Recording Electrodes and Cables

Technical Note

Overview

Recording biopotential signals from humans, animals, or animal tissue may require the use of specialized electrodes. Electrodes may need to be designed to allow tissues or organs, like a heart or a muscle, to move without being restricted by the weight, size, or shape of the electrode. Other electrodes are designed to reduce damage to tissue while maintaining good conductivity of the signals from the tissue. A selection of available recording electrodes, as well as the specialized cables that connect to the electrodes, are presented in this technical note.

A-GC-7165

Package of 150 disposable snap electrodes for recording human ECGs and EMGs. Ready for use with no additional electrode conducting gel.

A-GC-1760P

Package of 150 disposable snap ECG and EMG electrodes for pediatric use. Ready for use with no additional electrode conducting gel.

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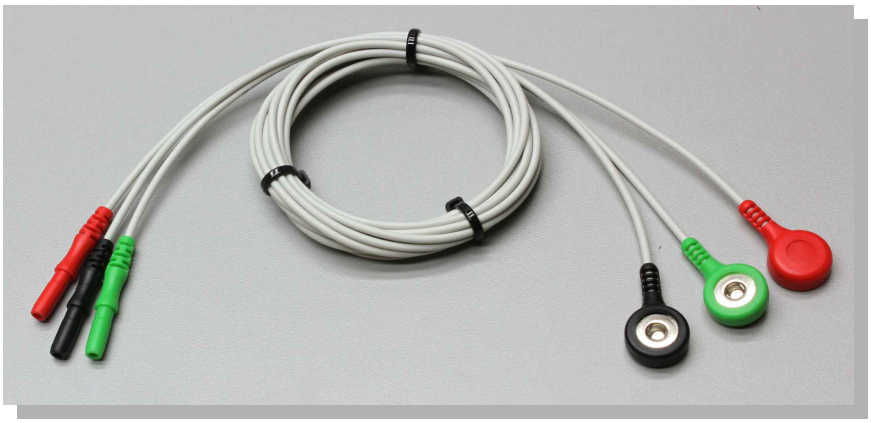
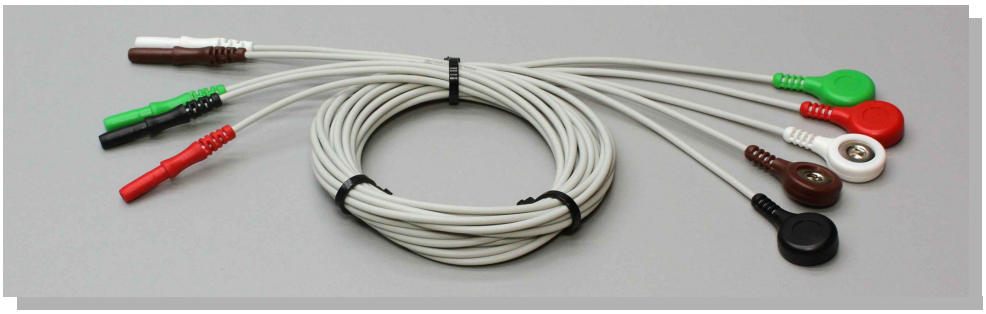


C-ISO-SL3



C-ISO-SL5

C-ISO-SL10

Sets of snap electrodes for use with disposable ECG or EMG electrodes. The lead wires have safety connectors for use with the inputs of a standard C-AAMI recording cable or iWorx iWire or USB recoding modules. Available as color-coded sets of three (C-ISO-SL3), five (C-ISO-SL5), or ten (C-ISO-SL10).

