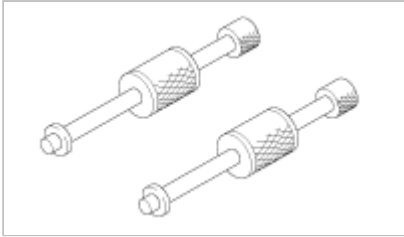
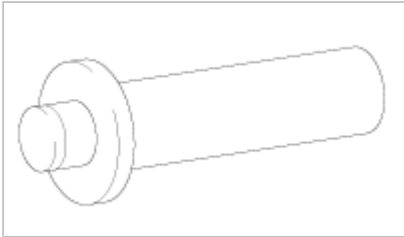

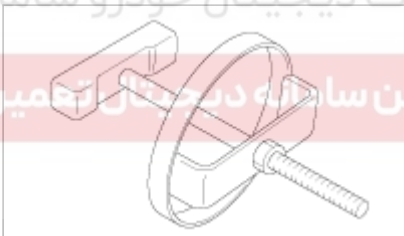
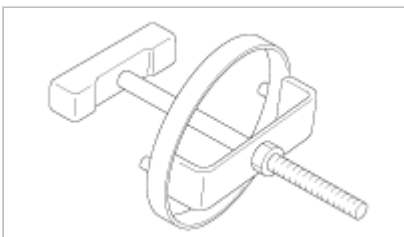



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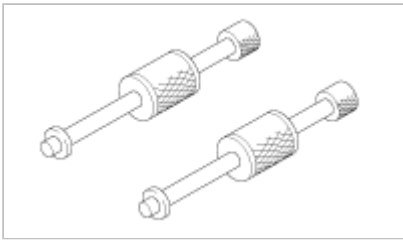


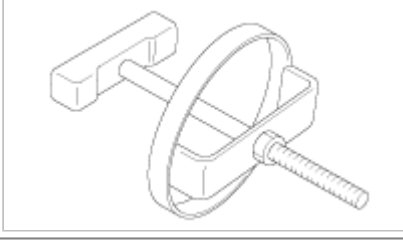
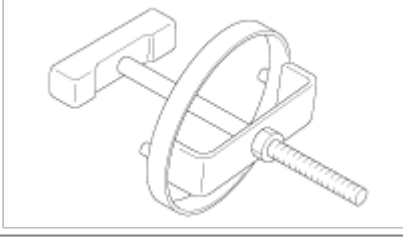




## SPECIAL SERVICE TOOLS

Tool (Number and name)	Illustration	Use
09452 - 4C100 Oil pump remover		Removal of oil pump.
09452 - 4C200 Oil seal installer		Installation of T/M case oil seal.
09452-4C300 Oil seal installer		Installation of housing(Extension) oil seal.
09453 - 4C100 Spring compressor		Removal and installation of reverse brake plate snap ring.
09453 - 4C200 Spring compressor		Removal and installation of low coast brake piston snap ring.
09453 - 4C300 Spring compressor		Removal and installation of input clutch spring retainer snap ring.
09453 - 4C400 Spring compressor		Removal and installation of high&low reverse clutch spring retainer snap ring.



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09453 - 4C300 Spring compressor		Removal and installation of input clutch spring retainer snap ring.

		
09453 - 4C400 Spring compressor		Removal and installation of high&low reverse clutch spring retainer snap ring.

# دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



2008 &gt; A5SR2 &gt;



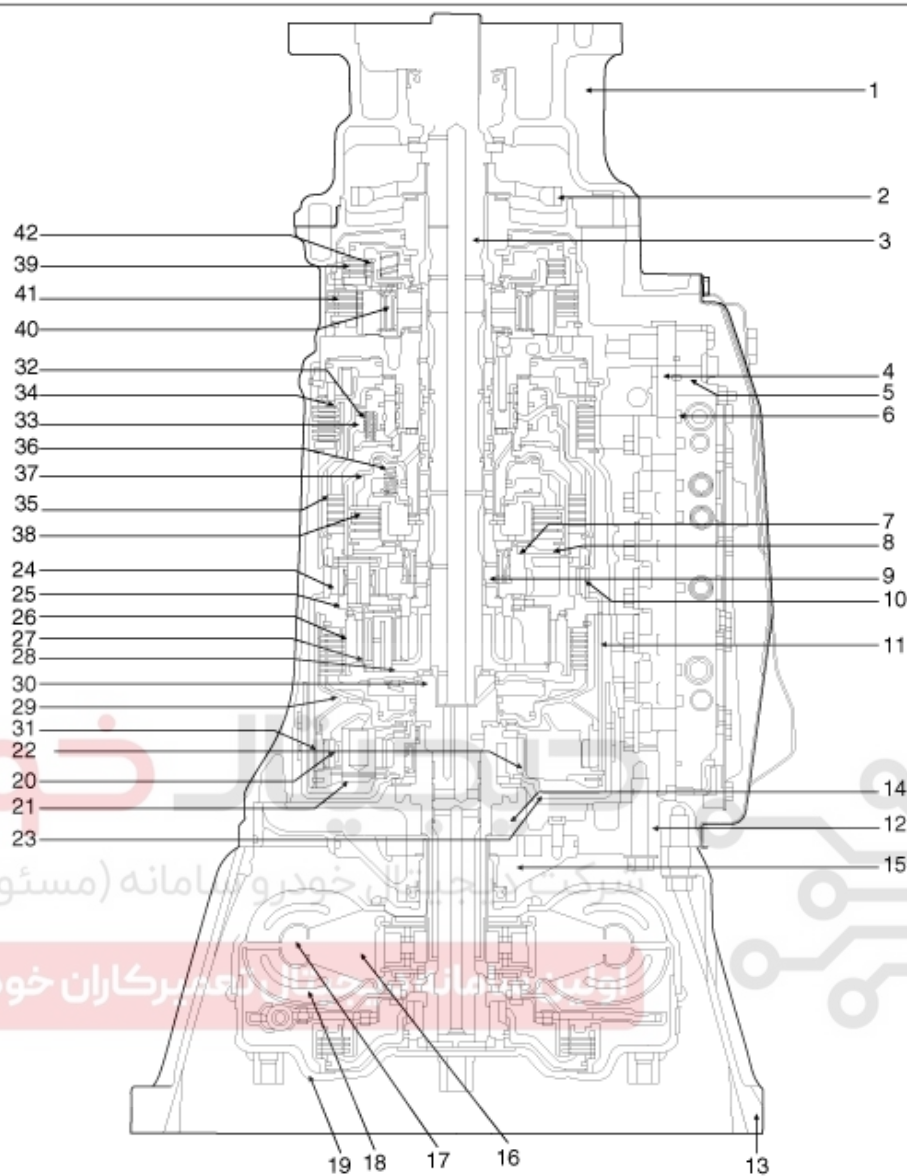
## SPECIFICATION

Type		A5SR2	
Driving system		2WD/ 4WD	
T/CON	Type	3 elements, 1 stage, 2 phase	
	Identification inscription [Nominal diameter (mm)]	8 (Φ260)	
	Stall torque ratio	1.84	
Transmission	Manipulating system		Remote control flow transmission (Cable method)
	Shift position	P	Fix output axle (Engine start allowed)
		R	Reverse
		N	Neutral (Engine start allowed)
		D	1↔2↔3↔4↔5
	Gear ratio	1st	3.827
		2nd	2.368
		3rd	1.520
		4th	1.000
		5th	0.834
		Reverse	2.613
		Final gear ratio	3.333
	Control method		Electronic control
	Function	Lock-up control	Equipped
		Operating fluid pressure control	Equipped
		Real time feedback transmission control	Equipped
		Transmission pattern auto change control	Equipped
		Self-diagnosis control	Equipped
		Fail-safe function	Equipped
		Sports mode function	Equipped
	Speedometer gear teeth (drive/driven)		6/14
	Oil pump	Type	Trochoid oil pump
		Driving system	Engine drive
	ATF oil	The recommended	APOLLOIL ATF RED-1
		Quantity	10ℓ(10.57 US qt, 8.8 Imp.qt)

2008 > A5SR2 >



## COMPONENTS



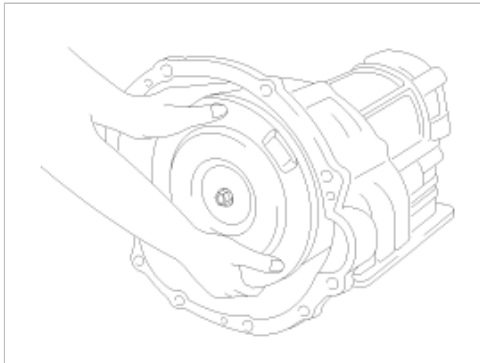
- |                                 |                                     |   |
|---------------------------------|-------------------------------------|---|
| 1. Adapter case (4WD)           | 15. Oil pump housing                | 29. Input clutch drum                       |
| 2. Parking gear                 | 16. Stator                          | 30. Input shaft                             |
| 3. Output shaft                 | 17. Impeller assembly               | 31. Front annulus gear                      |
| 4. Control valve upper body     | 18. Turbine & lockup assembly       | 32. Direct clutch return spring             |
| 5. Control valve lower body     | 19. Torque converter cover assembly | 33. Direct clutch piston                    |
| 6. Separator plate assembly     | 20. Front pinion gear               | 34. Reverse brake hub                       |
| 7. Rear sun gear                | 21. Front planetary carrier         | 35. Direct clutch assembly                  |
| 8. Rear sun plate               | 22. Front sun gear                  | 36. High & low reverse clutch return spring |
| 9. Middle sun gear assembly     | 23. Front brake drum                | 37. High & low reverse clutch piston        |
| 10. Rear annulus gear assembly  | 24. Rear pinion gear                | 38. High & low reverse clutch assembly      |
| 11. Rear annulus cell           | 25. Rear planetary carrier plate    | 39. Low coast brake clutch assembly         |
| 12. Automatic transmission case | 26. Middle annulus gear             | 40. Forward one-way clutch                  |
| 13. Converter housing           | 27. Middle pinion gear              | 41. Forward brake clutch assembly           |
| 14. Oil pump cover              | 28. Middle planetary carrier        | 42. Low coast brake hub                     |

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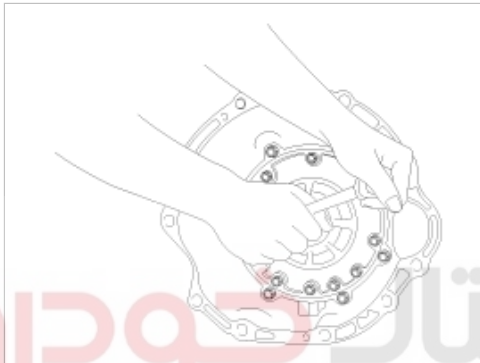


## Disassembly

1. Remove the torque converter.



2. Remove the converter housing - transmission case installation bolts (8), then remove the converter housing.

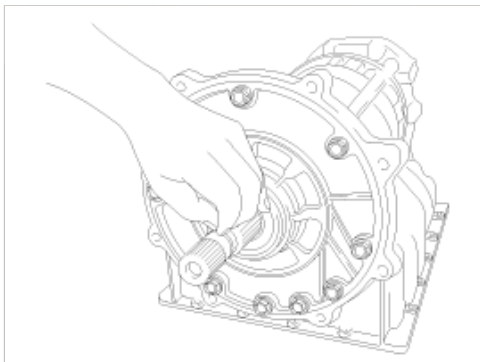


### CAUTION

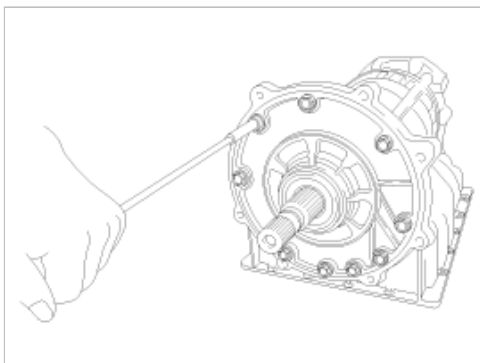
Be careful not to have your finger cut by the sharp edge in the converter housing engine section.

Do not reuse bolts of the seal bolt section.

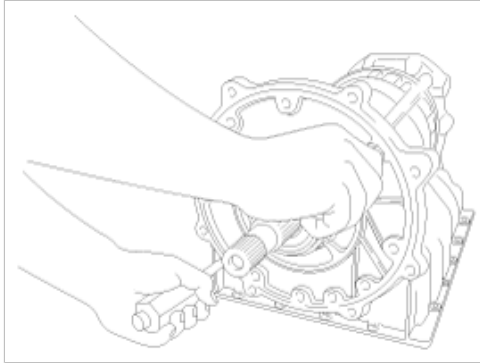
3. Remove the O-ring of the input shaft.  
Do not reuse O-ring.



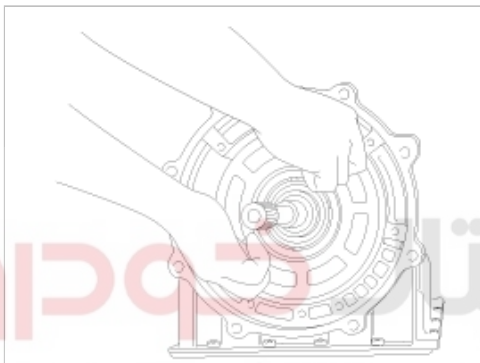
4. Remove the oil pump-transmission case installation bolts (10).



5. Use the oil pump puller to remove the oil pump assembly.  
Tighten screws of puller all the way.  
Make sure the Bearing race comes out simultaneously.  
Remove the outer O-ring. Do not reuse the O-ring.  
Puller installation position is as in figure below (Where the screws grinded)



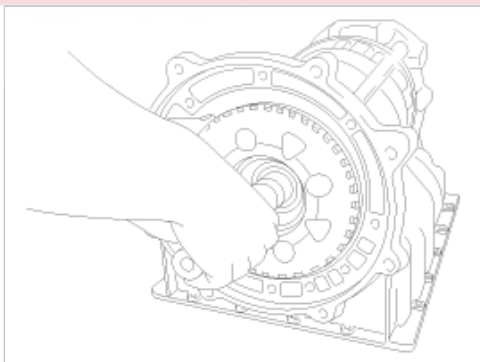
6. Remove the thrust bearing and the front sun gear.  
Turn the front sun gear right and left to remove.



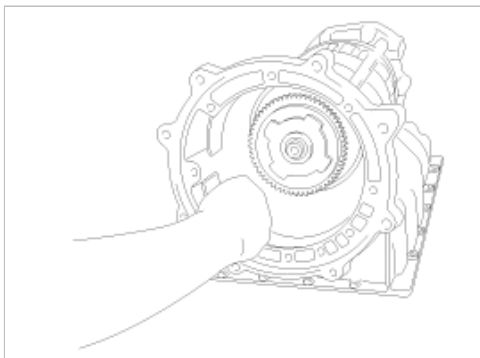
7. Remove the front carrier assembly and the input clutch assembly as a unit.

**CAUTION**

Make sure that thrust bearing come out together.



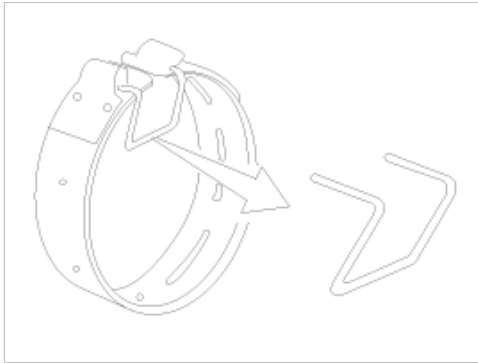
8. Remove the brake band.



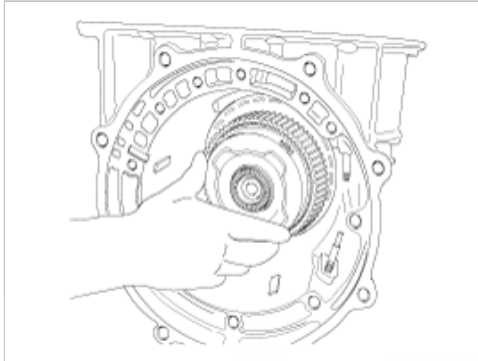
Keep the brake band to be in sphere shape after having been removed by using the fixture of the following figure made of



metal seam.



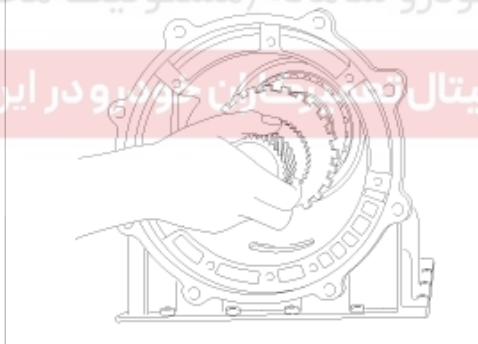
9. Remove the middle carrier assembly and the rear carrier assembly as a unit.



10. Remove the middle sun gear, the rear sun gear assembly, and the high&low reverse clutch hub as a unit.

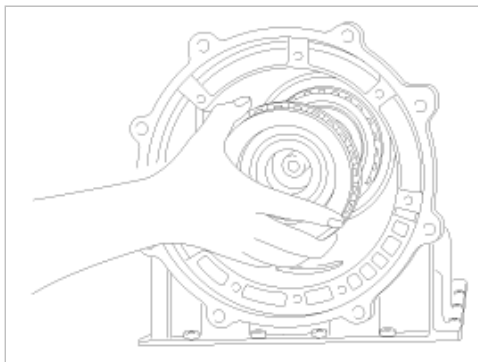
**CAUTION**

Be careful that the bearing race and bearing will come apart at the same time.



11. Remove the high&low reverse clutch assembly.

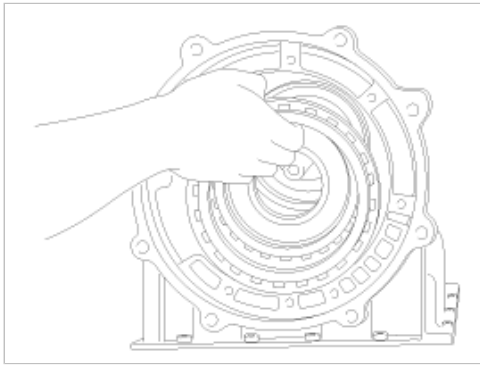
Make sure that the bearing race is attached to the section.



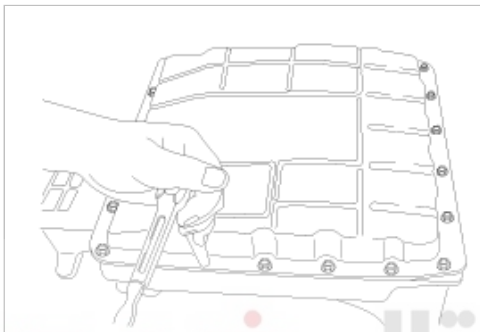
12. Remove the direct clutch assembly.

Also remove the bearings (2) on the section that support the drum.

