

MANUAL TRANSMISSION

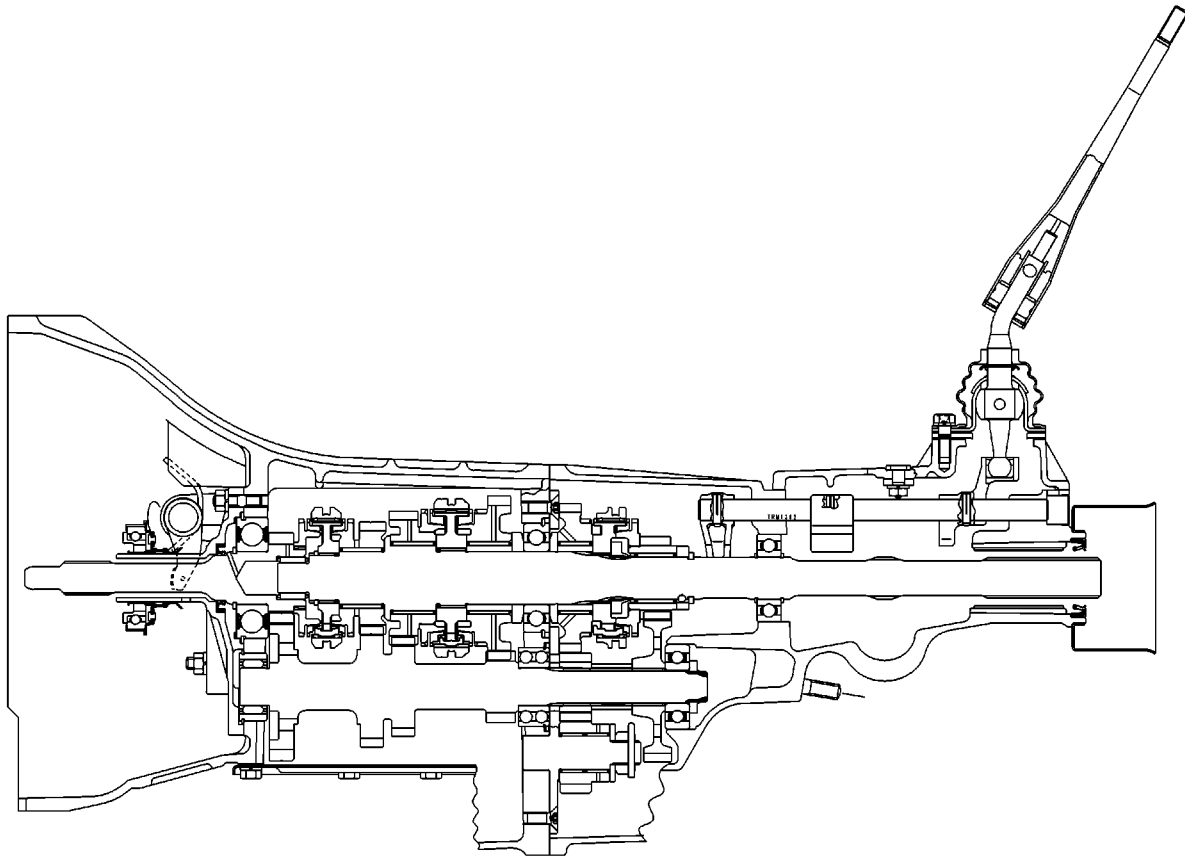
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NOTES

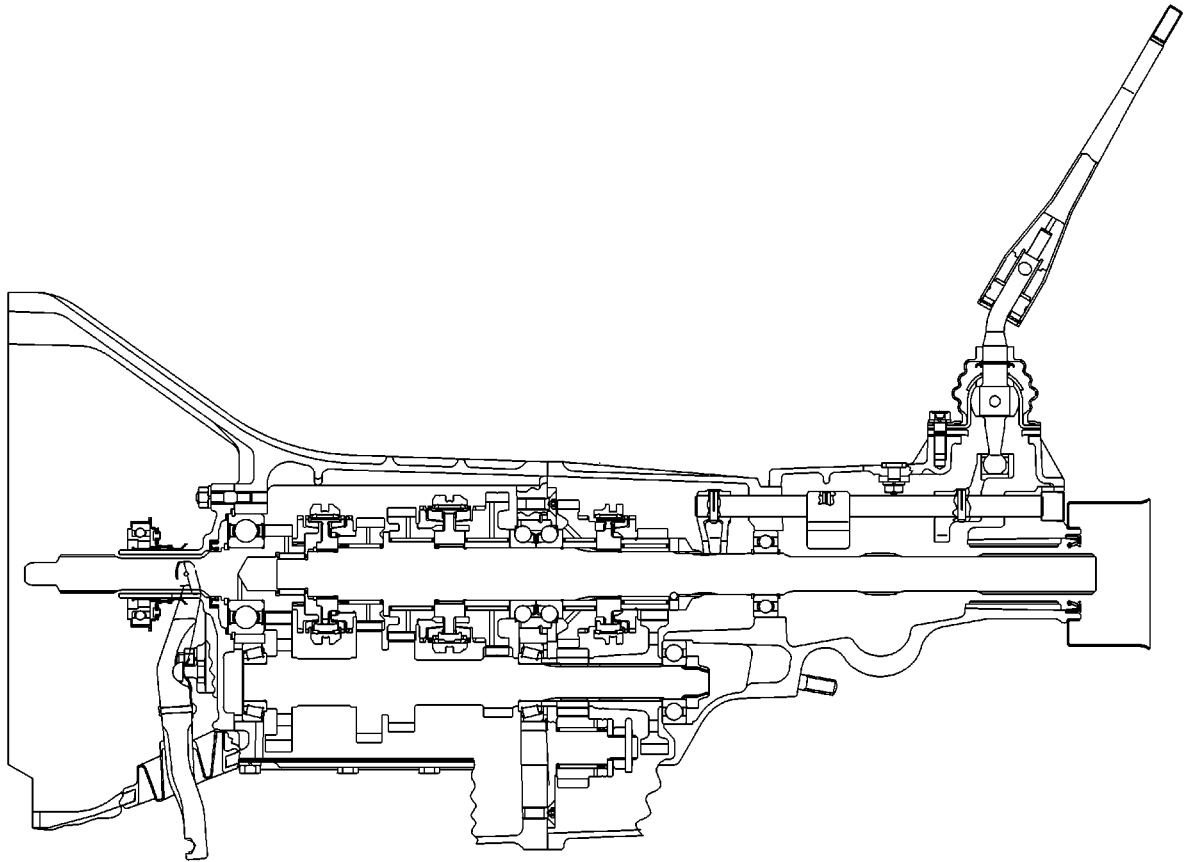
GENERAL INFORMATION

R5M21-5-D



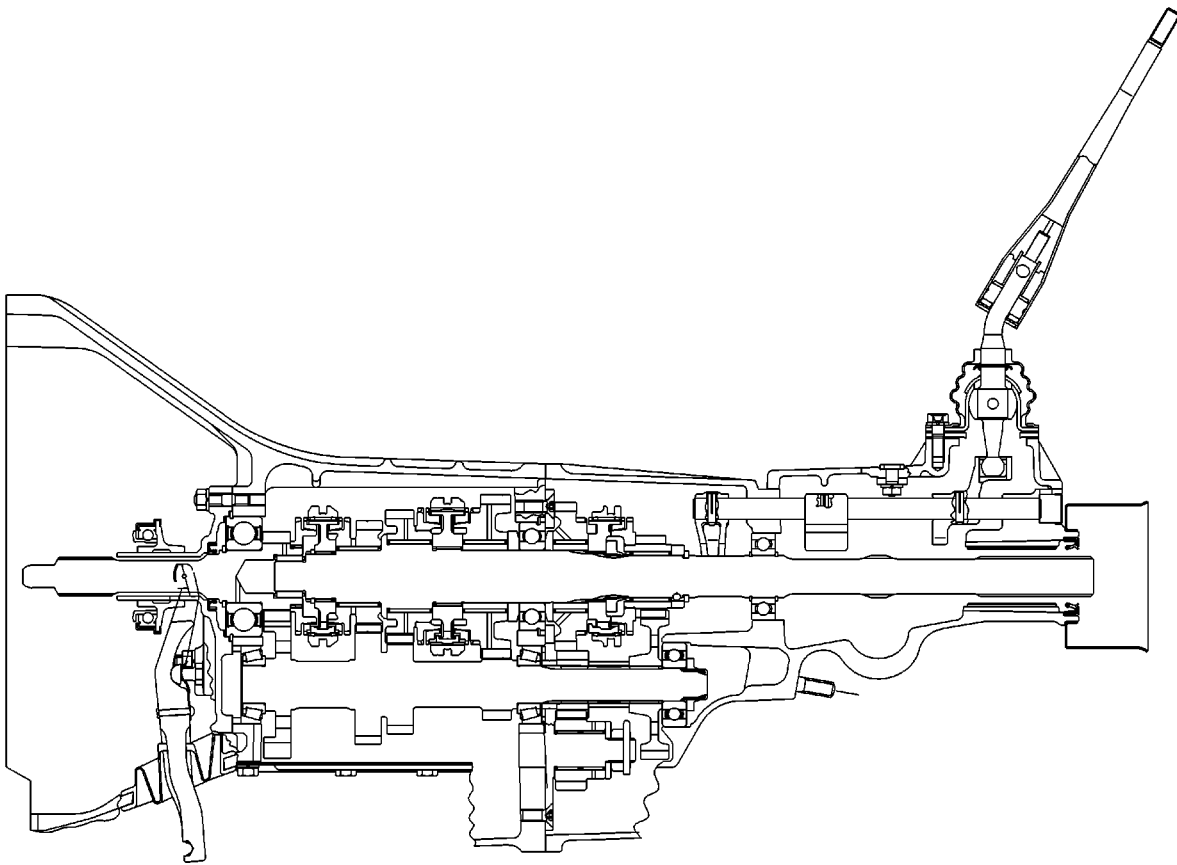
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R5M21-5-G



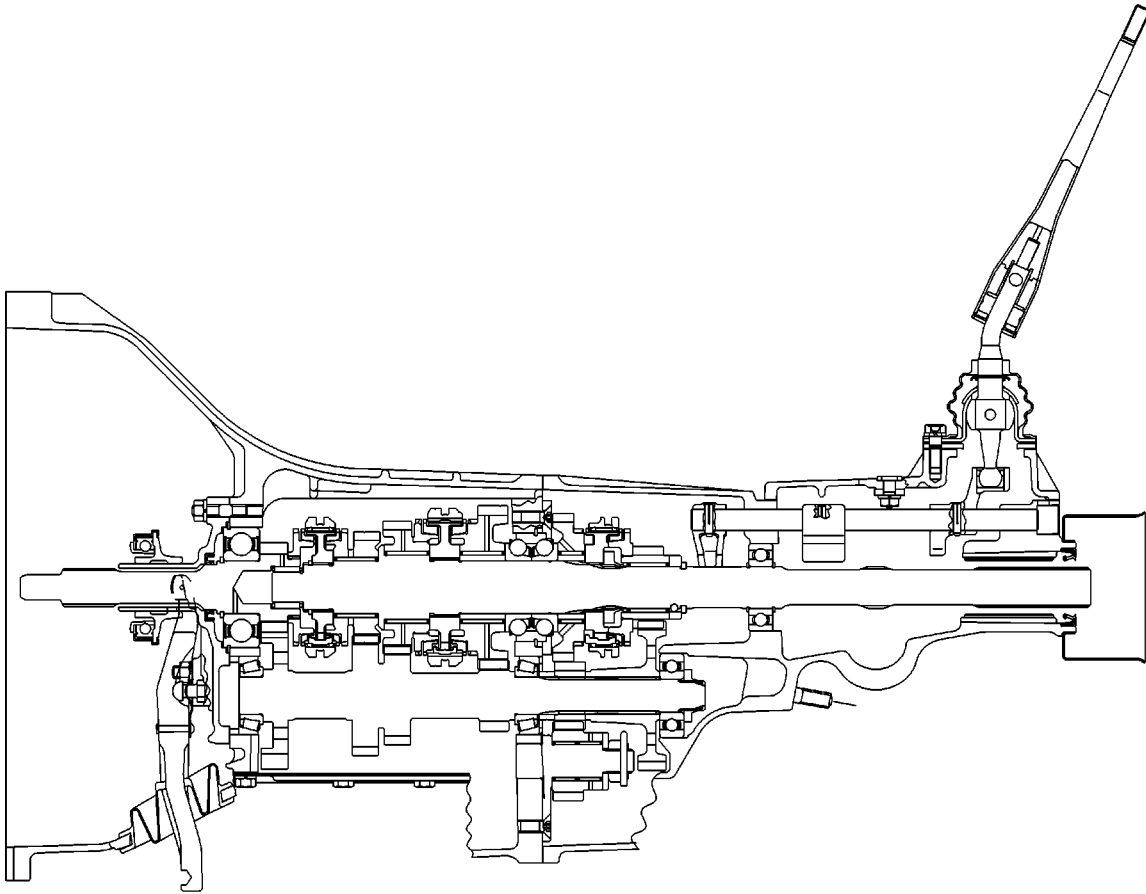
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R5M21-5-P



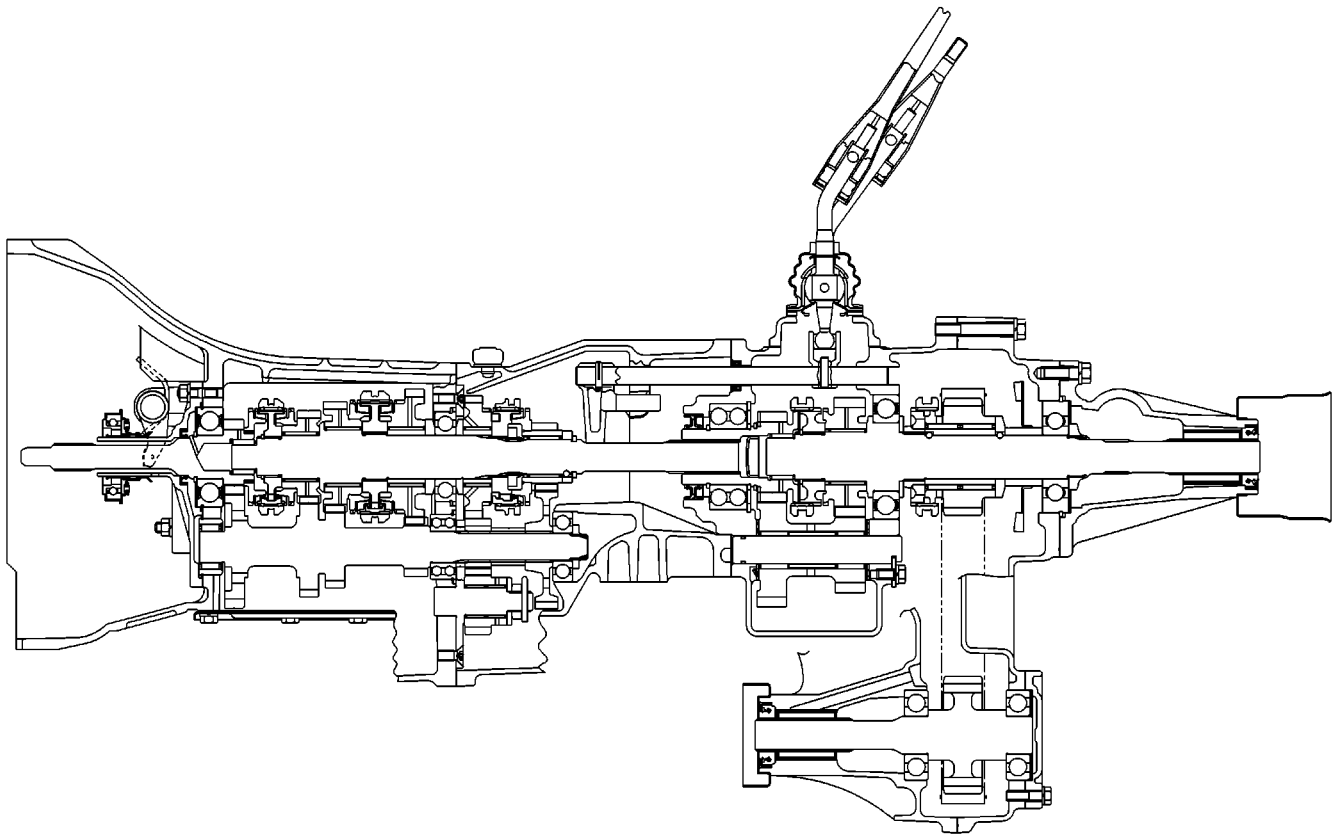
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R5M21-5-T



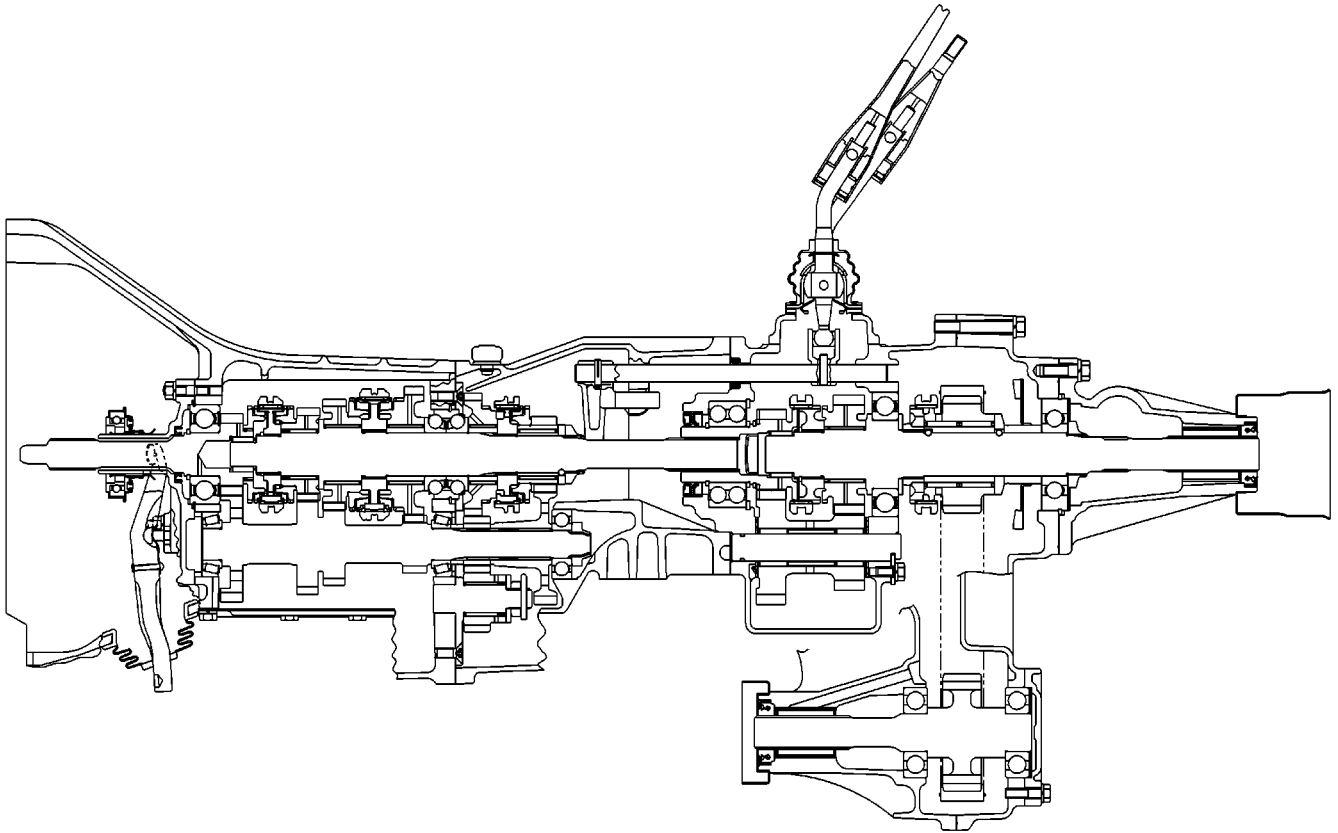
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V5M21-9-D



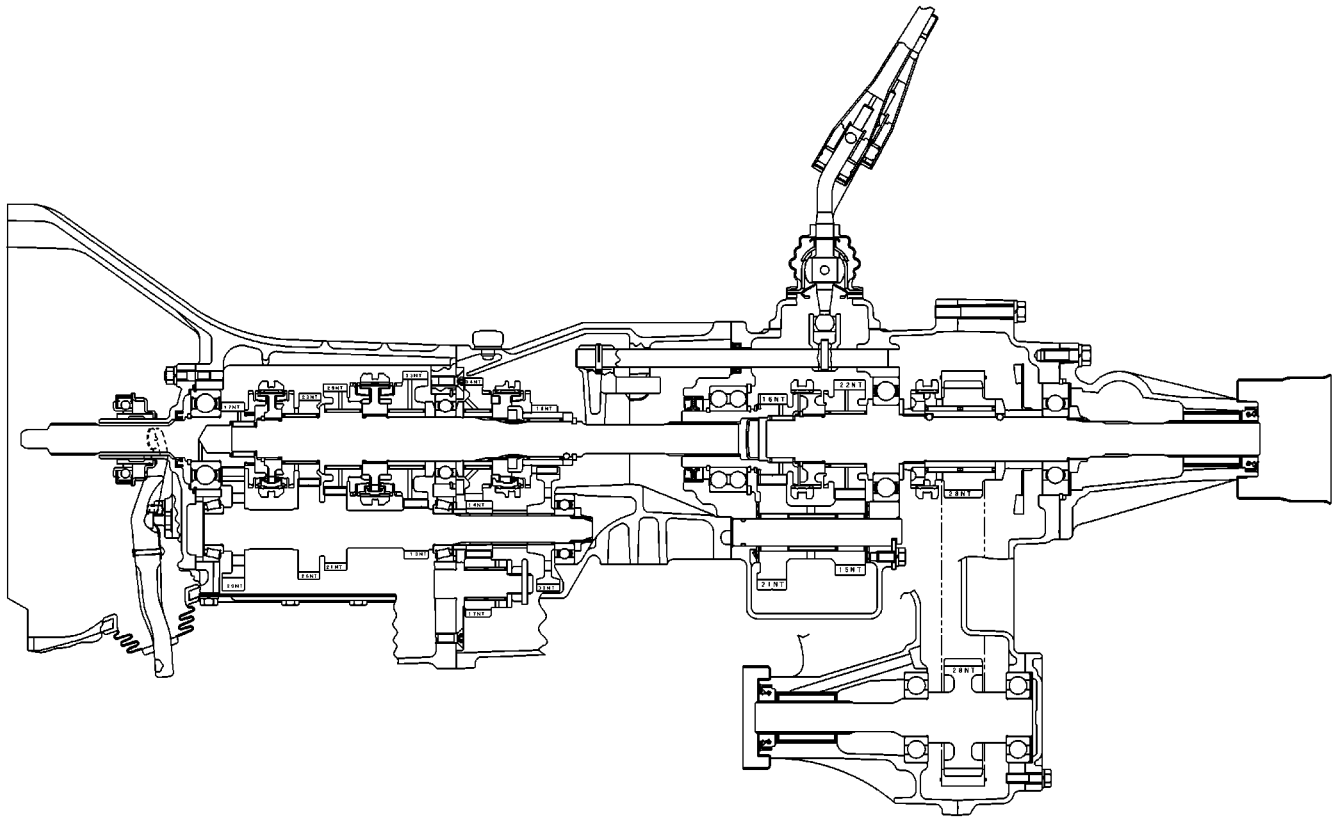
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V5M21-9-G



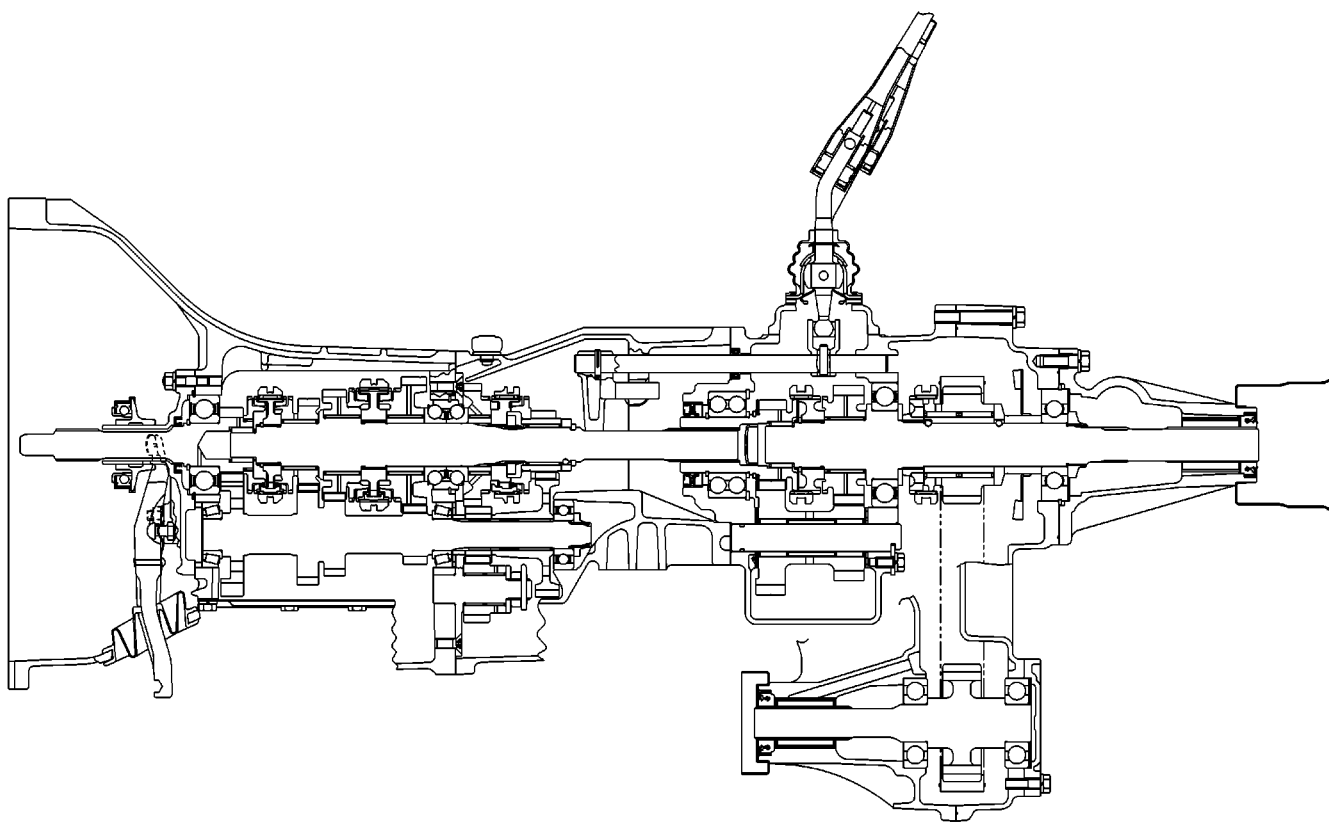
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V5M21-9-P



TRM1394

V5M21-9-T



TRM1393

1. SPECIFICATIONS

TRANSMISSION MODEL TABLE - MODEL 2001

Transmission Model		Gear ratio	Speedometer gear ratio	Vehicle Model	Engine Model
EUR	R5M21-5-DIF4	A	29/8	L200-2WD	4G63
	R5M21-5-PF4	A	26/8	L200-2WD	4D56
	R5M21-5-PF5	A	26/8	L200-2WD	4D56
	V5M21-9-GGG4	B	27/8	L200-4WD	4G64
	V5M21-9-GEG4	B	27/8	L200-4WD	4G64
	V5M21-A-MG	C	-	PAJERO-Pinin / MONTERO-iO	4G94
EXP	R5M21-5-DI4	A	29/8	L200-2WD	4G63
	R5M21-5-DI5	A	29/8	L200-2WD	4G63
	R5M21-5-DIF4	A	29/8	L200-2WD	4G63
	R5M21-5-PF4	A	26/8	L200-2WD	4D56
	R5M21-5-PF5	A	26/8	L200-2WD	4D56
	R5M21-5-GF5	B	26/8	L200-2WD	4G64
	R5M21-5-GF4	B	26/8	L200-2WD	4G64
	R5M21-5-TF5	A	26/8	L200-2WD	4M40
	V5M21-9-DI4	A	29/8	L200-4WD	4G63
	V5M21-9-DI5	A	29/8	L200-4WD	4G63
	V5M21-9-PG4	A	27/8	L200-4WD	4D56
	V5M21-9-PG5	A	27/8	L200-4WD	4D56
	V5M21-9-GG4	B	27/8	L200-4WD	4G64
	V5M21-9-TF4	A	26/8	L200-4WD	4M40
	V5M21-A-LJA	C	-	PAJERO-iO / MONTERO-iO	4G18
	V5M21-A-LHA	C	-	PAJERO-iO / MONTERO-iO	4G93
	V5M21-A-MI	C	-	PAJERO-iO / MONTERO-iO	4G93
	AUS	R5M21-5-GF5	A	26/8	L200-2WD
V5M21-9-TE5		A	25/8	L200-4WD	4M40
V5M21-A-LJA		C	-	PAJERO-iO	4G18
V5M21-A-LHA		C	-	PAJERO-iO	4G93

GENERAL SPECIFICATIONS**R5M21 TRANSMISSION MODEL**

Gear ratio	A	B
1st	4.330	3.967
2nd	2.355	2.136
3rd	1.509	1.360
4th	1.000	1.000
5th	0.827	0.856
Reverse	4.142	3.578

V5M21 TRANSMISSION MODEL

Gear ratio	A	B	C
1st	4.330	3.967	3.967
2nd	2.355	2.136	2.136
3rd	1.509	1.360	1.360
4th	1.000	1.000	1.000
5th	0.827	0.856	0.822
Reverse	4.142	3.578	3.578
Transfer High	1.000	1.000	1.000
Transfer Low	1.925	1.925	1.548

SERVICE SPECIFICATIONS

Items	Standard mm
Transmission	
Main drive gear bearing end play	0 - 0.06
Front bearing retainer to bearing	0 - 0.1
3rd-4th speed synchronizer hub end play	0 - 0.08
Main shaft rear bearing end play <R5M21, V5M21-A>	0 - 0.13
Countershaft preload <Countershaft taper roller bearing type>	0 - 0.05
Overdrive gear end play <Overdrive gear snap ring hold type>	0.15 - 0.40
Transfer	
Input gear end play	0 - 0.06
Input gear bearing end play	0 - 0.06
H-L clutch hub end play	0 - 0.08
Rear output shaft end play <except V5M21-A>	0 - 0.1
Front output shaft end play <except V5M21-A>	2 or less
2WD/4WD clutch hub end play <V5M21-A>	0 - 0.08
Differential lock hub end play <V5M21-A>	0 - 0.08
Rear output shaft rear bearing end play <V5M21-A>	0 - 0.08

TORQUE SPECIFICATIONS

Items	Torque Nm
Transmission	
Backup lamp switch	29 ± 2
Extension housing mounting bolt	19 ± 3
Mainshaft lock nut	255 ± 10
Coutershaft lock nut	172 ± 14
Front bearing retainer mounting nut	12 ± 1
Bearing retainer mounting nut	20 ± 2
Reverse idler gear shaft mounting bolt	20 ± 2
Reverse idler gear shaft lock nut	40 ± 19
Speedometer sleeve clamp bolt	12 ± 1
Transmission case to adapter bolt	19 ± 3
Under cover bolt	9 ± 1
Control lever assembly bolt	19 ± 3

Items	Torque Nm
Adapter to transfer case mounting bolt and nut	35 ± 6
Transfer	
Detection switch	34 ± 5
Poppet plug	35 ± 6
Chain cover bolt (except V5M21-A)	35 ± 6
Cover bolt (except V5M21-A)	19 ± 3
Rear cover bolt (except V5M21-A)	35 ± 6
Sleeve clamp bolt (except V5M21-A)	19 ± 3
H-L shift rail plug (except V5M21-A)	32 ± 2
Rear output shaft lock nut (except V5M21-A)	113 ± 14
Lock plate bolt (except V5M21-A)	19 ± 3
Side cover bolt (except V5M21-A)	9 ± 1
Plunger boss bolt (except V5M21-A)	9 ± 2
Select plunger seal plug (V5M21-A)	32 ± 2
Transfer rear cover bolt (V5M21-A)	35 ± 6
Transfer control housing bolt (V5M21-A)	19 ± 3
Vehicle speed sensor bolt (V5M21-A)	11 ± 1
Transfer case plate bolt (V5M21-A)	35 ± 6
Center bearing retainer bolt (V5M21-A)	19 ± 3
Interlock plunger seal bolt (V5M21-A)	35 ± 6

ADJUSTMENT SNAP RINGS AND SPACERS

Part name	Thickness mm	Identification symbol	Part No.
Transmission			
Spacer (For adjustment of front bearing retainer) *: except R5M21-5-D, V5M21-9-D	0.84	Black	MD701845
	0.93	-	MD701839
	1.02	Red	MD701840
	1.11	White	MD701841
	1.20	Yellow	MD701842
	1.29	Blue	MD701843
	1.38	Green	MD701844
	*1.47	Brown	MB896942
	*1.56	Purple	MB896943
Snap ring (For adjustment of main drive gear bearing)	2.30	White	MD701729
	2.35	Brown	MD701730
	2.40	-	MD701731
	2.45	Blue	MD701732
	2.50	Yellow	MD701733
Snap ring (For adjustment of 3rd-4th speed synchronizer hub)	2.15	Blue	MD701761
	2.22	-	MD701762
	2.29	Brown	MD701763
	2.36	White	MD701764
Snap ring: except R5M21-5-G, V5M21-9-G (For adjustment of main shaft overdrive gear)	2.60	White	MD723092
	2.79	Blue	MD723093
	2.98	-	MD723094
	3.17	Black	MD723095
	3.36	Red	MD723096
	3.55	Yellow	MD723099

Part name	Thickness mm	Identification symbol	Part No.
Snap ring: except R5M21-5-D, V5M21-9-D (For adjustment of countershaft)	1.84	84	MD706580
	1.87	87	MD706581
	1.90	90	MD706582
	1.93	93	MD706583
	1.96	96	MD706584
	1.99	99	MD706585
	2.02	02	MD706586
	2.05	05	MD706587
	2.08	08	MD706588
	2.11	11	MD706589
	2.14	14	MD706590
	2.17	17	MD706591
	2.20	20	MD706592
	2.23	23	MD706593
	2.26	26	MD706594
	2.29	29	MD706595
	2.32	32	MD706596
	2.35	35	MD706597
	2.38	38	MD706598
	2.41	41	MD706599
	2.44	44	MD706600
	2.47	47	MD706601
	2.50	50	MD706602
2.53	53	MD706603	
2.56	56	MD706604	
2.59	59	MD706605	
2.62	62	MD706606	
2.65	65	MD706607	
2.68	68	MD706608	
Snap ring: R5M21 (For adjustment of main shaft rear bearing)	1.4	-	MD703779
	1.5	Brown	MD703780

Part name	Thickness mm	Identification symbol	Part No.
Transfer V5M21			
Snap ring (For adjustment of input gear bearing)	2.30	-	MD704199
	2.35	Red	MD704200
	2.40	White	MD704201
	2.45	Blue	MD704202
	2.50	Green	MD704203
Snap ring (For adjustment of input gear assembly)	2.70	Purple	MD704204
	2.75	Pink	MD704205
	2.80	Yellow	MD704206
	2.85	White	MD704207
	2.90	Blue	MD704208
Snap ring (For adjustment of H-L clutch hub)	2.14	-	MD704212
	2.21	Yellow	MD704213
	2.28	White	MD704214
	2.35	Blue	MD704215
	2.42	Red	MD704216
Spacer: except V5M21-A (For adjustment of rear output shaft bearing)	0.84	84	MD734326
	0.93	93	MD734327
	1.02	02	MD734328
	1.11	11	MD734329
	1.20	20	MD734330
	1.29	29	MD734331
	1.38	38	MD734332
	1.47	47	MD734333
	1.56	56	MD734334
	1.65	65	MD734335
	1.74	74	MD734336
	1.83	83	MD734337
	1.92	92	MD734338
2.01	01	MD734339	

Part name	Thickness mm	Identification symbol	Part No.
Snap ring: V5M21-A (For adjustment of differential lock hub)	2.56	-	MD738386
	2.63	Red	MD738387
	2.70	White	MD738388
	2.77	Blue	MD738389
	2.84	Yellow	MD738390
	2.91	Green	MD738391
	2.98	Purple	MD738392
Snap ring: V5M21-A (For adjustment of rear output shaft bearing)	2.18	Blue	MR388669
	2.25	-	MR388670
	2.32	Brown	MR388671
	2.39	White	MR388672

SEALANTS

Item	Specified sealants
Transmission	
Adapter gasket	Mitsubishi genuine sealant Part No. MD997740 or equivalent
Extension housing gasket	Mitsubishi genuine sealant Part No. MD997740 or equivalent
Front bearing retainer gasket	Mitsubishi genuine sealant Part No. MD997740 or equivalent
Air breather	3M super Weatherstrip No. 8001 or equivalent
Rear bearing retainer mounting bolt	3M STUD Locking No. 4170 or equivalent
Reverse idler gear shaft mounting bolt	3M STUD Locking No. 4170 or equivalent
Poppet plug	3M ATD Part No. 8660 or equivalent
Seal plug	3M ATD Part No. 8660 or equivalent
Transfer	
Rear cover	Mitsubishi genuine sealant Part No. MD997740 or equivalent
Chain cover	Mitsubishi genuine sealant Part No. MD997740 or equivalent
Transfer case plate	Mitsubishi genuine sealant Part No. MD997740 or equivalent
Control housing	Mitsubishi genuine sealant Part No. MD997740 or equivalent

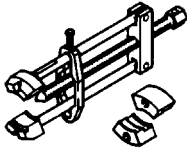
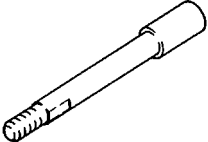
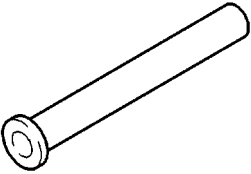
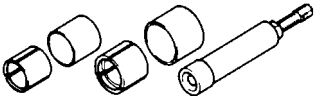
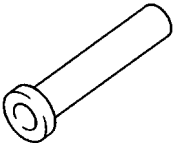
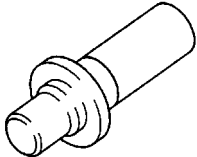
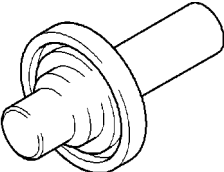
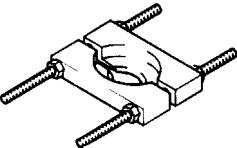
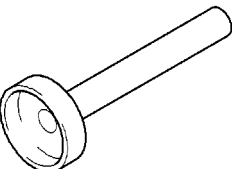
Item	Specified sealants
Cover	Mitsubishi genuine sealant Part No. MD997740 or equivalent
Air breather	3M super Weatherstrip No. 8001 or equivalent
Return spring plug	3M super Weatherstrip No. 8001 or equivalent
Cover mounting bolt	3M STUD Locking No. 4170 or equivalent
Center bearing retainer seal bolt	3M STUD Locking No. 4170 or equivalent
Poppet plug	3M ATD Part No. 8660 or equivalent
Plug	3M ATD Part No. 8660 or equivalent
Poppet seal bolt	3M ATD Part No. 8660 or equivalent
H-L shift fork	
Select plunger seal plug	3M ATD Part No. 8660 or equivalent
Transfer case plate	
Interlock plunger seal bolt	3M ATD Part No. 8660 or equivalent
Extension housing	
Control shaft cap	3M ATD Part No. 8660 or equivalent

LUBRICANTS

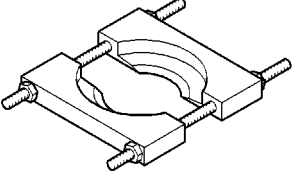
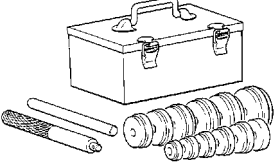
Item	Specified grease
Transmission	
Neutral plunger	Mitsubishi genuine grease Part No. 0101011 or equivalent
Friction damper	Mitsubishi genuine grease Part No. 0101011 or equivalent
Oil seal lip	Mitsubishi genuine grease Part No. 0101011 or equivalent
Transfer	
Wave spring	Mitsubishi genuine grease Part No. 0101011 or equivalent
Oil seal lip	Mitsubishi genuine grease Part No. 0101011 or equivalent
Extension housing	
Oil seal lip	Mitsubishi genuine grease Part No. 0101011 or equivalent

NOTES

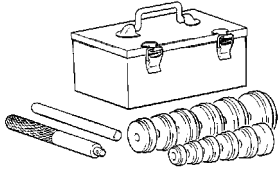



2. SPECIAL TOOLS

Tool	Number	Name	Use
	MD998020	Bearing puller	Removal of the bearing and bearing sleeve
	MD998028	Bearing puller adapter	Use with MD998020
	MD998067	Bearing installer	Installation of the bearing
	MD998192	Counter gear bearing puller	Removal of the countershaft front bearing and center bearing
	MD998199	Countershaft bearing installer	Installation of the countershaft front bearing
	MD998200	Front bearing retainer oil seal installer	Installation of front bearing retainer oil seal
	MD998800	Oil seal installer	Installation of the oil seal
	MD998801	Bearing puller	Removal and installation of the clutch hub and bearing
	MD998803	Oil seal installer	Installation of the oil seal

Tool	Number	Name	Use
	MD998809	Lock nut wrench (41)	Removal of the mainshaft lock nut
	MD998812	Installer cap	Installation of the bearing
	MD998813	Installer (100)	Installation of the bearing
	MD998814	Installer (200)	Installation of the bearing
	MD998815 MD998816 MD998817 MD998818 MD998819 MD998820 MD998821 MD998822 MD998823 MD998824 MD998825 MD998826 MD998827 MD998828 MD998829 MD998830	Installer adapter	Installation of the bearing
	MD998835	Lock nut wrench (46)	Removal of the transfer rear output shaft lock nut


Tool	Number	Name	Use
	MD998917	Bearing puller	Removal of the countershaft bearing
	MB990925	Bearing and oil seal installer set	Installation of the oil seal

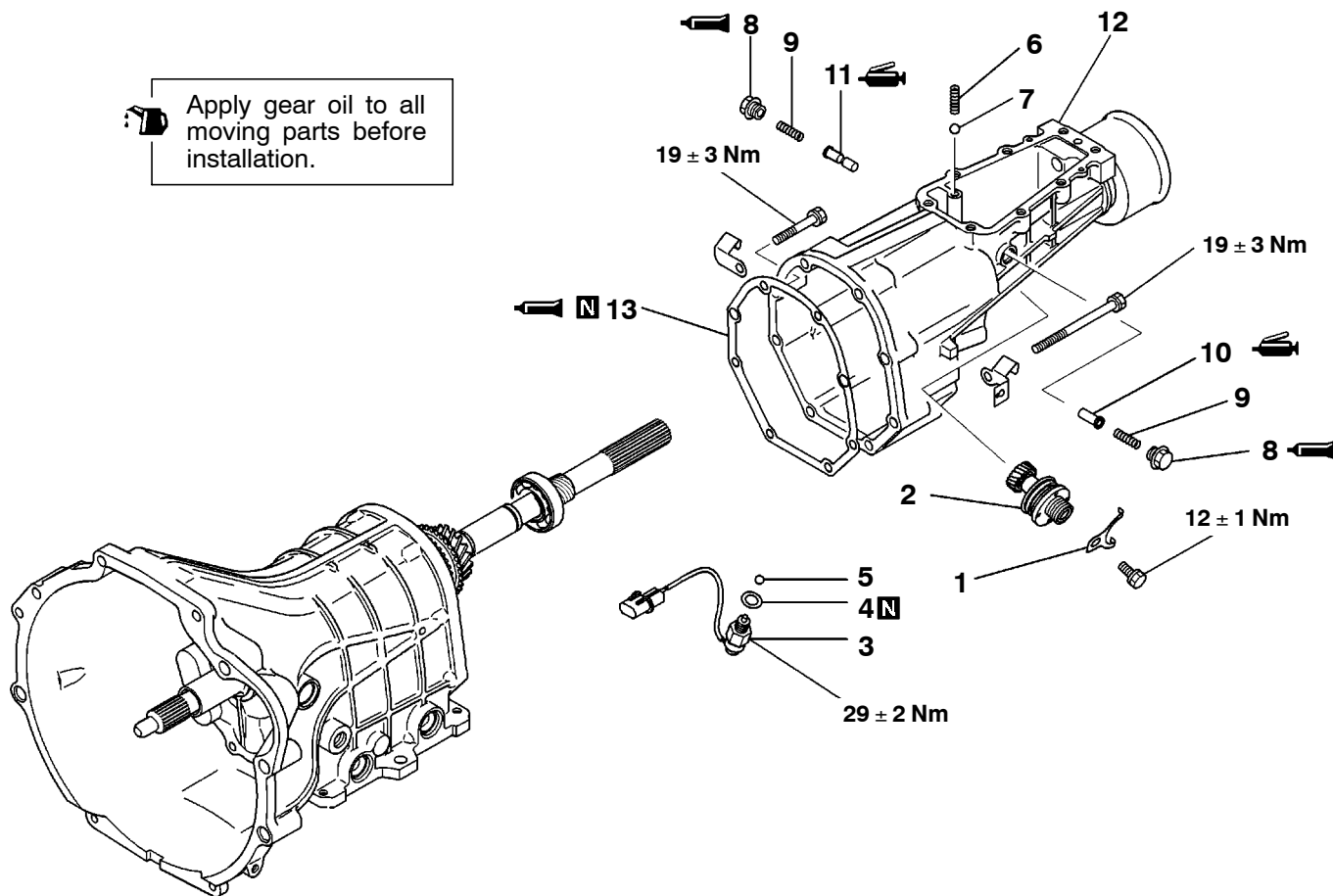
CONTENTS OF BEARING AND OIL SEAL INSTALLER SET MB990925

Set	Contents			
	Tool	Name	Tool No.	Diameter mm
Bearing and oil seal installer set MB990925 		Installer adapter	MB990926	39
			MB990927	45
			MB990928	49.5
			MB990929	51
			MB990930	54
			MB990931	57
			MB990932	61
			MB990933	63.5
			MB990934	67.5
			MB990935	71.5
			MB990936	75.5
			MB990937	79
			Installer bar	MB990938
		Brass bar	MB990939	-

3. TRANSMISSION

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 Apply gear oil to all moving parts before installation.



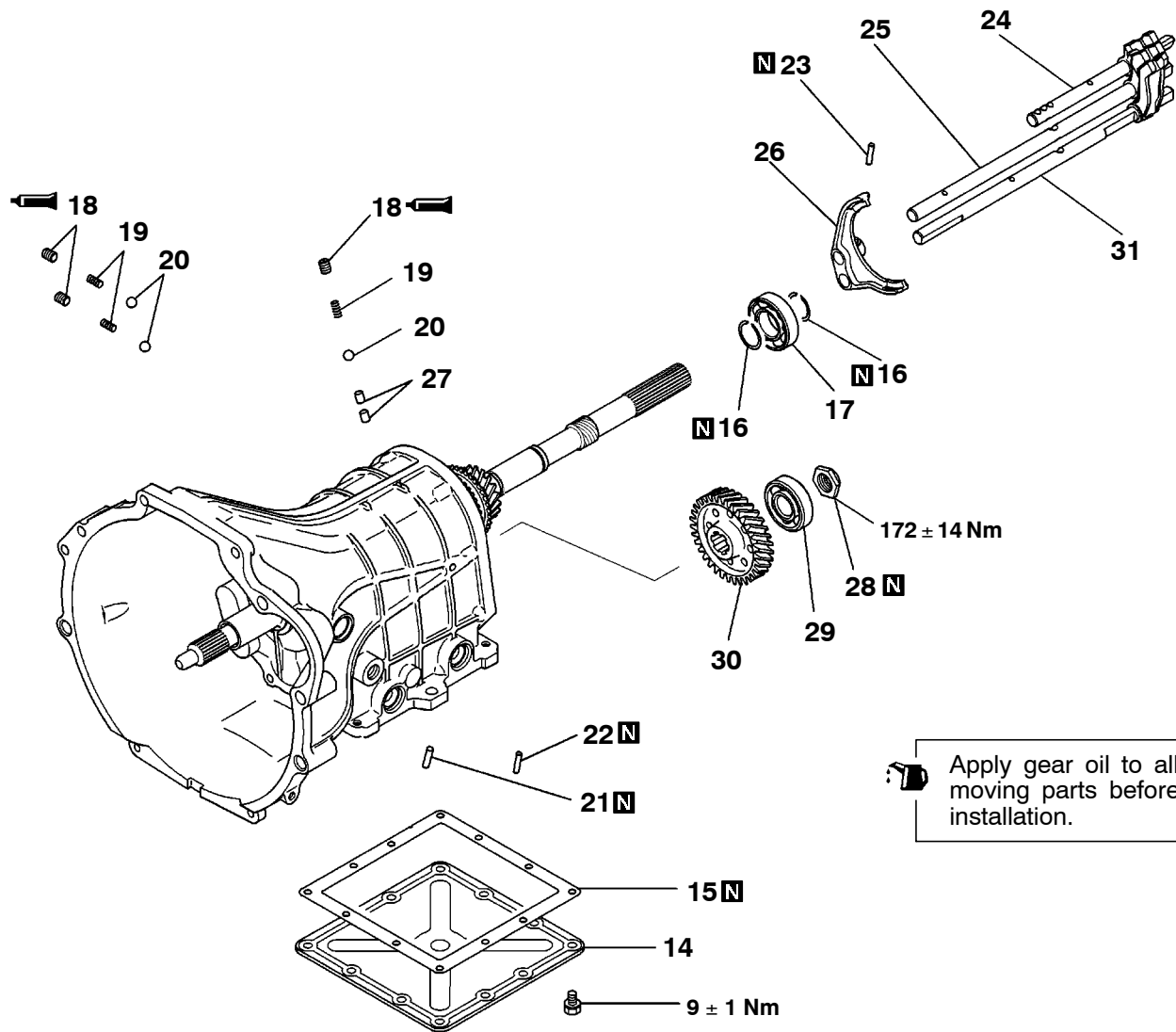
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Disassembly steps

- ▶b◀ 1. Sleeve clamp
- ▶b◀ 2. Speedometer gear
- ▶b◀ 3. Backup lamp switch
- ▶b◀ 4. Gasket
- ▶b◀ 5. Steel ball
- ▶b◀ 6. Resistance spring
- ▶b◀ 7. Steel ball
- ▶a◀ 8. Seal plug
- ▶a◀ 9. Spring

- ▶Z◀ 10. Neutral plunger A
- ▶Z◀ 11. Neutral plunger B
- ▶Y◀ 12. Extension housing
- ▶X◀ 13. Extension housing gasket

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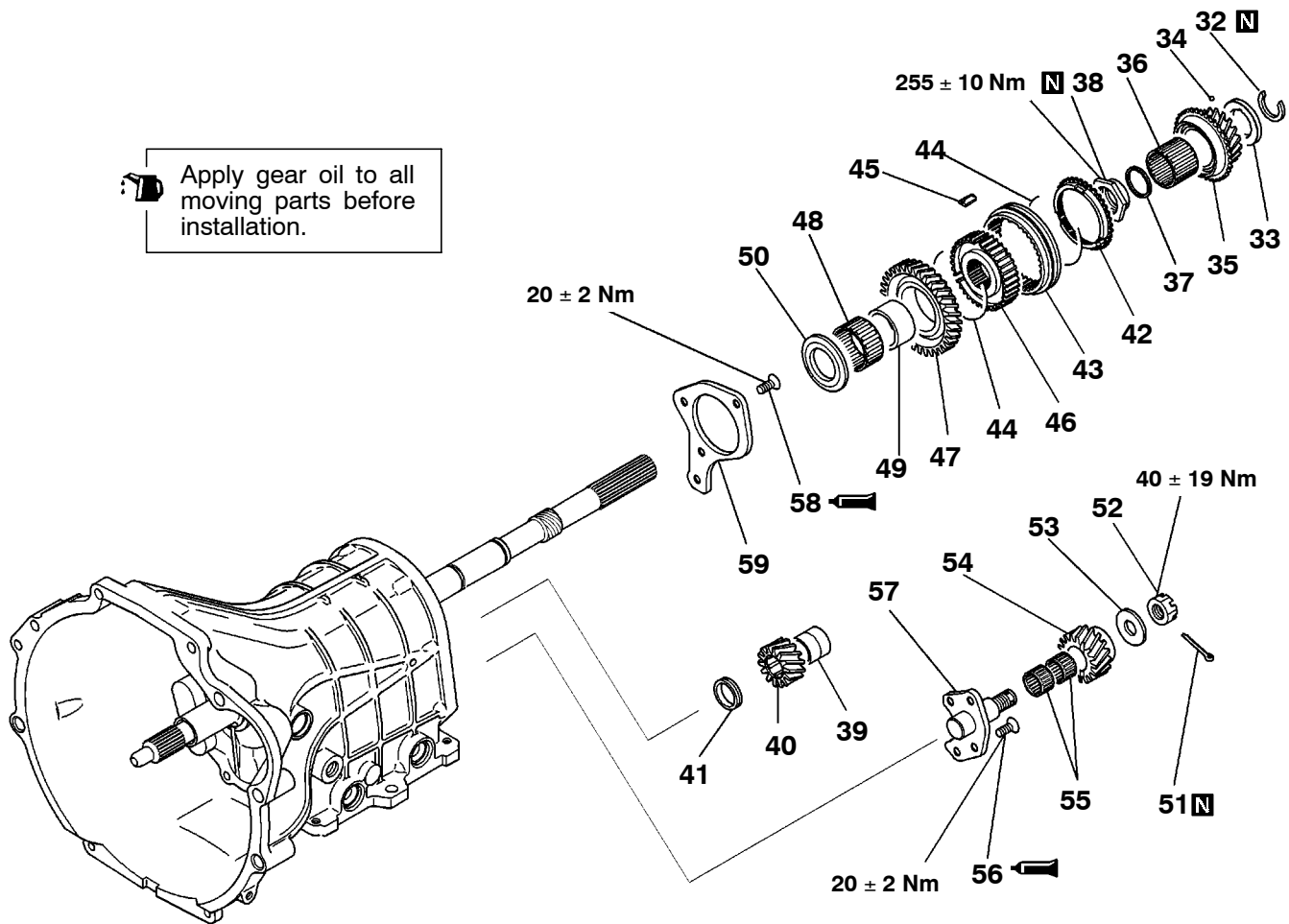
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Disassembly steps

- | | | | |
|-----|---|-----|------------------------------------|
| | 14. Under cover | | |
| | 15. Under cover gasket | | |
| ▶W◀ | 16. Snap ring | ▶T◀ | 23. Spring pin for OD-R shift fork |
| ▶W◀ | 17. Mainshaft rear bearing | | 24. OD-R shift rail |
| ▶V◀ | 18. Poppet plug | | 25. 3rd-4th speed shift rail |
| ▶V◀ | 19. Poppet spring | | 26. OD-R shift fork |
| ▶V◀ | 20. Steel ball | | 27. Interlock plunger |
| ▶U◀ | 21. Spring pin for 3rd-4th speed shift fork | ▶S◀ | 28. Countershaft lock nut |
| ▶U◀ | 22. Spring pin for 1st-2nd speed shift fork | ▶R◀ | 29. Countershaft rear bearing |
| | | | 30. Counter overdrive gear |
| | | | 31. 1st-2nd speed shift rail |

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Apply gear oil to all moving parts before installation.



