

# How to Replace Shocks

Aiming to realize our dreams  
by creating new value  
through the harmonization of  
people, vehicles and society.

Hitachi, Ltd.,  
Automotive Systems Group  
Service Parts Dept.  
Sales Management Div.



# Prohibited Operation !

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**Do not grip a piston rod!**



**Do not catch a piston rod!**



**Do not hit a piston rod!**



**Do not bite a piston rod!**

# Chapter-V-①

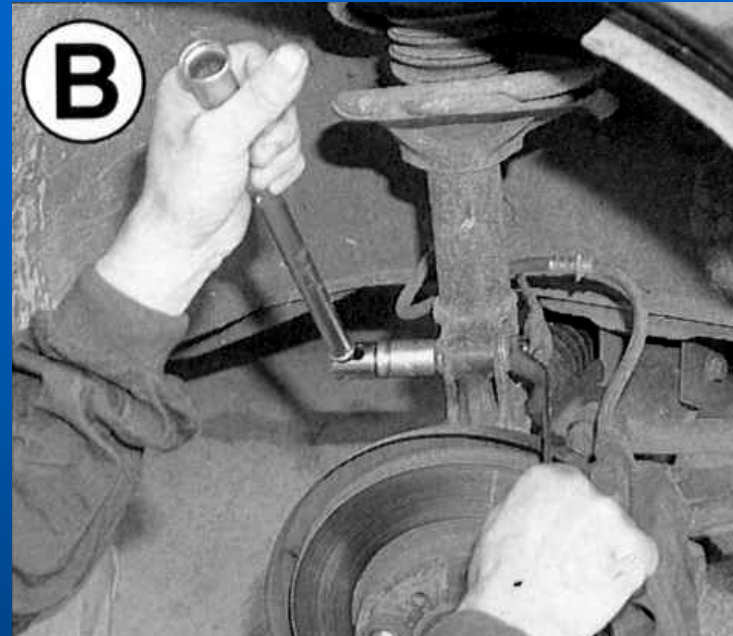
## Replace Suspension Strut

# Chapter- V (How to Replace Shocks)

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**After detaching the wheels, unfasten brake hose bracket, ABS harness and stabi-lizer link from strut.**



**Support the axle carrier bottom by hydraulic jack.  
Loosen the strut fixing bolts and nuts.**

# Chapter- V (How to Replace Shocks)

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**Loosen the upper mounting fixing nuts. Move the hydraulic jack slightly, detach the strut fixing bolts and nuts when lifting the strut assembly by hand. Please do not pull or damage the brake hose during the above operation.**



**Pull the upper mounting studs from a vehicle body and then detach a strut from a vehicle. Compress a spring by spring compressor and loosen the upper mounting top nut.**

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**Check the upper mounting component parts structure before taking apart. Install the strut and re-assemble the spring and upper mounting component parts and then tighten the upper mounting top nut.**



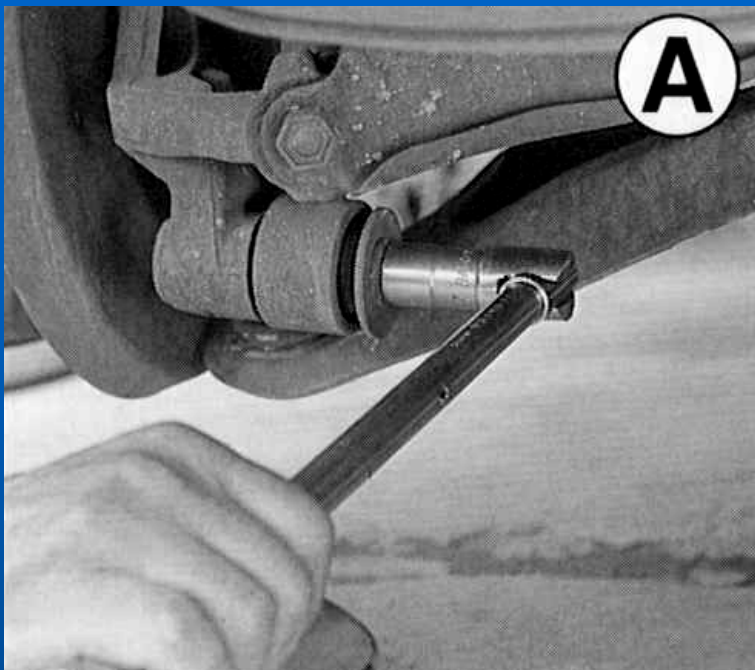
**Install a strut to a vehicle. Make sure that all nuts and bolts have been securely tightened. **Please do not over-tighten the mounting studs.** Rubber insulator must not be lapped or stuck from seat portion.**

