I picked up three pairs of Infinity Speakers from Crutchfield. I chose Infinity based on the 3.5” Dash speakers. They were the best quality 3.5” speakers (specification-wise) I could find online. I got the doors and the rears to match. The door speakers are the shallow version of the 6.5” rounds and the rear speakers are the 5x7/6x8 version. Crutchfield’s web site told me all these would fit with no modifications. Well, almost... Also included for free from Crutchfield were 3 pairs of wiring harness clip adapters and a vehicle specific installation manual for 87-93 Mustangs which was mostly accurate.

What follows is a how-to based on what I did to install these speakers in my 1991 5.0 LX Convertible with the Factory “Premium Sound with Graphic Equalizer” option. I also did some additional work – the classic “saggy door pocket fix” (http://www.allfordmustangs.com/forums/5-0l-tech/162800-saggy-door-pocket-fix.html) and I also reconditioned (cleaned) the door panels and arm rests – I’ll share some tips on that as well.
This is what it looks like when you first open the boxes!

It’s very exciting, but BEFORE PROCEEDING disconnect your vehicle’s negative battery cable from the negative terminal on the battery.
Remove the dash speaker grilles by first removing the side-screw with a Torx T20 driver or with a ¼” socket.

Then bend a paper-clip into a J-Hook, insert it into the opening at the top as shown, turn the Hook toward the front and pull upwards with a pair of pliers. This step is not documented in the Crutchfield Install Guide – where did I get this gem? Believe it or not, straight out of the 1991 Ford Mustang Shop Manual. If I hadn’t known about this in advance I would probably have broken the grille assembly trying to get it to unclip. It pays to study multiple sources of information before beginning a project.

After I got the speaker grille removed, I noted there were 3 rough abrasions in the grille area where the J-Hook was utilized. I caused a minor abrasion with the application of my paper-clip hook, but there were 3 others, more severe, leading me to believe that the Premium Sound System was added by the dealer and they did a sloppy install job.
This is what the speaker looks like under the grille. Remove the two hold-down screws with a Philips head screwdriver, remove the speaker wire clip from the speaker, and you’ll have that little guy in the palm of your hand.
Here’s a view of that little guy in the palm of my hand. It felt really light compared to the Infinity 3.5” speaker so I decided to weigh them both.
The factory job weighs a mere 7.62 ounces. The Infinity speaker exceeded the 14 oz capacity of my scale.
Before installing the speaker, be sure to affix the included stick-on foam gasket.
Hook the wiring harness adapter onto the speaker first, before hooking it to the vehicle wiring harness. This is so a solid mated fit with the speaker can be assured before clipping onto the vehicle. On this speaker, the capacitor mounted on the side has an insulated lead running right up next to the positive connector and it interfered with the connector, so I very delicately adjusted it out of the way with a jeweler’s screwdriver as I eased the positive connector on to the speaker.

The connector board on the speaker is very delicate. Brace the back of it with your finger before applying force.

Also note it is a good idea to test the wiring harness clip adapter with an ohmmeter or continuity tester before installation. Test each lead while wiggling the wire around to make sure the crimps are solid.
The negative connector was recessed 1/8” inside the plastic boot so to assure a good fit I had to clip the plastic boot so that the connector inside was flush with the end of the boot.

Also, every connector was loose when first installed on the speaker, so I used a pair of needle-nose pliers to squeeze through the boot to tighten up each connector. Do this gracefully, you don’t want to over-squeeze the connector shut. You want a very tight and full fit of the connector onto the speaker.
Plug the speaker wiring clip into the vehicle wiring harness and place the speaker into the cavity and secure it using the original screws.
With the speaker grille installed you can’t see the speaker anymore unless it is in direct sunlight.
To install the door speakers, the door panels must be removed as follows:

a. Remove the door latch handle bezel screw and the door latch bezel.
b. Remove the arm rest screws (2) front and rear.
c. Gently pry out the arm rest bolt covers (2) with a flat-head jewelers screwdriver and remove the arm rest bolts with a 3/8\textsuperscript{th} inch socket.
d. Pull the arm back away from the door panel and remove the window/door lock switch assembly from the arm rest and set it and the arm rest aside.
e. Remove the speaker grille screw. The speaker grille does not come off - it is part of the door panel.
f. Using a door panel removal tool, gently pry the door panel retaining clips away from the door. Be sure you get the door panel removal tool between the plastic flange of each clip and the metal of the door, not between the cardboard of the door panel and the plastic flange, otherwise you will damage the door panel. I performed this procedure while lying on my back in the bright sunshine and gave a gentle preliminary pry while looking at the clip to make sure I had seated the tool properly before prying further. Do *not* attempt to remove the door panel without this tool, you will most likely damage your door panel. There are 12 clips – four at the rear of the panel, six along the bottom, and two along the front of the panel.
g. Pull the door panel outward slightly and feed the door lock/window switch wiring harness assembly through the door panel.
h. Lift the door panel upward to remove.
The factory speaker had three screws in a triangle pattern, not like the Infinity Speaker with four screws in a cross pattern. Looks like some drilling will be required...
The screws came out easily with a Philips head screwdriver, despite the rubber cement like goop that was used when they were installed.
Gently pry the speaker away from the door with a flathead screwdriver – mine was affixed with a small amount of the goop and a long since mushified rubber gasket.
This is the speaker removed. It has a plastic housing that looked like it had been hit repeatedly with a hammer. I have no idea how or why this was done.
Note the extremely poor location of the drilled screw-hole for the door speaker with barely any metal along the bottom of the hole. Another piece of evidence leading me to believe this factory premium sound system was a sloppy dealer install.
Install the foam gasket around the new speaker leaving gaps where the screws will come through.
To install the speaker, first place the speaker in the enclosure and, using an awl, scribe the screw hole locations into the metal of the enclosure frame. Then, remove the speaker and place the awl in the center of each of the scribed screw-hole locations and hit it with a hammer to punch a small indentation that will be used to start the drilling of a pilot hole.

