FIVE STAR REDEEMPTION

Monster Hunt Junior

SINGLE PLAYER
TECHNICAL MANUAL

November 16, 2011

Features

- Bright Attention Grabbing Graphics & Cabinet
- Hot looking Lights
- Exciting Super Fast Skill Stop
- Oversized Highly Reliability Buttons
- Operator Programmable

Specifications

Parameter	Value	Units
Voltage	115	VAC
Frequency	60	HZ
Weight	600	Pounds

Overview

Monster Hunt consists of two lighted clock faces with motorized spinning disks, a player console with large buttons & levers, numeric displays for game play, speakers for sound effects, two coin acceptors, and a ticket dispenser. The objective is to skillfully stop the spinning disks so the player can attempt to accumulate trading cards or to maximize points

TABLE OF CONTENTS

Game Play

Monster Club offers very fast and interesting play with many different strategies for maximizing the points you can win.
Spinner# 1 allows the player to accumulate trading cards to win tickets or create an opportunity to go to the Spinner# 2 to win tickets at higher levels possibly.

1) Insert coin(s) to ready the game for play.
2) Pull back the *Start Lever* to begin the *Spinner Spinning*.
3) There are several seconds in which to influence where the *Spinner* will stop by skillfully pushing the *Slow Stop* button which decreases spinner speed or pulling back on the *Start Lever* which will increase the spinner speed.
4) Points can be awarded and are displayed each time the *Spinner* is spun, however, you may choose to go to the next level and take the points.

Program Mode

Program Mode allows the Game Operator the option of programming the Game by entering data through the Control Panel, which is located on the front panel of the cabinet. This mode includes viewing the game's statistical data, running diagnostics, and changing game play values.

To go into *Program Mode*, Hold Down both the '*****' and "**#**" symbols for approximately 5 seconds the Keypad Display should go Blank, next enter the number "11" which will allow the game operator to go into *Program Mode* (Keypad should display all zero's).

Pressing the **FAST STOP BUTTON** will decrement the Value, Pressing the **SLOW STOP BUTTON** will increment the value. To increase the **STEP NUMBER** use the Numeric Keypad and press the '*', to decrease the STEP **NUMBER** press the '#' symbol. To Go to **STEPS** directly Hold down the "*****" key while entering the **STEP NUMBER** in the keypad. Pressing the *Program Mode* or Holding Down both the '*****' and "**#**" symbols will allow the operator to exit. The program button is located near the main board inside of the cabinet.

CHANGING PROGRAM VALUES

To increase the **STEP NUMBER** use the Numeric Keypad and press the '*', to decrease the STEP **NUMBER** press the '#' symbol. To Go to **STEPS** directly Hold down the "*****" key while entering the **STEP NUMBER** in the keypad. To View Spinner's 1 – 2 Data Press the **SLOW STOP BUTTON** to cycle through each spinner.

STEP #	DESCRIPTION	DESCRIPTION
0	Coins required to play	Number of coins required to play
1	Attraction audio on time	Number of seconds attraction audio is on (0 disables attraction audio)
2	Attraction audio off time	Number of seconds attraction audio is off per attraction cycle
3	RPM1 speed before break is engageable	Spinner #1 RPM above which stop lever can cut motor power (increments of 1)
4	RPM2 speed before break is engageable	Spinner #2 RPM above which stop lever can cut motor power (increments of 1)
5	RPM1 SPEED to ENABLE DITHER	Spinner #1 RPM dither before enabling cutting motor power during ramp up (increments of 1)
6	RPM2 SPEED to ENABLE DITHER	Spinner #2 RPM dither before enabling cutting motor power during ramp up (increments of 1)
7	RPM1 Spinner cruising Speed	Spinner #1 cruising RPM (increments of 5)
8	RPM2 Spinner cruising Speed	Spinner #2 cruising RPM (increments of 5)
9	RPM1 spinner maximum hyper speed	Spinner #1 maximum hyperspeed RPM (increments of 5)
10	RPM2 spinner maximum hyper speed	Spinner #2 maximum hyperspeed RPM (increments of 5)
11	RPM1 speed to enable brake	Spinner #1 RPM above which stop lever can energize brake (increments of 1)
12	RPM2 Speed to enable brake	Spinner #2 RPM above which stop lever can energize brake (increments of 1)
13	RPM1 spinner maximum run time	Maximum time before power is removed from spinner #1 motor (increments of 1)
14	RPM2 spinner maximum run time	Maximum time before power is removed from spinner #2 motor (increments of 1)
15	Number of cards to enable thief	Number cards required to enable thief to take away cards (increments of 1)
16	Action when thief not enabled	Action if thief is not enabled where 1-25 number of free tickets, 26 = auto spin (increments of 1)
17	Auto spin Until Game Over	0=do not auto spin, 1=auto spin until game is over (increments of 1)
18	Consolation points when card repeated	Number of consolation points given when card is repeated (increments of 1)
19	Number CARDS TAKEN THIEF1	Number of cards taken by thief1 (increments of 1)
20	Number CARDS TAKEN THIEF2	Number of cards taken by thief2 (increments of 1)
21	Maximum points per game	Maximum number of points per game (increments of 25)
22	Number points per ticket	Number of points required per ticket dispensed (increments of 1)
23	Maximum spins Per Credit	Maximum number of spins per credit (increments of 1)
24	Number cards to go higher	Number of cards taken to go higher (increments of 1)
25	Action if card repeated	Action if card repeated where 0=consolation points only, 1-10 = number auto spins (increments of 1)
26	Demo mode	0=not demo mode, 1=demo mode
27	Enable keypad display	0=do not enable keypad display in game mode, 1=enable keypad display in game mode
28	Play instructions during attraction	0=do not play instruction sound during attraction, 1=play instructions sounds during attraction
29	Timeout to go higher	Timeout to go higher where 1=12second, 2=15second, 3=20second, 4=25second
30	Spinner diagnostic sensitivity	Spinner diagnostic sensitivity (1=most sensitive, 9=least sensitivity)
31	Extra_games_disable	0=enable extra games, 1=disable extra games
32	Card_removal_order	1= left-to-right, 2=right-to-left, 3=most-recent
33	Timeout_to_spin_with_credits	Time to push Start button before automatically spinning when player has credits (increments of 1)
34	Timeout_to_spin_with_no_credits	Time to push Start button before going to attraction when player has no credits (increments of 1)
35	Time alloted for Full throttle	Time spinner must spin before the player can apply full-power to the spinner (increments of 1)
36	Minimum for SMall jackpot spinner1	Minimum points for small jackpot on spinner #1 (increments of 10)
37	Minimum for BIG jackpot spinner1	Minimum points for big jackpot on spinner #1 (increments of 10)
38	Minimum for SMall jackpot spinner2	Minimum points for jackpot on spinner #2 (increments of 10)
39	Minimum for BIG jackpot spinner2	Number cards required to enable spinner cash out (increments of 1)
40	Number of cards to enable cashout	Number cards required to enable spinner tradein (increments of 1)
41	Number of cards to enable trade in	Number cards remaining after spinner tradein (increments of 1)
42	RPM1 Spinner minum to enable kick	Spinner #1 RPM above which player can abort a stop (increments of 1)
43	RPM2 spinner minim to enable kick	Spinner #2 RPM above which player can abort a stop (increments of 1)
44	Spinner1 maximum number of kicks	Spinner #1 maximum number of kicks allowed (increments of 1)
45	Spinner2 maximum number of kicks	Spinner #2 maximum number of kicks allowed (increments of 1)
46	Spinner1 maximum kick time	Spinner #1 maximum kick time allowed (increments of 1)

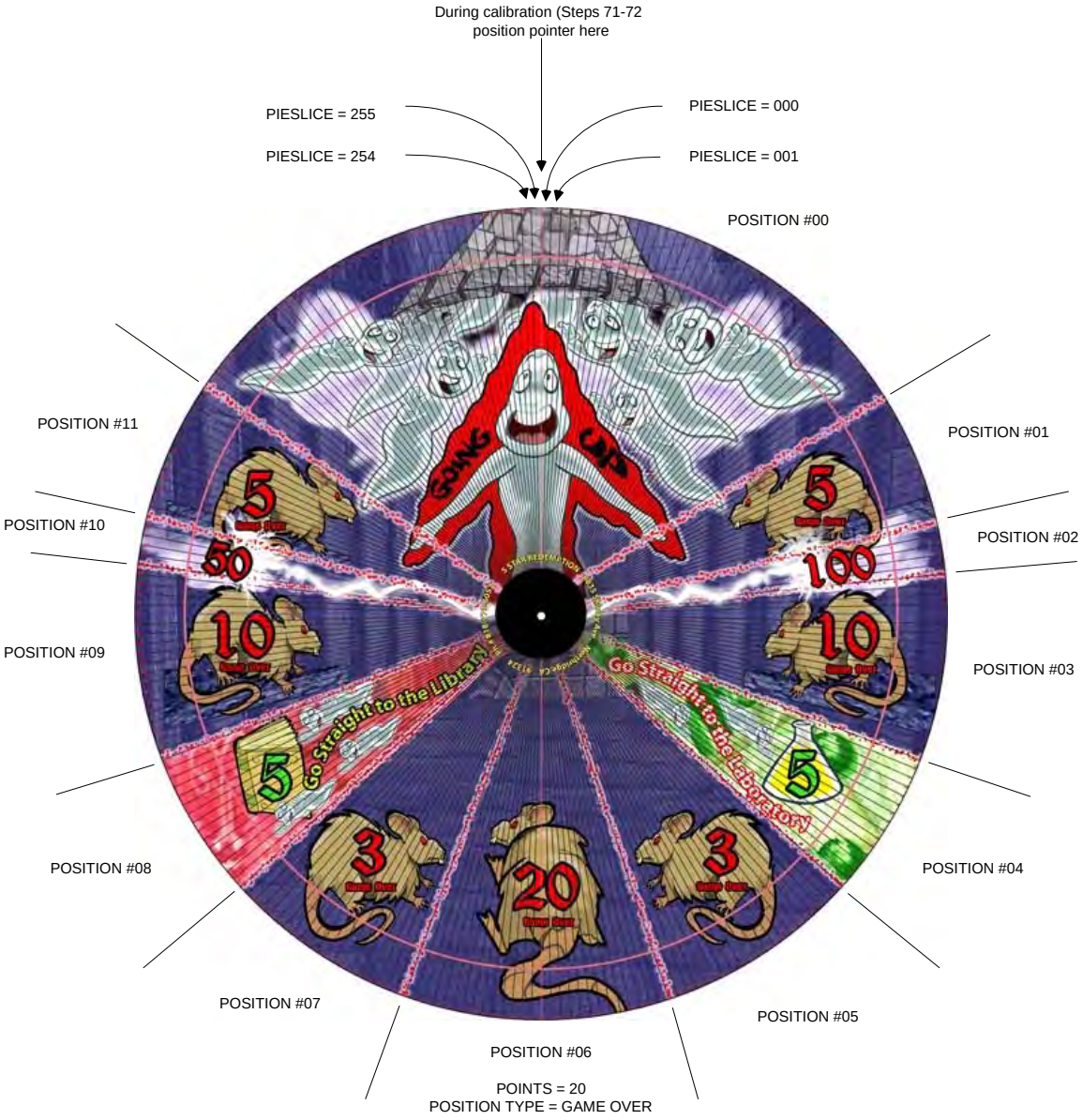
STEP #	DESCRIPTION	DESCRIPTION
47	Spinner2 maximum kick time	Spinner #2 maximum kick time allowed (increments of 1)
48	Swipe card to the top enable	0=disabled, 1=enabled
49	Swipe to top coin	Number of times coin meter incremented for swipe to top (increments of 1)
50	Dispense tickets during game play	0=disabled, 1=enabled
51	Bank bate cashout enable	0=disabled, 1=enabled (enabled allows player to tear tickets off to cashout)
52	Bank bate ticket delay	0=0.0 sec, 1=0.5 sec, 2=1.0 sec
54	Points for 01 cards	Number of points awarded for 01 cards (increments of 1)
55	Points for 02 cards	Number of points awarded for 02 cards (increments of 1)
56	Points for 03 cards	Number of points awarded for 03 cards (increments of 1)
57	Points for 04 cards	Number of points awarded for 04 cards (increments of 1)
58	Points for 05 cards	Number of points awarded for 05 cards (increments of 1)
59	Points for 06 cards	Number of points awarded for 06 cards (increments of 1)
60	Points for 07 cards	Number of points awarded for 07 cards (increments of 1)
61	Points for 08 cards	Number of points awarded for 08 cards (increments of 1)
62	Points for 09 cards	Number of points awarded for 09 cards (increments of 1)
63	Points for 10 cards	Number of points awarded for 10 cards (increments of 1)
64	Points for 11 cards	Number of points awarded for 11 cards (increments of 1)
65	Points for 12 cards	Number of points awarded for 12 cards (must be 0)
66	Points for 13 cards	Number of points awarded for 13 cards (must be 0)
67	Points for 14 cards	Number of points awarded for 14 cards (must be 0)
68	Points for 15 cards	Number of points awarded for 15 cards (must be 0)
69	Points for 16 cards	Number of points awarded for 16 cards (must be 0)

RESETTING THE STATISTICS

Pressing the **FAST STOP BUTTON** will execute the reset.

STEP #	DESCRIPTION
70	RESET STATISTICS

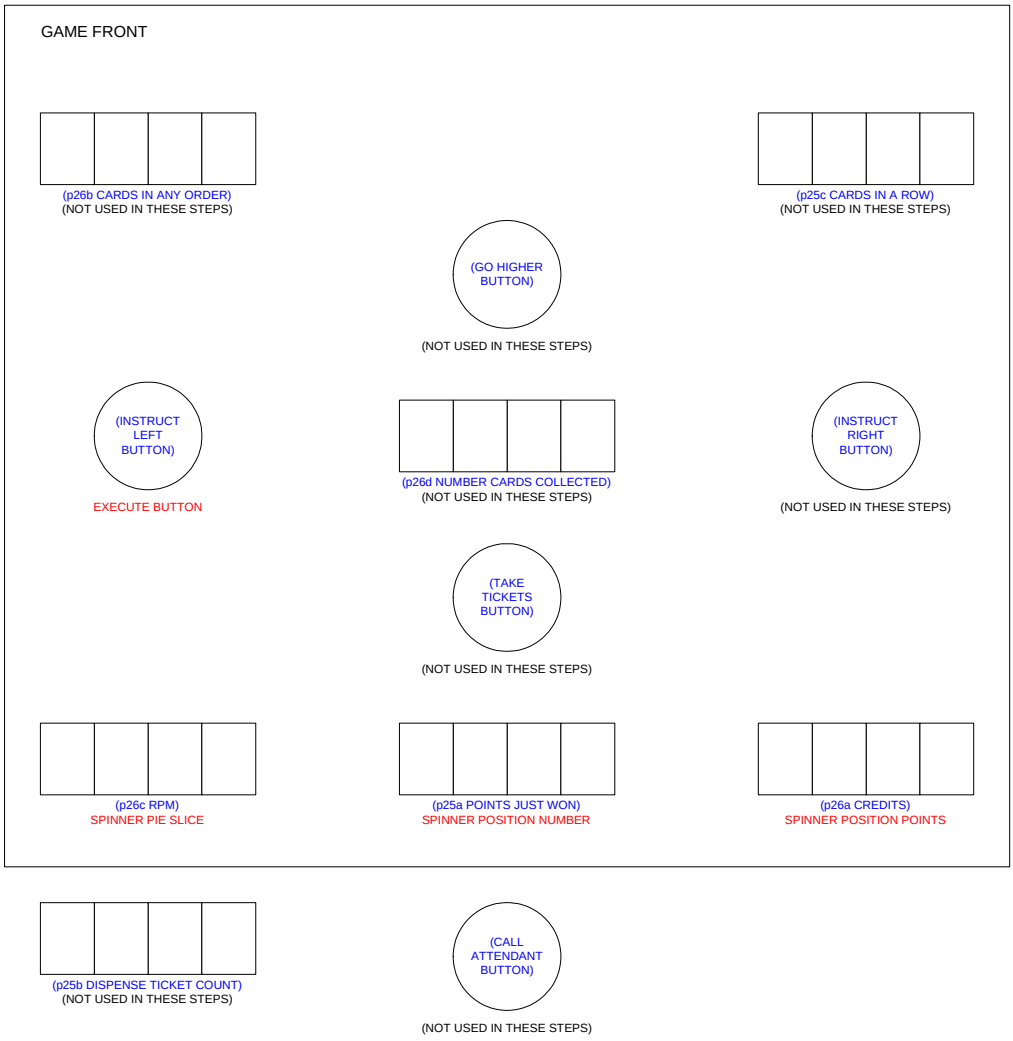
DIAGNOSTICS 71 – 72

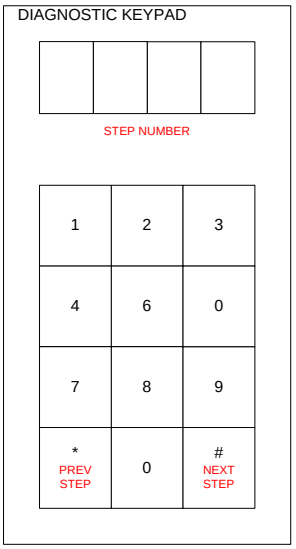


Diagnostic 71- 72 Position Type & Pie Slice Definition

HOW TO RUN DIAGNOSTICS 71 – 72 CALIBRATING SPINNERS

Displays Spinner Information Pie Slices 0-255, Position Type, Points, and Position Number.
Pulling back on the **START LEVER** will execute the **Calibration of the Spinner.**





Note: Hold down '*" key and enter step number to jump to a desired program mode step.

