

Laney

Series Mixer Amps

**MODEL : CD480M
CD516M
CD630M**

USER MANUAL



Intended to alert the user to the presence of uninstalled "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Caution: Risk of electrical shock - DO NOT OPEN!

Caution: To reduce the risk of electrical shock, do not remove cover. No user servicable parts inside. Refer servicing to qualified service personnel.

WARNING: To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance, read the operating guide for further warnings.

This apparatus must be earthed.

EMC warning

It is inherent in the design of a loudspeaker and in the design of guitar pickups that they should emit or be affected by electro magnetic fields. Loudspeaker enclosures should not be used less than two meters away from equipment, which is likely to be affected by electro magnetic interference.

Likewise, guitar fitted with electro magnetic pickups should not be used less than two meters away from any source of emissions such as loudspeakers. Emissions from loudspeakers are dependent on the frequency characteristics of the drive unit. Levels were measured direct from the driver of 30 dBuV. These levels are reduced to a safe level at a distance of 1,27 meters from the drivers.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric products, basic cautions should always be followed, including the following.

1. Read all safety and operating instructions before using this product
2. All safety and operating instructions should be retained for future reference
3. Obey all cautions in the Operating instructions and on the back of the unit
4. All operating instructions should be followed
5. This product should not be used near water, i.e. a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built up enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as stove, radiator, or another heat producing amplifier.
8. Connect only to a power supply of the type marker on the unit adjacent to the power supply cord.
9. Never break off the ground pin on a power supply cord.
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the chord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. The user should allow easy access to any mains plug, mains coupler and mains switch used in conjunction with this unit thus making it readily operable.
14. Metal parts can be cleaned with a damp cloth. The vinyl covering used on some units can be cleaned with a damp cloth or ammonia based household cleaner if necessary. Disconnect the unit from the power supply before cleaning.
15. Care should be taken so that objects do not fall and liquids are not spilled into the unit through any ventilation holes or openings. On no account place drinks on the unit.
16. A qualified service technician should check the unit if:
 - The power cord has been damaged
 - Anything has fallen or spilled into the unit
 - The unit does not appear to operate correctly
 - The unit has been dropped or the enclosure damaged.
17. The user should not attempt to service the equipment. All service work is done by a qualified service technician.
18. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposure.

Duration Per Day In Hours	Sound Level dBA, slow response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss. Ear plugs or protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure exceeds the limits set forth above. To ensure against potentially dangerous exposure to high sound pressure levels it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

SAVE THESE INSTRUCTIONS

THANK YOU

We at **Laney** are extremely pleased that you have decided to select a **Concept** product for your sound requirements and we wish to reinforce your judgement by ensuring you get off to a flying start by including this comprehensive user manual to assist you in getting to know your equipment.

Before switching on please read this manual carefully since, whilst you may well be an experienced user, no two brands are the same, and on reading this manual you will become aware of the subtle advantageous differences that **Concept** offers over its competitors.

UNPACKING

On unpacking your **Concept** mixer amp, please check carefully for any signs of damage that may have occurred whilst in transit from the **Laney** factory to your dealer. In the unlikely event that there has been damage, please re-pack your unit in its original carton and consult your dealer.

We would strongly advise you to store away your original transit carton, since, in the unlikely event that some time in the future your unit should develop a fault, you will be able to return it to your dealer for rectification securely packed.

IMPORTANT SAFETY INFORMATION

Your **Concept** mixer amp should be fitted with a three pin 'grounded' (or 'earthed') plug. Please make sure that the unit is powered from a 'grounded/earthed' outlet.

If changing or fitting a plug yourself, ensure that the applicable wiring code is adhered to; for example, in the UK, the cable colour code for connections is as follows:

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

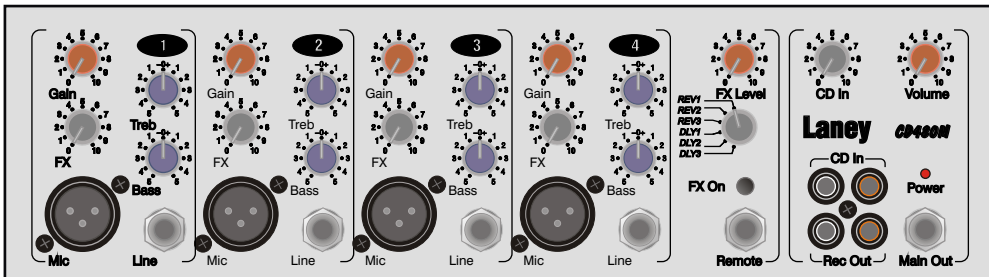
The **Concept** product should never be exposed to moisture or wetness under any circumstances, since this would represent a possible shock or fire hazard, and may cause expensive damage to your valuable possession.

