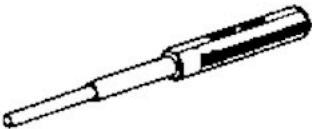
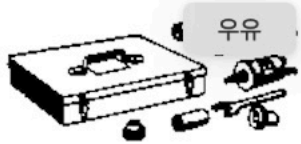
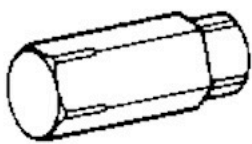


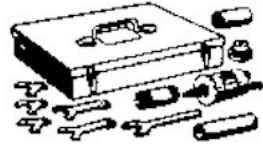











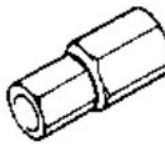
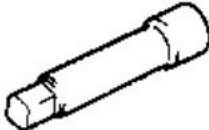



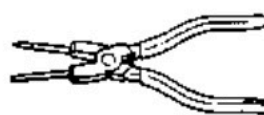






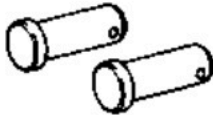
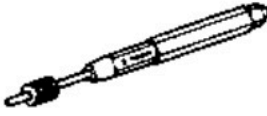


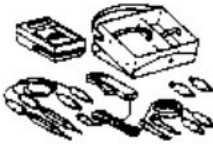




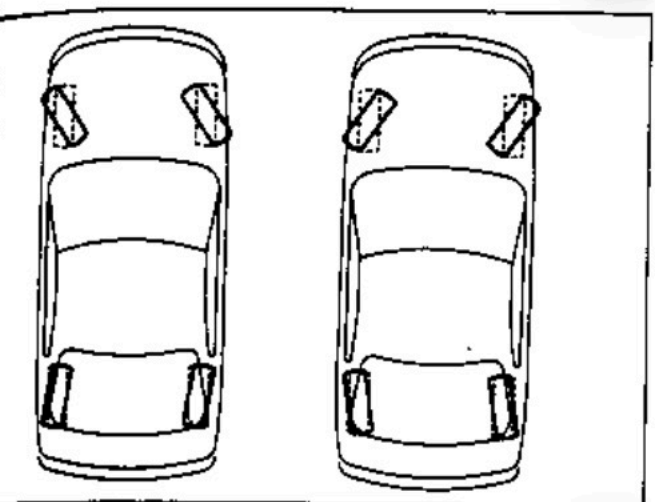
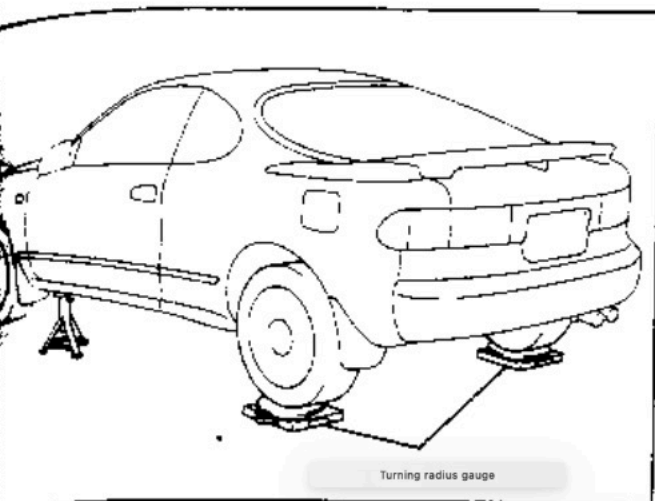
Rear steering (4WS) Supplies

	<p>09201-70010</p> <p>Valve guide bush remover Andlib racer</p>	<p>Rear steering angle ratio converter Detachable and wear</p>
	<p>09612-10093</p> <p>Steering gas housing Overhaul tool set</p>	
	<p>09612-10022 Hexagon wrench</p>	<p>Pivot bearing rear bearing cap removal For</p>
	<p>Steering Binion Bearlin 09617-10010 Guajusting Screw Lock nut wrench</p>	<p>Pivot pairing rear bearing cap mouth Cuck nut detachable Return rack ASSY for disassembly, disassembly and assembly</p>
	<p>09628-10020</p> <p>Ball joint lock nut A wrench</p>	<p>Liver ratio control worm lock knuck To detach and wear</p>
	<p>09612-24014</p> <p>Steering gas housing Overhaul tool set</p>	
	<p>09616-10010</p> <p>Steering binion bearing adjusting socket</p>	<p>Gabion Pre-Road Avoidance</p>
	<p>09617-22030</p> <p>Steering rack end len Chi</p>	<p>Detachable lock nut for return rack guide</p>
	<p>09617-22040</p> <p>Steering binion bearing adjusting screw Lock nut wrench</p>	<p>Detachable lock nut for return rack Relay rod cap detachable</p>
	<p>09617-24011 Steering rack wrench</p>	<p>Rack end detachable</p>
	<p>09616-30011</p> <p>Steering worm bearing adjusting screw A wrench</p>	<p>Gapinion ASSY detachable For gear pinion pre-road adjustment</p>
	<p>09617-14010</p> <p>Steering rack end len Chi</p>	<p>Rack end detachable</p>
	<p>Worm bearing adjust 09617-22010 Ing Screw Lock Nut A wrench</p>	<p>Detach the lock nut for the relay rod cap</p>
	<p>09628-62011 Ball joint blur</p>	<p>For removing the ball joint part</p>

SST

	<p>09313-30021</p> <p>Detent ball plug socket</p>	<p>Wearing head cap bolts</p>
	<p>09630-00012</p> <p>Power steering gahousing overhaul tool set</p>	
	<p>09631-00131</p> <p>Pane pump bracket</p>	<p>Rear steering gear link for ASSY holding</p>
	<p>09660-14010 Adjust Nut Wrench</p>	<p>Liver Ratio Control Warm Adjuster Detach the lock nut for T</p>
	<p>09660-14020</p> <p>Warm gallech</p>	<p>Liver ratio control worm detachable Lever ratio control warm pre-load measurement Regular use</p>
	<p>09660-14030</p> <p>4WS centre lock bolt</p>	<p>Rear steering gear link ASSY centring</p>
	<p>09660-14040</p> <p>Lock nut wrench</p>	<p>Detachable lock nut for Gappinion</p>
	<p>09904-00010</p> <p>Expander set</p>	<p>Snap ring detachable</p>
	<p>09905-00013 Snap ring pliers</p>	<p>Snap ring detachable</p>
	<p>09950-20017</p> <p>Universal Blur</p>	
	<p>09952-36010 Screw</p>	
	<p>09953-35011</p> <p>Rokuro</p>	
	<p>09954-20011 Adjust screw</p>	<p>For return rack ASSY assembly</p>
	<p>09955-20012 Proba</p>	
	<p>09956-20011</p> <p>Titing beas</p>	

S5 T		09957-20010 bottle	For return rack ASSY assembly
		09031-00040 Vinponch	Rear steering angle ratio manverter For removing the shree
H		09923-00010 Hexagon wrench	Return rack guide detachable
		09923-00020 Hexagon wrench	Gear cover detachable Liver Ratio Control Warm Adjuster Take it off and wear it Lever ratio control warm pre-load tone For use
		09082-00012 Toyota Electrical Tester	For each part of the point
		09083-00060 Mini test lead	For inspection of each part
Metre		09843-18020 Diagnostic check	For phase inspection For diagenesisosis inspection
	Turning radius gauge		For measuring the cutting angle of the rear wheel
	Torque wrench (0~30kg · cm)		For Gabinion pre-road measurement 5 Bar Ratio Control Warm Preload, etc. Regular use
	Dial gauge		For 4WS centre inspection
	Castle Clutch Release Hub Grease		For application in the rear steering gear link
	Kyassle Chassis Grease Special		For application in the rear steering gear link
	Seal packing 1281		Cover the rear steering gear housing For face seal
Oil and fat Other	Adhesive 1344		For the seal of each part of the rear steering gear link
	Denso No. 50 grease		Inside the rear steering angle ratio converter
	Soapy water		For application Lina steering angle ratio converter 1 for mounting



Basic inspection

Rear wheel cut angle inspection

'1 Front wheel cut angle inspection

(Refer to 56-5)

2 Rear wheel break point (inverse phase MAX)

(1) Jack up the front side of the vehicle.

121 Set the rear tire to the turning radius gauge and pull the Barkinda brake lever.

131 Measure the cutting angle of the rear wheel when the steering wheel is fully cut from the straight state to the left and right."

Standard value

5° soil 45, (both inner ring and extra sugar) measured outside of reverse 2WS mode.



<Reference> What is Reverse 2WS mode?
· Ignition switch ON

· Reverse 2WS switch ON
· Shift position reverse

State of

4WS Neutral Point Building

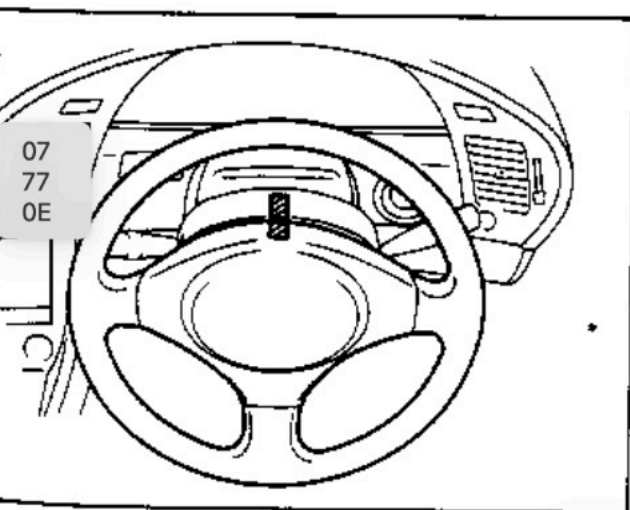
1

Front and rear wheel alignment inspection and adjustment

(Refer to P6-3)

2 Direct steering advance

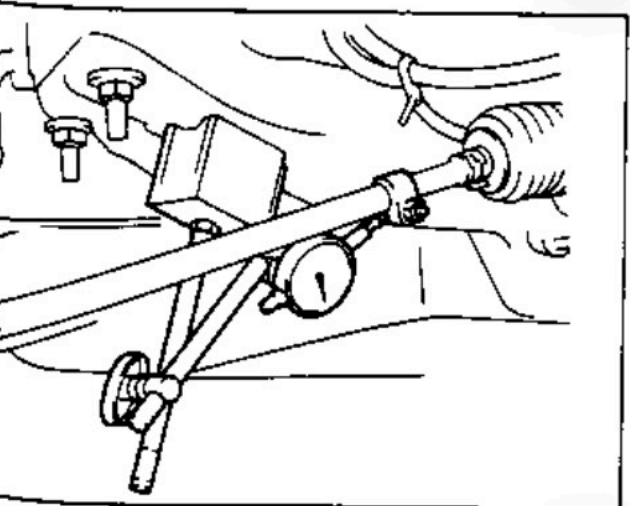
(1) Push the exclusive surface straight for 5 metres and move forward.



12) Match the steering wheel and column cover with a table, etc. Make a mark.

3 Riya ASSY Centre Inspection

- (1) Jack up the rear side of the vehicle
- (2) Match the matching mark of the steering wheel and the column cover
Ru.



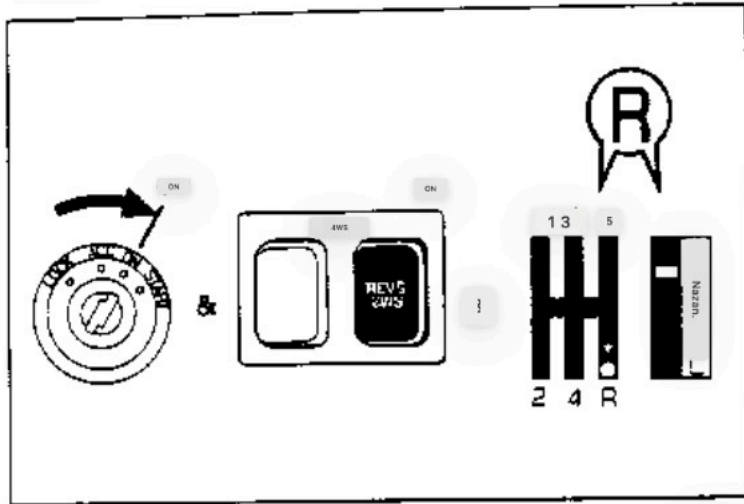
(3)

Dial game on the relay rod clamp of the rear steering gear

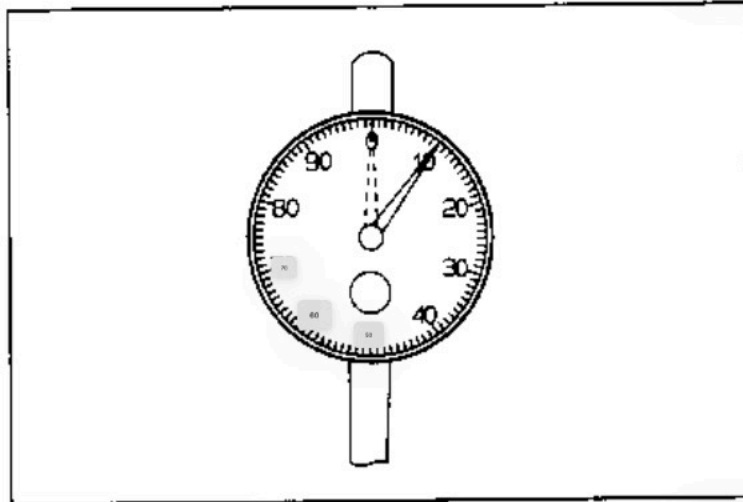
Set the ji.

The dial gauge is as parallel to the relay rod as possible.

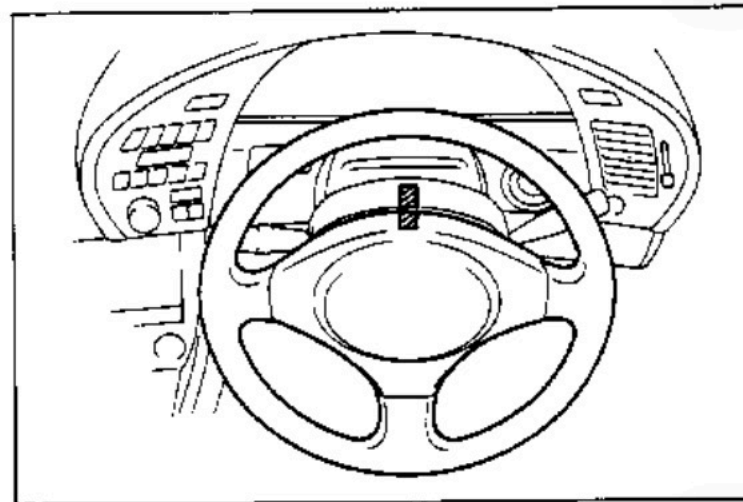
I'll do it.



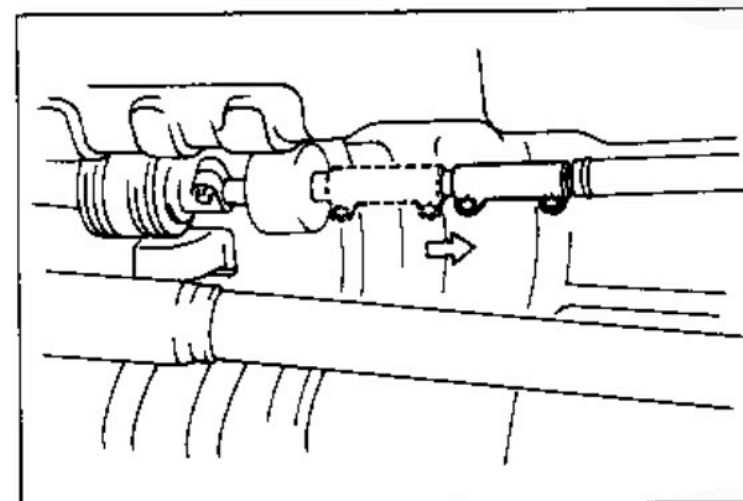
X 0504



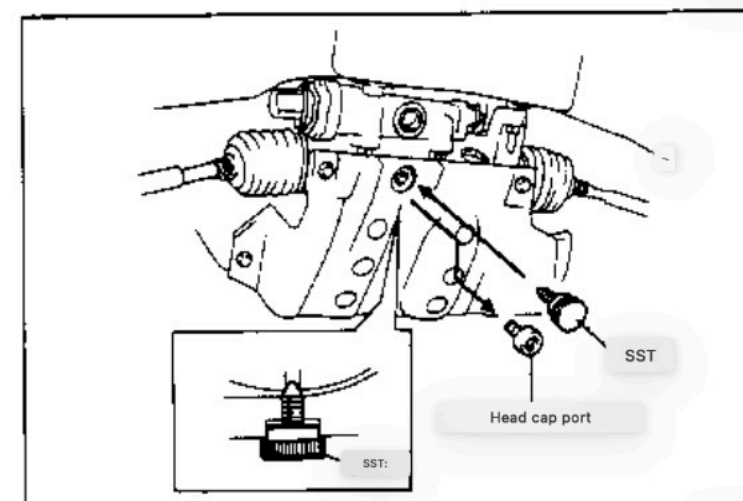
X 0505



X 0501



X 0516



X 0306

14) Set to reverse 2WS mode.

<Reference>

What is Reverse 2WS Mode?

- Ignition switch ON
- Reverse 2WS Switch ON

State of

• Shift position reverse

Confirm that the instruction of the 151 dial gauge is within the reference value.

Standard value

If it is outside the standard value, 4WS neutral conditioning will be performed.

4WS neutral adjustment

1 Direct steering advance

- (1) Push the vehicle straight for 5 metres and move forward.
 - (2) Match the steering wheel and column cover with tape, etc. Make a mark.
 - (3) Jack up the rear side of the vehicle.
 - (4) Match the matching mark of the steering wheel and the column cover
- Ru.

2 Detach the connecting shaft

- (1) Loosen the bolt of the sleeve of the connecting shaft.
- (2) Slide the sleeve forward to the vehicle.

3 Rear steering gear centre fixed

- (1) Using SST, from the rear steering gear to the head cap

Remove the rut.

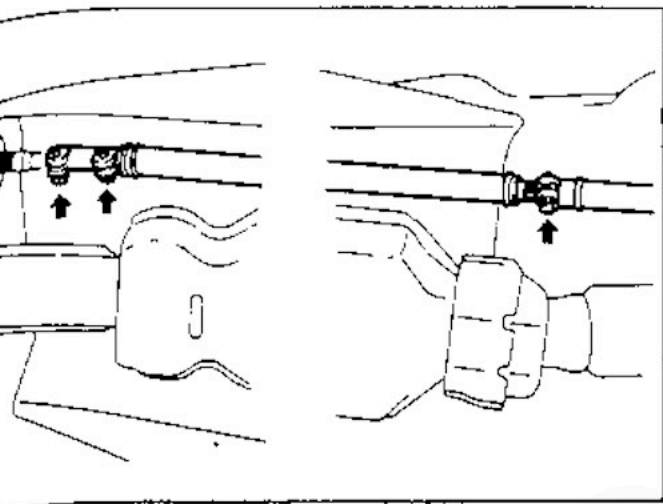
SST

09313-30021

- (121) Install SST on the rear steering gear, rear steering*
Fix Ya at the centre.

SST

09660-14030



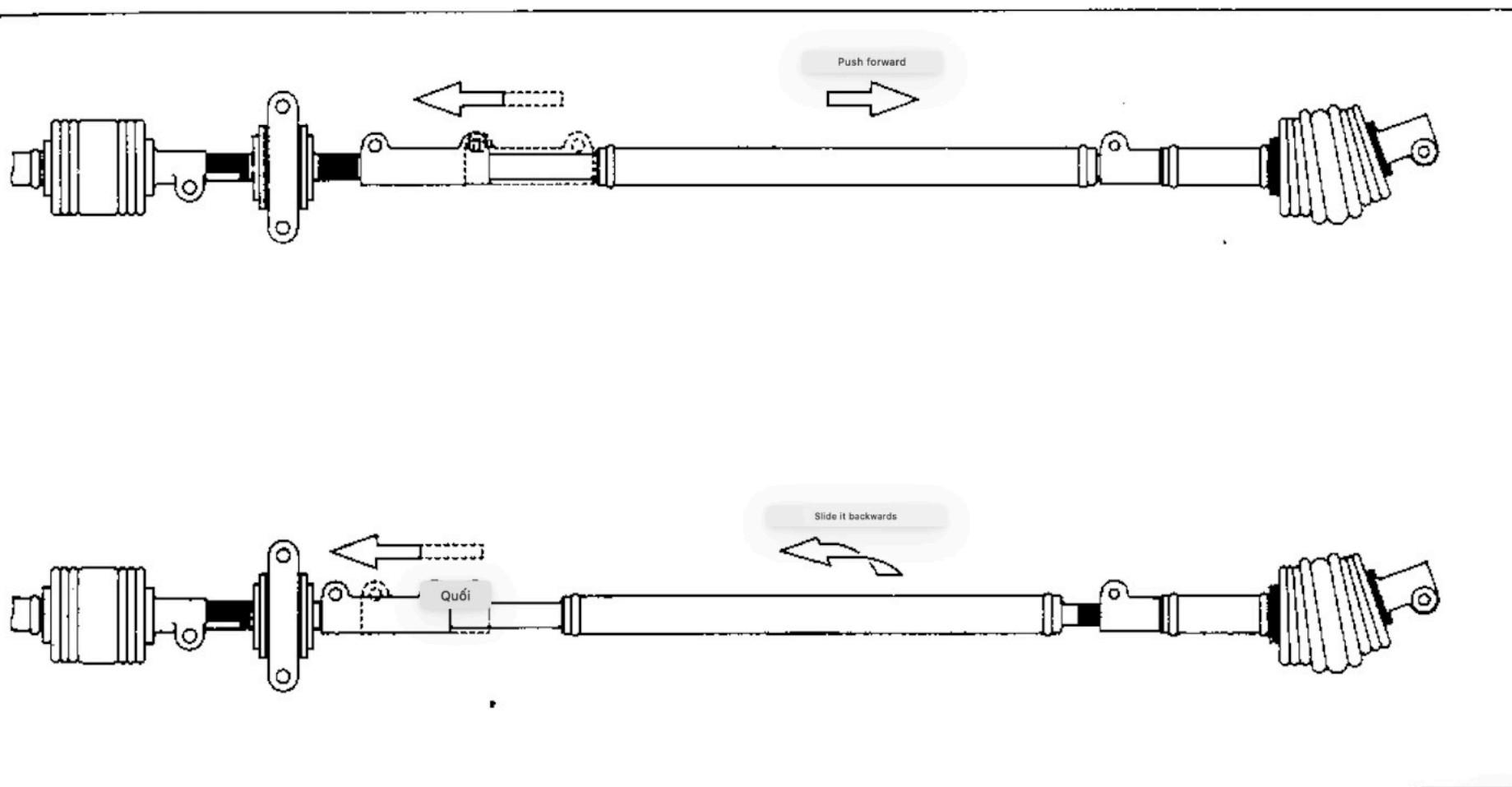
4 4WS neutral adjustment

(1) Screw routing clamps of connecting shafts and

Loosen the sleep bolt,

12) Press the connecting shaft forward once and lightly press the sleep backward.

13) While sliding the connecting shaft backwards, slide the sleeve backwards when the sleep and connecting shaft pairing match, and connect with the connecting shaft bearing I can do it.



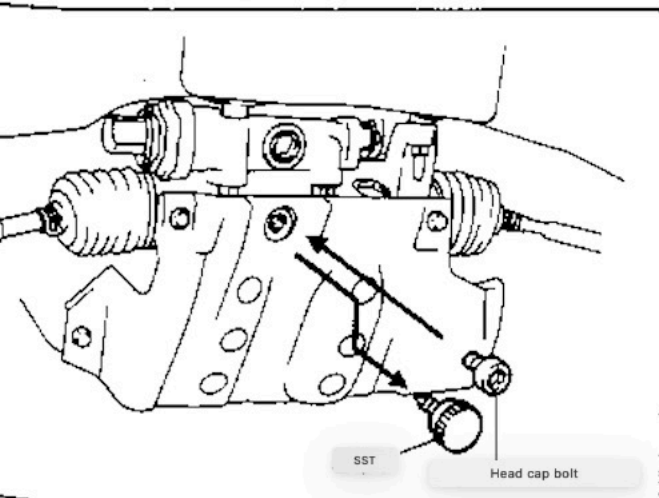
(4) connecting shaft screw serration clamp and

Tighten the sleep bolt.

T = 360kg-cm

SST removal

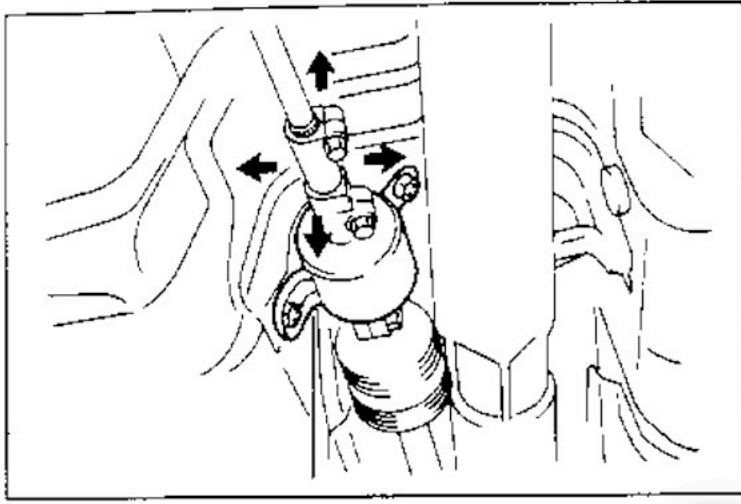
(1) Remove the SST from the rear steering gear link ASSY, SST Use to install the head cap bolt.

S ST
T=130 kg · cm

09313-30021

09660-14030

Be sure to remove the SST because it will cause a breakdown.



X 0000

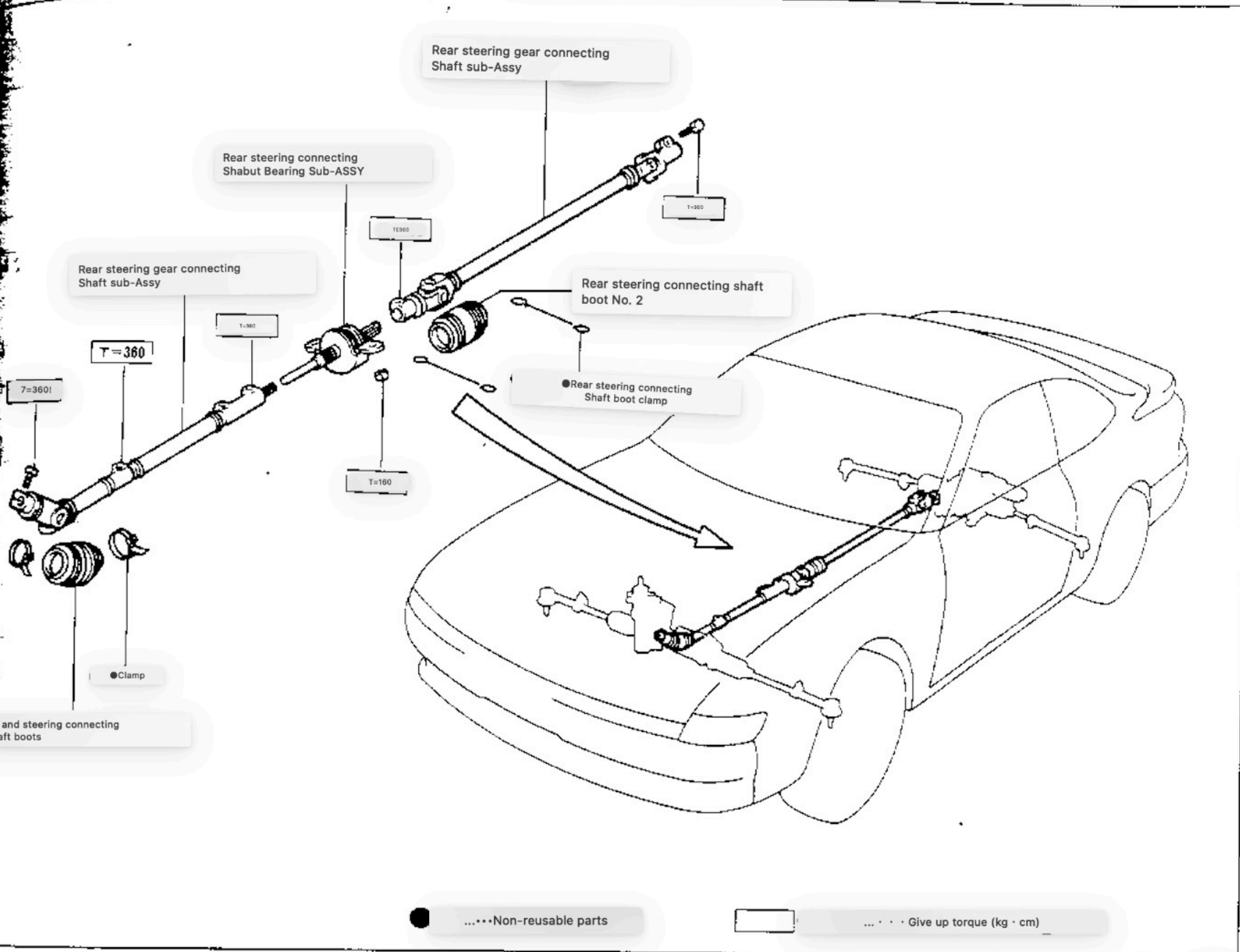
Rear steering connecting shaft

Bearing point!!

(11 When you have a pairing of connecting shafts and prohibit the top and bottom, make sure that there is no rattling.

12: When the steering wheel is rotated, make sure that it does not go of the bearing.

Connecting shaft ASSY
Detachable decomposition composition diagram



X07k2

Connecting shaft removal

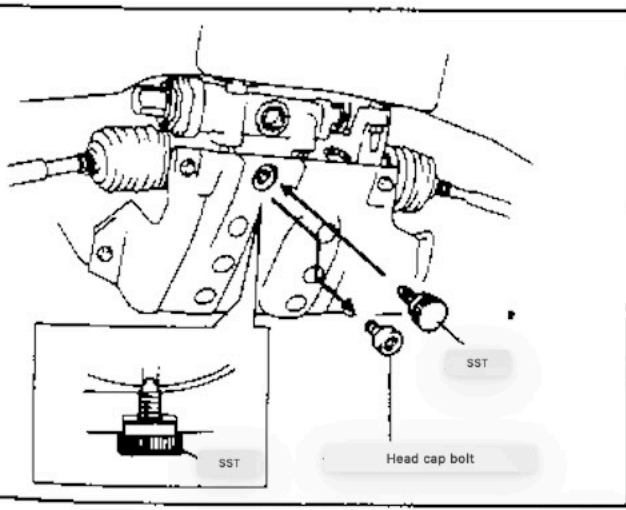
1 Rear steering gear centre fixed
1) Put the steering wheel straight forward.
Use 121 5ST to remove the head cap bolt from the rear steering gear.

S ST 09313-30021

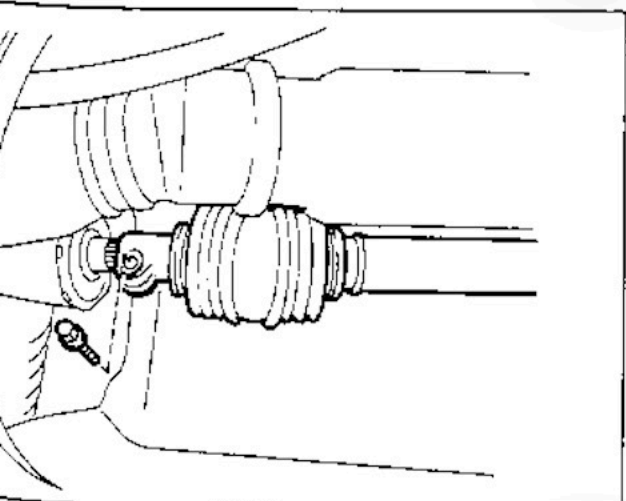
(3) Install the SST on the rear steering gear and fix the rear steering gear at the centre.
SST 09660-14030

* Do not turn the steering wheel with SST attached.
2 Rear steering gear connecting shaft removal
(1) Take the bolt of the clamp at the junction with the front steering gear

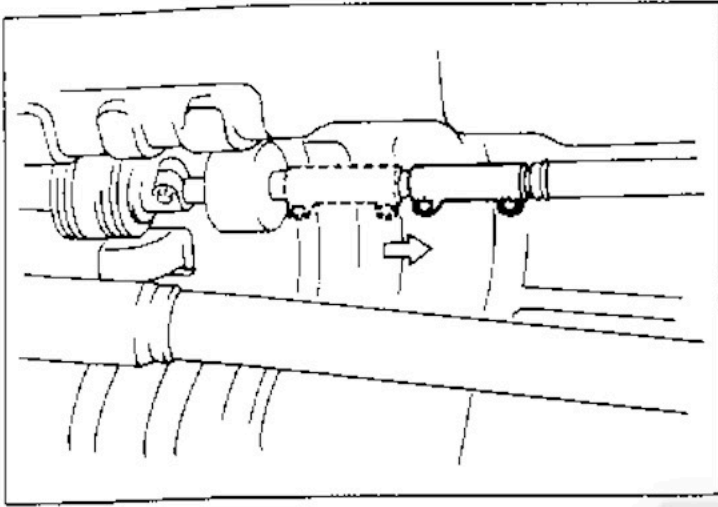
I'll take it off.



X 0506

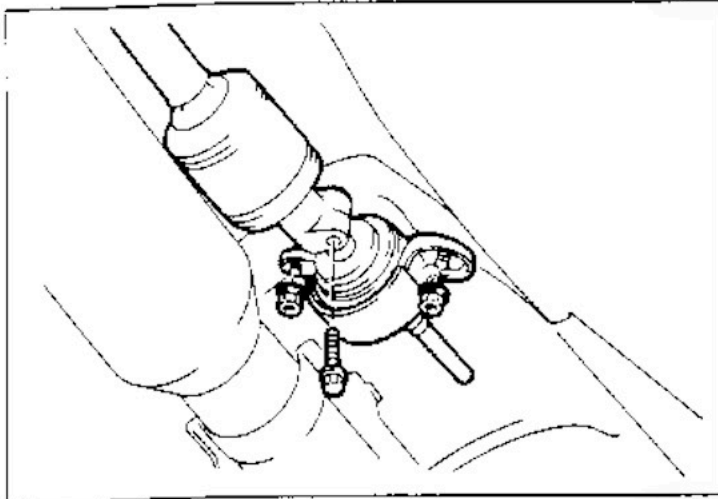


X 0510



X 0516

- 2: Loosen the two ports of the sleeve, slide the sleep to both fronts, and temporarily tighten the bolts.
: 3: Slide the connecting shaft and remove it.

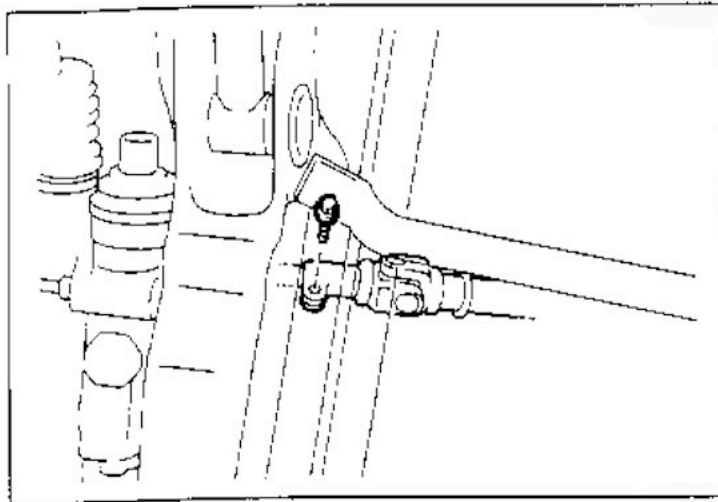


X 0511

3 Rear steering connecting shaft bearing should be removed

L

- 1) Remove the bolt of the clamp of the connecting shaft No. 2 12) Remove 2 nuts and remove the bearing.



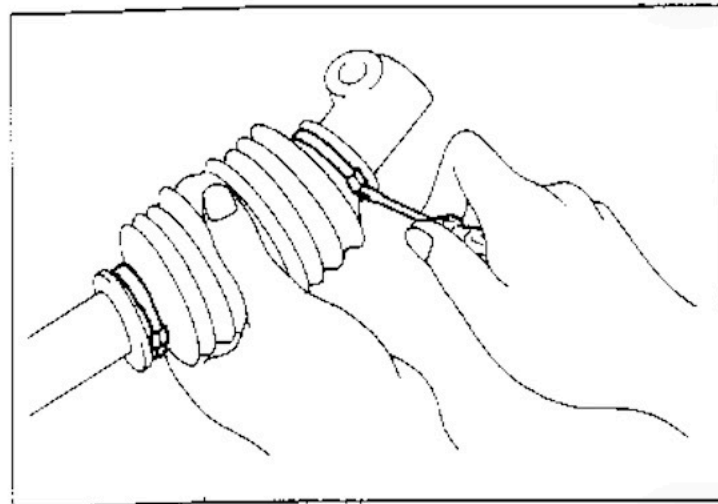
X 0512

4 Rear steering gear connecting shaft No. 2 removal

- 1) Remove the bolt of the clamp of the coupling with the rear steering gear

Su..

12) Remove the connecting shaft No. 2.



