

# **REK-O-KUT CVS**

**CONTINUOUSLY VARIABLE SPEED**

DIRECT-DRIVE RESTORATION DECK

**OWNER'S MANUAL**



CVS-14 and CVS-16

# SAFETY INFORMATION AND PRODUCT REGISTRATION

## 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 to persons. 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. **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.
8. **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.
9. **Object and Liquid Entry** – Take care that objects do not fall into and that liquids are not spilled into the inside of the mixer.
10. **Damage Requiring Service** – This product should be serviced only by qualified personnel. If you have any questions about service please contact **ESOTERIC SOUND** at the number(s) shown on the back cover of this manual.
11. **Grounding or Polarization** – Precautions should be taken so that the grounding or polarization means built into the mixer is not defeated.
12. **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 electric shock, do not expose this appliance to moisture. Electrical equipment should NEVER be kept or stored in damp environments.

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 for your records.

MODEL: **Rek-O-Kut CVS**  
SERIAL NUMBER: \_\_\_\_\_

PURCHASED FROM \_\_\_\_\_  
DATE OF PURCHASE: \_\_\_\_\_

## FEATURES

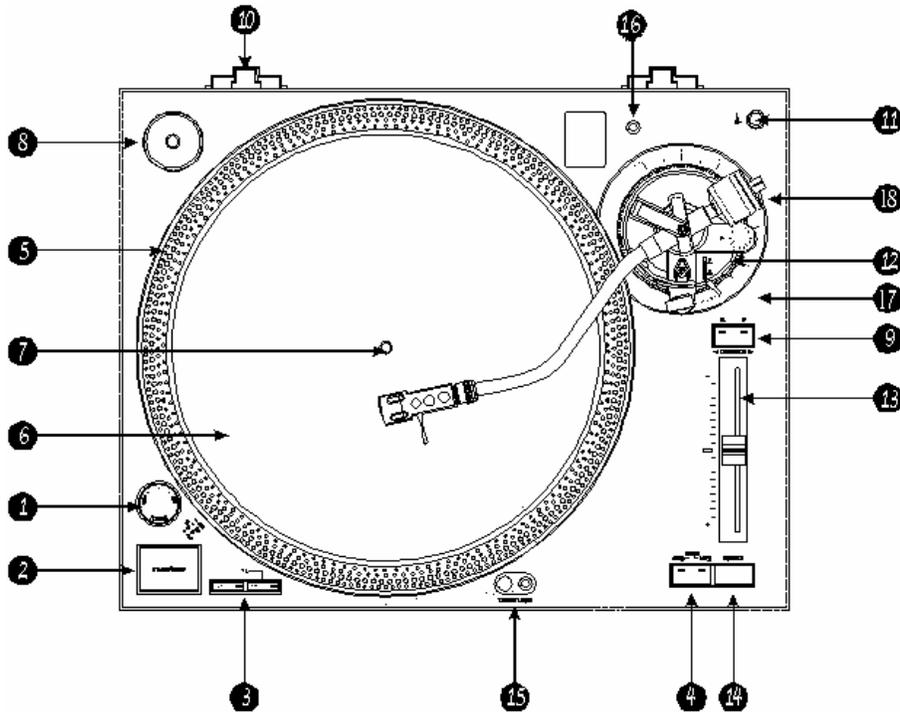
- ✓ HIGH TORQUE PLATTER MOTOR
- ✓ START / STOP BUTTON
- ✓ HIGH TORQUE BRAKING
- ✓ SPEEDS FROM 26 TO 94 RPM
- ✓ +/-10% OR +/-20% PITCH ADJUSTMENT
- ✓ FORWARD AND REVERSE PLATTER DIRECTION
- ✓ VERTICAL/STEREO SWITCH FOR VINTAGE RECORDS AND FOR REMOVING SOLOISTS
- ✓ POP-UP STYLUS TARGET LIGHT
- ✓ 14 INCH DIAMTER RECORD CAPACITY ON STANDARD, CVS-14 MODEL
- ✓ 16 INCH DIAMTER TRANSCRIPTION RECORD CAPACITY CVS-16 MODEL
- ✓ REMOVABLE HEADSHELL
- ✓ ANTI-SKATING COMPENSATION
- ✓ ARM REST WITH LOCKING MECHANISM
- ✓ ARM HEIGHT ADJUSTMENT (14 INCH MODEL, CVS-14)
- ✓ QUARTZ LOCK OF 0% SPEED POSITION
- ✓ 45 RPM ADAPTER AND HOLDER
- ✓ EXTRA HEADSHELL HOLDER
- ✓ CONNECTIONS FOR:
  - AUDIO (LEFT RIGHT & GROUND)
  - EXTERNAL START / STOP CONTROL
- ✓ ADJUSTABLE FEET FOR LEVELING
- ✓ REMOVABLE SMOKED PLASTIC LID

