# **USER GUIDE**Sigma 5 Battery Charger

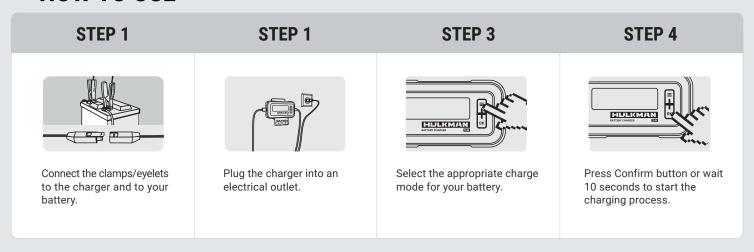








# **HOW TO USE**



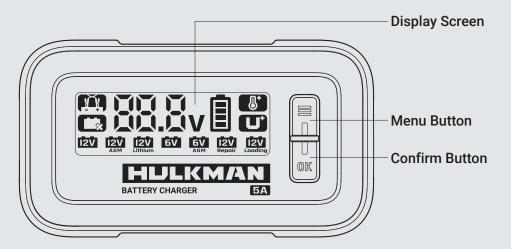
# **BUTTON OPERATION**

BUTTON	OPERATION
Menu Button	Press to cycle through "12V, 12V AGM, 12V Lithium, 6V, 6V AGM" modes.  Press & hold for 2 seconds to enter "12V Repair" mode.  Press & hold for 1 second to go back to "Standby" mode when charging.  Press & hold for 1 second to go back to "Standby" mode when
OK Confirm Button	Press it to start the charging process.

# **ERROR INDICATIONS**

ICON	REASON	SOLUTION
	<ul><li>1.) Charger internal temperature is too high.</li><li>2.) Charger ambient temperature is too low.</li></ul>	<ol> <li>1.) Charger will automatically resume function once the it's internal temperature drops to -4°F~104°F.</li> <li>2.) Charger will automatically resume function once the it's ambient temperture rises to -4°F~104°F.</li> </ol>
U	Battery voltage is too high for the selected charge mode.	Check the battery and confirm the appropriate charge mode for your battery
	Reverse Polarity	Reverse the battery clamps/eyelets.  1.) Connect the positive (red) clamp/eyelet terminal connector to the positive (POS,P,+) battery terminal.  2.) Connect the negative (black) clamp/eyelet terminal connector to the negative (NEG,N,-) battery terminal.
	Bad Battery	Battery will not hold a charge. Get the battery checked by a professional.

# **DISPLAY & OPERATION**



ICON	EXPLANATION
88.8v	Battery Voltage. This icon indicates the voltage of the connected battery.
	Battery Level or Repair Time.  In "12V, 12V AGM, 12V Lithium, 6V, 6V AGM, 12V Loading" mode, this icon Indicates the charging level of the connected battery. The four bars from bottom to top indicate battery levels from 25% to 100%.  In "12V Repair" mode, these four bars from bottom to top indicate the repair time of 1h to 4h.  Flashing bars change to constant bars when the most recent stage is completed.

# **7 CHARGING MODES**

The Sigma 5 has seven (7) charging modes: 12V, 12V AGM, 12V LITHIUM, 6V, 6V AGM, 12V Repair and 12V Loading (Force mode).

It is important to understand the differences and purpose of each charge mode. Please always check with battery manufacturer to confirm the right charge mode for your specific battery. Do not operate the charger until you confirm the appropriate charge mode for your battery. Below is a brief description:

ICON	RELATED MODE	EXPLANATION
88.8 <sub>v</sub>	Standby	In Standby mode, the charger is not charging or providing any power to the battery.
12V	12V	For charging 12-volt Wet Cell, Gel Cell, Enhanced Flooded, Maintenance-Free and Calcium batteries.
I2V AGM	12V AGM	For charging 12-volt AGM batteries.
I2V Lithium	12V Lithium	For charging 12-volt Lithium batteries.
6V	6V	For charging 6-volt Wet Cell, Gel Cell, Enhanced Flooded, Maintenance-Free and Calcium batteries.
<b>6V</b> AGM	6V AGM	For charging 6-volt AGM batteries.
<b>12V</b> Repair	12V Repair	An intelligent battery recovery mode for repairing and restoring sulfated, old, idle, damaged, or stratified 12-volt batteries.
12V Loading	12V Loading (Force mode)	For charging 12-volt lead-acid batteries with a low voltage between 0.3V and 2V.

## **CAUTION**

#### **USING 12V REPAIR**

12V Repair can take up to four (4) hours to complete the recovery process and for use on 12-volt lead-acid batteries with a voltage higher than 2V only. Please note that not all batteries can be recovered. The effectiveness of the repair will depend greatly on the degree of damage to the battery. In general, the more severe the damage to the battery, the more difficult, if not impossible, the repair will be.

#### **USING 12V LOADING**

When the connected battery's voltage is between 0.3V and 2V, and the 12V, 12V AGM or 12V Lithium mode is selected, this icon will flash automatically. Press the Confirm button to enter a 5-minute force charge. (It can only be activated by pressing Confirm button)

## **CHARGING TIMES**

BATTERY SIZE (AMP HOURS-AH)	TIME (HOURS-H)				
	6V	12V	6V	12V	
6Ah	3.6		2.2		
15Ah	9	3.3	5.5	2.2	
30Ah	18	6.6	11	4.5	
50Ah	30	11	18.3	7.5	
80Ah		17.6	-	12	
120Ah		26.4		18	
	EMPTY BATTERY TO 80% CHARGE		50% DOD BATTERY TO FULL CHARGE		

## **TECHNICAL SPECIFICATIONS**

Input Voltage AC: 100-240VAC, 50-60Hz, 85W

Output: 12VDC 5A; 6VDC, 1.8A Back Current Drain: 2mA

Operating Temperature: -4°F to +104°F Storage Temperature: -40°F to +140°F

Type of Batteries: 6V/12V Lead-Acid & 12V Lithium

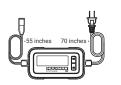
Battery Capacity: 15-120Ah(12V modes), 6-50Ah(6V modes)

Ingress Protection: IP67

Dimensions (L x W x H): 5.5 x 3.1 x 1.9 inches

Weight: 1.88pounds

## **WHAT'S INCLUDED**



HULKMAN Sigma 5 Battery Charger



Battery Clamps



Bracket & Screws



Battery Eyelets



User Manual & Warranty Card

### **WARRANTY**

This HULKMAN product carries a 3-year hassle-free warranty against defects in material and workmanship under normal use starting from the date of purchase. In order to keep the warranty valid, this product must be handled as described in this manual.

## **CONTACT HULKMAN**

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