



BACK TO TAPE

Ford Probe

BY AMY V. ZIFFER
PHOTOGRAPHY BY GARY BURDICK

This system was designed around the owner's unusual tastes in music and software.



Nakamichi cassette tuner is the sole source for this system because the owner prefers tapes!

Audiophiles have a reputation for being stuffy and conservative people who listen to classical music on CD and look down on anything to do with car audio. In fact, some of them would consider high-quality audio reproduction impossible in a car!

But stereotypes were made to be broken. Actually, in the case of one customer who came to Audio Coupe in Fairfield, Connecticut, for a car audio system, shattered might be a more accurate word.

Not Your Typical Tweak

The owner of this cherry-red 1993 Ford Probe GT is a biker, does not work at anything like investment banking, wears only black and white, enjoys the underground music scene, and spends a lot of his off hours at automotive and motorcycle racing events. (He preferred not to be identified for this article.)

The audio system designed for the Probe by Audio Coupe owner Micah Sheveloff and installed by co-owner Paul Silva was built to suit the tastes and habits of its owner, for whom listening to music is a longtime hobby.

"He's been shopping at the very same high-end [home] audio store since the '70s," Sheveloff claimed, "and he's got to be their favorite customer."

There's no doubt that he knows what he likes. At the same time, he's very focused on practicality, or what Sheveloff described as "sound quality gained versus dollars spent." Even when he bought the Probe, he was just as concerned with its performance-to-price ratio as he was with its comfort and visual appeal. So, the objective from the start was to make the audio system sonically accurate with a solid soundstage and exceptional dynamic response—and to do it as cleanly and with as few components as possible.

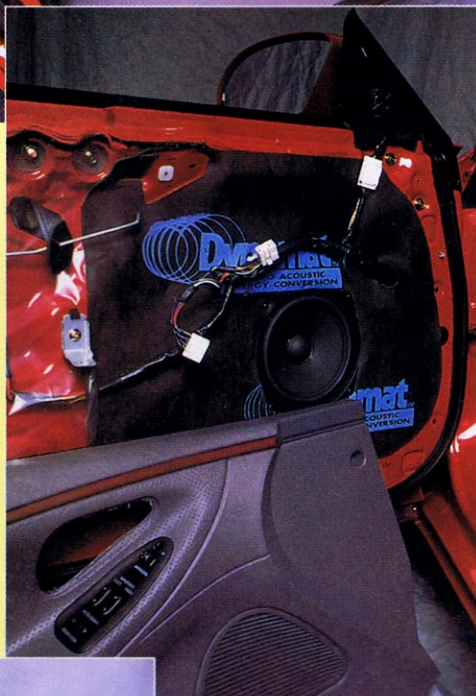
Back To Cassette

In the stock radio location, Silva installed a Nakamichi TunerDeck1 cassette tuner, which accommodates one of the owner's special needs. Not only is his musical taste eclectic—punk rock and jazz top the list of his favorite





Above: MB Quart speakers fit into the door's stock locations. **Right:** With door panel removed, damping material is visible.



styles—but his sources for music are equally unusual. “You don’t find many people listening to early Clash on the one hand and old Blue Note recordings on the other!” Sheveloff exclaimed.

While some of the Probe owner’s listening material is copied carefully from old records at home, much of it is purchased from esoteric sources on cassette, and the quality of both the recordings and the tapes themselves can be sketchy. The TunerDeck I has a manual azimuth adjustment to help compensate for inadequacies in the cassettes.

Stylish Door Panels

The car’s contoured, space-age door panels and teardrop-shaped grilles are, amazingly enough, stock. In each door’s factory location is an MB Quart QM 160 TC/S 6.5-inch woofer. Before the drivers were installed, however, both the inner and outer

skins of the doors were deadened with Dynamat.

Silva flush-mounted an MB Quart QM 19 NX tweeter in the triangular mirror bracket at the top of each door. “It was the only place the tweeters could go,” he said, “and it was a challenge. The tolerances were very tight.” To increase their performance, Sheveloff used an optional passive crossover network offered by MB Quart at additional cost.

