



YAMAHA

YP-D4

DIRECT DRIVE TURNTABLE WITH AUTO RETURN S-SHAPED TONEARM

OWNER'S MANUAL



A ebony finish is shown in the cover photo. The finish may differ with the destination, but the performance and specifications do not.

Thank you for purchasing the Yamaha YP-D4 turntable. The YP-D4 features a direct-drive system, an automatic precision mechanism, a high-sensitivity tonearm, and a sturdy, resonance-free cabinet, for excellent tonal and tracking characteristics. To ensure that your YP-D4 will give you many years of enjoyment, please read the following instructions carefully.

Features

1. Motor

This turntable has a direct drive system, employing a 8-pole coreless DC servo motor. This ideal system, in which the platter is driven directly by the motor, provides many advantages, including low wow and flutter, less drift, high signal-to-noise ratio, precise speed control and high torque.

2. Auto Return, Auto Cut Record Playing Mechanism

This auto return system in which the tone arm returns and the turntable stops when a record has finished playing. An auto cut mechanism on the

YP-D4 enables you to switch off the record playing at any point.

3. Cueing Mechanism

A handy hydraulic cueing device assures smooth lifting and lowering of the tonearm, protecting the record and the stylus from damage.

4. Other Features

A high sensitivity, S-shaped static balanced pipe arm is used, and together with the arm base it keeps vibrations to a minimum.

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Warning: to prevent fire or shock hazard, do not expose this set to rain or moisture.

IMPORTANT!

Please record the serial number of your unit in the space below

Model Name YP-D4

Serial No. _____

The serial number is located on the rear of the cabinet.

Retain this Owner's Manual in a safe place for future reference.

YP-D4

CAUTION; READ THIS BEFORE OPERATING YOUR YP-D4

1

The YP-D4 is a sensitive piece of precision audio equipment. This manual is required reading if you are to get the best from it.

2

Be very careful not to drop or jar the YP-D4, particularly after it has been fully assembled and all adjustments made. If it is accidentally bumped, check carefully that nothing has gone out of adjustment, or re-adjust accordingly.

3

When the YP-D4 is installed beside your audio amplifier, avoid putting the tonearm assembly on the same side as the mains transformer of the amplifier.

4

Locate the YP-D4 in a flat and level place, out of the direct rays of the sun, avoiding locations subject to vibration and excessive dust, heat, cold or moisture. Also avoid placing it directly in front of, or too close to – your speakers.

5

If the YP-D4 ever has to be relocated, carry it with extreme care. Better still, retain the original packing, and carefully repack it for transit.

6

Do not use chemical solvents (such as benzene or alcohol) to remove traces of dirt. Wipe only with a soft, slightly damp cloth.

7

Do not assume that your YP-D4 is faulty before reading the section on 'Trouble Shooting,' which details common operating errors.

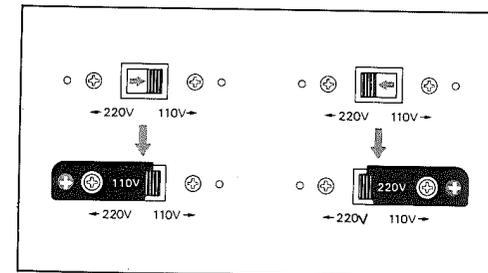
8

Keep this manual in a safe place for future reference, and refer to it frequently until you are fully familiar with your YP-D4.

