INSTALLATION AND REPAIR GUIDE

CONDENSING UNIT

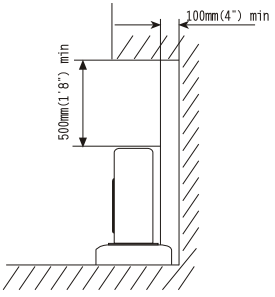
CONTENTS

【Selection of installation positions for outdoor unit】

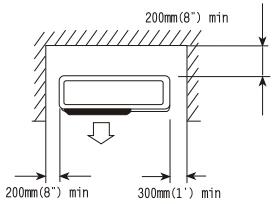
- To install the outdoor unit at the places which can stand the load of the machine weight and will not cause big vibrations and noises;
- To install the unit at the places not to be exposed to rain or direct sunshine, and the places with good ventilation;
- The noises generated from the unit will not affect the neighboring places;
- Do not install the unit on non-metal frame;
- Not to install the unit at the places where there might occur the generation, inflow, stay or leakage of inflammable gases;
- Pay attention to the drainage of the condensed water from the base plate during operations;
- To avoid the air outlet being directly against the wind.
- Installation must be performed in accordance with the NEC/CEC by authorizd person only.

Detailed space requirements around the outdoor unit

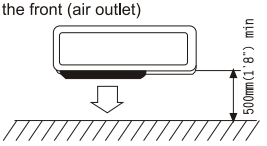
1. When there are obstacles above the unit



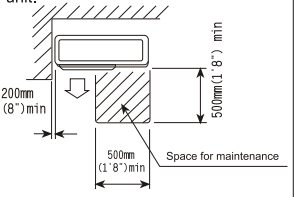
2. When the front (air outlet) is open



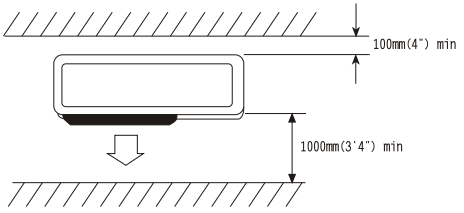
3. When there are obstacles only in the front (air outlet)



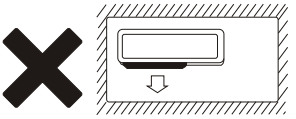
Space for maintenance
Shown as in the following figure. Keep the maintenance space in front of the unit.



4. When there are obstacles at the front and rear sides.



5. When there are obstacles all around the unit on four sides.
Although the top side is open, the installation is not to be done if there are obstacles all around.



- At least two sides should be kept open.

Installer supplied items

Refrigerant line set :Brazed Connection only,suitable for R410A with both lines insulated, max length 100ft.Main system Breaker :Sized per unit requirements,to be mounted adjacenment to outdoor unit. Local Distconnect and power whip:Mounted adjacent to condensing unit. Low Voltage

【Items for Consideration】

Application

Check the application of the unit prior to installation,certain applications require additional components or installation parameters.

Locate the indoor and Outdoor units as close together as possible, maximum line set run and lift CANNOT BE EXCEED, then determine how the interconnect piping, wiring and condensate hose is to the run.

Unit	Max Line Set Run	Max Vertical Lift	Line SIzes
OHQB13412	33 Feet	16 Feet	1/4" & 1/2"
OHQB13418	33 Feet	16 Feet	3/8" & 5/8"
OHQB13424	33 Feet	16 Feet	3/8" & 5/8"

Ensure that all panels can be removed for service as reqired.

Certifications

Performance

Performance is certified by our pending certification under the ARI 210/240 program.

Controls and components

Units are set up to be used with a 24V AC Cooling only or Cool-suppplemental heat thermostat.
Two wires are connected from either the thermostat or the indoor unit(depending on indoor unit model) to the Outdoor unit.
All unit operating functions are controlled via the thermostat.

【Unit installation】

Please follow these instructions. Failure in doing so may cause possible malfunction and void warranty.

Step 1

Remove unit from carton/box

- Carton contains installation manual.
- Check that the suction and liquid service valves have not been damaged prior to installation.

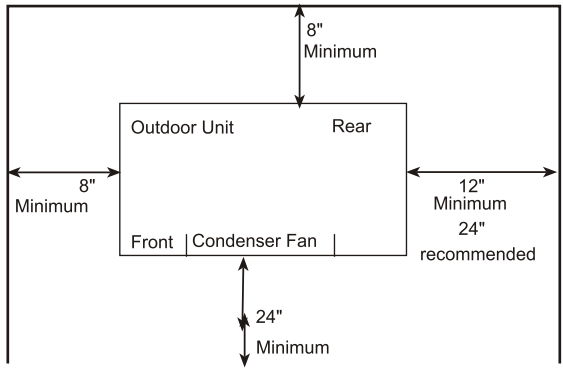
Step 2

Locate area to install condensing unit

- Unit must be installed on a flat, stable, and solid surface to prevent excessive noise and vibration.
- If unit is to hang upside a building, it is mandatory that the mounting brackets units are capable to hold weight of unit.
- Ensure there are no obstructions.
- Peel off any protective film after installation

