



Active Audio Turntable

# BDT-2500

## OWNER'S MANUAL

BDT-2500 is not designed for  
scratch play.

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# CONGRATULATIONS!

Thank you for purchasing the Vestax BDT-2500, Belt Drive Turntable. Please read this owner's manual carefully before you start to use yours in order to fully understand all of the special features.

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### CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK  
DO NOT REMOVE COVER ( OR BACK )  
NO USER-SERVICEABLE PARTS INSIDE  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL



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 shock 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 .

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK , DO NOT  
EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE .

CAUTION : TO PREVENT ELECTRIC SHOCK, MATCH BLADE OF  
PLUG TO WIDE SLOT , FULLY INSERT

ATTENTION : POUR EVITER LES CHocs ELECTRIQUES ,  
INTRODUIRE LA LAME LA PLUS LARGE DE LA  
FICHE DANS LA BORNE CORRESPONDANTE DE LA  
PRISE ET POUSSER JUSQU ' AU FOND

# IMPORTANT SAFEGUARDS

## READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

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. Cleaning-Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. Attachments-Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture-Do not use this product near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
8. Accessories-Do not place this product on an unstable cart, stand, tripod, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with product. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9. Ventilation-Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
10. Power sources-This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company.
11. Grounding or Polarization-This product is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If this should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
12. 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.
13. Protective Attachment Plug-The appliance is equipped with an attachment plug having overload protection. This is a safety feature. See Instruction Manual for replacement or resetting of protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.
14. Lightning-For added protection for this product during lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.
15. Overloading-Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

16. Object and Liquid Entry-Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
17. Servicing-Do not attempt to service product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified personnel.
18. Damage Requiring Service-Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - a. When the power-supply cord or plug is damaged.
  - b. If liquid has been spilled or objects have fallen into the product.
  - c. If the product has been exposed to rain or water.
  - d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
  - e. If the product has been dropped or cabinet has been damaged.
  - f. When the product exhibits a distinct change in performance-this indicates need for service.
19. Replacement Parts-When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock or other hazards.
20. Safety Check-Upon completion of any service or repairs to product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
21. Carts and Stands-The appliance should be used only with a cart stand that is recommended by manufacturer.
22. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



## FEATURES

Included high quality phono amplifier allows you to connect the BDT-2500 to any line level input jack of your mixer or preamplifier. Phono inputs are hard to find on modern stereo systems but they are not needed to use the BDT-2500.

Two pitch control volumes, main pitch and fine pitch controls, allow you to set the speed from 16rpm to 98rpm continuously. This allows for playback of vinyl in any format (LP, EP, SP) or the pitch can be changed from super slow to super fast.

The static balanced "S" shaped tone arm system is signed with the experience of high end professional turntable design, allowing maximum tractability and durability.

Unique heavy-duty metal chassis minimizes the feedback from vibration.

# NOTES

Before detaching or attaching the headshell, be sure to turn the power of the amplifier or mixer to the OFF position.

Detaching or attaching of the headshell with the volume control up may cause damage to the speakers.

Do not turn on the turntable with the platter removed.

When playback is finished, use the tonearm clamp to secure the tonearm in rest position. If the unit is not to be used for some time, the stylus protector should be used as well.

The headshell terminals must remain clean to avoid "hum" noise or intermittent sound. Use a soft dry cloth to remove dust or dirt.

Dust and dirt must be removed from stylus tip and record surface. Failure to do so may cause undue wear of the record or stylus, and deterioration of tone quality.

When transporting the unit it is suggested that the original packing materials are used and handled with care. If packing materials are not available, first remove the platter and wrap it separately. Make sure tonearm is seated in rest with clamp fastened and a twist tie is recommended for further security. The balanceweight and headshell should be removed and wrapped separately. The turntable should then be wrapped in bubble wrap, blanket, soft paper or other packing material.

