QUARTET
TECHNOLOGY, INC.

Radio Remote(s)
(Installation Manual)

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Radio Remote(s) Installation Manual P/N: 5093

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Manual Description

Audience

This manual is for users of any of the following Quartet Radio Remote packages:

QTI P/N:	Description
9219	Remote Switch Package
9221	Remote Voice Package
9231	Remote AIO Package
9250	Voice Back Radio Package
9261	Remote Switch Package w/Battery Adapter
9262	Remote Voice Package w/Battery Adapter
9263	Remote AIO Package w/Battery Adapter

Purpose

The purpose of this manual is to provide:

- Identification of components

- Proper connections

- Suggested mounting

Intended Use

The intended function of the Quartet radio remote packages is to provide one way and/or two way communication with Quartet's Simplicity line of ECU's using voice, switch, or voice and switch activation.

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Table of Contents

Table of Contents, *continued*

Overview

Introduction

Congratulations on your purchase of a Quartet radio remote package. By adding a radio remote package to your Simplicity ECU, you have enhanced its capabilities and gained increased independence by being free to roam within your environment.

Features

Features of the radio remote package are:

- 150ft operating range
- UHF transmission band
- Crystal controlled frequency (no adjustments)
- True diversity reception

Objectives

In this manual you will learn about:

- Identifying components for each package
- Connecting the components
- Placement of components in the wheelchair pouch
- Mounting of components on the wheelchair
- Receiver placement tips
- Battery Charger
- Accessories
- Cleaning and maintenance

Caution

Electrical shock can result from the removal of the receiver cover. Refer servicing to qualified service personnel. There are no user-serviceable parts inside. Do not expose to rain or moisture.

The circuits inside the transmitter and receiver have been precisely adjusted for optimum performance and compliance with federal regulations. Do not attempt to open the receiver or transmitter. To do so will void the warranty, and may cause improper operation.

Remote Switch Package (P/N: 9219)

Introduction

The **Remote Switch Package** (P/N: 9219) is used with Simplicity™ Switch ECU's. It provides remote switch capability (single and/or dual operation) to the ECU as well as remote microphone capability for use with the telephone or computer.

Transmitter View

QM1007
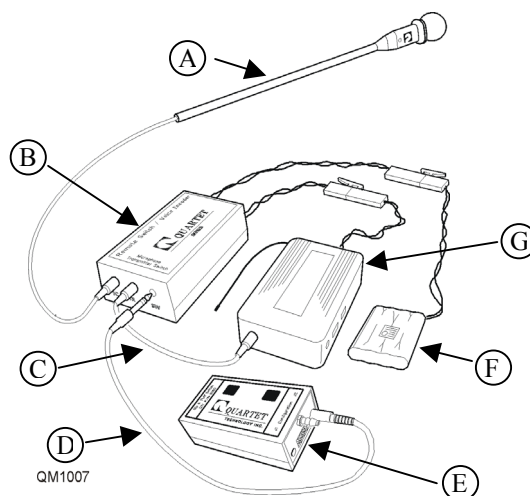
Transmitter Components

Letter	Component	QTI P/N
A	Microphone	9245
B	Remote Switch Encoder	9240
C	Transmitter Cable	9117
D*	Switch Cable	9256
E*	QSP Switch	9260
F	Battery Pack	9080
G**	UHF Transmitter (single frequency)	9217

* Optional components
** The power switch **must** be left in the "on" position *(See Appendix E)*
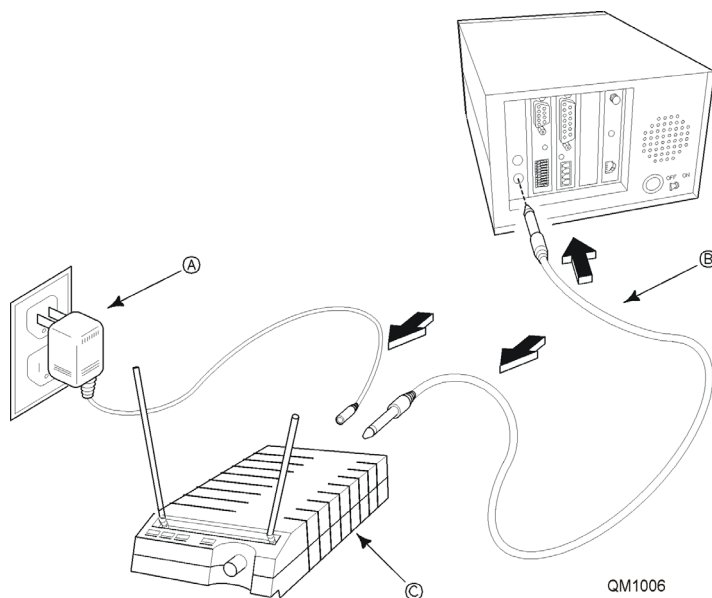
Note

The transmitter includes a permanently attached flexible antenna. For best results, allow the antenna to hang freely and full length from the transmitter.

Do not attempt to remove, replace, or change the length of the transmitting antenna.

Remote Switch Package (P/N: 9219) (cont.)

Receiver View

QM1006

Receiver Components

Letter	*Component*	*QTI P/N*
A	UHF Receiver AC Power Adapter	4312
B	Receiver Audio Cable	4049
C	UHF Receiver (single frequency)	9235

Note

The antennas on the receiver normally should be positioned in the shape of a "V" (45° from vertical) for best reception.