X 0513

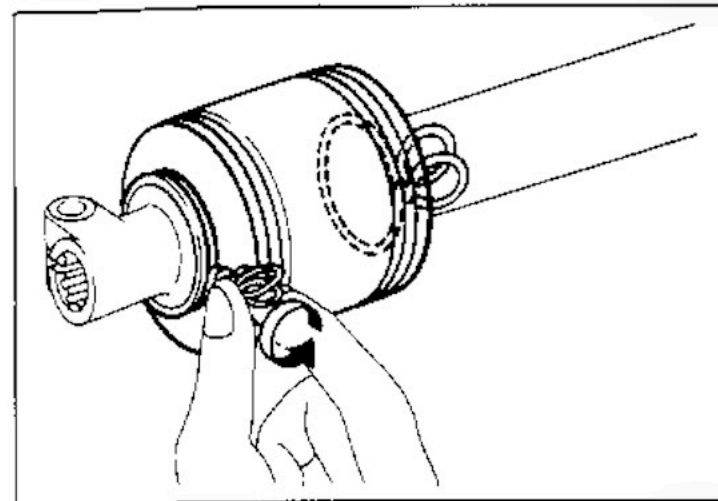
Connecting shaft disassembly

- 1 Rear steering connecting shaft boot removal
(1) Remove 2 boot clamps.
12: Remove the boots from the connecting shaft.

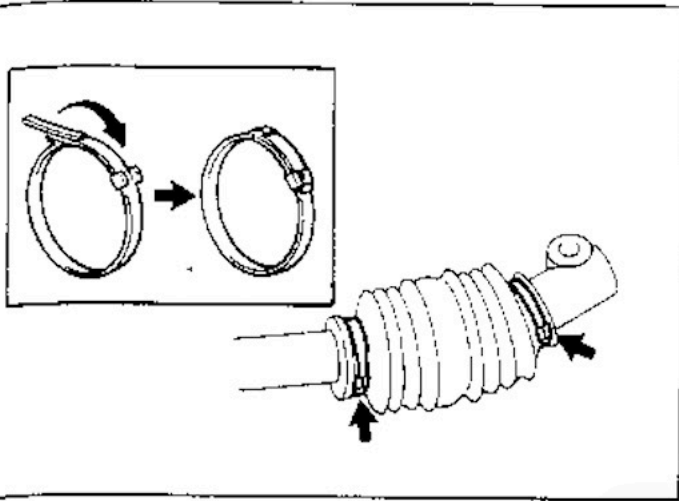
2 Rear steering connecting shaft boots No. 2 should be taken

Death birth

- (1) Remove 2 boot clamps.
12) Remove the boots from the connecting shaft No. 2.



X 0519



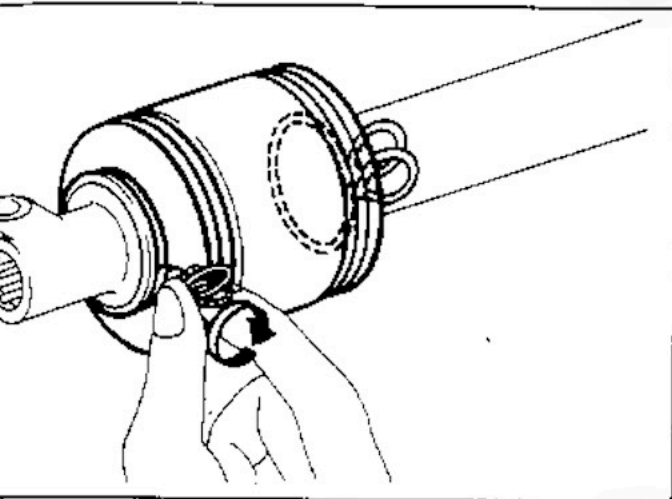
Connecting shaft assembly

1 Rear steering connecting shaft boot installation

111 Attach the boots to the connecting shaft.

- (21) Attach two new clamps to the boots.
Fold the clamp and bend the two claws to clamp the clamp.

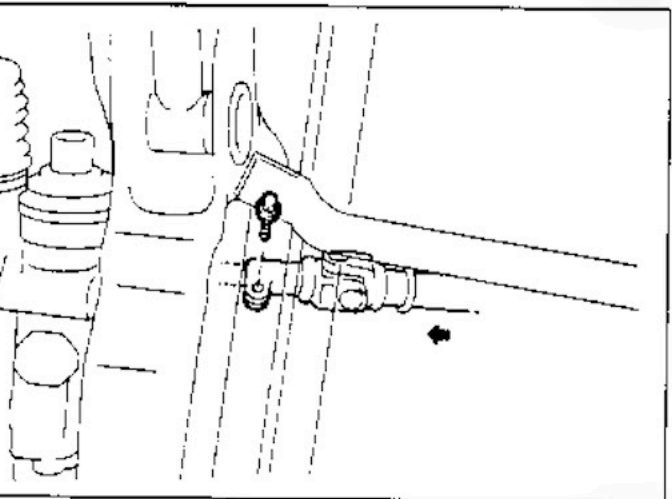
Don't hurt the boots.



2 Rear steering connecting shaft boots No. 2 installation

(1) Attach the boots to the connecting shaft No. 2.

- (21) Wrap the new clamp around the boots twice, twist the tip of the clamp and fix it.

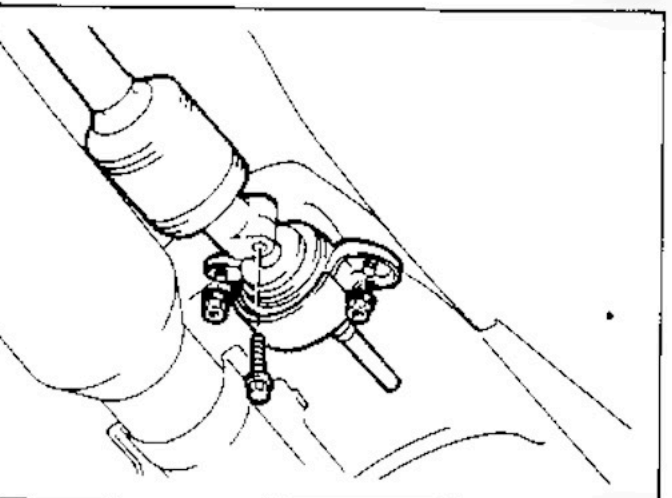


Connecting shaft installation

1 Rear steering gear connecting shaft No. 2 installation

(1) Insert the connecting shaft No. 2 into the rear steering gear,

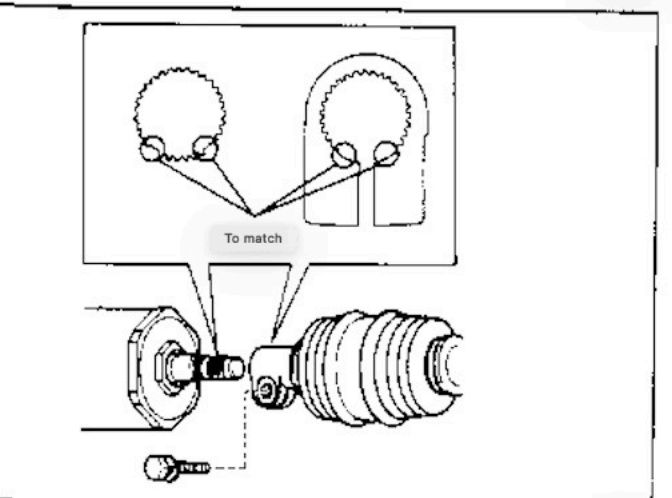
Tighten the clamp.
 $T = 360\text{kg} \cdot \text{cm}$



Rear steering connecting shaft bearing installation

- 11' Insert the bearing shaft into the connecting shaft No. 2.
Install it with 2 nuts.
 $T = 160\text{kg} \cdot \text{cm}$

- (2) Tighten the clamp of the connecting shaft No. 2.
 $T = 360\text{kg} \cdot \text{cm}$

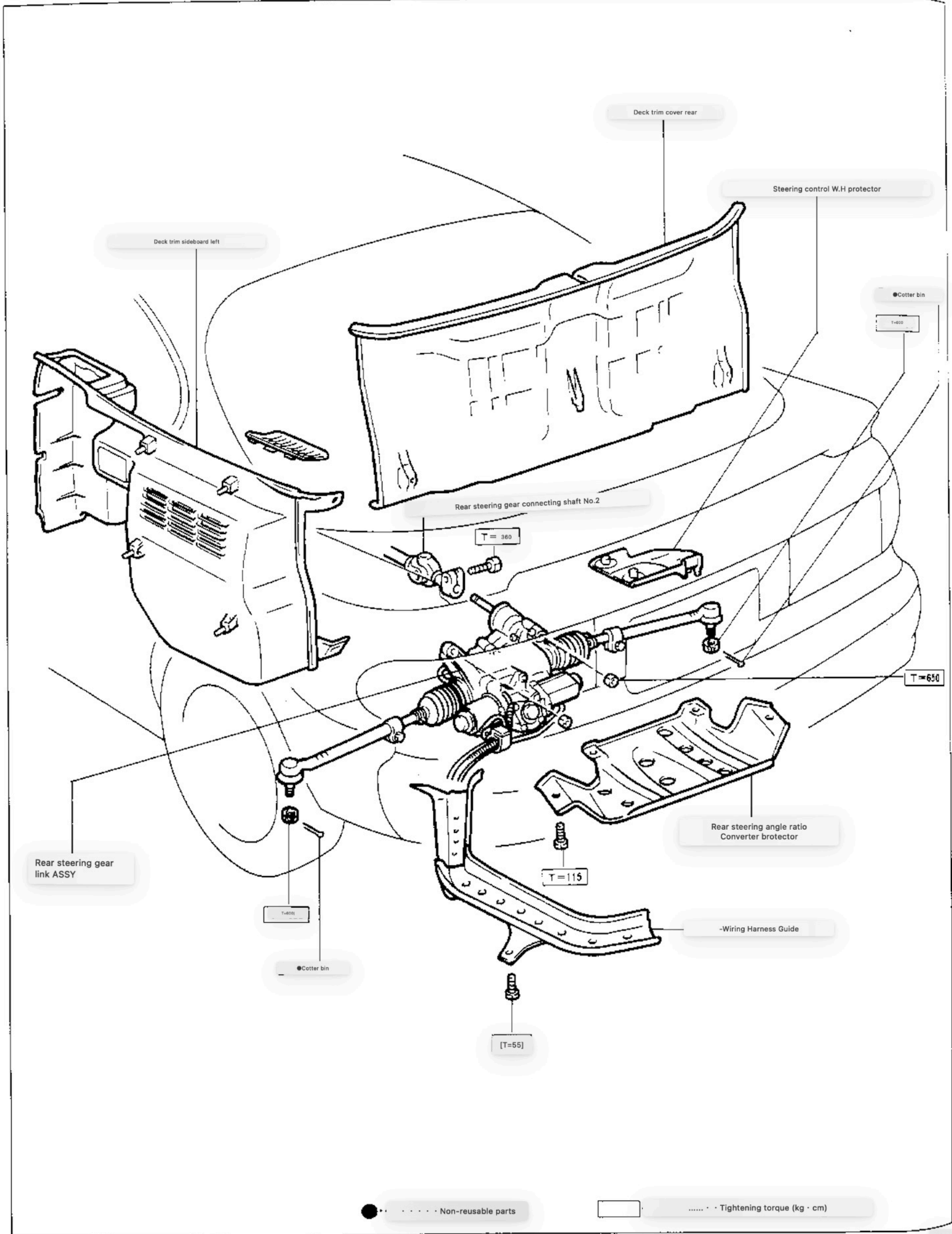


3 Rear steering gear connecting shaft installation

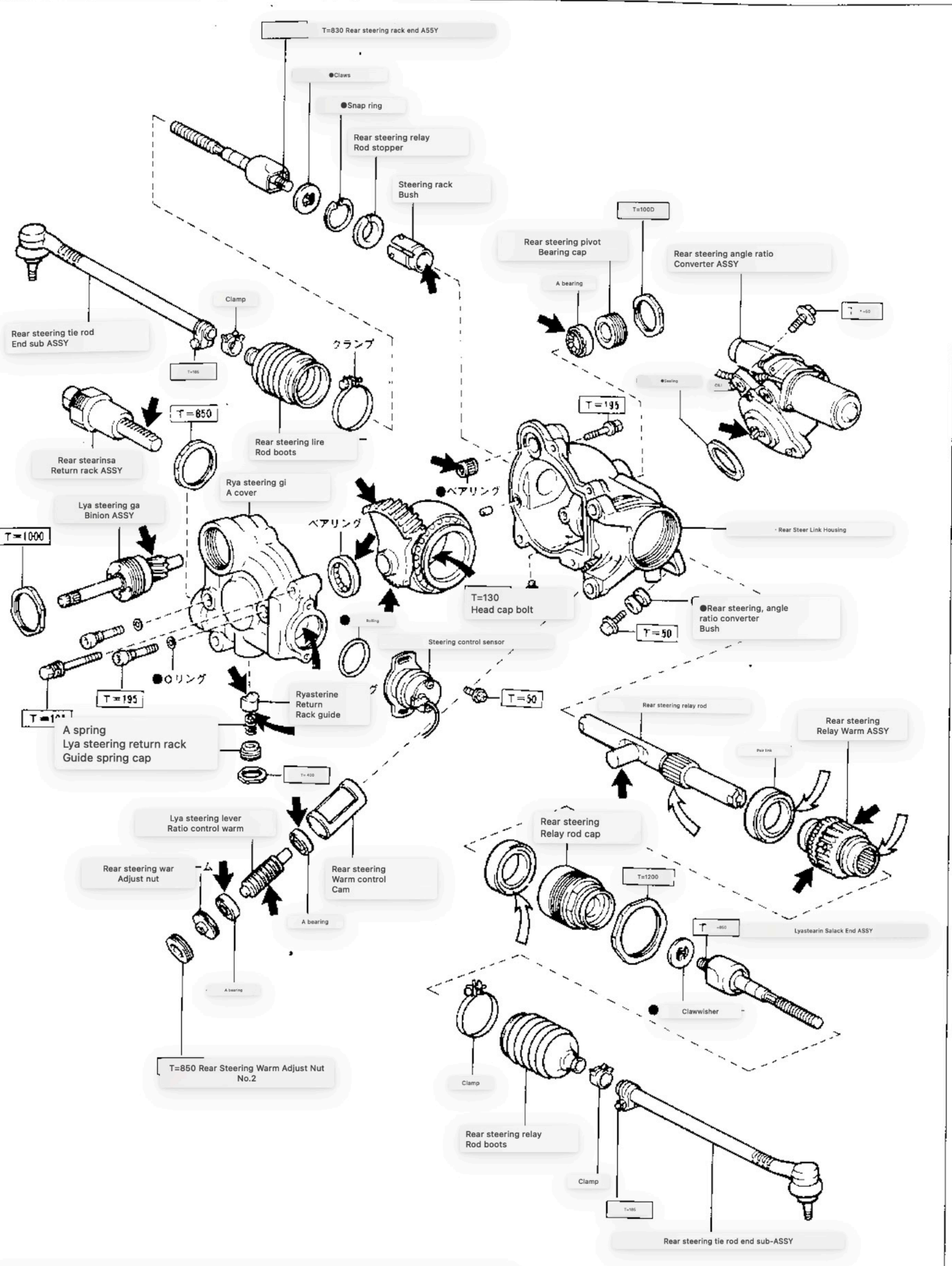
(1) Install the serration of the front steering gear and the serration of the connecting shaft as shown in the figure

Tighten the clamp on the front side.
 $T = 360\text{kg} \cdot \text{cm}$
4WS neutral adjustment
(Refer to P8-108)

Rear steering gear link ASSY Detachable configuration



Dispositioned composition diagram



f...

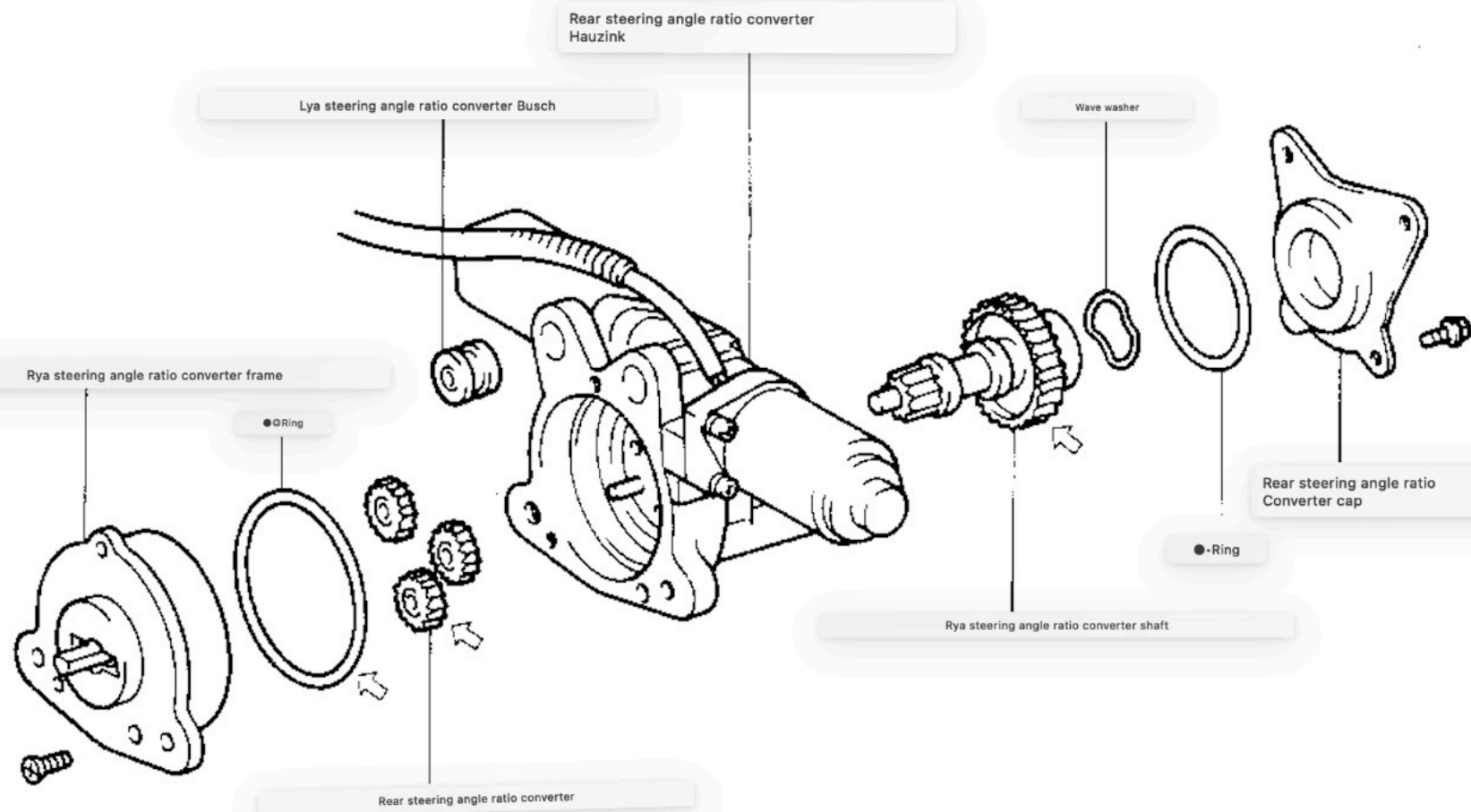
... Kiyassle, chassis grease, special coating place (about 10g) (

... Non-reusable parts

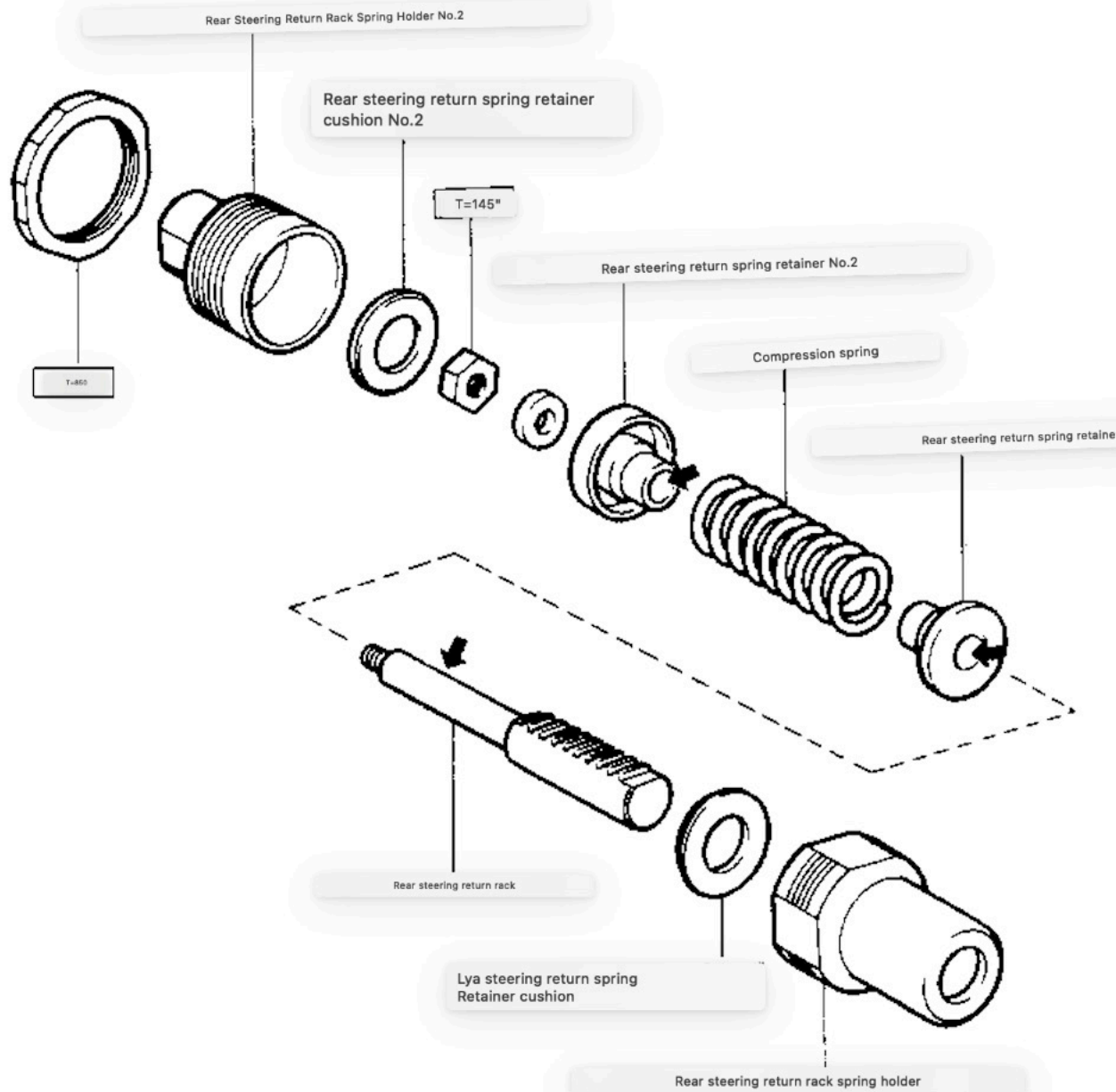
... Tightening torque (kg · cm)

X1642

Rear steering angle ratio converter ASSY



Rear steering return rack ASSY



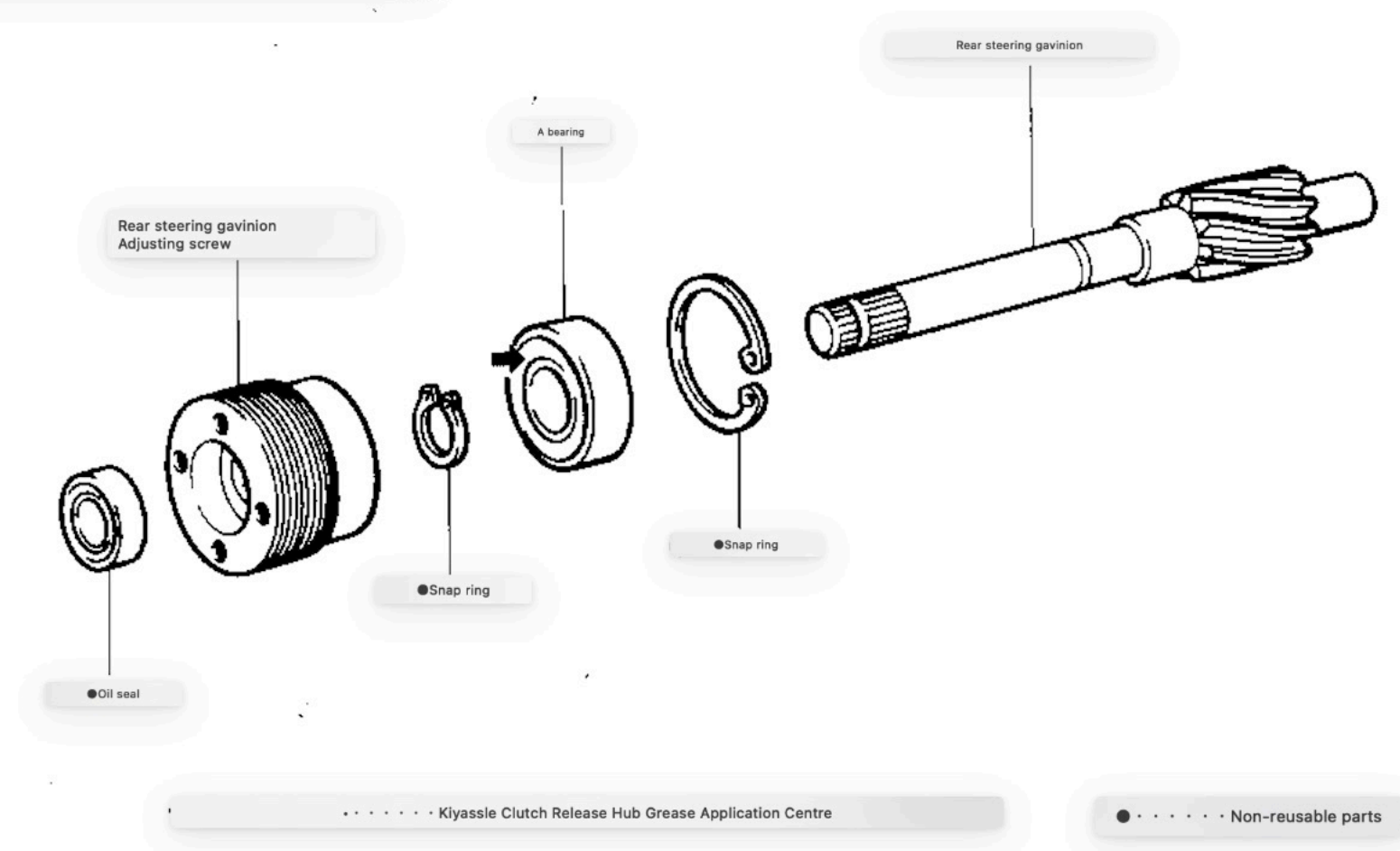
↑:

← Castle Clutch Release Hub Grease Application Location

● Non-reuseable parts

"...Drawing torque (kg · cm)

Rear steering Gopinion ASSY



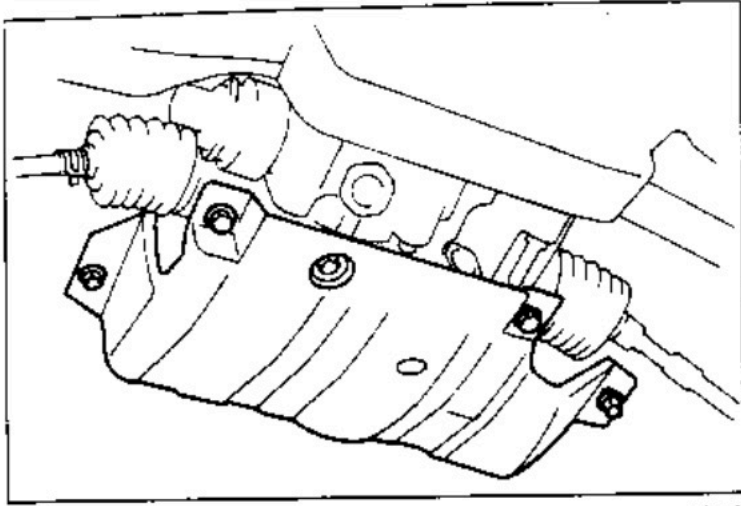
Rear steering gear link ASSY removal

- 1 Deck trim cover rear removal
(Refer to P10-88)
- 2 Deck trim sideboard left removal
(Refer to P10-88)
- 3 Remove the steering control W/H protector

- 4 Disconnect the connector
- 111 Detach the connectors of the main motor, backup motor, and steering control sensor, remove the floor grommet and push the harness out of the car.

5 Remove the wiring harness guide

- (1) Remove 3 bolts and remove the wiring harness guide.
- (2) Remove 4 wire harness clamps of the rear steering gear ASSY.

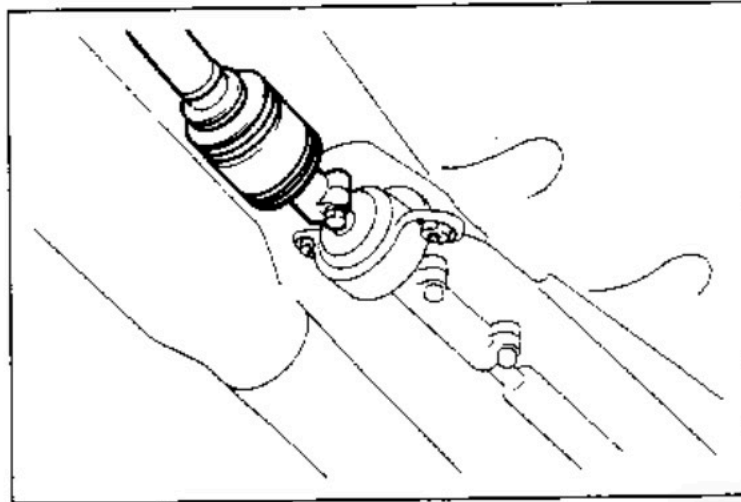


x0888

Lya steering angle ratio converter protector

Take it off
 (Take off 4 11 volts and remove the protector.
 7 Rear steering gear centre fixed
 (Refer to P8-108)

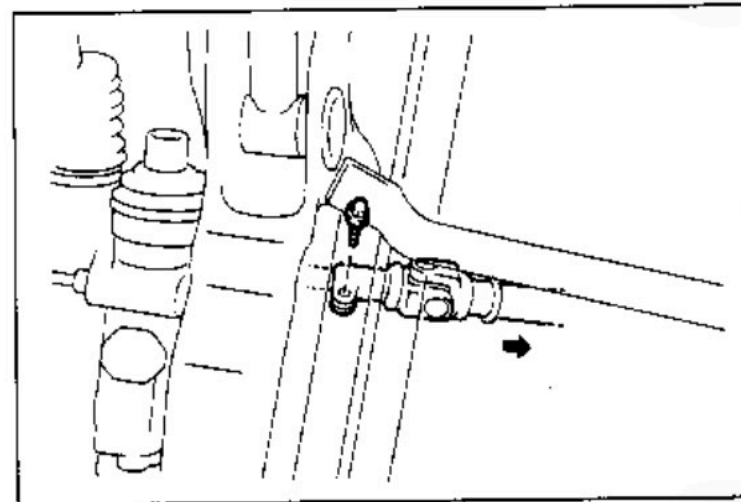
<Reference> When disassembling and replacing the rear steering gear ASSY



x0706

8 Rear steering gear connecting shaft No. 2 detached
 : 1: Clamp bolt on the front side of connecting shaft No. 2 1

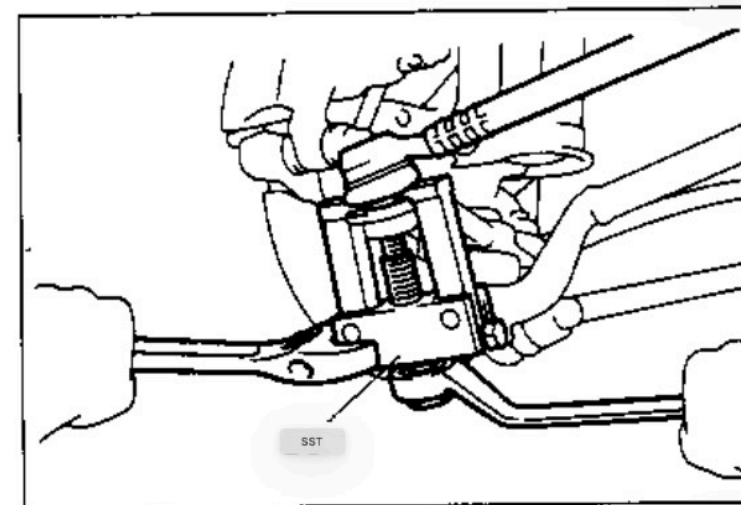
Remove the book.



x0912

12: Take the clamp bolt on the rear side of the connecting shaft 2o.2

Take it off.
 31 connecting shaft No. Slide 2 to the front of the vehicle
 and remove the relationship with the rear steering ga.

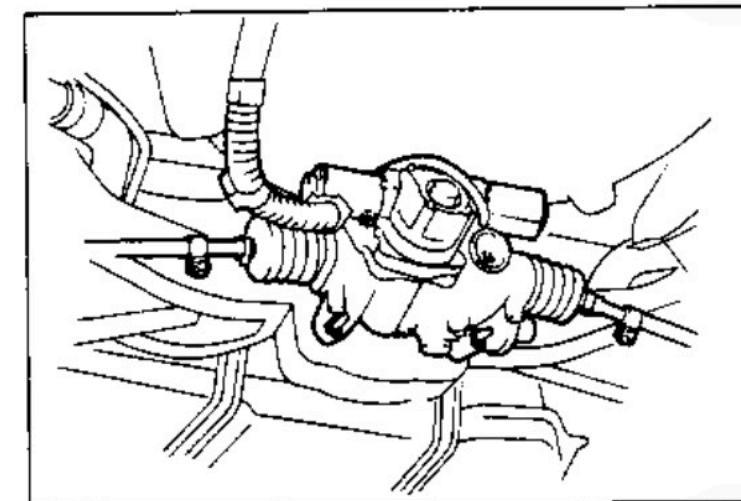


x0141

9 Rear steering gear link ASSY removal
 Remove the cotter bin of the 111 tie rod end and castle nut
 • Remove it.
 Use 121SST to separate the die rod end and knuckle.

SST

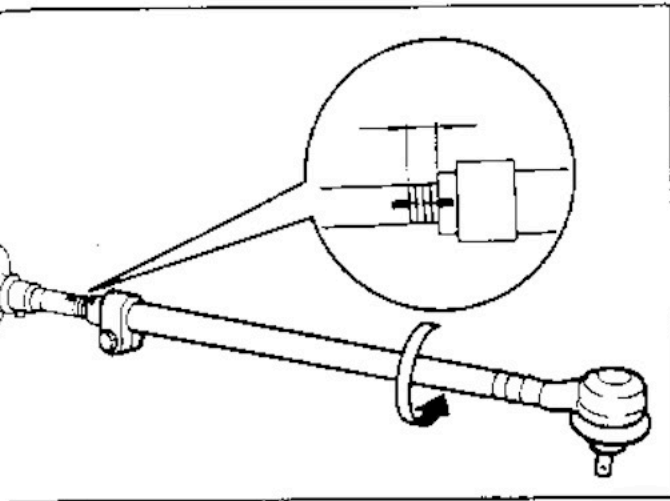
09628-62011



x0969

Remove 4 131 nuts and take off the rear steering gear link ASSY

I'll take it off.



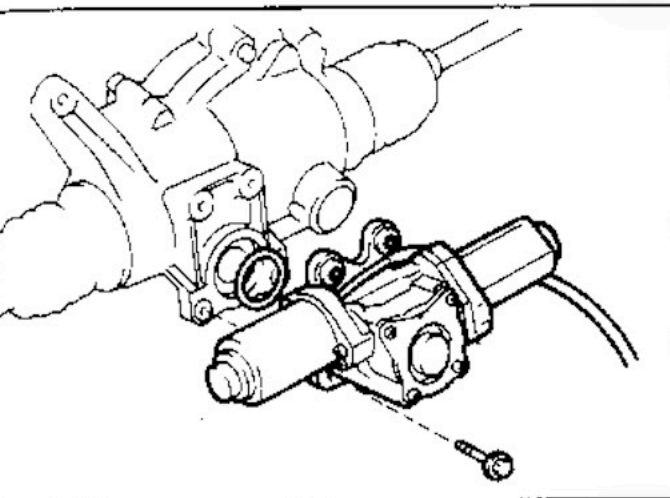
Rear steering gear link ASSY disassembly

1 Rear steering relay rod removal

1) Mark the relay rod and tie rod end.

(2)

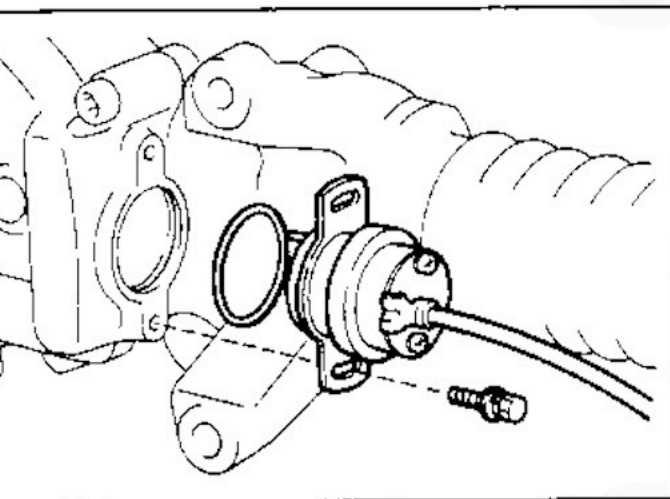
(3) Loosen the clamp and remove the relay rod.



