



# MSD<sup>®</sup> Reader Safety Guide



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# 1 Introduction

MSD develops, manufactures, and markets innovative and high-performance instruments, assays, and software for single and multiplex measurements of analytes within biological samples. MSD's products and services include a range of instruments, ready-to-use assay kits and consumables, and assay development and sample testing services.

For more details and information about MSD products and applications, please visit MSD's [www.mesoscale.com](http://www.mesoscale.com)® website.

## 1.1 Intended Audience

The intended audience of the *MSD Reader Safety Guide* is all users of the MESO® SECTOR S 600MM, MESO QuickPlex® SQ 120MM, and MESO QuickPlex Q 60MM instruments. This document should also be reviewed by customer safety and regulatory personnel. This guide organizes regulatory and safety-related information for the MESO SECTOR® S 600MM, MESO QuickPlex SQ 120MM, and MESO QuickPlex Q 60MM instruments into one document. In addition, this guide lists supplemental information that is critical for users to understand in order to properly operate the system without causing damage and to ensure data are properly generated and stored. Information regarding how to use each of these instruments can be found in the instrument user guides.

## 1.2 How to Use This Guide

This guide is organized by chapters containing main topics and subsections. Use the hyperlinked Table of Contents to find topics of interest quickly.

### Notes

Symbol 

Notes provide supplemental information on the proper use of the instrument and its software.

## 1.3 Formatting Information

This guide uses the following formatting conventions:




- Internal hyperlinks are formatted **bold/gray**. Click to move instantly to the referenced section or figure.
- External hyperlinks are formatted underlined/blue. Click to create an email message or open an external web page.
- When information applies to specific instruments, the phrase "Applies to" will appear along with the applicable instrument.

## 1.4 Warning and Caution Symbols

### 1.4.1 WARNING


General warnings advise operators of potential hazards and highlight the procedures or information necessary to avoid personal injury during use of the instruments. Table 1.1 contains examples of some of the warning symbols used in this document.

**Table 1.1 Examples of warning symbols and their meaning**

Symbol	Explanation
	Risk exists for a mechanical, chemical, or safety hazard
	Risk exists for an electrical hazard
	Risk of exposure to biohazards

### 1.4.2 CAUTION










A caution note, such as the example provided below, highlights procedures or information necessary to avoid damage to equipment, corruption of software, loss of data, or invalid test results.













 **CAUTION:** Carefully read and understand all information in this document. Failure to read, understand, and follow the instructions in this publication may result in damage to the product, injury to operating personnel, or poor instrument performance.

### 1.4.3 Symbols and Labels

Table 1.2 defines the symbols found in this document and on the instrument and instrument labels.

**Table 1.2 Symbols and labels**

Symbol/Label	Description
 <b>WARNING</b>	Warning messages are highlighted with this symbol and the word WARNING in red. They advise operators of potential mechanical or other hazards and highlight the procedures or information necessary to avoid personal injury.
 <b>CAUTION</b>	Caution messages are highlighted with this symbol and the word CAUTION in red. They highlight procedures or information necessary to avoid damage to equipment, corruption of software, loss of data, or invalid test results.
	This warning symbol indicates a potential electrical hazard.
 	These symbols indicate a risk of exposure to biohazards.
<b>CLASS 1 LASER PRODUCT</b>	This symbol indicates this is a Class 1 laser product. Applies to the MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM
	This warning symbol indicates a pinch hazard exists. Applies to the MESO SECTOR S 600MM
 	These symbols indicate the presence of a rated fuse. Only MSD Service Engineers should access electrical fuses. Applies to the MESO SECTOR S 600MM
	This symbol indicates the instruments and the electronic test plates are electrostatic sensitive devices.
V	This symbol indicates a measurement or requirement in volts.
A	This symbol indicates a measurement or requirement in Amperes, often referred to as Amps.