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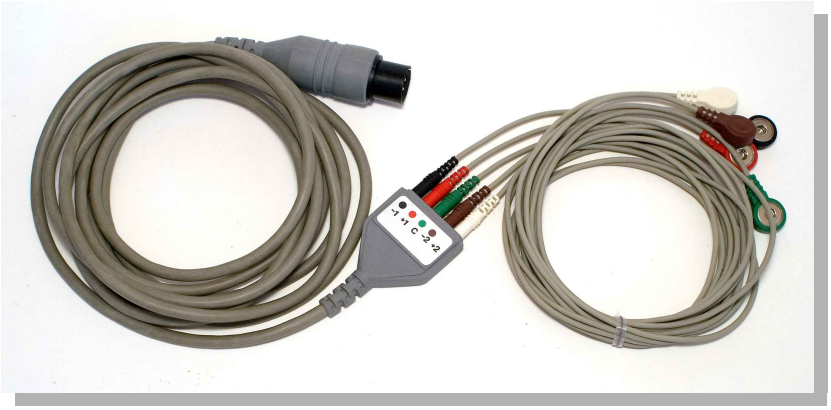
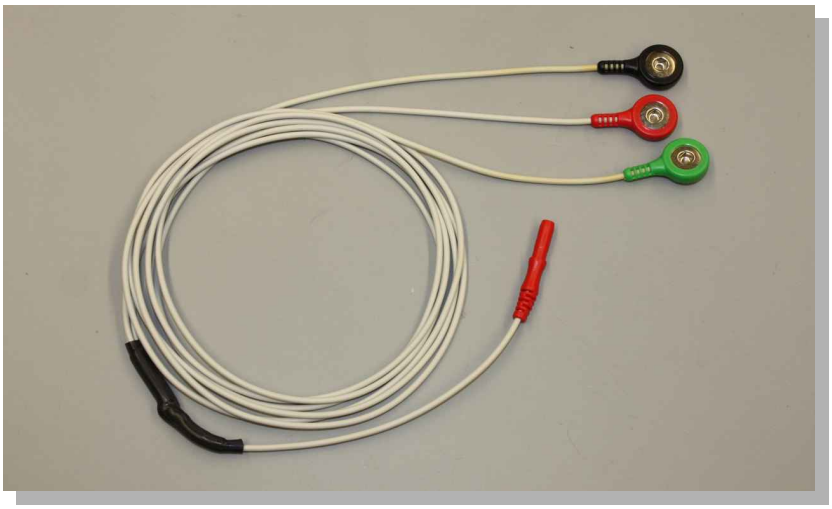


C-AAMI-504

Five-lead ECG/EEG/EMG cable for use with the iWorx 214 Data Recorder. Five snap electrode leads are included.



C-ECG-IE

When electrocardiograms are recorded using the chest leads, the active electrode is referenced against an indifferent point formed by combining the outputs of the limb electrodes. In the teaching laboratory, the indifferent point can easily be created by joining together the outputs of the limb electrodes with a three-way indifferent electrode cable that sends the combined signal to the input of the ECG amplifier. The C-ECG-IE Three-Way Indifferent Cable has three electrode lead wires, each with a snap connector for attachment to electrodes. The other ends of the lead wires join together at a single connector that fits the sockets on the isolation block of a standard ECG patient cable. Use all three wires to connect the electrodes on the right arm, left arm, and left leg to form the indifferent point needed for recording electrocardiograms from the chest leads. If two of the three wires are attached to the appropriate limb electrodes, the indifferent point used for recording an electrocardiogram from an augmented limb lead can be created in LabScribe. The C-ECG-IE is used in the Chest Lead ECG LabScribe experiment.

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C-WT-100

The C-WT-100 Wilson Terminal Cable allows 12-lead ECGs to be recorded with iWorx data recorders. It is used with either the iWire-B3G (and the TA Command Module) or the C-AAMI-504 (with the iWorx 214 data recorded). When used with the C-ISO-256 isolated interface, 12-lead chest ECGs can be recorded with non-isolated amplifiers like the iWorx ETH-256. Also sold with the C-ISO-256 as C-WTS-104.

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Recording Electrodes and Cables

C-ISO-GC5

Set of five reusable gold cup (4mm) electrodes for recording EEG activity. Includes a head strap and conductive signal gel.

C-ISO-SB

A reusable silver button (4mm) electrode for recording EEG activity. Also available in a set of five as C-ISO-SB5.

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Recording Electrodes and Cables

A-GSR1B

A set of GSR finger electrodes for use with a GSR amplifier (such as the iWorx GSR-200). Attachment is via a BNC connector.

C-ISO-GSR

A set of GSR finger electrodes for use with the iWorx TA Command Module and the iWire-B3G Recording Module.