Install the Outdoor unit on a Condensor Pad (recommended)

Clearance for the Outdoor unit are:



Step 3

Refrigerant Line Set Piping

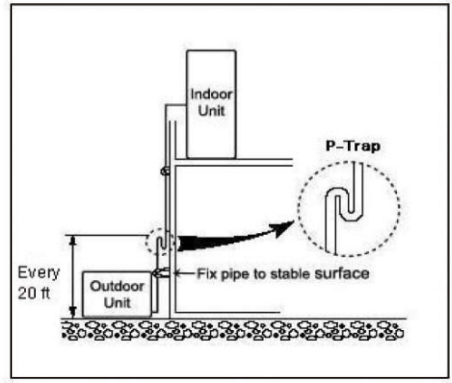
- Use only refrigerant grade copper tubing, ensure line set size follows the table below.
- Connect line set between outdoor and indoor unit.
- The suction line must be insulated with a minimum of 3/8" thick armaflex or similar insulation.
- Install a liquid line sight glass and R410A Filter Drier in the System.
- Run the line set to the indoor unit avoiding tight bends and kinking lines.
- Quiet Breeze does not recommend the use of "Street Elbows" to make bends, this is due to the pressure drop incurred with these.

Unit	Max Line Set Run	Max Vertical Lift	Suction	Liquid
OHQB13412	33 Feet	16 Feet	1/2"	1/4"
OHQB13418	33 Feet	16 Feet	5/8"	3/8"
OHQB13424	33 Feet	16 Feet	5/8"	3/8"

Line Set sizing must be as shown in the table,maximum line length cannot be increased by altering line sizes.

When placing Outdoor unit below the indoor unit a trap is required every 20ft to ensure correct oil return to the condensing unit.

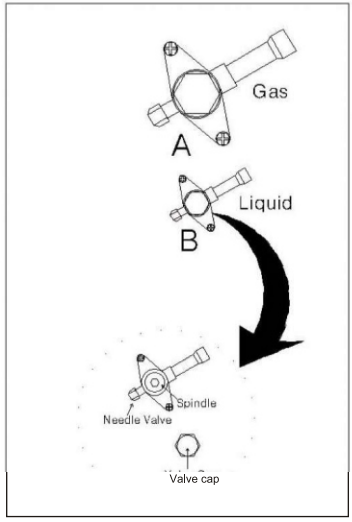
ONLY MATCH WITH INDOOR UNITS USING TXV'S AS THE EXPANSION DEVICE



Step 4

Connecting Refrigerant Line Set Pipe

- Flow nitrogen or other inert gas thru pipe while brazing to prevent formation of copper oxide.
- During this process, service valves need to be wrapped with a heat-sink material such as a wet cloth, in order to prevent possible damage to valve seals.
- Before start up, field pipe and fan coil must be leak tested, nitrogen or other inert gas should be used. A minimum of 250 psig should be used.
- Any detected leaks should be repaired prior to placing the system on the vacuum pump



Step 5

Gauges should be attached to both the service ports.

Evacuate the unit down to a minimum of 200 Microns, break vacuum with Nitrogen to further leak check.

Re-evacuate the system down to 200 Microns or lower.

This is an R410a system, it is essential that a deep vacuum be pulled on the system to remove all traces of moisture.

Step 6

Wiring

- Electrical wiring should be done in accordance with all National Electrical Codes (NEC), and local provincial city building codes.
- Breaker size and wiring must be sized with the correct maximum and minimum circuits.
- If a smaller than required breaker is used, unit damage may occur.
- Each system installed must have a separate branch circuit with an individual breaker/fuse. .
- Use only HACR type breakers.

Power Voltage	OHQB13412	OHQB13418	OHQB13424
Breaker Size	53A	42A	46A
RLA cooling(Amps)	9.9A	6.6A	10.0A
Control Voltage	24V AC	24V AC	24V AC

Size the wiring between the breaker and local disconnect per all applicable national,local and provincial codes

A local disconnect should be installed adjacent to the Outdoor unit in accordance with all applicable codes

Two knockouts are provided in the side panel of unit.

One knockout is for power 115V/230V wiring.

One knockout is for control 24V wiring.

【Is the unit installed correctly? 】

■Suitable Installation Position

● Is there anything which prevents ventilation or obstructs operation in front of the indoor unit?

Do not install the unit in the following places:

● Where inflammable gases may leak
● Where there may be contact with oil
● In poisonous or sultry gases are generated
● In a seaside district where seas breezes may cause malfunction

Air conditioner body must be1 m (39-3/4") or more away from a TV or a radio.

Ensure the dehumidified water from the indoor unit is in a place where it may be drained.

