DC AUDIO

Owner's Manual

PITBULL 20K

HIGH PERFORMANCE AMPLIFIER

Thanks you for purchasing DC audio amplifiers for your car audio system.
DC audio amplifiers are engineered and manufactured to ensure the years of uncompromised musical enjoyment, high performance and reliability.
DC Audio 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

PITBUL 20K DIGITAL MONOBLOCK AMPLIFIERS

*. **PITBUL 20K** mono block amplifier
*. **PITBUL 20K 1** ohm stable amplifier.
*. High quality hand-wound power supply transformers
*. High purity 3oz printed circuit board
*. Stable into 1 ohm mono load.
*. Variable low pass 24dB
*. Variable subsonic filter 24dB
*. Variable bass boost
*. Variable Phase
*. Wired remote control included
*. 4 ways protection circuits (thermal, voltage, speaker short and DC)

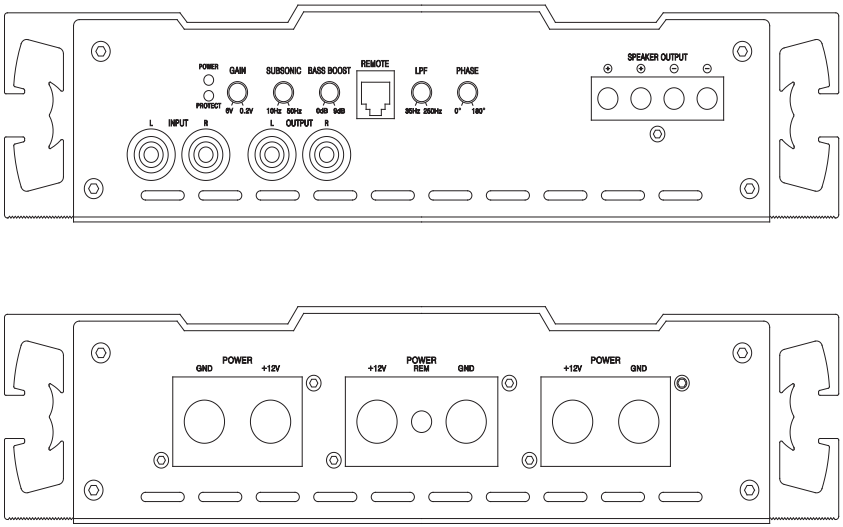
MONOBLOCK SPECIFICATIONS

	PITBUL 20K
Rated power output	
- RMS output power @ 4 ohm	7500Watts
- RMS output power @ 2 ohm	13000Watts
- RMS output power @ 1 ohm	20000Watts
Input Sensitivity	6V - 0.2V
Variable Low Pass Filter	35Hz - 250Hz
Variable Subsonic Filter	10Hz - 50Hz
Variable Bass Boost	0dB - 9dB
Variable Phase	0 - 180 degree
Frequency Response	15Hz - 250Hz
Signal to Noise Ratio	85 <
Efficiency @ 4ohm	Over 90%
THD @ 4ohm	Less than 0.1%
Working Voltage	10 - 16Volts
Damping Factor	300 <
Recommended Fuse Rating	1800A
Dimensions (L inches)	37.80
(11.42W x 2.72 H inches)	

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

CONTROL PANEL

PITBUL 20K



RCA INPUTS
The RCA inputs ensure the highest quality contacts and the lowest noise in your audio system.

RCA OUTPUTS
Outpur RCA jack to another amplifier.

POWER & PROTECT INDICATORS -
When the unit is powered on and operating correctly the power LED illuminates.
When the unit is malfunctional or protected, then protect LED is turned on.

GAIN (6V - 0.2V)
This adjusts the normal operating level of the amplifier by matching the level from the headunit.

SUBSONIC FILTER (10Hz - 50Hz)
Control the high pass frequency for the speaker outputs to eliminate extreme low frequencies

BASS BOOST (0 - 9dB @ 45Hz)
It adjusts for up to 9dB of additional gain at that frequency.

