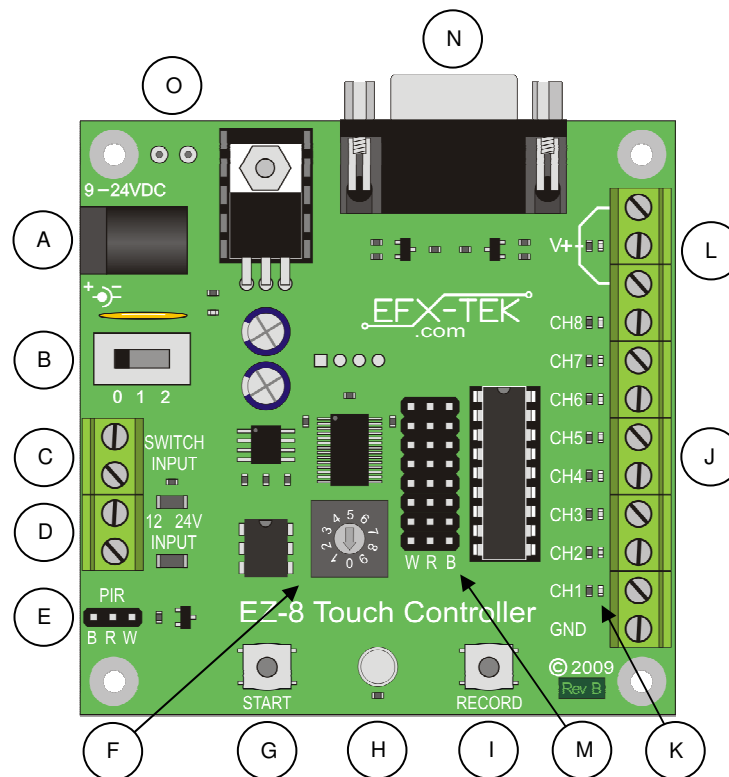


## DESCRIPTION

The EZ-8 is a stand-alone, program-in-place, digital controller that allows the prop builder to quickly and easily enter a complete show without using a PC. A large 64K memory accommodates show sequences of up to 36 minutes. Sequence data is recorded, stored, and played back at 30 frames per second.

Medium current (ULN2803) outputs allow the EZ-8 to control valves, relays, and lamps, and multiple start inputs provide tremendous flexibility in a variety of applications. TTL output headers allow the EZ-8 to control low-current devices like LEDs or the direct inputs of the RC-4 Relay Control board.

## EZ-8 Inputs & Connections



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|--|--|
| <ul style="list-style-type: none"> <li>A. Power input (9 to 24vdc, 2.1mm, center positive)</li> <li>B. Power switch</li> <li>C. N.O. Dry-contact trigger input</li> <li>D. 12- to 24-volt DC trigger input (optically isolated)</li> <li>E. PIR sensor input</li> <li>F. Rotary Mode Switch</li> <li>G. START button</li> <li>H. Status LED</li> <li>I. RECORD button</li> </ul> | <ul style="list-style-type: none"> <li>J. Channel output terminals</li> <li>K. Channel status LEDs</li> <li>L. V+ (common) terminals</li> <li>M. TTL output headers</li> <li>N. Serial port</li> <li>O. OEM power input (solder pads)</li> </ul> |
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## Erase the EZ-8 Memory

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When starting a new project you should completely erase the EZ-8 memory to prevent stray bits in the EEPROM from appearing in your next show.

Steps:

- Set the power switch on (1 or 2)
- Turn the Mode switch to position 0 (play); the status LED will be green
- Set the power switch off (0)
- Press and hold the START and RECORD buttons
- Set the power switch on (while holding buttons)
- Mode LED will be yellow for two seconds (warning), and then begin to flash

Once the mode LED begins to flash yellow the erase cycle has begun and you may release the buttons. Complete erasure takes about 20 seconds. When the erase cycle is complete the mode LED will turn green.



**Note:** If you press the START button in play mode (position 0 of the mode switch) and there is no show in the EZ-8 Touch Controller, the status LED will flash red and green for a few seconds.

## Program a Channel

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Steps:

- Set the power switch on (1 or 2)
- Turn the Mode switch to the desired channel (1 – 8); the status LED will be red
- Press the START button to initiate the record cycle; the status LED will flash
- Enter the behavior for this channel by pressing the RECORD button as desired
- Press the START button to stop the record cycle; the status LED will return to solid red



**Note:** If other channels had been programmed their activity will be displayed on the channel output LEDs and on the output terminals if the power switch is in position P2.



**Note:** For PCBs marked Rev A you must set the power switch to position P2 to display channel activity on the channel LEDs. On PCBs marked Rev B the channel LEDs will operate when the power switch is set to position P1 or P2.

## Erase a Channel

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If you need to re-record a channel it is a good idea to erase the old data first; this will prevent stray bits from the old show from running should the new channel program be shorter than what had previously been recorded.

Steps:

- Set the power switch on (1 or 2)
- Turn the Mode switch to the desired channel; the status LED will be red
- Set the power switch off (0)
- Press and hold START and RECORD buttons
- Set the power switch on (while holding buttons)
- Mode LED will be yellow for two seconds (warning), and then begin to flash

Once the mode LED begins to flash yellow the erase cycle has begun and you may release the buttons. Channel erasure generally takes just a few seconds. When the channel erase cycle is complete the mode LED will turn red and you may proceed to reprogramming.

## Start the Recorded Program

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Steps:

- Set the power switch on (P2)
- Turn the Mode switch to position zero (play); the status LED will be green
- Press the START button; the status LED will flash while the program is running



**Note:** If you have a long show programmed into the EZ-8 and would like to stop it before the end you can do so by pressing the RECORD button while the status LED is flashing green (playback).

## Start the Recorded Program with an External Device

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**Dry Contact** (e.g., mat switch)

Connect the dry-contact sensor to the Switch Input terminals; when the contacts close the program will start.

**From Another Controller/Device**

Connect a 12- to 24-volt DC start input to the 12-24V INPUT terminals. When the voltage is present the program will start.



**Note:** The 12-24V start input is not polarized but does require DC (AC will not work due to input debouncing to prevent false starts from transient inputs).

**PIR**

Connect a Parallax-compatible (5v, active-high) PIR to the PIR header; when the PIR is active the program will start.

## Programming with a PC

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You can download previously recorded sequences to the PC using Vixen 2.5 and the EZ-8 Upload/Download Add-In. Programming the EZ-8 with Vixen is beyond the scope of this Quick Start guide. For additional information refer to the EFX-TEK Tech Support Forums.

## Typical Connections