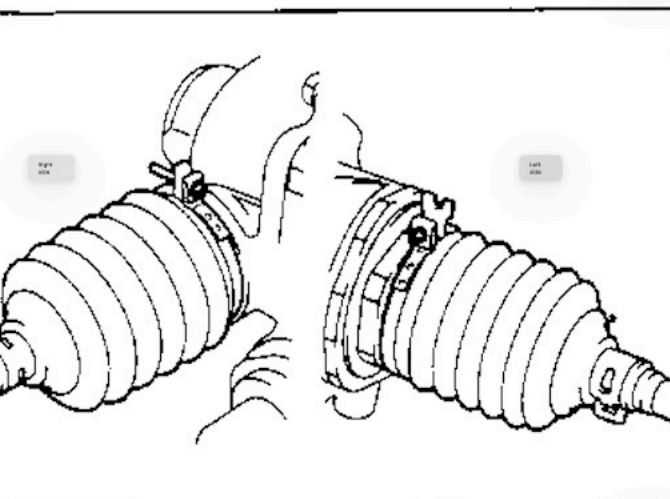
2 Rear steering angle ratio converter ASSY should be taken

Death
birth
(1)
(2)

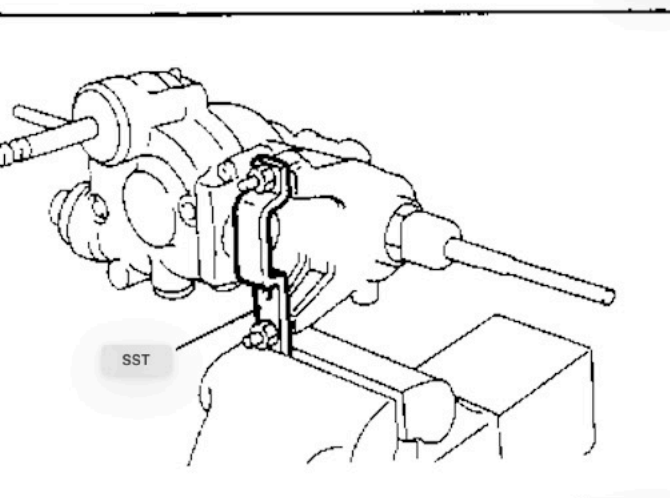
Remove 4 bolts and remove the converter ASSY.
Remove the sealing.



3 Remove the steering control sensor
(1) Remove 2 Ports and remove the sensor.
Remove the 1210 ring.



4 Rear steering relay rod boot removal
(1) Loosen the two clamps and remove the boots.



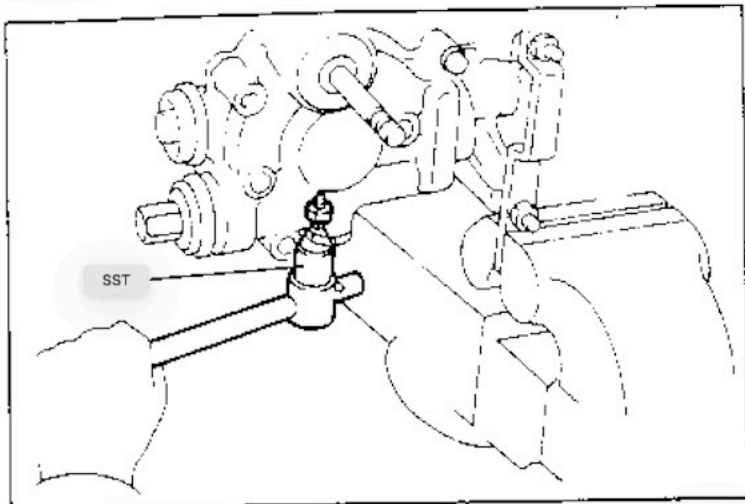
Steering gear fixed

ii)

Use SST to fix the steering gear to the vice.

SST
(#
考)

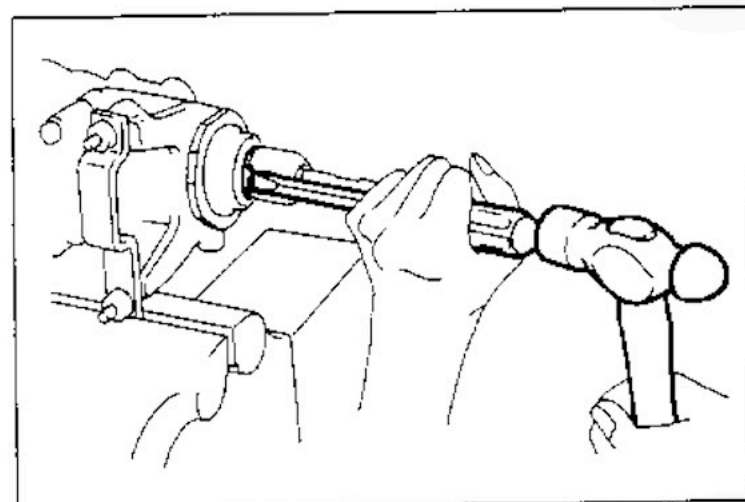
09631-00131
SST should be at the left end of the vice.



6 Remove the head cap bolt
1) Use SST to remove the head cap bolt.

SST

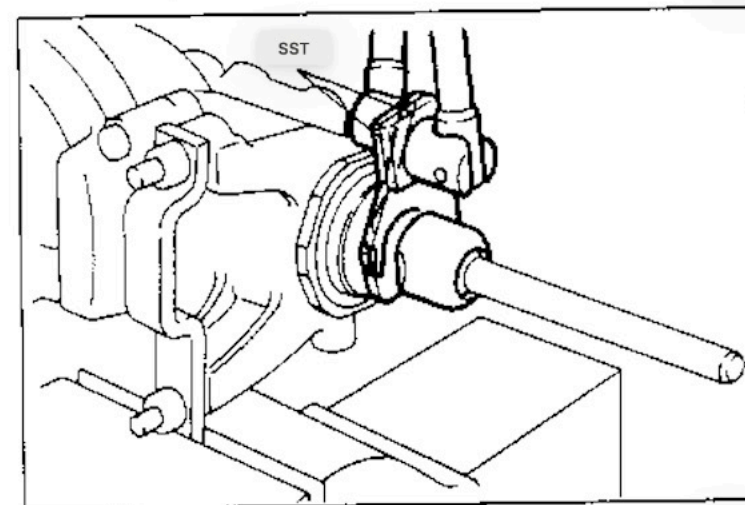
09313-30021



7 Rear steering rack end removal
: 1: Untie the claw washer's sash

X 0520

X 0221



Remove the rack end using 121 SST.

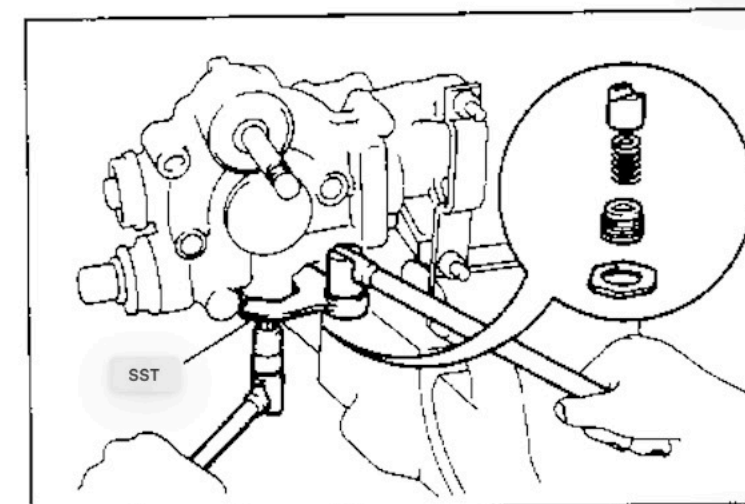
SST

09617-14010

09617-24011

Remove the 131 claw washer.

X 0585



8 Rear steering return rack guide removal
1) Use SST and hexagon wrench (14mm) to remove the lock nut.

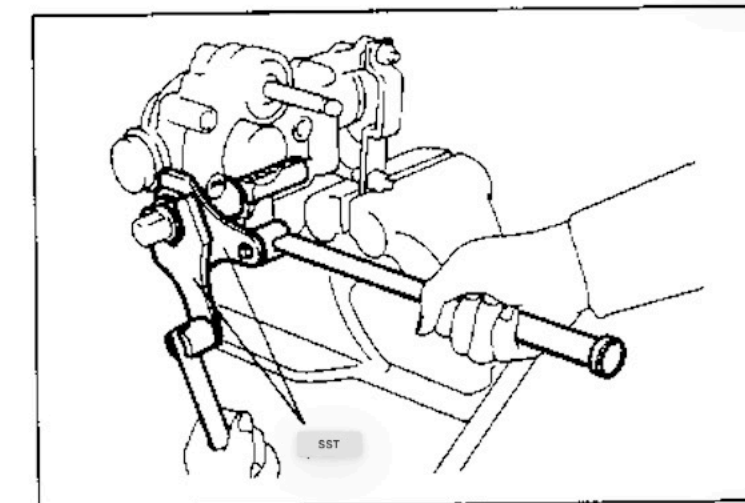
SST

(2)

Use a hexagon wrench (14mm) to use a spring cap

Remove the sushi, spring and rack guide.

X 0322



9 Rear steering return rack ASSY removal
(1) Use SST to remove the lock nut.

SST

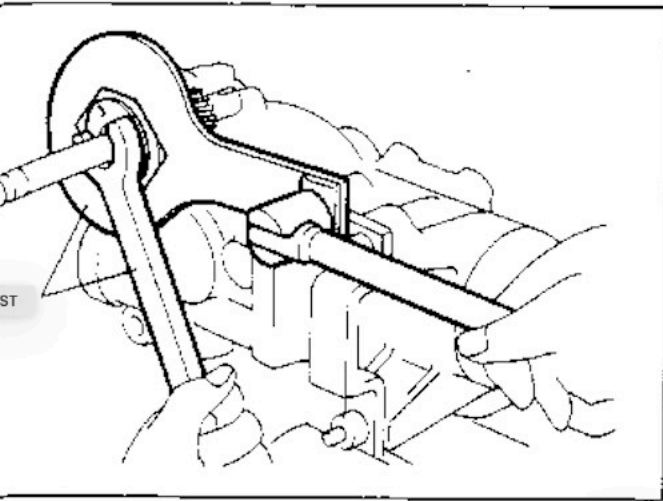
(2)

Use SST to remove the return rack ASSY.

SST

09617-10010

X 0523



10

Rear steering gear binion ASSY removal
Use SST to remove the lock nut.

SST

09616-30011

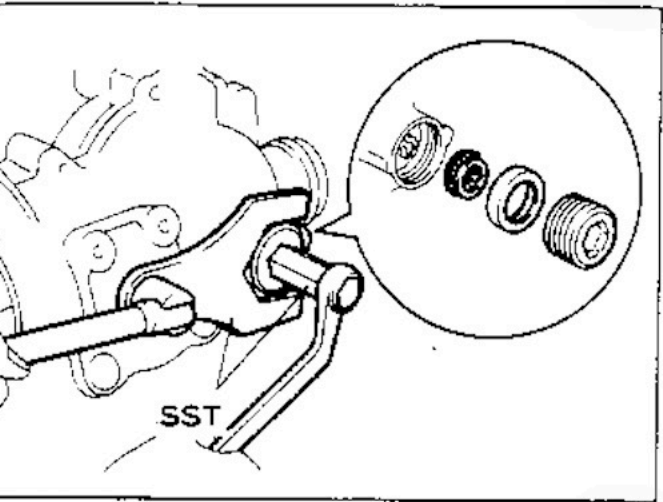
09660-14040

I21

Use SST to remove the pinion ASSY.

SST

09616-30011



11 Rear steering vibot bearing rear bearing should be removed

Dca
10
11

Use SST to remove the lock nut.

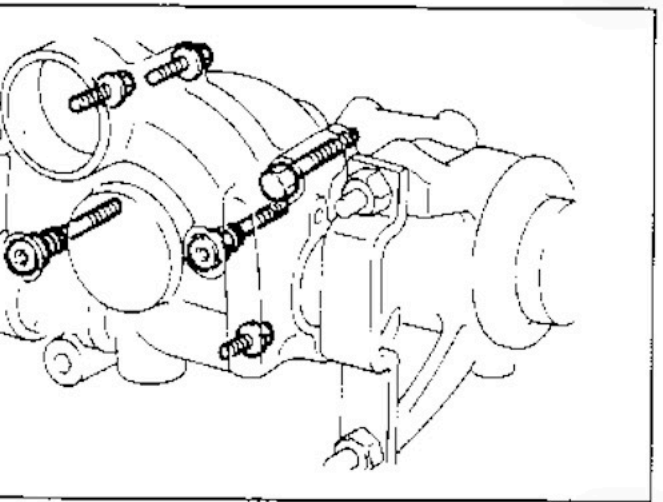
(2)

SST

Use SST to remove the bearing cap and remove the rear bearing.

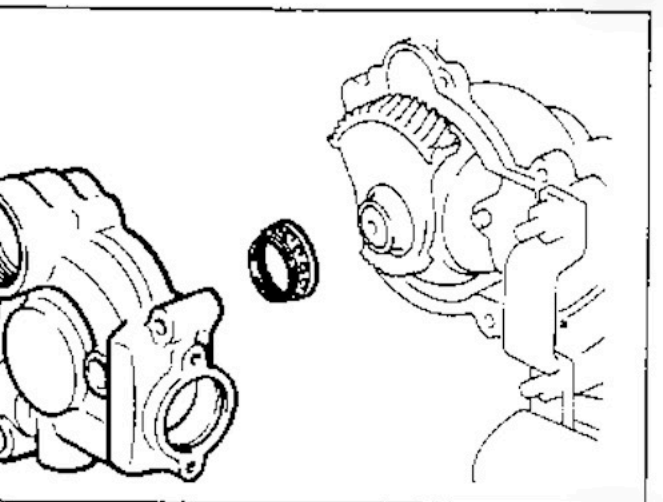
SST 09612-10022

¥Don't drop the bearing.



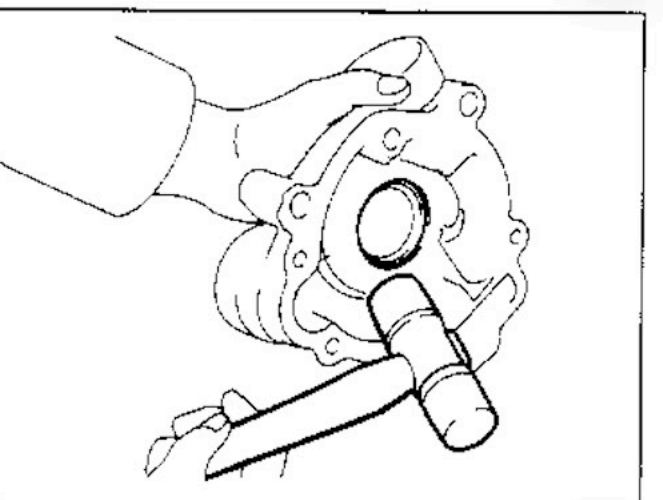
12 Remove the rear steering gear cover

11) Use a hexagon wrench (8mm) to remove 2 hexagon bolts.
121



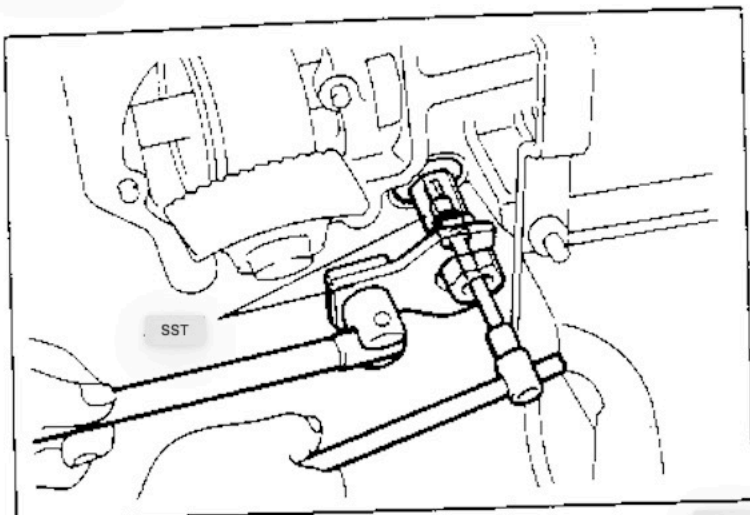
131

Remove the gear cover and bearing.
Don't drop the bearing.



13 Rear steering Vivot bearing front bearing outer race removal

11) Using a plastic hammer, while lightly tapping the gear cover, float and remove the outer race.



14 Rear steering lever ratio control worm should be taken

11) Use SST and hexagon wrench (8mm) to remove the lock + t.

SST

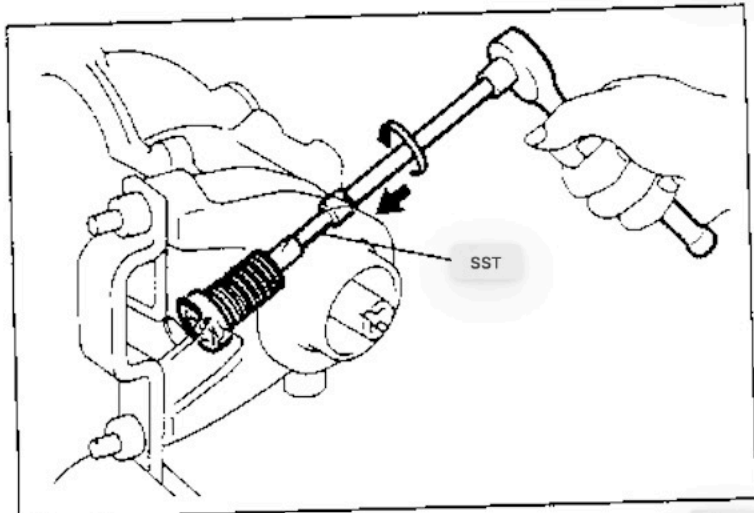
09628-10020

09660-14010

Use a 121 hexagon wrench (8mm) to remove the adjust nut

I'll take it off.

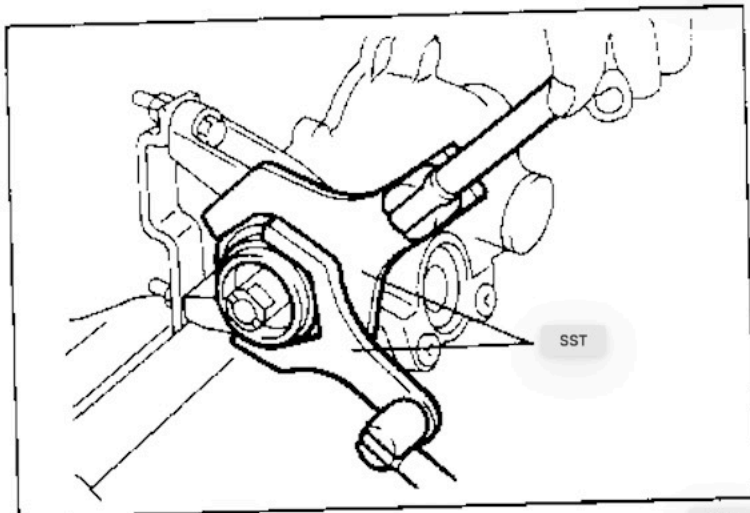
The bearing may fall out, so don't drop it.



131 Using SST, turn it in the clockwise direction while holding down the control worm to remove it.

SST

09660-14020



15 Rear steering relay rod cap removal

Use 111 SST to remove the lock nut.

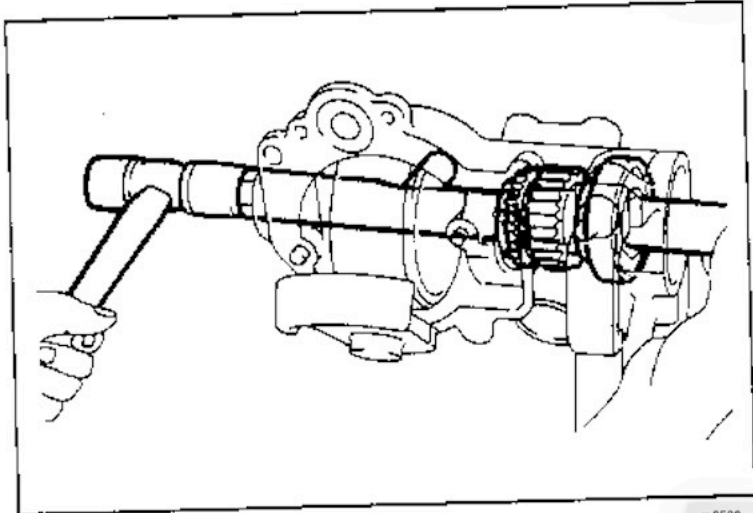
SST

Use SST to remove the relay rod cap.

121

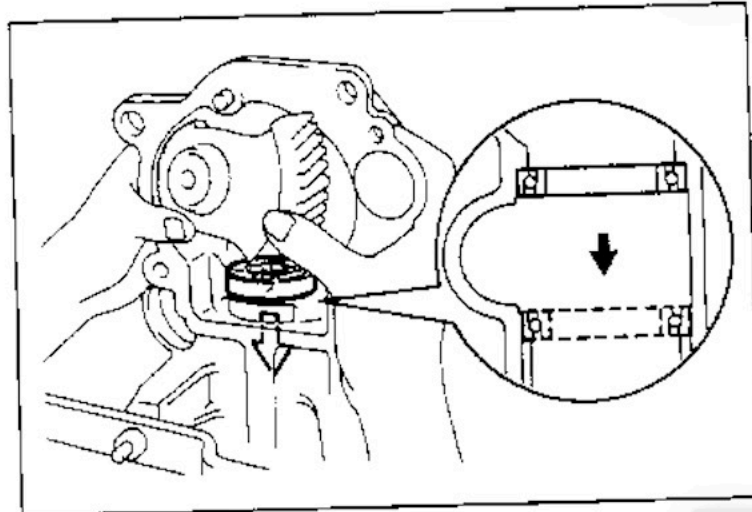
SST

09617-22040



16 Rear steering worm control wheel removal

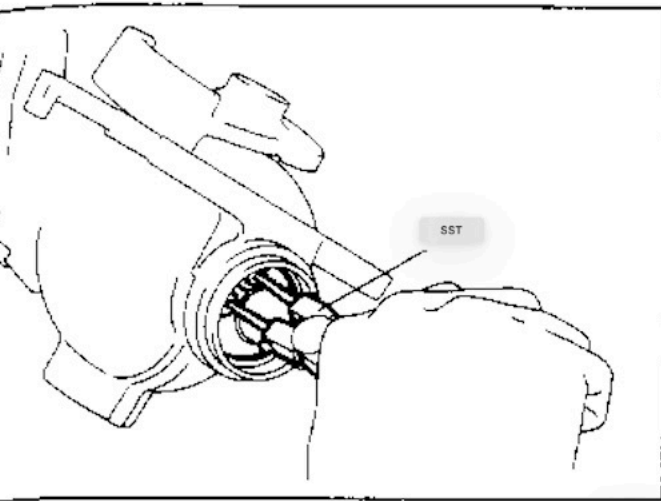
11) Using a plastic hammer, lightly tap the RH side of the relay rod and remove the worm control wheel and bearing (outer side).



17 Bearing for rear steering relay worm (inner side)
Take it off

(1) Support the relay rod and pivot bearing with your fingers, and lightly apply the relay rod cap side of the housing to the work table, etc. to remove the pairing. Apply through teeth and cloth.

• Straightly remove the bearing.



X 0633

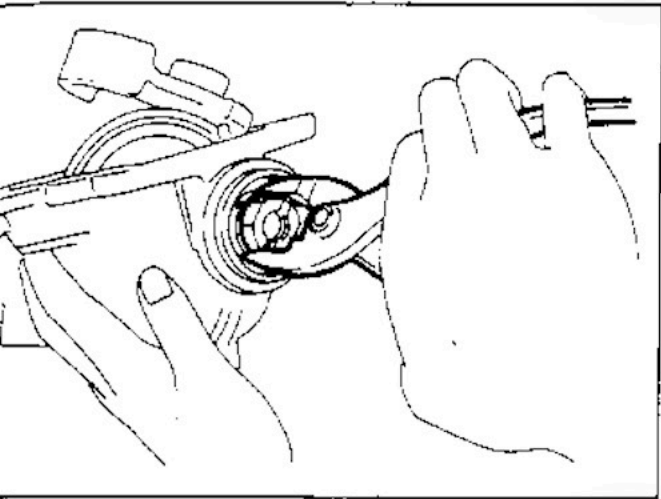
18 Rear steering relay rod stopper removal

(1)

Use SST to remove the snap ring.

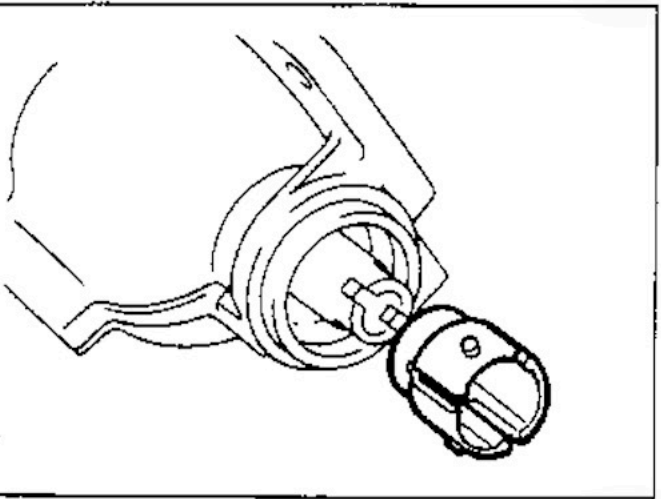
SST

09905-00013



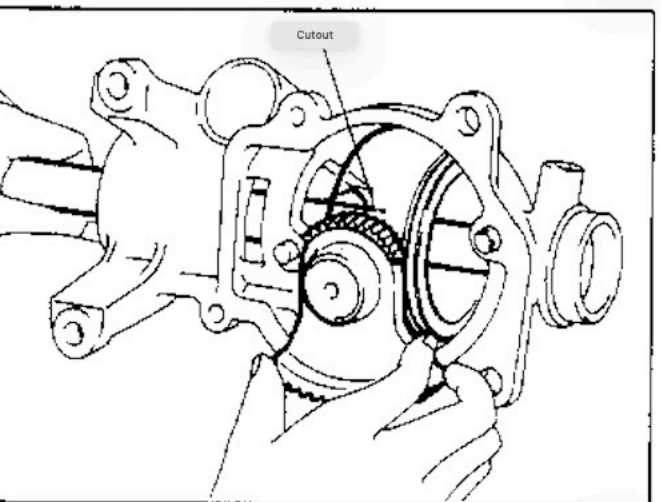
X 0633

(Use 21 pliers to remove the relay rod stopper.)



X 0633

19 Steering rack bush removal

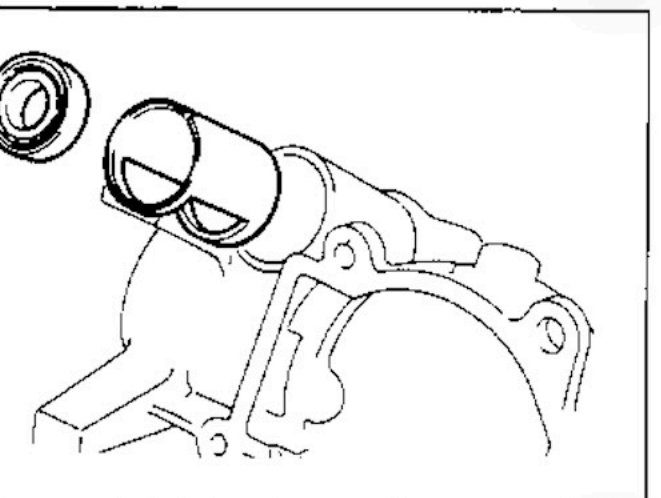


X 0634

20 Rear steering relay rod and Vivot bearing removal

Remove

Remove the 111 relay rod and Bipot bearing.
 Rotate the relay rod and pull out the pin part of the relay rod according to the size of the housing.
 (3) Remove the pivot bearing.

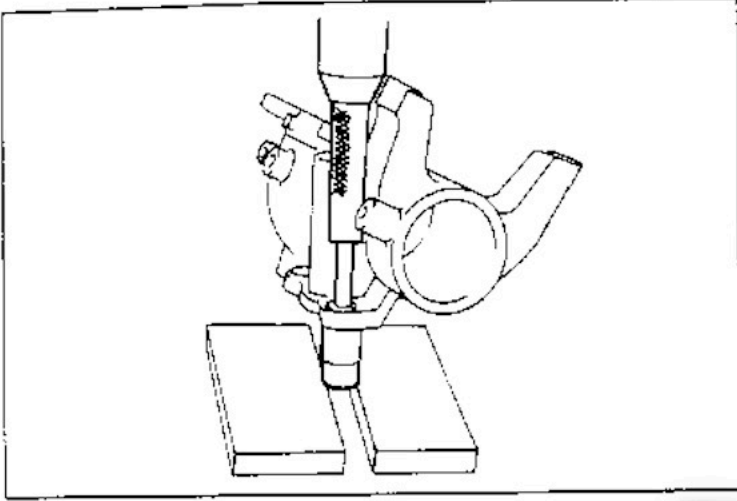


X 0633

21 Rear steering warm control cam and bearing

Take it off

111 Remove the control cam from the housing and remove the bearing
 I'll take it off.

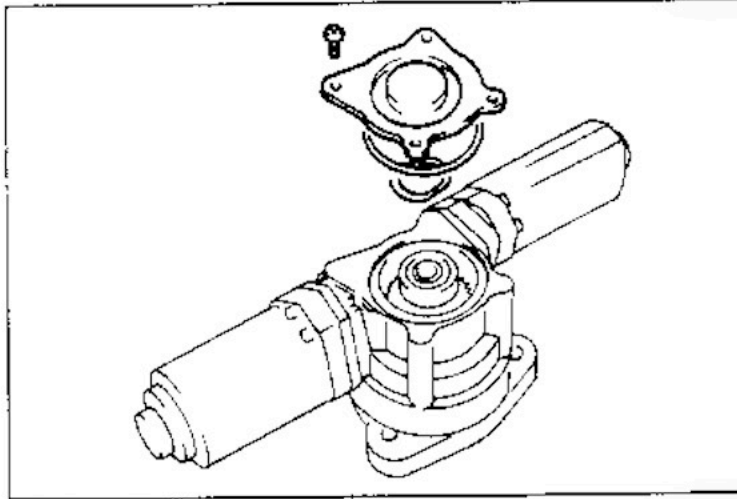


22 Rear steering angle ratio converter bush should be taken

Use 111 SST and press to remove the bush.

SST

09201-70010



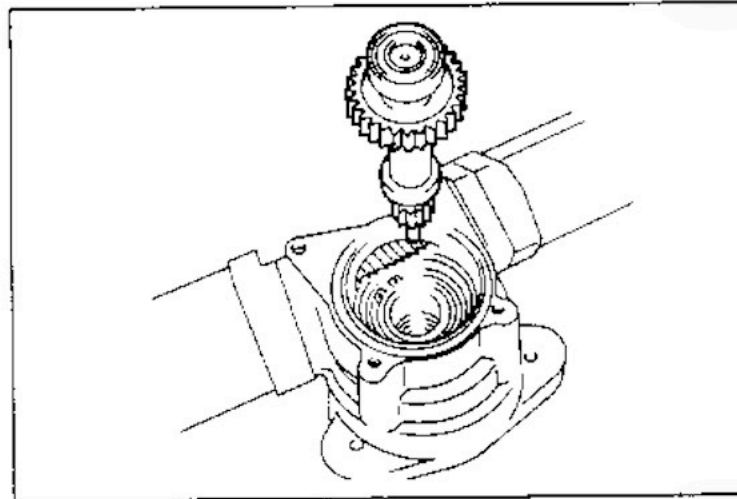
Rear steering angle ratio converter

ASSY decomposition

1 Rear steering angle ratio converter cap is

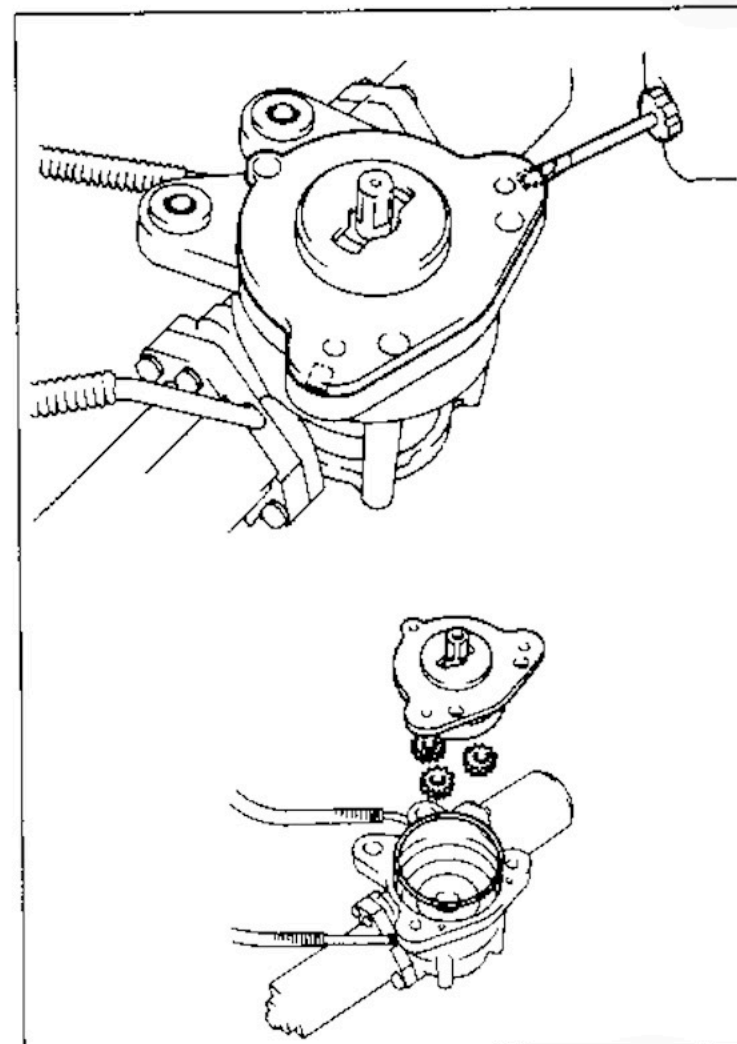
Illustration

11) Remove 4 screws and remove the converter cap, O-ring and wape washer.



2 Rear steering angle ratio converter shaft removal

Illustration



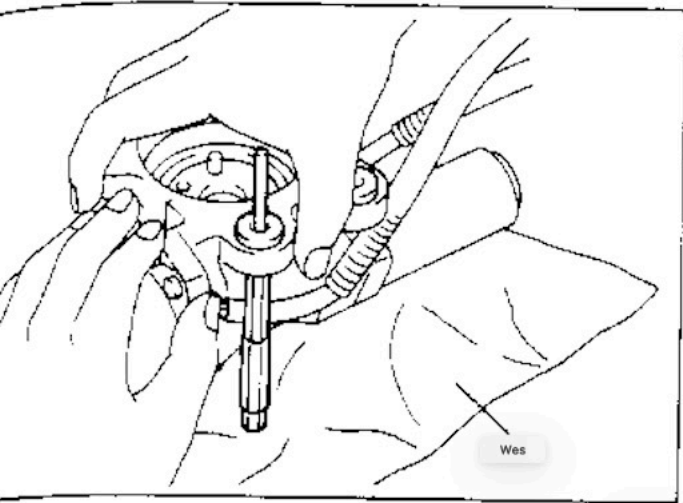
3 Rear steering angle ratio converter frame removal

Illustration

: 1) Remove 3 screws.

Using a screwdriver wrapped with 121 protective tape, alternately remove the claws of the two converter alames. Do not turn on the converter frame and housing.

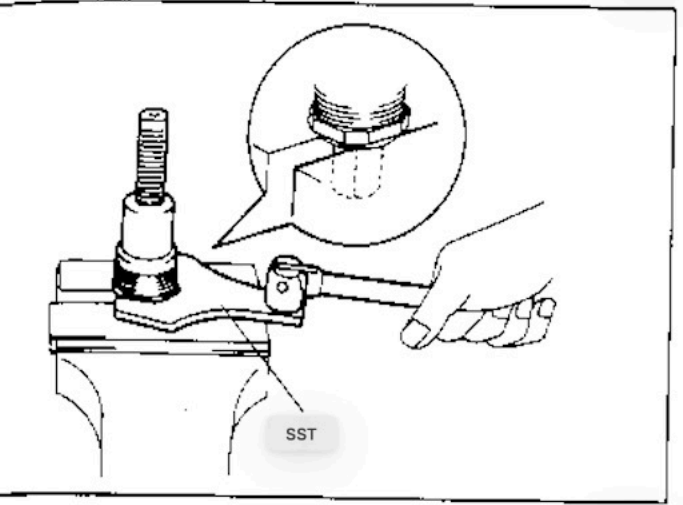
Remove the rolling from the 131 converter frame.
4 Rear steering angle ratio converter gear removal



X1022

5 Rear steering angle ratio converter should be taken

11) Use a ping-pong to remove the push.



X 0539

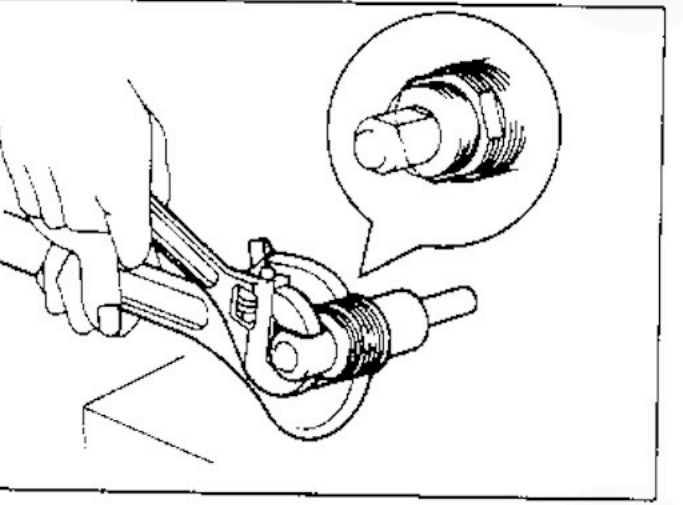
Rear steering return rack ASSY disassembly

1 Remove the lock nut
: 1) The return rack ASSY is vised through the aluminum mouthpiece.

12) Ru. Use SST to remove the lock nut.

