



Owner's Manual

56V DC Charger

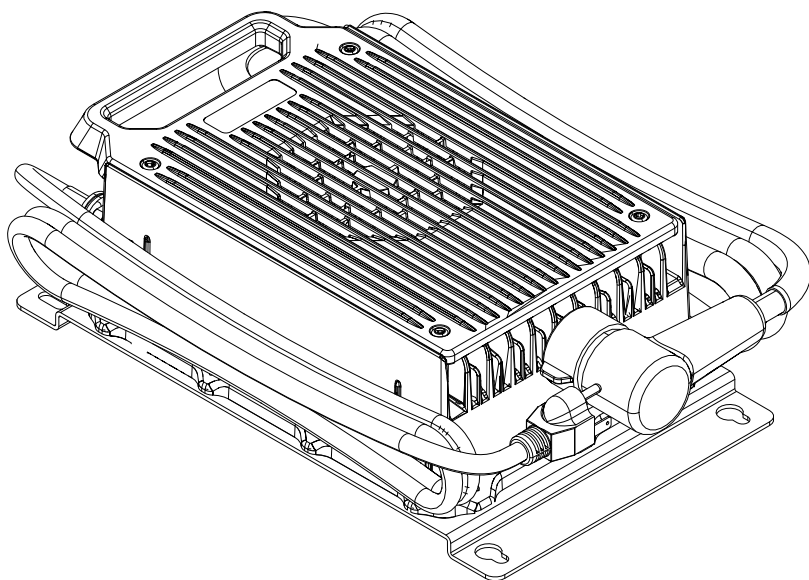


Table of Contents

Introduction & Safety Messages	3
Important Safety Information	4
Charger Specifications	5
Connecting & Disconnecting	6
LED Indicator Status	8
Maintenance & Handling	9
Troubleshooting	10
Additional System Components	11
Manufacturer Warranty	12

Support

Phone: 1-800-864-1649
Email: sales@valleyind.com
Website: www.valleyind.com

Introduction

Thank you for purchasing a VIPower™ 56V DC charger. We want to help you to get the best results from your new battery charger and to operate it safely. This manual contains information on how to do that; please read it carefully before operating.

Safety Messages

Your safety and the safety of others are very important. We have provided important safety messages in this manual and on the battery charger. Please read these messages carefully.



DANGER



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING



WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

Important Safety Information

For your safety and the safety of others, always follow the instructions below:

- Before utilizing charger, review and understand these instructions that have been provided along with the manual for the VIPower™ 56V DC battery pack. Save instructions for future reference.
- Make sure the operator receives adequate instruction before utilizing charger with VIPower™ electric motors and 56V DC battery packs.
- **CAUTION** – Use only with VIPower™ 56V DC battery packs. Do not use to supply power to an extra-low-voltage electrical system or to charge dry-cell batteries.
- Do not allow children or persons of physical, sensory or mental limitations or lack of experience or knowledge. Do not allow children to play with this battery charger.
- When charging a VIPower™ 56V DC battery pack, always place in a well-ventilated area.
- The Charger is IP65 rated and thus can be used outdoors. Do not use or submerge in water.
- Do not operate 56V DC charger if it has been dropped or damaged.
- If DC output cord or supply cord on 56V DC charger is damaged, replace charger entirely.
- **WARNING** – Continued use of the battery charger under unusual conditions could result in fire or electric shock, which may kill or seriously hurt you. If smoke, strange smells, or extreme heat are present or water or a metal object have gotten into the battery charger, discontinue use immediately.
- **WARNING** – Modifying, disassembling or repairing the battery charger could result in fire or electric shock, which can cause death or serious injury.
- **WARNING** – Before using battery charger, people who are using an electronic medical device must confirm how their device might be affected. The electromagnetic radiation produced during charging may affect the operation of electronic medical devices, which may cause serious bodily injury.

Prohibitions When Using Battery Charger

Do not use battery charger in the following situations:

1. Locations where battery charger can be unstable.
2. Locations where there is flammable gas or combustible materials.
3. Locations that are very cold or very hot, such as direct sunlight or near a heater.
4. Locations exposed to water or excessive humidity.
5. Locations where children or pets might play with it.
6. Risk of a lightning storm.
7. If battery charger, AC cable or electric outlet is damaged or deformed. This includes if dusty, dirty, or rusty.
8. If too many power cords are plugged into an single duplex electrical outlet.