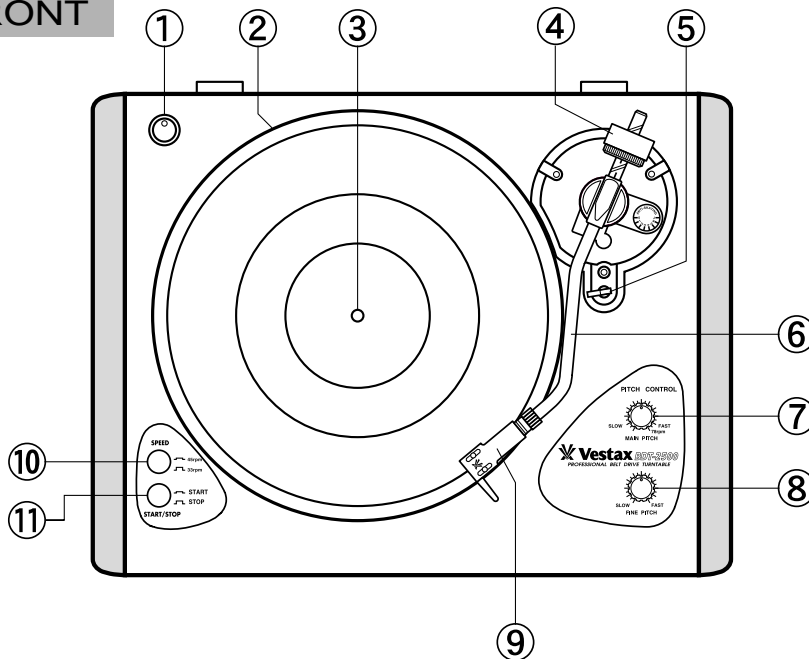
**ACOUSTIC FEEDBACK AND HUM :** Feedback usually occurs when the vibrations from the speakers are picked up by the sensitivity of the cartridge. To avoid this phenomenon, the speakers should be placed as far away from the turntable as possible. Also, it is recommended to use the most solid base available for turntable support and isolation. Hum may be caused by appliances that use thermostats or transformers and the greatest distance possible from these sources is recommended.

## SPECIFICATION

TURNTABLE	MOTOR DRIVE SYSTEM SPEED WOW & FLUTTER S/N	DC SERVO MOTOR BELT DRIVE 33 1/3,45rpm ( CAN BE ADJUSTED FROM 16 TO 98rpm ) 0.03% 60dB ( ICE-B ) 70dB ( DIN-B )
ARM	TYPE EFFECTIVE LENGTH OFFSET ANGLE OVER HANG TRACKING ERROR ANTI SKATING STYLUS PRESSURE	STATIC BALANCE SYSTEM 230mm ± 1mm 23° 15mm 2.35° ~ -1.3° ADJUSTMENT RANGE 0 ~ 7.0g ADJUSTMENT RANGE 0 ~ 7.0g
CARTRIDGE	MODEL NAME FREQUENCY RESPONSE SENSITIVITY CHANNEL BALANCE CHANNEL SEPARATION STYLUS PRESSURE TRACKING ANGLE STYLUS WEIGHT	VR-3S ( DUAL MAGNET ) 15 ~ 20,000Hz 3mV 2dB 20dB 2.5 ~ 3.5g 23° VR-3SS 7.0g
	DIMENSIONS WEIGHT POWER	472( W )×138( H )× 375( D )mm 7.5kg AC 120V or AC 230V