In the unlikely event that a fuse should blow, it is imperative that you or your engineer, use a correctly rated replacement.

Details of the fuses required are printed on the back panel of the mixer amp. Please take special care to use a 'time delay' fuse wherever stated.

FRONT PANEL FEATURES:

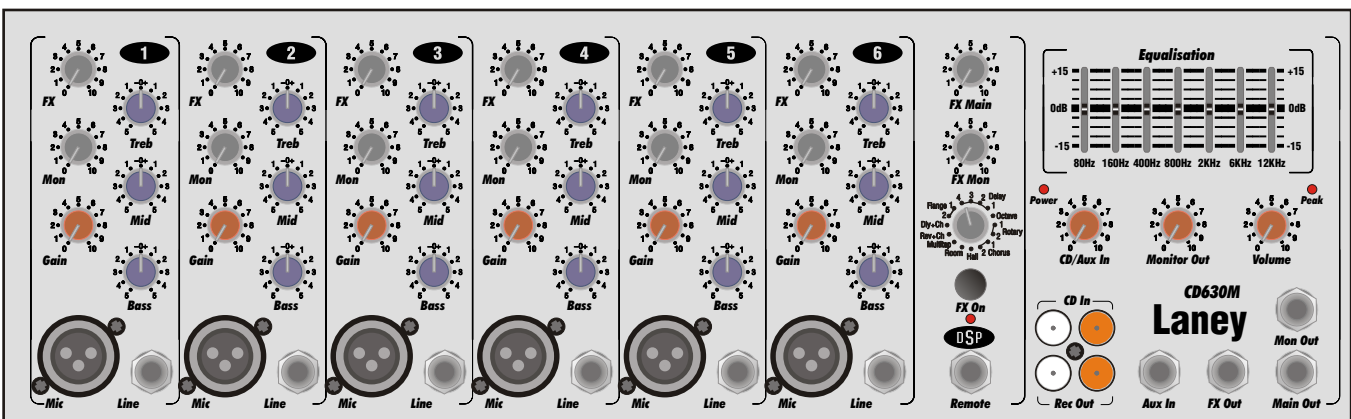
CD480M



CD516M

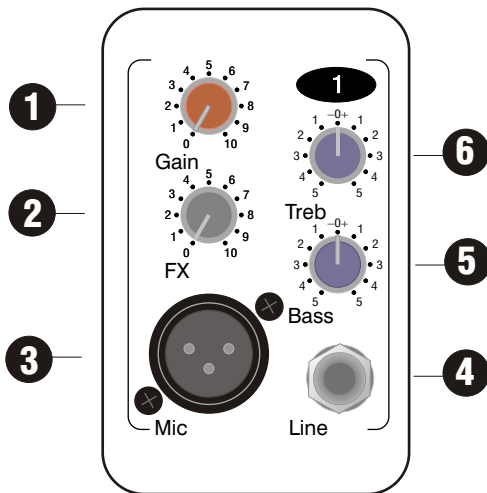


CD630M



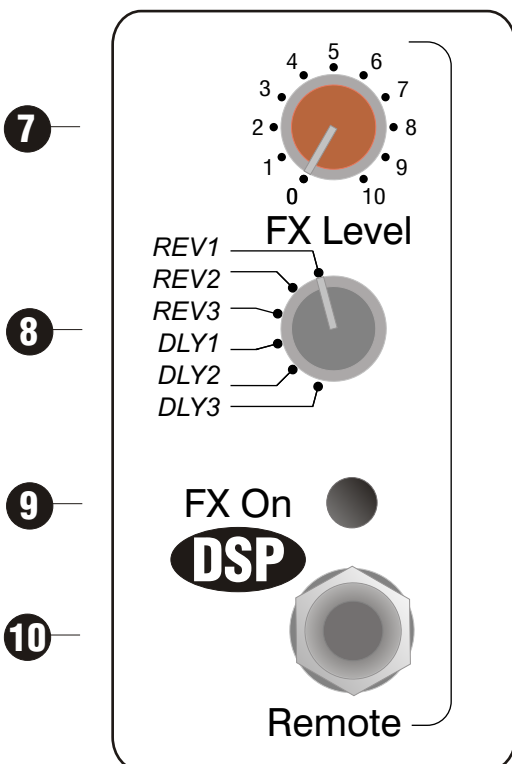
FEATURES CD480M

CD480M Features - Channels 1 - 4



- 1** **GAIN:** Adjusts the channel level, enabling the user to balance levels across channels.
- 2** **FX:** Controls the amount of signal sent by the individual channel to the onboard effects section. The overall level of effects is controlled via the FX Level control.
- 3** **MIC INPUT:** XLR input for low impedance microphone (200-600 Ohm).
