Installation Instructions

CPU Heatsink and Fan Assembly
Kit #26731502

These instructions outline the procedures to install the replacement CPU heatsink and fan assembly onto the IN915GVE computer board.

This IN915GVE computer board is used in the following core computer assemblies; 61176503, 61176505, 61176510, 61176511, 22167410, and 22167411.

Tools Required

1/4 nut driver, #2 Philips Screwdriver, Flat Blade Screwdriver

Parts Included with this Kit:

Item #	Part Number	Description	Quantity
1	34039504	Heatsink and Fan Assembly (W/Mount. Brkt)	1
		These Instructions	

Figure 1

Caution: When installing this CPU Heatsink and Fan Assembly, care should be taken to avoid static discharges which can damage the computer board. The CPU Heatsink and Fan Assembly installation should be done on a static dissipative mat along with a grounding wrist strap.

Caution: This manual <u>does not include</u> step by step instructions to remove the IN915GVE computer board from the various computer core housings, or the harness connections to the computer board after the fan installation is complete. It is very important for the technician to familiarize himself/herself with the correct harness connections.

1. Turn the Jukebox power off, and unplug the power cord from the wall outlet.

2. Remove the core computer from the jukebox and remove the computer board from the computer core housing. (Note where the cables plug into the core computer for later reinstallation.)
3. Figure 2A shows the Intel CPU Heatsink and Fan Assembly and Figure 2B shows the Dynatron CPU Heatsink and Fan Assembly that were used on the IN915GVE computer board. If you are installing this Heatsink and Fan Assembly Kit into a computer board that has an Intel fan assembly proceed to Step 4. If you are installing this Heatsink and Fan Assembly into a core computer that has a Dynatron Fan Assembly proceed to Step 5.
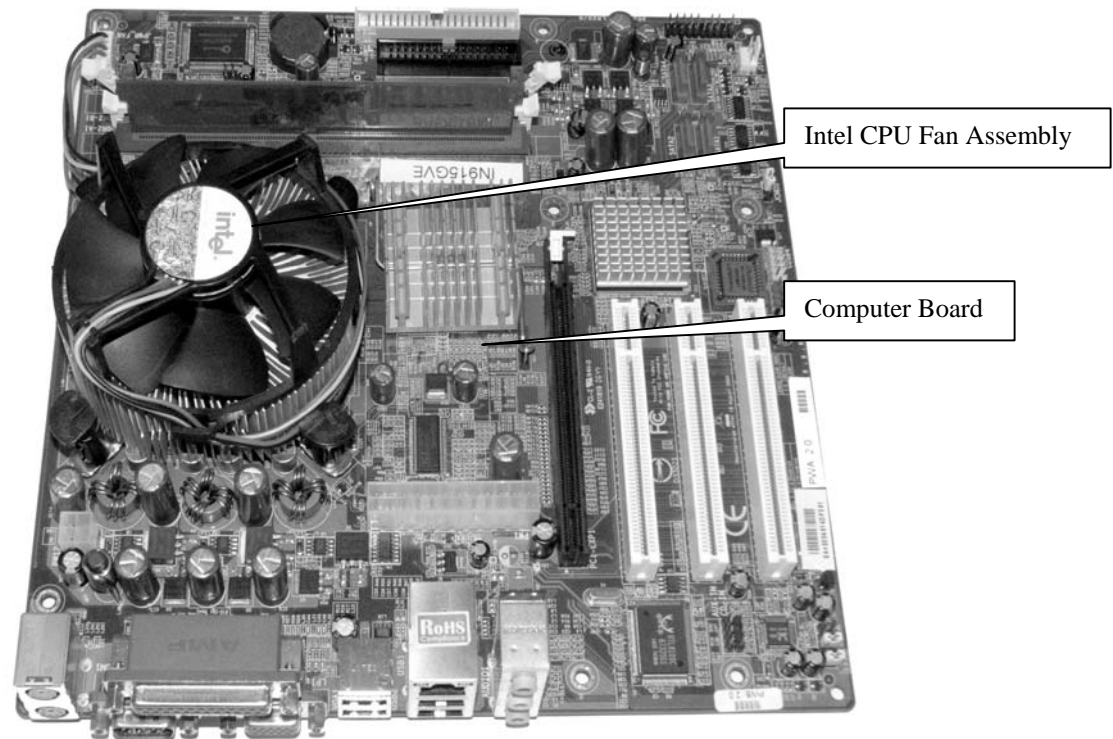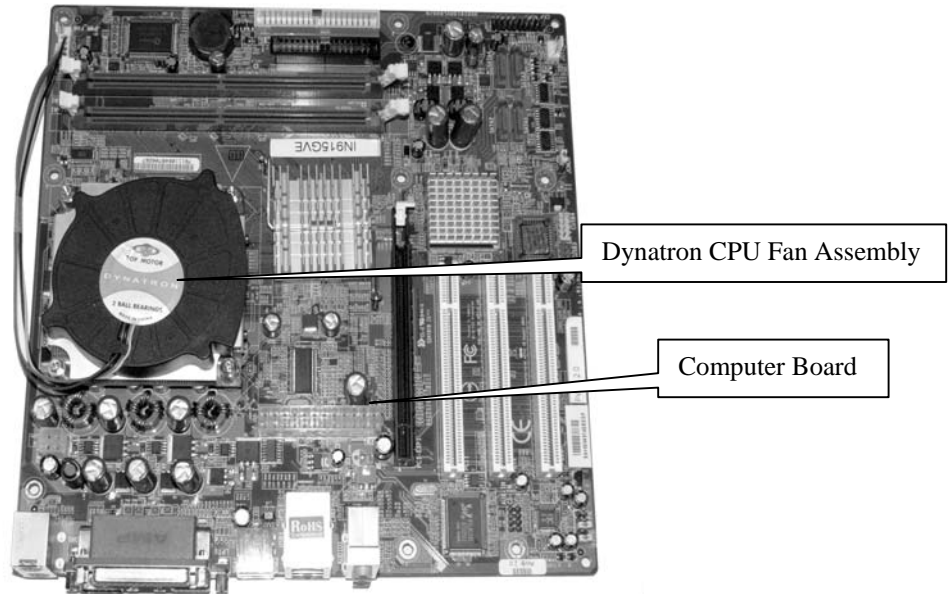

