

User Guide

EVGA Classified

Super Record 2 (SR-2)

Dual Xeon

Motherboard

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Before You Begin...

Thank you for purchasing the EVGA Super Record 2 (SR-2) Motherboard.

This is the premier dual socket enthusiast class motherboard.

With this purchase you not only receive the best dual Xeon motherboard built for the enthusiast, by the enthusiast, you also receive industry leading technical support. If you ever have any issues we are here to support you and your purchase for the life of the product.

Parts NOT in the Kit

This kit contains all the hardware necessary to install and connect your new EVGA Classified SR-2 motherboard. However, it does not contain the following items that must be purchased separately to make the motherboard functional.

- ❑ 1 or 2 Intel 1366 Xeon Dual QPI microprocessors:
- ❑ Cooling fan for each microprocessor
- ❑ System memory support
- ❑ Graphics Card
- ❑ Power Supply

EVGA assumes you have purchased all the necessary parts needed to allow for proper system functionality.

Intentions of the Kit

This kit provides you with the motherboard and all connecting cables necessary to install the motherboard into a PC case. If you are *building* a PC, you will use most of the cables provided in the kit. If however, you are *replacing* a motherboard, you will not need many of the cables.

When *replacing* a motherboard in a PC case, you will need to reinstall an operating system even if the current drives have an operating system already.

EVGA Classified Super Record (SR-2) Dual Xeon Motherboard

Motherboard Specifications

- ❑ Size
HPTX (High Performance Technology Extended) form factor of 15 inches x 13.6 inches
- ❑ Microprocessor support
Intel 1366 Xeon Dual QPI Microprocessor
- ❑ Operating systems:
Supports Windows XP 32bit/64bit , Windows Vista 32bit/64bit or Windows 7 32bit and 64bit (64bit Recommended)
- ❑ Contains Intel 5520 and ICH10R chipset
- ❑ System Memory support
Supports triple channel DDR3-1600+ (Overclocked). Supports up to 48GBs DDR3 (ECC or Non ECC memory).
- ❑ USB 2.0 Ports
Supports hot plug
Ten USB 2.0 ports (six back panel ports, four onboard USB headers)
Supports wake-up from S1 and S3 mode
Supports USB 2.0 protocol up to 480 Mbps transmission rate
Two USB 3.0 ports (Rear panel)
Backwards compatible USB 2.0 and USB 3.0 support.
Supports up to 4.8Gbps transmission rate

- ❑ Six(6) onboard Serial ATA II
300MBps data transfer rate
Six SATA II connectors from south bridge ICH10R with support for RAID 0, RAID 1, RAID 10, and RAID 5
- ❑ Two (2) SATA II connectors from JMicron JMB362 (two rear panel port for E-SATA,)
- ❑ Two (2) SATA3 600MBps onboard connectors from Marvell 9128 Chipset
- ❑ Onboard LAN
Dual LAN interface built-in onboard marvell 88E8057 chipset.
Supports 10/100/1000 Mbit/sec Ethernet
- ❑ Onboard Audio
Realtek High-Definition audio
Realtek Chipset ALC889
Supports 8-channel audio
Supports S/PDIF output
Supports Jack-Sensing function
- ❑ PCI-E Support
Seven (7) PCI-E 2.0 Slots
Supports 4 GB/sec (8 GB/sec concurrent) bandwidth
Low power consumption and power management features
- ❑ Green Function
Supports ACPI (Advanced Configuration and Power Interface)
Supports S0 (normal), S1 (power on suspend), S3 (suspend to RAM), S4 (Suspend to disk - depends on OS), and S5 (soft - off)

Unpacking and Parts Descriptions

Unpacking

The EVGA Classified SR-2 motherboard comes with all the necessary cables for adding a motherboard to a new chassis. If you are replacing a motherboard, you may not need many of these cables.

Be sure to inspect each piece of equipment shipped in the packing box. If anything is missing or damaged, contact your reseller.

Equipment

The following accessories are included with EVGA Classified - motherboard.



The EVGA Classified SR-2 Motherboard

This motherboard contains the Intel 5520 and ICH10R chipset and is SLI-ready for 2-way, Quad, 3-way, 3-way SLI w/ PhysX and 4-way SLI configurations.



Visual Guide

Helps to quickly and visually guide you through the hardware installation of the motherboard.



I/O Shield

Installs in the system case to block radio frequency transmissions, protect internal components from dust, foreign objects, and aids in proper airflow within the chassis.



