3 Science. Applied to Life.™

Connections Inat ast

3M[™] Red Dot[™] Electrodes

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Over 40 Years of Trusted Connections

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Today, facilities are challenged to reduce operating costs while maintaining high-quality patient care.

With help from 3M, you can meet the challenge by standardizing electrodes without compromising on product performance. From value-priced electrodes that feature good performance across most applications to our best electrodes for your most demanding applications, 3M has you covered.

Value-priced 3M[™] Foam Monitoring Electrodes (2228/2244)

These electrodes let you reduce costs while maintaining quality patient care.

Three-day wear time.

Clinically tested to provide good electrode performance for up to three days.

30 day out of bag freshness guarantee.

Packaged for efficiency. The 2228 electrode comes in individual patient packs of 3 and 5 electrodes. Our 2228 and 2244 electrodes are available in bulk packs of 50 electrodes. All electrode liners are perforated to be torn off individually.

Universal 3M[™] Red Dot[™] Foam Monitoring Electrodes (2560/2570)

These electrodes feature a larger adhesive area and gel area to improve performance. Diaphoretic.

Five-day wear time. Clinically tested to provide good electrode performance for up to five days.

45 day out of bag freshness guarantee.

Packaged for efficiency. Our 2570 electrode comes in individual patient packs of 3 and 5 electrodes as well as bulk packs of 50 electrodes. Our 2560 electrode is available in bulk packs of 50 electrodes.



3M[™] Foam Monitoring Electrode 2228 1.57" x 1.3" (4 cm x 3.3 cm) Sticky gel

3M[™] Red Dot[™] Monitoring Electrode with Foam Tape and Sticky Gel 2560

1.6" × 1.36"

(4.1 cm × 3.5 cm)



3M[™] Foam Monitoring Electrode 2244 1.57" × 1.3" (4 cm × 3.3 cm) Radiolucent, Sticky Gel



3M[™] Red Dot[™] Monitoring Electrode with Foam Tape and Sticky Gel 2570 1.6"×1.36" (4.1 cm×3.5 cm) Radiolucent, with abrader

3M[™] Red Dot[™] Repositionable

Radiolucent, stronger adhesive

Monitoring Electrode 2670

1.57" × 1.23'

than 2660

(4 cm × 3.1 cm)

Repositionable Electrodes

For your most demanding applications, our 2660/2670 monitoring electrodes, with a full coverage conductive surface area, provide improved trace quality.

3M[™] Red Dot[™] Soft Cloth Monitoring Electrodes (2660/2670)

Larger conductive area.

The conductive surface area of our Red Dot[™] Repositionable Monitoring Electrodes is larger than that of conventional electrodes. This results in improved EKG trace quality.

Comfortable and conformable.

The low-profile, soft cloth backing provides ease of application and removal, helps to improve patient comfort and reduces the risk of electrodes catching on medical devices, drapes, gowns or bedding.

Adhesion choices.

Red Dot[™] Repositionable Monitoring Electrodes are available in two levels of adhesion. Both are quick to stick on skin and gentle on removal, but the Red Dot[™] Repositionable Monitoring Electrode 2670 is the preferred choice when more aggressive adhesion is needed.



3M[™] Red Dot[™] Repositionable Monitoring Electrode 2660 1.57" × 1.23" (4 cm × 3.1 cm) Radiolucent

MR conditional.

The 3M[™] Red Dot[™] Monitoring Electrodes model numbers 2244, 2570, 2660 and 2670 have been demonstrated to be MR conditional.¹

Performance Priced

Short Term Diagnostics

The unique needs of resting EKG monitoring are met with the 3M family of electrodes designed for this critical diagnostic application.

Easy to apply and remove.

The reverse tab placement provides quick and easy access to the electrode for single-handed application. The tab is convenient for leadwire placement and for ease of removal.

Excellent adhesion.

Excellent adhesion with the flexibility to securely reposition the electrode helps save clinician time and facility cost. 2360 is preferred choice when more aggressive adhesion is needed.

Intimate skin contact.

The conductive adhesive on $3M^{W}$ Red Dot^{W} Resting EKG Electrodes provides intimate skin contact to help ensure accurate EKG traces - even on challenging sites.

