SERVICE CAMPAIGN BULLETIN

Reference:	Date:
NTB12-032	March 29, 2012

VOLUNTARY SERVICE CAMPAIGN
2011 TITAN AND ARMADA A/C RECEIVER / DRYER

CAMPAIGN I.D. #: PC117

APPLIED VEHICLES: 2011 Titan (A60)
2011 Armada (TA60)

Check Service Comm to confirm campaign eligibility.

INTRODUCTION

Nissan is conducting a Voluntary Service Campaign on certain model year 2011 Titan and 2011 Armada vehicles to replace the air conditioning system receiver/dryer and, if necessary, the expansion valve (or expansion valves, as it applies) at no charge for parts or labor. On some vehicles affected by this campaign, the air conditioning system may have poor cooling performance because of improperly assembled receiver/dryer components.

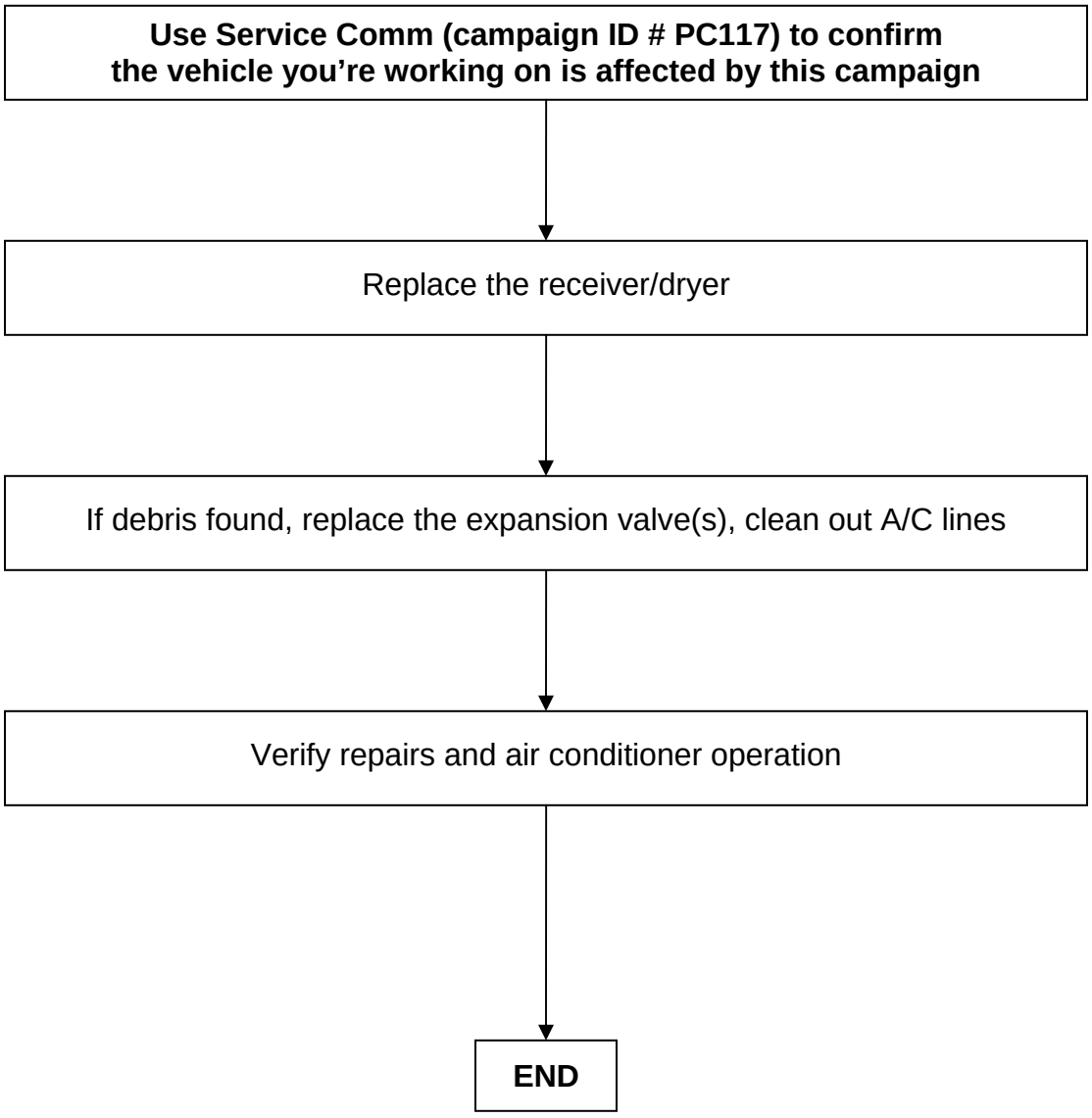
IDENTIFICATION NUMBER

Nissan has assigned identification number PC117 to this campaign. This number must appear on all communications and documentation of any nature dealing with this campaign.

DEALER RESPONSIBILITY

Dealers are to correct each vehicle falling within the range of this campaign that enters the service department. This includes vehicles purchased from private parties or presented by transient (tourist) owners and vehicles in a dealer's inventory.

REPAIR OVERVIEW



SERVICE PROCEDURE

Remove Receiver/Dryer

1. Discharge (evacuate) the A/C system's refrigerant.

   - Refer to the operator's manual of your refrigerant recovery and charging equipment.

2. Remove the radiator as follows:

   WARNING: Never remove the radiator cap when the engine is hot. Serious burns could occur from high-pressure engine coolant escaping from the radiator.

   CAUTION: Perform when the engine is cold.

   a. Turn the ignition ON, and then set the temperature control lever to the highest HOT setting or temperature position.

      - Wait 10 seconds, and then turn the ignition OFF.

   b. Remove the engine undercover or skid plate.

      NOTE: These four (4) skid plate bolts are T50 TORX bolts.

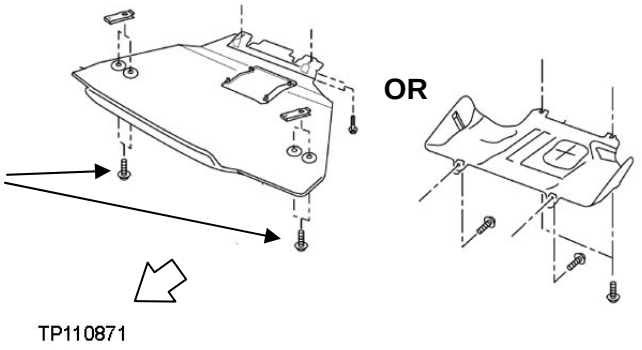


Figure 1

   c. Remove the engine room cover (if equipped).

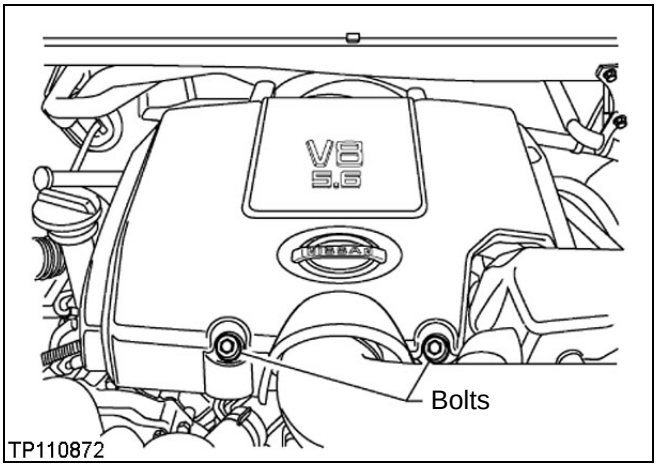


Figure 2

d. Drain the coolant.

