Website: https://www.idig3dprinting.co.uk
email: support@idig3dprinting.co.uk

UPBOX Filament Feed Problems

Sometimes your ABS may not get extruded correctly from the extrusion head of the up box. This can be cause by a number of issues ranging from a blocked nozzle to a clogged gear wheel to hotend z height settings and poor filament quality.

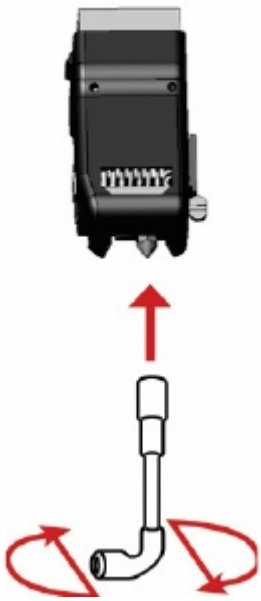
The aim of this document is to talk you through some of those issues and how you may go about trying to resolve them.

IMPORTANT: Before you start make sure you have read the instructions manual fully and familiarise yourself with the parts of your 3D printer

Step 1: Is the Nozzle Clogged?

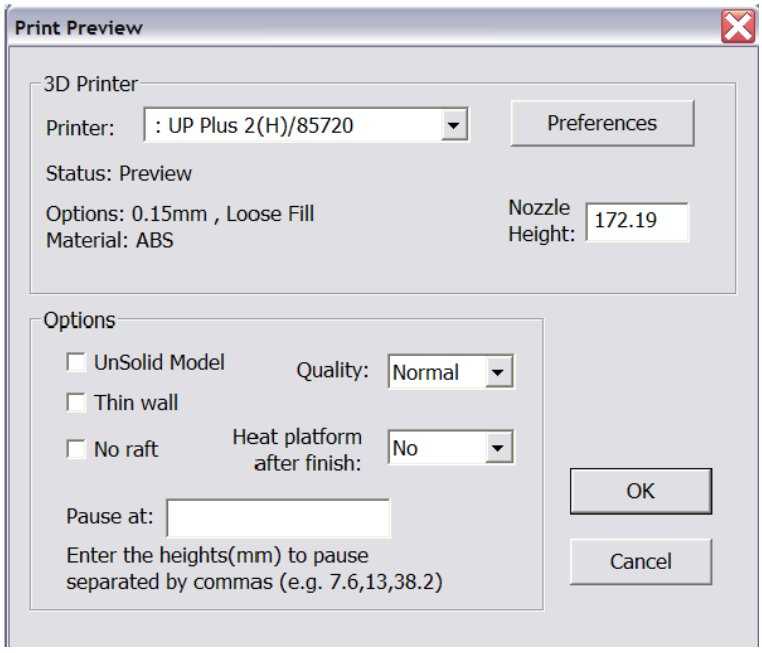
(Replacement nozzles can be purchased from the website (https://www.idig3dprinting.co.uk/shop/pp3dp/replacement-up-nozzle/)

a. Do a withdraw and once the nozzle is over 240c.
b. Remove the Nozzle.
c. From 3D PRINT > MAINTENANCE on the UP software, select EXTRUDE and see if the ABS
extrudes OK, if it does you know the issue is with the nozzle.
d. Clean the nozzle as per the instructions in the user guide, for best results you acetone.
e. Replace the nozzle.



Step 2: Check the Nozzle Height

a. Reset the platform and nozzle heights using the sensor units.
b. If the printer still will not feed the ABS / PLA. Try doing the following:- when getting ready to
print reduce the nozzle height slightly. Say by 0.10mm in the case below the would be 172.19 to 172.09



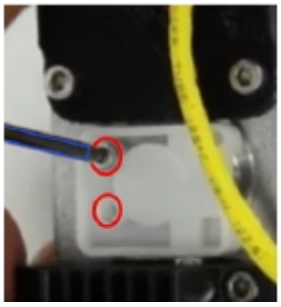
c. If you are printing at 0.10mm resolution, try 0.20mm resolution and see if this helps

d. Is the feeder unit stepper motor turning? if not the upper ribbon may not be located correctly in its 2 x sockets
e. If stepper motor turning is not turning, there could be a broken wire in the ribbon cable, therefore you could try inverting the ribbon cable

Step 3: Check the Feed Gear

a. "Withdraw" the filament from the print head once it has reached over 240C.
b. Wait for the head to cool.
c. Unplug the 16 pin ribbon cable connector from the feeder unit.
d. Detach the feeder unit from the Up Box (Magnetic connection).
e. Unplug the cooling fan.
f. Gripping the stepper motor body in your right hand, carefully pull the Black ABS cover to the left with your left hand to remove it from the stepper motor.

g. Remove the 2 x small Allen screws that hold the white plastic moulding over the feed gear and bearing.



h. Clean out the ABS debris in the gear teeth and white plastic moulding.

i. Ensure that the arced / Straight feeder tube in to the feeder unit is clear of ABS / PLA deposits.
j. Remove the 2 x Allen screws holding the heat sink to the stepper motor, to release the metal feed tube attached to the heater and sensor unit. Ensure its it clear of ABS deposits
k. Re assemble in reverse order and test extrude ABS

Step 4: Check the diameter of your filament

Not all filaments are made the same> check your filament diameter with vernier calipers, it should be 1.75mm +/- 0.1mm.