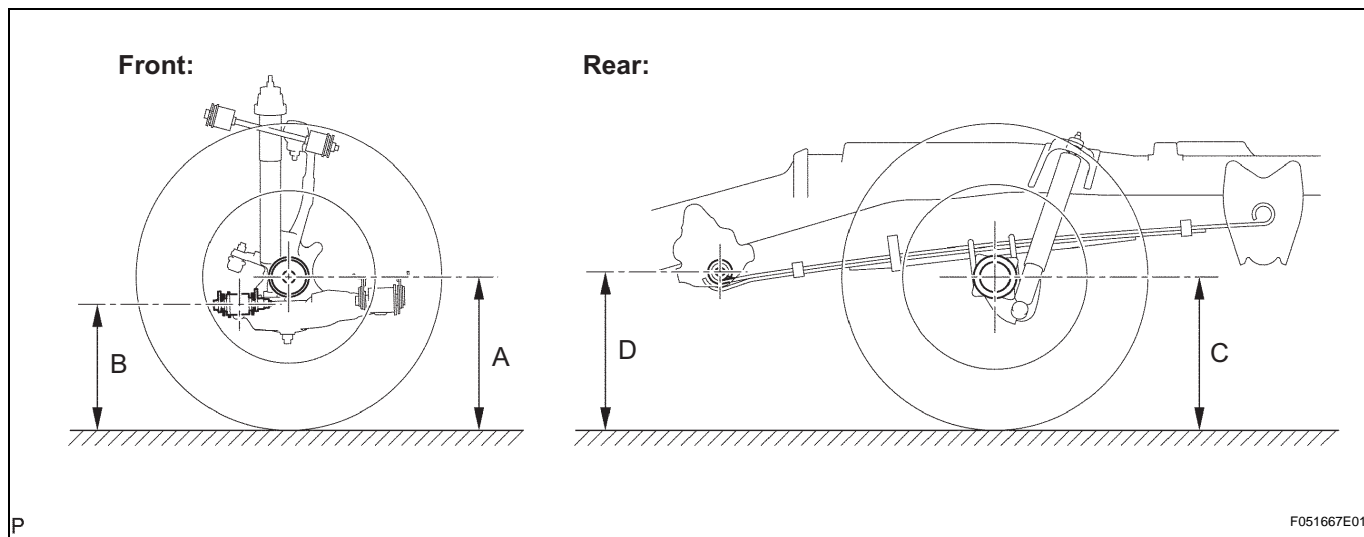


FRONT WHEEL ALIGNMENT (for 4WD and Pre-Runner)

ADJUSTMENT

1. INSPECT TIRES (See page [TW-1](#))
2. MEASURE VEHICLE HEIGHT



Vehicle height:
for Pre-Runner (North America)



Vehicle Model	Tire Size	A-B	C-D
TRN260L-TRMDKA	P245/75R16	62 mm (2.44 in.)	-47 mm (-1.85 in.)
TRN265L-CRMDKA	P245/75R16	60 mm (2.36 in.)	-47 mm (-1.85 in.)
GRN265L-CRFDKA	P245/75R16	66 mm (2.60 in.)	-44 mm (-1.73 in.)
GRN265L-CRFDKA	P265/70R16	69 mm (2.72 in.)	-46 mm (-1.81 in.)
GRN265L-CRFDKA	P265/65R17	66 mm (2.60 in.)	-44 mm (-1.73 in.)
GRN265L-CRADKA	P245/75R16	63 mm (2.48 in.)	-44 mm (-1.73 in.)
GRN265L-CRADKA	P265/70R16	70 mm (2.76 in.)	-45 mm (-1.77 in.)
GRN265L-CRADKA	P265/65R17	63 mm (2.48 in.)	-44 mm (-1.73 in.)
GRN265L-PRADKA	P245/75R16	64 mm (2.52 in.)	-39 mm (-1.54 in.)
GRN265L-PRADKA	P265/70R16	62 mm (2.44 in.)	-43 mm (-1.69 in.)
GRN265L-PRADKA	P265/65R17	64 mm (2.52 in.)	-39 mm (-1.54 in.)
GRN270L-PRADKA	P245/75R16	65 mm (2.56 in.)	-38 mm (-1.50 in.)
GRN270L-PRADKA	P265/65R17	65 mm (2.56 in.)	-38 mm (-1.50 in.)

