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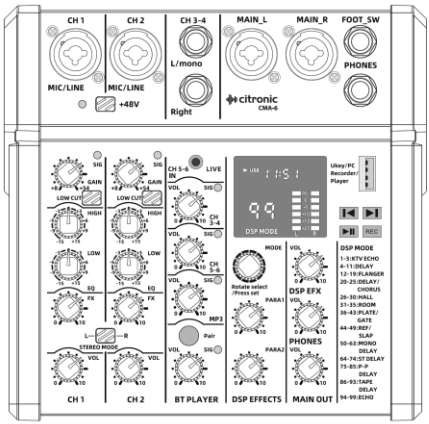
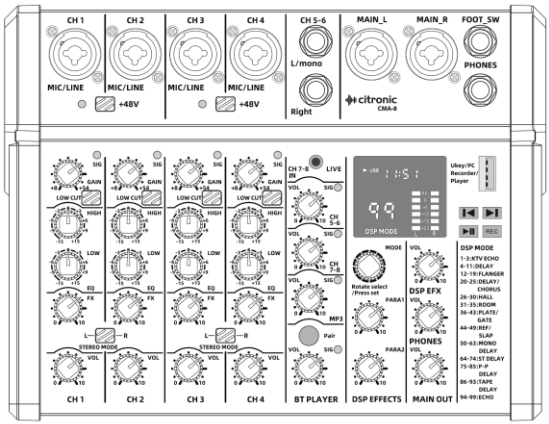
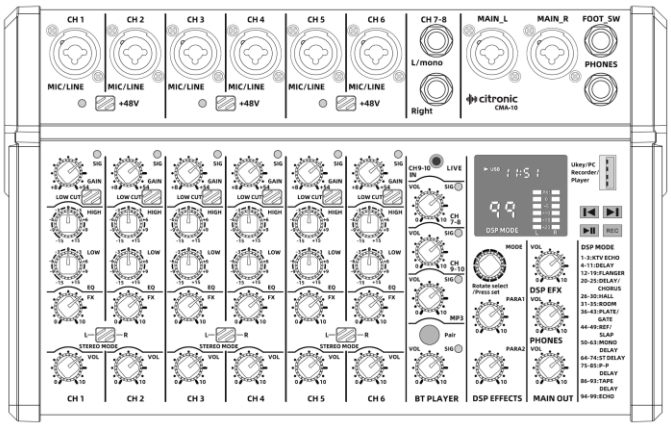
CMA-series

Compact Mixers with FX/BT/USB

User Manual







Version 1.0

Caution: Please read this manual carefully before operating
Damage caused by misuse is not covered by the warranty

Introduction

Thank you for choosing a Citronic CMA-series mixer as part of your professional sound system. This product has been developed to provide a wide range of facilities for professional and reliable sound reinforcement. Please read and keep this manual to achieve the best results from your purchase and avoid damage through misuse.

SAFETY SYMBOL AND MESSAGE CONVENTIONS

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	AVIS RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

Warning

To prevent the risk of fire or electric shock, do not expose any components to rain or moisture. If liquids enter the housing, stop using immediately, allow the unit to dry out and have it checked by qualified personnel before further use. Avoid impact, extreme pressure or heavy vibration to the case.

No user serviceable parts inside – Do not open the case – refer all servicing to qualified service personnel.

Safety

- Use the 5Vdc power adaptor supplied or equivalent.
- Avoid ingress of water or particles into any part of the housing. If liquids are spilled on the console, stop using immediately, allow the unit to dry out and have checked by qualified personnel before further use

Placement

- Keep the console out of direct sunlight and away from heat sources.
- Do not place heavy objects on top of the control surface
- Allow adequate space for airflow and keep the console away from damp or dust.

Cleaning

- Use a soft cloth with a neutral detergent to clean the housing as required.
- A soft brush can be used to clear debris from between controls without damaging them
- Do not use solvents for cleaning the unit.

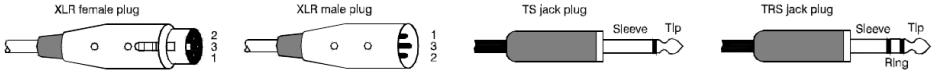
Console layout

Each CMA compact mixing console has a bank of mono input channels which can accept a balanced microphone input or switchable line/instrument input. There is also a stereo input for playback devices or line level instruments.

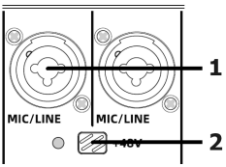
All preamps have studio grade, low noise architecture for the cleanest possible path throughout the signal chain. Console layout is set out in distinct sections to simplify operation.
The following pages are divided up into these stages to explain the details and function of each control.