Step's 71 – 72 Diagnostic Layout

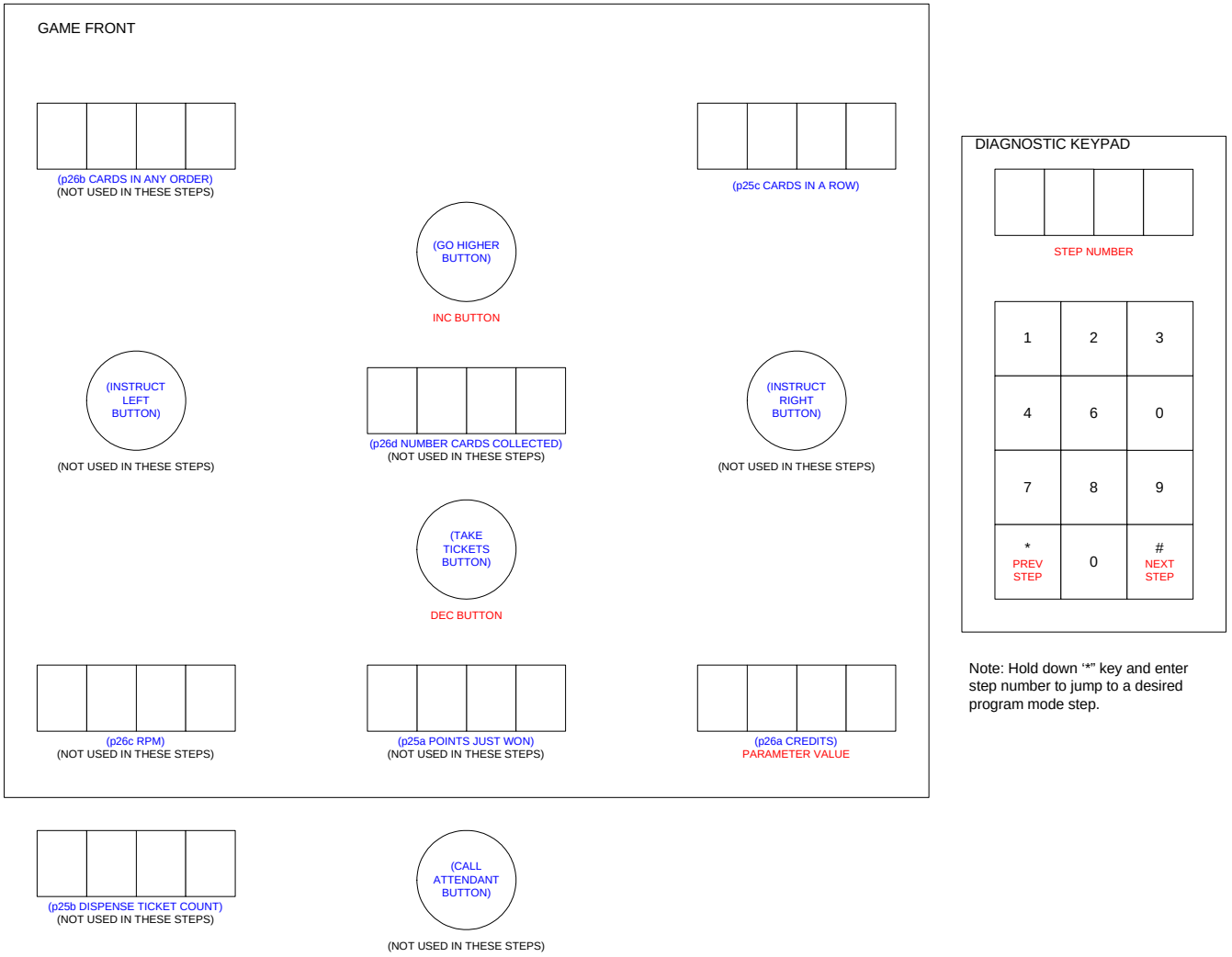
Troubleshooting Steps for Diagnostics 71 - 72

Problem	Solution
Pie Slice is not zero when spinner is pointing straight up to TDC (top dead center)	• Recalibrate to TDC by manually positioning pointer straight up and pushing Start button (spinner may be energized by momentarily pushing Fast Stop pushbutton)
Wrong Pie Slice 0-255, Pie Slice number should increase smoothly from 0 to 255 as spinner is rotated clockwise	• Verify spinner board switches are set correctly • Examine/reseat wiring harness connections to spinner board
Wrong Position Number, Position Number should increase smoothly from 0 as spinner is rotated clockwise through each Spinner Position	• Verify spinner board switches are set correctly • Examine/reseat wiring harness connections to spinner board • Recalibrate to TDC (top dead center) by manually positioning pointer straight up and pushing Fast Stop button

RUNNING DIAGNOSTICS 76

Checking Spinner Motor

Push **Left Instruction Pushbutton** to select desired spinner to test. The number of the selected spinner is shown on the RPM display. Pulling the **Start Lever** to energize the spinner motor. Hold down the **Slow Stop Pushbutton** while pushing the **Start Lever** to cause the spinner to spin more slowly. Perform the troubleshooting steps in the sequence specified in Troubleshooting Steps for Diagnostic 76 on next page.



Step 76 Diagnostic Layout

TROUBLESHOOTING STEPS FOR DIAGNOSTIC 76

Problem	Solution
Particular spinner(s) do not spin	• Verify spinner board switches are set correctly • Examine/reseat wiring harness connections to spinner boards • Swap spinner boards to see if problem moves with the boards and replace any spinner board found to be defective (be sure board switches are set correctly) • Replace spinner motor and retest
Particular brake(s) do not activate	• Verify spinner board switches are set correctly • Examine/reseat wiring harness connections to spinner boards • Swap spinner boards to see if problem moves with the boards and replace any spinner board found to be defective (be sure board switches are set correctly) • Adjust/replace spinner brake and retest
All spinners do not spin	• Examine/reseat wiring harness connections to spinner boards • Look for low-voltage changes at VTMux board output when spinner should be spinning and if voltage does not change, replace VTMux board and retest
All brakes do not activate	• Examine/reseat wiring harness connections to spinner boards • Look for low-voltage changes at VTMux board output when brake should be activated and if voltage does not change, replace VTMux board and retest

RUNNING DIAGNOSTICS 77

Display Keypad Inputs

Push each of the individual numbers on the keypad to display the associated keypad number.

RUNNING DIAGNOSTICS 78

Testing Ticket Dispenser

Push the Flashing **Call Attendant Pushbutton** to Dispense a Single Ticket.

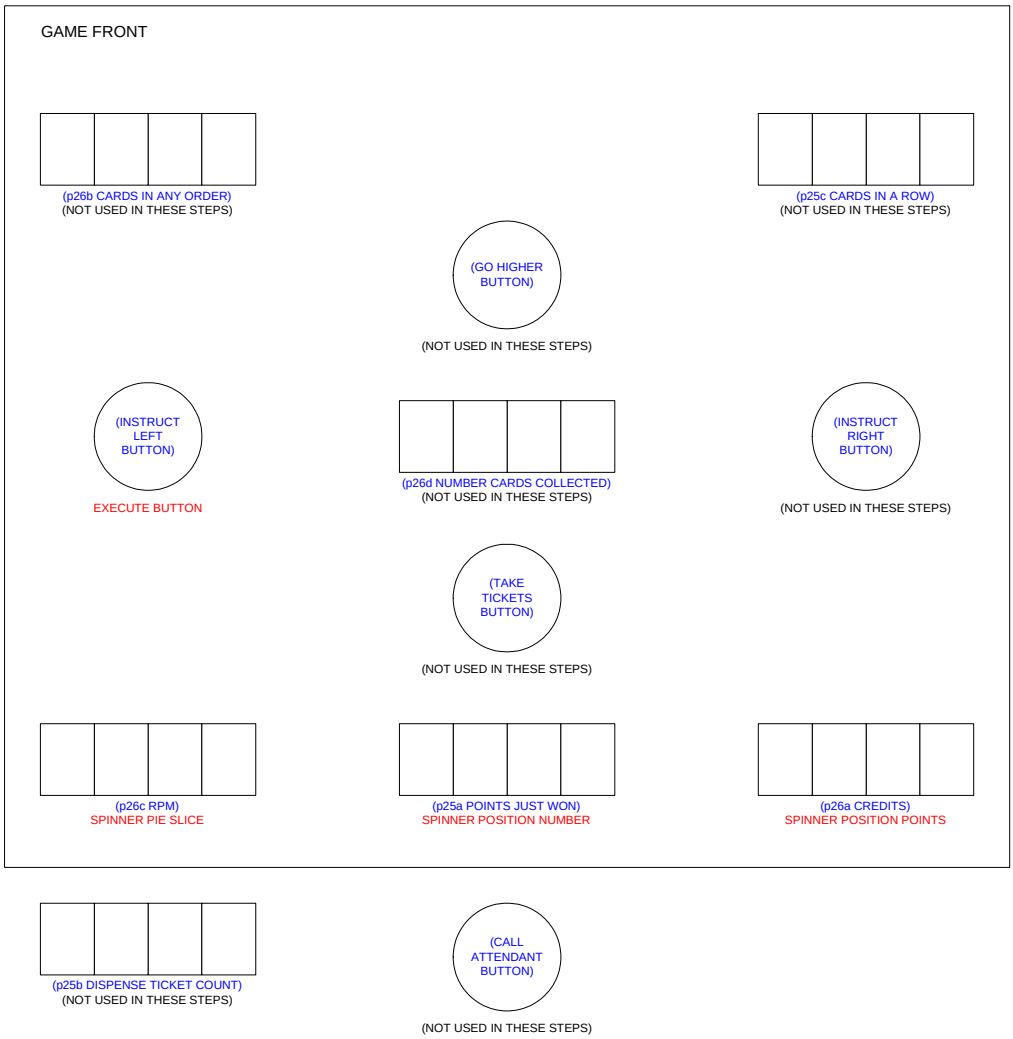
Troubleshooting Steps for Diagnostic 78

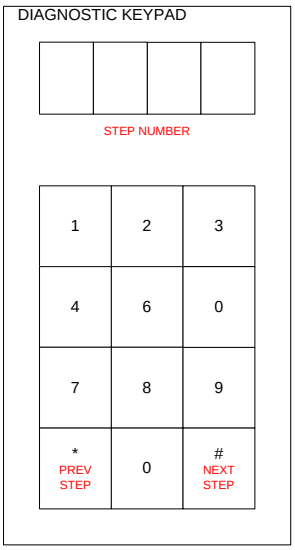
Problem	Solution
Does not dispense tickets	• Clear ticket dispenser of any jammed tickets • Load tickets if empty • Try dispensing a ticket using diagnostic mode, if ticket does not dispense: o Check wiring harness o Replace ticket dispenser and retest o Replace VTMux board and retest

RUNNING DIAGNOSTICS 79

Testing for Spinner Intermittent Problems

Check for spinner intermittent problems while spinners are spinning. Momentarily press keypad 1-5 to begin test on selected spinner. **Press Keypad** 0 to stop test. Perform the troubleshooting steps in the sequence Troubleshooting Steps for Diagnostic 79.





Note: Hold down '*" key and enter step number to jump to a desired program mode step.

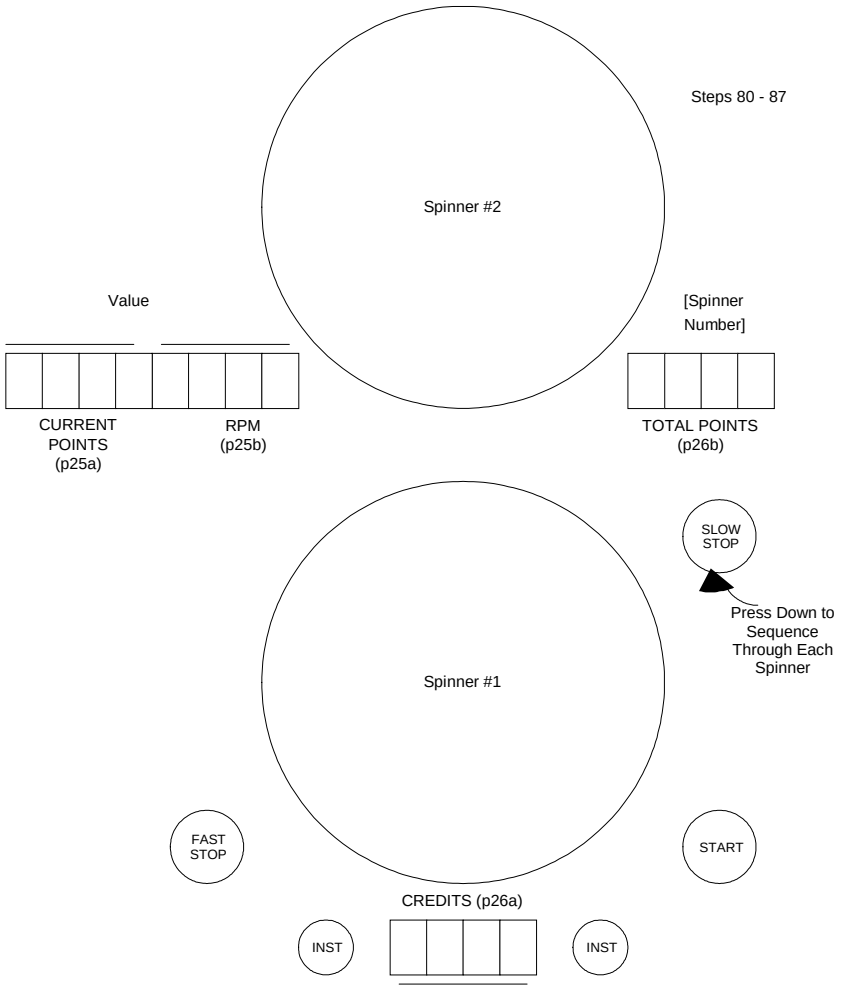
Step 79 Diagnostic Layout

Troubleshooting Steps for Diagnostic 79

Problem	Solution
Spinner errors detected (a couple errors during a couple minutes of operation is normal and will not cause problems in game's operation)	• Examine/reseat wiring harness connections to spinner boards • Replace spinner board and retest • Replace spinner mechanism and retest

VIEWING ADDITIONAL STATISTIC AL INFORMATION'S STEPS 80 - 87

Step's 80 – 87 The RPM display will give the Value or Data associated with the step, and the Total Points Display gives the Spinner Number. Pressing the "SLOW STOP" Button will cycle through and select all of the Spinners.

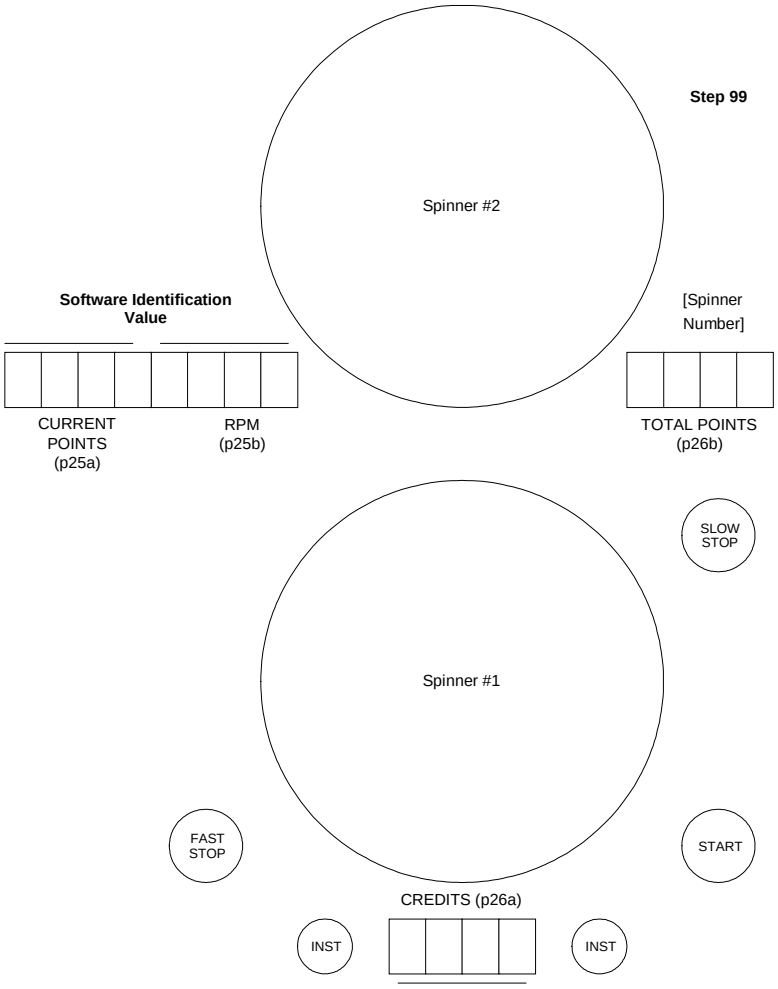


Statistical Information Steps 80 - 87

Step #	Value Range	Description
80	0-00,999,999	Number of Times Player Paid To Go Higher from Spinner #1-5 (Since Last Reset)
81	0-00,999,999	Number of Times Player Paid To Go Higher from Spinner #1-5 (Lifetime)
82	0-00,999,999	Number of Times Player Did Not Pay To Go Higher from Spinner #1-5 (Since Last Reset)
83	0-00,999,999	Number of Times Player Did Not Pay To Go Higher from Spinner #1-5 (Lifetime)
84	0-00,999,999	Number of Times Player Landed on Secret Passage from Spinner #1-5 (Since Last Reset)
85	0-00,999,999	Number of Times Player Landed on Secret Passage from Spinner #1-5 (Lifetime)
86	0-00,999,999	Number of Times Player Landed on Booby Trap from Spinner #1-5 (Since Last Reset)
87	0-00,999,999	Number of Times Player Landed on Booby Trap from Spinner #1-5 (Lifetime)

STEP 99 VIEWING SOFTWARE VERSION

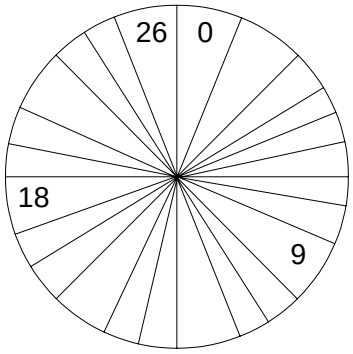
Step 99 Displays the Eight Digit Software Identification Number on the Last Value Scored & RPM's displays.



View and Changing Spinner Target Values

VIEWING AND CHANGING SPINNER TARGET VALUES STEPS 100 – 576

Pressing the **FAST STOP BUTTON** will decrement the Value, Pressing the **START BUTTON** will increment the value. To increase the **STEP NUMBER** use the Numeric Keypad and press the '*', to decrease the STEP **NUMBER** press the '#' symbol. To Go to **STEPS** directly Hold down the "*****" key while entering the **STEP NUMBER** in the keypad. Pressing the *Program Mode* or Holding Down both the '*****' and "**#**" symbols will allow the operator to exit. The program button is located near the main board inside of the cabinet.