## BEFORE USE

Check that the following parts are included in the package with the main unit:

- Turntable platter
- Slip mat
- Dust cover
- 45-rpm adapter
- Counterweight
- Headshell
- Operating instructions
- Speed strobe discs
- Cartridge alignment protractor
- Anti-Skating clip/weight/cord assembly

## MAIN FEATURES AND INTRODUCTION



### 1. Power Dial

On - Rotate Right  
Off - Rotate Left

2. **START/STOP** - Pressing once engages motor; pressing again engages brake.

### 3. Platter Revolution Speed Buttons

33 rpm - Press 33  
45 rpm - Press 45  
78 rpm - Press 33 and 45

4. **Pitch Button** - Press then button to switch 10% and 20% pitch.

5. **Strobe Dots** - For 33/45/78 RPM only.

6. **Platter** - Place this on the center Spindle.

7. **Center Spindle** - Keeps platter and records centered. Place the supplied slip mat on the Center Spindle now.

8. **45-rpm Adapter** - Place on Center Spindle for playing 7" records with large center holes.

9. **Direction Buttons** - Determine the direction the platter will spin. Helpful for transcribing stampers.

10. **Lid Hinge Holder** - Place the bottom tabs of your lid hinges in here after you finish assembly.

11. **Extra Stylus Holder** - Place an extra headshell here.

12. **Anti Skating Control** - On 14 inch deck (CVS-14), you turn this control to manually adjust anti skating force.

13. **Pitch Adjust/CVS Control** - Use this to change the speed of the platter when quartz lock is inactive. At 78 speed setting, permits 60 to 95 RPM speeds.

### 14. Quartz Lock

On - will maintain the speed to 0%.  
Off - will allow use of the Pitch Adjust and CVS speed control.

