

OWNER'S MANUAL



HIGH PERFORMANCE AMPLIFIER

HYBRID-1900.ID

HYBRID-2800.ID

HYBRID-4800.ID

HYBRID-250.4

HYBRID-150.4

INTRODUCTION

Thanks you for purchasing American Bass VFL AUDIO HYBRID amplifiers for your car audio system. VFL AUDIO HYBRID amplifiers are engineered and manufactured to ensure the years of uncompromised musical enjoyment, high performance and reliability.

VFLAUDIO HYBRID amplifiers are high power audio amplifiers, so very loud music can cause hearing loss and intended for using in vehicles with 12 Volt, negative ground electrical systems.

Attempting to connect or operate the amplifiers in another type of electrical system may cause damage to the amplifier or the electrical system.

If you like to install the amplifiers by yourself, Pls carefully read whole manual and follow.

FEATURES

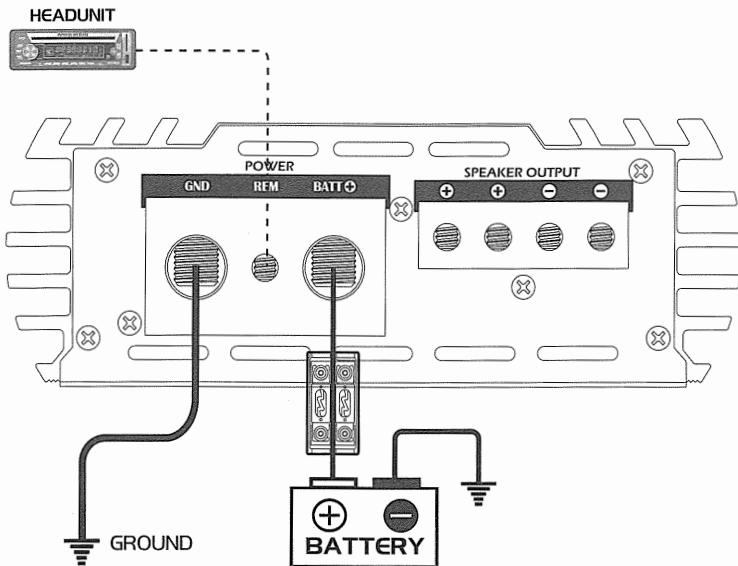
- Digital mono block amplifier
- Compact sized dimensions
- 1 ohm mono load for digital mono
- 2 ohm stereo stable 4channels
- Variable low pass filter
- Variable subsonic filter
- Variable bass boost
- Linkable connection for digital monoblock
- Wired remote control with Clipping LED
- 4 ways protection circuit
(thermal, voltage, speaker short and DC)
- Double sided printed circuit board

SPECIFICATIONS

	HYBRID-1900.ID	HYBRID-2800.ID	HYBRID-4800.ID	HYBRID-250.4	HYBRID-150.4
Rated power output					
-MAX power @ 1 ohm	1900Watts	2800Watts	4800Watts	na	na
-MAX power @ 2 ohm	3800Watts	5600Watts	9600Watts	na	na
Linkable					
-MAX power @ 2ohm				250Watts x 4ch	150Watts x 4ch
Working impedance	1ohm	1ohm	1ohm	2ohm stereo	2ohm stereo
Input Sensitivity	6V ~ 0.2V	6V ~ 0.2V	6V ~ 0.2V	6V ~ 0.2V	6V ~ 0.2V
Variable High Pass Filter	na	na	na	20Hz ~ 5KHz	50Hz ~ 5KHz
Variable Low Pass Filter	35Hz ~ 250Hz	35Hz ~ 250Hz	35Hz ~ 250Hz	50Hz ~ 500Hz	50Hz ~ 500Hz
Variable Subsonic Filter	10Hz ~ 50Hz	10Hz ~ 50Hz	10Hz ~ 50Hz	na	na
Variable Bass Boost	0dB ~ 9dB	0dB ~ 9dB	0dB ~ 9dB	na	na
Frequency Response	20Hz ~ 250Hz	20Hz ~ 250Hz	20Hz ~ 250Hz	20Hz ~ 20KHz	20Hz ~ 20KHz
Signal to Noise Ratio	90 <	90 <	90 <	105 <	105 <
Efficiency @ 4ohm	Over 92%	Over 92%	Over 92%	Over 65%	Over 65%
THD @ 4ohm	< 0.1%	< 0.1%	< 0.1%	< 0.1%	< 0.1%
Damping Factor	200 <	200 <	200 <	300 <	150 <
Fuse Rating	40A	80A	120A	60A	40A
Fuse Rating for Linkable	80A	160A	240A	na	na
Dimensions (L inches)	7.086 inches	9.716 inches	13.267 inches	13.779 inches	11.417 inches
6.496 W x 2.244 H inches					

All features are subject to change in the continuing effort to improve the products without notice.

