3M™ Static Control

Line Card

A Reputation of Trust: Over the past 100 years, 3M has become widely recognized as a world leader in product innovation. Our ability to combine core technologies has allowed more than 55,000 3M products to become an important part of every day in many markets. 3M Static Control products are used to manage static electricity in electronics assembly areas. 3M innovations in static control include ESD measuring and monitoring instruments with factory integrating software, static control packaging, and workstation products. 3M provides Premium, Standard, and Value performance products to better fit your application.

3M™ Packaging Products for Static Control

3M is one of the leading manufacturers of static bags, offering fast shipment from large inventories of standard sized bags, and custom bag sizes to fit your application. 3M™ Static Bags are designed to protect electronic items from electrostatic damage during manufacture, transportation, and storage by attenuating ESD. 3M also offers labels, HICs, desiccant, conductive packaging and other packaging products.

3M™ Workstation Products for Static Control

Build your static safe workstation with 3M mats, wrist straps, heel grounders, and ground cords. 3M offers Premium, Standard, and Value Performance products to better fit your specific application. Mats are available in rolls, standard size mats, and custom sizes for most materials. 3M offers the ground cords, snaps and other accessories to help complete the workstation installation. Complete your EPA with 3M™ Conductive Floor Tile.

3M™ Instrumentation for Static Control

Innovative 3M Instrumentation allows you to monitor operators and ground connections, and to measure ESD Events. Our line of workstation monitors can confirm connection and even monitor voltage on the operator. 3M™ Ground Monitoring Products offers a suite of features designed to verify or monitor the ground impedance and EMI voltage. Unique 3M™ ESD Event Measuring and Monitoring Meters, like the 3M™ EM Eye, give you the tools to locate and eliminate static problems.

3M™ Static Management Program (SMP)

The 3M™ Static Management Program is designed to provide real-time data to help you gain process savings, quality improvements and higher yields. Proprietary 3M™ Static Monitoring Software continuously monitors static control systems at all stages of the manufacturing process, providing your staff with both real-time static control monitoring and data for in-depth analysis. With a full complement of product, software and service solutions, the Static Management Program by 3M offers the peace of mind that comes from knowing that your products are continuously monitored.
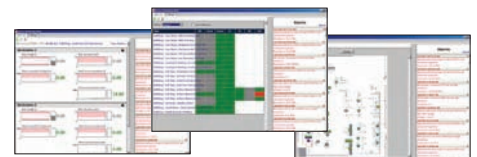
Savings through Innovation.
Protection you Trust.

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3M™ Product Selection Guides allow you to quickly choose the static control product to fit your application. Ask your Authorized 3M Distributor or 3M salesperson for 3M Product Selection Guides today.

3M™ Static Shielding Bags

3M™ Static Mats

3M™ Wrist Strap Monitors
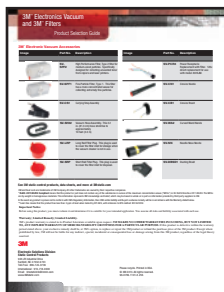
3M™ Conductive Packaging
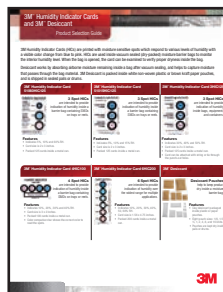
3M™ Moisture Barrier Bags

3M™ Wrist Straps

3M™ ESD Event Monitors

3M™ Electronics Vacuum and 3M™ Filters

3M™ HICs and Desiccant

3M™ Heel Grounders

3M™ Ground Monitors

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* **RoHS 2011/65/EU Compliant** means that the product or part does not contain any of the substances in excess of the maximum concentration values ("MCVs") in EU RoHS Directive 2011/65/EU. The MCVs are by weight in homogeneous materials. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.

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3M™ Static Shielding Bags

Product Selection Guide

3M is one of the leading manufacturers of static shielding bags, offering fast shipment from large inventories of standard sized bags and custom bag sizes to fit your application. Open top, Ziptop and Tapetop closures are available. Bags are marked with ESD caution information, RoHS compliant symbols, and are lot coded for traceability. Custom printing is available. Static shielding bags are intended to protect electronic items from electrostatic damage during manufacture, transportation, and storage by attenuating ESD (electrostatic discharge).

3M™ Metal-in Static Shielding Bag SCC 1000, Open Top and Ziptop

Metal-in Shield Bags are intended to provide a static safe environment for electronic devices.

Features
- More than 70 sizes of open top bags ready to ship same day.
- More than 30 sizes of Ziptop bags ready to ship same day.
- Faraday effect static shielding.
- Four-layer construction.

3M™ Puncture Resistant Metal-In Static Shielding Bag SCC 1300

Puncture Resistance Metal-in Shield Bags have a stronger plastic layer to help reduce punctures.

