

3M™ Constant Monitors WSMONITOR1, WSMONITOR 2, WSMONITOR3

User's Guide



WSMONITOR1



WSMONITOR2



WSMONITOR3



Table of Contents

Section	Page
SAFETY INFORMATION	3
Introduction	5
Installation.....	6
Operation.....	9
Calibration/Verification.....	9
Specifications	10
Warranty.....	11

SAFETY INFORMATION

Please read, understand, and follow all safety information contained in these instructions prior to the use of this 3M™ Constant Monitors WSMONITOR1, WSMONITOR 2, WSMONITOR3. Retain these instructions for future reference.

Explanation of Symbols



CAUTION



Operator(s) Wrist Strap Assembly Ground



Work Surface Ground



Earth; ground



Power input connector polarity (center negative)

Explanation of Signal Word Consequences



WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury and/or property damage.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and/or property damage.

NOTICE

Indicates a situation which, if not avoided, could result in property damage.



WARNING

To reduce the risks associated with fire and explosion:

- Do not use in an explosive environment - monitor is not designed to be intrinsically safe.

To reduce the risks associated with medical device malfunction:

- Persons with heart pacemaker devices should never use this monitor.

To reduce the risks associated with hazardous voltage and fire:

- Use only the power supply provided by 3M and specified for the country of use.
- Do not position the monitor accessories or other equipment where unplugging the power supply is difficult.
- Always locate the power source (socket or outlet) near the equipment. The power supply plug serves as the disconnect device.
- Do not modify or attempt to service the power supply or monitor; there are no user serviceable parts.
- Do not use the power supply if damaged;
- Replace power supply if damaged using only 3M supplied parts.
- Do not use the 3M™ Constant Monitors WSMONITOR1, WSMONITOR 2, WSMONITOR3 or their power supplies outdoors in wet/humid environments.
- Do not use the Constant Monitors WSMONITOR1, WSMONITOR 2, WSMONITOR3 or their power supplies outside of the operating conditions listed in this user's guide.
- Always follow instructions for installation as stated in this user's guide.



CAUTION

To reduce the risks associated with environmental contamination:

- Dispose of this monitor in accordance with all applicable local and government regulations.

NOTICE

To reduce the risk of ESD damage to components or assemblies being handled:

- Monitor must be checked periodically to verify each test mode is functioning correctly.
- Ensure proper operation of monitor by performing operational verification test as required.
- Ensure tester is properly grounded.

Introduction

- Monitors can check up to two wrist strap systems and one work surface, depending on the model.
- Compatible with most standard wrist straps.
- Easy to use: Simply plug in the wrist strap.
- Easy to install: Attach the monitor boxes to the bench with included hardware, connect the mat and plug it in.

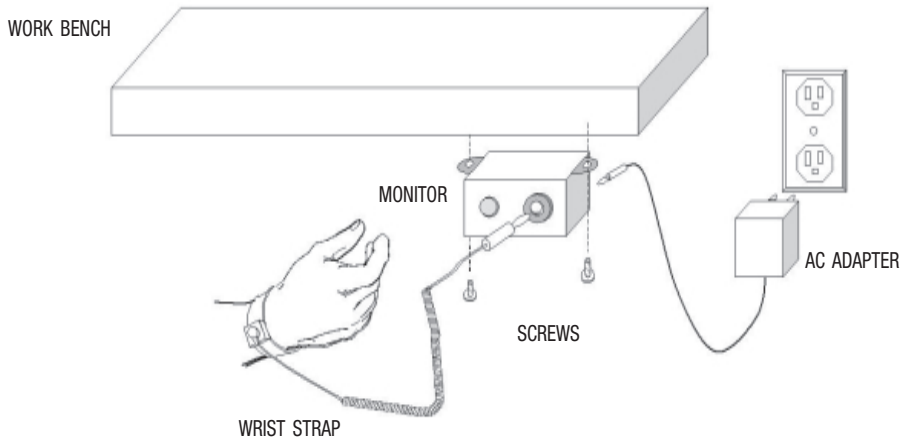
Damage to electronic devices is caused by static electricity from people. Connecting people to ground directs static electricity away from devices. Constant Monitors are designed to constantly test the connection of the person, the wrist band and the coiled cord to help ensure that people remain grounded.