for Pre-Runner (Mexico)

Vehicle Model	Tire Size	A-B	C-D
GRN265L-PRADKA	P245/75R16	53 mm (2.09 in.)	-51 mm (-2.01 in.)
GRN265L-PRADKA	P265/65R17	53 mm (2.09 in.)	-51 mm (-2.01 in.)

for 4WD

Vehicle Model	Tire Size	A-B	C-D
TRN240L-TRMDKA	P245/75R16	63 mm (2.48 in.)	-45 mm (-1.77 in.)
TRN245L-CRMDKA	P245/75R16	63 mm (2.48 in.)	-44 mm (-1.73 in.)
GRN245L-CRFDKA	P245/75R16	69 mm (2.72 in.)	-40 mm (-1.57 in.)
GRN245L-CRFDKA	P265/70R16	71 mm (2.80 in.)	-43 mm (-1.69 in.)

Vehicle Model	Tire Size	A-B	C-D
GRN245L-CRFDKA	P265/65R17	69 mm (2.72 in.)	-41 mm (-1.61 in.)
GRN245L-CRADKA	P245/75R16	65 mm (2.56 in.)	-41 mm (-1.61 in.)
GRN245L-CRADKA	P265/70R16	71 mm (2.80 in.)	-43 mm (-1.69 in.)
GRN245L-CRADKA	P265/65R17	65 mm (2.56 in.)	-41 mm (-1.61 in.)
GRN245L-PRFDKA	P245/75R16	64 mm (2.52 in.)	-38 mm (-1.50 in.)
GRN245L-PRFDKA	P265/70R16	69 mm (2.72 in.)	-39 mm (-1.54 in.)
GRN245L-PRFDKA	P265/65R17	64 mm (2.52 in.)	-38 mm (-1.50 in.)
GRN245L-PRADKA	P245/75R16	65 mm (2.56 in.)	-37 mm (-1.46 in.)
GRN245L-PRADKA	P265/70R16	70 mm (2.76 in.)	-38 mm (-1.50 in.)
GRN245L-PRADKA	P265/65R17	65 mm (2.56 in.)	-37 mm (-1.46 in.)
GRN250L-PRADKA	P245/75R16	66 mm (2.60 in.)	-35 mm (-1.38 in.)
GRN250L-PRADKA	P265/65R17	66 mm (2.60 in.)	-35 mm (-1.38 in.)

Measuring points:

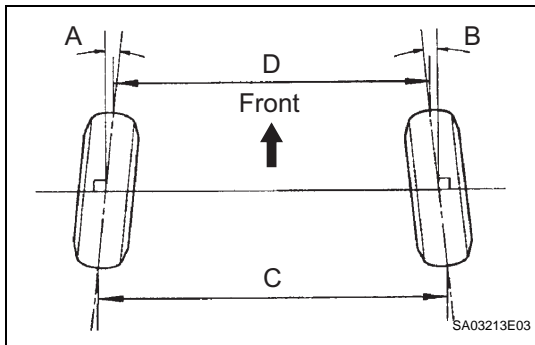
- A:**
Ground clearance of front wheel center
- B:**
Ground clearance of adjustment cam bolt center (front side)
- C:**
Ground clearance of rear wheel center
- D:**
Ground clearance of rear leaf spring front side bush center

NOTICE:

Before inspecting the wheel alignment, check the vehicle height.

Bounce the vehicle up and down at the corners to stabilize the suspension before inspecting the vehicle height.

SP



3. INSPECT TOE-IN

Toe-in:
for Pre-Runner (North America)

