General Maintenance

RDEU-000100899

General maintenance includes those items which should be checked during the normal day-to-day operation of the vehicle. They are essential if the vehicle is to continue operating properly. The owners can perform the checks and inspections themselves or they can have their **NISSAN** dealers do them.

OUTSIDE THE VEHICLE

The maintenance items listed here should be performed from time to time, unless otherwise specified.

Item		Reference page
Tires	Check the pressure with a gauge often and always prior to long distance trips. Adjust the pressure in all tires, including the spare, to the pressure specified. Check carefully for damage, cuts or excessive wear.	Tire Air Pressure
Wheel nuts	When checking the tires, make sure no nuts are missing, and check for any loose nuts. Tighten if necessary.	—
Tire rotation	Tires cannot be rotated, as front tires are different size from rear tires and the direction of wheel rotation is fixed in each tire.	—
Tire Pressure Monitoring System (TPMS) transmitter components	Replace the TPMS transmitter grommet seal, valve core and cap when the tires are replaced due to wear or age.	Exploded View
Wheel alignment and balance	If the vehicle should pull to either side while driving on a straight and level road, or if you detect uneven or abnormal tire wear, there may be a need for wheel alignment. If the steering wheel or seat vibrates at normal highway speeds, wheel balancing may be needed. For additional information regarding tires, refer to "Important Tire Safety Information" (US) or "Tire Safety Information" (Canada) in the NISSAN Warranty Information Booklet.	Inspection Inspection Adjustment
Windshield	Clean the windshield on a regular basis. Check the windshield at least every six months for cracks or other damage. Repair as necessary.	—
Windshield wiper blades	Check for cracks or wear if they do not wipe properly.	—
Doors and engine hood	Check that all doors and the engine hood operate properly. Also make sure that all latches lock securely. Lubricate if necessary. Make sure that the secondary latch keeps the hood from opening when the primary latch is released.	Lubricating

Item		Reference page
	When driving in areas using road salt or other corrosive materials, check for lubrication frequently.	
Lamps	Make sure that the headlamps, stop lamps, tail lamps, turn signal lamps, and other lamps are all operating properly and installed securely. Also check headlamp aim. Clean the headlamps on a regular basis.	—

INSIDE THE VEHICLE

The maintenance items listed here should be checked on a regular basis, such as when performing periodic maintenance, cleaning the vehicle, etc.

Item		Reference page
Warning lamps and chimes	Make sure that all warning lamps and chimes are operating properly.	—
Windshield wiper and washer	Check that the wipers and washer operate properly and that the wipers do not streak.	—
Windshield defroster	Check that the air comes out of the defroster outlets properly and in sufficient quantity when operating the heater or air conditioner.	—
Steering wheel	Check that it has the specified play. Check for changes in the steering condition, such as excessive play, hard steering or strange noises. **Free play: Less than 35 mm (1.38 in)**	—
Seats	Check seat position controls such as seat adjusters, seatback recliner, etc. to make sure they operate smoothly and that all latches lock securely in every position. Check that the head restrains move up and down smoothly and that the locks (if equipped) hold securely in all latched positions. Check that the latches lock securely for folding-down rear seatbacks.	—
Seat belts	Check that all parts of the seat belt system (e.g. buckles, anchors, adjusters and retractors) operate properly and smoothly and are installed securely. Check the belt webbing for cuts, fraying, wear or damage.	Inspection
Accelerator pedal	Check the pedal for smooth operation and make sure the pedal does not catch or require uneven effort. Keep the floor mats away from the pedal.	—
Brakes	Check that the brake does not pull the vehicle to one side when applied.	—

Item		Reference page
Brake pedal and booster	Check the pedal for smooth operation and make sure it has the proper distance under it when depressed fully. Check the brake booster function. Be sure to keep the floor mats away from the pedal.	Inspection and Adjustment Inspection
Clutch pedal	Make sure the pedal operates smoothly and check that it has the proper free play.	Inspection and Adjustment
Parking brake	Check that the lever or the pedal has the proper travel and make sure that the vehicle is held securely on a fairly steep hill when only the parking brake is applied.	Inspection and Adjustment
Automatic transmission "Park" mechanism	Check that the lock release button on the selector lever operates properly and smoothly. On a fairly steep hill check that the vehicle is held securely with the selector lever in the P (Park) position without applying any brakes.	—

UNDER THE HOOD AND VEHICLE

The maintenance items listed here should be checked periodically (e.g. each time you check the engine oil or refuel).

Item		Reference page
Windshield washer fluid	Check that there is adequate fluid in the tank.	—
Engine coolant level	Check the coolant level when the engine is cold.	Inspection
Radiator and hoses	Check the front of the radiator and clean off any dirt, insects, leaves, etc., that may have accumulated. Make sure the hoses have no cracks, deformation, deterioration or loose connections.	Inspection
Brake and clutch fluid levels	Make sure that the brake and clutch fluid level(s) are(is) between the “MAX” and “MIN” line(s) on the reservoir(s).	Inspection Inspection
Battery	Check the fluid level in each cell. It should be between the “MAX” and “MIN” lines. Vehicles operated in high temperatures or under severe conditions require frequent checks of the battery fluid level.	How to Handle Battery
Engine drive belts	Make sure that no belt is frayed, worn, cracked or oily.	Inspection

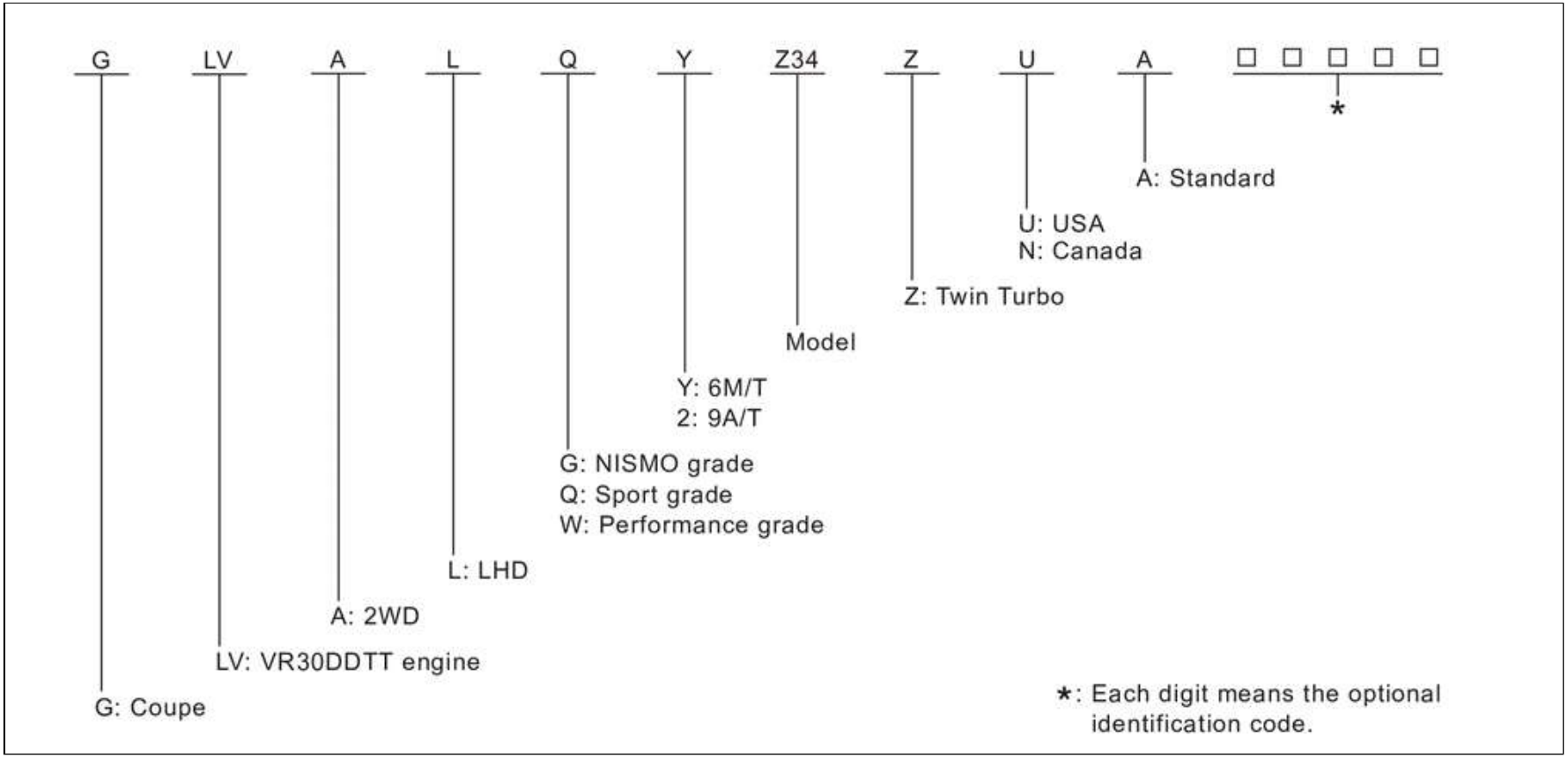
Item		Reference page
Engine oil level	Check the level on the oil level gauge after parking the vehicle on a level spot and turning off the engine.	Inspection
Exhaust system	Make sure there are no loose supports, cracks or holes. If the sound of the exhaust seems unusual or there is a smell of exhaust fumes, immediately locate the trouble and correct it.	Inspection
Underbody	The underbody is frequently exposed to corrosive substances such as those used on icy roads or to control dust. It is very important to remove these substances, otherwise rust will form on the floor pan, frame, fuel lines and around the exhaust system. At the end of winter, the underbody should be thoroughly flushed with plain water, being careful to clean those areas where mud and dirt can easily accumulate.	—
Fluid leaks	Check under the vehicle for fuel, oil, water or other fluid leaks after the vehicle has been parked for a while. Water dripping from the air conditioner after use is normal. If you should notice any leaks or gasoline fumes are evident, check for the cause and correct it immediately.	—

Model Variation

RDEU-000100088

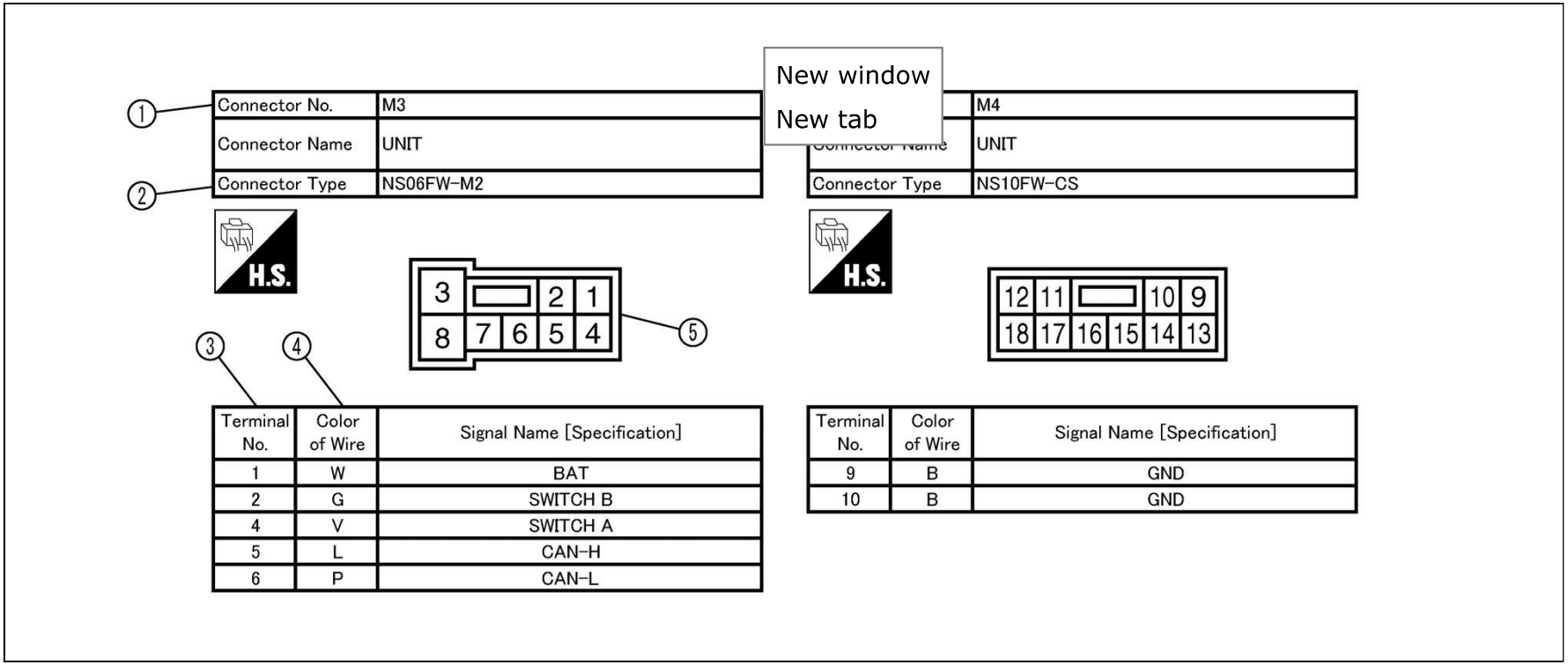
Destination	Body	Engine	Axle	Handle	Transmission	Grade	Model
USA	Coupe	VR30DDTT	2WD	LHD	6M/T	Sport	GLVALQY-ZUA
					9A/T		GLVALQ2-ZUA
					6M/T	Performance	GLVALWY-ZUA
					9A/T		GLVALW2-ZUA
						NISMO	GLVALG2-ZUA
Canada					6M/T	Sport	GLVALQY-ZNA
					9A/T		GLVALQ2-ZNA
					6M/T	Performance	GLVALWY-ZNA
					9A/T		GLVALW2-ZNA
						NISMO	GLVALG2-ZNA

Model variation code (Prefix and suffix designations)


G
LV
A
L
Q
Y
Z34
Z
U
A
□ □ □ □ □
*
A: Standard
U: USA
N: Canada
Z: Twin Turbo
Model
Y: 6M/T
2: 9A/T
G: NISMO grade
Q: Sport grade
W: Performance grade
L: LHD
A: 2WD
LV: VR30DDTT engine
G: Coupe
*: Each digit means the optional identification code.

