

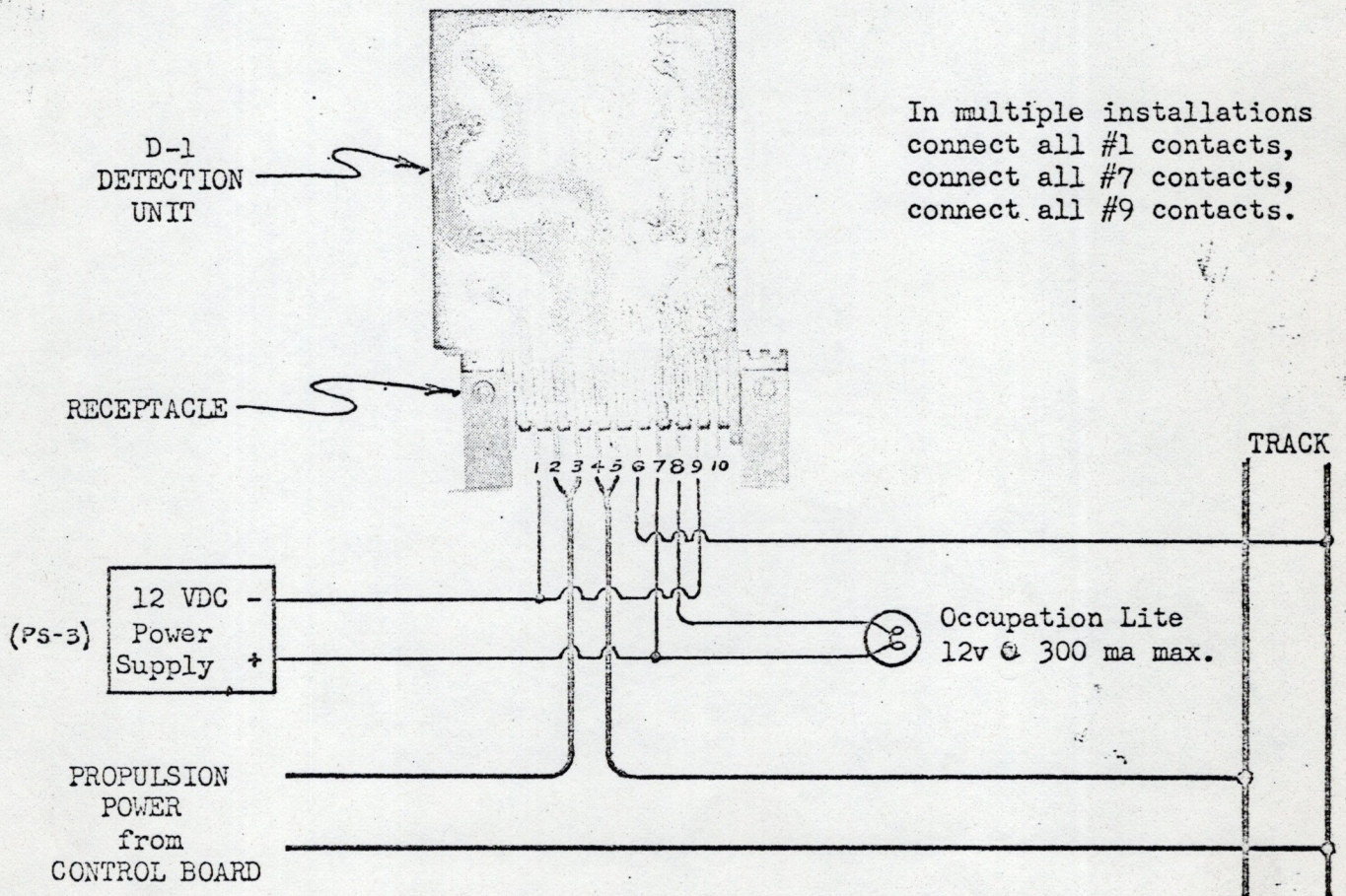
TRI-DELT

SOPHISTICATED ELECTRONICS

D-1 DETECTION UNIT

Box 20311
Grantville Sta.
San Diego, Calif.
92120

TRI-DELT's Detection Unit consists of a plug-in printed circuit board and a ten-contact receptacle. In operation the Detection Unit is placed in series with the track power to each block; two receptacle contacts being used for power-in from the propulsion power supply, and two receptacle contacts for power-out to the track, a ten ampere capacity. When the block is occupied by a locomotive, lighted car, or car with a resistor of 1000 ohms or less, the D-1 will detect. Detection is completely independent of whether the block power is on or off. The Detection Unit has an output of 300 milliamperes at 12 volts, which may be used for Dispatcher's indicator lights, an illuminated system map, a relay, etc. provided that the rating is not exceeded. This output may be easily increased to three amperes with the addition of a power transistor stage. All D-1s may be powered by any independent 12 volt DC power supply. TRI-DELT's PS-3 Power Supply Kit furnishes sufficient power for fifteen Detection Units. It is not necessary to install a full system all at once. Detection Units may be added one block at a time. The Detection Unit is the primary building block for TRI-DELT's Three-color Signalling System.



