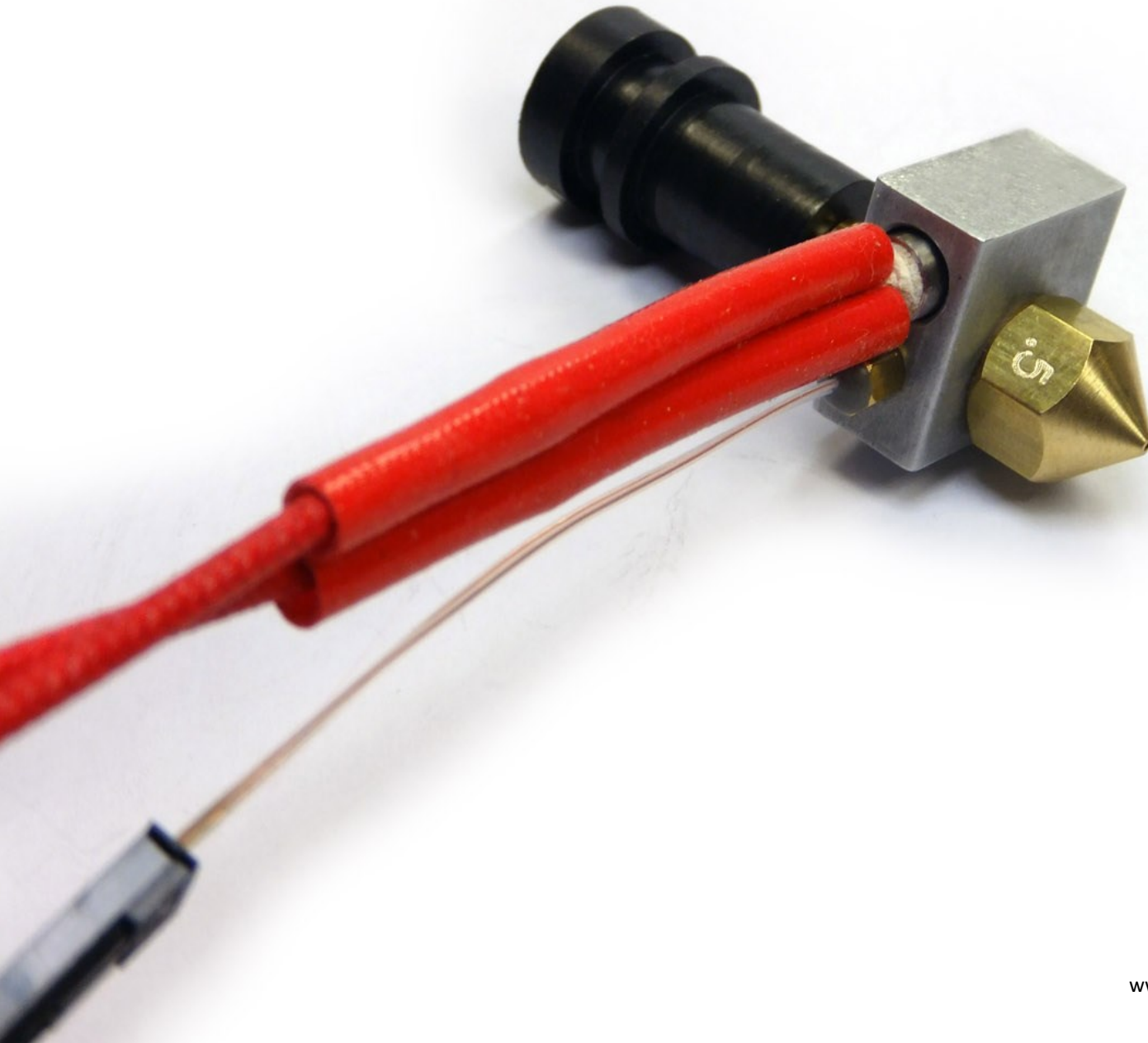




# MG Plus Hotend

## Assembly Instructions



# MG Plus full kit

This kit contains all necessary tools to assemble and take apart MG Plus hotend. Two aluminum universal wrenches are included to handle nozzle, barrel and hex brass body thermistor. Allen key is for M3 set screws. You will need crimp tool or pliers to assemble thermistor cable with JST crimp-on connector. Kit includes:

1. One PEEK/PTFE groove for 3mm or 1.75mm filament.
2. One barrel for 3mm or 1.75mm filament.
3. One nozzle, 0.25, 0.35 or 0.5 mm extrusion diameter.
4. One aluminum heater block with two M3 setscrews.
5. Cartridge heater 12V 40W or 24V 40W.
6. One hex body thermistor.
7. One Male JST connector with crimp-on pins.
8. One Thermistor wiring with electronic board side connector.
9. One 4 pin Molex KK type connector.
10. Two MG universal wrenches.
11. One Allen key.