Making The Connection

The Probe’s doors presented a challenge that’s becoming more common. “We’re seeing cars with many different engineering approaches car manufacturers are using to solve problems,” observed Silva.

The Probe comes with Molex connectors at the door jamb, he explained. This allows Ford to build doors with different combinations of options, such as power windows, locks, mirrors, and lights. All the wiring between door and body passes through this one connector.

“The car industry as a whole is starting to use this approach—wiring in segments, not all at once,” Silva explained. “This way, they can change wiring within the door without changing anything on the other side.”

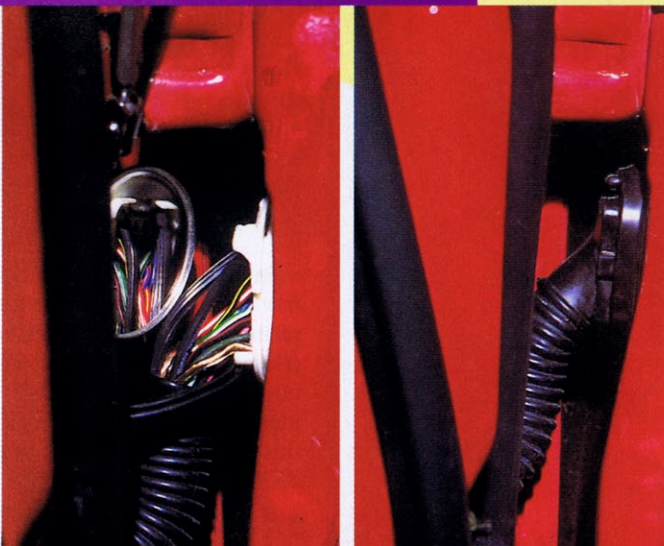
But the Molex connectors are designed to accommodate only thin 22-gauge speaker wire, and Sheveloff’s design called for thicker Esoteric Audio 12-gauge wire. “I like to use as large a gauge of wire as is practical for the drivers,” he said.

So, the stock connectors had to be carefully drilled out in the corners to make room for the aftermarket speaker wire. Silva called it

Left: Tweeter was flush mounted in the corner of each window.



Mirror shows modifications to factory Molex connector in door jamb to accept thicker speaker wire.



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the most complicated operation in the installation. "It took four hours per door," he recalled.

Fish-Shaped Plate

The stock location in each rear side panel holds an MB Quart 130 KN-S coaxial. Since the Probe's stock mounting "cup" is intended for a 6x8-inch speaker, Silva installed an adaptor to fit the round Quart speaker into the oval hole.

"I removed the rubber baffle, made a fish-shaped aluminum mounting plate and pop-riveted it onto the vehicle, and lined the inside behind the baffle with Dynamat," he explained.

Passive crossovers for these speakers are located on the underside of the mounting plate. The whole thing is covered by the factory oval grilles, making it look as though nothing has been changed from stock.

Amp Out Of The Way

The Probe's system has just one amplifier. Instead of using up valuable hatch space for this six-channel a/d/s/ PH15 amplifier, Sheveloff decided to mount it under the passenger seat. It rests next to a pair of MB Quart Comp Two Way-NX competition crossovers for the front satellite speakers.

The crossovers are protected by a shroud made from 0.25-inch plywood painted black. Silva ran dual 8-gauge power wires from the car's battery to supply as much current as possible to the amplifier, but no alterations or upgrades were made to the electrical system.

