MOTORCYCLE TUNES

Amplified Speakers Featuring Rockford Fosgate Amplifier

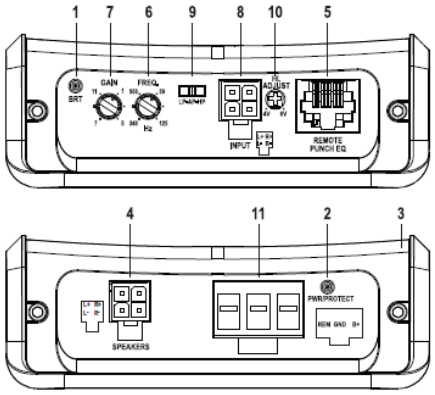
Thanks for purchasing a Motorcycle Tunes Audio Systems.

Email pictures of your installation, and we will add them to our website. Send email to motorcycletunes@aol.com
Be sure to include the year, make, model of your bike, and any notes the installation that may help others.

IMPORTANT: These instructions are condensed general instructions. Please see the enclosed Rockford Fosgate instructions for more information and complete instructions. Motorcycle Tunes is NOT responsible for any damage to your bike or equipment caused by improper installation or faulty equipment. Installation is not rocket science, these instructions are intended to be simple as possible so that anyone can install. If you are not comfortable with the installation process, we recommend talking with your local car audio ship about installing for you.

CAUTION: DO NOT PLUG THE AMPLIFIER POWER PLUG INTO THE AMPLIFIER, UNTIL INSTRUCTED TO DO SO.

CAUTION: The Rockford Fosgate amplifier is convection cooled, this means that it dissipates the heat through the body of the amplifier for cooling. A minimum of 1" clearance on the top and sides is recommended for proper cooling of the amplifier. Mounting the amplifier with less than 1" of air gap around the amplifier heatsink will not provide proper cooling and will severly affect the performance of the amplifier and is strongly not recommended.



AMPLIFIER IDENTIFICATION CHART

1. **BRT(Boosted Rail Technology) LED** – This LED illuminates when the unit is in boost mode.
2. **Power/Protect LED** – This LED illuminates Blue when the unit is turned on and Red if a short circuit/low impedance is detected at the speaker connections or the amplifier's internal components become too hot engaging the protection. The amplifier will shut down to cool if this occurs.
3. **Extruded Aluminum Heatsink** – The extruded aluminum heatsink of the Punch amplifier dissipates heat generated by the amplifier's circuitry.
4. **Speaker Harness Connection (Output)** – The Molex connection port for the mating + and - speaker harness.
5. **Remote Punch EQ (Optional Controller)** – The Remote Punch EQ connection is made with a RJ-45 cable and can be installed in a variety of ways for easy control access. The control is used to boost low and/or high frequency information to overcome road noise.

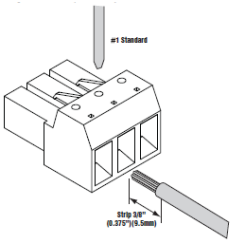
NOTE: Punch EQ2 circuit is only active with the use of the OPTIONAL Remote Punch EQ. (RF Model# - PEQ)

6. **Variable Crossover** – Is a built-in 12dB/octave Butterworth filter with a crossover point variable from 50Hz to 500Hz.
7. **Gain Control** – The input gain control is preset to match the output of most source units. It can be adjusted to match output levels from a variety of source units.
8. **RCA/Speaker Harness Connection (Input)** – The Molex connection port for the mating RCA/Speaker harness.
9. **Crossover Switch** – Selectable switch for High-Pass (HP), All Pass (AP), or Low-Pass (LP) operation.
10. **Variable High Level Adjustment** – With the High Level Switch engaged a variable 4V to 6V DC(Direct Current) offset voltage input turn on can be set.
11. **Power Terminals** – The Molex connection port for the mating Remote/Ground/Power plug.

Begin by planning on where you are going to mount the speakers and amplifier. Keep in mind the amp needs a minimum of 1" around it for proper cooling Plan the wire routing, you don't want it around the exhaust to or rub. You also don't want to route the power cable next to the audio input cable, because this can add noise to the system.

Amplifier Power Plug

We have supplied you with the 3 power wires for the power plug.



Step 1: Red Wire (B+) - This is the BIGGER Red wire with the Fuse box and ring terminal. Hook ther terminal ring to the positive battery post. Run the bare end up to where you are going to mount the amplifier. This end will hook to the Amplifier power plug slotmarked B+.