## MG Plus standard kit

This kit contains MG Plus hotend parts only. You need thermistor wiring and the following tools to complete assembly: adjustable wrenches or pliers to handle nozzle and barrel, crimp tool or small pliers to assemble thermistor cable with JST crimp-on connector. Kit includes:

1. One PEEK/PTFE groove mount for 3mm or 1.75mm filament.
2. One barrel for 3mm or 1.75mm filament.
3. One nozzle, 0.25, 0.35 or 0.5 mm extrusion diameter.
4. One aluminum heater block with two M3 setscrews.
5. Cartridge heater 12V 40W or 24V 40W.
6. One hex body thermistor.
7. One Male JST connector with crimp-on pins.

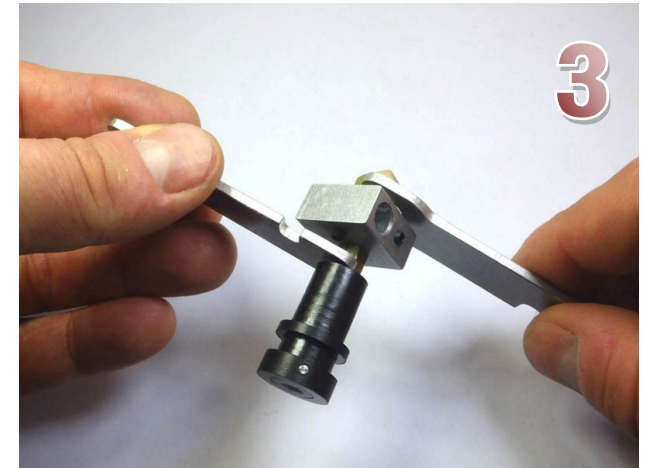




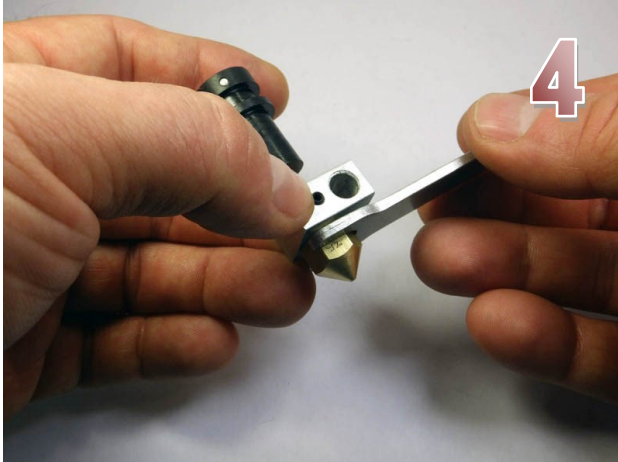
Start with screwing barrel into groove mount assembly. Maintain proper orientation: barrel side with shorter thread goes into PEEK.



Next step is screwing heater block on the barrel all the way until it touches barrel hex. Proper orientation of heater block: M3 setscrew facing up.



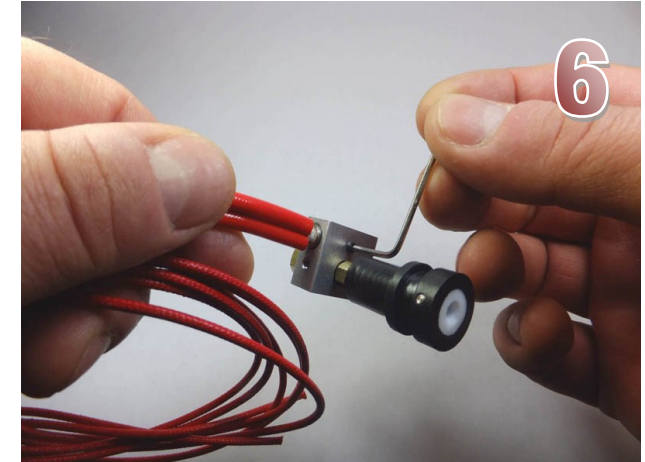
Screw on nozzle. Use two wrenches as shown here. Apply necessary torque to establish tight connection between barrel and nozzle, to prevent leakage.



After nozzle tightened on the barrel, unscrew heater block until it touches nozzle. This is correct operating position of the heater block.

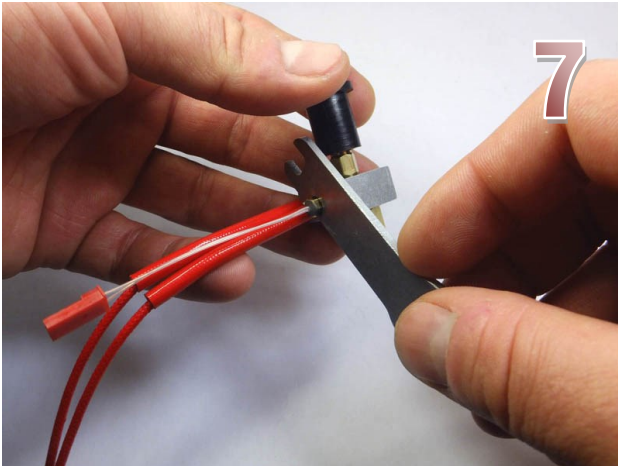


Secure position of the heater block on the barrel using M3 x 6 setscrew. This will prevent heater block from twist during nozzle changes.

