

**Nakamichi**  
**DRAGON-CT**  
Computing Turntable  
Owner's Manual

Congratulations!

You have chosen a superb turntable which incorporates a popular version of the Absolute Center Search system made famous by that ultimate reference model, the TX-1000.

The direct-drive turntable DRAGON-CT comes equipped with a high-performance oil-damped tonearm and features a semi-automatic design for increased ease of operation.

The Absolute Center Search system detects any record eccentricity and automatically compensates for it. This guarantees the highest level of musical fidelity. Sound imaging emerges with unsurpassed clarity and the information embossed in the record grooves is extracted one-hundred percent.

Please take the time to read this manual in its entirety to fully acquaint yourself with the various features of this turntable.

Thank you.

Nakamichi Corporation.

Please record the Model Designation and Serial Number in the space provided below and retain these numbers.

Model Designation and Serial Number are located on the rear panel of the unit.

Model Number: Nakamichi DRAGON-CT  
Serial Number: \_\_\_\_\_



**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 of 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 of the presence of important operating and maintenance (servicing) instructions, in the literature accompanying the appliance.

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna
- relocate this equipment with respect to the receiver
- move this equipment away from the receiver
- plug this equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

**WARNING**

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

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# Safety Instructions

The following safety instructions have been included in compliance with safety standard regulations. Please read them carefully.

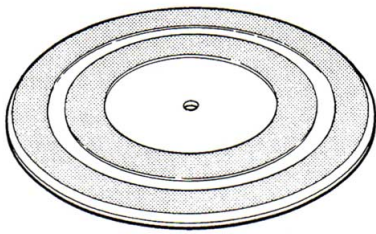
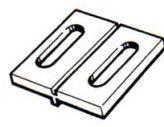
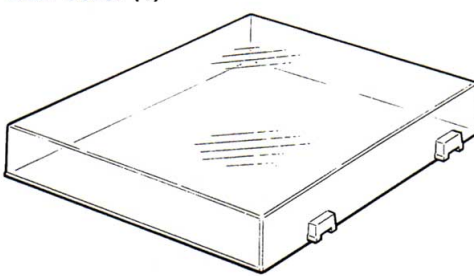
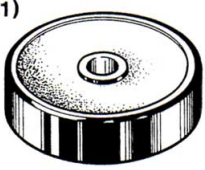
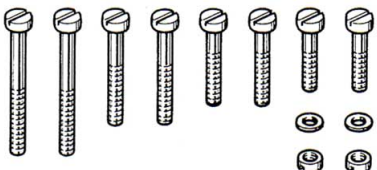
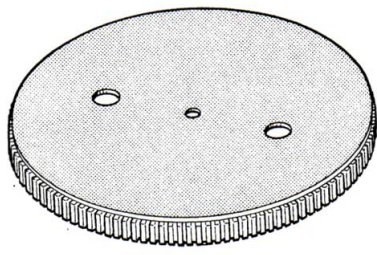
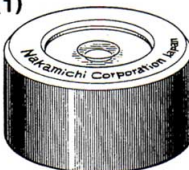
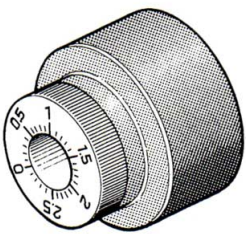
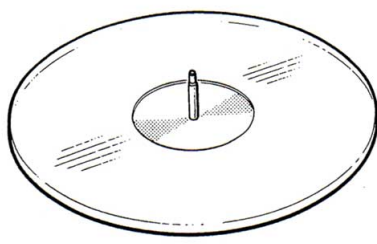

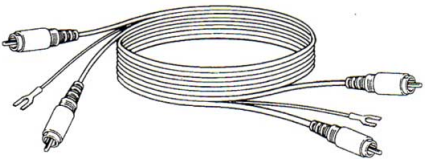
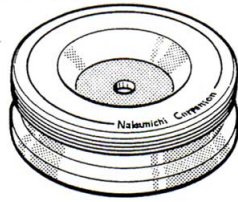
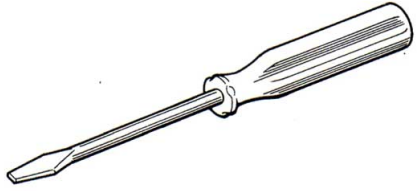
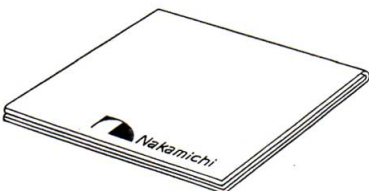
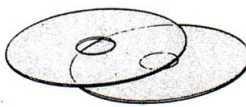
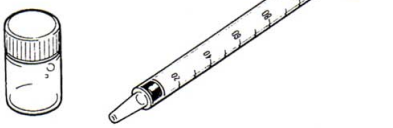
1. Read Instructions — All the safety and operating instructions should be read before the appliance is operated.
2. Retain instructions — The safety and operating instructions should be retained for future reference.
3. Heed Warnings — All warnings on the appliance and in the operating instructions should be adhered.
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, or near a swimming pool, etc.
6. Carts and Stands — The appliance should be used only with a cart or stand that is recommended by the manufacturer.
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 openings; 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, heat registers, stoves, or other appliances (including amplifiers) which produce heat.
10. 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.
11. Grounding or Polarization — Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.
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. Cleaning — The appliance should be cleaned only as recommended by the manufacturer.
14. Nonuse Periods — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. Object and Liquid Entry — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. 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.
17. Servicing — The user should not attempt to service the appliance beyond that described in the operating instruction. All other servicing should be referred to qualified service personnel.

