

SECTION **PD**

MODIFICATION NOTICE:

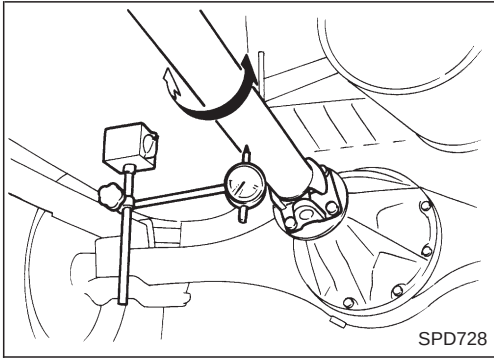
- ZD30ETi engine has been adopted.

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PROPELLER SHAFT



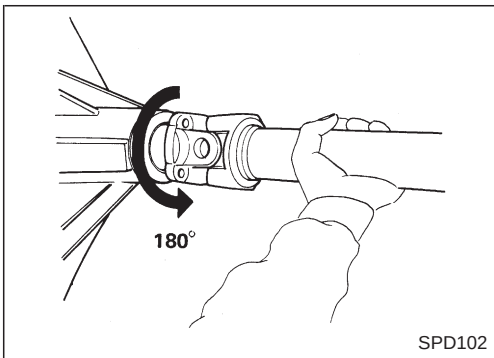
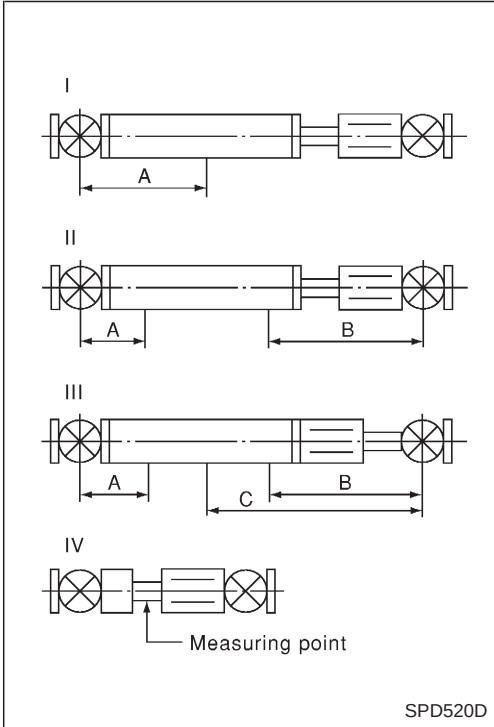
On-vehicle Service

PROPELLER SHAFT VIBRATION

If vibration is present at high speed, inspect propeller shaft runout first.

1. Raise front and rear wheels.
2. Measure propeller shaft runout at several points by rotating final drive companion flange with hands.

Runout limit: 0.6 mm (0.024 in)



Unit: mm (in)

Applied model				Distance		
				A	B	C
Front propeller shaft	I	ZD30ETi	M/T	273 (10.75)		
		ZD30ETi	A/T	257.5 (10.14)		
Rear propeller shaft	II	ZD30ETi (Hardtop)	A/T	160 (6.30)	410 (16.14)	—
	III	ZD30ETi (Wagon)	M/T	190 (7.48)	445 (17.52)	606 (23.86)
		ZD30ETi (Wagon)	A/T	190 (7.48)	445 (17.52)	649.5 (25.57)
	IV	ZD30ETi (Hardtop)	M/T	—	—	—

