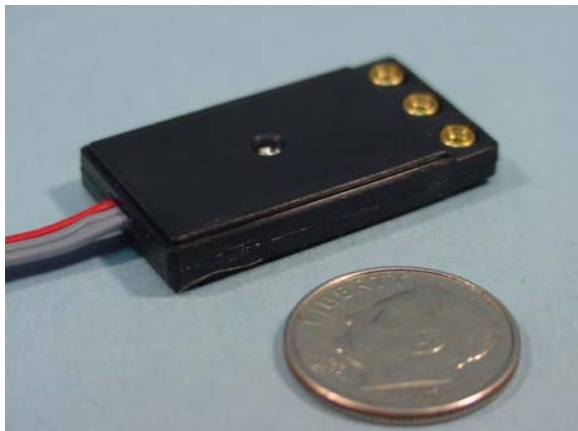


Myoelectrodes – Input Devices

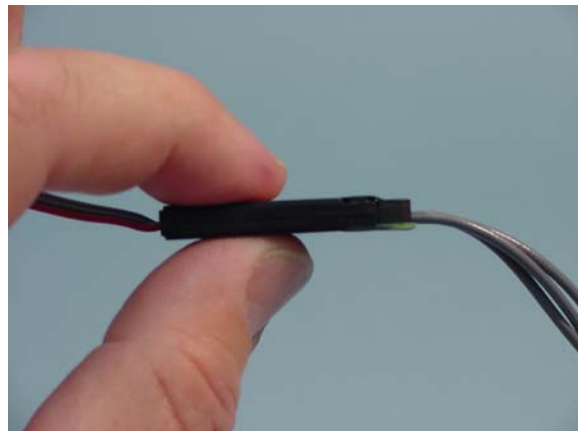
LTI Remote Electrodes:

LTI offers Remote Electrodes-Amplifiers in three styles:

- 1) AC Myoelectrodes for use with Boston Digital Arm Systems (BE328/330)
- 2) DC Myoelectrodes for use with other prosthetic systems in the U.S. (110V, 60Hz)
- 3) DC Myoelectrodes for use with other prosthetic systems in Europe (220V, 50Hz)



LTI Remote Electrode-Amplifier



Low profile Electrode-Amplifier case

The AC electrodes (BE328/330) are used exclusively with LTI Boston Digital™ Arm Systems as the primary myoelectric inputs (up to two). These provide the best resolution and slow-speed control of the prosthesis. For Boston Arm Systems with more than two myoelectric inputs (i.e. Targeted Muscle Reinnervation systems), DC Myoelectrodes (DC200L) can be used (up to 6) to supplement the two primary AC Myoelectrodes. For all other prosthetic applications, LTI DC Electrode-Amplifiers are used. These are shown below with their individual output connectors, making them suitable for use with all manufacturers' prosthetic systems.

Remote Electrode-Amplifiers are sold as a **kit** which includes the specific type of Electrode-Amplifier chosen, plus a Remote Electrode Cable (REC) of the desired length (3, 6, 12 or 24") and Metal Electrodes (3) of the size and shape most suitable for the patient (EL11, EL12 or EL13). Remote Electrodes are designed for use with sockets consisting of a soft inner socket and a hard outer socket. The Metal Electrodes are placed into the inner socket and the Remote Electrode Cables are routed between the inner and outer sockets.

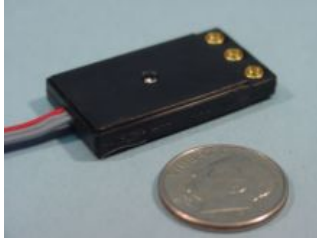
The other option for Remote Electrodes are the **MagneSnap™** Electrodes which are also sold as a kit. MagneSnap Electrodes are for use with roll-on socket liners (silicone or gel). These use the same Electrode-Amplifiers but with different cables. Rather than the standard REC cables which terminate in ring terminals, these cables terminate in a connector that has a rare earth magnet which is attracted to the metal electrodes in the liner. This arrangement allows the user to don the liner, then don the socket and finally, connect the MagneSnap cables to the metal electrodes in the liner.