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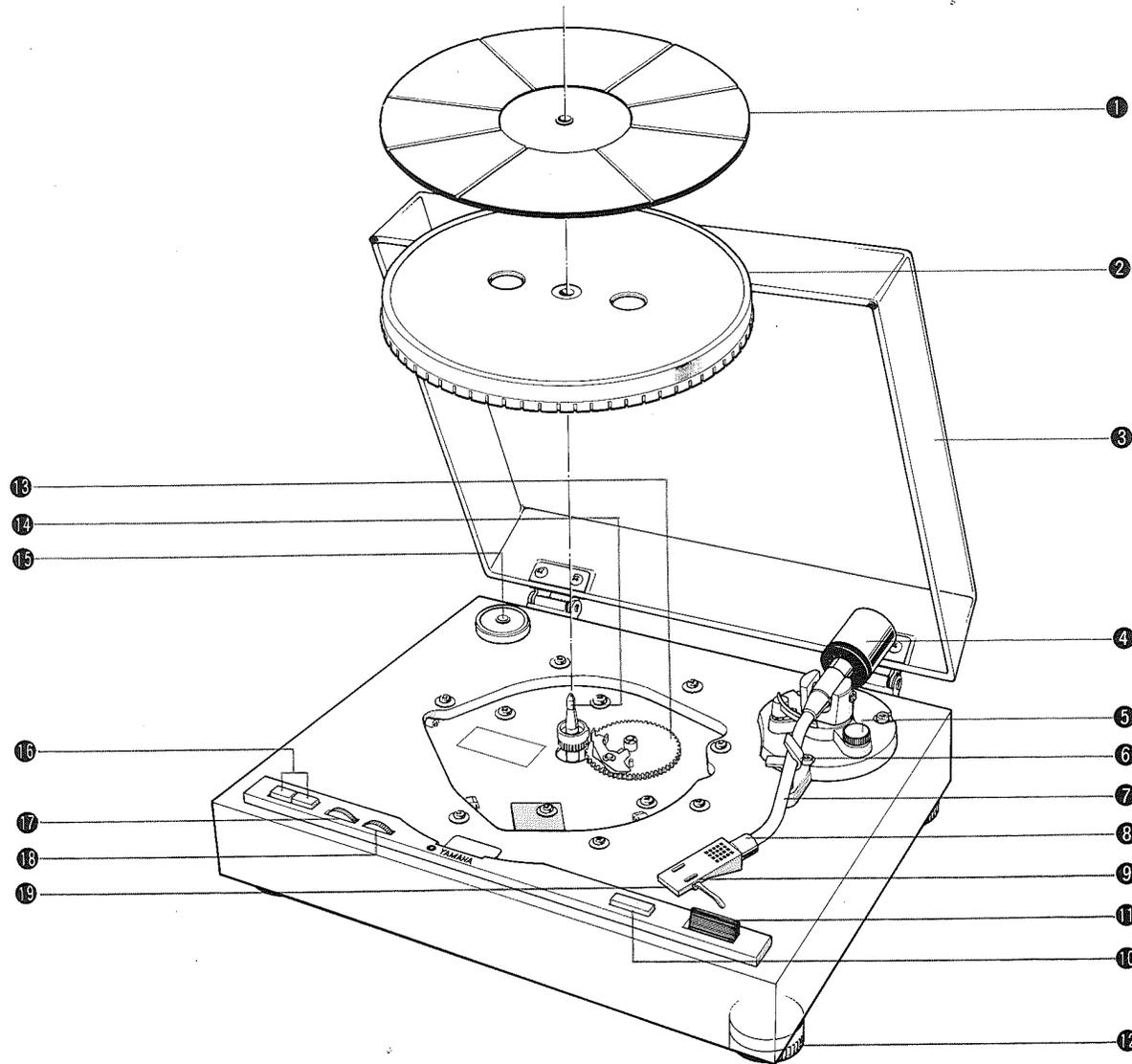
Whichever high performance cartridge you buy for use with the YP-D4, be sure to keep the stylus tip free from accumulated dirt: this is the major single source of poor quality from records.

Voltage selector switch on the motor board of the YP-D4 must be set for your local mains voltage *BEFORE* plugging in the AC mains supply. Voltages are 110 ~ 130/220 – 240V AC, 50/60 Hz.
(European & General Models only)



YP-D4

THE NAMES AND FUNCTIONS OF THE PARTS



- ① Rubber Mat
- ② Turntable Platter
- ③ Detachable Dust Cover
- ④ Counterweight
- ⑤ Inside Force Canceler
- ⑥ Arm Rest
- ⑦ Tonearm
- ⑧ Headshell Locking Sleeve
- ⑨ Headshell
- ⑩ CUT Push Switch
- ⑪ Cueing Lever
- ⑫ Accoustic Damper Feet
- ⑬ Auto Return Mechanism
- ⑭ Center Shaft
- ⑮ EP Adaptor Holder
- ⑯ Speed Selector Switches
- ⑰ Speed Adjusting Knob(for 45rpm)
- ⑱ Speed Adjusting Knob(for 33 1/3rpm)
- ⑲ Cartridge (CG6600)
(Australian and General Models only)

① Rubber Mat

Specially designed to give the ideal support for records, damping their resonance and so improving overall bass response.

② Turntable Platter

Die-cast aluminum, this has been specially dynamically balanced for optimum flywheel smoothing effect, giving steady, even rotation.

③ Detachable Dust Cover

The beautiful transparent acrylic dust cover is fully detachable by free-setting hinges for maximum accessibility.

④ Counterweight

The whole counterweight assembly rotates to give easy selection and clear indication of accurate stylus tracking force settings. The assembly consists of long weight with indicating dial.

⑤ Inside Force Canceler

This simple dial-setting inside force canceler ensures middle-of-the-groove tracking, even at low tracking forces, for the best possible stereo reproduction and the longest life for record and cartridge stylus.

⑥ Arm Rest

This provides a positive rest for the tonearm.

⑦ Tonearm

The advanced S-shaped static balanced arm used in the YP-D4 features special bearings and unusually high sensitivity, for top performance with all types of cartridge.

⑧ Headshell Locking Sleeve

Gently turning this 'sleeve' locks the headshell positively in precisely the right position.

⑨ Headshell

The light, strong, and virtually resonance-free design of this special aluminium headshell lets all kinds of cartridges give their best.

⑩ Cut Push Switch

This push button interrupts record play.

⑪ Cueing Lever

With this lever you can gently lift the cartridge from the record – and lower it back down just as gently – without any fear of jarring the delicate stylus or damaging precious records.

⑫ Acoustic Damper Feet

These large feet insulate the YP-D4 from vibrations, and help to eliminate 'howling' (acoustic feedback from speakers).

⑬ Auto Return Mechanism

Simple and reliable, this mechanism safely and gently returns the tonearm to its rest at the end of the record, or when the record has been cut by CUT push switch.

⑭ Center Shaft

This is the central bearing on which the turntable itself is supported and turns.

⑮ EP Adaptor Holder

Keep your extended-play record center here when it is not in use.

⑯ Speed Selector Switches

Just press the appropriate button for immediate selection of the desired speed.

⑰ Speed Adjusting Knob(for 45rpm)

This gives approximately $\pm 4\%$ adjustment in the speed of turntable rotation at 45 rpm. It doesn't affect the setting at 33-1/3 rpm.

