



6.5" Component System

# INSTRUCTIONS

 Infinity®

**KAPPASERIES**

**Thank you** for purchasing an Infinity Kappa Perfect component system. The Kappa Perfect 6.1 has been engineered to provide the most accurate sonic reproduction possible. Over the years, we at Infinity have listened to hundreds of automotive speakers and we think these are the best. We hope you agree.

This manual includes information that will make your installation as simple and trouble-free as possible. It also provides detailed technical information that will help an experienced installer optimize speaker placement and crossover adjustment. Please study this manual before you begin your installation. Remember to send in your warranty registration card, and keep your sales receipt somewhere safe in case you need warranty service.



## IMPORTANT

Installation of automotive stereo components can require extensive experience performing a variety of mechanical and electrical procedures. Although these instructions explain how to install a Kappa Perfect6.1 component system in a general sense, they do not show the exact installation method for your particular car. If you feel you may not have the necessary tools or experience, ask your authorized Infinity car-audio dealer about professional installation options.

## WARNING

Playing loud music in your automobile can permanently damage your hearing as well as hinder your ability to hear traffic. We recommend listening at low volume while driving. Infinity accepts no liability for hearing loss, bodily injury or property damage resulting from use or misuse of this product.

## A NOTE ABOUT SYSTEM PERFORMANCE

For the best performance possible, the Kappa Perfect6.1 should be used with a two-channel amplifier with output power of at least 35W RMS per channel. The passive crossover contains impedance-compensating circuitry and has been computer-optimized for the flattest possible frequency response with the tweeter flush-mounted on axis with the listener. The combined responses of the speakers and passive crossover constitute 4th-order Linkwitz-Riley acoustic alignment and cannot be duplicated with any electronic crossover currently available for car-audio use. Consequently, bi-amping the Perfect6.1 with an electronic crossover is not recommended.

## SPEAKER PLACEMENT

Figures 1–4 show possible speaker placements in the order of most desirable to least desirable. Kick-panel mounting will provide the best staging and imaging in most vehicles.

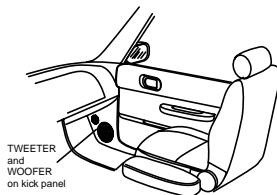


Figure 1.  
Mounting the woofer and tweeter in the kick panels

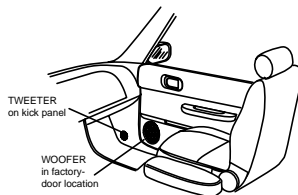


Figure 2.  
Mounting the woofer in the door and the tweeter in the kick panel

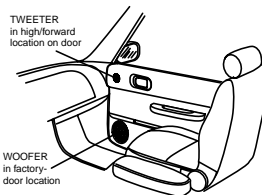


Figure 3.  
Mounting the woofer and tweeter in the doors

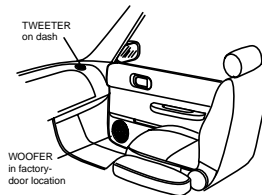


Figure 4.  
Mounting the woofer in the door and the tweeter in the dash

## TWEETER INSTALLATION

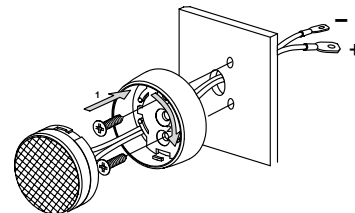


Figure 5.  
Surface-mounting the tweeter

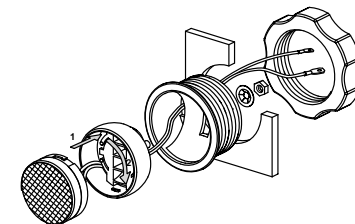


Figure 6.  
Flush-mounting the tweeter

## WOOFER INSTALLATION

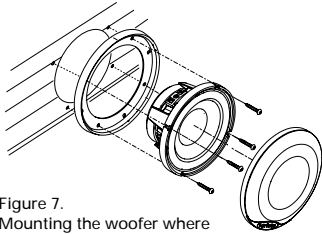


Figure 7.  
Mounting the woofer where there is no factory speaker location

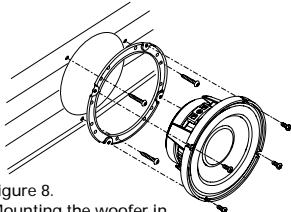


Figure 8.  
Mounting the woofer in standard 5-1/4" holes (in many Japanese and American automobiles)

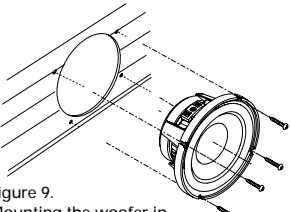


Figure 9.  
Mounting the woofer in 165mm holes (in many European and American automobiles)

