

# 1974-79 FUEL SYSTEMS

## Zenith 2B & 32/32 2-Barrel Carburetors

**Volkswagen: 1975-76 Dasher, Rabbit, Scirocco**

### CARBURETOR IDENTIFICATION

#### 1976 VOLKSWAGEN CARBURETOR PART NUMBERS

Application	Man. Trans.	Auto. Trans.
Federal .....	055 129 021 .....	055 129 021A
California .....	055 129 021B .....	055 129 021C

### DESCRIPTION

Carburetor is a 2-barrel, dual float, downdraft design. Carburetor uses a piston and diaphragm type accelerator pump and an automatic choke. Choke is assisted by an electric temperature switch that reacts to coolant temperature levels and is installed in the choke housing.

An idle cut off valve ensures that fuel supply is shut off to the carburetor when ignition key is turned off. In addition, first and second stage choke pull-down units are installed, and a cold idle valve, which injects fuel into the secondary venturi, aids in cold weather starting.

### ADJUSTMENTS

#### IDLE SPEED & MIXTURE

See appropriate TUNE-UP PROCEDURES article.

#### COLD (FAST) IDLE RPM

See appropriate TUNE-UP PROCEDURES article.

#### FAST IDLE GAP

**Zenith 2B** - 1) Ensure engine is at operating temperature and that timing is correct as fast idle gap is determined by engine RPM. Remove vacuum hose from second stage choke pull-down unit (smaller unit) and plug hose.

2) Open throttle valve slightly and fully close choke valve. Now close throttle valve. Choke valve must now be in fully open position. Fast idle cam stop screw must be on HIGHEST choke step.

3) Start engine and check fast idle speed. Fast idle speed should be 3150-3250 RPM (3350-3450 RPM on automatic transmission equipped vehicles). If necessary, adjust screw located beneath automatic choke housing. See Fig. 1.

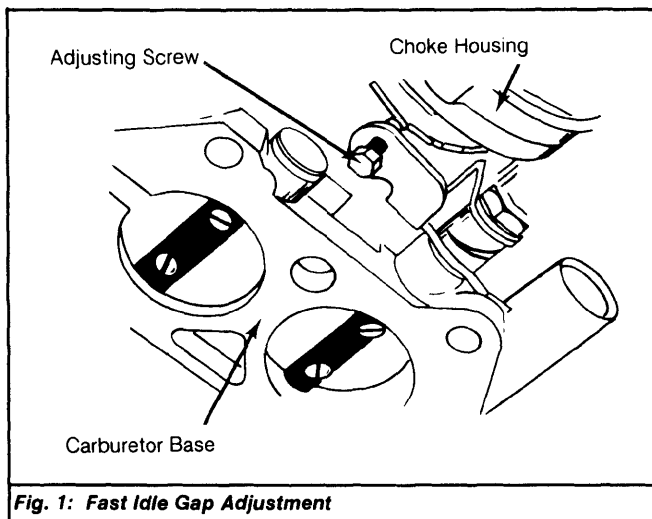


Fig. 1: Fast Idle Gap Adjustment

#### FLOAT LEVEL

**NOTE:** Floats of both stages are adjusted at factory and should only be readjusted when new float is installed.

With carburetor air horn removed and inverted, measure height of each float from gasket surface to bottom of float. See Fig. 2. Primary side should be 1.1" (28 mm) and secondary side should be 1.12" (30 mm). If either float height is incorrect, bend float arm (bracket) to adjust.

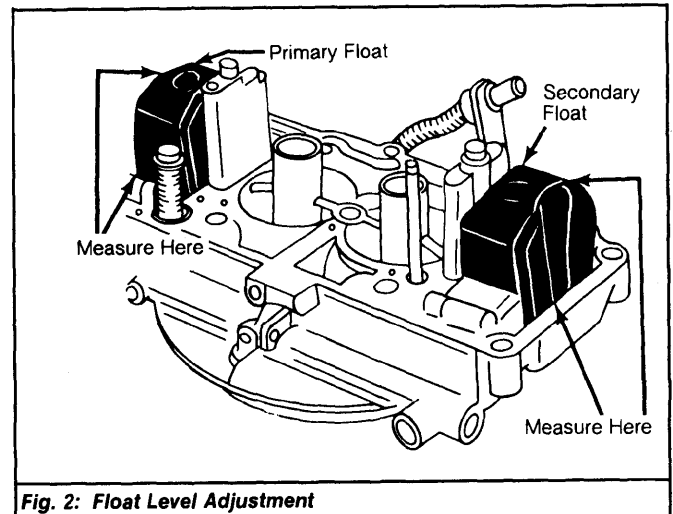


Fig. 2: Float Level Adjustment

#### CHOKE GAP

**Zenith 2B** - First stage gap should be .128-.148" (3.25-3.75 mm). Turn adjusting screw in or out to correct gap. See Fig. 3. Second stage gap should be .187-.207" (4.75-5.25 mm). Turn adjusting screw in or out to correct gap. See Fig. 4.