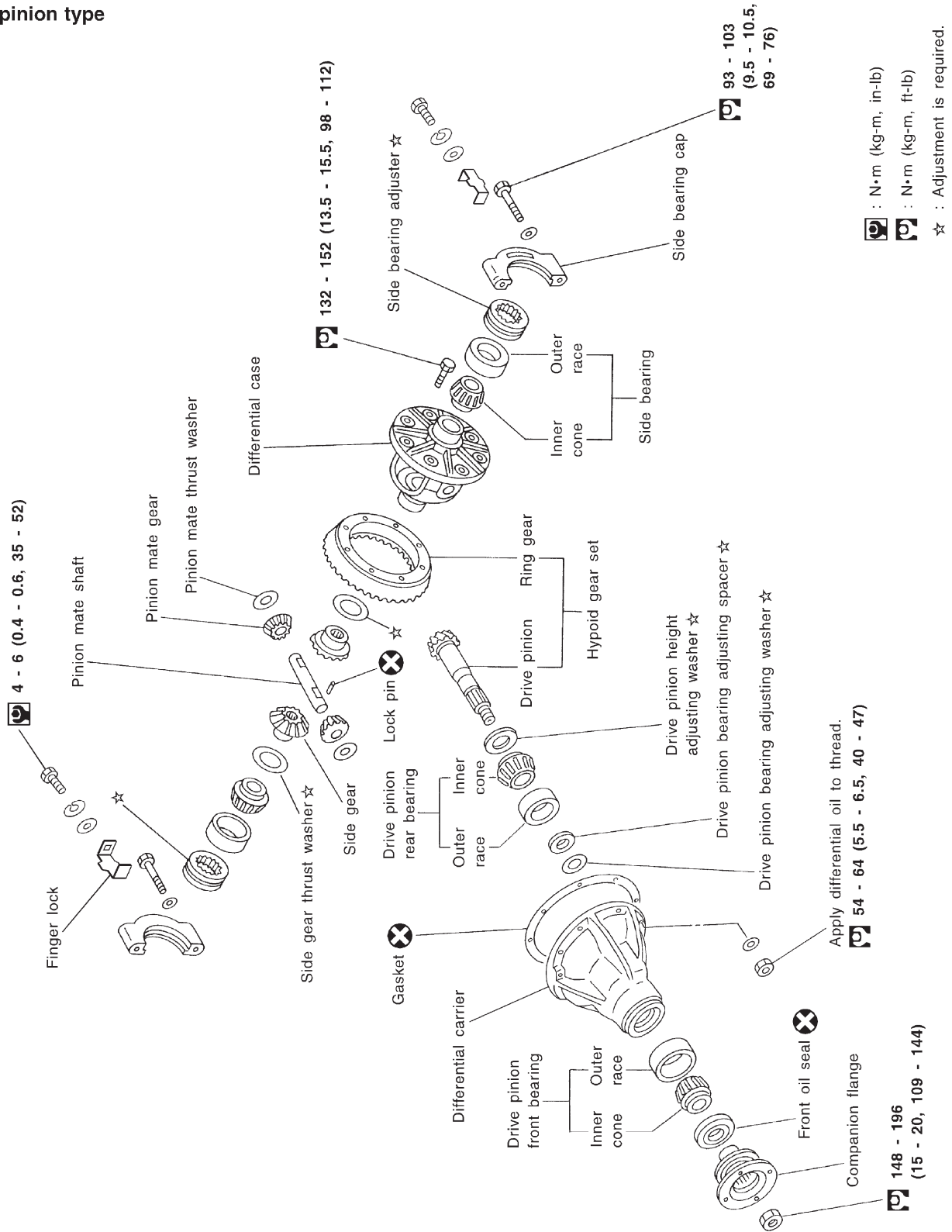
3. If runout exceeds specifications, disconnect propeller shaft at final drive companion flange; then rotate companion flange 180 degrees and reconnect propeller shaft.
4. Check runout again. If runout still exceeds specifications, replace propeller shaft assembly.
5. Perform road tests.

APPEARANCE CHECKING

- Inspect propeller shaft tube surface for dents or cracks. If damaged, replace propeller shaft assembly.

