

OWNER'S MANUAL

AUDI CONFLUEN[®] SERIES

Multi-channel digital Consoles mixer

MX600 MX800 MX1000 MX1200 MX1600

EMX600 EMX800 EMX1000 EMX1200



Manufacturer: **WIND FORCE ELECTRONIC MANUFACTURING CO.,LTD**

U.S.A: P.O.Box2245 Alameda, CA 94501 U.S.A

Tel: 1-510-3379285 Fax: 1-510-7691328 E-mail: biema@comcast.net

CHINA: No.4 road 2, Caier industrial and business zone, Shiqiao town, Panyu district, Guangzhou, China

PC: 511400 Tel: 86-20-22871781(export) 22871782(domestic) Fax: 86-20-22871799

E-mail: audio@biema.com export@biema.com xianfeng@biema.com windforce@biema.com

Biema
PROFESSIONAL SOUND U.S.A.

Biema AUDI CONFLUEN[®] series *MX* Multi-channel digital Consoles mixer *EMX*

E. SPECIFICATIONS

1. INPUT CHANNELS

Input Mode	Electronically balanced, 1/4" jack or XLR MIC input.
MIC E.I.N	-120dB μ
T H D	0.01%(+4dB μ ,1KHz.)
Gain Bandwidth	80KHz
Gain Control Range	-5dB~+60dB
Max Input	+22dB
Channel Fader Range	-85dB~+10dB
Monitor Send Range	-85dB~0dB
Effect Send Range	-85dB~0dB
Hi Shelving	12KHz, +/-15dB, Q fixed at 2 OCT
Mid Shelving	350Hz-8KHz, +/-15dB Q fixed at 1 OCT
Low Shelving	120Hz, +/-15dB, Q fixed at 2 OCT
Channel Insert MAX IN/OUT	+22dB μ
Channel to Channel Cross-talk	\leq -95dB(1KHz)

2. AUX INPUT

MAX AUX Input	+22dB μ
MAX PLAY IN	+10dB μ
AUX In Gain range	-85dB~0dB

3. EFFECT

Max Effect SEND/RETURN	+10dB μ
Effect Tone	+/-12dB, 8KHz
Effect Send Gain Range	-85dB~0dB
Effect Return Gain Range	-85dB~0dB

4. MONITOR OUTPUT

Max Monitor Output	+22dB μ
Monitor Hi Shelving	+/-15dB, 8KHz
Monitor Low Shelving	+/-15dB, 120Hz

5. MIXER OUTPUT

Max Output	(+22dB μ ,Balance XLR & 1/4" jack)
Dual 7 Band Graphic Equalizer	2.5 multiple frequency ,Q fixed at 10 OCT, +/-12dB
N/S	-90dB(ref: +4dB μ)
Distortion (THD)	0.01%, 1KHz/+4dB μ
Frequency Response	20Hz~40KHz +/-1dB 10Hz~120KHz +/-3dB
Power Amplifier Output	2X300W/4 Ω

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OWNER'S MANUAL

The information furnished in this manual does not include all of the details of design, production, or variations of the equipment. Not does it cover every possible situation that may arise during installation, operation or maintenance. If you need special assistance beyond the scope of this manual, please contact our Technical Support Group.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

TO PREVENT ELECTRIC SHOCK DO NOT REMOVE COVER OR BACK. NO USER SERVICEABLE PARTS INSIDE REFERS SERVICING TO QUALIFIED SERVICE PERSONNEL.

MAGNETIC FIELD

CAUTION! Do not locate sensitive high-gain equipment such as preamplifiers or tape decks directly above or below the unit. Because this amplifier has a high power density, it has a strong magnetic field, which can induce hum into unshielded devices that are located nearby. The field is strongest just above and below the unit.

If an equipment rack is used, we recommend locating the amplifier(s) in the bottom of the rack and the preamplifier or other sensitive equipment at the top.

WATCH FOR THESE SYMBOLS:



The lightning bolt triangle is used to alert the user to risk of electric shock



The exclamation point triangle is used to alert the user to important operating or maintenance instructions.



WARNING

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE!

