

DT 250 USB V2-GB\_1903



**DT 250 USB  
DJ record player  
with USB port**

**Operating manual**

---

## Preface

This operating manual outlines

- proper and
- safe

Use of your **record player**, referred to below as "record player" or "unit". The operating manual is an integral part of the unit and must be given with the unit if it is resold or passed on.

Please observe the instructions for use of the USB port on page 19.

## Target group of this operating manual

This operating manual is intended for everyone who

- sets up,
- operates,
- cleans
- or disposes of the record player.

All brand and product names are trademarks or registered trademarks of their respective manufacturer.

## Layout features of this operating manual

Various items in the operating manual are provided with set layout features. This ensures you can easily determine whether you are dealing with

normal text,

- lists,

→ steps to be carried out,



information on hearing loss caused by loud music,



safety notices or warnings.

Please read this operating manual and the safety notices carefully before using the unit and keep them for later use, be sure to make them accessible to other users and observe the information they contain.

---

## Contents

<b>Intended use.....</b>	<b>4</b>
<b>Safety and setting up the record player .....</b>	<b>5</b>
Safety.....	5
Setup .....	7
<b>Description of the record player .....</b>	<b>8</b>
Included in delivery .....	8
Special features .....	8
Upper side of unit.....	9
<b>How to prepare the record player for operation .....</b>	<b>10</b>
Belt and turntable.....	10
Turntable.....	10
Turntable mat.....	11
Spindle adapter.....	11
Fitting the tone arm head.....	11
Tone arm.....	12
Fitting the counterweight.....	12
Balancing the tone arm.....	12
Anti-skating adjuster .....	13
The dust cover .....	14
Adjustable feet.....	14
<b>Connecting the record player.....</b>	<b>15</b>
How to set the PHONO/LINE switch.....	16
Connection to the amplifier .....	16
Connection to the computer.....	16
Mains connection .....	16
Removing/attaching the stylus protection cap .....	16

<b>Playing a record .....</b>	<b>17</b>
Procedure .....	17
Interrupting playback .....	17
Playing back a 45 rpm record with large centre hole ....	18
Speed fine adjustment PITCH ADJ. ....	18
<b>USB port.....</b>	<b>19</b>
System requirements .....	19
<b>Audacity QR code .....</b>	<b>19</b>
<b>Cleaning the record player .....</b>	<b>20</b>
Cleaning the stylus and the record .....	20
Replacing the stylus .....	20
<b>Installing another pickup system .....</b>	<b>21</b>
Storage .....	21
<b>Troubleshooting .....</b>	<b>22</b>
<b>Technical specifications .....</b>	<b>23</b>
<b>Disposal instructions .....</b>	<b>24</b>

## **Intended use**

This consumer electronics unit is intended for playing and digitising records. The unit is designed for use in a private home and is not suitable for commercial use.

Use of any other kind is classed as other than intended and may result in damage to property or even personal injury.

The manufacturer accepts no liability whatsoever for loss or damage arising from use of the unit in a manner other than intended. Before using the unit for the first time, please carefully read through the safety instructions and installation instructions. Only by doing so will you be able to use all functions safely and reliably. Keep the instructions in a safe place and pass them on to any subsequent owner.

## Safety and setting up the record player

Please read through all of the safety instructions carefully and keep them for questions that may arise later. Always observe all warnings and instructions in this operating manual and on the rear of the unit.



### **Risk of suffocation!**

Keep the packaging and its parts out of the reach of children. Packaging materials are not toys!

Risk of suffocation from foils and other packing materials.



### **Safety**

- The unit should only be connected to a mains voltage supply of 230 V~, 50 Hz. Never try to operate the unit with a different voltage.
- The mains plug should only be connected after installation has been completed according to the instructions.
- If the mains plug of the unit is defective or if the unit shows other damage, it must not be operated.
- The socket must always be easily accessible so that the mains plug can be easily removed in a dangerous situation.
- When unplugging the mains plug from the socket always pull on the mains plug, never on the cable.
- In order to avoid fire hazards and the risk of electric shock do not expose the unit to rain or moisture.
- Do not touch the mains plug with wet hands—risk of electric shock!
- In the event of malfunctions or smoke and odour coming from the housing remove the mains plug from the socket immediately!
- Before a thunderstorm breaks, pull the mains plug.
- Remove the mains plug from the socket if you do not intend to use the unit for a prolonged period.
- Lay the mains cable in such a way that no one can trip over it. Do not place any heavy objects on the mains cable.
- Fully insert the mains plug into the socket.
- Avoid using multi-socket extensions!
- Prevent the unit from coming into contact with water or moisture.
- Do not place any containers which contain a liquid on the unit, such as a flower vase. These could fall over and the spilled liquid could lead to severe damage or the risk of electric shock.
- If any foreign material or liquid enters the unit, remove the plug from the socket immediately. Get the unit checked by a specialist before starting to use it again.