## Chapter-V-②

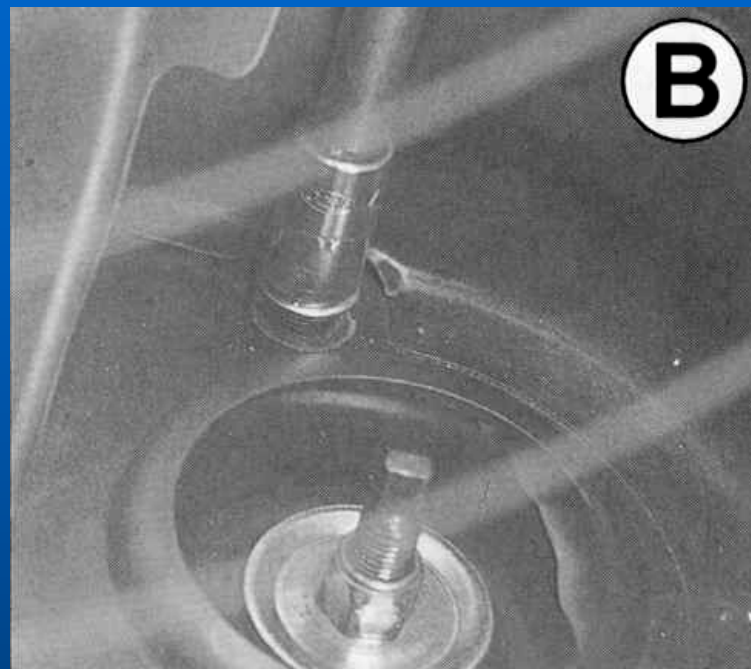
# Replace Suspension Units

# Chapter- V (How to Replace Shocks)

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**After detaching the wheels, unfasten the brake hose bracket and ABS harness from shock absorber unit. Support the lower axle bottom by hydraulic jack. Loosen the lower fixing bolts and nuts.**



**Loosen the upper mounting fixing bolts and nuts. Move the hydraulic jack slightly and pull the upper mounting studs from vehicle body.**

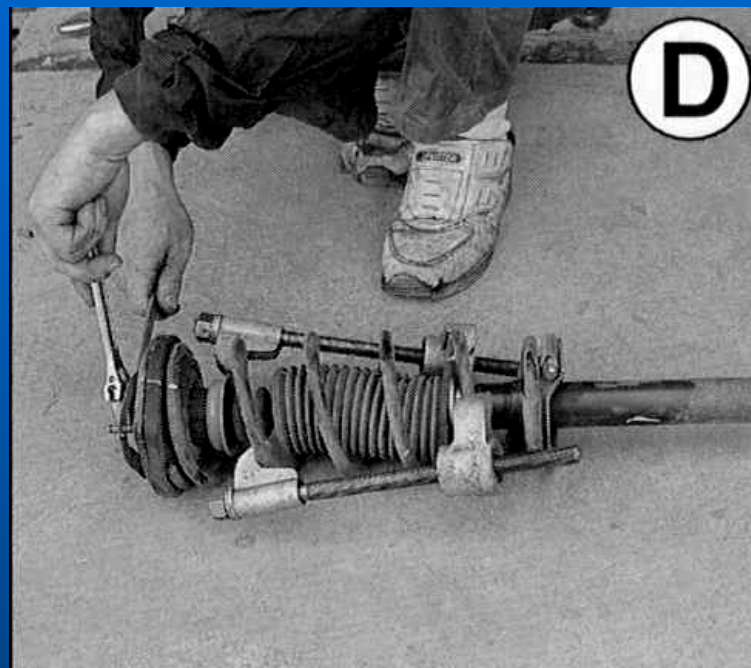


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**Detach a shock unit from vehicle. Please do not pull or damage the brake hose during the above operation.**