Note

The receiver has been carefully calibrated at the factory for optimum performance. The knob on the front of the receiver has been glued in place to prevent accidental movement.
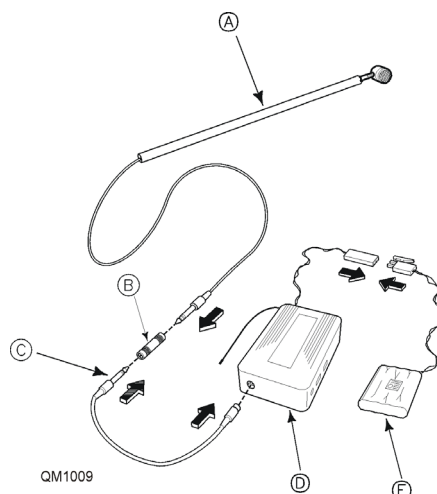
Do not attempt to remove the adhesive or change the setting of this control.

Remote Voice Package (P/N: 9221)

Introduction

The **Remote Voice Package** (P/N: 9221) is used with Simplicity™ Voice ECU's. It provides remote voice capability to the ECU including audio for use in telephony and computers.

Transmitter View

QM1009

Transmitter Components

Letter	Component	QTI P/N
A	Microphone	9184
B	Female to female adapter	4047
C	Transmitter Cable	9117
D**	UHF Transmitter (single frequency)	9217
E	Battery Pack	9080

** The power switch **must** be left in the "on" position *(See Appendix E)*
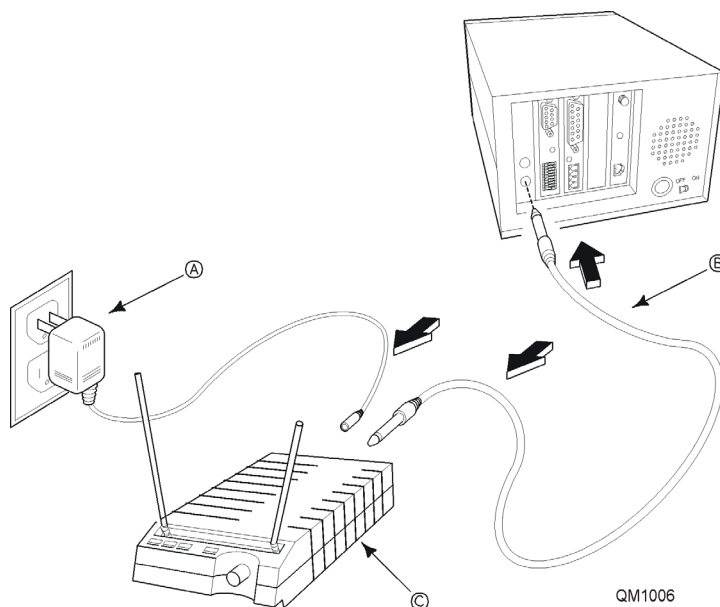
Note

The transmitter includes a permanently attached flexible antenna. For best results, allow the antenna to hang freely and full length from the transmitter.

Do not attempt to remove, replace, or change the length of the transmitting antenna.

Remote Voice Package (P/N: 9221) (cont.)

Receiver View

QM1006

Receiver Components

Letter	Component	QTI P/N
A	UHF Receiver AC Power Adapter	4312
B	Receiver Audio Cable	4049
C	UHF Receiver (single frequency)	9235

Note

The antennas on the receiver normally should be positioned in the shape of a "V" (45° from vertical) for best reception.

Note

The receiver has been carefully calibrated at the factory for optimum performance. The knob on the front of the receiver has been glued in place to prevent accidental movement.
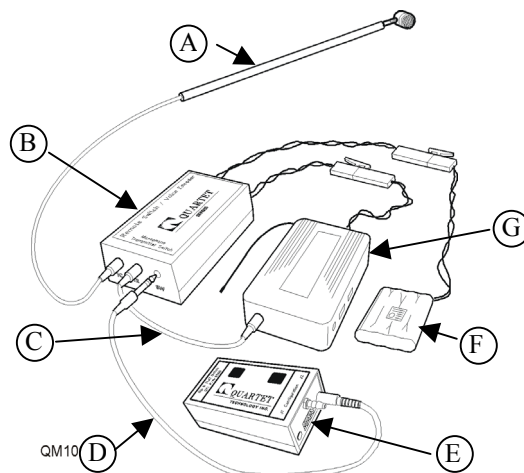
Do not attempt to remove the adhesive or change the setting of this control.

Remote AIO Package (P/N: 9231)

Introduction

The **Remote AIO Package** (P/N: 9231) is used with Simplicity™ AIO ECU's. It provides remote switch capability (single and/or dual operation) to the ECU as well as remote microphone capability for use with the telephone or computer.

Transmitter View

Transmitter Components

Letter	Component	QTI P/N
A	Microphone	9245
B	Remote Switch Encoder	9240
C	Transmitter Cable	9117
D*	QSP Switch Cable (1')	9256
E*	QSP Switch	9260
F	Battery Pack	9080
G**	UHF Transmitter (single frequency)	9217