POWER CONNECTION



⚠ CAUTION !!

VFL AUDIO HYBRID amplifiers are not equipped with internal fuse in itself.
Make sure you install in-line fuse holder from the Positive (+) terminal of battery.

+12V Power

Connect the +12V terminal of the amplifier to the ⊕ terminal of the battery using the same diameter as the ground cable.

Making sure you install in-line fuse holder, approximately 300 or 400 mm from the ⊕ terminal of battery, making sure that there is no fuse in the battery holder

GROUND

Disconnect the battery and connect the GND (ground) terminal to the car's chassis.

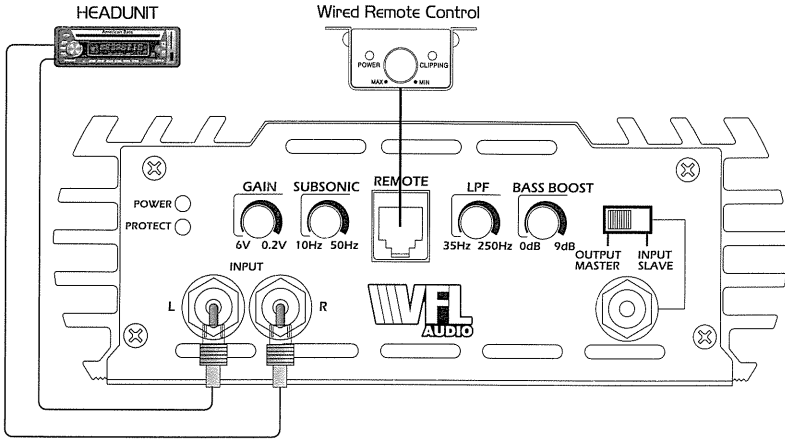
Keep this cable as short as possible (not longer than 20 inches or less).

Making sure that the connection with the chassis is rust free and clear of paint or grime.

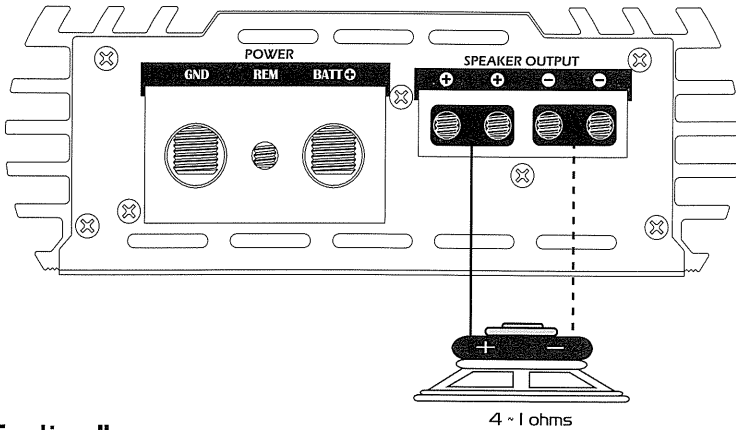
REMOTE

Connect the REM terminal of the amplifier to the power antenna terminal in the car ignition switch using 12 or 16 ga. electrical wire.