TRM1399

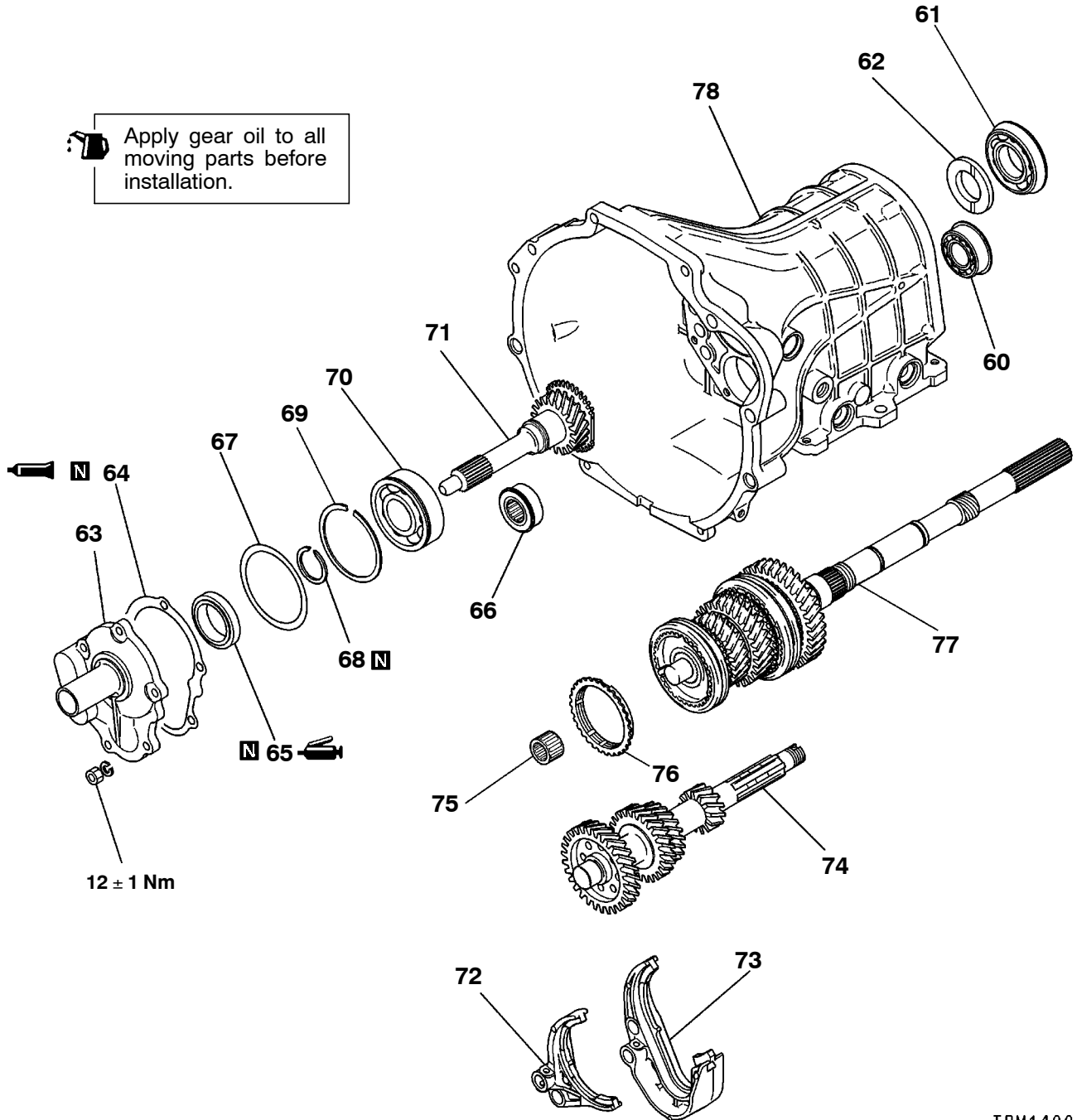
Disassembly steps

- ▶Q◀ 32. Snap ring
- 33. Spacer
- 34. Steel ball
- 35. Overdrive gear
- 36. Needle bearing
- 37. Bearing spacer
- ◀B▶ ▶P◀ 38. Mainshaft lock nut
- 39. Spacer
- 40. Counter reverse gear
- 41. Spacer
- ▶M◀ 42. OD-R synchronizer ring
- ▶M◀ 43. OD-R synchronizer sleeve
- ▶N◀ 44. OD-R synchronizer spring
- ▶N◀ 45. OD-R synchronizer key
- ▶M◀ 46. OD-R synchronizer hub
- 47. Reverse gear
- 48. Needle bearing
- ▶L◀ 49. Bearing sleeve
- 50. Spacer
- 51. Split pin
- 52. Slotted nut
- 53. Thrust washer
- 54. Reverse idler gear
- 55. Needle bearing
- ▶J◀ 56. Bolt
- ◀D▶ ▶K◀ 57. Reverse idler gear shaft
- ▶J◀ 58. Bolt
- 59. Rear bearing retainer

R5M21-5-D



Apply gear oil to all moving parts before installation.




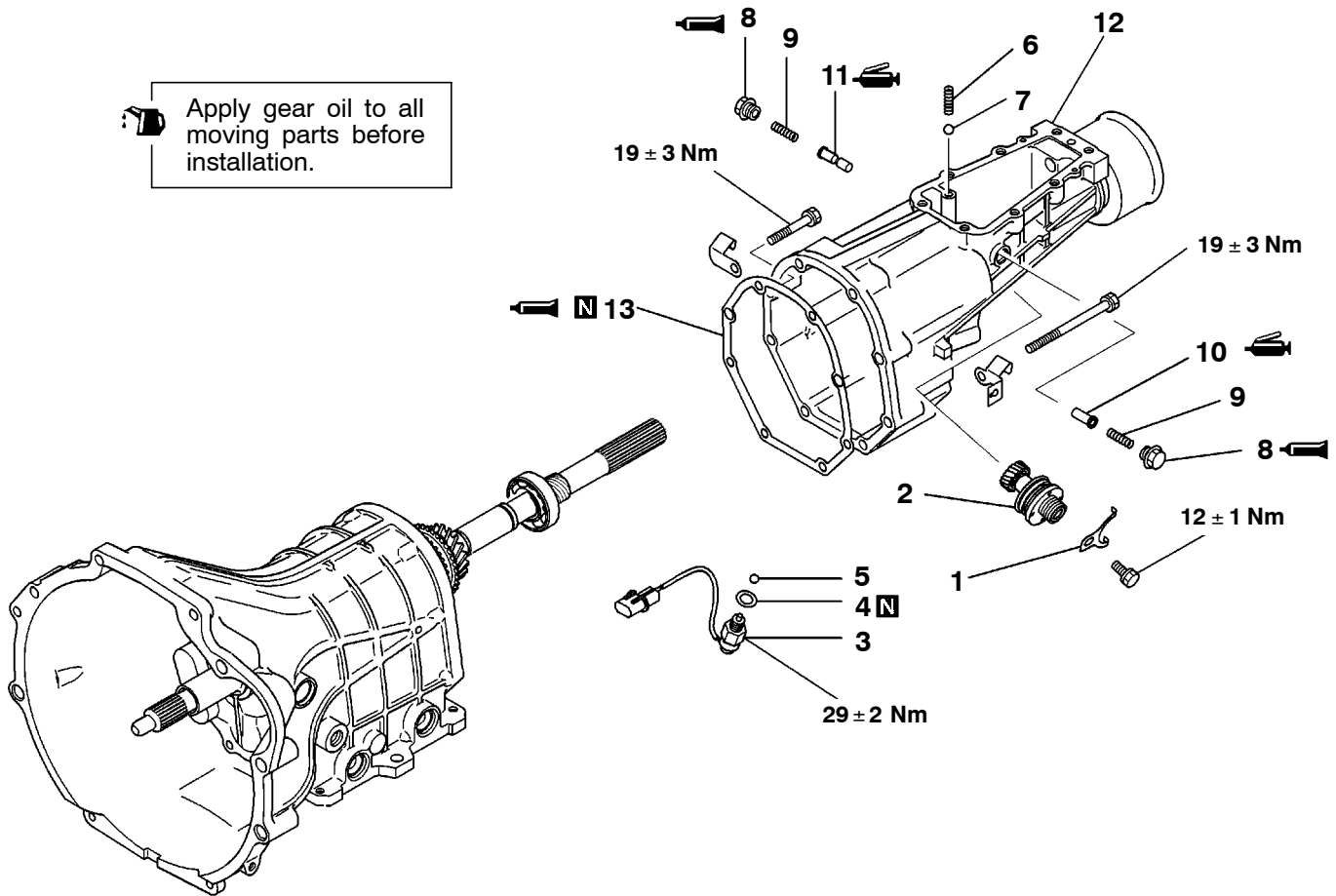
TRM1400

Disassembly steps

- | | | | | | |
|-----|-----|-----------------------------------|-----|-----|-------------------------------|
| ◀E▶ | ▶H▶ | 60. Countershaft center bearing | ◀H▶ | ▶A▶ | 70. Maindrive gear bearing |
| ◀F▶ | ▶G▶ | 61. Mainshaft center bearing | | | 71. Maindrive gear |
| | | 62. Bearing spacer | | | 72. 3rd-4th speed shift fork |
| | | 63. Front bearing retainer | | | 73. 1st-2nd speed shift fork |
| | ▶F▶ | 64. Front bearing retainer gasket | | | 74. Countershaft |
| | ▶E▶ | 65. Oil seal | | | 75. Mainshaft front bearing |
| ◀G▶ | ▶D▶ | 66. Countershaft front bearing | | | 76. 3rd-4th synchronizer ring |
| | ▶C▶ | 67. Spacer | | | 77. Mainshaft assembly |
| | ▶B▶ | 68. Snap ring | | | 78. Transmission case |
| | | 69. Snap ring | | | |

R5M21-5-G

 Apply gear oil to all moving parts before installation.



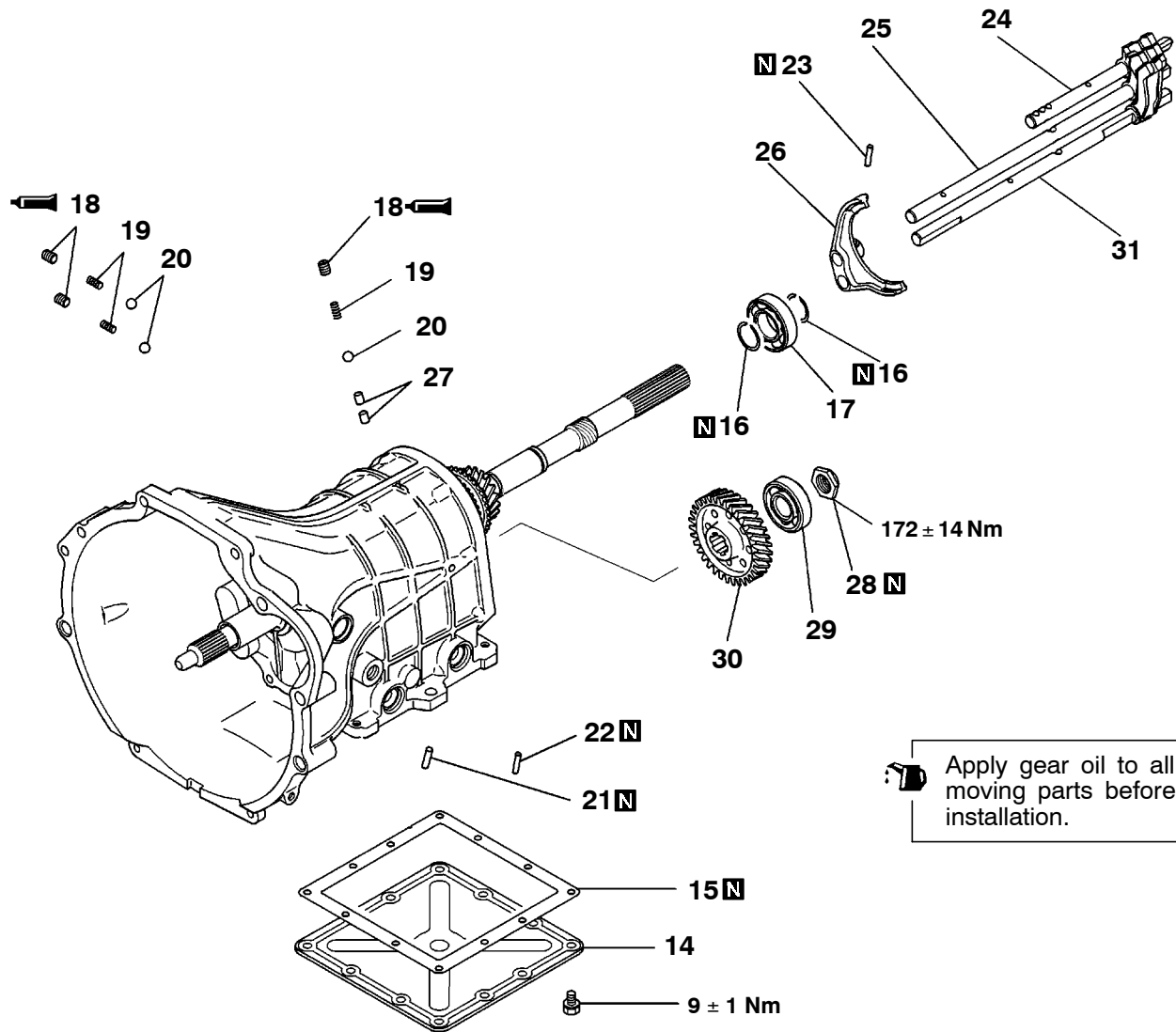
TRM1397

Disassembly steps

- ▶b◀ 1. Sleeve clamp
- ▶a◀ 2. Speedometer gear
- 3. Backup lamp switch
- 4. Gasket
- 5. Steel ball
- 6. Resistance spring
- 7. Steel ball
- 8. Seal plug
- 9. Spring

- ▶Z◀ 10. Neutral plunger A
- ▶Z◀ 11. Neutral plunger B
- ▶Y◀ 12. Extension housing
- ▶X◀ 13. Extension housing gasket

R5M21-5-G



TRM1398

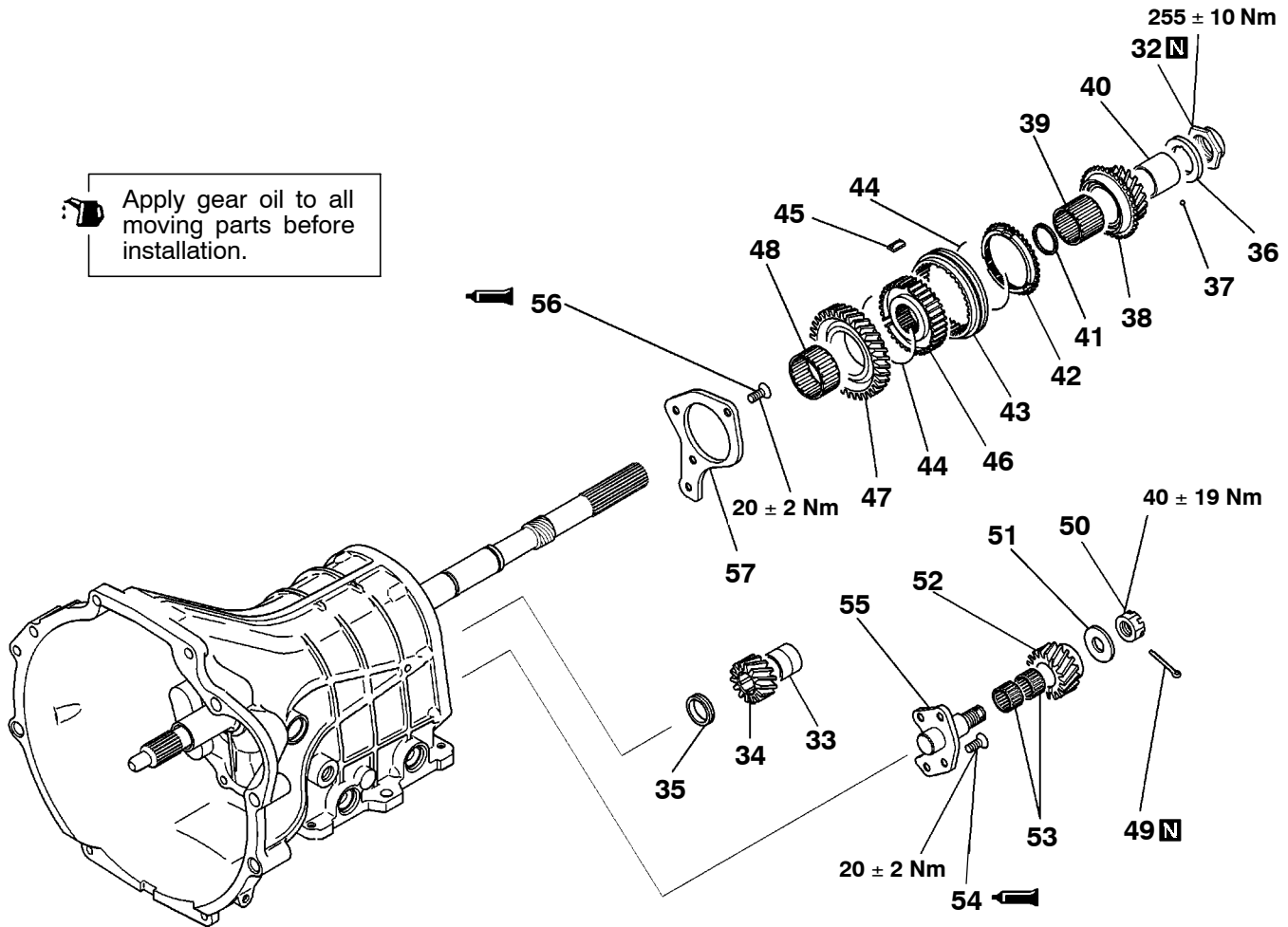
Disassembly steps

- 14. Under cover
- 15. Under cover gasket
- ▶W◀ 16. Snap ring
- ▶W◀ 17. Mainshaft rear bearing
- ▶V◀ 18. Poppet plug
- ▶V◀ 19. Poppet spring
- ▶V◀ 20. Steel ball
- ▶U◀ 21. Spring pin for 3rd-4th speed shift fork
- ▶U◀ 22. Spring pin for 1st-2nd speed shift fork

- ▶T◀ 23. Spring pin for OD-R shift fork
- 24. OD-R shift rail
- 25. 3rd-4th speed shift rail
- 26. OD-R shift fork
- 27. Interlock plunger
- ▶S◀ 28. Countershaft lock nut
- ▶R◀ 29. Countershaft rear bearing
- 30. Counter overdrive gear
- 31. 1st-2nd speed shift rail

R5M21-5-G

Apply gear oil to all moving parts before installation.



TRM1401

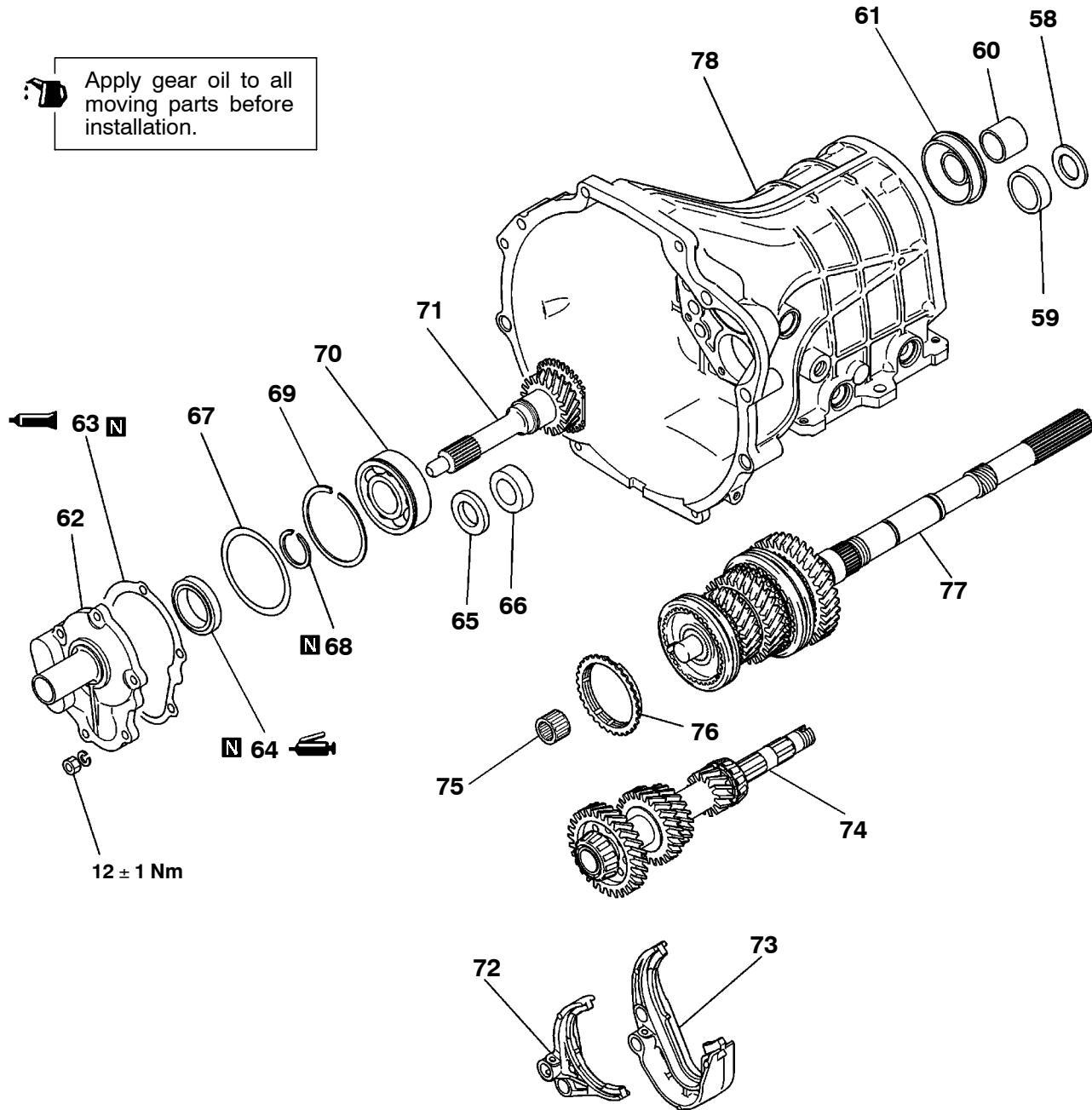
Disassembly steps

- | | |
|--|---|
| <p>◀B▶ ▶P▶ 32. Mainshaft lock nut
 ▶M▶ 33. Spacer
 ▶M▶ 34. Counter reverse gear
 ▶M▶ 35. Spacer
 ▶M▶ 36. Spacer
 ▶M▶ 37. Steel ball
 ▶M▶ 38. Overdrive gear
 ▶M▶ 39. Needle bearing
 ▶C▶ ▶O▶ 40. Bearing sleeve
 ▶M▶ 41. Bearing spacer
 ▶M▶ 42. Overdrive synchronizer ring
 ▶M▶ 43. OD-R synchronizer sleeve
 ▶N▶ 44. OD-R synchronizer spring</p> | <p>▶N▶ 45. OD-R synchronizer key
 ▶M▶ 46. OD-R synchronizer hub
 ▶M▶ 47. Reverse gear
 ▶M▶ 48. Needle bearing
 ▶M▶ 49. Split pin
 ▶M▶ 50. Slotted nut
 ▶M▶ 51. Thrust washer
 ▶M▶ 52. Reverse idler gear
 ▶M▶ 53. Needle bearing
 ▶D▶ ▶J▶ 54. Bolt
 ▶K▶ 55. Reverse idler gear shaft
 ▶J▶ 56. Bolt
 ▶J▶ 57. Rear bearing retainer</p> |
|--|---|

R5M21-5-G



Apply gear oil to all moving parts before installation.




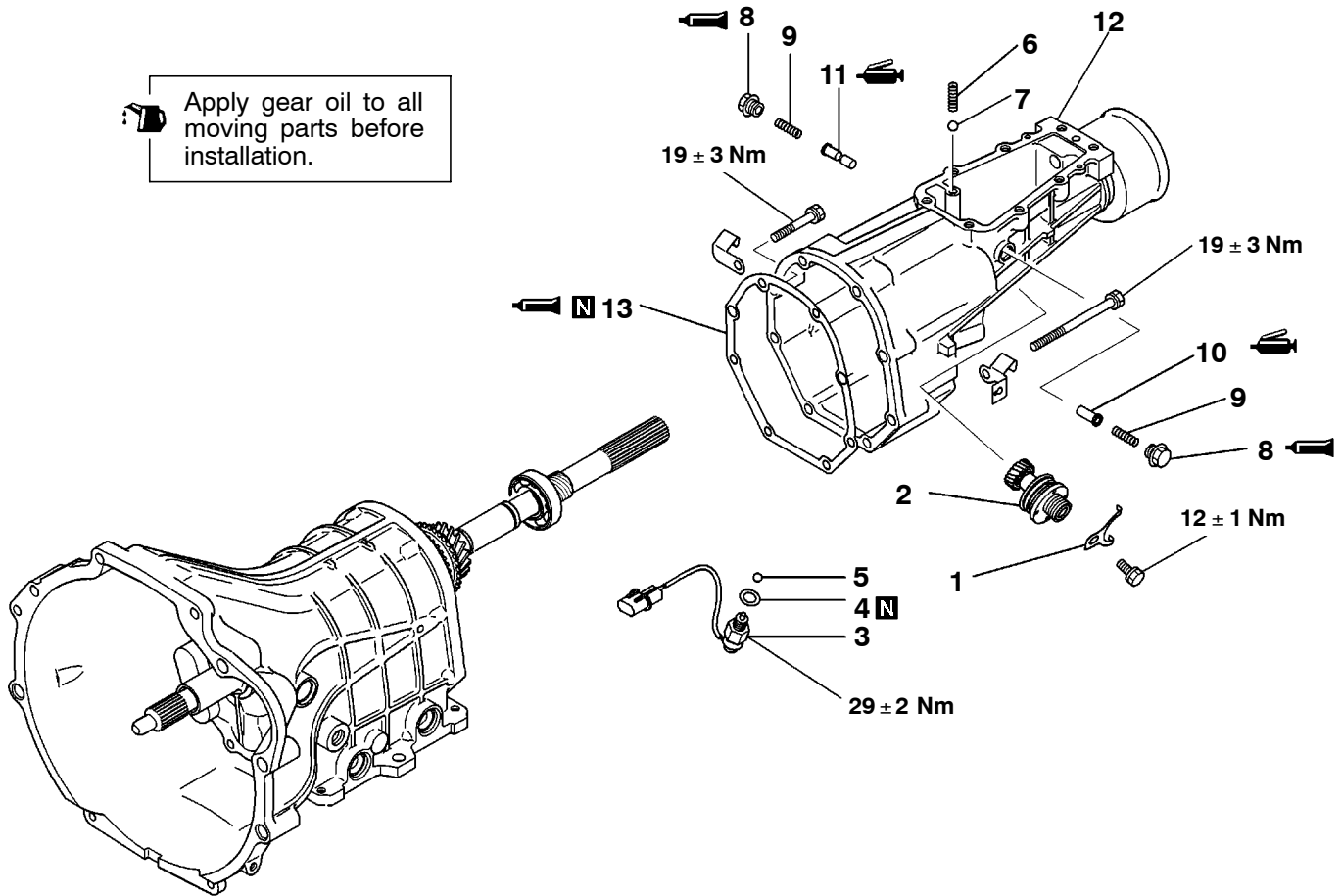
TRM1402

Disassembly steps

- | | | | |
|-----|--|-----|-------------------------------|
| ▶I◀ | 58. Spacer | ▶B◀ | 68. Snap ring |
| | 59. Countershaft center bearing outer race | ▶A◀ | 69. Snap ring |
| ◀F▶ | ▶L◀ | ◀H▶ | 70. Maindrive gear bearing |
| ◀F▶ | ▶G◀ | | 71. Maindrive gear |
| | 60. Bearing sleeve | | 72. 3rd-4th speed shift fork |
| | 61. Mainshaft center bearing | | 73. 1st-2nd speed shift fork |
| | 62. Front bearing retainer | | 74. Countershaft assembly |
| | ▶F◀ | | 75. Mainshaft front bearing |
| | ▶E◀ | | 76. 3rd-4th synchronizer ring |
| | 63. Front bearing retainer gasket | | 77. Mainshaft assembly |
| | 64. Oil seal | | 78. Transmission case |
| | 65. Spacer | | |
| | 66. Countershaft front bearing outer race | | |
| | ▶C◀ | | |
| | 67. Spacer | | |

R5M21-5-P

 Apply gear oil to all moving parts before installation.



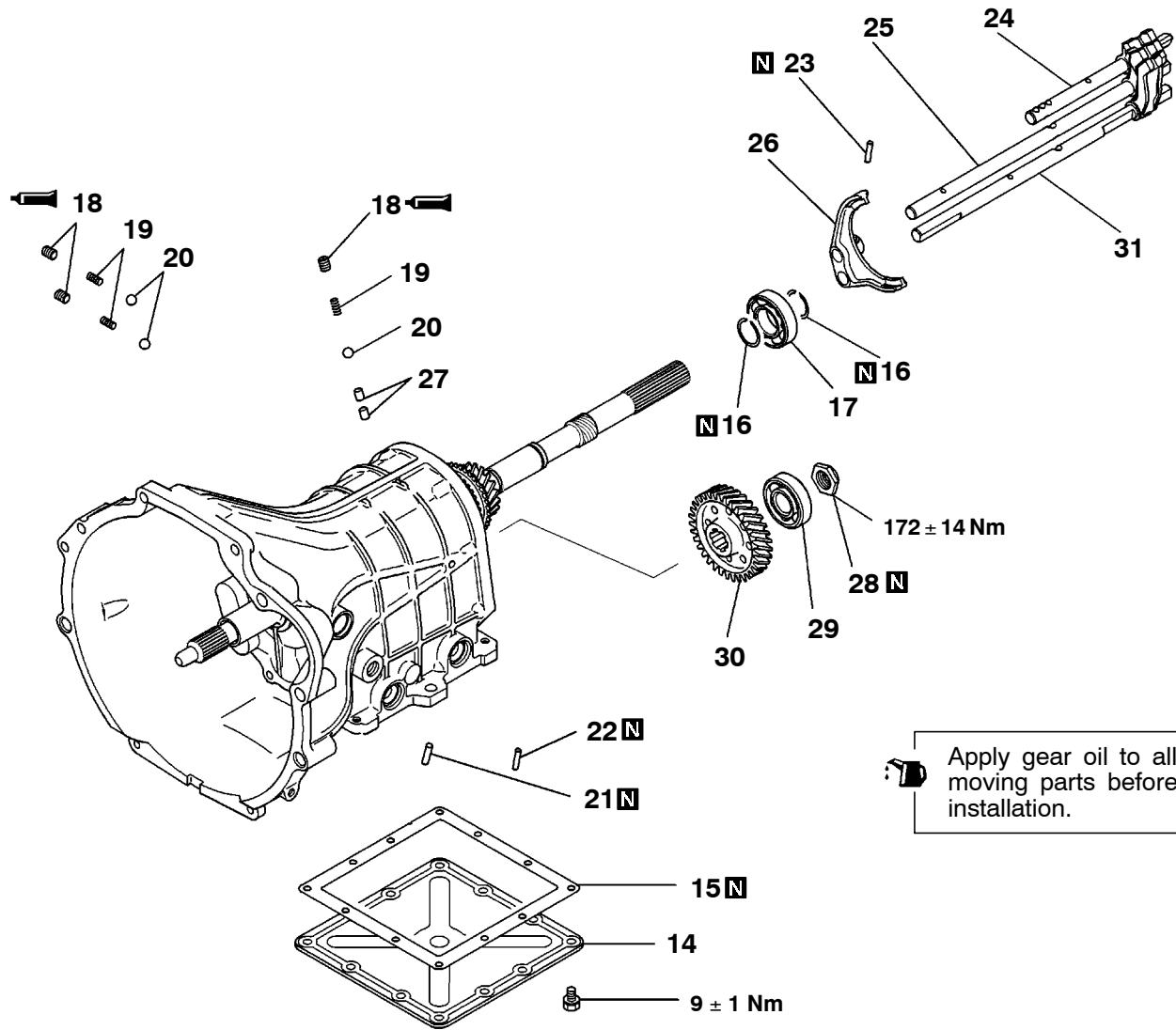
TRM1397

Disassembly steps

- ▶b◀ 1. Sleeve clamp
- ▶b◀ 2. Speedometer gear
- ▶b◀ 3. Backup lamp switch
- ▶b◀ 4. Gasket
- ▶b◀ 5. Steel ball
- ▶b◀ 6. Resistance spring
- ▶a◀ 7. Steel ball
- ▶a◀ 8. Seal plug
- ▶a◀ 9. Spring

- ▶Z◀ 10. Neutral plunger A
- ▶Z◀ 11. Neutral plunger B
- ▶Y◀ 12. Extension housing
- ▶X◀ 13. Extension housing gasket

R5M21-5-P



Apply gear oil to all moving parts before installation.

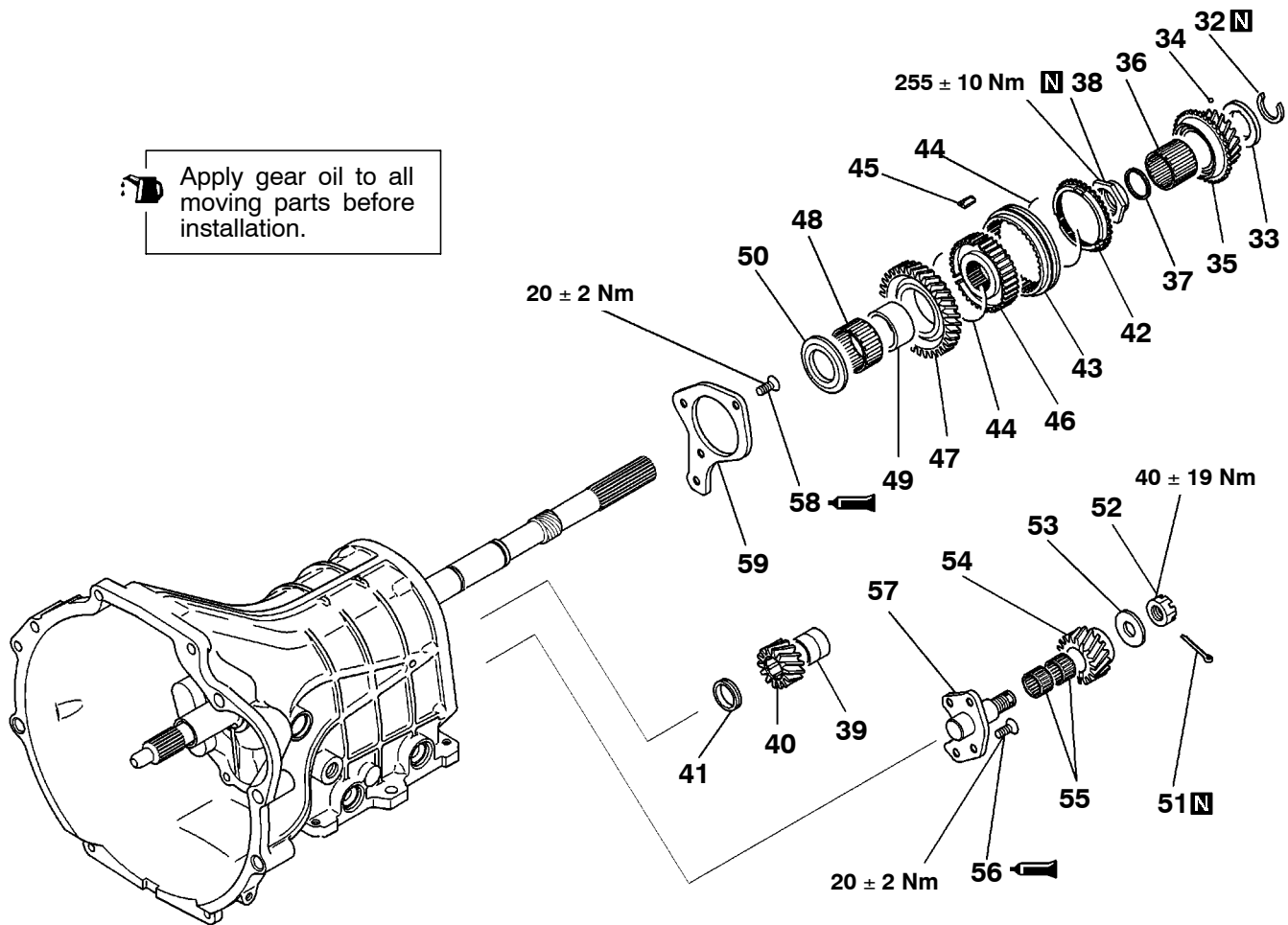
TRM1398

Disassembly steps

- 14. Under cover
- 15. Under cover gasket
- ▶W◀ 16. Snap ring
- ▶W◀ 17. Mainshaft rear bearing
- ▶V◀ 18. Poppet plug
- ▶V◀ 19. Poppet spring
- ▶V◀ 20. Steel ball
- ▶U◀ 21. Spring pin for 3rd-4th speed shift fork
- ▶U◀ 22. Spring pin for 1st-2nd speed shift fork
- ▶T◀ 23. Spring pin for OD-R shift fork
- 24. OD-R shift rail
- 25. 3rd-4th speed shift rail
- 26. OD-R shift fork
- 27. Interlock plunger
- ▶S◀ 28. Countershaft lock nut
- ▶R◀ 29. Countershaft rear bearing
- 30. Counter overdrive gear
- 31. 1st-2nd speed shift rail

R5M21-5-P

Apply gear oil to all moving parts before installation.



TRM1399

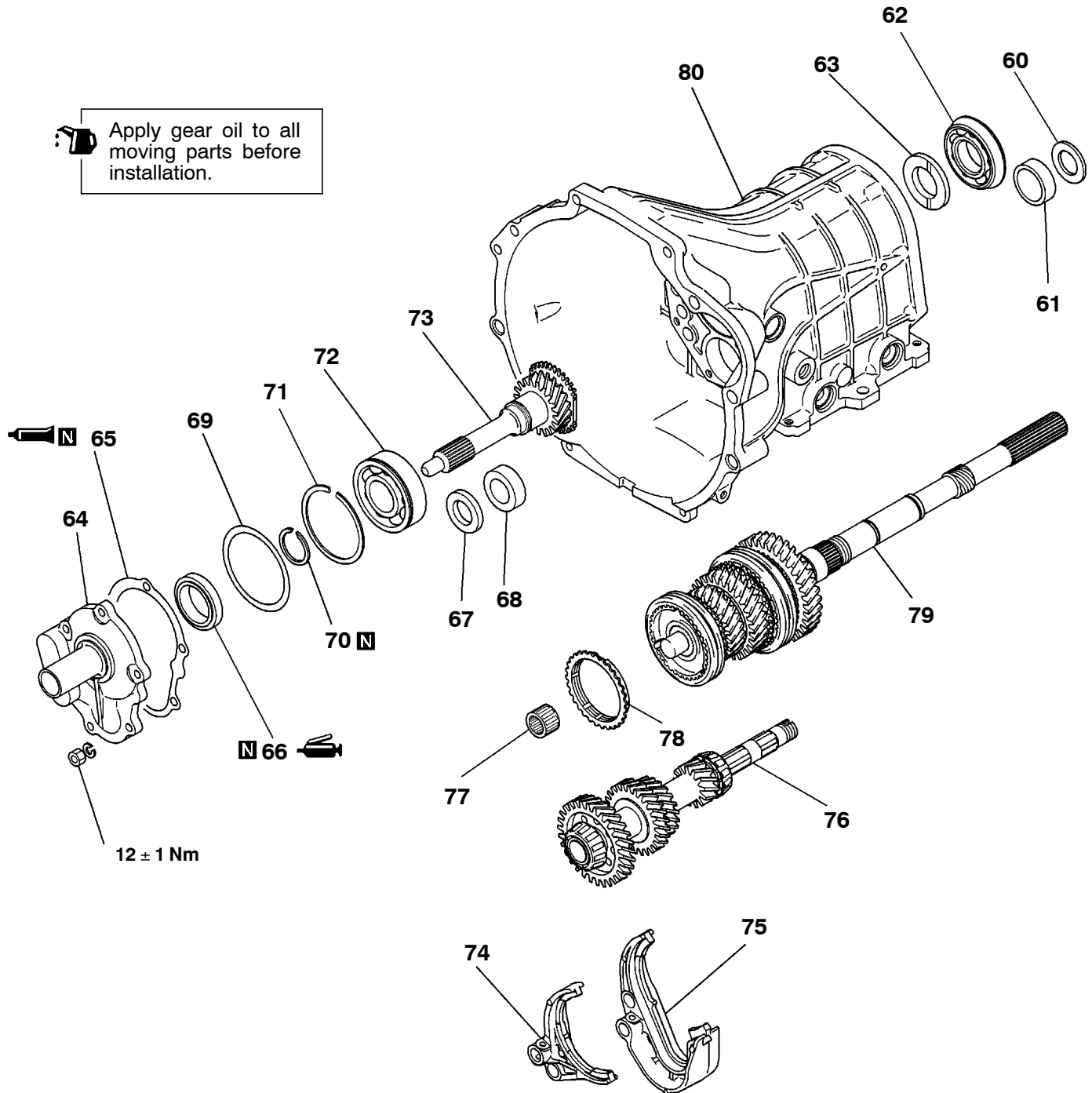
Disassembly steps

- ▶Q◀ 32. Snap ring
- 33. Spacer
- 34. Steel ball
- 35. Overdrive gear
- 36. Needle bearing
- 37. Bearing spacer
- ◀B▶ ▶P◀ 38. Mainshaft lock nut
- 39. Spacer
- 40. Counter reverse gear
- 41. Spacer
- ▶M◀ 42. OD-R synchronizer ring
- ▶M◀ 43. OD-R synchronizer sleeve
- ▶N◀ 44. OD-R synchronizer spring
- ▶N◀ 45. OD-R synchronizer key
- ▶M◀ 46. OD-R synchronizer hub
- 47. Reverse gear
- 48. Needle bearing
- ▶L◀ 49. Bearing sleeve
- 50. Spacer
- 51. Split pin
- 52. Slotted nut
- 53. Thrust washer
- 54. Reverse idler gear
- 55. Needle bearing
- ▶J◀ 56. Bolt
- ◀D▶ ▶K◀ 57. Reverse idler gear shaft
- ▶J◀ 58. Bolt
- 59. Rear bearing retainer

R5M21-5-P



Apply gear oil to all moving parts before installation.




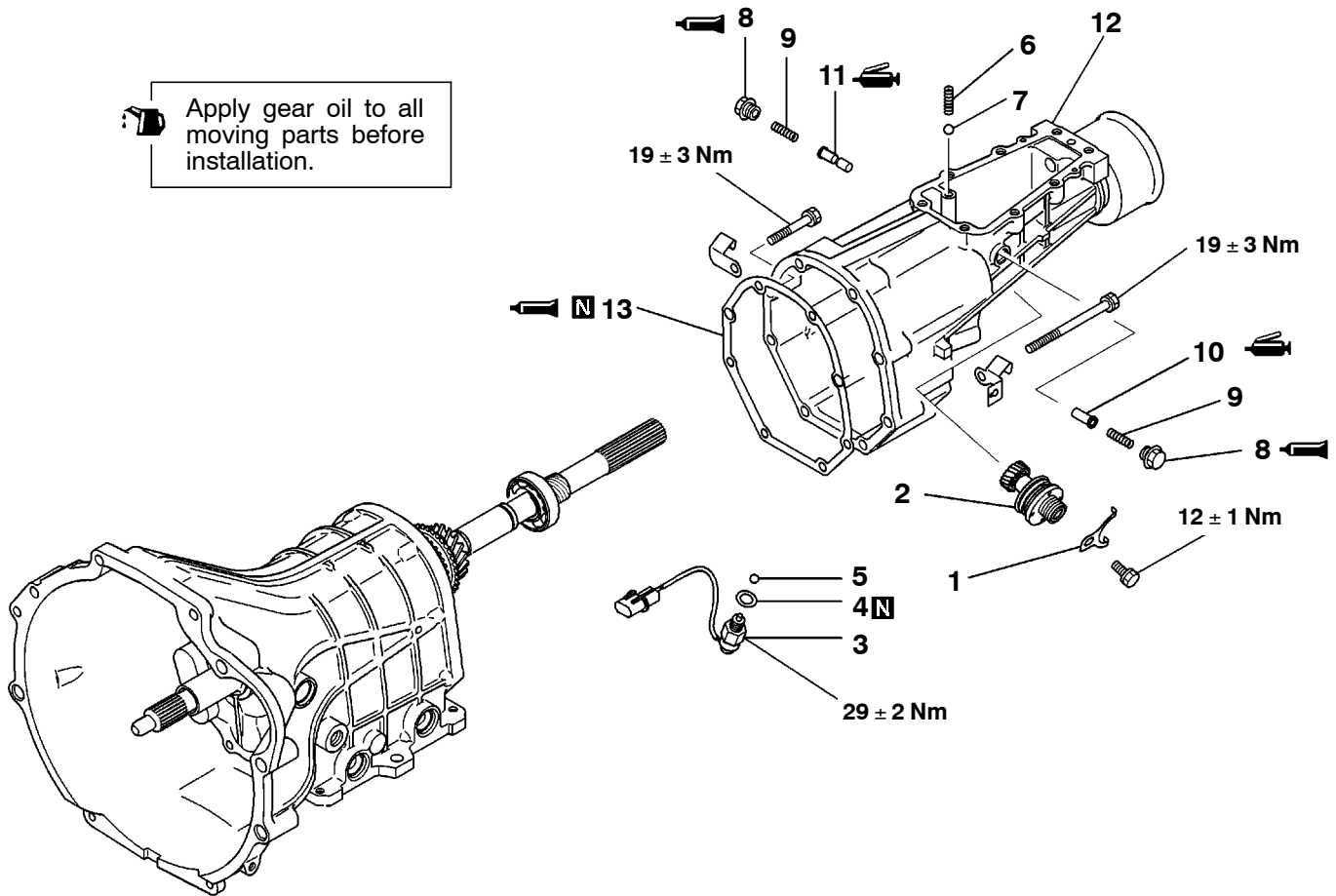
TRM1403

Disassembly steps

- | | | | |
|-----|--|-----|-------------------------------|
| ▶I◀ | 60. Spacer | ▶B◀ | 70. Snap ring |
| ◀E▶ | ▶H◀ 61. Countershaft center bearing outer race | ▶A◀ | 71. Snap ring |
| ◀F▶ | ▶G◀ 62. Mainshaft center bearing | ◀H▶ | 72. Maindrive gear bearing |
| | 63. Bearing spacer | | 73. Maindrive gear |
| | 64. Front bearing retainer | | 74. 3rd-4th speed shift fork |
| | ▶F◀ 65. Front bearing retainer gasket | | 75. 1st-2nd speed shift fork |
| | ▶E◀ 66. Oil seal | | 76. Countershaft assembly |
| | 67. Spacer | | 77. Mainshaft front bearing |
| ◀G▶ | ▶D◀ 68. Countershaft front bearing outer race | | 78. 3rd-4th synchronizer ring |
| | ▶C◀ 69. Spacer | | 79. Mainshaft assembly |
| | | | 80. Transmission case |

R5M21-5-T

 Apply gear oil to all moving parts before installation.



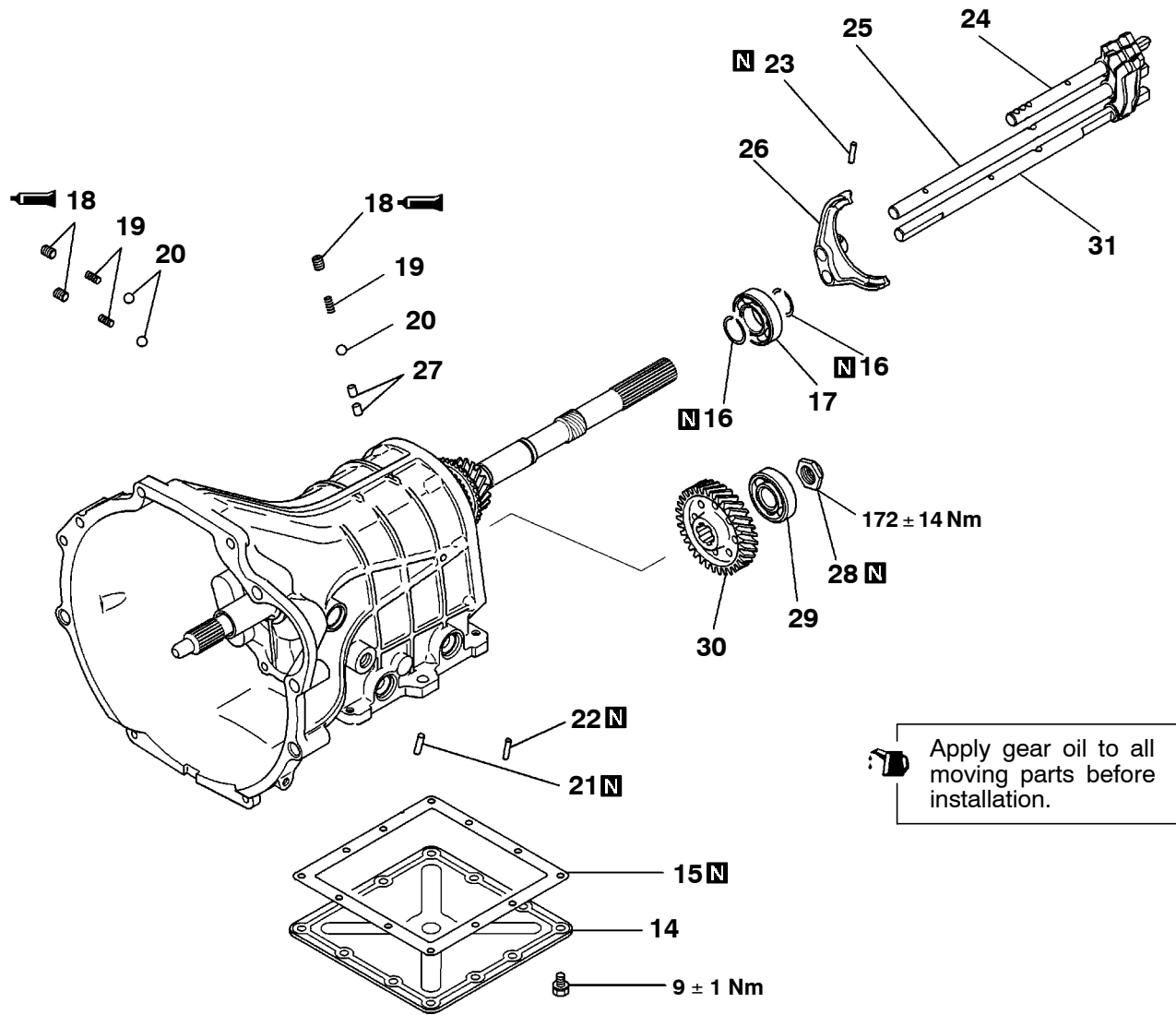
TRM1397

Disassembly steps

- ▶b◀ 1. Sleeve clamp
- ▶b◀ 2. Speedometer gear
- ▶b◀ 3. Backup lamp switch
- ▶b◀ 4. Gasket
- ▶b◀ 5. Steel ball
- ▶b◀ 6. Resistance spring
- ▶a◀ 7. Steel ball
- ▶a◀ 8. Seal plug
- ▶a◀ 9. Spring

- ▶Z◀ 10. Neutral plunger A
- ▶Z◀ 11. Neutral plunger B
- ▶Y◀ 12. Extension housing
- ▶X◀ 13. Extension housing gasket

R5M21-5-T



Apply gear oil to all moving parts before installation.

TRM1398

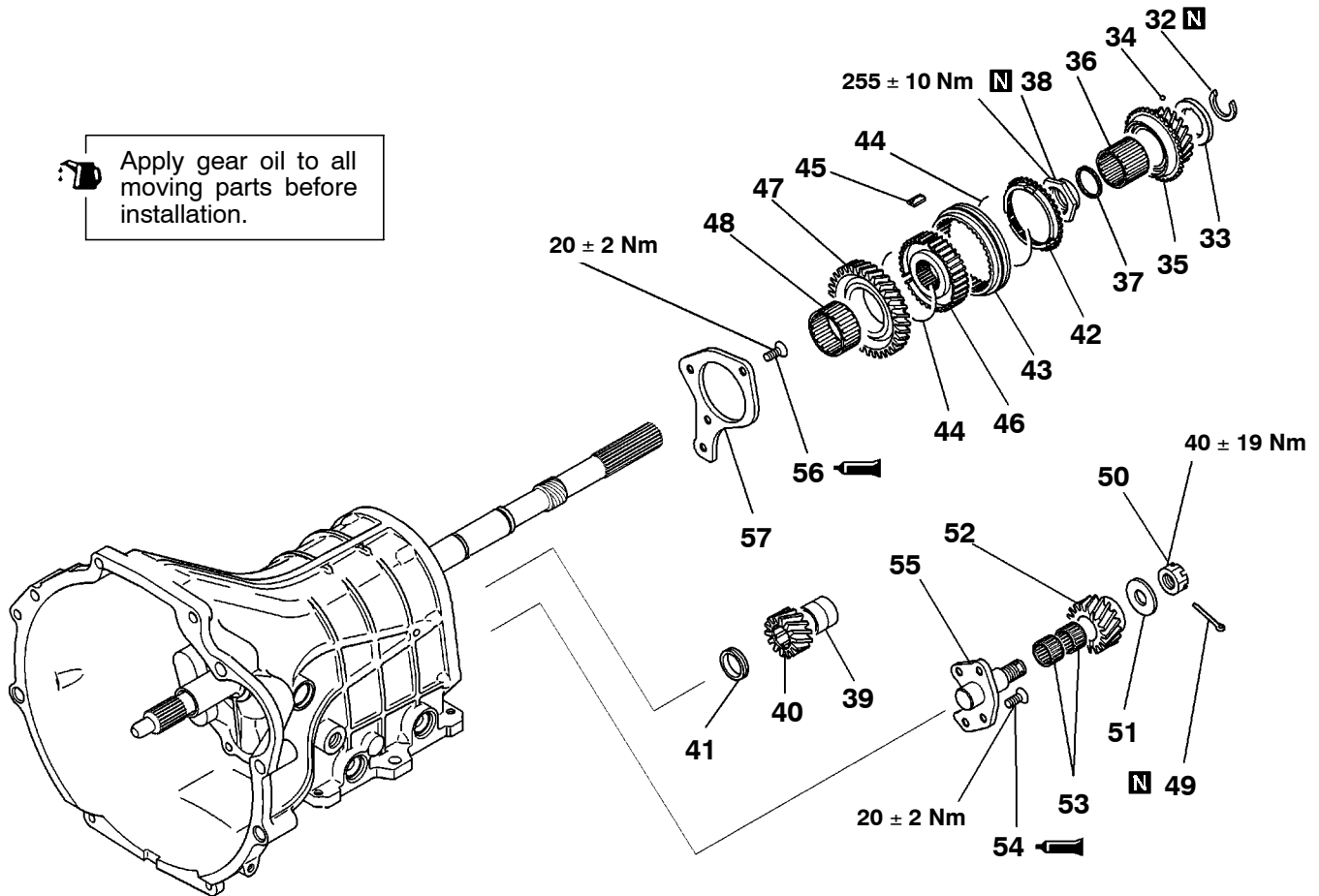
Disassembly steps

- 14. Under cover
- 15. Under cover gasket
- ▶W◀ 16. Snap ring
- ▶W◀ 17. Mainshaft rear bearing
- ▶V◀ 18. Poppet plug
- ▶V◀ 19. Poppet spring
- ▶V◀ 20. Steel ball
- ▶U◀ 21. Spring pin for 3rd-4th speed shift fork
- ▶U◀ 22. Spring pin for 1st-2nd speed shift fork

- ▶T◀ 23. Spring pin for OD-R shift fork
- 24. OD-R shift rail
- 25. 3rd-4th speed shift rail
- 26. OD-R shift fork
- 27. Interlock plunger
- ▶S◀ 28. Countershaft lock nut
- ▶R◀ 29. Countershaft rear bearing
- 30. Counter overdrive gear
- 31. 1st-2nd speed shift rail

R5M21-5-T

Apply gear oil to all moving parts before installation.




