

A . R . T .

TUBE MP STUDIO

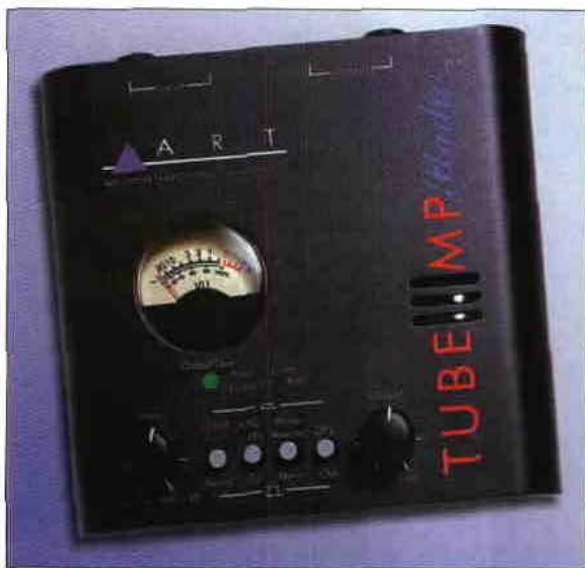
*Warm up your sound
with this tiny
well-featured monster.*

By Alex Artaud

A few years back, Applied Research and Technology (A.R.T.) introduced the Tube MP, an inexpensive single-channel tube mic preamp. The stompbox-size unit quickly gained a solid reputation with musicians and engineers for its versatility and clear, warm tone. Now A.R.T. has unveiled an enhanced version of the Tube MP called the Tube MP Studio (\$159), and it's quite an impressive little box.

RUNS IN THE FAMILY

The MP Studio looks identical to its precursor except that the newer unit has a VU meter. The unit's electronics are housed in an all-steel chassis with a flat-black finish. The construction is rugged, so taking the unit on the road isn't a problem.



The A.R.T. Tube MP Studio, an enhanced version of the original Tube MP, offers a new limiting feature and a VU meter.

Like the MP, the MP Studio provides continuously variable input- and output-level knobs and button switches for +20 dB gain, 48V phantom power, and phase reverse (actually, polarity reverse). The +20 dB gain switch lets you select between +6 to +40 dB and +26 to +60 dB overall gain, making the MP Studio useful for a wide range of signals. The gain switch is remarkably quiet, with no nasty clicks or dramatic increase in noise floor.

Also like its forebear, the MP Studio offers XLR and $\frac{1}{4}$ -inch input and output jacks. The multiple I/O adds considerably to the unit's versatility and, in combination with the ability to handle wide-ranging input levels, lets you use the MP Studio as a DI device (for electric basses, guitars, or whatever) and a mic preamp. In addition, the XLR and $\frac{1}{4}$ -inch inputs can be used simultaneously to sum signals, though the $\frac{1}{4}$ -inch input will be attenuated slightly.

The MP Studio's other new feature is an Output Protection Limiter (OPL), which basically does what it says. Available from a fourth push-button switch labeled OPL, the dedicated circuitry has been included to monitor and control peak signal levels. When it is engaged, the limiter executes a fast attack and slow release on peak-level sounds. The feature is helpful when recording sources with unpredictable dynamic content—especially to digital media—and it saves

you the hassle of bringing along a dedicated limiter for location recording. With OPL engaged and the output cranked up all the way, the MP Studio outputs 0 dBu at the $\frac{1}{4}$ -inch jack and +6 dBu at the XLR jack.

The MP Studio's VU meter is accurate and a reliable visual indicator of how hard the unit's 12AX7a tube is running. The 0 mark on the VU meter indicates +6 dBu at the $\frac{1}{4}$ -inch output and +12 dBu at the XLR output. With OPL in the pathway, the VU meter indicates the attenuated signal.

PRODUCT SUMMARY

A.R.T.

Tube MP Studio
tube-microphone preamp
\$159

FEATURES	3.5
AUDIO QUALITY	4.0
EASE OF USE	4.0
VALUE	4.5

RATING PRODUCTS FROM 1 TO 5

PROS: Warm, clear sound. Low noise floor. Rugged construction. Versatile. Portable. Inexpensive. Provides polarity reverse, phantom power, and peak limiter.

CONS: Wall-wart power supply. No power switch. No ground-lift switch for DI applications.

Manufacturer

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Directly below the VU meter is an LED that glows green when power is applied and remains green with lower-level signals. If OPL is not in use, the LED turns red to indicate clipping. However, the occasional flashes of red didn't result in unpleasant distortion. The LED works as a good reference for calibration (after your ears, of course); a constantly lit red LED means the signal level needs to be reduced. With OPL engaged, the LED glows red when the limiter circuitry senses that the signal is about to clip and thus begins reducing gain. The MP Studio is powered by a 9 VAC wall wart.