Vehicle Model	Tire Size	A+B	C-D
TRN260L-TRMDKA	P245/75R16	7.3' +- 6.5' (0.121° +- 0.108°)	1.64 +- 2 mm (0.065 +- 0.08 in.)
TRN265L-CRMDKA	P245/75R16	8.6' +- 6.5' (0.144° +- 0.108°)	1.94 +- 2 mm (0.076 +- 0.08 in.)
GRN265L-CRFDKA	P245/75R16	4.6' +- 6.5' (0.077° +- 0.108°)	1.04 +- 2 mm (0.041 +- 0.08 in.)
GRN265L-CRFDKA	P265/70R16	2.7' +- 6.5' (0.044° +- 0.108°)	0.60 +- 2 mm (0.024 +- 0.08 in.)
GRN265L-CRFDKA	P265/65R17	4.6' +- 6.5' (0.077° +- 0.108°)	1.05 +- 2 mm (0.041 +- 0.08 in.)
GRN265L-CRADKA	P245/75R16	6.6' +- 6.5' (0.110° +- 0.108°)	1.48 +- 2 mm (0.058 +- 0.08 in.)
GRN265L-CRADKA	P265/70R16	2.0' +- 6.5' (0.033° +- 0.108°)	0.45 +- 2 mm (0.018 +- 0.08 in.)
GRN265L-CRADKA	P265/65R17	6.6' +- 6.5' (0.111° +- 0.108°)	1.50 +- 2 mm (0.059 +- 0.08 in.)
GRN265L-PRADKA	P245/75R16	5.2' +- 6.5' (0.087° +- 0.108°)	1.18 +- 2 mm (0.046 +- 0.08 in.)
GRN265L-PRADKA	P265/70R16	6.6' +- 6.5' (0.110° +- 0.108°)	1.49 +- 2 mm (0.059 +- 0.08 in.)

Vehicle Model	Tire Size	A+B	C-D
GRN265L-PRADKA	P265/65R17	5.3' +- 6.5' (0.089° +- 0.108°)	1.20 +- 2 mm (0.047 +- 0.08 in.)
GRN270L-PRADKA	P245/75R16	4.6' +- 6.5' (0.077° +- 0.108°)	1.04 +- 2 mm (0.041 +- 0.08 in.)
GRN270L-PRADKA	P265/65R17	4.6' +- 6.5' (0.077° +- 0.108°)	1.05 +- 2 mm (0.041 +- 0.08 in.)

for Pre-Runner (Mexico)

Vehicle Model	Tire Size	A+B	C-D
GRN265L-PRADKA	P245/75R16	12.7' +- 6.5' (0.212° +- 0.108°)	2.87 +- 2 mm (0.113 +- 0.08 in.)
GRN265L-PRADKA	P265/65R17	12.9' +- 6.5' (0.215° +- 0.108°)	2.91 +- 2 mm (0.115 +- 0.08 in.)

for 4WD

Vehicle Model	Tire Size	A+B	C-D
TRN240L-TRMDKA	P245/75R16	6.6' +- 6.5' (0.110° +- 0.108°)	1.48 +- 2 mm (0.058 +- 0.08 in.)
TRN245L-CRMDKA	P245/75R16	6.6' +- 6.5' (0.110° +- 0.108°)	1.48 +- 2 mm (0.058 +- 0.08 in.)
GRN245L-CRFDKA	P245/75R16	2.6' +- 6.5' (0.044° +- 0.108°)	0.59 +- 2 mm (0.023 +- 0.08 in.)
GRN245L-CRFDKA	P265/70R16	1.3' +- 6.5' (0.022° +- 0.108°)	0.30 +- 2 mm (0.012 +- 0.08 in.)
GRN245L-CRFDKA	P265/65R17	2.7' +- 6.5' (0.044° +- 0.108°)	0.60 +- 2 mm (0.024 +- 0.08 in.)
GRN245L-CRADKA	P245/75R16	5.2' +- 6.5' (0.087° +- 0.108°)	1.18 +- 2 mm (0.046 +- 0.08 in.)
GRN245L-CRADKA	P265/70R16	1.3' +- 6.5' (0.022° +- 0.108°)	0.30 +- 2 mm (0.012 +- 0.08 in.)
GRN245L-CRADKA	P265/65R17	5.3' +- 6.5' (0.089° +- 0.108°)	1.20 +- 2 mm (0.047 +- 0.08 in.)
GRN245L-PRFDKA	P245/75R16	5.2' +- 6.5' (0.087° +- 0.108°)	1.18 +- 2 mm (0.046 +- 0.08 in.)
GRN245L-PRFDKA	P265/70R16	2.7' +- 6.5' (0.044° +- 0.108°)	0.60 +- 2 mm (0.024 +- 0.08 in.)
GRN245L-PRFDKA	P265/65R17	5.3' +- 6.5' (0.089° +- 0.108°)	1.20 +- 2 mm (0.047 +- 0.08 in.)
GRN245L-PRADKA	P245/75R16	4.6' +- 6.5' (0.077° +- 0.108°)	1.04 +- 2 mm (0.041 +- 0.08 in.)
GRN245L-PRADKA	P265/70R16	2.0' +- 6.5' (0.033° +- 0.108°)	0.45 +- 2 mm (0.018 +- 0.08 in.)
GRN245L-PRADKA	P265/65R17	4.6' +- 6.5' (0.077° +- 0.108°)	1.05 +- 2 mm (0.041 +- 0.08 in.)
GRN250L-PRADKA	P245/75R16	4.0' +- 6.5' (0.066° +- 0.108°)	0.89 +- 2 mm (0.035 +- 0.08 in.)
GRN250L-PRADKA	P265/65R17	4.0' +- 6.5' (0.066° +- 0.108°)	0.90 +- 2 mm (0.035 +- 0.08 in.)