⑱ Speed Adjusting Knob(for 33 1/3rpm)

This is the corresponding control for the 33-1/3 rpm speed, and is also quite independent.

⑲ Cartridge (CG6600)

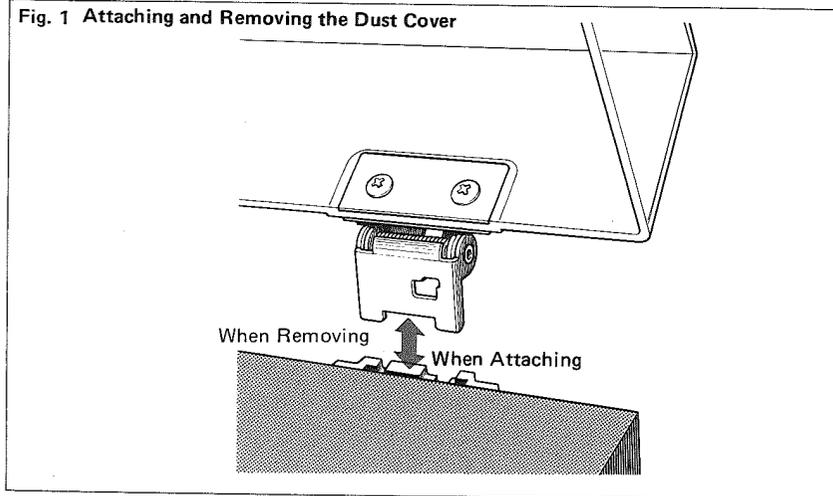
In General & Australian Models, as there is a cartridge (CG6600) packed together with the headshell, you have only to set the headshell with the cartridge in the tonearm according to P. 9, Fig. 7.

YP-D4

ASSEMBLING THE TURNTABLE UNIT

DUST COVER

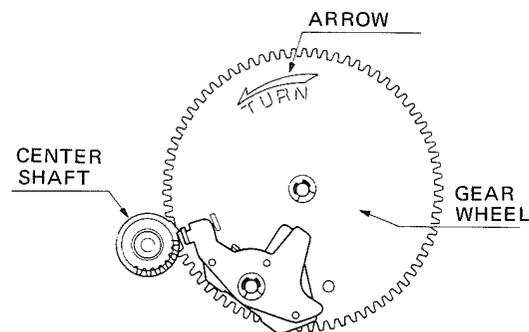
The dust cover may be freely attached and detached, so that you may use the YP-D4 without it if you wish. If you wish to attach it, follow the directions in Fig.1, ensuring that the stud fits securely into the groove as shown. Reverse to detach.



BEFORE MOUNTING THE TURNTABLE

Before placing the turntable itself on its center shaft, turn the auto-return mechanism so that the arrow is in the position shown in Fig. 2.

Fig. 2 Auto Mechanism Position



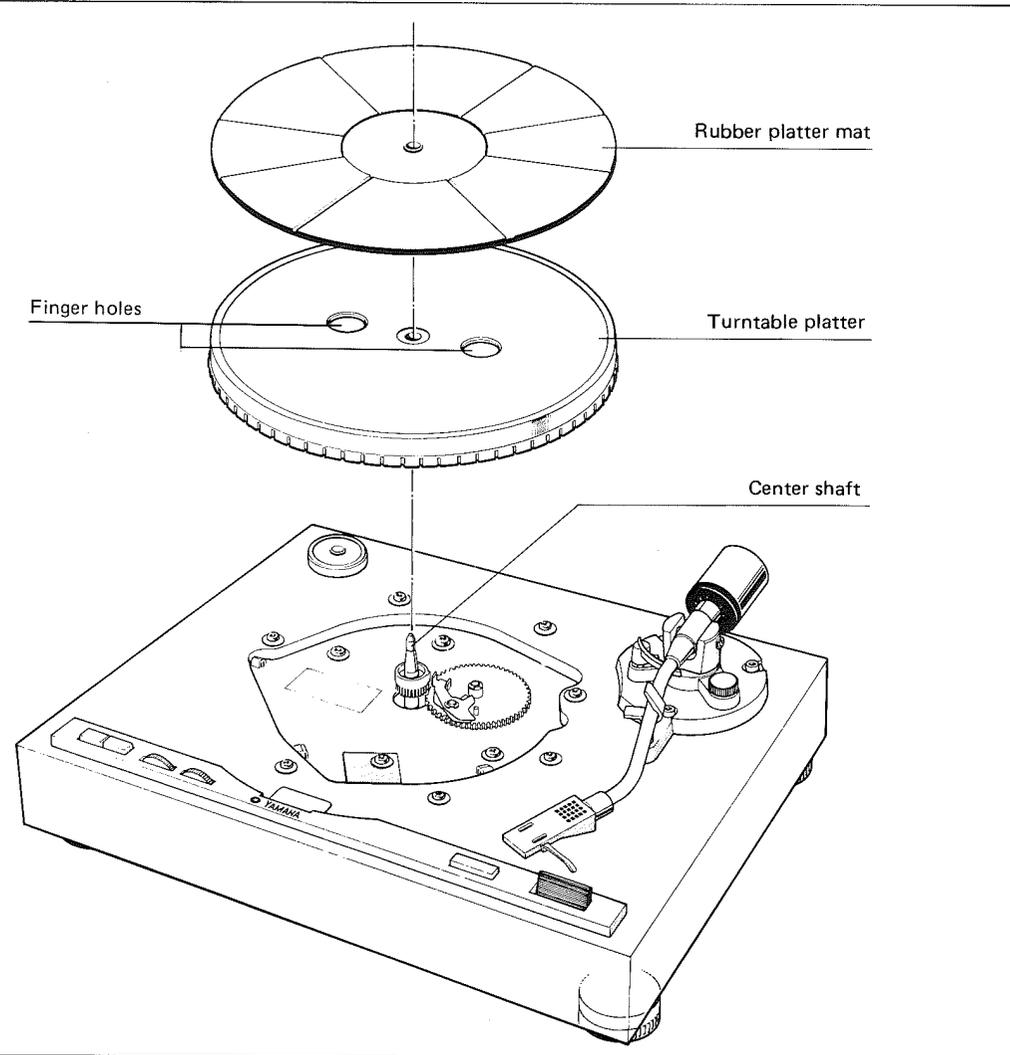
When setting up the turntable, make sure that the center shaft revolves. If it is not turning, work the gear wheel in the arrow direction.

