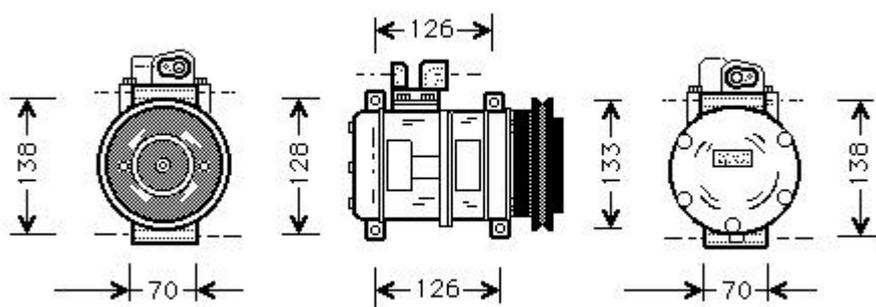


Total data overview from various compressors: [Compressors data.pdf](#)



1992 928GTS compressor



Kompressor, Klimaanlage PORSCHE 928
 Artikel-Nr.: G945476/13178
 OE-Vergleichsnummer: PORSCHE: 92812611301,

PORSCHE 928 5.4 GTS
 ab Baujahr : 07.1992

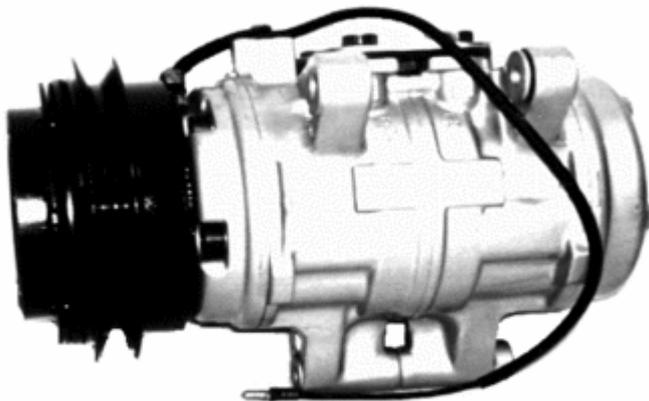
Producer: DENSO

Compressor-ID: 10PA20C
Compressor oil: PAG 46
Oil volume: 210 ml
Clutch: with belt pickup
Belt disk-Ø: 126 mm
Belt Ribs: 1
Voltage: 12 V
Fits: 928GTS

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<http://www.acsource.net/xcart/home.php>

http://www.pelicanparts.com/techarticles/911_Nippondenso_rebuild/911_Nippondenso_rebuild.htm



1992-1995 928GTS

SKU: Compressor for 1992 Porsche 928 (5.4 V8 Gas FI)

Nipp; 10P15E

6 Gv .570 X 4.92; 4 Ear

SKU: 127489-P/N: 902-027

1991 928s4/gt

SKU: Compressor for 1991 Porsche 928 (5.0 V8 Gas FI)

Nipp; 6E171

1 Gv.7 X 6.0; 6 Ear

SKU: 127475-P/N: 15285

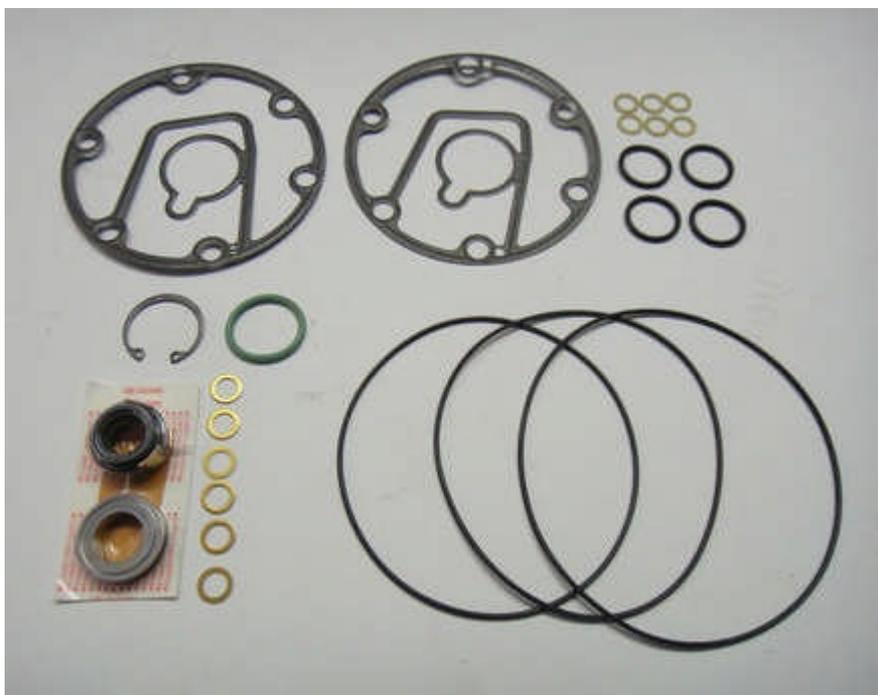
1985-1990 928s4/gt

SKU: Compressor for 1990 Porsche 928 (5.0 V8 Gas FI)