- 4** **LINE INPUT:** Jack input socket, for all line level signals (Keyboard, Signal Processor, Sampler, Drum Machine, etc.).
- 5** **BASS:** Adjusts the low frequency response of the individual channel.
- 6** **TREBLE:** Adjusts the mid & Hi range frequency response of the individual channel.

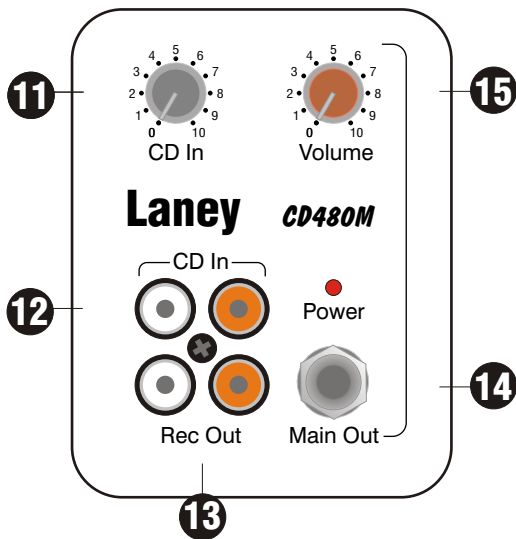
CD480M Features - DSP



- 7** **FX LEVEL:** Sets the overall level of effects in the master mix.
- 8** **FX SELECT:** Selects the onboard DSP program. There are three reverbs and three delays to choose from: -
 - REV 1 - SHORT REVERB
 - REV 2 - MEDIUM REVERB
 - REV 3 - LONG REVERB
 - DLY 1 - SHORT DELAY 110ms
 - DLY 2 - MEDIUM DELAY 150ms
 - DLY 3 - LONG DELAY 200ms
- 9** **FX ON:** Engages the onboard DSP effects.
- 10** **REMOTE:** Socket for connecting footswitch, which allows the remote switching of the effects. Note - for the footswitch to work correctly the effects need to be enabled via the front panel first.