If the toe-in is not within the specified range, adjust it at the rack ends.

4. ADJUST TOE-IN

- Remove the rack boot set clips.
- Loosen the tie rod end lock nuts.
- Turn the right and left rack ends uniformly to adjust the toe-in.

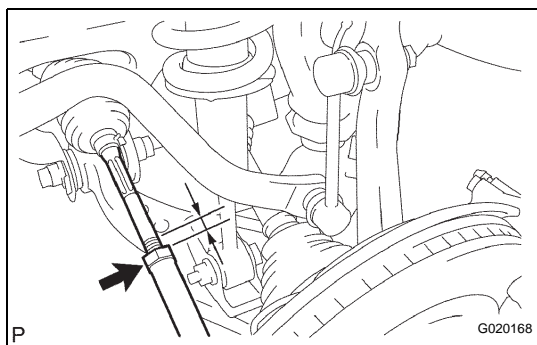
HINT:

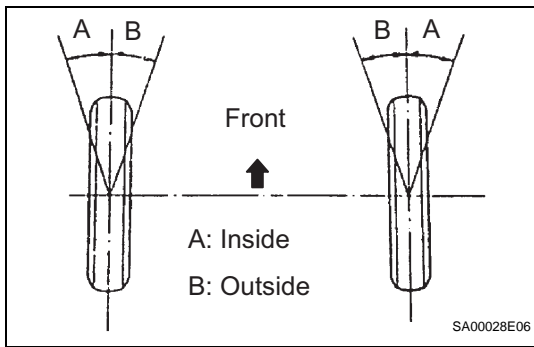
Try to adjust the toe-in to the middle of the specified range.

- Make sure that the lengths of the right and left rack ends are the same.
- Torque the tie rod end lock nuts.
Torque: 55.5 N*m (566 kgf*cm, 41 ft.*lbf)
- Place the boots on the seats and install the clips.

HINT:

Make sure that the boots are not twisted.





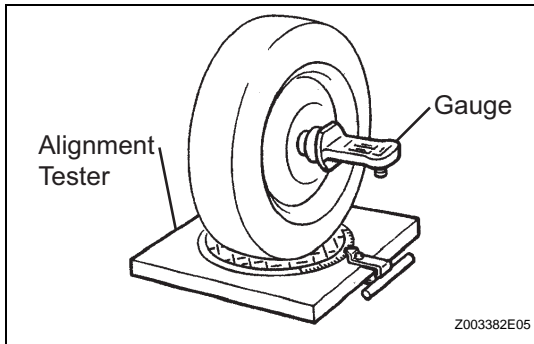
5. INSPECT WHEEL TURNING ANGLE

- (a) Turn the steering wheel fully, and measure the turning angle.

Wheel turning angle

Inside wheel	Outside wheel (Reference)
40°18' (38°18' to 41°18')	35°54' (33°54' to 36°54')
40.30° (38.30° to 41.30°)	35.90° (33.90° to 36.90°)

If the right and left turning angles of the inside and outside wheels are not within the specified ranges, check the right and left rack end lengths.



6. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION

- (a) Install the camber-caster-kingpin gauge and position the front wheel on the wheel alignment tester.
- (b) Inspect the camber, caster and steering axis inclination.