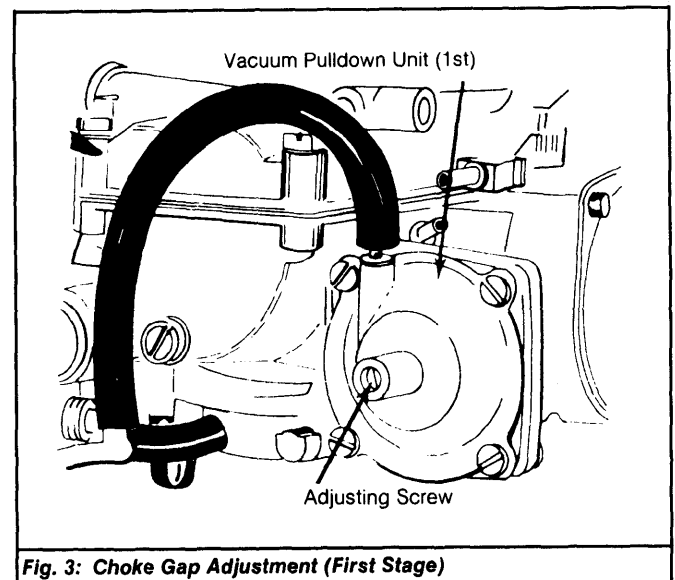


Fig. 3: Choke Gap Adjustment (First Stage)

**Zenith 32/32** - Remove choke thermostatic cover and fully open choke valve. Actuate vacuum break diaphragm by pushing diaphragm rod toward diaphragm. With diaphragm depressed, measure choke valve gap, using gauge rod or drill. Choke gap should be .130-.147" (3.2-3.7 mm). If not, adjust by turning screw located in end of diaphragm.

**NOTE:** Although illustration shows gauge rod or drill being inserted between upper edge of choke valve and air horn wall, manufacturer now suggests that gauge rod or drill be inserted between lower edge of choke plate and air horn wall.

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## Zenith 2B & 32/32 2-Barrel Carburetors (Cont.)

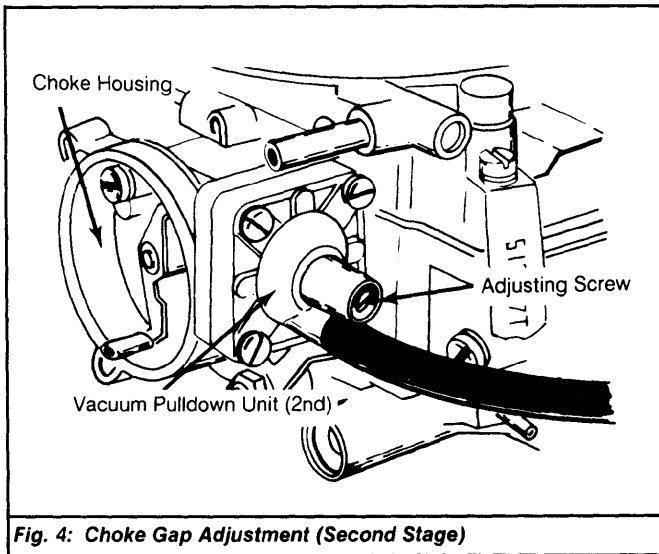


Fig. 4: Choke Gap Adjustment (Second Stage)

**Zenith 2B (First Stage)** - Open choke valve and close throttle valve. Remove plastic cap from stop screw. Turn screw out until it does not touch fast idle cam. Slowly turn screw in until it just touches cam, then turn an additional 1/4 turn. See Fig. 6. Adjust idle speed and CO% value. See appropriate TUNE-UP PROCEDURES article.