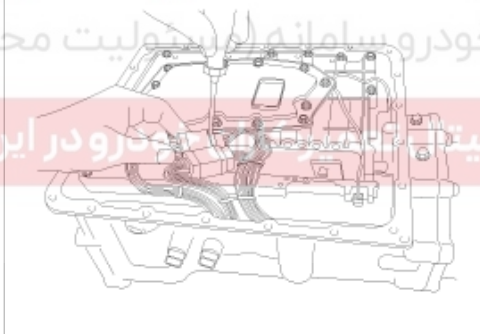




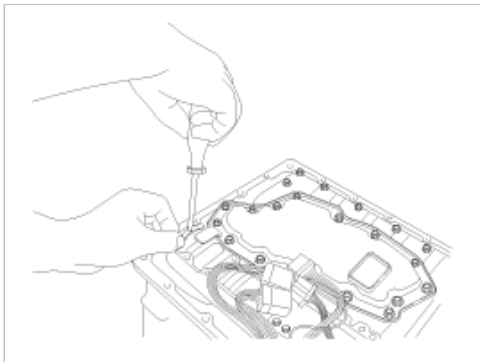
13. Remove oil pan bolts (22), then the oil pan.  
Remove the oil pan gasket.  
Do not reuse the removed bolts. (Non-reusable)  
Discard the gasket too. (Non-reusable)



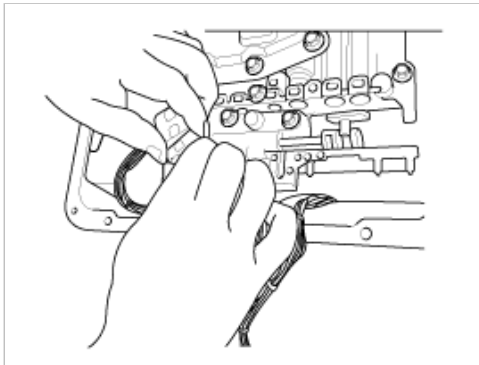
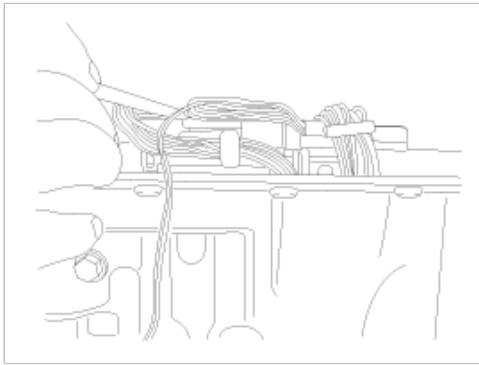
14. Press the stable part of the connector from the terminal assembly with a hand (driver) to pull out the connector.



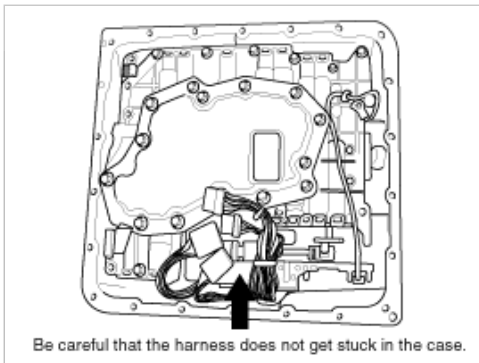
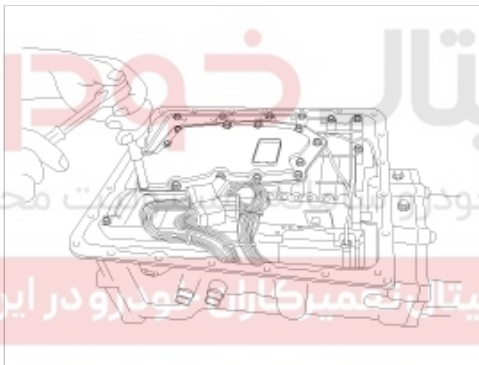
15. Remove the connector of the temperature sensor (Not necessary when not having to pull out the temperature sensor).  
Disconnect the temperature sensor using a hand or driver.  
Pull out the temperature sensor if needed.



16. Remove connector in front by hitting general tool 1 to fit intervals between the bracket and the connector.

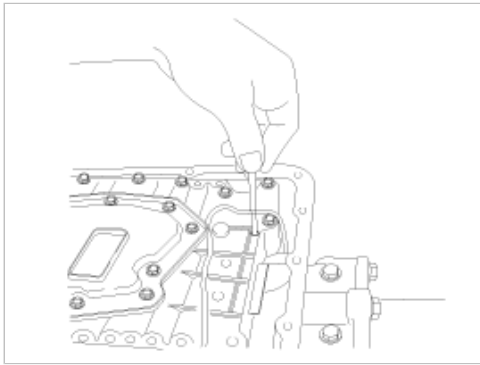


17. Remove the control valve - T/M case installation bolts (12).

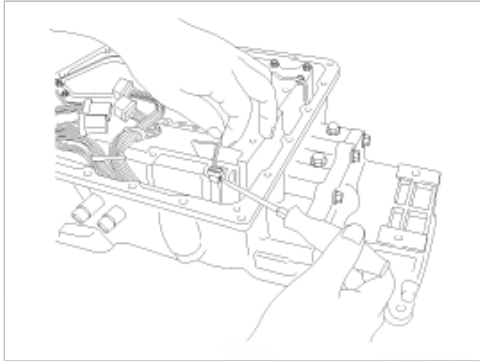


Be careful that the harness does not get stuck in the case.

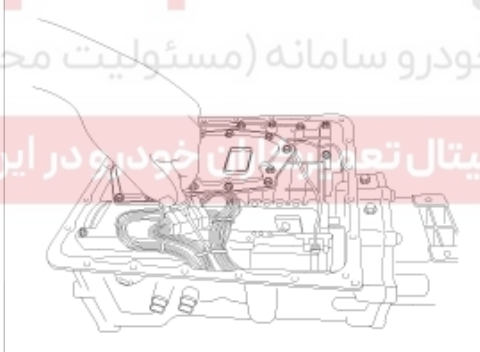
18. Remove the control valve - T/M case installation bolts along with the clip with bolts attached to it at the same time.  
(Remove the clip that fixes the harness of the revolution sensor in advance.)



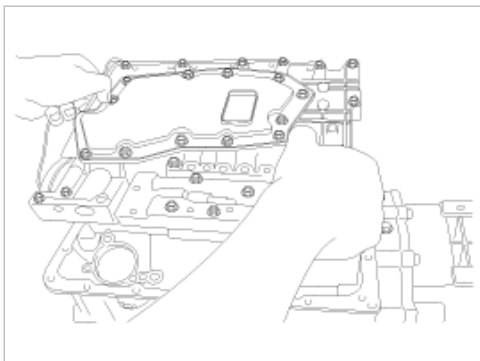
19. Remove the connector of the revolution sensor.  
Pull out the sensor connector upward using a hand or driver.



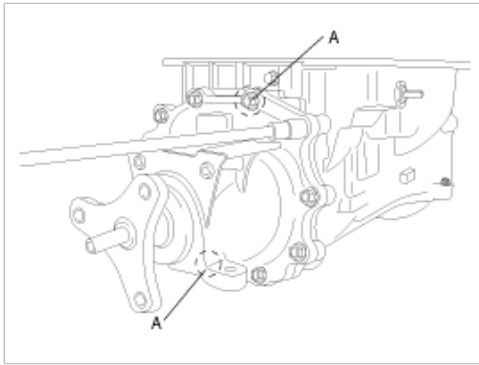
20. Remove the clip that fixes the harness of the terminal assembly.  
Spread the harnesses of the terminal assembly and the revolution sensor in a row outward not to interfere with the one that is on hold during the control valve assembly installation.



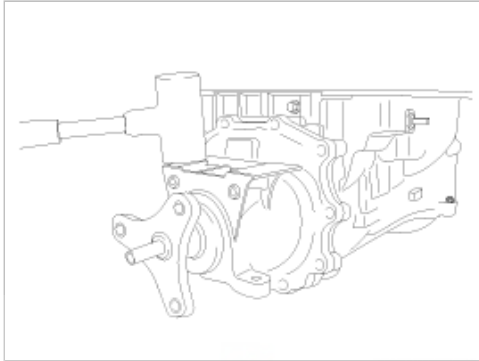
21. Pull out the control valve.



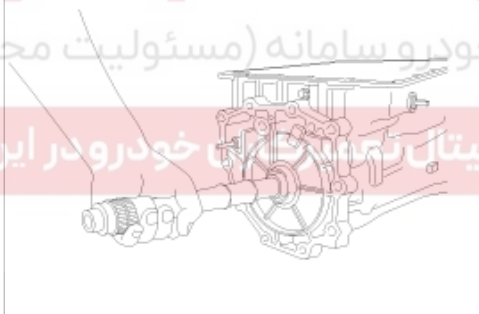
22. Pull out the extension parts bolts (10).  
Remove the parts that the bracket is attached to at once.  
Do not use the old seal bolts(A).



23. Tap the extension part lightly with a plastic hammer.  
(This does not easily come off since the sealant has been applied).



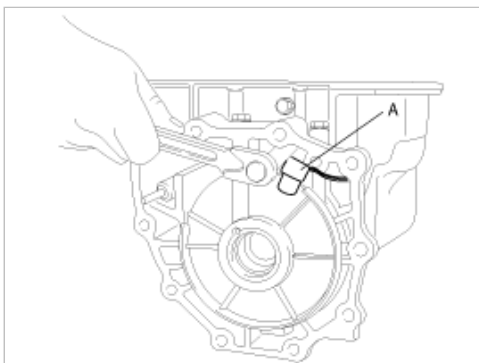
24. Remove the output shaft.  
Turn it right and left and pull it to the rear side.



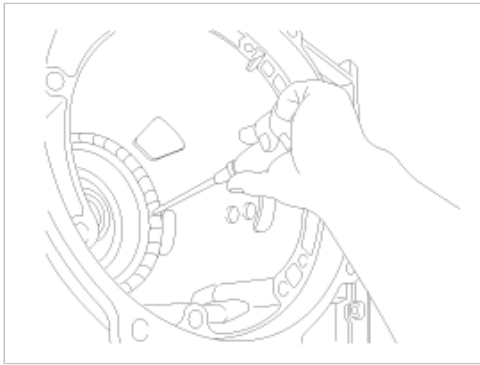
25. Pull out the revolution sensor(A).

#### CAUTION

Make sure the harness not to get damaged by the case corners.



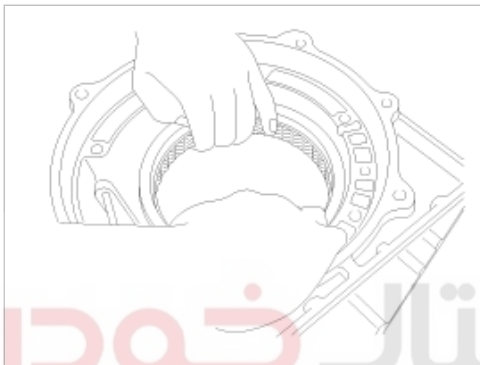
26. Use two drivers to pull out the snap ring (that stops the plate) of the reverse brake part.  
Press and pull out the snap ring through the slit of the oil pan side of the case, then pull out it once again with the first driver.



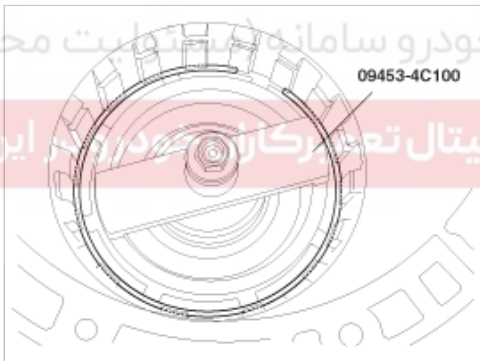
27. Remove the plates of the reverse brake.

**CAUTION**

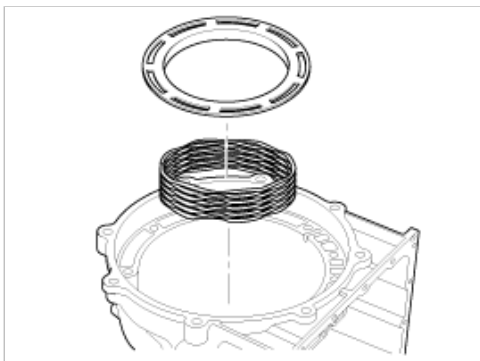
Be care that the spring will be pulled out together.



28. Use special tool(09453-4C100) to pull out the snap ring (that stops the spring retainer) of the reverse brake.

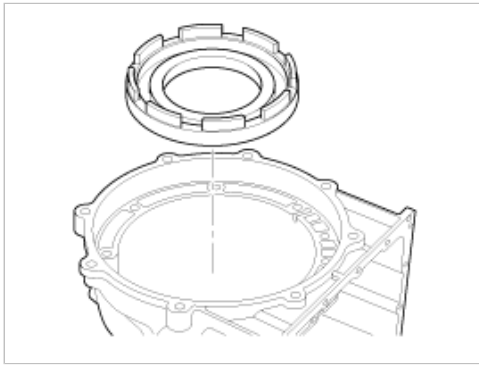


29. Remove the spring retainer and spring (plate screw).



30. Remove the piston.

Pull out the pump seal, the D-ring, and then discard them.



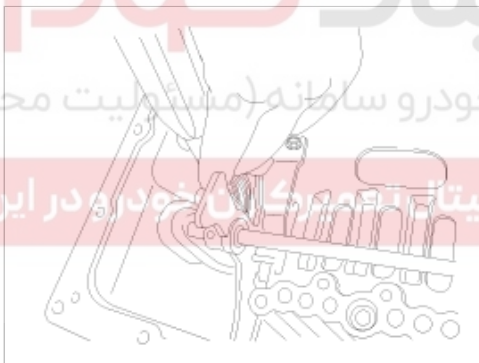
31. Remove the terminal from the connector.

Use the general tool 1 said above.

Place the tool between the bracket and the connector and lift up the connector projection part to pull out the connector.

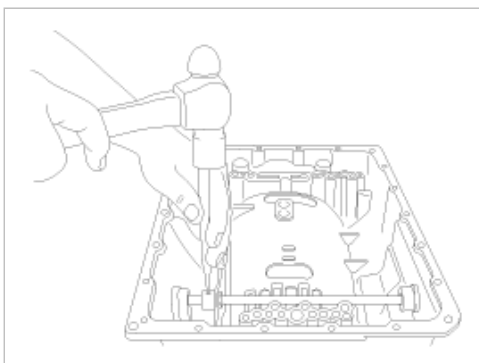


32. Remove the terminal assembly.



33. Tap the spring pin of the manual shaft with a punch to pull out.

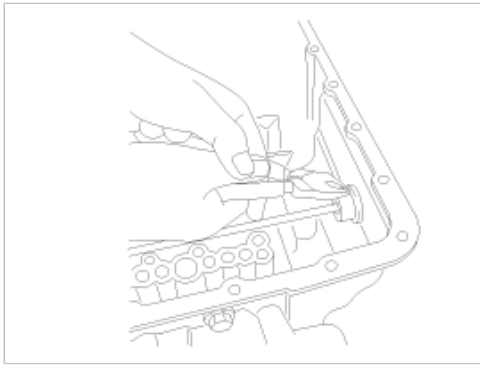
Discard the spring pin.



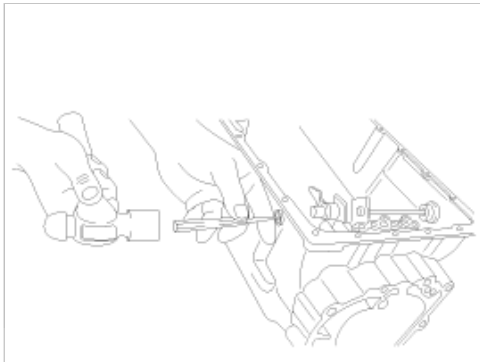
34. Press the spring pin of the manual shaft with a nipper to pull out.

Discard the spring pin.

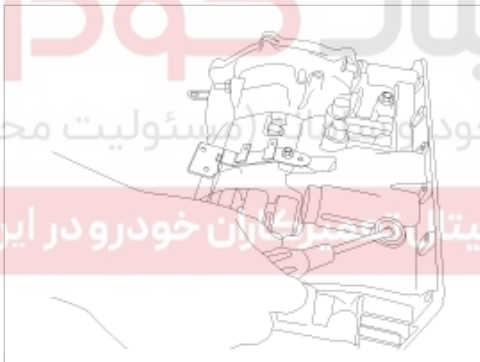




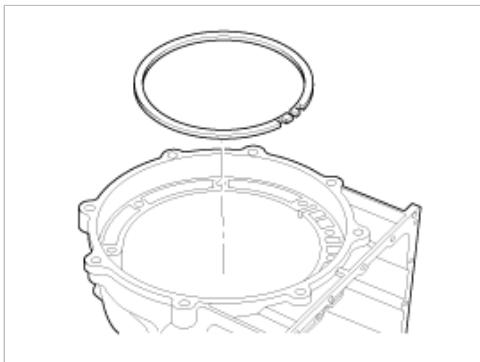
35. Remove the manual shaft.



36. Remove the oil seal (2).  
Discard the oil seal.



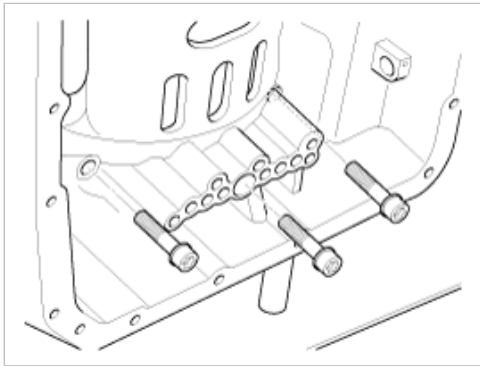
37. Remove the drum support snap ring.



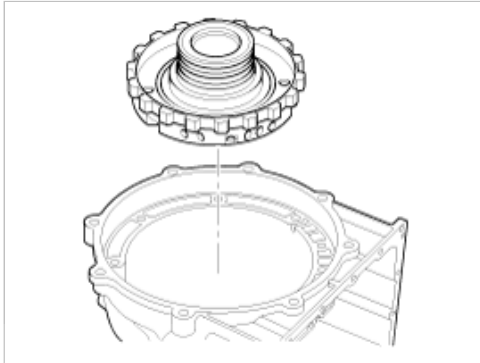
38. Remove the drum support fixing bolts(3EA).