FITTING THE TURNTABLE PLATTER

Take the turntable platter out from the protective wrapping and grip the turntable by two finger holes nearer the center, and place the central hole directly over the center shaft.
Put the rubber mat on the Platter.

Don't rotate the turntable platter anti-clockwise.

Fig. 3



YP-D4

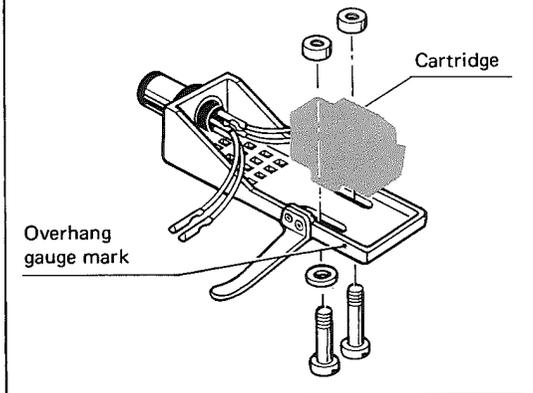
FITTING A CARTRIDGE AND OVERHANG ADJUSTMENT

FITTING A CARTRIDGE

The YP-D4 comes without a cartridge. Please use the cartridge of your choice. (General and Australian models are equipped with a cartridge. Connect the headshell to the tone arm as shown in Fig. 6.) The weight of headshell provided with the YP-D4 is such that all cartridges with weights between 4 and 10 grams can be used.

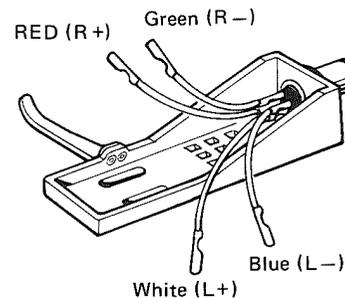
- (1) First read carefully the maker's instructions provided with the cartridge you purchase for the YP-D4. Do not remove the stylus guard if one is provided with your cartridge.
- (2) Two different lengths of screws are provided with the accessories: choose the better length to secure the cartridge as shown in the diagram. Tighten the nuts only just enough to prevent the cartridge moving (See Fig. 4).

Fig. 4 Fitting a Cartridge



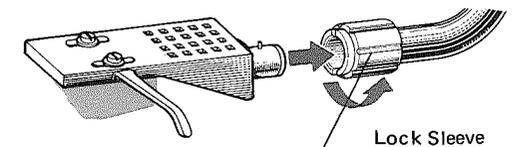
- (3) Note the coding of the colored leads attached to the headshell; one stereo pair being red/green, and the other white/blue (See Fig. 5). Observe the maker's instructions carefully when attaching the metal sleeves to the cartridge connectors.

Fig. 5 Headshell/Lead Wiring



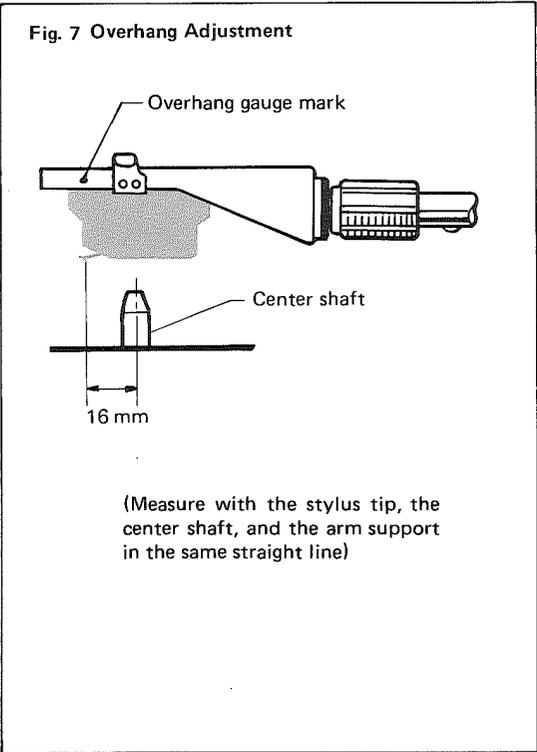
- (4) As shown in Fig. 7, ensure that the stylus is aligned with the headshell overhang gauge mark to give an overhang of 16 mm. (With headshell provided with YP-D4.)
- (5) Now the shell can be attached to the tonearm. Loosen the shell lock sleeve and plug the shell into the end of the tonearm. Make sure it snaps into place, then secure it by tightening the sleeve (See Fig. 6).

