

OPERATIONS MANUAL

including
Game Operation,
Test/Diagnostic Procedures,
Parts Information,
Reference Diagrams, &
Schematics



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Section 1

Game Operation &

Test Information

- TAXI (System 11B) ROM Summary
- Pinball Game Assembly Instructions
- Game Play
- Game Status Displays
- Game Adjustment Procedure
- Game Pricing
- Test/Diagnostic Procedures

TAXI (System 11B) ROM Summary

IC I	DESCRIPTION	TYPE	IDENTIFIER	BOARD	PART NUMBER
Game ROM 1	32K x 8 ROM	27256	U27	CPU	A-5343-553-2
Game ROM 2	32K x 8 ROM	27256	U26	CPU	A-5343-553-1
Sound ROM 1	32K x 8 ROM	27256	U21	CPU	A-5343-553-4
Sound ROM 2	32K x 8 ROM	27256	U22	CPU	A-5343-553-3
Music/Speech ROM 1	32K x 8 ROM	27256	U4	Audio	A-5343-553-5
Music/Speech ROM 2	32K x 8 ROM	27256	U19	Audio	A-5343-553-6

NOTICE

To order a replacement ROM from your authorized WILLIAMS ELECTRONICS GAMES distributor, specify: (1) part number (if available); (2) ROM label color; (3) ROM level (number) on the label; (4) which game the ROM is used in.

CONNECTOR & COMPONENT IDENTIFICATION

WILLIAMS ELECTRONICS GAMES uses a special technique to identify connectors and . Each plug or jack receives a prefix number (which identifies the circuit board), a letter, and a number. J-designations refer to the male part of a connector. P-designations refer to the female part of a connector. For example, 1J1 designates jack 1 of board 1 (a CPU Board jack); 3P6 designates plug 6 of board 3 (a Power Supply Board plug). Identifying the specific pin number of a connector involves a hyphen, which separates the pin number from the plug or jack designation. For example, 1J1-3 refers to pin 3 of jack 1 on board 1.

Other game components may also have similar prefixes preceding their designator to clarify their locations or related circuit.

Prefix numbers for the System 11B circuit boards and other major assemblies are listed below. A prefix number may precede a component designator to identify its associated unit (e.g., connector 1J1).

1 - CPU

5 - Aux Power Driver

9 - Insert Board

10 - Audio

2 - Master Interconnect

6 - Backbox

7 - Cabinet

3 - Backbox Power Supply4 - Alphanumeric Display

8 - Playfield

TAXI CIRCUIT BOARDS

System 11B Circuit Boards for TAXI are in the backbox. They are accessible by unlocking the Backbox lock, removing the Backbox glass, unlatching the Insert Board (with lamps and the Taxi Meter display), and swinging it open.

The Master Display Board is mounted on the back of the Speaker/Display Panel, just below the Insert Board. To access the Master Display Board, carefully lift the Speaker/Display Panel out of its bottom guide and lay it forward onto the top of the game cabinet.

Lamp circuit boards are mounted on the Playfield, the Insert Board, and on top of the Backbox under the Taxi Dome.

CPU BOARD. The System 11B CPU Board (p/n D-11883-553) must be equipped with the ROMs specified in the TAXI (System 11B) ROM Summary. CPU Board jumpers W1, W2, W4, W5, W7, W8, W11, W14, W16, W17, and W19 must be connected.

AUDIO BOARD. The Audio Board is p/n D-11581-553, including ROMs and microprocessor.

DISPLAY BOARD. The Alphanumeric Display Unit Board is p/n D-12195-553.

POWER SUPPLY BOARD. The Power Supply Board is p/n D-12246-553.

AUX POWER DRIVER BOARD. The Aux Power Driver Board is D-12247-559.

MASTER INTERCONNECT BOARD. The Master Interconnect Board is D-12185-553.

Figure 1 shows the locations of these circuit boards, as well as other devices especially located to make TAXI a great game.

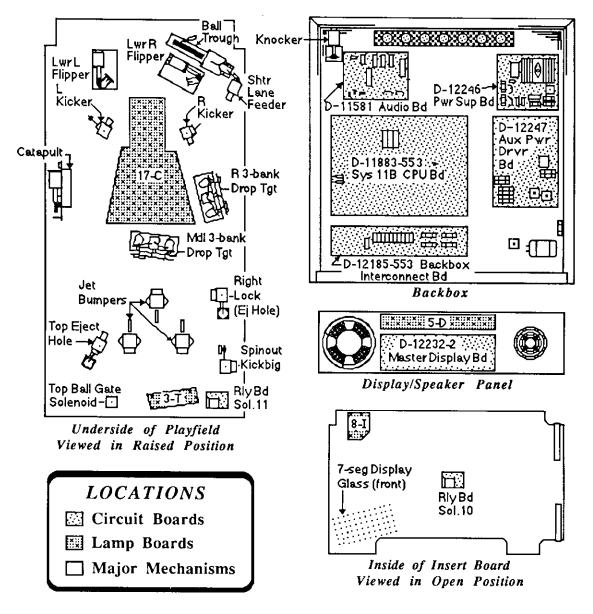


Figure 1. Locations Diagram - Game Circuit Boards and Major Mechanisms

TAXI GAME CONTROL LOCATIONS

Figure 2 shows the locations of the following switches, except for the last two (CPU and Sound Diagnostic switches, which are shown in the Backbox portion of Figure 1 on the CPU Board).

The On-Off switch is on the bottom of the cabinet near the right front leg.

The <u>Volume Control</u> is on the left inner wall of the cabinet on the tilt mechanisms board. It is accessible by opening the coin box door.

The <u>Credit switch</u> is a pushbutton to the left of the coin door on the cabinet exterior.

GAME ADJUSTMENT/DIAGNOSTIC SWITCHES. TAXI allows the operator to control all game adjustments, obtain bookkeeping information, and diagnose problems, using only three switches mounted on the inside of the coin door, along with the Credit button beside the coin door.

ADVANCE, AUTO-UP/MANUAL-DOWN, and HIGH-SCORE RESET are the switches located on the inside of the coin door. Refer to the text discussing Game Status Displays and the Test/Diagnostic Procedures for details concerning button operation.

The <u>Memory Protect switch</u> is on the inside frame of the coin door. This interlock switch must be open to clear bookkeeping totals and to make game adjustments. It automatically opens, when the coin door opens.

Figure 1 shows the locations of the two CPU Board switches (left edge of CPU Board, Backbox View).

The <u>CPU Diagnostic switch</u> (SW 2) is the lower switch (of the two switches mounted on the left edge of the CPU Board) near a large, socketed microprocessor chip. This switch initiates the Memory Chip Test explained in the Test/Diagnostic Procedures.

The <u>Sound Diagnostic switch</u> (SW 1) is the upper switch of the two mounted on the left edge of the CPU Board. This switch initiates the Sound Section Test. Refer to the Test/Diagnostic Procedures.

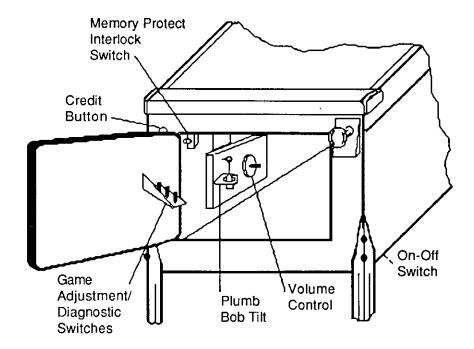


Figure 2. Pinball Game Controls Locations

PINBALL GAME ASSEMBLY INSTRUCTIONS

- 1. Open the shipping container; remove all cartons, parts, and other items, and set them aside.
- 2. Place cabinet on a support and attach rear legs (after installing leg levellers), using leg bolts. Leg levellers and leg bolts are both provided among the parts in the cash box.
- Attach the front legs (after installing leg levellers), using leg bolts. See Figure 3 for details.

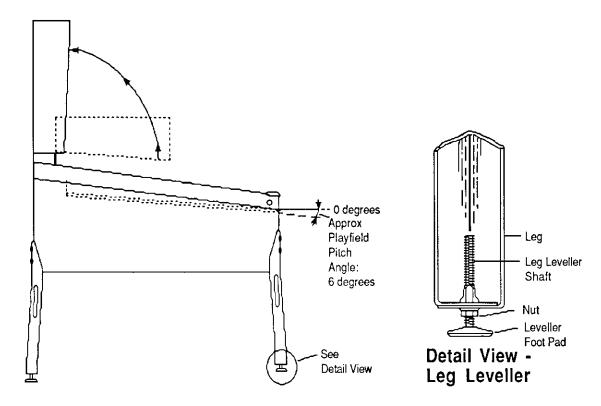


Figure 3. Pinball Assembly, Playfield Pitch Angle, and Leg Leveller Details.

4. Reach into the cabinet and backbox and check the mating of the interconnecting cables, matching several wire colors at each connector. Ensure that all connections are properly secure.

CAUTION

Ensure that the interconnecting cables are free to move (not kinked or pinched). Be careful not to damage wires at any stage of the assembly process.

5. Raise the hinged backbox upright and stabilize it into position, using the clamp on the back of the cabinet and backbox. Unlock the backbox, and remove the backbox glass, storing it carefully to avoid scratches. Remove the shipping block holding the Insert Board. Unlatch the Insert Board and open it, then lift the Speaker/Display Panel up and lay it forward on the playfield cabinet. This allows access to the bolt holes used for securing the backbox upright. Install the mounting bolts and flat washers through the bottom holes of the backbox into the threaded fasteners in the cabinet to secure the backbox.



NEVER transport a pinball game with the hinged backbox erect. Always lower the backbox forward onto the playfield cabinet on a layer of protective material to prevent marring or damage and possible personal injury.

6. Extend each leg leveller *slightly* below the leg bottom, so that all four foot pads are extended about the same distance. Remove the cabinet from its support and place it on the floor.

PINBALL GAME ASSEMBLY INSTRUCTIONS (Continued)

7. Adjust the leg levellers for proper playfield level (side-to-side) <u>and</u> playfield pitch angle (incline) of approximately 6 degrees. (Again, it is recommended that these measurements be made ON the playfield, not the cabinet nor the playfield cover glass.) Tighten the nut on each leg leveller shaft to maintain this setting, as shown in Figure 3.

CAUTION

Playfield pitch angle adjustments can affect the operation of the plumb bob tilt, inside the cabinet. The plumb bob weight is among the parts in the cash box; the operator should install the weight and adjust this tilt mechanism for proper operation, after completion of the desired playfield pitch angle setting.

- 8. Move the game into the desired location; recheck the level and pitch angle of the playfield.
- 9. Verify that the required number of balls are installed in the game. (TAXI: 2 balls.)
- 10. Clean and re-install the playfield cover glass. Prepare the game for player operation.

GAME OPERATION

WARNING

After assembly and installation at its site location, this game must be plugged into a properly grounded outlet to prevent shock hazard, and to assure proper game operation. DO NOT use a 'cheater' plug to defeat the ground pin on the line cord. DO NOT cut off the ground pin.

POWERING UP. With the coin door closed, plug the game in, and switch it ON, using the On-Off switch. In normal operation, the player 1 score display initially shows 00. Then, the game goes into the <u>Attract Mode</u> (playfield and backbox lamps flashing, sounds being heard, etc., if the operator does not change the Factory Setting).

Open the coin door and press the AUTO-UP/MANUAL-DOWN switch to MANUAL-DOWN. Press the ADVANCE button to begin the game test routine. Return to AUTO-UP and perform the entire test to verify that the game is operating satisfactorily.

NOTE

The SYSTEM 11B game program has a great capability to aid the operator and service personnel: At game Turn-On (and also at the beginning of the Test/Diagnostic Procedures), the player score displays now signal with a message, "Press ADVANCE for Report", that the game program has detected a possible problem with the game. Usually, this report indicates that at least one switch has NOT been actuated during ball play for 90 balls (= 30 games). However, the game program compensates the game play requirements affected by each disabled switch to allow 'nearly normal' play. This helps keep TAXI earning good profits! More information is available in the Test/Diagnostic Procedures text describing the Switch Testing.

GAME OPERATION (Continued)

ATTRACT MODE*. Playfield and backbox lamps blink. The player score displays exhibit a series of messages informing the player concerning:

- A. Recent highest scores*;
- B. A "custom message"

("GO FOR THE DRIVE ... OF YOUR LIFE ... PLAY TAXI")*;

C. The score to achieve to obtain a Replay award*;

These (or similar) displays reappear occasionally, accompanied by sounds and music, until a player initiates game play by inserting a coin or, when credits are available, pressing the Credit button.

CREDIT POSTING. Insert coin(s). A sound is heard for each coin, and the player score displays show the number of credits purchased. So long as the number of maximum allowable credits* are *NOT* exceeded by coin purchase or high score, credits are posted correctly. However, after this maximum credits value is reached, posting of additional credits won (not purchased) by the player does *not* occur. ONLY posting of *purchased* credits occurs beyond the maximum credits value.

STARTING A GAME. Press the Credit button once. A startup sound plays, and the Credit amount shown in the player score display decreases by one. Player display 1 flashes 00 (until the first playfield switch is actuated), and the Player 4 display shows **ball 1**, except for 4-player games where the **ball #** shows in the individual player's display. Additional players may enter the game by pressing the Credit button once for each player, before the end of play on the first ball.

