## REAR AIR SUSPENSION

The rear air suspension is manufactured by American Carrier and installed on the Chevrolet chassis by Airstream.

A 12 volt compressor, powered from the accessory side of the automotive fuse block provides the air supply to the system. The compressor and pressure regulator is mounted in the roadside rear storage compartment. The air supply tank is located underneath the unit directly behind the fuel tank.

The logic of the air system is as follows: The compressor supplies air pressure through a check valve into the air supply tank. The air supply tank provides pressure to the intake side of the leveling valve. When the leveling valve is opened by the body of the coach lowering over the chassis, the air pressure is supplied to both air bags through a "T", raising the coach back to the proper height.

## COMPRESSOR

The compressor is fused at the automotive fuse block. The 12 V power is only available at the compressor when the ignition key is in the "ON" or accessory position. The power is fed to a set of points in the pressure regulator. When the air pressure at the regulator drops below 85 psi the points close, sending the 12 V current on to the compressor motor.

The compressor motor will run until the air pressure reaches 100 psi and the points in the regulator open. The pressure regulator may be adjusted.

## AIR SUPPLY TANK

Three parts are used on the tank. The adapter fitting in the tank where the inlet line attaches contains a check valve to prevent air pressure from leaking back out through the compressor. The exhaust port is teed with one line going to the leveling valve and the other line going to the pressure regulator. The third port is the tire type air valve on the bottom of the tank. This air valve should be depressed frequently to prevent water that is formed by compressing air, from building up in the system and damaging components. A good idea is to routinely depress the valve at each oil change. This valve may also be used to pressurize the system from an outside source if the compressor should fail.

## LEVELING VALVE

A link, attached to the air bag support beam on the bottom and the leveling valve arm at the top, acts as a measuring device monitoring the height of the body above the chassis. If the body lowers over the chassis because of added weight or loss of air, the link will raise the leveling valve arm allowing more air pressure into the air bags. The height of the coach may be varied a small amount by adjusting the leveling valve arm in relation to the nylon blocks it is mounted against.

This is accomplished by loosening the mounting nut and sliding the slotted arm up or down over the mounting bolt as desired. WARNING: Movement of the leveling valve arm may cause a sudden lowering of the vehicle body. Caution must be used to avoid becoming trapped or pinned under the vehicle.

Three air ports are on the leveling valves. The port by itself feeds the air pressure to the air bags. The other two ports are side by side. The inside port (closest to the mounting plate) is the intake from the air supply tank. The outside port is exhaust air being expelled from the bags.

The valves have a built-in time delay system to prevent air from constantly being expelled and taken in by the air bags. When adjusting the valves for height they will have to be held in the desired position for approximately 30 seconds before air will pass through the valve. If air passes immediately through the valve it is defective and should be replaced. The delay in the valve is regulated by a fluid with a consistancy of about 40 weight oil. The valves should not be opened for repairs. The ideal height for all around ride and clearance is 10" measured from the top of the air bag support beam to the bottom of the main frame chassis rail. It is normal for this measurement to vary as much as 1/4" from side to side.

AIR BAGS

The air bags are a simple rubber bladder that will not need any servicing. If a bag develops a leak it is replaced by removing the two 3/8 bolts fastened down through the top and the threaded rod that goes up through the bottom. Remove air line and the bag will slide out from in between the support beams.

LEAF SPRING ASSEMBLY

The "Stirrup" going over the top of the rear of the leaf spring and attaching to the lower air bag support beam has three different mounting holes. if the ehight of the rear of the coach needs to be altered to any great amount, one of the other mounting holes may be used. Spring assemblies should only be removed by qualified personnel. The front and rear spring mounting bolts appear to be identical but are of a different temper. Care must be used to make sure they are not switched from one mounting location to the other. The torque specification on the shackle bolt is 150 ft. lbs.

The rear mounting bolt through the stirrup should only be tightened until all pack surfaces are in firm contact. Torque specifications on the "U" bolts is 180 ft. lbs. and should be retorqued after test riding for at least five miles.