Denso; 6E171

1 Gv; 5 Ear Mt

SKU: 127467-P/N: 471-0122



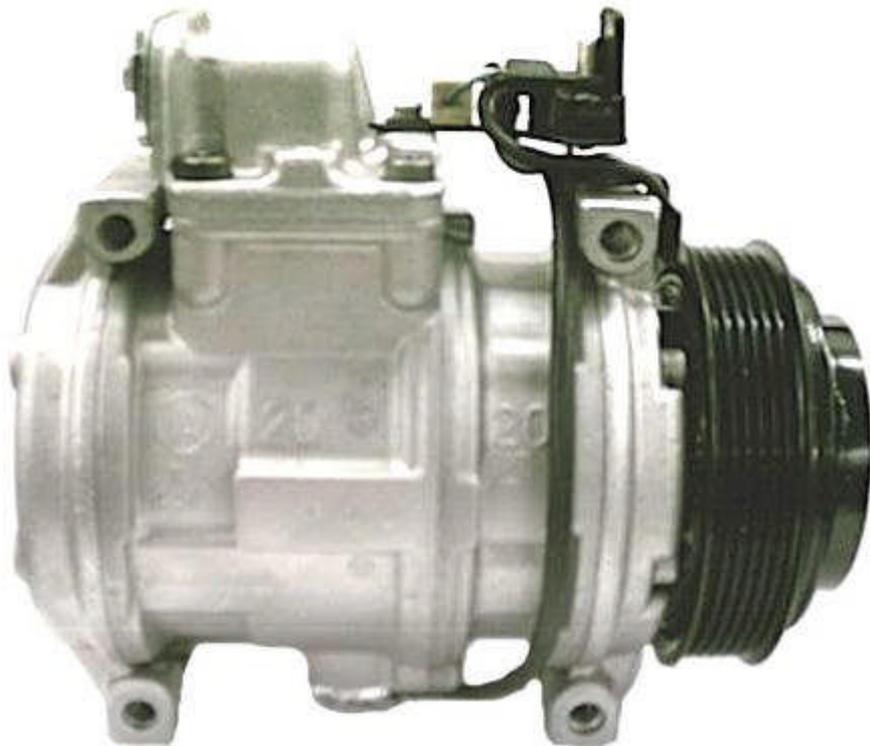
The correct oil filling of the Porsche used AC compressors:

Model	Bouwjaar	Soort koudemiddel	Hoeveelheid koudemiddel	Type OE compressorolie	Type compressorolie Behr Hella Service	Hoeveelheid olie in gehele systeem*
911	1984-93	R12	1350	Suniso 5GS	PAO 68	100-140
911 (993)	1993-08.97	R134a	840	Dens Oil 8	PAO 68 of PAG ISO 46	80-120
911 (996)	1998-07	R134a	900	PAG 46	PAO 68 of PAG ISO 46	180-210
944	1985-92	R12	950	Dens Oil 8	PAO 68	60-100
968	1992	R12	950	Dens Oil 8	PAO 68	60-100
968	1993-96	R134a	860	PAG	PAO 68	100-140
928	1990-93	R12	950	Dens Oil 8	PAO 68	260-300
928	1990-93	R12	1150	Dens Oil 8	PAO 68	260-300
Boxster (986)	1998-11.04	R134a	850	PAG 46	PAO 68 of PAG ISO 46	180-210
Carrera GT 5,7	2003-07	R134a	600	PAG 46	PAO 68 of PAG ISO 46	140
Cayenne (955) 3,2/S4,5/Turbo4,5	2002-07	R134a	700	PAG 46	PAO 68 of PAG ISO 46	190-210
Cayenne (955) 3,2/S4,5/Turbo4,5	2002-07	R134a	1050	PAG 46	PAO 68 of PAG ISO 46	290-310

* 0 = vulhoeveelheid onbekend of door fabrikant niet opgegeven, zie eventueel sticker in motorruimte of op compressor.

The compressor is a Nippondenso 10PA20C (Porsche P/N 928.126.113X) used on the '90 and '91 only.





<http://www.acsource.com/index.asp?PageAction=VIEWPROD&ProdID=394>

<http://www.acsource.com/index.asp?PageAction=VIEWPROD&ProdID=100>

I fix these in the uk. We are only allowed 134a so that's it, but I get 100% success. Your problem is knowing where the leak is - I use a special gas and overpressure with N2 then use a sniffer. Excellent results but a lot of kit for a one off. The dye is crap and will only

tell you if you have a big leak, it gets everywhere and really pisses me off. Don't go there. If you want to pretty well guarantee a leak free system, you have to change the condenser, hoses, rebuild compressor, new expansion valve and new filter dryer. If you do all of that you have magically replaced all the 'o' rings too. The evaporators (in the cabin) rarely go, but if they do its a complete dash out job.