TILT. Actuating the Slam Tilt switch on the coin door inside the cabinet ends the current game; **TAXI** then proceeds to the <u>Game Over Mode</u>. With the actuation of the playfield tilt switch, or the third closure* of the plumb bob tilt switch, the player loses the remaining play of that ball, but can complete the game.

END OF GAME. All earned scores and bonuses are awarded. If a player's final score exceeds the specified value, the player receives a designated award for achieving the current highest score. A random digit set* appears in the Match display. Credit* may be awarded, when the last two digits of any player's score display (1 through 4) match the random digits of the Match display. Match, high score, and game over sounds are made, as appropriate.

GAME OVER MODE. The GAME OVER display shows in the player score displays. Then, the high scores flash on the appropriate player score displays. The game proceeds to the <u>Attract Mode</u>.

^{* -} operator-adjustable feature

STATUS DISPLAYS

The state of the display of information concerning the game's examinate. Basically, three classes of information now become examination; Au (Audit); Ad (Adjustment). Each of the matter classes appears in the Player 3 score display, while the control applaying the items within each class.

The column headings refer to the various backbox.

	Player 3	Player 4
1.5	553	L-x*

meason level; e.g., 1 is initial issue; 2, 3, etc. for later revisions.

inplay. The game's identification number shows in the second level appears in the Player 4 display. The Player 3 score is a abbreviated form, Id. The Player 3 score display also shows a fine particular display.

this life of display to appear. This display describes which of the For example, if the YES option of the INSTALL FACTORY FIRED ACTORY SETTING appears on the player score displays.

His adjustment item, after selecting the YES option for Ad 70 ACTORY ALTERED. Similarly, if the operator selects the YES operator indicates HARD SETTING. Changing a game adjustment was HARD ALTERED.

The state of position, the operator can press the ADVANCE switch an pages of Audit (sometimes called "bookkeeping") Information.

High Calculation of the various factors is no longer necessary behigh performs all the mathematical factor computations. This
high operator in evaluating how the game is performing in each
high game features are receiving the most play. With this
high adding whether adjusting the game features to other settings

with a course once to view each Audit Information display item. To expedien, the operator only has to press and hold the ADVANCE of prestor can use the MANUAL-DOWN switch position with the product item.

some of the Audit Information portion of the TAXI Game Status commation again utilizes the player score displays; however, the assa descriptive phrase. The light type below the table's column displays where the information appears. Because the Player monds on game play, only a few example entries are shown in according any of the counters used in these audit items causes and in the Player 3 display, during display of any audit item (also program does not analyze the cause of the error; it merely to by the message.)

TAXI GAME STATUS DISPLAYS (Continued)

TAXI Audit Table

Audit	Descriptive Phrases	Audit Factor ¹
Item		Value
(Player 3)	(Player 1 and 2 Displays)	(Player 4)
AU 01	LEFT COINS [chute next to coin door hing	
02	CENTER COINS	0
03	RIGHT COINS	398
04 05	PAID CREDITS TOTAL PLAYS	830
06	TOTAL FLATS TOTAL FREE (Total Free Plays)	
07	PERCENT FREE (% Free Plays)	
l ŏs	REPLAY AWARDS	
09	PERCENT REPLAY (% Replay Awards)	
10	SPECIAL AWARDS	
11	PERCENT SPECIAL (% Special Awards)	
12	MATCH AWARDS	
13	HSTD (High Score to Date) CREDITS	
14	PERCENT HSTD (% HSTD Credits)	
15	EXTRA BALLS PERCENT EX. BALL (% Extra Balls)	
16 17	AV. BALL TIME (Average Time in Seconds	<u>'</u>
18	MIN. OF PLAY (Minutes of Play)	,
19	BALLS PLAYED	
20	REPLAY1 AWARDS	
21	REPLAY2 AWARDS	
22	REPLAY3 AWARDS	
23	REPLAY4 AWARDS	
24	1 PLAYR. GAMES	
25	2 PLAYR. GAMES	
26 27	3 PLAYR. GAMES 4 PLAYR. GAMES	
28	BURNIN CYCLES	
29	LEFT OUTLANE (# of times ball drained	via left outlane)
30	RIGHT OUTLANE (# of times ball drained	via right outlane)
31	MILLION SHOTS (# of MILLION shots)	
32	JACKPOT SHOTS (# of JACKPOT shots)	
33	MULTI- BALLS (# of times Multi-Ball™ was	s obtained)
34	E. B. VIA CATAPULT (# of Ex. Ball awards	
35	SPINOUT 100K (# of 100K shots at Spino	o/Million Comos\
36	JACKPOT / MILLION GAMES (# of Jackpot TIME LOCKS (# of times Time Lock occur)	
37 38	JOY RIDES (# of JOYRIDE awards)	104/
39	H.S.RESET COUNTER	I
40	0.0-0.4 M. SCORE (# of games <500K)	l
41	0.5-0.9 M. SCORE (# of games ≥500K, <1	M)
42	1.0-1.9 M. SCORE (# of games ≥1M, <2.0l	
43	2.0-2.9 M. SCORE (# of games ≥2.0M, <3	
44	3.0-3.9 M. SCORE (# of games ≥3.0M, <4	
45	4.0-5.9 M. SCORE (# of games ≥4.0M, <6	
46	6.0-7.9 M. SCORE (# of games ≥6.0M, <8	
47	8.0-99.9 M. SCORE (# of games ≥8.0M, <	
48	1st REPLAY IS x,xxx,xxx	
49	AVG. GAME x.xx MIN.	
<u> </u>		

NOTE

1. The numbers shown in this column for Items 1 through 4 are examples. Entries for all items depend on the amount of play; thus, they will vary from location to location.

TAXI GAME STATUS DISPLAYS (Continued)

TAXI Game Adjustment Table

Adjustment									
(Player 2)	Descriptive Phrases	Setting							
(Player 3) Ad 01	(Player 1 and 2 Displays)	(Player 4)							
02 03 04 05	FIXED REPLAY 1 REPLAY START (or REPLAY LEVEL 1) 1 REPLAY LEVELS (or REPLAY LEVEL 2) 1 (REPLAY LEVEL 3) 1 (REPLAY LEVEL 4) 1	10 (%) SCORES ¹ 2,200,000 01 (or OFF) (see text) (see text)							
06 07 08 09 10 11 12	REPLAY AWARD SPECIAL AWARD MATCH FEATURE BALLS / GAME TILT WARNING EX. BALL / B. 1, P. MAXIMUM CREDITS HIGHEST SCORES [Off, 1-50%] [Off, 1-50%] [Off, 1-50%] [Off, 1-50%] [Off, 1-50%] [Off, 1-50%]	Credit Credit 8 (%) 03 03 2/BIP 10 On							
14 15 16 17 18 19	BACKUP HI. SCR.1 BACKUP HI. SCR. 2 BACKUP HI. SCR. 3 BACKUP HI. SCR. 4 HI. SCR.1 CREDITS HI. SCR.2 CREDITS	4,500,000 4,000,000 3,500,000 3,000,000 01							
20 21 22 23	HI. SCR.3 CREDITS HI. SCR.4 CREDITS H. S. RESET EVERY FREE PLAY	01 01 3,000							
24 25 26 27 28 29 30 31 - 48	U.S.A. 1 COINAGE (1 COIN 1 PLAY) 2.3,6 LEFT UNITS CENTER UNITS RIGHT UNITS UNITS/ CREDIT UNITS/ BONUS MINIMUM UNITS Game-specific Adjustments (detailed in text and the Game Adjustment Setting Comparison Table)	NO 01 04 01 01 00							
49 ⁴ 50 51	CUSTOM MESSAGE SW. ALARM KNOCKER [yes=knock for inop switch; no=no knock] 1 COIN BUY-IN	00 z 0							
52 53 -58 ^{5,6}	UNUSED ADJUST Special Pricing Adjustments- See text for 53-58 details.								
59 5 60 5 61 5 5 62 5 5 63 5 5 64 5 65 67 68 69 7	INSTALL ADDABALL INSTALL 5-BALL INSTALL NOVELTY INSTALL EX. EASY INSTALL EASY INSTALL MEDIUM INSTALL HARD INSTALL EX. HARD AUTO BURN-IN CLEAR COINS CLEAR AUDITS INSTALL FACTORY	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							

NOTES

- Automatic Replay percentage value range is adjustable from 5 to 50%, via the Credit button. Item 02 permits changing the factory setting value for Replay Start Level (valid for next 500 games played). Item 03 permits setting up to four replay levels, with values as detailed in text describing item 03. For Fixed Replay Scores, set Auto Replay value to 1 less than 5(%) via the Credit button. Go to items 02, 03, 04, and 05; install their replay level scores. Turn off any replay level by setting 00 as its value.
- 2. Phrase in parentheses is Factory Setting. Phrase appears in player 2 and 4 displays. Press Credit button to change setting of the game pricing of item 24.
- 3. To change country OR coinage setting, press Credit button to obtain 16 Standard settings, followed by a Custom Setting. The Custom Setting activates items 25 through 30. When a Standard Setting is used, items 25 through 30 are set automatically, and cannot be changed.
- 4. To install Custom Message, press flipper button for alphabet and special characters. Press Credit button for next message letter or character.
- 5. Special Preset Adjustment, whose effects are noted in the Game Adjustment text.
- 6. Refer to Pricing Table and text describing these items.
- Approximates Ad 64, yet includes all factors listed in Factory Setting column, not just Ad 31 through 47 provided by Ad 64.

TAXI GAME STATUS DISPLAYS (Continued)

Adjustment Information--Ad

At end of the Audit Information presentation, with the AUTO-UP switch in the Up position, the operator can press the ADVANCE button to proceed to the Adjustment Information portion of the TAXI Game Status Displays, as listed in the TAXI Game Adjustment Table.

The operator can press the ADVANCE button <u>once</u> to view each Adjustment Information display item. To proceed more rapidly through this information, the operator only has to press <u>and hold</u> the ADVANCE button. If a desired item is passed, the operator can use the MANUAL-DOWN switch position with the ADVANCE button to back up to the desired item.

The TAXI Game Adjustment Table lists the 70 items of the Adjustment Information portion of the TAXI Game Status Displays. Presentation of the displays is similar to that for the Audit Information (that is, the player 1 and 2 displays combine as a descriptive phrase; the light type below the column headings names the respective backbox displays where the information appears, etc.). The Player 3 display shows Ad for all 70 adjustment items, so its entry is omitted from the tabular listing.

The TAXI Game Adjustment Setting Comparison Table shows the five game 'difficulty' Adjustment Items (ranging from Ad 62 - Extra Easy through Ad 66 - Extra Hard). Installing any one of these 'difficulty' Adjustments causes the values shown for each of the included game play Adjustment Items to be installed as a group, changing the level of play from one difficulty level to another. The owner/operator can use the information provided by the Audit Table items to determine whether the 'difficulty level' for this game in this location needs to change to obtain a higher level of earnings from the game or to provide a greater challenge to the location's players.

Once the 'difficulty level' is changed, a careful review of the Audit Items will reveal whether the change has achieved this higher-earnings goal. Sometimes, one (or more) of the Adjustment Items needs further change to keep the number of plays high, while still keeping the earnings level high. "Fine-tuning" of the game's Adjustment Items is a key feature of Williams Electronic Games products.

TAXI Game Adjustment Setting Comparison Table

Adj #	Adj Description	Extra Ad Easy 62	Easy Ad 63	Medium Ad (Factory) 64	Hard Ad 65	Extra Ad Hard 66	
31	C-A-B Ex, Ball	2	3	3	6	7	
32	Raise JACKPOT Time	10 sec	10 sec	10 sec	7 sec	5 sec	
33	JACKPOT Advance	10K	5K	2K	1K	1K	
34	JACKPOT Difficulty	1	3	4	5	6	
35	MILLION Difficulty	1	1	2	3	5	
36	EXPRESS LANE Diff	1	1	1	2	3	
37	JACKPOT Minimum	1 Million	1 Million	500K	500K	500K	
38	JACKPOT Maximum	4 Million	4 Million	4 Million	3 Million	3 Million	
39	JACKPOT Timer	20 sec	20 sec	15 sec	10 sec	10 sec	
40	Ex. Ball Auto Adj	33%	33%	33%	20%	10%	
41	SPECIAL Auto Adj	5%	5%	4%	2%	2%	
42	Marilyn Timer	_25 sec	20 sec	10 sec	8 sec	5 sec	
43	Pin•Bot Timer	30 s ec	25 sec	15 sec	10 sec	8 sec	
46	SPINOUT "X"	Yes	Yes	Yes	No	No	
47	MILLION Timer	Off	Off	Off Off		15 sec	
48	Airport Setting	1 (ramp)	1 (ramp)	1 (ramp)	1 (ramp)	1 (ramp)	

GAME ADJUSTMENT PROCEDURE

Adjustment Items 01 through 70

The coin door must be open to access the Game Adjustment/Diagnostic switches. All readings and setting changes require operation of these coin door switches. Some setting changes utilize the Credit button; some also use the flipper button(s). Additional text describing the game adjustment items follows this procedure; the value of the Factory Setting for each Game Adjustment item is in the preceding TAXI Game Adjustment Table.

