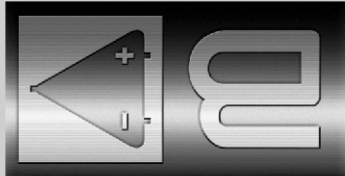


BANDA



EXPERT 801
EXPERT 1201
EXPERT 1601

INSTRUCTION MANUAL

INDEX

- 02 Technical Specification
- 03 Active Crossover
- 03 Front Panel
- 04 Power Supply, Signal input and Power Output Sections
- 04 Clip Indicator
- 05 Connection Example • EXPERT 801
- 06 Connection Example • EXPERT 1201 • EXPERT 1601
- 07 Protection System and Troubleshooting
- 08 Warranty

TECHNICAL SPECIFICATION

- Operation Topology: Half-Bridge Class D
 - Selectable Active Crossover:
 - Linkwitz-Riley 12dB/octave:
 - Low Pass 18Hz - 80Hz
 - High Pass 18Hz - 40kHz
 - Band Pass (flat)
 - Frequency Response 18Hz - 40kHz (-3dB)
 - Subsonic Filter (18dB/octave)
 - Clip Indicator
 - THD < 0.047%
 - SNR > 93.5dB
 - Damping Factor > 100
 - Input Sensitivity: 150mV ~ 2,3V
 - Input Impedance: 22kohms
 - MONO/STEREO switch
 - Individual Gain Control
 - Differential Input Circuit
- Output EXPERT 801
2 channels (400Wrms 1ohm / 12.6Vdc)
1 channel (800Wrms 2ohms / 12.6Vdc)
Current draw at full power (average music program): 43A*
 - Output EXPERT 1201
2 channels (600Wrms 1ohm / 12.6Vdc)
1 channel (1200Wrms 2ohms / 12.6Vdc)
Current draw at full power (average music program): 61A*
 - Output EXPERT 1601
2 channels (800Wrms 1ohm / 12.6Vdc)
1 channel (1600Wrms 2ohms / 12.6Vdc)
Current draw at full power (average music program): 79A*
- Dimensões:
9,64"L x 2,08"H x 8,97"W
Peso: 6,39lb

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

**These values are typical and may present some minor variation.

Shop: _____ Phone: _____
 Address: _____
 Invoice: _____ Date: _____ Phone: _____
 Name: _____

REGISTRATION DATA

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

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

Note: Permanent Technical Support

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

Street: Manoel Joaquim Filho, number 553 - Jardim Santa Terezinha II - Paulínia - SP - Brazil
 - Zipcode: 13148-115

The defective equipment must be shipped to the factory or to an authorized service center

This warranty does not cover shipping costs.

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. Any source of repairs made by anyone other than a Banda Audioparts authorized 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

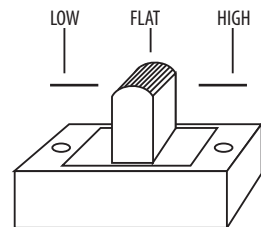
www.bandaaudioparts.com

Fabricado no Brasil
 Made in Brazil

ACTIVE CROSSOVER

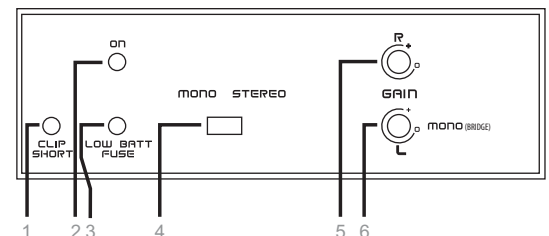
- 12dB/octave selectable active crossover
- Low Pass: 18Hz-80Hz
- High Pass: 80Hz - 40kHz
- Band Pass - (Flat)

Nota: To access the crossover switch, remove the plastic cover under the amplifier.



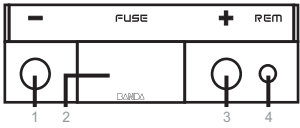
TECHNICAL SPECIFICATION

Front panel view

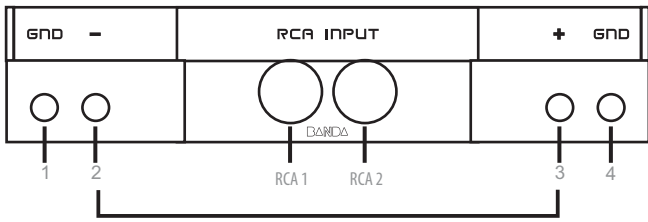


1. Red Led : - Blinking - Output clipping (distortion)
- Constant - Output short circuit
2. Blue Led : - On
3. Yellow Led : - Constant - Fuse blown or missing
- Blinking - Low voltage battery
4. MONO/STEREO switch
5. Gain control - right channel (Channel 2)
6. Gain control - left channel (Channel 1)
6. MONO gain control (Bridged)

1. Negative power input (ground): connect to car chassis.
2. Protection fuse: • 50A (EXPERT 801) • 50A (EXPERT 1201) • 80A (EXPERT 1601).
3. Remote input: connect to radio/cd remote output.
4. Positive power input (+12Vdc): connect to battery positive terminal.