* Optional components
** The power switch **must** be left in the "on" position *(See Appendix E)*
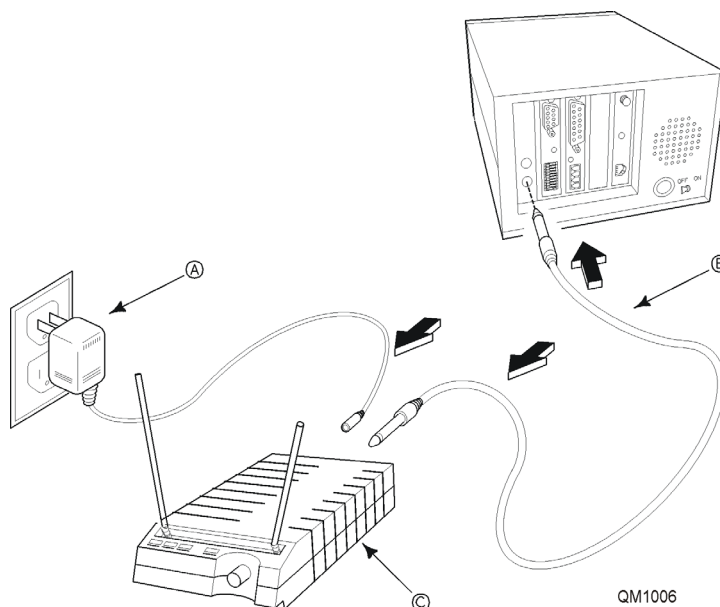
Note

The transmitter includes a permanently attached flexible antenna. For best results, allow the antenna to hang freely and full length from the transmitter.

Do not attempt to remove, replace, or change the length of the transmitting antenna.

Remote AIO Package (P/N: 9231) (cont.)

Receiver View

Receiver Components

Letter	Component	QTI P/N
A	UHF Receiver AC Power Adapter	4312
B	Receiver Audio Cable	4049
C	UHF Receiver (single frequency)	9235

Note

The antennas on the receiver normally should be positioned in the shape of a "V" (45° from vertical) for best reception.

Note

The receiver has been carefully calibrated at the factory for optimum performance. The knob on the front of the receiver has been glued in place to prevent accidental movement.
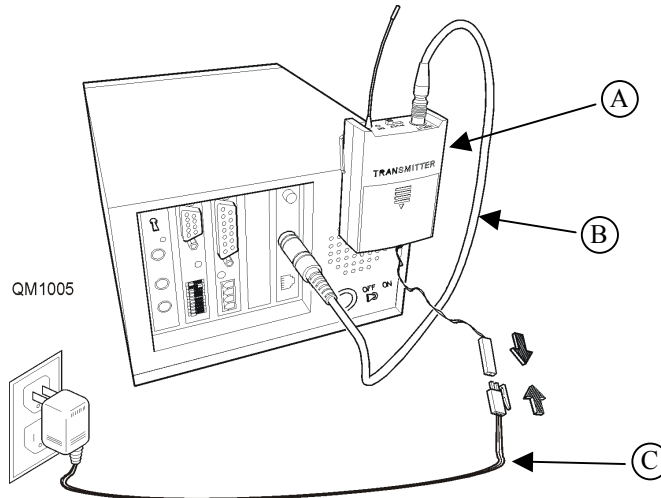
Do not attempt to remove the adhesive or change the setting of this control.

Voice Back Radio Package (P/N: 9250)

Introduction

The *Voice Back Radio Package* (P/N: 9250) can be used with all Simplicity™ ECU's. It provides remote listening capability of the ECU.

Transmitter View

Transmitter Components

Letter	*Component*	*QTI P/N*
A**	UHF Transmitter (100-Channel) w/Power Cord	9222
B	Transmitter Cable	9124
C	UHF Transmitter AC Power Adapter	8087

** The power switch *must* be left in the "on" position *(See Appendix E)*

Note

The transmitter includes a permanently attached flexible antenna. For best results, allow the antenna to extend freely and full length from the transmitter.

Do not attempt to remove, replace, or change the length of the transmitting antenna.

Voice Back Radio Package (P/N: 9250) (cont.)

Receiver View

QM1010
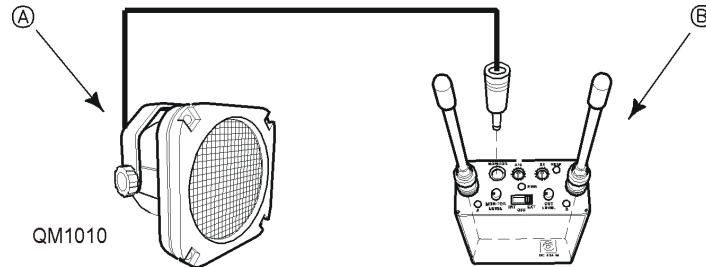
Receiver Components

Letter	Component	QTI P/N
A	Mini-Cube Speaker	8086
B	UHF Receiver (100-Channel)	4295

Note

Use the "Monitor Level" knob to adjust the listening volume.

Receiver Power Connection

QM1012
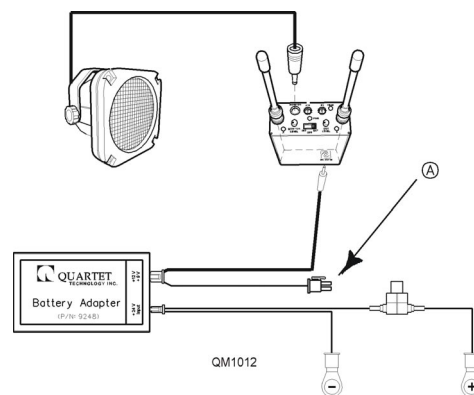
Note

Depending on the particular radio remote package used, the connector labeled "A" in the above illustration will connect either to the transmitter or remote encoder.

Voice Back Radio Package (P/N: 9250) (cont.)

Receiver Controls

LA8169

Letter	*Description*
A	Monitor Output
B	Channel Selection Switch (x10)
C	Channel Selection Switch (x1)
D	Volume Control
E	Power Switch

Note

The power switch should be set to the "EXT" setting.

Remote Switch Package w/Battery Adapter (P/N:9261)

Introduction

The **_Remote Switch Package w/Battery Adapter_** (P/N: 9261) is used with Simplicity™ Switch ECU's. It provides remote switch capability (single and/or dual operation) to the ECU as well as remote microphone capability for use with the telephone or computer.

