

RCATS Smart Lithium Glow Driver Instruction Manual

LIGPD-XX

Proudly designed and built in the USA!

Congratulations on purchasing the RCATS Smart Lithium Glow Driver. This is the first commercially available glow plug driver utilizing lithium battery technology to provide a means for power. This unique unit allows for unprecedented longevity between charges and includes many powerful features. Our prototype, which was used in sport flyer fashion, lasted 15 months on a single charge!

Packing list

- Glow driver unit with glow clip
- Wall charger
- Instructions

Specifications & Features

- Two lithium-ion cells to achieve **5200** mAh of capacity
- Initial slow inrush of current lengthens glow plug life
- High current capability! Capable of delivering 5A to glow plug.
- Adjusts current automatically to keep plug lit (We have held a glow plug under water!)
- Built in Lithium Ion charger. Simply plug in wall adapter and unit charges in several hours.
- Built in safety circuitry prevents over/under charge
- Auto shut-off, times out after ~90 seconds. Pause/reset timer by pushing button
- Attractive translucent blue case
- Easy to read LED bar graph

Operation of the glow driver is very simple. The following diagram illustrates the glow driver's features.



Operation:

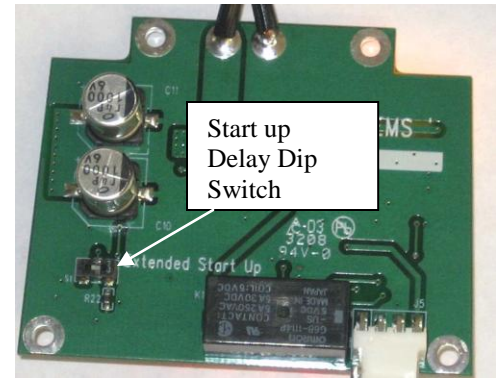
To operate the lithium glow driver, simply connect the glow plug clip to your engine's glow plug. Press on the center of the case where "ON" is denoted and an LED will illuminate near the button. The unit will stay on for approximately 90 seconds and then turn off. Pressing the ON button again will reset the timer. At the top of the unit is an LED bar graph display. Ten LED's make up the display. Each LED represents approximately .5 Amps, for a total scale of 5 Amps. This indicates the amount of current being supplied to the glow plug. Typical current for a glow plug is approximately 3-4 LED's, or 1.5 to 2 Amps. Most users will get accustomed to the bar graph array indicating the condition of the glow plug. Some plugs require more current than others.

Recharging:

The supplied lithium glow driver as received will need to be charged. A fully discharged glow driver will take approximately 8 hours to charge. Included with the unit is a regulated 5VDC wall wart adapter that supplies power to the glow driver's **internal** lithium ion charger. Simply connect the adapter's plug to the receptacle at the bottom of the unit and then plug the adapter into AC 110V-220V 50/60Hz power. Once powered, an LED will light within the glow driver case during the charge cycle. When completed charging, the LED will turn off. Charge times will vary, up to 8 hours for a complete charge. **DO NOT USE ANY OTHER METHOD TO CHARGE YOUR GLOW DRIVER!**

Start-up Delay

Glow drivers shipping after Sept 2008 now have the ability for the user to turn on or off a start-up delay feature commonly used for pattern flying). To set the delay, remove the four screws on the back side of the case, and locate the dip switch on the back side of the board.



Handling:

Please take proper care of your glow driver. It is a sophisticated piece of electronics equipment. While housed in a sturdy plastic enclosure, the case will not tolerate being dropped on hard surfaces nor being exposed to raw fuel. We recommend that you keep it away from fuels and substances which may attack the plastic. Note that we also have a rubber boot available which helps protect your glow driver. See our website for details.

Battery Information & Precautions

Do not attempt to service your RCATS lithium glow driver or its batteries. Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instruction. Your RCATS Lithium glow driver uses a specially designed Lithium-Ion battery pack. Proper care and usage of the battery pack will provide many hours of safe operation. Ignoring these warnings can lead to accidental ignition or explosion and bodily injury. Do not damage the battery pack or glow driver unit. Keep it away from children. Do not drop, mutilate, disassemble, puncture solder, or alter the batteries or unit in any way. Keep it away from any heat source above 130° F. Any Lithium-Ion battery pack will eventually become unable to hold a charge with time. A battery pack should be replaced when its discharge times become short. Due to the projected recharge intervals of the RCATS lithium glow driver, this should not be of any concern to the user. Never use a battery pack that appears corroded, discolored, or warped. While a recharging battery, the unit may become warm to the touch. A damaged pack may produce extreme heat or give off a burning odor. If in the event of a bad pack, use extreme caution with any liquid residue from a leaking battery pack: Avoid contact with the residue. If you come into contact with it, wash the affected area immediately. If any residue gets into your eyes, do not touch or rub the area around your eyes. Rinse immediately and seek medical advice.

Disposing of a Battery Pack

NEVER DISPOSE OF A BATTERY PACK IN A FIRE. There is a danger of ignition or explosion. Discard of used battery packs in accordance with your local regulations. Contact your local waste management officials for information regarding environmentally sound disposal of Lithium-Ion (Li-Ion) batteries.

If you encounter any difficulty with your RCATS Smart Lithium Glow Driver, please don't hesitate to contact us.
Email: info@rcatsystems.com Phone/fax: 408-292-3100

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