## LIMITED WARRANTY

DB Drive warrants any products purchased in the U.S.A. from an authorized DB Drive dealer. All products are warranted to be free from defects in material and workmanship under normal use and service for a period of one (1) year when the unit is installed by an authorized DB Drive dealer. Non-authorized dealer installed products carry a one (1) year parts and labor limit ed warranty. This warranty applies to the original purchase only.

DB Drive will either repair or replace (as its option) any unit that had been found to be defective and under warranty provided the defect occurs within:

One (1) year, if purchased through an authorized DB Drive dealer with original proof of purchase.

This limited warranty periods do not extend to units having been subjected to misuse, abuse, neglect, or accident. Products that in Db Drive's judgment shows evidence of having been altered, modified, or serviced without Db Drive's authorization, will be ineligible under this warranty.

To obtain warranty services please contact your retailer or visit our website at www.dbdrive.net for more details.



# **MONOBLOCK & 4 CHANNEL**

- WDX1KG2 WDX2KG2
- WDX3KG2 WDX5KG2

•WDX300.4G2

•WDX400.4G2 • WDX800.4G2



# **USER MANUAL**

Installation Instructions | Owners Manual



Congratulations on your purchase of a DB Drive state-of-the-art power amplifier. Your	
selection of a DB Drive car audio product indicates a true appreciation of fine musical reproduction. Whether adding to an existing system or including your DB Drive amplifier a new system, you are certain to notice immediate performance benefits.	in
a new dystem, you are contain to notice immodiate performance benefits.	
KEEP YOUR SALES RECEIPT	
Take this time to attach your sales receipt to the manual and put in a safe place. In case of any unforeseen reason this product may need warranty service, your receipt will be necessary to establish purchase date.	- -
necessary to establish purchase date.	-
RECOMMENDATION	
A power amplifier's performance is only as good as its installation. Proper installation will maximize the system's overall performance. It is recommended that you have our productions are considered to the contract of the performance of the contract of	
installed by an authorized DB Drive retailer. However, if you decide to install it yourself, please carefully read through this manual and take your time to do a quality installation.	
Due to continuing product improvements and possible manual revisions, we recommend	
checking our website for latest product information at www.dbdrive.net	
<b>IMPORTANT!</b> Before making any connections, disconnect the car's battery until the installation is completed to avoid possible damage to the electrical system.	
WARNING!	
Exposure to high power sound system can cause hearing loss or damage. Listening to your system at loud levels while driving will	
impair your ability to hear traffic sounds and emergency vehicles. Use common sense when listening to your system.	
Ose common sense when listering to your system.	
Serial # Model #	





We have put together this trouble-shooting guide if you experience problems after installing the amplifier. Please keep in mind that the majority of problems incurred are caused by improper installation and not the equipment itself. In addition, there are many components in the system that could cause various signal problems such as inducted electrical noise and engine noise.

Before you can properly address the problem, you must first find the component that is causing the problem. This will take patience and a process of elimination.

PROBLEM	LOOK FOR	SOLUTION
No Output	Blown fuse Bad RCA Cable(s) +12V at power terminal +12V at remote terminal Grounding point are clean and tight Head unit's fader not in center position Master and slave settings	Replace Replace Check connection Check connection Check for ground w/meter Set to center position Confirm correct setting
Low Output	Check level adjustments Bad RCA cable(s) Improper level matching Master and slave settings	Replace Re-adjust Confirm correct settings
Engine Noise	Grounding points are clean and tight Ground all components at same point Try different grounding point Bad RCA cable(s) Use high quality shielded RCA cables Low vehicle charging system and/or battery	Check for ground w/meter Ground at same point Change for better ground Replace Rejects inducted noise Fix and/or replace
Red protection L.E.D. illumintaed	Speaker short Speaker grounding out Impedance too low Overheating	Check speakers connection for short circuit Make sure speaker wires do not touch chassis ground Check speaker impedance Check mounting location for adequate air circulation. Speaker impedance too low

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# Fuse amplifiers power wire at the battery

Be sure to fuse the power wire within 12" of the car's battery. This will protect the car's battery in case of a short circuit between the power amplifier and battery. THIS IS A MUST, the amplifier's built-in fuse will only protect the power amplifier not the car's battery!

