



2000.4 Dynamic Power Amplifier and Processor User Manual

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2000.4 Dynamic Power Amplifier and Processor



Product Information

The Amplifier and Processor is a device designed for audio signal processing and amplification. It features multiple channels and various functions such as limiters, power output control, stereo and bridge modes, and inputs and outputs for audio signals. The device has a built-in processor that can be accessed and controlled using a smartphone or tablet via a Bluetooth connection. An intuitive app is available for iOS and Android, allowing users to easily make settings and align the system in real-time.

Technical Specifications

- Power Output: 4 x 600 Wrms @ 2 ohms
- Efficiency: 84%
- Input Impedance: 100K ohms
- Total Harmonic Distortion: 0.10%
- Signal-to-Noise Ratio: 80dB
- Frequency Response: 5Hz – 22kHz (-3dBs)
- Current Consumption: 100A
- Fuse Rating: 1A (internal), 240A (external)
- Wire Size: 21mm / 4 AWG (power line), 2 x 2.5mm / 2 x 13 AWG (speaker output)

The device weighs 3.3 Kg and has dimensions of 226mm (height), 235mm (width), and 64mm (depth).

Parameter	DYNAMIC 2000.4 @ 2 ohms
Maximum Power 14.4V @ 1 ohm	-
Maximum Power 14.4V @ 2 ohms	4 x 600 Wrms
Maximum Power 14.4V @ 4 ohms	4 x 400 Wrms
Maximum Power 14.4V Bridge	2 x 1250 Wrms 4 ohms
Maximum Power 12.6V @ 1 ohm	-
Maximum Power 12,6v @ 2 ohms	4 x 500 Wrms
Maximum Power 12,6v @ 4 ohms	4 x 300 Wrms
Maximum Power 12,6v Bridge	2 x 1000 Wrms 4 ohms
Efficiency @ 8 ohms	-
Efficiency @ 4 ohms	84%
Efficiency @ 2 ohms	76%
Efficiency @ 1 ohm	-
Input Voltage	9 - 15V
Input Impedance	100K ohms
THD+N	0.10%
Input Sensitivity	220mV - 4V
Signal-to-Noise Ratio	80dB
Frequency Response (OFF Switch)	-
Frequency Response	5 a 22kHz (-3dBs)
Bass Boost @ 45Hz	-
HPF (Subsonic)	-
LPF (Crossover)	-
Recommended Fuse	1 00A
Quiescent Current	1 A
Maximum Current (sinusoidal signal)	2 40A
Maximum Current (musical signal)	1 00A
Power Supply Cables (min. recommended)	2 1mm / 4 AWG
Output Cables (min. recommended)	2 x 2.5mm / 2 x 13 AWG

Product Usage Instructions

Bluetooth Connection for Set-Up

To set up the device, follow these steps:

1. Download and install the intuitive app from the App Store (iOS) or Google Play (Android).
2. Open the app and ensure Bluetooth is enabled on your smartphone or tablet.
3. In the app, select "AMP 2000.4 X AiR" from the available devices list.
4. Enter the processor password (default: 1234) when prompted.
5. Once connected, you can make all settings and adjustments to the internal processor using the app's interface.

INTUITIVE APP

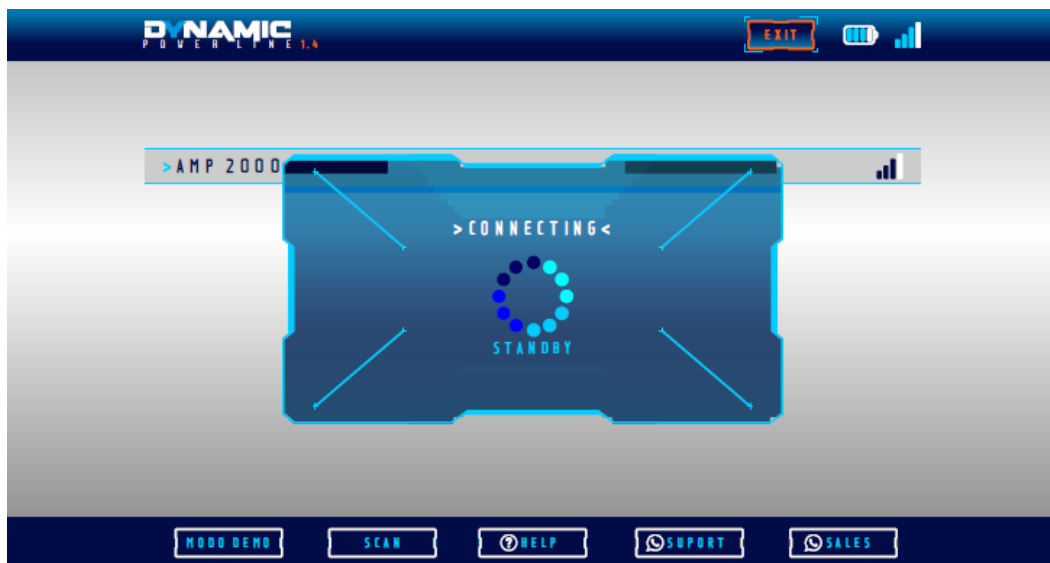
Using a didactic and intuitive interface, it is possible to make all settings to the Banda DYNAMIC 2000.4 internal processor via smartphone or tablet, thus making the system alignment easier, which can be done in front of the system and in real-time.

