

Manual for the **THORENS** model **TD 184**
turntable



INTRODUCTION



The Thorens unit which you have purchased was completely designed and manufactured in Switzerland by world-famous technicians. Before leaving the factory, this unit was tested with modern electronic equipment and found to be within the critical standards set by the management.

A few simple rules for installation, operation and maintenance are enclosed in this manual. If you read them carefully, before unpacking the unit, you will be able to immediately benefit by the outstanding performance of this instrument.

SUMMARY

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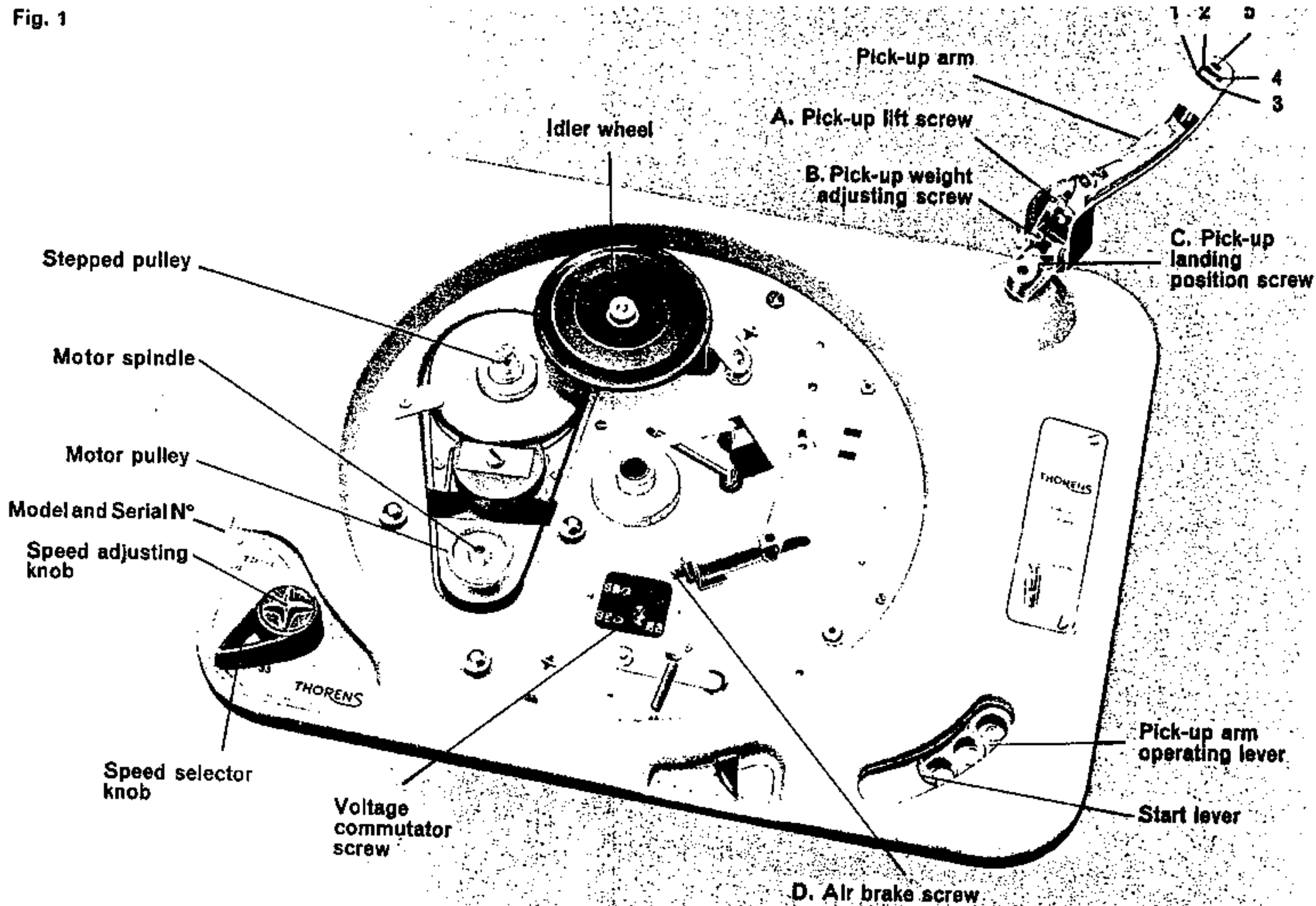
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Fig. 1



UNPACKING OF THE TURNTABLE

1. You have already placed the carton top-side up and opened.
2. Take care that this manual with the warranty card and template CB 1240 are not misplaced.
3. Remove sleeve A, pick-up arm holding sleeve B, paper C and external sleeve F (see fig. 2).