SST

09617-10010



X 0240

2 Rear steering return rack spring holder No. 2

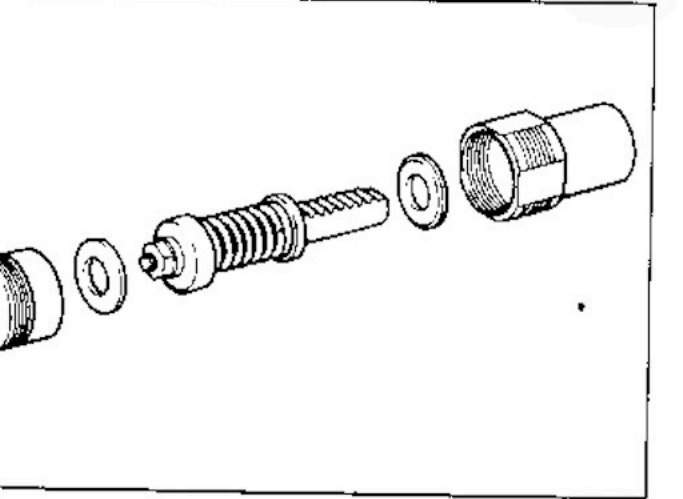
Remove

Using a 111 monkey wrench, take the spring holder No. 2

Susu.



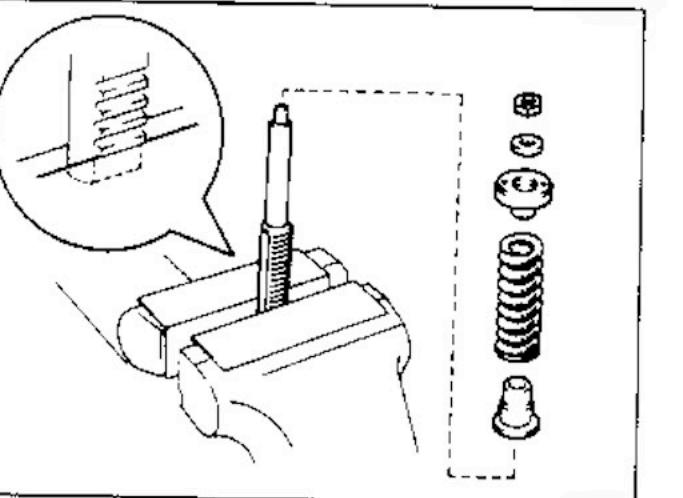
It doesn't damage the screw part.



X193

3 Rear steering return rack sub-ASSY removal
: 1: Return rack ASSY and rear steering return spli

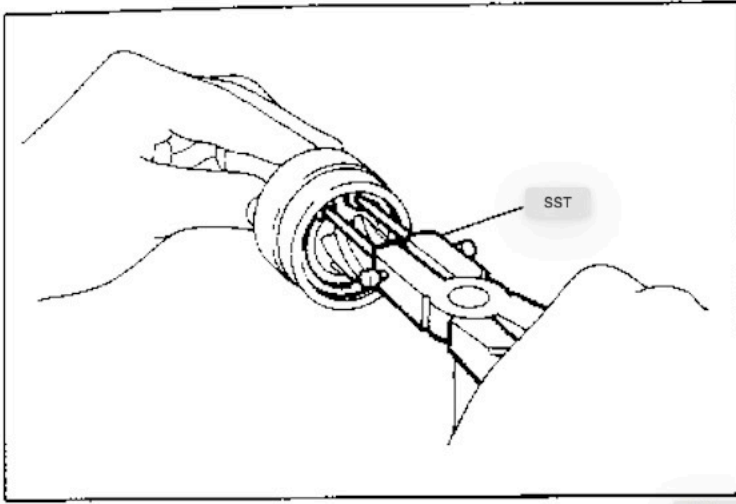
Remove 2 gretainer cushions.



X 0541

4 Rear steering return rack sub-ASSY disassembly (11 The tip of the return rack is vised through the aluminum mouthpiece. 12) Remove the nut and remove the return spring retainer stopper, spring retainer and spring.

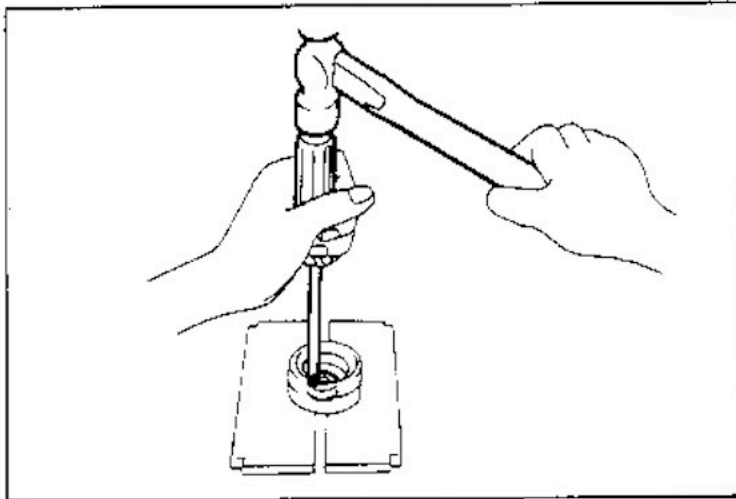
Rear steering gear pinion ASSY disassembly



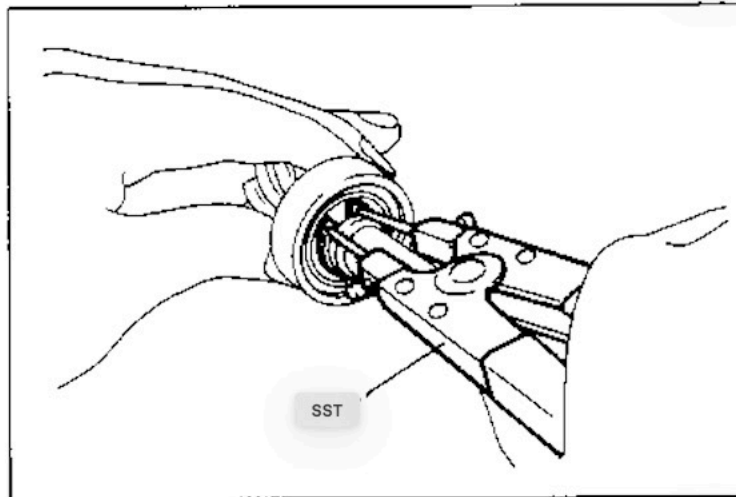
- 1 Rear steering gear pinion bearing adjust screw
Take it off
11 Remove the snap ring using SST. Remove the adjustable.

SST

09905-00013



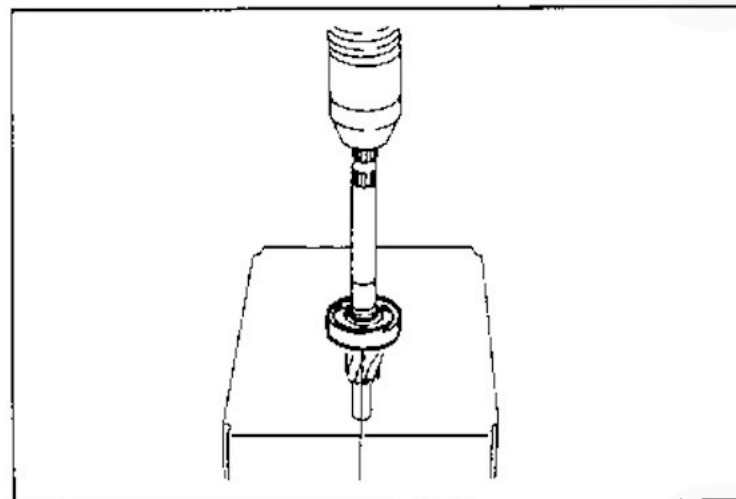
- 2 Remove the adjust screw oil seal
111 Use a screwdriver to remove the oil seal.



- 3 Rear steering gear pinion bearing removal
11) Use SST to remove the snap ring.

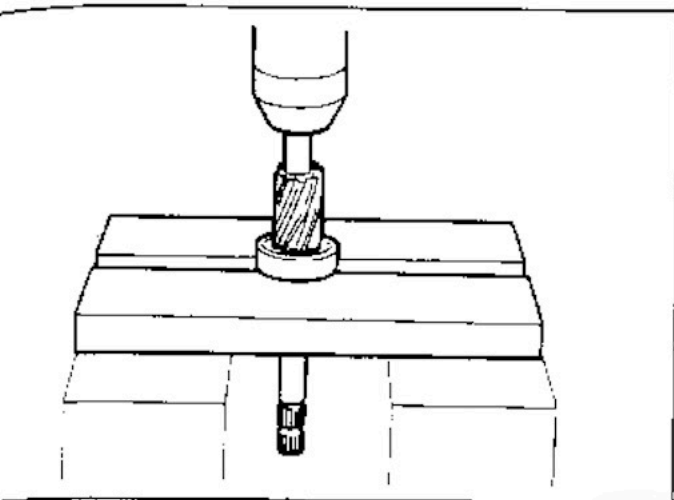
SST

09905-00013



Use the 121 press to remove the pairing.

X 0545



X 0548

Rear steering gear pinion ASSY assembly

1 Rear steering gear pinion bearing installation

1: Equivalent clutch release hub grease to the bearing

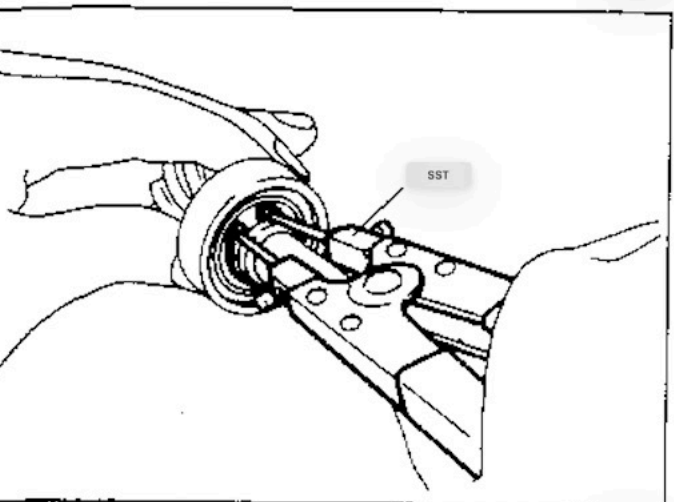
I make a cloth.
 <Reference> Grease application calculation
 about 2.55

(2) Using a press, press the new bearing into the gear pinion

Ru.
 <Reference> There is no direction for bearings.
 Use 131 SST to attach the snap ring.

SST

09904-00010

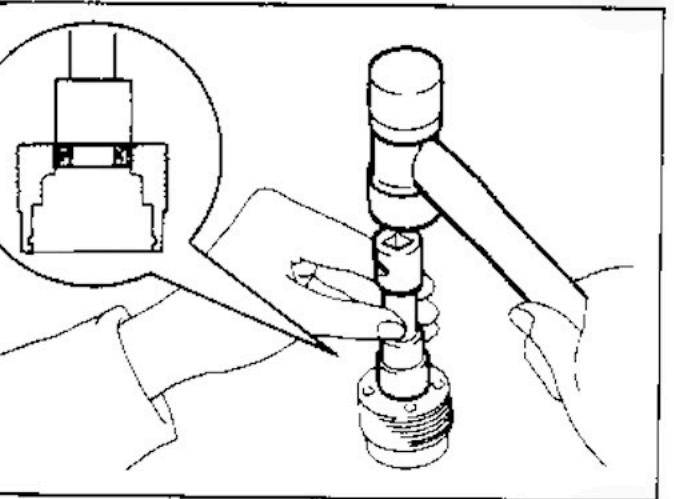


X 0544

2 Adjust screw oil seal installation

(1)

Using a 19mm socket wrench, drive the oil seal until it matches the end face of the adjuster screw.



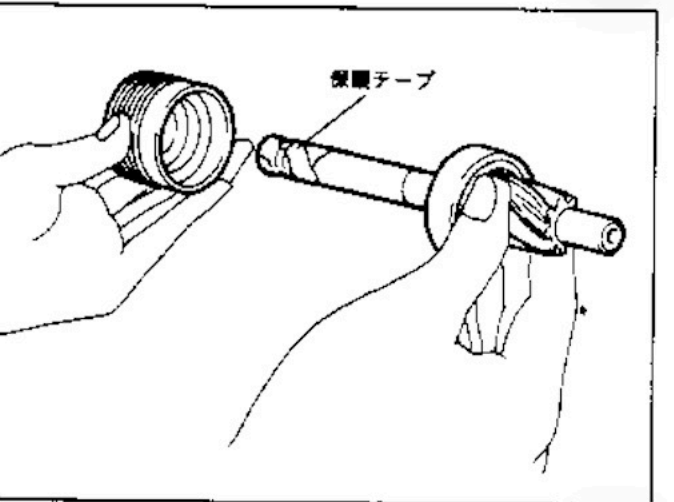
X 0547

3 Rear steering gapinion bearing adjust screw

One installation

(1) Wrap the protective tape around the serration part of the gapinion and adjust

Install the screw.



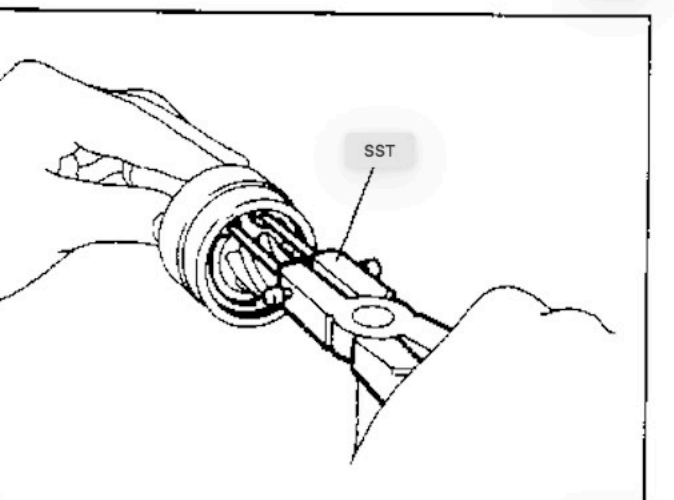
X 0548

(2)

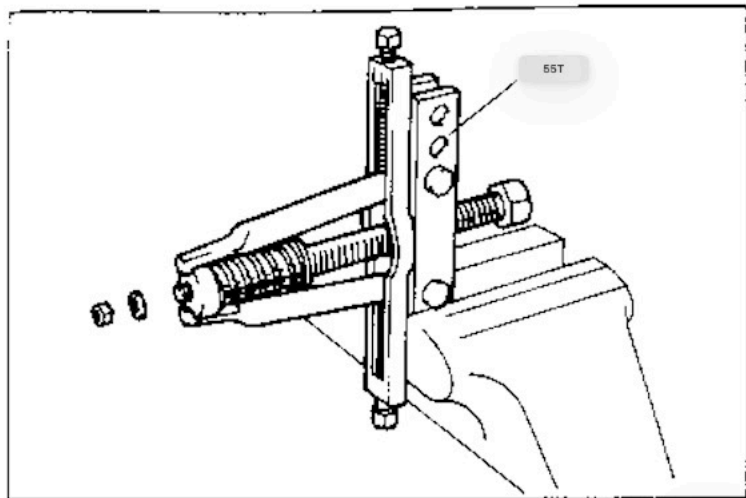
Use SST to install a snap ring.

SST

09905-00013



X 0542



Rear steering return rack ASSY assembly

- 1 Grease application for each part (see P8-116)
- 2 Rear steering return rack sub-ASSY assembly (Use 11SST to assemble the return rack, spring retainer, spring and stopper, and install the nut.

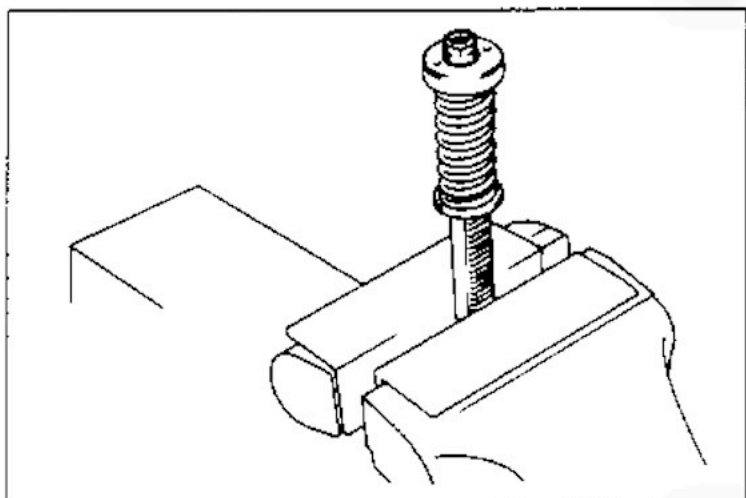
SST

09952-36010
09955-20012

09953-35011
09956-20011

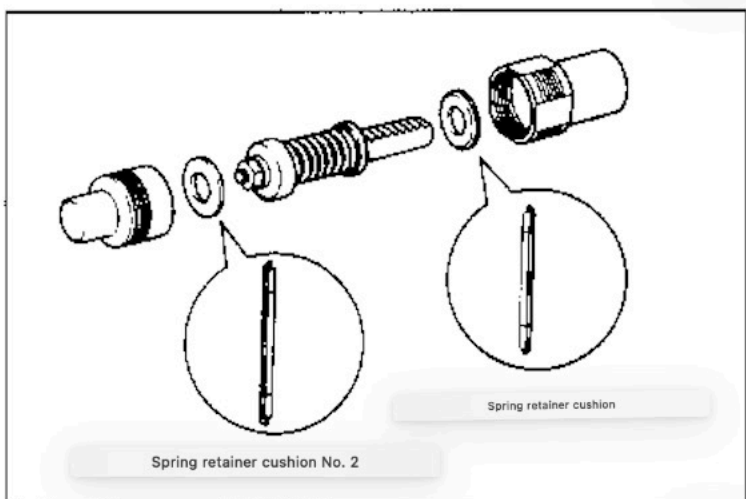
09954-20013

09957-20010



(2)

Scissor the tip of the return rack with an aluminum mouthpiece. Tighten the nut." T=145kg · cm



- 3 Rear steering return rack sub-ASSY installation
- 111 Insert the return rack sub-ASSY into the spring holder through the rear steering return spring retainer cushion.
- 4 Rear steering return rack spring holder No. 2 installation
- (1) Apply Adhesive 1344 to the entire screw part of the spring holder No. 2

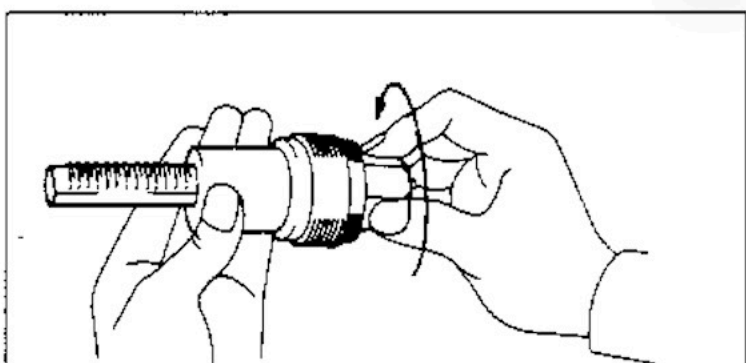
I do.

- 121 Rear Steering Return Spring Retainer Cushion No.2
- Install the spring holder No. 2 through.
- 131 Spring holder No. until the return rack is gone.

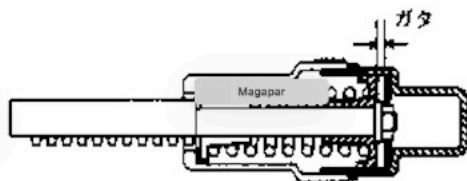
Tighten 2.

<Reference> Even if you tighten the spring holder No. 2 too much, return

There's a rattling in the rack.



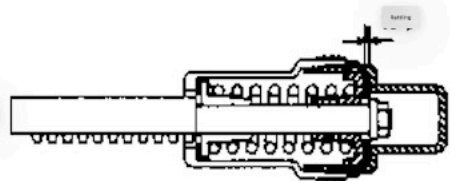
Lack of tranquillity

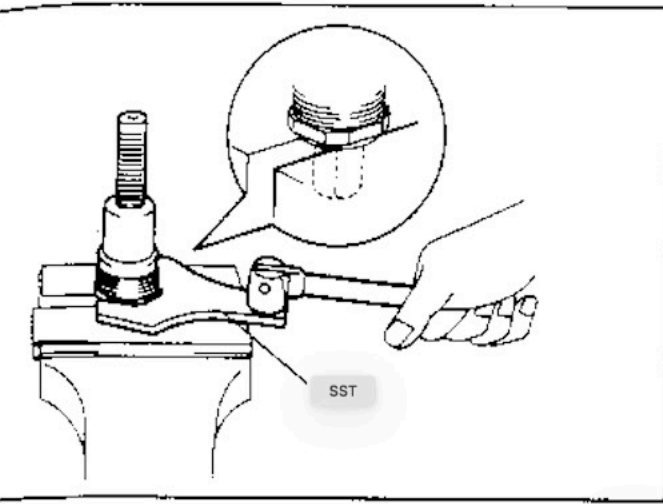


None



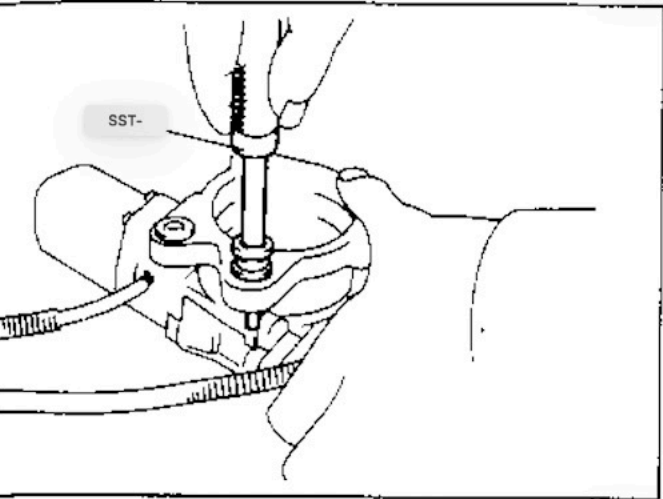
Giving up too much





- (3) Install the lock nut.
- 141 Vise the spring holder No. 2 through the aluminum mouthpiece Mu.
- 15: Use SST to tighten the lock nut.

SST
T = 850kg-cm

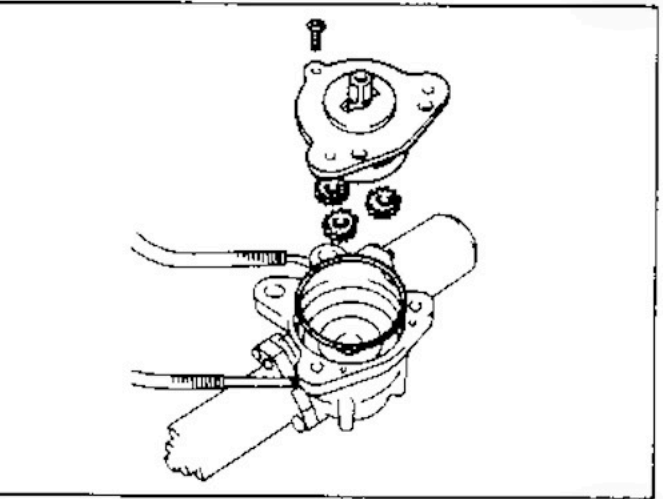


Rear steering angle ratio converter

ASSY assembly

- 1 Grease application for each part (see P8-116)
- 2 Rear steering angle ratio converter Bush installation
 - 1) Apply soap water to the Push.
 Use SST to insert the bush into the compatter housing.

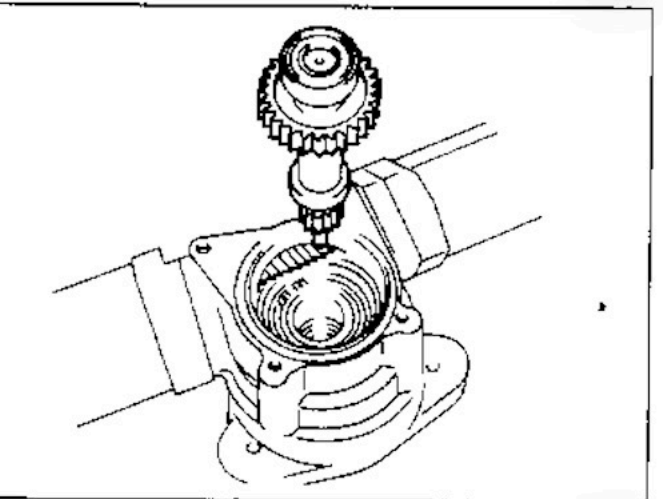
SST 09201-70010



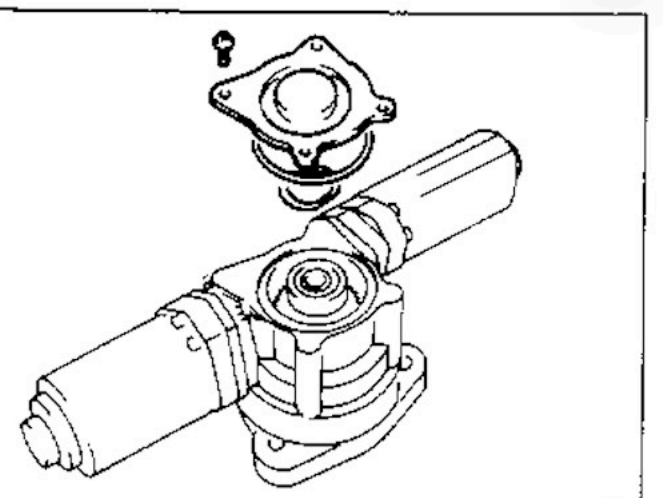
- 3 Lya steering angle ratio converter gear installation
Rear steering angle ratio converter frame attached

- (1) Install a new O-ring on the converter frame.
- (2) Install the converter frame with 3 screws.

1.1 Don't let the rolling bite.

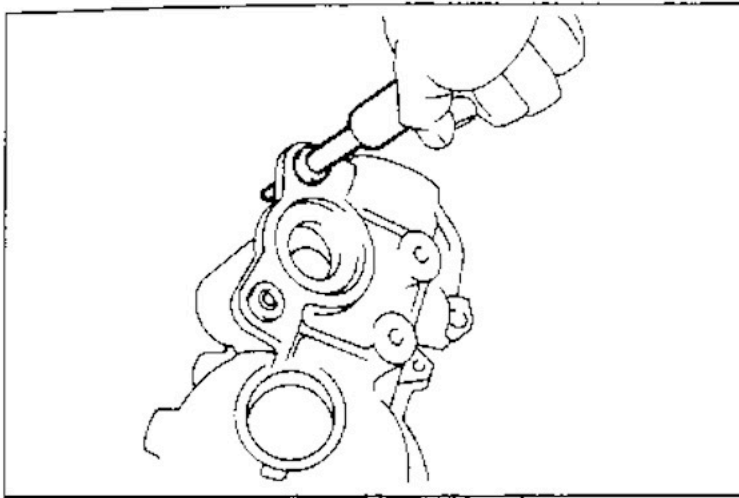


5 Rear steering angle ratio converter shaft attached



6 Rear steering angle ratio converter cap attached

- Hair
- (1) Install a new rolling in the converter housing.
- (2) wave between the converter snatt and tne converter cap
Scissor the washer and attach the compater cap.



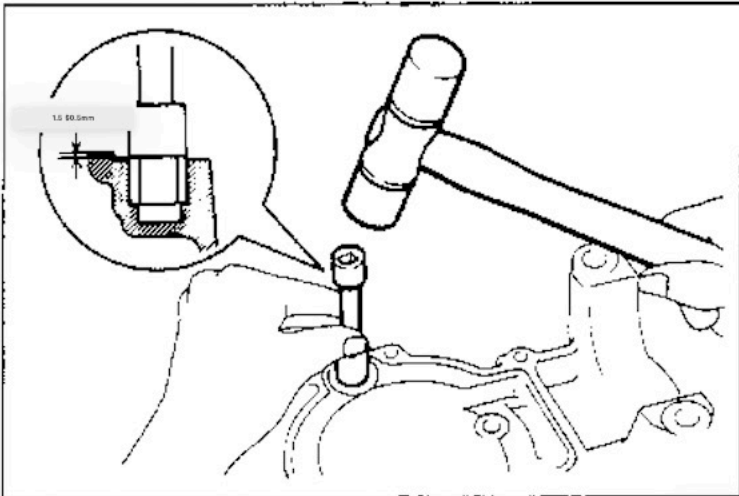
X0497

Rear steering gear link ASSY assembly

- 1 Grease application for each part
(Refer to P8-115)
- 2 Rear steering angle ratio converter Busch installation
1; Apply soap water to Bush.
Use 121 SST to insert the push into the gahousing.

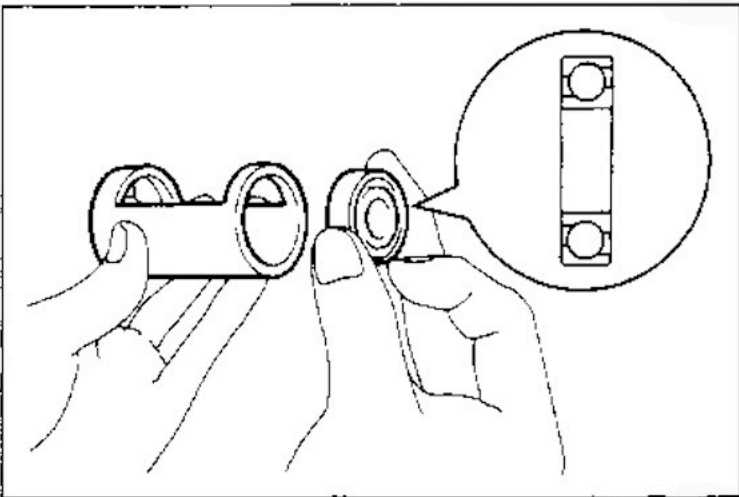
SST

09201-70010



X 0559

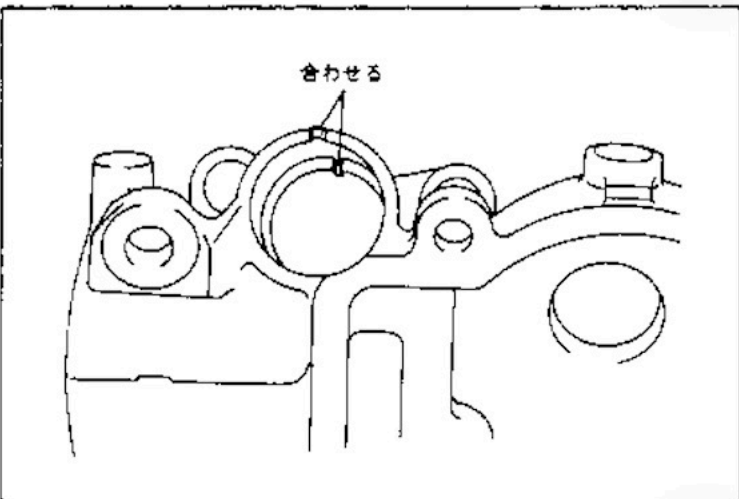
- 3 Bearing installation for rear steering gear pinion
111 Use a 14mm socket wrench to drive the bearing to the position shown in the diagram of the gear housing.



X 0534

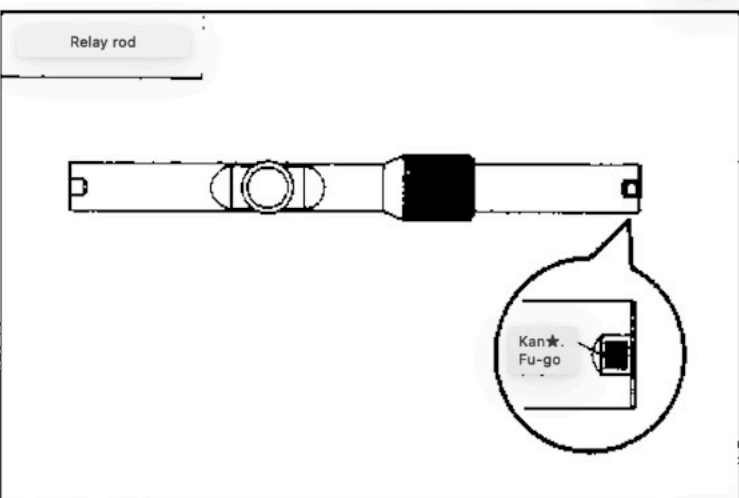
4 Rear steering warm control cam and bearing Installation

- 11: Insert the bearing into the warm control cam in the direction shown in the figure.



X 0555

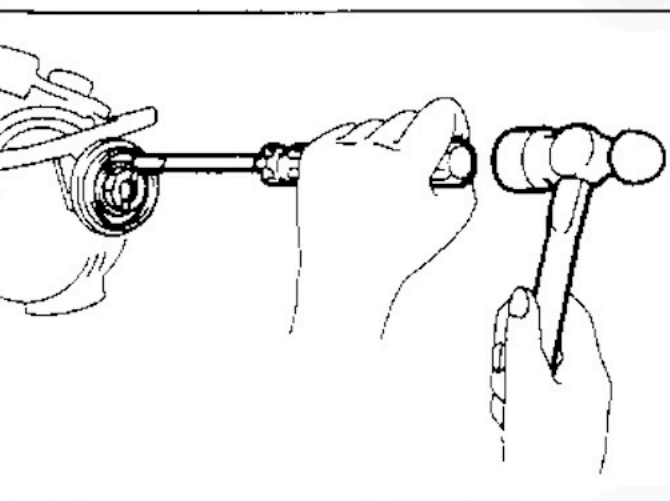
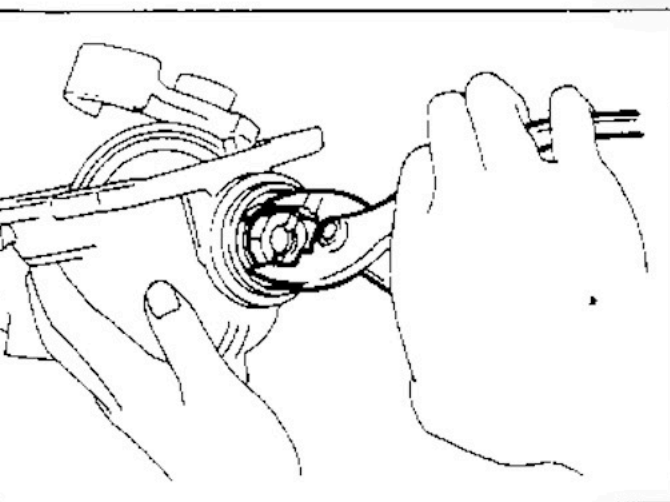
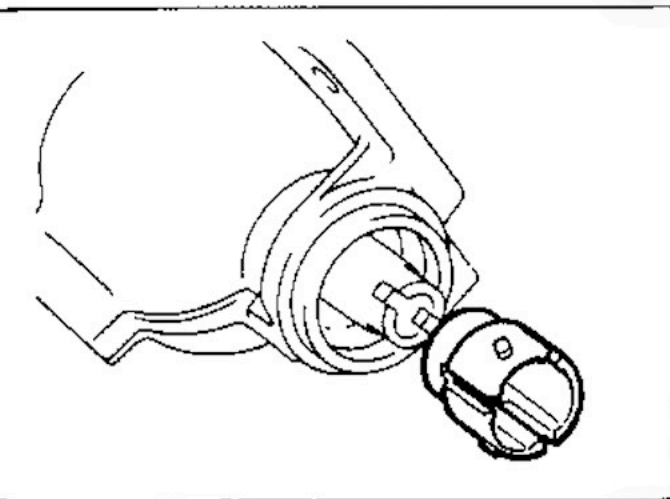
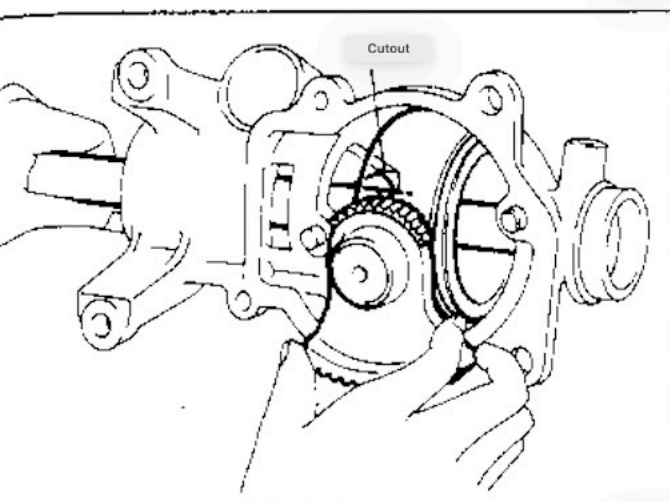
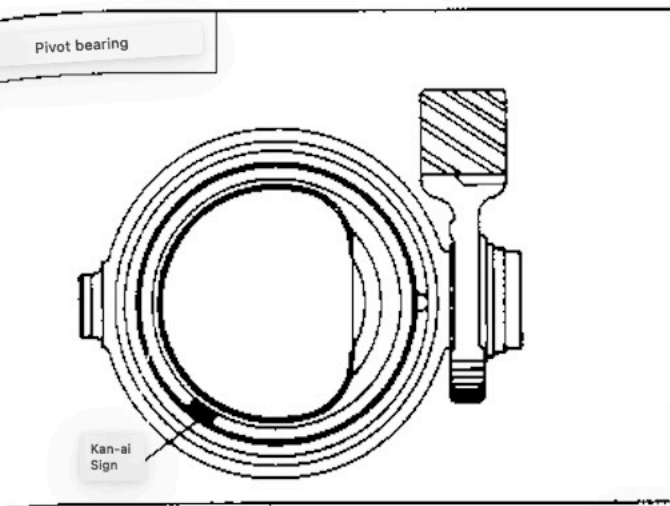
- : 2) Insert the worm control cam into the gear housing and match the worm control cam and the gausing mark.



X 0536

5 Rear steering relay rod and pivot bearing removal

- Attach
- 111 Make sure that the relay rod and pivot bearing are matched.