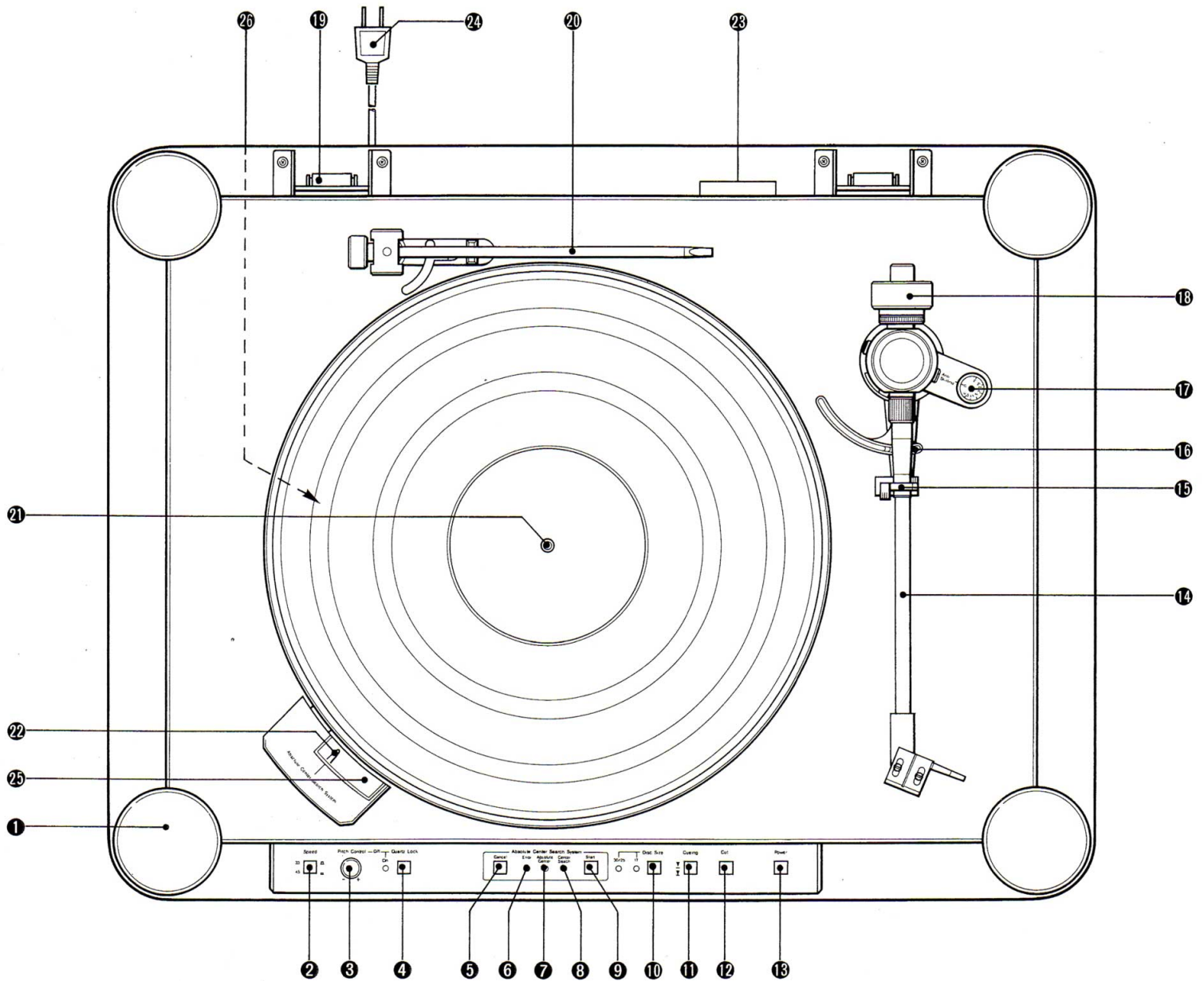
## Precautions

1. Be sure to press the center search switch only after a record has been placed on the platter. If the switch is operated without a record in place, the stylus of the sensor arm may be damaged.
2. Do not set the unit's power switch to "On" or rotate the main motor when the platter is not in position. The motor may be damaged if operated without the proper load condition.
3. This unit incorporates a muting circuit which is active for several seconds after the power was switched on. During the muting interval, the error indicator flashes and all controls are inoperative.
4. If the power is switched on with the sensor arm or tonearm not placed on their respective arm rests, the error indicator will keep flashing after the muting interval, and all controls will remain inactive. In such a case, return the arm to its arm rest, taking care not to damage the stylus. The error indicator will stop flashing.

# Before Assembly

After opening the carton and before starting to assemble the turntable, please check whether all parts and accessories are complete, using the following list. Numbers in brackets ( ) indicate the quantity.

<p><b>Turntable Base (1)</b></p>	<p><b>Turntable Mat (1)</b></p> 	<p><b>Cartridge Spacers (5)</b> Used to adjust the cartridge height. Two spacers with a thickness of 2 mm and one each with 1.5 mm, 1 mm, and 0.5 mm are provided.</p> 
<p><b>Dust Cover (1)</b></p> 	<p><b>EP Adapter (1)</b></p> 	<p><b>Cartridge Fastening Screws (8)</b> Two screws each of four different lengths are provided.</p> <p><b>Cartridge Fastening Nuts and Washers (2)</b></p> 
<p><b>Main Platter (1)</b></p> 	<p><b>Level Gauge (1)</b></p> 	<p><b>Tonearm Counterweight (1)</b></p> 
<p><b>Center Search Platter (1)</b></p> 	<p><b>Insulator Covers (4)</b></p> 	<p><b>Audio Cable (1)</b> Serves to connect the turntable's output jacks with the Phono input terminals of the amplifier.</p> 
<p><b>Disc Stabilizer (1)</b></p> 	<p><b>Screwdriver (1)</b> Used to mount the cartridge.</p> 	<p><b>Polishing Cloth (1)</b> Used to clean the cabinet.</p> 
<p><b>Spacers for Stabilizer Use (4)</b> Two thin and two thick spacers are included. When the disc stabilizer is used, the spacers are inserted below the record label as required, to prevent the record from warping.</p> 	<p><b>Tonearm Damping Oil (1) Injector (1)</b> Silicone oil to be injected into the tonearm's oil bath, for damping of low-frequency resonances.</p> 	



**(1) Insulator Cover**

These covers are to be removed when performing height adjustment of the insulators.