Otherwise you are at risk of receiving an electric shock!

- Do not open the housing. Otherwise you are at risk of receiving an electric shock!
- Never attempt to repair a defective unit yourself. Always contact one of our customer service locations.
- Foreign material, e.g. needles, coins, etc., should not be allowed to enter the unit.
- No open flames, such as burning candles, are permitted to sit on the unit.
- Never let children use this unit unattended.
- Always leave maintenance tasks to a qualified technician. Otherwise you put yourself and others in danger.
- When the unit is on standby it remains connected to the mains power supply.



Do not listen to loud music. Doing so can cause lasting damage to your hearing.

- This unit is not intended for use by persons (including children) with limited physical, sensory or mental capabilities or who lack the necessary experience and/or knowledge, unless they are supervised by a person responsible for their safety or have been instructed by such a person on how to use the unit.
- Children are not allowed carry out cleaning and maintenance work.
- Children must be supervised in order to ensure that they do not play with the unit.
- Making modifications to the unit is prohibited.
- Do not continue to use the unit and/or accessories if they are damaged.
- Use only appropriate cleaning agents (antistatic) to clean the unit and the records. These are available in specialist shops. Do not use any harsh chemicals, aggressive or abrasive cleaning agents for cleaning.

## Setup

- The unit should not be sited in rooms with high levels of humidity, e.g. kitchens or saunas, as the formation of condensation on the unit may damage it.
- The unit is intended for use in a dry environment and a moderate climate and must not be exposed to dripping or splashing water.
- Do not operate the unit in the vicinity of bathtubs, swimming pools or spraying water.
- The record player must be set up only on a sturdy horizontal, vibration-free surface.
- Do not set up the unit in the vicinity of heat sources, such as radiators. Avoid direct sunlight and excessively dusty places.
- You should only operate the unit when it is positioned horizontally.
- Do not place any heavy objects on the unit or only use records on the turntable.
- Not to be used in the open air!
- Please note that the unit feet may, under certain circumstances, leave coloured marks on certain furniture surfaces. Place something between the item of furniture and the unit to protect the surface.
- Keep the unit away from devices that produce strong magnet fields.
- If you bring the record player from a cold into a warm environment, moisture may form on the inside of the unit. In this case, wait about an hour before you operate it.
- Do not connect any other type of device to the USB interface. The USB interface is only suitable for direct connection to a PC!
- Do not remove any covers.

## Description of the record player

### Included in delivery

- ➔ Remove the unit and all accessory parts from the packaging. Remove all protective film.

**Note:** The small parts are in the sides of the packaging! Keep the box and the packing material so that you can repack the unit securely for any later transport.

Please ensure that all of the accessory parts in the following list are present:

- The record player
- Turntable with drive belt
- Cartridge pick-up system with stylus
- Counterweight
- Turntable mat
- Dust cover
- Spindle adapter (for 7" EPs)
- USB and audio connection cables,
- This operating manual.

Please contact the manufacturer if any accessories are missing or defective. See page 24.