RDEU-000100046

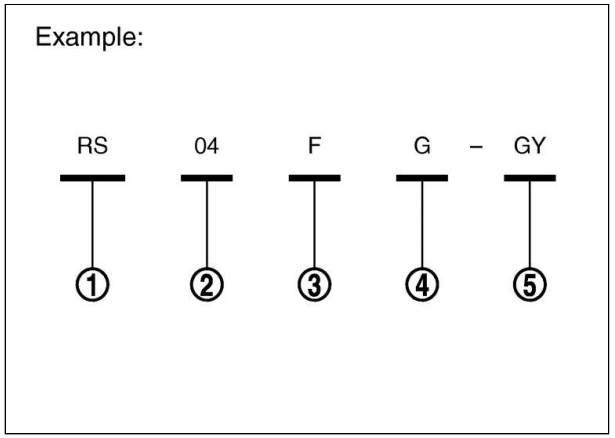
HOW TO USE CONNECTOR INFORMATION



RDE-001776110-01-CAWA0152GB

Description

Number	Item	Description
①	Connector number	• Alphabetic characters show to which harness the connector is placed. • Numeric characters show the identification number of connectors.

<table>
<tr><th>Number</th><th>Item</th><th colspan="2">Description</th></tr>
<tr><td>②</td><td>Connector type</td><td>①: Connector model
②: Cavity
③: Male (M) and female (F) terminals
④: Connector color
⑤: Special type</td><td>Example:
 

RDE-001776110-02-PMIA0113GB</td></tr>
<tr><td>③</td><td>Terminal number</td><td colspan="2">• This means the terminal number of a connector.</td></tr>
<tr><td rowspan="3">④</td><td rowspan="3">Wire color</td><td colspan="2">• This shows a code for the color of the wire.</td></tr>
<tr><td>B = Black
W = White
R = Red
G = Green
L = Blue
Y = Yellow
LG = Light Green
BG or BE = Beige
LA = Lavender</td><td>BR = Brown
OR or O = Orange
P = Pink
PU or V (Violet) = Purple
GY or GR = Gray
SB = Sky Blue
CH = Dark Brown
DG = Dark Green</td></tr>
<tr><td colspan="2">• When the wire color is striped, the base color is given first, followed by the stripe color as shown below:</td></tr>
</table>

Number	Item	Description
		Example: L/W = Blue with White Stripe
⑤	Connector	• This means the connector information. • This unit-side is described by the connector symbols.

Tightening Torque Table (New Standard Included)

RDEU-000100050

CAUTION:

- **The special parts are excluded.**
- **The bolts/nuts in these tables have a strength (discrimination) number/symbol assigned to the head or the like. As to the relation between the strength grade in these tables and the strength (discrimination) number/symbol, refer to "DISCRIMINATION OF BOLTS AND NUTS".**

PREVIOUS STANDARD

Grade (Strength grade)	Bolt size	Bolt diameter mm	Hexagonal width across flats mm	Pitch mm	Tightening torque (Without lubricant)							
					Hexagon head bolt				Hexagon flange bolt			
					N·m	kg-m	ft-lb	in-lb	N·m	kg-m	ft-lb	in-lb
4T	M6	6.0	10	1.0	5.5	0.56	4	49	7	0.71	5	62
	M8	8.0	12	1.25	13.5	1.4	10	—	17	1.7	13	—
				1.0	13.5	1.4	10	—	17	1.7	13	—
	M10	10.0	14	1.5	28	2.9	21	—	35	3.6	26	—
				1.25	28	2.9	21	—	35	3.6	26	—
	M12	12.0	17	1.75	45	4.6	33	—	55	5.6	41	—
				1.25	45	4.6	33	—	65	6.6	48	—
	M14	14.0	19	1.5	80	8.2	59	—	100	10	74	—
7T	M6	6.0	10	1.0	9	0.92	7	80	11	1.1	8	97
	M8	8.0	12	1.25	22	2.2	16	—	28	2.9	21	—
				1.0	22	2.2	16	—	28	2.9	21	—
	M10	10.0	14	1.5	45	4.6	33	—	55	5.6	41	—
				1.25	45	4.6	33	—	55	5.6	41	—
	M12	12.0	17	1.75	80	8.2	59	—	100	10	74	—

Grade (Strength grade)	Bolt size	Bolt diameter mm	Hexagonal width across flats mm	Pitch mm	Tightening torque (Without lubricant)							
					Hexagon head bolt				Hexagon flange bolt			
					N·m	kg-m	ft-lb	in-lb	N·m	kg-m	ft-lb	in-lb
				1.25	80	8.2	59	—	100	10	74	—
	M14	14.0	19	1.5	130	13	96	—	170	17	125	—
9T	M6	6.0	10	1.0	11	1.1	8	—	13.5	1.4	10	—
	M8	8.0	12	1.25	28	2.9	21	—	35	3.6	26	—
				1.0	28	2.9	21	—	35	3.6	26	—
	M10	10.0	14	1.5	55	5.6	41	—	80	8.2	59	—
				1.25	55	5.6	41	—	80	8.2	59	—
	M12	12.0	17	1.75	100	10	74	—	130	13	96	—
				1.25	100	10	74	—	130	13	96	—
	M14	14.0	19	1.5	170	17	125	—	210	21	155	—

CAUTION:
The parts with aluminum or the cast iron washer surface/thread surface are excluded.

NEW STANDARD BASED ON ISO

Grade (Strength grade)	Bolt size	Bolt diameter mm	Hexagonal width across flats mm	Pitch mm	Tightening torque							
					Hexagon head bolt				Hexagon flange bolt			
					N·m	kg-m	ft-lb	in-lb	N·m	kg-m	ft-lb	in-lb
4.8	M6	6.0	10	1.0	5.5	0.56	4	49	7	0.71	5	62
(Without lubricant)	M8	8.0	13	1.25	13.5	1.4	10	—	17	1.7	13	—
				1.0	13.5	1.4	10	—	17	1.7	13	—
	M10	10.0	16	1.5	28	2.9	21	—	35	3.6	26	—

Grade (Strength grade)	Bolt size	Bolt diameter mm	Hexagonal width across flats mm	Pitch mm	Tightening torque							
					Hexagon head bolt				Hexagon flange bolt			
					N·m	kg-m	ft-lb	in-lb	N·m	kg-m	ft-lb	in-lb
				1.25	28	2.9	21	—	35	3.6	26	—
	M12	12.0	18	1.75	45	4.6	33	—	55	5.6	41	—
				1.25	45	4.6	33	—	65	6.6	48	—
	M14	14.0	21	1.5	80	8.2	59	—	100	10	74	—
4.8 (With lubricant)	M6	6.0	10	1.0	4	0.41	3	35	5.5	0.56	4	49
	M8	8.0	13	1.25	11	1.1	8	—	13.5	1.4	10	—
				1.0	11	1.1	8	—	13.5	1.4	10	—
	M10	10.0	16	1.5	22	2.2	16	—	28	2.9	21	—
				1.25	22	2.2	16	—	28	2.9	21	—
	M12	12.0	18	1.75	35	3.6	26	—	45	4.6	33	—
				1.25	35	3.6	26	—	45	4.6	33	—
	M14	14.0	21	1.5	65	6.6	48	—	80	8.2	59	—
8.8 (With lubricant)	M6	6.0	10	1.0	8	0.82	6	71	10	1.0	7	89
	M8	8.0	13	1.25	21	2.1	15	—	25	2.6	18	—
				1.0	21	2.1	15	—	25	2.6	18	—
	M10	10.0	16	1.5	40	4.1	30	—	50	5.1	37	—
				1.25	40	4.1	30	—	50	5.1	37	—
	M12	12.0	18	1.75	70	7.1	52	—	85	8.7	63	—
				1.25	70	7.1	52	—	85	8.7	63	—
	M14	14.0	21	1.5	120	12	89	—	140	14	103	—
10.9 (With lubricant)	M6	6.0	10	1.0	10	1.0	7	89	12	1.2	9	106
	M8	8.0	13	1.25	27	2.8	20	—	32	3.3	24	—
				1.0	27	2.8	20	—	32	3.3	24	—

Grade (Strength grade)	Bolt size	Bolt diameter mm	Hexagonal width across flats mm	Pitch mm	Tightening torque							
					Hexagon head bolt				Hexagon flange bolt			
					N·m	kg-m	ft-lb	in-lb	N·m	kg-m	ft-lb	in-lb
	M10	10.0	16	1.5	55	5.6	41	—	65	6.6	48	—
				1.25	55	5.6	41	—	65	6.6	48	—
	M12	12.0	18	1.75	95	9.7	70	—	110	11	81	—
				1.25	95	9.7	70	—	110	11	81	—
	M14	14.0	21	1.5	160	16	118	—	180	18	133	—

CAUTION:

1. **Use tightening torque with lubricant for the new standard bolts/nuts in principle. Friction coefficient stabilizer is applied to the new standard bolts/nuts.**
2. **However, use tightening torque without lubricant for the following cases. Friction coefficient stabilizer is not applied to the following bolts/nuts.**
   - **Grade 4.8, M6 size bolt, Conical spring washer installed**
   - **Paint removing nut (Size M6 and M8) for fixing with weld bolt**

DISCRIMINATION OF BOLTS AND NUTS

BOLTS

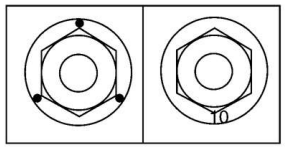
	Grade (Strength)	Discrimination	
Previous standard	4T (392N/mm²)	4	(No number/ symbol)
	7T (686N/mm²)	7	
	9T (883N/mm²)	9	
New Standard	4.8 (420N/mm²)	4.8	(No number/ symbol)
	8.8 (800N/mm²)	8.8	
	10.9 (1040N/mm²)	10.9	

NUTS

	Grade (Proof load stress)	Discrimination		
Previous standard	7N (686N/mm²)	(No number/ symbol)		
	9N (883N/mm²)	·9		
New Standard	8 (800N/mm²)	8		(No number/ symbol)
	10 (1040N/mm²)	10		

NOTICE:

- A number is assigned on the side of the nuts in some cases.
- A number or symbol is assigned on the upper surface of the flange for the nut with flange.



MACHINE SCREWS AND TAPPING SCREWS

Shape of the head :

Cross recess for the previous standard

Torx recess for the new standard

Screw size	Screw diameter	Torx size
M4	4.0	T20
M5	5.0	T20
M6	6.0	T30

NOTICE:

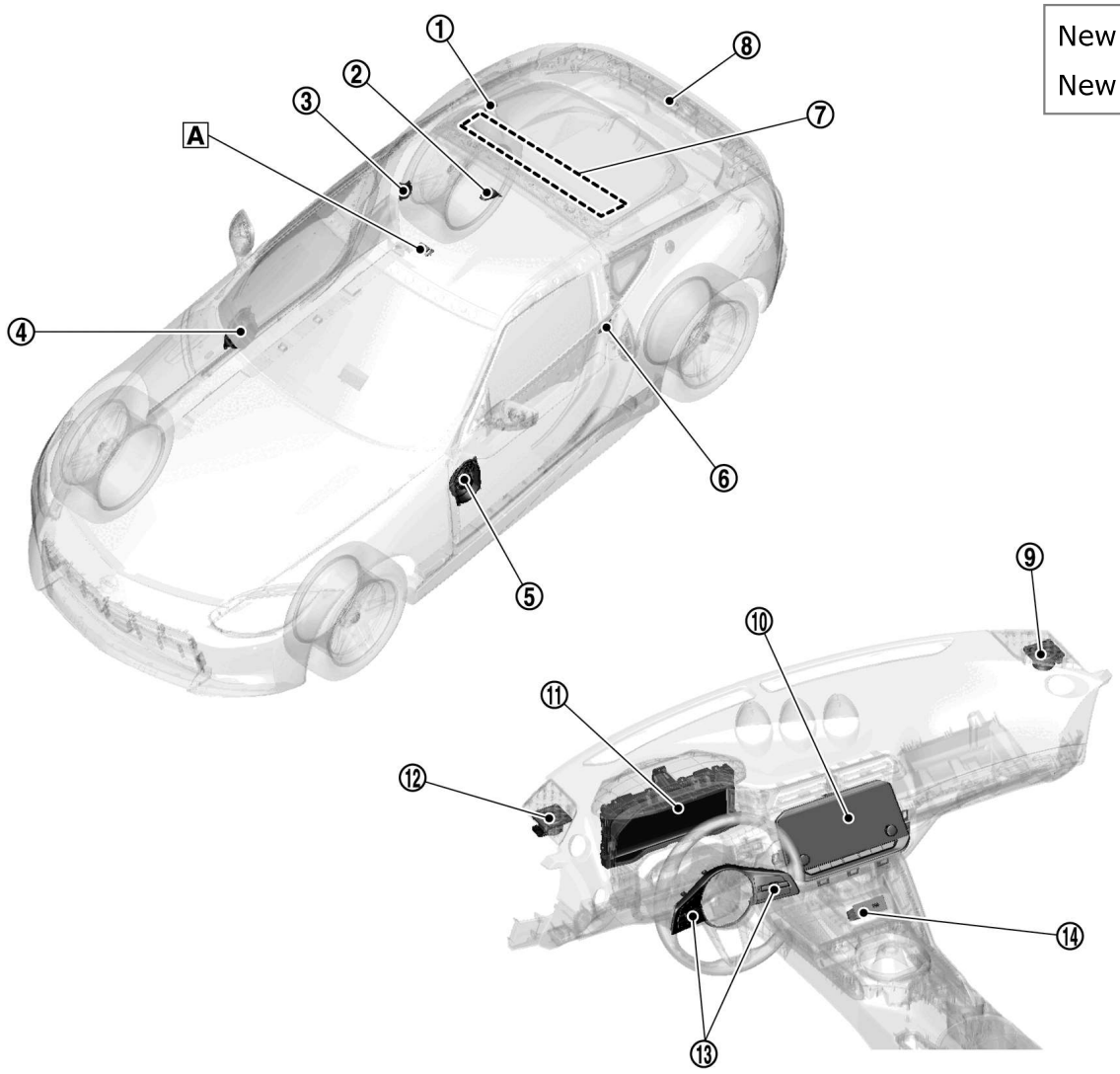
Use torx size T20 (united with M4 screw) for M5 screw although ISO standard specifies T25.