## Use high grade wire connectors

To ensure maximum power transfer and secure safe connections, it is recommended to use high grade barrier spades (for connection at amplifier) and terminal rings (for connection at battery).

# Do not run any wires underneath vehicle

Exposed wires have a chance of being cut or damaged. It is best to run all wires through the vehicle under the carpet and/or side panels. This lends to a cleaner installation and less risk of damage.

# Use caution when mounting amplifier

Remember there are many electrical wires, gas lines, vacuum lines, brake lines as well as a gas tank in the automobile. Make sure you now where they are when mounting the amplifier to avoid puncturing lines, shorting wires or drilling holes in the gas tank.

# Run signal wires away from electrical wires

To avoid possibility of induced noise from the car's electrical system (i.e. popping noises or engine noise), run wires away from the car's electrical wiring.

# Make all ground wires as short as possible and at the same point

In order to reduce the chance of ground loops (i.e. engine noise), make the grounding wire as short as possible to reduce the wire's resistance. Also, when using multiple components, make sure all units are grounded at the same point.

# Avoid sharp edges when running the wires

To avoid the possibility of power, signal or speaker shorts, be careful not to allow the amplifiers wires to come in contact with sharp edges. Use a grommet to protect the wire when running through the fire wall.





FEATURES AND BENEFITS SPECIFICATIONS

#### DC Offset Protection

This circuit protects the output of the amplifier against DC voltage. If for some reason DC voltage is detected at the output stage, the amplifier will shut down protecting the speakers from direct current.

#### Short Circuit Protection

The circuit protects the amplifier from damage due to a short found in the speakers or wiring. If one of the speakers or its wiring comes in contact with ground, the amplifier will shut down. To resume normal operation, correct the problem and turn the head unit off, then back on. The amplifier will reset and play again.

### Thermal Protection

To protect the amplifier circuitry against damage caused by prolonged exposure to high temperatures, a thermal protection circuit is activated if the amplifier reaches excessively high operating temperature. Once the thermal circuit is activated, the amplifier will shut down to cool off. The amplifier will automatically turn back on once it cools down to a safe operating temperature.

#### Power Indicator

The diagnostic L.E.D. illuminates when the amplifier is on and receiving power.

#### **Built-in Crossover**

The **DB Drive WDX** amplifiers includes built-in variable crossovers. The crossover features a variable frequency selection for precise low pass filtering for all mono amplifiers. The **WDX300.4G2**, **WDX400.4G2** and **WDX800.4G2** also offers independent 12dB per octave High Pass and Low Pass X-Over Network.

# Power and Speaker Distribution Blocks

Heavy gauge bare wire distribution blocks are provided for maximum power and signal transfer with minimal resistance.

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#### Bass Boost

For added low frequency performance the amplifiers are equipped with a selectable 6dB-12dB bass boost @ 45Hz

WDX300.4G2	WDX400.4G2	WDX800.4G2
4 x 60W	4 x 80W	4 x 110W
4 x 120W	4 x 160W	4 x 220W
2 x 180W	2 x 240W	2 x 330W
20Hz ~ 22KHz	20Hz ~ 22KHz	20Hz ~ 22KHz
200<	200<	200<
105db	105db	105db
6V - 0.280mV	6V - 0.280mV	6V - 0.280mV
HPF / LPF /BP	HPF / LPF /BP	HPF / LPF /BP
50Hz ~ 5KHz	50Hz ~ 5KHz	50Hz ~ 5KHz
50Hz ~ 500Hz	50Hz ~ 500Hz	50Hz ~ 500Hz
0-6dB-12dB	0-6dB-12dB	0-6dB-12dB
12 ~ 15 volts	12 ~ 15 volts	12 ~ 15 volts
	4 x 120W 2 x 180W 20Hz ~ 22KHz 200< 105db 6V - 0.280mV HPF / LPF /BP 50Hz ~ 5KHz 50Hz ~ 500Hz 0-6dB-12dB	4 x 60W 4 x 80W 4 x 120W 4 x 160W 2 x 180W 2 x 240W 20Hz ~ 22KHz 20Hz ~ 22KHz 200< 200< 105db 105db 6V - 0.280mV 6V - 0.280mV HPF / LPF /BP HPF / LPF /BP 50Hz ~ 5KHz 50Hz ~ 5KHz 50Hz ~ 50Hz ~ 50Hz ~ 50Hz 0-6dB-12dB 0-6dB-12dB