■Pay Attention to Operation Noise

● When installing the unit, choose a place which can hold the total weight of the units as well as not increase the operation noise or vibration. If there is a possibility that vibration may be transmitted to the house, fix the unit by inserting 'vibration proof pads' between the unit and fittings.
● Choose a place where hot air and operation noise from the outlet of the outdoor unit do not cause undue noise in neighborhood.
● Do not leave obstacles near the outlet and inlet. May cause malfunction or increased operation noise.
● If irregular sound is heard during operation, consult your distributor.

■Inspection and Maintenance

● Inspection and maintenance are recommended in addition to usually cleaning. If not, may result in decreased operating performance.
● For inspection and maintenance, contact your hvac dealer (note: service charges are required).
● Inspection and maintenance during off seasons is recommended.

【Connection of power cable】

No cooling

1.Check for a cooling signal from the indoor unit or thermostat, 24V AC should be present at the T1 and T2 terminals at the Outdoor unit.
if 24V AC is not present, check that the thermostat or indoor unit is calling for cooling.
2. If 24V AC is present,check to ensure compressor contactor is energized, if contactor is not energized check for voltage at the contactor coil, if voltage is present ,but contactor is not pulled in, then contactor is faulty and should be replaced.
3.If 24V AC is not present at the contractor ,check the high and low pressure switches for continuity, both switches are auto reset type but if no continuity can be found across either switch it is possible that the high or low pressure situation exists or the switch is fault.
4.If the contractor has pulled in ,and the compressor is not running, check the overload on the top of the compressor for continuity,if overload is tripped replace.
5.IF the OLP has continuity, but the compressor is not running,check the compressor and capacitor operation, replace if found faulty.

High pressure switch trip

If the High Pressusre switch trips during operation the following items should be checked.
● Outdoor Fan Motor ,ensure that it operates in conjunction with the compressor, if it does not operate check the motor windings and also the fan capacitor ,replace if necessary.
● Ensure the condenser coil is free from debris, clean if necesssary, make sure that the airflow to and from the unit is not impeded or discharge air from another unit is entering this unit.
● Check system refrigerant pressure with compressor off, pressure should convert to approx ambient temperature, this ensures that non condensibles are not present in the refrigerant if system presssure is abnormaly high reclaim refrigerant. evacuate and recharge with virgin R410A

