



# SW-1V Instructions

For Williams WPC-89 Systems

1989 Thru 10/1993 (single output audio board)

1. Take the Sub-woofer off of the adapter spacer plate.
2. Open the pinball machine; remove the glass, tilt up the playfield. Carefully remove the speaker leads by pulling and wiggling the spade lug. Avoid pulling the wire. UN-screw the speaker nuts and remove the speaker and any ground strap. Leave the grille in place. Put the adapter plate over the speaker studs in the cabinet and secure with the original speaker's nuts and washers. Snug the down the nuts using a nut driver or socket wrench. Do not over tighten to the point of breaking a stud or cracking the spacer.
3. Carefully align the sub-woofer over the mounting holes on the adapters and secure with the screws supplied. Be sure to face the control towards the coin door. Be sure to reattach any ground straps. Do not over tighten and distort the speaker frame. Connect the red wire from the back box speakers to the positive "+" terminal on the network board. The black wire goes onto the negative (-) terminal. The bulb on the network board glows if there is an overload condition and is part of the speaker and amplifier protection system. Lower the playfield and replace the glass and lock down bar.
4. Open the upper back box by removing the backglass and swing open the light panel.
5. 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.
6. Enclosed is a diverter labeled "DIV". Use the alligator clips on the diverter to connect one end to each terminal of the left speaker. The leads will need to be bent unto a "U" shape.
7. Re-assemble the back box and close up the machine.
8. Turn on the machine and adjust the master volume up. The control on the subwoofer will adjust the frequency. As it is rotated you will hear the frequency shift in both the back box speakers and the subwoofer. As the frequency is raised, the back box speakers will seem louder. Adjust the master volume control along with the frequency control to your preference. Full counter clockwise will be the maximum high frequencies and full clockwise will be minimum high frequencies. If the back box speakers sound mushy or are broken, you may want to consider new ones that can be found on our website. As they are turned way down, (more bass) the highs tend to roll off due to loss of efficiency. TR-1WH or TR-11WH offer unparalleled sound quality and are the proper back box kits for this sub.

**Enjoy!**

If you like it – tell all your friends.

If you have a suggestion for improvement we'd like to know.

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service@pinballpro.com