



## CAR AUDIO DSP AMPLIFIER

ICT-A500B



Thank you for purchasing the ICT-A500B

To maximize the performance of this DSP amplifier and your complete car audio system installation, we recommend that you acquaint yourself thoroughly with all technical features and controlling options of this DSP amplifier. Please read this manual carefully before attempting the installation. If, after reading this manual, you still have questions regarding functions or the installation of the DSP amplifier, we recommend that you consult your dealer.

## Safety information

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Do not turn on any function which may distract you while driving the vehicle. Functions requiring sustained attention must only be used when the vehicle is at a complete standstill. Make sure to always stop your vehicle in a safe place before operating these functions. There is a risk of causing an accident.

Keep the volume at a low level to be able to hear exterior noises while driving the vehicle. There is a risk of causing an accident.

Do not open the DSP amplifier or undertake any modification of the product. There is a risk of accident, fire or electric shock.

Only use this DSP amplifier with 12V mobile applications. Any other use other than the use for which this product has been designed may lead to fire, electric shock or injury.

Use fuses of the correct amperage. There is a risk of fire or electrocution.

Do not obstruct radiators and/or vents. Internal overheating may occur and cause a fire.

Ensure all connections are properly made. Check the section of cable and the type of cable if it does not correspond with the use. There is a risk of fire, injury and/ or damage to the product.

Do not use nuts or fasteners part of the steering or braking systems for ground connection. The fasteners and nuts used for the brake and steering systems (or any other security system) as well as various tanks must never be used for grounding.

Use of these parts as ground may deactivate the vehicle's control system and cause a fire or other technical problem.

Keep all small objects which could be swallowed, such as the fasteners and screws, out of the reach of children. Swallowing such objects may cause serious injuries. In the event of swallowing any of these objects, immediately seek medical advice.

Before starting the installation, disconnect the negative terminal of the battery to avoid any risk of injury, fire or damage to the equipment.

## Features

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- 5-channel Car DSP Amplifier with IOS or Android App tuning audio DSP functions
- Bluetooth Streaming for HD music
- 7 band parametric EQ for each channel (20Hz-20KHz)
- Q factor change for each band of parametric EQ
- 3 way active crossover, selectable from By-pass, Low-pass, Hi-pass and Band-pass
- Time alignment in "cm" for 4 channel output from 0 to 230 cm
- Dynamic Bass setting
- Phase, Mute setting for all speakers
- Gain setting for each channel
- 5 user favorite memory for sound setting
- The Sound setting can be saved to the amplifier or the phone
- Line out for Front speakers, Rear speakers and Subwoofer

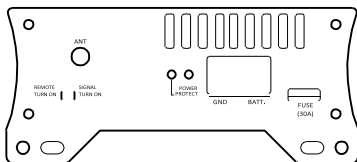
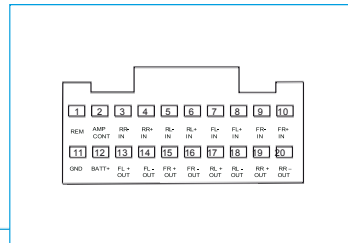
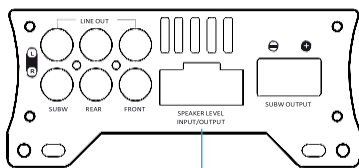
## Specifications

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This DSP amplifier play a music from high level input or from Bluetooth Streaming.

- Output power(MAX): 4 x 54Watts & 1 x 300Watts
- Frequency response: 20 Hz ~ 20 kHz
- Audio sampling frequency: 192 kHz
- Distortion: 1 KHz <0.01%
- Supply voltage range: 9 V – 15 V
- Signal to noise ratio: > 120 dB
- Dynamic range: > 100 dB
- Standby current: 0 mA
- Dimensions (LxWxH): 182( 207 ) x 134 x 48.5mm

## Wire Diagram



1\* In some cases the Auto-Turn-On function will not work. If you have this problem, please use the wire “ACC-IN” and connect it to ACC/Amp Remote of the car stereo or another cable which will provide +12 V only when the car stereo is turned on.

2\* REM-Out: Connect this wire to the remote input of a separate amplifier if required.

### HIGH LEVEL INPUT

Run the provided Y-ISO connector cable (or the optional car-specific cable) from the car stereo to the amp. With this type of connection this DSP amplifier gets the speaker signal from the head unit. Then connect the DSP amplifier to the battery, it will then be switched on and off automatically when the head unit is switched on and off.

### LINE OUT

DSP-controlled audio signal to external amplifiers.

### REM OUTPUT TERMINAL

Terminal to connect the remote-wire with the REM-Input of an amplifier. The DSP Amplifier turns then on/off the amplifier automatically.

### GND POWER INPUT TERMINAL

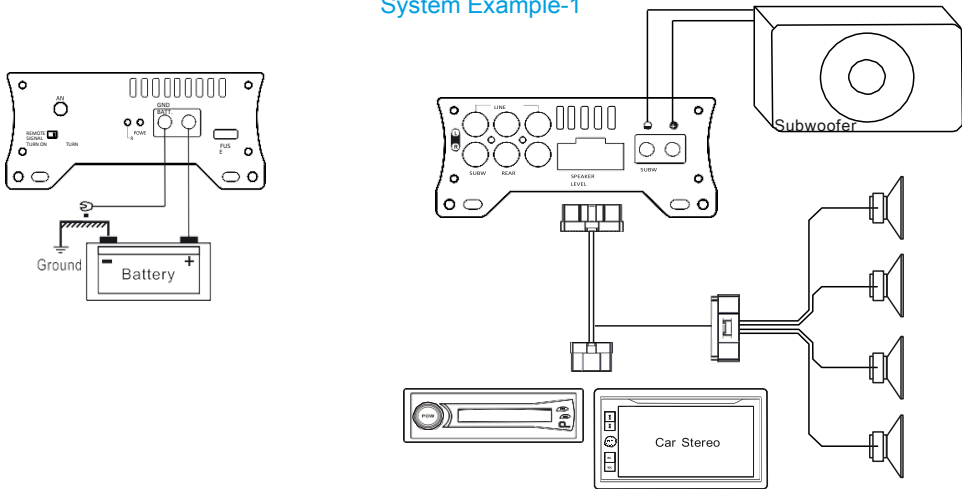
Terminal to connect the amplifier to the chassis ground or negative pole of the car battery.

### BATT+ POWER INPUT TERMINAL

Terminal to connect the amplifier to the positive +12V pole of the car battery.

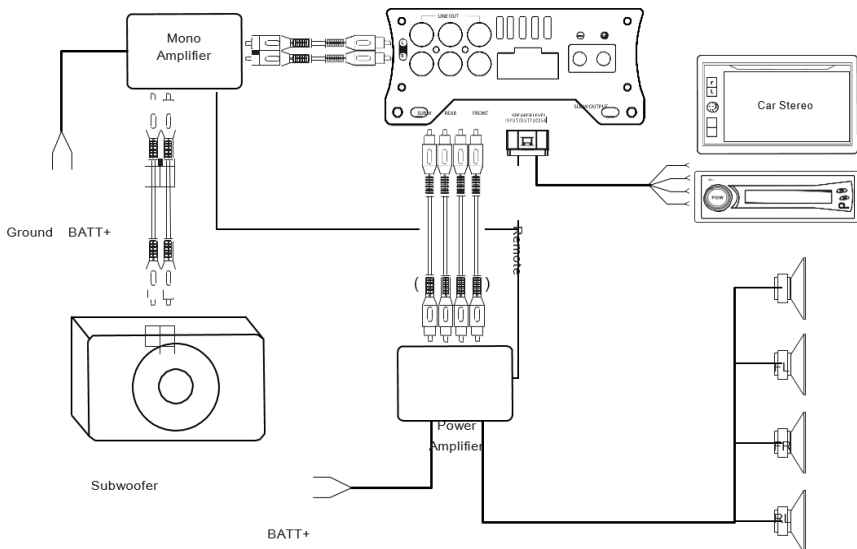
# Installation Guide

## System Example-1



Example 1 shows the DSP amplifier used to drive the speakers in the car plus a passive subwoofer

## System Example-2



Example 2 shows the DSP amplifier used as a signal processor to supply audio to additional amplifiers

## Mounting Instructions

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1. Before you start with the installation, make sure you know the security code of your head unit (if applicable).
2. Remove the head unit from the dashboard and disconnect the main wire.
3. Find a place for this DSP Amplifier and connect the provided car-specific harness to the amp.
4. For high power output please follow these steps: Run supplied 8AWG power wire from the (+) pole of the battery to the (BATT) terminal of the amplifier. Use a fuse with the correct value for the power wire. The distance between the B+ pole and the fuse holder must be 15 cm or less. Run the supplied 8AWG cable from the (GND) terminal of the amp to the vehicle chassis ground. Make sure that the contact surface is clean and paint removed.
5. Connect the wire to the head unit.
6. Test and Install the head unit back in the dashboard.

## Bluetooth streaming

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The DSP amplifier can be connected to as an audio streaming device from a smartphone, please note, when streaming music through the amplifier, this will override audio from the original radio, which could include navigation instructions and parking sensor tones.

# ATTENTION INSTALLATION ENGINEER

PLEASE USE THE APP TO SET UP THE DSP

WE DO NOT RECOMMEND THE END USER TO USE THE APP UNLESS THEY UNDERSTAND IT FULLY AS CHANGING THE SETTINGS CAN CAUSE BAD SOUND QUALITY IF NOT SET UP CORRECTLY.

## How to install and connect the APP

### APP Installation

1. Download the APP of the DSP Amplifier in the Google Play or the APP store by searching "HSA-DSP.PRO".
2. Install the APP to your Android or iPhone.
3. Turn on Bluetooth on your mobile and power the radio on.
4. Open the APP and click [Connect], then select HAS-DSP.PRO from dialogue box, App will connect to the DSP Amplifier.
5. If asked for a code it is 1234 .

### APP Overview