Leave the cardboard protection D on the turntable and the cylindrical wedge E between turntable and base plate until the unit is completely installed. The turntable with its spindle, being a most precisely machined part, should be protected against any shock, strain or pressure.

4. Take the complete unit out of the box, holding it by the two shorter sides of the base plate, and place it on the four mounting studs on a table. (Protect table with cloth or paper.)
Caution : any pressure or strain on the pick-up arm should be avoided when handling the unit.

5. The paper bag with accessories is at the bottom of the box.

Important notice : Save the complete packing with all wedges for possible reshipment. (Please, see our warranty conditions on the enclosed card.)

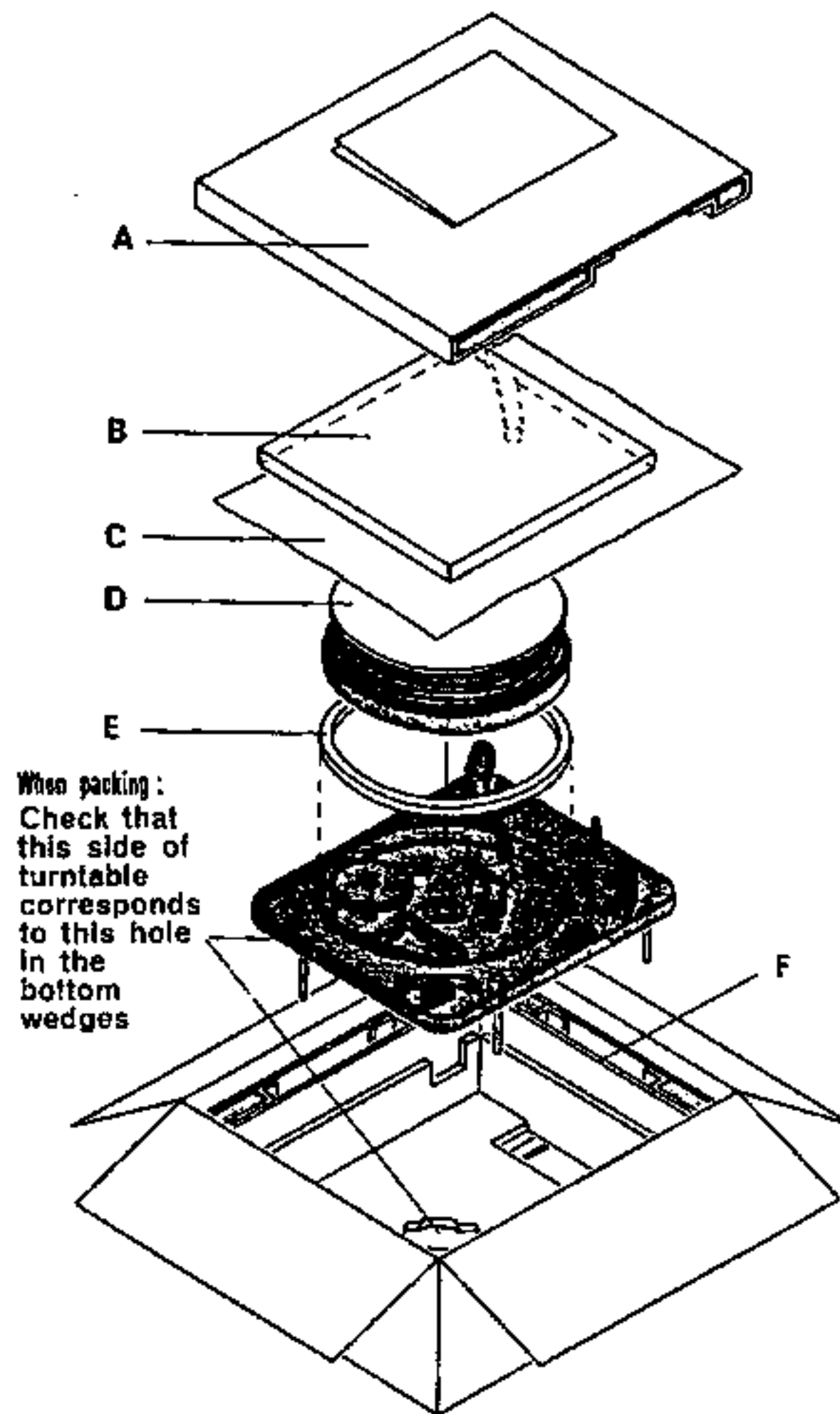


Fig. 2

Installation

Mounting the turntable on a base or panel

If an accessory base was not ordered, the turntable should be mounted on a substantial wooden panel ($\frac{1}{2}$ inch minimum thickness for best results) which should be cut out and drilled according to template No. CB 1240 furnished with each unit. **The mounting board should be fairly level and attached to a perfectly stable cabinet if best results are to be obtained.**

Shock mounting

To prevent acoustic feedback and to dampen extraneous vibrations, it is strongly recommended to mount the turntable on the four rubber grommets furnished, according to the cut view on template No. CB 1240. Check that the transit fastening devices (E on template) are completely disengaged from the wooden panel.

Levelling of the unit can be made by revolving the knurled washers on the four mounting studs. Check that the base plate is resting on all four rubber grommets and not mainly on three of them.

Final preparation before play and connecting the motor to power supply

1. Put the Speed Selector knob on an intermediate position between 33 $\frac{1}{3}$ and 45 rpm.
2. Remove carefully the turntable, lifting it by grasping the rubber mat at two opposite sides. Take great care that the spindle and bearing do not collect any dust, lint or grit, which would be harmful to the most precise adjustment of these parts.
3. Withdraw the cylindrical cardboard wedge E from the unit plate.
4. Check the position of the contact screw on the **voltage commutator**.
For USA, Cuba and Canada, the contact screw has been set at the factory in the position for best results on 110 volts 60 cycles (100-120 volts position).

