



QUARTET
TECHNOLOGY, INC.

Battery Adapter
(Owners Manual)

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Battery Adapter manual P/N 5092

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Manual Description

Audience

This manual is for users of Quartet's *Battery Adapter* (P/N:9248).

Purpose

The purpose of this manual is to provide:

- An introduction to the *Battery Adapter*
 - Features of the *Battery Adapter*
 - Instruction for installing the *Battery Adapter*
-

Intended Use

The intended function of the Quartet *Battery Adapter* is to provide a regulated +12VDC and/or +9VDC output power source from a +24VDC input source.

Caution

The *Battery Adapter* is not intended for powering heavy loads. Only **low voltage, low current** devices should be connected to the *Battery Adapter*.

The maximum current draw for the *Battery Adapter* is +12VDC @ 200mA, and +9VDC @ 100mA.

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Overview

Introduction

Congratulations on your purchase of a *Quartet Battery Adapter*. You have selected a high quality, highly reliable instrument designed to give you years of trouble free use.

This device is designed to provide two power outputs when connected to a +24VDC source such as that found on a wheelchair.

The *Battery Adapter*, when connected to a +24VDC source, provides the following regulated outputs:

- +12VDC @ 200mA
 - +9VDC @ 100mA
-

Features

Features of the *Battery Adapter* are:

- Surface mount, solid state switching technology
 - Dual output regulator
 - Reverse input polarity protection
 - Outputs protected against short circuit
 - Indicator lights showing correct wiring
 - Integrated Mounting Pad
 - Lightweight
-

Objectives

In this manual you will learn about:

- *Battery Adapter* components
 - Connecting the *Battery Adapter* to a wheelchair
 - Using the *Battery Adapter* +9VDC output
 - Using the *Battery Adapter*+12VDC/+9VDC outputs
 - Cleaning and maintenance
 - Accessories
-

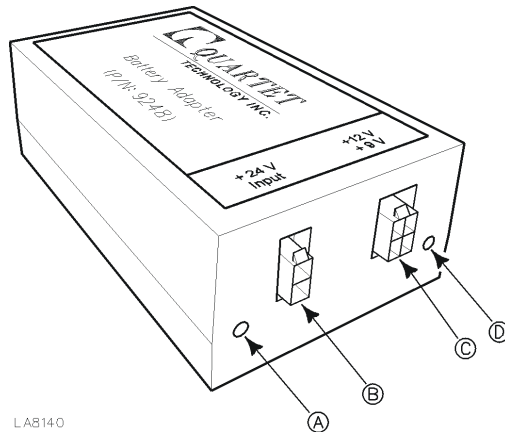
Caution

The *Battery Adapter* should not be exposed to water.

Battery Adapter Components

Battery Adapter View

Below is a diagram of the *Battery Adapter*:



Battery Adapter Components

The following components are on the *Battery Adapter*:

Letter	Component	Function
A	Green LED	When lit, indicates correct polarity of +24VDC input connection
B	Input Jack	+24VDC input connector
C	Output Jack	+12VDC/+9VDC output connector
D	Yellow LED	When lit, indicates <i>Battery Adapter</i> is working properly

Indicator LED's

There are two indicator LED's on the *Battery Adapter*. These are shown as (A) and (D) above.

Green LED

When illuminated, this LED indicates that the +24VDC input is connected properly.

Yellow LED

When illuminated, this LED indicates that the *Battery Adapter* is working properly.