DIGITAL MONOBLOCK RCA INPUT CONNECTION

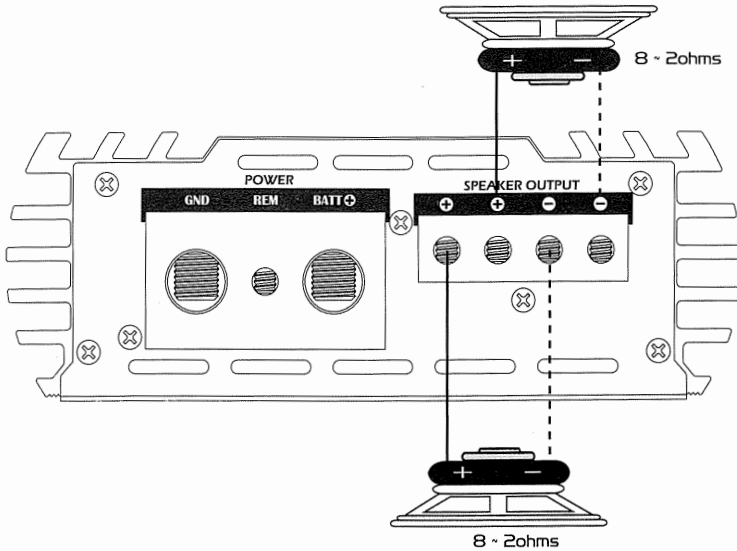


DIGITAL MONOBLOCK SPEAKER CONNECTIONS



⚠ Caution !!

VFL AUDIO HYBRID Digital amplifiers' minimum working impedance is 1ohm for single use or 2ohm for linkable connection.



VFL AUDIO HYBRID LINKABLE CONNECTION

VFL Audio Hybrid amplifiers' linkable connection makes 2 pcs of VFL Audio Hybrid amplifiers linkable to 2 ohm and doubles the power of single VFL Audio Hybrid amplifier's 1 ohm power. Single unit of VFL Audio Hybrid amplifier's minimum working impedance is 1 ohm. Linkable connection of 2 pcs of VFL Audio Hybrid amplifier's minimum working impedance is 2 ohm. Please read the following connection steps and diagram carefully to make the correct connection.

FUNCTIONAL SIDE CONNECTION.

MASTER AMPLIFIER : VFL Audio Hybrid amplifier connected from headunit is master amplifier.
SLAVE AMPLIFIER : VFL Audio Hybrid amplifier connected to master amplifier is slave amplifier

- Step 1. Connect headunit to master amplifier's input and set master amplifier's output master / input slave selector switch to **OUTPUT MASTER** position.
- Step 2. Set slave amplifier's output master / input slave selector switch to **INPUT SLAVE** position.
- Step 3. Connect RCA cable from master amplifier's output master / input slave RCA jack to slave amplifier's RCA jack as below diagram.

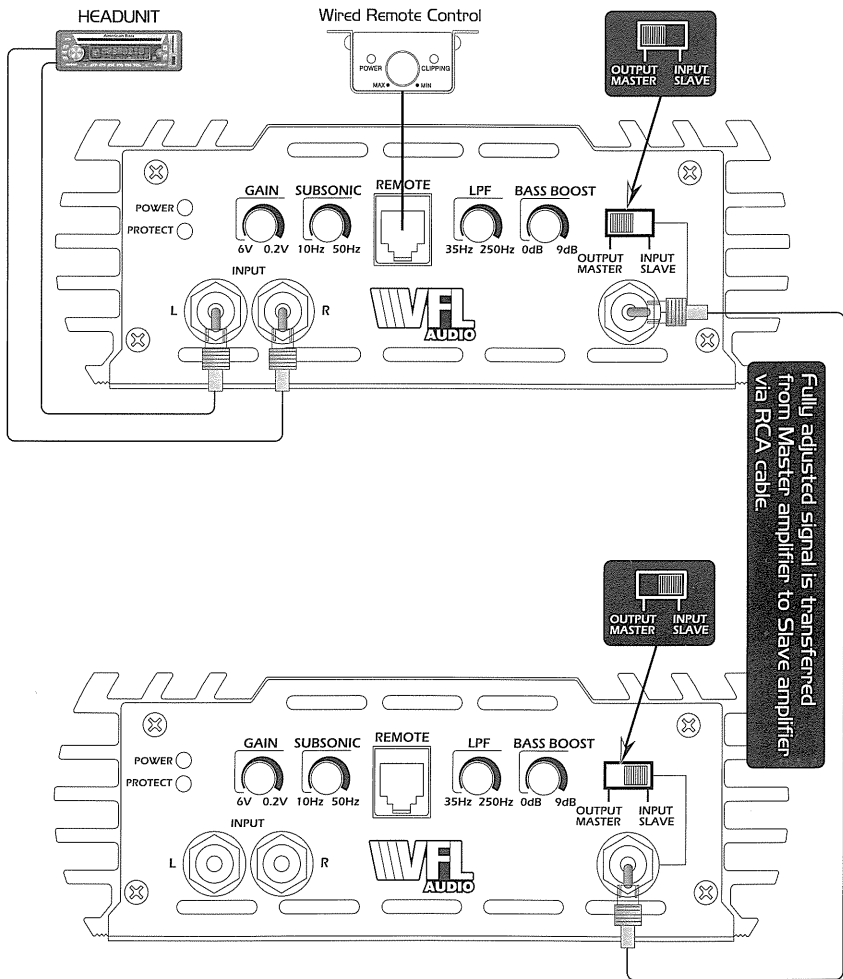
SPEAKER CONNECTION.

