

# PINWOODFER

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**Take your time, follow the instructions, relax, and enjoy yourself!**

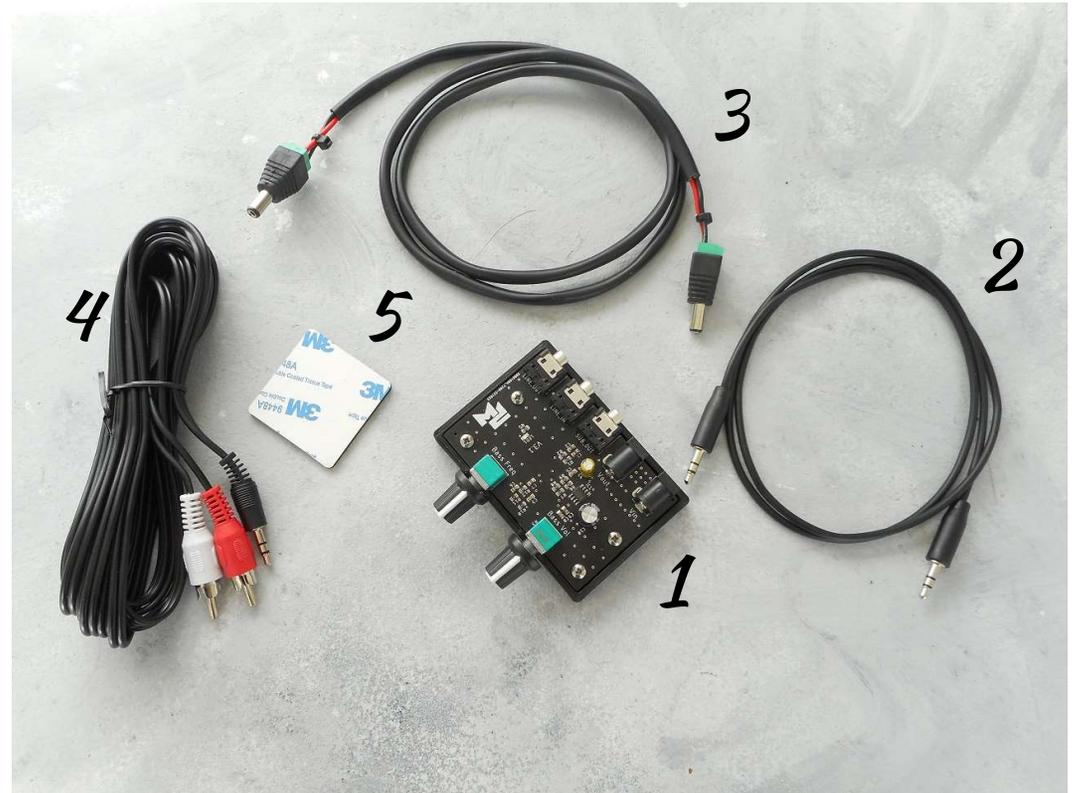
**WARNINGS: Perform installation with your pinball machine turned off and unplugged from AC power.**



