

INSTALLATION INSTRUCTIONS



1917 OAK PARK BLVD. PLEASANT HILL, CA 94523
(925)935-3025 FAX (925)935-2287

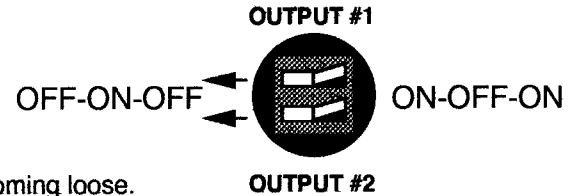
Multiple Output Timer Model MOT-1

The model MOT-1 Multiple Output Timer is designed for either applying power or removing power to 2 separate devices on a drag race vehicle. Typical applications include 2 stage nitrous oxide systems, dual shifts via time, or single shift and single nitrous oxide, high gear retards, multiple throttle stops, etc. Your options are unlimited! Below are a couple simple to understand wiring diagrams. Choose the diagram best suited for your particular application.

POLARITY SWITCHES

Under the 1/2-inch black plastic screw you'll find 2 micro "rocker" switches that rock left to right.

- The upper switch controls Output #1.
- The lower switch controls Output #2.
- Use a wooden toothpick to rock the rocker switches left & right.
- Re-install the screw with silicone on the threads to prevent the screw coming loose.



By moving the small "rocker" switches to the LEFT the output will be OFF-ON-OFF. This means the output will be "OFF" until the first timer, then it'll turn "ON". The second timer will turn it "OFF" again, and it'll stay "OFF" until the next run.
By moving the "rocker" to the RIGHT the output will be ON-OFF-ON. This means the output will be "ON" until the first timer, then it'll turn "OFF". The second timer will turn it "ON" again, and it'll stay "ON" until the next run.

INSTALLATION / OPERATION

- 1) • Mount the Multiple Output Timer unit away from excessive heat, vibration, & ignition wires. Fasten it with (4) #6 sheet metal screws, slightly compressing the rubber mounting grommets. It can be mounted in any position, even upside down for overhead locations. Mount the unit where it would be protected from fluids, such as rain, oil or brake fluid.
- 2) • Wire the unit as shown in the wiring diagrams. Use at least 14 gauge wire. **Install a 10-amp fuse** or circuit breaker to protect the box from possible damage from short circuits. Each of the Output terminals is rated for a maximum of 10-amps. Exceeding this rating, may damage the box. Make sure you have a good ground connection. (Grounding to interior aluminum sheet metal is not reliable.) Use a serrated washer on the chassis ground. The "Trigger" terminal should be wired to the transbrake solenoid wire *after* the delay box (if you're using one). This is so power is removed from the trigger when the car actually launches.
- 3) • All timers *start* when the car launches. Each timer setting is how far into the run from the starting line.
Timer #1 & #2 are controlling OUTPUT #1. Timer #3 & #4 are controlling OUTPUT #2.

TERMINALS

- OUTPUT #1 - • This terminal is controlled by Timer #1 and Timer #2. It will either supply or remove +12v out to a device, when the first timer times out, and reverse itself when the second timer times out.
The upper "Polarity" switch controls this terminal (Off-On-Off or On-Off-On).
- OUTPUT #2 - • This terminal is controlled by Timer #3 and Timer #4. It will either supply or remove +12v out to a device, when the first timer times out, and reverse itself when the second timer times out.
The lower "Polarity" switch controls this terminal (Off-On-Off or On-Off-On).
- +12 VOLTS - • This is the +12 volt input for the box. It should be run direct from the master on-off switch at the back of the car, and not from the firewall, starter solenoid, or switch panel. Install a 10- amp in-line fuse to protect the circuitry of the box from possible short circuits.
- TRIGGER - • This terminal triggers all 4 timers. When the +12v "signal" is removed, the timers start timing. This should be connected to the transbrake solenoid wire (after the delay box if used).
- GROUND - • This terminal provides ground for the circuitry. It must be grounded to chassis ground, such as the roll cage, frame, or engine. Be sure the connection is good, and all paint, powder-coating, is removed. A serrated washer under the crimp terminal at the ground point will help.

