MAKERBOT REPLICATOR 2 : TECHNICAL SUPPORT ARTICLE
THERMOCABLE FUNCTION, ERROR AND REPAIR

Version 1.3

This article relates to : **Replicator 2**

Specifically : ***The Thermocable that runs from the heaterblock to the motherboard*** *(pictures right)*


Fig 1.1

ABOUT THE CABLE

The thermocable *(see Fig 1.1)*.is brown in colour and can be seen coming out of the back of the aluminum heater block. In models of the Replicator 2™ this cable then ran under the aluminum mounting block and in through a space next to the filament fan to join the main cable bundle that runs from the extruder to the motherboard. Other models see this cable running straight from the back of the heaterblock to join in the cable bundle.

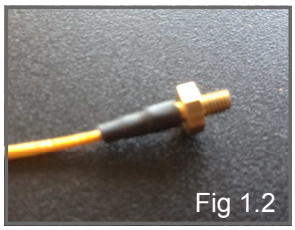
Fig 1.2

The cable has two raw wires at one end that join to the motherboard under the machine. At the other end is a hexagonal fitting that screws into the heaterblock. The wires are secured to this fitting with heatshrink *(see Fig 1.2)*.

WHAT CAN GO WRONG

Particularly when you have the model that sees the cable threaded under the mounting block, when a print fails filament can coat the wire. When pulling this filament off the wire some people have inadvertently ripped the cable from the hex mounting fitting. It's ok, most of the time it is easily fixed.

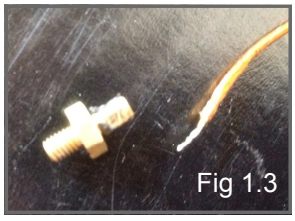
Fig 1.3

CHECK THE CONNECTIONS.

Sometimes the connections at the motherboard, or the heater block can be accidentally pulled loose. You should start by checking the connections

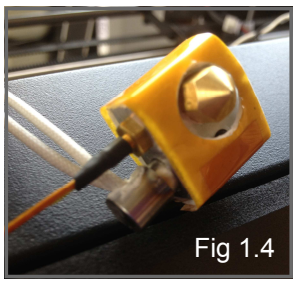
Fig 1.4

FIXING A DAMAGED THERMOCABLE

If your cable has been ripped from the hex fitting you will need to :

1) **Unscrew the hex fitting from the heaterblock**.
   Note : you may find that undoing the two screws that are under the aluminum mounting block (the long block not pictured here) and lifting out the heater block assembly will provide for easier access to the thermo cable mounting point. The screws are on the underside of that block.
2) **Check the cable** still has two raw wires exposed at the end of the cable and neatly twisted together. They should be approx 5mm exposed wire *(see Fig 1.3)*
3) **Re-attach the cable to the hex fitting**
   If the heat shrink is still in place, you may be able to just slip the thermo cable back into the hex fitting using the existing heat shrink.
   If not you will nee to get a short length of heat shrink. Slip over the cable. Pop the cable into the hex fitting so that cables push in to the tip of the fitting and 1cm in. You may find a cream coloured wrapping just inside the hole which you can pull out. You will need pliers to help push it all the way in and it is important that it is all the way in. Slide heatshrink over hex fitting and shrink to hold cable in place *(see Fig 1.2)*

Test your cable. If it still does not work the cable may be damaged and need replacing.

Please log a ticket at support.bilbycnc.com.au and report a faulty thermocable.

BilbyCNC hopes you found this helpful, Please call 1800 245 297 if you need further assistance