3 - 2-Port SATA Power Cables

Allows a Molex power connector to adapt to a SATA power connector.



1 - 4-Port USB Bracket

Provides one (4) additional USB ports on the rear of the case.



6 - SATA Data Cables

Used to support the Serial ATA protocol and each one connects to a single drive to the motherboard.



1 - IDE-ATA 133 HDD Cable

Passes data between the IDE connection on the motherboard and IDE device.



1 - 2-Way SLI Bridge

Bridges two (2) graphic cards together which allows for 2-Way SLI.



1 - 3-Way SLI Bridge

Bridges three (3) graphic cards together which allows for 3-Way SLI.



1 - 4-Way SLI Bridge

Bridges four (4) graphic cards together which allows for 4-Way SLI. (on select card models)



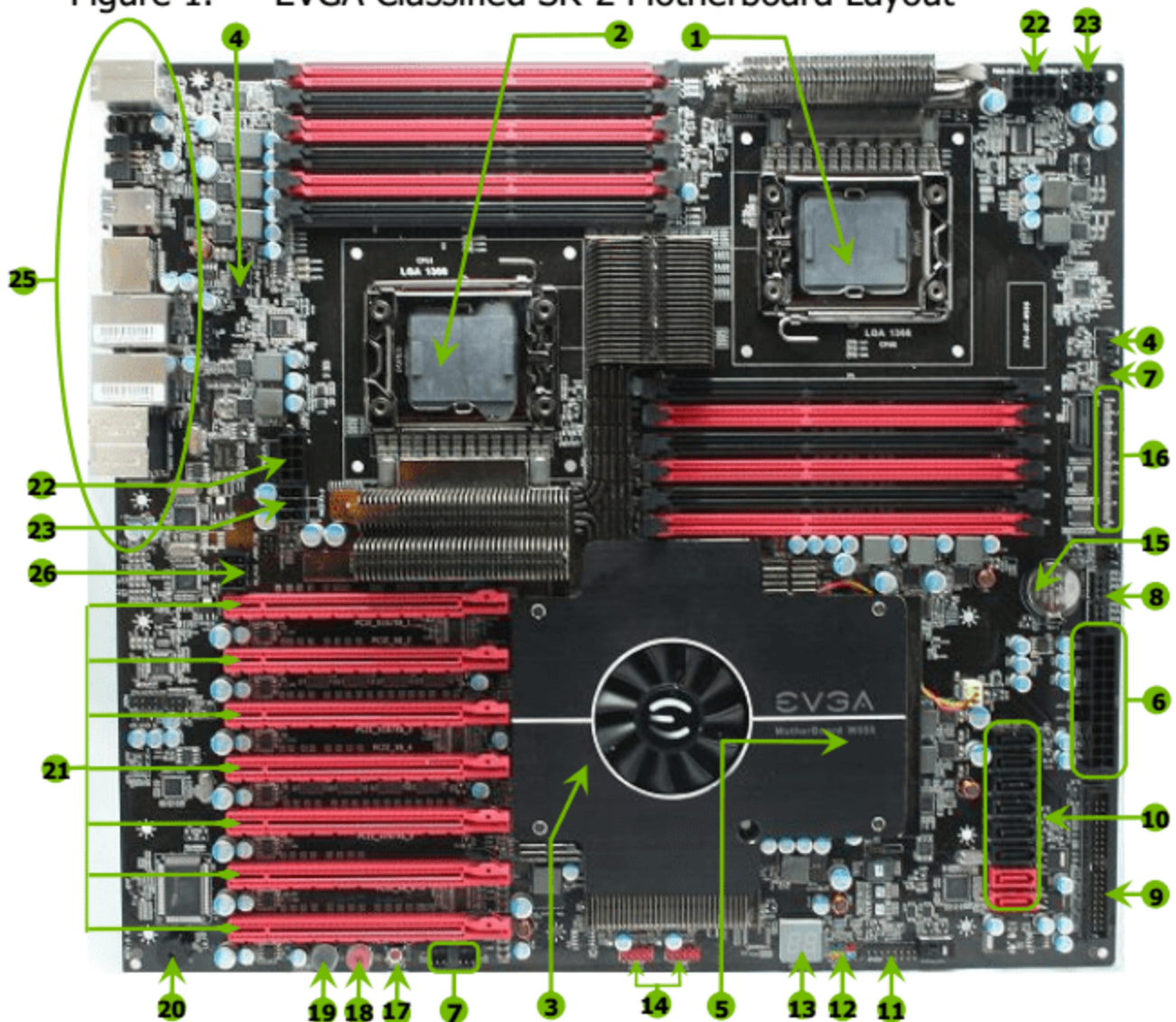
1 - Installation CD

Contains drivers and software needed to setup the motherboard.

