

MSM - Micro Zapper - Fitting

Introduction

The Micro-Zapper is a very useful addition to your MSM. These instructions explain the fitting of the parts which make up your Micro-Zapper.

Tools/ Preparation required

Parts

The picture below shows the parts which make up the Micro-Zapper kit. Parts 2 and 3 are optional. These are only supplied if fitting to an MSM which does not have the required connections. If fitting to an MSM400 which does have the correct connections a separate power supply lead will be supplied (not shown in picture)

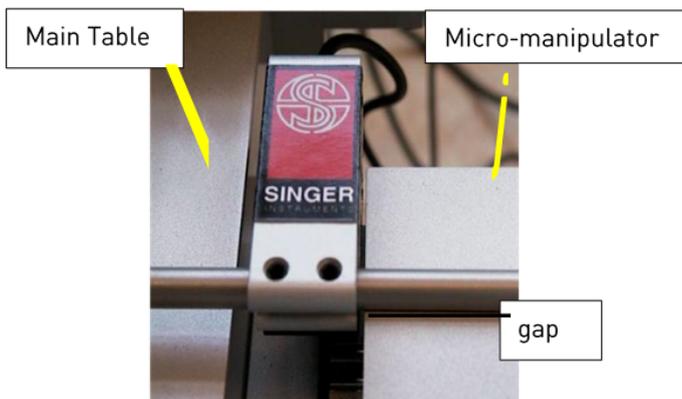
1. Hex key (Allen Key)
2. Main power cable – Optional
(country specific)
3. Power supply – Optional
4. Micro Zapper Actuator
5. Pneumatic pad
6. Control box



Procedure

The tool-holder and needle should be in place on the MSM. The needle should be vertical and focused. Make sure that the black tool-holder clamp is tight

The actuator head is shown fitted to the tool-holder in the photos below.



Actuator Head fitted to the Tool Holder



Tighten screws

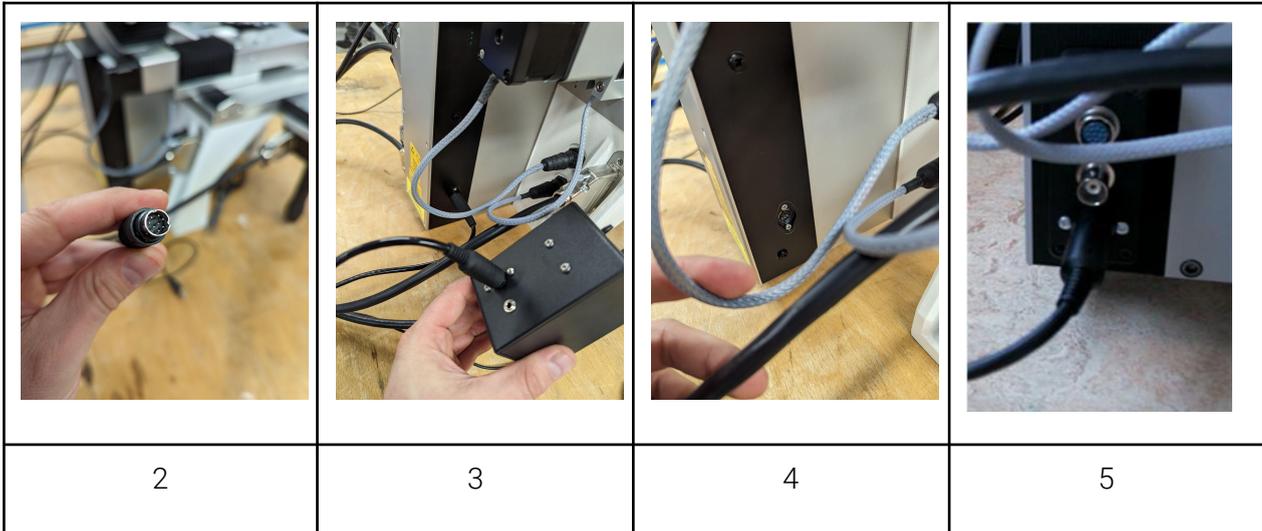
Tighten the screws of the Actuator with the hex-key provided. Make sure that the body of the Actuator is horizontal.

Important: The Actuator must fit into the gap between the Micro-Manipulator and the Microscope main body. It **must not** touch the Micro-Manipulator or overhang the edge of the Microscope main table or it will not work properly. i.e. The Micro-Zapper should not be touching any parts of the body of the MSM



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1. Enter the angled foot on the Control Box into the top of the slotted main unit rear leg as shown



2. The power connector plug attaches to the Control Box
 3. The power connector plugged into the Control Box
 4. Location of the power connection on the Backpack
- Note: If using a power supply and cable the connector is attached to the power supply**
5. The power connector plugged into the Backpack
 6. Pass the Actuator Lead below the motor to the back of the MSM and plug it into the Control Box.
 - 6.1. Check that the Actuator Lead is clear of moving parts



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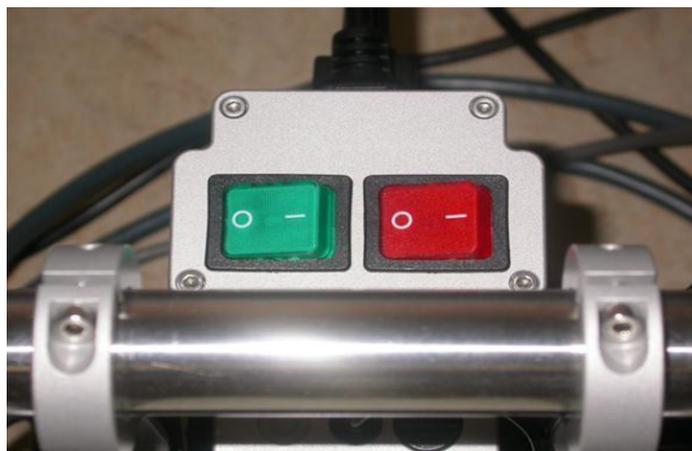
To make the Pneumatic Pad more sensitive, disconnect the tube at the Control Box, and blow into the tube lightly inflating the pad. Tightly bend the tube to prevent leakage and reconnect to the Control Box



If using a separate power supply connect the main power cable to the power supply and then plug it into a main supply outlet.

Alternatively, the Red Switch activates the MSM including the Micro-Zapper and the Green switch activates the MCI (Touchscreen computer) and mains-operated accessories.

Note: The Power Supply shown below is discontinued. If you are experiencing power supply issues please contact technicalsupport@singerinstruments.com



Positioning the Pneumatic Pad in a convenient position under the Micro-manipulator often works well as shown.



The Actuator should continuously oscillate at about 10Hz. The Micro-Zapper is ready to use. Check that fitting the Actuator has not moved the needle tip. If necessary readjust the Actuator and needle.

- To separate Ascospores, actuate the Micro-Zapper at the same time move the needle across the agar.
- To drop Ascospores from the needle, vibrate the needle with the Micro-Zapper and then dab the tip of the needle into the agar.

Conclusion

We hope that this explanation will assist you in performing the above procedure. If you need further assistance do not hesitate to contact the Technical Support Team at Singer Instruments.

Contact Information

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