Fig. 6 Fitting the Headshell



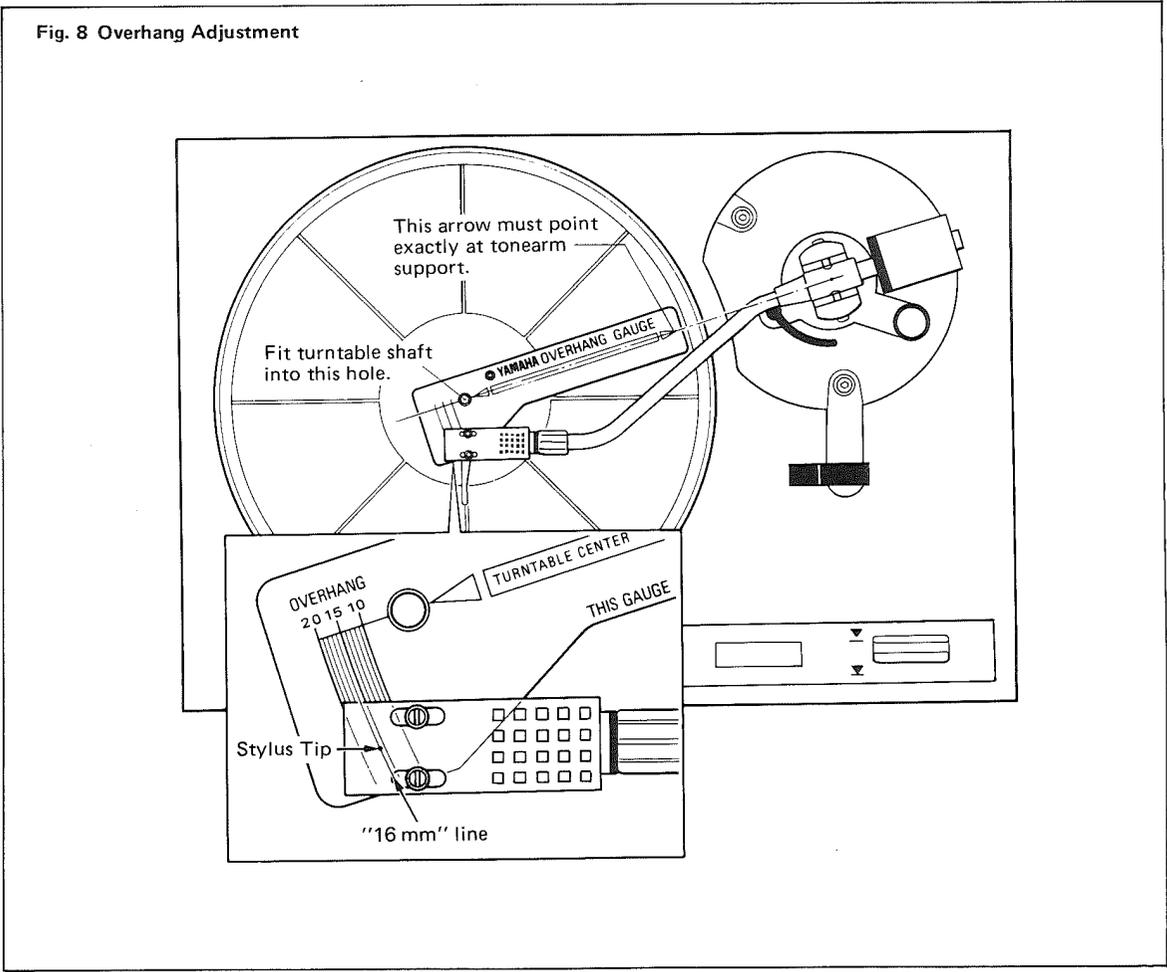
OVERHANG ADJUSTMENT

When using the YP-D4 headshell, there is an overhang gauge mark in front of the headshell finger grip which should be aligned so that it is directly over the stylus tip when viewed from the side. If the overhang distance is very different from that specified, increased distortion can result.



When using any other headshell than the one provided with the YP-D4, ensure that the stylus tip

overhangs the center spindle by 16 mm as shown in Fig. 8.



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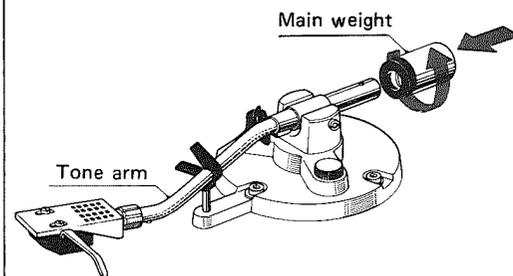
ASSEMBLING AND ADJUSTING THE TONEARM

ASSEMBLING THE TONEARM

Fitting the Balance Counterweight

- 1) Push the separately wrapped balance counterweight onto the rear of the tonearm, rotating it at the same time in the direction shown (See Fig. 9)
- 2) When the helicoidal groove on the inside of the counterweight engages with the projecting stopper on the front of the tonearm, further rotation of the counterweight in the counter-clockwise direction (i.e. to the *right* when viewed from the rear of the tonearm) draws the counterweight forward smoothly, and clockwise rotation draws it backward.

