

TIME DELAY RELAYS

Standard Modifications

All of our Catalog-Listed Time Delay Relays can be adapted for different applications. Below is a list of various Situations, Solutions and Ordering Information to illustrate many of these modifications. Please contact Macromatic if you have any questions or need additional information before ordering any products with these modifications.

Situation: I know exactly what time delay I need and therefore, do not need a unit with an adjustable time range.

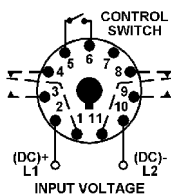
Solution: Macromatic offers products where the adjustment potentiometer is removed and the unit comes with one specific (non-adjustable) time range, i.e., 5 seconds, 1 minute, etc. These are products with a "fixed" time delay.

To order: Any time delay relay fixed at a factory set delay time, replace the normal two digit suffix indicating adjustable time range with the suffix Fxxt where xx is the specific time delay desired and t is the time interval (seconds, minutes or hours), i.e., a TR-51622-F10S is an Off Delay fixed at 10 Seconds.

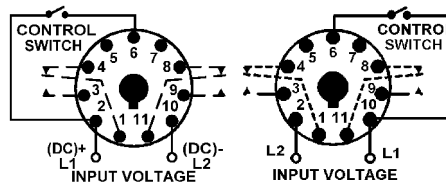
Situation: I have an 11 pin time delay relay where all the pins match the wiring diagram shown in your catalog (and below) except the control switch (trigger switch) is connected to pins other than pins 5 and 6.

Solution: Macromatic can build a time delay relay triggered by a control switch (i.e., Off Delay, Single Shot, Watchdog) with any pin configuration required to meet your application.

To order: Any time delay relay with a special control switch configuration, use the following chart to determine which suffix provides the correct configuration needed, i.e., a TR-51522-05T9 is a Single Shot with the control switch between pins 7 & 10 instead of 5 & 6:



Standard 11 pin time delay relay, i.e., Off Delay, Single Shot, or Watchdog



Standard 11 pin modified with a 2-6 control switch (Suffix T2)

Standard 11 pin modified with a 6-10 control switch (Suffix T8)

NOTE: The configuration of the input voltage and output contacts has not been changed.

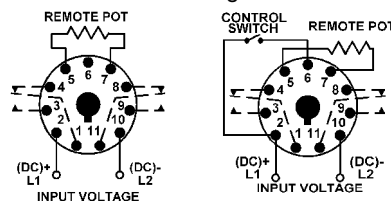
Control Switch Connected To Pins	Add Suffix *	Control Switch Connected To Pins	Add Suffix *
2-5	T1	5-10	T6
2-6	T2	6-7	T7
2-7	T3	6-10	T8
5-7	T5	7-10	T9

* **NOTE:** These suffixes apply only to different control switch pin configurations. The input voltage and output pin configurations remain as shown at left. For other configurations, contact Macromatic.

Situation A: I want to mount a time delay relay in an enclosure, but would like to adjust the time delay from outside the enclosure instead of having to open the door.

Solution: Macromatic can build most time delay relays with an optional remote adjustment feature. The potentiometer usually supplied with the product is removed, and the product is setup for use with a customer-supplied remote potentiometer to be connected to pins 5 & 7. Units that are normally 8 pin will have an 11 pin configuration. Units that are normally 11 pin will have the control switch connected between pins 2 & 6 (instead of the standard 5 & 6). For other control switch pin configurations, contact Macromatic for ordering information.

To order: Any time delay relay with a remote adjustment feature and an 11 pin pin header, use the following chart to determine which suffix matches the value of the remote potentiometer, i.e., a TR-50222-04R6 is an On Delay with an 11 pin header, setup for a 750K remote potentiometer to be connected to pins 5 & 7:



Normal 8 pin product with 11 pin configuration for Remote Adjust

Normal 11 pin product with configuration for Remote Adjust (2-6 Control Switch)

Remote Pot Value	Add Suffix	Remote Pot Value	Add Suffix
250K	R3	1.5M	R8
300K	R4	2M	R9
500K **	R5	2.5M	R10
750K	R6	5M	R11
1M	R7		

** **NOTE:** A 500K potentiometer (R5) is the only value that can be used with a *Time Ranger* Programmable Time Delay Relay (those catalog numbers that begin with a TR-6).