- 1. Use AUTO-UP and press ADVANCE. The Id 00 display initially appears. Press ADVANCE until the Player 3 display indicates Ad 01. If the factory setting has not changed, the Player 1 and 2 Score displays indicate AUTO REPLAY, and the Player 4 display shows 10%, indicating a 10% replay percentage. (The game program adjusts itself automatically, as discussed in the following text concerning the 'details' about Adjustment Item 01.)
- 2. To reach a higher item number (in the Player 3 display), use AUTO-UP and press ADVANCE. To return to a previous item number, use MANUAL-DOWN and press ADVANCE.
- 3. With the desired Game Adjustment Item number showing in the Player 3 display, increase the setting value (or select another option) shown in the Player 4 display by using AUTO-UP and pressing the Credit button. Repeat this step for each item, until all changes to the factory settings for the Game Adjustment Items have been made. The preceding Game Adjustment Table consolidates the Factory Settings into one grouping.

(The same procedure can be used for Audit Items. To zero Au 01 - 04 (concerning the coin chutes and the total coins), the operator can proceed to item 68, Clear Coins, and press the Credit button to obtain the YES option. The operator then presses the ADVANCE button and notes the "DONE" display, which verifies that the entry values for items 01 through 04 of the Audit Items are now reset to zero.)

For example, the operator may desire to change the degree of game play difficulty from the Factory Setting (equivalent to the Install Medium [Ad 64] difficulty, along with a number of other automatically installed settings, as shown in the right column of the Game Adjustment Table) to another difficulty more suitable for the players at a particular game site. Four other 'automatic' play difficulty settings (Ad 62 - Ad 66) are available, each of which, if selected, installs all the adjustments listed for that difficulty in the Game Adjustment Setting Comparison Table, which precedes the 'details' text.

- 4. To proceed rapidly through the entire adjustments series, press and hold ADVANCE, until Ad 70 shows in the Player 3 display. From item 70, you can: (A) return to the <u>Game-Over Mode</u>; or (B) restore factory settings and zero audit (bookkeeping) totals. Perform either of the following, as desired:
 - A. To reach <u>Game-Over Mode</u>, use AUTO-UP and press ADVANCE once. TAXI now goes to the <u>Game-Over Mode</u>.
 - B. To restore the Factory Settings for Game Adjustment Items (as listed in the Game Adjustments Table), zero all audit (bookkeeping) totals, and return to Game-Over Mode, use AUTO-UP or MANUAL-DOWN to display Ad 70 in the Player 3 display. Press the Credit button to display the YES option in the Player 4 display. Using AUTO-UP, press ADVANCE once. 'TAXI now zeroes ALL Audit Item totals and changes ALL Game Adjustment Items back to those originally selected as Factory Settings. It then shows the operator a message ("FACTORY SETTING") that this has occurred. (A problem in the Memory Protection, circuit or closing the coin door will cause the message "ADJUST FAILURE" to appear.) Press ADVANCE once more to return to the Game-Over Mode.

Details of Adjustment Items 01 through 70

01 Auto Replay (or Fixed Replay)

Of the two options, AUTO REPLAY is the percentage of replays automatically awarded per game. The game program aids a pinball's initial installation by causing a comparison of the value of the Replay Level to the value of all players' scores every 50 games for the first 1,000 games. At each comparison, the program increases (or decreases) the Replay Level by an amount necessary to achieve the replay percentage specified either via the factory setting or later operator selection. (After the first 1,000 games, the comparison occurs after every 500 games. The adjustment value is 100K, for this (and each subsequent) comparison.) Use the Credit button to change the percentage within the range of 5 to 25 (%), with the value increasing using AUTO-UP (or decreasing using MANUAL-DOWN). The next Credit button change below 5%, selects the FIXED REPLAY option.

For AUTO REPLAY, Ad 02 provides the Starting Replay Level (Player 1 and 2 displays show REPLAY START). Ad 03 provides the number of replay levels (01, 02, 03, or 04). TAXI then proceeds to Ad 06 automatically.

For FIXED REPLAY, Ad 02 is the first replay level (REPLAY LEVEL 1). Ad 03, 04, and 05 are the other replay levels.

02 Starting Replay Level (or Replay Level 1)

For AUTO REPLAY (refer to Ad 01), the initial <u>Factory Setting</u> is listed in the Game Adjustment Table. The range of settings is 800,000 through 4,000,000 (by increments of 100,000 with AUTO-UP or decrements of 100,000 with MANUAL- DOWN).

For FIXED REPLAY, the operator can enter the value to be used for the first fixed replay score level via the Credit button. The range of settings is: *OFF*; 100,000 through 9,900,000 (by increments of 100,000 with AUTO-UP, or decrements of 100,000 with MANUAL-DOWN).

03 Replay Levels (or Replay Level 2)

For AUTO REPLAY (refer to Ad 01), this is the number of replay levels in a game. The option range is *one, two, three, or four* replay level(s). When the operator chooses two replay levels, **TAXI** automatically adjusts the second replay level to be twice the value selected for Ad 02, the starting replay level. Choosing three or four replay levels automatically adjusts their replay levels to three times or four times the Ad 02 value.

For FIXED REPLAY, the technique of value entry and the range of settings are identical to those of Ad 02.

04 (Replay Level 3)

For AUTO REPLAY, this Adjustment Item is not applicable. TAXI automatically bypasses this adjustment.

For FIXED REPLAY, the technique of value entry and the range of settings are identical to those of Ad 02.

05 (Replay Level 4)

For AUTO REPLAY, this Adjustment Item is not applicable. TAXI automatically bypasses this adjustment.

For FIXED REPLAY, the technique of value entry and the range of settings are identical to those of Ad 02.

06 Replay Award

For either AUTO REPLAY or FIXED REPLAY (Ad 01), the operator can select the form of the award automatically provided when the player exceeds any Replay Level (Automatic or Fixed). The choices are:

Credit - Reaching each replay level obtains a credit (free game).

Ball - Reaching each replay level obtains an extra ball.

Reaching each replay level obtains nothing to the player; it does increase the entry value of the Audit Item(s) maintaining a tally of these awards (Au 08, and Au 20 through 23, as applicable).

07 Special Award

The operator can select the form of the award automatically provided when the player scores a Special. The choices are:

Credit - Scoring each Special, when lit, obtains a credit (free game).

Scoring each Special, when lit, obtains an extra ball.
 Score - Scoring each Special, when lit, obtains a score advance of 100,000 points to the

player.

08 Match Award

The operator can select (via the Credit button) the desired percentage for the Match action occurring at the completion of each game. The choices are:

1%-50%
1% is 'hard'; 50% is 'extremely easy'. During Match action, the game selects a random two-digit number at end of game and compares each player's score for an identical two digits in the rightmost two positions. A matching of the two digits results in the award of a credit.

Off - The MATCH display does not operate at completion of the game; no award is given.

09 Balls / Game

The operator can define a "game" by specifying the number of balls to be played. The range of this setting is 1 through 9.

10 Tilt Warning

The operator can specify the number of total actuations of the plumb bob and playfield tilt mechanisms that can occur before the game is "tilted". The range of this setting is 1 through 5.

11 Extra Ball/Ball In Play

The operator can choose (via the Credit button) the number of Extra Balls to be awarded to a player. The range of this setting is:

NO extra ball play; displays a message, NO EX. BALL. A score is awarded in lieu of the Extra Ball.

1 -9 E. B./Ball - 1 through 9 Extra Balls per ball (i.e., all balls including Extra Balls) are awarded.

1-9 E. B./B.I. P. - 1 through 9 Extra Balls per Ball In Play (B. I. P.) (i.e., all balls NOT including Extra Balls) are awarded.

1-9 E. B./Game - 1 through 9 Extra Balls per game.

12 Maximum Credits

The operator can specify the maximum number of credits the game can accumulate, either through game play awards or coin purchases. The range of settings is 5 through 10. Reaching the specified setting prevents the award of additional credits by game play. Coin purchases do continue to accumulate and are displayed.

NOTE

Whenever the number of credits is less than the specified maximum credits, any credits obtained by coin purchase or game awards (High Score, Match, Replay Levels, etc.) will be accumulated even though they exceed the maximum value. Thereafter, no additional credits can be accumulated, until the credit total is reduced below the specified maximum setting.

13 Highest Scores

The operator can specify (via the Credit button) whether the game is to maintain a record of the four highest scores achieved to date. The choices are:

Off - NO high scores are recorded.

On - The four highest scores are stored in memory for use by Game Adjustment 22.

Auto - The four highest scores are stored in memory for use in a game program subroutine associated with Game Adjustment 22.

14 Backup High Score 1

The operator can set the Backup High Score value in the Player 1 Score display, using the Credit button. The game automatically restores this value, when the operator presses, and holds, the HIGH SCORE RESET switch, or when an automatic High Score Reset event (Ad 22) occurs.

15 Backup High Score 2

This adjustment is similar to Ad 14, except that this applies to the Player 2 Score display. The adjustment technique is identical to Ad 14. It is also restored as described for Ad 14.

16 Backup High Score 3

This adjustment is similar to Ad 14, except that this applies to the Player 3 Score display. The adjustment technique is identical to Ad 14. It is also restored as described for Ad 14.

17 Backup High Score 4

This adjustment is similar to Ad 14, except that this applies to the Player 4 Score display. The adjustment technique is identical to Ad 14. It is also restored as described for Ad 14.

18 Credits for Highest Score 1

The operator can select the number of credits to be awarded, by using the Credit button, whenever a player exceeds the previous Highest Score. The range of this setting is 00 through 10. A variation to this award occurs, when the setting of Ad 06 is Coil. (This permits a ticket or token dispenser to provide the award, when applicable.)

19 Credits for Highest Score 2

This adjustment is similar to Ad 18, except that this applies to the player's exceeding the second highest score. The Credit button adjustment technique is the same as for Ad 18. The range of this setting is 00 through 03.

20 Credits for Highest Score 3

This adjustment is similar to Ad 18, except that this applies to the player's exceeding the third highest score. The Credit button adjustment technique is the same as for Ad 18. The range of this setting is 00 through 03.

21 Credits for Highest Score 4

This adjustment is similar to Ad 18, except that this applies to the player's exceeding the fourth highest score. The Credit button adjustment technique is the same as for Ad 18. The range of this setting is 00 through 03.

22 Automatic High Score Reset

The operator can specify (via Credit button) that the game will provide an automatic reset of the displayed "Highest Scores", and the number of games to be played before the reset occurs. (Audit item 39 displays the games remaining before the reset.) The values provided upon reset are those selected by the operator in Ad 14 through 17, the Backup High Scores. The range of this setting is *Off* (to disable this adjustment), and 1,000 to 24,750 games (in increments of 250).

23 Free Play

The operator can select (via the Credit button) whether a player can operate the game without a coin (free play) or with a coin. The choices are:

No - A coin is necessary for game play.

Yes - Game play is free; no coin is required.

24 Coinage Selections

The operator can specify (via the Credit button) any of the 16 Standard Settings for game pricing, each of which exhibits a message identifying the country and the number of coins required and the number of games that the coin requirement purchases. Choosing a Standard Setting permits the game to omit items Ad 25 through 30, which are adjustments allowing for a special custom coinage setting.

Following the last Standard Setting is a Custom Coinage Setting, which allows the operator to utilize Ad 25 through 30 in establishing a special coinage setting. A message, CUSTOM COINAGE, indicates that the operator can enter the appropriate values into the Ad 25 through 30 adjustment items.

The values for Ad 25 through 30 of each Standard Setting, as well as other possible values for the Custom Coinage Setting are shown in the **Pricing Table**.

25 Left Chute Coin Units

The operator can specify (via the Credit button) the number of coin units purchased by a coin passing through the left coin chute.

26 Center Chute Coin Units

The operator can specify (via the Credit button) the number of coin units purchased by a coin passing through the center coin chute.

27 Right Chute Coin Units

The operator can specify (via the Credit button) the number of coin units purchased by a coin passing through the right coin chute.

28 Units Required for Credit

The operator can define (via the Credit button) the number of coin units required to obtain 1 Credit. A coin unit counter in the game program totals the number of coin units purchased through all coin chutes prior to each game. If the total number of coin units purchased exceeds the 1 Credit factor by a multiple (or more, coin units) of the specified Units per Credit value, the Credits display shows the proper number of Credits. The coin unit counter retains any remaining coin units, until the start of a game; then, the coin unit counter is cleared (its contents are zeroed).

29 Units Required for Bonus

The operator can specify (via the Credit button) that 1 additional Credit is to be indicated in the Credits display, when a certain number of coin units are accumulated.

30 Minimum Units Required for any Credits Posted

The operator can specify that NO Credits are to be posted (indicated in the Credits display), until the credit units counter reaches a particular value.

The System 11B game program defines the following 18 Adjustment Items as "game-specific"; that is, they are unique for each game. The Game Designer/Engineer/Programmer team members work together to use these as controlling factors for game play. By varying the setting of these Adjustment Items, it is possible to "fine-tune" a game to suit a particular location, enabling the owner/operator to reap maximum earnings, while still providing the players with sufficient challenge to keep them playing.

