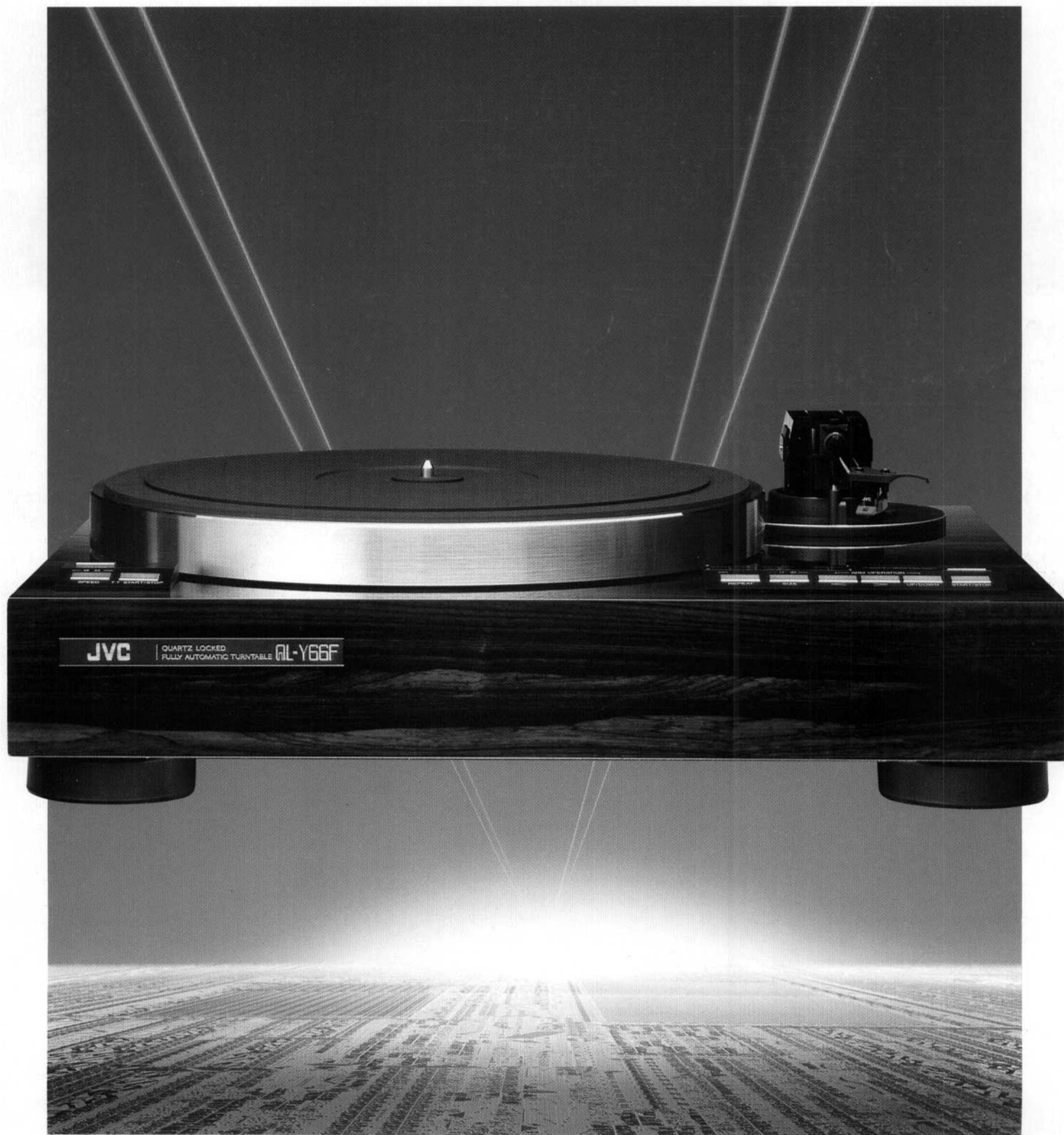
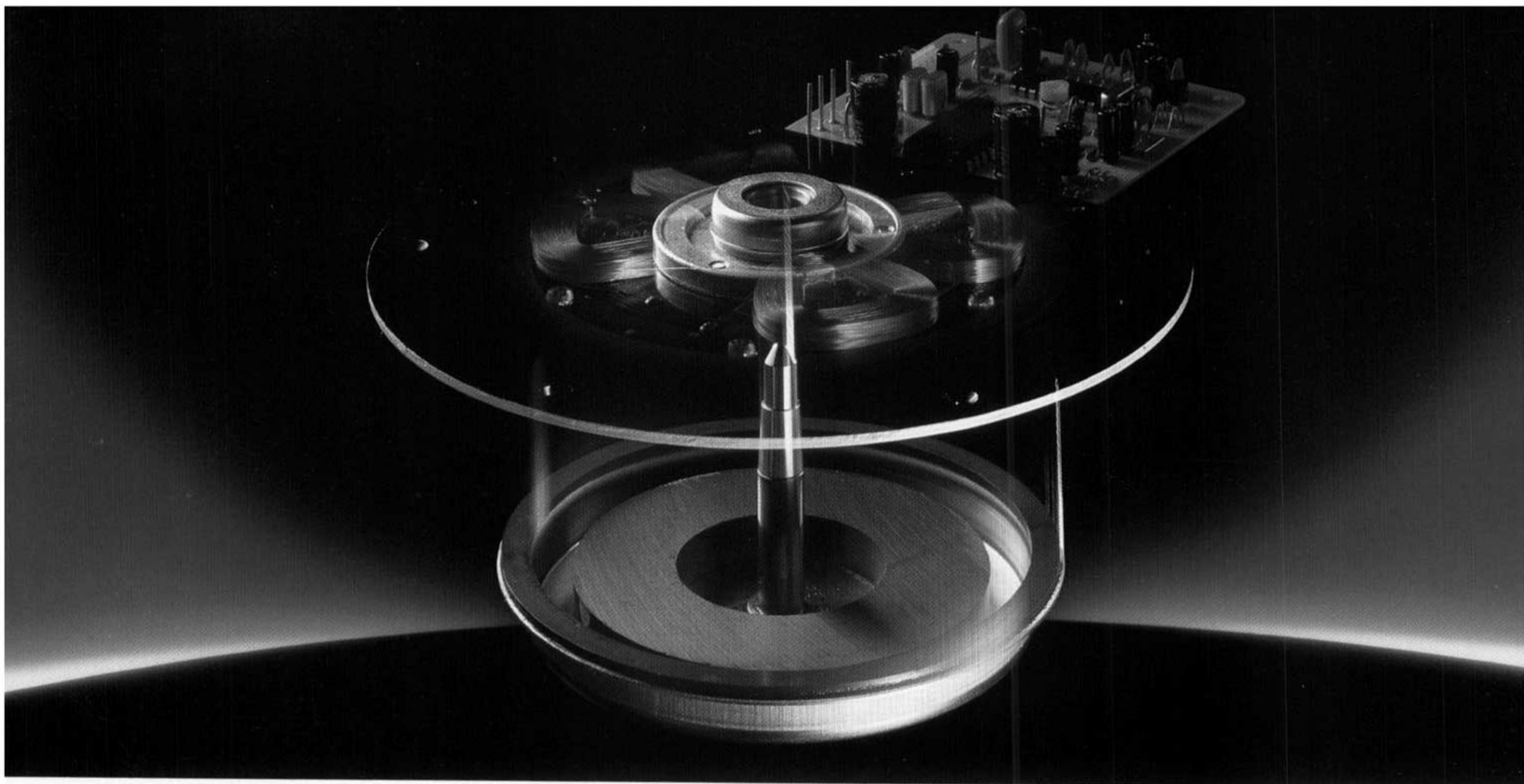


JVC HIGH-FIDELITY TURNTABLES



Closer to the Musical Truth



JVC Turntables — Designed to Fight Resonance and Vibration

While the operating concept of a turntable is far simpler than that of a cassette deck, its performance can be severely limited by two factors: speed inaccuracy and resonance. The first factor is no longer of concern thanks to the Quartz-PLL design for controlling and stabilizing motor speed. Wow & flutter and speed deviation are reduced to totally insignificant levels, far below the audible threshold.

But resonance is a completely different story. Ideally, no part

of a turntable should resonate. Yet every major part of a turntable can and does resonate and vibrate—the arm, the cabinet and the platter. We have attacked the problem of resonance from various angles: the heavy and solid multi-layered cabinet, the coreless direct-drive motor, the low-mass straight tonearm, the Electro-Dynamic tonearm, the Independent Suspension. As the length of our list grows, the problem of resonance lessens. And the sound of our turntables gets better and better.

Quartz Lock

JVC Quartz is the most accurate means to maintain exact platter rotation speed.

JVC introduced the world's first Quartz turntable back in 1974. Since then we've continually upgraded our technology. Today our Double-Servo Quartz turntables—first introduced in 1978—are thirty times more accurate than conventional Quartz designs. To be specific, they offer the following advantages:

- 1) 100 times better speed accuracy than conventional direct-drive turntables.
- 2) 100 times better resistance to temperature- and voltage-caused speed fluctuations than conventional direct-drive turntables.
- 3) 100 times better speed stability than conventional direct-drive turntables in terms of resistance to drag such as caused by heavily modulated grooves.

Our coreless Super FG Servo DC motor: Accurate and cog-free.

In every JVC Quartz turntable, a coreless DC motor is assisted by a Double-Servo Quartz control system for amazingly accurate rotation and speed detection. The coreless design eliminates cogging, yet retains high torque. The Double-Servo Quartz control system employs phase comparison and output integration for absolute accuracy. Little wonder, then, that every JVC Quartz turntable delivers wow and flutter of 0.025% or less (WRMS), and a signal-to-noise ratio approaching 80dB (DIN-B).

New coreless DC servo motor with magnetic support.

The coreless motor of the QL-Y66F features a unique magnetic support system for the platter. By means of magnetic attraction, the platter floats above the motor and cabinet. The result is that the load applied to the fulcrum of the platter is reduced to just 1/10 normal. This means less mechanical wear. Also, because the fulcrum is now just beneath the

platter, platter wobble is reduced too. This helps improve sound by reducing wow and flutter, while, at the same time, increasing the signal-to-noise ratio.

Independent Suspension system reduces problems caused by acoustic feedback.

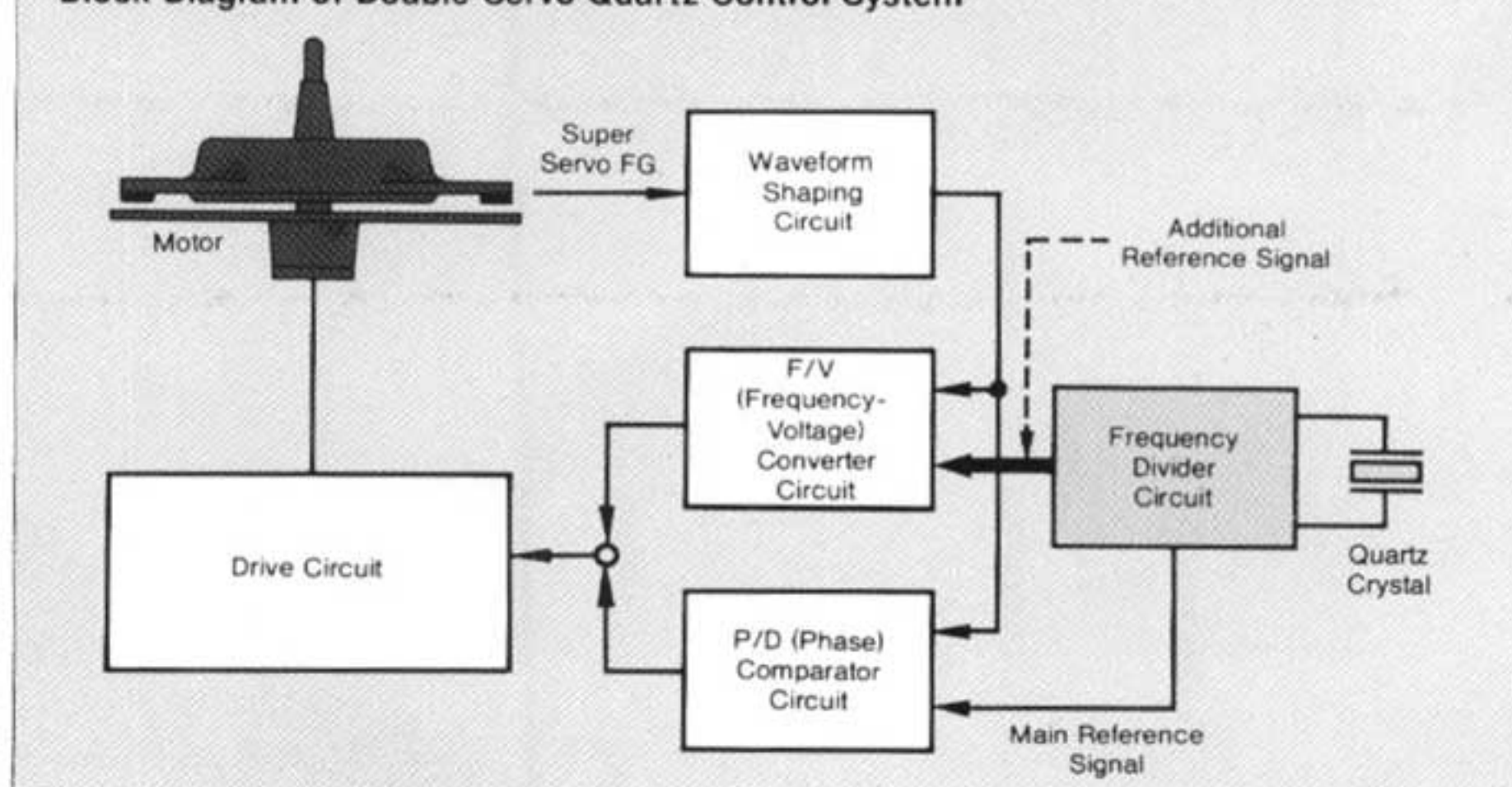
Sound and shock waves—whether generated by speakers or footsteps—cause imperceptible vibrations in a turntable. This in turn creates a type of annoying low-frequency interference known as acoustic feedback which tends

to muddy sound. JVC neutralizes it by mounting the tonearm (and motor) on a separate subchassis suspended from the main chassis by acoustic insulators.