- Open the drain plug, and then remove the radiator filler cap.

  CAUTION: Do not allow the coolant to contact the drive belt.

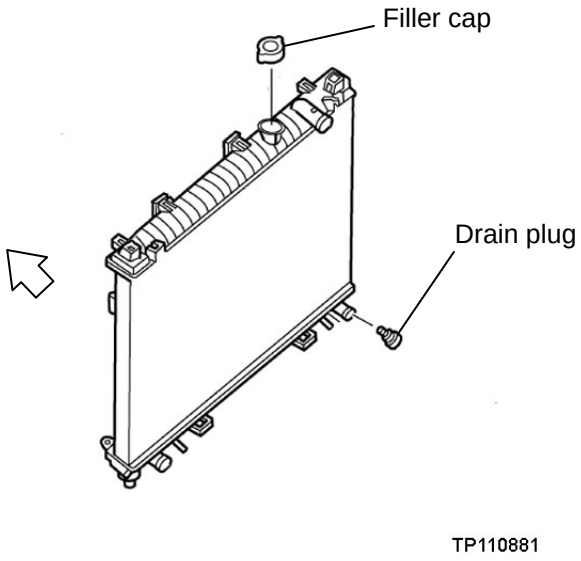


Figure 3

e. Disconnect the harness connector from the upper air cleaner case.

f. Disconnect the crankcase ventilation hoses at the resonator.

g. Loosen the clamp pointed out in Figure 4.

h. Remove the air duct and resonator assembly and upper air cleaner case.

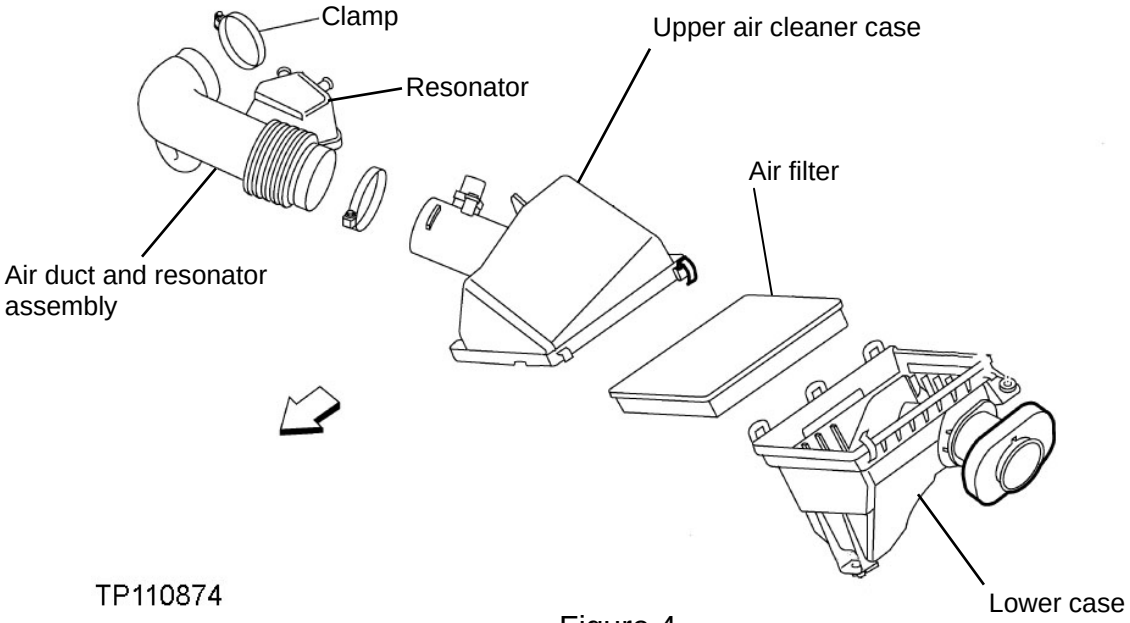


Figure 4

i. Disconnect the in-radiator A/T fluid cooler hoses.

NOTE: Cap or plug the opening(s) to prevent fluid from spilling.

j. Disconnect the radiator lower hose from the radiator.

CAUTION: Do not allow coolant to contact the drive belt.

k. Remove the lower radiator shroud.

- Release the three (3) lower tabs, pull the lower radiator shroud rearward, and then down to remove.

L. Disconnect the radiator upper hose and the coolant reservoir hose from the radiator.

CAUTION: Do not allow coolant to contact the drive belt.

m. Unfasten the coolant reservoir and bypass cooler hoses from the upper radiator shroud's clips.

n. Remove the upper radiator shroud:

- ➢ Remove the upper radiator shroud bolts.
- ➢ Unclip the external A/T cooler hose when removing the upper radiator shroud.

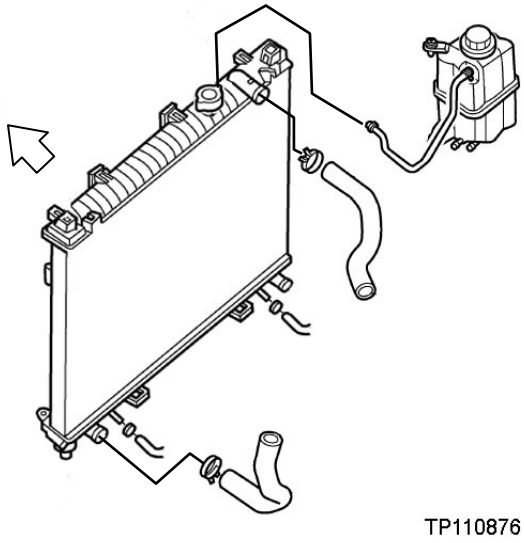


Figure 5

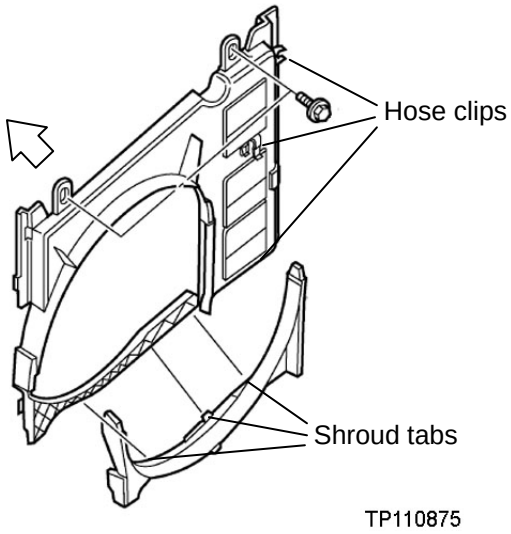


Figure 6

o. Remove the four (4) fan coupling nuts, and then carefully remove the fan coupling and cooling fan as an assembly.

CAUTION: Do not damage or scratch the radiator when removing the coupling and fan assembly.

NOTE: There is no need to remove the drive belt.

