

Alpine HDZ-653, S-A32F

Alpine HDZ-653 Status Series Hi-Res 6.5" 3-Way Component Speakers and S-A32F 4-Channel Amplifier User Manual

Model Numbers: HDZ-653, S-A32F

1. INTRODUCTION

This manual provides instructions for the installation, operation, and maintenance of your Alpine HDZ-653 Status Series Hi-Res 6.5" 3-Way Component Speaker System and Alpine S-A32F 4-Channel Amplifier. This bundle is designed to deliver high-resolution audio performance in your vehicle. Please read this manual thoroughly before installation and use to ensure proper setup and optimal performance.

Product Overview

The Alpine HDZ-653 is a 6-1/2 inch three-way component speaker system engineered for high-resolution audio playback. It features a unified carbon composite cone construction for consistent sound reproduction across its 6.5-inch mid-bass driver, 3.5-inch midrange driver, and 1.25-inch high-range driver. The Alpine S-A32F is a compact and efficient 4-channel amplifier, providing 55 watts RMS per channel to enhance your audio system's output.

- **High-Resolution Audio Clarity:** The HDZ-653 is designed for detailed audio reproduction.
- **Powerful and Efficient Amplification:** The S-A32F amplifier boosts speaker performance.
- **Component Speaker System:** Includes 6.5" woofer, 3.5" midrange, and 1.25" tweeter.
- **Carbon Composite Cones:** Utilized across speaker components for consistent sound.
- **Wide Frequency Range:** 55Hz-40kHz for accurate sound reproduction.

2. SAFETY PRECAUTIONS

Always observe the following safety precautions to prevent injury or damage to the equipment:

- Disconnect the vehicle's negative battery terminal before starting any installation.
- Ensure all wiring is properly insulated to prevent short circuits.
- Mount components securely to avoid detachment during vehicle operation.
- Do not install components in locations that obstruct vehicle operation or safety devices.
- Consult a professional installer if you are unsure about any part of the installation process.

3. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance. This section outlines general installation guidelines. Specific vehicle requirements may vary.

3.1 Speaker Installation (HDZ-653)

The HDZ-653 is a 3-way component system consisting of woofers, midranges, and tweeters, along with external crossovers. Plan your speaker placement carefully for optimal sound staging.

1. **Woofer Placement:** Install the 6.5-inch woofers in factory speaker locations in the doors or kick panels. Ensure adequate mounting depth and clearance.
2. **Midrange Placement:** Install the 3.5-inch midranges in locations such as the dashboard, A-pillars, or custom door panels, ensuring they are securely mounted and aimed towards the listening position.
3. **Tweeter Placement:** Install the 1.25-inch tweeters in locations that provide good imaging, such as A-pillars, dashboard corners, or flush-mounted in door panels.
4. **Crossover Network:** Mount the passive crossover networks in a dry, accessible location, away from heat sources and moisture. Connect the amplifier output to the crossover input, and then connect the woofer, midrange, and tweeter outputs from the crossover to their respective speakers. Observe correct polarity.



Image: Alpine HDZ-653 6.5-inch Woofer and 1.25-inch Tweeter. This image displays the main 6.5-inch woofer with its grille and a separate 1.25-inch tweeter, both featuring the Alpine logo.



Image: Alpine HDZ-653 3.5-inch Midrange Speaker. This image shows the 3.5-inch midrange speaker, designed to handle mid-frequency audio reproduction.



Image: Alpine Status 2-way Speaker System Crossovers. This image displays two passive crossover networks, essential for directing appropriate frequencies to each speaker component.

3.2 Amplifier Installation (S-A32F)

The S-A32F amplifier requires proper power, ground, remote, and audio signal connections.

1. **Mounting Location:** Choose a dry, well-ventilated location for the amplifier, such as under a seat, in the trunk, or behind a panel. Ensure it is securely mounted to prevent movement.
2. **Power Wiring:** Run a heavy-gauge power cable (e.g., 8 AWG) directly from the vehicle's positive battery terminal to

- the amplifier's BATT+ terminal. Install an appropriate fuse holder (40A recommended) within 18 inches of the battery.
3. **Ground Wiring:** Connect a heavy-gauge ground cable (e.g., 8 AWG) from the amplifier's GND terminal to a clean, unpainted metal surface on the vehicle chassis. The ground point should be as short as possible.
 4. **Remote Turn-On:** Connect a remote turn-on wire from your head unit's remote output to the amplifier's REM terminal. This wire signals the amplifier to turn on and off with your head unit.
 5. **Audio Input:** Connect RCA cables from your head unit's pre-amp outputs to the amplifier's INPUT terminals (CH-1/2 and CH-3/4). If your head unit does not have RCA outputs, use a line output converter (not included) or the amplifier's speaker-level inputs if available.
 6. **Speaker Output:** Connect the speaker wires from the amplifier's SPK OUT terminals to the inputs of the HDZ-653 crossover networks. Ensure correct polarity (+ to + and - to -) for all connections.



Image: Alpine S-A32F 4-Channel Amplifier Top View. This image shows the top casing of the Alpine S-A32F amplifier, featuring the Alpine logo.



