

Numark[®]

Professional Disc Jockey Products

DIMENSION 3 & DIMENSION 4 ***FULL POWERED STEREO AMPLIFIERS***



OPERATING MANUAL

DIMENSION 3 & 4 AMPLIFIERS

Safety Information and Product Registration



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE ANY COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

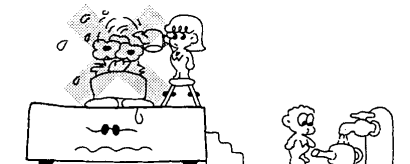
The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying this appliance.

CAUTION

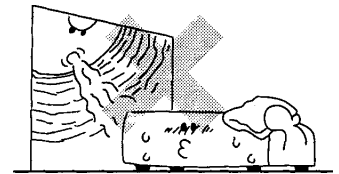
FOR USA & CANADIAN MODELS ONLY
TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

SAFETY INSTRUCTIONS

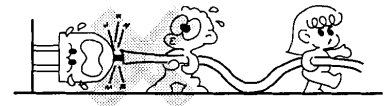
1. Read Instructions - All the safety and operating instructions should be read before this product is connected and used.
2. Retain Instructions - The safety and operating instructions should be kept for future reference.
3. Heed Warnings - All warnings on this product and in these operating instructions should be followed.
4. Follow Instructions - All operating and other instructions should be followed.
5. Water and Moisture - This product should be kept away from direct contact with liquids.



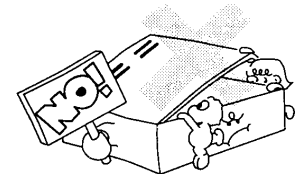
6. Heat - Avoid placing this product too close to any high heat sources such as radiators.



7. 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-installation, such as bookcase or cabinet that may impede the flow of air through the ventilation openings.
8. Power Sources - This product should be connected to a power supply only of the type described in these operating instructions, or as marked on the unit.
9. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked upon or pinched by items placed on or against them. When removing the cord from a power outlet be sure to remove it by holding the plug attachment and not by pulling on the cord.



10. Object and Liquid Entry - Take care that objects do not fall into and that liquids are not spilled into the inside of the mixer.
11. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
12. Non-use Periods - The power cord of the appliance should be unplugged from the outlet when left unused for long periods of time.
13. Damage Requiring Service - Only qualified personnel should service this product. If you have any questions about service please contact Numark at the number(s) shown on the back cover of this manual.




14. Grounding or Polarization - Precautions should be taken so that the grounding or polarization means built into the CD player is not defeated.
15. Internal/External Voltage Selectors - Internal or external voltage selector switches, if any, should only be reset and re-equipped with a proper plug for alternative voltage by a qualified service technician. Do not attempt to alter this yourself.

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WARNING: To reduce the risk of fire or electrical shock, do not expose this appliance to rain or moisture. Electrical equipment should NEVER be kept or stored in damp environments.

SERVICE INSTRUCTIONS

- Disconnect power cord before servicing
- Replace critical components  only with factory parts or recommended equivalents
- For AC line powered units - Before returning repaired unit to user, use an ohmmeter to measure from both AC plug blades to all exposed metallic parts. The resistance should be no more than 100,000ohms.

Check the total maximum power of your AC wall outlet. If you connect several units to one wall outlet you could overload the wall outlet, which could cause fire.

Health Advice: This unit produces and absorbs electromagnetic radiation. The strength of radiation and the sensitivity for disturbing interference matches the CE requirements. A corresponding sign is printed on the backside of the unit. Any change or modification may affect the behavior of the unit concerning electromagnetic radiation, with the CE requirements eventually not to be met any more. The manufacturer takes no responsibility in this case.

Unpacking / Setup: Please check your amplifier for any damage after unpacking (before connecting) and contact your dealer in case of any related complaints. Take care of choosing your installation place and the correct AC connection. If built into a case, be aware that the depth and the weight of the amplifier does require an additional fixing on the backside or the use of rack shelf supports. Never mount the amplifier in a rack just by fixing it on the front plate - we can show no responsibility for damage on the rack or the amplifier in this case.

Always try to separate low level cables (input cables) and high level cables (AC net and speaker outputs) to avoid interference.

DOUBLE INSULATED - When servicing use only identical replacement parts

For 220-volt use in USA, use NEMA style 220-volt plug. For other countries use proper plug for local outlet.

Please record the serial number of your unit as shown on the back of the chassis as well as the name of the dealer from whom you purchased the unit. Retain this information and your original purchase receipt for your records. Please return the enclosed warranty card to register unit with us.

