



Installation Instructions

KIT PC. No.
550176

ET-1 ELECTRONIC THROTTLE MAINTENANCE KIT

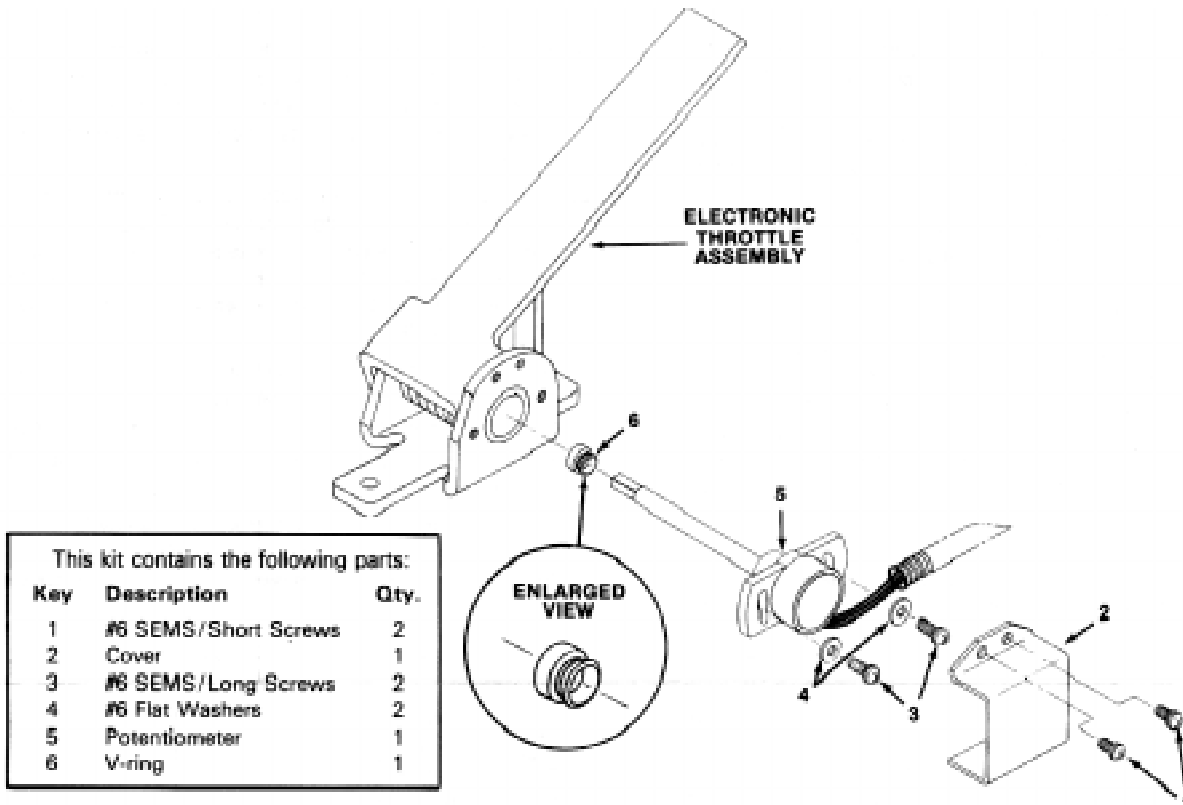


Figure 1 — ET-1 Electronic Throttle Explode

**IMPORTANT! PLEASE READ AND FOLLOW
THESE INSTRUCTIONS TO AVOID
PERSONAL INJURY OR DEATH:**

When working on or around a vehicle, the following general precautions should be observed at all times.

1. Park the vehicle on a level surface, apply the parking brakes, and always block the wheels.
2. Stop the engine when working around the vehicle.
3. If the vehicle is equipped with air brakes, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle.
4. Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in manner that removes all electrical power from the vehicle.
5. When working in the engine compartment the engine should be shut off. Where circumstances require that the engine be in operation, **EXTREME CAUTION** should be used to prevent personal injury resulting from contact with moving, rotating, leaking, heated, or electrically charged components.
6. Never connect or disconnect a hose or line containing pressure; it may whip. Never remove a component or plug unless you are certain all system pressure has been depleted.
7. Never exceed recommended pressures and always wear safety glasses.
8. Do not attempt to install, remove, disassemble or assemble a component until you have read and thoroughly understand the recommended procedures. Use only the proper tools and observe all precautions pertaining to use of those tools.
9. Use only genuine Bendix replacement parts, components, and kits. Replacement hardware, tubing, hose, fittings, etc. should be of equivalent size, type, and strength as original equipment and be designed specifically for such applications and systems.
10. Components with stripped threads or damaged parts should be replaced rather than repaired. Repairs requiring machining or welding should not be attempted unless specifically approved and stated by the vehicle or component manufacturer.
11. Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.

DISASSEMBLY

1. Remove the electronic throttle assembly from the mounting plate or floorboard by removing the attaching hardware. (Not required if there is adequate clearance to remove the potentiometer with the electronic throttle assembly in place.)
2. Remove the cover (2) by removing the two short #6 SEMS Screws (1). Discard both the cover and screws.
3. Remove and discard the two long #6 SEMS screws (3) and washers (4) used to retain the potentiometer (5) onto the electronic throttle assembly.
4. Remove the potentiometer (5) from the electronic throttle assembly. Disconnect the wiring harness at the Packard connector and discard the potentiometer.

ASSEMBLY & CALIBRATION

1. Slide the V-ring (6) onto the shaft of the potentiometer (5) with the beveled end of the V-ring going on first. (Refer to Figure 1)
 2. The square end of the potentiometer shaft (5) must be inserted into the square hole in the electronic throttle assembly.
- Note:** The ET-1 Potentiometer may be calibrated on the vehicle or bench calibrated off the vehicle. The following calibration procedure can be used for both on vehicle and bench calibration.
3. Measure the incoming voltage to the ET-1. The electronic throttle pedal is normally used in a five volt D.C. system, but the potentiometer can be calibrated with any D.C. voltage between 4 volts and 15 volts. The output voltage at closed-throttle (idle) position must be between 10% and 14% of the input voltage. At wide-open throttle (fully depressed) position, the output should be between 88% and 92% of the input voltage.

Connect a digital voltage meter and D.C. power source to the ET-1 potentiometer connector as follows: (Refer to Figure 2)

4. Rotate the potentiometer clockwise until the meter reading is between 10-14% of the incoming voltage reading; secure the potentiometer mounting screws. Example, if the voltage source measured 11.5 volts, the meter reading should be between 1.15 and 1.61.
5. Depress the treadle to its wide open throttle (WOT) position (until treadle contacts stop). In the (WOT) position note that the volt-ohmmeter indicates a voltage of between 88-92% of the incoming voltage reading. Example; if the voltage source measured 11.5 volts, the meter reading should be between 10.12 and 10.58.
6. Return the treadle to the (CT) position and verify that the output returns to the original setting of 10-14% of the incoming voltage reading. If it does not, repeat steps 3 through 6.
7. Install the cover (2) and retain with the two short #6 SEMS screws (2).
8. If the electronic throttle assembly was removed from the mounting plate or floorboard of the vehicle, reinstall using the attaching hardware removed in Step 1 of "Disassembly".

