# **INSTRUCTION MANUAL**

# PX·B.2 PX·B.2HI







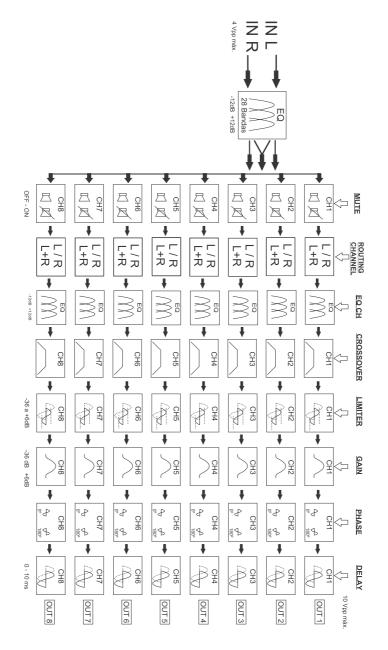




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# 1. FUNCTIONAL DIAGRAM



#### 2. PRESENTATION

Congratulations! You have just purchased a product with Expert Electronics quality. Developed by qualified engineers
and in a high-tech laboratory.

To ensure optimal operation, please read this manual carefully before using the product. Keep the manual in a safe and accessible place for future reference.

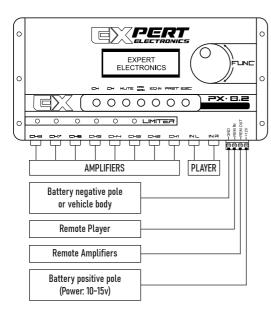


# PX8.2 / PX8.2HI

- 2 inputs RCA (PX8.2)/Hi-Input with Automatic Remote (PX8.2HI)
- · 8 independent outputs
- · Channel Routing
- Input equalizer with 15 bands spaced 1/3 of an octave apart
- Parametric equalizer with 3 bands, independent per channel
- Crossover with Butterworth, Linkwitz-Riley and Bessel type filters, with 6 to 48dB/8°
- · Independent delay per channel
- Automatic or manual Threshold, Attack and Decay limiter

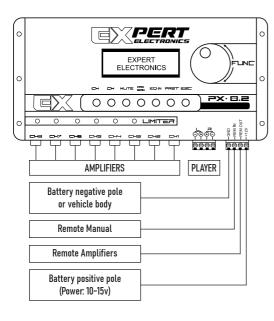
- Polarity inversion
- Input Gain
- Independent mute per channel
- User password
- Preset with all settings
- · Independent earnings per channel
- · Remote output with 300ma
- Power tolerance from 9 to 16Vdc
- Communication interface via Bluetooth in the Connect version

# 3. INSTALLATION



# **PX8.2**

- Minimum wire gauge: 1mm²
- · Rem IN must be connected to the player's remote
- Rem OUT must be connected to amplifiers
- Input voltage from 10 to 15Vdc
- Working current: 0.35A



# **PX8.2HI**

- Minimum wire gauge: 1mm²
- Rem IN must be connected to the player's remote
- Rem OUT must be connected to amplifiers
- Input voltage from 10 to 15Vdc
- Working current: 0.35A



# 4. DESCRIPTION OF ELEMENTS



- (1) Rotary Encoder responsible for selecting and changing parameters
- (2) Power connector, must be powered with 12Vdc and a minimum current of 300ma, Rem IN needs to be connected to the player's remote and Rem OUT is sent to the amplifiers.
- (3) Use the link output to couple several systems, the link output is connected to the input of the processor you want to couple.
- (4) Use ESC to return to the previous parameter or menu.
- (5) Signal inputs must be connected to the player or table output.
- (6) Use these keys to select the channel to be configured, it can be used within any menu, if used on the initial screen it changes the channel.
- (7) Limiter actuation indicator lights.
- (8) Device display and configuration.

# 5. MENU AND SETTINGS

# **5.1. ACCESSING THE MENU**

Rotate the rotary encoder to navigate through the configuration menu, if you want to access a function, just press the encoder.

1st STEP

DELAY

Rotate the encoder



2nd STEP

**PASSWORD** 

Rotate the encoder



3rd STEP

MAIN GAIN

Press the encoder



# 5.2. MAIN GAIN

Adjusts the overall processor gain.

1st STEP

MAIN => GAIN: - 01dB

Rotate the encoder to the desired gain



2nd STEP

MAIN => GAIN: - 01dB

Press ESC to return to the menu



3rd STEP

MAIN GAIN

# **5.3. ROUTING CHANNEL OUTPUT**

It routes between input and output, when in L selected output receives only the signal from input L, when in R output receives only the signal from input R and when at L+R output receives the summed signal from inputs L and R.

