

1-8 Heating, Ventilation and Air Conditioning

HVAC

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Cooling Insufficient, A/C System (cont'd) CA metalinear pailoco

Step	Action	<u>ana (</u> - 4	Value(s)	Yes	No
a an an an an tao tao an an an	1. Start the vehicle.		a na ana amin'ny fanisa amin'ny fanisa amin'ny fanisa. Ny fanisa	and high free first one advances and the second	Go to HVAC
	2. Turn the A/C on.			(a94) (e94)	Compressor
2	3. Visually inspect under the hood to see if the		a fa an	and and a second se	Clutch Does Not Disengage in
	A/C compressor clutch is engaged.	S. NN	and the second	M - 1 dol. 1988.	HVAC Systems -
	Does the A/C compressor clutch engage?		a de la factura de la construcción de la construcción de la construcción de la construcción de la construcción Construcción de la construcción de l	Go to Step 3	Manual
	Important: Record the relative humidity and the temperature AT THE TIME OF THE TEST.	ambient			
	1. Record the ambient temperature at the veh	icle.		1882 - Qi I. X	ana ana ang sang sang sang sang sang san
	Record the relative humidity, using one of the following methods:	ne			
	 Use a psychrometer 		an de la serie de la serie La serie de la s		an a
	Consult the local weather bureau				
	3. Close the vehicles doors and windows.		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		an a
	4. Set the HVAC control to the following positi	ons:	1999 / J. V. J. F.		
	The A/C on	8 NAA	and the second secon Second second	1849 - 1946 - 1948 Notestan	
	 The blower control to the highest positio 	n	1 - 1 - 1 - 1 - 1 - 1 - 2 - 2 - 2 - 2 -	ang ng n	Sec.
	 The HVAC control to discharge air throu IP outlets 		6 () () () () () () () () () (
	 The temperature control to the coldest p 	osition		NG 1468 - 368 -	
	5. Install a thermometer into the IP center air		and an a start of the second secon		
	6. Apply the park brake.			지말 - 이 61 - 명주로 -	
3	Place the transmission in one of the following positions:	ng	- F	- 89 - 10 - 108 - 1	ver in the second se
-	• PARK			and the second sec	and the second second second
	NEUTRAL			the second second	
	 Start the engine and elevate and maintain t RPM to 2000. 	he engine			
-(7)(705)	 Run the A/C until the outlet air temperature the lowest temperature. 	reaches	and a start of the second s The second se	na an a	ay na na ana ang ang kanang kanang Kanang kanang kanang Kanang kanang
	This will take approximately 3 minutes.	Ana shi kashira sh	stonicoù.		
ana andar a	10. Record the following information:	n an	n de Balers Bale de Robert de Balers de la composition de la composition de la composition de la composition de Anna de la composition de la composition de la composition de		a talah manana ana ang kana a Kana ang kana
	The outlet air temperature		i de cara de c		Step
nanderlandski skal filmana sa sa	The low-side pressure	enero ereite.	s (CNA) sectoraber	o (in 645 serussion)	The Introving set
	 The high-side pressure 		1 G 17 179 1 G 1		Traiding and A
	 Compare the low and high side pressures a output temperature to the table. 		selektre and he cherry .	nibimuri nr nibimuri nr nisemqalgiri edi te	madics adT •
	Does all the data recorded fall within the specific	ed ranges	where is a sur- which easily able	and an energy and the second second second	and the second second to the
	of the table below?	nana yana barata da	and the second secon Second second	Go to Step 8	Go to Step 4
4	Compare the recorded pressures to the A/C Sys Pressure - Zone Classification Graph.		sisse <u>s</u> originalism an east of the second	Go to Cooling Insufficient,	
	Do both the low and high side pressures fall with on the graph?	nin Zone A	ydt gatelenew te web	A/C System - Pressure Zone A	Go to Step 5
	Do the pressures fall within Zone B?	ars woll,	, susmeques pré	Go to Cooling	3. 8 6.
5				Insufficient,	004
		aviiner.	490 adi ta ki yas	A/C System - Pressure Zone B	Go to Step 6
		otate en	a agus bara com acti	i spelarer arti tur 1991 - Sterre	ceñ s
			a na sa kara na sa sa sa sa	aanaa waxe weed eeen edin a	
				n she nga tale 205 No dulle of Islipe no	
			gan and an and the state	. 1997 (1997) 1997 (1997)	

Step	Action in a second s	Value(s)	Yes	No
6	Do the pressures fall within Zone C?		Go to <i>Cooling</i> Insufficient, A/C System - Pressure Zone C	Go to Step 7
7	Do the pressures fall within Zone D?		Go to Cooling Insufficient, A/C System - Pressure Zone D	Go to Step 8
8	Operate the system in order to verify the repair. Did you correct the condition?		System OK	Go to <i>Symptoms</i> in HVAC System - Manual