Features
- A stronger polyester plastic layer helps to prevent sharp tubes and cards from puncturing the bag.
- Metal-in, four-layer construction.
- This bag is intended to provide a static safe environment for electronic devices.

3M™ Metal-Out Static Shielding Bag SCC 1500, Open Top and Ziptop

Metal-out Shield Bags are intended to provide better static control than metal-in bags.

Features
- Metal layer is positioned near the outer surface for charge decay and less charge retention than metal-in bags.
- Proprietary top coating for durability.
- More than 25 sizes ready for same day shipment.

3M™ Metal-In Static Shielding Bag 1900 and 3M™ Metal-in Static Shielding Bag 1910

Metal-in Shield Bags are intended to provide a static safe environment for electronic devices.

Features
- The original 3M metal-in shielding bag.
- More than 30 sizes.
- Two week lead time.

3M™ Puncture Resistant Metal-Out Static Shielding Bag 2100R and 3M™ ZipTop Recloseable Static Shielding Bag 2110R

Puncture Resistance Metal-out Shield Bags have a stronger plastic layer to help reduce punctures, and are intended to provide better static control than metal-in

Features
- A stronger polyester plastic layer helps to prevent sharp tubes and cards from puncturing the bag.
- Metal layer is positioned near the outer surface for charge decay and less charge retention than metal-in bags.

3M™ Metal-Out Cushioned Static Shielding Bag 2120R
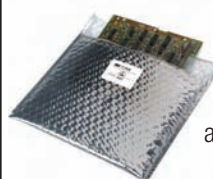
Cushioned Static Shielding Bags help protect devices from physical damage and provide static shielding.

Features
- Open cell cushion to help protect product.
- Metal-out shielding bag: Metal layer is positioned near the outer surface for charge decay and less charge retention than metal-in bags.

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**Lead-free means that the product has less than 2 ppm of lead when tested by ICP-AES, with reference to EPA method 3051A/3052.

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3M™ Moisture Barrier Bags

Product Selection Guide

3M is one of the leading manufacturers of moisture barrier bags, offering short lead times for custom bag sizes to fit your application. 3M Moisture Barrier Bags are marked with moisture and ESD caution information, RoHS-compliant symbols, and are lot-coded for traceability. Custom printing is available. Moisture barrier bags are intended to protect electronic items from moisture and electrostatic damage during manufacture, transportation, and storage.

3M™ Moisture Barrier Bag Dri-Shield 2000

Aluminized Moisture Barrier Bags are intended to provide a static-safe and dry environment for electronic devices.

Features
- Multiple layers of metalized polyester provides moisture barrier for this economical bag.
- More than 20 sizes ready to ship same day. Fast shipping of custom sizes too.
- Faraday effect static shielding.
- Six-layer construction.

3M™ Moisture Barrier Bag Dri-Shield 2700

Puncture Resistant Aluminized Moisture Barrier Bags have a stronger plastic layer to help reduce punctures.

Features
- A stronger polyester plastic layer helps to prevent sharp trays from puncturing the bag.
- Six-layer construction.
- This bag is intended to provide a static-safe and dry environment for electronic devices.

3M™ Moisture Barrier Bag Dri-Shield 3000

High Barrier Foil Moisture Barrier Bags are intended to provide a dry environment for electronic devices that will be re-flow soldered.

Features
- Foil layer provides higher barrier than aluminized bags.
- Intended for dry packaging of SMDs on trays and reels.
- This bag is intended to provide a static-safe and dry environment for electronic devices.

3M™ Moisture Barrier Bag Dri-Shield 3400

High Barrier Foil Moisture Barrier Bags are intended to provide a dry environment for electronic devices that will be re-flow soldered.

Features
- This economical bag is intended for dry packaging of SMDs on trays and reels.
- Foil layer provides higher barrier than aluminized bags.
- This bag is intended to provide a static-safe and dry environment for electronic devices.

3M™ Moisture Barrier Bag Dri-Shield 3700

Puncture Resistant High Barrier Foil Moisture Barrier Bags have a stronger plastic layer to help reduce punctures and are intended for SMDs that are to be re-flow soldered.

Features
- A stronger polyester plastic layer helps to prevent sharp trays from puncturing the bag.
- Foil layer provides higher barrier than aluminized bags.
- Intended for dry packaging of SMDs on trays and reels.

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3M™ Conductive Bags, 3M™ Film and 3M™ Containers

Product Selection Guide

3M Conductive Bags, 3M Film and 3M Containers are easy-to-ground packages designed for handling, shipping and storage. These products are made of opaque, volume-conductive carbon or carbon fiber impregnated polyolefin plastics.

3M™ Conductive Bag 2004 and 3M™ Conductive Bag 2014

Conductive bags are intended to provide an easy-to-ground package for static sensitive applications

Features
- Bags are heat-sealable.
- Ten sizes of bags.
- Large bag sizes fit cans and drums.

