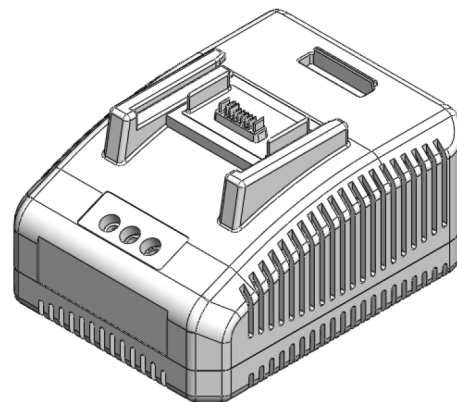




# ESB-CHG50(/X) Battery Charger Operation Manual



**CAUTION** — Please read, understand, and follow all operating and safety instructions in this manual before using the ESB-CHG50(/X) Battery Charger.

The ESB-CHG50(/X) Battery Charger is designed for exclusive use with specific Delta Regis batteries as defined in this manual. Do not attempt to use the charger with any products other than as specified in this manual.

**If you have any questions or concerns, please contact us at:**

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Read Manual



Caution



Double Insulated



Indoor Use Only



Keep Away From Humidity



Keep Away From Fire







Do Not Disassemble



Do Not Dispose

**Warning**  — Failure to understand and follow proper installation guidelines, safety requirements, and operating instructions may result in malfunction, component damage, property damage, shock hazard, fire hazard, injury or death.

- Please read  and understand the operation manual and follow all safety and operation instructions.
- Make sure that grounding and safety components are properly attached before using the charger.
- The charger should be stored in a clean, dry environment. Do not use charger in an environment above 91°F (33°C). Do not place heavy objects on top of the charger.
- Keep the charger in a well-ventilated, dust-free environment.
- Do not expose the charger to direct sunlight, high temperature, high humidity , or explosive gas .
- Keep the charger on a flat, firm surface, out of reach of children.
- Never use the cord to carry or pull the charger. Do not pull on the cord to unplug the charger. Keep the cord away from heat, oil, sharp edges, and moving parts. Damaged or entangled cords increase the risk of electric shock.
- The charger is designed for exclusive use with specific Delta Regis batteries as defined in this manual. Do not attempt to use the charger with any products other than as specified in this manual.
- Do not attempt to disassemble or modify the charger . The use of any parts other than genuine Delta Regis replacement parts may result in decreased tool performance and increased maintenance, and may invalidate all warranties.
- Do not plug in the charger with wet hands or if the plug is wet.

**Grounding** — This charger (and AC power cord) is equipped with a 3-prong electrical receptacle/plug with ground pin. The charger must be connected to a properly grounded AC electrical outlet. Do not attempt to use this charger without a properly functioning ground connection. Never connect a live circuit to the ground pin or internal yellow-green ground wire.

**Caution**  — Save these instructions; Do not destroy.

## Contents

- Battery charger (1)
- Power cord (1)
- Operation manual (1)






## Operation Instructions

To charge a battery, insert the battery into the charging port as shown in the corresponding diagram on the right. Ensure that the charger is plugged into AC power and that the battery is fully seated in the charging port.

Remove the battery in the opposite direction. On the ESB-CHG50/X, the button on the battery must be held during removal to unlock it from the charger.



## Display

	Power on		Charged 100%
	Charging		Error
	Charged > 80%		

Description	Beeps	Green Light	Red Light	Yellow Light
Charging under 80%	—	OFF	Flashing	OFF
Charging over 80%	—	OFF	Flashing	ON
Charging Complete	Three long beeps	ON	ON	OFF
Charging Error	Continuous short beeps	Flashing	Flashing	OFF
Sleep mode	—	OFF	OFF	OFF

## Protection Functions

- Overcharge Protection
- Current Protection
- Short Circuit Protection (Fuse)
- Battery Reverse Current Protection
- Temperature Protection
- Low Battery Protection
- Battery ID Recognition

### Temperature Protection

- If the battery temperature is 0–10°C (32–50°F), the charger will use low current to charge the battery until the battery temperature is higher than 10°C (50°F), then the charger will return to normal charging mode. The charger will not charge the battery if the battery temperature is below 0°C (32°C).
- If the battery temperature is above 45°C (113°F), the charger will change to a lower charging current. If the battery temperature exceeds 50°C (122°F), the charger will stop charging the battery and make a beeping noise until the battery temperature drops back below 40°C (104°F), at which point normal charging will resume.
- If the temperature of the charger reaches 75°C (167°F), charging will stop and only resume when the charger temperature is back down to 65°C (149°F).
- If the charger voltage is lower than 8V, the charger will switch to low current mode.

## Specifications

Battery Charger		
Model	ESB-CHG50	ESB-CHG50/X
Input Voltage	100V – 240VAC	
Output Voltage	12.6VDC	
Output Current	3.75A	
Dimensions (L x W x H)	145mm x 115mm x 93mm	145mm x 115mm x 80mm
Weight	470g	
For Battery Type	Li-ion	
Applicable Models	ESB-10VL2500	ESB-10VL2500X
Charging Time	~40 minutes	