A close-up photograph of a person's arm wearing a white, textured electro-surgical grounding pad. The pad is secured with a red and grey plastic connector, which is attached to a black cable. The person is wearing a blue, textured hospital gown. The background is a plain, light-colored surface.

3M Science.
Applied to Life.™

Trusted choices for consistent performance.

3M Health Care
Electrosurgical Grounding Pad and Accessory Guide

Electrosurgical Grounding Pad and Accessory Guide

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Instructions for Use

3M™ Electrosurgical Patient Plates 1100 and 8100 Series

General Use



Read and save this document. Make sure everyone who will use this product knows and understands all information contained within this document and AORN recommended practices for electrosurgery. **READ WARNING**

Product Description

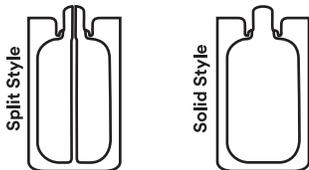
3M™ Electrosurgical Patient Plates (i.e., grounding pads, neutral electrodes) provide a safe return path for electrosurgical current. Patient Plates consist of a conductive adhesive area surrounded by a nonconductive border adhesive. The Patient Plate backing is fluid resistant. Patient Plates are single use only, disposable and not sterile. Patient Plates are supplied pre-corded or non-corded.

- For patients **15Kg or less** use 3M™ Electrosurgical Patient Plates 1146, 1148-LP, 1181 or 1182 with an area of 10 in² (65cm²).
- For patients **greater than 15Kg** use 3M™ Electrosurgical Patient Plates 1100 (excluding those listed above) and 8100 Series. Do not use 3M™ Electrosurgical Patient Plates 1146, 1148-LP, 1181 or 1182 on patients over 15Kg.

CAUTION: U.S.A. Federal Law restricts this device to sale by or on the order of a physician.

WARNING: Improper use of Universal Electrosurgical Pads can cause electrosurgical burns or pressure necroses. For patient safety, follow all of the instructions below. Failure to follow any of these instructions increases the risk of electrosurgical burns or pressure necroses.

Instructions for Safe Use



1. Use Appropriate Pads, Equipment, and Accessories

- Does the electrosurgical generator have a Contact Quality Monitoring System (e.g., REM™, ARM™, NESSY™)?
 - If **NO**, use **solid-style** patient plates.
 - If **YES**, use **split-style** patient plates.
- For patients 15Kg or less use 3M™ Electrosurgical Patient Plates 1146, 1148-LP, 1181, and 1182 that are designed for use on pediatric patients.
- Use ECG cables with RF suppressors/chokes to prevent electrosurgical current from flowing through the ECG electrodes.
- Use 3M cables and adapters as required with 3M Patient Plates.
- Check expiration date on package. 3M Patient Plates are safe to use for 14 days after package is opened.

2. To Reduce the Risk of Burns, Do Not Overload the Patient Plate with Too Much Current

- Do not activate the electrosurgical device or active accessory for more than 60 seconds in any 2-minute period, as this will overload the Patient Plate with current and may result in a patient burn.
- Any combination of **high power, long activation time, and a conductive irrigant** (e.g., saline) may overload the Patient Plate with current and may result in a patient

burn. To reduce this risk:

- Use non-conductive solutions unless specific medical reasons indicate otherwise.
- Use the lowest possible power setting.
- Use short activation times. If long activation is necessary, allow time between activations to allow the tissue under patient plate to cool.
- Use two Patient Plates with the 1157C Y-adapter.
- If you do not receive the desired surgical effect, stop and verify the correct distention/irrigation solution and good Patient Plate contact before proceeding with electrosurgery or increasing the power setting.

3. Select an Appropriate Site

To reduce the risk of burns and pressure necroses:

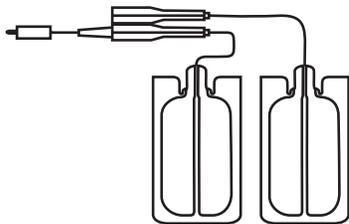
- Select a smooth, well-vascularized, muscular area close to surgical site that allows full Patient Plate-to-skin contact.
- Site must be clean, dry, and free of hair. Remove hair at application site.
- Locate Patient Plate closer to the surgical site than to the ECG electrodes.
- Remove metal jewelry.
- Avoid placement over bony prominences, metal prostheses, or scar tissue.
- Avoid placement such that current flows through a metal prosthesis or conductive implant. For patients with implanted electronic devices, contact device manufacturer for precautions to avoid interference.
- Avoid plate placement over surgical prep solutions containing iodine (Betadine, Povidone-iodine etc.).
- Do not apply Patient Plate where fluids may pool.
- Do not apply Patient Plate over injection site.