LIMITED 1 YEAR WARRANTY

Dedenbear Products components are warranted directly by Dedenbear Products against defective materials or workmanship under normal use and service for a period of one (1) year after purchase. Dedenbear Products will repair or replace the defective unit, at Dedenbear Products option, free of charge. This warranty does not cover any damage to the component caused by abuse, mishandling, alteration, accident, electrical current fluctuations, failure to follow installation/operating instructions, maintenance, storage and environmental conditions, acts of God, or repair attempts made by anyone other than Dedenbear Products Authorized Service facility. DEDENBEAR PRODUCTS SHALL NOT BE LIABLE FOR INJURY, CONSEQUENTIAL, OR OTHER TYPE DAMAGES RESULTING FROM THE USE OF ITS PRODUCTS, OTHER THAN THE LIABILITY STATED ABOVE. This warranty is in lieu of all other warranties of merchantability or fitness of use. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

FOR SERVICE on all Dedenbear Products, return directly to: DEDENBEAR PRODUCTS, INC. • ATTN: REPAIRS • 1917 OAK PARK BLVD. • PLEASANT HILL, CA 94523. **For Faster Service**, please include a note describing the nature of the problem, a copy of your original invoice, your name, return shipping address, and daytime & evening phone numbers where you can be reached. Or call us and we'll take down the information. Normal turn-around time on service is typically 24-48 hours.

CUSTOMER SERVICE & TECH. SUPPORT : (925)935-3025 Mon-Fri 8am-5pm PST

Orig. 04/97
Rev. 03/98

OPERATION CHARTS / TIME-LINES

Following are some Operation Charts and Time Lines to show what the output of the MOT-1 will do when the "POLARITY SWITCHES" are set and sample times set in the timers. Each of the diagrams show which way the "POLARITY SWITCHES" are set for different applications. The times used are just samples and may vary slightly in your own application. If you have any questions, please call out Tech. Department.