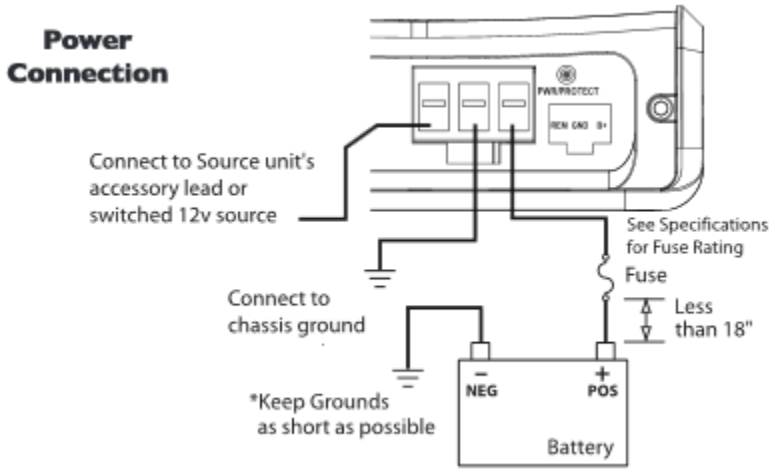
Step 2: Black Wire (Ground) – Hook this wire the frame of the motorcycle. . Run the bare end up to where you are going to mount the amplifier. This end will hook to the Amplifier power plug slot marked Ground

Trim the length of the ground wire, keep it short as possible, 30' LONG MAXIMUM

Step 3: Red Wire (Remote) – This is the SMALLER Red wire. Hook this wire to a switched and fused 12v power source on your bike. You can use a test light to find a wire that turns on/off with your key, such as a headlight wire, or you can add a mechanical switch inline with a 12 volt source to activate the amplifier. This is what will turn the amplifier on/off with your key. Run the bare end up to where you are going to mount the amplifier. This end will hook to the Amplifier power plug slot marked REMOTE

Step 4: Run the power plug up to where you are going to install the amplifier.

DO NOT PLUG THE AMPLIFIER POWER PLUG INTO THE AMPLIFIER AT THIS TIME.



Speaker Mounting

Step 5: Mounting the Speaker Clamps: Get an idea where you want to mount the speakers. Mount the clamps to your bars. There will be a gap on the clamps that will tighten up when the speakers are installed..

Important: Make sure the speakers will not interfere with your steering, or gauges.

Step 6: Mounting the Speakers: Mount each speaker to the clamp and make sure they are secured, but do not apply too much torque to the nut. The bottom mounting bolt is chromed stainless steel. The treads on this bolt can be stripped easily if the nut tightened too much, or if the nut is not perfectly aligned before tightening.. Run the speaker wires down to where you are going to mount the amplifier. You may want to run the Audio Adapter Cable at this time a well.

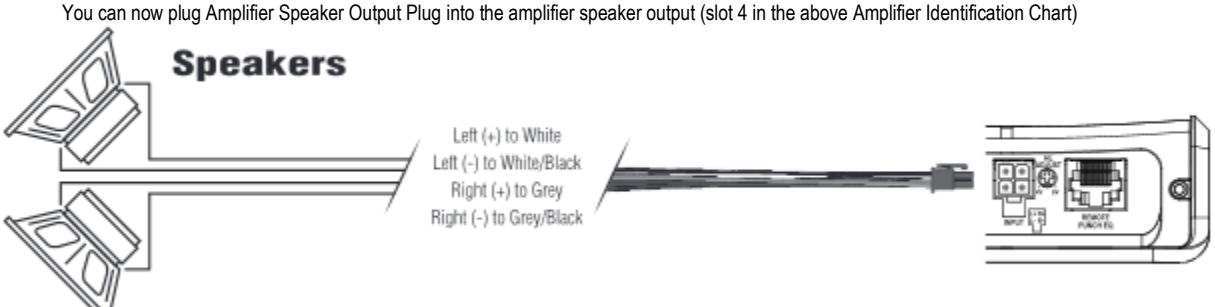
Amplifier Speaker Output Plug – This is a small 4 prong plug, with 4 short speaker wires on it.

Step 7: Hooking up the speaker wires to the Amplifier Speaker Output Plug.

Left Chrome Speaker **Red** to the Solid White
Left Chrome Speaker **Black** to White/Black

Right Chrome Speaker **Red** to Solid Grey
Right Chrome Speaker **Blac**k to Grey/Black

You can now plug Amplifier Speaker Output Plug into the amplifier speaker output (slot 4 in the above Amplifier Identification Chart)



Step 8. Amplifier Audio Input.

Amplifier Audio Input Cable – This is a short 4 prong plug with 2 RCA plugs on it
Audio Adapter Cable – This is a 6 foot long cable, one end has RCA plugs on it, the other end has a 3.5mm Jack on it.
Plug rca plugs on the audio adapter cable into the Amplifier Audio Input Cable. Plug the Amplifier adapter cable into the amplifier harness input (slot 8 in the above Amplifier Identification Chart)
Run the 3.5mm end of this cable up to where you want to mount the inline volume control.
or
If you elected to get the Bluetooth Receiver – Please Refer to the Bluetooth Receiver Instruction insert at this time.