Ultra-low noise multi-channel digital busses mixer

- 24-bit Σ - Δ AD/DA converters with 64/128 times over-sampling for ultra-high headroom and resolution
- 8 kind of effect mode (HALL1、HALL2、ROOM1、ROOM2、DEL1、DEL2、ECHO、REV/DEL)
- discretionary adjust and store the delay time and repeat time
- Ultra-low noise multi-channel 4-bus mixer
- Master aux sends with gain control
- Extremely high headroom-offering more dynamic range
- Ultra-low noise discrete mic pre-amps with +48V phantom power
- Balanced inputs and main outputs
- Peak LED's and switchable low-cut filter on all mono channels
- Ultra-musical 7-band EQ on all channels
- Mute/Alt 3-4, Solo-In-Place and Pre-Fader-Listen function on all channels
- Separate main mix, control room and headphones outputs
- 2-Track inputs assignable to main or control room/ headphones outputs
- Highly accurate bargraph meters on output
- High quality 60 mm faders and sealed potentiometers
- Rugged design power supply ensures superior transient response
- State-of-the-art 4558 ICs and high quality components ensure crystal-clear audio performance and excellent noise figures
- All of the mixer's circuit board is dual Layer PCB and the devices are SMD
- 19" rack mounting kit included

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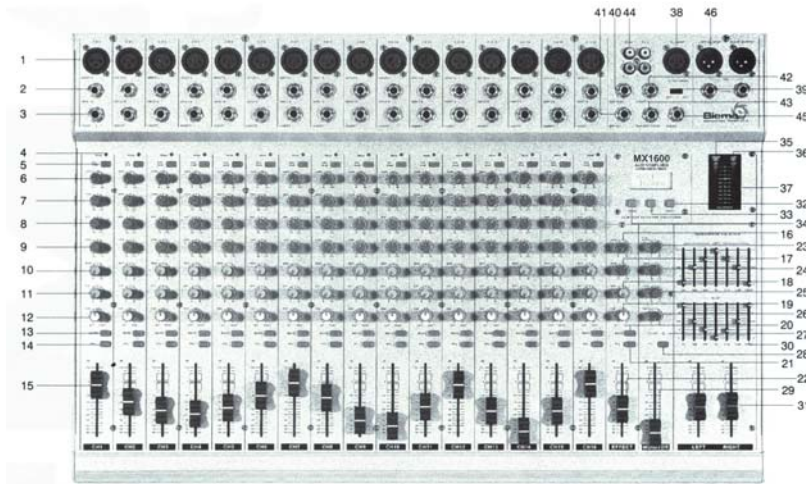


FIGURE 1 MAIN CONTROL PARTS

A. CHANNEL SECTION

AUDI CONFLUEN SERIES All channels of powered mixers & mixing consoles are the same. Therefore, this manual shows the control functions of only one channel.

1. INPUT A

Electronically balanced inputs accepts a standard XLR female connector. Pin 1=ground, pin 2=positive, pin 3=negative. You can use max-60dB according to signal level by GAIN control NO.6 (see figure 3). This XLR connector can be connected with a condenser microphone (see unit 50).

2. INPUT B

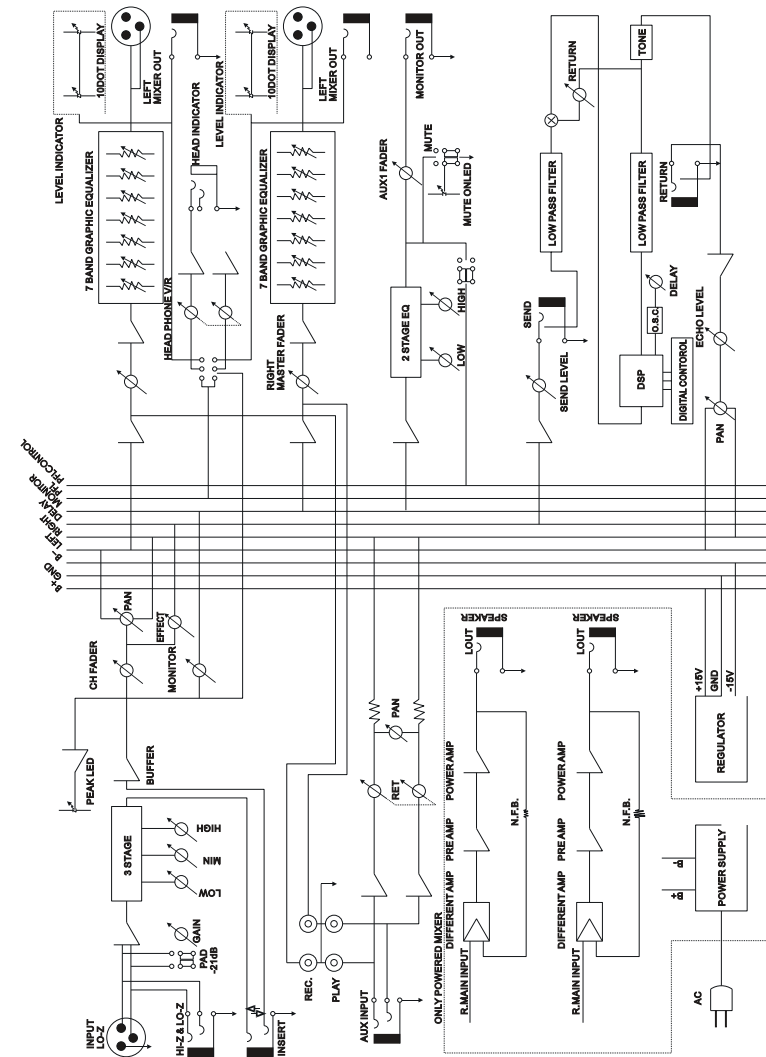
Using 1/4" TRS sockets, You can use unbalance (tip/sleeve) and balance (tip/ring/sleeve (see figure 3)).

