

Technical Bulletin:

Subcooled 705 (Climadry 705) Dehumidifier

How to Change Supply Air Temperature



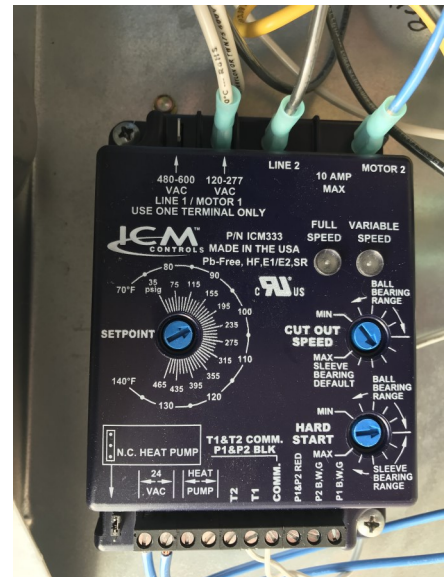
Dehumidifier air temperature can be adjusted up or down by installing a “head pressure controller” on the outdoor, 5 ton condenser unit. Results of recent testing are listed below. Delivering night air in the upper 70’s and lights-on air near 70 degrees F is available from Subcooled 705 and Climadry 705 dehumidifiers.

Condenser “Low Ambient Kit”

- ♦ regulating outdoor condenser pressure increases or decreases dehumidifier air temperature
- ♦ Head pressure controllers, sometimes referred to as low ambient kits, regulate refrigerant temperature/pressure
- ♦ Always required for cool weather operation

In the test below room conditions are 75 degrees, 65% relative humidity. An ICM 333 Head Pressure Controller can be used to regulate condenser temperature. Cooler air is delivered by the dehumidifier at lower condenser temperature. Different room conditions will modify results, however, overall trend is the same.

Warmer or cooler leaving air? It’s all about condenser temperature.



| Dehumidified Air Temperature (°F) Relative Humidity (%) Dew Point (°F) | 105 | | 90 | |
|---|------------|-----------|------------|-----------|
| | Lights Off | Lights On | Lights Off | Lights On |
| Temperature (°F) | 84.4 | 73.5 | 76.6 | 68.8 |
| Relative Humidity (%) | 25 | 43.4 | 32 | 53 |
| Dew Point (°F) | 45 | 50.6 | 43.7 | 51 |

* “Room Night Thermostat” in dehumidifier changes Lights Off / On temperature.

Disclaimer: This information is not a recommendation by Subcooled Air, LP of any product. Items used in testing are shown for descriptive purposes only.



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