**(2) Platter Speed Selector**

**(3) Pitch Control Knob** (→p. 10)

**(4) Quartz Lock Switch**

By setting this switch to "On", the quartz lock is activated and the indicator lights up. (→p. 10)

**(5) Center Search Cancel Switch**

This switch is used to cancel the absolute center search operation midway. It can also be used to stop platter rotation after completing center search.

**(6) Center Search Error Indicator**

When the adjustment range of the absolute center search system is exceeded, this indicator lights up.

**(7) Absolute Center Indicator**

This indicator lights up when the absolute center (true center) has been established by the absolute center search system.

**(8) Center Search Indicator**

This indicator flashes while the absolute center search system is operating.

**(9) Center Search Switch**

This switch serves to activate the absolute center search system. (→p. 9)

**(10) Disc Size Selector**

Used to set the touch-down position of the sensor arm for absolute center search and the auto-return position of the tonearm.

**(11) Cueing Switch**

Serves to lower or raise the tonearm.

**(12) Cut Switch**

By pressing this switch, playback of a disc can be interrupted midway. The tonearm is raised, returns to the arm rest and the platter rotation stops.

**(13) Power Switch**

**(14) Arm Pipe**

Can be detached from the tonearm base.

**(15) Arm Rest/Clamp**

Supports the tonearm. When the turntable is not used, the tonearm should be fixed with the clamp.

**(16) Arm Lifter**

Controlled by the cueing switch, the arm lifter moves up and down, thereby raising or lowering the tonearm.

**(17) Antiskating Knob**

By adjusting this knob depending on the tracking force of the cartridge, the inward force created during playback of a disc is cancelled. (→p. 8)

**(18) Counterweight**

Serves to maintain the proper balance with the front section of the tonearm and establish the tracking force.

**(19) Dust Cover Attachment Hinge**

(→p. 9)

**(20) Sensor Arm**

Serves to detect the amount of record eccentricity and establish the absolute center.

**(21) Center Spindle/Nominal Center Reset Button**

By pressing this button before performing absolute center search, the center search platter is set to nominal center, as with an ordinary turntable.

**(22) Center Search Rod**

This rod serves to reposition the center search platter for absolute center.

**(23) Audio Output Jacks/Ground Terminal**

**(24) Power Cord**

**(25) Stroboscope**

When the platter is rotating at the correct speed, the stroboscope bars seem to be standing still. If revolution speed is too high, the bars appear to be moving in the same direction, and if speed is too low, in the opposite direction from the platter.

**(26) Voltage Selector**

AC voltage is factory-set for the country in which you purchased your turntable. The voltage selector permits re-setting of mains voltage in case the turntable is to be used in a different country.

**Note:**

Safety regulations in certain countries prohibit inclusion of a voltage selector. This feature, therefore, may be absent from your turntable.

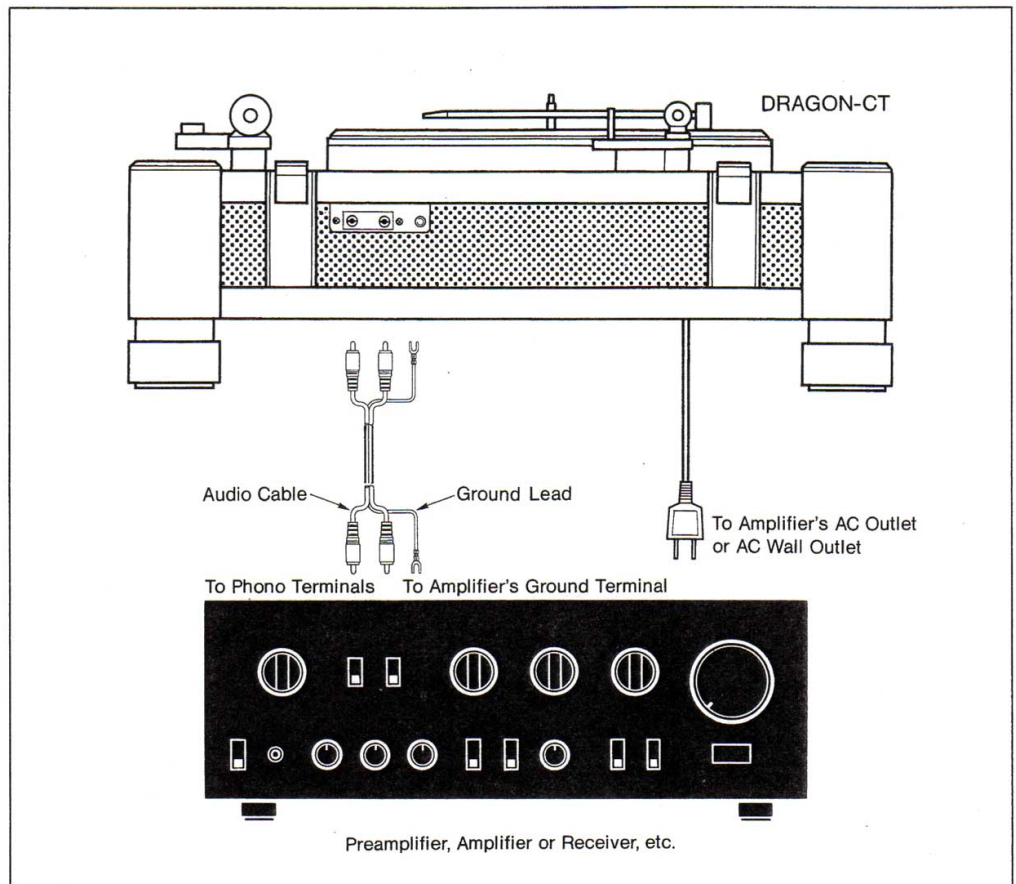
## Set-Up Location and Connections

### Set-Up Location

This unit is very heavy, weighing approximately 20 kg. Take sufficient care in assembling and setting up the turntable, and choose a level, solid location for operating it.