- The app can be downloaded free from Google Play Store or Apple Store.

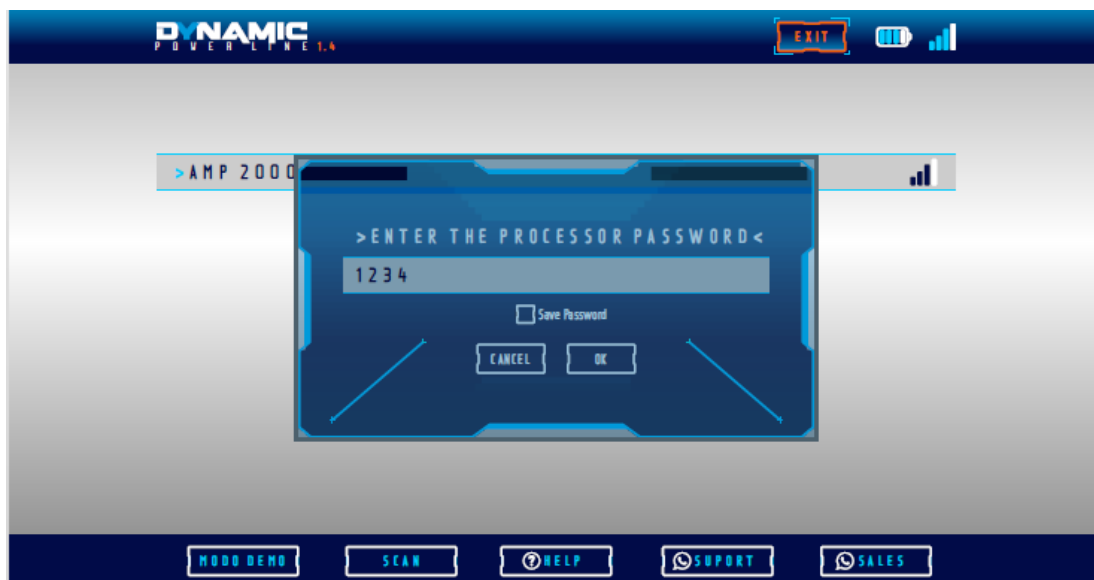
PAIRING

- Download the app from Google Play Store or Apple Store (DYNAMIC Power)
- Activate the device location
- Activate the Bluetooth connection

- Open the app
- The app automatically recognizes the processor
- Select the processor



- Enter the password (default password = 0000)
- To change the default password, enter a new password, and click OK
- If you want to change the password again, you must reset the processor



Wiring Example

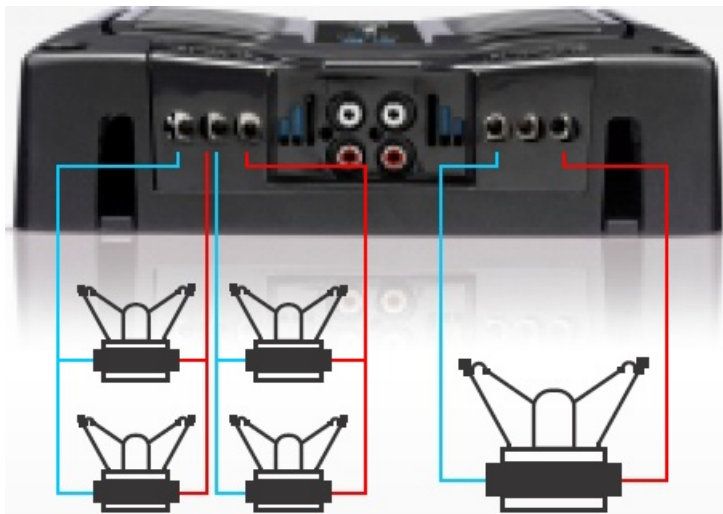
For a basic wiring example, follow these guidelines:

