CITRONIC®

CDM10:4 mk5

- 4 channel, 17 inputs
- 2 dedicated balanced mic channels with 3-band EQ
- Fully featured mic override facility for use with radio mics
- 2 auxiliary mics on channels 1 and 2
- 2 phono inputs switchable to line level inputs
- 8 CD/line inputs plus 2 switchable
- 3.5mm Aux input on top panel for external sound sources such as MP3 player
- 2 USB input/output on channels 3 and 4
- Fully assignable VCA crossfader
- Punch buttons
- Hot swap channel faders allow changing in seconds
- Individual gain control per channel
- 3-band EQ with total kill
- Fully assignable send and return
- 10-bar LED monitor display
- 12V BNC light socket
- Booth output
- Balanced XLR and unbalanced phono outputs
- Back panel can be positioned on rear or underside of mixer for install
- 19" (6U) rack mountable

INTRODUCTION

The following pages give a full description of the connectors and their purpose. You should study this carefully before you power up the mixer to ensure you get the very best performance from the CDM10:4.

General advice:

Cables & Connectors:
Always use good quality cables and connectors. Over 75% of all problems with DJ systems are simple connector ones. Don't get caught out.

Switching on your system:
Always turn on your mixer and input devices before you turn on the amplifier. The CDM10:4 has been designed not to harm your amplifiers or speakers if you turn them on first, but this may not be true of the inputs plugged into the mixer. Play Safe and always turn your amplifiers on last.

Power Supply:
The power supply for the CDM 10:4 is built into the mixer and is supplied with a BS approved IEC mains plug specifically for use in the UK. If it does not match the power socket you wish to use check with your dealer before you plug it in. It is possible you could damage your mixer if it is not the correct version.

Crossfader:
This is commonly the most used feature on your mixer. Even though a great deal of care has been taken in the choice of components for this function, it is the most likely thing to wear out first on your mixer. So we've made it quick and easy to replace. Don't get caught out always carry a spare (available from any Citronic dealer)

TECHNICAL SPECIFICATIONS

PARAMETER	MIC	PHONO	AUX	LINE/CD
Sensitivity	-54dBu (1.55mV)	46dBu (4mV)	-10dBu (195mV)	0dBu (775mV)
Input impedance	2k	47k	10k	50k
Source Z Ω	150Ω	-	2kΩ	2kΩ
Max gain	50dB	-	+10dB	<-70 to +10dB
S/N ratio*	68dB	73dB	>87dB	>87dB
Freq response**	25Hz to 30kHz	RIAA	<10Hz to 24kHz	<10Hz to 24kHz
THD***	0.042%	-	<0.003%	<0.005%

NOTE:

* Measured at output 22Hz-22kHz filtered

** Measured at 1dB w.r.t. a 0dB ref at mixer output

*** Measured at mixer output, 30kHz filtered

Power Supply - 230Vac, 50Hz

Microphone Equalization:

LO . . . . . ±12dB @ 80Hz
MID . . . . . ±13dB @ 600Hz
HIGH . . . . . ±12dB @ 6kHz

Music Channel Equalization:

LO . . . . . -26dB to +12dB @ 100Hz
MID . . . . . -26dB to +12dB @ 800Hz
HIGH . . . . . -26dB to +12dB @ 9kHz

Noise floor:

Main L/R output . . . . . <-100dBu
Mic Pre-Amp T.E.I.N . . . . . -118dBu

Headphones:

Load. . . . . .32Ω MIN
Power. . . . . 112mV @ 32Ω
Freq Response*. . . . . 11Hz to 25kHz
S/N ratio 81dB

Output: - Master L/R output:

Balanced XLR . . . . . 0dBu (775mV rms)
Unbalanced phono . . . . . 0dBu (775mV rms)

Output: - Booth, AUX outputs :

Unbalanced phono . . . . . 0dBu (775mV rms)