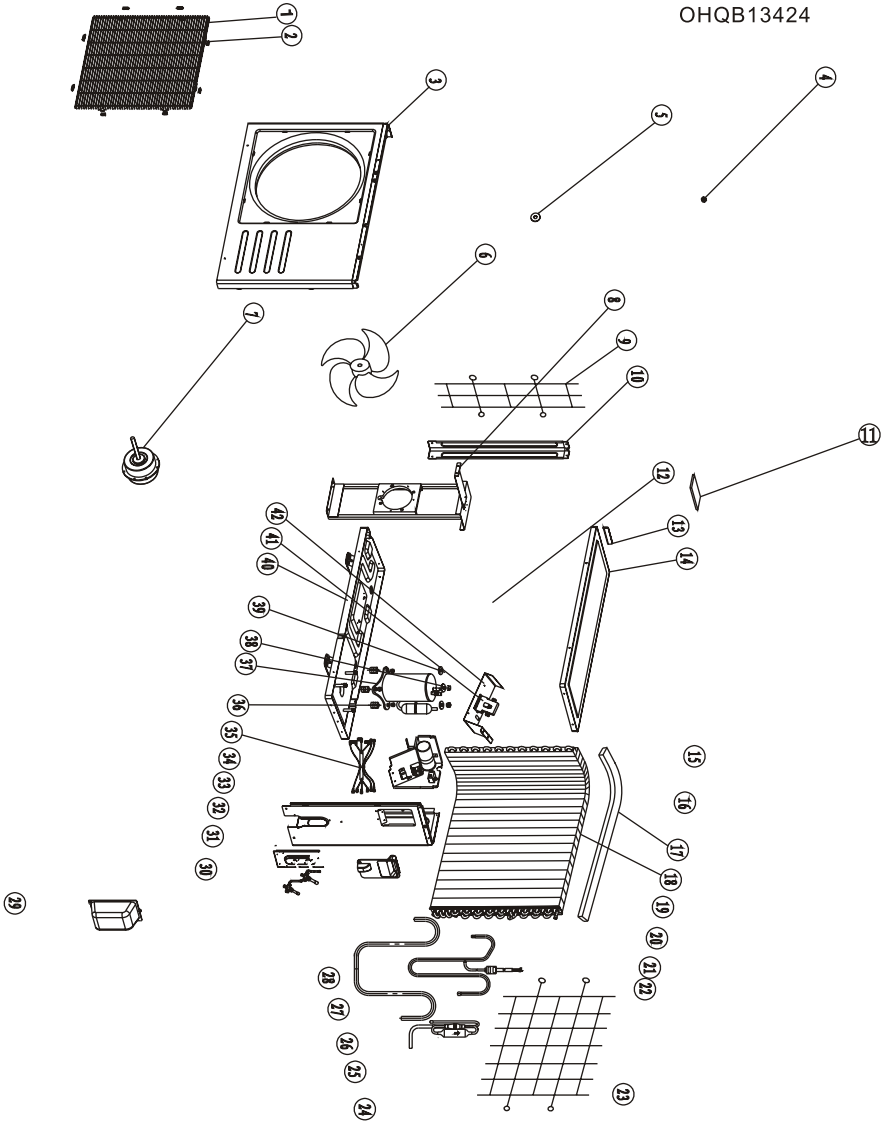
Low Pressure Switch Trip

If the low pressure switch trips during operation the following items should be checked
1. Refrigerant charge ,low pressure trips are a symptom of a loss of refrigerant charge,check the refrigerant piping and units for a leak.
2.Check the indoor unit to make sure it is operating and the filter are clean, a frozen indoor unit can be cause by low or no airflow,dirty filters ,or a restriction in the line set or expansion device

Poor Cooling performance

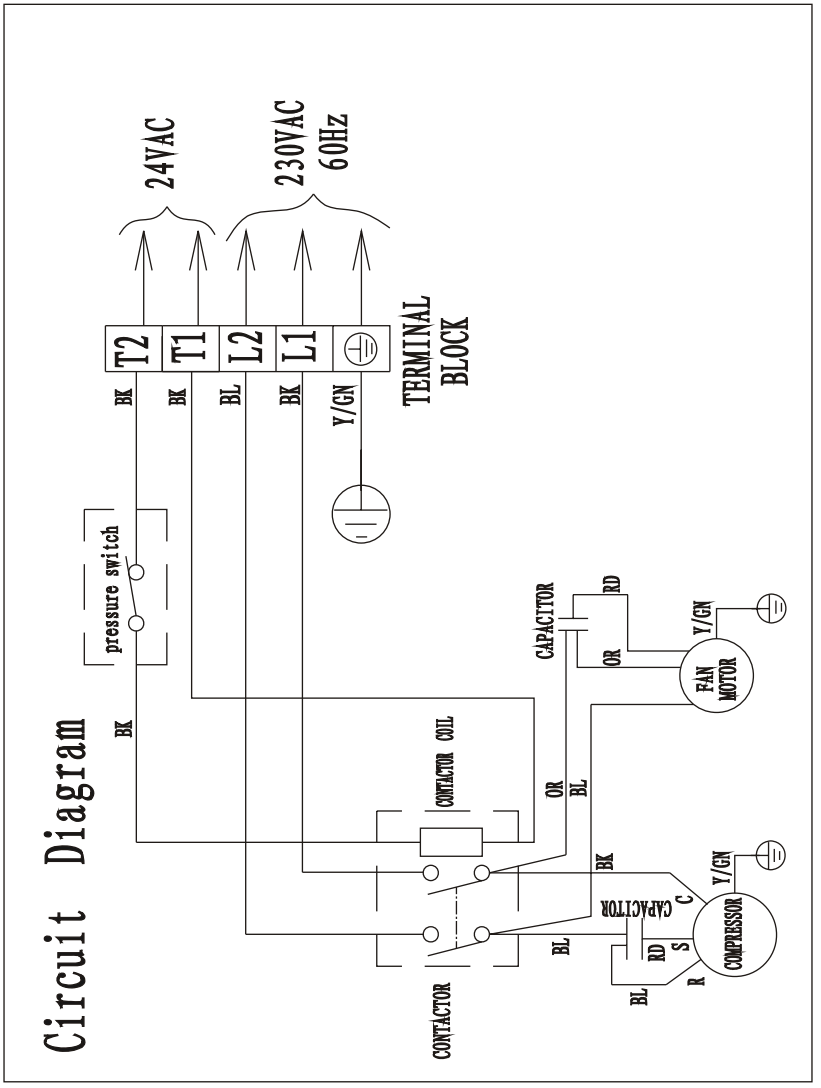
Most issues with poor cooling performance are related to the indoor unit, airflow, ductwork,dirty filters,however also check
1. Unit refrigerant charge,check to ensure charge is correct
2.Check condenser coil for dirt and debris,clean coil if necessary

