

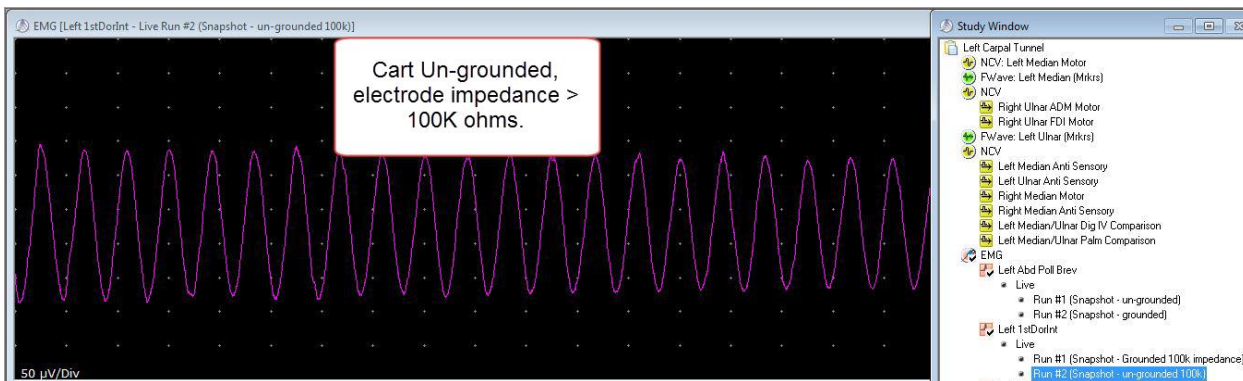
Sierra Summit/Ascent Base-to-Cart and Base-to-Amp Arm Grounding

Sierra Summit and Ascent systems are shipped from Cadwell with a Summit Accessory Kit that contains three green ground wires that are intended for additional grounding on an *as needed basis*. In some EMG exam rooms it may be necessary to connect these ground wires to your Summit or Ascent to reduce the amount of environmental electrical interference encountered in the recordings. The following images demonstrate what the electrical interference looks like before and after grounding and how to connect the ground wires. If you cannot locate the green ground wires, it will be necessary to order them from Cadwell.

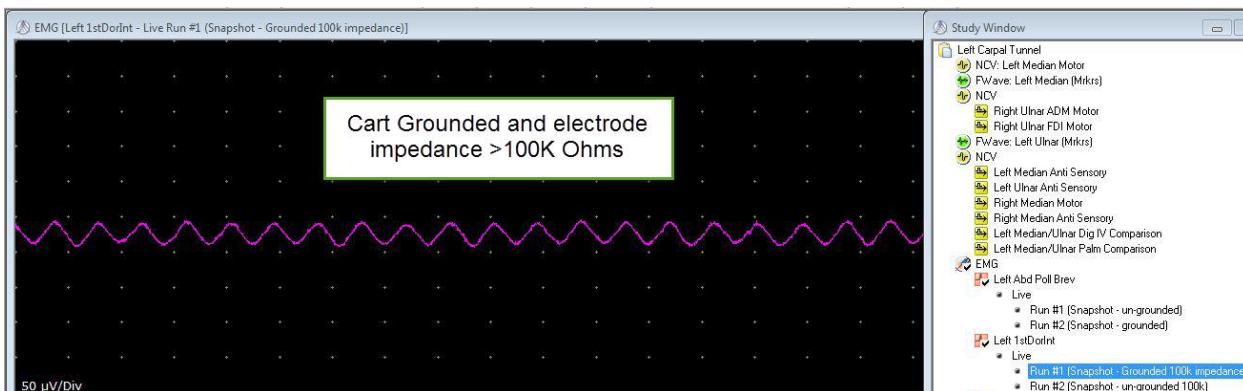
PN 199271-200 (short ground wire from base to amplifier arm for POC and T2 Carts)

PN 199270-200 (long ground wire from base to cart for the Point of Care Cart)