- Select a suitable site remote from any warming device.
- Do not place the Patient Plate under the patient. Weight bearing sites have restricted blood flow and may reduce the performance of the Patient Plate.

4. Plate Application

To reduce the risk of burns and pressure necroses:

- Use the largest plate that will fit.
- Inspect Patient Plate, cord, and cable. Do not use if cut, modified or damaged.
- Remove clear liner from Patient Plate before applying to patient.
- Apply Patient Plate onto skin with long edge toward surgical site.
- Apply one end of Patient Plate and smoothly press to other end. Avoid air entrapment.
- Smooth down the Patient Plate edges after application to ensure complete Patient Plate adherence.
- Avoid stretching or folding either Patient Plate or patient's skin.
- Do not use electrode gel.
- Do not wrap Patient Plate completely around a limb. Do not overlap Patient Plate edges.
- Do not place the Patient Plate over compromised skin.
- Do not reposition Patient Plate after initial application. If patient is repositioned, confirm full plate-to-skin contact and integrity of all connections.
- Do not place compression stocking or device over Patient Plate.
- Do not coil or wrap cord or cable around limb or metal object.
- Do not allow cord or cable to lie on or under patient.
- Do not place cable clamp under patient.



Use of two Patient Plates with 1157C Y-adapter:

- Patients with dry skin, adipose tissue, and/or poor vascularization may require two Patient Plates.
- Do not plug cords into 1157C Y-adapter until after each patient plate has been applied.
- Preferred placement of each plate is bilaterally (i.e., left and right side) equally distant from surgical site.
- If the electrosurgical generator does not have a Contact Quality Monitoring System (e.g., REM™, ARM™, NESSY™), then two solid plates may be used with the 1157C Y-adapter.

5. Pad Removal

- Do not remove by pulling on cable or cord.
- Start at corner. Peel back slowly at 180° angle to prevent skin trauma.

Shelf Life: For shelf life refer to the expiration date printed on each package.

Disposal: 3M Patient Plates may be disposed of in the health care facility's general waste stream.

Notice to manufacturers of radio frequency (RF) medical devices and active accessories:

All 3M™ Patient Plates conform to Section 201.15.101.5 of the ANSI/AAMI/IEC 60601-2-2:2017 Standard which specifies that a patient plate must be capable of carrying a current of 700 milliamperes (500 milliamperes for pediatric Patient Plates) for a continuous period of 60 seconds. 3M certifies that the 3M™ Electrosurgical Patient Plates 8100 and 1100 Series, when used in accordance with these Instructions for Use, meet the requirements of the ANSI/AAMI/IEC 60601-2-2:2017 standard for compatibility when used with high frequency (HF) electrosurgical generators with CQM systems that operate with both a maximum impedance limit (not to exceed 150 ohms) and a differential (dynamic) impedance limit (not to exceed 40%). Manufacturers of RF medical devices or accessories should not recommend 3M Patient Plates for use with RF medical devices or accessories that can deliver a current load to the Patient Plate that exceeds the ANSI/AAMI/IEC 60601-2-2:2017 Standard.

For more information on electrosurgical safety, obtain a copy of the 3M High Current Technical Bulletin (70-2009-8640-7).

For questions regarding compatibility of 3M™ Electrosurgical Patient Plates with specific generators, in the U.S.A., please contact 3M at 1-800-228-3957. Outside the U.S.A., please contact your 3M representative.

Explanation of Symbols

 Not Made With Natural Rubber Latex

 Use by date

 Caution, see instructions for use

 Batch code

 Do not reuse

 Manufacturer

 Shock hazard warning

Instructions for Use

3M™ Universal Electrosurgical Grounding Pads 9100 Series

General Use



Read and save this document. Make sure everyone who will use this product knows and understands all information contained within this document and AORN recommended practices for electrosurgery. **READ WARNING**

Product Description

3M™ Universal Electrosurgical Pads (i.e., grounding pads, neutral electrodes) provide a safe return path for electrosurgical current. 3M™ Universal Pads consist of a conductive adhesive area surrounded by a nonconductive border adhesive. The Universal Pad backing is fluid resistant. Universal Pads are single use only, disposable and not sterile. Universal Pads are supplied pre-corded or non-corded. 3M™ Universal Electrosurgical Pads can be used on any sized patient when used in full accordance with the Instructions for Safe Use listed below.