Cooling Insufficient, A/C System (cont'd) Other Insidiation I pallood

			A	/C Pe	erformance Tab		414 0	
Temperature		Humi	dity	Lov	Gauge Pressure	High Gauge Pressure	Center Ou Temperati	
		Less that	an 50%		165-234 kPa (24-34 psi)	793-1310 kPa (115-190 psi)	3°-9°C (38°-4	
21°-27°C (70°-80	r°F) -	More the	an 50%	172-255 kPa (25-37 psi)		793-1379 kPa (115-200 psi)	4°-13°C (40°-	-55°F
27°-33°C (80°-90°F) 33°-38°C (90°-100°F)		Less than 50%			193-262 kPa (28-38 psi)	965-1482 kPa (140-215 psi)	^{్ర} 3°-13°C (38°-	-55°F
		More that	than 50%		207-276 kPa (30-40 psi)	1034-1620 kPa (150-235 psi)	²⁰ 7°-18°C (45°-65	
		Less tha	an 40%	308 2065	234-296 kPa (34-43 psi)	1138-1793 kPa (165-260 psi)	7°-17°C (45°∙	-63°F
		More that	an 40%		251-331 kPa (36-48 psi)	1276-1862 kPa (185-270 psi)	13°-20°C (55°	'-68°I
00 4400 (1000 44	005)	Less that	an 20%		276-338 kPa (40-49 psi)	1448-2000 kPa (210-290 psi)	12°-18°C (53°	'-64°I
8°-44°C (100°-11	0°F) -	More than 20%		20% 296-359 kPa 1517-2137 kPa (43-52 psi) (220-310 psi)			14°-21°C (58°-7	
Co to Conia; usufficient ArC System	N. GP	15 e s9			Participant and Annal	tere itom the Cooling inv groatic rable?	Fines vev sterv ski metevi SVA	-
- case os as -	S rge	12 y 12 1			- 98 tijos 980	or operation of the ACL sy of disengage and weng to the low and high the	luip reassignop	
	un in stand anna direan	na na mangana sa				a lo sér e instignalai, as oispát: Sala de MAG (2 Salagada de VAG Salagada	Hoojnoiulo	
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					oret Wount) and Convertionac Persoval	ooli replaaement, oner tu Elemovat (VS – Conventu or Clurch Colt Install (VS Compressor Clurch (colt i Elementi and Compressor - Orest Naturn	Cantoh Col Compresse Maunt) or (V? - Drec	

A/C System Pressure - Zone Classification Graph (kPa) (Psi) 690 100 621 90 B C 552 80 483 70 414 60 Side 345 50 9184-188) (71 276 40 A 207 30 antairse) onter **138** 20 D 10 (Reaseas), practice 69 100 300 400 (Psi) 200 2069 690 2750 (kPa) 1379 **High Side** 590674 Cooling Insufficient, A/C System - Pressure Zone A Step Action Value(s) Yes No Were you sent here from the Cooling Insufficient, Go to Cooling 1 A/C System diagnostic table? Insufficient, Go to Step 2 A/C System During continued operation of the A/C system, does the compressor clutch disengage and re-engage with no 2 abnormal change to the low and high side pressure Go to Step 3. readings? Go to Step 4 1. Check for an intermittent in the clutch coil and/or the clutch coil circuit. Refer to HVAC Compressor Clutch Does Not Engage in HVAC Systems - Manual. 2. If replacement of the clutch coil is necessary, recover the refrigerant. 3. Replace the clutch coil and/or repair the clutch coil circuit. 3 For clutch coil replacement, refer to Compressor Clutch Coil Removal (V5 - Conventional Mount) and

Cooling Insufficient, A/C System - Pressure Zone Americano

Compressor Clutch Coil Install (V5 - Conventional Mount) or Compressor Clutch Coil Removal (V7 - Direct Mount) and Compressor Clutch Coil

Install (V7 - Direct Mount).

Is the repair complete?

