

INSTALLATION and OPERATION MANUAL





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MCFCW Fan Coil 1- 5 Tons

----- **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. The (4HS) model is high static up to .5"wc ESP. The (4LS) model is up to .3"wc ESP.

Installation must allow for blower, motor and coil access from the bottom of the unit.

This unit is designed to be installed in a horizontal configuration only. Before the installation ensure the structural strength of the supporting members is sufficient.

See **Figure 1** for hanging weights of the fan coils.

See **Figure 2** for filter sizes.

See **Figure 3** for fan coil dimensions.

See **Figure 4** for supply air opening dimension.

See **Figure 5** for mounting bracket dimension.

See **Figure 6** for return air opening dimension.

See **Figure 8** for water coil connections diagram.

FAN COIL MODEL NUMBER	WEIGHTS (LBS)
MCFCW-04-4HS(LS)-01	95
MCFCW-06-4HS(LS)-01	100
MCFCW-08-4HS(LS)-01	111
MCFCW-12-4HS(LS)-01	144
MCFCW-16-4HS(LS)-01	166
MCFCW-20-4HS(LS)-01	176

Figure 1

FAN COIL MODEL NUMBER	RECOMMENDED FILTER SIZES	
	Width (in)	Length (in)
MCFCW-04-4HS(LS)-01	10.00	25.00
MCFCW-06-4HS(LS)-01	10.00	25.00
MCFCW-08-4HS(LS)-01	12.00	24.00 x 2 PIECES
MCFCW-12-4HS(LS)-01	12.00	24.00 x 2 PIECES
MCFCW-16-4HS(LS)-01	12.00	24.00 x 2 PIECES
MCFCW-20-4HS(LS)-01	16.00	30.00 x 2 PIECES

Figure 2

FAN COIL DIMENSIONS (in.)									
Fan Coil Model Number	A	B	C	D	E	F	G	H	I
MCFCW-04-4HS(LS)-01	29.25	7.00	12.25	29.21	37.2	24.25	39.25	26.00	10.50
MCFCW-06-4HS(LS)-01	29.25	7.00	12.25	29.21	37.2	24.25	39.25	26.00	10.50
MCFCW-08-4HS(LS)-01	29.25	7.00	12.25	29.21	45.87	24.25	48.00	49.00	12.00
MCFCW-12-4HS(LS)-01	33.00	12.00	12.25	29.21	54.92	24.25	48.00	49.00	12.00
MCFCW-16-4HS(LS)-01	33.00	12.00	14.17	31.58	54.92	24.25	57.00	49.00	12.00
MCFCW-20-4HS(LS)-01	33.00	12.00	14.17	31.58	66.93	27.00	69.00	61.00	16.00

