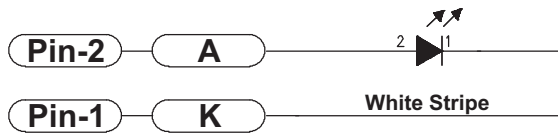
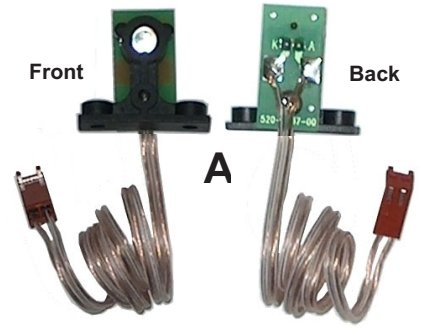


Playfield Switches OPTO Transceiver PCBs (500-6775-00) Schematic



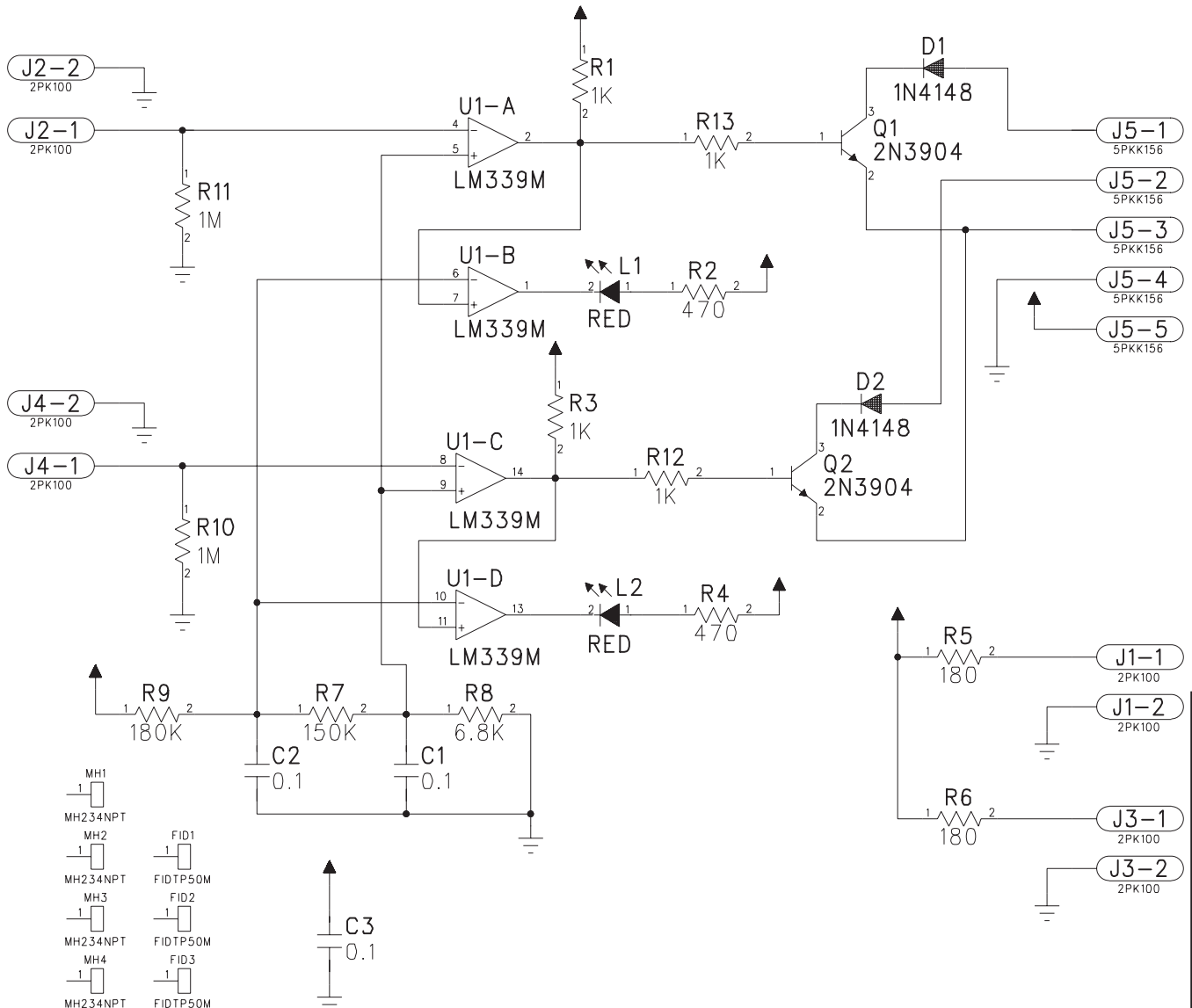
**Mini PCB
OPTO 12" Lead
(Black Bracket)
500-6775-00**