## **PinWoofers BBU Instructions**

## Kit Components

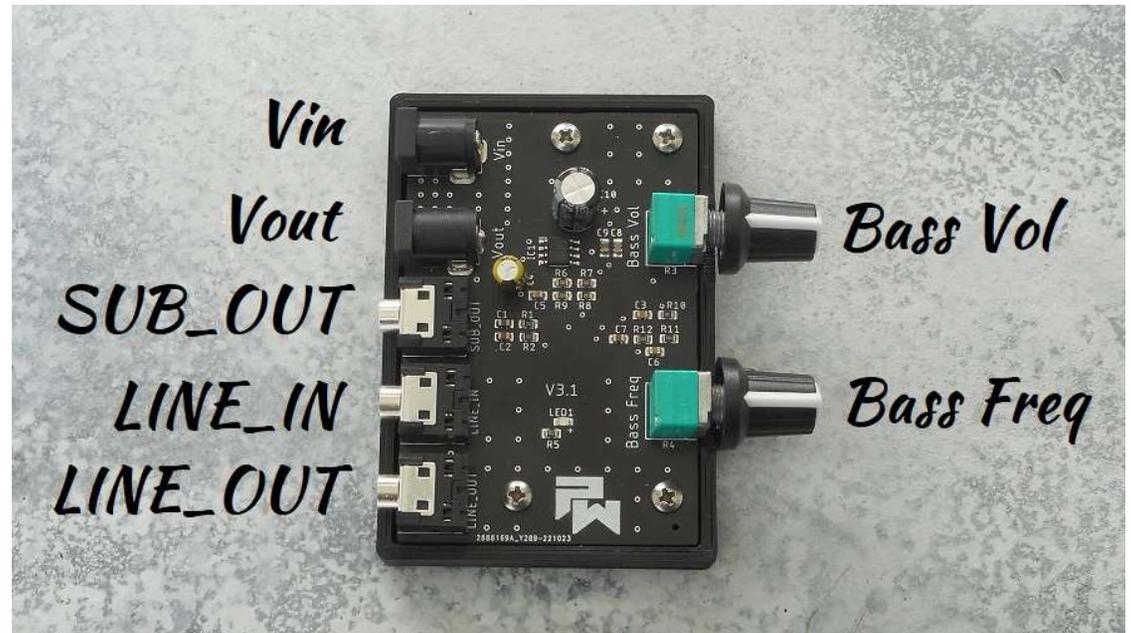
- Shown to the right are the kit components:
1. PinWoofers BBU Board
  2. 3ft 3.5mm Male to Male TRS Cable
  3. 3ft Power Cable
  4. 12ft 3.5mm TRS Male Stereo to RCA Male Stereo Subwoofer Cable
  5. Adhesive Double Sticky Mounting Pad.



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## BBU Overview

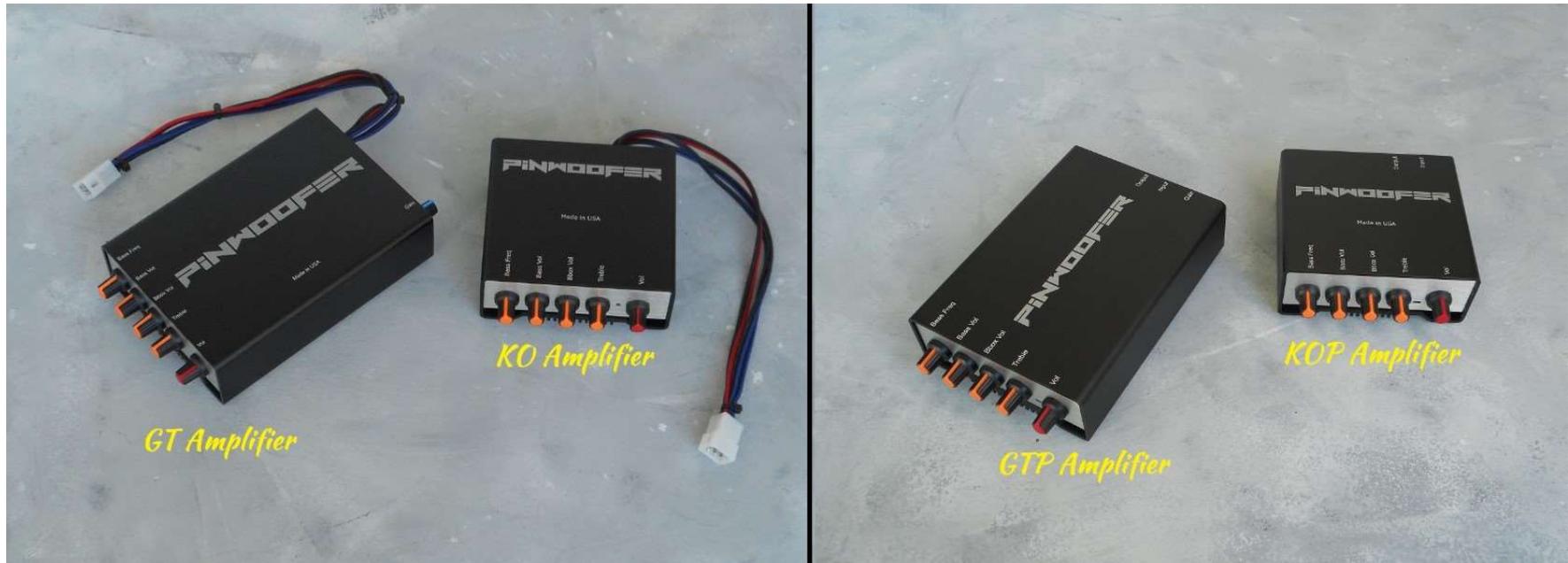
- The PinWoofers BBU (Bass Boost Unit) is used with a PinWoofers Amplifier.
- It enables fine control of Bass Volume and Bass Frequency Cutoff and provides a line out to your external subwoofer.
- The first time you use the BBU, please rotate both Bass Volume and Bass Frequency Cutoff controls fully counterclockwise so that you start from a “quiet” position and do not overdrive your external subwoofer when the title sound comes on.
- Also, turn any external subwoofer controls full counterclockwise to zero.
- Slowly turn your controls “up” to increasing intensity as you begin your audio adjustments.