Transmitter View

LA8179
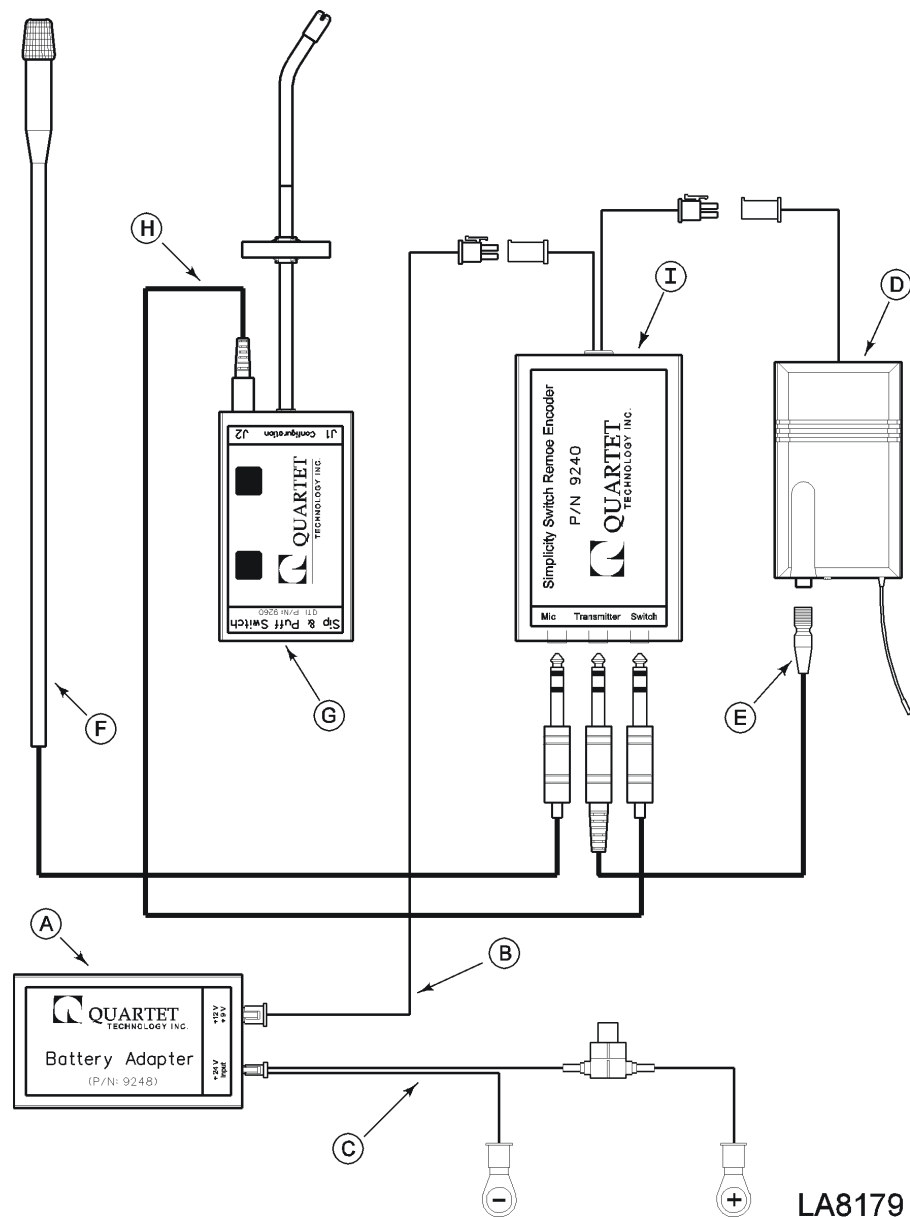
Remote Switch Package w/Battery Adapter (P/N:9261) (cont.)

Transmitter Components

Letter	Component	QTI P/N
A	Battery Adapter	9248
B	Battery Adapter +9VDC Output Power Cable	9254
C	Battery Adapter Wheelchair Power Cable	9252
D**	UHF Transmitter (single frequency)	9217
E	Transmitter Cable	9117
F	Microphone	9245
G*	QSP Switch	9260
H*	QSP Switch Cable (1')	9256
I	Remote Switch Encoder	9240

* Optional components
** The power switch **must** be left in the "on" position *(See Appendix E)*
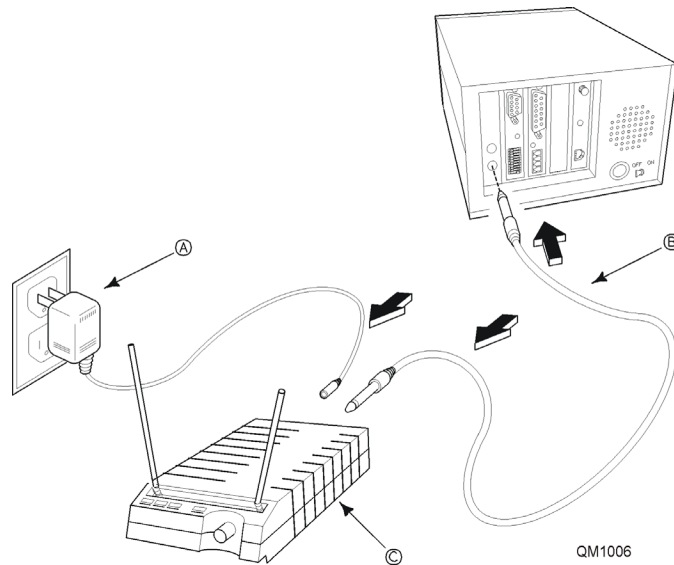
Note

The transmitter includes a permanently attached flexible antenna. For best results, allow the antenna to hang freely and full length from the bottom of the transmitter.

