Instructions for Professional Products Throttle Body for LS2

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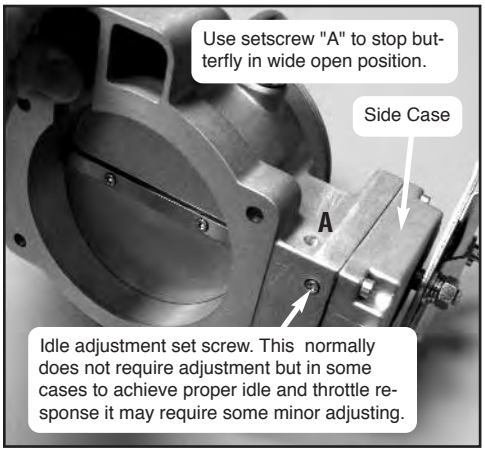
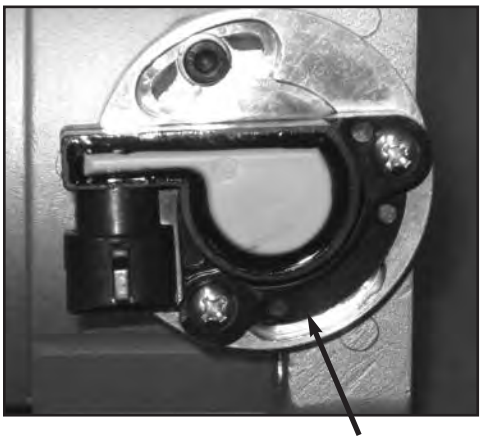
These throttle bodies are intended to be used in applications where a mechanical throttle cable is used. These throttle bodies will not work on any O.E. LS2 installation unless the stock drive-by-wire throttle arrangement is changed to a conventional cable style. These throttle bodies feature the factory style design whereas the throttle butterfly has a staged opening so that under light throttle application you do not get an excessive amount of air entering the manifold. This will provide for smooth takeoffs under light throttle. The butterfly also opens at the bottom first which is the optimum way.

Parts List

(1) Throttle Body Assembly
(1) Tapered Adapter Plate
(1) Straight Adapter Plate
(1) Adapter to T.B. Gasket
(1) Adapter to Manifold Gasket
(4) Screws M6 x 48mm
(1) Professional Products #71201 Throttle Position Sensor

Additional Parts Needed:
Idle Air Control:
Walker #215-1037 or
GM #17113209





Grind away a portion of the plastic flange of the T.P.S. for access to adapter plate screw.

Throttle Body Adapter Plates

The throttle body is supplied with two different adapter plates. One plate has a straight hole through it and the other has a tapered hole. The plate with the tapered hole is for use on a stock G.M. LS2 manifold or aftermarket manifold with a 91 MM inlet opening. The tapered feature will funnel the air down from the throttle body inlet to the manifold's 91 MM size.The adapter plate with the straight hole through it is for use on manifolds that have a 96 MM or 101 MM or larger opening. One or the other of the adapter plates must be used for the throttle body to operate correctly. Do not attempt to use this throttle body without one of the adapter plates.

Installing the Throttle Body

Once you have determined which adapter plate to use, position the two gaskets on either side of the adapter plate. The larger of the two gaskets goes between the throttle body and the adapter plate. The other gasket goes between the adapter and the manifold. Do not use any sealant on these gaskets. If you have a stock manifold that incorporates a built in rubber gasket, you do not need to use the supplied paper gasket. Position the throttle body, adapter plate and gaskets into position on the manifold and install the four supplied socket head cap screws to attach the throttle body to the manifold. Lightly tighten all four screws and then torque to 6 to 7 foot pounds.