3. INSERT JACK

Each input channel has its own built-in signal loop into which you may "insert" effects devices such as digital reverb, equalizers, compressors, etc. This is accomplished by using a "SEND/RETURN" cable consisting of 1/4" tip-ring-sleeve (stereo) phone plugs wired to two 1/4" mono phone plugs as shown in figure 3. (see also Connection Diagram, Example). When connected in this way, the effects device will effect only the channel in question. To use the same effects for more than one channel at a time, you must use the AUX SENDS. (see "AUX SEND" below, and the connection diagram.)

4. PEAK LEVEL INDICATOR

The peak indicator LED will begin to illuminate when the post EQ. Pre fader signal of that channel is within 10dB of actual clip.



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46. MIXER OUTPUT (LEFT & RIGHT)

The line level signal can be panned to the left or right master bussed. The levels of these outputs are controlled by the left & right MASTER FADERS (See NO.31)

47. PHANTOM POWER SWITCH

The switch applies a phantom power for condenser microphones.

48. AMPLIFIER POWER SWITCH

This switch applied a power source of AC220~240v/50~60Hz to your mixer when it is turned on.

49. AC POWER JACKS

AC 200-240V/ 50-60Hz.

50. FUSE HOLDER

When a problem occurs on this appliance, the fuse will be cut off power. To replace, use standard fuse as specified on this appliance.

51. OUTPUT JACKS (SPEAKER TERMINALS)

These are terminals to connected Left & right speaker incorrect. Keep in parallel Between Terminals 2 speakers, when connected.

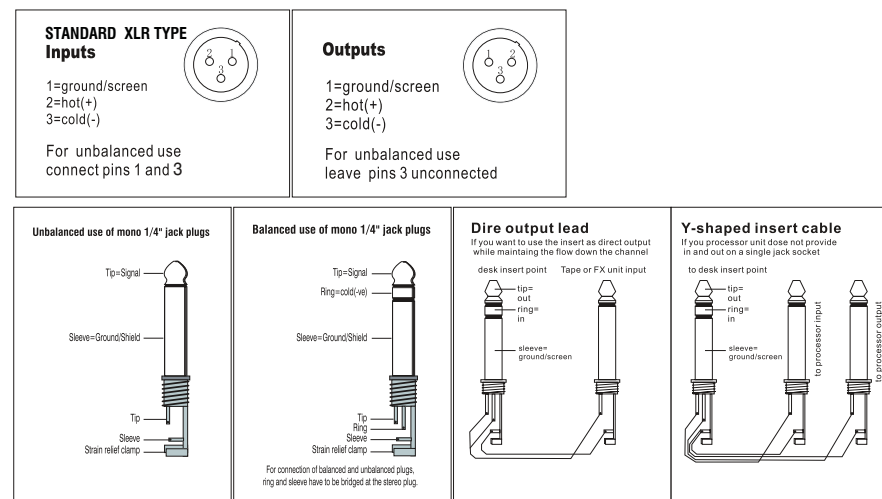


FIGURE 3 PLUG SOLDERING GUIDE

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5. PAD (-20dB)

This switch, when pushed attenuates, the input signal-20dB.

6. GAIN CONTROL

Adjusts inputs sensitivity from -60dB to -15dB with the -20dB pad switch is pushed. VP position and -40dB to +5dB when the -20dB pad switch is pushed.

7. HIGH FREQUENCY EQUALIZATION CONTROL

Provides +15dB of fixed frequency equalization that shelves at 10KHz.

8. MID FREQUENCY EQUALIZATION CONTROL

Provides +15dB of fixed frequency equalization that shelves at 2KHz.

9. LOW FREQUENCY EQUALIZATION CONTROL

Provides +15dB of fixed frequency equalization that shelves at 120Hz.

10. MONITOR CONTROL

Use this control to set the level of the monitor-bus from a channel signal.

11. EFFECT CONTROL

Use this control when you want to get effect sound by adjustment of input signal When you don not use external source, digital delay will be working which installed inside.