Figure 3

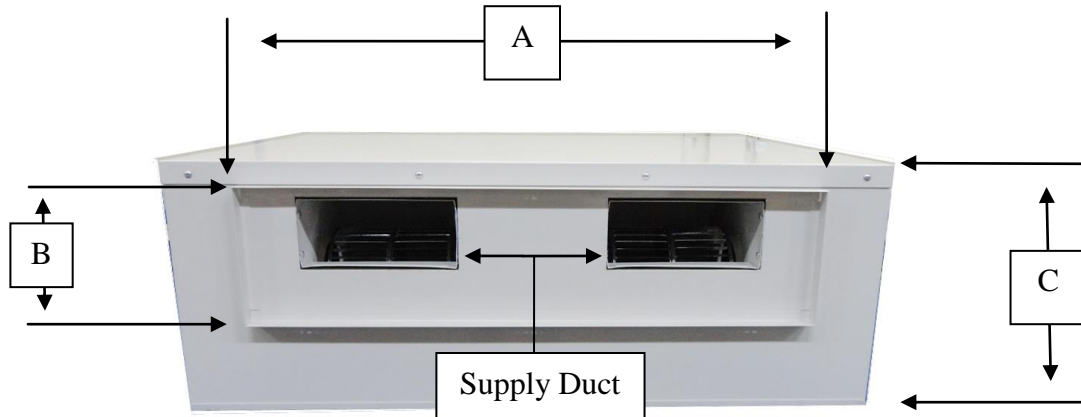


Figure 4

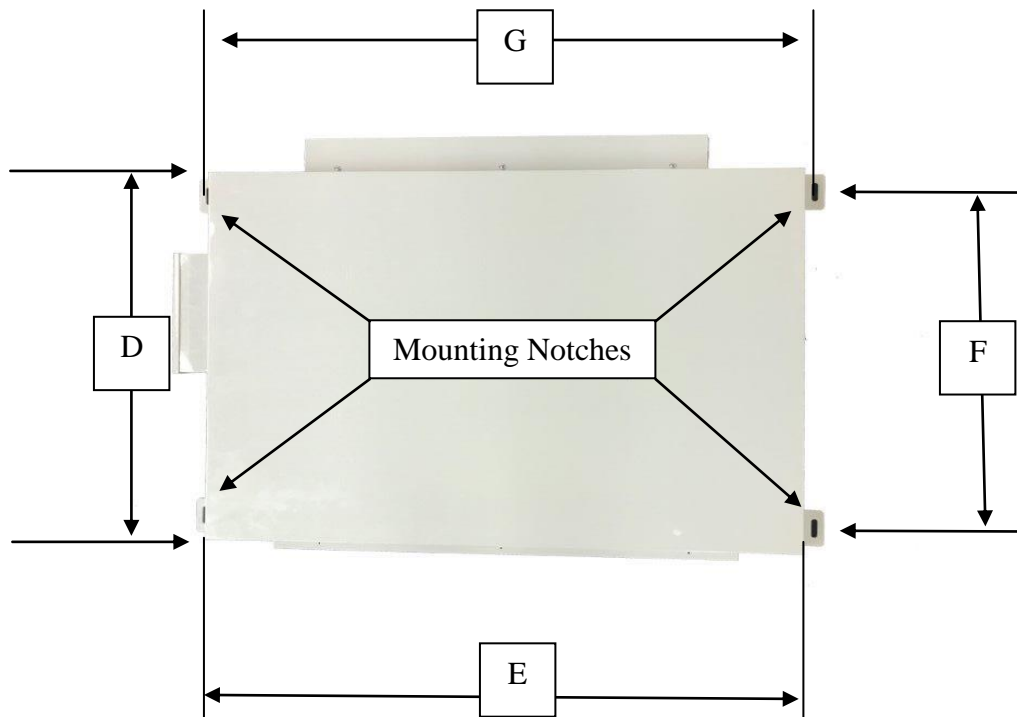


Figure 5

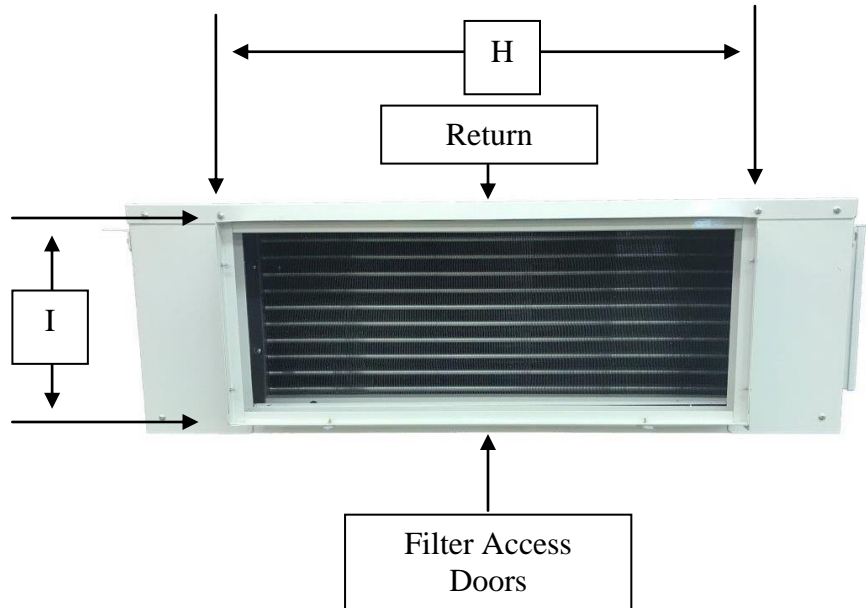


Figure 6

RETURN AIR CONNECTIONS

Filters are not supplied with the fan coil unit. The filter(s) must be supplied by the installer. Filter size is displayed in **Figure 2**. To access filter door, swing out thumb tabs to open position.

Refer to Figure 6

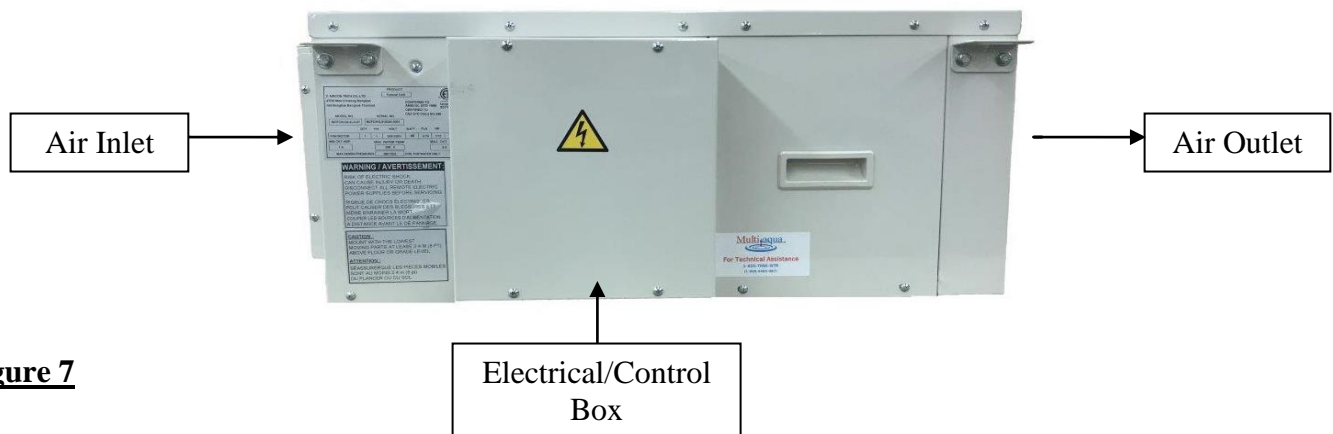


Figure 7

ELECTRICAL & CONDENSATE DRAIN

There is one entry point for the electrical wiring. See figure 7. See unit **Wiring Diagram** for electrical drawings. Wiring must be installed according to prevailing codes and regulations.

The fan coil unit has one primary condensate drain connection and one secondary safety drain connection. These are located on the coil connection side of the fan coil. See figure 8. A field supplied and installed P-Trap must be installed on both the primary and secondary drain lines. Make certain the gravity drain has at least 1/8" per foot fall for proper drainage. Ensure the condensate traps and drains are properly insulated to avoid sweating.

WATER COIL CONNECTIONS

The fan coil unit comes with a manual air bleed and a manual coil drain fitting. They are located on the same side as the supply and return water line connections. When facing the water supply lines the hot water supply is on the top left and return is on the bottom left. The cold water supply is on the top right and return is on the bottom right. Ensure that both the supply and return water lines are insulated to prevent them from sweating and capacity loss.