OHQB13412
OHQB13418
OHQB13424

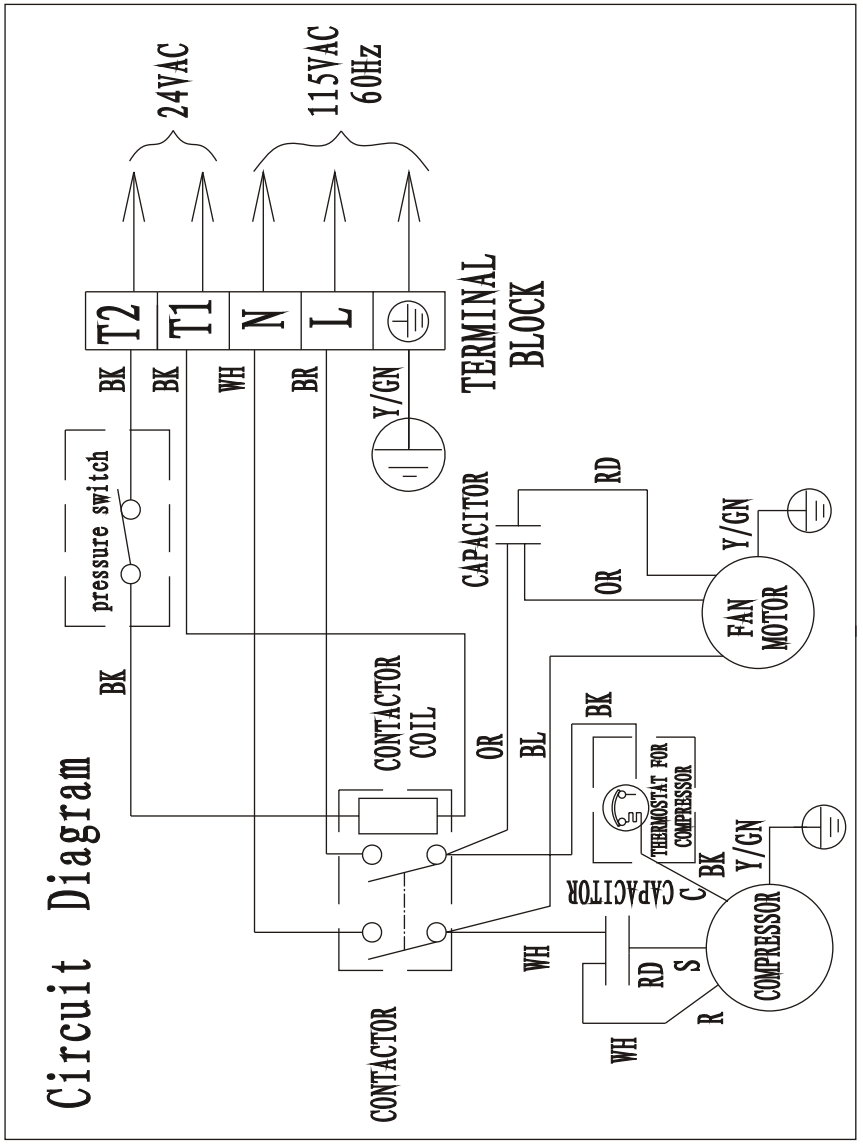


Serial Number	Part Name	Quantity	Remarks
1	Front Grill	1	
2	Grill Clip	1	
3	Front panel	1	
4	Nut	1	
5	Gasket	1	
6	Axial flow fan	1	
7	Motor	1	
8	Motor support	1	
9	Left protect net	1	
10	pillar	1	
11	PE Sponge	1	
12	Partition board	1	
13	small handle	1	
14	Top panel	1	
15	Electric box	1	
16	Compressor capacitor	1	
17	PU Sponge	1	
18	Condenser	1	
19	Capacitor clamp	1	
20	Fan capacitor	1	
21	Terminal Board	1	
22	Wire Clip	1	
23	Rear Grill	1	
24	Filter	1	
25	Drainpipe for the condensor	1	
26	Pressure switch	1	
27	Discharge pipe	1	
28	Suction pipe	1	
29	Valve cover	1	
30	High-pressure value	1	
31	Low-pressure value	1	
32	Valve installation plate	1	
33	Large handle	1	
34	Right panel	1	
35	Power cord	1	
36	Anti-vibration padfor the comprssor	1	
37	Compressor	1	
38	Gasket	1	
39	Nut	1	
40	Base	1	
41	Contactor	1	
42	Contactor support	1	

OHQB13418
OHQB13424



OHQB13412


Circuit Diagram
24VAC
115VAC
60Hz
T2
T1
N
L
TERMINAL
BLOCK
BK
BK
WH
BR
Y/GN
pressure switch
BK
CONTACTOR
CONTACTOR
COIL
OR
BL
CAPACITOR
RD
OR
FAN
MOTOR
Y/GN
BK
THERMOSTAT FOR
COMPRESSOR
CAPACITOR
C
BK
Y/GN
WH
RD
S
R
WH
COMPRESSOR