39. Remove the drum support.

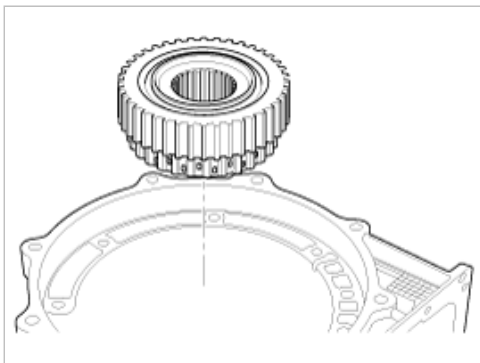


40. Remove the forward brake clutches.  
[Snap ring(1), reaction plate(1), disc(5), plate(5) and cushion spring(1)].

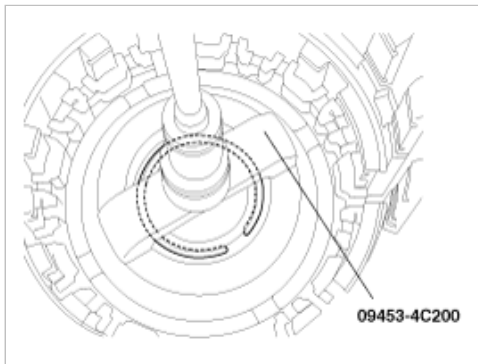


41. Remove the low coast brake clutches.  
[Reaction plate(1), disc(3) and plate(3)].

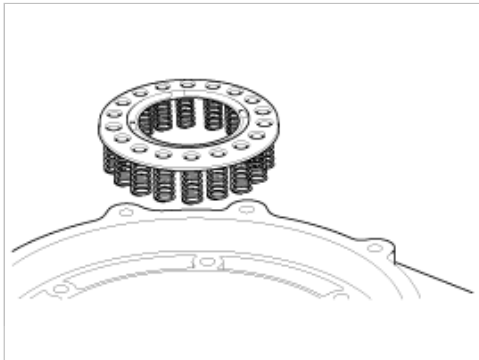
42. Remove the forward one way clutch.



43. Using the special tool(09453-4C200), remove low coast brake piston snap ring.



44. Remove the return spring.



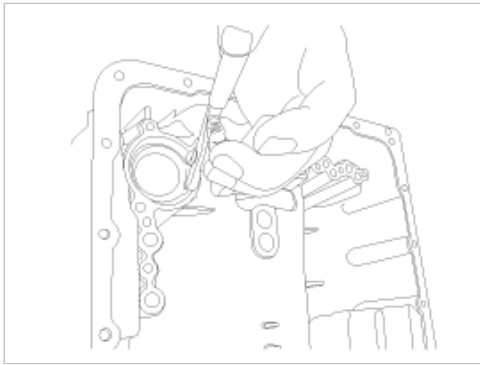
45. Remove the forward brake piston and low coast piston.



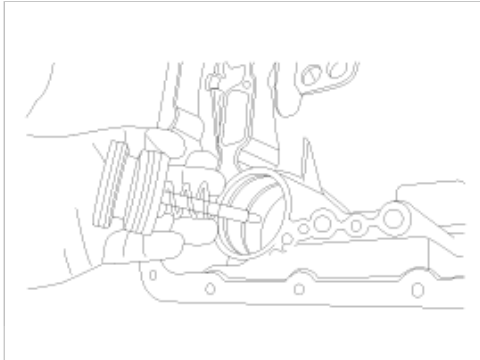
46. Pull out the detent spring.



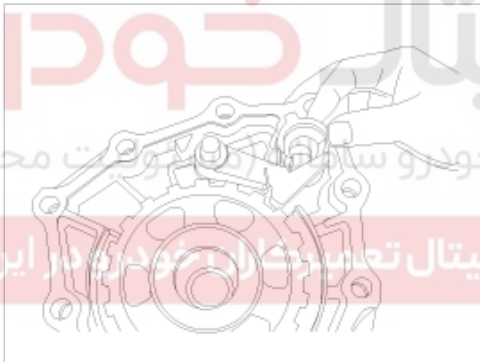
47. Use the snap ring pliers to pull out the snap ring from the servo part.



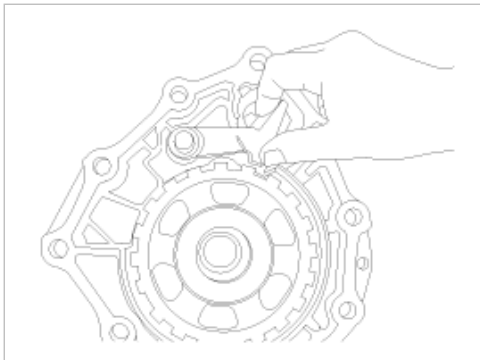
48. Remove the servo retainer/stem piston/return spring.



49. Pull out the actuator support part.

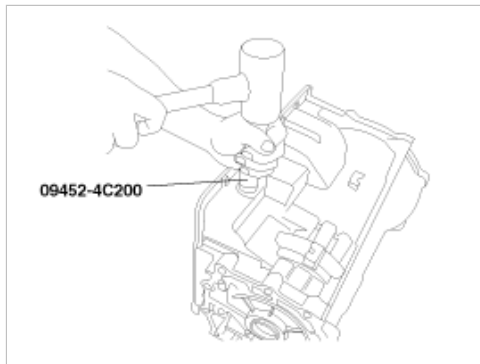


50. Remove the parking pole, shaft, and return spring.

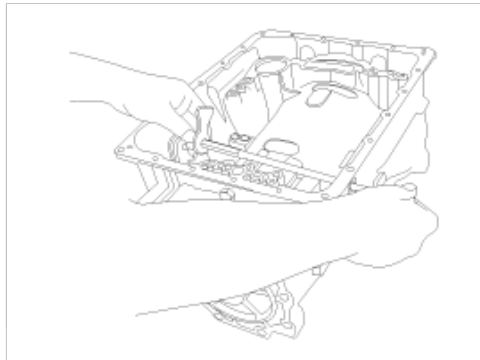


## REASSEMBLY

1. Use special tool(09452-4C200) to punch the oil seal (2).



2. Assemble the manual shaft and the manual plate parking road.



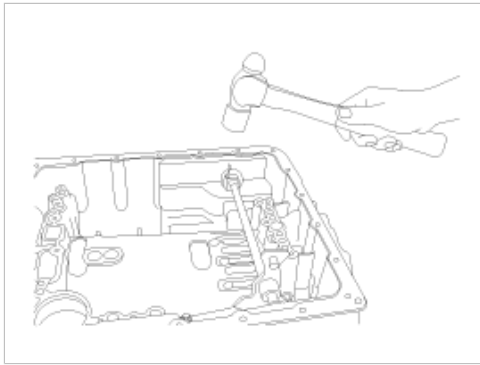
3. Punch the spring pin that attaches the manual plate to the manual shaft.  
Use the punch or something similar to fit with the holes.  
Make sure that the spring pin can be pulled out.  
Leave  $2 \pm 0.5$  mm (0.0787~ 0.0197in.) of the tip.



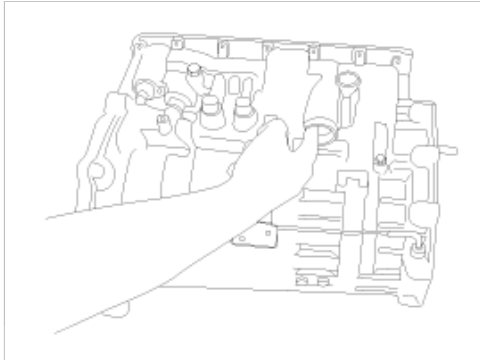
4. Use the punch or something similar to locate the hole of the spring pin that attaches the manual shaft to the case.



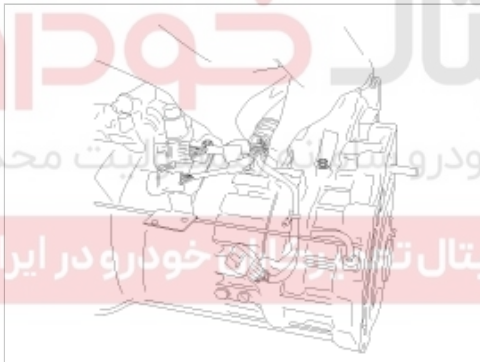
5. Attach the manual shaft to the case.  
Punch the spring pin.  
Leave  $5 \pm 1$  mm (0.1969~ 0.0394in.).



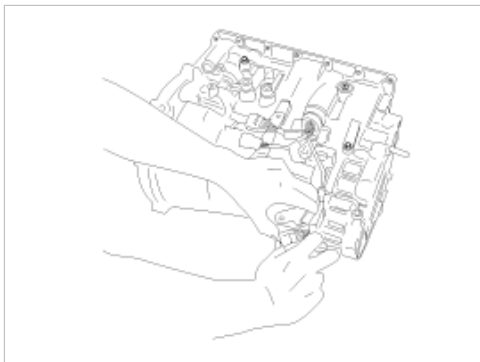
6. Apply vaseline to the terminal assembly installation hole.



7. Insert the terminal assembly to the installation hole.

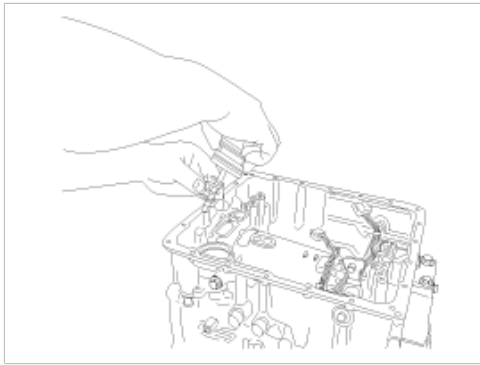


8. Attach the terminal connector to the bracket.  
The position for each connector is as in figure below.

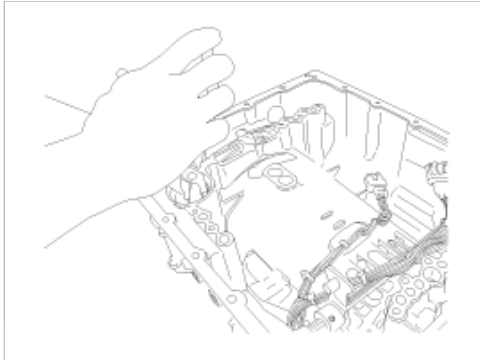


9. Attach the servo piston, servo retainer, and servo stem return spring to the case.





10. Attach the snap ring of the servo.



11. Fix the detent spring.

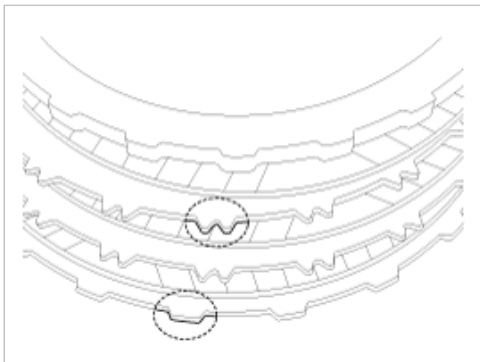
**TORQUE:**  
6.9 ~ 8.8 Nm (69 ~ 88kg-cm, 5.1 ~ 6.5lbf-ft)



12. Install the disc(3), plate(3) and reaction plate(1) to the forward brake piston and coast piston.

**CAUTION**

Install the plate with the wider fingers to the lowest.



13. Measure the end play under the load of 30kg.

Standard value: 0.049~0.064in (1.25~1.62mm)

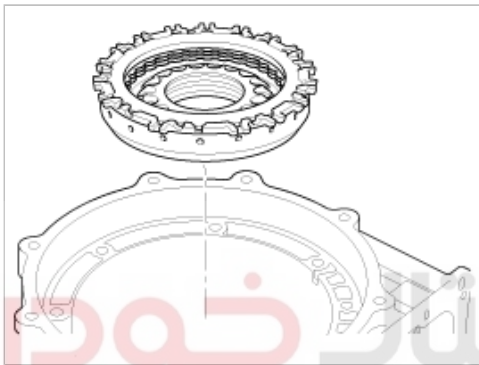
A. The distance between piston contact surface and reaction plate surface.

B. Measure it without D-ring.

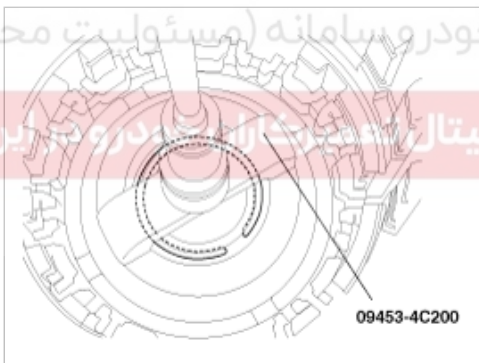
If the standard value is incorrect, select the proper reaction plate for adjustment.



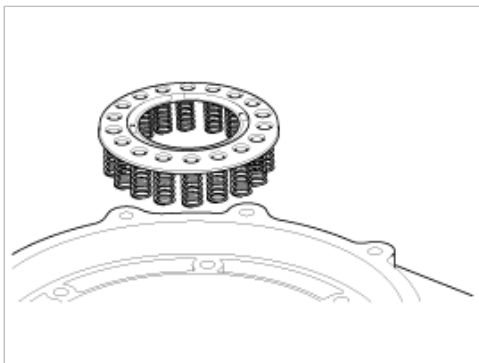
14. Install the forward brake piston and low coast piston.



15. Using the special tool(09453-4C200), install the low coast brake piston snap ring.

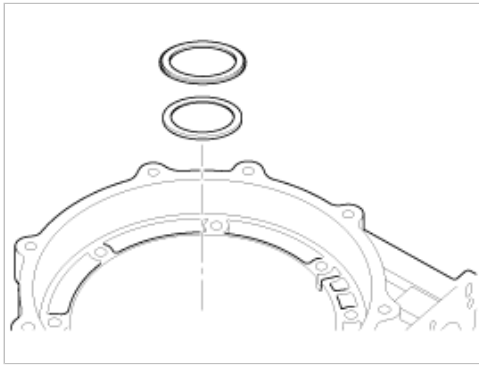


16. Install the return spring.

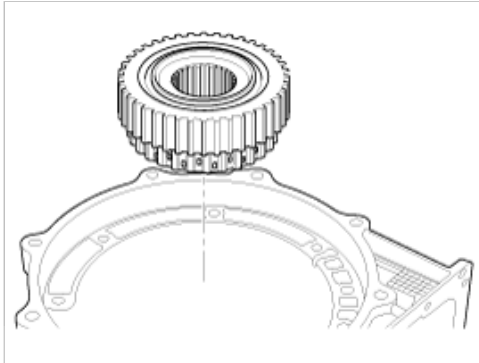


17. Install the thrust bearing and washer.





18. Install the forward one way clutch.



19. Install the low coast brake clutches.  
[Reaction plate(1), discs(3) and plates(3)]

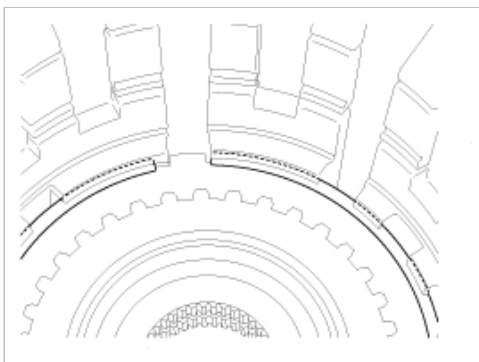
20. Install the forward brake cushion spring and disc plates.



21. Install the reaction plate and snap ring.

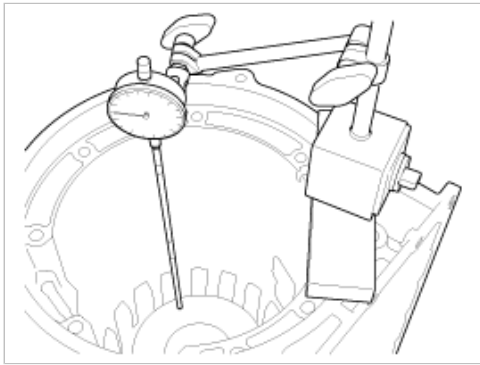
#### CAUTION

Install the snap ring aligned within upper 10° of TM case.

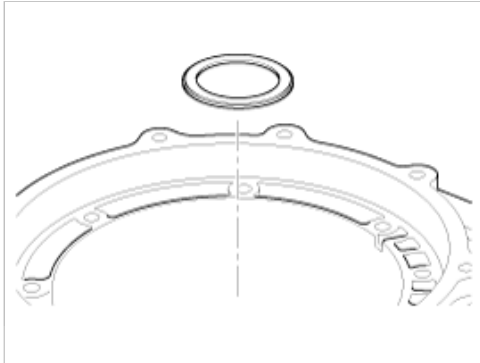


22. Measure the end play of forward brake reaction under the load of 5kg and air pressure of 2.5 bar.

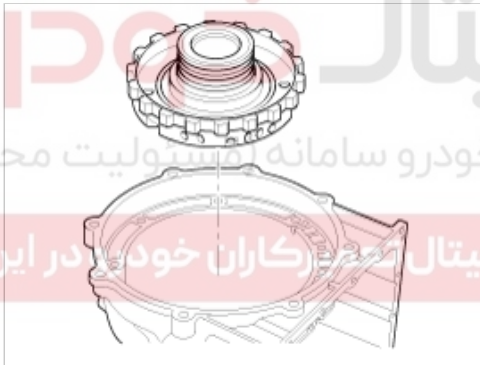
Standard value: 0.024~0.039in (0.6~1.0mm)



23. Install the thrust bearing.



24. Install the drum support.

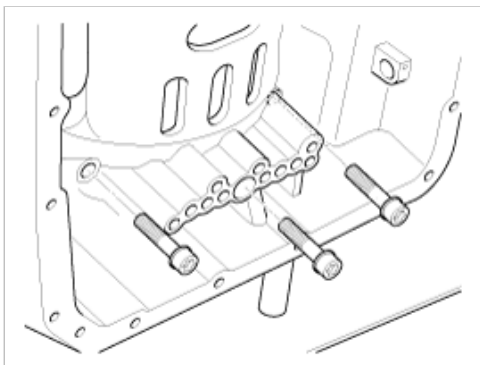


#### CAUTION

When installing the drum support, install temporarily the bolts(3EA) aligned with the holes as shown in the picture.

#### TORQUE:

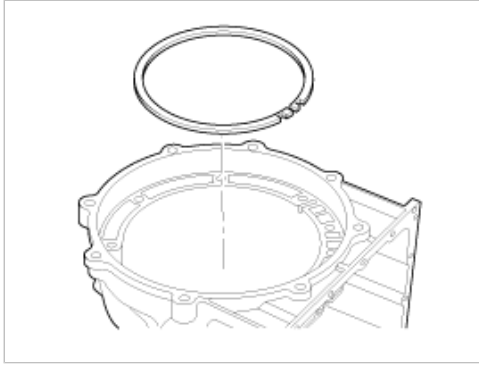
20~25Nm(200~250kg·cm, 15~18lbf·ft)



25. Install the drum support snap ring.

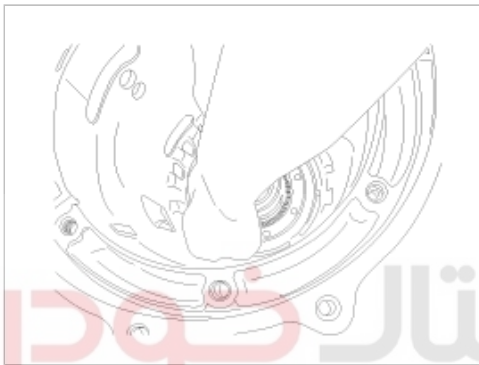
#### CAUTION

Install the snap ring aligned with the lower center of TM case.

