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2015 NISSAN GT-R (R35) Nismo OEM Service and Repair Workshop Manual

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COOLANT: Refilling

RPR-001824639

RADIATOR

CAUTION:

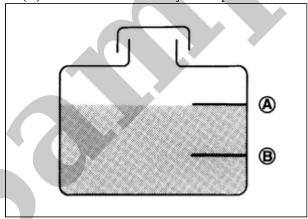
- Do not add additives such as water leak preventives that may clog the radiator cooling water channel.
- Refill NISSAN Genuine Super Long Life Coolant (blue) or equivalent. When refilling, use a product that is already diluted 50% of Super Long Life Coolant (blue).
- Never dilute with water.

REFILLING

- Coolant capacity {with reservoir tank (sub-radiator) at MAX line level}. Refer to COOLANT: Service Data.
- LLC dilution concentration

Except vacuum coolant injection

- 1 Install reservoir tank. Refer to LI-ION BATTERY COOLING SYSTEM: Exploded View.
- 2 Install drain plug. Refer to RADIATOR: Exploded View.
- 3 Check each hose clamp for tightening.
- 4 Refill coolant until reservoir tank MAX (A) line level with coolant injection speed 3 liters/minute or less.



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: MIN level

- 5 Tighten reservoir tank cap, set vehicle READY, and then operate electric water pump.
- 6 When coolant level in the reservoir tank drops, power switch is turned OFF to stop electric water pump.
- 7 Repeat the above steps 4 to 6 until coolant level in reservoir tank does not drop.
- 8 When coolant level is stable, close and tighten reservoir tank cap.



If electric water pump is stopped without closing reservoir tank cap, coolant may spout out.

- 9 Set vehicle READY, operate electric water pump for 10 minutes, circulate coolant sufficiently, and then check coolant level in the reservoir tank.
- 10 When coolant level drops, repeat the above steps 4 to 6.
- 11 When coolant level is stable, refilling is completed.

CHECK WATER FLOW SOUND

CAUTION:

Prior to check, be sure to close windows, doors, and hood, and turn OFF audio system and other electrical loads.

- 1 Operate the electric water pump for 1 minute.
- 2 If water flow sound is heard, operate electric water pump until the sound cannot be heard.
- 3 When water flow sound cannot be heard, refill coolant up to "MAX" line level of reservoir tank.

CAUTION:

- Insufficient coolant may cause low power or stop of vehicle due to insufficient cooling of the traction motor inverter. Be sure to bleed air thoroughly.
- Never set vehicle READY without coolant in the reservoir tank.

VACUUM COOLANT INJECTION

- 1 Install reservoir tank. Refer to LI-ION BATTERY COOLING SYSTEM: Exploded View
- 2 Install drain plug. Refer to RADIATOR: Exploded View.
- 3 Check each hose clamp for tightening.
- 4 Set vacuum water injection machine (commercial tool: capable negative pressure is 90 kpa or more) to the reservoir tank.
- 5 Perform water injection according to each instruction manual.
- 6 Refill coolant up to "MAX" line level of reservoir tank and tighten the cap.



When electric water pump is stopped while opening reservoir tank cap, coolant may blow out.

CHECK WATER FLOW SOUND

CAUTION:

Prior to check, be sure to close windows, doors, and hood, and turn OFF audio system and other electrical loads.

- 1 Operate the electric water pump for 1 minute.
- 2 If water flow sound is heard, operate electric water pump until the sound cannot be heard.
- 3 When water flow sound cannot be heard, refill coolant up to "MAX" line level of reservoir tank.

CAUTION:

- Insufficient coolant may cause low power or stop of vehicle due to insufficient cooling of the traction motor inverter. Be sure to bleed air thoroughly.
- Never set vehicle READY without coolant in the reservoir tank.

LI-ION BATTERY COOLING

CAUTION:

- Do not add additives such as water leak preventives that may clog the cooling water channel.
- Refill NISSAN Genuine Super Long Life Coolant (blue) or equivalent. When refilling, use a product that is already diluted 50% of Super Long Life Coolant (blue).
- · Never dilute with water.

Refilling

- 1 Install reservoir tank. Refer to LI-ION BATTERY COOLING SYSTEM: Exploded View
- 2 Install removed hose.
- 3 Check each hose clamp for tightening.
- 4 Set vacuum water injection machine (commercial tool: capable negative pressure is 90 kpa or more) to the reservoir tank.
- 5 Perform water injection according to each instruction manual.
- 6 Refill coolant up to "MAX" line level of reservoir tank and tighten the cap.



When electric water pump is stopped while opening reservoir tank cap, coolant may blow out.