FRONT FINAL DRIVE

H233B
2-pinion type



SEC. 380

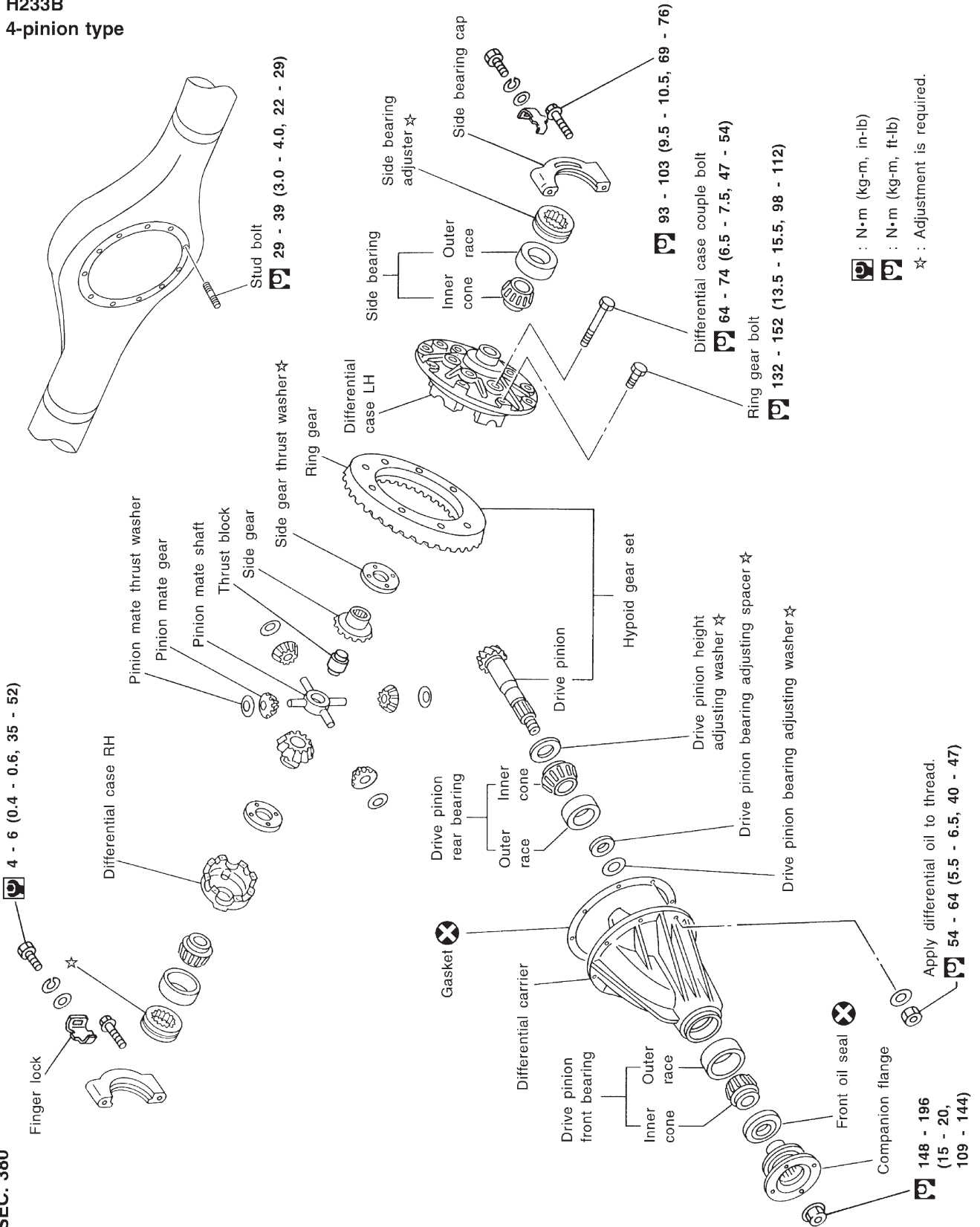
PD-1004

SPD436AA

REAR FINAL DRIVE

H233B
4-pinion type

