



Magnum Dynalab MD 205

Signal Sleuth FM SIGNAL PROCESSOR

INSTRUCTION MANUAL

TABLE OF CONTENTS

| | |
|---|----------|
| HOW THE MD 205 SIGNAL SLEUTH WORKS | 3 |
| SET UP AND OPERATION | 4 |
| IMPORTANT INSTRUCTIONS | 5 |
| PRODUCT SPECIFICATIONS | 6 |
| SAFETY SHEET | 7 |
| LIMITED WARRANTY | 8 |

HOW THE MD 205 SIGNAL SLEUTH WORKS

The Sleuth is a tunable RF processor for the 88-108 MHz frequency band. It is capable of applying amplification or attenuation (+ 30dB to -30dB) within this frequency range. To accomplish its task, the Sleuth adds three RF stages to your existing tuner's front end. This circuitry is designed and tuned to optimize the performance of any FM tuner.

The Sleuth has a 600 KHz skirt to help improve the adjacent channel specification of your tuner.

Tuning is accomplished using solid state components (varactors) which are controlled by a long-life low noise potentiometer. The signal is passed through the Sleuth's circuitry when the unit is powered up and the 'Antenna Switch' is in the amplify position. When the switch is in the 'bypass' position, no amplification is taking place and the signal is fed directly into your tuner.

The performance of the Sleuth is directly influenced by the type and capability of the antenna. The better the antenna, the better the sleuth will perform. Please see the section on *Reception Techniques* for more information.

SET UP AND OPERATION

DO NOT DISCARD THE PACKAGING. Should it be necessary to return the unit, and it is not packaged in its original packaging, you will be responsible for any damages that might occur during shipping. You may also be charged for the new packaging required to ship the unit back to you.

1. Familiarize yourself with the unit's rear panel, noting the connector marked "*Antenna Input*" and which is "*Output to Tuner*".
2. Connect one end of the supplied patch cord (3 ft. long piece with 'F' connectors on each end) to the connector marked "*Output to Tuner*", connect the other end to the 'F' connection on your tuner.
3. Connect your antenna lead to the connector marked "*Antenna Input*" on the rear of the MD 205.
4. Make sure both switches on the front of the unit are in the off position; *Power* in the off position and *Antenna Signal* in the Bypass position. Plug the AC line cord into an outlet that matches the voltage marked on the back of the unit. **Significant damage will be done to the unit if the wrong voltage is applied.**
5. Turn the unit on by moving the *power* switch to the 'ON' position. The left most LED should light up. Move the *antenna signal* switch to the 'Amplify' position, the LED should light up. Return both switches to the 'OFF' position.

The following procedure should be carried out with the tuner's Mute switched to 'OFF'. The Sleuth's RF Gain control should be at the full counter-clockwise position, beyond the point where a 'click' is heard. This places the Sleuth at a factory set gain position of '-30 dB'.

6. Turn the Sleuth 'ON'. Turn your FM tuner 'ON' making sure the FM stereo is switched on. Select a station known to be moderately strong, set the Sleuth's tuning control so its cursor is at approximately the same frequency. Place the Sleuth's *Antenna Signal* switch in the 'Amplify' position. This station should be heard although it may be somewhat weaker.
7. Rotate the *RF Gain* control fully clockwise, you will feel a click as you begin to turn the control clockwise.
8. Observe the signal strength on the tuner. Rotate the Sleuth's *Tune* control slightly to the left and right, watch for the highest reading on the signal strength meter or the clearest audio.

9. Rotate the *RF Gain* control counterclockwise until you see the signal strength get weaker or a noticeable change in the audio is heard, rotate the control clockwise until the optimum situation returns.
10. You may now turn the *Mute* switch to the 'ON' position.
11. To work with other frequencies, turn the *Antenna* switch on the Sleuth to the 'bypass' position, tune your tuner to the new frequency, turn the *Tuning* knob on the Sleuth to the same frequency, turn the *Antenna* switch to amplify. Rotate the *Gain* control and the *Tuning Knob* on the Sleuth to optimize the signal strength or audio. Repeat this procedure for other frequencies.
12. A situation may occur where there is too much signal coming into the tuner, in this situation you would want to turn the *Gain* control on the Sleuth counter clockwise past the '0' dB setting to attenuate the signal strength.

IMPORTANT INSTRUCTIONS

1. The Sleuth's POWER switch must be on at all times when you are using your FM tuner and the Sleuth is installed in your FM tuner's line. If it is not turned on, the signal will not reach your tuner.
2. The Sleuth's *Tuning* and *RF Gain* circuitry is enabled only when the ANTENNA SIGNAL switch is in the 'AMPLIFY' position.

