

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

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.

Rua Manoel Joaquim Filho, 353 - Jardim Santa Terezinha II -  
 Paulínia - SP - Brazil - CEP: 13148-115

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

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

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

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

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



Version: Abril/2017

BANDA  
 AUDIO PARTS



ICE 800Wrms  
 ICE 1200Wrms  
 ICE 1600Wrms

INSTRUCTION MANUAL

INDEX

- 02 ..... Technical Specification • ICE 800 - ICE 1200 - ICE 1600
- 03 ..... Front Panel • ICE 800 - ICE 1200 - ICE 1600
- 04 ..... Power Supply and Output Section • ICE 800 - ICE 1200 - ICE 1600
- 04 ..... Clip Indicator • ICE 800 - ICE 1200 - ICE 1600
- 05 ..... Connection Examples • ICE 801 • ICE 802
- 05 ..... Connection Examples • ICE 1201 • ICE 1202
- 06 ..... Connection Examples • ICE 1601 • ICE 1602
- 07 ..... Protection System and Troubleshooting

TECHNICAL SPECIFICATION - ICE 800 - ICE 1200 - ICE 1600

- Operation Topology: Full Bridge Class D
- Variable LINKWITZ-RILEY Active Crossover: 18Hz - 20kHz (12dB/octave)
- Input Impedance: 22kohms
- Frequency Response: 18Hz - 20kHz
- Variable Subsonic Filter: 18Hz - 120Hz
- Clip Indicator
- THD < 0.08%
- SNR > 93.5dB
- Damping Factor > 100
- Input Sensitivity: 0.1 - 1Volt
- Stand-by current consumption (remote On): 1.0A (average).
- Gain Control
- Differential Input Circuit

Dimensions: 9.6" L x 2.1" H x 8.2" W  
 Weight: 6.4lb

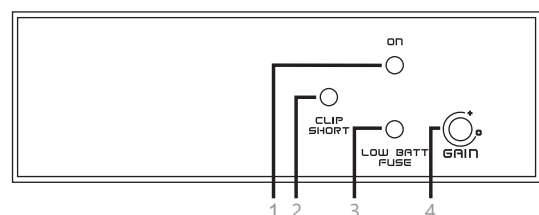
\*These values are typical and may present some minor variation.

TECHNICAL SPECIFICATION

<p>• Output ICE 801 - ICE 802</p> <ul style="list-style-type: none"> <li>1 channel 800Wrms 1ohm / 12.6Vdc</li> <li>1 channel 1040Wrms 1ohm / 14.4Vdc</li> <li>1 channel 500Wrms 2ohms / 12.6Vdc</li> <li>Current draw at full power (average music program): 44A*</li> </ul>	<ul style="list-style-type: none"> <li>1 channel 800Wrms 2ohms / 12.6Vdc</li> <li>1 channel 1040Wrms 2ohms / 14.4Vdc</li> <li>1 channel 500Wrms 4ohms / 12.6Vdc</li> <li>Current draw at full power (average music program): 44A*</li> </ul>
<p>• Output ICE 1201 - ICE 1202</p> <ul style="list-style-type: none"> <li>1 channel 1200Wrms 1ohm / 12.6Vdc</li> <li>1 channel 1500Wrms 1ohm / 14.4Vdc</li> <li>1 channel 800Wrms 2ohms / 12.6Vdc</li> <li>Current draw at full power (average music program): 66A*</li> </ul>	<ul style="list-style-type: none"> <li>1 channel 1200Wrms 2ohms / 12.6Vdc</li> <li>1 channel 1500Wrms 2ohms / 14.4Vdc</li> <li>1 channel 800Wrms 4ohms / 12.6Vdc</li> <li>Current draw at full power (average music program): 66A*</li> </ul>
<p>• Output ICE 1601 - ICE 1602</p> <ul style="list-style-type: none"> <li>1 channel 1600Wrms 1ohm / 12.6Vdc</li> <li>1 channel 2000Wrms 1ohm / 14.4Vdc</li> <li>1 channel 1100Wrms 2ohms / 12.6Vdc</li> <li>Current draw at full power (average music program): 83A*</li> </ul>	<ul style="list-style-type: none"> <li>1 channel 1600Wrms 2ohms / 12.6Vdc</li> <li>1 channel 2000Wrms 2ohms / 14.4Vdc</li> <li>1 channel 1100Wrms 4ohms / 12.6Vdc</li> <li>Current draw at full power (average music program): 83A*</li> </ul>

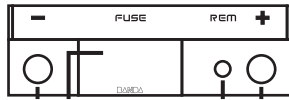
\*Equivalent to current draw with resistive load and sinusoidal signal at half power

FRONT PANEL



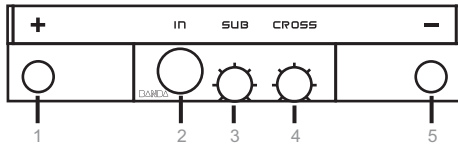
- 1. Blue LED: • On
- 2. Red LED: • Blinking - output clipping (distortion) / Constant - output short circuit
- 3. Yellow LED: • Blinking - low voltage battery / Constant - Fuse blown or missing
- 4. Gain control

Power supply section.