Symbol/Label	Description
	This symbol indicates electric current is in the form of alternating current (AC).
	This symbol indicates electric current is in the form of direct current (DC).
	This symbol indicates placing a toggle switch in this position will place the instrument in a powered-on state.
	This symbol indicates placing a toggle switch in this position will place the instrument in a powered-off state.
	This symbol, located on the front of the UPS, indicates pressing this button will change the power state of the system. Pressing this button when the system is powered off will connect power to the system. Pressing this button when the system is powered on will disconnect power to the system.
	This symbol marks the location of the USB I/O Port on the instrument.
	This symbol marks the location of the External Stop or Halt Control I/O Port. Applies to the MESO SECTOR S 600MM
	The European Conformity Marking indicates that the device complies with the essential requirements of the relevant European health, safety, and environmental protection legislation, which includes compliance with the European Directive Restriction of Hazardous Substances (RoHS) 2011/65/EU, as amended.
	The WEEE symbol above a horizontal bar indicates this product was placed on the market after 2005 in compliance with European Union (EU) directive 2012/19/EU, the Waste Electrical and Electronic Equipment (WEEE) Directive.
	The SGS System Certification Mark, or “Q-mark”, is issued by the Société Générale de Surveillance. It indicates an accredited certification body has tested this instrument for electromagnetic compatibility (EMC) and safety. This product is certified in the United States and Canada. The SGS contract number for Meso Scale Diagnostics, LLC. is 800052.
	The China Ministry of Industry and Information Technology requires this logo. The logo indicates the environmental protection use period of this instrument, in accordance with Order No. 32 (Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products). This product contains certain hazardous substances and under normal operating conditions can be used safely, without harm to the user or to the environment from these substances, for 50 years from the date of manufacture.
	This Regulatory Compliance Mark (RCM) is required by the Australian Communications and Media Authority (ACMA). It indicates this instrument complies with all applicable ACMA regulatory arrangements, and the instrument meets the regulatory requirements necessary for shipment to the Australian market.

# 2 Safety and Regulatory Information

## 2.1 Regulatory and Safety Certifications

The MESO SECTOR S 600MM, MESO QuickPlex SQ 120MM, and MESO QuickPlex Q 60MM instruments have been tested to comply with applicable regulatory standards; the instruments carry the SGS System Certification and CE marks.

Regarding EN 61326-1: 2013 Electrical Equipment for Measurement, Control, and Laboratory Use – EMC Requirements:

The instruments are designed for operation in a controlled electromagnetic environment. Transmitters of RF energy such as mobile telephones may not be used in close proximity.

Regarding FCC Rules, Part 15, Subpart B, a Class A digital device:

The instruments have been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. The equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the user guides, may cause interference in which case the user will be required to correct the interference at his own expense.

Regarding Industry Canada Interference-Causing Equipment Standard:

This Class A digital apparatus complies with CAN ICES-001(A).

Cet appareil numérique de la Classe A est conforme à la norme NMB-001(A) du Canada.

Contact MSD **Scientific Support** with inquiries about the regulatory compliance of MSD instrumentation.

## 2.2 Laser

The MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM instruments are classified per CFR Title 21 part 1040.10 and part 1040.11 as Class 1 laser products with built-in barcode readers. The built-in barcode readers are classified as Class 2 lasers, but because they are within the instruments and not accessible to customers, the MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM instruments are classified as Class 1 laser products. The MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM instruments are also classified as Class 1 in accordance with IEC 60825-1:2014.

The MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM instruments comply with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

## 2.3 WEEE Compliance

The MESO SECTOR S 600MM, MESO QuickPlex SQ 120MM, and MESO QuickPlex Q 60MM instruments were placed on the market after 2005 in compliance with European Directive 2012/19/EU, Waste Electrical and Electronic Equipment (WEEE).

For all inquiries regarding the recycling of shipping materials and disposal of the instrument, contact MSD **Instrument Service**.

## 2.4 Hazardous Substances

In accordance with People's Republic of China Order No. 32 of the Ministry of Industry and Information Technology (Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products), MSD has designated an environmental protection use period of 50 years for the MESO SECTOR S 600MM, MESO QuickPlex SQ 120MM, and MESO QuickPlex Q 60MM instruments when used under normal operating conditions.

**Table 2.1 MESO SECTOR S 600MM Hazardous Substances**

Part Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Motion control system	X	0	0	0	0	0
Plate contact mechanism	X	0	0	0	0	0
Plate stacker assembly	X	0	0	0	0	0
Main control board	X	0	0	0	0	0
Cable assemblies	X	0	0	0	0	0
Printed circuit boards	X	0	0	0	0	0

This table was prepared in accordance with the provisions of SJ/T 11364.  
 0: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.  
 X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

**Table 2.2 MESO QuickPlex SQ 120MM Hazardous Substances**

Part Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Motor with pulley	X	0	0	0	0	0
Contact board	X	0	0	0	0	0
Cable assemblies	X	0	0	0	0	0
Printed circuit boards	X	0	0	0	0	0

This table was prepared in accordance with the provisions of SJ/T 11364.  
 0: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.  
 X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

**Table 2.3 MESO QuickPlex Q 60MM Hazardous Substances**

Part Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Motor with pulley	X	0	0	0	0	0
Contact board	X	0	0	0	0	0
Cable assemblies	X	0	0	0	0	0
Printed circuit boards	X	0	0	0	0	0

This table was prepared in accordance with the provisions of SJ/T 11364.  
 0: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.  
 X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.