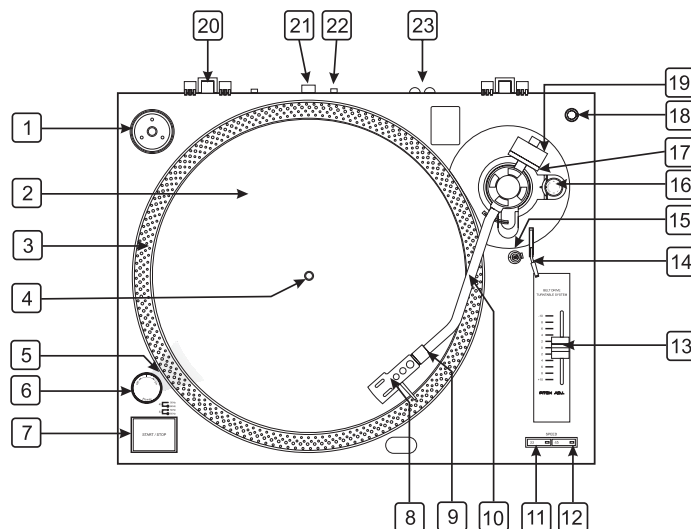
### Special features

- This unit allows you to: play records for 33 and 45 rpm.
- The record player has an integrated equaliser/preamplifier and can be connected to a phono input as well as an audio input (AUX-In).
- Using the USB port and the Audacity software, for example, you can transfer your records to your computer and digitalise them.





## Upper side of unit



1	Storage recess for spindle adapter (for 7" EPs)
2	Turntable with antistatic felt mat
3	Stroboscope display, 4-row
4	Turntable spindle
5	Stroboscope lamp
6	POWER ON/OFF: On/off switch

7	START/STOP: Start/stop button
8	Cartridge holder
9	Ring nut for headshell
10	Tone arm
11	SPEED 33: Speed button for LPs
12	SPEED 45: Speed button for singles
13	PITCH ADJ.: Slider for pitch adjustment (+10% to -10%)
14	Tone arm lift lever
15	Tone arm rest with clip (as transport lock)
16	Anti-skating adjuster
17	Scale for counterweight
18	Rest for spare stylus
19	Counterweight
20	Hinges for dust cover
21	USB port
22	PHONO/LINE selector
23	Outputs right/left for audio connection, cinch

## How to prepare the record player for operation

- ➔ Before assembly, make sure the accessories are complete.
- ➔ Assemble the dust cover at the very end, to make it more convenient for assembling and adjusting the system!
- ➔ Put the record player on a stable, vibration-free and horizontal surface.
- ➔ Place the record player as far away as possible from the loudspeakers and keep it isolated from the sound they produce, to minimise vibrations.

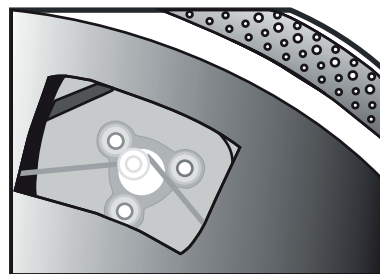
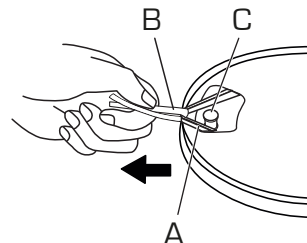
## Belt and turntable

### Turntable

- ➔ Carefully set the turntable onto the turntable spindle 4.

The drive belt **A** is delivered already seated on the belt contact surface of the turntable 2. The belt is equipped with a clip **B** with which the belt is laid onto the drive axle **C** of the motor pulley.

- ➔ Set the turntable onto the axle.
- ➔ Turn the turntable until the cut-out stands over the drive motor. Then the brass-coloured drive roller is visible.
- ➔ Use the clip **B** described above to pull the belt **A** off of the contact surface and lay it centrally over the drive roller **C** of the motor pulley.
- ➔ Remove the clip **B**.



## Turntable mat

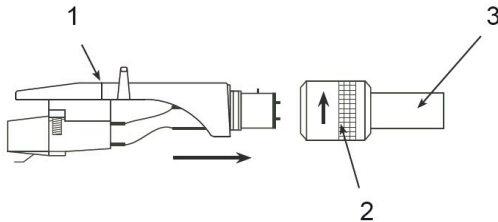
- ➔ Put the turntable mat (antistatic felt mat) on the turntable **2**.

## Spindle adapter

The spindle adapter is required, for example, for singles without their own plastic spindle adapter. When the spindle adapter is not in use, you can store it in the designated area **1**.

## Fitting the tone arm head

- ➔ Fit the tone arm head **1** on the tone arm tube **3** as shown.



- ➔ Secure the tone arm head to the tone arm by turning the locking ring **2** clockwise while holding the tone arm head horizontal.



## Tone arm

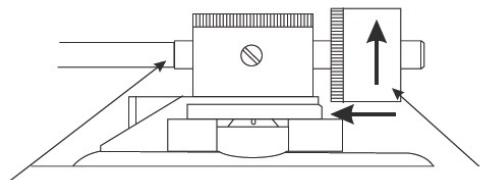
The tone arm is secured for transport on the rest using the clip **15**.