3M™ Conductive Film 1700

Conductive film is intended to provide an easy-to-ground packaging material for handling, shipping and storage.

Features
- Film is heat-sealable.
- Roll widths in 36, 54, and 72 inches.

3M™ Conductive Tubing 1724

Conductive tubing is intended to provide an easy-to-ground packaging material for handling, shipping and storage.

Features
- Used to make bags and sleeves for custom packaging requirements.
- Tubing is heat-sealable.
- Tubing widths are 5 and 12 inches

3M™ Single Card Carriers 8500

Conductive Card Carriers are intended to provide static-safe storage, transport, and handling of electronic parts.

Features
- Helps to protect individual printed circuit boards from static and physical damage.
- Interior is lined with dissipative foam.
- Four sizes available.

3M™ Single Device Carrier 5701

Conductive Device Carriers are intended to provide static-safe storage, transport, and handling of electronic parts.

Features
- Helps to protect individual devices from static and physical damage.
- "Saddle" design supports device leads and helps prevent accidental bending.
- Carrier accepts up to 18-pin 300 mil and 400 mil devices, and up to 28-pin 600 mil devices.

3M™ Hinged and Round Containers

Conductive Containers are intended to provide static-safe storage, transport, and handling of electronic parts.

Features
- These containers are made from an easy-to-ground plastic material.
- Hinged containers are one piece and snap shut. Five sizes.
- Round containers have a removable lid. Five sizes.

3M

3M Connector Covers are easy-to-ground packages designed for handling, shipping and storage. These products are made of opaque, volume-conductive carbon or carbon fiber impregnated polyolefin plastics.

3M™ Circular Connector Covers 4270	3M™ "D" Type Connector Covers 4272

Conductive Covers
are intended to provide an easy-to-ground solution for helping keep connectors clean, and to guard against bent pins.

Features
- Molded with ESD handling symbol.
- 30 sizes.

Conductive Covers
are intended to provide an easy-to-ground solution for helping keep connectors clean, and to guard against bent pins.

Features
- "D" shaped covers to fit communication cables.
- Molded with ESD handling symbol.
- 10 sizes

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3M™ Static Mats

Product Selection Guide

3M™ Static Control Mats help to keep sensitive parts grounded. 3M provides Premium, Standard, and Value performance mats to better fit your application. Standard- and custom-sized rolls and mats are available for most materials. 3M offers the ground cords, snaps and other accessories to help complete the mat installation.

3M™ Field Service Kits are portable static control workstations. These kits are designed to allow static-monitored installation and repair of electronics away from the factory.

See product photos on the next page.

| Product Type	Part Number	Performance	Description	Photo Number
Rubber Mat - Two-layer	8800	Premium	Dissipative top layer, conductive back layer. 2 ft., 2.5 ft., 3 ft., 4 ft. width rolls, and pre-cut mats. Colors: Blue or Gray. Compatible with monitors.	1
Rubber Mat - Two-layer	UltraR2	Standard	Dissipative top layer, conductive back layer. 2 ft., 2.5 ft., 3 ft., 4 ft. width rolls, and pre-cut mats. Colors: Blue or Gray. Compatible with monitors.	2
Rubber Mat - Two-layer	6800	Value	Dissipative top layer, conductive back layer. 2 ft., 3 ft., 4 ft. width rolls, and 2x4 ft. pre-cut mat. Colors: Blue or Gray. Compatible with monitors.	3
Vinyl Mat - Three-layer	8200	Premium	Dissipative top and back layers, conductive center layer. 2 ft., 2.5 ft., 3 ft., 4 ft. width rolls, and pre-cut mats. Colors: Blue, Brown, or Gray. Compatible with monitors.	4
Vinyl Mat - Three-layer	TMXX XXXL3	Standard	Dissipative top and back layers, conductive center layer. 2 ft., 2.5 ft., 3 ft., 4 ft. width rolls, and pre-cut mats. Colors: Blue or Gray. Compatible with monitors.	5
Vinyl Mat - Solid	TM-L1	Value	Dissipative throughout. 2 ft., 2.5 ft., 3 ft., 4 ft. width rolls, and pre-cut mats. Colors: Blue or Gray.	6
Floor Mat - Conductive	1864	Premium	Conductive throughout, Semi-flexible mat, 4x6, 4x8, 2x50 ft. Color: Black, Compatible with monitors.	7
Floor Mat - Conductive	CONDMAT	Value	Conductive throughout. 2 ft., 3 ft., 4 ft. width rolls, and 4x6 ft. pre-cut. Color: Black, Compatible with monitors.	8
Anti-Fatigue Mat - Rubber	9900	Premium	Conductive throughout, hollow cells for comfort, standard and custom sizes, Color: Black, Compatible with monitors.	9
Anti-Fatigue Mat - Vinyl	AFM	Value	Dissipative throughout. Foamed vinyl for comfort, 2x3, 3x5 3x60 ft, Color: Brown or Gray.	10
Field Service Kit with Monitor	8507	Premium	Portable static workstation includes wrist strap monitor, 22x24 in. mat, wrist strap and ground cord.	11
Field Service Kit - Lightweight	8505	Premium	Lightweight portable static workstation includes 15x20 in. mat, wrist strap and ground cord.	12
Field Service Kit	8501	Standard	Portable static workstation includes 22x24 in. mat, wrist strap and ground cord.	13
Field Service Kit	FSKL3RD	Value	Portable static workstation includes 24x24 in. mat, wrist strap and ground cord.	14
Mat Cleaner	8001	Standard	3M™ Static Control Surface Mark Remover fluid is designed to remove dirt from table mats, floor mats, hard-laminate bench tops, and field-service kit work surfaces.	15