	OHQB13412	OHQB13418	OHQB13424
Cooling Capacity(btu/hr)	12000	18000	24000
Cooling Current(amps)	9.6	6.5	8.5
Cooling power(watts)	1085	1510	1980
SEER	Dependent on indoor unit 13 SEER Minimum	Dependent on indoor unit 13 SEER Minimum	Dependent on indoor unit 13 SEER Minimum
EER	Dependent on indoor unit	Dependent on indoor unit	Dependent on indoor unit
Average Cooling Capacity(ft)	1200	1200	1200
Power supply	115/1/60	208-230/1/60	208-230/1/60
Coil Voltage	24V	24V	24V
Min. Circuit Amp.	14	9.5	13.8
Overload Protection	Thermal	Thermal	Thermal
Start capacitor(ufd)	45	40	45
Design pressure high(psi)	610	610	594
Design pressure low(psi)	215	215	160
Compressor Model	EA108X1C-1FZDU1	PA150X2CS-3KUU	PA200X2CS-3MUU
Compressor	ROTARY	ROTARY	ROTARY
Compressor Current	9.9RLA/53LRA	6.6RLA/42LRA	10RLA/46LRA
Compressor Output(watts)	3200	4500	5900
Outdoor Fan Diameter	1×Φ16 1/2"	1×Φ18 5/8"	1×Φ18 5/8"
Fan Motor(W)	45W	60W	60W
Fan Motor FLA(Amps)	0.8A	0.85A	0.9A
Nominal Airflow(CFM)	1400CFM	1880CFM	1880CFM
Refrigerant	R410A	R410A	R410A
Charged with R410A for line	25ft	25ft	25ft
Add R410A charge required	0.3oz/ft over 25ft	0.6oz/ft over 25ft	0.6oz/ft over 25ft
Liquid Line	1/4	3/8	3/8
Suction Line	1/2	5/8	5/8
Max line height(ft)	16	16	16
Max total Line	33	33	33
Dimension net(w"*d"*h")	34*12*24	35*13.2*33.5	35*13.2*33.5
Weight(lbs)	79	145	145
Sound Rating(dba)	54	58	58
High Pressure Switch	Cut Out 650pisg-Cut in 500psig		

Table-pressure vs. temperature

Chart-R-410A Refrigerant

PRESSURE	TEMPERATURE		PRESSURE	TEMPERATURE		PRESSURE	TEMPERATURE	
PSIG	°F	°C	PSIG	°F	°C	PSIG	°F	°C
12	-37.7	-38.72	114	37.8	3.22	216	74.3	23.50
14	-34.7	-37.06	116	38.7	3.72	218	74.9	23.83
16	-32.0	-35.66	118	39.5	4.17	220	75.5	24.17
18	-29.4	-34.11	120	40.5	4.62	222	76.1	24.50
20	-26.9	-32.72	122	41.3	5.17	224	76.7	24.83
22	-24.5	-31.90	124	42.2	5.67	226	77.2	25.11
24	-22.2	-30.11	126	43.0	6.11	228	77.8	25.44
26	-20.0	-28.89	128	43.8	6.56	230	78.4	25.78
28	-17.9	-27.72	130	44.7	7.06	232	78.9	26.06
30	-15.8	-26.61	132	45.5	7.50	234	79.5	26.39
32	-13.8	-25.44	134	46.3	7.94	236	80.0	26.67
34	-11.9	-24.39	136	47.1	8.39	238	80.6	27.00
36	-10.1	-23.39	138	47.9	8.83	240	81.1	27.28
38	-8.3	-22.39	140	48.7	9.28	242	81.6	27.56
40	-6.5	-21.39	142	49.5	9.72	244	82.2	27.89
42	-4.5	-20.28	144	50.3	10.17	246	82.7	28.17
44	-3.2	-19.56	146	51.1	10.61	248	83.3	28.50
46	-1.6	-18.67	148	51.8	11.00	250	83.8	28.78
48	0.0	-17.78	150	52.5	11.39	252	84.3	29.06
50	1.5	-16.94	152	53.3	11.83	254	84.8	29.33
52	3.0	-16.11	154	54.0	12.22	256	85.4	29.67
54	4.5	-15.28	156	54.8	12.67	258	85.9	29.94
56	5.9	-14.50	158	55.5	13.06	260	86.4	30.22
58	7.3	-13.72	160	56.2	13.44	262	86.9	30.50
60	8.6	-13.00	162	57.0	13.89	264	87.4	30.78
62	10.0	-12.22	164	57.7	14.28	266	87.9	31.06
64	11.3	-11.50	166	58.4	14.67	268	88.4	31.33
66	12.6	-10.78	168	59.0	15.00	270	88.9	31.61
68	13.8	-10.11	170	59.8	15.44	272	89.4	31.89
70	15.1	-9.39	172	60.5	15.83	274	89.9	32.17
72	16.3	-8.72	174	61.1	16.47	276	90.4	32.44
74	17.5	-8.06	176	61.8	16.56	278	90.9	32.72
76	18.7	-7.39	178	62.5	16.94	280	91.4	33.00
78	19.8	-6.78	180	63.1	17.28	282	91.9	33.28
80	21.0	-6.11	182	63.8	17.67	284	92.4	33.56
82	22.1	-5.50	184	64.5	18.06	286	92.8	33.78
84	23.2	-4.89	186	65.1	18.39	288	93.3	34.06
86	24.3	-4.28	188	65.8	18.78	290	93.8	34.33
88	25.4	-3.67	190	66.4	19.11	292	94.3	34.61
90	26.4	-3.11	192	67.0	19.44	294	94.8	34.89
92	27.4	-2.56	194	67.7	19.83	296	95.2	35.11
94	28.5	-1.94	196	68.3	20.17	298	95.7	35.39
96	29.5	-1.39	198	68.9	20.50	300	96.2	35.67
98	30.5	-0.83	200	69.5	20.83	302	96.6	35.89
100	31.2	-0.44	202	70.1	21.17	304	97.1	36.17
102	32.2	0.11	204	70.7	21.50	306	97.5	36.39
104	33.2	0.67	206	71.4	21.89	308	98.0	36.67
106	34.1	1.17	208	72.0	22.22	310	98.4	36.89
108	35.1	1.72	210	72.6	22.56	312	98.9	37.17
110	35.5	1.94	212	73.2	22.89	314	99.3	37.39
112	36.9	2.72	214	73.8	23.22	316	99.7	37.61