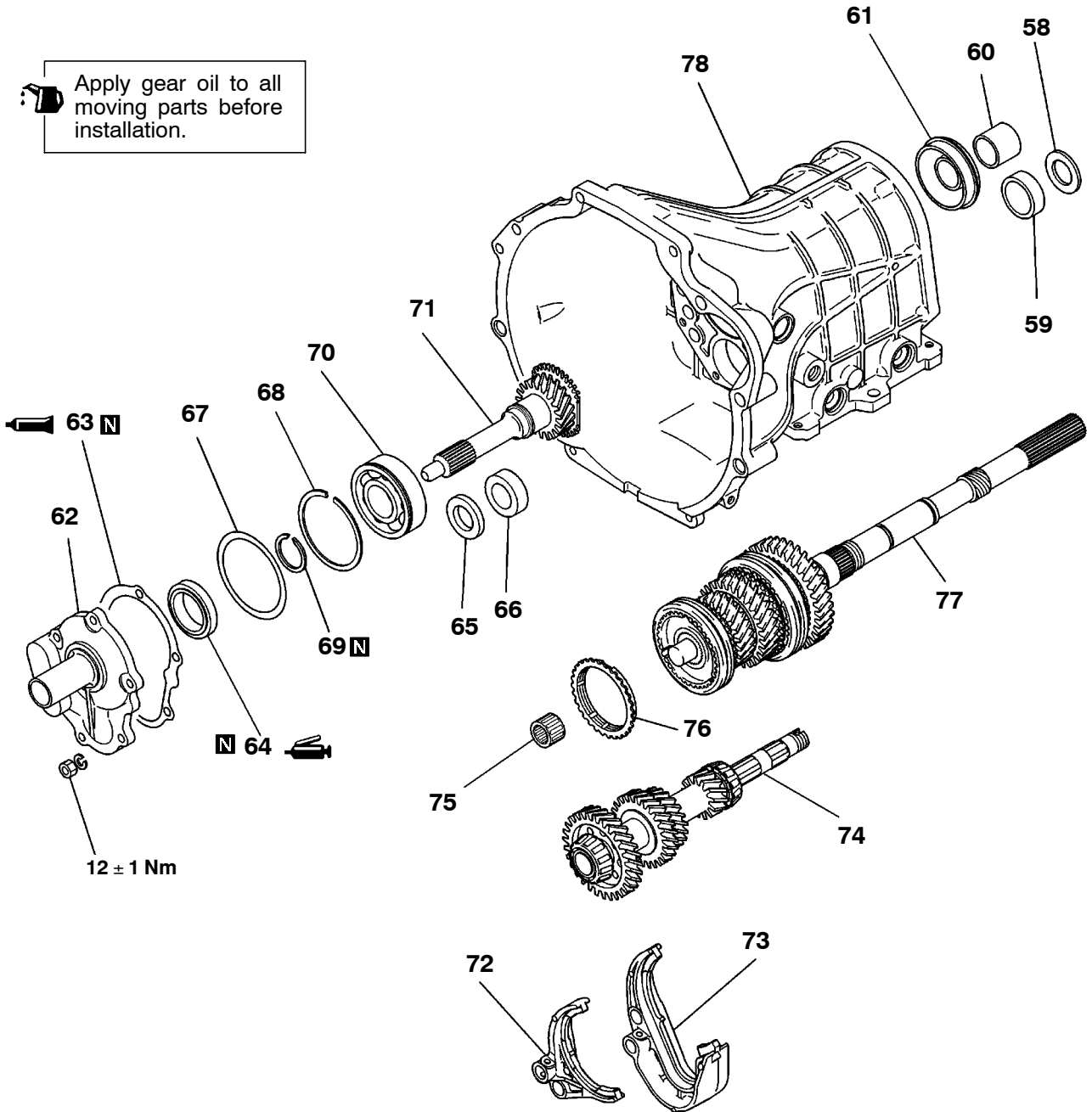
TRM1422

Disassembly steps

- | | | | |
|---------|------------------------------|---------|------------------------------|
| ▶Q◀ | 32. Snap ring | ▶N◀ | 45. OD-R synchronizer key |
| | 33. Spacer | ▶M◀ | 46. OD-R synchronizer hub |
| | 34. Steel ball | | 47. Reverse gear |
| | 35. Overdrive gear | | 48. Needle bearing |
| | 36. Needle bearing | | 49. Split pin |
| | 37. Bearing spacer | | 50. Slotted nut |
| ◀B▶ ▶P◀ | 38. Mainshaft lock nut | | 51. Thrust washer |
| | 39. Spacer | | 52. Reverse idler gear |
| | 40. Counter reverse gear | | 53. Needle bearing |
| | 41. Spacer | | 54. Bolt |
| ▶M◀ | 42. OD-R synchronizer ring | ◀D▶ ▶J◀ | 55. Reverse idler gear shaft |
| ▶M◀ | 43. OD-R synchronizer sleeve | ▶K◀ | 56. Bolt |
| ▶N◀ | 44. OD-R synchronizer spring | ▶J◀ | 57. Rear bearing retainer |

R5M21-5-T

 Apply gear oil to all moving parts before installation.



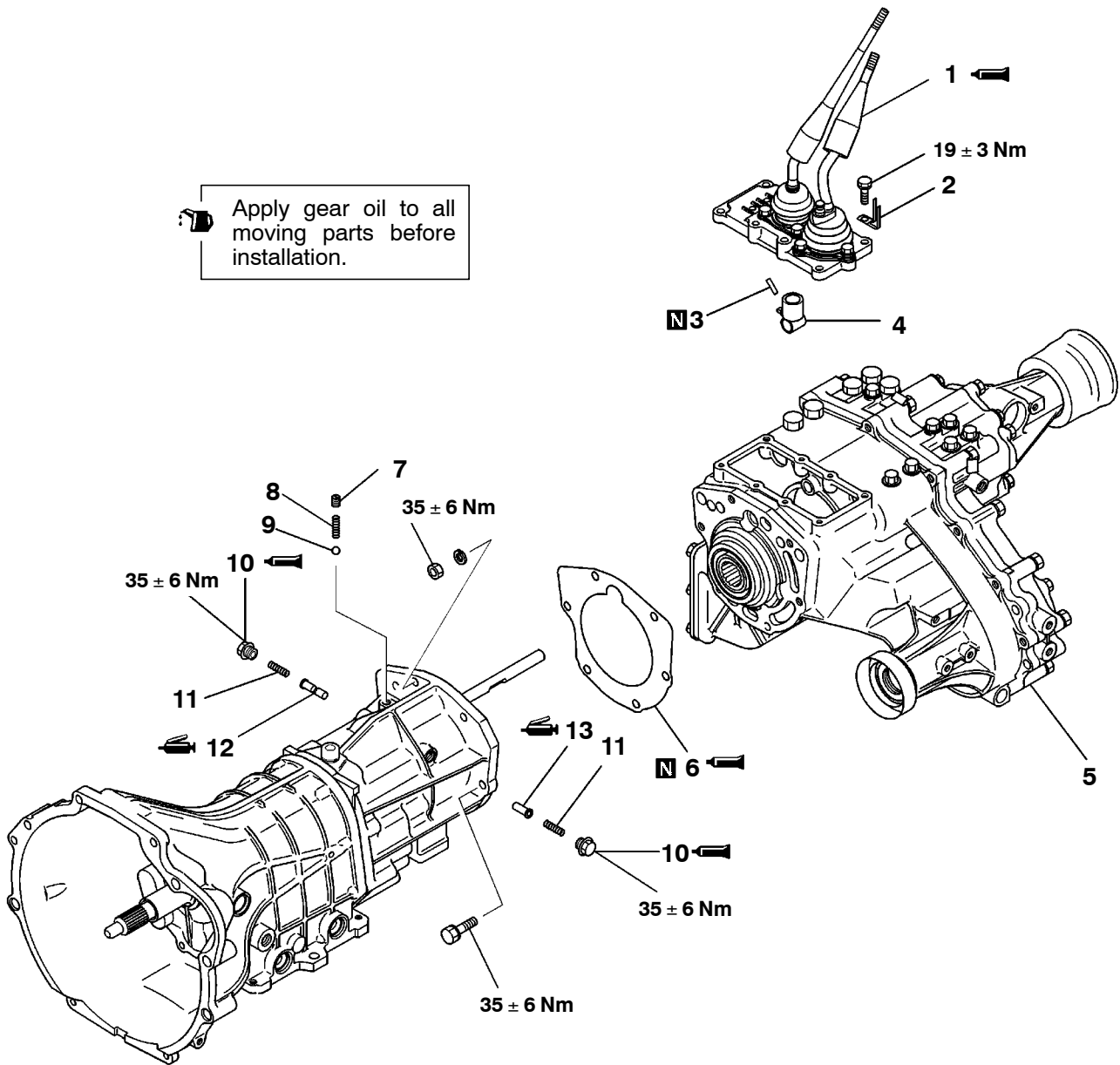
TRM1402

Disassembly steps

- | | | | |
|-----|--|-----|-------------------------------|
| ▶I◀ | 58. Spacer | ▶B◀ | 68. Snap ring |
| | 59. Countershaft center bearing outer race | ▶A◀ | 69. Snap ring |
| ◀F▶ | ▶L◀ | ◀H▶ | 70. Maindrive gear bearing |
| ◀F▶ | ▶G◀ | | 71. Maindrive gear |
| | 61. Mainshaft center bearing | | 72. 3rd-4th speed shift fork |
| | 62. Front bearing retainer | | 73. 1st-2nd speed shift fork |
| ▶F▶ | 63. Front bearing retainer gasket | | 74. Countershaft assembly |
| ▶E▶ | 64. Oil seal | | 75. Mainshaft front bearing |
| | 65. Spacer | | 76. 3rd-4th synchronizer ring |
| | 66. Countershaft front bearing outer race | | 77. Mainshaft assembly |
| ▶C◀ | 67. Spacer | | 78. Transmission case |

V5M21-9-D

Apply gear oil to all moving parts before installation.




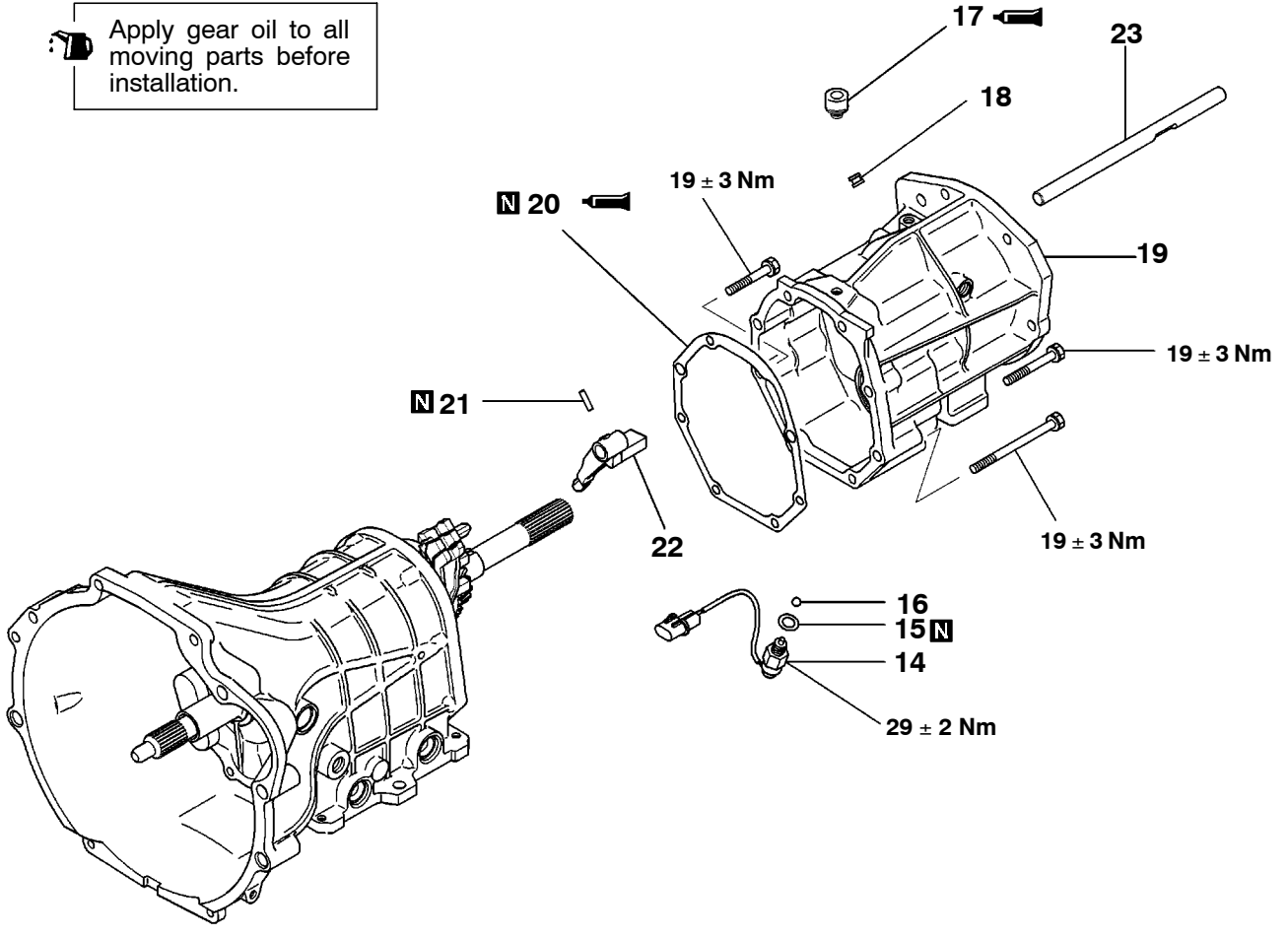
TRM1404

Disassembly steps

- 1. Control lever assembly
- 2. Bracket
- ▶e◀ 3. Spring pin
- 4. Change shifter
- 5. Transfer assembly
- ▶d◀ 6. Adapter gasket
- 7. Plug
- 8. Spring
- 9. Steel ball
- ▶a◀ 10. Seal plug
- ▶z◀ 11. Neutral return spring
- ▶z◀ 12. Neutral return plunger (B)
- ▶z◀ 13. Neutral return plunger (A)


V5M21-9-D











 Apply gear oil to all moving parts before installation.



TRM1405

Disassembly steps

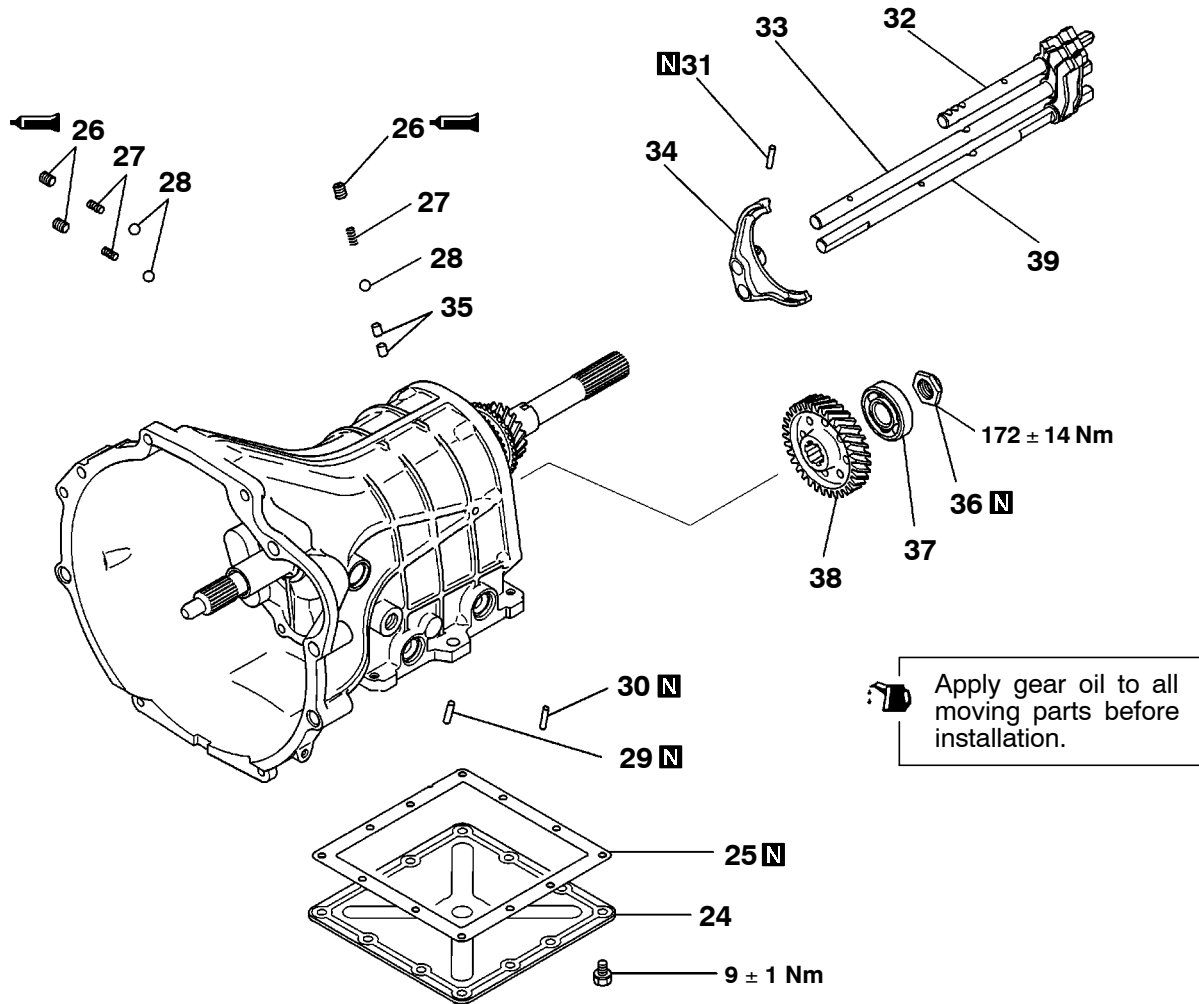
- 14. Backup lamp switch
- 15. Gasket
- 16. Steel ball
-  17. Breather
- 18. Plug

-   19. Transfer adapter*
-   20. Case gasket
-   21. Lock pin*
-   22. Control finger*
-   23. Control shaft*

Caution

*: The control finger and control shaft should be left installed in the transfer adapter as the lock pin cannot be removed. If any of these four parts requires replacement, order them all and replace them as a unit.

V5M21-9-D




TRM1406

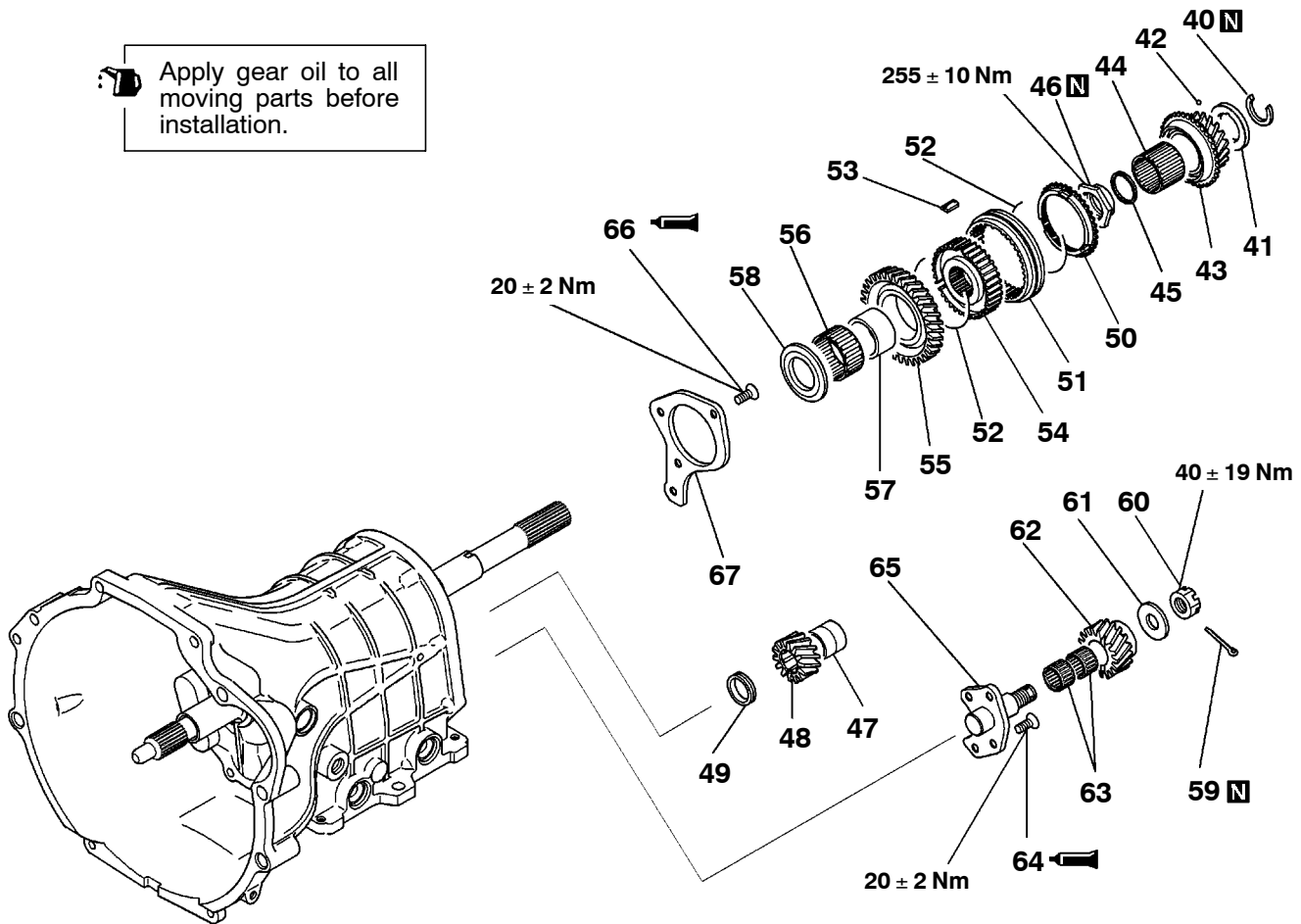
Disassembly steps

- 24. Under cover
- 25. Under cover gasket
- ▶V◀ 26. Poppet plug
- ▶V◀ 27. Poppet spring
- ▶V◀ 28. Steel ball
- ▶U◀ 29. Spring pin for 3rd-4th speed shift fork
- ▶U◀ 30. Spring pin for 1st-2nd speed shift fork

- ▶T◀ 31. Spring pin for OD-R shift fork
- 32. OD-R shift rail
- 33. 3rd-4th speed shift rail
- 34. OD-R shift fork
- 35. Interlock plunger
- ▶S◀ 36. Countershaft lock nut
- ▶R◀ 37. Countershaft rear bearing
- 38. Counter overdrive gear
- 39. 1st-2nd speed shift rail

V5M21-9-D

 Apply gear oil to all moving parts before installation.



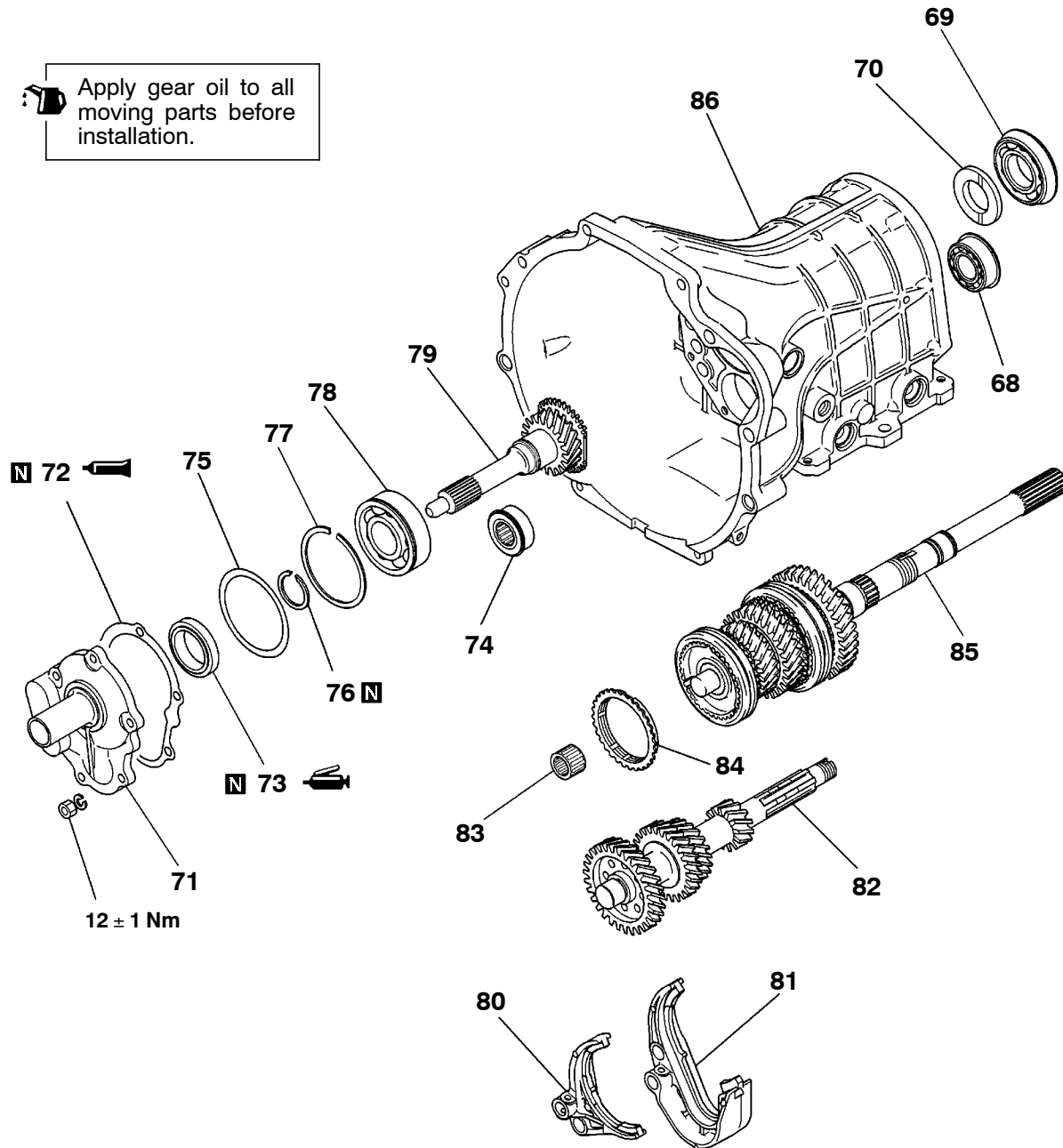
TRM1407

Disassembly steps

- | | | | |
|---------|------------------------------|---------|------------------------------|
| ▶Q◀ | 40. Snap ring | ▶M◀ | 54. OD-R synchronizer hub |
| | 41. Spacer | | 55. Reverse gear |
| | 42. Steel ball | | 56. Needle bearing |
| | 43. Overdrive gear | ▶L◀ | 57. Bearing sleeve |
| | 44. Needle bearing | | 58. Spacer |
| | 45. Bearing spacer | | 59. Split pin |
| ◀B▶ ▶P◀ | 46. Mainshaft lock nut | | 60. Slotted nut |
| | 47. Spacer | | 61. Thrust washer |
| | 48. Counter reverse gear | | 62. Reverse idler gear |
| | 49. Spacer | | 63. Needle bearing |
| ▶M◀ | 50. OD-R synchronizer ring | ▶J◀ | 64. Bolt |
| ▶M◀ | 51. OD-R synchronizer sleeve | ◀D▶ ▶K◀ | 65. Reverse idler gear shaft |
| ▶N◀ | 52. OD-R synchronizer spring | ▶J◀ | 66. Bolt |
| ▶N◀ | 53. OD-R synchronizer key | | 67. Rear bearing retainer |

V5M21-9-D

Apply gear oil to all moving parts before installation.



TRM1408

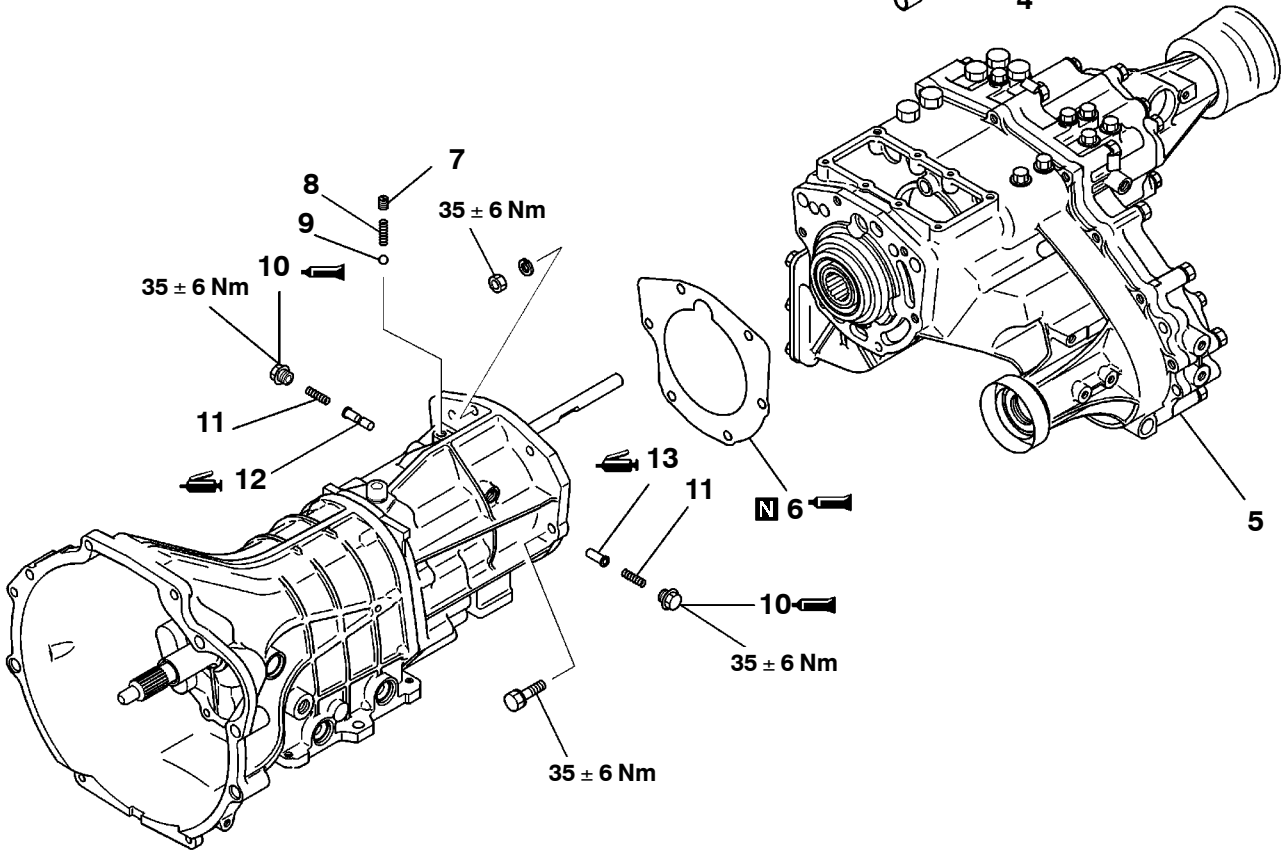
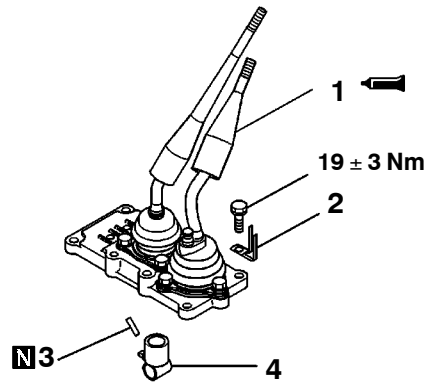
Disassembly steps

- ◀E▶ ▶H▶ 68. Countershaft center bearing
- ◀F▶ ▶G▶ 69. Mainshaft center bearing
- ▶F▶ 70. Bearing spacer
- ▶E▶ 71. Front bearing retainer
- ◀G▶ ▶D▶ 72. Front bearing retainer gasket
- ▶C▶ 73. Oil seal
- ▶B▶ 74. Countershaft front bearing
- 75. Spacer
- 76. Snap ring
- 77. Snap ring

- ◀H▶ ▶A▶ 78. Maindrive gear bearing
- 79. Maindrive gear
- 80. 3rd-4th speed shift fork
- 81. 1st-2nd speed shift fork
- 82. Countershaft
- 83. Mainshaft front bearing
- 84. 3rd-4th synchronizer ring
- 85. Mainshaft assembly
- 86. Transmission case

V5M21-9-G

Apply gear oil to all moving parts before installation.




TRM1404

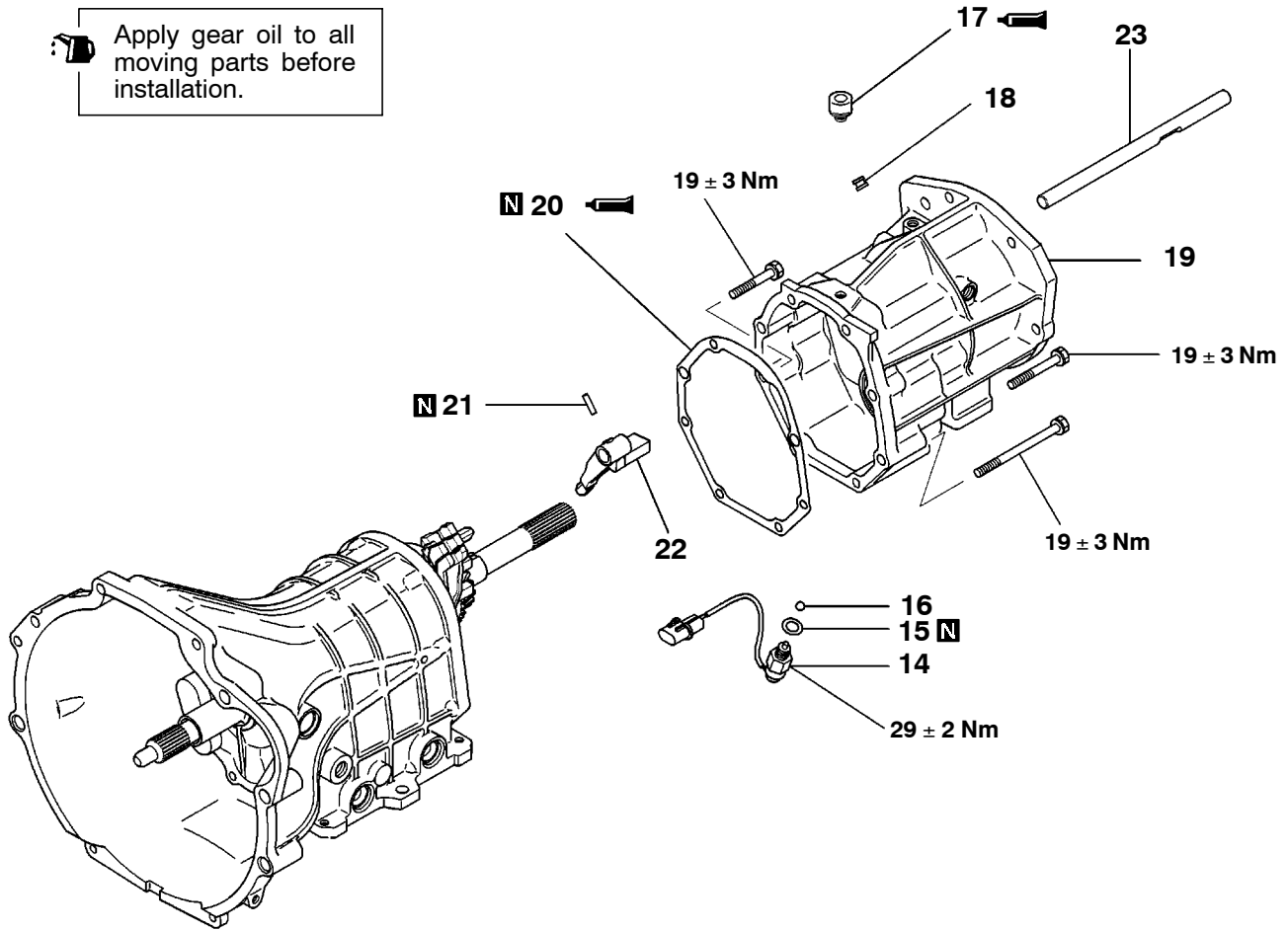
Disassembly steps

- 1. Control lever assembly
- 2. Bracket
- ▶e◀ 3. Spring pin
- 4. Change shifter
- 5. Transfer assembly
- ▶d◀ 6. Adapter gasket
- 7. Plug
- 8. Spring
- 9. Steel ball

- ▶a◀ 10. Seal plug
- 11. Neutral return spring
- ▶z◀ 12. Neutral return plunger (B)
- ▶z◀ 13. Neutral return plunger (A)


V5M21-9-G











 Apply gear oil to all moving parts before installation.



TRM1405

Disassembly steps

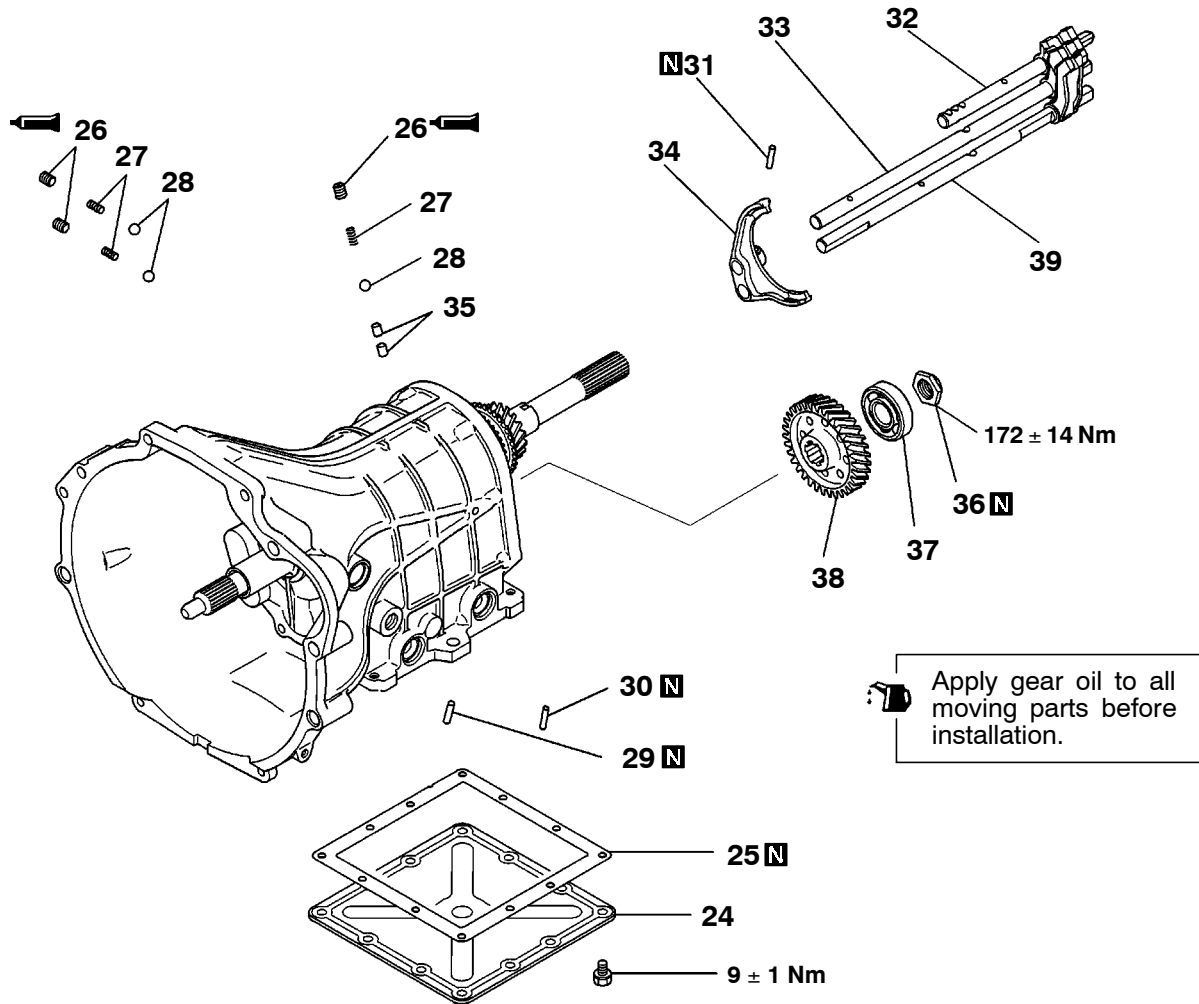
- 14. Backup lamp switch
- 15. Gasket
- 16. Steel ball
-  17. Breather
- 18. Plug

-   19. Transfer adapter*
-   20. Case gasket
-   21. Lock pin*
-   22. Control finger*
-   23. Control shaft*

Caution

*: The control finger and control shaft should be left installed in the transfer adapter as the lock pin cannot be removed. If any of these four parts requires replacement, order them all and replace them as a unit.

V5M21-9-G



TRM1406

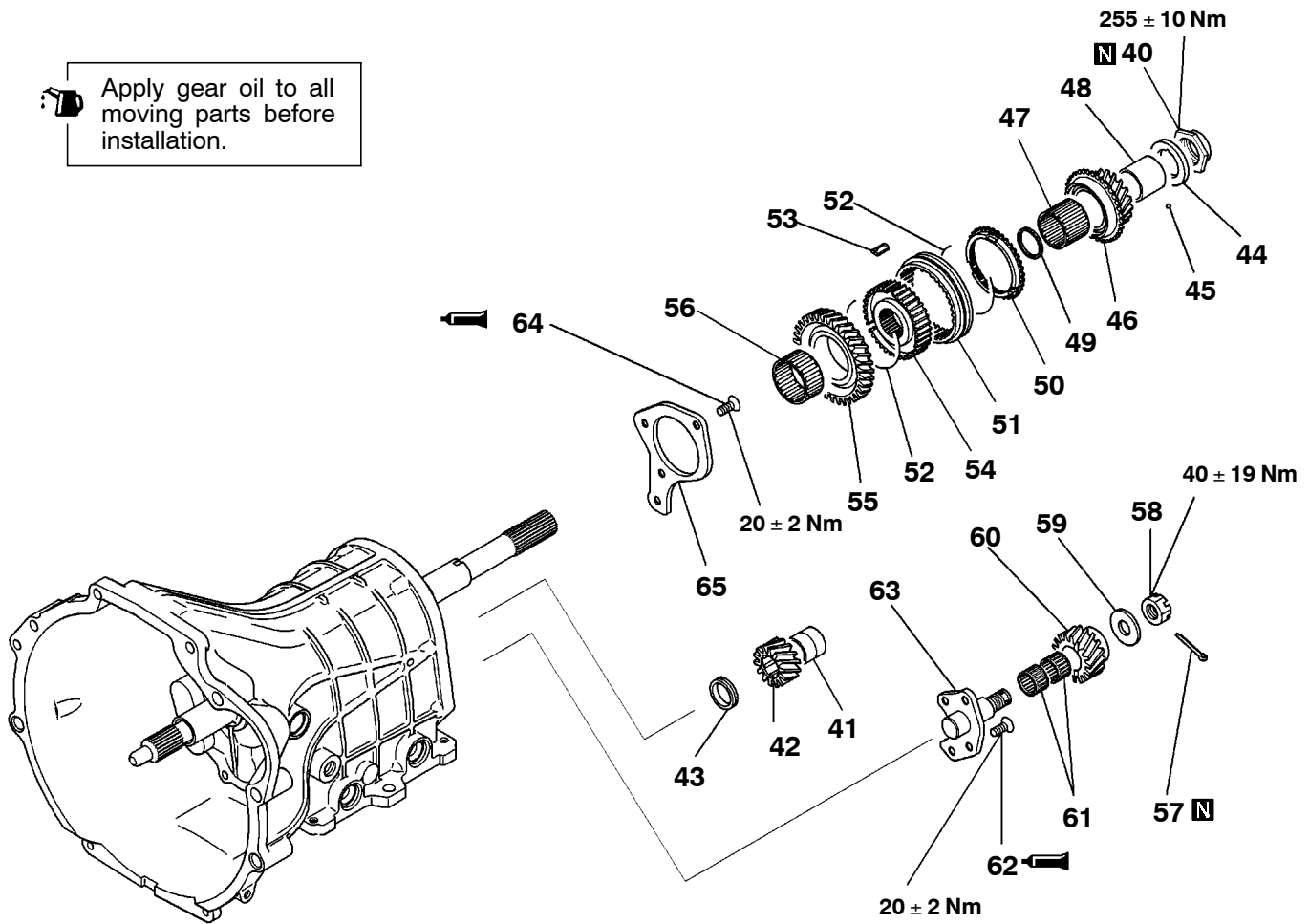
Disassembly steps

- 24. Under cover
- 25. Under cover gasket
- ▶V◀ 26. Poppet plug
- ▶V◀ 27. Poppet spring
- ▶V◀ 28. Steel ball
- ▶U◀ 29. Spring pin for 3rd-4th speed shift fork
- ▶U◀ 30. Spring pin for 1st-2nd speed shift fork

- ▶T◀ 31. Spring pin for OD-R shift fork
- 32. OD-R shift rail
- 33. 3rd-4th speed shift rail
- 34. OD-R shift fork
- 35. Interlock plunger
- ▶S◀ 36. Countershaft lock nut
- ▶R◀ 37. Countershaft rear bearing
- 38. Counter overdrive gear
- 39. 1st-2nd speed shift rail

V5M21-9-G

Apply gear oil to all moving parts before installation.




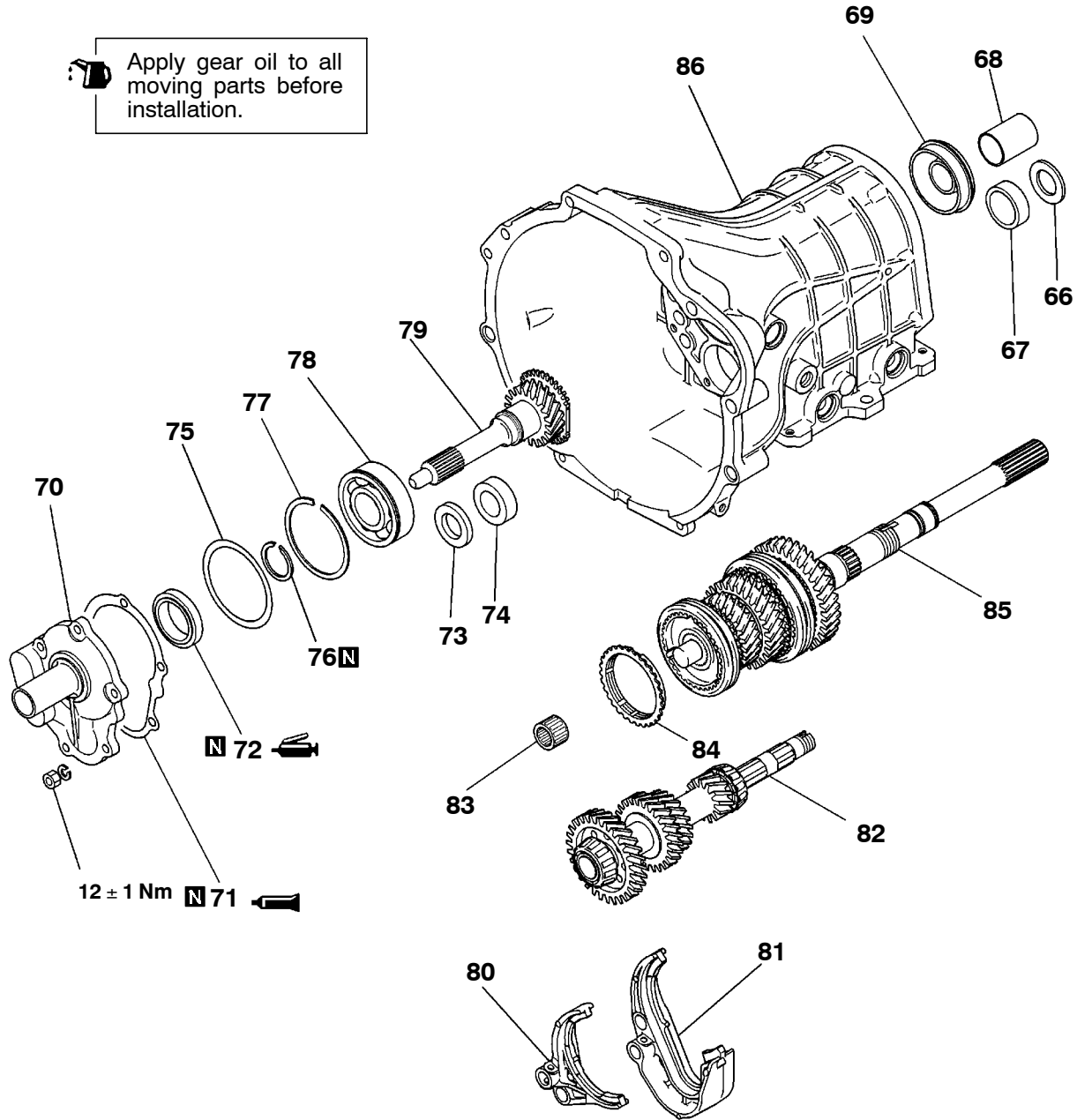
TRM1409

Disassembly steps

- | | |
|--|---|
| <p>◀B▶ ▶P▶ 40. Mainshaft lock nut
 41. Spacer
 42. Counter reverse gear
 43. Spacer
 44. Spacer
 45. Steel ball
 46. Overdrive gear
 47. Needle bearing
 ▶C▶ ▶O▶ 48. Bearing sleeve
 49. Bearing spacer
 ▶M▶ 50. Overdrive synchronizer ring
 ▶M▶ 51. OD-R synchronizer sleeve
 ▶N▶ 52. OD-R synchronizer spring</p> | <p>▶N▶ 53. OD-R synchronizer key
 ▶M▶ 54. OD-R synchronizer hub
 55. Reverse gear
 56. Needle bearing
 57. Split pin
 58. Slotted nut
 59. Thrust washer
 60. Reverse idler gear
 61. Needle bearing
 ▶J▶ ▶K▶ ▶J▶ 62. Bolt
 63. Reverse idler gear shaft
 ▶D▶ 64. Bolt
 65. Rear bearing retainer</p> |
|--|---|

V5M21-9-G

 Apply gear oil to all moving parts before installation.



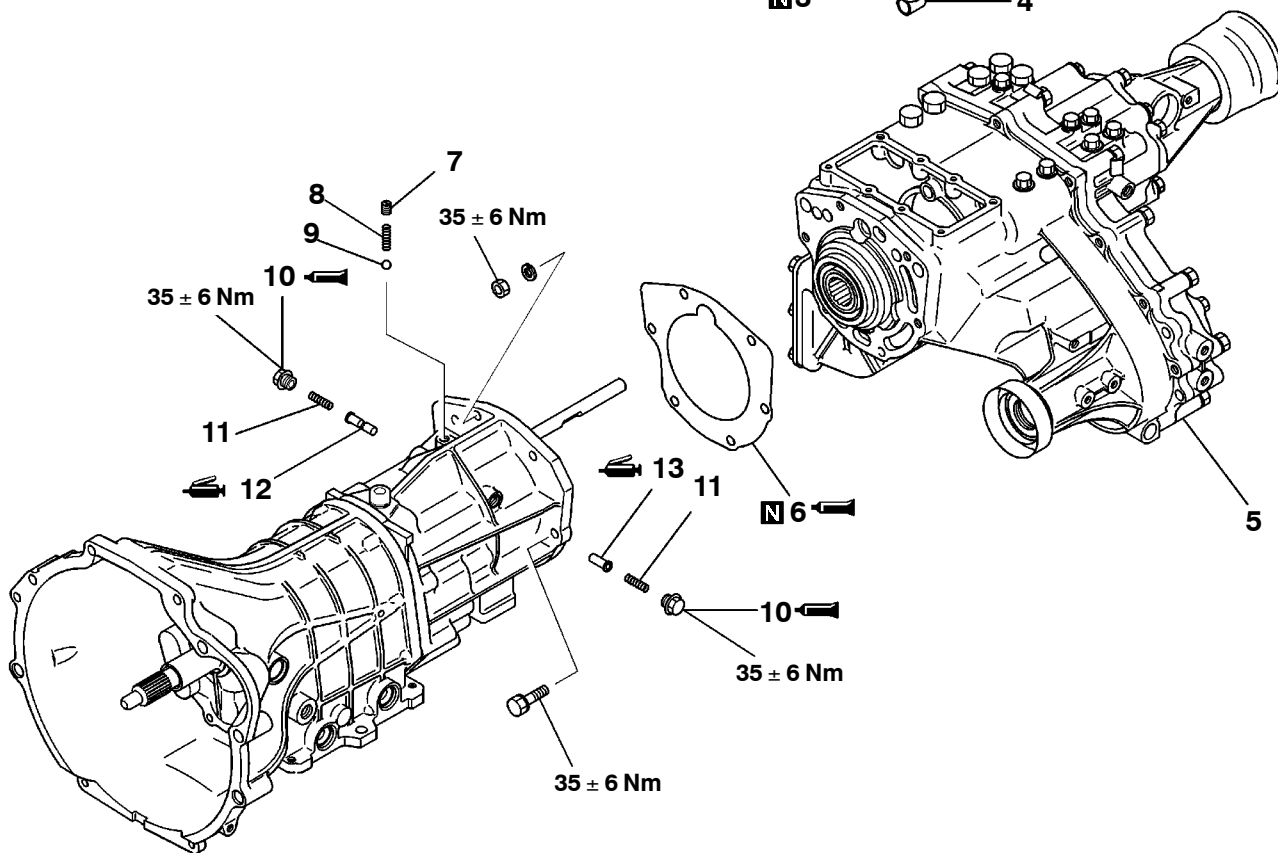
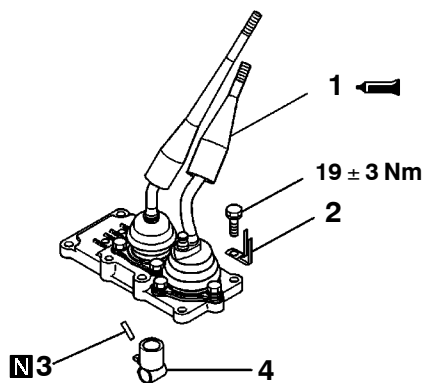
TRM1410

Disassembly steps

- | | | | |
|-----|--|-----|-------------------------------|
| ▶I◀ | 66. Spacer | ▶B◀ | 76. Snap ring |
| | 67. Countershaft center bearing outer race | | 77. Snap ring |
| ◀F▶ | ▶L◀ | ◀H▶ | ▶A◀ |
| ◀F▶ | ▶G◀ | | 78. Maindrive gear bearing |
| | 68. Bearing sleeve | | 79. Maindrive gear |
| | 69. Mainshaft center bearing | | 80. 3rd-4th speed shift fork |
| | 70. Front bearing retainer | | 81. 1st-2nd speed shift fork |
| | ▶F◀ | | 82. Countershaft assembly |
| | ▶E◀ | | 83. Mainshaft front bearing |
| | 71. Front bearing retainer gasket | | 84. 3rd-4th synchronizer ring |
| | 72. Oil seal | | 85. Mainshaft assembly |
| | 73. Spacer | | 86. Transmission case |
| | 74. Countershaft front bearing outer race | | |
| | ▶C◀ | | |
| | 75. Spacer | | |

V5M21-9-P

Apply gear oil to all moving parts before installation.




TRM1404

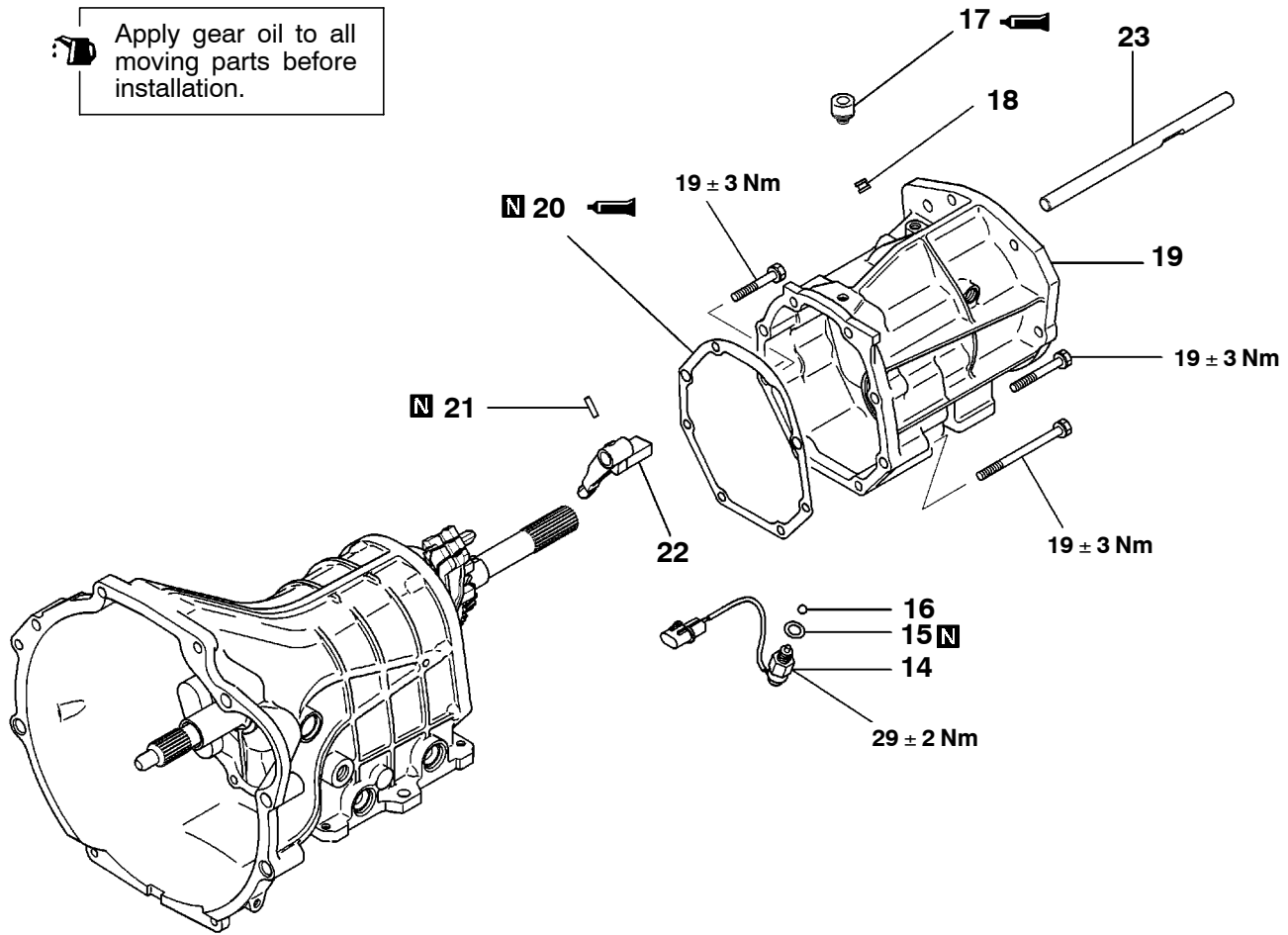
Disassembly steps

- 1. Control lever assembly
- 2. Bracket
- ▶e◀ 3. Spring pin
- 4. Change shifter
- 5. Transfer assembly
- ▶d◀ 6. Adapter gasket
- 7. Plug
- 8. Spring
- 9. Steel ball

- ▶a◀ 10. Seal plug
- 11. Neutral return spring
- ▶Z◀ 12. Neutral return plunger (B)
- ▶Z◀ 13. Neutral return plunger (A)


V5M21-9-P











 Apply gear oil to all moving parts before installation.



