

# HOME THEATER PC CHASSIS

**Model: HTPC 280 BA & SA**

**Color: Black & Silver**

## **Quick Installation Guide**

(U.S. & Canada Only)  
Version 1.0



### **DISCLAIMER**

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### **TECHNICAL SUPPORT**

If a problem arises with your system and no solution can be obtained from this user guide, please contact your place of purchase or local dealer.

### **REVISION HISTORY**

V 1.0      August, 2006

### **Note:**

This user guide is designed to provide the user a quick reference for chassis setup. We assume you need the information regarding how to assemble the system, such as Motherboard, CPU, RAM Memory, Hard Drive, DVD ROM, Operating System..., etc. Based on this assumption, we make this user guide of quick installation guide. Please follow the description step by step to assemble the components. If you have any question in assembling the system, you can contact your dealer or our technical support.

### **⚡ Safety Warning**

Turn down the CPU Cooler Fan Speed through the Front Controller may create vital damage to CPU. Adjust Fan Controller (CPU F.R.S.) appropriately according to the CPU instruction. (Minimum Fan Speed at 2000 is recommended)



(CPU Fan Speed controller is default to minimum speed of 1800 to prevent CPU damage)

# Overview

## Standard Components Equipped

- HTPC 280 chassis
- 2 x 60mm silent case fan; 1 x 80mm silent HDD fan
- Air duct - Constant fresh air to CPU and avoid hot air re-circulation
- Audio/Video capture module & extension cable - TV tuner capture card required
  - S-Video x 1 | Composite RCA Jacks: Video x 1 Audios x 2
- S/PDIF output jack – onboard S/PDIF output port required
- Microsoft MCE receiver internal USB converter cable
- Microsoft MCE compatible TV tuner AV internal capture cable
- Microsoft MCE IR receive **rack** - receiver not included
- Front connectors - onboard connectors required
  - USB 2.0 x 2; IEEE 1394 x 1; Audio Ports x 2
- LCD module & Temp. sensor stickers
- Tight cables, screws, installation guide

## Other Components

- Micro ATX Motherboard (Intel ViiV or AMD Live ready is **recommended**)



- Full ATX power supply (nMEDIAPC Mute Power **recommended**)



- CPU / Cooler (nMEDIAPC ICETANK or ICECONE is **recommended**)



- Hard Drive (SATA is **recommended**)
- RAM Memory
- Optical Drive (DVD Burner is **recommended**)
- Operating System (Microsoft MCE 2005 or Vista with MCE is **recommended**)
- Mouse & Keyboard (MCE 2005 or Vista with MCE remote, wireless keyboard & Receiver is **recommended**)



For upgrades:

- 20 x 2 MCE compactable VFD module
- Sound Card
- Video Graphic Card (Fanless model is **recommended**)
- TV Tuner Card (MCE certified is **recommended**)

## Installation Flowchart (Basic Procedures)

Open box → Read installation guides → Remove top cover → Remove optical drive bracket → Install VFD module (if required) → Install motherboard → Perform Quality Check → Connect cables → Install internal IR receivers (if required) → Install hard drive → Install CPU & Cooler → Install DIMM memory module → Install power supply → Install optical drive → Replace cover

### Installation Tools

Screw driver / Screws / Tight cables / Installation guides

### Tips:

1. If you are planning to convert the MCE external receiver or adding VFD module as an upgrade, do it before motherboard installation, otherwise, you may need to un-install everything in order to slot in the MCE receiver PCB board on the IR Rack.
2. After installing motherboard, perform a quality check on chassis parts before continuing. Connect the **power button** to board, plug the **VFD USB cable** to onboard port, plug your **PSU 20 or 24 pins** and **4 pins** cable, connect the **case fans power cord**, connect the **LCD PWR cord**. Turn on the system. At this point, you should be assure that the case and PSU are functioning well by checking if the fans running good, front LCD and VFD turning on. Now, unplug everything and follow the instruction to continue your build.
3. Due to the limited height of the compact case, taking off the air duct may be necessary if you use tall CPU heatsink, like NMEDIAPC ICETANK cooler.
4. If you are using the ICETANK or ICECONE CPU cooler, we recommend that you install the CPU and Cooler onto the motherboard before you slot it in the case. This will smooth the cooler installation with more space "outside" of the case.
5. Some DVD trays cover need to be removed in order to eject the tray smoothly without blocking by the DVD flip down door.
6. When installing the DVD drive, adjust the DVD drive appropriately until your case eject button can eject the tray smoothly, then mark down the position, and secure the DVD to the DVD rack with screws.
7. Remember that installing power supply should always the last step when installing components.
8. Do not perform cable management until your system is fully configured. This will make the cable management a better smooth procedure.
9. Do not install optional upgrade video card / TV tuner card / Sound card at once. Use everything on board (video & sound) to configure system and install operation system. After then, install the upgrades one by one and restart the system on every step to ensure component compatibility and save times of troubleshooting when issue arises.

