### VX400/4i 400W Full-Range 4-Channel Class D Amplifier with Integrated DSP

Thank you for purchasing a JL Audio amplifier for your sound system.

Your amplifier has been designed and manufactured to exacting standards in order to ensure years of musical enjoyment. For maximum performance, we highly recommend that you have your new amplifier installed by an authorized JL Audio dealer. Your authorized dealer has the training, expertise, and installation equipment to ensure optimum performance from this product. Should you decide to install the amplifier yourself, please take the time to read this manual thoroughly to familiarize yourself with your installation requirements and the procedure. If you have any questions regarding the instructions in this manual or any aspect of your amplifier’s operation, please contact your authorized JL Audio dealer for assistance. If you need further assistance, please contact the JL Audio Technical Support Department at technicall@audio.com or call (954) 433-1100 during business hours.

### Installation Applications

This amplifier is designed for operation with 12 volt, negative-ground electrical systems. Using this product in systems with positive ground and/or voltages other than 12V may result in damage to the product and will void the warranty. This product is not certified or approved for use in aircraft.

**Product Description**

This is a four-channel, full-range Class D amplifier equipped with the second-generation of JL Audio’s NexD2™ high-speed switching technology. It is engineered to deliver reference-grade audio amplification with outstanding efficiency and unprecedented, built-in processing power. Instead of traditional analog processing controlled by knobs and switches, VXi amplifiers feature an integrated DSP (Digital Signal Processor). The amplifier and its integrated DSP are configured using an external device (PC, Tablet or Phone), with the appropriate JL Audio TüN™ application installed. (See What is Included section for more info.)

### What is Included

- Amplifier
- Analog Input Pre-Harness
- USB A/B Cable (6.5 ft/1.8 m)
- Black Hex Cap Machine Screws
- Two Thumb Screws
- Connection Guide

### JL Audio Badge

To complement the amplifier’s mounting orientation, the logo badge includes a recessed key feature allowing it to be affixed at 90 degree increments on the amplifier’s top. To install, remove the adhesive backing and press the badge at the desired orientation.

### Planning Your Installation

It is important that you take the time to read this manual thoroughly and that you plan your installation carefully. It is very easy to damage expensive vehicle systems in modern automobiles. Never assume that you have found appropriate wires without consulting a reliable wiring diagram or without analyzing with proper test equipment. If you are unfamiliar with reading diagrams or testing methods, please enlist the services of your authorized JL Audio dealer to perform the installation. Your authorized dealer has the training, expertise and installation equipment to ensure optimum performance from this product. The following are some considerations that you must take into account when planning your installation.

### Power Connector

The VX400/4i’s “+12 VDC” and “Ground” connections are designed to accept 4 AWG copper wire. Note: Copper Clad Aluminum (CCA) wire is not recommended. 4 AWG is the required copper wire size for this amplifier.

1. Run copper wire from the positive (+12V) battery post to the amplifier mounting location. If additional amplifiers are being installed, run the appropriate gauge copper wire for the combined, maximum current draw, and install a fused distribution block near the amplifiers.
2. An appropriate fuse (sold separately) at the main power wires is vital for vehicle safety. This fuse must be installed within 18 inches (45 cm) of the battery post connection. If this is the only device connected to this main wire, use a 40 A fuse. Do not install the fuse until the power wire has been securely connected to the amplifier.
3. The ground connection should be made to a clean, solid metal ground point using copper wire, and kept as short as possible. The metal surface of the grounding point should be sandblasted to create a clean, metal-to-metal connection. For optimal grounding, we recommend using a JL Audio ECD master ground lug (X10-KNLG). All ground connections (source unit and amplifiers) should be made at the same location.
4. The remote connections should be made to the source unit’s positive (+12V) remote turn-on output. If your source unit does not have a dedicated remote turn-on output, consider one of the alternative turn-on options. (See Turn-On Mode section for more info.)

