WhisperKOOL™
The Coolest Thing In Wine Storage

R-404a Split System Warranty Checklist

For Warranty Registration

Customer Information

First Name:	Last Name:	
Address:		Phone:
City:		E-mail:
State:	Zip:	Date of Purchase:

System Information

Unit Model:	**Fan Coil Unit Serial Number:** (Located on model spec label)
Condensing Unit Model Number:	**Condensing Unit Serial Number:** (Sticker is located on the grey plastic electrical box)

Installer Information

Company:	lic#	Date of Startup:
Address:		Technician Name (print):
City:		Certification ID Number:
State:	Zip:	Certification Source (e.g. NATE):
Company Phone:		Technician Phone:
Company Email:		Technician E-mail:

NOTE: *For the equipment warranty to be valid, certain piping installation and startup procedures are required. WhisperKOOL procedures are expected to be followed and completed by the installing certified HVAC/R service technician. The technician shall be required to be equipped with the proper tools of the trade, including: refrigerant 404a, brazing equipment, dry nitrogen, and an accurate manifold gauge set (preferably digital), plus a four-valve manifold set for evacuation, digital micron gauge, digital scale, deep vacuum pump and accurate digital thermometers. Without the proper equipment, a professional job cannot be accomplished. Evidence of the certified tech's NATE number or other certification is required.*

IMPORTANT:

THESE DOCUMENTS MUST BE COMPLETED AND RETURNED TO ACTIVATE WARRANTY.

Mail to:
WhisperKOOL
ATTN: Warranty Registration
1738 E. Alpine Avenue
Stockton, CA 95205
USA

