



INSTALLATION INSTRUCTIONS

TR-5 SERIES

TIME DELAY RELAYS

October 2020 (Replaces April 2014, Rev B)

901-0000-113



Potentially hazardous voltages are present. Electrical shock can cause death or serious injury. Installation should be done by qualified personnel following all National, State & Local Codes.



Présence de tensions potentiellement dangereuses. Une décharge électrique peut causer la mort ou des blessures graves. L'installation devrait être effectuée par du personnel qualifié suivant tous les codes nationaux, provinciaux et locaux.

BE SURE TO REMOVE ALL POWER SUPPLYING THIS EQUIPMENT BEFORE CONNECTING OR DISCONNECTING WIRING. READ INSTRUCTIONS BEFORE INSTALLING OR OPERATING THIS DEVICE. KEEP FOR FUTURE REFERENCE.

Installation

Mount the appropriate 8 pin octal socket (Macromatic 70169-D or Custom Connector OT08-PC) or 11 pin octal socket (Macromatic 70170-D or Custom Connector OT11-PC) in a suitable enclosure — **see selection table on back page**. Wire the socket per the wiring diagram on the side of the time delay relay or as shown on back. **Make sure to match the terminal numbers on the socket to the ones shown on the wiring diagram (the wiring diagram on the relay is the view looking towards the bottom of the relay vs. the top of the socket)**. Use one or two #12-22 solid or stranded copper or copper-clad aluminum conductors with terminals of the above sockets—a terminal tightening torque of 12 in-lbs should be used. Plug the time delay relay into the socket, making sure the key on the center post is in the proper orientation before insertion. **If the relay must be removed from the socket, do NOT rock the relay back & forth excessively—the center post could be damaged.**

Setting the Time Delay

Adjust the time delay within the specific time range shown on the product nameplate by rotating the knob located on the top of the unit. Note: the dial markings are for reference only.

Operation of Time Delay Function

For detailed information on how each time delay relay function operates, including both written and visual descriptions, and the relationship between Input Voltage, Trigger (if present) and Output, please see www.macromatic.com/functions.

NOTE - For products:

- that use a 5-6 Trigger to initiate the unit, this Trigger must be a dry-type contact (applying voltage to the pins could damage the unit)
- with DC Input Voltages, make sure the polarity (“+” & “-”) matches the wiring diagram (polarity does not matter with AC Input Voltage)
- using a solid state switch to initiate the time sequence is acceptable. See www.macromatic.com/leakage or contact Macromatic for information regarding leakage current limits and other solid state design considerations.

Socket Selection Table

Function	TR-502 TR-505 TR-506 TR-508 TR-531 TR-546 TR-551 TR-561	TR-5122 TR-5132 TR-5152 TR-5162 TR-5222 TR-5412 TR-5652	TR-5126 TR-5236 TR-5156 TR-5166	TR-5172 TR-5182 TR-5192	TR-5176 TR-5186 TR-5196
Number of Pins	8	11	8	11	8
Macromatic Socket/ Custom Connector Socket	70169-D/ OT08-PC	70170/ OT11-PC	70169-D/ OT08-PC	70170-D/ OT11-PC	70169-D/ OT08-PC
Wiring Diagram					

Troubleshooting

If the unit fails to operate properly, check that all connections are correct. For DC Input Voltages, make sure the polarity matches the wiring diagram. Use the description of how the function operates at www.macromatic.com/functions as a guide to determine if the unit is operating properly. If problems continue, contact Macromatic at www.macromatic.com/contact for assistance.

Warranty

All catalog-listed TR-5 Series time delay relays manufactured by Macromatic are warranted to be free from defects in workmanship or material under normal service and use for a period of five (5) years from date of manufacture.