

Infinity 601CF

Infinity Alpha 601CF 6.5" 2-Way Car Audio Component Speakers User Manual

Model: 601CF

1. INTRODUCTION

Welcome to the user manual for your Infinity Alpha 601CF 6.5" 2-Way Car Audio Component Speakers. These speakers are designed to deliver high-quality audio performance in your vehicle, providing a rich and robust sound experience. This manual provides essential information for the proper installation, operation, and maintenance of your new component speaker system.

2. PRODUCT OVERVIEW

The Infinity Alpha 601CF system includes two 6.5-inch woofers, two tweeters, and two external crossovers, designed to separate audio frequencies for optimal sound reproduction. The woofers feature injection-molded polypropylene cones for superior rigidity and sensitivity, ensuring strong bass and clear midrange frequencies. The PEI Balanced dome tweeters provide crisp, high-end frequencies, completing the full-range sound.



Image: Infinity Alpha 601CF 6.5" 2-Way Car Audio Component Speakers, showing two large woofers and two smaller tweeters.

2.1 Key Features

- **Power Handling:** 45W RMS, 315W Peak
- **Sensitivity:** 91dB (@ 2.83V)
- **Frequency Response:** 55Hz – 20kHz
- **Impedance:** 4 ohms
- Injection-molded polypropylene woofer cones for enhanced low-frequency output.
- PEI Balanced dome tweeters for clear high-frequency reproduction.
- Sophisticated two-way crossovers for precise frequency separation and higher power handling.
- Designed for easy installation in various vehicle types.

3. SAFETY INFORMATION

Please read all safety instructions carefully before installing and operating your speakers. Failure to follow these guidelines may

result in damage to the product, your vehicle, or personal injury.

- Always disconnect the vehicle's battery before beginning any electrical installation.
- Ensure proper wiring polarity to prevent damage to the speakers and amplifier.
- Do not expose speakers to excessive moisture or extreme temperatures.
- Avoid installing speakers in locations that obstruct vehicle safety features (e.g., airbags).
- Consult a professional car audio installer if you are unsure about any installation steps.
- Operate your audio system at safe listening levels to prevent hearing damage.

4. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance. It is recommended to have these speakers installed by a qualified professional.

4.1 Components Included

- 2 x 6.5" Component Speakers (Woofers)
- 2 x Tweeters
- 2 x Crossovers
- *Note: Grilles are not included.*

4.2 Installation Steps (General Guidelines)

1. **Plan Placement:** Determine the best locations for woofers, tweeters, and crossovers in your vehicle. Woofers are typically installed in door panels or kick panels, while tweeters are often mounted higher for better sound imaging. Crossovers should be placed in a dry, accessible location.
2. **Disconnect Battery:** Before starting any wiring, disconnect the negative terminal of your vehicle's battery.
3. **Mount Woofers:** Securely mount the 6.5" woofers in the designated speaker openings using appropriate mounting hardware. Ensure a tight seal to prevent sound leakage.
4. **Mount Tweeters:** Install the tweeters. They can be flush-mounted or surface-mounted depending on your vehicle and preference. Ensure they are aimed towards the listening position for best results.
5. **Wire Crossovers:** Connect the speaker wires from your car's amplifier or head unit to the input terminals of the crossovers.
6. **Connect Speakers to Crossovers:** Connect the woofers and tweeters to their respective output terminals on the crossovers. Pay close attention to polarity (+ and -) for all connections. Incorrect polarity can lead to poor sound quality.
7. **Secure Wiring:** Route all speaker wires safely, away from moving parts, sharp edges, and heat sources. Use cable ties to secure them.
8. **Test System:** Reconnect the vehicle's battery. Turn on your car audio system and test the speakers at a low volume. Check for proper sound from both woofers and tweeters.
9. **Fine-Tune:** Adjust your head unit's settings (e.g., balance, fader, EQ) to optimize the sound for your vehicle's interior.

5. OPERATING YOUR SPEAKERS

Once installed, your Infinity Alpha 601CF speakers will integrate with your existing car audio system. They are designed to work with standard car audio amplifiers and head units.

- **Power On/Off:** The speakers will power on and off with your car's audio system.
- **Volume Control:** Adjust the volume using your head unit or amplifier controls. Avoid operating at excessively high volumes for prolonged periods to prevent speaker damage and hearing loss.
- **Audio Settings:** Utilize your head unit's equalizer (EQ) and sound processing features to tailor the audio output to your personal preference. The crossovers ensure optimal frequency distribution, but minor adjustments can enhance the listening experience.

- **Break-in Period:** Like all new speakers, your Alpha 601CF speakers may benefit from a break-in period of several hours of normal use. During this time, the speaker components will loosen up, potentially leading to improved sound quality.

6. MAINTENANCE

Your Infinity Alpha 601CF speakers require minimal maintenance to ensure long-lasting performance.

- **Cleaning:** Gently wipe the speaker cones and surrounds with a soft, dry, lint-free cloth. Do not use harsh chemicals, solvents, or abrasive cleaners.
- **Protection:** If your installation location exposes the speakers to potential physical damage, consider using protective grilles (not included with this model) to prevent punctures or tears to the cones.
- **Environmental Factors:** While designed for automotive environments, avoid prolonged exposure to extreme temperatures or direct sunlight, which can degrade speaker materials over time.

7. TROUBLESHOOTING

If you experience issues with your speakers, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No sound from speakers	Loose or disconnected wiring; incorrect crossover connection; amplifier/head unit issue.	Check all wiring connections, ensuring they are secure and correctly polarized. Verify the amplifier and head unit are functioning correctly.
Distorted or unclear sound	Incorrect wiring polarity; amplifier clipping (too much gain); damaged speaker cone; improper crossover settings.	Verify wiring polarity. Reduce amplifier gain or head unit volume. Inspect speaker cones for physical damage. Ensure crossovers are correctly wired.
Only woofers or tweeters producing sound	Incorrect crossover wiring; faulty crossover; damaged speaker component.	Double-check connections to the crossover. Ensure the correct speaker (woofer/tweeter) is connected to its designated output on the crossover.
Weak bass response	Incorrect woofer polarity; poor enclosure seal; insufficient amplifier power.	Check woofer wiring polarity. Ensure woofers are securely mounted with a good seal. Consider a more powerful amplifier if necessary.

If the problem persists after attempting these solutions, please contact customer support or a qualified car audio technician.

8. SPECIFICATIONS

Feature	Detail
Model Name	601CF
Speaker Type	Component
Power Handling (RMS)	45W
Power Handling (Peak)	315W
Sensitivity (@ 2.83V)	91dB
Frequency Response	55Hz – 20kHz

Feature	Detail
Impedance	4 ohms
Woofer Cone Material	Polypropylene
Included Components	2 Component Speakers, 2 Tweeters, 2 Crossovers (No Grille)
Product Dimensions	10D x 10W x 10H Millimeters (approximate for individual components)
Item Weight	1.56 Kilograms (total package)
Manufacturer	Harman International Industries inc

9. WARRANTY AND SUPPORT

Your Infinity Alpha 601CF speakers come with a **1 Year Warranty** from the date of purchase. This warranty covers manufacturing defects and ensures your product performs as expected under normal use.

For warranty claims, technical support, or any questions regarding your product, please contact Infinity customer service or the authorized dealer from whom you purchased the speakers. Please retain your proof of purchase for warranty validation.

For more information, visit the official Infinity website or refer to the contact details provided with your purchase documentation.

© 2023 Infinity. All rights reserved.

This manual is for informational purposes only. Specifications are subject to change without notice.