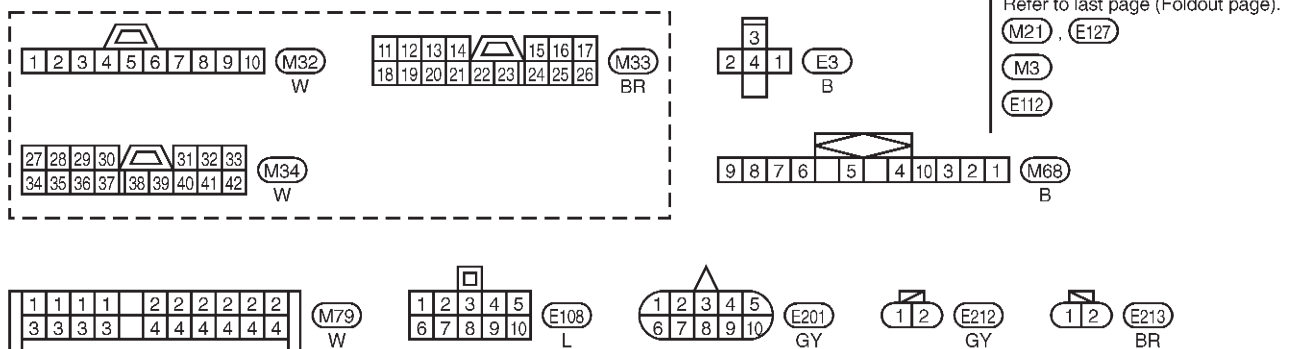
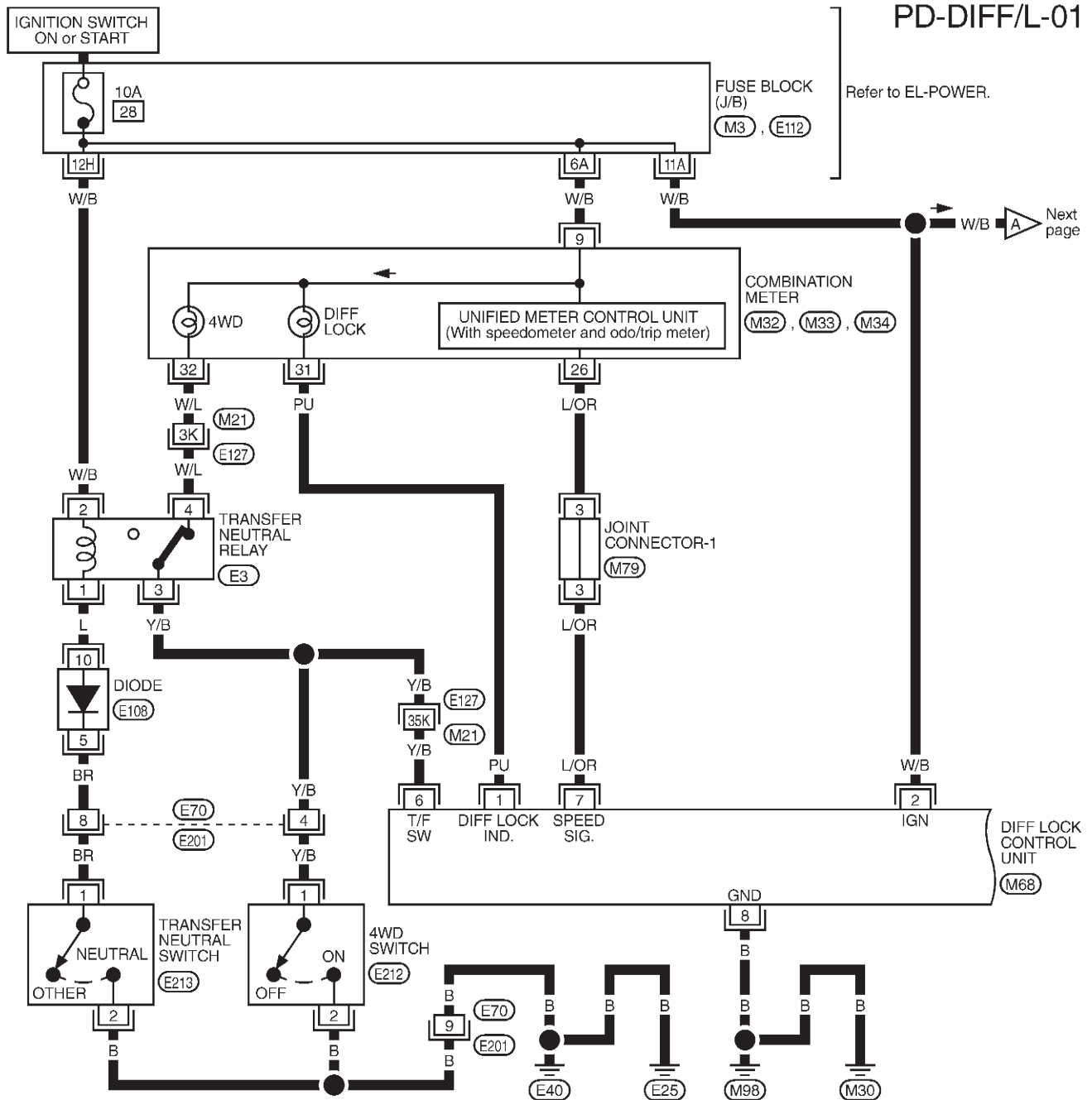
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DIFFERENTIAL LOCK

