

Owner's Manual

CONCEPT

2QD



Introduction

Thank you for choosing a Concept turntable. We think you'll most appreciate this product if you understand it in the context of its design philosophy. Take a few minutes to read this manual before you set up the turntable. It will help you get the full potential from the 2QD.

Unpacking

Remove the 2QD and its dust cover from the carton and take off the styrofoam end pads. Carefully remove the precision machined platter and the platter mat from the bottom of the carton and set them aside.

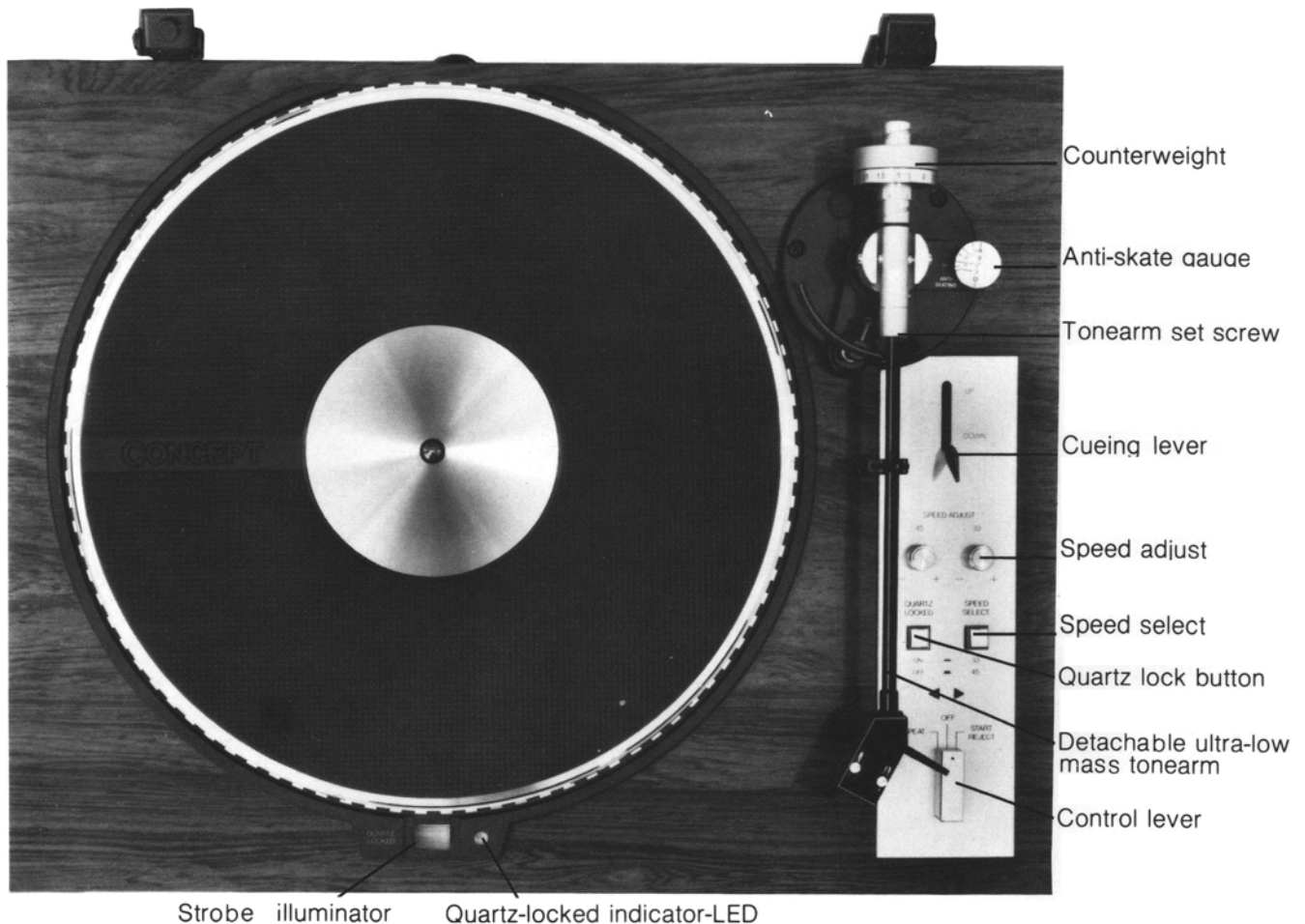
Save the carton and packing materials. They'll come in handy if you ever move or want to ship the unit. Also, save your sales receipt. No separate warranty card is included, so your receipt is necessary should you ever need warranty repair.

