



Parts Manual

**Model T765A & T760A
Engine Brakes**

**For Detroit Diesel 12.7L & 11.1L
Series 60® Engines**

TecBrake
P.O. Box 27822
Houston, Texas 77227

TecBrake Engine Brake Model T765A and T760A For Detroit Diesel Series 60® Engines

The TecBrake T765A engine brake may be installed on popular versions of the Detroit Diesel Series 60® 12.7L engines. The TecBrake T760A engine brake may be installed on popular versions of the Detroit Diesel Series 60® 11.1L engines and Detroit Diesel Series 60® 12.7 Pre-1991 engines. It should only be installed on engines whose model numbers are included in the Application Chart. Applications for Detroit Diesel Series 60® engines with serial number &R0004455 and higher only. Verify Application Chart for proper engine brake model selection.

IMPORTANT: Information required to order engine brake kits.

ENGINE IDENTIFICATION:

Identify the engine model and serial number from the option labels located on the valve cover and stamped on the cylinder block below the intake manifold. Refer to the Application Chart, which list all engine model numbers on which the T765A engine brake may be installed.

BASIC KIT FOR BOTH DDECII AND DDECIII ENGINES

Determine whether the engine is a DDECII, or a DDECIII. The TecBrake Application Chart identifies the control type by engine model number. Depending on the engine control type, a different Control Group will be required.

OPTIONAL CLUTCH SWITCH

Clutch switch is included in TecBrake DDECII Control Group. For DDECIII applications, most vehicles already have a vehicle OEM installed clutch switch to use with cruise control. TecBrake clutch switch will only be required if for some reason the vehicle does not have a clutch switch, TecBrake Control Group for DDECIII does not include the clutch switch, if required, must be ordered separately.

OPTIONAL CAB HARNESS

Cab Over vehicles equipped with DDECII engines, may require an extension harness to complete the electrical installation. Harness P/N TB900044 is optional and must be ordered separately.

Most vehicles equipped with DDECIII already have a vehicle OEM installed cab harness from the ECM Vehicle Interface Harness to cab dashboard. If not installed, TecBrake optional cab harness P/N TJ020244 must be ordered separately.

ENGINE BRAKE KIT CONTENTS AND OPTIONAL PARTS

| PART NO. | DESCRIPTION | QTY./ENG. |
|----------|----------------------------------|-----------|
| TB960022 | BRAKE KIT, T765AW/OUT CTRL. GRP. | |
| TB940069 | KIT, LITERATURE | 1 |
| TB940070 | HOUSING ASSEMBLY | 3 |
| TB940071 | ATTACHING PARTS GROUP | 1 |
| TB960024 | BRAKE KIT, T760W/OUT CTRL. GRP. | |
| TB940069 | KIT, LITERATURE | 1 |
| TB940078 | HOUSING ASSEMBLY | 3 |
| TB940071 | ATTACHING PARTS GROUP | 1 |
| TJ020244 | HARNESS, CAB DDECIII | |
| TJ012261 | SWITCH, CLUTCH DDECIII | |
| TB900044 | HARNESS, CAB OVER DDECII | |

Indented part numbers are included in parts under which they are indented.

APPLICATION CHART

| ENGINE MODEL | CONTROL TYPE | TEC BRAKE MODEL | LASH SETTING |
|--------------|--------------|-----------------|--------------|
| 6067GU40 | DDECII | T760A | 0.020" |
| 6067WU40 | DDECII | T760A | 0.026" |
| 6067WU60 | DDECII | T760A | 0.026" |
| 6067WK60 | DDECIII | T760A | 0.026" |
| 6067SK60 | DDECIII | T760A | 0.026" |
| 6067GU28 | DDECII | T765A | 0.026" |
| 6067GU60 | DDECII | T765A | 0.026" |
| 6067GU91 | DDECII | T765A | 0.026" |
| 6067GK28 | DDECIII | T765A | 0.026" |
| 6067GK60 | DDECIII | T765A | 0.026" |

