

## MODEL Mcd465

### ON BOARD

## GLOW PLUG IGNITION SWITCH

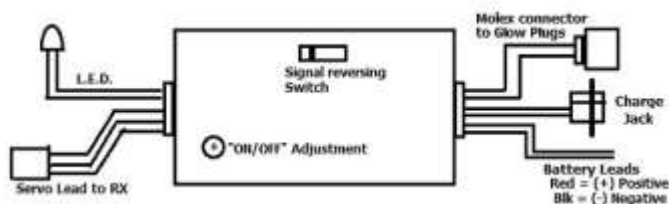
DESIGNED FOR HELICOPTERS, BOATS, & AIRPLANES

A Single Cylinder on board glow switch. Add your own 1.2 -1.5V battery. MOSFET Switching, OPTIC Coupling (no RFI), Deans External Charge jack with mounting plate and screws, Signal reversing switch, Remote Dash Mounted LED. Our Stainless Steel and Teflon PlugLock Glow Plug harness assembly, complete with MOLEX connectors. Compatible with AM, FM, PCM, and 2.4 GHz systems. Set up the system to operate automatically with a "Y" cord to your throttle servo or an on/off channel to control manually.

We recommend 1300ma NI-CAD / NiMH or higher. A 1300ma capacity battery (not included), should keep an ordinary glow plug lit for 18 to 25 minutes CONTINUOUSLY from one full charge.

#### WARNINGS:

Do not change the type of wiring on your unit or it may not operate properly. We use Teflon 20ga. Silver Plated Copper Wire.



#### Set up:

1. Servo Reversing Switch: Allows you to reverse the direction of servo signal to the driver electronics
2. Potentiometer: Allows you set "ON/OFF" position of the glow plugs.
3. Remote L.E.D.: Shows that the radio is controlling the driver. The L.E.D. is attached to 18" of wire that will allow you to mount it on the dash in your cockpit, or some convenient place where you may see it come on. It indicates the radio has turned the glow plug switch "ON", not that the glow plug is lit!!
4. Deans Charge Jack: Used to charge the battery on board. The charge jack is mounted on 12" of wire. It is supplied with the mounting plate and screws. Mount in a convenient place so you can plug in your charger and not have to remove the batteries to charge.
5. Radio Connector: Universal connector for your radio system.
6. Molex Connector: Attaches the Glow plug switch to your glow plugs.
7. Red & Black wire for your own 1.2V-1.5V battery (single cell) and connector.

#### GETTING STARTED:

If you want to control the switch manually using an "ON/OFF" channel, set the small "ON" adjust resistor to the center of its range and connect the radio lead to the correct RX auxiliary channel.

You will need a "Y" harness if you want to operate the switch in parallel with the throttle servo.

1. Plug a "Y" harness into your receiver throttle channel, then plug the throttle servo and Glow Plug ignition switch into the plugs on the opposite end of the "Y" cord.
2. Turn on your radio system and check to make sure all servos are working properly. (No Jitters, etc.)
3. Set the throttle stick to approx. 1/3 throttle and the trim lever to neutral position.
4. Observe the RED L.E.D. If it is ON, using a small screwdriver, turn the "on/off" adjustment very slow (accessible through the little round hole) clockwise or counter-clockwise until the L.E.D. just goes out. Do not over rotate. The resistor will only rotate approx. 3/4 of a turn. Now move the throttle stick towards a lower throttle setting. The L.E.D. should come on. If it does, that's all that needs to be said here. It's set and will always come on at this point.

5. If it does not come on following step 4, or if the L.E.D. only wants to come on at high throttle stick setting, you must REVERSE the signal to the switch by moving the small signal reversing switch, to its opposite position. This should allow the proper set-up if step "4" above is repeated.

This L.E.D. is only an indication that your radio is controlling the switches electronics. It is NOT an indication that there is power to the glow plugs, only that the radio is controlling the signal to the switch and it is listening!!

#### BATTERY:

1. Install the connector you wish to use to connect your battery to the switch. Install it on the red and black wire exiting the end of the box. Be sure to use insulation on your connections to prevent any shorts. Install the mating connector on your battery, again using insulation and/or heat shrink to prevent any chance of shorting.

#### GLOW PLUG HARNESS SET UP:

2. With the engine mounted in the plane, attach the red wire with the # 6 ground lug to a good electronic ground on the engine.

**It must be attached directly to the engine crank case, not the motor mount!**

3. Install the PlugLock adapter onto the glow plug at this time making sure to route the wires to a central location on the fire wall. Drill a small hole in the fire wall in the area where you plan to locate the ignition box. Make the hole large enough to accept both wires with the Molex pins but not with the Molex housing attached. Run the wires through the hole to make sure they reach the ignition box.

4. Insert the EMPTY white Molex (glow plug) connector housing into its mate on the Glow Driver before you insert the pins!! Pay close attention to the polarizing notches on the inside and outside of the Molex housings!! . Once the pins are inserted into the Molex Housing they CANNOT BE REMOVED without damaging them.

5. Insert the red (+) ground lug wire into the Molex housing first. This is the MALE pin that must mate with the Female pin in the ignition box's connector housing. Be sure to run the glow plug wires through the firewall before inserting them into the Molex housing. Push the pins into the housing with finger pressure only. Use the flat side of a small screw driver blade to seat them securely if necessary. **WARNING:** Do not attempt to seat the Molex pins using long nose pliers, as this can damage the TEFLON insulation on the wire.

6. Now insert the BLACK Plug wires in the same manner as you did the RED wire in #5

7. Now let's check to make sure your glow plug harness is working properly.

A) Connect your charged battery to the ignition switch and make sure the white Molex connector for the plug harness is attached to the Driver Box.

B) Insert a spare glow plug into the PlugLock Adapter and hold it to the side of the engine. Turn RX on. Move the throttle stick up & down. The plug should come on (glow) at the pre-set point selected in your set up procedures.

C) Remove the spare glow plug from the adapter and connect that adapter onto an engine glow plug.

D) After you are satisfied with your results, I recommend sealing the hole in the firewall with silicone rubber cement. This eliminates the possibility of fuel seepage.

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