Rack Mounting and the HP Workstation



Table of content

| Introduction | 2 |
|--|---|
| Rack Mounting for the HP Z4 G4 and HP Z6 G4 Workstations | |
| Rack Mounting for the HP Z8 G4 Workstations | |
| How HP Rack Kits fit "U" | |
| Environmentally friendly | 5 |
| Conclusion | 5 |

Introduction

Whether it is an IT technician servicing a single rack, or a team of professionals managing multiple data centers—with HP Rack Mounting Solutions, everyday tasks are made easy. HP rack mounting kits are engineered with the same customer-centric design philosophies that have made the Workstation product line a continuing success.

To maximize rack density, HP engineers have designed a low-profile fixed-rail solution that can be customized on-the-spot to fit the HP Z4 G4 or HP Z6 G4 Workstations. The system-tray features captive fasteners, allowing for quick and easy tool-free access to the Workstation.

For the HP Z8 G4 Workstation, HP continues to offer an enterprise-class rail solution that fully extends—allowing for in-rack configuration of the Workstation. Gaining access to the interior components of a rack mounted HP Z8 G4 Workstation is a tool-free operation.



Rack Mounting for the HP Z4 G4 and HP Z6 G4 Workstations

The HP Z4/Z6 Depth Adjustable Fixed Rail Rack Kit (**2HW42AA**) includes a set of fixed-rail support brackets that attach directly to the rack and provide a secure mounting platform for the system-tray and workstation. The fixed-rails are adjustable and can accommodate racks that are 24–30 inches deep. The system-tray is engineered to provide tool-free access to the workstation, allowing the workstation to be serviced without removing it from the rack.





Figure 1. The HP Z4/Z6 Depth Adjustable Fixed Rail Rack Kit (2HW42AA) assembled.

Figure 2. The HP Z4 G4 installed in the HP Z4/Z6 Depth Adjustable Fixed Rail Rack Kit (2HW42AA).

Rack Mounting for the HP Z8 G4 Workstations

The HP Z640/Z840/Z8 G4 Rail Rack Kit (**2FZ77AA**) features enterprise-class, three-section ball-bearing extension rails. These rails are fully extendable, allowing the unit to slide completely out of the rack for servicing. Whether it is adding memory, swapping hard disk drives or installing an option card, upgrading a rack mounted Workstation is a snap.

The HP Z640/Z840/Z8 G4 Rail Rack Kit rails installs into racks without using tools, making setup convenient and efficient. The inner slide and mounting flanges attach to the computer chassis using a set of screws for added strength and stability. The top mounting holes are concealed underneath the top plastic trim, which must be removed to attach the inner slide and mounting flanges.



Figure 3. A Rack Mounted HP Z8 G4 installed with an HP Z640/Z840/Z8 G4 Rail Rack Kit (2FZ77AA) showing access to interior Workstation components.

Some of our customers need to mount their workstations into racks that are only 24 inches deep (such as those commonly used in the Broadcast industry), instead of the 29-30 inch deep racks that are commonly used in the industry (including HP racks), so adjustability is an important objective. The HP Z640/Z840/Z8 G4 Rail Rack Kit is adjustable to accommodate racks 24–30 inches deep. For convenience, the adjustable rails are shipped configured to fit standard racks.

For customers looking to upgrade an existing rack mounted HP Z840, HP is offering the HP Z8 Rack Rail Upgrade Kit (2FZ76AA). The kit includes a set of inner slide rails, front flanges, and hardware necessary to perform a seamless upgrade to the new, more powerful, HP Z8 G4—all without removing rack kit hardware from the rack. Simply attach the HP Z8 Rack Rail Upgrade Kit to the HP Z8 G4, remove the HP Z840 from the rack, and replace with the configured HP Z8 G4.



Figure 4. The HP Z640/Z840/Z8 G4 Rail Rack Kit (2FZ77AA) components.

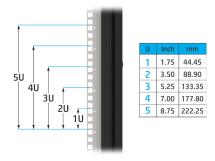


Figure 5. The HP Z8 Rack Rail Upgrade Kit (2FZ76AA) components.

How HP Rack Kits fit "U"

Broadcast and IT racks are typically measured in units of "U"—where each "U" is equal to 1.75" (44.5 mm). HP rack kits are designed to optimize the distribution of Workstations in a server rack—providing each unit with sufficient airflow to maintain ideal operating temperatures and adequate clearances to gain access to the Workstation. Refer to the table below to determine which rack kit is compatible with your Workstation, and how much space is required.

| HP Product Number | Description | Rack Type Supported ^{1,2} | HP Z4 G4 | HP Z6 G4 | HP Z8 G4 | HP Z240 | HP Z440 | HP Z640 | HP Z840 |
|----------------------|---|--|----------|----------|----------|---------|---------|---------|---------|
| 2HW42AA | HP Z4/Z6 Depth Adjustable Fixed Rail Rack Kit | IT Rack, Broadcast Rack | 4U | 4U | | | | | |
| 2FZ77AA | HP Z640/Z840/Z8 G4 Rail Rack Kit | IT Rack, Broadcast Rack ³ | | | 5U | | | 4U | 5U |
| 2FZ76AA | HP Z8 Rack Rail Upgrade Kit | IT Rack, Broadcast Rack ³ | | | 5U | | | | |
| WH340AA | HP Z2/Z4 Depth Adjustable Fixed Rail Rack Kit | IT Rack, Broadcast Rack | | | | 4U | 4U | | |



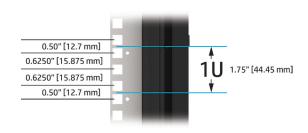


Figure 6. Layout and dimensions of a 5U rack space.

Figure 7. Rack mounting hole positioning in 1U rack space.

Environmentally friendly

HP is committed to environmental sustainability. The HP Workstation design team has taken a proactive approach (beyond just industry regulations) to recyclability and selecting materials that reduce the risk to the environment and health.

Conclusion

As a technology leader, HP continues to lead the way in innovative design solutions for rack mounting. HP rack mounting kits are engineered to improve the end user experience. HP is using its extensive experience in customer-centric designs to develop environmentally friendly, highly accessible, rack mounting solutions for today, and new innovations for tomorrow's more powerful systems.

For more information

hp.com/go/whitepapers

White papers with more depth on the capabilities and benefits of HP Z Workstations.

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¹IT Racks typically have 30" depth between the front and rear rails, and either round or square untapped holes with clip-on nuts.

 $^{^2}$ Broadcast racks have a depth of 24" between the rails and the mounting holes are typically tapped for #10-32 threads.

³ Parts for installing the sliding rack mount kit in HP legacy racks are sold separately in adapter kit part number WD587AA and are compatible with the following rack models: E3660B, E3661B, E3662B, E7590A, J1450B or J1487A/B.