5. Adjustment to the frequency of power supply.

For USA, Cuba and Canada, the motor pulley for 60 cycle operation has been installed at the factory.

On 50-60 cycles models, the double motor pulley should be reversed for **50 cycle operation** and the larger diameter pulley fixed at the height of the rubber belt.

When reassembling the motor pulley in the right position on the shaft, first tighten the black screw and then the nickel plated one.

6. Check that the Speed Selector knob is still on an intermediate position between 33 1/3 and 45 rpm.

7. Replace carefully the turntable into its bearing, maintaining the spindle exactly vertical.

8. Connect the turntable line cord to the AC power supply.

Initial checks and adjustments

The universal plug-in shell of the tone arm allows to the owner of a TD 184 turntable to make use of various types of pick-up cartridges. As the needle tip location and height, as well as the weight of the cartridge, are generally different for these various types of pick-ups, some minor adjustments may be suitable for maximum performance.

1. Mounting of the pick-up cartridge

Each turntable is supplied with the necessary mounting hardware for the most popular cartridges. Please, follow the mounting instructions furnished by the maker of these cartridges, but note that the supplied screws must be used and not those furnished with the cartridge. (Metric threads are used throughout Thorens units.)

Two positions for the cartridge mounting studs have been foreseen: 17/32" (13 mm) and 25/32" (19 mm) from the front of the plug-in shell.

For best tracking, the needle tip should be situated between 3/8" (9.5 mm) and 1/2" (12.5 mm) from this front end.

To level the cartridge in the plug-in shell, make use of the washers furnished with each cartridge.

2. Pick-up lift

a) Plug the shell with the installed cartridge in the arm.

b) Put the Speed Selector knob on an intermediate position between 33 1/3 and 45 rpm.

c) Bring the pick-up arm in the Manual playing position by pushing the Starting lever to the left. The needle tip should come approximately at the height of the upper metallic side of the turntable, the rubber mat being lifted for this control.

If adjustment is necessary, lift the pick-up arm to the vertical and turn slightly the adjusting screw A.

Turn clockwise to lower pick-up arm.