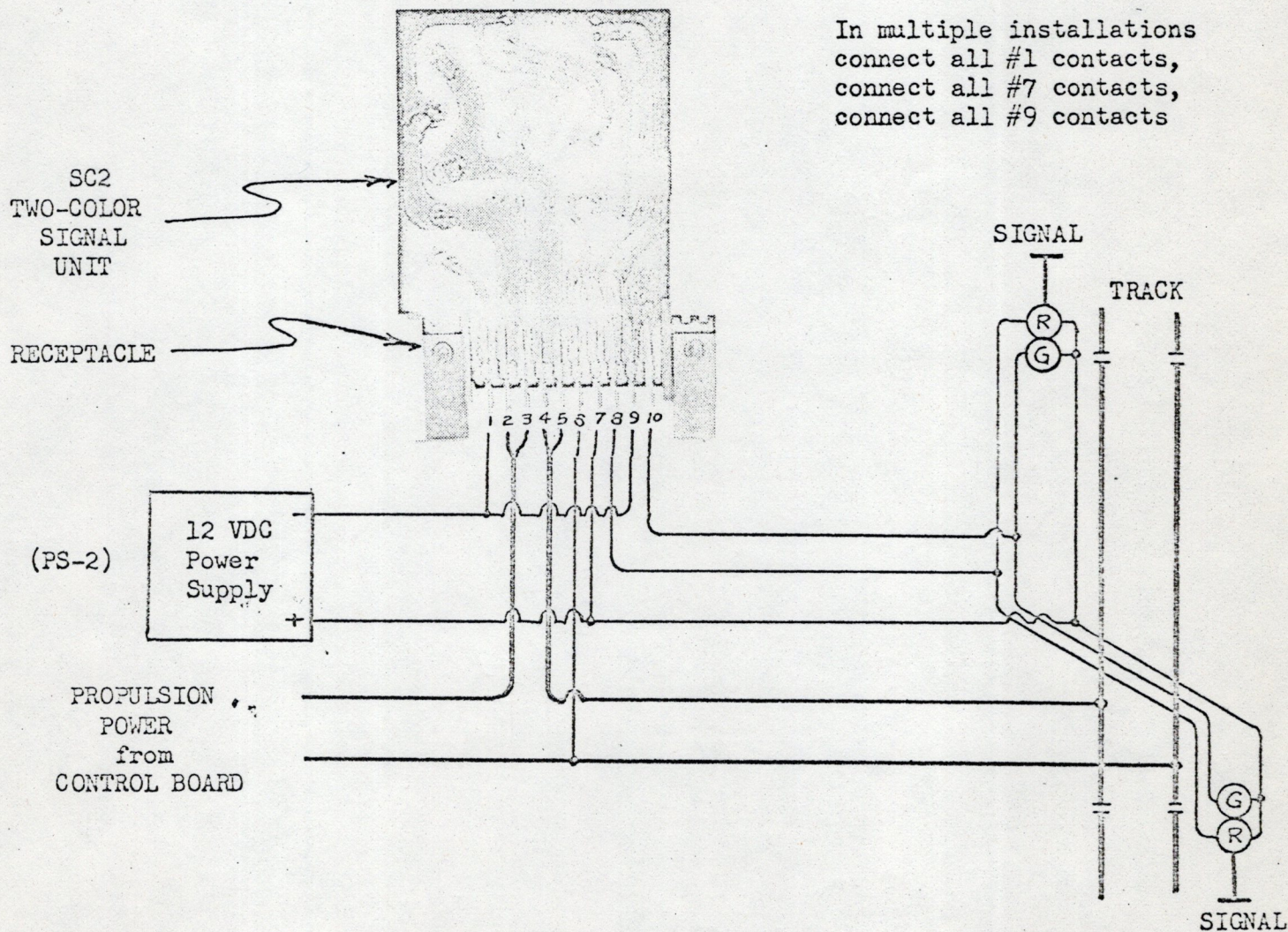
D-1 DETECTION UNIT
PS-3 POWER SUPPLY KIT (sufficient for fifteen D-1s)

\$ 4.95
6.50

All components F.O.B. San Diego, Calif. - excess postage refunded.