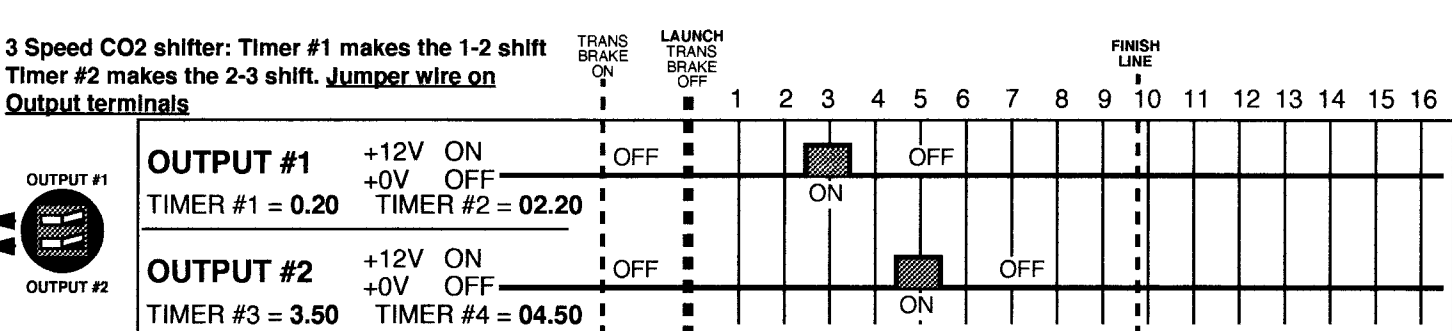
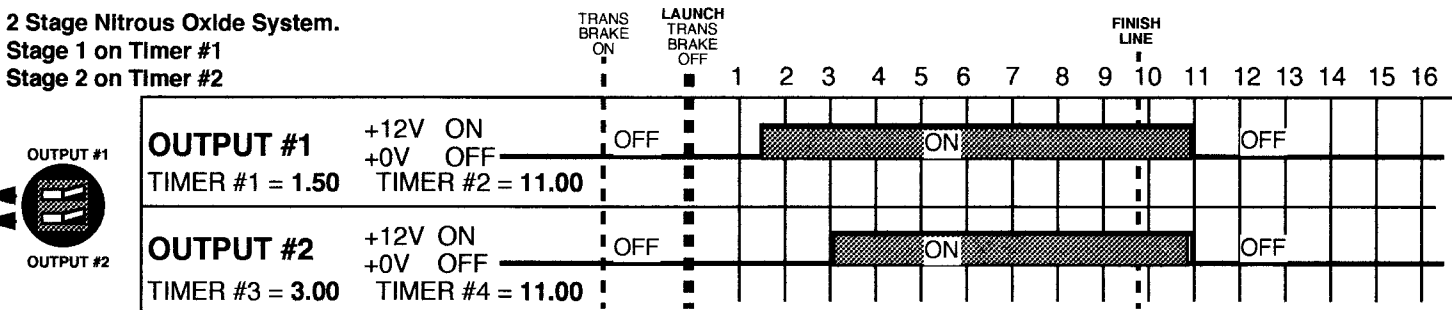
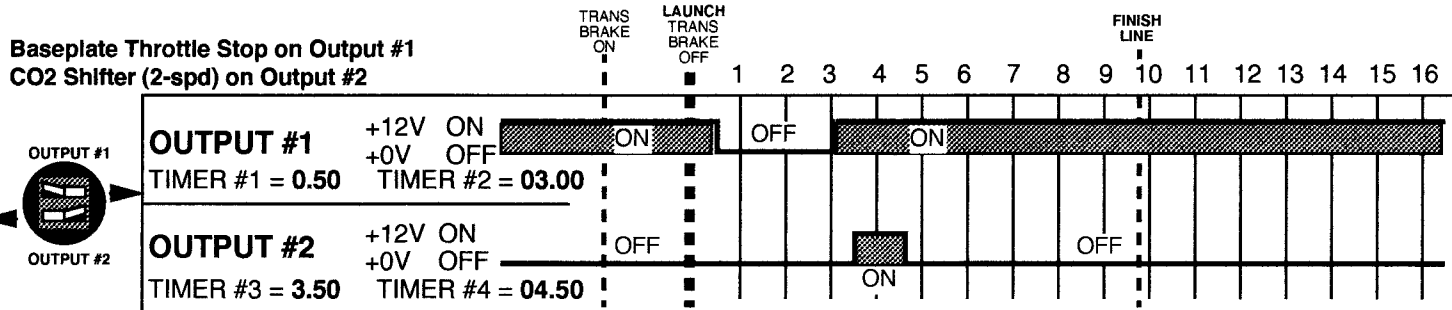
