

# **Numark<sup>®</sup>**

*Professional Disc Jockey Products*


## **RM6**

### **Professional Single Space Rack Mixer**




## **Owner's Manual**

## Safety Information



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**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.

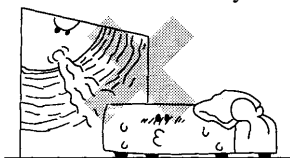
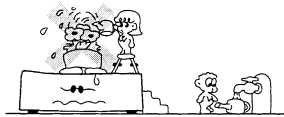
The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying this appliance.

**CAUTION**

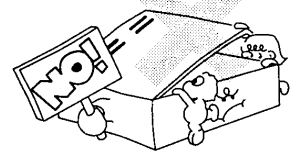
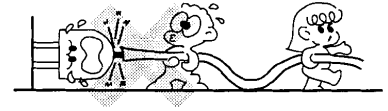
FOR USA & CANADIAN MODELS ONLY  
TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

## SAFETY INSTRUCTIONS

- a) Read Instructions - All the safety and operating instructions should be read before this product is connected and used.
- b) Retain Instructions - The safety and operating instructions should be kept for future reference.
- c) Heed Warnings - All warnings on this product and in these operating instructions should be followed.
- d) Follow Instructions - All operating and other instructions should be followed.
- e) Water and Moisture - This product should be kept away from direct contact with liquids.
- f) Heat - Avoid placing this product to close to any high heat sources such as radiators.
- g) 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.
- h) 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.




- i) 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.
- j) Object and Liquid Entry - Take care that objects do not fall into and that liquids are not spilled into the inside of the mixer.
- k) Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
- l) Non-use Periods - The power cord of the appliance should be unplugged from the outlet when left unused for long periods of time.
- m) 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.
- n) Grounding or Polarization - Precautions should be taken so that the grounding or polarization means built into the CD player is not defeated.
- o) 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.



**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.

# ***VERY IMPORTANT***

## **Please read this entire manual before connecting this unit to your system**

For optimum performance:

- The crossfader is a user replaceable item and subject to wear. Excessive force can wear out the fader quickly. This is not a warranted item.
- Never use spray cleaners on the slide controls. Residues cause excessive dirt build-up and this will void your warranty. In normal use slide controls can last for many years. If they malfunction (usually because of a dirty or dusty environment) consult a professional technician.
- Always make sure that AC power is OFF while making any connections.
- Use appropriate cables throughout your system. Do not use excessively long cables (i.e. over 50ft/14m) Be sure plugs and jacks are tightly mated. Loose connections can cause hum, noise or intermittents that could easily damage your speakers. Make the input and output connections with readily available low-capacitance stereo cables. Quality cable makes a big difference in audio fidelity and punch. See your Numark dealer or an electronics or audio specialist store if you are not sure which cables to get.
- Never attempt to make any adjustments or repairs other than those described in this manual. Take the unit to your dealer or to an authorized Numark Service Center.
- ALWAYS remember: "TURN AMPS ON LAST AND OFF FIRST". Begin with master faders or volume controls on minimum and the amplifier gain/input control(s) down. Wait 8 to 10 seconds before turning up the volume. This prevents transients which may cause severe speaker damage.
- Use restraint when operating controls. Try to move them slowly. Rapid adjustments could damage speakers due to amplifier clipping.
- Avoid amplifier "clipping" at all costs: this occurs when the red LEDs (usually on the front panel of most professional power amplifiers) start flashing. "Clipping" is when the power amplifier is distorting and working beyond it's limits. Amplifier distortion is THE major cause of speaker failure.
- To prevent fire or shock hazard, do not expose the unit to rain or moisture. Never place cans of beer, soda, glasses of water or anything wet on top of the unit!

## **Product Registration**

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 your unit with us.

