

INSTALLATION INSTRUCTIONS



PRODUCTS, INC.

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TS-1 & TS-5 Dual Acting Air Retrofit Kit Model TS-1RD & TS-5RD

INSTALLATION

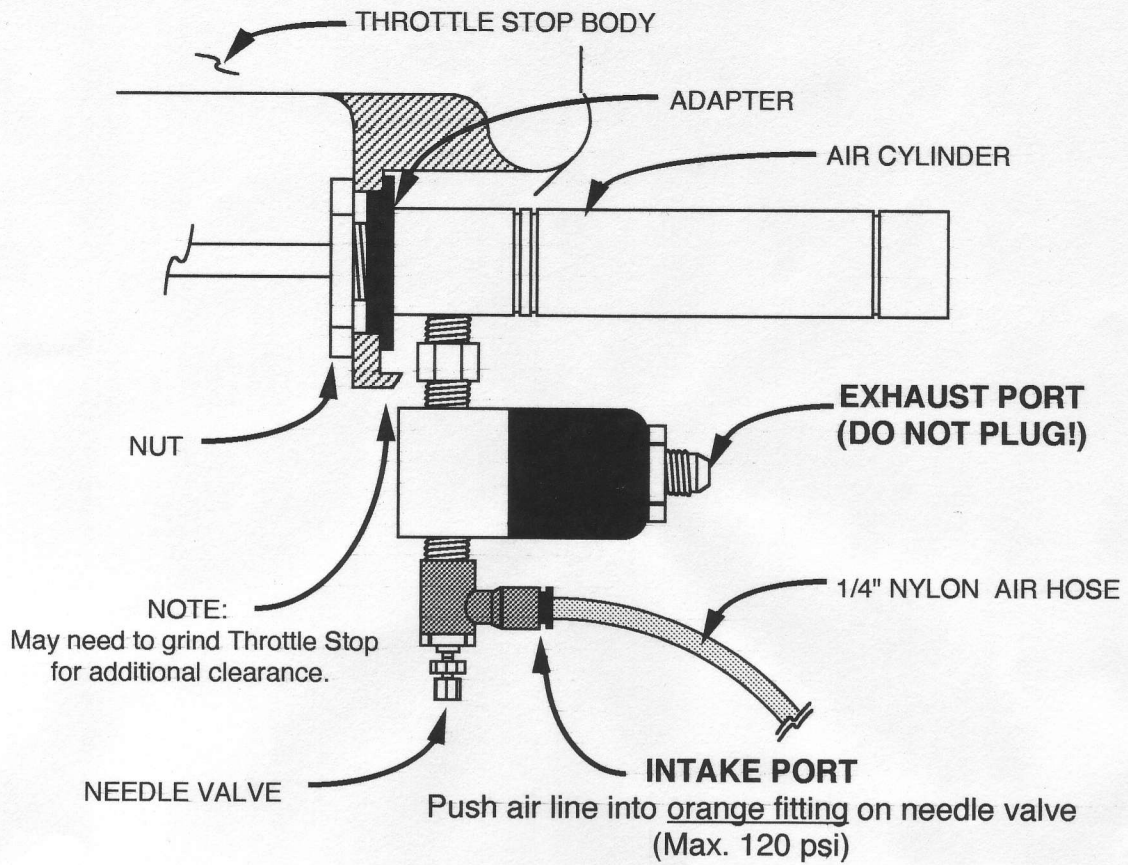
- 1) If you are replacing the electric solenoid on the throttle stop, remove the existing electric solenoid. Do this by unscrewing the solenoid plunger from the linkage. Also remove the round anodized aluminum spacer from the linkage. Undo the large nut holding the solenoid by using a 1 1/4" wrench & a strap wrench. Remove the solenoid, the solenoid plunger, and the spacer. Set these aside (you will not use them with the retrofit). Remove the 1/4-28 set screw from the gold actuator.
- 2) Install the air cylinder by slipping the adapter sleeve over the threaded end of the cylinder and fitting it back into the stop. Spin on the 1 1/4" nut and tighten (do not over-tighten). The shoulder of the adapter centers the air cylinder inside the smaller bore where the large electric solenoid used to be. (See drawing on back.)
- 3) To prevent binding of the linkage, check to make sure that the casting does not hit the needle valve fitting on the air cylinder. If it does, then grind or file the casting for clearance.
- 4) Thread the air cylinder shaft into the gold throttle stop actuator by turning the shaft. The wide open position of the throttle blades is adjusted by screwing the shaft into the actuator the proper amount. This is done by opening the linkage until the shaft bottoms out in the air cylinder and checking that the throttle blades are straight up & down. When the adjustment is correct, tighten the shaft lock nut.
- 5) Mount the solenoids with the supplied bracket and hardware within 4 feet of the throttle stop. Firewalls, air pans, intake manifolds and motor plates are common mounting locations.

WIRING / PLUMBING

- 1) Tie one wire from each solenoid together and wire to a solid chassis ground. Tie the remaining two wires together and wire to your Throttle Stop Controller. On Model TSC-2A & TSC-4 controllers move the "output" switches up to "ON-OFF-ON" mode, on models L1, L2 and CC-3 controllers set the output to "BASEPLATE STYLE".
- 2) Plumb the air lines to the solenoid per the diagram on the reverse side by trimming to length and pushing the tubing firmly into the quick disconnect fittings on the solenoids and the needle valves on the cylinder. The tubing can be removed by pushing the locking ring while pulling on the tubing.
- 3) For best adjustability of the needle valves, recommended air pressure from the regulator is 60-80 psi line pressure.
- 4) The air cylinder has two needle valve adjusters on it. (See diagram on back.) These are the adjustments for the opening and closing rate of the air cylinder. Carefully turn both these all the way in (clockwise) until they bottom out, then slowly back them out about 3 to 4 turns. Opening the needle valves (counter-clockwise) increases the speed of the air cylinder. Once the opening and closing rates are set, lock the needle valves in position using the small locking rings. The side needle valve adjusts closing opening rate, the end needle valve adjusts opening rate.

CUSTOMER SERVICE & TECH. SUPPORT : (925)935-3025 Mon-Fri 8am-5pm PST

ASSEMBLY



WIRING

