## Dual DT 500



Instructional Manual

## What's Included



1. Dust Cover
2. Turntable
3. Headshell with Stylus
4. Platter with Rubber Belt
5. Turntable Mat
6. Counterweight
7.45 Adapter
7. Power Adapter
8. RCA Audio Cable with Ground


## Components and Connections



1. Platter
2. Rubber Belt
3. Motor Pulley
4. Spindle
5. Speed Selection
6. Power LED
7. Counterweight
8. Anti-Skating
9. Cueing Lever
10. Clasp
11. Tonearm
12. Headshell
13. RCA Audio Outputs
14. Preamp Switch
15. USB-port
16. Auto Stop Switch
17. Power Input
18. ON/OFF Button
19. Hinge

## Installing the Platter

1. Remove the protective packaging and ensure the turntable is placed on a sturdy and level surface. Place the metal platter onto the spindle located in the middle of the turntable.

2. Use the installation ribbon to lift the rubber belt and place it around the motor pulley. Remove the installation ribbon and rotate the platter several times to ensure the rubber belt is secure and not twisted.

3. Rotate the platter until the rubber belt installation ribbon aligns with the motor pulley. Remove the tape from the installation ribbon.

4. Place the turntable mat on top of the platter.


## Balancing the Tonearm

1. Remove the stylus protector.
2. Unlock the tonearm and lift the cueing lever.

3. Position the tonearm over the platter.

4. Hold the headshell and lower the cueing lever completely. Be careful not to let the stylus touch the platter.

5. With the cueing lever now lowered, turn the entire counterweight until the tonearm is balanced and floating horizontally when headshell is released.


6 . Set only the counterweight indicator ring to " 0 " on the center line while keeping the tonearm balanced then lock the tonearm on the tonearm rest.


## Balancing the Tonearm

7. Rotate the entire counterweight counterclockwise until the indicator ring is set to " 3 " on the center line. This will set the tracking force to the recommended Gram tracking force of the included Audio Technica stylus.


## Setting the Preamp Switch

This turntable includes a built-in preamp. To enable the internal preamp set the switch on the back of the unit to the LINE position.


## Connecting the Power

Ensure the power adapter is securely connected to a power outlet. Insert the power cable into the power input on the back of the turntable.


## Connecting the RCA Cable

The included RCA cable attached.
Connect the RCA cables to the audio outputs on the back of the turntable and then plug the other end into your stereo.


## Auto Stop Function

The auto stop function is designed to save the life of your needle. At the end of a record the platter will automatically stop spinning if auto stop is enabled. This feature will also require that the tonearm is moved over the record before the platter will start spinning at the selected speed.
If the auto stop switch is set to the OFF position the platter will begin spinning as soon as the speed selection knob is set to 33 or 45 . To stop the record from spinning set the speed selection knob to the OFF position.


## Record Care

1. Records should be stored verticaly in a dry environment away from sources of heat.
2. An anti-static brush can be used to remove dirt from the record's grooved surface. Use a record cleaning solution to further clean your records to ensure crystal clear playback.
3. It is important to use the cueing lever when lifting or lowering the tonearm to prevent accidental slipping and scratching.

## Needle Care

1. When the turntable is not in use always use the provided stylus protector to prevent accidental damage.
2. A stylus cleaning brush can be used to remove dust and debris from the stylus.
3. Enabling the auto stop function will reduce wear and tear on the stylus.

## Turntable Not Spinning

- The turntable should be connected to a known good power outlet and the power cable should be securely inserted into the unit.
- Remove the turntable mat and rotate the platter until the motor pulley is visible. Ensure the rubber belt is intact and hooked around the motor pulley.
- Turn the speed selection knob to 33 or 45 (power led should light up). Lift the tonearm over the platter and it should start spinning.


## No Power

- The turntable should be connected to a known good power outlet and the power cable should be securely inserted into the unit.
- The power LED should light up when the speed selection knob is set to 33 or 45 .


## Wrong Speed

- Check the record label for the correct playback speed and that the speed selection knob is set to match it. Normal LP playback speed is $331 / 3 \mathrm{rpm}$.


## Troubleshooting

## Skipping

- Ensure the record surface is clear of dirt and debris. Also check that the record is not warped or deformed.
- Inspect the needle for built up dirt or debris. Use a stylus cleaning brush to clean if necessary.
- Ensure the turntable is on a sturdy and level surface.
- Use instructions in step four of the first time setup instructions to confirm the tonearm was balanced correctly and set to the correct tracking force of 3.0 Grams.


## Audio Feedback

- If audio feedback occurs ensure the speakers are positioned away from the turntable. The turntable should not be placed in front of the speakers.


