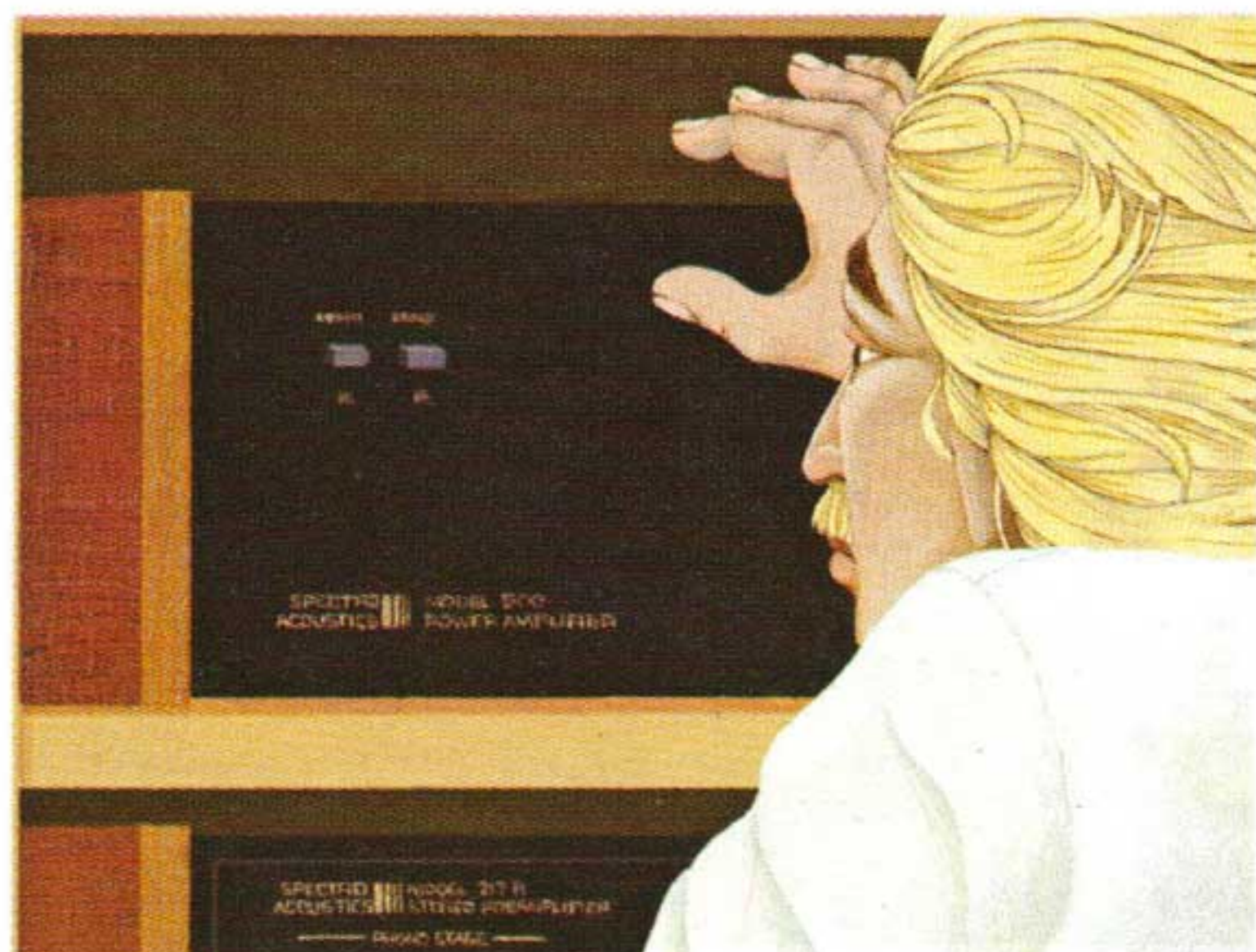


SPECTRO
ACOUSTICS

POWER AMP 500



If its power doesn't blow you



The kick you get from the Spectro Acoustics™ Power Amp 500 is like a blast from Tropical Storm Agnes. Direct. Tangible. And definitely awe-inspiring.

We are talking here about the exhilaration of pure, undiluted power. The kind of power that can knock your socks off. The kind of power that can open an oyster at 60 paces.

Yet, most important of all, it's the kind of power that can drive music easily and cleanly through even the most inefficient loudspeakers, or make the walls of a medium-sized warehouse ring. Enough, in short, to deliver perfect reproduction of every delicate shading and every crash of cymbals.