Go to Step 12

Step	Action	Value(s)	Yes	No
4	Did the customer concern mention that the A/C system output temperatures are good at first, but then turn warm during extended drives?	o of Antigene († 1990) Matem H er († 1996)	Go to Step 5	Go to Step 7
5	The engine still running with a speed of 2000 RPM. During extended operation of the A/C system, does the low side (and possibly the high side) pressure increase significantly (possibly accompanied by heavy frost on the liquid line between the orifice and the evaporator)?	an gegan ar as 108 noort a na s 208 Cunnan an	Go to Cooling Insufficient, A/C System - Pressure Zone B	Go to Step 6
6	Take the vehicle on a test drive under the same conditions as the customer, to verify the concern. Has the concern been verified?	er 15 Marcus Angolie & 1946 Aug <mark>ro</mark> nn (1946)	Go to <i>Cooling</i> Insufficient, A/C System - Pressure Zone B	Go to Step 1
7	Compare the low and high side pressures to those listed in the A/C performance table. Refer to <i>Cooling Insufficient</i> , A/C System.	ander and a constant Sector and anders Readerses	en geonia contina get tam est sait be art autho ne ante	843) - 1. 1997 - 18 1998 - 19
	Is the high side pressure slightly above normal pressure?	अवयम् स्वर्थः द्विनेन हत्।	Go to Step 8	Go to Step 9
	 The refrigerant system oil charge level may be too high. Evacuate the refrigerant system. 	an a		
	3. Check the amount of refrigerant oil removed from the	is presidentes do la Perfecteora	gi oglo bov vol vol. V sellev volusivelsk	arte Milley de Co General de Cara
8	 system. 4. Charge the refrigerant system to specifications, using care to maintain the proper oil level. 5. Leak test the refrigerant system. Refer to <i>Leak Testing</i>. 	araya bir na ginar a mataya sa	la apago basilana 1 apagotes sin teot 1 apagotes sin teot 1 apagotes sin teot	soni i - soni i - soni i - soni i - soni est
an a	Are the operations completed?	e os engone rora va	Go to Step 10	adaman ann a bha ann an 1997 - T
	 The refrigerant system may contain too much and an moisture. Evacuate the refrigerant system. 	objetere lite norren one generaliet erite	rapent previous, co Rebut de polo, s impreso labito de	NYA SI YAN
	3. Charge the refrigerant system to specifications.		Veralasian en	
9	4. Leak test the refrigerant system.		Rossianti (Konstyranstyra) L	
	i i i i i i i i i i i i i i i i i i i	shoe, fill fill fill fill fill fill fill fil	e poor entere wee	
	 If no leaks are found, replace the accumulator. Refer to Accumulator Replacement. 	na - Trada dan dari da sakara s	igen, die seider verscherkende Weitersteine der Statister reter	
	Are the operations completed?	· · · · · · · · · · · · · · · · · · ·	Go to Step 10	
10	Compare the outlet temperature to those listed in the A/C performance table. Refer to <i>Cooling Insufficient,</i>	est, conjiri i kista Granov a k randiru estetore	Go to A	
	System Chock in	n Angeler (* 1929) 1 Angeler (* 1929) 1 Angeler (* 1929)	ut kippetatus o Percension (1936) Geolem Societation Societation (1997)	

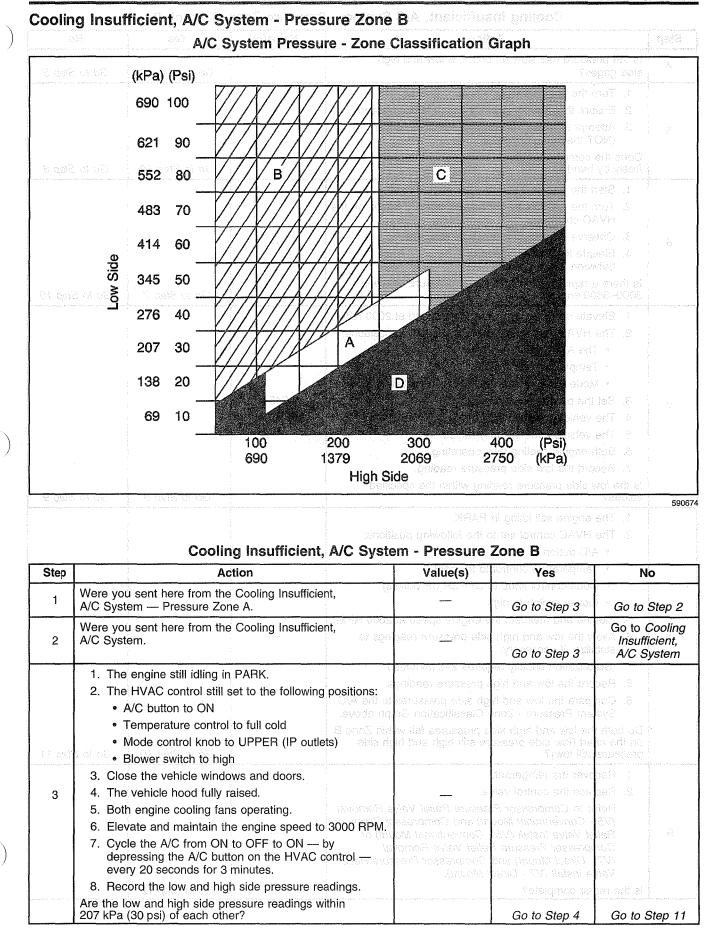
Cooling Insufficient, A/C System - Pressure Zone A (cont'd)

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Cooling Insufficient, A/C System - Pressure Zone A (cont'd)