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# Amplifier Identification

- This document covers BBU installation on one of four possible amplifier models.
  - Identify your amplifier as shown below.
- Section 1: PinWoofers KOP
  - Section 2: PinWoofers GTP
  - Section 3: PinWoofers KO
  - Section 4: PinWoofers GT



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## Section 1

- KOP Amplifier



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# Starting PinWoofers KOP Amplifier Connections

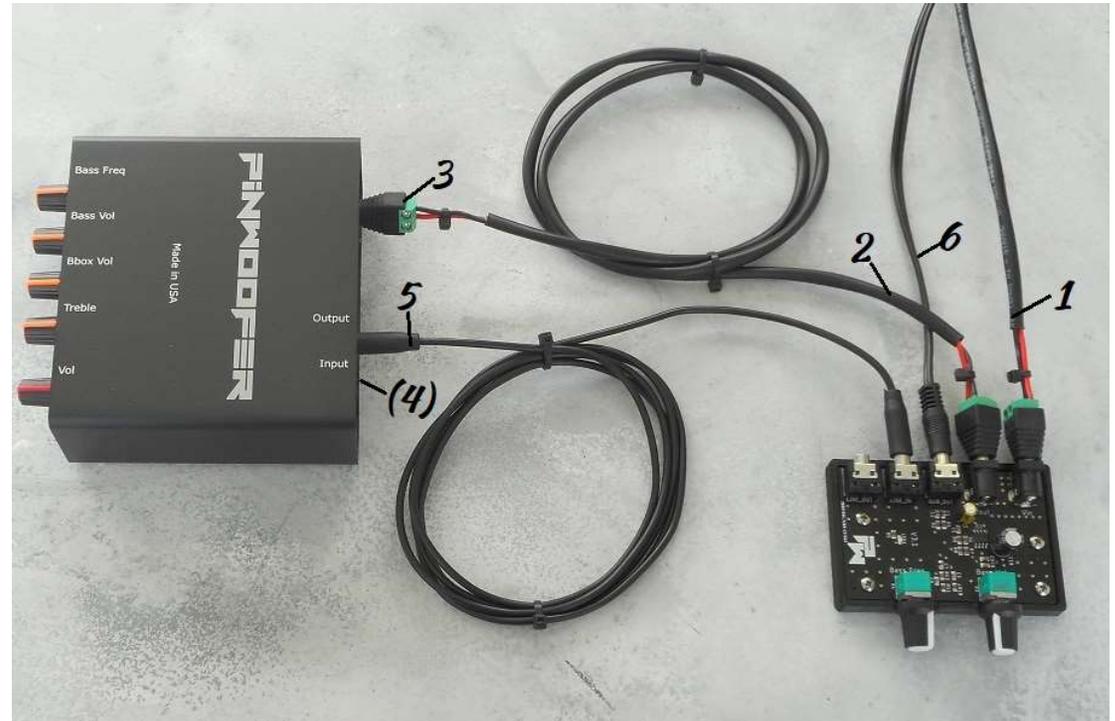
- Shown to the right are:
  1. Harness Power Cable Connection.
  2. Harness Audio Cable Connection.