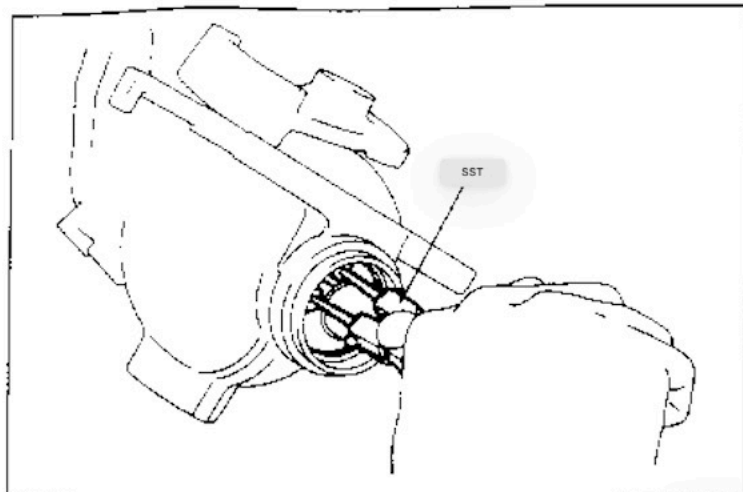


12) Insert the pivot bearing into the gear housing.
 131 The pin part of the relay rod is adjusted to the cutting size of the gear housing
 Insert.

6 Steering rack bush installation

Rear steering relay rod stopper installation
 111 Use pliers to install the relay rod stopper.

121 ● Use a screwdriver to drive the relay rod stopper to the back.

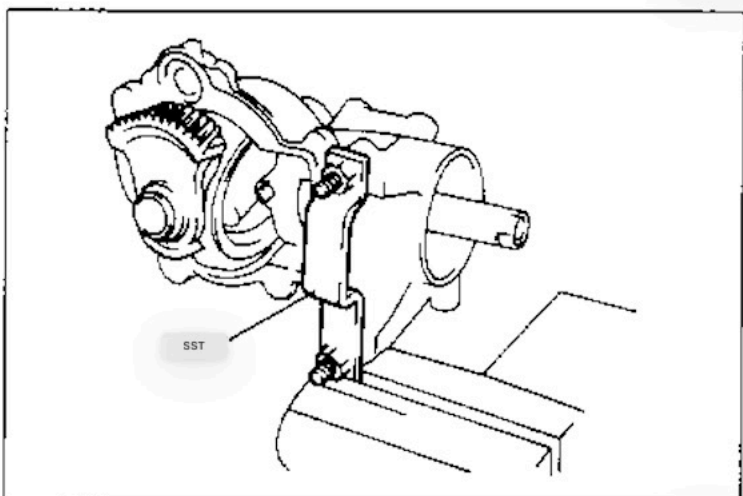


X0582

13)
Use SST to install the snubbling.

SST

09905-00013



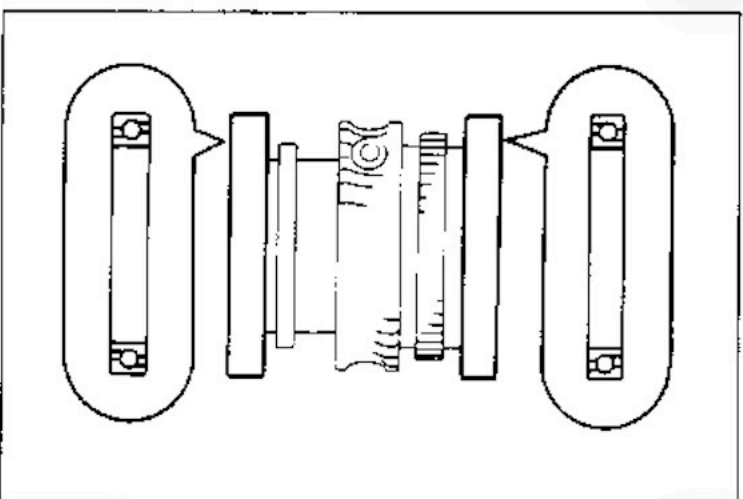
X 0360

8 Steering gear fixed

Use 111 SST to fix the steering gear to the piece.

SST
Referen
ce>

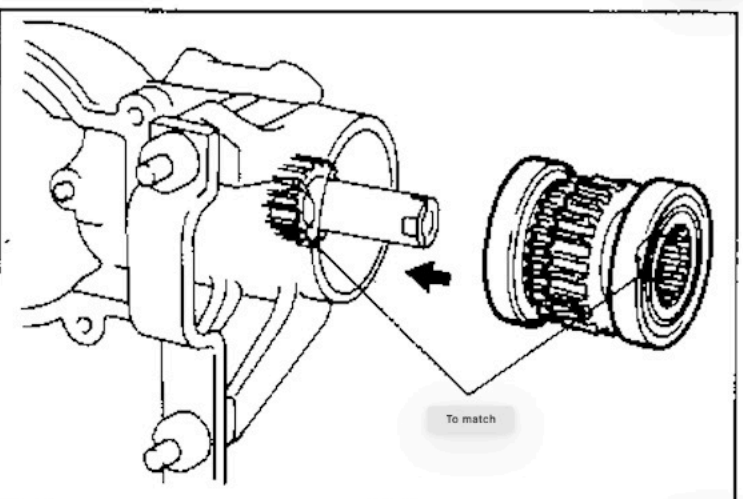
09631-00131
SST should be at the left end of the vice.



X 0559

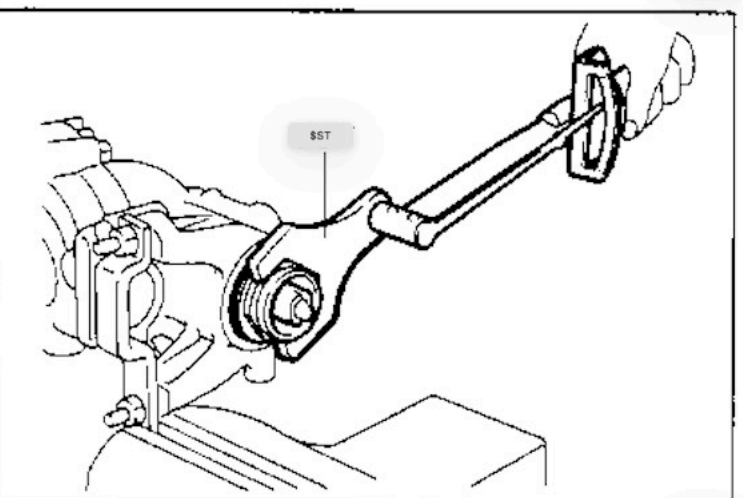
9 Rear steering worm control wheel installation

(1) The direction of the worm control wheel showing 2 bearings in the figure
Attach it to the ki.



X0997

121 Attach the worm control wheel by matching the steering relay rod and the place where the teeth of the worm control wheel are not processed.



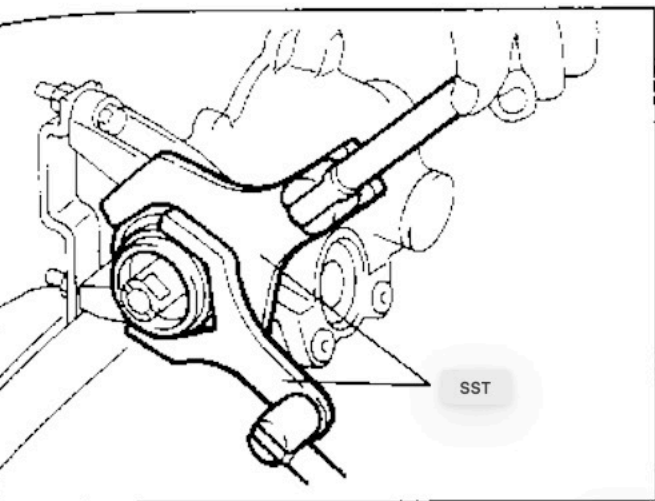
X 0361

10 Rear steering relay rod cap installation

(1) Apply Adhesive 1344 to the screw part of the relay rod cap, S
Use ST to tighten it.

SS T
T=400kg · cm or more
Loosen the relay rod cap once and tighten it with the
prescribed torque
T=200kg · cm

*21



X 0529

13:

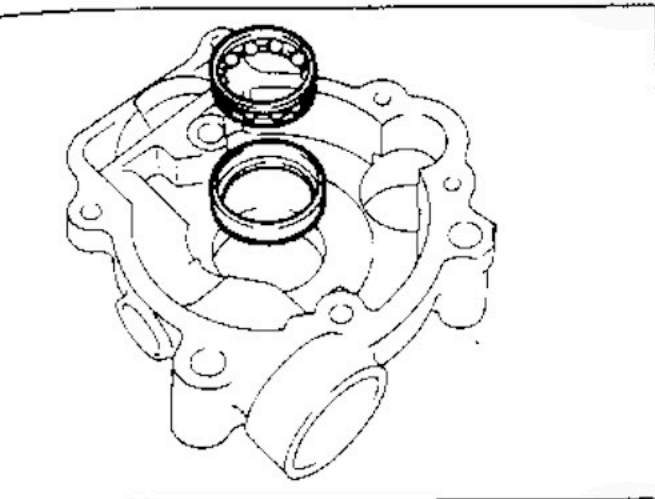
Use SST to tighten the lock nut so that the relay rod cap does not turn.

SST

09617-22010

09617-22040

T = 1200kg · cm

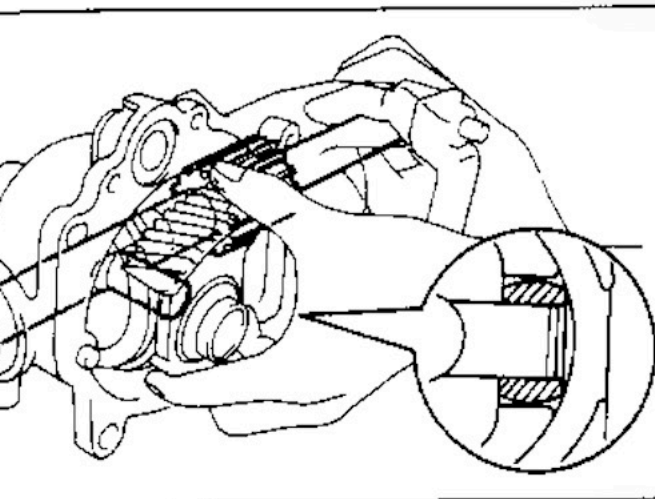


X 0982

11 Rear steering gear cover installation

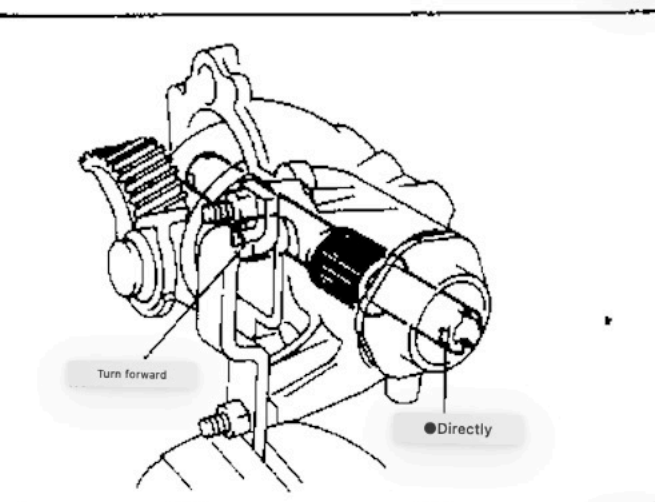
1) Take the bearing outer race and casing on the cover

I'll glue it.



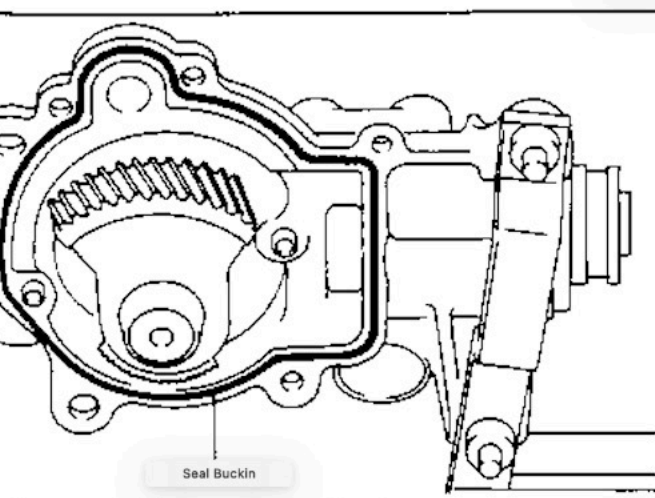
X 0980

(2) Insert the pin of the relay rod into the pivot bearing.



X 0583

13) The pin of the relay rod is facing forward, and the two-sided width of the tip of the rod is pointed vertically.

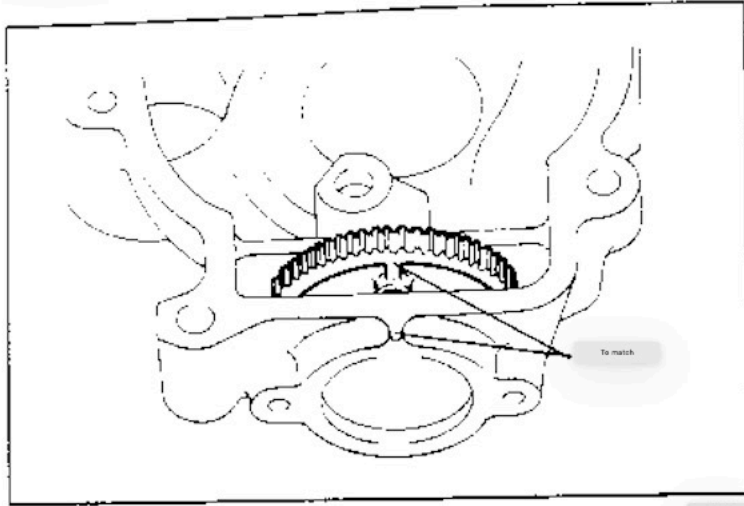


X 0564

(4)

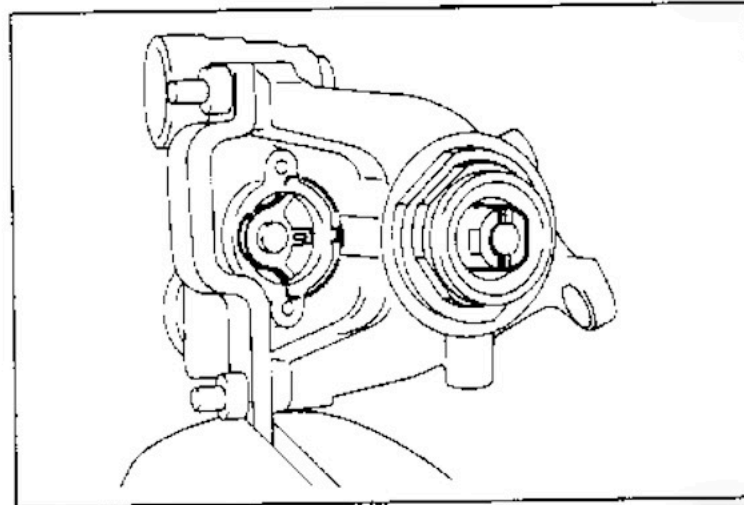
Apply the seal packing 1281 to the groove of the housing so that it does not break.
The seal packing is applied with ★2 to 3mm.

- Assemble within 5 minutes after applying the seal packing.
- The beginning and end of the application of the seal packing are wrapped a little E.



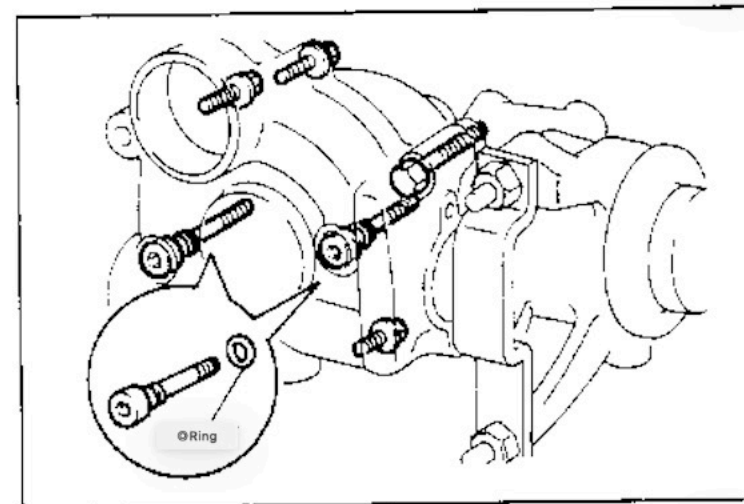
X0769

- 5: Combine the sensor gear of the gear cover and the mark of the gear cover, and attach the cover to the gear housing.
- Do not let the bearing of the gear cover fall off.
 - Insert a Vivot bearing into the bearing of Gacover Ru.
 - Don't miss the combination of Vivot bearing and relay rod. Yes.



X 0565

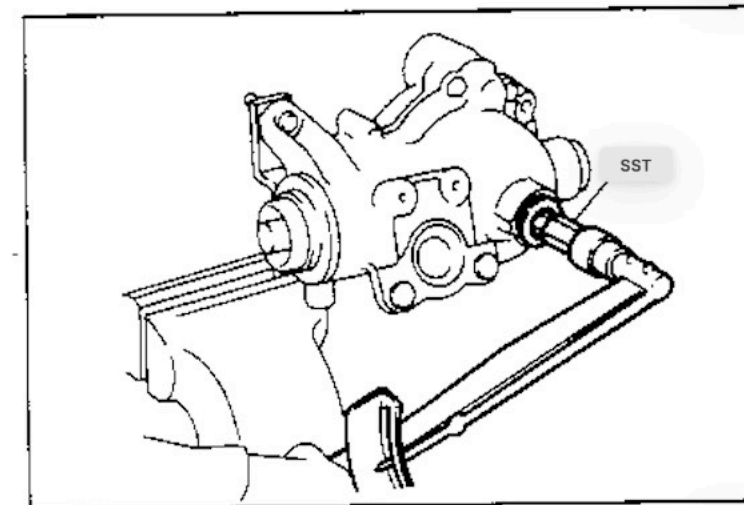
Confirm that the relationship between the 461 sensor gear and the relay rod is shown in the figure.



X 0814

(Attach a new O-ring to two 71 hexagonal bolts.
: 8; 6 bolts on the gear cover (4 bolts, 2 hexagonal bolts)

Tighten up.
T = 195kg-cm



X 0388

12 Rear steering pivot bearing rear bearing installation

- 11) Insert the bearing into the gear housing.
- (2) Apply Adhecip 1344 to the screw part of the pairing cap, SST

Use to tighten.

- (3) SST
T = 300kg-cm
Loosen the bearing cap once and tighten it with the prescribed torque.
T = 150kg-cm

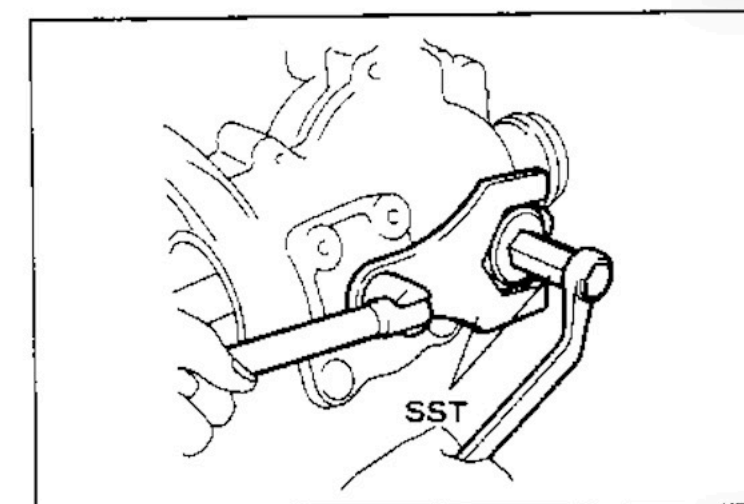
- (4) Use SST to lock the pairing cap so that it does not turn

Tighten the nut.

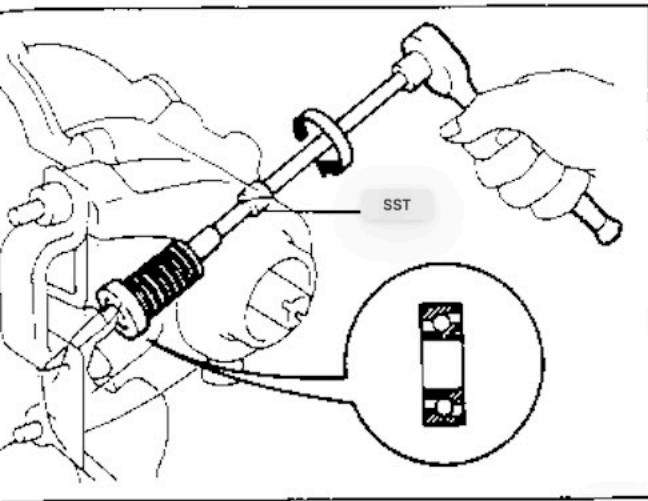
SST
T = 1000kg-cm

12-10022

09617-10010



X 0815



X 0516

13 Rear steering lever ratio control worm installation

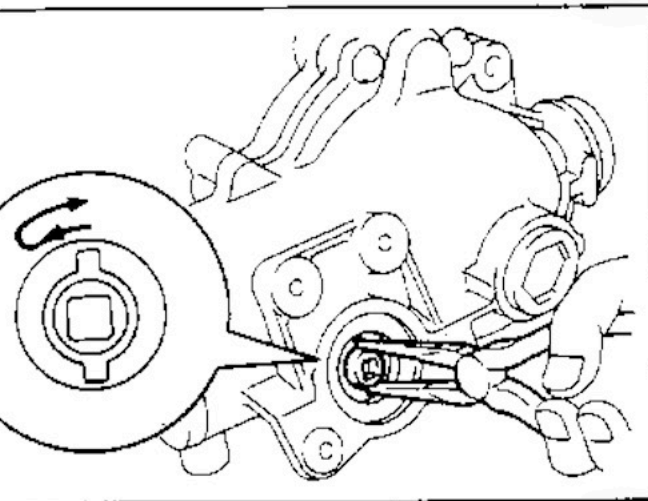
111 Insert the worm into the housing and push it from the bottom

Use 5SST to install it so that the screw is returned.

12)

SST

Attach the bearing in the direction shown in the figure.

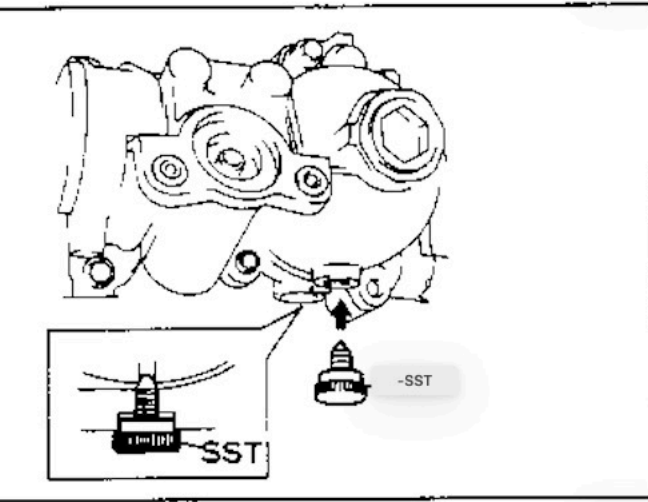


X 0517

14 Rear steering lever ratio control worm backlash adjustment

- (1) Use the nose pliers to rotate the worm control cam to the left from the motor mounting part, and eliminate the backlash of the lever ratio control worm and the worm control wheel.
- (2) Put the worm control cam back a little from the state of (1) (about 5°)

Adjust the backlash.



X0368

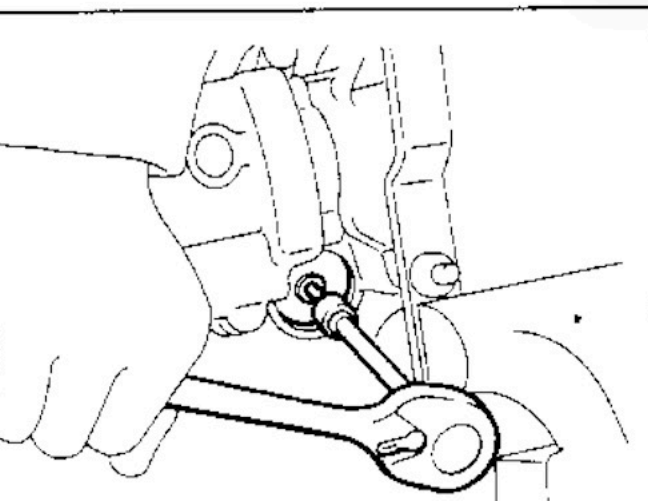
15 Rear steering lever ratio control worm preload

調整
(1)

Use SST to fix the Riyaya ASSY at the centre.

SST

09660-14030



(2)

Apply Adhexip 1344 to the screw part of the worm adjust nut and attach it to the housing.

(3)

Use SST to make sure that the lever ratio control worm rotates smoothly.

SST

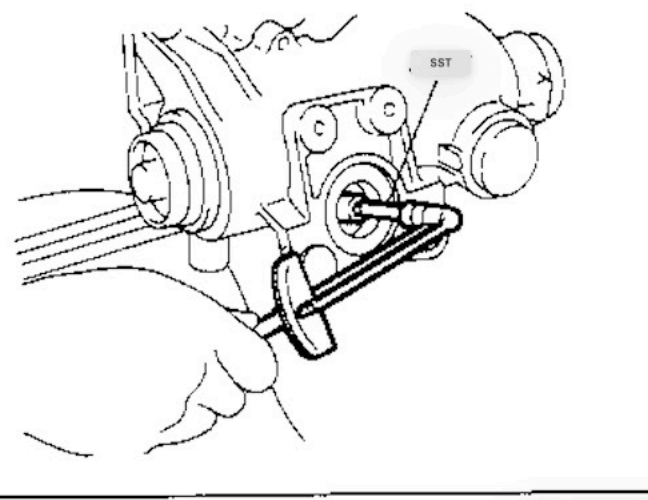
09660-14020

(4) Using a hexagon wrench (8mm), tighten the worm adjustment nut so that the preload during the rotation of the lever ratio control worm becomes the reference value.

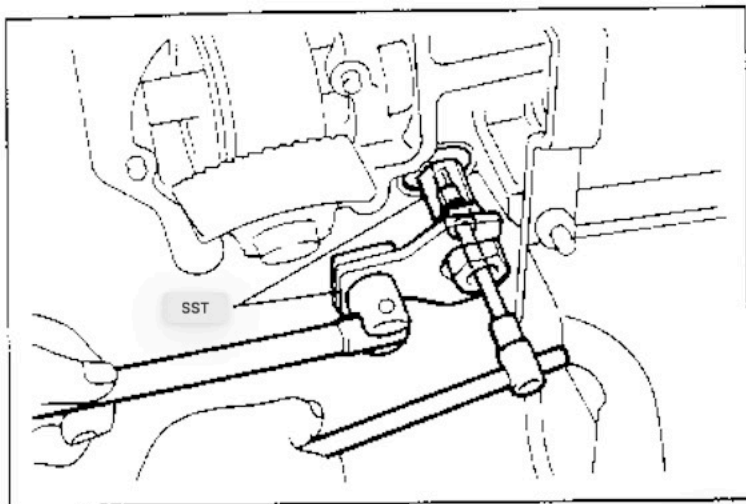
SST
Standard
value

09660-14020

2.5 to 4.5 kg · cm (neutral soil 90° rotation)



X0369 X 0570



X 0527

14: Easy ad hemp 1344 on the thread part of the worm adjust nut No. 2 Cloth and use SST and hexagon cinch (8mm) to tighten the worm adjust nut so that it does not turn.

SST
T = 850kg-cm

9616-30011

09660-14040

153 Check the preload of the lever ratio control worm,

SST

09616-10010

25.45kg-cm

Standard value

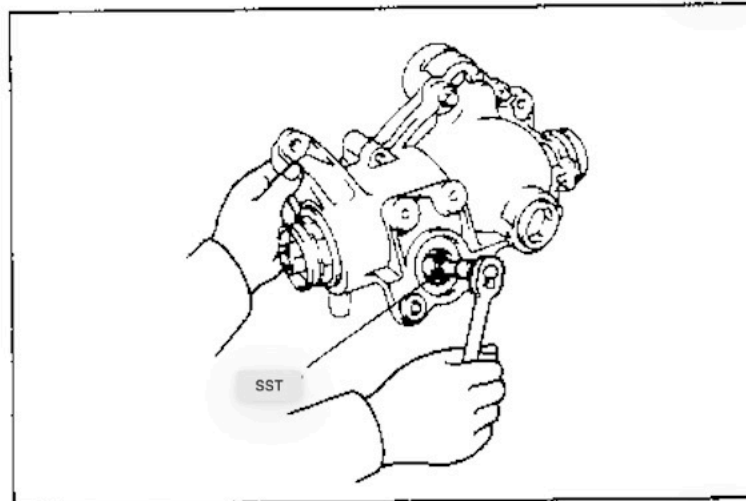
Lever ratio control worm is smooth in all work ranges

167

Make sure it rotates.

SST

09616-10010



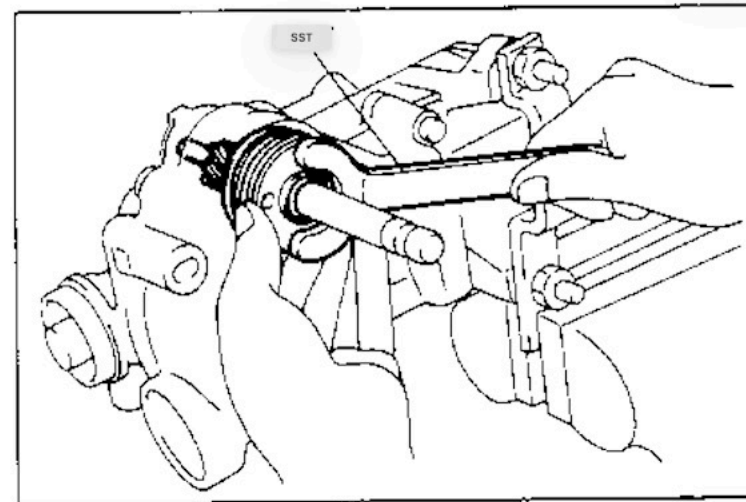
X 0571

16 Rear steering gear pinion ASSY installation

111 Adhexti to the screw part of the pinion bearing adjust screw
Apply Pu 1344 and use SST to attach the gear pinion ASSY to the gacover.

SST

09616-30011



X 0571

17 Rear steering gavinion ASSY pre-road adjustment

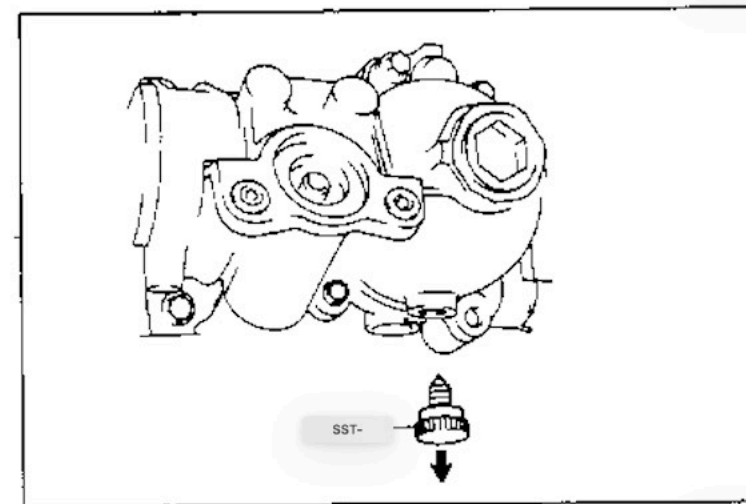
11) Remove the SST from the gas housing.

SST

09660-14030

Be sure to remove the SST because it will cause a breakdown.

⚠

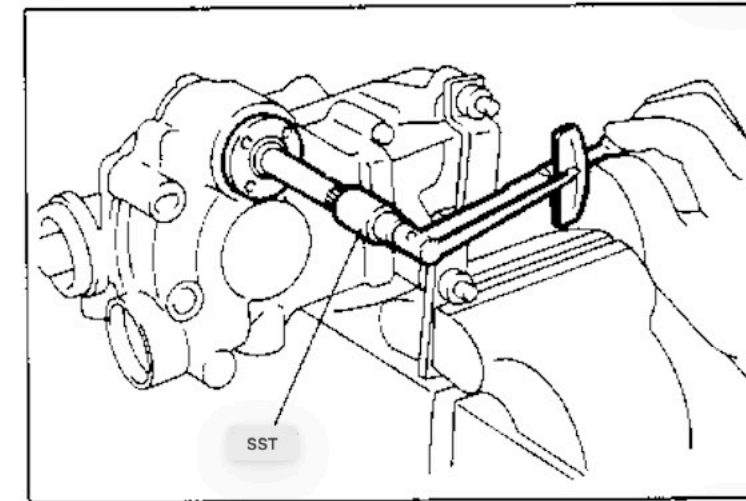


X 0573

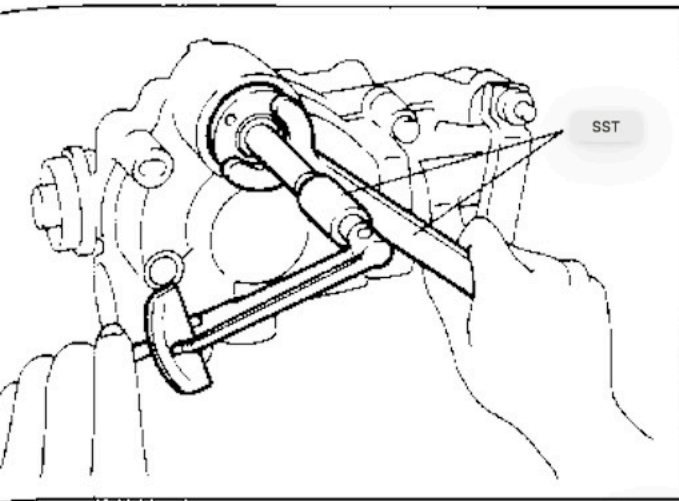
(2) Measure the initial preload of the gypinion using SST.

SST

09616-10010



X 0574



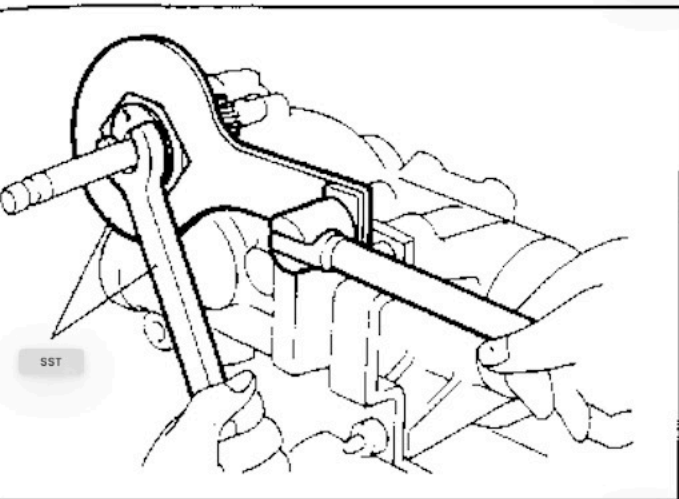
13)

Using SST, tighten the adjust screw so that the preload of the gear pinion increases by 1.5 kg and cm from the value of 21.

SST

09616-10010

09616-30011



14)

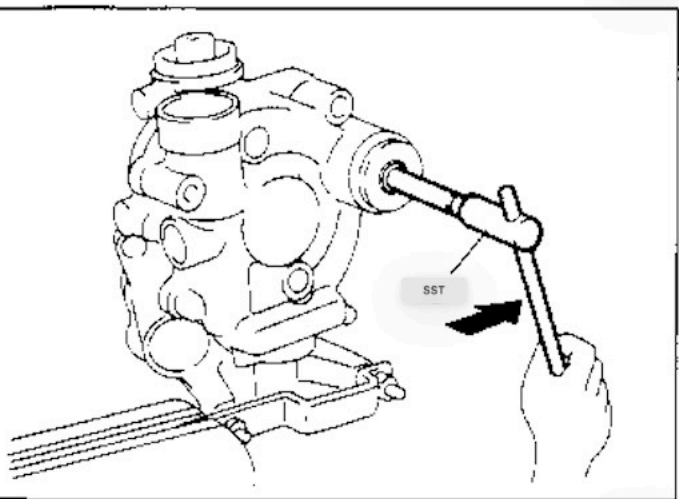
Using SST, tighten the lock nut so that the adjust screw does not turn.

SST

09616-30011

09660-14040

T = 1000kg·cm



18

Rear steering return rack ASSY temporary attachment

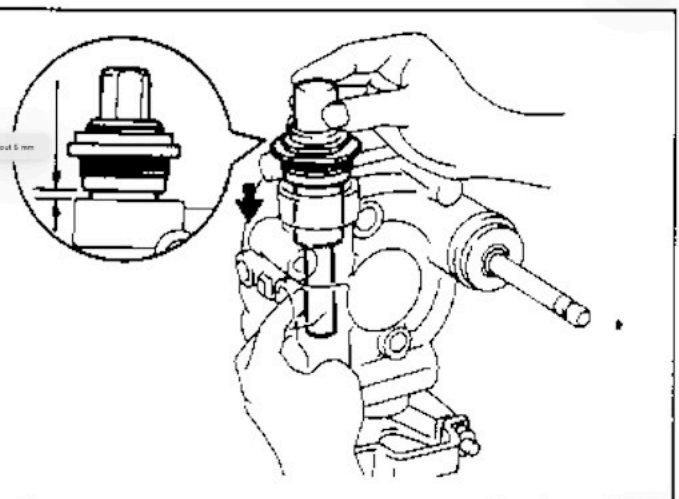
11)

Use SST to rotate the gear pinion in the counterclockwise direction.