OR

Fax to:
209.466.4606

Saturation Pressure-Temperature Data for R-404A (psig)*

Temp. (°F)	Pressure Liquid	Pressure Vapor	Temp. (°C)	Temp. (°F)	Pressure Liquid	Pressure Vapor	Temp. (°C)	Temp. (°F)	Pressure Liquid	Pressure Vapor	Temp. (°C)	Temp. (°F)	Pressure Liquid	Pressure Vapor	Temp. (°C)
-49	0.9	0.3	-45.0	1	34.7	33.6	-17.2	51	107.2	105.6	10.6	101	240.2	238.1	38.3
-48	1.3	0.7	-44.4	2	35.7	34.6	-16.7	52	109.2	107.6	11.1	102	243.6	241.5	38.9
-47	1.7	1.2	-43.9	3	36.7	35.6	-16.1	53	111.2	109.6	11.7	103	247.1	245.0	39.4
-46	2.1	1.6	-43.3	4	37.7	36.6	-15.6	54	113.3	111.6	12.2	104	250.6	248.5	40.0
-45	2.6	2.0	-42.8	5	38.8	37.7	-15.0	55	115.3	113.6	12.8	105	254.2	252.1	40.6
-44	3.0	2.4	-42.2	6	39.8	38.7	-14.4	56	117.4	115.7	13.3	106	257.8	255.6	41.1
-43	3.5	2.9	-41.7	7	40.9	39.8	-13.9	57	119.5	117.8	13.9	107	261.4	259.3	41.7
-42	4.0	3.4	-41.1	8	42.0	40.9	-13.3	58	121.7	119.9	14.4	108	265.1	262.9	42.2
-41	4.4	3.8	-40.6	9	43.1	42.0	-12.8	59	123.8	122.1	15.0	109	268.8	266.6	42.8
-40	4.9	4.3	-40.0	10	44.3	43.1	-12.2	60	126.0	124.2	15.6	110	272.5	270.4	43.3
-39	5.4	4.8	-39.4	11	45.4	44.3	-11.7	61	128.2	126.4	16.1	111	276.3	274.1	43.9
-38	5.9	5.3	-38.9	12	46.6	45.4	-11.1	62	130.5	128.7	16.7	112	280.1	278.0	44.4
-37	6.4	5.8	-38.3	13	47.8	46.6	-10.6	63	132.7	130.9	17.2	113	284.0	281.8	45.0
-36	7.0	6.3	-37.8	14	49.0	47.8	-10.0	64	135.0	133.2	17.8	114	287.9	285.7	45.6
-35	7.5	6.8	-37.2	15	50.2	49.0	-9.4	65	137.3	135.5	18.3	115	291.8	289.6	46.1
-34	8.0	7.4	-36.7	16	51.5	50.2	-8.9	66	139.7	137.8	18.9	116	295.8	293.6	46.7
-33	8.6	7.9	-36.1	17	52.7	51.5	-8.3	67	142.0	140.2	19.4	117	299.8	297.6	47.2
-32	9.2	8.5	-35.6	18	54.0	52.7	-7.8	68	144.4	142.6	20.0	118	303.8	301.7	47.8
-31	9.7	9.0	-35.0	19	55.3	54.0	-7.2	69	146.9	145.0	20.6	119	307.9	305.8	48.3
-30	10.3	9.6	-34.4	20	56.6	55.3	-6.7	70	149.3	147.4	21.1	120	312.1	309.9	48.9
-29	10.9	10.2	-33.9	21	57.9	56.6	-6.1	71	151.8	149.9	21.7	121	316.2	314.1	49.4
-28	11.5	10.8	-33.3	22	59.3	58.0	-5.6	72	154.3	152.4	22.2	122	320.4	318.3	50.0
-27	12.2	11.4	-32.8	23	60.6	59.3	-5.0	73	156.8	154.9	22.8	123	324.7	322.5	50.6
-26	12.8	12.0	-32.2	24	62.0	60.7	-4.4	74	159.4	157.5	23.3	124	329.0	326.8	51.1
-25	13.4	12.7	-31.7	25	63.4	62.1	-3.9	75	162.0	160.1	23.9	125	333.3	331.2	51.7
-24	14.1	13.3	-31.1	26	64.8	63.5	-3.3	76	164.6	162.7	24.4	126	337.7	335.6	52.2
-23	14.8	14.0	-30.6	27	66.3	64.9	-2.8	77	167.3	165.3	25.0	127	342.1	340.0	52.8
-22	15.4	14.6	-30.0	28	67.8	66.4	-2.2	78	170.0	168.0	25.6	128	346.6	344.4	53.3
-21	16.1	15.3	-29.4	29	69.2	67.8	-1.7	79	172.7	170.7	26.1	129	351.1	349.0	53.9
-20	16.8	16.0	-28.9	30	70.7	69.3	-1.1	80	175.4	173.4	26.7	130	355.7	353.5	54.4
-19	17.5	16.7	-28.3	31	72.3	70.8	-0.6	81	178.2	176.2	27.2	131	360.2	358.1	55.0
-18	18.3	17.4	-27.8	32	73.8	72.4	0.0	82	181.0	179.0	27.8	132	364.9	362.8	55.6
-17	19.0	18.2	-27.2	33	75.4	73.9	0.6	83	183.8	181.8	28.3	133	369.6	367.5	56.1
-16	19.8	18.9	-26.7	34	77.0	75.5	1.1	84	186.7	184.7	28.9	134	374.3	372.2	56.7
-15	20.5	19.7	-26.1	35	78.6	77.1	1.7	85	189.5	187.5	29.4	135	379.1	377.0	57.2
-14	21.3	20.4	-25.6	36	80.2	78.7	2.2	86	192.5	190.4	30.0	136	383.9	381.9	57.8
-13	22.1	21.2	-25.0	37	81.8	80.3	2.8	87	195.4	193.4	30.6	137	388.8	386.8	58.3
-12	22.9	22.0	-24.4	38	83.5	82.0	3.3	88	198.4	196.4	31.1	138	393.7	391.7	58.9
-11	23.7	22.8	-23.9	39	85.2	83.7	3.9	89	201.4	199.4	31.7	139	398.7	396.7	59.4
-10	24.6	23.6	-23.3	40	86.9	85.4	4.4	90	204.5	202.4	32.2	140	403.7	401.7	60.0
-9	25.4	24.5	-22.8	41	88.6	87.1	5.0	91	207.6	205.5	32.8	141	408.8	406.8	60.6
-8	26.3	25.3	-22.2	42	90.4	88.8	5.6	92	210.7	208.6	33.3	142	413.9	412.0	61.1
-7	27.1	26.2	-21.7	43	92.2	90.6	6.1	93	213.8	211.7	33.9	143	419.1	417.1	61.7
-6	28.0	27.0	-21.1	44	94.0	92.4	6.7	94	217.0	214.9	34.4	144	424.3	422.4	62.2
-5	28.9	27.9	-20.6	45	95.8	94.2	7.2	95	220.2	218.1	35.0	145	429.6	427.7	62.8
-4	29.8	28.8	-20.0	46	97.6	96.0	7.8	96	223.4	221.4	35.6	146	434.9	433.1	63.3
-3	30.8	29.8	-19.4	47	99.5	97.9	8.3	97	226.7	224.6	36.1	147	440.3	438.5	63.9
-2	31.7	30.7	-18.9	48	101.4	99.8	8.9	98	230.0	227.9	36.7	148	445.8	443.9	64.4
-1	32.7	31.6	-18.3	49	103.3	101.7	9.4	99	233.4	231.3	37.2	149	451.3	449.5	65.0
0	33.7	32.6	-17.8	50	105.3	103.6	10.0	100	236.8	234.6	37.8	150	456.8	455.1	65.6

