## HalfSpec AC Line Install - Rev 2



Here is a picture of the 4 hoses you will be installing:

Important Notes.

- a. Please read over my topic for prepping a FD for an AC install. Available here: http://www.halfspec.com/downloads/rx7/RX7\_AC\_Prep.pdf
- b. I would advise that you blow out each of your new A/C lines with compressed air.
- c. If you have flushed your old evaporator, condenser, and compressor you have effectively removed all the oil from the system and you will need to add ~ 8oz of PAG 150 oil (for R134a systems) or ~5oz of Ester/Mineral oil (for R12 systems) before adding refrigerant. A/C specialist should also be able to do this before charging. If DIY, oil should be distributed throughout the system and can be added to the compressor before reinstalling. It can also be added to hoses A and C after step 5. Additionally, oil can be added to hose D after step 7.
- **d.** The R134a capacity for this system is ~21oz. The R12 capacity is ~28oz. Do not rely on these measurements though. Use a manifold gauge or have the system charged by a A/C specialist
- e. The drier included in this kit is filled with nitrogen to keep it moisture free. Do NOT remove the sealing caps until you are ready to vacuum down and charge the system.
  Opening the drier and exposing it to the atmosphere will saturate it with moisture in ~ 1hour making it non effective at removing moisture in the A/C system.

f. Finally, if using a Samberg radiator and his recommended condenser, my lines are built assuming the orientation of the condenser is with the ports facing the passenger side, the small port being the highest, and the large port being the lowest.









Note – You may have purchased lines with a 90 degree compressor adapter which looks different from the straight out version show above. The orientation and seal color will be the same. Just remember the larger port (suction) with the red seal installs at the highest point of the compressor.

of t with end #2 point upwards and curving back towards the engine bay.



Note – Do NOT connect end #2 to the drier yet as shown in the picture. Just leave end #2 hanging where the drier will be installed on the final step before charging.

2. Move to the top (small) port of the condenser and install hose A and end #1 onto the condenser port with end #2 point upwards and curving back towards the engine bay.

3. Snake the 180 degree ends (some lines may use 90 degree ends) of hoses B and C above and behind the compressor. Install the #1 ends onto the compressor.



4. While under the car it's easy to go ahead and connect the compressor's control plug.



5. Route hose B parallel with the passenger frame rail, then up and over the frame rail. Finally route it down to the bottom port of the condenser and install end #2.









6. Route hose C parallel with the passenger frame rail until it gets past the heater hoses, then bend the hose backwards so that end #2 faces the firewall.



Note – The picture above shows the drier installed. Please DO NOT install the drier until the final step.

7. Install ends #2 of hoses C and D onto the evaporator lines poking through the firewall right beside and below the ABS pump. This will be the most difficult part of the install. Tip – Unbolt the 3 bolts holding the ABS pump to the engine bay. This will give you a few more mm of wiggle room. I have always been able to accomplish this task using open and/or adjustable wrenches, although I've been told stubby open wrenches are an excellent help here. ALWAYS use two wrenches. One to support the factory line's fitting and one to screw on the new A/C hose end. Not supporting the factory line's fitting will result in permanent damage to the factory line.





8. Take the bolt, 2 washers, and spacer and assemble them to the drier as shown.



9. Position the drier over this threaded boss on the passenger frame rail and screw the drier into place. The drier is made to float 2" above the frame rail using the spacer.



Note – Do NOT remove the caps off of the drier or attach the lines as shown in the pic above until you are ready to vacuum down the system and charge with refrigerant.

- 10. At this point the drier will be mounted, but still capped off and hoses end # 2 of Hose A and end #1 of Hose D facing the drier ports.
- 11. The vehicle can now be driven to an A/C specialist to be vacuumed down and charged.
- 12. While at the A/C shop but before letting the A/C specialist charge the system, remove all 3 caps from the drier. You will possibly hear a short hiss when removing the larger 2 caps. This is nitrogen being released. After removing the caps, attach end #2 of Hose A and end #1 of Hose B to the drier. Finally, install your pressure sensor onto the small service port of the drier and connect it to your wiring harness.
- 13. Vacuum down the system and charge with refrigerant.
- 14. Enjoy your new A/C