➔ Remove this clip **15** before operating the unit for the first time.

If the player will be transported later, secure the tone arm to the rest again using the clip **15** to prevent damage from vibrations.

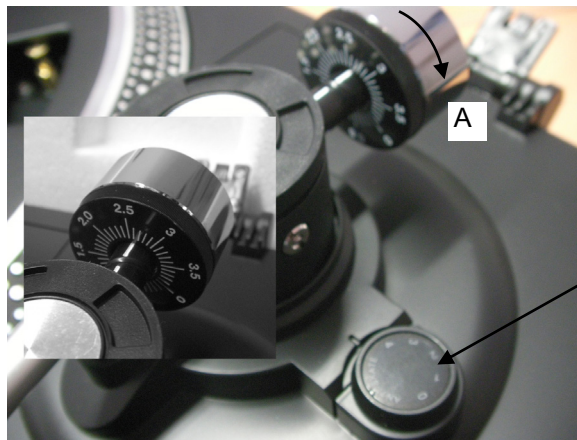
## Fitting the counterweight

The counterweight is screwed onto the tone arm as illustrated.



Tone arm

Counterweight



## Balancing the tone arm

- ➔ If the pick-up cartridge is fitted with a removable stylus cover, remove it. Take care not to touch the stylus tip with your fingers.
- ➔ Release the tone arm **10** by removing the clip **15** and lift it from the tone arm rest.
- ➔ Turn the entire counterweight **A** clockwise (arrow direction as illustrated above) or anti-clockwise until the tone arm floats freely.

**Note:**

- Turn clockwise to lift the tone arm.
- Turn anti-clockwise to lower the tone arm.

When adjusting the horizontal balance "0" setting take care that the pick-up stylus does not come into contact with the turntable mat or any other objects.

- ➔ Hold the counterweight firmly with one hand and turn the counterweight adjuster scale until the "0" mark is at the 12 o'clock position (vertical).
- ➔ Now turn the counterweight together with adjuster scale anti-clockwise (to the left) to set the correct tracking weight.

The tracking weight can be read off directly from the adjuster scale.



**Note:**

The recommended tracking weight for the cartridge pick-up system supplied is 3.0 - 3.5 grammes. If in doubt follow the recommendation of the pick-up cartridge manufacturer.

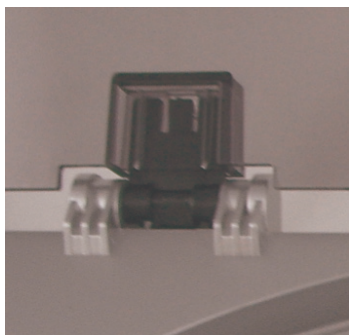
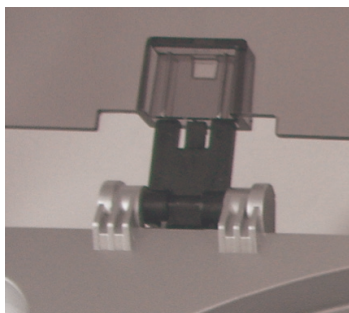
## Anti-skating adjuster

The skating force exerts a pull on the tone arm towards the centre of the disc that increases the force on the inner edge of the record groove. To compensate for the skating force and the negative effect it has on the sound pick-up from stereo records in particular, the record player has an anti-skating mechanism.

- ➔ Set the anti-skating adjuster **16** to the **same figure** as the tracking force. See Fig. on page 12.

## The dust cover

- Flip the hinges **20** on the housing towards the back.
- Uniformly push the right and left dust cover receptacles onto the hinges **20**.
- Make sure the locking mechanism clicks into place.



## Adjustable feet

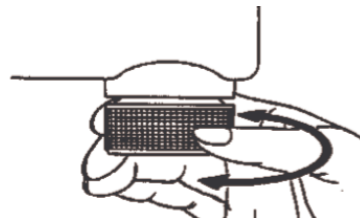
The adjustable feet are vibration damping; they are used for adjusting the record player height and levelness.

- To unscrew the feet, they must be turned **clockwise**.