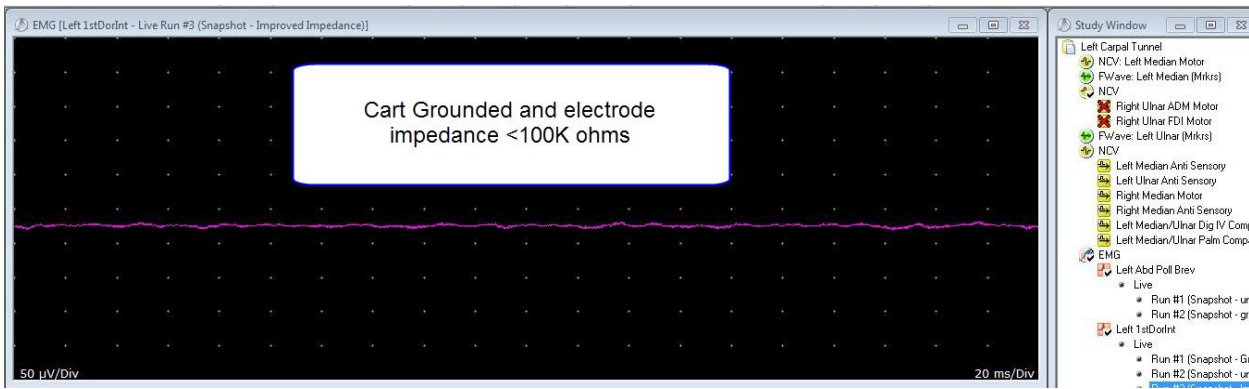
The following waveform images were taken to demonstrate poor EMG signal quality prior to cart grounding and the same signal after cart grounding. Recordings were taken in an electrically “noisy” environment intended for demonstration purposes only.



EMG signal **before cart grounding** wires connected. Disposable recording electrodes with **electrode impedance >100K ohm**.



Same EMG signal **after grounding** wires connected as shown below. Filter settings, patient positioning and electrodes un-changed from above illustration. **Electrode impedance > 100K ohms**.



Same EMG signal **after grounding** wires connected and **electrode impedance < 100K**. To check the impedance value, click on Z from the upper tool bar.

Sierra Summit POC (Point of Care) Cart Grounding



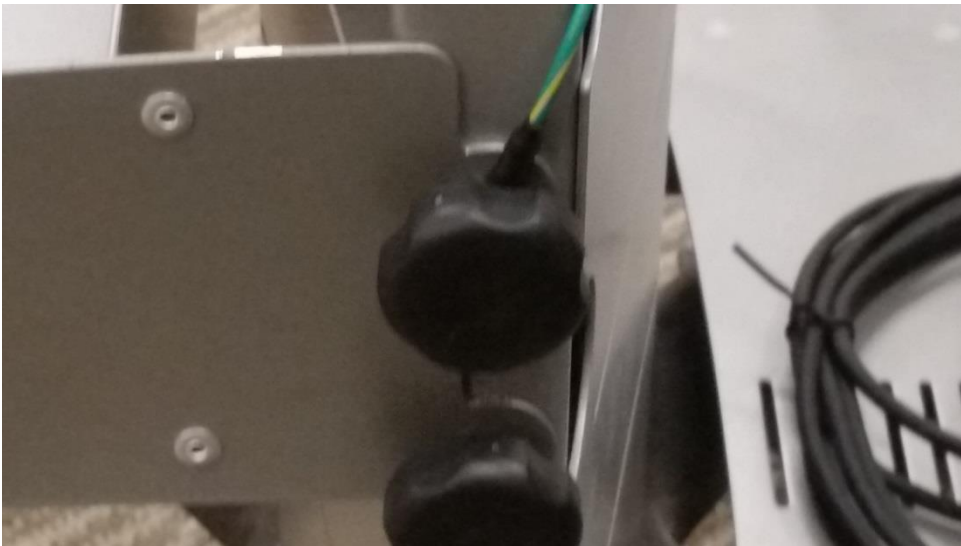
(Connect the small ring end of both wires to the grounding pin on the back of the base.)



(Connect large ring of the shorter wire to the bottom of the amplifier arm mount. Un-screw the large black rubber cap screw from the bottom of the cart and slide the ring onto the peg screw then re-connect the cap screw.)