TRM1405

Disassembly steps

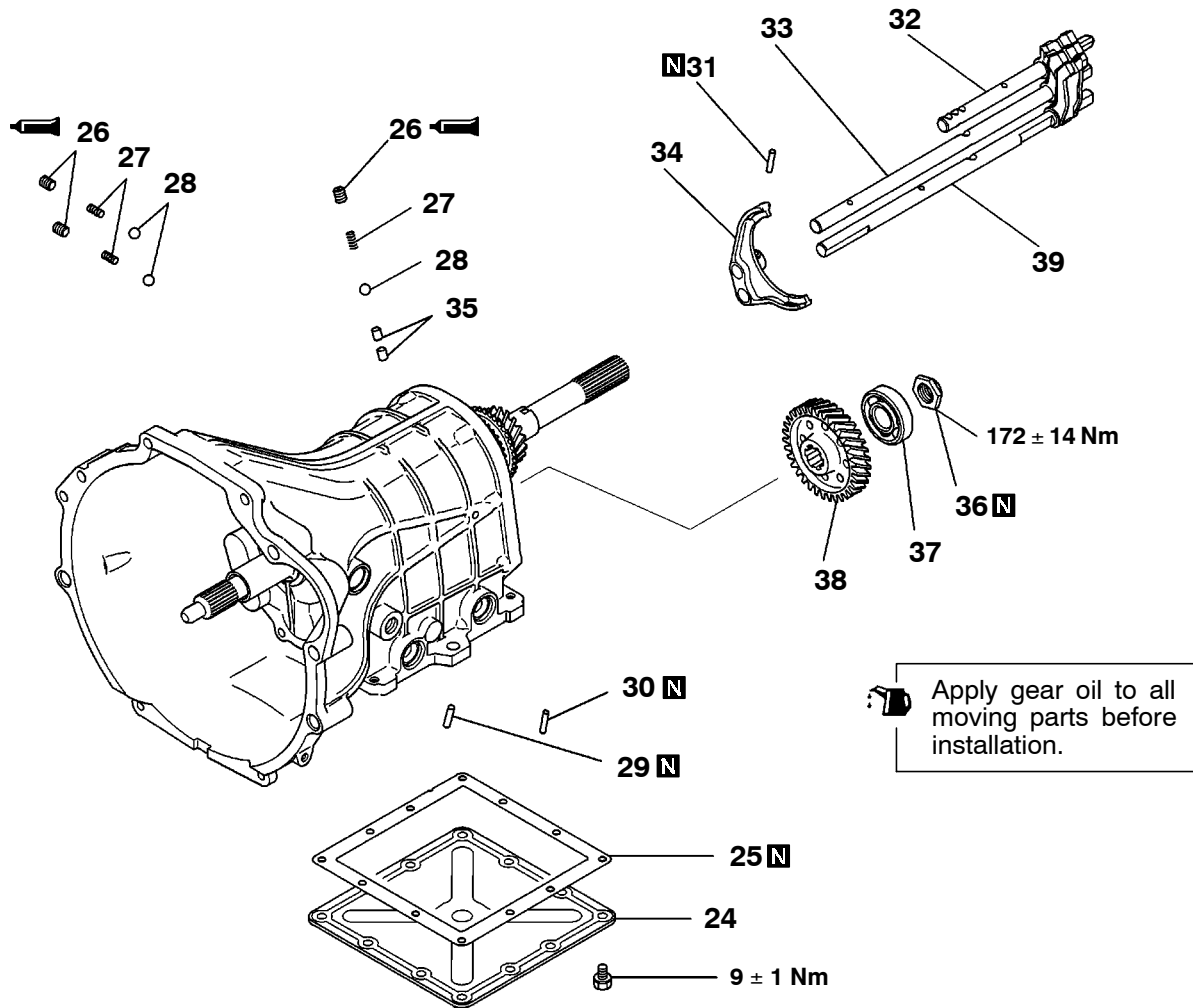
- 14. Backup lamp switch
- 15. Gasket
- 16. Steel ball
-  17. Breather
- 18. Plug

-   19. Transfer adapter*
-   20. Case gasket
-   21. Lock pin*
-   22. Control finger*
-   23. Control shaft*

Caution

*: The control finger and control shaft should be left installed in the transfer adapter as the lock pin cannot be removed. If any of these four parts requires replacement, order them all and replace them as a unit.

V5M21-9-P




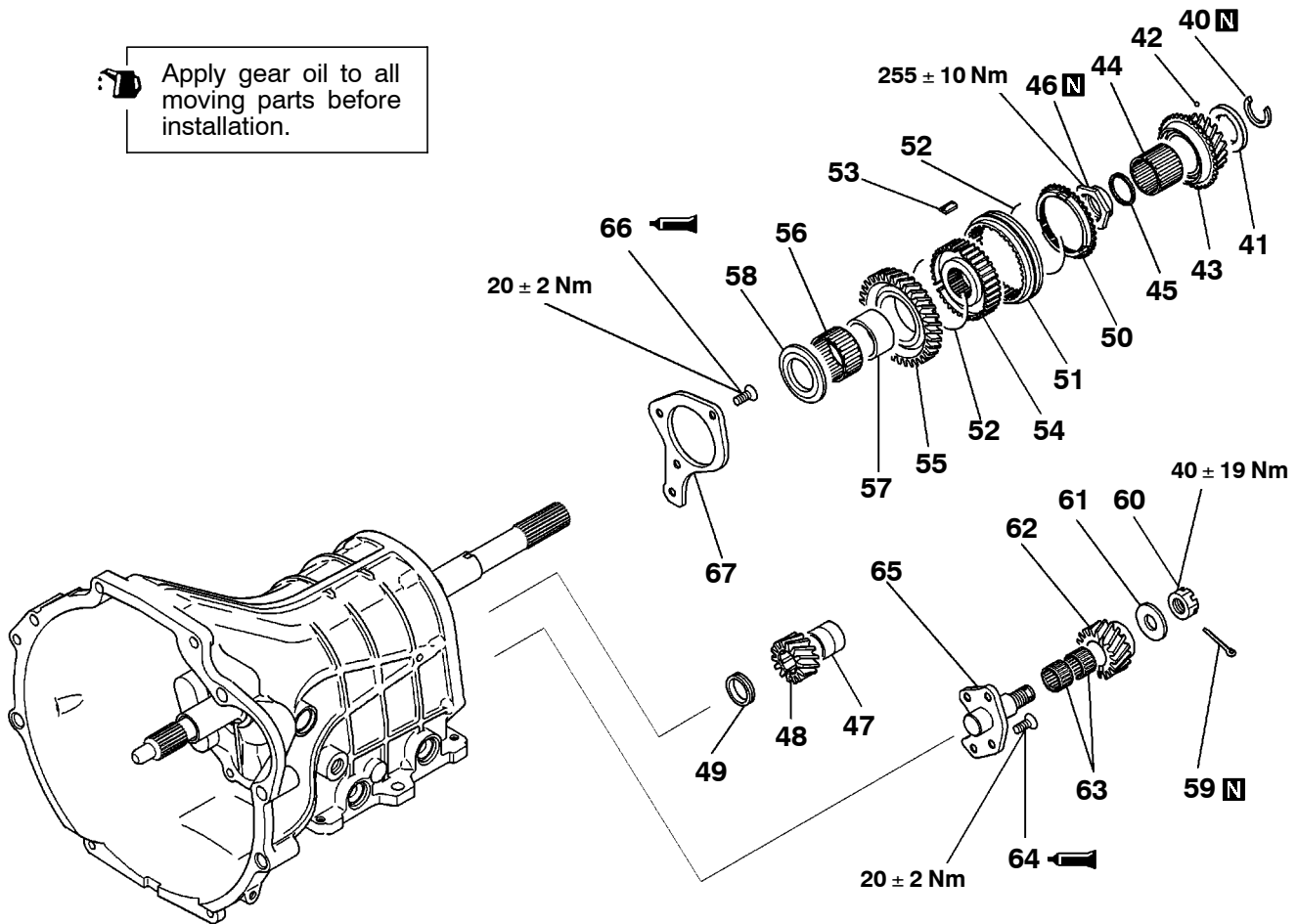
TRM1406

Disassembly steps

- 24. Under cover
- 25. Under cover gasket
- ▶V◀ 26. Poppet plug
- ▶V◀ 27. Poppet spring
- ▶V◀ 28. Steel ball
- ▶U◀ 29. Spring pin for 3rd-4th speed shift fork
- ▶U◀ 30. Spring pin for 1st-2nd speed shift fork
- ▶T◀ 31. Spring pin for OD-R shift fork
- 32. OD-R shift rail
- 33. 3rd-4th speed shift rail
- 34. OD-R shift fork
- 35. Interlock plunger
- ▶S◀ 36. Countershaft lock nut
- ▶R◀ 37. Countershaft rear bearing
- 38. Counter overdrive gear
- 39. 1st-2nd speed shift rail

V5M21-9-P

 Apply gear oil to all moving parts before installation.



TRM1407

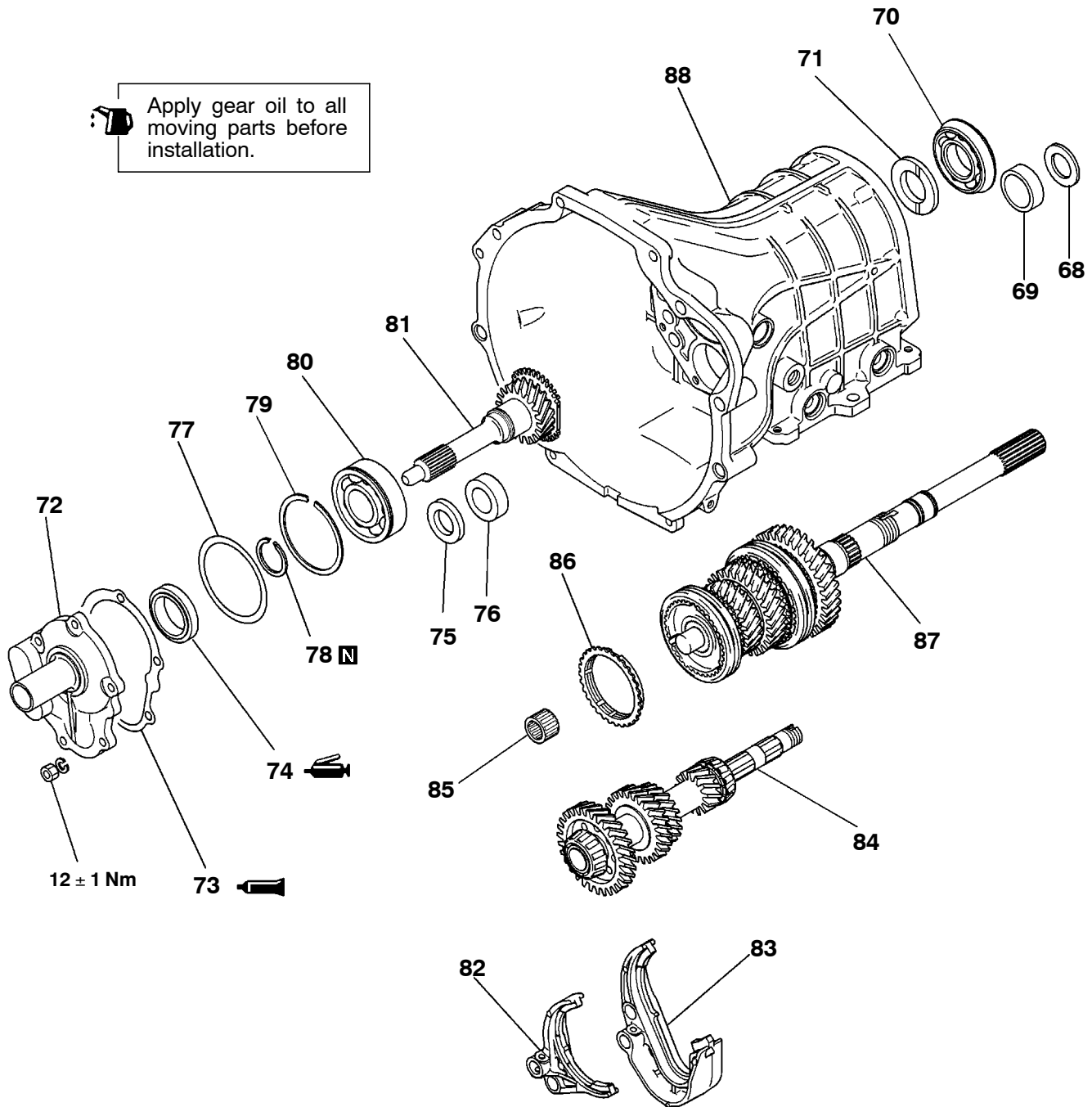
Disassembly steps

- | | | | |
|---------|------------------------------|-----|------------------------------|
| ▶Q◀ | 40. Snap ring | ▶M◀ | 54. OD-R synchronizer hub |
| | 41. Spacer | | 55. Reverse gear |
| | 42. Steel ball | | 56. Needle bearing |
| | 43. Overdrive gear | ▶L◀ | 57. Bearing sleeve |
| | 44. Needle bearing | | 58. Spacer |
| | 45. Bearing spacer | | 59. Split pin |
| | 46. Mainshaft lock nut | | 60. Slotted nut |
| | 47. Spacer | | 61. Thrust washer |
| ◀B▶ ▶P◀ | 48. Counter reverse gear | | 62. Reverse idler gear |
| | 49. Spacer | | 63. Needle bearing |
| ▶M◀ | 50. OD-R synchronizer ring | ▶J◀ | 64. Bolt |
| ▶M◀ | 51. OD-R synchronizer sleeve | ▶K◀ | 65. Reverse idler gear shaft |
| ▶N◀ | 52. OD-R synchronizer spring | ▶J◀ | 66. Bolt |
| ▶N◀ | 53. OD-R synchronizer key | | 67. Rear bearing retainer |

V5M21-9-P



Apply gear oil to all moving parts before installation.



TRM1411

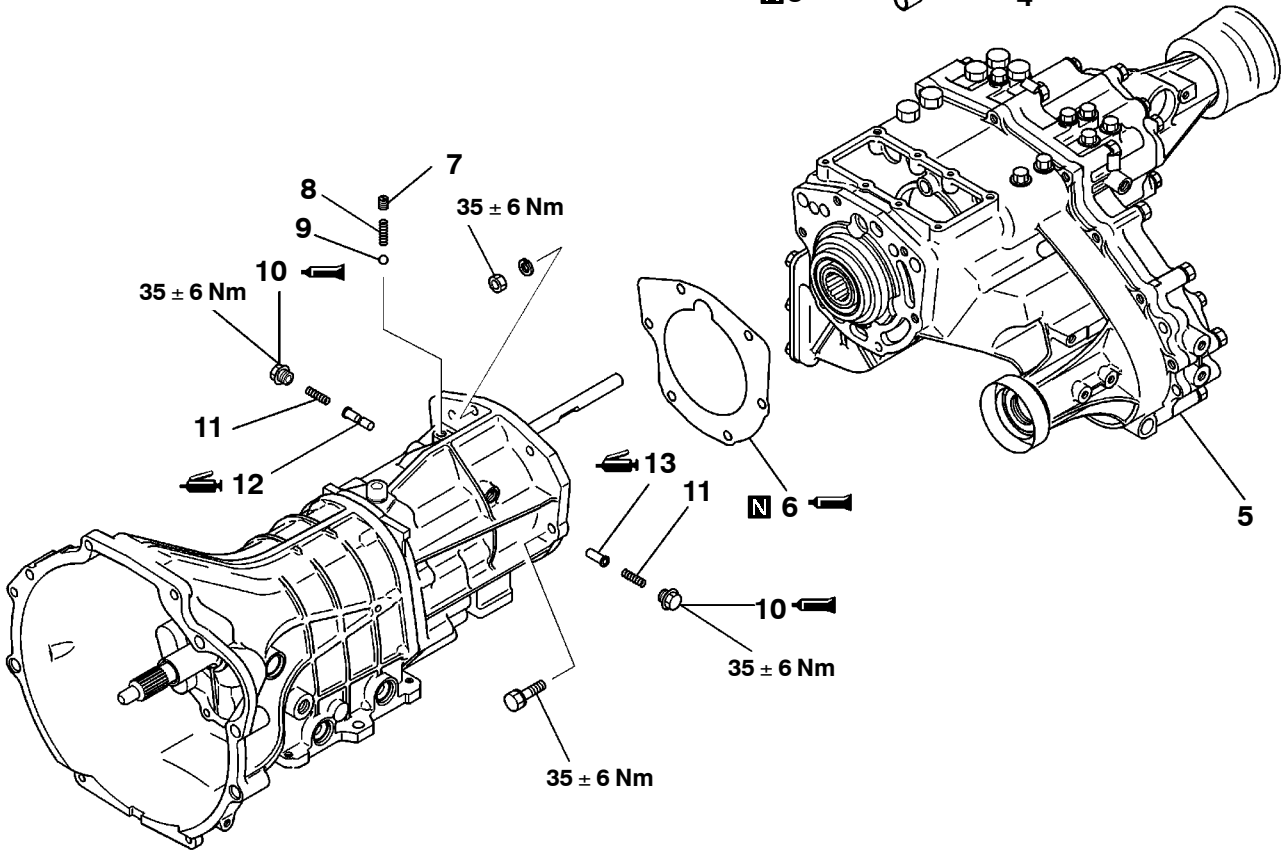
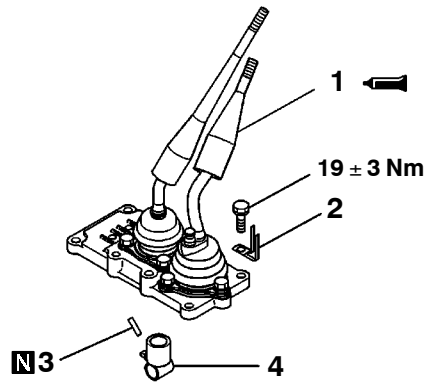
Disassembly steps

- ◀E▶ ▶I▶ 68. Spacer
- ◀E▶ ▶H▶ 69. Countershaft center bearing outer race
- ◀F▶ ▶G▶ 70. Mainshaft center bearing
- ▶F▶ 71. Bearing spacer
- ▶F▶ 72. Front bearing retainer
- ▶E▶ 73. Front bearing retainer gasket
- ▶E▶ 74. Oil seal
- ▶G▶ 75. Spacer
- ◀G▶ ▶D▶ 76. Countershaft front bearing outer race
- ▶C▶ 77. Spacer

- ▶B▶ 78. Snap ring
- ▶B▶ 79. Snap ring
- ◀H▶ ▶A▶ 80. Maindrive gear bearing
- ▶A▶ 81. Maindrive gear
- ▶A▶ 82. 3rd-4th speed shift fork
- ▶A▶ 83. 1st-2nd speed shift fork
- ▶A▶ 84. Countershaft assembly
- ▶A▶ 85. Mainshaft front bearing
- ▶A▶ 86. 3rd-4th synchronizer ring
- ▶A▶ 87. Mainshaft assembly
- ▶A▶ 88. Transmission case

V5M21-9-T

Apply gear oil to all moving parts before installation.




TRM1404

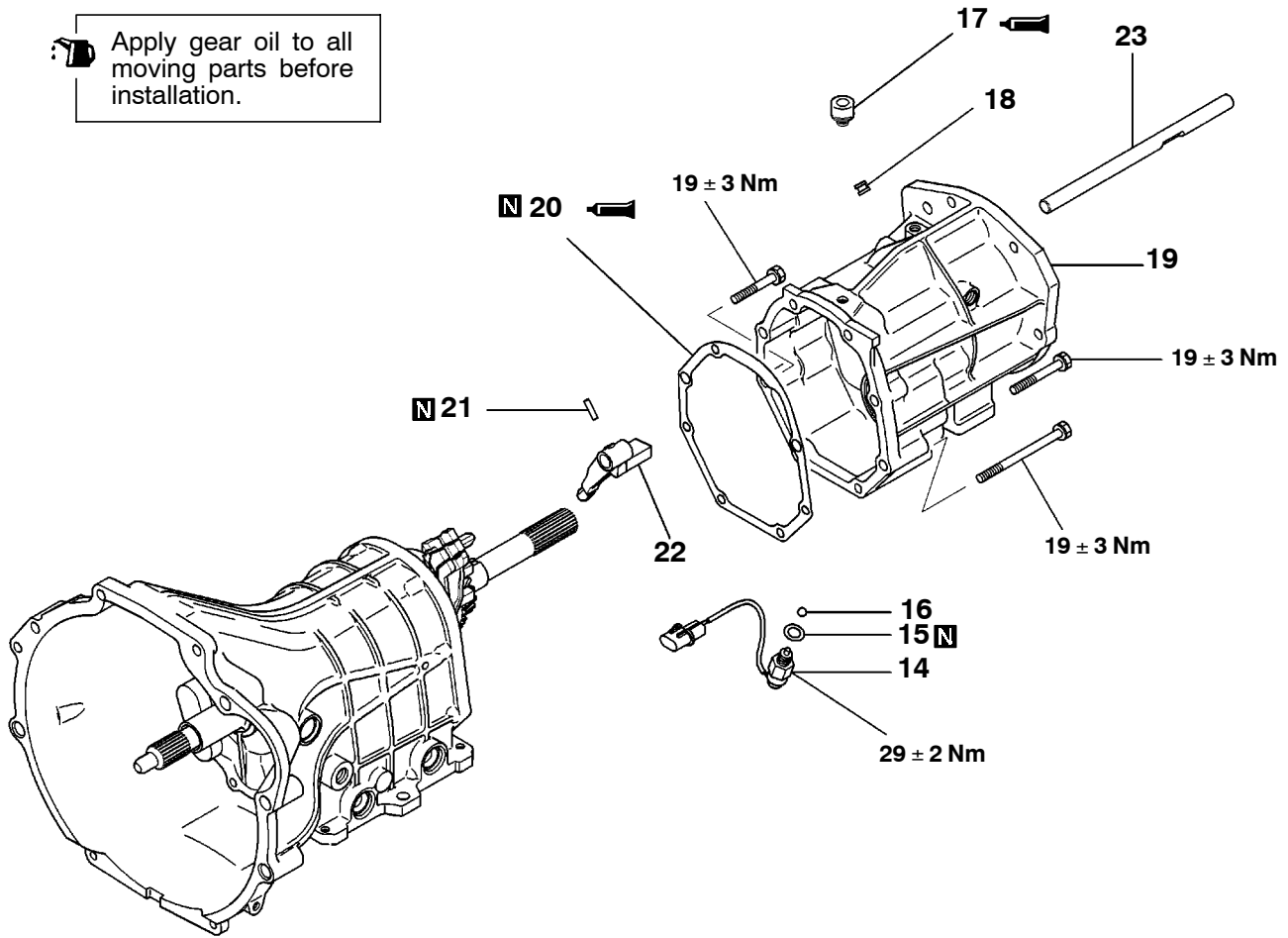
Disassembly steps

- 1. Control lever assembly
- 2. Bracket
- ▶e◀ 3. Spring pin
- 4. Change shifter
- ▶d◀ 5. Transfer assembly
- 6. Adapter gasket
- 7. Plug
- 8. Spring
- 9. Steel ball

- ▶a◀ 10. Seal plug
- 11. Neutral return spring
- ▶Z◀ 12. Neutral return plunger (B)
- ▶Z◀ 13. Neutral return plunger (A)


V5M21-9-T











 Apply gear oil to all moving parts before installation.



TRM1405

Disassembly steps

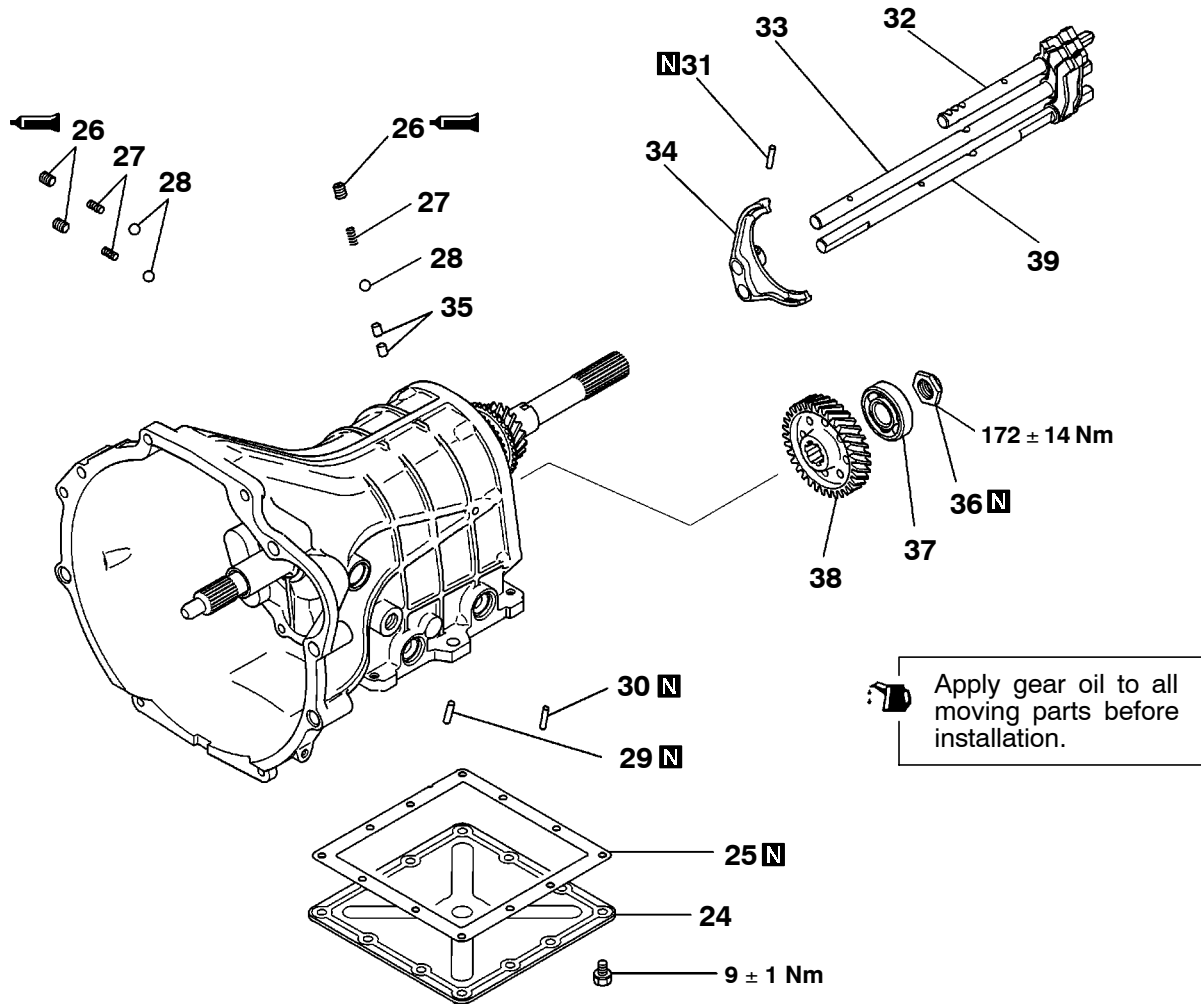
- 14. Backup lamp switch
- 15. Gasket
- 16. Steel ball
-  17. Breather
- 18. Plug

-   19. Transfer adapter*
-   20. Case gasket
-   21. Lock pin*
-   22. Control finger*
-   23. Control shaft*

Caution

*: The control finger and control shaft should be left installed in the transfer adapter as the lock pin cannot be removed. If any of these four parts requires replacement, order them all and replace them as a unit.

V5M21-9-T



TRM1406

Disassembly steps

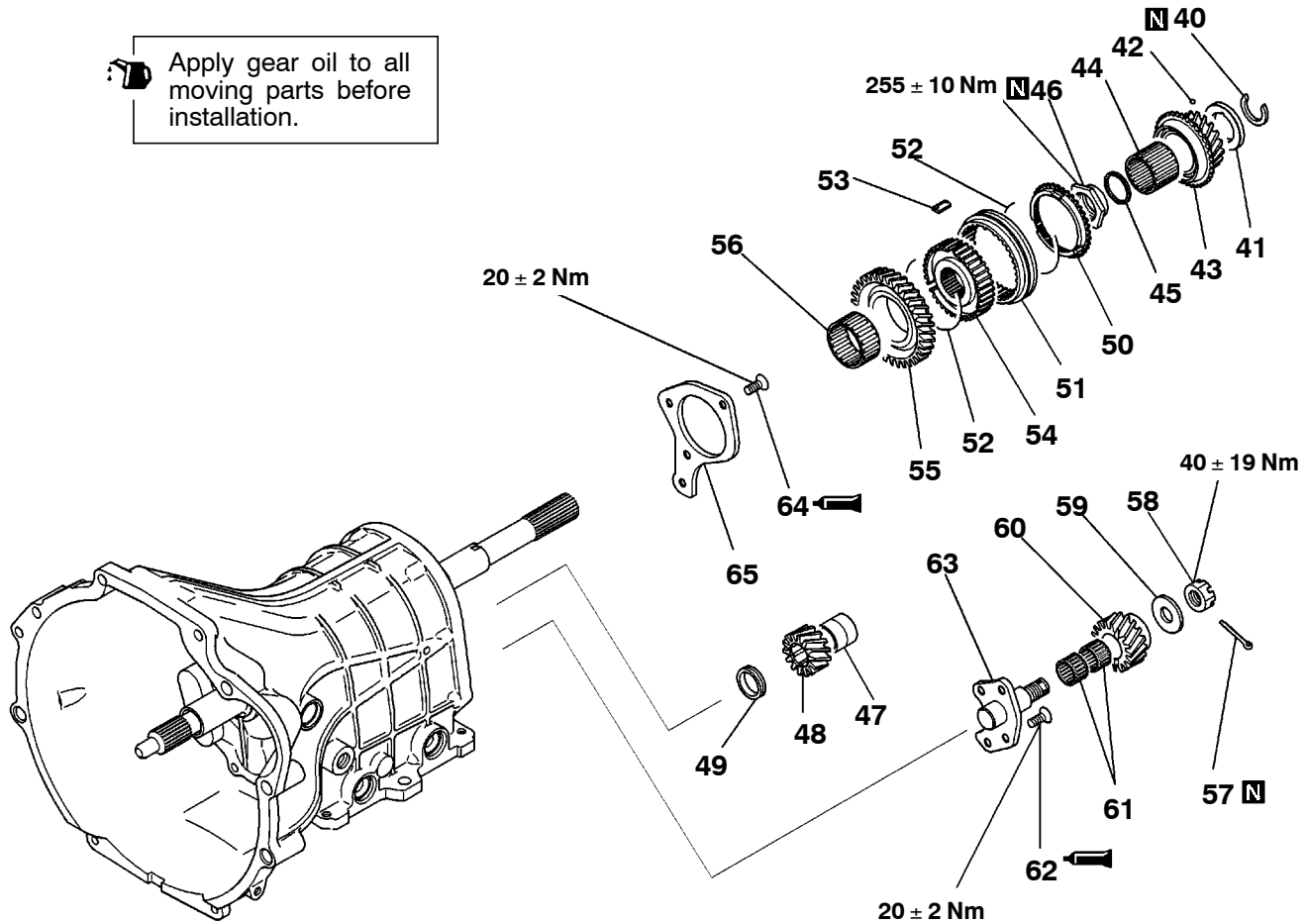
- 24. Under cover
- 25. Under cover gasket
- ▶V◀ 26. Poppet plug
- ▶V◀ 27. Poppet spring
- ▶V◀ 28. Steel ball
- ▶U◀ 29. Spring pin for 3rd-4th speed shift fork
- ▶U◀ 30. Spring pin for 1st-2nd speed shift fork

- ▶T◀ 31. Spring pin for OD-R shift fork
- 32. OD-R shift rail
- 33. 3rd-4th speed shift rail
- 34. OD-R shift fork
- 35. Interlock plunger
- ▶S◀ 36. Countershaft lock nut
- ▶R◀ 37. Countershaft rear bearing
- 38. Counter overdrive gear
- 39. 1st-2nd speed shift rail

V5M21-9-T



Apply gear oil to all moving parts before installation.




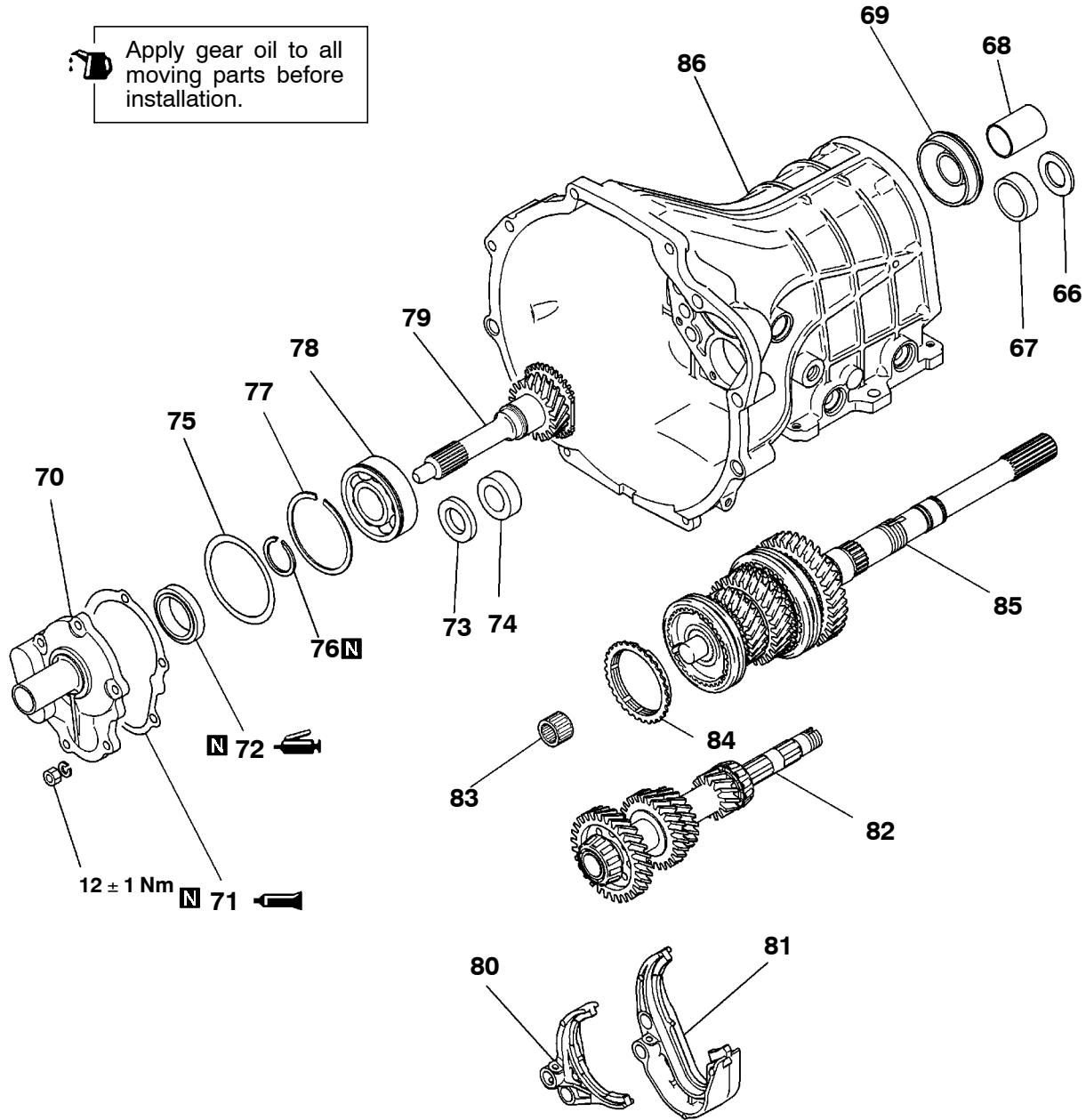
TRM1423

Disassembly steps

- ▶Q◀ 40. Snap ring
- ▶P◀ 41. Spacer
- ▶P◀ 42. Steel ball
- ▶P◀ 43. Overdrive gear
- ▶P◀ 44. Needle bearing
- ▶P◀ 45. Bearing spacer
- ◀B▶ ▶P◀ 46. Mainshaft lock nut
- ▶P◀ 47. Spacer
- ▶P◀ 48. Counter reverse gear
- ▶P◀ 49. Spacer
- ▶M◀ 50. OD-R synchronizer ring
- ▶M◀ 51. OD-R synchronizer sleeve
- ▶N◀ 52. OD-R synchronizer spring
- ▶N◀ 53. OD-R synchronizer key
- ▶M◀ 54. OD-R synchronizer hub
- ▶M◀ 55. Reverse gear
- ▶M◀ 56. Needle bearing
- ▶M◀ 57. Split pin
- ▶M◀ 58. Slotted nut
- ▶M◀ 59. Thrust washer
- ▶M◀ 60. Reverse idler gear
- ▶M◀ 61. Needle bearing
- ◀D▶ ▶J◀ 62. Bolt
- ▶K◀ 63. Reverse idler gear shaft
- ▶J◀ 64. Bolt
- ▶J◀ 65. Rear bearing retainer

V5M21-9-T

 Apply gear oil to all moving parts before installation.




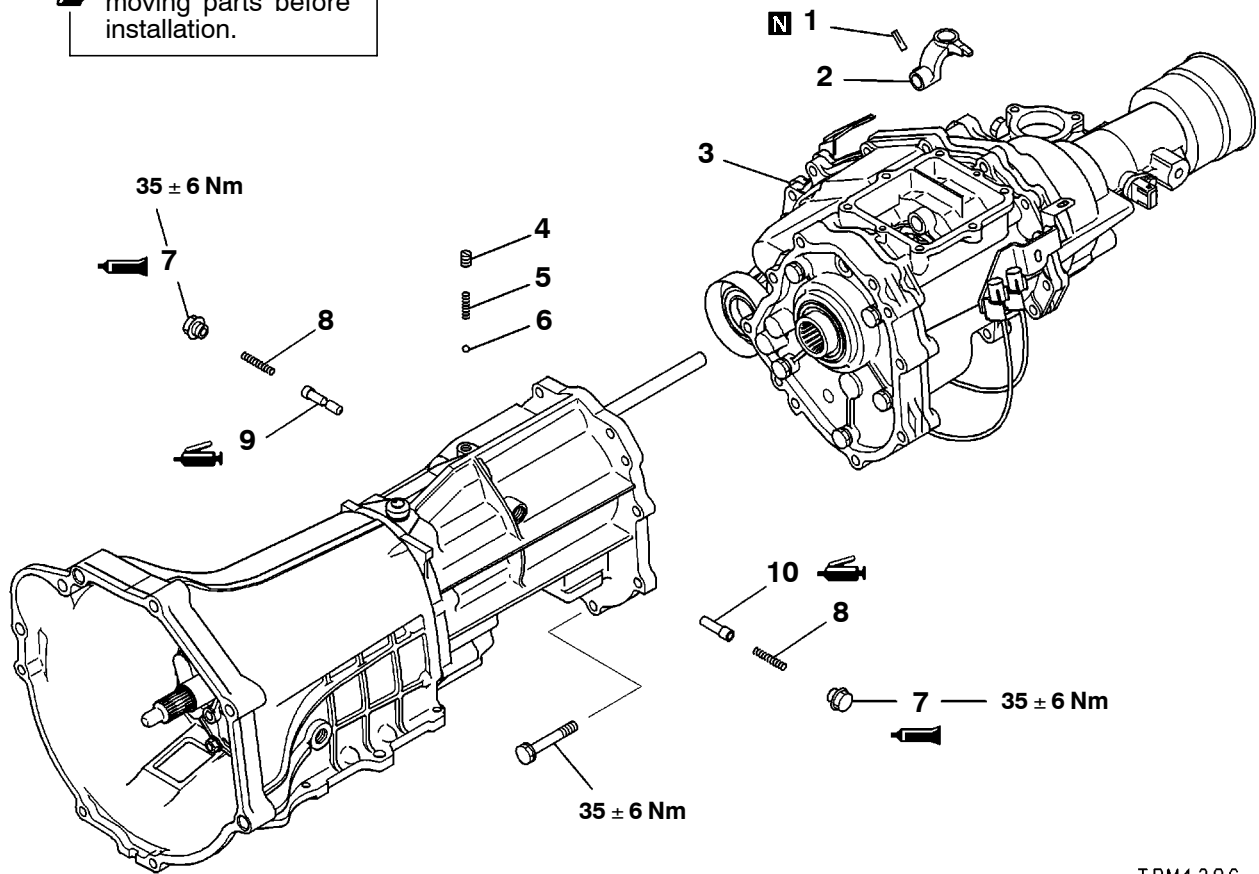
TRM1410

Disassembly steps

- | | | | |
|-----|--|-----|-------------------------------|
| ▶I◀ | 66. Spacer | ▶B◀ | 76. Snap ring |
| | 67. Countershaft center bearing outer race | | 77. Snap ring |
| ◀F▶ | ▶L◀ | ◀H▶ | ▶A◀ |
| ◀F▶ | ▶G◀ | | 78. Maindrive gear bearing |
| | 68. Bearing sleeve | | 79. Maindrive gear |
| | 69. Mainshaft center bearing | | 80. 3rd-4th speed shift fork |
| | 70. Front bearing retainer | | 81. 1st-2nd speed shift fork |
| | ▶F◀ | | 82. Countershaft assembly |
| | ▶E◀ | | 83. Mainshaft front bearing |
| | 71. Front bearing retainer gasket | | 84. 3rd-4th synchronizer ring |
| | 72. Oil seal | | 85. Mainshaft assembly |
| | 73. Spacer | | 86. Transmission case |
| | 74. Countershaft front bearing outer race | | |
| | ▶C◀ | | |
| | 75. Spacer | | |

V5M21-A

 Apply gear oil to all moving parts before installation.



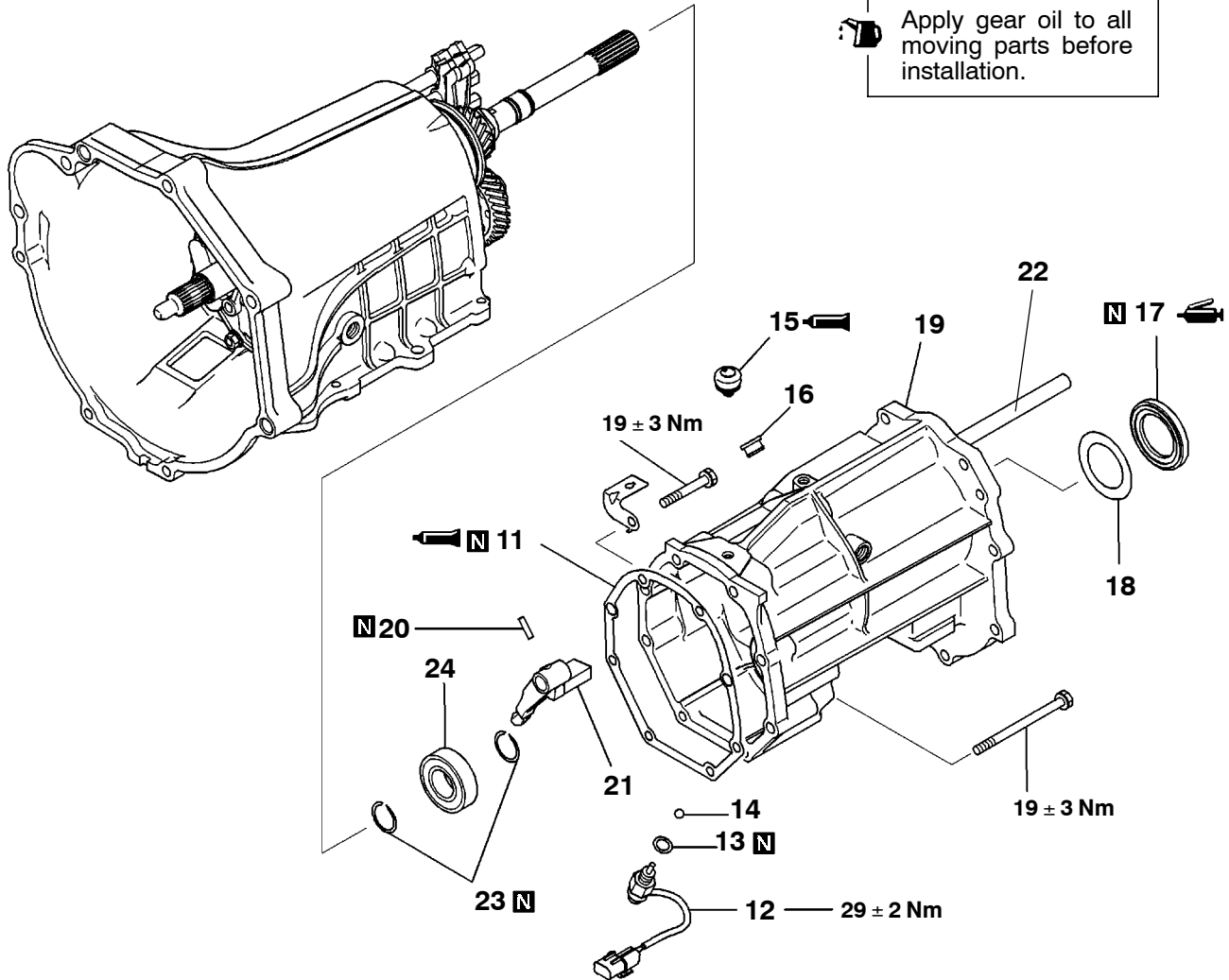
TRM1286

Disassembly steps

- ▶◀e▶ 1. Spring pin
- ▶◀h▶ 2. Change shifter
- ▶◀h▶ 3. Transfer assembly
- ▶◀h▶ 4. Plug
- ▶◀h▶ 5. Spring
- ▶◀h▶ 6. Steel ball
- ▶◀a▶ 7. Seal plug
- ▶◀a▶ 8. Neutral return spring
- ▶◀Z▶ 9. Neutral return plunger B

- ▶◀Z▶ 10. Neutral return plunger A

V5M21-A



TRM1424

Disassembly steps

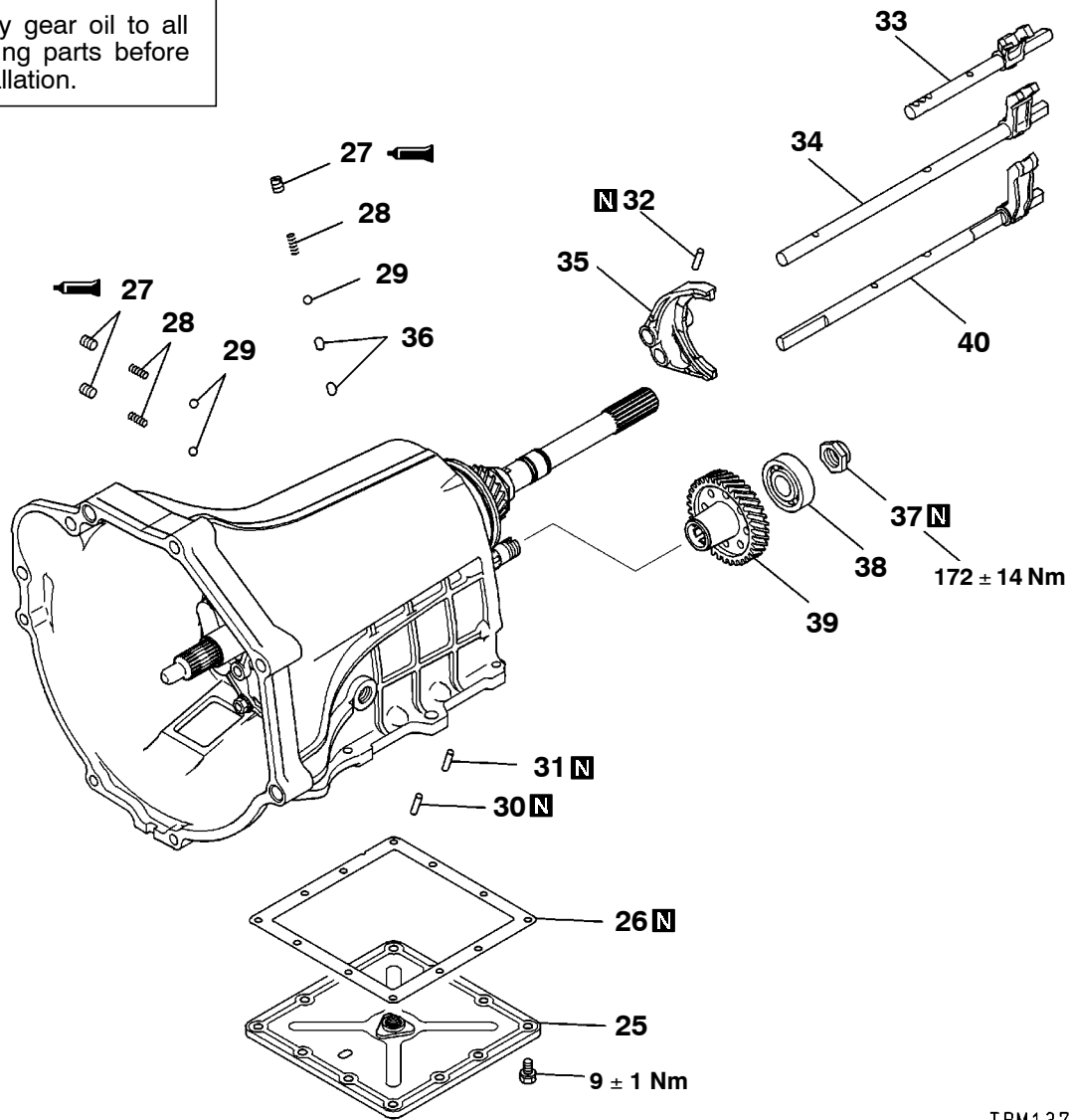
- | | |
|---|---|
| <p>▶X◀ 11. Transfer case adapter gasket</p> <p>▶d◀ 15. Air breather</p> <p>▶g◀ 17. Oil seal</p> | <p>▶A▶ ▶Y◀ 18. Baffle plate</p> <p>▶W◀ 23. Snap ring</p> <p>▶W◀ 24. Mainshaft rear bearing</p> |
| <p>12. Back light switch</p> <p>13. Gasket</p> <p>14. Steel ball</p> <p>16. Plug</p> | <p>▶A▶ ▶Y◀ 19. Transfer case adapter*</p> <p>▶W◀ 20. Lock pin*</p> <p>▶W◀ 21. Control finger*</p> <p>▶W◀ 22. Control shaft*</p> |

Caution

*: The control finger and control shaft should be left installed in the transfer adapter as the lock pin cannot be removed. If any of these four parts requires replacement, order them all and replace them as a unit.

V5M21-A

Apply gear oil to all moving parts before installation.



TRM1273

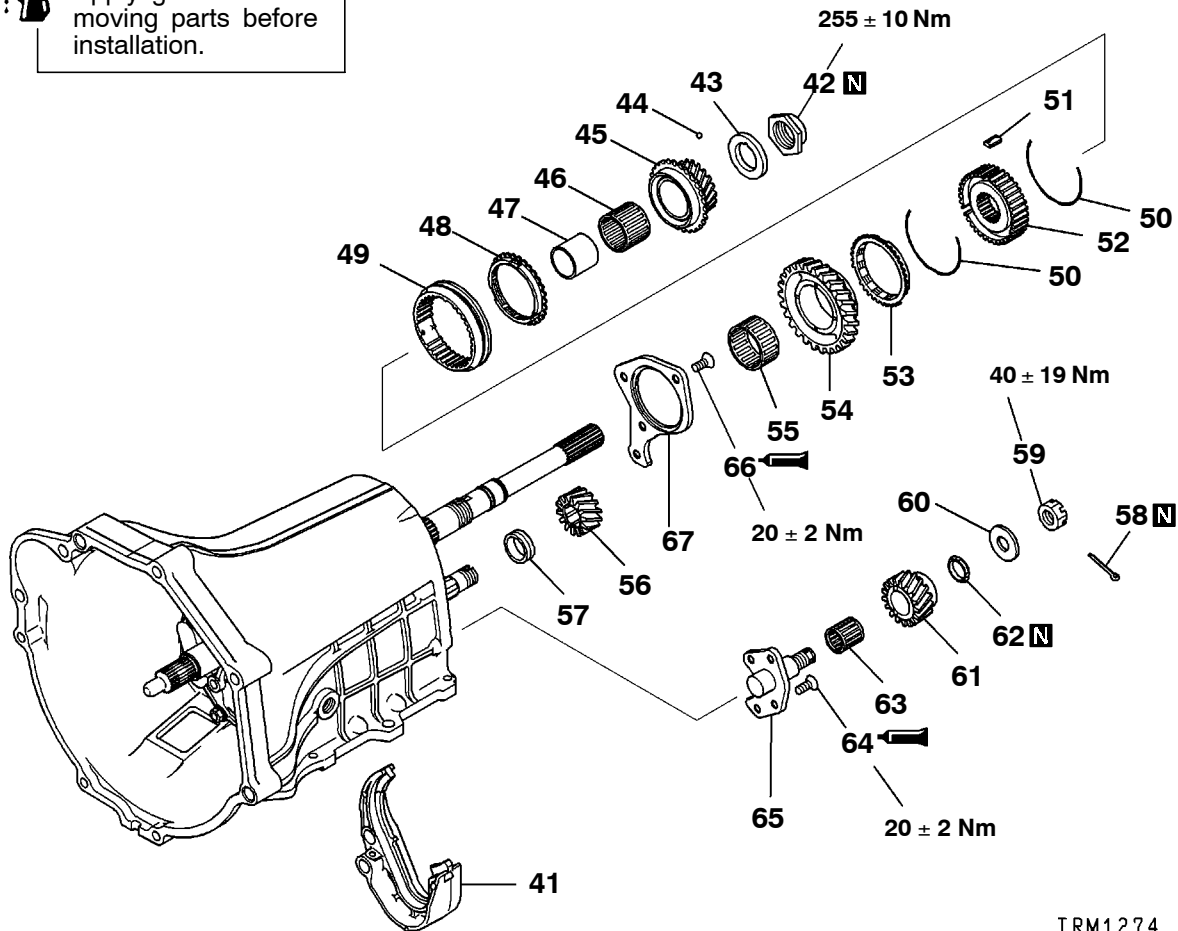
Disassembly steps

- 25. Oil pan
- 26. Oil pan gasket
- ▶V◀ 27. Poppet plug
- ▶V◀ 28. Poppet spring
- ▶V◀ 29. Steel ball
- ▶U◀ 30. Spring pin for 3rd-4th speed shift fork
- ▶U◀ 31. Spring pin for 1st-2nd speed shift fork
- ▶T◀ 32. Spring pin for OD-R shift fork
- 33. OD-R shift rail
- 34. 3rd-4th speed shift rail
- 35. OD-R shift fork
- 36. Interlock plunger
- ▶S◀ 37. Countershaft lock nut
- ▶R◀ 38. Countershaft rear bearing
- 39. Countershaft overdrive gear
- 40. 1st-2nd speed shift rail

V5M21-A



Apply gear oil to all moving parts before installation.



