



The DCM200L professional amp is designed utilizing Carvin's years of experience in power amp technology. The switchmode power supply not only takes the weight of this amp down to a mere 4 Lbs, but it also provides a full 100w per channel at 8 ohms! This amp is also compatible with 120/240V AC power so it can be used worldwide. It meets and exceeds every standard for professional amplification.

### PURE—TRANSPARENT SOUND

Carvin considers the sound of an amp equally important as its reliability. To insure pure, uncolored sound, we designed one of the fastest responding power amps on the market today. High slew rates deliver superb transient response. High frequencies are transparent and open—even at high levels. Linear feedback circuits reduce distortion to near the theoretical zero limit preventing any type of harshness which would lead to ear fatigue. The DCM200L amp delivers flat, transparent, unaltered sound—especially important to the studio user. These amps are designed to deliver non-stop, continuous power and are completely protected from heat and short circuits.

### ULTRA RUGGED FOR TOURING

Every chassis is made from heavy-duty 16 gauge aluminum that is lightweight and prevents rust. All internal cabling is neatly tied and harnessed. Heavy-duty power switches, recessed knobs & machined aluminum front panels all give the DCM amps a “tank-like” ability to handle rough, touring transport.

### LOSE THE WEIGHT...NOT THE PERFORMANCE

Switchmode power supplies automatically adjust to the AC voltage in your country. External transformers are not required. This technology also eliminates the weight associated with old fashioned transformers. The efficiency of switchmode technology is also another benefit. The DCM200L will use AC power efficiently with very little power wasted, this means it will function to its full capacity without using more AC power than necessary. This “green” efficiency is also a benefit when using the amp with a gas powered generator. Generators can vary in their ability to sustain a constant AC voltage, but a DCM200L will function without a problem on a small portable generator as it can function using 90-250VAC 50-60Hz. Switchmode power supplies are also known for reducing stray magnetic fields eliminating hum & noise. This is especially important for the recording industry.

For your records, you may wish to record the following information.

Serial No. \_\_\_\_\_ Invoice Date \_\_\_\_\_

### FRONT PANELS & CONNECTING UP

The DCM Series feature front panel signal, clip and protect LEDs which let you monitor the status of the amp. Both channels use precision level controls allowing you to see your settings at a glance. Balanced 1/4 phone & XLR input jacks are used to eliminate hum & noise. Speaker outputs feature 1/4" jacks and heavy-duty binding posts.

A GROUND switch removes the chassis ground from the XLR input, a PARALLEL input switch connects the inputs of both channels together eliminating Y connectors and allowing amp patching in multiple amp systems. An impedance switch and BRIDGE switch delivers optimal power to your speakers.

### RECEIVING INSPECTION—read before getting started

INSPECT YOUR UNIT FOR ANY DAMAGE which may have occurred during shipping. If any damage is found, please notify the shipping company and CARVIN immediately. SAVE THE CARTON & ALL PACKING MATERIALS. In the event you have to re-ship your unit, always use the original carton and packing material. This will provide the best possible protection during shipment. CARVIN and the shipping company are not liable for any damage caused by improper packing.

SAVE YOUR INVOICE. It will be required for warranty service if needed in the future. SHIPMENT SHORTAGE. If you find items missing, they may have been shipped separately. Please allow several days for the rest of your order to arrive before inquiring.

RECORD THE SERIAL NUMBER on the enclosed warranty card or below on this manual for your records. Keep your portion of the card and return the portion with your name and comments to us.

USA customers register online at: [www.carvin.com/registration](http://www.carvin.com/registration)  
All other countries register online at: [www.carvinworld.com/registration](http://www.carvinworld.com/registration)

### DCM200L POWER AMP SPECIFICATIONS:

#### Output Power

(Stereo, both channels driven with REAR IMPEDANCE SWITCH IN)

8Ω, 1kHz, < 0.5% THD 60/60 Watts

4Ω, 1kHz, < 0.5% THD 100/100 Watts

Minimum Impedance 4 ohms per channel

(Stereo, both channels driven with REAR IMPEDANCE SWITCH OUT)

8Ω, 1kHz, < 0.5% THD 100/100 Watts

4Ω, 1kHz, < 0.5% THD -----

Minimum Impedance 8 ohms per channel

(BRIDGE MONO with REAR IMPEDANCE SWITCH IN)

8Ω, 1kHz, < 1% THD 200 Watts

16Ω, 1kHz, < 1% THD 120 Watts

(BRIDGE MONO with REAR IMPEDANCE SWITCH OUT)