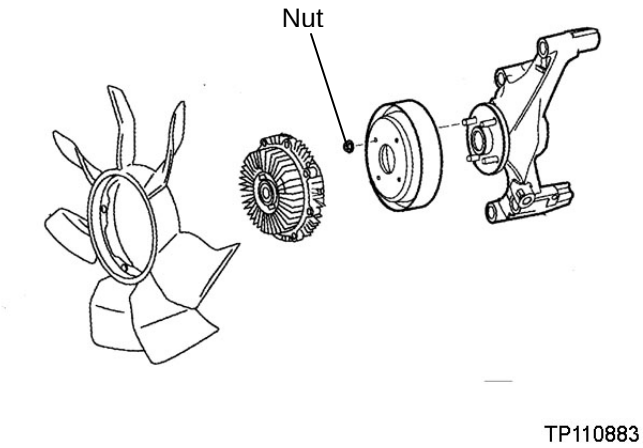


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Figure 7

p. Remove the upper radiator mounting bolts.

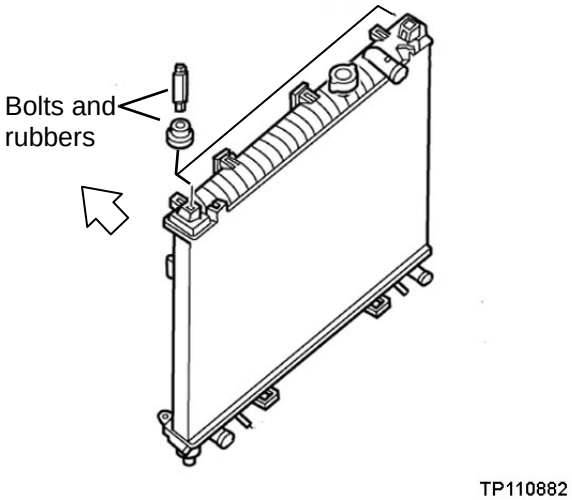

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Figure 8

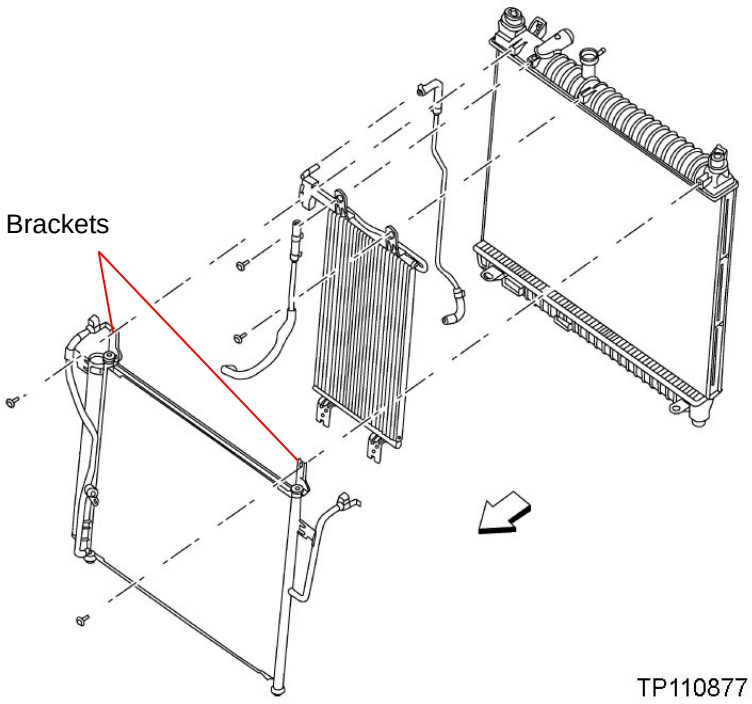


Figure 9

q. Remove the A/C condenser bolts.

- Leave the A/C condenser brackets on at this time.
- Lift the A/C condenser up and then away from the radiator.
- The A/C condenser can be lifted by reaching in through the bumper and lower grill (see Figure 11).

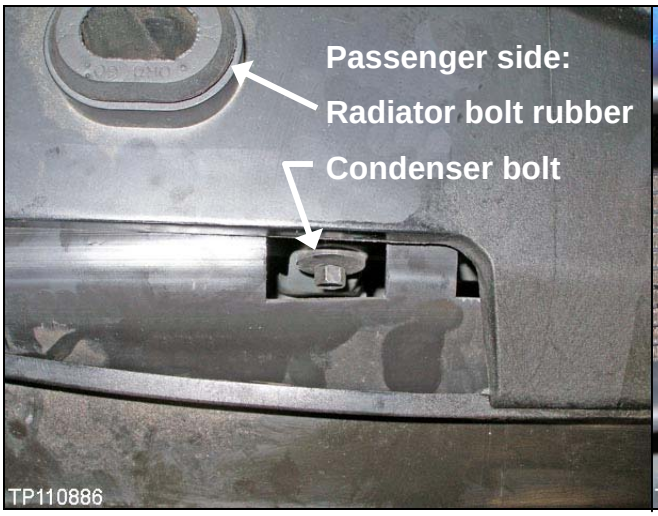


Figure 10

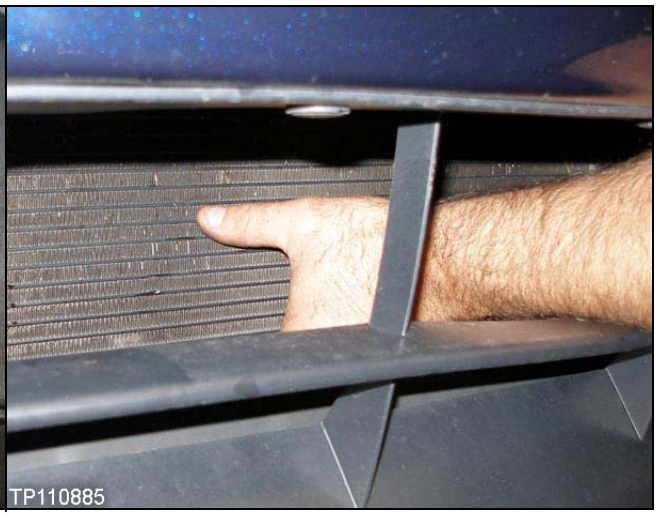


Figure 11

r. Tilt the radiator toward the engine, and then remove the external A/T oil cooler bolts.

s. Lift and then move the external A/T oil cooler away from the radiator.

t. Remove the radiator.

CAUTION: Do not damage or scratch the condenser, external A/T oil cooler, or radiator core when handling.

3. Remove the condenser as follows:

a. Disconnect the high-pressure flexible hose and the high-pressure pipe from the condenser.

CAUTIONS:

- When loosening the bolts, secure the threaded flange with a suitable tool to avoid twisting the metal piping.
- Cap or wrap the joint of the hose and pipe with a suitable material such as vinyl tape to avoid the entry of air or contamination.

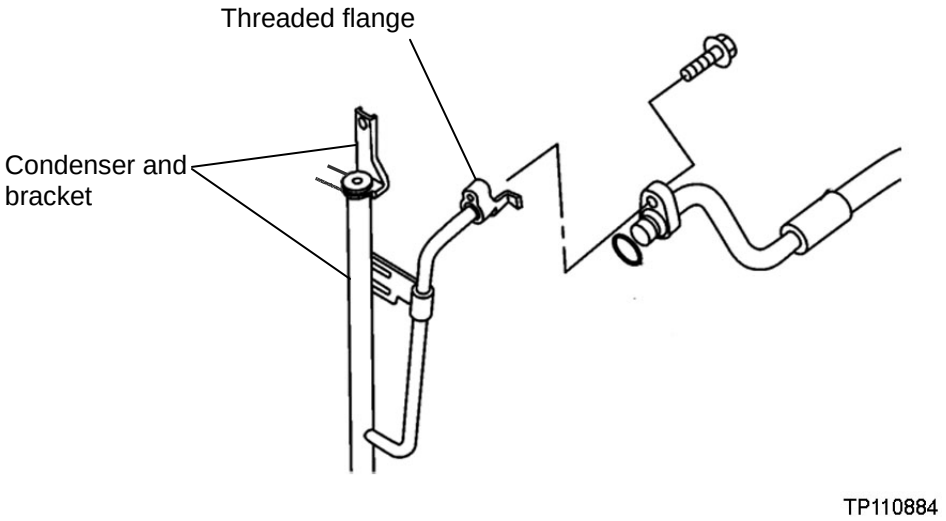


Figure 12

b. Disconnect the refrigerant pressure sensor connector.

c. Move the external A/T cooler out of the way, and then remove the condenser.

