INSTALLATION and OPERATION MANUAL

CWA4-HW (4-Pipe)

Multiaqua™

Rev. 1.2

---------- CAUTION ----------

Care must be taken when handling sheet metal. Sheet metal parts have sharp edges and could cause injury.

GENERAL

Read the entire contents of this manual before beginning installation. Multiaqua assumes no responsibility for equipment installed contradictory to any code requirement or installation instructions.

The components of this fan coil have been inspected at the factory and readied for shipment. Upon receiving the shipment a visual inspection of the packaging must be performed.

If any damage to the packaging is discovered, an inspection of the components must be performed and noted on the delivery documents. If component damage is found a damage claim must be filed by the receiving party against the delivery party immediately.

This product is designed and manufactured to permit installation in accordance with national codes. It is the installer's responsibility to install the product in accordance with national codes and/or prevailing local codes and regulations.

Care must be taken to ensure the structural integrity of the supporting members, clearances and provisions for servicing, power supply, coil connections and/or condensate removal. Before the installation, ensure the structural strength of the supporting members is sufficient. See **Figure 1** for hanging weights of the air handlers.

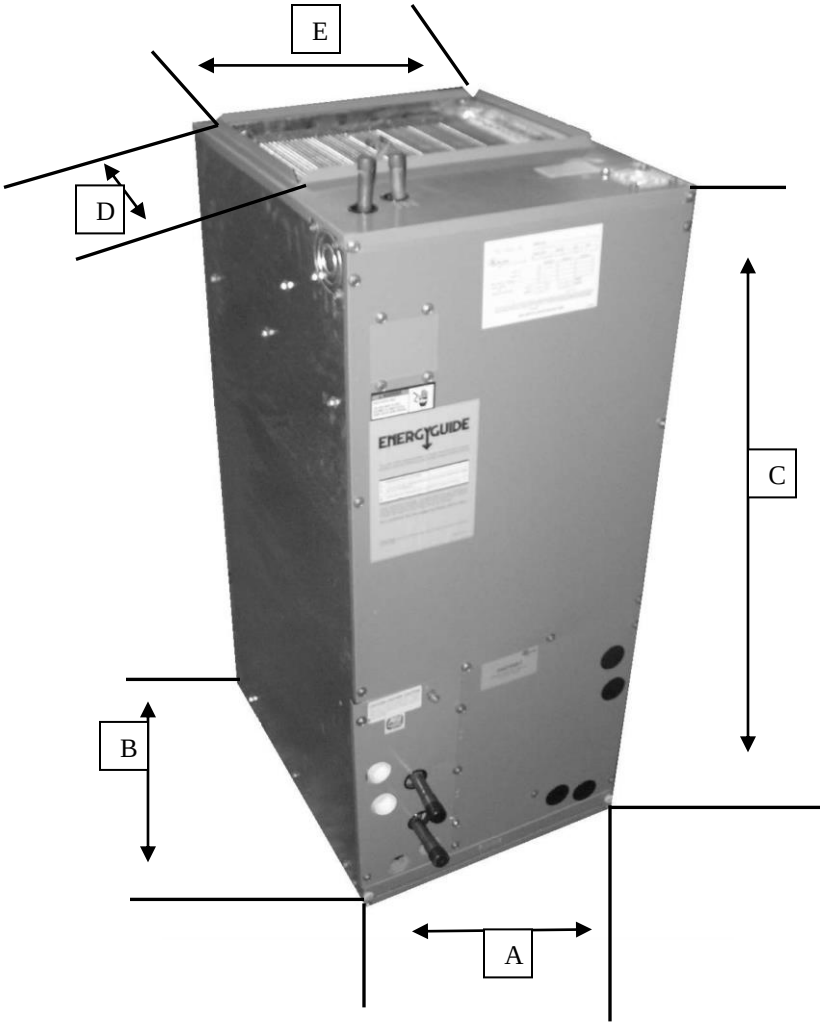
This unit is designed to be installed in a vertical or horizontal configuration. See **Figure 2** for air handler dimensions. The coil hand of connection is field reversible.

FAN COIL MODEL NUMBER	APPROXIMATED WEIGHTS (lbs.)
24CWA4-HW	140
36CWA4-HW	175
48CWA4-HW	189
60CWA4-HW	199

Figure 1

Physical Dimensions (in.)					
Model Number	A	B	C	D	E
24CWA4-HW	17.50	21.00	39.75	12.50	16.00
36CWA4-HW	17.50	21.00	39.75	12.50	16.00
48CWA4-HW	21.50	25.00	49.75	17.25	19.50
60CWA4-HW	21.50	25.00	49.75	17.25	19.50

Figure 2



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INSTRUCTIONS FOR INSTALLING FAN COIL

The CWA4 is a chilled and hot water fan coil designed for multi-position applications in closets, attics, basements or crawl spaces. They are field convertible to horizontal applications without the need for additional parts. Unit is not suitable for down flow applications.