31 CABS EXTRA BALL

The operator can choose (via the Credit button) the number of times the player must complete the C - A - B lanes to light the Extra Ball lamp. The range of this setting is 2 (Liberal) through 8 (Conservative).

32 RAISE JACKPOT TIME

The operator can choose (via the Credit button) the time period that the Raise Jackpot lamp stays lit, after the completion of the C-A-B lanes. The range of this setting is 03 seconds (Liberal) through 30 seconds (Conservative).

33 JACKPOT ADVANCE

The operator can choose (via the Credit button) the number of points awarded per switch actuation, while the Raise Jackpot lamp is lit. The range of this setting is 1,000 through 20,000.

34 JACKPOT DIFFICULTY

The operator can choose (via the Credit button) the degree of difficulty of obtaining the JACKPOT award. The range of this setting is 1 through 6.

35 MILLION DIFFICULTY

The operator can choose (via the Credit button) the degree of difficulty of obtaining the MILLION award. The range of this setting is 1 through 5.

36 EXPRESS LANE DIFFICULTY

The operator can choose (via the Credit button) the degree of difficulty of obtaining the Express Lane play. The range of this setting is 01 through 03.

37 JACKPOT MINIMUM

The operator can choose (via the Credit button) the minimum value of the Jackpot award. This is the starting value of the Jackpot after the game program resets it upon collection or by installing the 'Factory Setting'. The range of this setting is 500,000 through 1,000,000.

38 JACKPOT MAXIMUM

The operator can choose (via the Credit button) the maximum value of the Jackpot award. This is the largest value that the Jackpot can attain, until a player collects this award. The range of this setting is 1,500,000 through 4,000,000.

39 JACKPOT Timer

The operator can choose (via the Credit button) the time limit for flashing the JACKPOT lamp (allowing the player to pick up the Jackpot award via the next Gorbie shot). At the end of this time limit, the JACKPOT lamp stops flashing, and the Marilyn lamp begins flashing. To earn the chance to score the Jackpot award now, the player must make the shots to pick up Marilyn. The range of this setting is 0 (Off), 1 second through 40 seconds.

40 EXTRA BALL Auto Adjustment

The operator can choose (via the Credit button) the percentage value for Extra Balls per game. The range of this automatic adjustment setting is *Enabled 1%* (Hard) through 50% (Extremely easy); it can also be turned off (disabled), via a setting of 0 (Off). When the automatic adjustment is turned on (enabled), the game program adjusts the setting at the end of a game, after each 50 games, unless the current value is within 2% of the setting; then, no auto adjustment occurs. The <u>Factory Setting</u> is 5%, for all levels of difficulty.

41 SPECIAL Auto Adjustment

The operator can choose (via the Credit button) the percentage value for all Specials per game. The range of this automatic adjustment setting is *Enabled 1%* (Hard) through 50% (Extremely easy); it can also be turned off (disabled), via a setting of 0 (Off). When the automatic adjustment is turned on (enabled), the game program adjusts the setting at the end of a game, after each 50 games, unless the current value is within 2% of the setting; then, no auto adjustment occurs. The <u>Factory Setting</u> is 5%, for all levels of difficulty.

42 MARILYN Timer

The operator can choose (via the Credit button) the time limit for flashing the Marilyn lamp. Making the Marilyn shot during this period lights the Carry Passenger target, which, if achieved, allows the spotted passengers to be retained for next-ball play. The range of this setting is 0 (Off), 1 second through 30 seconds.

43 PIN·BOT Timer

The operator can choose (via the Credit button) the time limit for flashing the Pin-Bot lamp. Making the Pin-Bot shot during this period lights the Carry Passenger target, which, if achieved, allows the spotted passengers to be retained for next-ball play. The range of this setting is 0 (Off), 1 second through 30 seconds.

44 Attract Mode Sounds

The operator can select (via the Credit button) the amount of sounds occurring during the Attract Mode. The choices are:

ALOT - Sounds occur for approximately 8 minutes during the Attract Mode sequence.

LESS - Sounds occur for approximately 2 mintues during only the Attract Mode.

NONE - No sounds occur during the Attract Mode.

45 BELL USE

The operator can choose (via the Credit button)whether the Bell is On or Off during the game. The choices are:

On - When the game program needs to ring the bell during the game, the bell sounds.

Off - The bell is turned Off.

46 Spinout "X" (Multiplier)

The operator can choose (via the Credit button)whether the Spinout Multiplier is operating. At each ball start, the player's Spinout score is multiplied by the ball number. That is, 1X for ball 1; 2X for ball 2; etc. The maximum multiplier is 5X, which accounts for the 3 game balls and 2 Extra Balls. The choices are:

Yes - The Spinout Multiplier is in effect.

No - The Spinout Multiplier is turned Off.

47 MILLION Timer

The operator can choose (via the Credit button) the time limit for the MILLION lamp to remain lighted. The range of this setting is 0 (Off), 1 second through 40 seconds. In the OFF setting, the lamp remains lit, until the shot is achieved.

48 Airport Setting

The operator can choose (via the Credit button) the number of Airport Ramp shots necessary to "advance" the Airport scores. The choices are:

1 (ramp) - One Airport ramp shot (either left or right ramp) is required.

2 (ramps) - Two Airport ramp shots (both right and left) are required.

49 Custom Message

The operator can choose (via the Credit button) whether to display a message during the Attract Mode. (When display of a message is selected, the operator can either utilize the message provided or change the message.) Three choices are available:

 Display a message during the Attract Mode. The Player 4 display shows this choice as ON. The 3-line message provided is:

GO FOR THE DRIVE ... OF YOUR LIFE ... PLAY TAXI.

- 2 Do NOT display a message during the Attract Mode. (Player 4 shows OFF.)
- The Player 4 display shows this choice as CHANGE. The operator can enter a special ("custom") message, as follows:
 - A. Press ADVANCE once. The operator can now enter as many as three 14-character lines for display during the Attract Mode.
 - B. Use the flipper button(s) to select each message character (alphabet, numbers, and special symbols are available). In case of error, enter a "back arrow" (just before "space") to correct, followed by correct character. For a period after any letter, use letters with periods (following the special symbols). The entire character set is the following:

ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789<>?-/*'
A. B. C. D. E. F. G. H. I. J. K. L. M. N. O. P. Q. R. S. T. U. V. W. X. Y. Z. _

C. Move to the next character via the Credit button. The game program does not allow entirely blank lines to be displayed.

50 SW. ALARM KNOCKER

The operator can choose (via the Credit button) whether the knocker operates, sounding an alarm to signal a switch problem, at the time of game Turn-On and at the beginning of the Test/Diagnostic Procedures. Two choices are available:

- YES The knocker sounds, signalling a switch problem, at game Turn-On and at the beginning of the Test/Diagnostic Procedures.
- NO The knocker does NOT sound. (Player 4 shows NO.)

51 1 COIN BUY-IN

The operator can choose (via the Credit button) whether to allow "1 Coin Buy-In" when Game Adjustment Ad 24 is set for USA 3 (2 coins-1 play, 50¢ per game player) pricing. This option enables each player, during a timed period at the end of each game, to get another game for only 1 coin (25¢), after having purchased the first game for 50¢. That is, after purchasing the first game for 50¢, subsequent games cost 25¢, if purchased within the time limit.

52 - 55 Not Used in USA Games (Refer to Game Adjustments for German Games)

SPECIAL PRESET ADJUSTMENTS CAUTION

Adjustments 53 through 66 are Special Preset Adjustments to enable the operator to perform the setting of multiple adjustments at once. They permit the operator to: (1) either modify a game for a specific area (for example, USA coinage settings, Ad 56 through 58, or special German coinage settings, Ad 53 through 58) (2) change a group of adjustments to conform with laws of certain localities (Ad 59 through 61); and (3) to change the degree of difficulty of game play (Ad 62 through 66). A list of the preceding individual Adjustments affected accompanies each of these Special Preset Adjustments. Whenever the operator chooses to use any Special Preset Adjustment, the operator can later access any or all of the individual Adjustments affected by that Special Adjustment for subsequent changes.

A similar technique is recommended in the event of error or uncertainty concerning any Special Preset Adjustment, after the operator selects it: The operator can restore the factory setting of each individual Adjustment, then select the desired Special Preset Adjustment, and then return to any of the preceding individual adjustments to determine whether use of the Special Adjustment has had the desired effect.

SPECIAL PRESET ADJUSTMENTS CAUTION (Continued)

The Backbox displays for each Special Preset Adjustment indicate whether the operator has selected it, by identifying the Adjustment in the Player 1 and 2 displays by name and the selection choice of NO, meaning Not Selected (this is the <u>Factory Setting</u>), or YES, meaning Selected, in the Player 4 display. Operator installation of the 'selected' Preset Adjustment occurs by using the Credit button to choose YES and then pressing the ADVANCE switch. The displays then show the name of the Adjustment again, with DONE to show that the installation is now in effect.

Note that, when an operator installs any of the Special Preset Adjustments, Adjustment Items using the automatic adjust feature of the game program reset to the auto adjust value listed for that Adjustment Item.

NOTE

Games in which the CPU has ROMs installed for German (Deutsch) language and play adjustments automatically have certain Adjustment Items preset. The following table shows these Preset Adjustment Items for each of the special German Coinage Adjustments.

TAXI Preset Game Adjustments Table for German Games

Adj #	Adj Description	German Ad 1 53	German Ad 2 54	German Ad 3 55	German Ad 4 56	German Ad 5 57	German Ad 6 58
01	Auto Replay	10 (%)	10 (%)	10 (%)	10 (%)	10 (%)	10 (%)
02	Replay Start	1.800.000	1.800.000	1.800.000	1.800.000	1,800.000	1.800.000
03	Replay Level 2	03	03	03	03	03	03
06	Replay Award	Credit	Coil	Audit	Credit	Coil	Audit
07	Special Award	Credit	Ball	Score	Credit	Ball	Score
08	Match Feature	10 %	10 %	10 %	10 %	10 %	10 %
12	Max. Credits	30	30	30	30	30	30
14	Backup High Score 1	5.000.000	5.000.000	00	5.000.000	5.000.000	00
15	Backup High Score 2	4.500.000	4.500.000	00	4.500.000	4.500.000	00
16	Backup High Score 3	4.000.000	4.000.000	00	4.000.000	4.000.000	00
17	Backup High Score 4	3.500.000	3.500.000	00	3.500.000	3.500.000	00
18	High Score 1 Credits	03	03	00	03	03	00
19	High Score 2 Credits	00	00	00	00	00	00
20	High Score 3 Credits	00	00	00	00	00	00
21	High Score 4 Credits	00	00	00	00	00	00
22	High Score Reset	750 spiele					
24	Coinage Setting	6 spiele/5 DM	6 spiele/5 DM	6 spiele/5 DM	7 spiele/5 DM	7 spiele/5 DM	7 spiele/5 DM

53 through 58 FOR GERMAN GAMES ONLY: Install German 1, 2, 3, 4, 5, or 6
The operator can use these Adjustment Items to modify the game pricing selection of Standard Setting named "German 2 or German 1" in the Pricing Table to permit the style of play for the particular price shown in the TAXI Preset Game Adjustments Table for German Games.

FOR USA GAMES:

56 Install 1 COIN

The operator can use this Adjustment Item to modify the current game pricing selection to enable game play to begin when the specified number of coins are deposited. In this instance, the player now obtains 1 play when 1 coin of the proper denomination (USA: 25¢) passes through a coin chute.

57 Install 3/\$1.00

The operator can use this Adjustment Item to modify the current game pricing selection to enable game play to begin after acceptance of the specified number of coins. In this instance, the player now obtains 3 plays when 25¢ coins totalling \$1.00 pass through a coin chute.

58 Install 2 COINS

The operator can use this Adjustment Item to modify the current game pricing selection to enable game play to begin after acceptance of the specified number of coins. In this instance, the player now obtains 1 play when 2 coins of the proper denomination (USA: 25ϕ) pass through a coin chute.

59 Install Add-A-Ball

The operator can utilize this option to delete all Free Play awards and replace them with Extra Ball awards. Individual Adjustments are affected, as follows:

Ad	<u>Name</u>	New Setting	Ad	Name	New Settina
- 06	Replay Award	Ball	18	Hi Scr 1 Credits	00
07	Special Award	Ball	19	Hi Scr 2 Credits	00
80	Match Feature	Off	20	Hi Scr 3 Credits	00
			21	Hi Scr 4 Credits	0.0

60 Install 5 Ball

The operator can change the game to 5-Ball play, including the changing of certain features to the recommended 5-Ball play difficulty level. Individual Adjustments are affected, as follows:

Ad Name	New Setting	<u>Ad</u>	<u>Name</u>	New Settina
02 Replay Start	3,000,000	09	Balls / Game	05

61 Install Novelty

The operator can remove all Free Play and Extra Ball awards. Individual Adjustments are affected, as follows:

Ad Name	New Settina	Ad	<u>Name</u>	New Settina
01 Fixed Replay	SCORES	07	Special Award	Score
02 Replay Level 1	Off	08	Match Feature	Off
03 Replay Level 2	Off	11	No Extra Ball	00
04 Replay Level 3	Off	18	Hi Scr 1 Credits	00
05 Replay Level 4	Off	19	Hi Scr 2 Credits	00
06 Replay Award	Audit	20	Hi Scr 3 Credits	00
		21	Hi Scr 4 Credits	00

62 Install Extra Easy

The operator can change the game play difficulty adjustments to a combination that is extremely easy (sometimes called "liberal"). The Game Adjustment Setting Comparison Table, which precedes these 70 individual Adjustments descriptions, lists the Adjustments and the settings that comprise the 'Extra Easy' group.

