



MAGNUM DYNALAB
PURE SOURCE AUDIO

MD 102 & MD 102T

Analog FM Tuner



.093 THICK PRINTED CIRCUIT BOARD
BALANCED GOLD PLATED OUTPUT
SHIELDED TORROIDAL TRANSFORMER
MIT CAPACITORS
WBT UNBALANCED (RCA) OUTPUT
ULTRA LINEAR CAPACITORS
BURR BROWN OP AMPS
MD REFERENCE 6922 VACUUM TUBES
KIMBER HYPER-PURE COPPER WIRING

FEATURES

SIGNAL

MUTE

Everything an FM Tuner Should Be.

MD 102 & MD 102 Triode FM Tuner

MD 102 MD 102T

HIGHLIGHTS

.093 THICK PRINTED CIRCUIT BOARD

A solid footing to minimize any residual vibration in the chassis to allow all components to operate at peak performance. Further, all contact points are generously gold plated to ensure complete signal transfer over the long haul.

BALANCED OUTPUT WITH GOLD PLATED NEUTRIK CONNECTORS

Fully complimentary circuit insures a perfectly balanced signal, and exact dimensions ensure maximum conductivity.

SHIELDED TORROIDAL TRANSFORMER

Coupled with a high grade aluminum chassis, device is completely shielded from stray signals and transient noises. The high grade custom designed transformer reduces the overall noise floor of the tuner.

MIT CAPACITORS

Used in the final audio stage and bypass, creating sound purity consistent with the original signal, with 20,000 uf. filtration.

WBT UNBALANCED (RCA) OUTPUT CONNECTORS

Low tolerance connector made of highly ductile "OFC" copper, with 24 carat gold plated contacts. Ensures a perfect signal transfer for interconnects.

ULTRA LINEAR CAPACITORS IN THE POWER SUPPLY

Provides a pure source of DC power, and improves the frequency response of the tuner.

BURR BROWN OP AMPS WITH BLACK GATE CAPACITORS

Proven performance from industry leading suppliers with zero degradation over the long haul.

DESIGN FEATURES EXCLUSIVE TO THE MD 102T:

KIMBER HYPER-PURE COPPER WIRING

High grade internal wiring provides a clean, uncolored path for the signal through the audio stage of the unit.

MD REFERENCE 6922 VACUUM TUBES

Included in the audio amplification stage, our 6922 MD Reference Tubes are designed to our exacting standards and tested individually for specifications.



TUNER

Everything an FM Tuner Should Be

With a host of common features, and a long list of world-leading components, they are two of our most popular tuners. The MD 102 and MD 102T are both staples in our line-up of Analog FM tuners, and provide consumers with the option for a solid state or Triode Tube audio stage.

Both are built with the same precision aligned R.F. section found in all Magnum Dynalab tuners, with a proprietary in-house designed and manufactured front end. With five-stages of RF filtering, multiple bandwidth settings and a host of other RF features, the listener will swear that the incoming signal is a mirror image of the original recording. In fact, many of our consumers are amazed by the depth and clarity of the resultant sound achieved through the MD 102 & MD 102T, often comparing it to that of much more expensive CD players.

RF

Advanced RF Features

The RF stages of the MD 102 & MD 102T are identical, and both feature a myriad of RF features found only in Magnum Dynalab FM tuners.

Tunable five stage ANALOG front end: Five stages of RF filtration, providing station separation without affecting stereo separation. As always, the front end is a custom designed and manufactured in-house design.

Multiple Bandwidth Settings: The MD 102 & 102T offer both Ultra Wide and Narrow IF Bandwidth settings to produce the best SOUND where adjacent channel interference is, or is not a factor.



Dual AGC (automatic gain control) stage: This automatic circuit design eliminates the need for a local and distant switch, altering the amount of relative gain that's added to the incoming signal.

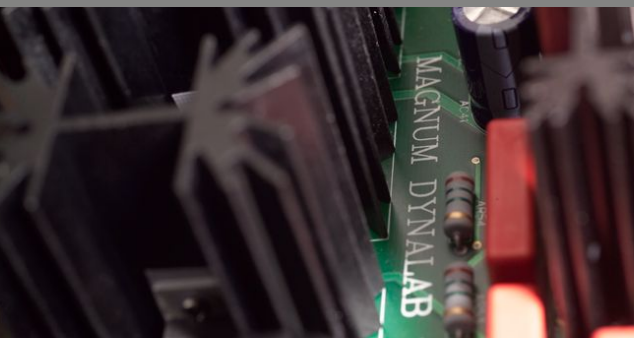
Auto Blend RF Circuit: Automatically monitors and adjusts stereo separation to maximize "stereo quieting", insuring the quietest stereo signal as possible. This greatly eliminates background noise.

