INSTALLATIONS

## MINIOF HILL The Interest of the property of t

50 CAR AUDIO AND ELECTRONICS



# TYPHOON BY TERRY A. MILLER PHOTOGRAPHY BY JIM SCHAFER

### Subwoofer enclosure with twin peaks placed Greg Cassis on top of the heap.

Greg Cassis knows what it's like to be on top. Cassis, 33, took top honors at the 1994 IASCA Finals with this 1992 GMC Typhoon. And before that he owned a champion Buick Riviera (Installations, June '92).

For a while, the Typhoon served only as as "a sunny day street-pounder." When Cassis decided to turn it into his next competition vehicle, he called on Drew Williams of PJ's Auto Sound in Erie, Pennsylvania, who was assisted in the project by installer Will Orth.

### Not What It Seems

It looks like the Typhoon's stock Delco is still in place, but it's not what it seems. An Alpine 7903 CD radio was disassembled and reconstructed to fit behind the faceplate of the factory unit. Discs are fed into the 7903 through a slot in the Delco radio's faceplate.

Some of the switches on the Delco unit are still used to control the 7903. In addition, two controls were installed in the center console. One is a master volume knob. The other is a custom joystick that controls all CD and radio functions, and switches between the 7903 in-dash player and a CD changer.

Since the 7903 does not come with CD-changer controls, a switching network was designed to toggle TYPHOON

Alpine CD changer fit in center console. Next to it are volume knob and joystick controller.



Alpine CD radio was hidden behind faceplate of stock head unit; discs are inserted through a slot.

Display for Alpine CD radio replaced the Typhoon's tripmeter in the instrument cluster.



Speaker location at each end of dash holds a tweeter. Midrange in center provides audible confirmation of CD player functions.



between it and an Alpine 5956 CD changer mounted in the Typhoon's center console. The console's lid closes to hide the CD changer, and a fiberglass trim panel that surrounds the unit was finished with textured paint.

The display for the 7903 radio was relocated to the Typhoon's instrument cluster. This allows Cassis to monitor its functions without taking his eyes too far off the road. The Typhoon's tripmeter was removed to make room for the Alpine display.

A Crystal-Line CL100P preamplifier was hidden behind the dash.

### White Out

An MB Quart QM 130 TC/5 5.25-inch midbass was installed in the bottom of each door in a sealed enclosure built of medium-density-fiberboard (MDF). The front panel of each enclosure was made from fiberglass painted white. It holds the speaker at an angle for proper dispersion. A grille made from MDF and metal mesh protects each speaker.

A Pro Tech TimeLense horn-loaded compression driver was installed under each side of the dash to provide midrange frequencies. The mouth of each horn replaced most of a stock storage tray that spunned the width of the dash.

Care was taken to make the horns as unnoticeable as possible. They were painted black to blend in with a small section of the storage tray that remained in the center.

Stock speaker locations on top of the dash received an MB Quart 25 HC tweeter. Fiberglass baffles that angle the output of the tweeters toward the center of the vehicle were painted white, and custom grilles hide the tweeters.

### Hearing Voices

An MB Quart QM 100



to the audio system at all.

The speaker is part of a austom-built voice-synthesis system that gives audible confirmation of CD-player functions, such as track skip and volume up/down.

Circuitry for this system was mounted in a speaker nat-out on the left side of the vehicle, next to the back seat. It's displayed behind a plexiglas panel. Opening the sh tray above it turns on a light that illuminates the greatry, or it can be hidden by a custom speaker grille.

### Ceiling Speaker

For rear fill, an enclosize was constructed from MDF and covered in matenal to match the Typhoon's headliner. Mounted on the onling above the center of tie back seat, the enclosure houses a single Pro Tech Pro Cast 4-inch midrange firing forward.

of each door.

A Coustic XM-5e crossover divides the linelevel signal between the amplifiers. It was mounted in the right rear speaker location and trimmed in white fiberglass. As with the voice-synthesis circuitry on the left side, opening the ash tray above the crossover switches on a light.

The front side of a fiberglass subwoofer enclosure in the cargo area of the Typhoon almost butts up against the rear seat. Another panel was added onto it to

hold a Valley Gatex system expander with a black plexiglas trim panel.

Just above the Gatex is an Alesis M-EQ230 equalizer. For a different look, Williams cut the unit in half and stacked the two pieces. Like the Gatex, the EQ is framed in black plexiglas. Finally, the mounting panel was covered with carpet to blend in with the interior.

### Snug-Fitting Tailgate

The cargo area is home to the most striking aspect of the Typhoon's system, the subwoofer enclosure. "We wanted it to attract atten-



Enclosure attached to ceiling contains a single 4-inch midrange for rear fill.

tion on its own, without motorization," Williams explained. "We wanted a low-profile enclosure that had an artsy look."

The enclosure—which resembles a pair of snowballs-was constructed from MDF and fiberglass, and painted white. A 1-inch black plexiglas loading panel is positioned above a pair of Pro Tech Pro Cast 12 12-inch subwoofers housed in the enclosure.

An amplifier rack right behind the enclosure was also finished in fiberglass painted white. It was trimmed with smoked plexiglas as well.

With the tailgate down, only the edges of three Precision Power amplifiers inside the rack are visible. On the bottom are two PPI A-404 amps. Above them is an A-1200 that powers the subwoofers.

Above the A-1200 is a piece of smoked plexiglas with the Typhoon logo cut into it. This cut-out serves as a vent for a fan cooling system integrated into the amp rack.

Visible underneath the

Right: Folding down rear seat reveals signal processors.







Plexiglas covers components for voice-synthesis system in rear speaker cut-out on driver's side.







right side of the plexiglas panel are several meters that monitor woofer impedance, voltage, and amplifier temperature. Just below the meters are the fuses and power-distribution components of the system.

A sealed compartment was built in the right side wall of the cargo area for a gel-cell battery that powers the system when the ignition is off. For safety reasons, and following IASCA rules, it was vented to the exterior of the vehicle.

The stock panel that covers the tailgate was reconstructed with fiberglass so it would match the amp rack, and fit snugly against it. At the bottom of the tailgate are two fans that pull air through the amp rack and force it outside through vents in the tailgate.

Two small black plexiglas panels, located at the top of the tailgate, were added to maintain the cosmetics of the installation. "We are going to have to add something there soon because everybody keeps asking what's there. But all we can say is nothing." Williams joked.

### Engine Mostly Stock

Protecting the vehicle and its contents is a Alpine 8080 alarm system. In addition to providing security, the 8080 will remotely lack and unlock the doors, roll the windows up and down, pop the rear hatch, and start the engine.

Except for painting the gray ground effects white to match the body, the truck's exterior remained the same. The sporty engine was also kept stock, expect for an airinduction system and a highperformance computer chip.

The factory 105-ampere alternator provides ample current for the stereo system. Power flows through a fuse block mounted on a black plexiglas panel on the fender well.

Though Cassis trailers the Typhoon to long-distance shows, he drives it often when the weather is nice. "You can't help but to drive it," he said, referring to its performance and handling.

### Time Off

Cassis owns two grocery stores in Moundsville, West Virginia. His wife, Lynette, and two sons, Cole, age 5, and Chase, 20 months, enjoy traveling with him to sound-offs across the country "With running the stores, it's one of the few times we get to spend together as a family," Cassis pointed out.

Both sons enjoy going up on stage to receive trophies with their father. With a winning vehicle like the Typhoon, they get to do it often.