LTI Remote AC Electrode-Amplifiers for Boston Arms:

LTI Remote AC Electrode-Amplifiers are designed for use with the Boston Digital Arm System only. These Electrode-Amplifiers do not have on-board gain adjustment because the Boston Arm provides the gain adjustment. Similarly, they do not have environmental electrical noise filters because the Boston Arm also provides this feature. These AC Electrode-Amplifiers deliver raw myoelectric signals to the Boston Digital Arm.

For all other applications, including Otto Bock components or other manufacturer's systems with Otto Bock 3-socket connectors, use the Remote DC Electrode Amplifiers (DC200B) shown in the next section. For systems with LTI VariGrip Controllers, use the Remote DC Electrode Amplifiers (VGC6XX).

Myoelectrodes – Input Devices



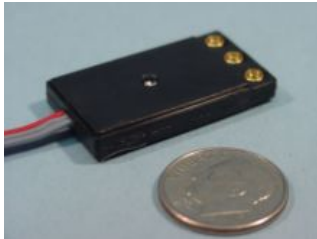
BE328 Remote AC Electrode-Amplifier for Boston Arm Systems
*Supplied with Remote Electrode Cable (RECXX) and Metal Electrodes (EL1X).
Select cable length and electrode style below*



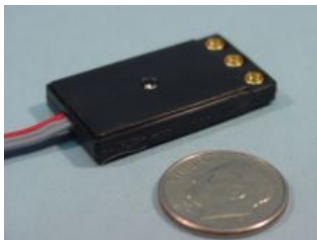
LTI Remote DC Electrode-Amplifiers:

The output of these Remote DC Electrode Amplifiers is similar to a Bock (13E200) Electrode with an on-board gain adjustment. When using a non-Bock system, additional gain can often be obtained through the controller.

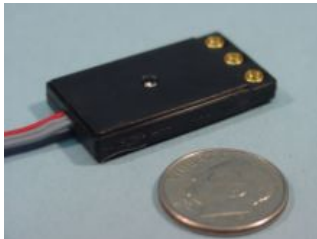
These Remote Electrode-Amplifiers are equipped with a plug to interface with either LTI's Programmable VariGrip™ controllers (VGC62X) or a Bock controller (DC200B) or to any other controller that uses the Bock-style 3-socket connectors. A special version of the Remote DC Electrode-Amplifier is available as additional inputs for the Boston Digital Arm-TMR when more than two myoelectric sites are available. All LTI Remote DC Electrode-Amplifiers have built-in filters to eliminate unwanted environmental electrical interference. These filters are set to eliminate the effects of the line/mains power. In the U.S. this is at 60Hz and in Europe and much of the world it is at 50Hz.



DC200B Remote DC Electrode-Amplifier, 60 Hz Filter
*Includes 60 Hz (default) filter for U.S. patients
Supplied with Remote Electrode Cable (RECXX) and Metal Electrodes (EL1X).
Select cable length and electrode style below*



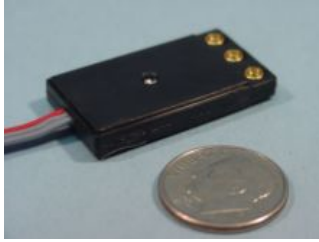
DC200B-50 Remote DC Electrode-Amplifier, 50 Hz Filter
*Includes 50 Hz filter for non-U.S. patients
Supplied with Remote Electrode Cable (RECXX) and Metal Electrodes (EL1X).
Select cable length and electrode style below*



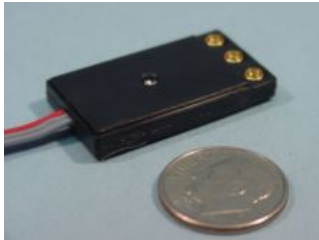
VGC625 Single Remote DC Electrode-Amplifier for VariGrip™
VGC626 Dual Remote DC Electrode-Amplifiers for VariGrip™
*Includes 60 Hz (default) filter for U.S. patients
Supplied with Remote Electrode Cable (RECXX) and Metal Electrodes (EL1X).
Select cable length and electrode style below*



