Alan-1 Yoke Adapter Firmware V3.1 (Windows and Linux Versions)

NOTE: The only difference between the two firmware versions is the default startup mode. Each firmware can be toggled to the other mode as described below.

Identifying current mode and changing between modes

There are two modes of operation for the V3 firmware. The first mode has no dead zone compensation and is used with the Windows version of MAME. The second mode has a +/-10% dead zone compensation and is used by the Linux and RetroPie versions of MAME.

The current mode of the adapter is indicated by the AUX LED. If the AUX LED is solid red, then the adapter is in Windows mode (no dead zone compensation). If the AUX LED is blinking, then the adapter is in Linux/RetroPie mode (10% dead zone compensation).
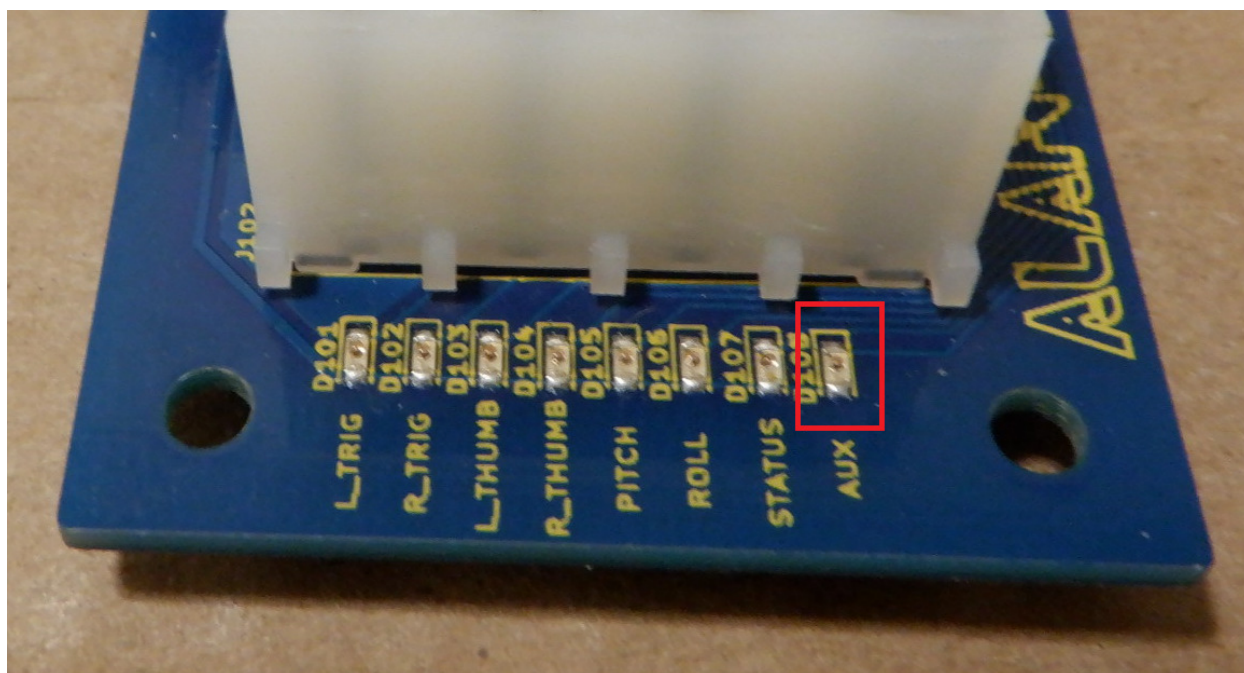

Figure 1: Location of the AUX LED

The current mode can be toggled at any time by holding the X and Y axes at their most extreme ends and the left two buttons for five seconds. For example, while in Windows mode, turning the yoke all the way counterclockwise and pulling the handles all the way up while holding the left two buttons for five seconds will change to the Linux/RetroPie mode. The change can be verified by observing the AUX LED.

Optimal settings for Windows MAME

The following settings were used in Windows MAME version 0.206.

Under the Configure Options -> Advanced Options menu, the Joystick deadzone value should be set to 0. Also, the Joystick saturation should be set to 0.85. Be sure to select Save Configuration before exiting the Configure Options menu. Under Configure Machine -> Advanced Options menu, the Joystick deadzone value should be set to 0. Also, the Joystick saturation should be set to 1. Be sure to select Save Machine Configuration before exiting the Configure Machine menu. Although is does not seem to matter too much, I recommend setting the AD Stick X Sensitivity and AD Stick Y Sensitivity to 50. These setting are found while the game is running and by pressing tab and selecting Analog Controls in the resulting pop-up menu.