REMOTE CONTROL
Use this to control level of the amplifier from your driver's seat.

LOW PASS FILTER (35Hz - 250Hz)
This allows you to tune the response of the amplifier at higher bass frequencies to roll off for a seamless integration into your midbass.

PHASE (0 - 180 DEGREE)
Controls phase 0-180 degrees for fine tunning your low end staging in your vehicle or fully switching polarity if inverting your woofers.

SPEAKER TERMINAL BLOCK
Connect speaker cables from speaker terminal block to subwoofers.
Subwoofers' impedance should be checked carefully. minimum impedance is lohm.

GROUND (GND) & POWER (+12V)
The power and ground will accommodate 0 gauge wire. Use high quality pure copper wire only.

REMOTE (REM)
REM connector will accept wire sizes from12 to 16 gauge. This terminal is used to remotely turn-on and turn-off the amplifier when +12V DC is applied.

POWER & GROUND CONNECTIONS

Before you make any connections, Pls disconnect Negative (–) battery cable and alternator Ground (–) connection.
Selectng a mounting location by considering cooling efficiency and safety.
Even DC Audio amplifiers use massive heatsink for good heat radiation, it is better to find the mounting location where amplifiers can be installed vertically with heatsink fins and better air flow.
For the safety, You have to find dry and well ventilated location and make sure any wires, cables and car equipment are not interfaced with amplifier installation.
Be sure the mounting location and drilling of pilot cables will not present a hazard to any wires, control cables, fuel lines, tanks, hydraulic lines or other vehicle systems and components

POWER CONNECTION (+12V)

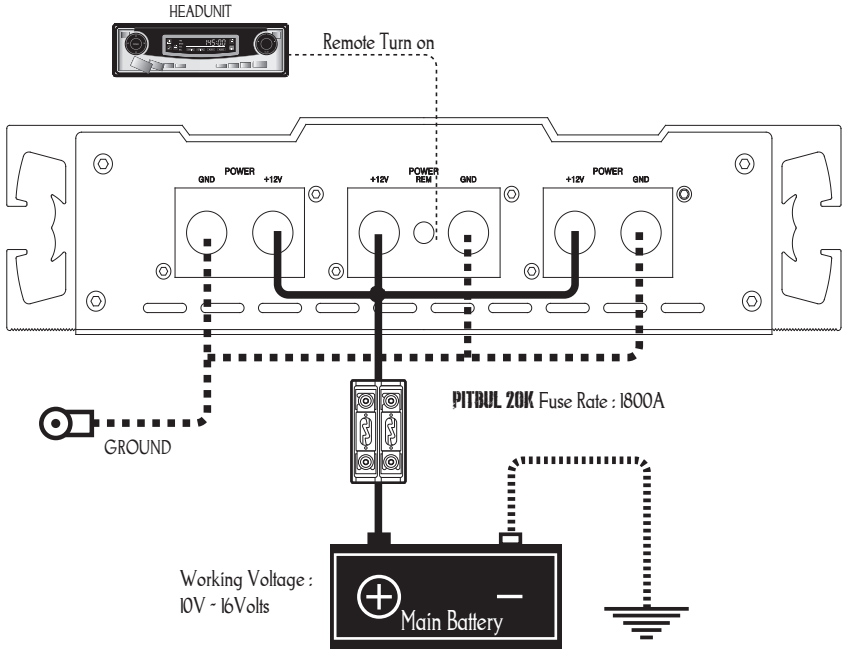
Connect the +12V terminal of the amplifier to the Positive (+) terminal of the battery using 0 gauge or 4 gauge power cables.
DC audio amplifiers do not have fuses, so pls use external fuses on power cables within 20cm from positive of battery
Fuses and fuse holders should be adequate for the application. No fuses are required before the power is connected

GROUND (–)

Locate a secure grounding connection as close as possible to the amplifier.
Disconnect the battery and connect the GND (ground) terminal to the car's chassis.
Make sure that the connection with the chassis is clean and provides a direct electrical connection to the vehicle's frame