Defibrillation recoverable.

Red Dot[™] Resting EKG Electrodes can continue to be used after defibrillation.



3M[™] Red Dot[™] Resting EKG Electrode 2330 0.8" × 1.2" (2 cm × 3 cm) Gentle adhesive



3M" Red Dot" Resting EKG Electrode 2360 0.8" × 1.2" (2 cm × 3 cm) Repositionable, stronger adhesive than 2330

Pediatric Electrodes

The tender skin of younger pediatric patients is a consideration when selecting the backing and adhesive characteristics of an electrode. In addition to the pre-wired electrodes, 3M also offers gentler adhesives and comfortable backings in traditional electrodes for these special patients.

Gentle adhesive. Helps reduce risk of skin trauma.

Smaller footprint for children. Accommodates smaller chest sizes.



3M[™] Red Dot[™] Pediatric Monitoring Electrode with 3M[™] Micropore[™] Tape Backing 2248-50 1.75" dia. (4.4 cm dia.) Solid gel



3M[™] Red Dot[™] EKG Monitoring Electrode 2268-3 1.25[°] dia. (3.2 cm dia.) Conductive adhesive Soft Cloth Radiolucent



3M[™] Red Dot[™]

Pre-Wired 2284

(2.3 cm × 1.8 cm)

0.9"×0.7"

Radiolucent

18" (45.7 cm)

leadwire length

Neonatal Limb Band

Monitoring Electrode,

Pre-wired – Infant & Neonatal Electrodes

3M has a family of pre-wired electrodes specifically designed for newborns and infants. Features include:

Pre-wired and colour-coded. For ease of application and trace quality.

Gentle adhesive. Helps reduce risk of skin trauma on neonatal skin prior to full barrier formation.

Two leadwire lengths: 18" (45.7 cm) 2280, 2282, 2283, 2284 22" (55.8 cm) 2269T.

Radiolucent: 2269T, 2282, 2283, 2284

Smaller footprint for neonates. Accommodates smaller chest sizes.



3M" Red Dot" Infant, Pre-Wired, Radiolucent Monitoring Electrode 2283 1.3" × 0.9" (3.3 cm × 2.3 cm) 18" (45.7 cm) leadwire length



3M" Red Dot" Neonatal, Pre-wired, Non-Radiolucent Monitoring Electrode with Soft Cloth 2280 0.9" × 0.9" (2.3 cm × 2.3 cm) 18" (45.7 cm) metal leadwire



3M" Red Dot" Neonatal/Infant Pre-Wired Monitoring Electrode, Radiolucent with Clear Tape 2269T. 0.8" × 1.57" (2 cm x 4 cm) 22" (55.8 cm) leadwire length



3M[™] Red Dot[™] Neonatal, Pre-wired, Radiolucent Soft Cloth Monitoring Electrode 2282 0.9" × 0.9" (2.3 cm × 2.3 cm) 18" (45.7 cm) leadwire length

Solutions for Fragile Skin

In today's patient population, fragile skin is often a concern whether due to age, medication or repeated removal of adhesive products. It's a delicate balance to protect the patient's skin and maintain good adhesion to obtain acceptable EKG trace quality.

Conformable backings to follow skin contours.

3M[™] Micropore[™] Soft Cloth Tape backings are low profile to help minimize catching of medical devices and fabrics. This helps reduce the risk of early lift which often necessitates electrode removal and replacement.

Gentle adhesives. Pressure Sensitive Adhesives (PSAs) need both pressure and warmth (from the patient's body) to achieve optimum adhesion. 3M has formulated these electrodes' PSA to be gentle on the skin.

Small size option. The 2268-3 electrode is a compact addition to our fragile skin portfolio, well-suited for both pediatric and adult patients. Gentle, conductive adhesive over the entire electrode may help improve trace quality. Low profile increases conformability and comfort. Lift tab makes electrode removal easy.



