

**1790M-2 POWER SUPPLY - INSTALLATION INSTRUCTIONS**

**SAFETY NOTICES**

**WARNING**

FAILURE TO FOLLOW ALL SAFETY PRECAUTIONS AND INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, SERIOUS INJURY OR DEATH TO YOU OR OTHERS

**SAFETY MESSAGE TO INSTALLERS, USERS, AND MAINTENANCE PERSONNEL**

IT IS IMPORTANT TO FOLLOW ALL INSTRUCTIONS SHIPPED WITH THIS PRODUCT. THIS DEVICE IS TO BE INSTALLED BY A TRAINED INSTALLER WHO IS THOROUGHLY FAMILIAR WITH THE NATIONAL ELECTRIC CODES AND LOCAL CODES AS WELL.

THE SELECTION FOR THE MOUNTING LOCATION FOR THE DEVICE, ITS CONTROLS AND THE ROUTING OF THE WIRING IS TO BE ACCOMPLISHED UNDER THE DIRECTION OF THE FACILITIES ENGINEER. IN ADDITION, LISTED BELOW ARE SOME OTHER IMPORTANT SAFETY INSTRUCTIONS AND PRECAUTION YOU SHOULD FOLLOW:

- READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE INSTALLING OR OPERATING THIS EQUIPMENT.
- DO NOT CONNECT THIS DEVICE TO THE SYSTEM WHEN THE POWER IS TURNED ON.
- AFTER INSTALLATION, ENSURE THAT ALL SCREWS AND THREADED JOINTS ARE PROPERLY TIGHTENED.
- AFTER INSTALLATION, TEST THE SYSTEM REGULARLY TO ENSURE THAT IT IS OPERATING PROPERLY.
- AFTER INSTALLATION AND TESTING IS COMPLETE, PROVIDE A COPY OF THIS INSTRUCTION SHEET TO ALL OPERATING PERSONNEL.

**INSTALLATION**

**1. UNPACKING**

AFTER UNPACKING THE EQUIPMENT, EXAMINE IT FOR DAMAGE THAT MAY HAVE OCCURRED IN TRANSIT. IF THE EQUIPMENT HAS BEEN DAMAGED, DO NOT ATTEMPT TO INSTALL OR OPERATE IT, FILE A CLAIM IMMEDIATELY WITH THE CARRIER STATING THE EXTENT OF THE DAMAGE. CAREFULLY CHECK ALL ENVELOPES, SHIPPING LABELS AND TAGS BEFORE REMOVING OR DESTROYING THEM.

**2. MOUNTING AND WIRING**

**A. STROBE SWITCH DETECTOR**

- MOUNT THE STROBE SWITCH IN A LOCATION THAT WILL ALLOW IT TO BE AIMED TO VIEW THE ACCESS ROADWAY LEADING TO THE GATE.
- ROUTE THE WIRES FROM THE STROBE SWITCH TO THE POWER SUPPLY LOCATION, MAKE SURE THE WIRES ARE PROTECTED AND SECURED.
- PARALLEL CONNECT THE TWO ORANGE, TWO YELLOW, AND TWO BLUE WIRES TO THE TB-1 TERMINAL BLOCK.

**B. POWER SUPPLY**

- MOUNT THE POWER SUPPLY IN ANY CONVENIENT WATERPROOF LOCATION. REMOVE THE BACKING FROM THE TAPE ON THE BACK OF THE POWER SUPPLY AND MOUNT IT TO A CLEAN DRY SURFACE.

**C. CONTROL WIRES TO GATE**

- ROUTE THE LOW VOLTAGE GATE CONTROL WIRES FROM THE GATE TO THE POWER SUPPLY LOCATION. MAKE SURE THE WIRES ARE PROTECTED AND SECURED.
- CONNECT THE LOW VOLTAGE GATE CONTROL WIRES TO THE RELAY OUTPUT ON THE TB-2 TERMINAL BLOCK OF THE #1790M-2 POWER SUPPLY.