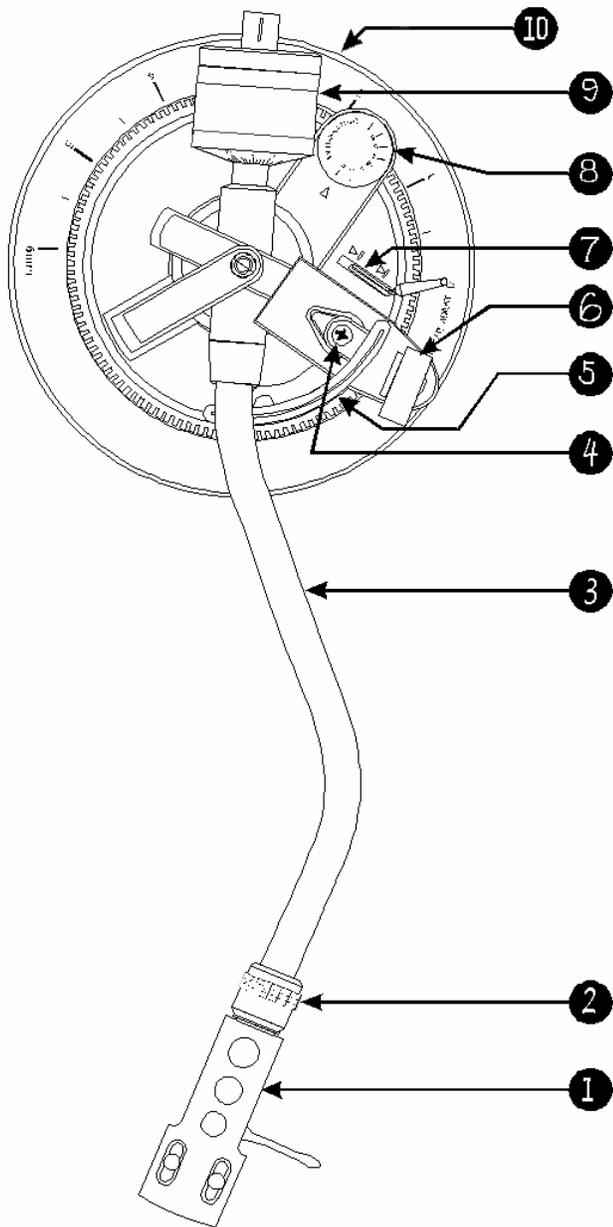
15. **Target Light** - Press the button to the right and a light will pop up directed at the stylus position.

16. **Vertical/Stereo Switch** - Use this to play old vertical cut records or to remove solo performers from stereo recordings.

17. **Anti-Skating Weight Assembly** - This is the location of the anti skating assembly used on the 16 inch deck (CVS-16).

18. **Counterweight** - This is used to balance the arm and to add tracking force when adjusted.

## TONE ARM ASSEMBLY AND SETUP



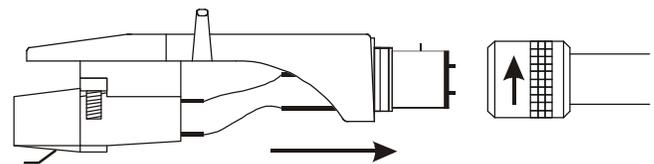
**1. Headshell** - Install cartridge here. When installing a cartridge, refer to the installation instructions supplied by the manufacturer of that cartridge. During installation, attach the stylus protector to guard the stylus tip from damage. Attach wires as follows:

- White (L+) - Left channel+
- Blue (L-) - Left channel -
- Red (R+) - Right channel+
- Green (R-) - Right channel-



The cartridge's mounting angle can be optimized by using the supplied protractor. Place the protractor on the platter with the spindle through the hole in the top. Then place the stylus at the indicated spot. Before tightening the mounting screws, try to position the cartridge for the best compromise mounting angle between the desired record diameters. If you must compromise, adjust for best tracking at smaller diameters.

**2. Headshell Locking Nut** - Attach headshell by inserting into the front end of the tone arm, then turn the locking nut clockwise with the head shell firmly held horizontally.



### 3. S-Shaped Tone Arm

**4. Tone Arm Lift Adjust Screw** - Controls the amount of lift.

**5. Tone Arm Lift** - This elevates the tone arm above the record surface. (Note: Not present on 16 inch deck)

**6. Tone Arm Clamp and Rest** - Use this rest for the tone arm and clamp it in position during transportation.

**7. Tone Arm Lever** - Controls the up and down action of the tone arm lift. (Note: Not present on 16 inch deck)

**8A. Anti-Skating Control** - Applies outward force to the tone arm so it doesn't skip inward across the record due to drag on the stylus. On CVS-14 this is adjustable, on CVS-16 (See item 8B) this is a fixed amount

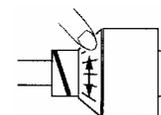
**9. Counterweight** - Adjustment provides the proper downward tracking pressure on the stylus. Attach it by sliding the counterweight onto the rear of the tone arm. Twist it lightly and it will screw onto the rear shaft of the tone arm.

