



AA Portable Power Corp
825 S 19th Street, Richmond, CA 94804
Tel: 510-525-2328 Fax: 510-439-2808
<http://www.batteryspace.com> Sales@batteryspace.com

Low and High Voltage Disconnect Installation and User Manual

Introduction

The High and Low Voltage Disconnect (HLVD) is used to help protect lithium ion batteries from damage due to over discharge and over charge. The HLVD is suitable for use with battery systems of 12V, 24, 36V and 48V. Its outputs will drive contactors or relays directly, up to 2A each.

The HLVD is intended to be used in combination with cell balancers. This approach does not provide individual cell level protection to the battery.

HLVD Connections





AA Portable Power Corp
825 S 19th Street, Richmond, CA 94804
Tel: 510-525-2328 Fax: 510-439-2808
<http://www.batteryspace.com> Sales@batteryspace.com

Connections:

Ground	Battery Negative or Ground
Key SW	Key Switch input or Battery Positive
No Delay	High Voltage Output
Delay	Low Voltage Output

Use insulated ¼" female spade terminals to make all connections to the LVD. These are readily available at hardware stores.

HLVD

The HLVD circuit will help prevent damage to the battery pack from over discharge or over discharge when properly implemented. The HLVD has two outputs, one for over voltage and one for under voltage. These pins will output pack voltage and can drive up to 2A continuous with an 4A surge for 100mS or less. They can directly drive appropriate relay or contactor coils.

Each output must be able to shut off all loads and charging sources on the battery pack once activated in order to avoid damage to the battery pack.

Non- Delayed Output – When power is applied to the HLVD and voltage is under 3.55V per cell, this output will immediately turn on. When the voltage rises above 3.55V per cell for a period of 3 seconds this output will shut off. Once the output has shut off it will not turn back on until the voltage has dropped to 3.35V per cell.

Delayed Output - When power is applied to the LVD and voltage is above 3.1V per cell this output will turn on after 5 seconds. When voltage drops below 2.9V per cell for a period of 30 seconds this output will shut off. Once the output has shut off it will not turn back on until the voltage has risen to 3.1V per cell.

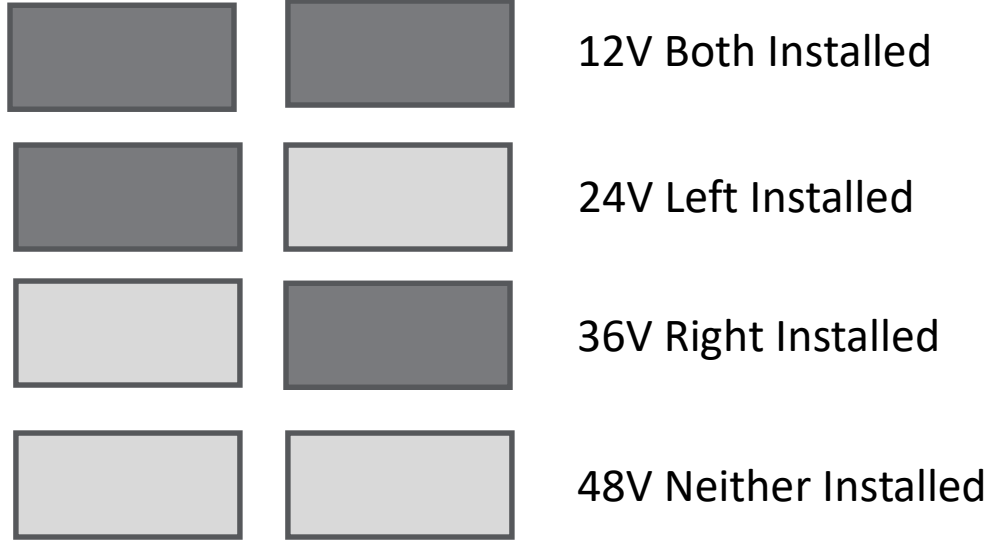
Settings

The HLVD can be set for 4 cells 12V, 8 cells 24V, 12 cells 36V, or 16 cells 48V. The voltage setting must be made correctly for the HLVD to operate properly. There are two jumpers on the back of the LVD which can be positioned as below to correspond with the appropriate number of cells.



AA Portable Power Corp
825 S 19th Street, Richmond, CA 94804
Tel: 510-525-2328 Fax: 510-439-2808
<http://www.batteryspace.com> Sales@batteryspace.com

Jumper Settings



Basic Schematic