MODEL: _____ PURCHASED FROM: _____
SERIAL NUMBER: _____ DATE OF PURCHASE: _____

Numark[®] Dimension 3 & 4

PROFESSIONAL POWER AMPLIFIERS

CONGRATULATIONS...

Thank you for choosing a **Numark** power amplifier. The Dimension 4 offers 1900 watts of clean power output and the Dimension 3 offers 1300 watts. These amplifiers have many unique DJ driven features and plenty of power. Besides the cosmetic appeal the units also have an internal crossover so the DJ can power their subwoofer and main speakers with the same amplifier, simplifying user operation and equipment setup. The unit also has a unique front panel stereo/mono input selector and rear panel Banana and Speakon connectors.

These units are designed to provide a good combination of power, audio clarity, and reliable operation. The basic circuit has been kept as simple as possible to reduce the amount of components, thereby shortening the signal path, and reducing coloration and the chance of component failure. However, we opted to add what we regard as essential protection against overheating, short circuits and power on transients.

An efficient heat dissipation system, comprising a high surface area heatsinks coupled with dual fans, ensures quiet and reliable cooling.

The sound quality and sturdy construction of the makes these amps ideal for a multitude of amplification tasks, from installations, mobile DJs, home studios, houses of worship and touring bands.

Since all of the amplifiers are similar in operation, this manual serves for all models. Please take the time to read this manual before connecting and operating your unit, as there is important information contained within.

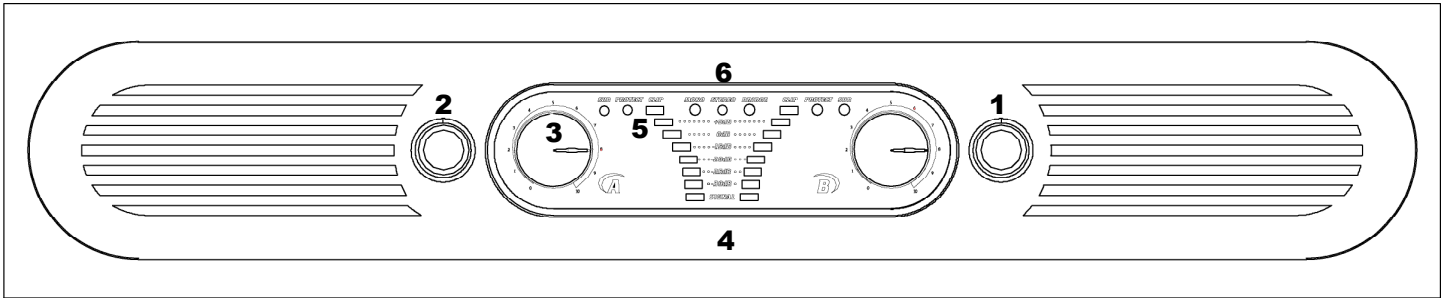
*Thank you for buying **Numark** products*

Features:

- Full LED meter display with clip indicators
- Crossover for Subwoofer on rear for each channel
- Subwoofer Frequency adjust knobs: 20-200 Hz
- Stereo/Mono front panel selector
- DC output protection and Short circuit protection
- DIP switch to engage internal compression limiter
- DIP switch for 30Hz/50Hz low frequency roll off filters
- Balanced XLR & 1/4" (6.3mm) input
- XLR balanced outputs (thru)
- 5-way binding banana plug channel outputs
- 3 Speakon outputs for Channels A/B/Bridge
- Recessed Bridge control switch
- 2x dual speed fans coupled with heatsink cooling for extra protection
- Ground Lift Switch
- Total Harmonic Distortion: Less than 0.002%
- Input sensitivity & Impedance: 1.0 V RMS (0 dBV)
- Hum & Noise: 100 dB, unweighted
- Rear Panel Reset button

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Front Panel Diagram



1. **Power Switch**- Press to turn amplifier on and off. Always turn your amplifier on last and off first to avoid speaker damage.
2. **Stereo/Mono Selector** – This switch controls the input signal. *Note: If Bridge button on the rear is active, then this button will have no function.*
3. **Level controls**- Rotate controls clockwise to increase volume.
4. **Signal meter**- Lights up as output wattage is increased.
5. **Clip LED** – Lights up when the unit volume exceeds maximum output and is enough to send a clipped signal to your speakers. Consistent lighting of these LEDs can cause both amplifier and speaker damage. With clip protection on, the volume will automatically be limited so the output can not send a clipped signal. When running your amplifier at maximum try to avoid lighting the RED clip LED even if limiting is on.
6. **Status LEDs**-
 - a) **Sub** - indicates that the crossover has been activated in the rear and the channel output is set for subwoofer usage.
 - b) **Mono**– lights when unit has been placed in mono
 - c) **Stereo** – lights when the unit has been set to play in stereo
 - d) **Bridge** – lights when the rear panel bridge selector has been activated
 - e) **Protect** – lights up when the unit protection circuitry has activated.

