

## The Precise Complement.

Ortofon started in business as manufacturers of the cutterheads which actually cut records. Today our cutterheads and amplifiers are used in this process by many major studios, and we are still the only company in the world making both cutterheads and playback cartridges. It is a position which has given us unique experience and a decided advantage over the competition.

Since those cutterheads operate on the moving coil principle, it seemed only natural to use that same system when we began making cartridges as well.

In cutting records, the sound signals are fed to the coils which move in a magnetic field. They then drive the cutting stylus, which presses the signals into the record's grooves.

When playing the record, these signals move the stylus at one end of a cantilever. At the other end of this cantilever is a pair of coils, one for each stereo channel, which also move in a magnetic field.

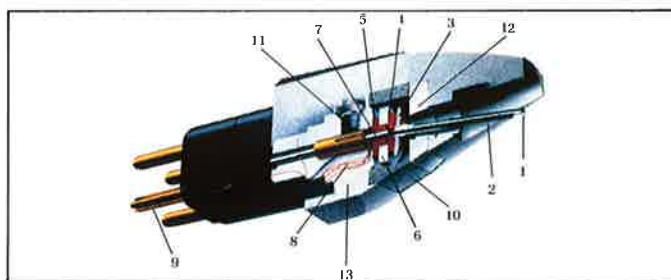
Because the motion of these coils can produce true replicas of the signals which originally drove the cutterhead, moving coil cartridges are the precise complement to the moving coil cutterheads. No other type of cartridge can reproduce the sound with such accuracy.

## How the Moving Coil Works.

A moving coil cartridge is really a miniaturised power generator. Electrical current is generated in the coil, when it moves in a magnetic field. Our illustration shows the patented construction principle used in Ortofon moving coil cartridges.

The coil winding has two different positions. In the neutral position, the magnetic field will by-pass the coil and no signal is generated. But when a movement of the stylus and cantilever shifts it to the second position, the magnetic field passes through the coil and induces an electrical signal. The two stereo channels have separate coils, located so that each produces independent signals.

The coils used in these Ortofon moving coil cartridges are so minute, they have to be wound under a microscope. Each one contains a few turns of a cop-



The basic unit consists of the following components:  
1. Nude, Fine Line diamond stylus. 2. Pure boron cantilever 3. Armature wound with signal generating moving coils. 4. Front rubber bearing  
5. Rear rubber bearing. 6. Metal disc separating the two rubber bearings  
7. Tension wire. 8. Signal leads from the moving coils. 9. Gold-plated connecting pins. 10. Ring Magnet. 11. Fastening screw. 12. Front pole piece. 13. Rear pole piece.

per wire, so fine that just one kilo (2.2 lbs) is sufficient to make almost a million cartridges.

## You Can Hear The Difference.

Most stereo cartridges on normal record decks are of the magnetic type. These provide a high standard of sound quality, with adequate output for most amplifiers, and have the added advantage of being constructed with easily replaceable styli.

Moving coil cartridges, on the other hand, are more expensive, since much of the construction and assembly has to be done by hand. And their output voltages are generally not high enough to feed the amplifier's phono inputs without the addition of a special booster device.

However, the moving coil's superior linearity and accuracy means it will give sound reproduction of a much higher quality. So this type of cartridge has always been preferred by professionals and serious music enthusiasts.



## Linear Phase Technology.

Ortofon's linear phase technology the Ortofon® Concept - has been applied to this new moving coil cartridge series. We now know that by allowing a slightly rising characteristic in the high frequency amplitude response of the cartridges we