- Channels 1 and 2: Connect two loudspeakers rated at 250 Wrms @ 4 ohms each in parallel. This will result in 500 Wrms @ 2 ohms for channel 1 and 2.
- Bridge channels 3 and 4: Connect a 4-ohm single-coil subwoofer or woofer. This will result in 1000 Wrms @ 4 ohms for the bridge.
- Bridge channels 1 and 2: Connect a 4-ohm single-coil subwoofer or woofer. This will also result in 1000 Wrms @ 4 ohms per bridge.

Note: These wiring diagrams are basic examples. The device can work with various systems as long as the minimum impedance is observed.

DYNAMIC 2000.4 @ 2 ohms

channel / 4 ohms bridge

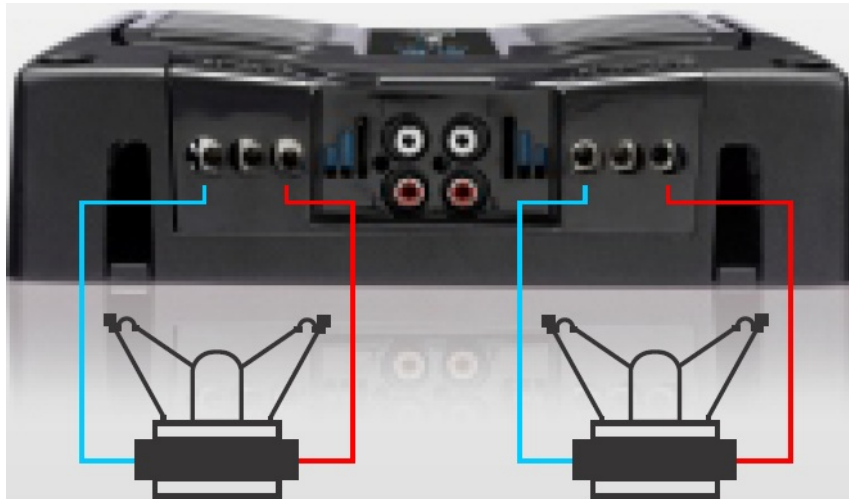


Channels 1 and 2

2 loudspeakers 250 Wrms @ 4 ohms each connected in parallel, resulting in 500 Wrms @ 2 ohms for channel

Bridge channels 3 and 4

4ohm single-coil subwoofer or woofer, resulting in 1000 Wrms @ 4 ohms for bridge



Bridge channels 1 and 2

4-ohm single coil 1000 Wrms subwoofer or woofer, resulting in 1000 Wrms @ 4 ohms per bridge

NOTE: These diagrams are basic ones and are only intended as an example. This device works with several systems, provided that the minimum impedance is observed.

Troubleshooting

If you encounter any issues, refer to the following troubleshooting guide:

Problem	Solution
Blue and Red LEDs are on	Install the device in a well-ventilated place and check if the ventilation system is not clogged. The amplifier will resume operating normally as soon as the temperature goes down.
Blue LED on, and Red LED flashing with no audio at the output	Check the audio signal inputs and outputs for proper connections. Make sure the speakers or other audio devices are functioning correctly. If the issue persists, consult the troubleshooting section in the user manual.

Protection System	Problem	Solution
Blue and Red LEDs are on	The amplifier temperature has reached its operation limit (approximately 85°C on the external area)	Install the device in a well-ventilated place and check if the ventilation system is not clogged. The amplifier resumes operating normally as soon as the temperature goes down
Blue LED on, and Red LED flashing with no audio at the output	Short-circuit at the audio output or loudspeaker impedance below the rated amplifier impedance	Check if the loudspeaker connecting cables are not short-circuited, and if there is no shorted loudspeaker connected to the system, or if the loudspeaker impedance is not lower than the minimum amplifier impedance
Blue LED on, and Red LED flashing according to the music	Clipping LED displaying that the output distortion exceeds 1%	The system may work with the amplifier featuring a flashing Clipping LED; however, the loudspeakers connected to the output feature an overheated coil due to the Clip distortion