Connecting the Battery Adapter to a Wheelchair

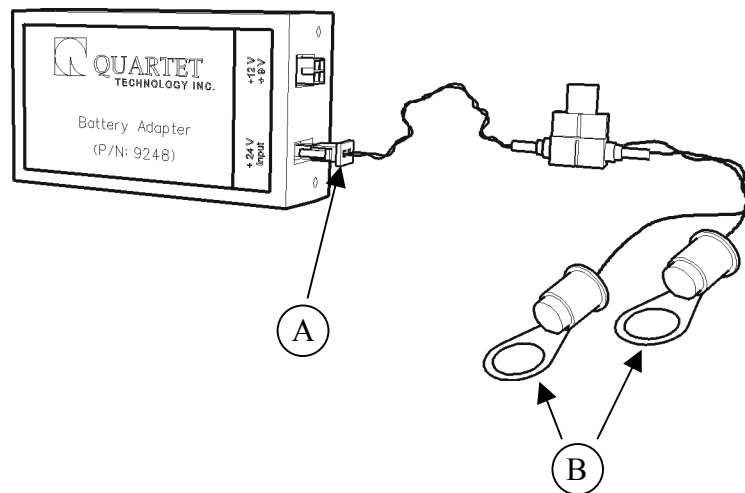
Definition

The *Battery Adapter* connects to the +24VDC power source of a wheelchair. Power drawn by the *Battery Adapter* is converted to two voltages, +12VDC and +9VDC.

Procedure

Complete the following steps to connect the *Battery Adapter* to a wheelchair power source:

1. Connect the *Battery Adapter Input Power Cable* (P/N: 9252) shown as (A) to the connector on the *Battery Adapter* labeled “+24V Input”.
2. Connect the ring terminals shown below as (B) to the wheelchair batteries.



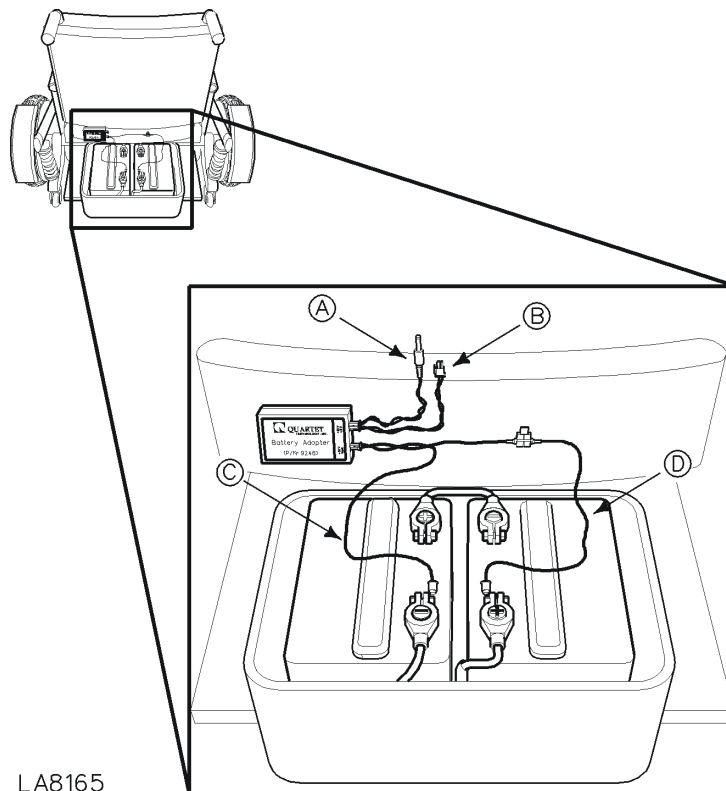
Caution

Be sure to observe polarity as marked on the cable! The ring lugs are marked +24V and *Ground*. The +24V ring lug should be connected to the positive connection of the wheelchair batteries while the ring lug labeled *Ground* should be connected to the negative connection of the wheelchair battery.

Connecting the Battery Adapter to a Wheelchair (cont.)

Procedure (cont.)

3. Dress the wires from the wheelchair battery neatly so they don't get caught on anything.
4. After everything is connected, it should look like the figure below where (A) is the +12VDC output, (B) is the +9VDC output, (C) is the negative battery connection, and (D) is the positive battery connection.



Caution

Use extreme caution when working with any battery. Wheelchair batteries in particular are designed to provide large amounts of power.

Shorting the wheelchair battery terminals could result in severe burns!

Contact your local Quartet distributor to install the *Battery Adapter*.