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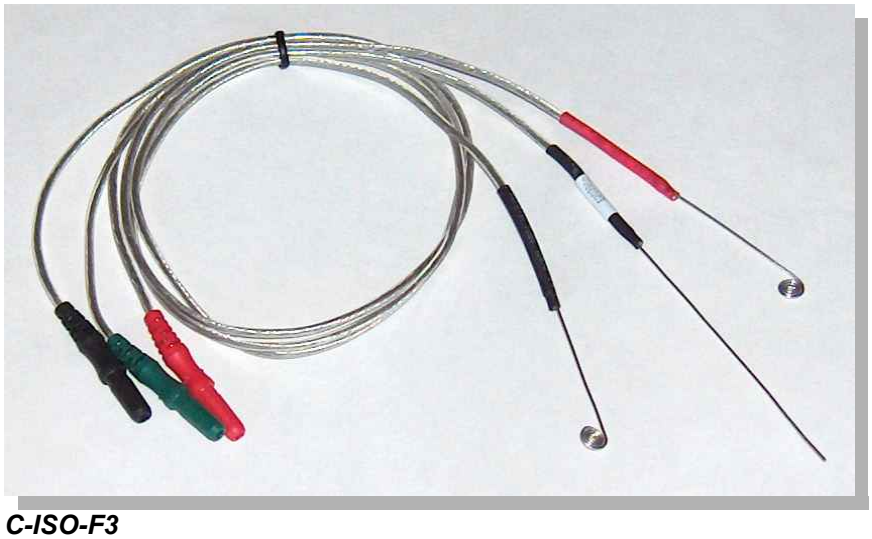
Recording Electrodes and Cables

C-ISO-A3

C-ISO-A3 is a set of three color-coded lead wires with alligator clips for recording biopotentials. The C-ISO-A3 lead wires have colored safety connectors for use with the inputs of a standard C-AAMI recording cable or iWorx iWire or USB recoding modules. The other end of each C-ISO-A3 lead wire has a alligator clip that can be clipped to disposable or pin electrodes. Also available individually (C-ISO-A1) or as a set of five (C-ISO-A5).



C-ISO-F3

C-ISO-F3 is a set of three color-coded lead wires with long, flexible silver wire electrodes for recording biopotentials from animal tissues. The C-ISO-F3 lead wires have colored safety connectors for use with the inputs of a standard C-AAMI recording cable or iWorx iWire or USB recoding modules. The other end of each C-ISO-F3 lead wire has a flexible 24-gauge silver wire electrode (80 mm long) that can be shaped to conform to the surface of a tissue or organ. These electrodes can be used for recording ECGs from hearts or EMGs from muscles.

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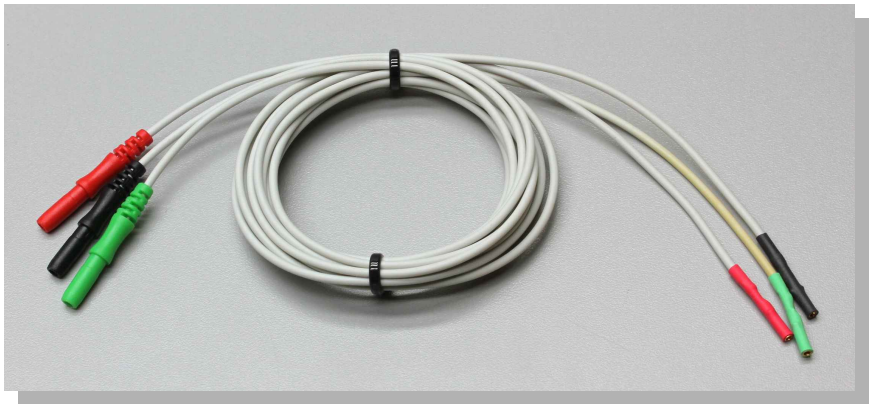

C-ISO-FP3

Three lead set consisting of five single molded pin connector to female pin connector leads for nerve recording with the NBC-401 or NBC-402 Nerve Bath Chambers. Also available as a set of five (C-ISO-FP5) or individual leads (C-ISO-FP1-B, C-ISO-FP1-G, or C-ISO-FP1-R).

C-ISO-GN3

C-ISO-GN3 is a set of three color-coded lead wires with gold wire electrodes for recording biopotentials from animal tissues. The lead wires have colored safety connectors for use with the inputs of a standard C-AAMI recording cable or iWorx iWire or USB recoding modules. The other end of each lead wire has a stiff gold wire electrode (25mm long) that is used as a needle electrode. These electrodes are used for recording from preparations like the earthworm ventral nerve cord or the cockroach leg. These electrodes are also available individually (C-ISO-GN1-G, C-ISO-GN1-B, C-ISO-GN1-R) or in a set of five (C-ISO-GN5).