8Ω, 1kHz, < 1% THD -----

16Ω, 1kHz, < 1% THD 200 Watts

#### THD

20-20kHz < 0.1%

(8Ω typical) < 0.05%

#### Frequency Response

±0.5 dB, 20 Hz to 20 kHz

> 20kΩ Balanced or Unbalanced

Damping Factor >400

Sensitivity (@ 4ohms) 1.0 Vrms

Output Noise -102 dBm

Power Requirement 90-240 VAC

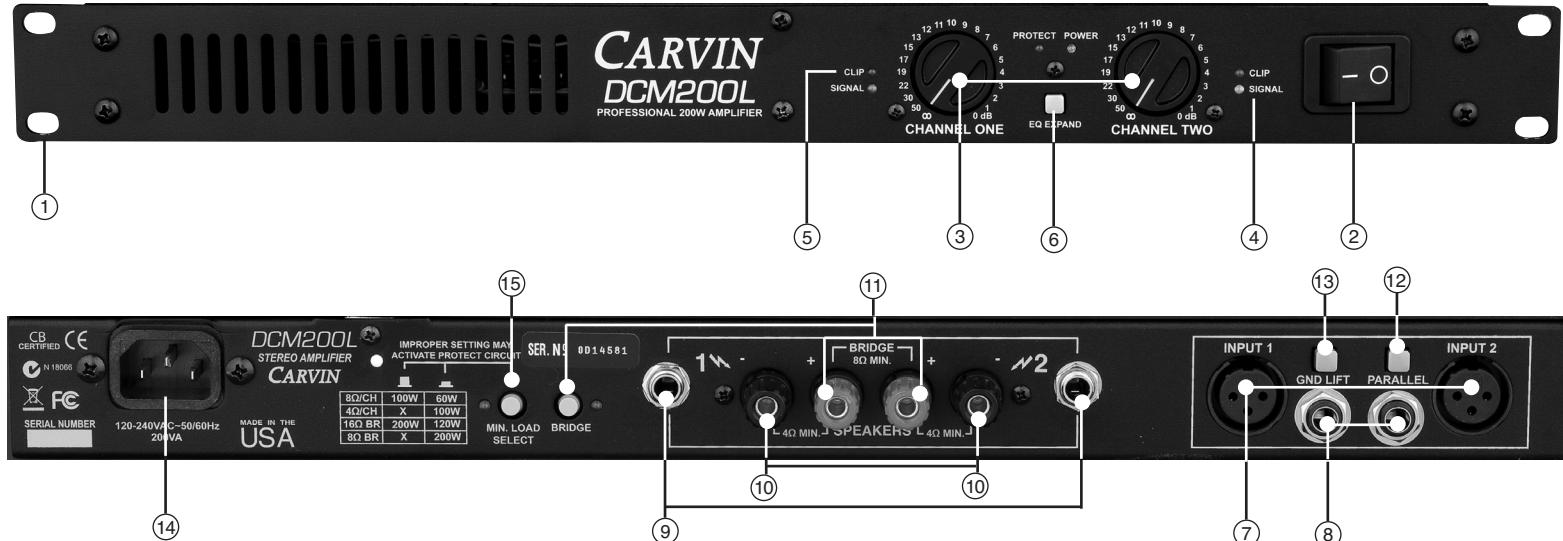
Dimensions 1 3/4" High x 19" Wide x 9" Deep

Weight (Net) 4lbs.

# CARVIN

800 854-2235 [www.carvin.com](http://www.carvin.com)

# FRONT & REAR PANEL CONTROLS



## FRONT PANEL

### 1. MOUNTING

The rack mounting holes are designed on ISO standard spacing. Four 10-32 x .5" philip machine screws are normally used to secure the amp. Rear support brackets are not required.

### 2. POWER SWITCH

Check the power amp connections and verify the AC line power source before engaging the POWER switch. The yellow LED unmistakably indicates that all circuits are properly powered up. This color was chosen so the operator could see the red protect indicator from a distance.

### 3. CHANNEL LEVEL CONTROL

A precision input LEVEL attenuator is used to adjust the volume levels. To deliver the amps full power without reducing headroom of the signal source, the level controls should be turned up full.

### 4. CHANNEL SIGNAL INDICATOR

The green SIGNAL LED indicators will illuminate when there is a signal passing to your speakers (-30dBm).

### 5. CHANNEL CLIP INDICATOR

The red CLIP LED indicators will start to flash when each channel has reached its maximum output. Occasional flashing caused by lower bass frequencies is OK. However, consistent flashing caused from higher frequencies may damage high frequency drivers (excessive distortion). This does not cause damage to the amp.

