# Micro Glow
# Installation manual

**Read all directions carefully to insure proper operation, fire or burns may result from misuse of this product!**

**Features:**

- 8-bit PIC microcontroller
- Forward or reverse operation *Firm-ware C or above*
- No-signal power down of glow plug and battery
- Single-button set-up
- Can be used to switch any device up to 25V and 20 amps
- Small size: 0.6” x 1.2” (smallest in market class)
- Included glow boot
- Low cost: $24.00
- Drives up to 5 glow plugs (add $7.00 for each additional glow boot)
- Super bright LED’s to show *ON* or *OFF*
- All surface mount construction for reliability
- No radio interference
- Flashing no-signal indication *Firm-ware C or above*
- Forward / Reverse radio indication
- Flash upgrading of firm-ware *Ver C now available *
- All updates are free of charge if unit is returned to factory

**Parts Needed To Complete Glow System:**

- 1.2V Rechargeable sub-C or D cell rated for at least 3300mAH (3700mAH preferred)
- Kapton™ Tape (can be obtained: www.anderson-aurand.com )
- Heat-shrink tubing: 1.25” x 5” clear type
- Heat-shrink tubing: 3/16” X 5” black or white type
- Radio connector Y-harness to split radio signal to Micro glow
- Deans™ or similar plug set to match your charging system

*Note: Make sure your charger supports single cell charging.*
*If not please contact Anderson-Aurand for a charger for use with this device!*

**Pre-Installation:**

Begin by soldering on the male Deans™ (or your preferred brand of male plug) onto the stripped power cables on the Micro Glow system. The red 16 gauge wire is the positive input from your 1.2V cell and it should be soldered to the power connector. The black 16 gauge wire is the negative or ground wire, and it is also soldered to the power connector.

The provided #6 solder lug and glow boot is ready to mount to your engine. The #6 lug goes to a grounded engine bolt and should need no other modifications. If your application requires modifications of any type please contact Anderson-Aurand for approval of the modifications or your warranty is VOID and a potentially dangerous situation could arise!

**Prepare Your Battery For Use:**

Solder 16 gauge wires to your 3300mAH or larger cell. Begin by cutting a length of red 16 gauge wire of suitable length for your installation, and make a black 16ga wire of similar length. Solder the wires to the cell, observing correct polarity (red is goes to +, black goes to -) and wrap the cell including solder connections in Kapton™* tape.

**Kapton tape is not included in kit; contact Anderson-Aurand to order or purchase a ready-to-go system (Kapton™ tape is a high-temperature tape used in the electronics industry for many purposes including high-temp applications like battery pack construction).*

**Prepare To Install In Aircraft:**

*Note: Leave transmitter off at this time (if using a non-failsafe receiver or one known to glitch with the transmitter off disconnect all servos from the receiver to prevent servo and airframe damage).*

Plug radio connector into the Y-harness. Now turn on receiver power and note what color the flashing LED is, then turn off power.

If the led that is flashing green with the transmitter off then the Micro Glow is set for normal servo operation. If it's flashing red then Micro Glow is in reverse mode*.

*This is based on Futaba radio operation and other brands such as JR, Airtronics, Hitec, and others may vary. It makes no real difference yet and is only a guide to set the direction to match your throttle servos travel direction.

**Set-Up Your Micro Glow:**

You should have the Micro Glow plugged into the radio's Y-harness at this time but you do not need to have the glow battery or glow boot attached yet.

Begin by turning on power to the plane. The transmitter should be off at this time.

Observe again what color the LED is.

Turn the transmitter on, put throttle in the IDLE position and then move the throttle up 3 detents. Press and hold the programming button on the Micro Glow for 1 to 3 Seconds. Once released the Micro Glow will flash rapidly and store the setting*.

*Remember trim settings if used and set the unit to 3 clicks above where the engine would be in the low idle position.

If the green led is not lit in the full down or idle position, then press and hold (for 1-3 seconds) the Micro Glow programming button while throttle stick is in the idle position. If the led is not green at or below your new set point it must be reprogrammed to fit your radio, see below.

**Forward / Reverse Programming:**

Only the radio connecter should be connected to the Y of the receiver. There is no reason to have the glow plug or glow battery connected, but reprogramming could take place even if they were connected.

*Note: Transmitter must be off for this procedure.*

Press and hold the programming button while you turn on the receiver power. Wait for the led to change to the color other than you observed before with the transmitter off. Once the led has gone red you are in reverse mode, and green means you are in normal mode.
Release button and turn receiver power off. Wait 1-3 seconds and power-up receiver and note the flashing LED's color. It should now be the opposite color than it was when we began. If not, reprogram again until desired operating mode is attained.

**Setup Continued:**

Move transmitter throttle stick to 50% travel and power-up transmitter and receiver. Press and hold the Micro Glow programming button for 1-3 seconds and release. Now, pull the throttle stick back to idle position noting that the led MUST be green for the bottom 49% of the stick travel or the Micro Glow needs to be reversed (see above). Verify this by moving stick to the upper 51% or the stick travel: If the LED is green there the Micro Glow does indeed need to be reversed. Reprogram as indicated above until the stick can be lowered to the lower 49% of the stick travel and led is Green! You may set the turn on point as needed by simply placing stick in 50% point and pressing the Micro Glow programming button and releasing it again.

**Final Set-up and Checks:**

Connect the glow battery source (1.2V 3300mAH or larger capacity) cell to the Micro Glow power connector. Make sure the #6 ground lug is mounted to an engine mounting bolt. To attach glow boot to plug firmly grasp the black boot and pull back the red wire, then push the boot down until just the top part of the boot is resting on the top of the plug and release the red wire. Make sure your connected to your throttle channel and power up transmitter move throttle stick and set trim to were a high idle would be. Now power-up receiver and make sure your throttle is set properly to where high idle would be, then press and hold the Micro Glow programming button for 1-3 seconds. The LED should flash rapidly both LED's 20 times and then the LED should turn Green. This is when your glow is ON once you pass this set point the Led should go RED when the throttle is OFF. You may reprogram as many times as needed until you are happy with the settings.

*Tip: If your idle is set to high your glow battery life will be reduced, likewise if it is set too low you may have starting issues. Adjust as needed before closing up the area where the device is mounted.*

Tip: A single 3300~3700ma battery should provide an hour of glow time*

If you have an issue and require further support contact
Ken Anderson at speedcontrol@comcast.net or anderson@anderson-aurand.com

Firm-ware updates can be shipped prepaid to:

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