# **Adaptive Flipper Control**

### Generic Installation Document

**NOTE:** It is imperative that you have already determined that the Adaptive Flipper Control (AFC) is compatible with your machine.

This document will detail the steps required to install the standard Adaptive Flipper Control (AFC) components into your pinball machine. It should be acknowledged that some level of understanding of pinball schematics is required to complete this installation. Prior to beginning the install a review of all the instructions and an inspection of the machine is required. This will be to determine where the plug will be installed and how the connections to the flipper switches will be made.

To begin you will need to remove the playfield glass and raise the playfield as high as possible with leaning it against the back box the best option. With an unobstructed view of the front interior of the lower cabinet you can proceed with the inspection.

# Process 1 – Inspection of Machine

You need to determine if and how the flipper connections will be made. Looking at both flipper button switches you will see that there is 2 wires to each switch. 1 wire is a **Common** (or ground) and the other is the **Signal** for that specific switch. You can determine the common wire as it should be the same color wire on both left and right switches.

Some machines have 2 switches per button and if this is true for the machine you are working on, please review our "Multi-switch Button Explanation" document before proceeding. This document details the installation with a single switch per button per side.

It is strongly suggested that the plug component be installed through the lower cabinet base on the front left corner. We have found that this location is most commonly an area without obstruction and allows for the plug to be installed without damage or change to any visible portion of the cabinet. Secondly and just as important, this location allows for the disabled player to locate the plug easily as it matches all the other machines they have played before. Based on this suggestion, locate a place for the plug to be mounted. Thoroughly inspect the area of installation and ensure no wires or metal components will hamper the installation. Some machines have a thin metal plate under the bottom for theft prevention. If the machine has this plate, you will need a metal hole saw of some type to complete the install. We recommend a stepper bit designed for thin metal.

#### Process 2 – Preparation

The following tools will be required to install the machine components.

- 1. Drill with 1 1/8" drill bit and a small bit to fit the attachment screws.
- 2. For machines with a metal protective panel a stepper bit or metal hole saw is required.
- 3. Small point Phillips head screwdriver or driver bit (validate fit of screw head).
- 4. If you want to shorten the wires, cutters or wire stripper will be required.

Remove any items that may impede the installation of the plug. Make sure all wires and cables in the area are moved so they will not be damaged during the drilling process.

#### Process 3 - Installation

- 1. Review jack location once more and determine easiest direction to drill from (top or bottom).
- 2. Drill 1 1/8" hole through bottom of cabinet. If a metal protection plate is present, you will need to drill through with the metal bit.
- 3. Thread wire UP through the bottom of the cabinet and position jack/plate through hole.
- 4. Secure the plate to the cabinet with the provided screwed. Predrilling screw holes may not be necessary but if so, use the plate as a guide for the screw hole locations.
- 5. Position the 2 conductor (RED/BLACK) wires in a manner that does not cause obstruction to the game components and position the end of the wires to the LEFT flipper button connections.
- 6. Using the Grey end of a Posi-Tap connector, tap into the COMMON wire on the switch.
- 7. Now connect the BLACK wire from the AFC kit to the installed Posi-Tap.
- 8. Using the same method as Step 7, connect the RED wire to the SIGNAL connection of the LEFT flipper.
- 9. Position the single conductor (WHITE) wire in a manner that does not cause obstruction to the game components and position the end of the wires at the RIGHT flipper button connections.
- 10. Using the same method as Step 7, connect the WHITE wire to the SIGNAL connection of the RIGHT flipper.
- 11. Power on the game and test WITHOUT the AFC controller. Review and fix any issues.
- 12. Test the game with the AFC controller. Review and fix any issues.

## **Technical Support**

We made every effort to ensure the installation of the AFC is a simple and straight forward as possible. However, we could not anticipate every condition that exists. We do provide email support and phone support, however unless you are extremely lucky to catch us at the warehouse/office, an email will be the best method to acquire assistance. If you do email, please include the Make/Name of your machine along with the problem you are having. Photos of the components in question are always good.

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