CAUTION: U.S.A. Federal Law restricts this device to sale by or on the order of a physician.

WARNING: Improper use of Universal Electrosurgical Pads can cause electrosurgical burns or pressure necroses. For patient safety, follow all of the instructions below. Failure to follow any of these instructions increases the risk of electrosurgical burns or pressure necroses.

Instructions for Safe Use



1. Use Appropriate Pads, Equipment, and Accessories

- Does the electrosurgical generator have a Contact Quality Monitoring System (e.g., REM™, ARM™, NESSY™)?
 - If **NO**, use **solid-style** universal pads.
 - If **YES**, use **split-style** universal pads.
- Use ECG cables with RF suppressors/chokes to prevent electrosurgical current from flowing through the ECG electrodes.
- Use 3M cables and adapters as required with 3M Universal Pads.
- Check expiration date on package. 3M Universal Pads are safe to use for 14 days after package is opened.

2. To Reduce the Risk of Burns, Do Not Overload the Universal Pad with Too Much Current

- Do not activate the electrosurgical device or active accessory for more than 60 seconds in any 2-minute period, as this will overload the Universal Pad with current and may result in a patient burn.
- Any combination of **high power, long activation time, and a conductive irrigant** (e.g., saline) may overload the Universal Pad with current and may result in a patient burn. To reduce this risk:
 - Use non-conductive solutions unless specific medical reasons indicate otherwise.

- Use the lowest possible power setting.
- Use short activation times. If long activation is necessary, allow time between activations to allow the tissue under patient plate to cool.
- Use two Universal Pads with the 1157C Y-adapter.
- If you do not receive the desired surgical effect, stop and verify the correct distention/irrigation solution and good Universal Pad contact before proceeding with electrosurgery or increasing the power setting.

3. Select an Appropriate Site

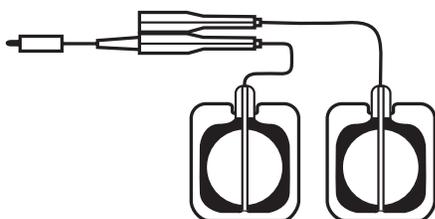
To reduce the risk of burns and pressure necroses:

- Select a smooth, well-vascularized, muscular area close to surgical site that allows full Universal Pad-to-skin contact.
- Site must be clean, dry, and free of hair. Remove hair at application site.
- Locate Universal Pad closer to the surgical site than to the ECG electrodes.
- Remove metal jewelry.
- Avoid placement over bony prominences, metal prostheses, or scar tissue.
- Avoid placement such that current flows through a metal prosthesis or conductive implant. For patients with implanted electronic devices, contact device manufacturer for precautions to avoid interference.
- Avoid placement over surgical prep solutions containing iodine (Betadine, Povidone-iodine etc.).
- Do not apply Universal Pad where fluids may pool.
- Do not apply Universal Pad over injection site.
- Select a suitable site remote from any warming device.
- Do not place the Universal Pad under the patient. Weight bearing sites have restricted blood flow and may reduce the performance of the Universal Pad.

4. Pad Application

To reduce the risk of burns and pressure necroses:

- Inspect Universal Pad, cord, and cable. Do not use if cut, modified or damaged.
- Remove clear liner from Universal Pad before applying to patient.
- Apply one end of Universal Pad and smoothly press to other end. Avoid air entrapment.
- Avoid stretching or folding either Universal Pad or patient's skin.
- Smooth down the Universal pad edges after application to ensure complete Universal pad adherence.
- Do not use electrode gel.
- Do not wrap Universal Pad completely around a limb. Do not overlap the Universal pad edges.
- Do not place the Universal Pad over compromised skin.
- Do not reposition Universal Pad after initial application. If patient is repositioned, confirm full pad-to-skin contact and integrity of all connections.
- Do not place compression stocking or device over Universal Pad.
- Do not coil or wrap cord or cable around limb or metal object.
- Do not allow cord or cable to lie on or under patient.
- Do not place cable clamp under patient.