3M™ Static Mats

Product Selection Guide

3M™ Static Mats
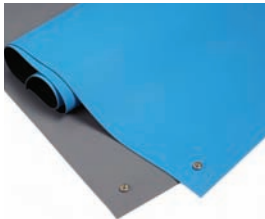
1. 8800	2. UltraR2	3. 6800	4. 8200	5. TMXX XXXL3
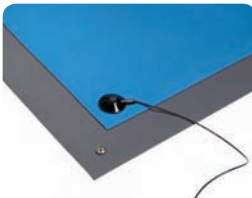
6. TM-L1	7. 1864	8. CONDMAT	9. 9900	10. AFM

3M™ Field Service Kits   3M™ Mat Cleaner

11. 8507	12. 8505	13. 8501	14. FSKL3RD	15. 8011

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3M™ Wrist Straps

Product Selection Guide

Wrist straps are the primary method for grounding people handling static sensitive electronic items. 3M offers single conductor wrist straps that work with impedance type constant monitors and wrist strap checkers, and dual conductor wrist straps that work with resistance type continuous monitors. See the 3M™ Monitor/Wrist Strap Selector on the last page. 3M Premium, Standard, and Value performance products are designed to better fit your application.

3M™ Single Conductor Wrist Straps

3M™ Wrist Strap AMWS61M

Premium performance single wire wrist strap with adjustable metal band.

Features
- Blue adjustable flex-metal wristband.
- 1/8 inch (4mm) snap.
- 6 foot coiled cord with a 1 megohm resistor. 12 ft cord also available.
- Strong cord strain reliefs for long life.

3M™ Wrist Strap with Metal

Premium performance single wire wrist strap with fixed size metal band.

Features
- 3 sizes of flex-metal wristbands: Small: Model 2205, Medium: Model 2206, Large: Model 2207.
- 1/8 inch (4mm) snap.
- Compatible with the 3M Wrist Strap Ground Cords Models 2210, 2220, 4610 and 4611.

3M™ Wrist Strap 2214

Premium performance single wire wrist strap.

Features
- Red adjustable fabric wristband.
- 1/8 inch (4mm) snap.
- 5 foot coiled cord with a 1 megohm resistor. 10 ft cord also available.
- Strong cord strain reliefs for long life.

3M™ Wrist Strap WBB-AFWS61M

Premium performance single wire wrist strap.

Features
- Blue adjustable fabric wristband.
- 1/8 inch (4mm) snap.
- 6 foot coiled cord with a 1 megohm resistor. 12 ft cord also available.
- Strong cord strain reliefs for long life.

3M™ Wrist Strap BLUEWS61M

Standard performance single wire wrist strap.

Features
- Blue or maroon adjustable fabric wristband.
- 1/8 inch (4mm) snap.
- 6 foot coiled cord with a 1 megohm resistor. 12 ft cord also available.

3M™ Wrist Strap 2272

Value performance single wire wrist strap.

Features
- Blue adjustable fabric wristband.
- 1/8 inch (4mm) snap.
- 5 foot coiled cord with a 1 megohm resistor. 12 ft cord also available.

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3M™ Single Conductor Wrist Straps

3M™ Wrist Strap ECWS61M-1

Value performance
single wire wrist strap

Features
- Blue adjustable fabric wristband.
- 1/8 inch (4mm) snap.
- 6 foot coiled cord with a 1 megohm resistor.

3M™ Wrist Strap 4650

Value performance
single wire wrist strap with thermoplastic band

Features
- Wristband utilizes an easy on/easy off adjustable "zipper" style latching mechanism
- 1/8 inch (4mm) snap.
- 5 foot coiled cord with a 1 megohm resistor.

3M™ Wrist Strap 2209

Disposable wrist strap

Features
- Ideal for single use or short-term use applications.
- 4 foot working length.
- Fabricated current limiting resistance near wrist band end.
- Resistance 1.0 to 5.0 megohms.

3M™ Coiled Cords – Single Wire

Compatible with 3M 22XX Series wristbands.

