

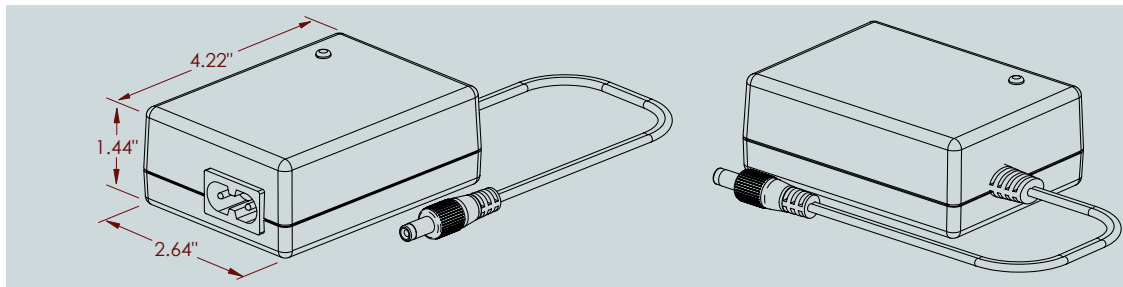
Switch mode lead acid chargers are designed to effectively charge sealed lead acid batteries while protecting the batteries from over-charging. All charger ratings are based on a nominal input of 90-264 / 47-63Hz. The output current ranges from 1.2A to 2.2A.



**LEAD ACID CHARGER, 2.2A**

**Features:**

- Medically certified (UL60601!%)
- 3 step charge control with timer
- Switch mode charger with universal input voltage
- Available in 12V and 24V versions
- LED status indicator
- Protected against reverse polarity and short circuit
- Custom specifications on request



Category	Specification	
Model number	452541-SB	452541-SC
Input rating	Nominal 90-264VAC/47-63Hz	
Nominal voltage rating	12V	24V
Maximum output power	33W	36W
Current limit	2.2A +/- 0.1A (until 14.7V)	1.2A +/- 0.1A (until 29.4V)
Line regulation	<100mV	
Switch frequency	≈40 kHz	
Leakage current from battery	<250uA	
Temperature range	-20°C to +40°C	
Ripple	<100 mV p-p	
IP - code	41	
Load regulation	<200mV	
Insulation class	Class II	
Electrical safety	IEC / EN / UL 60601-1, EN 60950-1, EN 60335-2-29	
EMC standards	EN 60601-1-2 (Medical), EN 61000-6-3 (Emission), EN 61000-6-1 (Immunity)	
Load regulation	< 200mV	
Input connection	2 pin IEC 320 (input cordset not included)	
Output connection	2.5mm x 5.5mm x 9.5mm barrel plug, center positive*	
Dimensions / weight	4.22" x 2.64" x 1.44" (107 x 67 x 36.5mm)/ .55 lbs. (250g)	
Recommended battery capacity	11Ah - 12.5Ah	6Ah - 12.5Ah

\*other output connection options available upon request



## Functionality:

### STEP 1 - BOOST CHARGE

To start a charge cycle; connect the charger to the mains. The charger is in constant current mode, charging with the maximum current indicated on the charger, the LED-indication on the charger is ORANGE. In the first step, the charger will enter into 'boost' mode. During this step, the charger is in constant current

### STEP 2 – TOP-UP CHARGE

The charger is in constant voltage mode, charging with a decreasing current until the current is below the chargers charge termination level (indicated on the charger).

The LED-indication will turn to YELLOW during Top-up charge. The battery is typically 90-95% fully charged when the LED indicator changes to yellow. The charger stays in this mode until the charge current decreases to charge termination level. The battery is charged to its full capacity at the end of this step.

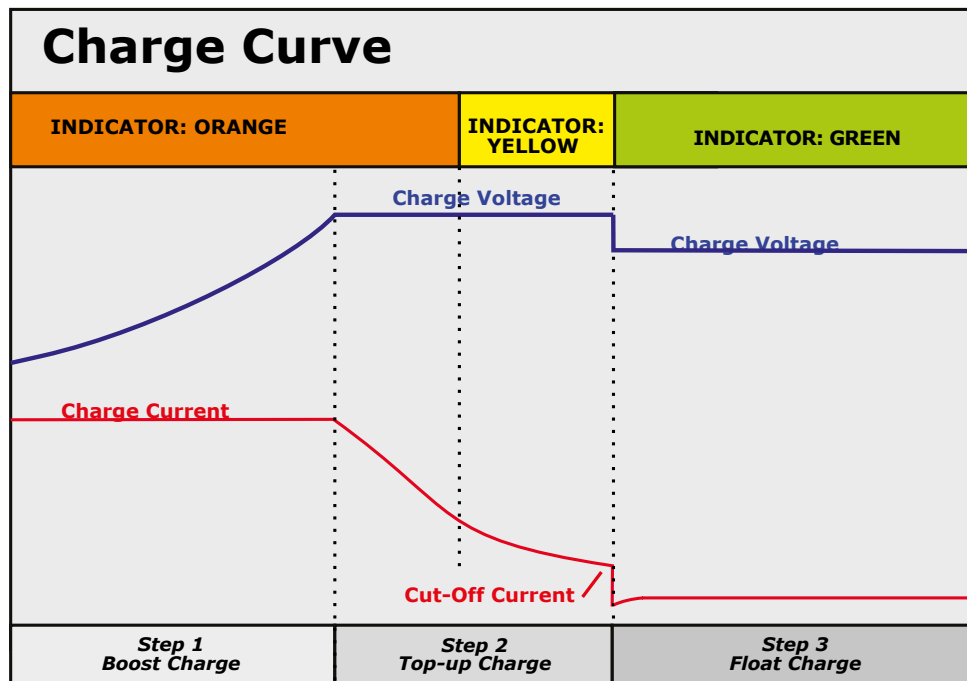
### STEP 3 – FLOAT CHARGE

The LED-indication on the charger is GREEN and the battery is fully charged.

The charger is in standby mode. The charge voltage is at standby level and the charger may remain connected to the battery. The charger will return to boost charging if the battery is used. A load larger than the cut-off current will initiate a new charge cycle.

### Charge control values:

Model #	452541-SB	452541-SC
Charger voltage rating	12V	24V
Constant current charge (Orange)	2.2A < 14.7V	1.2A > 29.4V
Constant voltage charge (Orange)	14.7V > 1A	29.4V > 0.5A
Constant voltage charge (Yellow)	14.7V < 1A	29.4V < 0.5A
Float charge (Green)	13.7V < 250mA	27.4V < 250mA



\*When specifying product, please consult with Cell-Con to verify that the specifications identified on this data sheet are current