Use of two Universal Pads with 1157C Y-adapter:

- Patients with dry skin, adipose tissue, and/or poor vascularization may require two Universal Pads.
- Do not plug cords into 1157C Y-adapter until after each Universal Pad has been applied.
- Preferred placement of each pad is bilaterally (i.e., left and right side) equally distant from surgical site.
- If the electro-surgical generator does not have a Contact Quality Monitoring System (e.g., REM™, ARM™, NESSY™), then two solid pads may be used with the 1157C Y-adapter.

5. Pad Removal

- Do not remove by pulling on cable or cord.
- Start at corner. Peel back slowly at 180° angle to prevent skin trauma.

Shelf Life: For shelf life refer to the expiration date printed on each package.

Disposal: 3M™ Universal Electrosurgical Grounding Pads 9100 Series may be disposed of in the health care facility's general waste stream.

For more information on electro-surgical safety, obtain a copy

Notice to manufacturers of radio frequency (RF) medical devices and active accessories:

All 3M™ Universal Pads conform to Section 201.15.101.5 of the ANSI/AAMI/IEC 60601-2-2:2017 Standard, which specifies that a grounding pad must be capable of carrying a current of 700 milliamperes (mA) for a continuous period of 60 seconds. 3M certifies that the 3M™ Split Style Universal Electrosurgical Pads 9100 Series, when used in accordance with these Instructions for Use, meet the requirements of the ANSI/AAMI/IEC 60601-2-2:2017 standard for compatibility when used with high frequency (HF) electro-surgical generators with CQM systems that operate with both a maximum impedance limit (not to exceed 150 ohms) and a differential (dynamic) impedance limit (not to exceed 40%). Manufacturers of RF medical devices or accessories should not recommend 3M Universal Pads for use with RF medical devices or accessories that can deliver a current load to the Universal Pad that exceeds the ANSI/AAMI/IEC 60601-2-2:2017 Standard.

of the 3M High Current Technical Bulletin (70-2009-8640-7).

For questions regarding compatibility of 3M™ Universal Electrosurgical Pads with specific generators, in the U.S.A., please contact 3M at 1-800-228-3957. Outside the U.S.A., please contact your 3M representative.

Explanation of Symbols

	Not Made With Natural Rubber Latex		Use by date
	Caution, see instructions for use		Batch code
	Do not reuse		Manufacturer
			Shock hazard warning

Instructions for Use

3M™ Electrosurgical Reusable Cable

 **Read all safety information and instructions before using this product.**

Product Description

The 3M Electrosurgical Reusable Cable is an accessory in an electrosurgical system. The cable uses plastic insulated conductive wire strands with a metallic connector that fits into the electrosurgical unit (ESU) and a clamping mechanism that securely connects to a 3M dispersive electrode (patient plate, grounding pad, Bovie pad, return electrode, etc.). These reusable cables meet AAMI/ANSI Standards and Recommended Practices, HF 18-1993, for electrosurgical accessories.

Explanation of Symbols

-  Caution, see instructions for use
-  Shock hazard warning

Indications for Use

The 3M Electrosurgical Reusable Cable is designed to provide a safe pathway for the return of electrosurgical radio frequency (RF) current when used with 3M non-corded dispersive electrodes (return electrodes, patient plates, Bovie pads, grounding pads, etc.). These cables are only for use with 3M non-corded dispersive electrodes. The cables are adapted to work with most electrosurgical units (ESUs) where electrosurgery is utilized. Each cable has a specific ESU connector to match a variety of manufacturer's ESUs. Please consult a 3M Electrosurgical Products representative if you have questions about the reusable cable for your specific ESU. Use of this product for unintended applications could lead to an unsafe condition.

Precautions

- Improper application or use of any electrosurgical accessory (reusable cable, adapter or dispersive electrode) may result in electrosurgical shock or burn.
- To prevent electrical shock, only plug ESU connectors into appropriate ESUs. Do not allow the ESU cable connector to touch any earth ground potential (floor, grounded metal object etc.).
- 3M manufactures these cables to be used multiple times. No cable is indestructible. Because it is an essential component, each cable should be carefully inspected monthly. Instructions for cable inspection and continuity testing are described in the Inspection Procedures section of this document.
- Do not use if the product has been damaged or modified in any manner.
- If concerned about the function or quality of any electrosurgical device or accessory, replace it.
- Do not use cable as a tool to remove the dispersive electrode from the patient. If utilized in this fashion, skin stripping or other skin injuries can occur.
- The Contact Quality Monitoring System (CQMS, REM™, ARM™, NESSY™, etc.) will not function if the incorrect reusable cable is used. The type of ESU will determine which cable should be used.