Features
- Black coiled ground cord.
- 1/8 inch (4mm) snap.
- 5 foot cord length, Model 2210.
- 12 foot cord length, Model 2220.
- 1 megohm resistor.

3M™ Coiled Cords – Single Wire

Compatible with 3M 22XX Series wristbands.

Features
- Black lightweight coiled ground cord.
- 1/8 inch (4mm) snap.
- 5 foot cord length, Model 4610.
- 12 foot cord length, Model 4611.
- 1 megohm resistor.

3M™ Dual Conductor Wristbands and Cords

3M™ Metal Wristband – Dual Wire

Premium performance dual wire, flex-metal wristband.

Features
- Dual wire flex-metal wristband in 3 sizes: Small: Model 2381, Medium: Model 2382, Large: Model 2383.
- Mono plug connection.
- Compatible with 23XX Series Dual Wire Coiled cords.

3M™ Wristband 2368

Premium performance dual wire, adjustable wristband.

Features
- Blue dual wire adjustable fabric wristband.
- Mono plug connection.
- Compatible with 23XX Series Dual Wire Coiled cords.

3M™ Wristband 4790

Value performance dual wire, thermoplastic wristband.

Features
- Wristband utilizes an easy on/easy off adjustable "zipper" style latching mechanism.
- Mono plug connection.
- Compatible with 23XX Series Dual Wire Coiled cords.

3M™ Coiled Cords – Dual Wire, 2300 Series

Compatible with 3M dual wire wristbands.
(excluding VM bands)

Features
- Gray, dual wire coiled ground cord.
- Mono plug connection.
- 5 foot cord length, Model 2360
- 10 foot cord length, Model 2370
- 20 foot cord length, Model 2371

3M™ Right Angle Coiled Cords – Dual Wire, 2300 Series

Compatible with 3M dual wire wristbands.
(excluding VM bands)

Features
- Gray, dual wire coiled ground cord.
- Right angle Mono plug connection.
- 5 foot cord length, Model 2360R
- 10 foot cord length, Model 2370R
- 20 foot cord length, Model 2371R

3M™ Wrist Straps

Product Selection Guide

3M™ Single Wire Constant Monitor and Wrist Strap

Monitors	Wrist Straps
3M™ Constant Monitor, Single Wire, WSMONITOR1	AMWS61M, 2205, 2206, 2207, 2214, WBB-AFWS61M, BLUEWS61M, 2272, ECWS61M-1, 4650, 2210, 2220, 4610, 4611
3M™ Constant Monitor, Single Wire, WSMONITOR2	
3M™ Constant Monitor, Single Wire, WSMONITOR3	

3M™ Dual Wire Continuous Monitor and Wrist Strap Selector

Monitors	Wrist Straps
3M™ WS Aware Dual Workstation Monitor CTC061	2360, 2370, 2371, 2386, 4790, 2360, 2370, 2371, 2360R, 2370R, 2371R
3M™ Iron Man Plus Workstation Monitor CTC331	
3M™ Ground Man Plus Workstation Monitor CTC334	
3M™ Wrist Strap and Ground Monitor 773	
3M™ Workstation Monitor 724	
3M™ Dual Conductor Portable Wrist Strap Monitor 725	

⚠ Warning:

A 1 megohm resistor is molded into 3M™ Wrist Strap Ground Cords. DO NOT REMOVE. If it becomes damaged, replace ground cord immediately. These products are not to be used in areas where the individual may come in contact with exposed electrical circuitry exceeding 250 volts AC.

These products are for static control. They will not reduce or increase your risk of receiving electrical shock when using or working on electrical equipment. Follow the same precautions you would use without wrist straps, including:
• Make certain that equipment having a grounding type plug is properly grounded.
• Make certain that you are not in contact with grounded objects other than through the 3M Wrist Strap

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Heel grounders connect a person to ground through a static mat or ESD floor. 3M makes Premium, Standard, and Value performance heel grounders designed to work with your application. To better fit the variety of shoes in the work area, 3M offers hook and loop, D-ring, buckle, and clasp closures. Our sole grounders provide a large floor contact area intended to help improve static control between the person and the mat. Disposable grounders are good for visitors and short term projects. Bright color straps help you to confirm proper use of grounders in a busy area.

See product photos on the next page.

