## Fil m-Tech

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## Component Engineering

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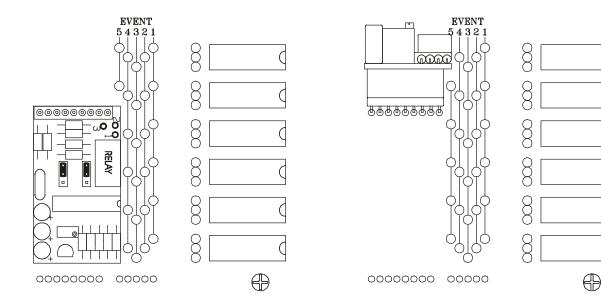
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## Lens Change/ Douser Close Timer

## **Installation Instructions**

The purpose of this device is to close the douser during the rotation of the lens turret and re-open the douser after a predetermined time period. The device can be programmed for use with either the normal dual-coil douser which is operated by current pulses, or with the maintained type of douser control. The closing of the douser is initiated by whichever cue commands the lens turret to start. An adjustable timer is also started which re-opens the douser at the end of its cycle.

The unit mounts by means of a connector which plugs into a header which in turn is to be installed on the main TA-10 circuit board. If the timer is installed by Component Engineering at the time of manufacture, the header will be a straight one so that the timer unit itself will rest parallel to the main circuit board. A field installable version is available which uses a right angle header which can be soldered into the main circuit board from the top.

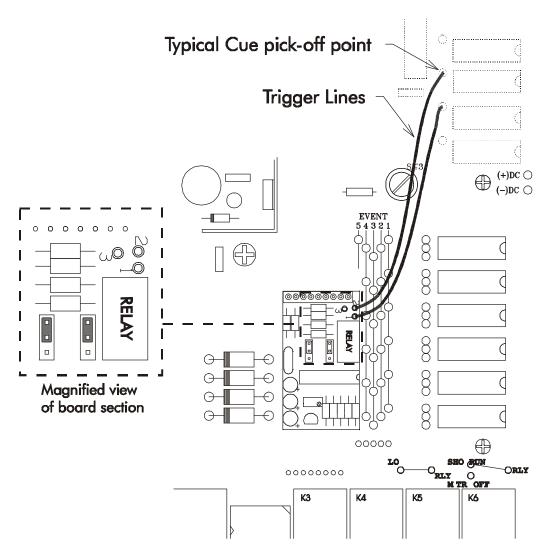


**Factory Installation** 

Field Installation

We will start with the field installable version. Refer to the drawing and note the set of nine holes in the TA-10 main circuit board into which the header is to be soldered. You will have to remove the solder in the holes with a solder sucker or "Solder Wick". With the circuit board plugged into the header, slip the header pins into the nine holes and apply solder to the middle pin. Loosen the solder as necessary and position the assembly so that it sits square to the main board and has enough clearance so that the timer board can be unplugged. Solder the rest of the header pins.

In the upper right corner of the timer board are three pads labeled "1", "2", and "3". Number "3" is not used for this purpose, so, ignore it. Numbers "1" and "2" are the input triggers and they are identical. If you wish to be able to go both from "Flat" to "'Scope" and "'Scope" to "Flat" you will need both inputs. If, however, you return your turret to "Flat" during the intermission, you will need only one input and it can be either one.



Connect a short (4" or so) piece of wire to one or both inputs. The other end will go to whichever cue you have assigned to start the lens turret. Rather than connecting to the cue relay contacts, however, we will connect to the coil side of the relay thus saving all the contacts for external controls (such as masking). The drawing shows the location of the cue relay coil connections and it is to one of them that you need to solder the input wire(s). It is easier to get your soldering iron in there if you unplug some of the cue relays. This is the only wiring required.

Check the location of the programming links with the illustration. See the notes below if you are using the maintained style of douser.

The adjustment of the timer is mostly a "set and try it" proposition. With the machinery running, initiate a lens change which will also close the douser and start the timer. Note when the douser opens again and adjust the timer to suit. Turning the timer control counter-clockwise will shorten the time. You are finished!

Notes related to maintained dousers: If your system is using the "Utility" relay for this purpose you need to move over to the "Douser Open" relay. Use the "DSR COM" and "OP NO" terminals. Operation will be exactly the same as it is now. If you have a wire connecting from the "Sho Run" solder pads on the board over to one of the small pads above the large relays and already have your douser connected to the "DSR OP" terminals, you need to remove this wire as it will now be replaced by the circuitry in the timer board.