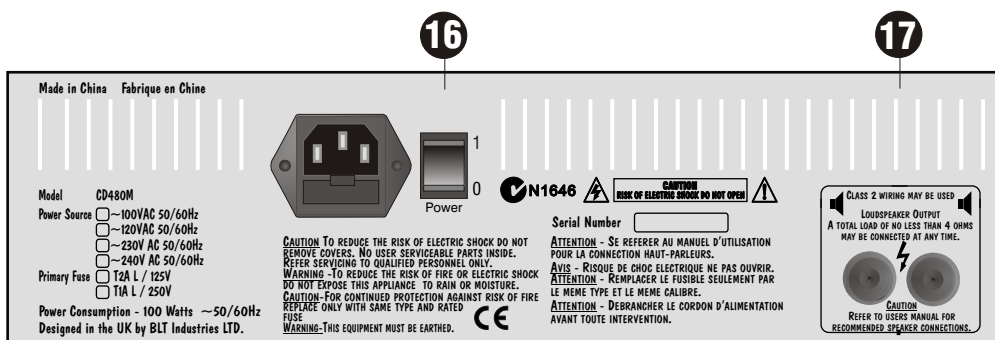
FEATURES CD480M

CD480M Features - Output section



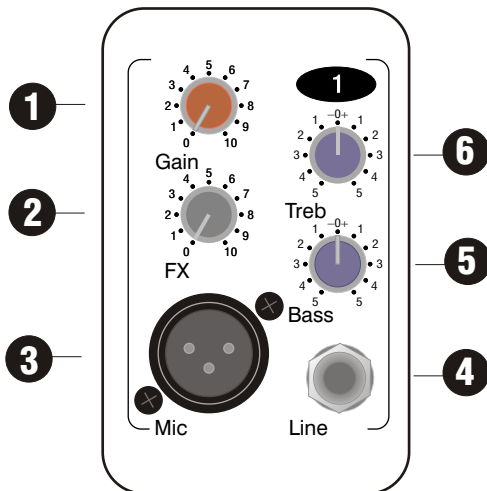
- 11 CD IN VOLUME:** Controls the overall listening level if CD/MD/tape machine connected to the CD IN sockets (12)
- 12 CD IN:** PHONO sockets provided for connecting external sound source such as CD/MD/Tape machines.
- 13 REC OUT:** PHONO sockets provided for connecting external recording devices. Overall the individual channel levels determine recording level.
- 14 MAIN OUT:** Socket providing a line level signal for connecting external power amplifiers should extra sound reinforcement be required.
- 15 VOLUME:** Sets the overall listening level of the amplifier.
- 16 POWER:** Main power switch
- 17 SPEAKER SOCKETS:** Sockets for connecting main front of house speakers. Minimum impedance 4 Ohms each side.

CD480M Features - Rear Panel



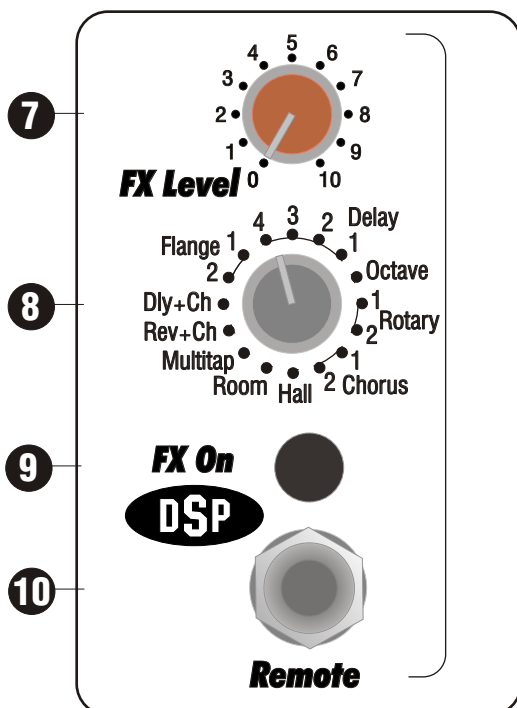
FEATURES CD516M

CD516M Features - Channels 1 - 5



- 1 GAIN:** Adjusts the channel level, enabling the user to balance levels across channels.
- 2 FX:** Controls the amount of signal sent by the individual channel to the onboard effects section. The overall level of effects is controlled via the FX Level control.
- 3 MIC INPUT:** XLR input for low impedance microphone (200-600 Ohm).
- 4 LINE INPUT:** Jack input socket, for all line level signals (Keyboard, Signal Processor, Sampler, Drum Machine, etc.).
- 5 BASS:** Adjusts the low frequency response of the individual channel.
- 6 Treble:** Adjusts the mid & Hi range frequency response of the individual channel.