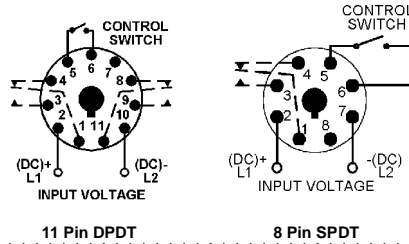
TIME DELAY RELAYS

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Situation: I want to use an 8 pin socket, but according to your catalog, the time delay relay I have selected is an 11 pin unit.

Solution: Macromatic can build any TR Series time delay relay that is normally an 11 pin product with an 8 pin base. This modified product will be SPDT only instead of the normal DPDT of the 11 pin version.

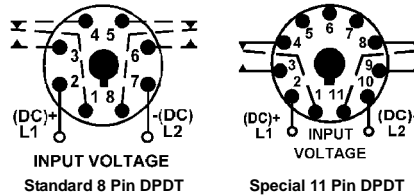
To order: See Page 38 for ordering information. **NOTE:** this option is available on TR Series products only.



Situation: I have an 11 pin socket in place and wired, but according to your catalog, the time delay relay I want to use is an 8 pin unit.

Solution: Macromatic can build any time delay relay that is normally an 8 pin product with an 11 pin base.

To order: Any standard 8 Pin time delay relay modified to an 11 Pin base, add the suffix H to the end of the Product Number, i.e., a TR-60222-H is a programmable On Delay time delay relay with an 11 pin base configured as shown at left.



Situation: I need the time delay relay to recycle faster than the factory standard of 0.1 seconds.

Solution: A time delay relay with a fast reset of 0.05 seconds is available.

To order: Any time delay relay with a fast reset time, add the suffix N to the end of the Product Number, i.e., a TR-60222-N is an programmable On Delay with a fast reset time of 0.05 seconds.

Situation: I need a longer time delay range than the 2 hour maximum available on the Macromatic programmable *Time Ranger* single knob functions, i.e., On Delay, Interval On, Off Delay, etc.

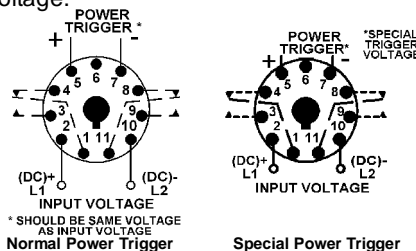
Solution: Macromatic can modify our single knob programmable *Time Ranger* products that normally come with a 2 hour maximum setting to have a range of 0.6 seconds to 24 hours (same as our dual knob units).

To order: Any single knob programmable *Time Ranger* time delay relay with a 24 hour time range, add the suffix U to the end of the Product Number, i.e., a TR-60222-U would be an On Delay with a programmable time range of 0.6 seconds - 24 hours.

Situation: I have a power triggered time delay relay (Off Delay, Single Shot or Watchdog) with 120VAC input voltage, but would like to trigger it with a 5VDC computer generated voltage.

Solution: As standard, power triggered time delay relays must use the same voltage for both input voltage & trigger voltage. However, Macromatic offers an option on any power triggered unit to have a voltage different than the input voltage.

To order: Any time delay relay with a special power trigger voltage, use the following chart to determine which suffix provides the correct power trigger voltage, i.e., a TR-51922-05TV05 is a Power Triggered Off Delay with 120V input voltage and a 5V trigger voltage:



Voltage Input Needed (AC/DC)	Add Suffix
5	TV05
12	TV12
24	TV24
120	TV120
Other	Call Macromatic

Situation: The control switch used to initiate a time delay relay is a great distance from the product and I am experiencing problems triggering the relay.

Solution: Macromatic offers a long distance control switch option. This option will minimize the problems relating to noise that could caused false triggering of the time delay relay.

To order: Any time delay relay with a long distance control switch option, add the suffix Y to the end of the Product Number, i.e., a TR-61622-Y is a programmable Off Delay with a long distance control switch.