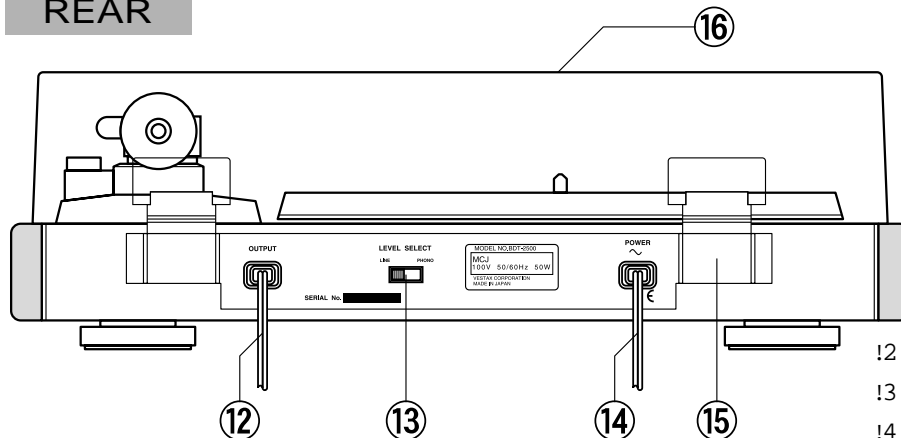
# EACH PARTS NAME

## FRONT



- q Power Switch
- w Turntable Platter
- e Center Spindle
- r Balance Weight
- t Arm Rest
- y Tone Arm
- u Main Pitch Control
- i Fine Pitch Control
- o Cartridge/Headshell
- !0 Speed Select Button
- !1 Start/Stop Button

## REAR



- !2 Output Cable
- !3 Phono-amp Bypass Switch
- !4 AC Power Cord
- !5 Hinge Holder
- !6 Dust Cover

# BEFORE USE

## CAUTION

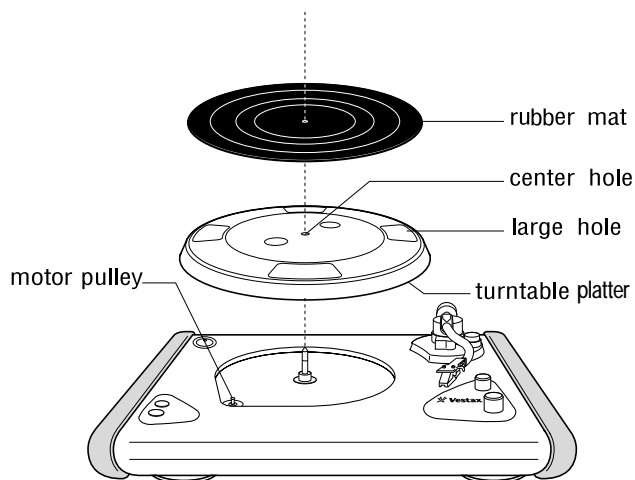
NEVER connect the AC power cord until assembly is complete.

CHECKLIST OF PSRTS : This unit includes the following parts.

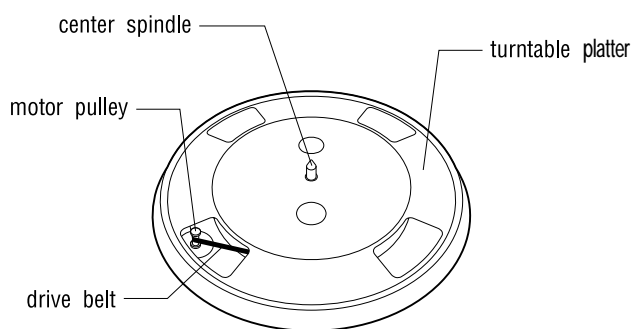
Turntable Unit  
Platter with Drive Belt  
Rubber Mat  
Cartridge/Headshell Assembly  
Balance Weight

EP Adaptor  
Dust Cover  
Strobe Sheet  
Hinge Assembly

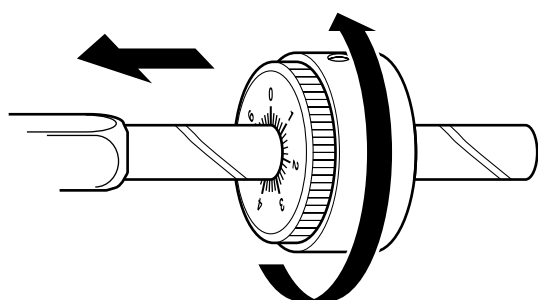
# ASSEMBLY AND SET-UP



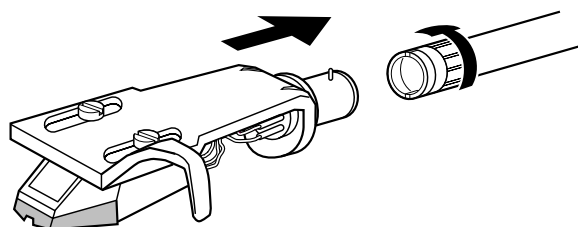
- q Place the turntable platter onto the center spindle.
- w Pull the drive belt from the center ring on the platter over the motor pulley. Be careful not to twist the belt.