# 3 General Operation and Hazards

## 3.1 General Operation

In order to read an assay plate, the instrument's CCD camera must first be cooled to the appropriate temperature. For the instrument to begin cooling the CCD camera, the Methodical Mind™ software must be running and communicating with the instrument. The Methodical Mind software will connect to the instrument, set the camera temperature, and maintain the CCD camera temperature at the appropriate setpoint. Each instrument requires different amounts of time for the CCD camera to cool and equilibrate to the required set point.

Power on the instrument and wait one minute to ensure the computer detects the instrument's USB connection. Power on the instrument's computer, and log in to Windows. Methodical Mind will automatically start. Wait the typical amount of time as shown in Table 3.1 to allow the instrument's CCD camera temperature to equilibrate before reading a plate:

Table 3.1 CCD Camera Cooling Times

Instrument Name	Typical Cooling Time
MESO SECTOR S 600MM	35–45 minutes
MESO QuickPlex SQ 120MM	15–25 minutes
MESO QuickPlex Q 60MM	5–10 minutes

**NOTE:** If the Methodical Mind software is closed, the MESO SECTOR S 600MM, MESO QuickPlex SQ 120MM, and MESO QuickPlex Q 60MM instruments will maintain the CCD camera temperature. If the MESO QuickPlex Q 60MM's laptop is shut down or restarted, CCD camera cooling may be disrupted. Power on the instrument's computer and log into Windows to restart CCD camera cooling.

**WARNING:** The instrument must be operated with all covers in place. If the unit is operated in any manner not specified in this guide, the protection provided by the equipment may be impaired.

**CAUTION:** MSD instruments are tested with specific models and configurations of computers and cables. Do not attempt to operate the instrument with a computer or cable that has not been supplied by MSD. Do not attempt to modify the computer supplied with the instrument.

**CAUTION:** USB devices should not be connected to or disconnected from the instrument's computer system while plates are being read.

**CAUTION:** Changes to the computer clock can cause a system error if the changes are made during a plate read. A system error may also occur if a plate is being read when the time is automatically changed from standard to daylight savings time or vice versa.

**NOTE:** MSD instruments should be operated in a dust-free environment below an altitude of 6,500 ft (2,000 m) with an ambient temperature between 20 °C and 26 °C and humidity levels between 10 % and 80 % (non-condensing). Environments or locations with high levels of vibration should be avoided. See the user guide for each instrument for complete environmental specifications.

**CAUTION:** Keep the instrument away from direct sources of heat or cold and direct or indirect sunlight. Ensure that the rear and side cooling vents are not blocked.


**CAUTION:** Do not place any objects, materials, or liquid containers on top of the instrument or computer.


**CAUTION:** Falling objects or splashing liquids, including chemically reactive or infectious reagents, can cause damage to the instrument or cause injuries. Avoid handling or storing infectious or radioactive materials near the instrument.


## 3.2 Software and Operating System Compatibility


Computers supplied with MSD instruments have not been tested for compatibility with programs and hardware not supplied with the system. Installation of additional software, hardware, or drivers may interfere with the functionality of the Methodical Mind software, connectivity to the instrument, or connectivity to the Methodical Mind cloud. If additional software, hardware, or drivers must be installed, close all Methodical Mind software modules, perform the installation, and verify the operation of the Methodical Mind software and the instrument after restarting the computer.


Automatic updates to the Microsoft Windows operating system and other software can potentially affect the operation of the Methodical Mind software. For the Microsoft Windows operating system, configure automatic updates to notify the user for installation or schedule updates to install automatically when the system is not in use. When the update is complete, restart the computer and verify the system operates properly. In addition, updating hardware drivers can overwrite tested hardware drivers with incompatible drivers. Contact MSD before updating any hardware drivers.


 **CAUTION:** To prevent the computer from automatically restarting while a run is in progress, configure automatic updates to notify the user for installation or schedule to install automatically when the system will not be in use.


 **CAUTION:** Do not configure automatic updates to install new hardware drivers. Updating hardware drivers could cause the system to stop working properly. Contact MSD Scientific Support before updating any drivers.