CD516M Features - DSP

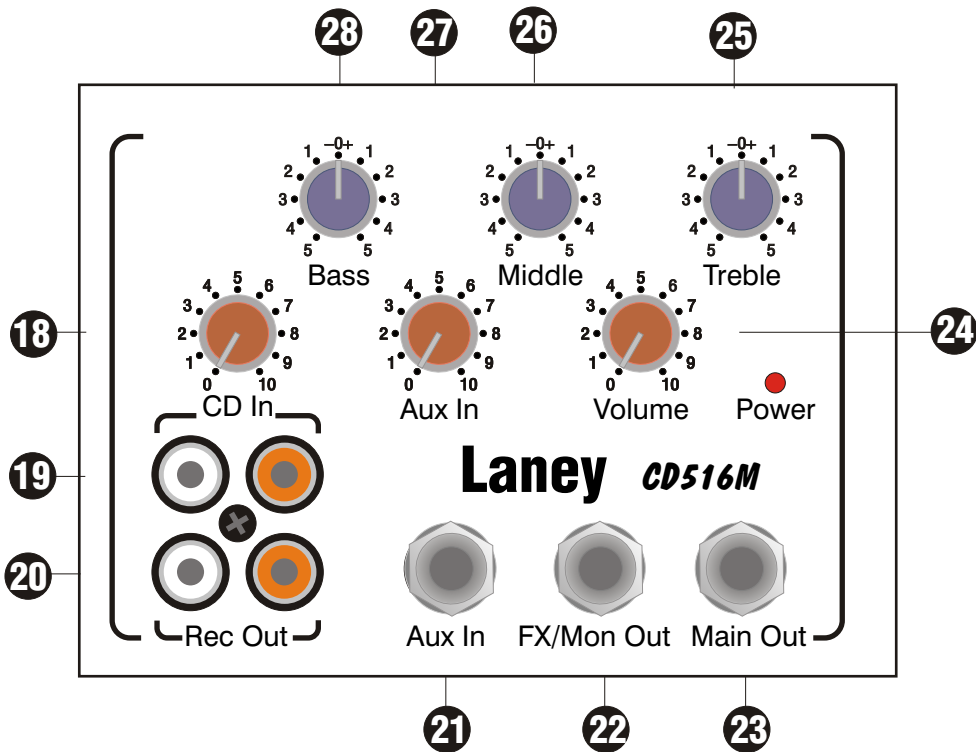


- 7 FX LEVEL:** Sets the overall level of effects in the master mix.
- 8 FX SELECT:** Selects the onboard DSP program. There are 16 custom effects to choose from: -
 - 250mS Single Shot
 - 400mS Delay with Repeat
 - 500mS Delay with Repeat
 - 600mS Delay with Repeat
 - Flange
 - Flange + 400mS Delay (with Repeat)
 - Rotary Slow
 - Rotary Fast
 - Octave Down
 - Chorus Moderate
 - Chorus Deep
 - Hall Reverb
 - Room Reverb
 - Multitap Delay
 - 400mS Delay (With Repeat) + Chorus
 - Deep
 - Chorus + Reverb

- 9 FX ON:** Engages the onboard DSP effects.
- 10 REMOTE:** Socket for connecting footswitch, which allows the remote switching of the effects. Note - for the footswitch to work correctly the effects need to be enabled via the front panel first.

FEATURES CD516M

CD516M Features - Output section



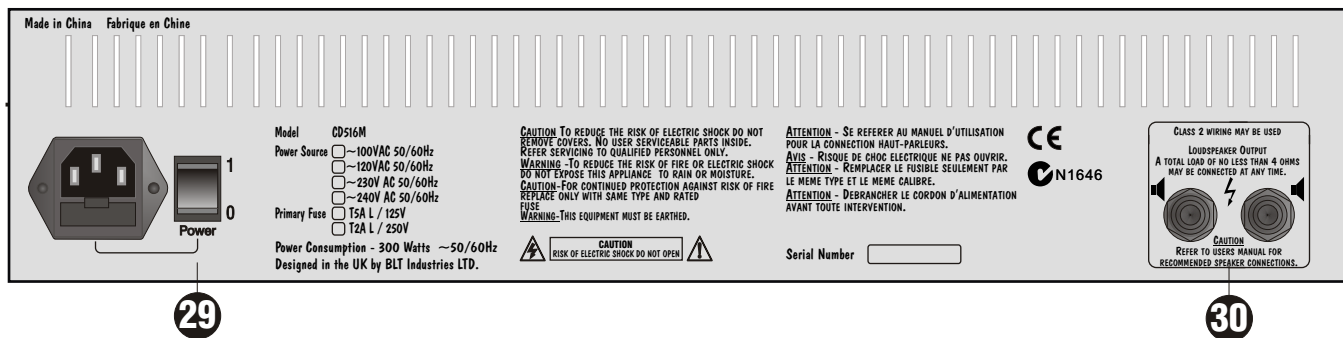
- 18** **CD IN VOLUME:** Controls the overall listening level if CD/MD/tape machine connected to the CD IN sockets (19)
- 19** **CD IN:** PHONO sockets provided for connecting external sound source such as CD/MD/Tape machines.
- 20** **REC OUT:** PHONO sockets provided for connecting external recording devices. Overall the individual channel levels determine recording level.
- 21** **AUX IN:** Jack socket line in, designed to work in conjunction with the 'Effect Out' socket, as the return of an effects loop. It can also be used as an additional input into the unit.
- 22** **FX/MON OUT:** Socket for providing external signal source for either using as a monitor send to a powered monitor or as the send to an external effects processor. The return signal from the processor should be connected to the AUX in socket (21). The level of each channel present at this socket is determined by the individual gain controls of each channel.
- 23** **MAIN OUT:** Socket providing a line level signal for connecting external power amplifiers should extra sound reinforcement be required.
- 24** **VOLUME:** Sets the overall listening level of the amplifier.

