General Aviation Modifications, Inc. Installation Procedure, No. IP-97-002 (Rev. 005) Date: October 5, 2005

turboGAMIjector® Installation Procedure for TCM TSIO-470/520 and Turbonormalized IO-520/550 Engines STC No. SE09289SC

- 1. Remove existing TCM fuel injector nozzles by disconnecting fuel and air lines at the top with an appropriate wrench. Remove the air lines surrounding each nozzle. Remove the nozzles with a ½ inch deep socket.
- 2. Determine which specific nozzle is installed in the engine as the factory standard nozzle. Then refer to Chart "T" for the GAMI Kit to be installed. Verify that the kit to be used matches the appropriate kit number corresponding to the factory standard nozzle size for the engine to be modified. Verify that the injectors enclosed in the kit are correctly identified and correspond to the injector numbers on the line identified by the kit number in Chart "T". Check to see that the "O" rings are properly installed in the respective grooves in the nozzles.
- 3. Using a ½ inch deep socket, install the *turboGAMI<u>jector</u>®* nozzles in the appropriate cylinders as described above. It is recommended that an appropriate "anti-seize" compound be applied to the threads before installing the injectors.
- 4. Tighten nozzles to a torque value of 55 65 lb-in.
- 5. Reconnect and tighten the fuel and air lines at the top of the *turboGAMI<u>jector</u>®* nozzles.
- 6. Check installation for crimped lines, loose fittings, etc.
- 7. Leak check the *turboGAMIjector*® nozzles and associated fuel lines by use of the electric fuel pump, prior to staring the engine. Perform a ground engine run-up and recheck for fuel leaks before flight.
- 8. Clean a flat 1.5" x 2" area on each cylinder rocker arm cover with acetone or isopropyl alcohol. Peel backing off of *turboGAMIjector*® labels and apply to the appropriate cleaned areas of cylinder rocker arm covers. Remove the backing from each fuel line label. Locate the middle of each tag against its corresponding fuel line approximately 5" from the injector nozzle and wrap the label around the fuel line doubling it over onto itself as a tag.
- 9. Check to be sure that the *turboGAMI<u>jectors</u>®* and placards have been installed on the proper cylinders and that the *turboGAMI<u>jector</u>®* part number in each cylinder corresponds with the part number called out on the placard affixed to its respective cylinder head rocker arm cover.

- 10. This STC does not require alteration of the fuel system metered or un-metered fuel pressures or other re-calibration of the fuel system. In connection with this STC, no further alteration of the fuel system, other than in compliance with appropriate Teledyne Continental Service Bulletins, airworthiness directives, or compatible STC's is authorized. See the following Teledyne Continental Service Bulletin and Service Information Directive for further information: M89-18 Exhaust Gas Temperature (E.G.T.) Recommendations for Standard Engines and SID97-3 Procedures and Specifications for Adjustment of Teledyne Continental Motors (TCM) Continuous Flow Fuel Injection Systems. A copy of each of those documents should be found in the shipping box containing the *turboGAMIjectors*®. If not, contact GAMI.
- 11. Complete and submit a Form 337 for the aircraft, referencing installation of the General Aviation Modifications, Inc. Kit Number and this STC No. SE09289SC. There is no change in weight and balance.

Maintenance: GAMI recommends removal and cleaning of the nozzles at normal intervals of 100 – 200 hours. Nozzles may be soaked in an appropriate solvent such as Gunk carburetor cleaner or Hoppes #9 Gun Cleaning Solvent followed by blowing off with an air nozzle. A small hole should be visually clear through the nozzle. **CAUTION: Do not attempt to insert any drill, wire or other article into the nozzle in an attempt to clean the orifice.** In the event that a nozzle becomes clogged and requires cleaning and recalibration, it may be returned to GAMI for immediate service.

GAMI Nozzle Specification Chart "T" Rev 002 Jan. 13, 1997				
GAMI Kit No.	TCM P/N	Cylinders 5 & 6	Cylinders 3 & 4	Cylinders 1 & 2
GT17A	632748-17A	GF278	GM291	GA310