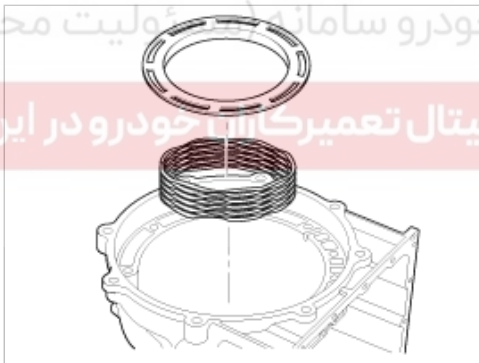


26. Apply vaseline to the outer O-ring of the reverse brake piston.

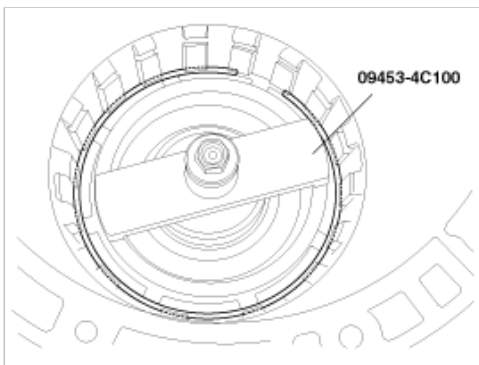
27. Assemble the reverse brake piston.  
Apply the drum support bearing to install.



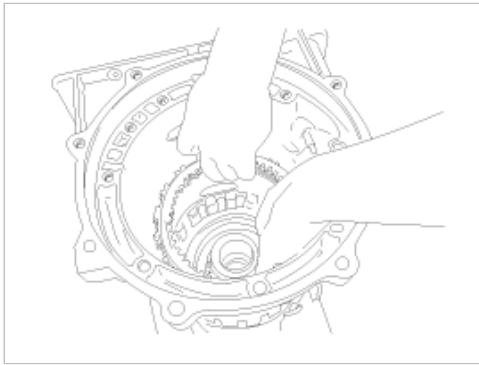
28. Assemble the return spring and spring retainer of reverse brake piston.



29. Use the clutch compressor(09453-4C100) to install the snap ring that installs the spring retainer.  
Use the driver to make sure since the tension of the snap ring is somewhat weak.

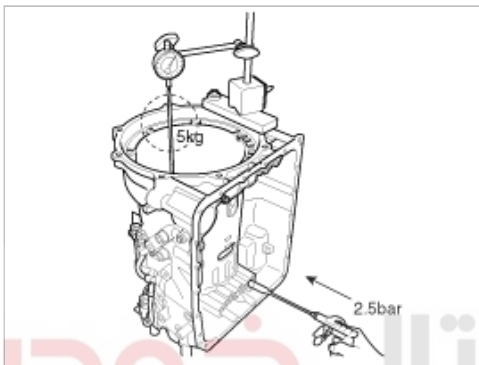


30. Assemble the reverse brake clutches.



31. Measure the end play of reverse brake reaction under the load of 5kg and air pressure of 2.5bar.

Standard value: 0.028~0.043in (0.7~1.1mm)



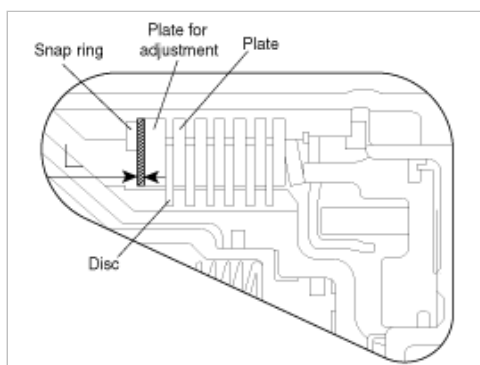
#### NOTICE

Adjust the gap between reverse ~ brake

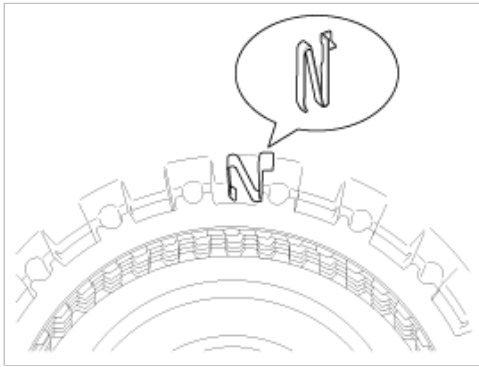
Check L dimension using a thickness gauge and adjust it to become 0.7 ~ 1.1 mm(0.0276 ~ 0.0433in.) using the retainer plate.

When L dimension is not within the aforesaid values, check the thickness of the retainer plate and select the proper part of the following table and replace it.

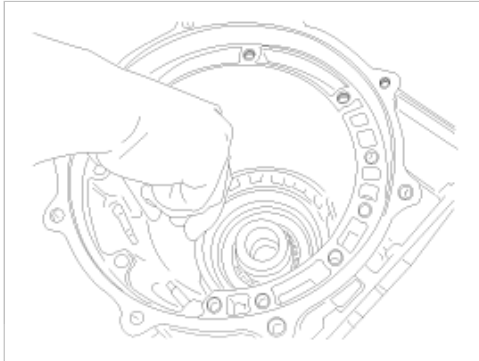
Part number	Dimension [mm(in.)]
45627-4C000	4.2 (0.1654)
45627-4C001	4.4 (0.1732)
45627-4C002	4.6 (0.1811)
45627-4C003	4.8 (0.1890)
45627-4C004	5.0 (0.1969)



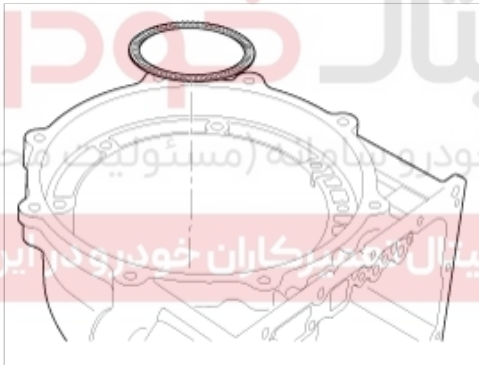
32. Assemble spring pin to prevent shattering.



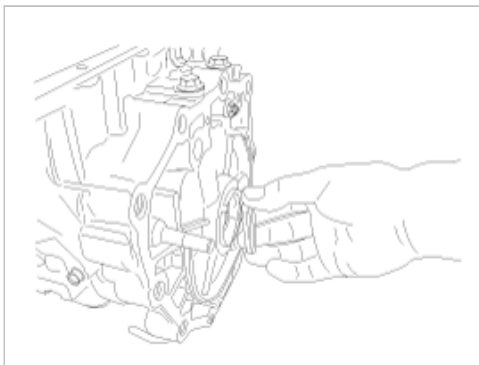
33. Assemble the snap ring that is for fixing the reverse brake plates.



34. Install the thrust bearing.

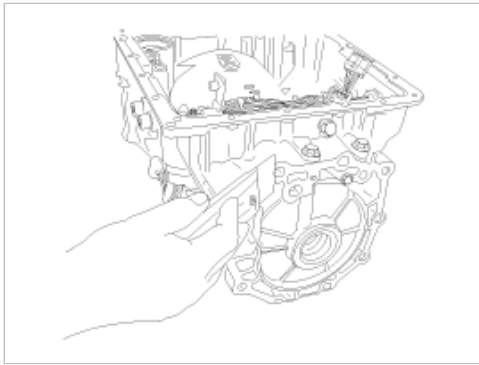


35. Install the bearing that vaseline has been applied to the rear case surface.

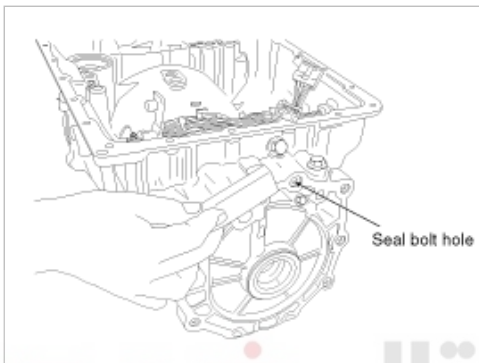


36. Scratch off the sealant.





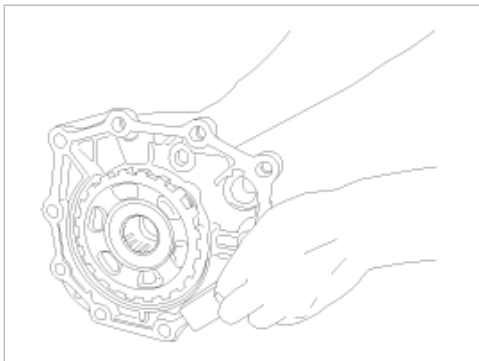
37. Wipe the surface that is in contact with the extension with an oil whetstone lightly and remove the sealant completely.  
Tap the seal bolt slit lightly.  
Apply the washer fluid to wipe with the whetstone so that the removed gasket not to become sticking.



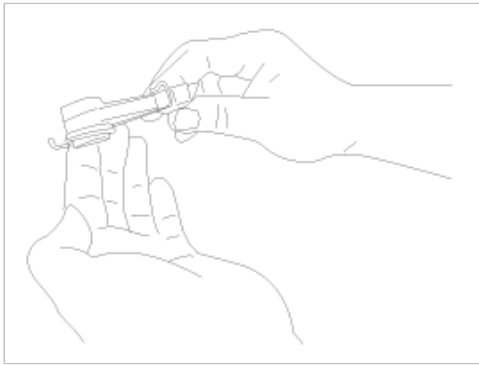
38. Scratch off the sealant that is attached to the surface that is contact with the case.



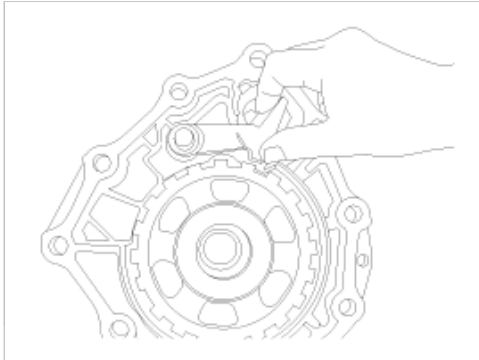
39. Wipe the surface conjoined with the case with oil whetstone lightly and remove the sealant completely.  
Tap the seal bolt slit lightly.  
Apply the washer fluid to wipe with the whetstone so that the case not to become sticking after cleaning.



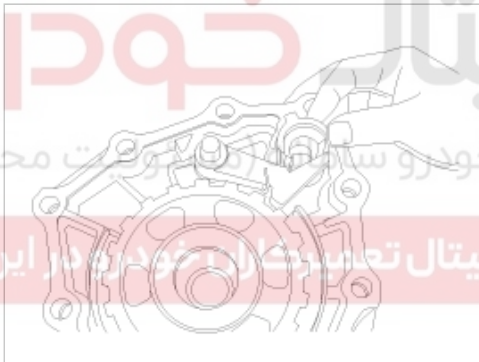
40. Install the return spring to the parking pole.  
See the following figure when mounting.



41. Install the parking pole, return spring shaft.



42. Install the actuator support.

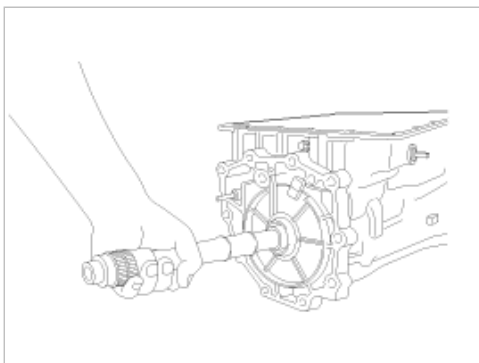


43. Assemble the output shat.

**CAUTION**

Note that the shapes of the front and back are similar.  
(Front side is where the tip outer diameter is narrower (Torque converter side))

See the shape figure.



44. Install the revolution sensor.

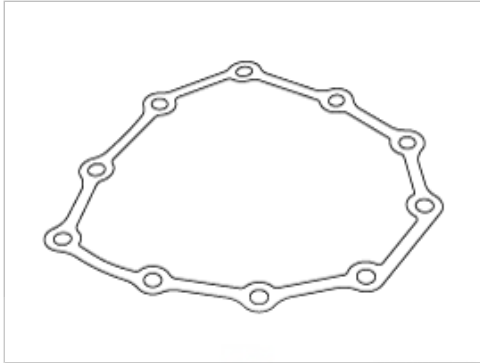
**TORQUE:**

4.6 ~ 6.9Nm(46 ~ 69kg·cm, 3.4 ~ 5.1lbf·ft)





45. Install the gasket to the case.

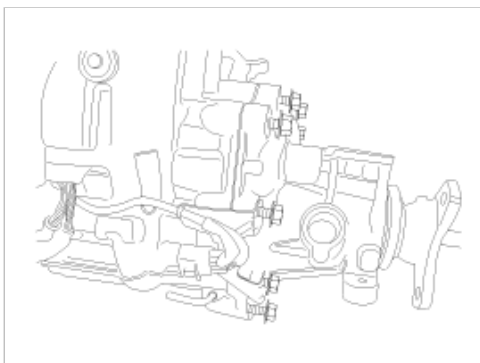


46. Assemble the output shaft to the case.

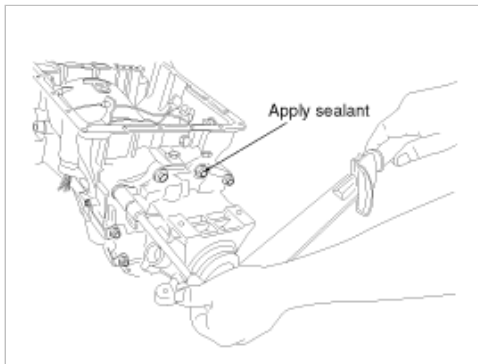
47. In case of 4WD, install the oil seal to the case adaptor using the special tool(09452-4C300).



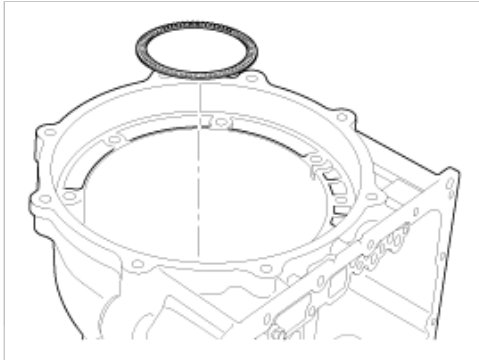
48. Tighten the output shaft & companion flange installation bolts provisionally.  
Tighten and attach the bracket that is fixing the terminal assembly connector at the same time.



49. Tighten the output shaft companion flange installation bolts at 50-54.9Nm (9) using the torque meter.  
The seal bolt part is tightened at 58 ~ 63Nm (1).



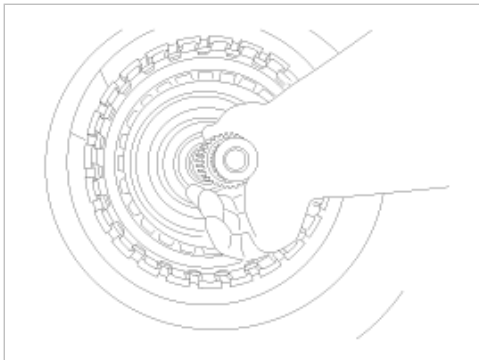
50. Apply vaseline to the seal ring of the drum support, and then assemble the direct clutch.



51. Make sure that both the drum support surface and the inner BOSS side of the clutch come almost to the same position.



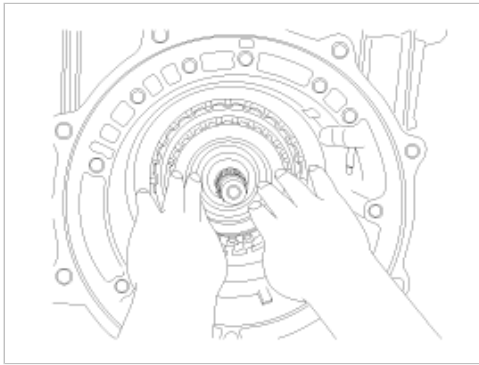
52. Mount the bearing with vaseline applied to the drum support surface.



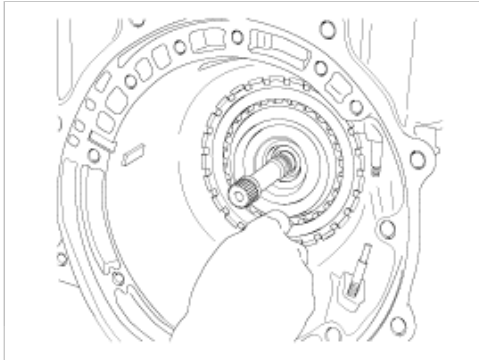
53. Assemble the high&low reverse clutch.

**CAUTION**

Use the one with the same part number when replacing the high&low reverse clutch.



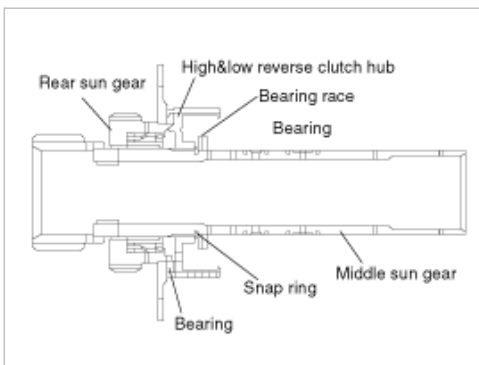
54. Align the splines of the high&low reverse clutch drive plate with a driver.



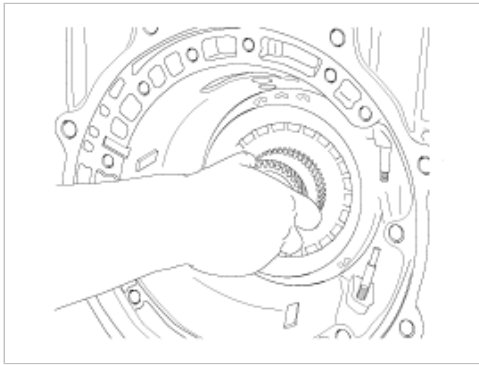
55. Assemble the rear sun gear and the high&low reverse clutch hub to the middle sun gear, and then fix it with the snap ring. Mount the bearing race and bearing. (called "Middle gear sun-sub assembly")

**CAUTION**

Use the one with the same part number when replacing the middle sun gear.



56. Assemble the middle sun gear-sub assembly.  
Turn the middle sun gear right to left and press it until it fits to the position.



57. Check the flange-combined part of the rear sun gear is approximately 2 mm(0.0787in.) lower than the high&low reverse clutch drum surface.

