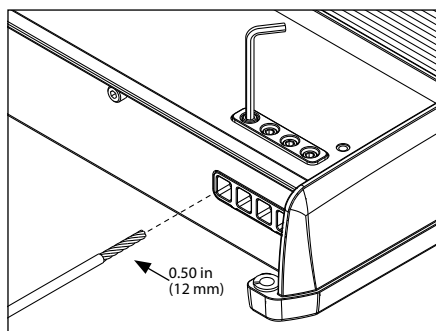
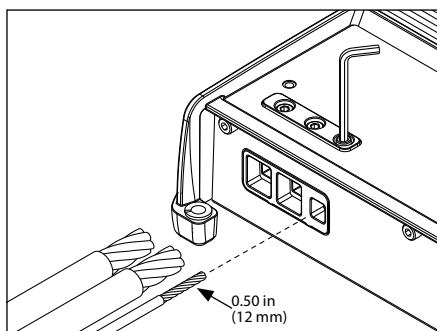
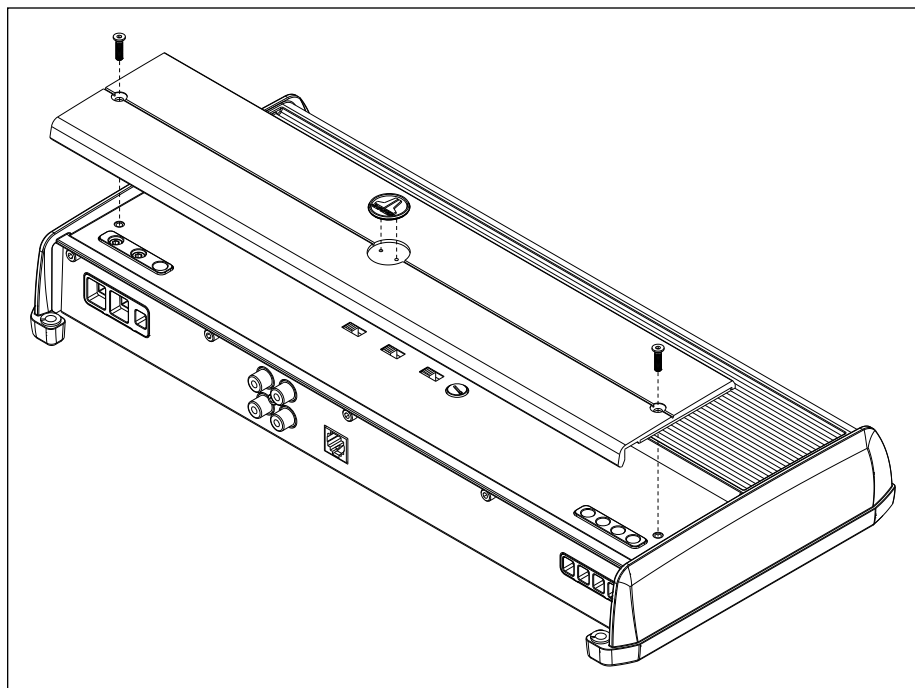
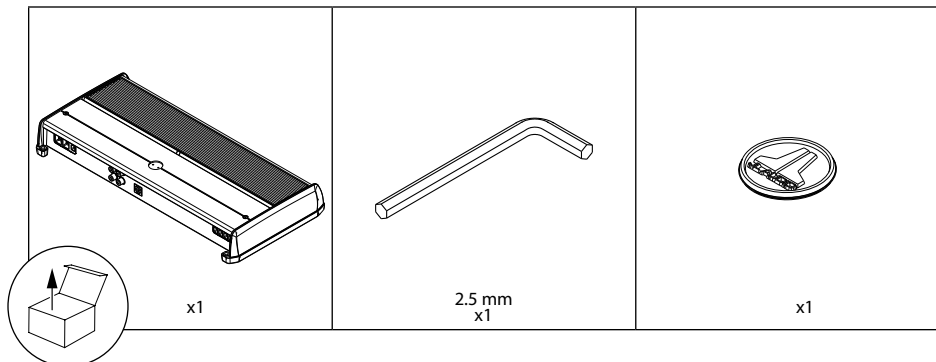




