



NGQ-A4251

User Manual



ANDROID AUDIO POWER AMPLIFIER



CONNECT WITH US ONLINE TO EXPLORE NAKAMICHI'S COMPLETE RANGE,
INSTRUCTIONS & SOFTWARE DOWNLOADS AND WARRANTY REGISTRATION.

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Made in China | 中國製造

YOUR AMPLIFIER

Dear Customer,

Congratulations on purchasing our Nakamichi mobile system product for your sound system.

This product has been designed and manufactured to Nakamichi's exacting standards to ensure many years of audio enjoyment. For the best performance, we recommend that you have your Nakamichi product installed by an authorized Nakamichi dealer.

If you would like to install this product on your own, we recommend for you to go through this manual to familiarize yourself with all the installation requirements and procedures.

If you encounter any issues or if you have any questions on the operation of this product, please contact your nearest authorized Nakamichi dealer for assistance, or you may also contact us through our website or social media channels.

Installation of Your Product

In today's modern vehicles, it is very easy to cause damage to existing systems through improper installation. Please follow and scrutinize all wiring diagrams to ensure that you have connected everything in its proper place.

If you find yourself uncomfortable or unfamiliar with understanding the wiring and installation diagrams or testing instructions, do contact your nearest Nakamichi dealer to perform the installation for you.

Safety Warnings and Considerations

- Clean only with a dry cloth or other similar materials.
- Install your product in a dry, well-ventilated location that does not interfere with your vehicle's safety equipment.
- Do not block any ventilation openings when installing this product.
- Do not mount the product in the engine compartment of your vehicle or in any areas of extreme heat such as mufflers, silencers, exhaust pipes or other heat producing apparatus.
- Securely mount the product so that it does not come loose in the event of a collision or as a result of repeated vibrations that might occur during normal operation.
- Installation of the apparatus must be done with great care to prevent damage to your vehicle's fuel lines, power, and other electrical wiring, hydraulic brake lines, and other systems. If possible, always visit your nearest Nakamichi dealer to perform the installation.
- Do not run any wiring outside or underneath the vehicle. Keep all wires inside the vehicle.
- Take the necessary precautions when making connections to the vehicle's battery to avoid any potential shock.

YOUR AMPLIFIER

- Protect all system wires from sharp edges by carefully routing them, always use rubber grommets to protect wiring and cables whenever you are installing them through metal openings.
- Secure all wiring using cable ties or wire clamps to protect them from moving parts and sharp edges.
- This apparatus shall not be exposed to dripping or splashing, and no object filled with liquids, shall be placed on the apparatus.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power input terminals are damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Fuses shall be replaced only with the correct type and fuse value, and only when the apparatus is powered off.
- Exposure to high sound pressure levels may lead to permanent hearing loss. Take every precaution to protect your hearing.
- This product is designed specifically for use with 12 volt, negative- ground electrical systems only. Using this product in systems with positive ground and/or voltages other than 12V may result in damage to the product and your system.

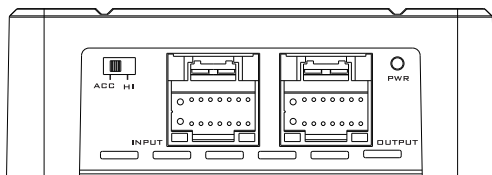
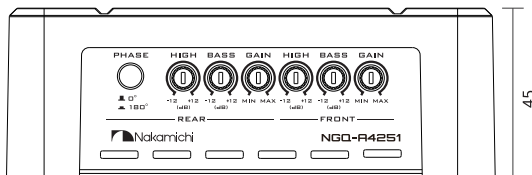
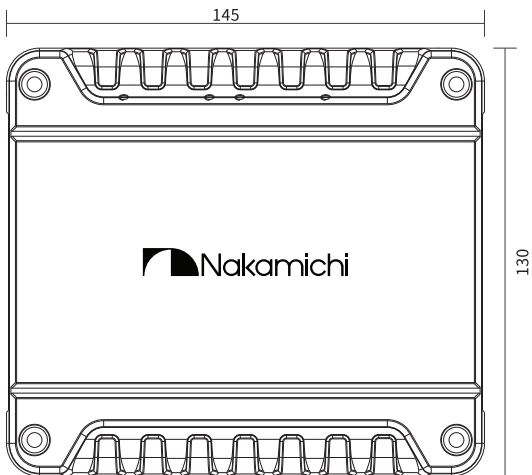
WHAT'S IN THE BOX