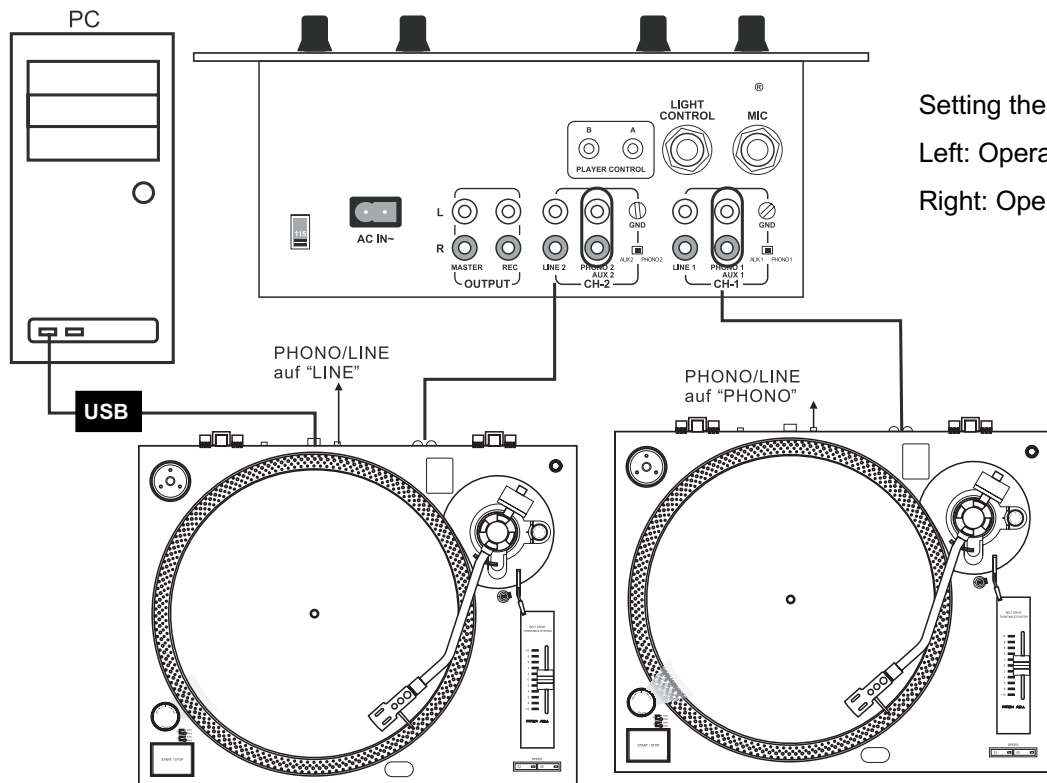
### Note:

Observe that the maximum adjustment range is 0.5 centimetres.

- Put the record player on an even surface and use the adjustable feet to even out any height difference.



## Connecting the record player



Setting the PHONO/LINE switch:

Left: Operating LINE 2 (CH-2)

Right: Operating PHONO 1 (CH-1)

## How to set the PHONO/LINE switch

- ➔ Move the PHONO/LINE switch **22** to PHONO if the record player is connected to the PHONO jacks.
- ➔ Move the PHONO/LINE switch **22** to LINE if the record player is connected to the LINE jacks (or AUX or AUDIO).

## Connection to the amplifier

- ➔ Connect the audio cable to the RCA OUTPUT jacks **23** and the LINE/AUX or Phono jacks on the amplifier.

### Note:

Make sure that you make the correct left and right channel connections (red = right channel, white = left channel).

## Connection to the computer

- ➔ Connect the USB terminal **21** with a free USB port on your computer. Follow the instructions on p. 19.

## Mains connection

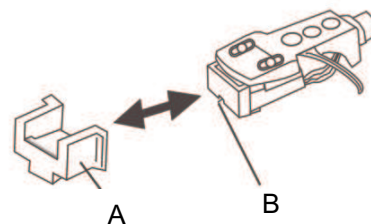
- ➔ Insert the mains plug into a socket.

### Note:

Before inserting the mains plug, ensure that the operating voltage agrees with the local mains voltage. Note the specifications on the type plate.

## Removing/attaching the stylus protection cap

- ➔ Before playing a record, you must remove the stylus protection cap **A** from the pickup. To do so, pull off the cap forwards.



- ➔ It is recommended that you put the stylus cap back on after playing a record to protect the stylus **B**.