XDM1000/1

1000W MONO CLASS D SUBWOOFER AMPLIFIER

OWNER'S MANUAL
MANUEL D'UTILISATION
MANUAL DEL PROPIETARIO
BEDIENUNGSANLEITUNG
MANUALE DEL PROPRIETARIO



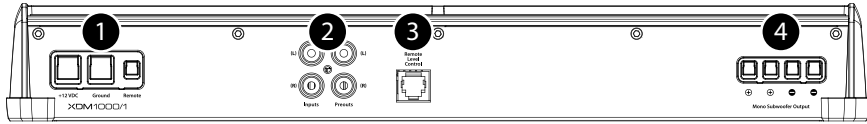
INSTALLATION CONSIDERATIONS

- Installation requires appropriate tools and safety equipment. Professional installation is recommended.
- Before installation, turn off the audio system and disconnect the battery system from the audio system.
- Install in a dry, well-ventilated location that does not interfere with factory-installed systems.
- Do not install in the engine compartment, any areas of extreme heat or where it will be directly exposed to the elements.
- Before cutting or drilling, check for potential obstacles behind mounting surfaces.
- Carefully route all system wiring away moving parts and sharp edges; secure with cable ties or wire clamps and use grommets and loom where appropriate to protect from sharp edges.

SAFETY CONSIDERATIONS

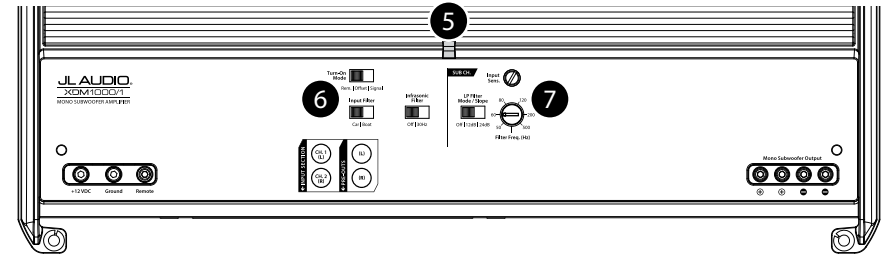
- Only use this product with 12 volt, negative-ground electrical systems. This product is not certified or approved for use in aircraft.
- Mount this product securely to prevent damage or injury in severe conditions.
- An appropriate fuse (or circuit breaker) at the main power wire is vital for vehicle/vessel safety and must be installed within 18 inches (45 cm) of the positive battery connection.
- For ABYC and NMEA applications, circuit protection is required within 7 inches (18 cm) of the battery, unless the cable is in an enclosure or conduit.
- Listen to your audio system at levels appropriate for operating conditions and hearing safety.

CONNECTIONS



Connection	Description	Notes	
1	+12 VDC	Positive (+12V) Power Connection	<ul style="list-style-type: none"> • 4 AWG wire (required) • Install 80A fuse at (+) battery post
	Ground	Negative (GND) Ground Connection	<ul style="list-style-type: none"> • 4 AWG wire (required)
	Remote	Positive (+12V) Activation Connection	<ul style="list-style-type: none"> • 18 – 12 AWG wire capacity • See 6 Turn On Mode for more info
2	CH. 1 Input	Left Input Signal, Black RCA	<ul style="list-style-type: none"> • Accepts 200mV – 4V input voltage • If only one subwoofer channel signal is available, a Y-adaptor is recommended to feed both inputs.
	CH. 2 Input	Right Input Signal, Red RCA	
	Preout 1	Left Pass-Through Preamp Signal, Black RCA	<ul style="list-style-type: none"> • Same signal that is connected to CH. 1&2 inputs • Unaffected by the amplifier's LP filter
	Preout 2	Right Pass-Through Preamp Signal, Red RCA	
3	Remote Level Control	Remote Level Controller Connection (optional) (HD-RLC or MHD-RLC)	<ul style="list-style-type: none"> • Operates as an attenuator only: Fully counter-clockwise = Level Muted Fully clockwise = Level Unaffected • Multiple amplifiers can be controlled from a single HD-RLC using a non-duplex phone line splitter and multiple phone cables.
4	Mono Subwoofer Output	(+) (+) Positive Subwoofer Output	<ul style="list-style-type: none"> • Both positive (+) connections are connected in parallel internally • Both negative (-) connections are connected in parallel internally • Minimum impedance load: ≥ 2 ohms • 16 – 8 AWG wire capacity
		(+) (+) Positive Subwoofer Output	
		(-) (-) Negative Subwoofer Output	
		(-) (-) Negative Subwoofer Output	

