boytone®

BT-120MX

12 CHANNEL MIC/LINE MIXER

OWNERS MANUAL

BT-120MX

Thanky ouforyour support and buying ourprofessionalpoweredmixer system. In order to correctly use the powered mixer, please read the manualc arefully and keep properly forfuturareferenca

SAFETY INSTRUSCTIONS

(1) It is strictly forbiddenfor non-professionals to open the machine for reparing,otherwise the free warranty service will be terminated.If there has any problem with the product,please contact our technical after-[illegible]

(2) The appliance shouldbeconnected to apower supply only the type describedinthe oper atinginstructions oras m arked onthe appli ance Whenconnectingthe sy stem,pleasey urn off thepower.Holdthepower coedplugwhen disconnecting it from an AC ouelet.Never pull thecord The powercordof theappliance shouldbe unpluggedfrom theoutlet whenleft unusedfor along time

(3) Theappliance shouldbe situated away from heatsources s uchas r adiators,heatregisters,stovesor other appliances(including amplifiers)that produceheat

(4) Do notallow w ater to enterthis unitor allowthe unitto becomewet Fireor electric alshockm ay res ult

(5) Donotpl ace acont ainerwithliquidor smallmet alobjects onthetop ofthis unit.Liquidormet alobjectsinsidethisunit are afire and [illegible]

(6) .This product will enjoy one year's free warranty service(non-human damage).For any problems appear on working process,please contact for help from our distributor or technicians.we will provide you with warm and thoughtful service.

* Allp ctures herearefor referenceonly,Specifications aresubjecttothe physic alproduct.

A. INPUT CHANNEL SECTION

1.BALANCE INPUT: Electronically Balanced inputsacceptable a standard XLR male connector

2.Line input: The unbalanced micinputisprovided forthe use of a unbalance micand is designed to accepta unbalanced high impedance inputsignal

3.Stereoinput:Connected external stereosignal input

4. Switching Stereo/USB: Up is for Stereo Downis USB

5.Gain control:Adjustinput sensitivity from -60dB to-16dB.

6. Peakindicator: Indicate theoutputsignal level ofthe left and rightchannels, illuminated whentheinput signal istoo largetoenterthemixer, the signal will distortion

7.HPF: Press to start dedicated high-pass filter.

8.High:Control thehighfrequency toneofeach channel.

9.Mid :Control themid frequency toneof eachchannel

10.Low:Control the lowfrequency toneof eachchannel

11.Aux1 Send:Adjustthe signal sent tothe AUX bus

12.AUX2/EFF:Adjust the signal sent to the AUX2/EFF bus

13.Pan control:Audio and video distribution.

14.ST:Channel signalassigned toMAIN L/R bus

15.1-2:Channel signal assigned to GROUP 1/2 bus

16. PFL:Monitor the signalofthe only channelwhich PFLswitchis turned "ON" using by headphone.Meanwhile PFL lights

17.Fader

Faderare used toadjust the outputsignal levelfromeachchannel

B.INPUT CHANNEL SECTION

18.phantompowerswitch.

19.Phantompowerworkingstatus display lights.

20.Switching MAIN / GROUP level signal to monitor headphones

21.MAIN L-R channel volume fader.

22.Monitor the output level signal control

23.GROUP1-2 volume fader.

24.AUX1 bus level signal control.

25.Control thebuilt-ineffectsoutput level signal

26.AUX2 /EFF bus level signal control

27.Used to adjustthe depth and speed of effect.

28.Turn theknobto selectthetypeof effect, press to confirm.

EFFECT			
1	HALL	9/10	PING PONG DELAY
2	ROOM	11/12	TREMOLO
3	PLATE	13/14	CHORUS
4	LARGE STAGE	15/16	PHASER
5	SMALL STAGE	17/18	PLANGER
6	VOCAL ECHO	19/20	WAH WAH
7	KARAOKE ECHO	21/22	DOUBLER
8	DELAY	23/24	RADIO VOICE

29.Whenplayingmusic, press topause / play, rotatethe UP / DOWN directionto selectthe previous songor next song, press toconfirm playing the selected song.

30.USB function keys, press to change LINE / Bluetooth working status.

31.Long press REC, MAIN output signal is recorded to the memory.

32 USB player jack, when connected to the computer with an external sound card function

33.Effecttypeand player display

34.PFLindicator

35.Powerind icator light.

36.Output level display

37.Monitorheadphoneoutputsocket

38.Group output Through GROUP1-2 the main fader control output

39.MAIN OUT - XLR and TRS phone balanced outputsockets formixed stereo signals,controlled by MAIN L / R masterfaderoutputs

40.AUX output ThroughAUX1 and AUX2 bus control output

41.REC OUT:Recording output

42.Power ON/OFF.

43.AC Power input jack

44.Built-in poweramplifieroutputconnectionterminal.