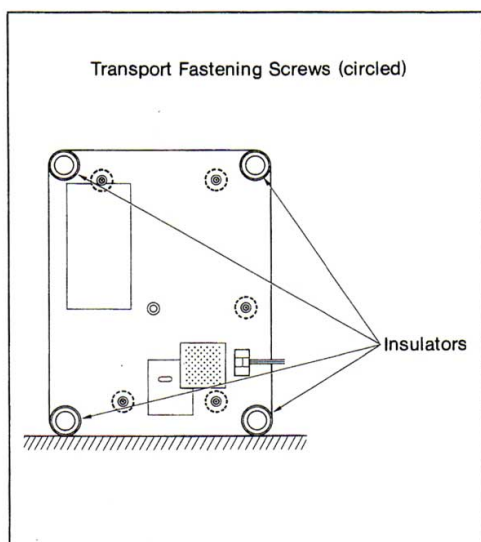
### Connections

Be sure to set the power switches of the amplifier and this unit to "Off". Then connect the left and right output jacks (L, R) on the rear panel of the turntable with the amplifier's Phono input terminals, using the supplied audio cable. Also connect the turntable's ground terminal to the ground terminal (GND) on the amplifier, using the ground lead of the audio cable. The power cord of this turntable can be connected to a convenience AC outlet on the amplifier or an AC wall outlet.



Please assemble the turntable according to the following steps.

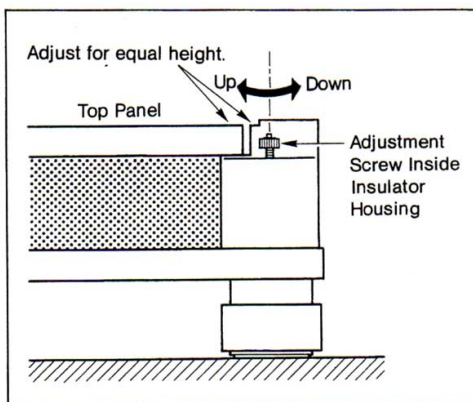
- Bring the turntable into an upright position while supporting it by hand, and loosen the five transport fastening screws (red screws) on the bottom of the turntable base by turning them counterclockwise with a Phillips (+ point) screwdriver until the screw heads protrude from the bottom plate.
  - Be careful not to exert excessive pressure on the insulators in this position.
  - As the turntable is not steady in the upright position, it must be continuously supported by hand.



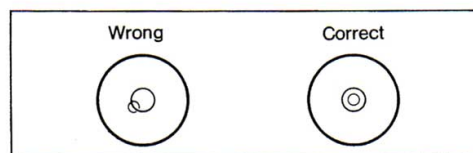
- Wipe the center search platter with a soft, clean cloth before installing.
- Remove the vinyl tape which is used to fasten the tonearm and sensor arm during transport.

#### (4) Insulator Adjustment (Turntable Level Adjustment)

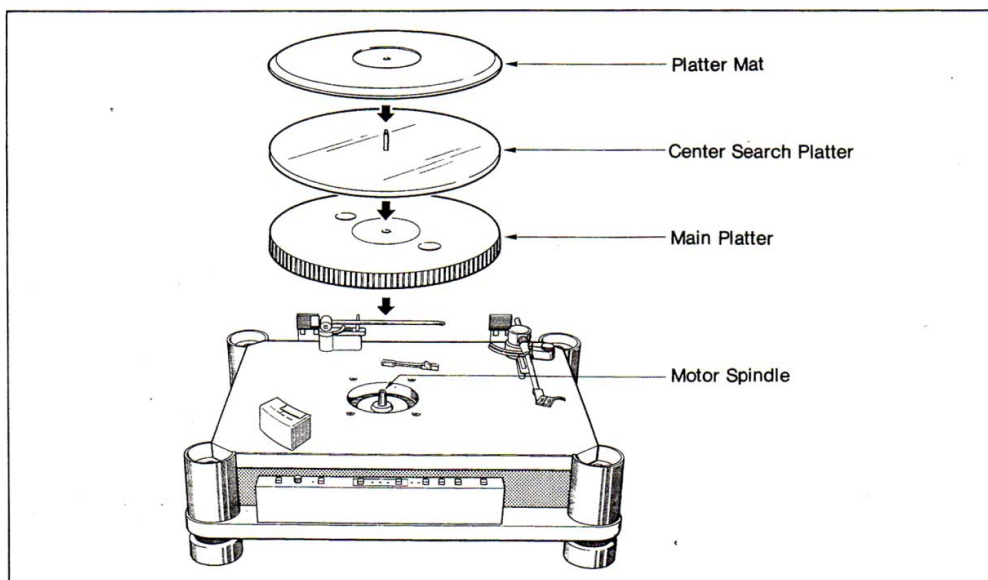
- First perform the top panel height adjustment. Turn the four adjustment screws counterclockwise about 6 revolutions, and then adjust each screw until the cut-out section of the insulator housing and the turntable's top panel are on an equal level.



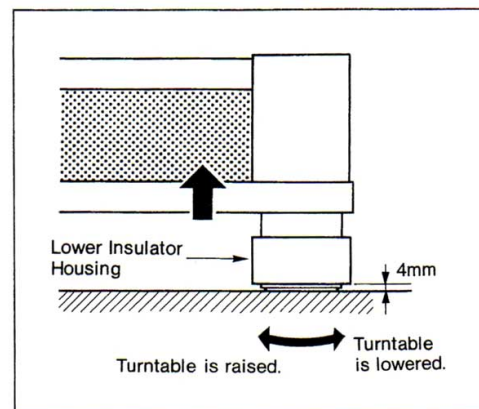
- Next, adjust the lower insulators for turntable horizontality. Place the supplied level gauge on the top panel and turn the lower insulators until the turntable becomes level.