4. Clean off the liquid tank (receiver/dryer) and its surrounding area.

5. Remove the receiver/dryer attachment bolt and bracket bolt.

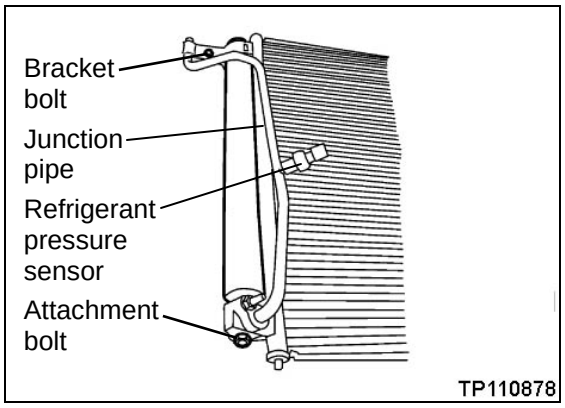


Figure 13

6. Remove the receiver/dryer bracket, and then remove the receiver/dryer by sliding upward.

7. Inspect inside the high pressure lines and junction pipe for debris.

   - If clean, replace the receiver/dryer with a new one. **Go to page 17**.

   - If any debris is found, replace the receiver/dryer **and** expansion valve(s). **Go to page 10.**

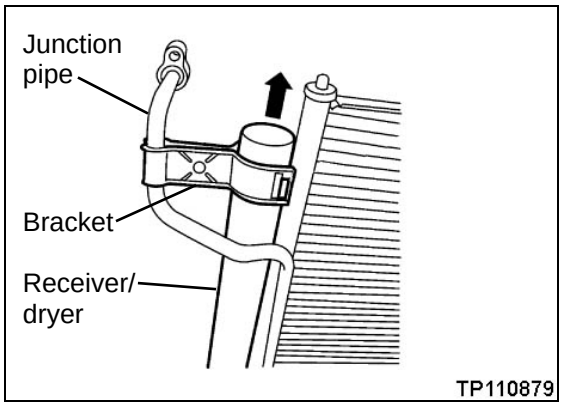


Figure 14

CAUTION: If work is stopped for any amount of time, cap or wrap the openings at the condenser mounting block with a suitable material such as vinyl tape to avoid the entry of air or contamination.

NOTE: The junction pipe is shown as removed in Figure 15. It does not need to be removed.

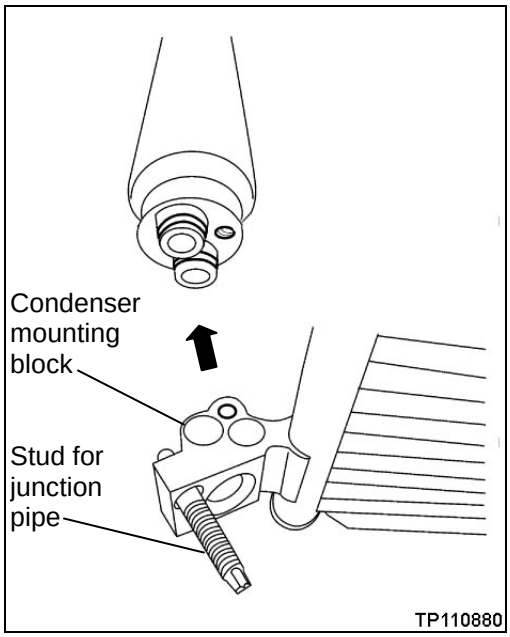


Figure 15

Replace Expansion Valve(s) (if necessary)

IMPORTANT: Follow all cautions, warnings, and notes in the Electronic Service Manual (ESM) when working on or near a Supplemental Restraint System (SRS), such as an air bag.

Remove Front Expansion Valve

1. Remove the nuts on the two (2) brackets located on the driver side of the engine.

   NOTE: The engine cover is shown installed in Figure 16 for viewing purposes only.

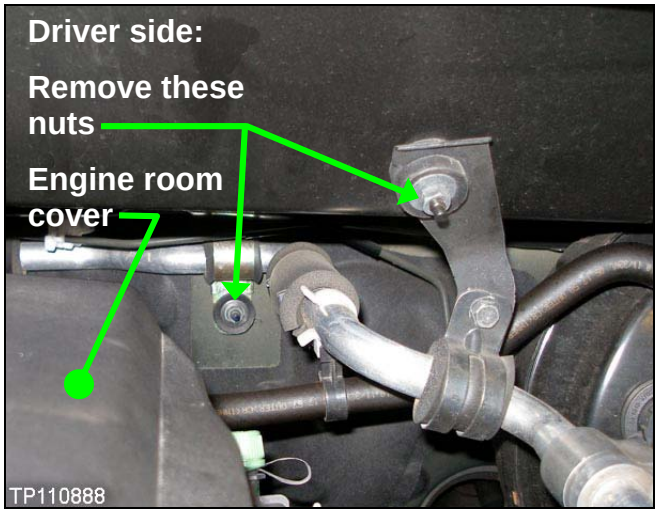


Figure 16

2. Remove the bolt securing the A/C pipes, and then move both pipes to the side.

   CAUTION: Cap or wrap the openings of the lines at the expansion valve with a suitable material such as vinyl tape to avoid the entry of air or contamination.