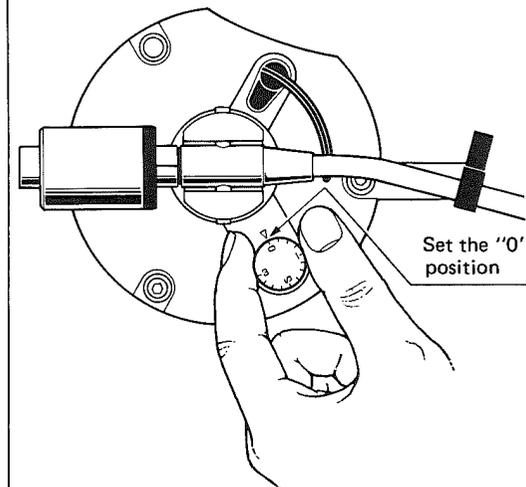
Fig. 9 Attaching the Main Weight



ADJUSTING THE TONEARM

- 1) Set the inside-force canceler dial to zero ('0') (See Fig. 10).
- 2) If a stylus guard is provided with your package, lower it (hinged type) or leave it in place (detachable type), with the tonearm retained in the arm rest.

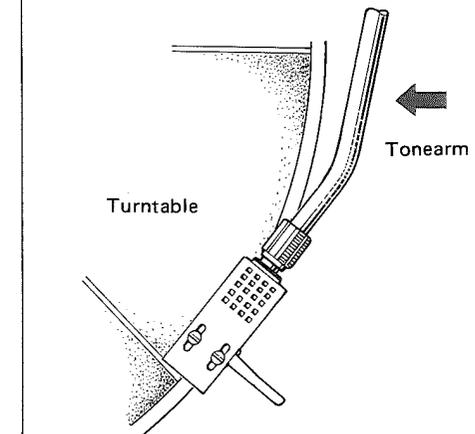
Fig. 10



- 3) Move the tonearm from the arm rest and move to a point on the turntable, and lightly support the finger-grip of the headshell (See Fig. 11).

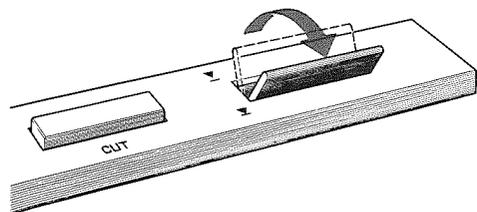
Note: When the power supply cord is plugged into an AC mains supply and the tonearm is moved to the left side of the arm rest, the turntable begins to revolve. If you make any tonearm adjustments while the table is turning, be careful not to drop the tonearm on the turntable and damage the stylus.

Fig. 11



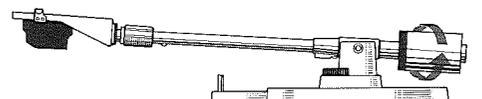
- 4) Set the cueing lever (arm lifter) as shown in Fig. 12. Now check the balance: the headshell will usually either tend to rise (if too light) or sink (if too heavy).

Fig. 12

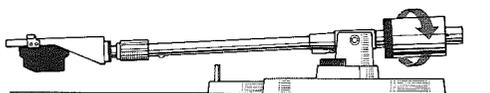


- 5) Refer to Fig. 13, and move the main weight assembly either backward or forward by rotating it a very little at a time until the tonearm is in perfect horizontal balance.
6) Replace the tonearm on the arm rest once balance has been obtained.

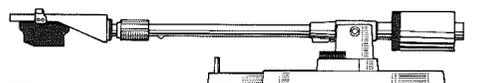
Fig. 13 Balance Adjustment



Rear assembly is too heavy (rotate the main weight in the direction shown).



Headshell is too heavy (rotate the main weight in the direction shown).



Configuration for perfect balance.

ADJUSTING THE STYLUS TRACKING FORCE

- (1) Be careful not to move the main weight from the position at which perfect horizontal balance was obtained, and turn *only* the indicator ring on the front of the main weight until the zero ('0') comes opposite the center line on the tonearm (See Fig. 14-a).

Fig. 14 -a Adjusting Stylus Tracking Force

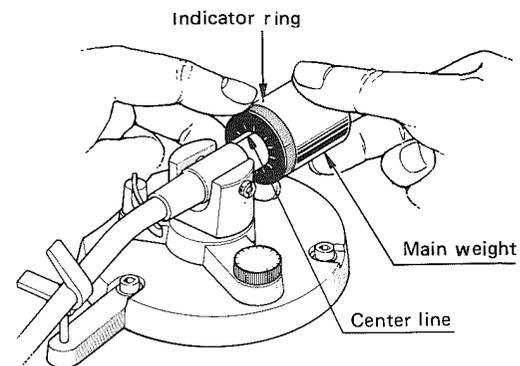
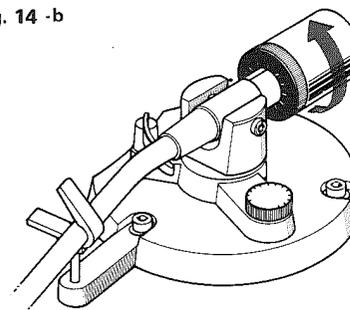
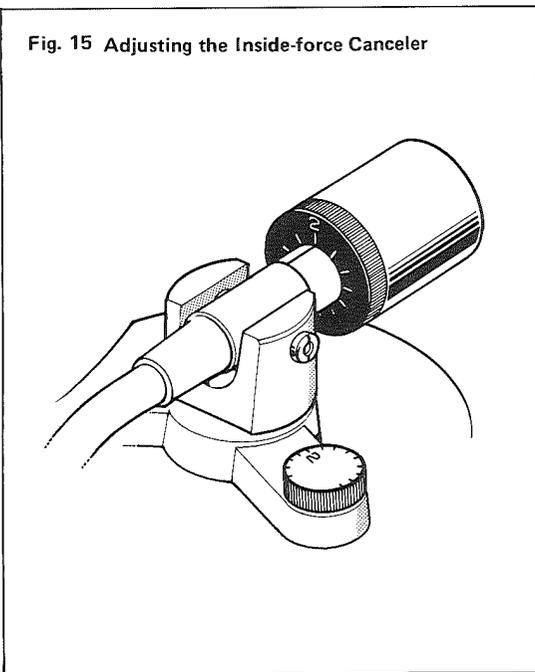