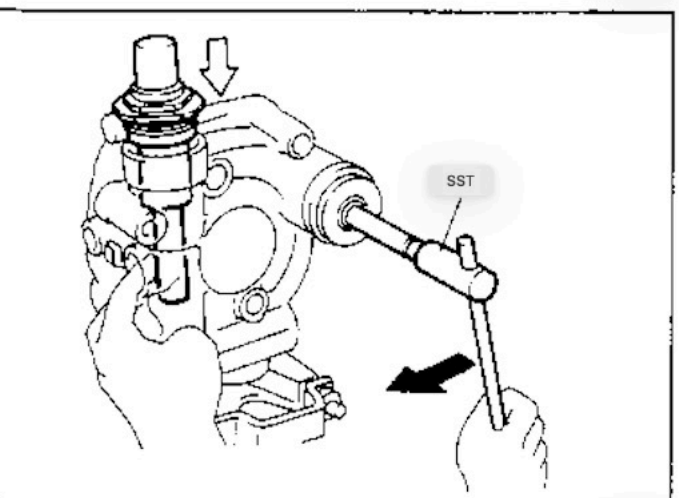
SST

Install a lock nut on the return rack ASSY.

13; Apply Advanced 1344 to the screw part of the return rack ASSY.



Insert the 141 return rack ASSY and engage the sector gear at a distance between the gear cover end face and the return rack staged part of about 5 mm.



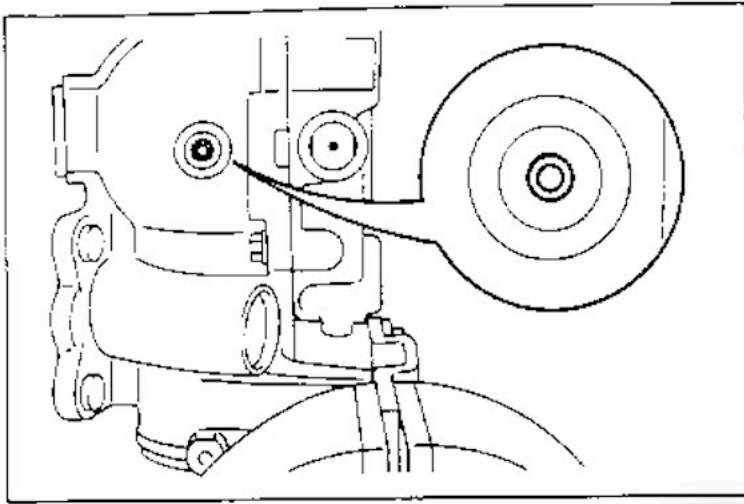
(5)

Turn the gear pinion so that the match between the sector gear and the rack does not shift.

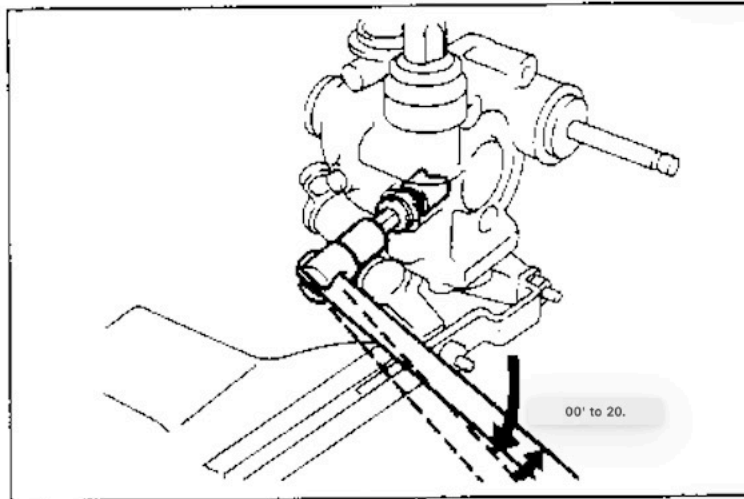
Turn the pinion in the clockwise direction.

(16)

If you insert the screw part of the return rack ASSY, stop rotating the pinion gear and screw the return rack ASSY.



171 Screw the return rack ASSY into the centre of the mounting hole of the return rack guide until the small rack comes. At this time, make sure that there is a pivot ~ drilling hole near the centre of the hole of the head cap bolt.



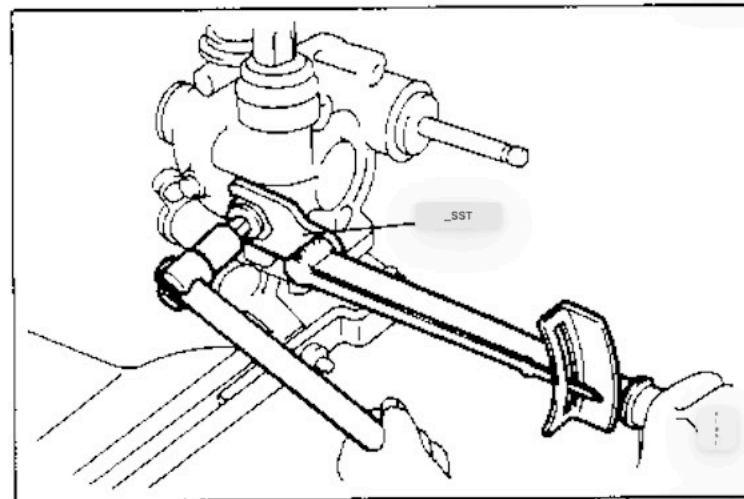
19 Rear steering return rack guide installation

11) Add to the screw part of the return rack guide spring cap

Apply Pu 1344.

: 21 Take the return rack guide, spring and spring cap I'll glue it.

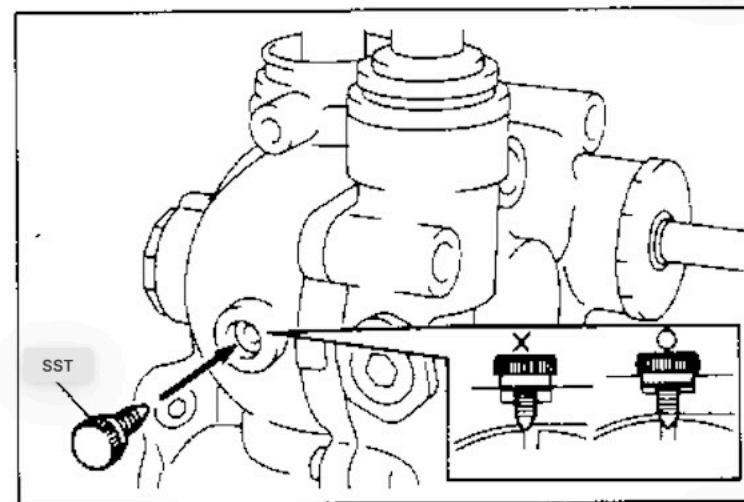
13) Screw in until the spring cap hits the return rack guide, and then screw back 10 to 20° from there.



(4) Use SST and hexagon wrench (14mm) to tighten the lock nut so that the spring cap does not turn.

SST
T = 400kg · cm

617-22030

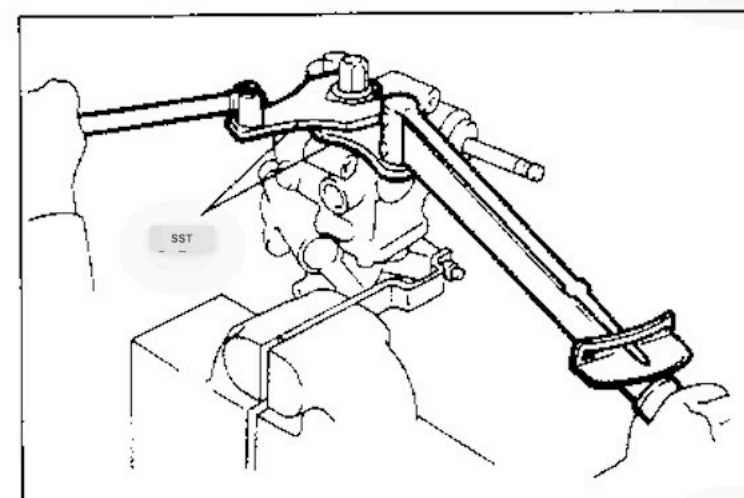


20 lya steering return rack ASSY soup (1) When the SST is screwed into the hole of the head cap bolt, it is smooth

Make sure to enter.

SST

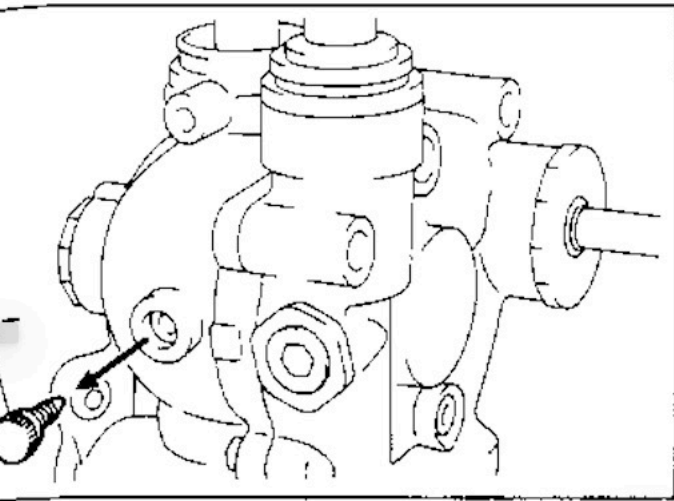
09660-14030



(2) Use SST to prevent the return rack ASSY from turning. Tighten the knut.

SST 09617-10010
T = 850kg · cm

09617-22040



(3)

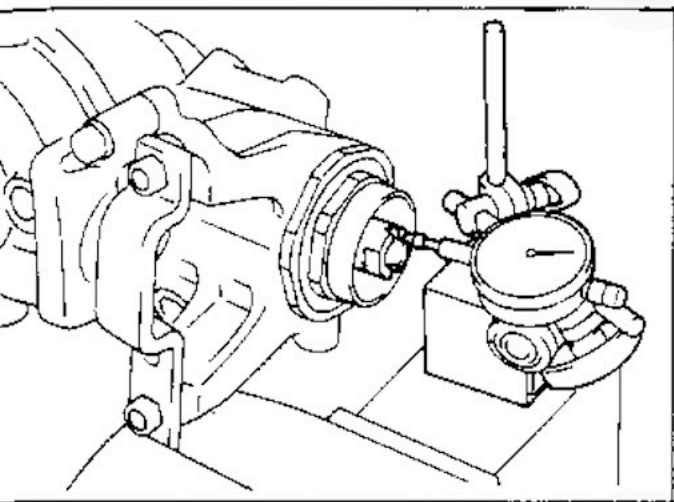
Remove SST.

SST

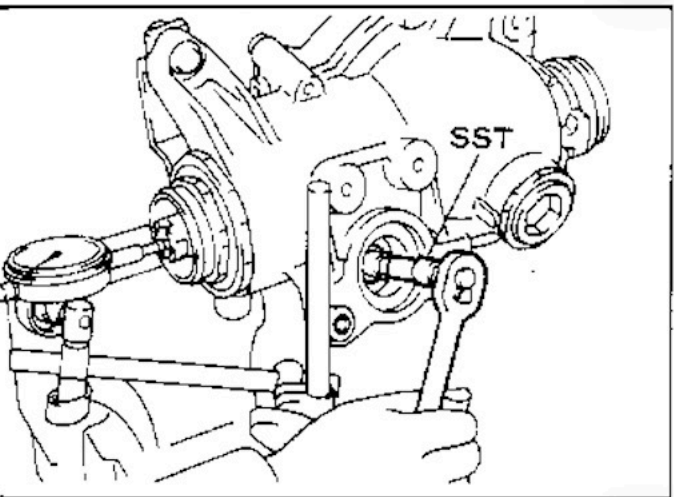
主釘

09660-14030

Be sure to remove the SST because it will cause a breakdown.



(Set the dial gauge at the tip of the 41 relay rod as shown in the figure.)

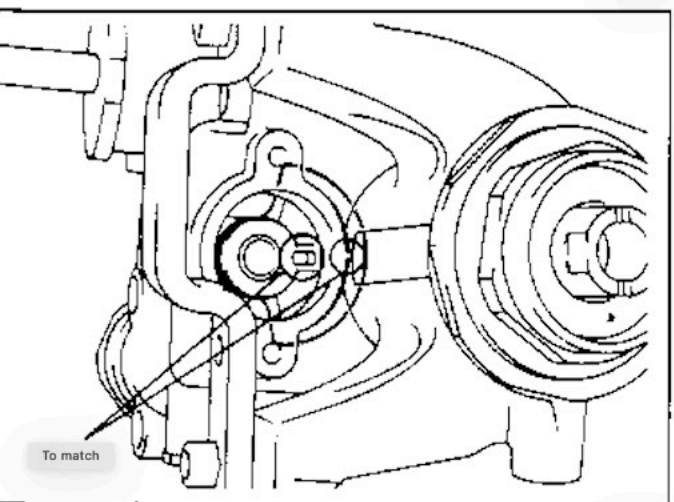


(5)

When you use SST to rotate the lever ratio control worm to the left and right, make sure that the instruction of the dial gauge is within the reference value.

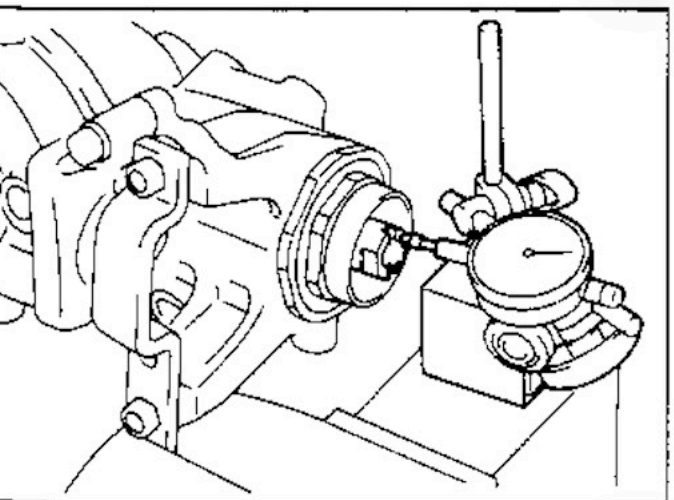
Standard value 0 soil 0.1mm

If it is outside the standard value, adjust the screwing amount of the return rack ASSY.

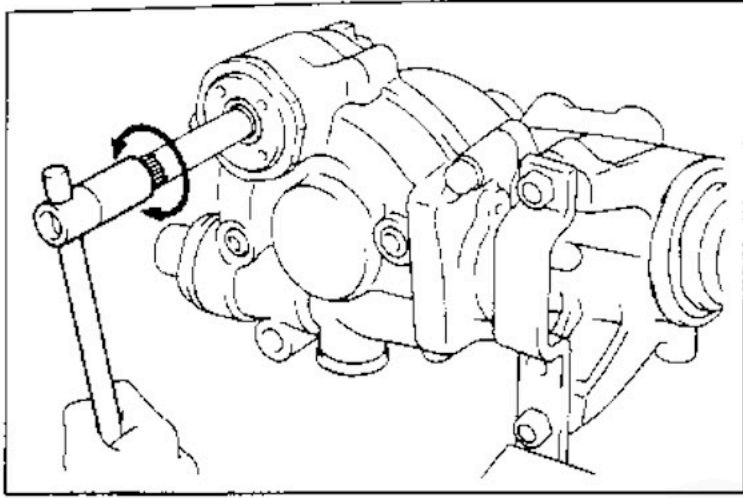


21 Steering control sensor installation

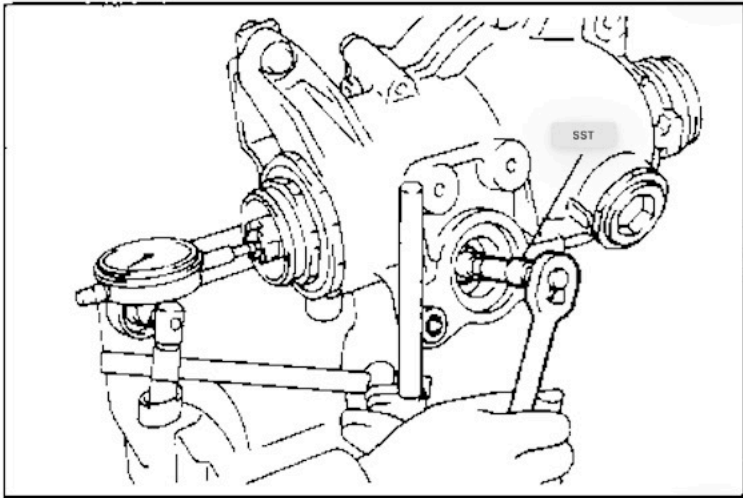
111 Make sure that the mark of the sensor gear and the gear cover match



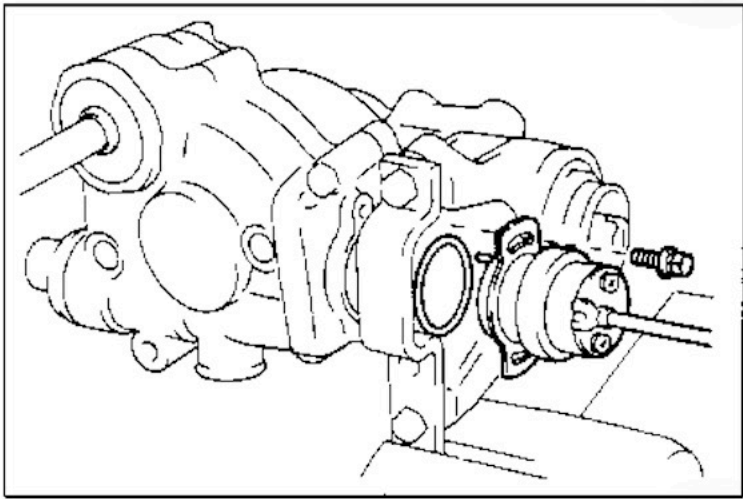
12) Set the dial gauge on the tip of the relay rod as shown in the figure.



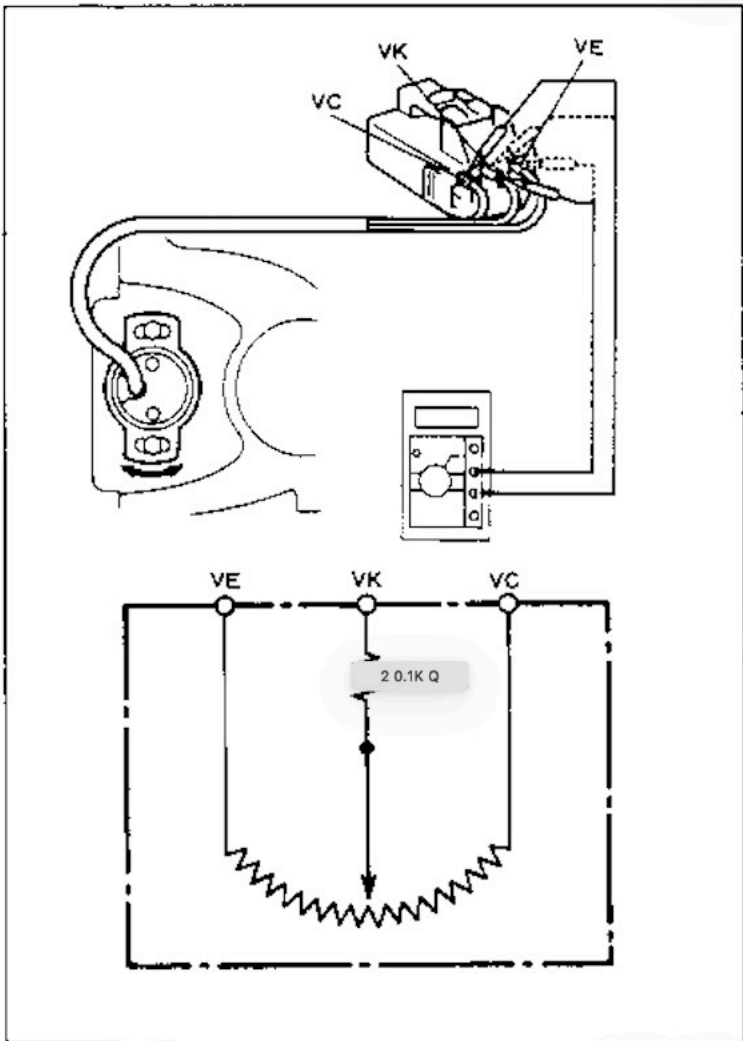
X1081



X1083



X1082



X1028 X8791

13: When you use SST to rotate the gear pinion to the left and right, make sure that the instruction of the dial gauge is within the reference value.

S S T

Standard
resistance

09616-10010
0 soil 0.05mm

(4) If it is outside the standard value, use SST to control the lever ratio.

Turn the worm and adjust it.

SST

09660-14020

(5) Attach the new O-ring to the gear cover.
16) Install the sensor lever in the hole of the sensor gear.

17

Do not deform the lever of the sensor.

171

Temporary tighten two bolts.

22 Steering control sensor adjustment

(1) Move and adjust the sensor so that the difference between the VC → VK terminal of the sensor connector and the VK → VE terminal is within the reference value.

Standard value within 0.1K2

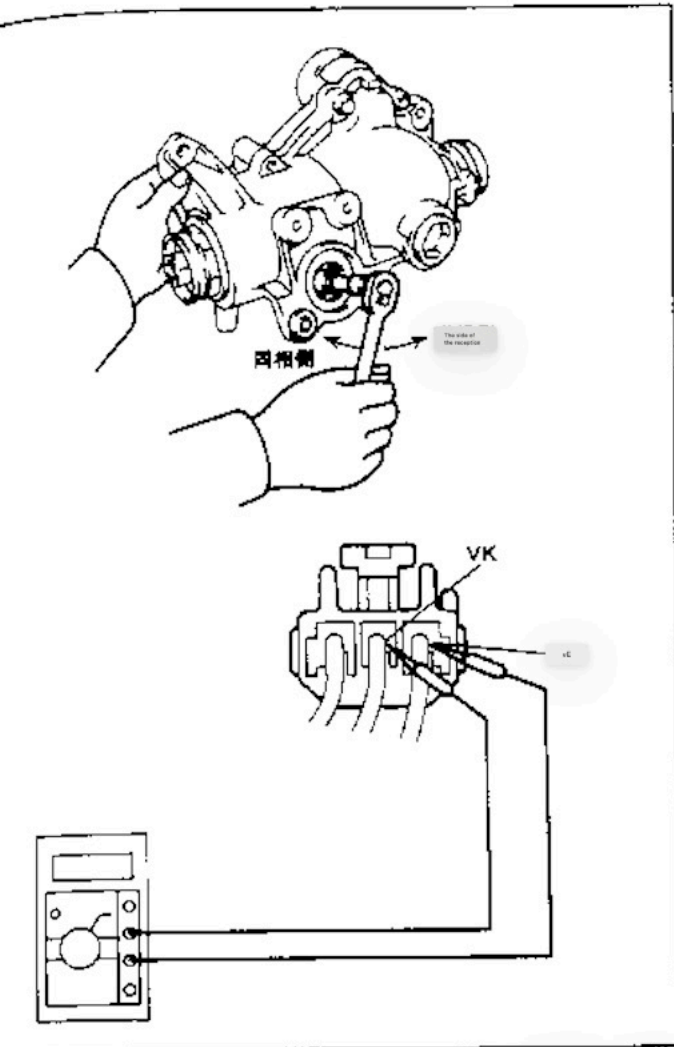
19

(考)

The tester inserts from the back of the connector. As a guide for the neutrality of the sensor, it will be around the paper resistance (KO) + 0.1K0 between VC and VE.

12) Tighten the sensor mounting bolt.

T = 50kg-cm



23

Rear steering gear ASSY inspection

111

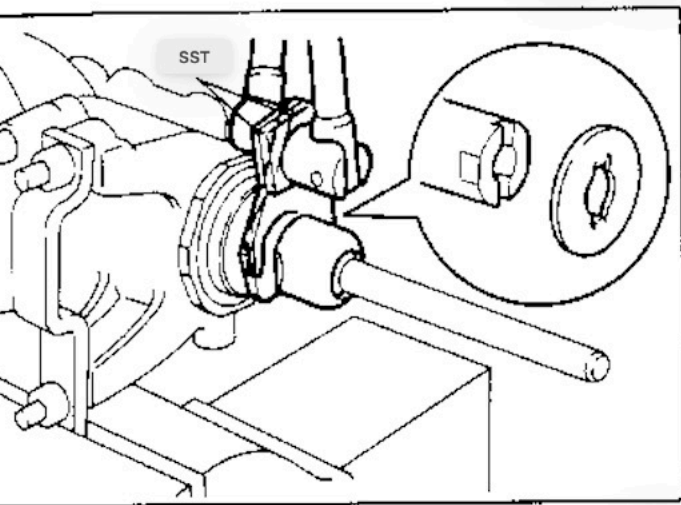
Using SST, the liver ratio control worm is the same phase. When turning from the MAX side to the reverse MAX side, confirm that the resistance value between the VK → VE terminals of the steering control sensor changes.

Standard
<Reference>

If you turn from the same phase side to the reverse phase state, the resistance value will increase proportionally.

Resistance value at the same phase MAX
Resistance value at reverse phase MAX

1.6-8.1KΩ
3.6-11.9KΩ



24 Rear steering rack end installation

Install the rack end through 111 new claw washers.

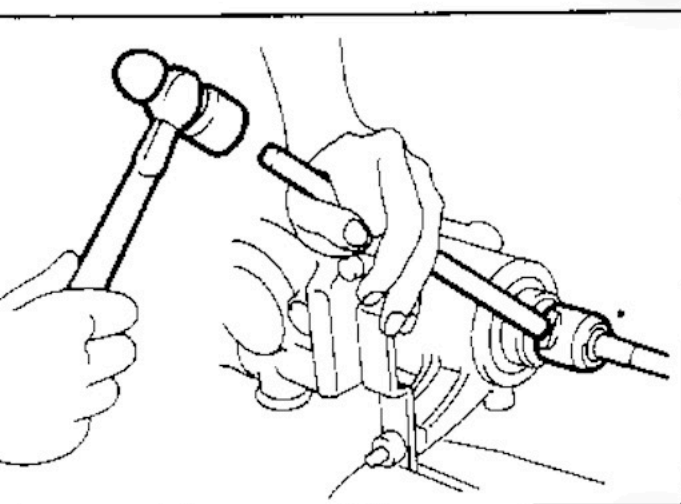
12)

Use SST to tighten the rack end.

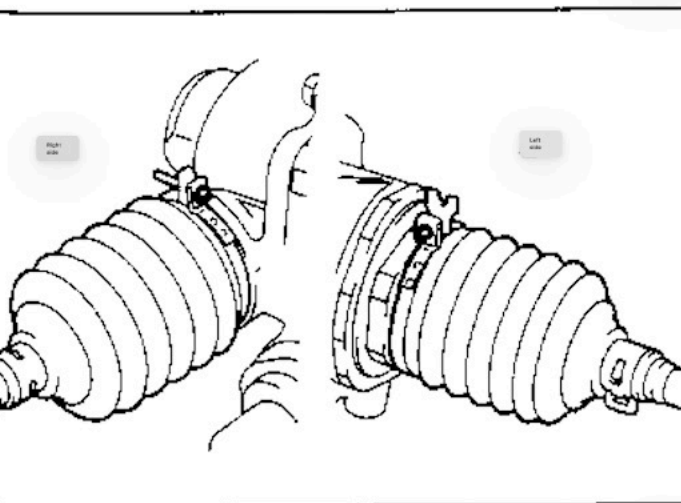
SST
T=850kg.cm

09617-14010

09617-24011

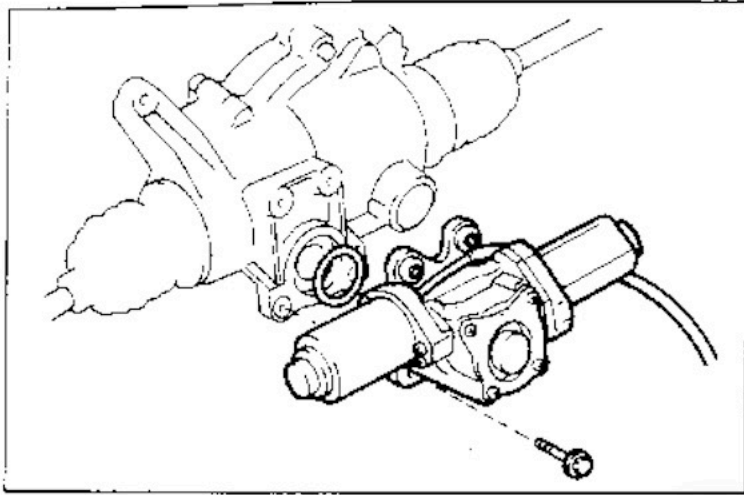


(3) Use the plus bar to claw washers.



25 Rear steering relay rod boot installation

11) Install boots and clamps.

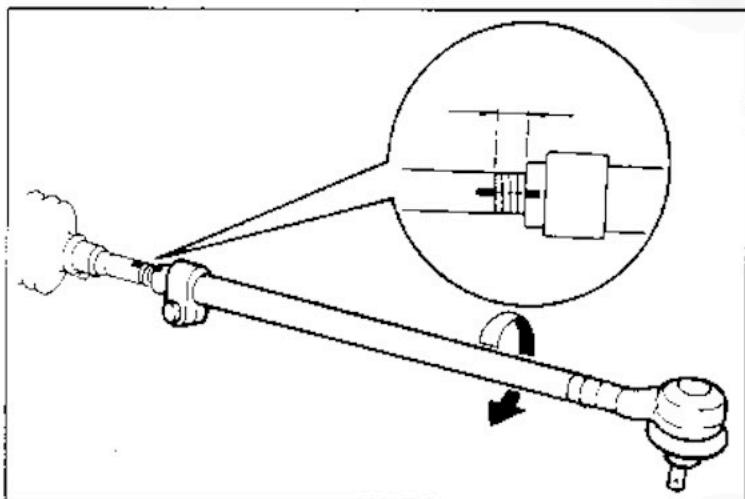


X 0516

26

Rear steering angle ratio converter ASSY installation
 1: Attach a seal ring to the converter ASSY"
 Install the converter ASSY with 4 121 volts

T = 50kg·cm



X 0793

27 Rear steering relay rod installation

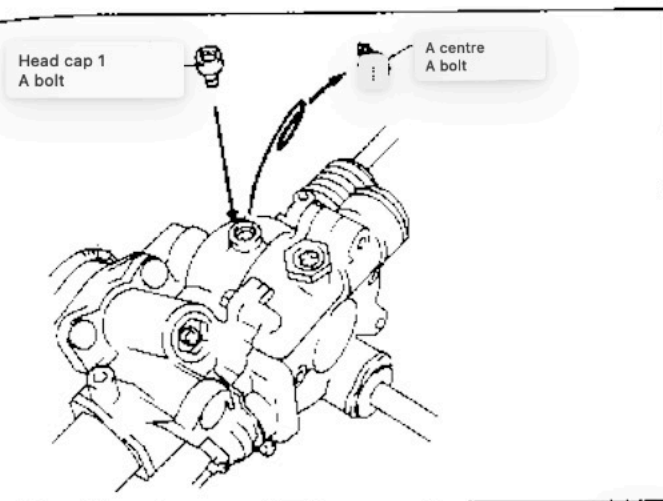
111 Screw the relay rod to the length of the screw part measured before disassembly.

121

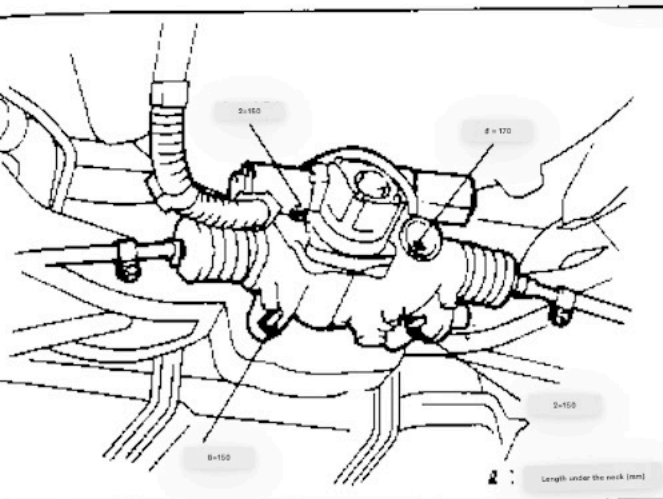
Tighten the crank.
 T = 185kg ·cm

28 Temporary attachment of head cap bolts

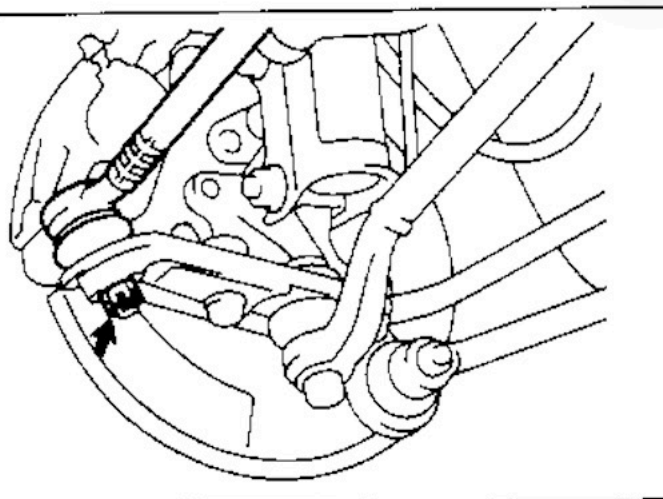
1: The head cap bolt is tightened after 4WS neutral tone



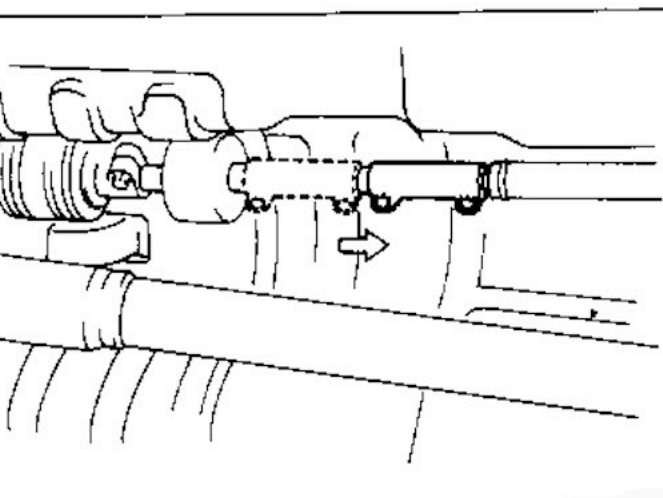
X 0796



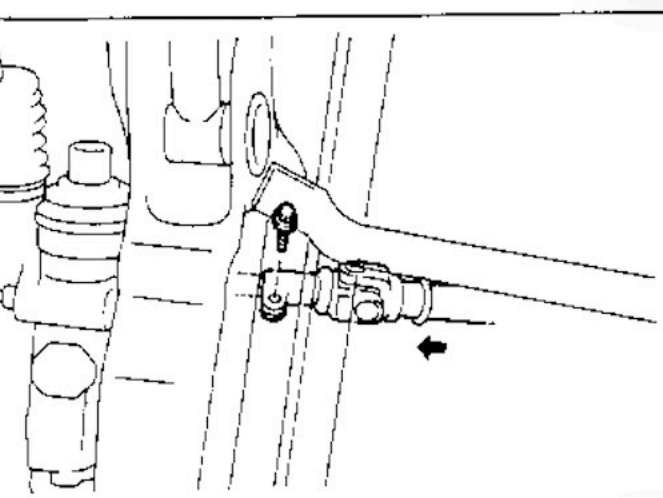
X 0909



X 0146



X 0155



X 0412

Rear steering gear link ASSY installation

- Steering with the connecting shaft connected
When operating the wheel, be sure to use SST for centring
Remove it.
- When replacing the rear steering gear link ASSY, the rear steering gear link ASSY for replenishment is centred by the bolt for centering, so be sure to attach it to the attached head cap bolt first. Replacement Ru.

1 Rear steering gear link ASSY installation

1) Rear steering gear, rear suspension with 4 nuts

Attach it to the mbar.
T=650kg · cm
<Reference> The length of Porto is shown in the figure.

121

Connect the tie rod end and the knuckle and tighten the castle nut

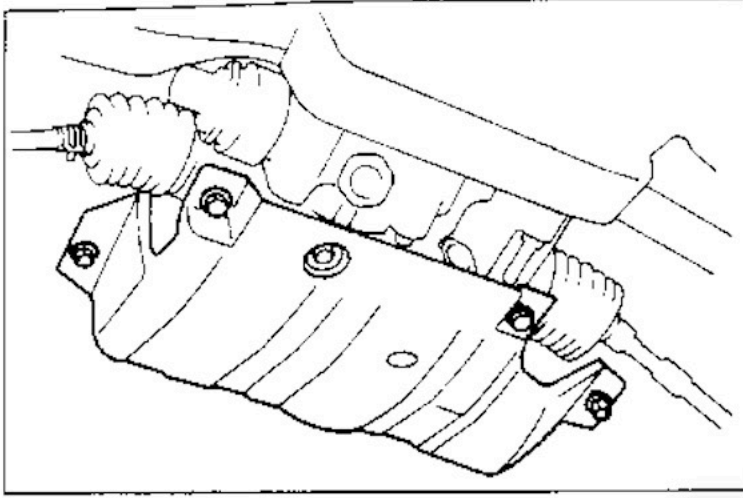
I'll lick you.
T=600kg · cm
Install a new cotter pin.

13;

- ### 2 Rear steering gear connecting shaft disconnection
- Loosen the sleep bolt of the connecting shaft, slide the sleeve to the front of the vehicle, and disconnect the connection with the connecting shaft No. 2.
(2) Tighten the bolts to the extent that the sleeve does not move.

