



# McCORMACK AUDIO

BEYOND YOUR EXPECTATIONS, WITHIN YOUR REACH.

*Thank you* for purchasing the DNA-0.5 Power Drive. This amplifier was handcrafted with top quality, highly reliable components. We are confident that you will be well satisfied with its sonic performance and find pleasure in its functional beauty.

Before you enjoy these experiences, however, please take a few minutes to read this Owner's Manual and acquaint yourself with the instructions for optimal operation. This will ensure your listening pleasure today, and for many years to come.

## **OPERATING INSTRUCTIONS**

**UNPACKING**--Be sure to save the DNA-0.5's box and packing materials. Store them in a dry environment. It is best to use the original package should you need to transport the DNA-0.5.

**INSTALLATION**--Place your DNA-0.5 on a stable surface in a location which allows adequate ventilation. If it is sitting on a carpet, use either a flat board or Tiptoes underneath to keep the ventilation slots unobstructed. Do not locate it in direct sunlight or expose it to extremely high temperatures (above 70 degrees centigrade/154 degrees Fahrenheit). Allow at least four inches of open space on each side, and six inches of open space both above and behind. In a stack of components, place it only at the top or the bottom. Do not block the ventilation slots on the top or bottom, or the heat sinks on each side.

Position the DNA-0.5 as close as possible to its final installation location, while allowing access to the back panel connectors.

**CONNECTIONS**--The DNA-0.5 uses standard RCA phono jacks for input connectors, and binding posts for output connectors. Please remember that selecting high quality cables for use with this revealing component will result in superior sonic performance from your system.

**IMPORTANT!** Always install the interconnect cables first when connecting an amplifier, and remove them last when disconnecting an amplifier. This will prevent potential damage to the loudspeakers in case the power supply has not fully discharged.

1.) Install interconnect cables from the main output of your pre-amplifier to the input RCA jacks located on the rear panel. Please note the channel designators, and be certain the plugs are fully inserted, making a tight connection.

2.) Check again to be certain the DNA-0.5's power switch is turned off (push the surface of the switch handle marked "O").

3.) Install suitable speaker cables from your speaker's input connectors to the output connectors located on either side of the rear panel. Note the channel and polarity designators. When finished, recheck that all connections are correct and tight.

4.) Install the mechanical grounding spike. ( While this step is optional, we strongly recommend it because of the improved performance it produces.) This threaded spike screws into a threaded hole located on the bottom of the chassis, in the center at the rear. Install it point down, so that it touches the surface the DNA-0.5 sits on. Thread the knurled lock nut over the ground spike until it locks against the chassis. It is alright for the rear Soft Shoes (damping feet) to be raised slightly when the spike is down. You can use a coin under the spike to protect the surface beneath it, if you desire.

5.) Check that the power switch on the front panel is in the off position. Plug the AC power cord into the DNA-0.5, then plug the other end into an appropriate wall socket.

6.) Move the DNA-0.5 to its permanent location. Check that your system's volume control is turned down all the way. Turn on the front panel power switch. The POWER/PROTECT indicator should light up amber. After ten to twenty seconds, the indicator should turn green, and your DNA-0.5 will be ready for operation. If the indicator does not turn green, refer to the troubleshooting guide at the end of this manual.

**POWER SWITCH**--This switch is located on the right side of the front panel.

**POWER/PROTECTION INDICATOR**--located above the power switch on the front panel. When green, it indicates that the DNA-0.5 is turned on. When amber, it indicates that the DNA-0.5's sophisticated protection circuitry has been activated. The DNA-0.5 mutes and will not resume playing until the potentially dangerous condition has passed, shortly after which it will turn green and the program will resume.

If this color change occurs while you are listening, turn off the DNA-0.5 and refer to the troubleshooting guide at the end of this manual. It is normal for the indicator to be amber for the first 20 seconds or so whenever the DNA-0.5 has been turned on, giving its circuits time to settle and stabilize.

**BREAK-IN AND WARM-UP PERIODS**--Your DNA-0.5 has already been burned in at the factory. However, like all high quality components, it will still require a break-in period of approximately 50 hours before it will sound its best. The DNA-0.5 is always ready to play when turned on, but it will not settle into optimal operation for at least 30 minutes. It is perfectly alright to leave

your DNA-0.5 on all the time, but always be certain to turn down your system's volume control all the way, and turn your mode selector to mute between listening sessions.

