

# M I R A G E® 2 5 0



There are a lot of speakers that jump off the shelf and grab you by the ears. And there are a great many people who seem to enjoy that kind of abuse. However, there are also those of us who would rather listen to a live concert than a loudspeaker.

Which is what inspired us to build the Mirage® 250.

# S E E T H E M U S I C®



## Mirage® Soft-Dome Tweeter.

It wasn't simply because of our dislike of pushy speakers, though. It was also because of something we could hear at a live concert, but not at home.

When you close your eyes during a live concert, you instantly form a distinct sonic image of each musician's location in space. Yet, if you listen to a recording of that same concert at home, that image disappears.

That is not necessarily the fault of the recording or the electronics. The blame usually lies with the speaker. (Or to be more precise, with the design of the speaker.)

Most speakers are designed to reproduce the full range of audible frequencies.

Unfortunately, the reproduction of music is a good deal more complicated than that.

### THE TRICKY PART OF REPRODUCTION.

We've found (don't ask how) that in order for a speaker to be able to recreate an accurate image, it has to be able to produce a full range of frequencies that arrive at your ears all at the precise same moment in time, all in phase with each other, all at the same amplitude, with a minimum of diffraction.

Which is not an easy thing to do. Or say.

### A CROSSOVER THAT DOESN'T CHEAT.

The part of a loudspeaker that causes the biggest problem is not even the speaker. It's the crossover network.

So we designed the finest possible crossover for use in our 250: the Mirage Multi Time-Constant™ Crossover.

The design problem is to have a woofer and a tweeter make music together, without asking either to produce notes outside of its range. Engineers of previous speakers had found two ways of doing this, each with its pros and cons.

One way is the first order network, which blends the music gradually. This preserves imaging: the time and phase relationships that tell us the size and position of musical instruments.

Other crossovers sharply limit

the amount of bass that a tweeter sees, which protects the speaker and increases power handling. Unfortunately, this degrades the imaging.

We want our Mirage 250 to be transparent enough to reveal the inner detail of a symphony orchestra, sturdy enough to reproduce a rock concert in your living room, and dynamic enough to meet the challenge of today's digital recordings. So the Multi Time-Constant™ Crossover carefully overlaps two different networks. The highs and lows are delicately blended at the points where the woofer and tweeter meet, and then each is cut off where it would produce distortion or speaker failure.

So, when all is said and done, the entire range of sounds, from the kick of a bass drum to the upper harmonics of a violin, is reproduced with breathtaking coherence and clarity.

Of course, a crossover is only as good as the speakers it's connected to.

So the Mirage 250 uses unusual drivers.

Most manufacturers purchase stock units from a few large driver suppliers. We're pickier than that. A sophisticated 8" woofer was specifically designed for the 250. We use a different woofer for each of our models, because each one must be painstakingly matched to its crossover, other drivers, and the speaker cabinet itself. We also specially developed the 1" Mirage Soft-Dome Tweeter. Its dome is made from a remarkably inert material which is stiff enough to hold its shape when it's oscillating 20,000 times a second, yet dead enough to stop when the music stops, so that resonances don't make your highs harsh and shrill.

We surround this special dome with a foam barrier which stops sounds from rippling along the front of the cabinet before passing through the air to your ears. Because music that diffracts along the baffle doesn't sound much like music anymore. We even fill the gap inside the tweeter with a special magnetic ferro-fluid which conducts away heat that could melt your voice coil. So our tweeter stays cool when the music gets hot.

### THE DRIVERS TALK. THE CABINET DOESN'T.

No matter how well you make your drivers, you can't make them work as well as you'd like if you put them in an ordinary box.

So we make our cabinets from a special high-density particle-board which is much denser than any common wood. Then we seal the seams with a glue even stronger than the cabinet itself.

Finally, to prevent the cabinet from vibrating and making a little music of its own, we do something few others do. We support our cabinets with internal cross-braces. So they sit silently while the drivers are playing.

### IF IT DOESN'T PASS 16 TESTS, IT FLUNKS OUT.

After all the time and effort we've put into the Mirage 250, we're not about to have one let us down. So each 250 gets run through a computer-driven laboratory that tests the speaker at 16 separate points. If it doesn't pass all 16 tests, it doesn't pass through our doors.

Which is why we have the au-

capacity to back every Mirage 250 with a 10 year limited warranty.

Twice the industry average.

### THE SPEAKER OF THE HOUSE.

We believe there are only a few speakers in the world capable of correctly reproducing the image of a live concert. (All of them either made by us, or so expensive you'd have to go without food for two months to afford them.)

So now you have a choice. Go with speakers you'll grow to hate. Or go with the Mirage 250. And experience "live" music where you live.

H	(16 in.)	40.6 cm.
W	(11 1/2 in.)	29.2 cm.
D	(6 3/4 in.)	17.
Net	(14 1/2 lbs.)	6.6 kg.
Gross	(32 lbs.*)	14.5 kg.*

\*packed 2 per carton

IMPEDANCE	8 ohms
SENSITIVITY	90 dB
CROSSOVER FREQUENCY	4 kHz
RECOMMENDED AMPLIFIER POWER RANGE	10-80 watts



SEE THE MUSIC.™