63 Install Easy

The operator can change the game play difficulty adjustments to a combination that is slightly easier than the Factory Settings. The Game Adjustment Setting Comparison Table, which precedes these 70 individual Adjustments descriptions, lists the Adjustments and the settings that comprise the 'Easy' group.

64 Install Medium

The operator can change the game play difficulty adjustments to a combination that matches the Factory Settings. The Game Adjustment Setting Comparison Table, which precedes these 70 individual Adjustments descriptions, lists the Adjustments and the settings that comprise the 'Medium' group.

65 Install Hard

The operator can change the game play difficulty adjustments to a combination that is more difficult than the Factory Settings. The Game Adjustment Setting Comparison Table, which precedes these 70 individual Adjustments descriptions, lists the Adjustments and the settings that comprise the 'Hard' group.

66 Install Extra Hard

The operator can change the game play difficulty adjustments to a combination that is much more difficult than the Factory Settings. The Game Adjustment Setting Comparison Table, which precedes these 70 individual Adjustments descriptions, lists the Adjustments and the settings that comprise the 'Extra Hard' group.

67 Auto Burn-in

The operator can choose the YES option for this Special Preset Adjustment to perform certain automatic testing of the game, as used in the factory. It does not affect the game operation, but merely provides for a cyclic testing of most of the game's mechanisms.

68 Clear Coins

The operator can request the clearing of the coinage audits (Au 01 through 04) by selecting (via the Credit button) the YES option, as shown in the player 4 display. This adjustment zeroes the counters tallying the number of coins through each slot, the Paid Credits counter, and the Credits display.

After the YES option is displayed, the operator must press the ADVANCE button. The game then displays DONE to show that the coinage audits have been reset to zero.

69 Clear Audits

The operator can request the clearing of the non-coinage audits (Au 05 through 38) by selecting (via the Credit button) the YES option, as shown in the player 4 display. This Adjustment zeroes the counters tallying the remaining Audit factors. Please note that this does NOT affect the Automatic Replay Percentaging data nor the automatic High Score Reset counter.

After the YES option is displayed, the operator must press the ADVANCE button. The game then displays DONE to show that the non-coinage audits have been reset to zero.

70 Install Factory

The operator can request the game (via the Credit button) to provide the normal Factory Settings, essentially restoring the game to its 'factory condition'. The operator must select the 'YES' option for this adjustment. This Adjustment clears all Audits, resets all Game Adjustments to the respective Factory Settings, and provides a restart of the Auto Replay (Ad 01). After selecting the YES option, the operator must press the ADVANCE button. The game then displays FACTORY SETTING.

Closing of the coin door before appearance of the FACTORY SETTING message or a problem in the Memory Protect circuit will cause the game to display ADJUST FAILURE.

A loss of battery power or improper treatment of the Game Adjustments will cause the game to attempt to restore Factory Settings. The game announces the results of this reset process with the appropriate message, FACTORY SETTING or ADJUST FAILURE.

RESETTING THE HIGH SCORES

The challenge of exceeding the High Score (either the factory setting or a higher score by another player) is the goal of many pinball game players. To keep a pinball game challenging requires a method of resetting the High Score value for those occasions when a skilled player registers a truly excellent score. Other players note this score and may decide not to play simply because their skill is not adequate to exceed an extremely high score.

For TAXI, in fact, three methods of resetting the High Score values are available. The <u>simplest method</u> involves allowing Game Adjustment Item Ad 22 to reset the High Score values automatically after the specified number of plays designated by the operator. The <u>second</u> method requires pressing the High Score Reset switch on the inside of the coin door in the <u>Attract Mode</u>. This action simply erases the previous high score values and replaces them with the Backup High Score values. The <u>third method</u> establishes new values replacing the factory setting values or previous operator setting values; it requires performing the following steps:

- 1. Using AUTO-UP or MANUAL-DOWN, reach item Ad 14 (and items Ad 15, 16, and 17, if desired). The High Score value of the factory setting (or previous operator-adjusted setting) appears in the Player 1 display. If this value is satisfactory, go to step 4 below.
- 2. If you wish to increase the High Score value from that displayed in the Player 1 display, use AUTO-UP, and press the Credit button, until the desired value shows in the Player 1 display.
- 3. If you wish to decrease the High Score value, use MANUAL-DOWN, and press the Credit button, until the desired value shows in the Player 1 display.
- 4. Using AUTO-UP, press and hold down ADVANCE, until the Player 3 display shows Ad 70 Press ADVANCE once, to return to <u>Game- Over Mode</u>.
- 5. Press the High Score Reset switch (on coin door), and listen for the sound signifying that the score reset action is complete. Observe player score displays (Player 1, Player 2, etc.) to verify that the new High Score values are displayed.

GAME PRICING

PRICING MADE EASY. Game Adjustment Item Ad 24 allows the operator an easy method of setting the pricing functions. Pressing the Credit button allows the operator a choice of one of the 16 "Standard" Settings, with associated automatic pricing (Player 1 and 2 displays show the Country identifier, with a number for a country having more than one "Standard" Setting; player 3 and 4 displays show the games per coin(s) information). In the *Pricing Table*, each "Standard" Setting is denoted by a Country Identifier. Automatic Pricing causes each of the other pricing items (columns 25 through 30) to change to the value shown in the table for that selected "Standard" Setting. In the table where the word "CUSTOM" appears, the owner/operator must enter the values shown (columns 25 through 30) to obtain the games per coin factor shown in the Games/Coin column of the table. To make these setting adjustments, the owner/operator must press the Credit button until the words "CUSTOM COINAGE" appear in the player score displays.

CUSTOM PRICING. Adjustment Item 24 must be set to the Custom Coinage Setting (player 1 and 2 displaying CUSTOM COINAGE) to enable the operator to enter desired custom pricing selections for Items 25 through 30, based on the *Pricing Table*. Item 25 is the left coin chute multiplier. Item 26 is the center coin chute multiplier. Item 27 is the right coin chute multiplier. Item 28 is the number of coin units equal to one Credit. (A Credit is usually equal to one game.)

The calculation of the ratio of Games: Price uses the ratio equation of X:VC, where:

- X = Coin Chute Multiplier (Item 25, 26, or 27 in *Pricing Table*);
- V = Value of coin;
- C = Coin units eqivalent to one Credit (Item 28).

For example, for 25¢ chutes at the factory setting, substituting values in the Games: Price ratio calculation gives 1: 25 x 1, or one game for 25¢.

UNITS REQUIRED FOR BONUS CREDIT. Item 29 is the number of coin units that must pass through the coin chute(s) before an additional Credit (game) is posted (displayed). At the factory setting, the number in this item is 00. (This 00 means that NO bonus credit (free game) is awarded, although purchase of more than one game at a time occurs.)

MINIMUM COIN UNITS. Item 30 determines the number of coin units that must pass through the coin chute(s) before play may begin. The factory setting for this item is 00. (This 00 means that the Minimum Coin Units feature (Item 30) is disabled, by the factory setting.)

GAME PRICING (Continued) TAXI Pricing Table

Country	Coin Chute			Coman/Os!=	Ad 24	Pricing Functions					
Country		Center Right		Games/Coin	Display	25 26 27					
USA and Canada	25¢	- -	25¢	1/25¢, 4/\$1 ¹ ,2 1/50¢, 2/75¢, 3/\$1 ² 1/50¢, 2/\$1 ² 1/25¢, 3/50¢, 6/\$1 1/25¢, 5/\$1	U.S.A. 1 U.S.A. 2 U.S.A. 3 CUSTOM CUSTOM	01 01 01 01 01	04 04 04 04 00	01 01 01 01 01	01 02 02 01 01	00 04 00 02 04	00 00 00 00 00
West Germany	1 DM	2 DM	5 DM	1/1 DM, 2/2 DM, 7/5 DMark ² , ³ 1/1 DM, 2/2 DM, 6/5 DM ¹ , ² 1/1 DM, 3/2 DM, 9/5 DM 1/2x1 DM, 1/2 DM, 3/5 DM 2/1 DM, 5/2 DM, 14/5 DM Ticket/Token Mode ³ Keyset Mode ³	GERMAN1 GERMAN2 CUSTOM CUSTOM CUSTOM CUSTOM CUSTOM	06 06 09 03 13		30 30 45 15 65	05 05 05 05 05	30 00 00 00 65	00 00 00 00 00
France	1 F	5F	10F	1/3x1 F, 2/5 F, 5/10 Franc 1,2	FRANCE	02	10	20	05	20	00
Antilles (Netherlands)	25¢	-	1 G	1/25¢, 4/1 Guilder	CUSTOM	01	01	04	01	00	00
Netherlands	1 HFI 25¢	2.5 HFI	2.5 HFI 1 G	1/1 HFI, 3/2.5 HFI ² 1/25¢, 5/1 Guilder	NETHERL. CUSTOM	06 01	15 00	15 05	05 01	00 00	00
Belglum	20 F 5 F 5 F 5 F	20 F - 20 F 5 F	20 F 20 F 20 F 20 F	3/20 F ² 1/2x5 F, 2/20 Franc 1/2x5 F, 2/20 F, 2/20 F 1/2X5 F, 1/2X5 F, 2/20 F	BELGIUM CUSTOM CUSTOM CUSTOM	12 01 01 01	12 01 04 01	12 04 04 04	04 02 02 02	00 00 00 00	00 00 00 00
Spain	25 P	-	100P	1/25 P, 5/100 Peseta ²	SPAIN	01	00	05	01	00	00
Switzerland	1F 1F	2F	5F 2F	1/1 F, 3/2 F, 7/5 Franc ² 1/1 F, 3/2 F	SWISS CUSTOM	02 06	06 00		02 04	00	00
Japan	100¥	100¥ -	100 ¥	2/100 ¥ ² 2/100 Yen	JAPAN CUSTOM	01 04	04 00	01 04	02 02	00 00	00
Italy	500 L	500L	500 L	1/500 Lire ²	ITALY	01	01	01	01	00	00
Australia	20¢		\$1	1/3x20¢, 2/\$1 ²	AUSTRAL.	01	00	06	03	00	00
United Kingdom	10 P 10 P	50 P 50 P	10 P* 20 P	1/10 P, 5/50 P ² 1/10 P, 5/50 P, 2/20 Pence	U.K. CUSTOM	01 01	05 05	01 02	01 01		00 00
Argentina	10¢	10¢	10¢	1/1 Token	CUSTOM	01	01	01	01	00	00
Austria	5 Sch 5 Sch 1 Sch	10 Sch 5 Sch	10 Sch 10 Sch 10 Sch	1/2x5 Sch, 3/2x10 Sch ² 2/5 Sch, 5/10 Schilling 2/5x1 Sch, 2/5 Sch, 5/10 Sch	AUSTRIA CUSTOM CUSTOM	02	02 00 10	02 05 25	02 01 05	00	00 00 00
Chile	Token	-	Token	1/1 Token ^{1,2}	U.S.A. 1	01	04	01	01	00	00
Denmark	1 Kr	5 Kr	10 Kr	1/2x1 Kr, 3/5 Kr, 7/10 Krone	CUSTOM			14			00
Finland	1 Mka	nang i sa sanawa i d	5 Mka	1/2x1 Mka, 3/5 Markka 2	CUSTOM						00
New Zealand	20¢	•	20¢	1/2x20¢ ²	U.S.A. 3	in in a	bila edi.	01	1 1	1 1 1	00
Norway	1 Kr	-	1 Kr	1/2x1 Kr, 3/5x1 Krone	CUSTOM			01			00
Sweden	1 Kr 1 Kr	5 Kr -	5 Kr 1 Kr	1/3x1 Kr, 2/5 Krona ² 1/2x1 Krona ^{1,2}	SWEDEN U.S.A. 1			10 01			00 00

Notes: 1. Factory Default. 2. Standard Setting - Change by pressing Credit button. 3. Other functions are also affected; see the explanations for Adjustment Items 53 through 58.

TEST/DIAGNOSTIC PROCEDURES

WILLIAMS ELECTRONICS GAMES provides a series of diagnostic tests to aid the operator in determining game condition (that is, whether the game's features and highlights are operating satisfactorily). These tests activate virtually all the electronic and electromechanical devices comprising the game, so that the operator can readily locate a malfunctioning device or simply verify that all devices are working properly. In order, these tests deal with the music, the displays, the game sounds, the lamps, the solenoids, and the switches.

In addition to the diagnostic testing, a feature called the <u>Auto Burn-in Mode</u> is available. Activating this mode enables the operator to observe the game while all of the diagnostic tests, *except the switch test*, occur. This can be very helpful in locating 'intermittent' problems.