NIS0000000013134129-01-SAIA0453E

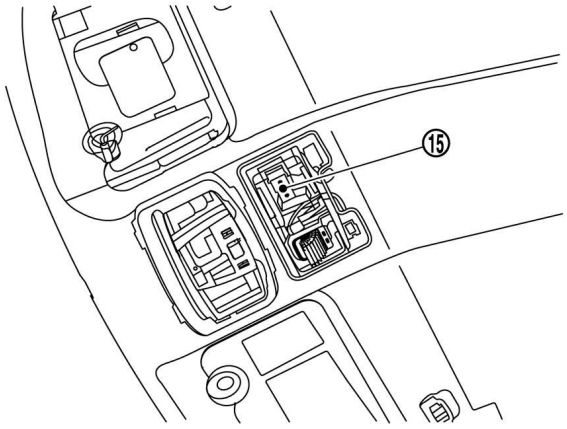
SIEMDU-546307

BASE AUDIO WITHOUT NAVIGATION

New window
New tab



A

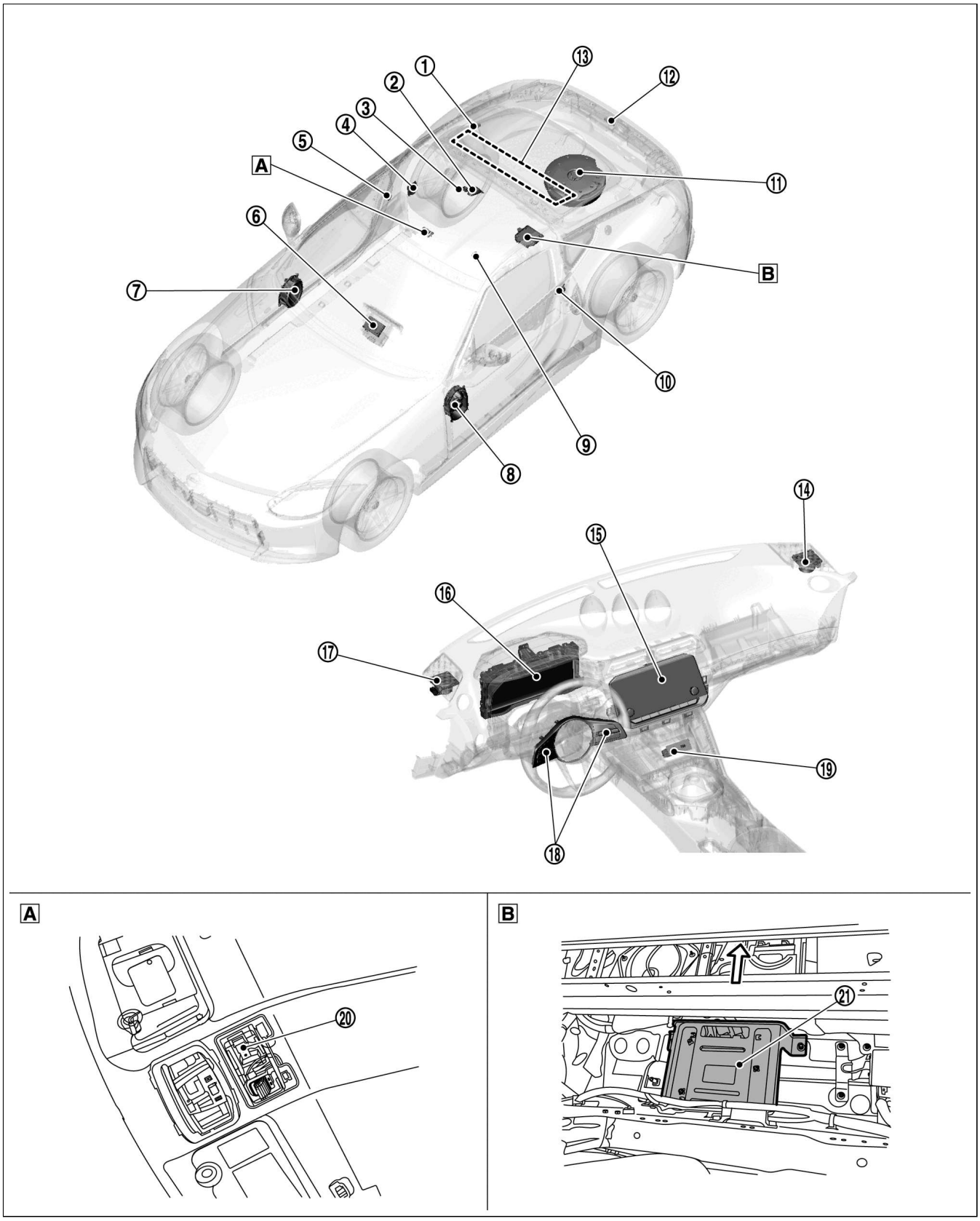


SIEMD-7083881-01-000394814

A	Map lamp assembly				

①	Antenna amp.	②	Satellite radio antenna	③	Rear speaker RH
④	Front door speaker RH	⑤	Front door speaker LH	⑥	Rear speaker LH
⑦	Glass antenna	⑧	Rear view camera Refer to Component Parts Location, for detailed installation location.	⑨	Front squawker RH
⑩	AV control unit	⑪	Combination meter Refer to Component Parts Location, for detailed installation location.	⑫	Front squawker LH
⑬	Steering switch	⑭	USB connector	⑮	Microphone

BOSE AUDIO WITHOUT NAVIGATION



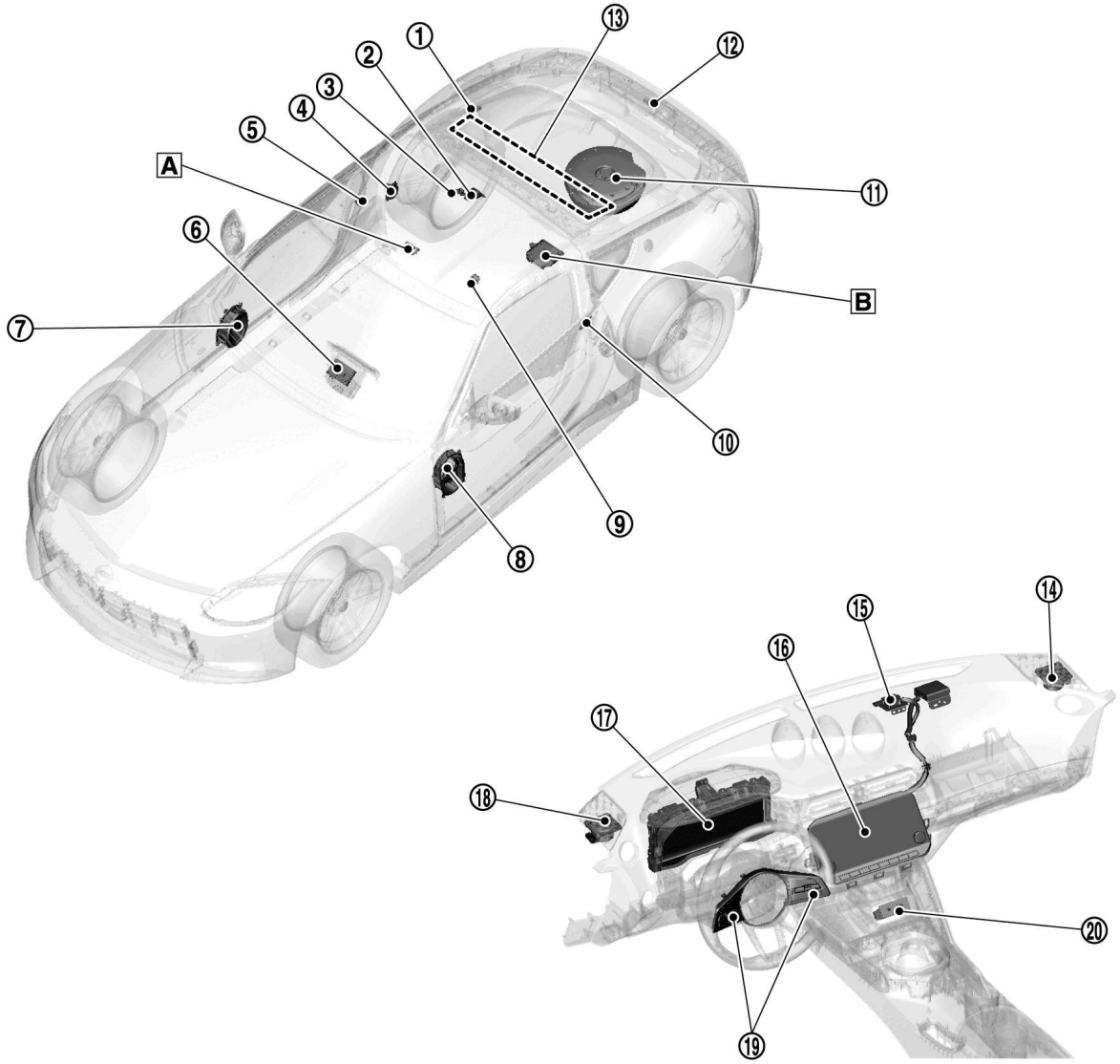
SIEMD-7083881-02-000394815

A	Map lamp assembly	B	Luggage side LH		Vehicle front

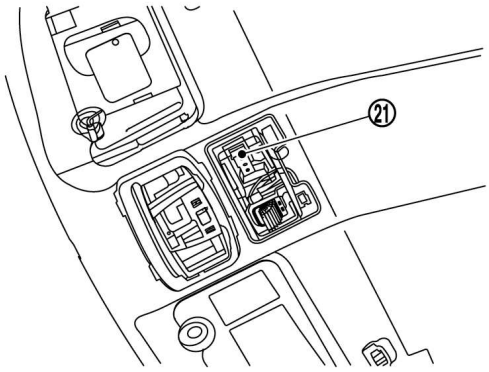
①	Antenna amp.	②	Satellite radio antenna	③	Rear microphone (Active noise cancellation)

④	Rear squawker RH	⑤	Front microphone RH (Active noise cancellation)	⑥	TCU Refer to Component Parts Location, for detailed installation location.
⑦	Front door speaker RH	⑧	Front door speaker LH	⑨	Front microphone LH (Active noise cancellation)
⑩	Rear squawker LH	⑪	Sub woofer	⑫	Rear view camera Refer to Component Parts Location, for detailed installation location.
⑬	Glass antenna	⑭	Front squawker RH	⑮	AV control unit
⑯	Combination meter Refer to Component Parts Location, for detailed installation location.	⑰	Front squawker LH	⑱	Steering switch
⑲	USB connector	⑳	Microphone	㉑	BOSE amp.

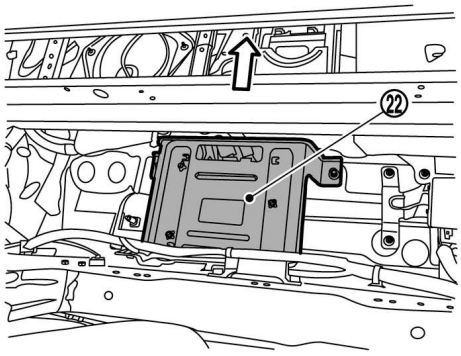
BOSE AUDIO WITH NAVIGATION



A



B



SIEMD-7083881-03-000394816

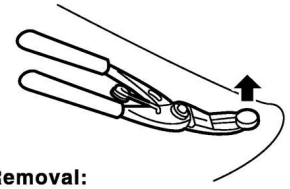
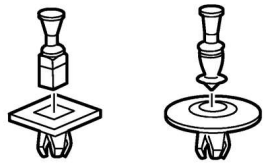
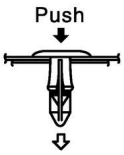
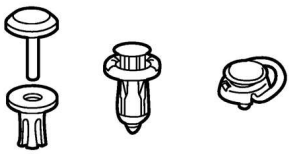
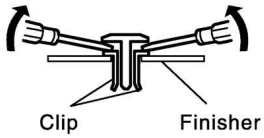
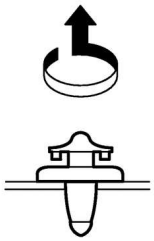
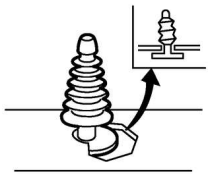
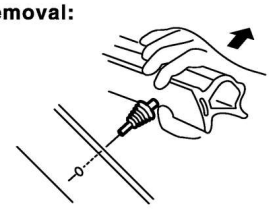
A	Map lamp assembly	B	Luggage side LH		Vehicle front

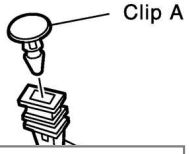
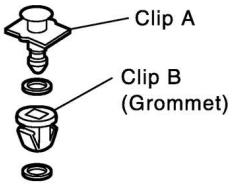
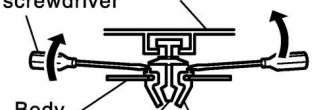
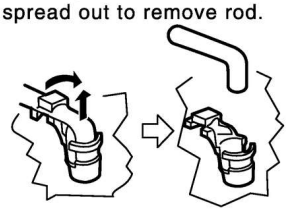
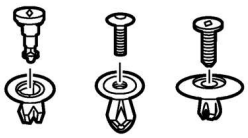
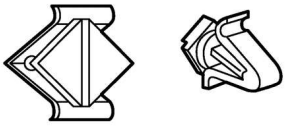
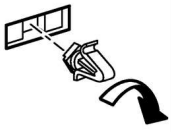
①	Antenna amp.	②	Satellite radio antenna	③	Rear microphone (Active noise cancellation)

④	Rear squawker RH	⑤	Front microphone RH (Active noise cancellation)	⑥	TCU Refer to Component Parts Location, for detailed installation location.
⑦	Front door speaker RH	⑧	Front door speaker LH	⑨	Front microphone LH (Active noise cancellation)
⑩	Rear squawker LH	⑪	Sub woofer	⑫	Rear view camera Refer to Component Parts Location, for detailed installation location.
⑬	Glass antenna	⑭	Front squawker RH	⑮	GPS antenna
⑯	AV control unit	⑰	Combination meter Refer to Component Parts Location, for detailed installation location.	⑱	Front squawker LH
⑲	Steering switch	⑳	USB connector	㉑	Microphone
㉒	BOSE amp.				