Do not attempt to remove, replace, or change the length of the transmitting antenna.

Remote Switch Package w/Battery Adapter (P/N:9261) (cont.)

Receiver View

QM1006

Receiver Components

Letter	Component	QTI P/N
A	UHF Receiver AC Power Adapter	4312
B	Receiver Audio Cable	4049
C	UHF Receiver (single frequency)	9235

Note

The antennas on the receiver normally should be positioned in the shape of a "V" (45° from vertical) for best reception.

Note

The receiver has been carefully calibrated at the factory for optimum performance. The knob on the front of the receiver has been glued in place to prevent accidental movement.
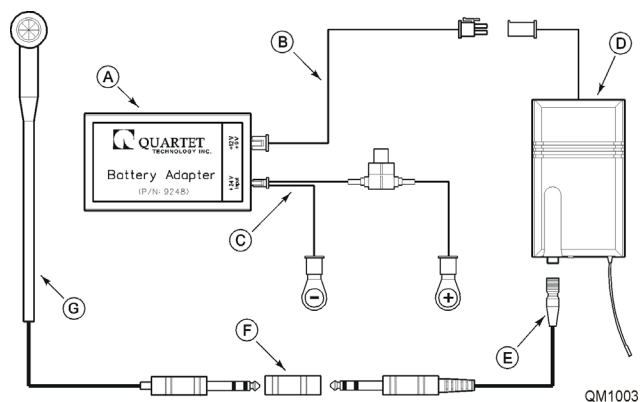
Do not attempt to remove the adhesive or change the setting of this control.

Remote Voice Package w/Battery Adapter (P/N:9262)

Introduction

The **Remote Voice Package w/Battery Adapter** (P/N: 9262) is used with Simplicity™ Switch ECU's. It provides remote voice capability to the ECU including audio for use with the telephone or computer.

Transmitter View

Transmitter Components

Letter	Component	QTI P/N
A	Battery Adapter	9248
B	Battery Adapter +9VDC Output Power Cable	9254
C	Battery Adapter Wheelchair Power Cable	9252
D**	UHF Transmitter (single frequency)	9217
E	Transmitter Cable	9117
F	Female-to-Female Coupler	4047
G	Microphone	9184

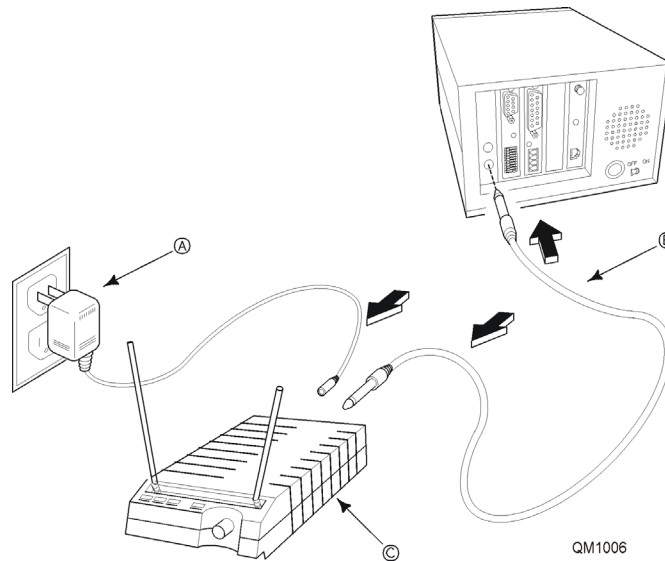** The power switch **must** be left in the "on" position *(See Appendix E)*

Note

The transmitter includes a permanently attached flexible antenna. For best results, allow the antenna to hang freely and full length from the bottom of the transmitter.

Do not attempt to remove, replace, or change the length of the transmitting antenna.

Remote Voice Package w/Battery Adapter (P/N:9262) (cont.)

Receiver View

Receiver Components

Letter	Component	QTI P/N
A	UHF Receiver AC Power Adapter	4312
B	Receiver Audio Cable	4049
C	UHF Receiver (single frequency)	9235

Note

The antennas on the receiver normally should be positioned in the shape of a "V" (45° from vertical) for best reception.

Note

The receiver has been carefully calibrated at the factory for optimum performance. The knob on the front of the receiver has been glued in place to prevent accidental movement.

Do not attempt to remove the adhesive or change the setting of this control.

Remote AIO Package w/Battery Adapter (P/N:9263)

Introduction

The **Remote AIO Package w/Battery Adapter** (P/N: 9263) is used with Simplicity™ Switch ECU's. It provides remote switch capability (single and/or dual operation) to the ECU as well as remote microphone capability for use in telephony and computers.