SC2 TWO-COLOR SIGNAL UNIT

TRI-DELT's Two-color Signal Unit is a modification of the D-1 Detection Unit, and consists of a plug-in printed circuit board and ten-contact receptacle. The Signal Unit goes in series with the track power to each block; two receptacle contacts being used for power-in from the propulsion power supply, and two receptacle contacts for power out to the track. All Signal Units must be powered by any independent 12 volt DC power supply. TRI-DELT's PS-2 Power Supply Kit provides adequate power for ten blocks of signalling. Output of the SC2 is wired to your signals facing outward from its block. The SC2 is designed to operate with any color or position light signals using standard 12 volt grain-of-wheat lamps. When the block is not occupied, the signals will display green. When the block is occupied by a locomotive, lighted car, or car with a resistor of 1000 ohms or less, the SC2 will detect, and the signals will display red to the adjacent blocks. Signal operation is completely independent of whether the block power is on or off. Additional output capacity is available for a Dispatcher's light, illuminated map, relay, etc, provided that the total load (including signals) does not exceed 300 milliamperes. It is not necessary to install a full system at once. Two-color Signal Units may be added one block at a time.



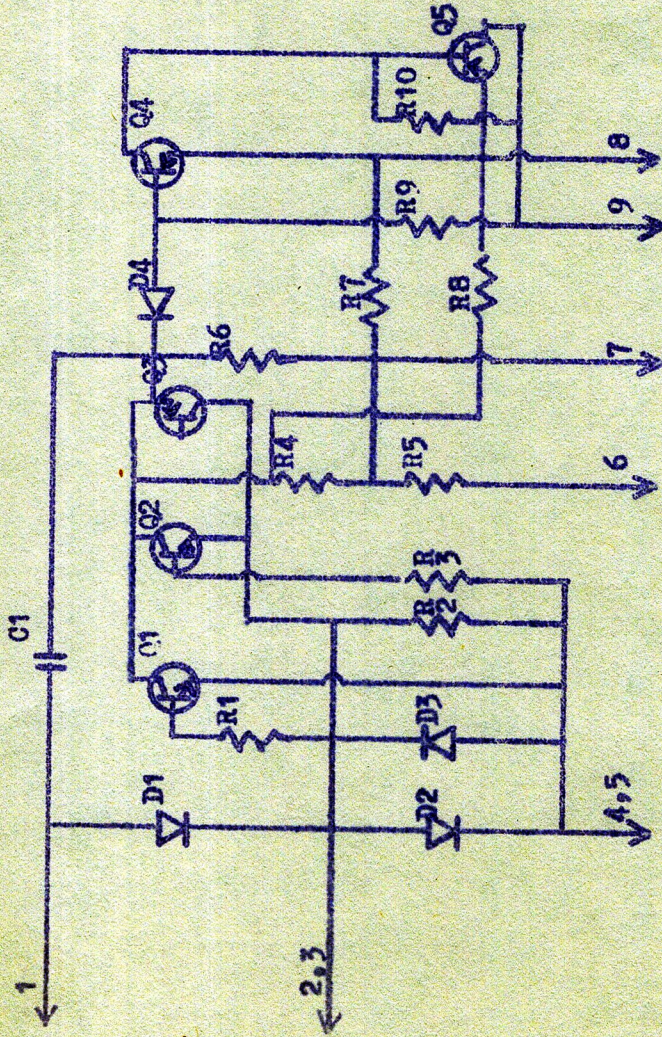
SC2 TWO-COLOR SIGNAL UNIT
PS-2 POWER SUPPLY KIT (sufficient for ten SC2s)

\$ 7.95
6.50

All components F.O.B. San Diego, Calif. - excess postage refunded.

