

WEST SIDE ELECTRONICS

APPLETHROTTLE Model ATH-1

P.O. BOX 636, CHATSWORTH, CALIFORNIA 91311

USING THE APPLETHROTTLE

The APPLETHROTTLE can be operated at any time to slow down or stop the computer. When "engaged", all computer functions except memory refresh and video generation are affected. Thus the APPLETHROTTLE can be used in machine language or BASIC to LIST, TRACE, or RUN.

At slow speeds, you will notice a rolling effect as each new line is printed. This is actually the computer doing a scrolling operation (moving all the text up one line before it prints the next line at the bottom of the screen). Also, because the APPLETHROTTLE slows down the overall operation of the computer, certain time-sensitive operations will not work properly in slow motion. Specifically, cassette and disk I/O cannot be performed when the APPLETHROTTLE is on. No harm will be done, but an error message will eventually be printed. Other real-time software routines such as a serial printer driver (including the Apple Serial Interface Card, for example) may yield unusual results when the computer is operated at sub-normal speeds. Thus you should return the computer to normal speed before any of these operations are performed.

ADDITIONAL HINTS

If no paddles are connected to the APPLETHROTTLE, the computer will operate normally. Hitting the RESET key will return the APPLETHROTTLE to its normal (fast) mode. This will also be the case whenever the computer is first turned on.

When the APPLETHROTTLE is engaged and set for minimum speed, all software functions are slowed down considerably. This includes keyboard entry, cassette and disk save/load, etc. Therefore when typing entries on the keyboard, the computer will react very slow and in fact you could type too fast causing the computer to miss one or more keystrokes. Since you can operate the APPLETHROTTLE at any time, you might wish to return to normal speed, enter from the keyboard, and then re-activate slow speed before hitting return.

If you stop the computer during a scrolling operation, there may be one line of text repeated twice (all or partially). Releasing the STOP button briefly will usually correct this.

INSTALLING THE APPLETHROTTLE

1. Turn off power to computer. This is very important before installing or removing any peripheral board.
2. Open the cover to gain access to the peripheral connectors.
3. Plug the Apple game paddles into the APPLETHROTTLE. The lead coming out from the connector should run towards the back of the computer. (the APPLETHROTTLE is inserted with the component side to the right).
4. Insert the APPLETHROTTLE into one of the peripheral connectors. Slot 7 is recommended since it will allow the paddles to be easily changed from the game I/O connector to the APPLETHROTTLE.
5. Dress the paddle cable through one of the cutouts in the rear of the case and replace the cover.

INITIAL CHECKOUT

1. Turn on the computer and hit RESET if necessary to get into the monitor.
2. Verify normal operation of the computer by typing E000L and viewing the usual machine language listing.
3. If your paddles are not labelled, determine PDL 1 as follows:

While holding down the pushbutton on one paddle, hit the RESET key. If the computer "beeps" as usual, repeat using the pushbutton on the other paddle. The button which prevents a normal reset is SW 1. This button should be labelled SLOW/STOP. Momentarily press the other button to restore normal operation (this button can be labelled NORMAL).
4. Rotate PDL 1 to its midrange position and momentarily press SW 1 (SLOW/STOP).
5. Type L <return>. Note that the listing is now slower and its speed is varied by the paddle setting. The listing can also be stopped at any time by pressing (and holding) SW 1.
6. Press SW 0 (NORMAL) to restore normal operation.