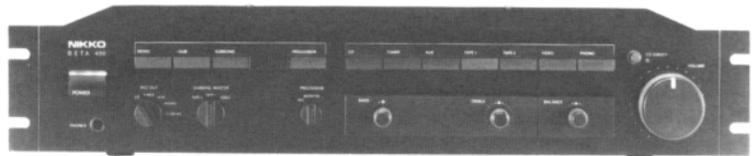


PRE-AMPLIFIER

BETA 400

SAFETY INSTRUCTIONS INSTRUCTION MANUAL MODE D'EMPLOI



SAFETY INSTRUCTIONS	page 1
OPERATING INSTRUCTIONS	page 2
MODE D'EMPLOI	page 6

FOR CUSTOMERS IMPORTANT FOR YOUR SAFETY

(APPARATUS THAT EMPLOYS A SUPPLY CORD TERMINATED WITH A POLARIZED TWO-PRONG ATTACHMENT PLUG)

"CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

"ATTENTION: POUR PRÉVENIR LES CHOCS ÉLECTRIQUES, NE PAS UTILISER CETTE FICHE POLARISÉE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ÊTRE INSÉRÉES À FOND SANS EN LAISSER AUCUNE PARTIE À DÉCOUVERT.

The space below is provided to record the Serial Number of this unit.
The Serial Number can be found on the back of the product.

Serial No.: _____

Retain this information for future reference.



CAUTION!
RISK OF ELECTRIC SHOCK.
DO NOT OPEN!



CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT REMOVE ANY COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shocks to persons.



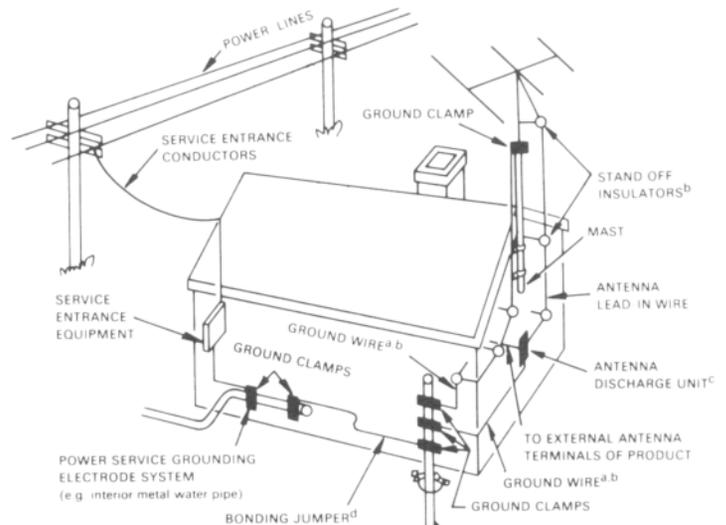
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

SAFETY INSTRUCTIONS

1. Read Instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and use instructions should be followed.
5. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool, and the like.
6. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer. An appliance and cart combinations should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn. 
7. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation opening; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat - The appliance should be situated away from heat sources such as radiators, head registers, stoves, or other appliance that produce heat.
10. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
11. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
12. Power Lines - An outdoor antenna should be located away from power lines.
13. Outdoor Antenna Grounding - If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up of static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure.
 - a. Use No. 10 AWG copper, No. 8 AWG aluminum, No. 17 AWG copper-clad steel, bronze wire, or larger as a ground wire.
 - b. Secure antenna lead-in and ground wires to house with stand-off insulators spaced 4-6 feet (1.22-1.83 m) apart.
 - c. Mount antenna discharge unit as close as possible to where lead-in enters house.
 - d. Use jumper wire not smaller than No. 6 AWG copper, or the equivalent, when a separate antenna-grounding electrode is used. See NEC Section 810-21(j).

14. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
15. Power-Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
16. Nonuse Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
17. Grounding or Polarization - The precautions should be taken so that the grounding or polarization means of an appliance is not defeated.
18. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
19. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

EXAMPLE OF ANTENNA GROUNDING ACCORDING TO NATIONAL ELECTRICAL CODE INSTRUCTIONS CONTAINED IN ARTICLE 810- "RADIO AND TELEVISION EQUIPMENT"



OPTIONAL ANTENNA GROUNDING ELECTRODE DRIVEN 8 FEET (2.44m) INTO THE EARTH IF REQUIRED BY LOCAL CODES SEE NEC SECTION 810-21 (f)

ENGLISH

INTRODUCTION

Thank you for selecting the NIKKO pre-amplifier BETA 400. Please read and observe the instructions below in order to protect your amplifier from damage. Should you have any doubts or questions after reading this instruction manual carefully, please contact your nearest NIKKO dealer.

- Do not place the unit in a location exposed to direct sunlight and keep away from heat (stoves, etc.).
- Make sure the unit is well ventilated and is not exposed to moisture or dampness.
- Do not place the unit in a location with excessive dust.
- Make sure the unit is placed on a flat, stable surface, free from vibrations.
- Do not use alcohol, thinner, benzene, aerosol products, or other chemicals for cleaning the cabinet.
- * Should your unit require service or maintenance, contact your nearest authorized NIKKO Service Center or your dealer.

Warning: To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

SPECIFICATIONS

• Amplifier Section

Input Sensitivity/Impedance

PHONO (MM)	2.5 mV/47 kohms
(MC)	0.25 mV/100 ohms
CD, TUNER, TAPE	150 mV/47 kohms

Total Harmonic Distortion, REC OUT at 4 V

PHONO (1 kHz)	
MM	0.001 %
MC	0.002 %
CD, TUNER, TAPE (20 Hz to 20 kHz)	0.002 %

Signal-to-Noise Ratio (IHF-A network)

PHONO MM (INPUT 5 mV)	93 dB
MC (INPUT 0.5 mV)	77 dB
CD, TUNER, TAPE	100 dB
CD DIRECT	104 dB

PHONO Overload Level (0.1% T.H.D., 1 kHz)

MM	150 mV
MC	15 mV

Frequency Response

PHONO (RIAA, 20 Hz — 20 kHz)

MM	±0.5 dB
MC	±0.5 dB

CD, TUNER, TAPE

20 Hz to 20 kHz	+0 dB, -0.5 dB
10 Hz to 200 kHz	+0 dB, -3.0 dB

Tone Controls

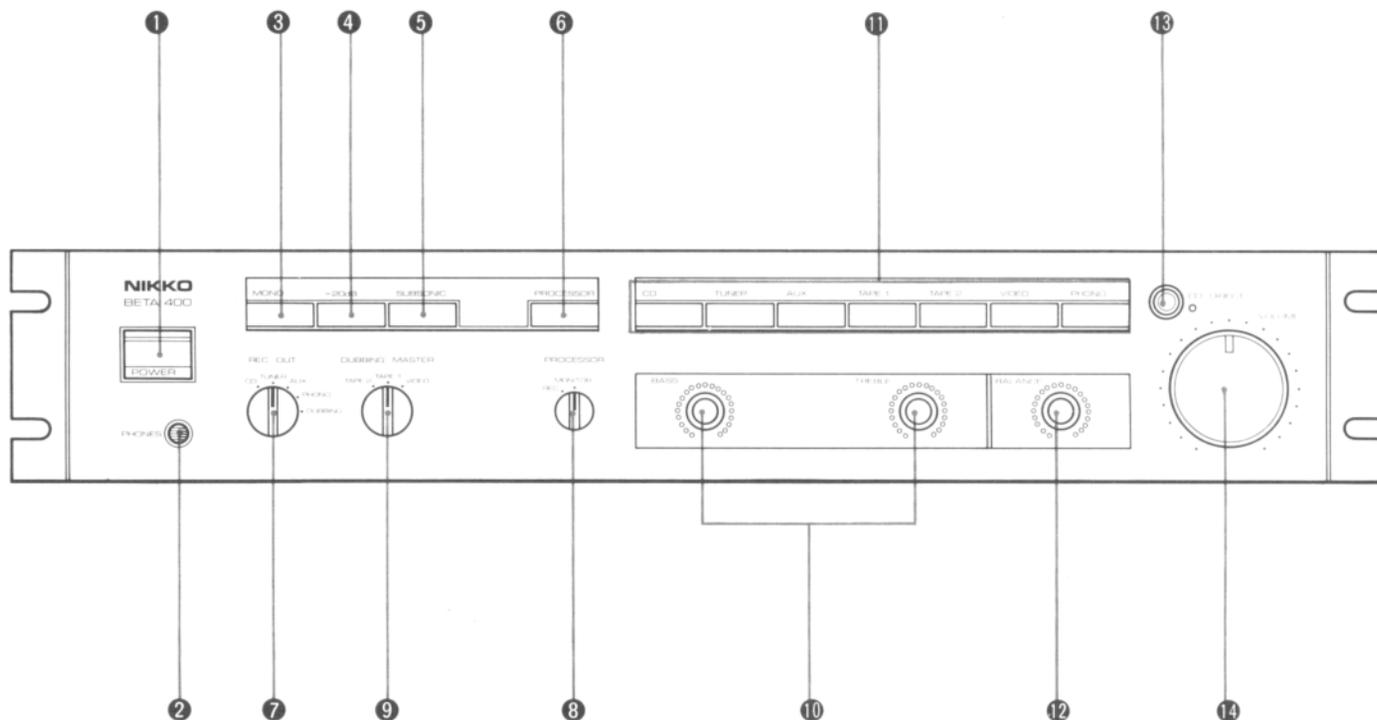
BASS	+9 dB, -9 dB (70 Hz)
TREBLE	+9 dB, -7 dB (10 kHz)
SUBSONIC FILTER	20 Hz, -12 dB/oct.