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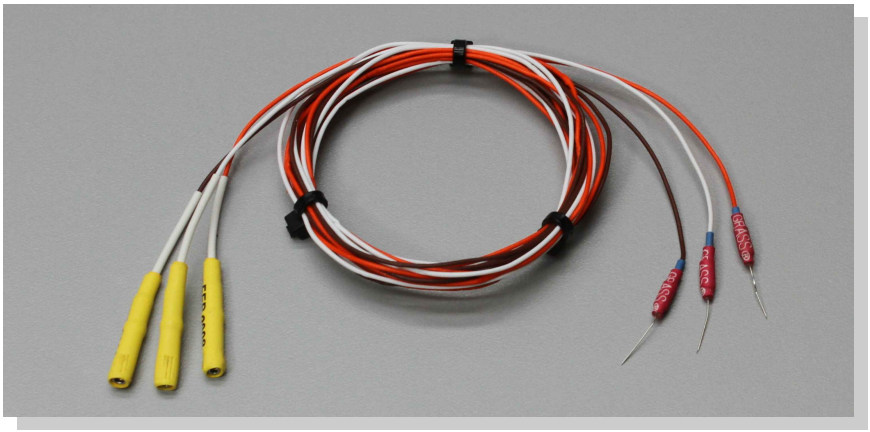
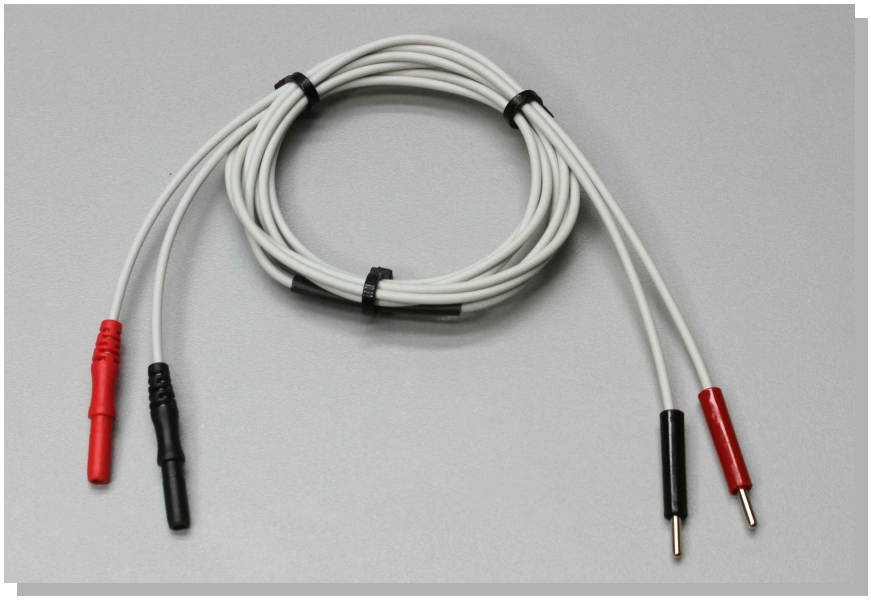


C-ISO-GNE3

C-ISO-GNE3 is a set of three color-coded lead wires (each 48 inches) with Grass platinum subdermal wire electrodes for recording biopotentials from animal tissues. The lead wires have colored safety connectors for use with the inputs of a standard C-AAMI recording cable or iWorx iWire or USB recoding modules. The other end of each lead wire has a stiff Grass platinum wire electrode (25mm long) that is used as a needle electrode. These electrodes are used for recording from preparations like the earthworm ventral nerve cord or the cockroach leg. These electrodes are also available individually (C-ISO-GNE1) or in a set of five (C-ISO-GNE5).



C-ISO-2mmM

C-ISO-2mmM is a set of two color-coded lead wires (each 48 inches) with 2 mm pins. The lead wires have colored safety connectors for use with the inputs of a standard C-AAMI recording cable or iWorx iWire or USB recoding modules. The other end of each lead wire has a 2 mm pin.