1st STEP

CH1 > OUT: L + R

Press the button corresponding to the channel you want to

configure



2nd STEP

CH3 > OUT: L + R

Rotate the encoder

√(°)**↑** 

**3rd STEP** 

CH1 > OUT: R

Rotate the encoder to the desired setting

**√**(°)**↑** 

4th STEP

ROUTING CHANNEL OUTPUT

Press ESC to return to the menu





# **5.4. GAIN**

Allows you to change the gain independently of each output.

#### 1st STEP

## CH4 GAIN: 09dB

Press the button corresponding to the channel you want to configure



#### 2nd STEP

CH4 GAIN: 09dB

# 3rd STEP

GAIN

Rotate the encoder to the desired gain



Press ESC to return to the menu



## 5.5. CROSSOVER

Allows you to eliminate unwanted frequencies on the track, has Butterworth type filters,Linkwitz-riley and Bessel with attenuations from 6 to 48dB/8°.

# 1st STEP

CH3 ⇒ HP: 00062HZ AT: 12DB/8BT

Press the button corresponding to the channel you want to configure



# 2nd STEP

CH3 => HP: 00062HZ AT: 12DB/8BT

Rotate the encoder to the desired HPF frequency and press





# **3rd STEP**

CH3 ⇒ HP: 00062HZ AT: 24DB/8BT

Rotate the encoder to the desired attenuation and press



# 4th STEP

CH3 ⇒ LPF: 00180HZ AT: 24DB/8BT

Repeat step 1 and 2 for LPF adjustment: ESC returns to menu

# 5.6. POLARITY/PHASE

Allows output polarity.

# 1st STEP

# CH6 PHASE: 0

Press the button corresponding to the channel you want to configure



# 2nd STEP

#### CH6 PHASE: 180

Rotate the encoder to change polarity



# 3rd STEP

# POLARITY/PHASE

Press ESC to return to the menu



Allows you to delay the track signal for better coupling.

# 1st STEP

CH5 DLY: 000SMP DIST: 0000MM

Press the button corresponding to the channel you want to configure

# 2nd STEP

CH5 DLY: 005SMP **DIST: 0035MM** 

# 3rd STEP

DELAY

Rotate the encoder to the desired delay

Press ESC to return to the menu





# **5.8. EQ CHANNEL**

Channel equalizer allows you to gain or attenuate 3 independent frequencies per channel between 20Hz and 20KHz with frequency, gain and Q factor adjustment.

# 1st STEP

CH401 => F:00125HZ G: 00DB Q:2.0

# 2nd STEP

CH401 => F:00330HZ G: 00DB Q:2.0

# 3rd STEP

CH401 => G:+03DB F:00330HZ Q:2.0

## 4th STEP

CH401 => 0:3.3 G: +03DB F:00340HZ

Press the button corresponding to the channel you want to configure

Rotate the encoder to the desired frequency and press

Rotate the encoder to the desired gain or attenuation and press

Rotate the encoder to the desired Q factor and press the encoder to configure the other bands: ESC returns to menu











# 5.9. EQ IN

Input equalizer allows you to gain or attenuate a frequency between 20Hz and 20KHz with 15 bands spaced 1/3 of an octave apart.



#### 1st STFP

FREQ: 00031 HZ =>G: 00DB

Press the encoder to the desired frequency



#### 2nd STFP

FREQ: 00080 HZ =>G: 000B

Rotate the encoder to the desired gain or attenuation



#### 3rd STFP

FREQ: 00080 HZ =>G: 00DB

Repeat step 1 and 2 to configure other frequencies





## 4th STEP

EO IN

Press ESC to return to the menu



## 5.10. LIMITER

Sets a limit so that the audio signal does not exceed the set value.

# 1st STEP

CH2=>T: 06 dB A:050ms D:870ms

Press the button corresponding to the channel you want to configure



# 2nd STEP

CH2⇒T: -10 dB A:050ms D:870ms

Rotate the encoder to the desired Threshold and press



#### p `

CH2=>A:005ms D:870ms T:-10dB

Turn the encoder to the desired Attack and press

3rd STEP



# 4th STEP

CH2=>D: 080ms T:-10dB A:005ms

Rotate the encoder to the desired Decay, ESC returns to menu



# 5.11. CROSS/EQ/LIM/ALL CUSTOM

Processor Presets save ALL device settings, just choose the Preset and configure the device and the settings are automatically saved in memory.