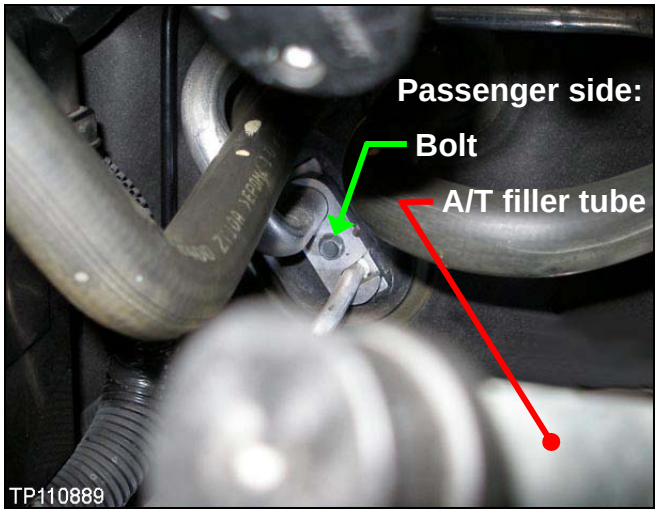


Figure 17

3. For Armada only: The high pressure pipe going to the rear A/C needs to be unclipped to move the A/C pipes.

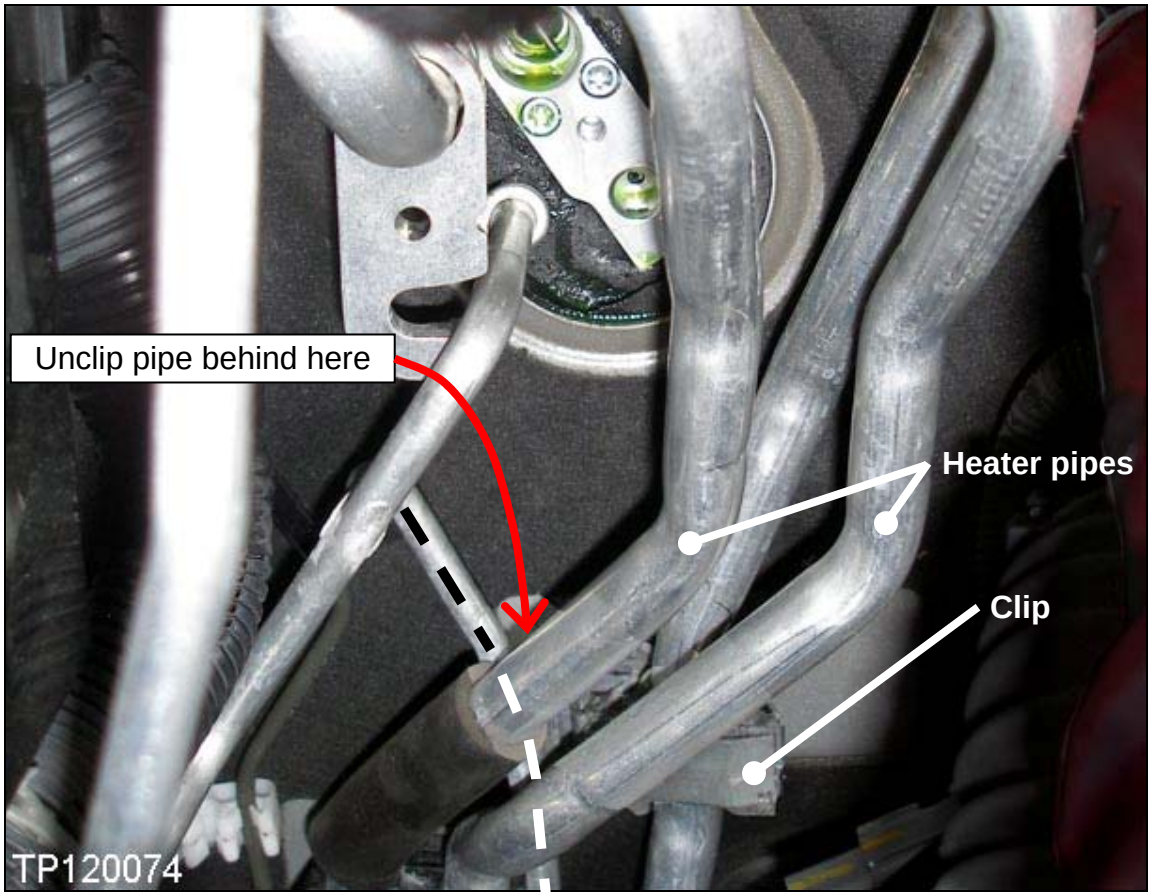


Figure 18

4. Remove the expansion valve's two (2) T27 TORX bolts.

5. Pull out to remove the expansion valve.

   CAUTION: Cap or wrap the openings of the lines going to the evaporator with a suitable material such as vinyl tape to avoid the entry of air or contamination.

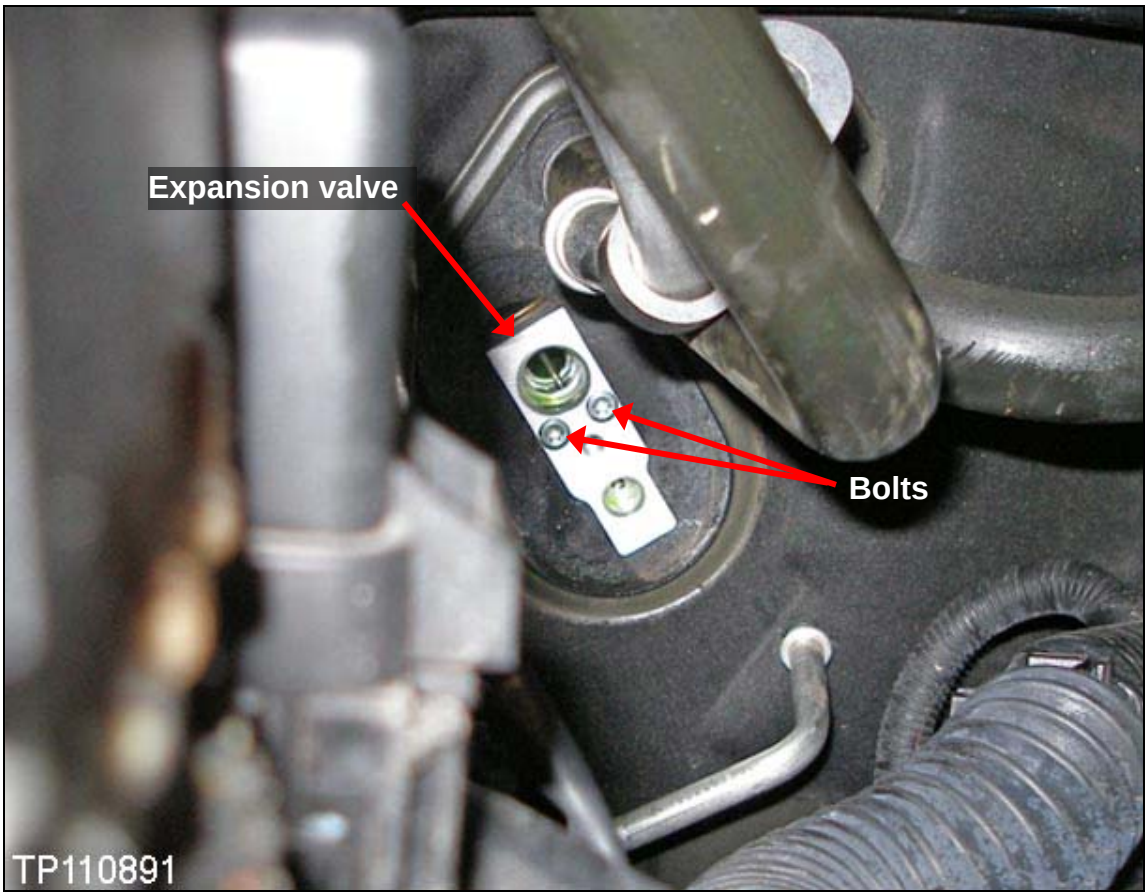


Figure 19

6. Titan only: Blow filtered shop air pressure through the high pressure pipe (and junction pipe) going from receiver/dryer to expansion valve.

   - See page 9, step 7.
   - **Armada only:** The pipes will be blown out later on after the rear expansion valve has been removed (see page16, step 17)

CAUTIONS:

- Be sure to use filtered shop air pressure to avoid the entry of oil, water, or other contamination.
- Cover the end of the pipe being blown out with a clean shop rag (to catch debris).
- If work is stopped for any amount of time, cap or wrap all A/C refrigerant pipe ends with a suitable material such as vinyl tape to avoid the entry of air and contamination.

Remove Rear Expansion Valve

NOTES:

- The A/C system should still be evacuated (open).
- For some interior parts identification, refer to Figure 20.