The following explains proper counterweight and anti-skating set up. Phono cartridge manufacturers usually provide setting specifications.

- a) Remove the stylus protector if it is on the cartridge.
- b) Set the cueing lever (CVS-14 only) to the lowest position so it does not effect the tonearm height.
- c) Release the arm clamp and lift the tonearm from the arm rest so it moves freely.
- d) Rotate the counterweight until the arm is approximately balanced horizontally (floats freely).



- e) Refasten the tonearm with the arm clamp.
- f) Hold the counterweight stationary with one hand and rotate the plastic stylus-tracking force graticule till its "0" lines up with the center line on the tonearm shaft.
- g) Rotate the counterweight, allowing the graticule to rotate with it, till the center line on the arm lines up with the graticule scale at the desired tracking force.
- h) Set anti-skating control (8) to the same value as the tracking force just set. Note: The anti-skating force is fixed with the CVS-16 model.



**8B. Anti-Skating Assembly** – (16 inch version only-picture on right) Assemble anti-skating mechanism on CVS-16 model. Use supplied hardware to mount stiff wire hanger to tonearm mounting base. Fasten line clip onto arm as illustrated. Slide the line into the upper loop. The supplied weight will provide optimum anti-skating force for tracking forces between 2 to 4 grams.



**10. Tonearm Height** – Adjustment is by *knurled ring* at arm base. It is calibrated 0 to 6 mm. Unlock knurled ring by turning lock lever (10) counter-clockwise (in picture it is hidden by item 9). Then adjust knurled ring counter-clockwise to raise arm, clockwise to lower arm. If you require 14 inch disc capacity, adjust arm height to obtain clearance at item 4. Usually this setting is at 1.5 mm (this varies with cartridge used). When done, turn lock lever to "lock."

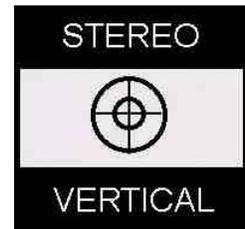
## BASIC SETUP

1. Place the turntable deck on a solid, level surface as far from the loudspeakers as possible.
2. Set the power switch underneath the platter to the line voltage used in your area, i.e., 115 or 230 VAC.
3. Place the platter on the turntable spindle and the record mat on the platter.
4. If necessary, adjust the feet by unscrewing one or more to level the deck.

## STEREO/VERTICAL SWITCH

The purpose of this switch is to facilitate the play of vintage records whose grooves were cut utilizing an up and down or "hill and dale" stylus motion technique. Some vertical cut records were manufactured by:

Edison  
 Pathe'  
 Some early Columbia  
 Some early Okeh  
 Gennet  
 Star  
 Operaphone  
 Rex  
 Aeolian Vocalian  
 Crescent  
 World Transcription

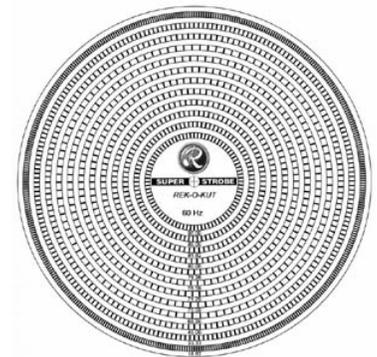


Another use for this switch is to remove the solo performer or soloist from stereo recordings. This works only if that performer is in the center field of the recording. Also, to perform this, the “mode” switch of the amplifier must be set to “mono,” or the output of the turntable must be combined with a “Y” connector.