Intel CPU Fan Assembly

Computer Board

Figure 2A

Figure 2B

Dynatron CPU Fan Assembly

Computer Board

4. To remove the Intel Fan Assembly from the computer board, locate the four "quarter turn fasteners" on the fan assembly as shown in Figure 3. Rotate the four fasteners ¼ turn counterclockwise which will release the fan assembly from the computer board. Unplug the four-wire fan harness from the "CPU Fan" connector on the computer board and remove the Fan Assembly from the computer board. See Figure 3.

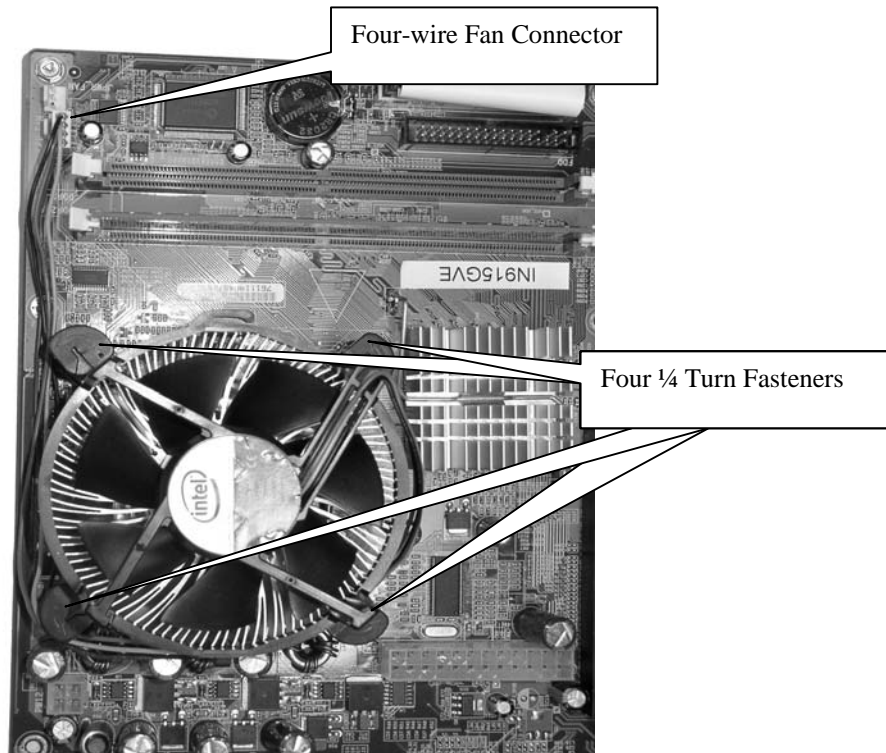Four-wire Fan Connector

Four ¼ Turn Fasteners

Figure 3

5. To remove the Dynatron Fan Assembly from the computer board, locate the four mounting screws on the fan assembly as shown in Figure 4. Loosen the four screws which will release the fan assembly from the computer board. Unplug the four-wire fan harness from the "CPU FAN" connector on the computer board and remove the Fan Assembly from the computer board.

Four-wire Fan Connector
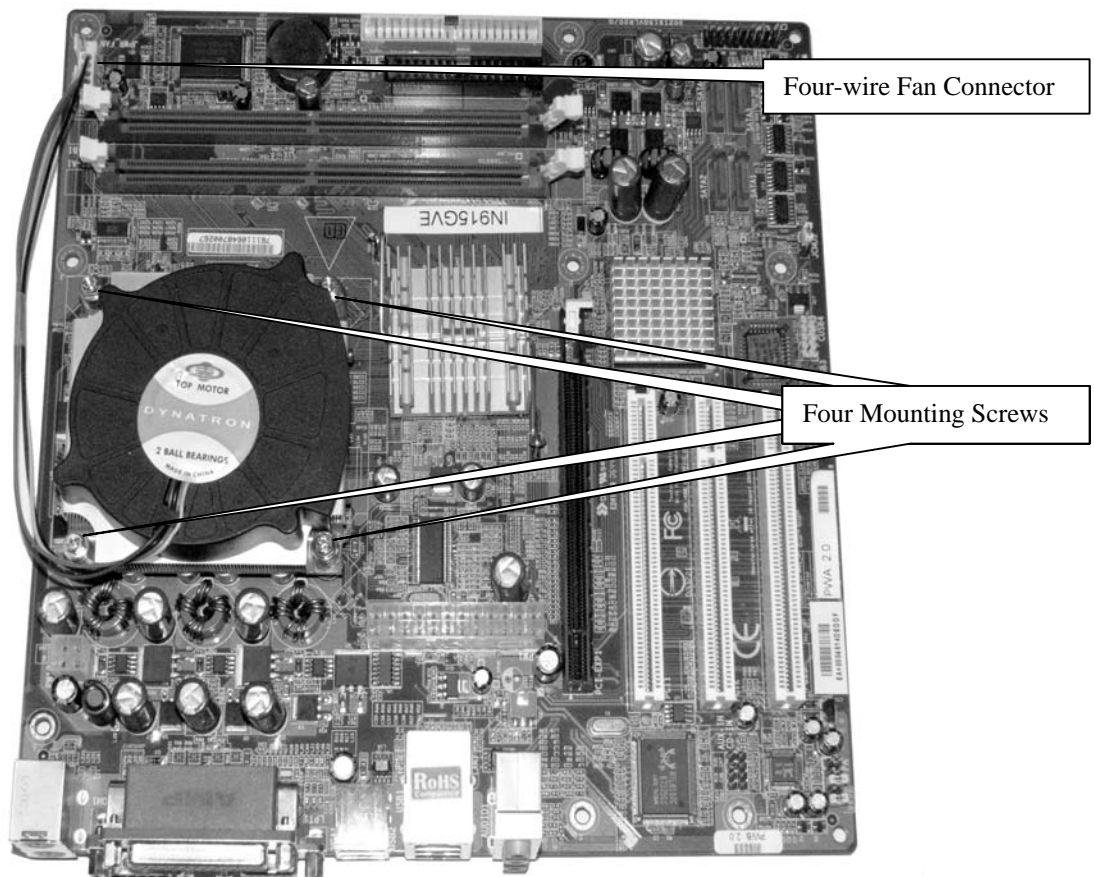
Four Mounting Screws

