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› Telefunken Black Diamond Series E88CC-TK Pre Amp Vacuum Tubes User Manual

TELEFUNKEN E88CC-TK

Telefunken Black Diamond Series E88CC-TK Pre Amp Vacuum Tubes

Model: E88CC-TK | Brand: TELEFUNKEN

PRODUCT OVERVIEW

The TELEFUNKEN E88CC-TK Gold Pin vacuum tube is a meticulously manufactured component designed to revive the classic transparent tonal and harmonic characteristics associated with historical TELEFUNKEN tubes. This tube, also known as the 6922, is engineered to enhance the performance of various audio devices, including phono stages, microphone preamplifiers, and other audio input stages.

It delivers accurate imaging, exceptional dynamics, and a full-bodied soundstage, making it a preferred choice for audio enthusiasts seeking high-fidelity sound reproduction. The E88CC-TK is characterized by its medium gain and low noise properties, contributing to a tight and clean audio signal.



This image displays the Telefunken Black Diamond Series E88CC-TK vacuum tube alongside its distinctive red and black packaging. The tube itself is a clear glass component with internal elements visible, featuring the 'TELEFUNKEN Elektroakustik E88CC-TK' branding. The packaging prominently features the 'TELEFUNKEN' logo and 'E88CC-TK VACUUM TUBE' text.

INSTALLATION GUIDE

Proper installation of the E88CC-TK vacuum tube is essential for optimal performance and to prevent damage to both the tube and your audio equipment. Always ensure your equipment is powered off and unplugged before handling vacuum tubes.

- Safety First:** Disconnect the power from your audio equipment and allow it to cool down completely. Vacuum tubes can become very hot during operation.
- Identify the Socket:** Locate the tube socket where the E88CC-TK will be installed. Ensure it is compatible with a 9-pin noval base. Note that the E88CC-TK is a dual triode tube but is *not* a direct plug-in replacement for 12AX7 tubes due to different pin configurations.
- Handle with Care:** Hold the vacuum tube by its glass envelope, avoiding contact with the metal pins at the base. Oils from your skin can degrade the glass over time.
- Align Pins:** Carefully align the pins of the E88CC-TK tube with the corresponding holes in the socket. There is typically a keyway or a gap between pins to ensure correct orientation. Do not force the tube into the socket.
- Gentle Insertion:** Apply gentle, even pressure to push the tube straight into the socket until it is fully seated. A slight rocking motion may help, but avoid excessive force.
- Verify Seating:** Ensure the tube is firmly seated in the socket and all pins are fully inserted.
- Power On:** Once the tube is securely installed, reconnect power to your equipment and power it on. Allow a few minutes for the tube to warm up before expecting full performance.

OPERATION PRINCIPLES

The E88CC-TK (6922) is a high-quality dual triode vacuum tube primarily used in audio amplification circuits. Its design

focuses on delivering a clean signal with excellent fidelity, making it suitable for critical audio applications.

- **Audio Preamplification:** The tube excels in preamplifier stages, where it amplifies low-level audio signals from sources like turntables (phono preamps) or microphones (mic preamps) to a line-level signal suitable for further processing or power amplification.
- **Low Noise Performance:** Its low noise characteristics ensure that the amplified signal remains clear and free from unwanted hiss or hum, preserving the integrity of the original audio.
- **Dynamic Range and Headroom:** The E88CC-TK provides significant dynamic range and clean headroom, allowing for faithful reproduction of both quiet and loud passages without distortion, particularly in amplifier designs requiring cleaner output.
- **Tonal Characteristics:** Users can expect a transparent sound signature with accurate imaging and a wide, deep soundstage, contributing to an immersive listening experience.

CARE AND MAINTENANCE

Proper care and maintenance can extend the lifespan and maintain the performance of your E88CC-TK vacuum tubes.

- **Handling:** Always handle tubes by their base or glass envelope. Avoid touching the glass with bare hands, as skin oils can leave residues that may lead to hot spots and premature failure. If touched, gently wipe with a clean, lint-free cloth.
- **Cleaning:** For dust or smudges on the glass, use a soft, dry, lint-free cloth. For stubborn marks, a small amount of isopropyl alcohol on the cloth can be used, ensuring the tube is cool and unplugged.
- **Storage:** When not in use, store tubes in their original packaging or in a protective, anti-static container. Keep them in a cool, dry place away from direct sunlight, extreme temperatures, and humidity.
- **Vibration:** Minimize exposure to excessive vibration, which can damage internal tube elements.
- **Replacement:** Vacuum tubes have a finite lifespan. If you notice a degradation in sound quality, increased noise, or visible signs of wear (e.g., getter flash turning white), it may be time for replacement.

TROUBLESHOOTING COMMON ISSUES

If you encounter issues with your E88CC-TK vacuum tube, consider the following common problems and their potential solutions:

| Problem | Possible Cause | Solution |
|-----------------------------|--|---|
| No Sound or Very Low Output | Tube not seated properly; faulty tube; incorrect tube type for socket. | Ensure tube is fully and correctly seated. Test with a known good tube if available. Verify equipment compatibility (E88CC-TK is not a direct 12AX7 replacement). |
| Hum or Buzzing Noise | Ground loop; tube microphonics; aging tube; external interference. | Check all cable connections. Try rotating the tube in its socket. Replace the tube if it's old or suspected to be microphonic. Ensure proper shielding. |
| Distorted or Weak Sound | Failing tube; incorrect bias (if applicable to equipment); component failure in equipment. | Replace the tube. Consult your equipment's manual for bias adjustment. If problem persists, seek professional service for your audio equipment. |
| Tube Does Not Light Up | Heater failure (dead tube); no power to equipment; faulty socket. | Ensure equipment is powered on. Check if other tubes light up. Replace the tube. If still no light, consult a technician. |

If troubleshooting steps do not resolve the issue, it is recommended to consult a qualified audio technician or contact the product support for further assistance.

TECHNICAL SPECIFICATIONS

| Feature | Detail |
|--------------------------------------|---|
| Product Model Number | E88CC-TK |
| Equivalent Tube Type | 6922 |
| Tube Type | Dual Triode |
| Base Type | 9-pin Noval |
| Manufacturer Discontinued | No |
| Country of Origin | Slovakia |
| ASIN | B0779H676R |
| Recommended Rating | 4.0 out of 5 stars (based on 4 ratings) |
| Date First Available on Amazon.co.jp | April 25, 2018 |

WARRANTY AND SUPPORT

For information regarding warranty coverage, technical support, or service for your TELEFUNKEN E88CC-TK vacuum tube, please refer to the documentation provided with your purchase or contact the authorized TELEFUNKEN distributor or the seller directly. Specific warranty terms may vary by region and retailer.

It is recommended to retain your proof of purchase for any warranty claims.