	WDX1KG2	WDX2KG2
RATED POWER 14.4 VOLTS @ $1\Omega$ :	1 x 1000W	1 x 2000W
RATED POWER 14.4 VOLTS @ 2Ω:	1 x 500W	1 x 1000W
RATED POWER 14.4 VOLTS @ $4\Omega$ :	1 x 250W	1 x 500W
Frequency Response:	20Hz ~ 250Hz	20Hz ~ 250Hz
Damping Factor (1kHz @ $4\Omega$ ):	100<	100<
S/N Ratio (as weighted @ 1 Volt):	95db	95db
Low Level Input:	7.5V - 0.26mV	7.5V - 0.26mV
Variable Low Pass Filter (12 dB Slope):	50Hz ~ 220Hz	50Hz ~ 220Hz
Variable Subsonic Filter (12 dB Slope):	10Hz ~ 50Hz	10Hz ~ 50Hz
Selectable Bass Boost @:	45Hz	45Hz
Included Remote Level Control:	Yes	Yes
Working Voltage:	12 ~ 15 volts	12 ~ 15 volts

	WDX3KG2	WDX5KG2
RATED POWER 14.4 VOLTS @ $1\Omega$ :	1 x 3000W	1 x 5000W
RATED POWER 14.4 VOLTS @ $2\Omega$ :	1 x 1500W	1 x 2500W
RATED POWER 14.4 VOLTS @ $4\Omega$ :	1 x 750W	1 x 1250W
Frequency Response:	20Hz ~ 250Hz	20Hz ~ 250Hz
Damping Factor (1kHz @ $4\Omega$ ):	100<	100<
S/N Ratio (as weighted @ 1 Volt):	95db	95db
Low Level Input:	7.5V - 0.26mV	7.5V - 0.26mV
Variable Low Pass Filter (12 dB Slope):	50Hz ~ 220Hz	50Hz ~ 220Hz
Variable Subsonic Filter (12 dB Slope):	10Hz ~ 50Hz	10Hz ~ 50Hz
Selectable Bass Boost @:	45Hz	45Hz
Included Remote Level Control:	Yes	Yes
Working Voltage:	12 ~ 15 volts	12 ~ 15 volts

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## 4 Channel: [ WDX300.4G2, WDX400.4G2, WDX800.4G2 ]

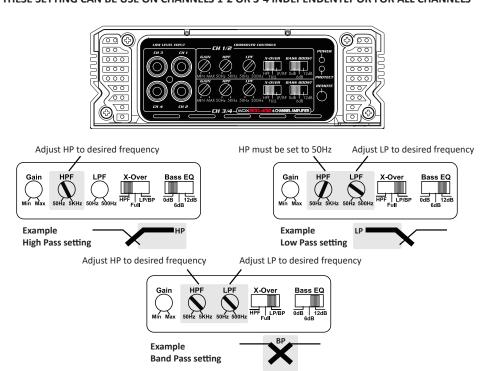
The WDX300.4G2, WDX400.4G2 and WDX800.4G2 amplifier allow you to select the crossover mode (High-Pass, Full Range or Low Pass / Band Pass) and desired crossover point for channels 1-2 and 3-4.

For example if you wish to use a 2-way loud speaker on channels 1-2, simply set the crossover switch to HPF and adjust the frequency setting to the desired HPF setting to block out any unwanted low frequencies.

If you wish to run a subwoofer on channels 3-4, simply set the crossover switch to LP/BP. You must adjust the HPF frequency setting to 50Hz and the LPF frequency setting to the desired Low Pass setting to block out any unwanted high frequencies.

If you wish to run a component midrange on either channels 1-2 or 3-4 set the crossover switch to LP/BP. Then use both HPF and LPF frequency controls to create the desired band pass frequency range.

#### THESE SETTING CAN BE USE ON CHANNELS 1-2 OR 3-4 INDEPENDENTLY OR FOR ALL CHANNELS



## Power Fusing

This protects the amplifier against short circuits and excessive current.