Constant Monitor WSMONITOR1 uses a solid state impedance design to constantly test the connection integrity of the entire ground system including the person, the wrist band and the coiled cord. Constant Monitors WSMONITOR2 and WSMONITOR3 also provide work surface monitoring. This system is fully automatic and activates when a wrist strap is plugged into the unit. A green light indicates connection and a red light indicates there is no connection. The unit is powered and grounded by the AC adapter.

3M™ Constant Monitors WSMONITOR1, WSMONITOR 2, WSMONITOR3 Installation

Constant Monitor WSMONITOR1

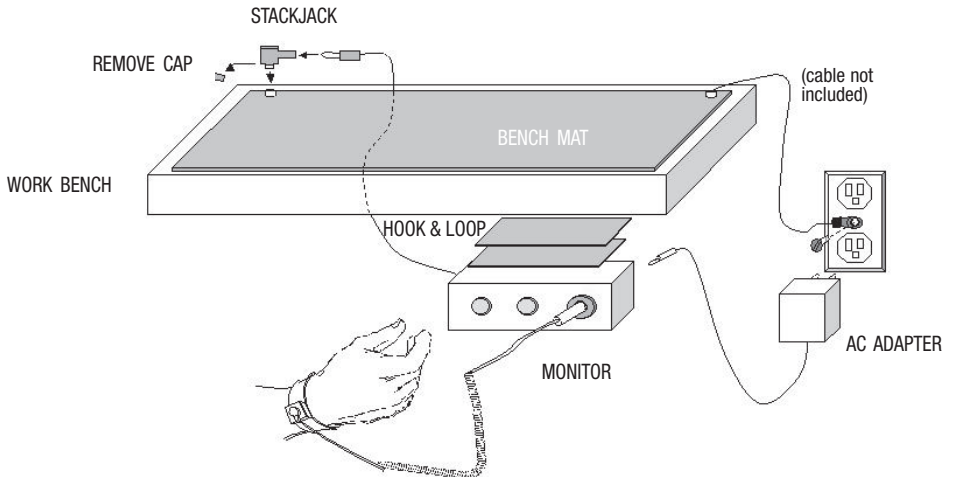
1. Check that you have received all parts: monitor, power/ground adapter and two mounting screws.
2. Using the mounting screws, mount the monitor under the work bench.
(Other suggested mounting locations include the bench top and under bench shelving.)
3. Plug the power/ground adapter into the back of the monitor and into a 3-prong 120VAC outlet.



3M™ Constant Monitor WSMONITOR1

3M™ Constant Monitor WSMONITOR2

1. Check that you have received all parts: monitor, power/ground adapter and two mounting screws.
2. Using the mounting screws, mount the monitor under the work bench.
(Other suggested mounting locations include the bench top and under bench shelving.)
3. Plug the power/ground adapter into the back of the monitor and into a 3-prong 120VAC outlet.