## Playing a record

### Procedure

- ➔ Put a record on the turntable.
- ➔ Turn the On/Off switch **6** to the "ON" position.
- ➔ The LED display for the speed selector switches **11**, **12** (33 rpm) and the stroboscopic lamp **5** light up.

#### Note:

Using the SPEED selector switches, select the speed at which you want to play back the record. The set speed lights up.

- ➔ Remove the stylus protection if the pickup is equipped with a removable one.
- ➔ Remove the clip **15**.
- ➔ Press the start/stop button **7**. The turntable **2** starts to turn.
- ➔ Lift the lift lever **14**.
- ➔ Swing the tone arm **10** over the desired groove.

- ➔ Place the lift lever **14** downwards. The tone arm lowers onto the record slowly and playback begins.
- ➔ Place the lift lever **14** upwards and place the tone arm back onto the tone arm rest after playback is finished. Secure it with the clip.
- ➔ Press the start/stop button **7**.
- ➔ Put the On/Off switch **6** in the "OFF" position after the electronic brake has stopped the turntable.

#### Note:

The unit has no limit switch. Press Start/Stop **7** to stop the turntable spinning.

### Interrupting playback

- ➔ Place the lift lever **14** upwards.

This lifts the tone pick-up stylus off of the record.

## Playing back a 45 rpm record with large centre hole

- ➔ Fit the 45 rpm adapter 1 on the turntable spindle 4.
- ➔ Press the SPEED 45 selector switch 12.

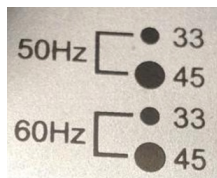
## Speed fine adjustment PITCH ADJ.

The speed can be controlled using the slider 13 over a range from -10% to + 10%.

- ➔ Push the slider 13 upwards to reduce the speed or downwards to increase the speed.

The numbers on the scale indicate approximate percentage figures for the speed control.

There are 4 different dot matrices on the turntable. The top two rows are for 50 Hz (the usual mains frequency in Germany), the bottom two rows are for 60 Hz.



- ➔ If the speed is increased with the pitch controller, the lines run to the left.
- ➔ The lines run to the right when the speed is reduced.
- ➔ The correct speed is set when the display is stationary.

# USB port

## System requirements

Before making the connection, please ensure that the computer system fulfils the following requirements:

- Windows PC or MAC
- USB port (at least 2.0 recommended)
- Windows or macOS operating system
- Memory: > 512 MB
- CD or DVD burner for creating audio CDs
- Free hard drive space for the software installation
- Additional free hard drive space for digitalising your music

### Note:

- The Audacity® software is a free open-source application distributed under the GNU General Public Licence (GPL). Please check their website to see if an update is available. Newer versions or updates are available from <http://audacity.sourceforge.net> as needed.
- You can also use any other PC audio recording software.

### Note:

Read the instructions for the Sequencer software before installation and commissioning.

## Audacity QR code

### Note:

Download of the last tested version and useful tips for set-up can be found online at:



<http://www.dual.de/audacity/>

## Cleaning the record player



### Electric shock!

To avoid the danger of an electric shock, you must not clean the unit with a wet cloth or under running water.

### CAUTION!

Do not use any scrubbing sponges, cleaning powder or solvents such as alcohol and petrol. To clean the unit and the records, only use cleaning agents that are specifically designed for the purpose (antistatic). These are available in specialist shops.

- ➔ Clean the housing with a soft cloth moistened with water.

## Cleaning the stylus and the record

Always clean the stylus and record before playback to prevent premature wear.

- ➔ Use a cleaning brush to wipe from back to front over the stylus.
- ➔ To clean a record, use a record cloth to wipe lightly and diagonally over the record.

## Replacing the stylus

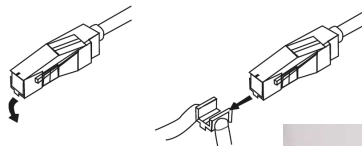
The stylus is naturally exposed to wear by the playback process. Therefore we recommend regular inspection, which for diamond styluses should take place after approx. 500-1000 playing hours.

### Note:

Worn or damaged (splintered) styluses ruin records.

When you need to replace a stylus, use the original type if possible (AT3600).

- ➔ Remove the stylus by pulling diagonally downwards.
- ➔ Insert the stylus by doing the reverse of this.