Low-mass straight tonearms: for better tracking.

The combination of a high-compliance cartridge and a massive tonearm creates a resonance frequency that falls within the same low-frequency range as frequencies generated by record warps and eccentricities. When the cartridge is called on to reproduce

Block Diagram of Double-Servo Quartz Control System



these subsonic frequencies, mistracking occurs. This mistracking causes audible dropouts and intermodulation distortion. A low-mass tonearm, on the other hand, has a higher resonance frequency that is not reinforced by frequencies generated by warps and eccentricities, therefore mistracking rarely occurs. And because the arm is straight, it also has greater mechanical strength and higher precision.

Plug-in connector for simple and sure cartridge connection.

The tonearms of several of our turntables are equipped with plug-in cartridge connectors. The plug-in design makes mounting cartridges easier, eliminating the chance for wiring error. Since the cartridge firmly locks onto the tonearm, mechanical strength and rigidity are improved too.

TRACKING Linear

Linear tracking prevents tracking error.

A pivoted tonearm has unavoidable designed-in "tracking error"—the angular deviation from tangency that necessarily occurs as a tonearm traces an arc across a record's surface. This is because grooves of a modern record are cut by a linear-tracking master cutting machine. It's true that tracking error is usually reduced to negligible proportions by optimizing geometry, but it can never be eliminated entirely. And even a slight amount of tracking error can cause distortion.

A linear-tracking tonearm, by definition, suffers no tracking error. Therefore, harmonic distortion is much lower. No skating force compensation is required either, so channel separation is improved and intermodulation distortion is reduced. Sound with superb localization results. And a linear-tracking tonearm can be shorter and lower in effective mass to prevent resonance problems.

Optical systems maintain arm tangency and determine record size and speed.

Our linear-tracking turntables utilize two sophisticated optical systems to assure accurate tracking and make possible automatic convenience. The first employs a photointerruption device to monitor tonearm tangency and correct tracking error by means of a responsive servo system. The other, consisting of a lamp and phototransistors, and

supervised by a microcomputer, checks for the presence of a record on the platter, then determines the record's size (LP or single) and its speed (33 rpm or 45 rpm).

JVC Electro-Dynamic Servo Tonearm

Electro-Dynamic Servo Tonearm actively damps resonance.

The role of any tonearm is to keep the phono stylus in close contact with the record groove without impeding movement of the stylus itself as it traces the microscopic undulations of the record. In practice, very few tonearms can accomplish this feat with consistency. Arm resonance is the reason why.

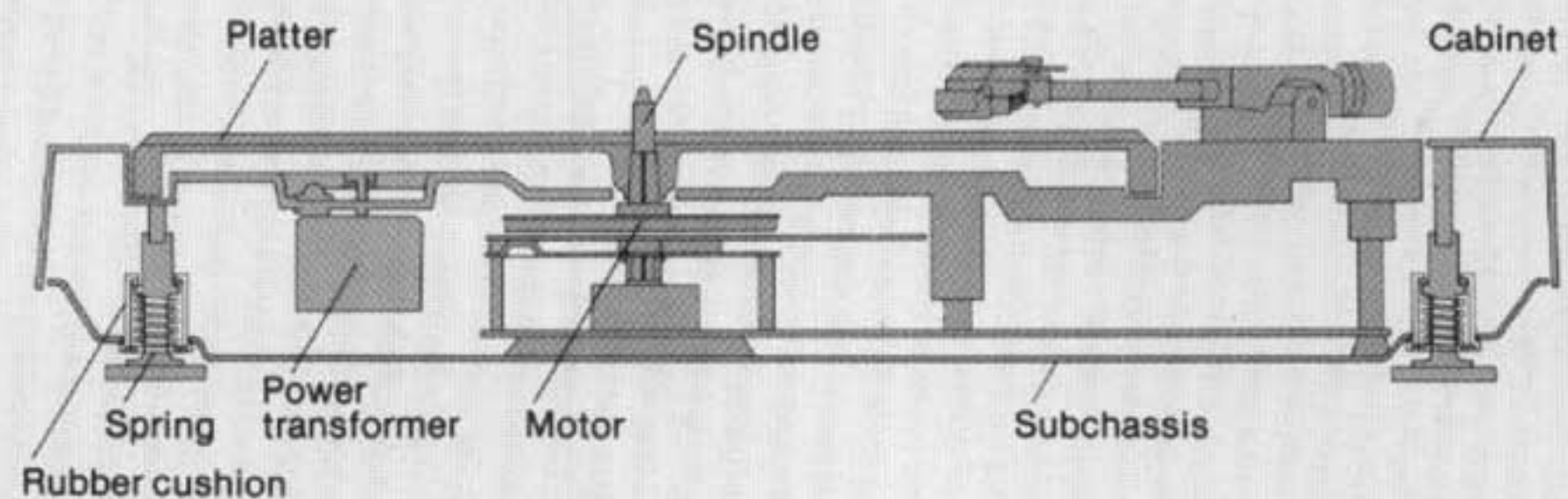
Arm resonance is the interaction of a tonearm's mass and the compliance of a cartridge. The frequency of arm resonance (f_0) is usually 10 Hz or lower. Resonance may be excited excessively by heavy modulation, by eccentricities or by record warps. It causes intermodulation distortion, resulting in muddiness in reproduced music.

Electro-Dynamic Servo Tonearm—the JVC solution.

How do we overcome or "damp" resonance? One JVC solution is the Electro-Dynamic (E-D) Servo tonearm, a system that electronically controls resonance by means of two servo-controlled linear motors. One motor damps resonance in the horizontal plane, and the other, resonance in the vertical plane. The advantages are twofold: one, it allows damping of selective frequencies; and two, no friction is involved, hence sensitivity is not sacrificed in order to achieve effective damping. These are two reasons why the E-D Servo system is superior to conventional viscous damping systems.

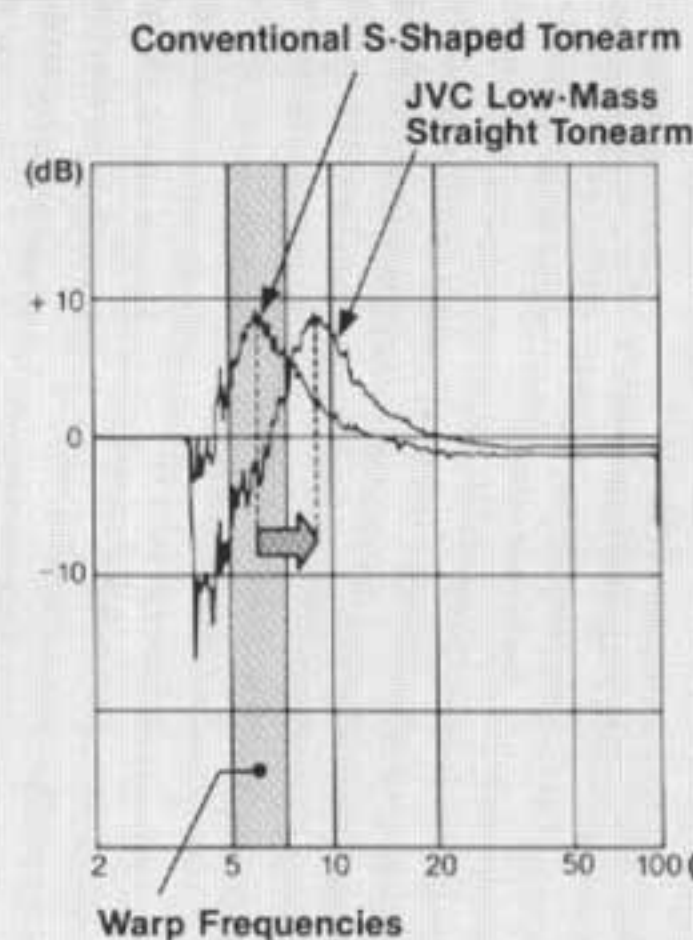
Resonance damping, tracking and anti-skating force adjustments are electronically achieved.

Despite all its complex technicalities, the E-D Servo tonearm is easy to adjust. Rotary knobs let you directly adjust tracking force, anti-skating force and resonance damping. All you have to do is match the figure on each knob ("1" for 1 gram of tracking force, for instance), with the requirements of your cartridge.



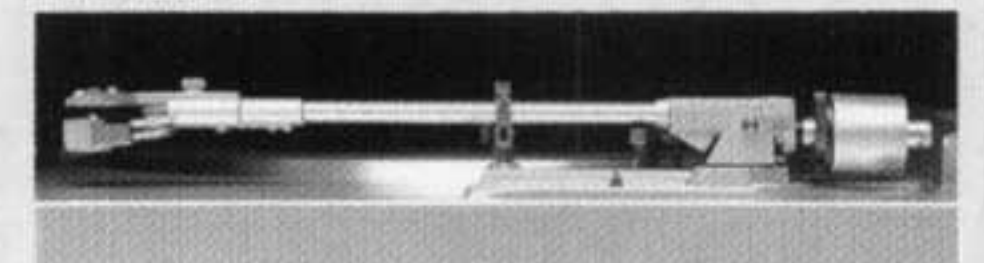
Independent Suspension System

The tonearm and the motor are mounted on a separate subchassis that is suspended from acoustic insulators. Acoustic feedback and mild shocks to the cabinet cannot cause the cartridge to mistrack.



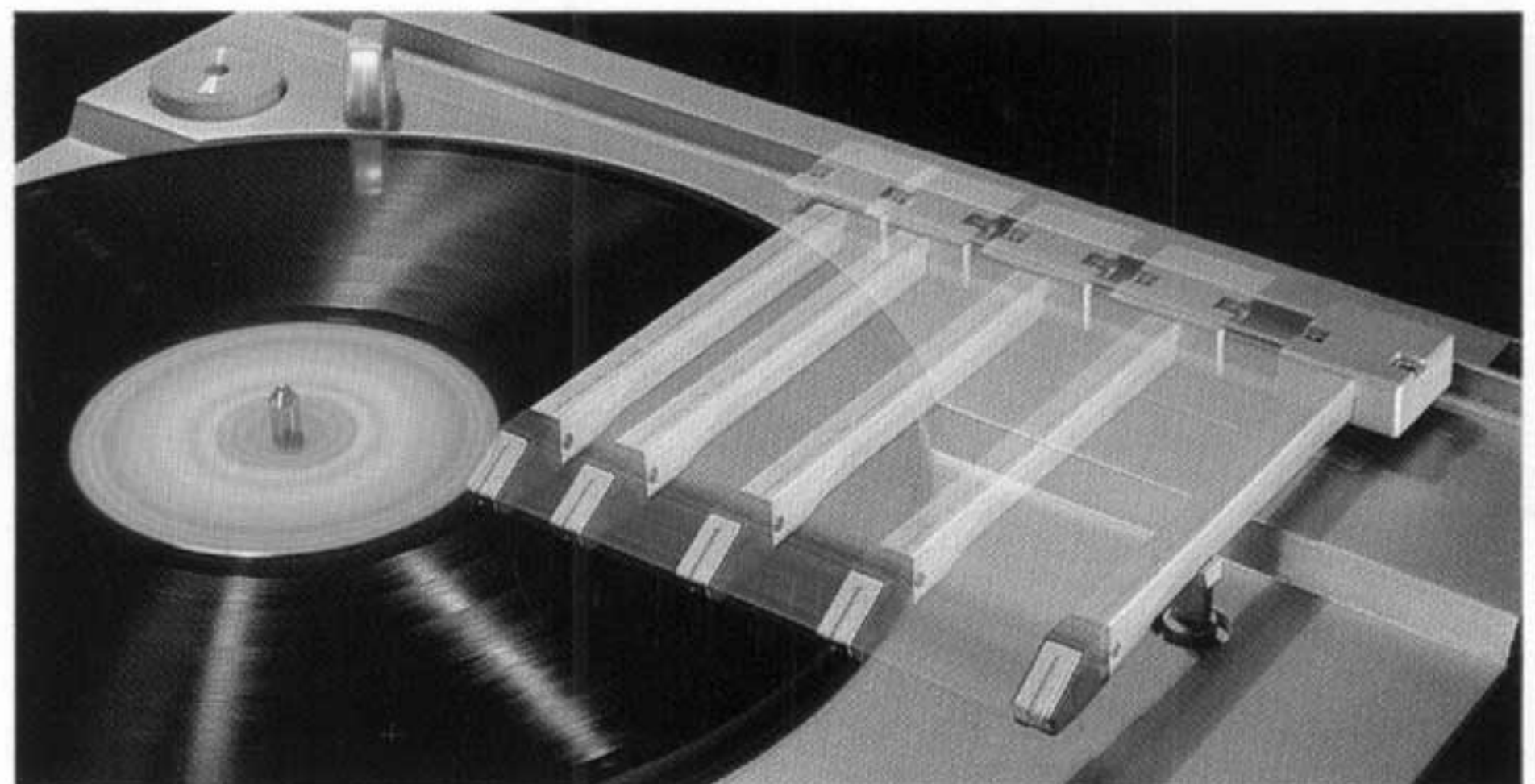
Resonance-Damping Response of the JVC Low-Mass Straight Tonearm

Because of its low-mass design, the JVC straight tonearm selectively raises the resonance frequency from the 4-to-6 Hz region to about 9-to-10 Hz. Since this range is well above that of frequencies generated by warps and eccentricities, the tonearm is completely insensitive to resonance.