Protections include:

Power up: output is muted to protect speakers during power up in case of transients

Input: 10k resistors protect the input from overload.

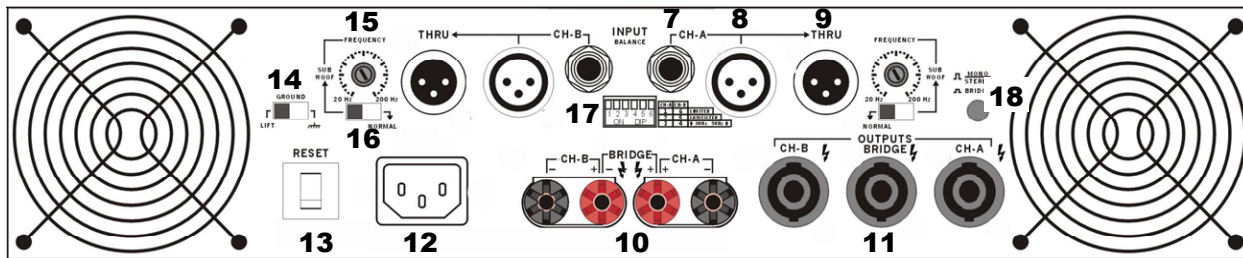
Output: Special circuitry removes **RF (radio frequency)** from the output. It also helps keep the amplifier stable with reactive loads.

Thermal: Dual-speed fans draw air through the amplifier over heatsinks for rapid cooling. At low usage the fans run at normal speed. During high output the fan will run at high speed to cool the unit. When temperatures exceed 90°C the amplifier will mute until it cools down.

Short Circuit: This protects speakers from short circuits and stressful loads. During short circuit protection, the “CLIP LED” and “PROTECT LED” will light simultaneously indicating an amp fault problem. All channel output will be muted. Faults can usually be traced to Speaker wires and connectors or shorted speaker drivers. Check your cables thoroughly from the outputs to the speakers. If the line is good, check the speakers themselves and any internal components.

DIMENSION 3 & 4 AMPLIFIERS

Rear Panel Diagram



- Unbalanced Inputs**- Connect mixer outputs with 1/4" input plugs for channels A and B.
 - Balanced Inputs**- Connect a balanced signal through XLR input connectors. These should be used for all long cable runs. Please note: Pin 1 Ground, Pin 2 Positive (+), Pin 3 Negative (-).
 - Balanced (Thru)** – for daisy- chain of additional amplifiers. Go from the thru output to the input of an additional amplifier. The output is not affected by any crossover settings.
 - Banana Terminal Outputs** – Output connections are to binding posts, which are identified as to polarity with a red and a black terminal. We suggest the use of dual banana plugs as a convenient and reliable method of hook-up. They allow rapid removal for polarity reversals, which is handy in the check-out and adjustment of multi-element biamplified and triamplified sound systems. Heavy Class 11 wire may be used by unscrewing the large plastic portion of the output terminal and inserting the wire into the hole provided. It is extremely important when making wire connections that no wire strand or end touches the adjacent terminal, shorting the output. Please do not use these outputs simultaneously with the speakon outputs, only alternatively.
- CAUTION: Never strap the two red output terminals together (in parallel). Never connect either red output to chassis ground.**
- SPEAKON Output** – For better contact security, use of these outputs is strongly recommended in all applications, especially mobile systems. Do not use these outputs simultaneously with the output terminals, only alternatively. Note the correct pin designation for the used speakon connectors: pos=1 + / neg = 1- / 2+, 2- not connected.
 - IEC power cord connector** – Plug your power cord in here. Be certain the supplied voltage matches the amplifier rating.
 - Reset Switch** – This switch is a circuit breaker to protect from voltage overload or shorts. If the switch is activated, push it in to reset it.
 - Ground Lift** – To eliminate the ground loops between this amplifier and a preamplifier. Never remove the center grounding pin of the AC plug!
 - Subwoofer Crossover** – Setting to subwoofer will only allow frequencies below the level set on the *Subwoofer Frequency* adjust to play.
 - Subwoofer Frequency** – Allows the frequency output to be set at 200Hz to 20Hz and below. The frequency should be set according to your subwoofer specifications. The lower the setting the fewer frequencies will be sent to your subwoofer. The subwoofer can be operated in stereo or bridge mono based upon Channel A settings.
 - DIP SWITCHES** – These switches assign limit protection activation and low frequency roll off

1-6: LIMITER

When the unit volume exceeds maximum output it is enough to send a clipped signal to your speakers. Consistent clipping can cause both amplifier and speaker damage. With the limiter on, the volume will automatically be limited so the output can not send a clip signal. When running your amplifier at maximum, try to avoid lighting the RED clip LED even if limiting is on.