3. Pick-up weight on the record

The tracking weight may be easily adjusted by means of the special screw B when the pick-up arm is lifted to the vertical (see fig. 1). **Turn clockwise to decrease the weight.**

4. Pick-up landing position

The landing position of the needle tip should be approximately 1/8" (3.2 mm) from the edge of a record. If a minor adjustment becomes necessary, proceed as follows:

a) Place a record on the turntable.

b) Bring the pick-up automatically in the corresponding initial position by dialing according to the operating instructions of page 9. **Keep dial in the extreme left position.**

c) Lift pick-up arm to the vertical.

d) Turn slightly screw C in the suitable direction:

— clockwise to move pick-up out;

— counter-clockwise to move pick-up in.

Caution. When proceeding to the aforesaid adjustments, the pick-up arm should never on any account be forced into position. The arm can be safely moved out against the spring action until the external abutment is attained.

5. Pick-up landing speed

The pick-up arm should not drop abruptly on the record when the Start lever is allowed to return to its rest position. The action of the air brake which allows a slow and sensitive landing may be adjusted by means of screw D. Turn degree by degree !

6. Pick-up connection

For connecting a particular pick-up cartridge to particular amplifiers, the instructions of the makers of these components should be followed.

The TD 184 turntable is wired at the factory according to figure 3.

If, for a particular cartridge or amplifier, the ground for the record mechanism cannot be returned to the amplifier ground through the signal carrying shieldings, the ground connection on the terminal strip should be cut at points A and B and a separate wire connected from lug 5 to the common grounding point for the amplifiers. However, first a trial should be made with the original wiring before cutting ground wires A and B.

Check also that the stray flux of the amplifiers and associated equipment does not cause hum on the pick-up cartridge. Otherwise modify their relative positions.