The 500 is FTC-rated at 250 minimum continuous watts a side from 20 to 20,000 Hz, both channels driven into 8 ohms, with no more than 0.15% THD. Impressive. And it's only part of the story.

All 250 watt per channel amps are not rated equal.

Fact is, an amplifier needs *reserve* power as much as it needs continuous power.* So we built the Spectro Acoustics 500 to deliver as much as 340 watts per channel for *short periods* without clipping (into 8 ohms). Which means you've got plenty of headroom to reproduce the peaks and crescendos of real music. And it also means the 500 is actually *more* powerful than any 250 watt per channel amplifier that cannot deliver above its FTC rating.

The secret of our outstanding headroom, if you're interested in such things, lies in a large-capacity ± 92 volt *unregulated* power supply.

The FTC power rating (continuous watts per channel) is an essential tool for product comparison. But, like the mpg figures quoted by car manufacturers, it bears little resemblance to actual performance conditions. An amplifier must deliver enough continuous power to reproduce the bulk of program material. But it must also be able to handle sudden short-term peaks that demand considerably more power. In short, you need a passing gear. So the maximum amount of power an amplifier can deliver before clipping is an essential measure of its true performance capabilities.

A well-regulated supply, the type used in many amplifiers, is physically unable to deliver much more than its continuous power: Headroom practically *nada*. So the only way to get an output capability equal to that of the Model 500 is to use a power supply that's much larger, much heavier — and much more expensive. And even for all the extra cost, it wouldn't reproduce the dynamic range of actual music one whit better.

A pair of 'exclusives' to give you peace of mind.

By shopping carefully, you can possibly find another amplifier that delivers just as much power with just as much headroom as the Spectro Acoustics 500.

But if you know about hi fi amplifiers, you know that reliability is just as important as power.

For an ordinary amplifier, breakdown can mean several days — or weeks — in the repair shop. Not so with the Spectro Acoustics 500, and a pair of Self Contained Amplifiers is the reason why.

Our Self Contained Amplifier is an exclusive Spectro Acoustics construction technique that puts a complete 250 watt per channel mono amplifier — from balanced differential input stage right through to multiple emitter silicon power output devices — into its own interchangeable module. If a power section of your Model 500 gives out (an unlikely event), it can be replaced in a matter of minutes.



Why rock groups like the 500: Interchangeable power amp modules mean a breakdown won't stop the show. Replacement takes minutes.

There's nothing ordinary about the circuitry inside our modules either. Fast-acting epitaxial transistors ensure frequency response that's virtually arrow-straight throughout the listening range.

Class AB quasi complementary design produces distortion almost as low as that of expensive Class A amplifiers. But it wastes less power, generates less heat and, consequently, delivers more headroom.

And even with all this, Self Contained Amplifier modules are less costly to manufacture than the less rugged, less convenient designs of conventional amplifiers.

Built rugged enough for mere mortals.

Perhaps the best thing about Self Contained Amplifier modules from your point of view is that you'll probably never have the chance to find out how convenient they really are. Which is just as well, since it's difficult to appreciate a feature that's most useful only when something goes wrong. A little like having a state-of-the-art bucket to bail out your sailboat.

We make every effort to ensure that amp interchangeability is a luxury rather than a necessity. For example, we've replaced hard wiring with military-grade printed circuit boards whenever possible in the circuit design. That not only increases ruggedness, it lowers distortion from improper lead dress too. And it even helps us maintain circuit consistency from product run to product run.

The multiple emitter epitaxial transistors used in our power output sections continue to work well when things heat up under normal conditions. (As any electronics engineer will tell you, heat is the number-one enemy of reliable transistor operation.) And we've backed each Self Contained Amplifier module with an unusually large, extremely efficient heat sink assembly as still another argument for thermal stability.

More protection? The 500 has it. A load line limiter built into each amp module cuts off power at the threat of an improper load or other unsafe operating condition. Delicate power supply components are further protected by a pair of fast-acting fuses in each module. Each input has a low pass filter to prevent RF interference. And there's the customary allotment of speaker protection and line fuses.

But all these are secondary to the most important assurance of reliability you can get with the Spectro Acoustics Power Amp 500.

Personal accountability for every Spectro Acoustics amp.

Spectro Acoustics products undergo tough, nearly continuous quality control testing at every stage of manufacture. Following assembly, every piece of Spectro Acoustics equipment must pass a *minimum* of eight additional QC steps, plus one functional test, before we'll approve it. *Every piece.*

In the case of the Model 500, that functional test consists of a one-hour burn-in at one-third power into 8 ohms (at 1,000 Hz). And every amp has to meet its performance specs under these strenuous conditions. Not a random sampling. Not 10%. *Every one.*

But we're not through with quality control yet.