Record the serial number of your Concept turntable in the space provided here. The number may be found on the rear of the unit, near the AC line cord.

MODEL: 2QD

SERIAL NUMBER: 02980417

DATE OF PURCHASE: 10/30/81



Assembly

Installing the Platter

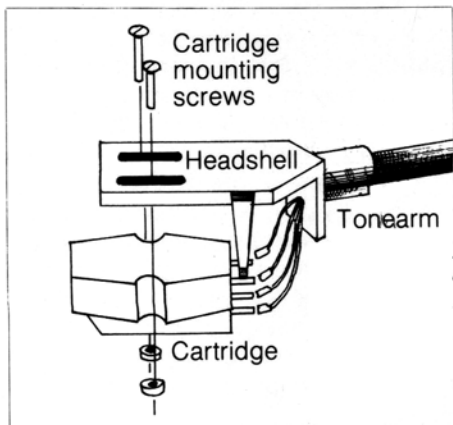
The center of the platter sets down on the motor shaft. Grasp the platter by the holes and gently lower it onto the motor spindle. Place the mat on top of the platter.

Cartridge and Tonearm Installation

Use only a high quality magnetic or moving coil cartridge (the 2QD's low-capacitance cables will not cause deterioration in the response of a CD-4 cartridge). Attach the cartridge to the headshell using the shortest possible screws—to maintain minimum mass in the tonearm assembly.

Connect the small colored wires from the tonearm to the cartridge, handling them with extreme care. A pair of needle-nosed pliers makes this operation easier. The wires are color coded according to the international EIA standard:

Red	Right channel +
Green	Right channel -
White	Left channel +
Blue	Left channel -

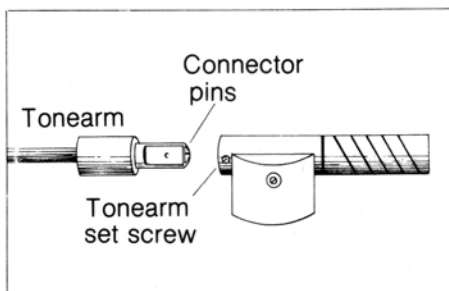


CAUTION: During cartridge installation, keep the stylus guard in place or remove the stylus assembly from the cartridge to avoid damaging the delicate cantilever.

Gently insert the tonearm into its mounting socket as shown. Tighten the tonearm set screw with the small screwdriver supplied.

CAUTION: The electrical connector pins in the tonearm mounting socket are extremely delicate. Do not attempt to force the tonearm into place. If any resistance is felt when installing the tonearm, stop and check that none of the pins have been bent.

Lock the tonearm into place on its rest and take the counterweight from the parts box. With the stylus force dial toward the front of the turntable, install the counterweight on the back of the tonearm. Do not force it on; rotate it gently counterclockwise to install it.



To avoid damaging the delicate connector pins, insert the tonearm in the socket very carefully. Use the small screwdriver supplied to tighten the tonearm set screw.

Tracking Force Adjustment

Remove the stylus guard or move it into its playing position. Grasp the tonearm lift and carefully unlock the tonearm rest.

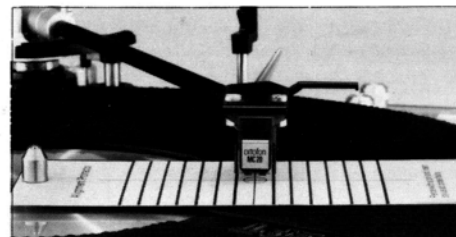
CAUTION: Do not drop the tonearm during the following step as this may severely damage the stylus.

