INSTRUCTIONS

99TA526296 B

Instruction Sheet Number: **99TA526296B**

99TA526296 B (for RCD use only)

Description: 06N TERMINAL PIN SEAL REPLACEMENT KIT

Author: Steve Vonborstel

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⚠ WARNING

HAZARDS: ELECTRIC SHOCK / PRESSURE / EXPLOSION

REFRIGERANT AND OIL UNDER PRESSURE

- **Bodily injury may result from explosion and/or fire if power is supplied to compressor with terminal box cover removed or unsecured. Terminal pins may blowout causing injuries, death or fire.**
- **Do not touch terminals, or wiring at terminals, or remove terminal cover or any part of compressor until power is disconnected and pressure is relieved. See safety instructions A, B, and C.**

ELECTRIC SHOCK

- **Bodily injury or death may result from electrocution if terminal cover is removed while power is supplied to compressor.**
- **Do not supply power to compressor unless terminal cover is secured in place and all service valves are open.**

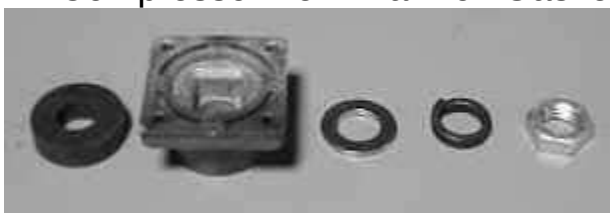
Safety Instructions:

Service or maintenance must be performed only by trained certified technicians and according to service instructions.

A. Follow recognized safety practices and wear protective goggles.
B. Disconnect and lockout all electrical power. Electrical measurements during operation must be taken outside of the compressor terminal box.
C. Isolate and reclaim refrigerant from the compressor if equipped with optional suction service valve. For units without optional suction service valves, most of the refrigerant can be pumped into the high side and isolated using the liquid and discharge shut off valves. When using the compressor to pump out low side, do not allow the low side pressure to drop below 10 psig (69 kPa). Reclaim remaining refrigerant from the low side using a reclaim machine. Do not disassemble bolts, plugs, fittings, etc. unless all pressure has been relieved from the compressor. The oil filter cavity must be relieved independently from the rest of the compressor since the oil check valve can isolate it.

Insure the following parts are in the compressor terminal kit before starting the procedure below.

6 - Terminal Pin Insulator Blocks (8TB0883)
6 - Terminal Pin Lock Washers (AU61ML301)
6 - Terminal Pin Seals (8TB0663)
6 - Terminal Pin Flat Washers (8TB0878)
18 - Terminal Pin Nuts (8TB0928)
1 - Compressor Terminal Box Gasket (3TB0818)



Tools that will be needed:
17mm crowfoot wrench
17mm open end wrench (optional)
2 -19mm open end wrenches (or adjustable wrenches)
5mm Allen head wrench or hex drive (to remove the M6 screws that hold the terminal box to the compressor)
Torque wrench (one that can accurately measure 20-27Nm/15-20 lb-ft)
Slip Joint Pliers (to remove the terminal pin insulators)
Picks (To pull the seal out of the hole)
Leak Detector capable of detecting R134A

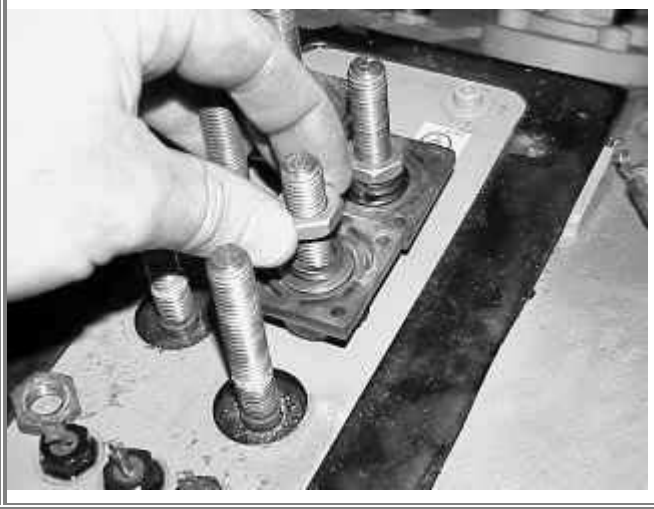
Time required to make this repair:
Although it is difficult to estimate how long it will take to do entire repair procedure because of the varying times it will require to remove the refrigerant, the procedure to replace the terminal gaskets will take approximately 2 hours once the refrigerant has been removed.

