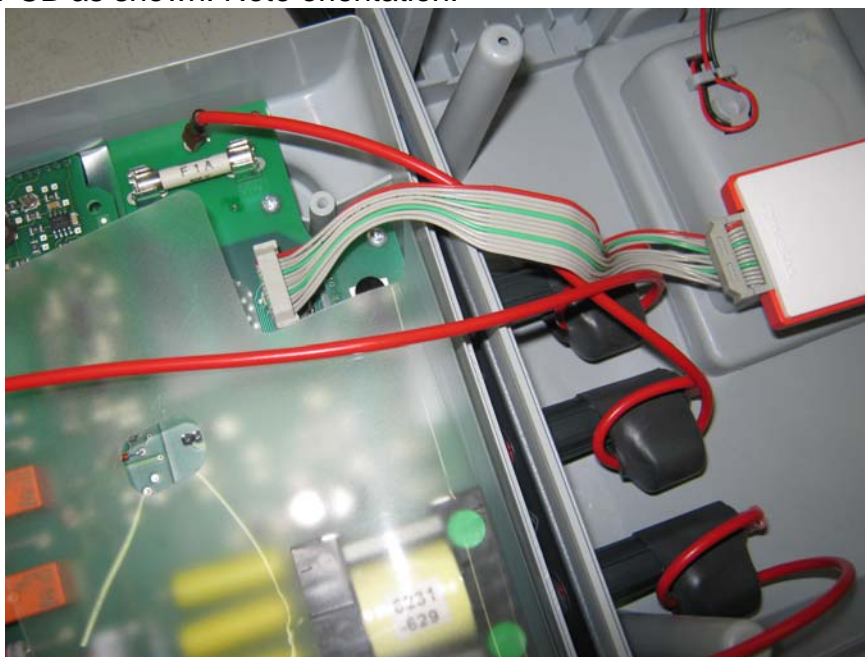
## BM5200 FIRMWARE.

The firmware needs to be supplied as an **.fpf** file format.

The latest version of the firmware 1001-301 Vx.x BM5200 (where Vx.x is the latest version) can be downloaded from the official Megger Ltd. Internet site.

Authorised Repair Centers can access this data by requesting permission to the BM5200 service internet site. An email should be submitted to [ukrepairs@megger.com](mailto:ukrepairs@megger.com) the **.fpf** data can then be downloaded.

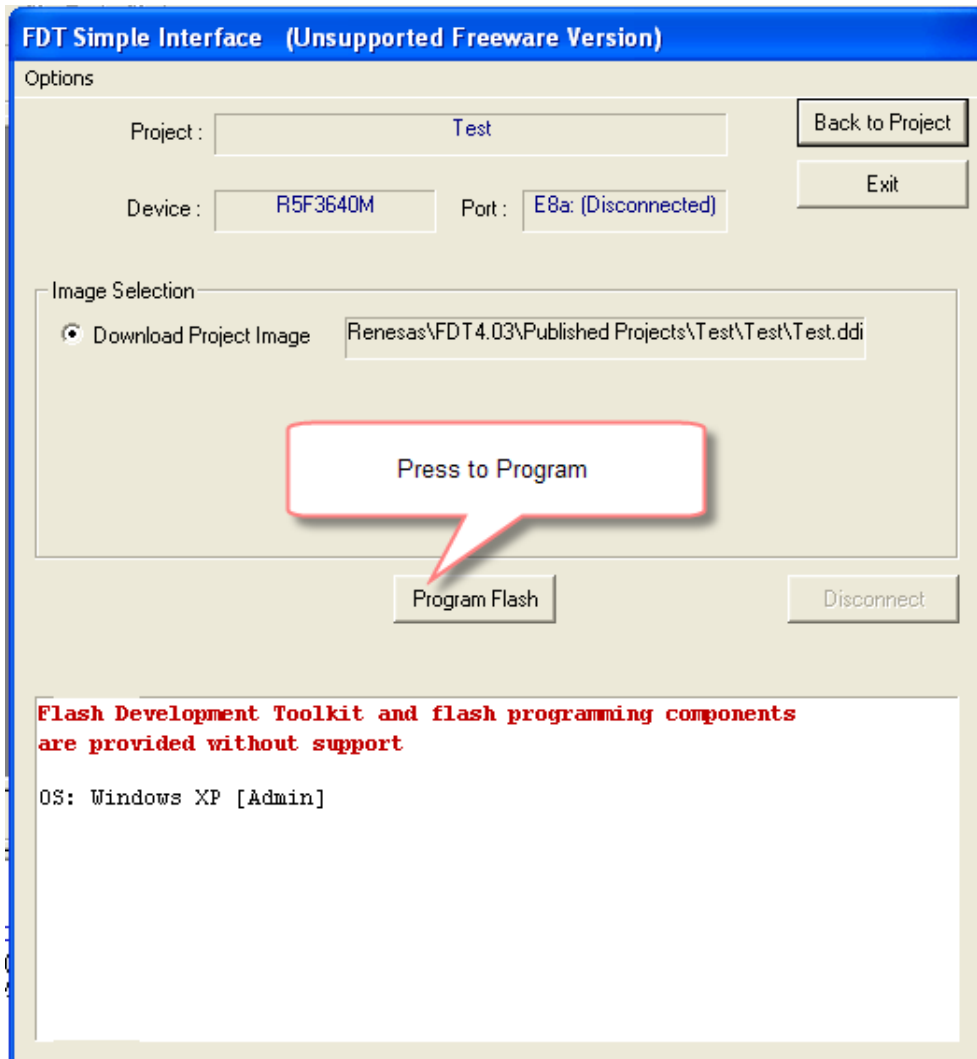
The R8a debugger should be connected to the serial connector on the Control PCB as shown. Note orientation.