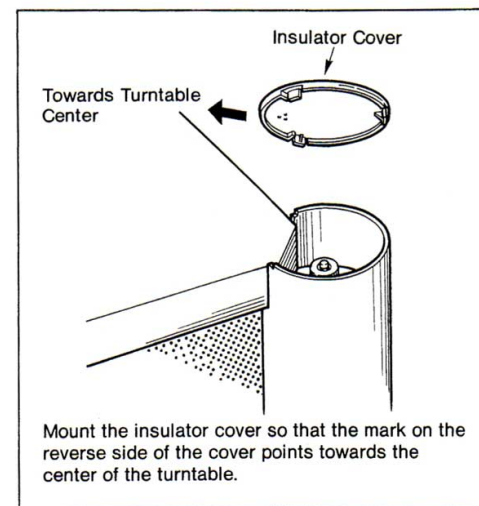
- Return the turntable to the ordinary, horizontal position. Carefully place the main platter on the motor spindle, followed by the center search platter and finally the platter mat.



The clearance between the lower insulator housing and the mounting floor should be about 4 mm. Lift the turntable slightly while making the adjustment. If fine adjustment is required, it should be performed with the adjustment screws of the upper insulators.



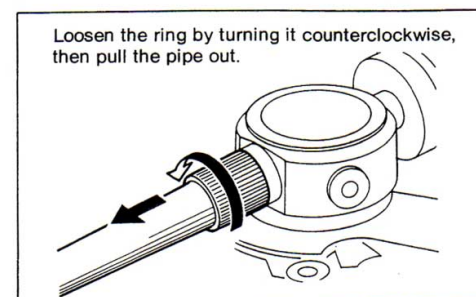
- Mount the insulator covers.



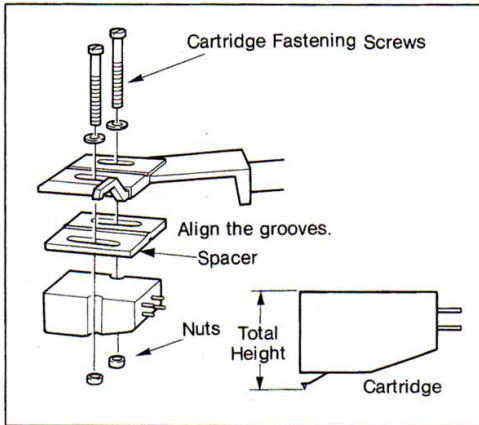
#### (5) Cartridge Mounting and Adjustment [Cartridge Mounting]

- The tonearm of this turntable can accommodate cartridges with a weight of 4 - 11 grams.

- Remove the arm pipe.



2. Measure the total height of the cartridge (refer to the illustration) and select the spacer(s) required for your cartridge. Insert the spacer(s) between the headshell and the cartridge and fasten cartridge and spacer(s) with two fastening screws and nuts, choosing the suitable screw length from the four supplied types.



Cartridge Height and Spacer Requirements

Total Height (mm)	Required Spacer (mm)
More than 18.4	None
18.0~18.4	0.5
17.5~17.9	1.0
17.0~17.4	1.5
16.5~16.9	2.0
16.0~16.4	2.0+0.5
15.5~15.9	2.0+1.0
15.0~15.4	2.0+1.5
14.5~14.9	2.0+2.0
14.0~14.4	2.0+2.0+0.5
13.5~13.9	2.0+2.0+1.0
13.0~13.4	2.0+2.0+1.5

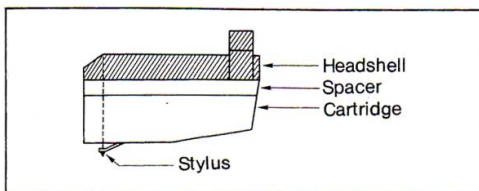
3. Connect the lead wires from the arm pipe to the cartridge. Consult the owner's manual of the cartridge regarding connections.

**Wire Color Coding**

- white: left channel plus (+)
- red: right channel plus (+)
- blue: left channel minus (-)
- green: right channel minus (-)

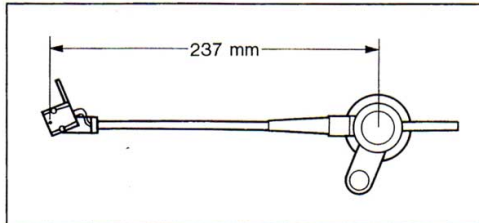
**[Overhang Adjustment]**

Slide the cartridge horizontally until the stylus is in the position indicated by the dotted line in the illustration.



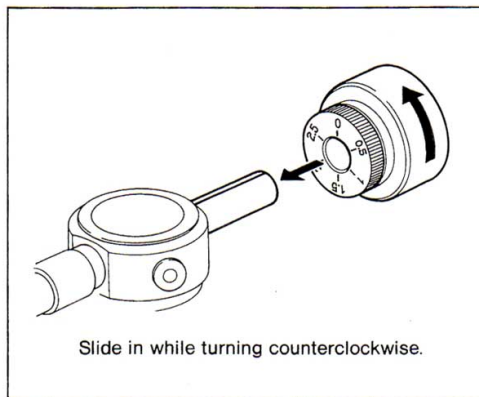
Then fasten the cartridge securely to the headshell.

For a still more accurate adjustment, proceed as follows. Attach the arm pipe to the base upside down and slide the cartridge horizontally vs. the headshell until the distance between the tonearm center and the stylus tip is 237 mm. Then remove the arm pipe from the base without disturbing the position of the cartridge and fasten the cartridge securely to the headshell.