Clip List

RPRU-000088220

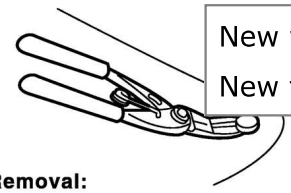
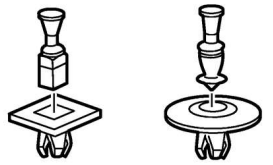
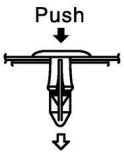
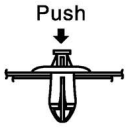
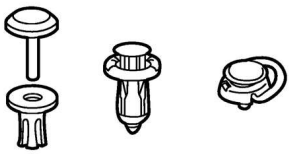
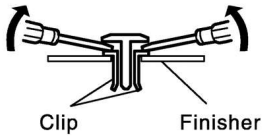
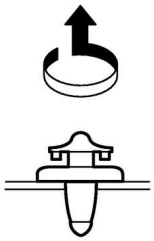
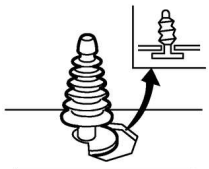
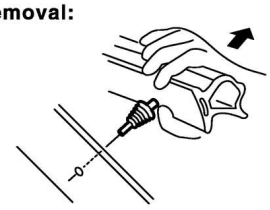
Shapes	Removal & Installation
	**Removal:** Remove by bending up with flat-bladed screwdrivers or clip remover. 
	 **Removal:** Remove with a clip remover.
	**Removal:** Push center pin to catching position. (Do not remove center pin by hitting it.) Push  **Installation:** Push 
	**Removal:** Remove by bending up with flat-bladed screwdrivers or clip remover.  Clip Finisher
	**Removal:** 
	**Removal:** 

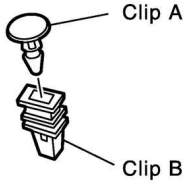
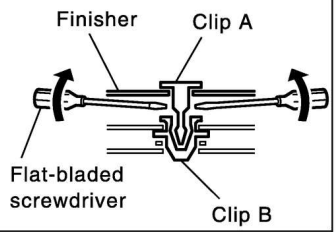
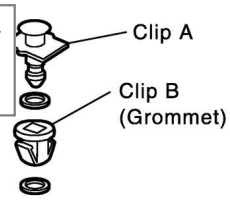
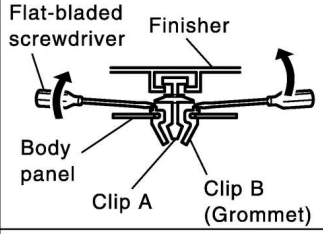
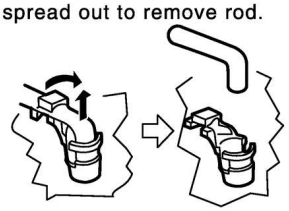
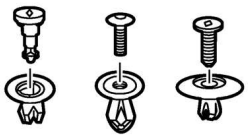
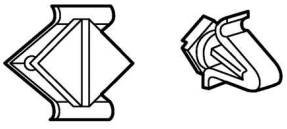
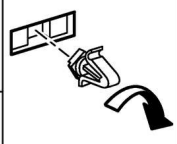
Shapes	Removal & Installation
 Clip A New window New tab	**Removal:** Finisher Clip A  Flat-bladed screwdriver Clip B
 Clip A Clip B (Grommet)	**Removal:** Flat-bladed screwdriver Finisher  Body panel Clip A Clip B (Grommet)
	**Removal:** Holder portion of clip must be spread out to remove rod. 
	**Removal:** 1. Screw out with a Phillips screwdriver. 2. Remove female portion with flat-bladed screwdriver. 
	**Removal:**  Rotate 45° to remove.  **Removal:** **Installation:** 
	**Removal:** 

NIS0000000013139455-01-JMJIA3734GB

Clip List

RPRU-000088216

Shapes	Removal & Installation
	**Removal:** Remove by bending up with flat-bladed screwdrivers or clip remover. 
	 **Removal:** Remove with a clip remover.
	**Removal:** Push center pin to catching position. (Do not remove center pin by hitting it.)  **Installation:** 
	**Removal:** Remove by bending up with flat-bladed screwdrivers or clip remover.  Clip Finisher
	**Removal:** 
	**Removal:** 

Shapes	Removal & Installation
 Clip A Clip B	**Removal:**  Finisher Clip A Flat-bladed screwdriver Clip B
 Clip A Clip B (Grommet)	**Removal:**  Flat-bladed screwdriver Finisher Body panel Clip A Clip B (Grommet)
	**Removal:** Holder portion of clip must be spread out to remove rod. 
	**Removal:** 1. Screw out with a Phillips screwdriver. 2. Remove female portion with flat-bladed screwdriver. 
	**Removal:**  Rotate 45° to remove.  **Removal:** **Installation:** 
	**Removal:** 

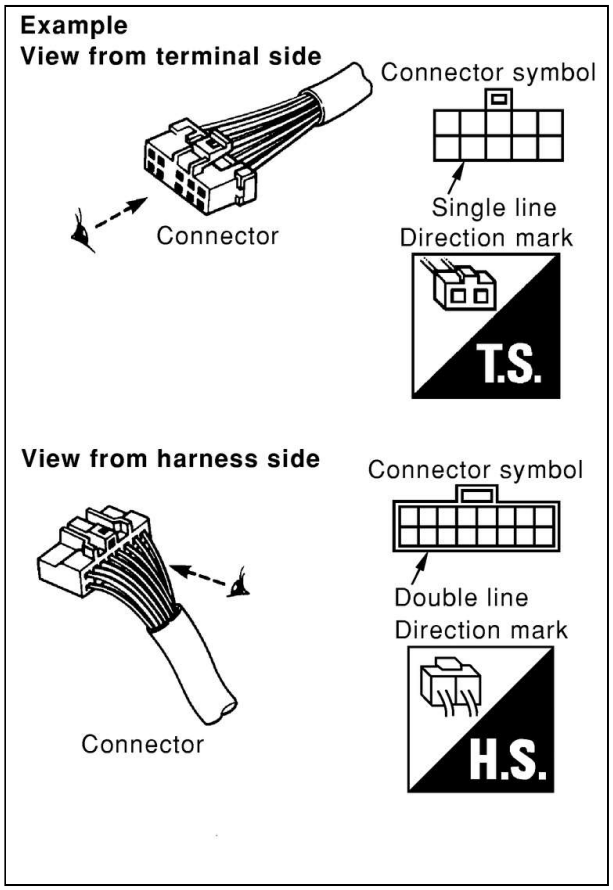
NIS0000000013135602-01-JMJIA3734GB

Connector Symbols

RDEU-000100044

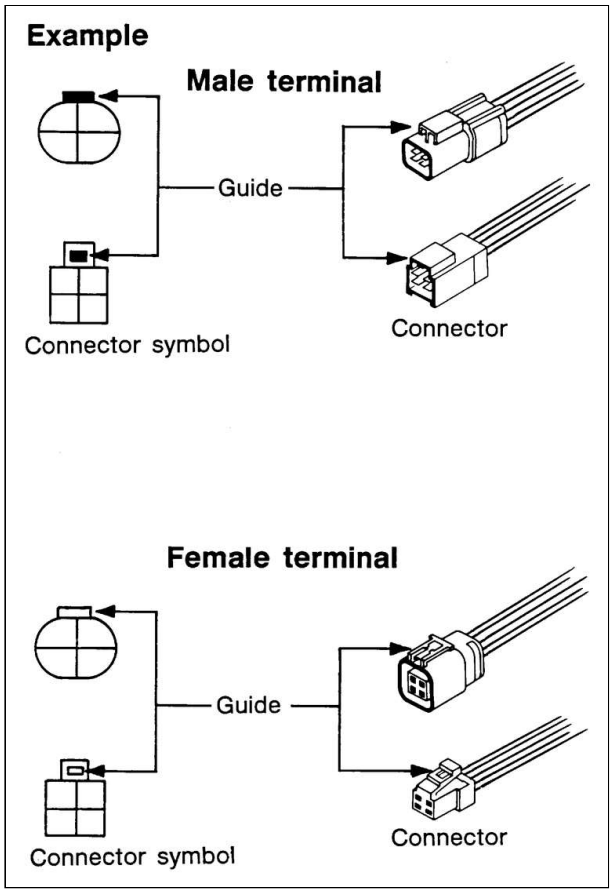
Most of connector symbols in wiring diagrams are shown from the terminal side.

- Connector symbols shown from the terminal side are enclosed by a single line and followed by the direction mark.



NIS0000000014252337-01-SAIA0257E

- Connector symbols shown from the harness side are enclosed by a double line and followed by the direction mark.
- Certain systems and components, especially those related to OBD, may use a new style slide-locking type harness connector. For description and how to disconnect, refer to PG section, “Description”, “HARNESS CONNECTOR”.
- Male and female terminals



NIS0000000014252337-02-SGI363

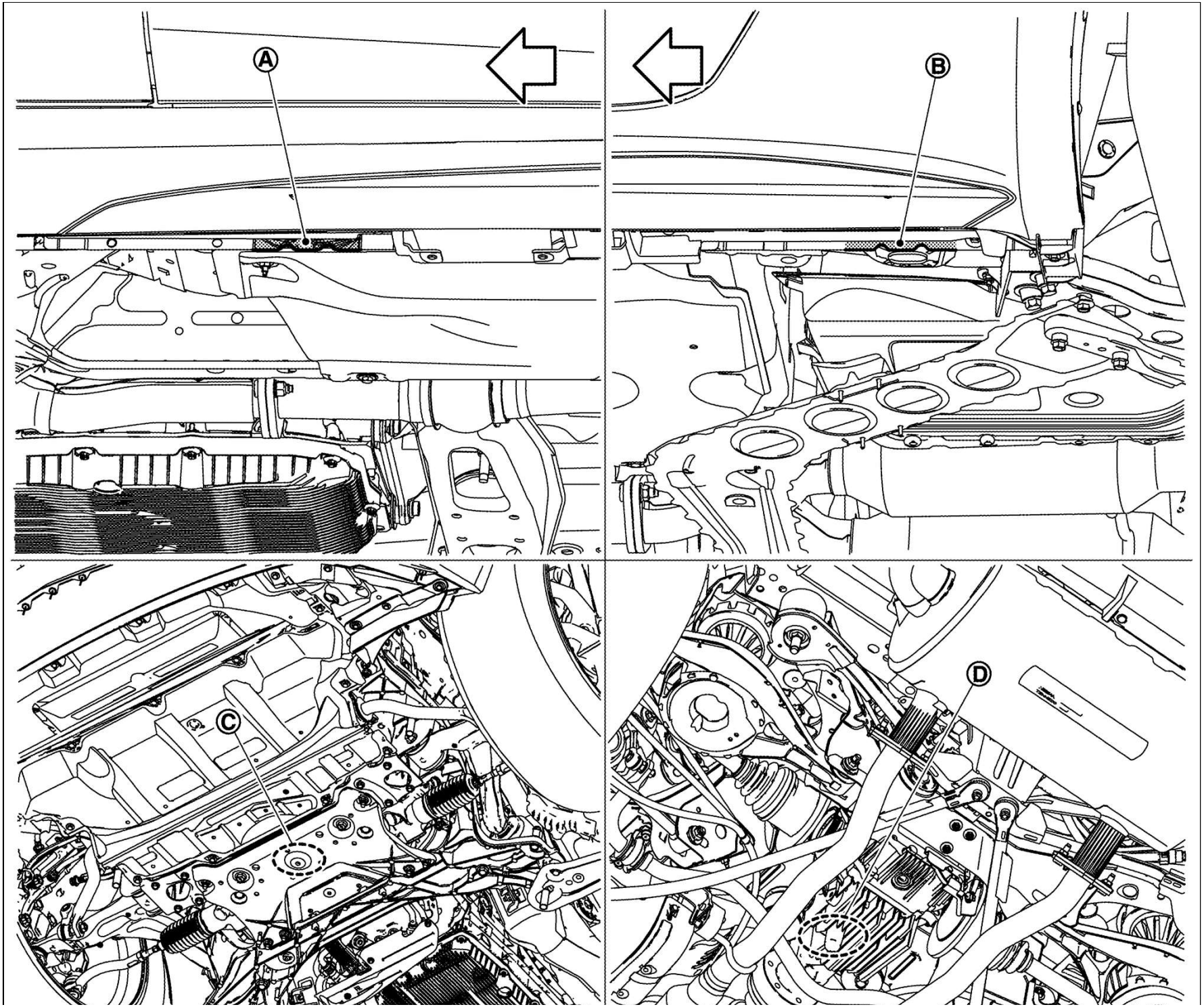
Connector guides for male terminals are shown in black and female terminals in white in wiring diagrams.