Step	Action	Value(s)	Yes	No
nin onen Norma	 Start the engine and allow the engine to idle. With an accurate thermometer still installed to the IP center air outlet. 	CAR one land monitor manitorial factions t	 messico renote; con sus centionequi con divers? 	at luquo 📔 🁌
	 3. Set the HVAC control to the following positions: The A/C on The temperature control to coldest position The mode control knob to UPPER (IP outlets) 	tha A/C syntam. (h side) pressuré Danled by heavy s	Sino primur lille er o notietego bebriet int eni vidiseog brie atgoor vidiseog Vi	5 During Shia wot Shia wot
5 eae8 11	 The blower switch to high 4. Elevate and maintain the engine speed at 2000 RPM. 5. Allow the low and high side pressure readings to stabilize, if necessary. 	nice off robre ev	behasen the online vehicle on a test di stomen to verify in noncom been verify.	o enti es 🛛 👌
aurodi i sono incon	 (Stabilization usually requires 2–3 minutes.) 6. Record the low and high pressure readings and the delivered air output temperature. 	u danoer ei said	and search a search a ant	
9. 6,815	Refer to <i>Coolina Insufficient</i> . A/C System.	un unus agnério IV 1	nələyz Mərcçi ilər İçli	
	Are both the low and high side pressures as well as the output temperatures within specifications?	system. Rigerant of remov	noneonter ont obsuc ™ toSystem OK X	8V3 - 2 940 - 2
12	2. Leak test the retrigerant system. Refer to <i>Leak Testing</i> .	sullaers al meter ie <u>vol</u> llansa at inte£ undisige	nà criticistricon di Periodita i solt teoto	
	Are the operations completed? 1. Start the engine and allow the engine to idle.		Go to Step 13	een Derit en Ali
wette ook net on ne ook		nay contain too m	meleve instepider	a na an an tha tha tha tha tha an an tha
	3. Set the HVAC control to the following positions:A/C button to ON		navegirler oni elas. Etrasogirist eti egi	j –
	 Temperature control to full cold Mode control knob to UPPER (IP outlets) Blower switch to high 4. Elevate and maintain the engine speed at 2000 RPM. 	piace the accuru	c (es) the relegane a to Leak Cesting. Teskę are tound, r courrubnor Replace	1999 27 11 - 13
13	5. Allow the low and high side pressure readings to stabilize, if necessary.	ہے۔ <mark>۔۔۔</mark> این آن المعنو العقوم	parations complete the outilat temperati mence table. Parti	Are fra q Compare
	6. Record the low and high pressure readings and the delivered air output temperature.			ne far Syan
- 	 Compare the low and high side pressures and the output temperatures to those listed in the A/C Performance Table. Refer to <i>Cooling Insufficient</i>, A/C System. 	, gyn ferfelanaetholiosta ann a' th' na ean tr' a grife a	Go to A Diagnostic System Check in	
	Are both the low and high side pressures as well as the output temperatures within specifications?		HVAC Systems - Manual	



1-14 Heating, Ventilation and Air Conditioning

Step Action Value(s) Yes No Is the pressure rise slow on both the low and high 4 Go to Step 10 Go to Step 5 side gages? 1. Turn the engine OFF. 2. Ensure that the compressor clutch is disengaged. 3. Attempt to rotate the compressor clutch driver 5 (NOT the pulley) by hand. Does the compressor clutch driver (NOT the pulley) turn freely by hand? Go to Step 10 Go to Step 6 1. Start the engine and allow the engine to idle. 2. Turn the A/C ON by depressing the A/C button on the HVAC control. 3. Observe the low side pressure readings. 6 4. Elevate the engine speed to between 3000-3800 RPM. Is there a rapid rise in the low side pressure between 3000-3800 engine RPM? Go to Step 7 Go to Step 10 1. Elevate and maintain the engine speed at 2000 RPM. 2. The HVAC control still set to the following positions: The A/C on · Temperature control to full cold Mode control knob to UPPER (IP outlets) 3. Set the blower switch to low 69-345 kPa 7 (10-50 psi) 4. The vehicle windows and doors still closed. 5. The vehicle hood still fully raised. 6. Both engine cooling fans operating. 7. Record the low side pressure reading. Is the low side pressure reading within the specified Go to Step 9 values? Go to Step 8 1. The engine still idling in PARK. 2. The HVAC control set to the following positions: • A/C button to ON Sectors 2019 - Instay 2 Cha Temperature control to full cold Mode control knob to UPPER (IP outlets) Blower switch to high 3. Elevate and maintain the engine speed at 2000 RPM. 4. Allow the low and high side pressure readings to 8 stabilize, if necessary. (Stabilization usually requires 2-3 minutes.) Record the low and high pressure readings. 6. Compare the low and high side pressures to the A/C System Pressure - Zone Classification Graph above. Do both the low and high side pressures fall within Zone B on the chart (low side pressure still high and high side pressure still low)? Go to Step 10 Go to Step 11 1. Recover the refrigerant. 2. Replace the control valve. Refer to Compressor Pressure Relief Valve Removal (V5 - Conventional Mount) and Compressor Pressure 9 Relief Valve Install (V5 - Conventional Mount) or Compressor Pressure Relief Valve Removal (V7 - Direct Mount) and Compressor Pressure Relief Valve Install (V7 - Direct Mount). Is the repair complete? Go to Step 12