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2-5: LOW CUT FILTER

The low-cut filter removes ultra-low frequencies from the audio signal. Most amplifier power is consumed by low frequencies and most speaker woofer damage is caused by them. Activating this switch ensures that more power can go to the middle frequencies and there is less chance for audio clipping.

3-4: 50HZ/30HZ roll off

If low cut filtering is activated, then the roll off frequency should be determined. At 30Hz, all audio below 30Hz will be removed, at 50Hz more audio will be removed because all audio below 50Hz will be removed.

18. **Stereo/Bridge Mode Switch-** Bridged mono operation is easily achieved and gives you the output power of both channels with just one mono output. For successful bridge operation, follow these instructions:

- Set the Mode Selector to Bridge **while amplifier is off.**
- Connect input signals.
- Use only the middle terminal post outputs for speaker wiring, or middle speakon output. Connect the speaker load to the red terminals of each channel. Please confirm the (+) terminal of speaker to Channel A and the (-) terminal of speaker to Channel B. Do not use the black terminals of each channel.
- The minimum load impedance in bridge mode is 4 Ohm.
- To adjust level, use Channel A control and leave Channel B level at zero.
- To use a subwoofer, make all setting adjustments on Channel A.

SPECIFICATIONS**Rated Power Output:****Dimension 4**

850W RMS @ 2 Ohms, 1KHz, 1% THD per channel (stereo)
660W RMS @ 4 Ohms, 1KHz, 1% THD per channel (stereo)
412W RMS @ 8 Ohms, 1KHz, 1% THD per channel (stereo)

1900W RMS @ 4 Ohms, 1KHz, 1% THD (mono bridged)
1350W RMS @ 8 Ohms, 1KHz, 1% THD (mono bridged)

Dimension 3

650W RMS @ 2 Ohms, 1KHz, 1% THD per channel (stereo)
475W RMS @ 4 Ohms, 1KHz, 1% THD per channel (stereo)
300W RMS @ 8 Ohms, 1KHz, 1% THD per channel (stereo)

1300W RMS @ 4 Ohms, 1KHz, 1% THD (mono bridged)
930W RMS @ 8 Ohms, 1KHz, 1% THD (mono bridged)

Total Harmonic Distortion:	Less than 0.002%
Input sensitivity & Impedance:	1.0 V RMS (0 dBV)
Hum & Noise:	100 dB, unweighted
Power Consumption:	10A @ 120V AC 120V/60Hz or 220V/50Hz switchable
Frequency Response:	10Hz - 40 kHz, +/- 1 dB
Dimensions:	3.5" H x 19" W x 15.9" D / 880mm x 483mm x 405mm
Weight:	31 lbs. / 14kg.

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LIMITED PRODUCT WARRANTY

What is covered and for how long?

- a) NUMARK INDUSTRIES LCC ("NUMARK") warrants to the original purchaser that NUMARK products; including but not limited to DJ mixers, amplifiers, CD players, CD Mix Stations, turntables, preamplifiers, beatkeepers, equalizers, microphones, headphones, cartridges, and all other accessories; are to be free from defects in material and workmanship under normal use and service for the period commencing upon the date of purchase from an authorized NUMARK dealer for a period of (1) Year.

What is not covered? This Limited Warranty is conditioned upon proper use of the product by the purchaser.