Table-pressure vs. temperature
Chart-R-410A Refrigerant

PRESSURE	TEMPERATURE		PRESSURE	TEMPERATURE		PRESSURE	TEMPERATURE	
PSIG	°F	°C	PSIG	°F	°C	PSIG	°F	°C
318	100.2	37.89	420	120.7	49.28	522	137.6	58.67
320	100.7	38.17	422	121.0	49.44	524	137.9	58.83
322	101.1	38.39	424	121.4	49.67	526	138.3	59.06
324	101.6	38.67	426	121.7	49.83	528	138.6	59.22
326	102.0	38.89	428	122.1	50.06	530	138.9	59.39
328	102.4	39.11	430	122.5	50.28	532	139.2	59.56
330	102.9	39.39	432	122.8	50.44	534	139.5	59.72
332	103.3	39.61	434	123.2	50.67	536	139.8	59.89
334	103.7	39.83	436	123.5	50.83	538	140.1	60.06
336	104.2	40.11	438	123.9	51.06	540	140.4	60.22
338	104.6	40.33	440	124.2	51.22	544	141.0	60.56
340	105.1	40.01	442	124.6	51.44	548	141.6	60.89
342	105.4	40.78	444	124.9	51.61	552	142.1	61.17
344	105.8	41.00	446	125.3	51.83	556	142.7	61.50
346	106.3	41.28	448	125.6	52.00	560	143.3	61.83
348	106.6	41.44	450	126.0	52.22	564	143.9	62.17
350	107.1	41.72	452	126.3	52.39	568	144.5	62.50
352	107.5	41.94	454	126.6	52.56	572	145.0	62.78
354	107.9	42.17	456	127.0	52.78	576	145.6	63.11
356	108.3	42.39	458	127.3	52.94	580	146.2	63.44
358	108.8	42.67	460	127.7	53.17	584	146.7	63.72
360	109.2	42.89	462	128.0	53.33	588	147.3	64.06
362	109.6	43.11	464	128.3	53.50	592	147.9	64.39
364	110.0	43.33	466	128.7	53.72	596	148.4	64.67
366	110.4	43.56	468	129.0	53.89	600	149.0	65.00
368	110.8	43.78	470	129.3	54.06	604	149.5	65.28
370	111.2	44.00	472	129.7	54.28	608	150.1	65.51
372	111.6	44.22	474	130.0	54.44	612	150.6	65.89
374	112.0	44.44	476	130.3	54.61	616	151.2	66.22
376	112.4	44.67	478	130.7	54.83	620	151.7	66.50
378	112.6	44.78	480	131.0	55.00	624	152.3	66.83
380	113.1	45.06	482	131.3	55.17	628	152.8	67.11
382	113.5	45.28	484	131.6	55.33	632	153.4	67.44
384	113.9	45.50	486	132.0	55.56	636	153.9	67.72
386	114.3	45.72	488	132.3	55.72	640	154.5	68.06
388	114.7	45.94	490	132.6	55.89	644	155.0	68.06
390	115.0	46.11	492	132.9	56.06	648	155.5	68.61
392	115.5	46.39	494	133.3	56.28	652	156.1	68.94
394	115.8	46.56	496	133.6	56.44	656	157.1	69.50
396	116.2	46.78	498	133.9	56.61	660	157.1	69.50
398	116.6	47.00	500	134.0	56.67	664	157.7	69.83
400	117.0	47.22	502	134.5	56.94	668	158.2	70.11
402	117.3	47.39	504	134.8	57.11	672	158.7	70.39
404	117.7	47.61	506	135.2	57.33	676	159.2	70.67
406	118.1	47.83	508	135.5	57.50	680	159.8	71.00
408	118.5	48.06	510	135.8	57.67	684	160.3	71.28
410	118.8	48.22	512	136.1	58.83	688	160.8	71.56
412	119.2	48.44	514	136.4	58.00	692	161.3	71.83
414	119.6	48.67	516	136.7	58.17	696	161.8	72.11
416	119.9	48.83	518	137.0	58.33			
418	120.3	49.06	520	137.3	58.50			

Subcooling Method

NOTE: Units are charged at the factory for 25 ft of tubing. Adjust charge by plus or minus 0.3(0.6) oz per foot of tubing greater or less than 25 ft respectively.