While lightly holding the tonearm lift, turn the counterweight until the tonearm assembly is in perfect horizontal balance. Then return the tonearm to its rest and lock it into place. Turn the stylus force dial on the counterweight (not the counterweight itself) until the "O" on the dial lines up with the red line on top of the tonearm shaft. Then turn the whole counterweight assembly counterclockwise (as you face it) until you have the correct tracking force lined up with the red line. The stylus force dial is calibrated in 1/4-gram increments; follow the cartridge manufacturer's recommendations for the correct stylus force (75 to 80% of the recommended maximum will usually be the optimum tracking force).

Overhang Adjustment

A pinhole in the crosshairs of the Alignment Protractor will help in adjusting the overhang. Place the protractor on the platter as shown, with the hole over the center spindle. Loosen the cartridge slightly using the small screwdriver. Unlock the tonearm from its rest and move it into place, setting the stylus in the crosshairs of the Alignment Protractor (see illustration).

Overhang is adjusted correctly when, with the stylus setting it in the crosshairs, the cartridge is straight in the headshell and is parallel to the lines of the Alignment Protractor. To adjust the cartridge, grasp it with two fingers and gently move it back or forward in its mount as necessary. Be sure the cartridge stays lined up with the parallel grooves on the bottom of the headshell—it may be necessary to remove the tonearm to verify alignment.



Set the stylus down in the crosshair of the Alignment Protractor, then gently adjust the cartridge so that it is lined up straight in the headshell and parallel to the lines on the Protractor.

To Insure Accurate Tone Arm Adjustment:

1. When balancing the tonearm, note that the tonearm should be floating, not resting on the cueing platform.
2. After using the stylus overhang gauge to position the cartridge, recheck the balance of the tonearm as described in the section titled, "Tracking Force Adjustment."

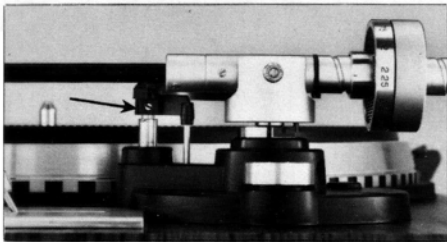
Operation

Anti-Skate Adjustment

The anti-skate adjustment is made using the dial at the base of the tonearm. The dial is calibrated in 1/2-gram increments and should be set to the same reading as the tracking force. If you are using a spherical stylus (not likely), use *slightly less* anti-skating force.

Cueing Height Adjustment

When cueing, the stylus should clear the platter by approximately 1/4-inch. To check the clearance, put a record on the turntable and move the tonearm over the platter. To adjust the tonearm cueing height, return the tonearm to its rest, then loosen the small screw at the base of the cueing platform (see illustration). Gently move the platform up or down to adjust it, then tighten the set screw and recheck the cueing height.



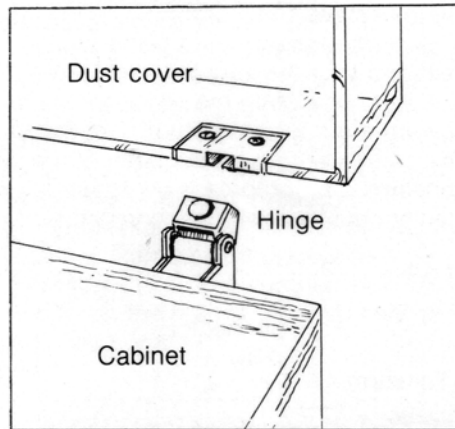
Loosen the small set screw, gently adjust the cueing platform to the proper height, then tighten the screw.

Placement

Place the 2QD on a sturdy shelf or cabinet in a dry, well ventilated location—away from direct sunlight and other sources of heat. While the 2QD has been designed for optimum acoustic isolation, it should not be placed too near your speakers, as this may cause acoustic feedback and howling.

Dust Cover

Attach the dust cover by lining up the slots on the cover with the pins on the hinges, then slide the cover down onto the pins.



Mount the dust cover as shown.