Activating either the entire test series or one of the individual tests requires use of the Game Adjustment/ Diagnostic switches. Open the coin door for access to these switches. To proceed to the Diagnostic Tests, the operator must simply switch the game On, set the AUTO-UP/MANUAL-DOWN switch to MANUAL-DOWN, and press the ADVANCE button.

CAUTION

The System-11B game program greatly aids the operator and service personnel: At the beginning of the Test/Diagnostic Procedures (and also at game Turn-On), the player score displays now signal, with a message ("Press ADVANCE for Report") that at least one switch has NOT been actuated during ball play for a lengthy period of time (90 balls, or ≈30 games). Moreover, the Problem Reporting activity at the beginning of the Test/ Diagnostic Procedures, the display of problem switches now includes ALL switches exhibiting problems. Refer to the text on Switch Tests for additional information. To proceed with the Test/Diagnostic Procedures, use AUTO-UP, and press ADVANCE.

MUSIC TEST.

- 1. In the Music Test, observe that the player 1 and 2 displays show the message, MUSIC TEST. Switching to AUTO-UP, observe that the message now reads MUSIC OFF, and that the player 3 score display shows 00 00. Press the Credit button to select the desired music selection: 01 'Main Theme' through 06 'Hi. Score Theme' (the selections repeat). Adjust the volume control for proper sound level for the game location.
- 2. Use the AUTO-UP position.

DISPLAY TEST.

- 1. To initiate the Display Test, press ADVANCE. Observe that player 1 and 2 displays briefly show the message, DISPLAY TEST, and that the player 3 score display shows 01 (the Display Test identifier).
- 2. Use AUTO-UP. Observe that all displays begin a display cycle of all 0s through all 9s, one digit at a time. Verify that the proper comma segments light during display of the odd-numbered digits. Next, a special "all segments" character 'walks' from left to right across each player score display.
- 3. To halt the display cycle, use MANUAL-DOWN. Then, press ADVANCE to step through the sequential digit display, digit by digit, and the subsequent "all segments" characters display test. Use AUTO-UP to resume cycling, and to proceed to the next test.

SOUND TEST.

- 1. (From Display Test) To initiate the Sound Test, press ADVANCE. Observe that the player 1 and 2 displays show the message, SOUND TEST, and that the player 3 display shows 02 (the Sound Test identifier). The player 3 display shows a series of test steps from 00 through 07. Verify that a different sound is heard each time the number in the display changes.
- 2. To repeatedly pulse a single sound, use MANUAL-DOWN. Verify that one particular sound repeats. Press ADVANCE to step to the next sound, which repeats until ADVANCE is pressed again. Use AUTO-UP to resume cycling the sounds, and to proceed to the next test.

LAMP TESTS.

1. All Lamps.

(From Sound Test) To initiate the first Lamps Test, press ADVANCE. Observe that the Player 1 and 2 displays show the message, ALL LAMPS, and that the Player 3 display shows 03 (All LampsTest identifier) and that all feature lamps (playfield and backbox) blink on and off. (Note, however, that the General Illumination lamps remain lighted steadily.) To locate the wiring associated with a particular feature lamp, refer to the **Lamp-Matrix Table**. CPU Board connections at jacks 1J6 (columns) and 1J7 (rows) are also listed in the table.

2. Single Lamps.

From the All Lamps test, using AUTO-UP, press ADVANCE to initiate the Single Lamps Test. The Player 1 and 2 displays initially show the message, SINGLE LAMPS, and the Player 3 display shows 04. Then, the Player 3 display shows 04 01, and the Player 1 and 2 displays change to show JOYRIDE 10,000, the name of the lamp currently blinking. Press the Credit button to proceed through an ascending series of designator numbers (01 through 64), with the Player 1 and 2 displays showing the individual lamp's name. Press and hold the Credit button to proceed rapidly to the desired lamp.

TAXI Lamp-Matrix Table

ROV	OLU M N	1 Q66 YEL-BRN 1J7-1	2 Q64 YEL-RED 1 J7-2	3 Q62 YEL-ORN 1J7-3	4 Q60 YEL-BLK 1 J7-4	5 Q58 YEL-GRN 1J7-6	6 Q56 YEL-BLU 1J7-7	7 Q54 YEL-VIO 1J7-8	8 Q52 YEL-GRY 1J7-9
Q80 1	RED- BRN 1J6-1	JOYRIDE 10,000 1	AIRPORT 20K 9	PIN-BOT (Center)	PIN•BOT	2X cab	AIRPORT RIDE (Right) 4.1	JACKPOT (left above Meter) 49	SPINOUT 1,000 5.7
Q81 2	RED- BLK 1J6-2	JOYRIDE Spot Pasngr 2	AIRPORT 40K 10	DRACULA (Center) 1.8	DRACULA 26	4X cab	AIRPORT RIDE (Left) 4 2	JACKPOT (right above Meter) 50	SPINOUT 5,000 58
Q82 3	RED- ORN 1J6-3	JOYRIDE Mystery 3	AIRPORT 60K 11	MARILYN (Center) 1 9	MARILYN 27	3X cab 3 5	JOYRIDE 43	METER (left below Meter) 5 1	SPINOUT 10,000 5 9
Q83 4	RED- YEL 1J6-5	JOYRIDE EXTRA BALL 4	AIRPORT 80K 1 2	SANTA (Center) 2 0	SANTA 28	5X cab	JACKPOT When Lit	METER (right below Meter) 5.2	SPINOUT 25,000 60
Q84 5	RED- GRN 1J6-6	JOYRIDE SPECIAL 5	AIRPORT 100K 1 3	GORBIE (Center)	GORBIE	SPECIAL W/L (L Outlane) 3 7	1 MILLION When Lit 4 5	RED	SPINOUT 50,000 6.1
Q85 6	RED- BLU 1J6-7	Williams Pinball Palace (upr l) 6	C (Top Lane)	1 Express Lane (left) 2.2	RIDE AGAIN	BONUS W/L (L Return Lane) 3 8	EXTRA BALL W/L 46	YELLOW Traffic Light 5 4	SPINOUT 75,000 6.2
Q86 7	RED- VIO 1J6-8	Williams Pinball Palace (mid l) 7	A (Top Lane) _{1 5}	2 Express Lane (right) 23	Passengers Carried	SPECIAL W/L R Outlane) 3 9	CARRY PASSENGERS W/L 47	GREEN Traffic Light 5 5	SPINOUT 100,000 63
Q87 8	RED- GRY 1J6-9	Williams Pinball Palace (Wrl) 8	B (Top Lane) _{1 6}	RAISE JACKPOT 2 4	LOCK 32	BONUS W/L (R Retum Lane) 40	RELEASE 48	Williams Pinball Palace (uprr) 56	Williams Pinball Palace (Wrr) 64

SOLENOID TEST.

1. (From Lamp Test) Using AUTO-UP, press ADVANCE. Observe that the Player 1 and 2 displays show the message, COIL TEST, the Player 3 display shows 05 (Solenoid Test identifier). Next, the Player 3 display shows a series of test steps from 01 through 22, while the Player 1 and 2 displays show the solenoid/circuit name. During each of these steps, pulsing of the respective solenoid/circuit occurs. The test cycles repeatedly, unless halted via the MANUAL-DOWN switch. Refer to the Solenoid Table for solenoid numbers and wiring information. CPU Board connections at 1P11, 1P12, and 1P19 are also listed in the table.

To continuously pulse a single solenoid/circuit, use MANUAL-DOWN. Press ADVANCE to sequence through the switched, controlled, and special solenoids. Use AUTO-UP to resume test cycling, and to proceed to the next test.

TAXI Solenoid Table

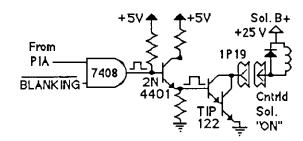
[e _ ,]	Soi.		1	Co	nnections	Driver	Solenoid Part Number	
No.	Function	Solenoid Type	Wire ¹ Color	CPU Bd	Playfield/ Cabinet	Trnstr	Flooblows Tune	
01A ³ 01C ³ 02A ³	Outhole Kicker Pin•Bot Flasher	Switched Switched	{Vio-Brn }	1 P 11-1 (Gry-Brn) 1 P 11-3	5J1-9: 5J4-9 (A) 5J5-9 (C) 5J1-7: 5J4-8 (A)	Q33 Q33 Q25	AE-23-800 #89 flashlamps 1p,1i AE-23-800	
02C3	Ball Release (Shtr Lane Feeder) Dracula Flasher	Switched Switched	{Vio-Red} Blk-Red}	(Gry-Red)	5J5-8 (Ć)	Q25	#89 flashlamps 1p,1i	
03A ³	Catapult Marilyn Flasher	Switched Switched	{Vio-Orn} Blk-Orn}	(Gry-Orn)		Q32 Q32	AL-23-800 #89 flashlamps 1p,1i	
04A ³ 04C ³	Middle 3-bank Dr Tgt Santa Flasher	Switched Switched	{Vio-Yel Blk-Yel}	1P11-5 (Gry-Yel)	5J1-5: 5J4-6 (A) 5J5-5 (C)	Q24 Q24	AE-26-1200 #89 flashlamps 1p,1i	
05A ³	Top Eject Hole	Switched	{ Vio-Grn }	1P11-6	5J1-4: 5J4-5 (A)	Q31	AE-23-800	
05C ³	Gorbie Flasher Right 3-bank Dr Tgt	Switched Switched	ւ Vio-Blu 1	(Gry-Gm) 1P11-7	5J5-4 (C) 5J1-3: 5J4-4 (A)	Q31 Q23	#89 flashlamps 1p,1i AE-26-1200	
06C ³	Left Ramp Flasher	Switched Switched	{ Blk-Blu }	(Gry-Blu) 1P11-8	5J5-3 (C) 5J1-2: 5J4-2 (A)	Q23 Q30	#89, #906 flashlamps 1p,1d AE-26-1500	
07A ³	Spinout Kickbig Right Ramp Flasher	Switched	{ Blk-Vio }	(Gry-Vio)	· '	Q30	#89 , #906 flashlamps 1p,1d	
08A ³ 08C ³	Right Lock (Eject Hole) Spinout Flasher	Switched Switched	{ Vio-Gry } Blk-Gry }	1P11-9 (Gry-Blk)	5J1-1: 5J4-1 (A) 5J5-1 (C)	Q22 Q22	AE-26-1500 #89 flashlamps 2p	
09	Top Ball Gate	Controlled	Brn-Blk	1P12-1	5J2-9: 5J6-9: 2J4-3	Q17	SM1-35-4000-DÇ	
10	insert Gen Illumin Relay Playfield Gen Illum	Controlled Controlled	Brn-Red Brn-Orn	1P12-2 1P12-4	5J2-8: 5J6-8: 2J4-5 5J2-6: 5J6-7: 2J4-6	Q9 Q16	5580-12145-01 ⁴ 5580-12145-01 ⁴	
12 13	A/C Select Relay Bell	Controlled Controlled	Brn-Yel Brn-Grn	1P12-5 1P12-6	5J2-5 5J2-4: 5J6-5	Q8 Q15	5580-09555-01 ⁵ SM-26-600-DC	
14	Knocker	Controlled	Brn-Blu	1P12-7	5J2-4: 5J6-3	Q7	AE-26-1200	
15 16	JACKPOT Flasher JOYRIDE Flasher	Controlled Controlled	Brn-Vio Bm-Gry	1P12-8 1P12-9	5J2-2; 5J6-2 5J2-1; 5J6-1	Q14 Q6	#89 flashlamp 1p,2i #89 flashlamp 1p	
17	Left Jet Bumper	Special #1	Blu-Brn	1P19-7 1P19-4	5J3-7: 5J7-7 5J3-6: 5J7-6	Q75	AE-23-800	
18 19	Left Kicker ("sling") Right Jet Bumper	Special #2 Special #3	Blu-Red Blu-Orn	1P19-3	5J3-3: 5J7-3	Q71 Q73	AE-26-1500 AE-23-800	
20 21	Right Kicker ("sling") Lower Jet Bumper	Special #4 Special #5	Blu-Yel Blu-Grn	1P19-6 1P19-8	5J3-4; 5J7-5 5J3-2;5J7-2	Q69 Q77	AE-26-1500 AE-23-800	
22	Not Used	Special #6	Blu-Blk	1P19-9	5J3-1: 5J7-1	Q79		
-	Right Flipper Lower Right Flipper	-	Orn-Vio [Blu-Vio] ²	1P19-1	2J3-1: 2J18-10: 7P1-15 [7P1-16: 2J18-6: 2J17-4]	-	FL11630/50VDC	
-	<u>Left Flipper</u> Lower Left Flipper	-	Om-Gry [Blu-Gry] ²	1P19-2	2J3-2: 2J18-9: 7P1-18 [7P1-19,2J18-5:2J17-3]	-	FL11630/50VDC	

Notes: 1. Wire colors, except flipper Orn-Vio and Orn-Gry, are ground connections (to coil terminal with unbanded end of diode). Flipper Orn-Vio and Orn-Gry wires connect from CPU Board to flipper switch. 2. Flipper connections shown in braces are from flipper switch to flipper coil. 3. "A" circuits are pulsed, when Sol. 12 is de-energized; "C" circuits are pulsed, with Sol. 12 energized. Wire colors in brackets are those from respective A and C terminals corresponding to the II-terminal connection listed for the Aux Power Driver Bd, which controls the device pulsing by Sol. 12.