- b) This Limited Warranty does not cover: (a) defects or damage resulting from accident, misuse, abuse, neglect, unusual physical or electrical stress, modification of any part of the product, or cosmetic damage; (b) equipment that has the serial number removed or made illegible; (c) all plastic surfaces and other externally exposed parts that are scratched or damaged due to normal use; (d) defects or damage from improper testing, operation, maintenance, installation, adjustment, or service of the mixers; (e) crossfaders.
- c) What are NUMARK'S obligations? During the applicable warranty period, NUMARK will repair or replace, at NUMARK'S sole discretion, without charge to the purchaser, any defective component part of the mixer. To obtain service under this Limited Warranty, purchaser must first contact NUMARK and obtain a return authorization number ("RA#"). Purchaser must then return the mixer to NUMARK in an adequate container for shipping, accompanied by purchaser's sales receipt or comparable proof of sale showing the date of purchase, the serial number of the product, and the seller's name and address. To obtain an RA# and assistance on where to return the mixer, contact NUMARK customer service at 401-295 9000. Upon receipt, NUMARK will repair or replace the defective products. NUMARK may, at NUMARK'S sole discretion, use rebuilt, reconditioned, or new parts or components when repairing any product or replace a product with a rebuilt, reconditioned or new product. Repaired mixers will be warranted for a period equal to the remainder of the original Limited Warranty on the original mixer or for (90) days, whichever is longer. All replaced parts, components, boards and equipment become the property of NUMARK. If NUMARK determines that any mixer is not covered by this Limited Warranty, purchaser must pay all parts, shipping, and labor charges for the repair or return of such mixer.
- d) What are the limits on NUMARK'S liabilities? THE WARRANTIES GIVEN IN THIS LIMITED WARRANTY, TOGETHER WITH ANY IMPLIED WARRANTIES COVERING NUMARK MIXERS, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, NUMARK SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, INDIRECT OR SIMILAR DAMAGES, LOSS OF PROFITS, DAMAGES TO PURCHASER'S PROPERTY, OR INJURY TO PURCHASER OR OTHERS ARISING OUT OF THE USE, MISUSE OR INABILITY TO USE ANY NUMARK MIXER, BREACH OF WARRANTY, OR NEGLIGENCE, INCLUDING BUT NOT LIMITED TO NUMARK'S OWN NEGLIGENCE, EVEN IF NUMARK OR ITS AGENT HAS BEEN ADVISED OF SUCH DAMAGES, OR FOR ANY CLAIM BROUGHT AGAINST PURCHASER BY ANY OTHER PARTY. THIS LIMITED WARRANTY IS THE COMPLETE WARRANTY FOR NUMARK'S MIXERS, AND IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. THIS LIMITED WARRANTY SHALL NOT EXTEND TO ANYONE OTHER THAN THE ORIGINAL PURCHASER OF THIS PRODUCT AND STATES PURCHASER'S EXCLUSIVE REMEDY. IF ANY PORTION OF THIS LIMITED WARRANTY IS ILLEGAL OR UNENFORCEABLE BY REASON OF ANY LAW, SUCH PARTIAL ILLEGALITY OR UNENFORCEABILITY SHALL NOT AFFECT THE ENFORCEABILITY OF THE REMAINDER OF THIS LIMITED WARRANTY WHICH PURCHASER ACKNOWLEDGES IS AND WILL ALWAYS BE CONSTRUED TO BE LIMITED BY ITS TERMS OR AS LIMITED AS THE LAW PERMITS.
- e) This Limited Warranty allocates risk of product failure between purchaser and NUMARK, and NUMARK'S product pricing reflects this allocation of risk and the limitations of liability contained in this Limited Warranty. The agents, employees, distributors, and dealers of NUMARK are not authorized to make modifications to this Limited Warranty, or make additional warranties binding on NUMARK. Accordingly, additional statements such as dealer advertising or presentation, whether oral or written, do not constitute warranties by NUMARK and should not be relied upon.
- f) How does state law apply to this warranty? SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO PURCHASER.
- g) This Limited Warranty gives you specific legal rights. You may also have other rights, which vary from one jurisdiction to another.

RETURN INFORMATION

- (a) A Return Authorization number must be obtained from Numark through the address or phone numbers below.
- (b) A copy of the original sales receipt must also be included for the equipment to be repaired under warranty.
- (c) The faulty equipment must be packed in its original packaging.
- (d) One additional outer layer of packaging must be included to ensure product safety. Failures to do so may inadequately protect the equipment in transit and, therefore, jeopardize the customer's warranty.
- (e) Numark will not accept COD shipments and no call tags will be issued for merchandise return.
- (f) Numark will not return repaired merchandise to customers by priority service, unless by written request at the customer's cost. Requests must be submitted in writing with merchandise returned.
- (g) The defective Numark equipment should be sent, FREIGHT PREPAID with Return Authorization number clearly printed on the outer packaging and original sales receipt enclosed to:

Numark INDUSTRIES

Attention: Service Department
11 Helmsman Avenue
North Kingstown, RI 02852
USA

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Fax: +1 (401) 295-5200
Web: www.numark.com