



# SW-11V Instructions

## For Williams System 11 Pinball Machines

1. Take the Sub-woofer off of the adapter plate, do not remove the wiring for any reason.
2. Open the pinball machine back box (swing open the light panel) and the base cabinet, and tilt the playfield out of your way.
3. Carefully remove the speaker leads to the base cabinet speaker and move them out of the way. (They will become live unless you are installing Pinball Pro backbox speakers so make sure they do not short to each other or something else.)
4. Un-screw the speaker nuts and remove the speaker, Leave the grill in place and any ground strap that may be looped by a mounting screw.
5. Put the adapter plate over the speaker studs in the cabinet and secure with the original speaker's nuts and washers. Snug down using a nut driver, wrench, or pliers. Do not over tighten to the point of breaking a stud or the adapter.
6. Carefully align the sub-woofer over the mounting holes on the adapter plate with the control facing the front of the machine and the cables toward the back and secure it with the screws supplied. Do not over tighten and distort the speaker frame. Capture any ground wire with one of the screws.
7. Route the pre-installed speaker cables up into the back box and close up the base cabinet completely.
8. Lift out the upper speaker assembly and lay it face down on the glass top. Use a towel under the assembly to keep it from sliding and getting marred.
9. Disconnect the current speaker connector from the sound board and move it out of the way. Plug the connector found on the end of one of the sub-woofer cables onto the sound card. Notice the little locking tabs on the connector face the plastic retaining fingers on the board connector.
10. Use the alligator clips on the other red and black wires to connect to the left back box speaker. The black lead is negative and the red lead is positive. (If you are installing new back box speakers from us – follow those instructions here instead.) Spade lugs may be substituted for the alligators.
11. Re-assemble the back box and close up the machine.
12. Turn on the machine and adjust the master volume up. The control on the subwoofer network resistor may be rotated counter clockwise to reduce the back box speaker volume or clockwise to raise it. If the back box speakers sound mushy or are broken, you may want to consider new ones that can be found on the website. As the volume is turned way down, some highs roll off due to loss of efficiency. If you get cracking sounds or static, you are exceeding the power limits of the amplifier and should reduce the master volume. Use the master volume control and sub-woofer controls to tune to your taste. Once you are happy with the ratio set with the control on the Sub-Woofer, you will use the master volume control on the game door for any daily changes.

**Enjoy!**

Installation video's at [www.youtube.com/pinballprospeakers](http://www.youtube.com/pinballprospeakers)

# TR-11 Instructions

## For Williams System 11 Sound Systems

### (single output audio board)

1. Open the upper back box by removing the backglass and swing open the light panel. Lift out the upper speaker assembly and lay face down on the glass top. Use a towel under the assembly to keep it from sliding and getting marred.
2. This instruction assumes you are using a SW-11V Sub-Woofers system and the original wiring to the sound card has been disconnected. If you are installing a sub-woofer kit at this time, do it first and then pick up here. Un-screw the left and right back box speakers. Remove the whole assembly of speakers and wires.
3. Mount the 6 1/2-inch speaker using the original screws, and face the terminals toward the top edge of the speaker panel. The coaxial tweeter unit may touch the metal grille. Snug the screws but do not over tighten.
4. UN-screw the 5 1/4-inch speaker from the adapter plate. Mount the adapter to the speaker panel with the original speaker mounting screws. Screw the speaker back onto the adapter with the 4 Phillips head screws supplied. Face the terminals toward the top edge of the speaker panel.
5. Carefully connect the wire lead from the 6 1/2" speaker to the 5 1/4" speaker right terminal (+). Note the terminal has a red dot by it. Connect the black lead from the pre-wired sub-woofer assembly to the open lead on the right speaker (5 1/4") and connect the red lead to the open lead on the left speaker (6 1/2").
6. Re-assemble the back box and adjust the volume of the speakers per the Sub-Woofers instructions to suit.

## Enjoy!

If you like it – tell all your friends.  
If you had difficulty installing this, we'd like to know about it.

Installation videos available at  
[www.youtube.com/pinballprospeakers](http://www.youtube.com/pinballprospeakers)