4. Relay is mounted on Relay Bd, p/n C-11998-1. 5. Relay is mounted on Aux Power Driver Bd, D-12247 in the backbox.

"On" State Logic - Special Solenoid Solenoid

"On" State Logic - Controlled



"Off" State - Special Solenoid:

The Special Switch Trigger Input goes low. Meanwhile, the PIA line remains high. The remaining signals reverse their states.

"Off" State - Controlled Solenoid:

The Enable Input (from the PIA) goes low. Meanthe BLANKING signal remains high. The rest of the signals reverse their states.

NOTE

As directed by the game program, the Solenoid A/C Select Relay (solenoid 12) switches the solenoid B+ power between two power busses to permit actuating two groups of solenoids at the proper times. In its <u>de-energized</u> state, the Relay connects the 'circuit A power' to 16 "controlled" and "switched" solenoids (identified in the table with no suffix letter or the letter A, after the solenoid number). Individual solenoid operation then depends on the game program enabling the ground path for solenoid actuation via the driver transistor associated with each solenoid circuit. For example, the game program can actuate the Outhole Kicker solenoid (sol. 01A), via the driver transistor Q33.

When the game program determines that the Solenoid A/C Select Relay (sol. 12) must be energized, the relay connects 'circuit C power' to eight group C solenoids (01C through 08C). Now, driver transistor Q33 can actuate the Pin-Bot Flashers circuit (sol. 01C), which has two lamp circuits, one to the Insert Board and one to the playfield. Using this "multiplexing" technique, the same driver transistor can control actuation of two separate solenoid circuits.

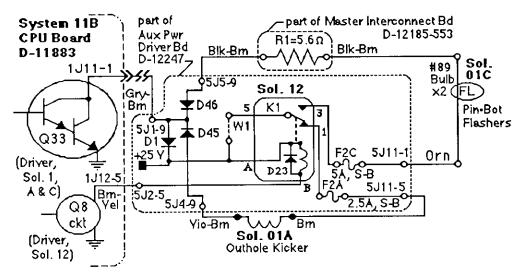


Figure 4. Typical Solenoid A/C Select Relay Circuit, showing the function of Solenoid 12, the Solenoid A/C Select Relay.

SWITCH TESTS.

1. Switch Levels.

(From Solenoid Test) To initiate the Switch Levels Test, press ADVANCE. Observe that the Player 1 and 2 displays show the message, SWITCH LEVELS, and the Player 3 display shows 06 (Switch Levels Test identifier). Normally, the right portion of the Player 3 display remains blank, indicating that no switch is actuated.

If, however, a switch *is* actuated (possibly stuck closed), the Player 3 display shows that switch's number, while the Player 1 and 2 displays indicate the switch's name. A sound also accompanies the displays. (This is another facet of the TAXI System-11B's switch testing capability.) If more than one switch is closed, a series of displays show each actuated switch's name and number.

(In addition, either of these problems could result in the reporting of a switch problem (or problems) at game Turn-On or at the beginning of Diagnostic Tests.)

As soon as the operator opens a closed switch, its name and number are eliminated from the Switch Levels display series. For TAXI, switch numbers can range from 01 through 64. Refer to the Switch-Matrix Table for switch numbers and wiring information. CPU Board connections at jacks 1J8 (columns) and 1J10 (rows) are also listed in the table.

RO	COLUMN	1 Q45 GRN-BRN 1J8-1	2 Q49 GRN-RED 1J8-2	3 Q44 GRN-ORN 1J8-3	4 Q48 GRN-YEL 1J8-4	5 Q43 GRN-BLK 1J8-5	6 Q47 GRN-BLU 1J8-7	7 Q42 GRN-VIO 1J8-8	8 Q46 GRN-GRY 1J8-9
1	WHT- BRN 1J10-9	Plumb Bob Tilt 1	Playfield Tilt g	Left Jet Bumper 1 7	Left Ramp Entry 2 5	Right Ramp	4 1	4 9	Lane Change Right 5 7
2	WHT- RED 1J10-8	2	Outhole 1 0	Left Kicker ("sling") ₁₈	Right Ramp Entry 2 6	Left Ramp 3 4	4 2	5.0	Lane Change Left 5 8
3	WHT- ORN 1J10-7	Credit Button 3	Ball Trough #1 1 1	Right Jet Bumper 1 9	Mdl 3-Bank DT (left) 2 7	Catapult 3 5	Top Kicker 4 3	5 1	5 9
4	WHT- YEL 1J10-6	Left Coin Chute 4	Ball Trough #2 1 2	Right Kicker ("sling") 2 0	Mdl 3-Bank DT (mid) 2 8	Right Eject 3 6	SPINOUT	5 2	6.0
5	WHT- GRN 1J10-5	Center Coin Chute 5	Top Eject Hole 1 3	Lower Jet Bumper 2 1	Mdl 3-Bank DT (right) 2 9	Left Outlane 3 7	4 5	5 3	6 1
6	WHT- BLU 1J10-3	Right Coin Chute 6	C Top Lane _{1 4}	Ball Shooter	R 3-Bank DT (top) 3 0	Left Return Lane 38	4 6	5 4	6.2
7	WHT- VIO 1J10-2	Slam Tilt 7	A Top Lane 1 5	Top Lane Entry 2 3	R 3-Bank DT (mid) 3 1	Right Outlane 3 9	4.7	5 5	6 3
8	WHT- GRY 1J10-1	High Score Reset 8	B Top Lane 1 6	Tips Carried 2 4	R 3-Bank DT (bottom) 3 2	Right Return Lane 4 0	4 8	5 6	6 4

TAXI Switch-Matrix Table

Row Problems. If a display of two (or more) switch numbers of a row occurs, although only one switch is closed, check for a short circuit between the column wires.

Multiple Switch Number Indications. Check the associated column wire for a short circuit to ground.

Column Problems. If display of two (or more) switch numbers in a column occurs (while only one switch is actuated), check for a short circuit between the row wires.

Use AUTO-UP to proceed to the next test.

SWITCH TESTS (Continued).

2. Switch Edges.

From the Switch Levels Test, press ADVANCE. Observe that the Player 1 and 2 displays show the message, SWITCH EDGES; the Player 3 display shows 07 (Switch Edges Test identifier). The right portion of the Player 3 display is blank, indicating that no switch is actuated.

This test permits the operator to test whether actuating a switch provides the proper signal to the System-11B switch testing program. When actuating a switch, the operator should see the switch's name and number (in the Player 1, 2, and 3 displays, respectively). If no indication appears at the time the switch is actuated, the operator then knows that there is a malfunction associated with that switch.

Using this technique, the operator can test each switch appearing in the TAXI switch problem reporting displays (either at game Turn-On or at the beginning of the Diagnostic Tests) to determine whether the switch can be actuated. If the switch's name and number are displayed while the operator checks its operation, the operator then knows that the reported problem with that switch is NOT currently caused by a switch malfunction. The operator can then seek other causes for the reported problem, being almost certain now that the switch did not fail. This test is also useful when the operator is adjusting the sensitivity of a particular switch's actuation mechanism.

Among the possibilities is the fact that the players have not actuated that switch because of some other problem; the operator should try to analyze what could cause the switch to be missed during game play, and remedy that problem cause. With these new tests, switch problems are, therefore, more easily isolated.

3. Playfield or CPU Board? To determine whether a switch problem is in the playfield or the CPU Board, remove connectors 1P8 and 1P10 from the CPU Board. Begin the Switch Test. Use a jumper wire to simulate switch actuation. For example, placing a jumper between 1J10-9 and 1J8-2 should (based on the Switch-Matrix Table) should produce an indication of switch 09 being actuated.

ENDING THE DIAGNOSTIC TESTS.

To end the Diagnostic Tests, reach the Switch Edges Test (07 in the Player 3 display), use AUTO-UP and press ADVANCE. The backbox displays should show the TAXI game's Identification Information. Use MANUAL-DOWN, and press ADVANCE to reach Adjustment Item 70 (INSTALL FACTORY). Use AUTO-UP, and press ADVANCE to go to the Attract Mode.

AUTO BURN-IN MODE.

The <u>Auto Burn-in Mode</u> permits the operator to check intermittent (or nonrecurring) problems associated with most portions of the game's circuitry. Repeatedly cycling through a group of tests can sometimes bring a problem, which occurs only randomly or occasionally, to exhibit itself more frequently, thereby aiding in the isolation of the problem. To activate the <u>Auto Burn-in Mode</u>:

- 1. While in the Game Adjustments, reach Ad 67 and change the Factory Setting of NO to YES, via the Credit button. Set the AUTO-UP/MANUAL-DOWN switch to AUTO-UP.
- 2. Press ADVANCE to start the <u>Auto Burn-in Mode</u>. This mode repeatedly sequences through the Music Test, the Display Test, the Sound Test, the All Lamps portion of the Lamp Test, and the Solenoid Test.
- 3. To halt the <u>Auto Burn-in Mode</u>, switch the game Off and then On. **TAXI** now starts in the <u>Attract Mode</u>. (If a switch problem is now reported by the displays, perform the Switch Tests again to determine the nature of the problem; then, perform necessary repairs.)

SYSTEM-11B MEMORY CHIP TEST.

A new feature is now included in the Memory Chip Test for System 11B. During power-up, the CPU performs a self-testing routine. When all tests are satisfactory, the game proceeds to the Attract_Mode, allowing players to use the game. Whenever a portion of the testing does not produce satisfactory results, the game displays a message, before proceeding to the next portion of the testing. ONLY after all tests are satisfactory does the game allow play to begin.

In addition to the displayed message, when a test fails, LED2 ('DIAGNOSTIC') mounted on the CPU Board can be observed to determine the probable cause of the problem. This LED blinks, or flashes, a certain number of times to identify the probable cause, as described in the CPU LED Indicator Codes Table. The operator can also start the self-testing routine by pressing the CPU Diagnostic Switch (SW 2) on the edge of the CPU Board.

CPU LED Indicator Codes Table

	Diagnostic LED					
Blinks/ Flashes	Display Message	Explanation				
1	U25 RAM FAILURE	U25 RAM could not be used properly (NO other tests are performed; the game is locked here, until the game is turned off).				
2	MEM. PROT. FAILURE	This message means that (A) the Coin Door may be shut; (B) the Memory Protect Switch may be stuck in the ON position; (C) the memory protect logic is protecting the memory; or (D) a U25 RAM failure is occurring. (See Note 1)				
3	U51 PIA FAILURE	U51 has a malfunction. (See Note 2)				
4 5	U38 PIA FAILURE U41 PIA FAILURE	U38 has a malfunction. (See Note 2) U41 has a malfunction. (See Note 2)				
6	U42 PIA FAILURE	U42 has a malfunction. (See Note 2)				
7	U54 PIA FAILURE	U54 has a malfunction. (See Note 2)				
8	U10 PIA FAILURE	U10 has a malfunction. (See Note 2)				
9	IRQ FAILURE	IRQ has a malfunction. It may be missing or too fast or too slow.				
10	U27 ROM FAILURE	U27's internal checksums do not match. It may be a ROM fallure, or its associated connections and connectingdevices are causing it to appear to have a problem. (The following U26 test is skipped.)				
11	U26 ROM FAILURE	U26's internal checksums do not match.				
Notes: 1. This test assumes that the Coin Door is OPEN; it is initiated ONLY by pressing the C Diagnostic Switch (SW2).						
 Alternatively, its associated connections or connecting devices are causing the IC to appear to have problems. 						

SYSTEM-11B SOUND CIRCUITRY TESTS.

Tests of the System-11B Sound circuitry, including the Audio Board, are possible only after successful completion of the System-11B Memory Chip Test.

- Audio Board Test. A brief check of the Audio Board (D-11581) circuitry occurs at game Turn-on; the game reports the test results by brief sounds, as follows: No sound = Audio Board is not operating, or a failure is affecting the sound circuitry (broken cable; dead amplifier; etc.); 1 sound = system OK; 2 sounds = RAM problem; 3 sounds = U4 problem; 4 sounds = U19 problem.
- 2. General System-11B Sound Test. Press the Sound Diagnostic Switch (SW 1) on left edge of the CPU Board. Listen for the two test sounds, showing that both the CVSD (Continuously Variable Slope Delta) Modulator, which provides the voices for TAXI, and the DAC (Digital-to-Analog Converter) sound circuits are functioning properly.

If no sound is heard, refer to the text entitled "NO SOUND ...". If one "ring" is heard, this indicates a malfunction of the U23 RAM Chip. If either two or four "rings" is heard, this indicates a problem associated with the U21 ROM Chip. If either three or five "rings" is heard, this indicates a problem with the U22 ROM Chip.

TEST/DIAGNOSTIC PROCEDURES (Continued)

NO SOUND DURING THIS TEST (but sound can be heard during the Diagnostic Tests).