Product Type	Part Number	Performance	Description	Photo Number
Full coverage sole grounder	SG1M-S, SG1M-M, SG1M-L	Premium	D-ring, 3 point strapping. Black hook and loop. Highest contact area. 1 meg resistor.	1
Front sole grounder	FG1M-S, FG1M-M, FG1M-L	Premium	D-ring, 3 point strapping. Black hook and loop. Large contact area. 1 meg resistor.	2
Cup Style, non-marking	NS-HGC1M	Premium	Dual blue soles help to eliminate marks on floor, black elastic loop, 1 meg resistor.	3
Cup Style, burgundy straps	2051	Premium	Dual black sole, burgundy hook and loop, 1 meg resistor.	4
Cup Style, black straps	HGC1M	Premium	Dual black sole, black hook and elastic loop, 1 meg resistor.	5
Cup Style, adjustable clasp	HGC1M-C	Premium	Dual black sole, Black elastic strap with adjustable clasp for quick on and off. 1 meg resistor.	6
Toe Grounder	2053	Premium	Single black sole, red elastic toe strap, black strap with adjustment buckle, 1 meg resistor.	7
Cup Style, D-ring fastener	BLUE-HGC1MD	Standard	Dual black sole, Blue hook and loop with D-ring for secure adjustability, 1 meg resistor.	8
Cup Style, blue straps	HGC1M-N72-BLU	Standard	Dual black sole, Blue hook and elastic loop, 1 meg resistor.	9
Cup Style, orange straps	HGC1M-ORG	Standard	Dual black sole, Orange hook and loop for high visibility, 1 meg resistor.	10
One sole, D-ring fastener	HGS1MD-RED	Standard	Single black sole, black hook and loop with D-ring for secure adjustability, Red elastic back, 1 meg resistor.	11
One sole, black straps	HGS1M	Standard	Single black sole, black hook and loop, Black elastic back, 1 meg resistor.	12
Toe Grounder	TG1M	Standard	Single black sole, hook and loop toe strap, black strap with adjustment buckle, 1 meg resistor.	13
Cup Style, yellow/green strap	2044	Value	Dual black sole, yellow/green hook and loop for high visibility, bulk packed, 1 meg resistor.	14
Cup Style, green strap	HGC1M-ECG	Value	Dual black sole, green hook and loop for high visibility, 1 meg resistor.	15
Cup Style, black strap	HGC1M-EC	Value	Dual black sole, black hook and loop, 1 meg resistor.	16
Disposable	5402	Value	Yellow with black strip, adheres to shoe sole.	17

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3M™ Heel Grounders

Product Selection Guide

See product descriptions on the first page.

1. SG1M- size	2. FG1M- size	3. NS-HGC1M	4. 2051	5. HGC1M

6. HGC1M-C	7. 2053	8. BLUE-HGC1MD	9. HGC1M-N72-BLU	10. HGC1M-ORG

11. HGS1MD-RED	12. HGS1M	13. TG1M	14. 2044	15. HGC1M-ECG

16. HGC1M-EC	17. 5402

⚠ **Warning:**

The 3M™ Heel Grounding Assemblies are not to be used in areas where the individual may come in contact with exposed electrical circuitry exceeding 250 Volts AC.

See 3M static control products, data sheets, and more at 3Mstatic.com

Important Notice

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.

3M™ Humidity Indicator Cards and 3M™ Desiccant

Product Selection Guide

3M Humidity Indicator Cards (HICs) are printed with moisture sensitive spots which respond to various levels of humidity with a visible color change from blue to pink. HICs are used inside vacuum sealed (dry-packed) moisture barrier bags to monitor the interior humidity level. When the bag is opened, the card can be examined to verify proper dryness inside the bag.

Desiccant works by absorbing airborne moisture remaining inside a bag after vacuum sealing, and helps to capture moisture that passes through the bag material. 3M Desiccant is packed inside white non-woven plastic or brown kraft paper pouches, and is shipped in sealed pails or drums.

3M™ Humidity Indicator Card 51060HIC125

3 Spot HICs are intended to provide indication of humidity inside a barrier bag containing SMDs on trays or reels.

Features
- Indicates 5%, 10% and 60% RH.
- Card size is 2 x 3 inches.
- Packed 125 cards inside a metal can.

3M™ Humidity Indicator Card 51015HIC125

3 Spot HICs are intended to provide indication of humidity inside a barrier bag containing SMDs on trays or reels.

Features
- Indicates 5%, 10% and 15% RH.
- Card size is 2 x 3 inches.
- Packed 125 cards inside a metal can.

3M™ Humidity Indicator Card 3HIC125

3 Spot HICs are intended to provide indication of humidity inside bags, equipment, and containers.

Features
- Indicates 30%, 40% and 50% RH.
- Card size is 2 x 3 inches.
- Packed 125 cards inside a metal can.
- Card can be attached with string or tie through the punch-out holes.

3M™ Humidity Indicator Card 4HIC100

4 Spot HICs are intended to provide indication of humidity inside a barrier bag containing SMDs on trays or reels.

Features
- Indicates 10%, 20%, 30% and 40% RH.
- Card size is 3 x 2 inches.
- Packed 100 cards inside a metal can.
- Color comparison bar shows the correct color to read the spots.

3M™ Humidity Indicator Card 6HIC200

6 Spot HICs are intended to provide indication of humidity over the widest range for multiple applications.

Features
- Indicates 10%, 20%, 30%, 40%, 50, 60% RH.
- Card size is 1.56 x 4.75 inches.
- Packed 200 cards inside a metal can.