## Installation

Step 1: Make more room to work on

1. Open the top cover
2. Remove the DVD bracket



(Reference Only)

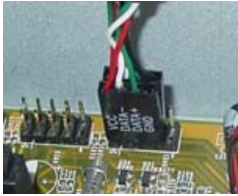
Step 2: Connect cables

1. Install motherboard

2. Connect front panel / LCD cables
  - a) Connect Front USB 2.0, IEEE 1394 and Audio Connectors
  - b) Connect PWR Switch
  - c) Connect RESET Switch
  - d) Connect front AV capture port cable
  - e) Connect LCD cables

See below table for more details

## Connectors



(Picture for reference only)

### Step 1: Connect Front USB 2.0, IEEE 1394 and Audio Connectors

See motherboard user manual for location and connection.

#### USB Port Color Codes:

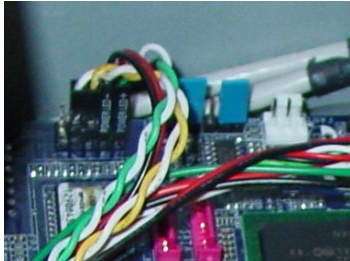
Red = +5V  
 White = Data- (-D)  
 Green = Data+ (+D)  
 Black = Ground (GND)

#### IEEE 1394 Color Codes

Black -- Ground (GND)  
 Red -- +5V  
 Blue -- +TPB (TPB+)  
 White -- -TPB (TPB-)  
 Yellow -- +TPA (TPA+)  
 Green -- -TPA (TPA-)

#### Audio Interface

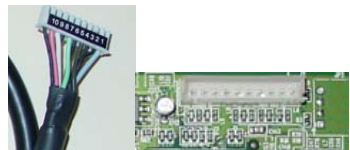
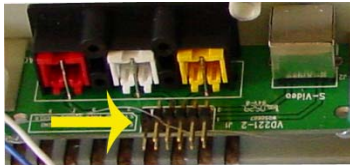
Pin 1 (MIC IN) Red  
 Pin 2 (MIC GND) Black  
 Pin 5 & 6 (SR)  
 Pin 7 (Empty) White  
 Pin 8 & 9 (SL)  
 (AC97 Codec Header)



#### Connect front Power switch connectors

#### PWR SW

See motherboard user guide for connection



#### Install AV Capture Module

- o Use the thick extension cable to connect the 10 pins header of the A/V capture module (label face-up)
- o Route the extension cable to the back of the case via the S/PDIF PCI slot hole
- o Secure the cable with the cable lock
- o Connect the Audio/Video headers to the TV tuner capture card accordingly

If you are using a MCE compatible TV tuner card that comes with an onboard 10 pin capture port (white connector), use the equipped AV internal capture cable to connect the front AV capturing module to the onboard connector directly.

### Install Internal MCE Receiver

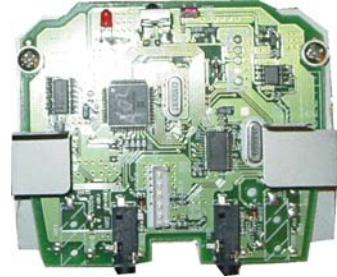
User can convert the external MCE receiver dongle internally by installing the receiver PCB on the MCE Receiver IR Rack that comes with the case. (Right below the power button)

- Unscrew the 2 thumb screws and take out the IR receiver rack
- Take out the MCE external receiver plastic enclosure by removing the two front rubber legs
- Carefully install the MCE receiver module to the rack (check rack to ensure no metal touching to avoid circuit shortage)
- Secure the MCE receiver rack back to the case, make sure the IR sensor head is facing accurately behind the plastic window
- Connect the receiver via the equipped USB converter cable to the onboard USB port

Route the MCE IR Blaster sensor heads to the back of the case via the S/PDIF PCI slot hole and stick them to the set top box's IR point