Figure 4

6. CPU Preparation:

Thermal Compound should be kept away from processor contacts, memory, and motherboard traces and pins. There is a possibility that dust or metal particles and/or shavings carried by airflow inside the computer case could contaminate the compound and increase the electrical conductivity.

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WARNING!
Keep this compound away from your mouth.
Keep this compound away from children and pets.
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To prepare the CPU for the new Heatsink and Fan Assembly the heatspreader, which is the raised square in the center of the CPU, must have all of the previous thermal compound removed. See Figure 5.

Clean the CPU heatspreader surface using a low residual solvent (High Purity Isopropyl Alcohol) and a LINT FREE cloth. IMPORTANT: Keep the surfaces free of foreign materials and do NOT touch the surface. Oils from your fingers can adversely affect the performance by preventing the heatsink compound from directly contacting the metal surfaces.
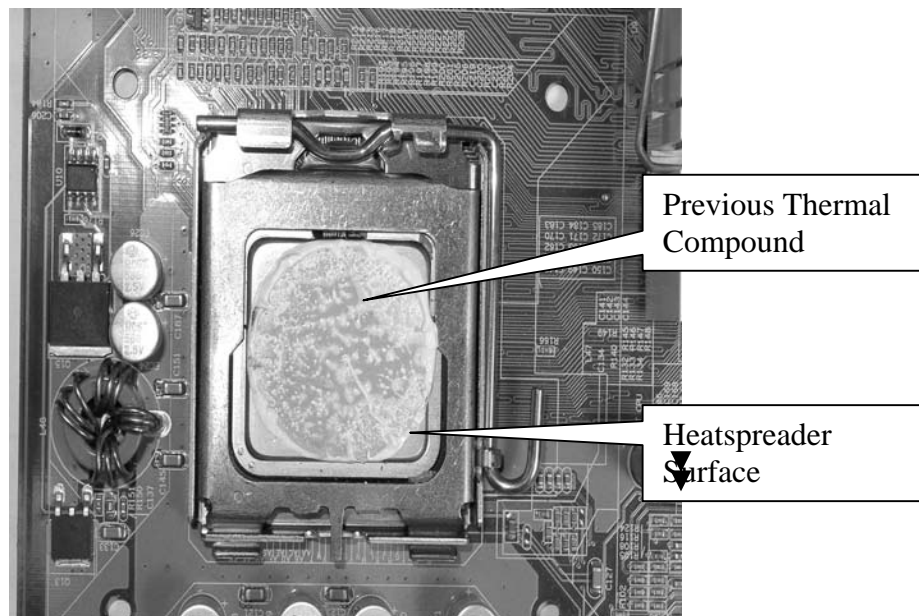

Previous Thermal Compound

Heatspreader Surface

Figure 5

7. Locate the Fan Assembly mounting bracket included in this kit (Item 1, Figure 1) and remove the plastic covering protecting the heatsink compound on the Heatsink & Fan assembly. Place the fan assembly mounting bracket on the bottom side of the computer board with the four mounting studs projecting through the mounting holes on the computer board.

