

SECTION 7

Evaporative Emission Systems

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Evaporative Emission Systems

DESCRIPTION

Fuel Tank Venting

Fuel vapors trapped in the sealed fuel tank are vented through the orificed, vapor valve assembly in the top of the tank. The vapors leave the valve assembly through a single vapor line and continue to the carbon canister (located in the engine compartment or along the frame rail), for storage, until such time as they are purged to the engine for burning.

Carburetor Venting

Fuel vapors, which might otherwise collect in the carburetor bowl and pass directly into the atmosphere, are vented to the carbon canister when the engine is stopped. Flow of these vapors is controlled by the canister purge solenoid, the canister purge valve, the carburetor fuel bowl solenoid vent valve, and the carburetor fuel bowl thermal vent valve, depending on the particular carburetor and engine calibration used. When the engine is started the vapors will be drawn into the engine for burning, when the operating mode of the engine can accept the vapors for efficient combustion.

Typical storage and return systems for fuel vapors are shown in Fig. 1 through 35.

NOTE: To insure efficient flow of vapors, the line from the carburetor bowl should have a continuous downhill slope to the canister.

On most applications the canister is purged by drawing the vapors into the intake manifold. On other engines vapors are drawn into the air cleaner.

DIAGNOSIS

Refer to individual components, Section 3.

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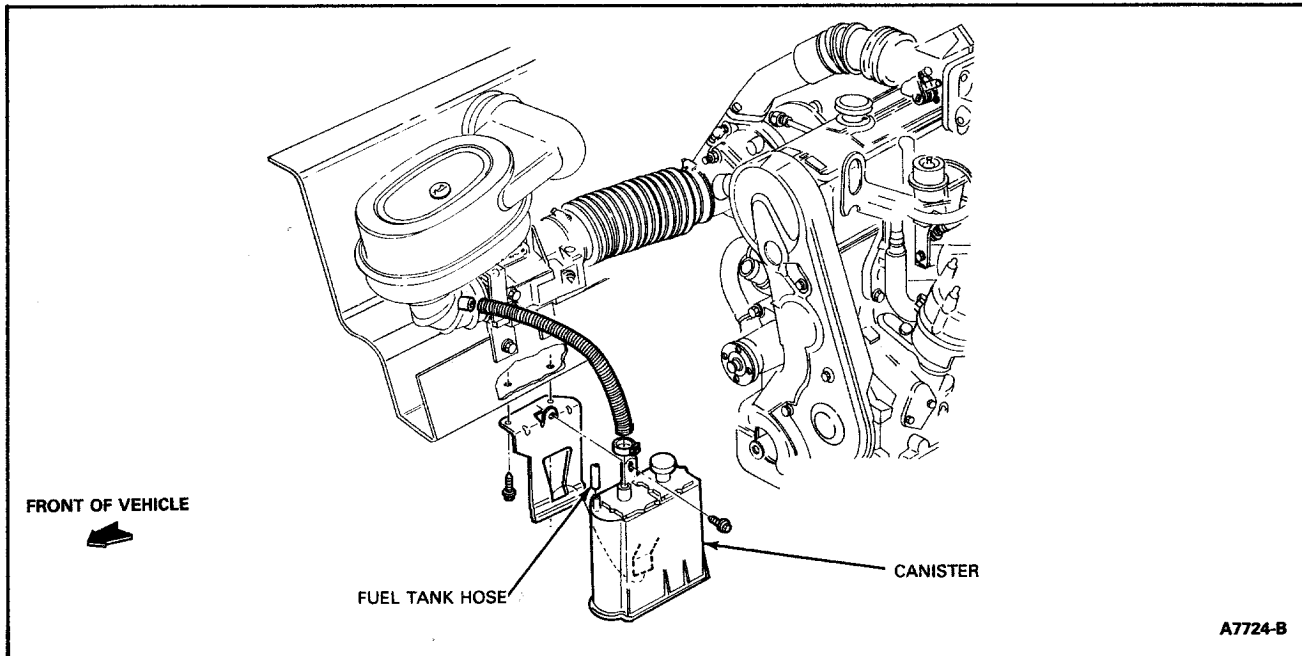


Figure 4 Typical 2.3L OHC EFI Turbo Mustang/Capri, Thunderbird/Cougar, SVO—Canister Venting System