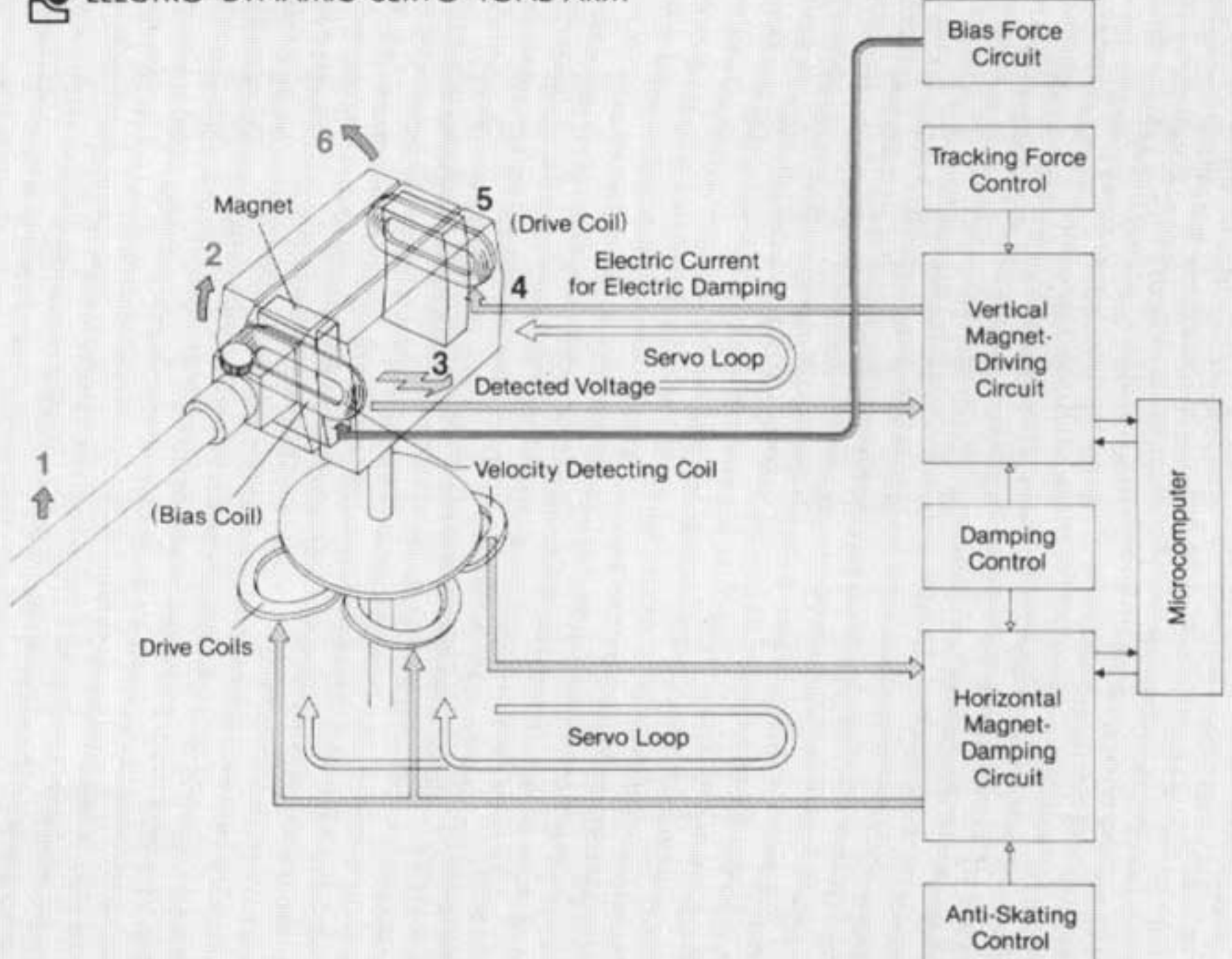


Low Center of Gravity Tonearm Design

The tonearm mass is at a lower center of gravity than usual to reduce tracking distortion and "effective" wow and flutter.

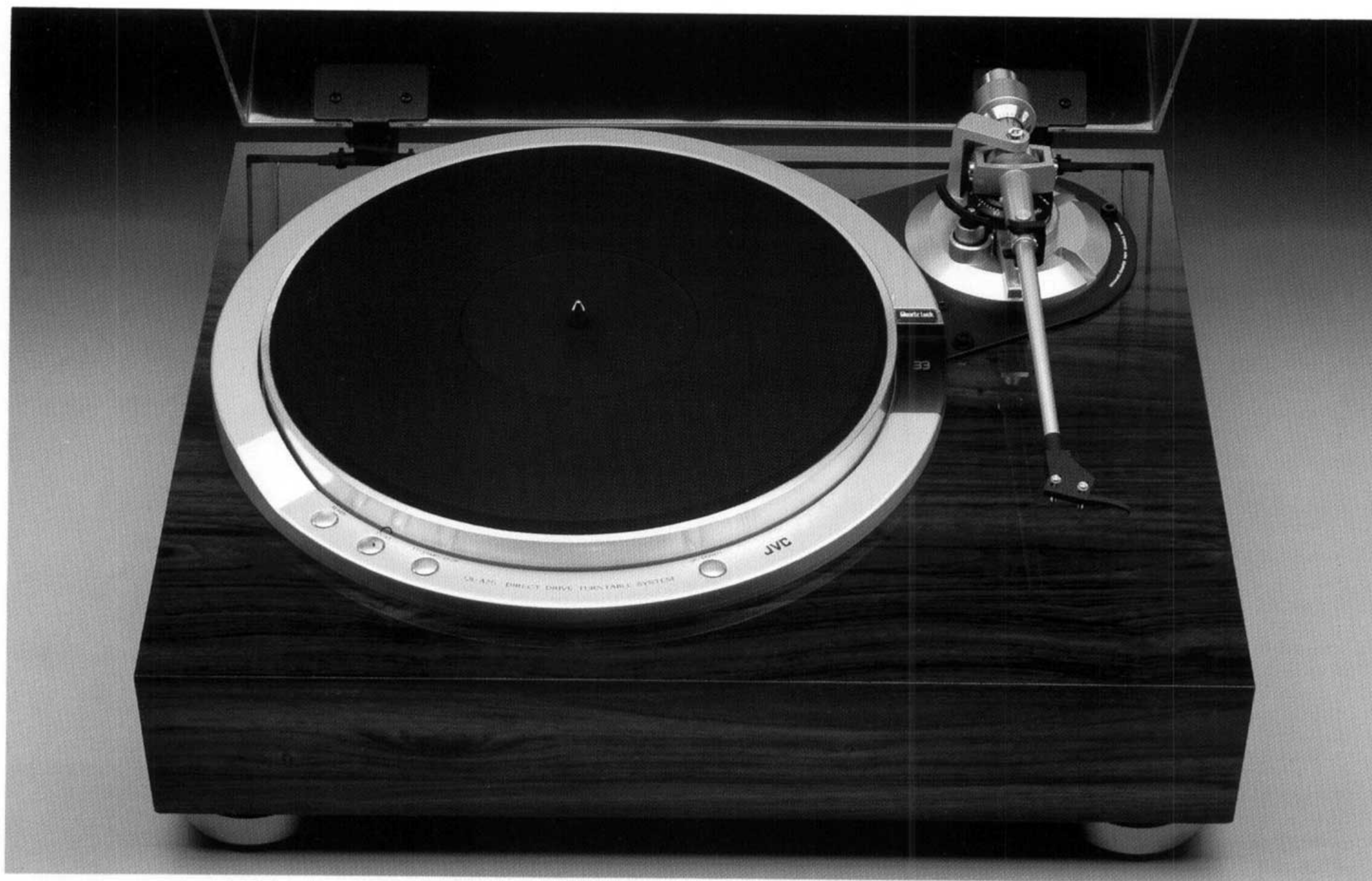


ELECTRO-DYNAMIC SERVO TONE ARM



Working Principle of E-D Servo Tonearm

As the tonearm (1) is pushed up by the uphill rise of a warp, it causes the magnet for vertical velocity detection (2) to turn, generating a corresponding voltage in the velocity detection coil (3). This voltage is then amplified and sent to the drive coil (5) in the vertical linear motor (4). There it interacts with a magnetic field around the coil to develop a counterforce (6), whose direction is opposite to that of the initial force. A downward force is generated which keeps the stylus in close contact with the record surface.



QL-A75 JVC's Finest Turntable is the Most Accurate

Quartz-Locked Direct-Drive Turntable

- Double-Servo Quartz control for absolute speed constancy
- Dynamic Q Damping System for Tonearm—A new way to end arm resonance and reduce coloration and inter-modulation
- Tapered, low-mass straight tonearm and S-shaped replacement arm supplied
- High-torque coreless DC FG servo motor and heavy platter
- Luxurious mirror-finished multi-layer solid cabinet

The QL-A75 represents the boldest new idea from JVC in anti-resonance and anti-vibration turn-

table design. It allows near-perfect stylus tracking: music will be reproduced with supreme accuracy.

Dynamic Q Damping System: Another way to end Q resonance.

To reduce resonance (Q), JVC has developed an effective yet simple new mechanism called the Dynamic Q Damping System. Located inside the counterweight, it forms a complex resonance system, tuned to filter out resonance frequencies at 10Hz and 100Hz. Intermodulation is effectively suppressed, and reproduction quality remains clean.