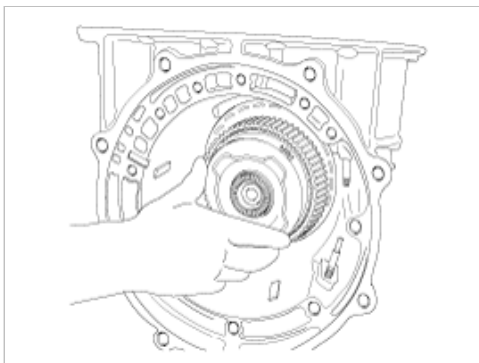
If there is no about 2mm(0.0787in.) of step height, it wont fit to the position. Remove it and try again.



58. Apply Vaseline to the bearing race, mount the rear carrier, and then assemble the rear carrier assembly.



59. Apply Vaseline to the bearing, and then assemble the middle carrier assembly.



60. Assemble the input clutch, front carrier, and rear internal gear.

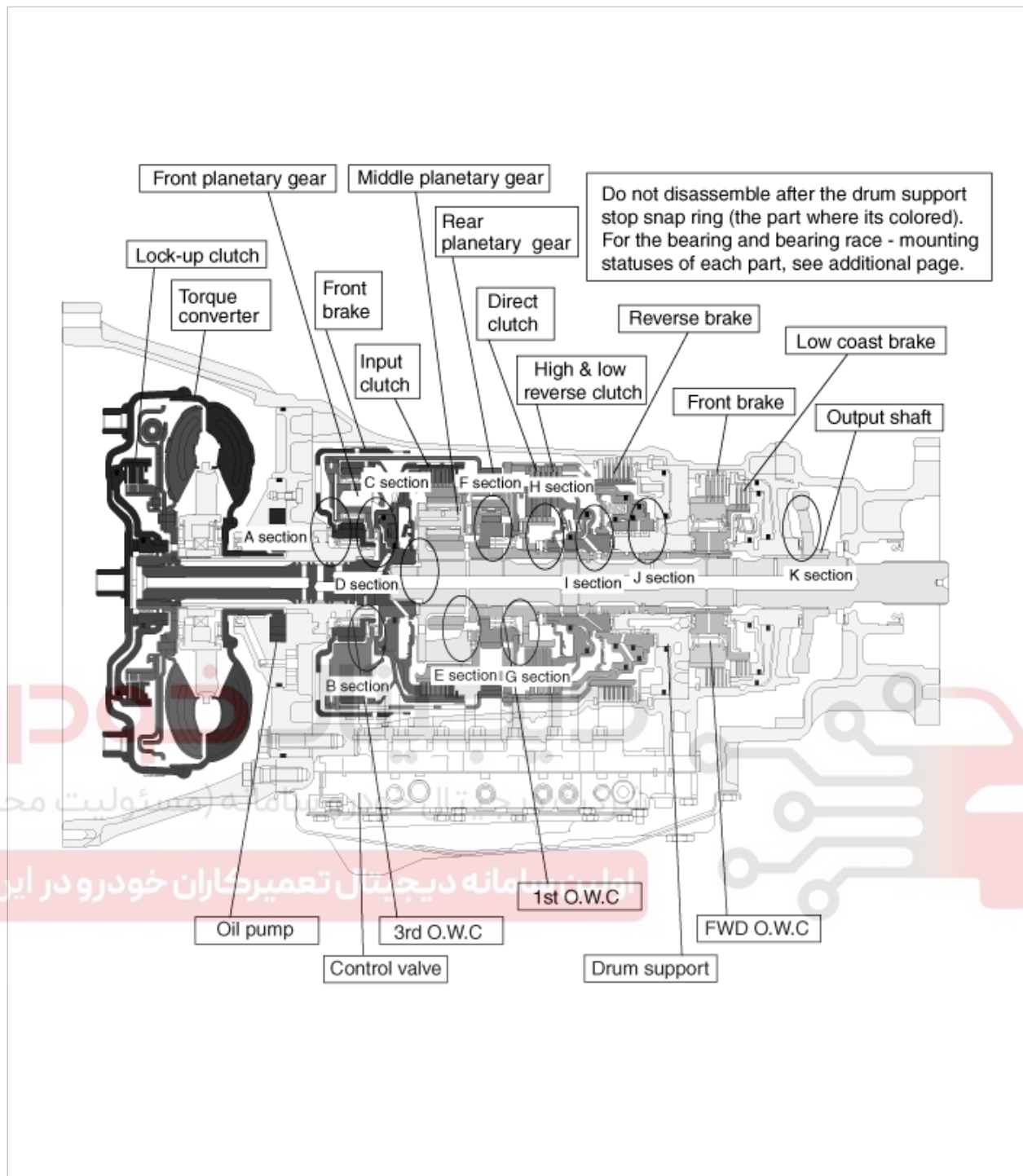


61. Assemble the input clutch to the rear internal gear.

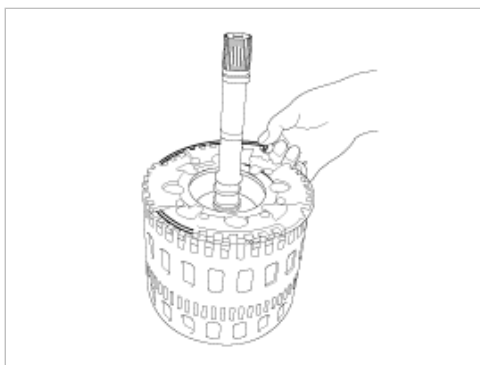


62. Assemble the front carrier.

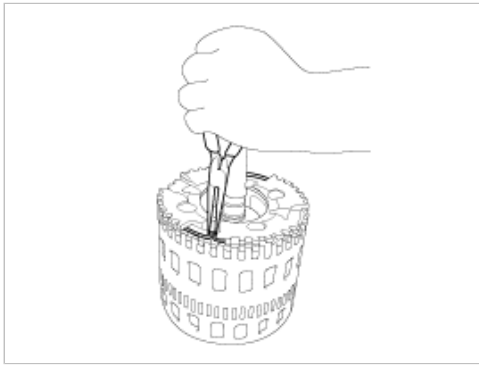




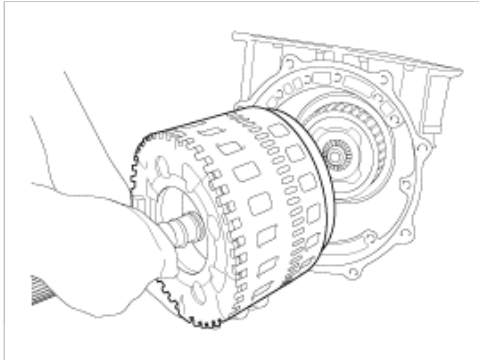
63. Insert the snap ring to the slit in the front carrier.



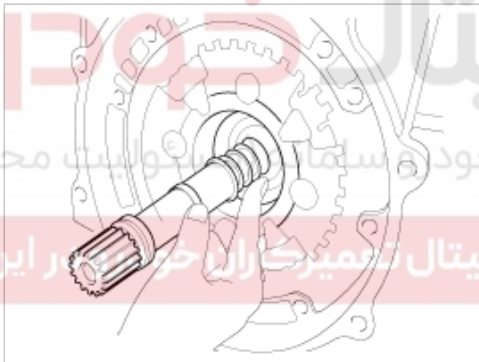
64. Tighten the snap ring with the snap ring pliers, and then combine the front carrier to the rear internal gear. Loosen the snap ring and fix the front carrier and the rear internal gear at the same time.



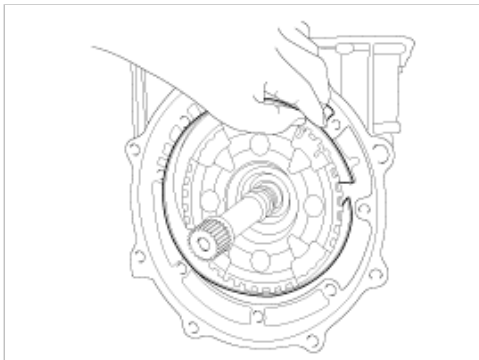
65. Assemble the input clutch pack.



66. Apply vaseline to the seal ring of the input shaft.

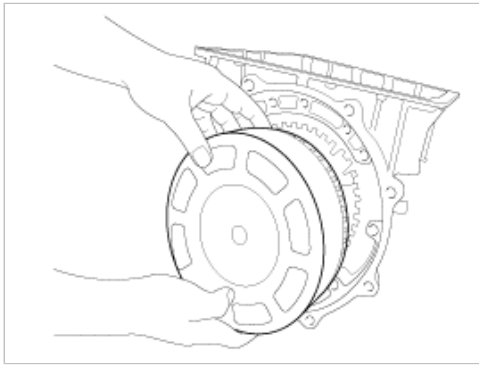


67. Exchange the end anchor pin, and attach provisionally.  
Assemble the brake band provisionally.  
For band assembly, check "Brake band assembly\* adjustment tips".

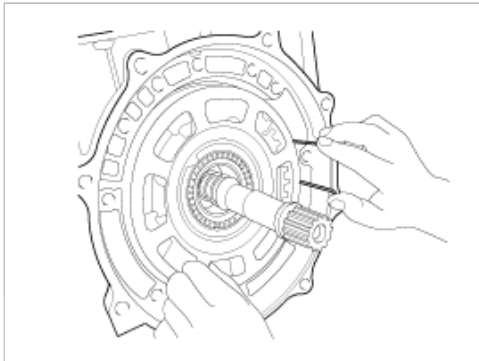


68. Assemble the front sun gear.  
Apply ATF to the bush section of the front sun gear and the end bearing section of the one-way clutch.





69. Adjust the leaning of the band using a wire as in the following figure so that the brake band is attached evenly with the front sun gear drum.



70. Adjust the brake band attaching status based on "Brake band assembly \* adjustment tips."

Brake band assembly-adjustment tips

• Tips for assembly

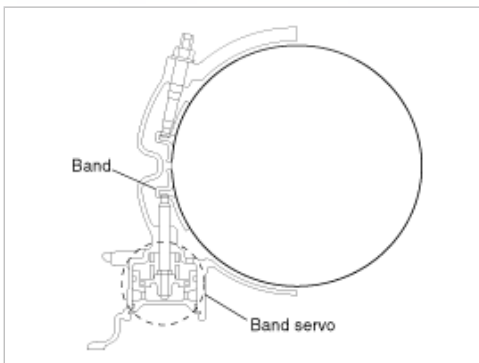
(1) Assemble so that indication mark post-assembly prevention becomes the SERVO side.

(2) Be careful not to lean the band when assembling.

To prevent the band from being assembled askew, check that there is a gap between the band and drum while SERVO FREE.

• Brake band adjustment

Tighten Lock nut (31365 41X00), mount anchor end pin (31625 90X00) with 4 ~ 6 Nm (40 ~ 60 kg·cm, 3 ~ 4.4lb·ft) of torque, loosen 3 strokes, tighten lock nut with 40 ~ 51Nm (400 ~ 510 kg·cm, 29.5 ~ 37.6lb·ft) of torque.



71. Check total end play.

For check tips, see "Total end play adjustment tips."

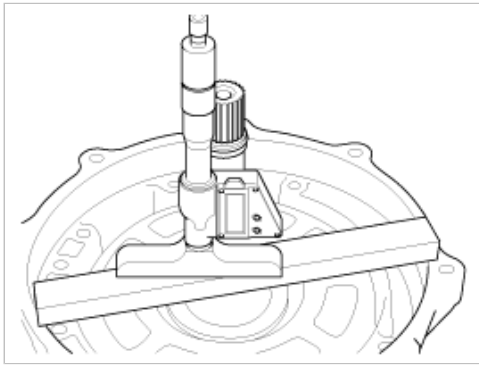
**NOTICE**

Total end play adjustment tips.

Adjust with BRG-RACE so that clearance, L1 becomes 0.25 ~ 0.55mm (0.0098 ~ 0.0217in.).

Select the bearing race after checking end play when replacing the power train parts.

Check end play for flaw prevention also when not replacing the power train parts.



72. Apply ATF to the radial bearing.

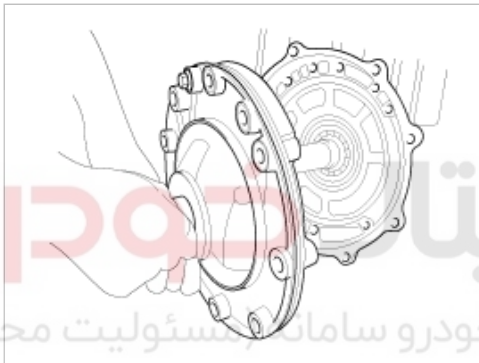
Apply vaseline to the O-ring of the oil pump, bearing race.

Match the intake of the oil pump and the one of the case. Push in the oil pump attachment bolts with both hands until the surface of the oil pump and the one of the case become as high at the same time.

Remove the fluid gasket of the bolt on the left side (10), and then apply new fluid gasket (Threebond # 1215).

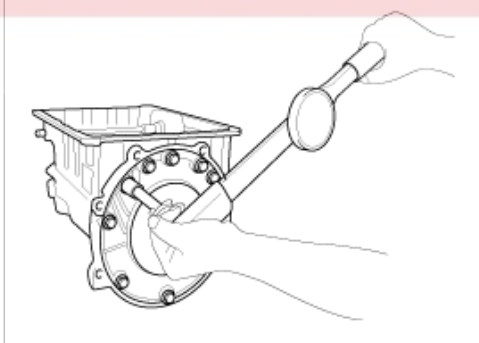
**CAUTION**

Make sure that fluid gasket does not touch the screw part.



73. Use the torque meter, tighten the bolts to the case with torque of 54.9 ~ 59.8 Nm(549 ~ 598kg·cm, 40.49 ~ 44.1lb·ft).

Apply AFT to the bush section of the oil pump.

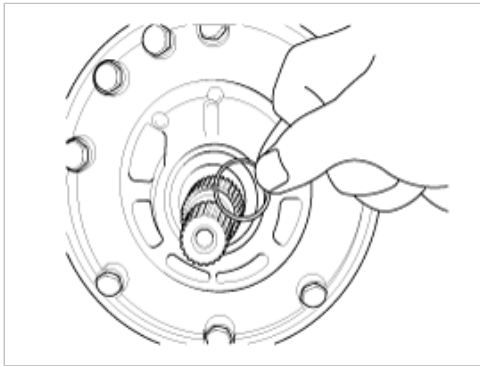


Total end play adjustment tips

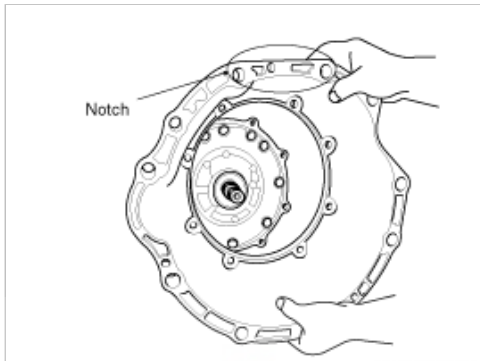
A. Adjust with the bearing race so that clearance L1 becomes 0.25 ~ 0.55mm(0.0098 ~ 0.0217in.).

Bearing race part number	Dimension [mm(in.)]
45833-4C000	0.8 (0.0315)
45833-4C001	1.0 (0.0039)
45833-4C002	1.2 (0.0472)
45833-4C003	1.4 (0.0551)
45833-4C004	1.6 (0.0630)
45833-4C005	1.8 (0.0709)

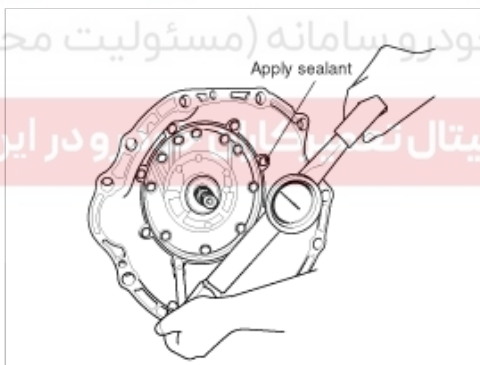
74. Assemble the O-ring of the input shaft.



75. Mount the converter housing to the case.  
The notch comes to upward when having the oil pan upward.



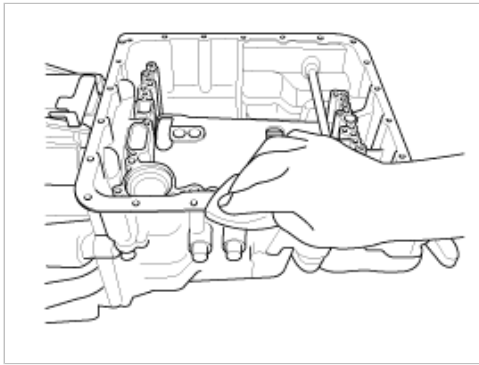
76. Mount the housing converter tightening bolts.  
After provisional tightening, use the torque meter and tighten them all with torque of 50 ~ 54.9Nm(500 ~ 549kg·cm, 36.9 ~ 40.5lbf·ft). (7).  
The seal bolts are tightened with torque of 58 ~ 63Nm(580 ~ 630kg·cm, 42.8 ~ 46.5lbf·ft).



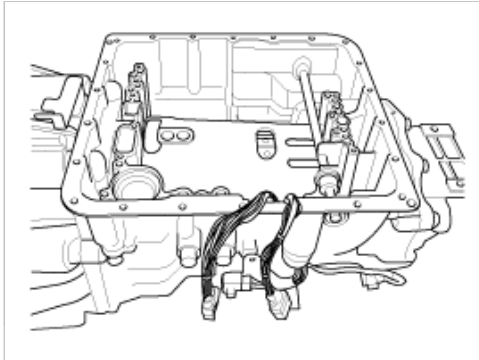
77. Check the brake band is not blocking the turbine sensor hole.



78. Wipe with the whetstone so that oil does not stick to the contact surface with the oil pan of the case.



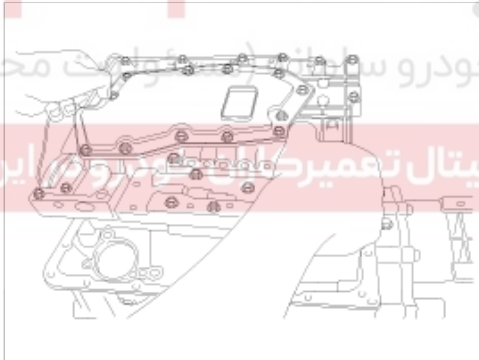
79. Spread the terminal assembly and the harness of the revolution sensor to the outer side of the case.



80. Mount the control valve assembly.

Adhere the turbine sensor to the case installation surface so that the slit of the manual valve in the case hole fit in the curvature of the manual plate.