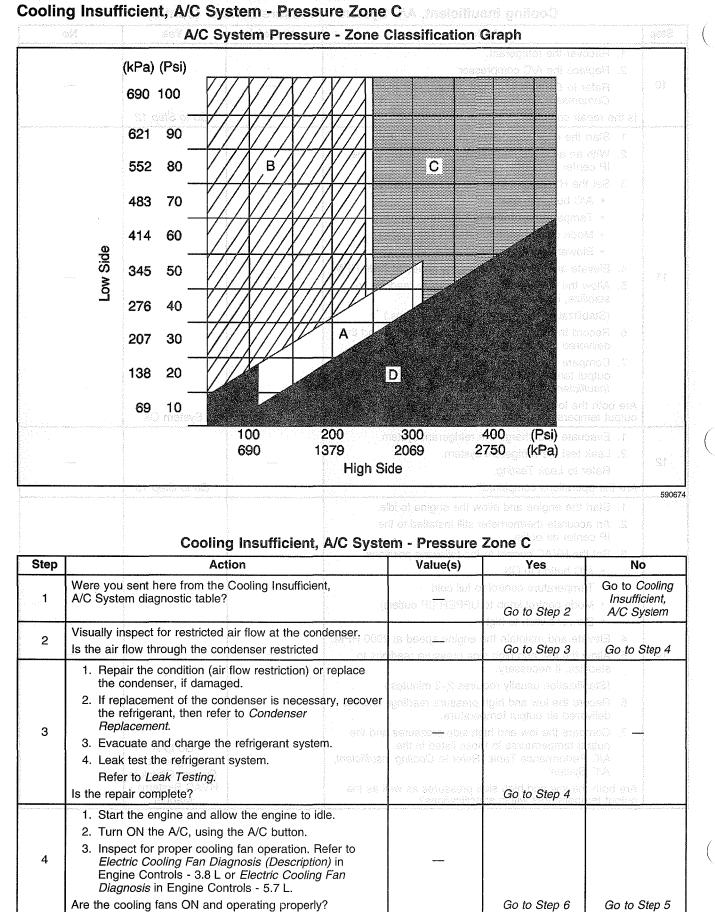
Cooling Insufficient, A/C System - Pressure Zone B (cont'd)

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Step	Action destinates in actor	Value(s)	Yes	No
	1. Recover the refrigerant.	1999-1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1		
	2. Replace the A/C compressor.		(요즘감) 문자로	
10	Refer to <i>Compressor Replacement (3.8 L)</i> or Compressor Replacement (5.7 L).			_
	Is the repair complete?	and the second	Go to Step 12	
	1. Start the engine and allow the engine to idle.			
	2. With an accurate thermometer still installed to the IP center air outlet.			
	3. Set the HVAC control to the following positions:A/C button to ON			
	Temperature control to full cold			
	 Mode control knob to UPPER (IP outlets) 			
•	 Blower switch to high 		an a	
11	4. Elevate and maintain the engine speed at 2000 RPM.		346 30 JA	
11	 Allow the low and high side pressure readings to stabilize, if necessary. 			
	(Stabilization usually requires 2–3 minutes.)	a an	angere alam angere a Pangan angere	
	Record the low and high pressure readings and the delivered air output temperature.		n or tos Sila	
	7. Compare the low and high side pressures and the output temperatures to those listed in <i>Cooling</i> <i>Insufficient, A/C System</i>			
	Are both the low and high side pressures as well as the output temperatures within specifications?		System OK	
	1. Evacuate and charge the refrigerant system.			
12	2. Leak test the refrigerant system.			
12	Refer to Leak Testing.			
u tumu na na me	Are the operations completed?		Go to Step 13	
	1. Start the engine and allow the engine to idle.			
	2. An accurate thermometer still installed to the IP center air outlet.	CONTRACTOR	18 aqû	
en de constantes e	3. Set the HVAC control to the following positions:	یک اور است می است است از می این است از می آستان می	ngangang kanalan kanalan generakan kanalan kanalan kanalan kanalan kanalan kanalan kanalan kanalan kanalan kan Kanalan kanala	
	A/C button to ON	(i _n e ^γ α) αποτεί το το ποριστροπογιστικό το ποριστορ	an 1999 An an ann an an 1999 an an 1999 an an 1999 an 1999 anns an 1999 An	
		ashsha ansi dirawasi)		
teletet Henry	 Mode control knob to UPPER (IP outlets) 		maint charagais e	alandi filo ana bita di
	 Blower switch to high 		laista el isas	anana na ana ana ana ana ana ana ana an
	4. Elevate and maintain the engine speed at 2000 RPM.	1	un să âcară na	n yr gennwr 1997 An erfit Afri
13	5. Allow the low and high side pressure readings to	9999(31173) <u>- 17</u> 73/1713/1714		and the state of the
	stabilize, if necessary.	a prikrižana kolt	ses actilizado adriv	46A 15
	(Stabilization usually requires 2-3 minutes.)	124	pensis E season.	
	 Record the low and high pressure readings and the delivered air output temperature. 	analan ang katalan sa	econent of ito co trigetant doen efe soecent	5 (97 ⁴)
	 Compare the low and high side pressures and the output temperatures to those listed in the A/C Performance Table. Refer to <i>Cooling Insufficient</i>, A/C System. 	eacht à direit die. Margi	Go to A Diagnostic System Check in	evel is such is
- 14	Are both the low and high side pressures as well as the output temperatures within specifications?		HVAC Systems - Manual	ger vitra (
			olis bas aragne edi	
			galaa Ovaliers MC	
			nénca jetan, né in	
		પ્રયત્વે કે નિસ્તુ સ્થળે પ્રેલ્ટાલ આ સિંહા સ્થળ કે દિવસાય છે.	gen aan geboel of Ye See geboel af	
			gen oer gewoer om Vir Stif - statenoù er Aoù velgez et weoe	