Figure 3 & 4

CONVERTING FAN COIL TO RIGHT HAND DISCHARGE

The CWA4 fan coil comes shipped from the factory assembled with a left hand air discharge configuration.

Figure 4

1. To convert the fan coil to right hand discharge remove the three front panels.

2. Remove the three screws from the coil mounting brackets and pull entire A-coil assembly out of the fan coil.

Figure 5

Figure 3

Figure 4

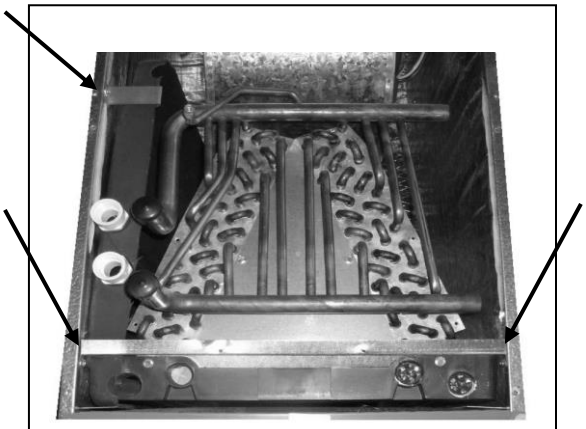

Figure 5

3. Remove the horizontal drain pan from the coil and re-install it on the other side.

Figure 6 & 7

4. Ensure the coil mounting brackets are secure in order to avoid coil misplacement inside the cabinet. Check coil slope to make sure that the drain pan slopes toward the drain outlet. An incorrectly installed coil could result in damages to the fan coil and property.

5. Re-install the three front panels previously removed in step one.

6. The unit shall be suitable for 0" clearance to combustible materials. Sufficient clearance must be provided at the front of the fan coil to allow access for maintenance and servicing.

7. The fan coil comes with one primary and one secondary condensate drain connection per configuration. Ensure when connecting the field installed condensate drain lines, the lower of the two fan coil drain connections is piped into the buildings condensate removal method.

Figure 8 & 9

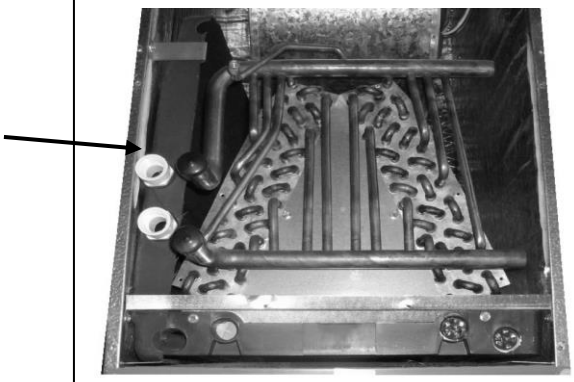

Figure 6

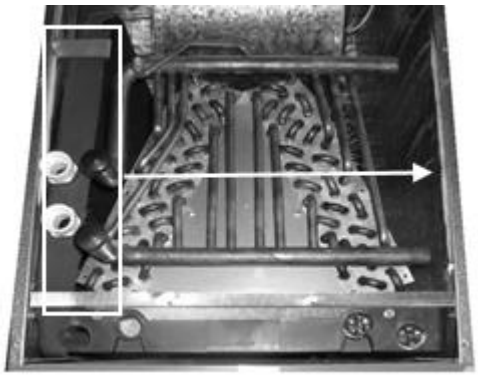

Figure 7

UP FLOW DISCHARGE

SECONDARY DRAIN

PRIMARY DRAIN

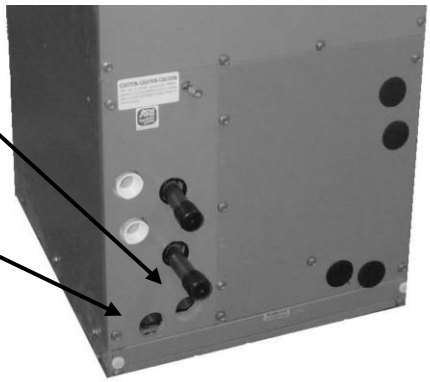

Figure 8

8. The A-coil includes an L-shaped piece of sheet metal with one leg of the L covering the top length of one coil slab; the other leg is between/inside the two slabs.

