LANEY

TH6150/TH8300

MIXER AMPLIFIER

USER INFORMATION

(TEMPORARY ISSUE)

THEATRE 6150/8300 MIXER AMPLIFIERS

The ever growing demand for quality portable high powered mixing consoles that will faithfully mix vocals, effects units and instruments with the degree of sophistication required by modern day technology in 'live' on stage situations has lead to the design and development of the Theatre 6150 and 8300 mixer amplifiers.

The Theatre 6150 is a six channel mixer amplifier with 150 watts of available output power.

The Theatre 8300 is an eight channel mixer amplifier with 300 watts of Mosfet output power.

Both models embrace the latest technology and are constructed using quality selected components throughout.

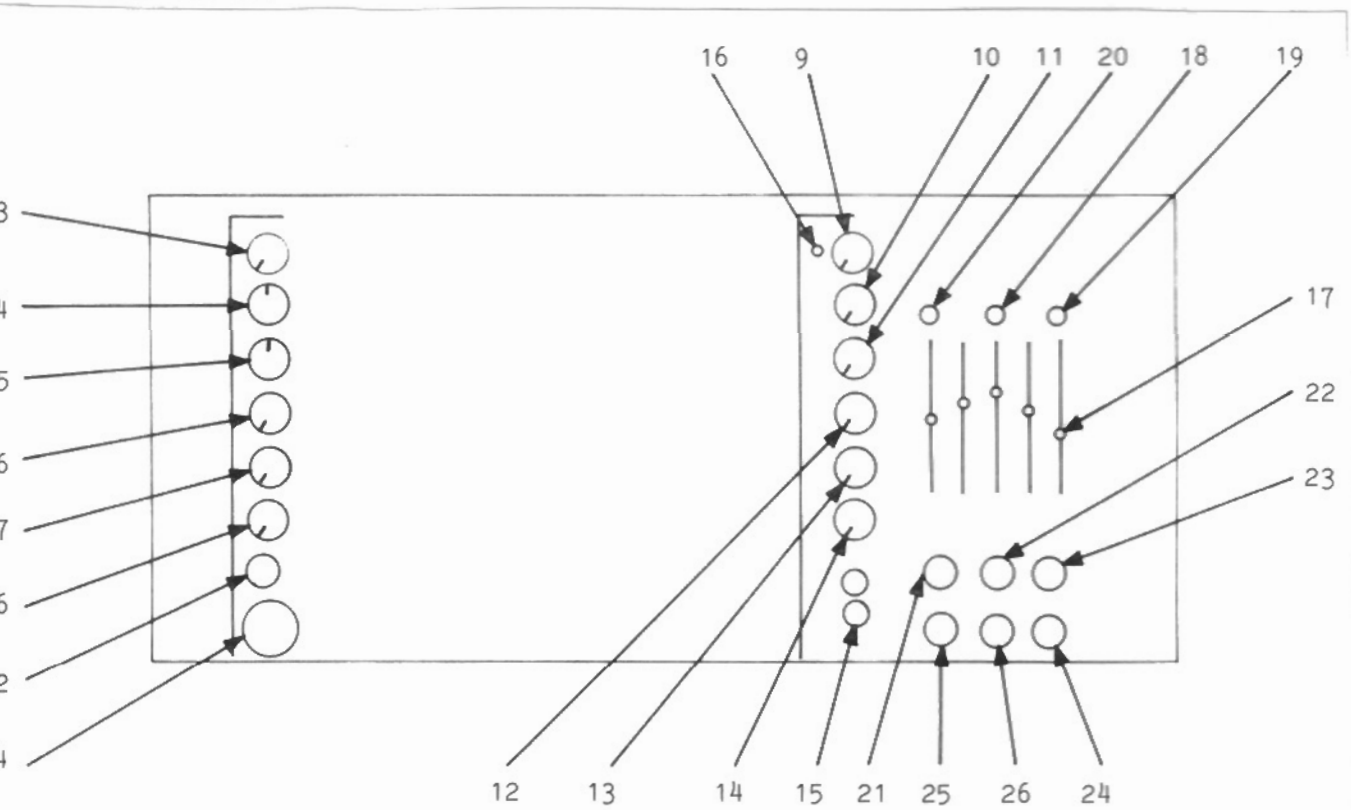
Each channel has a balanced low impedance low noise XLR microphone input and a line level input jack, with full equalisation, monitor, effects and reverb controls.