## OPERATING

1. Turn the power dial to turn on. The speed indicator and strobe-illuminator will light up.
2. Turn on and raise the target light for illumination the stylus tip by pushing the target light button (12 inch diameter and smaller records only)
3. Place a record on the turntable mat. When playing a 45rpm record with a large center hole; place the 45-rpm adapter on the center spindle.
4. Set the rotation speed (33/45/78) to match the record.
5. Release the arm clamp, and set the cueing lever to the up position.
7. Press the Start/Stop button and the turntable platter will begin to rotate.
8. Move the tone arm over the desired groove.
9. Set the cueing lever to the down position. The tone arm will descend slowly onto the record.
10. Set the pitch control range by depressing the QUARTZ button until the desired pitch range is obtained. Options are +/-10% or +/-20%.
11. The pitch control may be adjusted to alter the playing speed from preset normal.
12. For vintage records that are not true 78 rpm, set the pitch range to 20% and use the graduated markings for desired speeds. Using the marked settings will suffice for casual listening. For critical listening and for mastering, calibrate the setting with the supplied strobe disc. Recommended speed settings are:

Berliner, Early Victor (no label), Zonophone – 71.29  
 Acoustic Victor (many) – 76.59  
 “Modern 78s” – 78.26  
 Edison, Pathe (paper label), most vertical – 80  
 Some Pathe – 90



Half speed mastering of 78s is possible, by setting the pitch control to its 20% range and the main speed to 45. Then, adjust the pitch control using the “78” section of the supplied strobe disc to obtain 39.13 rpm.

13. To suspend play, lift tone arm with cueing lever.
14. When play is finished, raise the cueing lever, move the tone arm to the armrest and secure the tone arm with the arm clamp.

15. Turn the target light off by pushing the light back down. (Required for playing records larger than 12 inches diameter)
16. Press the Start/Stop button to stop the platter rotating.
17. Turn the power dial to turn off the power.

### VINTAGE RECORD CONSIDERATIONS

1. *REK-O-KUT* does make available special styli in various sizes to play vintage records.
2. When playing vintage mono records, set the amplifier's mode control to "mono." This can also be accomplished by using the *RE-EQUALIZER*.
3. The sound of vintage records can be enhanced by using proper playback compensation. This can be accomplished by using a special phono preamplifier or by using the *RE-EQUALIZER*.
4. Vintage records are most often better reproduced by using higher tracking forces, i. e., 4 – 6 grams.

### SPECIFICATIONS

#### TURNTABLE SECTION

Type	Multi-Speed, Continuously Variable or adjustable to from 26 to 54, 62 to 94 rpm
Motor	16 pole, 3 phase, brushless direct drive motor DC motor
Platter	13 inch, aluminum diecast and machined
Speeds	Basic 33/45/78, with addition sub speeds of 65, 68.5, 71.29, 76.59, 80, 85, & 90 rpm
Wow & Flutter	Less than 0.13%
Rumble	Less than 55 dB (DIN)
Pitch Control	20%
Starting Torque	More than 2.1 kgf.cm
Brake	Electronic
Start Time	Less than 1 sec.
Brake Time	Less than 1 sec.

#### TONARM SECTION

Type	Static balanced S-shaped with standard detachable headshell
Effective Length	9.2 inches (CVS-14), or 10.1 inches (CVS-16)
Cartridge Weight	6 to 10 grams
Anti-skating	0 to 7 grams (CVS-14), or preset 2 - 4 grams (CVS-16)
Tracking Force	0 to 4 grams
Recommended	2.0 grams for most records
Record Size	minimum, 3 inches diameter to 14 inches maximum, or 16 inches with CVS-16.