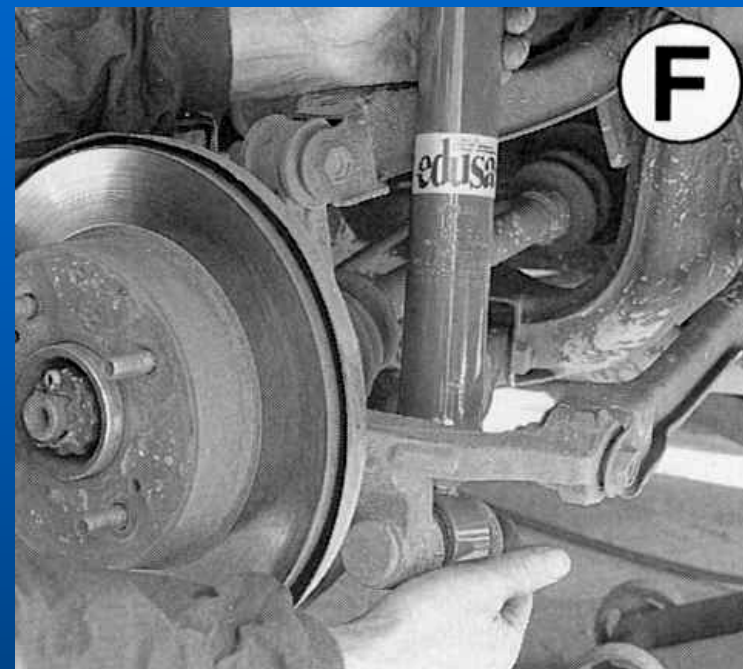
**Compress a spring by a spring compressor and loosen the upper mounting top nut.**

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**Check the upper mounting component parts structure before taking apart. Install a shock unit and re-assemble a spring and upper mounting component parts, and then tighten the upper mounting top nut.**



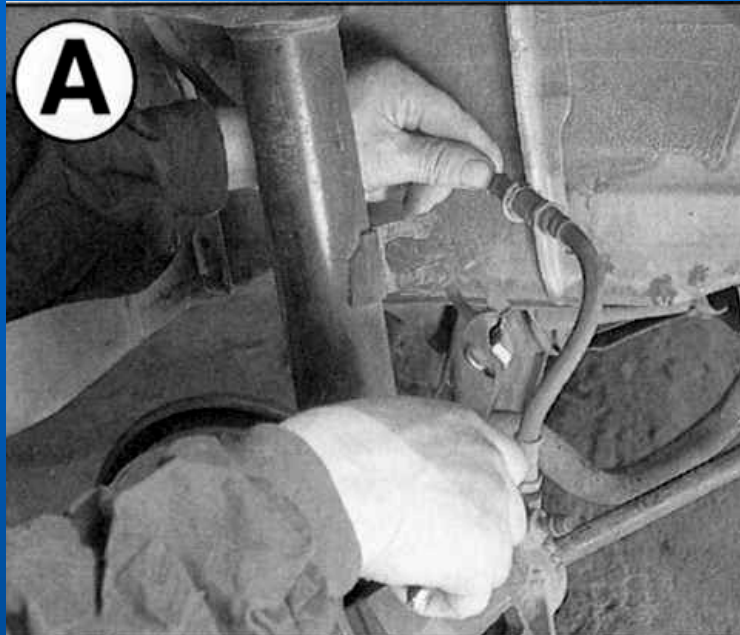
**Install a shock unit to a vehicle body. **Make sure that all nuts and bolts have been securely tightened.** Please do not over-tighten the mounting studs. Rubber insulator must not be lapped or stuck from the seat portion.**