Channel inputs

Channel inputs are provided as XLR or 6.3mm jack on combo sockets.
If an XLR is plugged in, this will be connected as low impedance (microphone) level.
If a 6.3mm plug is used, this will be connected as high impedance (line) level.
The connections for these inputs are assigned as shown below.



Mono input channels



1. Combo input: Connect a balanced microphone via XLR connection or a line level (or instrument) input via 6.3mm plug. An unbalanced XLR can be connected provided that +48V phantom power is not used. Wired as follows.

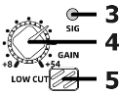
Balanced	Pin 1/Sleeve = Ground	Pin 2/Tip = Signal +	Pin 3/Ring = Signal –
Unbalanced	Pin 1/Sleeve = Ground	Pin 2/Tip = Signal +	Pin 3/Ring = Ground

2. +48V phantom Press this button in to enable +48V phantom power to the pair of XLRs and the LED indicator will light. This provides power to some condenser microphones and DI boxes.
Do not use phantom power with unbalanced XLR connectors. (this does apply to any jack inputs)

Channel controls

3. SIG LED — A green indicator LED which illuminates when the signal is present

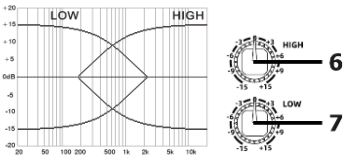
4. GAIN — Adjust this to match the input signal level to be suitable for the channel.
Increase this setting if the input source is quiet.
Reduce this setting if the channel is overloading or sounds distorted.



5. LOW CUT — Preset filter for removing the lowest frequencies on microphones to avoid handling noise or pops from close vocals.

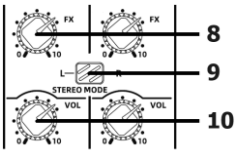
6. HIGH EQ — This control can boost or cut the high frequencies by ±15dB (12 o'clock position is zero)

7. LO EQ — This control can boost or cut the low frequencies by ±15dB (12 o'clock position is zero)



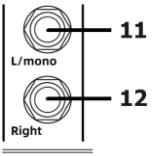
8. FX — This control regulates the amount of the channel signal that is fed to the DSP effects section, varying the amount of effect.

9. STEREO MODE — All mono channels are pre-set to centre of the stereo field by default (equal left & right). Pressing this button in "hard pans" the 2 mono channels left & right as a stereo pair.



10. VOL — Moving this control clockwise increases the (volume) level of the signal to the output.

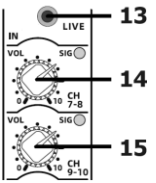
Stereo inputs



11. L/MONO — Line level 6.3mm jack input. Left side of the stereo input, or will default to mono if connected alone (i.e. without a right side input)

12. RIGHT — Line level 6.3mm jack input for right side of stereo input.

13. LIVE — 3.5mm stereo line (or aux) input for mp3 player, smart phone etc

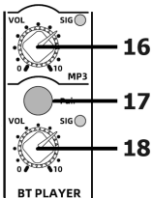


14. VOL — Rotary Volume control for L+R 6.3mm line channel with signal LED.

15. VOL — Rotary Volume control for stereo 3.5mm line channel with signal LED.

Bluetooth Wireless Receiver & MP3 Player

CMA-series mixers have a Bluetooth receiver and USB mp3 audio player/recorder

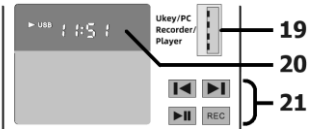


16. MP3 VOL — Volume control for USB mp3 playback with signal LED

17. BT PAIR — Press this button to activate the Bluetooth receiver. (see below Operation section for pairing procedure)

18. BT VOL — Volume control for the Bluetooth receiver with signal LED

19. USB port — Connect USB flash drive to play or record tracks on the media.
Connecting to a PC using a USB A to A lead will present the mp3 input and main output as a 2-way stereo plug & play USB audio interface. This should appear in your PC software as an input/output option.

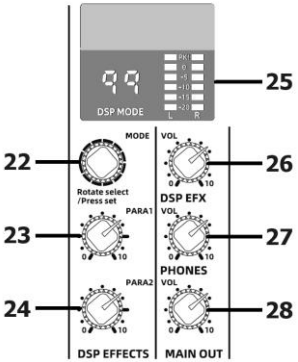


20. Display — The top part of the LED display shows USB playback or record status and time.

21. Controls — 4 button control panel for track playback and recording
⏮ = Previous track ⏭ = Next track
⏵⏸ = Play/Pause **REC** = Record
(recorded tracks are stored on the USB flash drive as numbered files)

DSP Effects

CMA-series mixers have an internal 24-bit DSP processor for audio effects, as detailed on the DSP Table in the appendix of this manual.