## Installing another pickup system

- ➔ Before installation, read the manual from the manufacturer of the pickup system.
- ➔ For the installation, fit the stylus protection to protect the stylus tip from damage.
- ➔ Connect the connection wires to the connecting pins of the pickup system.
- ➔ The connections of most systems are colour-coded. Connect each connection wire to the connecting pin of the same colour.

White (L+): left channel, positive pole  
Blue (L-): left channel, negative pole  
Red (R+): right channel, positive pole  
Green (R-): right channel, negative pole

- ➔ Fasten the pickup system to the tone arm head using the screws provided.

## Storage

Store the unit in a dry location, protected from dust and direct sunlight and extreme temperatures, and out of the reach of children.

# Troubleshooting

If the unit does not function as intended, perform checks using the following tables.


If the malfunction cannot be fixed even after these checks, please contact the manufacturer.

## Problems with the unit

Symptom	Possible cause/remedy
The tone arm skips grooves, slides over the record or does not move	<p>The record player is not sitting horizontally. Put the record player on a horizontal base support.</p> <p>The record is dirty or scratched. Clean the record with a record cleaner or play a different record.</p> <p>The stylus pressure of the tone arm may be too low. Adjust the stylus pressure.</p> <p>The stylus may be defective. If necessary, change the stylus.</p> <p>Check the anti-skating and readjust it if necessary.</p>

Symptom	Possible cause/remedy
Poor tone quality, loud static noise, sound dropouts, etc.	<p>The stylus is dirty or worn. Clean the stylus with a brush or replace it.</p> <p>The record is dirty or dusty. Clean the record with a record cleaner.</p>
The music sounds too fast or too slow.	<p>Adjust the speed according to the specification on the record. (33 rpm or 45 rpm)</p> <p>If necessary, adjust the speed using the PITCH ADJ. slider.</p>
The sound is too quiet or loud and distorted.	The record player is not connected to the correct input. (see page 15)
The sound drones.	The drive belt is too loose and must be changed.

## Technical specifications

Dimensions (width x height x depth):	450 mm x 145 mm x 350 mm (with cover)
Weight:	4.4 kg
Motor:	DC motor
Input voltage:	230 V AC, 50 Hz
Protection class:	2 
Power consumption:	8 W
Storage and operating conditions:	+5 °C to +35 °C 45 % to 85 % relative humidity (non-condensing)
Flutter:	< 0.25 % WRMS (JIS WTD at 3 kHz)
Stylus tip:	Magnetic stylus AT 3600

Speeds:	33 <sup>1/3</sup> , 45 rpm
Frequency range:	20 Hz – 20 kHz; +1/-3 dB at 1 kHz
Phono output level	1.5 ~ 3.6 mV at 1 kHz, 5 cm/s
Signal-noise ratio (SNR)	> 50 dB
Other connections	USB 1.1 or higher version

We reserve the right to make technical modifications and correct errors.

The dimensions are approximate values.

Directives and standards:  
This product conforms to the  
EMC Directive 2014/30/EU,  
Low-Voltage Directive 2014/35/EU,  
RoHS Directive 2011/65/EU and the  
CE Marking Directive.

## How to contact the manufacturer

Dual GmbH  
Graf-Zeppelin-Str. 7  
D-86899 Landsberg  
[www.dual.de](http://www.dual.de)

## Disposal instructions

### Disposing of the packaging

Your new unit was protected on its way to you by the packaging. All materials used are environmentally safe and can be recycled.

Please help and dispose of the packaging in an environmentally responsible manner.

To learn about current disposal methods, contact your dealer or your local disposal facility.

## How to dispose of the unit

Old units are not worthless waste. Through environmentally friendly disposal, valuable raw materials can be regained. Enquire at your city or municipal administration about possibilities for disposing of the unit properly and in an environmentally sound manner.



This unit is labelled according to 2012/19/EU, the Waste Electrical and Electronic Equipment Directive (WEEE). This product must not be disposed of with normal household waste. Instead it must be deposited at a recycling station for electrical and electronic devices. The symbol on the product, the instructions for use or the packaging indicate this. The materials can be recycled in accordance with their marking. By reusing, recycling or processing old units in another way, you make an important contribution to protecting our environment.



### Risk of fatal injury!

Pull out the mains plug of worn-out units. Cut through the mains cable and remove it with the plug.