Introduction

Thank you for buying an ABIT motherboard. This motherboard is designed for AMD Socket A Athlon™ XP, Athlon™ and Duron™ processors. It supports the AMD Socket-A structure, with up to 3 GB **(Unbuffered)** or 4 GB **(Registered)** of DDR memory, super I/O, and Green PC functions. KR7A-133R's built-in HighPoint HPT 372 chipset gives you the capability to support Ultra DMA 133 and RAID functions.

For more detailed information on this motherboard, please refer to our full version of the user's manual. This quick installation guide is meant for experienced system builders. If this is your first attempt at setting up computer system, we suggest that you to read the full version manual first, or ask a technician to help you set up the computer system.

Packing Checklist

Please check that your package is complete. If you discover any damaged or missing items, please contact your retailer or dealer.

- ☑ One ABIT KR7A-133 or one KR7A-133R motherboard
- ☑ One 80-wire/40-pin ribbon cable for master and slave Ultra DMA 133, Ultra DMA 100, Ultra DMA 66 or Ultra DMA 33 IDE devices **(KR7A-133 Only)**
- ☑ Two 80-wire/40-pin ribbon cable for master and slave Ultra DMA 133, Ultra DMA 100, Ultra DMA 66 or Ultra DMA 33 IDE devices **(KR7A-133R Only)**
- ☑ One ribbon cable for 3.5" floppy disk devices
- ☑ One compact disc for support drivers and utilities
- ☑ One USB cable
- ☑ One DIY bag
- ☑ One user's manual for the motherboard
- ☑ One quick installation guide for the motherboard
- ☑ One floppy disk for HPT 372 drivers **(KR7A-133R Only)**

KR7A-133/KR7A- 133R Motherboard Placement

The *Figure 1* shows the KR7A-133/KR7A-133R layout diagram. We show all major components on this diagram for your reference.
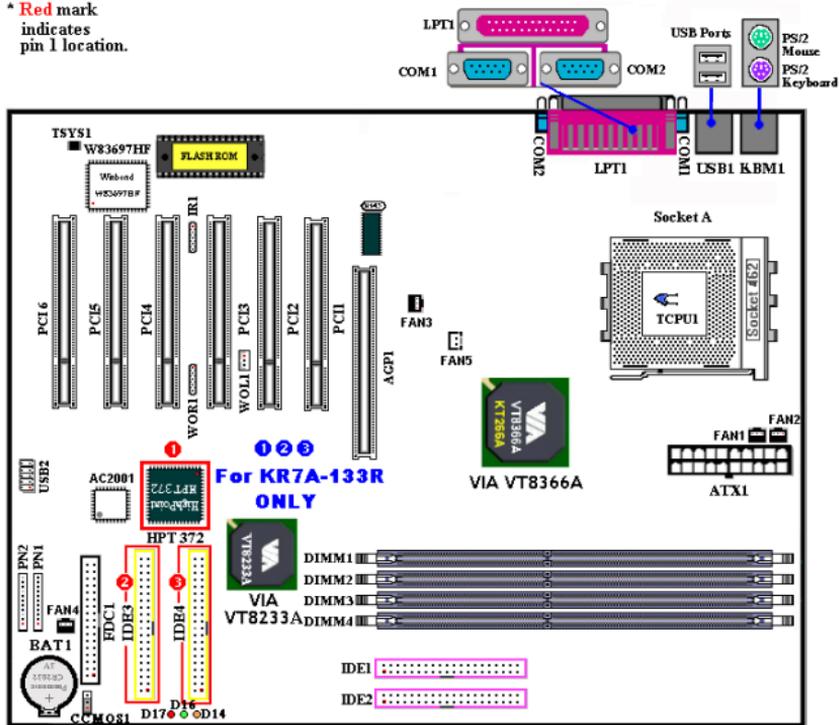
Figure 1. KR7A-133/KR7A-133R Layout Diagram

As above ❶, ❷ and ❸ are only shown on the KR7A-133R motherboard. ❶ is a RAID controller and ❷ and ❸ are connectors for two IDE channels. The motherboard is enclosed in a transparent anti-static box, and you must take it out carefully. The motherboard has many sensitive electronic components that can be damaged by static electricity.

After you check all box contents and unpack the motherboard from the box, you can install the processor onto the motherboard.

Installing the Processor:

Note:

- Installing a heatsink and cooling fan is necessary for heat to dissipate from your processor. Failing to install these items may result in overheating and processor damage.
- The AMD Socket A processor will produce a lot of heat while operating, so you need to use a large heat sink that is specially designed for the AMD socket A processor. Otherwise, it may result in overheating and processor damage.
- Until your processor fan and its power cable are installed properly, never plug the ATX power cable into the motherboard. This can prevent possible processor damage.
- Please refer to your processor installation manual or other documentation with your processor for detailed installation instructions.

