

1200.4  
800.4

AUDIO PARTS  
BANDA



INSTRUCTION MANUAL

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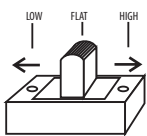
## TECHNICAL SPECIFICATION

### 800.4

- Selectable active crossover
- Linkwitz-Riley 12dB/octave:
  - Low Pass 30Hz - 80Hz
  - High Pass 80Hz - 30kHz
  - Band Pass (flat)
- Frequency response 30Hz - 30kHz
- Subsonic filter (18dB/octave)
- Clip indicator
- THD < 0.047%
- SNR > 83dB
- Damping factor > 100
- Input sensitivity 0.1 - 1volt
- Input impedance: 22kohms
- MONO/STEREO switch
- Individual gain control
- Differential input circuit

- Dimensions 800.4 and 1200.4:  
9.6"x 2.1"x8.2"
- Weight: 2,8kg

### • Operation topology: Half bridge class D



Note: To access the active crossover switch, remove the plastic cover on the bottom of the amplifier. The amplifier is delivered with the key in the FLAT position. To operate the active crossover check the picture on the side.

### 1200.4

- Selectable active crossover
- Linkwitz-Riley 12dB/octave:
  - Low Pass 18Hz - 60Hz
  - High Pass 60Hz - 25kHz
  - Band Pass (flat)
- Frequency response 18Hz - 25kHz
- Subsonic filter (18dB/octave)
- Clip indicator
- THD < 0.20%
- SNR > 58dB
- Damping factor > 46
- Input sensitivity 0.1 - 2,1volt
- Input impedance: 22kohms
- MONO/STEREO switch
- Individual gain control
- Differential input circuit

The specified data are typical, and are subject to minor variations.

Name: \_\_\_\_\_  
 Invoice: \_\_\_\_\_ Date: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Shop: \_\_\_\_\_

## REGISTRATION DATA

Warning: Continuous expose to sound pressure levels over 85dB may cause permanent hearing loss.

Note: Permanent Technical Support  
 After the warranty expires, Banda Audioparts will continue to provide extensive technical assistance directly or through its network of authorized service, charging, however, the repair services and replacement of components

Banda Audioparts reserves the right to change the product and its specifications at any time without prior notice.

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 Paulinia - SP - Brazil - CEP: 13148-133

This warranty does not cover shipping costs.  
 The defective equipment must be shipped to the factory or to an authorized service center.

1. Damage resulting from misuse, abuse, accident, alterations or improper installation;

2. Damage resulting from installation in surfaces subjected to high levels of vibration;

3. Corrective work necessitated by repairs made by anyone other than a Banda Audioparts authorized service technician;

## Warranty Exclusions:

Within the period of this warranty, Banda Audioparts will repair or replace, free of charge, any part proving defective in material or workmanship.

Banda Audioparts warrants this equipment to be free of all defects in material and workmanship for a period of 12 months from the date of purchase.

## WARRANTY

www.bandaudioparts.com

Made in Brazil

## TECHNICAL SPECIFICATION

### • Output 800.4:

- 4 channels (200Wrms 2ohms / 12.6Vdc)
- 3 channels (1 x 400Wrms 4ohms / 12.6Vdc  
+ 2 x 200Wrms 2ohms / 12.6Vdc)
- 2 channels (400Wrms 4ohms / 12.6Vcc)

Current draw at full power (average music program): 40A\*

### • Output 1200.4:

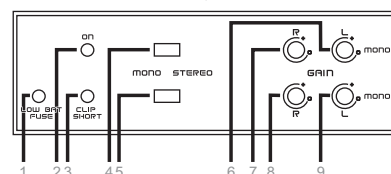
- 4 channels (300Wrms 1ohm / 12.6Vdc),
- 3 channels (2 x 300Wrms 1ohm +  
1 x 600Wrms 2ohms / 12.6Vdc) or
- 2 channels (600Wrms 2ohms / 12.6Vdc).

Current draw at full power (average music program): 60A\*

\*Equivalent to current draw with resistive load and sinusoidal signal at half power.

