

# 1968 Corvette: Service News: Tune-up Specification Change

**Subject:** Tune-up Specification Change

**Model and Year:** 1968 Corvette with 427 cu. in. Engine, Manual Transmission and Air Conditioning

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Timing and carburetion changes have recently been made on the 1968 Corvette when equipped with a 427 cu. in. engine (390 or 400 H.P.), manual transmission, and air conditioning. These changes involve: (1) an increase in engine idle speed; (2) the addition of an anti-dieseling solenoid; and (3) a change in distributor vacuum advance control from "ported" to full manifold vacuum.

The idle speed on vehicles with this particular engine-transmission-accessory combination should be set at 1000 R.P.M. with the air conditioning turned 'ON'. The low idle setting is 500 R.P.M. with the solenoid electrically disconnected. The tune-up decal which is used on these vehicles is Part No. 3940925. A note should be added to your November, 1967 Chevrolet Service News Insert to indicate these changes.

If the anti-dieseling solenoid on one of these vehicles requires replacement or adjustment, refer to the procedures given on Page 7 of this Service News issue. The 'Anti-Dieseling Solenoid Diagnosis Chart' on Page 7 of this issue should be of assistance in determining whether replacement is necessary. Figure 6 illustrates proper solenoid wire routing for either the 390 or 400 H.P. engine. The connector at the use panel should be inserted in the receptacle marked "IGN" for proper solenoid operation.

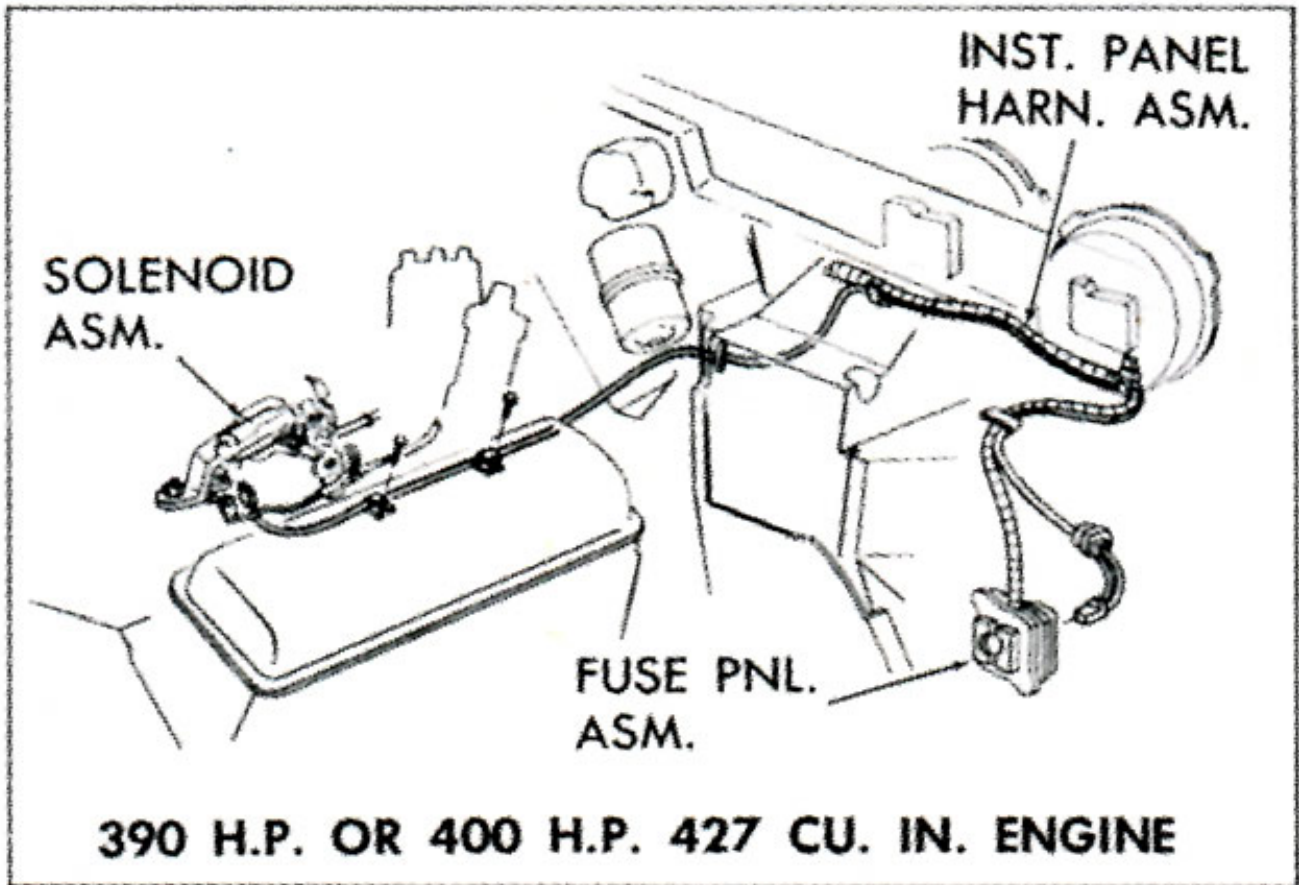


Figure 7 illustrates proper solenoid installation on both the 390 H.P. and 400 H.P. versions of the 427 cu. in. engine and also illustrates the correct intake manifold vacuum fittings for the full manifold vacuum distributor advance arrangement.

