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4 Channels Marine Digital Amplifier

## Owner's manual - HS4

The HS4 amplifier is state of the art Class D amplifier designed to provide great amplification in a small space for your marine or off-road audio system. The HS4 is a 4-channel full range amplifier with fully variable high pass and low pass crossovers enabling it to drive a wide variety of either full range speaker or subwoofers.
The HS4 amplifier is meant to work with any head unit or audio source that uses AUX/RCA out
What's Included:

- HS4-4 channels Marine amplifier
- 8' power wire

50A fuse and fuse holder

- 4 pcs of mounting screws

Get to know your HS4




1. RCA input - run RCA cables from any audio source.
2. Red / positive power wire - includes a 50A fuse and fuse holder
3. Black / ground power wire
4. Blue / remote Turn On - connect to your head unit's REM wire or to ignition source.
5. Output channels.

## SENS - Gain settings

This control is used to match the input of the amplifier to the source unit. The higher the sensitivity the sooner the amp will reach maximum output.
NOTE : This is NOT a volume control.
As already noted, the HS4 control panel was preset to be used with the NOAM N5 and NOAM NSUB. In case you need to make adjustment to the gain settings, please follow these steps:

1. Turn the gain control (SENS) all the way down counterclockwise.
2. Turn your head unit ON
3. Set your audio source (both audio player and head unit) at full volume
4. Slowly increase the gain control. Stop when you hear slight audio distortion

Do not increase any "Input Sens." setting for any amplifier channel or channel pair in the system beyond the maximum level established during this procedure. Doing so will result in audible distortion and possible speaker damage

## TROUBLESHOOTING

| Problem | Cause | Solution |
| :---: | :---: | :---: |
| It just doesn't sound right | Speaker are connected to the wrong output | Refer to section E of this owner manual |
|  | Control panel settings are wrong | Refer to section E of this owner manual |
| Amplifier doesn't turn on | Controller/head unit wasn't turned ON | Did you remember to press and hold the controller's power button for 3-5 seconds? |
|  | Faulty fuse | Remove fuse and check with continuity meter. Replace if necessary. |
|  | Poor connection integrity | Check " +12 V " and "Ground" leads for pinched wires; ensure tight connections. |
| Balance Reversed | Speaker Wire L \& R Reversed | Correct Speaker Wire Orientation |
| Output Distorted | Head unit/Audio player Volume Set Too High | Lower head unit/Audio player Volume |
|  | Amplifier Gain Set Too High | Lower Amplifier Gain (SENS) |
| Whining or ticking noise while the engine is ON | The amplifier is picking up alternator or radiated noise | Move the audio cables away from the power wires |
|  |  | Turn Down input gain (SENS) |
|  |  | Check the alternator and/or voltage regulator. Test for weak battery or add water to the battery |

@ IMPORATNT! Dear customer, read this before you install

## 1. WATER DAMAGES TO YOUR HS4 AMPLIFIER, ARE NOT COVERED BY THE PRODUCTS WARRANTY:

Our engineering team designed the HS4's chassis to be Marine rated, but you must install it where it's protected from water/mud at all times. The sealed structure is designed and constructed to protect the amplifier IN CASE it accidently gets wet, but it is your responsibility to limit the amp's exposure to water:

- Install the amplifier in a dry area where water and mud can't reach it -Do not clean the amplifier with high pressure or regular water hose. If needed, cover it while washing your vehicle

Email our support team at: support@noamaudio.com if you have any doubts or questions.

## A. Installation Applications:

The NUTV5 series designed for operation with 12 volts, negative-ground electrical systems. Using this product in systems with positive ground and/or voltages other than 12 V may result in damage to the product and will void the warranty.

## B. Safety Considerations:

- Though this is a Marine IPX6 rated amplifier, mount the amplifier where it will be protected from water/mud at all times.Water damages are not covered by the 1-year warranty.
- While installing the amplifier, strive to find a dry and well-ventilated spot for it.


Heaving an amplifier sealed to the elements at IPX6 level means that heat generated from the amp has nowhere to escape. Playing hard with your HS4 might get it Hot. That's fine and normal. But, avoid touching the amplifier's surface during or right after use.

A Do not mount the amplifier in the engine compartment or in any areas of extreme heat.

- Securely mount the amplifier so that it does not come loose in the event of a collision/sudden jolt or as a result of repeated vibrations during normal operation.
- Check before drilling to make sure that you will not be drilling into an exterior panel/hull, fuel tank, gas/brake line, wiring harness, or other vital system.

$\triangle$
Do not run system wiring outside or underneath the vehicle/vessel. This is an extremely dangerous practice, which can result in severe damage/injury.

- Protect all system wires from sharp edges (metal, fiberglass, etc.) by carefully routing them, tying them down and using grommets and loom where appropriate.
- Secure all wiring as needed, using cable ties or wire clamps to protect them from moving parts and sharp edges.


## C. Battery and charging:

Though your HS4 control panel is already adjusted and pre-tuned, in time or for different reasons you might want to re-tune and readjust it. Take your time and make only one adjustment at a time. It may take some time to get the system fully adjusted. During this time, the amp is drawing current from the battery. You should check the battery voltage from time to time and recharge it if it gets low.

Amplifiers will put an increased load on the vehicle's battery and charging system. We recommend checking your alternator and battery condition to ensure that the electrical system has enough capacityto handle the increased load of your stereo system. Stock electrical systems which are in good condition should be able to handle the extra load of the HS4 amplifier without problems, although battery and alternator life can be reduced slightly. To maximize the performance of your amplifier, we suggest the use of a heavy-duty battery and an energy storage capacitor

## Bridge mode: 2 Bridged Outputs

The HS4 can be bridged on both Front and Rear outputs to deliver 200watt RMS power off each bridged output.

* Input gain (SENS) should be tested and tuned in accordance with the used speakers and audio Source. ** DO NOTbridged the HS4 to power two N5 speakers. It will lead to burnt voice coils and will void the warranty.



## Filter mode and Sensitivity ('GAIN') settings:

## Filter mode:

HPF - (High-Pass) Configures Filter to Attenuate Frequencies BELOW the Selected
Filter Frequency.
LPF - (Low-Pass) Configures Filter to Attenuate Frequencies ABOVE the Selected Filter Frequency
FULL - Full-Range Operation of Input Signals

## Control Panel Settings and Adjustments:

As mentioned, Your HS4 amplifier's control panel was preset to fit the N5 Full-range speakers and NSUB subwoofer supplied with the NUTV5/NUTV5-S stereo system. Unless you use different speakers than those supplied with your kit or in case of distortion, please avoid adjusting the gain and crossover settings of the amplifier.

## HS4 modes:

default settings: 2 Stereo Front + 1 Bridged Mono Rear Output


4 channels stereo mode: 2 Stereo Front +2 Stereo Rear Output
Using the amplifier with 4 full range speakers Will require you to change the settings.

* Input gain (SENS) should be tested and tuned in accordance with the used speakers and audio Source.
** Crossover control should be tuned to 'FULL'



## Refer to section D


D. Installation Procedure/Connections:

A If you feel unsure about installing this system yourself, have it installed by a qualified technician. Before installation Disconnect the NEGATIVE battery post connection and secure the disconnected

1cable to prevent accidental reconnection during installation. This is an essential safety precaution during installation!
Avoid running power wires near the low-level input cables, antenna, power leads, sensitive equipment or harnesses. The power wires carry substantial current and could induce noise into the audio system.

1. Connect the RED power lead to the positive ( +12 V ) battery post.
2. We strongly recommend to run the Black/Ground power cable to the negative ( -12 V ) battery post.
[ Blue / Remote Turn-On should be connected to the head unit's REM-OUT wire or to ignition.
3. Fuse. Your HS4 already includes a 50A fuse. The HS4 power wires are $8^{\prime}$ long, while the Fuse housing located on the Red/Positive power wire at 5 ' of wire from the amplifier.
[ You have plenty of power wire length before the fuse holder (5'). Strive to leave no more than 18 ( 45.7 cm ) of wire between the fuse holder and the battery positive ( +12 V ) terminal. You can cut the remaining wire.
4. Run RCA cables between your head unit and the HS4 amplifier.
5. Run the speakers wires to the amplifier's output.

Make sure about correct polarity when connecting your speakers to the amplifier. speaker's Red wire (+) should connect to solid-color (+) output channels. speakers's Black wire (-) should be connected to color / Black (-) output channels.

Speaker connection color codes:

6. If you haven't already done so, mount the amp now
7. Now you should be good to go and play tunes for the first time.

## E. Control Panel Settings and Adjustments:

The amplifier's settings and controls are located on the front panel beneath a gasketed, protective cover. Remove the six screws from the center panel to access the controls and make adjustments. Replace cover when finished and mount the amplifier.

## IMPORTANT! Your HS4 amplifier control panel was preset to work as part of the NUTV5 / NUTV5-S / NUTV5 QUAD audio system.

Your HS4 amplifier's control panel was preset to fit the N5 Full-range speakers and NSUB subwoofer supplied with the NUTV5/NUTV5-S stereo system. Unless you use different speakers than those supplied with your kit or in case of distortion, please avoid adjusting the gain and crossover settings of the amplifier.

## This is your HS4 default settings:

Front channels - White and Grey outputs. Set at full range
Rear Channels - Green and Purple outputs. Set at Low-pass for a subwoofer use. If you do use a subwoofer you will want to bridge the Rear channels by using the Green/black and Purple outputs.


## Power/Protect Indicator:

This indicator will light up RED upon initial amp start up. If all connections are OK, within 3-5 seconds the light will turn BLUE. If a condition of protect (short circuit, over/under voltage) occurs the light will turn to RED until the condition of protect is resolved.


