

Dell PowerEdge R710

Disassemble • Transport • Open-Bench • Learn

A practical guide to strip, pack, bring to Cebu, and build an open-frame training server.



SAVE SPACE
No heavy chassis



TRAVEL FRIENDLY
Fits in checked luggage



HANDS-ON LEARNING
See everything



COST EFFECTIVE
Reuse existing hardware



BUILD SKILLS
Server, virtualization, networking, Docker



PERFECT FOR
Your Cebu DockerLab

1 R710 OVERVIEW



Dell PowerEdge R710 (2U)

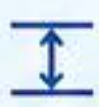
Enterprise server (2010) – Great for training and lab use



44.3 cm
Width



68.1 cm
Depth



8.6 cm
Height



Up to 26.1 kg
(57.5 lb)
(max config)

2 WHY DISASSEMBLE?



Easier to travel
Chassis is heavy and bulky



Fits in checked luggage
Electronics are compact



Lower weight
Leave steel chassis behind



Safer transport
Better protection for components



Perfect for training
Open-bench lets you see and learn

3 FULL SERVER vs. STRIPPED COMPONENTS

Complete R710
(Not Recommended for Travel)



- ✗ Large and heavy
- ✗ Difficult to pack
- ✗ May exceed luggage limits
- ✗ Higher risk of damage
- ✗ Unnecessary weight (steel chassis)

Stripped Components
(Recommended)



- ✓ Compact and lighter
- ✓ Fits in checked luggage
- ✓ Easier to protect
- ✓ Bring only what you need
- ✓ Ideal for open-bench setup

4 WHAT TO REMOVE (LEAVE IN TEXAS)



Steel chassis



Drive cage



Front bezel



Rack rails



Fan duct / shroud



Backplane
(if not using)



Chassis covers



Cosmetic pieces

5 WHAT TO KEEP (BRING TO CEBU)



System board
(motherboard)



CPU(s)
(with heatsinks)



RAM (DIMMs)



PCIe risers



PERC / RAID
controller



NICs
(network cards)



PSU(s)
(power supplies)



Fan assembly
(recommended)



Control panel
& cable



Drives
(optional)



iDRAC Enterprise
(if installed)

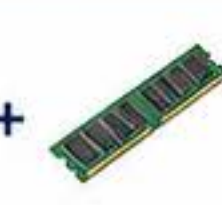
6 MINIMUM TO POST (BASIC TEST SETUP)



System board



CPU 1 + heatsink



1 x DIMM (A1)



PSU



PCIe riser

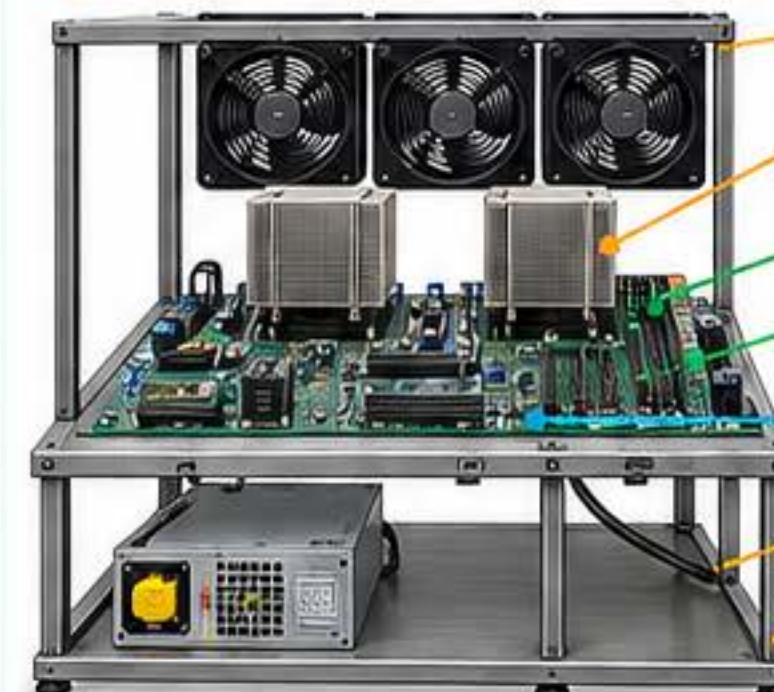


Control panel



This is the **minimum** hardware
to get a POST (per Dell documentation).
Add components step by step.

7 OPEN-BENCH SETUP (RECOMMENDED)



High-airflow fans
(or OEM fan assembly)

CPU heatsinks
(original Dell)

RAM

Motherboard
(on nonconductive bench)

PCIe cards
(PERC, NIC, etc.)

PSU(s)

Open frame
(aluminum/wood/acrylic)

8 COOLING REQUIREMENTS (IMPORTANT)



R710 uses 4 fans
(single CPU) or 5 fans
(dual CPU).



Maintain front-to-back
airflow across CPUs,
RAM, chipset, PERC, PCIe



Use OEM fan assembly
or high-volume fans



Monitor temperatures
(Dell designed specific
airflow path)



Do NOT run the system without proper cooling.

The fan shroud directs airflow to critical components (CPUs, RAM, chipset, PERC, PCIe).

9 DISASSEMBLY STEPS (IN TEXAS)

- 1 Power down and remove all drives
- 2 Photograph and label everything (cables, parts, order)
- 3 Remove PCIe cards and risers
- 4 Remove fan assembly
- 5 Remove PSUs
- 6 Remove control panel and cables
- 7 Remove system board (leave CPUs/heatsinks installed)

10 PACKING & TRAVEL TIPS



Use anti-static (ESD) bags
for motherboard, RAM, cards



Use foam and rigid containers
inside your luggage



Distribute weight across bags



Back up any important data
(do not rely only on checked luggage)



Label as fragile (if possible)



Follow airline weight and size limits



Keep an inventory list

11 REBUILD & LEARN (IN CEBU)

- ✓ Assemble open-bench frame
- ✓ Install motherboard, CPU(s), RAM
- ✓ Add PERC, NICs, drives
- ✓ Connect PSUs and cooling
- ✓ Power on and test (POST)
- ✓ Install hypervisor (VMware/Proxmox)
- ✓ Build your lab (AD, DNS, DHCP, VLANs)
- ✓ Deploy DockerLab and services
- ✓ Use for ongoing training and experimentation

12 R710 TRAINING ROADMAP



POST
(minimum config)



Add 2nd CPU



Add RAM



Add PERC
& drives



Add NIC



Install
hypervisor



Build VMs



Build network
(AD, DNS, DHCP)



Deploy
DockerLab



Deploy
DockerLab



Ongoing
experimentation

13 KEY CONSIDERATIONS

- ✓ Use nonconductive bench and proper standoffs
- ✓ Don't place motherboard directly on metal
- ✓ Bring OEM cooling components if possible
- ✓ Reproduce proper airflow
- ✓ Take lots of photos before disassembly
- ✓ Great opportunity to learn enterprise hardware

✓ **Yes** — You can run an R710 on the bench for training. Disassembling and bringing the components to Cebu is a practical and recommended approach.