3M[™] Red Dot[®] Soft Cloth Monitoring Electrode 2268-3 1.25[°] dia. (3.2 cm dia.) Conductive adhesive Radiolucent



3M[™] Red Dot[™] Monitoring Electrode with 3M[™] Micropore[™] Tape Backing 2239 2.4" dia. (6.1 cm dia.), solid gel



3M[™] Red Dot[™] Soft Cloth Monitoring Electrode 2255-50 2.4" dia. (6.1 cm dia.) with abrader, solid gel



3M[™] Red Dot[™] Monitoring Electrode with 3M[™] Micropore[™] Tape Backing 2249-50 2.4" dia. (6.1 cm dia.) with abrader, solid gel

Diaphoretic Solutions

The diaphoretic patient's skin presents a challenge in maintaining reliable contact for a quality EKG trace. 3M offers product solutions to address the challenge.

Large footprint for greater adhesive area.

 $3M^{\rm w}$ Red Dot" Diaphoretic Monitoring Electrodes combine both a greater surface area and a strong adhesive to help improve trace quality.

Foam and soft cloth backings.

Backing choices for conformability, patient comfort and low profile.

Abrader for gentle skin prep.

3M[™] Red Dot[™] Monitoring Electrodes 2271 incorporate an abrader for gentle skin abrasion. Gentle skin abrasion results in lower skin impedance and improved EKG trace quality.



3M[™] Red Dot[™] Diaphoretic Foam Monitoring Electrode 2230 2.2" × 2" (5.6 cm × 5.1 cm), solid gel



3M[™] Red Dot[™] Diaphoretic Soft Cloth Monitoring Electrode 2231 2.2" × 2" (5.6 cm × 5.1 cm), solid gel



3M[™] Red Dot[™] Diaphoretic Soft Cloth Monitoring Electrode 2271-50 2.2" × 2" (5.6 cm × 5.1 cm), solid gel with abrader

See also: Performance priced product 2560, 2570, 2228, 2244

Fluid Resistant Solutions

Several 3M[™] Red Dot[™] Electrodes have a foam polyethylene backing that is fluid-resistant. Thus, they don't absorb liquids which could reduce the electrode's ability to adhere well. These electrodes are well suited for applications where fluids are present.

Two footprints. The surface area can be selected to help meet patient needs. 2235, 2256-50, 2259 - 2" (5.1 cm) diameter 2237 - 1.75" (4.4 cm) diameter



3M[™] Red Dot[™] Clear Plastic Monitoring Electrode 2235 2" dia. (5.1 cm dia.) Solid gel



3M[™] Red Dot[™] Foam Monitoring Electrode 2256-50 2[™] dia. (5.1 cm dia.) with wet gel, abrader



3M[™] Red Dot[™] Foam Monitoring Electrode 2560 1.6" × 1.36" (4.1 cm × 3.5 cm) with Sticky Gel



3M™ Red Dot™ Foam Monitoring Electrode 2237 1.75" dia. (4.4 cm dia.) solid gel



3M[™] Red Dot[™] Foam Monitoring Electrode 2259 2" dia. (5.1 cm dia.) with solid gel, abrader

Solutions for Skin Prepping

Advanced diagnostic EKG and EKG monitoring equipment demand excellent skin prep for optimal results. Virtually every EKG monitor and electrode supplier strongly recommends skin prep for optimal performance, and for good reason — it works. Removing the non-conductive skin layer with an effective skin prep helps improve the traces.

Clear traces help reduce unnecessary print-outs, save EKG paper and waste fewer electrodes. 3M electrodes available with built-in abrader: 2249, 2256, 2259, 2271, 2570

Factors Affecting Trace Quality

- Site selection
- Use of alcohol on skin
- Lack of skin abrasion
- Poor electrode adhesion
- Dried-out electrodes



3M[™] Red Dot[™] Monitoring Electrode with blue abrader: 2249, 2255, 2256, 2259, 2271



3M[™] Red Dot[™] Foam Monitoring Electrode



Trace Prep 2236 (36 rolls/case)

> "Proper skin preparation prior to electrode placement lowers skin impedance and can significantly reduce artifact in all electrode applications."²

² Oster, C. Proper Skin Prep Helps Ensure EKG Trace Quality. Biomedical Instrumentation and Technology. Volume 34 No 3, May/June 2000, pp219-222.