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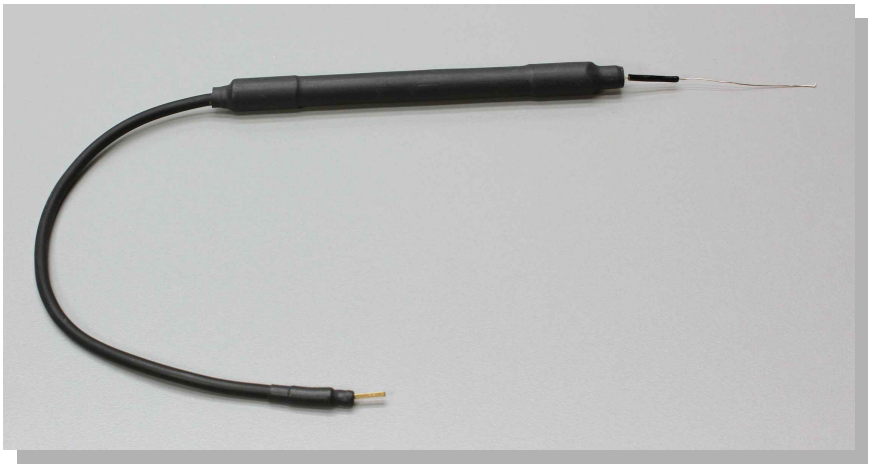

C-MP-H1

C-MP-H2

One-hook (C-MP-H1) or two-hook (C-MP-H2) electrodes for extracellular animal recordings. They can be used to hook and record from insect ventral nerve cords. The one-hook electrode compares the signal to a ground whereas the two-hook electrodes record differentially at the two hook locations.

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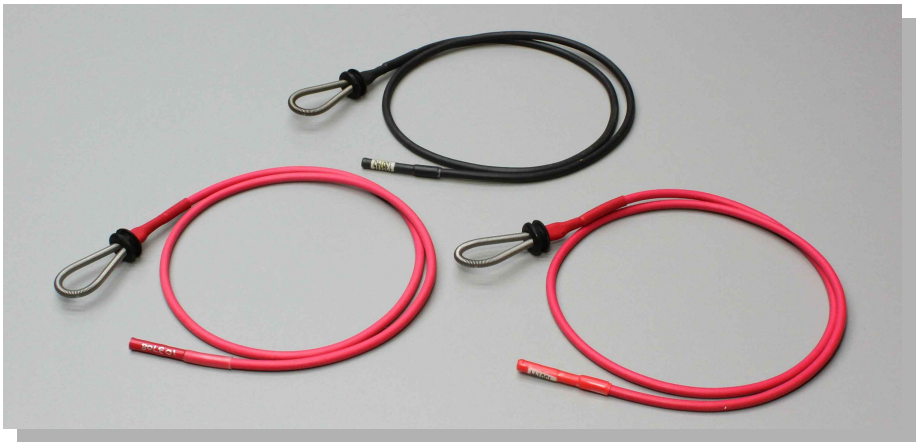
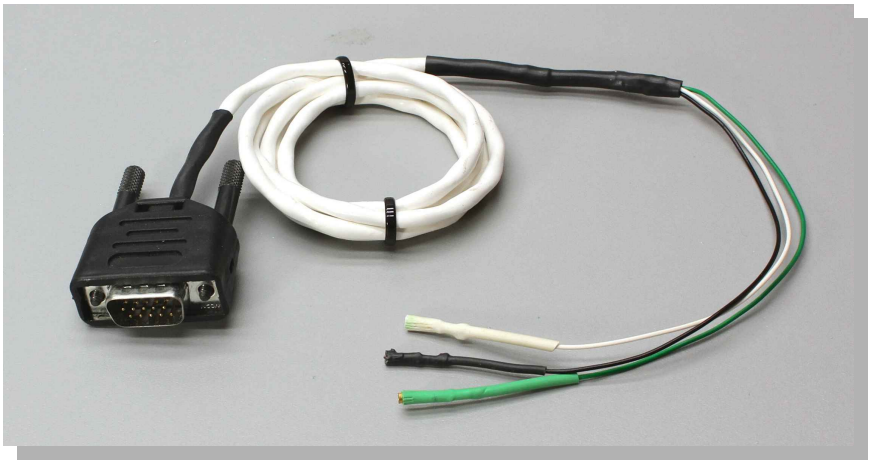


A-RE-300

Set of three red or black digital ring electrodes with slide adjustment for recording small animal ECGs.



C-DB15-P3

The C-DB15-P3 records from nerve bath chambers in conjunction with the ETH-3000 extracellular amplifier.

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