Figure 10

When converting the unit to right-hand horizontal discharge, the L-shaped piece of sheet metal should be removed, re-positioned and installed so that it covers the length of the top coil slab. This will force any condensate on the end of the top coil slab to run down the inside leg before dripping onto the lower slab. This will help to prevent any possible condensate water blow off.

Figure 10 & 11

HORIZONTAL DISCHARGE

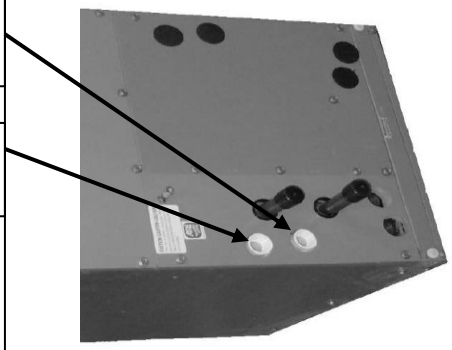

Figure 9

Figure 10

Figure 11

9. The hot water coil is a horizontally mounted coil in the top of the fan coil. The hot water inlet is on the right and the outlet on the left. There are two temperature sensors on top of the hot water coil.

Figure 12

10. The CWA4 comes equipped with a circulating pump, coil drain valve, manual air purge fitting and coil temperature sensors.

Figure 13

11. Make sure when attaching ductwork to the fan coil that screws or other objects do not damage the hot water coil. If the coil fins become bent or flattened, ensure that they are straightened so the air flow of the fan coil is not affected.

Figure 14

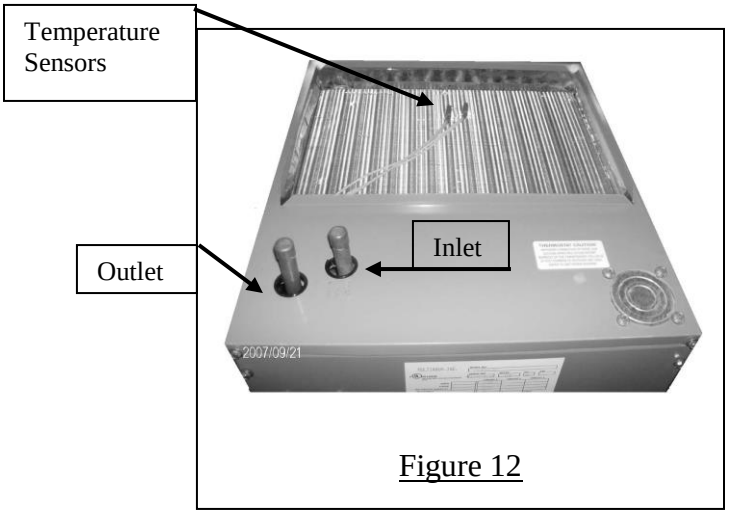

Figure 12

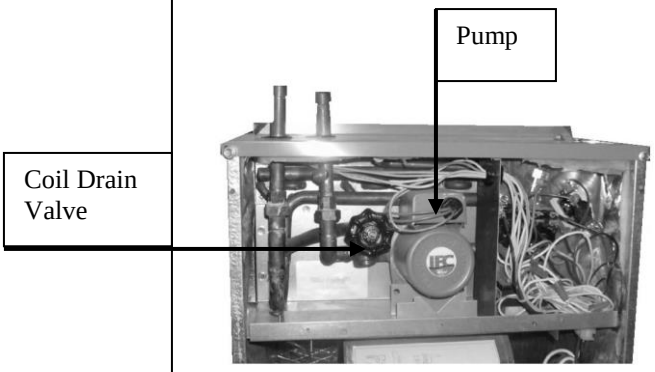

Figure 13

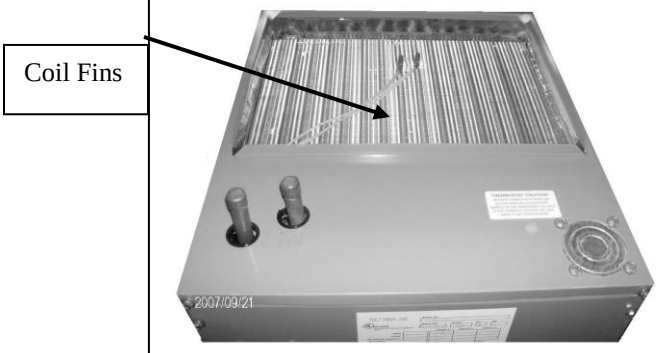

Figure 14

12. All duct work must be installed per local and national codes. The return air duct and the return air opening provided in the fan coil must have the same area.

Figure 15 & 16

ELECTRICAL

All wiring must comply with local and national codes. High and low voltage termination points are provided. Knockouts are provided in the cabinet for field wiring of the electrical.