3M™ Desiccant

Desiccant Pouches help to keep product dry inside a moisture barrier bag.

Features
- Clay desiccant packaged inside plastic or paper pouches.
- Eight pouch sizes: 1/6, 1/3, ½, 1, 2, 4, 8, and 16 Units.
- Pouches are kept dry inside pails or drums.

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In the event any product is proven not to conform with 3M's Regulatory Information, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

**Lead-free means that the product has less than 2 ppm of lead when tested by ICP-AES, with reference to EPA method 3051A/3052.

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Labels alert personnel handling bags, boxes or other carriers that the contents are static-sensitive. 3M ESD Warning Labels provide the ESD symbol and warning message. Destructible-type labels are "tamper evident," allowing personnel to monitor if a bag has been opened. Reusable type labels allow personnel to reopen the bag without tearing the label.

3M Signs and 3M™ Aisle Marking Tape may be used to clearly identify the areas requiring static protective measures. Apply them to doors, floors, walls, tote boxes, or to any area to indicate static sensitive parts.

See product photos on the next page.

Product Type	Part Number	Description	Photo Number
Attention Label - Destructible	7102	Yellow w/ Black Type. Room to write. Static Warning Symbol. Size: 1.875 in. x 2.5 in. (4.8 cm x 6.4 cm) 500 per roll	1
Attention Label - Destructible	ALABEL	Yellow w/ Black Type. Room to write. Static Warning Symbol. Size: 1.875 in. x 2.5 in. (4.8 cm x 6.4 cm) 500 per roll	2
Attention Label - Destructible	ALABEL5/8x2	Yellow w/ Black Type. Static Warning Symbol. Size: 0.625 in. x 2.0 in (1.6 cm x 5.1 cm) 1000 per roll	3
Caution Label - Destructible	CLABEL2X2	Yellow w/ Black Type. Displays force-arrows and warning. Size: 2 in. x 2 in. (5.1 cm x 5.1 cm) 500 per roll.	4
Caution Label - Destructible	CLABEL4X4	Yellow w/ Black Type. Displays force-arrows and warning. Size: 4 in. x 4 in. (10.2 cm x 10.2 cm) 100 per roll.	5
Military Label - Destructible	7202	Yellow w/ Black Type. MIL-STD-129N Symbol Size: 2 in. x 2 in. (5.1 cm x 5.1 cm) 500 per roll	6
Military Label - Destructible	129LABEL	Yellow w/ Black Type. MIL-STD-129N Symbol Size: 2 in. x 2 in. (5.1 cm x 5.1 cm) 500 per roll	7
RoHS Label - Destructible	ROHSLABEL	Green/White Type. Size: 1.75 in. x 1.75 in. (4.5 cm x 4.5 cm) 500 per roll	8
Attention Label -Reusable	7101	Orange w/ Black Type. Static Warning Symbol. Size: 1.875 in. x 2.5 in. (4.8 cm x 6.4 cm) 500 per roll	9
Military Label -Reusable	7201	Yellow w/ Black Type. MIL-STD-129N Symbol Size: 4 in. x 4 in (10.2 cm x 10.2 cm)	10
Barrier Bag Label 113 - Destructible	113LABEL	White w/ Blue Type. for use with IPC/JEDEC J-STD-033 and JEDEC113. 4 in. x 4 in. (10.2 cm x 10.2 cm) 100 per roll	11
Barrier Bag Label -Destructible	DRILABEL	Yellow w/ Black Type. Displays static and moisture warning symbols. Provides writing space. 4 in. x 5 in. (10.2 cm x 12.7 cm) 100 per roll	12
ESD Warning Sign	ESDSIGN4X10	Yellow w/ Black Type. Displays static warning symbol. 4 in. x 10 in. (10.2 cm x 25.4 cm)	13
ESD Warning Sign	ESDSIGN8.5X11	Yellow w/ Black Type. Displays static warning symbol. 8.5 in. x 11 in. (21.6 cm x 27.9 cm)	14
ESD Warning Poster	SIGN17X22E	Yellow w/ Black Type. Displays static warning symbol. 17 in. x 22 in. (43.2 cm x 55.9 cm) 5 per box	15
Aisle Marking Tape	AISLETAPE54	Yellow w/ Black Type. Self stick plastic tape. Rolls are 3 in. (7.6 cm) wide and 54 ft. (16.5 m) long	16

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See product descriptions on the first page.