For OHQB13424 units, the subcooling method is used to check and adjust charge during the cooling season. Refer to Subcooling Charging Table amd the following procedure:

1.Operate unit a minimum of 15 minutes before checking charge.

2.Measure liquid line temperature near liquid line service valve, and measure the liquid pressure at the liquid line service valve. Use a digital thermometer for all temperature measurements. DO NOT use mercury or dial-type thermometers.

3.Refer to Subcooling charging Table Find the temperature point at which the required subcooling temperature intersects the measured liquid line pressure.

4.If the measured liquid line temperature does not agree with the required liquid line temperature.ADD refrigerant to lower the temperature. or REMOVE refrigerant to raise the temperature(allow a tolerance of ±3°F/1.67°C)

Subcooling Charging Table

LIQUID PRESSURE ATSERVICE VALVE	REQUIRED LIQUID LINE TEMPERATURE											
	Required Subcooling Temperature °F(°C)											
	8(4.4)		10(5.5)		12(6.6)		14(7.7)		16(8.8)		18(9.9)	
psig	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
189	58	32	56	31	54	30	52	29	50	28	48	27
195	60	33	58	32	56	31	54	30	52	29	50	28
202	62	34	60	33	58	32	56	31	54	30	52	29
208	64	36	62	34	60	33	58	32	56	31	54	30
215	66	37	64	36	62	34	60	33	58	32	56	31
222	68	38	66	37	64	36	62	34	60	33	58	32
229	70	39	68	38	66	37	64	36	62	34	60	33
236	72	40	70	39	68	38	66	37	64	36	62	34
243	74	41	72	40	70	39	68	38	66	37	64	36
251	76	42	74	41	72	40	70	39	68	38	66	37
259	78	43	76	42	74	41	72	40	70	39	68	38
266	80	44	78	43	76	42	74	41	72	40	70	39
274	82	46	80	44	78	43	76	42	74	41	72	40
283	84	47	82	46	80	44	78	43	76	42	74	41
291	86	48	84	47	82	46	80	44	78	43	76	42
299	88	49	86	48	84	47	82	46	80	44	78	43
308	90	50	88	49	86	48	84	47	82	46	80	44
317	92	51	90	50	88	49	86	48	84	47	82	46
326	94	52	92	51	90	50	88	49	86	48	84	47
335	96	53	94	52	92	51	90	50	88	49	86	48
345	98	54	96	53	94	52	92	51	90	50	88	49
354	100	56	98	54	96	53	94	52	92	51	90	50
364	102	57	100	56	98	54	96	53	94	52	92	51
374	104	58	102	57	100	56	98	54	96	53	94	52
384	106	59	104	58	102	57	100	56	98	54	96	53

Subcooling Charging Table

LIQUID PRESSURE ATSERVICE VALVE	REQUIRED LIQUID LINE TEMPERATURE											
	Required Subcooling Temperature °F(°C)											
	8(4.4)		10(5.5)		12(6.6)		14(7.7)		16(8.8)		18(9.9)	
psig	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
385	108	60	106	59	104	58	102	57	100	56	98	54
406	110	61	108	60	106	59	104	58	102	57	100	56
416	112	62	110	61	108	60	106	59	104	58	102	57
427	114	63	112	62	110	61	108	60	106	59	104	58
439	116	64	114	63	112	62	110	61	108	60	106	59
450	118	66	116	64	114	63	112	62	110	61	108	60
462	120	67	118	66	116	64	114	63	112	62	110	61
474	122	68	120	67	118	66	116	64	114	63	112	62
486	124	69	122	68	120	67	118	66	116	64	114	63
499	126	70	124	69	122	68	120	67	118	66	116	64
511	128	71	126	70	124	69	122	68	120	67	118	66

NOTE: ELECTRICAL SHOCK HAZARO

Failure to follow this warning could result in personal injury or death.

Before installing, modifying,or serving system,main electrical disconnect switch must be in the OFF position.There may be more than 1 disconnect switch. Lock out and tag switch with a suitable warming label.

LUBRICATION

Compresor

Compressor contains factory oil charge; replace oil when lost. Use mobile 3MA-POE oil.

CLEANING COILS

Coil should be washed out with water or blown out with compressor air .Note that the blow-thru design causes dirt and debris to build up on the inside of the coils. Clean coil annually or as required by location and outdoor air conditions. Inspect coil monthly and claan as required. Fins are not continuous though first section. become trapped between the row of fins and restrict condenser airflow. Use a flashlight to determine if dirt or debris has collected between coil sections. Clean coil as follows:

1.Turn off unit power

2. Using a garden hose or other suitable equipment, flush coil from the outside to remove dirt. Be sure to flush all dirt and debris from drain holes in base of unit. Fan motors are waterproof.

If failure still exists after all the aspects demonstrated in the trouble shooting digram are checked,please turn to a licensed technician for help.

TROUBLESHOOTING