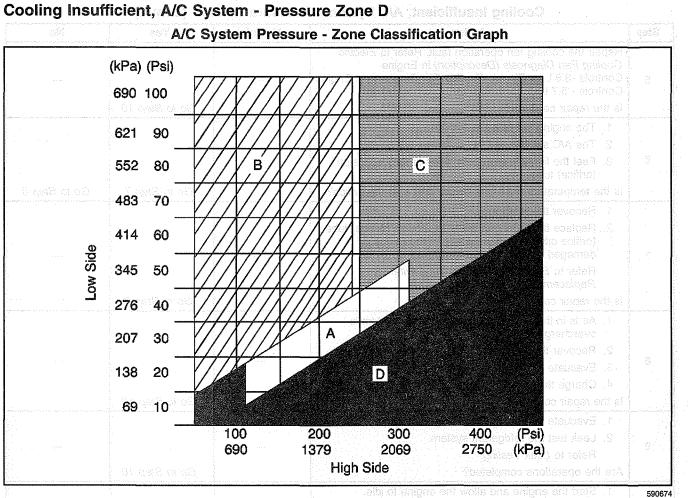
Cooling Insufficient,	A/C	System -	Pressure	Zone B	(cont'd)	Rollinger	QTHON.



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Step	Action	Value(s)	🖉 🔿 Yes	No	
5	Repair the cooling fan operation fault. Refer to <i>Electric</i> <i>Cooling Fan Diagnosis (Description)</i> in Engine Controls -3.8 L or <i>Electric Cooling Fan Diagnosis</i> in Engine Controls - 5.7 L.		2875 9376 CT	1	14 X Y.
	Is the repair complete?	and the second	Go to Step 10		
	 The engine still idling in PARK. The A/C still turned ON. 				
6	 Feel the liquid line on both sides of the expansion (orifice) tube. 				
	Is the temperature the same before and after the orifice?		Go to Step 7	Go to Step	8 (
7	 Recover the refrigerant. Replace the damaged/faulty expansion (orifice) tube (orifice opening too large and/or the O-ring is damaged or missing). Refer to Expansion (Orifice) Tube Filter 				
	Replacement.				
	Is the repair complete?		Go to Step 9		
8	 Air is in the refrigerant system, or the system is overcharged. Recover the refrigerant. 				
J	 Evacuate the refrigerant system. Charge the refrigerant system to specifications. 				
	Is the repair complete?		Go to Step 10		
9	 Evacuate and charge the refrigerant system. Leak test the refrigerant system. Refer to <i>Leak Testing</i>. 	- 000 - 0000	600° f	1. 	
	Are the operations completed?		Go to Step 10		
	1. Start the engine and allow the engine to idle.	ta ant a standard an ar an an an an	a an aig a sa thaga tha na wata a sa ta sa sa sa	ang shutan ang san ang san ang san ang san	17 av 54
	 With an accurate thermometer still installed to the IP center air outlet. 				
and the second second of the second	 3. Set the HVAC control to the following positions: A/C button to ON 	, have the set g	94999	ومراقبة والمرقبة مراقبة مراقبة والمرقبة	و رو د مع
i Second and a second second	Temperature control to full cold	y standings Standings Standings Standings Standings Standings Standings Standings Standings Standings Standings Standings St	in de la companya de	and a construction and a construction	388
oolihg Jené, Skim	● Mode control knob to UPPER (IP outlets) ● Solver switch to high	nekallarak gadanoO	art not erei the. Tada pastigais a	ung alayyi Bayê Ora : 	£
10	 Elevate and maintain the engine speed at 2000 RPM. Allow the low and high side pressure readings to stabilize, if necessary. 	PAREL. P PAR expension (c	pogete sille clog co A O sill Carc The liqued fine baker		
ieyo 5 	en andere et de l'étable de la préside d	. 1.8079700-94	Lessad becaless a		
		grits: We on to enosity	ano libri madaya OV Lani geolo bash yili)		
	 Compare the low and high side pressures and the output temperatures to those listed in the A/C Performance Table. 	uorea magi n' unit 16 anoués fael ea ey un fincuntines ; 1800 "Rose	Go to A Diagnostic		
	Refer to <i>Cooling Insufficient, A/C System</i> . Are both the low and high side pressures as well as the output temperatures within specifications?	a wana adamati kurit ka	<i>System Check</i> in HVAC Systems - Manual		
		ya wa bekan anaza	equital en qonte liqueté	A HS ASYV	•
den de la companya de La companya de la comp		199789-27197 	ogros e Pilo yak k	an a	e 10 a p
			ver de réligier (. 1 a de cesticie) 1 a de constent : 2016 a des		
			机运行机 使用的过去式	2000 (C. 1997)	