- e Rotate the platter by hand to ensure proper seating of the belt.
- r Place the rubber mat on the platter.



- t Slide balanceweight onto rear of tonearm with the number scale facing the cartridge end. Twist lightly to screw into position.



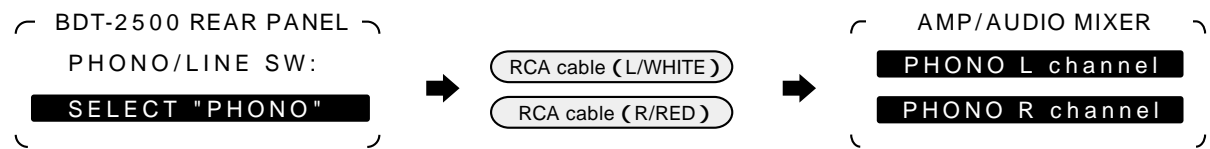
- y Insert the headshell into front end of tonearm and hold in place while the locking nut is tightened. Please do not use too much force when tightening.
- u Push the dust cover into the hinge assembly on the rear of the turntable unit.

# CONNECTION

## CONNECTION TO INPUT JACK

### USING PHONO INPUT

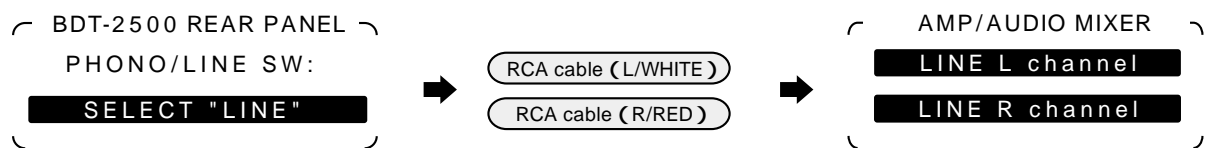
Set phono-amp bypass switch to "phono" position and connect RCA cable to phono input on mixer/pre-amp.



**Note** — Connection of the ground cable is not required.

### USING LINE INPUT

Set phono-amp bypass switch to "line" position and connect RCA cable to line level input on mixer/pre-amp. (i.e. CD, TUNER, AUX, etc.)