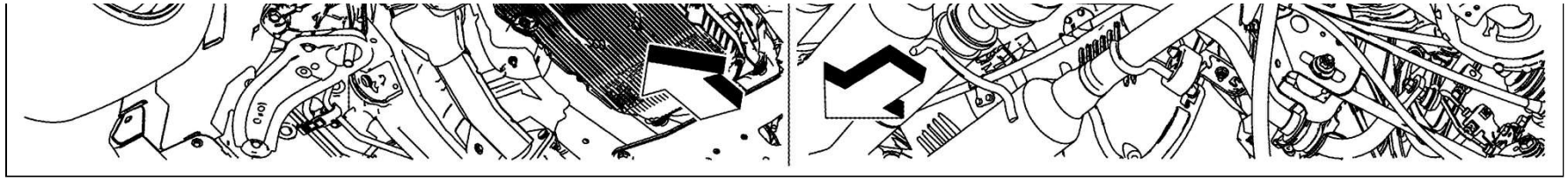
Garage Jack and Safety Stand and 2-Pole Lift

RDEU-000100079

WARNING:

- **Park the vehicle on a level surface when using the jack. Check to avoid damaging pipes, tubes, etc. under the vehicle.**
- **Never get under the vehicle while it is supported only by the jack. Always use safety stands when you have to get under the vehicle.**
- **Place wheel chocks at both front and back of the wheels on the ground.**
- **When lifting the vehicle, open the lift arms as wide as possible and ensure that the front and rear of the vehicle are well balanced.**
- **When setting the lift arm, never allow the arm to contact the brake tubes, brake cable, fuel lines and sill spoiler.**


A
B
C
D



RDE-001776132-01-000396738

Ⓐ	Safety stand point and lift up point (front)	Ⓑ	Safety stand point and lift up point (rear)	Ⓒ	Garage jack point (front)
Ⓓ	Garage jack point (rear)				
	: Vehicle front				

How to Repair Aluminum Wires

RDEU-000100047

PRECAUTIONS FOR THE HANDLING OF ALUMINUM WIRES

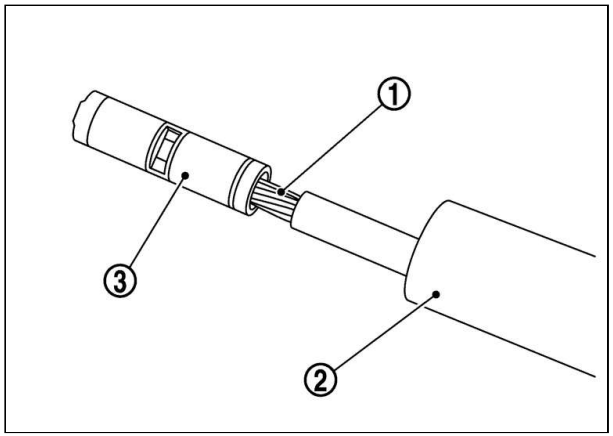
- If an aluminum wire is damaged (e.g. broken), never perform the repair method for copper wires (soldering).
- Never perform electrotap for connecting broken aluminum wires.
- To secure the wire fixing strength (a force to protect aluminum wire from being disconnected from crimp terminal) and electrical conductivity, always use the dedicated harness repair kit and caulking tool [SST: KV99112600] when repairing broken wires.

HOW TO DISTINGUISH ALUMINUM WIRES

Wiring color: Lavender (Color code: LA)

HOW TO REPAIR BROKEN WIRES

1. Insert heat shrinkable tube ② into the target aluminum wire ① beforehand.

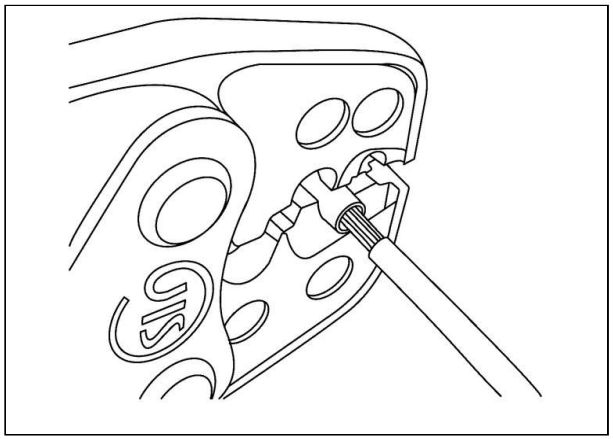


NISSSFM0000000015320165-01-
JSAIA2961ZZ

2. Strip wire terminal approximately 10 mm and insert it into crimp terminal ③.

CAUTION:
Check wire size and use appropriate crimp terminal.

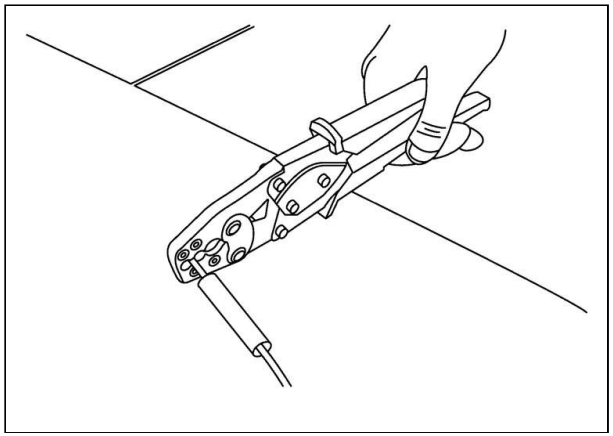
3. Set crimp terminal to the die (tooth) of caulking tool [SST: KV99112600].



NISSSFM0000000015320165-02-
JSAIA2963ZZ

CAUTION:
Use appropriate die (tooth) of caulking tool [SST: KV99112600] according to the crimp terminal size.

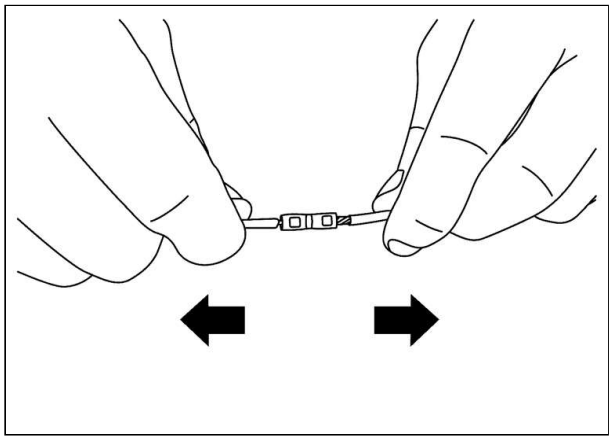
4. Apply load until the handle of caulking tool [SST: KV99112600] is released.



NISSSFM0000000015320165-03-
JSAIA2962ZZ

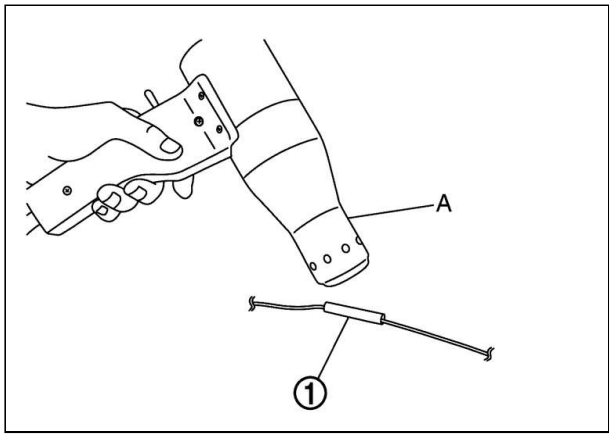
NOTE:
The handle of the specified caulking tool [SST: KV99112600] is not opened until crimping is completed.

5. After crimping both sides, pull wire at both ends to check that they are not disconnected from crimp terminals.



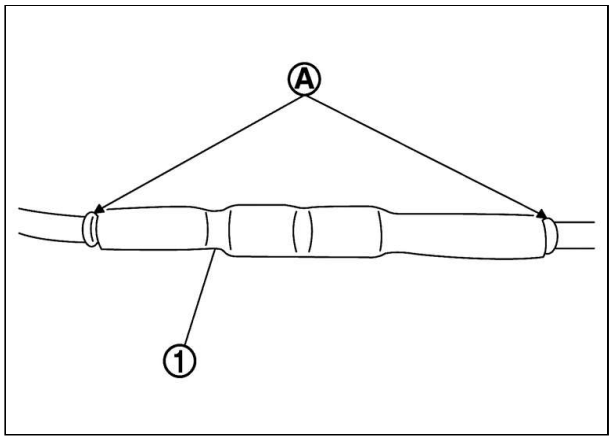
NISSSFM0000000015320165-04-
JSAIA2964ZZ

6. Cover the crimp terminal with heat shrinkable tube ① and heat the tube with industrial dryer Ⓐ.



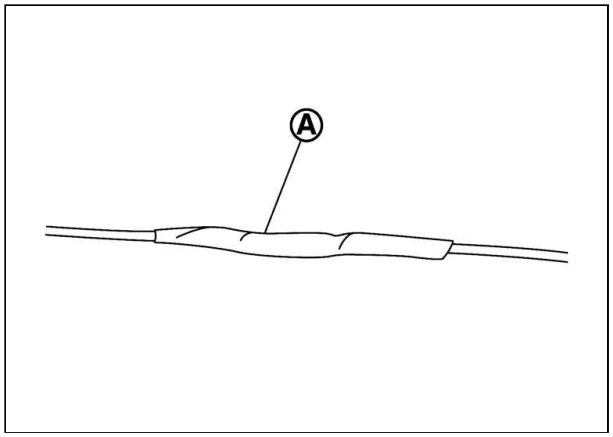
NISSSFM0000000015320165-05-
JSAIA2965ZZ

7. After heating heat shrinkable tube ①, check that adhesive Ⓐ is squeezed out from both ends of tube to the entire perimeter.



NISSSFM0000000015320165-06-
JSAIA2966ZZ

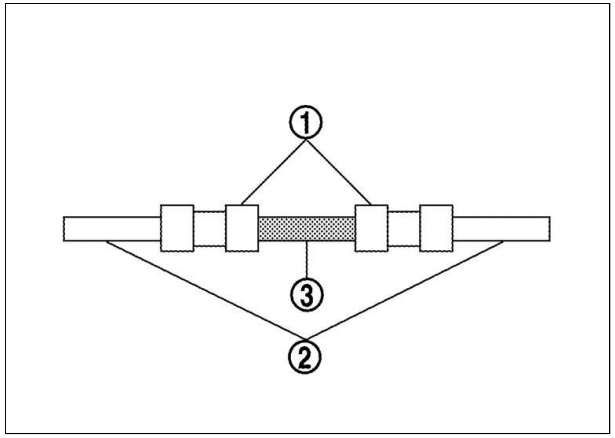
8. Wind insulating tape Ⓐ around heat shrinkable tube for the purpose of waterproof and anticorrosion.



NISSSFM0000000015320165-07-
JSAIA2967ZZ

HOW TO EXTEND WIRES

When repairing a broken aluminum wire, it can be extended by connecting aluminum wire ② with copper wire ③ by using crimp terminal ①.



NISSSFM0000000015320165-08-
JSAIA3100ZZ

Fluids and Lubricants

RDEU-000100901

The following are approximate capacities. The actual refill capacities may be slightly different. When refilling, follow the procedures described elsewhere in this manual.

<table>
<tr><th colspan="2" rowspan="2">Fluid type</th><th colspan="3">Capacity (approximate)</th><th rowspan="2">Recommended Fluids/Lubricants</th></tr>
<tr><th>Metric Measure</th><th>US Measure</th><th>Imperial Measure</th></tr>
<tr><td rowspan="2">Engine oil

Drain and refill</td><td>With oil filter change</td><td>5.3 ℓ</td><td>5-5/8 qt</td><td>4-5/8 qt</td><td rowspan="3">• Genuine "NISSAN Motor Oil 0W-20 SP" (or equivalent) is recommended.

• If the above motor oil (or engine oil) is not available, a synthetic 0W-20 SP GF-6A motor oil (or engine oil) may be used. Damage caused by the use of motor oil (or engine oil) other than as recommended is not covered under the NISSAN's New Vehicle Limited Warranty. For additional information, see "Engine Oil Recommendation".</td></tr>
<tr><td>Without oil filter change</td><td>5.1 ℓ</td><td>5-3/8 qt</td><td>4-4/8 qt</td></tr>
<tr><td colspan="2">Dry engine (engine overhaul)</td><td>7.6 ℓ</td><td>8 qt</td><td>6-5/8 qt</td></tr>
<tr><td rowspan="2">Engine coolant

(with reservoir)</td><td>Except for NISMO models</td><td>9.0 ℓ</td><td>9-4/8 qt</td><td>7-7/8 qt</td><td rowspan="6">• Pre-diluted Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent</td></tr>
<tr><td>For NISMO models</td><td>10.3 ℓ</td><td>10-7/8 qt</td><td>9-1/8 qt</td></tr>
<tr><td colspan="2">Reservoir tank

(Engine coolant)</td><td>0.5 ℓ</td><td>4/8 qt</td><td>4/8 qt</td></tr>
<tr><td rowspan="2">Charge air cooler coolant capacity

[With reservoir tank (“MAX” level)]</td><td>Except for NISMO models</td><td>2.9 ℓ</td><td>3-1/8 qt</td><td>2-4/8 qt</td></tr>
<tr><td>For NISMO models</td><td>3.2 ℓ</td><td>3-3/8 qt</td><td>2-7/8 qt</td></tr>
<tr><td colspan="2">Charge air cooler coolant capacity</td><td>0.15 ℓ</td><td>1/8 qt</td><td>1/8 qt</td></tr>
</table>

Fluid type		Capacity (approximate)			Recommended Fluids/Lubricants
		Metric Measure	US Measure	Imperial Measure	
(At "MAX" level)					
Automatic transmission fluid		10.0 ℓ*1	10-5/8 qt*1	8-6/8 qt*1	• Genuine NISSAN Matic P ATF or equivalent • NISSAN recommends using Genuine NISSAN Matic P ATF (or equivalent) ONLY in NISSAN automatic transmissions. Do not mix with other fluids. Using fluids that are not equivalent to Genuine NISSAN Matic P ATF may damage the automatic transmission. Damage caused by the use of fluids other than as recommended is not covered under the NISSAN's New Vehicle Limited Warranty.
Manual transmission gear oil		2.83 ℓ	3 qt	2-4/8 qt	• Genuine NISSAN Manual Transmission Fluid (MTF) HQ Multi 75W-85 • If Genuine NISSAN Manual Transmission Fluid (MTF) HQ Multi is not available, API GL-4, Viscosity SAE 75W-85 may be used as a temporary replacement. However, use Genuine NISSAN Manual Transmission Fluid (MTF) HQ Multi as soon as it is available.
Differential gear oil	Without LSD	1.4 ℓ	1-1/2 qt	1-1/4 qt	• Genuine NISSAN HYPOID FLUID·S1 GL-5 75W-80 or equivalent
	With LSD	1.55 ℓ	1-5/8 qt	1-3/8 qt	• Genuine NISSAN Differential Oil Hypoid LSD GL-5 80W-90 or equivalent conventional (non-synthetic) oil
Brake fluid		—	—	—	• Genuine NISSAN Brake Fluid R35 Special II or equivalent DOT 4 • Never mix different types of fluids. • NISSAN recommends Genuine NISSAN Brake Fluid R35 Special II available at a NISSAN dealer.
Clutch fluid		—	—	—	

Fluid type	Capacity (approximate)			Recommended Fluids/Lubricants
	Metric Measure	US Measure	Imperial Measure	
Multi-purpose grease	—	—	—	• NLGI No. 2 (Lithium soap base)

*1: The fluid capacity is the reference value.