Wiring Diagram — DIFF/L —/LHD Models

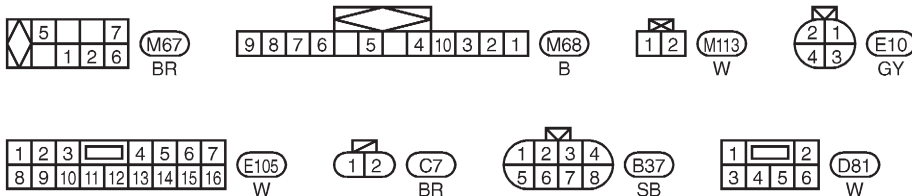
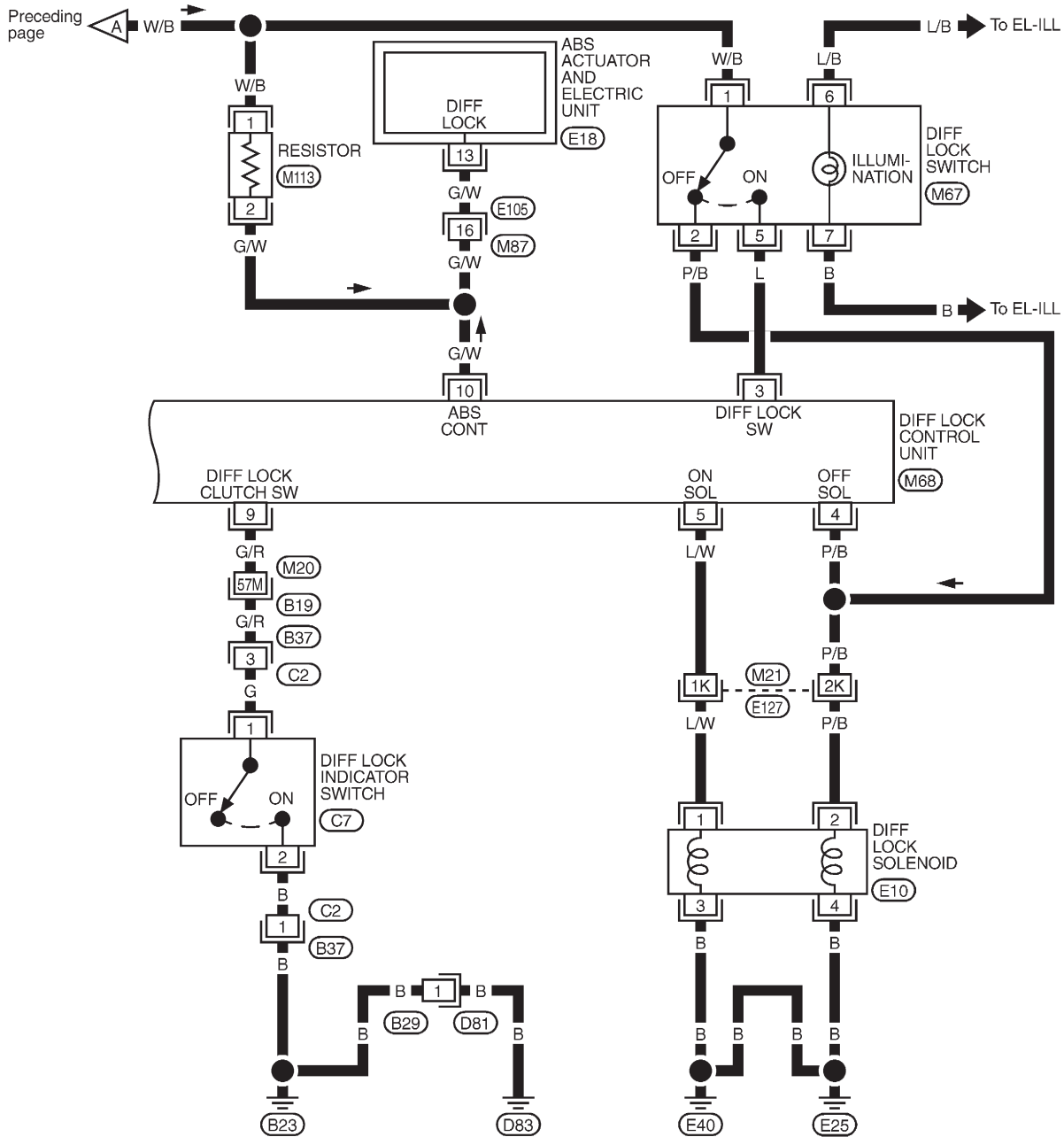
PD-DIFF/L-01



DIFFERENTIAL LOCK

Wiring Diagram — DIFF/L —/LHD Models (Cont'd)