7 Water pump for cooling battery is operated under the active test by WORK SUPPORT of CONSULT at READY state. After sufficiently circulating coolant (about 30 minutes recommended), if coolant level in the reservoir tank is low, refill coolant to "MAX" line level.

CHECK WATER FLOW SOUND

CAUTION:

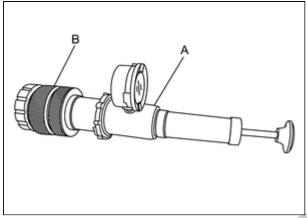
Prior to check, be sure to close windows, doors, and hood, and turn OFF audio system and other electrical loads.

- 1 Operate the electric water pump for 1 minute.
- 2 If water flow sound is heard, operate electric water pump until the sound cannot be heard.
- 3 When water flow sound cannot be heard, refill coolant up to "MAX" line level of reservoir tank.

CAUTION:

- Insufficient coolant may cause low power or stop of vehicle due to insufficient cooling of the traction motor inverter. Be sure to bleed air thoroughly.
- Never set vehicle READY without coolant in the reservoir tank.

• When connecting radiator cap tester (commercial service tool) (A) and reservoir tank cap tester (special service tool: EG17651130) (B), apply pressure and check opening pressure of pressure control valve.



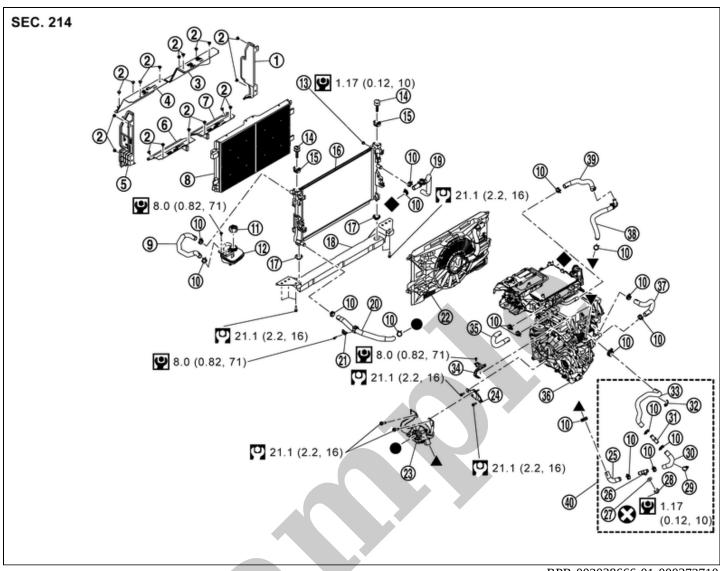
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Standard

: Refer to RADIATOR : Service Data.

- When connecting reservoir tank cap to the radiator cap tester, apply water or coolant to the cap seal surface.
- Replace reservoir tank cap if negative pressure is abnormal or opening pressure is out of standard value.





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1	Radiator air guide right	2	Clip	3	Radiator air guide upper right
4	Radiator air guide upper left	(5)	Radiator air guide left	6	Radiator air guide lower left
7	Radiator air guide lower right	8	Chipping guard	9	Radiator reservoir tank hose
10	Clamp	11)	Reservoir tank cap	12	Reservoir tank
13	Air bleeder	14)	Radiator upper mounting lock	(15)	Radiator upper mounting
16	Radiator	17)	Radiator lower mounting	18	Radiator core support lower
19	Radiator outlet hose	20	Radiator hose lower	(2)	Radiator hose lower bracket
22	Radiator cooling fan shroud	23	Electric water pump	24	Electric water pump bracket
25)	Radiator hose lower (between traction motor inverter and electric water pump 1)*1	26	Radiator hose lower connector	27	O-ring
28	Drain plug	29	Clip 1	30	Radiator hose lower (between traction motor inverter and electric water pump 2)*1
31)	Radiator hose lower pipe *1	32	Clip 2	33	Radiator hose lower (between traction motor inverter and electric water pump 3)*1
34)	Bracket	35)	DC/DC converter inlet hose	36)	Traction motor

37)	Traction motor inlet hose	38	Traction motor inlet hose (traction motor side)	39	Traction motor inlet hose (DC/DC converter side)		
40	Radiator hose lower ASSY (between traction motor inverter and electric water pump)		*1 : 25 , 30 , 31 , 33 are supplied as an assembly				
•	: N·m(kg-m, in-lb)						
Ó	: N·m(kg-m, ft-lb)						
●, ▲, ▼, ♦: Shows the connection between the same marks.							

