



Remove a Filament Jam from Splice Core

This guide will show you 3 different ways to remove a jam from your splice core without needing to replace your splice tube.

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INTRODUCTION

What Causes Splice Jams?

Inconsistent diameter filament.

- To avoid this we ask that you measure filament at a few points before using it with your Palette. Any filament used with your Palette 2 should have a diameter in the range of 1.72 mm-1.78 mm.

Incorrect splicing values for the material/filament brand being used.

- Palette creates splices by using a combination of heating, cooling, and compressing of filaments. We recommend using the Splice Tuning feature anytime you introduce a new filament brand or material for use with your Palette.
- Please refer to our Splice Tuning guide [here](#).

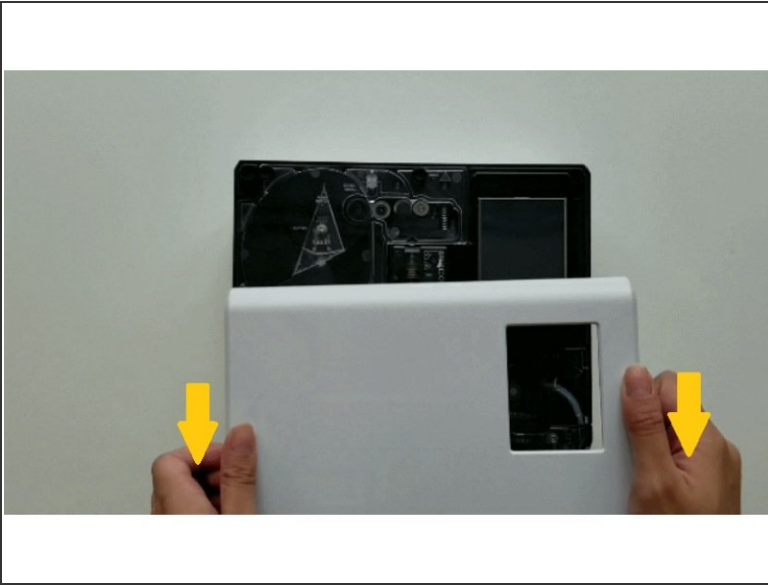
If you find that a jam has occurred, we would suggest trying the following methods to clear the blockage.



TOOLS:

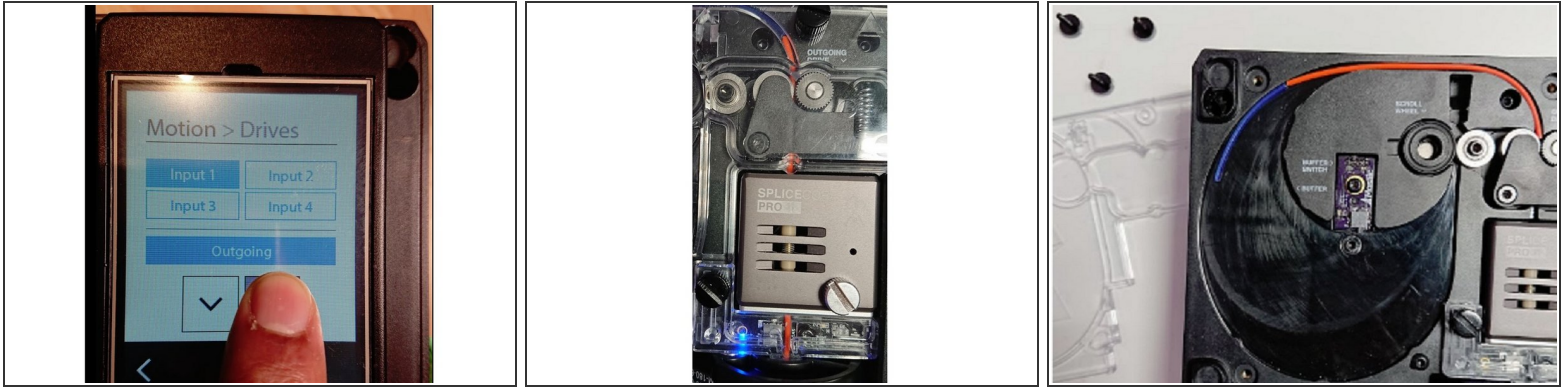
- [Torx Screwdriver](#) (1)
 - [Pliers](#) (1)
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Step 1 — Clear Output