PD-DIFF/L-02



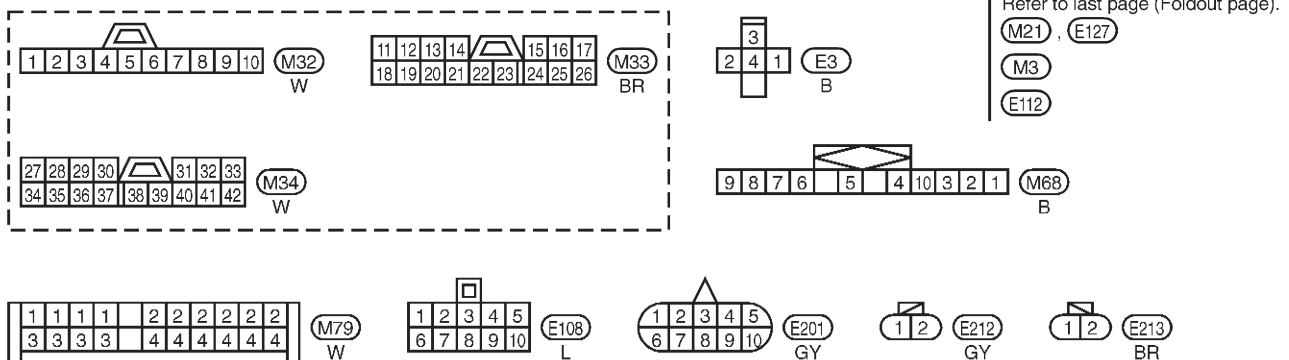
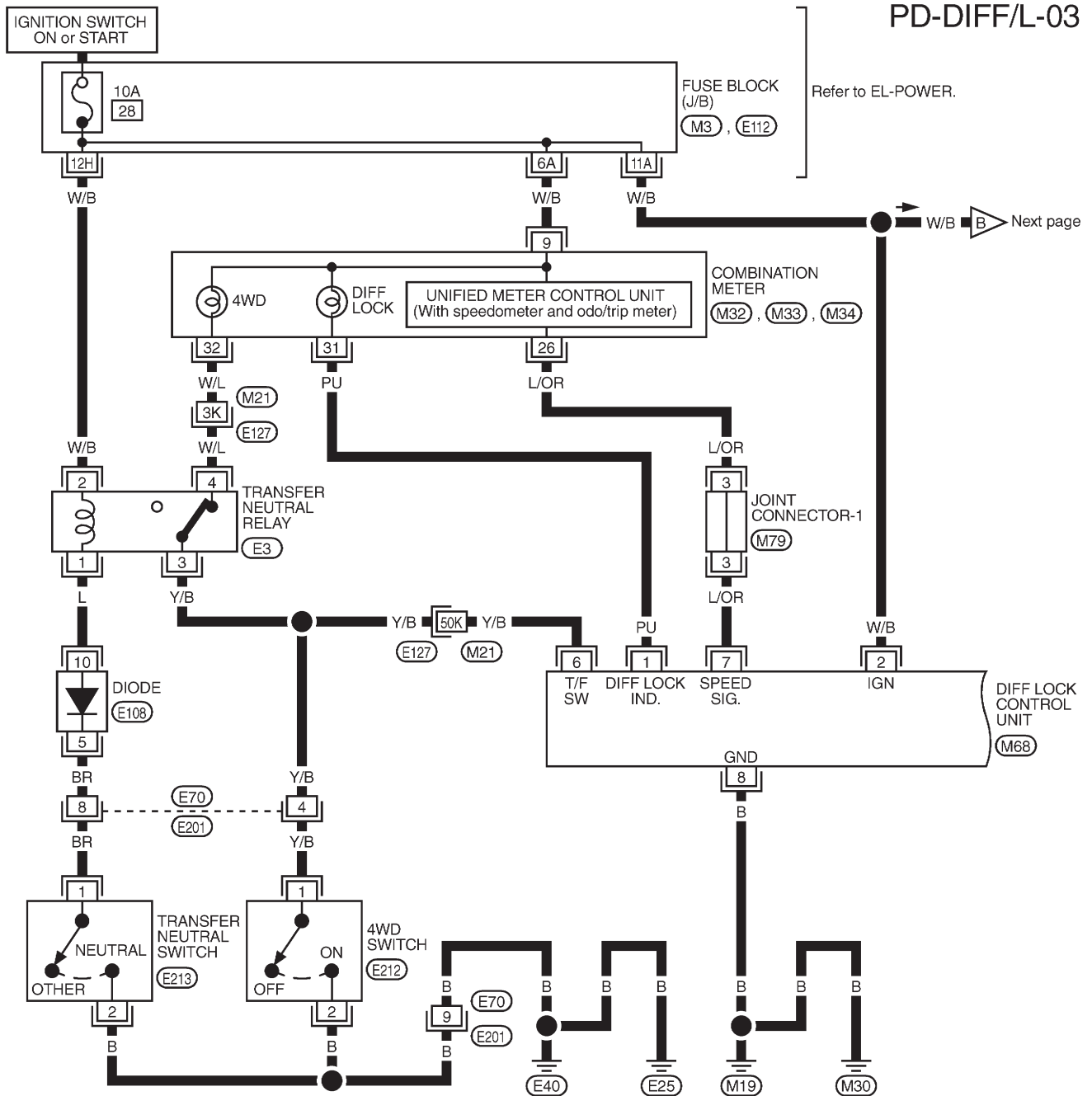
Refer to last page (Foldout page).

