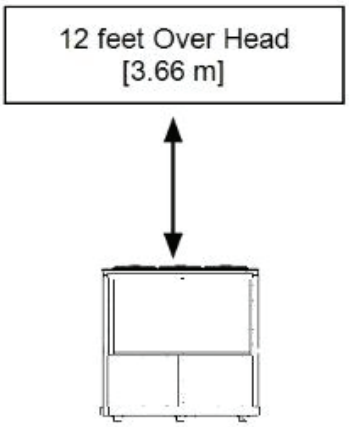
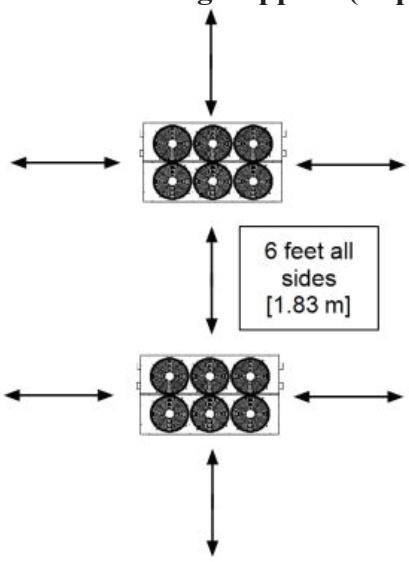
- ☐ GBBs must be plumbed in on one side and out on the other.
- ☐ Confirm installation kit with P/T ports, if applicable, and balancing/ isolation valves are installed in the proper location.
- ☐ Check for air flow restrictions and for proper side and overhead clearances. Please provide a photo if anything is unusual or questionable.
- Please visit for GBB: https://www.aquacal.com/wp- content/uploads/manuals/landingpage/gbb_installer_hp9/content/resources/topic s_hp7_hp9_hp10/3%20maintenance/adjusting%20water%20flow%20using%20delta-t.htm

Clearances Great Big Bopper® (Side View)	Clearances Great Big Bopper® (Top View)
	

- ☐ Initiate flow, open isolation valves halfway, and check for external water leaks.
- ☐ With breakers off, measure incoming voltage at breaker and match to unit data plate.
- ☐ Remove heat pump electrical access panels and with breakers off check/ snug/ tighten all line and load connections at contactors and fan relay.
- ☐ Move transformer tap to match measured site voltage if necessary.
- ☐ Apply power and check that ICM monitor settings are at the factory defaults (GBB and WS10 only).

Do not modify factory default settings.

Voltage	Frequency	Volt Setting	Min	Max
B	60Hz.	220	200	251
D	50Hz.	380	342	418
G	60Hz.	460	415	506

- ☐ Start the unit in heating mode and confirm that there is a 1–2-minute delay between circuits 1 and 2 (GBB Only) compressor start up. Adjust time delay for circuit 2, if necessary.
- ☐ Visually inspect condensers, unions, and quest nut fittings for water seepage.
- ☐ Inspect cap tubes, TXV EQ line, and all copper lines for chafing/rubbing or excessive vibration.
- ☐ Perform final water flow balancing and mark correct Delta-T on plumbing with a paint pen.

Please visit for Delta T for GBB chart:

https://www.aquacal.com/wp-content/uploads/manuals/landingpage/gbb_installer_hp9/content/resources/topics_hp7_hp9_hp10/3%20maintenance/adjusting%20water%20flow%20using%20delta-t.htm

HEAT EXCHANGER TYPE	MODEL	TEMPERATURE
Titanium ThermoLink®	BB500 50 Hz 380 - 415 V	3° to 7° F (1.7° C to 3.9° C)
Titanium ThermoLink®	BB500 60 Hz 208 - 230 V	4° to 8° F (2.2° C to 4.4° C)
Titanium ThermoLink®	BB500 60 Hz 460 V	4° to 8° F (2.2° C to 4.4° C)

☐ With both compressors running (GBB only), adjust balancing valves at the unit to achieve the correct Delta T. Wait several minutes for refrigerant pressures to stabilize and recheck. If there are multiple units start and balance flow to all units then recheck and adjust as needed.

☐ A flow meter is recommended for the main trunk line. If present, record the current flow through the heaters. ____GPM, and label plumbing at flow meter with a paint pen. “Maintain ### GPM through heat pumps." (See owners manual for required flow rate.)

☐ Is Multi-Unit Mode in use? Yes ☐ No ☐

Confirm proper operation of Multi-Unit Mode:

Have site personnel cycle the main circulation pump to confirm that units read “FLO” when the pump is off. If there are elevation issues which may result in error codes, recommend installation of an optional flow switch (AquaCal Part #0040S) and provide an estimate for cost of installation, if appropriate.

☐ With the compressors in all heat pumps on site running, measure line voltage at contactor and record:

L1 to ground _____

L2 to ground _____

L3 to ground _____

L1-L2 _____

L1-L3 _____

L2-L3 _____

☐ Verify minimum voltage requirements are met per chart.

Voltage	Frequency	Volt Setting	Min	Max
B	60Hz.	220	200	251
D	50Hz.	380	342	418
G	60Hz.	460	415	506

☐ Low Voltage Reading:

Transformer Output _____

☐ Measure and record **Fan Amperage**:

Fan Amps:

F1 _____ F2 _____ F3 _____

F4 _____ F5 _____ F6 _____

☐ Measure and record **Compressor Amperage**:

Compressor #1 Amps: L1 _____ L2 _____ L3 _____

Compressor #2 Amps: L1 _____ L2_____ L3_____

☐ Measure and record: **Total Amperage:**

With Both Compressors Operating

Compressor #1 amps _____

Compressor #2 amps _____

☐ Record high and low refrigerant pressures, superheat, and sub cooling for both circuits:

Circuit #1

HP _____

LP _____

SH _____

SC _____

Circuit #2

HP _____

LP _____

SH _____

SC _____

☐ Measure and record Delta-T

Pool Water Temperature: Inlet _____ Outlet _____

Ambient Temperature: Inlet _____ Outlet _____

Comments:

Unit start up and commission completed by:

Name: _____ Company: _____

Signature: _____ Phone: _____

Send completed form/screenshots to spof@aquacal.com