CONTROLS



Control (Function)	Setting	Description			
5	Status LED (indicates operating status)	Flashing Green	Amplifier Powering Up, Audio Output Muted		
		Green	On-Normal Operation, Active Audio Output		
		Red	On-Safe Mode, Over-Temperature Condition, Audio Output Reduced	<ul style="list-style-type: none"> • Reverts to normal operation when temperature returns to a safe level 	
		Amber (yellow)	On-Safe Mode, Over-Current Condition, Audio Output Muted	<ul style="list-style-type: none"> • May exhibit repetitive, audible ticking or thumping noise in the output • Inspect for speaker/wire short circuit or low impedance 	
		LEDs Off	Amplifier Turns Off (unexpectedly), Low-Voltage Condition	<ul style="list-style-type: none"> • Occurs when battery or remote turn-on voltage drops below 10V • Reverts to normal operation when voltage rises above 11V 	
6	Turn On Mode (configures activation method)	Remote	+12V Remote Turn-On (Preferred)	<ul style="list-style-type: none"> • Controlled by a switched +12V circuit or turn-on output of your source unit/OEM interface 	
		Offset	DC Offset-Sensing (Automatic)	<ul style="list-style-type: none"> • Turns On by detecting the presence of small DC signal in OEM audio outputs and turns Off after the signal is removed 	<ul style="list-style-type: none"> • Designed for high-level (speaker) signals only • Detects input signal from CH. 1 (L) only • Using DC Offset or Signal Sensing methods will turn the "Remote" terminal into a +12V turn-on output.
		Signal	Signal-Sensing (Automatic)	<ul style="list-style-type: none"> • Turns On by detecting full-range OEM audio signals and turns OFF after the signal is removed (within 30 seconds) 	
	Input Filter (configures input filter application)	Car	Select for most installations (automotive or marine)		
		Boat	Select if experiencing interference from high-current mechanical switches/devices		
Infrasonic Filter (configures high-pass filter)	Off	Filter defeated	<ul style="list-style-type: none"> • Designed to conserve amplifier power and protect subwoofer systems, without audibly degrading sub-bass output 		
	30 Hz	Attenuates frequencies below 30 Hz, at a rate of 24dB/octave			
7	Input Sens. (adjusts the input stage)	Variable	Use to match the source unit's output voltage with the amplifier's inputs. See Appendix A for detailed information.		
		LP Filter Mode/Slope (configures the low-pass filter and slope)	Off	Filter defeated; passes full range of frequencies present at the inputs	
	Filter Freq. (Hz) (adjusts the low-pass filter cutoff frequency)	12dB	Attenuates frequencies above the "Filter Freq. (Hz)" dial, at a rate of 12dB/octave		
		24dB	Attenuates frequencies above the "Filter Freq. (Hz)" dial, at a rate of 24dB/octave		
	Variable	Use to adjust the cutoff frequency of the low-pass active filter, from 50 Hz – 500 Hz / 12dB per octave			

APPENDIX A:

Input Sensitivity Level Setting

Follow the steps below to adjust the input sensitivity of each amplifier channel pair to achieve overall system balance.