### 6. EQ EXPAND SWITCH

When set to the 'in' position this circuit will cut the mids by -4dB at 1KHz. This works well as a loudness contour when operating at low volume levels or adds tone when using it in a bass or guitar rack. When set to the 'out' position it provides a flat, normal response. Try it both ways and set as desired.

## REAR PANEL

### 7. XLR CHANNEL INPUTS

For most professional applications, use the XLR balanced input. This will help to reduce hum and allow for longer cable runs from your signal source (mixer, etc). Because this is a balanced input, the gain will be 6 dB higher than using a non balanced 1/4" input. XLR pin configuration: Pin 1: Grounded through the GROUND LIFT switch, Pin 2: positive Bal. signal and Pin 3: negative Bal. signal.

### 8. CHANNEL 1/4" PHONE JACK INPUT

These 1/4" TRS phone jacks are designed to receive either balanced or unbalanced input signals. Balanced signals coming into this jacks should be wired with the connector's tip going to signal + and the connector's ring to signal -. The connector's sleeve is then tied to ground through the GROUND LIFT switch-.

### 9. SPEAKER OUTPUTS

The standard 1/4" SPEAKER jacks are used for most applications. Turn the amp off before connecting your speakers.

### 10. SPEAKER BINDING POSTS

For heavy-duty speaker connections, use the rear BINDING POSTS to connect your speakers. Wire sizes up to 7 gauge (50 amps) can be inserted into the binding posts "side holes". Larger cable can be used with "banana" plugs which plug into the ends of the binding post (remove colored caps). Binding posts are spaced on ISO standards. Use the two center RED binding posts for BRIDGE speaker connections (see 11 BRIDGE MODE).

### 11. BRIDGE MODE

The DCM200L can be operated in bridge mode if you require a high powered mono (single channel) amp. With your amp off, push in the rear BRIDGE switch after you have made your speaker connections to the rear center RED binding posts (ch 1 is + and ch 2 is -). No other speaker jack or binding post can be used at the same time!". The INPUT and LEVEL is handled by channel 1. Channel 2 is non-operational. The minimum speaker impedance is 8 ohms. CAUTION: The power developed by bridging your amp can destroy speakers!

### 12. PARALLEL OR "Y" INPUTS

The rear PARALLEL switch allows you to drive both channels from either input. All signals entering any input will be available on both channels. This eliminates Y adapter cables. This feature is used to "daisy chain" one piece of equipment to another. Just plug into the unused INPUT (1/4" or XLR) and it will become an output for other equipment.

### 13. INPUT GROUND LIFT

Many times sound systems are connected in such a manner to cause a grounded loop with the inputs that result in audible hum. The input GND LIFT (1/4" & XLR) switch on the rear panel will help eliminate this problem. If not, another way to eliminate ground loops is to install a "line matching" transformer between the amplifier input and the signal source and cut the ground wire to PIN 1.

### 14. AC POWER

The internal Switchmode power supply is designed to run on 120V 60 Hz or 240V 50 Hz. The voltage range is 90V to 250V. Never defeat the grounded connection or electrocution may result!

### 15. IMPEDANCE SWITCH

Set this switch to correspond to the min impedance of your speakers.

Note: That this amp is capable of 100w per channel at 8 ohms. Be certain that the speakers can handle this amount of power.

8Ω/CH	100W	75W
4Ω/CH	X	100W
16Ω BR	200W	150W
8Ω BR	X	200W

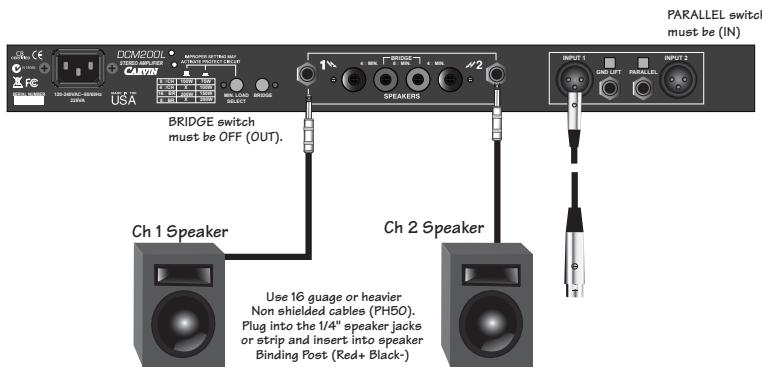
## CONNECTING THE SYSTEM

The following diagrams illustrate typical connections. Although these illustrations show XLR's for inputs and 1/4" plugs for outputs, a variety of alternative connectors are available. For most stage setups, mono (not stereo) is recommended. The reason for this is the audience on the left will not hear the same program material on the right if the program is done in true stereo.