FEATURES CD516M

CD516M Features - Output section

- 25** **TREBLE:** Adjusts the overall high frequency response of the amplifier.
- 26** **MID:** Adjusts the overall mid range frequency response of the amplifier.
- 27** **AUX IN:** Sets the overall level in the mix of any external devices connected to the AUX IN socket.
- 28** **BASS:** Adjusts the overall low frequency response of the amplifier.

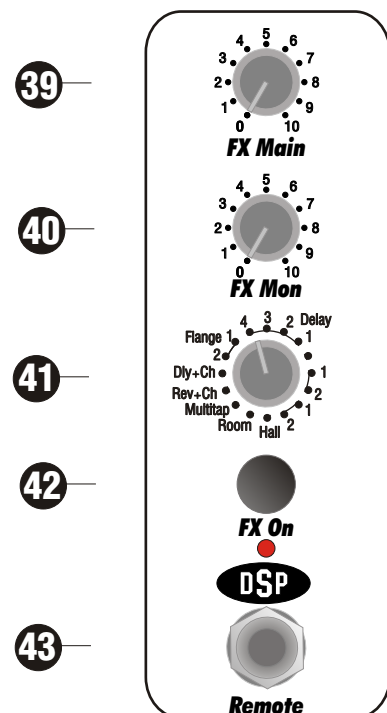
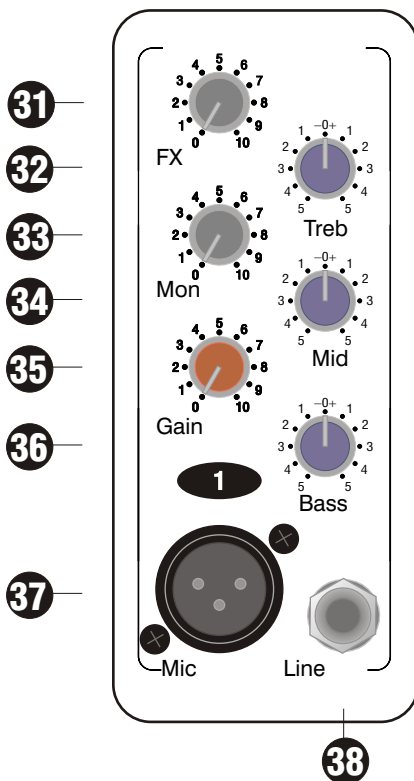
CD516M Features - Rear Panel



- 29** **POWER:** Main power switch
- 30** **SPEAKER SOCKETS:** Sockets for connecting main front of house speakers. Minimum impedance 4 Ohms each side.