Fig. 14 -b



- (2) Rotate the main weight slowly in the direction shown in Fig. 14-b, and note that the indicator ring turns together with it. Turn the main weight until the center line on the tonearm is opposite the recommended stylus tracking force for your cartridge. Each division on the indicator ring corresponds to 0.25 grams: one complete rotation gives a stylus tracking force of 2 grams. For example, when replacing the cartridge, always perform a stylus tracking force adjustment.

Fig. 15 Adjusting the Inside-force Canceler



ADJUSTING THE INSIDE-FORCE CANCELER

This adjustment is very easy in the YP-D4: note the maker's recommended stylus tracking force, which should agree with the reading on the counterweight dial, and set the same number on the dial of the inside-force canceler at the side of the tonearm bearing assembly. This adjustment balances the force which the record groove wall exerts on the stylus tip, giving middle-of-the-groove tracking and the best possible stereo reproduction, with longer life for stylus and records alike. (See Fig. 15)

A WORD ON STYLUS LIFE

Diamonds are in general use for stylus tips. How fast the tip wears will depend on the state of the records it plays, but a diamond stylus will typically play for some 200 to 300 hours. Excessive wear results in damage to records, increasing distortion and surface noise, so you are strongly advised to replace your stylus in good time.

CHANGING CARTRIDGES

Changing cartridges can be a fascinating way of increasing your enjoyment of records. Many fans own several, for various types of music and/or mood.

Changing cartridges is considerably simplified if you fit the cartridges to spare headshells. You must ensure that the overhang distance is correctly adjusted. If you also make the weights of your two (or more) cartridge/headshell assemblies the same, by adding the small lead weights by some makers for the purpose, you may be able to avoid the repeated readjustment of tonearm balance.

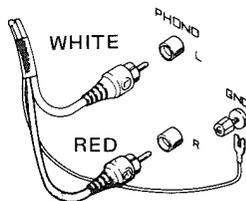
YP-D4

AMPLIFIER CONNECTIONS AND RECORD AUDITION

AMPLIFIER CONNECTIONS

- (1) The output leads projecting from the rear of the cabinet should be connected to the PHONO input jacks of your audio amplifier. Take care to connect the left- and right-hand channels correctly. The white lead is the left, and the red lead the right channel.
- (2) The black ground lead issuing from the output leads should be connected to the GND (ground) terminal on your amplifier (see Fig. 16). Certain amplifiers may give rather less hum and noise when no ground connection is made: you should do whichever gives you the lower hum and noise levels.

Fig. 16 Connections to an Audio Amplifier

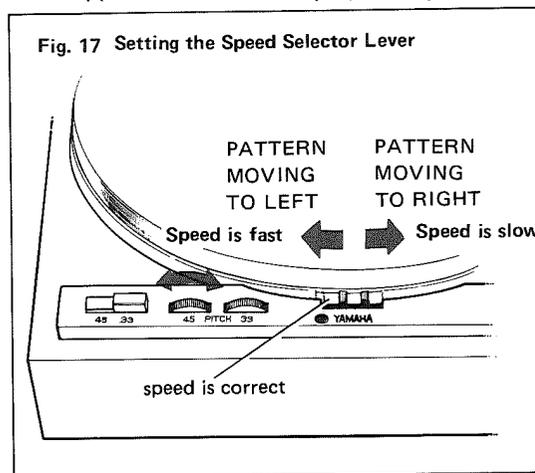


- (3) If your amplifier offers switched selection of input impedances, use the switch position which gives the input impedance close to that recommended by the cartridge manufacturer.
- (4) Insert the AC plug of the YP-D4 either into a wall AC supply socket, or into a spare AC outlet socket if one is provided on the rear of your amplifier. If the latter, it is better to use an unswitched socket.