Completed	Step	Procedure
	1	Isolate the refrigerant Charge in the condenser or remove it from the circuit.
	2	Recover any residual refrigerant gas from the compressor. Ensure there is no pressure in the compressor before performing any work.
	3	**Turn off and lock out electrical power before performing any work on the unit. Be sure to turn off the 110 volt circuit as well as the main power.**
	4	Remove terminal box cover.
	5	**Note orientation of the terminal pins before removing any wires. Adding and index mark with a marker may be used to verify that the orientation of the pin has not changed after the work has been completed.** It is helpful to measure the height of the terminal pin from the insulator block for reference. The reassembled height should be the same within +/- 1/16".
	6	Remove the power wiring and jumper bars (if present). A 17mm crowfoot wrench should be used to hold the second nut on the bottom so that the insulator blocks are not subjected to torque. Be careful when removing the nuts from the terminal pins. Note: Both the nut (brass) and the terminal pin (copper) are soft. If the nuts have been removed several times or have been over tightened, they may "gall" the threads when removed. This can lead to stripped or broken terminals. The kit comes with "thicker" nuts, used on compressors manufactured after February 15, 2001 (s/n 0801JXXXXX). The thicker nut prevents this from happening.
	7	Remove the two wires from the motor temperature sensor terminals. Be careful not to bend sensor terminals during the procedure.
	8	Using a 5mm hex wrench, remove the 4 screws that hold the compressor terminal box to the compressor and move entire terminal box out of the way.
	9	Loosen the terminal pin nut and remove the lock washer & flat washer. Note: some older compressors may have a flange nut with no washer. If the nuts are removed easily, go to step 12.

	10	If a nut does not remove easily, lock two of the new nuts supplied with the kit at the end of the terminal pin. 
	11	Holding one of the nuts (which were locked together in step #10), loosen the nut on top of the insulator block with another wrench (either an open end 19mm wrench or a 19mm crowfoot wrench). Note: on some older compressors the nut above the insulator is 17mm.
	12	Using a pair of slip joint pliers (water pump pliers) grab the insulator block and pull while rocking it slightly. This may take a few tries to loosen it up before it pulls out. 

	13	Scrape any extra paint or chips from around the top of the hole. Clean around the compressor terminal opening by using a wiping cloth. Pull foreign debris away from the opening. A vacuum can be used remove any corrosion dust, copper filings & dirt that may be in the hole. Cleanliness is critical for reassembly.
	14	Underneath the insulator block is a rubber seal that has to be removed. Spray a small amount of penetrating oil on to the grommet (WD-40, LPS-1). This will make it easier to pull the seal out of the bore. Using a sharp pick, hook the seal material and pull the seal up out of the hole. Try not to disturb the terminal pin. WARNING: Grasp terminal pin during this procedure to prevent pin from falling back into the compressor. It is okay to “rock” the pin from side-to-side while pulling the seal out which makes it easier to remove. 

	15	Place the new seal on the terminal pin and move it into place using the new insulator block. A small amount of clean POE oil can be used to lubricate the grommet. Hold onto the pin during this operation so that the position of the terminal pin is not changed.  

	16	Install the flat washer, lock washer, and finger tighten the nut to secure the insulator block. Use the new nuts supplied with the kit.   

	17	The insulator block and terminal pin heights must all be the same for the six terminals. If the height of a pin is considerably shorter check to make sure the orientation is correct. Reorient if necessary then pull on the pin with a slight "rocking" motion to get it to the proper height. The top of the insulator blocks should be approximately ¾" +/- 1/8" above the compressor body.
	18	Torque the nut on the terminal block to 20-27 Nm (15-20 lb-ft). **Note: it is important that these nuts not be tighten the beyond 27Nm because both external and internal compressor terminal components may crack which would require compressor replacement.**
	19	Check again to make sure the terminal pin and insulator block are the same as the other terminals, and the orientation of the terminal pin is the same as it was before the block was removed.
	20	After the above is completed for each terminal, it would probably be a good time to perform a megohm test before connecting all the wires back up.
	21	Reinstall the terminal box using the new terminal box gasket.
	22	Reconnect the power wiring using the new nuts supplied with the kit. Make sure the power leads are connected exactly the same. If any two wires are switched, the compressor will start in the reverse direction. This will seize the screw rotors in less than one second and the compressor will have to be replaced. Reconnect the motor temperature sensor wiring.
	23	Evacuate the compressor.
	24	Open isolation valves and check for leaks.
	25	Restore power and restart unit.