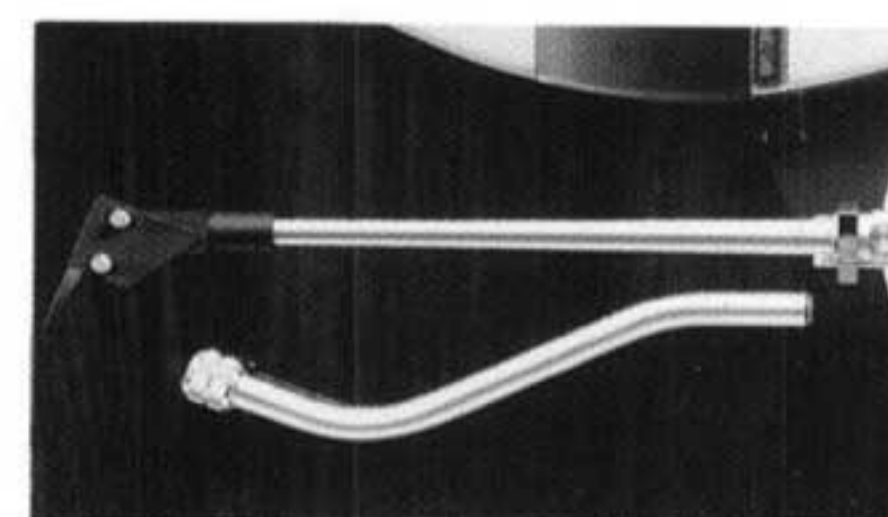
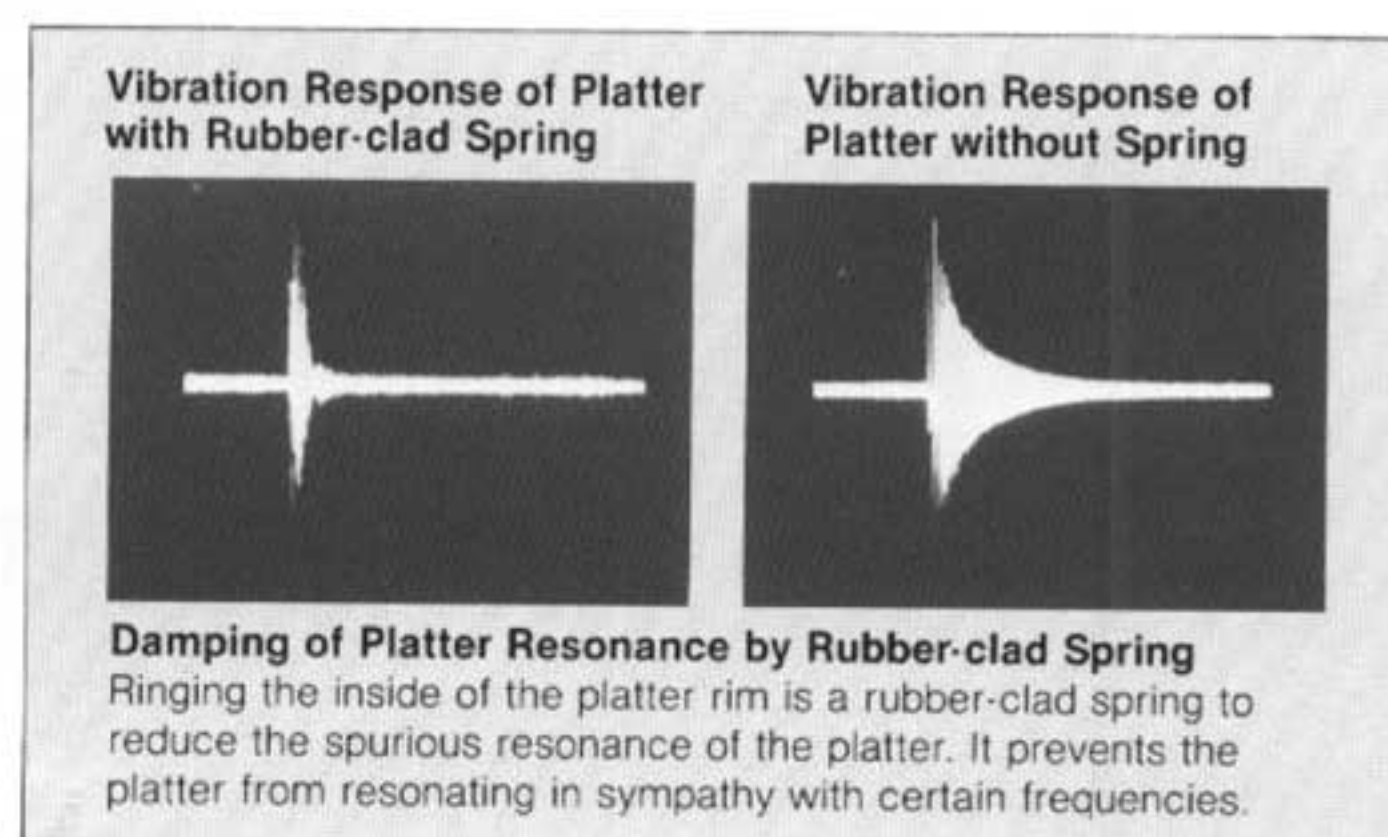
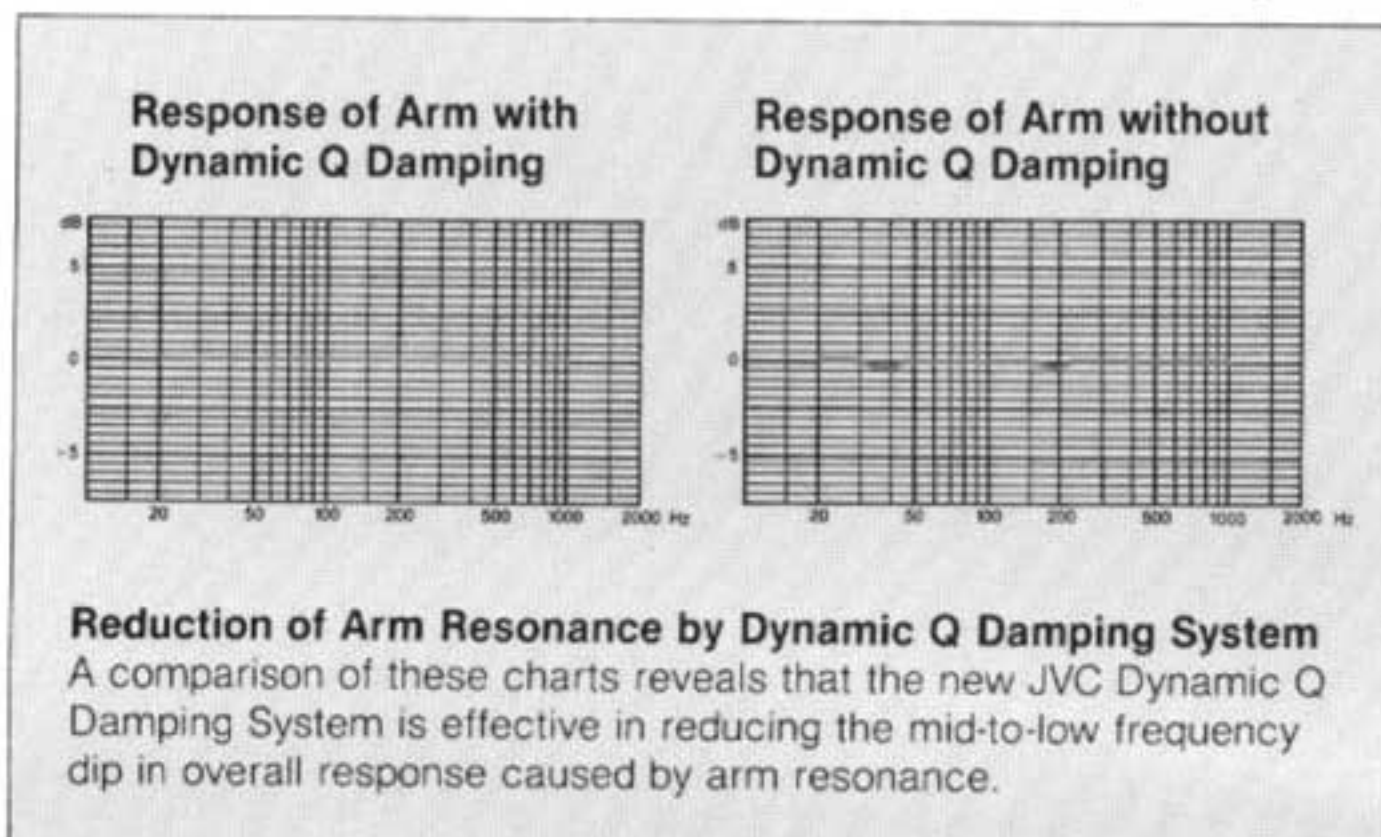
Two interchangeable tonearms for perfect tracking with any cartridge.

The QL-A75 comes with two interchangeable tonearms. One is of a straight configuration featuring low mass and robust construction, making it ideal for high compliance cartridges. The other, an S-shaped arm, is equipped with a universal connector at the tip so that you can use other cartridges at will. JVC's New Gimbal Support allows either arm to track records effortlessly.

High-torque coreless servo motor is coupled with a heavy platter.

A high torque (1.8kg-cm) motor is combined with a heavy 2.35kg (5.2 lbs.), high-inertia (350kg-cm²) platter to let you enjoy both speed constancy and quick startup. The bidirectional servo stops the platter and performs speed change in a flash.

- Electronic arm liftup/motor shutoff at end of play.
- Low-center-of-gravity insulators for high cabinet stability.



Replaceable Tonearms (Supplied)



QL-Y66F The Pinnacle of JVC Technology—Precise, Accurate and Easy to Use

Electro-Servo Fully Automatic Quartz Turntable

- E-D Servo tonearm for reduced resonance
- Double-Servo Quartz control for absolute speed accuracy
- Electronic resonance-damping, tracking-force and anti-skate controls
- Magnetic Support coreless DC FG servo motor
- Computerized fully automatic convenience with repeat
- Heavy, low-resonance solid cabinet weighing 12.3kg (27.1 lbs.)

magnetic support. This new magnetic feature lessens the load on the motor and contributes to a reduction in wow and flutter. It's no wonder, then, that the specifications of the QL-Y66F are among the best anywhere: 80dB signal-to-noise ratio, and 0.015% wow and flutter (WRMS).

E-D Servo tonearm—the resonance fighter.

Visible warps that render records unplayable on lesser equipment are no challenge for the E-D Servo tonearm of the QL-Y66F. Even problems such as low-frequency infrasonics caused by tiny, imperceptible warps, or external vibration, are dramatically reduced. The overall result is better tracking, lower distortion, a higher

signal-to-noise ratio and even reduced wow & flutter.

Coreless DC servo motor now has magnetic support.

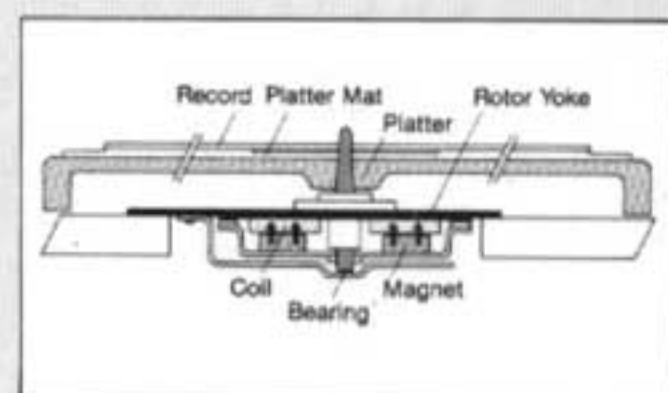
Our coreless DC servo motor has no cores for cog-free, smooth rotation. In the QL-Y66F, we've given it another new feature for still better performance: magnetic support. With this support, the platter is floated by magnetic attraction. As a result, the load applied to the fulcrum of the platter is reduced to a mere one-tenth normal. This means a substantial reduction in wow & flutter, a dramatically improved signal-to-noise ratio, and higher resistance to wear over the years.

Light-touch controls and fully automatic operation add up to a unique operating experience.

All arm movements—lead-in/out, up/down, left/right—are performed by light-touch buttons under the supervision of a micro-computer. Three knobs electronically "bias" the tonearm to apply accurate resonance damping, tracking force and anti-skating force. A "Zero Balance" button permits easy arm balancing at a touch.

- Large (35cm/13-13/16 inches), heavy (2.9kg/6.4 lbs.) platter generates a huge moment of inertia (560kg-cm²).
- S-shaped arm with shell connector also supplied.

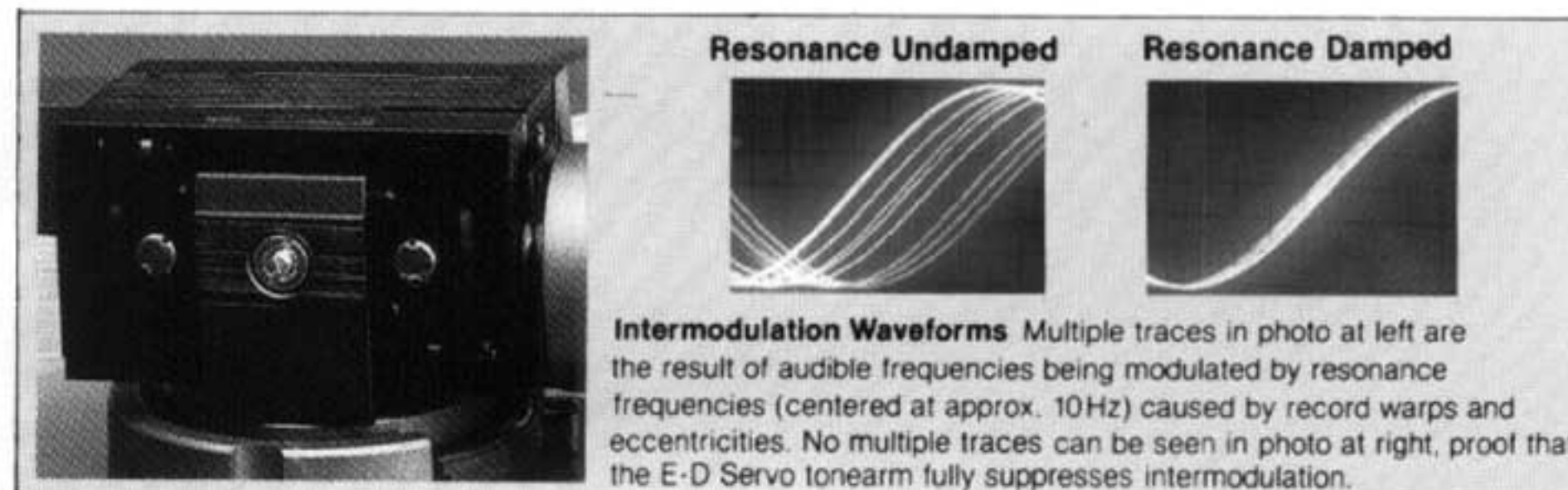
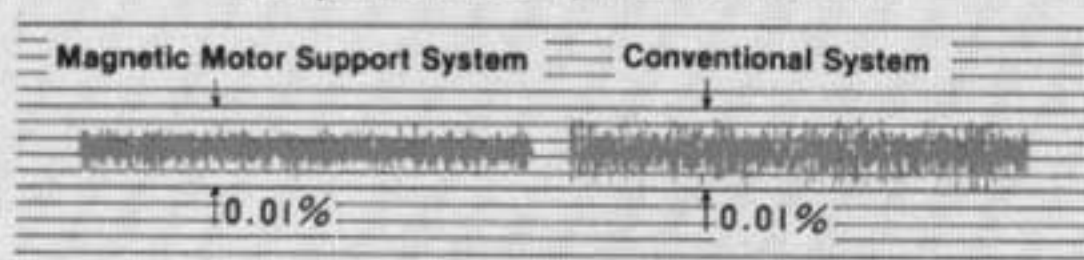
Two technologies make the QL-Y66F a truly outstanding turntable. One is the E-D Servo tonearm, the electronic system that actively suppresses tonearm resonance. The other is the JVC coreless DC servo motor with