1. 7102	2. ALABEL	3. ALABEL5/8X2	4.CLABEL2X2	5. CLABEL4X4

6. 7202	7. 129LABEL	8. ROHSLABEL	9. 7101	10. 7201
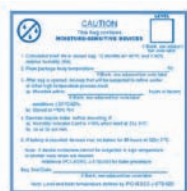
11. 113LABEL	12. DRILABEL	13. ESDSIGN4X10	14. ESDSIGN8.5X11	15. SIGN17X22E

16. AISLETAPE54

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3M™ ESD Event Monitor

Product Selection Guide

The 3M™ EM Aware TNG ESD Event Monitor detects and measures ESD events as well as static voltage and ionization parameters depending on the model. The 3M EM Aware TNG Monitor is a comprehensive diagnostics and troubleshooting tool for use in an electrostatic discharge (ESD) environment. It provides monitoring of critical production processes and is an instrument that can qualify tools for handling ESD sensitive devices. It is an essential ESD management tool.

3M™ EM EYE Meter	3M™ EM Aware TNG Event Monitor	3M™ EM Aware TNG Event Monitor Starter Kit

Portable ESD Event Detection Meter

ESD Events Static Voltage Monitor

Monitor Starter Kit

Features
- Easy to operate with touch pad
- Detects electrostatic discharge (ESD) events.
- Measures the magnitude of ESD events and characterizes HBM, MM or CDM
- ESD Event Counter
- Data logging feature
- Capable of rejecting non-ESD events

Application
- ESD event detection
- ESD audit and survey
- ESD diagnostic

Features
- Monitors ESD events, Static-field voltage, Ion balance and Decay
- Adjustable sensibility and individual alarm setting
- Communication interface to a PC and data logging and monitoring software
- Provides factory management level monitoring by connecting several EM Aware TNG units

Application
- Continuous monitoring of ESD environment

Real-time ESD Monitoring System

Features
- Portable or small installation for ESD diagnostic
- Connect several EM Aware TNG units to your computer for ESD/EMI environment data collection
- Maximum of six EM Aware TNG units equipped with Starter Kit.
- Windows-based software

Application
- ESD Auditing
- Designed for troubleshooting and diagnostic applications

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3M™ Electronic Vacuums have provided decades of quality performance in clean up of a wide variety of applications. Lightweight, and easy to use, vacuums by 3M are the premiere choice for providing high-efficiency cleanup in an electronics environment. The EMI/REI suppressor reduces power line noise while working on and around electronic equipment, and helps protect the user from potential electrical shock, while reducing the risk of damage to sensitive electronic components. Standard attachments as well as a dusting brush and needle nose nozzle are included for precise cleaning. Select the correct 3M Filter according to the clean up job: the Type 1 Filter is used to trap particles as fine as 0.3 microns, while the Type 2 Filter is primarily used for toner and dust removal.

3M™ Electronics Vacuum, Model 497AJM

The 3M Electronics Vacuum, Model 297AJM

is a self-contained unit that is designed for high efficiency cleanup of most business equipment, including removing toner and dust. Portability, quick setup and efficient safe operation are key features of this vacuum. A 220V international version is available, Model number 497ABF.

Features
- Detachable power cord for easy storage.
- Easy change out of motor, making the vacuum easy to service.
- Lightweight (less than nine pounds) and easy to setup.
- Complete attachment offering including: stretch hose, crevice tool, wand and brush.
- Dimensions: 7.8 in. x 17.8 in. x 9.3 in. (19.8 cm x 45.2 cm x 23.6 cm).

3M™ Filter, Type 1

3M Filter, Type 1
(SV-MPF1) for fine particles, is the premium choice for filter media.

Features
- Constructed with a concentrated weave, the 3M™ Type 1 Filter is ideal for trapping fine particles to 0.3 microns.
- This pleated filter is encased in plastic making it durable and easily disposable.
- Can be used in applications in the laser printer and copier arena as well as around highly sensitive equipment.
- Intended to provide a dry environment for electronic devices that will be re-flow soldered.

3M™ Filter, Type 2

3M Filter, Type 2
(SV-MPF2) for Toner/Dust, is used in a wide variety of applications, including removing toner from laser printers and copy machines.

Features
- Pleated filter is encased in plastic, making it durable and easily disposable.
- Replacing a full filter is easy and clean.

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3M™ Electronic Vacuum Accessories

Image	Part No.	Description	Image	Part No.	Description
	SV-CS1	Carrying Strap Assembly		SV-CN1	Crevice Nozzle
	SV-SH32	Vacuum Hose Assembly. This 32 in. (81.3 cm) hose stretches to approximately 10 feet (3.0 m)		SV-CB1	Crevice Brush
	SV-LRP	Long Red Filter Plug. This plug is used to cover the filter inlet for storage when the vacuum cleaner is not in use.		SV-WA2	Curved Wand Nozzle
	SV-SRP	Short Red Filter Plug. This plug is used to cover the filter inlet for disposal.		SV-NN	Needle Nose Nozzle
	SV-PCR3	Power Receptacle Replacement with Filter. 120v direct replacement for use with model 497AJM.		SV-DBSD1	Dusting Brush

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