 **NOTE:** Once a computer is joined to the company network, updates to the operating system are usually managed by the company IT department. Consult the company IT department to configure the group policies for automatic updates.

 **CAUTION:** Installation of additional software on the computer system used to operate the instrument is not supported. Specifically, updating aspects of the operating system or installing any software that changes parameters of the computer environment could interfere with the proper operation of the Methodical Mind software and connectivity to the instrument.

 **CAUTION:** If network-security software is installed, ensure Methodical Mind is not blocked from communicating to the Methodical Mind Cloud. Methodical Mind software requires internet connectivity to the methodicalmind.com™ and amazonaws.com websites through your organization's firewall by enabling the \*.methodicalmind.com and \*.amazonaws.com domains through TCP port 443. (The entire domain must be enabled. The asterisk denotes a wildcard character. Some firewall devices may require a different format to enable the entire domain.)

 **CAUTION:** Use of other applications while plates are being read may interfere with system performance. The use of operating system power features that disable USB and network communication will cause the system to stop responding.

 **CAUTION:** The Methodical Mind software reads from and writes to specific directories when running. Software that scans for viruses, malware, and spyware can interfere with the operation of the instrument and the Methodical Mind software. Scanning software can be configured to avoid scanning the following directories:

C:\Program Files (x86)\Methodical Mind\  
C:\Program Files (x86)\Microsoft SQL Server\MSSQL12.MMDB\  
G:\MSDIDC\

## 3.3 Hazards

This section contains notices and warnings of hazards and should be read carefully. Before working with the instrument, become familiar with all safety precautions and regulations concerning the handling of materials and the instrument's electrical and mechanical components. Operating this device in a manner not specified by the product documentation may impair the electrical and thermal protection provided by the equipment.

As with most laboratory instruments, MSD instruments present certain hazards for users. There are six key types of hazards:

- Electrical
- Chemical and biological
- Visual (Applies to the MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM)
- Mechanical
- ESD sensitivity
- Electromagnetic interference and susceptibility



Figure 3.1 MESO SECTOR S 600MM Hazards



Figure 3.2 MESO QuickPlex SQ 120MM Hazards



Figure 3.3 MESO QuickPlex Q 60MM Hazards

### 3.3.1 Electrical Hazards

MSD instruments have been designed and tested for compliance with appropriate electrical safety standards.

**⚠ WARNING:** For best performance, remove any sample or reagent spillage from the instrument. For safety, the operator should power down the instrument and disconnect the instrument's power cord prior to cleaning near moving parts. For significant spills or liquid intrusion into the instrument's enclosure (e.g., resulting from a fire protection water sprinkler), contact MSD Instrument Service.

**⚠ WARNING:** Intrinsic safety testing has not been performed on MSD instruments. Accordingly, MSD instruments must not be operated in hazardous (classified) atmospheres as defined by the National Fire Protection Association and the National Electric Code or other applicable local regulations.

**⚠ WARNING:** MSD instruments contain high voltage. Disconnect the instrument from its power source before changing a fuse, moving the instrument, or connecting/disconnecting any cable.

**⚠ WARNING:** The MESO SECTOR S 600MM instrument contains AC and DC voltages and uses an internal 24 volt DC power supply. The MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM instruments contain DC voltages and use an external 24 volt DC power supply. Never remove any instrument covers, as this will expose electrical circuits. Only authorized service personnel should perform repairs to the interior of the system.




Figure 3.4 On and Off symbols

When the power switch of the MESO SECTOR S 600MM is in the Off position (See Figure 3.4), all internal electrical circuits are disconnected from both the live and neutral lines of the electrical power source.

When the power switch of the MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM is in the Off position (See Figure 3.4), some voltage is still present on internal circuitry. To completely de-energize the instrument, disconnect the power cord from the back of the instrument.

 **CAUTION:** The MESO SECTOR S 600MM instrument is grounded. Do not use an extension cord that would disable the ground to connect primary power to the MESO SECTOR S 600MM instrument. The use of an adapter that disconnects the ground could lead to a shock hazard. Always connect the system power cord to a receptacle that provides a ground connection.

 **NOTE:** We strongly recommend that users of laboratory instruments follow the Clinical and Laboratory Standards Institute (CLSI) document entitled GP17-A3, Clinical Laboratory Safety; Approved Guideline – Third Edition, Section 8.2, Electrical Equipment.


 **WARNING:** MSD instruments must be located in a position where the power switch and power input connector are accessible.

 **CAUTION:** Only power supply cables with a 10 A or higher current rating can be connected to the MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM external power supplies or to the MESO SECTOR S 600MM power input.