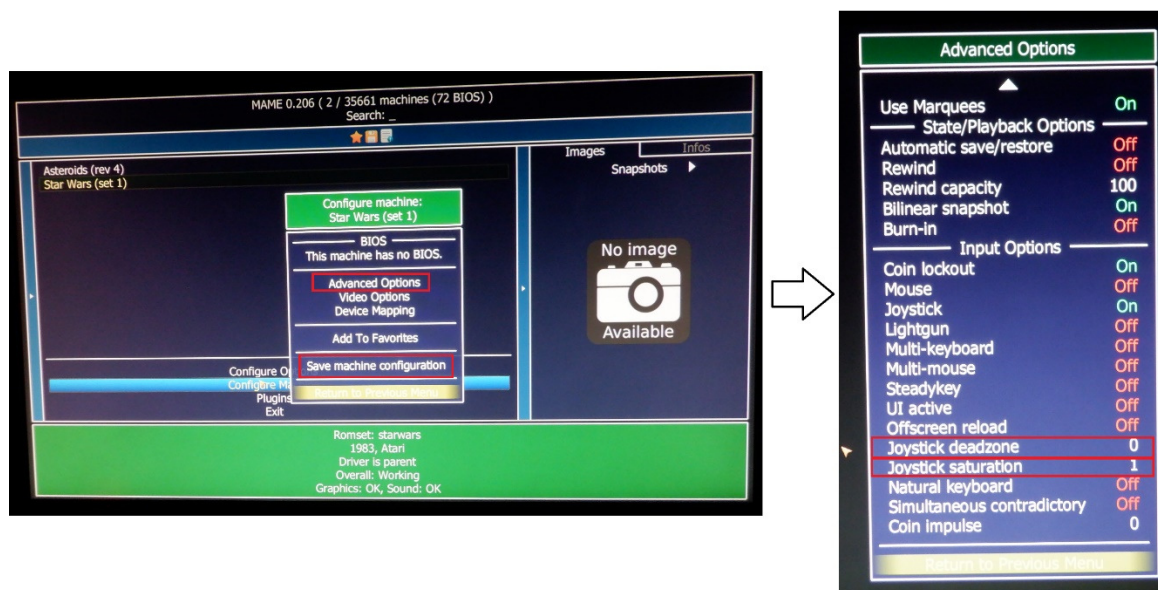*Figure 2: Location of Joystick deadzone and Joystick saturation settings in Configure Options*

Figure 3: Location of Joystick deadzone and Joystick saturation in Configure Machine Options
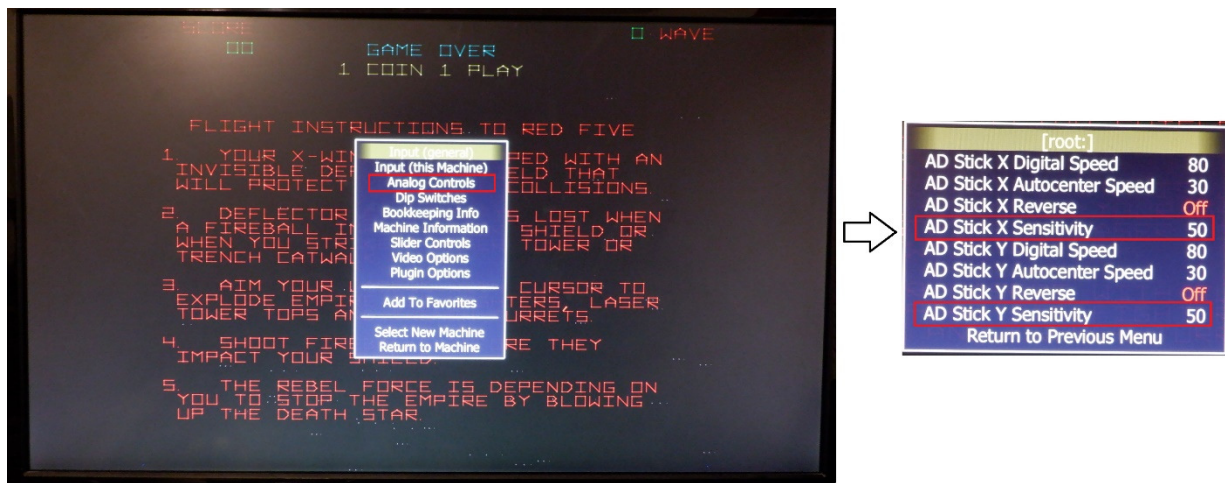
Figure 4: Location of the X and Y Sensitivity settings

Optimal settings for RetroPie MAME

The following settings were used in RetroPie version 4.4 mame4all.

While the game is running, press tab to bring up the menu. Select Analog Controls and press enter. Set the AD Stick Y Sensitivity and AD Stick X Sensitivity to 50%. Also, set the AD Stick Y Key/Joy Speed and AD Stick X Key/Joy Speed to 1.

Figure 5: Location of the Sensitivity and speed settings

Optimal settings for Linux MAME

The following settings were used in Debian MAME version 0.182.