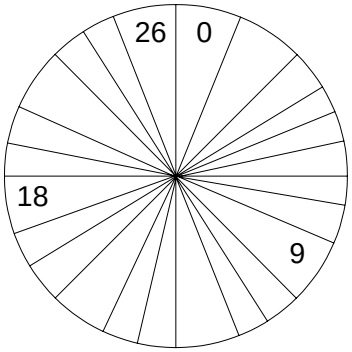


STEPS 100 - 126
VIEWING SPINNER #1 TARGET POINTS

STEP NUMBER SPINNER #1	SPINNER POSITION	TARGET POINTS
100	0	INCREMENTS OF 1
101	1	"
102	2	"
103	3	"
104	4	"
105	5	"
106	6	"
107	7	"
108	8	"
109	9	"
110	10	"
111	11	"
112	12	"
113	13	"
114	14	"
115	15	"
116	16	"
117	17	"
118	18	"
119	19	"

STEP NUMBER SPINNER #1	SPINNER POSITION	TARGET POINTS
120	20	“
121	21	“
122	22	“
123	23	“
124	24	“
125	25	“
126	26	“

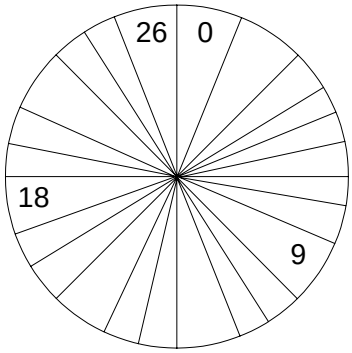
View and Changing Spinner Target Values



STEPS 150 - 176
CHANGING SPINNER #1 TARGET TYPES

STEP NUMBER **SPINNER #1**	**SPINNER POSITION**	**TARGET TYPES**
150	**0**	**0=NONE 1-5 JUMP TO SPINNER# 6=UP 7 = DOWN 8= DEATH**
151	**1**	**“**
152	**2**	**“**
153	**3**	**“**
154	**4**	**“**
155	**5**	**“**
156	**6**	**“**
157	**7**	**“**
158	**8**	**“**
159	**9**	**“**
160	**10**	**“**
161	**11**	**“**
162	**12**	**“**
163	**13**	
164	**14**	
165	**15**	
166	**16**	
167	**17**	
168	**18**	
169	**19**	
170	**20**	
171	**21**	
172	**22**	
173	**23**	
174	**24**	
175	**25**	
176	**26**	

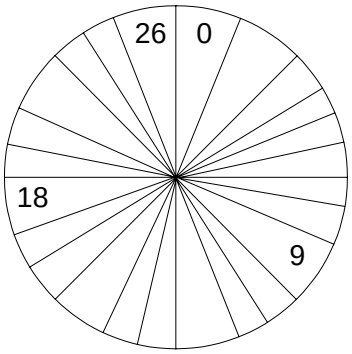
View and Changing Spinner Target Values



STEPS 200 - 226
VIEWING SPINNER #2 TARGET POINTS

STEP NUMBER SPINNER #1	SPINNER POSITION	TARGET POINTS
200	0	INCREMENTS OF 5
201	1	"
202	2	"
203	3	"
204	4	"
205	5	"
206	6	"
207	7	"
208	8	"
209	9	"
210	10	"
211	11	"
212	12	"
213	13	"
214	14	"
215	15	"
216	16	"
217	17	"
218	18	"
219	19	"
220	20	"
221	21	"
222	22	"
223	23	"
224	24	"
225	25	"
226	26	"

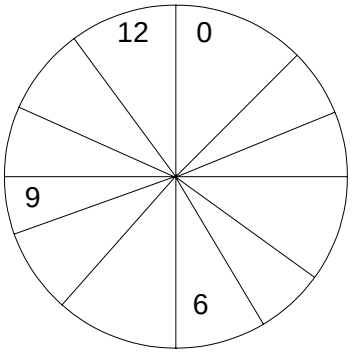
View and Changing Spinner Target Values



STEPS 250 - 276
CHANGING SPINNER #2 TARGET TYPES

STEP NUMBER SPINNER #1	SPINNER POSITION	TARGET TYPES
250	0	0=NONE 1-5 JUMP TO SPINNER# 6=UP 7 = DOWN 8= DEATH 9=DEAD ZONE 10= UP DEAD ZONE
251	1	“
252	2	“
253	3	“
254	4	“
255	5	“
256	6	“
257	7	“
258	8	“
259	9	“
260	10	“
261	11	“
262	12	“
263	13	“
264	14	“
265	15	“
266	16	“
267	17	“
268	18	“
269	19	“
270	20	“
271	21	“
272	22	“
273	23	“
274	24	“
275	25	“
276	26	“

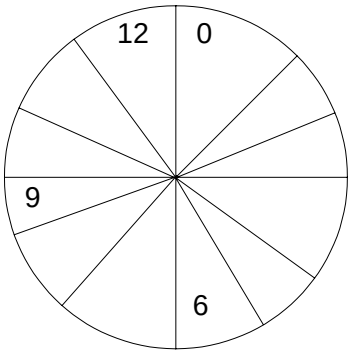
View and Changing Spinner Target Values



STEPS 300 - 312
CHANGING SPINNER #3 TARGET POINTS

STEP NUMBER SPINNER #1	SPINNER POSITION	TARGET POINTS
300	0	INCREMENTS OF 1
301	1	"
302	2	"
303	3	"
304	4	"
305	5	"
306	6	"
307	7	"
308	8	"
309	9	"
310	10	"
311	11	"
312	12	"

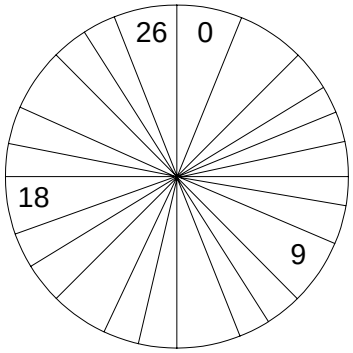
View and Changing Spinner Target Values



STEPS 350 - 362
CHANGING SPINNER #1 TARGET TYPES

STEP NUMBER SPINNER #1	SPINNER POSITION	TARGET TYPES
350	0	0=NONE 1-5 JUMP TO SPINNER# 6=UP 7 = DOWN 8= DEATH 9=DEAD ZONE 10= UP DEAD ZONE
351	1	“
352	2	“
353	3	“
354	4	“
355	5	“
356	6	“
357	7	“
358	8	“
359	9	“
360	10	“
361	11	“
362	12	“

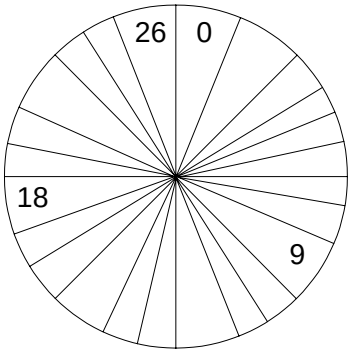
View and Changing Spinner Target Values



STEPS400 - 426
VIEWING SPINNER #4 TARGET POINTS

STEP NUMBER SPINNER #1	SPINNER POSITION	TARGET POINTS
400	0	INCREMENTS OF 1
401	1	"
402	2	"
403	3	"
404	4	"
405	5	"
406	6	"
407	7	"
408	8	"
409	9	"
410	10	"
411	11	"
412	12	"
413	13	"
414	14	"
415	15	"
416	16	"
417	17	"
418	18	"
419	19	"
420	20	"
421	21	"
422	22	"
423	23	"
424	24	"
425	25	"
426	26	"

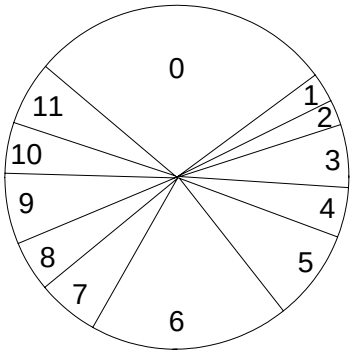
View and Changing Spinner Target Values



STEPS 450 - 476
CHANGING SPINNER #4 TARGET TYPES

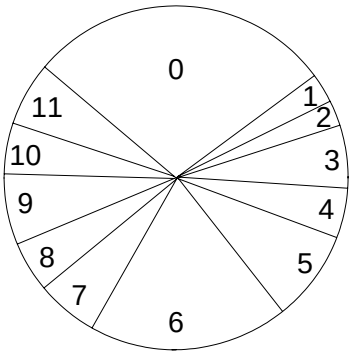
STEP NUMBER SPINNER #1	SPINNER POSITION	TARGET TYPES
450	0	0=NONE 1-5 JUMP TO SPINNER# 6=UP 7 = DOWN 8= DEATH 9=DEAD ZONE 10= UP DEAD ZONE
451	1	“
452	2	“
453	3	“
454	4	“
455	5	“
456	6	“
457	7	“
458	8	“
459	9	“
460	10	“
461	11	“
462	12	“
463	13	“
464	14	“
465	15	“
466	16	“
467	17	“
468	18	“
469	19	“
470	20	“
471	21	“
472	22	“
473	23	“
474	24	“
475	25	“
476	26	“

View and Changing Spinner Target Values



STEPS500 - 526
VIEWING SPINNER #4 TARGET POINTS

STEP NUMBER SPINNER #1	SPINNER POSITION	TARGET POINTS
500	0	INCREMENTS OF 1
501	1	"
502	2	"
503	3	"
504	4	"
505	5	"
506	6	"
507	7	"
508	8	"
509	9	"
510	10	"
511	11	"
512	12	"
513	13	"
514	14	"
515	15	"
516	16	"
517	17	"
518	18	"
519	19	"
520	20	"
521	21	"
522	22	"
523	23	"
524	24	"
525	25	"
526	26	"



STEPS 550 - 576
CHANGING SPINNER #5 TARGET TYPES

STEP NUMBER SPINNER #1	SPINNER POSITION	TARGET TYPES
550	0	0=NONE 1-5 JUMP TO SPINNER# 6=UP 7 = DOWN 8= DEATH 9=DEAD ZONE 10= UP DEAD ZONE
551	1	“
552	2	“
553	3	“
554	4	“
555	5	“
556	6	“
557	7	“
558	8	“
559	9	“
560	10	“
561	11	“
562	12	“
563	13	“
564	14	“
565	15	“
566	16	“
567	17	“
568	18	“
569	19	“
570	20	“
571	21	“
572	22	“
573	23	“
574	24	“
575	25	“
576	26	“

VIEWING STASTICAL INFORMATION

To increase the **STEP NUMBER** use the Numeric Keypad and press the '*', to decrease the STEP **NUMBER** press the '#' symbol. To Go to **STEPS** directly Hold down the "*****" key while entering the **STEP NUMBER** in the keypad. To View Spinner's 1 – 5 Data Press the **SLOW STOP BUTTON** to cycle through each spinner.

STEP #	DESCRIPTION
700	R COINS TAKEN IN (SINCE RESET)
701	L COINS TAKEN IN (LIFETIME)
702	R TOTAL SPINS (SINCE RESET)
703	L TOTAL SPINS (LIFETIME)
704	R POINTS WON (SINCE RESET)
705	L POINTS WON (LIFETIME)
706	R CREDITS (SINCE RESET)
707	L CREDITS (LIFETIME)
708	R TICKETS (SINCE RESET)
709	L TICKETS (LIFETIME)
710	R TIMES 1CARDS (SINCE RESET)
711	L TIMES 1CARDS (LIFETIME)
712	R TIMES 2CARDS (SINCE RESET)
713	L TIMES 2CARDS (LIFETIME)
714	R TIMES 3CARDS (SINCE RESET)
715	L TIMES 3CARDS (LIFETIME)
716	R TIMES 4CARDS (SINCE RESET)
717	L TIMES 4CARDS (LIFETIME)
718	R TIMES 5CARDS (SINCE RESET)
719	L TIMES 5CARDS (LIFETIME)
720	R TIMES 6CARDS (SINCE RESET)
721	L TIMES 6CARDS (LIFETIME)
722	R TIMES 7CARDS (SINCE RESET)
723	L TIMES 7CARDS (LIFETIME)
724	R TIMES 8CARDS (SINCE RESET)
725	L TIMES 8CARDS (LIFETIME)
726	R TIMES 9CARDS (SINCE RESET)
727	L TIMES 9CARDS (LIFETIME)
728	R TIMES 10CARDS (SINCE RESET)
729	L TIMES 10CARDS (LIFETIME)
750	R TIMES SPINNER TAMPERED0-4 (SINCE RESET)
751	L TIMES SPINNER TAMPERED0-4 (LIFETIME)
752	R TIMES SPINNER SPUN0-4 (SINCE RESET)
753	L TIMES SPINNER SPUN0-4 (LIFETIME)
754	R POINTS SPINNER0-4 (SINCE RESET)
755	L POINTS SPINNER0-4 (LIFETIME)
756	R TIMES SPUN ON POINTS0-4 (SINCE RESET)
757	L TIMES SPUN ON POINTS0-4 (LIFETIME)

STEP #	DESCRIPTION
758	R TIMES PAY HIGHER0-4 (SINCE RESET)
759	L TIMES PAY HIGHER0-4 (LIFETIME)
780	R AVERAGE POINTS PER CREDIT (SINCE RESET)
781	L AVERAGE POINTS PER CREDIT (LIFETIME)
782	R AVERAGE SPINS PER CREDIT (SINCE RESET)
783	L AVERAGE SPINS PER CREDIT (LIFETIME)
784	R AVERAGE POINTS SPINNER0-4 (SINCE RESET)
785	L AVERAGE POINTS SPINNER0-4 (LIFETIME)
786	R AVERAGE POINTS CREDITS0-4 (SINCE RESET)
787	L AVERAGE POINTS CREDITS0-4 (LIFETIME)