22. Preset selector — Rotate until required preset is shown and press to select that preset

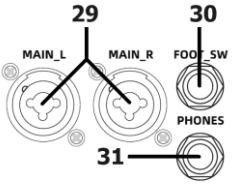
23. PARA1 — Parameter 1 of the preset - see appendix (the adjusted value is stored for that preset)

24. PARA2 — Parameter 2 of the preset - see appendix (the adjusted value is stored for that preset)

25. Display — The lower part of the LED display shows the DSP preset number & MAIN OUT VU meter

26. DSP EFX VOL — Master DSP effects volume control

Output Section



27. PHONES — Headphones level to 6.3mm stereo PHONES output

28. MAIN OUT — Master volume control for L+R XLR outputs

29. MAIN L/R — Main balanced Left + Right outputs

30. FOOT SW — Connect a momentary footswitch to mute/unmute the DSP effects

31. PHONES — Connect Headphones via 6.3mm stereo jack (32Ω min)

Setting Up

Connect microphones to the Mic / Line / Instrument combo inputs (1) via XLR, ensuring that the +48V button (2) is pressed in for any condenser microphones or D.I. boxes that require phantom power to operate.

(the +48V button activates phantom power to XLR inputs in pairs. If a microphone does not require phantom power, enabling it will not damage the microphone, but you must ensure that the XLR is wired as a balanced connection. i.e. separate +, -, and GND connections to avoid damage to the mixer)

For line inputs (such as CD, mp3 player, laptop, digital keyboard etc.) or instrument inputs (such as electric guitar), connect these via 6.3mm jack plug to the combo inputs (1)

For stereo line level signals, such as CD or mp3 players, computer sound cards or electronic keyboards, connect these via 6.3mm jack plug to the stereo inputs (11, 12) or if the input device is mono, just connect to the L/MONO input (11). The stereo channel has its own volume control (14)

A further stereo AUX input (13) is provided on 3.5mm jack for connecting a stereo line level audio source, such as an mp3 player, smart phone, tablet or laptop. This is governed by its own volume control (15)

If headphones are to be used for monitoring the main output, connect these to the PHONES 6.3mm stereo jack (31) and turn the PHONES control (27) down fully before listening to the headphones, gradually turning this control up to the required level to avoid damage to hearing.

Connect the MAIN OUT L + R XLR outputs (29) to the receiving amplifier or recording device.

Finally, connect the supplied in-line adaptor to the USB-C power inlet on the rear panel and the plug-top to a suitable mains outlet, ensuring the correct mains supply voltage.

Before switching power on, it is advised to turn all volume controls fully down to avoid any loud noises through the connected speakers or recording equipment.

Operation

Turn the MAIN OUT control (28) fully down and press in the POWER button on the rear panel and the POWER LED on the top panel will light.

Check the output of any channel by starting with its VOL (10, 14, 15, 18) and FX (8) turned fully down. HIGH and LOW EQ controls should all be set in the mid position (12 o'clock).

Turn up the MAIN OUT or PHONES (28, 27) part way and listen whilst playing the signal (or speaking into the microphone) and increasing its VOL control gradually. Stop when the desired output level is reached.

Avoid aiming the microphone or instrument pickup towards the loudspeaker(s), which can cause feedback, which is a loud whistling or howling sound caused when a mic or pickup hears its own output.

To adjust the tone characteristics of a Mic, Line or Instrument input signal, the high and low frequency content can be individually cut or boosted using the HIGH and LOW EQ controls (6, 7)

Turning the HIGH control clockwise from 12 o'clock boosts the high frequencies (treble) for a brighter sound and turning it anticlockwise cuts them for a duller sound.

Turning the LOW control clockwise from 12 o'clock boosts the low frequencies (bass) for a thicker sound and turning it anticlockwise cuts them for a thinner sound.

Boosting these too much can increase the chance of feedback, whereas cutting can sometimes help to reduce feedback, so experimentation is often necessary.

Adding some DSP presets to a mic or instrument can create a spatial or rotating effect. To add the effect, turn the DSP EFX control up (26) and gradually increase the FX control (8) on the input channel.
There are 99 pre-set types available by rotating and pressing the preset selector (22) including digital reverbs, delays and modulation effects. Each effect has 2 adjustable parameters (23, 24) to enable you to tailor the effect as required. Experimentation is advised to achieve the best results from this section.
See the previous "DSP Effects" section and appendix for details about the DSP effects.