Playfield Switches OPTO Transceiver PCBs (500-6775-00) Component Layout & Parts

ITEM	QTY	PART NUMBER	REF-DESIGNATOR	DESCRIPTION
A, B & C	3 pair	500-6775-00	Mini OPTO Transceiver PCB Assembly (Items A PCB + B + C)	
A	1	520-5237-00	Mini OPTO Transceiver PCB	(includes Items A-1 – A-3)
A-1	1	545-6092-00		Black Bracket (Plastic) Holder
A-2	1	237-5909-00		#4-40 X 1/4 PPH Screw
A-3	1	165-5052-00		LED (Ultra Bright Red)
B	1	601-5023-12	K, A	12" Speaker Wire (1-Side White Stripe)
C	1	045-5020-02	Note White Strip to Pin-1	2-Pin Cn., .100 KK Cmp Trm Molex 08-50-0113

Playfield OPTO Transmitter / Receiver Amplifier PCB (520-5239-01) Schematic

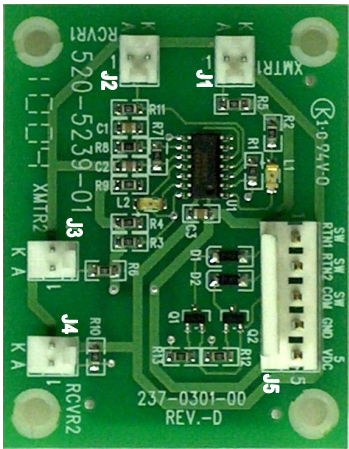


Sec. 5: PCBs

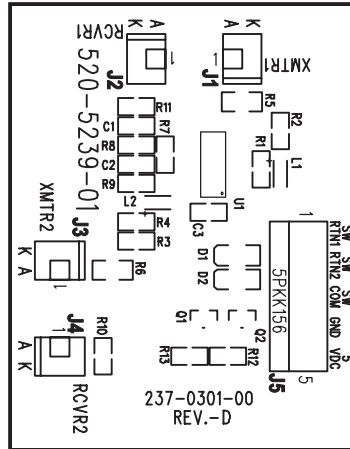


Playfield OPTO Transmitter/Receiver Amplifier PCB (520-5239-01) Component Layout & Parts

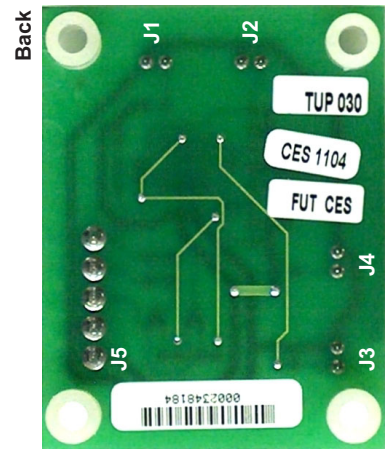
(for OPTO Switches 52 – 55)



Front



Front



Back

ITEM	QTY	PART NUMBER	REF-DESIGNATOR
1	2	520-5239-01	OPTO Transmitter/Receiver Amplifier PCB
2	2		R7
3	1		R5, R6
4	4		R9
5	2		R1, R3, R12, R13
6	2		R10, R11
7	1		R2, R4
8	3		R8
9	2		C1, C2, C3
10	2		D1, D2
11	1		Q1, Q2
12	4	Mfg. 22-23-2021	U1
13	1	Mfg. 640445-5	J1, J2, J3, J4
14	2	Mfg. APT3216SURC	J5
15	4		L1, L2
			n/a