Mics, instruments, effects units and foldback monitors can all be accomodated with ease.

These units may be used, as portables for gig situations, or fixed for 'in house' sound installations.

Both models contain many safety and protection features to give long service and high reliability expected by modern day entertainers.

FACIA LAYOUT



CHANNELS:-

1) Lo Z INPUT:- Suitable for balanced or unbalanced low impedance microphones 200-600 Ohms.

2) Hi Z INPUT:- High level high impedance input for line level devices such as keyboards, drums and high impedance microphones.

3) CHANNEL GAIN:- Sets volume level of incoming signal connected to that channel.

4) TREBLE:- Adjusts the amount of high frequencies.

5) BASS:- Adjusts the amount of low frequencies

6) MONITOR:- Adjusts the volume level to monitor output jack via monitor master send level control (10)

7) REVERB:- Sets the amount of reverb to that channel in conjunction with the overall reverb level control.(11).

8) EFFECTS:- Sets the amount of optional external FX send in conjunction with the master FX send (13).

MASTER SECTION

9) VOLUME:- Controls the overall onstage volume.

10) MONITOR:- Controls the overall monitor send level.

11) REVERB:- Controls the overall amount of internal reverb.

12) MONITOR REVERB:- This allows the overall reverb to be added to the monitor send signal.

13) EFFECTS:- Controls the overall external effects send level. (Normally returned via AUX input).

14) TAPE AUX:- Controls the input level from the tape phono socket and the aux. return socket.

15) TAPE/CD INPUT:- Phono sockets suitable for Tape or Compact Disc player etc.

16) PEAK INDICATOR:- Indicates when the power amplifier is approaching clipping.

17) GRAPHIC SLIDERS:- Allows the control of the overall tonal content and enables correction for room acoustics and control of feedback problems.

18) THERMAL INDICATOR:- (TH8300 Only)
Shows if the amplifier has overheated due to incorrect loading or ventilator obstruction. Speakers are automatically disconnected until the amplifier has cooled down.

19) LOAD TRIP INDICATOR:- (TH8300 Only)
Shows if the amplifier is operated into a short circuit or incorrect impedance or if excessive low frequency or d.c. is present at the speaker outputs. Speakers are automatically disconnected and can only be reset by turning off the unit at the power switch for 5 seconds.

20) POWER INDICATOR:- Shows when the unit is switched on and power connected.

21) REVERB REMOTE:- Allows footswitch control of internal reverb unit.

22) SLAVE OUTPUT:- Allows connection to an external slave amplifier such as Laney TH9150 or TH9300 (0dBm).

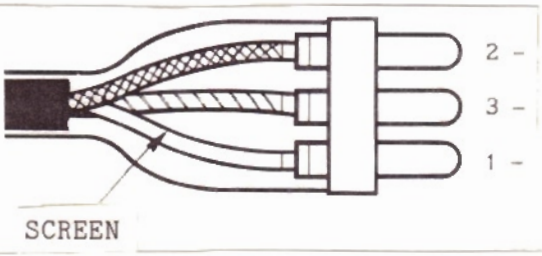
23) POWER AMP INPUT:- May be used in conjunction with slave out to provide an extra overall effects loop. For graphic e.q. or delay etc. (0dBm).

24) MONITOR OUTPUT:- Used to send the monitor mix to a power amplifier or powered monitor system. (0dBm).

25) AUXILIARY INPUT:- May be used as an additional input for line level devices such as a sub-mixer etc. Or when using an external effects unit it may be used for the effects return.

26) EFFECTS OUT:- Provides an output from the effects send control (13) to drive an external effects unit.