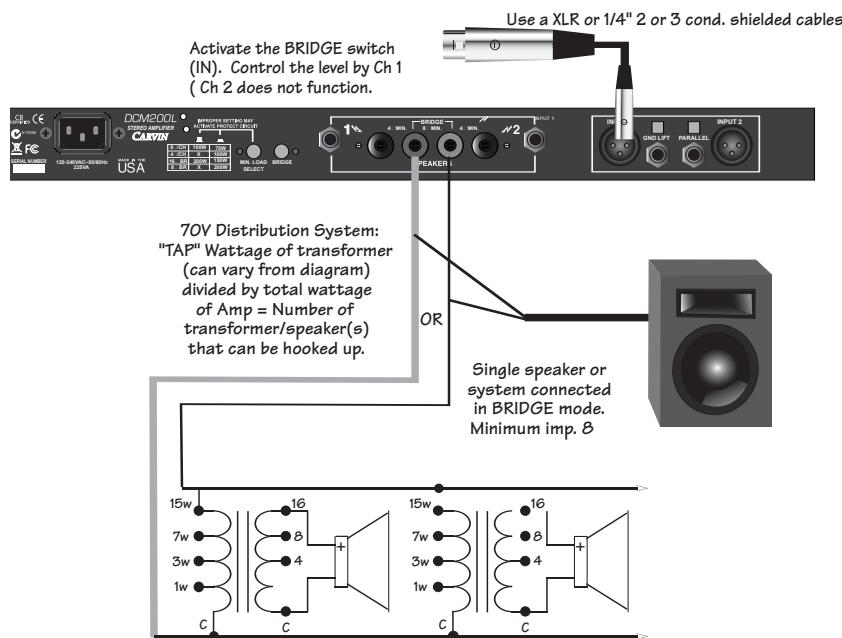
### INPUT CONNECTIONS

The preferred method of connecting input signals is with balanced XLR's (two conductors plus a shield wire such as Carvin professional XLR cables). Balanced input signals provide the highest gain and best noise rejection. 1/4" stereo cables are also capable of providing balanced input by using a stereo plug (tip-positive, ring-negative & sleeve-ground). Not all sources provide balanced outputs. If this is the case, standard 1/4" input cables work fine with cable lengths under 25 feet (single conductor plus shield) providing there is no ground loop in the system.