Wiring DiagramsTop Level Interconnections

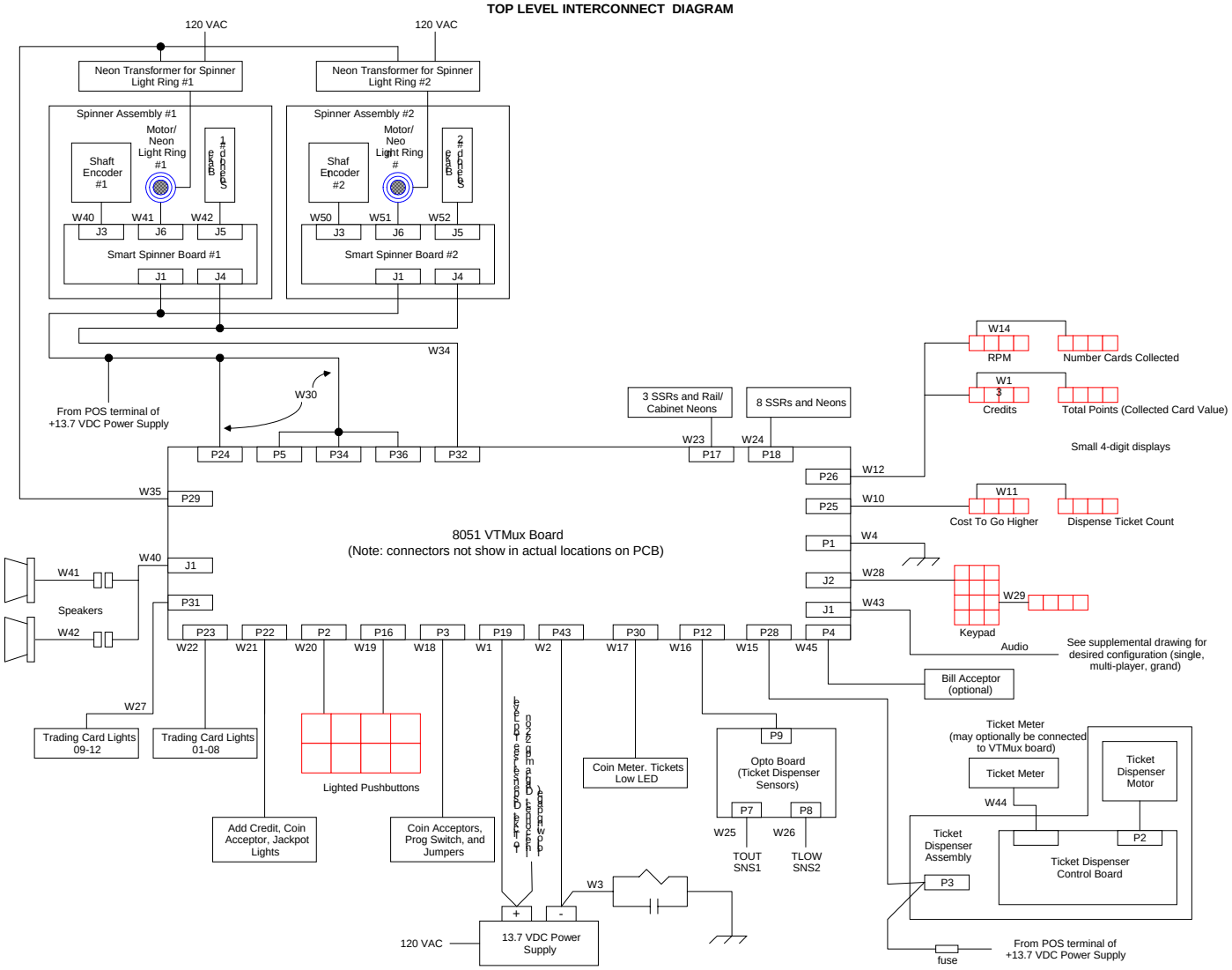


FIGURE 1 – TOP LEVEL INTERCONNECT DIAGRAM

Wiring Diagrams

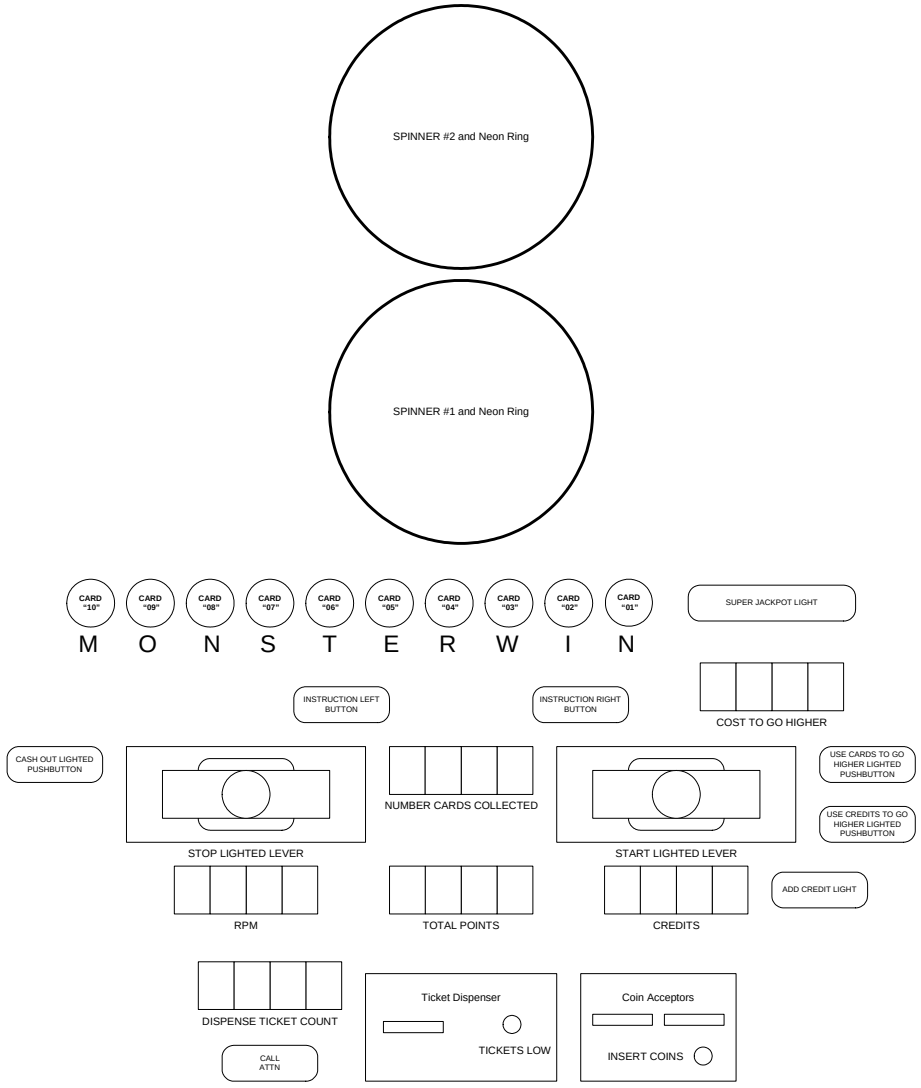


FIGURE 2 – CONTROL PANEL

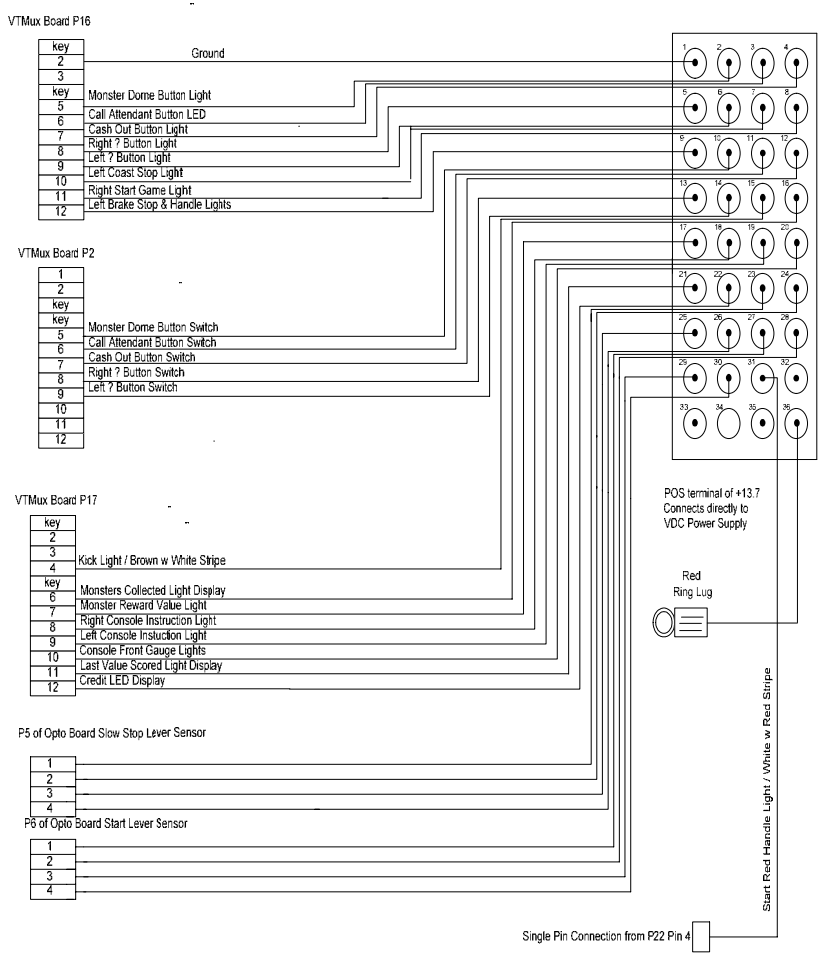


FIGURE 4 P2, P16, AND P17 CONNECTIONS FROM THE VTMUX BOARD TO THE CONTROL PANEL P5 & P6 FROM OPTO BOARD TO THE CONTROL PANEL

Wiring Diagrams

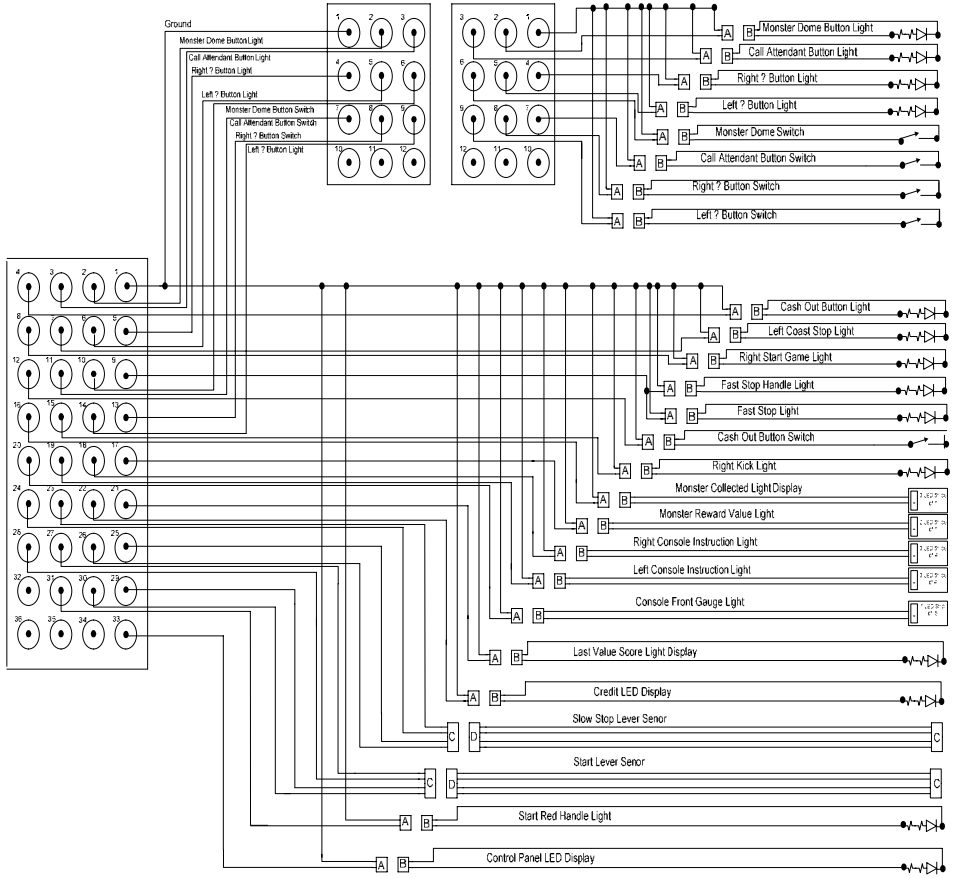


FIGURE 5 CONNECTIONS TO THE CONTROL PANEL

Wiring Diagrams

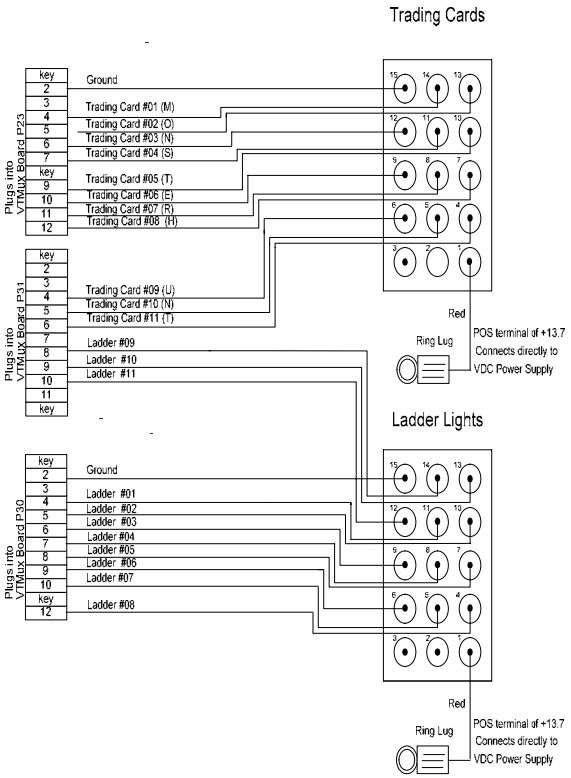


FIGURE 6 VTMUX BOARD P32 TO SMART SPINNER BOARD #1 & 2, J4S W34

Wiring Diagrams

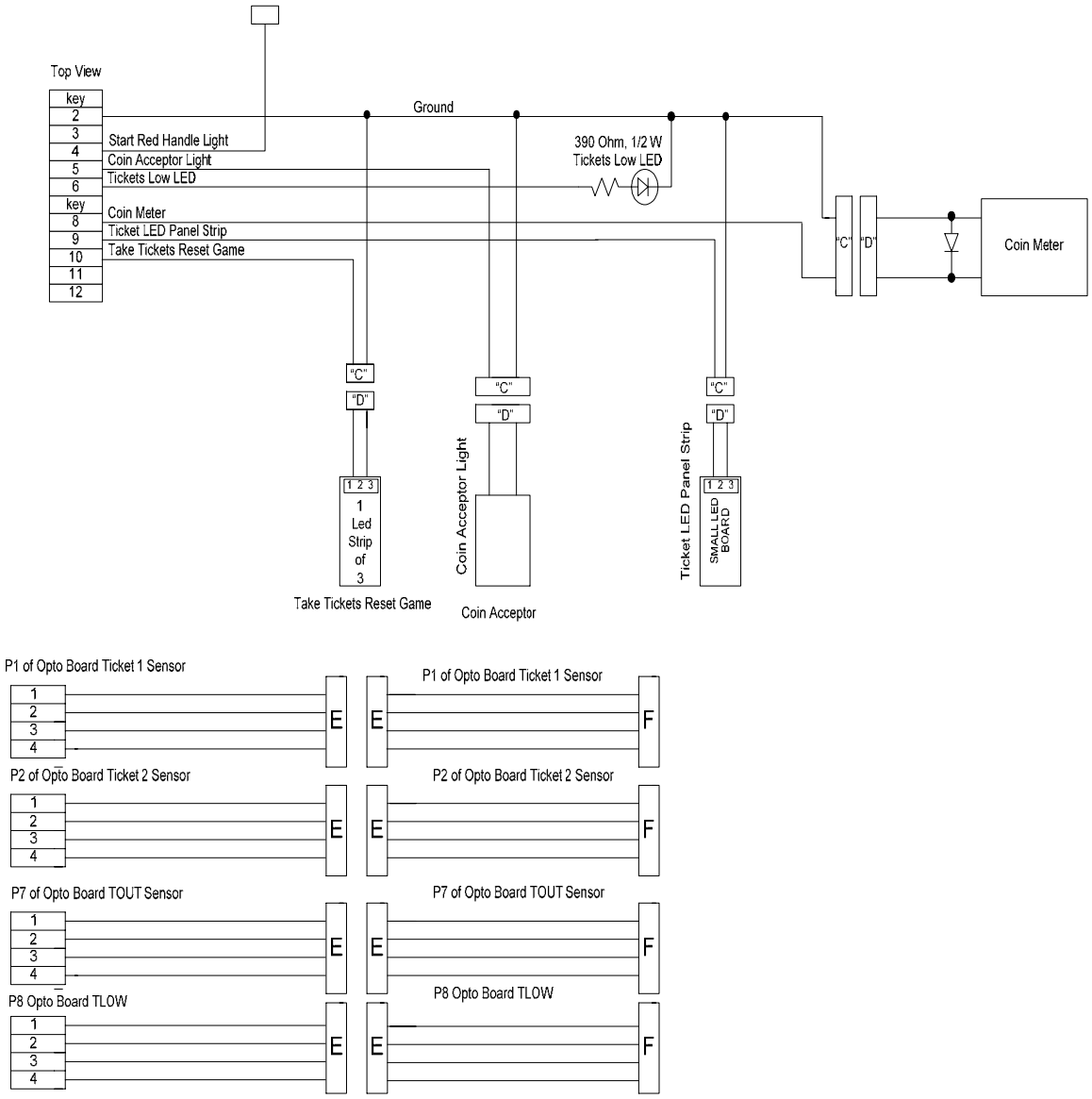


FIGURE 7 POWER SUPPLY TO SPINNER BOARDS #1 & 2 J1S7
W30 VTMUX BOARD P5, 24, AND 13.7VDC

Wiring Diagrams

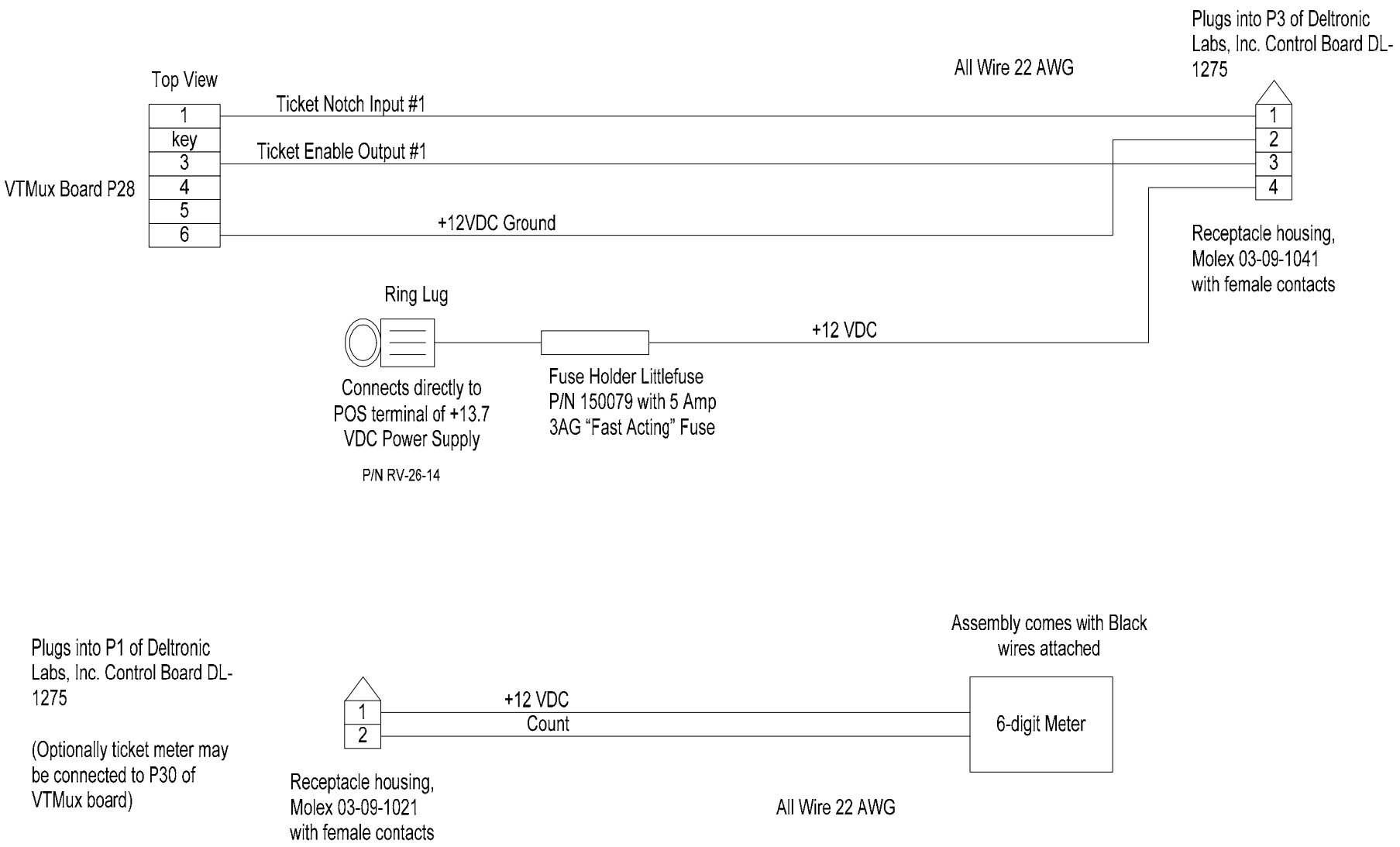


FIGURE 7 POWER SUPPLY TO SPINNER BOARDS #1 & 2 J1S7
W30 VTMUX BOARD P5, 24, AND 13.7VDC

Wiring Diagrams

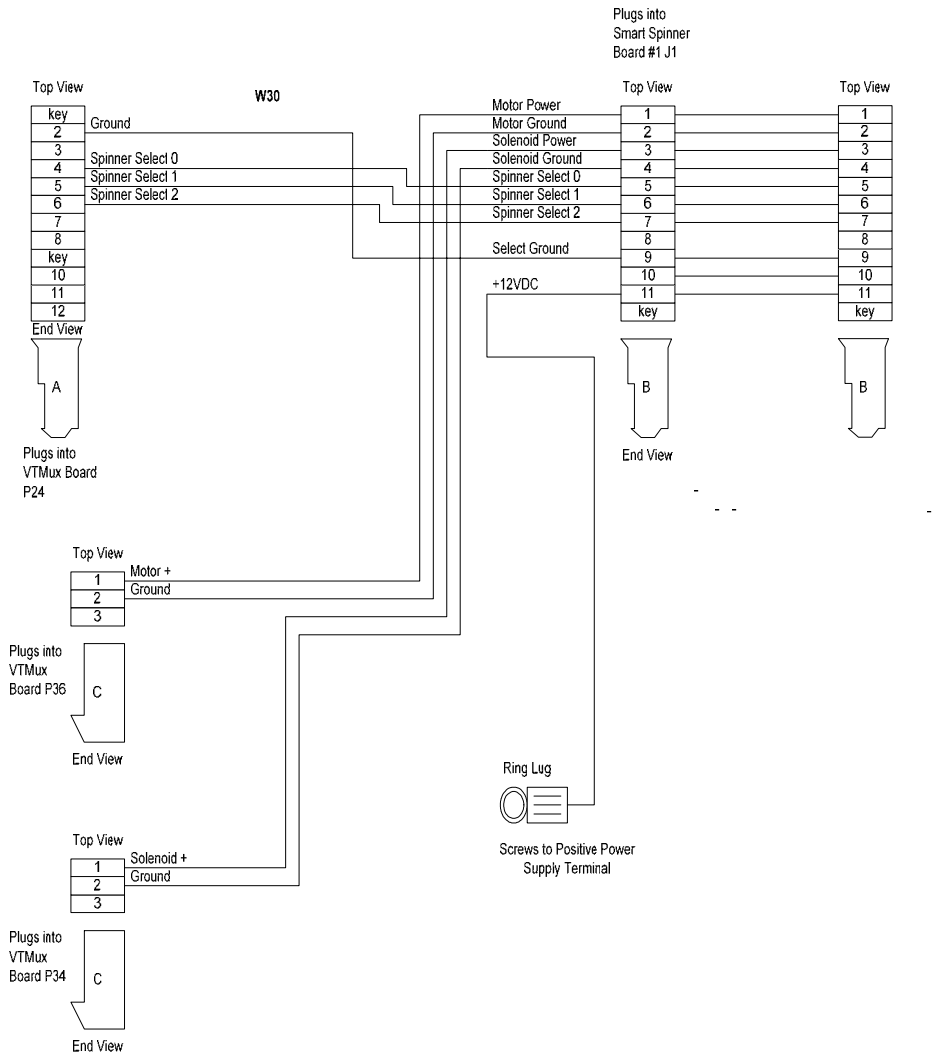
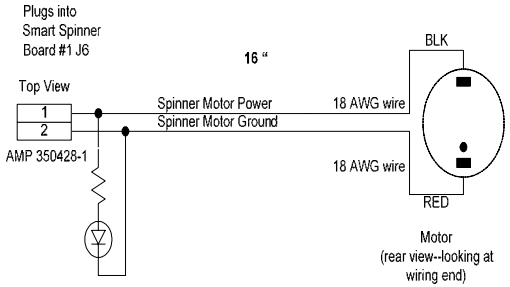
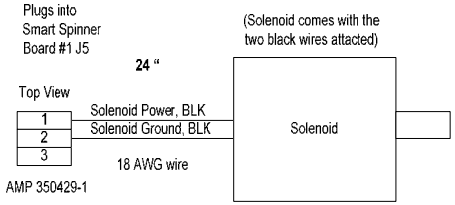
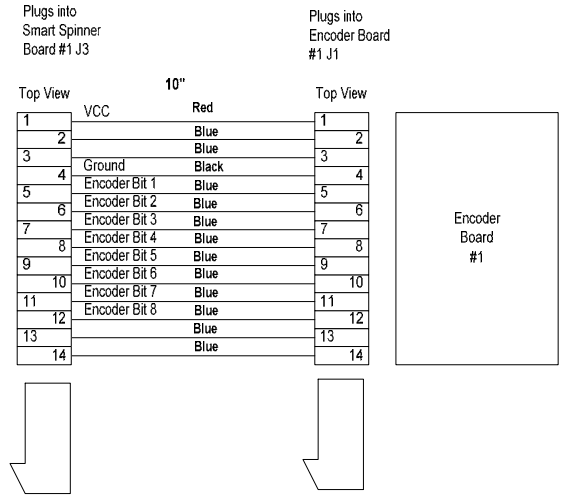