The AMD Socket A Athlon™ XP, Athlon™ and Duron™ processor installation is easy, like Socket 7 Pentium® processors before. Because it uses the "**Socket A**" ZIF (**Z**ero **I**nsertion **F**orce) socket, you can easily fix the processor firmly into position. *Figure 2* shows you what the socket A looks like, and how to raise the lever. The Socket A has more pins than the socket 7. Therefore, a Pentium level processor cannot be inserted into a socket A. If you put it in the wrong direction, you will not be able to insert the processor easily, and processor pins will not fully go into the socket. If this is the case, please change the direction, until it easily and fully inserts into the socket A. See *Figure 3*. At the same time, check the processor temperature detection thermistor height (if your motherboard has this component). Then, you can slowly insert the processor into the Socket A.
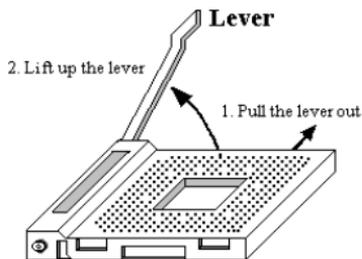

Lever

2. Lift up the lever

1. Pull the lever out

Figure2. Socket A and open its lever

Lever
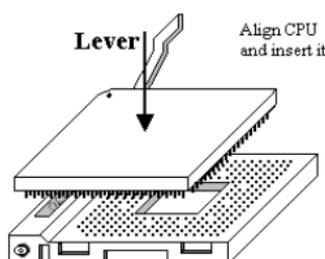
Align CPU and insert it

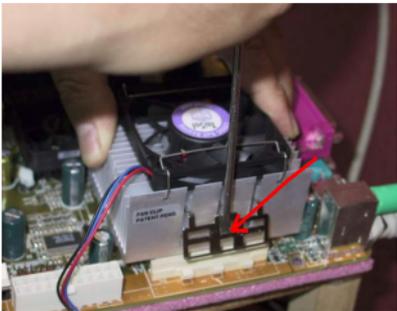**Figure 3. Install the CPU into socket A**

Heatsink Installation Hints:

The proper procedure to install the heatsink kit:

First, install the processor into the processor socket.

Insert the heatsink left side fix plate into the processor socket left side fix hooks. Make sure the fit is very tight. Check the photo on the left.

Insert a flat screwdriver into the middle slot of the right side fix plate and push down. Next, push the fix plate over the socket hooks on the right side. Check the photo on the left.


Check the photo on the left. You have finished the heatsink installation. Now hold the whole heatsink and slightly shake it, make sure the bottom right side of the heaksink does not contact the right side of the Socket (see bottom picture). Otherwise, the processor die does not have proper contact with the heatsink. This situation may cause processor damage. Remember to install the heatsink fan power cable to the CPU fan header on the motherboard.

Now you can reinstall the motherboard back into the chassis.

When all of the above procedures done, you can connect the ATX power cable to the motherboard.
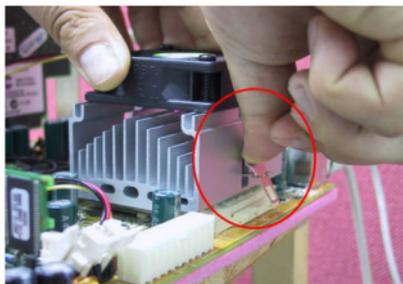
If you have a different type of heatsink kit, please refer to the manual that came with the heatsink kit. The left photo shows another type of heatsink fix plate design. The install sequence is still the same, from right side to left side. Just remember that.

We strongly recommend that you to buy a heatsink equipped with three holes in the fix plate. This will provide the best stability and will prevent the Socket fix hooks to become broken or damaged.

The left photo shows the bottom right side of the heaksink in contact with the right side of the Socket. In this situation, the processor die does not properly contact the heatsink. If you start the computer at this monent, it will immediately cause processor damage. Always check this location when you finish the heatsink installation.

Install the Motherboard into the Chassis

After you install the processor onto the motherboard, you can start to fix the motherboard into the chassis. First, you need to fix the motherboard onto the chassis. Most computer chassis will have a base on which there will be many mounting holes that allow the motherboard to be securely attached, and at the same time, prevent short circuits. Use studs or spacers attached in the chassis to fix the motherboard.

Installing System Memory

This motherboard provides four 184-pin DDR DIMM slots memory

expansion. The minimum memory is 64 MB and the maximum memory is 3 GB **(Unbuffered)** or 4 GB **(Registered)** DDR SDRAM. There are four memory module sockets on the board (for a total of eight banks).
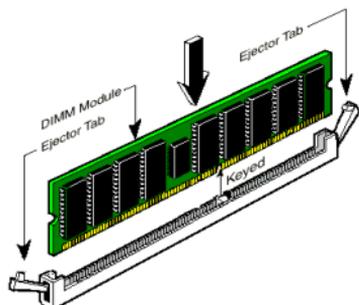

Figure 4. DDR DIMM module installation

Insert the DDR DIMM module into the expansion socket as shown in the illustration. Note how the module is keyed to the socket. You can refer to *Figure 4* for the details. ***This ensures that there is only one way to plug in the DDR DIMM module***. Firmly press the DDR DIMM module into DDR DIMM socket; making certain the module is completely seated in the DDR DIMM socket.

Next, you need to connect all necessary device cables to the concerning headers and connectors on the motherboard in order to finish the hardware installation of your system.

CPU Setup [SOFT MENU™ III]

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CMOS Setup Utility - Copyright (C) 1984-2001 Award Software
                        SoftMenu III Setup

  CPU Name Is                AMD Athlon(tm)             Item Help

  CPU Operating Speed        750(100)               Menu Level   ▶
x - CPU FSB Clock(MHz)       100
x - Ratio(FSB:AGP:PCI)       3:2:1
x - Multiplier Factor        x7.5
x - Speed Error Hold         Disabled

  CPU Power Supply           CPU Default
x - Core Voltage             1.45v
x - I/O Voltage              3.30v
x - DDR Voltage              2.5v
  DQ Control                 Center DQ
  CPU Fast Command Decode    Disable




↑↓:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General Help
  F5: Previous Values    F6: Fail-Safe Defaults    F7: Optimized Defaults
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When hardware installed completely, turn on the computer power and go to the BIOS item 「**SoftMenu III Setup**」to setup the processor parameters. For detailed information, please refer our full version of the user's manual.