Camber, caster and steering axis inclination: for Pre-Runner (North America)

Vehicle Model	Tire Size	Camber	Caster	Steering Axis Inclination
TRN260L-TRMDKA	P245/75R16	0°35' ± 45' (0.59° ± 0.75°)	1°41' ± 45' (1.68° ± 0.75°)	11°52' ± 45' (11.86° ± 0.75°)
TRN265L-CRMDKA	P245/75R16	0°37' ± 45' (0.62° ± 0.75°)	1°46' ± 45' (1.77° ± 0.75°)	11°50' ± 45' (11.83° ± 0.75°)
GRN265L-CRFDKA	P245/75R16	0°31' ± 45' (0.52° ± 0.75°)	1°55' ± 45' (1.92° ± 0.75°)	11°56' ± 45' (11.93° ± 0.75°)
GRN265L-CRFDKA	P265/70R16	0°28' ± 45' (0.47° ± 0.75°)	1°56' ± 45' (1.93° ± 0.75°)	11°59' ± 45' (11.99° ± 0.75°)
GRN265L-CRFDKA	P265/65R17	0°31' ± 45' (0.52° ± 0.75°)	1°56' ± 45' (1.94° ± 0.75°)	11°56' ± 45' (11.93° ± 0.75°)
GRN265L-CRADKA	P245/75R16	0°35' ± 45' (0.58° ± 0.75°)	1°53' ± 45' (1.89° ± 0.75°)	11°53' ± 45' (11.88° ± 0.75°)
GRN265L-CRADKA	P265/70R16	0°27' ± 45' (0.45° ± 0.75°)	1°59' ± 45' (1.98° ± 0.75°)	12°00' ± 45' (12.00° ± 0.75°)
GRN265L-CRADKA	P265/65R17	0°35' ± 45' (0.58° ± 0.75°)	1°53' ± 45' (1.89° ± 0.75°)	11°53' ± 45' (11.88° ± 0.75°)
GRN265L-PRADKA	P245/75R16	0°32' ± 45' (0.54° ± 0.75°)	2°01' ± 45' (2.01° ± 0.75°)	11°55' ± 45' (11.91° ± 0.75°)
GRN265L-PRADKA	P265/70R16	0°35' ± 45' (0.58° ± 0.75°)	1°58' ± 45' (1.96° ± 0.75°)	11°53' ± 45' (11.88° ± 0.75°)
GRN265L-PRADKA	P265/65R17	0°32' ± 45' (0.54° ± 0.75°)	2°01' ± 45' (2.01° ± 0.75°)	11°55' ± 45' (11.91° ± 0.75°)
GRN270L-PRADKA	P245/75R16	0°31' ± 45' (0.52° ± 0.75°)	2°07' ± 45' (2.11° ± 0.75°)	11°56' ± 45' (11.93° ± 0.75°)
GRN270L-PRADKA	P265/65R17	0°31' ± 45' (0.52° ± 0.75°)	2°08' ± 45' (2.13° ± 0.75°)	11°56' ± 45' (11.93° ± 0.75°)

for Pre-Runner (Mexico)

Vehicle Model	Tire Size	Camber	Caster	Steering Axis Inclination
GRN265L-PRADKA	P245/75R16	0°43' ± 45' (0.71° ± 0.75°)	1°38' ± 45' (1.64° ± 0.75°)	11°44' ± 45' (11.74° ± 0.75°)
GRN265L-PRADKA	P265/65R17	0°43' ± 45' (0.71° ± 0.75°)	1°38' ± 45' (1.64° ± 0.75°)	11°44' ± 45' (11.74° ± 0.75°)