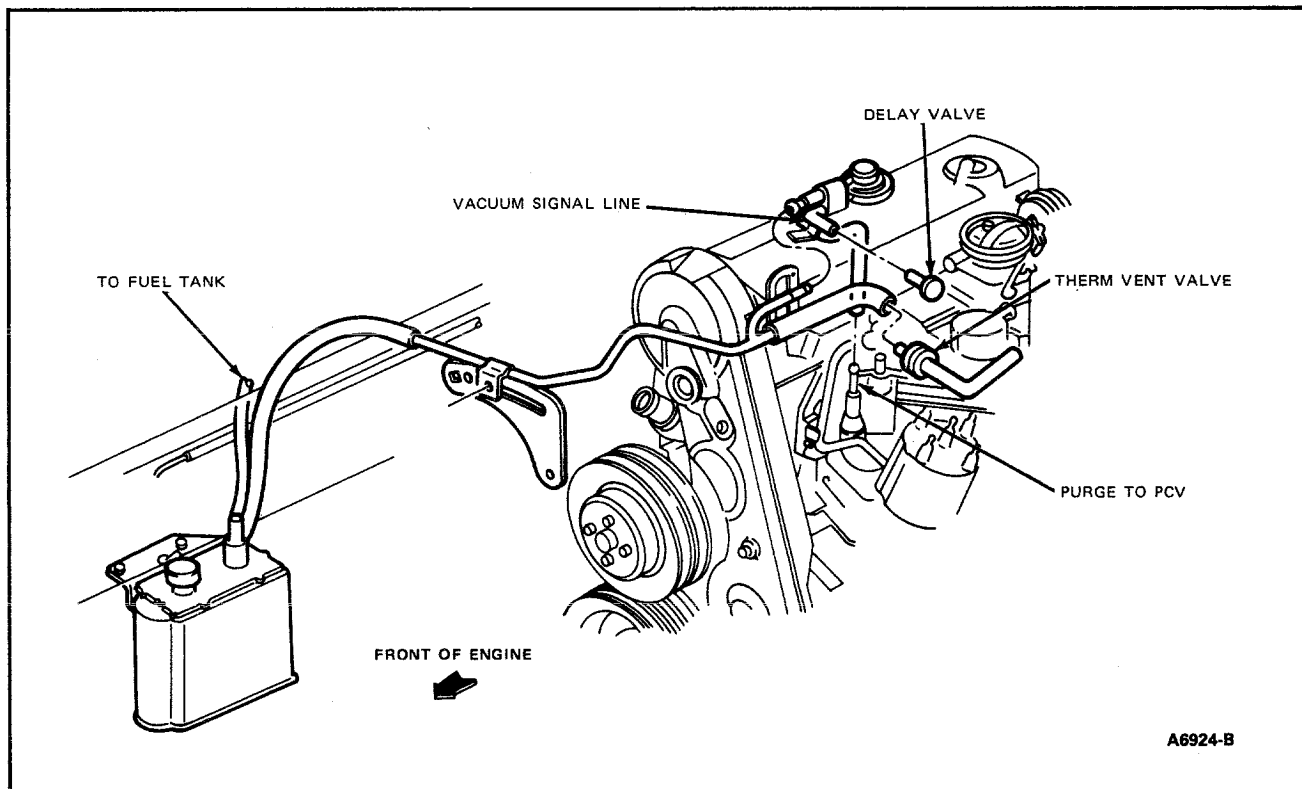


Figure 5 Typical 2.3L OHC Passenger Car, Canada—Canister Venting System

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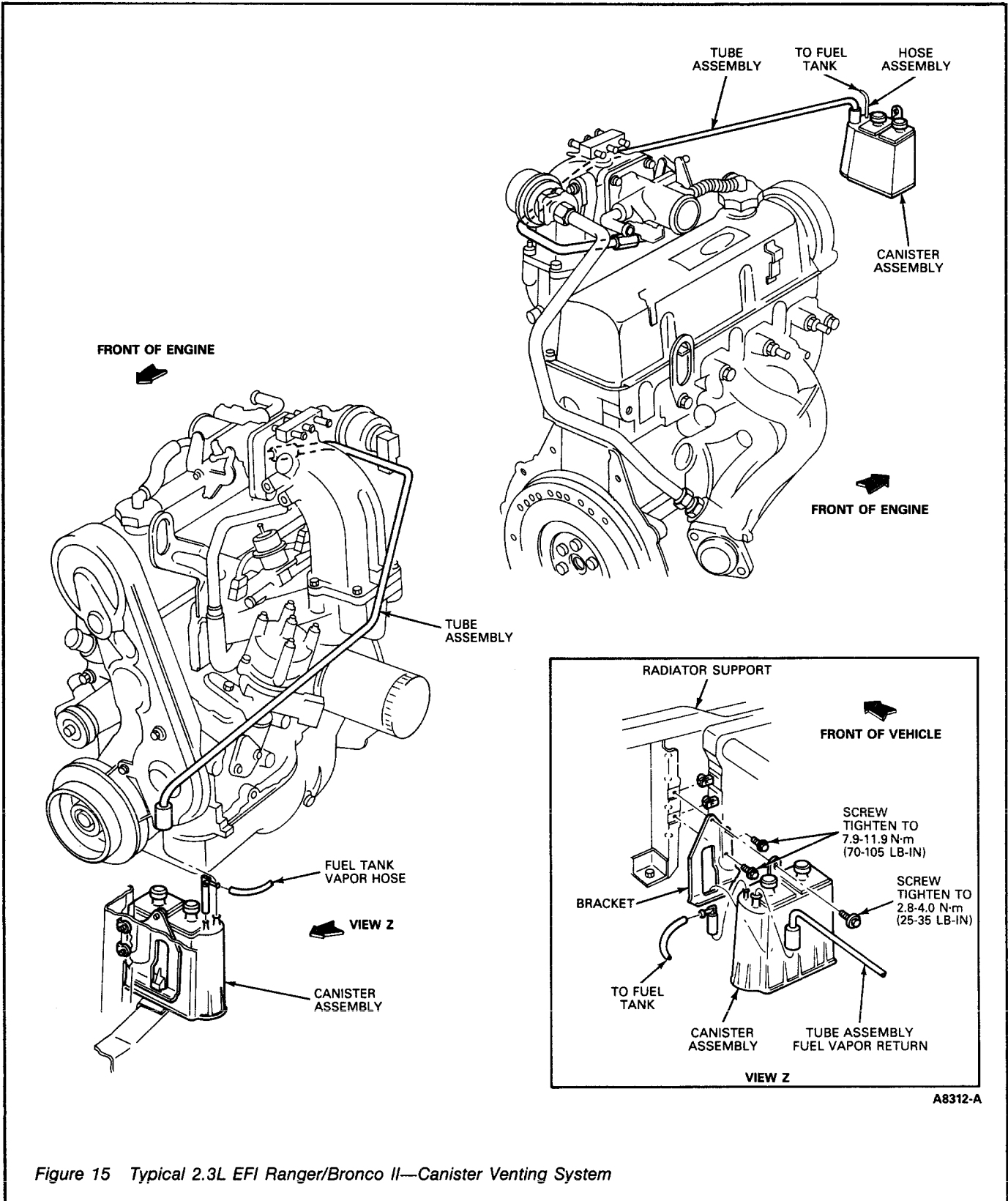