Transmitter View

LA8175
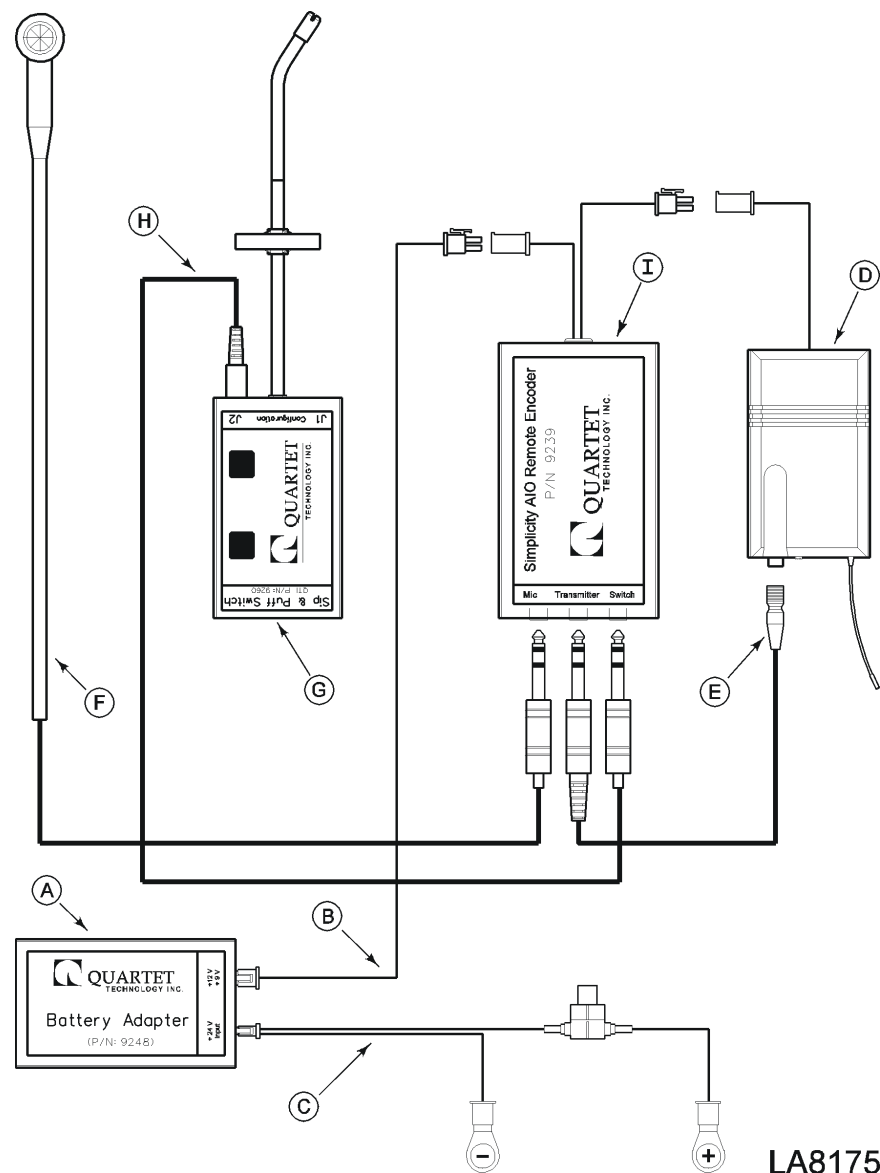
Remote AIO Package w/Battery Adapter (P/N:9263) (cont.)

Transmitter Components

Letter	Component	QTI P/N
A	Battery Adapter	9248
B	Battery Adapter +9VDC Output Power Cable	9254
C	Battery Adapter Wheelchair Power Cable	9252
D**	UHF Transmitter (single frequency)	9217
E	Transmitter Cable	9240
F	Microphone	9184
G*	QSP Switch	9260
H*	QSP Switch Cable (1')	9256
I	Remote AIO Encoder	9239

* Optional components
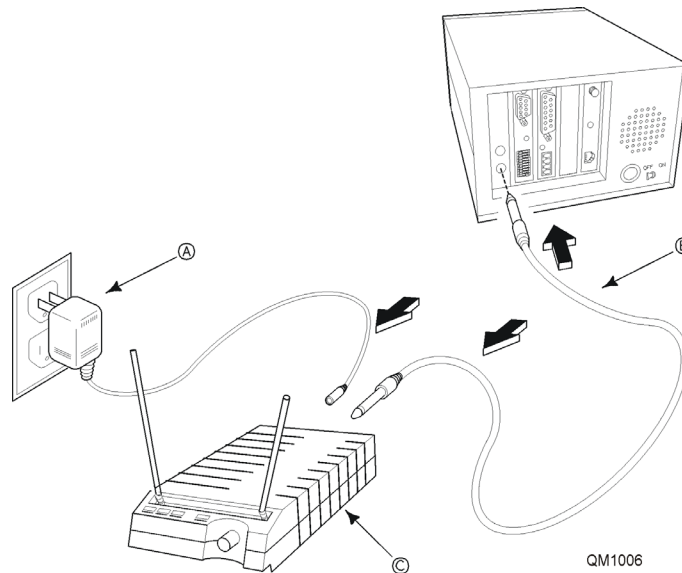** The power switch **must** be left in the "on" position *(See Appendix E)*

Note

The transmitter includes a permanently attached flexible antenna. For best results, allow the antenna to hang freely and full length from the bottom of the transmitter.

Do not attempt to remove, replace, or change the length of the transmitting antenna.

Remote AIO Package w/Battery Adapter (P/N:9263) (cont.)

Receiver View

QM1006

Receiver Components

Letter	Component	QTI P/N
A	UHF Receiver AC Power Adapter	4312
B	Receiver Audio Cable	4049
C	UHF Receiver (single frequency)	9235

Note

The antennas on the receiver normally should be positioned in the shape of a "V" (45° from vertical) for best reception.

Note

The receiver has been carefully calibrated at the factory for optimum performance. The knob on the front of the receiver has been glued in place to prevent accidental movement.

Do not attempt to remove the adhesive or change the setting of this control.

