

Poor Air Conditioning Cooling Performance - Compressor Pressure Relief Valve Leak

Service Category Vehicle Interior

Section Heating/Air Conditioning

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2021 - 2022	Tacoma	

Introduction

Some 2021 – 2022 model year Tacoma vehicles may exhibit a condition in which the air conditioning system has poor cooling performance sometimes accompanied by refrigerant vapor visible from under the vehicle. This condition is caused by the pressure relief valve opening and purging refrigerant at a pressure below specification. Follow the Repair Procedure in this bulletin to address this condition.

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Production Change Information

This bulletin applies to vehicles produced **BEFORE** the Production Change Effective VINs shown below.

MODEL	PLANT	ENGINE	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
Tacoma	TMMGT	2GR-FKS	2WD	3TYRZ5CN#NX013091
				3TYEZ5CN#NX013091
				3TYAZ5CN#NX013091
				3TYBZ5DN#NX001196
			4WD	3TYSZ5AN#NX053690
				3TYCZ5AN#NX053690
				3TYGZ5AN#NX053690
				3TYHZ5BN#NX005051
				3TYDZ5BN#NX005051
				3TYRX5GN#NX034750
	2TR-FE	2WD	3TYAX5GN#NX034750	
			3TYSX5EN#NX010349	
	TMMBC	2GR-FKS	2WD	3TMEZ5CN#NM169468
				3TMAZ5CN#NM169468
				3TMBZ5DN#NM0033575
			4WD	3TMCZ5AN#NM473373
3TMGZ5AN#NM473373				
3TMHZ5BN#NM125968				
3TMDZ5BN#NM125968				
3TMDZ5BN#NM125968				

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Warranty Information

OP CODE	DESCRIPTION	ENGINE	TIME	OFP	T1	T2
AC2046	R & R the Pressure Relief Valve	4 Cyl.	1.4	88379-04020	64	14
		6 Cyl.	2.5			

APPLICABLE WARRANTY

- This repair is covered under the Toyota Basic Warranty. This warranty is in effect for 36 months or 36,000 miles, whichever occurs first, from the vehicle's in-service date.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

Parts Information

PART NUMBER	PART NAME	QUANTITY
88379-04020	Valve, Pressure Relief	1
90210-A0002	Washer, Seal	1
90210-A0004		1

Required Tools & Equipment

REQUIRED TOOLS & MATERIAL	QUANTITY
Compressor Oil, PSD1 or Equivalent	–
Gas Leak Detector or UV Light	1
Robinair R1234YF A/C Machine	1

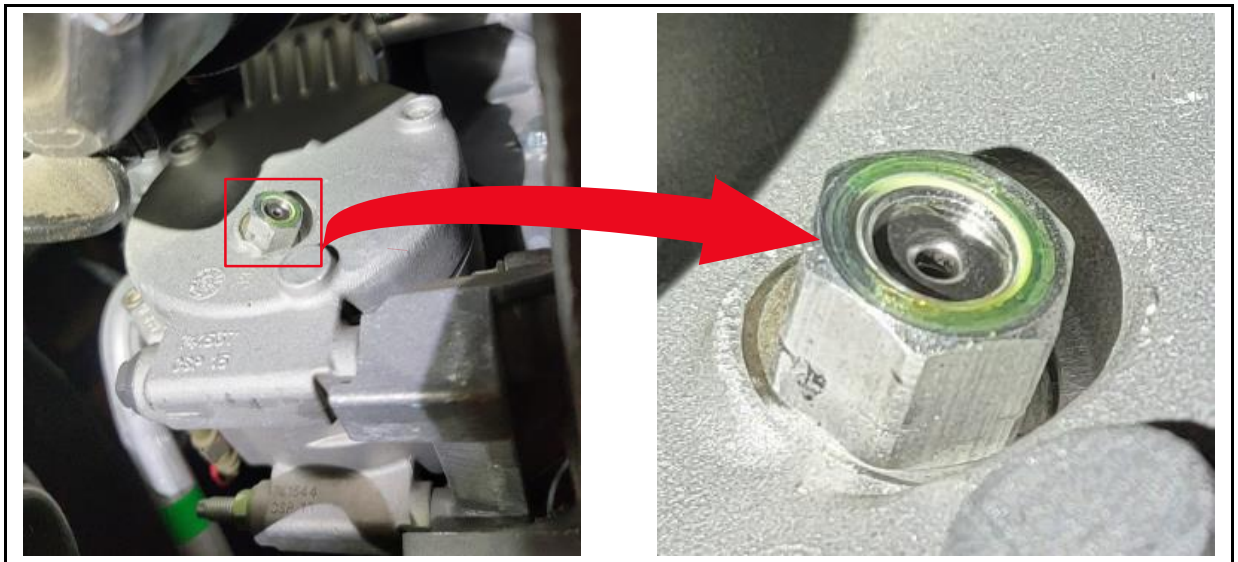
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Repair Procedure