If a smart phone or tablet is to be connected as a wireless music source, press the BT PAIR button (17) and it will flash blue rapidly.

Search on the smart phone or tablet for a device called "Citronic" and select to connect for audio playback. The BT PAIR button (17) will be lit blue constantly when paired successfully.

When a track is being, the BT PAIR button will flash slowly. Turn up the BT VOL control (18) to hear the track being played. Pressing the BT PAIR button again will disable the Bluetooth receiver.

Turn down the MAIN OUT volume control before powering down to avoid loud noises through connected equipment.

Specifications

Model	CMA-6	CMA-8	CMA-10
Power supply	5Vdc 1A min. (USB-C adaptor included)		
Power consumption max.	5W		
Effects	99 program DSP (2 parameter controls)		
DSP sample rate	48khz (24-bit)		
Audio source	Bluetooth receiver, USB mp3 player/recorder		
Bluetooth version	v5.1 (+BR+EDR+BLE)		
USB version	v1.1 audio (mp3/wav/ape/flac)		
EQ: low	±15dB @ 80Hz		
EQ: high	±15dB @ 12kHz		
Phantom power	+48V switchable in pairs (XLR inputs only)		
Frequency response	20Hz - 22kHz (±1dB)		
Input level	Mic +10dBu max. / Line +22dBu max.		
Input impedance	Balanced XLR 2k Ohm, Balanced TRS jack 10k Ohm		
THD +N	<0.05% @ 1kHz		
Noise	EIN -122dBu (22Hz - 22kHz)		
CMRR	>75dB (Mic 1kHz)		
Sensitivity	XLR -60 to +10dBu, TRS jack -20 to +20dBu, Stereo -20 to +14dBu		
Crosstalk : stereo	>80dB (1kHz fader shutoff)		
Outputs	Left + Right balanced XLR, Headphones 6.3mm jack		
Max. output level	XLR +22dBu, TRS +20dBu		
Mono inputs	2 x combo XLR/jack	4 x combo XLR/jack	6 x combo XLR/jack
Stereo inputs	L+R 6.3mm jacks + stereo 3.5mm jack		
Dimensions	183 x 182 x 60mm	232 x 183 x 60mm	282 x 183 x 60mm
Weight	0.875kg	1.125kg	1.395kg

Disposal: The "Crossed Wheelie Bin" symbol on the product means that the product is classed as Electrical or Electronic equipment and should not be disposed with other household or commercial waste at the end of its useful life. The goods must be disposed of according to your local council guidelines.

Hereby, AVSL Group Ltd. declares that the radio equipment types 170.875UK, 170.876UK and 170.877UK are in compliance with Directive 2014/53/EU

The full text of the EU declaration of conformity for 170.875UK is available at the following internet address: http://www.avsl.com/assets/exportdoc/1/7/170875UK%20CE.pdf

The full text of the EU declaration of conformity for 170.876UK is available at the following internet address: http://www.avsl.com/assets/exportdoc/1/7/170876UK%20CE.pdf

The full text of the EU declaration of conformity for 170.877UK is available at the following internet address: http://www.avsl.com/assets/exportdoc/1/7/170877UK%20CE.pdf

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DSP Effects Presets & Parameters

