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Rommel Gonzales' Car Audio System  
**SQ, Amateur, 301-600W, Ultimate Format**  
1988 Nissan Sentra

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<b><u>COMPONENT LISTING</u></b>	<b><u>3</u></b>
<b><u>WIRING DIAGRAM</u></b>	<b><u>4</u></b>
<b><u>SUBWOOFER ENCLOSURE</u></b>	<b><u>5</u></b>
<b><u>KICK PANEL ENCLOSURES</u></b>	<b><u>5</u></b>
<b><u>INSTALLATION</u></b>	<b><u>6</u></b>
HEAD UNIT	6
WIRING	6
SOUND DAMPENING	6
TRUNK	6
SECURITY	7

FIGURE 1: COMPONENT LISTING OF ENTIRE STEREO SYSTEM. ....3  
FIGURE 2: SYSTEM WIRING DIAGRAM SHOWS THE INTERCONNECTIONS BETWEEN ALL  
COMPONENTS. ....4  
FIGURE 3: MY CUSTOM BANDPASS ENCLOSURE WITH AN INFINITY PERFECT 10.1. ....5  
FIGURE 4: STEPS TAKEN WHEN SOUND DAMPENING THE TRUNK LID. ....6  
FIGURE 5: THE COOLING FAN IS RUNNING, AND THE VELCRO THAT HOLDS THE SUBWOOFER  
ENCLOSURE IN PLACE CAN BE SEEN.....6  
FIGURE 6: A TEAR-AWAY PANEL GIVES ACCESS TO THE NEW SPARE TIRE COMPARTMENT....7  
FIGURE 7: THE ALARM SIREN, HOOD PIN, AND TRUNK PIN. ....7  
FIGURE 8: AS EXTRA SECURITY I USE A SEPARATE CHAIN AND LOCK SO THE TRUNK CANNOT  
BE OPENED ALL THE WAY. ....7

## Component Listing

<i>Component</i>	<i>Make and Model</i>	<i>Details</i>
Head Unit	Kenwood KDC-7011	CD player w/ changer controls and MASK technology
CD Changer	Kenwood KDC-C602	10 disk CD changer
Equalizer (EQ)	Kenwood KGC-4042a	5-band graphic equalizer w/ sub output, crossover freq., and level
Front Speakers	Infinity Kappa 60.3cs	6 1/2" component speakers w/ passive crossovers
Amplifier	Pioneer GM-H22	25W x 2 into 4 ohms*
Subwoofer	Infinity Perfect 10.1	10" die-cast high-output subwoofer
Amplifier	Precision Power PPI2360	360W x 1 into 4 ohms*
Capacitor	Streetwires	1 Farad
RCA Composites	Precision Power PrecisionLink	Unshielded Twisted Pair
Power Wiring	Knu Konzeptz	
Power and ground connectors and battery terminal	Streetwires	
Speaker Wiring	American Bass & Phoenix Gold	
Alarm	Avital Tornado 2	Installed by Captain Install (Milwaukee, WI) activated by a hood pin, door pin, trunk pin, electrical current, or shock

\*Continuous power rating

Figure 1: Component listing of entire stereo system.