DESCRIPTION

(incl. Items 1–14 + Item 15 spacers)

SMT 150K Ω 1/10W Resistor 805, 5%

SMT 180 Ω 1/10W Resistor 805, 5%

SMT 180K Ω 1/10W Resistor 805, 5%

SMT 1K Ω 1/10W Resistor 805, 5%

SMT 1M Ω 1/10W Resistor 805, 5%

SMT 470 Ω 1/10W Resistor 805, 5%

SMT 6.8K Ω 1/10W Resistor 805, 5%

SMT Cer. .1uF 50v Cap., 10% X7R

1N4148W, Diode, 100v, 350MW

MMST3904, NPN, 40v, .02A

LM339M, Low Power Offset QUA

2-Pin, 0.1 Header (1 Row, VT, Tin)

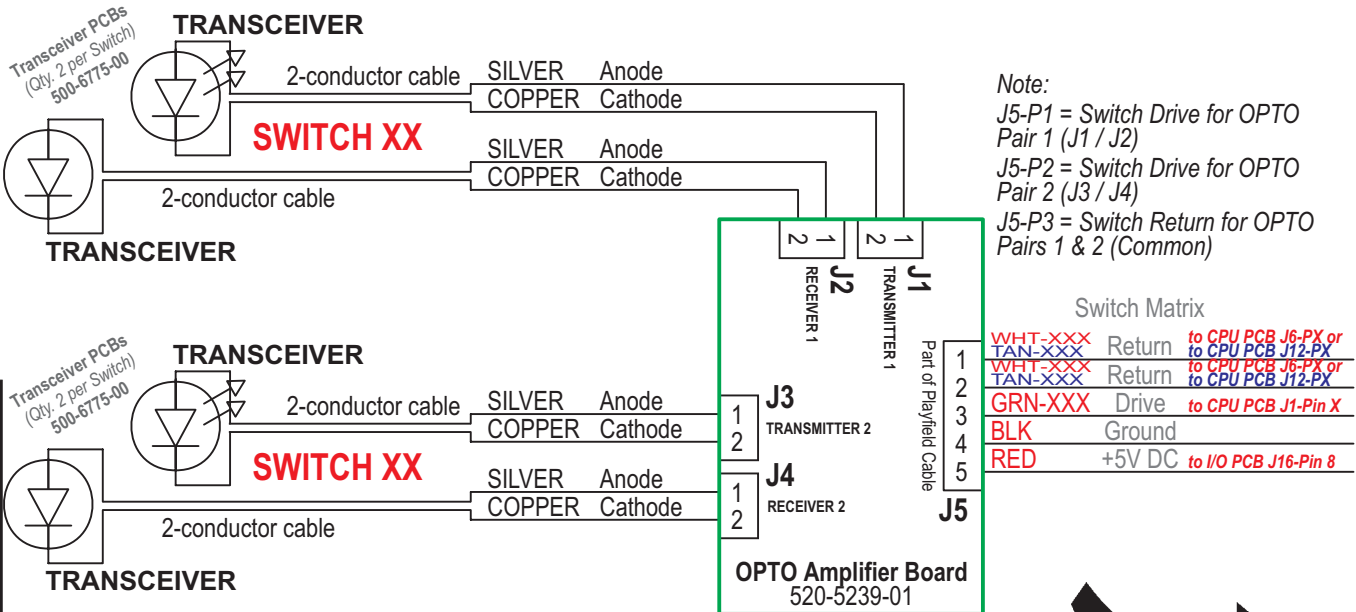
5-Pin, .156 Header (1 Row, VT, Tin)

LEDD-SMT, Red 1206

Spacer (Nylon), .153" ID X 9/32" OD X 3/8"

Playfield OPTO Transmitter/Receiver Amplifier PCB (520-5239-01) Wiring (General)