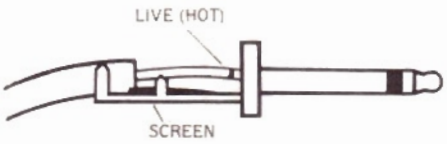
CONNECTOR WIRING



A) BALANCED MIC INPUT:- 1 EARTH SCREEN, 2 HOT, 3 COLD.

B) UNBALANCED LO Z INPUT:- 1 & 3 EARTH SCREEN, 2 HOT.

C) SPEAKER OUTPUTS:- 1 COLD, 2 HOT. (TH8300 ONLY).



STANDARD JACK - LINE INPUTS, AUX OUTPUTS, LEFT/RIGHT OUTPUTS

CONNECTING UP

As with most application when audio equipment is linked together it is essential to use good quality cable and connectors in order to minimise distortion, hum, hiss and thereby optimise the signal to noise ratio.

Audio leads can be purchased in 'pre-packs' from your local dealer or you may produce your own and the connecting illustrations above should be helpful.

POWER CABLE:-

Mains cables are of course extremely important since if wrongly wired will be highly dangerous.

The correct U.K. wiring is as follows:-

BLUE:- NEUTRAL
BROWN:- LIVE
GREEN/YELLOW:- EARTH

For use in other countries local wiring regulations must be complied with if in doubt consult your dealer.

REVERB

An internal reverb unit is fitted and may be used as required on any or all of the channels. First adjust the overall reverb control in the master channel to a 12 o'clock position as a starting point, then turn up the reverb control(s) on the channels (s) requiring reverb until the desired amount is obtained. Adjustment of the overall reverb level may be acheived with the master channel reverb control as required. The reverb may also be turned on and off remotely with a footswitch via the reverb remote socket on the facia panel.

EFFECTS

External effects units may be added to any or all of the channels by using the 'Effects Out' socket connected to the input of your effects unit. The output of your effects unit is then returned into the 'Auxiliary in' socket.

To set up an effects loop, connect as above, then set the 'Effects' control on the master channel to 12 o'clock as a starting point. Turn up the effects control on the channel/s required. A portion of the signal will now be fed to your effects unit the overall amount may be adjusted on the 'Effects' control in the master channel. The return signal may now be mixed in with the AUX/TAPE control as required to give the desired amount of effect.

MONITOR

A monitor system may be added by connecting a amplified speaker system to the 'Monitor Out' socket.

To set up a monitor system set the 'Monitor' control on the master channel to 12 o'clock as a starting point. Then adjust the 'Monitor' control on the required channel/s. The signal will now be fed to your monitor amplifier, the overall amount may be adjusted with the 'monitor' control on the master channel.

Reverberation may also be added to your monitor system by adjusting the 'MON-REV' control on the master channel.

SLAVE OUT/POWERAMP IN

The 'Slave-Out' socket may be used to drive other power amplifiers when higher power levels are required. The 'Slave-Out', 'Power-Amp In' sockets may also be used as an overall effects loop for connecting devices such as delay units, limiters/compressors further graphic equalisers etc.

Connect the 'Slave-Out' to your effects unit input and the 'Power amp in' to its output.

The Theatre 6150 has a similar pair of sockets fitted on the rear of the unit which may be used simultaneously.

TAPE/CD

A pair of phono sockets are fitted which allow the connection of a Tape or Compact Disc player the volume of which is adjusted by the AUX TAPE control.

TH6150 & TH8300 SPECIFICATION

CHANNELS

MIC INPUT	Balanced XLR - Z in 1K Ohms 62dB Gain
CMRR	> 60dB @ 1KHz.
LINE INPUT	Unbalanced Jack - Z in 22K Ohms 28dB Gain
E.I.N.	-123dB
E.Q.	Treble ± 15dB 10Kz Shelving. BASS ± 15dB 100Hz Shelving.

POWERFUSE/VOLTAGE SELECTOR:-

A safety fuse is fitted in a pull out fuse drawer below the power inlet socket. The drawer may be inserted in two ways allowing different supply voltages to be used. Check that the indicated voltage corresponds to the supply to be used.

