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|-------------------------------|--|-----------------------|-----------------------|---|
| <b>Title:</b>                 | <b>Air Conditioning Checklist</b>  |                       |                       |  |
| <b>Number:</b>                | <b>SB_710</b>  | <b>Release Date:</b>  | <b>10/01/2024</b>     |   |
| <b>Revision Number:</b>       | <b>Not Applicable</b>  | <b>Revision Date:</b> | <b>Not Applicable</b> |   |
| <b>Chassis Type:</b>          | <b>Custom Chassis</b>  |                       |                       |   |
| <b>Component Description:</b> | <b>Standardized testing to streamline AC issues</b>  |                       |                       |   |
| <b>Tools:</b>                 | <b>Manual AC Gauges, voltmeter, Robinair AC Cart (or compatible AC freon machine), Chassis model HVAC diagram (available on Pierceparts.com)</b> |                       |                       |   |

**Purpose:**

This bulletin will outline and standardize a procedure for gathering HVAC system information for under-performing HVAC units. Please fill out information and perform the following tasks that are included in the checklist below, prior to submitting a technical support incident on Pierceparts.com.

| <b>Test</b>   | <b>Reading</b> | <b>Pass/Fail</b> |
|---|----------------|------------------|
| Connect physical gauges to AC system to get true reading and compare to mux display. If non-mux, mark system pressures.   |                |                  |
| AC system pressures on mux display. If non-mux, sign: Not Applicable (N/A)  |                |                  |
| Check freon level that is in the truck (Bulletin 128.4 has all refrigerant levels listed)   |                |                  |
| Test ignition/gnd at controller. What is the Pierce PN of controller?   |                |                  |
| Is compressor turning on? If yes, skip to next step. If no, check for voltage at circuit 3413 on HVAC controller in dash.   |                |                  |
| If voltage found on circuit 3413, skip to next step. If voltage not found on 3413, check circuit 5167. (3413 will not go live until 5167 has 15 psi on low side transducer or 0.625V.)  |                |                  |
| If voltage found on 3413, move to evap and test circuit 1395. Do you have voltage? If yes, skip to next step. If no, thermostat has failed and will need to be replaced.  |                |                  |
| If voltage found on 1395 and compressor is not turning on AC, the psi switch will need to be tested. Disconnect switch from circuit and jump connector. Does the compressor start? If yes, replace psi switch.  |                |                  |
| Clutch operation example:<br>Low side low, high side high = plugged system low side, bad TXV<br>Low side high, high side high = over charge<br>Low side low, high side low = under charge<br>Low side high, high side low = failed compressor, bad clutch |                |                  |
| Ambient air temperature   |                |                  |
| Humidity  |                |                  |
| High side @ start-up  |                |                  |
| Low side @ start-up   |                |                  |
| High side @ 30 min running  |                |                  |
| Low side @ 30 min running   |                |                  |
| Evap replacement  |                |                  |
| Was the receiver/filter/dryer also replaced to resolve the issue?   |                |                  |
| What was the blower current draw on the unit before and after replacing the unit?   |                |                  |
| Was there any ice build-up on the evaporator coil?  |                |                  |
| Was the compressor cycling due to de-icing?   |                |                  |
| How much refrigerant was recovered when replacing the old HVAC unit?  |                |                  |
| Were any contaminants found in the system?  |                |                  |