Appendix A

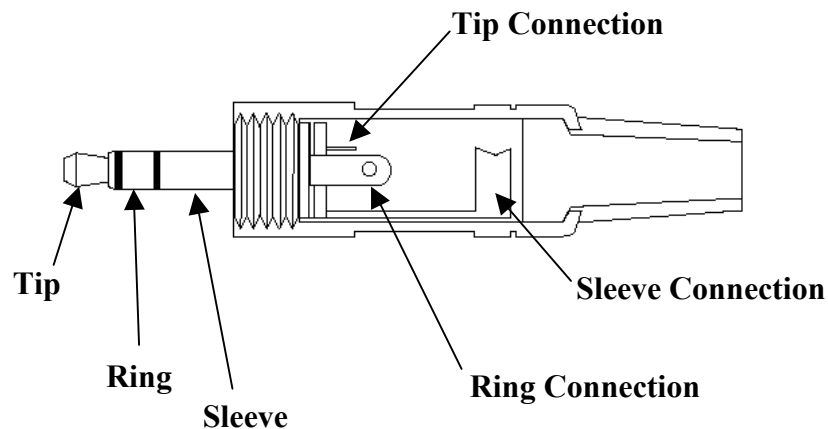# Connecting Switches to the Remote Encoder

Introduction

Both the ***Remote Switch Package*** and the ***Remote AIO Package*** contain a device called the remote encoder. As its name implies, this device encodes both the voice and switch signals into one audio channel that is transmitted to the ECU.

When connecting any switch (single or dual) to the encoder, you ***must*** use a stereo plug.

Stereo Plugs

Before connecting a switch (single or dual) to the remote encoder, it is important to understand what a stereo plug is and the terminology associated with it.

Shown below is a cross-section of a typical stereo plug.

Note

All references in this manual that refer to tip, ring, and sleeve assume the connections as shown above.

Note

Almost all adaptive devices require a connection between tip and sleeve, ring and sleeve, or both.

Connecting Switches to the Remote Encoder (cont.)

Switch Combinations

The following table illustrates the various single and dual switch combinations between the ECU and the remote radio packages.

ECU	Remote Encoder
Dual Switch **(Stereo Plug)**	**Dual Switch** **(Stereo Plug)**
Dual Switch **(Stereo Plug)**	**Single Switch** **(Stereo Plug)**
Single Switch **(Stereo Plug)**	**Dual Switch** **(Stereo Plug)**
Single Switch **(Mono Plug)**	**Single Switch** **(Stereo Plug)**

Note

In all cases, when attaching any type of switch to the remote encoder, you *must* use a stereo plug.

Note

The Simplicity™ line of ECU's will automatically detect the type of plug connected to the ECU.

Note

Never use adapters or extension cables when connecting switches or microphones to the remote encoder.
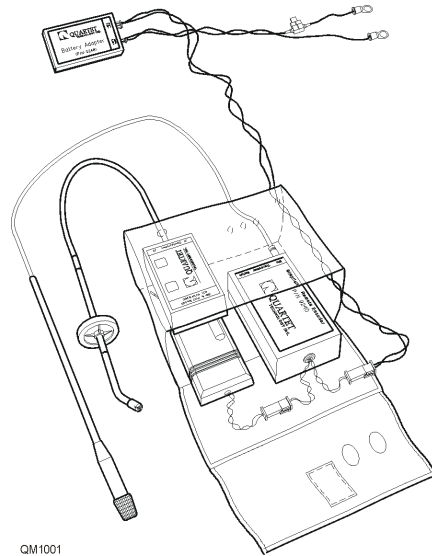
Appendix B

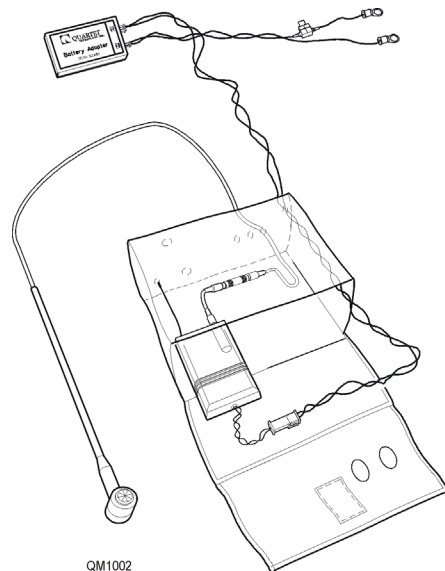# Wheelchair Pouch Component Placement

Introduction

All radio remote packages come with a wheelchair pouch (P/N: 8085). The following illustrations show how the various components from the different radio remote packages are organized in the pouch.

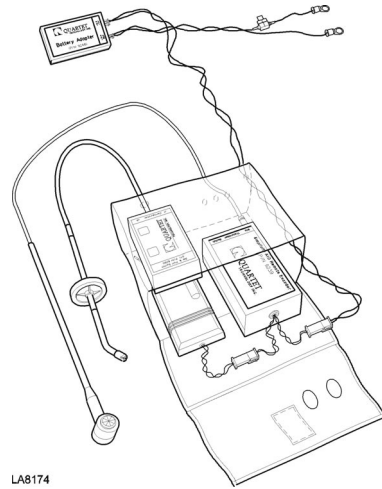**Remote Switch Package w/ Battery Adapter (P/N: 9261)**

QM1001

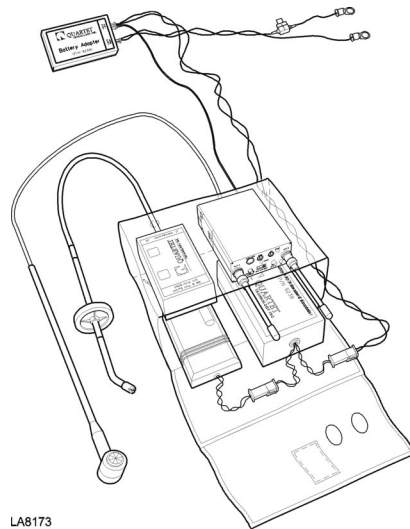**Remote Voice Package w/ Battery Adapter (P/N: 9262)**

QM1002

Wheelchair Pouch Component Placement (cont.)