### 3.3.2 Chemical and Biological Hazards


Users are responsible for taking all necessary precautions against hazards associated with the use of laboratory chemicals. In the course of preparing assay plates, users may work with potent chemicals, such as acids, bases, and solvents, and thus be exposed to chemical hazards. This may also be the case when working with cleaning or disinfecting agents and with some reagents used in assays.

Laboratory regulations and good laboratory practices concerning the use of such chemicals should be followed at all times. Product labels, package inserts, and product information sheets with specific usage recommendations are provided for all plates and reagents used with the instrument. Additional product-specific safety information is available in the applicable safety data sheet(s) (SDS), which can be obtained from MSD [Customer Service](#) or at [www.mesoscale.com](http://www.mesoscale.com). Use personal protective equipment recommended by your facility when handling any of these reagents.

 **WARNING:** Samples, user reagents, or controls used in assays may be infectious or biohazardous. By working with these materials, users may be exposed to biological hazards. Laboratory regulations and site safety procedures concerning the handling and disposal of potentially infectious material should be followed at all times. Ensure surfaces are decontaminated and cleaned and proper personal protective equipment is worn to prevent exposure.

 **WARNING:** Labels are affixed to the MESO SECTOR S 600MM elevator platforms indicating a potential biological or chemical hazard.



 **WARNING:** The plate input and output elevator platforms of the MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM instruments are marked with the biohazard symbol indicating a potential biological hazard.



 **CAUTION:** When reading multiple plates in a run, ensure that the MESO SECTOR S 600MM stack tube is not overloaded. See the stack tube plate capacity in the MESO SECTOR S 600MM User Guide.

 **WARNING:** Loading a tall stack of plates on the MESO SECTOR S 600MM instrument could lead to spilling potentially harmful chemical reagents. Use caution when loading the stack tubes.

 **WARNING:** Do not exceed 5 plates on the input and output stacks of the MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM instruments or on the MESO SECTOR S 600MM instrument when not using stack tubes. Exceeding 5 plates could lead to spilling potentially harmful chemical reagents.

**⚠ CAUTION:** When reading multiple plates in a run, ensure that the plate stacker or stack tube is not overloaded. Not removing the completed plates from the output stack or the output stack tube may cause spills if the number of completed plates exceeds the capacity of the output stack or stack tube.

**⚠ WARNING:** Users should avoid breathing reagent fumes. Gloves and goggles should be worn when disposing of used plates. If skin comes in contact with reagents, rinse the exposed area with water immediately, and follow appropriate safety protocols as determined by your facility. Dispose of used plates according to federal, state, and local regulations.

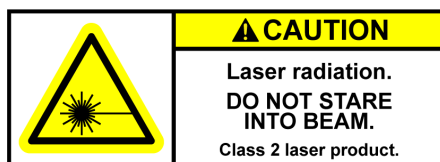
**⚠ WARNING:** Wear appropriate personal protective equipment and avoid skin contact and inhalation when handling plates that contain or have been exposed to hazardous reagents.

**⚠ WARNING:** The plate stacker input and output locations are considered susceptible to contamination during normal use. The use of personal protective equipment and good laboratory practices are strongly suggested when working in these areas.

### 3.3.3 Visual Hazards

The MESO QuickPlex SQ 120MM and MESO QuickPlex Q 60MM instruments use a scanning barcode reader with a Class 2 laser rated at a maximum of 1 mW. The laser beam is not visible during normal operation. However, there is risk of exposure if the instrument is operated without the external covers and the internal barcode reader cover.

**⚠ WARNING:** DO NOT STARE INTO THE BEAM. The laser is only directly viewable and accessible by qualified service personnel.



**⚠ WARNING:** Operation of the instrument without external covers and the internal barcode reader cover may result in hazardous radiation exposure.

### 3.3.4 Mechanical Hazards

**⚠ WARNING:** Always use proper technique when lifting the instrument in order to minimize the risk of injury. Two or more people should lift from beneath an instrument. Please contact MSD **Instrument Service** before attempting to move an instrument. The instrument weights are as follows:

- MESO SECTOR S 600MM: 124 lb (56 kg)
- MESO QuickPlex SQ 120MM: 44.5 lb (20.2 kg)
- MESO QuickPlex Q 60MM: 36.4 lb (16.5 kg)

**⚠ WARNING:** Labels are affixed to the MESO SECTOR S 600MM elevator platforms indicating potential mechanical hazards. Unplug the power cord before putting hands near parts labeled with this warning.