Connection

The 2QD should be connected to your receiver or amplifier through the phono inputs (labelled PHONO or MAG PHONO on most units). The red plug connects to the right (R) channel input, the white plug to the left (L) channel input. The thin black wire attaches to the ground (GND) screw on the receiver or amplifier to prevent hum. Plug the AC line cord into a wall outlet or into an unswitched AC outlet on the back of the receiver or amplifier.

Automatic Operation

The 2QD offers fully automatic operation when you are playing 12-inch records. Manual cueing should be used for records of other sizes.

To play a 12-inch record, select the proper speed using the "Speed Select" button. Be sure the cueing lever is down (forward). Move the control lever to "Start/Eject" if you want to play a side once, move the control to "Repeat" if you wish to listen to a side continuously. The tonearm will automatically cue itself.

At the end of regular play, the tonearm will automatically return to the rest position and the turntable will shut off. In the "Repeat" mode, the arm will return to the rest position and then recue itself at the beginning of the record. The record will repeat continuously until the control lever is moved to "Off."

Manual Operation

The 2QD can be operated manually when you are playing a 45 or specific cuts on an LP. Lift the tonearm, position it over your selection on the record, and move the control lever to "Start/Eject." With the cueing lever up, you may cue the arm manually. If the cueing control is down, the arm will cue automatically.

To temporarily interrupt play, use the cueing control. The 2QD's cueing is precisely damped to gently raise and lower the stylus to the same spot on the record. To end play in the middle of a record, move the control lever to "Start/Eject." The tonearm will return to its rest position and the unit will shut off.

Two arrow-shaped LED's indicate the direction of tonearm travel during automatic or manual operation. When one of these LED's is lit, moving the 2QD's control lever will have no effect on tonearm operation.

Maintenance

Speed Control

In regular operation, the "Quartz Locked" button should be depressed. In this mode, the platter will rotate at a speed accurately controlled by the quartz oscillator servo-system. The strobe bars will appear to stand still and the LED "Quartz Locked" indicator will glow green.

To adjust the pitch of a record—as when accompanying a selection on a musical instrument—press and release the "Quartz Locked" button, turning off the quartz oscillator. The LED indicator will glow red. You may now use the appropriate "Speed Adjust" control to change the pitch of the record.

Stylus Care

Any stylus should be cleaned regularly for the best playing results. Your Concept dealer can recommend a commercially available stylus cleaner, or you can use a fine-bristle camel's hair brush and denatured alcohol.

Brush the stylus tip with gentle strokes from back to front to avoid damaging the cantilever.

Regular cleaning of your records with an anti-static brush and record cleaning fluid will help assure longer life for the discs and your stylus.

A diamond stylus can generally be expected to provide from 600 to 1000 hours of service before it becomes worn and begins to cause record damage. Your Concept dealer will be happy to perform periodic inspection so you can avoid using a worn stylus. We recommend you have this done at least once a year.

All pivot points and bearings in the 2QD have been properly lubricated at the factory and will seldom require further attention.

Clean the base, platter, and dust cover regularly using a soft, lint-free cloth. You may use a slightly damp cloth and mild detergent. Never use solvents of any kind.

Automatic Return Mechanism

Normally the Automatic Return Mechanism needs no adjustment. However, if you should find the starting or stopping trip-point is not correct, adjust as follows.

There's a small rubber cover over a hole in the base of the arm support. Remove this cover and move the tonearm so that the cartridge is near the center spindle. You will see a screw through the hole. To make the stylus set down closer to the center, turn the screw clockwise; to make the stylus set down closer to the edge of the disc, turn counter-clockwise. One turn of the screw moves the set down position by about 2mm.

To adjust the lift off position, return the tonearm to the rest. You will see another screw through the hole. To make the stylus lift off later, turn counter-clockwise; to lift off sooner, turn clockwise. After adjustment, replace the rubber cover.

In Case of Difficulty

If there appears to be a malfunction in the 2QD or an audible problem with the sound from records, please check all connections first. Frequently the cause of trouble is a loose connection rather than a malfunction. Also check to see that dust has not accumulated on the stylus.

Here are some common problems you may encounter and their likely causes.