# Wiring diagram

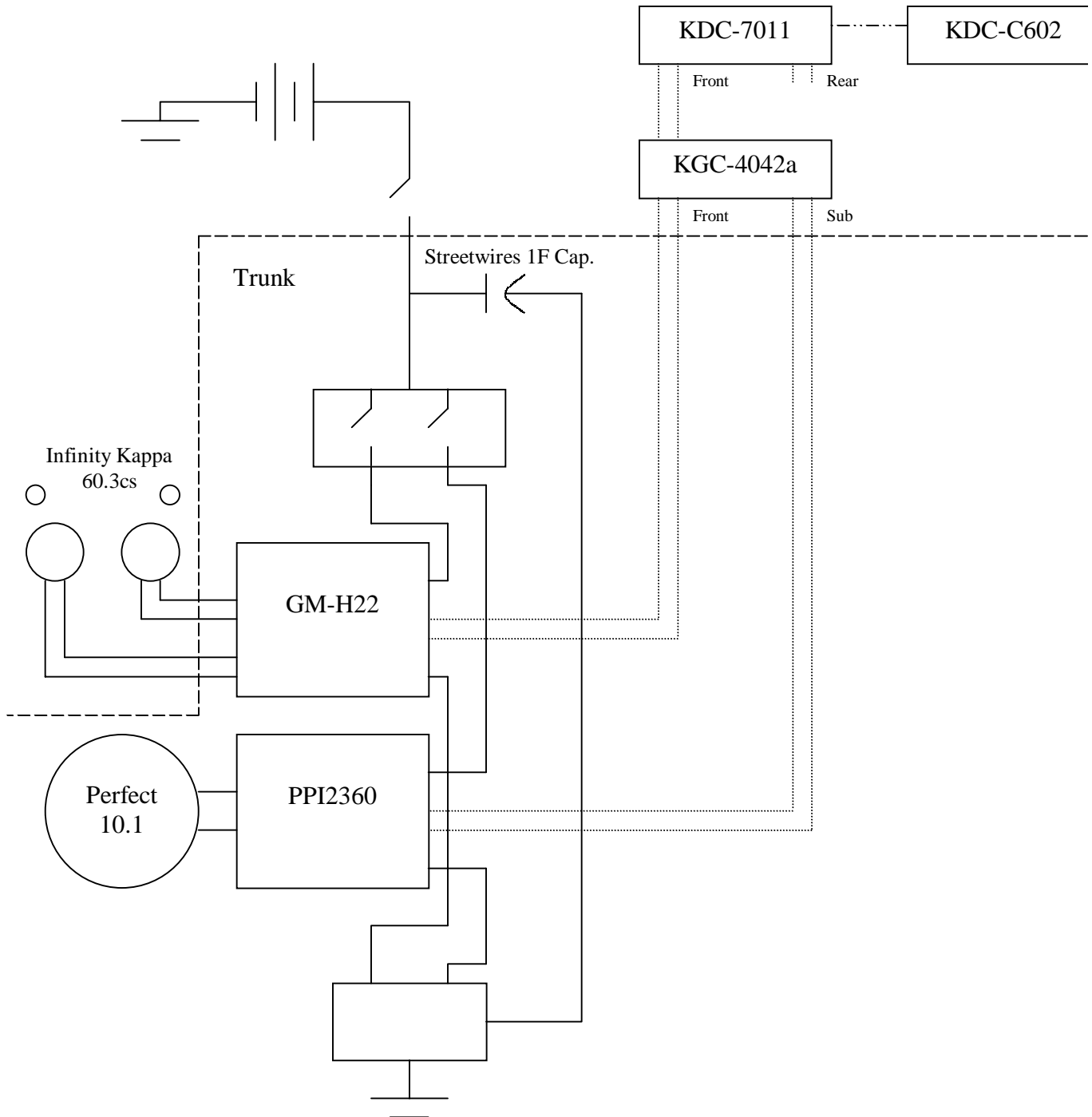


Figure 2: System Wiring Diagram shows the interconnections between all components.

## Subwoofer Enclosure

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I have designed, constructed, and installed a custom bandpass enclosure for an Infinity Perfect 10.1, 10" high-output subwoofer. Reasons for choosing a bandpass enclosure:

1. more efficient compared to a sealed enclosure
2. transient response is second only to a sealed enclosure
3. frequency response is practically flat ( $\pm 3\text{dB}$  according to Infinity)

*Figure 3: My custom bandpass enclosure with an Infinity Perfect 10.1.*



My "pencil" or "birdhouse" design, as seen in Figure 3, took me 9 hours to come up with, and 24 hours to construct excluding any types of breaks, i.e. eating and sleeping. After installing the enclosure and listening to it for a few minutes, it inspired me to do a custom installation in my car and join an IASCA competition.

## Kick Panel Enclosures

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The custom kick panel enclosures are made out of fiberglass, plywood, and are finished with carpeting. I made the fiberglass mold first, and then attached the plywood speaker baffle with 16 gauge steel wire. These wires were used to adjust the angle of the speakers until the preferred sound was reached, then they were set into place using more fiberglass.

## Installation

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### **Head unit**

The head unit was installed with a “build-up” kit that was modified drastically to ensure a good fit. Also, the faceplate that came with the head unit left a lot of metal showing, so I made a custom faceplate that looks like vinyl.

### **Wiring**

RCA, power, remote, and speaker wires were installed underneath the carpet. They all run on the driver side of the car, but the power and remote wires run along the far left side; the RCA and speaker wires are run along the right side.

### **Sound Dampening**

Sound dampening mats, like Dynamat, were used throughout the car on the driver-side floorboards, trunk lid, and some of the trunk walls. Expanding foam was also used on the trunk lid to fill some of the large gaps as seen in Figure 4.



*Figure 4: Steps taken when sound dampening the trunk lid.*

### **Trunk**

All of the custom fit pieces in the trunk went from a wire, to cardboard, and finally to wood. There are two main supports that run underneath the main floorboard; they support the amp-rack that features a cooling fan for the PPI2360 (shown in Figure 5,) and orange neon lighting.



*Figure 5: The cooling fan is running, and the Velcro that holds the subwoofer enclosure in place can be seen.*

The battery/siren compartment is located in the front left-hand corner of the trunk. It is there for future use to house a 2<sup>nd</sup> battery dedicated to the stereo, and a 2<sup>nd</sup> siren for the alarm which I call the “pain siren.” The last component in the trunk installation is the spare tire compartment that has a tear away panel that gives easy access to the spare tire, jack, jack-arm, and lug wrench (as seen in the following figure.)



Figure 6: A tear-away panel gives access to the new spare tire compartment.

\*Notes- The battery/siren compartment is detachable which will allow easy access to the work area when the 2<sup>nd</sup> battery and siren are added. The amp-rack has a façade that hides all wiring, and the façade that covers the main floorboard hides the neon wiring that lights the amp-rack. The switch for the neon lighting was placed just underneath the rear deck so that it is out of sight.

### **Security**

The car is armed with an Avital Tornado 2 alarm system that was installed by Captain Install in Milwaukee, WI. They installed everything that came with the alarm system and added on a hood pin and trunk pin.



Figure 7: The alarm siren, hood pin, and trunk pin.

I also use a chain and lock to prevent my trunk lid from being opened all the way. However, the trunk lid will open far enough for the alarm to be triggered.



Figure 8: As extra security I use a separate chain and lock so the trunk cannot be opened all the way.