EVGA Classified SR-2 Motherboard

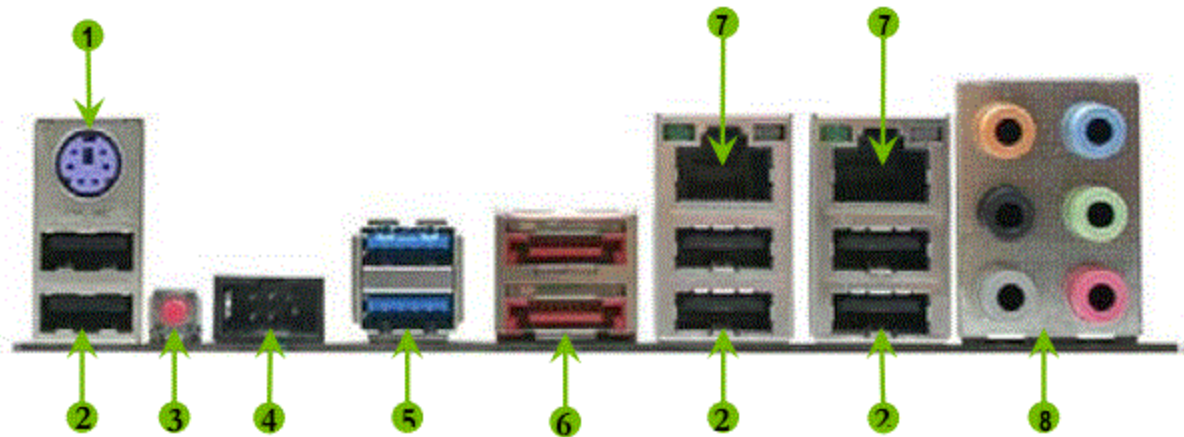
The EVGA Classified SR-2 Motherboard with the Intel 5520 and ICH10R chipset is a SLI-ready motherboard. Figure 1 shows the motherboard and Figure 2 shows the back panel connectors.

Figure 1. EVGA Classified SR-2 Motherboard Layout

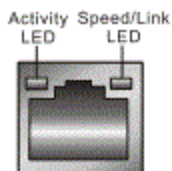


1. Primary CPU socket	11. P80P connector (ECP V3)	21. PCI-E 2.0 slots
2. Secondary CPU socket	12. Front panel connector	22. 8-pin ATX_12V power connector
3. NVIDIA NF200 Chipsets	13. Debug LED Display	23. 6 Pin CPU power (optional)
4. CPU Fan headers	14. USB headers	24. Front panel Audio connector
5. Intel 5520 + ICH10R Chipsets	15. CMOS battery	25. Back panel connectors (Figure 2)
6. 24-pin ATX power connector	16. EZ voltage read points	26. 6 Pin power for PCI-E slots
7. Fan connectors	17. CMOS clear button	
8. PCI-E x16 disable jumpers	18. Power button	
9. IDE connector	19. Reset button	
10. Serial-ATA (SATA) connectors	20. PC Speaker	

Figure 2. Motherboard I/O Panel Connectors



1. PS/2 Keyboard Port
2. USB 2.0 ports
3. CMOS Clear Button
4. EVBot Connector
5. USB 3.0/2.0 ports (Two)
6. E-SATA ports (Two)
7. Dual Lan Ports with LEDs to indicate status



Activity LED Status	Description
Off	No data transmission
Blinking (Green)	Data transmission

Speed/Link LED Status	Description
Yellow	1000 Mbps data rate
Green	100 Mbps data rate
Off	10 Mbps data rate

8. Audio Port	2-Channel	6-Channel	8-Channel
Blue	Line-In	Line-In	Line-In
Green	Line-Out	Front Speaker Out	Front Speaker Out
Pink	Mic In	Mic In	Mic In
Orange		Center/Subwoofer	Center/Subwoofer
Black		Rear Speaker Out	Rear Speaker Out
Gray			Side Speaker Out

Hardware Installation

This section will guide you through the installation of the motherboard. The topics covered in this section are:

- ❑ Preparing the motherboard
- ❑ Installing the CPU's
- ❑ Installing the CPU fans
- ❑ Installing the memory
- ❑ Installing the motherboard
- ❑ Connecting cables

Safety Instructions

To reduce the risk of fire, electric shock, and injury, always follow basic safety precautions.