### TYPICAL MONAURAL SETUP



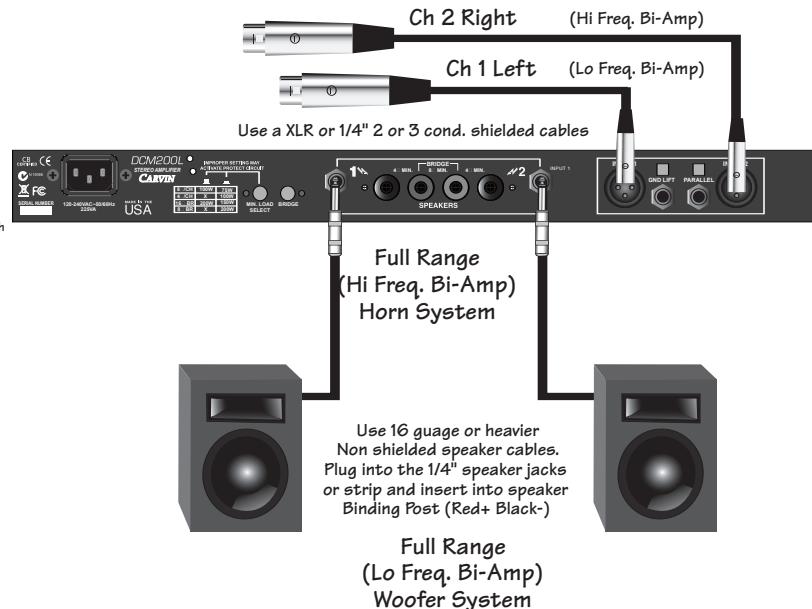
### TYPICAL BRIDGED SETUP



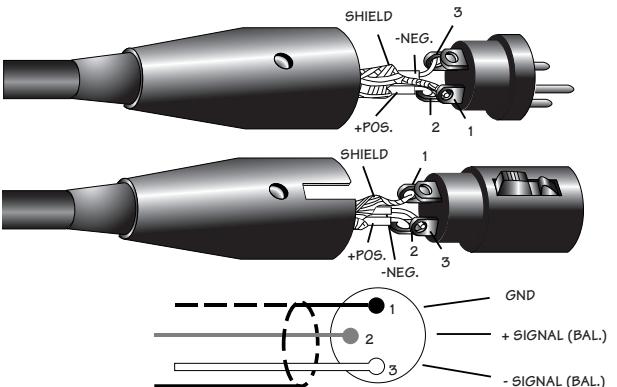
### SPEAKER CONNECTIONS

There are two 1/4" speaker jacks available for speaker connections (one for each channel). Additionally, there are two pairs of binding posts that not only allow for high current connections to speakers but are also used for "bridging" the amps output (see rear panel section 14 & 15). Use heavy gauge wire for all speaker connections (no lighter than 16 gauge up to 50'). Caution: Never use shielded cable (microphone or instrument input cable) to connect speakers. These cables will not handle the required current and may cause damage.

### TYPICAL STEREO (BIAMP) SETUP



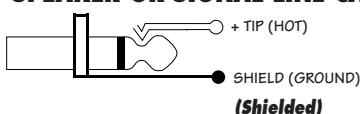
### BALANCED MIC/LINE XLR CABLES



### INTERRUPT (PATCH) STEREO OR BALANCED SIGNAL LINE



### (Unshielded) SPEAKER OR SIGNAL LINE CABLE



### (Shielded)

### SPEAKER OR SIGNAL LINE CABLE





This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

### CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



### IMPORTANT! FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:

**WATER AND MOISTURE:** Appliance should not be used near water (near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

**POWER SOURCES:** The product should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

**GROUNDING OR POLARIZATION:** Precautions should be taken so that the grounding or polarization is not defeated.

**POWER CORD PROTECTION:** Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

**SERVICING:** The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

**FUSING:** If your unit is equipped with a fuse receptacle, replace only with the same type fuse. Refer to replacement text on the unit for correct fuse type.

### SAFETY INSTRUCTIONS (EUROPEAN)

The conductors in the AC power cord are colored in accordance with the following code.

GREEN & YELLOW—Earth    BLUE—Neutral    BROWN—Live

**U.K. MAIN PLUG WARNING:** A molded main plug that has been cut off from the cord is unsafe. NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERT A DAMAGED OR CUT MAIN PLUG INTO A POWER SOCKET.

### LIMITED WARRANTY

Your Carvin product is guaranteed against failure for ONE YEAR. Carvin will service and supply all parts at no charge to the customer providing the unit is under warranty. Shipping costs are the responsibility of the customer. CARVIN DOES NOT PAY FOR PARTS OR SERVICING OTHER THAN OUR OWN. A COPY OF THE ORIGINAL INVOICE IS REQUIRED TO VERIFY YOUR WARRANTY. Carvin assumes no responsibility for horn drivers or speakers damaged by this unit. This warranty does not cover, and no liability is assumed, for damage due to: natural disasters, accidents, abuse, loss of parts, lack of reasonable care, incorrect use, or failure to follow instructions. This warranty is in lieu of all other warranties, expressed or implied. No representative or person is authorized to represent or assume for Carvin any liability in connection with the sale or servicing of Carvin products. CARVIN SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

See [www.carvinservice.com](http://www.carvinservice.com) for RMA and Service information.

### HELP SECTION

#### 1) WILL NOT TURN ON

Check the power to the unit. Check for tripped circuit breakers, unplugged extension cords or power-strip switches that may be turned off. Check the fuse. If a dark brownish color or no wire can be seen within the glass fuse, then replace. The unit may be perfectly fine but occasionally the fuse may blow because of high AC voltage surges. After the fuse has been replaced with the proper value and if the fuse fails again, the product will require servicing (be sure to use a slow blow fuse if required). Check your input and speaker output cables.

#### 2) MAINTAINING YOUR EQUIPMENT

Avoid spilling liquids or allowing any other foreign matter inside the unit. The panel of your unit can be wiped from time to time with a dry or slightly damp cloth in order to remove dust and bring back the new look. As with all pro gear, avoid prolonged use in caustic environments (salt air). When used in such an environment, be sure the amplifier is adequately protected by rack, covers, etc..



### CAUTION

RISK OF ELECTRIC SHOCK

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL! THIS UNIT CONTAINS HIGH VOLTAGE INSIDE!