HOUSING ASSEMBLY

MODEL T765A Part No. TB940070

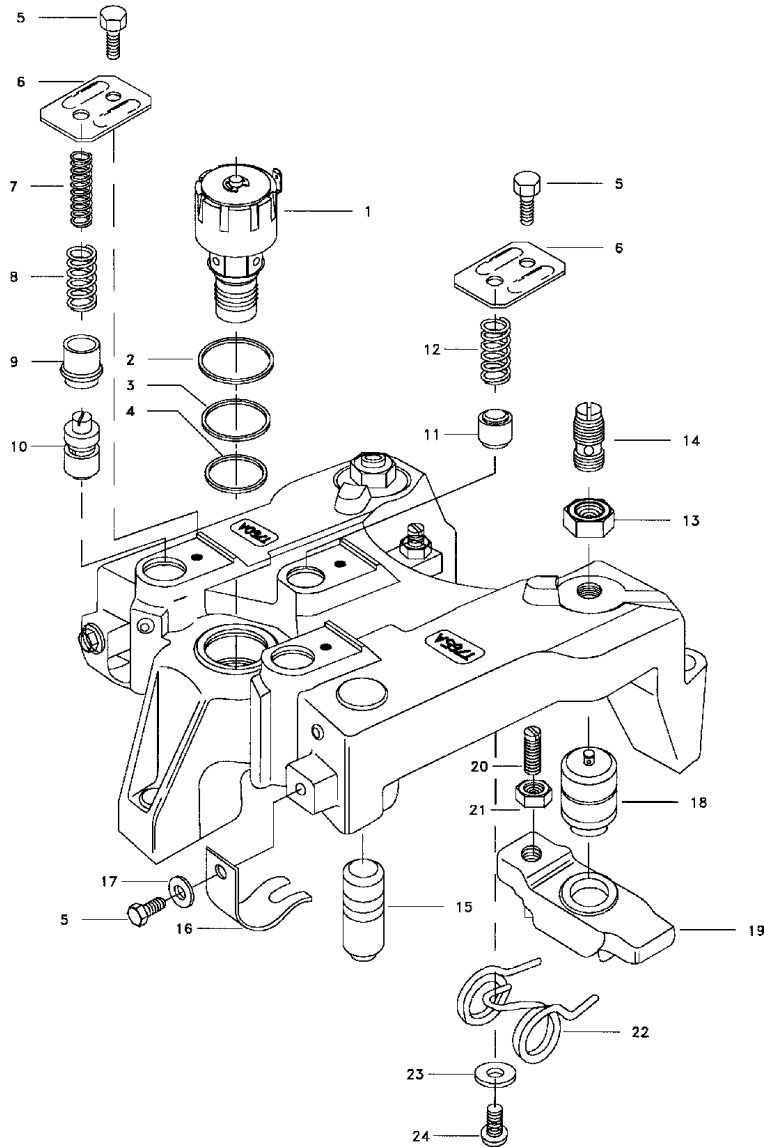
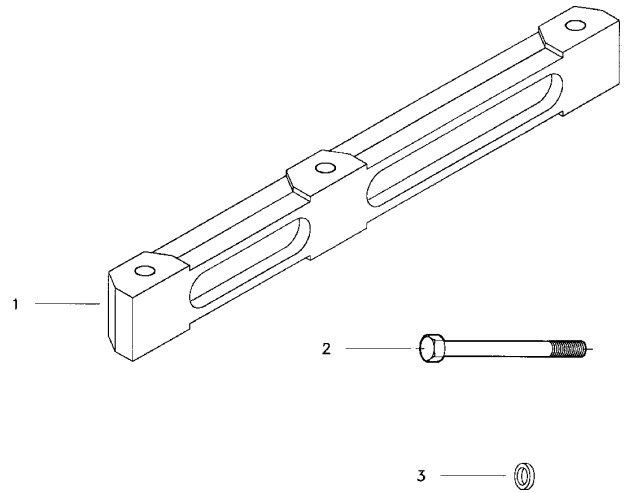
MODEL T760A Part No. tb940078