1. Negative power input (ground): connect to car chassis.
2. Protection fuse: • 50A (ICE800 and ICE1200) 80A (ICE1600).
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.

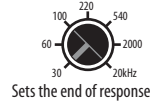


1. Positive speaker output
2. Signal input (RCA)
3. Subsonic control
4. Crossover control
5. Negative speaker output

Subsonic Control



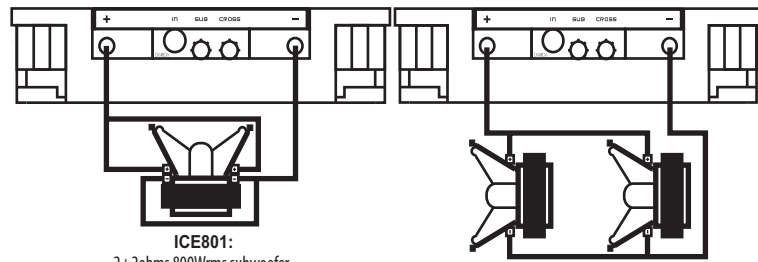
Crossover Control



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.

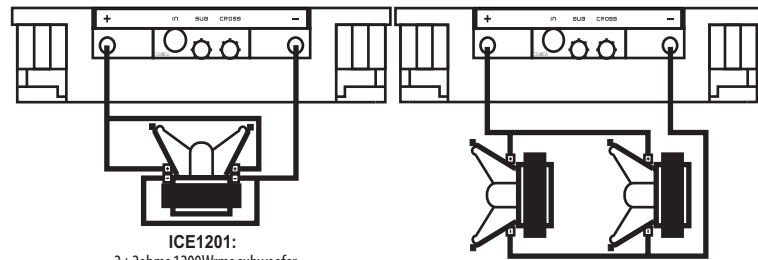
CONNECTION EXAMPLES ICE 801 - 802



- ICE801:**  
2+2ohms 800Wrms subwoofer coils wired in parallel resulting in 800Wrms @ 1 ohm.
- ICE802:**  
4+4ohms 800Wrms subwoofer coils wired in parallel resulting in 800Wrms @ 2ohms.

- ICE802:**  
4ohms 400Wrms woofer x2 wired in parallel resulting in 800Wrms @ 2ohms.

CONNECTION EXAMPLES ICE 1201 - 1202



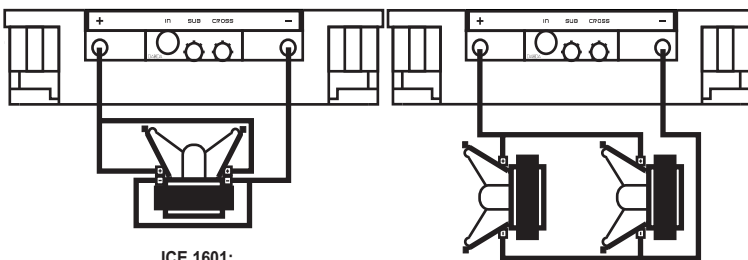
- ICE1201:**  
2+2ohms 1200Wrms subwoofer coils wired in parallel resulting in 1200Wrms @ 1 ohm.
- ICE1202:**  
4+4ohms 1200Wrms subwoofer coils wired in parallel resulting in 1200Wrms @ 2 ohms.

- ICE1202:**  
4ohms 600Wrms woofer x2 wired in parallel resulting in 1200Wrms @ 2ohms.

CONNECTION EXAMPLES

Protection System, Troubleshooting and Important Notes

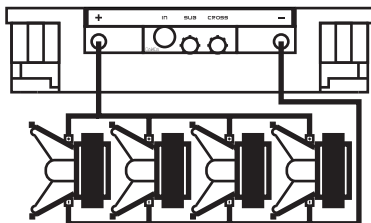
CONNECTION EXAMPLES ICE 1601 - 1602



- ICE 1601:**  
2+2ohms 1600Wrms subwoofer coils wired in parallel resulting in 1600Wrms @ 1 ohm.

- ICE 1602:**  
4+4ohms 1600Wrms subwoofer coils wired in parallel resulting in 1600Wrms @ 2 ohms.

- ICE 1602:**  
4ohms 800Wrms woofer x 2 wired in parallel resulting in 1600Wrms @ 2ohms.



- ICE 1601 model:**  
4ohms 400Wrms woofer x 4 wired in parallel, result in 1600Wrms @ 1ohm.

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 - ICE 800Wrms, 50A ICE 1200Wrms, 80A ICE 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 (ICE800) and 4AWG (ICE1200 and ICE1600) 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: Considering the frequency response 18Hz - 20kHz, these equipment are capable of playing all music range, therefore suited for use with subwoofers, woofers, mids and tweeters.