Hum. Check that the black ground wire between the turntable and the amplifier or receiver has not come loose. Check that the red and white signal leads from the 2QD are fully inserted in the plugs of your receiver or amplifier. Turning the power plug over in the AC outlet will reduce hum in some cases.

Bass roar when volume is high. While the 2QD is acoustically damped, some acoustic feedback may occur on loud passages if the turntable is too close to your speakers. Turn down the volume and/or bass control on your amplifier. The best solution is to move the 2QD further away from the speakers or to a sturdier shelf.

Weak bass/no sound in mono. If the cartridge is wired to the tonearm improperly, the signals from the record may cancel each other. Refer to the section "Cartridge and Tonearm Installation" and double-check the cartridge connections to make sure they conform to the EIA color codes given there.

If these problems persist or if you have any other difficulty with the 2QD, contact your Concept dealer's service department.

For the Technically Curious

This section offers a brief description of the unique engineering features of the Concept 2QD. It may help you understand how the 2QD measures up to the Concept reputation and why it can indeed complement the best component systems.

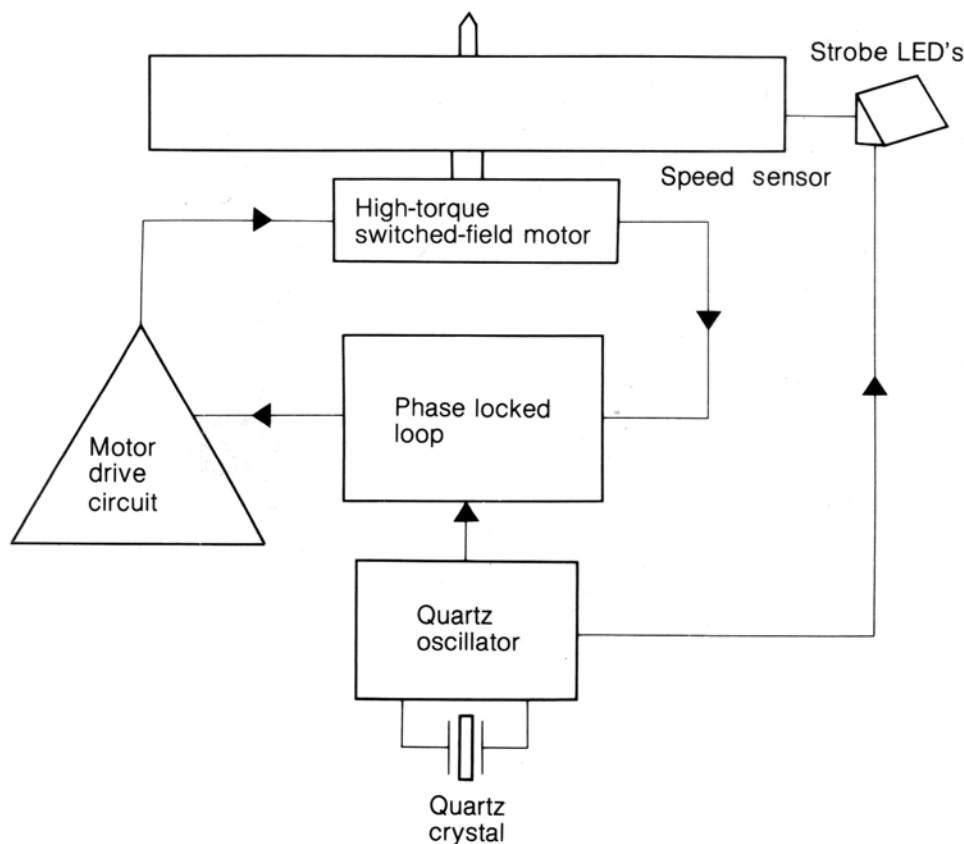
Quartz-Locked Drive System

The 2QD's 3½-lb. die-cast platter is direct-driven by a low-speed, high-torque switched field motor. Electronically controlled field switching drives the permanently magnetized rotor with an action that assures minimal variation in drive torque.

The Quartz phase-locked-loop (PLL) servo system uses a laboratory-precise quartz oscillator as a reference standard to govern the rotational speed of the motor. The most minute speed fluctuations are detected by the PLL, which instantaneously generates a correcting voltage that is applied to the motor's driving circuitry—thus keeping the platter at a constantly correct speed.