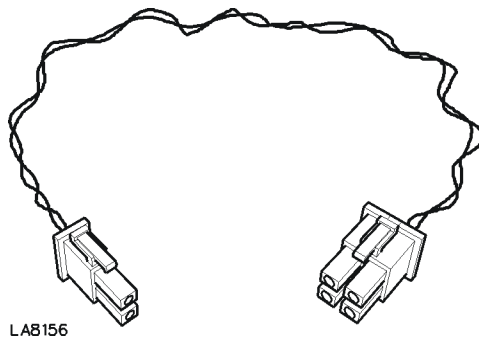
Using the Battery Adapter +9VDC Output

Definition

The *Battery Adapter +9VDC Output Power Cable* (QTI P/N: 9254) provides a means to connect to the *Battery Adapter* and obtain just +9VDC only.

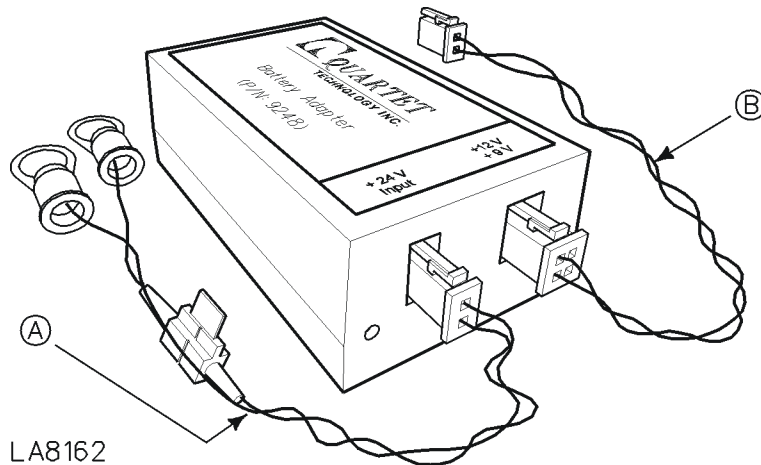
Cable View

The *Battery Adapter +9VDC Output Power Cable* (QTI P/N: 9254) is shown below:



Complete View

The complete connection for both the *Battery Adapter Input Power Cable* (A) and the *Battery Adapter +9VDC Output Power Cable* (B) is shown below:



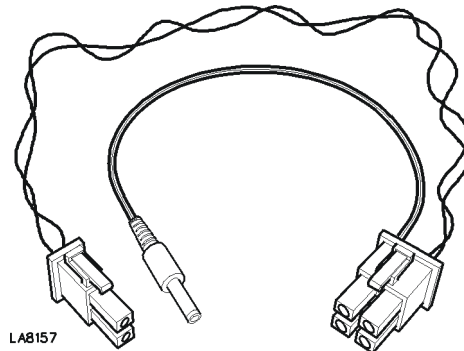
Using the Battery Adapter +12VDC/+9VDC Outputs

Definition

The *Battery Adapter +12VDC/+9VDC Output Power Cable* (QTI P/N: 9253) provides a means to connect to the *Battery Adapter* and obtain both +12VDC and +9VDC.

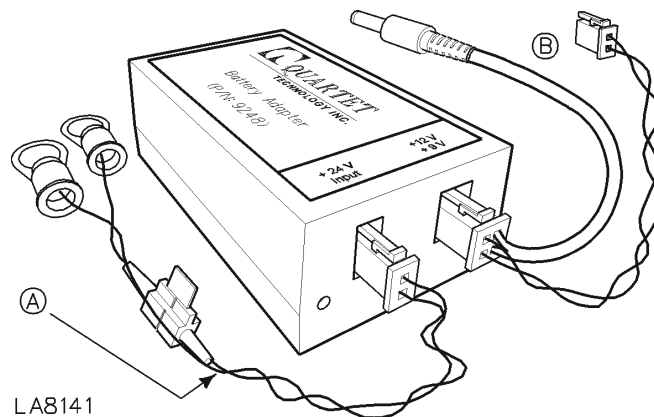
Cable View

The *Battery Adapter +12VDC/+9VDC Output Power Cable* (QTI P/N: 9253) is shown below:



Complete View

The complete connection for both the *Battery Adapter Input Power Cable* (A) and the *Battery Adapter +12VDC/+9VDC Output Power Cable* (B) is shown below:



Safety Features

Introduction

The *Battery Adapter* contains two internal **non-replaceable** fuses to protect from:

- Reverse input protection
 - Over voltage input
 - Catastrophic failure
 - Shorted Outputs
 - Battery Adapter Input Power Cable Fuse
-

Reverse Input Protection

The *Battery Adapter* features a reverse input protection circuit in the event the input from the *Battery Adapter Input Power Cable* is connected improperly.

Over Voltage Input

The *Battery Adapter* has been designed to withstand transient voltages up +60VDC that last up to a millisecond in length.

Catastrophic Failure

In the event the *Battery Adapter* fails, the internal fuse will “blow” to protect the *Battery Adapter*. If this happens, the unit will have to be returned for repair.

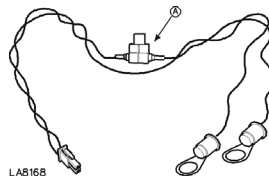
Shorted Outputs

In the event the +12VDC and/or the +9VDC outputs becomes shorted, the *Battery Adapter* will automatically trip an internal fuse and shut the outputs down.

If this happens, you **must** remove the +24VDC input by disconnecting the *Battery Adapter Input Power Cable* for **at least** 1 minute. Be sure to remove the “short” before reattaching the *Battery Adapter Input Power Cable*.

Battery Adapter Input Power Cable Fuse

The *Battery Adapter Input Power Cable* includes a built-in replaceable fuse shown as (A) below:



Use only a Littlefuse 2A Mini Fuse type if replacement is needed.

Cleaning and Maintenance

Cleaning

You can clean the outside of the *Battery Adapter* with a slightly **damp** cloth, when necessary. Use water only on a clean cloth.

Caution

Always disconnect the *Battery Adapter* when cleaning and/or connecting anything to it. ***Never immerse in water!***

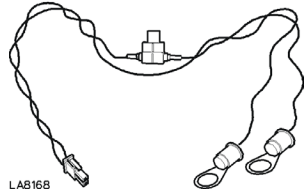
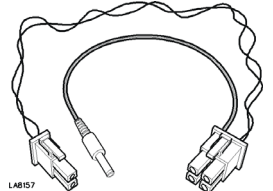
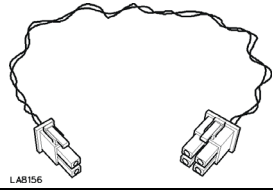
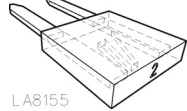
Maintenance

The *Battery Adapter* requires no special cleaning or daily maintenance.

Accessories

Accessories

A complete line of optional accessories to complement the *Battery Adapter*, include:

Accessory	QTI P/N	Description	
Battery Adapter Input Power Cable	9252	Supplies +24VDC from wheelchair power source to the <i>Battery Adapter</i>	 L.A8168
Battery Adapter +12VDC/+9VDC Output Power Cable	9253	Supplies +12VDC/+9VDC power to external equipment	 L.A8157
Battery Adapter +9VDC Output Power Cable	9254	Supplies +9VDC power to external equipment	 L.A8156
Replaceable Fuse	4305	Replacement fuse (2A) for <i>Battery Adapter Input Power Cable</i>	 L.A8155

Contact Quartet Technology or your authorized distributor for more information.

Battery Adapter Specifications

Maximum Input Voltage	+35VDC
Minimum Input Voltage	+20VDC
Operating Temperature	32°F to 104°F (0 to 40°C)
+9VDC Output Rating	+9VDC +/- 5% @ 100mA
+12VDC Output Rating	+12VDC +/- 5% @ 200mA

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