#### 1st STFP

# **CUSTOM 1**

Press or turn the encoder to the desired custom



#### 2nd STFP

#### **CUSTOM 2**

Press or turn the encoder to the desired custom



# 3rd STEP

#### **CUSTOM 3**

Press or turn the encoder to the desired custom



#### 4th STEP

# CROSS/EQ/LIM/ALL CUSTOM

Press ESC to return to the menu



# **ATTENTION!**

The Preset saves all the device settings, if you use another preset it will be necessary to redo frequency cuts, equalization, gains, etc...

# 5.12. PASSWORD

Set a password to protect settings.

1st STEP

2nd STEP

**3rd STEP** 

4th STEP

KEY:0000

KEY:0000

KEY:0033

**EXPERT ELECTRONICS** 

Rotate the encoder, set the first digit and press

Rotate the encoder, set the first digit and press Repeat step 1 and 2 for all digits and press

lf you forget your password, you will need to reset the processor











# 5.13. MUTE

To change one of the channels, simply press the desired channel button when the processor is on the home screen.

1st STEP

**EXPERT** 

2nd STEP

CH1: OFF

3rd STEP

4th STEP

**ELECTRONICS** 

Press again to unmute

CH1: OFF

**EXPERT ELECTRONICS** 

Press the channel you want to mute

the channel

ESC returns to home menu



# **5.14. RESET**

To reset the processor to ALL factory parameters, simply press and hold the ESC key when on the initial screen until the processor restart.

#### 1st STEP

# EXPERT ELECTRONICS

Press and hold the ESC key



#### 2nd STEP

# EXPERT ELECTRONICS

Processor restarts and resets settings

# ATTENTION!

It will be necessary to redo the entire processor configuration, as the reset returns all parameters to those defined by the factory.

Perform the reset with all audio outputs disconnected.

# 6. BLUETOOTH INTERFACE

- (1) Through a didactic and intuitive interface, it is possible to configure the entire configuration of Expert Electronics processors via Smartphone or Tablet, thus facilitating system alignment, which can be done in front of the system and in real time.
- (2) The app can be downloaded directly from the Google Play Store or Apple Store for free.
- (3) The application is only available for Connect line processors, but there is an application demo mode for those who do not yet have a Connect line processor.



# **6.1. FUNCTIONS**

- ROUTING CH
- EQ IN
- GAIN
- EQ CH
- CROSSOVER
- PHASE
- LIMIT
- PRESET
- DELAY
- PASSWORD





- (1) Download the app from the Google Play Store or Apple Store.
- (2) Activate the Bluetooth connection.
- (3) Activate the device location.
- (4) Open the app.





- (5) The application automatically recognizes the processor.
- (6) Select the processor.
- (7) Enter the password.
- (8) Factory password: 0000.
- (9) To change the factory password, just enter the new password and click OK.
- (10) To change the password again it is necessary to reset the processor.

# 7. TECHNICAL SPECIFICATIONS -

# **INPUTS**

Туре	Unbalanced
Connection	Rca
Max input level	4Vpp (1,4 Vrms)
Input Impedance	47Ω

# OUTPUTS (1, 2, 3, 4, 5, 6, 7, 8)

Туре	Desbalanceadas
Connection	Rca
Max output level	2 Vrms
Output Impedance	4700

# TECHNICAL DATA

Resolution	24 Bits
Sampling frequency	48 Khz
Processing latency	1,08ms
Frequency Response	15Hz to 22KHz (-1dB)
THD+N max	0.01%
Signal to noise ratio	1004B

# **SUPPLY**

Voltage	10~15 Vdc
Consumption	300 ma (5w)
Fuse	2A

# **DIMENSIONS**



# **WARRANTY TERMS**

Warranty valid for 12 months (one year), starting from the date of purchase, if purchased from an authorized Expert Electronics dealer. Will be covered by warranty components and/or parts comproved that shows failures in process manufacture or damaged components.

# Warranty don't cover:

- 1. Equipment, parts or components previously altered by unauthorized people.
- 2. Damages caused by accidents (fall, crash, etc) or natural disasters (overflow, burning, etc).
- 3. Improper installation (improper wiring, abuse, installation out of specifications).
- 4. Shipping costs

In case needed any repair, contact the dealer for warranty instructions.

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**Banda Audioparts** 

Rua Manoel Joaquim Filho, 353

Neighborhood: Santa Terezinha

Paulínia - SP

Brazil

Zip Code: 13148-115

**NOTE:** If out of warranty,repair costs (if needed) will be charged from client.

Phone: 55 (19) 3844-7173

e-mail: suporte@expertelectronics.com.br

Expert Electronics reserved rights to alter caracteristics of the product without previously advice.

#### **WARRANTY REGISTRATION:**

Name:		
Register:	Date:	. Phone:
Address:		
Dealer:		

(7) /Expert-Electronics (2) (2) visit www.bandaaudioparts.com