## Cueing Lever Not Lowering Tonearm

- Use instructions in step four of the first time setup instructions to confirm the tonearm was balanced and set to the correct tracking force of 3.0 Grams.
- Lock the tonearm and lower the cueing lever. Gently press down on the tonearm bridge until fully lowered to reset the tonearm lowering mechanism.


## Specifications

| Turntable Specifications | DT 500 |
| :---: | :---: |
| Drive System | Belt Drive |
| Motor | DC Motor |
| Speed | 33 1/3 RPM, 45 RPM |
| Wow and Flutter | 0.20\% |
| Signal-to-Noise Ratio (Weighted) | 67 dB or higher <br> (A-weighted, 20kHz LPF) |
| Signal-to-Noise Ratio (Unweighted) | 60 dB or higher (unweighted, 20 kHz LPF) |
| Platter | Die-cast Aluminum |
| Diameter of Platter | 30 cm |
| Auto-Stop | Yes |
| Turntable Mat | Felt |
| Tonearm Specifications |  |
| Type | Static Balanced, Straight |
| Supported Cartridge Weight | 3.5 to 6.5 g |
| Anti-skating Adjustment | Yes |
| Pivot Bearing | Yes |
| Cartridge Specifications |  |
| Type | Moving Magnet (MM) |
| Cartridge Model | Audio Technica: <br> AT-3600L |
| Stylus | 0.6 mil Bonded Conical (Diamond) |


| Frequency Response | $20-20,000 \mathrm{~Hz}$ |
| :---: | :---: |
| Channel Separation | 18 dB at 1 kHz |
| Channel Balance | 2.5 dB or less at 1 kHz |
| Load Impedance/Capacitance | 47k Ohms/100pF |
| Output Voltage | $2.5 \mathrm{mV}+/-3 \mathrm{~dB}$ |
| Weight | $5.0 \mathrm{~g}+/-0.3 \mathrm{~g}$ |
| Headshell Weight | 10 g |
| Recommended Tracking Force | $3.5 \mathrm{~g}+/-0.5 \mathrm{~g}$ |
| Output Specifications |  |
| Connector | RCA |
| Preamp | Yes, PHONO/LINE Switchable |
| Phono Output | $2.5 \mathrm{mV}+/-3 \mathrm{~dB}$ |
| Line Output | 140 mV (-17dBV) |
| Ground Terminal | No |
| Power Specification |  |
| Input | $\begin{aligned} & 100 \mathrm{~V}-240 \mathrm{~V} \mathrm{AC} \\ & (50 / 60 \mathrm{~Hz}) \end{aligned}$ |
| Output | $12 \mathrm{~V} / 500 \mathrm{~mA}$ |
| Consumption | 1.5W |
| General Specifications |  |
| Unit Dimensions ( $\mathrm{W} \times \mathrm{H} \times \mathrm{D}$ ) | 16.5 " x 5.5 " $\times 13.75{ }^{\prime \prime}$ |
| Unit Weight | 4.6 kg |
| Operating Temperature | $5^{\circ} \mathrm{C}$ to $35^{\circ} \mathrm{C}$ |
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## Important Safety Instructions

WARNING:<br>TO REDUCE THE RISK OF FIRE OR ELECTRIC<br>SHOCK, DO NOT EXPOSE THIS APPARATUS TO<br>RAIN OR MOISTURE<br>CAUTION:<br>TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.<br><br>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.<br><br>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 prevent fire or shock hazard, do not use this plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure. To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into you outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and point where they exit from the apparatus.
11. Only use attachments / accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the appara tus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. This appliance shall not be exposed to dripping or splashing water and no object filled with liquids such as vases shall be placed on the apparatus.
15. Do not overload wall outlet. Use only power source as indicated.
16. Use replacement parts as specified by the manufacturer.
17. The product may be mounted to a wall only if recommended by the manufacturer.
18. Upon completion of any service or repairs to this product, ask the service technician to perform safety checks.
19. Avoid installing this unit in places exposed to direct sunlight or close to heat radiating appliances such as electric heaters, on top of other stereo equipment that radiates too much heat, places lacking ventilation or dusty areas, places subject to constant vibration and/or humid or moist areas.
20. Do not attempt to clean this unit with chemical solvents as this might damage the finish. Use a clean dry cloth.
21. Operate controls and switches as described in the manual. Before turning on the power, make certain that power cord is properly installed.
22. When moving the apparatus, be sure to first disconnect the power cord.
23. Use caution when wearing loose clothing or articles near the spinning turntable.

## FCC \& IC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulations of Industry Canada.
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

