

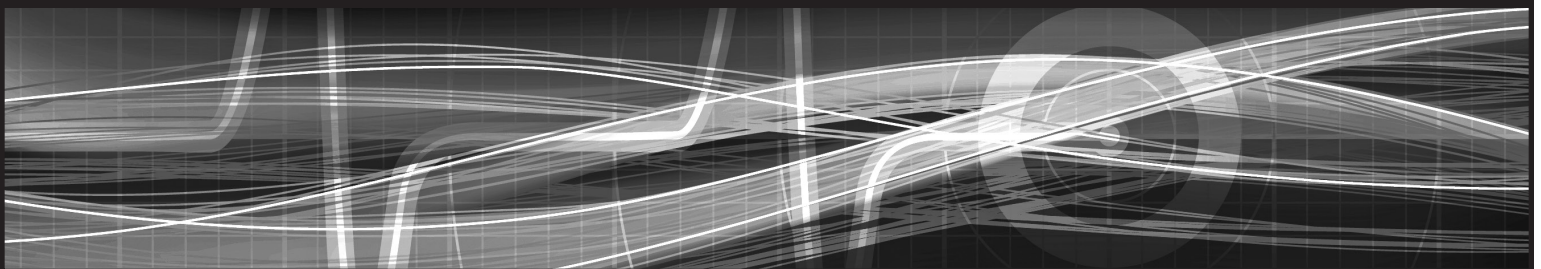


## Cadwell® Easy® Ambulatory Setup, Startup and Shutdown Guide



This quick reference guide is intended to help with the installation and operation of your new Easy Ambulatory. More detailed operation instructions are provided in the Operators Manual.

**STOP HERE! PLEASE READ THIS ENTIRE GUIDE BEFORE PROCEEDING!**



## Unpacking the system

Congratulations on selecting the Cadwell Easy® Ambulatory system! It's time to unpack the contents of your system. As you unpack, please carefully check to make sure the contents match the packing slip. If you have any questions, please call Cadwell at 800-245-3001 within the United States. International customers please contact your local distributor or call Cadwell at 800-245-3001. You should receive the following as standard items: (see illustrations on page 5)

- ✓ Easy Ambulatory Amplifier
- ✓ Easy Recorder
- ✓ Easy Battery Holder
- ✓ Easy System Pouch with Belt
- ✓ Chest and Shoulder/Limb Straps
- ✓ Connecting Cables
- ✓ Starter Electrode Kit
- ✓ Moisture Protection Bags
- ✓ Desktop or Laptop Computer (if ordered with your system)
- ✓ Video Monitor (if ordered with your system)
- ✓ EasyNet Modules (if ordered with your system)
- ✓ Q-Video Mobile (if ordered with your system)

Read the instructions carefully and verify that all components are present. Cadwell recommends pre-assembly and testing of the system. Verify proper understanding of the system and its modules prior to collecting clinical data.

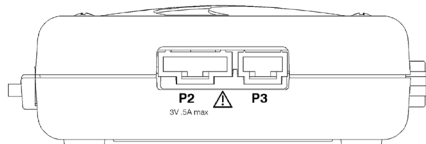


Figure 1 Amplifier Power Connector

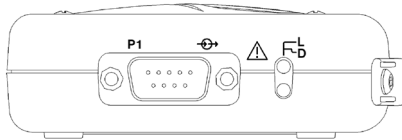


Figure 2 Amplifier Ethernet Connector

## System Setup

If you purchased a computer from Cadwell, all necessary Easy software has been installed on your computer at the Cadwell factory. There is no need for you to install any software. Put the back-up software CD in a safe place. You'll need it if reinstallation is required.

To connect the computer to the Easy recorder, follow the instructions below.

1. Place batteries in the Battery Holder. Plug the battery cable into the connector labeled P2 on the recorder. See Figures 1 and 3 below.
2. Plug one end of the network cable into the Ethernet network card on the back of the computer and the other end of the cable into the 9-pin connector labeled P1. See Figures 2 and 4 below.

A copy of the Easy Ambulatory Operators manual is available on the Easy Install CD. You will find the manual saved in a Word (.doc) format in the folder named Documents.



Figure 1 Inserting Batteries and Connecting the Power Cable

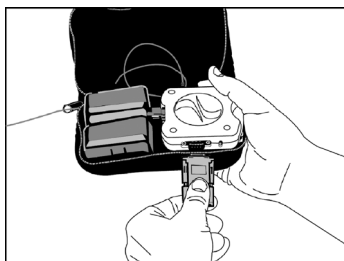


Figure 2 Connecting Ethernet Cable to Recorder

## If Q-Video Mobile Ordered with System

To connect the computer to the Q-Video Mobile device, follow the instructions below.

