

# 1982 Exhaust Emission Systems

## DATSUN BOOST CONTROLLED DECELERATION

Maxima, Stanza, 280ZX

### DESCRIPTION

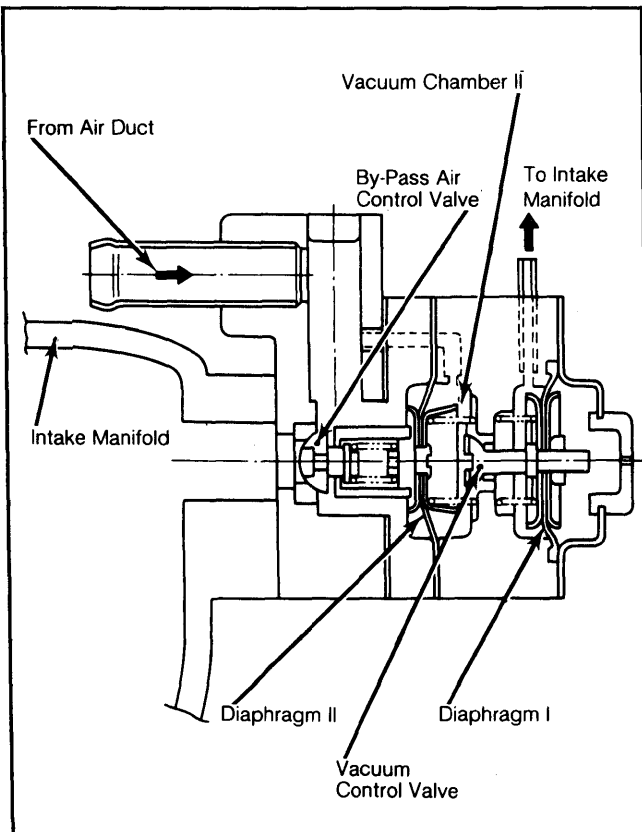
The Boost Controlled Deceleration Device (BCDD) is installed to reduce HC emissions during deceleration. The BCDD is mounted under the throttle chamber as an integral part. This device supplies additional air to the intake manifold to maintain manifold vacuum at proper operating pressure.

### OPERATION

The Boost Controlled Deceleration Device (BCDD) contains 2 diaphragms. When vacuum in the intake manifold exceeds a pre-determined value, diaphragm I opens the vacuum control valve. This allows manifold vacuum into a vacuum chamber in the BCDD and actuates diaphragm II. When actuated, diaphragm II opens the air control valve, allowing additional air into the manifold to maintain required operating pressure.

The amount of air entering the manifold is controlled by the servo-action of the air control valve and vacuum control valve. This servo-action maintains manifold vacuum at the predetermined operating pressure.

Fig. 1: Datsun Maxima BCDD System Schematic



Intake manifold operating pressure (vacuum) changes depending on altitude at which the vehicle is being operated. To compensate for this, an altitude compensator is incorporated in the BCDD of 280ZX models. The altitude compensator automatically adjusts the operating pressure in response to altitude.