## TECHNICAL SPECIFICATION - 800.4 - 1200.4

### Front panel

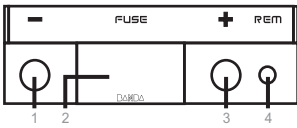


- 1. Yellow LED: Fuse blown or missing  
Battery low voltage
- 2. Blue/ul LED: On
- 3. Red LED: Output distorting (clip)  
Output short circuit

- 4. MONO/STEREO switch (Channels 3 / 4)
- 5. MONO/STEREO switch (Channels 1 / 2)
- 6. Left channel gain control (Channel 3)
- 6. MONO gain control (Bridged 2)

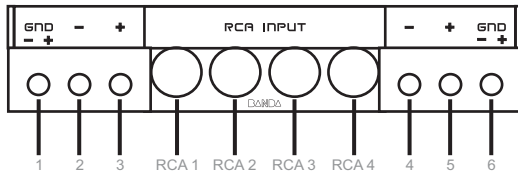
- 7. Right channel gain control (Channel 4)
- 8. Right channel gain control (Channel 1)
- 9. Left channel gain control (Channel 2)
- 9. MONO gain control (Bridged 1)

Power supply view 800.4 - 1200.4



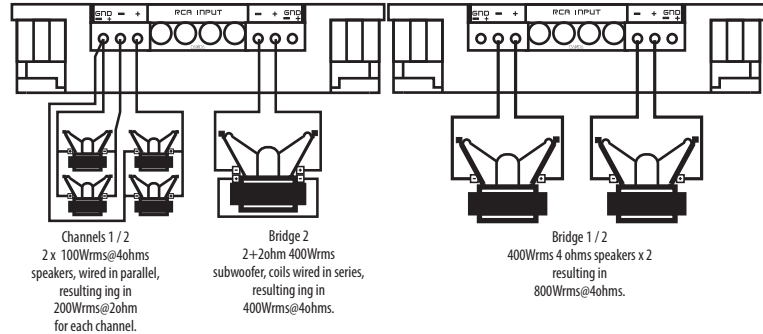
1. Negative input: connect to vehicle chassis ground(GND).
2. Protection fuse: -External 50A(800.4)  
**NOTE: No internal fuse (1200.4)**
3. Positive input (+12Vdc): connect to the battery positive pole.
4. Remote input: connect to the head unit remote output.

Signal inputs and audio outputs section



- |  |  |
|--|--|
| <p>Channel 1</p> <ol style="list-style-type: none"> <li>1. Positive output channel 1</li> <li>2. Negative output channel 1</li> </ol> <p>RCA 1. Signal input channel 1</p> | <p>Canal 3</p> <ol style="list-style-type: none"> <li>4. Negative output channel 3</li> <li>6. Positive output channel 3</li> </ol> <p>RCA 3. Signal input channel 3</p>   |
| <p>Channel 2</p> <ol style="list-style-type: none"> <li>1. Negative output channel 2</li> <li>3. Positive output channel 2</li> </ol> <p>RCA 2. Signal input channel 2</p> | <p>Canal 4</p> <ol style="list-style-type: none"> <li>5. Positive output channel 4</li> <li>6. Negative output channel 4</li> </ol> <p>RCA 4. Signal input channel 4</p>   |
| <p>Bridged 1</p> <ol style="list-style-type: none"> <li>2. Bridged negative output 1</li> <li>3. Bridged positive output 1</li> </ol> <p>RCA 2. Bridged signal input 1</p> | <p>Bridged 2</p> <ol style="list-style-type: none"> <li>4. Bridged negative output 2</li> <li>5. Bridged positive output 2</li> </ol> <p>RCA 3. Bridged signal input 2</p> |