FIGURE 7 POWER SUPPLY TO SPINNER BOARDS #1 & 2 J1S7
W30 VTMUX BOARD P5, 24, AND 13.7VDC

Wiring Diagrams







Amp 1-640620-2 or Panduit CE100F22-12-C
(for 22 AWG Wire)

Wiring Diagrams

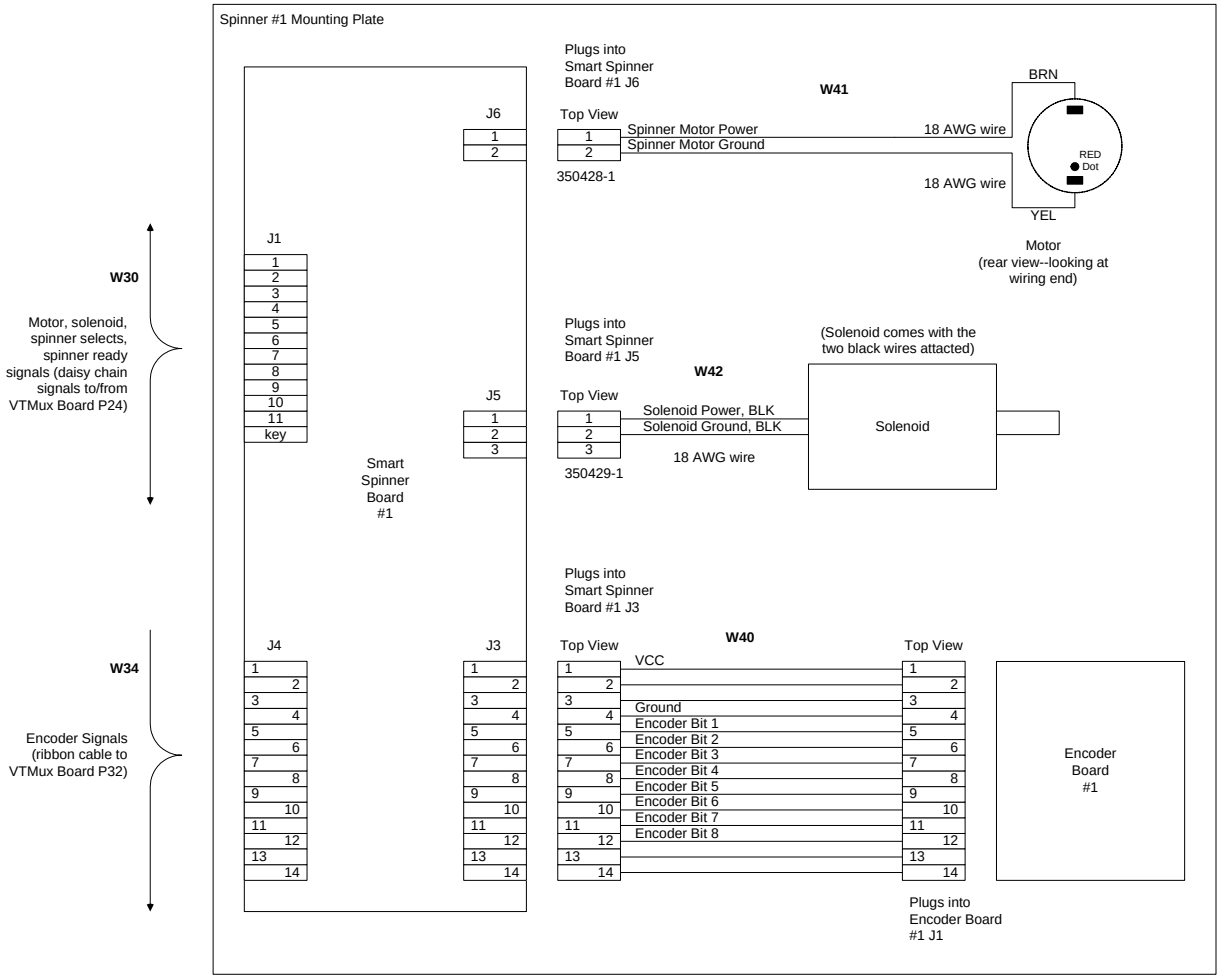


FIGURE 8 SPINNER #1 SUBASSEMBLY
W40 SPINNER BOARD #1 J3 TO ENCODER BOARD #1 J1
W41 SPINNER BOARD #1 J6 TO SPINNER MOTOR
W42 SPINNER BOARD #1 J5 TO SPINNER SOLENOID