The quartz oscillator also drives the strobe LED's to provide precise visual indication of its absolute speed control. A unique two-color LED indicator glows green when the Quartz Lock circuitry is controlling the speed; red when the Quartz Lock system is off and speed is determined by the "Speed Adjust" controls.

Quartz-locked PLL servo system.



Tonearm

A second motor provides power for all automatic tonearm functions. This increases the reliability of the unit by eliminating much of the complex lever and gear mechanism normally found in automatic turntables. You can therefore expect greater long-term adherence to original performance specifications from the 2QD.

The tonearm is designed for maximum trackability. With a first-rate cartridge it will faultlessly reproduce even the most demanding recordings. The ultra-low mass detachable arm shaft and headshell are engineered to insure freedom from resonances in the critical warp-wow spectrum. A thin-profile, large-diameter counterweight design places moving mass close to the tonearm pivot, further reducing arm resonance and moment-of-inertia. Low-friction pivot bearings of a super-hard alloy enhance the tonearm's ability to track difficult material. Magnetic sensors—rather than mechanical trip mechanisms—initiate the automatic return function. This eliminates any increase in tonearm friction near the end of play, insuring perfect tracking throughout the record.

Acoustic Damping

The base of the 2QD is made of a dense plywood and is mounted on shock-absorbing, acoustically damped feet. Together, the base and feet provide a suspension system which minimizes the unit's susceptibility to vibration and acoustic resonance. This further enhances the 2QD's ability to deliver impeccable sound from even the most dynamic recordings.

Limited Warranty

Your Concept turntable is covered by a limited warranty against defects in materials and workmanship for a period of 3 years from the date of purchase. Warranty repair will be performed only when your purchase receipt is shown as proof of ownership. Defective parts will be repaired or replaced without charge if this Concept turntable is returned to your dealer's store, as shown on your purchase receipt, or to any branch of that store where, in all cases, authorized service will be available. Check the yellow pages or white pages of your telephone directory for the location nearest you. If additional assistance is required, please write to the Service Manager, Concept Turntable Division, at the address below describing the problem, and the Service Manager will send directions in writing.

Charges for unauthorized service and transportation costs are not reimbursable under this warranty. Any damage or defect resulting from unauthorized parts or services is not covered by this warranty. Any services performed by other than a dealer authorized to perform such services are not reimbursable under this warranty.

This warranty becomes void if the serial number is defaced or removed, or if the product has been damaged by alteration, misuse, accident or neglect. *THE WARRANTOR ASSUMES NO LIABILITY FOR PROPERTY DAMAGE OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGE WHATSOEVER WHICH MAY RESULT FROM THE FAILURE OF THIS PRODUCT.*

Any and all warranties of *MERCHANT-ABILITY* and of *FITNESS* implied by law are limited to the duration of this expressed limited warranty.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Service Manager
Concept Turntable Division
CBS Audio Products
1601 W. Glenlake Avenue
Itasca, Illinois 60143

Specifications

Type: Direct-drive fully automatic single-play turntable with quartz reference oscillator.
Power Requirement: 117 VAC, 60 Hz, 10 watts
Dimensions:
17⁵/₈" (45 cm)W
14" (35.7 cm) D
5³/₄" (14.6 cm) H
Weight: 18 lbs. (8.2 kg)
Speeds: 33¹/₃, 45 rpm
Speed Adjust: \pm 8.5%
Platter Motor: 90-pole, brushless DC servo motor
Platter: 12" die-cast aluminum alloy
Platter Weight: 3¹/₂ lbs. (1.7 kg)
Wow & Flutter: 0.025% WRMS
Rumble: - 75 dB (DIN B)
Speed Accuracy: \pm 0.1 %

CONCEPT

The Ultimate in Sound Reproduction

CBS Audio Products
1601 W. Glenlake Ave.
Itasca, Illinois 60743

Printed in Japan



CONCEPT



Pierce with a pin and insert
stylus at cross hairs.