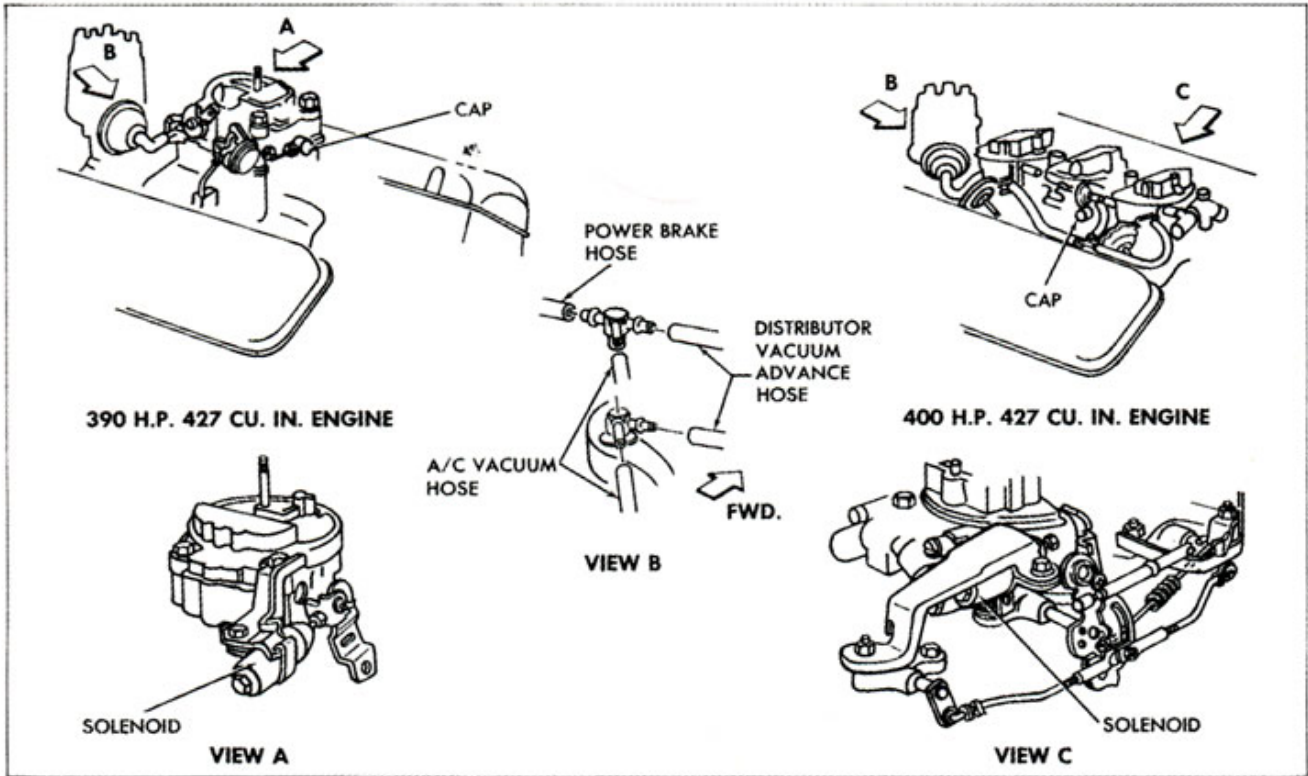


Fig. 7—Anti-Dieseling Solenoid Installation

## ANTI-DIESELING SOLENOID TROUBLE DIAGNOSIS CHART

Trouble	Probable Cause	Remedy	
A. Engine "diesels" after ignition is turned-off.	1. Idle Speed too high.	Adjust to recommended speed with solenoid de-energized. Reference engine tune-up decal—step 7. Adjust. Reference engine tune-up decal—step 1. Free-up or replace as necessary.	
	a. Low idle speed screw not adjusted properly.		
	b. Solenoid not adjusted properly.		
	c. Solenoid stuck in extended energized position.	Inspect wiring connections or check for blown "IGN" fuse. Repair as necessary.	
	d. Carburetor fast idle cam or throttle linkage sticking or obstructed.		
	2. Engine spark timing not to specifications.		
	3. Low octane fuel.	Reset. Reference engine tune-up decal—step 2.	
		Use higher octane fuel.	
		Adjust. Reference engine tune-up decal—step 1.	
B. Low Idle Speed	1. Solenoid not properly adjusted.	Inspect wiring connections or check for blown "IGN" fuse. Repair as necessary. Check with ohmmeter for open or shorted coil. Resistance should be approximately 30 ohms.	
	2. Solenoid inoperative.		
C. Engine starts, then stalls from low idle speed.	a. No power to solenoid.	Driver not holding accelerator pedal part way down while starting.	
	b. Solenoid coil defective.		
	1. Engine hot		Starting procedure—depress accelerator pedal to floor and release. This sets automatic choke. With manual choke, pull knob fully out while holding pedal down.
	a. Driver starting procedure.		
	b. Same as low idle speed trouble (B).		Inspect choke operation and adjustments.
	2. Engine cold		
a. Driver starting procedure.			
b. Carburetor choke.			

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