

HORIZONTAL FAN COIL UNITS

General Notes

The following reference instructions are available to help the installer as well as a reference source for the service technician. Installer should pay careful attention to the words: **NOTE**, **CAUTION** and **WARNING**. NOTES are intended to make installation easier. CAUTIONS are given to prevent equipment damage. WARNINGS are given to alert the installer that personal injury and/or equipment damage may result if installation procedure is not followed.

1. Installation and maintenance are to be performed only by qualified personnel who are familiar with local codes and regulations, and experienced with this type equipment.

CAUTION: Sharp edges, coil surfaces and rotating fans are a potential injury hazard. Avoid contact.

2. Maximum entering water temperature is 200° F.
3. Units provided with electric heat are for use with chilled water only. If electric heat and hot water were both used, cabinet code limits could be exceeded.
4. Completed installation of units must comply with the requirements of NFPA 90B with regard to the use of concealed ceiling spaces as return air plenums.
5. When return air duct is not provided, applicable codes may limit installation to a single story residence.

Installation

1. Examine unit for shipping damage.
2. Rotate fan wheels by hand to make sure the wheels rotate freely. Be careful not to hold the unit by its blower deck. The blower wheels are very delicate and can be easily bent. Once bent, they are almost impossible to fix. "Out-of-round" wheels will cause excessive vibration and noise.

3. Unit is ready for installation.
4. Secure unit in proper position. Unit must be level to assure proper drainage and operation. 3/8"-16 weld nuts are provided in each corner of the top for suspending the unit with threaded rod.

NOTE: Drain pan is designed with a built-in slope.

Magic Aire brazes the corners of the drain pans and the drain fittings on the drain pans. Violent bending or sideways pressure when installing the drain lines can tear the welds loose. This will cause leaking drain pans. If a leak develops in the drain pan, it is usually best to remove the entire drain pan assembly and have a new one fabricated. This assembly is attached to the unit with only four screws, two on each side. Consult the factory or your local representative for replacement part pricing and availability.

5. Water and drain connections can now be made to the unit. Knockouts are provided in the rear of the unit for water and drain connectors. Piping must be installed in accordance with local codes and regulations.
6. Vent the coils.
7. All water and drain lines should be well insulated to prevent sweating and heat loss.
8. Electrical connections can now be made to the electrical box. Access to the box can be obtained by removing the

sheetmetal cover plate on the back of the unit. Knock outs are provided next to the cover plate. Refer to nameplate FLA, maximum fuse size and minimum circuit ampacity. Also see wiring diagram affixed to the unit to make control and power wiring connections.

9. The installer shall provide wiring to the unit, branch circuit overcurrent protection, and disconnect means to conform with the applicable electrical code. Motor is "thermally protected".
10. All windows and doors should be in and closed before starting up the unit.
11. During summer construction, there is an unusually high amount of moisture in the air; therefore, the initial pulldown should be very gradual (high speed for maximum airflow with reduced gpm and elevated chilled water temperature for reduced capacity). If this is done, it will reduce the possibility of the unit sweating.
12. Duct connections should be sized no smaller than the duct flanges on the casing. Flexible collars of a non-flammable material should be used on the duct flanges to minimize the transmission of noise and/or vibration. When the units are installed above a dropped ceiling, they must be installed in an airtight enclosure to prevent ventilation of the unit into concealed spaces of the building structure.
13. Connect trapped drain line to either or both of the 3/4" MPT drain nipples. The inside 3/4" MPT drain nipple should be used as an auxiliary drain. If the auxiliary drain is not used, it should be capped. When an auxiliary drain is required, it should be piped as a separate trapped drain to a location where water flow can be seen as a warning that the primary drain is blocked.

(Continued on back)

Filters

RECOMMENDED FILTER SIZES	
	Actual size for factory supplied filter
CEW 006	10 x 18 x 1
CEW 012	10 x 18 x 1
CEW 018	10 x 27 x 1
CEW 024	10 x 36 x 1
CEW 030	10 x 45 x 1
CEW 036	10 x 54 x 1

Filters are factory supplied and located in the bottom access panel.

Maintenance

1. The motor has been oiled at the factory. It is not necessary to oil the first year when under continuous operation (approximately 10,000 hours). Oil once a year with 5cc (1 teaspoon) per bearing of SAE-20 non-detergent oil. **DO NOT OVERLUBRICATE.**
2. If motor service is required, remove it in the following manner:
 - a. Disconnect all electrical power to the unit. The "off" position on the fan control may not open all ungrounded supply circuit conductors.
 - b. Remove lower access panel completely by removing support chains to allow panel to hang freely.
 - c. Remove blower deck assembly.
 - d. Remove the fan housing.
 - e. Remove the clamps that hold the motor in the motor base.
 - f. Remove the motor.
3. The coil can be inspected and cleaned by lowering the heater, blower deck, and/or drain pan assembly from the unit.

Replacement Parts

When writing for service or replacement parts, refer to the model number and the serial number of the unit as stamped on the serial plate attached to the unit. If replacement parts are required, give the date of the unit installation and the date of the failure; also, give a description of the replacement

parts and an explanation of the malfunction.

Always replace parts with the original manufacturer's recommended replacement parts. This ensures that your warranty, UL listing, and capacity ratings will remain in effect.

Thermostat Setting

Heat anticipator setting on all units should be .20.