

# BASSI LABS

## Gassing Voltage Adjustment

## Charger Gassing voltage adjustment

*This guide will take you through the steps to properly calibrate your bassi charger to function properly with a non Can-bus lithium battery.*

### STEP 1: IDENTIFYING IF THE CHARGER REQUIRES CALIBRATION.

If the charger stops charging at very low battery state of charge it's a very good indicator that the charger requires calibration.

Non Can-Bus lithium chargers function on what we refer to as "lead acid brain". They calculate the cell voltage based on lead acid battery cell count. Therefore, they calculate constant voltage with gassing voltage.

Once the charger hits the gassing voltage parameter set point the current will decrease down to maintain this voltage until the current = 5% of battery capacity.

Gassing Voltage setting equivalent for Lithium:

Truck Voltage	Lithium Cell Count	Lead Acid Cell Count	Lead Acid Gassing Voltage	Lithium Cell Voltage
24V	8	12	2.30V	3.45V
36V	12	18	2.30V	3.45V
48V	15	24	2.16	3.45V
80V	25	40	2.16	3.45V

24V Truck Battery Example:

LFP:

$$[\text{Cel}] \times [\text{Cel Const. V}] = [\text{Const. V}]$$

$$8 \text{ cel} \times 3.45\text{V} = 27.6\text{V}$$



Lead Acid:

$$[\text{Const. V}] / [\text{L.A. Cel}] = [\text{Gassing V}]$$

$$27.6\text{V} / 12 \text{ cel} = 2.30\text{V}$$

## STEP 2: ENTERING PROGRAMING MODE

Hold the DOWN Key on the charger until it prompts you to enter a 5 bit password. Enter the following password:

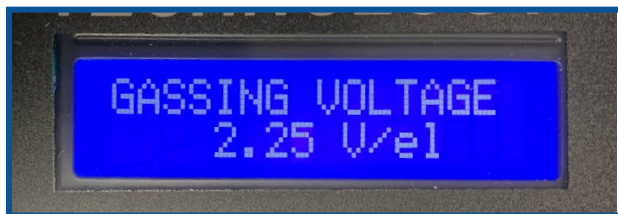
UP-UP-UP-DOWN-DOWN



## STEP 3: Adjusting the Gassing Voltage

Make your way to the Gassing Voltage setting and hold ENTER for 2 seconds to enter the parameter. Adjust the value based on the table in step 1.

Once adjusted hold ENTER for 2 seconds once again to exit the parameter. Cycle on and off the charger to save the setting changes.



#### STEP 4: ADDITIONAL NOTES

Once the gassing voltage is changed it is possible the battery:

1. Does not reach 100% charge. In this case simply increase the gassing voltage by 0.02V until the battery can reach 100%
2. The battery disconnects before the charger stops charging. In this case decrease the gassing by 0.02V until the charger remains in connected state up to 100%