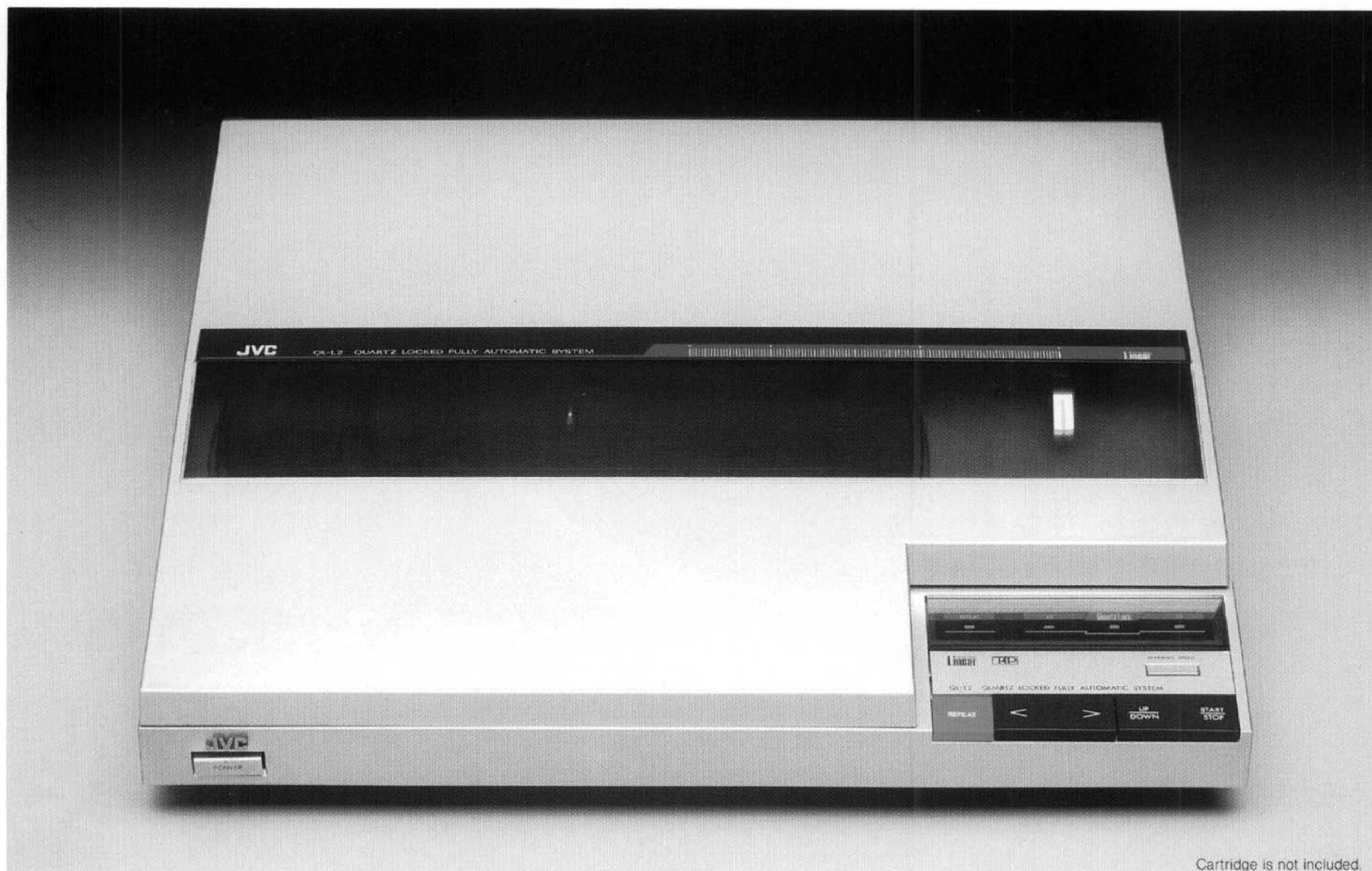
Principle of Magnetic Support

The magnet is attracted up towards the rotor yoke as shown by the arrows.

Comparison of Wow and Flutter



Intermodulation Waveforms Multiple traces in photo at left are the result of audible frequencies being modulated by resonance frequencies (centered at approx. 10Hz) caused by record warps and eccentricities. No multiple traces can be seen in photo at right, proof that the E-D Servo tonearm fully suppresses intermodulation.



Cartridge is not included.

QL-L2 A Double Dose of Accuracy—Quartz-Locked Speed Control and Linear Tracking

Quartz-Locked Fully Automatic Linear-Tracking Turntable

- Linear tracking for zero tracking error
- Double-Servo Quartz control
- Plug-in cartridge connector
- Cog-free coreless DC FG servo motor
- Independent Suspension system
- Computer-supervised fully automatic operation
- Automatic disc size/speed selector

The QL-L2 is a study in precision engineering. It has both a linear-tracking tonearm and a JVC Quartz motor with Double Servo control, two of the most advanced features you can ask for in a turntable today. And to make sure that it is easy to use, it has a microcomputer-supervised fully automatic mechanism. Is there a more advanced turntable available today? If so, we have yet to see it.

Linear tracking eliminates tracking error, reduces distortion and allows clear sonic imaging. By making the QL-L2 linear-tracking, we've eliminated tracking

error, and so we can say goodbye to harmonic and intermodulation distortion, crosstalk and poor separation. A sophisticated optical system maintains the arm tangent to the groove at all times.

Smooth platter rotation—compliments of the JVC coreless DC servo motor and Double-Servo Quartz control.

The QL-L2 smooths rotation to such an extent that wow and flutter is reduced to a mere 0.025% (WRMS). Never again will variations in pitch, however slight, mar your listening pleasure. Even the "hot passages" of new digital and direct-to-disc records won't create problems.

Short low-mass straight tonearm with plug-in cartridge connector.

The low-mass straight design of the tonearm reduces resonance for better tracking and improves lateral balance for less crosstalk. The arm is equipped with a plug-in connector that accepts the plug-in type cartridge of your choice (we

recommend the JVC Z-45EP)

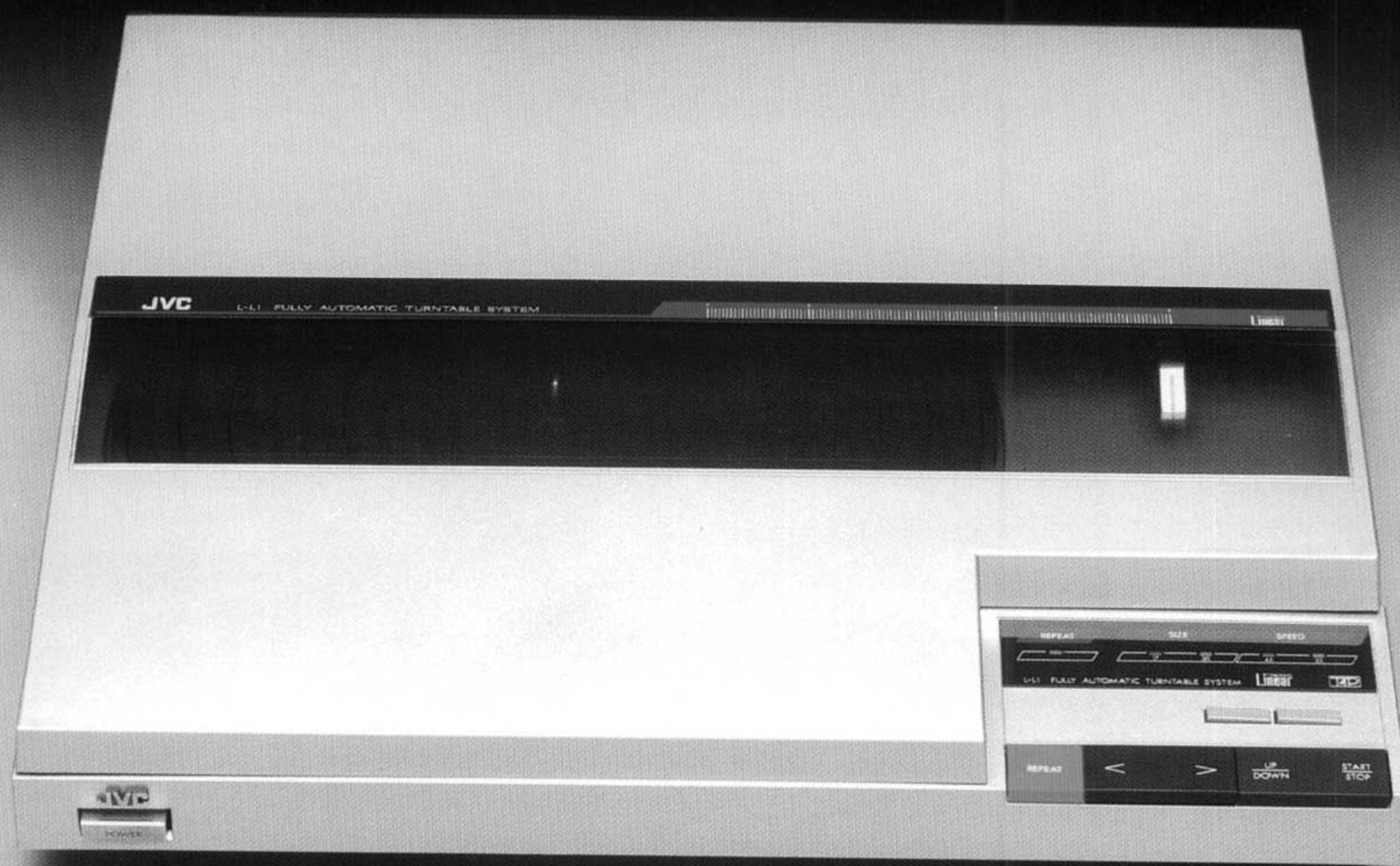
Computer controlled tonearm and record-size/speed selection.

Fully automatic operation of the QL-L2 is supervised by a microcomputer. An optical sensing system detects the size of the record on the platter and automatically sets the correct platter speed, 33rpm for LPs and 45rpm for singles. A manual switch lets you accommodate nonstandard records, 33rpm singles and 45rpm LPs. A pulse count system accurately cues the tonearm onto the

record. This same system also raises the tonearm, returns it to rest, and shuts off power to the motor after play.

- Independent Suspension system for better resistance to acoustic feedback.
- Space-efficient dust cover.
- Servo motor for smooth and silent up/down cueing of arm.





Cartridge is not included.

L-L1 Sleek, Silent and Sophisticated

Fully Automatic Linear-Tracking Turntable

- Linear tracking for zero tracking error
- Plug-in cartridge connector
- Computer-supervised fully automatic operation
- Independent Suspension system
- JVC DC servo motor

Looking for a turntable that's as nice to look at as to listen to? Then take a close look at JVC's L-L1. It stands no more than 10cm (or 4 inches) tall, yet inside its sleek lines are a host of JVC's newest turntable technologies—like a linear-tracking tonearm and computer-supervised control. Convenience? How about fully automatic hands-off operation. Sound quality? Superb, of course. It's a JVC.

Hear records the same way they were cut thanks to linear tracking.

Master record cutting lathes don't use pivoted arms, so why should you? Records sound best when they are played the same way they were cut, linearly, with no

tracking error. For tracking error adds harmonic and intermodulation distortion, increases cross-talk and affects stereo separation. The L-L1 uses a sophisticated optical system to maintain tonearm tangency.

Simple plug-in cartridge mounting system is fast and sure.

At the tip of the straight low-mass tonearm is our plug-in connector. It quickly snaps in a cartridge of your choice for a snug fit and perfect alignment. Whenever you choose you can replace it with another in just seconds. The short, low-mass tonearm of the L-L1 is designed to avoid problems of resonance. Since it is symmetrical, left/right lateral balance is perfect.

Computer control for hands-off operation.

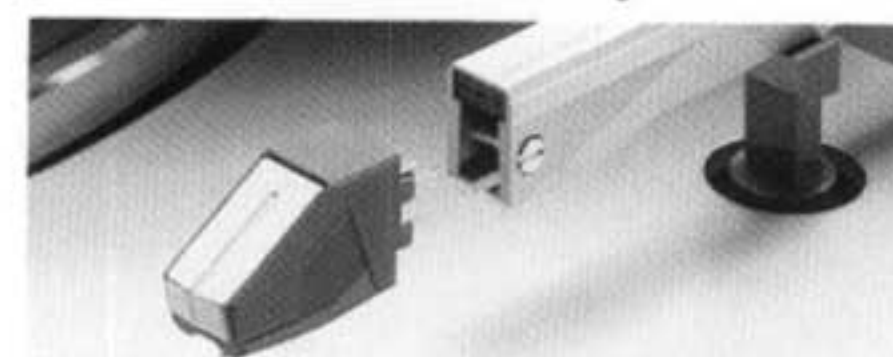
You can enjoy fully automatic operation of the L-L1 thanks to microcomputer supervision. Our unique pulse count system accurately cues the tonearm onto the

record, and at the end of play, returns it to rest. All controls are conveniently grouped and located outside the closed dust cover.