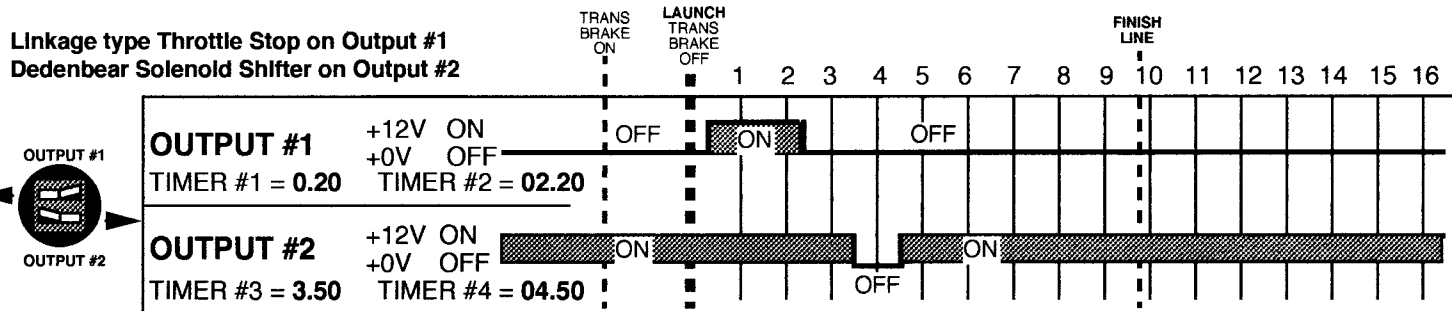
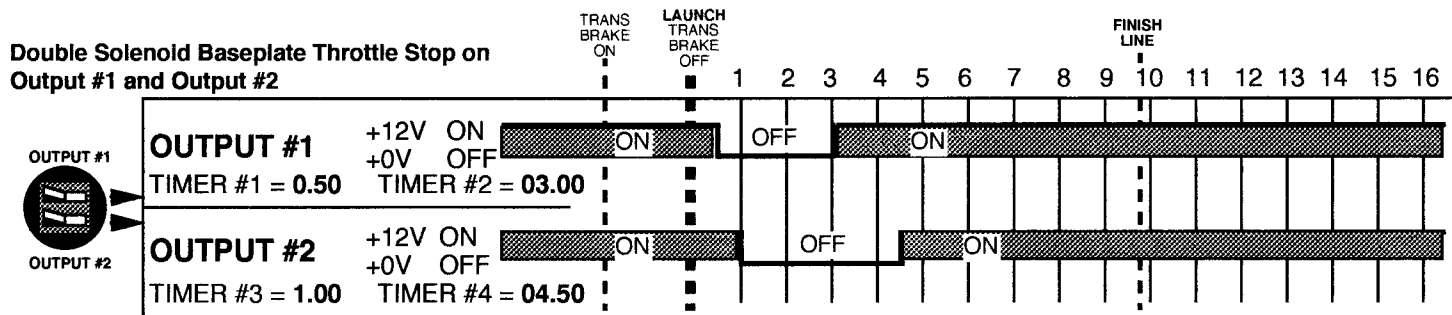


