

WORLD FINALS: **IASCA 2003**

Competitors Battled  
It Out in Memphis

**MAURICE  
TAYLOR**  
of the  
Honda  
Team



# car audio

THE AUTHORITY ON ELECTRONIC SOUND

## AND ELECTRONICS

### SMALL CARS GIANT SOUND

**CIVIC  
PRIDE**

**4**

Best  
SOUND  
SYSTEMS

+

**INSTALLER  
SCUMPS  
PROFILES**  
Side by Side  
Comparison



TESTED:..  
**MBQuart**  
& **SwissAudio**

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**ON THE COVER:** Resident photo bad boy Steve "The Inflatable Pig" Sawitz lensed the Pioneer xB.



## DRIVER PROFILE

A ROOFING PROJECT engineer by trade and employed by a roofing contractor for 12 years, Steven Meade is solid with his hands and knows how to get the job done. Maybe that's why he laughed when a car audio retailer told him it was a waste of time to install a pair of 18" woofers in a Honda Civic. But this wasn't Steve's first rodeo. He built his debut auto sound system at the age of 14. Not only was he not old enough to drive, the car didn't even run! He just built a system in the car so he and his buddies Jeff Weeks and Danny Murphy would have something to do. The trio grew up building

hard-hitting mini trucks and import cars that weren't worth the sum of their parts. But they were the loudest, and eventually the cars got better with refined sound systems and modifications like custom paint and hydraulic suspension. Steven's good work and reputation for building solid subwoofer enclosures have gained the attention of other local bass heads who lack the technical and mechanical abilities of Steven. Through word of mouth Steven is building enclosures for friends and competitors on a regular basis. He is willing to build something better for his own competition just to form a bond in the Sacramento, CA scene. If you've been there you know exactly what I'm talkin' about.



# BLOW THE ROOF OFF ROOFER STEVEN

INSTALLATION 1998 HONDA CIVIC DX

Most 31-year-old California roofers don't appreciate being told what they can and can't do. So when a Sacramento-area audio retailer told Steven Meade, "You can't install 18" woofers in a Honda Civic," he set out to prove them wrong.

Steven would in fact install a pair of 18" woofers in the trunk of his 1998 Civic four-door, complete with three-way front-end and over 5000 watts of power. Moreover, Steven would do the installation himself in his humble garage using the tools of the trade — that is, the roofing trade.

Going into this Steven wanted a system that would get with the program. When he saw his first 15" woofer he knew that was the ticket to roll heavy bass lines. He wasn't old enough to drive then, but the thought never escaped his mind.

His priority was clear, heavy bass, with a front end that could hang. Money was spent on power and the speakers that could handle it. No fancy magi-media electronics, no suede upholstery, and no high-paid installer. This, my friends, is grass roots car audio at its best. >



**FLOOR AMPLIFIERS:** While it looks like the mid- and high-dedicated amplifiers were flush-mounted in the floor, they're not. Amplifiers were mounted underfoot and a false floor was made using 1/2-inch MDF. Factory-matching carpet finishes the rack to blend in. Mats are placed over the amplifiers when rear passengers are on board.



**SUBWOOFER:** Steven's pride and joy is a pair of Rockford Fosgate HX2 18" subwoofers pumping out 153-plus decibels. They wouldn't be able to do it without the hours poured into the 9.5-cubic-foot enclosure that consumes the trunk completely.

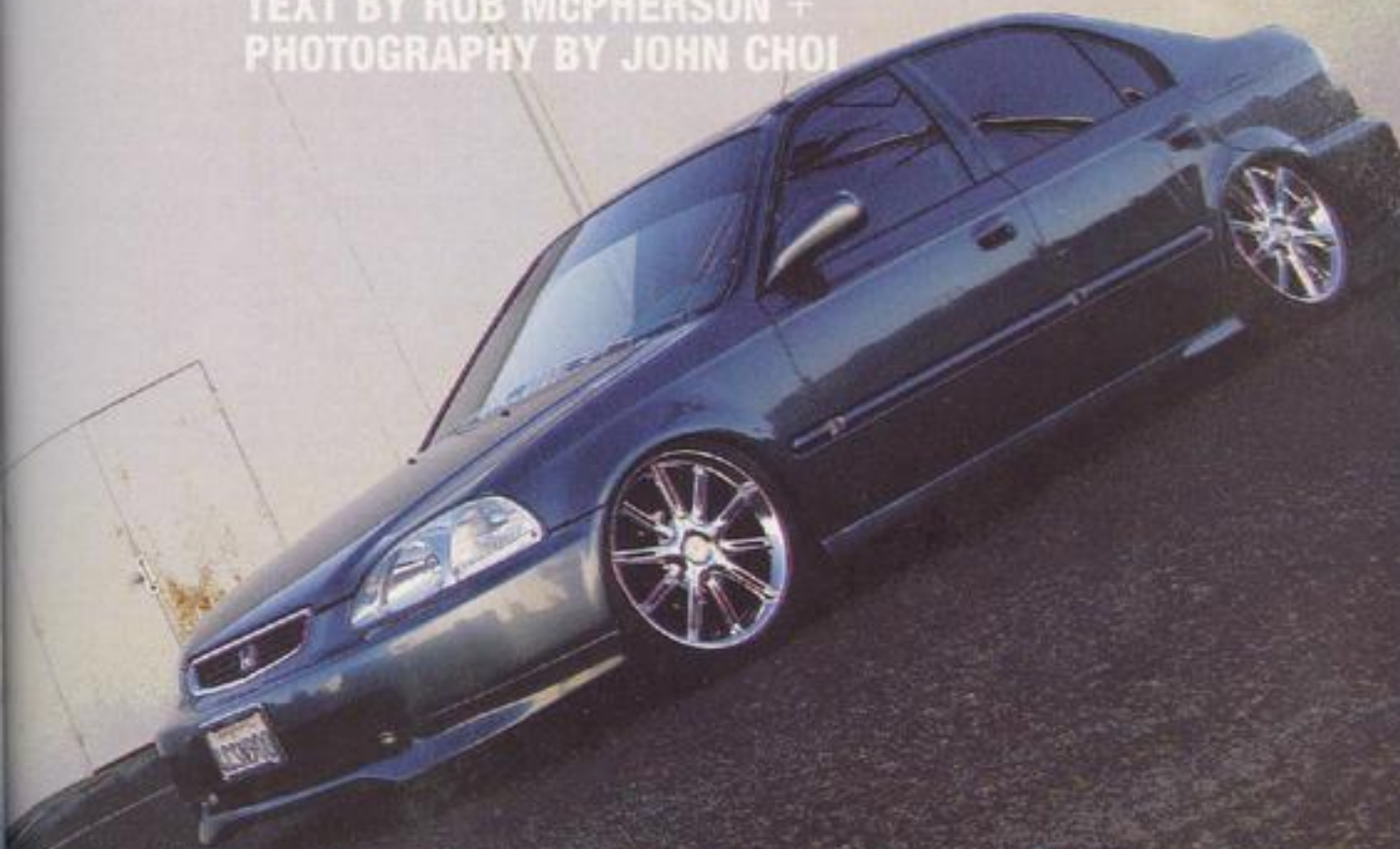
Taking advantage of every square inch in the trunk, Steven pulled a fiberglass mold of the spare tire well, which is used as the enclosure's bottom. The rest of the box was built using 3/4-inch MDF with some fiberglass reinforcement, namely the baffle. Steven braced the inside of the box with a variety of trusses and gussets, fiberglass and roofing materials.

Porting has been an ongoing experiment, though the current 95-square-inch slot port seems to work best. Extra care was taken to ensure the trunk was completely sealed from the interior to prevent any leakage. It took two industrial-sized canisters of expanding foam to do it. Steven plans on building a clamshell enclosure using four 18" woofers, just to see what happens. Subwoofers are driven by a pair of Rockford Fosgate 1500.1 amplifiers for a total of 3450 watts at 4 ohms.



# MEADE'S SELF-BUILT CIVIC CAN WITHSTAND ANY STORM

TEXT BY ROB McPHERSON +  
PHOTOGRAPHY BY JOHN CHOI





**DASH (left and below):** A Sony Mobile XAV7W with 7-inch color monitor and XM Satellite Radio compatibility replaced the stock unit. The XAV7W is a cleaner unit, with built-in memory and a 6-disc changer, replacing a stationary 6-inch monitor. Bass control courtesy of a Rockford Punch Bass Control knob, which handles the bass control. Steven mounted a Pioneer DEQ-7600 DSP equalizer in the center console. The EQ aids in the playback of a variety of playback formats.

**DOORS (below):** Factory door panels were reinforced with glass for stiffness. Alpine Type R 6.5" component speakers were powered by a Rockford Fosgate 400s amplifier. Additional Rockford Fosgate 6.5" Punch woofers were installed in glass enclosures in the rear of the door for aggressive action. A dedicated Rockford Fosgate 700s powers the mounted mini woofers. Doors were deaden with mats found in the roofing business, Steven's specialty.

Aiding in tuning the system for different music (Steven listens to rap, metal and talk radio), a Pioneer DSP was installed in the center console. Taking advantage of musical presets and expansive user input, the DEQ-7600 affords Steven musical diversity with a bass-intensive term. To further his tuning control an RF Punch Bass Control was installed in the dash for controlling bass output volume.

## CONTROL FREAK

Minimal modification to the dash was in order to replace the stock unit with a Sony CDX-7850 head unit. Shortly thereafter, that unit would be replaced with the currently installed Sony Mobile XAV7W with 7-inch motorized monitor and XM Satellite Radio compatibility.

Since the XAV7W had no CD slot, an external disc player was required. Steven installed a Sony Xpilot multi-disc changer reading CD and MP3 formats. He then turned over the glove box as a mounting location for the changer, making a simple trim bezel to capture the installation. An Xbox game console pulls double duty as a DVD player and helps to kill the time during competitions.



**[BECAUSE THE AMPLIFIERS HAD LITTLE ROOM TO BREATHE WITH THE SEAT IN PLACE, CONSIDERING THE HEAT THEY GENERATE, STEVEN CUSTOM MADE AN EIGHT-FAN COOLING SYSTEM TO KEEP THE AMPLIFIERS FROM MELTING DOWN IN THE MIDDLE OF A BASS**

Dominick Iragi 210-amp alternator and Exide Blue Top power hungry amplifiers. To ensure the best power delivery, Steven used 1/0-gauge Rockford Fosgate cable and two RF 4000 farad capacitors. No dimming lights here.

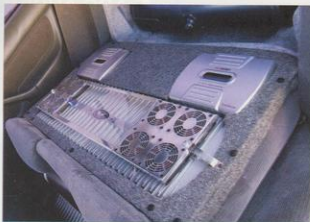
Since the entire trunk would be consumed by the system, Steven had to get a little more creative with amplifier placement. Considering there were five amplifiers and already no room to spare, Steven experimented with mounting the front seat backs but eventually opted to install the Rockford Fosgate Power 1500.1 bass amplifiers in the rear seat, shared with RF stiffening capacitors.

Because the amplifiers had little room to breathe in place, and considering the heat they generate, Steven made an eight-fan cooling system to keep the amplifiers from melting down in the middle of a bass-off.

Remaining amplifiers were creatively mounted to the rear floor where the rear passenger's feet would rest. To give the amplifiers a flush with the floor, Steven built a trim piece for the quarter-inch MDF finished with factory-matching carpet. The passengers are on-board, which Steven admits is not ideal, but a floor mat over the amplifiers to protect them from the heat the amplifier is under a small load and doesn't generate a lot of heat. Even with the floor mats covering the amplifiers, Steven claims they don't get very hot.

## ABOUT THE BASS

Bass output is the main feature of this street-fighter. Steven has poured hours of labor into the enclosure, constantly experimenting with it to get the cleanest, loudest



**REAR SEAT AMPLIFIERS:** A pair of Rockford Fosgate 1500.1 mono block amplifiers were flush-mounted in the back of the rear seat and dedicated to the massive 18" subwoofers. A pair of Rockford Fosgate 40-farad stiffening capacitors flank the display of power while delivering huge bursts of power to the demanding amplifiers.