Step 9: In-Line Volume Control – This is used to make adjustments to the volume while you ride. T
Plug the Male end of the above Amplifier Audio Input, into the Female Jack of the In-Line Volume Control. Most people use cable ties to mount this volume control to their handlebars.
The male end of the In-Line Volume Control will plug into the headphone jack or audio output jack of your audio device.

If you have an iPhone or Android Phone, you can go to the app store and download a third party speed based volume control, some are free some cost.

Step 10. Check Wiring.
RECHECK YOUR WIRING, AND MAKE SURE EVERYTHING IS HOOKED UP CORRECTLY.

There are two power wires on the Amplifier Power Plug, The bigger red wire, should have a fuse inline before connecting to the positive battery terminal.
The smaller red wire should be hooked to a switched and FUSED 12v power source that turns on/off with the key.
The Black wire should be hooked to the frame of your bike, and should be short as possible. No longer than 30 inches max.

You can now plug the Amplifier Power Plug into the Power Port of the Amplifier (Slot 11 of the above Amplifier Identification Chart)

Make sure that all wires are away from hot areas, and that everything is secured to your bike. Before your turn on the power, make sure that your devices volume is turned down. You can damage your speakers/amplifier if your device is at full or loud volume when the amp is turned on. You will always want to start off with a low volume and build up to a louder volume. This will prolong the life of your speakers/amplifier. Everything should now be hooked up correctly. You can now use the speakers.

When you turn the key on, the amplifier light should also come on, this indicates that it is properly hooked up.
CAUTION: HOOKING THE AMPLIFIER UP INCORRECTLY CAN CAUSE PROPERTY DAMANGE OR PERSONAL INJURY.

STEP 11. Setting up the amplifier. Before you mount the amplifier, you want to get set the settings because it may not be easily assessable once installed.
Make sure the volume on your audio device is turned down, then Plug the 3.5mm male end of the Volume Control into the headphone jack or audio output jack of your device.
Turn on the Key, this will power up the amplifier
Turn on your audio device, and push play, turn you can adjust the volume on your device and use the the in-line volume control.

The only setting on the amplifier you should worry about is the gain dial, for most people turning this up about ¾ is the sweet spot, but it is a personal preference. See Amplifier Setting Chart for how to set gain.

Step 12 Mounting the Amplifier

Securely mount the amplifier to the motorcycle. Be sure to allow at least 1" around the amplifier for proper cooling.

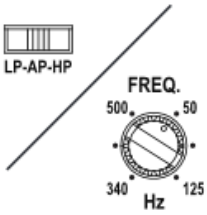
Step 12: Safety Check

Important: **Make sure that your driving ability is not hindered by the items added to your bike, and that you can safely operate your bike before your road test the equipment. Motorcycle Tunes yields all responsibility of any damage caused by or any damage that may result from the Motorcycle Tunes audio system. When purchasing our item, you are agreeing to release Motorcycle Tunes of all legal liabilities of all products/advice given through website, instructions, email, or phone. As the purchaser, you are agreeing to assume all responsibility of the items once they have been shipped.**

AMPLIFIER SETTINGS CHART

⚠ **CAUTION**: Overexcursion and subsequent damage may occur at high levels of boost.

ADJUSTING CROSSOVER FREQUENCY



Placing the crossover switch in the HP position sets the amplifier to the High Pass mode, enabling frequencies above the cut-off point to pass, adjustable between 50-500Hz.

Placing the crossover switch in the AP position sets the amplifier to the All Pass mode, preventing any crossover adjustment, allowing all frequencies to pass.

Placing the crossover switch in the LP position sets the amplifier to the Low Pass mode, enabling frequencies below the cut-off point to pass, adjustable between 50-500Hz.

Turn the crossover adjustment knob to the minimum setting. With the system playing, turn the crossover adjustment knob up slowly until the desired crossover point is achieved.

VARIABLE HIGH LEVEL ADJUSTMENT

Utilizing a 6V DC(Direct Current) offset voltage, the Punch Boosted Rail amplifier can be turned on/off allowing the REM to be used as an output to turn on/off an amplifier or other accessory.

The variable high level adjustment can be used to delay the turn on eliminating induced noise, turn on/off pop.

ADJUSTING GAIN

To adjust the gain setting, turn the amplifier gains all the way down (counter-clockwise). Turn the source unit volume up until distortion is audible and then turn it down a bit until the distortion is inaudible. This will be about all the way up on most source units. Next, increase the amplifier gain setting until adequate volume is achieved.

NOTE: Best signal to noise and dynamic range are realized with the gain at minimum. Most users find adequate gain and volume is achieved at about halfway in the adjustment range.

⚠ **CAUTION**: Avoid setting the amplifier gain very high as noise and distortion will increase significantly.