

Quick Reference for Using **Red Dragon** Preheater

- **WHEN TO USE PREHEAT:**

For Archer N8237B; Preheat whenever the plane has been unused for more than 3 Hours and temperatures have been below +25 Deg F.

For Dakota N8107B; Engine is being replaced. After engine replacement; new Guidelines will be posted, and will probably specify preheats at higher ambient temperatures; (Due to tighter clearances in the new engine and need to run Straight mineral Oil during Break-in period).

For New Plane; we'll post Guidance when we have it on the ramp.

- **TO USE PREHEAT:**

Preheater Unit is in a Black Hard Case (like a large tackle box). This and one or more 20 pound propane Cylinders (Gas Grill Tanks) and a six foot length of Flexible Heat Duct with Metal Stovepipe Elbow attached to it are kept in one of the Club's three identical Storage Boxes (Boat Boxes) Located on the grass at the West edge of Danbury Airways' Tie-down Ramp. The storage box containing the Preheater is identified by the legend "RED DRAGON" stenciled on its lid.

- The combination of the Storage Box's lock is "8107."
- **FIRST** remove the Plane's two Cowl Inlet Plugs; then wedge the Flexible Heat Duct into the center of the Air Outlet Slot on the bottom rear of the engine cowl. Connect other end of Duct with Metal Stovepipe Elbow attached to it to the Preheater's outlet.
- **PREHEATER** must never be run without the Metal Stovepipe Elbow Fitting installed snugly on the outlet of the Preheater.
- **CONNECT** Fuel Supply Hose to Propane Tank. First Releasing **Blue Plug** on Tank Quick Disconnect Fitting and removing plastic protector on Hose End Fitting. Turn on Tank Valve **VERY SLOWLY** to assure that the blowout prevention safety valve built into the tank does not activate and shut off the flow of propane.

- CONNECT 12 Volt Power Cord to either car or aircraft Cigarette Lighter. Turn On Blower With Switch located under Preheater's Pressure Gauge. Blower must be running before igniting heater fuel.
- START Preheater's Burner; Hold down Red plunger on top of Propane Regulator. With Red Plunger depressed check for about 10 to 15 PSI on Gauge; You should hear gas flowing. Adjust pressure as necessary using Red Knob on bottom of regulator.
- CONTINUING to depress Red Plunger; Momentarily Press Red Ignition Button on top of Burner. You should hear burner ignite.
- CONTINUE holding down Red Plunger for at least 15 seconds to stabilize the flame. If you release the plunger before the unit reaches operating temperature the flame will immediately shut down. Restart using the procedure above.
- DURATION: Preheat for at least 15 minutes at Temps above 0 Degrees F and for at least 20 minutes at lower temperatures. A full 20 Pound Propane Cylinder should be good for six to eight Preheats. NEVER allow Preheater to operate unattended.
- TURN OFF GAS at tank when Preheat is complete; Wait for Fuel remaining in system to burn out before switching off Blower.
- DISCONNECT hose and unplug power cord.
- REPLACE the Blue plug and Plastic Hose End Protector. Put unit back in Hard Case. Return Duct and Hard Case to Boat Box.
- PREFLIGHT: Most items may be completed while waiting for Preheat to be complete, but NEVER Drain Fuel or Check Tank Quantities while Preheater is operating or connected to the Airplane.
- DO NOT Drain Fuel from plane before Commencing the Preheat, since in winter the drained fuel may remain un-evaporated on the ramp for a considerable time. This is a fire hazard.
- It is a Violation of Federal Law to transport a tank containing Propane in an aircraft carrying passengers.