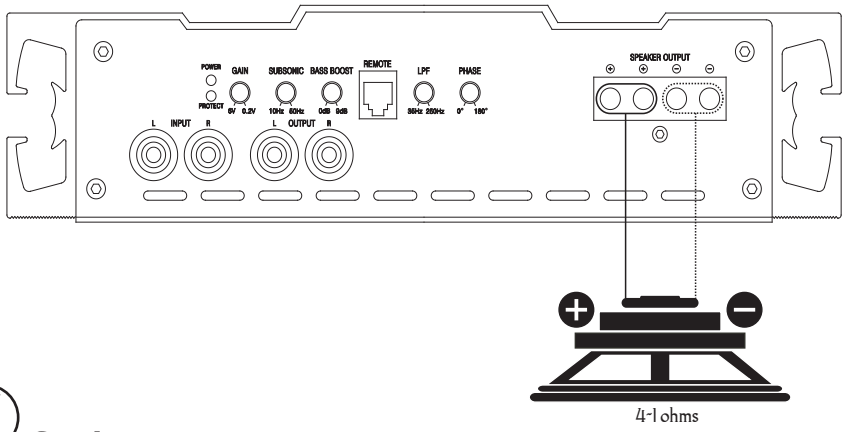
REMOTE

Connect the remote turn on cable from the switched +12V source, then you will be using " Turn on "
Pls use 12 or 16 gauge cables for remote connection



SPEAKER CONNECTIONS

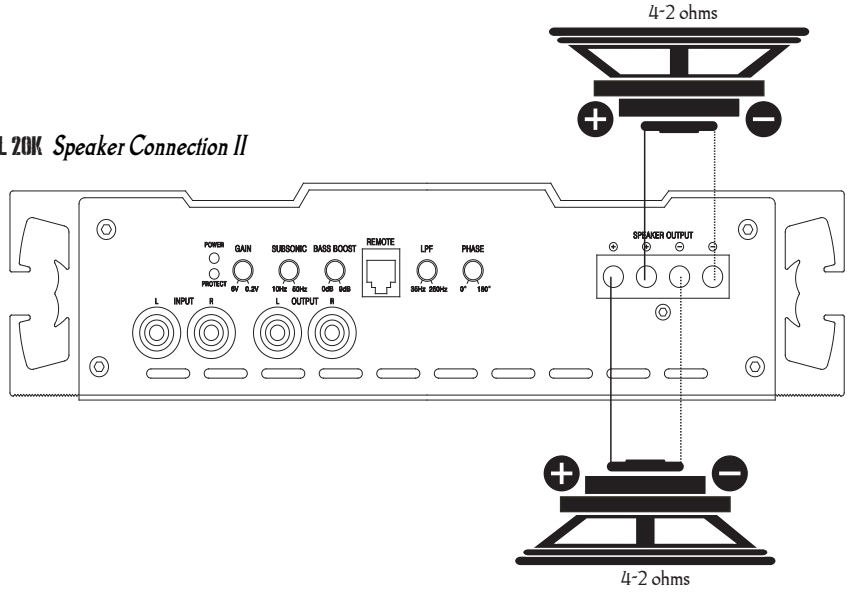
PITBUL 20K *Speaker Connection I*



Caution

PITBUL 20K
Minimum working impedance is 1ohm.
Minimum working voltage is 10V - 16Volts.

PITBUL 20K *Speaker Connection II*



TROUBLE SHOOTING

DC Audio amplifiers have the protection features to prevent any damages from misuse or faulty conditions.
If DC Audio amplifiers sense excessive heat, short circuited speakers DC, or voltage, then 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 DC Audio amplifiers shuts down due to excessive heat, They will be working later when it is cooled down
Before removing your amplifiers, 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 are 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. **PITBUL 20K** has minimum working impedance as 1 ohm.
5. **PITBUL 20K** 's voltage protection at low and high is 10V ~ 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.


AUDIO