## Chapter-V-③

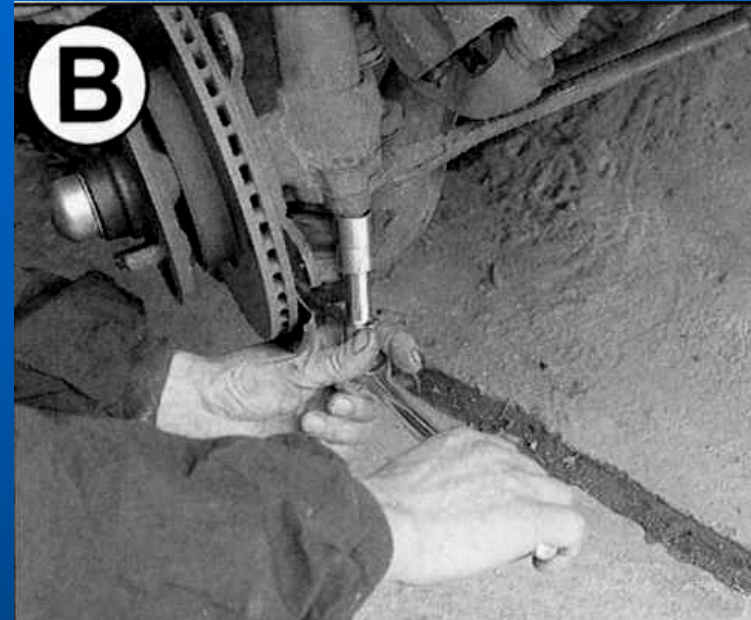
# Replace Strut Cartridge

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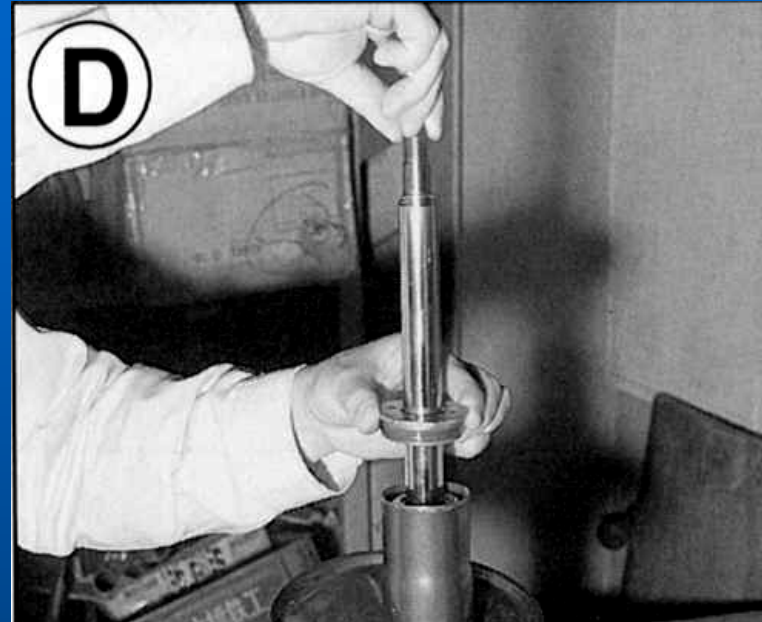
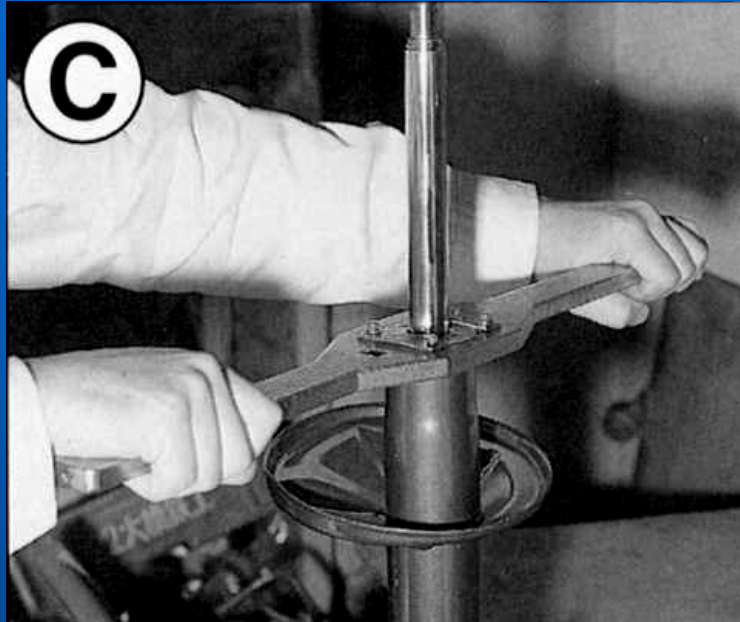
**After detaching the wheels, unfasten the brake hose bracket, ABS harness and the stabilizer link from strut. Support the axle carrier bottom by hydraulic jack.**