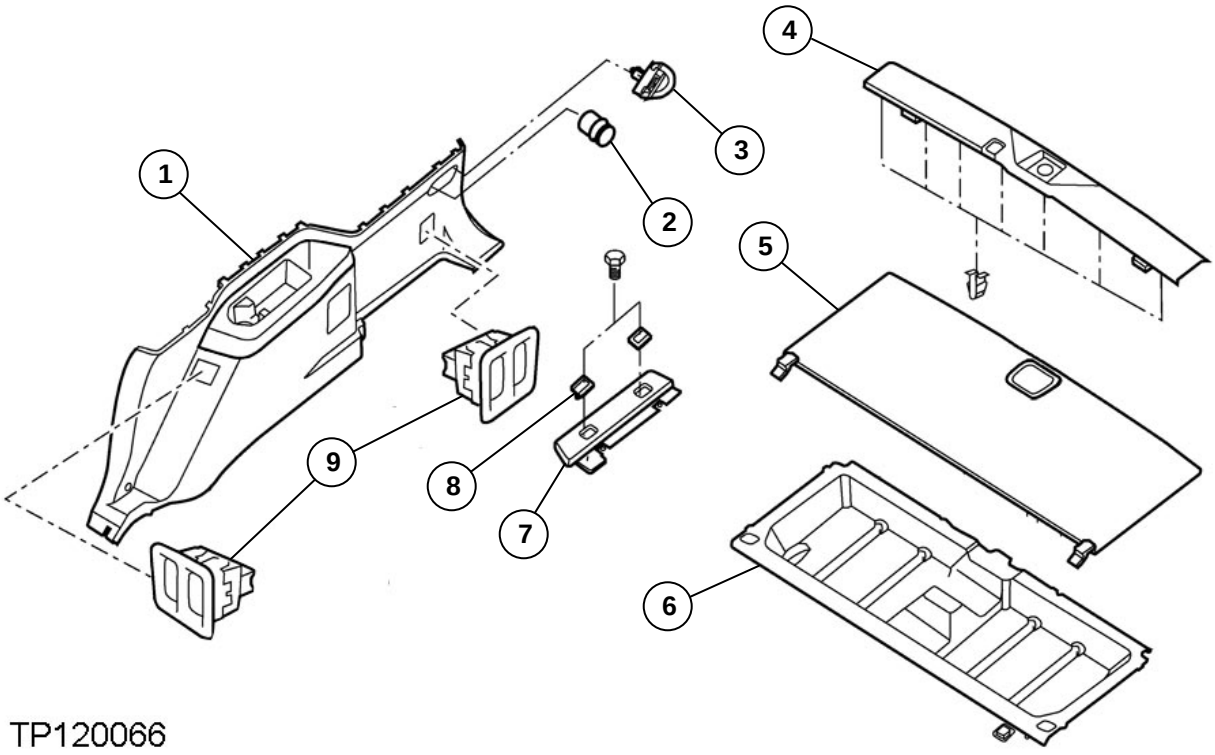


Figure 20

1. Luggage side lower finisher RH
2. Power point assembly
3. Cargo net hook RH
4. Rear lower finisher
5. Luggage floor board
6. Storage box
7. Floor side finisher RH
8. Tie down hooks RH
9. Third row seat switches *

* If equipped.

1. Remove the cargo floor mat (not shown).
2. Remove the luggage floor board (#5).
3. Remove the rear lower finisher (#4).

4. Remove the storage box (page 13, #6).

5. Remove the third row seat assembly (RH only).
   - Pull the seat belt buckle through its elastic strap.
   - Detach the seat side trim (for re-installation).

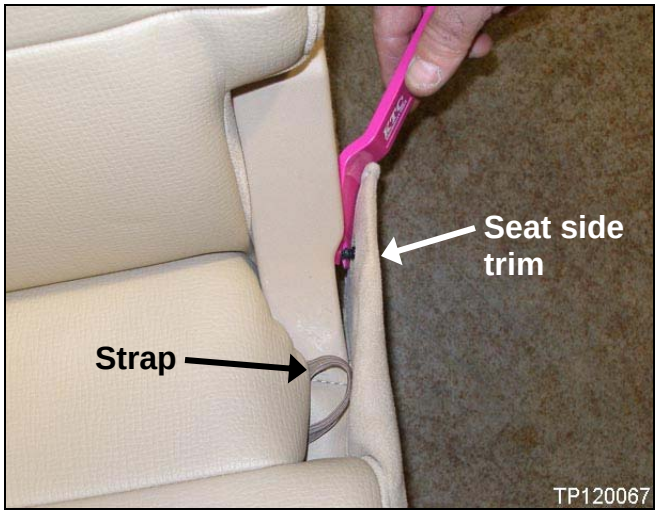


Figure 21

6. Remove the second and third row seat belt lower anchor bolts (RH) only.

Figure 22

7. Remove the tie down hooks and floor side finisher (RH side only).

8. Remove the cargo net hook (RH side only).

Figure 23

9. Remove the back door (hatch) weatherstrip (not shown).

10. Remove the right rear door kicking plate.

11. Remove the luggage side lower finisher (RH only, page 13, #1).

    - Unplug both third row seat switches (if equipped) and power point (power port).

Figure 24

12. Remove the foam insulation.

13. Remove the rear floor duct.

    - Remove the harness clip by pinching and pushing through (not shown).

14. Remove the rear A/C pipe bracket bolt.

15. Unbolt the A/C refrigerant pipes from the expansion valve.

    CAUTION: Cap or wrap the A/C refrigerant pipe ends with a suitable material such as vinyl tape to avoid the entry of air and contamination.

