

DP300

DYNAMIC POWER BASS AMPLIFIER

USERS MANUAL

INTRODUCTION

We are pleased you are now the owner of a unique DP300 Bass amplifier and we are sure you will derive much pleasure from it.

The control panel has many features and a short time spent studying the following instructions will enable you to get the best out of your amplifier more quickly.

In addition to your DP300s' many features, you have the unique to Laney 'Dynamic Power Circuitry' (D.P.C.) built into your amplifier. Whilst you cannot see D.P.C. you will most certainly appreciate its subtle effect on your sound where you will obtain greater efficiency, depth and a beautiful smooth tone that has hitherto been difficult to obtain with a MOS-FET amplifier.

BEFORE SWITCHING ON

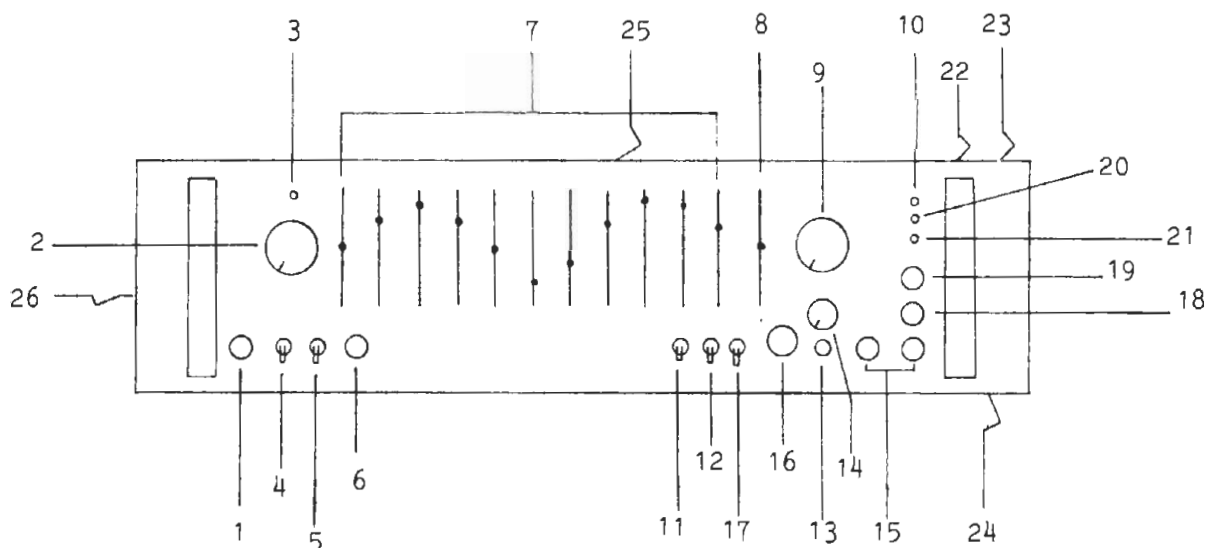
- 1) Your DP300 should be fitted with a suitable three pin earthable plug and depending on the country of use, the user should ensure the applicable wiring code is adhered to, in the United Kingdom for example connection should be as follows:-

EARTH OR GROUND - GREEN/YELLOW
NEUTRAL - BLUE
LIVE - BROWN

- 2) The amplifier should not be exposed to wetness under any circumstances since it would represent a possible shock or fire hazard. Further safety instruction printed on the amplifier rear panel should also be observed.

OPERATION

CONTROL PANEL:-



1) INPUT SOCKET

High input impedance $\frac{1}{4}$ " jack socket, will accept all guitars with passive or active pickups.

2) GAIN CONTROL

When used with 'pre-amp peak indicator' (3), matches your guitar output accurately to the amplifier for optimum low noise and distortion performance.

3) PRE-AMP PEAK INDICATOR

Shows when any part of the pre-amplifier or E.Q. control systems are about to distort due to over high signal level. For optimum results adjust input gain control (2) to just light on peak levels only. It may be necessary to readjust this when changing E.Q. settings.

4) PRE-SHAPE SWITCH

Insert a fixed E.Q. shaping circuit into the front of the amplifier, this adds high frequency boost and middle cut and is a useful 'voicing' in many styles of playing. An indicator light shows when this function is in use.

5) GRAPHIC SWITCH

This turns on the graphic E.Q. sliders. An indicator light shows when this is in use.

6) REMOTE SOCKET

A stereo jack socket for optional remote switching of (4) and (5) via a Laney FS4 footswitch.

7) GRAPHIC SLIDERS

Used to apply boost or cut to the sound at the frequencies indicated above each slider. These particular frequencies are chosen to be most effective on bass guitar. For most purposes a gradual curve shape setting on the sliders is recommended. Each slider is also centre detented to indicate the 'flat' position.

Note these are bypassed until the graphic switch (5) is operated.

8) GRAPHIC BALANCE SLIDER

This is useful to balance the volume difference that occurs between the graphics being switched on and off when large amounts of boost or cut are being applied with the sliders. Raising the balance slider increases volume with the graphics switched on lowering it increases volume with the graphics switched off. Always return this control to its centre position when not required.

