

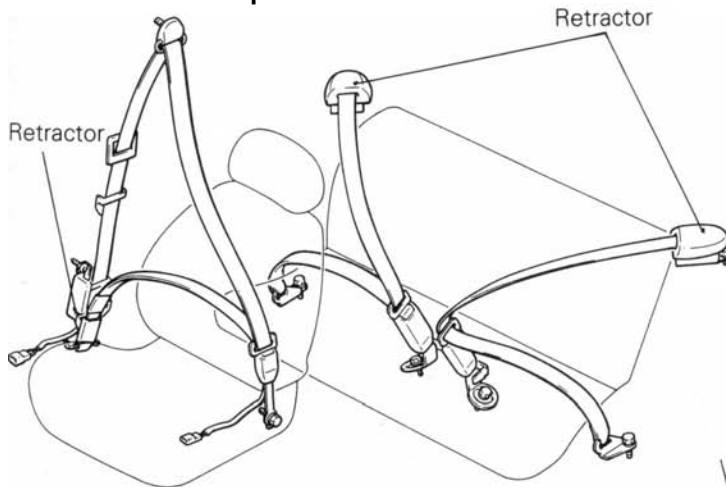
## SEAT BELT

The seat belt has the following mechanisms.

### FRONT SEAT BELT

- 3-point belt with ELR (electric type low tension seat belt) <Vehicles for General Export and GCC>
- 3-point belt with ELR <Vehicles for Europe and Australia>
- Buckle built in seat

#### <Vehicles for Europe>

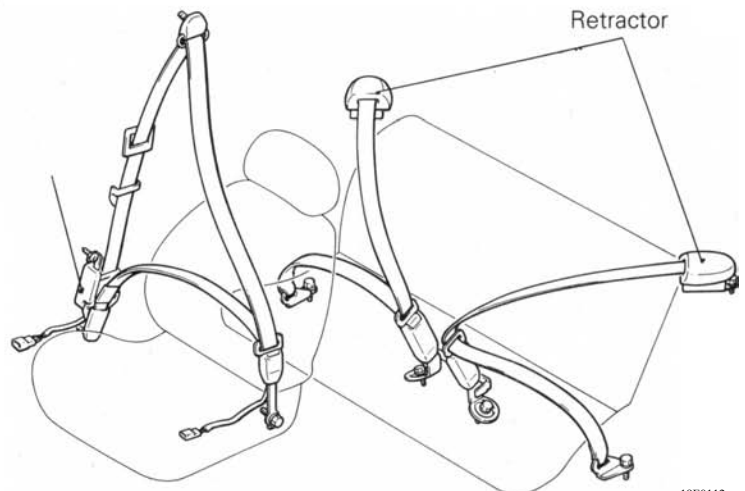


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### REAR SEAT BELT

- 3-point belt with ELR

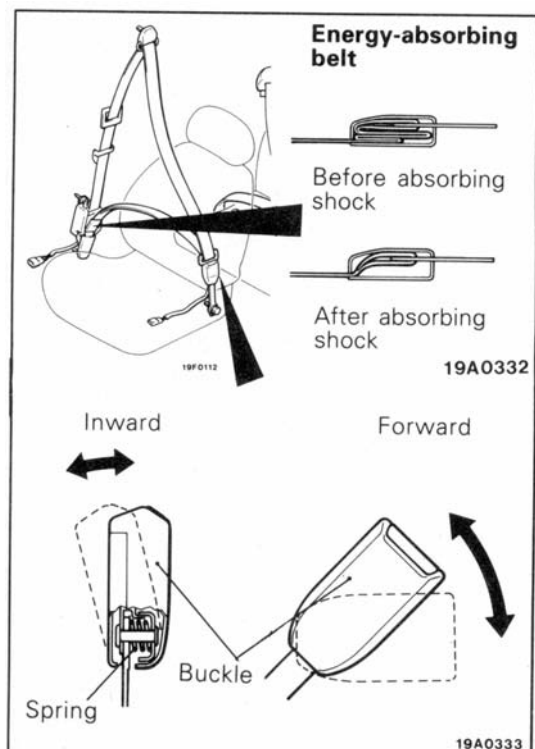
#### <Vehicles for General Export, GCC and Australia>



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## CONSTRUCTION AND OPERATION OF THE ENERGY-ABSORBING BELT AND THE BUCKLE

The front seat belt has on it a sleeve inside which the seat belt webbing is folded back over itself in a loop so as to absorb the energy of a shock by pulling loose and releasing slack. There is a spring installed in the portion connecting the buckle to the arm, allowing the buckle to tilt forward and inward so that the belts can be tight enough around the body.