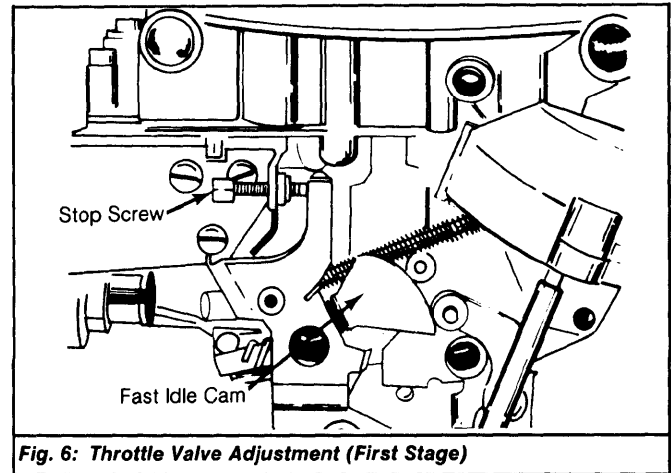


Fig. 6: Throttle Valve Adjustment (First Stage)

### DASHPOT

Close throttle valve completely and open choke valve. Push dashpot rod all the way in. Adjust gap to .120" (3 mm) by loosening lock nut and turning dashpot. See Fig. 5. Tighten lock nut when proper clearance is obtained.

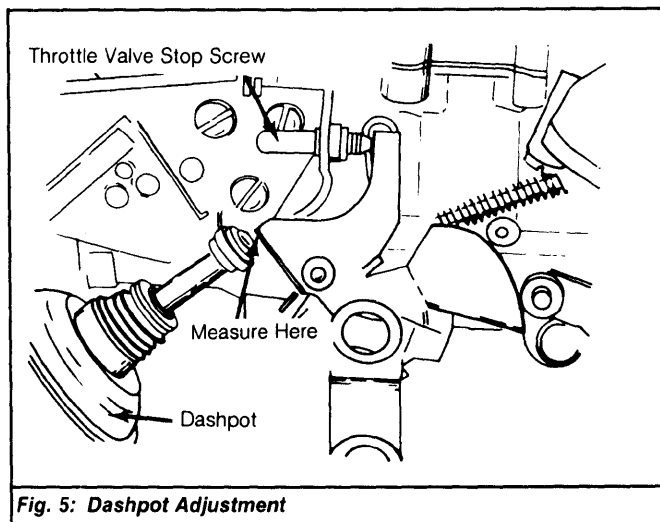


Fig. 5: Dashpot Adjustment

**Zenith 2B (Second Stage)** - 1) Detach linkage. Loosen lock nut and rotate linkage until distance is about .04-.08" (1-2 mm) below ball joint. Open choke valve and close throttle valve first stage.

2) Turn adjusting screw until the lever has no clearance, then back screw out 1/4 turn. See Fig. 7. Check for slight clearance of lever and reattach linkage.

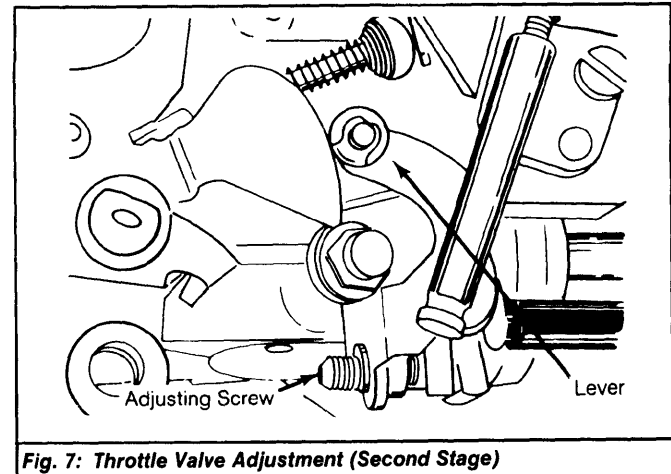


Fig. 7: Throttle Valve Adjustment (Second Stage)

### THROTTLE VALVE ADJUSTMENT

**Zenith 32-32** - With carburetor removed and inverted, close choke valve. Measure clearance between throttle valve and bore. Clearance should be .017-.019" (.45-.5 mm). If not, adjust by turning screw.

**NOTE:** Stop screw on Zenith 2B carburetor is preset by manufacturer and should NOT be changed. If screw has been turned accidentally and adjustment is needed, use following the following procedures.

### ACCELERATOR PUMP

**Zenith 32/32** - 1) With carburetor removed and suitable container placed underneath carburetor to catch discharged fuel, fully actuate throttle five times. Divide amount of fuel caught in container by five, to determine quantity per stroke.

2) Fuel discharged per stroke should be .85-1.15 cc. If quantity is not within specified ranged, turn adjuster on end of actuating rod. Perform test procedure again to determine whether quantity is now correct.