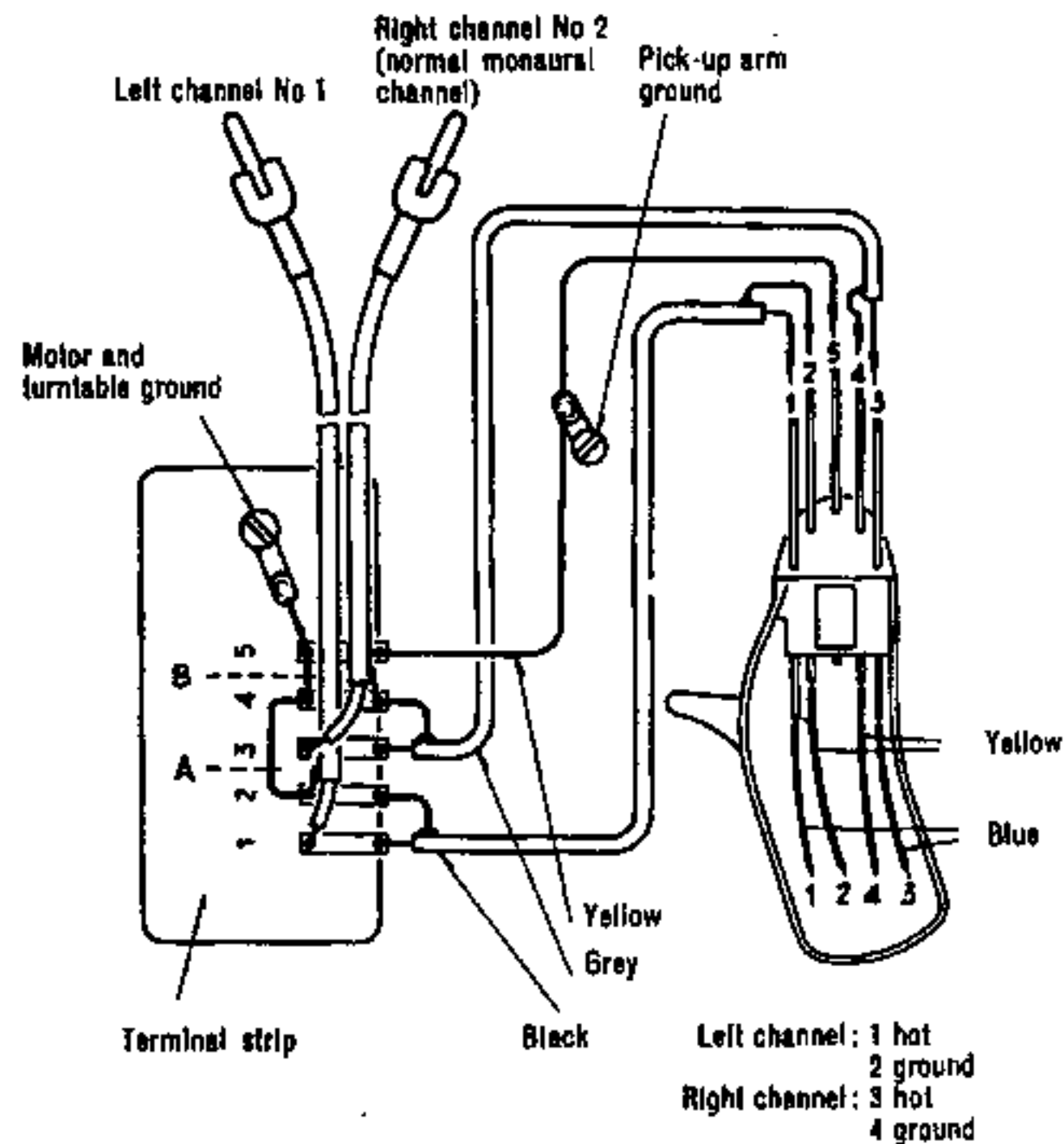


Fig. 3

Operation

- ① Move the Speed Selector knob to the desired speed.
- ② Place the record on the turntable. For large hole records, the built-in adaptor is brought into playing position by pushing down and revolving it.
- ③ Check that the pick-up arm is disengaged from the rest post and verify that the proper needle tip is used for the type of record to be played.

For automatic pick-up positioning:

- ④ Put the Manual-Stop knob on the " S " of Stop.
- ⑤ Choose the hole corresponding to the diameter of the record to be played on Pick-up Arm Operating lever (see fig. 1): the 7", 10" and 12" indications may be seen through the corresponding holes.
- ⑥ Proceed exactly as for a telephone call: place the forefinger into the chosen hole, dial slowly and regularly toward the left, drawing along the Start lever to its abutment; *the pick-up arm is brought to the proper diameter over the record and the turntable starts.*
- ⑦ Remove the finger from the dial: *the Pick-up Arm Operating lever and the Start lever will return to their rest position and the pick-up is slowly lowered on the record.*

At the end of the record, the auto-stop mechanism will lift the pick-up from the record, stop the motor and disengage the idler wheel from the stepped pulley and from the turntable skirt.

To discontinue the audition before the end of a record, push the Manual-Stop knob to the right; this will actuate the auto-stop mechanism.

For changing the record, move by hand the raised pick-up arm to the right, to a rest position outside of the record.

Important. Do not try to dial twice, this could damage the record. As soon as the pick-up is lowered on the record, the Pick-up Arm Operating lever is blocked up to the next auto-stop or manual stop operation.

If an erroneous pick-up landing position has been dialed:

- a) Push the Manual-Stop knob to the right: *the auto-stop mechanism will lift the pick-up arm and stop the motor.*
- b) Dial again.

For manual pick-up positioning:

- ④ Put the Manual-Stop knob on the "Manual" position.
 - ⑤ Move the Start lever alone to the left, **without dialing**, and maintain it in the extreme position: *the turntable starts.*
 - ⑥ Move the pick-up with the hand to the proper diameter over the record. When lifted, the pick-up arm is slightly braked.
 - ⑦ Remove the finger from the Start lever: *the pick-up is slowly lowered on the record.*
- The auto-stop mechanism will not operate.** At the end of the record, to stop the motor and lift the pick-up, move the Manual-Stop knob to the right.
- To move the pick-up from one diameter to another diameter during the play of a record, first move the Start lever to the left to lift the pick-up.**

Speed Adjustment. The Speed Adjusting knob allows a most precise adjustment of each of the four nominal speeds over a margin of plus/minus 3%. For best results, check the speed during play with a stroboscope disc on the record.

For critical transcription work it is advisable to wait until the motor has reached its normal working temperature.

Important remark: The auto- or Manual-Stop should always be used at the end of an audition and not an external electric switch, otherwise the rubber tire of the idler wheel would not be disengaged and could progressively lose its perfectly circular shape. When the turntable is held stationary for a long time, it is advisable to move the Speed Selector knob to an intermediate position between 33 1/3 and 45 rpm. positions.