DIAGRAM #1: MOT-1 used to control a Dedenbear "Double Bear" Throttle stop with **two** electric solenoids with RHP-5 Relays.

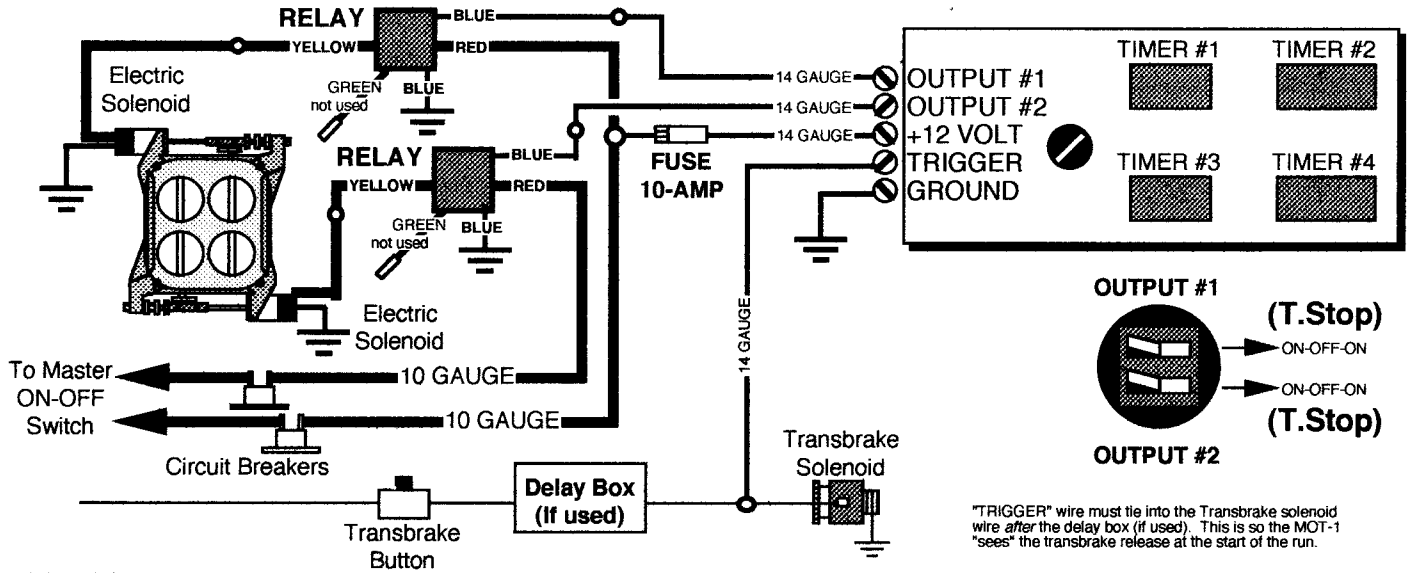


DIAGRAM #2: MOT-1 used to control a Dedenbear "Double Air Bear" Throttle Stop with **two** CO2 actuators.

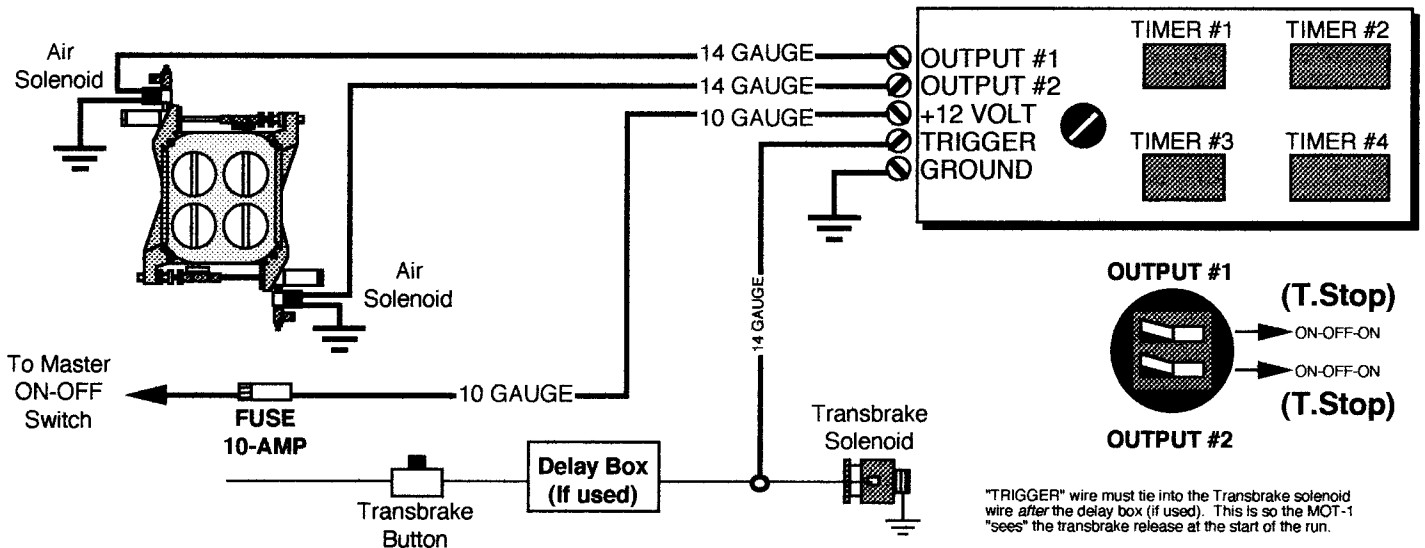


DIAGRAM #3: MOT-1 used to control a Dedenbear "Double Bear" Throttle Stop with an electric solenoid and CO2 air solenoid.