RECORD AUDITION

- 1 Set the input selector of your receiver or amplifier to phono. The volume should be reduced. If a -20dB audio muting switch is provided, it should be used prior to cueing the tonearm.
- 2 Always clean your records before playing them. It is also important to keep your stylus clean.
- 3 Put the record of your choice on the turntable. If you have chosen an extended-play record with the large center hole, use the EP adaptor.
- 4 Select the appropriate speed. If the pattern on the skirt of the turntable does not appear to be stationary by the light of the

Fig. 17 Setting the Speed Selector Lever



- 5 Set the cueing lever in the "UP" (∇) position. The fine speed controls can also be used to bring the pitch of the sound in tune with a musical instrument of your own. (See Fig. 17)
- 6 Bring the tonearm off the arm rest to a position where the cartridge stylus is directly over the lead-in grooves of the record. As you do this, the record will start to turn, but the arm will not descend.
- 7 Set the cueing lever in the "DOWN" (∇) position. The arm will slowly descend, and record audition will commence.
- 8 Release the -20dB audio muting switch and adjust the volume for the required level. It is advisable to use the sub-sonic filter if the amplifier is equipped with one.
- 9 At the end of the record, the arm will automatically lift and return to its rest, with the motor off.
- 10 If you wish to stop playing the record before the end, press the CUT switch at any time, and the arm will lift, return to its rest, and the motor will turn off. It is also advisable to clean your record before reinserting it into its jacket for storage. Always store your records vertically and never subject them to heat.

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TROUBLE SHOOTING

Before assuming that your YP-D4 is faulty, check the following trouble-shooting list, which details corrective action you can take yourself, without having to call a service representative.

Fault	Cause	Cure
Turntable does not rotate	Main plug not firmly plugged into mains supply socket	Plug fully home
There is no sound even though the cartridge stylus is on the record surface	Faulty connections to the amplifier/receiver	Check and make good the output lead connections
	An unsuitable cartridge has been used so that the body, not the stylus, comes into contact with the record	Replace with a cartridge of the correct dimensions
The reproduced sound is distorted and unpleasant, particularly the treble with clicking or scraping noise	The turntable is not truly horizontal	Re-locate in a flat, horizontal position
	There is dirt on the stylus tip	Clean the tip with a stylus-cleaning brush
	The stylus tip is worn	Replace the stylus
	The record itself is worn, or is dirty or dusty	Check by replacing with new record. Try cleaning the suspect record.
	The stylus tracking force is unsuitable (too high or too low)	Re-adjust tracking force to the recommended value
	The treble control on your amplifier or receiver is turned up too far	Turn the treble control to the FLAT position. Turn the LOUDNESS control OFF
	The inside-force canceler has not been set correctly	Carry out the instruction on inside-force canceler adjustment, (See page 12)
A loud humming sound is heard when trying to play records	The GROUND (GND) connection has not been made to the ground terminal on the amplifier or receiver.	Connect the ground lead to the ground terminal on the amplifier or receiver
The reproduced sound swells into a booming 'roar' (known as howling)	This is caused by sound from the speakers reaching the cartridge stylus, with the turntable too close to the speakers, or vibrating with them on an unstable support	Re-locate the turntable on a strong, stable support, not too close to (nor directly in front of) the speakers.
	The bass control on your amplifier or receiver is turned up too far	Turn the bass control to the FLAT position. Also turn the LOUDNESS control OFF.
	Extremely high listening levels in a small room	Reduce volume

YP-D4

SPECIFICATIONS

TURNTABLE SECTION	
Motor	8 Pole coreless DC servo Motor
Turntable Platter	30 cm (12") die-cast aluminum 1.1 kg
Speeds	33-1/3 and 45 rpm (2-speeds)
Drive System	Direct drive
Signal-to-Noise Ratio	77 dB (IEC 98A weighted)
Wow and Flutter	± 0.055 % Peak (IEC 98A weighted), 0.04 % Wrms
Speed Variation	±4% (Independent for each speed)
TONEARM SECTION	
Type	S-shaped static balanced
Effective length	215 mm (8-1/2")
Overhang	16 mm
Suitable Cartridge Weight	4 to 10 grams
Headshell	Plug-in type to EIA standard
Cartridge	CG6600 (General and Australian model)
GENERAL	
Power Supplies	120 V AC, 60 Hz USA and Canadian
	220 V AC, 50 Hz North European
	110 – 130/220 – 240 V AC, 50 Hz European
	240 V AC, 50 Hz British, Australian
	110 – 130/220 – 240 V AC, 50/60 Hz General
Power Consumption	6 Watts
Dimensions (W x H x D)	435 x 140 x 360 mm (17-1/8" x 5-7/8" x 14-1/4")
Weight	8 kg (17.6 lb)
Accessories	EP adaptor
	Cartridge-retaining screws, Overhang gauge
Exterior Finish	YP-D4 [Ebony] USA and Canadian
	YP-D4 [Century walnut] European, British, Australian and General

Specifications subject to change without notice.

Special Instructions for British Model

IMPORTANT

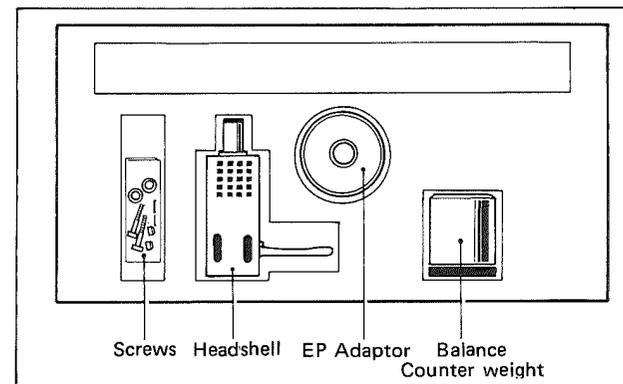
THE WIRES IN THE MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

ACCESSORIES



SINCE 1887  **YAMAHA**
NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN