▲MAGMA™

Quick Installation Guide

Magma
9918 Via Pasar, San Diego, CA 92126, USA
Phone (800) 285-8990 US, (858) 530-2511 • Fax (858) 530-2733

www.magma.com

Magma
ExpressBox^4 1U

Package Contents

(1) Magma EB4-1U chassis

(1) Magma PCIe Host Card

(1) PCIe Cable

(2) Rack Slides and mounting hardware

(2) Power Cords

(!) IMPORTANT

Important safety information and other information on how to use Magma ExpressBox^4 are provided in the User Guide. This manual is available online for a download at www.magma.com/support/manuals.
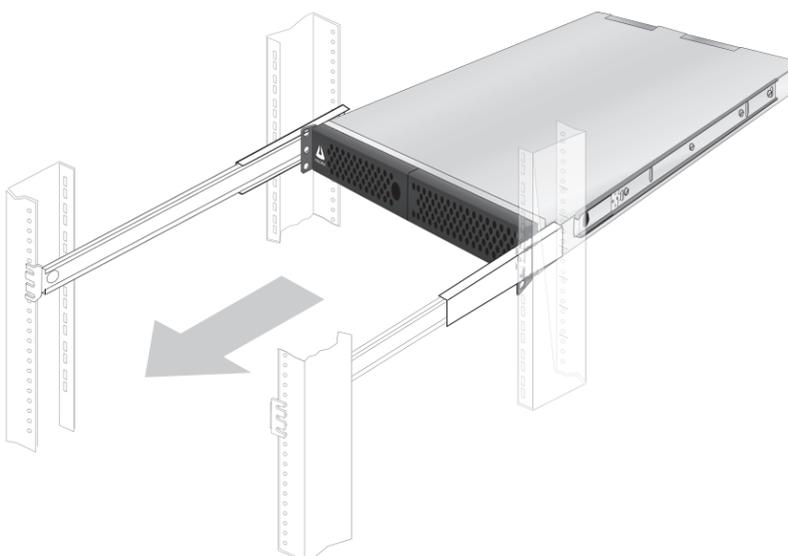
1 Install in the Cabinet

Secure the rack mount slides to the inside of the cabinet using the provided screws and bracket as described in the provided Installation Instructions sheet.

Fold the hinged mounting brackets on the front of the chassis forward. Insert the chassis into the slides, front first, from the rear of the cabinet.

Insert chassis into slides

Fold Rack Ears Forward

Slide the chassis forward using the slide rails as a guide. Push the chassis forward until you can unfold the front hinged mounting brackets and secure to front the rack posts.
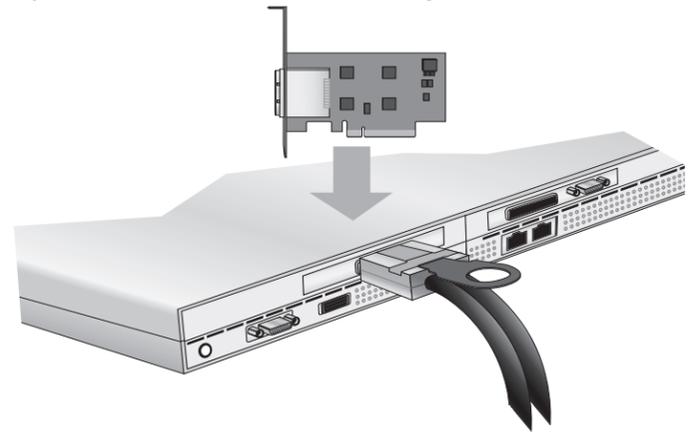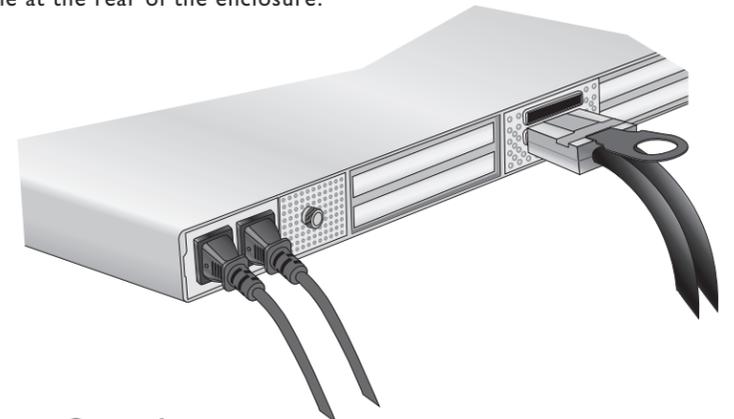

---

2 Insert PCIe Host Card and Connect Cables

Insert the Magma PCIe host card into a vacant x8 or x16 PCI Express slot in host computer or server. Secure with retaining screw.


Connect one end of the PCI Express cable to the Magma PCIe Host card installed in the host computer. Connect the power cords and other end of PCIe cable at the rear of the enclosure.
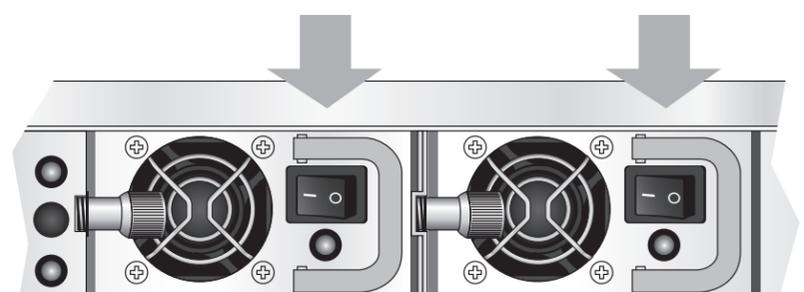

3 Apply Power Correctly

It is important to apply power to ExpressBox^4 first and then the computer. This allows the computer BIOS to identify and assign resources properly.

Turn on power using the master power switch on the front of the chassis.
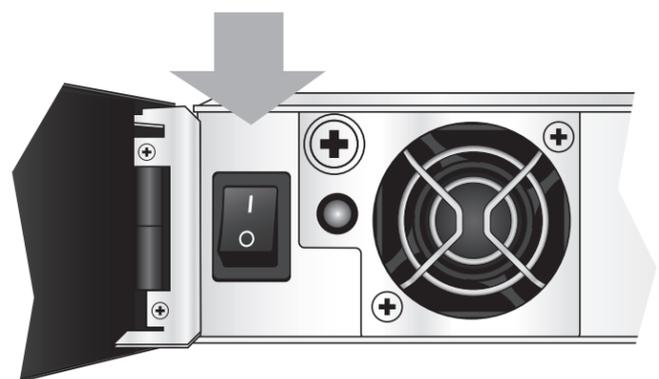
NOTE: There are two power supply modules included in ExpressBox^4. Ensure that the ON/OFF switch is in the ON position.
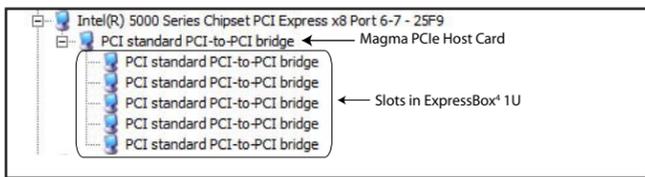

Magma ExpressBox^4 will be transparent to your operating system. There is no software required for proper configuration; however your operating system may prompt for software or drivers for PCI Express cards later.

4 How to Verify Installation

When installed properly, the slots in ExpressBox[4] will be visible in your Windows Device Manager or Apple System Profiler. If the slots are not visible, or have a problem, go to Troubleshooting.

1. Windows Enterprise Server 2000: Click on START > CONTROL PANEL > SYSTEM > HARDWARE > DEVICE MANAGER > View > View by Connections > Open PCI Express Root Port to see open slots in ExpresssBox[4].

```
⊟ ⊞ Intel(R) 5000 Series Chipset PCI Express x8 Port 6-7 - 25F9
    ⊟ ⊞ PCI standard PCI-to-PCI bridge  ◄─── Magma PCIe Host Card
        ⊞ 📇 PCI standard PCI-to-PCI bridge
        ⊞ 📇 PCI standard PCI-to-PCI bridge
        ⊞ 📇 PCI standard PCI-to-PCI bridge  ◄─── Slots in ExpressBox⁴ 1U
        ⊞ 📇 PCI standard PCI-to-PCI bridge
        ⊞ 📇 PCI standard PCI-to-PCI bridge
```

2. MAC OS X: Click on ABOUT THIS MAC > MORE INFO > DEVICES > Open 'PCI cards' option on left side to see open slots in ExpressBox

Card	Type	Bus	Slot ▲
ATY,RadeonX1900	display	PCI	Slot-1
pci-bridge	PCI-to-PCI Bridge	PCI	Slot-3 ◄─── Magma PCIe Host Card
pci-bridge	PCI-to-PCI Bridge	PCI	Slot-3@5,0,0
pci-bridge	PCI-to-PCI Bridge	PCI	Slot-3@5,1,0
pci-bridge	PCI-to-PCI Bridge	PCI	Slot-3@5,2,0 ◄─── Slots in ExpressBox⁴ 1U
pci-bridge	PCI-to-PCI Bridge	PCI	Slot-3@5,3,0
pci-bridge	PCI-to-PCI Bridge	PCI	Slot-3@5,4,0