Image: Alpine S-A32F 4-Channel Amplifier Side View with Controls. This image displays the side of the S-A32F amplifier, showing the input level, gain controls, and filter switches for channels 1/2 and 3/4.



Image: Alpine S-A32F 4-Channel Amplifier Input and Output Terminals. This image shows the various connection terminals on the S-A32F amplifier, including RCA inputs, speaker outputs, and power/ground/remote terminals.

4. OPERATING INSTRUCTIONS

Once installed, configure your amplifier and head unit for optimal sound.

4.1 Amplifier Settings (S-A32F)

- **Gain Control:** Adjust the GAIN controls for Channel 1/2 and Channel 3/4. Start with the gain at minimum, then slowly increase it until the sound is clear and distortion-free at your desired maximum volume level from the head unit. Avoid setting the gain too high, as this can introduce distortion.
- **Filter Switches:** The S-A32F features selectable filters (OFF, HP, LP).
 - **HP (High Pass):** Use this setting for the HDZ-653 component speakers to filter out low frequencies that the speakers are not designed to reproduce, protecting them from damage and improving clarity. A common setting is around 80-100 Hz.
 - **LP (Low Pass):** This setting is typically used for subwoofers. Do not use for the HDZ-653 speakers.
 - **OFF:** Disables the filter. Use only if your head unit or external processor provides filtering.
- **Frequency Adjustment:** Use the FREQ. knob to adjust the cutoff frequency for the selected filter (HP or LP).

4.2 Head Unit Settings

Refer to your head unit's manual for specific audio settings. Ensure that any internal amplifier settings or crossovers on your head unit are configured to complement the S-A32F amplifier and HDZ-653 speakers.

5. MAINTENANCE

Regular maintenance ensures the longevity and performance of your Alpine audio system.

- **Cleaning:** Use a soft, dry cloth to clean the amplifier and speaker grilles. Avoid using harsh chemicals or abrasive cleaners.
- **Connections:** Periodically check all wiring connections for tightness and corrosion. Loose connections can lead to poor performance or damage.
- **Ventilation:** Ensure the amplifier's cooling fins are free from dust and debris to maintain proper heat dissipation. Do not block ventilation openings.
- **Environmental Factors:** Protect components from extreme temperatures, direct sunlight, and moisture.

6. TROUBLESHOOTING

If you experience issues with your Alpine audio system, refer to the following common problems and solutions.

Problem	Possible Cause	Solution
No sound from speakers	<ul style="list-style-type: none">• Amplifier not turning on• Loose speaker wires• Incorrect input selection on head unit• Blown fuse	<ul style="list-style-type: none">• Check remote turn-on wire and power/ground connections to amplifier.• Verify all speaker connections at amplifier and crossovers.• Ensure head unit is set to the correct audio source.• Check amplifier and main power fuses.
Distorted sound	<ul style="list-style-type: none">• Gain set too high• Incorrect crossover settings• Damaged speaker	<ul style="list-style-type: none">• Reduce amplifier gain.• Adjust amplifier filter settings (HP for speakers).• Inspect speakers for physical damage.
No bass or weak bass	<ul style="list-style-type: none">• Incorrect crossover settings• Speaker polarity reversed	<ul style="list-style-type: none">• Ensure HP filter is not set too high on the amplifier.• Verify correct polarity for all speaker connections.
Amplifier overheating	<ul style="list-style-type: none">• Poor ventilation• Improper impedance load	<ul style="list-style-type: none">• Ensure amplifier has adequate airflow.• Verify speaker impedance matches amplifier specifications.

7. SPECIFICATIONS

Detailed specifications for the Alpine HDZ-653 Component Speakers and S-A32F Amplifier.

Alpine HDZ-653 Component Speakers

- **Speaker Type:** 3-Way Component System

- **Woofer Size:** 6.5 Inches (Carbon Composite)
- **Midrange Size:** 3.5 Inches (Carbon Composite)
- **Tweeter Size:** 1.25 Inches (Carbon Composite Dome)
- **Power Handling (RMS):** 100 Watts
- **Power Handling (Peak):** 300 Watts
- **Frequency Range:** 55-40,000 Hz
- **Material:** Carbon Composite, Plastic/Metal
- **Product Dimensions:** 2.38"D x 6.38"W x 6.38"H (Woofer)
- **Mounting Type:** Door Mount (Woofer)

Alpine S-A32F 4-Channel Amplifier

- **Channels:** 4-Channel
- **RMS Power Output:** 55 Watts x 4 (into 4 ohms)
- **Connectivity Technology:** Speaker Wires (Input/Output)
- **Audio Output Mode:** Stereo
- **Control Method:** Touch (for settings adjustment)
- **Included Components:** Warranty Card
- **Item Weight:** Approximately 30 pounds (for the bundle)

8. WARRANTY AND SUPPORT

Warranty Information

This Alpine product bundle is covered by a Limited Warranty. Please refer to the included Warranty Card for specific terms, conditions, and duration of coverage. Retain your proof of purchase for warranty claims.

Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty service, please contact Alpine customer support directly. Contact information can typically be found on the Alpine official website or on your warranty documentation.

Manufacturer: Alpine