(See the control valve installation figure)



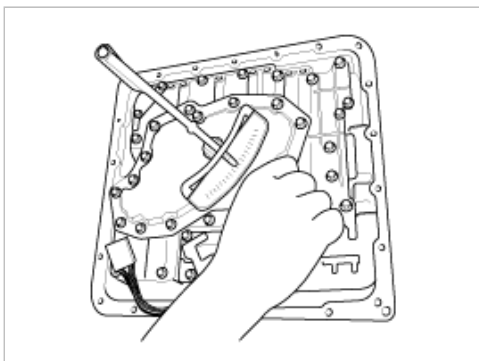
81. Tighten the control valve assembly and case installation bolts provisionally and then use the torque meter to tighten.

TORQUE:

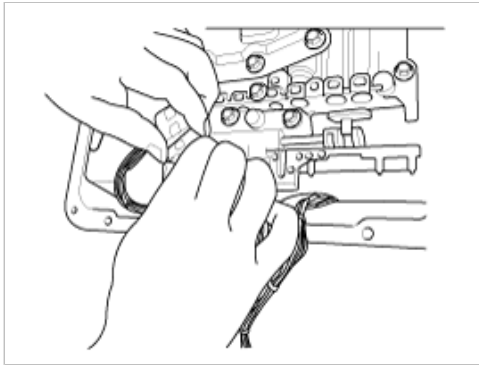
6.9 ~ 8.8 Nm (69 ~ 88 kg·cm, 5.1 ~ 6.5 lb·ft)

#### CAUTION

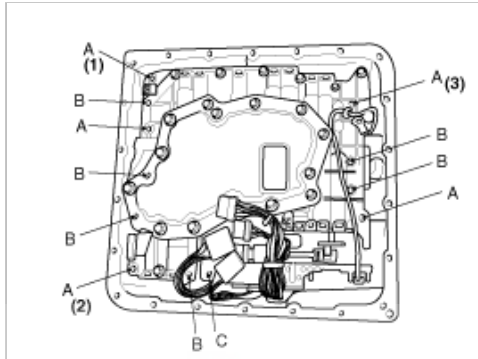
Make sure that the harness does not get stuck in the case.



82. Mount the terminal assembly connector to the bracket.



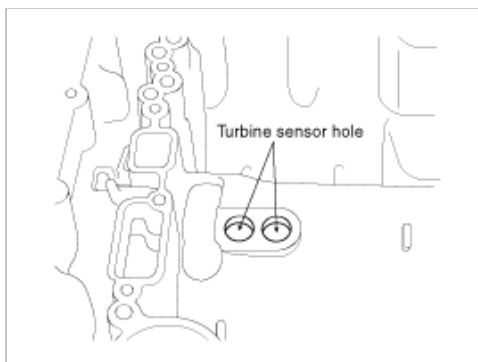
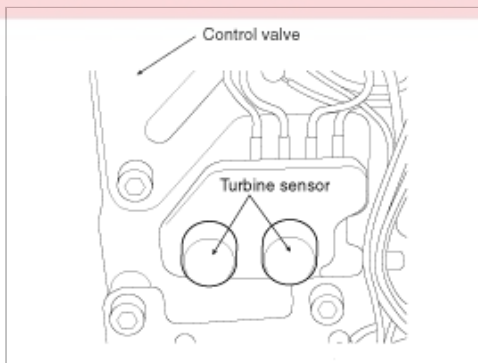
A. Control valve - case installation bolts position and tightening tips.



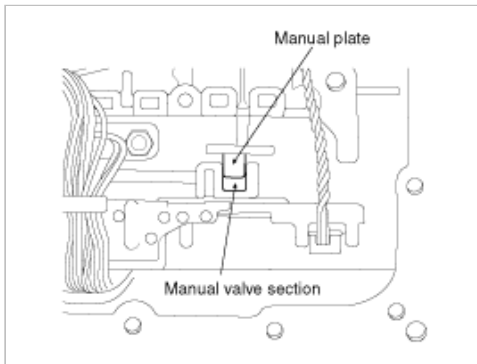
Tighten bolts 1, 2, 3 of the figure above to prevent dislocation provisionally. After that, tighten them in order of 1→2→3 and then tighten the other bolts.

Code	Size mm(in.)	Bolt head	Count
A	42 (0.1654)	B	5
B	55 (0.2165)	7	6
C	40 (0.1575)	7	1

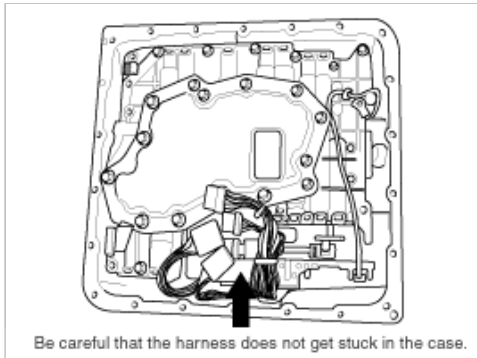
A. Mount to the control valve assembly to the case.



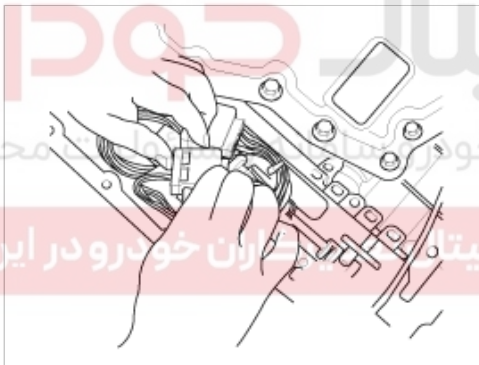
(1) Match the manual valve section part and the manual plate as shown in figure.



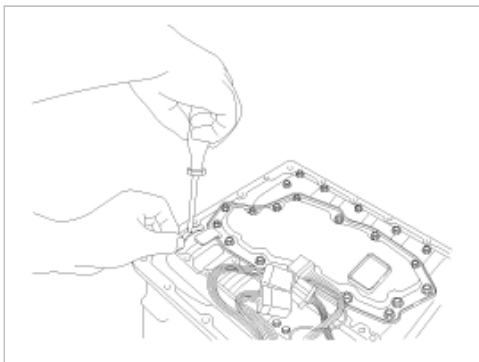
(2) Be careful when inserting the harness since the slit between the case and the control valve is small in the figure.



83. Connect the terminal assembly and the control valve assembly connector.

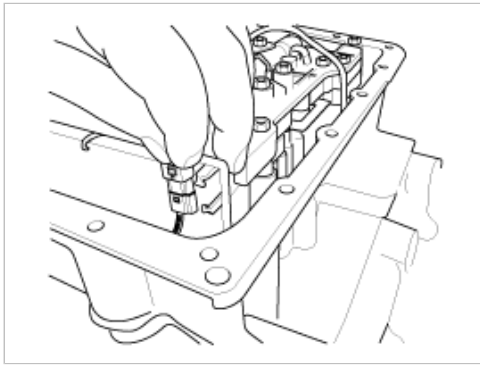


84. Connect the temperature sensor connector.

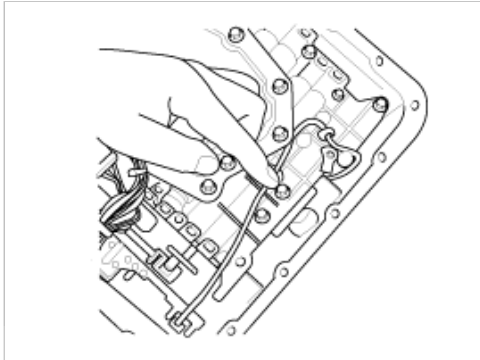


85. Connect the revolution sensor connector.

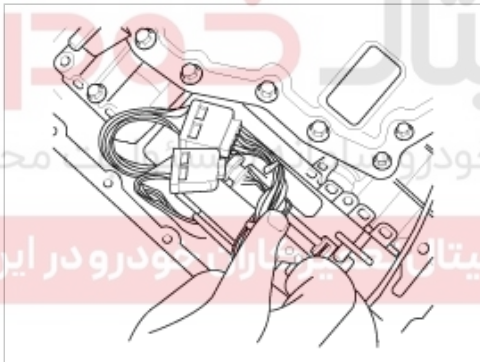




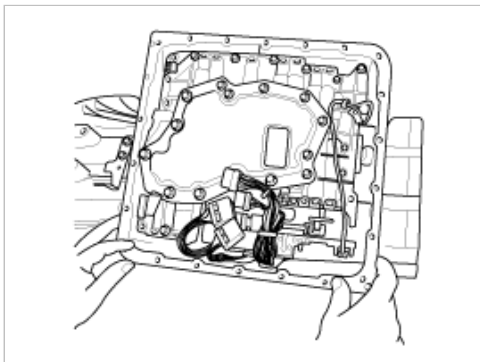
86. Fix the revolution sensor harness to the control valve assembly with a clip.



87. Fix the terminal assembly harness to the control valve assembly with a clip.



88. Mount the oil pan gasket.  
Match the mounting orientation to the hole.

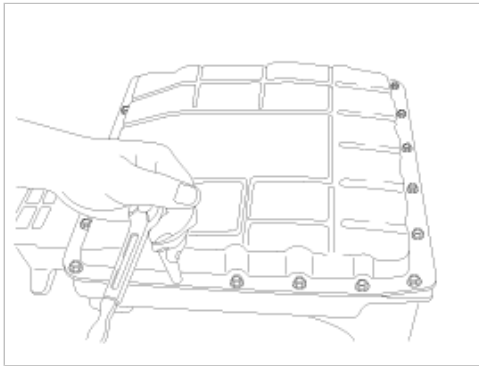


89. Mount the oil pan.  
Mount so that the drain bolt comes to the position of the figure on the left.

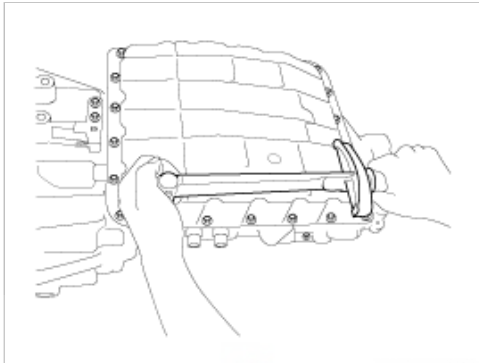
**CAUTION**

Make sure the harness does not get stuck.



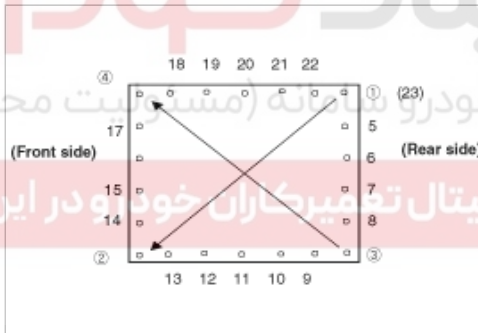


90. Tighten the oil pan installation bolts provisionally, and then use the torque meter to tighten them with torque of 6.9 ~ 8.8 Nm (69 ~ 88kg-cm, 5.1 ~ 6.5lb-ft).



A. Bolt assembly tips are as follows:

Assemble in the following order. Assemble diagonally at first.



91. Mount the torque converter.

Check that the distance between the six point BOSS section and the converter housing section is A2.5 : 31.55 mm(1.242 in.),  $\Sigma$ 3.5 : 27.1 mm(1.063 in.).

#### NOTICE

Disassembly and assembly of oil pan drain bolts

##### • Disassembly

Loosen the oil pan drain bolts and remove ATF.  
Discard the drain bolt washer (non-reusable)

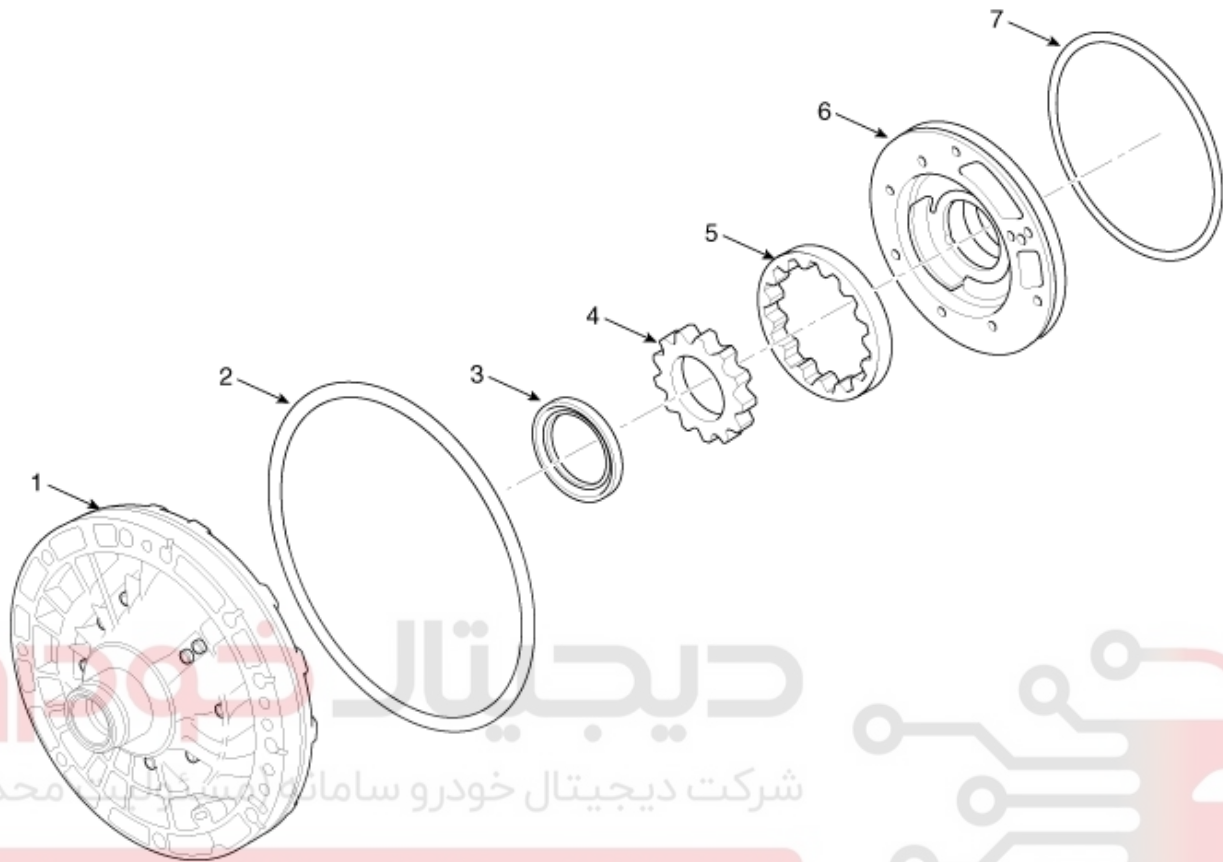
##### • Reassembly

Assemble the new drain bolt washer.  
Tighten the drain bolt with tightening torque of 29 ~ 39Nm(290 ~ 390kg-cm, 21.3 ~ 28.8lb-ft).

2008 &gt; A5SR2 &gt;



## COMPONENTS



1. Oil pump cover
2. O-ring
3. Oil seal
4. Inner gear

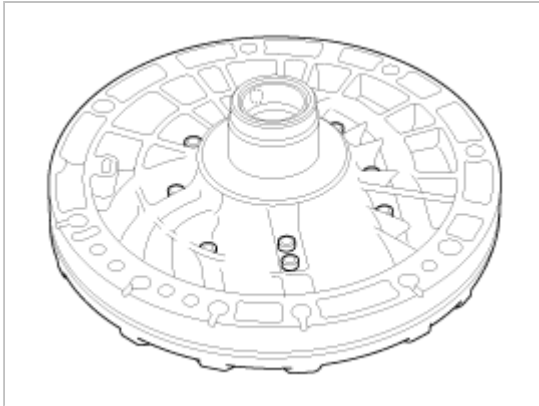
5. Outer gear
6. Oil pump housing
7. O-ring

2008 &gt; A5SR2 &gt;



## DISASSEMBLY

1. Remove the thrust washer.
2. Remove the star bolts(9EA).



3. Remove the oil pump housing and cover assembly.

## REASSEMBLY

1. Using the special tool, install the oil seal to the oil pump housing.



2. Measure the oil pump housing side end play.

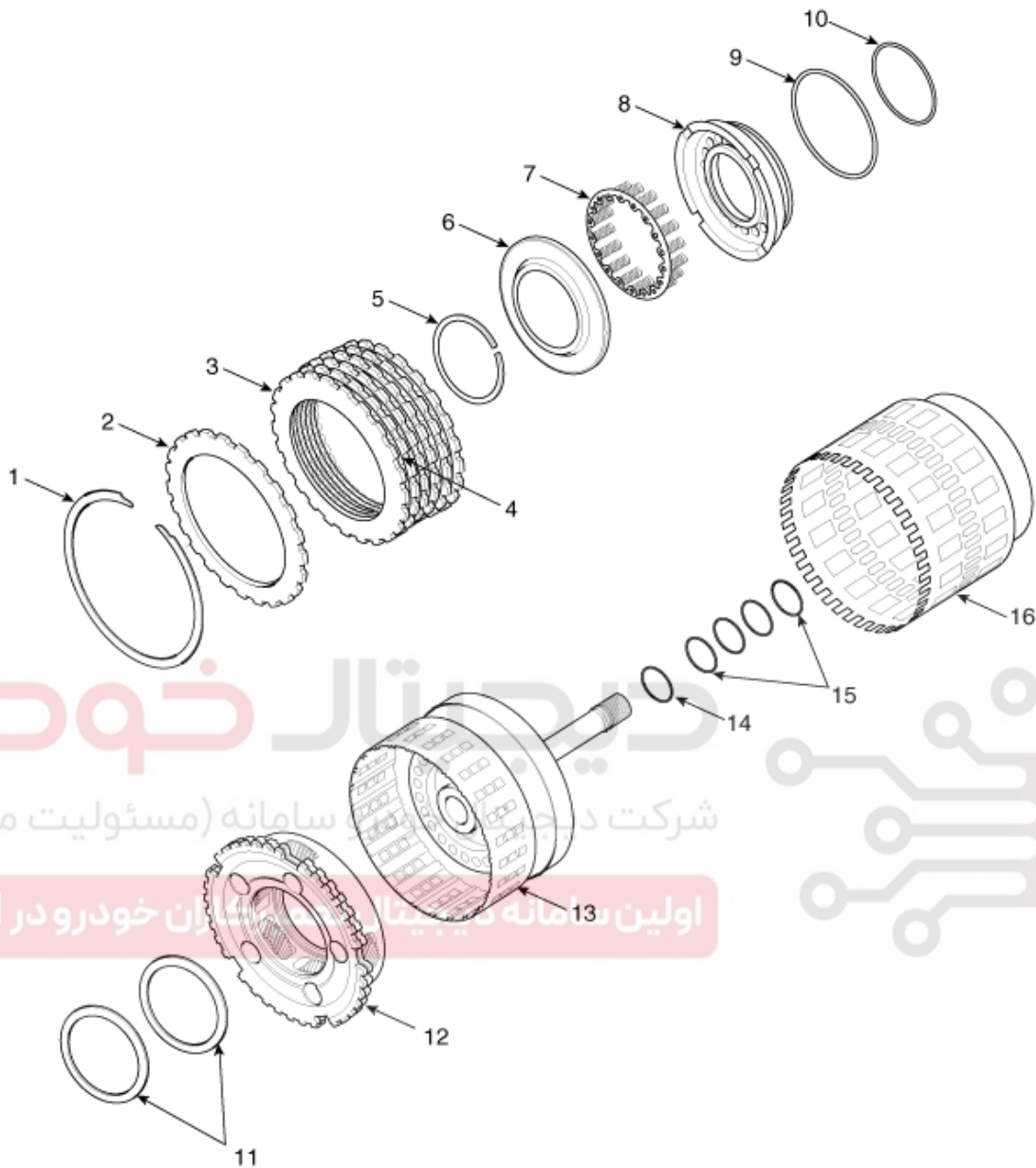
### Standard value

Outer gear: 40~60  $\mu\text{m}$ Inner gear: 51~70  $\mu\text{m}$ 

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## COMPONENTS



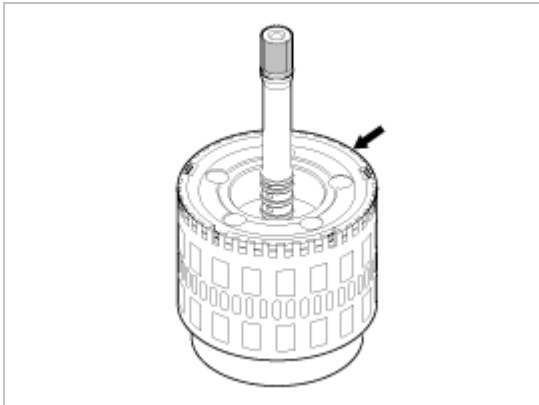
- |                    |                           |
|--------------------|---------------------------|
| 1. Snap ring       | 9. D-ring                 |
| 2. Reaction plate  | 10. D-ring                |
| 3. Plate           | 11. Bearing race          |
| 4. Disc            | 12. Front carrier         |
| 5. Snap ring       | 13. Input clutch assembly |
| 6. Spring retainer | 14. O-ring                |
| 7. Return spring   | 15. Seal ring             |
| 8. Piston          | 16. Rear annulus gear     |