Charger Specifications

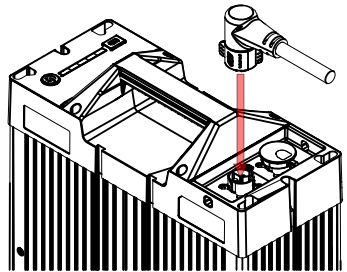
General	
Part #	33-103430
Charging Time	2.5 Hours*
Length, Width, Height	11.875" x 7" x 3.75"
Weight	9.31 lbs
Input Voltage	AC 100 V to 240 V
AC Plug	NEMA 5-15P (120V - 15A)
Input Frequency	50/60 Hz
Input Amperage (AC)	15A^
Output Voltage (DC)	DC 56V
Output Current (DC)	MAX 30A Depends on the battery
Nominal Working Temperature	77°F (25°C)
Storage Temperature Range	-40°F to 185°F (-40°C to 85°C).
<p>^A 15A outlet is standard for most household outlets and is required for optimal operation of this product.</p> <p>*Charge time is from 0% - 100%. Charging time is approximate. Charge time will differ if charging multiple batteries. In order to protect the battery, 90%-100% of the charging current will be reduced, resulting in a longer charging time.</p>	

Connecting to 56V DC Battery Pack

Here are the proper steps in connecting your VIPower™ 56V DC charger to the VIPower™ 56V DC battery pack.

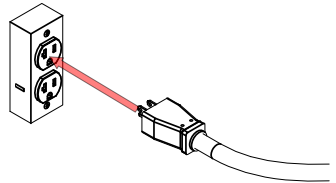
1. Connecting Power Cable Connector to Battery Pack

- Take charger power connector plug end and connect to a port of the battery pack.
- You will hear an audible click when properly installed.
- Verify connection is secured by light tugging on power cable connector.



2. Plugging Charger Into Outlet

- Take charger AC input cord and plug into an earthed/grounded outlet.
- Outlet used needs to be rated for 15 amps.
- **NOTE: If extension cord is being used, it needs to be minimum of 12AWG and have a 3-prong ground plug.**
- **NOTE: While the battery pack is connected to the electric motor, the battery charger can be connected to the battery pack for extended run time. DO NOT PLUG IN THE CHARGER WHILE THE BATTERY IS CONNECTED TO THE MOTOR AND IN OPERATION.**

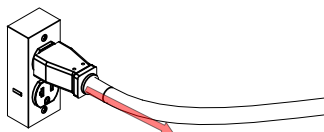


Disconnecting 56V DC Battery Pack

Here are the proper steps for disconnecting the battery charger after your battery pack is fully charged. Reference section LED Indicator Status on page 8 on identifying when battery pack is fully charged.

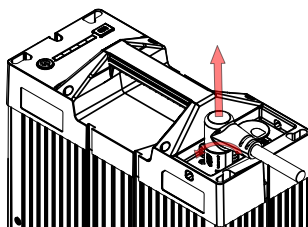
1. Disconnecting From Outlet

Pull out charger AC input cord from the earthed/grounded outlet.



2. Disconnecting Power Cable Connector from Battery Pack

Turn the winged connector plug counter-clockwise by a quarter turn and then pull out from battery pack port.



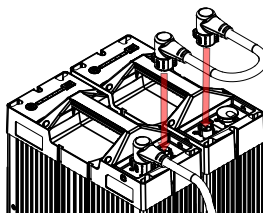
Connecting Multiple Battery Packs

Here are the proper steps in connecting VIPower™ 56V DC charger to multiple VIPower™ 56V DC Battery Packs. VIPower™ power cables are required and sold separately.

1. Connect VIPower™ Power Cable to Each Battery

Connect plug ends of power cable, to an open port on each battery. You will hear an audible click when properly installed.

Verify connection is secure by lightly tugging on power cable ends.

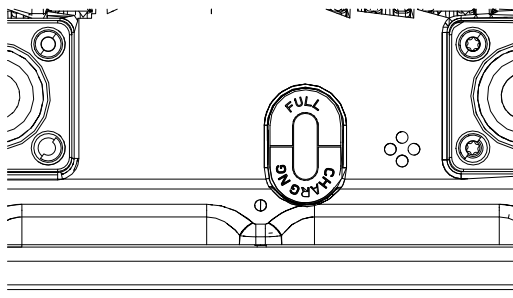


For disconnecting, please see Step 2 above.

NOTE: If charging multiple batteries at once, charge time will increase.

LED Indicator Status

On your VIPower™ 56V DC charger, there will be an LED status indicator light. See below for the functions.



- Battery Being Charged = Red light flickering.
- Battery Fully Charged = Green light is glowing.
- Fault Indication = Sequenced green and red light alternately flashing. Please see Troubleshooting guide on page 10 for more information.

Maintenance & Handling

Cleaning

After continuous use, wipe down charger to remove any dust collected.

DO NOT use water from a garden hose or pressure washer to spray down charger.