3 Rear steering gear connecting shaft No. 2 connection

- Match and connect the pinion gear serration of the rear steering gear link and the serration of the connecting shaft No. 2
Ru.
(2) Tighten the two clamps of the connecting shaft No. 2.
T=360kg-cm

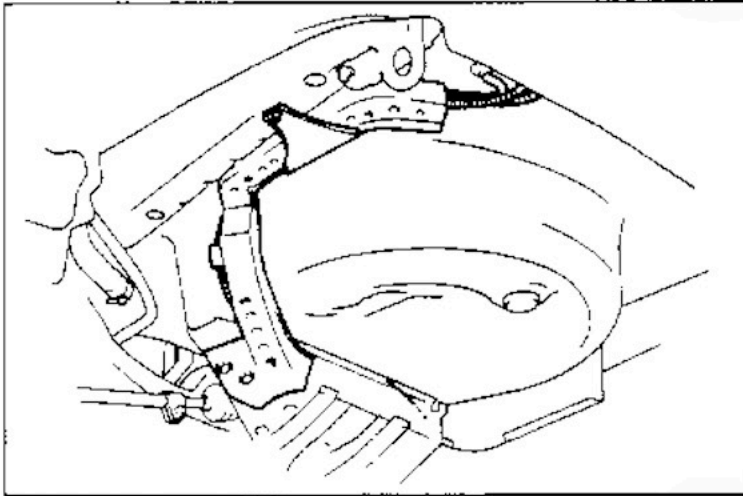


4 rear steering angle ratio converter protector

Glue

11: Install the protector with 4 bolts =

T=115kg · cm

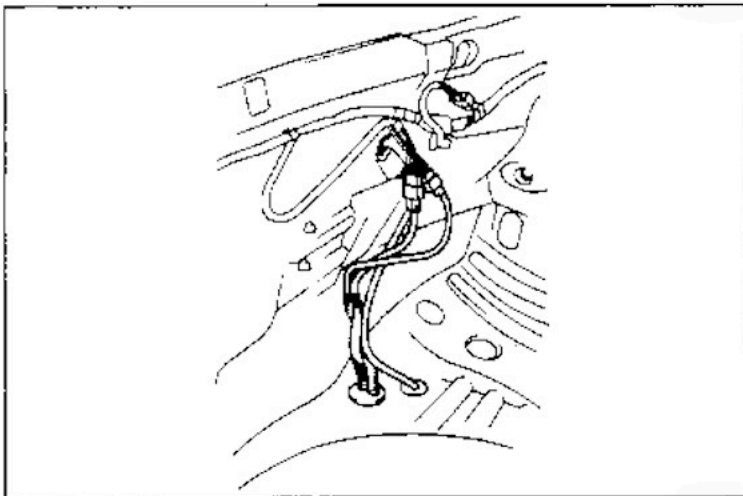


5 Wiring harness guide installation

11) Rya steering gear ASSY wire harness clamp at 4 o'clock
Install the place.

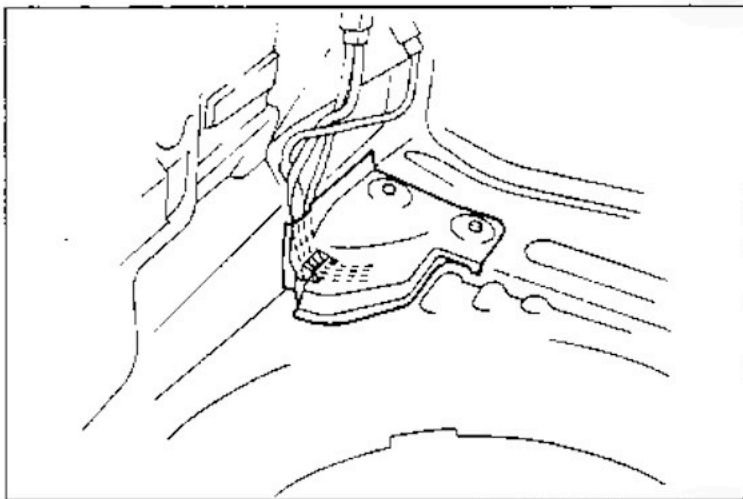
12: Install the wiring harness guide with 3 bolts

T = 55kg-cm



6 Connector connection

11) Pull the harness of the main motor, backup motor and steering control sensor into the guide and connect each connector."



7 Steering control W/H protector installation

111 Pull the harness of the main motor, backup motor and steering control sensor to the clamp of the protector and install the protector.

8 Deck trim sideboard left installation

9 Deck trim cover rear installation

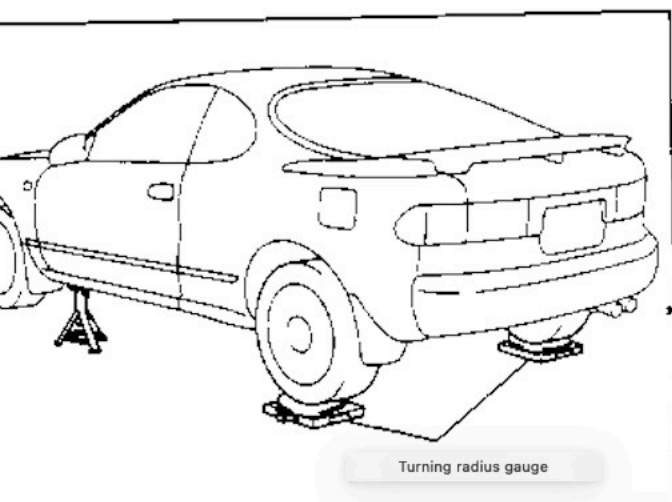
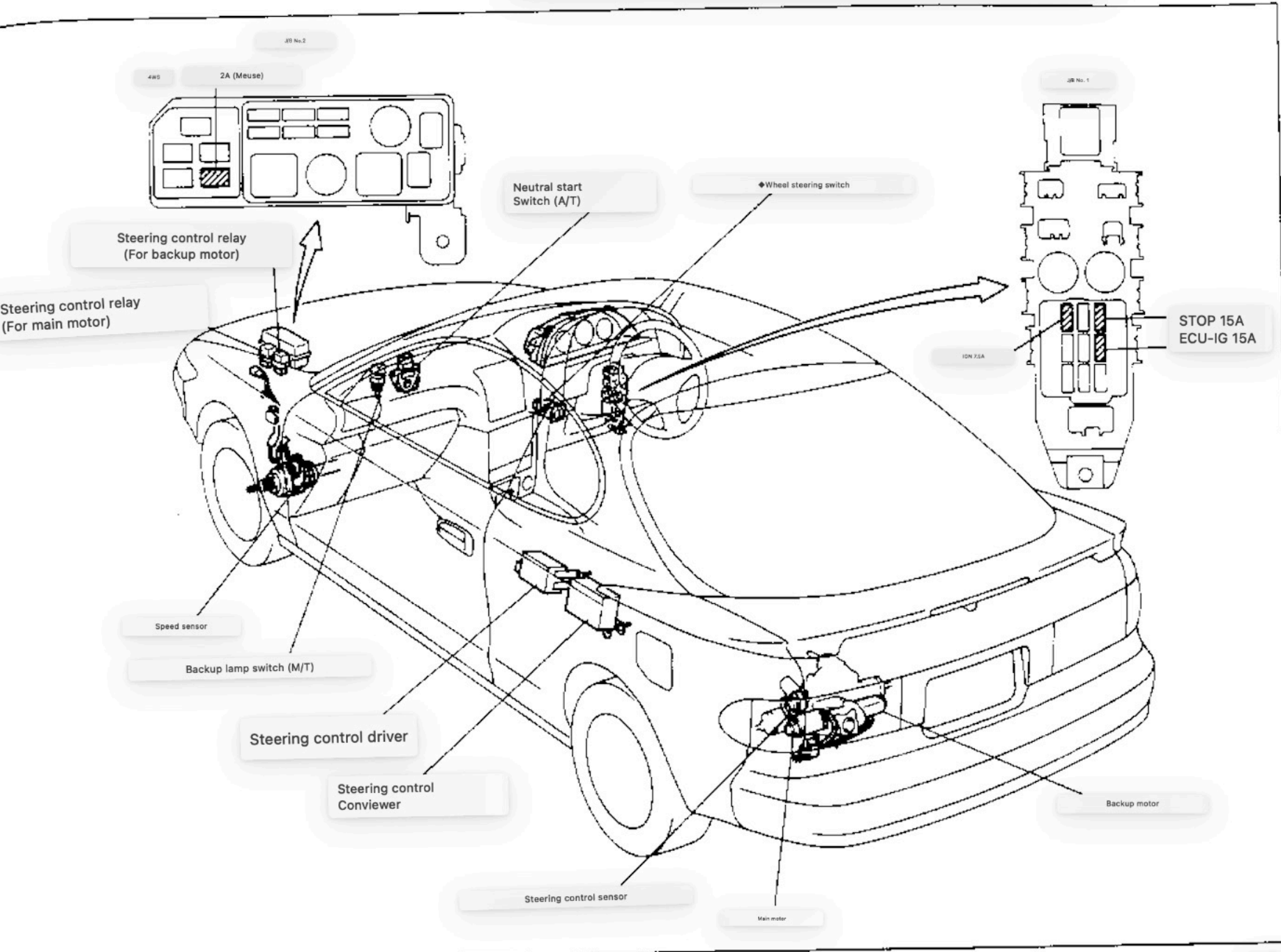
10 Rear wheel alignment (to-in) inspection and adjustment

(Refer to P6-8)

11 4WS Neutral Training

(Refer to P8-107)

Electrical control Parts layout diagram

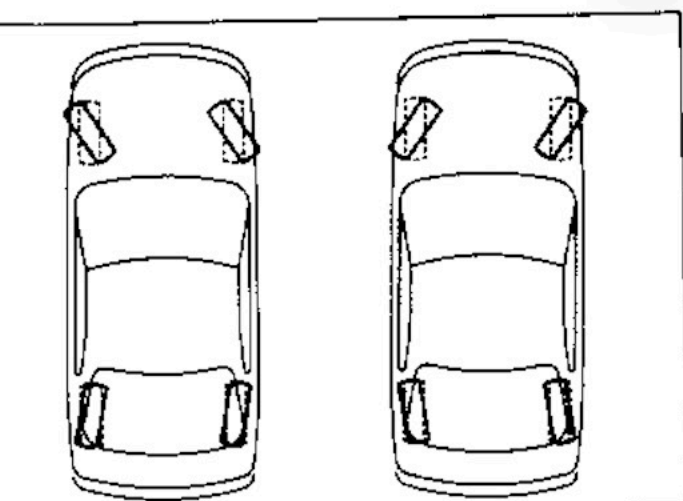


Function inspection

Phase switching inspection

- 1 Vehicle front jack-up
- 2 Turning radius gauge set (1) Set the rear diamond on the turning radius gauge and parkin

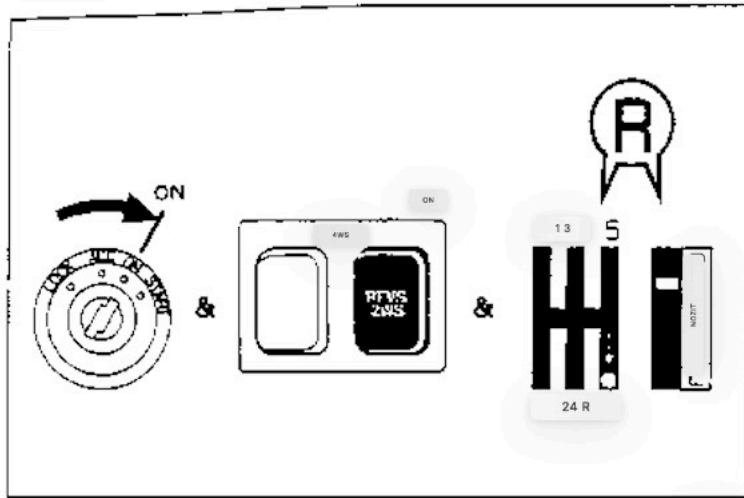
Pull the brake lever.



Rear wheel cut angle inspection

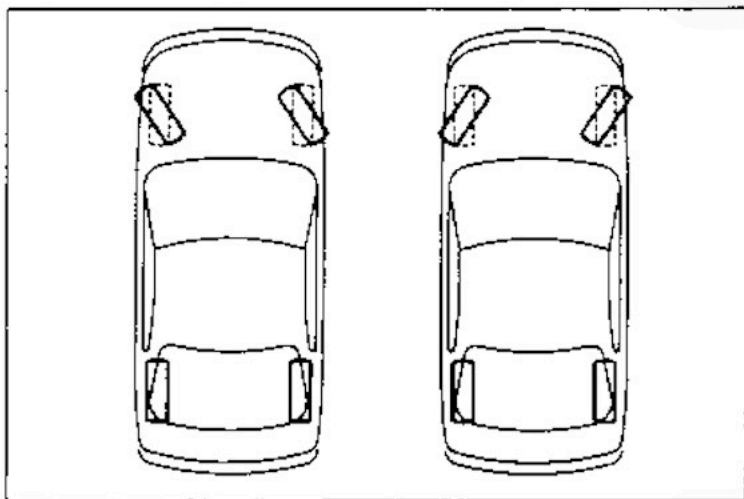
Reverse phase inspection

When the steering wheel is cut from the straight forward state to the left and right, make sure that the rear wheel cuts in the opposite direction from the front wheel.

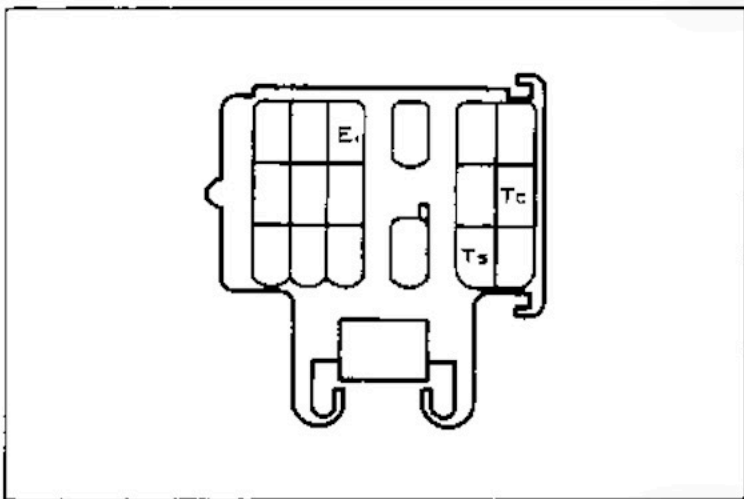


Neutral (reverse 2WS function) inspection

- 11) Turn on the ignition switch and shift the shift lever to the reper.
- 12) Turn on the 2WS switch when reversed.

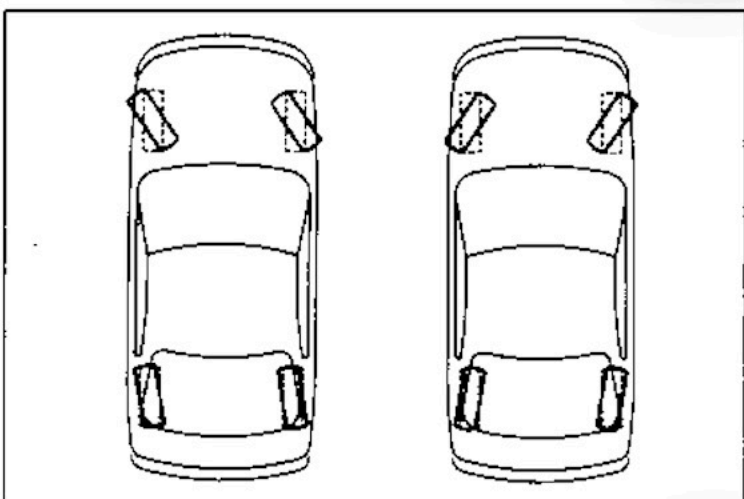


When you cut the 131 steering wheel from the straight forward state to the left and right, make sure that the rear wheel does not break.

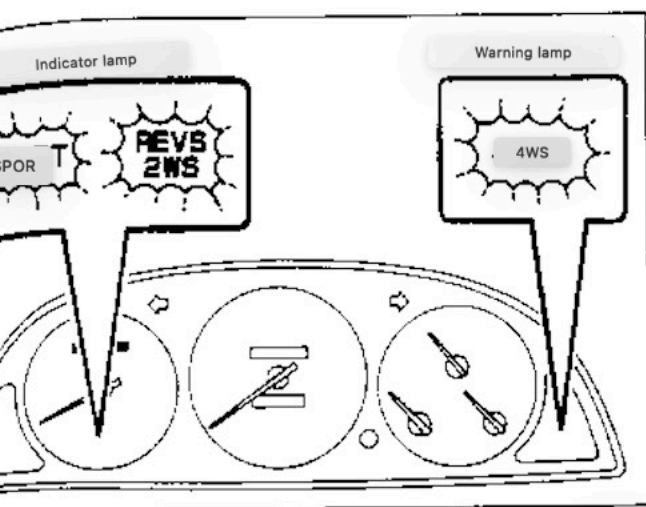


Iso-phase inspection

- 11) Tc, Ts+E of the diagnostic connector, short the terminal and turn on the ignition switch
- If you make a mistake in the short position of the connector, it will cause a failure, so you will never get it wrong.



- 12) When the steering wheel is cut to the left and right from the straight forward state, make sure that the rear wheel cuts in the same direction as the front wheel.



x 0584

Troubleshooting

- With the ECU-IG and IGN fuses unplugged, never turn on the ignition switch.
- When even one connector of the steering control computer is disconnected, the ignition switch will never be turned on. (It's good if everything is detached)

How to proceed with troubleshooting

- 1 Battery pressure inspection
Standard value 10 to 14V (when the engine is stopped)
- 2 Lamp check

(11 When the ignition switch is turned on, confirm that the indicator lamp and warning lamp of the 4WS will light up for about 2 seconds.

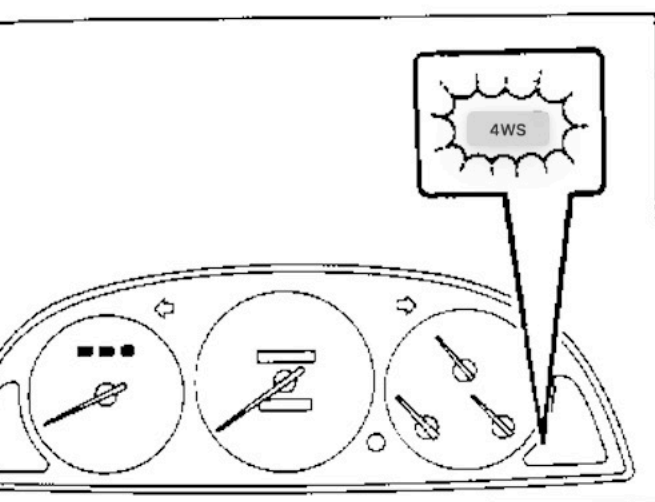
- 3 Dialogue inspection
- 4 Inspection by chart by trouble phenomenon

Diagnostic inspection

1 Fail-safe function

11) If an abnormality occurs in the system of 4WS system, fail system Do the city, turn on the 4WS warning lamp and display the abnormality.
<Paccipant> · Fail safe function is the ignition switch OFF

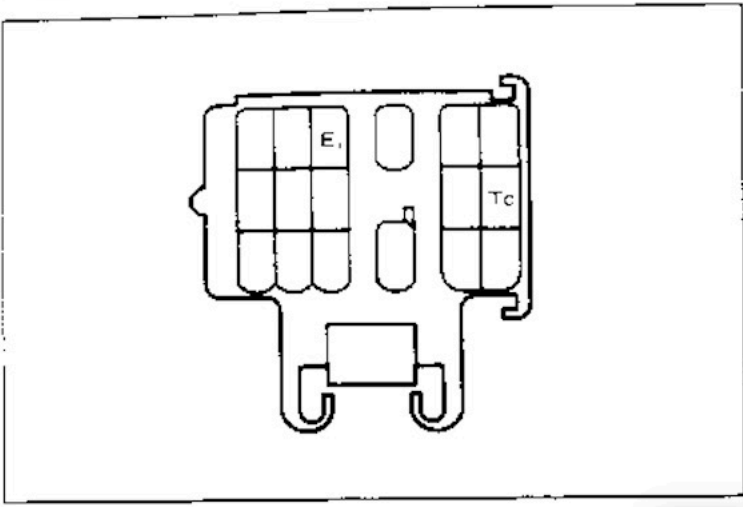
Reset with.
· Control content at the time of fail-safe



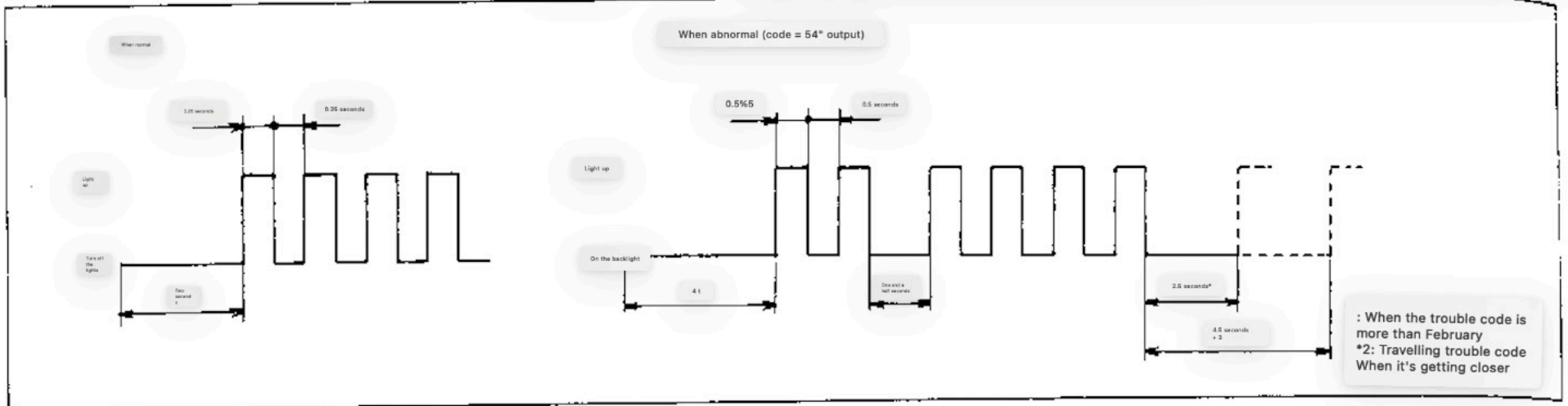
x 0585

Abnormal simple place	Sumi-dong motor	Control content
Main motor · Motor short · Motor disconnection · Motor malfunction · Relay failure	Support A motor	Perform the normal mode system · To the same side due to the increase in vehicle speed I need to move. · It does not reverage in the reverse direction.
Backup motor · Hairy hair is cut off · Motor malfunction · One night, one power disconnection	Main motor	Control the normal mode · To the same side due to the increase in vehicle speed I need to move. · Do not move in the reverse direction.
Speed sensor	Main motor	Control the normal mode · To the same side due to the increase in vehicle speed I'm moving. *Do not drive in the reverse direction
Steering control sensor · Sensor disconnection · Defective sensor	Support A motor	Drive up to the same phase MAX, control body stop
A computer · Poor control · Source of computer Disconnection	Support A motor	Drive up to the same phase MAX, stop control






2 Diagnosis code reading

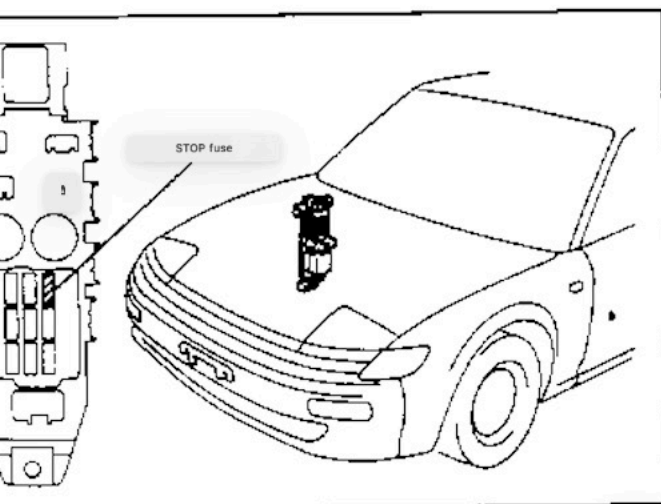


<Reference> Even if the warning lamp is not on, it will be rotten →
 If Eir has ever occurred, I remember the Diadagnosis code. TCH+E of the diagnance connector, short circuit the terminal.
 If you make a mistake in the short-circuit position of the connector, it will cause a failure, so you will never make a mistake.
 121 Turn on the ignition switch and read the number of flashes of the 4WS warning run.



A chord Number	Diagnostic items	4WS warning lamp flashing	Diagnosis content	Inspection contents
11	Computer failure	Light up, Turn off the lights. [Two short pulses]	<ul style="list-style-type: none"> Ignition switch ON 1C2 After that, IG 1 turned on (more than 2 seconds have passed) Later) The backup motor was activated with the ignition switch ON. 	<ul style="list-style-type: none"> Wire harness
12	Driver source system is defective	Light up, Turn off the lights. [Three short pulses]	When the main relay was turned off, when the steering control driver was heated, the main motor's moveable power was entered. (Implemented at the time of initial check)	<ul style="list-style-type: none"> Main relay
13	Bad steering control driver	Light up, Turn off the lights. [Four short pulses]	When the main motor is not moving, the main motor electric current was input.	<ul style="list-style-type: none"> Steering controlled Liver
21	Main motor type show To	Light up, Turn off the lights. [Long pulse]	Steering control driver The short signal from was entered 4 times.	<ul style="list-style-type: none"> Main motor Main relay Wire harness (computer + driver group)
22	Main motor system disconnection	Light up, Turn off the lights. [Five short pulses]	Even if you output the main motor joy signal, the main motor will be driven! The flow is less than 2A, and the change of the accommodation number from the steering control sensor is below a certain level.	<ul style="list-style-type: none"> Main motor Wire harness
23	Main motor lock	Light up, Turn off the lights. [Six short pulses]	<ul style="list-style-type: none"> Soybean flow flowed to the main motor. Even if you output the movement of the main motor, the change of Suga's mother from the steering control sensor is less than a certain level. 	<ul style="list-style-type: none"> Main motor Saiya harness
24	Main motor trial operation	Light up, Turn off the lights. [Seven short pulses]	Computer's main motor motion 1 The direction of the mother and the direction of the number from the steering control sensor are reversed.	<ul style="list-style-type: none"> Main motor

Diagnosis date	4WS warning lamp flashing	Diagnosis content	Point content
Backup motor System disconnection	Light up Turn off the lights 	The backup motor system was disconnected. (Judged at a vehicle speed of 5 km/h or more)	<ul style="list-style-type: none"> Backup motor Wire harness (IG2 series, G ND2 series)
Backup motor Poor 采	Light up Turn off the lights 	Even if you output the moveable number of the backup motor, the eyes from the steering control sensor will not change. (Implemented at Initial Check)	<ul style="list-style-type: none"> Steering control Le Backup motor
Speed sensor system is not	Light up Turn off the lights 	One of the two speed sensor outputs is Even though it was more than 25 km/h, the other speed sensor output was 0 km/h for more than 2 minutes.	<ul style="list-style-type: none"> Speed sensor Wire harness
Defective steering control sensor	Light up Turn off the lights 	Main motor At dynamic output, mo Although the driving current of the tar is normal, the words from the steanser ring control sensor When there is no change even if you move the backup motor after the change of the issue continues below a certain state	<ul style="list-style-type: none"> Steering control harness
Steering control sensor disconnection, short	Light up Turn off the lights 	Steering control sensor? Ra's number is a species outside the horizontal moveable range 心機	<ul style="list-style-type: none"> Steering control Zenser Wire harness



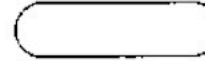
4 Diagnosis code erasure (1) Remove the STOP fuse for 10 seconds after abnormal location.
(2) After installing the fuse, confirm that the normal code is output.

Inspection by chart by trouble phenomenon

1 How to view the flow chart

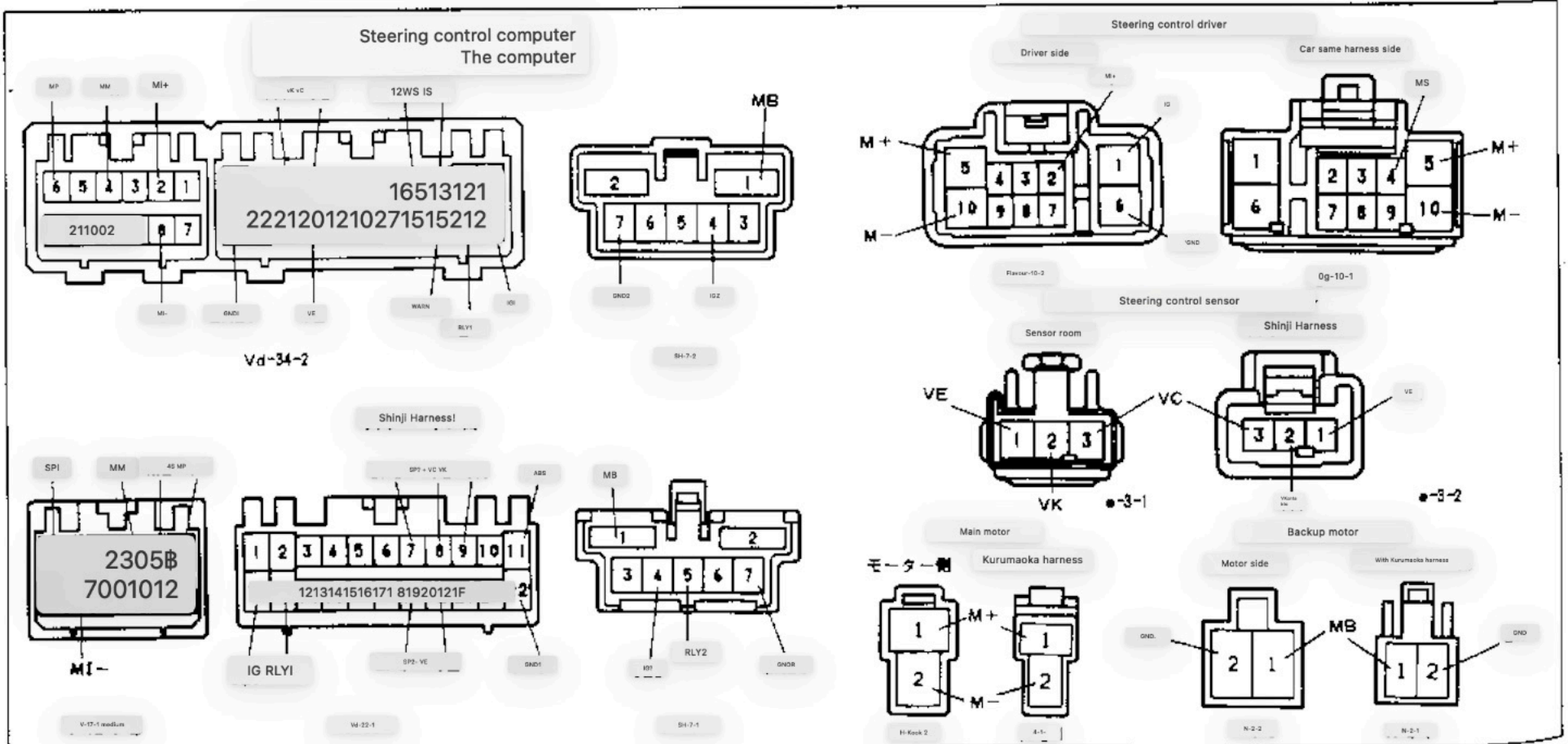


...Working talent day
 ... point exchange way stone month
 · Those who do not fill in the conditions are identification
 Do it with the switch ON



Defect factors
 · Including wire harnesses

Defect phenomenon	Chart No.	Page No.
4WS with ignition switch ON The lamp of "SPORT"REV2WS" does not turn on.	1	8-151
Even if the "TclE" terminal of the diagnostic connector is short-circuited, the diagnosis code will not be output.	1	8-151
Output the diagnostic code "11" Output the dialogue code "12" Output the diagnostic code "13" Output the diagnostic code "21" Output the diagnosis code "22" Output the diagnostic code "23" Output the diagnosis code 24" Output the diagnostic code "31" Output the dialogue code "32" Output the diagnostic code "41" Output the diagnostic code "42" Output the dialogue code "43"	2	8-152
	3	8-152
	4	8-153
	5	8-154
	6	8-155
	7	8-156
	8	8-157
	9	8-158
	10	8-158
	11	8-159
	12	8-160
	13	8-161
	14	8-162
	It doesn't go into reverse 2WS mode.	15
I can't switch between "normal" "spoe"	16	8-163



The lamp of "4WS" SPORT "REV2WS" does not turn on at the ignition switch ON

Is there a battery voltage at the IG1 terminal of the steering control computer?

NO

★Wire harness defective (source system)

YES

The voltage between the GND1 terminal + body earth of the computer is 1

NO

★Wire harness failure (ground failure)

YES

Is the battery voltage of each terminal of the computer's WARN, I2WS, and IS be more than 2V for about 2 seconds after the ignition switch is turned on?

YES

• Wire harness defect (lamp system)
• Lamp failure

NO

Bad steering control computer

Tc+E of the diagnostic connector, does not output the diagnostic code even if the child is short-circuited

Does the steering control converter output the diagnostic code when short-circuiting the child?

YES

★Defective wire harness

NO

Is there battery voltage on the IG1 child of the steering control computer?

NO

★Wire harness failure (power supply)

YES

The voltage between the GND1# child + body earth of the computer is more than 1V?

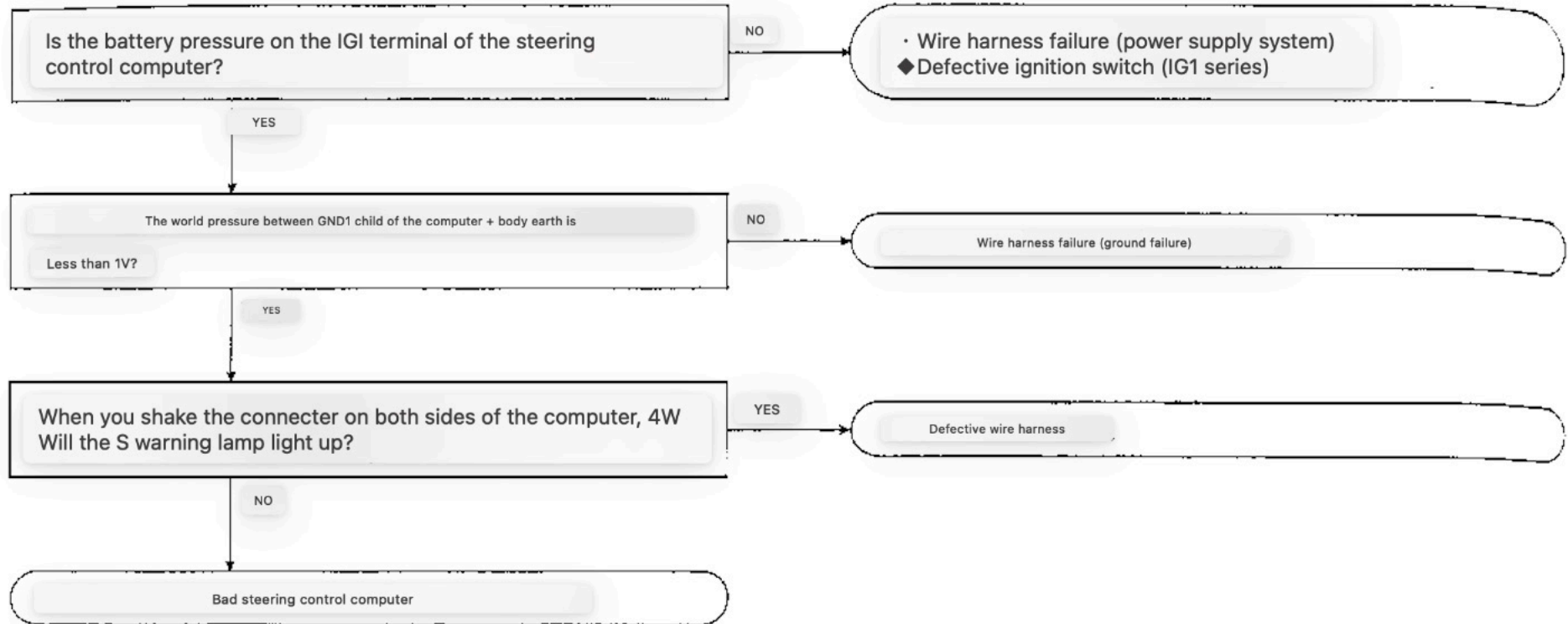
NO

★Wire harness failure (ground failure)

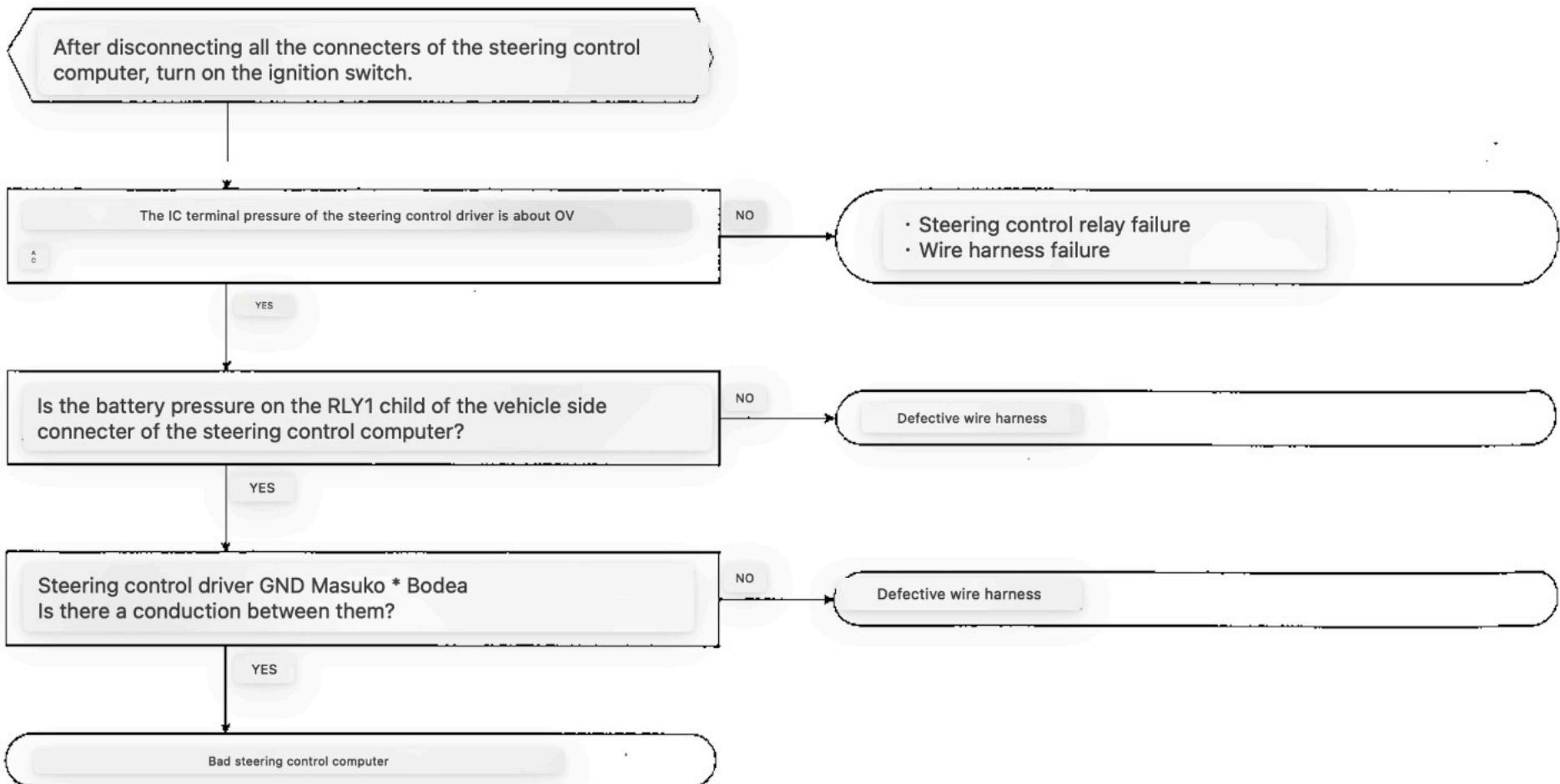
YES

Bad steering control computer

Output the diagnosis code "11"



Output the diagnostic code "12"



Output the diagnostic code "13"

MI+4M of Ki Steering Control Computer~
Is the high pressure between children more than 0.5V?