**Loosen the strut lower knuckle fixing bolts and nuts.**

# Chapter- V (How to Replace Shocks)

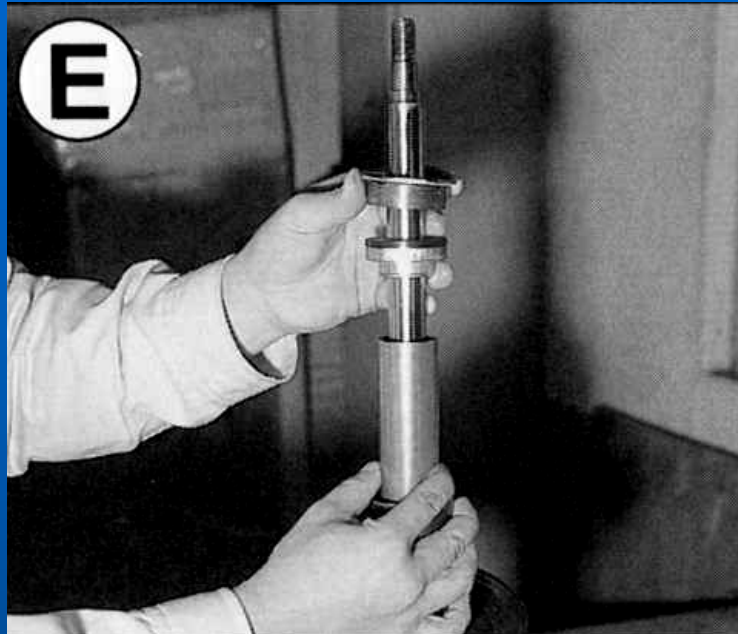
**HITACHI**  
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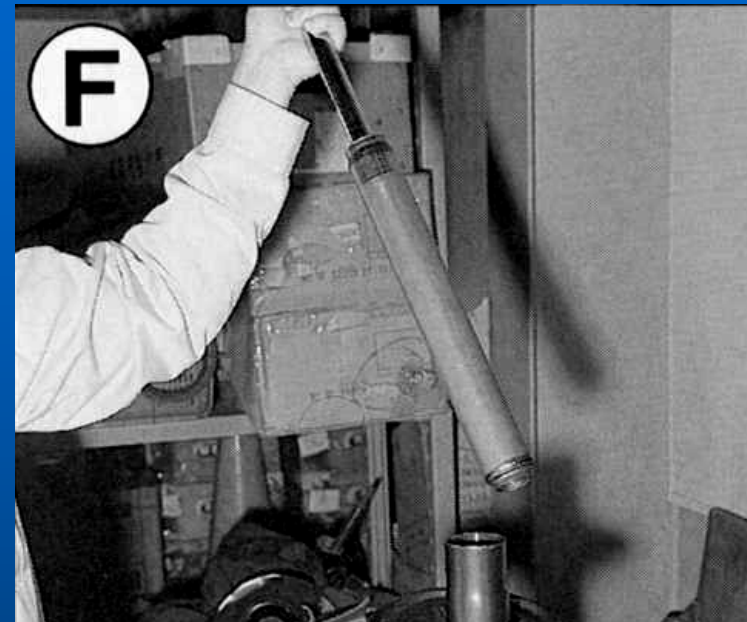
**Hold a strut surely in a housing, and  
then loosen a lock ring slowly by hand.  
Do operate it slowly, otherwise, internal  
oil and nitrogen gas will splash!**

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**Pull out the internal parts of strut, and then throw away the shock absorber oil properly from the strut housing. **Please do not leave the internal parts and the shock absorber oil inside the strut housing !****



**Insert a strut cartridge surely into strut housing.**

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**Make sure that lock ring has been securely tightened by hand. Please do not over-tighten ! Please do not hit a piston rod of the cartridge by hand or tooling during the process of assembling.**



**Install a strut to a vehicle body. Make sure that all nuts and bolts have been securely tightened. Please do not over-tighten the mounting studs. Rubber insulator must not be lapped or stuck from seat portion.**