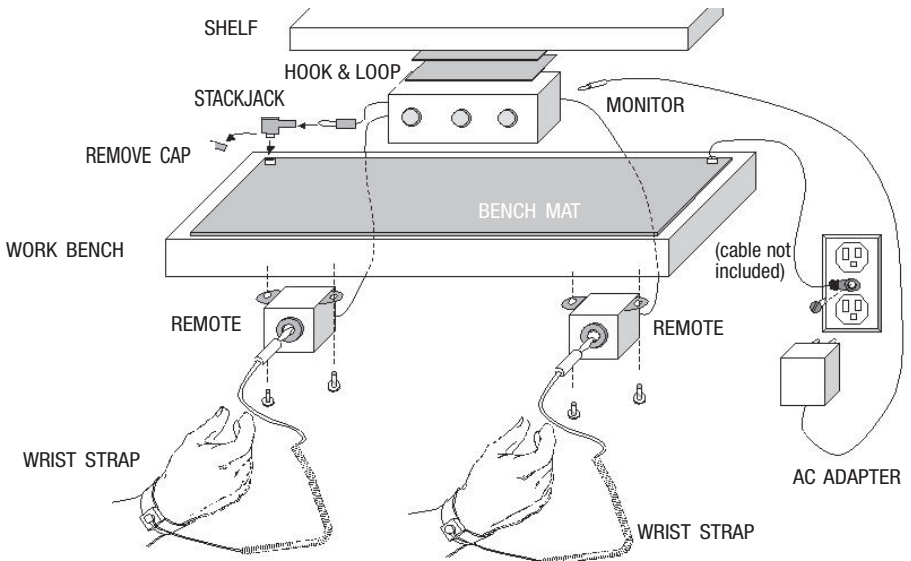


3M™ Constant Monitor WSMONITOR2

3M™ Constant Monitor WSMONITOR3

1. Check that you have received all parts: monitor, remotes, four screws, power/ground adapter, mat cord and industrial hook and loop.
2. Using the hook and loop, mount the monitor under the workbench shelf.
3. Mount the remotes to the work bench with screws.
4. Connect the monitor to the STACKJACK.
5. Remove a plastic cap from STACKJACK and snap it to the mat.
6. Connect the other mat snap to ground. (Cable not included.)
7. Plug the power/ground adapter into the back of the monitor and into a power outlet.

Note: The mat connection monitoring function can be connected to a workbench with a hard work surface.



3M™ Constant Monitor WSMONITOR3

Operation

- Place a wrist band on your wrist and plug the coiled cord banana plug into the monitor's banana jack. The monitor will display a green light when a functional wrist strap with good skin contact is connected to the unit.
- The unit will sound an alarm and display a red light if the wrist strap becomes defective or if the person is not in contact with the band.
- Unplug the wrist strap coiled cord from the unit to stop the alarm.
- Monitor will alarm if the continuity from the monitor to the mat to ground is lost.

Calibration / Verification

Adjustments or calibration are not required for the 3M™ Constant Monitors WSMONITOR1, WSMONITOR2, WSMONITOR3. The TMT00L unit simulates a correctly functional person and wrist strap (Accept) and an open circuit (Reject). The TMT00L also simulates high resistance for verification of your work surface.

Specifications

Specifications	Typical Value
Monitor type	Impedance - Single Wire
Circuitry	Solid-state, surface mount
Alarm	Audible and visual (LED)
Trip Level	6.5-7.0 megohms
Power	120VAC, 230VAC
Adjustments	None Required
Calibration	None Required. Test Module available.

Item Code	Size	Weight	Monitors
WSMONITOR1	.90" H x 1.8" W x 1.3" D	1.2 oz.	One wrist strap/person
WSMONITOR2	1" H x 2.4" W x 2.3" D	1.6 oz.	One wrist strap/person and work surface
WSMONITOR3	1" H x 4" W x 2.4" D	2.6 oz.	Two wrist straps/persons and work surface
TMTOOL			Test Module for all WSMONITORS

Note: Adjustments or calibration is not required for the Continuous Monitors WSMONITOR1, WSMONITOR2, WSMONITOR3. The TMTOOL unit simulates a correctly functioning person and wrist strap (Accept) and an open circuit (Reject). The TMTOOL also simulates high resistance for verification of your work surface.

3M is a trademark of 3M Company.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture for one year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**



Electronics Materials Solutions Division Static Control Products

926 JR Industrial Drive
Sanford, NC 27332-9733
Toll-Free: 866-722-3736
International: 919-718-0000
Email: 3mstaticinfo@mmm.com
www.3mstatic.com

Please recycle. Printed in USA.
© 3M 2014. All rights reserved.
78-9102-1942-3 JHA

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

SCS:

[WSMONITOR1](#) [WSMONITOR2](#) [WSMONITOR3](#)