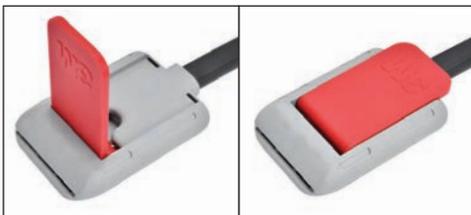


figure 1



figure 2

SHOCK HAZARD WARNING!



Instructions for Use

- Visually inspect cable, clamp and connector for damage prior to each use.
- Inspect connector to ensure correct fit with the ESU to be used.
- Apply electro-surgical dispersive electrode to patient following manufacturer's instructions.
- Ensure clamp lever is in the open (up) position. Insert the tab of the dispersive electrode into slot on the clamp. See figure 1.
- Make certain the entire tab of the dispersive electrode is centered in the clamp and inserted up to the electrode backing material.
- Depress the clamp lever arm to the fully closed (down) position, flush with the top of the clamp. See figure 1.
- Verify the function of the ESU's audible alarm circuit by turning on the ESU before attaching the cable. An alarm should sound. If no alarm sounds, check the alarm volume adjustment. If not working properly, return the ESU for service. When the alarm sounds, insert the cable connector into the ESU dispersive electrode receiver and the alarm should cease. If it does not, try the procedure again. If the alarm does not stop after repeating this procedure, exchange the ESU and/or cable and try the test again.
- Once cable continuity is established, check the ESU's CQM System if applicable. If the CQM System alarms at this time or during surgery, carefully check dispersive electrode to patient contact, cable and clamp connections. If the alarm fault is not found, replace the dispersive electrode and/or cable. If this does not satisfy the alarm fault, replace the ESU.
- At the conclusion of the surgical procedure, remove the clamp from the dispersive electrode, then remove the dispersive electrode from the patient.
- **THE CABLE IS REUSABLE!**

Cleaning Procedure

- Do not use harsh abrasives or chemicals to clean the cable.
- Clean with warm, soapy water and a soft brush or sponge.
- Do not immerse the entire cable in cleaning solution.
- Sonic cleaners may be used on the clamp only.
- Be certain the cable/clamp is completely dry after cleaning.
- Reusable cables can be subjected to 3M™ Steri-Vac™ EO Sterilizer using a warm cycle (55°C), followed by a 16-hour mechanical aeration period at 55°C. **NOTE:** 3M Reusable Cables have not been tested for other manufacturers' EO sterilizers or EO sterilizer equipment.

Caution: 3M makes no claims regarding the efficacy of the process as a means of infection control. Consult your hospital's Infections Control Officer or Epidemiologist.

- **DO NOT AUTOCLAVE CABLE. IT WILL MELT!**

Inspection Procedures

Visual Inspection

1. Clean cable assembly as recommended to remove dirt, tape, patient skin preparation solutions or body fluids.
2. Inspect cable insulation for nicks and cuts. Inspect clamp for plastic fractures and seam separation. Insure that the locking lever sits flush with the top of the clamp body when in the down position.
3. Hold the clamp and wire so that the insulation can be viewed at the clamp/wire interface while bending. See figure 2.
4. Bend and flex the cable side to side while viewing. If the insulation is cracked, this will be seen during maximum flexing of the cable at the outside radius. See figure 3. Discard the cable if the insulation is cracked or it fails visual inspection.

Electrical Inspection

Equipment needed for this inspection is a multi-meter or volt-ohm meter with extension leads and a small piece of metal (shim stock or a cut off tab from the end of a 3M split style dispersive electrode) to insert into the clamp end of a reusable cable. The following inspection technique is based on electrical continuity of individual reusable cable wires.

1. Set the multi-meter or volt-ohm meter to measure resistance or continuity.
2. Insert a piece of shim stock or a cut split tab into each individual contact area of the clamp on the reusable cable assembly and close the clamp lever. Ensure that the shim stock pieces do not come into contact with each other.
3. Attach the meter leads to the shim stock and the corresponding plug pin of the cable connector. The lead should be securely attached to obtain a stable resistance measurement.
4. Measure the resistance of the cable while flexing the wire at the cable/connector interface. If the measured resistance indicates discontinuity, the cable should be discarded and replaced with a new one. Repeat steps 3 and 4 to measure resistance for the second wire.
5. This inspection should be performed monthly or as directed by hospital policy for similar electro-surgical devices.
6. Replace cables when electrical testing confirms discontinuity.