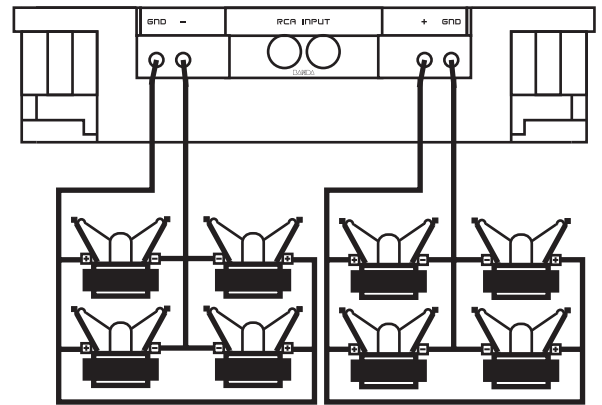
Signal input and power output section.



BRIDGE

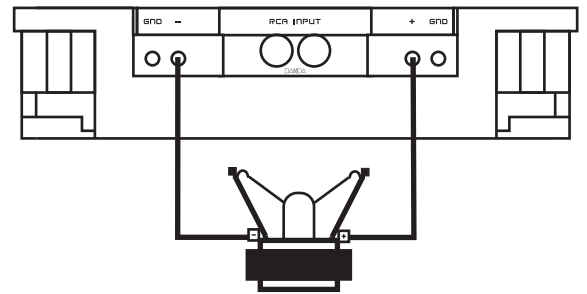
- | | | |
|----------------------------|----------------------------|----------------------------|
| Canal 1 | Canal 2 | Bridged |
| 1. Positive speaker output | 3. Positive speaker output | 2. Negative speaker output |
| 2. Negative speaker output | 4. Negative speaker output | 3. Positive speaker output |
| RCA 1. Signal input | RCA 2. Signal input | RCA 1. Signal input |

Note: For bridge connection, select MONO in MONO/STEREO switch.



4 ohms 100Wrms woofer x 4 wired in parallel

4 ohms 100Wrms woofer x 4 wired in parallel



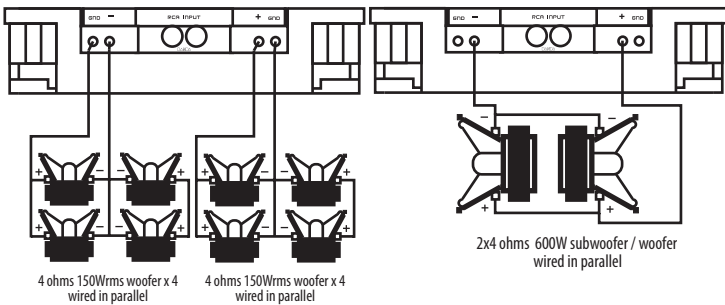
2 ohms 800Wrms subwoofer / woofer

Note: these are basic projects, just given as examples.

CLIP INDICATOR

The red LED lights up when the amplifier output is distorting. As long as the speakers used are capable of handle the total output power this LED can eventually blink but if it holds still it means too much distortion in the output and this can damage the speakers and the amplifier. In this case, turn down the head unit volume.

EXPERT 1201

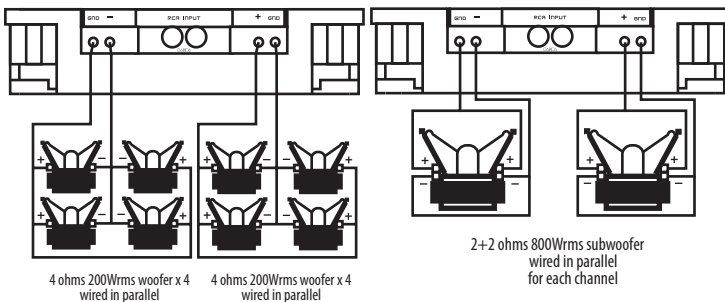


4 ohms 150Wrms woofer x 4 wired in parallel

4 ohms 150Wrms woofer x 4 wired in parallel

2x4 ohms 600W subwoofer / woofer wired in parallel

EXPERT 1601



4 ohms 200Wrms woofer x 4 wired in parallel

4 ohms 200Wrms woofer x 4 wired in parallel

2+2 ohms 800Wrms subwoofer wired in parallel for each channel

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 - EXPERT 800Wrms, 50A - EXPERT 800Wrms, 80A EXPERT 1600Wrms).
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 (EXPERT 801), 4AWG (EXPERT 1201) and 4AWG (EXPERT 1601) 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%.

Note: these are basic projects, just given as examples.