

20W RMS x 2CH Amplifier

McLELLAND

Instruction Manual



MODEL AMP-D20LR

Overview

Compact powerful amplifier is rugged enough for commercial environments where 100% duty cycle is required, with the finesse expected in a compact high end system found in a living room, den or other small listening area. Efficient Class D design occupies little space and requires no ventilation, yet provides 20W RMS x 2CH output. It accepts three line level sources. Switchable limiter provides protection against being over driven in permanent installations. Switchable loudness contour greatly improves overall sound quality when played at low levels in office or home environments. 9-pin serial interface allows RS-232 control by external devices. For maximum benefit from the features and highest reliability of this device, read this document prior to use.

Features

- ◆ 3.5mm stereo line level input
- ◆ Dual (L/R) RCA type line level input (LINE2/ LINE3)
- ◆ ON/OFF selectable limiter
- ◆ ON/OFF selectable loudness contour
- ◆ Electronic control of BASS, TREBLE, VOLUME and BALANCE
- ◆ Selectable stereo or bridged mono operation
- ◆ 11 button IR remote control
- ◆ Pushbutton speaker terminals

Specifications

- ◆ Output power: 20W RMS X 2CH at 4Ω
- ◆ S/N ratio: -95dB @ 1KHz (4Ω)
- ◆ Frequency response: 35Hz ~ 50KHz (-3dB)
- ◆ Input sensitivity: 330mV (17W 4Ω)
- ◆ Input impedance: 10KΩ
- ◆ Power requirements: 24VDC, 1.5A – AC Adapter included
- ◆ Dimensions: 1-7/8" (H) x 5-5/8" (W) x 4-3/4" (D) including knobs and connectors

IR REMOTE CONTROL

Included IR remote control provides convenient access to most functions found on the front panel of the amplifier.

- ◆ Source Selection – LINE1, LINE2, LINE3
- ◆ Mute – ON/OFF
- ◆ Power – ON/OFF
- ◆ Treble – UP/DOWN
- ◆ Bass – UP/DOWN
- ◆ Balance – LEFT/RIGHT





CONTROLS

STEREO/BRIDGE – Selects stereo or mono bridged operation. In bridged mode, the amplifier provides one 40W RMS output channel, capable of driving an 8ohm load.

SOURCE – Pressing this momentary button toggles between LINE1, LINE2 and LINE3 sources, as indicated by the LED indicators directly above.

SELECT – Rotary encoder adjusts VOLUME, BASS, TREBLE up and down, as well as left/right adjustment of BALANCE. Momentarily pressing this button toggles between these four functions, as illustrated by the LED's directly above.

POWER – Pressing this momentary button toggles the unit between ON and OFF.



CONNECTIONS

RS-232 – for connection of external serial control devices

DIP SWITCHES

- **LOUDNESS** – increases high and low frequency audio response at low volume levels. The effect of this diminished as the volume setting is increased. Once the volume reaches 70% of full, this control has no effect.
- **LIMITER** – Automatically reduces input sensitivity as amplifier approaches its maximum output level. This prevents amplifier distortion and clipping when used near full output. As this does tend to reduce overall dynamic range, it is recommended this not be used in high fidelity applications.
- **Note:** For changes to take effect, the power must be removed, then reapplied to the amplifier.

LINE 2/3 – Left and right inputs can accept audio from CD/DVD players, VCR's, tuners, televisions and similar devices

LINE 1 – Stereo 3.5mm input accepts inputs typically from portable devices. This is compatible with virtually stereo headphone output

SPEAKER OUTPUT – for connection of one or two pair of speakers. Since this amplifier is capable of driving speaker loads as low as 4Ω, it is possible to drive two pairs of speakers from this unit. But in this case, the speakers **MUST** be at least 8Ω each. To do this, simply insert two wires into each spring terminal. Again, if speakers are less than 8Ω, only one pair can be connected.

BRIDGED MODE

This amplifier delivers 20 watt output to each of two amplifier channels. It is possible to “bridge” these two channels, creating one amplifier channel with 40 watt output. This is useful in environments where maximum output power is desired, and only one speaker is to be used.

NOTE

that in this case, the speaker **MUST** be 8Ω or higher. With the amplifier power OFF, slide the front panel switch to the BRIDGE position. On the rear, connect the wire from a single speaker to the (–) RIGHT and (+) LEFT output. The remaining two speaker output terminals will not be used.

RS-232 INTERFACE

Following are control commands for the RS-232 interface

1:9600.n.8.1

<CR>: Enter Key
<Esc>: Escape Key
<Space>: Space Key

2: Host respond prompt: PA>

3: Show All PA Status: Type: Now<CR>

4: Power On/Off control: Type:

Power<Space>On<CR>-----Power On

Power<Space>Off<CR>-----Power Off

Power<Space>Toggle<CR>-----Power toggle control

5: Mute On/Off control: Type:

Mute<Space>On<CR>-----Mute On

Mute<Space>Off<CR>-----Mute Off

Mute<Space>Toggle<CR>-----Mute toggle control

6: Volume control: Type:Volume<Space>xx<CR>----Volume

xx (xx range 0-79)

7: Source control: Type: Source<Space>x<CR> x=1/2/3

8: Treble control: Type:

Treble<Space>xx<CR>-----xx :Treble control (+7 0 -7)

9: Bass control: Type:

Bass<Space>xx<CR>-----xx :Bass control (+7 0 -7)

10: Balance control: Type:

Balance<Space>xx<CR>-----xx :Balance control (L9 0 R9)

11: Save memory now: Type: Save<CR>

store all current setting without power on/off status