- Step 1. Connect speaker cable (+) of master amplifier to subwoofer's (+) terminal
- Step 2. Connect speaker cable (+) of slave amplifier to subwoofer's (-) terminal.
- Step 3. Connect speaker cable (-) of master amplifier to speaker cable (-) of slave amplifier.

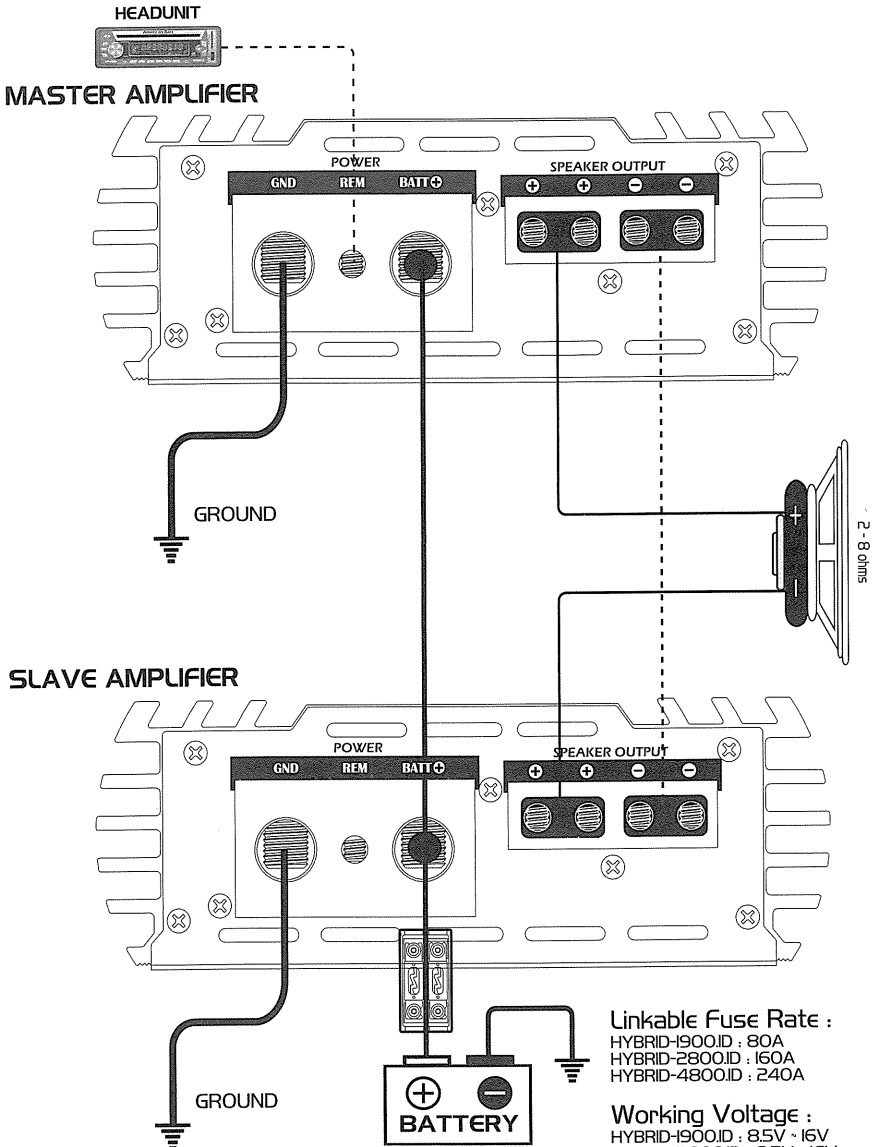
! CAUTION !!

VFL Audio Hybrid Linkable connection minimum impedance is 2 ohm.
 Do not use linkable connection in 1 ohm.
 VFL Audio Hybrid working voltage is 8.5V - 16V.