**Red Italics Indicate Inches of Mercury Below Atmospheric Pressure*

Wine Cellar Information

Room Dimensions	Height: _____ ft., _____ in.	Length: _____ ft., _____ in. Width: _____ ft., _____ in.
Insulation R-values	Interior Walls: _____	Exterior Walls: _____ Ceiling: _____
Vapor barrier? YES / NO		Glass windows and/or stone/concrete walls? YES / NO
Details:		Example: Two glass windows, one stone wall

☐ Airflow in and out of the **condenser** is clear of obstructions. **Condensing unit** supply and return ***must have a minimum of three feet*** of clearance. (Five feet is ideal.)

NOTE: All readings need to be taken while the compressor is running.

DATA RECORDINGS

☐ Airflow in and out of the **evaporator** is clear of obstructions. **Evaporator unit** supply and return ***must have a minimum of three feet*** of clearance. (Five feet is ideal.)

1.	**a.** Line set length:	**b.** Suction line installed tubing diameter OD:
	c. Liquid line installed tubing diameter OD:	
2.	Bottle probe has been connected to the evaporator unit and inserted into a wine bottle that is ¾ full? YES / NO **If no**, place the bottle probe in a warm bottle of water to ensure the compressor is running throughout the duration of the data recording.	
3.	Are there any visible bubbles in the sight glass with the system running? YES / NO **If yes,** add refrigerant to clear the sight glass. Ensure that the system is fully charged before taking data recordings.	
4.	**a.** Temp of return air entering evaporator coil (dry bulb):	**b.** Temp of supply air leaving unit (dry bulb):
	c. Temperature difference between return air and supply air (4a - 4b):	
5.	If the outside air temp is lower than 60°, a portion of the coil will need to be blocked to stabilize the condensing temp. at 240° psig. Is the coil blocked to raise the condensing temp? YES / NO	
6.	Temp of air entering the condensing unit:	
7.	**a.** Head pressure PSI at the liquid line king valve:	**b.** Head pressure converted to temp:
8.	**a.** Temp of liquid line at the liquid line king valve:	**b.** Sub-cooling calculation (7b - 8a): (between 1-9 degrees of subcooling)
9.	**a.** Suction pressure PSI at the suction service valve:	**b.** Suction pressure converted to temp:
10.	**a.** Temp of suction line at the service valve:	**b.** Superheat calculation (10 - 9b): (between 20-30 degrees of superheat)
11.	Compressor crankcase temperature (bottom of compressor):	
12.	**a.** Voltage to compressor (running):	**b.** Amp draw at the time of data recording:
13.	Was a condensation drain test performed? YES / NO **If no,** pour water into the drain pan to verify that the unit is draining properly.	