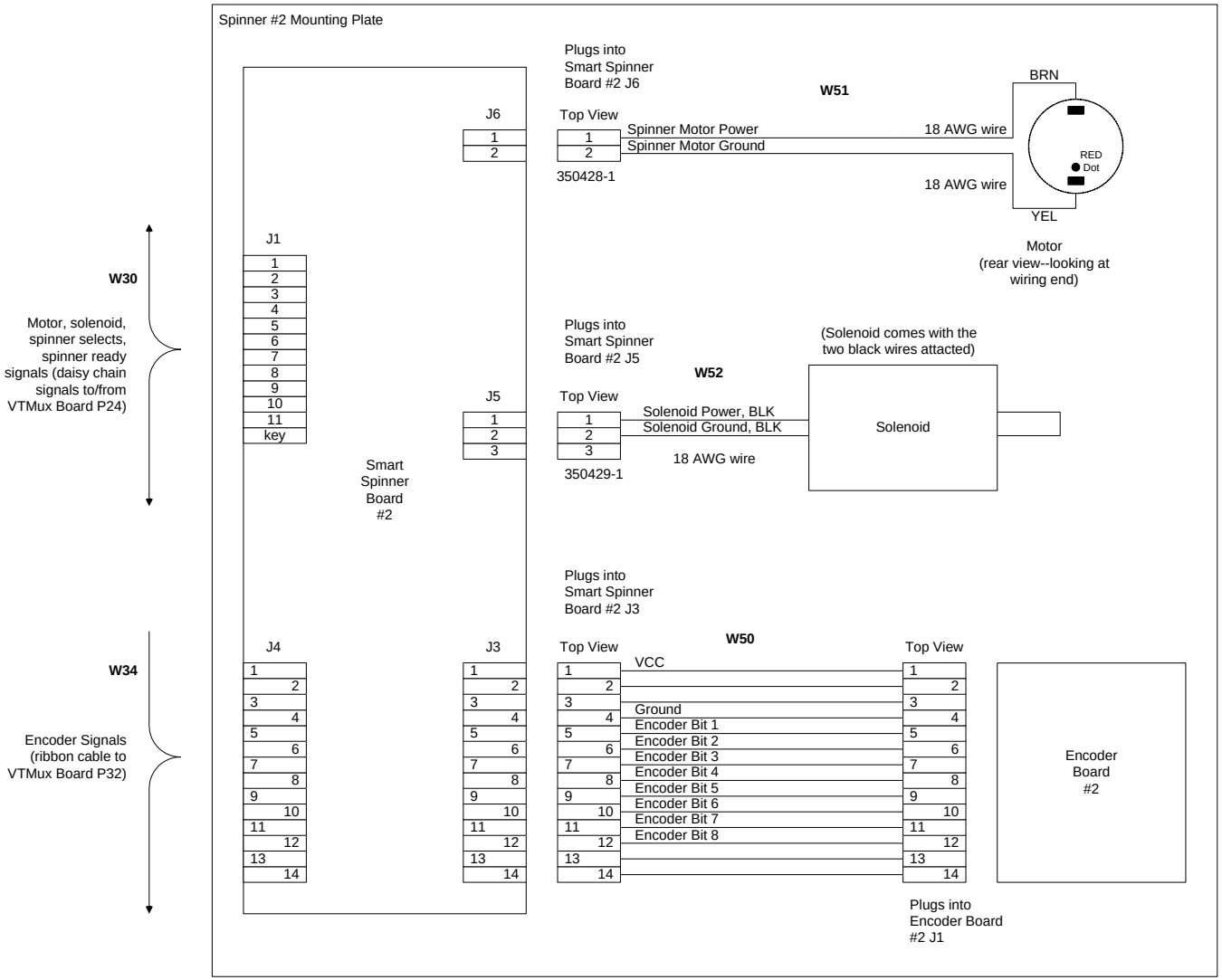


FIGURE 9 SPINNER #2 SUBASSEMBLY

W40 SPINNER BOARD #2 J3 TO ENCODER BOARD #2 J1

W41 SPINNER BOARD #2 J6 TO SPINNER MOTOR

W42 SPINNER BOARD #2 J5 TO SPINNER SOLENOID

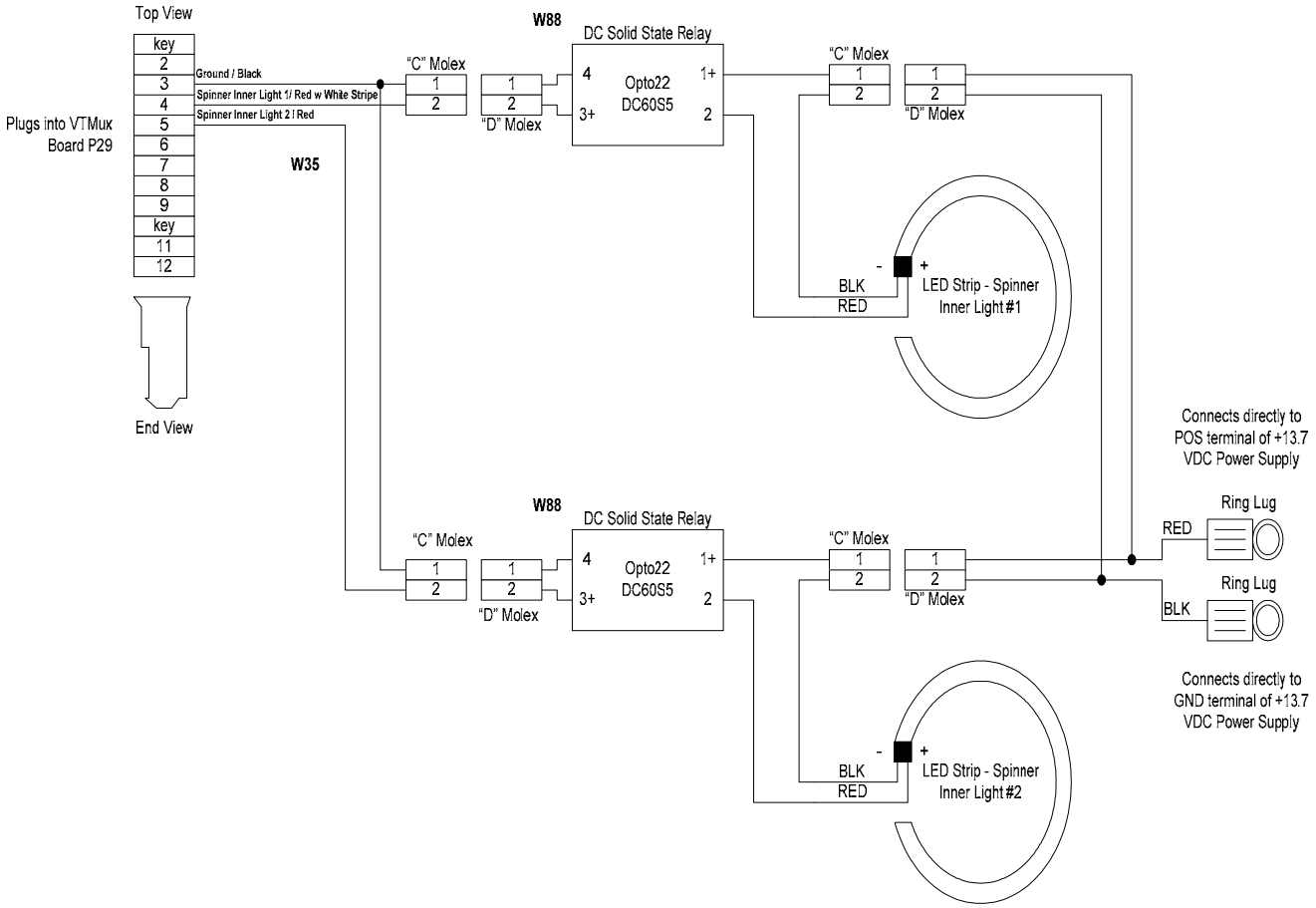


FIGURE 15 SPINNER'S 1 – 2 NEON RINGS WIRING

Wiring Diagrams

W35 VTMUX BOARD P29 TO SPINNER #1-2 NEON TRANSFORMERS AND LIGHTS

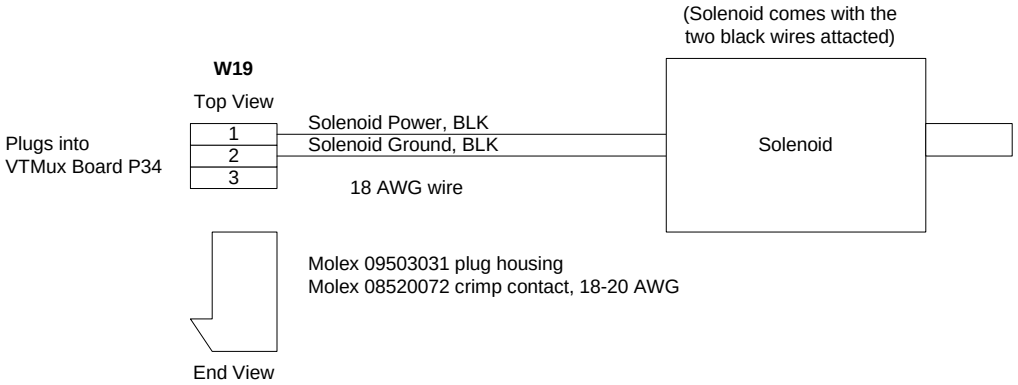


FIGURE 16 VTMUX BOARD P34 TO BRAKE SOLENOID

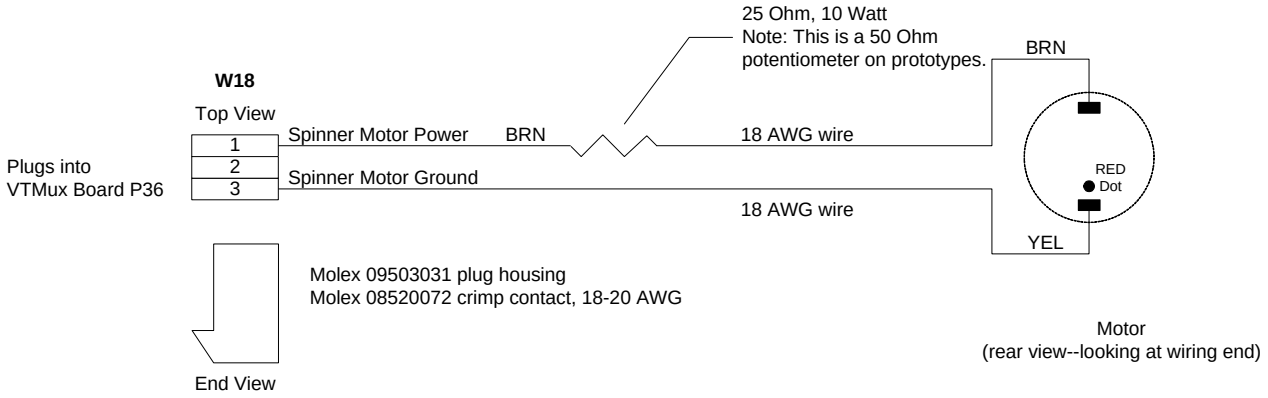


FIGURE 17 VTMUX BOARD P34 TO SPINNER MOTOR

Wiring Diagrams

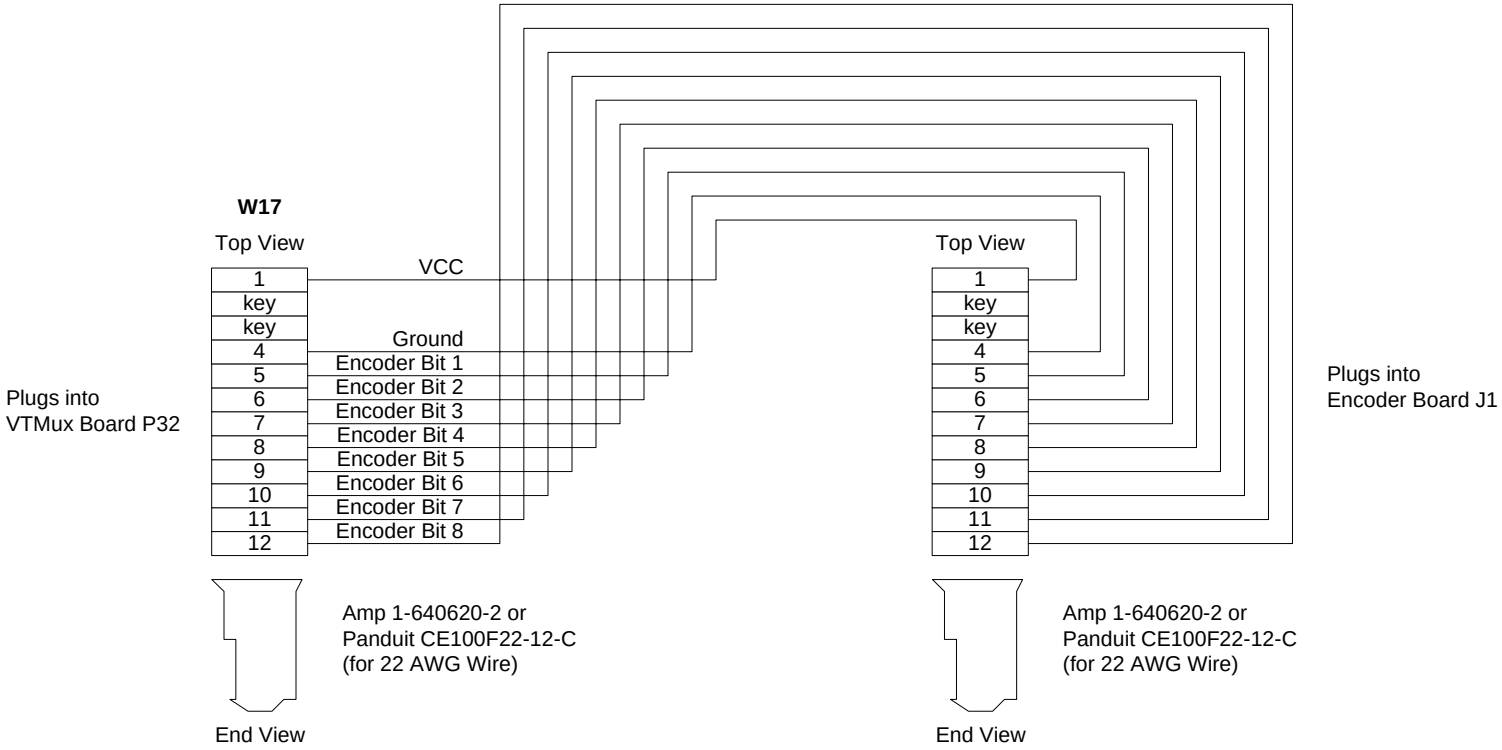
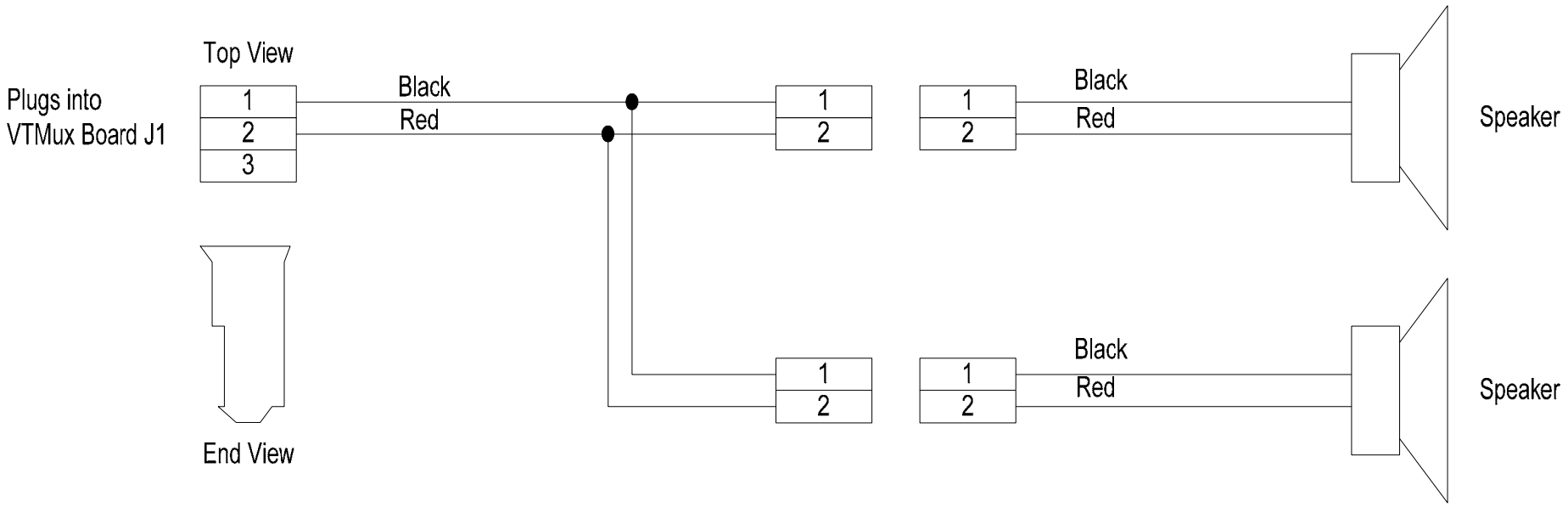


FIGURE 18 VTMUX BOARD P32 TO SPINNER SHAFT ENCODER

Wiring Diagrams



Wiring Diagrams

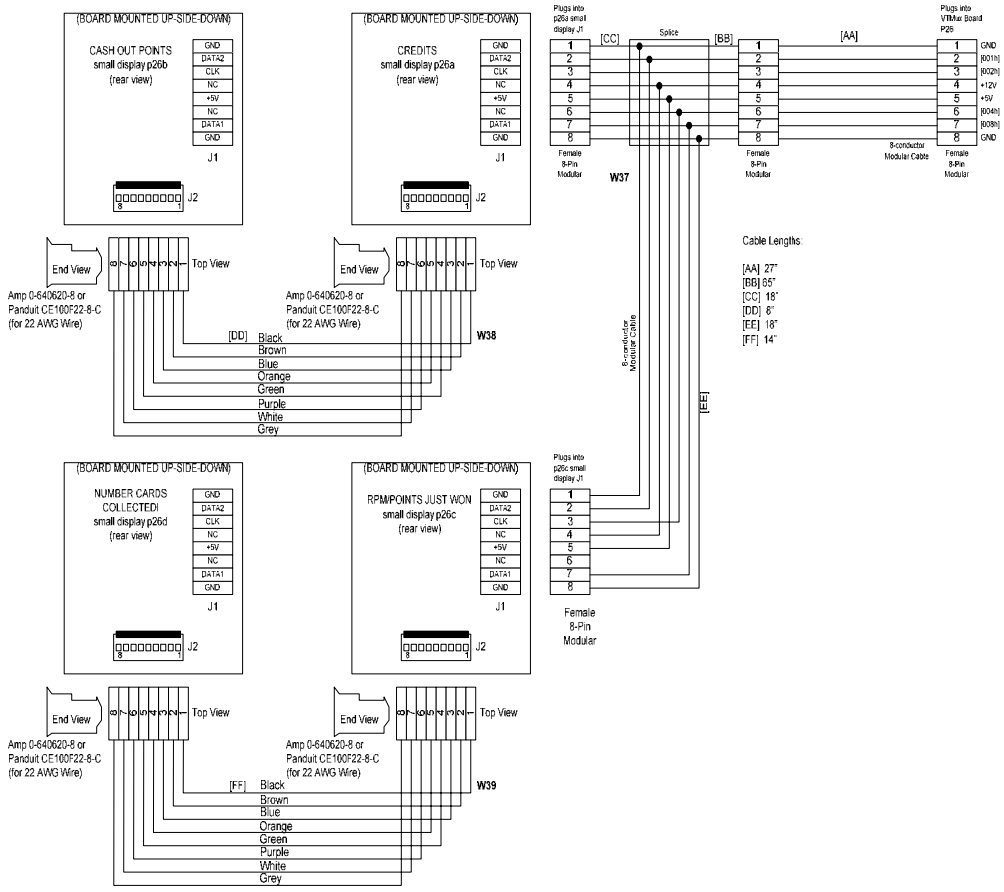


FIGURE 19 CONTROL PANEL DISPLAY

Wiring Diagrams

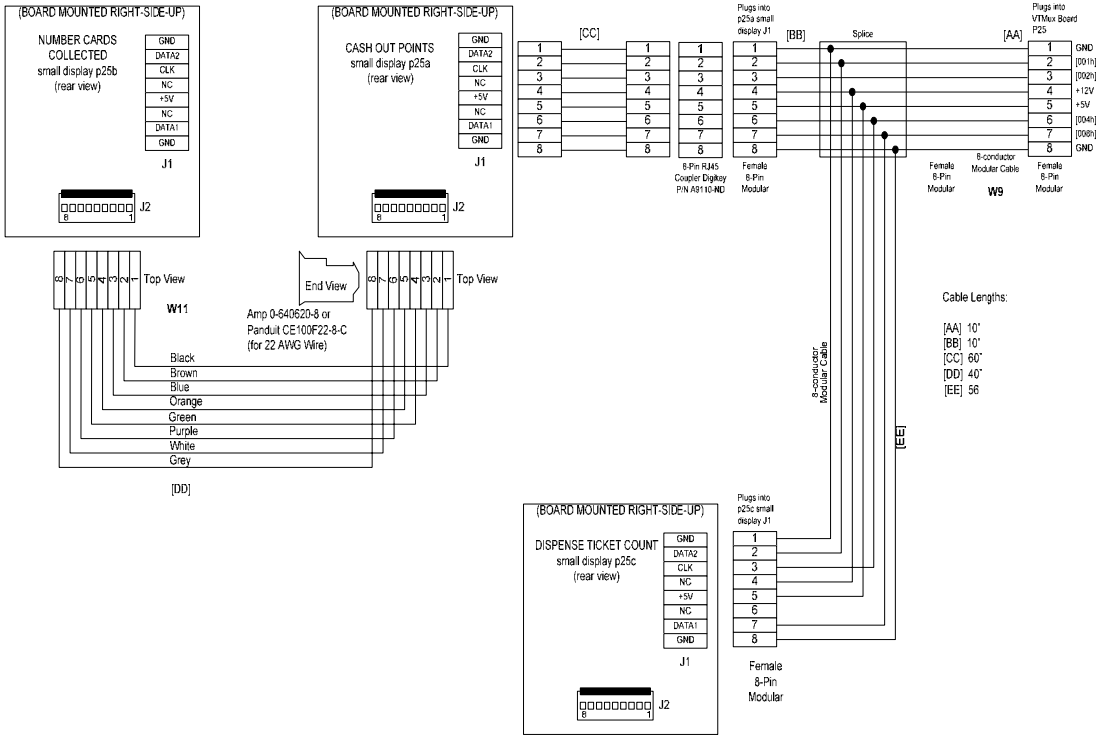


FIGURE 19 TICKETS DISPLAY

Wiring Diagrams

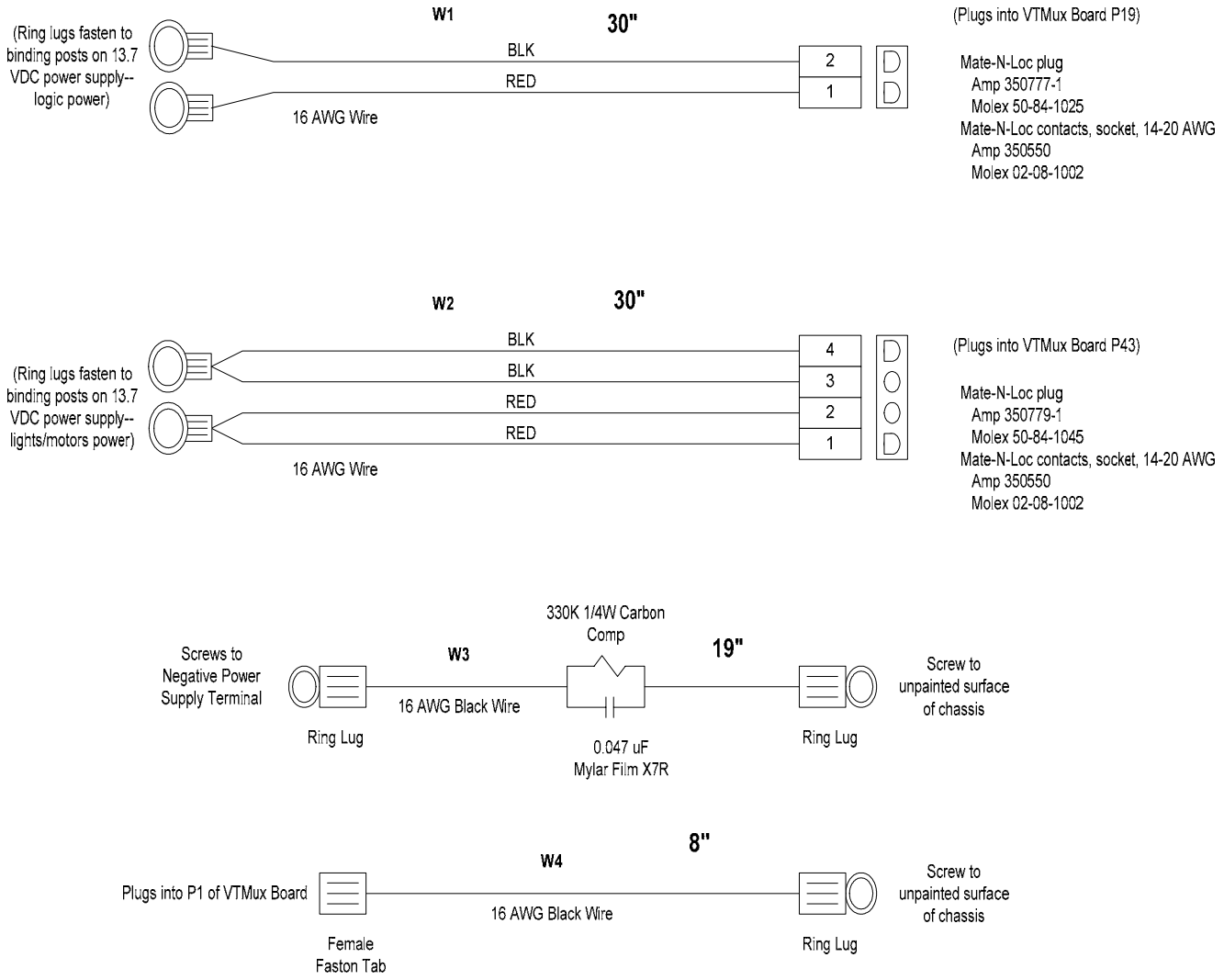


Figure 19 Topper Lights Wiring

Wiring Diagrams

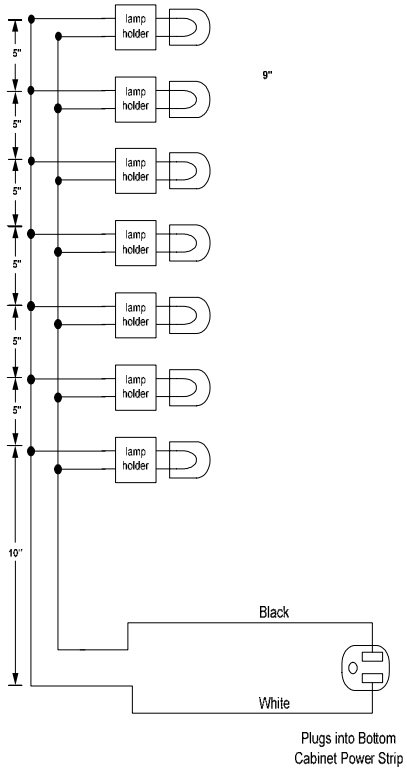


FIGURE 19 RAIL WIRING 120 VAC

Wiring Diagrams

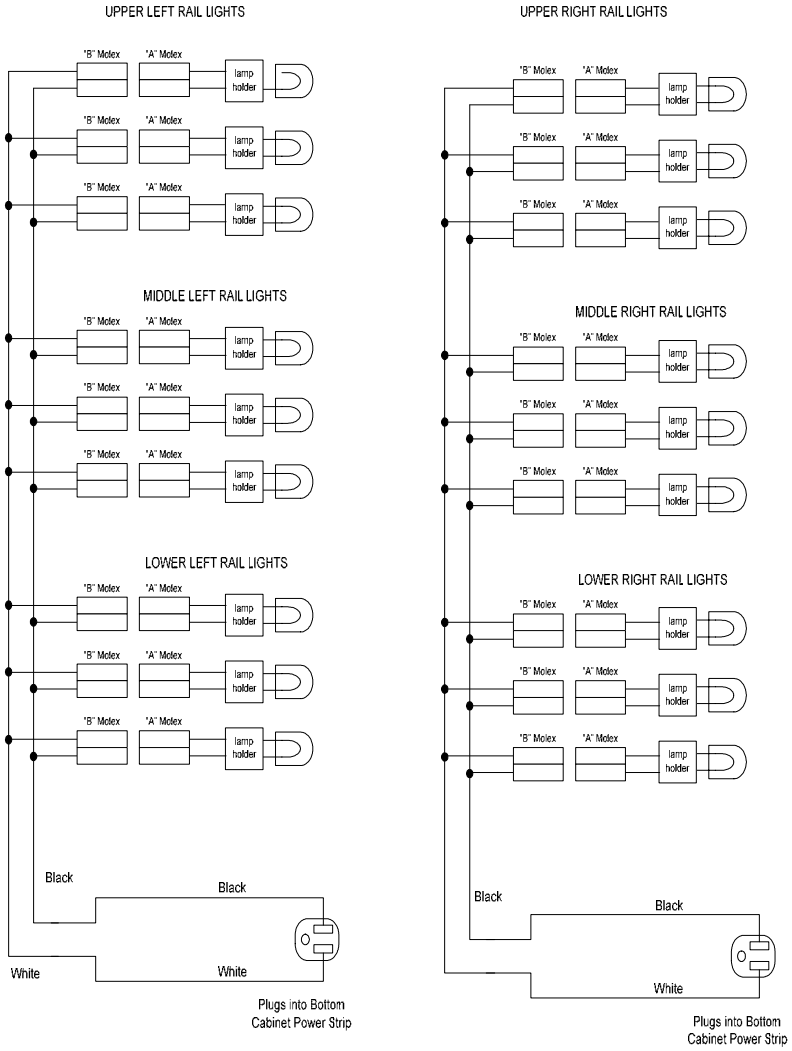


FIGURE 19 TOPPER LIGHTS WIRING

Wiring Diagrams

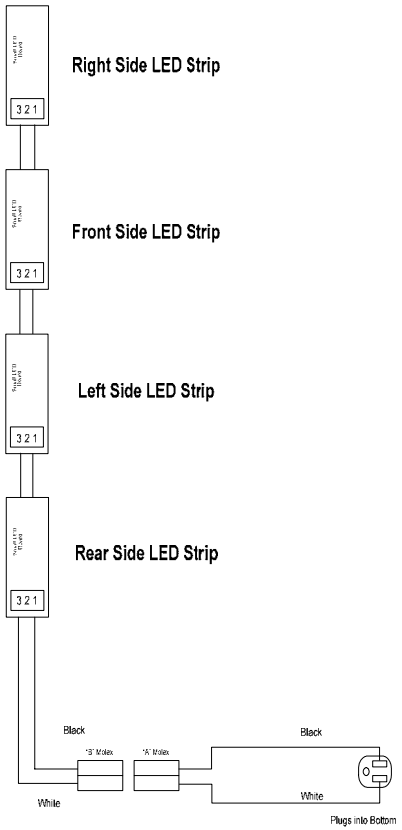
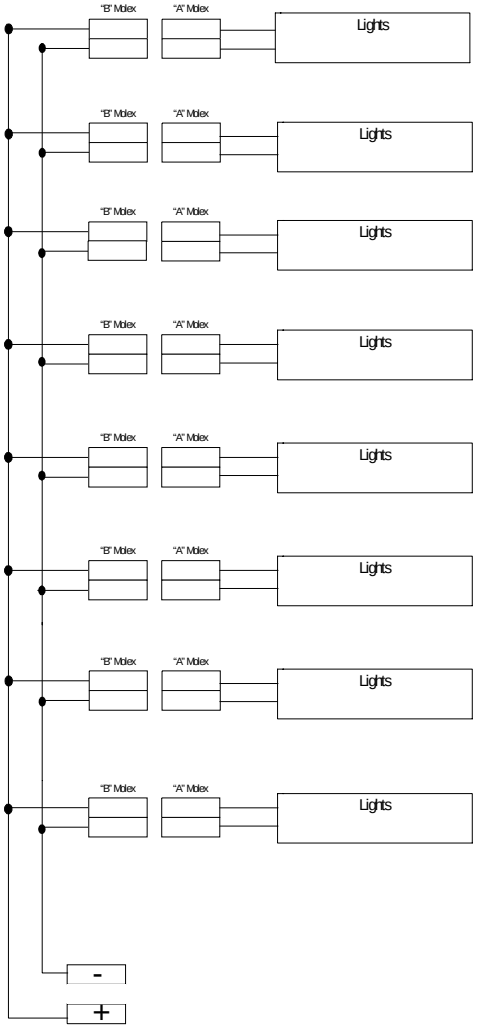