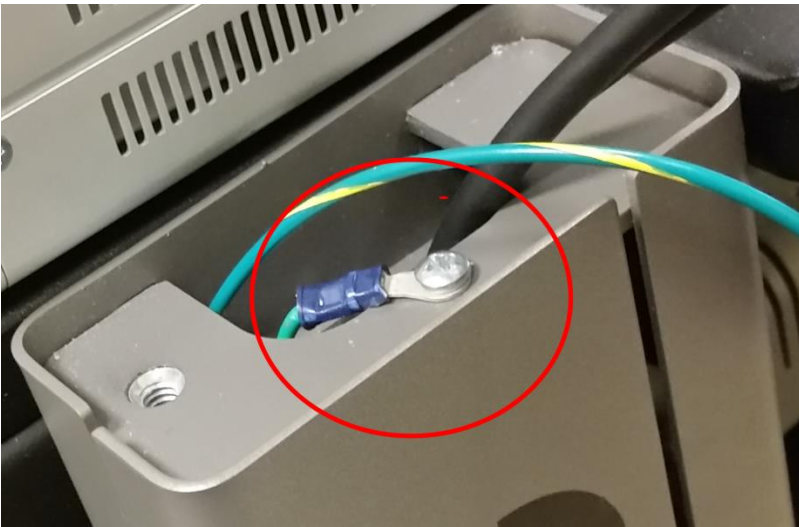
(Connection close-up)



(The second longer ground wire is connected to one of the screws on the cart chassis. This placement is optional. The washer should be touching metal.)

Sierra Summit/Ascent T2 Cart Grounding

The T2 cart comes with a ground wire pre-connected between the base unit and the cart chassis.

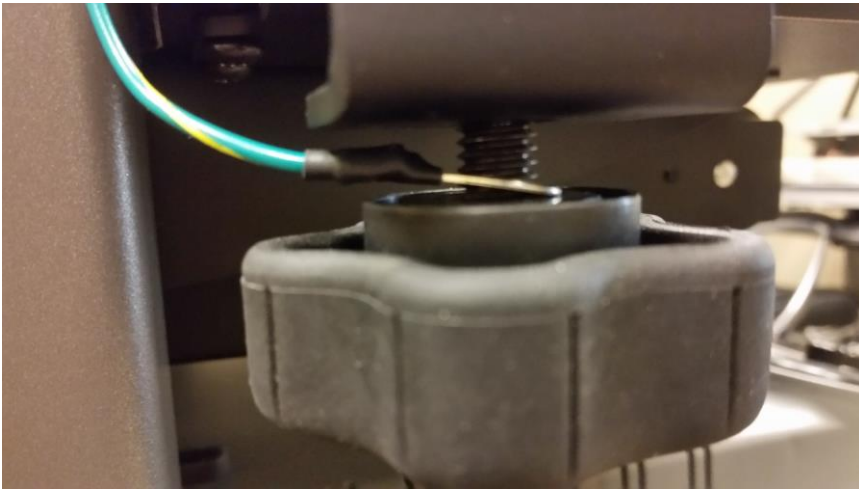


(Ground wire pre-connected to cart chassis)

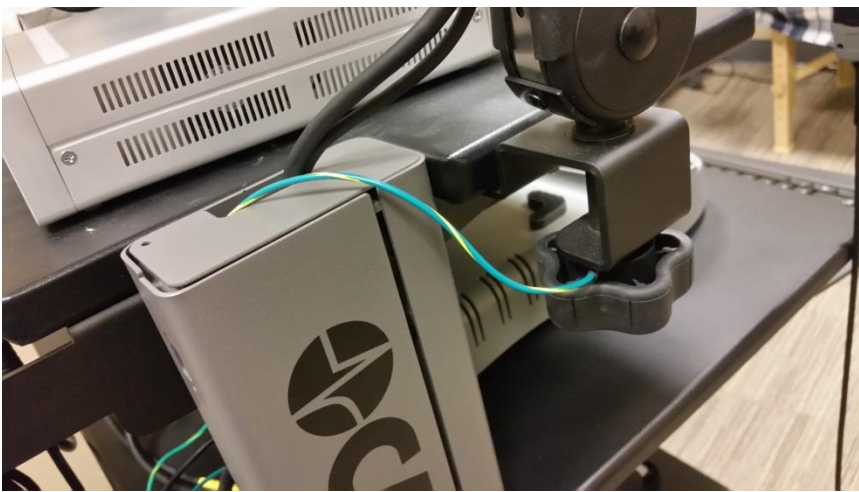


(Connect the shorter ground wire to the grounding pin on the back of the base using the small ring. Route the other end of the wire through the side panel of the T2 cart then pull it out of the top of the side panel as shown.)





(Remove the large rubber hand screw below the amplifier arm and connect the large ring to the screw peg then re-connect the large screw)



(Replace side panel cover as shown)