FORD
1997–2003 Econoline 7.3L

PRECAUTIONS

Warning: Keep body from under the auxiliary or secondary battery when disconnecting or reconnecting the auxiliary or secondary battery safety straps, since the battery weighs 50 pounds and bodily injury can result.

Warning: Batteries contain sulfuric acid and produce explosive gases. Work in a well-ventilated area. Do not allow the battery to come in contact with flames, sparks or burning substances. Avoid contact with skin, eyes or clothing. Shield eyes when working near the battery to protect against possible splashing of acid solution. In case of acid contact with skin or eyes, flush immediately with water for a minimum of 15 minutes, then get prompt medical attention. If acid is swallowed, call a physician immediately. Failure to follow these instructions may result in serious personal injury.

Warning: Always lift a plastic-cased battery with a battery carrier or with hands on opposite corners. Excessive pressure on the battery end walls may cause acid to flow through the vent caps, resulting in personal injury and/or damage to the vehicle or battery.

Failure to accurately follow the battery reconnect procedures outlined will result in vehicle or component damage.

Ford Motor Company strongly recommends that lead-acid batteries be returned to an authorized recycling facility for disposal.

When the battery has been disconnected and reconnected, some abnormal drive symptoms may occur while the Powertrain Control Module (PCM) relearns its adaptive strategy. The vehicle may need to be driven 10 miles or more to relearn the strategy.

If equipped with the CD6 audio unit, precautions must be taken when the battery has been disconnected. When reconnecting the battery, ensure no interruption of power occurs for 30 seconds. If power is interrupted during the first 30 seconds, permanent damage to the CD6 audio unit will result.

BATTERY

Auxiliary

Two 78 ampere-hour, maintenance-free batteries are standard with the 7.3L DIT diesel engine. The secondary battery is connected in parallel with the primary battery and provides more current to the starter motor when cranking and to the vehicle under load. The secondary battery is located on the righthand frame rail to the rear of the B-Pillar.

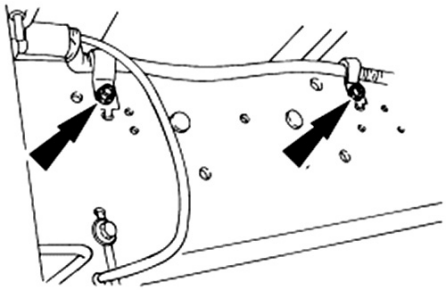

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Fig. 1 Secondary battery cable harness removal

REMOVAL

The preferred method of service requires the use of a floor hoist to lift the vehicle overhead and a transmission jack to support and lower the auxiliary or secondary battery case.

Caution: The secondary positive cable remains energized after disconnection.

Ensure tool does not contact any ground surface.

1. Disconnect secondary positive cable from primary battery terminal. Ensure secondary positive cable does not contact any ground surface.
2. Wrap secondary positive cable with a non-conductive material to insulate it.
3. Disconnect primary battery positive and ground terminal connections.
4. Remove two auxiliary or secondary battery cable harness screws retaining harness to frame, **Fig. 1.**
5. Support bottom of auxiliary or secondary battery and case with a transmission jack.
6. Remove upper righthand auxiliary or secondary case to frame bolt (1), **Fig. 2.**
7. Loosen, but do not remove, three remaining battery case to frame bolts (2), **Fig. 2.**
8. Raise battery case slightly and move away from frame to dislodge battery case from three remaining bolts (3), **Fig. 2.**
9. Remove remaining three battery case to frame bolts (4), **Fig. 2.**
10. Lower auxiliary or secondary battery and case until tension is almost present in auxiliary or secondary battery case safety straps.
11. Remove two auxiliary or secondary battery case cover bolts, and disengage battery case cover, **Fig. 3.**
12. Remove auxiliary or secondary battery cables.
13. Remove two auxiliary or secondary battery case safety strap to frame bolts, **Fig. 4.**
14. Disengage auxiliary or secondary battery case safety straps, and roll auxiliary or secondary battery and case away from vehicle.

INSTALLATION

1. Install auxiliary or secondary battery into case.
2. **Torque** battery hold down clamp bolt to 49–62 inch lbs.
3. Position auxiliary or secondary battery and case on transmission jack under vehicle.
4. Install auxiliary or secondary battery cables.
5. **Torque** cable terminal clamps to 10–13 ft. lbs.
6. Position auxiliary or secondary battery case cover, and install two auxiliary or secondary battery case cover bolts, **Fig. 3.**
7. Lift auxiliary or secondary battery and case, and position for auxiliary or secondary battery case safety strap connection.
8. Install two auxiliary or secondary battery case safety strap bolts, **Fig. 4.**
9. **Torque** safety strap bolts to 25–34 ft. lbs.
10. Align slots in battery case to frame, using three bolts. Do not tighten at this time.
11. Move battery case slightly toward frame and lower into position.
12. Install remaining battery case to frame bolt.
13. **Torque** battery case to frame bolts to 25–34 ft. lbs.
14. Install two auxiliary or secondary battery cable harness to frame retaining screws.
15. **Torque** harness to frame retaining screws to 9–11 ft. lbs.
16. Reconnect primary battery positive and ground terminal connections. Ensure tool does not contact any ground surface.
17. **Torque** cable terminal clamps to 10–13 ft. lbs.
18. Unwrap secondary positive cable and reconnect it to primary battery terminal.
19. **Torque** secondary positive cable bolt to 17–23 ft. lbs.

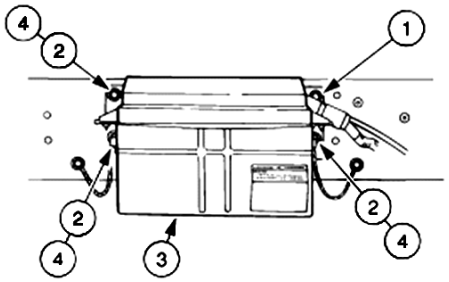

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Fig. 2 Secondary battery removal

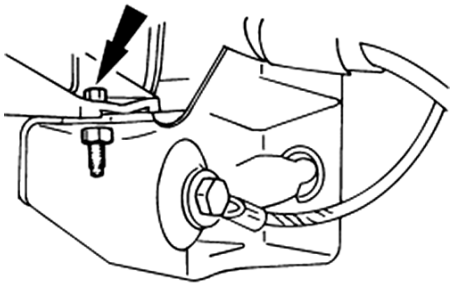

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Fig. 3 Battery case cover removal (Part 1 of 2)

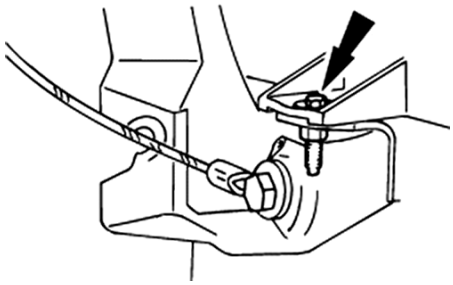

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Fig. 3 Battery case cover removal (Part 2 of 2)

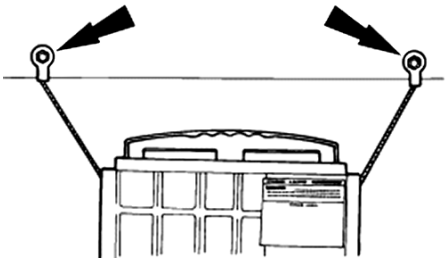

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Fig. 4 Battery case safety strap removal