**⚠ WARNING:** Keep fingers and loose clothing away from moving parts. To avoid injury, do not touch any part of an instrument while it is in operation. Do not place fingers in the plate stacker or the plate carrier when an instrument is in operation.




 **WARNING:** Moving parts can be damaged or become misaligned when exposed to strong mechanical force. As with any mechanical instrument, take precautions when operating an MSD instrument, including:

- Do not wear loose garments or jewelry that could catch in moving mechanisms.
- Operate the instrument with the cover intact.
- Keep hands away from pathways of moving parts during operation.
- Do not attempt electrical or mechanical repairs.
- Do not bump into, lean on, or place any objects on top of the instrument.

### 3.3.5 Electrostatic Discharge (ESD) Sensitivity


The MESO SECTOR S 600MM, MESO QuickPlex SQ 120MM, and MESO QuickPlex Q 60MM instruments contain sensitive electronics and can be damaged if exposed to electrostatic discharges in excess of 4.0 kV. While the instruments comply with ESD standards for this type of laboratory equipment, MSD recommends standard precautions to minimize ESD (e.g. humidity between 30–80 % non-condensing). In typical laboratory environments, electrostatic discharge should not be a problem.


 **CAUTION:** The electronic test plate, provided with the instrument, is susceptible to damage from electrostatic discharge. Avoid touching the metal contacts on the bottom of the plate. Store the plate in its supplied case when not in use.

### 3.3.6 Electromagnetic Interference and Susceptibility

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. The equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference, in which case users will be required to correct the interference at their own expense.

Changes or modifications not expressly approved by MSD may void the warranty. The operator must use any accessories provided with the equipment such as the power supply or shielded cables that are necessary for compliance with FCC standards.


 **CAUTION:** MSD instruments are tested for operation in a controlled electromagnetic environment. Transmitters of RF energy such as mobile (cellular) telephones should not be used in close proximity.

 **CAUTION:** To avoid interference from electrical transients, plug the computer/laptop and the instrument into outlets on the same circuit. If an uninterruptible power supply (UPS) is available, plug the computer/laptop and instrument into the battery backup outlets. Please contact MSD **Scientific Support** if you have questions or need assistance.

## 3.4 Decontamination Prior to Shipping or Servicing

MSD instruments may be used to analyze infectious materials or used in an environment where infectious materials were handled. For the protection of future users and service personnel, please follow site safety procedures and the directions of the site safety officer to disinfect the instrument. If shipping to MSD, contact MSD **Instrument Service** to determine the level of decontamination required.

 **WARNING:** Follow site safety procedures and the directions of the site safety officer to determine decontamination requirements for the instrument before shipping or service.

 **WARNING:** Prior authorization must be obtained before instrument and instrument accessories are shipped to MSD. Authorization is contingent upon completion of the MSD Instrument Decontamination Certification Form and issuance of a Returned Merchandise Authorization (RMA) number by MSD **Instrument Service**. Always ensure compliance with relevant transportation and other regulations prior to shipment.

# 4 Technical Support

MSD provides excellent and timely support for all authorized users of MSD instruments. We welcome and carefully consider all bug reports and suggestions for improvements to future versions. We will work with you to resolve any problems you may encounter.

## 4.1 Feedback

Please send comments or feedback on the software to MSD Scientific Support at [scientificsupport@mesoscale.com](mailto:scientificsupport@mesoscale.com).

## 4.2 Troubleshooting

For issues encountered when using MSD instruments, contact Scientific Support.

## 4.3 How to Contact Us

Meso Scale Diagnostics, LLC. company headquarters is located at:

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Rockville, Maryland 20850 USA  
+1 240-314-2600

Our website is [www.mesoscale.com](http://www.mesoscale.com).

### Customer Service

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[customerservice@mesoscale.com](mailto:customerservice@mesoscale.com)

### Scientific Support

+1 240-314-2798

[scientificsupport@mesoscale.com](mailto:scientificsupport@mesoscale.com)

### Instrument Service

+1 301-947-2057

[instrumentservice@mesoscale.com](mailto:instrumentservice@mesoscale.com)



## Customer Service

Phone: 1-240-314-2795

Fax: 1-301-990-2776

Email: [CustomerService@mesoscale.com](mailto:CustomerService@mesoscale.com)

Hours of Operation: 5:00 AM to 8:00 PM, Monday – Friday, U.S. Eastern Time

For Research Use Only. Not for use in diagnostic procedures.