When we pull the case off a Spectro Acoustics amplifier, we can tell exactly who worked on each element and sub-assembly inside. Every stage of

away, its performance will.



Specifications, 500SR/500R

Minimum Continuous Output from 20 Hz to 20kHz, both channels driven into 8 ohms:	250 watts per channel (24 dBw)
into 4 ohms:	360 watts per channel (25.5 dBw)
THD at rated output into 8 ohms:	No more than 0.15%
into 4 ohms:	No more than 0.2%
Dynamic Headroom (IHF) at 8 ohms:	1.4 dB (340 watts)
at 4 ohms:	1.3 dB (495 watts)
IM Distortion (SMPTE standard, 60 Hz & 7 kHz mixed 4-to-1 at rated output):	No more than 0.15%
Frequency response (at 1 watt into 8 ohms):	20 Hz to 20 kHz, ± 0.1 dB; 10 Hz to 40 kHz, ± 1.0 dB
Hum and Noise	
"A" weighted:	Better than 108 dB below full output
Unweighted:	Better than 100 dB below full output
Input Sensitivity at rated output:	1.5 volts RMS
Input Impedance:	Greater than 16 k ohms
Slew Rate:	24 volts per microsecond
Damping Factor at 20 Hz:	Greater than 150
Minimum Recommended Load:	4 ohms resistive per channel
Dimensions:	19" wide x 7" high x 12" deep (483mm x 178mm x 305mm) Standard EIA rack mount spacing
Shipping weight:	38 lb. (17.2 kg)

Model 500SR, shown in solid walnut cabinet with anodized top panel; both optional. (Oak cabinet also available.)

construction is signed off — in a way that's uniquely ours — by the person who completed it. So if something should go wrong during manufacture, we can find out exactly where, and why.



Every Spectro Acoustics 500 is individually tested and rated for THD and maximum power output. Certificate is signed verification of your amp's demonstrated performance capability.

TROLL

That's just one reason for the sign-offs. The other reason is we're all pretty proud of the quality of work we do, and we like being responsible for it. Call it pride of authorship.

It should be apparent that nothing is hurried through at Spectro Acoustics. Assembly is still done almost 100% by hand, and our output is limited. But we'd rather produce a handful of excellent products than a warehouse full of mediocre ones.

So you may have to wait a little longer or look a little harder for a Spectro Acoustics amplifier. But when you do get yours, you can bet it's a good one. You've got our names on it.

Decisions, decisions.

We've given you two Model 500 amplifiers to choose from. Both are designed for rack mounting in standard EIA 19-inch equipment racks. Both are also available with optional side panel cabinetry of solid oak or walnut and optional metal top panels. And both have exactly the same basic design, performance and specifications. One simply has more features than the other, and so it costs a bit more.

The 500SR.

If you like to keep an eye on your output, the 500SR is the model to choose. An 8-segment LED readout for each channel displays the actual amount of power delivered to your speakers. Instantaneously. Ordinary VU meters just aren't fast or accurate enough to have much practical value.

Also featured are separate Left and Right Gain Controls and an Attenuator that decreases the sensitivity of the LED readout. Together they help you get an accurate display of output, even at low power levels.

The 500R.

The ideal basic power amp. We've eliminated every control function that is either redundant or unnecessary for superb audio performance. The result is an amplifier that has no controls whatsoever. It's a power machine, pure and simple.

An incredibly affordable power machine. With the clean, understated looks of a classic.



Want a little less of a good thing?

