



Magnum Dynalab MD 301
HYBRID INTEGRATED AMPLIFIER

INSTRUCTION MANUAL

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Dear Valued Customer

Thank you for choosing the Magnum Dynalab *MD 301 Hybrid Integrated Amplifier*. Great care has been given to the design, manufacturing and selection of components for the *MD 301 Hybrid Integrated Amplifier*. This complete process insures optimum listening enjoyment for many years.

When using these high grade components, a considerable length of time is required for the *MD 301 Hybrid Integrated Amplifier* to reach its full potential. Using either a high quality break-in disc or white noise from a FM tuner will help ensure optimum performance as quickly as possible.

Once again, thank you for including a MAGNUM DYNALAB product in your entertainment system. We are sure that you will have years of listening pleasure from your *MD 301 Hybrid Integrated Amplifier*. Please be sure to register your product at www.magnumdynalab.com, and if there is anything else we can do, please call us on our toll free number, 1-800-551-4130, or contact us via email: info@magnumdynalab.com.

Respectfully yours,
Larry Zurowski

President

MAGNUM DYNALAB

UNPACKING YOUR MD 301 HYBRID INTEGRATED AMPLIFIER

Carefully inspect all sides of the shipping carton for damage. If there are marks or holes in the carton make note of the location in relation to the unit inside. Any obvious dents or scuff marks should alert you to the possibility of damage. Carefully remove the MD 301 Hybrid Integrated Amplifier from the end caps and wrapping, inspect all sides. Pay special attention to the corresponding areas on the unit where damage was found to the shipping carton. If damage is evident, document the type and extent of the damage, then repack the unit and call the dealer.

KINDLY DO NOT SEND THE UNIT BACK TO THE SHIPPER UNTIL YOU HAVE BEEN ASKED TO DO SO.

DO NOT DISCARD THE PACKING MATERIALS AND CARTONS. Should there be a necessity to return the unit for any reason, it must arrive safely and suitably packaged in order for our receiver to accept it from the carrier. If the unit has incurred damage as a result of improper packaging, it is not likely that a claim for the damage against the carrier will be successful.

Likewise, we will ship your unit back to you only in factory-approved packaging, however, if the unit were to arrive at the factory on anything other than factory approved packaging, we reserve the right to return the unit in factory-approved packaging and charge the cost of the packaging to the shipper. This is the only way we can assure you of a safe return (damage by carrier excepted).

SETTING UP THE MD 301 HYBRID INTEGRATED AMPLIFIER

1. Position the unit away from any spot which may have extremes in temperatures.
2. Place the unit on a very rigid surface capable of holding 75 pounds (34 KG).
3. The heat sinks located inside the unit are used to keep the unit at a safe operating temperature. It is important that they are not covered and that the unit is not installed in a closed area where there is little air circulation. Ensure at least 2" of clearance on the left and right of the device, and 5" of clearance above the unit to allow for proper ventilation.
4. Unwrap the EIA AC cord and plug the EIA end into the rear socket marked *Power Input*. Plug the other end of the AC cord into a 120/220/230/240 volt continuous AC power supply. Be sure that the voltage marked on the rear of the unit is the same as the AC source that you are using.
5. Hook up your speakers to the back of the unit insuring that the positive (+) terminal on the speaker is hooked up to the positive (+) output terminal on the MD 301, likewise that the negative (-) is correctly hooked up. Be sure that all the connections are tightly affixed.
6. Turn on the power switch on the front panel

CONNECTING ADDITIONAL SOURCES TO THE MD 301 HYBRID INTEGRATED AMPLIFIER

CAUTION

As standard practice, you should always turn off the main power to the MD 301 Hybrid Integrated Amplifier whenever any source component, interconnect or loudspeaker is being changed in your system.

1. Using your RCA cables, plug your source(s) into one of the inputs marked in the back of the MD 301
2. Power up you Hybrid Integrated Amplifier and set the input to match the input on the rear of the unit that the other source is plugged into.

