## Installation Instructions for 14514 Throttle Body

1997-2004 Ford 4.6L/5.4L 2V (except Mustang)

## **Kit Contents:**

- Throttle Body Assembly
- (4) Screws M6 x 30mm
- (2) Screws M5 x 30mm
- Gasket
- Plastic Bushing

## **Installation Instructions:**

- 1. Set parking brake and disconnect negative battery terminal. Battery must be disconnected.
- 2. The air inlet tube connecting the air cleaner to the throttle body must be removed. Loosen both of the clamps on the air inlet tube and carefully remove it from the vehicle.
- 3. Disconnect the return spring from the throttle linkage and unhook the throttle cable by opening the throttle manually and removing the cable from the cam groove. Disconnect the cruise control cable (if you have cruise control).
- 4. Disconnect the throttle position sensor.
- 5. Remove the four bolts that hold the throttle body to the air inlet. Remove the stock throttle body.
- 6. For best performance the new throttle body bore should match the opening of the air inlet. Grinding may be required on the air elbow to match the size of the new throttle body (or use an elbow with a larger inside diameter).
- 7. Remove the throttle position sensor from the old throttle body. We recommend using an impact screwdriver to do this. The stock screws holding the throttle position sensor are secured with a thread locking compound and using a conventional screwdriver will most likely round off the Phillips recess in the screws. If this happens you will have to grind off the screw heads.
- 8. Install the throttle position sensor onto the new throttle body. Note that Ford used two different TPS units. If yours does not fit snugly in the new throttle body, then you need to use the plastic bushing for a proper fit. It is believed that the bushing is required on 1996-'98 models and not required on 1999 and later vehicles.
- Using the supplied screws and gasket, attach the new throttle body to the air inlet elbow and tighten the screws.
- 10. Reattach the throttle cable, TPS sensor connector, return springs, and cruise control cable (if used).
- 11. Reinstall the inlet tube between the airbox and throttle body. Be sure to reconnect the PCV tube, Idle air control tube and inlet air temperature sensor if applicable.
- 12. Reconnect the negative battery cable.
- 13. Start the engine and let it idle without interruption until it is at operating temperature. The computer will make adjustments to fin the correct idle speed. Then turn engine off.
- 14. Note: The following procedure has already been performed at the factory and is only necessary if the vehicle does not idle properly: if the vehicle does not idle properly: Release locknut and turn the idle screw counter clockwise until there is a light showing between the screw and the throttle linkage lever. There should be a 0.010" gap using a feeler gauge. Then turn clockwise one full turn. Start engine and check idle speed. If the idle speed is still not correct, make very small adjustments to the screw until idle speed is maintained. Hold idle screw in position and lockdown with nut. If minor binding occurs at throttle tip-in from idle to higher engine RPM, a minor adjustment of the stop screw should eliminate the binding.
- 15. Check all fasteners & clamps to make sure that everything is tight.