If you have any questions or comments, contact the 3M Health Care Customer Helpline at (USA) 1-800-228-3957.

Frequently Asked Questions

Generator and Grounding Pad Compatibility

Q: Can 3M Grounding Pads be used with ANY medical device that generates or uses radiofrequency (RF) current?

A: No. 3M Grounding Pads are intended for use with standard electrosurgical generators for the purposes of tissue cutting and coagulation as described in the ANSI/AAMI/IEC 60601-2-2:2017 standard. 3M Grounding Pads have not been approved for other medical uses such as cryogenic tissue freezing or pain management procedures. If there is any question about an RF medical device, the manufacturer should be asked to certify in writing that their device is safe and efficacious for use with grounding pads that comply with the ANSI/AAMI/IEC 60601-2-2:2017 standard.

Q: What does CQM stand for?

A: CQM is the abbreviation for Contact Quality Monitor and is the generic term used for REM™, ARM™, NESSY™, all of which are trademarks of individual generator manufacturers.

Q. How does a CQM protect the patient against electrosurgical burns?

A: The CQM is designed to be used with split style grounding pads, and will not permit the generator to work if the grounding pad does not have adequate electrical contact with the patient.

Q: Can you use a split style grounding pad on any generator?

A: No. For older generators which are not equipped with a CQM, only solid style grounding pads can be used. If a split pad is mistakenly used, the generator will refuse to work.

Q: What happens if you try to use any brand of solid style pad (including 3M, Valleylab, Conmed, Aspen and Megadyne) with a generator equipped with a CQM?

A: The generator will sense that a solid pad has been connected to it, and will automatically deactivate the CQM circuit.

Q: What will happen if a grounding pad starts to come loose under the drapes during surgery?

A: If a split style pad is being used with a generator equipped with a CQM, an alarm will sound and the generator will be deactivated. If a solid pad is being used, there will be no alarm even if the pad becomes completely detached from the patient.

Q: In an O.R. with a mix of generators where some have CQM and some do not, would it be possible to standardize on a single brand of solid pad for the whole O.R.?

A: While this would be possible, this would deactivate the CQM in the generators and possibly increases risk to patient safety. 3M strongly recommends that no type of solid grounding pad ever be used with a CQM equipped generator.



Clinical Considerations

Q: Should grounding pads be placed under warming blankets or warming devices?

A: No. The use of a warming blanket or warming device over a grounding pad elevates the skin temperature at the pad site and does not allow the heat from under the pad to escape properly. If it is not possible to keep the pad away from the warming blanket/device, then the warming blanket/device should not be used at the same time as the electrosurgical generator.

Q: What conditions can make a grounding pad stick more aggressively to a patient, and possibly cause some delamination of the conductive adhesive from the pad upon removal?

A: Applying a grounding pad to a weight-bearing site will significantly increase its adhesion to the patient. In addition, perspiration from a patient will be absorbed by the conductive adhesive on the pad making it softer and stickier. Additional care and a very slow removal technique should be used on any grounding pad that is strongly adhered to the patient.

Q: Can you ETO sterilize a grounding pad?

A: The pad by itself may not be sterilized, but it may be left sealed in its original packaging and placed on the outside of a kit which will undergo ETO sterilization. This will sterilize the exterior of the package, but the pad will remain non-sterile. This sterilization must not compromise the integrity of the package. If the plate is exposed to ETO, residuals left in the adhesive or gel can cause a severe skin reaction.

Q: If a patient is only under local anesthetic for a surgical procedure, it is possible that they may feel some sensation of heat under the grounding pad?

A: Although uncommon, this is possible. In the extremely unlikely circumstance that the sensation is so hot as to be uncomfortable, the grounding pad should be checked to make sure that it is still in full contact with the patient.

Grounding Pad Cables and Adapters

Q: What is the most common solid grounding pad adapter plug in the world?

A: It is generally known as the “1/4 inch phono plug”. The 3M part numbers for this plug are 1151C for corded grounding pads and 3151C for non-corded pads. There are more old generators that use this plug style than all the other types combined.



Q: What is a Y-adapter and when is it used?