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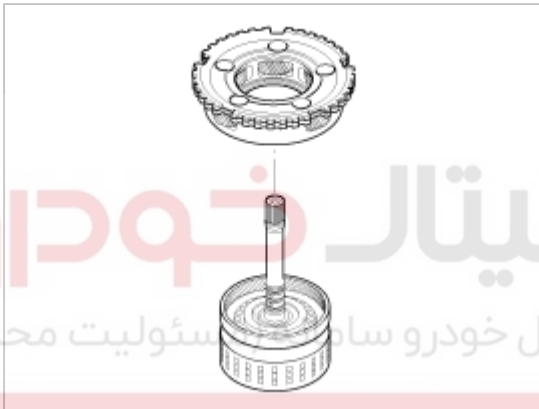


## DISASSEMBLY

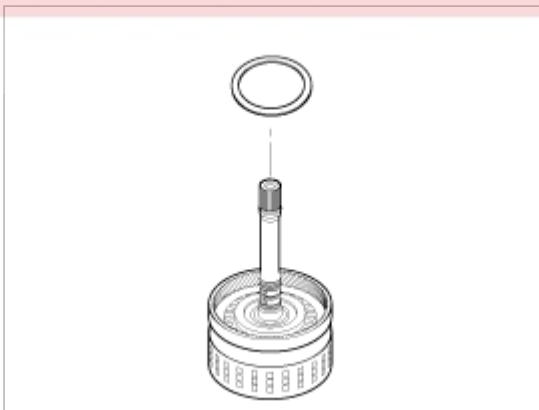
1. Remove the snap ring.  
Disassemble the rear planetary gear pressing the snap ring inside.



2. Remove the front carrier.



3. Remove the thrust race.

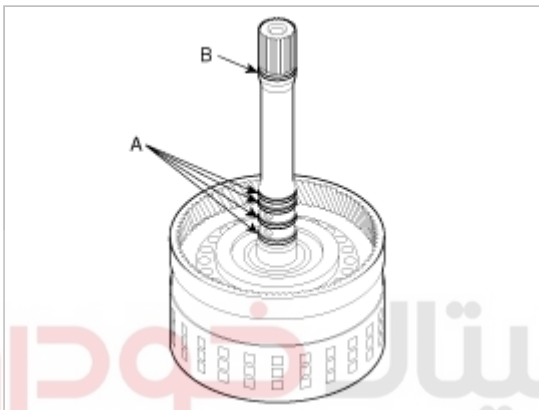


4. Remove the thrust bearing.

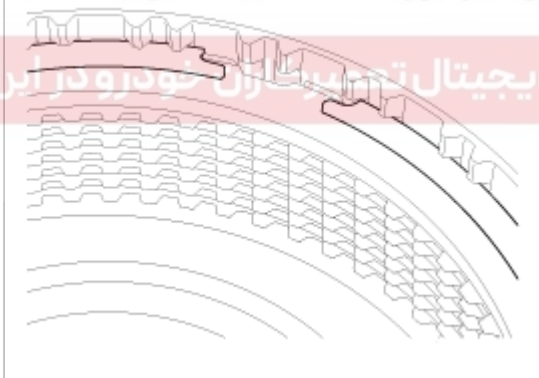


5. Remove the seal rings(A).

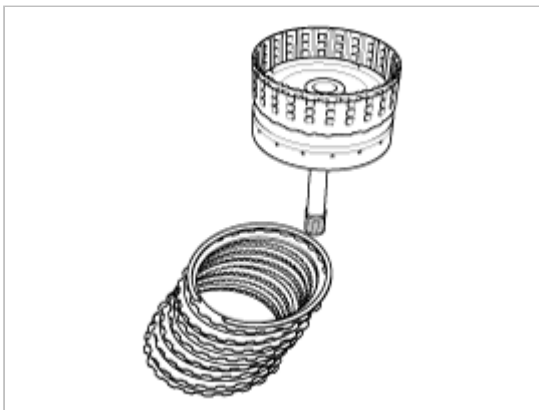
6. Remove the O-ring(B).



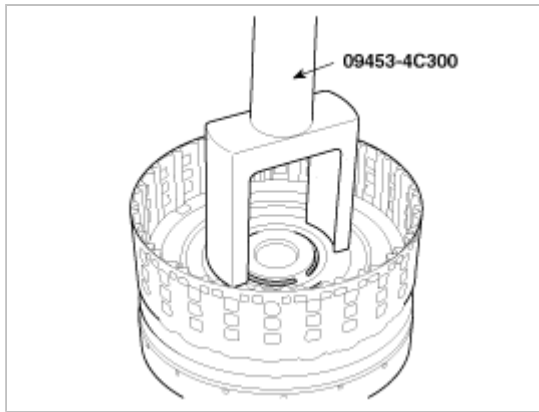
7. Remove the input clutch snap ring.



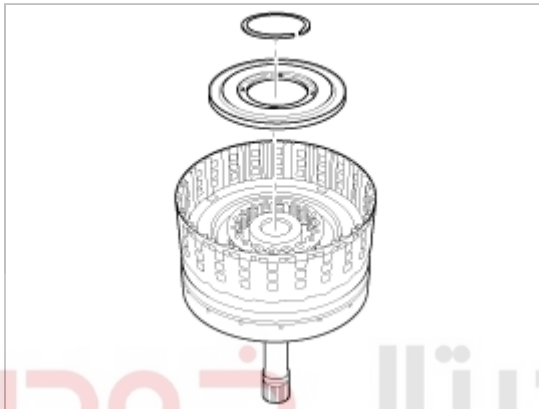
8. Remove the reaction plate, disc and plate.



9. Using the special tool(09453-4C300), remove the snap ring.



10. Remove the input clutch spring and return spring.



11. Using the air pressure, remove the input clutch piston.



12. Disassemble the D-rings(2EA).

## REASSEMBLY

1. Measure the end play under the load of 5kg and air pressure of 2.5bar.

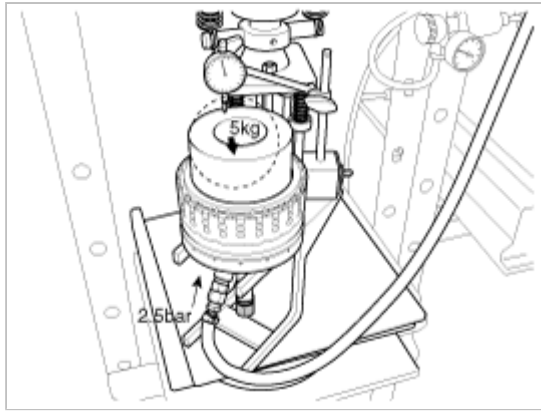
---

Standard value: 0.028~0.043 in(0.7~1.1 mm)

---

If the standard value is incorrect, select the proper reaction plate for adjustment.





# دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

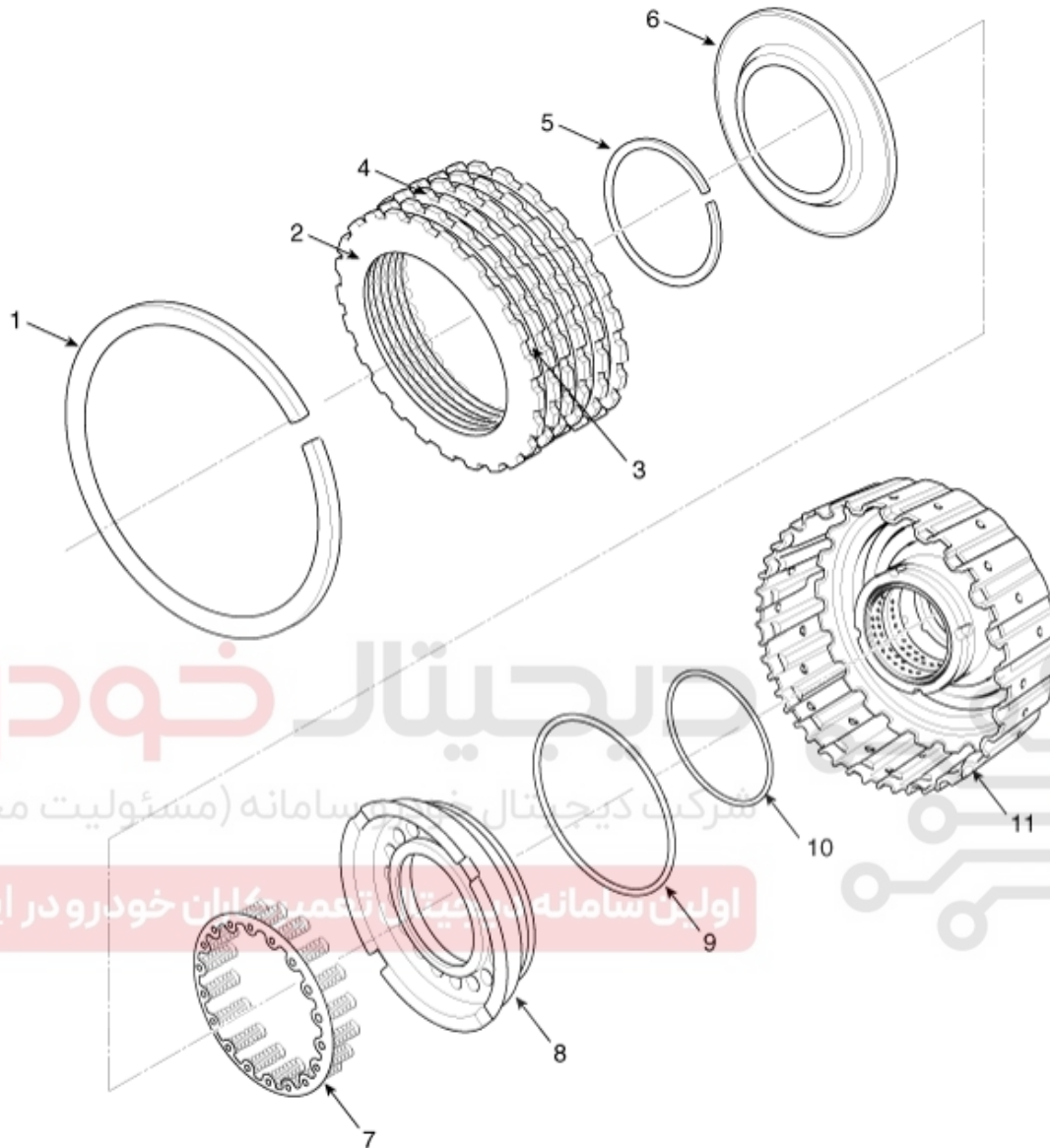
اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



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## COMPONENTS



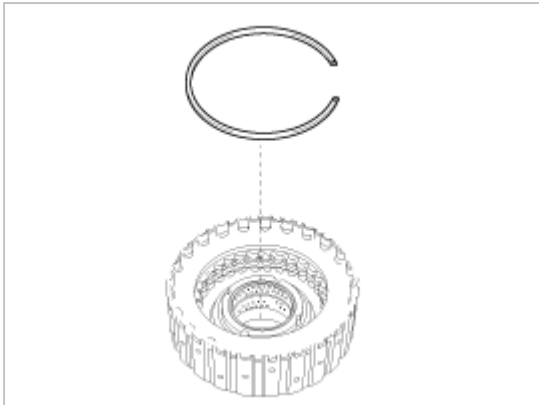
1. Snap ring
2. Reaction plate
3. Disc
4. Plate
5. Snap ring
6. Spring retainer

7. Return spring
8. Piston
9. D-ring
10. D-ring
11. Drum assembly

2008 &gt; A5SR2 &gt;

**DISASSEMBLY**

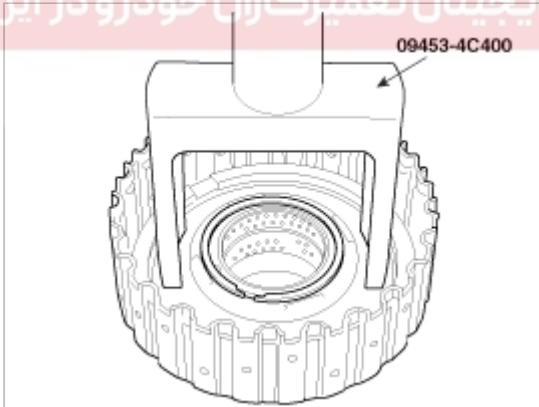
1. Remove the snap ring.



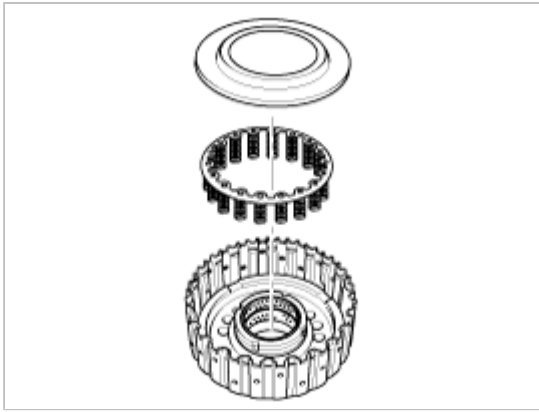
2. Remove the reaction plate, disc and plate.



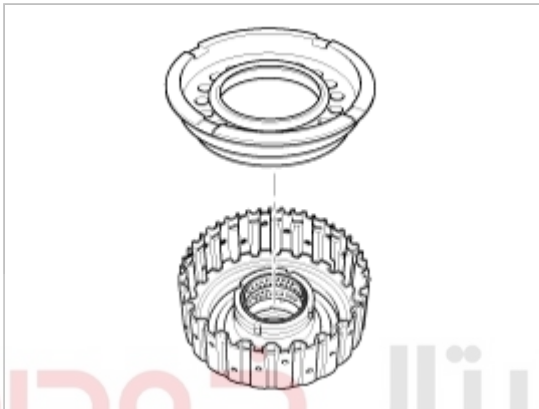
3. Using the special tool(09453-4C400), remove the spring retainer snap ring.



4. Remove the spring retainer and return spring.



5. Remove the piston.



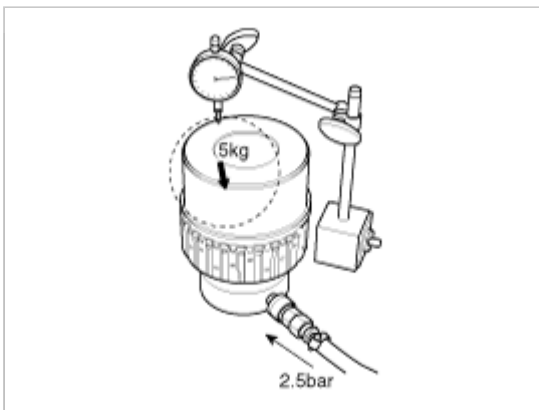
6. Remove the D-ring from the piston.

### REASSEMBLY

1. Measure the end play under the load of 5kg and air pressure of 2.5bar.

Standard value: 0.071~0.087in(1.8~2.2 mm)

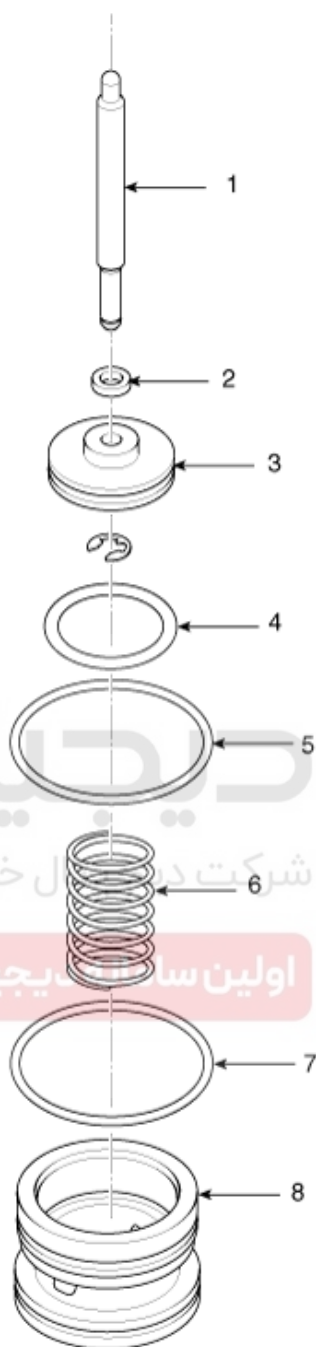
If the standard value is incorrect, select the proper reaction plate for adjustment.