#### GENERAL

Power supply	115/230 VAC, 50/60 Hz
Power	13 Watts
Dimension	17-5/8" (W) x 13-3/4" (D) x 6-1/4" (H)
Weight	24 LBS

**NOTE:** Specifications and design subject to possible modification without notice, due to improvements.

## PROBLEMS

**No platter rotation** Power Button not pushed to "On," or power plug not in power outlet.

**Hum or** Check that the black ground wire is hooked between the turntable and the amplifier. Clean the headshell

**No sound** Clean headshell pins by rubbing them on a piece of cloth.

**Skipping** Increase tracking weight, adjust anti-skating to pull arm from skipping.

**Hum when** Shure and some other cartridges are internally wired different from Stanton/Grado/etc.

**Vert/Stereo** Reverse channel wiring in headshell. Then reverse cables coming from turntable base.

**SW at Vert.** If no problems, don't waste time by rewiring.

**Cartridge not perpendicular to records** Different cartridges have different heights. Adjust arm height or place small shims between headshell and cartridge at appropriate side to bring it into proper alignment. Manila file folder paper is an excellent material to use. For Edison records, you may want to use a dedicated headshell and cartridge that has been appropriately shimmed.

**Tone arm lift lever does not lift it high enough** You will need to adjust the Tone Arm Lift Adjust Screw. Turning the Phillips-head screw counter-clockwise will increase the amount of lift. (Note: this only applies to the CVS-14)

**14 Inch disc hits arm lift mechanism** Adjust arm height. A setting of 1.5 to 2.0 mm usually works. Also, you can adjust item #4 (page 5). Turn Philips-head head screw counter-clockwise to raise lift mechanism above record edge.

**14 inch disc hits arm rest protrusion** clip off protrusion approx. 1/16" (1.5mm) before circular portion. Align for straight and even cut. Use straight cutting dykes or large toenail clippers.



# REK-O-KUT

## LIMITED PRODUCT WARRANTY

This product has been manufactured to precise standards and rigid quality control. It is fully warranted against defective materials or workmanship under the normal use for the warranty period of 1 year from time of purchase to the original owner.

Repairs, adjustment for defects or replacement of parts will be performed free of charge, except:

- a) If equipment has been damaged by accident or mishandling.
- b) If equipment has been serviced or modified by other than our authorized agents.
- c) In case of theft, loss, fire or other calamities by the Acts of God.
- d) In case of scratches to exposed parts due to normal use.

**Obligations.** During the warranty period, Esoteric Sound will repair or replace, at Esoteric Sound's sole discretion, without charge to the purchaser, any defective part of the turntable. Esoteric Sound may, at Esoteric Sound's sole discretion, use rebuilt, reconditioned, or new parts or components when repairing any turntable or replace it with a rebuilt, reconditioned or new turntable.

**Return.** Purchaser must present a copy of the original sales receipt. Return authorization must be obtained before making any return. Unit should be returned in it's original packing otherwise cost of repair for damage incurred will be charged. We can advise you as to alternate proper packing should this not be available.

- **Esoteric Sound will not accept COD shipments and no call tags will be issued for merchandise return.**
- **Esoteric Sound 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 the merchandise returned.**
- **In the USA, such returns should be accompanied by a payment of \$25.00 for re-shipping.**
- **Foreign locations must prepay return freight. Foreign customers will be given the option of having parts sent for their installation.**

**Limits.** The Warranties given in this Limited Warranty, together with any implied warranties covering *Rek-O-Kut* turntables, including without limitation any warranties of merchantability or fitness for a particular purpose, are limited to the duration of the Limited Warranty. Except to the extent prohibited by applicable law, Esoteric Sound 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 *Rek-O-Kut* turntable, breach of warranty, or negligence, including but not limited to Esoteric Sound's own negligence, even if Esoteric Sound 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 Esoteric Sound's *Rek-O-Kut* turntables, and is given in lieu of all other expressed warranties. This Limited Warranty shall not extend to anyone other than the original purchaser of this turntable 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.

This Limited Warranty allocates risk of product failure between purchaser and Esoteric Sound, and Esoteric Sound'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 Esoteric Sound are not authorized to make modifications to this Limited Warranty, or make additional warranties binding on Esoteric Sound. Accordingly, additional statements, such as dealer advertising or presentation, whether oral or written, does not constitute warranties by Esoteric Sound and should not be relied upon.

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