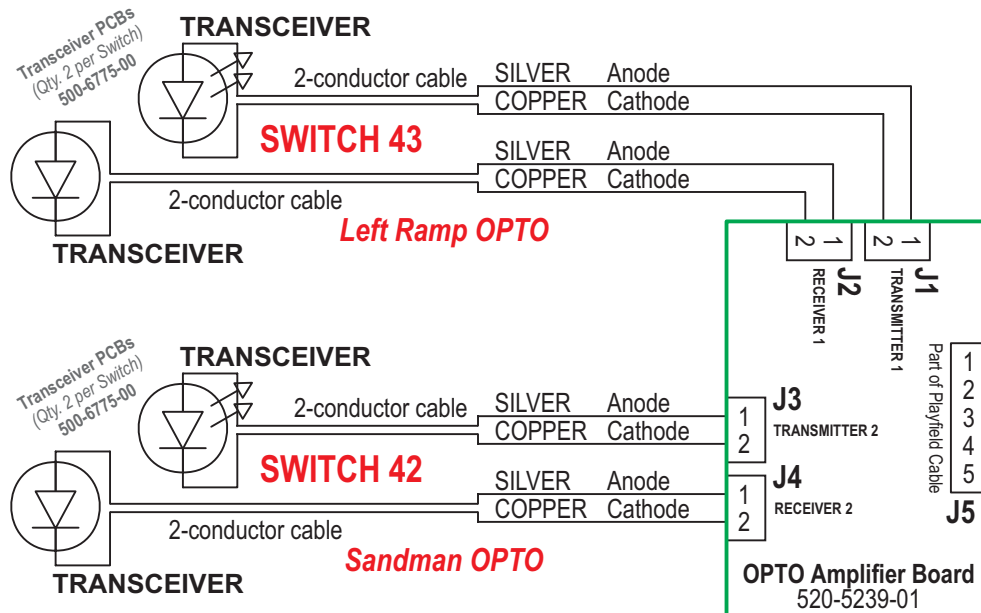
(for PCB 1: OPTO Switches 42 & 43 /// PCB 2: OPTO Switch 61)



For details on Board Wiring Configuration for PCBs 1 – 2, see opposite pages.



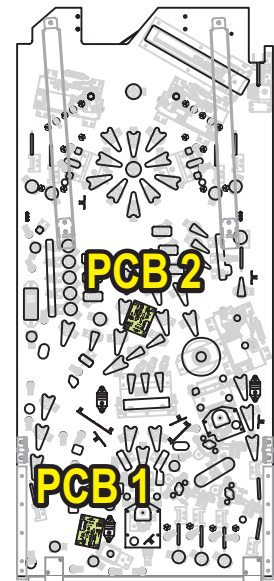
Playfield OPTO Transmitter/Receiver Amplifier PCB (520-5239-01)
Wiring (Game Specific) PCB 1: OPTO Switches 42 [Sandman OPTO] & 43 [Left Ramp OPTO]



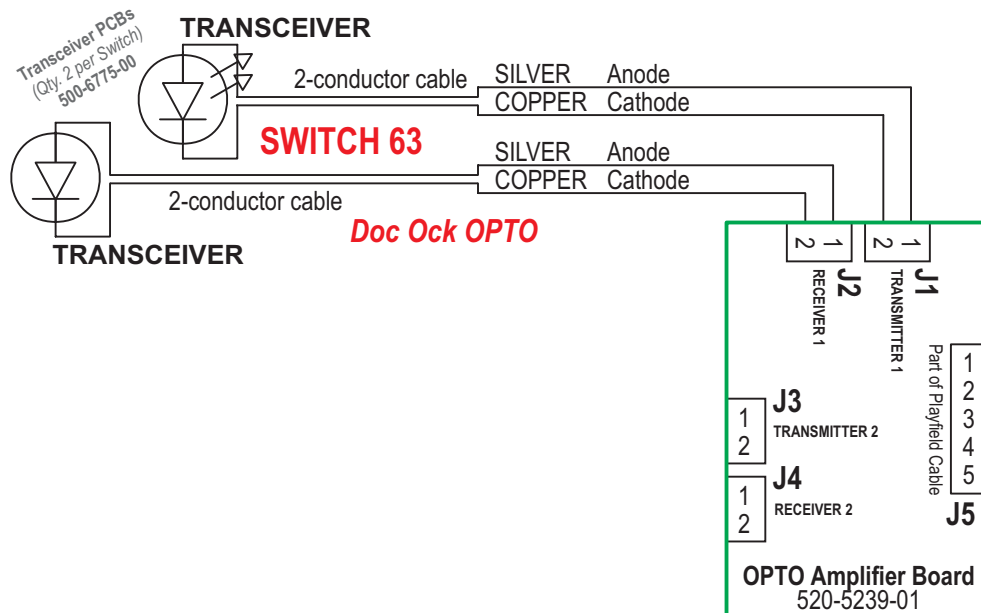
Note:
 J5-P1 = Switch Drive for OPTO Pair 1 (J1 / J2)
 J5-P2 = Switch Drive for OPTO Pair 2 (J3 / J4)
 J5-P3 = Switch Return for OPTO Pairs 1 & 2 (Common)