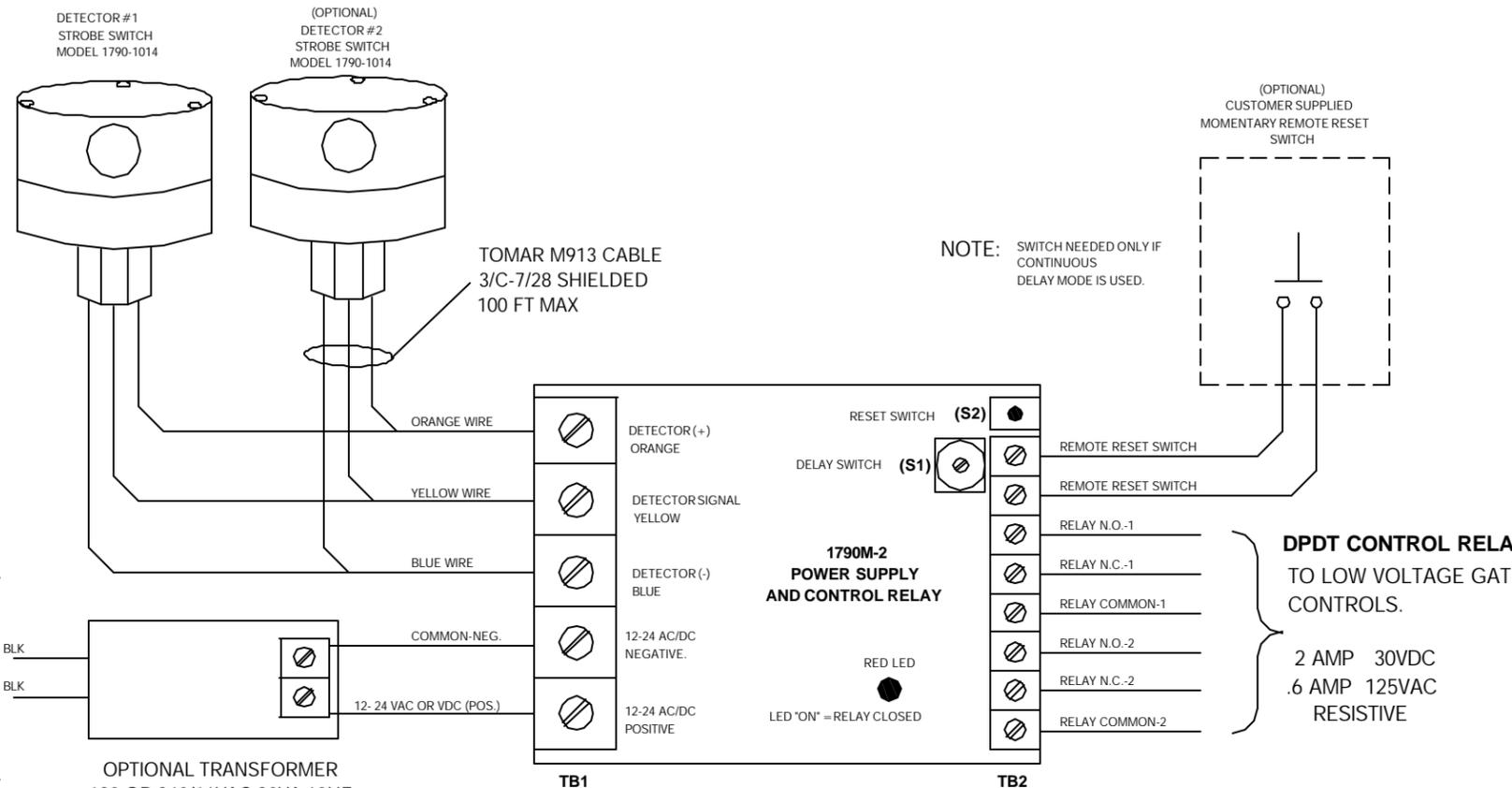
**D. POWER WIRES TO GATE**

- LOCATE THE 24VAC POWER SOURCE ON THE GATE CONTROL UNIT AND ROUTE TWO WIRES FROM THIS POWER SOURCE TO THE #1790M-2 POWER SUPPLY.
- CONNECT ONE OF THE TWO WIRES TO THE COMMON-NEG TERMINAL OF THE TB-1 TERMINAL BLOCK. CONNECT THE OTHER WIRE TO THE ONE AMP IN-LINE FUSE HOLDER.