#### Remote Turn-on

Automatically turns amplifier on when connected to the head unit's remote output. The amplifier will turn on and off with the head unit to save current consumption. This control also operates the reset circuit for the amplifier's protection. It must be connected with the head unit in order to reset protection circuits.

## Adjustable Input Sensitivity

Allows you to fine-tune the level matching between your source and the power amplifier.

## MONOBLOCK AMPLIFIER

# Low Impedance Stability

WDX1KG2 - 1 Ohm Mono

WDX2KG2 - 1 Ohm Mono

WDX3KG2 - 1 Ohm Mono

WDX5KG2 - 1 Ohm Mono

# **4 CHANNEL AMPLIFIER**

WDX300.4G2 - 2 Ohm Stereo (4 Channel)

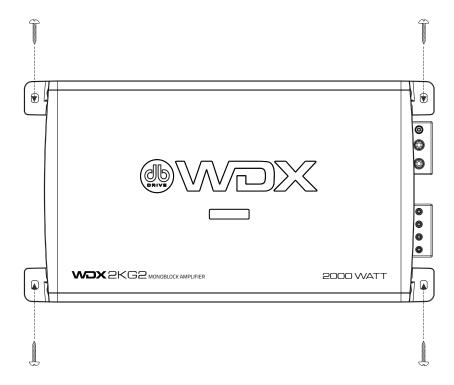
WDX400.4G2 - 2 Ohm Stereo (4 Channel)

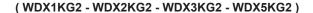
WDX800.4G2 - 2 Ohm Stereo (4 Channel)



Before you start the installation, it will be necessary to find a mounting location for the amplifier. Find a location in which the amplifier will receive adequate ventilation in order to dissipate the heat it develops during operation. Two popular mounting locations are in the trunk or under the seat.

Select the location in which you wish to mount the amplifier. Use caution when mounting amplifier, there are many wires, gas lines, vacuum lines, brake lines as well as a gas tank in the automobile. Make sure you know where they are when mounting the amplifier to avoid puncturing lines, shorting wires or drilling holes in the gas tank. Once you are ready, use a pencil to mark the mounting holes in the bottom panel. After you have marked the locations of the holes move amplifier out of the way and drill small starter holes to make the tapping screws easier to install. Use provided screws to tighten down the **amplifier**.





The WDX1KG2, WDX2KG2, WDX3KG2 and WDX5KG2 are equipped with a variable 24db slope Lowpass crossover network and a 24db slope subsonic filter. The mono amps also feature a Selectable Bass Boost EQ is set at 45Hz.

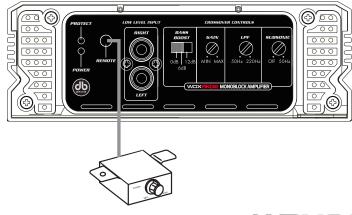
In some subwoofer enclosure installations it may necessary to use the Phase Shift feature. The Phase Shift button sets the Subwoofer signal between 0 degree setting and 180 degree settings. This will also allow you to fine tune the subwoofer enclosure depending on vehicle location.



# REMOTE BASS CONTROL MODULE

(WDX1KG2 - WDX2KG2 - WDX3KG2 - WDX5KG2)

Before connecting the remote, it will be necessary to find a mounting location that will be easy to access for adjustment. Once you select your mounting location, your mounting location, you will need to run the control wire from the remote to the remote to the amplifier. To avoid possibility of induced noise from the car's electrical system ( i.e. popping noises or engine noise ), run the cable from the remote to the amplifier away from the car's electrical wiring.

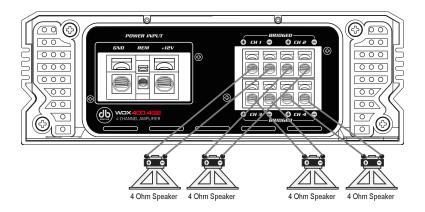


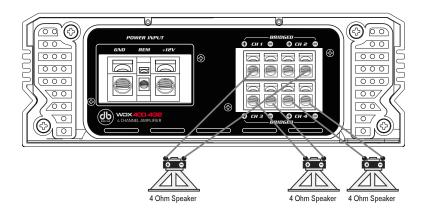
( WDX300.4G2, WDX400.4G2, WDX800.4G2 )

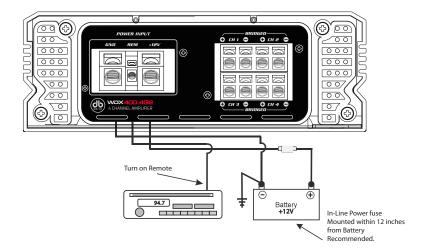
# Make the speaker connections using speaker wire that is at least 16 gauge or heavier.