• General

Power Requirement	AC 120 V, 60 Hz
Power Consumption	13 W
Dimensions	482 (W) x 88 (H) x 323 (D) mm (17-2/5" x 3-4/7" x 12-7/10")
Weight	4.9 kg (10.8 lbs)

* Specifications are subject to change without notice.

CONTROLS



1 POWER Button

This button turns the power on and off. The indicator above the button lights up upon power on.

2 PHONES Jack

For connection of stereo headphones.

3 MONO Button

Use this button to select between stereo and mono.

4 -20dB Button

Press this button to cut the volume by 20dB (to 1/10th its previous level). Use this button for temporary reduction of the volume. In addition, the -20dB button is convenient when you want to listen at very low volume.

5 SUBSONIC Button

Press this button to eliminate low frequency noise such as the rumble caused by the turntable's motor or warped records.

6 PROCESSOR Button

On the back panel of the preamplifier are located input/output terminals for sound processors. This button permits effects of the sound processors connected to the amplifier to be turned ON and OFF.

7 REC OUT Selector

This knob selects the sound source to be recorded.

8 PROCESSOR Selector

This knob selects the sound source to be output to the processor.

9 DUBBING MASTER Selector

This knob selects the original sound source to be dubbed.

10 TONE CONTROLS

BASS: Controls the level of the low frequencies.

TREBLE: Controls the level of the high frequencies.

11 INPUT Selector

PHONO: To listen to the signal from the connected turntable.

TUNER: To listen to the signal from the connected tuner.

CD: To listen to the signal from the connected CD player.

VIDEO: To listen to the signal from the connected VIDEO component.

TAPE: To listen to the signal from the connected tape deck.

AUX: To listen to the signal from another connected unit.

12 BALANCE Control

The balance between left and right channel volume levels can be adjusted using this control.

13 CD DIRECT Button

When this button is pressed, the CD sound is selected directly, regardless of the INPUT selector setting. At this time the VOLUME knob is the only function that is effective.

14 VOLUME Knob

Use this knob to adjust the volume level. Turn it to the right to increase volume and to the left to decrease it. Be sure to turn it all the way to the left before switching on the power. Then raise the volume gradually to the desired level.

PHONO MC Button (Back Panel)

This button is used to select the type of phono cartridge to be used. When this button is pressed to the MC position, the built-in head amplifier circuit is activated, then MC phono cartridge of low output voltage can be used. (Some MC phono cartridges, however, have a higher output voltage and high impedance. Please examine the specifications of the cartridge before using it.)