12. PAN CONTROL

The pan control sends continuously variable amounts of the post fader signal to either the left or right main busses. In the center position, equal amounts of signal are sent to the left and right busses. As the control is rotated in either direction, more signal is sent to the buss indicated in the direction, of the rotation while less signal is sent to the other buss. If the control is turned all the way to one side, the signal is sent only.

13. MUTE

Button for main signal muting when it is in the up position.

14. PRE-FADER-LISTEN (PEL)

You can monitor the signal of the only channel which PFL switch is turned on using by headphone is useful. When PFL switch is turned on, other channels are cut off automatically.

15. CHANNEL FADER

This is a function to adjust the volume of signal connection into each channel and adjust the volume of output, together with master fader.

Normal operating position is at the "0" dB mask, providing 4dB of gain above that point if required.

B. MAIN CONTROL PARTS

16. EFFECT SEND CONTROL

Using by this control, finally you can adjust input level of EFFECTOR properly from adjusted EFFECT CONTROL (NO.11)

17. TONE CONTROL

Using by this control, the delay sound can be adjusted to 12KHz, \pm 10dB.

18. EFFECT LEVEL CONTROL

Using this control to set the level of the monitor from the effector.

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19. EFFECT PAN CONTROL

Using by this control, you can adjust echo sound & external effector sound between left & right

20. MUTE

The mute button can be connected with the effector 's output signal with main-bus when it is pushed down.

21. PFL

You can monitor the signal of the effector's output using by headphone.

22. EFFECT FADER CONTROL

Using by this control, you can adjust signal level of echo level & external effector.

23. AUX IN, PLAY CONTROL

By adjusting, you can control input level form AUX INPUT and the RCA "play" Jacks (No.46) to the main-bus.

24. MONITOR HI-TONE CONTROL

Using this control, the monitor-bus signal can be cut or boost 1 5dB at 10KHz.

25. MONITOR LO-TONE CONTROL

Using this control, the monitor-Bus, signal can be cut or boosted 15dB at 120Hz.

26. HEADPHONE VOLUME CONTROL

Using this control, you can adjust the output level of headphone.

27. PRE-FADER-LISTEN (PFL) TURN ON LED

During your monitor a certain channel , by using headphone the LED will be turned on.

28. PRE-FADED LISTEN (PFL) SWITCH

Push this switch, you can monitor the monitor-bus signal by using headphone.

29. MASTER MONITOR CONTROL

Using by this control, finally you can adjust output level from adjusted MONITOR (See No.10)

30. 7-BAND GRAPHIC EQUALIZER

This has a function which finally differentiates a signal and adjusts the frequency you want You can adjust equalization by this according to listening position and listeners taste.(Upper movement of this control increases the level and vice verse.)

31. LEFT AND RIGHT MASTER FADER

By adjusting, you can get finally mixed output.

C.DISPLAY SECTION

32. push this key ,you can select effect mode or parameter edit.

33. when you press the key effect mode will be up change with time parameter change to down.

34. if you want select effect mode to down with time parameter change to up please push the key.

35. POWER LED

This LED will be lit after turned on the power supply.

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36. PHANTOM POWER LED

This LED will be lit, if you turn on the phantom power then, the "input A" of all channel are supplied phantom power, you can connect condenser of "input A" .

37. LEVEL INDICATOR

Dual ten segment streamer level miler, precision shows the output level of left and right channel and working condition.

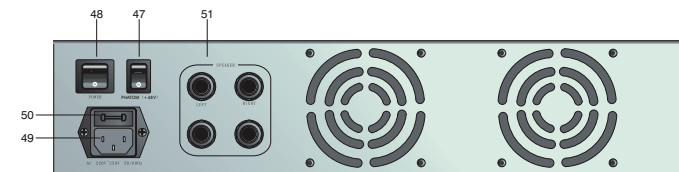


FIGURE 2 OUTPUT SECTION

D. OUTPUT SECTION

38. DJ LAMP

DC 12V400MA, it make the operation more easier in darkness.

39. DJ LAMP SWITCH

Being pushed at "off", the lamp is turned off; pushed at "on", the lamp is turned on.?

40. EFF SEND

This is to be connected with external digital reverb & effect equipment. It send the signal from the mixer to the effector's Input.

41. EFFECT RETURN

When use a effector, the 1/4" mono plug send the signal from the effector s output to the mixer.

42. MONITOR OUT

This jack is to be connected with the input jack of monitor Amplifier when using separate monitor.

43. AUX IN

This jack is to be connected with various external auxiliary signal.

44. RECORD & PHONO JACK

These jacks are connected with cassette deck when recording the mixed output & when playing back recorded.

45. HEADPHONE JACK

You can monitor working condition by headphone. You can monitor master sound when the PFL LED (NO.21) turn off and you can monitor a certain channel when the PFL LED is turned on.