To ensure the amplifiers don't overheat in the thick of it, Steven custom made an eight-fan cooling system. Using aluminum bars reaching the length of the amplifiers, four muffin fans were hung above the amplifiers providing the cooling they need under huge loads.

## SHOPBOX

INSTALLER: Steven Meade

Drop the rear seat and be intimidated by a pair of Fosgate Punch HK2 18" cones in your face. Add to 1500.1 amplifiers laid out in the seat back and you know serious hitter.

## REAR CHILL

To help widen the listening environment Steven opted for a simple two-way rear fill using the package tray as the platform. A pair of Alpine 6.5" Type R coaxials. Using MDF, body filler and glass, he was able to package the speakers nicely. Rear tweeters are powered by a dedicated Rockford Fosgate Punch 700s delivering just enough power to bring the speakers to life without overpowering the precious stage.

## DOORS OF DESTRUCTION

When planning a front speaker system proportional to the rest of the car, in this case a subwoofer system capable of 150-g db, you have to think big. Even the most capable 6.5" coaxial speaker system wouldn't crank out enough midbass to make a subwoofer convincing.

After removing the door panels Steven got to work on the Rockford Fosgate Punch HE 6.5" subwoofers in small



**CHARGING SYSTEM:** Steven didn't mess around when it came down to the power system. A Dominick Iraggi 210-amp alternator was massaged into the engine compartment using custom mounting brackets. An Exide Bluetop battery was installed in the factory location with 1/0-gauge power cable tying it all together. All cable connections were soldered for a perfect connection. Two Rockford Fosgate 40-farad stiffening capacitors installed in the rear seat to provide the punch to over 5000 watts of amplification.



**[THIS PRIORITY WAS CLEAN, HEAVY BASS WITH A FRONT END THAT COULD HANG. MONEY WAS SPENT ON POWER AND THE SPEAKERS THAT COULD HANDLE IT. NO FANCY MEGA-MEDIA ELECTRONICS, NO SUEDE UPHOLSTERY, AND NO HIGH-PAID INSTALLER. THIS, MY FRIENDS, IS GRASS ROOTS CAR AUDIO AT ITS BEST.]**

he could. Steven built an enclosure out of wood and fiberglass, using as much space as possible in hopes of reaching 10 cubic feet of internal airspace. He came close: 9.5 cubic feet get the job done nicely. After fiberglassing the spare tire well for maximum enclosure volume Steven used it as a mold and finished the box using 3/4-inch MDF and fiberglass reinforcement. The enclosure face had to be laid in an angle to fit the 19-inch wall through a 16-inch opening. A massive 96-square-inch rectangular, forward firing port tunes the enclosure to hair-raising frequencies. Literally. He also took great care to completely isolate the trunk from the interior to prevent any leakage of precious bass. Using Firestone Neoprene Rubber and Carlisle Duct Band, Steven prevented undue vibration and effectively deadened his car with roofing materials uncommon to the typical auto sound enthusiast.

enclosures. These midbass-specific woofers are capable of lower frequencies than your typical 6.5" midrange speaker. Small 0.2-cubic-foot enclosures and snappy power from a Rockford Fosgate Punch 700s, these woofers bring a notable punch to the system, making kick drums and snappy bass lines come to life.

In addition, an Alpine 6.5" Type R component speaker driven by a Rockford Fosgate Punch 400s amplifier fills the midrange and high frequencies. With a treatment of fiberglass, the door was stiffened and the speaker-mounting surface made

Steven is quick to point out that his installation may not be as fancy or as well finished as others you might see. He proved the local shop wrong by not only installing 18" woofers in a Honda Civic, but by making them peak performance, consistently hitting over 150 db. Bottom line: he wins competitions and he built it all his own. Never say, "You can't," lest you get slapped a 153dB, "I just did!" ❧



## TECHBOX

**WHEELS:** 17-inch AR Route

**TIRES:** Nitto 205/40

**PERFORMANCE:** K&N air intake system and AirMass

**PAINT:** Suburban Auto Body, Sacramento, CA

**SUSPENSION:** Blitzluft Air Cans w/Inrogen