

siskiyou MC1000e-1 Motion Controller System User Manual

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MC1000e-1 Motion Controller System



User's Manual For MC1000e-1

Motion Controller



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Maintenance and Service Information

There are no user serviceable parts inside the controller. In the event of the need for service, call Siskiyou Corporation and ask to speak with technical support. If the problem cannot be solved through telephone or email communication, an RA number will be provided to return the unit to Siskiyou Corporation.

Please call, email, or fax in your questions to Siskiyou Corporation at:

Telephone (toll free): 1-877-313-6418

E-Mail: service@siskiyou.com

Facsimile: 1-541-479-3314

For a mailing address, refer to page 8.

Product Warranty

Siskiyou Corporation products carry the following warranty, effective for a period of one year from the original invoice date unless otherwise stated in the product literature:

- Siskiyou Corporation products will be free of defects in material and workmanship.
- Siskiyou Corporation products will meet the specifications stated in this catalog.

If you find any defects in material or workmanship, or a failure to meet specifications within the warranty period, return the product to us clearly marked with a Return Authorization (RA) number and we will either repair or replace it at our discretion. Call our toll free telephone number and ask for the service department to request RA numbers.

Our warranty excludes products that have been improperly installed or maintained, modified or misused. Notification of claim must occur within the warranty period. Siskiyou Corporation's liabilities are limited as set forth

in our STANDARD TERMS AND CONDITIONS, copies of which are available upon request.

Siskiyou Corporation products unused and undamaged may be returned to Siskiyou Corporation within 30 days of the initial invoice date (60 days outside of the US), but are subject to a 25% restocking fee.

Warranty Repairs

Before shipping a part to Siskiyou Corporation, a Return Authorization (RA) number must be obtained by calling our service department at our toll free telephone number. The product must be shipped prepaid in the original or equivalent packing with the RA number clearly marked on the outside of the box. Pack carefully to prevent damage. Place actuators, stages, manipulators, and controllers in a clean plastic bag to prevent contamination from packing materials. Siskiyou Corporation cannot be responsible for any damage occurring in transit to us. Products are not accepted without a Return Authorization number on the outside of the shipping carton.

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www.siskiyou.com Phone: 1-541-479-8697

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Introduction:

This manual describes the operation of Siskiyou's Model MC1000e-1 single axis motion controller.

Specifications:

Input Power Requirements: 90-264VAC, 47-63Hz

via included power supply adapter

Output: 18VDC / 2.5A

Inspection / Items Included:

Siskiyou products are shipped in sturdy, cushioned boxes. Please inspect the instrument immediately and notify the carrier if damage is obvious. Remove all items from packing materials and confirm that all items listed in the table below are available.

DESCRIPTION QUANTITY

MC1000e-1 SINGLE AXIS PUSH BUTTON CONTROLLER 1
POWER SUPPLY ADAPTER 1
POWER CABLE 1

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Description:

The MC1000e-1 is a simple push-button controller with submicron positioning capability that is compatible with our RSAi, 100cri, 200cri, 800 and 7000 series actuators, manipulators, and stages.

The MC1000e-1 controller has two preset speed settings: rapid (1.7 mm/second) and medium (300 $\mu\text{m}/\text{second}$). The third speed selector (slow) has a variable 330° potentiometer that enables settings from high speed (50 $\mu\text{m}/\text{second}$) to low speed (2 $\mu\text{m}/\text{second}$). With the speed selector set at the slowest settings consistent 0.2 μm moves are easily made by the simple bump of an axis button. The controller uses encoder feedback from the motor to drive the device. This encoder coupling enables the use of the DR1000 digital readout for repeated positioning requirements.

The MC1000e-1 uses a universal switching power supply adapter as its source for clean DC power. All cables are shielded and a central ground lug is located on the junction box to ensure noise-free operation during sensitive electrophysiology experiments.