## CONNECTION TO POWER PLUG

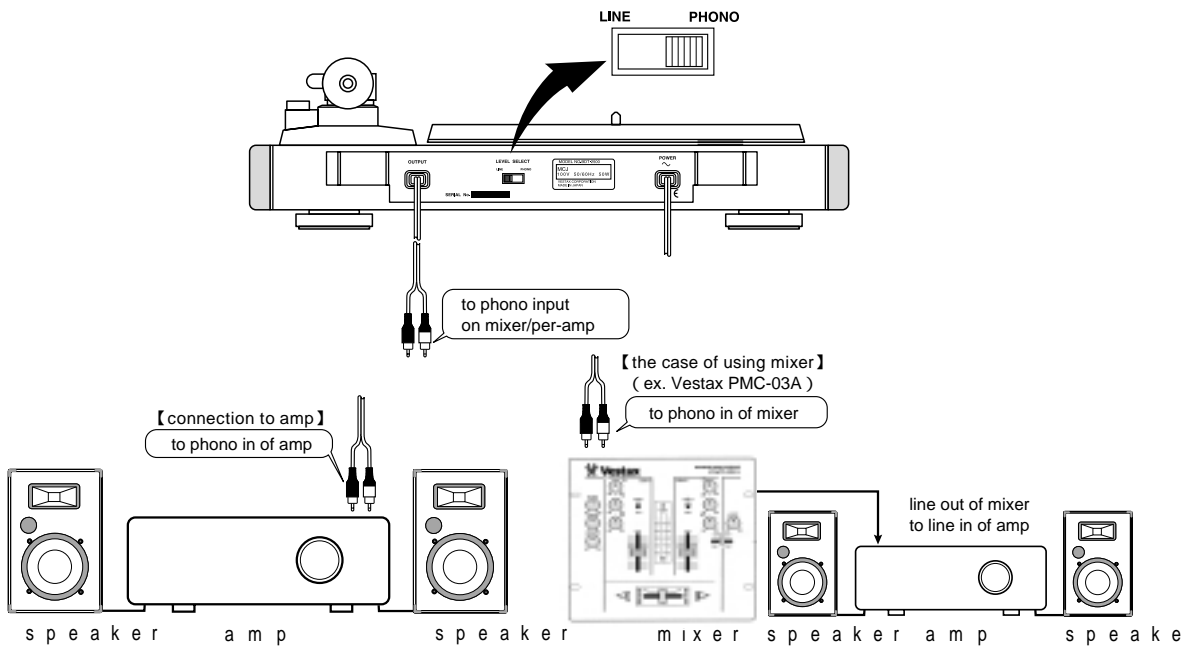
Connect the AC power cord to suitable outlet.

## INSTALLATION

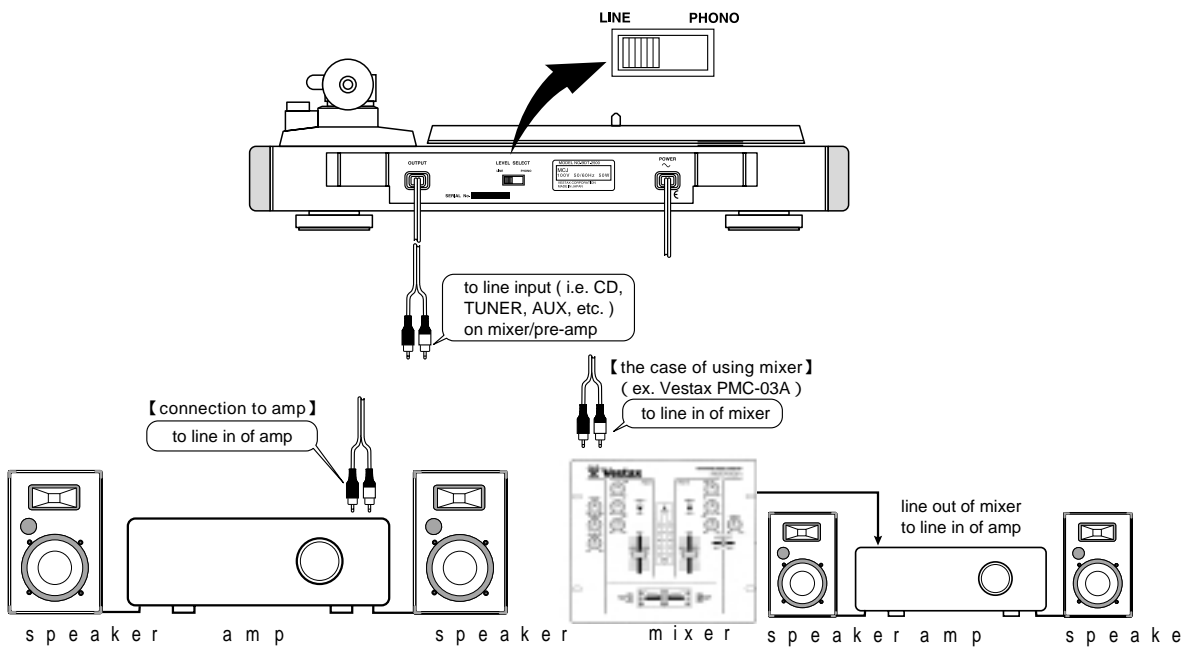
Do not install turntable in location exposed to direct sunlight, high temperature, or excessive humidity. Unit should be placed on a stable horizontal surface where there is minimal vibration. Maximum distance from speakers is recommended to isolate turntable from feedback loop. If unit is located too close to radio receiver it may interfere with radio signal so distance is recommended.