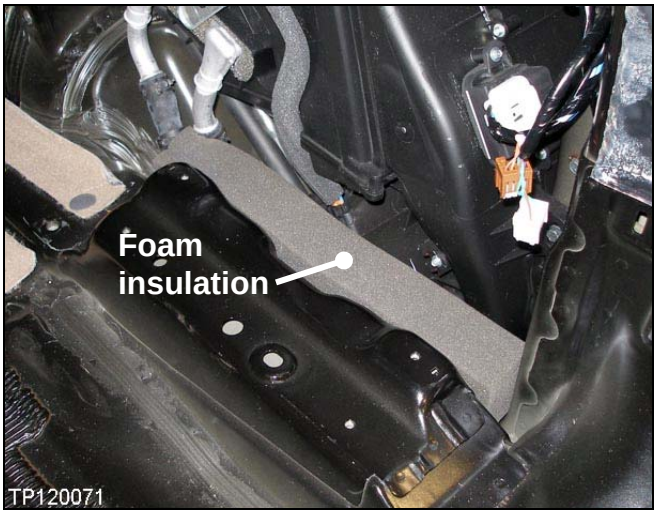


Figure 25

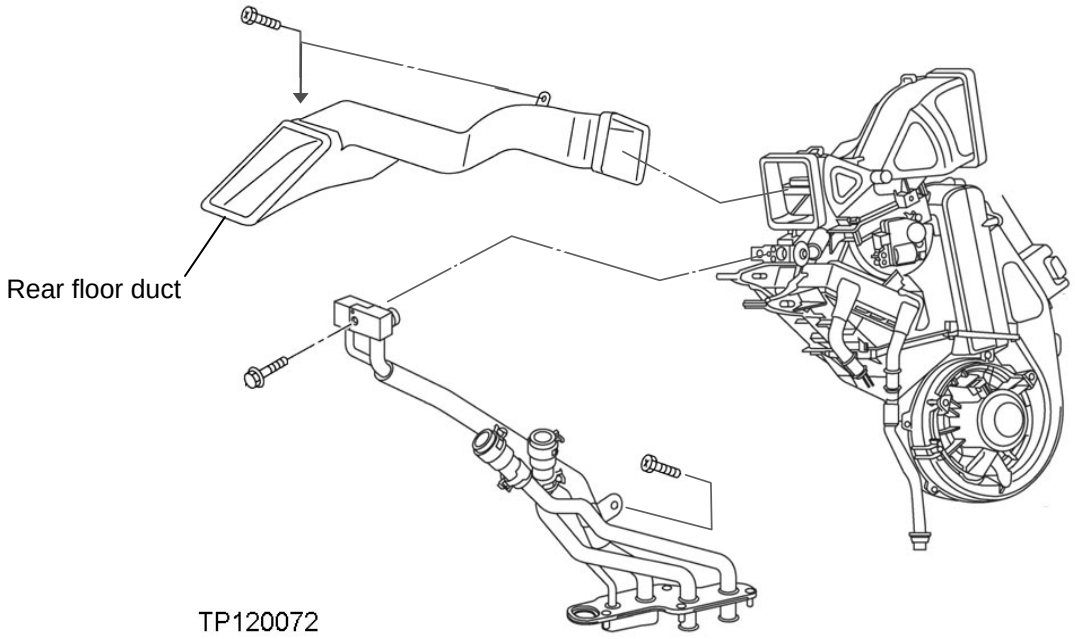


Figure 26

16. Unbolt the two (2) T27 TORX bolts, and then remove the rear expansion valve.

    CAUTION: Cap or wrap the openings of the lines going to the evaporator with a suitable material such as vinyl tape to avoid the entry of air or contamination.

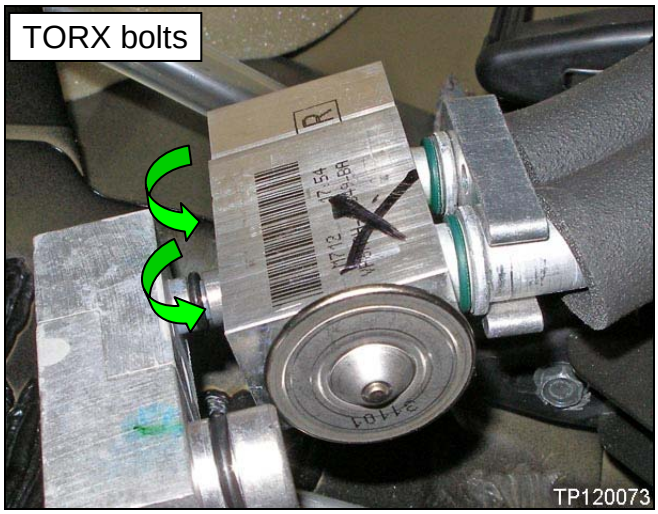


Figure 27

17. Blow filtered shop air pressure through the high pressure pipes:

    a. Block the high pressure pipe end going into the front expansion valve.

    b. Blow filtered shop air pressure into the high pressure pipe end at the rear expansion valve.

    c. Next, unblock the pipe end going into the front expansion valve, and then block the high pressure pipe end going into the rear expansion valve.

    d. Blow filtered shop air pressure into the high pressure pipe end closest to the condenser.

    e. Blow filtered shop air pressure through the junction pipe.

CAUTIONS:

- Be sure to use filtered shop air pressure to avoid the entry of oil, water, or other contamination.
- Cover the end of the pipe being blown out with a clean shop rag (to catch debris).
- If work is stopped for any amount of time, cap or wrap all A/C refrigerant pipe ends with a suitable material such as vinyl tape to avoid the entry of air and contamination.

Install Receiver/Dryer and Expansion Valve(s)

1. Install the new receiver/dryer in reverse order of its removal.

2. Install the expansion valve(s), if being replaced, in reverse order of their removal.

   CAUTIONS:

   - Always replace O-rings for A/C piping, receiver/dryer, and expansion valves with new ones, and apply compressor oil when installing.

   - Be careful to align the threaded receiver/dryer attachment bolt hole with the condenser mounting block hole.

   - Make sure the receiver/dryer attachment bolt is securely installed at the condenser mounting block.

3. Charge the A/C system.

   CAUTION: When recharging refrigerant, check for leaks.

   - Refer to the operator's manual of your refrigerant recovery and charging equipment.

   - Refrigerant capacity:

     - 2011 Titan: 0.70 +/- 0.05 kg (1.54 +/- 0.11 lb)
     - 2011 Armada: 1.08 +/- 0.05 kg (2.38 +/- 0.11 lb)

Fastener Torque Specifications:

- T27 TORX bolts – rear expansion valve: 4.0 N•m (0.41 kg-m, **35 in lb**)
- Bolt – A/C pipes to rear expansion valve: 3.5 N•m (0.34 kg-m, **30 in lb**)
- Bolt – rear A/C pipe bracket: 5.5 N•m (0.56 kg-m, **49 in lb**)
- Bolt – rear floor duct: 5.8 N•m (0.59 kg-m, **51 in lb**)
- Bolts – third row seat assembly, all: 45 N•m (4.6 kg-m, **33 ft lb**)
- Bolts – second and third row seat belt assembly: 49 N•m (5.0 kg-m, **36 ft lb**)
- T27 TORX bolts – front expansion valve: 4.0 N•m (0.41 kg-m, **35 in lb**)
- Bolt – A/C pipes to front expansion valve: 3.5 N•m (0.34 kg-m, **30 in lb**)
- Nuts – low-pressure pipe brackets: 5.5 N•m (0.56 kg-m, **49 in lb**)
- Bolts – upper radiator mounting: 4.1 N•m (0.42 kg-m, **37 in lb**)
- Nuts – fan coupling: 9.5 N•m (0.97 kg-m, **84 in lb**)
- Bolts – upper radiator shroud: 4.1 N•m (0.42 kg-m, **37 in lb**)
- Radiator drain plug: 1.1 N•m (0.12kg-m, **11 in lb**)
- Clamp – duct and resonator assembly: 4.5 N•m (0.46 kg-m, **40 in lb**)
- Bolts – engine room cover: 5.5 N•m (0.56 kg-m, **49 in lb**)
- Bolts – both skid plate and engine under cover: 5.5 N•m (0.56 kg-m, **49 in lb**)

