

MAG M27BS

MAG M27BS Cartridge and Diamond Stylus User Manual

For Pioneer XL-1300, XL-1650, XL-A700 Turntables

1. INTRODUCTION

The MAG M27BS is a high-quality moving magnet cartridge equipped with a diamond stylus, designed to deliver excellent sound reproduction. This cartridge is compatible with various Pioneer turntable models, including the XL-1300, XL-1650, and XL-A700. This manual provides essential information for proper installation, operation, and maintenance to ensure optimal performance and longevity of your cartridge.

2. SETUP AND INSTALLATION

Careful installation is crucial for the best audio performance and to prevent damage to the cartridge or your records.

2.1 Unpacking and Inspection

- Carefully remove the cartridge from its packaging.
- Inspect the stylus for any visible damage. The diamond tip should be intact and centered.

2.2 Mounting the Cartridge

Mount the MAG M27BS cartridge to your turntable's headshell using the provided screws. Ensure a secure fit without overtightening.



Image 1: The MAG M27BS cartridge shown with its mounting screws, ready for installation onto a turntable headshell.

2.3 Connecting Wires

Connect the four color-coded wires from the tonearm to the corresponding pins on the cartridge. Standard color coding is typically:

- Red: Right Channel Hot (R+)
- Green: Right Channel Ground (RG-)
- White: Left Channel Hot (L+)
- Blue: Left Channel Ground (LG-)

Ensure connections are firm and correct to avoid hum or channel imbalance.

2.4 Setting Tracking Force

The recommended tracking force for the MAG M27BS cartridge is **3.0 grams**. The acceptable range is 2.5 to 3.5 grams. Refer to your turntable's manual for instructions on how to adjust the tonearm's tracking force. Incorrect tracking force can lead to poor sound quality, excessive record wear, or stylus damage.

2.5 Cartridge Alignment

Proper cartridge alignment (overhang and azimuth) is essential for accurate tracking and minimal distortion. Use an alignment protractor (often included with turntables or available separately) to correctly position the cartridge in the headshell. Consult your turntable's manual for specific alignment recommendations.

3. OPERATING INSTRUCTIONS

Once installed and aligned, the MAG M27BS cartridge operates like any standard moving magnet phono cartridge.

- Ensure your amplifier or receiver has a dedicated phono input (MM - Moving Magnet) or a phono preamplifier.
- Gently lower the tonearm onto the record's lead-in groove using the cueing lever. Avoid dropping the tonearm directly onto the record.
- At the end of the record, use the cueing lever to lift the tonearm and return it to its rest.

4. MAINTENANCE

Regular maintenance will prolong the life of your cartridge and stylus, and maintain sound quality.

4.1 Stylus Cleaning

Dust and debris can accumulate on the stylus tip, degrading sound quality and potentially damaging records. Clean the stylus regularly using a soft stylus brush, brushing gently from back to front (in the direction of play). Specialized stylus cleaning fluids can also be used sparingly.

4.2 Cartridge Body Care

Keep the cartridge body free from dust. Use a soft, dry cloth to wipe it clean. Avoid using harsh chemicals or solvents.



Image 2: A side view of the MAG M27BS cartridge, illustrating its compact design and stylus assembly.

4.3 Stylus Replacement

The diamond stylus tip will wear down over time, typically after 500-1000 hours of play, depending on care and record condition. A worn stylus can cause distorted sound and accelerate record wear. When sound

quality degrades noticeably, or if the stylus appears damaged, it should be replaced. Contact your retailer for a replacement stylus for the M27BS cartridge.

5. TROUBLESHOOTING

If you experience issues with your MAG M27BS cartridge, consider the following common problems and solutions:

- **No Sound or Weak Sound:**
 - Check all wire connections between the cartridge, tonearm, and amplifier.
 - Ensure the amplifier is set to the correct input (Phono MM).
- **Distorted Sound:**
 - Verify the tracking force is set correctly (3.0g).
 - Clean the stylus tip.
 - Check for proper cartridge alignment.
 - Inspect the stylus for wear or damage.
- **Skipping or Jumping:**
 - Ensure tracking force is within the recommended range.
 - Check for proper anti-skate setting on your turntable.
 - Inspect records for dirt, dust, or scratches.
 - Verify the turntable is on a stable, level surface.
- **Humming Noise:**
 - Ensure all ground wires are properly connected (turntable to amplifier).
 - Check for loose cartridge wire connections.
 - Ensure no power cables are running too close to audio cables.

6. SPECIFICATIONS

Feature	Specification
Type	Moving Magnetic Cartridge with Diamond Stylus Needle
Model	M27BS
Output Voltage (at 1kHz, 5 cm/sec)	5.5 mV \pm 3dB
Channel Balance (at 1kHz)	Below 1 dB
Channel Separation (at 1kHz)	More than 15 dB
Frequency Response	20 ~ 20,000 Hz
Tracking Force	3.0g (Recommended range: 2.5 ~ 3.5g)
Stylus Tip	Stereo Spherical Diamond Tip

7. WARRANTY AND SUPPORT

7.1 Warranty Information

This product comes with a **6-month warranty** from the date of purchase. Additionally, a **14-day 'any reason' return policy** is offered. Please retain your proof of purchase for warranty claims.

7.2 Customer Support

If you require further assistance with fitting, installation, or have any questions regarding your MAG M27BS cartridge, please contact your retailer or the manufacturer's customer support. Contact information can typically be found on the product packaging or the retailer's website.