Suggested Applications

	2228	2244	2560	2570	2660	2670	2330	2360	2269T	2280	2282	2283	2284	2239	2249-50	2268-3	2231	2271	2235	2237
EMS/ED	•	•	•	•	•	•											•	•	•	•
ICU/CCU	•	•	•	•	•	•											•	•	•	•
Telemetry/ Holter/Event	•	•	•	•		•											•	•	•	•
OR	•	•	•	•	•	•													•	•
Cath Lab		•		•	•	•								•	•	•	•	•	•	•
Stress Test	•	•	•	•		•											•	•		
Cardiac Rehab	•	•	•	•	•	•											•	•		
Echo-Cardio	•	•	•	•		•								•	•	•	•	•	•	•
EKGLab							•	•												
12 Lead EKG							•	•												
Echo-Cardio									•		•	•								
Peds ICU									•	•	•	•				•				
NICU									•	•	•	•	•							
Peds OR									•			•				•				
ICU														•	•	•				

Application and Removal Instructions

Application Instructions



PREPARE THE SKIN

Application sites must be clean, dry, and free of any body lotions. Cleaning with isopropyl alcohol should be avoided or limited to situations in which electrode adhesion is an issue (excessively oily or lotion covered skin). If alcohol is used, allow it to dry prior to electrode application.

Removal Instructions



REMOVE

In order to remove, loosen one side of the electrode. Grasping the full width of the electrode, slowly and gently pull it back over itself.

Electrodes should be removed in the direction of hair growth whenever possible. Keep the electrode close to the skin surface as you pull it back, and support the skin immediately adjacent to the adhesive being removed.



Excessive hair at the site should be removed by clipping. Gently abrade the skin using the abrader pad on the back of some electrodes (blue strip or gray disc) or 3M[™] Red Dot[™] Trace Prep. Make an X on the skin with the abrader. Apply the electrode and then gently rub around the electrode to set the pressure sensitive adhesive.



APPLY THE ELECTRODE

If using snap connection leadwires, connect the leadwires to the electrodes before placing the electrode onto the patient. Avoid pressing on the stud when electrode is on the patient. After placing the electrode on the patient, round your finger around the front label to activate the pressure sensitive adhesive.

Troubleshooting EKG Traces

Troubleshoot each artifact in order, starting with **1**





12-Lead Placement

Resting Electrodes

- RA: Second intercostal space lateral right side
- LA : Second intercostal space lateral left side
- LL : Lower left lateral chest or left leg
- RL : Lower right lateral chest or right leg
- V1 : Fourth intercostal space to the right of the sternum
- V2 : Fourth intercostal space to the left of the sternum
- V3 : Between V2 and V4
- V4 : Fifth intercostal space along themid-clavicular line
- V5 : Fifth intercostal space between V4 and V6
- V6 : Fifth intercostal space along the mid-axillary line