In the unlikely event of a fuse being blown the replacement MUST be of the same type and rating. Failure to comply with this could result in a fire hazard.

MICROPHONE INPUTS (Lo Z)

On each channel you will see an XLR type socket. These are low impedance balanced line inputs and will accept low impedance microphones that could well have a run of 50 metres from the mixer without significant interference or loss of power. Unbalanced low-impedance microphones may also be used over shorter distances, (see diagram for plug wiring details).

LINE INPUTS (hi Z)

On each channel you will see a ¼" jack type socket. This is designed to accept signals from high output equipment such as electronic sysnthesisers, keyboards, drum machines, mixers and high impedance microphones.

The line and microphone inputs may be used simultaneously on each channel if required.

SPEAKER SOCKETS:-

On the rear of your mixer you will find two speaker sockets of the ¼ inch jack types (plus two XLR type on TH8300).

These sockets are parallel connected and the total combined load impedance must not be less than 4 ohms for safe operation.

INITIAL SWITCHING ON

To start setting up your mixer it is adviseable to begin with it adjusted to a flat setting as follows:-

1) Set all channel gain controls to zero.

2) Set all e.q. controls to 12 o'clock.

3) Set all monitor, reverb and effects send controls to zero.

4) Set all graphic sliders to central zero position.

5) Set all master channel controls to zero.

Connect correctly wired power cord. Switch on with rear mounted power switch, the power indicator light will now show on the facia. Plug in speakers and inputs into channels as required.

SETTING UP

CHANNEL GAIN

This control is used to adjust the individual signal level of that channel. Hence by appropriate adjustment of these the required 'mix' may be obtained, a 12 o'clock setting is usually a good starting point with most inputs.

The main volume control may now be advanced to hear the mix, through the speakers, any further adjustment of the channel gain controls may then be performed to obtain the required mix.

CHANNEL E.Q. (TONE CONTROLS)

Two bands of e.q. are provided a bass control to adjust the amount of low frequencies and a treble control for the high frequencies thereby allowing a wide degree of tonal variation.

GRAPHIC E.Q.

A five band graphic e.q. system is provided to control the overall tonal balance of the final noise. This is very useful for correcting for room acoustics and also for helping to avoid microphone feedback problems.

MASTER

AUX/TAPE/C.D. INPUT	Unbalanced ⅄ in 22K Ohms 20dB Gain
5 BAND GRAPHIC	± 12dB 100Hz/330Hz/1KHz/3KHz/10KHz
MONITOR OUTPUT	0dB ⅄ out less than 40 Ohms.
EFFECTS OUTPUT	0dB ⅄ out less than 40 Ohms.
SLAVE OUTPUT	0dB ⅄ out less than 40 Ohms.
POWER AMP INPUT	0dB ⅄ in 10K Ohms
FREQUENCY RESPONSE	20Hz - 20KHz - 3dB
REVERB	Accutronics triple spring 2 Second decay.
PEAK INDICATOR	Illuminates as amplifier approaches clipping.

POWER SECTION

TH6150

OUTPUT POWER AT CLIP POINT	150 watts 4 Ohms 80 watts 8 Ohms
POWER RESPONSE	20Hz - 20KHz.
T.H.D.	<0.1%
PROTECTION	Short circuit, load mismatch Thermal cutout.
OUTPUT CONNECTORS	2 x ¼" Jacks.
COOLING	Convection
POWER REQUIREMENT	300 Watts
DIMENSION	540w x 300d x 275h

TH8300

OUTPUT POWER AT CLIP POINT	300 watts 4 Ohms 200 watts 8 Ohms
POWER RESPONSE	20Hz - 50KHz
T.H.D.	<0.05%
PROTECTION	Short circuit, load mismatch
SPEAKER PROTECTION	Thermal, D.C. & Subsonic Sensing relay system
OUTPUT CONNECTORS	2 x ¼" Jacks 2 x 3 pin XLR
COOLING	Thermostatically controlled 2-speed fan
POWER REQUIREMENTS	600 Watts
DIMENSIONS	540w x 340d x 275h