Setting the Throttle Position Sensor

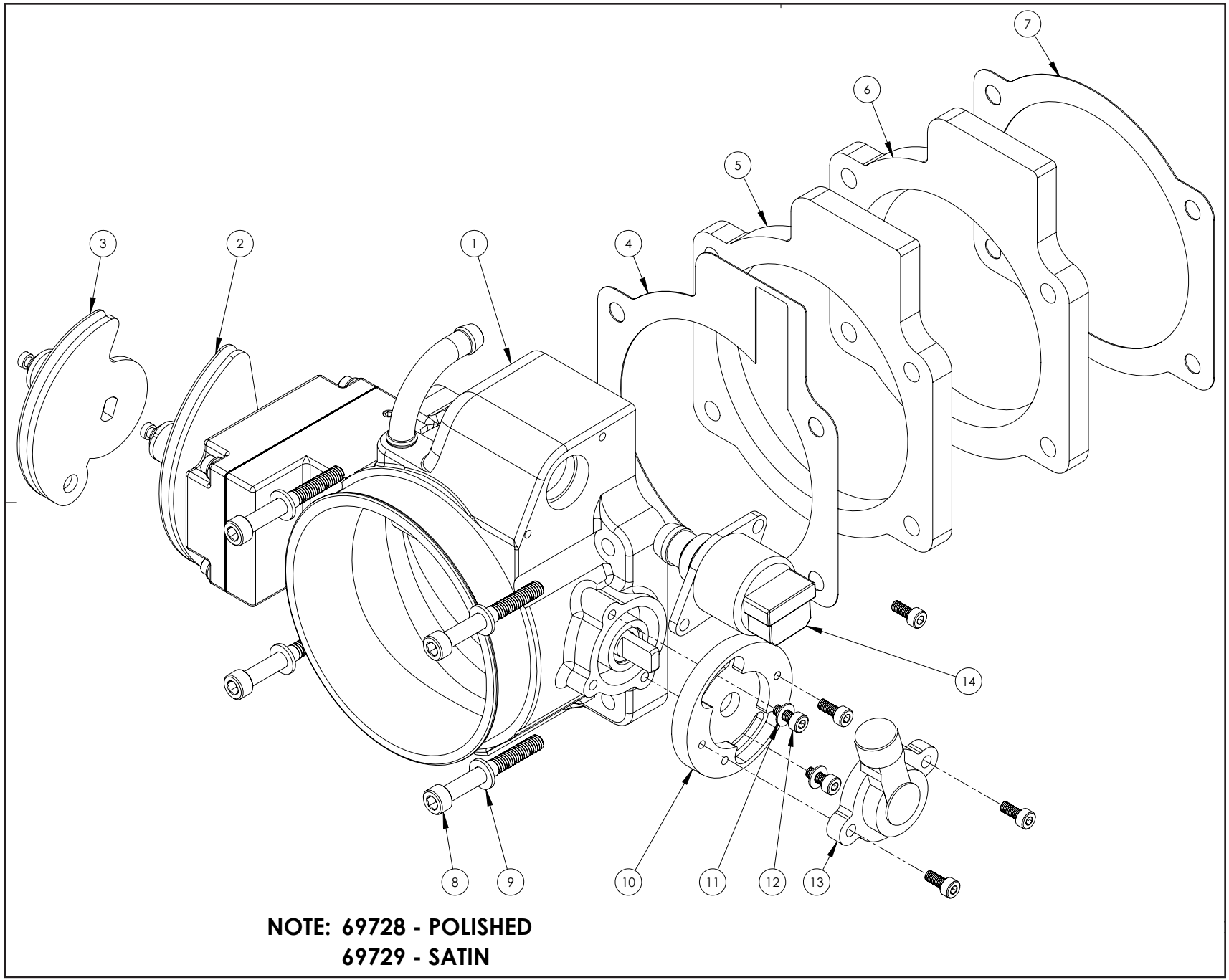
Note that the throttle body has an adapter plate where the throttle position sensor (TPS) is mounted. This adapter plate is designed to accept an LS1style throttle position sensor. The supplied TPS is a reverse rotation model. To set the TPS, turn the ignition switch to the ON position but do not start the engine. Using a digital volt/ohmmeter, measure the voltage between the green wire and the black wire. The reading should be at 0.5 volts at idle position and 4.5 volts at wide open throttle position. This voltage can be adjusted using the special adjustable T.P. Sensor mounting adapter plate. Loosen the two socket head cap screws and rotate the T.P. Sensor until the proper reading is achieved. Tighten the screws. Recheck voltage.

Connecting the Throttle Cable

The Professional Products throttle body is designed to work with most typical factory or aftermarket throttle cables. We provide two different lever arms. Pick the one that most suits your application. Slip the cable into position fitting the ball on the end of the cable into the proper position. Note that there is some adjustability available in the position of the throttle lever on the side of the throttle body. Remove the four screws holding the side case to the throttle body. When removing the side case hold the throttle lever in position while the internal gears are disengaged. You can rotate the throttle lever forward or backward and then reposition the side case back on the throttle body engaging the gears. Be careful that you do not go too far either way or you will limit the total travel of the lever arm. After re-tightening the four screws, make sure you still have full range of motion on the lever from fully closed butterfly to fully open.

Setting the Throttle Butterfly

There are two set screws (see photo at left) that are used to adjust the butterfly position. One set screw provides a stop when the throttle is closed. This comes preset from the factory and normally does not require any adjustment. The second set screw provides a stop for wide open throttle. With the throttle cable pulled all the way open the butterfly should be straight up and down for maxium air flow. If it is not, adjust setscrew "A" until the butterfly is in the maximum open position. If not properly adjusted, the butterfly may go past the full open position and optimum airflow may be compromised.



NOTE: 69728 - POLISHED
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