Design and operation of backrest adjustment (Coupe)

The automatic backrest lock on coupe protects passengers because the backrest resists high impacts – in the event of an accident – and will not change its position. The system uses the vacuum established in intake pipe of operating engine.

The line system of the vacuum backrest locking system is directly connected to intake pipe of engine without a supply tank and the system functions only when the engine is running.

If both front doors are closed and if none of the two switches in rear of vehicle is actuated, the line system is also closed. With the engine running, a vacuum will be established which actuates the operating elements located under front seats. The power of the operating elements energizes the locking hooks via linkage and guide levers. One hook each is located on sides of seat cushions to hold backrest fittings under preload by means of a pin.

This preload is required to prevent any chatter of backrest or locking mechanism in locked condition.

The moment, a front door is opened or a switch in rear compartment is actuated, the line system is under atmospheric pressure and the vacuum elements will be ineffective. Return springs supply the required force to pull the locking hooks into their starting position.

The backrest can be swivelled forward again for easy entrance and access of rear passengers.