MEGA 2000® and Patients with Pacemakers

Megadyne has no reason to believe the MEGA 2000 patient return electrode system will perform differently than traditional gel pads. AORN’s 2004 Recommended Practices for Electrosurgery state, “Personnel should take additional precautions” when using the ESU with patients who have pacemakers and automatic defibrillators. We recommend you follow AORN’s guidelines when using the MEGA 2000 system. You should:

- ensure that the distance between the active and dispersive electrodes is as short as possible, - the practical application and size of the MEGA 2000 will place the dispersive pad directly below the surgical site, therefore minimizing the distance between the active and dispersive electrodes.

- place both electrodes as far from the pacemaker as possible - again, the practical application and size of the MEGA 2000 will place the dispersive pad directly below the surgical site, ensuring the distance traveled from the surgical site to the electrode is as small as possible. As a result, when the surgical site is away from the pacemaker the “effective” area of the return electrode is away from the pacemaker.

- Ensure that the current path from the surgical site to the dispersive electrode does not pass through the vicinity of the patient’s heart or the implanted pacemaker device - when the surgical site is below the region of the heart the pad can also be placed below the heart to further minimize the possibility of current passing through the pacemaker. When the surgical site is in the region of the heart, current may flow through the pacemaker with either a traditional gel pad or the MEGA 2000 system.

- Use the lowest possible setting on the electrosurgical generator.

- Keep all electrosurgical cords and cables away from the pacemaker and its leads.

In addition to AORN’s Recommended Practices, the national standards governing electrosurgical safety (ANSI/AAMI HF-18, 1993), which were written with gel pads in mind, state in paragraph 4.1.2.3h “The use of electrosurgical devices can cause severe electromagnetic interference in other devices, particularly cardiac pacemakers; precautions should be taken to ensure that the patient’s well-being is maintained in the event of such interference.”