- 9) VOLUME
Sets the overall 'on stage' sound level.
- 10) POWER INDICATOR
Shows when power is switched on via rear panel switch.
- 11) LIMITER SWITCH
This adds a fast attack compressor at the output of the pre-amplifier. At low signal levels this has no effect but as the power amplifier starts to clip, the compressor is auto-triggered reducing the volume and thereby preventing clipping distortion. This is useful when a loud but very clean sound is required.
- 12) NOISE GATE SWITCH
This inserts a circuit which reduces excessive background hum and hiss associated with high graphic and gain settings.
- 13) DPC SWITCH
This turns on the unique to Laney 'Dynamic Power Control' circuit. This when used in conjunction with control (14) allows the amplifier to analyse the speaker system connected and supply it exactly the correct signals for optimum performance. The result is a more open natural sound with good harmonic definition and higher sound levels.
- 14) DPC ATTACK CONTROL
This when used with (13) in the on position, gives more high frequency drive and a more forward attacking sound. When pulled applies DPC to the bass giving a more responsive sound.
- 15) EFFECTS LOOP SOCKETS
These provide a line level post eq send and return connection for effects units such as echo/delay etc.
- 16) DIRECT INJECTION OUTPUT SOCKET
This provides a balanced line output for connection to mix desks etc.
- 17) PRE-POST SWITCH
Connects the direct inject output socket either to the untreated signal (pre-eq) or with any E.Q. settings added (post-eq).
- 18) LINE OUTPUT
Provides a line level signal for driving slave amplifier eg. Laney DP300M.

19) HEADPHONE OUTPUT

Useful for tune-ups or practise. Automatically turns off loudspeakers.

20) LOAD INDICATOR

This lights when the extensive internal protection circuits sense a fault at the output such as shorted lead, a very low impedance, or speaker damaging ultra low frequencies and D.C. Under these conditions the speakers are automatically disconnected from the amplifier ensuring no damage occurs.

The output will remain disconnected until reset by turning the amplifier off for approximately 5 seconds via the mains rocker switch.

21) THERMAL INDICATOR

This lights if the amplifier overheats due to restricted ventilation or fan blockage, it will automatically reset on cooling.

22) POWER SWITCH

Used to turn amplifier on and reset protection circuitry.

23) POWER INPUT SOCKET

Attach correctly wired power cord supplied with the amplifier.

24) COMBINED FUSE AND VOLTAGE SELECTOR

Ensure correct fuse is fitted as indicated on rear panel by pulling out fuse drawer. To change voltage replace draw other side up so required voltage appears next to the indicator line.

N.B. To reduce the risk of fire in the unlikely event of amplifier failure the power safety fuse must only be replaced with the correct type and rating as indicated on the rear panel.

25) SPEAKER OUTPUT SOCKETS

Both an XLR and jack are provided to enable either type of connection system to be used.

Laney DPC series speakers are fitted with link sockets to enable further speakers to be connected as required provided the total impedance is not less than 4 ohms.

26) FAN

This cools the amplifier, and neither the fan aperture or the exhaust vent should be obstructed in any way as this may cause premature thermal shutdown. At continued high power levels the fan will automatically switch to a higher speed for increased cooling effect.

SPECIFICATIONS FOR 300 WATT UNITS

Input Sensitivity:-	30mV for 300 watts into 4 ohms EQ flat Input overload 20V Input impedance 50K Ohm
Pre-Amp Peak Indicator:-	Monitors distortion onset at 4 separate points in the pre-amplifier.
Pre-Shape:-	+6dB @ 100Hz, -8dB @ 500Hz, + 11dB @ 5KHz
Graphics:-	± 15dB Low Q @ 40Hz/80Hz/120Hz/160Hz/350Hz/700Hz/1k4Hz/ 2K6Hz/5kHz/10kHz/15kHz
Limiter:-	Hard type, switchable, load sensing, triggered by power stage clipping. Attack 1mS release 2 secs.
Noise gate:-	Switchable soft transition type fixed level.
Effects Loop:-	Post E.Q nominal signal level 0dBm
Line Output:	Post Volume nominal signal level 0dBm
D.I. Output:-	Switchable pre-post E.Q Output XLR balanced. Nominal level -10dBm
Headphone output:-	To suit most types of headphones using a stereo jack plug.
Sub sonic filter:	Fixed @ 30Hz - 18dB/oct.
Signal to noise:-	80dB E.Q. Flat
Frequency response:-	-3dB 30Hz - 20kHz
Distortion:-	<0.05% THD
Output Power:-	300 Watts into 4 ohms 200 watts into 8 ohms
Amplifier Protection:-	Comprehensive amplifier management system Proof against: short circuit, low impedance, mismatch open circuit, h.f., burnout, overheating
Speaker Protection:-	Fail safe system which automatically disconnects speakers in the event of :- D.C at output, excessive subsonic signals, cable faults, amplifier failure, power failure.

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