OPERATION PREAMP

I put the Tube MP Studio through its paces as a mic preamp first, testing it with microphones ranging from an AKG C 1000 to a Neumann U 87. My emphasis was on studio applications—overdubs of acoustic guitar, flute, vocals, and percussion, for example.

In general, the MP Studio added roundness to the tone of instruments, specifically compared with the standard (not XDR) console preamps on my analog Mackie mixer. (That comparison is

admittedly somewhat incongruous, but it is helpful, as many readers are familiar with Mackie preamps.) Conga drums, acoustic guitar, flute, and vocals recorded with the MP Studio sounded more natural and felt more present by comparison, both when soloed and in the mix.

To get a broader perspective about how the MP Studio rates, I also compared it with a high-end, Class A tube-mic preamp that cost nearly ten times as much. (First-rate tube preamps typically cost more than \$1,000 per channel.) I recorded my voice, various hand percussion instruments, and acoustic guitar into a Digidesign Pro Tools rig and compared the results. Impressively, the MP Studio held its own in terms of warmth, tone roundness, and quietness; however, it couldn't deliver the same level of dimensionality or sense of space to the sound.

The MP Studio's main circuitry is identical to its predecessor's, so I focused mostly on the OPL circuitry, the more-significant new feature. I was interested to hear how the OPL acts with different instruments, particularly those with fast attacks, such as claves, shakers, and conga drums. I cranked up the MP Studio's input levels so as to hit the preamp hard and then listened for the action of the limiter. Impressively, its response was very fast and transparent, with no noticeable artifacts.

I also tested the OPL on acoustic guitar and accordion, again keeping the levels high. The action of the limiter was more pronounced, evidently because of the broader frequency range and longer sustain times of those instruments. Specifically, with OPL engaged, the lows became attenuated slightly more than mids and highs. However, that observation needs to be kept in perspective. In general, peak

Occasional flashes of red didn't result in unpleasant distortion.

limiters should be used only when necessary—when tracking a percussion instrument or unruly vocal on the fly, for example—and then sparingly. You probably wouldn't be slamming the inputs as hard as I was, either.

GO DIRECT, YOUNG MAN

I also tested the MP Studio as a direct box with electric bass and electric guitar. On bass, the MP Studio provided a sound fatter than and superior to what you would get from going directly into your average console—I was able to dial in a solid round tone without resorting

to the EQ I normally reach for when recording bass through my board. My Strat, too, sounded better through the MP Studio. The unit generated a combination of solid tone and warm colors that the Mackie couldn't deliver.

Overdriving the inputs of the MP Studio didn't yield usable results for me, though the coloration from overdriving may appeal to others. But I did tend to set levels pretty hot (with OPL disengaged), using the VU meter as a visual indicator and generally flirting with the flashing red overdrive indicator. Although I didn't find OPL necessary for most bass and guitar DI applications, I switched it in occasionally to get a feel for its action, and generally, it was transparent.

NEW AND IMPROVED

The A.R.T. Tube MP Studio microphone preamp and DI is a welcome upgrade to the company's popular Tube MP. The addition of the OPL peak-limiting circuitry extends the unit's range of applications, providing a set-it-and-forget-it option so you can focus on the music and not worry about overshooting signals. It's a feature that might have kicked up the price of the unit substantially, so A.R.T. is doing musicians and engineers a real favor by including it for only a few extra dollars. The added VU meter is also a nice extra and an accurate one at that.

The only features I missed were a power switch and a ground-lift switch for direct-box functions, but those are minor quibbles. Overall, I was impressed by the sound, construction, and feature set of the Tube MP Studio. The unit sounded noticeably better than midlevel stock console preamps and even compared well to a high-end unit that costs significantly more. Also, it appears to be made for the long haul: I left the unit on for more than 24 hours once, and it not only worked just fine afterward but also remained surprisingly cool. Come to think of it, that's an apt description for this handy little box—surprisingly cool!

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Tube MP Studio Specifications

Amplifier Type	tube hybrid
Input Connectors	(1) 1/4" unbalanced; (1) balanced XLR
Output Connectors	(1) 1/4" unbalanced; (1) balanced XLR
Gain Control Range	+6 dB to +40 dB, switchable to +26 dB to +60 dB
Maximum Input Level	+22 dBu (1/4"); +14 dBu (XLR)
Maximum Output Level	+22 dBu (1/4"); +28 dBu (XLR)
Frequency Response	10 Hz–30 kHz (±0.5 dB)
Dynamic Range	>100 dB @ 20 Hz–20 kHz (typical)
Equivalent Input Noise	–129 dBu (XLR to XLR)
Total Harmonic Distortion	<0.1% (typical)
Signal-to-Noise Ratio	>100 dB
Phantom Power	48V DC
Tube	hand-selected 12AX7a dual triode
Metering	VU
Power Supply	9 VAC wall wart
Dimensions	5.5" (W) × 5" (H) × 2" (D)
Weight	1.5 lbs.