3. With volume set to zero, power up the source, initialize the playback, and slowly adjust volume to desired level.

SET UP THE MD 301 HYBRID INTEGRATED AMPLIFIER WITH AN EXTERNAL HOME THEATER PROCESSOR

The MD 301 Hybrid Integrated Amplifier is equipped with a unity gain input (A3/SSP Mode Input on the Pre-Amplifier section). This is a switchable input, meaning the input can be used as a normal pre-amplifier input or in unity gain mode.

To Connect to a Home Theater Processor

1. Turn all the power off to the MD 301 and unplug the power cord.
2. Connect your theater processor Main Left and Right interconnects into the MD 301 Hybrid Integrated Amplifier through the A3 input.
3. Connect your Main Left and Right speakers to the MD 301 Hybrid Integrated Amplifier speaker connections.
4. Re-connect the power to the MD 301 Hybrid Integrated Amplifier. Push the "POWER" button to the "ON" position.
5. Push the input button or use the remote to select input Aux 3. On the remote Select input and OO. You will see the display switch to P1 and then the volume display will go dark, indicating that there is no volume being controlled by the MD 301.
6. Input P1 is now the dedicated input and the volume is controlled by your home theater processor. To go back to normal operation push the input OO button on the remote.

HOOKING UP A SUBWOOFER TO YOUR SYSTEM

1. Unplug the power cord to the MD 301 Hybrid Integrated Amplifier.
2. Using RCA cables, connect one end to the *Pre Out* output marked on the rear of the MD 301, the other end to your subwoofer.
3. Turn the subwoofer "ON".
4. Re-connect the power to the MD 301 Hybrid Integrated Amplifier. Push the "POWER" button to the "ON" position and adjust the volume level to suit you.

Please note the volume of the subwoofer is controlled by the volume control on the Hybrid Integrated Amplifier.

OPTIONAL DIGITAL AUDIO CONVERTER (D.A.C)

The Digital Audio Converter (D.A.C.) provides an additional USB, and two (2) coaxial inputs or one optical and one RCA in the back of the MD 301 Hybrid Integrated Amplifier.

1. Connect an external source to the USB, or either of the coaxial inputs.
2. Set the input displayed on the unit to correspond to the input selected on the back of the unit.

A6 REMOTE CONTROL



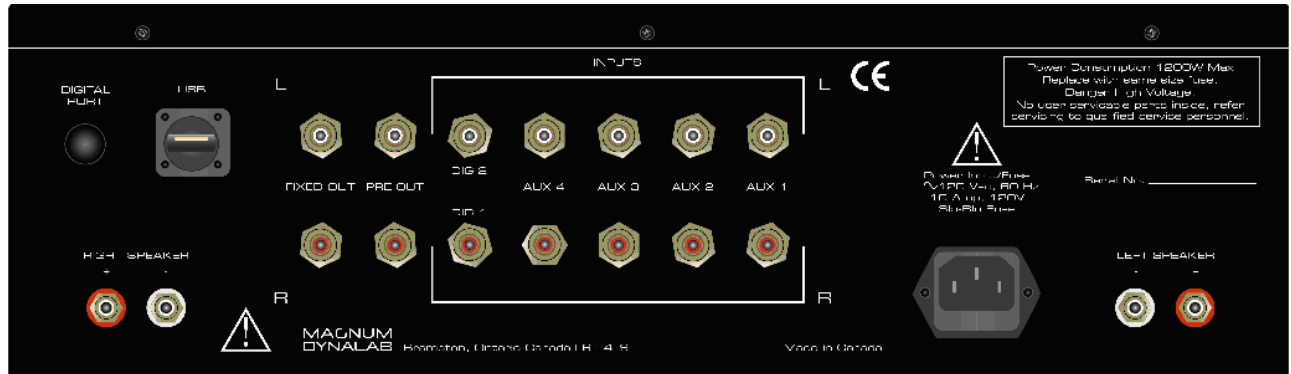
REMOTE OPERATION ON INTEGRATED AMPLIFIERS AND RECEIVERS WITH THE A6 REMOTE

1. The remote is activated with the “Audio” button. You may program other components.
2. Turn your amplifier on/off with the “ON “ button.
3. Volume is controlled by the volume “Up” and “Down” button.
4. To change inputs you first touch the “Input” key and then the corresponding numbered key for the input you want as follows: Input 1 thru 4 are AUX , 5 is blank 6 to 8 is for digital inputs which is an option
5. To audio mute touch the “Mute” button and to Un-mute touch it again.