FEATURES CD630M

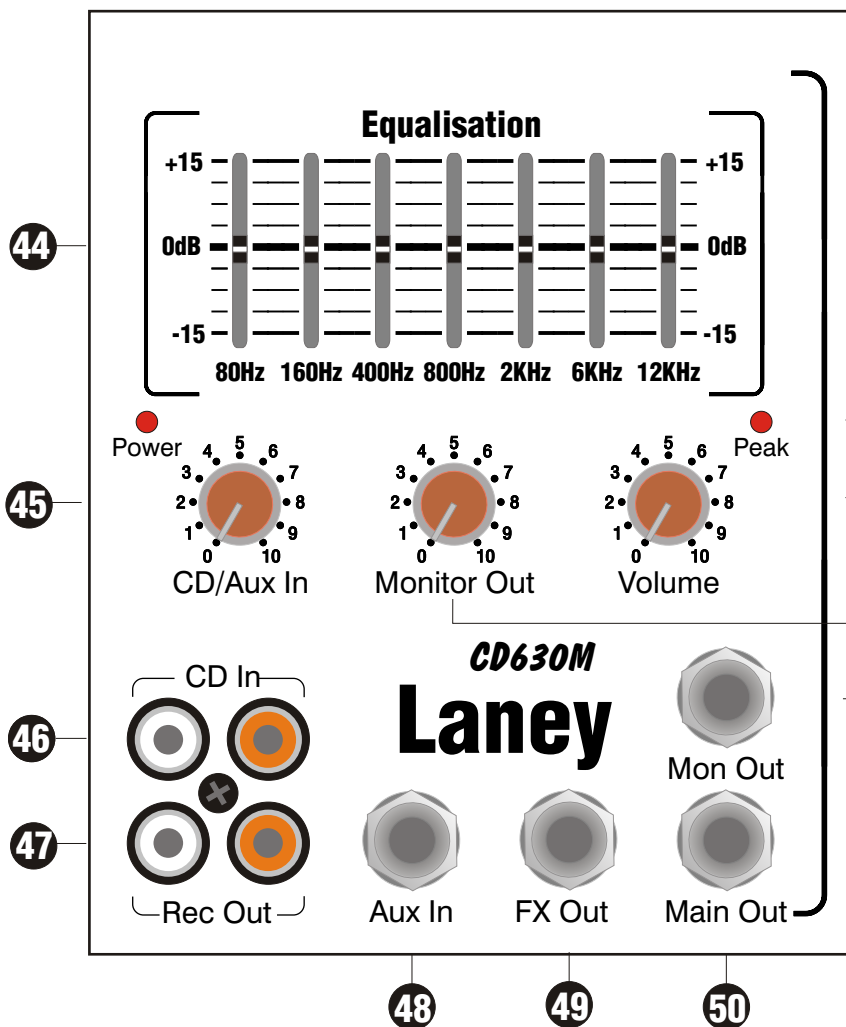
CD630M Features - Channels 1 - 6



- 31** **FX:** Controls the amount of signal sent by the individual channel to the onboard effects section. The overall level of effects is controlled via the FX MAIN control.
 - 32** **TREBLE:** Adjusts the high frequency response of the individual channel.
 - 33** **MON:** Controls the amount of signal sent from the channel to the 'Monitor' output socket, giving the user the versatility of a separate monitor mix.
 - 34** **MID:** Adjusts the mid range frequency response of the individual channel.
 - 35** **GAIN:** Adjusts the channel level, enabling the user to balance levels across channels.
 - 36** **BASS:** Adjusts the low frequency response of the individual channel.
 - 37** **MIC INPUT:** XLR input for low impedance microphone (200-600 Ohm).
 - 38** **LINE INPUT:** Jack input socket, for all line level signals (Keyboard, Signal Processor, Sampler, Drum Machine, etc.).
 - 39** **FX MAIN:** Sets the overall level of effects in the master mix.
 - 40** **FX MON:** Sets the overall level of effects in the monitor mix.
 - 41** **PROGRAM:** Selects the onboard DSP program.
See specification listed in the CD516M section
 - 42** **FX ON:** Engages the onboard DSP effects. The LED associated with the DSP shows when you have selected the DSP section. *(See note below)*
 - 43** **REMOTE:** Socket for connecting footswitch which allows the remote switching of the effects. For the footswitch to work correctly the effects need to be enabled via the front panel first.
- Note - With the footswitch connected please be aware that when you switch the effects off with the remote it does not effect the status of the LED - this remains on even when the DSP is muted.

FEATURES CD630M

CD630M Features - Output section



- 44** **GRAPHIC EQ:** 7 band graphic equalizer.
- 45** **CD/AUX IN:** Sets the overall level in the mix of any external devices connected to the CD IN and AUX IN sockets.
- 46** **CD IN:** Dual phono, line level input sockets, ideal for connecting an external tape machine, CD player, etc. to the amplifier.
- 47** **REC OUT:** Dual phono, line level output sockets, ideal for connecting an external recording device.
- 48** **AUX IN:** Jack socket line in, designed to work in conjunction with the 'Effect Out' socket, as the return of an effects loop.
- 49** **FX/MON OUT:** Socket for providing external signal source for either using as a monitor send to a powered monitor or as the send to an external effects processor. The return signal from the processor should be connected to the AUX in socket (21). The level of each channel present at this socket is determined by the individual gain controls of each channel.

