CONVERTING A HIGH VELOCITY SYSTEM INTO A WHISPERSOFT® SYSTEM:

(using JC63 or JC43 assemblies)

Converting an existing high velocity system into a WhisperSoft® system is a smart way to increase efficiency and output while saving money in the process. Essentially you will remove all of the high velocity equipment and replace it with conventional equipment except for the terminal air vents. This is where the WhisperSoft® system converts the outgoing air to a high velocity level.

1. Recycle or give away the following: old high velocity air handler, old trunk line, old mini ducts, old air vents, old return air duct and grills.

2. Determine correct size and install <u>any</u> conventional air handler or furnace and A-coil (much less expensive than high velocity types). BTU output will be about 20 % greater using conventional equipment and WhisperSoft® air vents than the high velocity system with the same condenser. High velocity systems typically put out 200 CFM per ton while conventional systems typically put out 400 CFM per ton.

3. Install an *insulated* trunk line that is the same size as the end of your air handler or furnace with 2' of length for <u>each ton</u> of air conditioning. For example; a 3 Ton system needs a 6' long trunk line.

4. Replace the 2" mini ducts with 6" <u>insulated</u> flex duct (or 4" flex for bathrooms). Be sure to use high quality insulated flex duct for every run.

5. Replace the high velocity outlets (vent covers) with the WhisperSoft® air vents. *They fit in the same hole!* Although some of the air vent holes may not be needed, you can always use dummy air vents for the unneeded holes. (High velocity system uses 6-8 air vents per ton while conventional systems use only 4 per ton.) WhisperSoft® air vents put out 100 CFM when using 6" flex, 50 CFM when using 4" flex duct. Be sure to use the appropriate number of air vents based on this information. However, you may use one or two extra air vents per ton if desired.

6. Replace the return air duct and grill with the proper, larger size (usually twice as large since your airflow will double).

INSTALLING WHISPERSOFT® WITH A CONVENTIONAL SYSTEM (NO EXISTING EQUIPMENT):

(using JC63 or JC43 assemblies)

This option is for new equipment installs when there is no ductwork or equipment present. WhisperSoft® air vents are used by contractors to compete with high velocity bids and to offer an air vent upgrade option. Either way results with the same system setup. This is a conventional system with WhisperSoft® air vents.

1. Determine and install any conventional HVAC system in the same manner as before. The WhisperSoft® air vents don't require any modifications to your system sizing figures.

2. WhisperSoft® air vents put out 100 CFM using a 6" flex duct, just like most conventional registers, so determining the total number needed should be similar. For ceiling AIR VENT locations, choose locations near the corners of the rooms about 6" from both walls and cut a 4" hole. Wall air vent installations are done in a similar fashion. Floor installations require a 3 ½" hole. Note that your placement options are better because of the air vent's smaller footprint.

3. In the attic (or basement), attach the 6X3 REDUCER or 4X3 REDUCER to the flex duct using a good quality foil tape. Attach one or two 45° ELBOWS by pushing the pieces together firmly. Use only a 4X3 REDUCER connected directly to the air vent when going though the floor.

4. Back in the room, pull a 45° ELBOW through the 4" hole (in the ceiling or wall) and attach the AIR VENT. Fit two J-CLIPS and two ASSEMBLY SCREWS to the holes on the face of the AIR VENT. Only screw the J-CLIPS on about ¼".

5. Place your thumbs under the heads of the screws and push the small end of the AIR VENT up through the 4" hole, engaging the J-CLIPS to grab onto the other side of the wall or ceiling.

6. In ceilings and walls, tighten the ASSEMBLY SCREWS using a #2 Philips screwdriver so the register fits neatly in place. For floor installations, insert screen material of choice, then screw floor AIR VENT directly to floor (no clips).

ADDING A WHISPERSOFT® AIR VENT TO A HIGH VELOCITY SYSTEM:

(using JC63 or JC43 assemblies)

WhisperSoft® can also be used with high velocity systems that need one or two additional air vents to fix certain rooms or zones. In this case, use a 4" insulated flex duct. Please note that increasing the duct diameter from 2" to 4" will triple the air volume. This is reflected in the 100 CFM output of the WhisperSoft® air vent when used with this method. Also, please note that a 4" insulated duct will fit in 95% of the places that a 2" mini duct will fit.

1. Attach the new duct to the existing trunk line using a standard take off for a 4" duct. If the trunk line is the cylinder type, flatten out a small area about 10" across so that the take off will fit securely.

2. For ceiling AIR VENT locations, choose locations near the corners of the rooms about 6" from both walls and cut a 4" hole. Wall air vent installations are done in a similar fashion. Floor installations require a 3 ½" hole. Note that your placement options are better because of the air vent's smaller footprint.

3. In the attic (or basement), attach the 6X3 REDUCER or 4X3 REDUCER to the flex duct using a good quality foil tape. Attach one or two 45° ELBOWS by pushing the pieces together firmly. Use only a 4X3 REDUCER connected directly to the air vent when going though the floor.

4. Back in the room, pull a 45° ELBOW through the 4" hole (in the ceiling or wall) and attach the AIR VENT. Fit two J-CLIPS and two ASSEMBLY SCREWS to the holes on the face of the AIR VENT. Only screw the J-CLIPS on about ¼".

5. Place your thumbs under the heads of the screws and push the small end of the AIR VENT up through the 4" hole, engaging the J-CLIPS to grab onto the other side of the wall or ceiling.

6. In ceilings and walls, tighten the ASSEMBLY SCREWS using a #2 Philips screwdriver so the register fits neatly in place. For floor installations, screw floor AIR VENT directly to floor without any clips.