VFL AUDIO HYBRID LINKABLE CONNECTION DIAGRAM



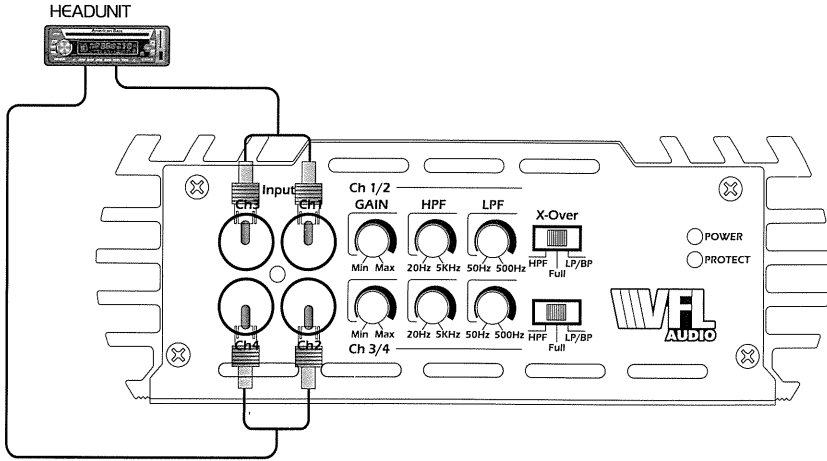
VFL AUDIO HYBRID LINKABLE CONNECTION DIAGRAM



⚠ CAUTION !!

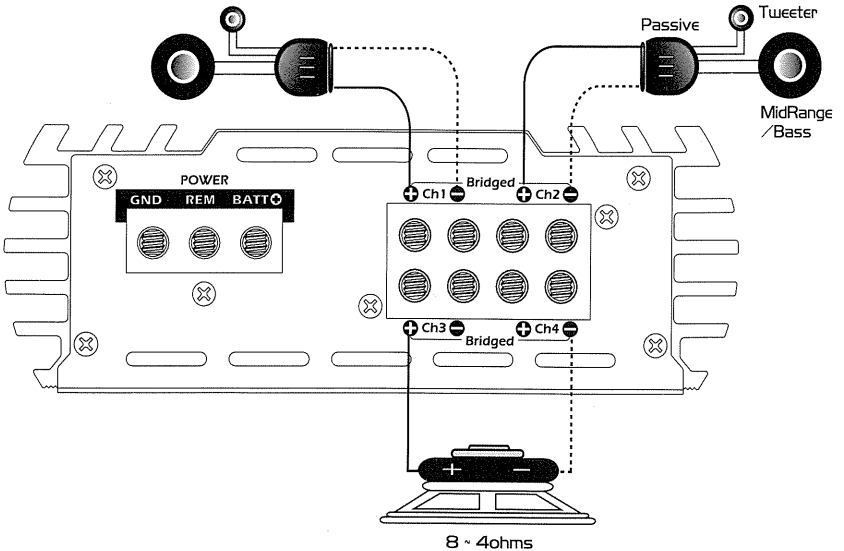
When a strapping connection is made the minimum working load is 2 ohms impedance. any load (impedance) lower than 2 ohms can damage or blow the amplifiers.

VFL AUDIO STEREO AMPLIFIER INPUT CONNECTION



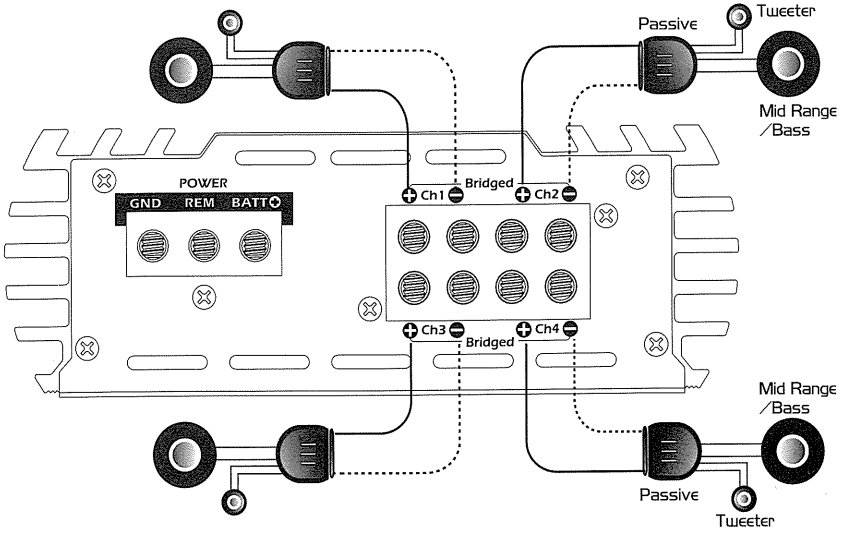
VFL AUDIO STEREO AMPLIFIER SPEAKER CONNECTION