Switch Matrix

TAN-ORG	Return	to CPU PCB J12-Pin 7
WHT-GRN	Return	to CPU PCB J12-Pin 6
GRN-ORG	Drive	to CPU PCB J1-Pin 4
BLK	Ground	
RED	+5V DC	to I/O PCB J16-Pin 8



Playfield OPTO Transmitter/Receiver Amplifier PCB (520-5239-01)
Wiring (Game Specific) PCB 2: OPTO Switch 63 [Doc Ock OPTO]



Note:
 J5-P1 = Switch Drive for OPTO Pair 1 (J1 / J2)
 J5-P2 = Switch Drive for OPTO Pair 2 (J3 / J4)
 J5-P3 = Switch Return for OPTO Pairs 1 & 2 (Common)

Switch Matrix

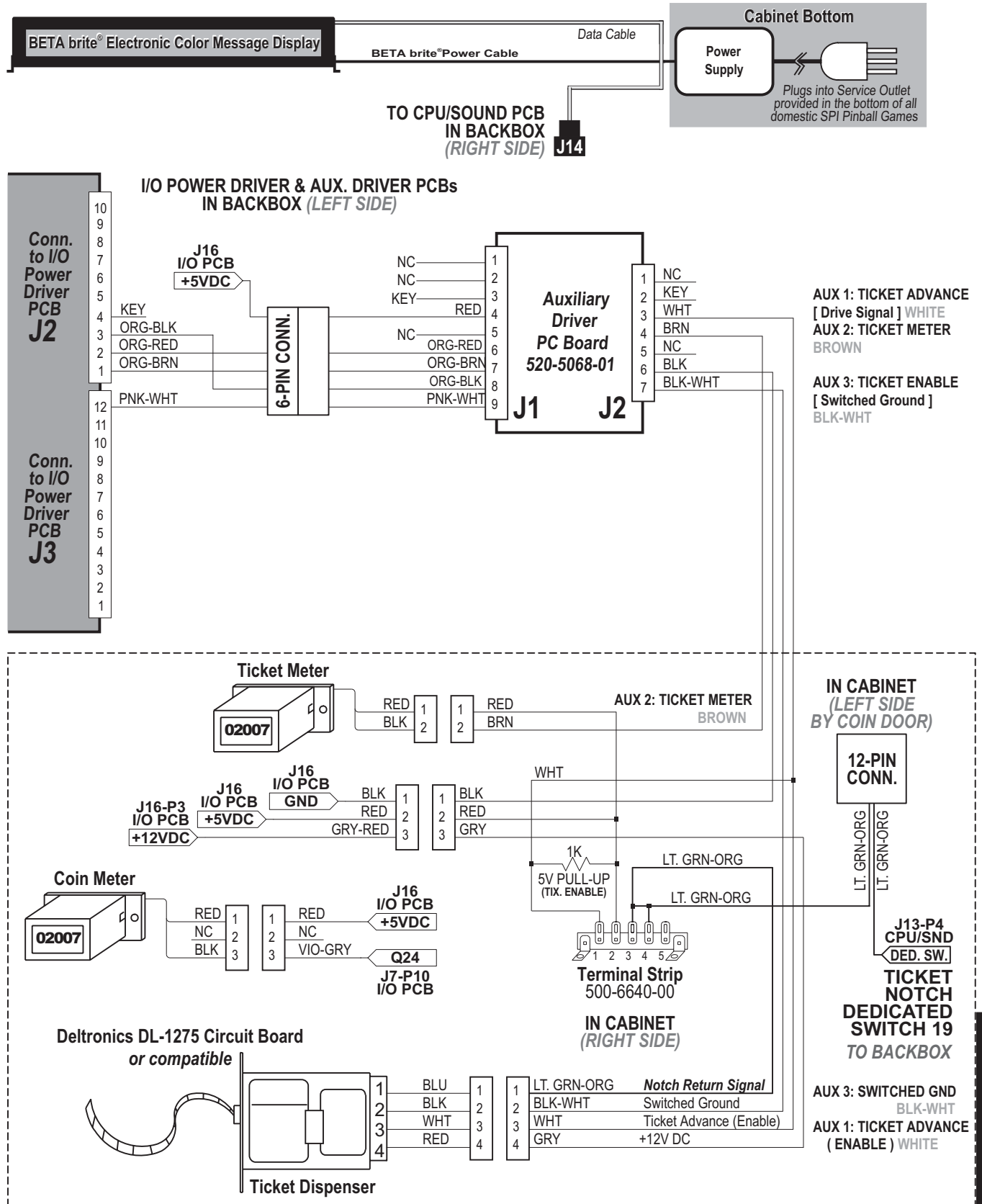
TAN-VIO	Return	to CPU PCB J12-Pin 2
N/C	Return	
GRN-YEL	Drive	to CPU PCB J1-Pin 5
BLK	Ground	
RED	+5V DC	to I/O PCB J16-Pin 8