No	Name	Para 1	Para 2
1	KTV Echo 3	Dly Time	Decay Time
2	KTV Echo 2	Dly Time	Decay Time
3	KTV Echo 1	Repeat	Decay Time
4	Bright Hall Mid	Pre-Delay	Decay Time
5	Bright Room Mid	Pre-Delay	Decay Time
6	Plate Mid	Pre-Delay	Decay Time
7	Mono Delay 220	Repeat	Delay Time
8	Stereo Delay 220	Repeat	Delay Time
9	Ping Pong Delay 220	Repeat	Delay Time
10	Tape Delay 220	Repeat	Delay Time
11	Modulation Delay	Depth	Delay Time
12	Chorus Slow	Depth	Speed
13	Chorus Fast	Depth	Speed
14	Flanger Light	Depth	Speed
15	Flanger Heavy	Depth	Speed
16	Distortion FX	Drive	Gain
17	Wah Wah	Depth	Speed
18	Tremolo	Depth	Speed
19	Pitch Shift	Cent	Key
20	Chorus + Room	Speed	Decay Time
21	Chorus + Hall	Speed	Decay Time
22	Delay + Chorus	Speed	Delay Time
23	Delay + Flanger	Speed	Delay Time
24	Delay + Chorus + Room	DlyTime	Decay Time
25	Delay + Chorus + Hall	DlyTime	Decay Time
26	Bright Hall Small	Pre-Delay	Decay Time
27	Bright Hall Large	Pre-Delay	Decay Time
28	Warm Hall Small	Pre-Delay	Decay Time
29	Warm Hall Mid	Pre-Delay	Decay Time
30	Warm Hall Large	Pre-Delay	Decay Time
31	Bright Room Small	Pre-Delay	Decay Time
32	Bright Room Large	Pre-Delay	Decay Time
33	Warm Room Small	Pre-Delay	Decay Time
34	Warm Room Mid	Pre-Delay	Decay Time
35	Warm Room Large	Pre-Delay	Decay Time
36	Plate Small	Pre-Delay	Decay Time
37	Plate Large	Pre-Delay	Decay Time
38	Reverb + Gate Short	Gate Time	Decay Time
39	Reverb + Gate Mid	Gate Time	Decay Time
40	Reverb + Gate Long	Gate Time	Decay Time
41	Doubling Small	DlyTime	Decay Time
42	Doubling Mid	DlyTime	Decay Time
43	Doubling Large	DlyTime	Decay Time
44	Early Reflections Small	Pre-Delay	Decay Time
45	Early Reflections Mid	Pre-Delay	Decay Time
46	Early Reflections Large	Pre-Delay	Decay Time
47	Slap Short	None	Delay Time
48	Slap Mid	None	Delay Time
49	Slap Long	None	Delay Time

No.	Name	Para 1	Para 2
50	Mono Delay 60	Repeat	Delay Time
51	Mono Delay 100	Repeat	Delay Time
52	Mono Delay 150	Repeat	Delay Time
53	Mono Delay 300	Repeat	Delay Time
54	Mono Delay 500	Repeat	Delay Time
55	Mono Delay 600	Repeat	Delay Time
56	Mono Delay 800	Repeat	Delay Time
57	Mono Delay 1000	Repeat	Delay Time
58	Mono Delay 1200	Repeat	Delay Time
59	Mono Delay 1400	Repeat	Delay Time
60	Mono Delay 1800	Repeat	Delay Time
61	Mono Delay 2500	Repeat	Delay Time
62	Mono Delay 3000	Repeat	Delay Time
63	Mono Delay 3500	Repeat	Delay Time
64	Stereo Delay 60	Repeat	Delay Time
65	Stereo Delay 100	Repeat	Delay Time
66	Stereo Delay 150	Repeat	Delay Time
67	Stereo Delay 300	Repeat	Delay Time
68	Stereo Delay 500	Repeat	Delay Time
69	Stereo Delay 600	Repeat	Delay Time
70	Stereo Delay 800	Repeat	Delay Time
71	Stereo Delay 1000	Repeat	Delay Time
72	Stereo Delay 1200	Repeat	Delay Time
73	Stereo Delay 1400	Repeat	Delay Time
74	Stereo Delay 1800	Repeat	Delay Time
75	Ping Pong Delay 60	Repeat	Delay Time
76	Ping Pong Delay 100	Repeat	Delay Time
77	Ping Pong Delay 150	Repeat	Delay Time
78	Ping Pong Delay 300	Repeat	Delay Time
79	Ping Pong Delay 500	Repeat	Delay Time
80	Ping Pong Delay 600	Repeat	Delay Time
81	Ping Pong Delay 800	Repeat	Delay Time
82	Ping Pong Delay 1000	Repeat	Delay Time
83	Ping Pong Delay 1200	Repeat	Delay Time
84	Ping Pong Delay 1400	Repeat	Delay Time
85	Ping Pong Delay 1800	Repeat	Delay Time
86	Tape Delay 60	Repeat	Delay Time
87	Tape Delay 100	Repeat	Delay Time
88	Tape Delay 150	Repeat	Delay Time
89	Tape Delay 300	Repeat	Delay Time
90	Tape Delay 500	Repeat	Delay Time
91	Tape Delay 600	Repeat	Delay Time
92	Tape Delay 800	Repeat	Delay Time
93	Tape Delay 1000	Repeat	Delay Time
94	Echo 1 100	Repeat	Delay Time
95	Echo 1 400	Repeat	Delay Time
96	Echo 2 100	DlyTime	Decay Time
97	Echo 2 400	DlyTime	Decay Time
98	Echo 3 100	DlyTime	Decay Time
99	Echo 3 400	DlyTime	Decay Time