

AC Trouble Shooting Chart - Follow procedural checks below the chart!

"Higher" or "Lower" than "Normal" (PRINT CHART)	Low-Side	SUCTION	High-Side	Liquid-Line	Cond.-Unit
NORMAL - (norm) - LOW - HIGH - Variable	Suction-PSIG	Super-Heat	Head-Pres.	SUB-Cooling	Amp-Draw
(1) Suction Line Restriction - Upstream Between Service Port & E-Coil	LOW	HIGH	LOW	norm	LOW
(1a) Suction Line Restriction - Downstream from Service Port At Compressor screen TXV	Normal to High	HIGH	LOW	norm	LOW
(2) Restrictive metering orifice; TXV Starving Coil; Liquid line Restriction	LOW	low/N	N-HIGH	HIGH	N/LOW
(3) Evaporator orifice oversized or bypassing - or TXV Overfeeding - Normal Charge	HIGH	usually - low	LOW	norm - low	NORMAL-LOW
(4) Hot gas Disc. Line Restriction	HIGH	HIGH	HIGH	NORMAL	HIGH
(5) Inefficient Compressor - Also, see (3) Above	HIGH	HIGH	LOW	LOW	LOW
(6) Unbalanced heat load on Evaporator Circuits	LOW	LOW	LOW	Norm	LOW
(7) Insufficient Evap. Airflow, or Heat load	LOW	LOW	LOW	LOW	LOW
(8) Refrigerant Overcharge- High or Low pressure - <u>Variable</u> according to heat load non-TXV	Norm - High	LOW	Varies by Load	HIGH	Varies/ <u>Low</u>
(9) Insufficient Charge - piston orifice	LOW	HIGH	LOW	LOW	LOW
(9a) Insufficient - Fairly Low Charge with TXV Wide Open	Normal	HIGH	LOW	LOW	LOW
(10) Excessive Evaporator Heat Load - Latent & Sensible - High Latent	HIGH	HIGH	HIGH	Usually Low	HIGH
(11) Very High Temp Ambient Air Entering Condenser or dirty - Low condenser airflow	HIGH	HIGH	HIGH	norm	HIGH

First, always check for Return Air/Supply Air duct leaks, seal them with approved mastic, check CFM airflow rate and that the coil fins and blower wheel blades are clean! "Check for Insufficient Air Flow Across Evaporator Coil" - Check for: dirty filter, dirty lint clogged evaporator, blower speed tap selected, or belt and speed adjustments, blower motor, check any belts for wear and proper tension, dirt lint loaded blower wheel, and out of specs or wrong rated run capacitor.

Check airflow system static pressure. Verify Blower Performance --by checking blower air handler "Static Pressures with the specific model's Blower Curve Charts." At a specific heat load condition, optimize the conditioned space's heat load on the evaporator coil to optimize the rated Btu/hr and EER, and/or SEER Ratings.

First, Check Return Air (RA) at grille & at entry of blower for heat gain, due to Return hot Air leaks.

Where air handlers' are set over Return Air Chambers, check for air leaks through the sheet rock & down the wall studs from the attic - this is a fairly common condition that will overload the AC system with attic heat!