



PRAXIS | S-10™
Success College for Contractors

Tune-Up Guide Cooling Mode

Job Name:	Job #:
Technician:	Date:
Outdoor Model #:	Outdoor Serial #:
Indoor Model #:	Indoor Serial #:
Evaporator Model #:	Evaporator Serial #:
Indoor Metering Device: ☐ Fixed ☐ TXV	Refrigerant: ☐ R-22 ☐ R-410A

Indoor Section: ☐ Gas Furnace ☐ Air Handler

	Proper Operation	Poor Operation	No Operation
1. Filter ☐ qty. ____ X ____ X ____ ☐ qty. ____ X ____ X ____	☐	☐	☐
2. Thermostat ☐ Level ☐ Location ☐ Operation	☐	☐	☐
3. Duct ☐ Holes ☐ Loose ☐ Sags ☐ Kinks ☐ Flat	☐	☐	☐
4. Drain Pan/Line ☐ Flush ☐ Treat ☐ Pitch ☐ Joints ☐ Support	☐	☐	☐
5. Aux. Drain Pan ☐ Level ☐ Float Switch ☐ Support ☐ N/A	☐	☐	☐
6. Condensate Pump ☐ Clean ☐ Treat ☐ Exercise ☐ N/A	☐	☐	☐
7. IFM ☐ Sound ☐ Vibration	☐	☐	☐
8. Capacity Check* ____°F R/A W/B — ____°F S/A W/B = ____°F W/B ΔT	☐	☐	☐
9. Airflow Check* ____°F R/A — ____°F S/A = ____°F ΔT	☐	☐	☐
10. Air Handler IFM Voltage ____ VAC 197 VAC Min 253 VAC Max	☐	☐	☐
11. Gas Furnace IFM Voltage ____ VAC 104 VAC Min 127 VAC Max	☐	☐	☐
12. IFM Amp Draw ____ Rated Amp ____ Actual Amp	☐	☐	☐
13. Lock Out Power Source	☐	☐	☐
14. IFM*(Power Off) ☐ Bearings ☐ Wheel ☐ Cleanliness	☐	☐	☐
15. IFM Capacitor (Power Off) ____ Rated MFD ____ Actual MFD	☐	☐	☐
16. Electrical Connections (Power Off) ☐ High Voltage ☐ Low Voltage	☐	☐	☐

Outdoor Section: ☐ Package HP-AC ☐ Split HP-AC

	Proper Operation	Poor Operation	No Operation
1. Ambient Temperature _____°F			
2. System High Side Pressure* _____ PSIG = _____ SCT			
3. System Low Side Pressure* _____ PSIG = _____ SST			
4. Suction Superheat* _____ SLT - _____ SST = _____ SSH			
5. Liquid Sub-cooling* _____ SCT - _____ LLT = _____ LSC			
6. Evaporator Approach* _____ S/A - _____ SST = _____ EA			
7. Voltage @ Contactor L1 & L2 _____ VAC 197 VAC Min 253 VAC Max			
8. Voltage Drop @ Contactor L1 & T1 _____ VAC 1 VAC Maximum			
9. Voltage Drop @ Contactor L2 & T2 _____ VAC 1 VAC Maximum			
10. Compressor Amp Draw _____ FLA Rating _____ FLA Actual			
11. OFM Amp Draw _____ Amp Rating _____ Amp Actual			
12. Lock Out Disconnect Switch ☐ Fuse Block ☐ Breaker ☐ Blade Type			
13. Electrical Connections ☐ Low Voltage ☐ High Voltage			
14. OFM* ☐ Bearings ☐ Blade ☐ Support			
15. Compressor Capacitor _____ MFD Rating _____ MFD Actual			
16. OFM Capacitor _____ MFD Rating _____ MFD Actual			
17. Clean Out Debris ☐ Leaf Removal ☐ Wash Unit Base			
18. Wash Condenser Coil ☐ Water Only ☐ Coil Cleaner			
19. Start Unit (Allow to run for a minimum of 20 Minutes)			
20. Pick Up Work Area			
21. Clean Unit ☐ Wipe Off Unit ☐ Wax Unit ☐ Install Company Sticker			
22. Recheck #1 - #6			
23. Leave Copy of Signed Tune-Up Tech Guide with Customer.			