5 Install PCI Express cards

For easy serviceability, the PCI Express slots are accessible without removing the lid of the enclosure. The backplane is mounted to a movable carriage from the rear of the chassis.
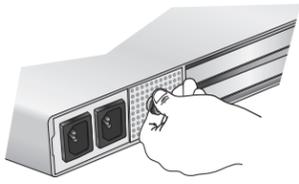
For convenience, Magma ExpressBox[4]1U uses thumbscrews for easy access to the internal PCI Express® slots. Loosen the thumbscrews to release and open the carriage.
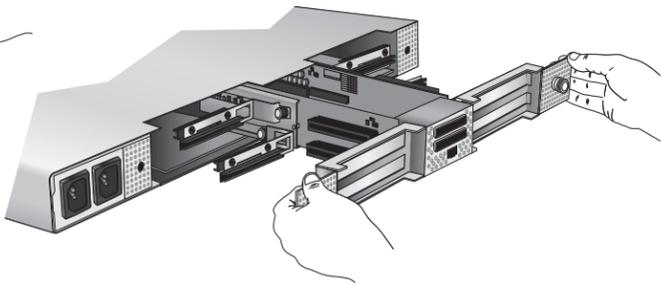
Adjustable card retainers should be used to hold the PCI Express cards securely in place. Use the thumbscrews to loose and rotate the card retainers to the appropriate position for securing the card.

Be sure to apply power to ExpressBox[4] first, then the host computer. Your operating system may prompt for software or drivers for the PCI Express cards you have installed in ExpressBox[4]. Follow instructions provided by the PCI Express card manufacturer.

6 Additional Features:

SNMP protocol support:

The expansion system utilizes the SNMP protocol to monitor and report normal operation parameters as well as alerts and failure events. It offers the following features:

- Support for SNMP v2.
- Real time, Ethernet-based system health reporting is accessible via a standard web browser or an equivalent SNMP-based agent, while the chassis can support both DHCP and static IP setups.
- Flexible SNMP trap management allows for early detection of chassis failures. Such events include: chassis overheating, swappable fan failure and swappable power supply failure.
- Real time reporting of chassis temperature as probed in two locations within the chassis is available via the same interface.
- The SNMP agent supports managers across multiple platforms (DOS, Linux, UNIX etc.)

In addition to SNMP monitoring and reporting, the chassis features an audible, alert for over-temperature, fan failure or power supply failure.

Hot-Plug support:

Removal and replacement of PCI Express peripheral cards is supported via an independent hot-plug mechanism as follows:

- User friendly interface allows initiating a hot-swap request without affecting the operation of the entire system.
- Any one of the four PCIe peripherals can be stopped and replaced with the same or equivalent peripheral.
- All four expansion slots are designed to protect a PCIe peripheral electrically in the event of its surprise removal.

SNMP

! IMPORTANT: Additional information about configuring SNMP and utilizing Hot-Plug features can be found in the user manual at www.magma.com/support/manuals.

? Troubleshooting

**Problem:** ExpressBox[4] does not power on.

Solution: Make sure both power cords are connected to power source. Make sure both power supplies are set to ON or 1 on the front of the chassis. Push power button on front left side of chassis to power up. You should see two green LED's, one on each power supply. You should see a green led next to the lightening bolt picture.

Problem: System halted on boot.

Solution: Make sure the Magma PCIe host card is properly seated in the host computer and check the DIP switch setting on the host card. The DIP switch setting must be x8 if the host card is inserted into a x8 PCI Express slot or set to x4 if using a x4 PCI Express slot.

Problem: Additional slots not seen in Device Manager.

Solution: Make sure the cable is installed correctly. The lower connection should be used for connecting a single chassis to a host machine. The upper connection should be used for expanded or "daisy-chained" configurations. You will be able to locate your PCI Express cards under one of the root ports in your host system by viewing Device Manager or Apply System Profiler.
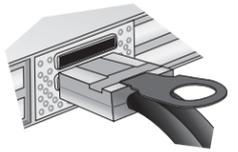
If trouble persists, contact Technical Support.

Technical Help

Contact Technical Support by phone at (858) 530-2511. Support is available Monday through Friday, 8:00 AM to 5:00 PM Pacific Time.

Web: **www.magma.com/support**