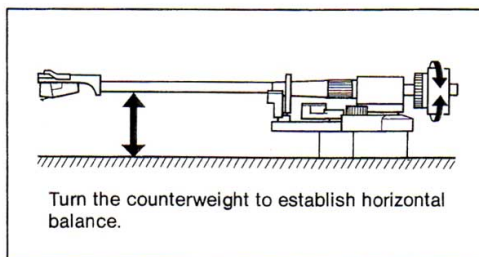


**[Tracking Force Adjustment]**

1. Attach the arm pipe to the tonearm base and mount the counterweight to the tonearm.

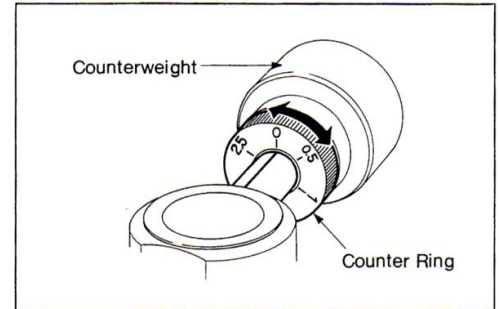


2. Confirm that the antiskating knob is set to "0".  
 3. Insert the power cord of the turntable into an AC outlet and set the power switch to "On".  
 4. Press the cueing switch to lower the arm lift. Then remove the arm from the arm rest and turn the counterweight until the tonearm is balanced out horizontally.

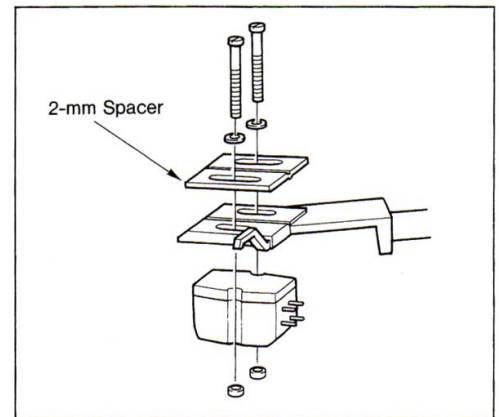


5. Return the tonearm to the arm rest and fix it with the arm clamp. Then — without

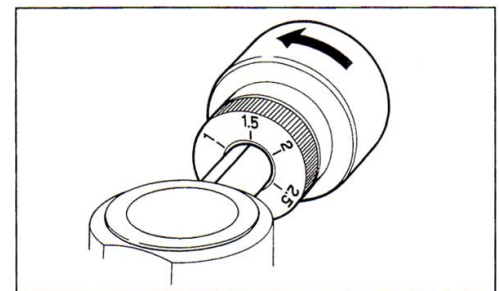
disturbing the position of the counterweight — set the counter ring to the "0" point.



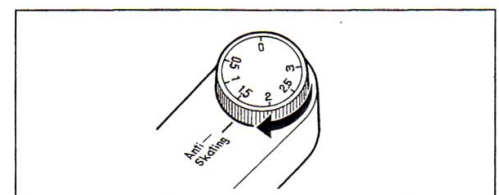
- If a very light cartridge is used, the counterweight may have to be moved too close to the tonearm base, making correct adjustment of tracking force impossible. In such a case, mount a 2-mm spacer on top of the headshell, as shown in the illustration.



6. Turn the counterweight counterclockwise until the counter ring shows the indication corresponding to the designated tracking force of the cartridge.



7. Set the antiskating knob to the same value as the selected tracking force.





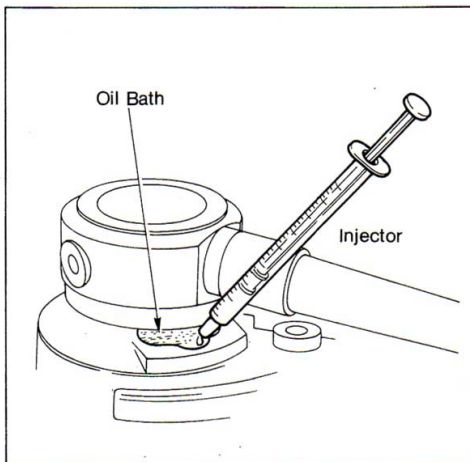
# The Absolute Center Search System and Disc Playback

## [Oil Injection For Tonearm Damping]

The oil-damping feature of this tonearm uses the viscosity of silicone oil to control resonances in the subsonic frequency range. The playback sound quality will change subtly depending on the amount of injected silicone oil. Perform the damping adjustment for the cartridge in use while confirming the results by ear.

Fill the supplied tonearm damping oil into the injector, and inject the oil slowly into the oil bath on the tonearm base, taking care not to spill it.

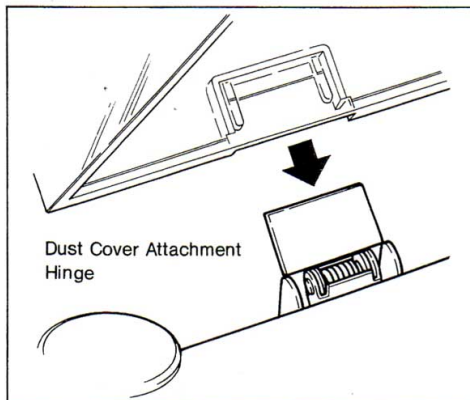
The maximum injection amount should not exceed 1 cc.



- To prevent oil spilling during transport, wipe the damping oil out with a cotton-tipped stick if the turntable is to be moved or shipped.

## [Attachment of Dust Cover]

Slide the dustcover slots onto the dust cover attachment hinges on the rear of the base.

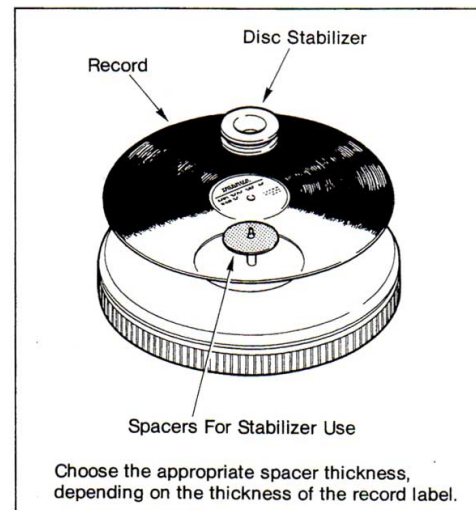


## Absolute Center Search System

Although the DRAGON-CT will function as a high-performance direct-drive turntable even without center search, it is highly recommended that you use this turntable's dominant feature, that is the absolute center search system, to eliminate any concentricity error before playing a record.