## ELECTRICAL CONNECTIONS AND CROSSOVER ADJUSTMENTS

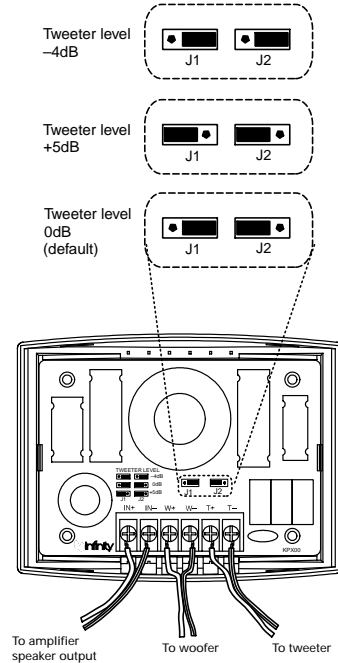


Figure 10.  
Connecting the speakers and the amplifier to the crossover

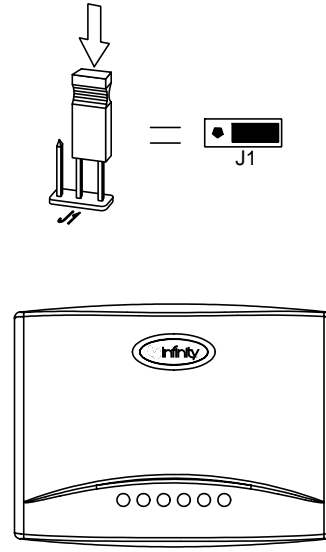


Figure 11.  
Adjust the crossover using the jumpers provided

## SPECIFICATIONS

### System

Frequency Response: 75Hz – 23kHz,  $\pm 3$ dB  
 Power Handling: 100W RMS, 400W Peak  
 Nominal Impedance: 4 Ohms  
 Sensitivity: 90dB  
 Crossover Frequency: 3.5kHz, 24dB/oct.  
 Linkwitz-Riley Acoustic

### Thiele and Small Parameters

	Woofer	Tweeter
Rev:	3.45	3.31
Levc:	0.37	0.02
Sd:	0.0113	0.0005
BL:	6.37	1.99
Vas:	11.43	0.0016
Cms:	630.36	44
Mms:	18.94	0.3064
Mmd:	18.25	0.3
Fs:	46.05	1370.65
Qms:	3.44	5.4
Qes:	0.465	2.19
Qts:	0.41	1.56
Top-Plate Thickness:	9/32" (7.115mm)	na
Voice-Coil Length:	9/16" (14mm)	na
Voice-Coil Diameter:	1-1/2" (38.1mm)	1" (25.4mm)
Xmax:	1/8" (3.44mm)	na
Mounting Depth:	2-3/4" (70mm)	1" (25.4mm)
Cut-Out Diameter:	5-1/16" (129mm)	1-3/4" (45mm)

## SYSTEM RESPONSE CURVES

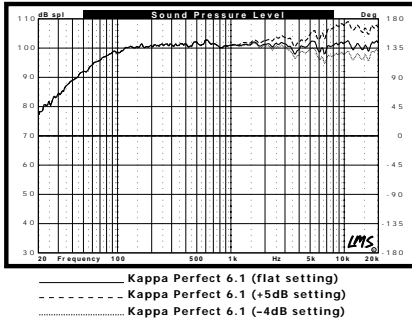


Figure 12.  
System frequency response

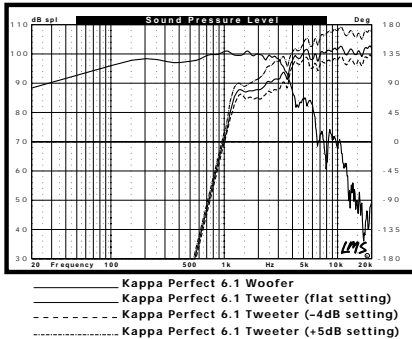


Figure 13.  
Component frequency response

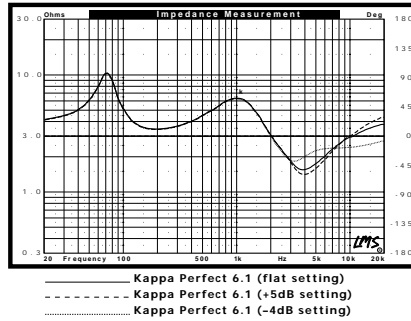


Figure 14.  
System impedance

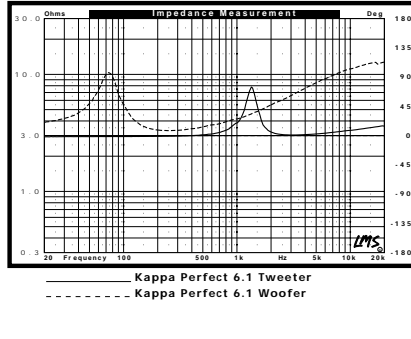


Figure 15.  
Woofer and tweeter impedance

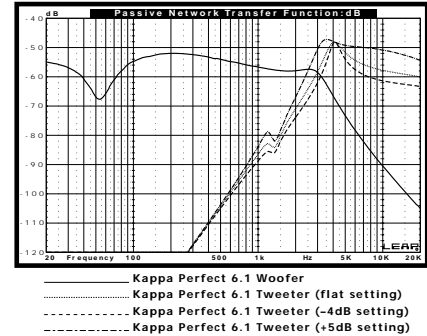
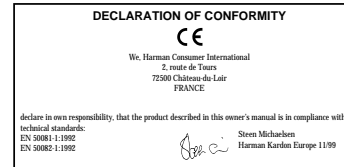


Figure 16.  
Network response (considering speaker  
impedances and resistive load)



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