YES

NO

Disconnect the connector of the steering control computer and the steering control driver

Each of the computer and the driver's vehicle side connectors
Is there a conduction between MI-business children?

YES

NO

Defective wire harness

(Steering control computer failure)

Cut the connector of the steering control driver

fight.

The voltage between MI+→MI-MI-Masuko on the computer is more than 0.5V.

NO

★Steering control driver failure

YES

Turn off the ignition switch and turn off the connector of the computer

Is the re-pressure between MI++MI-child of the computer's vehicle side connector more than 0.5V?

NO

★Steering control computer failure

YES

Defective wire harness

Output the diagnostic code ¥21"

After disconnecting all the connectors of the steering control computer, turn on the ignition switch.

When shortening the RLY1 → GND1 child of the two-sided connector of the computer, the IG of the steering control driver Will the battery pressure be applied to the terminal?

NO

- Wire harness failure
- Steering control relay failure

YES

Cut the connector of the steering control driver

Each of the computer and the driver's vehicle side connectors Is there a standard between MS terminals?
YES

NO

Defective wire harness

Driver's IG~M+, M one child circumference and GND*MM+, M-

Is there a conduction between Kakeko? *1

YES

Bad steering control driver
*1 Because there is a diode in it, each tester's interface is reversed to check the one-way conduction.

NO

Connect the driver connector

When the battery pressure is applied to the MP★GND1 stock of the computer's vehicle side connector, 5 between the MS+GND1 terminals Is there a flower pressure above V?

NO

YES

When the battery pressure is applied between the MM+GND1 terminal of the vehicle side connector of the computer, 5 between the MS+GND1 terminal

Is there an individual pressure above V? # 2

NO

- Wire harness failure
- Main motor failure
- *2 Don't apply rich pressure to the computer side
- Don't apply pressure to the MP and MM terminals at the same time.

YES

Bad steering control computer

Output the diagnostic code "22"

Main rear steering angle ratio converter
Disconnect the motor connector

When the battery pressure is applied to the terminal of the main motor connector, the V of the steering control computer will the pressure of the K→VE terminal change?*

NO

• Main motor failure
• Wire harness failure
*The pressure does not change. Or if the change stops, do not put the maximum pressure on the vehicle harness side that reverses the battery connection.

Turn off the ignition switch and turn off all the connectors of the computer and steering control driver.

Between the computer and the driver's vehicle side connector terminal there a conduction?

Contourer side	Drivers
MP	MP
M	M
M	M

NO

YES

Between the driver and the main motor's two-sided connector there a conduction?

Driver side, main motor side	
M +	M +
M -	M -

NO

★Defective wire harness

YES

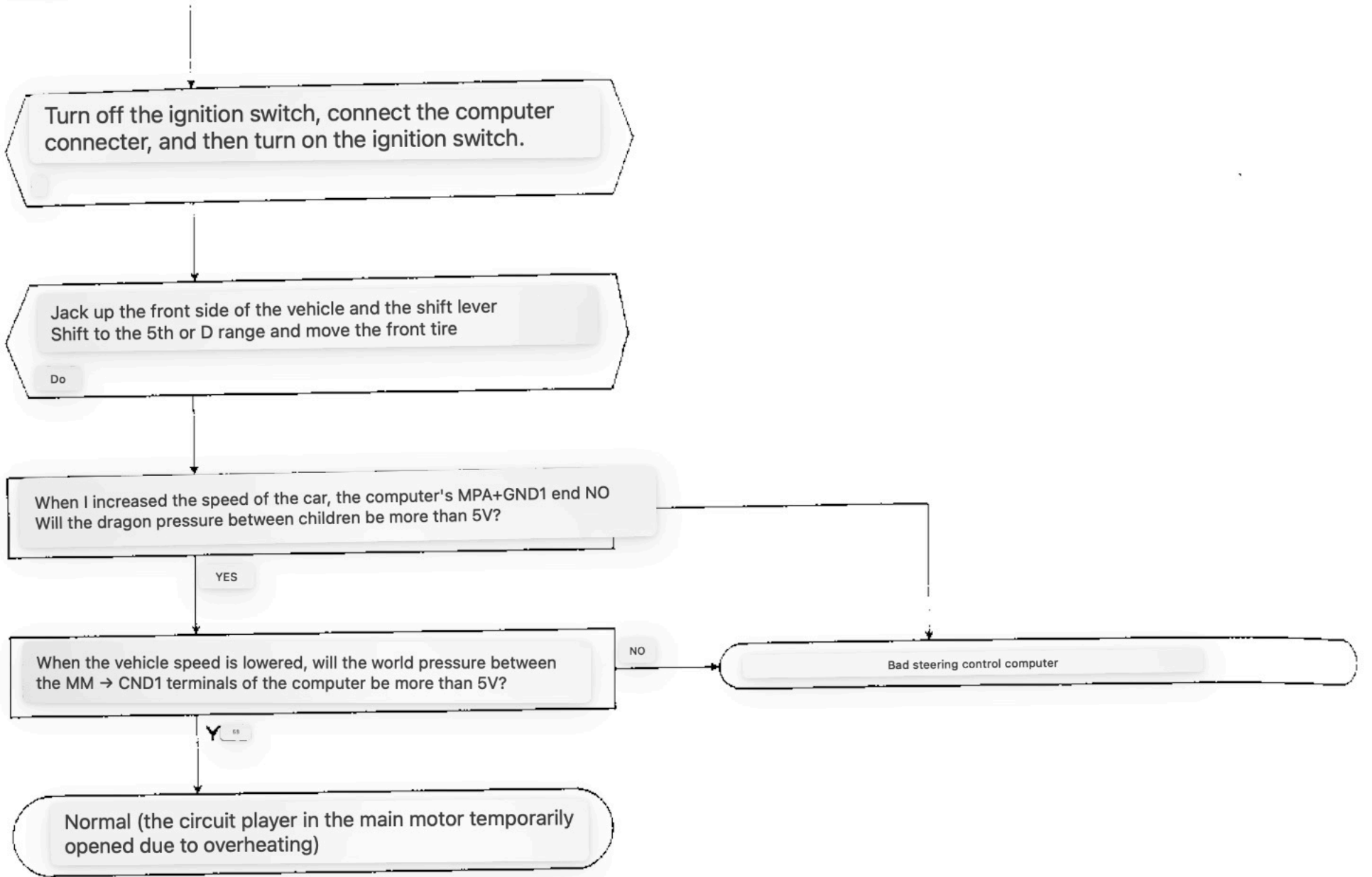
Connect the driver and the main motor connector and turn on the ignition switch

When the RLY1+GND1 special side connector of the computer is short-circuited, and the battery voltage is applied between the MP+GND1 child of the computer's side-side connector, will the main motor work?
When the battery connection is changed to MM GND 1 salt, will the main motor work?

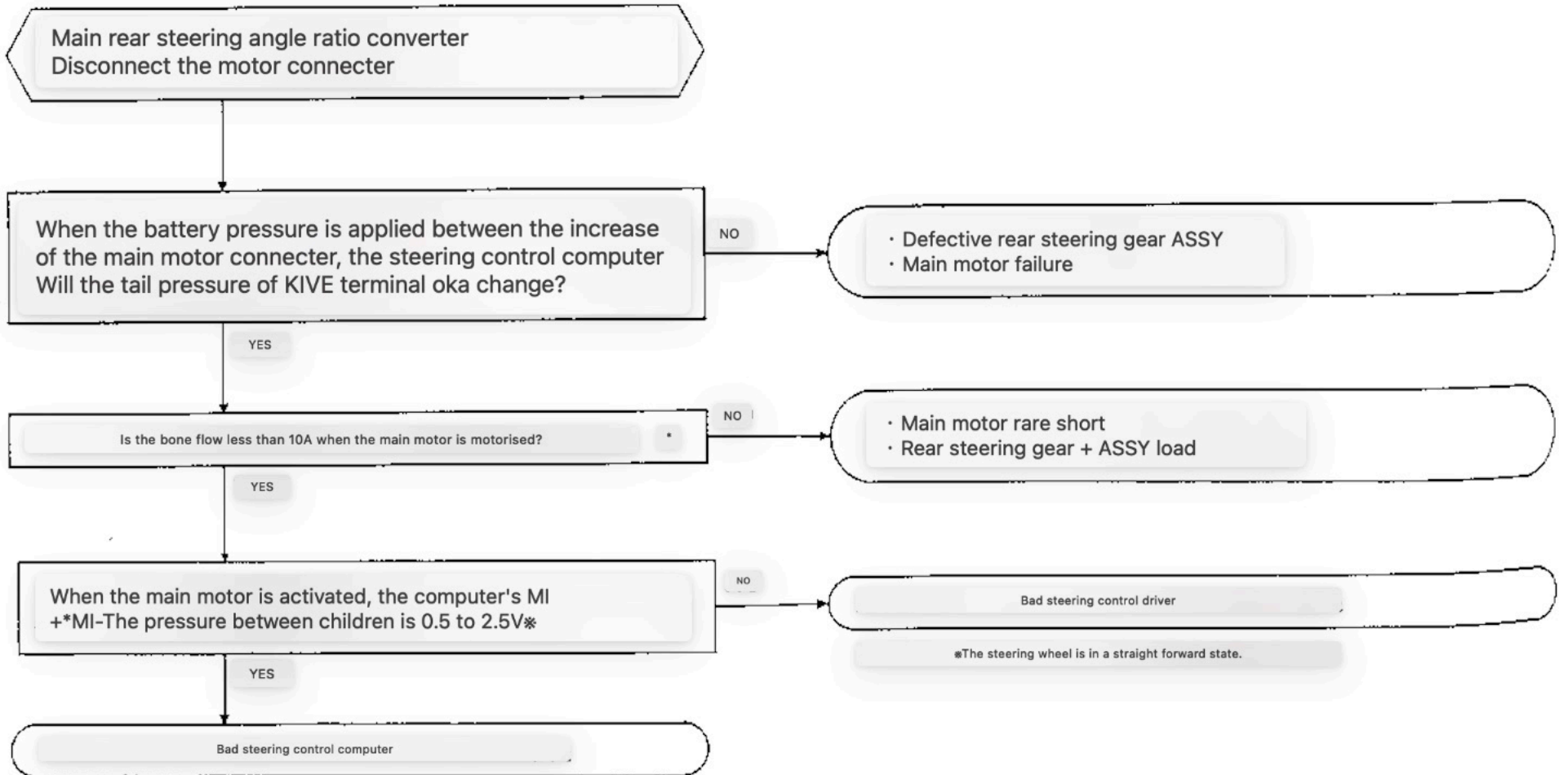
NO

★Steering control driver failure

YES



Output the diagnostic code "23"



*The steering wheel is in a straight forward state.

Output the diagnosis code ¥24"

Cut off the steering control driver's Connector

at go

When Battery-kun pressure is applied between the M+←M terminals of the driver's side connector, will the VK → VE ★ child-circumference voltage of the steering control computer be as follows?

Battery connection		VK++VE Child circumference voltage
M +	M -	
4	⊖	Des cen ding Rise
⊖	⊕	

NO

- Defective rear steering gear ASSY
- Wire harness failure

YES

Is there a battery pressure between the computer's B★GND 2 Kakeko?

YES

/Turn off the ignition switch and all the computers
Cut the connector.

NO

Turn off the ignition switch, connect the driver connector, and turn off the computer connector.

The backup motor is activated with the ignition switch ON

NO

Bad steering control computer

YES

- Steering control relay failure
- Wire harness failure

With the ignition switch ON, the battery between the MP★MM children the connector on both sides of the computer! When applying pressure, between the VK → VE terminal of the computer's vehicle side connector

Will the world pressure be like the next?
Battery connection

MP	MM	VK++VE Inter- terminal electric pressure Descending Rise
⊕	⊖	
⊖	4	

NO

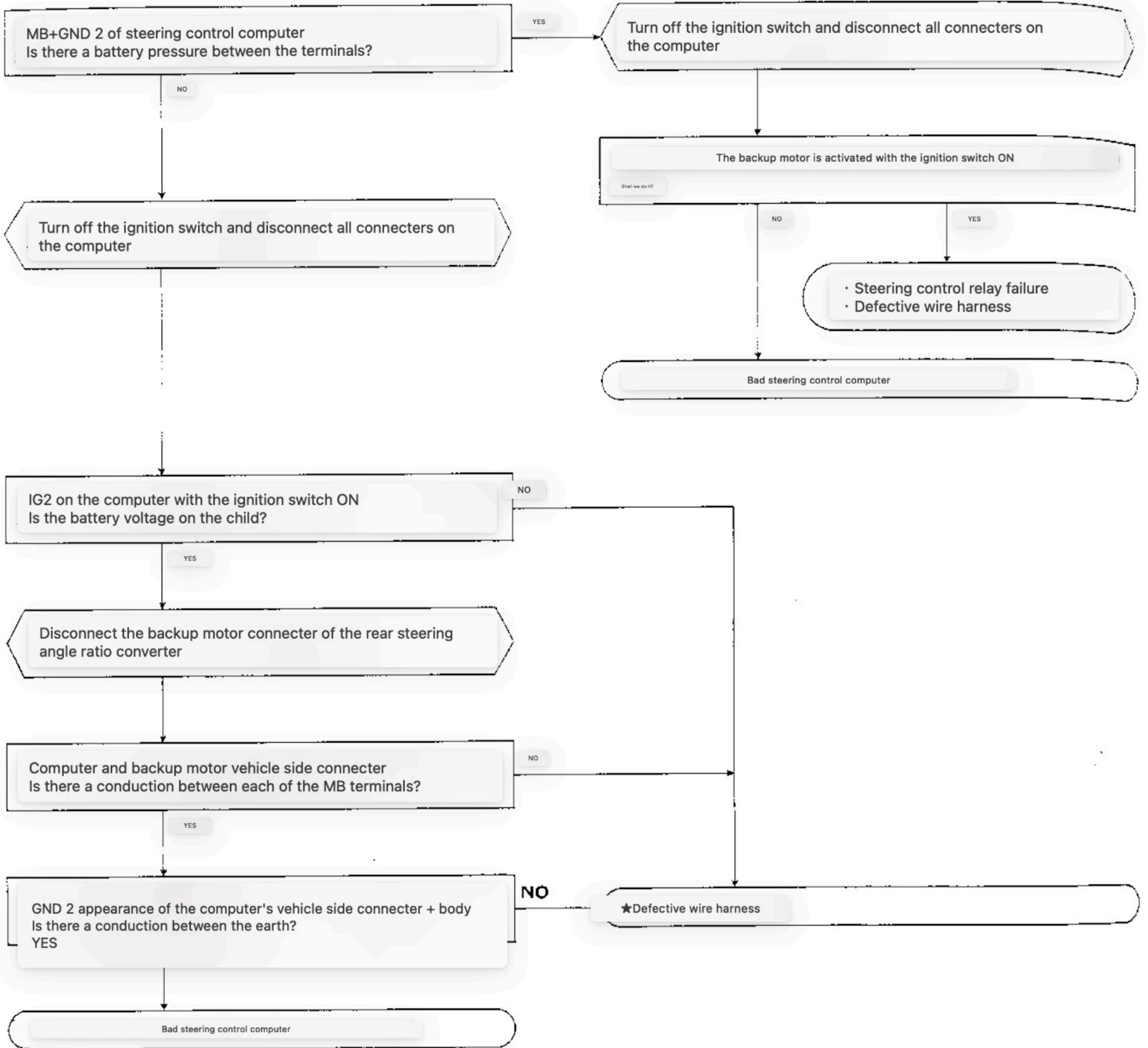
★Defective wire harness

YES

Bad steering control computer

10

Output the diagnosis code 31"



Output the diagnostic code "32"

Disconnect the backup motor connector of the rear steering angle ratio converter

When the battery birth pressure is applied between the MB+GND children of the backup motor connector, will the rich pressure between the VK+VE terminals of the steering control computer be as follows?

Battery connection		VK**VE Terminal 開電圧 Descending Rise
MB	GND	
⊕	⊖	-
⊖	⊕	

NO

- Backup motor failure
- Wire harness failure

YES

Connect the connector of the backup motor Computer with the ignition switch turned off After disconnecting the first connector, turn on the ignition switch.

RLY2+GND2 terminal of the computer's vehicle side connector Will the backup motor work when the interval is shorted?

NO

- Steering control relay failure
- Wire harness failure

YES

Bad steering control computer

Output the diagnostic code *41"

12

• Steering with the ignition switch off
Difficult to disconnect the connector of the control computer
• Jack up the front of the vehicle

When the front tire is rotated slowly, the computer - SP1★CND1 of the connector on both sides of the car is between the bag, and is it repeated?

YES (without ABS)

YES (ABSH*)

Turn off the ignition switch and connect the computer connector

When the front tire is rotated slowly, the compi
The no-pressure between the ABS + GND1 terminal of the tutor
is 0V48V
Do you repeat the above?

When you rotate the front tire and inspect the SP2++SP2-terminals of the computer's side connector with the Hz range of the tester, will the "bar" flash or light up?

YES

NO

• Left front speed sensor is defective
• Wire harness failure

Turn off the ignition switch and compu
Connect the connector of the rotor

In the past, only one wheel has been driven for a long time, and at the moment the car speed
Even if you run for more than 5 minutes at 50 km/h or more, will the 4WS warning lamp not turn on?

YES

NO

Bad steering control computer)

Normal

• Defective speed sensor in the speedometer
• Wire harness failure

Turn off the ignition switch and disconnect the connector of the ABS computer and the steering control computer

ABS computer and steering control computer
Is there a guide between the terminals of the connector on both sides of the car?

Steering control
Roll computer

ABS computer

ABS

FLO

YES

NO

Defective wire harness

Connect the connector of the steering control computer
Turn on the ignition switch.

FLO+GND terminal circumference of ABS computer vehicle side connector
Is there a high pressure of 8V or more?

YES

NO

Bad steering control computer

ABS computer failure

Output the dialogue code "42"

VC → VE number of steering control computer
is there a voltage of more than 4V per week?

NO

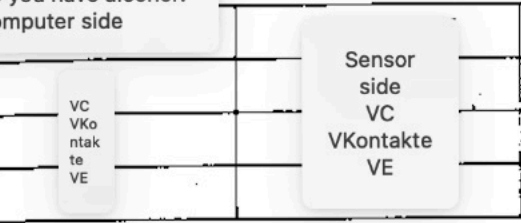
★Steering control computer failure

YES

Turn off the ignition switch and disconnect all the
connectors of the computer and steering control
sensor

Lead between the connector terminals on both sides of the car and the sensor

Do you have alcohol?
computer side



NO

★Defective wire harness

YES

• Connect the computer and the sensor connector
• Detach the main motor connector of the steering
angle ratio converter
• Turn on the ignition switch

When you put the battery pressure between the terminals of the
main motor connector and run the motor, the VK* of the computer
will the dragon pressure of the VE child change? (Inspect the
battery connection in reverse)

NO

• Defective steering control sensor

YES

(Steering control computer failure)

Main rear steering angle ratio converter
Disconnect the motor connector

When the motor is driven by applying battery pressure between the terminals of the main motor connector, will the voltage between the VK → VE terminals of the steering control computer change?*

YES

Steering control computer
*If the blue pressure does not change or the change stops, the battery connection will be reversed.
There is no pressure on the harness on both sides of the car.

NO

- Defective steering control sensor
- Defective rear steering gear ASSY
- Wire harness failure

It doesn't go into reverse 2WS mode.

Is the 4WS warning lamp on?

YES

Treatment of each diagnosis code (see P8-148)

NO

When the reverse 2WS switch is turned on, between the chassis ground + body earth of the steering control computer is there a normal?

NO

4 wheel steering switch failure
· Wire harness failure

YES

When the shift lever is reversed, is there a battery pressure between the BLGND1 terminals of the computer?

NO

· Backup lamp switch failure (M/T)
· Neutral start switch failure (A/T)
· Wire harness failure

YES

When driving at a speed of 30 km/h or more, will the 4WS warning lamp turn on?

YES

★Treatment of each diagnostic code (see P8-148)

NO

When you operate the reverse 2WS mode again, the reverse 2WS mode will it become a mode?

NO

Bad steering control computer

YES

Normal (I couldn't perturb because of the heavy load on the dynamic system)

I can't switch between "normal" sports.

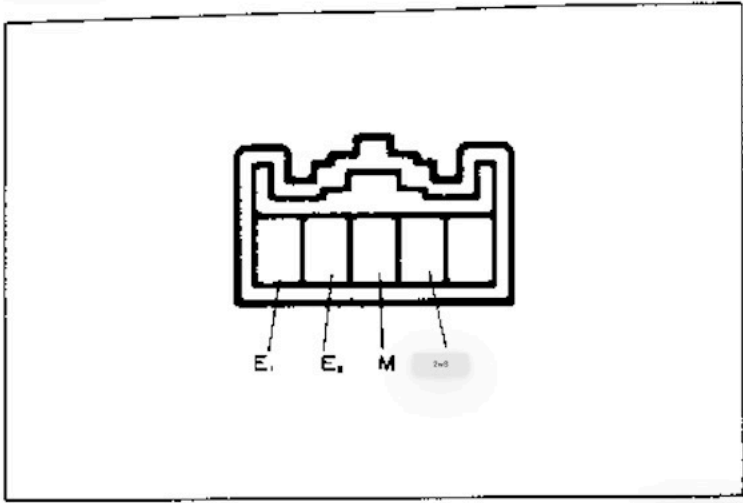
When the mode switch is set to "sports", the MODE terminal + body of the steering control computer is there a conduction between the earths?

NO

· 4-wheel steering switch failure
· Wire harness failure

YES

Bad steering control computer



5-3-2-A

Unit inspection 4-wheel steering switch

1 Conducting point machine

11)

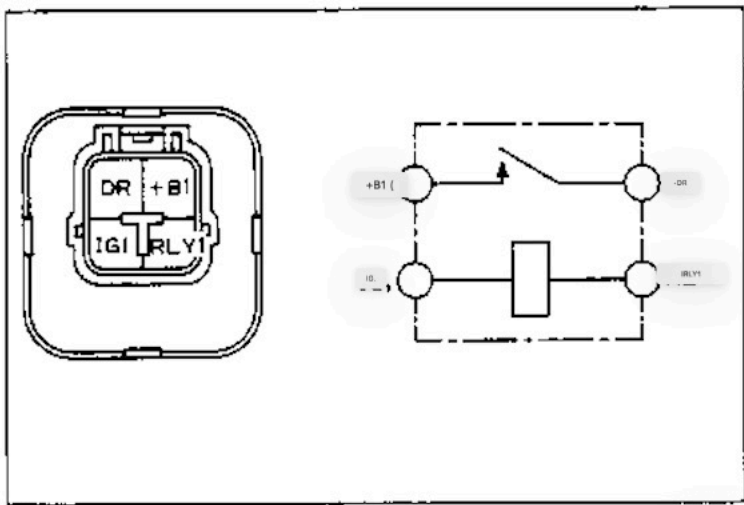
Check the alignment between each connector terminal.
Hua Jun
Mode switching switch

Switch	Terminal symbol	Normal	abnormal
Sport	Terminal symbol	∨	E1
	Normal abnormal		
Reverse 2WS switch Scorpion symbol	Terminal symbol	2WS	E1
	Normal abnormal		
OF F ON	Terminal symbol	○	○
	Normal abnormal		

O10 conduction

OO There is a conduction

- Neutral start switch (A/T)
(Refer to P5-3)
- Backup lamp switch (M/T)
(Refer to P11-22)
- Speed sensor (in the speed metre)
(Refer to P11-45)
- Speed sensor (left front)
(Refer to P7-54)



X 0187

Steering control relay

For the main motor

1 Conducting point machine

(1) Check the continuity between each terminal of the connector.

Standard

Between IGI+RLY1 terminals There is a conduction

Ten B1+DR 端子面 No conduction

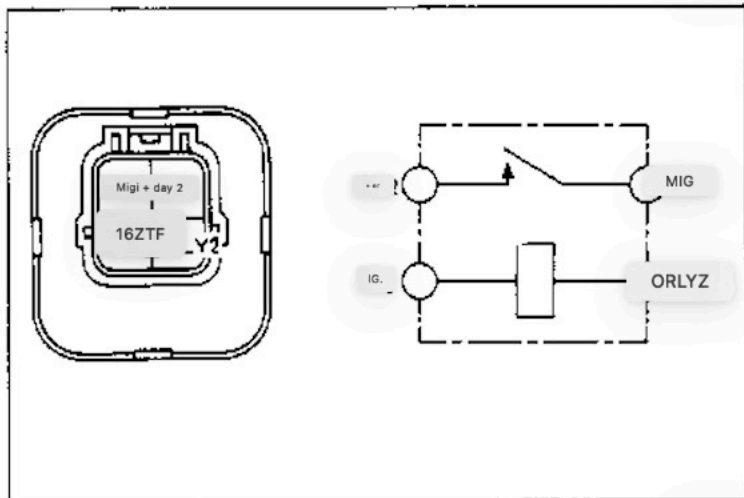
(2)

When the battery pressure is applied between the IGI+RLY1 terminals, +B1 → 4DR
Check the continuity between the terminals.

Standard

There is conduction

For backup motor



X 0537

Conducting point machine

11) Check the normal of each Connector terminal.

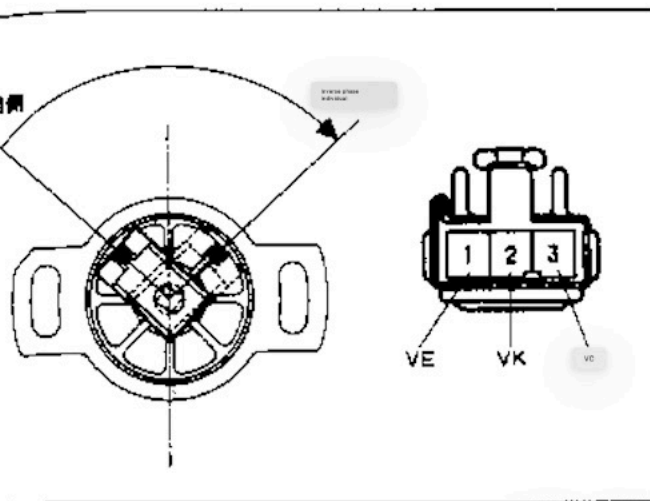
Standard

Between IG2++RLY2 terminals There is guidance

+B2→MIG child listening No conduction

(2)

When the battery voltage is applied between the IG2+RLY2 terminals, +B2 → +MI
Point the conduction between the G terminals.
There is a standard conduction



Steering control sensor

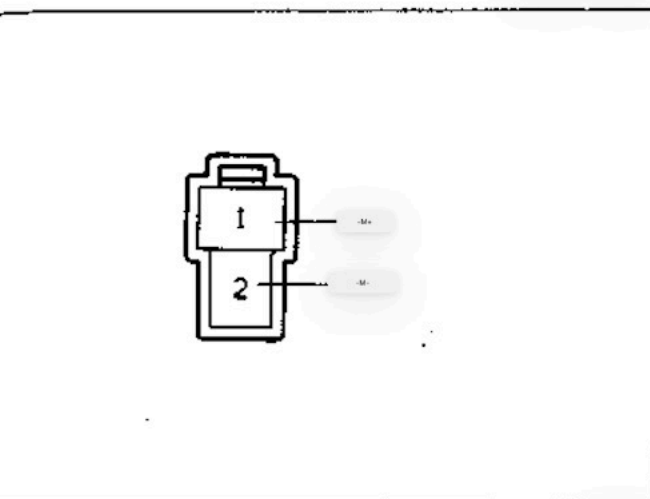
1 Resistance inspection

(1) Measure the resistance between the VC★VE terminals of the sensor connector.

Standard value

(21)

When you move the lever of the sensor, make sure that the resistance value between the VRIVE terminals of the connector changes. If you move the reference lever to the reverse phase side, the resistance value will increase.



Main motor

<Reference>

When the main motor is defective, replace it with the backup motor as a set.

1 Activation point machine

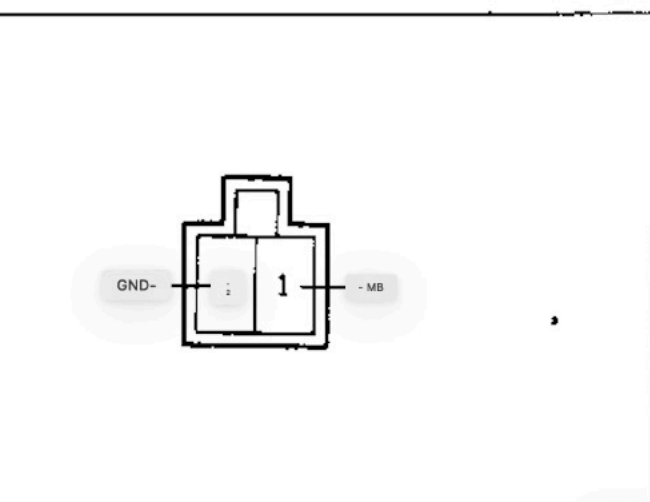
The main motor is removed from the converter housing.

No.

(1) When the battery pressure is applied between the children of the motor connector,

Make sure that the motor rotates smoothly.

12) When the battery connection is reversed, make sure that it rotates smoothly in the reverse direction with (1).



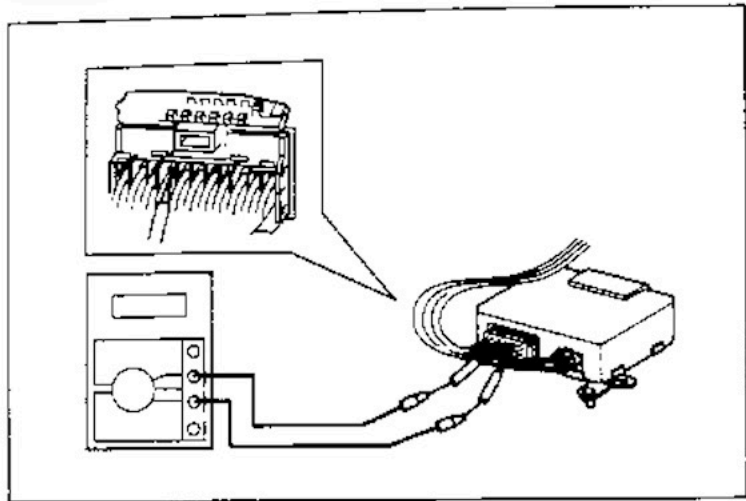
Backup motor

<#When the backup motor is defective, the main motor and set

I'll exchange it with a toe.

1 Activation point machine

11) When the battery day is added to the GND terminal in the battery to the MB child of the motor connector, make sure that the motor rotates smoothly from the shaft side.



X 0588

Steering control computer

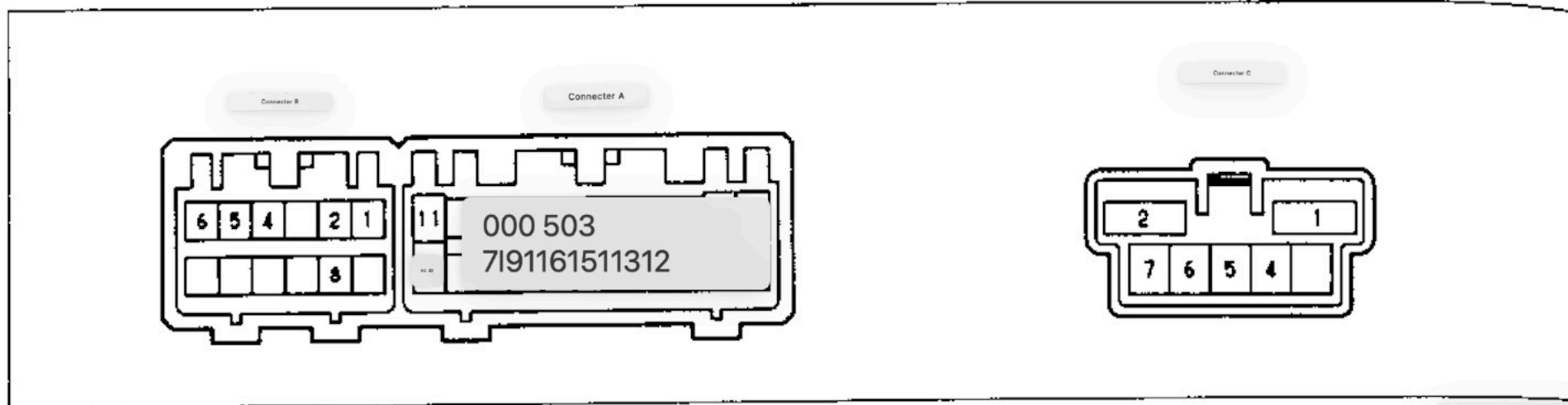
1 Computer inspection

1) Remove the lock of the computer connector.

Don't damage the connector.


: 2) Measure the continuity or voltage between each terminal.

The connector is checked while connected to the computer.
Ru.



Vd-34-2 SH-T-2

A connector	継子 番号	Name of the conductor	Retr active item	Tester Setsumi Medium + C	Fixed	Standard
	1	BAT	Pressure	A1+-A22	Always	10-14V
		IS	電圧	A 3 +*A22	Ignition switch OFF→ON "NORMAL"	0V → 1.5V or less (about 2 seconds) →+10-14V
	4	12WS	電圧	A 4 +*A22	Ignition switch OFF→ON (Reverse 2WS switch OFF)	0V → 1.5V or less (about 2 seconds) →10-14V
		8L	Voltage	A5 +*A22	Ignition switch ON, shift position reverse	10-14v
		SP2+ VC	電圧	A 7 **A18	On the run	"Bar" flashes or lights up
			難任	A 8 +-A19	Ignition switch ON	3.8-5.0V
			Electric pressure	A 9 +*A19	Ignition switch ON (at reverse phase MAX)	3.004.7V
				A 9 +*A19	Ignition switch ON, shift position reverse, reverse 2W5 Switch ON (neutral)	1.5m2.9V
	11	ABS	電圧	411+*A22	On the run	"Bar" flashes or lights up
	12	IGI	Electric pressure	A12+*A22	Ignition switch ON	10-14V
	13	RLY1	Voltage	A13+ A22	Ignition switch OFF→ON	0V → 10 to 14V (about 1 second) →1.5V or less
	14	WARN	電圧	A14-* A22	Ignition switch OFF→ON	0 V-1.5V or less (about 2 seconds) → 10-14V
				A15+*A22	Ignition switch ON, reverse 2WS switch OFF	8-14V
	15	2WS	World pressure	A15+*A22	Ignition switch ON, reverse 2WS switch ON	1.5V or less
				A16+-A22	Ignition switch ON, mode switching switch "NORMAL"	8-14V
	16	MODE	電圧	A16+-A22	Ignition switch ON, mode switching switch "SPORT™"	1.5V or less
	22	GND1	溝通	A? +Bodeni A ground	Always	There is conduction

端子 番号	Ako's name	1ZE The first one	Tester connection 	Measurement	Standard health
1	SP1	Hz	B1**A22	On the run	"Bar" flashes or lights up
	MI+	電圧	B2+-B8	When the main motor is super intuition (steering wheel straight forward)	0.1-2.0V
4	MM	Voltage	B4 +-A22	When the main motor is salted (neutral → reverse phase)	6.5-11V
	MS	TE	B3+-A22	Ignition switch ON	6.5-11.5V
6	MP	Electric pressure	B6+* A22	When the main motor is impressed (phase → neutral)	6.5-11V
1	MB	Totou	C1 → ボデー → アース	Always	There is sacred sake (with motor resistance)
4	IG2	電圧	C4--C7	Ignition switch ON	10-14V
				Avention Switch ON	10-14V
5	RLY2	TE	C5++C7	Ignition switch ON, unplug the connecter of the motor relay No.1	1.5V or less
	WLP	電圧	C6++C7	Ignition switch OFF→ON	0V → 1.5V or less (about 2 seconds) → 10~14V
	GND2	Warning	G7+ forbidden death	Always	There is a sea street