Use a small drill bit to drill a pilot hole in each screw hole location. (I used a 7/64ths bit – the smallest I had on hand).

Then, I decided that rather than remove more metal with a bigger bit, I would take a trip to Ace Hardware with my drill bit and ask them to find me some sheet metal screws that would work for a hole drilled with that drill bit – they did and those were the screws I used. Pretty small – about 1/8\textsuperscript{th} in diameter, but I figured that there were four screws and they weren’t carrying a big load.

Screw the screws in snugly, but don’t over-tighten.

Note that in this picture, the speaker is not exactly aligned straight up and down. It’s turned a few degrees counter-clockwise. This was done to avoid the previously drilled holes. Make sure any new holes you drill are located a sufficient distance from any existing holes.
To remove the rear speaker assembly (’91 convertible shown), simply remove the two attaching screws and pull the rear side of the grille assembly toward you 1 inch and slide the assembly back toward the rear of the vehicle to unhinge the hinge-clips.

Remove the two window switch retaining screws from the speaker grille assembly.

Remove the speaker wire clip and the four speaker retaining screws to remove the speaker from the grille assembly.

Note the silver tubular support brace inside of the vehicle speaker cavity. I was soon to discover that brace would pose a problem for the new Infinity speakers.
With all of the factory speakers removed, I thought I would line them up for a shot of the pinnacle of Ford factory sound in 1991. Side by side listening tests of these speakers against the new Infinity speakers illustrated that even using just the Factory AM/FM Cassette with Graphic Equalizer the Infinity speakers beat the Ford speakers hands down. The Ford speakers sounded very tinny in comparison to the Infinity speakers.
The Infinity rear speakers were able to mount to the speaker grille assembly without modification, however 1/4 inch nylon spacers and 1/4 inch longer than factory screws needed to be employed to give the rubber surround edge of the speaker cone adequate clearance.

Without the spacers, the rubber surround edge compresses against the plastic speaker grille assembly.

Note the four support arms of the speaker frame leading from the magnet assembly to the edge of the speaker front. The arm closest to my thumb interferes with the tubular metal brace inside of the vehicle speaker cavity, preventing proper fitment of the assembly.
A Dremel tool was employed to cut away the offending arm. Fortunately the other three arms are beefy enough to provide adequate support for the speaker.

Always wear safety goggles when cutting with a Dremel tool. You don’t want to get sparks or metal shavings in your eyes.
The arm is removed. The speaker is ready for installation.
The modified speaker is reinstalled onto the grille assembly. Note that the modified arm is the one closest to the hinge clips.
With the modification in place, the speaker assembly is a perfect fit.
With the door panels removed for speaker installation, it is an ideal time to perform the “saggy door pocket fix” ([http://www.allfordmustangs.com/forums/5-0l-tech/162800-saggy-door-pocket-fix.html](http://www.allfordmustangs.com/forums/5-0l-tech/162800-saggy-door-pocket-fix.html)).

I followed the procedure exactly, except before replacing the elastic, I placed the pocket assembly in direct 90 degree sunlight for 30 minutes to make the vinyl soft and pliable.

With the vinyl warm and pliable, I stretched the vinyl back into the desired shape by hand.

Note the right hand lower side where the pocket had been for years catching in the door.
I then turned the pocket assembly over and placed some heavy objects on it and let it ‘cure’ in its new shape for several hours.

After curing, the pocket assembly retained the desired shape and the rest of the “saggy door pocket” fix procedure was applied.
It’s also a good time to do some restorative work on the door panels while they are out of the vehicle.

Mix a small amount of dish soap with water and scrub every square inch of the door panel assembly with a toothbrush. Work in small sections, working a small squirt of Simple Green into the scrubbing, especially in trouble spots. Scrub in alternating back and forth and circular patterns – you want to hit the grain and contours of the vinyl from every angle.

When each small section is fully scrubbed, rinse it with a cloth soaked in clean water, then dry it with a dry cloth.

Spray each section down with compressed air (note the can in the picture). This is important to remove the water and the solution from cracks and from underneath the chrome trim and the speaker grille. You don’t want liquid to get into the cardboard of the door panel.

This is tedious and time-consuming work – I spent about 1.5 hours per panel, but the results pay off.
In addition to cleaning the panels, disassemble and clean the arm rest assemblies in the same manner. Also clean all of the other disassembled parts (e.g. window/door lock switch assemblies, door latch bezel, etc.).

Note: with electrical switch assemblies use a very small amount of mild soapy solution at a time (don’t use Simple Green) and take extra care to blow them fully dry with compressed air immediately after working on each section of the switch assembly. Never attempt to clean electrical parts in this manner when they are connected to the vehicle.
The results of the cleaning are extremely satisfying.

Reinstall the door panel and arm rest assemblies in the reverse order of their removal.
Take extra care to make sure everything lines up before pressing the door panel clips into the door.
Now GET IN AND DRIVE!!!