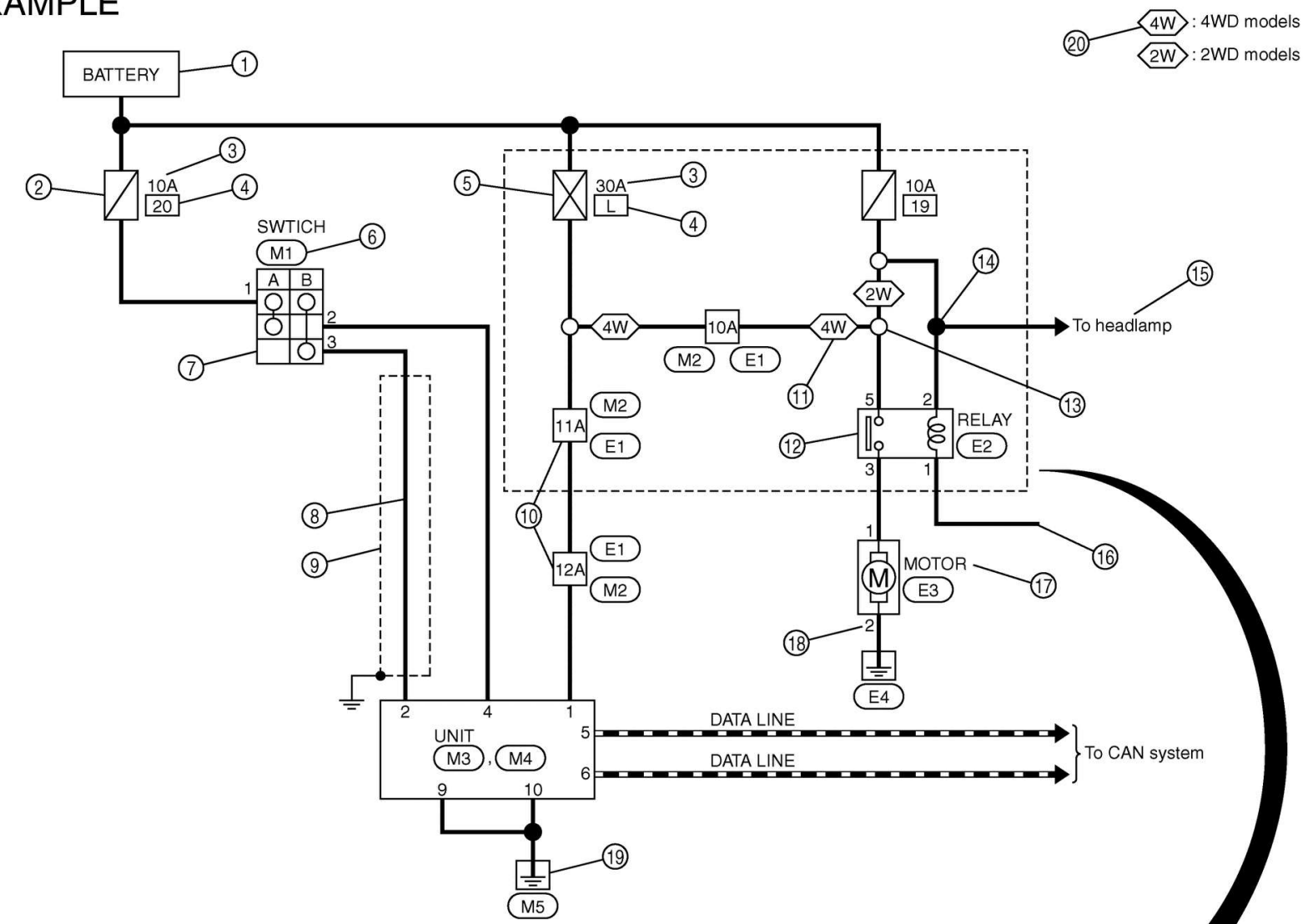
Sample/Wiring Diagram -Example-

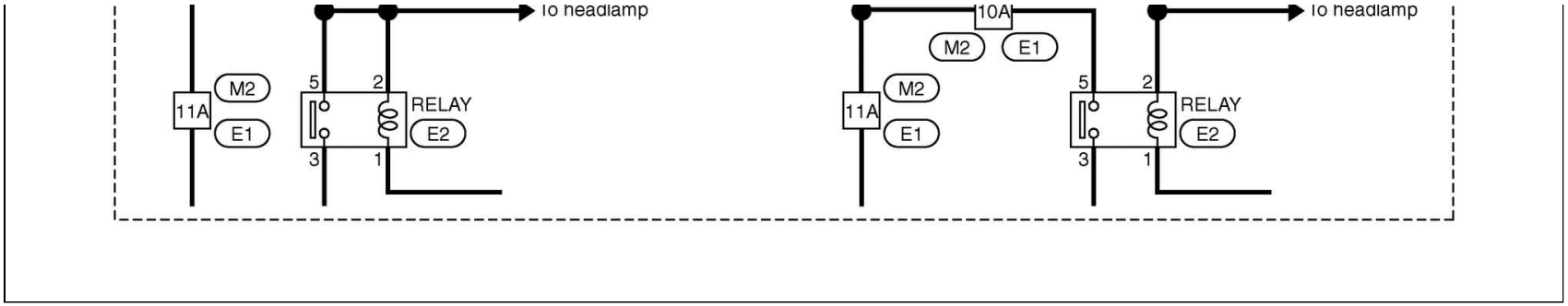
RDEU-000100045

Each section includes wiring diagrams.

New window
New tab

EXAMPLE


4W : 4WD models
2W : 2WD models
BATTERY
10A
20
SWTICH
M1
A
B
30A
L
10A
19
2W
4W
10A
M2
E1
4W
To headlamp
11A
M2
E1
RELAY
E2
12A
E1
M2
MOTOR
E3
E4
UNIT
M3
M4
DATA LINE
DATA LINE
To CAN system
M5
Optional splice
2WD models
30A
L
10A
19
4WD models
30A
L
10A
19



RDE-001776115-01-RAWC3780GB

Description

Number	Item	Description
①	Power supply	• This means the power supply of fusible link or fuse.
②	Fuse	• "/" means the fuse.
③	Current rating of fusible link/fuse	• This means the current rating of the fusible link or fuse.
④	Number of fusible link/fuse	• This means the number of fusible link or fuse location.
⑤	Fusible link	• "X" means the fusible link.
⑥	Connector number	• Alphabetic characters show to which harness the connector is placed. • Numeric characters show the identification number of connectors.
⑦	Switch	• This shows that continuity exists between terminals 1 and 2 when the switch is in the A position. Continuity exists between terminals 1 and 3 when the switch is in the B position.

Number	Item	Description
⑧	Circuit (Wiring)	• This means the wiring.
⑨	Shielded line	• The line enclosed by broken line circle shows shield wire.
⑩	Connectors	• This means that a transmission line bypasses two connectors or more.
⑪	Option abbreviation	• This means the vehicle specifications which layouts the circuit between "○".
⑫	Relay	• This shows an internal representation of the relay.
⑬	Optional splice	• The open circle shows that the splice is optional depending on vehicle application.
⑭	Splice	• The shaded circle "●" means the splice.
⑮	System branch	• This shows that the circuit is branched to other systems.
⑯	Page crossing	• This circuit continues to an adjacent page.
⑰	Component name	• This shows the name of a component.
⑱	Terminal number	• This means the terminal number of a connector.
⑲	Ground (GND)	• This shows the ground connection.

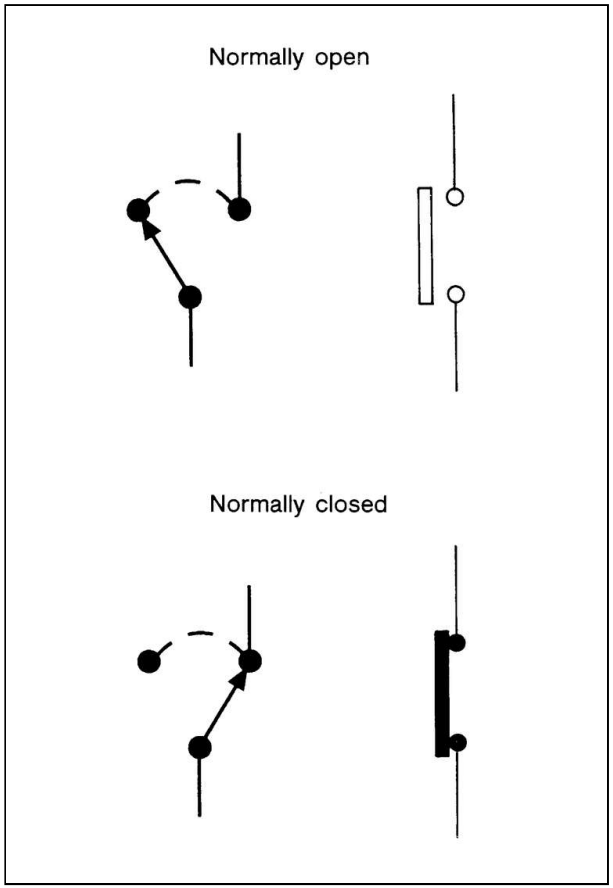
Number	Item	Description
⑳	Explation of option description	• This shows a description of the option abbreviation used on the page.

SWITCH POSITIONS

Switches are shown in wiring diagrams as if the vehicle is in the “normal” condition.

A vehicle is in the “normal” condition when:

- ignition switch is “OFF”



RDE-001776115-02-GI860

- doors, hood and trunk lid/back door are closed

- pedals are not depressed
- parking brake is released

MULTIPLE SWITCH

The continuity of multiple switch is described in two ways as shown below.

- The switch chart is used in schematic diagrams.
- The switch diagram is used in wiring diagrams.

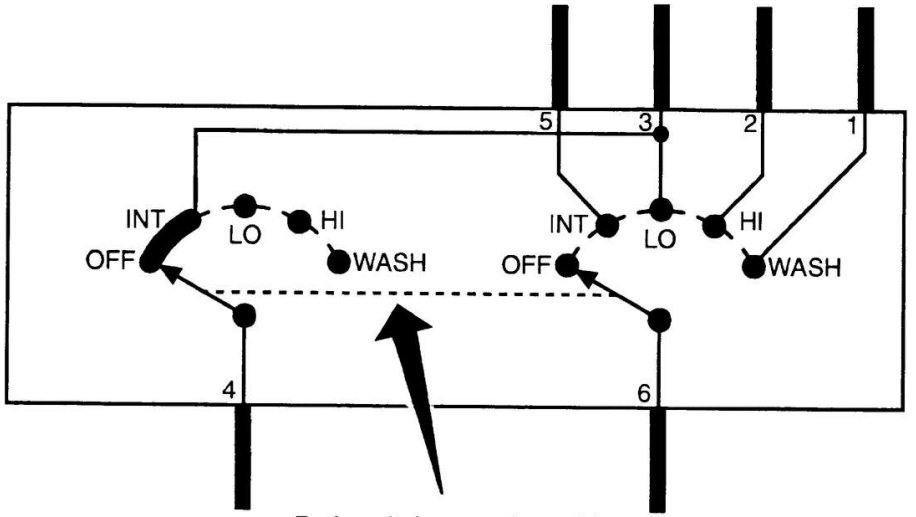
Example

(SWITCH CHART)

WIPER SWITCH

	OFF	INT	LO	HI	WASH
1					○
2				○	
3	○	○	○		
4	○	○			
5		○			
6		○	○	○	○

(SWITCH DIAGRAM)



Both switches are turned in combination.

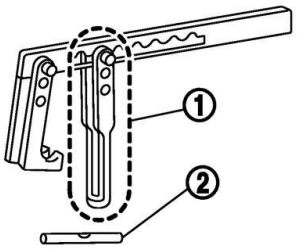
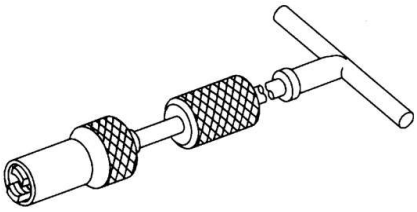
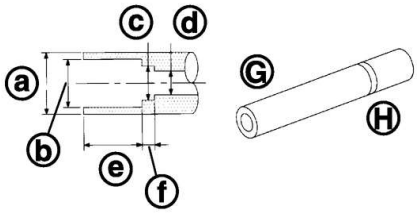
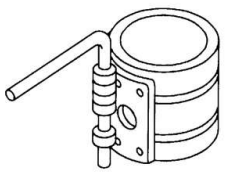
Continuity circuit of wiper switch

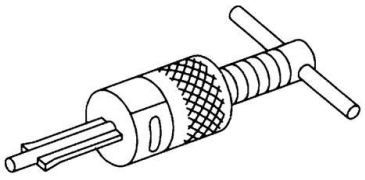
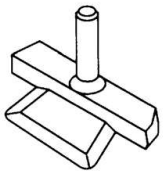
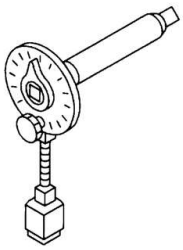
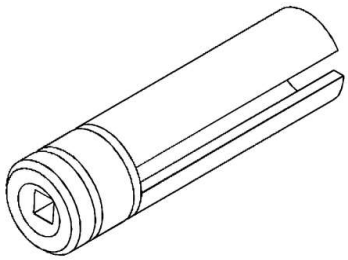
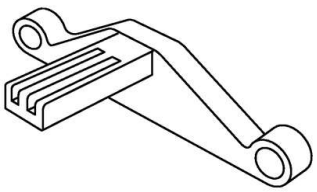
SWITCH POSITION	CONTINUITY CIRCUIT
OFF	3-4
INT	3-4, 5-6
LO	3-6
HI	2-6
WASH	1-6

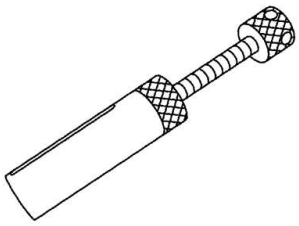
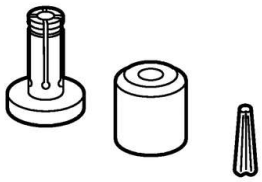
Special Service Tool

RDEU-000100075

The actual shapes of TechMate tools may differ from those of special service tools illustrated here.