2008 &gt; A5SR2 &gt;



## COMPONENTS



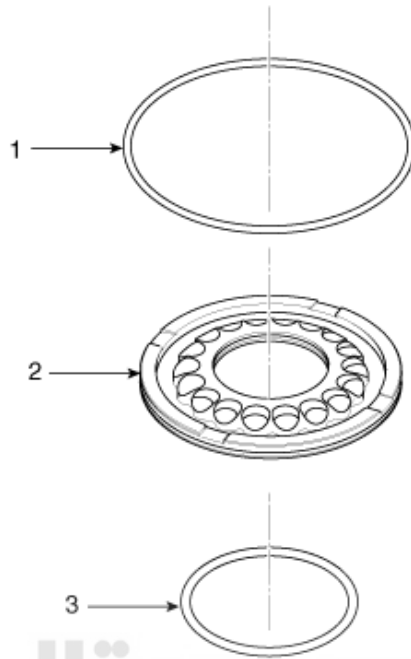
1. Rod adjust
2. Piston washer
3. Servo piston
4. D-ring

5. O-ring
6. Servo spring
7. O-ring
8. Servo piston retainer

2008 &gt; A5SR2 &gt;



## COMPONENTS

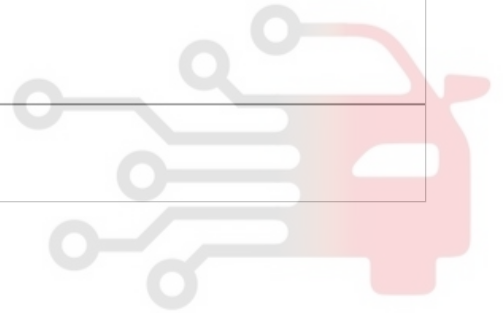


- 1. D-ring
- 2. Low coast piston
- 3. D-ring

دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت)

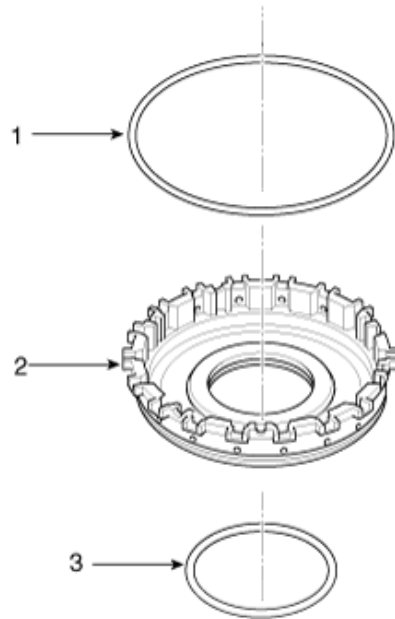
اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



2008 &gt; A5SR2 &gt;



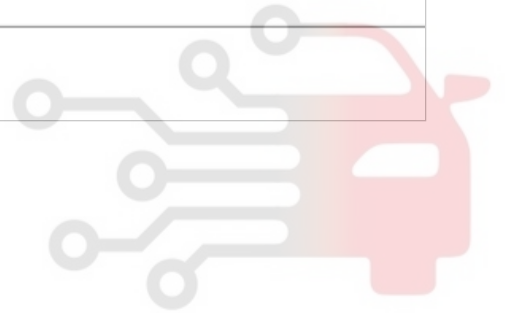
## COMPONENTS



- 1. D-ring
- 2. Low brake piston
- 3. D-ring

شرکت دیجیتال خودرو (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران

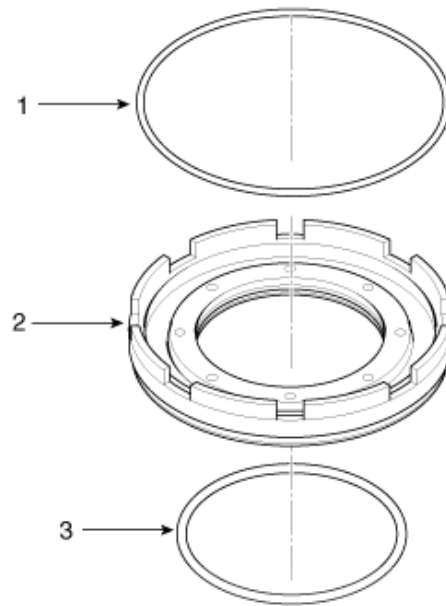




2008 &gt; A5SR2 &gt;



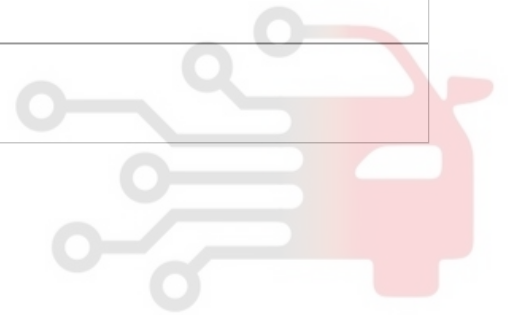
## COMPONENTS



- 1. D-ring
- 2. Reverse brake piston
- 3. D-ring

شرکت دیجیتال خودرو (مسئولیت محدود)

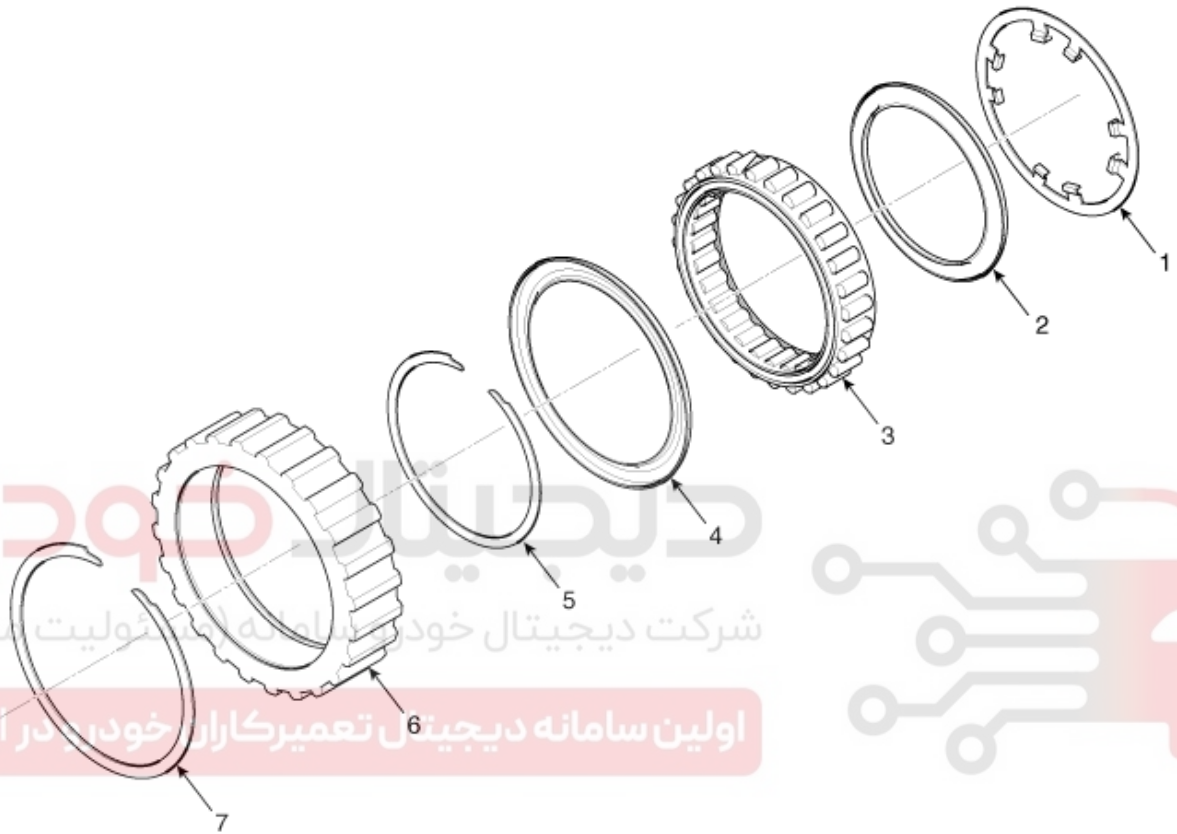
اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



2008 &gt; A5SR2 &gt;



## COMPONENTS



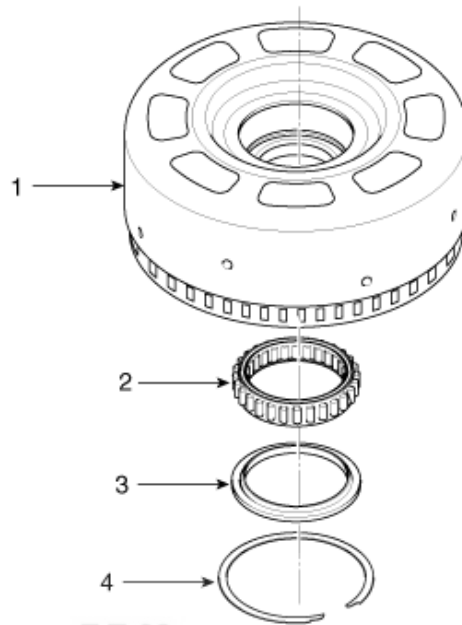
1. Thrust washer
2. End bearing
3. Forward one way clutch assembly
  - Inner cage : 1
  - Outer cage : 1
  - Lip bone : 1
  - Sprag : 28

4. End bearing
5. Snap ring
6. Forward one way clutch outer race
7. Snap ring

2008 &gt; A5SR2 &gt;



## COMPONENTS

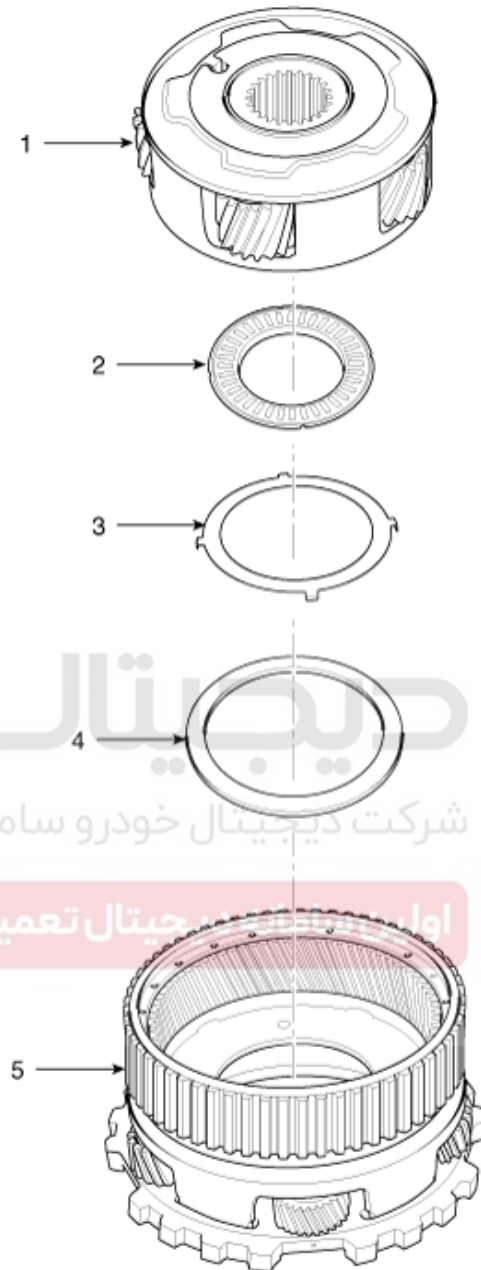


- |  |                |
|--|----------------|
| 1. Front sun gear assembly   | 3. End bearing |
| 2. 3rd one way clutch assembly                                     | 4. Snap ring   |
| - Inner cage: 1<br>- Outer cage: 1<br>- Lip bone: 1<br>- Sprag: 28 |                |

2008 &gt; A5SR2 &gt;



## COMPONENTS



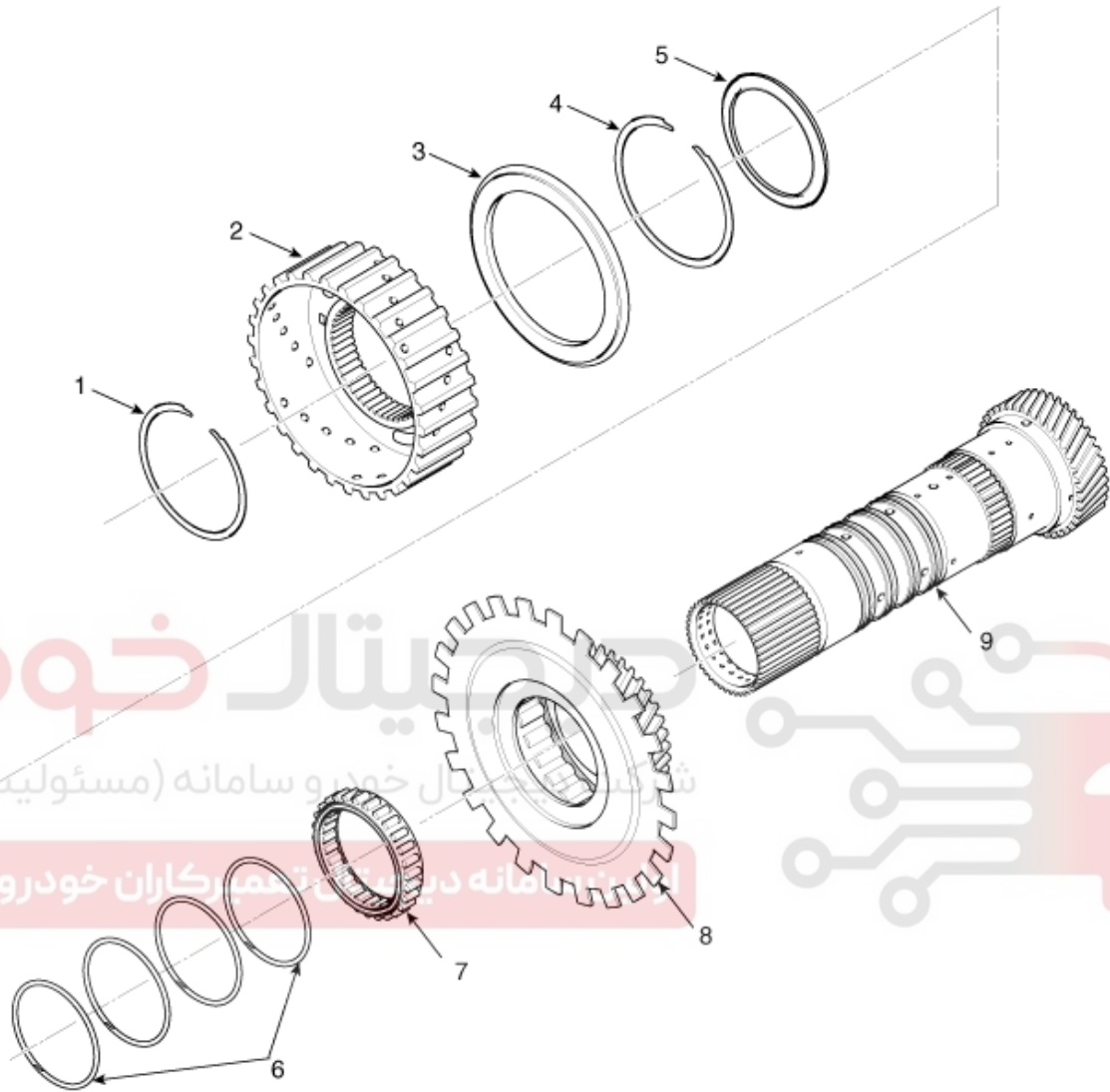
- 1. Middle carrier assembly
- 2. Bearing
- 3. Bearing race

- 4. Bearing race
- 5. Rear carrier assembly

2008 &gt; A5SR2 &gt;



## COMPONENTS



1. Snap ring
2. Low coast brake hub
3. Thrust needle bearing
4. Snap ring
5. End bearing
6. Seal ring

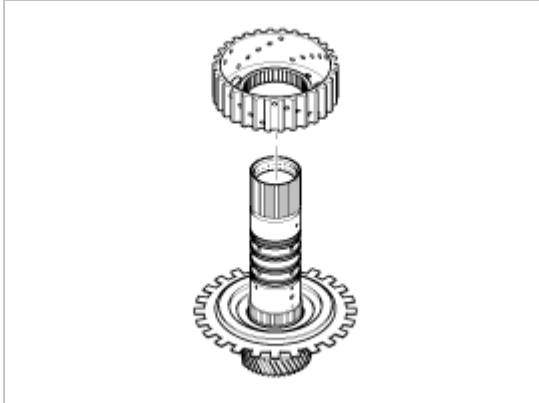
7. 1st one way clutch assembly
  - Inner cage: 1
  - Outer cage: 1
  - Rip bone: 1
  - Sprag: 28
8. Rear sun gear assembly
9. Middle sun gear

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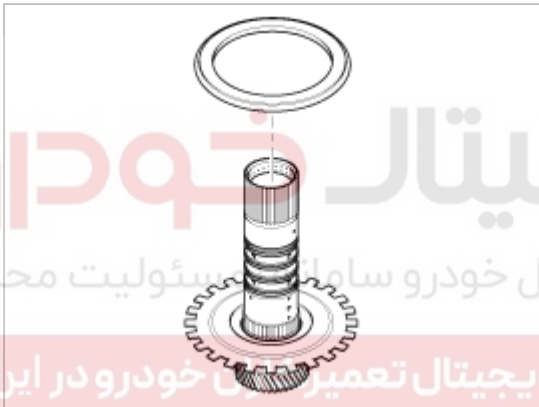


## DISASSEMBLY

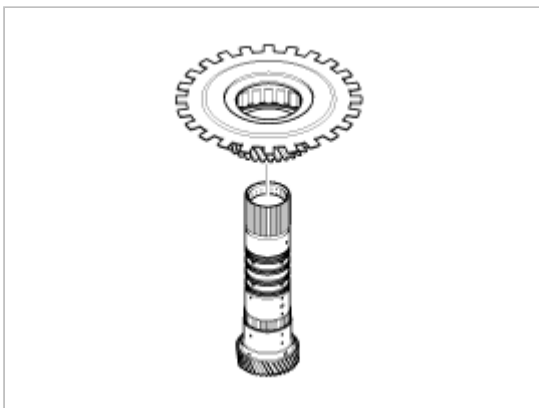
1. Remove the snap ring.
2. Remove the seal rings(4EA).
3. Remove the high&low reverse hub.



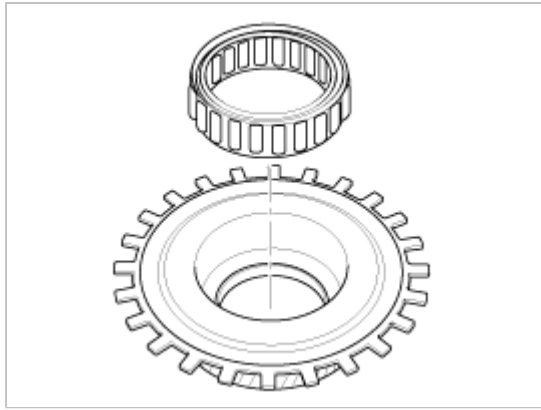
4. Remove the thrust bearing.



5. Remove the snap ring.
6. Remove the rear sun gear.



7. Remove the first one way clutch.



# دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران

