Ordering Information

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<th>3M Cat No</th>
<th>3M Product Description</th>
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<td>9660</td>
<td>3M Single-use Blades for 3M Surgical Clipper with Pivoting Head</td>
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<td>3M Surgical Clipper with Pivoting Head</td>
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<td>2236</td>
<td>3M One Step Abrader Tape, 18mm x 5m</td>
<td>3 items/box</td>
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References:

Bibliography
Dublin, Dale
Rapid Interpretation of EKG’s
Dorland’s Illustrated Medical Dictionary
Gray’s Anatomy

For more information visit
www.3m.co.uk/diagnostics
www.3mlearning.co.uk

‘High skin impedance can diminish the magnitude of the ECG signal reaching the monitor’

Step 1 – CLIP Patient Hair
Step 2 – Abrade Patient Skin
Step 3 – Apply ECG Electrode

3M Health Care
3MTM Surgical Clippers
3MTM One Step Skin Abrader Tape
**What is skin impedance?**

Skin impedance is the resistance of the skin to transmitting the electrical signal from the heart to the sensing element of the electrode.

**What are the major causes of high skin impedance?**

- Excess bodily hair on the electrode application site
- Dead skin cells on the electrode application site

**What do the effects of high skin impedance result in?**

- Increased false alarms
- Poor quality of tracings for diagnosis
- Increased time to signal acquisition
- A reduction in patient comfort due to frequent electrode replacement
- An increase in overall cost due to frequent electrode replacement

**What is the solution to high skin impedance?**

Correct skin preparation prior to electrode application through hair removal with 3M™ Clipper and dead skin removal with 3M™ One Step Skin Abrader Tape.

**Step 1 – CLIP Patient Hair**

**Hair Removal - Clipping**

Hair growing at ECG sites can be the cause of two types of ECG trace quality problems:

- Hair is a non-conductive material and can prevent good electrical contact of the electrode gel with the patient’s skin
- Hair can also compromise the adhesion of the electrode to the patient

Heavy skin hair must be clipped in order for the electrode to make good contact with the skin. Nicks in the skin made while shaving may allow for an infection to occur. Therefore, care should be taken when removing hair from a patient, and it is recommended that a clipper be used for this purpose.

**3M™ Surgical Clipper with Pivoting Head (9661)**

The ergonomic design and the unique pivoting head makes it light and easy to manoeuvre on even the most awkward body contours.

- Universal for body hair removal
- Cuts hair in both push and pull motion
- Removes all types of hair. Cutting blade on top of stationary blade, away from the skin, so there in minimal risk of nicks and cuts
- Minimum 90 to 100 minute run time after fully charging battery (12-14 hours)
- Snap on/snap off blade, reducing time between clippings
- Single-use blades, reducing the risk of cross contamination between patients
- Easy to clean—simply wipe the clipper handle with an alcohol wipe or disinfectant, or rinse the head of the clipper handle under running water (never immerse the clipper)

**Step 2 – Abrade Patient Skin**

**Dead Skin Removal – Skin Abrasion**

Dead skin cells are not good conductors of electrical impulses that have travelled from the heart. Skin abrasion is a method used to mechanically remove dead skin cells in order to enhance the ability of the electrode to pick up the electrical signal coming from the heart.

**3M™ One Step Skin Abrader Tape (2236)**

3M™ 2236 one step abrader tape is clinically proven to provide low skin impedance. It is ideal for preventing artefact problems that can occur with stress test and Holter monitoring. Evaluations show a significant reduction in skin impedance using just one swipe of the product.

- Quick and easy to use
- Provides excellent trace quality
- Can be used with both diagnostic and monitoring electrodes
- For use in difficult-to-monitor procedures such as stress tests or Holter monitoring
- When troubleshooting poor trace quality
- Ideal for patients who have naturally high skin impedance

**Step 3 – Apply ECG Electrode**