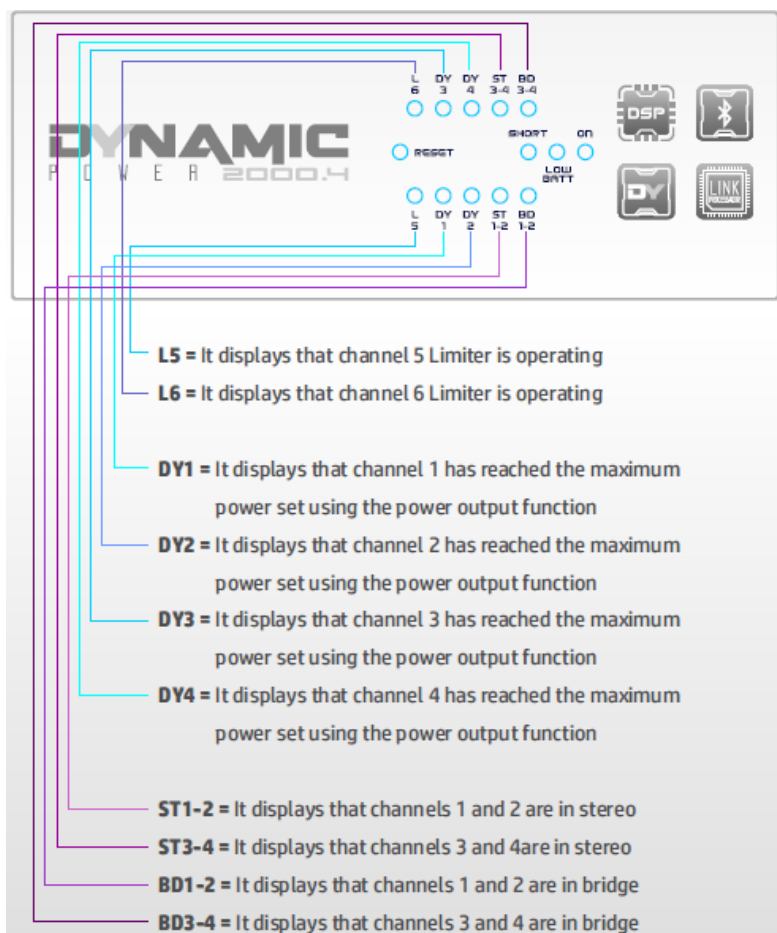
Protection System	Problem	Solution
Yellow LED flashing	Amplifier input voltage below 9V	Check the battery load to which the amplifier has been connected. Also, bad contact in the power supply cables may result in voltage drops. Check the voltage at the amplifier input and battery output to confirm if the voltage drop is not occurring at cables or connections
Both Red and Yellow LEDs on	Problem with the amplifier	Please send it to our nearest technical service

CONGRATULATIONS ON YOUR CHOICE!

You have just purchased an amplifier featuring the maximum innovation and technology. We are committed to only providing you with quality products and that assure the best performance of your sound. All materials used in manufacturing the Banda Audioparts amplifiers have been carefully chosen and inspected. To assure that all our products are delivered with the highest quality standard, we conduct laboratory tests and follow ABNT standards.

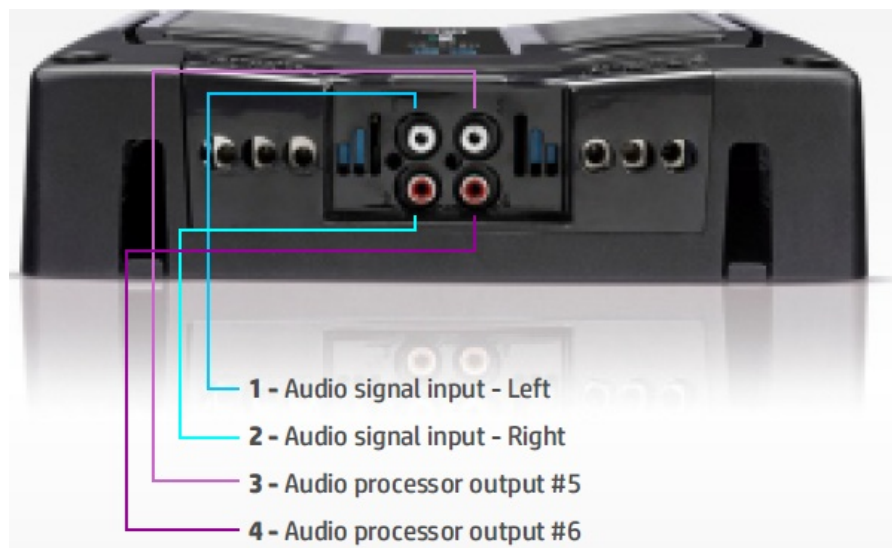
We kindly ask you to read all topics in the user's manual carefully, so you know how to use it and its warranty period. Please remember: similar to other warranty policies, and ours only covers workmanship defects that the Technical Service report has confirmed.