Most common leak points are the condenser mounting area (the bolt frets the bottom of the matrix and eventually wears through. No notice, but dramati, the metal to metal joint on the suction hose (engine side of the rad), the expansion valve adjustment 'o'ring on the later valves (S4) and the compressor seals. Seal kits are quite cheap and it is not rocket science, but dismantle the swash plate over a sucepan as ball bearings will fly everywhere. All the parts are available from SunAir. Very early 928s ('79 - 81) had Bosch/Behr compressors. Actually very good, but difficult to get bits for and very heavy. S,S2 and S4 up to '90/'91 use Denso 6E171, and '91-on use Denso 10PA20C. The 6E has 3 pistons, the 10PA has 5 and is lighter, and the hoses are almost twice the price and only available from Porsche - unless anyone else can tell me differently.

Re-gassing should be done by someone who understands the system as they are all slightly different, and although I start by putting a weight of gas in, the final adjustments are by experience. Don't ask me why, but thats the way it is. I have done about 25-30 systems now.

Richard

You most likely have a Nippondenso brand 6E171 model compressor.

A one day total leak down is a significant leak that usually can be found.

You could do a simple inspection for the common leaks in the 928, starting with the high side hose (compressor to condenser) looking for signs of dirt collecting in the oil that may have been pushed out with the refrigerant; check closely where the hose is crimped (ferrules) to hose end fittings. Next, as Zeus suggested, consider a nose seal leak by looking again for dirt and oil accumulation around the clutch/pulley. The next suspect on a single evaporator shark is the expansion valve, however start your inspection at the drier and check for the rubber hose joint in this metal line prior to the expansion valve. When you get to the valve you are checking the inlet line port and also bellow "cap" on the valve; which we have found to be suspect at times.

If you have a friend nearby that has either dye & light detection tools or a refrigerant electronic sniffer this would be your next avenue to finding the leak. You could drop in a can of R134a and check out and sniff the system components and joints. Otherwise the last step is to simply pay a tech to find the leak and give you quote to repair.

If the source of the leak is the compressor, the 6E171, if not worn out (pistons, wobble plate, ball and shoes), is not too difficult to reseal. You can simply zip off the shaft nut in front of the clutch with an air gun, remove the clutch assembly with common snap ring pliers (watch the shims for setting the air gap in the clutch), tap out the key out of the shaft, remove the compressor assembly bolts with a 6 mm allen hex. They most likely will be residual ac refrigerant oil hiding in a cavity or two in the compressor. Before you clean it out inspect the oil using magnification to check for signs of metal contamination. If you find any they you most definitely want to liquid flush the lines,

condenser and evaporator.

You'll be replacing the front nose o-ring, center case halve o-ring, rear head o-ring and shaft seal, front and rear reed plate gaskets (if the compressor has not been resealed before then most likely these gaskets will be bonded to the reed plates; get some liquid gasket remover and be careful not scratch the mating surfaces on the nose and head. If the reed valves are pitted, corroded or rusted you'll have to think about replacing them (not usually included in retail "seal kits") if you can't clean them up. The rusting or pitting is related to moisture in R12 systems.

Inspect your shaft where the nose seal makes contact with it. If it is rusted and depending upon how much pitting is present you maybe or may not be able to salvage the shaft. When you replace the shaft seal assembly note the orientation of the flats on seal assembly with respect to the flats on the shaft.

When you split the center section try to keep the shaft and pistons in either side or they will fall apart and leave you pondering for awhile, so keep the shaft with pistons on either side. Check the piston rings and the cylinder bores for wear, though not common a 6E171. Inspect the ball and shoes on the wobble plate as well as the wobble plate for excessive wear, again these items as not included in the typical retail seal kits.

The 6mm hex head assembly bolts are torque'd to 18 ft lbs. The air gap for the clutch should be checked, .020-.030" works nicely however you could stretch it to .040".

Overall you can reseat a 6E171 without dedicated tools if you take your time.

You'll need to add refrigerant oil to the system and usually 6-8 oz works fine. Depending upon how old the drier is, what refrigerant oil you are using, signs of contamination, etc. you will probably want to replace the drier for good measure since you are going through all this effort.

When its time to charge the system, again you need equipment or a friend to work with you if they have it, otherwise just take it to your favorite ac tech (don't forget to tell the tech how much oil you may or maynot have put back in the system). Evacuation times vary depending upon the system capacity, altitude and ambient air temp, however since you got all the time in the world I would suggest 1-2 hours. If you are converting to R134a or sticking with it, the general rule of thumb is about 85% of the original system weight of R12. However the final amount or adjustment is based on P&T (pressures and temperatures chart).

You may find some places on the net that sell seal kits out there and you may find a few posts here and there on the 6E171 R&R (alike model was used the 944 and the old Lincoln's).

The two primary rubber hoses on a shark single evaporator system are the compressor and to condenser and compressor to evap pipe. I believe there is a short section of rubber hose in the drier to expansion valve however this does not leak often.

Griffiths