Our Independent Suspension system fights acoustic feedback.

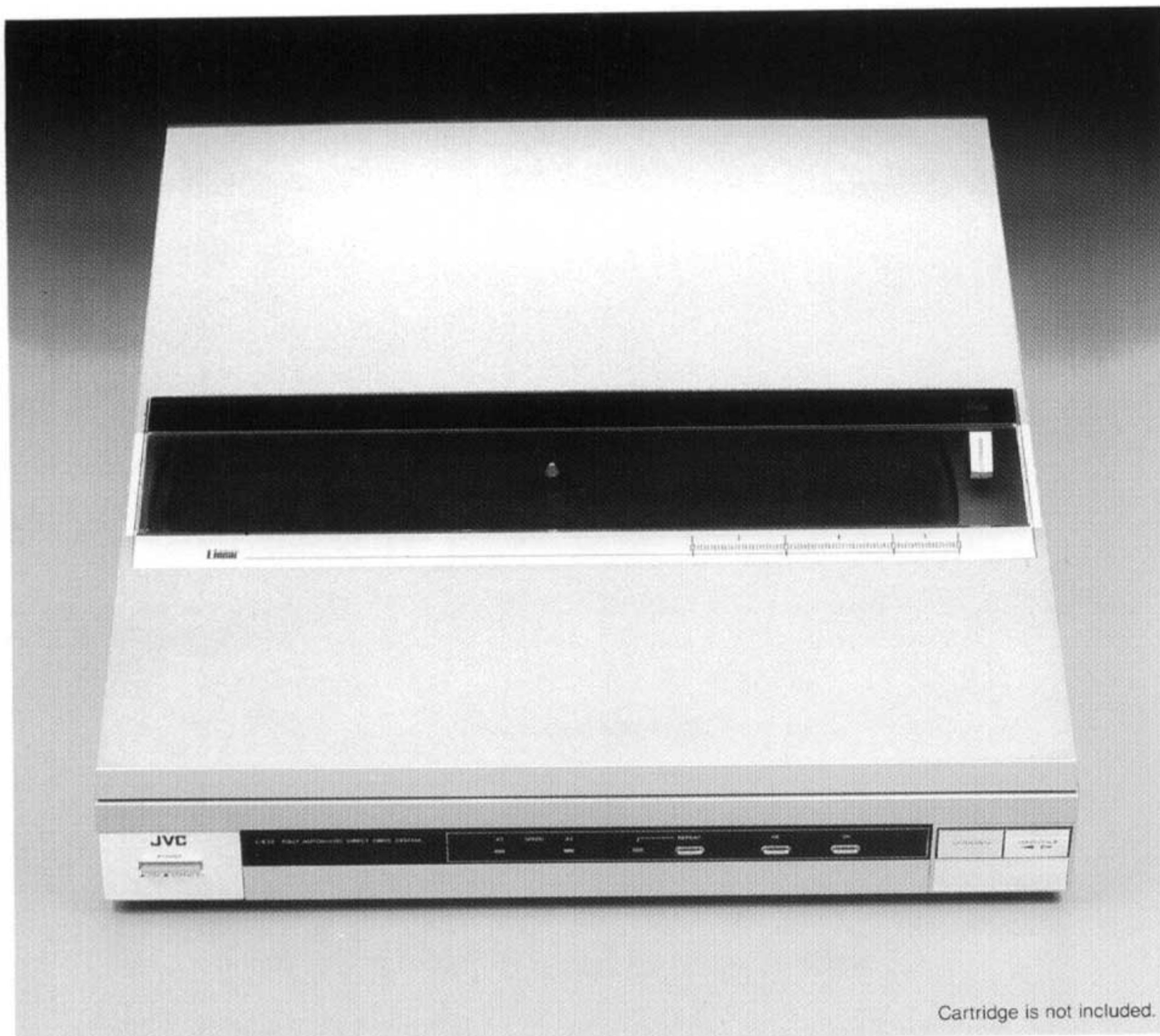
We've completely decoupled the tonearm from the cabinet so that physical jolts and even airborne vibration cannot be passed on to cause mistracking. All traces of feedback-induced fuzziness and muddiness are gone.

- JVC DC servo motor—provides high torque, low noise and rumble, and drives the platter through a wow-filtering belt drive system.
- Space-efficient dust cover.
- Servo motor for smooth and silent up/down cueing of arm.



T4P This standard mark indicates that cartridges and tonearms so identified are plug-in compatible with each other.





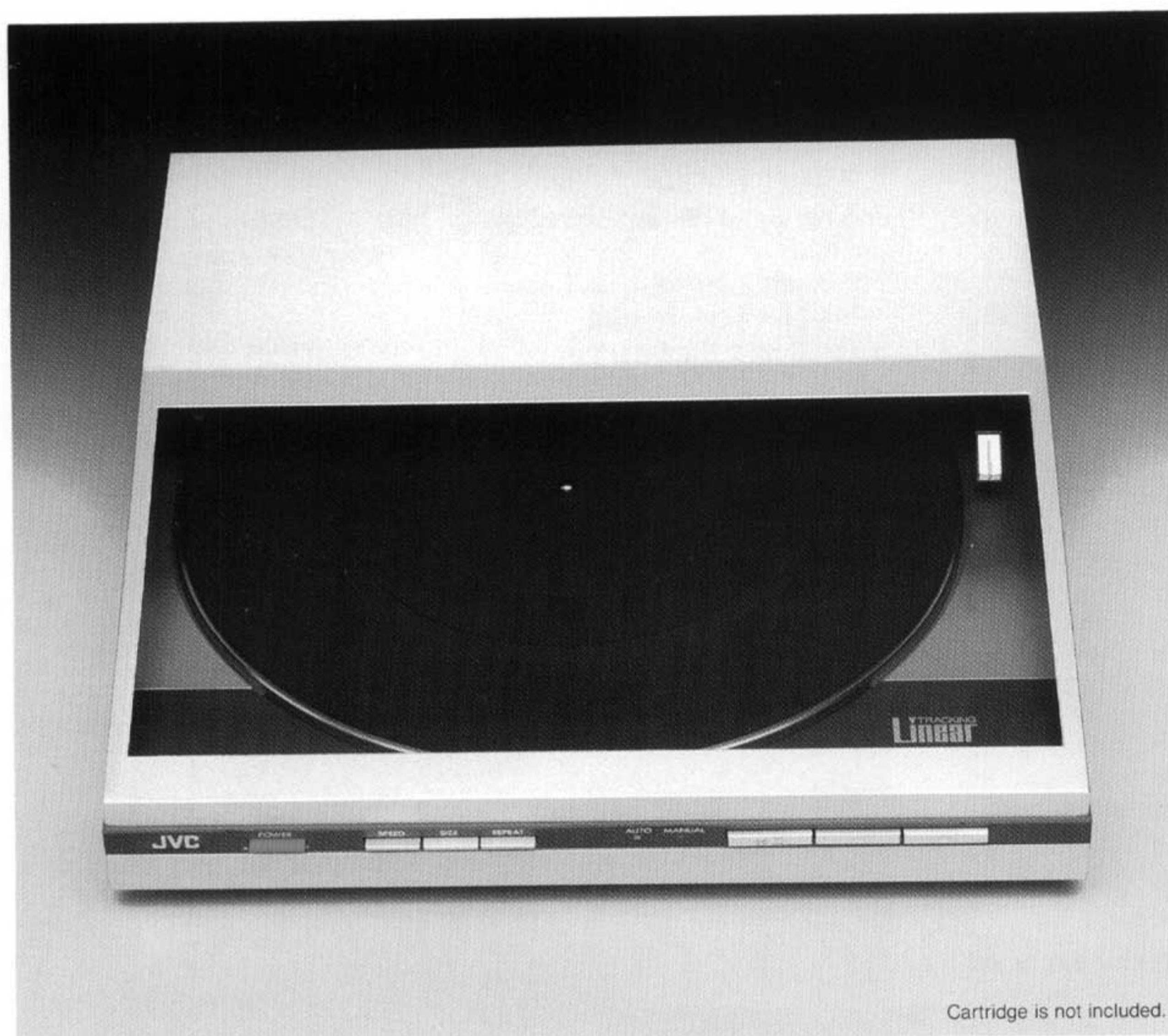
Cartridge is not included.

- Linear tracking for zero tracking error
- Plug-in cartridge connector—Quick, simple cartridge connection since no adjustments are necessary
- Cog-free coreless DC FG servo motor for low wow and flutter
- Independent Suspension system to prevent acoustic feedback for clear, clean sound
- Computer-supervised fully automatic operation
- Automatic disc size/speed selector
- Exclusive servo motor for smooth and silent up/down cueing of arm
- Space-efficient dust cover



L-E33 The Turntable that Proves Convenience is Compatible with Accuracy

Fully Automatic Linear-Tracking Turntable



Cartridge is not included.

- Linear tracking for zero tracking error
- Plug-in cartridge connector for one-touch cartridge mounting simplicity
- Compact size—only 34 cm (13-3/8 inches) wide
- Electronically controlled fully automatic operation
- Up front direct-access controls
- JVC DC servo motor for speed accuracy, and low wow and flutter
- LED indicators for auto/manual operation



L-E22 A Compact Turntable with Full-Size Features

Fully Automatic Linear-Tracking Turntable



QL-F320 The Full Accuracy of Double-Servo Quartz Control

Quartz-Locked Fully Automatic Direct-Drive Turntable

- Double-Servo Quartz control
- Cog-free coreless DC FG servo motor
- Lightweight straight tonearm
- Independent Suspension system
- Fully automatic operation with repeat

While other turntables use a quartz-servo system, the JVC QL-F320 has a Double-Servo Quartz control system. It works together with a coreless, cog-free DC servo motor to give you unexcelled speed accuracy. We've also given the tonearm a special touch: it's of low-mass design for better tracking, and mounted on a separate subchassis (Independent Suspension system) for better resistance to acoustic feedback. Here are the details of this great turntable from JVC.

JVC coreless DC servo motor and Double-Servo Quartz control for supreme accuracy. Our high-performance motor and quartz control system are fully responsible for the top per-

formance of the QL-F320—only 0.025% (WRMS) wow and flutter. You'll hear absolutely no audible variations in pitch—even when playing new digitally-mastered and direct-to-disc records.

Lightweight straight tonearm improves tracking ability.

Nearly all records have warps that lead to distortion. The QL-F320 minimizes warp-induced distortion with its new lightweight tonearm. Its higher resonance frequency does not reinforce warp frequencies, so mistracking rarely occurs. Sensitivity and physical strength are also higher—factors often overlooked.

In addition, the center of gravity of the tonearm is lower than normal and the pivot fulcrum is located at almost the same vertical height as the stylus tip. This design reduces "effective wow and flutter," and improves tracking ability.

Independent Suspension system fights acoustic feedback.

The tonearm and motor of the

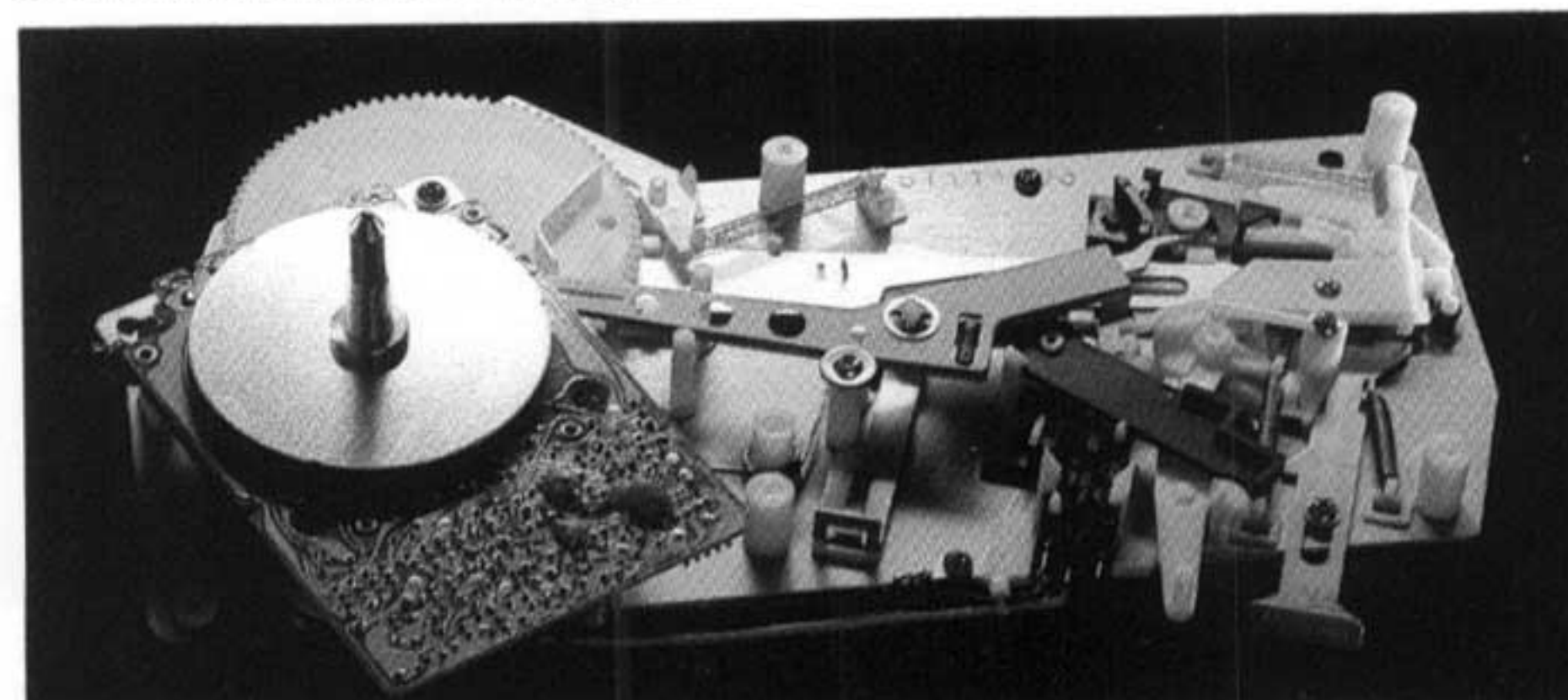
QL-F320 are mounted on a separate chassis that floats freely within the cabinet. This improves the turntable's resistance to acoustic feedback; even if the turntable is located near a speaker, the arm and platter remain nearly immune to vibration.