Remember to remove power from your computer by disconnecting the AC main source before removing or installing any equipment from/to the computer chassis.

Preparing the Motherboard

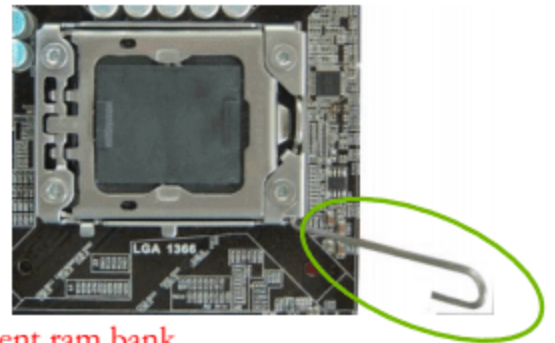
The motherboard shipped in the box does **not** contain a CPU or memory. You need to purchase these to complete the installation.

Installing the CPU

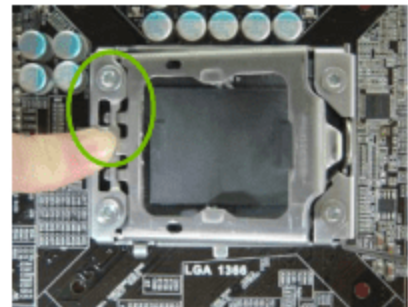
Be very careful when handling the CPU. Make sure not to bend or break any pins inside the socket. Hold the processor only by the edges and do not touch the bottom of the processor.

Use the following procedure to install the CPU onto the motherboard.**

****Please ensure that with single processor usage you are using CPU socket 0 and the adjacent ram bank.**



1. Unhook the socket lever by pushing *down* and *away* from the socket.
2. Put your finger on the tail of the load plate and press the tail down
3. Lift the load plate. There is a protective socket cover in the socket to protect the socket when there is no CPU installed.
4. Remove the protective socket cover from the CPU Socket.



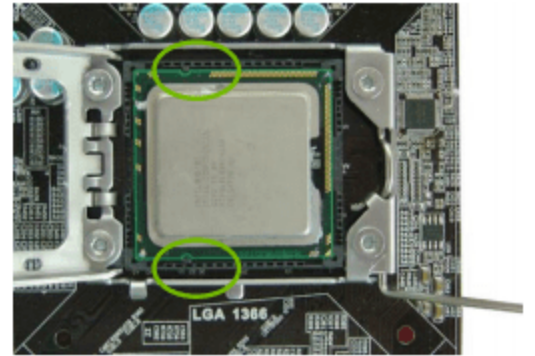
Remove the processor from its protective cover, making sure you hold it only by the edges. It is a good idea to save the cover so that whenever you remove the CPU, you have a safe place to store it.



5. Align the notches of the socket with the notches on the cpu.
6. Lower the processor straight down into the socket without tilting or sliding it into the socket

Make sure the CPU is fully seated and level in the socket.

7. Close the load plate over the CPU and press down while you close and engage the socket lever.
8. The CPU installation is complete.



Align notches with notches on the CPU



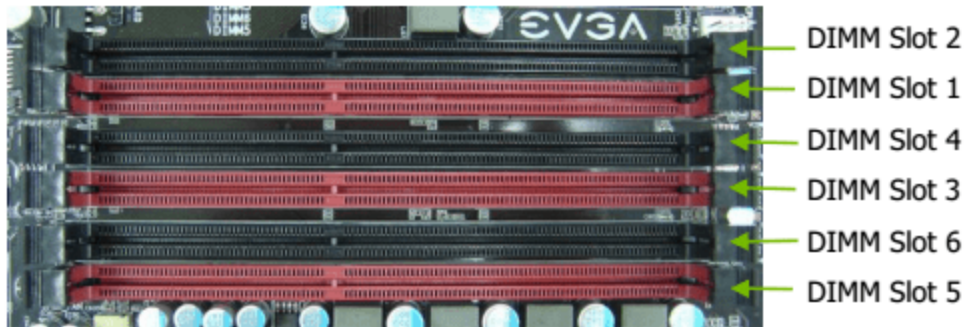
Installing the CPU Fan

There are many different fan types that can be used with this motherboard. Follow the instruction that came with your fan assembly. Be sure that the fan orientation is correct for your chassis type and your fan assembly.