Refer to Figure 8 and 9

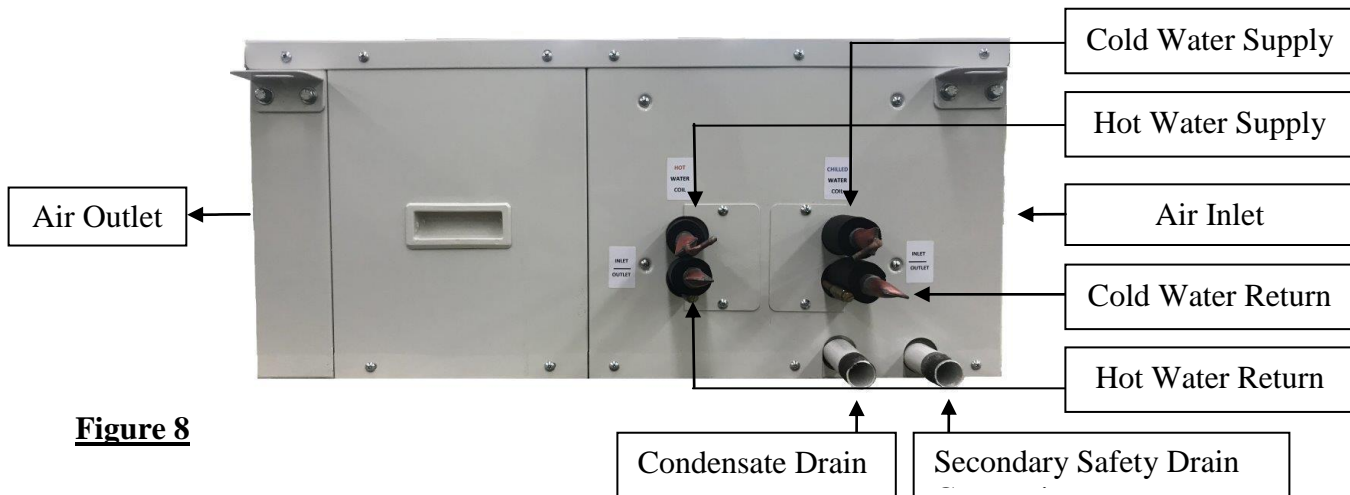


Figure 8

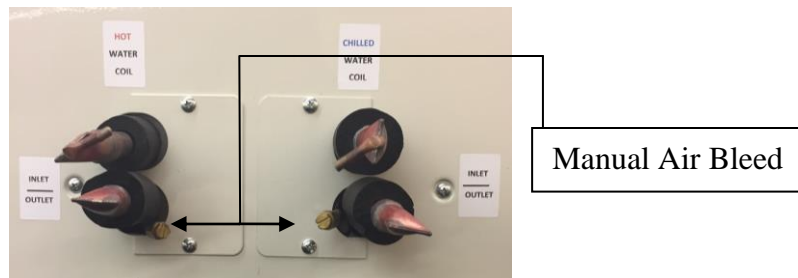


Figure 9



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MAINTENANCE

1. Air Filter(s):

Filters are an essential part of the quality of air that is provided to the occupants. Never operate HVAC equipment without filters. Filters help remove dust and unwanted particles from the air stream, helping to keep the space clean. They also keep this debris from collecting on the heat transfer surfaces of the unit thus maintaining optimum equipment efficiency and performance. These filters can be located either in the unit's filter rack (see figure 6) or upstream from the unit in the return air ductwork. Filters must be inspected, cleaned and/or changed routinely. This routine maintenance procedure will allow the unit to continually operate as designed, reduce service expenses and extend equipment/component life.

2. Fuses and/or Circuit Breakers:

This unit must be connected to the buildings electric service in accordance with local/national electrical codes and regulations. These electrical connections will include over current protection in the form of fuses or circuit breakers. Have your contractor identify/label the circuits and the location of them so that you may be in a position to make

and/or replacements in the event the unit fails to operate or is being serviced. If fuses are used, ensure that the replacement fuses are of the same size and type as the ones you are replacing. It is a good idea to keep replacement fuses of the appropriate size and type on hand.

3. 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, cleaning of the primary and secondary drain lines and traps, bi-annual check-ups 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, early component failure and decrease the equipment's lifespan. Blower wheel and motor are accessible from the bottom of the unit only.



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WIRING DIAGRAM