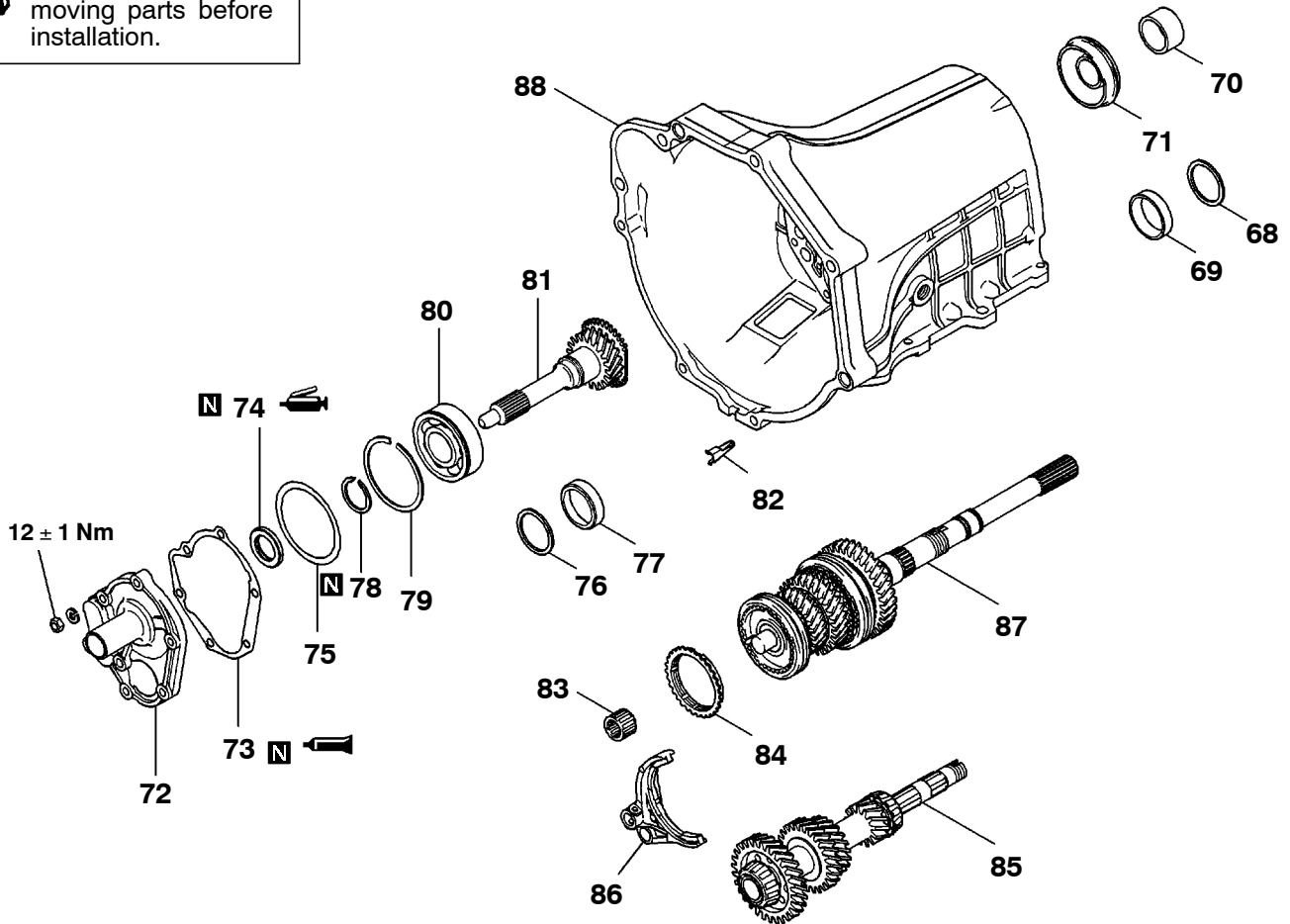
TRM1274

Disassembly steps

- | | | | |
|---------|--|-----|--|
| ◀B▶ ▶P▶ | 41. 1st-2nd speed shift fork | | |
| | 42. Mainshaft lock nut | | |
| | 43. Spacer | | |
| | 44. Steel ball | | |
| | 45. Overdrive gear | | |
| ◀C▶ ▶O▶ | 46. Needle bearing | | |
| | 47. Bearing sleeve | | |
| | 48. Overdrive synchronizer ring | | |
| ▶M▶ | 49. OD-R synchronizer sleeve | | |
| ▶M▶ | 50. OD-R synchronizer spring | | |
| ▶N▶ | 51. OD-R synchronizer key | | |
| ▶N▶ | 52. OD-R synchronizer hub | | |
| ▶M▶ | 53. Reverse synchronizer ring | | |
| | 54. Reverse gear | | |
| | 55. Needle bearing | | |
| | 56. Counter reverse gear | | |
| | 57. Spacer | | |
| | 58. Split pin | | |
| | 59. Reverse idler gear shaft nut | | |
| | 60. Thrust washer | | |
| | 61. Reverse idler gear | | |
| | 62. Friction damper | ▶f▶ | |
| | 63. Needle bearing | | |
| | 64. Reverse idler gear shaft seal bolt | ▶J▶ | |
| | 65. Reverse idler gear shaft | ▶K▶ | |
| | 66. Rear bearing retainer seal bolt | ▶J▶ | |
| | 67. Rear bearing retainer | | |

V5M21-A

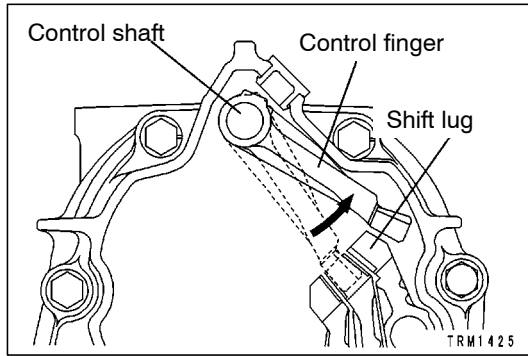
Apply gear oil to all moving parts before installation.



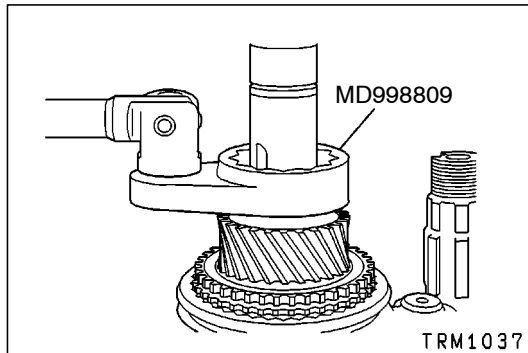
TRM1458

Disassembly steps

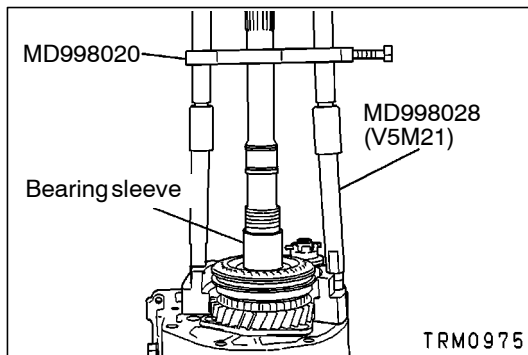
- | | | | |
|-----|--|---------|------------------------------|
| ▶I◀ | 68. Spacer | ▶B◀ | 78. Snap ring |
| | 69. Countershaft center bearing outer race | | 79. Snap ring |
| ▶L◀ | 70. Reverse gear bearing sleeve | ◀H▶ ▶A◀ | 80. Maindrive gear bearing |
| | 71. Mainshaft center bearing outer race | | 81. Maindrive gear |
| | 72. Front bearing retainer | | 82. Oil guide |
| ▶F◀ | 73. Front bearing retainer gasket | | 83. Mainshaft front bearing |
| ▶E◀ | 74. Oil seal | | 84. Synchronizer ring |
| ▶C◀ | 75. Spacer | | 85. Countershaft |
| | 76. Spacer | | 86. 3rd-4th speed shift fork |
| | 77. Countershaft front bearing outer race | | 87. Mainshaft |
| | | | 88. Transmission case |

**DISASSEMBLY SERVICE POINTS****◀A▶ EXTENSION HOUSING OR TRANSFER ADAPTER REMOVAL**

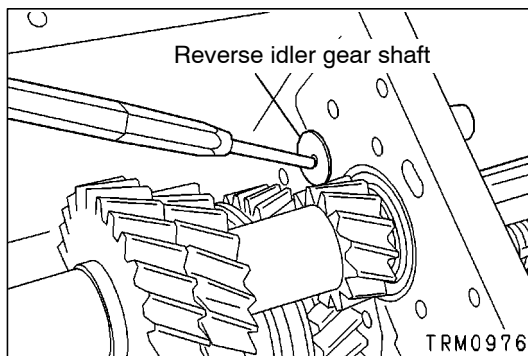
- (1) Turn the control shaft to the counterclockwise and remove the control finger from the groove in the shift lug, then remove the extension housing or the transfer adapter from the transmission case.

**◀B▶ MAINSHAFT LOCK NUT REMOVAL**

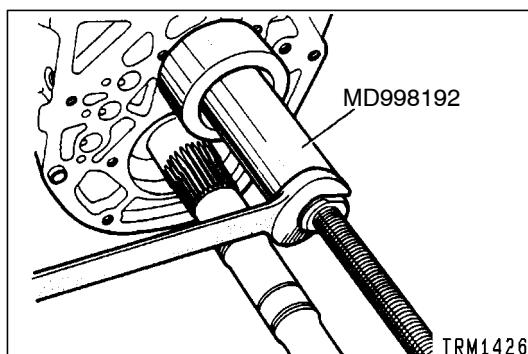
- (1) Use the special tool to remove the lock nut.

**◀C▶ BEARING SLEEVE REMOVAL**

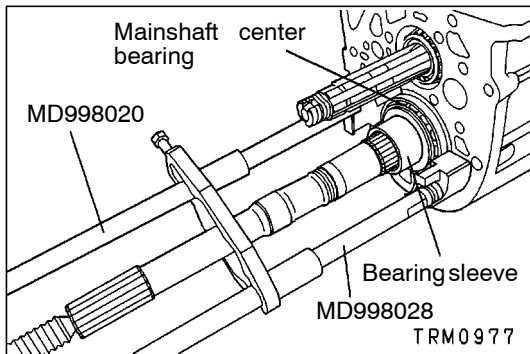
- (1) Use the special tools to remove the bearing sleeve.

**◀D▶ REVERSE IDLER GEAR SHAFT REMOVAL**

- (1) Use the special tool to remove the reverse idler gear shaft.

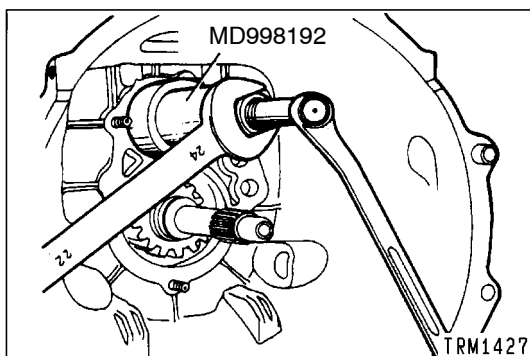
**◀E▶ COUNTERSHAFT CENTER BEARING REMOVAL**

- (1) Use the special tool to remove the countershaft center bearing.



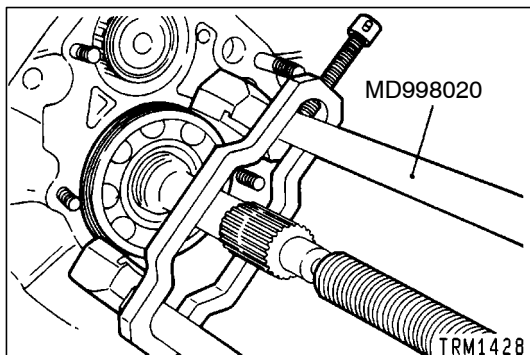
◀F▶ MAINSHAFT CENTER BEARING REMOVAL

- (1) Use the special tools to remove the mainshaft center bearing and bearing sleeve.



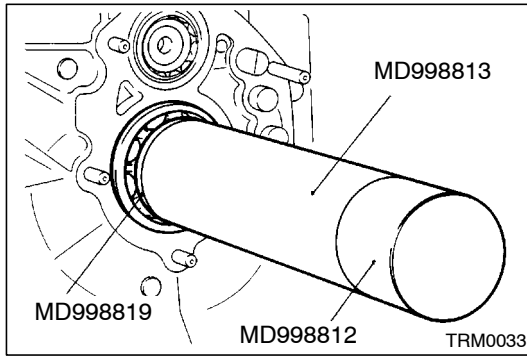
◀G▶ COUNTERSHAFT FRONT BEARING REMOVAL

- (1) Use the special tool to remove the countershaft front bearing.



◀H▶ MAINDRIVE GEAR BEARING REMOVAL

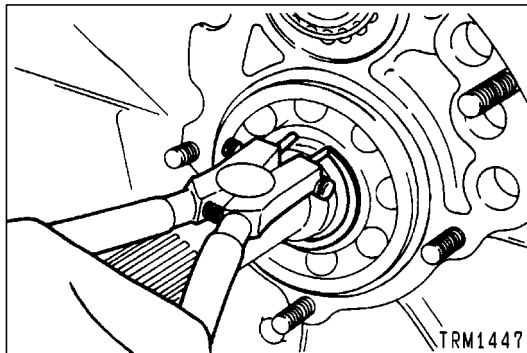
- (1) Use the special tool to remove the maindrive gear bearing.



REASSEMBLY SERVICE POINTS

▶A◀ MAINDRIVE GEAR BEARING INSTALLATION

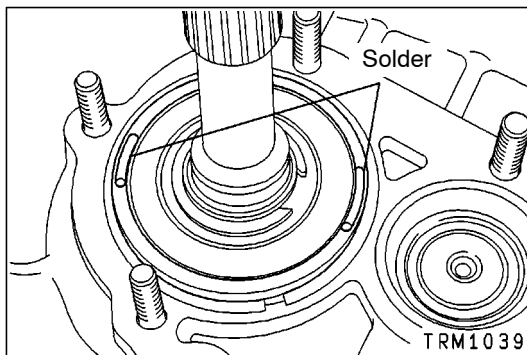
- (1) Use the special tool to install the maindrive gear bearing.



▶B◀ SNAP RING INSTALLATION

- (1) Select and install snap ring so that maindrive gear bearing end play reaches the standard value.

Standard value: 0 - 0.06 mm

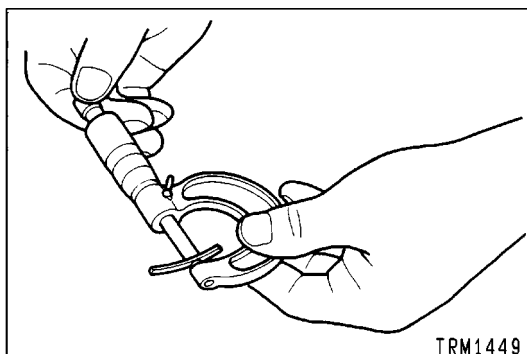


▶C◀ SPACER INSTALLATION

- (1) Place two pieces of solder measuring about 10 mm in length and 1.6 mm in diameter on the bearing outer race as shown in the illustration.
- (2) Install the front bearing retainer and tighten the nuts to the specified torque.
- (3) Remove the front bearing retainer and solder.

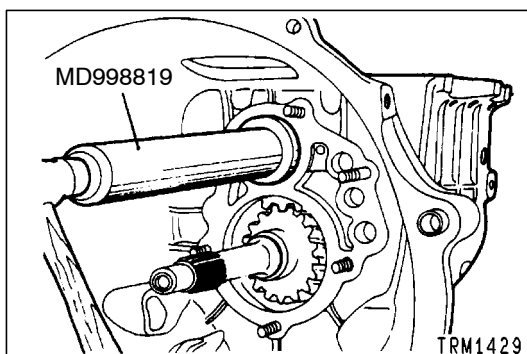
NOTE

If the solder wire 1.6 mm diameter have not crushed, use the one with 3 mm diameter.



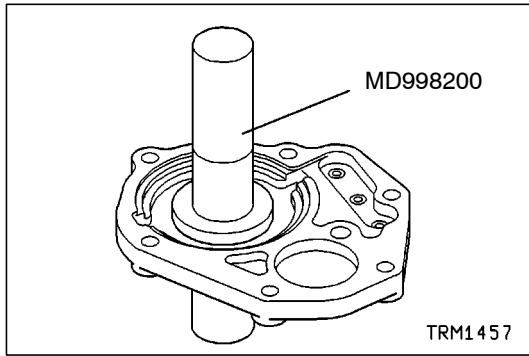
- (4) Measure the thickness of the crushed solder with a micrometer and select and install a spacer of thickness that gives standard end play.

Standard value: 0 - 0.1 mm



▶D◀ COUNTERSHAFT FRONT BEARING INSTALLATION

- (1) Use the special tool to install the countershaft front bearing.

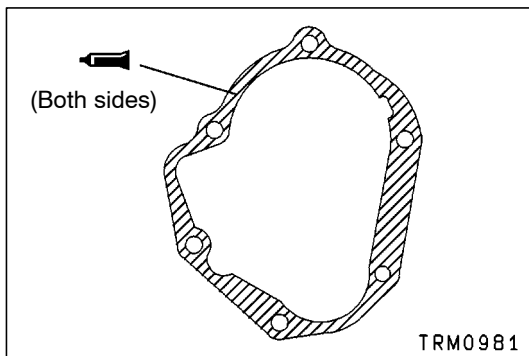


▶E◀ OIL SEAL INSTALLATION

- (1) After applying grease to the oil seal lips, use the special tool to install the oil seal.

Specified grease:

Mitsubishi genuine grease Part No. 0101011 or equivalent

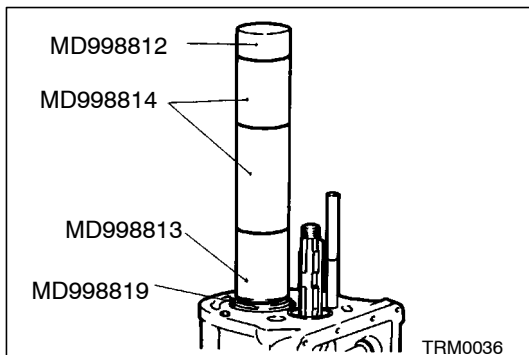


▶F◀ FRONT BEARING RETAINER GASKET INSTALLATION

- (1) After applying sealant to the front bearing retainer gasket.

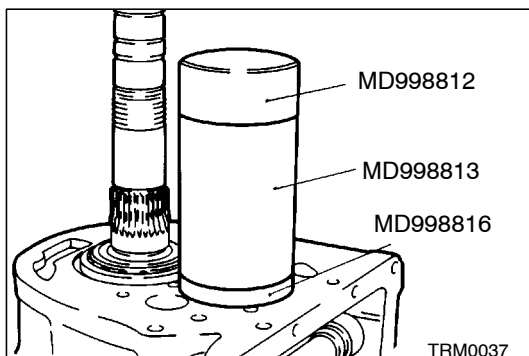
Specified sealant:

Mitsubishi genuine sealant Part No. 997740 or equivalent



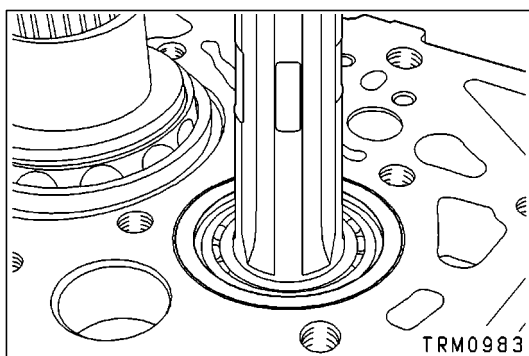
▶G◀ MAINSHAFT CENTER BEARING INSTALLATION

- (1) Use the special tools to install the mainshaft center bearing.



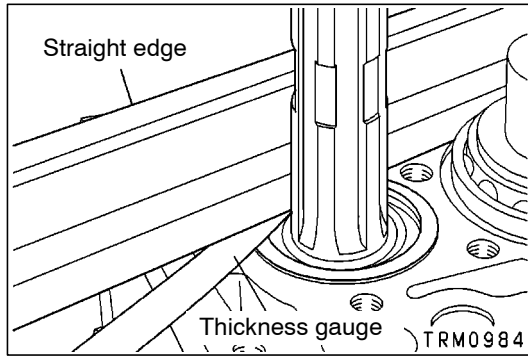
▶H◀ COUNTERSHAFT CENTER BEARING INSTALLATION

- (1) Use the special tools to install the countershaft center bearing.



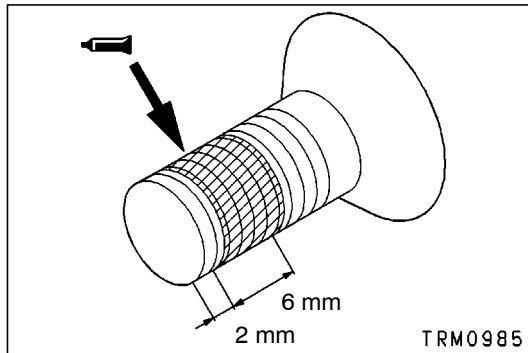
▶I◀ SPACER INSTALLATION

- (1) Press the outer race and counter gear in positively.



- (2) Install the selective spacer and use a straight edge.
- (3) Select an appropriate, spacer to obtain the standard value.

Standard value: 0 - 0.05 mm

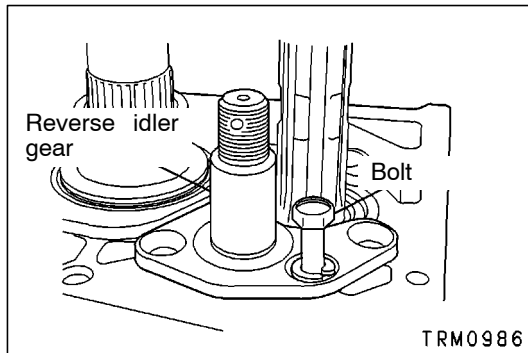


▶J◀ BOLT INSTALLATION

- (1) Apply sealant to the bolt beforehand.

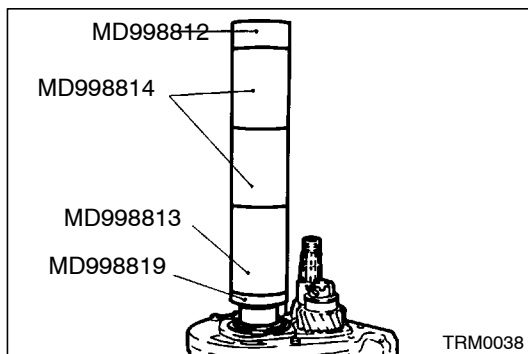
Specified sealant:

Mitsubishi genuine sealant Part No. 997740 or equivalent



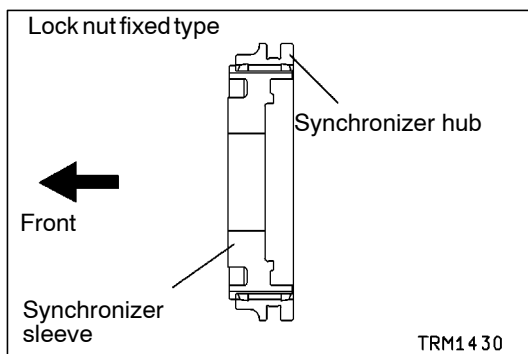
▶K◀ REVERSE IDLER GEAR SHAFT INSTALLATION

- (1) Use the bolt (M8 × 50 mm) as a guide to install the reverse idler gear shaft.



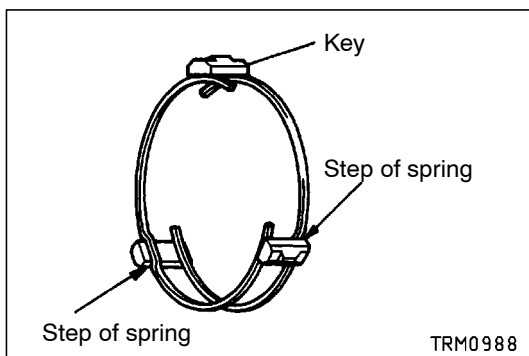
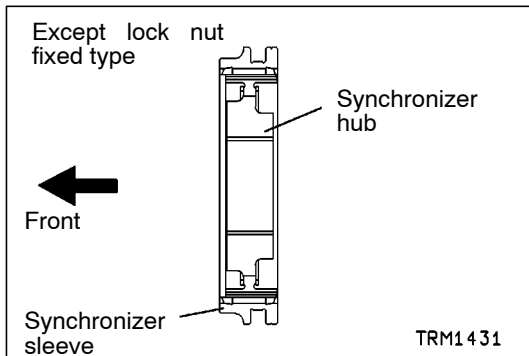
▶L◀ BEARING SLEEVE INSTALLATION

- (1) Use the special tools to install the bearing sleeve.



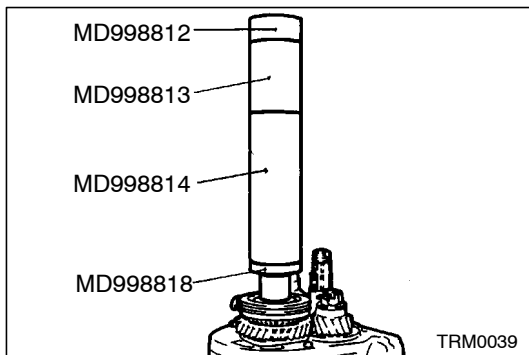
▶M◀ OD-R SYNCHRONIZER HUB / OD-R SYNCHRONIZER SLEEVE INSTALLATION

- (1) Install the OD-R synchronizer hub and OD-R synchronizer sleeve in the indicated direction.



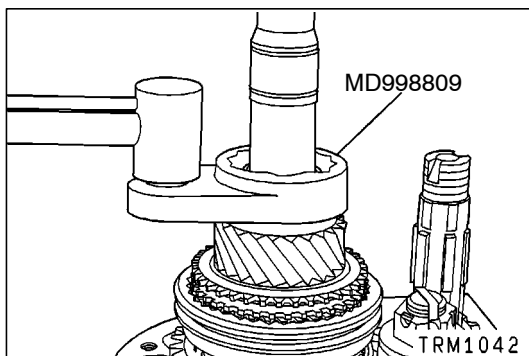
▶N◀ SYNCHRONIZER KEY / SYNCHRONIZER SPRING INSTALLATION

- (1) When installing spring, make sure that steps of front and rear spring are positioned on synchronizer key, but not on the same key.



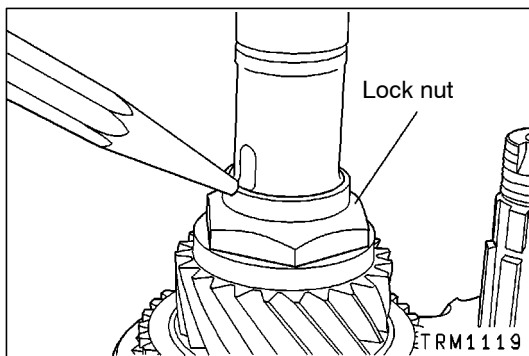
▶O◀ BEARING SLEEVE INSTALLATION

- (1) Use the special tools to install the bearing sleeve.

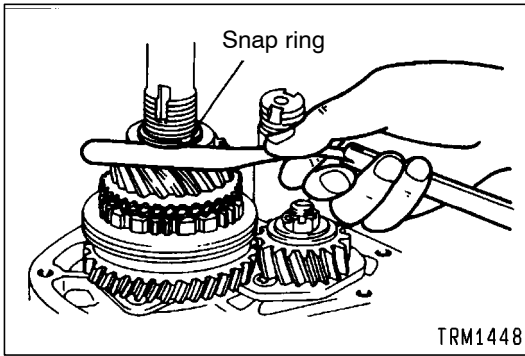


▶P◀ MAINSHAFT LOCK NUT INSTALLATION

- (1) Use the special tool to tighten the mainshaft lock nut.



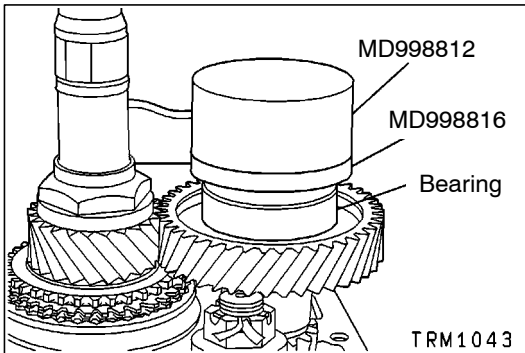
- (2) Stake the lock nut as shown in the illustration.



►Q◄ SNAP RING INSTALLATION

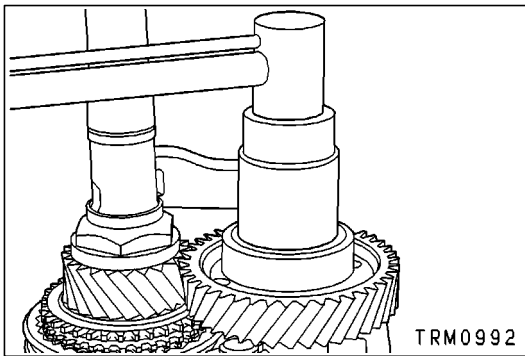
- (1) Select and install snap ring so that overdrive gear end play reaches the standard value.

Standard value: 0.15 - 0.40 mm



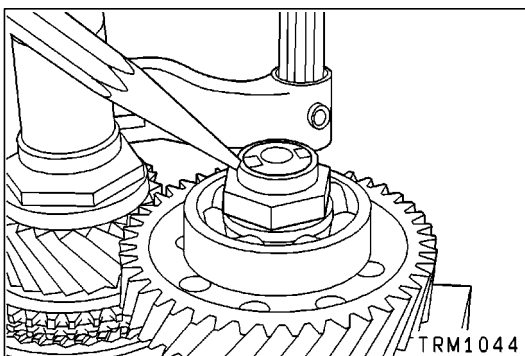
►R◄ COUNTERSHAFT REAR BEARING INSTALLATION

- (1) Use the special tools to install the countershaft rear bearing.

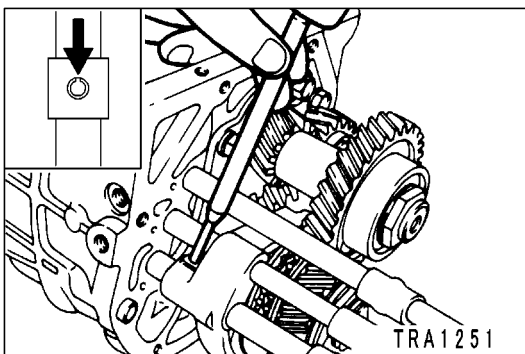


►S◄ COUNTERSHAFT LOCK NUT INSTALLATION

- (1) Tighten the countershaft lock nut.

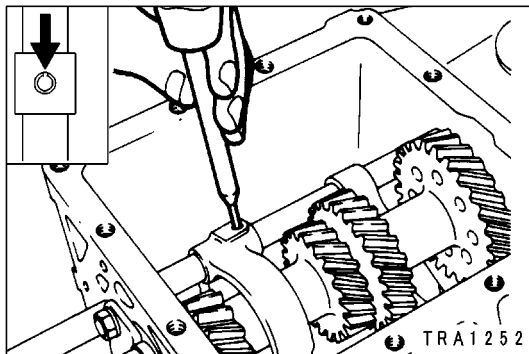


- (2) Stake the lock nut as shown in the illustration.



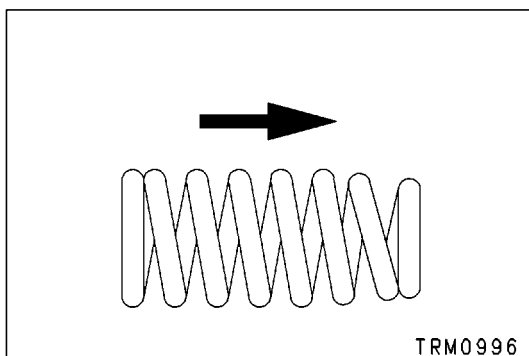
►T◄ SPRING PIN INSTALLATION

- (1) Drive in the spring pin in such a way that its slit is oriented as shown.



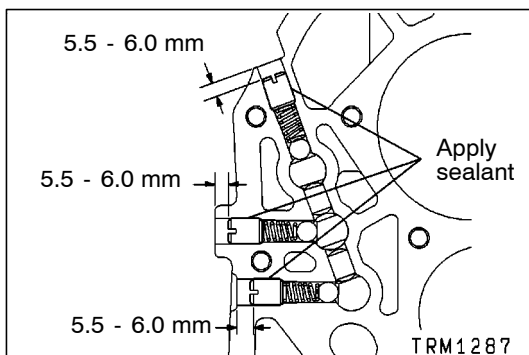
►U◄ **SPRING PIN INSTALLATION**

- (1) Drive in the spring pin in such a way that its slit is oriented as shown.



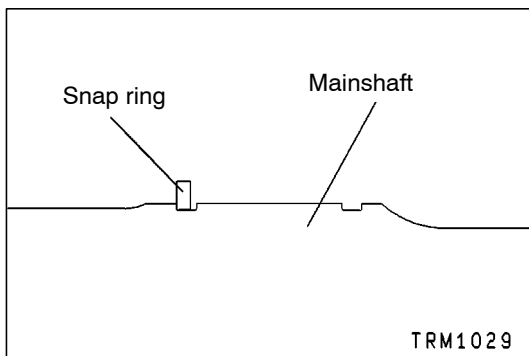
►V◄ **STEEL BALL / POPPET SPRING INSTALLATION**

- (1) Insert the poppet spring with small end on ball side. Three springs are identical to one another.



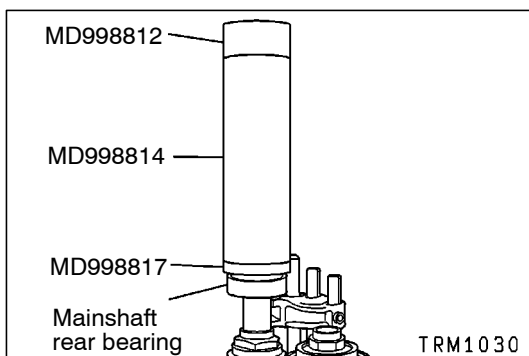
- (2) Apply sealant to the poppet plug.

Specified sealant:
3M ATD Part No. 8660 or equivalent

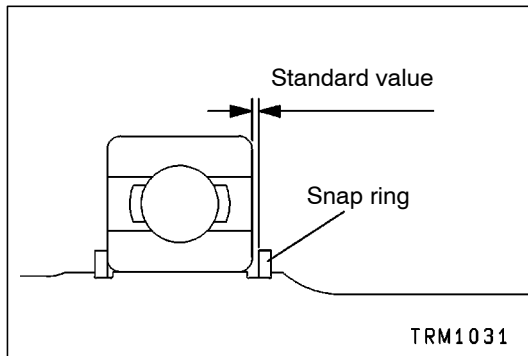


►W◄ **SNAP RING INSTALLATION**

- (1) Install a snap ring of the same size as having been used.



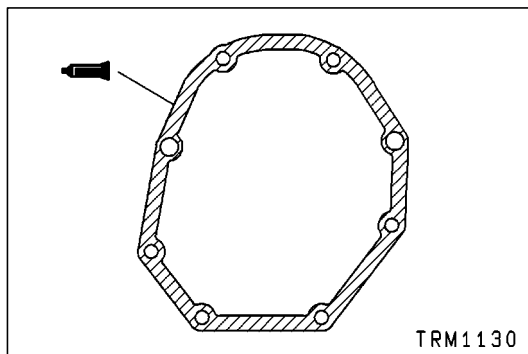
- (2) Use the special tools to install the mainshaft rear bearing.



- (3) Select and install a snap ring with which the mainshaft rear bearing clearance can be adjusted to standard value.

Standard value: 0 - 0.13 mm

- (4) If neither of snap rings can adjusted the mainshaft rear bearing clearance to the standard value, repeat the steps (2) and (3) after replacing the snap ring installed in step (1) with one having a different size.

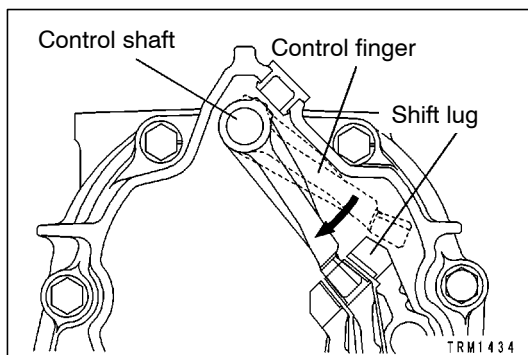


►X◄ EXTENSION HOUSING GASKET INSTALLATION

- (1) After applying sealant to the extension housing gasket.

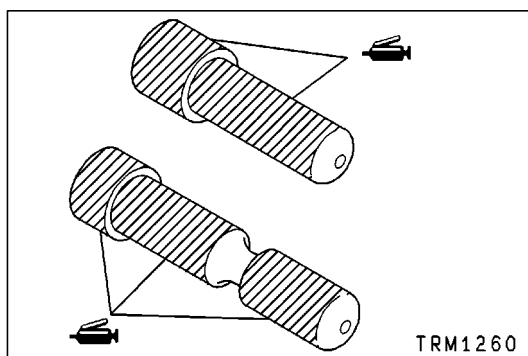
Specified sealant:

Mitsubishi genuine sealant Part No. 997740 or equivalent



►Y◄ EXTENSION HOUSING OR TRANSFER ADAPTER INSTALLATION

- (1) Turn the control shaft to the counterclockwise and install the extension housing or transfer adapter.
- (2) Turn the control shaft to the clockwise and insert the control finger in the groove of the shift lug.

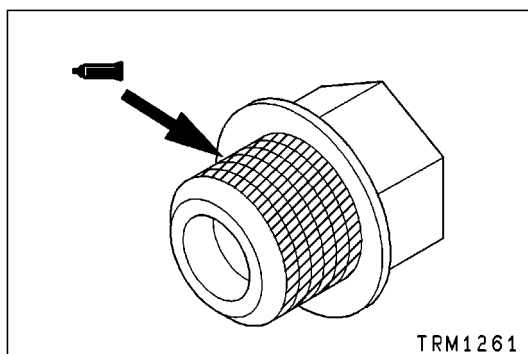


►Z◄ NEUTRAL PLUNGER A AND B INSTALLATION

- (1) Apply grease to the sliding surfaces of the neutral plungers before installation.

Specified grease:

Mitsubishi genuine grease Part No. 0101011 or equivalent



►a◄ SEAL PLUG INSTALLATION

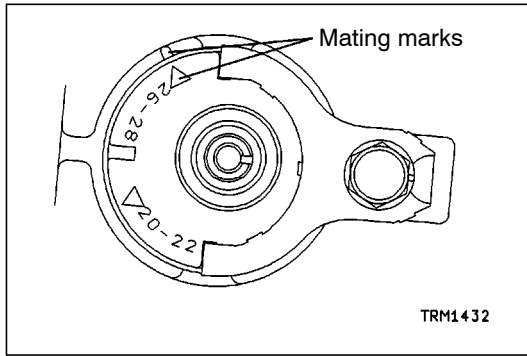
- (1) Apply sealant to the threaded area of the seal plug before tightening to specified torque.

Specified sealant:

3M ATD Part No. 8660 or equivalent

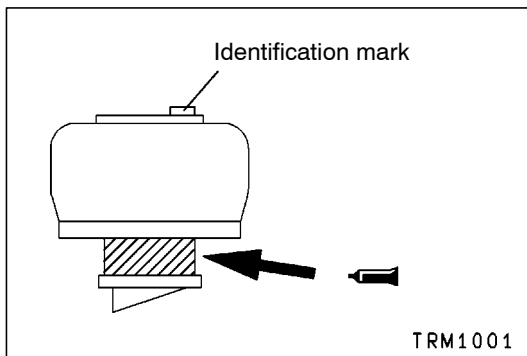
NOTE

Ensure that any old sealant still adhering to the seal plug is fully removed.



►b◄ **SPEEDOMETER GEAR INSTALLATION**

- (1) Match the mating marks to the number of teeth.



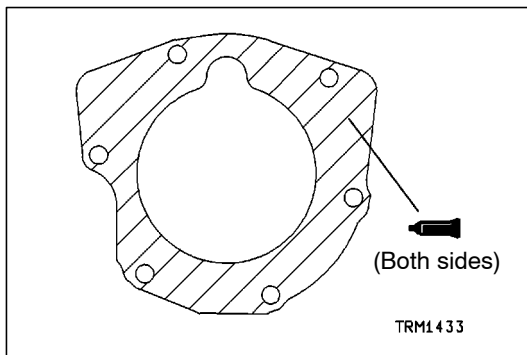
►c◄ **AIR BREATHER INSTALLATION**

- (1) Apply sealant to the air breather.

Specified sealant:

3M Super Weatherstrip No. 8001 or equivalent

- (2) Install the breather with the identification mark toward the rear.

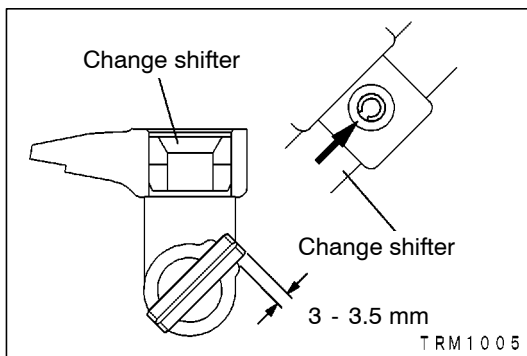


►d◄ **ADAPTER GASKET INSTALLATION**

- (1) After applying sealant to the adapter gasket.

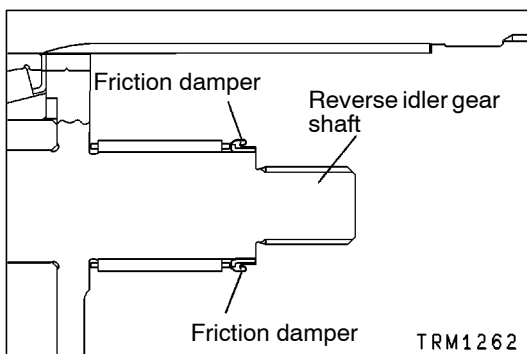
Specified sealant:

Mitsubishi genuine sealant Part No. 997740 or equivalent



►e◄ **SPRING PIN INSTALLATION**

- (1) Drive in the spring pin in such a way that its slit is oriented as shown.

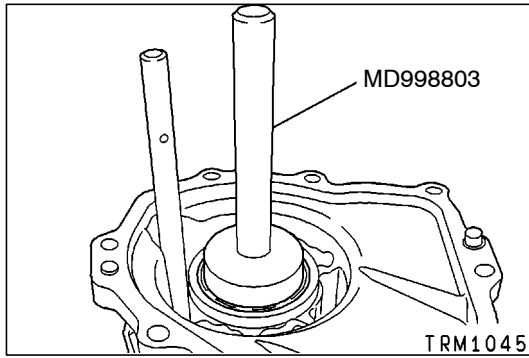


►f◄ **FRICION DAMPER INSTALLATION**

- (1) Install the friction damper in the illustrated direction. After installation, apply grease to the surfaces brought into contact with the reverse idler gear.

Specified grease:

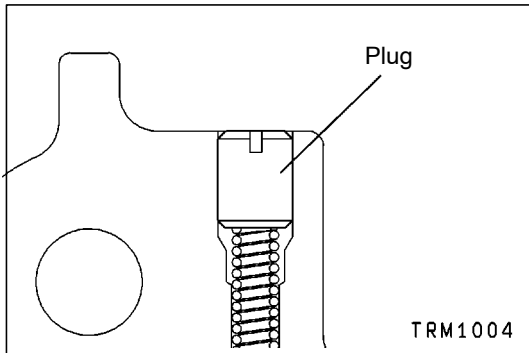
Mitsubishi genuine grease Part No. 0101011 or equivalent

**▶g◀ OIL SEAL INSTALLATION**

- (1) After applying grease to the oil seal lips, use the special tool to install the oil seal.

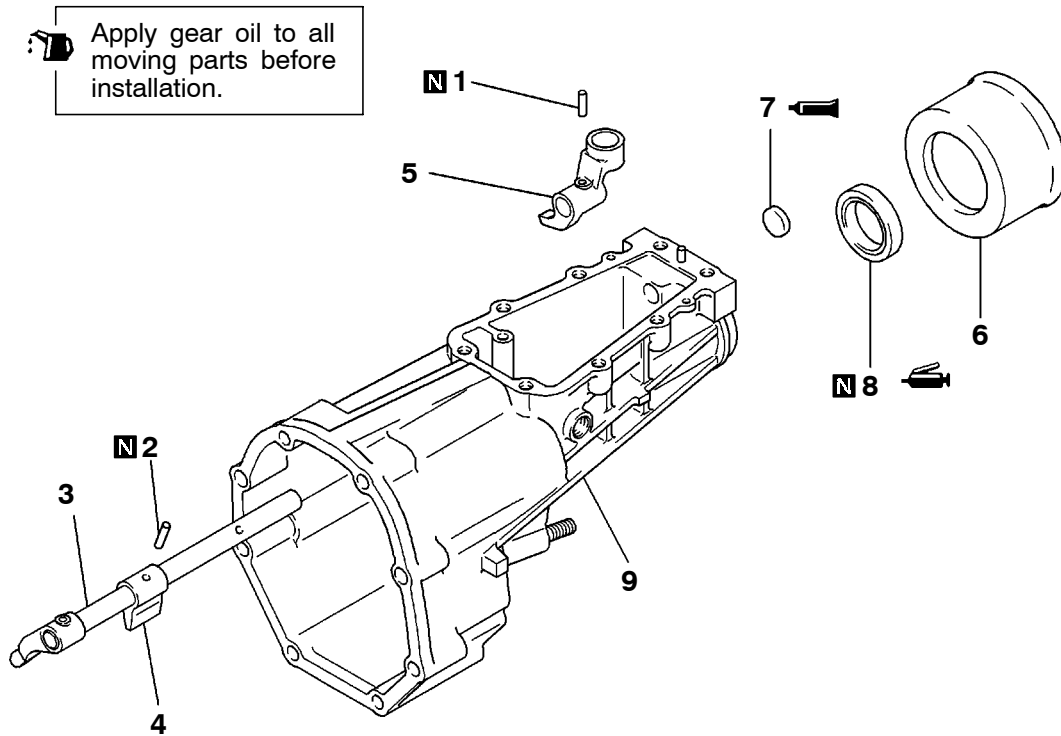
Specified grease:

Mitsubishi genuine grease Part No. 0101011 or equivalent

**▶h◀ PLUG INSTALLATION**

- (1) Screw in the plug until end is flush with the end face of the transfer case adapter.

4. EXTENSION HOUSING



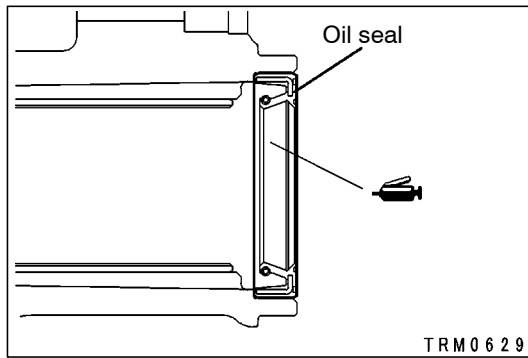
TRM1417

Disassembly steps

1. Lock pin
2. Lock pin
3. Control finger and control shaft
4. Neutral return finger
5. Change shifter



6. Dust seal guard
7. Control shaft cap
8. Oil seal
9. Extension housing



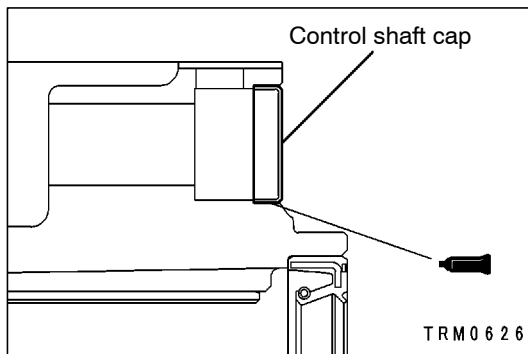
REASSEMBLY SERVICE POINTS

▶A◀ OIL SEAL INSTALLATION

- (1) After installation, pack grease between the lips of the oil seal.

Specified grease:

Mitsubishi genuine grease Part No. 0101011 or equivalent



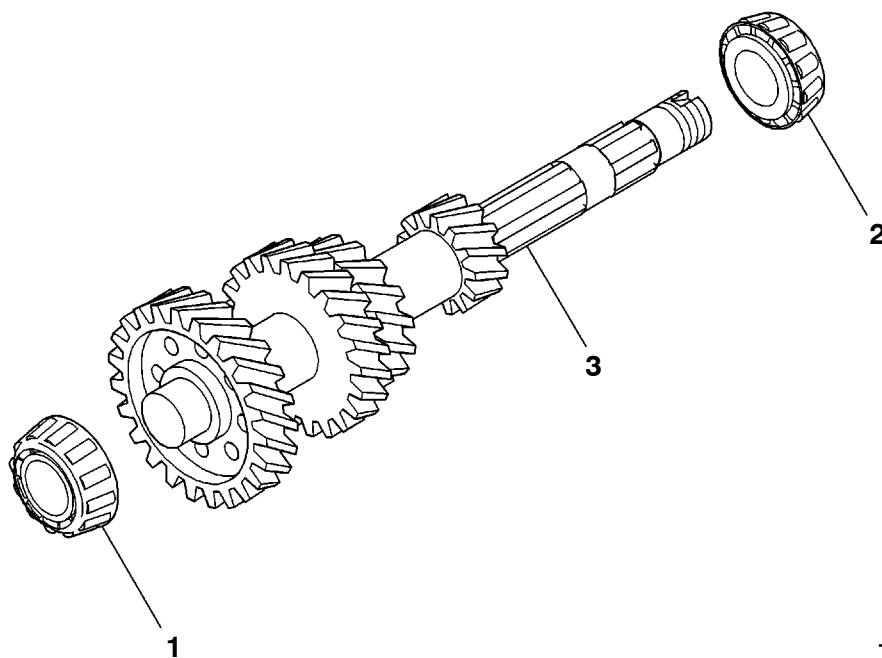
▶B◀ CONTROL SHAFT CAP INSTALLATION

- (1) Apply sealant the entire circumference of the control shaft cap end press in the cap until it becomes flat with the extension housing.

Specified sealant:

3M ATD Part No. 8660 or equivalent

5. COUNTERSHAFT



TRM1025

Disassembly steps

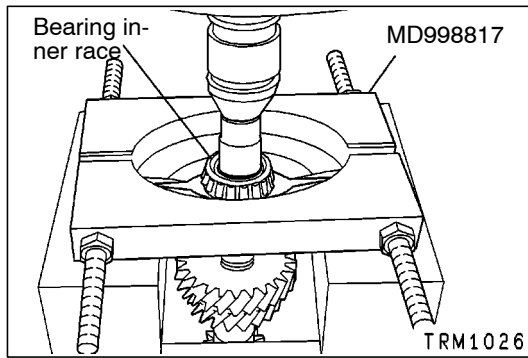


1. Countershaft front bearing inner race

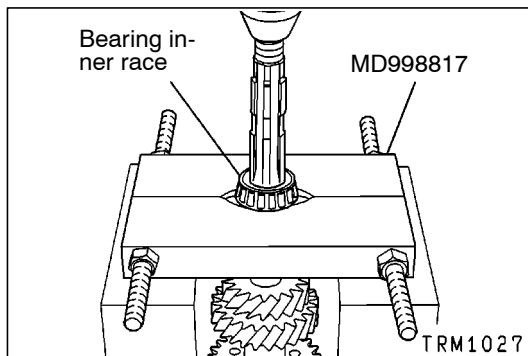
3. Countershaft gear



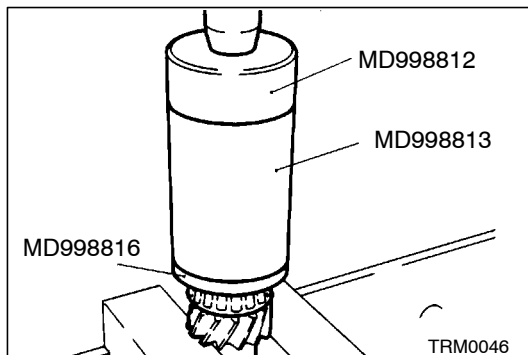
2. Countershaft center bearing inner race

**DISASSEMBLY SERVICE POINTS****◀A▶ COUNTERSHAFT FRONT BEARING INNER RACE REMOVAL**

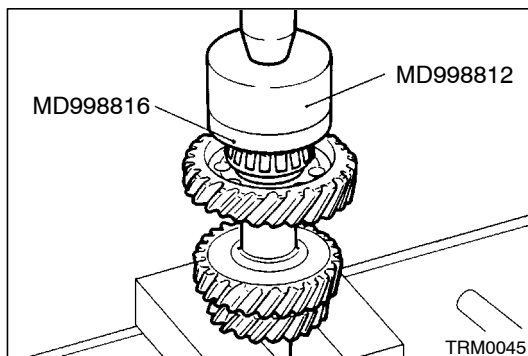
- (1) Use the special tool to remove the Countershaft front bearing inner race.

**◀B▶ COUNTERSHAFT CENTER BEARING INNER RACE REMOVAL**

- (1) Use the special tool to remove the Countershaft center bearing inner race.

**REASSEMBLY SERVICE POINTS****▶A◀ COUNTERSHAFT CENTER BEARING INNER RACE INSTALLATION**

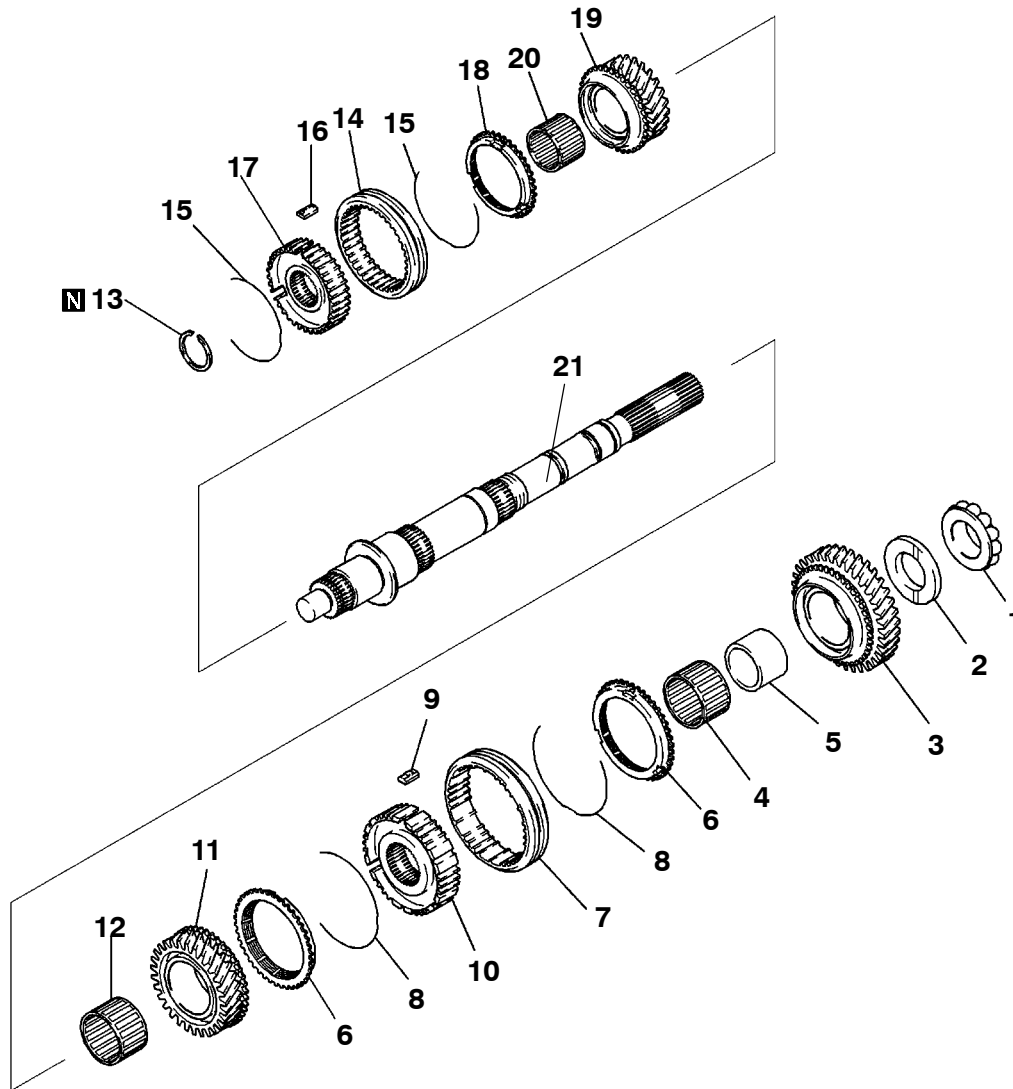
- (1) Use the special tools to install the Countershaft center bearing inner race.

**▶B◀ COUNTERSHAFT FRONT BEARING INNER RACE REMOVAL**

- (1) Use the special tools to install the Countershaft front bearing inner race.