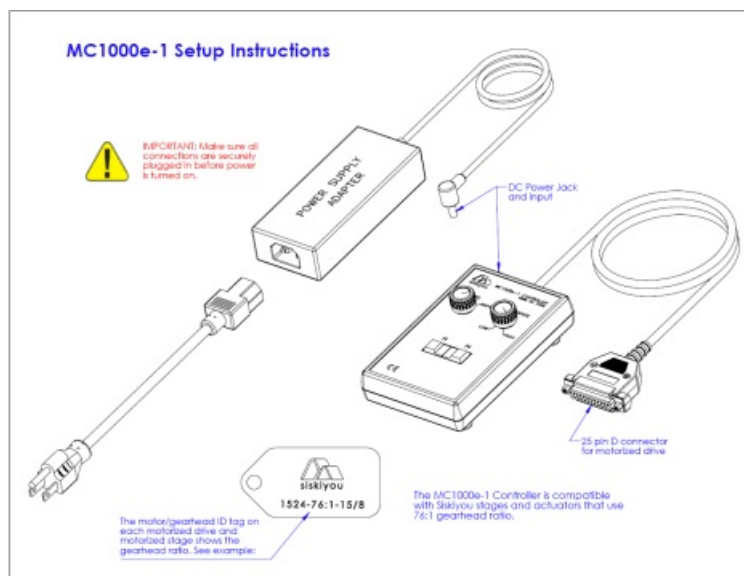


Figure 1: Interface

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Installation:

CAUTION: MAKE SURE ALL CONNECTORS ARE SECURELY PLUGGED IN BEFORE POWER IS TURNED ON. DO NOT REMOVE CONNECTORS WHILE POWER IS ON. FAILURE TO DO SO CAN RESULT IN A SHORT CIRCUIT AND PERMANENT DAMAGE TO THE SYSTEM.

To install the MC1000e-1, please refer to Figure 1: Interface or the supplied set up instructions.

It is advised to place the controller away from the experiment area. Any liquid that may come in contact with the controller can cause permanent damage to the system. Attaching a ground wire to the ground lug supplied at the power jack on the top of the controller, the users helps prevent damage from static shock and to ensure noise-free operation while in use.

Interface:

Controller

The two push button switches located on the face of the controller are used to control the motor drive in both the positive and negative direction.

Slow/Med/Rapid: This knob is used to change the speed of the motor drive. It has three different speeds: slow, medium, and rapid.

The MC1000e-1 controller has two preset speed settings: rapid (1.7 mm/sec) and medium (300 $\mu\text{m}/\text{sec}$).

Slow Range: The slow range knob is used during the slow speed of the Slow/Med/Rapid knob. The Slow Range knob has a variable 330° potentiometer that enables settings from high speed (50 $\mu\text{m}/\text{sec}$) to low speed (2 $\mu\text{m}/\text{sec}$). With the speed selector set at the slowest settings, consistent 0.2 μm moves are made by a bump of the axis button.

Operation:

When the MC1000e-1 has been correctly installed, the user can begin use of the system. The operation may be bench tested prior to installing the unit to an experiment.

When the user presses the right(forward move) or left(reverse move) button the motor drive that is plugged into the 25 pin D-sub connector will move. The speed will be based on the setting selected from the 3 position speed selection knob.

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Related Products:

Switching Box



ABCD switching box allows control of one to four 4-axis micromanipulators by one controller. The basis of the design is simple and requires only an extra controller junction box for each added micromanipulator or motor drive group (up to four per group). Junction boxes must be purchased separately.

Digital Readout



The DR1000 Digital Readout provides an accurate, highly visible display for axis position. The digital readout may be installed on any of our e series controllers and is connected in series via a double-sided connector between the controller junction box and the device D connector.

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EU Declaration of Conformity

In accordance with EN 45014: 1998

Manufacturer: Siskiyou Corporation

Address: 110 SW Booth Street

Grants Pass, OR 97526-2410

USA

Declare that:

Equipment Motion Controller

Model Name/Number MC1000e Series

Serial Number N/A

In accordance with the following directives:

2014/35/EU The Low Voltage Directive and its amending directives

2014/30/EU The Electromagnetic Compatibility Directive and its amending directives

2006/42/EC The Machinery Directive and its amending directives

2015/863/EU Restriction of use of certain hazardous substances (RoHS-3)

I hereby declare that the equipment above has been designed and found to comply with the relevant sections of the above referenced specifications. The unit complies with all essential requirements of the Directives.

Signed by:



Name: John Wingerd

Position: Engineering

Place: USA

Date: February 15, 2019



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Contact Information

Mailing Address

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Sales and Service



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webmaster@siskiyou.com


International

please call or visit our website for international contacts

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www.siskiyou.com Phone: 1-541-479-8697

Documents / Resources

	<p>siskiyou MC1000e-1 Motion Controller System [pdf] User Manual MC1000e-1, MC1000e-1 Motion Controller System, Motion Controller System, Controller System, System</p>
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References

-  [SISKIYOU Corporation Home](#)