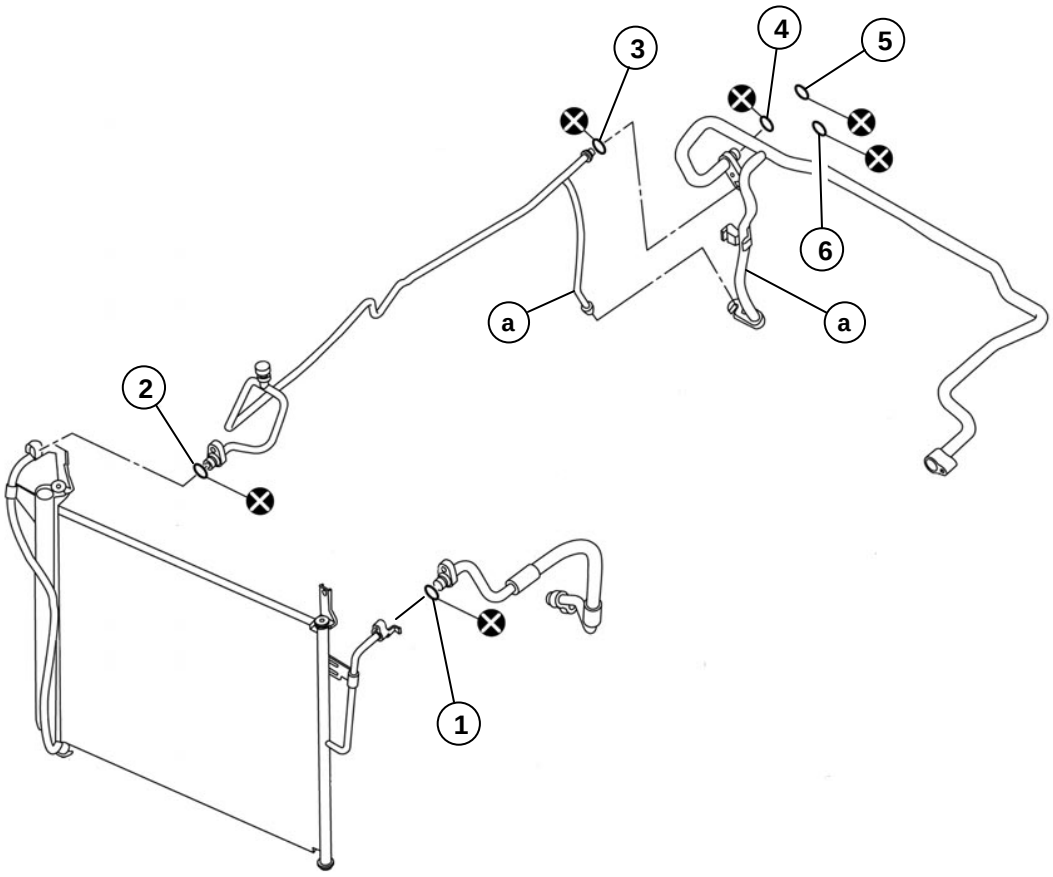
PARTS INFORMATION

MODEL	DESCRIPTION	PART #	QUANTITY
2011 Titan and Armada	Tube Assy - Dryer and Tank (receiver/dryer) *	53542-ZQ00A	1
	Valve Assy - One Way	92200-ZC00A	1 (as needed)
	Valve Assy – Expansion (Armada only)	92200-5Z000	1 (as needed)
	O-Ring – 1, 4 ***	92473-N8210	2 (as needed) **
	O-Ring – 2 (Titan only) ***	92472-N8210	1 (as needed) **
	O-Ring – 3 (Titan only) ***	92470-HC050	1 (as needed) **
	O-Ring – 2, 3 (Armada only) ***	92470-HC050	2 (as needed) **
	O-Ring – 5 ***	92476-5Z000	1 (as needed) **
	O-Ring – 6 ***	92477-5Z000	1 (as needed) **
	O-Ring – 7 (Armada only) ***	92470-HC050	1 (as needed) **
	O-Ring – 8 (Armada only) ***	92473-N8210	2 (as needed) **
	O-Ring – 9 (Armada only) ***	92477-5Z000	1 (as needed) **
	O-Ring – 10 (Armada only) ***	92476-5Z000	1 (as needed) **

* The receiver/dryer comes with two (2) o-rings.

** O-rings 3-6 are needed only when the front expansion valve is replaced. O-rings 7-12 are needed only when the rear expansion valve is replaced.

*** For o-ring location, match up with the numbers on page 16, Figure 17 and 18.



ⓐ **Armada only**

⊗ **Always replace after every disassembly**

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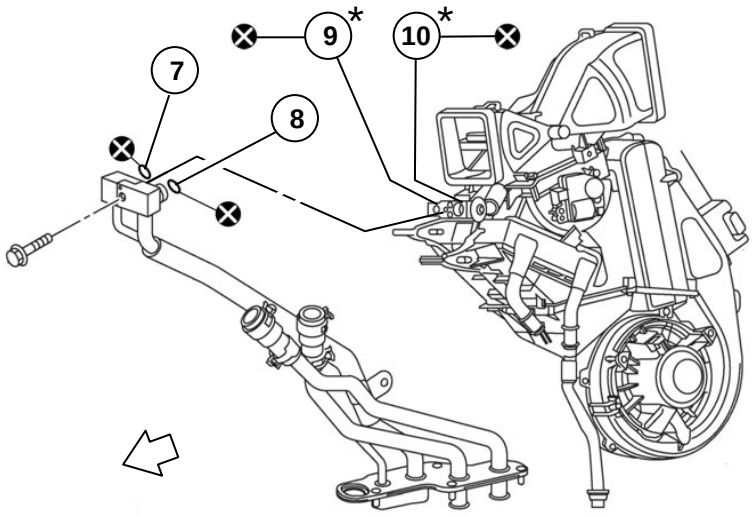
Figure 28



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⊗ **Always replace after every disassembly**

* **O-rings located behind expansion valve**

Figure 29 (Armada only)

CLAIMS INFORMATION

Submit a "CM" line claim using the following claims coding:

"CM" I.D.: PC117

For Titan and Armada:

DESCRIPTION	OP CODE	FRT
Replace Receiver / Dryer	PC1170	2.3 hrs

And If Needed, For Titan:

DESCRIPTION	OP CODE	FRT
Replace Receiver / Dryer and Front Expansion Valve	PC1171	2.5 hrs

And If Needed, For Armada:

DESCRIPTION	OP CODE	FRT
Replace Receiver / Dryer and Front & Rear Expansion Valves *	PC1172	3.2 hrs

* The rear expansion valve must be replaced when the front expansion valve is replaced.

Expense Code:

EXPENSE CODE	DESCRIPTION	MAX. AMOUNT
010	R134a Refrigerant	$34.86

Genuine Nissan Refrigerant R134A (P/N 999MP-R134AP1) and Genuine Nissan Type S R134A PAGLUBE (KLH00-PAGS1) are available through the Nissan Maintenance Advantage program: Phone: 877-NIS-NMA1 (877-647-6621), Fax 216.881.7923, Website order via link on dealer portal www.NNAnet.com and click on "Maintenance Advantage-Tire/Wiper/Battery/Chemical" link, or order direct at www.nissantire.com.

OWNER'S LETTER

Dear Nissan Owner:

Nissan is committed to providing the highest levels of product quality and customer satisfaction. We believe that our current and future success depends on your continued satisfaction with Nissan. With that in mind, we want to bring to your attention important information regarding the air conditioning system of your Vehicle.

REASON FOR SERVICE CAMPAIGN

On some vehicles affected by this campaign, the air conditioning system has the potential for reduced cooling performance under certain conditions because of improperly assembled receiver/dryer components.

WHAT NISSAN WILL DO

To assure your continued satisfaction and confidence in your vehicle, your Nissan dealer will replace the air conditioning system receiver/dryer and expansion valve at no charge for parts or labor. The service may take a few hours to complete, but your Nissan dealer may require your vehicle for a longer period of time based upon their work schedule.

WHAT YOU SHOULD DO

Contact your Nissan dealer at your earliest convenience in order to arrange an appointment. **To ensure the least inconvenience for you, it is important that you have an appointment before bringing your vehicle to the Nissan dealer for service.** Please bring this notice with you when you keep your service appointment. Instructions have been sent to your Nissan dealer.

If the dealer fails, or is unable to complete the service free of charge, you may contact the National Consumer Affairs Department, Nissan North America, Inc., P.O. Box 685003, Franklin, TN 37068-5003. The toll free number is 1-800-NISSAN1 (1-800-647-7261).

Thank you for providing us an opportunity to ensure on-going satisfaction with your Nissan vehicle.