6. MAINSHAFT

R5M21



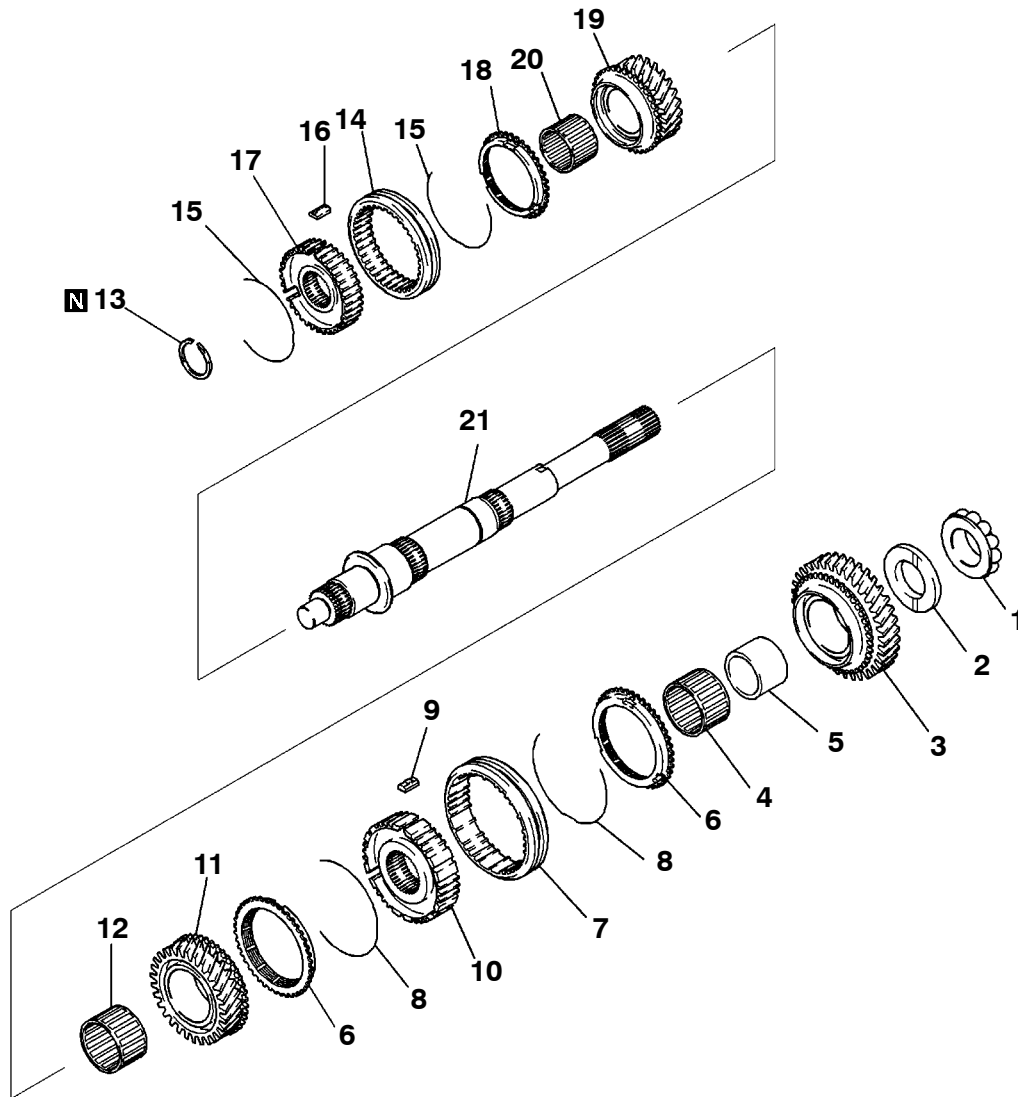
TRM1419

Disassembly steps

- ◀A▶ ▶F▶ 1. Ball bearing inner race (double row ball bearing)
- 2. Spacer (single raw ball bearing)
- 3. 1st speed gear
- 4. Needle bearing
- ◀B▶ ▶E▶ 5. Bearing sleeve
- ▶D▶ 6. Synchronizer ring
- ▶B▶ 7. 1st-2nd speed synchronizer sleeve
- ▶B▶ 8. Synchronizer spring
- ▶B▶ 9. Synchronizer key
- 10. 1st-2nd speed synchronizer hub

- ▶C▶ 11. 2nd speed gear
- ▶A▶ 12. Needle bearing
- ▶B▶ 13. Snap ring
- ▶B▶ 14. 3rd-4th speed synchronizer sleeve
- ▶A▶ 15. Synchronizer spring
- ▶B▶ 16. Synchronizer key
- ▶A▶ 17. 3rd-4th speed synchronizer hub
- 18. Synchronizer ring
- 19. 3rd speed gear
- 20. Needle bearing
- 21. Mainshaft

V5M21 (1ST-2ND SINGLE SYNCHRONIZER RING TYPE)



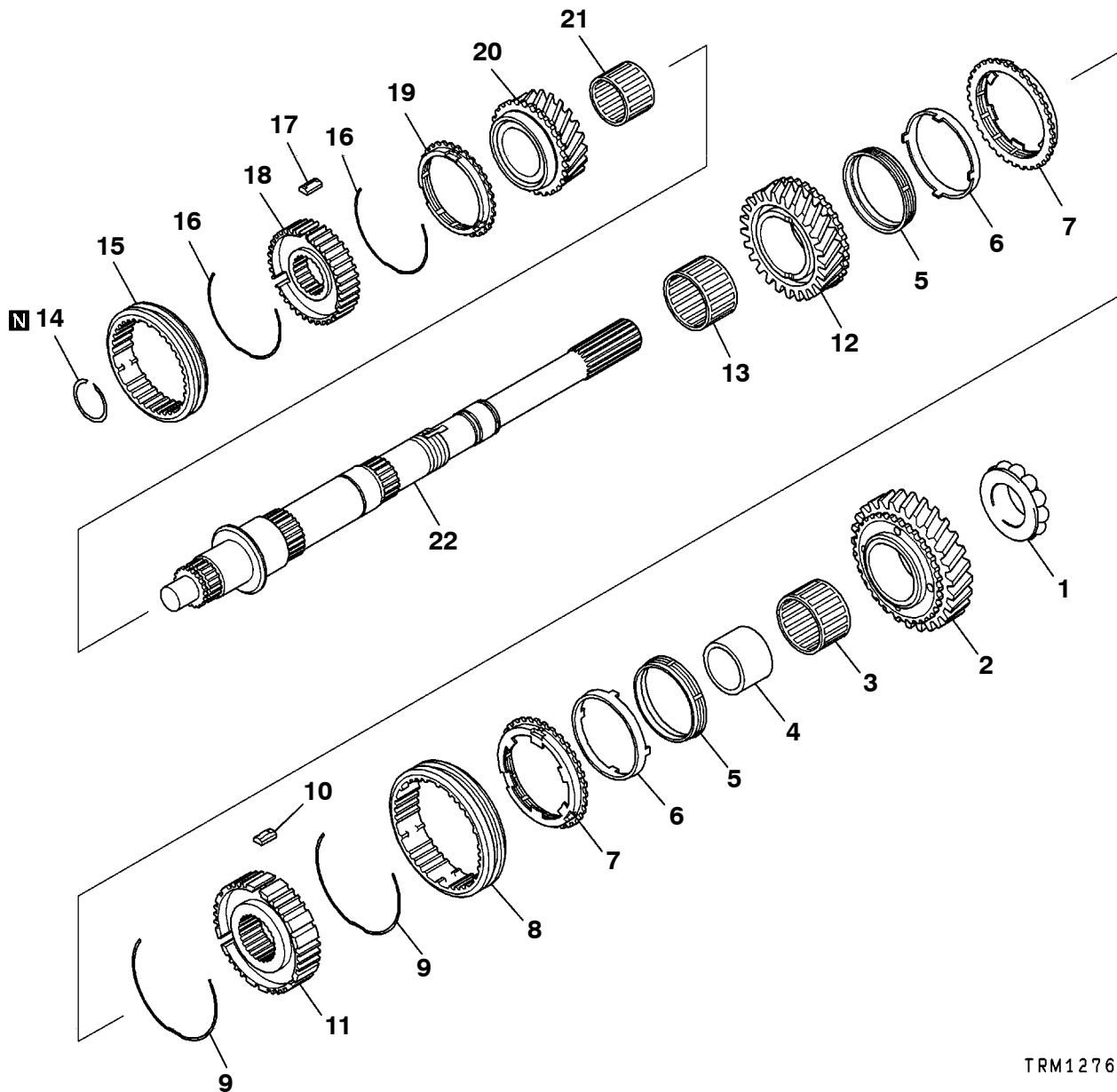
TRM1418

Disassembly steps

- ◀A▶ ▶F▶ 1. Ball bearing inner race (double row ball bearing)
- 2. Spacer (single row ball bearing)
- 3. 1st speed gear
- 4. Needle bearing
- ▶B▶ ▶E▶ 5. Bearing sleeve
- ▶D▶ 6. Synchronizer ring
- ▶B▶ 7. 1st-2nd speed synchronizer sleeve
- ▶B▶ 8. Synchronizer spring
- ▶B▶ 9. Synchronizer key
- 10. 1st-2nd speed synchronizer hub

- ▶C▶ 11. 2nd speed gear
- ▶A▶ 12. Needle bearing
- ▶B▶ 13. Snap ring
- ▶B▶ 14. 3rd-4th speed synchronizer sleeve
- ▶A▶ 15. Synchronizer spring
- ▶B▶ 16. Synchronizer key
- ▶A▶ 17. 3rd-4th speed synchronizer hub
- 18. Synchronizer ring
- 19. 3rd speed gear
- 20. Needle bearing
- 21. Mainshaft

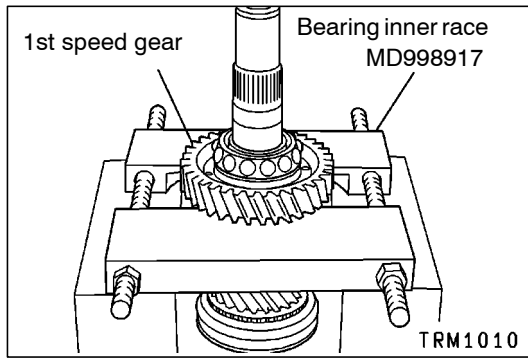
V5M21 (1ST-2ND DOUBLE SYNCHRONIZER RING TYPE)



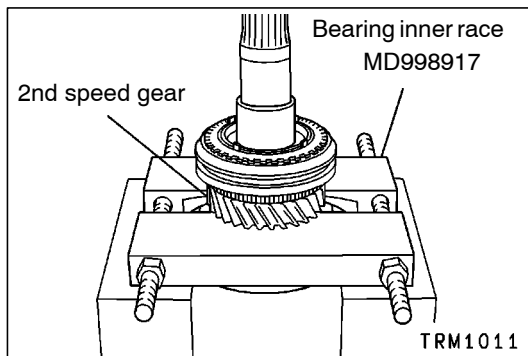
TRM1276

Disassembly steps

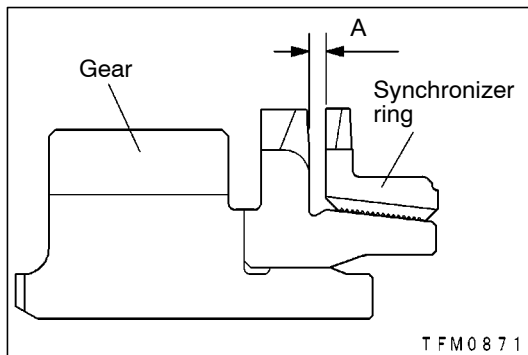
- | | | | |
|---------|--------------------------------------|-----|---------------------------------------|
| ◀A▶ ▶F▶ | 1. Ball bearing inner race | ▶C▶ | 12. 2nd speed gear |
| | 2. 1st speed gear | ▶A▶ | 13. Needle bearing |
| | 3. Needle bearing | ▶B▶ | 14. Snap ring |
| ◀B▶ ▶E▶ | 4. Bearing sleeve | ▶B▶ | 15. 3rd-4th speed synchronizer sleeve |
| | 5. Synchronizer inner ring | ▶A▶ | 16. Synchronizer spring |
| | 6. Synchronizer cone | | 17. Synchronizer key |
| | 7. Synchronizer outer ring | | 18. 3rd-4th speed synchronizer hub |
| ▶D▶ | 8. 1st-2nd speed synchronizer sleeve | | 19. Synchronizer ring |
| ▶B▶ | 9. Synchronizer spring | | 20. 3rd speed gear |
| ▶B▶ | 10. Synchronizer key | | 21. Needle bearing |
| | 11. 1st-2nd speed synchronizer hub | | 22. Mainshaft |

**DISASSEMBLY SERVICE POINTS****◀A▶ BALL BEARING INNER RACE REMOVAL**

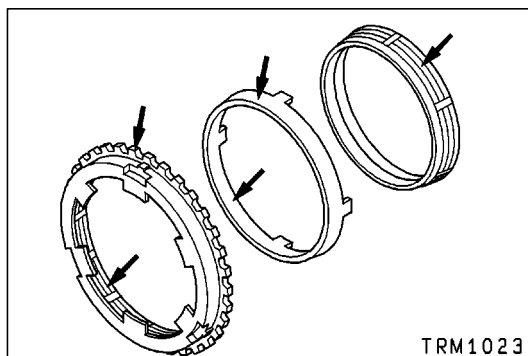
- (1) Support the 1st speed gear on the special tool as illustrated.
- (2) Remove the ball bearing inner race using a press.

**◀B▶ BEARING SLEEVE REMOVAL**

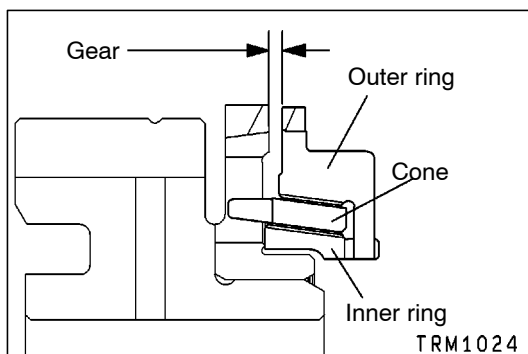
- (1) Support the 2nd speed gear on the special tool as illustrated.
- (2) Remove the bearing sleeve using a press.

**INSPECTION****SYNCHRONIZER RING**

- (1) Check the synchronizer ring for worn and damaged internal threads.
- (2) With synchronizer assembled to cone of each gear, check dimension "A". If dimension "A" exceeds the limit, replace the synchronizer ring and/or gear.

Limit: 0.5 mm**OUTER SYNCHRONIZER RING / INNER SYNCHRONIZER RING / SYNCHRONIZER CONE**

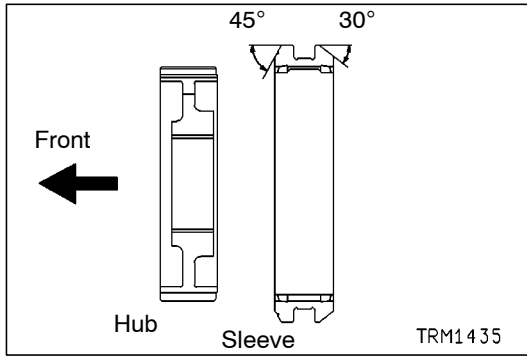
- (1) Check to ensure that the clutch gear tooth surfaces and cone surfaces are not damaged and broken.



- (2) Install the outer ring, inner ring and cone, press them against the gear, and check clearance "A". If "A" is less than the limit, replace.

Limit: 0.3 mm**Caution**

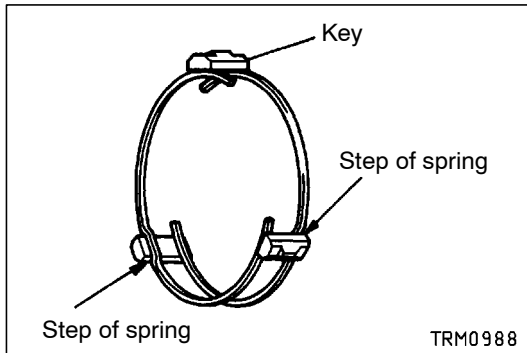
When any of the outer ring, inner ring or cone has to be replaced, replace them as a set.



REASSEMBLY SERVICE POINTS

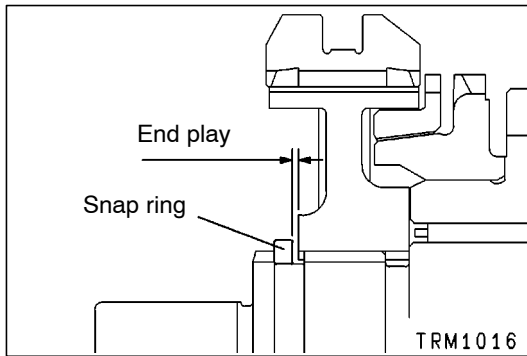
▶A◀ 3RD-4TH SPEED SYNCHRONIZER SLEEVE / 3RD-4TH SPEED SYNCHRONIZER HUB INSTALLATION

- (1) Assemble the synchronizer hub and sleeve. Make sure that the hub and sleeve slide smoothly.



▶B◀ SYNCHRONIZER KEY / SYNCHRONIZER SPRING INSTALLATION

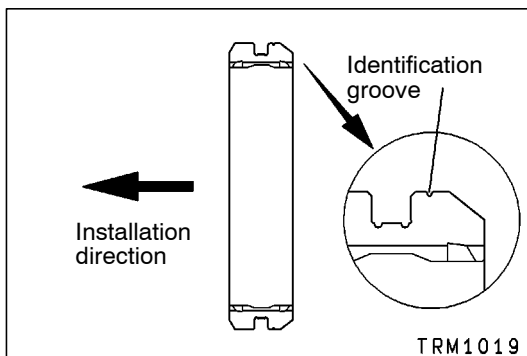
- (1) Install two synchronizer springs. When installing springs, make sure that steps of front and rear springs are positioned on a synchronizer key, but not on the same key.



▶C◀ SNAP RING INSTALLATION

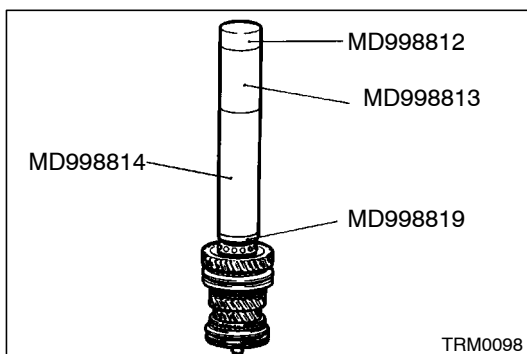
- (1) Select and install the snap ring so that the synchronizer hub end play may reach the standard value.

Standard value: 0 - 0.08 mm



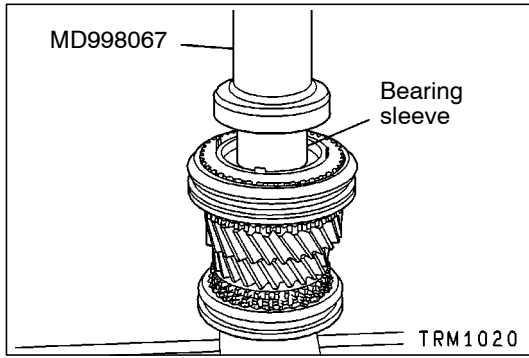
▶D◀ 1ST-2ND SPEED SYNCHRONIZER SLEEVE INSTALLATION

- (1) Install the synchronizer sleeve in the illustrated direction.



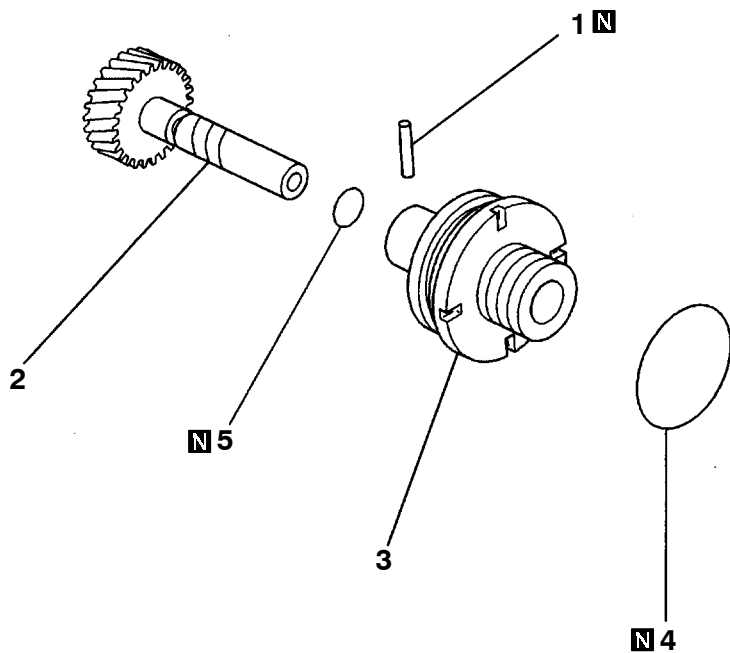
▶E◀ BALL BEARING INNER RACE INSTALLATION

- (1) Use the special tools to install the bearing sleeve.

**▶F◀ BEARING SLEEVE INSTALLATION**

- (1) Use the special tool to install the bearing sleeve.

7. SPEEDOMETER GEAR



Apply gear oil to all moving parts before installation.

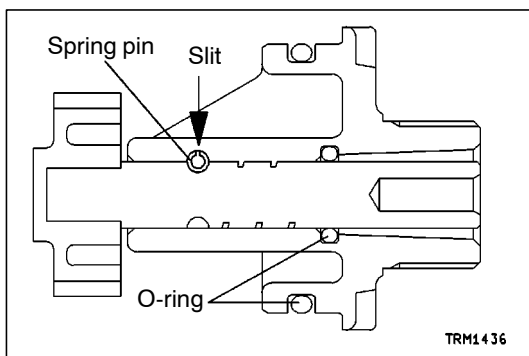
TRM1420

Disassembly Steps



1. Spring pin
2. Driven gear
3. Sleeve

4. O-ring
5. O-ring



TRM1436

REASSEMBLY SERVICE POINT

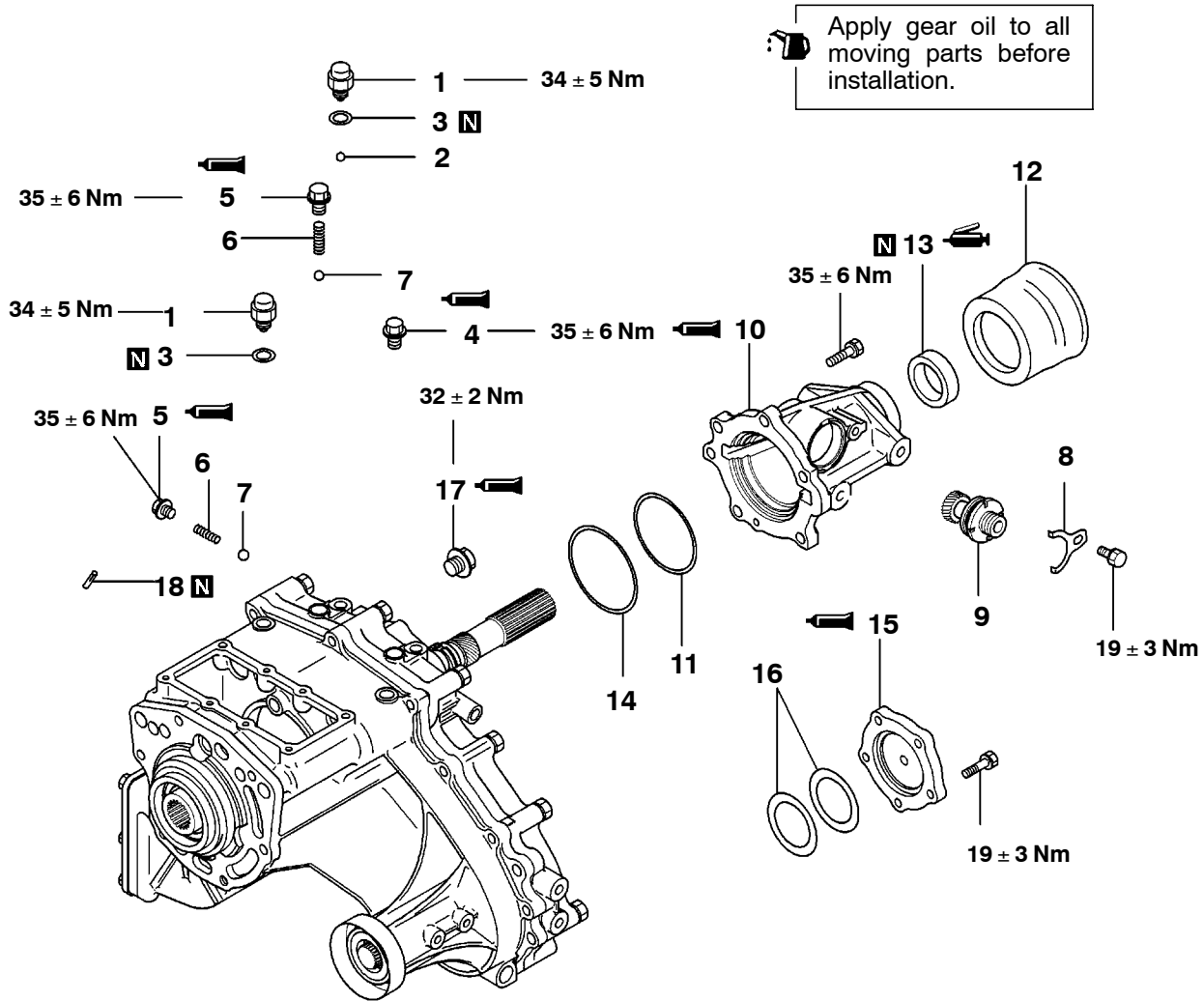
▶A◀ SPRING PIN INSTALLATION

- (1) Drive the spring pin in, while making sure that slit does not face gear shaft.

NOTES

8. TRANSFER <V5M21-9>

<LHD>



TRM1412

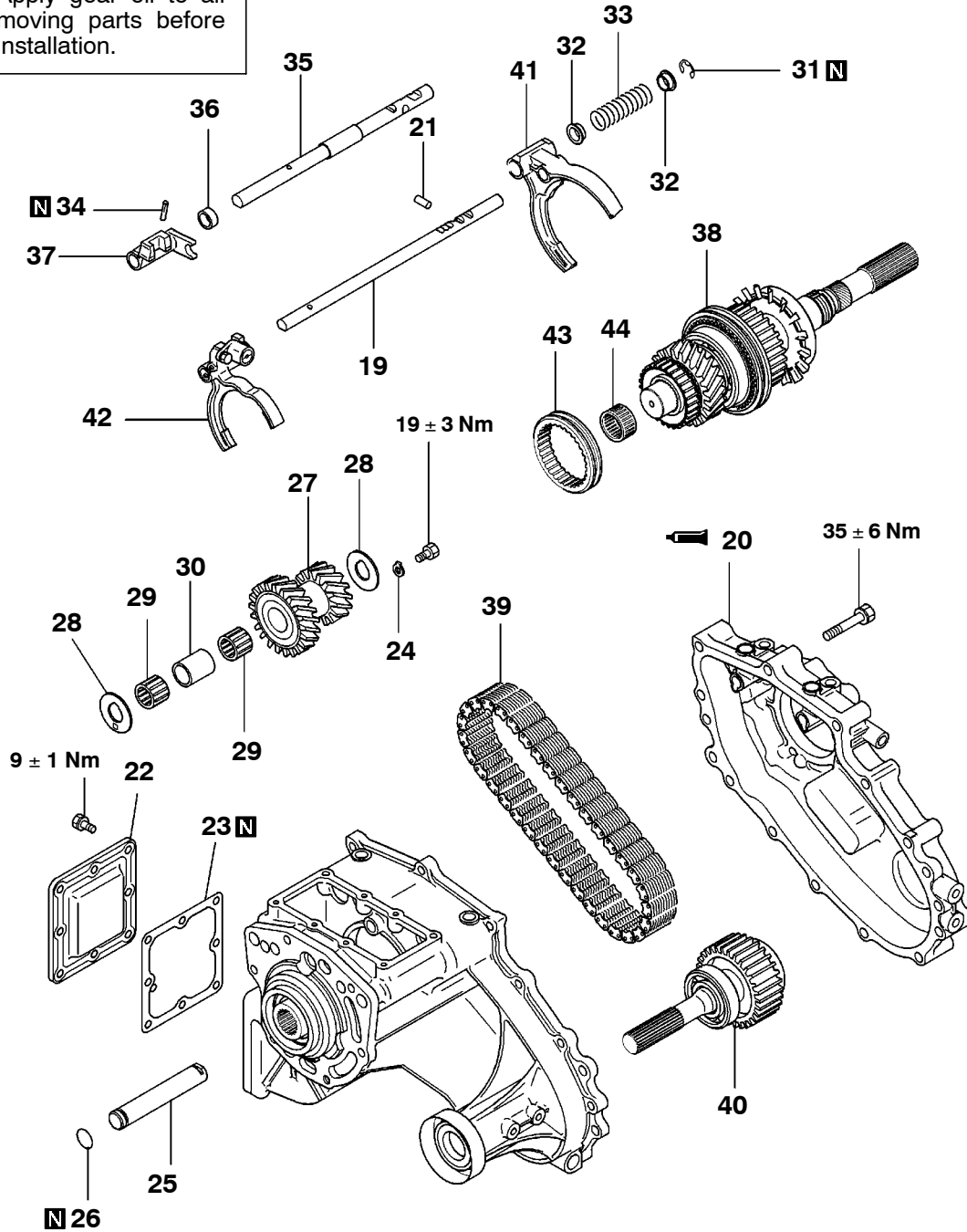
Disassembly steps

- ▶Q◀ 1. Detection switch
- ▶P◀ 2. Steel ball
- ▶O◀ 3. Gasket
- ▶P◀ 4. Plug
- ▶O◀ 5. Poppet plug
- ▶O◀ 6. Poppet spring
- ▶O◀ 7. Steel ball
- ▶O◀ 8. Sleeve clamp
- ▶N◀ 9. Speedometer gear

- ▶M◀ 10. Rear cover
- ▶M◀ 11. Spacer
- ▶L◀ 12. Dust seal guard
- ▶L◀ 13. Oil seal
- ▶L◀ 14. Snap ring
- ▶K◀ 15. Cover
- ▶K◀ 16. Wave spring
- ▶J◀ 17. H-L shift rail plug
- ▶J◀ 18. Spring pin for H-L shift fork

<LHD>

Apply gear oil to all moving parts before installation.




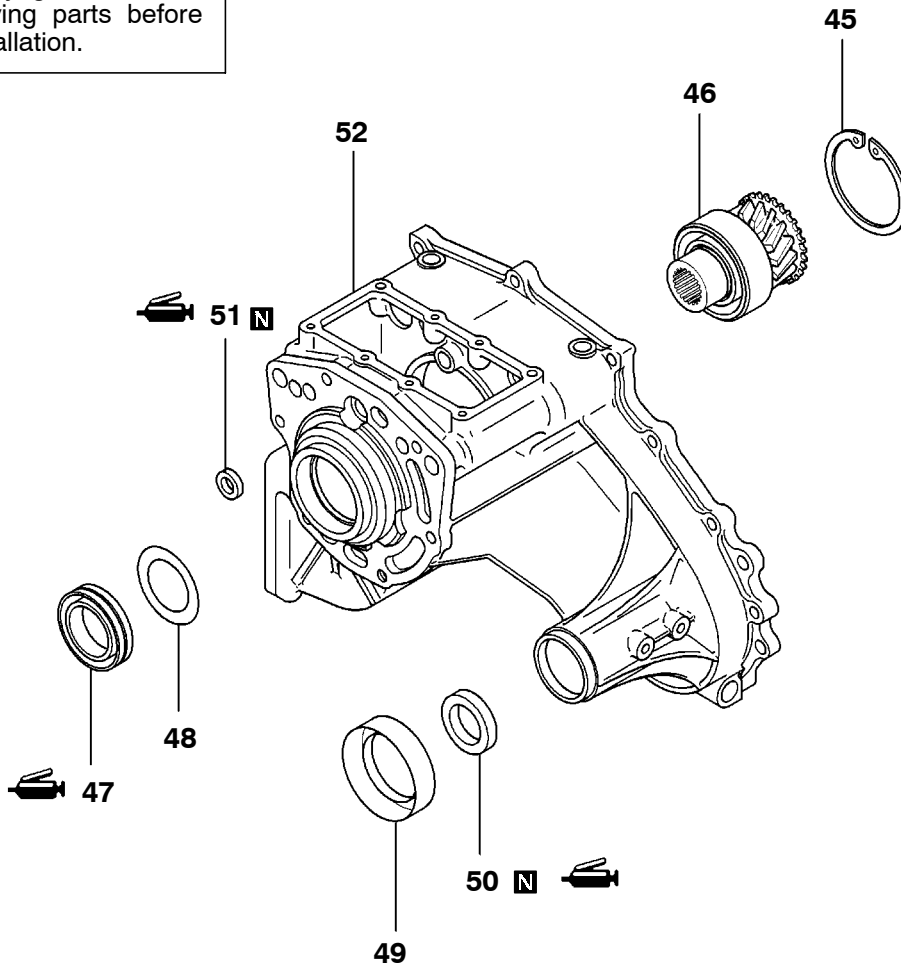
TRM1414

Disassembly steps

- | | | | | | |
|-----|-----|------------------------------------|-----|-----|------------------------------------|
| ◀A▶ | ▶J▶ | 19. H-L shift rail | ▶F▶ | ▶E▶ | 32. Spring retainer |
| ◀A▶ | ▶I▶ | 20. Chain cover | | ▶E▶ | 33. Spring |
| | ▶I▶ | 21. Interlock plunger | | | 34. Spring pin for 2-4WD shift lug |
| | | 22. Side cover | | | 35. 2-4WD shift rail |
| | | 23. Side cover gasket | | | 36. Distance piece |
| ◀B▶ | ▶H▶ | 24. Lock plate | | | 37. 2-4WD shift lug |
| | | 25. Counter gear shaft | ◀C▶ | ▶E▶ | 38. Rear output shaft |
| | | 26. O-ring | ◀C▶ | ▶E▶ | 39. Chain |
| | | 27. Counter gear | ◀C▶ | ▶E▶ | 40. Front output shaft |
| ▶G▶ | | 28. Thrust washer | | | 41. 2-4WD shift fork |
| | | 29. Needle bearing | | | 42. H-L shift fork |
| | | 30. Bearing spacer | | | 43. H-L clutch sleeve |
| | | 31. Snap ring for 2-4WD shift rail | | | 44. Needle bearing |

<LHD>

 Apply gear oil to all moving parts before installation.



TRM1416

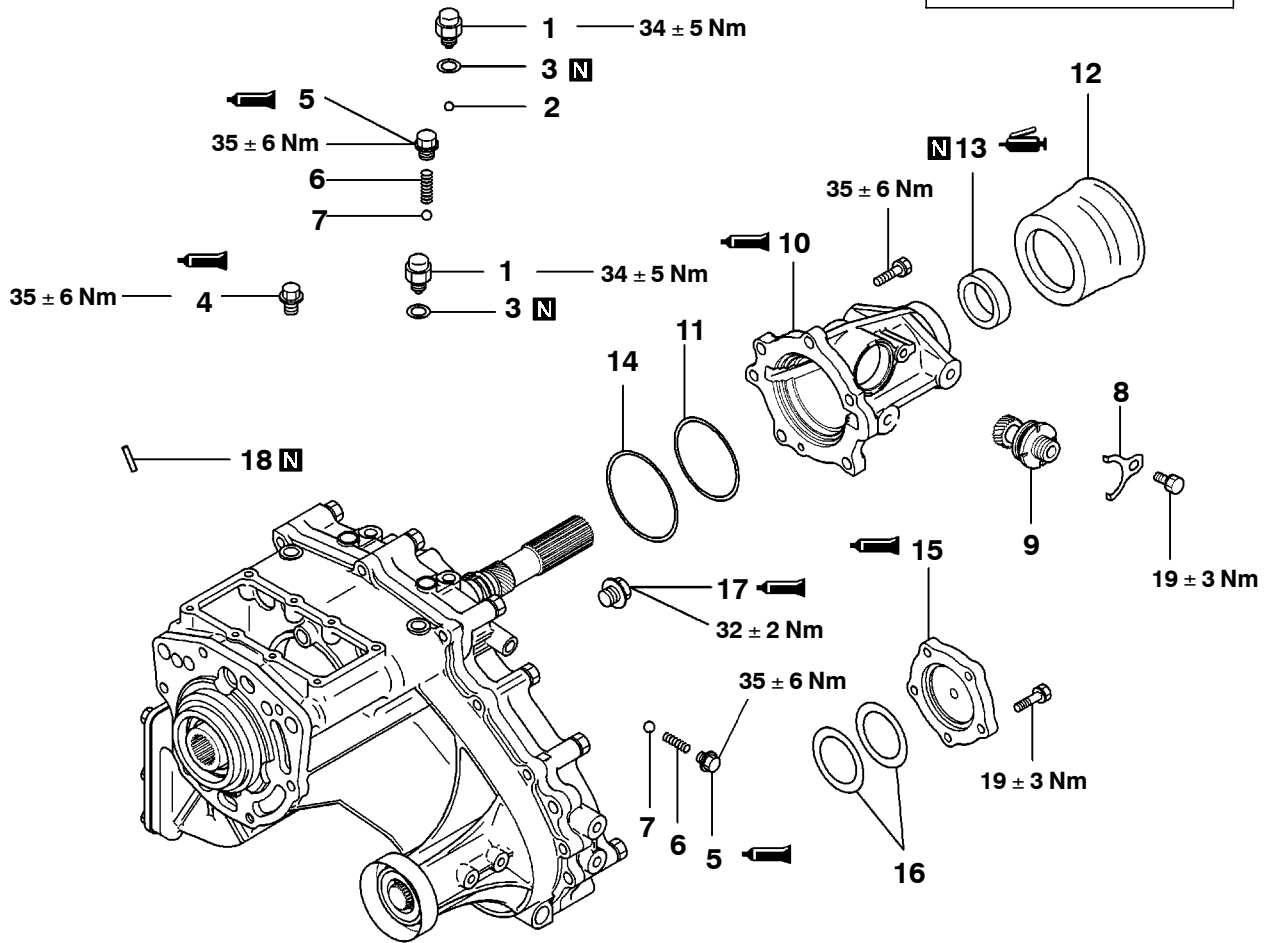
Disassembly steps

- ▶D◀ 45. Snap ring
- ▶C◀ 46. Input gear
- ▶C◀ 47. Oil seal (Input gear)
- ▶C◀ 48. Baffle plate

- ▶B◀ 49. Dust seal guide
- ▶A◀ 50. Oil seal (Front output shaft)
- ▶A◀ 51. Oil seal
- ▶A◀ 52. Transfer case

<RHD>

Apply gear oil to all moving parts before installation.



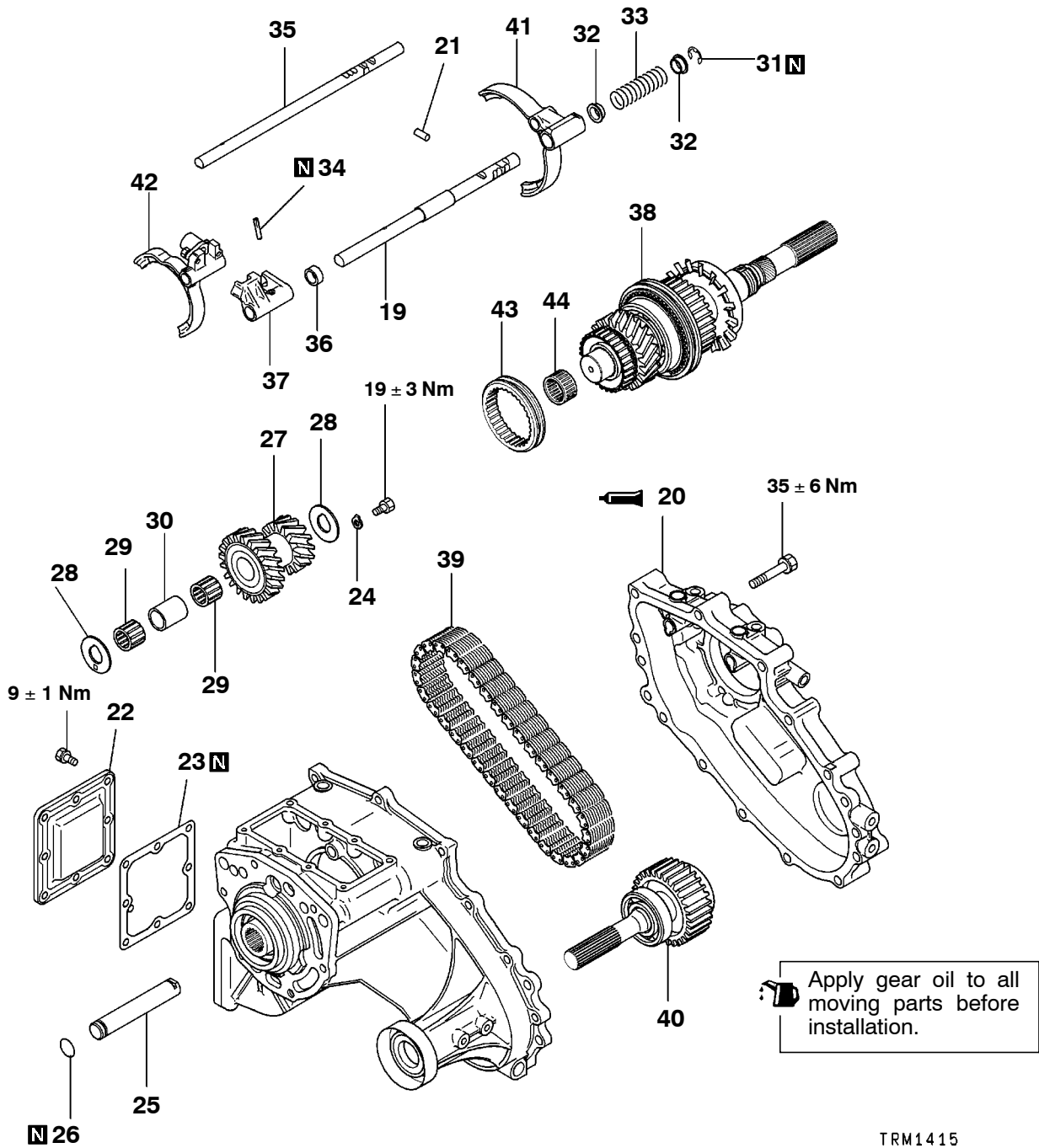
TRM1413

Disassembly steps

- ▶Q◀ 1. Detection switch
- ▶P◀ 2. Steel ball
- ▶O◀ 3. Gasket
- ▶P◀ 4. Plug
- ▶O◀ 5. Poppet plug
- ▶O◀ 6. Poppet spring
- ▶O◀ 7. Steel ball
- ▶N◀ 8. Sleeve clamp
- ▶N◀ 9. Speedometer gear

- ▶M◀ 10. Rear cover
- ▶M◀ 11. Spacer
- ▶L◀ 12. Dust seal guard
- ▶L◀ 13. Oil seal
- ▶K◀ 14. Snap ring
- ▶K◀ 15. Cover
- ▶K◀ 16. Wave spring
- ▶J◀ 17. H-L shift rail plug
- ▶J◀ 18. Spring pin for H-L shift fork

<RHD>




Apply gear oil to all moving parts before installation.

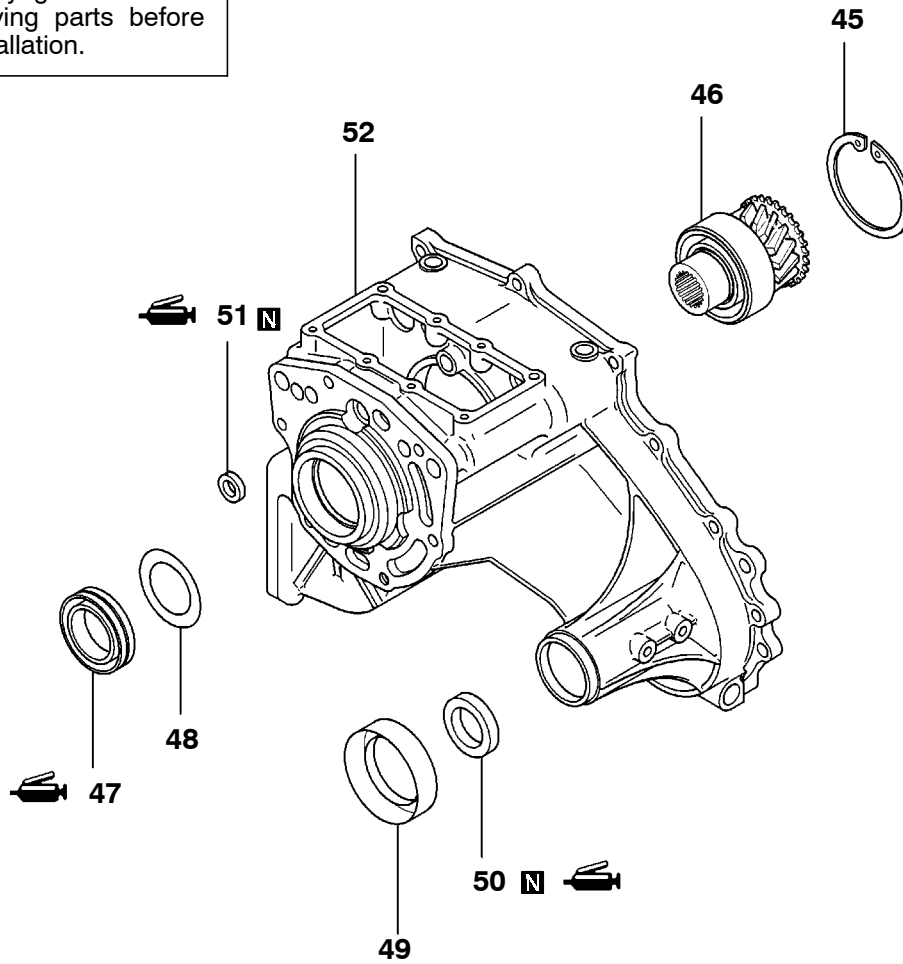
TRM1415

Disassembly steps

- | | | | | | |
|-----|-----|------------------------------------|-----|-----|------------------------------------|
| ◀A▶ | ▶J▶ | 19. H-L shift rail | ▶F▶ | ▶E▶ | 32. Spring retainer |
| ◀A▶ | ▶I▶ | 20. Chain cover | | ▶E▶ | 33. Spring |
| | ▶I▶ | 21. Interlock plunger | | ▶E▶ | 34. Spring pin for 2-4WD shift lug |
| | | 22. Side cover | | | 35. 2-4WD shift rail |
| | | 23. Side cover gasket | | | 36. Distance piece |
| | | 24. Lock plate | | | 37. 2-4WD shift lug |
| ◀B▶ | ▶H▶ | 25. Counter gear shaft | ▶C▶ | ▶E▶ | 38. Rear output shaft |
| | | 26. O-ring | ▶C▶ | ▶E▶ | 39. Chain |
| | | 27. Counter gear | ▶C▶ | ▶E▶ | 40. Front output shaft |
| | ▶G▶ | 28. Thrust washer | | | 41. 2-4WD shift fork |
| | | 29. Needle bearing | | | 42. H-L shift fork |
| | | 30. Bearing spacer | | | 43. H-L clutch sleeve |
| | | 31. Snap ring for 2-4WD shift rail | | | 44. Needle bearing |

<RHD>

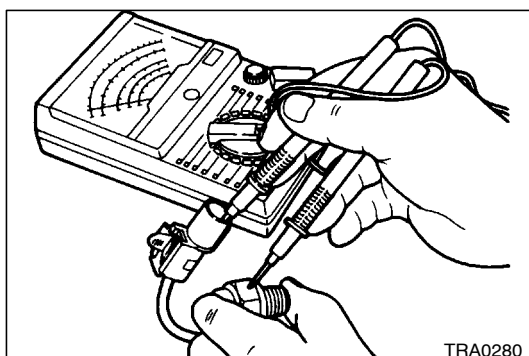
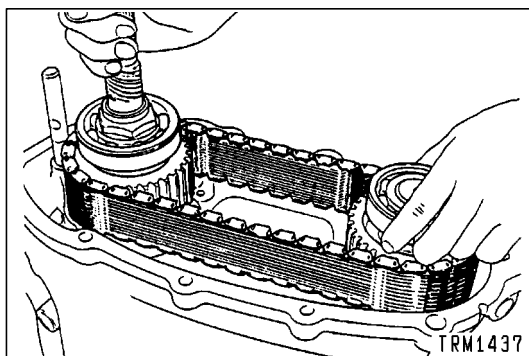
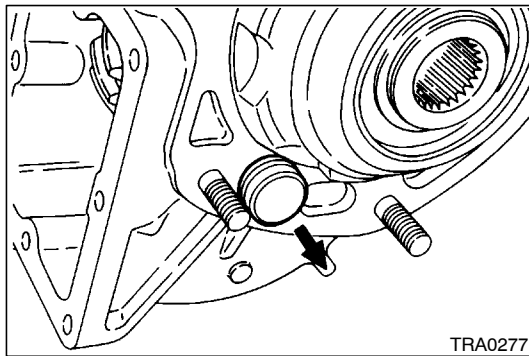
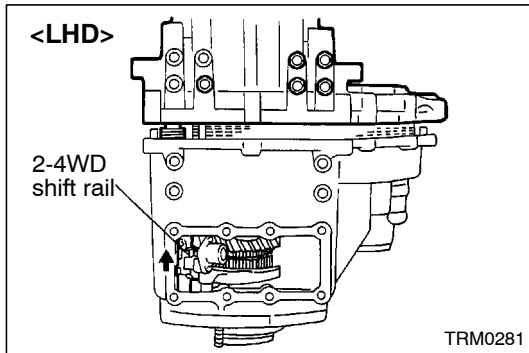
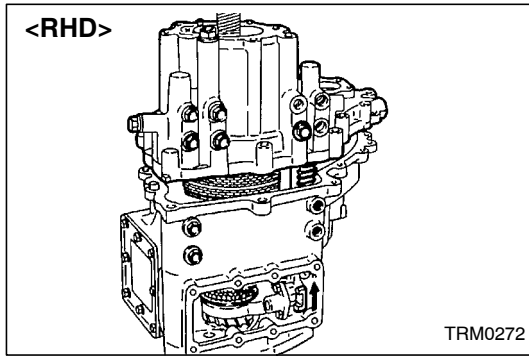
 Apply gear oil to all moving parts before installation.



TRM1416

Disassembly steps

- | | |
|---|--|
| <p>▶D◀ 45. Snap ring</p> <p>▶C◀ 46. Input gear</p> <p>▶C◀ 47. Oil seal (Input gear)</p> <p>▶C◀ 48. Baffle plate</p> | <p>▶B◀ 49. Dust seal guide</p> <p>▶B◀ 50. Oil seal (Front output shaft)</p> <p>▶A◀ 51. Oil seal</p> <p>▶A◀ 52. Transfer case</p> |
|---|--|



SERVICE POINTS OF DISASSEMBLY

◀A▶ H-L SHIFT RAIL / CHAIN COVER REMOVAL

- (1) Lock the H-L shift rail at the high side, using the poppet spring.
- (2) Place the 2-4WD shift rail at the 4WD position.

NOTE

If the 2-4WD shift rail is left at the 2WD position, the chain cover cannot be removed because interlock is actuated.

- (3) Remove the chain cover and remove the H-L shift rail.

◀B▶ COUNTER GEAR SHAFT REMOVAL

- (1) Remove the counter gear shaft toward the transmission case side.

◀C▶ REAR OUTPUT SHAFT / CHAIN / FRONT OUTPUT SHAFT REMOVAL

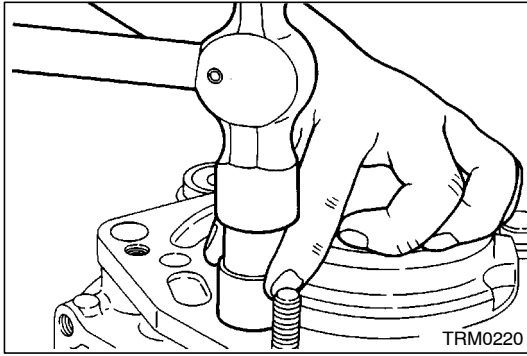
- (1) Remove the front output shaft, rear output shaft and chain together.

INSPECTION

Detection Switch Inspection

- (1) Check for continuity between the connector terminal and switch body.

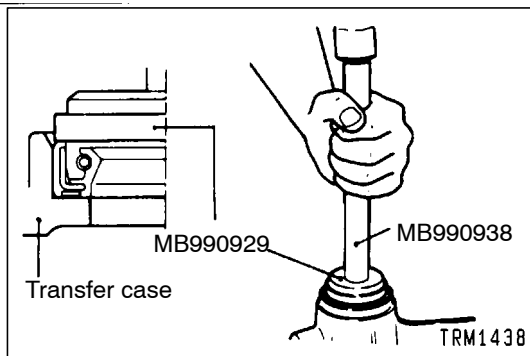
Switch state	Continuity
Switch end pressed	No
Switch end released	Exists



REASSEMBLY SERVICE POINT

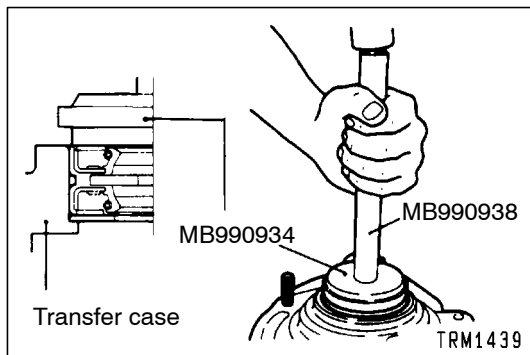
▶A◀ OIL SEAL INSTALLATION

- (1) Using a socket wrench, install the oil seal. After installation, pack the lips with grease.



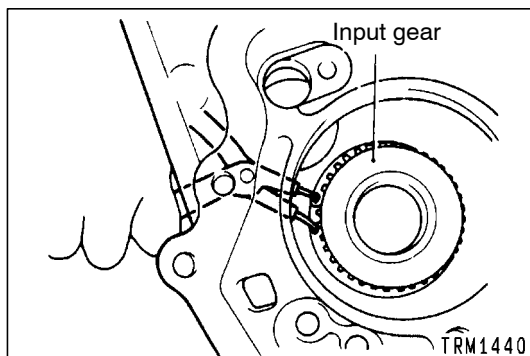
▶B◀ OIL SEAL (FRONT OUTPUT SHAFT) INSTALLATION

- (1) Apply transmission oil to the lip of the oil seal before press-fitting.



▶C◀ OIL SEAL (INPUT GEAR) INSTALLATION

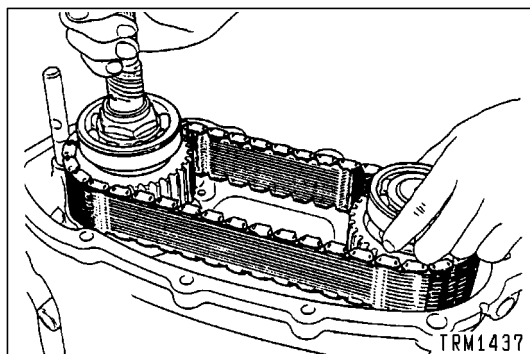
- (1) Apply transmission oil to the lip of the oil seal before press-fitting.



▶D◀ SNAP RING INSTALLATION

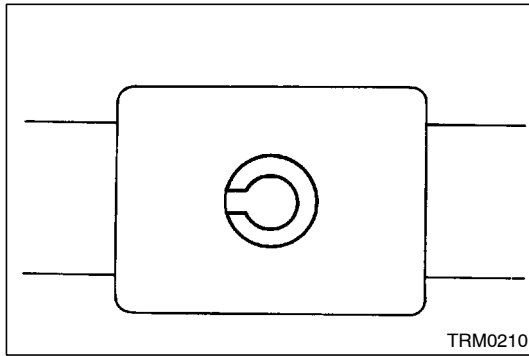
- (1) Select the thickest snap ring that will fit into the groove and install it.

Standard value: 0 - 0.06 mm



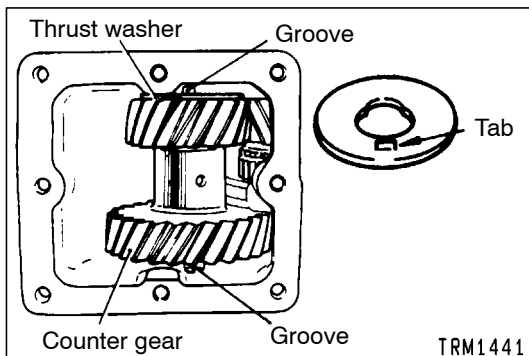
▶E◀ REAR OUTPUT SHAFT / CHAIN / FRONT OUTPUT SHAFT INSTALLATION

- (1) Engage the chain precisely with the sprockets of the rear output shaft and the front output shaft.
- (2) Install the 2-4WD shift fork on the 2-4WD clutch sleeve. While passing them along the 2-4WD shift rail, install the rear and front output shafts and chain.



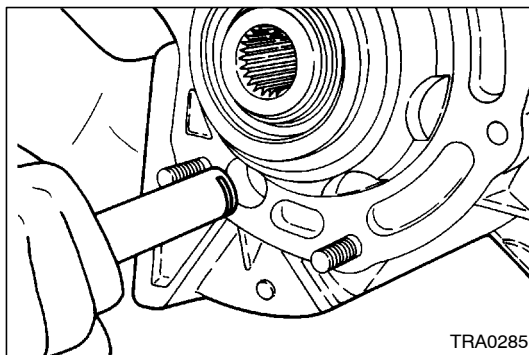
▶F◀ **SPRING PIN INSTALLATION**

- (1) Drive in the spring pin in such a way that its slit is oriented as shown.