M20, B19
M21, E127
E18

DIFFERENTIAL LOCK

Wiring Diagram — DIFF/L —/RHD Models

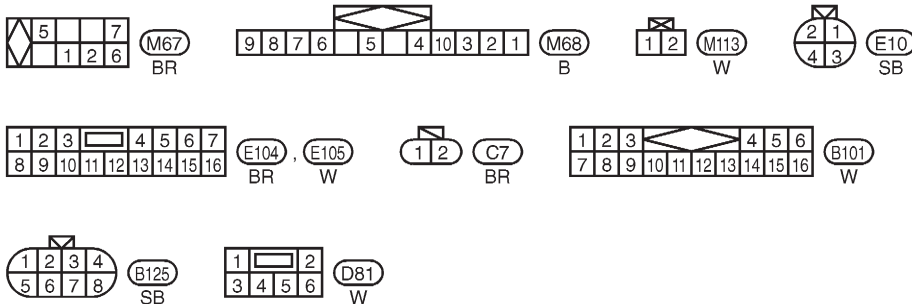
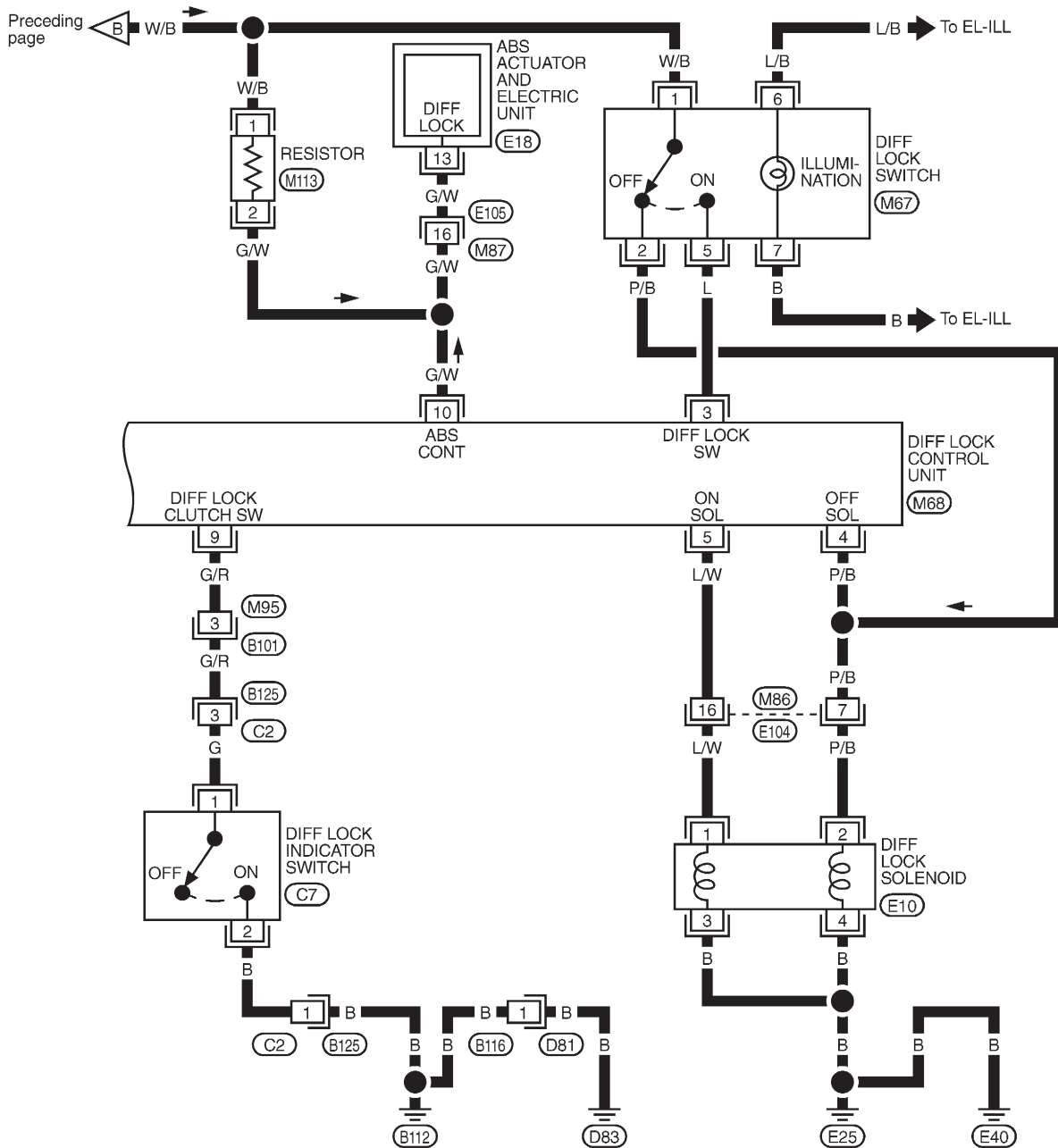
PD-DIFF/L-03



DIFFERENTIAL LOCK

Wiring Diagram — DIFF/L —/RHD Models (Cont'd)

PD-DIFF/L-04



SERVICE DATA AND SPECIFICATIONS (SDS)

Propeller Shaft

GENERAL SPECIFICATIONS

Front propeller shaft

Applied model	ZD30ETi engine	
	M/T	A/T
Propeller shaft model	2F80B	
Number of joints	2	
Type of journal bearing	Solid (Disassembly type)	
Coupling type with transmission	Flange type	
Distance between yokes mm (in)	73 (2.87)	
Shaft length (Spider-to-spider) mm (in)	832 (32.76)	796 (31.34)
Shaft outer diameter mm (in)	50.8 (2.000)	