Tool number **(TechMate No.)** **Tool name**		**Description**
KV10116200 (J-26336-A) Valve spring compressor 1. KV10115900 (J-26336-20) Attachment 2.KV10109220 (—) Adapter	 RDE-001875215-01-BIC1650E	Disassembling valve mechanism Part ① is a component of KV10116200 (J-26336-A), but Part ② is not so.
KV10107902 (J-38959) Valve oil seal puller	 RDE-001875215-02-T011	Replacing valve oil seal
KV10115600 (J-38958) Valve oil seal drift	 RDE-001875215-03-PBIA0396ZZ	Installing valve oil seal Use side A Ⓖ. ⓐ: 20 (0.79) dia. ⓓ: 8 (0.31) dia. ⓑ: 13 (0.51) dia. ⓔ: 10.7 (0.421) ⓒ: 10.3 (0.406) dia. ⓕf: 5 (0.20) Ⓗ: side B Unit: mm (in)
EM03470000 (J-8037) Piston ring compressor		Installing piston assembly into cylinder bore

Tool number **(TechMate No.)** **Tool name**		**Description**
	RDE-001875215-04-T044	
ST16610001 (J-23907) Pilot bushing puller	 RDE-001875215-05-T045	Removing pilot converter
KV10111100 (J-37228) Seal cutter	 RDE-001875215-06-T046	Removing oil pan (upper), timing chain case, etc.
KV10112100 (BT8653-A) Angle wrench	 RDE-001875215-07-T014	Tightening bolts for connecting rod bearing cap, cylinder head, etc. at an angle
KV10117100 (J-3647-A) Heated oxygen sensor wrench	 RDE-001875215-08-T379	Loosening or tightening air fuel ratio sensor 1 and heated oxygen sensor **For 22 mm (0.87 in) width hexagon nut**
KV10118600 (J-48641) Ring gear stopper	 RDE-001875215-09-PBIA0409ZZ	Removing and installing crankshaft pulley

Tool number **(TechMate No.)** **Tool name**		**Description**
KV10119600 (J-50366) Injector remover	 RDE-001875215-10-PBIA3746ZZ	Removing fuel injector
KV101197S0 (J-50364) Injector seal drift set	 RDE-001875215-11-PBIA3281ZZ	Installing fuel injector seal ring

Periodic Maintenance

RDEU-000100900

The following tables show the normal maintenance schedule. Depending upon weather and atmospheric conditions, varying road surfaces, individual driving habits and vehicle usage, additional or more frequent maintenance may be required.

Periodic maintenance beyond the last period shown on the tables requires similar maintenance.

STANDARD MAINTENANCE

Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary.

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								
Perform at number of miles, kilometers or months, whichever comes first.	**Miles x 1,000 (km x 1,000) Months**	**5 (8) 6**	**10 (16) 12**	**15 (24) 18**	**20 (32) 24**	**25 (40) 30**	**30 (48) 36**	**35 (56) 42**	**40 (64) 48**	**45 (72) 54**
Air cleaner filter	NOTE (1)						R			
Automatic transmission fluid★	NOTE (2)		I		I		I		I	
Brake fluid★					R				R	
Brake lines and cables			I		I		I		I	
Brake pads and rotors★			I		I		I		I	
Differential gear oil (With limited slip differential)			I		R		I		R	
Differential gear oil (Without limited slip differential)			I		I		I		I	
Engine drive belts	NOTE (3)								I	
Engine coolant*	NOTE (4) (5)									
Engine oil and oil filter	NOTE (6)		R		R		R		R	
Fuel tank vapor vent system and fuel lines/connections					I				I	
Exhaust system★					I				I	
Fuel filter	NOTE (7)									

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								
Perform at number of miles, kilometers or months, whichever comes first.	**Miles x 1,000** **(km x 1,000)** **Months**	**5** **(8)** **6**	**10** **(16)** **12**	**15** **(24)** **18**	**20** **(32)** **24**	**25** **(40)** **30**	**30** **(48)** **36**	**35** **(56)** **42**	**40** **(64)** **48**	**45** **(72)** **54**
Intelligent key battery				I			R			R
In-cabin microfilter				R			R			R
Intake and exhaust valve clearance	NOTE (8)									
Manual transmission gear oil			I		I		I		I	
Spark plugs										
Steering gear and linkage, axle and suspension parts★					I				I	
Tire rotation	NOTE (9)									

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								
Perform at number of miles, kilometers or months, whichever comes first.	**Miles x 1,000** **(km x 1,000)** **Months**	**50** **(80)** **60**	**55** **(88)** **66**	**60** **(96)** **72**	**65** **(104)** **78**	**70** **(112)** **84**	**75** **(120)** **90**	**80** **(128)** **96**	**85** **(136)** **102**	**90** **(144)** **108**
Air cleaner filter	NOTE (1)			R						R
Automatic transmission fluid★	NOTE (2)	I		I		I		I		I
Brake fluid★				R				R		
Brake lines and cables		I		I		I		I		I
Brake pads and rotors★		I		I		I		I		I
Differential gear oil (With limited slip differential)		I		R		I		R		I
Differential gear oil (Without limited slip differential)		I		I		I		I		I

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								
Perform at number of miles, kilometers or months, whichever comes first.	**Miles x 1,000** **(km x 1,000)** **Months**	**50** **(80)** **60**	**55** **(88)** **66**	**60** **(96)** **72**	**65** **(104)** **78**	**70** **(112)** **84**	**75** **(120)** **90**	**80** **(128)** **96**	**85** **(136)** **102**	**90** **(144)** **108**
Engine drive belts	NOTE (3)	I		I		I		I		I
Engine coolant*	NOTE (4) (5)									
Engine oil and oil filter	NOTE (6)	R		R		R		R		R
Fuel tank vapor vent system and fuel lines/connections				I				I		
Exhaust system★				I				I		
Fuel filter	NOTE (7)									
Intelligent key battery				R			R			R
In-cabin microfilter				R			R			R
Intake and exhaust valve clearance	NOTE (8)									
Manual transmission gear oil		I		I		I		I		I
Spark plugs										
Steering gear and linkage, axle and suspension parts★				I				I		
Tire rotation	NOTE (9)									

MAINTENANCE OPERATION		MAINTENANCE INTERVAL						
Perform at number of miles, kilometers or months, whichever comes first.	**Miles x 1,000 (km x 1,000) Months**	**95 (152) 114**	**100 (160) 120**	**105 (168) 126**	**110 (176) 132**	**115 (184) 138**	**120 (192) 144**	**Reference Page**
Air cleaner filter	NOTE (1)						R	Removal and Installation
Automatic transmission fluid★	NOTE (2)		I		I		I	Inspecton
Brake fluid★			R				R	Changing
Brake lines and cables			I		I		I	Inspection
Brake pads and rotors★			I		I		I	Inspection
Differential gear oil (With limited slip differential)			R		I		R	Draining Inspection
Differential gear oil (Without limited slip differential)			I		I		I	Inspection
Engine drive belts	NOTE (3)		I		I		I	Inspection
Engine coolant*	NOTE (4) (5)							Draining
Engine oil and oil filter	NOTE (6)		R		R		R	Draining Removal and Installation
Fuel tank vapor vent system and fuel lines/connections			I				I	Inspection Inspection
Exhaust system★			I				I	Inspection
Fuel filter	NOTE (7)							—
Intelligent key battery				R			R	Removal and Installation
In-cabin microfilter				R			R	Removal and

MAINTENANCE OPERATION		MAINTENANCE INTERVAL						Reference Page
Perform at number of miles, kilometers or months, whichever comes first.	**Miles x 1,000 (km x 1,000) Months**	**95 (152) 114**	**100 (160) 120**	**105 (168) 126**	**110 (176) 132**	**115 (184) 138**	**120 (192) 144**	
								Installation
Intake and exhaust valve clearance	NOTE (8)							Inspection and Adjustment
Manual transmission gear oil			I		I		I	Inspection
Spark plugs				R				Removal and Installation
Steering gear and linkage, axle and suspension parts★			I				I	Inspection Inspection
Tire rotation	NOTE (9)							General maintenance

NOTE:

- **Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".**
- **(1) If operating mainly in dusty conditions, more frequent maintenance may be required.**
- **(2) Request the dealer to inspect the fluid deterioration data using a CONSULT. If the deterioration data is more than 77000, replace the AT fluid.**
- **(3) After 60,000 miles (96,000 km) or 48 months, inspect every 15,000 miles (24,000 km) or 12 months. Replace the drive belts if found damaged.**
- **(4) First replacement interval is 105,000 miles (168,000 km) or 84 months. After first replacement, replace every 75,000 miles (120,000 km) or 60 months.**
- **(5) Use only Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent with proper mixture ratio of 50% antifreeze and 50% demineralized or distilled water. Mixing any other type of coolant or the use of non-distilled water may reduce the life expectancy of the factory fill coolant.**

- **(6) If the oil replacement indicator is displayed, change the engine oil and filter as soon as possible. After replacing the engine oil, reset the display.**
- **(7) Periodic maintenance is not required.**
- **(8) Periodic maintenance is not required. However, if valve noise increases, inspect valve clearance.**
- **(9) Refer to "Tire rotation" under the "GENERAL MAINTENANCE" heading earlier in this section.**

* Maintenance items and intervals with "*" are recommended by NISSAN for reliable vehicle operation. The owner need not perform such maintenance in order to maintain the emission warranty or manufacturer recall liability. Other maintenance items and intervals are required.

MAINTENANCE UNDER SEVERE DRIVING CONDITIONS

The maintenance intervals shown on the preceding pages are for normal operating conditions. If the vehicle is mainly operated under severe driving conditions as shown below, more frequent maintenance must be performed on the following items as shown in the table.

Severe driving conditions

- Repeated short trips of less than 5 miles (8 km).
- Repeated short trips of less than 10 miles (16 km) with outside temperatures remaining below freezing.
- Operating in hot weather in stop-and-go "rush hour" traffic.
- Extensive idling and/or low speed driving for long distances, such as police, taxi or door-to-door delivery use.
- Driving in dusty conditions.
- Driving on rough, muddy, or salt spread roads.
- Using a car-top carrier.

Maintenance operation: Inspect = Inspect and correct or replace as necessary.

Maintenance item	Maintenance operation	Maintenance interval	Reference page
Automatic transmission fluid	Replace	Every 20,000 miles (32,000 km) or 24 months	Changing
Brake fluid	Replace	Every 10,000 miles (16,000 km) or 12	Inspection

		months	
Brake pads and rotors	Inspect	Every 5,000 miles (8,000 km) or 6 months	Inspection
Exhaust system	Inspect	Every 5,000 miles (8,000 km) or 6 months	Inspection
Steering gear and linkage, axle and suspension parts	Inspect	Every 5,000 miles (8,000 km) or 6 months	Inspection Inspection

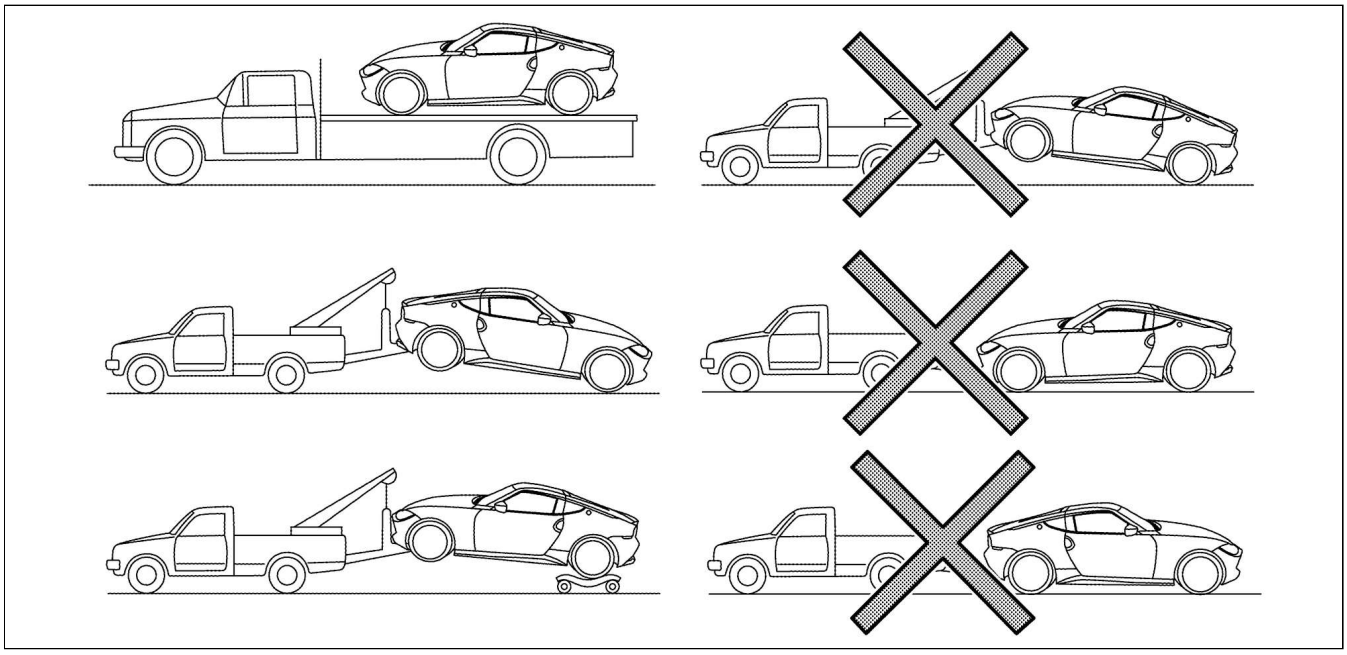
Tow Truck Towing

RDEU-000100083

CAUTION:

- **To avoid the risk of minor injury or property damage : If the 12V battery has low or no voltage, the transmission cannot be shifted into neutral. To transport the vehicle, it must have all four wheels off the ground and placed on a flatbed or track system.**
- **All applicable state or Provincial laws and local laws regarding the towing operation must be obeyed.**
- **It is necessary to use proper towing equipment to avoid possible damage to the vehicle during towing operation. Towing instructions are available from a NISSAN dealer.**
- **Always attach safety chains before towing.**
- **When towing, make sure that the transmission, axles, steering system and drivetrain are in working condition. If any unit is damaged, dollies or flatbed tow truck must be used.**

AUTOMATIC TRANSMISSION MODELS



RDE-001776130-01-000396748

NISSAN recommends that your vehicle be towed with the driving (rear) wheels off the ground or place the vehicle on a flat bed truck as illustrated.