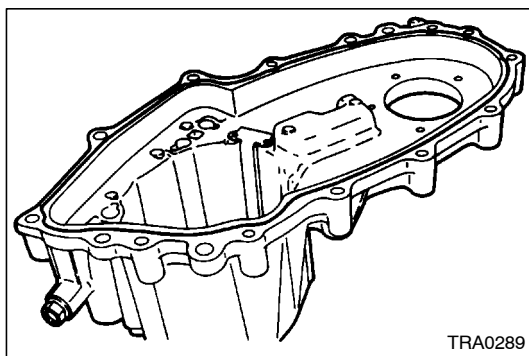
▶G◀ **THRUST WASHER INSTALLATION**

- (1) Install the thrust washer in such a way that the tab will fit into the case groove.



▶H◀ **COUNTER GEAR SHAFT INSTALLATION**

- (1) Insert the counter gear shaft from the transmission case side, while taking into account the lock plate groove position.



▶I◀ **CHAIN COVER / INTERLOCK PLUNGER INSTALLATION**

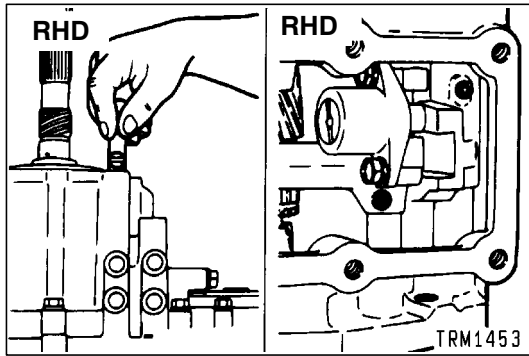
- (1) Insert the interlock plunger into a position where it does not interfere with the 2-4WD shift rail.
- (2) Apply a sealant to the chain cover before installing it.

Specified sealant:

Mitsubishi genuine sealant Part No. 997740 or equivalent

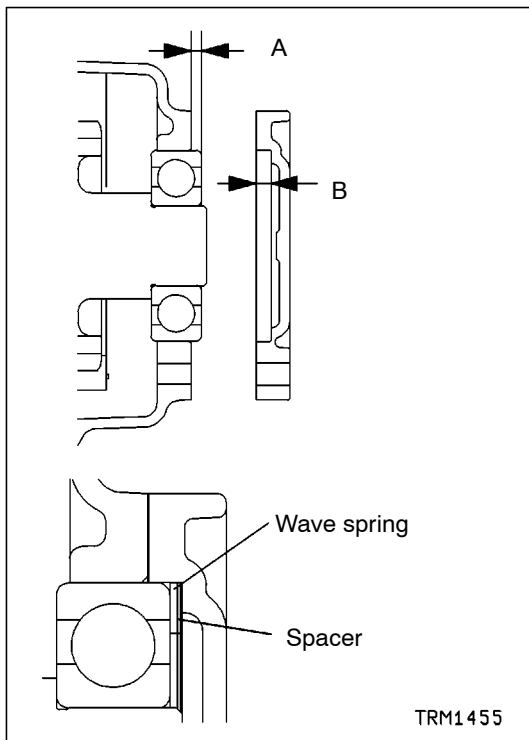
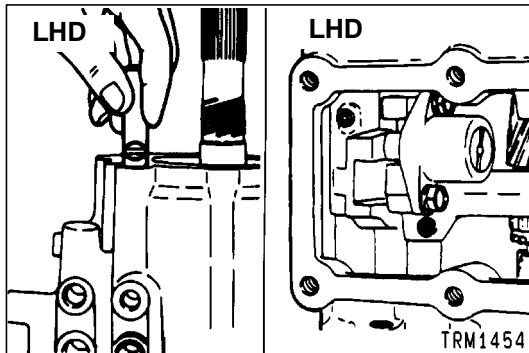
Caution

Squeeze the sealant out evenly to apply it in an unbroken, non-excessive quantity.



▶J◀ H-L SHIFT RAIL / SPRING PIN FOR H-L SHIFT FORK INSTALLATION

- (1) Insert the H-L shift rail from the H-L shift rail plug hole, while taking into account its direction.
- (2) Line up the shift rail and shift fork spring pin holes and install the spring pin so that the slit of the spring pin will face the axial center of the shift rail.



▶K◀ COVER / WAVE SPRING (SPACER) INSTALLATION

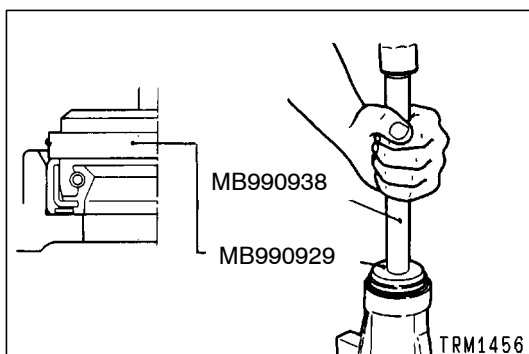
- (1) Measure projection "A" of the front output shaft rear bearing and depth "B" of the cover.
If B is more than 2 mm greater than A, add a spacer between the wave spring and cover.
If the difference is 2 mm or less, using only the wave spring is enough.
- (2) Apply a sealant to the cover.

Specified sealant:

Mitsubishi genuine sealant Part No. 997740 or equivalent

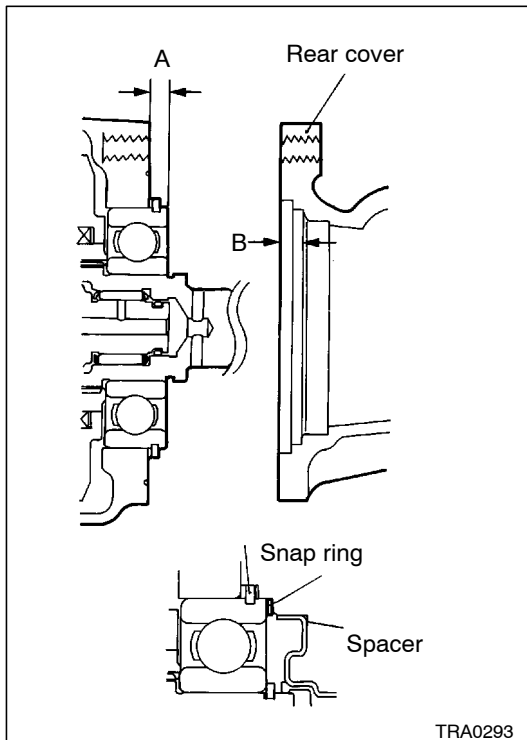
Caution

Squeeze out the sealant evenly to apply it in an unbroken, non-excessive quantity.



▶L◀ OIL SEAL INSTALLATION

- (1) Apply transmission oil to the lip of the oil seal before press-fitting.



►M◄ SPACER / REAR COVER INSTALLATION

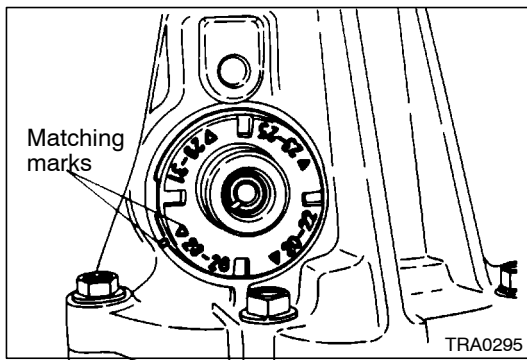
- (1) Measure projection "A" of the rear output shaft bearing and depth "B" of the second stage of the rear cover. Subtract A from B and let the answer be C. Subtract the thickness of the spacer from C, and select a snap ring so that the subtracted value will be the standard value shown below.

Standard value: 0 - 0.1 mm

- (2) Apply sealant to the rear cover.

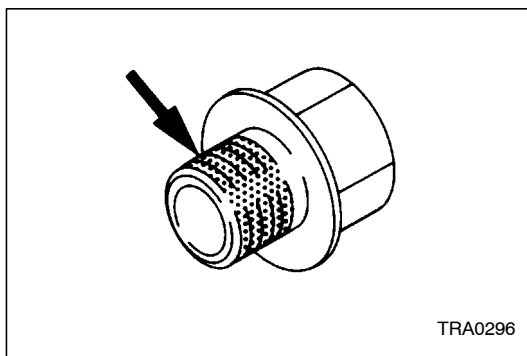
Specified sealant:

Mitsubishi genuine sealant Part No. 997740 or equivalent



►N◄ SPEEDOMETER GEAR INSTALLATION

- (1) Match the matching marks to the number of teeth.

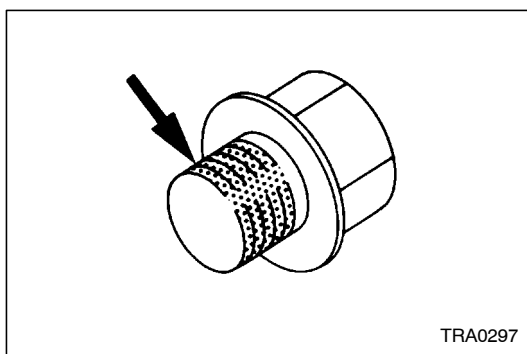


►O◄ SEALANT TO POPPET PLUG INSTALLATION

- (1) Apply sealant to the poppet plug before installation.

Specified sealant:

3M ATD Part No. 8660 or equivalent

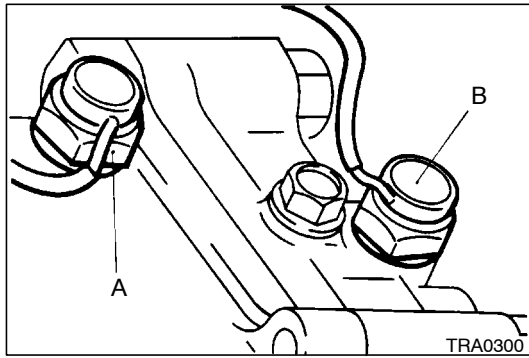


►P◄ SEALANT TO PLUG INSTALLATION

- (1) The plug is a precoated one. When it is to be reused, apply sealant to the plug beforehand.

Specified sealant:

3M ATD Part No. 8660 or equivalent

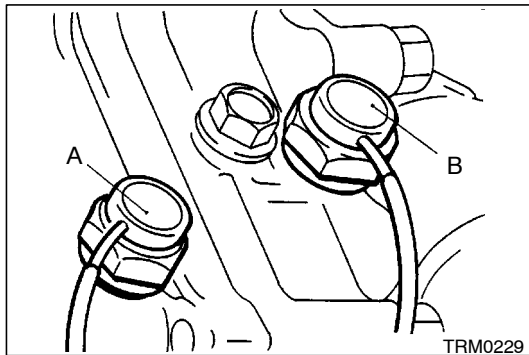
**▶Q◀DETECTION SWITCH INSTALLATION**

- (1) Mount detection switches in the right position, while being careful not to confuse anything.

LHD

A: Ball built in

B: Ball separate

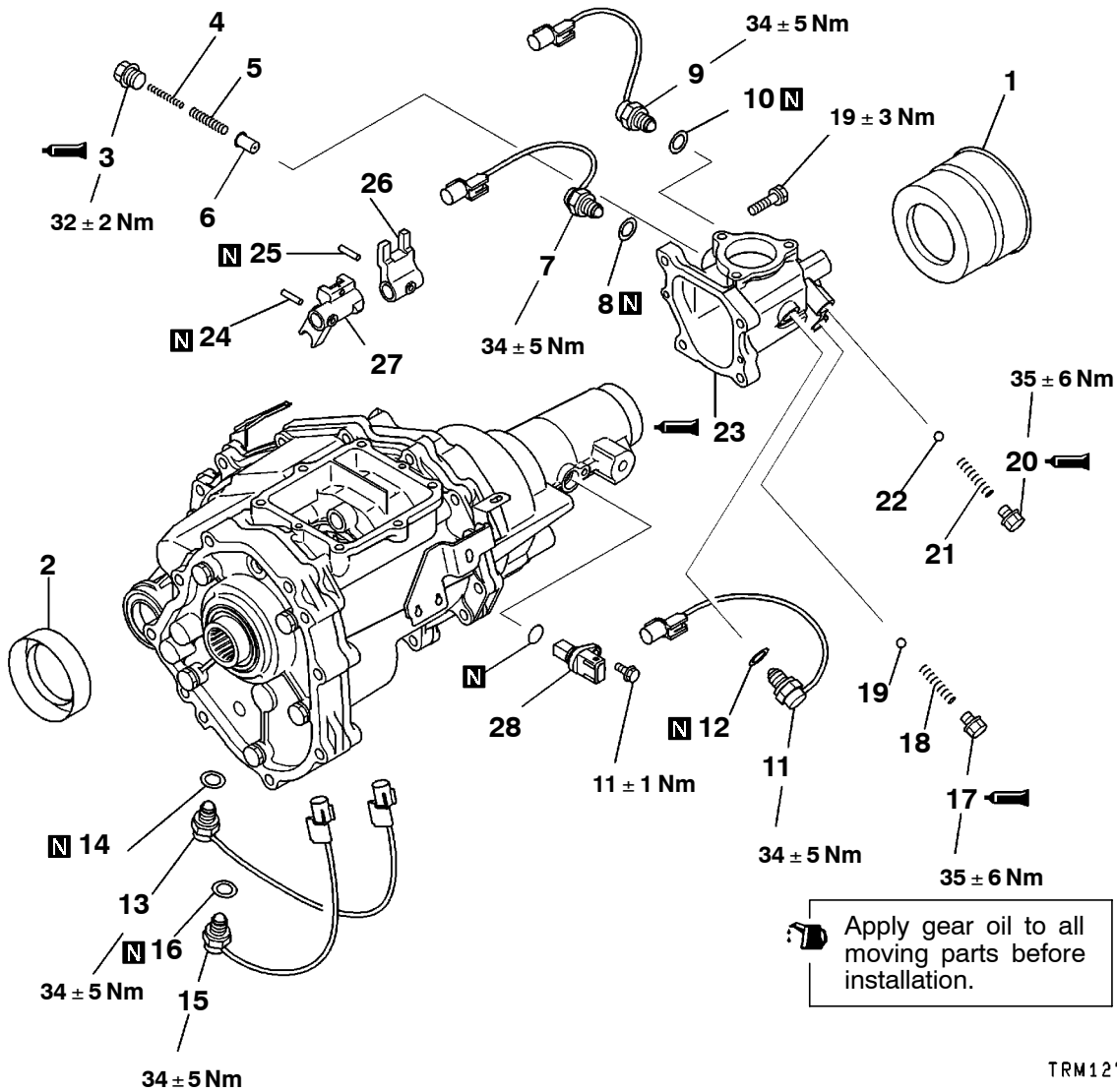


RHD

A: Ball built in

B: Ball separate

9. TRANSFER <V5M21-A>

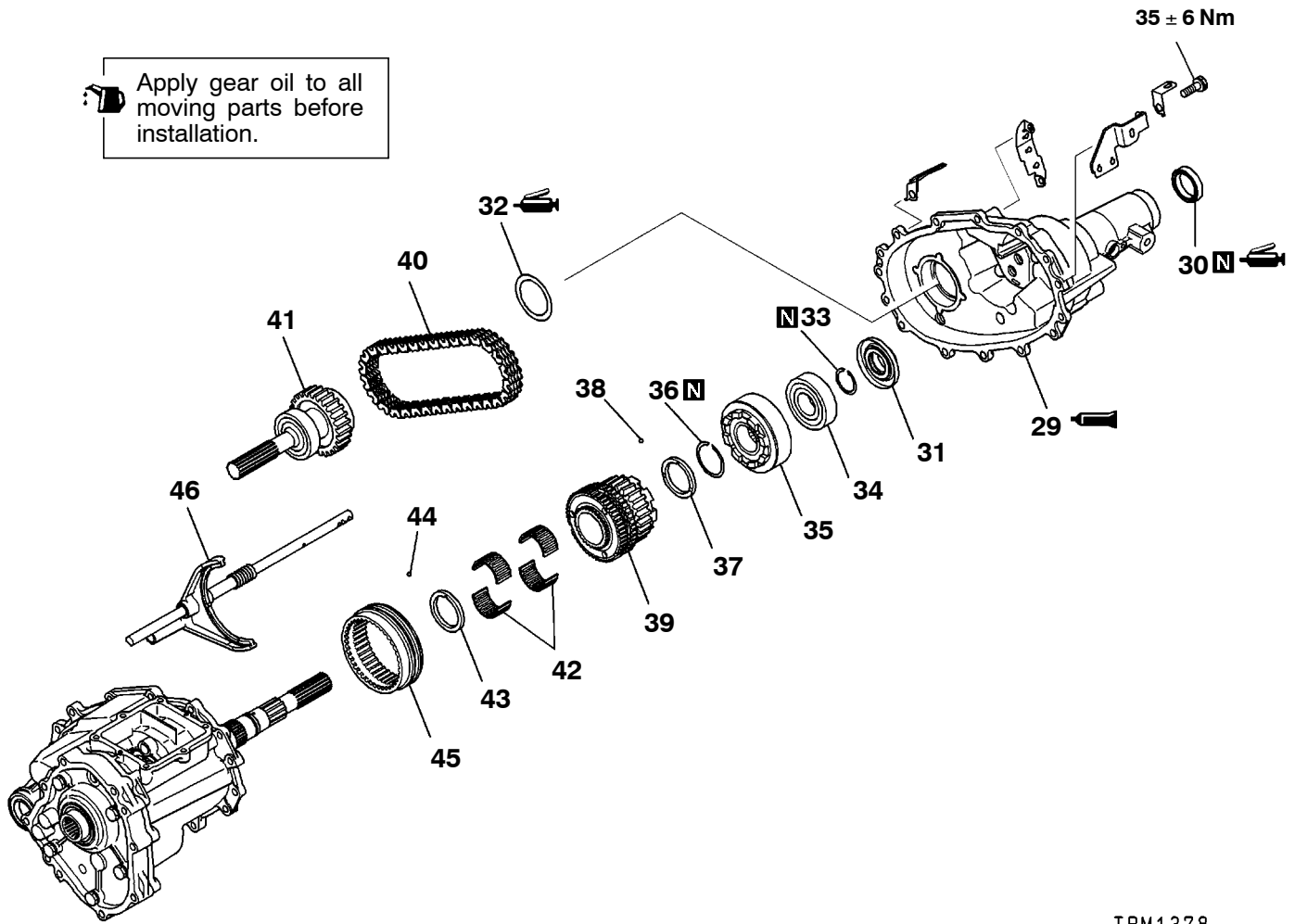


TRM1277

Disassembly steps

- | | | | |
|-----|------------------------------------|-----|------------------------------|
| ▶c◀ | 1. Dust seal guard | ▶Z◀ | 15. Lock detector switch |
| | 2. Dust seal guard | | 16. Gasket |
| | 3. Select plunger seal plug | ▶Y◀ | 17. Poppet seal bolt |
| | 4. Return spring | ▶X◀ | 18. Spring |
| | 5. Return spring | | 19. Steel ball |
| | 6. Select plunger | ▶Y◀ | 20. Poppet seal bolt |
| ▶b◀ | 7. Hi-Lo detector switch | ▶X◀ | 21. Spring |
| | 8. Gasket | | 22. Steel ball |
| ▶b◀ | 9. 4WD operation detector switch | ▶W◀ | 23. Transfer control housing |
| | 10. Gasket | ▶V◀ | 24. Spring pin |
| ▶a◀ | 11. Lock operation detector switch | ▶U◀ | 25. Spring pin |
| | 12. Gasket | | 26. Hi-Lo shift lug |
| ▶Z◀ | 13. 4WD detector switch | ▶T◀ | 27. 2WD/4WD shift lug |
| | 14. Gasket | | 28. Vehicle speed sensor |

Apply gear oil to all moving parts before installation.




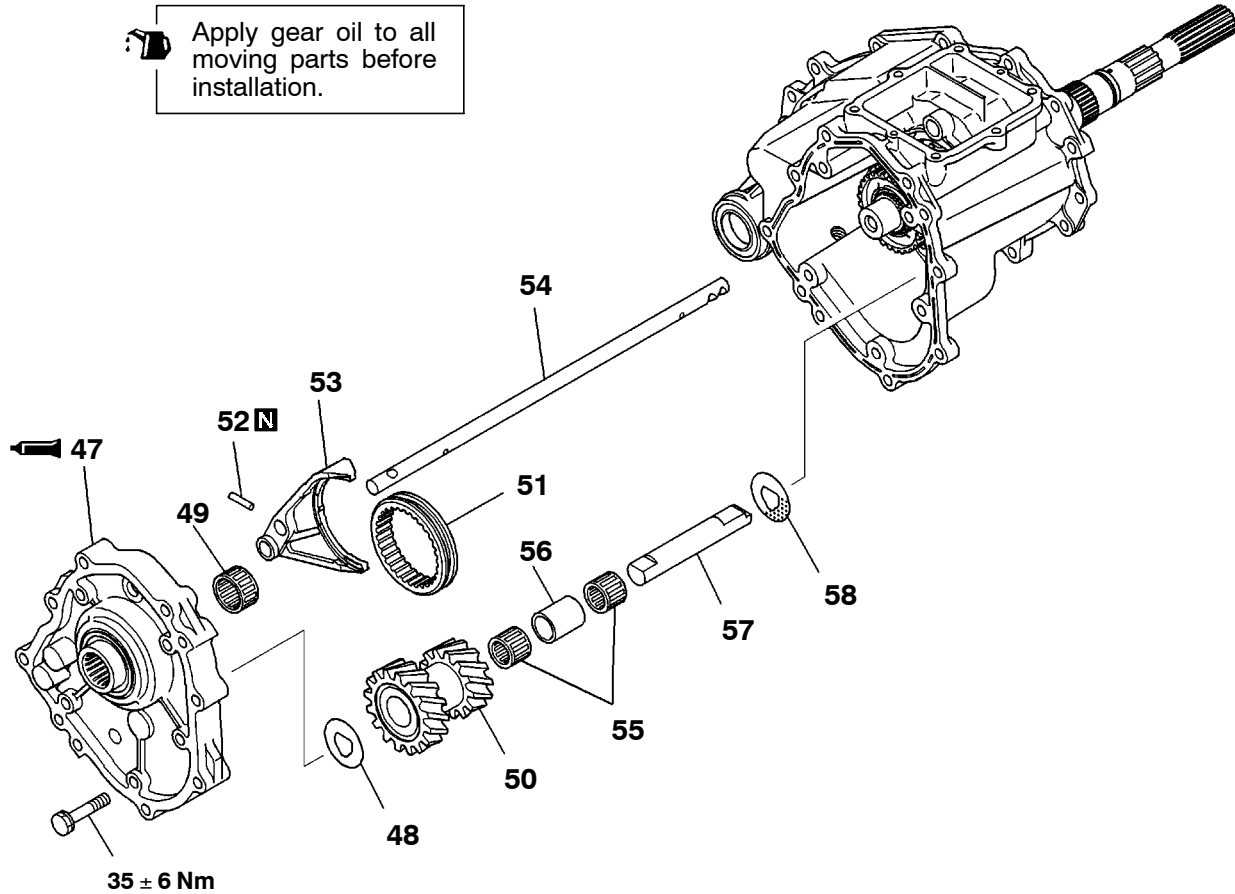
TRM1278

Disassembly steps

- ◀B▶ ▶S◀ 29. Transfer rear cover
- ▶R◀ 30. Oil seal
- ▶Q◀ 31. Oil guide
- ▶P◀ 32. Wave spring
- ▶O◀ 33. Snap ring
- ◀C▶ ▶N◀ 34. Ball bearing
- ▶M◀ 35. Viscous coupling
- ▶L◀ 36. Snap ring
- ▶L◀ 37. Spacer

- ▶D◀ ▶K◀ 38. Steel ball
- ▶D◀ ▶K◀ 39. 2WD/4WD synchronizer
- ▶D◀ ▶K◀ 40. Chain
- ▶D◀ ▶K◀ 41. Front output shaft
- ▶J◀ 42. Needle bearings
- ▶J◀ 43. Spacer
- ▶I◀ 44. Steel ball
- ▶I◀ 45. Synchronizer sleeve
- ▶I◀ 46. 2WD/4WD shift fork and rail

 Apply gear oil to all moving parts before installation.




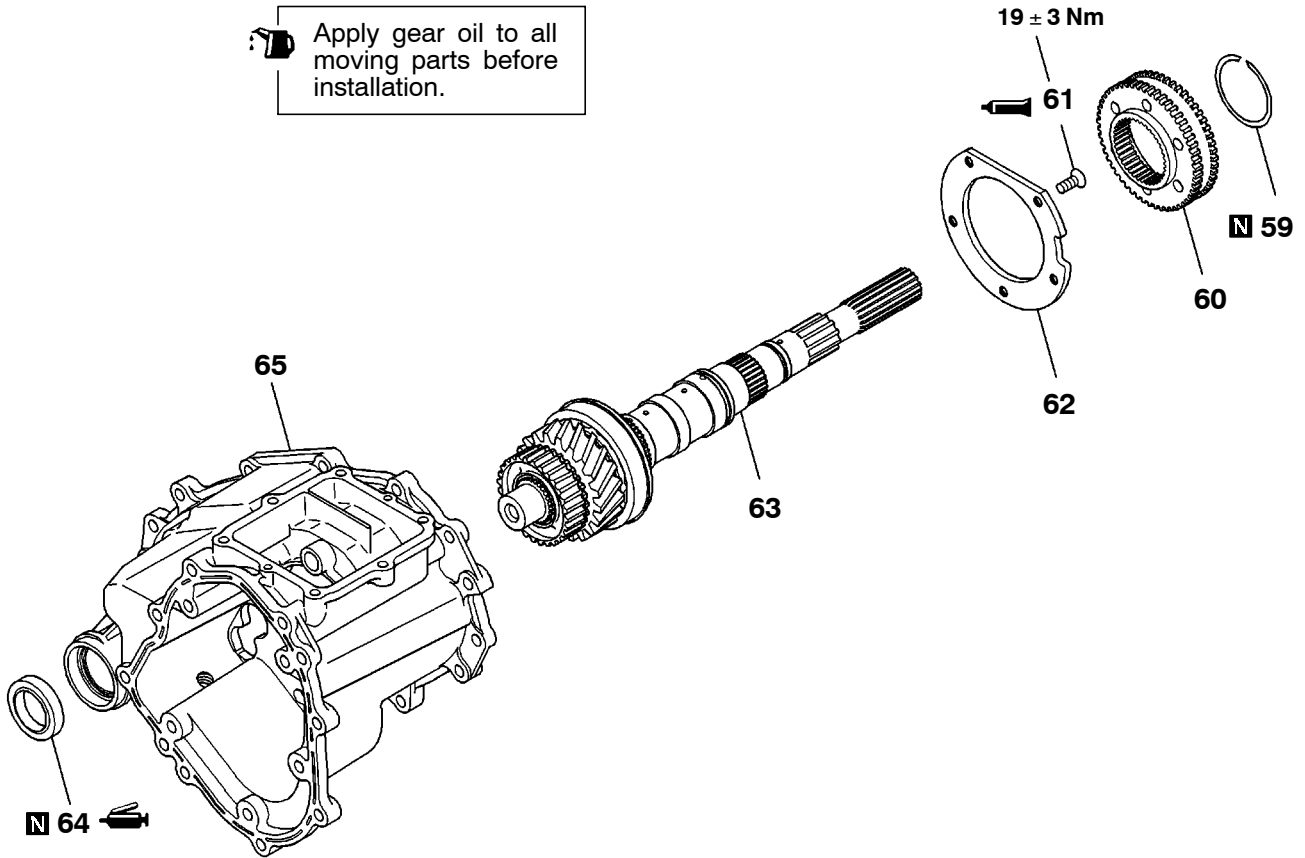
TRM1279

Disassembly steps

- ◀E▶ ▶H▶ 47. Transfer case plate
- ▶G▶ 48. Thrust washer
- ▶G▶ 49. Needle bearing
- ▶G▶ 50. Counter gear
- ▶F▶ 51. Hi-Lo clutch sleeve
- ▶E▶ 52. Spring pin

- ▶E▶ 53. Hi-Lo shift fork
- ▶E▶ 54. Hi-Lo shift rail
- ▶E▶ 55. Needle bearings
- ▶E▶ 56. Bearing spacer
- ▶D▶ 57. Counter gear shaft
- ▶D▶ 58. Thrust washer

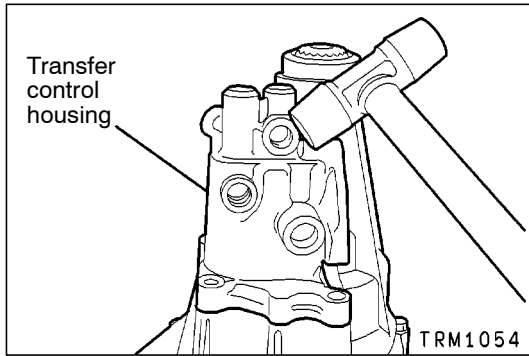
 Apply gear oil to all moving parts before installation.



TRM1280

Disassembly steps

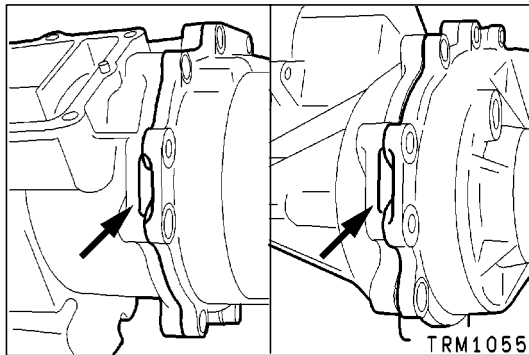
- ▶C◀ 59. Snap ring
- ▶B◀ 60. Differential lock hub
- ▶B◀ 61. Center bearing retainer seal bolt
- ▶B◀ 62. Center bearing retainer
- ▶B◀ 63. Rear output shaft
- ▶A◀ 64. Oil seal
- ▶A◀ 65. Transfer case



DISASSEMBLY SERVICE POINTS

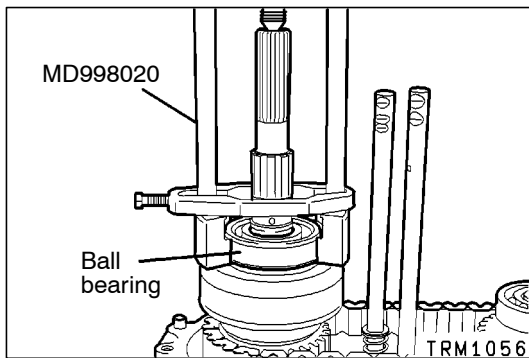
◀A▶ TRANSFER CONTROL HOUSING REMOVAL

- (1) Remove the transfer control housing by tapping lightly with a plastic hammer or some other similar tool.



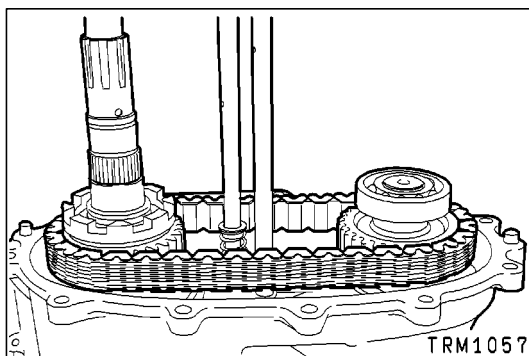
◀B▶ TRANSFER REAR COVER REMOVAL

- (1) Tap the transfer rear cover at the two locations indicated in the illustration to remove it.



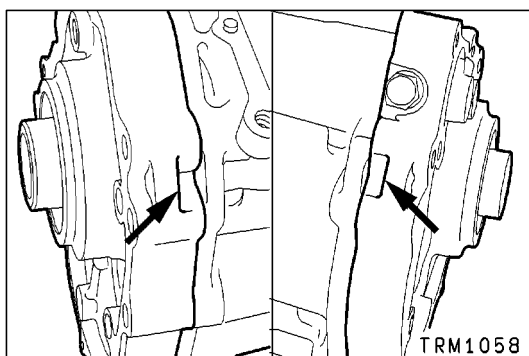
◀C▶ BALL BEARING REMOVAL

- (1) Remove the ball bearing using the indicated special tool.



◀D▶ 2WD/4WD SYNCHRONIZER / CHAIN / FRONT OUTPUT SHAFT REMOVAL

- (1) Remove the 2WD/4WD synchronizer, chain, and front output shaft at the same time.

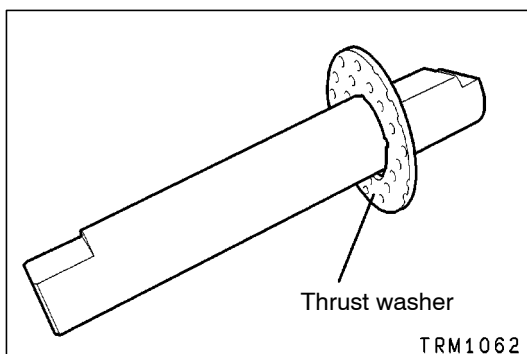
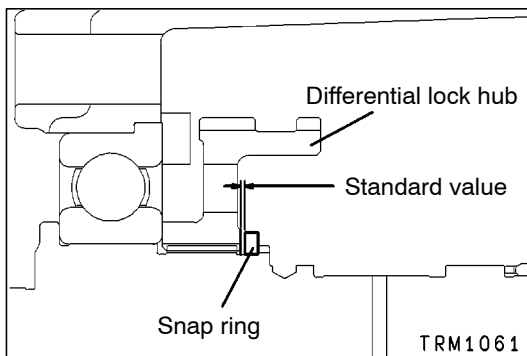
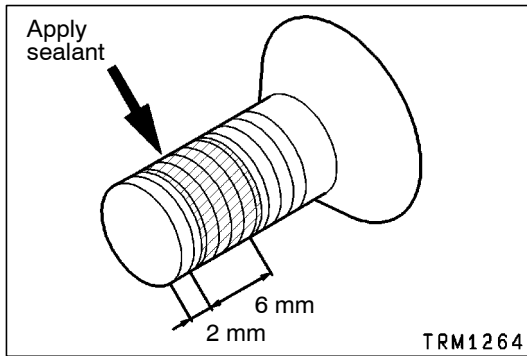
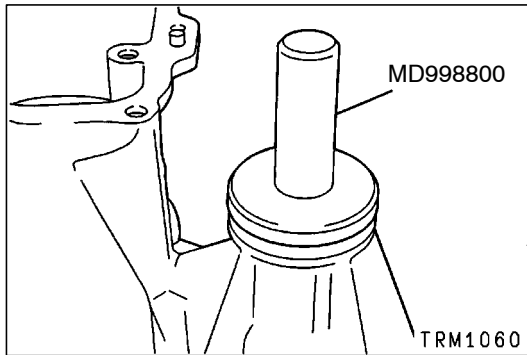
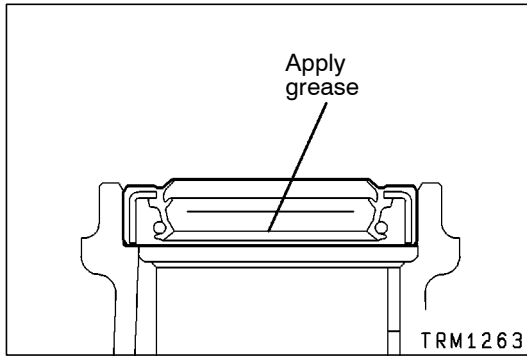


◀E▶ TRANSFER CASE PLATE REMOVAL

- (1) Tap the transfer case plate at the two locations indicated in the illustration to remove it.

Caution

The counter gear and ancillary parts will be freed together; take care to avoid letting them fall.



REASSEMBLY SERVICE POINTS

▶A◀ OIL SEAL INSTALLATION

- (1) Apply grease to the lip of the oil seal; then assemble the seal using the indicated special tool.

Specified grease:

Mitsubishi genuine grease Part No. MD0101011 or equivalent

▶B◀ CENTER BEARING RETAINER SEAL BOLT INSTALLATION (when reused)

- (1) Apply sealant to the threaded area of the bolt indicated in the illustration; following this, tighten to the specified torque.

Specified sealant:

3M STUD Locking No. 4170 or equivalent

NOTE

Ensure that any old sealant still adhering to the seal bolt is fully removed.

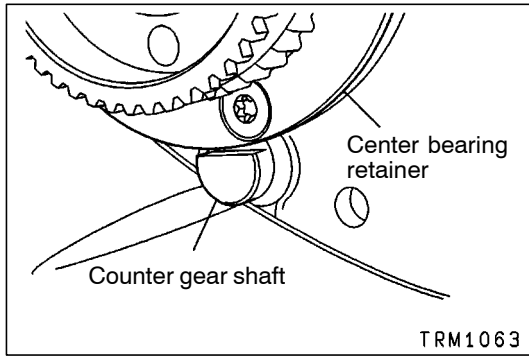
▶C◀ SNAP RING INSTALLATION

- (1) Select and install a suitable snap ring to ensure that the end play of the differential lock hub is at the standard value.

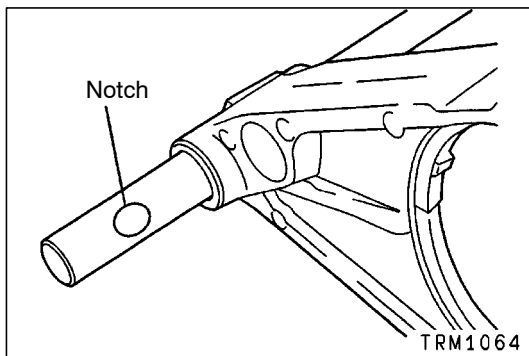
Standard value: 0 - 0.08 mm

▶D◀ THRUST WASHER / COUNTER GEAR SHAFT INSTALLATION

- (1) Install the thrust washer on the counter gear shaft as shown with the oil grooves in the washer oriented in the indicated direction.

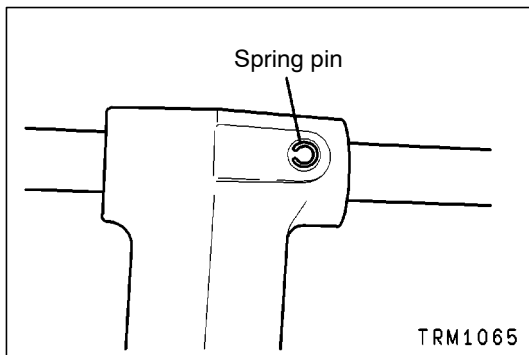


- (2) Install the counter gear shaft with its notch toward the center bearing retainer so that it can be prevented from turning by the retainer.

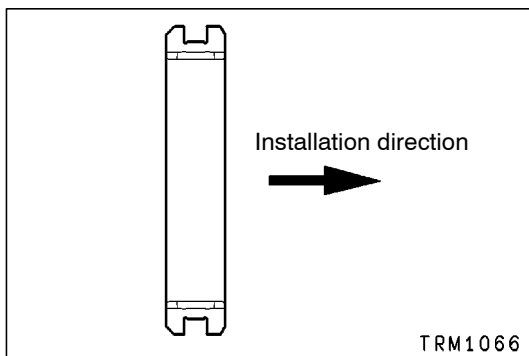


►E◄ HI-LO SHIFT RAIL / HI-LO SHIFT FORK / SPRING PIN INSTALLATION

- (1) Assemble the Hi-Lo shift rail and Hi-Lo shift fork in such a way that they are oriented as shown.

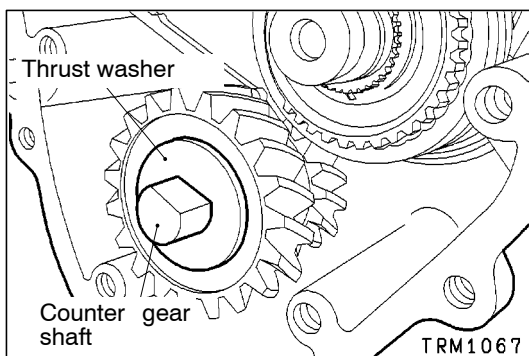


- (2) Drive in the spring pin with its slit oriented as shown.



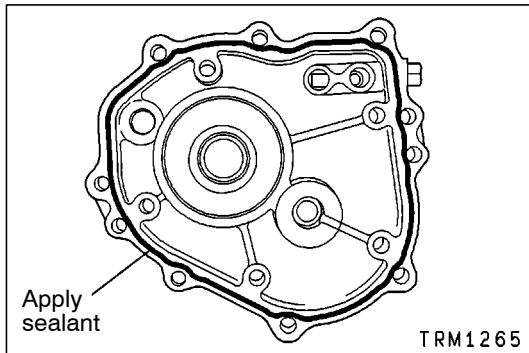
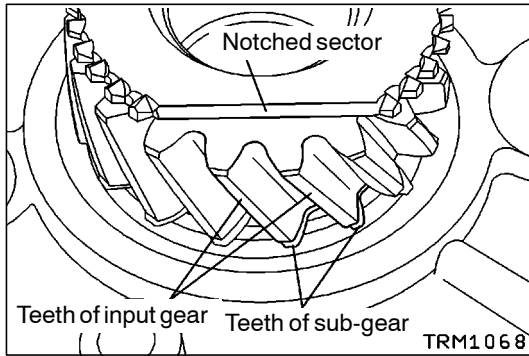
►F◄ HI-LO CLUTCH SLEEVE INSTALLATION

- (1) Install the Hi-Lo clutch sleeve in the indicated orientation.



►G◄ THRUST WASHER INSTALLATION

- (1) Align the flat of the thrust washer with that of the counter gear shaft, then install the thrust washer with its oil-grooved surface facing the counter gear.



▶◀ TRANSFER CASE PLATE INSTALLATION

- (1) Align the teeth of the input gear which are located at the notched section with those of the sub-gear.

- (2) Apply sealant to the illustrated position of the transfer case plate.

Specified sealant:

Mitsubishi genuine sealant Part No. MD997740 or equivalent

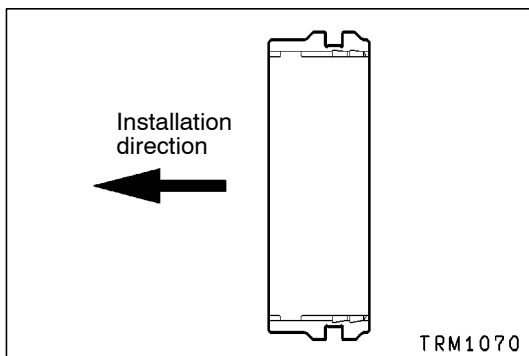
Caution

Squeeze the sealant out evenly to ensure that the bead is not broken and that over-application is not performed.

- (3) Direct the notch in the input gear toward the counter gear, then install the transfer case plate while using care that the teeth alignment attained in step (1) may be maintained.

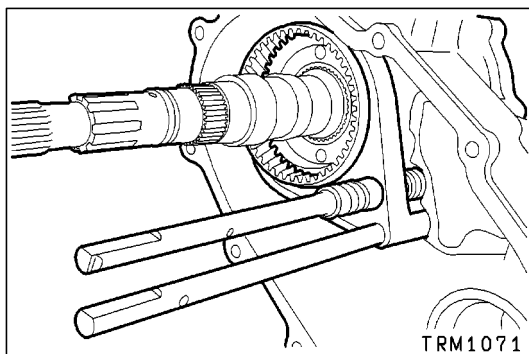
NOTE

The transfer case plate must be installed smoothly without hitching.

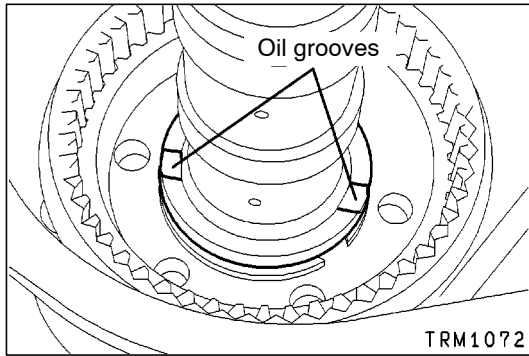


▶◀ 2WD/4WD SHIFT FORK, SHIFT RAIL / SYNCHRONIZER SLEEVE INSTALLATION

- (1) Install the synchronizer sleeve in the indicated direction.

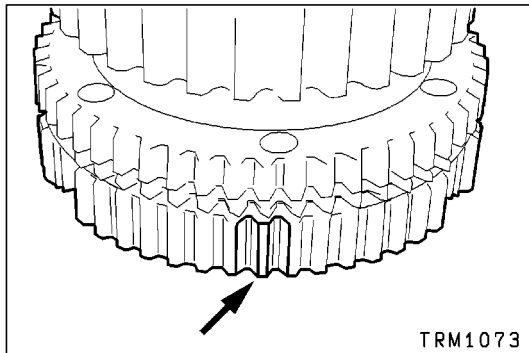


- (2) Shift the Hi-Lo shift rail in the illustrated position, then assemble the synchronizer sleeve, the 2WD/4WD shift fork, and the shift rail.



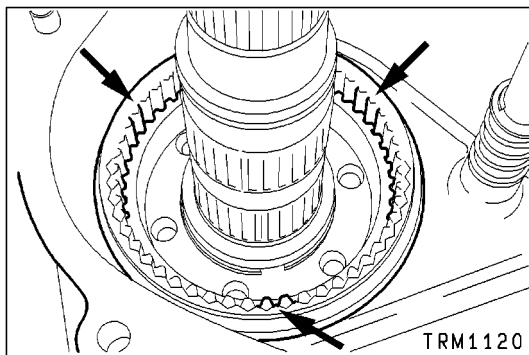
▶J◀ SPACER INSTALLATION

- (1) Install the spacer with its oil grooves oriented as indicated.

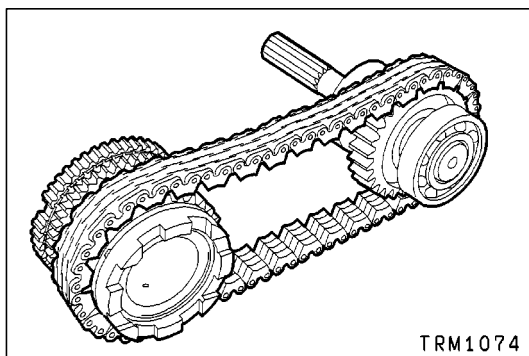


▶K◀ FRONT OUTPUT SHAFT / CHAIN / 2WD/4WD SYNCHRONIZER INSTALLATION

- (1) Apply white paint or something similar to the three deep tooth grooves in the 2WD/4WD synchronizer sprocket.

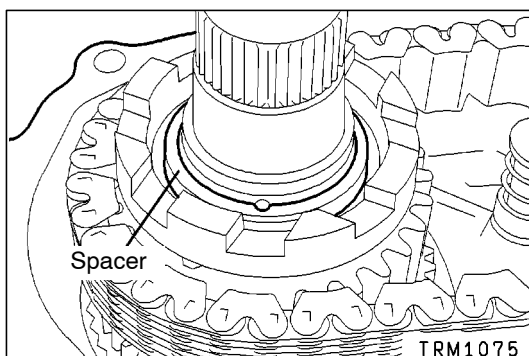


- (2) Apply white paint or something similar to the three spline projections on the synchronizer sleeve.



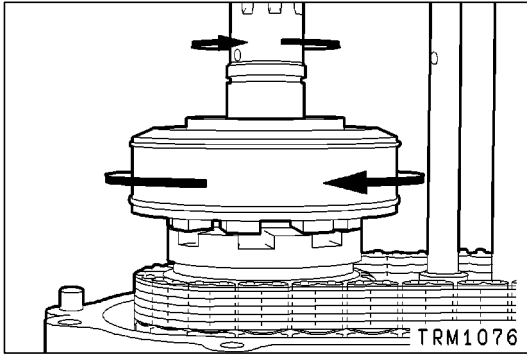
- (3) Mesh the chain with the 2WD/4WD synchronizer sprocket and the front output shaft sprocket.

- (4) With the sprockets distanced as far from each other as possible, install the assembly in the case while aligning the markings made in steps (1) and (2) above.



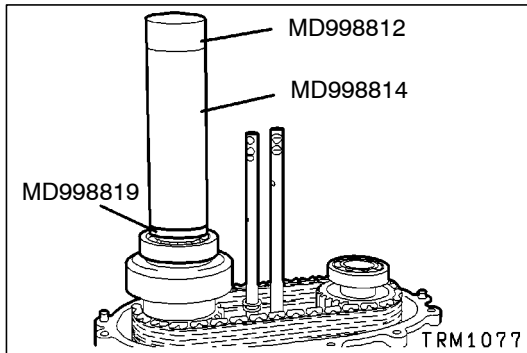
▶L◀ SPACER INSTALLATION

- (1) Install the spacer with its oil grooves facing the 2WD/4WD synchronizer.



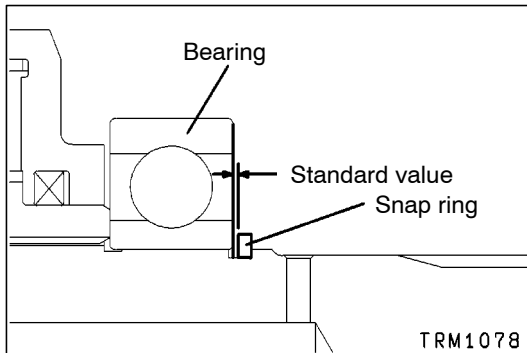
►M◄ VISCIOUS COUPLING INSTALLATION

- (1) If the grooves in the viscous coupling and the 2WD/4WD synchronizer are not aligned, slowly rotate either the rear output shaft or the viscous coupling itself to bring each into alignment.



►N◄ BALL BEARING INSTALLATION

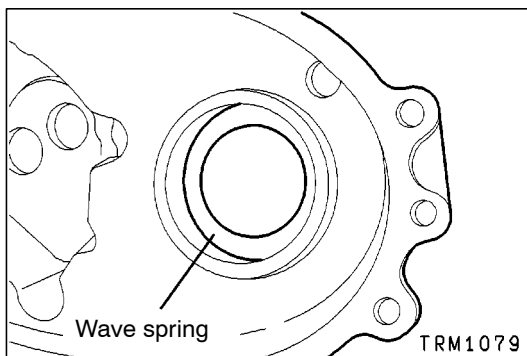
- (1) Assemble the ball bearing using the indicated special tools.



►O◄ SNAP RING INSTALLATION

- (1) Select and install a suitable snap ring to ensure that the rear output shaft rear bearing clearance is at the standard value.

Standard value: 0 - 0.08 mm

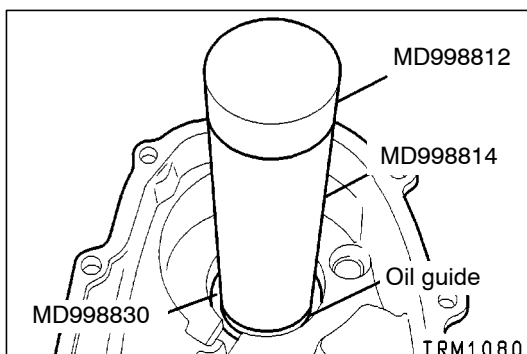


►P◄ WAVE SPRING INSTALLATION

- (1) Apply grease to the wave spring and secure it to the transfer rear cover.

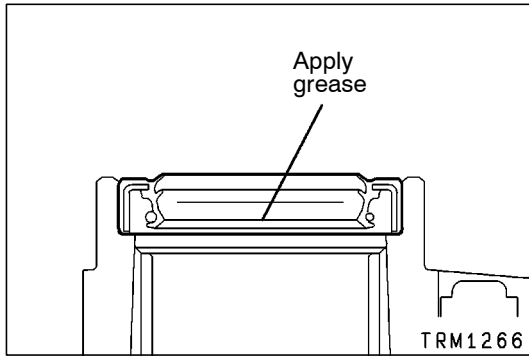
Specified grease:

**Mitsubishi genuine grease Part No. MD0101011
or equivalent**



►Q◄ OIL GUIDE INSTALLATION

- (1) Install the oil guide using the indicated special tools.

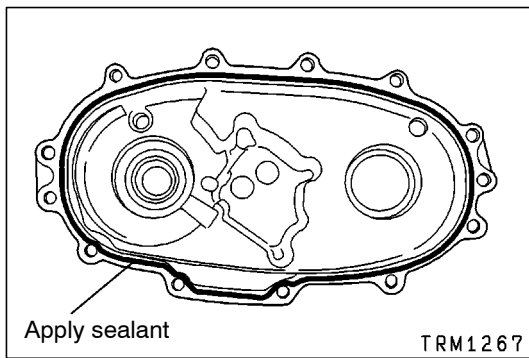
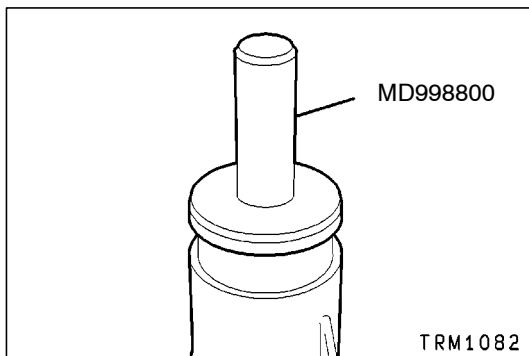


►R◄ OIL SEAL INSTALLATION

- (1) Apply grease to the lip of the oil seal; then assemble the seal using the indicated special tool.

Specified grease:

Mitsubishi genuine grease Part No. MD0101011 or equivalent



►S◄ TRANSFER REAR COVER INSTALLATION

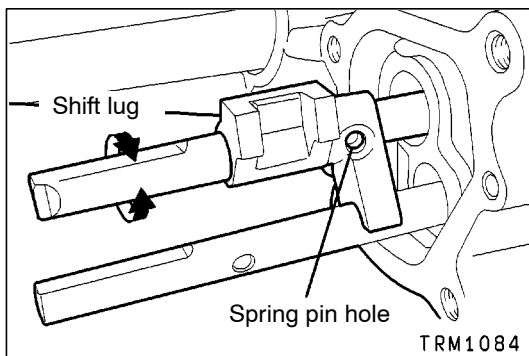
- (1) Apply sealant to the illustrated position of the transfer rear cover.

Specified sealant:

Mitsubishi genuine sealant Part No. MD997740 or equivalent

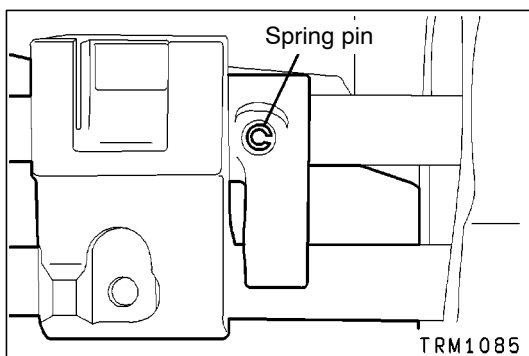
Caution

Squeeze the sealant out evenly to ensure that the bead is not broken and that over-application is not performed.



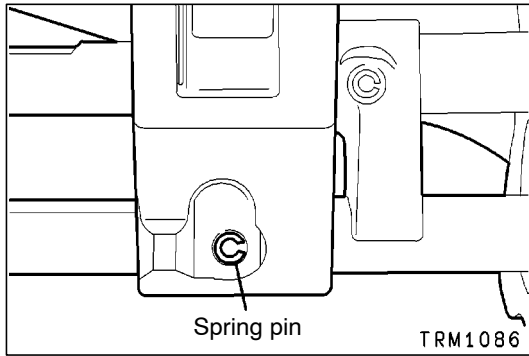
►T◄ 2WD/4WD SHIFT LUG INSTALLATION

- (1) Rotate the 2WD/4WD shift rail to line up the spring pin hole in the 2WD/4WD shift lug with that in the shift rail.



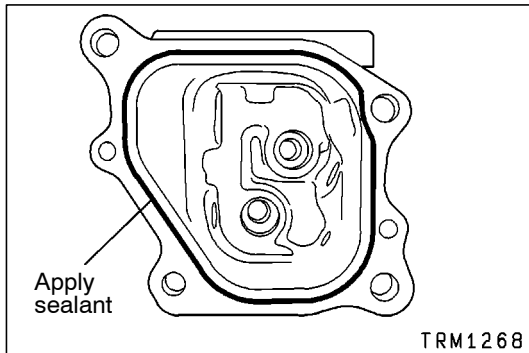
►U◄ SPRING PIN INSTALLATION

- (1) Drive in the spring pin in such a way that its slit is oriented as shown.



►V◄ SPRING PIN INSTALLATION

- (1) Drive in the spring pin in such a way that its slit is oriented as shown.



►W◄ TRANSFER CONTROL HOUSING INSTALLATION

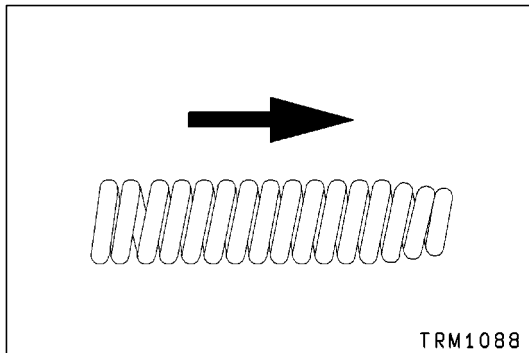
- (1) Apply sealant to the transfer control housing at the indicated position.