GOLDEN GATE MODFL RAILROADERS, INC

Tri-Delt
Occupation Detector D-1
Circuit board Schematic



C1	D1	D2	D3	D4	Q1	Q2	Q3	Q4	Q5	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
1	1N3492R	1N3491	MR2261R		2N1302	2N1302	2N3706	2N3706	2N3706	10	270	10	27,000	2,200 (1,000)	10,000	560	27,000	270	4,700

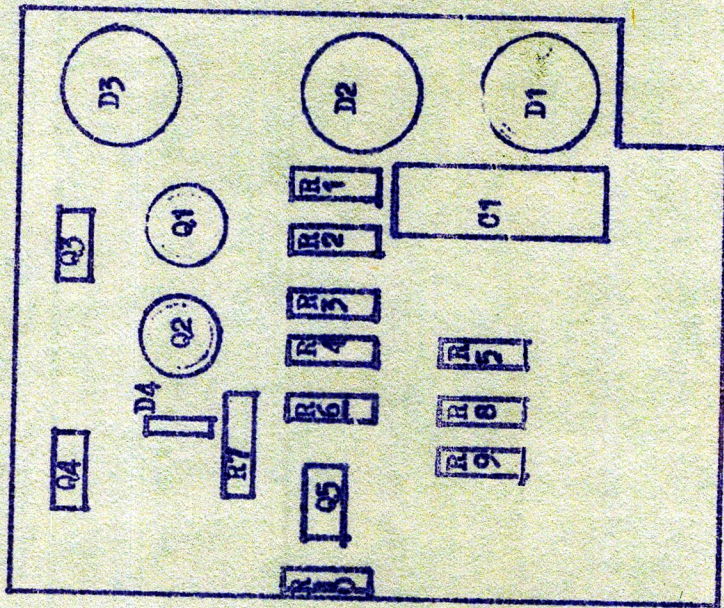
Replace R5 with a 2,500 trim pot and adjust to 15ma through #6

GOLDEN GATE MODEL RAILROADERS, INC

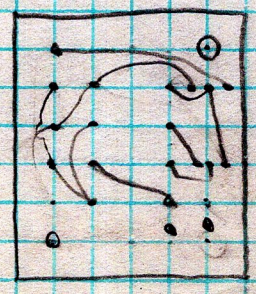
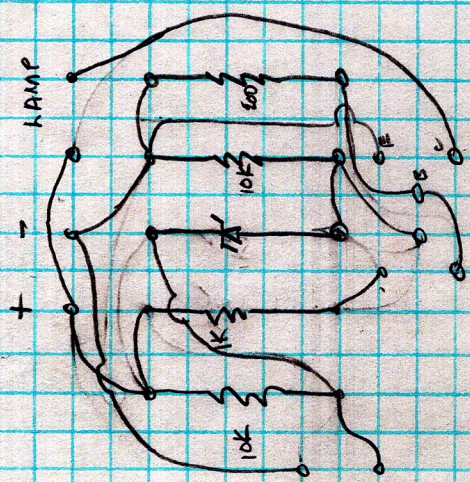
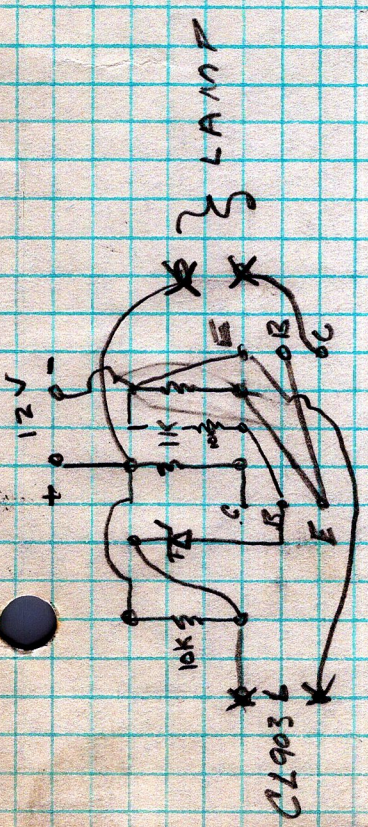
Tri-Delt

Occupation Detector D-1

Circuit board component identification



copyright by Tri-Delt Must not be sold



750X

QUAN

DESCR.

PRICE

EXT

2	R ₁ , R ₂	10K Ω 1/4W	.05	.10
1	R ₃	1K Ω 1/4W	.05	.05
1	R ₄	200 Ω 1/4W	.05	.05
1	D ₁	1N4734 (5.6V 1W)	1.26	1.26
2	Q ₁ , Q ₂	2N3904 (NPN SIL.) .2W β 50-100	.20	.40
1	R _x	CL903L (CLAIREX)	1.50	1.50
1	LA ₁	1446 LAMP	.10	.10
1	LA ₂	KEMTRON LAMP OR LED.	.50	.50
1	CKT. BD.	VECTOR 150"	.15	.15

 4.11