1. Plug the USB B connection into the side of the Q-Video Mobile device.
2. Plug the USB end to a USB port on the computer.
3. Power on the device utilizing the tool provided by pressing in on the hole on the bottom of the Q-Video Mobile device. Press and hold gently until the display comes on.

## Computer System Startup

1. Turn on the computer.
2. Double-click the Easy Ambulatory software icon located on the Windows desktop to start the program.

## Computer System Shutdown

Shutdown occurs the same as in any Windows 7 computer system.

1. Close all open applications, including Easy, by clicking on the "File" pull-down menu and selecting Exit or, click on the "X" in the upper right hand corner of all open windows until the Windows desktop appears.
2. Click on the Start button and select Shut Down from the menu.

## Configuring the Computer Network Card for the Easy Ambulatory

The Easy Ambulatory recorder communicates with the PC over an Ethernet link. A dedicated Ethernet Card must be installed in the PC and the card must be configured to a specific IP address. If you have purchased a computer from Cadwell, the network card is already configured in your PC. If you are using a PC not supplied by Cadwell, you will need to configure the network card. The following describes how to configure the IP address.

1. If necessary, install a network card in the computer. Follow the manufacturer's installation instructions.
2. **Login** as a User that had administrative access rights.
3. Click **Start**, then **Control Panel**, then **Network and Internet Connections**.
4. Click on **Network Connections**. The Network Connections window will be displayed. A separate icon will be displayed for each network card that is installed in the PC. By default, the name given to each network card is "Local Area Connection". You can rename the icons to something more descriptive, like Amb EEG, by right-clicking on the icon and selecting Rename.
5. To configure the network properties; **Right click** over the appropriate icon and then select Properties. The properties window will be displayed.
6. First, **remove the check marks** next to Client for Microsoft Networks, File and Printer Sharing for Microsoft Networks, and QoS Packet Scheduler. Be sure to **leave the check mark** next to Internet Protocol (TCP/IP).
7. Select the **Internet Protocol (TCP/IP)** and then click on the **Properties** button.
8. Select **"Use the following IP address"**. Enter **192.168.113.66** for the IP address. Enter **255.255.255.0** for the subnet mask.
9. Click the **Advanced** button, then click the **WINS** tab. **Remove the check mark** next to **"Enable LM Hosts lookup"** and then select **"Disable NetBIOS over TCP/IP"**.
10. Click **OK**, click **OK** again, then click **Close**.
11. Right-click on the appropriate network card again and select **Properties**. Click on the button called **Configure** next to the section labeled **Connect Using**.
12. Select the **Advanced Tab**. In the **Property** window select **Link Speed/ Duplex Mode**. In the Value drop down menu select **10 Full Mode**.
13. Select the **Power Management** tab. Uncheck the box labeled **Allow the computer to turn off this device to save power**.
14. Click OK.

## Installing Easy Software

Refer to the Easy III Software Installation guide (PN# 369031-034) to install Easy III.

## Obtaining a Software Key

If you are installing the Easy software on a computer, you will need to obtain a unique System Key number from Cadwell Laboratories to unlock the Easy software. A software control panel will be automatically displayed the first time you try to run the Easy Program, please call or fax Cadwell Laboratories and provide the displayed System ID number along with the Serial number of the computer, Easy amplifier, or your Cadwell Customer Number. Cadwell will then issue you a System Key number that will unlock the Easy program and activate the appropriate software options.

## Setup Verification

Follow the instructions in the setup verification procedure (PN# 100830-935) that was shipped with this system.

## Minimum Computer Requirements

### Performance requirements:

Refer to Cadwell document 308014-000 for minimum computer requirements.

### US & Canada:

Computer and information technology equipment connected to the Easy Ambulatory must be third party certified to UL1950 or IEC950.

### European Union:

Computer and information technology equipment connected to the Easy Ambulatory must be third party certified to EN60950.

## Service and Repair

A technical manual is available allowing qualified technical personnel to verify proper operation and to troubleshoot board level problems. If you have any questions, please call Cadwell at 800-245-3001 within the United States. International customers please contact your local distributor or call Cadwell at 800-245-3001.

## Regulatory Approvals

UL 60601-1 2003

CSA 601.1 1990

EN 60601-1:1990 + A1:1993 + A2:1995 + A13:1996

EN 60601-1-1:2001 (medical systems)

EN 60601-2-26:2002 (EEG equipment)

EN 60601-1-2:2002 (EMC)

EN 60601-1-4:2000 (programmable electrical medical systems)

EN ISO 14971:2000 (risk)

Notified Body: KEMA Medical



## Intended Use

The Easy Ambulatory system is intended for use by a physician or trained technician under the supervision of a physician for the acquisition of EEG and other polygraphic channels. The intended recording environment for the Easy Ambulatory is the home, hospital, and other testing environments.