800.4

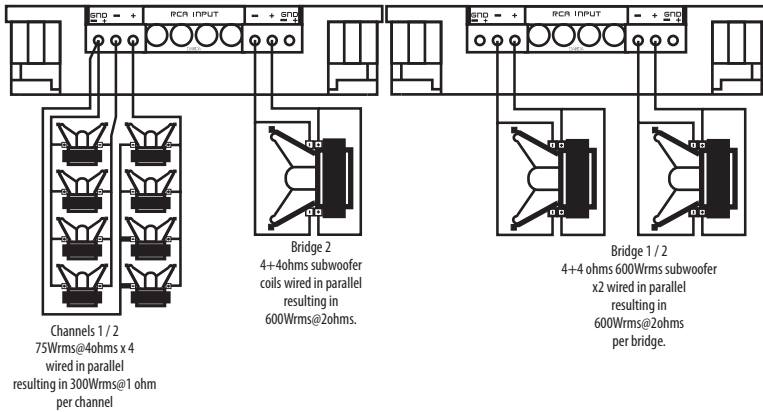


CLIP INDICATOR

Clipping (red LED lit / flashing - blue LED on):

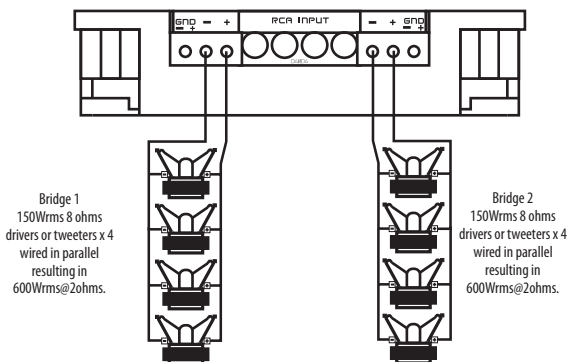
Triggered when it is detected distortion in the amplifier output. This indicator starts its sampling just before the amplifier power limit. It can be used as long as the speakers support the power with the led blinking. But if it stays lit during operation indicates excessive distortion in the audio output, so can damage the speakers. In this case decrease the gain level of the amplifier or the "volume" of the CD / DVD Player.

CONNECTION EXAMPLES 1200.4



Example of high power drivers and tweeters connection

\* Need to be used in HIGH PASS mode or with external passive crossover.



PROTECTION SYSTEM, TROUBLESHOOTING AND IMPORTANT NOTES

Short Circuit protection:

If short circuit is detected in output terminals, the output is disabled and the red LED lights up until the short circuit is removed. If the load impedance is lower than the amplifier specification, the equipment may trigger the short circuit protection.

Low Voltage Protection:

When battery voltage is lower than 9Vdc, the amplifier will shut down and the yellow LED will blink until the equipment is restarted.

Power Supply Inverted Cable Protection:

If the power supply cables are connected inverted, the internal fuse will blow.

Troubleshooting:

Protection triggered

1. Check if the internal fuse is blown. If so, replace it with a same current rate fuse 50A (800.4)

**NOTE: No internal fuse 1200.4.**

2. Check if there is short circuit in the output terminals. To do it, turn off the amplifier, disconnect all speakers and the input RCA cable and wait about 20 seconds. Turn the amplifier again and if the blue LED lights up, the amplifier is operating normally.
3. Check if any speaker is presenting short circuit or the total impedance load is lower than the amplifier specification.
4. Check if there is enough current in battery to supply the amplifier and if the cables are capable of conduct that current.

Output Noise

1. Check if there is loose connection in signal input or in the RCA cable.
2. Check if there is ground connection in the radio/cd RCA output.
3. Check if RCA cables are wired separated from the power cables.
4. Check if the +12Vdc that powers the amplifier is coming directly from the battery.
5. Check if ground cable is connected in car chassis as near as possible of the amplifier.
6. Both radio/cd and amplifier must be firmly connected to car chassis ground to avoid noises and voltage fluctuations at amplifier output.

Important Notes:

- Use 5 AWG (800.4) and 4AWG (1200.4) power cables for both GND and +12Vdc.
- Do not use impedance load lower than the amplifier specification. This can damage the equipment.
- Use wire solder for tinning the cable end for better electrical contact. Loose electrical connection can cause malfunction, heating and even fire
- The GND connection must be as short as possible, using adequate wire terminal firmly connected to a clean, paint free spot at the car chassis.
- If more than one amplifier is used, provide adequate individual wiring for each one.
- If using power supply to power the amplifier, it must be capable of supply between 12.6 – 14.4Vdc with at least the amplifier maximum current value and maximum output variation (Vripple) of 10%.