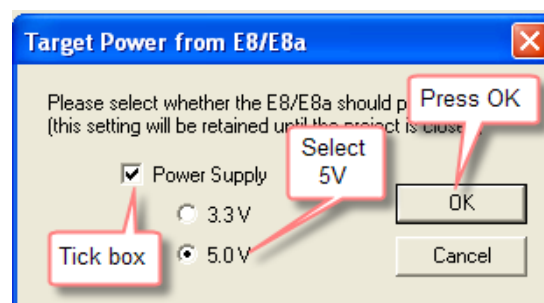
## UPDATING THE FIRMWARE.

After connecting R8a debugger and downloading the latest version of firmware 1001-301 from the Megger Internet site, the following instructions should be followed:

- Double click the **.fpf** file to run the Flash Development Toolkit.



- Initially you will see this dialogue box.
- Select Power Supply at 5.0V

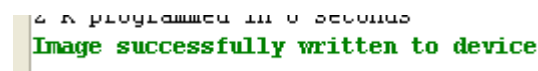




- Click OK to select USB device.

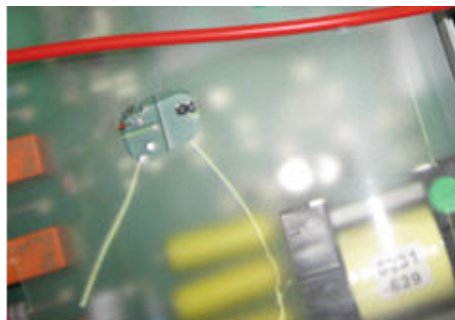


- BM5200 will now be re-programmed
- Check for green message.



## Re-assembling the BM5200

- Disconnect the R8a debugger lead from the PCB
- Plug the battery connector back onto the 3 pin plug on the PCB. Note the correct polarity of this plug is when the centre pin is connected to the **+ve red wire and the lead must pass through the aperture in the clear HV insulating screen before plugging to the PCB.**



- Close the rear case moulding over the front case moulding ensuring that the HV wires and the battery wires are not trapped by the edges of the mouldings.
- Secure the mouldings together with the 4 crosshead screws. Do not over tighten these screws as this will damage the plastic moulding.
- Fix the 4 self adhesive feet over the screw holes.

For Service training please e-mail your request to [ukrepairs@megger.com](mailto:ukrepairs@megger.com)