Sec. 5: PCBs





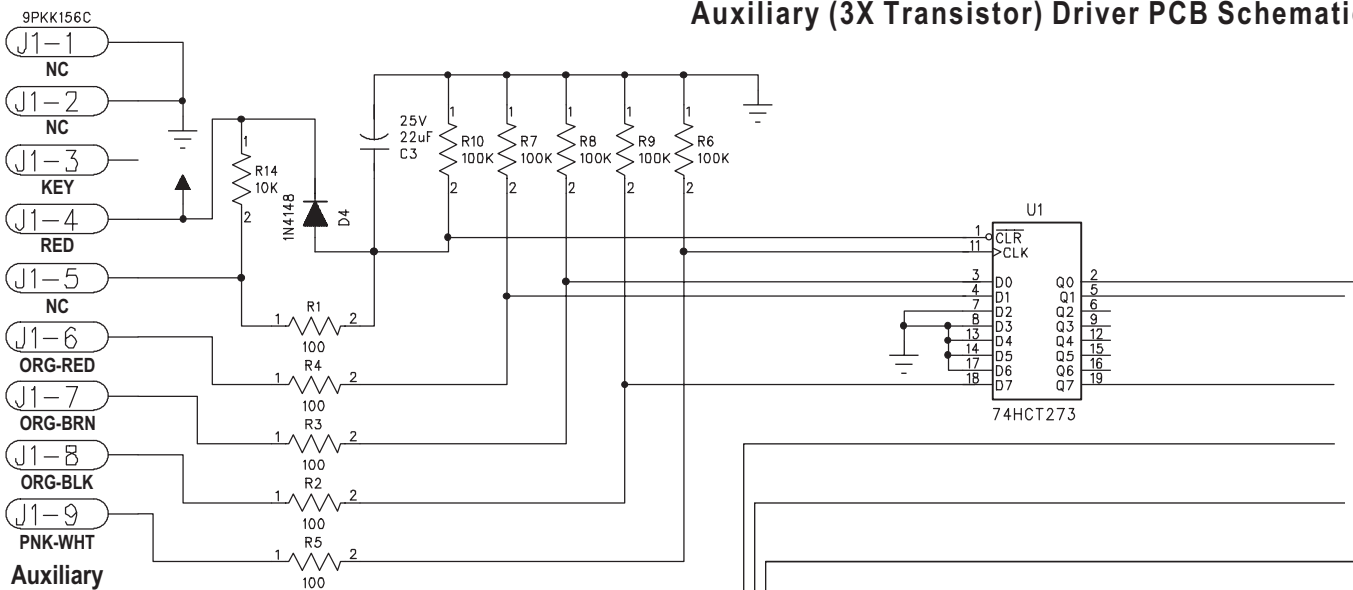
Auxiliary (3X Transistor) Driver PCB (in Backbox) with the Coin/Ticket Meter and Ticket Dispenser Wiring Diagram