Maintenance

Important notice

For perfect functioning of the drive system of this turntable, the following parts should be entirely free from any trace of oil or grease on their working surfaces : the motor pulley, the stepped pulley, the idler wheel, the rubber belt and the inner skirt of the turntable. Therefore any excess of lubricant may interfere with proper operation.

If the presence of oil or grease on the mentioned parts is suspected, they should be thoroughly cleaned with a clean rag moistened with denatured alcohol, Carbona or Carbon tetrachloride.

1. Turntable spindle

The turntable spindle revolves on special bearing sleeves and on a nylon thrust plate. The reserve of lubricant should be sufficient for the whole life of the unit. If additional lubrication becomes necessary, ask the factory or Thorens' general agency for the proper lubricant type.

2. Stepped pulley

A large oil reserve is provided inside of the brass bushing of the stepped pulley. When a new lubrication is needed, remove the plastic cap from the top of the pulley, lift slightly the stepped pulley and place three or four drops of recommended oil inside of the bushing.

3. Idler wheel

The bearing of this wheel is of the oil retaining type and rarely needs lubricating. When necessary, place two or three drops of recommended oil on top of the bushing, between the stop ring and the wheel.

4. Rubber belt

The specially-developed synthetic rubber belt running on very large diameter pulleys will not, under normal use, be subject to wear or deformation. If a replacement is necessary, first remove the stop plate of the stepped pulley to give free access to the belt.

5. Motor

The motor bearings are of the oil retaining type with large oil reserve in felt pads. Under normal conditions, the initial lubrication made at the factory should be sufficient for about 5,000 hours run. When the need for a new lubrication becomes apparent, proceed as follows:

Upper bearing

Place a few drops of recommended oil on top of the bearing, where the shaft comes out of the top motor shield.

Lower bearing

Oil should be put on the lower part of the shaft, underneath the rotor. This lower part can be reached with a pressure oil can through the lubrication hole, on the side of the bottom motor shield.

Notice. For turntables of the first series without this lubrication hole, the shaft can be reached through the holes on the bottom of the shield.

6. Pick-up arm positioning mechanism

The various cams and cam followers of this mechanism have been coated at the factory with a suitable grease. Under normal conditions, this lubrication should be sufficient for the whole life of the unit. **To lubricate other parts than those specified in this manual may interfere with proper operation.**

Recommended oil

A non-oxidizing, non-thickening, non-sticking high-grade light mineral oil should be employed (SAE 20). **Most recommended is the Caltex or Texaco Regal Oil B** (as used for hydraulic power transmissions).

A lubrication kit with the recommended lubricants is available as accessory upon request.

Certificate

OF ONE YEAR WARRANTY

Messrs. THORENS S. A., Ste-Croix, Switzerland
and
Messrs. THORENS COMPANY, Thorens Av.
Garden City Park, N. Y.

warrant that this new unit is as advertised
and completely free from defects in material
and workmanship.

Under the conditions listed on this card, no
charge for repair or replacement will be made
on any part which discloses defect within one
year from the date of the original purchase.

ONE YEAR WARRANTY REGISTRATION

MODEL N° Serial N°
Date of purchase:, 19.....
Name of dealer:
Address of dealer: City State
YOUR NAME
and
ADDRESS City State

To insure warranty, the above information must be completed and this card returned within 10 days
of purchase.

Our warranty is granted under the following conditions:

1. **Before returning the unit**, write to the General Representative, the address of which will be given by your dealer, for permission to receive replacement parts or to return the complete unit to the nearest authorized service station. State Model number and Serial number of unit. Describe completely the defective operation and list the associated equipment.
2. After permission to return the unit is received, **pack it in the original carton according to the instructions of the Manual**. Shipment **MUST** be made shipping charges prepaid.
3. Any damage caused by failure to observe the instructions for packing, installation, operation and maintenance as contained in the Manual furnished with each unit, by accident in transit or elsewhere, will not be covered by this warranty.
4. This warranty is not extended to units which have been repaired or altered by anyone other than an authorized service station.
5. The unit will be returned shipping charges collect.
This warranty is in lieu of all others, expressed or implied.

P O S T C A R D

Place
stamp
here

THORENS COMPANY

New Hyde Park, N. Y.

Warranty registration