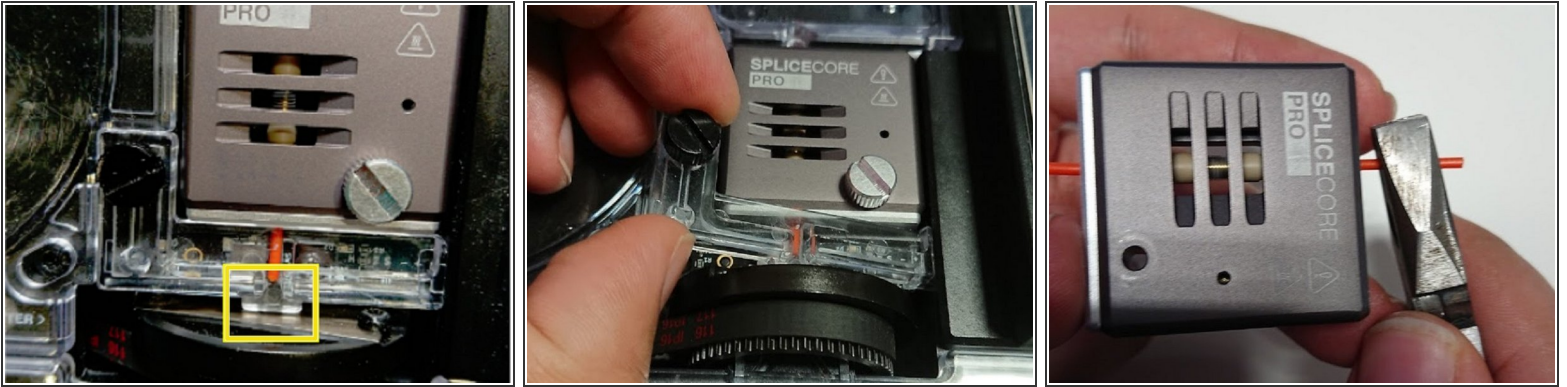
- Remove the top lid by gently lifting from the sides.
- Turn on Palette 2 and select *Controls > Clear Output*
- Palette 2 will cut, retract inputs, and then push filament automatically through the outgoing drive.
- Remove the outgoing tube to pull the previously jammed filament out. Select Finished once the filament has been unloaded.
- If this has not removed your splice jam then please continue to the next step.

Step 2 — Motion Control



- On Palette's screen, select *Controls > Motion > Palette > Drives*. Highlight *Input 1* and *Outgoing*.
- Insert filament into input 1 of your Palette. Hold the up arrow to advance filament towards your splice core. In our example, we are using an orange filament to drive out a jam of translucent blue filament. Continue driving the filament until it reaches past the outgoing drive.
- If during this movement you hear the ingoing stepper motor skipping, please press the down arrow to reverse the filament back out of input 1. Continue to the next step.
- Once your filament has pushed out the filament jam or other debris, continue driving input 1 until it reaches past the outgoing drive to ensure that the filament path is clear. This also allows you to easily pull the filament from Palette's outgoing opening.
- Select the Down arrow to reverse the filament back out of your Palette. You can also select *Back* on Palette's screen to access the *Clear Output* function. This will cut your input 1 filament and allow you to pull this out from the outgoing opening of Palette.
- If needed, remove the 3 thumbscrews securing the cover over the buffer area to remove the previously jammed filament out along with any additional filament used to push it out from input 1. If this has not removed your splice jam, please follow the next steps.

Step 3 — Splice Core



- Turn Palette off and rotate the cutter wheel so that one of the screws securing the blade is visible and the plastic notch highlighted in red can be seen. This will allow you to easily remove the acrylic homing switch cover.
- Remove the thumbscrew securing the homing switch acrylic and lift it off.
- Loosen the thumbscrew securing the Splice Core. Remove by lifting the bottom of the Splice Core and lifting it towards the ingoing drives of the Palette.
- With the Splice Core now removed, attempt to free the filament by pulling from both ends. If the filament is still stuck, use a tool (such as a pair of pliers) to grip the filament. While holding onto the Splice Core, attempt to pull the filament out to clear the jam.
- If you find that you were still unable to remove the splice jam through the above methods, we recommend replacing your splice tube following our guide [here](#).

If you have any additional questions, please send us a message at support@mosaicmfg.com.