

# MICRO

The clean, clear-cut world of a 1.5ton(1,500kg·cm<sup>2</sup>) moment of inertia.

## The Ultimate in Remote Drive by Micro



How should a platter be driven? This is the first question to be answered when going back to basics in audio disc sound reproduction and when discussing turntables. If it were at all possible, the ideal thing would be not to apply any force to the platter but to let it keep rotating naturally.

Micro has arrived at the remote drive system. Under this system, the platter rotates cleanly and smoothly with a force which is as natural as possible. The reason why rotary mechanisms depend on remote drive is that there are many questions left unanswered with servo systems and other forms of electronic technology. A servo system designed to achieve the rated speed is really only "consistent" in the amount of speed drift generated in split seconds, whether the units are hundredths or thousandths of a second.

Another problem is that if there is a drive motor beneath the track of

the cartridge, the generated flux has a subtle effect on the power-generating mechanism of the cartridge. Micro's new system does not rely on direct drive and is a viable alternative to all these problems. By bringing about a quantum improvement in the "bare characteristics" of the rotary mechanisms, it has achieved a clean and natural platter rotation.

The great improvements in the "bare characteristics" are based on a platter with a moment of inertia of 1.5 ton (1,500 kg·cm<sup>2</sup>) and a large-diameter platter shaft with corresponding rigidity and precision. It is no exaggeration to say that this platter with its massive rotational energy has reached the point where it can keep rotating under its own force. The effects of remote drive where there is no drive motor beneath the track of the cartridge can be described as the fruit of a design policy which is one step advanced from no-resonance design.

REMOTE DRIVE UNIT

# RX-3000/RY-3300

PLATTER UNIT

MOTOR UNIT



# RX-3000/RX-3300 emphasize the bare characteristics of the rotary mechanisms and produce a clean and natural rotation

## Platter with massive moment of inertia

In order to achieve a high-quality sound reproduction from a stable rotational performance, this platter is made of gunmetal (85% copper, 15% tin and other metals) which displays a high specific gravity and high internal loss. This material allows the platter to exhibit an ultra-high inertia with a weight of 10 kg and a moment of inertia of 1,500 kg·cm<sup>2</sup>.

This platter with its 31 cm diameter and high-precision machining features a structure which is designed to accommodate records directly. Therefore, compared with the use of a rubber platter mat, there is a marked improvement in the quality of the reproduced sound, localization, resolution, distortion and other factors.

The contact between the stylus and the sound grooves is of utmost significance with disc sound reproduction, and so in a dynamic state such as record play, it is important for the fulcrum to be pinpointed all the time. By eliminating the platter mat, the record becomes integrated with the platter and the effect of the record's stiffness is increased so that the response of the stylus to the sound grooves is in turn improved.

A further improvement in the sound quality can be produced with the use of the disc stabilizer (option, ST-10).

## Super-thick, highly rigid platter shaft

The platter shaft features a highly rigid and precise design as a fulcrum so that it can sufficiently support the platter which accumulates a massive reserve of energy with its 10 kg weight and 1,500 kg·cm<sup>2</sup> moment of inertia.

After the 16 mm diameter stainless steel shaft is hardened by heat treatment and polished, it is lapped with a combination of a pair of bearings, and then given a mirror finish. Special alloy bearings are employed for the bearing side which comes in contact with the shaft surface. With this and the accompanying rotation of the shaft the molecules of the lead are extracted evenly on the oil film while a new material is used to maintain a smooth rotation at all times.

Consequently, the signal-to-noise ratio is remarkably improved. The end of the shaft features a high level of hardness and a steel ball which is extremely resistant to wear, while its design displays high mechanical strength and precision as a fulcrum.

An oil bath full of oil is adopted between the shaft and the bearings and so there is no fear that the oil will run out. Moreover, this path is very effective in damping resonance which accompanies the rotation of the platter and the overall signal-to-noise ratio is improved.