Ordering Information

	Product No.	Description	Packaging				
nce Priced ions	2228	Foam Monitoring Electrode, 1.57 inch x 1.3 inch (4 cm x 3.3 cm) with Sticky Gel	1000 electrodes/case, 10/strip, 5 strip/bag, 20 bag/case				
	2228-3	Foam Monitoring Electrode, 1.57 inch x 1.3 inch (4 cm x 3.3 cm) with Sticky Gel	600 electrodes/case, 3/strip, 1 strip/bag, 200 bag/case				
	2228-5	Foam Monitoring Electrode, 1.57 inch x 1.3 inch (4 cm x 3.3 cm) with Sticky Gel	1000 electrodes/case, 5/strip, 1 strip/bag, 200 bag/case				
Opti	2244	Foam Monitoring Electrode, Radiolucent, 1.57 inch \times 1.3 inch (4 cm \times 3.3 cm) with Sticky Gel	1000 electrodes/case, 10/strip, 5 strip/bag, 20 bag/case				
Perfo	2560	Foam Monitoring Electrode, 1.6 inch × 1.36 inch (4.1 cm × 3.5 cm) with Sticky Gel	1000 electrodes/case, 10/strip, 5 strip/bag, 20 bag/case				
	2570	Foam Monitoring Electrode, Radiolucent, 1.6 inch × 1.36 inch (4.1 cm × 3.5 cm) with Sticky Gel and Abrader	1000 electrodes/case, 10/strip, 5 strip/bag, 20 bag/case				
Repositionable	2660-3	Repositionable Soft Cloth Monitoring Electrode, 1.25 inch × 1.23 inch (3.2 cm × 3.1 cm) Radiolucent with Lift Tab	600 electrodes/case, 3/strip, 1 strip/bag, 200 bag/case				
	2660-5	Repositionable Soft Cloth Monitoring Electrode, 1.25 inch × 1.23 inch (3.2 cm × 3.1 cm) Radiolucent with Lift Tab	1000 electrodes/case, 5/strip, 1 strip/bag, 200 bag/case				
	2670-3	Repositionable Soft Cloth Monitoring Electrode, 1.25 inch × 1.23 inch (3.2 cm × 3.1 cm) Radiolucent with Aggressive Adhesive and Lift Tab	600 electrodes/case, 3/strip, 1 strip/bag, 200 bag/case				
	2670-5	Repositionable Soft Cloth Monitoring Electrode, 1.25 inch × 1.23 inch (3.2 cm × 3.1 cm) Radiolucent with Aggressive Adhesive and Lift Tab	1000 electrodes/case, 5/strip, 1 strip/bag, 200 bag/case				
Short Term Diagnostics	2330	Resting Tab Style EKG Diagnostic Electrode with Gentle Adhesive, 0.8" × 1.2" (2 cm × 3 cm)	4000 electrodes/case, 10/card, 10 card/bag, 40 bag/case				
	2360	Resting Tab Style EKG Diagnostic Electrode with Aggressive Adhesive, 0.8" × 1.2" (2 cm × 3 cm)	4000 electrodes/case, 10/card, 10 card/bag, 40 bag/case				
atric	2248-50	Micropore™ Paper Tape Monitoring Electrode, 1.75 inch dia. (4.4 cm dia.) with Solid Gel and Lift Tab	1000 electrodes/case, 50/bag, 20 bag/case				
Ped	2268-3	Soft Cloth Monitoring Electrode, 1.25 inch dia. (3.2 cm dia.) with Conductive Adhesive and Lift Tab	600 electrodes/case, 3/bag, 200 bag/case				
s Skin 	2269T	Neonatal Monitoring Electrode, Pre-Wired with Clear Tape, 0.8 inch x 1.57 inch (2 cm x 4 cm) with 22 inch (55.8 cm) Radiolucent Leadwire	300 electrodes/case, 3/bag, 10 bag/box, 10 box/case				
	2280	Neonatal Monitoring Electrode, Pre-Wired with Soft Cloth, 0.9 inch \times 0.9 inch (2.3 cm x 2.3 cm) with 18 inch (45.7 cm) Metal Leadwires	300 electrodes/case, 3/bag, 100 bag/case				
	2282	Neonatal Monitoring Electrode, Pre-Wired with Soft Cloth, 0.9 inch \times 0.9 inch (2.3 cm x 2.3 cm) with 18 inch (45.7 cm) Radiolucent Leadwires	300 electrodes/case, 3/bag, 100 bag/case				
	2283	Infant Monitoring Electrode, Pre-Wired with Soft Cloth, 1.3 inch × 0.9 inch (3.3 cm × 2.3 cm) with 18 inch (45.7 cm) Radiolucent Leadwires	300 electrodes/case, 3/bag, 100 bag/case				