## ELECTRIC TYPE LOW TENSION SEAT BELT <Vehicles for General Export and GCC>

There is an electric type low tension mechanism in the front seat belt retractor to reduce belt tension and the feeling of pressure when the seat belt is buckled.

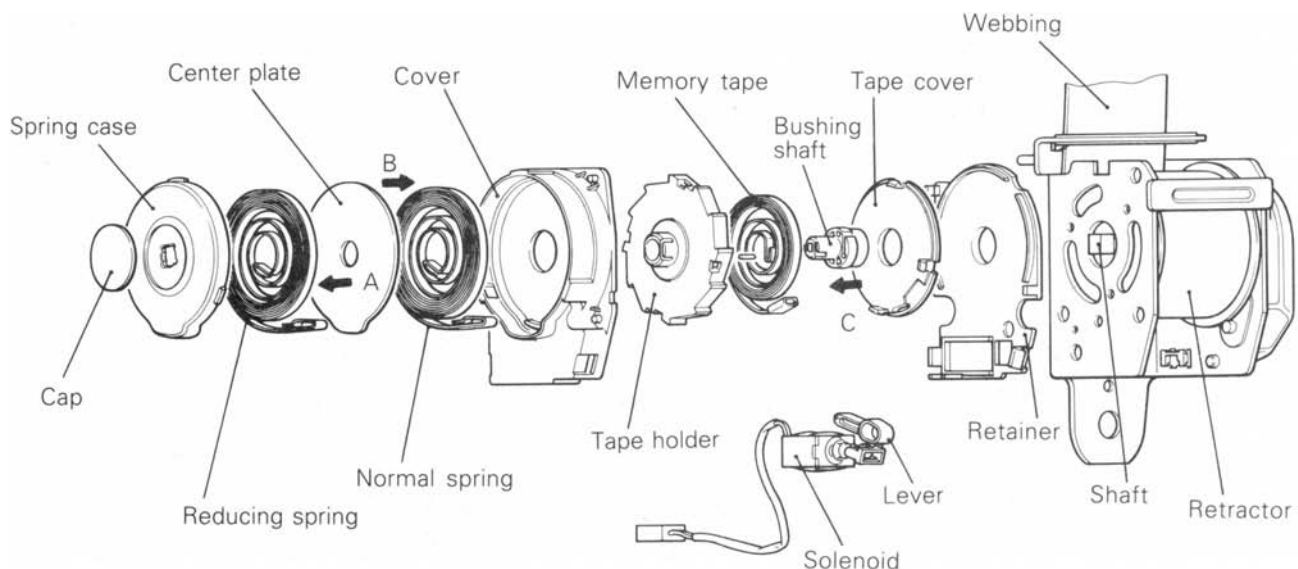
Furthermore, the tension reducer is maintained in an ON condition by the ETACS for 30 seconds after the ignition

key is turned OFF, and the belt winding force does not return to its original condition immediately after the ignition key is turned OFF so the passenger does not feel any physical disorder.

### STRUCTURAL DESCRIPTION

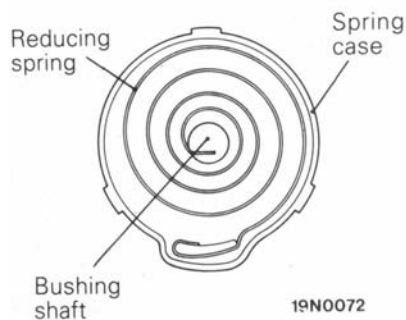
The retractor shaft and bush shaft are coupled. The reducing spring and normal spring are springs used to wind the webbing. The reducing spring ends are fixed to the bush shaft and the spring case, and the normal spring ends are fixed to the tape holder and cover, and stored in the cover. There is a solenoid in the cover and when the seat belt is buckled, the solenoid is activated, the lever engages the tape holder, locks the normal

spring, thus lessening the feeling of constriction. The purpose of the memory tape is to eliminate the difference in elongation ratio of the reducing spring and normal spring. The ends are fixed respectively to the tape holder and bushing shaft and stored together with the bushing shaft in the tape holder in a wound up condition.