Fully automatic operation with repeat.

Operating the QL-F320 couldn't be simpler; there's never a need to touch the tonearm. Whenever desired, one record side may be

repeated continuously by just pressing the Repeat button. Automatic operation makes records and stylus last longer, too.

- Up-front controls.
- Space-efficient dust cover.



Precision Fully Automatic Mechanism

The centers of rotation of the tonearm and platter are precisely aligned, assuring accurate tonearm lead-in and lead-out during automatic operation.



QL-A220 Quartz-Locked Performance Now in a Convenient Auto-Return Design

Quartz-Locked Auto-Return Direct-Drive Turntable

- Double-Servo Quartz control
- Cog-free coreless DC FG servo motor
- Lightweight straight tonearm
- Independent Suspension system
- Auto-return convenience

There are only two major difference between the QL-A220 and the QL-F320 described on the previous page: first, the QL-A220 is an auto-return rather than a fully automatic model. And two, the QL-A220 lacks a Repeat function. Therefore, in terms of accurate performance and high-technology engineering, these models are identical.

Coreless direct-drive Double-Servo Quartz motor.

To monitor platter speed and send correcting signals to the direct-drive servo motor hundreds of times a second, a Double-Servo Quartz control system is used. In this way, wow and flutter is always kept below 0.025% (WRMS). Cogging, tiny speed fluctuations that standard direct-drive motors

are susceptible to, is totally absent in the QL-A220 thanks to its coreless motor.

Lightweight, non-resonant straight-line tonearm.

There are two reasons why we made the tonearm of the QL-A220 lightweight and straight: one, it improves its sensitivity, thus it handles record warps easily for clearer low frequency response. And two, it has a resonance frequency that is higher than warp frequencies so resonance cannot cause mistracking and muddy sound.

We've lowered the dynamic fulcrum of the tonearm so that it is level with the record-stylus

fulcrum. This reduces angular variations caused by warps, thus reducing "effective wow and flutter" and improving tracking.

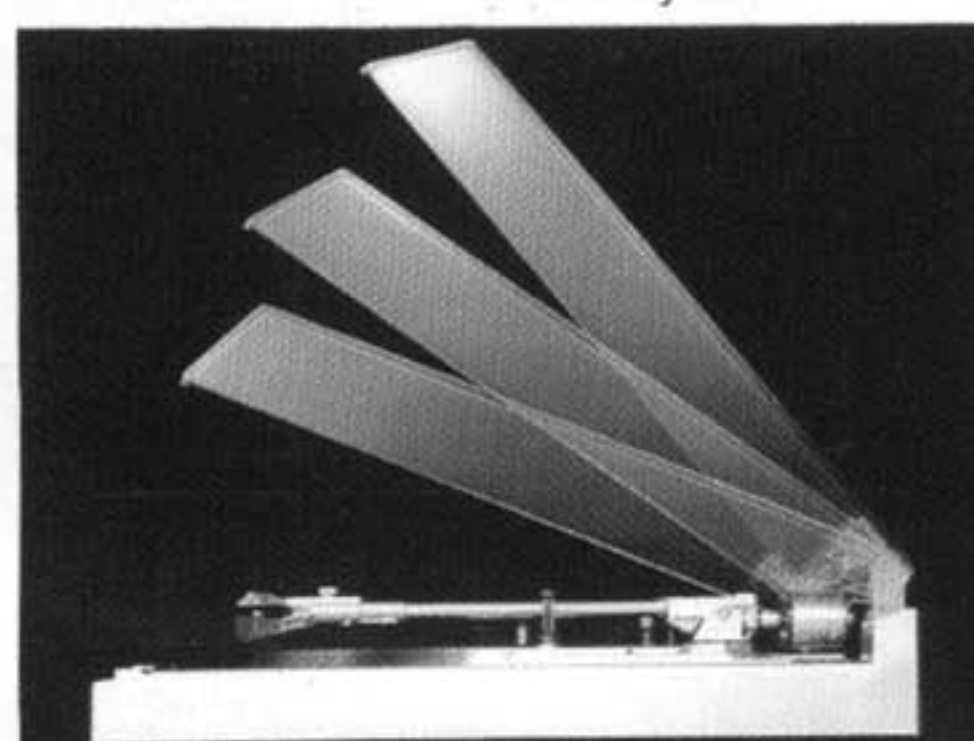
Tonearm and motor are isolated from the cabinet by our Independent Suspension system.

We've used another innovative idea in the QL-A220 to combat acoustic feedback. The tonearm and motor "float" on an independent subassembly within the cabinet; this effectively isolates the most sensitive components from vibrations transmitted by speakers, footsteps, etc. Even physical jarring when operating the control buttons won't budge the tracking stylus.

All controls including arm cueing are up front for convenience.

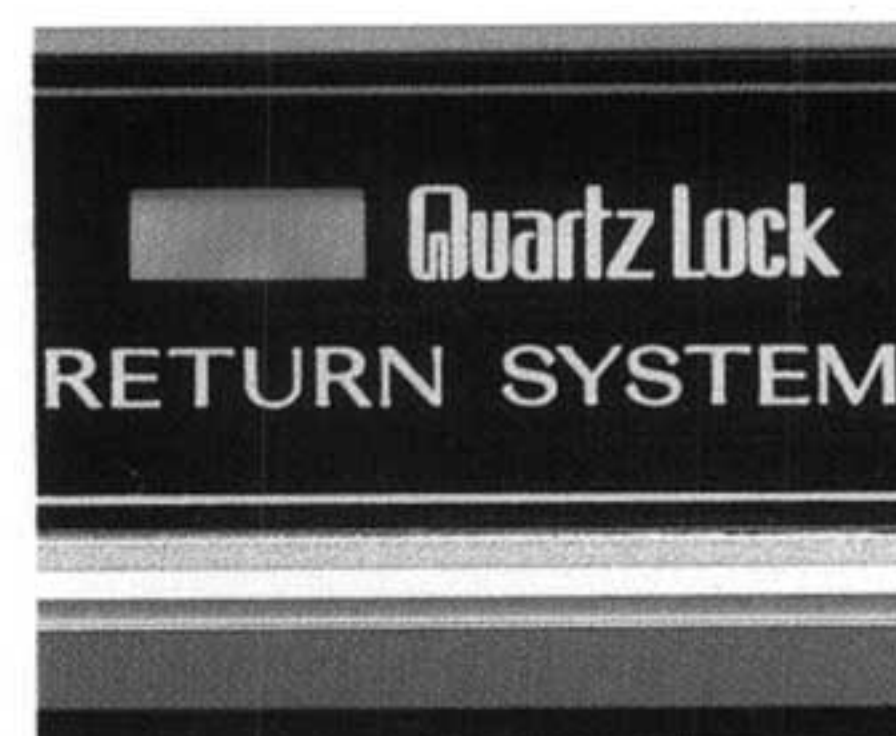
The simplified controls of the QL-A220—even arm cueing—are up front and can be used with the dust cover closed. For maximum convenience, the tonearm automatically lifts, returns to rest and the power to the motor shuts off at the end of play.

- Space-efficient dust cover.



Space-efficient Dust Cover

Hinges for our newly designed dust cover sit on a rostrum at the rear of the turntable. Since the fulcrum is higher than normal, the cover does not require rear clearance. Therefore the turntable can be placed directly against a back wall. Hinges are free-stopping so that you can set the dust cover at any angle.





L-F210 A Solid Performer By Any Standard

Fully Automatic Direct-Drive Turntable

- **Fully automatic convenience**
- **Cog-free coreless DC FG servo motor**
- **Lightweight straight tonearm**
- **Independent Suspension system**
- **Pitch control with neon-lit strobe**

Here's a turntable with solid features for solid performance, like a coreless direct-drive motor, the Independent Suspension system, a straight tonearm and even a pitch control. Operating ease? No question about it, because the L-F210 is fully automatic—from auto lead-in to end-of-record lead-out and motor shut-off. See and hear JVC's new low-profile, high-value turntable at your nearest audio dealer.

Fully automatic operation means peace of mind.

The JVC automatic mechanism of the L-F210 is foolproof. And it is far more accurate and gentle than your fumbling fingers ever could be. There's never a reason to touch the tonearm at any time. The stylus is protected from

damage and records last longer. Operating controls are along the front edge and within easy reach even when the dust cover is closed.

Top speed accuracy thanks to a direct-drive motor.

We use a low-wow coreless DC direct-drive motor in the L-F210 for the sake of speed accuracy. Built in our own plant, this motor exhibits low wow and flutter, so low that your music is reproduced pitch perfect.

Low-mass straight tonearm—for better tracking and low coloration.

Tonearm resonance, when excited

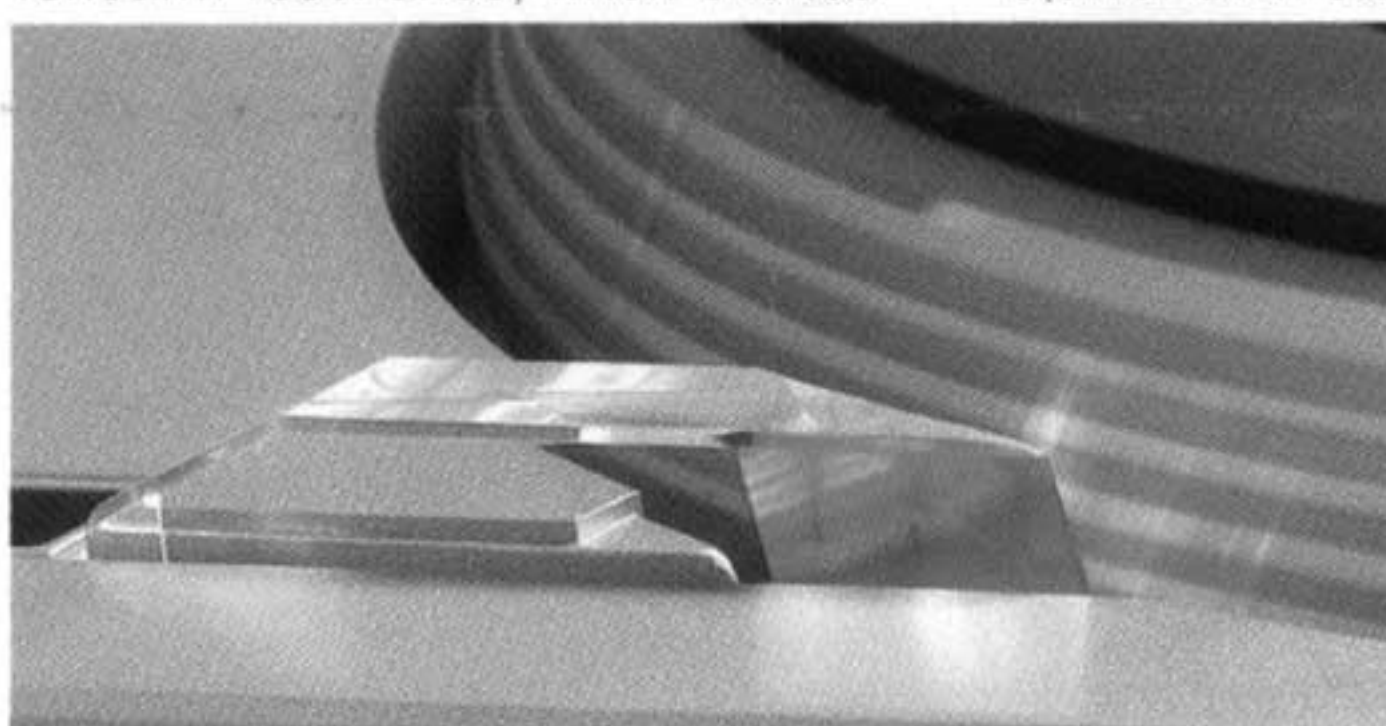
by warps or eccentricities, even slightly, adds coloration to music, giving a fuzzy edge to it. Our low-mass straight tonearm is desensitized to resonance—the reason why in music played on the L-F210 you hear so much detail and clarity. And since it is straight, the tonearm is highly resistant to torsion and so sensitivity remains high even after long use.

