

# **Dual Heat**

*For Jabiru 4, 6 and 8 Cylinder Engines*



*The 12 volt **Dual Heat** unit attaches directly to the body of the carburetor and provides heat to the throttle shaft and butterfly area. Features include:*

- *Heats your carburetor, not the air*
- *Lightweight*
- *Selectable single/dual heating elements*
- *75 watts total heating capability*
- *Enhances cold starts*
- *Only uses 5.5 amps*

**Package Contents:**

- (2) 12V Heating Elements
- (1) Anodized Aluminum Mounting Plate
- (6) Socket Heat Cap Screws 8-32x1/2"
- (1) Tube Heat Sink Compound
- (2) (1) Copper Connector Strip

**Installation Instructions:**

- I. Identify the 2 pilot holes in the side of the carburetor. Using a #29 drill bit and a drill stop, drill the holes to a 7/16" depth. Do not exceed this depth.
- II. Using an extended t-style tap holder and 8-32 tap, create threads in the holes. If needed, use a bottoming tap to extend the threads all the way to the bottom of the holes. When finished, blow out the holes with compressed air. Note: It may be necessary to rotate the carburetor in the rubber mounting to do this step, or even remove it from the engine.
- III. Using the supplied heat sink compound, screw the anodized mounting plate to the carburetor. Use blue Loctite on the screws.
- IV. Again using the heat sink compound, mount the two elements to the mounting plate with the terminals oriented inward (see photo) and use blue Loctite on the screws.
- V. Wire the **Dual Heat** elements to the aircraft electrical system, using the main busbar as the power source, and install a 10-amp circuit breaker or fuse. Use the copper strap to join the ground terminals. Refer to the recommended wiring schematics. Important: Ensure

the ground wire for the Dual Heat is securely attached, and that the Jabiru-supplied ground wire is in place from carburetor to engine.

- VI. Check the unit operation. DO NOT touch the heating elements to test, only the carburetor body. The mounting plate will be too hot to touch within 20 seconds of switching on.

**Operating Procedures:**

- I. Before engine start, select elements individually and confirm **Dual Heat** unit operation by hand. Turn both elements off until engine is started.
- II. After engine start, turn Element 1 on. This should be sufficient for engine warm-up and taxiing.
- III. Element 2 is typically selected for takeoff and landing, and if you inadvertently enter serious icing conditions.

**Warning:**

- I. The **Dual Heat** will not prevent carburetor ice or icing of the induction pipes.
- II. Pilots should be familiar with the aircraft manufacturer's Pilot Operating Handbook and the procedures for flying in icing conditions.
- III. Ensure the aircraft electrical system can handle an additional 5.5 amps of draw.
- IV. When possible, it is best to not fly in conditions that support carburetor icing.

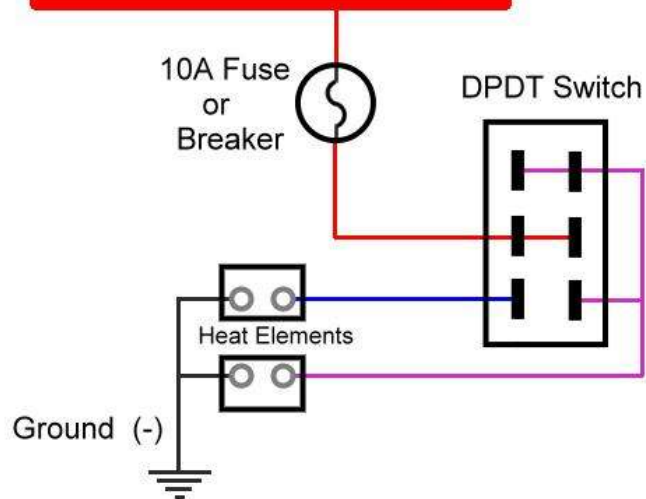
**More Information:**

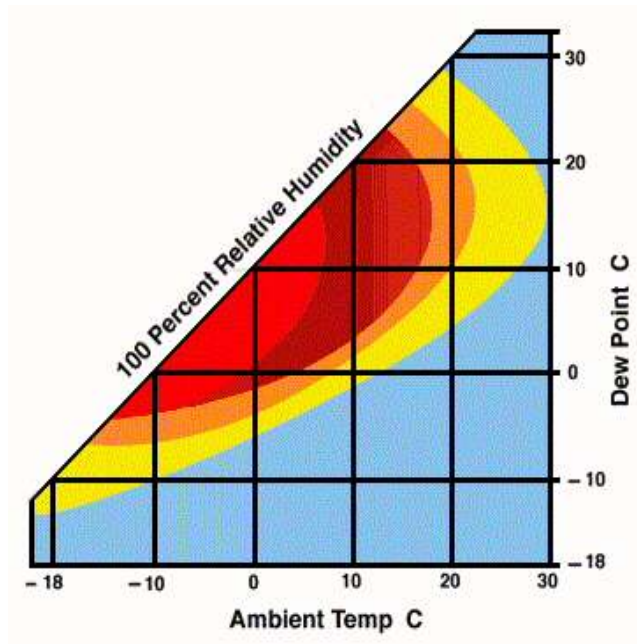
You can find more information visit [www.motionaero.com](http://www.motionaero.com) or call us at (801) 255-3306.

## Wiring Diagram

**Wiring Recommendations:**  
Use 16 gauge or heavier wire.

### Aircraft Main Buss (+)





- Serious Icing - cruise or climb power
- Moderate Icing - Cruise power or serious icing - glide power
- Serious Icing - glide power
- Light Icing - glide or cruise power