| REF. | PART NO. | DESCRIPTION | QTY/HSG. |
|------|----------|-------------------------------------|----------|
| 1 | TJ016440 | SOLENOID VALVE (12 VOLT) | 1 |
| 2 | TJ001081 | SEAL RING, UPPER | 1 |
| 3 | TJ001082 | SEAL RING, MIDDLE | 1 |
| 4 | TJ001083 | SEAL RING, LOWER | 1 |
| 5 | TJ001492 | CAPSCREW | 5 |
| 6 | TB900043 | COVER, CONTROL VALVE | 3 |
| 7 | TJ018179 | SPRING, CTRL. VALVE, INNER | 2 |
| 8 | TJ001519 | SPRING, CTRL. VALVE, OUTER | 2 |
| 9 | TJ016557 | COLLAR, CONTROL VALVE | 2 |
| 10 | TJ011930 | CONTROL VALVE | 2 |
| 11 | TJ012983 | ACCUMULATOR PISTON | 1 |
| 12 | TJ012990 | ACCUMULATOR SPRING | 1 |
| 13 | TJ011395 | NUT, JAM | 2 |
| 14 | TB900042 | SCREW, BRAKE ADJUSTING | 2 |
| 15 | TJ017565 | MASTER PISTON (15/16") T765A | 2 |
| 15 | TJ012981 | MASTER PISTON (7/8") T760A | 2 |
| 16 | TJ017658 | SPRING, FLAT | 2 |
| 17 | TJ016505 | WASHER, PLAIN | 2 |
| 18 | TB900040 | SLAVE PISTON ASSEMBLY | 2 |
| 19 | TJ016771 | BRIDGE | 2 |
| 20 | TJ011426 | SCREW, BRIDGE ADJUSTING | 2 |
| 21 | TJ016766 | NUT, HEX | 2 |
| 22 | TJ019576 | SPRING, TORSION | 2 |
| 23 | TJ019741 | WASHER, PLAIN | 2 |
| 24 | TJ019740 | SCREW, BUTTON HEAD | 2 |

ATTACHING PARTS GROUP

Part No. TB940071

| REF. PART | NO. | DESCRIPTION | QTY./ENG. |
|-----------|----------|------------------------|-----------|
| 1 | TJ016687 | BAR, SPACER | 2 |
| 2 | TB900030 | BOLT, HEX HEAD (120mm) | 9 |
| 3 | TB900031 | WASHER, BOLT | 9 |



ATTACHING PARTS

HOUSING ASSEMBLY

CONTROL GROUP- DDECII ENGINES
Part No. TB940072

| REF. | PART NO. | DESCRIPTION | QTY./ENG. |
|------|----------|---------------------------|-----------|
| 1 | TJ001304 | SWITCH, DASH, ON-OFF | 1 |
| 2 | TJ001305 | PLATE, SWITCH, ON-OFF | 1 |
| 3 | TJ002957 | SWITCH, DASH, HI-MED-LO | 1 |
| 4 | TB900037 | PLATE, SWITCH, HI-MED-LO | 1 |
| 5 | TJ015759 | HARNESS, FUSE | 1 |
| 6 | TB900034 | HARNESS, ENGINE | 1 |
| 7 | TJ012261 | SWITCH, CLUTCH | 1 |
| 8 | TB900033 | HARNESS, RELAY* DDECII | 1 |
| 9 | TB900035 | HARNESS, THRU HEAD DDECII | 1 |
| 10 | TJ003278 | TERMINAL; (FAST-ON) | 3 |
| NI | TJ006833 | TIE, CABLE | 12 |

