



## Radial Engineering *Workhorse*

**Appetizer:** The Workhorse is a more sophisticated, more capable, and more costly re-thinking of what a 500-series rack frame should be. Rather than simply holding modules, the Workhorse puts increased emphasis on I/O and patching, additional module control, and internal mixing/monitoring.

**Main Course:** As expected, the Workhorse is compatible with 500-series modules that conform to the VPR Alliance guidelines, and holds up to eight single-space modules. Four of the single slots can also accommodate two dual-slot modules. Although you'll need Radial's modules to take advantage

of all of the Workhorse's extra capabilities, the spec is open and already, other manufacturers are designing modules that work in standard frames but also work in an "enhanced" mode with the Workhorse.

For example, although there's rear panel I/O (standard XLR, paralleled TRS 1/4", and D-Sub), Radial modules bus to the internal 8x2 mixer for adjusting level, muting, and panning, as well as driving two sets of headphones through a macho headphone amp (the outputs are isolated with Jensen transformers—cool). There's also switching to send one module's output directly to the next module's input, so you can create a series "channel strip" without patch cords; the standard API link function is also available for stereo modules. Furthermore, it's possible to cascade Workhorses for up to 32 channels.

There's a workaround with non-Radial modules for using the monitoring options: Use a TASCAM/Pro Tools D-Sub cable to connect the Workhorse's D-Sub direct outs (which parallel the module outs) to the D-Sub Summing Mixer inputs. This input also lets you access the mixer for "out of the box" analog summing. A third D-Sub connector provides paralleled access to the module inputs.

Rear panel I/O for each module includes a unique Radial feature, the "Omniport," which provides access to a particular module function such as a key input, split output, insert (e.g., delay feedback loop for adding filtering)—or whatever the designers decide to stick in there.

**Dessert:** The Workhorse is clearly designed as a premium way to hold 500-series modules, with performance, construction,

component quality, design, and price to match. It's built like a tank (all-steel construction), with a hefty 1.6 Amp global power supply (100-240V). This reserves 400mA for the mixer/monitor, with the remaining 1.2A available for the various modules—that's an average of 150mA per module, although modules can draw more than that as long as the total doesn't exceed 1.2A. Note there's no on-off switch.

There are less expensive, yet still effective, ways to get into 500-series modules; but if you want to take the 500-series experience beyond just putting modules in a frame and patching them into your system as needed, there's currently nothing like the Workhorse.

**The Check:** \$1,500; also available without the mixer (but it's retrofittable) for \$800

**Reservations:** [www.radialeng.com](http://www.radialeng.com)