FIGURE 19 INSIDE BAYINET LIGHTS

Wiring Diagrams



BOTTOM OF CABINET LIGHTS

Wiring Diagrams

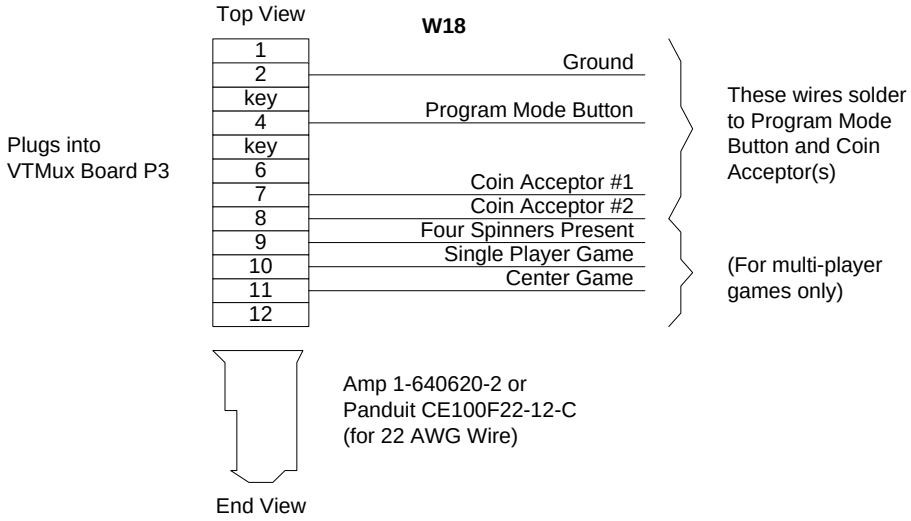


FIGURE 20 VTMUX BOARD P3 TO PROGRAM MODE BUTTON, SINGLE PLAYER, AND COIN ACCEPTOR

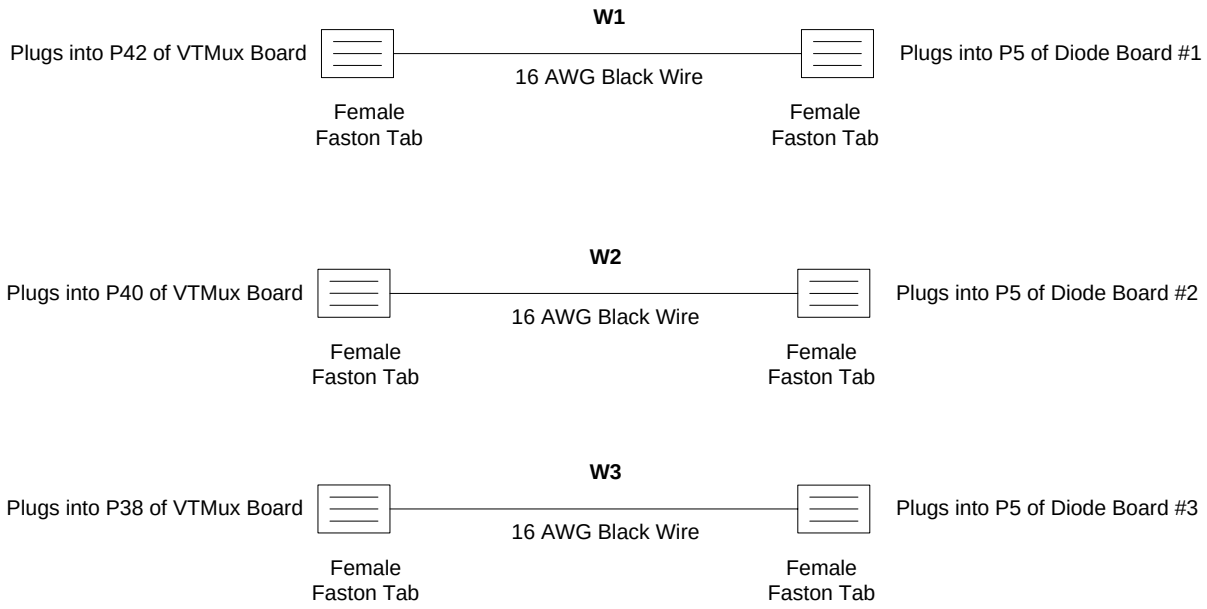


FIGURE 21 VTMUX BOARD P42, P40, AND P38 TO DIODE BOARDS P5S

FIGURE 23A 60-PIN RIBBON CABLE TEE TO DIODE BOARD #2 P7
FIGURE 23B 60-PIN RIBBON CABLE TEE TO DIODE BOARD #3 P7

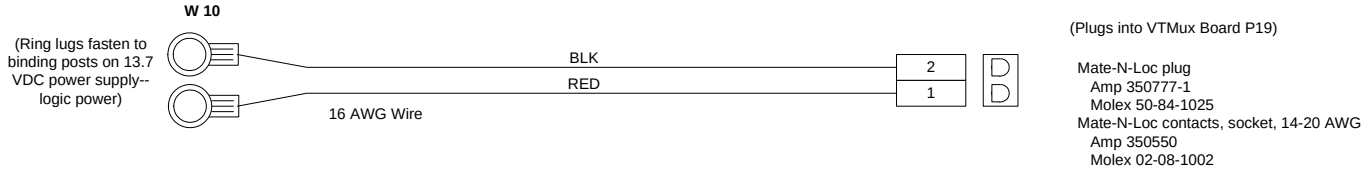


FIGURE 24 13.7 VDC POWER SUPPLY TO 8051 VTMUX BOARD P19

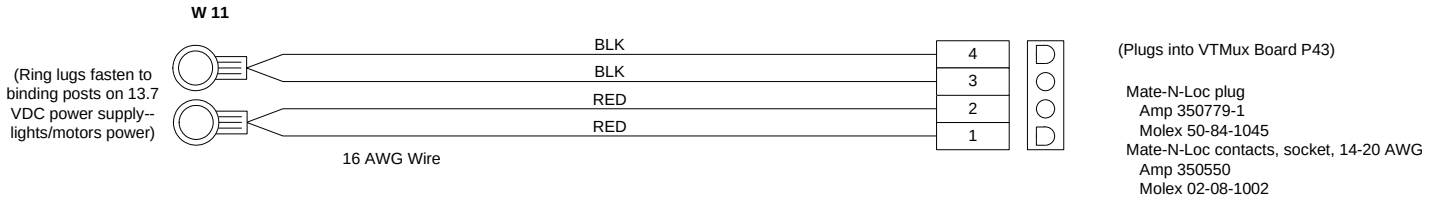


FIGURE 25 -13.7 VDC POWER SUPPLY TO 8051 VTMUX BOARD P43

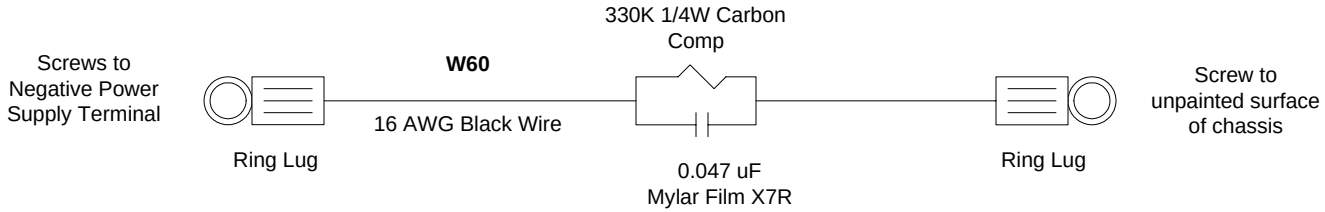


FIGURE 26 CHASSIS GROUND

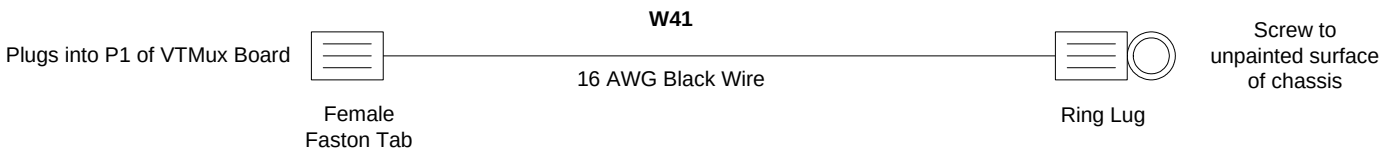


FIGURE 27 - AUDIO GROUND

Wiring Diagrams

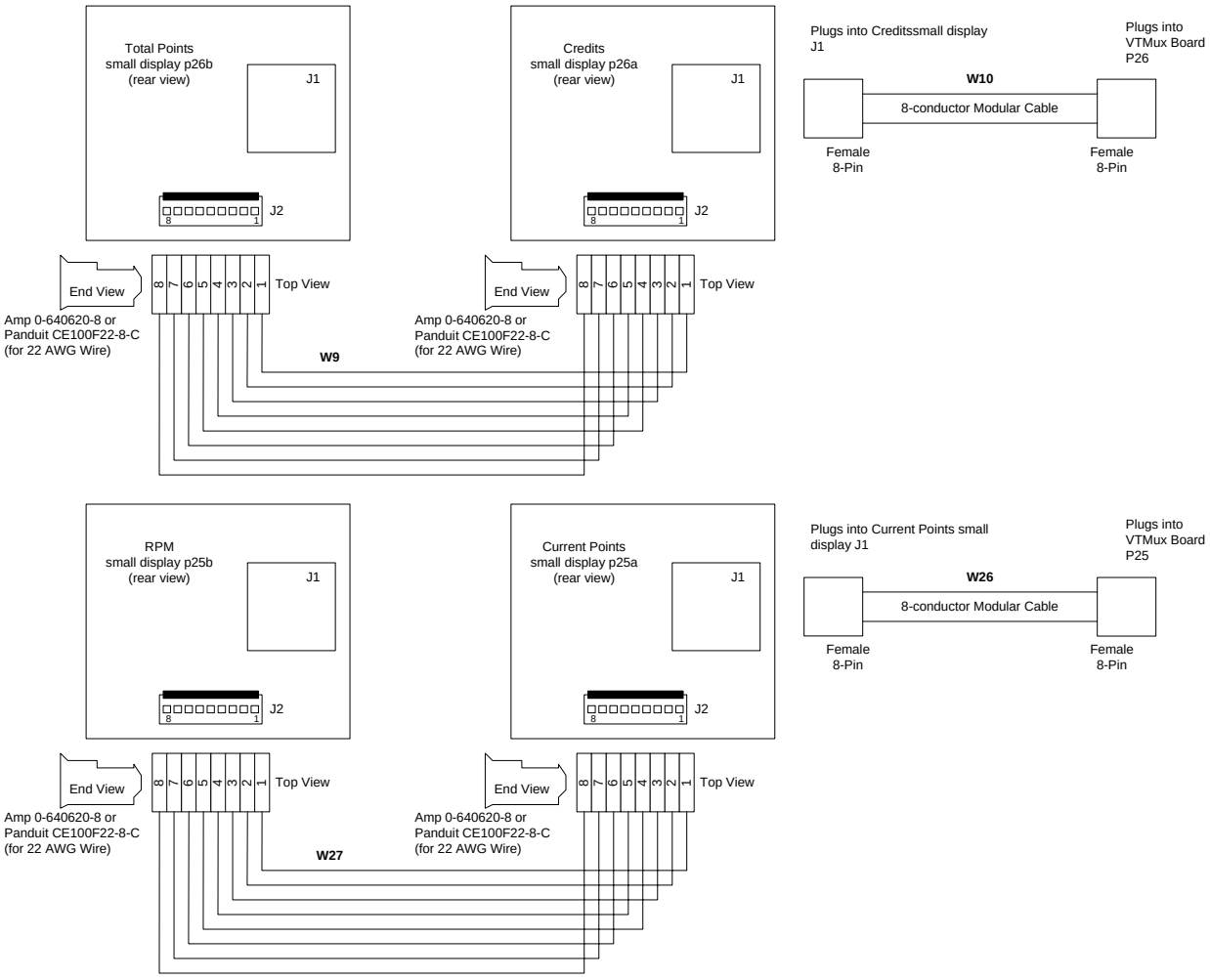


FIGURE 28A VTMUX BOARD P26 TO CREDITS SMALL DISPLAY J1
FIGURE 28B VTMUX BOARD P25 TO CURRENT POINTS SMALL DISPLAY J2

Wiring Diagrams

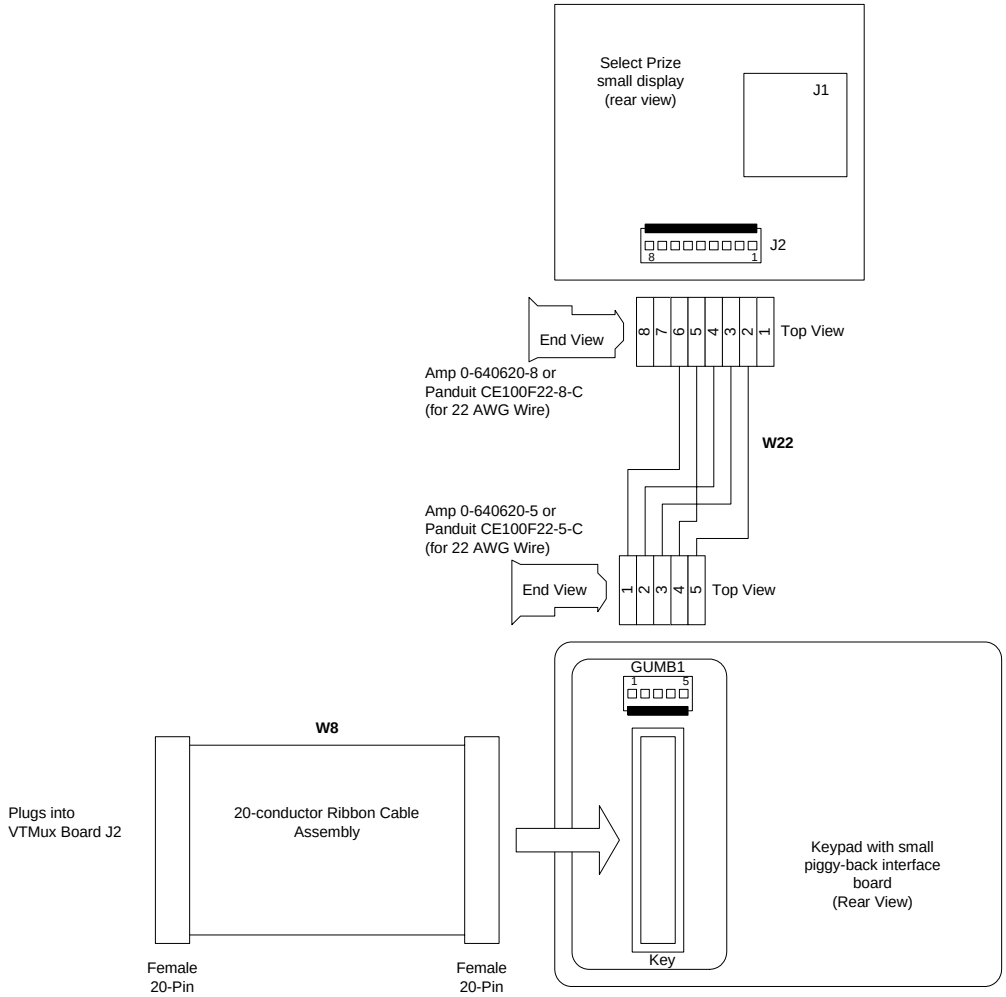


FIGURE 29A – VTMUX BOARD J2 TO KEYPAD KEY

FIGURE 29B - KEYPAD GUMB1 **TO SELECT PRIZE SMALL DISPLAY J2**

Wiring Diagrams

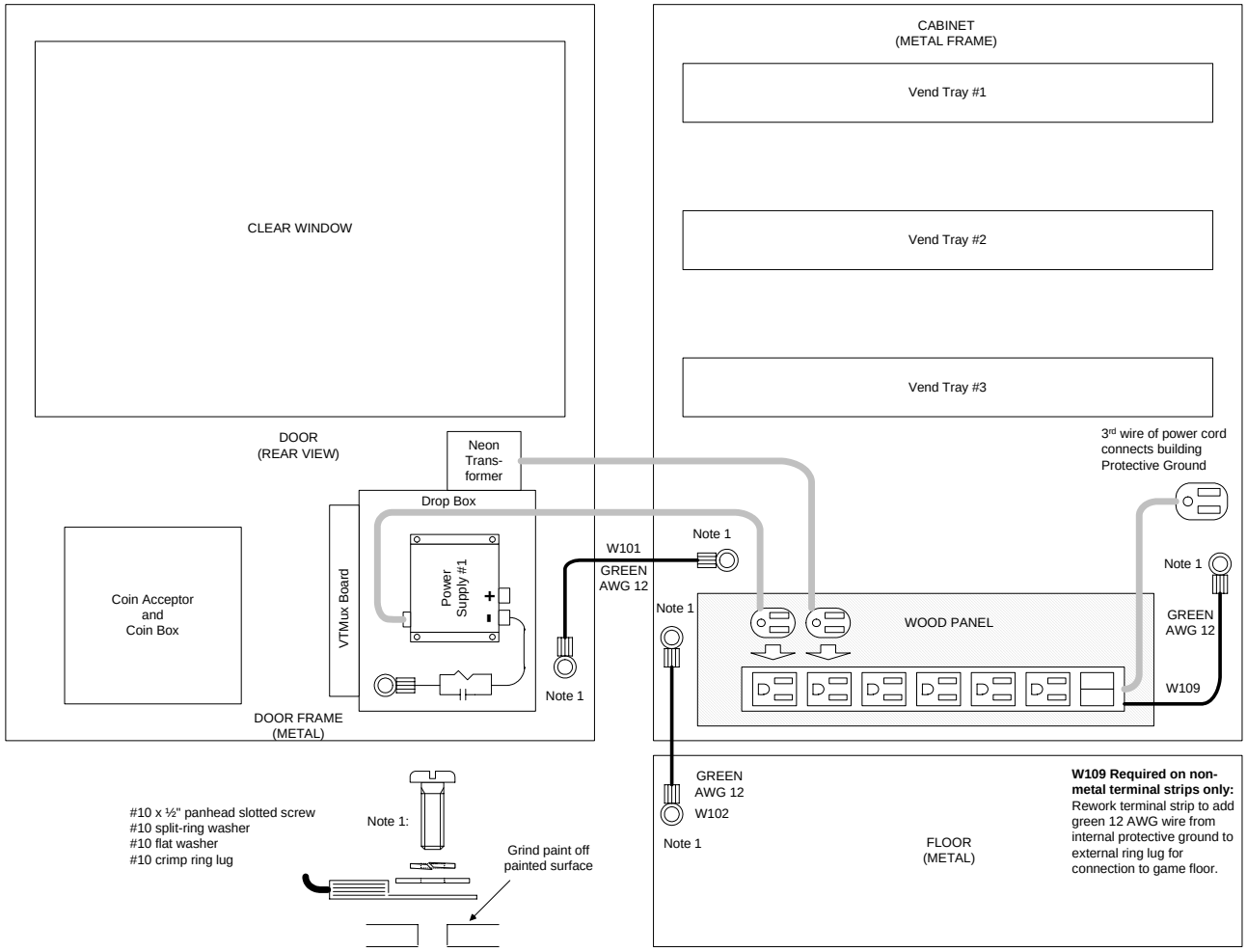
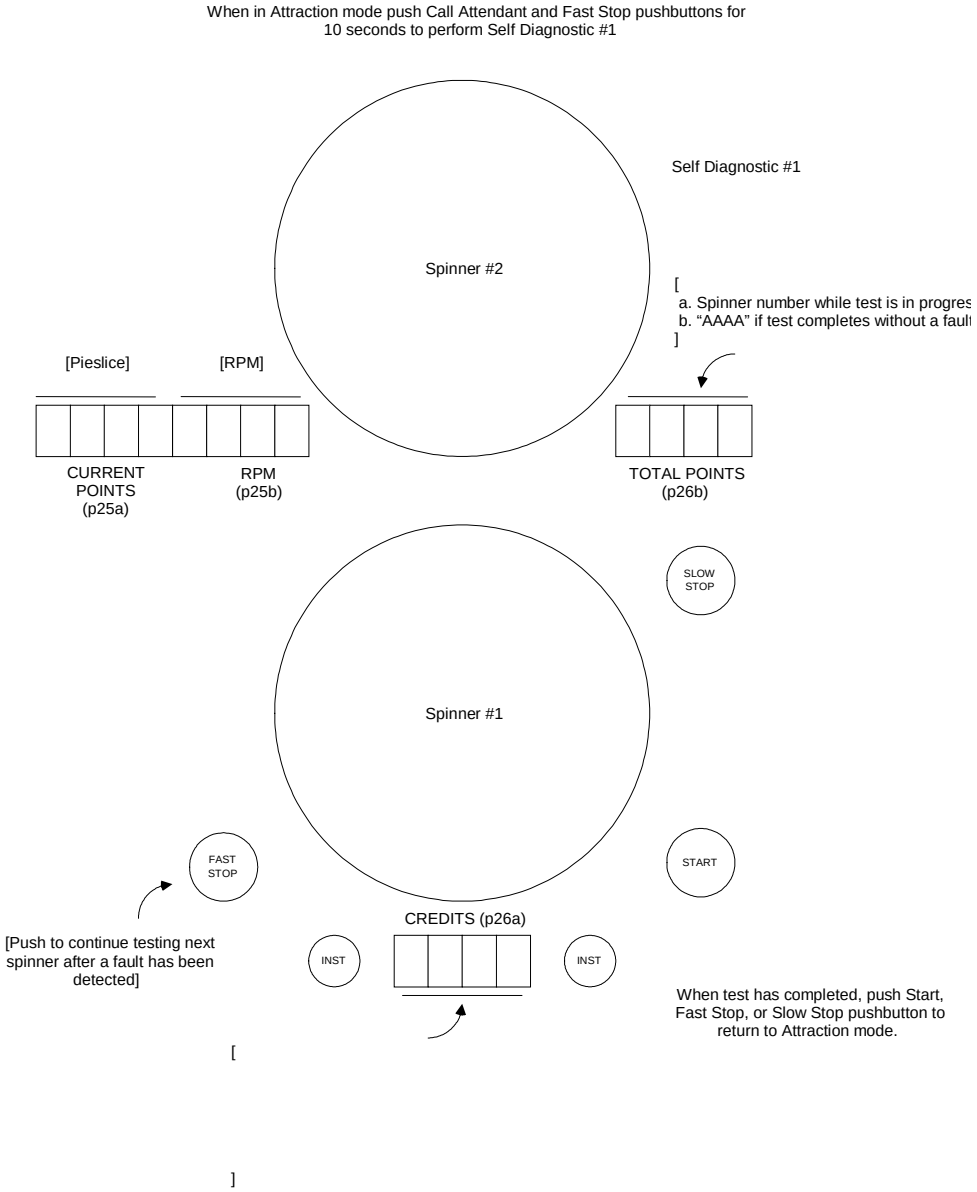


FIGURE 30 - PROTECTIVE GROUND WIRING

Appendix A



SELF DIAGNOSTIC #1 TEST LAYOUT

GAME SELF DIAGNIOSTICS

SELF DIAGNOSTIC #1

To enter game diagnostics HOLD IN the *CALL ATTENDANT* & *FAST STOP BUTTON's* simultaneously for approximately ten seconds. Upon a successful completion of the diagnostics the total points display should show **AAAA.**

Self Diagnostic #1 ERROR CODE CHART

Phase	Situation	Error Codes	Solution
1	Brake Assembly Test	001	Brake # 1 Needs Repair
		002	Brake # 2 Needs Repair.
		003	Brake # 3 Needs Repair
		004	Brake # 4 Needs Repair
		005	Brake # 5 Needs Repair
2	Smart Spinner Encoder Reader Board Test	011	First Replace Encoder Reader #1, Next Smart Spinner # 1
		012	First Replace Encoder Reader #2, 2nd Smart Spinner #2
		013	First Replace Encoder Reader #3, 2nd Smart Spinner #3
		014	First Replace Encoder Reader #4, 2nd Smart Spinner #4
		015	First Replace Encoder Reader #5, 2nd Smart Spinner #5
3	Smart Spinner Dip Switch Conflict or Cabling Test	103	Dip switch Conflict with Smart Spinner Boards # 1,2
		105	Dip switch Conflict with Smart Spinner Boards # 1,3
		106	Dip switch Conflict with Smart Spinner Boards # 2,3
		107	Dip switch Conflict with Smart Spinner Boards # 1,2,3
		109	Dip switch Conflict with Smart Spinner Boards # 1,4
		110	Dip switch Conflict with Smart Spinner Boards # 2,4
		111	Dip switch Conflict with Smart Spinner Boards # 1,2,4
		112	Dip switch Conflict with Smart Spinner Boards # 3,4
		113	Dip switch Conflict with Smart Spinner Boards # 1,3,4
		114	Dip switch Conflict with Smart Spinner Boards # 2,3,4
		115	Dip switch Conflict with Smart Spinner Boards # 1,2,3,4
		117	Dip switch Conflict with Smart Spinner Boards # 1,5
		118	Dip switch Conflict with Smart Spinner Boards # 2,5
		119	Dip switch Conflict with Smart Spinner Boards # 1,2,5
		120	Dip switch Conflict with Smart Spinner Boards # 3,5
		121	Dip switch Conflict with Smart Spinner Boards # 1,3,5
		122	Dip switch Conflict with Smart Spinner Boards # 2,3,5
		123	Dip switch Conflict with Smart Spinner Boards # 1,2,3,5
		124	Dip switch Conflict with Smart Spinner Boards # 4,5
		125	Dip switch Conflict with Smart Spinner Boards # 1,4,5
		126	Dip switch Conflict with Smart Spinner Boards # 2,4,5
		127	Dip switch Conflict with Smart Spinner Boards # 1,2,4,5
		128	Dip switch Conflict with Smart Spinner Boards # 3,4,5
		129	Dip switch Conflict with Smart Spinner Boards # 1,3,4,5
		130	Dip switch Conflict with Smart Spinner Boards # 2,3,4,5
4	Smart Spinner Board or Incorrect DIP Switch Setting	011	If DIP switch Correct, replace Smart Spinner Board #1

Phase	Situation	Error Codes	Solution
		012	If DIP switch Correct, replace Smart Spinner Board #2
		013	If DIP switch Correct, replace Smart Spinner Board #3
		014	If DIP switch Correct, replace Smart Spinner Board #4
		015	If DIP switch Correct, replace Smart Spinner Board #5
5	Encoder Board Test	021	Replace Encoder Board #1
		022	Replace Encoder Board #2
		023	Replace Encoder Board #3
		024	Replace Encoder Board #4
		025	Replace Encoder Board #5
6	Encoder Disk Test	041	Replace Encoder Disk #1
		042	Replace Encoder Disk #2
		043	Replace Encoder Disk #3
		044	Replace Encoder Disk #4
		045	Replace Encoder Disk #5

Appendix B Troubleshooting Assistance

Troubleshooting Guide

Problem	Solution	Associated Program Step # (if applicable)
Game will not power up	• Verify 120 VAC power is present on cabinet power strips	na
	• Replace 13.7 VDC power supply	na
Pushbutton light does not illuminate	• Examine and replace any burned-out lamp	na
	• Measure low-voltage across terminals of lamp socket and if voltage not present when light should be on, check wiring harness	na
	• Measure low-voltage at output from VTMux board and if voltage not present when light should be on, replace VTMux board and retest	na
Game does not respond to pushing a flashing pushbutton	• Check number of coins required to play setting	Step 30
	• Examine and replace any defective pushbutton	na
	• Look for low-voltage changes at VTMux board input when pushbutton pushed and if voltage does not change, check wiring harness	na
	• Replace VTMux board and retest	na
Does not respond when coin/token inserted	• Examine and replace any defective coin acceptor mechanism	na
	• Look for low-voltage changes at VTMux board input when coin/token inserted and if voltage does not change, check wiring harness	na
	• Replace VTMux board and retest	na
No sound	• Check VOLUME potentiometer on VTMux board and turn clockwise to increase volume	na
	• Examine and replace any defective speaker	na
	• Check wiring harness	na
	• Replace VTMux board and retest	na
Does not dispense tickets	• Clear ticket dispenser of any jammed tickets	na
	• Load tickets if empty	na
	• Try dispensing a ticket using diagnostic mode, if	Step 78

Troubleshooting Assistance

Problem	Solution	Associated Program Step # (if applicable)
	ticket does not dispense: o Check wiring harness o Replace ticket dispenser and retest o Replace VTMux board and retest	 na na