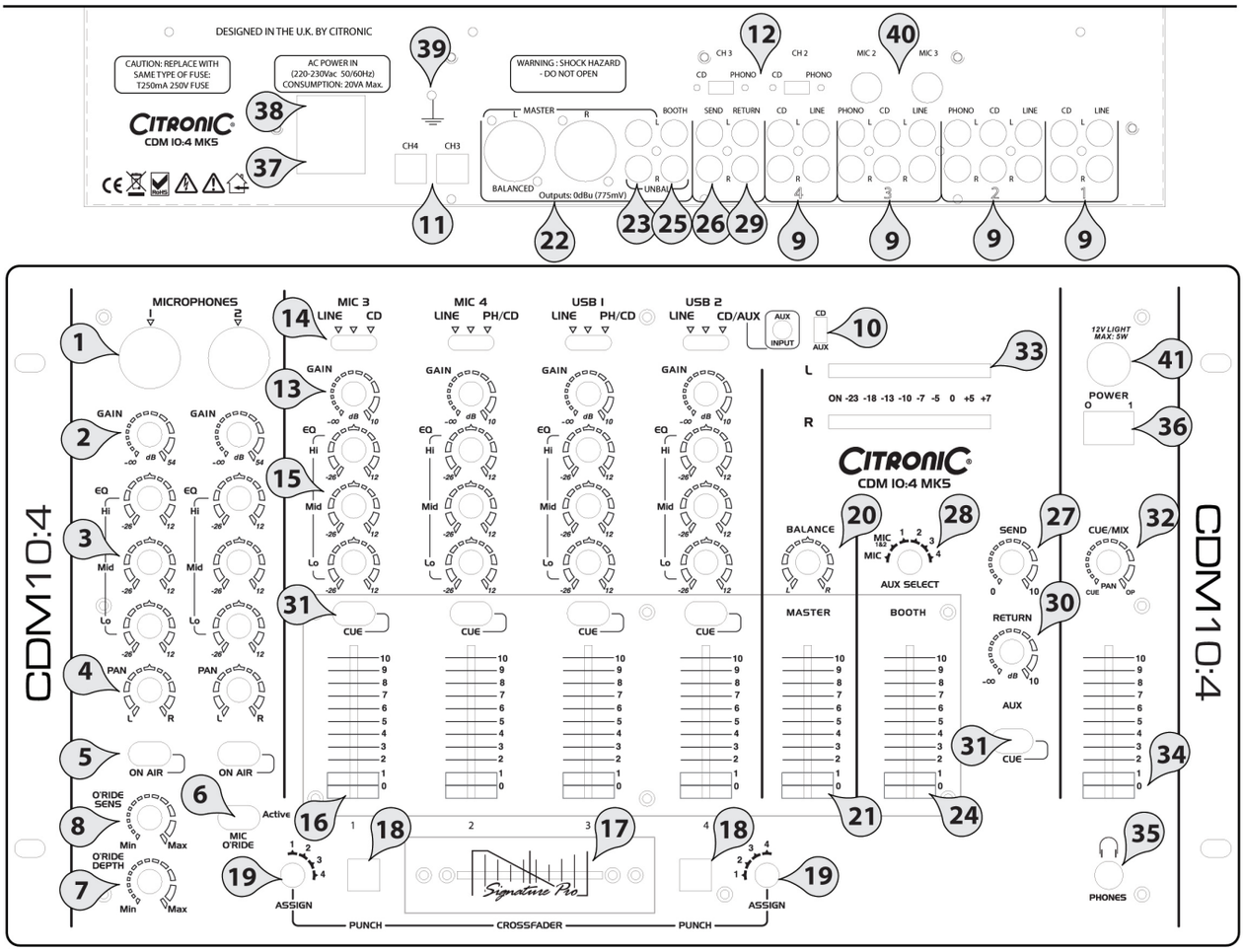
Dimensions:

Width . . . . . 483mm (19")
Height 266mm (6U)
Depth. 80mm
Weight 5kg

Cutout required:

Width 440mm
Height 250mm

COMPONENT DIAGRAM



1) Microphone Input
2) Mic gain controls
3) Microphone Equaliser
4) Pan Control
5) On Air Switch
6) Auto Override Active Switch
7) Depth Control
8) Sensitivity Control
9) Input Sockets (RCA)
10) AUX Input
11) USB input / output sockets
12) Phono / CD switch
13) Input Gain Controls
14) Input Selection Buttons
15) Music Channel Equaliser
16) 45mm Fader
17) Removable Crossfader
18) Punch buttons
19) Assign Switches
20) Balance Control
21) Master Output Fader Control
22) Balanced Output
23) Unbalanced Output
24) Booth Output Fader Control
25) Booth Unbalanced Output
26) Aux Send Output
27) Aux Send Level
28) Aux Select Switch
29) Aux Return Input
30) Aux Return Level
31) CUE Switch
32) Monitor Pan Control
33) LED Monitor Display
34) Headphone Level Control
35) Headphone Socket (Standard Stereo ¼" Jack)
36) Power Switch
37) AC Supply Socket
38) Fuse Holder
39) Earth Stud
40) Channel 1 and 2, ¼" Jack unbalanced Mic inputs
41) 12V Light Socket