Necessary Equipment
<ul style="list-style-type: none"> Digital AC Voltmeter Sine-wave test tone recorded at 0 dBfs reference level in the frequency range to be amplified. Do not use attenuated test tones (-10 dB, -20 dB, etc.). Full range channel/amplifier applications: 1 kHz Subwoofer channel/amplifier applications: 50 Hz Depending on your type of source unit, the sine-wave may be played via a CD, USB thumb drive, portable media player or Bluetooth® audio source. Make sure to disable any EQ/DSP modes on your portable media player during level setting.
The Nine-Step Procedure
1. Disconnect the speaker(s) from the amplifier's speaker output connectors.
2. Turn off all processing (bass/treble, loudness, EQ, etc.) on the source unit, processors (if used) and amplifier. Set the fader control to center position and the subwoofer level control to 3/4 of maximum, if used.
3. Turn the "Input Sens." control all the way down.
4. Set the source unit volume to 3/4 of full volume. This will allow for reasonable gain overlap with moderate clipping at full volume.
5. Using the chart below, determine the target voltage for input sensitivity adjustment according to the nominal impedance of the speaker system connected to the amplifier outputs.
6. Verify that you have disconnected the speakers before proceeding. Play a track with an appropriate sine wave (within the frequency range to be amplified) at 3/4 source unit volume.
7. Connect the AC voltmeter to the speaker output terminals of the amplifier. Make sure to test the voltage at the correct terminals (+ and -).
8. Increase the "Input Sens." control until the target voltage is observed with the voltmeter.
9. Once you have adjusted each channel section to its maximum low-distortion output level, reconnect the speaker(s). The "Input Sens." controls can now be adjusted downward if the amplifier requires attenuation to achieve the desired system balance.
IMPORTANT!
<ul style="list-style-type: none"> Do not increase any "Input Sens." setting for any amplifier channel or channel pair in the system beyond the maximum level established during this procedure. Doing so will result in audible distortion and possible speaker damage. It will be necessary to re-adjust the "Input Sens." if any equalizer boost is activated after setting the "Input Sens." with this procedure. This applies to any EQ boost circuit, including source unit tone controls or EQ circuits. EQ cuts will not require re-adjustment.

Nominal Impedance	Target AC Voltage
4Ω	49.0 V
3Ω	49.0 V
2Ω	44.7 V
1Ω	not recommended

SPECIFICATIONS

Amplifier Section			
Amplifier Topology	NexD™ Ultra-High Speed Class D		
Power Supply Type	Unregulated MOSFET Switching		
Minimum Copper Power/GND Wire	4 AWG (Note: CCA/Copper Clad Aluminum wire is not recommended.)		
Recommended Fuse	80 A		
Rated RMS Power @ 14.4V, <1% THD+N	600W x 1 @ 4 Ω	800W x 1 @ 3 Ω	1000W x 1 @ 2 Ω
Rated RMS Power @ 12.5V, <1% THD+N	500W x 1 @ 4 Ω	650W x 1 @ 3 Ω	800W x 1 @ 2 Ω
Frequency Response	7 Hz – 500 Hz (+0, -1dB)		
S/N Ratio (A-weighted, 20 Hz–20 kHz noise bandwidth)	>83 dB (Referred to rated power), >53 dB (Referred to 1 W)		
Damping Factor	>1000 / 50 Hz @ 4 Ω, >500 / 50 Hz @ 2 Ω		
Input Section			
Number of Inputs	2 (One Stereo Pair)		
Input Type	Differential-Balanced with RCA jack inputs		
Input Voltage Range	200mV – 4V RMS		
Signal Processing			
Filter Type	Active, 12dB or 24dB/octave Low-Pass, (50 – 500 Hz), defeatable		
Remote Level Control	HD-RLC or MHD-RLC (optional). Full mute to 0 dB range.		
Dimensions			
L x W x H	14.73 in. x 7.09 in. x 2.05 in. (374 mm x 180 mm x 52 mm)		

Due to ongoing product development, all specifications are subject to change without notice.