### Operation

- (1) Set the power switch to "On". The neon lamp for the stroboscope lights up, the disc size indicator for the size selected with the disc size selector (30/25 or 17) lights up, and the error indicator flashes for a few seconds and then goes out.
- (2) Place the record to be played on the platter. For playing EP records, use the supplied EP adapter. Use the supplied disc stabilizer (for EP as well as for LP records) to firmly hold the record to the platter. If an LP is pushed down by the weight of the stabilizer and the record edge is lifted up, place the stabilizer spacers (two spacers each of different thickness are supplied) under the record to prevent it from warping.



- (3) Set the disc size selector to the required position for the record to be played. This determines the touch-down position of the sensor arm for center search operation and the auto-return position for the tonearm.
- (4) Select the required revolution speed with the platter speed selector.
- (5) If the regular speeds of 33 or 45 rpm are to be used, set the quartz lock switch to "On". If the pitch control is to be used, set the quartz lock switch to "Off".
- (6) Press the nominal center reset button firmly to align the center search platter with the main platter (drive motor spindle and center spindle exactly on axis).
- (7) Press the center search switch. The center search indicator lights up. The sensor arm

touches down in the finishing groove of the record to detect any center error. When the detection process starts, the center search indicator—which was lit constantly—starts to flash.

- During the center search operation, the platter rotates at 33 rpm and with quartz lock engaged, regardless of the position of the quartz lock switch and the platter speed selector.
- (8) To compensate for the detected center error, the platter rotation stops temporarily, and the center search rod pushes the center search platter to achieve the desired adjustment. While the center search rod is in operation, the absolute center indicator flashes. Depending on the amount of record eccentricity, this adjustment is performed up to three times.
  - (9) When the absolute center has been established, the absolute center indicator lights up constantly and the sensor arm returns to its initial position.

### (10) Disc Playback

When the absolute center search operation has been completed, the platter rotation returns to the condition determined by the settings of the quartz lock switch and the platter speed selector.

- (11) Move the tonearm over the lead-in groove of the record and press the cueing switch. The arm lifter is lowered, and playback begins. When the tonearm has reached the end of the side, it returns automatically to the arm rest, and the platter rotation stops. If you want to interrupt playback midway, press the cut switch.
- (12) To start playback again, move the tonearm over the record. Platter rotation will start automatically.

For playback without absolute center search, skip steps (7) – (10) of the above procedure.

### Error Indication During Center Search

If record eccentricity is too large to be compensated for by the absolute center search system, the error indicator flashes. The error indicator may also come on if the record was changed and center search operation was started without first pressing the nominal center reset button. In such a case, press the button firmly and then repeat the center search operation. If the error indicator still flashes, the record eccentricity exceeds the adjustment range, and the nominal center reset button should be pressed to play the record with the nominal center setting.

If the record's center hole is too large and does not give a firm grip, try removing the record and then placing it on the platter again.

## Precautions Regarding the Absolute Center Search System

- (1) The absolute center search operation must be performed every time a record is changed or turned over. When the tonearm returns to the arm rest and platter rotation stops, the absolute center indicator goes out. However, the center search platter remains set at the absolute center for this record. Therefore, if the record is not moved, repeated playback can be performed without renewed center search operation.
- (2) Do not press the center search switch when no record is placed on the platter, as the stylus of the sensor arm may otherwise descend on the platter mat and be damaged. If the center search switch was pressed by mistake, immediately press the center search cancel switch.
- (3) Be sure to set the disc size selector to the correct position. Otherwise correct adjustment is not possible.

## Quartz Lock Switch

This turntable provides a quartz lock circuit for extremely precise rotational speed. When the quartz lock switch is set to "On", the indicator lights up and the quartz lock circuit is activated to precisely control the speed selected by the platter speed selector, either 33 rpm or 45 rpm. When the quartz lock switch is set to "Off", the indicator goes out, the quartz lock circuit is deactivated, and fine adjustment of revolution speed by means of the pitch control is possible.

## Pitch Control

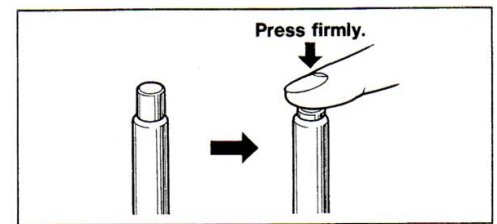
This control serves to increase or decrease platter speed slightly from the standard values. The pitch control can be used when the quartz lock switch is set to "Off". Turning the control towards (+) increases platter speed, and turning it towards (-) decreases platter speed. When the quartz lock switch is set to "On", the quartz lock operates and revolution speed returns exactly to standard value.

## Nominal Center Reset Button

By pressing this button, the center search platter slides and becomes exactly aligned with the motor spindle, for a 'nominal center' setting. This condition is identical to a conventional turntable. As the nominal center reset button is not linked to the absolute center search system, the button must always be pressed before starting the center search procedure, to set the center search platter to the initial start position.

- If center search is performed without first resetting the center search platter to nominal center, an adjustment error may result.

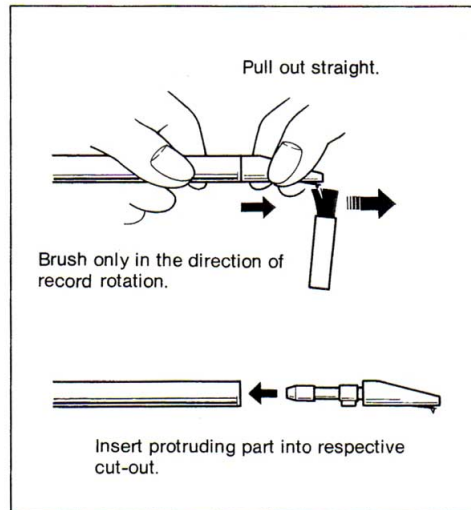
The resetting to nominal center is performed by mechanical means. Push the reset button as shown in the illustration below.