Storage

Store in a dry area. Protect from rain. The recommended storage temperature is between -40°F to 185°F (-40°C to 85°C). **NOTE: Storage temperature range is different than operating temperature range. Make sure the charger is within the operating temperature range prior to use.**

Disposal

To protect the environment, do not dispose of this product using standard waste collection. Observe the local laws and regulations.

Do not dispose of electric equipment together with household waste material. If electrical appliances are disposed of in landfills or dumps, substances can leak, react and enter the food chain, damaging your health and well-being. For further information on the disposal of this product, please contact your nearest domestic waste collection service.

Troubleshooting

Troubleshooting is required when the LED status indicator light has a sequential green and red light alternately flashing. Sequential flashing will repeat after pauses.

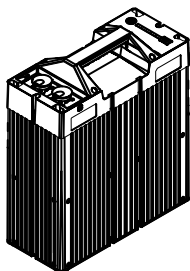
A pause is represented in the table below with a “-“, one “-“ equals one second.

Sequential Flashing	Problem	Solution
Red, Green, Red, Green	Without load	Check connection between battery and charger.
Red, Green, Red (---)	Over voltage or over current	Restart charger. If problem persists, contact customer support.
Red, Green, Red, Green (--)	Ambient temperature too low or too high	Check on ambient temperature. Verify ventilation is good and position of battery temperature.
Green, Red (----)	Charger over-heating	Check on ambient temperature. Verify ventilation is good.
Red, Green (----)	Open loop fault	Contact customer support.
Red, Green, Red, Green, Red (-)	Input AC abnormality	Check input voltage and if cord plug properly installed in outlet.
Red, Green, Red, Green, Red, Green, Red (-)	Communication failure	Check the communication line connection is intact

Additional System Components

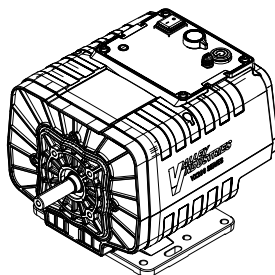
(Sold Separately)

56V DC Battery Pack



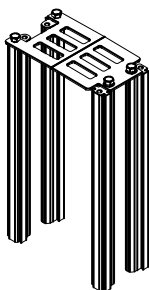
Part# 33-103428

VX Series Motor



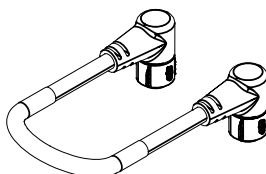
Part# VX-120 or VX-200

Battery Rack (Holds 1 Battery)



Part# 34-100024

Power Cables (M x M)



Part#

33-103427 (10'')*

33-103427-3 (3ft)

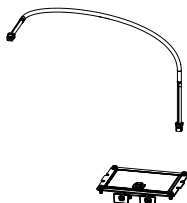
33-103427-6 (6ft)

33-103427-9 (9ft)

33-103427-12 (12ft)

33-103427-15 (15ft)

Remote Mount Panel Kit



Part# 34-100023

*Used only for connecting batteries together

Manufacturer Warranty

Valley Industries shall warranty any battery charger manufactured, or parts of battery chargers manufactured, to be free from defects in material or workmanship for a period of 3 years from the date of purchase by the original owner. This warranty applies to the original purchaser of the battery charger and is non-transferable. Verification of purchase is the responsibility of the buyer.

This warranty specifically covers manufacturer defects only. If a defect is found Valley Industries will replace the battery charger. The user must contact our support team (phone: 1-800-864-1649 / email: sales@valleyind.com) to initiate the return process for a replacement battery charger. Shipping costs to return the battery charger to Valley Industries are the responsibility of the customer, while the shipping of the replacement unit will be covered by Valley Industries.

Any misuse, abuse, alteration, improper installation or operation will void the warranty. Any services performed by parties other than Valley Industries will void the warranty.

This warranty specifically excludes the following: failure of parts due to damage caused by accident, fire, flood, windstorm, acts of God, applications not approved by Valley Industries in writing, corrosion caused by chemicals, use of replacement parts which do not conform to manufacturer's specifications, and damage caused by vandalism. Additional exclusions: loss of running time, inconvenience, loss of income, or loss of use, including any implied warranty of merchantability or fitness for a specific use.

Warranty does not cover items subject to normal wear caused by direct physical contact by the public.

This warranty is in lieu of any other warranty, expressed or implied, and Valley Industries assumes no other responsibility or liability outside that expressed within this warranty.

Valley Industries reserves the right to modify the terms and conditions of this warranty at any time and without prior notice. Please refer to the most current warranty terms available at the time of purchase.

To activate your 3-year warranty and streamline any future support, please scan the QR code below or visit: **www.valleyind.com/vipower-warranty-registration**.

Please have your purchase receipt handy during registration.