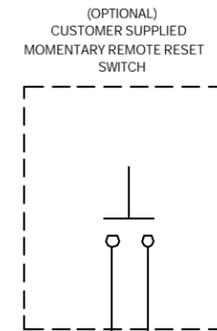
**INSTALLATION IS COMPLETE**

**3. OPERATION**

- WHEN DETECTOR #1 OR DETECTOR # 2 RECEIVES A SIGNAL ,THE #1790M-2 POWER SUPPLY RELAY OUTPUT WILL CLOSE AND THE RED L.E.D.WILL BE ILLUMINATED. THE RELAY WILL REMAIN CLOSED AND THE L.E.D. WILL REMAIN ILLUMINATED UNTIL THE SIGNAL TO THE DETECTOR AND THE DELAY TIME SELECTED ON THE (S-1 DELAY SWITCH) RUNS OUT. AT THAT TIME THE RELAY WILL OPEN AND THE RED L.E.D. WILL BE OFF.
- IF YOU SELECT THE CONTINUOUS MODE ON THE (S-1 DELAY SWITCH) AND A SIGNAL IS RECEIVED TO THE DETECTORS THE RELAY AND THE RED L.E.D. WILL STAY LATCHED "ON" UNTIL YOU PUSH THE RESET SWITCH (S-2) ON THE POWER SUPPLY .
- A REMOTE MOMENTARY RESET SWITCH CAN BE USED IF NEEDED.
- IF A 12 TO 24 VDC POWER SOURCE IS BEING USED, BE SURE TO NOTE POLARITY AS SHOWN.



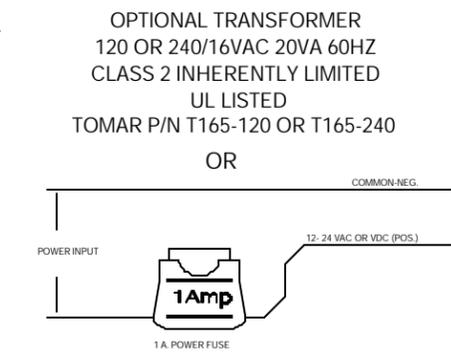
NOTE: SWITCH NEEDED ONLY IF CONTINUOUS DELAY MODE IS USED.



**DPDT CONTROL RELAY TO LOW VOLTAGE GATE CONTROLS.**  
2 AMP 30VDC  
.6 AMP 125VAC RESISTIVE

STROBE SIGNAL FROM DETECTOR CLOSES RELAY FOR DURATION OF STROBE SIGNAL PLUS TIME DELAY

(S1) DELAY SWITCH POSITION	DELAY TIME
0	= NO DELAY
1	= 15 SECONDS
2	= 30 SECONDS
3	= 01 MINUTE
4	= 02 MINUTES
5	= 03 MINUTES
6	= 04 MINUTES
7	= 05 MINUTES
8	= 06 MINUTES
9	= 07 MINUTES
A	= 10 MINUTES
B	= 15 MINUTES
C	= 20 MINUTES
D	= 25 MINUTES
E	= 30 MINUTES
F	= CONTINUOUS



**TO GATE POWER SUPPLY**  
CURRENT DRAW - TWO DETECTORS  
12VDC = 250MA  
24VDC = 250MA  
24VAC = 250MA. (6 VA)  
  
CURRENT DRAW - ONE DETECTOR  
12VDC = 125 MA  
24VDC = 125 MA  
24VAC = 125MA (6VA)

**NOTE:**  
IF INPUT POWER IS 12 TO 24 VDC YOU MUST CONNECT THE POS. LEAD TO THE WIRE WITH THE ONE AMP FUSE.

**S2 PUSHBUTTON OPERATION**

The S2 pushbutton initiates press-to-test and press-to-reset functions.  
If the ROTARY DELAY SWITCH is in position 'F', S2 operates as a reset switch to open the relay and end the CONTINUOUS delay after a valid signal from a detector.  
If S2 is in any other position ('0' thru 'E') S2 operates as a test switch that is; when S2 is pressed the relay will be turned on (closed) for as long as S2 is depressed and remain closed for the delay time selected by the rotary selector switch after S2 is released. If during the delay period, S2 is depressed, the relay will opened immediately.  
S2 will not function if there is a valid signal from a detector. If a valid detector signal is received after S2 has been depressed, the test will be interrupted, and the detector signal serviced. After the detector signal and any delay time has expired, a new test can be started by depressing S2.  
PROGRAM REV. 03

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES: DECIMALS XX + - - XXX + - - ANGLES ± SCALE NONE DO NOT SCALE DRAWING	REV	DATE	DESCRIPTION	TOMAR ELECTRONICS INC. 2100 WEST GIBSON GILBERT, ARIZONA 85233	DRAWING NO.	REV
	01	2/9/01	ADDED S2 OPERATION			
02	3/12/04	ADDED 16V XFORMER	TOMAR PART NO: FP1211	13401	02	
APPROVED	RJG	01/24/01		FP_1211	PC_774	TE_177A
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