A: A Y-adapter is used to connect two split style pads to an electrosurgical generator with a CQM. It is 3M part number 1157C. It is used when one split pad alone will not satisfy the CQM system on the generator due to high skin impedance or excessive adipose tissue on the patient.

Q: Does the red tab side of a 3M Reusable Grounding Pad Cable have to face a certain direction when attached to a 3M Non-Corded Grounding Pad?

A: No. The conductors inside the reusable cable will make contact with the pad either way.

3M™ Electrosurgical Patient Plates 1100 Series — Small

The 3M™ Electrosurgical Patient Plates 1181 and 1182 all have a conductor area of approximately 10 square inches, have a white foam backing and are intended for use when a larger pad is too big to use at a recommended placement site. For use with patients 15Kg or less.



1181

Small precorded split grounding pad.



1182

Small non-corded split grounding pad
for use with a 3M™ Electrosurgical
Reusable Cable 21174.

3M™ Electrosurgical Patient Plates 1100 Series — Large

The 3M™ Electrosurgical Patient Plates 1149, 1149C-LP, 1179 and 1180 all have a conductor area of approximately 20 square inches and have a white foam backing. For use on patients greater than 15Kg.



1149

Non-corded solid grounding pad for use with a 3M™ Electrosurgical Reusable Cable 21172 and a 3M™ Adapter Plug 31xxC Series.



1149C-LP

Precorded solid grounding pad for use with a 3M™ Adapter Plug 31xxC Series.



1179

Precorded split grounding pad.



1180

Non-corded split grounding pad for use with a 3M™ Electrosurgical Reusable Cable 21174.

3M™ Electrosurgical Patient Plates 8100 Series

The 3M™ Electrosurgical Patient Plates 8149F and 8180F both have a conductor area of approximately 20 square inches and fluid resistant non-woven backing which allows heat to pass through up to 25% faster than foam. For use with patients 15Kg or less.



8149F *5-pack*

Non-corded, solid grounding pad for use with a 3M™ Electrosurgical Reusable Cable 21172 and a 3M™ Adapter Plug 31xxC Series.



8180F *5-pack*

Non-corded, split grounding pad for use with a 3M™ Electrosurgical Reusable Cable 21174.

3M™ Electrosurgical Universal Grounding Pads 9100 Series

The 3M™ Electrosurgical Universal Grounding Pads 9130, 9135, 9135-LP, 9160 and 9165 all have a conductor area of 15 square inches and come with the patented 3M Green Safety Ring technology which allows them to perform the same as grounding pads that are up to 33% larger in conductor area. In addition, they have fluid resistant, non-woven backing which allows heat to pass through up to 25% faster than foam and they have no minimum age or weight limit. 3M™ Universal Electrosurgical Pads can be used on any sized patient when used in full accordance with the Instructions for Safe Use.



9130 *or 9130F 5-pack*

Universal non-corded, solid grounding pad for use with a 3M™ Electrosurgical Reusable Cable 21172 and a 3M™ Adapter Plug 31xxC Series.



9135-LP

Universal pre-corded, solid grounding pad for use with a 3M™ Adapter Plug 31xxC Series.



9160 *or 9160F 5-pack*

Universal non-corded, split grounding pad for use with a 3M™ Electrosurgical Reusable Cable 21174.

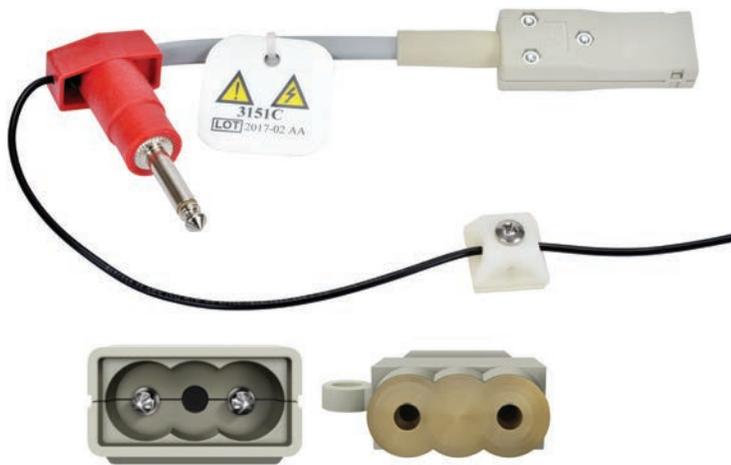


9165

Universal pre-corded, split grounding pad.