	2284	Neonatal, Pre-wired Limb Band Monitoring Electrode, 0.9 inch x 0.7 inch (2.3 cm x 1.8 cm) with 18 inch (45.7 cm) Radiolucent Leadwires	300 electrodes/case, 3/bag, 100 bag/case				
	2239	Micropore™ Paper Tape Monitoring Electrode, 2.4 inch dia. (6.1 cm dia.) with Solid Gel and Lift Tab	1000 electrodes/case, 50/bag, 20 bag/case				
	2249-50	Micropore™ Paper Tape Monitoring Electrode, 2.4 inch dia. (6.1 cm dia.) with Solid Gel, Abrader and Lift Tab	1000 electrodes/case, 50/bag, 20 bag/case				
ragil	2255-50	Soft Cloth Monitoring Electrode, 2.4 inch dia. (6.1 cm dia.) with Solid Gel, Abrader and Lift Tab	1000 electrodes/case, 50/bag, 20 bag/case				
	2268-3	Soft Cloth Monitoring Electrode, 1.25 inch dia. (3.2 cm dia.) with Conductive Adhesive and Lift Tab	600 electrodes/case, 3/bag, 200 bag/case				
	2228	Foam Monitoring Electrode, 1.57 inch x 1.3 inch (4 cm x 3.3 cm) with Sticky Gel	1000 electrodes/case, 10/strip, 5 strip/bag, 20 bag/case				
	2230	Diaphoretic Foam Monitoring Electrode, 2.2" × 2" (5.6 cm x 5.1 cm) with Solid Gel	1000 electrodes/case, 50/bag, 20 bag/case				
tic	2231	Diaphoretic Soft Cloth Monitoring Electrode, 2.2 inch × 2 inch (5.6 cm x 5.1 cm) with Solid Gel and Lift Tab	1000 electrodes/case, 50/bag, 20 bag/case				
phore	2244	Foam Monitoring Electrode, Radiolucent, 1.57 inch × 1.3 inch (4 cm × 3.3 cm) with Sticky Gel	1000 electrodes/case, 10/strip, 5 strip/bag, 20 bag/case				
Dia	2271-50	Diaphoretic Soft Cloth Monitoring Electrode, 2.2 inch × 2 inch (5.6 cm x 5.1 cm) with Solid Gel, Abrader and Lift Tab	1000 electrodes/case, 50/bag, 20 bag/case				
	2560	Foam Monitoring Electrode, 1.6 inch × 1.36 inch (4.1 cm × 3.5 cm) with Sticky Gel	1000 electrodes/case, 10/strip, 5 strip/bag, 20 bag/case				
	2570	Foam Monitoring Electrode, Radiolucent, 1.6 inch × 1.36 inch (4.1 cm × 3.5 cm) with Sticky Gel and Abrader	1000 electrodes/case, 10/strip, 5 strip/bag, 20 bag/case				
Fluid Resistant	2235	Clear Plastic Monitoring Electrode, 2 inch dia. (5.1 cm dia.) with Solid Gel and Lift Tab	1000 electrodes/case, 50/bag, 20 bag/case				
	2237	Foam Monitoring Electrode, 1.75 inch dia. (4.4 cm dia.) with Solid Gel and Lift Tab	1000 electrodes/case, 50/bag, 20 bag/case				
	2256-50	Foam Monitoring Electrode, 2 inch dia. (5.1 cm dia) with Wet Gel, Abrader and Lift Tab	1000 electrodes/case, 50/bag, 20 bag/case				
	2259-50	Foam Monitoring Electrode, 2 inch dia. (5.1 cm dia) with Solid Gel, Abrader and Lift Tab	1000 electrodes/case, 50/bag, 20 bag/case				
	2560	Foam Monitoring Electrode, 1.6 inch × 1.36 inch (4.1 cm × 3.5 cm) with Sticky Gel	1000 electrodes/case, 10/strip, 5 strip/bag, 20 bag/case				
	2570	Foam Monitoring Electrode, Radiolucent, 1.6 inch × 1.36 inch (4.1 cm × 3.5 cm) with Sticky Gel and Abrader	1000 electrodes/case, 10/strip, 5 strip/bag, 20 bag/case				

3M

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3M Health Care 2510 Conway Avenue St. Paul, MN 55144 USA 3M, 3M Science. Applied to Life., Red Dot and Micropore are trademarks of 3M. Used under license in Canada. © 2016, 3M. All rights reserved. 151003743 E BA-15-20686 To learn more about the 3M™ Red Dot™ Electrodes, call the **3M Health Care Helpline** at 1-800-364-3577 or visit www.3M.com/patientmonitoring