# CONNECTION DIAGRAM(EXAMPLE)

## USING PHONO INPUT

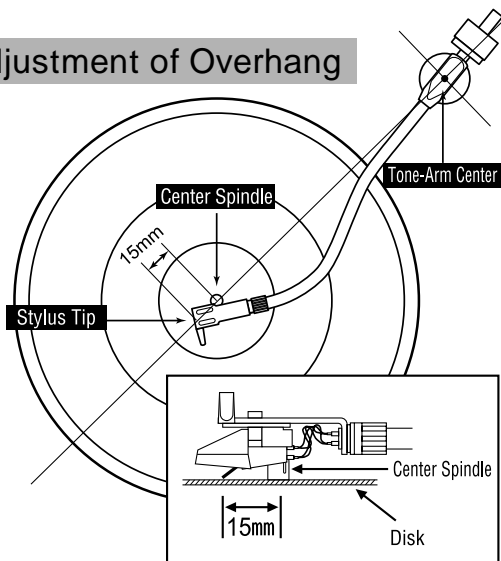


## USING LINE INPUT



# ADJUSTMENT

## Adjustment of Overhang



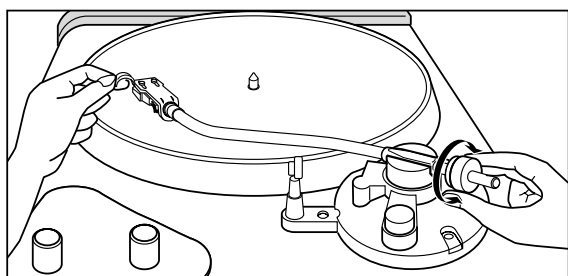
As shown in the illustration, overhang indicates the distance from the stylus tip to the center of the turntable spindle when the stylus tip falls on the extension of a straight line from the pivot of the tonearm to the center of the spindle. If this adjustment is not correct, the stylus will not track the grooves properly.

- q Loosen the two cartridge mounting screws.
- w Position the tonearm over the center spindle.
- e Slide the cartridge until the stylus tip is at specified distance from the center of spindle. (see illustration)
- r Once proper distance is obtained, tighten the cartridge mounting screws.

### Note

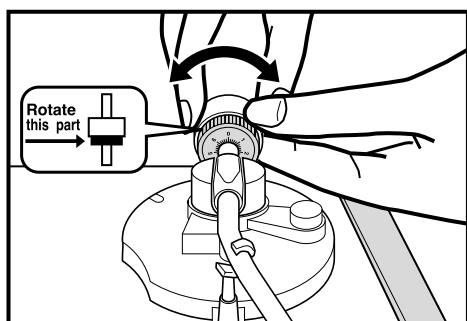
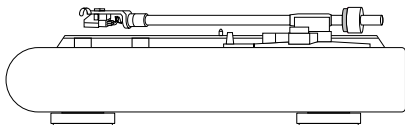
Be careful not to touch your finger to the stylus tip during the adjustment.

## Adjustment of Horizontal Zero(0) Balance



### Illustration of Adjustment

- a) ○ THE balance weight cartridge are balanced, the tone-arm is held horizontal.
- b) ✕ Excessive forward advancement of the balance weight causes the cartridge side to be lowered.
- c) ✕ Excessive backward re-treatment of the balance weight causes the cartridge side to be raised.