8. Install the Heatsink and Fan Assembly onto the CPU:

It is *very important* to orient the fan so the air flow direction arrow on the fan cover is in the position shown in Figure 6.

Lower the Heatsink and Fan Assembly straight down onto the CPU and tighten the four mounting screws into the studs on the mounting bracket. To ensure that the surface contact force is equally distributed, use this technique:

Install the first screw and tighten finger tight.

Install the second screw diagonally across from the first and also leave finger tight.

Install the third and fourth screws finger tight. The numbers shown in Figure 10 may be used as a guide.

Continue to tighten the screws gradually using this same sequence. Make sure that all four screws are tight. Plug the fan harness onto the four pin "CPU FAN" connector on the computer board.
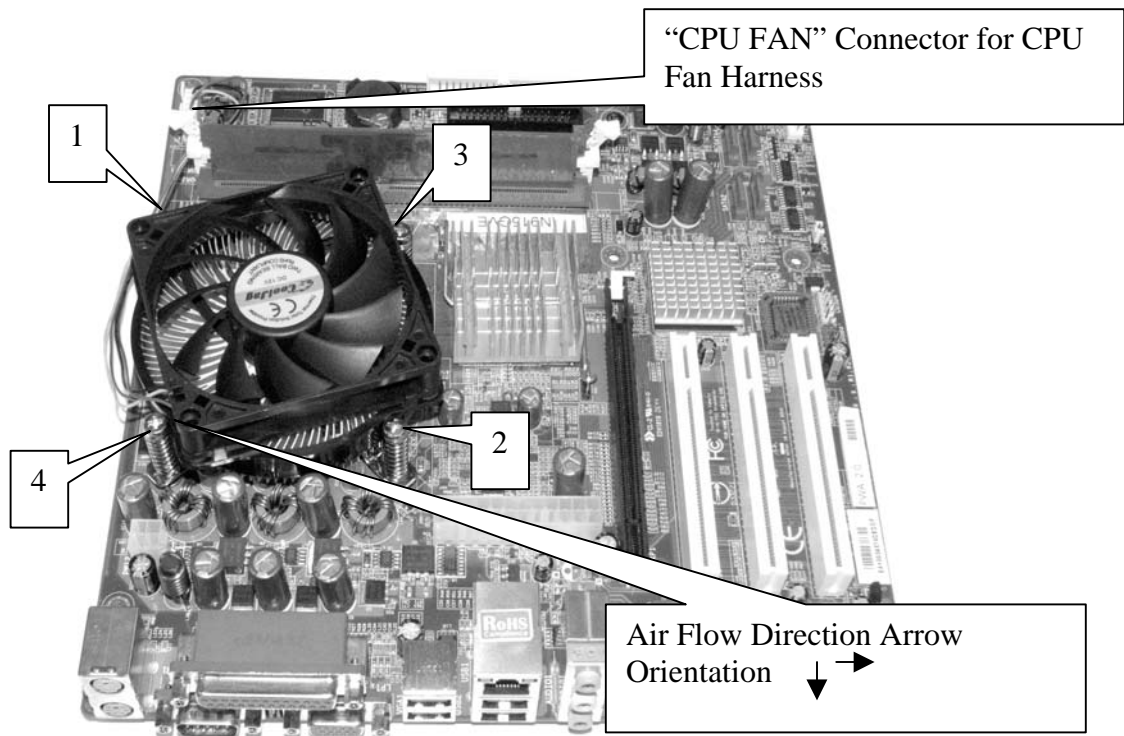

Figure 6

9. Install the computer board into the core computer housing and reconnect all the harnesses removed in step #2. Install the computer core into the jukebox and check for proper jukebox operations.