3 CHANNEL SPEAKER CONNECTION MODE.

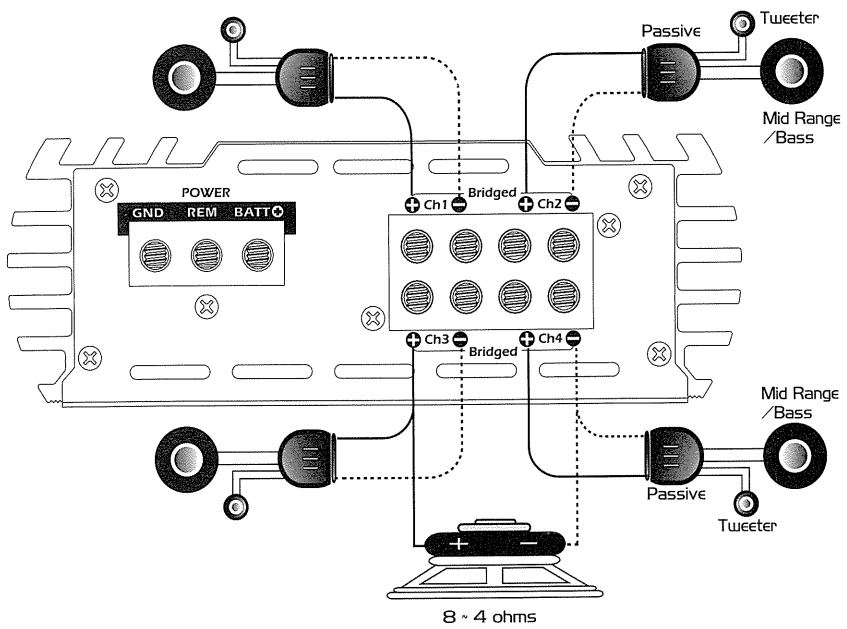


VFL AUDIO STEREO AMPLIFIER SPEAKER CONNECTION

4 CHANNEL SPEAKER CONNECTION MODE.



5 CHANNEL SPEAKER CONNECTION MODE.



TROUBLE SHOOTING

VFL Audio Hybrid amplifiers have the protection features to prevent any damages from misuse or faulty conditions.

If VFL Audio Hybrid amplifiers sense excessive heat, short circuited speakers DC, or voltage, the protection indicator will light, and the system will be turned off.

In order to check the problem, you should turn all levels down and all power off and carefully check the installation for wiring mistakes or short.

If VFL Audio Hybrid amplifiers shut down due to excessive heat, They will be working later when it is cooled down.

Before removing your amplifier, refer to the list below and follow the suggested procedures.

NO OUTPUT

1. Check remote turn-on voltage at amplifier and headunit, when remote turn-on voltage is low or no turn-on voltage, there is no sound.
2. Check fuses at the battery side or external fuses and all wire connections.
3. Check RCA Input is properly connected.

AMPLIFIER SHUT DOWN (PROTECTION)

1. Please check POWER, GND and REMOTE wire connection and other wires properly connected.

2. When DC over 4V come into the amplifiers, amplifiers is DC protected.

Pls check whether amplifiers work after removing RCA-Input.

If amplifier work, then check DC by checking RCA-Input.

When DC is over 4V at input, try by replacing head-unit or source.

3. When amplifier is over-heated, amplifier goes into the thermal protection.

Amplifier will be back after cooling down little bit. Please install amplifier in better ventilation and make it cool.

4. VFL Audio Hybrid digital monoblocks have minimum working impedance as 1 ohm or 2 ohm for linkable connection.

VFL Audio Hybrid 250.4 minimum working impedance is 2ohm stereo or 4ohm mono.

5. VFL Audio Hybrid amplifiers working voltage is 8.5V ~ 16Volts.

6. Make sure chassis and remote use same GROUND.

DISTORTION & NOISE

1. Please readjust amplifier input level which is printed on endplate.

2. Make sure good ground contact of amplifier or headunit.

3. Use sufficiently shielded RCA interconnects and good RCA routing.

4. Check all ground connections of all other audio equipments.

POOR BASS RESPONSE

1. Check speaker wiring and reverse polarity.



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