CONTROLS

A 24 VAC transformer, fan relay, pump relay and time delay relay are provided inside cabinet. All supplied controls are wired to respective terminations.

Figure 17

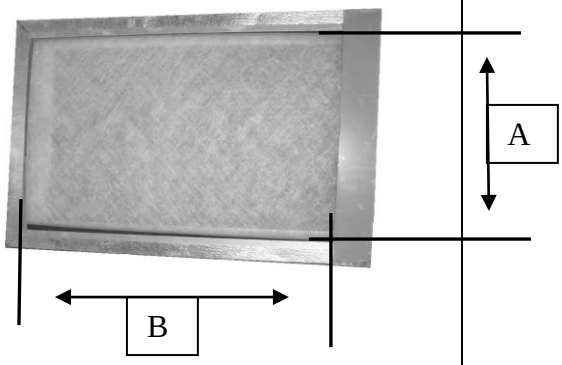

Figure 15

CWA4 Inlet Air Dimensions		
	A	B
24CWA4-HW	15	17.5
36CWA4-HW	15	17.5
48CWA4-HW	19.25	22.25
60CWA4-HW	19.25	22.25

Figure 16

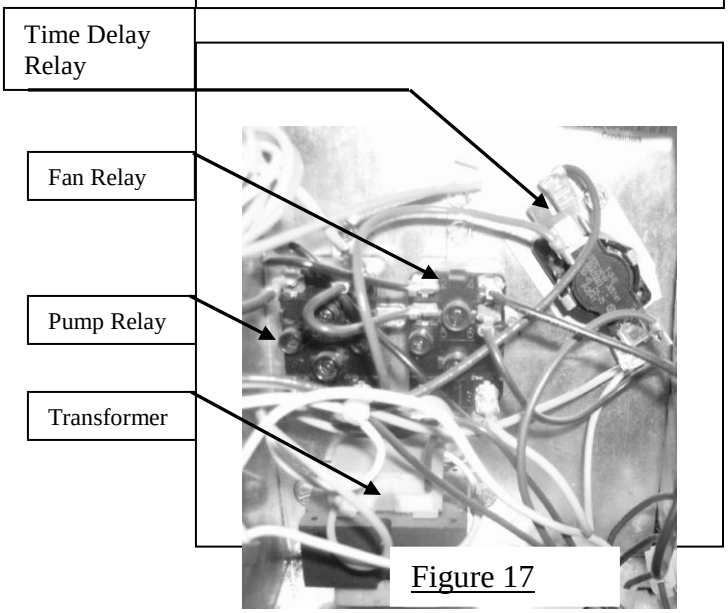

Figure 17

PIPING

13. This fan coil is supplied with one chilled water coil and one hot water coil. Each coil has one dedicated inlet and outlet. Ensure that both lines are insulated according to local and national building codes.

Figure 18

14. Condensate drains must be installed with at least .25" of slope per foot away from the fan coil. Since the drain pan is located on the suction side of the blower a minimum trap of 1.5" must be installed in the drain line for proper drainage.

ROUTINE CHECK UP AND SERVICE

This product is designed to provide many years of dependable, trouble free comfort when properly maintained. Proper maintenance will consist of routine filter cleanings/changes, bi-annual checkups that include but not limited to filter inspections, electric heater inspections /cleaning of the internal electrical and heat transfer components by a qualified service technician. Failure to provide periodic checkups and cleaning can result in excessive operating cost and/or equipment failure.

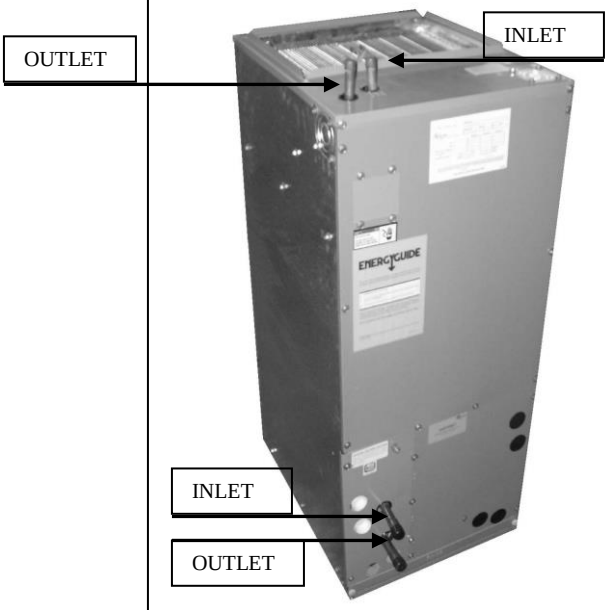

Figure 18