## **FUSES**

**AC MAINS FUSE**--You have easy access to this fuse. It is located on the rear panel, in the lower section of the AC inlet module into which the power cord connects. You must first remove the AC power cord from this module to gain access to the fuse tray, then slide the tray out using a fingernail or small screwdriver. The correct fuse type and value are indicated on the rear panel. Replace it only with the correct type and value. If the fuse blows again immediately or after a short period of time, do not continue relacing it, as a fault condition exists which must be corrected.

**B+/B- POWER SUPPLY RAIL FUSES**--These are four five amp fast-blow fuses mounted on the output circuit boards inside the chassis. The fuse clips accommodate two 5 X 20mm type fuses per channel. To replace these, first unplug the AC power cord from the DNA-0.5, then remove the screws holding the topcover in place and lift it off. The fuses are located at the top and bottom of the front edge of the two output stage circuit boards, mounted on the left and right heatsink assemblies. Replace these fuses only with five amp 5x20mm fast-blow type fuses.

## **SPECIFICATIONS**

Output Power: 100 watts per channel into 8 ohms, and 200 watts per channel into 4 ohms, both channels driven from 20 Hz to 20 kHz at less than 1% THD.

Output Current: 25 Amps peak, per channel

Input Impedance: 100 Kohm

Input Sensitivity: .850 Vrms

Voltage Gain: 30 dB

Frequency Response: - 3dB @ .5 Hz, 200 kHz

Signal-to-Noise: 100 dB

Harmonic Distortion (1 KHz, 8 ohm load): .05%

Signal Polarity ("Absolute Phase"): Non-Inverting

Power Requirements: .65 Amps / 80 Watts @ Idle

3.2 Amps/ 400 Watts @ Clipping (8 ohms)

117 VAC / 60 Hz

Dimensions: 19" W x 5 7/8" H x 15" D

Shipping Weight: 30 lbs

## **TROUBLESHOOTING GUIDE:**

*Problem: Amplifier does not operate; POWER/PROTECT light does not light at all.*

Check AC power cord connections (both ends). Check the AC outlet for power.

If the AC connections are proper and the outlet is live, check the AC line fuse, replacing if necessary. Note that a spare fuse has been provided in one section of the pull-out fuse tray. Retest the amplifier. If the AC line fuse blows again, contact your dealer for servicing information.

*Problem: Amplifier does not operate; POWER/PROTECT light comes on and remains amber.*

**NOTE:** It is normal for the this light to be amber (the PROTECT mode) for ten to twenty seconds after the DNA-0.5 is turned on. After this period, if the light remains amber a fault condition is indicated.

Turn off the amplifier and disconnect the input and speaker cables. Turn on the amplifier. If the Protect light turns green after the ten to twenty second turn-on period, the problem is excessive DC voltage from the preamplifier or from a source component. You will need to correct this problem before continuing.

If the POWER/PROTECT light stays amber, check the condition of the B+/B- rail fuses. Replace any blown fuses. Turn on the amplifier. If the PROTECT light turns green after the stabilization period mentioned above, the problem has been corrected. If the PROTECT light stays on and/or the B+/B- rail fuses have blown again, contact your dealer for servicing information.

*Problem: Amplifier turns on normally, but no sound is produced.*

Check all connections carefully. Check your preamplifier's input, mute, and volume settings.

*Problem: The protection circuit activates during listening, muting the output and changing the POWER/PROTECT light from green to amber.*

If the PROTECT light continually cycles from green to amber and back, there is a persistent and possibly dangerous condition at the DNA-0.5's input, coming from the preamplifier or a source component. This can be in the form of excessive DC voltage or high levels of infrasonic (very low frequency) noise, such as that caused by a badly warped record. The protection circuit will activate only when such information is potentially damaging to your speakers. Correcting the problem may be as simple as turning your volume control down, or, in the case of excessive DC leakage from a source component, service may be required.

If the POWER/PROTECT light stays amber, the B+/B- rail fuses may have blown. This may have been caused by short-circuiting the output of the DNA-0.5 while it is being played, or by excessively high drive levels into a very low impedance load. Check the condition of the rail fuses and replace as necessary. If the fuses blow again, check the speaker connections for a persistent short-circuit condition. If you are unsure, disconnect the speaker cables from the amplifier. Install new fuses as necessary and try again. If the fuses blow again, contact your dealer for servicing information. If they do not blow, and the amplifier restarts normally, there is still a persistent fault condition - possibly intermittent - in the speakers or in the speaker wiring. Correct this problem before continuing.

If you have any questions regarding the DNA-0.5 amplifier, please contact your McCormack Audio Dealer.