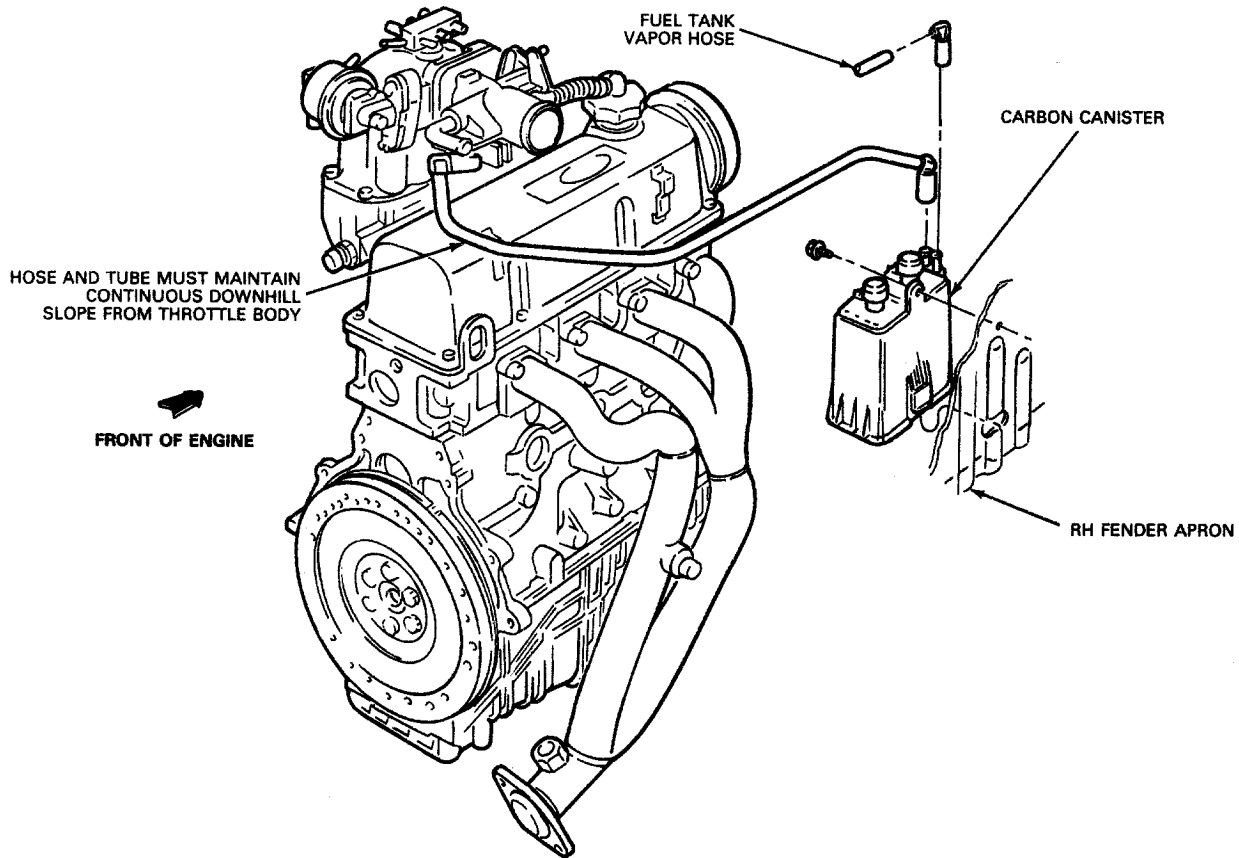


Figure 15 Typical 2.3L EFI Ranger/Bronco II—Canister Venting System

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Figure 16 Typical 2.3L EFI Aerostar—Canister Venting System