### Analog Input/Pre-Out Harness

The Analog Input Harness accepts the following connections:

#### Line-Level Analog Inputs

Four female RCA jacks feed a differential-balanced input section, providing a high degree of input flexibility, and retaining superior noise rejection. This type of input architecture also allows the VX400/4i to clearly accept any analog audio signal up to 16 Vrms, without using a line output converter.

#### Preamp Outputs

Two female RCA jacks deliver line-level analog audio outputs (Max 4 V RMS) that are compatible with most types of aftermarket equipment. These are configured with the TüN™ Software Interface.

#### Remote

This connection provides a positive (+12V) remote turn-on voltage (475 mV RMS) to activate another aftermarket equipment (similar to an aftermarket head unit’s remote turn-on lead).

#### Valve

When connected to negative ground, this connection activates the Valve Mode preset and will remain active until the connected ground is removed. This preset is configured using the TüN™ Software Interface and will void any DRC controlled preset.

### Corner Cap Installation and Removal

The corner caps are designed to conceal the amplifier’s mounting holes and hardware. To install, simply press a corner cap into each mounting hole. To avoid scratching the amplifier’s chassis during removal, use the included, plastic corner cap tool and lift below each cap.

### Making Connections

VX amplifiers utilize removable plugs and harnesses to make the following connections:

- **Power Connector**
  - To connect the positive, ground and remote turn-on wires to the amplifier, back out the set screws on the connector using the supplied hex wrenches. Strip back 3/8 inch (10 mm) of insulation from the end of each wire and insert the bare wire into the receptacle on the power connector plug, seating it firmly so that no bare wire is exposed. While holding each wire in place, tighten each set screw firmly, taking care not to strip the thread of the head of the screw. Install the power connector by plugging it into the amplifier’s power connector receptacle, pushing firmly.

- **Analog Input/Pre-Out Harness**
  - The harness includes connections for Signal Input (RCA plugs), Preamp Outputs (RCA plugs), Remote Turn-On/Out (wire/lead) and Valet Input (wire/lead). Select either the included black hex cap machine screws or the silver thumb screws to secure the Analog Input Harness connector to the amplifier.

- **Speaker Output Harness**
  - This harness includes output wires to lead with custom speaker cables.

### Turn-On Mode

VW amplifiers can be switched on and off using one of these methods, configured by the “Turn On Mode” setting in the TüN™ Software Interface. Refer to the table below for detailed info and decide which option is best suited for your specific system.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Mode</th>
<th>Function</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote</td>
<td>12V</td>
<td>Turn-on controlled by your source unit</td>
<td>12V remote turn-on output to your power connector’s remote turn-on input connection</td>
</tr>
<tr>
<td>Remote</td>
<td>DC OFF</td>
<td>Turn-on controlled by your source unit</td>
<td>DC OFF (Auto) or DC OFF (Manual) turn-on (some models have both)</td>
</tr>
<tr>
<td>Signal</td>
<td>Auto Sensing (Auto)</td>
<td>Automatically turns on or off depending on input signal levels</td>
<td>Automatically turns on or off depending on input signal levels</td>
</tr>
<tr>
<td>Signal</td>
<td>Manual Sensing (Auto)</td>
<td>Manually turns on or off manually or through IR sensor (sold separately)</td>
<td>Manually turns on or off manually or through IR sensor (sold separately)</td>
</tr>
</tbody>
</table>

### Setting Mode Function Connection

1. **Power Connector**

2. **Speaker Output Harness**

3. **SD + Reset**

4. **USB**

5. **JLid-CTRL**

6. **JLid-COMM**

7. **Micro SD Slot**

8. **USB A/B Port**

9. **Reset Buttons**

10. **Line-Level Analog Inputs**

11. **Preamp Outputs**

12. **Remote**

13. **Valve**

14. **DC OFF**

15. **Auto Sensing**

16. **Manual Sensing**