1. Does the vehicle exhibit a condition in which the air conditioning system has poor cooling performance sometimes accompanied by refrigerant vapor visible from under the vehicle?
 - **YES** — Continue to step 2.
 - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

2. Is there evidence of leak detection dye at the pressure relief valve on the compressor?
 - **YES** — Continue to step 3.
 - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

Figure 1. Leak Detection Dye Found on the Pressure Relief Valve



3. Recover the refrigerant from the air conditioning system.
 Refer to TIS, applicable model and model year Repair Manual:
 - 2021 – 2022 Tacoma:
Vehicle Interior – Heating/Air Conditioning – “[Air Conditioning: Refrigerant \(for HFO-1234yf \(R1234yf\)\): Replacement](#)”

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Repair Procedure (continued)

4. Was the amount of refrigerant recovered less than the amount indicated below?
 For vehicles with engine type 2TR-FE: 480 g.
 For vehicles with engine type 2GR-FKS: 495 g.
 - **YES** — Continue to step 5.
 - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
5. Remove the compressor from the vehicle.
 Refer to TIS, applicable model and model year Repair Manual:
 - 2021 – 2022 Tacoma:
Vehicle Interior – Heating/Air Conditioning – [“Air Conditioning: Compressor: Removal”](#)
6. Remove the pressure relief valve and O-ring.
7. Install the NEW pressure relief valve and O-ring.
 - A. Apply sufficient compressor oil (PSD1 or equivalent) to a NEW O-ring and fitting surface of the pressure relief valve.
 - B. Install the NEW O-ring onto the pressure relief valve.
 - C. Install the pressure relief valve.
Torque: 8.0 N*m {82 kgf*cm, 71 in*lbf}
8. Reinstall the compressor onto the vehicle.
 Refer to TIS, applicable model and model year Repair Manual:
 - 2021 – 2022 Tacoma:
Vehicle Interior – Heating/Air Conditioning – [“Air Conditioning: Compressor: Installation”](#)
9. Charge the air conditioning system with refrigerant.
 Refer to TIS, applicable model and model year Repair Manual:
 - 2021 – 2022 Tacoma:
Vehicle Interior – Heating/Air Conditioning – [“Air Conditioning: Refrigerant \(for HFO-1234yf\(R1234yf\)\): Replacement”](#)

NOTE

- Amount of refrigerant used for vehicles with engine type 2TR-FE: 480 – 540 g.
- Amount of refrigerant used for vehicles with engine type 2GR-FKS: 495 – 555 g.

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Repair Procedure (continued)

10. Warm the engine at 1,640 RPM or less for two minutes or more AFTER charging the air conditioning system with refrigerant.
11. Inspect the air conditioning system for refrigerant leak using a gas leak detector or UV light.

NOTE

The air conditioning system has leak detection dye already from the factory.

12. Confirm the air conditioning system is cooling consistently.