for 4WD

Vehicle Model	Tire Size	Camber	Caster	Steering Axis Inclination
TRN240L-TRMDKA	P245/75R16	0°35' + 45' (0.58° + 0.75°)	1°44' + 45' (1.73 + 0.75°)	11°52' + 45' (11.86° + 0.75°)
TRN245L-CRMDKA	P245/75R16	0°35' + 45' (0.58° + 0.75°)	1°51' + 45' (1.85° + 0.75°)	11°53' + 45' (11.88° + 0.75°)
GRN245L-CRFDKA	P245/75R16	0°28' + 45' (0.47° + 0.75°)	1°59' + 45' (1.99° + 0.75°)	11°59' + 45' (11.99° + 0.75°)
GRN245L-CRFDKA	P265/70R16	0°26' + 45' (0.43° + 0.75°)	2°00' + 45' (2.00° + 0.75°)	12°01' + 45' (12.02° + 0.75°)
GRN245L-CRFDKA	P265/65R17	0°28' + 45' (0.47° + 0.75°)	2°00' + 45' (2.00° + 0.75°)	11°59' + 45' (11.99° + 0.75°)
GRN245L-CRADKA	P245/75R16	0°32' + 45' (0.54° + 0.75°)	1°55' + 45' (1.92° + 0.75°)	11°55' + 45' (11.91° + 0.75°)
GRN245L-CRADKA	P265/70R16	0°26' + 45' (0.43° + 0.75°)	2°00' + 45' (2.00° + 0.75°)	12°01' + 45' (12.02° + 0.75°)
GRN245L-CRADKA	P265/65R17	0°32' + 45' (0.54° + 0.75°)	1°55' + 45' (1.92° + 0.75°)	11°55' + 45' (11.91° + 0.75°)
GRN245L-PRFDKA	P245/75R16	0°32' + 45' (0.54° + 0.75°)	2°02' + 45' (2.03° + 0.75°)	11°55' + 45' (11.91° + 0.75°)
GRN245L-PRFDKA	P265/70R16	0°28' + 45' (0.47° + 0.75°)	2°04' + 45' (2.06° + 0.75°)	11°59' + 45' (11.99° + 0.75°)
GRN245L-PRFDKA	P265/65R17	0°32' + 45' (0.54° + 0.75°)	2°02' + 45' (2.03° + 0.75°)	11°55' + 45' (11.91° + 0.75°)
GRN245L-PRADKA	P245/75R16	0°31' + 45' (0.52° + 0.75°)	2°04' + 45' (2.06° + 0.75°)	11°56' + 45' (11.93° + 0.75°)
GRN245L-PRADKA	P265/70R16	0°27' + 45' (0.45° + 0.75°)	2°05' + 45' (2.09° + 0.75°)	12°00' + 45' (12.00° + 0.75°)
GRN245L-PRADKA	P265/65R17	0°31' + 45' (0.52° + 0.75°)	2°04' + 45' (2.06° + 0.75°)	11°56' + 45' (11.93° + 0.75°)
GRN250L-PRADKA	P245/75R16	0°30' + 45' (0.50° + 0.75°)	2°08' + 45' (2.14° + 0.75°)	11°57' + 45' (11.95° + 0.75°)
GRN250L-PRADKA	P265/65R17	0°30' + 45' (0.50° + 0.75°)	2°10' + 45' (2.16° + 0.75°)	11°57' + 45' (11.95° + 0.75°)

NOTICE:

- Perform the inspection while the vehicle is empty (without spare tires or tools on board).
- The tolerance for the difference between the left and right wheels is 30' (0.50°) or less for both the camber and caster.

If the steering axis inclination is not as specified after the camber and caster have been correctly adjusted, recheck the steering knuckle and front wheel for distortion and slack.