Rear propeller shaft

Applied model				
Engine	ZD30ETi			
Transmission	M/T	A/T	A/T	M/T
Body	Hardtop	Wagon	Hardtop	Wagon
Propeller shaft model	2F100H			
Number of joints	2			
Type of journal bearing	Solid (Disassembly type)			
Coupling type with transmission	Flange type			
Distance between yokes mm (in)	94 (3.70)	94 (3.70)	94 (3.70)	94 (3.70)
Shaft length (Spider-to-spider) mm (in)	440 (17.32)	1,044 (41.10)	480 (18.90)	957 (37.68)
Shaft outer diameter mm (in)	57 (2.24)	89.6 (3.528)	75.2 (2.961)	89.6 (3.528)

Available snap rings

2F80B

Thickness mm (in)	Color	Part number
1.99 (0.0783)	White	37146-C9400
2.02 (0.0795)	Yellow	37147-C9400
2.05 (0.0807)	Red	37148-C9400
2.08 (0.0819)	Green	37149-C9400
2.11 (0.0831)	Blue	37150-C9400
2.14 (0.0843)	Light brown	37151-C9400
2.17 (0.0854)	Black	37152-C9400
2.20 (0.0866)	Colorless	37153-C9400

2F100H

Thickness mm (in)	Color	Part number
1.95 (0.0768)	White	37146-61502
1.98 (0.0780)	Yellow	37147-61502
2.01 (0.0791)	Red	37148-61502
2.04 (0.0803)	Green	37149-61502
2.07 (0.0815)	Blue	37150-61502
2.10 (0.0827)	Light brown	37151-61502
2.13 (0.0839)	Pink	37146-61503
2.16 (0.0850)	Gold	37147-61503
2.19 (0.0862)	Black	37148-61503
2.22 (0.0874)	Colorless	37149-61503

SERVICE DATA AND SPECIFICATIONS (SDS)

Final Drive

GENERAL SPECIFICATIONS

Body type		Wagon		Hardtop	
Transmission		M/T	A/T	M/T	A/T
Front final drive	Standard				
	H233B				
	2-pinion	4-pinion		2-pinion	4-pinion
Gear ratio		4.375			
Number of teeth (Ring gear/drive pinion)		35/8			
Oil capacity (Approx.) ℓ (Imp pt)		5.4 (9-1/2)			
Rear final drive [Grade]	Optional	Standard	Optional	Standard	Optional
	H260		H233B		
	Diff. lock	LSD	Diff. lock	LSD	Diff. lock
Gear ratio		4.375			
Number of teeth (Ring gear/drive pinion)		35/8			
Oil capacity (Approx.) ℓ (Imp pt)	Without diff. lock	4.7 (8-1/4)		2.4 (4-1/4)	
	With diff. lock	3.7 (6-1/2)		3.0 (5-1/4)	

INSPECTION AND ADJUSTMENT (H233B)

Drive pinion preload adjustment

Drive pinion bearing preload adjusting method	Adjusting shim and spacer
Drive pinion preload [P ₁] N·m (kg·cm, in·lb)	
With front oil seal	1.4 - 2.2 (14 - 22, 12 - 19)
Without front oil seal	1.2 - 2.0 (12 - 20, 10 - 17)

Available drive pinion preload adjusting washer

Thickness mm (in)	Part number*
2.31 (0.0909)	38125-82100
2.33 (0.0917)	38126-82100
2.35 (0.0925)	38127-82100
2.37 (0.0933)	38128-82100
2.39 (0.0941)	38129-82100
2.41 (0.0949)	38130-82100
2.43 (0.0957)	38131-82100
2.45 (0.0965)	38132-82100
2.47 (0.0972)	38133-82100
2.49 (0.0980)	38134-82100
2.51 (0.0988)	38135-82100
2.53 (0.0996)	38136-82100
2.55 (0.1004)	38137-82100
2.57 (0.1012)	38138-82100
2.59 (0.1020)	38139-82100

Available drive pinion preload adjusting spacers

Length mm (in)	Part number
4.50 (0.1772)	38165-76000
4.75 (0.1870)	38166-76000
5.00 (0.1969)	38167-76000
5.25 (0.2067)	38166-01J00
5.50 (0.2165)	38166-01J10

* Always check with the Parts Department for the latest parts information.

Total preload adjustment

Total preload N·m (kg·cm, in·lb) With front oil seal	Drive pinion bearing	P ₁ + [0.3 to 0.4 (3 to 4, 2.6 to 3.5)]
Ring gear backlash	mm (in)	0.15 - 0.20 (0.0059 - 0.0079)
Side bearing adjusting method	Side adjuster	

P₁: Drive pinion preload