



# Service Instructions

TAT SI08-05 REV. A

Issued: 3/12/09

Model SR22 w/ Turbonormalizer

Tornado Alley Turbo's air filter elements are enclosed in a frame or without a frame depending on the aircraft model. Tornado Alley Turbo's recharging instructions must be followed carefully for maximum air filter life. Air filter must be recharged every 100 hours or 12 months or sooner if operated in extreme dusty conditions. Air filter assembly must be replaced after 25 cleanings or sooner if any deterioration or damage is found during pre-flight, post flight or any other aircraft inspections.

**Note:** Air Filter exposed to an in-flight rain encounter must be inspected before next flight. If red oil color is missing, clean and re-oil per these instructions.

**Step 1:** Remove the air filter assembly from the aircraft air box per the Aircraft Manufacturer's Instructions. **DO NOT REMOVE filter element from inside its frame. Remove the old sealing gasket from filter assembly with frame.**

**Step 2:** Begin re-charging the air filter by "Gently" tapping the filter assembly on a hard surface to remove any loose dust that will easily fall off the filter. Visually inspect the filter for any damage, cracks, broken wires or missing fibers. If any of those conditions are visible, the filter assembly must be discarded and replaced with a new filter assembly.

**Step 3:** Begin cleaning with **Tornado Alley Turbo Re-charger Kit P/N 04-6780001**, an FAA approved re-charge kit. Inside are two squeeze bottles, one for cleaning and one red in color for re-oiling the filter element. Remove the bottle containing cleaning fluid and thoroughly saturate the filter. Allow the filter to soak for approximately 15 minutes. **DO NOT USE ANY OTHER CLEANING FLUID.**

**Step 4:** Flush the filter with low non-pressurized warm water starting from the inside out, with regards to air flow. After flush, gently shake the water out of the filter and allow to air dry only. **DO NOT USE ANY OTHER DRYING METHOD.**

**Step 5:** Remove the bottle from the **Re-charger Kit P/N 04-6780001** containing oil red in color. Begin re-oiling the dry filter by applying a bead or line of red oil along the top only of each pleat of the filter. The oil will soak into the length of each pleat. It may be necessary to apply oil on filter material that has not received oil from the wicking action. The entire filter medium must be covered with red oil. **DO NOT OVER OIL.** If oil drips from the filter, it has been over oiled. Allow the filter to drain the excess oil onto a clean rag or paper towel until the red oil stops dripping.

**Step 6:** Re-install air filter per the Aircraft Maintenance Instructions and **Tornado Alley Turbo Installation Instruction ES-7.3.** Make sure the air filter assembly is properly seated and is mounted securely to the filter air box assembly in accordance with the Aircraft Manufacturer's Specifications.

## NOTE:

**Do not use gasoline, jet fuel, or caustic cleaning solutions or shop solvents. Use only FAA approved cleaning solution in Tornado Alley Turbo Re-charger Kit P/N 04-6780001.**

**Do not use steam cleaning equipment or any other cleaning devices: When drying the filter after cleaning, let the filter dry naturally. Pressurized equipment will strip the cotton of critical microfilaments.**

**Do not use compressed air, open flames or heating devices of any kind.**

**When recharging the filter with oil, use only FAA approved Tornado Alley Turbo Re-charger Oil in Re-charger Kit P/N 04-6780001. The oil is the same oil applied at the factory during the manufacturing process.**

**Do not use transmission fluid, motor oil, or any other lightweight oil of any kind or any products containing petroleum products.**

TATI Re-charger Kit may be ordered from Tornado Alley Turbo, Inc.