As with any audio component, proper phasing of the amplifier and speakers is essential for strong bass response. When connecting, make sure that positive (+) from the amplifier is connected to the positive (+) of the speaker, and the same for negative (-).

\*\*\*CAUTION! In the bridged mode, the amplifier must see a 4 Ohm load or higher. Any lower than 4 ohms will cause the amplifier to overheat and possible cause permanent damage to the amplifier!







**IMPORTANT!** Before making any connections, disconnect the car's battery until the installation is completed to avoid possible damage to the electrical system.

## Connect the amplifier to the car's battery

At times, the amplifier will need to draw large levels of current that cannot be provided by any circuit in the car's fuse box. We recommended using a 4 gauge power wire for your connections depending on the amplifier and length of the wire. Strip one end of the wire to connect to the terminal on the amplifier marked "batt+". Loosen screw terminal and connect bare wire and tighten. Use caution to make sure no stray wire strands come in contact with surrounding terminals causing short circuits. Run the wire directly to the positive terminal of the car's battery. Make sure to use an in-line fuse within 12" of the car's battery to protect the electrical system and amplifier against short circuits and/or power surges.

# Connect the ground terminal of the amplifier to the car's chassis

For the ground connection, use a 4 gauge wire (black) to connect to the terminal marked "ground" and then connect it to the car's chassis. Try to keep the length of the cable as short as possible, preferably less than 6". Also make sure that the point on the car where the connection is to be made is free of paint and dirt.

# Connect the remote terminal of the amplifier to a switchable +12V source

This connection allows the amplifier to be turned on and off with the power control of the radio. If the radio has a REMOTE output terminal, connect it to the amplifier's terminal marked "remote" (using a 16 gauge wire or heavier). Now when the radio is turned on, the amplifier will automatically turn on. This connection can also be made to the radio's Power Antenna wire.

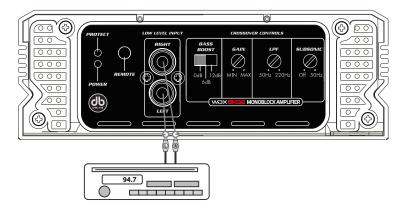




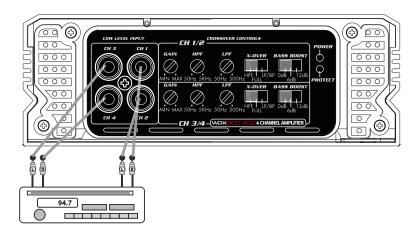
## Connect the RCA output of the head unit to the RCA input terminals of the amplifier

To make these connections, we recommend high quality RCA cables, which are available at your local car audio retailer. Run signal wires away from electrical wires to avoid possibility of induced noise from the car's electrical system (i.e. popping noises or engine noise).

#### MONO SIGNAL CONNECTION



# SIGNAL CONNECTION: 4 Channel Amplifier using 2 pair of RCA inputs.



#### MODELS:

(WDX1KG2 - WDX2KG2 - WDX3KG2 - WDX5KG2)

**IMPORTANT!** The following speaker connection are for the amplifier in normal mono configuration.

Make the speaker connections using speaker wire that is at least 16 gauge or heavier.

As with any audio component, proper phasing of the amplifier and speakers is essential for strong bass response. When connecting, make sure that positive (+) from the amplifier is connected to the positive (+) of the speaker, and the same for negative (-).

Please note that although wdx1kg2, wdx2kg2, wdx3kg2 and wdx5kg2 are monoamplifiers, we have provided two sets of speaker terminals on the amplifier. These terminals are connected in paralleled internally (connected together). The second set of speaker terminals are intended for ease of connection when running multiple woofers.