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# KOP BBU Connections

1. Disconnect the PinWoofers Harness Power Cable from the PinWoofers Amplifier and plug it into the BBU Power Jack "Vin".
2. Connect the New 3ft Power Cable to the "Vout" Jack on the BBU.
3. Plug the other end of the New 3ft Power Cable into the 5.5mm amplifier power jack.
4. The existing audio cable from the PinWoofers Harness remains plugged into the "Input" Jack of the KOP Amplifier. It is not shown here (but denoted as "(4)") to reduce clutter.
5. Interconnect the 3ft 3.5mm Male TRS to 3.5mm Male TRS Cable between the KOP Amplifier "Output" Jack and the BBU "LINE\_IN" Jack.
6. Plug the 12ft Subwoofer Cable into the SUB\_OUT jack on the BBU.
7. **Do not attempt to interconnect these components in a way different than shown.**



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## Section 2

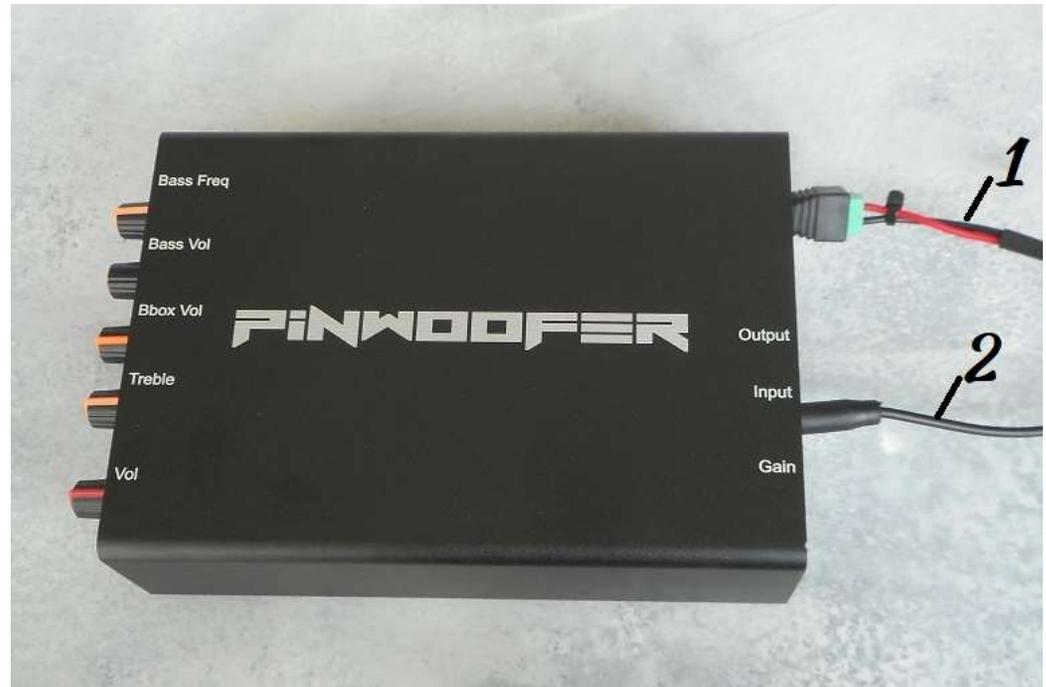
- GTP Amplifier



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# Starting PinWoofers GTP Amplifier Connections

- Shown to the right are:
  1. Harness Power Cable Connection.
  2. Harness Audio Cable Connection.



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## GTP BBU Connections

1. Disconnect the PinWoofers Harness Power Cable from the PinWoofers Amplifier and plug it into the BBU Power Jack "Vin".
2. Connect the New 3ft Power Cable to the "Vout" Jack on the BBU.
3. Plug the other end of the New 3ft Power Cable into the 5.5mm amplifier power jack.
4. The existing audio cable from the PinWoofers Harness remains plugged into the "Input" Jack of the GTP Amplifier. It is not shown here (but denoted as "(4)") to reduce clutter.
5. Interconnect the 3ft 3.5mm Male TRS to 3.5mm Male TRS Cable between the KOP Amplifier "Output" Jack and the BBU "LINE\_IN" Jack.
6. Plug the 12ft Subwoofer Cable into the SUB\_OUT jack on the BBU.
7. **Do not attempt to interconnect these components in a way different than shown.**