Unusual Enclosures

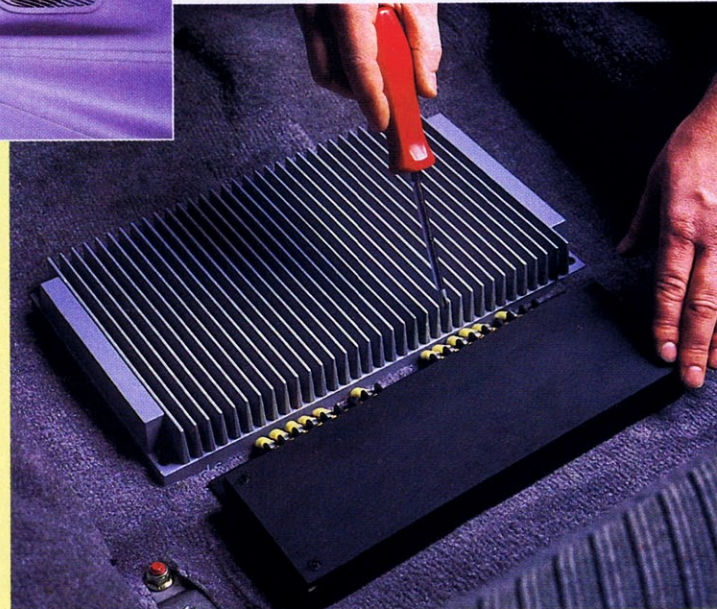
When the lid of the hatch is opened, you don't



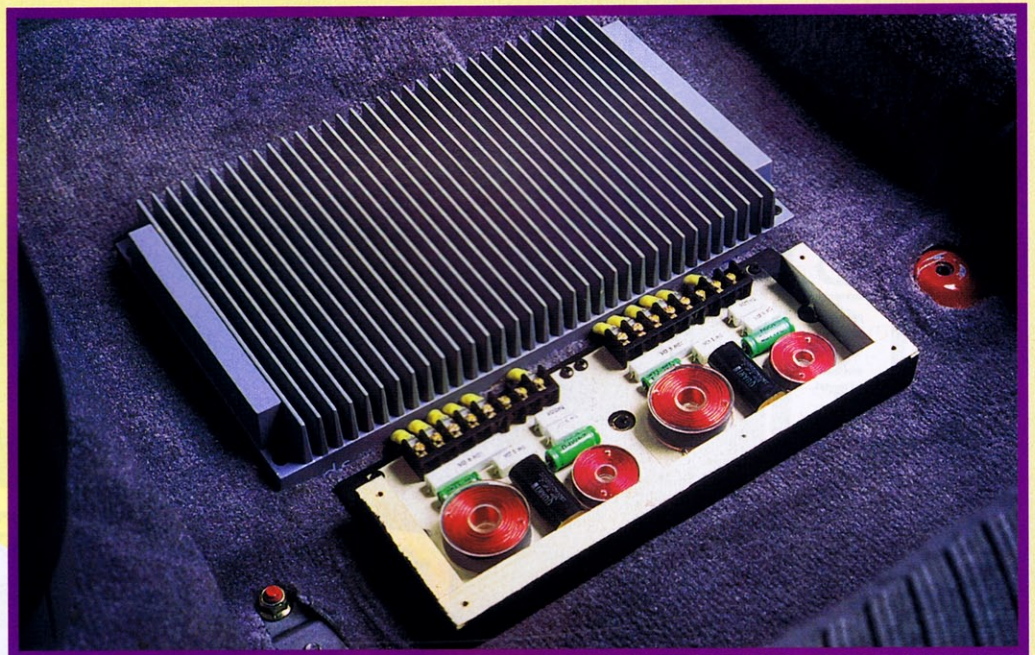
Left: An adaptor was used to fit round speaker in rear side panel's stock oval cut-out.

see a conventional subwoofer enclosure. Instead, there's a pair of small boxes bolted to the floor on the right-hand side. The SW-160 bandpass enclosures are made by Advanced Composite Audio and each holds a 6-inch driver with a dual voicecoil.

"One of the problems with subwoofer systems is that to obtain accuracy, they're very expensive and they take up a lot of space," Sheveloff said. The SW-160s were a reasonable compromise between performance,



Above: Six-channel amp under passenger seat powers the whole system. Crossovers for door speakers are protected with plywood shroud.