4-digit display always blank or shows gibberish	• Replace 4-digit display and retest • Replace VTMux board and retest • Check wiring harness	na na na
Spinner light-ring does not illuminate	• Look for low-voltage changes at VTMux board output when light-ring should be illuminated and if voltage does not change, replace VTMux board and retest • Look for low-voltage changes at input to solid state relay when light-ring should be illuminated and if voltage does not change, check wiring harness • Look for 120 VAC voltage changes at output from solid state relay when light-ring should be illuminated: o If voltage does not change, replace solid state relay and retest o If voltage does change, replace light-ring and/or neon high-voltage transformer and retest (CAUTION— EXTREMELY DANGEROUS HIGH VOLTAGE)	na na na na na
Spinner does not spin	• Troubleshoot spinner motors	Step 76
Spinner brake does not operate	• Troubleshoot spinner brakes	Step 76
SOME spinners CONSISTENTLY give wrong POINTS	• Verify correct POINT programming: o Spinner #1 o Spinner #2 o Spinner #3 o Spinner #4 o Spinner #5 • Troubleshoot spinner boards and calibrate spinner(s) (requires access to spinner mechanism) • Troubleshoot spinner boards and spinner mechanism (does not require access to spinner mechanism, but does not allow calibration of spinner to TDC)	 Steps 100-115 Steps 200-215 Steps 300-315 Steps 400-415 Steps 500-515 Step 71-75 Steps 76
SOME spinners INTERMITTENTLY give wrong POINTS	• Troubleshoot spinners and spinner boards for intermittent problems	Step 79

Troubleshooting Assistance

Problem	Solution	Associated Program Step # (if applicable)
ALL spinners CONSISTENTLY give wrong POINTS	• Verify correct POINT programming:	
	o Spinner #1	Steps 100-115
	o Spinner #2	Steps 200-215
	o Spinner #3	Steps 300-315
	o Spinner #4	Steps 400-415
	o Spinner #5	Steps 500-515
	• Troubleshoot spinner boards and wiring harness for data bus jamming	Step 79
SOME spinners CONSISTENTLY cause a JUMP to wrong spinner	• Verify correct POSITION TYPE programming:	
	o Spinner #1	Steps 150-173
	o Spinner #2	Steps 250-273
	o Spinner #3	Steps 350-373
	o Spinner #4	Steps 450-473
	o Spinner #5	Steps 550-573
	• Troubleshoot spinner boards and calibrate spinner(s) if required (requires access to spinner mechanism)	Step 71-75
	• Troubleshoot spinner boards and spinner mechanism (does not require access to spinner mechanism, but does not allow calibration of spinner to TDC)	Steps 79

REPLACING SPINNER

Appendix C Replacing or Realigning Spinner Wheels

INSTRUCTIONS FOR
1. REPLACING A SPINNER'S ENCODER WHEEL or
2. REALIGNING AND TIGHTENING ENCODER WHEEL

WHAT YOU WILL NEED:

A SPINNER FORK (a)
A NUMBER 2 PHILLIPS HEAD SCREWDRIVER (b)
A 7/64 inch ALLEN WRENCH (c)

STEP # 1:

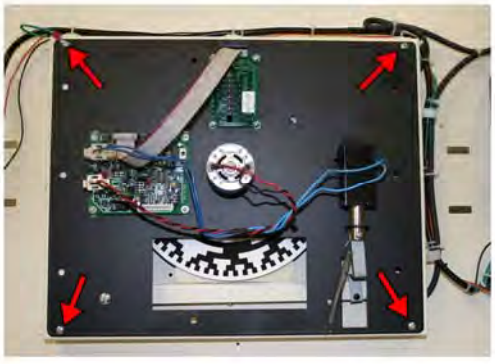
Power game down. Detach any harnesses connected to the spinner. Loosen wing nuts shown and remove spinner assembly from game.

STEP # 2:

Using the 7/64 Allen Wrench, remove the two allen bolts that hold the ghost arrow to the pulley

STEP # 3

Using the # 2 phillips head screwdriver, remove the 4 screws which hold the black spinner assembly to the white main spinner bracket. Then remove the black spinner assembly from the white main spinner bracket



INSTRUCTIONS FOR REPLACING A SPINNER'S ENCODER WHEEL

STEP # 4

(SKIP STEP IF YOU ARE ONLY REALIGNING AND TIGHTENING)

Using the # 2 screwdriver, remove the set screw that holds the brake arm. This screw is next to the brake spring.

STEP # 5

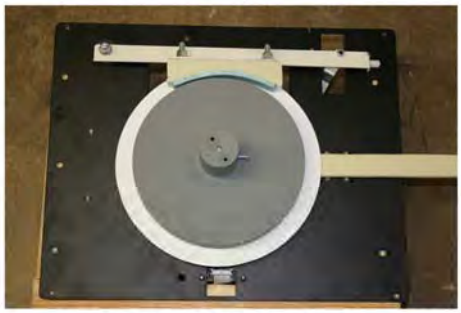
(SKIP STEP IF YOU ARE ONLY REALIGNING AND TIGHTENING)

Turn the assembly around and loosen the set screw which holds the pulley to the motor shaft. Then, lift the brake arm and slide the pulley and encoder disc off.

STEP # 6

(most critical step)

Slide the spinner fork against the motor shaft. Lower the pulley and encoder disc onto the motor shaft so that it rests gently upon the fork. This will give you the proper spacing. Then, tighten the set screw loosened in Step #6, and remove the spinner fork.



NOTE: UNITS BUILT AFTER 3/01/07 HAVE A NOTCH CUT INTO THE MOTOR SHAFT THAT THE SET SCREW TIGHTENS INTO. IF YOUR UNIT IS DATED AFTER 03/01/07 - THE SET SCREW MUST BE BE TIGHTENED INTO THIS NOTCH TO FUNCTION.

STEP # 7

Take a moments now to observe the new assembly. The encoder disc should not be touching the white spacers near the motor shaft . The disc should be seated about an 1/8" away from these spacers.

STEP # 8

Reattach the black spinner assembly to the white main spinner bracket . Then install the whole assembly back into the game

RECALIBRATION PROCEDURE

Using the keypad - go to the step associated with the recently replaced spinner

Step #71 = Spinner #1
Step # 72 = Spinner #2
Step #73 = Spinner #3
Step #74 = Spinner #4
Step #75 = Spinner # 5

TO ENTER PROGRAM MODE - take the keypad and hold in the # and * buttons until the keypad display goes blank. Push 1-1 on the keypad - you are now in program mode. Hold the * button down and push either 71, 72, 73, 74, or 75

By lightly tapping the FAST STOP BUTTON, move the spinner arrow until it reaches the 12 o'clock position, where there should be an alignment line. Once the point of the arrow is at 12 o'clock - hit the flashing START BUTTON. Your spinner is no recalibrated.

If you have any questions during your installation - feel free to call our technical service department directly at
(818) 775 - 9374
or, if a technician is not immediately available, please call
(818) 581 - 1772

Appendix D

TECHNICAL ASSISTANCE

Most distributors provide technical assistance for the products they sell. If your distributor cannot solve your problem, assistance can be obtained through Five Star Redemption. Call (818) 773-6057 extension 232 between the hours of 8:00 AM and 4:00 PM Pacific time, Monday through Friday, and ask for the service department.

Please have the following information available:

1. Type of Game
2. Serial Number
3. Distributor's Name
4. Description of Problem

The service technician may ask you to perform some tests on your machine, so it is preferable to call from the game's location if possible.