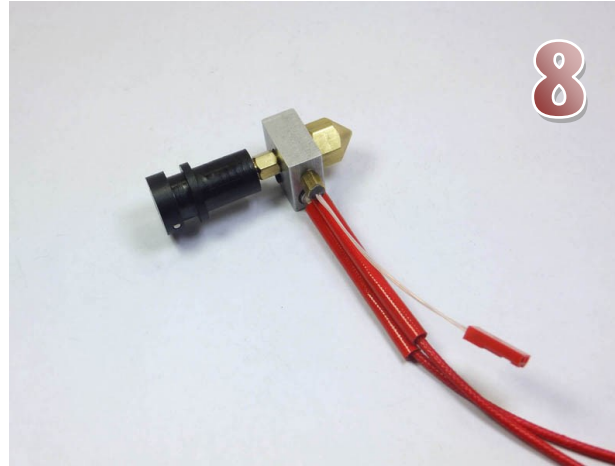


Insert cartridge heater and secure its position with M3 x 3 setscrew.





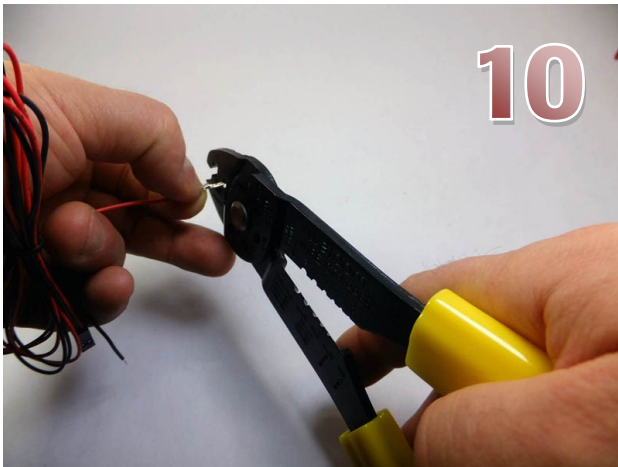
Screw on thermistor to the heater block before connecting wiring to it.



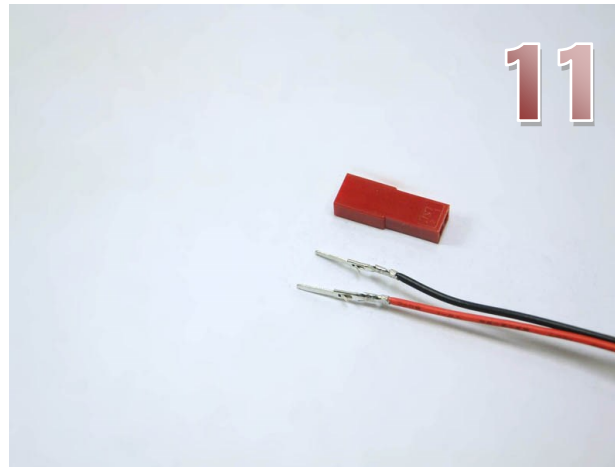
Assembled MG Plus should look similar to one pictured here. Always disconnect thermistor wiring before screwing on and off modular thermistor. This will prevent delicate thermistor leads from twist.



Prepare crimp tool or pliers, wiring and male JST connector for next operation. Actual color of wiring and connector may be different.



Use crimp tool or pliers to permanently attach two JST male crimp-on pins on two thermistor cable wires.



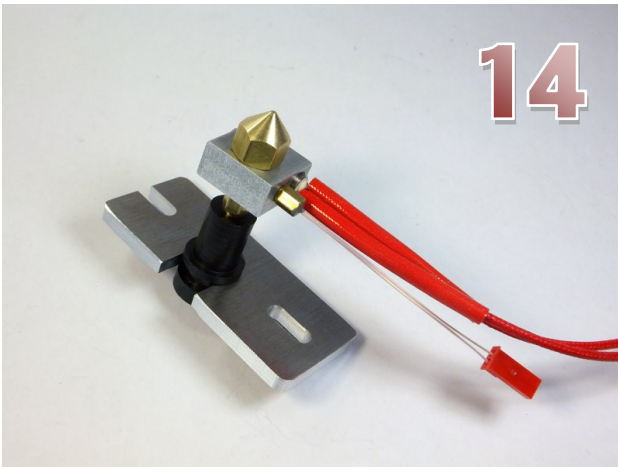
Insert crimped pins with attached wires into JST connector housing. Thermistor is not polarized, color of the wires and orientation of the pins in relation to the key on JST housing does not matter.



Result of previous operation should look similar to one pictured here.



MG Plus assembled with attached thermistor cable should look like one pictured here. Connector color and wiring color could be different.



MG Plus assembled with optional aluminum mounting plate is show here. Aluminum plate purchased separately.