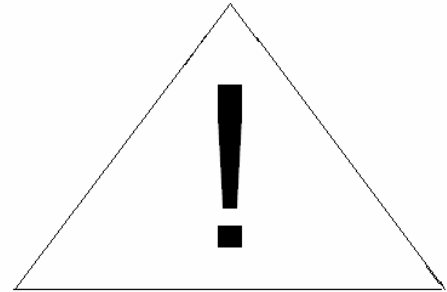
PRODUCT SPECIFICATIONS

| | |
|------------------------|--|
| CIRCUIT: | 3 varactor-tuned RF stages |
| GAIN: | VARIABLE -30 dB thru + 30 dB |
| TUNING RANGE: | 88-110 MHz |
| BANDWIDTH: | Better than 400 KHz |
| NOISE: | Less than 4 dB |
| DISTORTION: | 0 % |
| ANTENNA INPUT: | 75 ohms |
| POWER REQUIRED: | 230/240/110 volts |
| SIZE: | 17" x 1.75" x 6" 43.18cm x 4.45cm x 15.24cm |
| WEIGHT: | 6 LBS/ 2.65 KG |

SAFETY SHEET

IMPORTANT SAFETY INSTRUCTIONS

1. KEEP THESE INSTRUCTIONS
2. HEED ALL WARNINGS
3. FOLLOW ALL INSTRUCTIONS
4. DO NOT USE THIS APPARATUS IN WATER
5. CLEAN ONLY WITH DRY CLOTH
6. DO NOT BLOCK ANY VENTILATION OPENINGS, INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER APPARATUS (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.
8. DO NOT DEFEAT THE SAFETY PURPOSE OF THE GROUNDING TYPE PLUG. THE GROUNDING PLUG HAS TWO BLADES AND A THIRD GROUNDING PRONG. THE THIRD PRONG IS PROVIDED FOR YOUR SAFETY. IF THE PROVIDED PLUG DOES NOT FIT INTO YOUR OUTLET, CONSULT AN ELECTRICIAN FOR REPLACEMENT OF THE OBSOLETE OUTLET.
9. PROTECT THE POWER CORD FROM BEING WALKED ON OR PINCHED PARTICULARLY AT PLUGS, CONVENIENCE RECEPTACLES, AND THE POINT WHERE THEY EXIT FROM THE APPARATUS.
10. ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.
11. UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.
12. REFER ALL SERVICING TO QUALIFIED PERSONNEL. SERVICING IS REQUIRED WHEN THE APPARATUS HAS BEEN DAMAGED IN ANY WAY, SUCH AS THE POWER SUPPLY CORD OR PLUG IS DAMAGED, LIQUID HAS BEEN SPILLED OR OBJECTS HAVE FALLEN INTO THE APPARATUS, THE APPARATUS HAS BEEN EXPOSED TO RAIN OR MOISTURE, DOES NOT OPERATE NORMALLY, OR HAS BEEN DROPPED.
13. THE EQUIPMENT REQUIRES A GROUNDED POWER OUTLET TO OPERATE SAFELY.
14. THE POWER SUPPLY CORD IS THE MAIN DISCONNECT AND SHALL BE READILY OPERABLE.



“WARNING” TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

MAGNUM DYNALAB

LIMITED WARRANTY

Register your product at www.magnumdynamalab.com

Magnum Dynalab Ltd. herein referred to as the "manufacturer" guarantees this product to be free of defect in both material and workmanship and agrees to remedy any such defect or replace any defective component at no charge for a period of two years from date of sale to the first end user. This warranty is void if the product has been found to be subjected to misuse, abuse, lightning strike, unauthorized service, damaged in transit or has been altered or repaired in such a way as to detract from its performance, reliability or its safe operation. All tubes are covered for 12 months.

Should such defect be discovered and it falls within the terms of this guarantee, the manufacturer will correct the defect in workmanship and/or replace any defective component with a new one of similar capability and value. This warranty does not apply to the cabinet or appearance items such as the faceplate, control knobs or meter lenses nor does it cover any expenses in shipping the unit to the appropriate service depot.

The foregoing is in lieu of any other warranties expressed, implied or statutory and the manufacturer neither assumes nor authorizes any person to assume for it any other obligation or liability in the connection with the sale of this product. This warranty is not transferable except by written authorization from the manufacturer.

In order to qualify under the terms of the above warranty, all items must be returned to the appropriate factory service depot with all shipping charges prepaid in lieu of having previously registered the purchase of the unit by completing and returning the attached Registration Card, the unit must be accompanied by proof from an authorized Magnum Dynalab Ltd. dealer.

| YOUR LOCATION | RETURN SHIPPING ADDRESS |
|------------------------|--|
| Within the USA | Magnum Dynalab c/o Trans American 2775 Broadway, Buffalo, NY, USA 14227-1043 PHONE: 1-800-551-4130 |
| Within Canada | Magnum Dynalab Ltd. 8 Strathearn Avenue, Unit # 9 Brampton, ON, Canada L6T 4L9 PHONE: 1-800-551-4130 |
| Other Countries | Contact selling dealer |

TO PREVENT FIRE SHOCK OR HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR FACEPLATE, NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

MAGNUM DYNALAB