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## Section 3

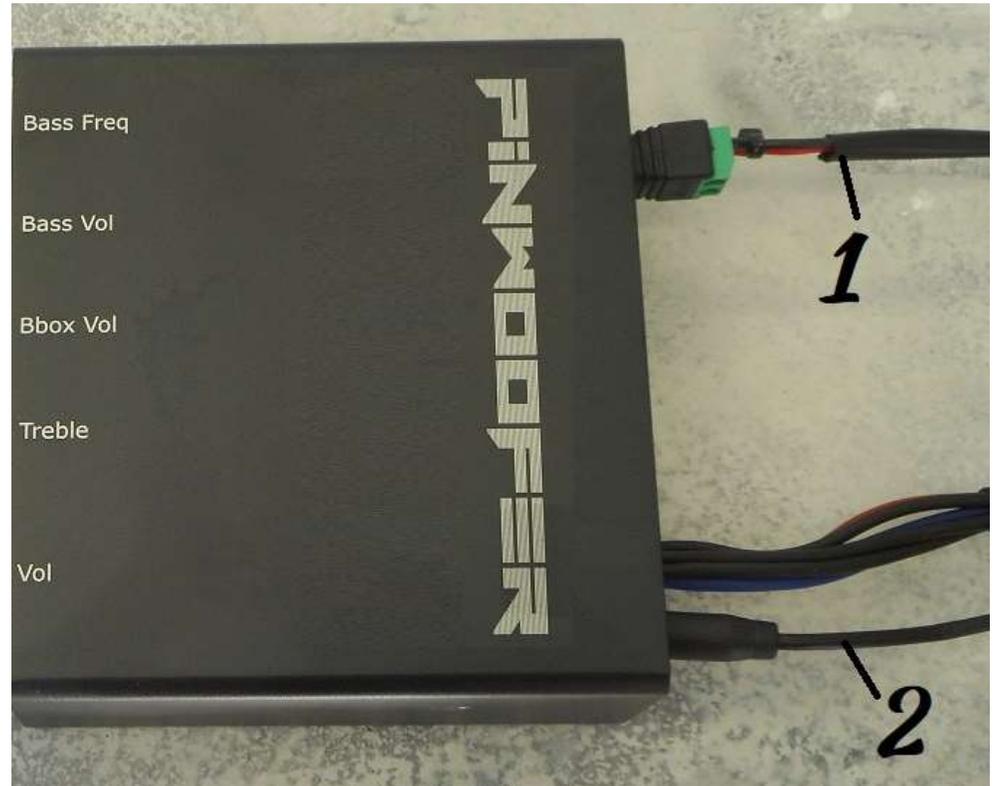
- KO Amplifier



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# Starting PinWoofers KO Amplifier Connections

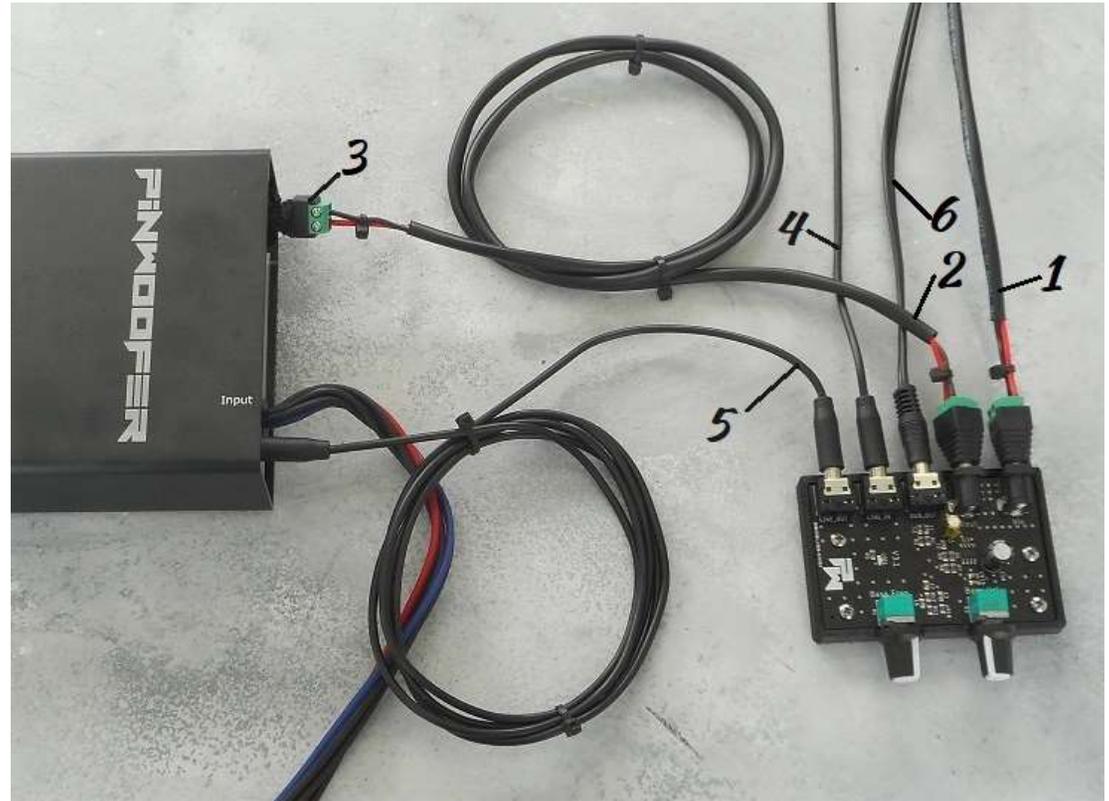
- Shown to the right are:
  1. Harness Power Cable Connection.
  2. Harness Audio Cable Connection.