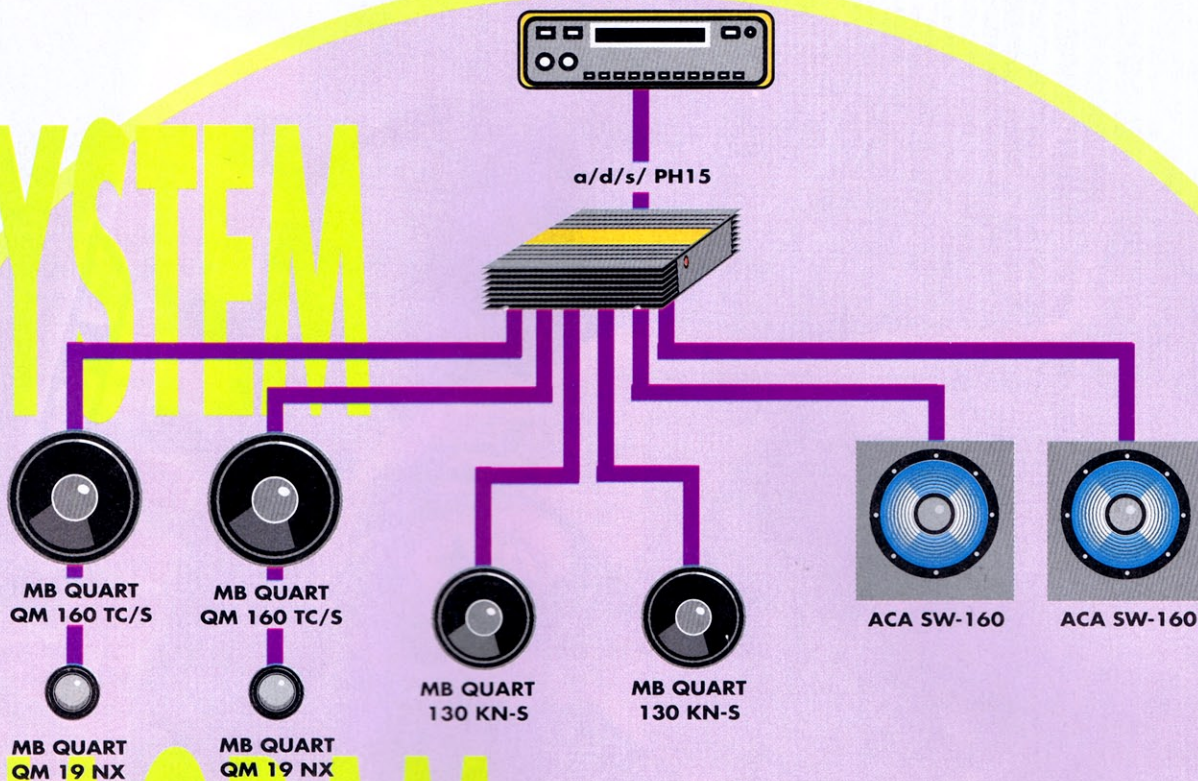
cost, and size, he added.

The original design called for one such box, but the owner had a problem getting sufficient low end. With the addition of the second box, channels three through six of the amplifier are running at a 2-ohm load.

Since the owner is a

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SYSTEM DIAGRAM



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Each of the two ACA subwoofer boxes has a 6-inch woofer.



Sheveloff was given a free hand as far as design was concerned, and he obviously called the shots pretty well. Although the Nakamichi TunerDeck1 can control a

practical man, security was a major concern. Sheveloff specified a Clifford Intelliguard 200 security system to safeguard the car. The Intelliguard door-lock pulses were mated to the unusual factory door-locking system, which operates at a lower than normal voltage.

CD changer, the owner has decided he doesn't need one.

"He's a purist when it comes to the integrity of the music, and even he thinks the tape performance is so outstanding, he's totally thrilled with the TunerDeck alone," Sheveloff said.

On both of the owner's evaluation scales—sound quality and bang for the buck—the goal was met with an elegant simplicity that'll do justice to either the Sex Pistols or Miles Davis.

"The first time the owner heard the completed system," recalled Sheveloff, "he said it was 'very unlike car stereo.'"

Keeping in mind his home audio orientation, that was a huge compliment. ▲

Here the sub boxes are hidden by the Probe's factory hatch cover.