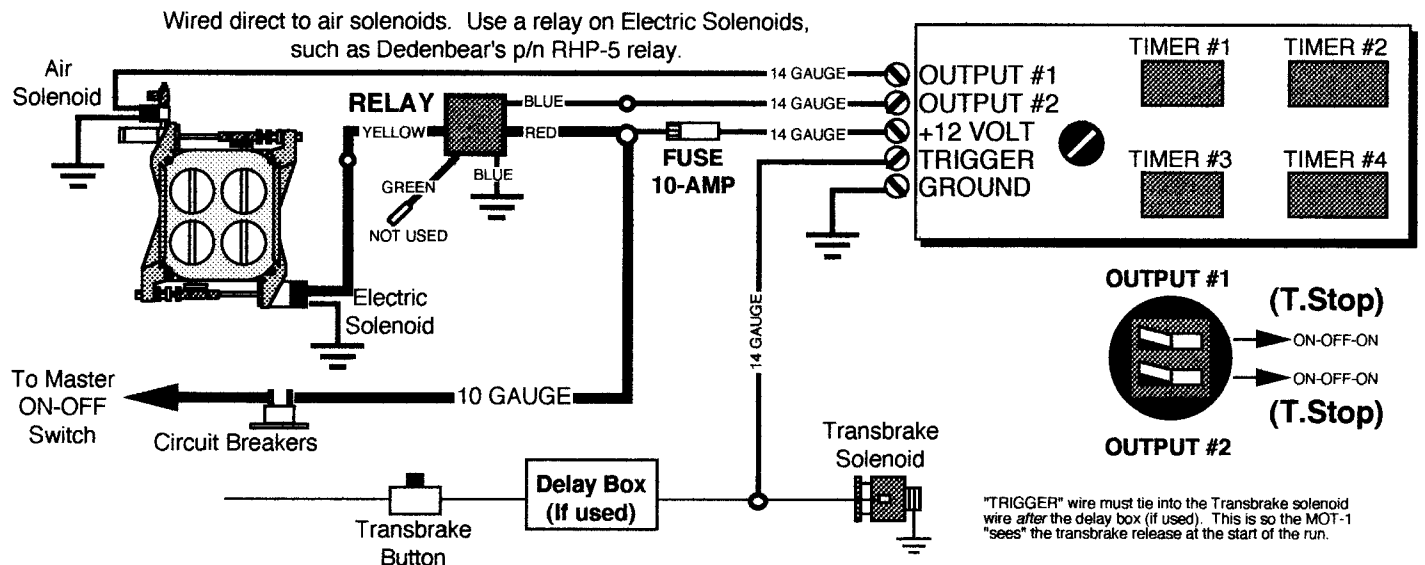


DIAGRAM #4: MOT-1 used to control a SS2 Solenoid Shifter 2-speed shifter and a single electric solenoid baseplate Stop.