*Notes Section

Outdoor Section: Package HP-AC/Split HP-AC

***System High Side Pressure** _____ Actual SCT from Line #2 **L - N - H**
 (8-11 SEER +5°) 12-15 SEER (16-18 SEER -5°)

_____ °F Ambient + 20° = _____ °F SCT(Upper Limit)

_____ °F Ambient + 15° = _____ °F SCT(Lower Limit)

***System Low Side Pressure** _____ Actual SST from Line #3 **L - N - H**

(8-11 SEER -2°) 12-18 SEER

_____ °F R/A - 30° = _____ °F SST(±2°)

_____ °F SST + 2° = _____ °F SST(Upper Limit)

_____ °F SST - 2° = _____ °F SST(Lower Limit)

***Suction Superheat** _____ Actual SSH from Line #4 **L - N - H**

TXV 8° to 18° Suction Superheat Range

Fixed Metering Device See Suction Superheat Chart

***Liquid Sub-cooling** _____ Actual LSC from Line #5 **L - N - H**

Fixed Metering Device 8° to 15° Liquid Sub-cooling Range

TXV Metering Device- See Unit Nomenclature

***Evaporator Approach** _____ Actual EA from Line #6 **L - N - H**

Evaporator Approach Range 9° to 15°

Suction Superheat Chart

		Ambient Temperature °F					
Return Air Wet Bulb °F		100°	95°	90°	85°	80°	75°
	70°	15°	18°	20°	22°	25°	28°
	68°	12°	14°	16°	19°	21°	24°
	66°	8°	10°	13°	15°	18°	21°
	64°	0°	6°	9°	11°	15°	18°
	62°	0°	0°	5°	8°	12°	15°
	60°	0°	0°	0°	0°	8°	12°
	58°	0°	0°	0°	0°	5°	9°

Suction Superheat Target ±5°

Abbreviations

EA- Evaporator Approach

FLA- Full Load Amperage

LSC- Liquid Sub-cooling

MFD- Micro-Farad

OFM- Outdoor Fan Motor

PSIG- Pounds per Square Inch Gauge

S/A- Supply Air Dry/Bulb Temperature

SCT- Saturated Condensing Temperature

SSH- Suction Superheat

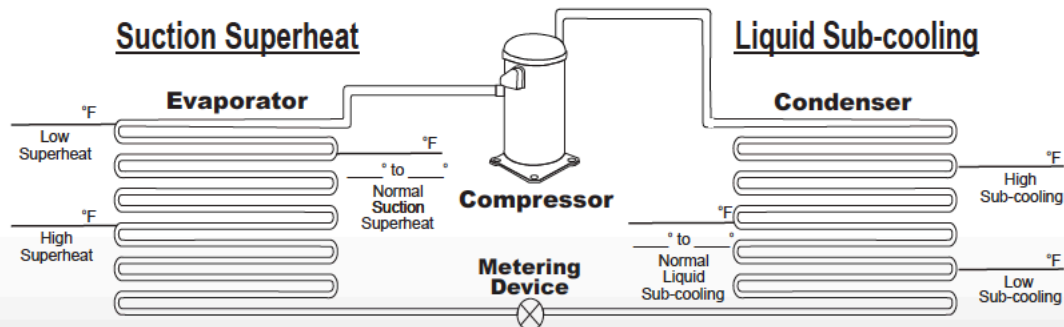
SST- Saturated Suction Temperature

TXV- Thermostatic Expansion Valve

VAC- Volts of Alternating Current

***OFM- Lubricate bearings if possible.**

System Liquid Levels



*Notes Section

Indoor Section Gas Furnace/Air Handler

***Capacity Check- 8.5° to 9.5° Normal Range**

***IFM- Lubricate bearings if possible.**

***Airflow Check- High ΔT is Low CFM**

Indoor ΔT Target Range

Return Air Wet Bulb °F

	59°	60°	61°	62°	63°	64°	65°	66°	67°	68°
Return Air Dry Bulb °F	82°	25°	25°	24°	23°	22°	22°	21°	20°	19°
	80°	24°	24°	24°	22°	22°	21°	20°	19°	18°
	78°	23°	22°	23°	21°	21°	20°	19°	18°	17°
	76°	22°	21°	21°	20°	19°	19°	18°	17°	16°
	74°	21°	20°	19°	19°	18°	17°	16°	16°	15°
	72°	19°	19°	18°	17°	17°	16°	15°	15°	14°
	70°	18°	18°	17°	17°	16°	15°	15°	14°	13°

Indoor ΔT Target $\pm 2^\circ$

Abbreviations

ΔT - Delta T or Temperature Difference

CFM- Cubic Feet per Minute

IFM- Indoor Fan Motor

MFD- Micro-Farad

R/A- Return Air Dry/Bulb Temperature

R/A W/B- Return Air Wet/Bulb Temperature

S/A- Supply Air Dry/Bulb Temperature

S/A W/B- Supply Air Wet/Bulb Temperature

VAC-Volts of Alternating Current

Technician Comments