Under the Configure Options -> Advanced Options menu, the Joystick deadzone value should be set to 0.1. Also, the Joystick saturation should be set to 0.85. Be sure to select Save Configuration before exiting the Configure Options menu. Under Configure Machine -> Advanced Options menu, the Joystick deadzone value should be set to 1. Also, the Joystick saturation should be set to 1. Be sure to select

Save Machine Configuration before exiting the Configure Machine menu. Also, the AD Stick X Sensitivity and AD Stick Y Sensitivity should be set to 50. These setting are found while the game is running and by pressing tab and selecting Analog Controls in the resulting pop-up menu.

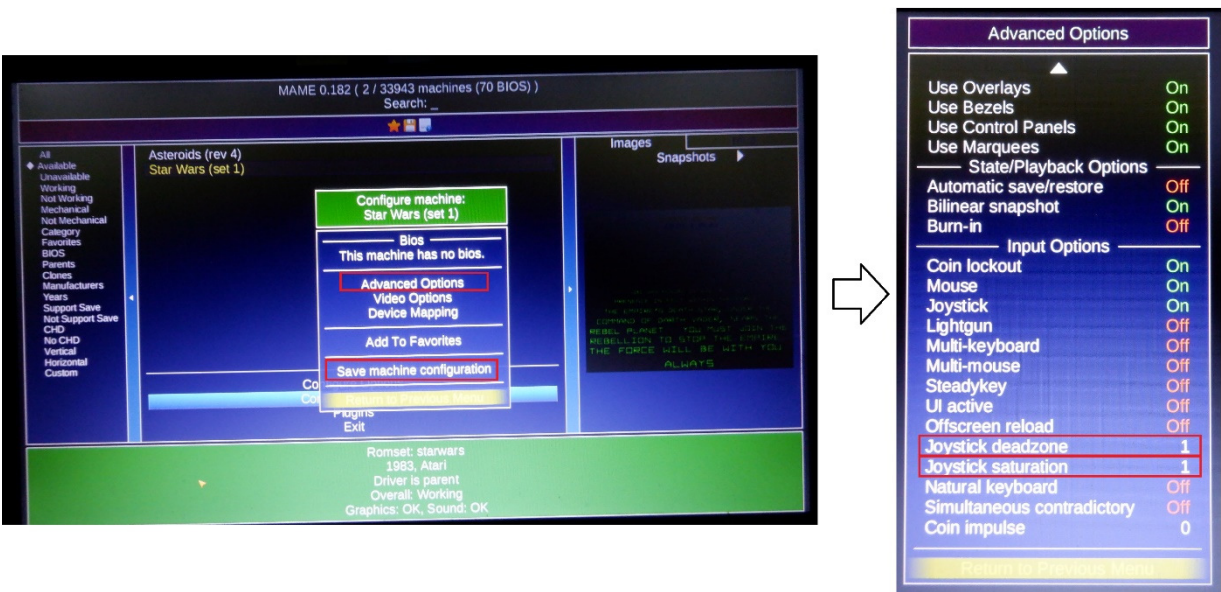*Figure 6: Location of Joystick deadzone and Joystick saturation settings in Configure Options*

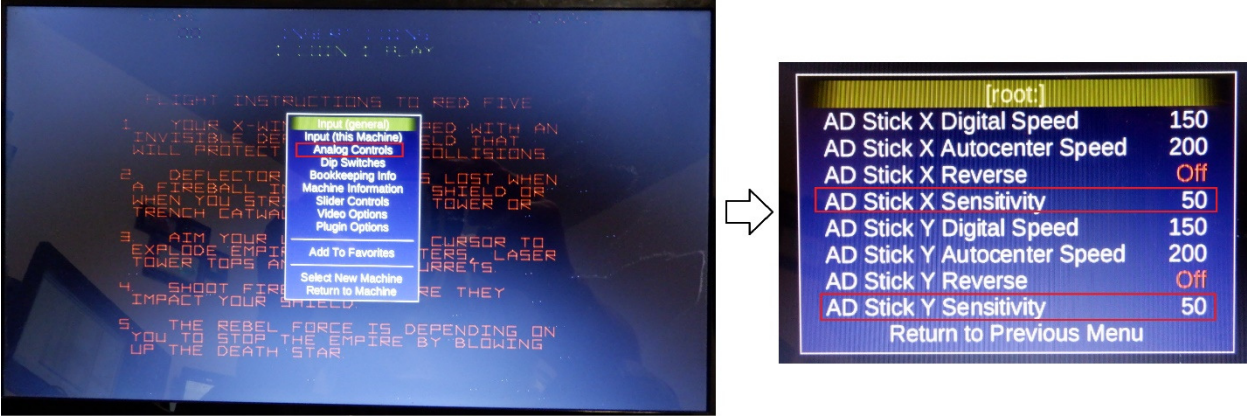*Figure 7: Location of Joystick deadzone and Joystick saturation settings in Configure Machine Options*

Figure 8: Location of the X and Y Sensitivity settings