CONNECTIONS AND OPERATION

Turntable Connection and Record Playback

• Connection

Connect the turntable to the PHONO jacks on the back panel using pin-plug cords. If your turntable is equipped with a ground lead, connect this to the GND terminal of the unit.

• Record Playback

- (1) Press the PHONO button.
- (2) Operate the turntable, and turn up the VOLUME to the desired level.

• Cartridge

Turntables with magnetic cartridges should be connected to the PHONO jacks on the back of the unit. If your turntable unit features a ceramic cartridge, it should be connected to the CD jacks. The PHONO input sensitivity is 2.5 mV with an allowable maximum input voltage of 150 mV.

Connection to the Input Jacks and Operation

• For playback only

Connect the outputs of your CD player, tuner and video component to these jacks. These jacks have an input sensitivity of 150 mV and an input impedance of 30 kohms, equal to the TAPE jacks. Press the INPUT selector buttons, then adjust the volume.

Tape Deck Connection — Playback and Recording

• Connections

Connect the LINE OUT (OUTPUT) jacks to the tape deck to the TAPE PB jacks of the unit and LINE IN (INPUT) jacks of the tape deck to the TAPE REC jacks of the unit, making sure the left (L) and right (R) channels are correctly connected.

• Tape Playback

- (1) Press the TAPE1, TAPE2, or VIDEO button on the front panel to the ON position depending on which deck you want to listen to.
- (2) Start playback on the desired tape deck.
- (3) Turn the VOLUME control up to the desired level.

• Tape Recording

The signal selected through the REC OUT selector is issued at a constant level, as a recording signal, from the REC jacks.

In this case, recording is not affected, even if the VOLUME BALANCE, BASS and TREBLE controls are operated. Select the program to be recorded with the REC OUT selector, operate the source and set the tape deck in recording mode. The program can then be recorded on the tape.

Note: Two or three tape decks can be connected to this unit using the TAPE1, TAPE2, and VIDEO jacks.

• Tape Dubbing

With two or more tape recorders connected, you can easily perform tape dubbing by operating the DUBBING MASTER selector.

Note: Set the REC OUT selector to DUBBING when the DUBBING MASTER selector is used.

Processor

• Connection

A sound processor (equalizer, etc.) can be connected to this unit using the PROCESSOR jacks on the back panel.

Connect the INPUT jacks of the sound processor to the PROCESSOR SEND jacks of the unit and the OUTPUT jacks of the sound processor to the PROCESSOR RETURN jacks of the unit, making sure the left (L) and right (R) channels are correctly connected.

• Use

The function can be used by pressing the PROCESSOR button. Select either MONITOR or REC OUT with the PROCESSOR Selector.

Headphones Connection and Use

• Connection

Plug the headphones plug into the PHONES jack on the front panel.

• Use

The signal is always sent to the PHONES jack. For private listening through headphones, adjust the signal level with the VOLUME control.

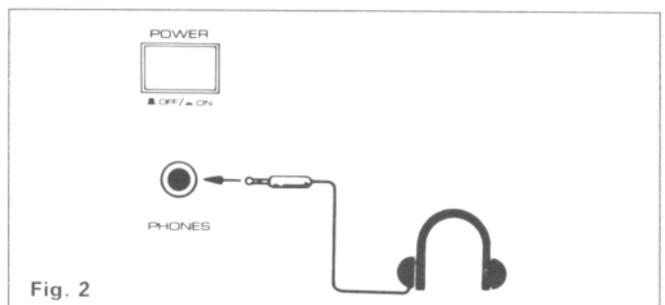
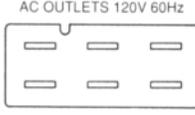


Fig. 2

CORRECTION SHEET

CORRECTIONS

Please make the following correction in the Connection Diagram on Page 4.