Installing DIMMs

Your new motherboard has twelve (12) 240-pin slots for DDR3 DIMMs (ECC or Non ECC). They are arranged in two (2) sets of Six (6) slots each. These slots support 1Gb, 2Gb, and 4Gb DDR3 technology. There must be at least one DIMM slot populated in each bank to ensure normal operation. Use the following recommendations for installing DIMMs. (See Figure 1 on page 16 for the location of the DIMM slots.)

- ❑ **One DIMM:** If using 1 DIMM (**Single Channel**), install into: **DIMM slot 1.**
- ❑ **Two or Four DIMMs:** If using 2 DIMMs (**Dual Channel**), install into: **DIMM slots 1 and 3.** If using 4 DIMMs (**Dual Channel**), install into: **DIMM slots 2, 1, 4, and 3.**
- ❑ **Three DIMMs:** If using 3 DIMMs (**Triple Channel**), install into: **DIMM slots 1, 3 and 5.**
- ❑ **Six DIMMs:** If using more than 4 DIMMs, use: **DIMM slots 2, 1, 4, and 3** then proceed to occupy the following DIMM slots in this order: 6 and 5.



Use the following procedure to install DIMMs. Note that there is only one gap near the center of the DIMM slot. This slot matches the slot on the DIMM to ensure the component is installed properly.

1. Unlock a DIMM slot by pressing the module clips outward.
2. Align the memory module to the DIMM slot, and insert the module vertically into the DIMM slot. The plastic clips at both sides of the DIMM slot automatically lock the DIMM into the connector.

Installing the Motherboard

The sequence of installing the motherboard into the chassis depends on the chassis you are using and if you are replacing an existing motherboard or working with an empty chassis. Determine if it would be easier to make all the connections prior to this step or to secure the motherboard and then make all the connections. It is normally easier to secure the motherboard first.

Use the following procedure to install the I/O shield and secure the motherboard into the chassis.

Be sure that the CPU fan assembly has enough clearance for the chassis covers to lock into place and for the expansion cards. Also make sure the CPU Fan assembly is aligned with the vents on the covers.

Installing the I/O Shield

The motherboard kit comes with an I/O shield that is used to block radio frequency transmissions, protects internal components from dust and foreign objects, and promotes correct airflow within the chassis.

Before installing the motherboard, install the I/O shield from the *inside* of the chassis. Press the I/O shield into place and make sure it fits securely. If the I/O shield does not fit into the chassis, you would need to obtain the proper size from the chassis supplier.

Securing the Motherboard into the Chassis

Most computer chassis have a base with mounting studs or spacers to allow the motherboard to be secured to the chassis and help to prevent short circuits. If there are studs that do not align with a mounting hole on the motherboard, it is recommended that you remove that stud to prevent the possibility of a short circuit. In most cases, it is recommended to secure the motherboard using a minimum of nine (9) spacers.

1. Carefully place the motherboard onto the studs/spacers located inside the chassis.
2. Align the mounting holes with the studs/spacers.
3. Align the connectors to the I/O shield.
4. Ensure that the fan assembly is aligned with the chassis vents according to the fan assembly instruction.
5. Secure the motherboard with a minimum of nine screws.

Connecting Cables and Setting Switches

This section takes you through all the connections and switch settings on the motherboard. This will include:

- ❑ Power Connections
 - 24-pin ATX power (**PW1**)
 - 8-pin ATX 12V power (**PW12-P0-1**, **PW12-P1-1**)
- ❑ Internal Headers
 - Front Panel Header
 - USB Headers
 - Audio Header
- ❑ IDE
- ❑ SATA II/SATA 6Gbps
- ❑ Chassis Fans
- ❑ USB 2.0/3.0
- ❑ Expansion slots
- ❑ CMOS Clear Button
- ❑ Jumper Settings

See Figure 1 on page 16. to locate the connectors and jumpers referenced in the following procedure.

24-pin ATX Power (PW1)

PW1 is the main power supply connector located along the edge of the board next to the SATA ports. Make sure that the power supply cable and pins are properly aligned with the connector on the motherboard. Firmly plug the power supply cable into the connector and make sure it is secure.



PW1 connector
Plug power cable from system
power supply to PW1