1. User Manual (One in English and Chinese)	2pcs
2. NGQ-A4251 Amplifier	1pc
3. Mounting Screw (Ø4x19mm)	4pcs
4. Conncetion (L=30cm)	1pc
5. Magic Tapa (40x80mm)	1pc
6. Fuse (15A)	2pcs

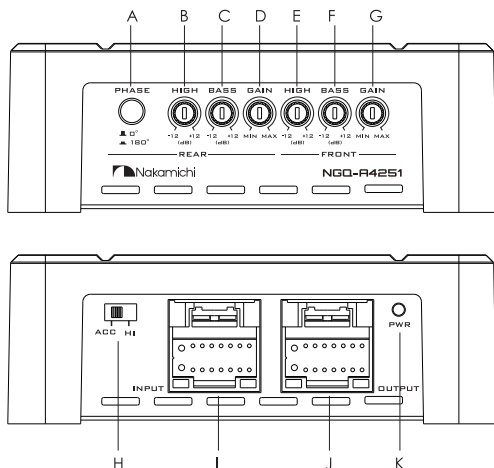
SPECIFICATIONS

N-power Output@4Ω	25Wx4	Sensitivity	0.15V-8V
Max power	50Wx4	High/Bass Boost	-12dB ~ +12dB
T.H.D	≤0.1%	Unit Dimensions	145x130x45mm
Frequency Response	20Hz-20kHz	Net Weight	Approx. 0.8kg
Signal To Noise Ratio +A	≥91dB		

DIMENSIONS (UNIT:MM)



PANEL CONTROLS AND FEATURES



A. PHASE CONTROL

Controls phase of the amplifier at 0° or 180°.

B. HIGH CONTROL

The boost feature will increase the sound level in the high frequencies of the rear sound field.

C. BASS CONTROL

The bass boost feature will increase the sound level in the bass frequencies of the rear sound field.

D. GAIN CONTROL

The gain control will match the amplifiers sensitivity to the rear sound field.

E. HIGH CONTROL

The boost feature will increase the sound level in the high frequencies of the front sound field.

F. BASS CONTROL

The bass boost feature will increase the sound level in the bass frequencies of the front sound field.

G. GAIN CONTROL

The gain control will match the amplifiers sensitivity to the front sound field.

H. ACC/HI DIRECT START ON SWITCH

Depending on the selected switch, the amplifier can select ACC on or android audio power amplifier.

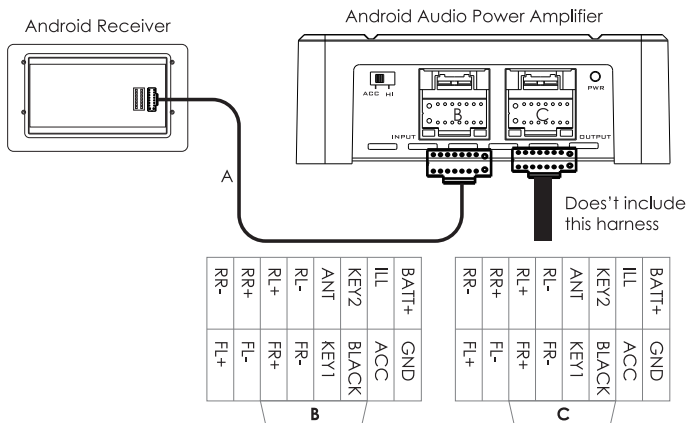
I. INPUT CONNECTION

J. OUTPUT CONNECTION

K. POWER INDICATOR

The power indicator blue LED will light up when the amplifier is working correctly.

POWER CONNECTION LEADS



A.POWER SUPPLY

Name	Color	Full name
BATT+	Yellow	+12V Power Cord
GND	Black	Ground Wire
ILL	Orange	Small Light Detection Line
ACC	Red	Ignition Switch Wire
KEY2	Purple/black	Steering Wheel Control Line 2
BLACK	Pink	Reversing Detection Line
ANT	Blue	Automatic Antenna Power Supply
KEY1	Brown	Steering Wheel Control Line 1
RL-	Green/black	Rear Left Speaker -
FR-	Gray/black	Front Right Speaker -
RL+	Green	Rear Left Speaker +
FR+	Grey	Front Right Speaker +
RR+	Purple	Rear Right Speaker +
FL-	White/black	Front Left Speaker -
RR-	Purple/black	Rear Right Speaker -
FL+	White	Front Left Speaker +

INTERFERENCE

All cables can create interference. The power cable and audio cables are very prone to interference from other sources, while remote cables are less prone. Interference is often caused by the generator, ignition, or any other electronic parts or systems. Most of these problems can be eliminated by correct and careful wiring during setup. Here are some guidelines to follow.

- Lay the signal, speaker and power cables separately with enough distance from one another and also from each other car cable. If not possible, you can lay the circuit and ground cable together with the serial cables. Audio and speaker cable should be as far away from these as possible. The REM cable to the automatic antenna output of the radio can be laid together with the signal cables.
- Avoid ground loops by laying the ground wiring of all components towards a central point in a star layout. You can locate the best point by measuring the voltage directly at the battery, and comparing the voltage value with the chosen ground point and the positive terminal of the amplifier. If the measured voltage is only slightly different, you've found the correct central location. Otherwise please look for another point. You should measure with the ignition point for earth switched on.
- If there are pickups from external electrical sources into the speaker cables, divide the core leads and twist them together.
- If there are noises from the car electrics, add an interference suppression choke into the power wiring.
- If there are humming noises, use thicker ground cables or add further ground cables to the chassis.
- To reduce contact resistance and bad and loose contacts, please solder the cable ends or use multi core cable ends, spade terminals or others. Gold Plated spade terminal are free of corrosion and have the lowest contact resistance.
- Should all these measures not bring about any success, the use of a ground loop isolator may solve the problem.

POWER CONNECTION LEADS

If you experience operation or performance problems with this product, compare your installation with the electrical wiring diagram on the previous pages. If problems persist, read the following troubleshooting tips which may help eliminate the problems.

SYMPTOM	POSSIBLE CAUSE	ACTION TO TAKE
No Output	• Low or no remote turn-on input	• Check remote turn-on voltage output at amplifier and correct as needed
	• Fuse blown	• Check power wire integrity and reversed polarity, repair as needed and replace fuse
	• Power wires not connected	• Check power wire and ground connections and repair or replace as needed
	• Audio input not connected or no output from source	• Check input connections and signal integrity, repair or replace as needed
	• Speaker wires not connected	• Check speaker wires and repair or replace as needed
Audio Cycles On And Off	• Speaker are blown	• Check system with known working speaker and repair or replace speaker as needed
	• Thermal protection engages when amplifier heat sink is overheated	• Make sure there is proper ventilation for amplifier and improve ventilation as needed
	• Loose or poor audio input	• Check input connections and repair or replace as needed
Distorted Output	• Amplifier level sensitivity set too high; exceeding maximum output capability of amplifier	• Reset gain referring to the turning section of the manual for detailed instructions
	• Impedance load to amplifier too low	• Check speaker impedance load, if below 4Ω mono rewire speakers to achieve a higher impedance
	• Shorted speaker wires	• Check speaker wire connections and repair or replace as needed
	• Speaker not connected to amplifier properly	• Check speaker wiring and repair or replace as needed refer to the installation section of this manual for detailed instructions
	• Internal crossover not set properly for speaker	• Reset crossovers referring to the multi-cross crossover configuration section of this manual
Distorted Output (Cont'd)	• Speaker are blown	• Check system with known working speaker and repair or replace as needed
	• Impedance load to amplifier too low	• Check speaker impedance load, if below 4Ω mono rewire speaker to achieve a higher impedance
	• Short in power wire or incorrect power connections	• Check power and ground connections and repair as needed
	• Fuse used is smaller than recommended	• Replace with proper fuse size
	• Too much current being drawn	• Check speaker impedance load, if below 4Ω mono rewire speaker to achieve a higher impedance
	• Short in power wire of incorrect	• Check power and ground connections and repair as needed
Poor Bass Response	• Speaker wired wrong polarity causing cancellation at low frequencies	• Check speaker polarity and repair as needed