Remote AIO Package w/ Battery Adapter (P/N: 9263)

LA8174

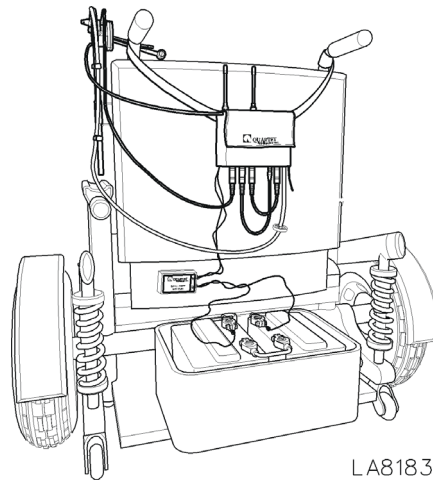**Remote Packages w/ Battery Adapter and Voice Back Radio**

LA8173

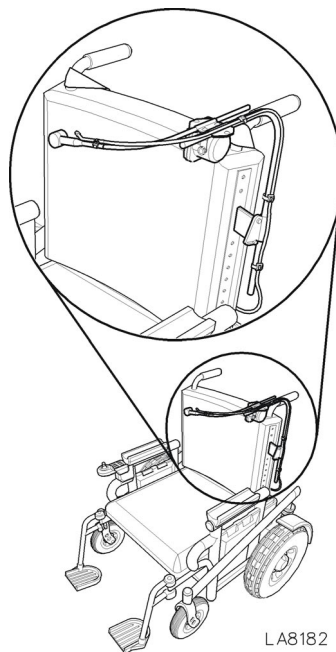# Appendix C

Wheelchair Mounting

Introduction

The following illustrations show how the various components from the different radio remote packages are typically mounted to a wheelchair.

Wheelchair Pouch Mounting

LA8183

Microphone, QSP Straw, and/or Mini-Cube Speaker Mounting


LA8182

Appendix D

Battery Charger

Introduction

The **Remote Switch Package** (P/N: 9219), **Remote Voice Package** (P/N: 9221), and the **Remote AIO Package** (P/N: 9231) all come with a battery charger and two rechargeable Ni-Cad batteries.

The batteries provide approximately 12 hours of use after a full charge. While one battery is in use, the other battery should be charging. The charger takes approximately 14 hours to charge a fully discharged battery.

Charger View

QM1004
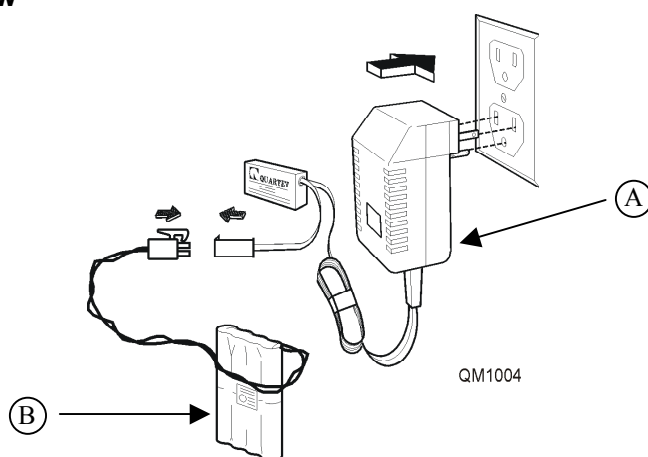
Charger Components

Letter	Component	QTI P/N
A	Ni-Cad Charger	9178
B	Ni-Cad Battery Assembly	9080

Note

The charger is automatic. The battery can be left connected to the charger indefinitely.

Note

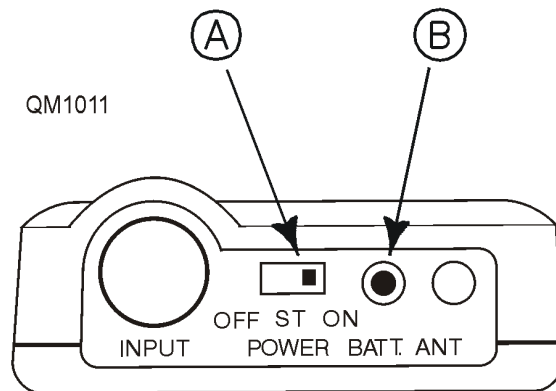It is best to alternate the batteries everyday by using one battery while the other is charging.

Appendix E

Transmitter On/Off Switch

Introduction

The transmitter power switch has three positions: *Off*, *Standby*, and *On*. The transmitter ***must*** be left in the "On" position at all times in order to function properly.

Transmitter View

Transmitter Components

Letter	Description
A	Power Switch
B	Power Indicator

Note

The power switch must be left in the "ON" position.

Note

For single channel transmitters (P/N: 9217), the power indicator LED will remain lit when the power switch is in the "***ON"*** position.

Note

For multi-channel transmitters (P/N: 9222), the power indicator LED will flash on briefly when the power is switched to the "***ON"*** position.

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Appendix F

Cleaning and Maintenance

Cleaning

You can clean any of the radio components using a slightly damp cloth, when necessary. Use water only.

Caution

Do not get any liquid or foreign material in the components.

Maintenance

The radio packages require no special cleaning or daily maintenance.

Warning

You should check the radio package connections monthly for safety and integrity. Contact your authorized Quartet distributor for necessary repairs or replacements.

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