MODEL: \_\_\_\_\_

PURCHASED FROM: \_\_\_\_\_

SERIAL NUMBER: \_\_\_\_\_

DATE OF PURCHASE: \_\_\_\_\_

**Numark - The Leader in DJ Technology**

# Numark® RM6

## Professional Single Space Rack Mixer

### *Congratulations!*

You have purchased the **RM6** Stereo Mixer by **Numark**. This mixer's unique features and design will provide maximum versatility to meet professional and industrial demands. The **Numark RM6** features six line inputs, balanced mic inputs, and dual zone outputs. By using the highest quality components, along with intelligent and durable features, the new **RM6** one rack space mixer will become the unquestionable choice for installation worldwide.

*Thank you for purchasing NUMARK products!*

### *Features:*

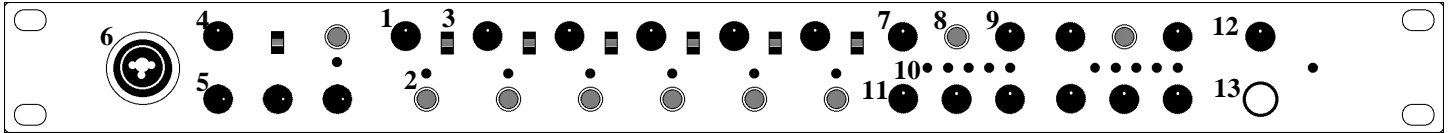
- One rack space design
- Six line, one phone, three microphone inputs
- Balanced mic inputs on front and rear panels
- Mic 1 is equipped with auto-ducking, sensitivity adjustment, EQ and gain control
- Simple front panel on / off switches
- Dual zone assign for all inputs
- Two zone outputs with gain, pan, EQ, and stereo/mono adjustment
- Both zones have unbalanced and balanced outputs with master gain reduction
- Removable knobs with tamper resistant plugs available
- Headphone output with volume control
- Latching RJ11 power connector with ground lift

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## Front Panel Features



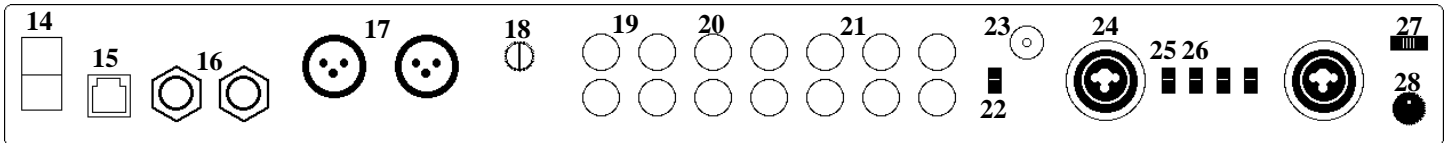
### INPUTS

1. **Input gain knobs** - control individual source levels in the mix. *Note to contractors: After setting final input level, remove the knob to avoid tampering.*
2. **On/Off switches** – allow sound to be brought into the unit on each channel.
3. **Zone Assign** – determines which zone the audio is directed to. The middle position sends channel audio to both zones
4. **Mic Gain Control** – controls the mic volume for the Neutrik™ “Combo” connector on the front panel.
5. **Mic Gain Control** – adjusts the Treble, Middle, and Bass frequencies respectively of the mic audio.
6. **Neutrik™ “Combo” connector** - allows connection of either a 1/4” jack or an XLR jack. This is ideal for connecting an XLR gooseneck directly into the mixer.

### OUTPUTS

7. **Zone Fader** – controls the overall output level.
8. **Mono/Stereo** – sets this mode for the output audio.
9. **Panning** – controls the mix of stereo audio available from the channel. When moved to the left only the left speakers will be heard, or to the right for the right speakers.
10. **Stereo Level Indicator**- quickly and accurately tracks level of audio output. **When using as a master output meter**, set the crossover, equalizer and power amp inputs to avoid distortion at each step in the audio chain. Proper attention to the peak meter results in the punchiest possible sound without audible distortion.
11. **Zone EQ** – adjusts the Treble, Middle, and Bass frequencies respectively of the zone audio.
12. **Headphone Level** – adjusts headphone volume.
13. **Headphone Jack** – for plugging in your headphones.