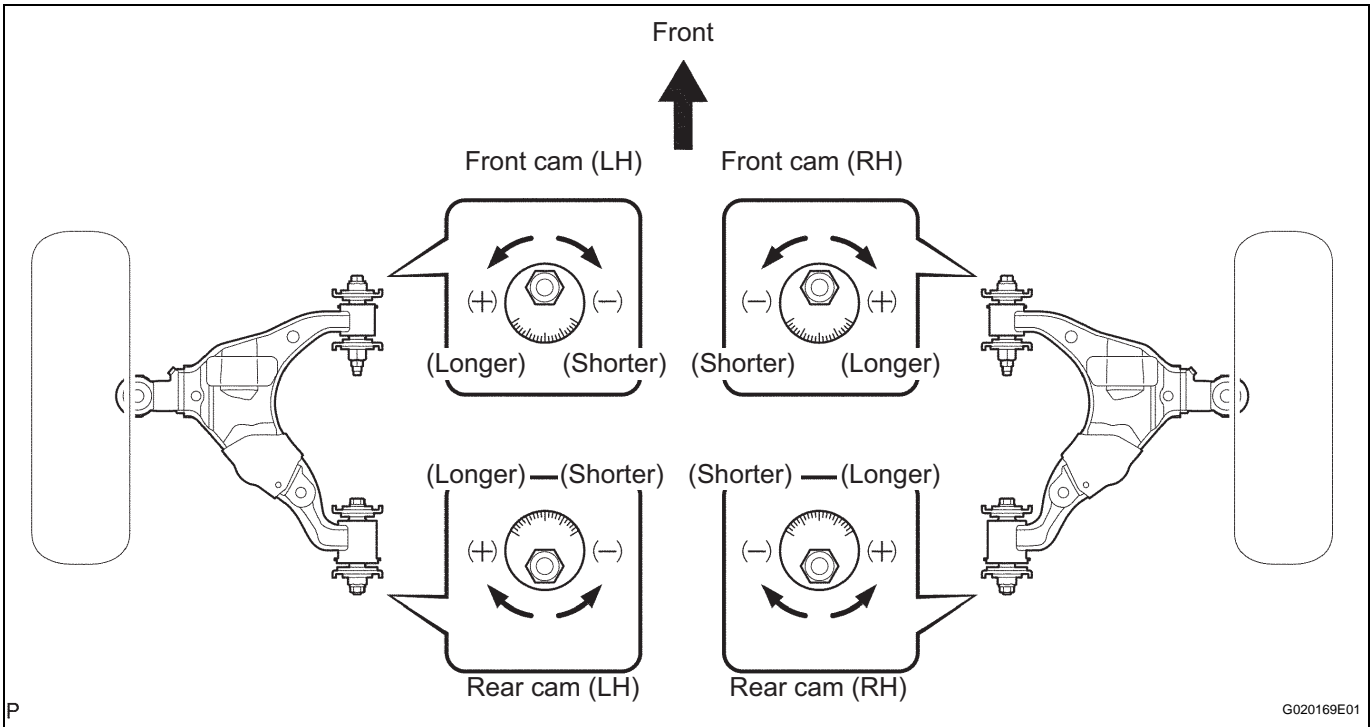
7. ADJUST CAMBER AND CASTER**NOTICE:**

Inspect the toe-in after the camber has been adjusted.

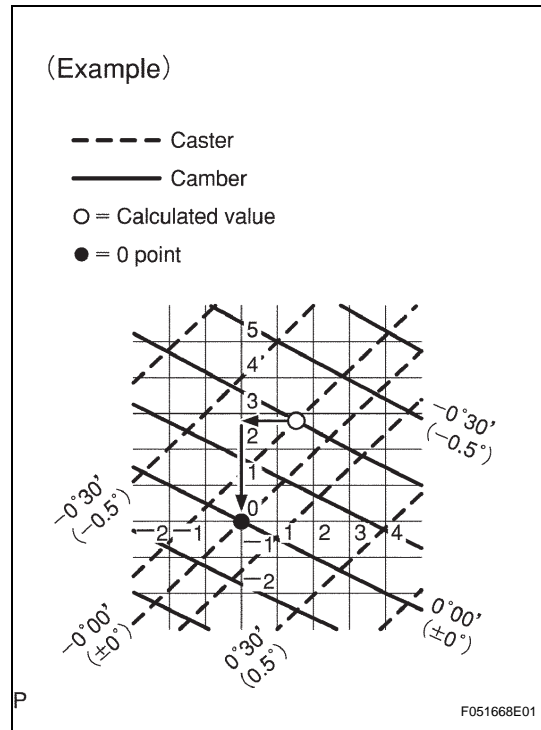
- Loosen the nut and bolt.
- Turn camber adjust cam No. 2 and the toe adjust cam and adjust the camber and the caster.

HINT:

Try to adjust the camber and caster to the central values.



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(c) How to read the adjustment chart (using examples).

(1) Measure the present alignment.

Camber:
 $0^{\circ}17' (0.28^{\circ})$

Caster:
 $1^{\circ}28' (1.47^{\circ})$

(2) Calculate the difference between the standard value (A) and the measured value (B) on the adjustment chart.