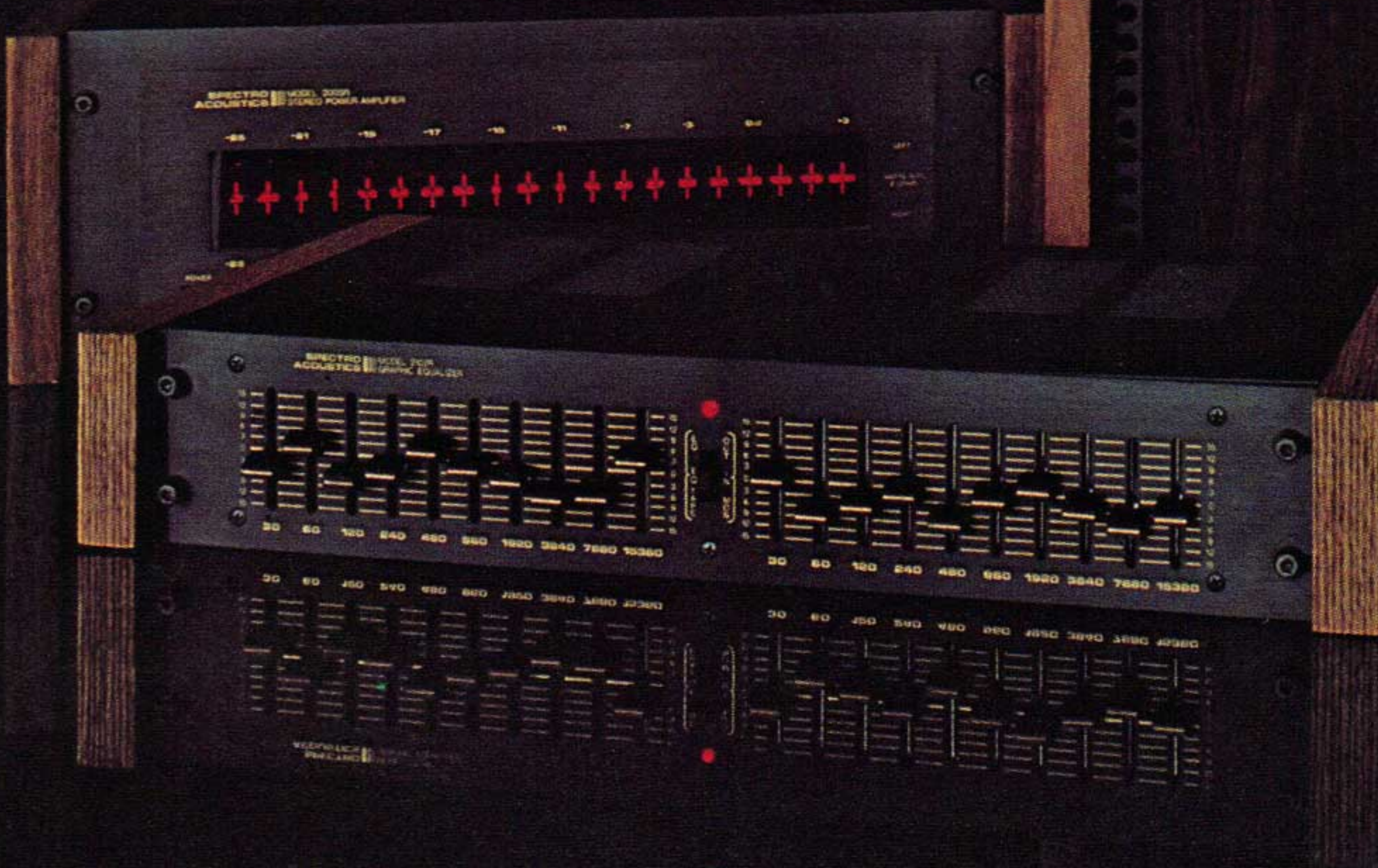
We realize not everybody has the need or the budget for 250 watts a channel. Fortunately, there's an alternative: the Spectro Acoustics Power Amp 200. It's got the same rugged, common sense Self Contained Amplifier construction as the 500, with the same approach to designing for headroom. But the 200 delivers 110 minimum continuous watts a channel from 20 to 20,000 Hz, both channels driven into 8 ohms, with no more than 0.08% THD. Power at clipping: 220 watts a channel (typical, into 8 ohms). Impressive!

The Spectro Acoustics product line.

Spectro Acoustics offers a comprehensive line of high fidelity components. And an uncommonly handsome rack to put them in. Fact is, it's not a rack at all, in the usual meaning of the term. It's a piece of furniture that looks good in your living room. Side panels are genuine, solid wood — your choice of walnut or oak. Dimensions, naturally, are EIA standard, uprights are uncommonly sturdy (1/16 inch steel). Casters allow roll-around convenience.

The rest of our line:

- A. Model 220R FM Tuner (top of the rack)
- B. Model 217R Preamp (below the tuner)
- C. Model 210R Graphic Equalizer (below the preamp)
- D. Model 500SR Power Amp (bottom of the rack)
- E. Model 2102R Graphic Equalizer (foreground)
- F. Model 200SR Power Amp
- G. Model 500R Power Amp (not shown)
- H. Model 200R Power Amp (not shown)



**SPECTRO
ACOUSTICS** 
Built for enjoyment™