Cooling Insufficient	, A/C S	vstem - Pressure	Zone C	(cont'd)eksekteret	ondeo:
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Cooling Insufficient, A/C System - Pressure Zone D

Step	Action	Value(s)	Yes	No
. 1	Were you sent here from the Cooling Insufficient, A/C System diagnostic table?	1999) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	et dami latinaci eta 161 Go to Step 2 40	Go to <i>Cooling</i> Insufficient, A/C System
2	 The engine still idling in PARK. The A/C still ON. Feel the liquid line before the expansion (orifice) tube. Is the liquid line cold before the orifice? 		nte and maintain in the tow and high ita, if necessary ita, f octo Step 3	dels - la fille
3	orifice. Was an abrupt drop in temperature noted along the	erature. yh eich pressutes nose listed in the ant. A C System. c pressures as wi	nd the low and high brack air quipul tain date the low and hi triamperatures to t Performance Tabler to Coding Insuffic to coding Insuffic to actives within st	vileb moO X giso OXA sieR rited anA ter wiceo
4	 surfaces of any of the components listed? 1. Recover the refrigerant. 2. Remove the restriction from the component, or replace the component which produced an abrupt temperature drop Is the repair complete? 		Go to Step 4 Go to Step 17	Go to Step 5

HVAC

Step	Cooling Insufficient, A/C System -	Value(s)	Yes	No
Siep		value(S)		
5	 Recover the refrigerant. Evacuate the system. Weigh the charge which was removed. Is the weight of the removed refrigerant charge equal to or above the specified value? 	0.68 kg (1.50 lb)	indepite of av end to control to the occurrence Go to Step 9	noo Anoo Anoo Anoo
6	Add 0.40 kg (14 oz) of R-134a to the refrigerant system. Does the cooling performance improve?	o éstés wast in	Go to Step 7	Go to Step 6 Go to Step 9
7	Leak test the system. Refer to Leak Testing.		Go to Step 8	Go to Step 17
8 8	Repair the refrigerant leak. Is the repair complete?	a hoo re nt ada seb	Go to Step 17	11
9	 The A/C system still operating. Feel the liquid line at the orifice location for extreme cold, possibly accompanied by heavy frost, then feel along the liquid line after the orifice location for warm temperature. Was the liquid line extremely cold at the orifice location and warm after the orifice location? 	segen monuent 1 the high side: 39 any aight of di ior damage, it) an agineted from the scincted from the	no oranipho and no ion acob addition no atom oran e di to pander oran i gourn atop orano atop orano to Go to Step 10	18.V0
	 The orifice tube is nearly plugged or damaged/faulty (opening too small). Recover the refrigerant. Replace the orifice tube. Refer to Europeier (Orifice) Tube Eilter 	su santa distanti dagi	er company rockers of conde roc 19 company	es en s socialist sencost: 8.
10	 Refer to Expansion (Orifice) Tube Filter Replacement. 4. If the orifice tube was plugged or nearly plugged, note the amount of debris present. 5. If heavy debris is present, components in-line before 	retoryo ta <u>e s</u> gjelari motave g	ni egente ant atos triesegnion arb test (grinzell section telletornon anolister	erve (†) Assu (*) eta9 eta9
Part Statute and States	the orifice may need to be flushed. Is the repair complete?	h of anigna S41 % Mineral Mineral	Go to Step 17	
. н . с. е. "Х	 The A/C system still operating. Carefully feel along the surfaces of the following low side components for a sudden change in temperature. The liquid line between the orifice and the 	he folgving gast o toi cold	e air outist na HVAC control (d O button to Ola amaragese control	1000 1987 - 6 4 - 4
11 · · ·-	 The vapor hose between the evaporator core and the accumulator The accumulator 	lehon 4 <u>1-1</u> 994). Is boogs onlyge	n anna chuannan Di donn ionnao eire Ny M M Heiree serre Richtechich ane sh	a Volta de la
जूजर २	• The compressor suction hose Was an abrupt temperature change noted along the surfaces of any of the components listed?	Riner Supering etc. Secondari (S.S. Second	Go to Step 12	Go to Step 13
12	 Recover the refrigerant. Remove the restriction from the component, or replace the component which produced an abrupt temperature drop Are the operations complete? 	jaskar anskaj sedan. ju sido <mark>D</mark> essues	nghi brasi aké ané ing	ucañ 8 1 Viet
naujerjen for Kransjer	 The A/C system still operating. Ensure that the A/C has been operating for several minutes. Carefully feel along the surfaces of the following low 	vit AR) Spalan - pizaburas as ac - pizaburas (diffesti (pitod) ol Di rigin ora wolat	stofi Intop skå hef fugioo
13	 AND high side components to compare the overall temperatures of the low and high sides. The liquid line between the orifice and the evaporator core The vapor hose between the evaporator core and the accumulator The accumulator The compressor suction hose The compressor discharge hose The condenser The liquid line between the condenser and the 			
	orifice. Are the overall temperatures of the low and high side components close to the same (both only mildly warm)?		Go to Step 14	Go to Step 1