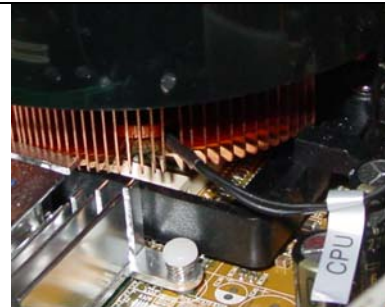


Make sure no metal touching to avoid shortage



### Connect LCD Cables (Some of these steps follow after CPU & Cooler installation)

- Use the orange tape in the accessory bag to tape the CPU heat sensor to the CPU heatsink so that LCD can display the CPU temperature accurately
- Connect the CPU heatsink fan to the LCD "CPU Fan" adapter, if your motherboard has the auto fan speed control function (base on CPU temp); plug the extension cord to the motherboard fan connector. In this case, the LCD will only display fan speed, no fan speed control will be available via the front knob

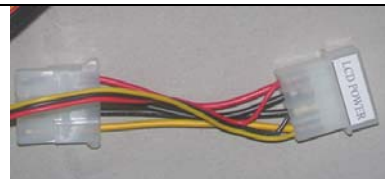


<<Periodically check sensor head placement is recommended to ensure accurate CPU Temperature Reading>>

### Connect LCD PWR connector

Connect it directly to the Power Supply 12V connector. Like connecting the case fan. The power connector will serve:

- LCD Module
- Power Button LED light
- 80mm HDD Cooling fan



### VFD (optional purchase to add on)

If you wish to add a programmable VFD, The 288 model is fully compatible with the 20X2 MCE VFD module. Please check our website for more details:

[http://www.nmediapc.com/support\\_280VFD.htm](http://www.nmediapc.com/support_280VFD.htm)



**Organize the cables with provided tied cables.** See picture for reference.

## Install the VFD (optional) Module

- First, perform a quality check, turn off your system (after build), hold the module, and simply plug the USB cable to the onboard USB port, and turn on your system, your initial screen will show up with USB power. Then, follow the below steps to install the VFD.
- Take out the 4 screws that hold the front panel
- Remove the black blocking filter on the VFD window
- Install the VFD module
- Secure the panel back to the case
- Connect the USB cable to the module and onboard USB port
- Install Driver CD



Note: If you are installing the VFD after the system is built, some cables may need to be re-routed.

## Other Component Installation

For other components, including hard drive; RAM; CPU & cooler; optical drive, video card, sound card, TV tuner card and operating system etc., plan the installation steps carefully, and follow the user manual and motherboard manual instruction to avoid damages. Always install the power supply at last to make more space during the installation process.

## LCD Module

LCD will display the CPU & Case Temp. reading / CPU Cooler Fan Speed reading



### Alarm Features

#### CPU Alarm Temperature

When CPU temperature hits 65°C or 149F, the temperature reading will flash constantly until the temperature drops below the alarm degree.

#### CPU Fan Alarm

When the fan stops running for whatever reason during working mode, the CPU fan speed reading will flash constantly in "0000" until the fan is re-spinning again.

LCD shows CPU temperature and CPU heatsink fan speed when connecting appropriately. The fan speed is automatically adjusted by the CPU temperature. See below chart for more details.

CPU Temp→	0-86 F	86 F & up	104 F & up	122 F & up
CPU Fan Spin Speed	70% of full speed	80% of full speed	90% of full speed	100% full speed

## S/PDIF Output Connection

It is a standard S/PDIF output jack. Connect the header to the onboard S/PDIF output port, and connect the jack to your receiver via a coaxial digital cable. (remember to change your Audio setting to pure digital output) See below color codes when connecting the cable to the board:

- White – "Data" or "S/PDIF out"
- Black – Ground



## Reference

### Chassis Support

NMEDIA SYSTEM, INC

[support@nmediapc.com](mailto:support@nmediapc.com)

<http://www.nmediapc.com>

## Safety Instructions

Always read the step by step installation instruction to protect your components

Keep the user guide for future reference

Keep away from humidity, liquid and temperature above 60c (140 f) environment

Make sure the voltage of the power supply and adjust properly 110/230V

Always unplug the power cord before inserting any add-on devices

Get the system checked by service personnel if below happens:

- The power cable is damage
- Liquid has penetrated into the system
- Dropped and damaged

## RMA Return Policy

- All accessories and cables must be returned as they were shipped
- Carefully re-packaging is needed to avoid shipping damages

All warranties are subject to properly uses. Any human power damages return may be rejected according to warranty terms and conditions