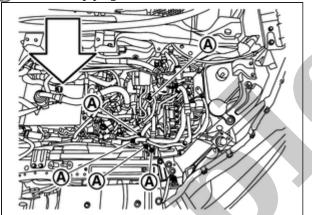


REMOVAL

WARNING:

Never remove the reservoir tank cap if the drive motor or other high voltage part is hot. Hot coolant may spout out from the radiator, causing serious injury.

- 1 Remove high voltage supply unit from vehicle. Refer to <u>HIGH VOLTAGE POWER DELIVERY ASSEMBLY</u>: <u>Exploded View</u>.
- 2 Discharge A/C refrigerant gas. Refer to Recycle Refrigerant.
- 3 Remove A/C piping mounting bolts (A) and remove piping.

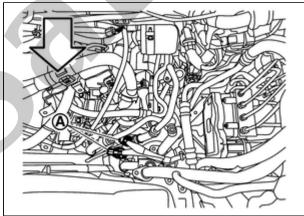


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: Vehicle front

4 Remove harness connector (A).



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: Vehicle front

- 5 Remove front bumper. Refer to Removal & Installation.
- 6 Remove active grill shutter. Refer to Removal & Installation.
- 7 Remove radiator air guides upper on both sides.
- 8 Remove radiator air guides lower on both sides.
- 9 Remove radiator air guides on both sides.
- 10 Remove chipping guard.
- 11 Remove high pressure flexible pipe ASSY. Refer to Removal & Installation.

- 12 Remove accumulator ASSY side of low pressure flexible hose. Refer to Removal & Installation.
- 13 Remove high pressure flexible hose. Refer to Removal & Installation.
- 14 Remove radiator reservoir tank hose.
- 15 Remove harness and harness clips of radiator cooling fan motor. Refer to COOLING FAN: Removal & Installation.
- 16 Remove radiator outlet hose.
- 17 Remove radiator hose lower.
- 18 Remove bolts of radiator hose lower bracket.
- 19 Remove bracket mounting bolts. Refer to FRONT TRACTION MOTOR: Removal & Installation.
- 20 Remove radiator upper mounting lock.
- 21 Remove radiator, condenser, cooling fan, and accumulator ASSY all together from vehicle.
- 22 Remove accumulator ASSY from condenser, and radiator cooling fan shroud.
- 23 Remove radiator cooling fan shroud from radiator.
- 24 Remove radiator from condenser.
- 25 Disconnect each hose from radiator.

INSTALLATION

Note the following, and install in the reverse order of removal.

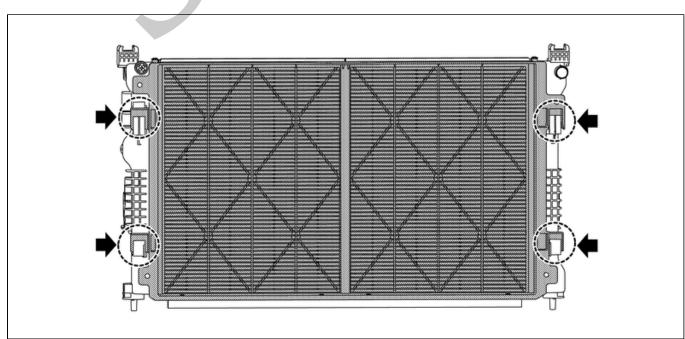
CAUTION:

Be sure to perform air bleeding properly after refilling coolant.

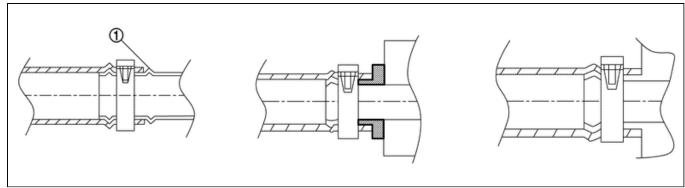
Radiator

Chipping Guard

• When installing the chipping guard, securely insert the engaging points shown by the arrows () in the figure.



• When inserting the radiator hose and water hose , insert all the way until it contacts double spool ①, or it contacts the end.



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• Refer to the following table when installing the hose clamps.

Location of hose	Hose end	Direction of Paint mark	Direction of hose clamp tabs RPR-001824646-28-PCIA0366ZZ Vehicle upper Vehicle front
Radiator reservoir tank hose	Radiator reservoir tank side	Vehicle upper	RPR-001824646-37-PCIA0362ZZ
Radiator reservoir talik nose	Radiator side	Vehicle upper	RPR-001824646-42-PCIA0362ZZ
Radiator outlet hose	Radiator side	Vehicle right	RPR-001824646-29-PCIA0360ZZ