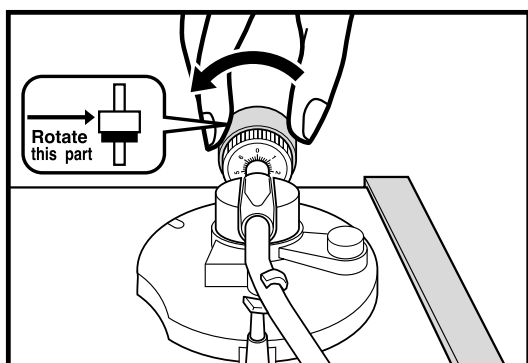


- q Release the tonearm clamp.
- w Allow tonearm to float freely and adjust balanceweight until tonearm is level. This is the zero position.
- e See illustration
  - a) When the balanceweight and cartridge are balanced, the tonearm is held horizontal.
  - b) Excessive forward advancement of the balanceweight causes the cartridge side to be lowered.
  - c) Excessive backward retreatment of the balanceweight causes the cartridge side to be raised.

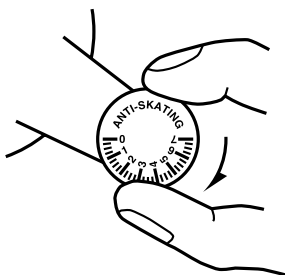
- r Return the tonearm to the armrest.
- t While holding the balanceweight steady, rotate the numeric disc on the front of the balanceweight until the center line marker and the "0" meet. Now that the zero point is set the stylus pressure is represented by the numbers on the dial.

### Note

In case the balanceweight is moved, do the adjustment of horizontal zero balance again.



### Adjustment of Anti-skating Control



- y Rotate the balanceweight from zero to the manufacture's recommended stylus pressure.

#### Note

Exceeding stylus pressure recommendations may cause skipping and/ or reduce stylus life.

Set the anti-skating control knob to the same value as recommended stylus pressure unless otherwise specified.

## OPERATION

- q Place a record on the rubber mat.
- w Turn power switch to "ON" position.
- e Remove stylus protector from cartridge.
- r Select appropriate rotation speed. (33/45rpm)
- t Push Start/Stop button to start rotation.
- y Carefully place tonearm on the record.
- u Replace tonearm to rest position after play has finished.
- i Press Start/Stop button to stop rotation.
- o Turn power switch to "OFF" position.

#### Note

Use EP adaptor for EP playback.

### PITCH CONTROL ADJUSTMENT

The speed of the BDT-2500 is controlled by two pitch control volumes.

**MAIN PITCH** is used for rough adjustment of pitch  
 from 16rpm-78rpm when 33 is selected  
 from 16rpm-98rpm when 45 is selected

**FINE PITCH** is used for a finer adjustment of pitch  
 from 24rpm-41rpm when 33 is selected  
 from 40rpm-51rpm when 45 is selected

### SP OPERATION

- q Place SP record on the rubber mat.
- w Place the strobe sheet on the record.
- e Set the speed selector to 33 1/3rpm.
- r Turn MAIN PITCH to fully clockwise position.
- t Adjust FINE PITCH until 78rpm dots are stationary.

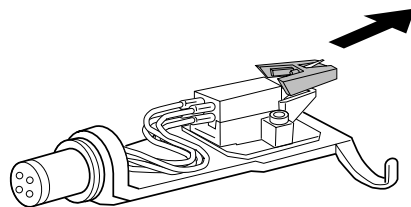
#### Note

When operating in SP mode, the special cartridge "VR-7SP" is recommended. Please contact your nearest Vestax dealer for availability.

# CHANGE OF THE CARTRIDGE

## CHANGE OF THE STYLUS TIP

- q Turn off the power switch of BDT-2500 and amp.
- w Loosen the lock ring, remove the cartridge from tonearm.
- e Remove the stylus tip from cartridge unit.
- r Insert the new stylus tip to cartridge unit.



## CHANGE OF THE CARTRIDGE

- q When you need to change, refer to illustration.
- w In accordance with the instructions of the cartridge, install a cartridge properly.
- e Connect the lead wires to the cartridge terminals. The terminals of most cartridges are color coded. Connect each lead wire to the terminal of the same color.

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

