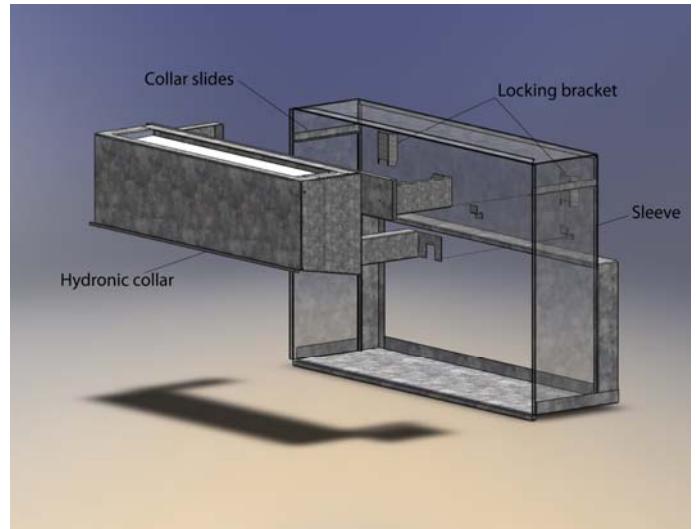
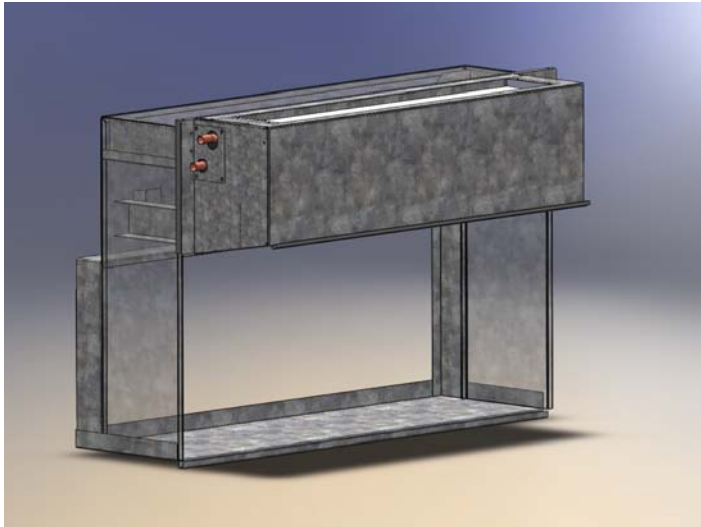


Installation and Maintenance: Hydronic Heat Section

Applied Packaged Terminal Air Conditioner KWD with Top-Mount Hydronic Heating



ATTENTION: Top-Mount Hydronic Coil Freezing Risk.

The KWD hydronic unit chassis is intended to be used with a top-mount hot water or steam coil. Subsequently, the coil is situated downstream of a cold evaporator when operated in cooling mode. Under certain conditions and/or unit malfunction due to aging components etc., it can never be guaranteed that air temperature exiting the evaporator coil and entering the hot water coil will always be above the freezing temperature of water. To avoid property damage from bursting hot water coils, it is recommended to use a mixture of 32-35% ethylene glycol in water, or 37-40% propylene glycol in water, by volume, and allow for expansion relief – do not isolate the heating coil by shutting off inlet and outlet valves simultaneously when unit is in active service. Higher concentrations than percentages stated are acceptable if required for other purposes, subject to established proper-use guidelines.

INSTALLATION

The Hydronic heat section is installed at the top of the wall sleeve (which should have been set in place prior to installing the heat section). Refer to figure 2 which illustrates the placement of the heat section into the wall sleeve. Note that the side brackets have two slides on either side of the sleeve. The locking brackets hold the collar in place prior to installing unit.

Attaching the heating section can be completed as follows:

1. Unpack the heating assembly and inspect for any damage. Report any damage found to the carrier immediately.
2. Check the heating coil against the plans to make certain the coil supplied has the connections to match the job specifications.

3. Attach the heat section to the wall sleeve by lining up the side brackets with the collar slides provided in the wall sleeve. To secure the heating assembly push locking brackets down firmly until the notches seat on the bottom (see detail 3).
4. Solder a shutoff valve to the supply side piping and attach piping as specified. The coils can be supplied configured as follows. Left hand supply and return, Right hand supply and return, Left hand supply right hand return, & Right hand supply Left hand return for both hot water and steam. Use field supplied air vents, steam traps, stop balance valves, aquastat etc., as specified by the design engineer. Refer to the specific installation instructions for each respective component.
5. Plug the electrical connection from the line voltage Hydronic class 2 valve into the matching harness extending from the control box. Connect the 24VAC class 2 aquastat (if used) according to the specific wiring diagram affixed to the cooling chassis.

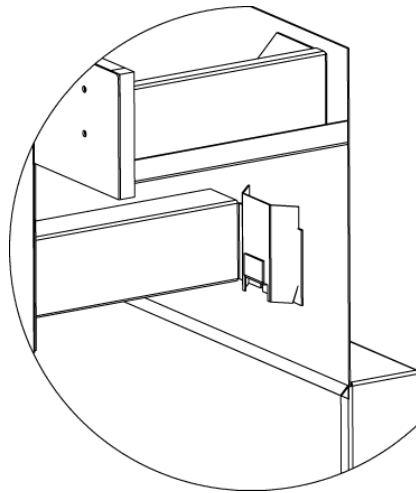


FIGURE #3

When heating with steam, the supply connection should be attached to the uppermost tube and the return to the lower tube. The coil is pitched in the casing to allow drainage of condensate.

When heating is done with hot water the supply connection should be attached to the lowermost tube and the return to the uppermost tube. Hot water coils should be “Flooded” to minimize air entrapment.

Hydronic piping

1. stub hot water or steam piping through floor prior to installation of room cabinet/wall sleeve
2. After the room cabinet/wall sleeve is installed, complete the piping. Piping must not extend past the room enclosure.
3. Install valve as per engineering drawings. Refer to the installation instructions packed with each valve.
4. After all piping is complete and chassis is installed, connect wiring to the valve.