Standard value:

Camber:
 $0^{\circ}37' (0.61^{\circ})$

Caster:
 $1^{\circ}38' (1.64^{\circ})$

Formula:
 $B - A = C$

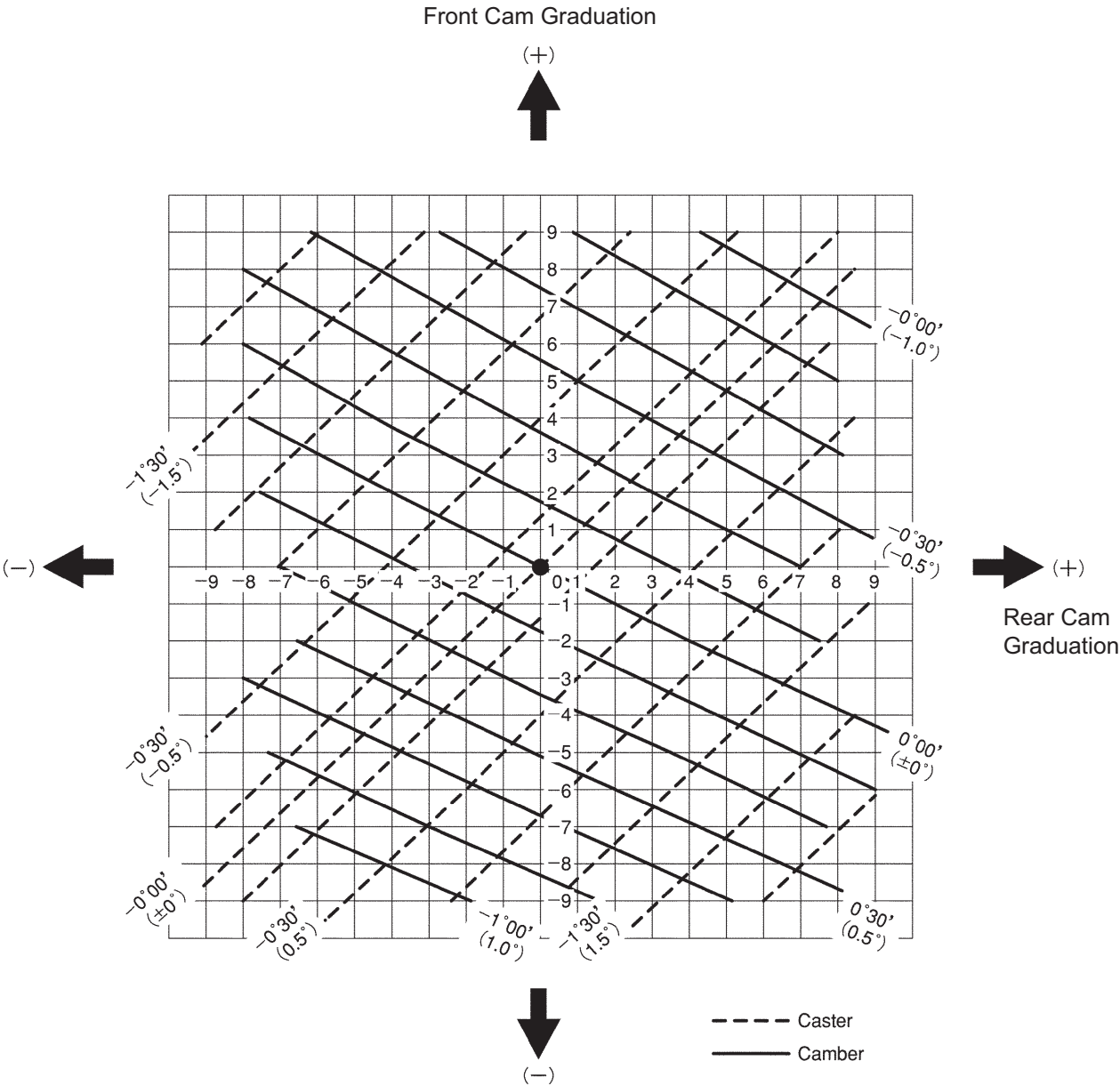
Camber:
 $0^{\circ}17' - (0^{\circ}37') = -0^{\circ}20'$

Caster:
 $1^{\circ}28' - (1^{\circ}38') = -0^{\circ}10'$

(3) As shown in the chart, read the distance from the marked point to 0 point, and adjust the front and/or rear adjusting cams accordingly.

Toe adjust cam:
 - (Shorter) 2.8

Camber adjust cam:
 - (Shorter) 1.5



SP