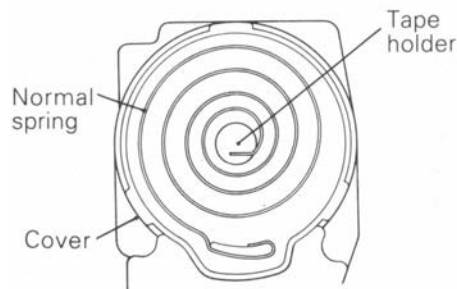
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View A



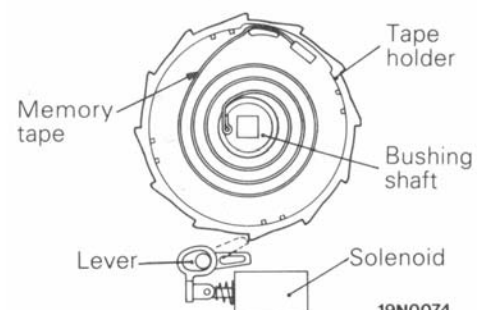
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View B



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View C



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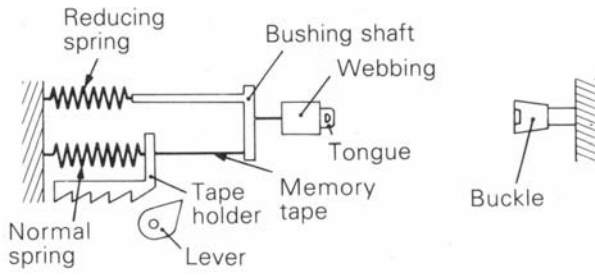
## OPERATIONAL DESCRIPTION

### Seat Belt Stored Condition-7When Pulling Out

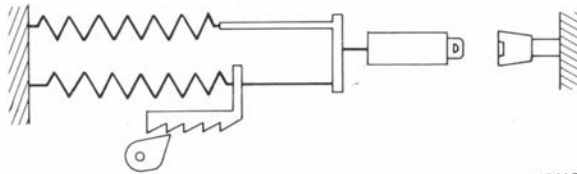
Since the memory tape is wound up, the bushing shaft and tape holder turn as one unit. The torque of the two springs, the reducing spring and normal

spring that are wound up, moves in the winding direction by the rotation of the bushing shaft and tape holder.

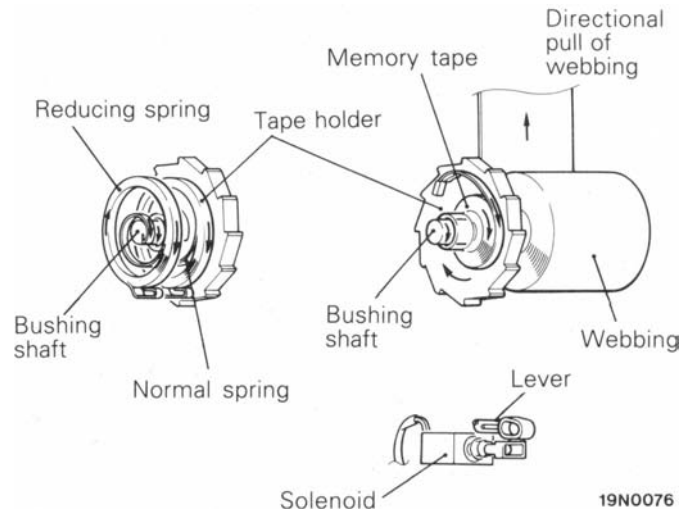
#### <When stored>



#### <When pulled out>



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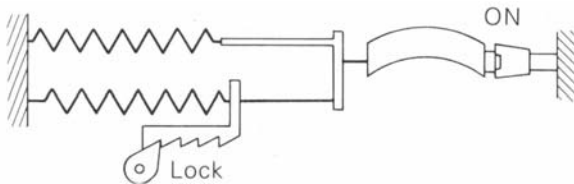
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### Buckle Switch ON → When Seat Belt is Initially Wound Up