The shaft mechanism is housed in a large-sized housing and the construction is more than enough to cope with the weight of the platter. Huge nuts are used to mount the housing onto the frame, and since they are tightened, the housing is made completely integrated with the frame.



## Three-footed frame with superior stability

In order to support the rotary mechanisms, a frame with a high mass is required. In consideration of structural strength, this frame, together with its brass feet, weighs a total 19.5 kg on account of the aluminum and zinc used in its make-up. The frame is installed horizontally and so its height can be adjusted. Furthermore, the clearance between the platter inside and the frame is a mere 1 mm. Sufficient consideration is given to combating resonance by eliminating the layer of air on the platter inside.

## Heavy-duty motor unit with zinc frame

The motor unit is made of zinc and it weighs a total of 8.4 kg to provide the mass capable of coping with the rotational energy of the platter. Both the drive motor and the pulley are rigidly secured in the structure.



## Specifications

Power requirements	AC 120 V/230 V (50/60 Hz)
Power consumption	4 W
Motor	DC servo motor
Motor speed (rpm)	666 with 33-1/3, 900 with 45 rpm
Speed adjustment range	±6%
Dimensions	185(W) x 200(D) x 95(H) mm
Weight	8.4 kg

## Driving string with high attraction strength and minimal transmission loss

"Aramid" is used for the string which transmits the rotation to the platter. It is ideal for drive applications because of its physical properties: it has an extremely high tensile strength and minimal elongation when broken. Consequently, the initial characteristics are maintained for a long time and there is very little loss in transmitting the rotation. The string itself is made up of 134 fibers each measuring 12.1 micron and twisted to give a tensile strength of 24.5 kg.

## Attachable arm rest

The top of each of the feet is made into a screw type of cap. This design allows the RX-1 rest base (option) to be attached for tonearms which are not integrated with the rest.

## Configuration of remote drive unit

- **RX-3000 platter unit**  
Dimensions: 440x440x130 mm (WxDxH)  
Weight: 29.5kg
- **RX-3300 motor unit**  
Dimensions: 185x200x95 mm (WxDxH)  
Weight: 8.4 kg
- **Arm mount (option)**  
AX-1G ~ AX-6G  
AX-1G: Standard type for 200~235 mm effective arm length  
AX-2G: For SME3009 only  
AX-3G: Long type for 200~309 mm effective arm length  
AX-4G: For SME3012 only  
AX-5G: Standard type for large-diameter shafts  
AX-6G: Long type for large-diameter shafts
- **RX-1 arm rest (option)**
- **K-5 driving string (accessory)**

## Examples of compatible tonearms

- **AX-1G** MICRO/MA-505X, 505S, 707X  
ADC/LMF-1·LMF-2  
EMT/929  
ORTOFON/RS-212·RMG-212  
AUDIO TECHNICA/AT-1055II  
AUDIO CRAFT/AC-300A·300MKII  
DENON/DA-303·305·307·309  
FR/FR-54·24MKII·14·12  
GRACE/G-545F·940F·704·714  
SAEC/WE-308N·308SX  
SONY/PUA-1500S  
TECHNICS/EPA-101SL·121L·99  
STAX/UA-7  
DYNAVECTOR/DV-505  
PIONEER/PA-1000
- **AX-2G** SME/3009
- **AX-3G** MICRO/MA-505LX·505LS  
EMT/997  
ORTOFON/RMG-309  
AUDIO CRAFT/AC-400A·400MKII  
DENON/DA-302·304  
GRACE/G-565F·860F·960  
SAEC/WE-308L  
SONY/PUA-1500L  
STAX/UA-70
- **AX-4G** SME/3012
- **AX-5G** AUDIO TECHNICA/AT-1503II·1503III  
FR/FR-64·64S
- **AX-6G** AUDIO CRAFT/AC-3000MC·4000MC  
AUDIO TECHNICA/AT-1501II·1501III  
FR/FR-66·66S  
SAEC/WE-506/30  
VICTOR/UA-7082  
TECHNICS/EPA-100

\*Special machining of the mount is required for the mounting of other tonearms.