## Rear Panel Features



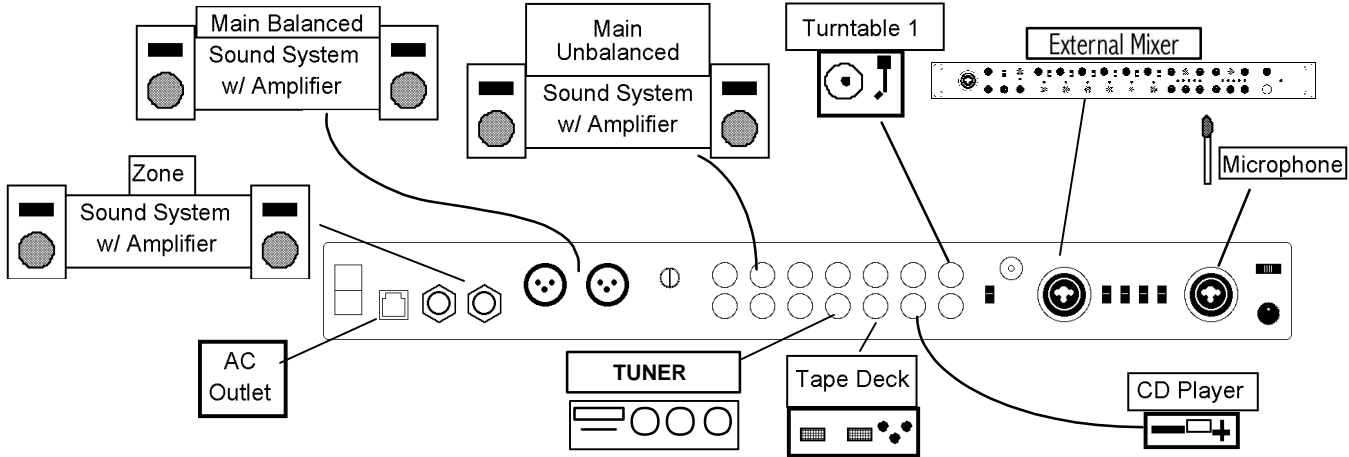
14. **Power Switch** – to turn unit on.
15. **Power Supply Input** - to plug your power adapter in before switching on power.
16. **Balanced Zone 2 Outputs** - are 1/4” Stereo Balanced TRS 1/4” connectors controlled by the Zone 2 fader knob. Power transformers and other devices that cause magnetic fields can induce hum in audio cables. This can be best resolved by using balanced lines where inputs and outputs permit. Balanced lines are also the most effective means of reducing or eliminating RF or radio frequency” interference.
17. **Balanced Zone 1 Outputs** - are Balanced Stereo XLR connectors controlled by the Zone 1 fader knob.
18. **Master Gain Reduction** – to set optimal output level of the balanced outputs to be set at .245V to 2.5V to match the optimal inputs of amplifiers and other devices.
19. **Unbalanced Zone Outputs** –output controlled by the Zone fader knobs.
20. **Record Output** – collective of output sent to either zone.
21. **Unbalanced Line Inputs** - to connect stereo audio from HiFi VCRs, cassette and reel-to-reel tape decks, DAT machines, CD players, laser discs, tuners, even synthesizers or other mixing consoles.

*Note: Plug mono audio sources into both Left and Right inputs using a “Y” cable connector.*