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## KO BBU Connections

1. Disconnect the PinWoofers Harness Power Cable from the PinWoofers Amplifier and plug it into the BBU Power Jack "Vin".
2. Connect the New 3ft Power Cable to the "Vout" Jack on the BBU.
3. Plug the other end of the New 3ft Power Cable into the 5.5mm amplifier power jack.
4. Relocate the input mini-plug (item 2 in the previous slide), to now plug into the LINE\_IN jack of the BBU.
5. Interconnect the 3ft 3.5mm Male TRS to 3.5mm Male TRS Cable between the KO Amplifier Input Jack (item 2 location shown in the previous slide) and the BBU "LINE\_OUT" Jack.
6. Plug the 12ft Subwoofer Cable into the SUB\_OUT jack on the BBU.
7. **Do not attempt to interconnect these components in a way different than shown.**



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## Section 4

- GT Amplifier



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# Starting PinWoofers GT Amplifier Connections

- Shown to the right are:
  1. Harness Power Cable Connection.
  2. Harness Audio Cable Connection:
    - Please note that the Harness Audio Connection will be removed in the next slide to reduce clutter. These connectors must be plugged when the amplifier is in use. Failure to do so will result in zero audio.



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## GT BBU Connections

1. Disconnect the PinWoofers Harness Power Cable from the PinWoofers Amplifier and plug it into the BBU Power Jack "Vin".
2. Connect the New 3ft Power Cable to the "Vout" Jack on the BBU.
3. Plug the other end of the New 3ft Power Cable into the 5.5mm amplifier power jack.
4. Interconnect the 3ft 3.5mm Male TRS to 3.5mm Male TRS Cable between the GT Amplifier Output Jack (located next to the blue gain control knob) and the BBU "LINE\_IN" Jack.
5. Plug the 12ft Subwoofer Cable into the SUB\_OUT jack on the BBU.
6. **Do not attempt to interconnect these components in a way different than shown.**



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# Subwoofer Connection

- Route the 12ft SUB\_OUT cable out the back of the cabinet (through a ventilation hole) and plug into your subwoofer.
- After initial setup, it is recommended that you run the external subwoofer volume to half. After you gain some confidence in your setup, run between half and full.
- It is also recommended that you run any bass cutoff frequency (LOW PASS / Hz) between half. After you gain some confidence in your setup, run between half and full.
- Both Volume and Low Pass functions are now controllable by the BBU remotely.
- If your subwoofer has a phase switch, you'll want to first try it at 180 degrees. Feel free to experiment in order to maximize intensity.
- It is recommended that you enable the auto power to on so that your external subwoofer turns off after a period of no signal at the input, provided your subwoofer has this option. (Many have a default timeout to automatically put the external subwoofer into standby after a period of inactivity).



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## Use Model Example

- Shown is one example of how you might place your BBU into your machine.
- Keep in mind that there is power to your BBU so care should be taken to secure it to an interior surface using the supplied double sticky tape, similar to what is shown.



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**Your PinWoofers BBU is now ready for use.**