3M™ Electrosurgical Generator Adapters for Solid Style Grounding Pads

Notes: All 3M™ Adapter Plug 31xxC Series may be used with non-corded 3M Solid Style Grounding Pads and when used in conjunction with a 3M™ Electrosurgical Reusable Cable 21172. This combination of adapter, reusable cable and grounding pad are for generators that use solid style grounding pads. These adapters may be used with corded 3M Solid Style Grounding Pads. This receptacle type is used in every country in the world for electrosurgical generators that use solid style grounding pads is the one that accepts the 3M™ Adapter Plug 3151C.



3151C

For use with 3M Solid Style Grounding Pads in conjunction with a 3M™ Electrosurgical Reusable Cable 21172.

3M Order # 3151C
3M Part # 70-2007-2685-2



3171C

For use with 3M Solid Style Grounding Pads in conjunction with a 3M™ Electrosurgical Reusable Cable 21172.

3M Order # 3171C
3M Part # 70-2007-2690-2

3M™ Electrosurgical Generator Adapters for Split Style Grounding Pads



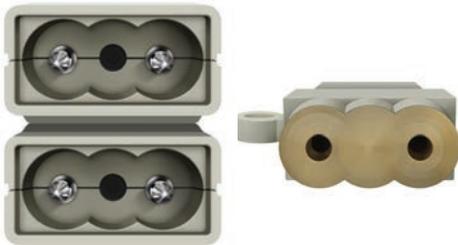
1157C

(also called a “Y” adapter)

For use with two 3M™ Split Style Grounding Pads with preattached cords or for use with two 3M™ Electrosurgical Reusable Cables 21174 and non-corded 3M™ Split Style Grounding Pads.

3M Order # 1157C

3M Part # 70-2005-2302-8



3M™ Electrosurgical Reusable Cables for Non-Corded, Solid Style Grounding Pads

21172

(10 ft. cable length)

For use with 3M™ Non-Corded
Solid Style Grounding Pads.

3M Order # 21172

3M Part # 70-2007-0191-3



21172L

(15 ft. cable length)

For use with 3M™ Non-Corded,
Solid Style Grounding Pads.

3M Order # 21172L

3M Part # 70-2007-0192-1



3M™ Electrosurgical Reusable Cables for Non-Corded, Split Style Grounding Pads



21174

(10 ft. cable length)

For use with 3M™ Non-Corded Split Style Grounding Pads.

3M Order # 21174
3M Part # 70-2007-0195-4



21174L

(15 ft. cable length)

For use with 3M™ Non-Corded Split Style Grounding Pads.

3M Order # 21174L
3M Part # 70-2007-0196-2



21174ABC

(10 ft. cable length)

For use with 3M™ Non-Corded Split Style Grounding Pads.

3M Order # 21174ABC
3M Part # 70-2007-0197-0

Common Generator Receptacles

For Split Style Grounding Pads

The receptacle for split style grounding pads is almost an industry standard. This receptacle is rectangular in shape and measures 0.8 inches (20mm) wide by 0.4 inches (10mm) high. Within this receptacle are two metal pins, symmetrically spaced, located 0.4 inches (10mm) away from each other. In addition, there is a small, round hole located midway between these two metal pins.

In the case of Valleylab generators, the tip of a small micro-switch can be seen protruding into the area of the hole. With all other brands of generators, the hole is empty. Both the 3M Split Style Grounding Pads with a preattached cord and the 3M™ Electrosurgical Reusable Cable 21174 are designed to fit into these receptacles.

NOTE: A receptacle that has no hole between the two metal pins can be found on some newer brands of electrosurgical generators that are sold outside of the United States and Europe. It is designed for use only with solid style grounding pads.



Valleylab Generators



All other generators



Example plug

For Solid Style Grounding Pads

For generators that use solid plates, there is no hole between the two metal pins in the receptacle. It is also rectangular in shape and measures 0.8 inches (20mm) wide by 0.4 inches (10mm) high with two metal pins, symmetrically spaced, located 0.4 inches (10mm) away from each other. It is designed to accept the 3M Electrosurgical Reusable Cable 21172 with a non-corded 3M Solid Style Grounding Pad.



No hole between metal pins



Example plug



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70-2009-7127-6
Issue Date: 2018-10