

## Intelligent Bi-Voltage Battery

### ALEXA LF/65 High Voltage Power Solution

#### ■ Introduction

The latest released ARRI Alexa LF and Alexa 65 require on-board battery input voltage 19.5-34V only, and the normal 14.4V (11-16.8V) batteries are no longer compatible with Alexa LF or 65.

There're existing standard V-mount batteries of 26-28.8V high voltage output, to power Alexa LF/65, but the high voltage with the same physical connectors will surely damage other normal V-mount cameras. And the normal voltage on-camera devices can't get power from the high voltage battery as well.

Also there're better solutions to do DC boost in the dedicated V-mount plate, and can use normal 14.4V battery to power Alexa LF/65. Anyway, the current between battery and V-plate will get quite high with 160W load and 14.4V voltage, and will melt the battery pins if the battery quality is not good enough. In addition, there's power lost because of DC boost efficiency.

Now you will have a great solution for Alexa LF/65: the SWIT Intelligent Bi-voltage Battery, can output both 11-16.8V normal voltage and 22-33.6V high voltage, with auto recognition and switching by the dedicated V-mount plate, compatible with Alexa LF/65 and all other normal cameras and devices, with no risk of misusing. (Patented)



#### **PB-H290S**

**Bi-voltage Battery**  
14.4V/28.8V, 290Wh

- ◆ Strong structure battery, **1.5 meters** drop-off proof
- ◆ **Bi-voltage:** 14.4V (11-16.8V) & 28.8V (22-33.6V)
- ◆ 14.4V/28.8V auto recognition and switching
- ◆ D-tap always output 14.4V for on-camera devices
- ◆ 290Wh high capacity, **Max 200W high load**
- ◆ Compatible with all normal voltage chargers
- ◆ Max 6A fast charging (by SWIT S-3812S charger)
- ◆ 8-LED remaining run time indicators

- ✓ ALEXA 65/LF/SXT high voltage
- ✓ All normal voltage cameras
- ✓ High voltage Cine Lights
- ✓ All normal voltage chargers

# How to active 22-33.6V high voltage output of PB-H290S

The Bi-voltage battery PB-H290S output normal 11-16.8V voltage as default, you can attach to any normal V-mount cameras or other devices, and any normal voltage chargers.

To power ALEXA LF/65, or high voltage cine lights, you need to active the 22-33.6V high voltage output.

To avoid misusing of high voltage battery to normal voltage cameras (will damage the normal cameras), we don't provide a physical "voltage switcher" on the PB-H290S battery.

Instead, we use an intelligent Auto Switching solution, to active the high voltage of PB-H290S battery by battery plate recognition:

## Use SWIT dedicated V-mount plate KA-A20S

To active 22-33.6V for Alexa LF/65/SXT/AMIRA

### ◆ Compatible camera models:

ARRI ALEXA 65; ALEXA LF; ALEXA SXT; AMIRA

### ◆ Batteries fit:

PB-H290S and all other normal V-mount batteries

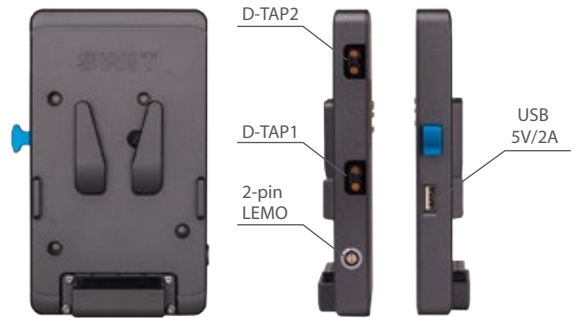
For PB-H290S, the plate will active 22-33.6V power to cameras

For other batteries, the plate will output the battery voltage to camera.

### ◆ Features

CNC housing, High load pins,

D-tapx2 (16V), 2-pin LEMO (16V), USBx1 (5V/2A)



## KA-A20S

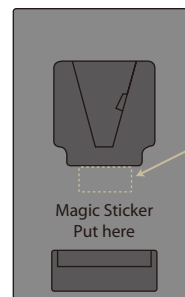
For ALEXA 65; ALEXA LF; ALEXA SXT; AMIRA  
Active 22-33.6V voltage of PB-H290S

## Use SWIT Magic Sticker on normal V-mount plates

To active 22-33.6V for high voltage Cine Lights

For other high voltage capable equipments, like SkyPanels or other Cine Lights, the 22-33.6V battery power supply will reduce current effectively, protect the battery and ensure the reliability.

To use PB-H290S on these high voltage equipments with standard V-mount plate, you can easily put on a Magic Sticker onto the particular position of the V-mount plate, to active 22-33.6V output of the PB-H290S battery.



### Magic Sticker



**For high power Cine Lights:**  
Put Magic Sticker to this position of any V-mount plate, to active 28.8V (22-33.6V) voltage output of PB-H290S battery.

## Comparison of Common ALEXA LF Power Solutions

Description	Solution 1 Pure 26-28.8V battery with same physical pins	Solution 2 Pure 26-28.8V battery with different pins arrangements	Solution 3 Normal 14.4V battery with voltage raise in V-plates	SWIT Solution 14.4V/28.8V Bi-voltage switching inside Battery
Battery plate to ALEXA	Normal V mount plate	Dedicated V mount plate	Dedicated V mount plate	Dedicated or Normal V-plate
Use on normal 14.4V cameras	✗ - Dangerous	✗	✓	✓
Charge by normal 14.4V charger	✗	✗	✓	✓
Battery outputs 14.4V D-tap	✗	✗	✓	✓
Current load on ALEXA LF	Lower current, safe	Lower current, safe	High current, hot and unreliable	Lower current, safe