### 1976 CARBURETOR ADJUSTMENT SPECIFICATIONS

Application	Idle Speed (Engine RPM)		Float Level Setting (Primary) In.(mm)	Float Level Setting (Sec.) In.(mm)	Choke Gap		Dashpot Clearance In.(mm)	Vacuum Break Diaphragm In.(mm)
	Hot	Fast			First Stage In.(mm)	Sec. Stage In.(mm)		
Zenith 2B2	800-1000	⓪	1.10(28)	1.18(30)	.141(3.5)	.203(5.0)	.120(3)	.....

⓪ - See COLD (FAST) IDLE RPM in Adjustment Section.

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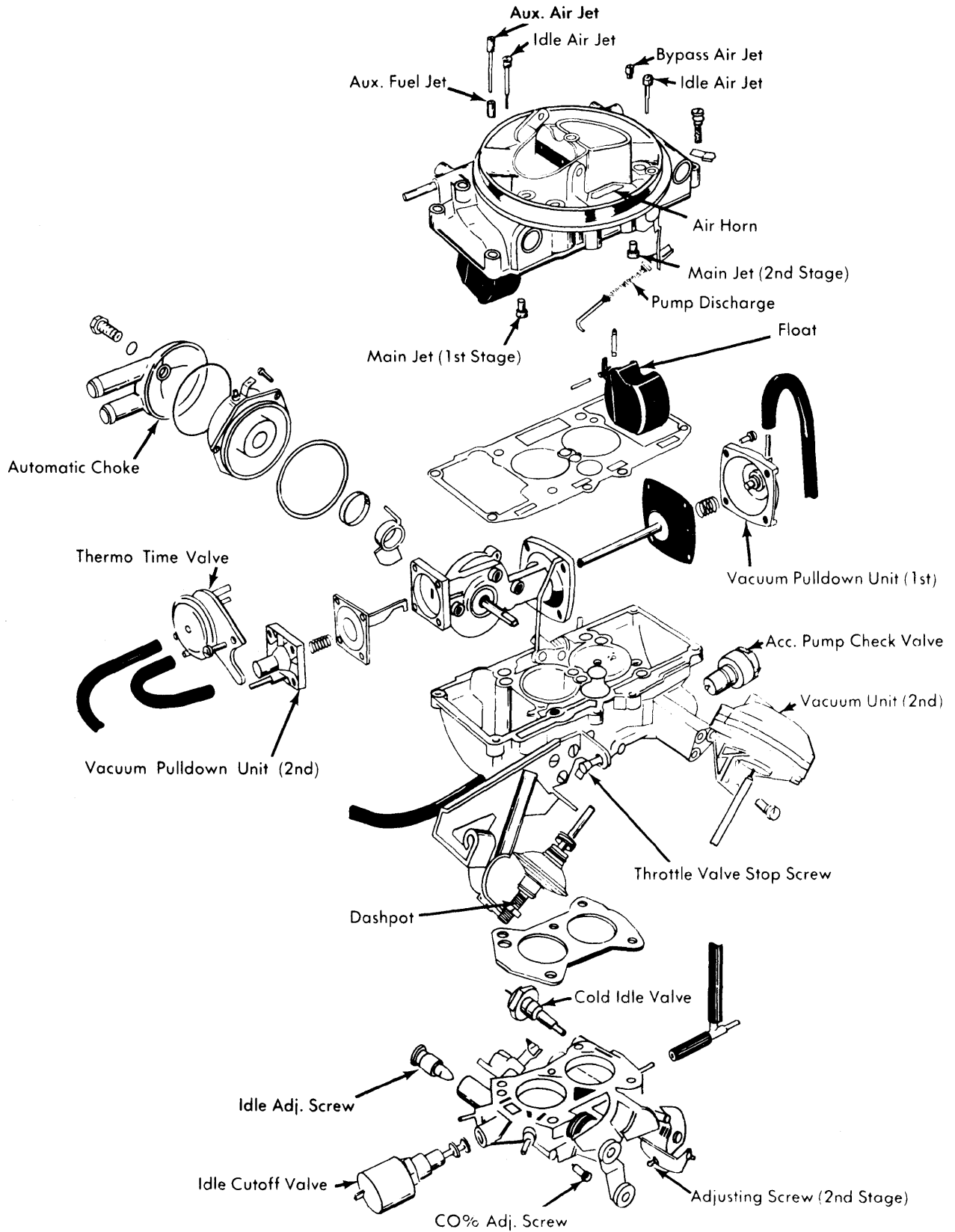


Fig. 8: Exploded View Of Zenith 2B 2-Barrel Carburetor