Myoelectrodes – Input Devices



DC200L Remote DC Electrode-Amplifier, 60 Hz Filter
*Includes 60 Hz(default) filter for U.S. patients
Supplied with Remote Electrode Cable (RECXX) and Metal Electrodes (EL1X).
Select cable length and electrode style below*



DC200L-50 Remote DC Electrode-Amplifier, 50 Hz Filter
*Includes 50 Hz filter for non-U.S. patients
Supplied with Remote Electrode Cable (RECXX) and Metal Electrodes (EL1X).
Select cable length and electrode style below*



LTI Remote Electrode Cables:

These Remote Electrode Cables (REC) attach to the Remote Electrode-Amplifiers and to the Metal Electrodes, (EL1X) thus making a complete LTI Remote Electrode System. The three ring terminals are just 0.35" (9mm) wide and 0.1" (2.5mm) thick, thus keeping the profile low.



- REC03** Remote Electrode Cables, 3 in (76mm) long
- REC06** Remote Electrode Cables, 6 in (152mm) long
- REC12** Remote Electrode Cables, 12 in (305mm) long
- REC24** Remote Electrode Cables, 24 in (609mm) long



The ring terminals on LTI Remote Electrode Cables accept the 4-40 studs on the EL01, EL02 or EL03 Metal Electrodes and attach to the Remote Electrode-Amplifiers above.

LTI Remote Metal Electrodes:

These Cavity-backed™ Metal Electrodes for use with the LTI Remote Electrode System, are attached to the Remote Electrode Cables above. They are available in three sizes/shapes to suit all applications. They have a recess on the back allowing the inner socket material to deform into this space, thus reducing the bulge on the outer socket. When mounted into an inner socket in this way, the Metal Electrodes and their two nuts add less than a tenth of an inch (2.5mm) on the outside. This results in a more cosmetically attractive socket and provides a better seal for perspiration.



EL01 Remote Metal Electrode, High Dome, Cavity-backed™
0.56" (14mm) dia. dome rises 0.19" (4.8mm) with 4-40 threaded stud for attaching to REC ring terminal. Supplied with two small profile 4-40 nuts.

EL11 Remote Metal Electrode Kit, High Dome, qty 3
Use this kit with the Remote Electrode Cables above

Myoelectrodes – Input Devices



EL02 Remote Metal Electrode, Medium Dome, Cavity-backed™
0.56" (14mm) dia. dome rises 0.12" (3mm) with 4-40 threaded stud for attaching to REC ring terminal. Supplied with two small profile 4-40 nuts.

EL12 Remote Metal Electrode Kit, Medium Dome, qty 3
Use this kit with the Remote Electrode Cables above



EL03 Remote Metal Electrode, Small Dome, Cavity-backed™
0.37" (9.4mm) dia. dome rises 0.09" (2.2mm) with 4-40 threaded stud for attaching to REC ring terminal. Supplied with two small profile 4-40 nuts.

EL13 Remote Metal Electrode Kit, Small Dome, qty 3
Use this kit with the Remote Electrode Cables above

MagneSnap™ Remote Electrodes for Boston Arms:

The MagneSnap Remote Electrodes are intended for prosthetic applications using a roll-on liner (silicone or gel) rather than an inner socket. They use the same low-profile Electrode-Amplifiers as the LTI Remote Electrodes above, but they are supplied with a different cable and metal electrodes. The MagneSnap Remote Electrode Cable (MSRECXX) use magnet attraction to attach the cables to the metal electrodes



MSREC03 MagneSnap Remote Electrode Cable, 3" long
MSREC06 MagneSnap Remote Electrode Cable, 6" long
MSREC12 MagneSnap Remote Electrode Cable, 12" long
MSREC24 MagneSnap Remote Electrode Cable, 24" long
Use with MagneSnap Metal Electrodes (MSEL13) below



MSEL13 MagneSnap Metal Electrode Kit, 3/8" dia., quantity 3
Use with MagneSnap Remote Electrode cables above
Round nut is magnetically attracted to MagneSnap Remote Electrode Cable