CONTROL/DISPLAY FUNCTIONS

1. **POWER BUTTON**-Turns on main power
2. **MUTE** -Turns audio output off or back on
3. **INPUT** - Sequentially moves through the inputs on the rear of the MD 301
4. **VOLUME CONTROL** – The digitally controlled precision volume control allows you to vary the volume from 0-99. Normal operating range is 40-85. Note that it is not a linear volume control – therefore volume changes will vary more as you turn the control at higher levels than at lower levels. The volume control has been calibrated so that the volume level can not exceed the safe operating parameters of the system

DIAGRAM OF MD 301 HYBRID INTEGRATED AMPLIFIER



TROUBLE SHOOTING

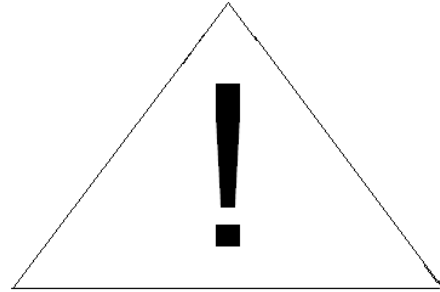
PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
No sound	<ul style="list-style-type: none"> • Power cord disconnected • Power off at source • Fuse blown • Interconnect not properly installed • Preamp set to wrong source • Power amp off 	<ul style="list-style-type: none"> • Connect power cord • Check AC source • Check rear panel fuse • Check installation of interconnects • Turn preamp to other input <p style="text-align: center;">Turn on amp</p>
Unit seems to be frozen – functions don't work	<ul style="list-style-type: none"> • Control function error 	<ul style="list-style-type: none"> • Display should still be active • Turn off the MD 301, Unplug the unit for 1 minute, restart unit
No sound from USB (optional DAC)	<ul style="list-style-type: none"> • Not compatible • Signal not receiving 	<ul style="list-style-type: none"> • Restart your computer or program • If using a MAC, you must go to "system preferences", "sound" and select "USB DAC"

SPECIFICATIONS

Power Output	100 Watts into 8 Ohms, 200 Watts into 4 Ohms
Audio Frequency Response (+/-0.1dB)	+ Zero, -0.25dB, 2Hz - 100KHz
Signal to Noise Ratio	-110dB, A-Weighted
Total Harmonic Distortion	0.05% at any power
Class of Operation	Class A/B, Class A at 1-3 Watts
Input Impedance	10k
Output Impedance after volume control	2K2
Inputs	4 Analog single ended including Surround Sound Processor input
Outputs	2 line level pre-out (variable and fixed)
Input Sensitivity	1.2V RMS
Fully Balanced Amplifier Design	8 Sanken Output Transistors per channel Continuous of all Voltages and Current
Safety Diagnostic System	
Dynamic Headroom	+3.0 Db
Dimensions (W.D.H.)	17 3/4 " x 20" X 6.5"
Shipping Weight	45 lbs
Fuse Replacement (located with AC plug)	120V, 4 amp slow blow OR 240V, 4 amp slow blow
Tube Specifications	1- EC 83
Warranty (Tubes)	1 year

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.

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.

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 same or better 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.

***All tubes are covered for 12 months.**

YOUR LOCATION	RETURN SHIPPING ADDRESS
Within the USA	Magnum Dynalab C/o Trans American 2775 Broadway Buffalo, NY 14227-1043 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.