INCORRECT	CORRECT
<p style="text-align: center;">SERIAL NO.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">NIKKO</p> <p style="text-align: center;">STEREO PREAMPLIFIER MODEL NO. BETA 400 RATING:AC 220V 50Hz 11W ASTI PACIFIC CORPORATION 1318 NISHIJIMA-CHO HAMAMATSU, JAPAN</p> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>SWITCHED 200W MAX UNSWITCHED 400W MAX AC OUTLETS AC 120V 60Hz</p> </div> <div style="border: 1px solid black; padding: 5px; width: 80%;"> <p>AC OUTLETS SWITCHED (200 W MAX.) Power to this outlet is turned on and off when the POWER switch on the front panel is turned ON and OFF, respectively. UNSWITCHED (400 W MAX.) Power is always supplied to this outlet when the unit is plugged in. Power cannot be turned on and off with the front panel POWER switch.</p> </div> </div>	<p style="text-align: center;">SERIAL NO.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">NIKKO</p> <p style="text-align: center;">STEREO PREAMPLIFIER MODEL NO. BETA 400 RATING:AC 120V 60Hz 13W ASTI PACIFIC CORPORATION 1318 NISHIJIMA-CHO HAMAMATSU, JAPAN</p> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>AC OUTLETS 120V 60Hz</p> <p>SWITCHED UNSWITCHED TOTAL 400W MAX 200W MAX</p> </div> <div style="border: 1px solid black; padding: 5px; width: 80%;"> <p>AC OUTLETS SWITCHED (TOTAL 400 W MAX.) Power to this outlet is turned on and off when the POWER switch on the front panel is turned ON and OFF, respectively. UNSWITCHED (200 W MAX.) Power is always supplied to this outlet when the unit is plugged in. Power cannot be turned on and off with the front panel POWER switch.</p> </div> </div>

Veuillez apporter la correction qui suit au "SCHEMA DE CONNEXION" à la page 9

Erreur	Correction
<p style="text-align: center;">SERIAL NO.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">NIKKO</p> <p style="text-align: center;">STEREO PREAMPLIFIER MODEL NO. BETA 400 RATING:AC 220V 50Hz 11W ASTI PACIFIC CORPORATION 1318 NISHIJIMA-CHO HAMAMATSU, JAPAN</p> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>SWITCHED 200W MAX UNSWITCHED 400W MAX AC OUTLETS AC 120V 60Hz</p> </div> <div style="border: 1px solid black; padding: 5px; width: 80%;"> <p>PRISES D'ALIMENTATIONS CA COMMUTEE (SWITCHED) (200 W MAX.) L'alimentation de cette prise de courant est mise sous tension et hors circuit lorsque le commutateur d'alimentation (POWER) situé sur le panneau frontal est mis, respectivement, sous tension et hors circuit. NON COMMUTEE (UNSWITCHED) (400 W MAX.) L'alimentation est toujours fournie à cette prise de courant lorsque le cordon secteur de l'appareil est branché. L'alimentation ne peut pas être mise sous tension et hors circuit avec le commutateur d'alimentation (POWER) situé sur le panneau frontal.</p> </div> </div>	<p style="text-align: center;">SERIAL NO.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">NIKKO</p> <p style="text-align: center;">STEREO PREAMPLIFIER MODEL NO. BETA 400 RATING:AC 120V 60Hz 13W ASTI PACIFIC CORPORATION 1318 NISHIJIMA-CHO HAMAMATSU, JAPAN</p> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>AC OUTLETS 120V 60Hz</p> <p>SWITCHED UNSWITCHED TOTAL 400W MAX 200W MAX</p> </div> <div style="border: 1px solid black; padding: 5px; width: 80%;"> <p>PRISES D'ALIMENTATIONS CA COMMUTEE (SWITCHED) (TOTAL 400 W MAX.) L'alimentation de cette prise de courant est mise sous tension et hors circuit lorsque le commutateur d'alimentation (POWER) situé sur le panneau frontal est mis, respectivement, sous tension et hors circuit. NON COMMUTEE (UNSWITCHED) (200 W MAX.) L'alimentation est toujours fournie à cette prise de courant lorsque le cordon secteur de l'appareil est branché. L'alimentation ne peut pas être mise sous tension et hors circuit avec le commutateur d'alimentation (POWER) situé sur le panneau frontal.</p> </div> </div>

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