Precision tunable matched IF (intermediate frequency) amplifiers: Ensures consistent specifications for adjacent channel separation, alternate channel separation and low distortion.

Precision Voltage Stabilizers in the Power Supply: Ensures precise tuning of the incoming RF signal.

Dual Antenna Inputs: Provides the flexibility to position different antennas in multiple locations to accommodate differing incoming signals.

Defeatable Mute: Eliminates any interstation noise while tuning.



Analog Meters: Functional and easy-to-read multipath/signal strength measurements showcased through an analog meter.

Fully shielded RF section-eliminates any interference from stray signals.

AUDIO

Audio Output Stage

Where the MD 102 and MD 102T differ is in the finer details of our analog audio output stage. Specifically, our classically designed MD 102 features a solid state output board with transistors specifically chosen to match our exacting specifications, where in the MD 102T we have added MD Reference 6922 tubes in the amplification stage of the audio section. Our tubes help provide audio realism and coloration for those customers with a special partiality for tube technology.

Regardless of your selection, both products also share a common list of design characteristics. Both feature a zero feedback design in the audio stage, ensuring the waveform is unaltered throughout the output circuit. They are both truly high-performance products, worth of inclusion in any audiophile's system.

ANALOG

Why Analog?

Many people question why we are one of the only companies that continue to build a truly ANALOG FM tuner and ANALOG remote control. The answer is very simple. The best SOUND can only be produced when the signal received by the tuner is tuned and maintained in the ANALOG domain. By maintaining



the signal in the ANALOG domain the customer has infinite tuning across the FM band; this is achieved by the use of a knob instead of the pushbutton step function tuning offered by a digital tuner. Because of our design and manufacturing process, the front end and the IF (intermediate frequency) amplifiers are precision aligned, which guarantees that all specifications are met all the time; this is not possible in a digitally tuned tuner, as they are dependent on the tolerances of the components.

By calibrating and aligning the IF (intermediate frequency) amplifiers we are optimizing **SOUND**, **SENSITIVITY** and **SELECTIVITY**.

UPGRADE

The Precision Analog Remote System

The Precision Analog Remote System is now available as an option on all production Magnum Dynalab tuners, receivers and as an update to all previous Magnum Dynalab tuners and receivers.

For more details, please visit www.magnumdynalab.com.

SPECS

Specifications

Usable sensitivity (Mono) – **0.7 μ V 9.0 dBf**
50 dB quieting (Mono) – **2.0 μ V 9.9 dBf**
50 dB quieting (Stereo) – **2.3 μ V 25.0 dBf**
Capture ratio – **1.5 dB**
Image rejection – **110.0 dB**
Signal to noise ratio – **80.0 dB**
Alternate channel (Wide) – **40.0 dB**
Alternate channel (Narrow) – **70.0 dB**
Adjacent channel (Wide) – **3.0 dB**
Adjacent channel (Narrow) – **35.0 dB**
THD (Mono) – **0.10 %**
THD (Stereo) – **0.18 %**
Stereo separation – **50.0 dB**
AM suppression – **70.0 dB**
SCA rejection – **80.0 dB**
IF rejection – **80.0 dB**
19 KHz and 38 KHz component rejection – **75.0 dB**
Audio frequency response (+/- 1 dB) – **15 Hz – 17KHz**
Balanced audio output – **2.2 V**
Line audio output (RCA) – **1.0 V**
Line power (Must be specified) (110/220/230/240) – **VAC**
Dimensions (inches H.W.D.) – **4 x 19 x 15**
Dimensions (cm H.W.D.) – **11.43 x 48.3 x 38.1**
Weight (lbs./kgs) – **18/7.96**
Power consumption (Typ/Max) – **50w/100w**
Tube Specifications for MD102T:
Filament current (max) 330 mA (min) 270 mA
Anode current (1) (max) 1.07 mA (min) 0.92 mA
Anode current (2) (max) 1.07 mA (min) 0.92 mA
Total harmonic distortion < 1.8%
Tubes position 1 and 2 – MD Reference 6922

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