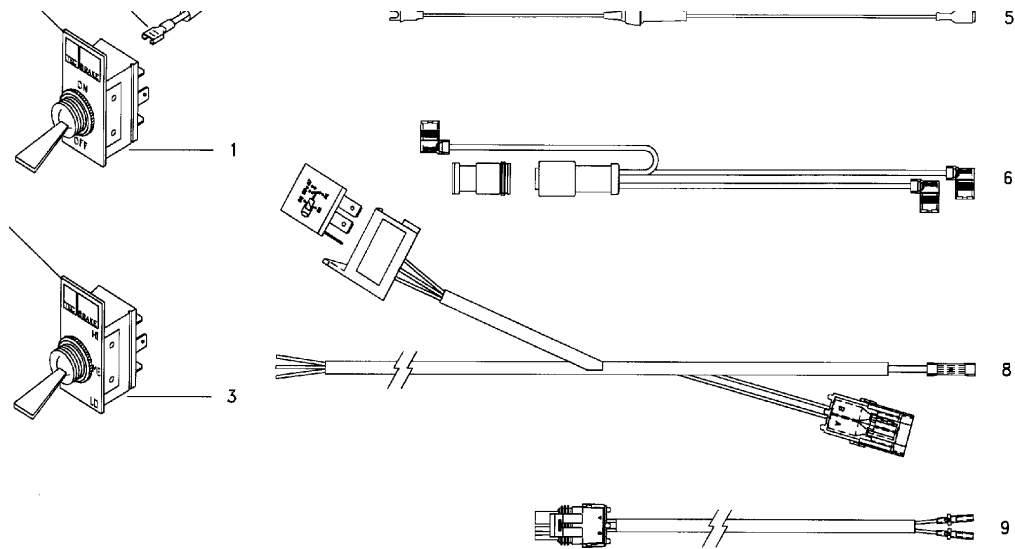
*Relay TJ016933 included in TB900033 harness.

CONTROL GROUP- DDECIII ENGINES
Part No. TB940073

| REF. | PART NO. | DESCRIPTION | QTY./ENG. |
|------|----------|----------------------------|-----------|
| 1 | TJ001304 | SWITCH, DASH, ON-OFF | 1 |
| 2 | TJ001305 | PLATE, SWITCH, ON-OFF | 1 |
| 3 | TJ002957 | SWITCH, DASH, HI-MED-LO | 1 |
| 4 | TB900037 | PLATE, SWITCH, HI-MED-LO | 1 |
| 6 | TB900034 | HARNESS, ENGINE | 1 |
| 10 | TJ003278 | TERMINAL, (FAST-ON) | 3 |
| NI | TB900036 | HARNESS, THRU HEAD DDECIII | 1 |
| NI | TB900041 | HARNESS, JUMPER DDECIII | 1 |
| NI | TJ006833 | TIE, CABLE | 12 |

Indented part numbers are included in the parts under which they are indented.

NI.- Not Illustrated.



MAJOR TUNE-UP KIT
Part No. TB940074

| PART NO. | DESCRIPTION | QTY./KIT |
|----------|----------------------------|----------|
| TJ001081 | SEAL, RING UPPER | 3 |
| TJ001082 | SEAL RING, MIDDLE | 3 |
| TJ001083 | SEAL RING, LOWER | 3 |
| TJ001492 | CAPSCREW | 15 |
| TJ018179 | SPRING, CTRL. VALVE, INNER | 6 |
| TJ001519 | SPRING, CTRL. VALVE, OUTER | 6 |
| TJ016557 | COLLAR, CONTROL VALVE | 6 |
| TJ011930 | CONTROL VALVE | 6 |
| TJ012990 | SPRING, ACCUMULATOR | 3 |
| TJ017658 | SPRING, FLAT | 6 |
| TJ016505 | WASHER/COVER, PLAIN | 15 |
| TJ012991 | RING, RETAINING | 9 |
| TJ019576 | SPRING, TORSION | 6 |
| TJ019741 | WASHER, PLAIN | 6 |
| TJ019740 | SCREW, BUTTON HEAD | 6 |
| TB900043 | COVER, CTRL. VALVE | 9 |