## Copyright Notice

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## Trademark Notices

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## Warnings, Cautions



Federal law restricts sale of this system to, or on the order of, a physician.



High levels of static discharge can cause a momentary pause in data collection.



No user serviceable parts inside. Service by Cadwell Laboratories, Inc. and other authorized bodies only.



Inspect EasyNet cables before and after each use. Discard cable if insulation is damaged or if the cable or connectors are damaged in any manner.



Inspect battery cable before and after each use. Discard cable if insulation is damaged or if the cable or connectors are damaged in any manner.



Do not immerse the recorder in liquid. Do not attempt to use the Ambulatory system if it has been immersed in liquid. The system is not water resistant or splash proof. The contact of liquids with the internal parts and connectors of the Cadwell Easy Ambulatory system should be avoided at all times.



Caution must be taken to ensure that cables do not encircle the patient's neck or entangle the patient in any way.



The operator must be trained to be able to recognize the difference between signal artifact and valid bio-signals caused by movements, interference, or misplacement of sensors or electrodes.



The system is not defibrillator proof.



Do not use the system in an MRI environment.



Cleaning instructions in this manual need to be strictly adhered to.



When applying the stockinet to the patient, verify that the stockinet is not covering the patient's eyes, nose, mouth, or ears. Verify that the stockinet does not entangle the patient's neck, restrict airflow, or restrict circulation.


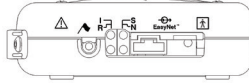

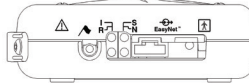
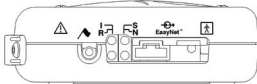

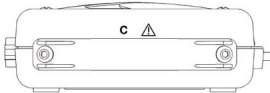
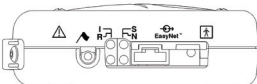

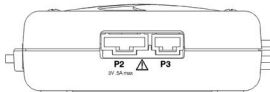
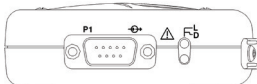
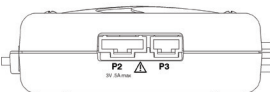
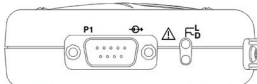



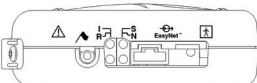




When attaching the Easy Ambulatory system to a recording subject, verify that the subject will not become entangled in the wires. Do not allow the electrode wires to wrap around the subject's neck. Instruct the patient in the proper way to wear the Easy Ambulatory system and not become entangled.



The system is not designed to operate in an explosive environment.

# Symbols and Meaning

Symbol	Title/Meaning	Symbol	Title/Meaning
	Attention, consult accompanying documents.		Recorder – 'R' LED The EasyNet (R) LED flashes one time per second during data collection.
	Type BF equipment. Isolated patient connection.		Recorder – 'N' LED The EasyNet (N) LED flashes when an EasyNet error condition is detected.
	 Recorder – P1 Ethernet Connector. An ethernet adapter is attached to this connector for data downloading and data review.		Recorder – 'C' Door The Compact (C) Door can be removed to access the compact flash card.
	 Recorder – Event Button The event button allows the patient to time synchronize an event during data collection.		Recorder – P2 Connector The P2 Connector is for the battery connection.
	Recorder – 'D' LED The Data (D) LED indicates data is being transferred between the recorder and the computer.		Recorder – P3 Connector The P3 connector is reserved for future use.
	Recorder – 'L' LED The Link (L) LED indicates that the recorder has established an ethernet connection to the computer.		Amplifier - Voice event connector – Input for microphone
	Recorder – 'S' LED The Status (S) LED flashes when an error condition is detected.		Amplifier - Electrode input connectors
	Power ON Recorder – 'I' LED The 'I' LED indicates that the recorder is receiving power from the batteries.		Amplifier -Yellow Status LED. Lights or flashes to indicate error condition.
			Green LED. Flashes to indicate power is being received from the recorder.



Easy Ambulatory Recorder #190206-200  
attached to D cell Battery Holder  
#197199-200



Easy Ambulatory 32 Channel  
Amplifier #190257-200



Easy Software CD  
#369031-200



Q-Video Mobile (optional)  
#190281-200



Laptop Computer



Desktop Computer and Monitor



Recorder Ethernet Cable  
#362034-000



Photoc Stimulator  
#190228-200



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