PORSCHE 911E & 911S ENGINE MODIFICATION

911E & 911S (1972-73)

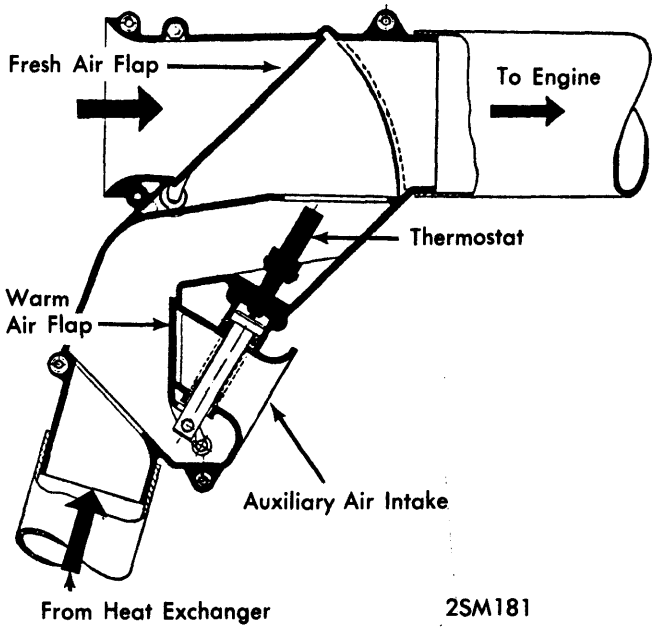
DESCRIPTION

Porsche 911 6 cylinder engines (except 911T) use Bosch Mechanical Fuel Injection. The fuel injection pump and settings have been changed and all 911 vehicles incorporate a thermostatically controlled air intake and new distributors. Distributors are equipped with a vacuum retard unit.

OPERATION

NOTE – For information concerning the fuel injection system, see "Bosch Mechanical Fuel Injection" in CARBURETOR section.

Thermostatic Air Intake – The fresh air flap is controlled by the accelerator linkage and starts to open at a throttle valve angle of 20°. At about 60° angle, the flap is opened completely and closes off the warm air channel. The thermostat causes the warm air flap to begin closing at 104°F and flap is completely closed at 131°F. During normal running, the warm air flap fluctuates according to the temperature of the preheated air and the throttle opening. The intake air therefore maintains itself at about 100°F.

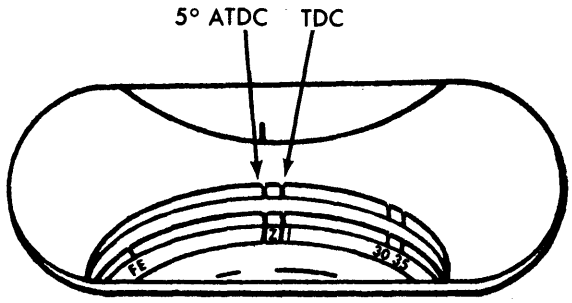


THERMOSTATIC AIR INTAKE

Vacuum Retard Unit – The vacuum for the retard unit is picked up at cylinder 1 and 4 intake manifolds, just below the throttle valves. The retard unit retards the ignition to 5° ATDC at idle.

MAINTENANCE

Ignition Timing – With engine at normal operating temperature, idle speed at 900 RPM, and vacuum hoses left connected, ignition must be set to 5° ATDC. A second check on ignition timing must be made after this adjustment to check maximum advance. At 6000 RPM check that maximum advance is between 32-38° BTDC.



IGNITION TIMING MARKS

Idle Adjustment – With engine at normal operating temperature, set idle RPM to 900±50 RPM. CO% level at this RPM should be 2.5±.5% on all engines. A second check of CO% level should be made at 2400 RPM. At this RPM 911T Models should have CO% level of 1.5-2.0% and 911E and 911S Models should have CO% level of 2.0-2.5%.