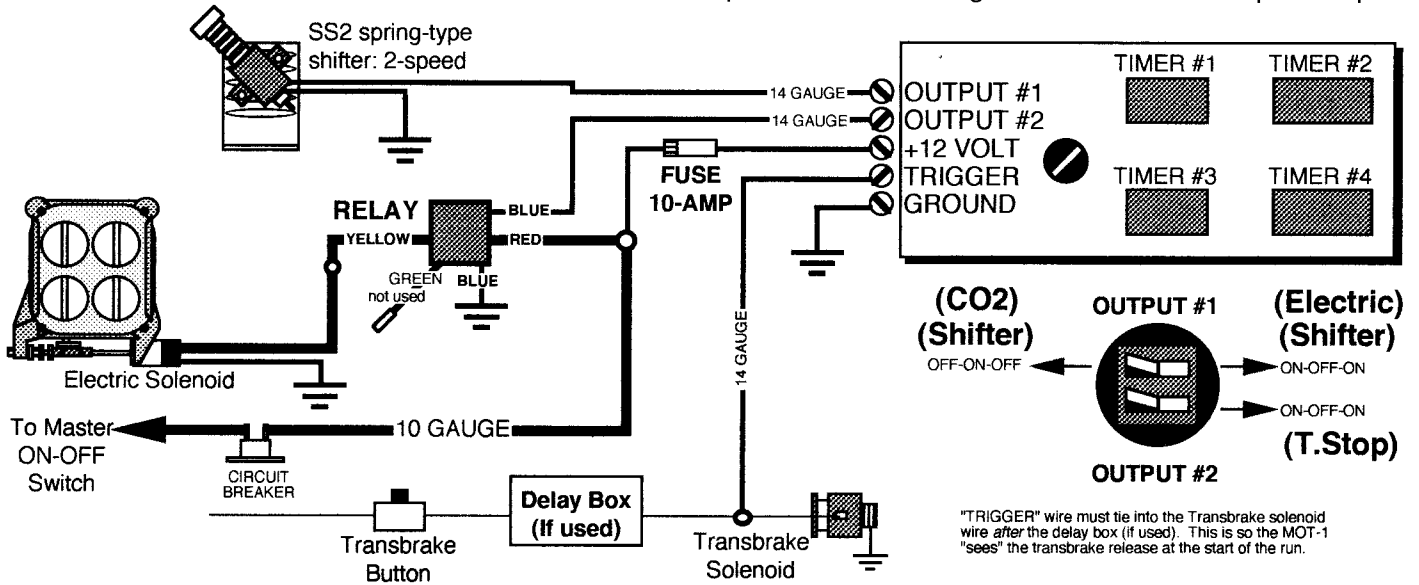


DIAGRAM #5: MOT-1 used to control both shifts on a Turbo Action "Cheetah" 3-speed CO2 shifter. (Example Settings: Timer #1 set for 1.50, T#2 set for 01.70, T#3 set for 4.50, T#4 set for 04.70 seconds)

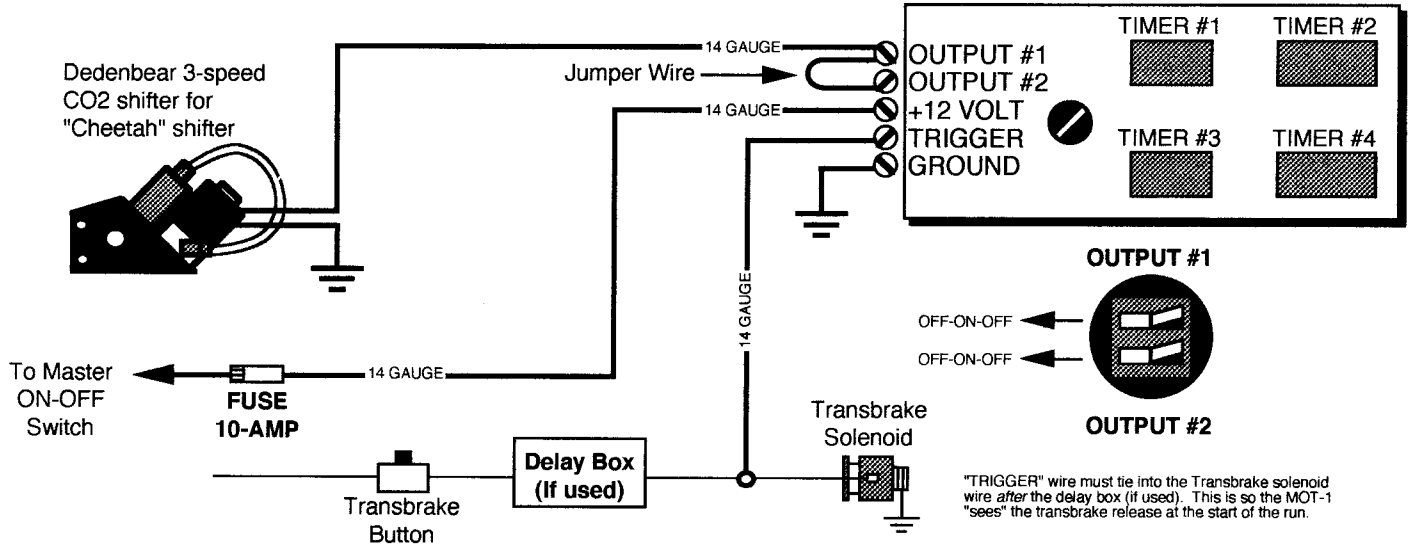


DIAGRAM #6: MOT-1 used to control a dual stage nitrous oxide system, including wide open throttle switches and relays.