# Maintenance

## Sensor Arm Stylus

If the stylus of the sensor arm is contaminated, correct center search is not possible. Remove accumulated dust particles etc. by detaching the tip of the sensor arm as shown in the illustration and cleaning the stylus with a stylus brush.



### Sensor Arm Stylus Service Life

The stylus of the sensor arm has a diamond tip with a service life of approximately 300 hours. Therefore in ordinary use, wear will present no problem.

## Platter

If the contact area of main platter and center search platter becomes contaminated by fingerprints etc., correct absolute center search operation is not possible. Keep these surfaces clean by wiping them with alcohol or another suitable cleaner.

## Transport

If the turntable is to be shipped again, prepare it as follows.

- (1) Remove the dust cover.
- (2) Turn the height adjustment screws in the top section of the insulators fully counterclockwise, and the insulators on the bottom section fully counterclockwise. (→p. 7)

- (3) Remove the center search platter and the main platter by pulling them upward.
- (4) Remove the tonearm counterweight.
- (5) Wipe out the tonearm damping oil with a cotton-tipped stick or the like.
- (6) Leave the arm clamp open, but fix the tonearm to the arm rest with vinyl tape. Also fix the sensor arm to its arm rest with vinyl tape.
- (7) Fasten the five transport screws on the bottom of the turntable.

## Lubrication

This turntable does not require any kind of lubrication.

## Cleaning

Remove dust or smudges with the supplied polishing cloth or another soft cloth. Never use solvents, ammonia or abrasive cleaning agents.

# Troubleshooting

If the turntable seems to malfunction, perform the following checks before requesting service, to determine whether an actual defect is present or not.

Condition	Probable Cause	Remedy
Absolute center search cannot be performed correctly/error indicator comes on.	<ol style="list-style-type: none"> <li>1. Nominal center reset button was not pressed correctly.</li> <li>2. Disc size selector is not set correctly.</li> <li>3. Finishing groove of the record is dirty.</li> <li>4. Dust etc. has accumulated on the sensor arm stylus.</li> <li>5. Record eccentricity is too large.</li> </ol>	<ol style="list-style-type: none"> <li>1. Press the button correctly and repeat center search.</li> <li>2. Select correct position.</li> <li>3. Clean record.</li> <li>4. Clean sensor arm stylus.</li> <li>5. Perform playback at nominal center.</li> </ol>
Error indicator keeps flashing after the power is switched on.	<ol style="list-style-type: none"> <li>6. Tonearm or sensor arm are not placed on arm rest.</li> </ol>	<ol style="list-style-type: none"> <li>6. Return arm to arm rest, taking care not to damage the stylus.</li> </ol>
Hum or noise is heard.	<ol style="list-style-type: none"> <li>7. Ground connection faulty.</li> <li>8. Hum-inducing appliance located near turntable.</li> </ol>	<ol style="list-style-type: none"> <li>7. Establish correct connection.</li> <li>8. Place the turntable well away from large transformers, fluorescent lights and other hum-inducing sources.</li> </ol>
Acoustic feedback occurs easily.	<ol style="list-style-type: none"> <li>9. Transport fastening screws have not been loosened.</li> <li>10. Insulators are not set correctly.</li> </ol>	<ol style="list-style-type: none"> <li>9. Loosen screws.</li> <li>10. Set insulators up correctly.</li> </ol>

# Specifications

## Phono Motor Section

Drive System	Direct drive
Drive Motor	Quartz PLL DC, brushless, slotless, coreless Super Linear Torque motor
Revolution Speeds	33-1/3, 45 rpm
Pitch Control	Adjustment range $\pm 6\%$
Main Platter	Aluminium diecast (thickness 18 mm, diameter 310 mm, weight 1.4 kg)
Center Search Platter	Glass (thickness 6mm, diameter 303 mm, weight 550 g)
Start-up Time	Within one revolution
Speed Deviation	Unmeasurable (with quartz lock)
Speed Drift	Unmeasurable (with quartz lock)
Wow-and-Flutter	0.008% (WTD RMS, FG direct) 0.03% (WTD RMS, after center search)
Signal-to-Noise Ratio	Better than 78 dB (DIN-B)
Inertia Moment	380 kg/cm <sup>2</sup>

## Tonearm Section

Type	Static balance, straight arm pipe <ul style="list-style-type: none"><li>• oil-damping feature</li><li>• exchangeable arm pipe</li></ul>
Total Arm Length	305 mm
Effective Arm Length	237 mm
Effective Arm Weight	14 g (without cartridge)
Tracking Force Adjustment	
Range	0—3 g
Allowable Cartridge Weight	4—11 g
Cartridge Change Principle	By exchanging pipes (chuck joint principle)
Offset Angle	21° 30'
Overhang	15 mm
Tracking Error	+ 2.5° to - 1°
Arm Lifter	Oil-damped

## General

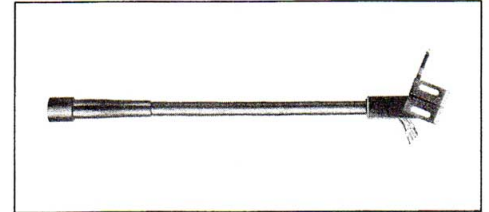
Power Requirements	100, 120, 120/220—240, 220 or 240 V AC; 50/60 Hz (according to country of sale)
Power Consumption	23 W
Dimensions	546(W) × 230(H) × 421 (D) mm 21-1/2(W) × 9-1/16(H) × 16-9/16(D) inches
Weight	Approx. 20 kg 44 lb 1 oz

- Design and specifications are subject to change for further improvement without notice.

# Optional Accessories

## Tonearm Pipe TA-100

This spare tonearm pipe is designed especially for the DRAGON-CT. It greatly facilitates changeover between different cartridges.



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