CAUTION:

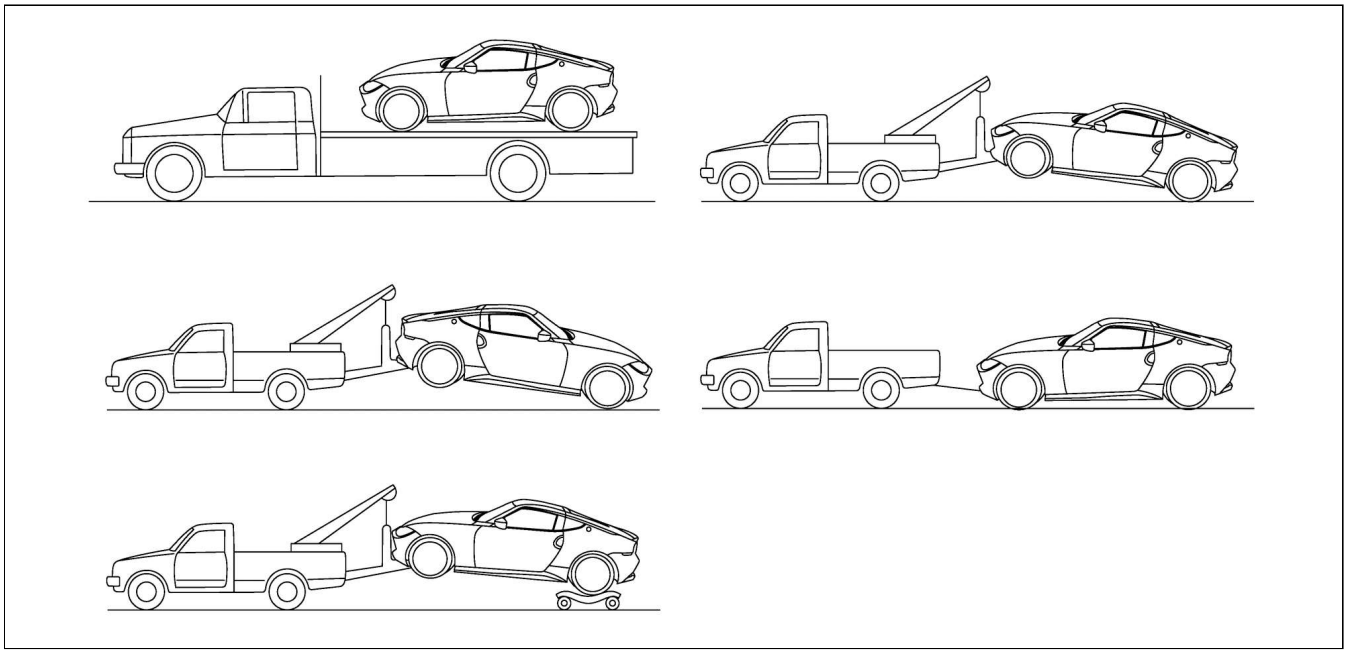
- **To avoid the risk of minor injury or property damage : If the 12V battery has low or no voltage, the transmission cannot be shifted into neutral. To transport the vehicle, it must have all four wheels off the ground and placed on a flatbed or track system.**

- **Never tow automatic transmission models with the rear wheels on the ground or four wheels on the ground (forward or backward), as this may cause serious and expensive damage to the drivetrain.**

  If it is necessary to tow the vehicle with the front wheels raised, always use towing dollies under the rear wheels.

- **When towing rear wheel drive models with the front wheels on the ground or on towing dollies:**
  - **Turn the ignition switch to the ON position. Secure the steering wheel in a straight ahead position with a rope or similar device.**
  - **Move the shift lever to the N (Neutral) position.**

MANUAL TRANSMISSION MODELS



RDE-001776130-02-000396752

NISSAN recommends that your vehicle be towed with the driving (rear) wheels off the ground or place the vehicle on a flat bed truck as illustrated.

CAUTION:

- **Never tow a manual transmission model from the rear (that is backward) with four wheels on the ground. This may cause serious and expensive damage to the drivetrain.**
- **When towing manual transmission model with the rear wheels on the ground (if you do not use towing dollies) or four wheels on the ground:**
  - **Turn the ignition switch to the ON position. Secure the steering wheel in a straight ahead position with a rope or similar device.**
  - **Always release the parking brake.**
  - **Move the shift lever to the N (Neutral) position.**

- **If the speed or distance must necessarily be greater, remove the propeller shaft before towing to prevent damage to the drivetrain.**

Wheels Tires

RDEU-000100091

Conventional	18 inch	Front	Tire		245/45R18 96W
			Road wheel (Aluminum)	Size	18 × 9J
				Inset	34 mm (1.34 in)
		Rear	Tire		245/45R18 96W
			Road wheel (Aluminum)	Size	18 × 9J
				Inset	15 mm (0.59 in)
	19 inch	Front	Tire		255/40R19 96W
			Road wheel (Aluminum)	Size	19 × 9.5J
				Inset	40 mm (1.57 in)
		Rear	Tire		275/35R19 96W
			Road wheel (Aluminum)	Size	19 × 10J
				Inset	30 mm (1.18 in)
	19 inch (For NISMO models)	Front	Tire		255/40R19 100Y XL
			Road wheel (Aluminum)	Size	19 × 10J
				Inset	33 mm (1.29 in)
		Rear	Tire		285/35R19 103Y XL
			Road wheel (Aluminum)	Size	19 × 10.5J
				Inset	23 mm (0.90 in)
Spare	Puncture repair kit				

Work Procedure

SIEMDU-545353

When power window main switch or power window switch (passenger side) replaced, the initialization in necessary for normal operation of power window system.

CAUTION:
The following specified operations cannot be performed under the non-initialized condition.

- **Auto up operation**
- **Anti-pinch function**
- **Retained power operation**
- **Automatic window adjusting function**
- **Keyless power window down function**

1. SYSTEM INITIALIZATION

Perform system initialization. Refer to Work Procedure.

>>

GO TO 2.

2. CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to Work Procedure.

>>

END

Abbreviation List

RDEU-000100048

The following **ABBREVIATIONS** are used:

A

ABBREVIATION	DESCRIPTION
A/C	Air conditioner
A/C	Air conditioning
ADCM	AdBlue® dosing control module
A/F sensor	Air fuel ratio sensor
A/T	Automatic transaxle/transmission
ABS	Anti-lock braking system
ACCS	Advance climate control system
ACL	Air cleaner
AP	Accelerator pedal
APP	Accelerator pedal position
ATF	Automatic transmission fluid
AV	Audio visual
AWD	All wheel drive

NOTE:
AdBlue® is the registered trademark of the Verband der Automobilindustrie e.V. (VDA).

B

ABBREVIATION	DESCRIPTION
BARO	Barometric pressure
BCI	Back-up collision intervention
BCM	Body control module
BLSD	Brake limited slip differential

ABBREVIATION	DESCRIPTION
BPP	Brake pedal position
BSW	Blind spot warning

C

ABBREVIATION	DESCRIPTION
CGW	Can Gateway
CKP	Crankshaft position
CL	Closed loop
CMP	Camshaft position
CPP	Clutch pedal position
CTP	Closed throttle position
CVT	Continuously variable transaxle/transmission

D

ABBREVIATION	DESCRIPTION
D_1	Drive range first gear
D_2	Drive range second gear
D_3	Drive range third gear
D_4	Drive range fourth gear
DCA	Distance control assist
DDS	Downhill drive support
DFI	Direct fuel injection system
DLC	Data link connector
DTC	Diagnostic trouble code

E

ABBREVIATION	DESCRIPTION
E/T	Exhaust temperature

ABBREVIATION	DESCRIPTION
EBD	Electric brake force distribution
EC	Engine control
ECL	Engine coolant level
ECM	Engine control module
ECT	Engine coolant temperature
ECV	Electrical control valve
EEPROM	Electrically erasable programmable read only memory
EFT	Engine fuel temperature
EGR	Exhaust gas recirculation
EGRT	Exhaust gas recirculation temperature
EGT	Exhaust gas temperature
EOP	Engine oil pressure
EP	Exhaust pressure
EPR	Exhaust pressure regulator
EPS	Electronically controlled power steering
	Electric power steering
ESP	Electronic stability program system
EVAP canister	Evaporative emission canister
EVSE	Electric vehicle supply equipment
EXC	Exhaust control

F

ABBREVIATION	DESCRIPTION
FC	Fan control
FCW	Forward collision warning
FEB	Forward emergency braking
FIC	Fuel injector control

ABBREVIATION	DESCRIPTION
FP	Fuel pump
FR	Front
FRP	Fuel rail pressure
FRT	Fuel rail temperature
FTP	Fuel tank pressure
FTT	Fuel tank temperature

G

ABBREVIATION	DESCRIPTION
GND	Ground
GPF	Gasoline particulate filter
GPS	Global positioning system
GST	Generic scan tool

H

ABBREVIATION	DESCRIPTION
HBMC	Hydraulic body-motion control system
HDD	Hard disk drive
HO2S	Heated oxygen sensor
HOC	Heated oxidation catalyst
HPCM	Hybrid power train control module

I

ABBREVIATION	DESCRIPTION
I/M	Inspection and maintenance
IA	Intake air
IAC	Idle air control
IAT	Intake air temperature

ABBREVIATION	DESCRIPTION
IBA	Intelligent brake assist
IC	Ignition control
ICC	Intelligent cruise control
ICM	Ignition control module
IPDM E/R	Intelligent power distribution module engine room
ISC	Idle speed control
ISS	Input shaft speed

K

ABBREVIATION	DESCRIPTION
KS	Knock sensor

L

ABBREVIATION	DESCRIPTION
LBC	Li-ion battery controller
LCD	Liquid crystal display
LCU	Local control unit
LDP	Lane departure prevention
LDW	Lane departure warning
LED	Light emitting diode
LH	Left-hand
LIN	Local interconnect network

M

ABBREVIATION	DESCRIPTION
M/T	Manual transaxle/transmission
MAF	Mass airflow
MAP	Manifold absolute pressure

ABBREVIATION	DESCRIPTION
MDU	Multi display unit
MI	Malfunction indicator
MIL	Malfunction indicator lamp

N

ABBREVIATION	DESCRIPTION
NOX	Nitrogen oxides

O

ABBREVIATION	DESCRIPTION
O2	Oxygen
O2S	Oxygen sensor
OBD	On board diagnostic
OC	Oxidation catalytic converter
OD	Overdrive
OL	Open loop
OSS	Output shaft speed

P

ABBREVIATION	DESCRIPTION
P/S	Power steering
PBR	Potentio balance resistor
PCV	Positive crankcase ventilation
PFCW	Predictive forward collision warning
PNP	Park/Neutral position
PSP	Power steering pressure
PTC	Positive temperature coefficient
PTO	Power takeoff

ABBREVIATION	DESCRIPTION
PWM	Pulse width modulation

R

ABBREVIATION	DESCRIPTION
RAM	Random access memory
RAS	Rear active steer
RH	Right-hand
ROM	Read only memory
RPM	Engine speed
RR	Rear

S

ABBREVIATION	DESCRIPTION
SAE	Society of Automotive Engineers, Inc.
SCK	Serial clock
SCR	Selective Catalytic Reduction
SDS	Service Data and Specifications
SRT	System readiness test
SST	Special Service Tools

T

ABBREVIATION	DESCRIPTION
TC	Turbocharger
TCM	Transmission control module
TCS	Traction control system
TCU	Telematics communication unit
TP	Throttle position
TPMS	Tire pressure monitoring system

ABBREVIATION	DESCRIPTION
TSS	Turbine shaft speed
TWC	Three way catalytic converter

U

ABBREVIATION	DESCRIPTION
USS	Uphill start support

V

ABBREVIATION	DESCRIPTION
VCM	Vehicle control module
VDC	Vehicle dynamics control system
VIN	Vehicle identification number
VSS	Vehicle speed sensor

W

ABBREVIATION	DESCRIPTION
WOT	Wide open throttle

1

ABBREVIATION	DESCRIPTION
1_1	1st range first gear
1_2	1st range second gear
1GR	First gear

2

ABBREVIATION	DESCRIPTION
2_1	2nd range first gear
2_2	2nd range second gear
2GR	Second gear
2WD	2-wheel drive

3

ABBREVIATION	DESCRIPTION
3GR	Third gear

4

ABBREVIATION	DESCRIPTION
4GR	Fourth gear
4WAS	Four wheel active steer
4WD	Four wheel drive

5

ABBREVIATION	DESCRIPTION
5GR	Fifth gear

6

ABBREVIATION	DESCRIPTION
6GR	Sixth gear

7

ABBREVIATION	DESCRIPTION
7GR	Seventh gear