45. Poweramplifiercoolingfanwindow

Specifications

■ Input specifications

Input socket	Gain	Input impedance	Appropriate impedance	Sensitivity	Nominal level	The maximum before clipping	Connection socket specifications
CH INPUT MIC	-60 dB	3kΩ	50-600Ω microphone	-60 dBu（0.078 mV）	-60 dBu（0.775 mV）	-40 dBu（7.75 mV）	Model XLR-3-31 (balanced) 1 = ground, 2 = hot, 3 = cold
	-16 dB			-36 dBu（12.3 mV）	-16 dBu（123 mV）	+4 dBu（1.23 V）	
CH INPUT LINE	-34 dB	10kΩ	600Ω line	-54 dBu（1.55 mV）	-34 dBu（15.5 mV）	-14 dBu（155 mV）	TRS headphone jack (balanced) Tip = hot wire, ring = cold wire. Sleeve = ground
	+10 dB			-10 dBu（246 mV）	+10 dBu（2.46 V）	+30 dBu（24.6 V）	
RETURN（L、R）	-	10kΩ	600Ω line	-12 dBu（195 mV）	+4 dBu（1.23 V）	+24 dBu（12.3 V）	Headphone jack (unbalanced)
2TR IN (L、R)	-	10kΩ	600Ω line	-26 dBV（50.1 mV）	-10dBV（0.316V）	+10dBV（3.16 V）	RCA pin socket

0 dBu = 0.775 Vrms，0 dBV = 1 Vrms

*Sensitivity: When the device is set to its maximum level, it will produce the lowest level required for + 4dB (1.23V) or nominal output level (all attenuator and level controls are at their maximum.)

■ Output specifications

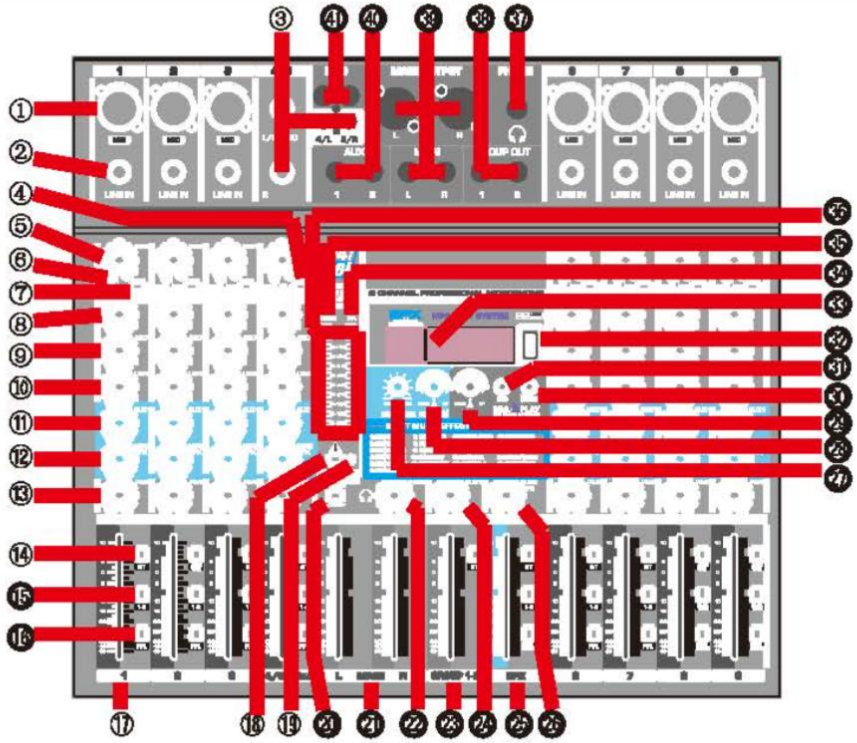
Output connector	Output impedance	Appropriate impedance	Nominal level	The maximum before clipping	Connection socket specifications
MAIN OUT（L、R）	75Ω	600Ω line	+4dBu（1.23 V）	+24 dBu（12.3 V）	Model XLR-3-32 (balanced) 1 = ground, 2 = hot, 3 = cold TRS headphone jack (balanced) Tip = hot wire, ring = cold wire. Sleeve = ground
EFFECT/AUX（AUX1、2*）SEND	150Ω	10kΩ line	+4dBu（1.23 V）	+20 dBu（7.75 V）	Headphone jack(impedance balanced) tip=hot line,ring=cold line,sleeve=ground
REC OUT（L、R）	600Ω	10kΩ line	-10 dBV（0.316 V）	+10 dBV（3.16 V）	RCA pin socket
PHONES OUT	100Ω	40Ω earphone	3 mW	75 mW	Stereo headphone jack

0 dBu = 0.775 Vrms，0 dBV = 1 Vrms

Socket list

Input and output jacks	Polarity	structure
MIC INPUT、STEREO OUT	Pin 1: ground Pin 2: Hotline (+) Needle 3: Cold line (-)	INPUT OUTPUT
LINE INPUT (Channel 1-4) GROUP OUT、STEREO OUT MONITOR OUT、AUX（AUX1）、EFFECT（AUX2）*	Tip: Hotline (+) Ring: Cold Line (-) Sleeve: ground	Ring Sleeve Tip
INSERT	Tip: Output Ring: Input Sleeve: ground	
PHONES	Tip: L Rings: R Sleeve: ground	
RETURN LINE INPUT（Channel 5/6-11/12）	Tip: Hotline Sleeve: ground	Sleeve Tip

*These jacks also can be connected mono channel PHONE plug.When using a mono channel plug,the connection is unbalanced.



rear panel of of the pure mixer

rear panel of the power mixer