OPERATIONS

1)Microphone Input

Two combination XLR and ¼" Jack sockets are mounted on the front face of the mixer for connecting your microphones and offer both balanced or unbalanced connections

Balanced Input Wiring:	Tip:	Pin2:	Positive (Hot)
	Ring:	Pin3:	Negative (Cold)
	Sleeve:	Pin1:	Ground (Shield)
Unbalanced Input Wiring:	Tip:	Pin2:	Positive (Hot)
	Ring:	Pin3:	Ground (Shield))
	Sleeve:	Pin1:	Ground (Shield)
Input impedance:	2k Ω		
Input Sensitivity:	-54dBu (1.55mV)		

2)Gain controls

Each microphone has its own gain control allowing maximum control. Designed to accommodate most microphones, both low and high impedance's to 600Ω.

Range: <70dB to 54dB

3)Microphone Equaliser

Each microphone input has a 3 band EQ stage prior to Pan and Level controls. (See Tech Specs)

EQ control 'Lo': Allows 12dB of cut boost to the low frequencies

EQ Control 'Mid': Allows 13dB of cut boost to the mid frequencies

EQ Control 'Hi': Allows 12dB of cut boost to the high frequencies

4)Pan Control

This control is used to set the stereo balance of the input signal and can "Pan" it fully to left or right.

5)On Air Switch

Activates or de-activates the microphone without the need to adjust the gain control.

Mic Override Section: The CDM10:4 offers the facility to attenuate the main music program automatically when the microphone inputs are active. Except the 3rd and 4th Mic inputs which use Channels 1 and 2

6)Auto Override Active Switch

When pressed the 'live' music program will be attenuated by a pre-set level determined by the 'depth' control (7), thus allowing either microphone signal to take priority on the main output channels.

7)Depth Control

This control pre-set the level of which the main music program will be attenuated.

Attenuation range: 0dB (Off) to 20dB.

To disable the override facility, simply turn the control fully anticlockwise or release the active switch.

8)Sensitivity Control

This control pre-determines the threshold of the microphone signal at which the main music program will be 'ducked' in 'auto override' mode. The higher the setting of this control the more sensitive the 'ducking' threshold becomes.

Music Channels 1-4: 4 stereo line, 4 stereo CD, 2 RIAA phono and 2 USB inputs are arranged into 4 music channels

9)Input Sockets (RCA)

Phono Input: (CH2, 3)
RIAA Equalised Stereo Phono Sockets.
Input Impedance: 47kΩ
Source impedance: Typical magnetic Cartridge
Sensitivity 3.8mV (-46dBu)

CD/Line Input: (CH1,2,3 & 4)
Standard Stereo Phono Sockets
Input Impedance: Typically 10k Ω
Source impedance: 2k Ω (MAX)
Sensitivity: 775mV RMS (0dBu)

10)AUX Input

A 3.5mm Stereo audio jack socket is provided for easy connection of portable sound devices such as MP3 Players. The switch allows you to switch between the CD RCA input and the AUX 3.5mm connection on the mixer.

11)USB input/Output sockets

For connecting USB B type plugs from PC or Laptops. Your PC or Laptop will automatically recognise the CDM10:4 mk5 as an audio soundcard

12)Phono/CD switch

This switch changes the input source for Channel 2 and 3 for use between the CD and Phono input sockets.

13)Input Gain Controls

Each main input channel has a gain control offering <-70 to + 10dB gain range allowing compensation for differing input levels.

14)Input Selection Buttons

Selects either CD/Line/USB/Mic on channels 1 and 4 or Phono/Line/USB/Mic/CD on channels 2 and 3.

15)Music Channel Equaliser

Each music channel has a 3 band EQ stage providing comprehensive control over individual input EQ Content.

Each Control 'Bass'	Allowing -26dB Cut, +12dB Boost
Each Control 'Midrange'	Allowing -26dB Cut, +12dB Boost
Each Control 'Treble'	Allowing -26dB Cut, +12dB Boost

16)45mm Fader

The slider sets the signal level of the channel being mixed onto the main Left/Right Output channels or sent to the fully assignable crossfader.

17)Removable Crossfader

This dipless 45mm crossfader is fully assignable to any of the four main music channels set by setting the "Assign Switches" (19)

The Crossfader is easily and quickly replaced by removing the 2 outer pozi countersunk screws on the crossfader panel and unplugging attached ribbon connector

18)Punch buttons

Create effects such as transforming and dub beat by transposing the program from one side of the crossfader directly onto the other side.