Pitch control with illuminated strobe.

You can intentionally tune a record to the "wrong" pitch if you want, because the L-F210 has a pitch control that lets you adjust speed up to 3 percent faster or slower than standard. It's a must

feature if you're a musician, amateur or otherwise, for it lets you precisely match the pitch of a record to any musical instrument. Of course, you can quickly return to the right pitch whenever you want thanks to a built-in strobe with neon light.

- Independent Suspension system reduces acoustic feedback.
- Space-efficient dust cover.





L-A120

A No-Compromise, Top-Value Turntable from JVC

Auto-Return Belt-Drive Turntable

- **Quiet and accurate belt-drive system**
- **Precision DC servo motor**
- **Lightweight straight tonearm**
- **Independent Suspension system**
- **Auto return convenience**

Audiophiles and music lovers on a limited budget will love the quality performance and top JVC features of the L-A120—we feel it's one of the best audio values around. It has our lightweight straight tonearm for superb tracking and lower distortion, a sophisticated belt-drive system utilizing a precision DC servo motor, and our Independent Suspension system.

Silent belt-drive system utilizes a DC servo motor.

The belt-drive system of the L-A120 isolates the turntable platter from vibration and provides smooth, even rotation so your records sound clear and clean, without a hint of audible wow, flutter or rumble. The motor we've teamed with this drive system is our own DC servo design,

renowned for its powerful torque, low vibration and smooth operation. No wonder the L-A120's specs read like those of an expensive direct-drive turntable.

Lightweight tonearm ends resonance problems.

The lightweight tonearm of the L-A120 has a resonance frequency above warp and eccentricity frequencies, therefore resonance is not reinforced, and mistracking and muddy sound are avoided. As a result, bass frequencies in particular are reproduced with

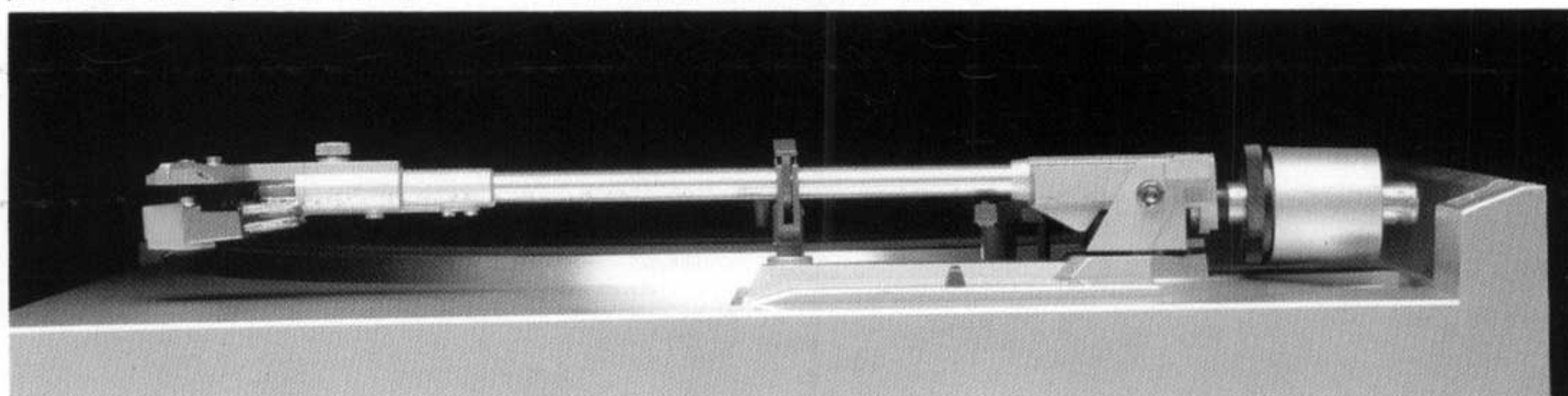
clarity and power. The tonearm is also straight to increase strength and reduce torsion. The result is surer tracking. Since the tonearm's fulcrum is almost at the same level as the stylus tip, "effective wow and flutter" is reduced while tracking is improved.

Acoustic feedback is not a problem thanks to the Independent Suspension system.

We've conquered acoustic feedback in the L-A120 by mounting the tonearm and motor on a separate subchassis. Even physical

shaking or vibrations from a nearby speaker system do not affect the platter and tonearm; they remain essentially vibration-free. This means lower intermodulation distortion, which in turn means clearer sound quality.

- **Space-efficient dust cover.**
- **Cueing control up front.**



Lightweight Tonearm with Lowered Center of Gravity

The tonearm of the L-A120 appears to hug the record. This new JVC design promotes better stylus tracking, lower wow and flutter and lower tracking distortion. The reason is that the fulcrum of the tonearm is placed almost on the same height as the stylus tip, thereby reducing the real-time vertical tracking angle error.

Cartridge is not included.

JVC Turntables: Specifications

	QL-A75	QL-Y66F	QL-F320
MOTOR			
Type	Coreless DC servo motor	Coreless DC servo motor	Coreless DC servo motor
Drive System	Direct-drive	Direct-drive	Direct-drive
Speed Detection System	Integrated frequency generator	Integrated frequency generator	Integrated frequency generator
Servo System	Double-servo Quartz	Double-servo Quartz	Double-servo Quartz
Start-up Characteristics	1/4 rotation	1/2 rotation	1/2 rotation
Wow and Flutter	0.018% (WRMS) 0.03% (DIN) 0.008% (WRMS)*	0.015% (WRMS) 0.03% (DIN) 0.005% (WRMS)*	0.025% (WRMS) 0.045% (DIN) 0.015% (WRMS)*
Signal-to-Noise Ratio	80dB (DIN-B)	80dB (DIN-B)	78dB (DIN-B)
Start-up Torque	1.8kg•cm	1.4kg•cm	
Speed Deviation	0.0015%	0.002%	0.005%
Load Characteristics	0%	0%	0% (under 100g loads)
Drift (hour)	0.0001%/H	0.0001%/H	0.0005%/H
Thermal Drift	0.00005%/°C	0.00005%/°C	0.00005%/°C
PLATTER			
Size	308mm die-cast aluminum	350mm die-cast aluminum	300mm die-cast aluminum
Weight (mat included)	2.35kg	2.9kg	890g
TONEARM			
Type	Statically balanced, dynamically Q-damped arm	Dynamically balanced electronic servo controlled arm	Statically balanced arm on TH (Tracing Hold) system
Effective Length	254mm	254mm	220mm
Tracking Error	-1°12' ~ +1°48'	-1°12' ~ +1°48'	-0°43' ~ +3°35'
Overhang	15mm	15mm	15mm
Applicable Tracking Force	0—3g	0—3g (0.25g step)	0—3g
Applicable Cartridge Weight	Straight arm: 4—10g S-shaped arm: 15—21g (headshell included)	Straight arm: 4.5—10.5g (Main weight) 11.5—17.5g (Main & sub weight) S-shaped arm: 8—14g (Main weight) 15—21g (Main & sub weight) (headshell included)	4.5—8g
Arm Elevation Range	±3mm		
Operation Mode	Auto arm liftoff at end of play	Fully automatic	Fully automatic
GENERAL			
Dimensions (W×H×D)	495×209×419mm 19-1/2×8-1/4×16-1/2 inches	495×187×405mm 19-1/2×7-3/8×15-15/16 inches	435×105×360mm 17-1/8×4-1/8×14-3/16 inches
Weight	14kg (30.8 lbs.)	12.3kg (27.1 lbs.)	5.2kg (11.5 lbs.)

* Measured by FG Method.

	QL-A220	L-F210	L-A120
MOTOR			
Type	Coreless DC servo motor	Coreless DC servo motor	DC servo motor
Drive System	Direct-drive	Direct-drive	Belt-drive
Speed Detection System	Integrated frequency generator	Integrated frequency generator	
Servo System	Double-servo Quartz		
Start-up Characteristics	1/2 rotation	1/2 rotation	
Wow and Flutter	0.025% (WRMS) 0.045% (DIN) 0.015% (WRMS)*	0.03% (WRMS) 0.055% (DIN) 0.02% (WRMS)*	0.045% (WRMS) 0.07% (DIN)
Signal-to-Noise Ratio	78dB (DIN-B)	78dB (DIN-B)	70dB (DIN-B)
Speed Deviation	0.005%		
Load Characteristics	0% (under 100g loads)		
Drift (hour)	0.0005%/H		
Thermal Drift	0.00005%/°C		
PLATTER			
Size	300mm die-cast aluminum	308mm die-cast aluminum	300mm die-cast aluminum
Weight (mat included)	890g	570g	520g
TONEARM			
Type	Statically balanced arm on TH (Tracing Hold) system	Statically balanced arm on TH (Tracing Hold) system	Statically balanced arm on TH (Tracing Hold) system
Effective Length	220mm	220mm	220mm
Tracking Error	-0°43' ~ +3°35'	-0°43' ~ +3°35'	-0°43' ~ +3°35'
Overhang	15mm	15mm	15mm
Applicable Tracking Force	0—3g	0—3g	0—3g
Applicable Cartridge Weight	4.5—8g	4.5—8g	4.5—8g
Operation Mode	Auto return	Fully automatic	Auto return
GENERAL			
Dimensions (W×H×D)	435×105×360mm 17-1/8×4-1/8×14-3/16 inches	435×105×360mm 17-1/8×4-1/8×14-3/16 inches	435×105×360mm 17-1/8×4-1/8×14-3/16 inches
Weight	5.2kg (11.5 lbs.)	4.9kg (10.8 lbs.)	4.4kg (9.7 lbs.)

* Measured by FG Method.

JVC Turntables: Specifications

	QL-L2	L-L1	L-E33	L-E22
MOTOR				
Type	Coreless DC servo motor	DC servo motor	Coreless DC servo motor	DC servo motor
Drive System	Direct-drive	Belt-drive	Direct-drive	Belt-drive
Speed Detection System	Integrated frequency generator		Integrated frequency generator	
Servo System	Double-servo Quartz			
Start-up Characteristics	1/2 rotation		1/2 rotation	
Wow and Flutter	0.025% (WRMS) 0.045% (DIN) 0.015% (WRMS)*	0.045% (WRMS) 0.07% (DIN)	0.025% (WRMS) 0.045% (DIN) 0.015% (WRMS)*	0.06% (WRMS) 0.08% (DIN)
Signal-to-Noise Ratio	78dB (DIN-B)	70dB (DIN-B)	78dB (DIN-B)	60dB (DIN-B)
Speed Deviation	0.005%			
Load Characteristics	0% (under 100g loads)			
Drift (hour)	0.0005%/H			
Thermal Drift	0.00005%/°C			
PLATTER				
Size	295mm die-cast aluminum	295mm die-cast aluminum	295mm die-cast aluminum	295mm die-cast aluminum
Weight (mat included)	970g		970g	
ONEARM				
Type	Linear-tracking statically balanced straight arm	Linear-tracking statically balanced straight arm	Linear-tracking statically balanced straight arm	Linear-tracking statically balanced straight arm
Effective Length	157mm	157mm	157mm	112mm
Overhang	0	0	0	0
Applicable Tracking Force	1.25g	1.25g	1.25g	1.25g
Operation Mode	Fully automatic	Fully automatic	Fully automatic	Fully automatic
GENERAL				
Dimensions (W×H×D)	435×97×360mm 17-1/8×3-13/16×14-3/16 inches	435×97×360mm 17-1/8×3-13/16×14-3/16 inches	340×91.5×356mm 13-3/8×3-5/8×14-1/16 inches	340×87×340mm 13-3/8×3-7/16×13-3/8 inches
Weight	5.1kg (11.2 lbs.)	4.5kg (9.9 lbs.)	4.9kg (10.8 lbs.)	3.8kg (8.4 lbs.)

* Measured by FG Method.



Z-45EP TAP

Plug-In Dual-Magnet MM Cartridge

This is a low-mass dual-magnet cartridge specially designed for all turntables having tonearms with plug-in connectors. No adjustments whatsoever are required for tracking force, overhang, inside force (skating) or lateral balance.

TAP This standard mark indicates that cartridges and tonearms so identified are plug-in compatible with each other.

Specifications

Type	Plug-in dual-magnet MM
Frequency Response	10Hz—30kHz
Output Voltage	2.5mV
Load Impedance	47k ohms
Electrical Impedance (1kHz)	2.8k ohms
Compliance (100Hz)	9.5×10^{-9} cm/dyne (dynamic)
Replacement Stylus	DT-45E
Channel Separation (1kHz)	25dB
Optimum Tracking Force	1.25g
Stylus	0.3×0.7 mil elliptical, diamond
Weight	5.9g (0.21 oz.)

Design and specifications subject to change without notice.

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