Specified sealant:

Mitsubishi genuine sealant Part No. MD997740 or equivalent

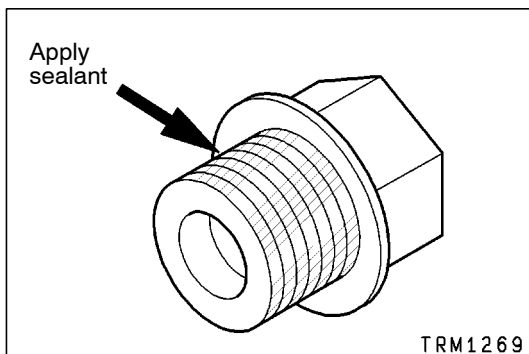
Caution

Squeeze the sealant out evenly to ensure that the bead is not broken and that over-application is not performed.



►X◄ SPRING INSTALLATION

- (1) Install the spring with the tapered end facing the ball side.

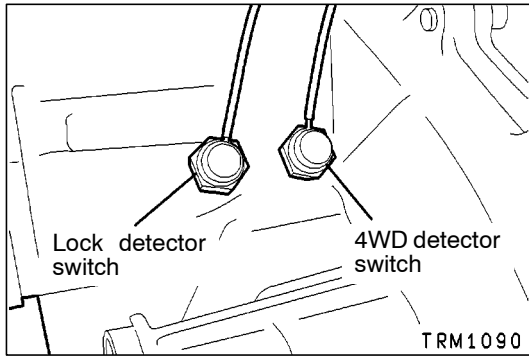


►Y◄ POPPET SEAL BOLT INSTALLATION (when reused)

- (1) Apply sealant to the threaded area of the poppet seal bolt before tightening to the specified torque.

Specified sealant:

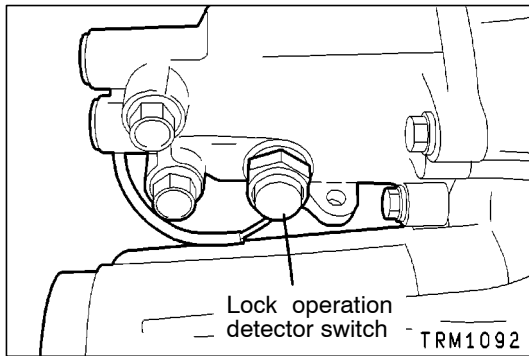
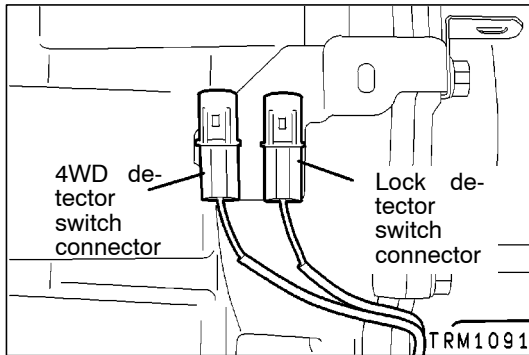
3M ATD Part No. 8660 or equivalent



►Z◄ LOCK DETECTOR SWITCH / 4WD DETECTOR SWITCH INSTALLATION

(1) Install each of the detector switches at the correct position.

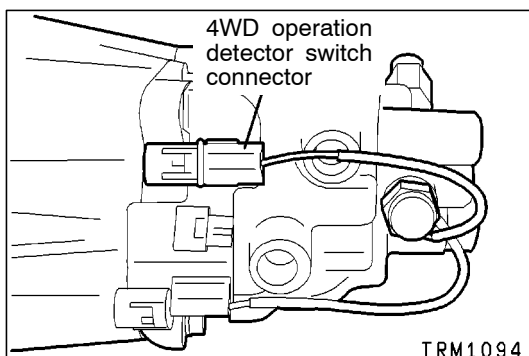
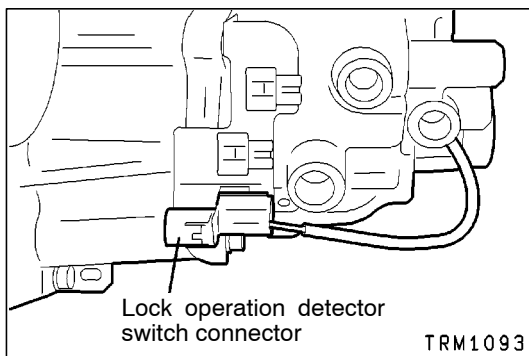
Name	Connector color	Harness tube color
Lock detector switch	Brown	Black
4WD detector switch	White	Black



►a◄ LOCK OPERATION DETECTOR SWITCH INSTALLATION

(1) Install the detector switch as illustrated.

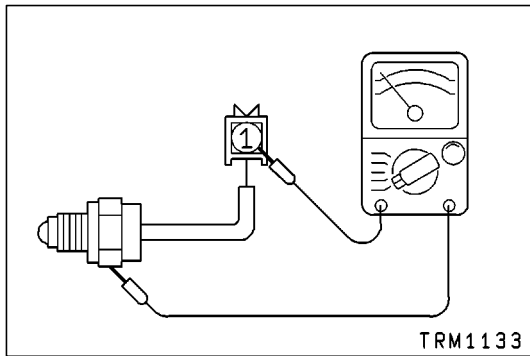
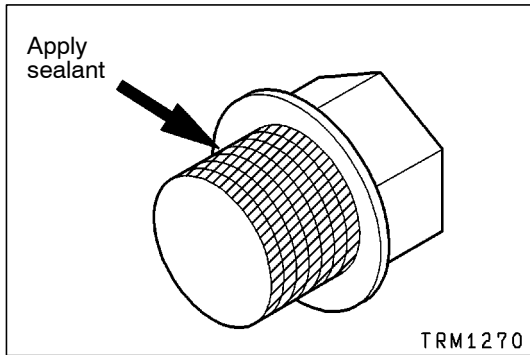
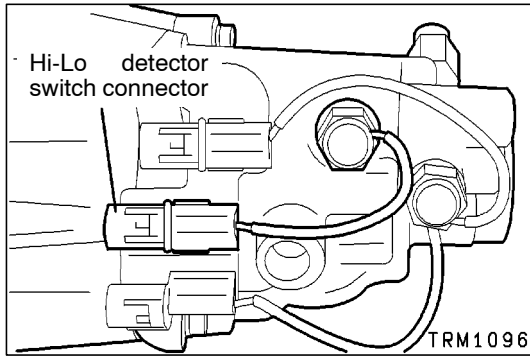
Name	Connector color	Harness tube color
Lock operation detector switch	Brown	Yellow



►b◄ 4WD OPERATION DETECTOR SWITCH / HI-LO DETECTOR SWITCH INSTALLATION

(1) Install each of these detector switches as illustrated.

Name	Connector color	Harness tube color
4WD operation detector switch	White	Blue
Hi-Lo detector switch	Black	Black



▶◀ SELECT PLUNGER SEAL PLUG INSTALLATION (when reused)

- (1) Apply sealant to the threaded area of the seal plug before tightening to the specified torque.

Specified sealant:
3M ATD Part No. 8660 or equivalent

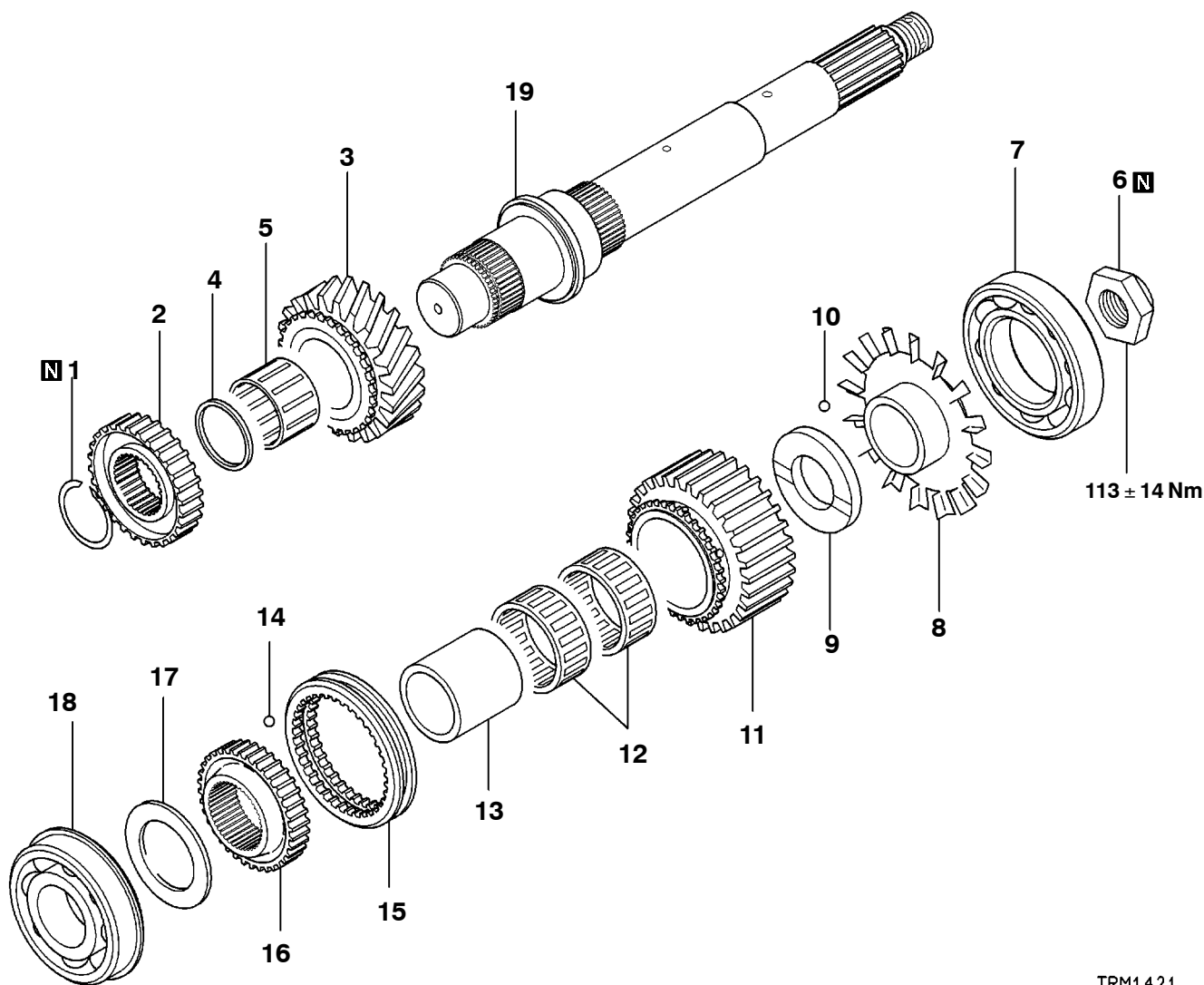
INSPECTION

DETECTOR SWITCHES

- (1) Check each detector switch for continuity between the connector terminal and the switch body.
- (2) Replace the switch if the test results shown below are not obtained.

Names	Connector color	Harness tube color	Switch pressed	Switch released
Hi-Lo detector switch	Black	Black	No continuity	Continuity exists
4WD detector switch	White	Black	No continuity	Continuity exists
Lock detector switch	Brown	Black	No continuity	Continuity exists
4WD operation detector switch	White	Blue	Continuity exists	No continuity
Lock operation detector switch	Brown	Yellow	Continuity exists	No continuity

10. REAR OUTPUT SHAFT <V5M21-9>



TRM1421

Disassembly steps

◀A▶ ▶F▶
▶E▶

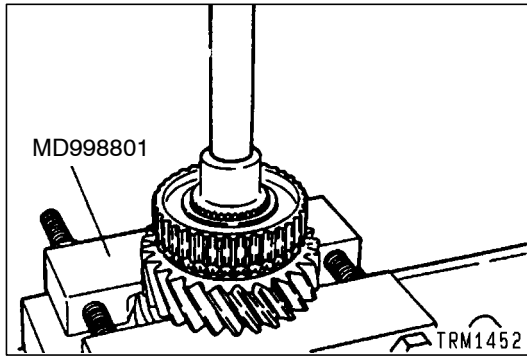
- 1. Snap ring
- 2. Clutch hub (H-L)
- 3. Low speed gear
- 4. Bearing spacer
- 5. Needle bearing

▶B▶ ▶D▶
▶C▶ ▶C▶

- 6. Lock nut
- 7. Radial ball bearing
- 8. Oil guide
- 9. Sprocket spacer
- 10. Steel ball

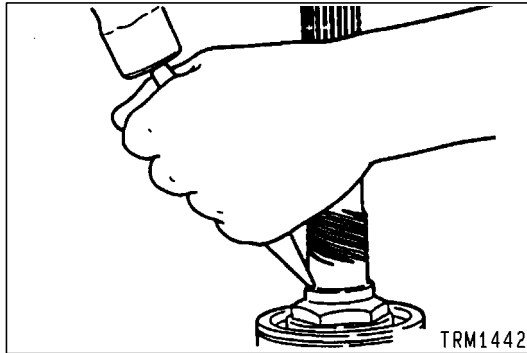
◀D▶ ▶B▶
▶A▶ ▶A▶

- 11. Drive sprocket
- 12. Needle bearing
- 13. Sprocket sleeve
- 14. Steel ball
- 15. Clutch sleeve
- 16. Clutch hub (2-4WD)
- 17. Stopper plate
- 18. Ball bearing
- 19. Rear output shaft

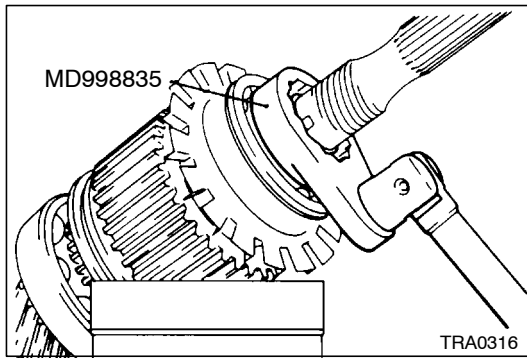
**DISASSEMBLY SERVICE POINTS****◀A▶ CLUTCH HUB (H-L) REMOVAL****NOTE**

Some of the clutch hubs may be removed without using a press.

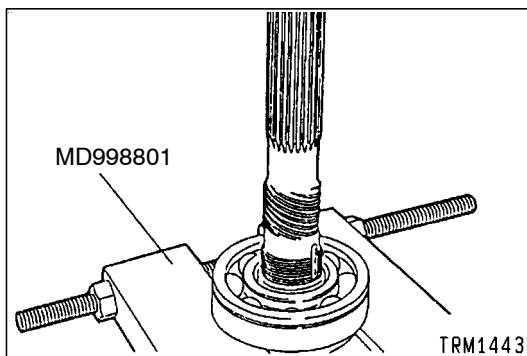
- (1) Set the special tool so that load may be received by the low speed gear.
- (2) Use a press to push the front end of the rear output shaft and remove the hub and gear.

**◀B▶ LOCK NUT REMOVAL**

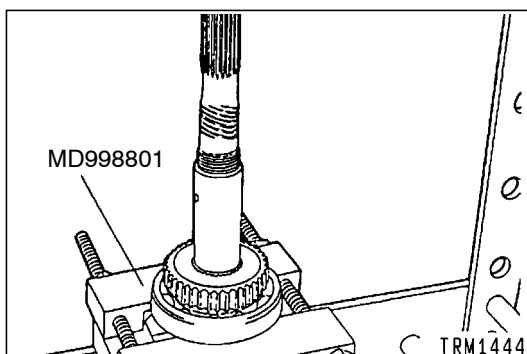
- (1) Use a chisel and hammer to set the lock nut free.



- (2) Using the special tool, remove the lock nut.

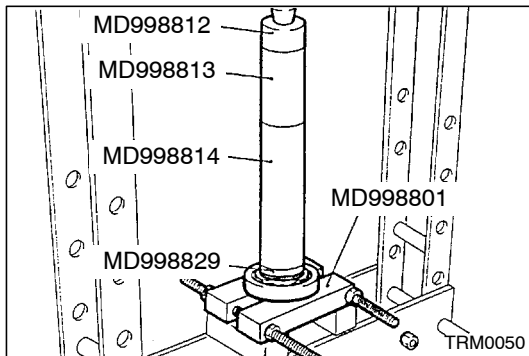
**◀C▶ RADIAL BALL BEARING REMOVAL****NOTE**

Some of the bearings are loosely fitted on the shaft and may be removed without using a press.

**◀D▶ CLUTCH HUB (2-4WD) / BALL BEARING REMOVAL****NOTE**

Some of the 2-4WD clutch hubs may be removed without using a press.

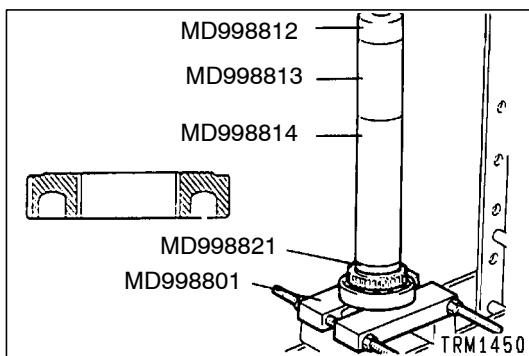
- (1) Set the special tool so that load may be received by the bearing.
- (2) Use a press to push the rear end of the rear output shaft and remove the hub and bearing.



REASSEMBLY SERVICE POINTS

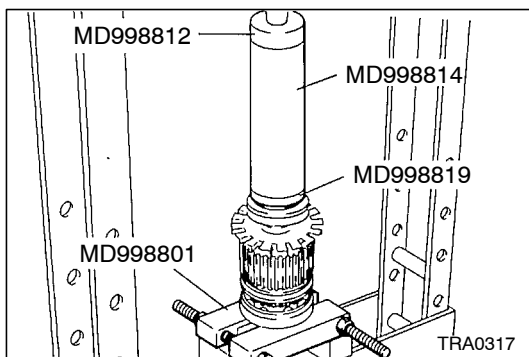
▶A◀ BALL BEARING / STOPPER PLATE INSTALLATION

- (1) Place the stopper plate on the bearing.
- (2) Using a special tool, install the ball bearing on the rear output shaft.

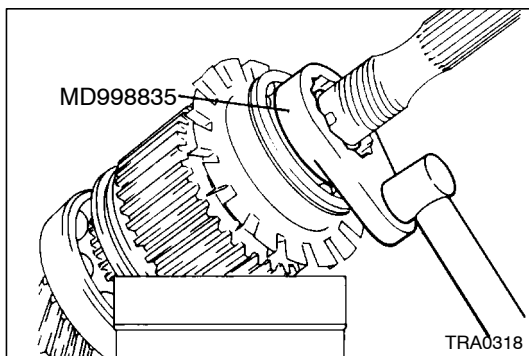


▶B◀ CLUTCH HUB (2-4WD) INSTALLATION

- (1) Direct the clutch hub as shown in the illustration to install it to the rear output shaft.

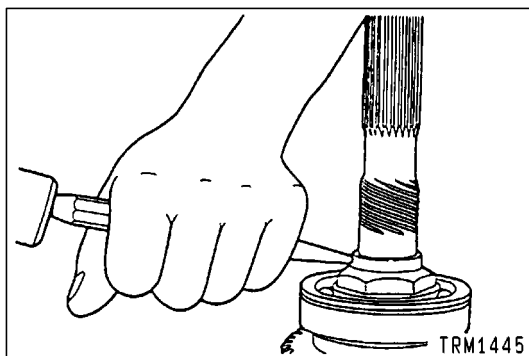


▶C◀ RADIAL BALL BEARING INSTALLATION

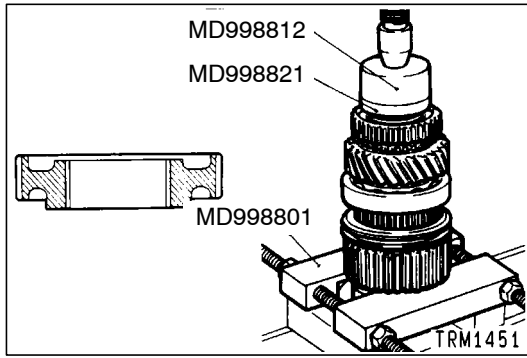


▶D◀ LOCK NUT INSTALLATION

- (1) Use the special tool to tighten the rear output shaft lock nut to the specified torque.



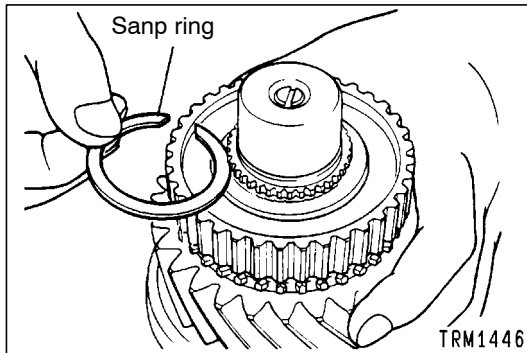
- (2) Use a punch and hammer to secure the lock nut in alignment with the groove in the output shaft.

**▶E◀ CLUTCH HUB (H-L) INSTALLATION**

- (1) Use the special tools to install the H-L clutch hub to the rear output shaft.

NOTE

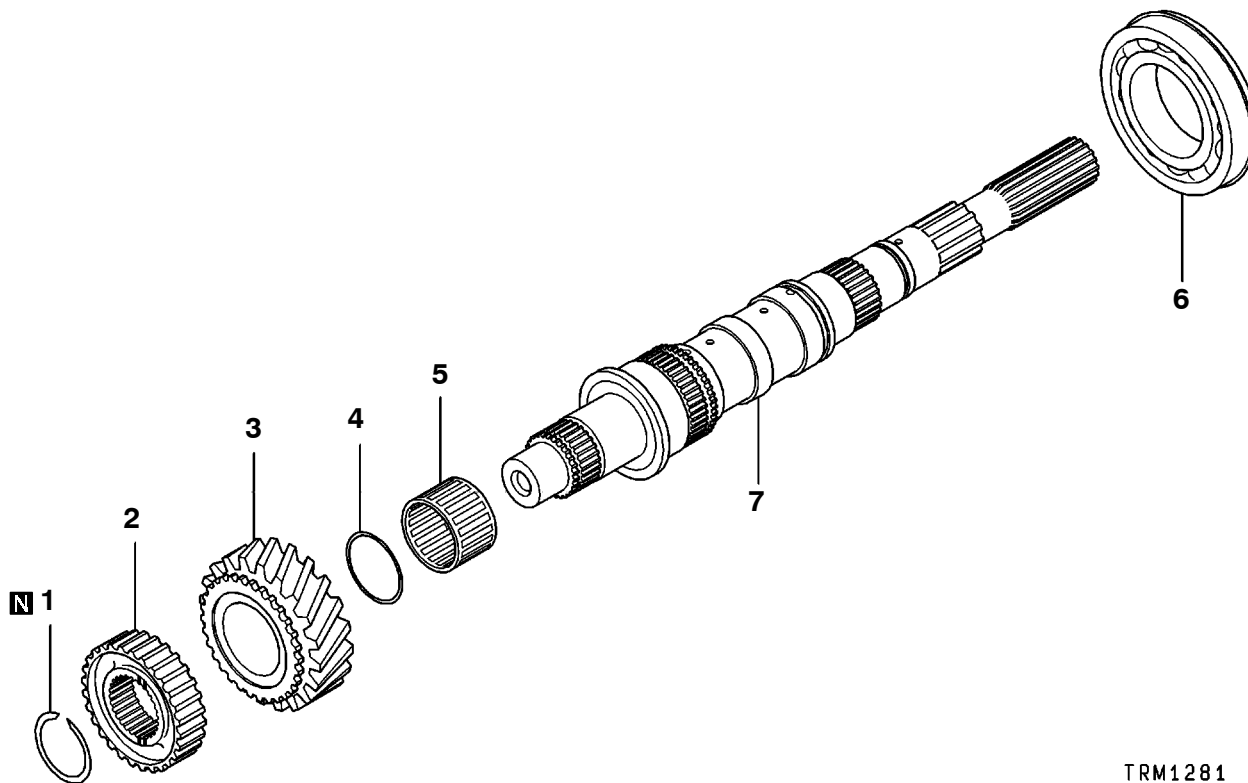
Some of the hubs may be installed without using a press.

**▶F◀ SNAP RING INSTALLATION**

- (1) Select the thickest snap ring that will fit into the groove in the front end of the rear output shaft and install it.

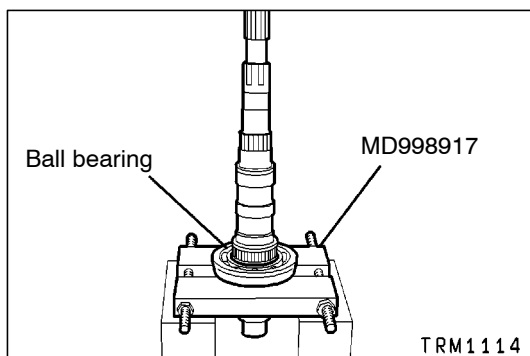
Standard value: 0 - 0.08 mm

11. REAR OUTPUT SHAFT <V5M21-A>



Disassembly steps

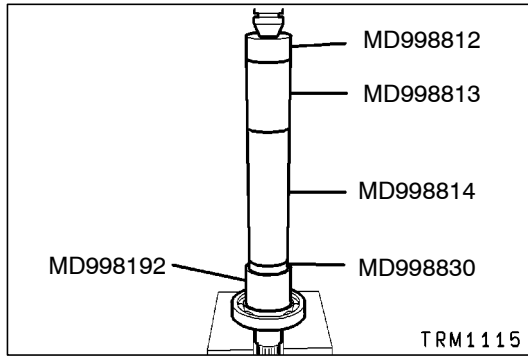
- ◀C▶ 1. Snap ring
- ◀B▶ 2. Hi-Lo clutch hub
- 3. Low speed gear
- 4. Bearing spacer
- 5. Needle bearing
- ◀A▶ ▶A▶ 6. Center bearing
- 7. Rear output shaft



DISASSEMBLY SERVICE POINT

◀A▶ **CENTER BEARING REMOVAL**

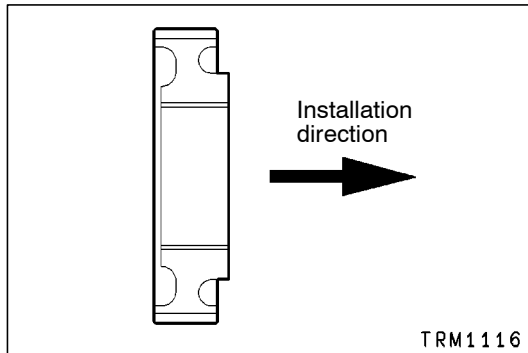
- (1) Remove the center bearing using the indicated special tool.



REASSEMBLY SERVICE POINT

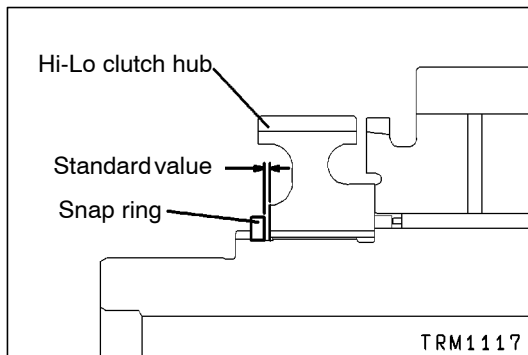
▶A◀ CENTER BEARING INSTALLATION

- (1) Install the center bearing using the indicated special tool.



▶B◀ HI-LO CLUTCH HUB INSTALLATION

- (1) Install the Hi-Lo clutch hub in the direction indicated by arrow.

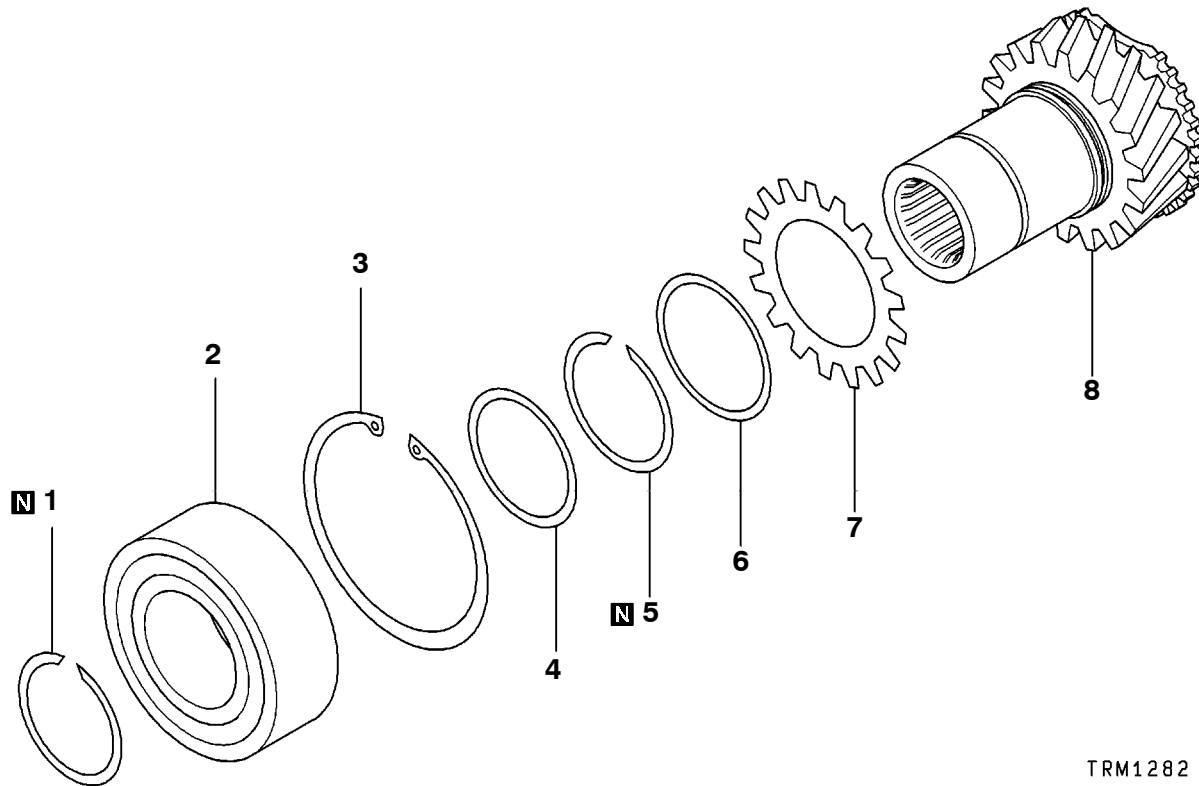


▶C◀ SNAP RING INSTALLATION

- (1) Choose and assemble a suitable snap ring to ensure that the Hi-Lo clutch hub clearance is at the standard value.

Standard value: 0 - 0.08 mm

12. INPUT SHAFT

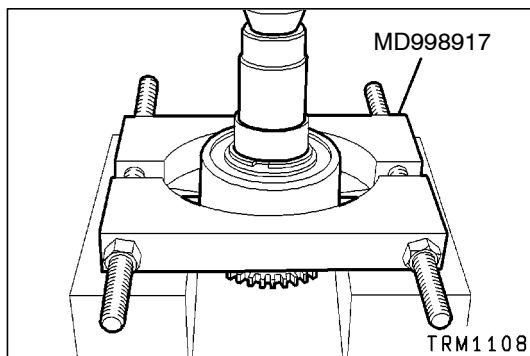


TRM1282

Disassembly steps

- ◀A▶ **D** 1. Snap ring
- ◀A▶ **C** 2. Bearing
- ◀A▶ **B** 3. Snap ring <V5M21-A>
- 4. Spacer

- 5. Snap ring
- 6. Cone spring
- 7. Sub gear
- 8. Input gear



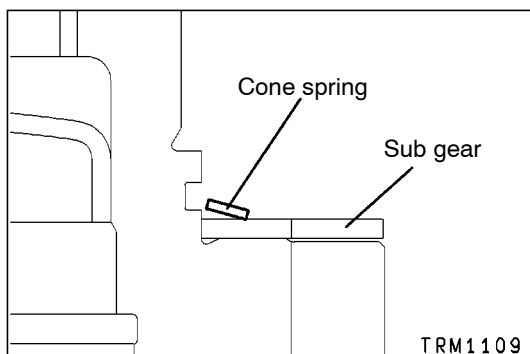
DISASSEMBLY SERVICE POINT

◀A▶ BEARING REMOVAL

- (1) Remove the bearing using the indicated special tool.

Caution

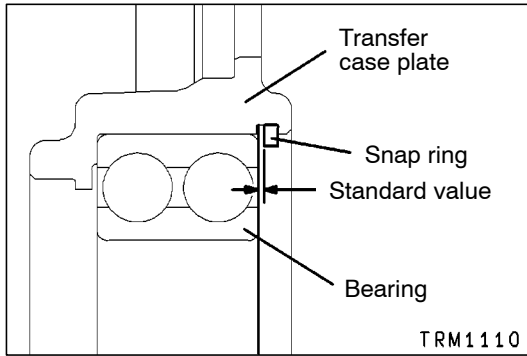
Do not allow the special tool to contact the spacer.



REASSEMBLY SERVICE POINTS

▶A◀ CONE SPRING INSTALLATION

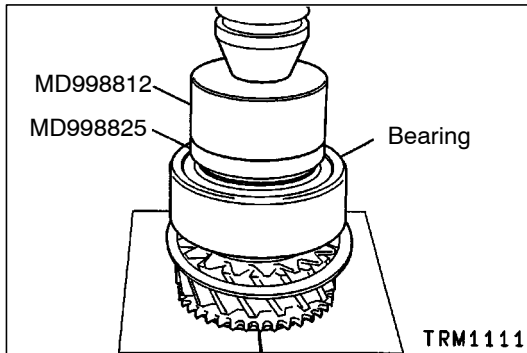
- (1) Install the cone spring in the indicated orientation.



▶B◀ SNAP RING SELECTION

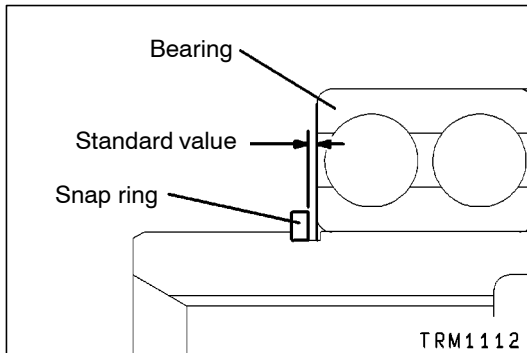
- (1) Install the bearing in the transfer case plate.
- (2) Choose and assemble a suitable snap ring to ensure that the input gear end play is at the standard value.

Standard value: 0 - 0.06 mm



▶C◀ BEARING INSTALLATION

- (1) Install the bearing using the indicated special tool.

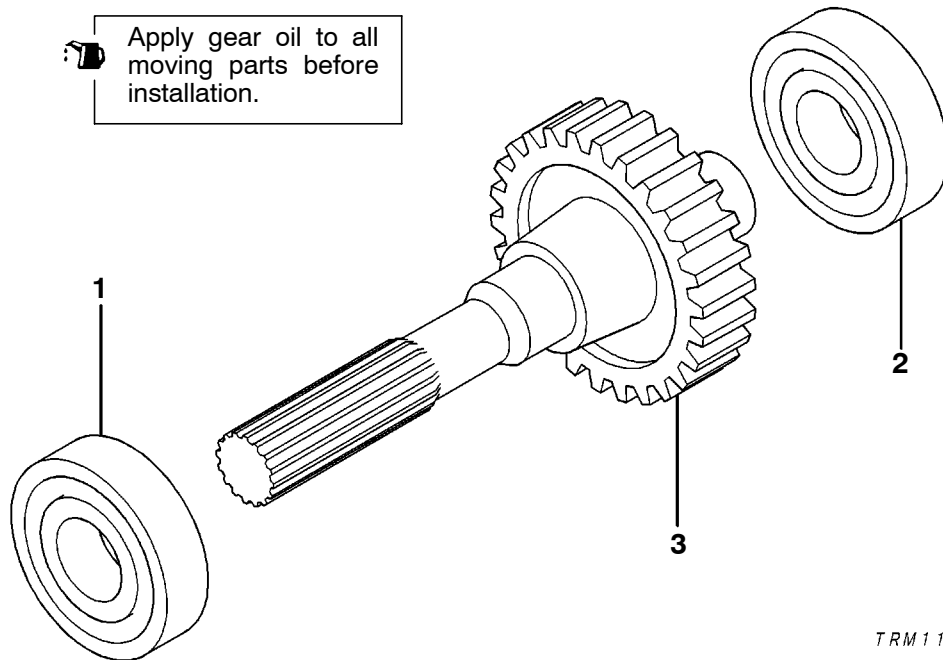


▶D◀ SNAP RING INSTALLATION

- (1) Choose and assemble a suitable snap ring to ensure that the input gear bearing clearance is at the standard value.

Standard value: 0 - 0.06 mm

13. FRONT OUTPUT SHAFT



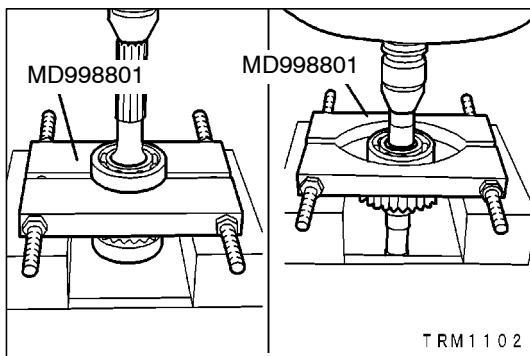
TRM1101

Disassembly steps



- 1. Ball bearing
- 2. Ball bearing

- 3. Front output shaft

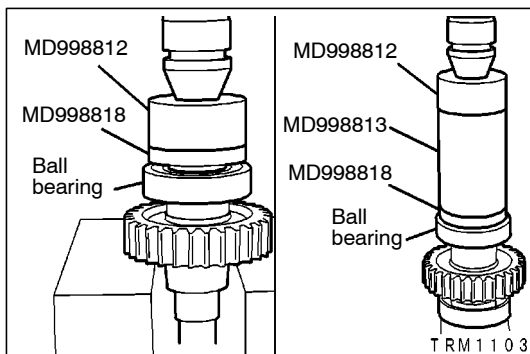


TRM1102

DISASSEMBLY SERVICE POINT

◀▶ BALL BEARING REMOVAL

- (1) Remove the bearing using the indicated special tool.



TRM1103

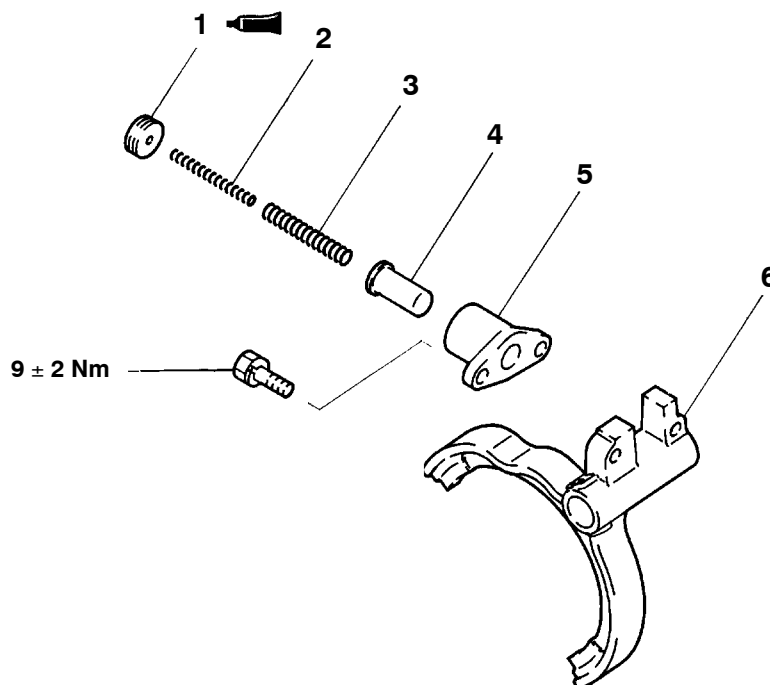
REASSEMBLY SERVICE POINT

▶◀ BALL BEARING INSTALLATION

- (1) Install the bearing using the indicated special tools.

NOTES

14. H-L SHIFT FORK <V5M21-9>



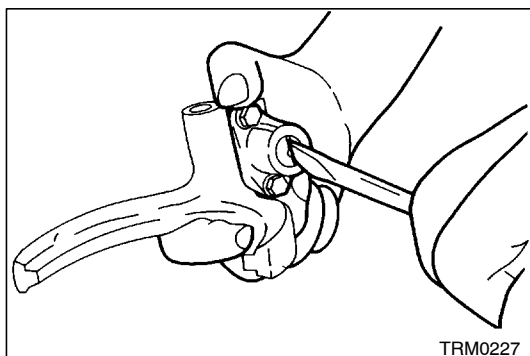
TRM0226

Disassembly steps



1. Return spring plug
2. Return spring
3. Return spring

4. Select plunger
5. Plunger boss
6. H-L shift fork



TRM0227

REASSEMBLY SERVICE POINT

▶A◀ RETURN SPRING PLUG INSTALLATION

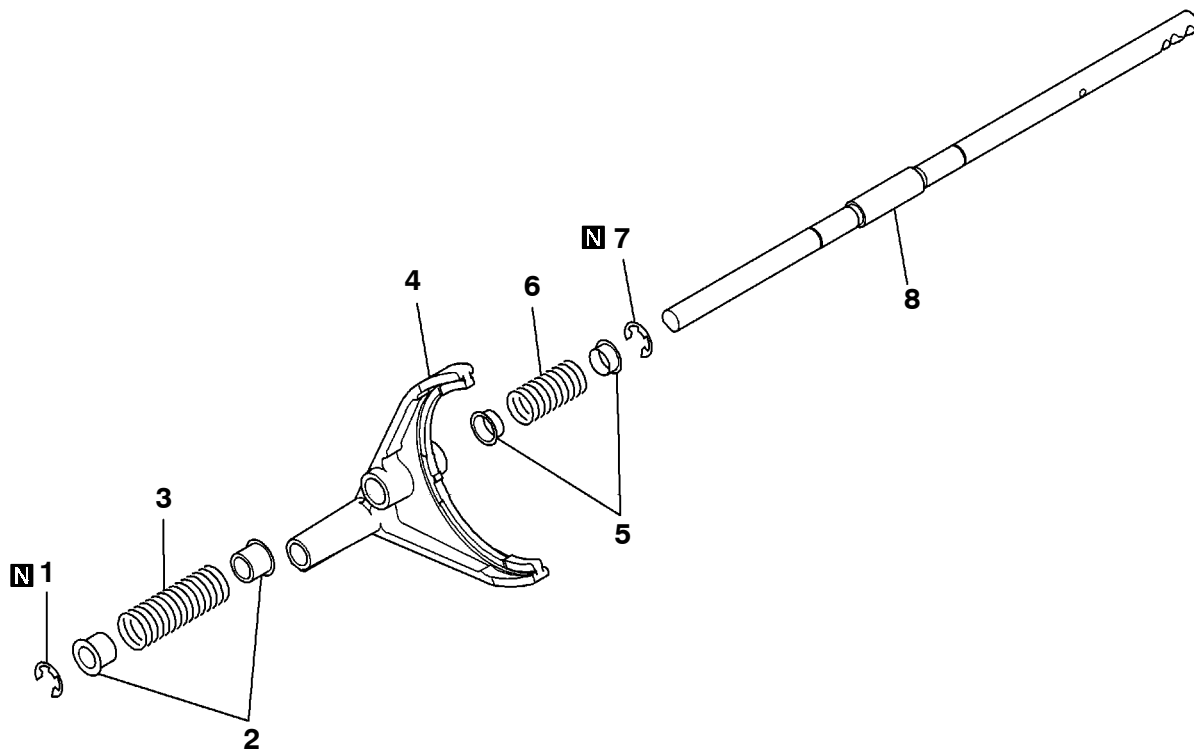
- (1) Apply sealant to the return spring plug and thread the plug in until it is flush with the plunger boss end.

Specified sealant:

3M Super Weatherstrip No. 8001 or equivalent

NOTES

15. 2WD/4WD SHIFT FORK AND RAIL <V5M21-A>



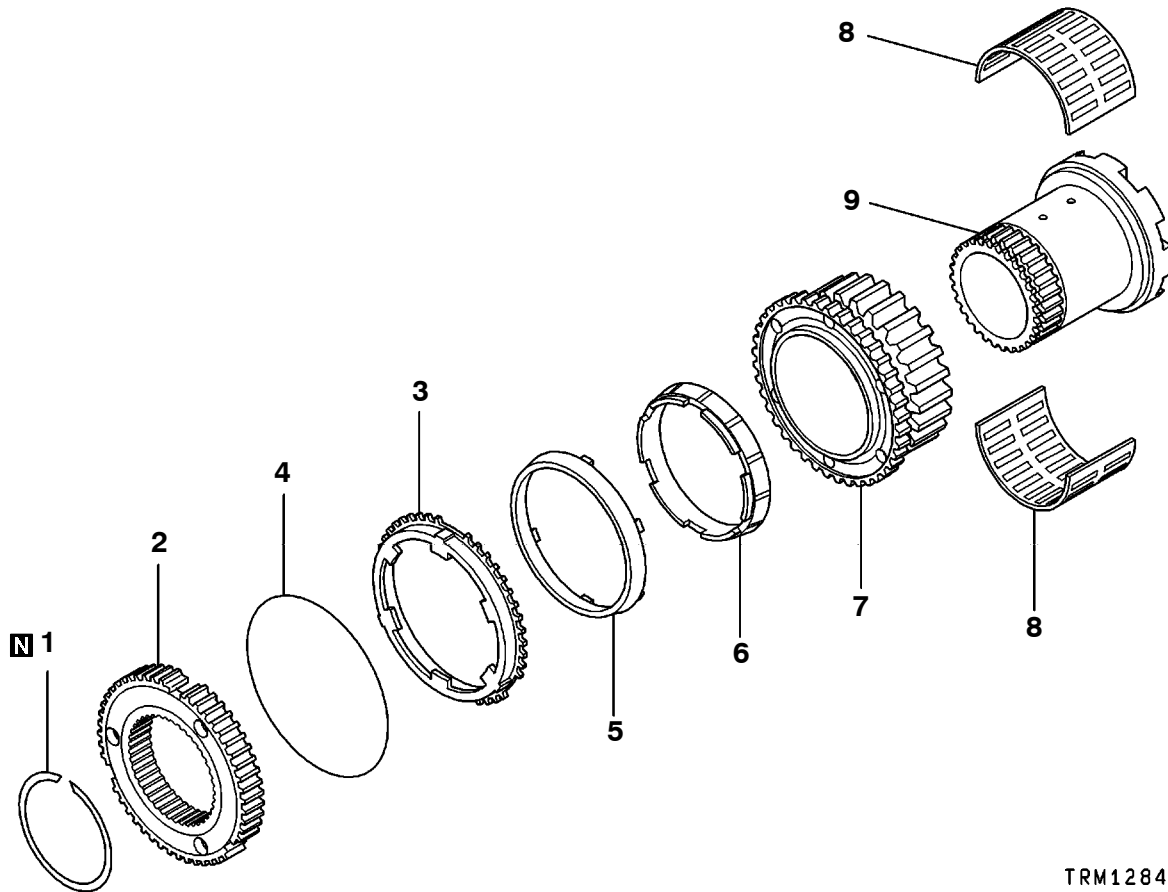
TRM1283

Disassembly steps

- | | |
|-----------------------|-----------------------|
| 1. Snap ring | 5. Spring retainers |
| 2. Spring retainers | 6. Return spring |
| 3. Return spring | 7. Snap ring |
| 4. 2WD/4WD shift fork | 8. 2WD/4WD shift rail |

NOTES

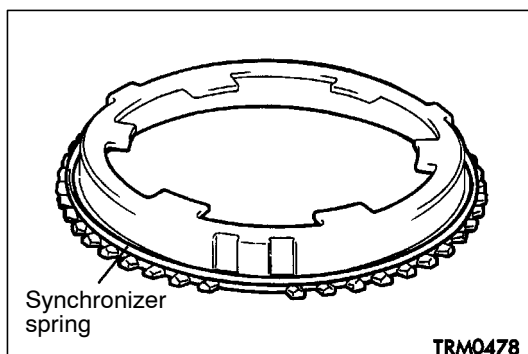
16. 2WD/4WD SYNCHRONIZER <V5M21-A>



TRM1284

Disassembly steps

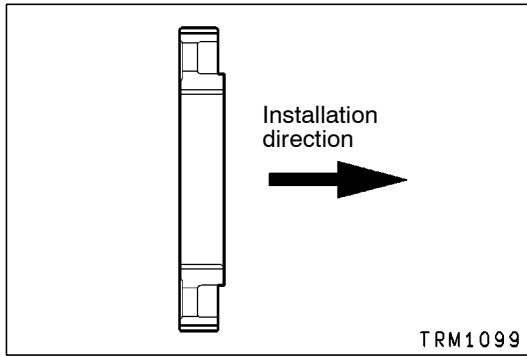
- ▶C▶ 1. Snap ring
- ▶B▶ 2. 2WD/4WD clutch hub
- ▶A▶ 3. Outer synchronizer ring
- ▶A▶ 4. Synchronizer spring
- ▶A▶ 5. Synchronizer cone
- ▶A▶ 6. Inner synchronizer ring
- ▶A▶ 7. Drive sprocket
- ▶A▶ 8. Needle bearing
- ▶A▶ 9. Front input sleeve



REASSEMBLY SERVICE POINTS

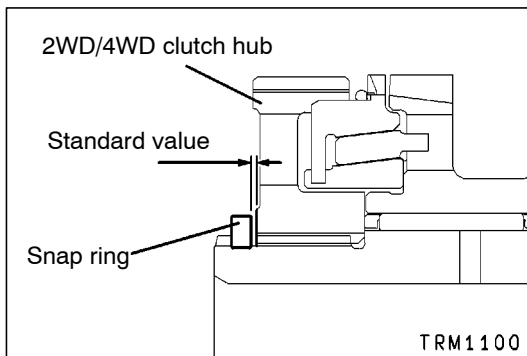
▶A▶ **SYNCHRONIZER SPRING INSTALLATION**

- (1) Securely mount the synchronizer spring on the outer synchronizer ring.



▶B◀ 2WD/4WD CLUTCH HUB INSTALLATION

- (1) Install the 2WD/4WD clutch hub in the arrowed direction.

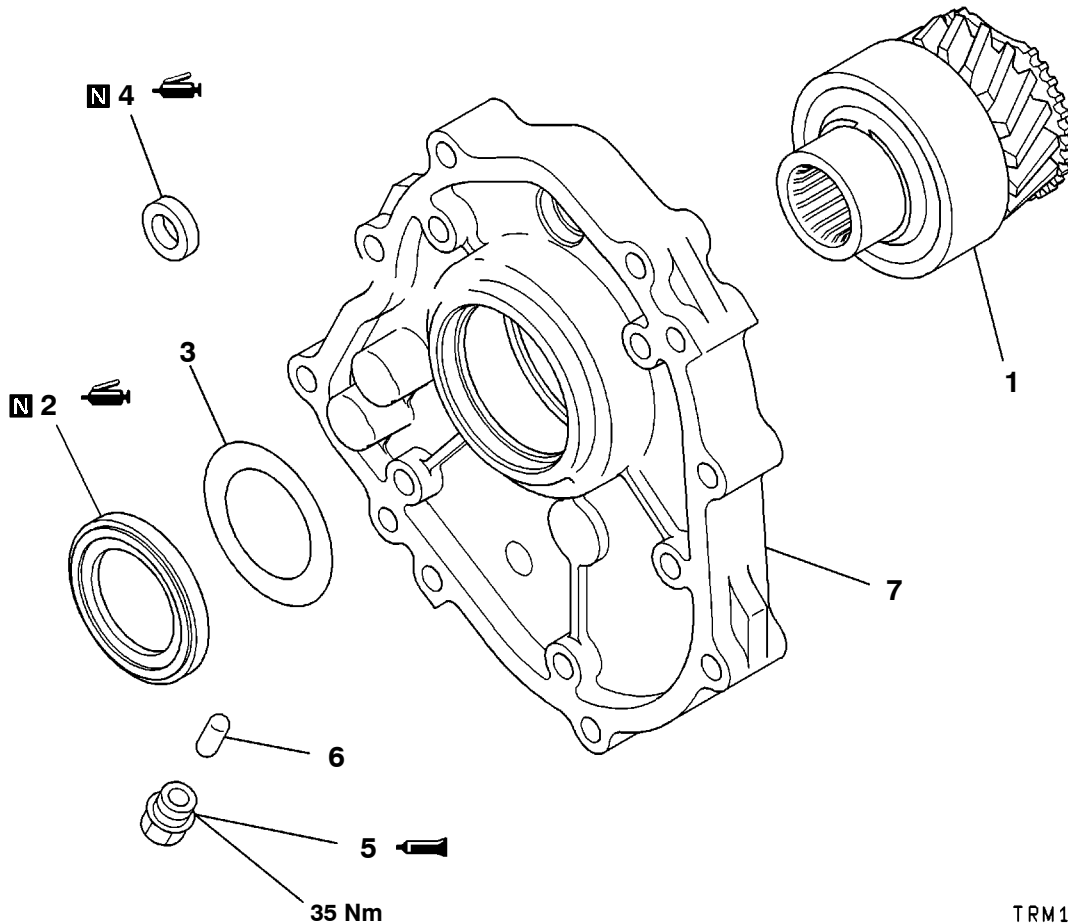


▶C◀ SNAP RING INSTALLATION

- (1) Choose and assemble a suitable snap ring to ensure that the 2WD/4WD clutch hub end play is at the standard value.

Standard value: 0 - 0.08 mm

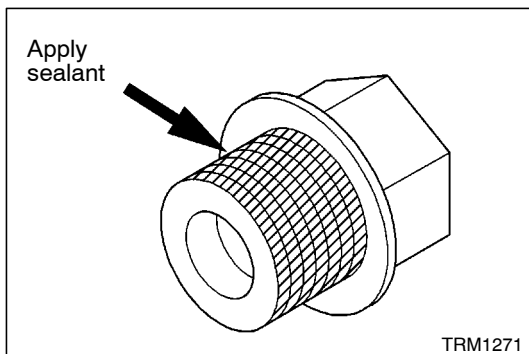
17. TRANSFER CASE PLATE <V5M21-A>



TRM1285

Disassembly steps

- ▶C◀ 1. Input shaft
- ▶B◀ 2. Oil seal
- ▶A◀ 3. Baffle plate
- ▶A◀ 4. Oil seal
- ▶A◀ 5. Interlock plunger seal bolt
- ▶A◀ 6. Interlock plunger
- ▶A◀ 7. Transfer case plate



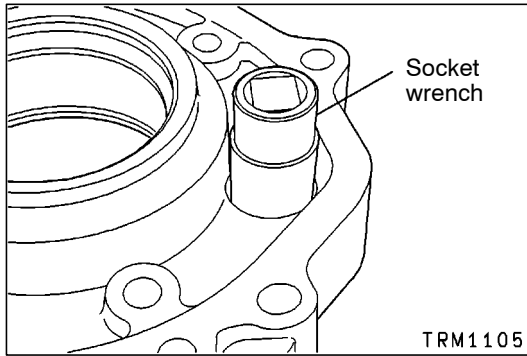
REASSEMBLY SERVICE POINTS

▶A◀ **INTERLOCK PLUNGER SEAL BOLT INSTALLATION (when reused)**

- (1) Apply sealant to the threaded area of the seal bolt before tightening to the specified torque.

Specified sealant:

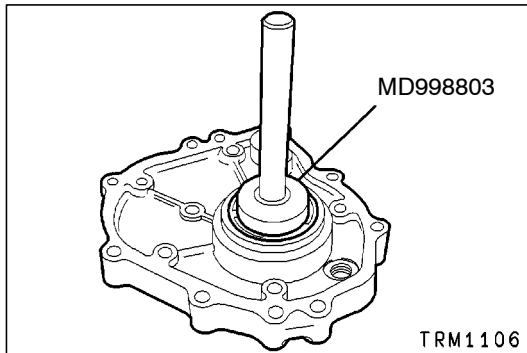
3M ATD Part No. 8660 or equivalent

**▶B◀ OIL SEAL INSTALLATION**

- (1) Install the oil seal using a socket wrench or some other similar tool. After installation, apply grease to the lip of the oil seal.

Specified grease:

**Mitsubishi genuine grease Part No. MD0101011
or equivalent**

**▶C◀ OIL SEAL INSTALLATION**

- (1) Install the oil seal using the indicated special tool. Following this, apply grease to the lip of the oil seal.

Specified grease:

**Mitsubishi genuine grease Part No. MD0101011
or equivalent**