

N40t User Manual



CLASS-AB(TUBE) 4-CHANNEL POWER AMPLIFIER

nakamichicaraudio.com

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 of 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.

• 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.

M. REM(ON/OFF) REMOTE CONTROL

offset from the high level input signal to automatically level inputs, the amplifier REM-IN should be connected to the REM-OUT of the source unit. The source unit will control the amplifier to automatically turn on or **O. +12V (POWER SUPPLY)** off

N. GND(-) = GROUND CONNECTION When using HI-INPUT, the amplifier can detect the DC Connect this cable directly to the metal frame of the vehicle, ensuring that the metal frame has been turn the amplifier on or off. When the amplifier turns strpped of all paint down to the bare metal. Use the on, the REM terminal will output +12V DC to control shortest distance possible. It is always a good idea to the other devices to turn on or off. When using low replace the vehicle battery groudn terminal or any other factory ground points.

> the positive terminal of an isolated audio system batterv.

Wiring Diagram





Panel Controls and Features MULTIPLIER MULTIPLIER HPE \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc MIN MAX 50 500 HZ HZ MIN MAX 50 500 HZ HZ 50 500 HZ HZ -<u>1-2CH</u>-- (B - 4CH) MODEL NO.: N40t 9-16V DC=NEGATIVE GROUND CHI+ CH2+ CH3+ C CHI+ CH2+ CH3+ C \odot MODE 0-0 0 0 0 0 0 0 0 0

A. GAIN CONTROL

The gain control will match the amplifiers sensitivity to the source units signal voltage.

B. HIGH PASS CROSSOVER Controls the higher end of frequencies that are

allowed to pass through. Frequency control range is from 50Hz to 500Hz.

C. CROSSOVER CONTROL (X1/X10) Increase the crossover's corresponding frequency

by 10 times.

D. CROSSOVER CONTROL

Depending on the selected switch settings, this allows the amplifier to operate in full range, high pass, or low pass mode.

E. LOW PASS CROSSOVER

Controls the lower end of frequencies that are allowed to pass through. Frequency control range is from 50Hz to 500Hz.

F. HI-LEVEL INPUT

High level input or balanced input.

G. LOW LEVEL RCA INPUT

The RCA input jacks connect with your source unit's RCA low level outputs, or to your source unit's high level outputs with an optional adapter. Using high quality, twisted pair car audio interconnects and cables is recommended to reduce the possibility of interference in the audio signal.

H. DIRECT DSP

When this button is pressed, all control knobs and switches on the unit will cease working, and the RCA signal will be directly amplifier in the rear stage.

I. INPUT MODE SWITCH

If your audio source has a pair of RCA outputs, input the outputs into the amplifier's channel 1 and 2 inputs. The input mode switch is normally set to 2CH amplifier mode and the pre-amplifier circuit will automatically sum all channels and output the signals as 4 channels.

If your audio source has 4 RCA outputs, input the front left and right to the amplifier's channel 1 and 2 input jacks, the rear left and right into the amplifer channel 3 and 4 input jacks. Then set the input mode switch to 4CH amplifier mode, and the preamplifier circuit will automatically sum all channels and output them as 4 channels.

J. POWER INDICATOR

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

K. PROTECTION INDICATOR

The protection red LED will light up and flash if there is a fault present in the amplifier. Please disconnect the amplifier and resolve the fault before reconnecting the amplifier.

L. SPEAKER CONNECTIONS

Connect your speakers and woofers to these terminals, ensuring proper polarity during connection. Never connect the speaker cables to the chassis around. 4 EN

1 EN

Connect this terminal through a fuse or circuit breaker to the positive terminal of the vehicle battery or

Accessory List	
1. User Manual	2pcs
2. Amplifier	1pc
3. Mounting Screw (Ø4x20mm)	4pcs
4. Wrench (2mm and 2.5mm and 5mm)	3pcs
5. High Input Line	1pc

Specifications

6. Gloves

7. Fuse (30A)

opeemeanons	
N-power Output @ 4 Ohm	150W x 4
N-power Output @ 2 Ohm	225W x 4
Bridge Output @ 4 Ohm	450W x 2
Max Power	4000W
Frequency Response	10Hz -25kHz
Input Sensitivity	200mV to 6V
Signal to Noise Ratio	≥90dB
T.H.D.	≤0.2%
Low Pass Cross Frequency	50Hz - 500Hz
Bass Boost	0dB - 12dB
Subwoofer Remote Box	NO
Minimum Impedance	20k
Subwoofer Current Consumption	20A
Fuse Size	30A x 4
Net Weight	Approx. 5.0 kg
Dimensions (LxHxW)	476x214x60mm

4pcs

Recommended Cable:

• Speaker cable: 12AWG

• RCA line: all copper shielded wire & gold plated RCA plug

• Power cord: greater than 10AWG

Dimensions (Unit: mm)



2 EN

Power Connection Leads



NOTES ON THE POWER SUPPLY:

• Connect the +12V power input lead only after all other leads have been connected.

- Be sure to connect the ground wire of the unit securely to a metal part of the car.
- A loose connection may cause the amplifier to malfunction.

• REM: The unit is powered on by applying +12 Volts to this terminal. This terminal does not draw heavy current like the Tow Power Terminals so a thinner gauge connecting wire is acceptable. Standard 18 Gauge wire is sufficient for use. If the radio is equipped with a power antenna control wire, it can also drive and power this terminal. If the power antenna wire is already in use, you can splice the wire and use it. Using this method, the amplifier will turn on automatically with the source unit.

• Use the power supply lead with a fuse attached whose value is the same as original fuse.

• Place the fuse in the power supply lead as close as possible to the car battery.

• During full power operation, maximum current will run through the entire system. Please make sure that the leads connected to the +12V and GND terminals of the unit must be larger than 10 gauge (AWG.10).

Troubleshooting Tips

NO FUNCTION: • The connecting cables are not connected correctly (=Terminal+12V / GND / REM). Please ensure that all connections and mechanical contacts are properly installed and that the cable jacket has been removed. If the fuse is defective, please replace it with a new fuse, taking note of the correct fuse value.

NO SOUND: Speaker cable or speaker plug are not connected correctly.

NO SOUND / RED LED PROTECTION IS ON:

• The positive and negative wires of the speaker cables are in contact, thus shorting the circuit. If you are using a 2 Ohm speaker in stereo mode, a 4 Ohm speaker in bridge mode or tri-mode and the unit is overloaded, turn the gain control towards 'MIN' until the setup works correctly.

Interference

All cables can create interference. The power cable and cinch / RCA 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. • Use only a shielded audio cable for the wiring between the low level input of the amplifier and the RCA

or DIN output of the radio.

• 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.

Warranty Considerations

Nakamichi warrants this product to be free of defects in materials and workmanship for a *period stated* by your country's authorized Nakamichi distributor. This warranty is not transferable and applies only to the original owner who has purchased from an authorized Nakamichi dealer or distributor. Damage caused by the following is not covered under warranty: accident, misuse, abuse, product modi-

fication or neglect, failure to follow installation instructions, unauthorized repair attempts, misrepresentations by the seller.

This warranty does not cover incidental or consequential damages and does not cover the cost of removing or reinstalling the unit(s). Cosmetic damage due to accident or normal wear and tear is not covered under warranty.

Warranty is void if the product's serial number has been removed or defaced.

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