19)Assign Switches

Any of the four music channels can be assigned to either side of the crossfader by the setting of these switches.

NOTE: If the same channel is assigned to both sides of the crossfader at either extreme that channel will be muted but the channel will be live when the crossfaders at its centre position. This setting can give the effect of "faster dub fading" when crossfader is used from its centre to either extreme.

20)Balance Control

This control is used to set the stereo balance of the master Left/Right outputs. The Master option program can be fully panned to the left or right.

21)Master Output Fader Control

This slider controls the overall output level leaving the mixer at its master balanced XLR and Unbalanced phono Socket outputs.

22)Balanced Outputs

Master stereo program output provided by 3 pin Male XLR sockets:

Output wiring: (Balanced):	Pin 1 – Ground Pin 2 – Positive Pin 3 – Negative	
Nominal output level: (Balanced):	0dBu (775mV rms)	
Impedance:	Output < 50 Ohm	Minimum Load 600 Ohm

23)Unbalanced Output

Master stereo program output provided by standard unbalanced phono sockets.

Level:	0dBu (775mV rms)
Output Impedance:	< 50 Ohms
Load Impedance:	5k Ohms (minimum)

24)Booth Output Fader Control

This slider controls the overall output level of the unbalanced Booth Output. The program content of the Booth Output is the same as the 'Master Output'

25)Booth Unbalanced Output

Level	0dBu (775mV rms)
Output Impedance	< 50 Ohms
Load Impedance	5k Ohms (minimum)

Auxiliary Channels

This AUX Send and return channel add the versatility of interfacing with the effects units such as an Echo/Reverb processor for the microphone or sampler for the music inputs.

26)Aux Send Output

The stereo AUX send program is provided via unbalanced phono sockets

Level	0dBu (775mV rms)
Output Impedance	< 50 Ohms
Load Impedance	5k Ohms (minimum)

27)Aux Send Level

This rotary control sets the signal output level of the Aux send output.

28)Aux Select Switch

This switch sets the input onto the Aux send output. This can be either the 'live' microphone or the pre-fade signal or any of the four main music channels.

29)Aux Return Input

Standard stereo Phono sockets.

Input Impedance	Typically 10k Ω
Source Impedance	2k Ω (MAX)
Sensitivity	-10dBu (195mV rms)

30)Aux Return Level

This rotary control has a gain range of < -70 to +10dB and controls the input signal present on AUX return sockets being mixed onto the main output channels.

31)CUE Switch

This switch and indicator allows pre-fade listen on input signals of any of the 4 music and AUX return inputs through the headphone and LED meters, (useful while setting gains or trouble-shooting).

32)Monitor Pan Control

Varies the mix between the cued input and main L/R output, ideal for accurate beat mixing. Full left will give cued input, full right will give main output program.

33)LED Monitor Display

Twin 10 segment LED ladders shows the signal level of whatever is present on CUE/MONITOR bus, either PFL or output signals dependent on setting of monitor PAN control (32).

34)Headphone Level Control

Sets desired level to headphones. Headphone program depends on the position of the monitor pan control and Cue switches.

35)Headphone Socket (Standard Stereo ¼" Jack)

L/H Channel:	Tip
R/H Channel:	Ring
Ground:	Sleeve
Minimum Load Impedance:	32 Ω

36)Power Switch

Controls the AC power to the mixer.

Note. Be sure to switch on the power to your mixer before switching on the amplification system.

37)AC Supply Socket

Supplied with an IEC lead terminated in a moulded UK 3 pin plug. If the moulded plug is incorrect for your wall socket, it is possible with caution to fit an alternative plug.

Cable colour code:	Live:	Brown
	Neutral:	Blue
	Earth:	Yellow/Green

WARNING THIS MIXER MUST BE EARTHED

38)Fuse Holder

This holder carries the 20mm fuse that is provided for safety.

Inspect and change the fuse if necessary with the correct type. If the unit fails to operate when correctly connected to the AC supply, by following the instructions on the rear of the mixer.

Note: ALWAYS disconnect the AC power cord before changing the fuse.

39)Earth Stud

Star point earth for auxiliary equipment eg: Turntables

40)Channels 1 and 2 ¼" Jack unbalanced Mic inputs.

Use the selector switch, to switch from CD to Mic input.

41)12V Light Socket

Suitable for attaching a Goose Neck Light with maximum 5W Lamp output.