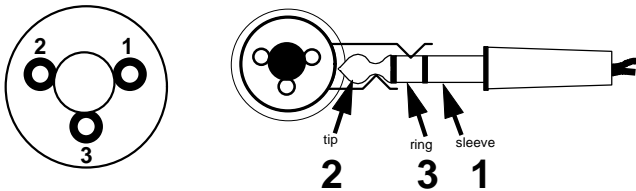
- Note: Line 3 can receive a turntable input depending phono/line switch position.*
22. **Phono/Line switch** – select the appropriate position for your input device. With phono selected the input signal is fed directly to the high-quality RIAA phono pre-amplifiers so use this input only for turntables. Line level sources will overload the sensitive phono pre-amps. Switch this over to the Line position for line devices such as CD players and Tape decks.
  23. **Ground lug** - use these connections with your turntables’ grounding cable to avoid signal hum.
  24. **Neutrik™ “Combo” connector** - allows connection of either a 1/4” jack or an XLR jack to connect balanced line or mic inputs depending upon switch position.
  25. **Mic/Line switch** – to allow inputs of either balanced line input or microphone into the referenced XLR jacks.
  26. **Stereo/Mono Switch** - allows the user to adjust the signal input for stereo or mono input accordingly.
  27. **Auto-Talkover Control** – sets the front panel mic to automatically reduce other source level when the mic is spoken into. Positions are available for either off, -12dB, and -40dB (complete reduction)
  28. **Talkover sensitivity adjust** – determines the point in which auto-talkover activates. The more sensitive the adjustment, the quieter you need to speak into your microphone to activate auto-talkover.

## Quick Setup Diagram

Study this setup diagram. There are many options available for your particular needs and this is just one possibility. Make sure all faders are at "zero" and all devices are off. First, connect all input sources. Next, connect the stereo outputs to the power amplifier(s) and/or audio receivers such as tape decks. Plug your mixer into AC power. Now you are ready to switch everything on. **IMPORTANT: Always switch on your audio input sources such as turntables or CD players first, then your mixer, and finally any amplifiers.** When turning off, always reverse this operation by turning off amplifiers, then your mixer, and then input devices.



**Neutrik™ "Combo" connector proper wiring** - allows connection of either a 1/4" jack or an XLR jack to connect balanced line or mic inputs depending upon switch position. You should wire four connections according to the following chart details



MODE:	POSITION
Line Stereo:	1=ground, 2=left, 3=right
Line Mono:	1=ground, 2=signal, 3=ground
Mic Balanced:	1=ground, 2="+", 3="-"
Mic Unbalanced:	1=ground, 2=signal, 3=ground

## Specifications

### Inputs:

Line:	10K input impedance 140mV rms sensitivity (for 1V output)
Mic 1:	10K input impedance unbalanced 1.5mV rms sensitivity (for 1V output) 60mV rms max input
Mic 2/Mic3:	10K input impedance 2.5mV rms sensitivity (for 1V output) 80mV rms max input

### Outputs:

Line:	9V rms max
Headphone:	0.5 watt into 47 ohm
Distortion:	less than 0.01%

### Signal to Noise Ratio: (vs. maximum output)

Line:	better than 92dB
Mic 1:	better than 90dB
Mic 2/Mic3:	better than 80dB
Phono:	better than 80dB

### Frequency response:

Line:	20Hz - 22KHz +/-0.5dB
Mic's:	20Hz - 18KHz +/-0.5dB
Phono:	+/-1dB except for controlled attenuation of -3dB @20Hz to reduce rumble and feedback

### Equalizations: (Mic1 / Zone A / Zone B)

Bass:	+/-13dB
Middle:	+/-14dB
Treble:	+/-12dB

### Power consumption:

10.2 watt typical
12.8 watt with full output

### Dimensions:

480mm (W) x 44mm (H) x 200mm (D)

### Weight:

2.2 kgs 5 lbs

**Numark - The Leader in DJ Technology**

*Block Diagram*

# Numark®

## Professional Disc Jockey Products

### LIMITED PRODUCT WARRANTY

What is covered and for how long?

1. NUMARK INDUSTRIES LCC ("NUMARK") warrants to the original purchaser that NUMARK'S DJ mixers and amplifiers are 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 and continuing for the following period of time after that date for (2) Years. The warranty is extended to (3) Years with the completion of the warranty card provided that the warranty card is completed and returned within (30) days from the date of purchase. All other NUMARK products are warranted for (1) Year including but not limited to CD players, CD Mix Stations, turntables, preamplifiers, beatkeepers, equalizers, microphones, headphones, and all other accessories.

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

2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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. Failure 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

Phone: +1 (401) 295-9000  
Fax: +1 (401) 295-5200  
Web: [www.numark.com](http://www.numark.com)