Fig. 2: Datsun Stanza BCDD System Schematic

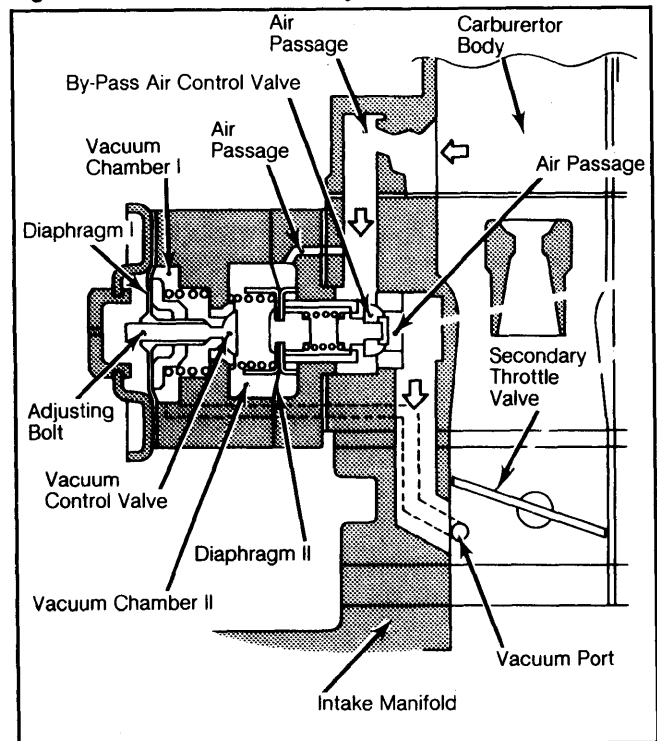
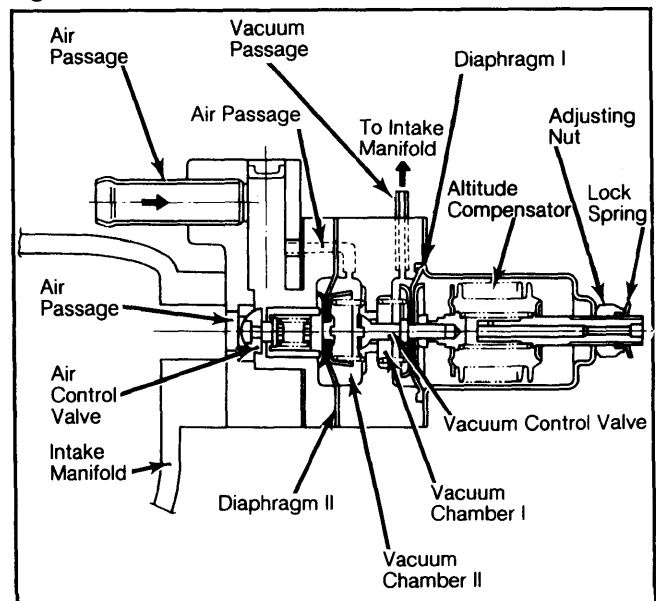


Fig. 3: Datsun 280ZX BCDD System Schematic



### TESTING

#### BCDD OPERATING PRESSURE

1) To check pressure, engine should be at normal operating temperature, idle speed set to specifications and transmission in Neutral. Connect a tachometer to engine and a vacuum gauge to intake manifold.

2) Run the engine under no load and note vacuum reading. Increase engine speed to 3000-3500 RPM on Maxima and 280ZX models or 2000 RPM on Stanza models, then quickly close the throttle.

## DATSUN BOOST CONTROLLED DECELERATION (Cont.)

3) Manifold vacuum should increase 23.6 in. Hg or more on Maxima and 280ZX models or 24.0 in. Hg or more on Stanza models, then gradually decrease to level noted at idle on all models. If BCDD operating pressure at idle is not to specification, *proceed to ADJUSTMENTS section in this article.*

### BCDD OPERATING PRESSURE (At Sea Level)

Application	Pressure (In. Hg)
Maxima & 280ZX .....	21.6-23.2
Stanza .....	23.2-24.8

## ADJUSTMENTS

### BCDD OPERATING PRESSURE

1) Turn adjusting mechanism as necessary until specified operating pressure is obtained. Turning the adjusting mechanism clockwise decreases operating pressure and counterclockwise increases pressure.

**NOTE:** On 280ZX models, turn adjusting mechanism in or out with lock spring in place. Also, always set lock spring properly to prevent changes in operating pressure.

2) After setting pressure to specified range, accelerate engine and check adjustment. If lower than specified level, turn adjusting mechanism until specification is correct.

3) Accelerate engine again and check adjustment. If engine speed cannot be decreased to idle when checking BCDD operating pressure, proceed as follows:

4) Turn adjusting mechanism counterclockwise so BCDD operating pressure is .79 in. Hg higher than specification on Maxima and 280ZX models or .98 in. Hg higher than specification on Stanza models.

5) Turn adjusting mechanism ¼ turn clockwise so pressure drops to specification on all models. If operating pressure cannot be observed in step 4), turn adjusting mechanism counterclockwise so BCDD operating pressure is 1.97 in. Hg higher than specification.

6) Then turn adjusting mechanism ½ turn clockwise so pressure drops to specification. If operating pressure cannot be adjusted, unit must be replaced as an assembly.

**NOTE:** The BCDD operating pressure must be set to specifications after previous adjustment procedure, even if engine speed cannot be decreased to idling RPM.