Sec. 5: PCBs

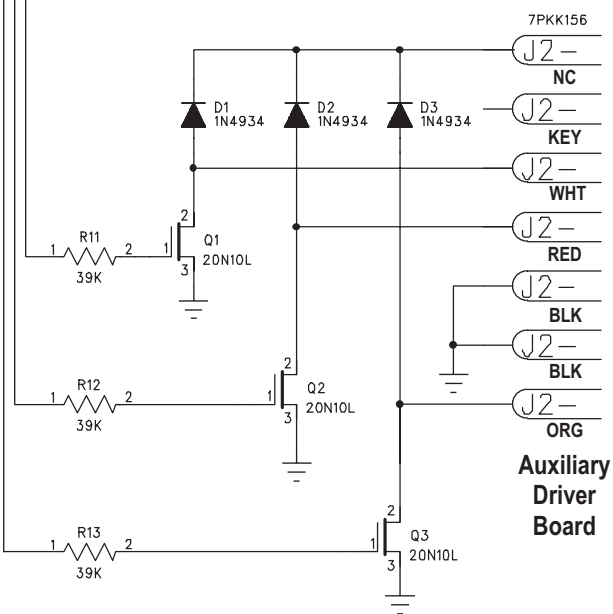
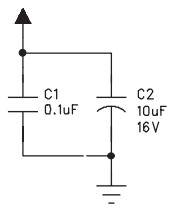


Auxiliary (3X Transistor) Driver PCB Schematic



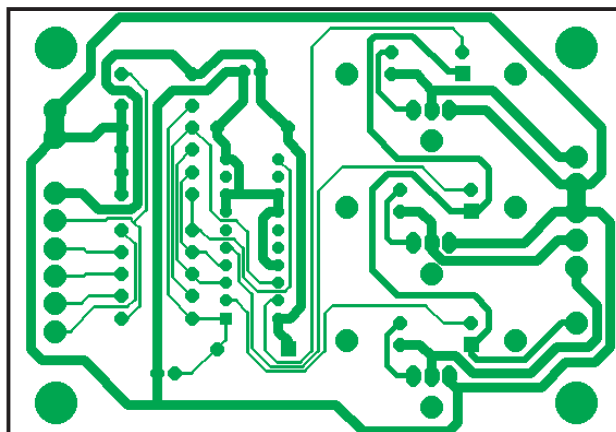
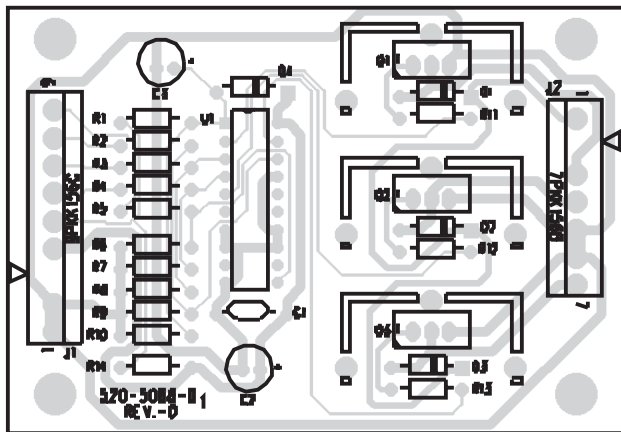
Auxiliary Driver Board

- MH1 MH234NPT
- MH2 MH234NPT
- MH3 MH234NPT
- MH4 MH234NPT
- MH5 MH234NPT
- MH6 MH125NPT
- MH7 MH125NPT
- MH8 MH125NPT
- MH9 MH125NPT



Auxiliary Driver Board

Auxiliary (3X Transistor) Driver PCB Component Layout



Sec. 5: PCBs

ITEM	QTY	PART NUMBER	REF-DESIGNATOR	DESCRIPTION
—	1	520-5068-01	Aux. / Solenoid Expander PCB (x3 Transistor)	Complete PCB Assembly