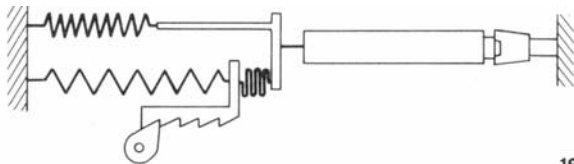
When the webbing is pulled out and the tongue set in the buckle with the ignition switch in the ON position, the switch inside the buckle is turned ON, the solenoid functions and the lever meshes with the outer teeth of the tape holder. As a result, the tape holder is locked in the winding direction, torque of the normal spring falls to zero and the winding torque becomes only the torque of the reducing spring. Consequently, the feeling of oppression is reduced when the seat belt is initially buckled up and when it

remains buckles. Furthermore, since the tape holder is locked, the memory tape is loosened by the rotation of the bushing shaft in accordance with the winding of the reducing spring. The amount of loosening of the memory tape is the difference in the elongation ratio of the normal spring and reducing spring, and this serves to make the elongation ratio of the 2 springs the same when the seat belt is stored.

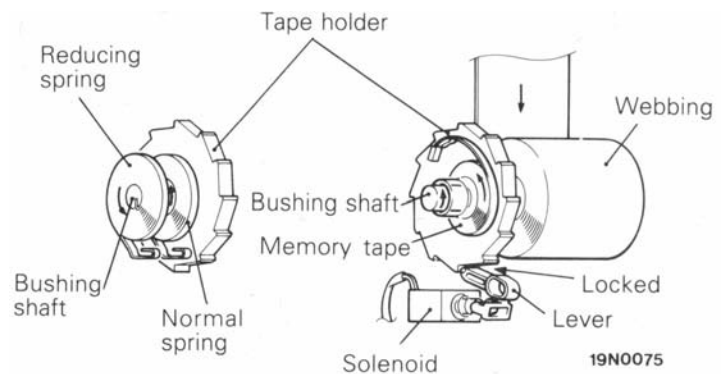
#### <When buckle switch is ON>



#### <When initially wound up>



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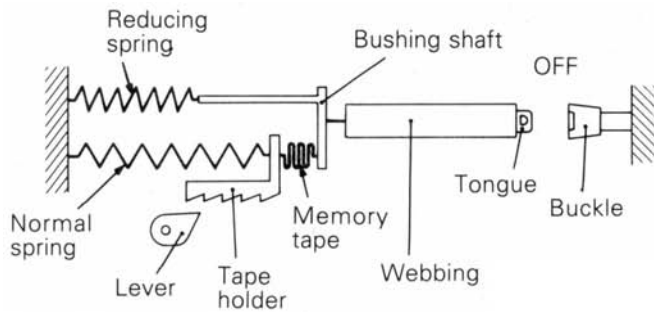
### Buckle Switch ON→ When Seat Belt is Initially Wound Up

When the tongue is released from the buckle with the ignition switch ON, the switch inside the buckle is turned OFF, current to the solenoid is cut off and the meshing of the lever and tape holder is released.

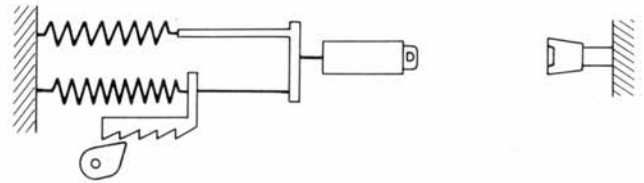
As a result, the reducing spring begins winding. On the other hand, the normal spring turns the tape holder in the direction of winding and winds tight the

memory tape and, while the memory tape is loose, torque is not transferred to the bushing shaft. When the memory tape is wound completely tight, the elongation ratio of the normal spring and reducing spring is the same and the webbing is wound up by the torque of the 2 springs. In this way, the condition of the 2 springs is uniform when stored.

#### <When buckle switch is OFF>



#### <When wound up>



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