- 50** **MAIN OUT:** Socket providing a line level signal for connecting external power amplifiers should extra sound reinforcement be required.
- 51** **MON OUT:** Line level signal provided for connecting to an external powered monitor or connecting to an external power amplifier supplying un-powered monitors. The Level of signal present at this socket is determined by the individual MONITOR level of each channel.
- 52** **MONITOR OUT:** Determines the overall level of signal sent to an external monitoring power source.
- 53** **VOLUME:** Sets the overall listening level of the amplifier.
- 54** **PEAK LED:** Indicates that the output section is overloading and unwanted distortion may result. Reduce the output level until the LED remains off.

Technical Specifications

	CD480M	CD516M	CD630M
Sensitivity:	Channels: Ch1-Ch5 Line In Ch1-Ch5 Mic Input Aux In: CD In: Rec Out Main Out: Mon Out: Input Channel EQ: Channel Bass Control Channel Middle Control Channel Treble Control Master EQ: Master Bass Control Master Middle Control Master Treble Control Frequency Response: Digital Effect: Output Limiter: Footswitch: Output Power: THD%+N SNR:	Channels: Ch1-Ch5 Line In Ch1-Ch5 Mic Input Aux In: CD In: Rec Out Main Out: Mon Out: Input Channel EQ: Channel Bass Control Channel Middle Control Channel Treble Control Master EQ: Master Bass Control Master Middle Control Master Treble Control Frequency Response: Digital Effect: Output Limiter: Footswitch: Output Power: THD%+N SNR:	Channels: Ch1-Ch5 Line In Ch1-Ch5 Mic Input Aux In: CD In: Rec Out Main Out: Mon Out: Input Channel EQ: Channel Bass Control Channel Middle Control Channel Treble Control Master EQ: Master Bass Control Master Middle Control Master Treble Control Frequency Response: Digital Effect: Output Limiter: Footswitch: Output Power: THD%+N SNR:
Power Consumption: (Typical)	35mV (-27dBu) Impedance 10K 2.5mV (-50dBu) Balanced 1K N/A 200mV (-8dBu) Impedance 10K 300mV (-8dBu) 1.3V (4dB) N/A ±20dB at 40Hz Shelving N/A ±12dB at 10KHz Shelving ±20dB at 40Hz Shelving ±12dB at 500Hz Shelving ±12dB at 10KHz Shelving 20Hz-20KHz ±3dB 6 Programs N/A N/A 65W 45W Typically <0.03% -90dB -69dB -66dB -60dB 30W 360*264*150 7Kg	50mV (-23dBu) Impedance 10K 3.5mV (-47dBu) Balanced 1K 220mV (-11dBu) Impedance 10K 300mV (-8dBu) Impedance 10K 300mV (-8dBu) 1.3V (4dBu) 420mV (-5dB) ±20dB at 40Hz Shelving N/A ±12dB at 10KHz Shelving ±20dB at 40Hz Shelving ±12dB at 500Hz Shelving ±12dB at 10KHz Shelving 20Hz-20KHz ±3dB 16 Programs Yes, Optical Digital effect Mute on/off 165W 110W Typically <0.03% -92dB -84dB -75dB -68dB 70W 470*264*150 9 Kg	50mV (-23dBu) Impedance 10K 3.5mV (-47dBu) Balanced 1K 220mV (-11dBu) Impedance 10K 300mV (-8dBu) Impedance 10K 300mV (-8dBu) 1.3V (4dBu) 420mV (-5dB) ±20dB at 40Hz Shelving ±12dB at 10KHz Shelving ±12dB at 10KHz Shelving 7 Band Graphic EQ ±12dB Each Band *80, 160,400,800,2K,6K,12K* 20Hz-20KHz ±3dB 16 Programs Yes, Optical with Status LED Digital effect Mute on/off 300W 200W Typically <0.03% -90dB -76dB -63dB -55dB 105W 268*264*180 12Kg

Laney

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