(

Cooling Insufficient, A/C System - Pressure Zone D (cont'd)

Step		and Action (Statistic	Value(s)	of Yes	No) <i>(2012</i>
	1.	Recover the refrigerant.		matephien and tev-	t Beer	
		Disconnect the compressor hose from the		.e.seite ent ofer-		
		compressor.	was removed.	ripiriw seaado srit d	yswii.8	2
		Refer to Compressor Hose Assembly	e agrado ineregite	beyonth off to rep	le the Web	
୍ର 14	5 05 C	Replacement (3.8 L) or Compressor Hose Assembly	ne - and a second development <u>- and a s</u> econd address of the sec	Section value?	and a second	
14		Replacement (5.7 L).	s nataginter ent of a	ACT-行的(so NT p>		
9 des.	ି 3.	Inspect for the presence of heavy debris on the	(leveranti	sooing performans	Does the	
		compressor suction port screen.	Look Testino.	the system. Reter t	kest daeu	
ST 0,8)		avy debris present on the compressor suction port		foreant leak found	ian 6 aeW	· ·
a that and a star and an att of a set	scre		na na sana ang sa	Go to Step 15	Go to Si	tep 16
		Remove the debris from the suction port screen.		Taleignoo via	ges enti et j	
entale del construction de	2.	Inspect the orifice for damage, in order to determine i	•	kro lite meraya OA		
		the debris originated from the high side.	ومعادة أمرون الاسترابين فكالمردي وأرار	vit to enit biupit evit		
40	3.	If the orifice does not show any signs of damage,		possibly accompany		
15		inspect the accumulator for damage, in order to the determine if the debris originated from the	the orifice location	and and the ane	eois 🔤	
		evanorator core		și ș		
$I = C E_{i}$	·	Replace any components found damaged.		yenetixe adit biyo bol solito erit erits		
1 1 7 7 20 1 1 7 7 7 20		a presidente de la companya de la co	en al response apresentation en arreste de company en la company en la company en la company en la company en l	Go to Step 17	Standard (Station of States and States)	و و و و و و و و و و و و و و و و و و
			<u>nisaad or daman</u>			
10	disc	Il components or connectors which were removed or onnected.	a la viene de la companya de la comp	ereg sou serier. Ver the reirigerant.	890) X689 IS	
16				Go to Step 17	iqeA .8	
		e action complete?	The second second second	G0 10 Step 17		
	1.1.1.1.1	Evacuate and charge the refrigerant system.		10979371	$C_{i}(N_{i}^{(n)})$	
17	2.	Leak test the refrigerant system.	gliq vitas <u>n t</u> o begg			
		Refer to Leak Testing.	s present.	ideb to investe erb		
	Are	the operations completed?	n-ai einenoginde (Go to Step 18	94 H - S	
	1.	Start the engine and allow the engine to idle.	and the second	Petellomoo his	aer orti al l	
	2.	With an accurate thermometer still installed to the IP		a na an	palastratasetere en eterritoria en a	si sina atalahilari
		center air outlet.		NO system atili ope		
	3.	Set the HVAC control to the following positions:		enti geola iseli vilui a a iot sinanoomoo		
		 A/C button to ON 	a più sulla transco a processo	8487049 8487049		
		 Temperature control to full cold 	n Se onfice and th	www.ed acti blopil or	1 1 1 1	
		 Mode control knob to UPPER (IP outlets) 	• •	9300 307670038	З <u>у</u>	
		Blower switch to high	alissocianie autoca	wied osod vogsvi sr		
		Elevate and maintain the engine speed at 1000 RPM		AGÉRICOCOC A	5 	
10				10785335600 57		
18	5.	Allow the low and high side pressure readings to stabilize, if necessary.		: lous tosse grico a lo substacrael igun		
13 64	8 es :			t any of the compo-		
		(Stabilization usually requires 2–3 minutes.)		lassonie en av	and the standard stand	
	0.	Record the low and high pressure readings and the delivered air output temperature.	, nacionario ori mi			
	,	Compare the low and high side pressures	s as becchord don'			10.4 15 2
1	· ·	and the output temperatures to those listed in the		goris eruis e		
		A/C Performance Table.		Go to A	o entrena.	
		Refer to Cooling Insufficient, A/C System.	goits	Diagnostic System Check in	441	
	Are	both the low and high side pressures as well as the	 di polisiverio reec 	HVAC Systems -	682.S	
	outp	ut temperatures within specifications?		Manual	ishan -	
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			0.0141 - 5635	w compreserv disob w condenser		
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