MagneSnap Electrodes for CJ Sockets

Liberating Technologies introduces the MagneSnap™ Remote Electrode system for use with prosthetic liners and the new CJ Sockets®. This electrode system allows the clinician to place the Remote Electrode-Amplifiers in the distal end of the forearm or humeral section of the socket rather than at the myoelectric site. The Remote Electrode cables extend to the myoelectric sites and the magnetic connector attaches to the Metal Electrodes in the liner under the CJ Socket fabric. This low profile magnetic connector enables the user to conveniently connect and disconnect electrode wires when donning and doffing their prosthesis.

The MagneSnap system uses rare earth Neodymium magnets for a strong, secure, self-aligning attachment of the electrode wires to the metal electrodes in the liner. The low-profile magnetic connector is just 2.17 mm (0.085”) thick, about half the thickness of snap electrodes, making it ideal for use with CJ Sockets. These magnetic connectors are designed to reduce stray magnetic fields and concentrate the forces to increase the connection strength. Unlike the point contact provided by mechanical snap electrodes, MagneSnap Electrodes have larger contact areas to provide a good electrical connection required for low-level myoelectric signals. Additionally, the Remote Electrode cables are shielded to prevent interference from stray electrical noise. These cables are available in three lengths allowing the clinician to choose the one most suitable for the application.
The metal electrode stud pierces the liner and clamps to it using unique mating machined surfaces that capture the silicone or gel to provide a secure attachment to the liner. Once installed, the stud on the metal electrode is cut to the desired length and ground flush.

The Electrode-Amplifiers are less than 5 mm (0.2") thick, or half the thickness of traditional electrodes, making it possible to conceal them in the socket. The amplifiers have on-board 60 Hz noise filters, RF filters and gain adjustment for setting the signal strength to the correct level for optimum myoelectric performance.

To assure that stress on the Remote Electrode Cable does not damage the connection at the Electrode-amplifier, some strain relief must be provided here.

LTI MagneSnap Electrode-Amplifiers are compatible with most manufacturers’ prosthetic devices and are terminated in an Otto Bock-style 3-socket electrode connector. This enables them to mate with a standard Quick Disconnect (QD) wrists or a wrist rotator. Since this QD wrist style has become the default industry standard, it means that the clinician can choose the terminal device(s) preferred by the user and be assured that these electrodes will be compatible. This allows the CJ Socket to be a universal socket solution regardless of the terminal device brand or model.
The LTI MagneSnap Remote Electrode Kit (MSDC200B) includes; an LTI Remote Electrode-Amplifier a MagneSnap Remote Electrode Cable and MagneSnap Metal Electrode Kit (qty 3).

Remote Electrode-Amplifier:

MagneSnap Remote Electrode Kit includes:
1 Remote Electrode-Amplifier
1 MSRECXX Cable,
1 MSEL03 Metal Electrode Kit (qty 3)
Silicone adhesive

MSDC200B MagneSnap Remote Electrode Kit
50 or 60 HZ (specify frequency)

MagneSnap Remote Electrode Cables - available in three cable lengths:

MSREC06 MagneSnap Remote Electrode Cable
6” (15.2cm) long

MSREC12 MagneSnap Remote Electrode Cable
12” (30.5cm) long

MSREC24 MagneSnap Remote Electrode Cable
24” (60.1cm) long

MagneSnap Metal Electrodes:

MSEL03 MagneSnap Metal Electrode Assembly
small, single

MSEL13 MagneSnap Metal Electrode Kit, small, qty 3
(shown)