FRONT PANEL

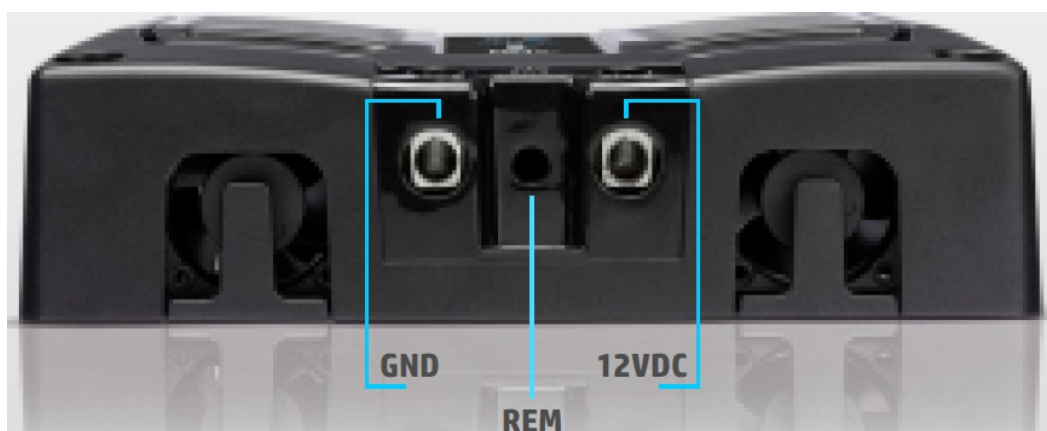


ON = It displays that the amplifier is on
SHORT / LOW BATT = See page – Troubleshooting

INPUTS AND OUTPUTS



Outputs 5 and 6 can be set via the app



DYNAMIC dimensions



TIPS FOR INSTALLATION

Use personal protective equipment;

- Disconnect the vehicle or boat battery;
- Plan the installation: installation place, cabling, fuse, etc.;
- Carefully choose the installation place, and check if there are no surfaces that can not be drilled, such as fuel tank, surface with hoses or electric cables;
- The installation place must be a well-ventilated one;
- Use cables with a suitable gauge for power supply and loudspeakers;
- Keep the power supply, signal, and loudspeaker cables separated to prevent electric noise;
- Use a safety fuse in the battery;
- Tin the power supply and loudspeaker cable ends;
- Use protective elements when passing cables through holes in the bodywork;
- Check if all connections are correctly done and rigid since bad contact may lead to overheating, damage to the equipment, and even fire.
- This equipment is not waterproof; therefore, avoid installing it where it may directly be in contact with water.

NOTE: We recommend that a professional installer does the installation.

This manual provides enough information only for a duly qualified technician. If you decide to do it yourself, please check that you have the required expertise and tools. We cannot be held responsible for damages and accidents.

WARRANTY TERM

This warranty is valid for 12 months from the date of purchase. It solely covers the replacement and/or the repair of parts that have demonstrably featured workmanship or material defects.

The following items are excluded from the warranty:

1. Devices subjected to repairs by persons whom the manufacturer has not authorized;
2. Products featuring damages caused by accidents – (fall) – or acts of nature, such as floods and lightning bolts;
3. Defects arising from adaptation and/or accessories.

The present warranty does not cover shipping expenses.

To benefit from this warranty, sent a message to Banda Audioparts:

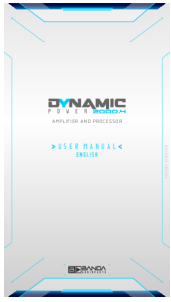
whatsapp: +55 19 99838 2338

Banda Audio parts reserves the right to change the product characteristics without prior notice.

NOTE: Permanent Service

After the warranty expires, Band Audio parts provides full technical service directly or via its network of Authorized Services, thus charging the corresponding component repair and replacement services.

Documents / Resources



[DYNAMIC 2000.4 Dynamic Power Amplifier and Processor](#) [pdf] User Manual
2000.4 Dynamic Power Amplifier and Processor, 2000.4, Dynamic Power Amplifier and Processor, Power Amplifier and Processor, Amplifier and Processor, and Processor, Processor