Check the sound-select inputs (pins 2 through 9 of U9) to see if they pulse during Sound Test 01. Also, check the -12 V supply voltage on the CPU Board. If this voltage is low (or AC ripple seems too high), perform the following checks:

- 1. The gray and gray-green transformer secondary wires for 19.4 VAC.
- 2. The CPU Board filter capacitor C26 for -12 VDC.
- 3. The filter capacitor C26 for excessive AC ripple (over 0.75VAC).

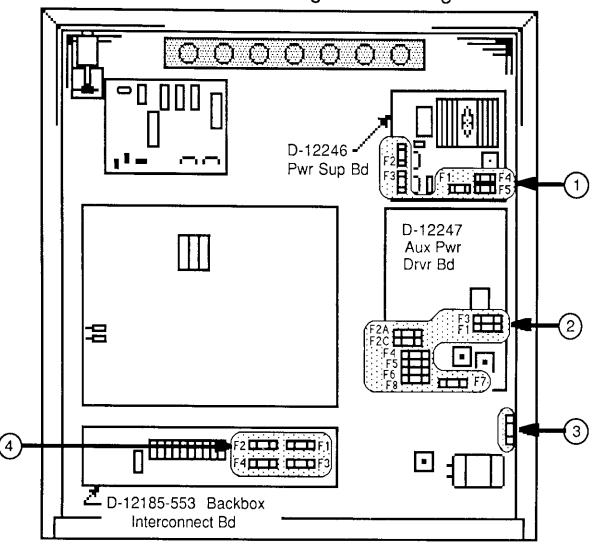
If the previous checks did not isolate the problem, turn the Volume Control for maximum output. Momentarily touch a powered-up AC soldering pencil on the center tap of the Volume Control.

CAUTION

DO NOT use a soldering iron over 40 watts. Note also that cordless soldering irons will NOT work for this test.

Hearing a low hum or a 'click' indicates that the power amplifier (U1, TDA2002), the Volume Control, and the speaker are operating satisfactorily, as is the sound circuit cabling. Not hearing a sound requires repeating the test with the Volume Control turned part way down, to determine whether the Volume Control is faulty. Also, check the cable connectors for proper mating, and that no broken wires affect this circuit.

Fuse Locations Diagram & Listing



iten	n Part Number	Description	Circuit/Location
1	5731-12328-00	Fuse, 3/8A., S-B, 250V	F1; D-12246 Power Supply Board
1	5731-12327-00	Fuse, 1/8A., S-B, 250V	F2, F3; D-12246 Power Supply Board
1	5731-09432-00	Fuse, 7A S-B, 250v	F4, F5; D-12246 Power Supply Board
2	5731-09128-00	Fuse, 2-1/2A., S-B, 250v	F1, F2A, F3; D-12247 Aux Pwr Driver Board
2	5731-09651-00	Fuse, 5A., S-B, 250v	F2C; D-12247 Aux Pwr Driver Board
2	5731-08665-00	Fuse, 2A., S-B, 250v	F4 - F6; D-12247 Aux Pwr Driver Board
2	5731-06314-00	Fuse, 4A., S-B, 250v	F7; D-12247 Aux Pwr Driver Board
2	5731-09432-00	Fuse, 7A., S-B, 250v	F8; D-12247 Aux Pwr Driver Board
3	5730-09071-00	Fuse, 8A., S-B, 32v	+18 Vdc Lamp Ckt/ Lwr Rt Backbox fuseholder (1)
4	5731-09651-00	Fuse, 5A., S-B, 250v	F1 - F4: Gen. Illumination/B'box Interconnect Board

^{*} One 4A., S-B, 250v fuse (5731-06314-00) is provided for an overseas (220v) game installation.

5730-09252-00 Fuse, 8A., Slow-Blow (S-B), 125v Input ("high voltage") Power Line/Cabinet Box*

MAINTENANCE INFORMATION

Figure 3 shows the two main lubrication points of the Shooter Lane Feeder. The shaded arrows show the directions in which the Shooter Lane Feeder and other parts of its related assemblies can be adjusted for proper operation. Note that the mechanisms of the Top Eject Hole Arm Assembly and the Right Lock (Eject Hole) are quite similar to the Shooter Lane Feeder; they have the same lubrication requirements and adjustment capabilities as the Shooter Lane Feeder.

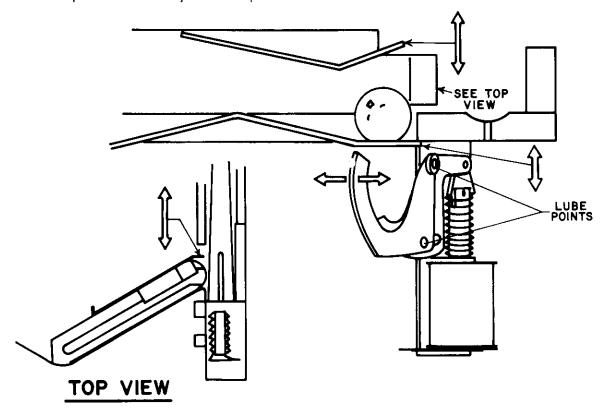


Figure 3. Adjustments and Lubrication Points, Shooter Lane Feeder.

Because of the functional design (arm-actuated via solenoid plunger operation), the pivot points of the Left and Right Kickers ("Slingshots") and the Spinout Kickbig all require lubrication as a regular servicing procedure. Mechanical adjustments are simple and somewhat similar to the Shooter Lane Feeder. These mechanisms should also be checked for proper fit (snugly tight) where they attach to the playfield.

Lubrication to ensure proper operation also applies to the target blades of the two 3-Bank Drop Targets. Regular maintenance is essential to a game's continuing contribution to the operator's earnings.

Section 2

Game Parts Information

Parts Lists & Diagrams

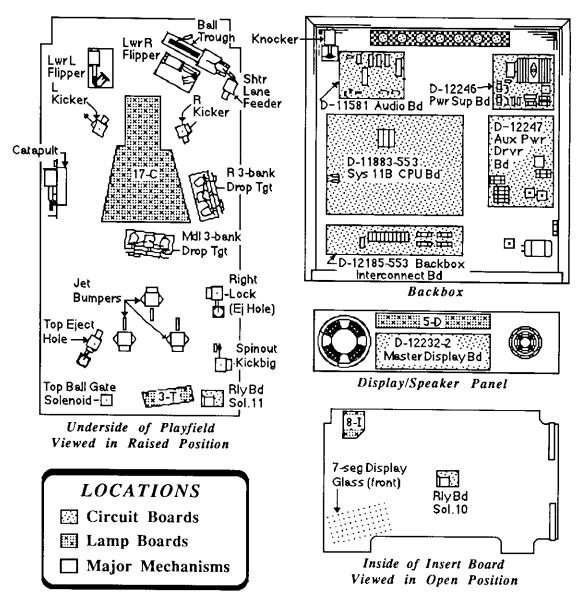
Locations:

Game Circuit Boards and Major Mechanisms

Power Supply Board (D-12246)
Aux Power Driver Board (D-12247-566)
Backbox Interconnect Board (D-12195-553)
Audio Board (D-11581-553)
System 11-B CPU Board (D-11883-553)
Master Display Board (D-12232-2)
Lamp Boards

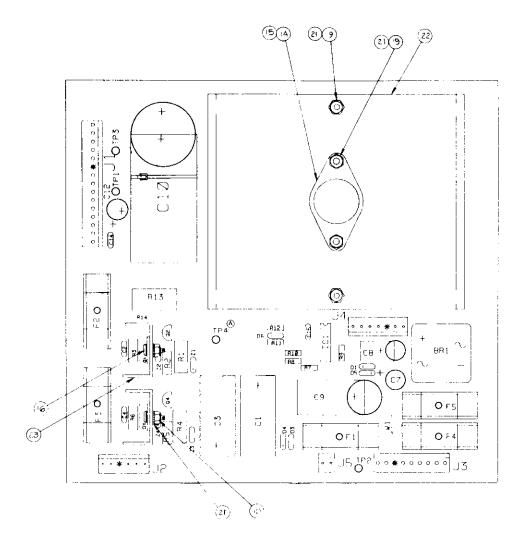
All Major Mechanism Assemblies of TAXI

Solenoids/Flashers & Rubber Parts Switches Lamps Playfield Parts



Locations Diagram - Game Circuit Boards and Major Mechanisms

C-11626-L-3 C-11626-R-3 C-9638-3 B-9362-R-1 B-12283 B-11203-R-1 B-11203-R-1 D-12220	Lower Left Flipper Lower Right Flipper Ball Shooter Lane Feeder Coil & Bracket Assembly Left & Right Kicker Arm Assembly Coil & Bracket Assembly (Left) Coil & Bracket Assembly (Right) Lamp Board (*17-C")	B-10686-2 D-11581-553 D-12246 D-11883-553 D-12247-566 D-12185-553	Knocker Assembly Audio Board Power Supply Board System 11B CPU Board Aux Power Driver Board Backbox Interconnect Board
C-11641-1	Catapult Assembly		
C-11223-1	Rt & Mdl 3-Bank Drop Targets	D-12295	Lamp Board ("5-D")
C-11318-1	3-Bank Opto Board	D-12232-2	Master Display Board
B-9414-1	Jet Bumper (Lwr, R, L)		, ,
B-9415-1	Bumper Coil & Bracket Assy		
B-9361-R-5	Right Lock - Eject Hole Arm Assy		
B-11203-R-1	Coil & Bracket Assembly	C-12330	Lamp Board ("8-I")
B-9361-R-1	Top Eject Hole Arm Assembly	C-11998-1	Relay Board (Sol. 10 Gen. Illum)
B-9362-L-1	Coil & Bracket Assembly	C-8364-1	JACKPOT/Meter Display Assy
B-11395-1	Spinout Kickbig	5670-09439	
B-11203-R-1	Coil & Bracket Assembly		
C-12000	Lamp Board ("3-T")		
C-11998-1	Relay Board (Sol. 11 Gen. Illum)	C-12272	Dome Light Board (Backbox top)

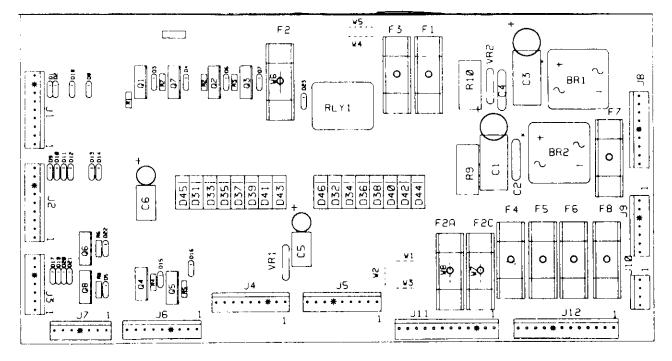


Power Supply p/n D-12246

Item	Part No.	Ckt Designator	Description	ltem	Part No.	Ckt Designator	Description
1	5765-12317-00		Power Supply PCB	25	5075-09059-00	ZR1, ZR3	Zener, 1N5990, 3.9v, 5%
2	5733-12060-01	F1-F5	Fuse Holder	26	5075-09060-00	ZR2, ZR4	Zener, 1N4764, 100v, 5%
3	5731-09432-00	F6, F5	Fuse, 7A, 250V, S-B	27	5460-09424-00	IC1	IC, Volt. Reg., MC1723C5
4	5731-12328-00	F1	Fuse, 3/8A., 250V, S-B	28	5010-09069-00	R3, R6	Resistor, 330K, 5%, 1/2w, C.F.
5	5730-12327-00	F2, F3	Fuse 1/8 A., 250V	29	5010-09061-00	R2, R5	Resistor, 680Ω, 2w
6	5791-10862-15	J1	15H STR SQ. PIN .156	30	5010-09536-00	R1, R4	Resistor, 39K, 5%,1w
7	5791-10862-06	J2	6H STR SQ. PIN .156	31	5013-09426-00	R7	Resistor, 2.15K, 1%, 1/4w, C. F.
8	5791-10862-09	J3	9H STR SQ. PIN .156	32	5013-09427-00	R8	Resistor, 4.99K, 1%, 1/4w, C. F.
9	5100-09690-00	BR1	Bridge Rectifier, 35A., 200V	33	5010-09541-00	R9	Resistor, 2.7K, 2%,1/4w, C. F.
10	5164-12154-00	Q1	Transistor, MJE15030, NPN	34	5010-09085-00	R10	Resistor, 1.5K, 5%,1/4w, C. F.
11	5194-12155-00	Q3	Transistor, MJE15031, PNP	35	5010-09428-00	R11	Resistor, 1.5K, 2%, 1/4w, C. F.
12	5194-09055-00	Q2	Transistor, MPSD52, PNP	36	5010-09508-00	R12	Resistor, 270Ω, 2%, 1/4w, C. F
13	5164-09056-00	Q4	Transistor, MPSD02, NPN	37	5012-09429-00	R13	Resistor, 0.12Ω, 5%,5w
14	5162-09425-00	Q5	Transistor, 2N6057, NPN	38	5040-12324-00	C1, C3	Capacitor, 150 mfd, 160v, radial
15	5701-09652-00		Mica Insulator	39	5043-09072-00	C2, C4	Capacitor, 0.1 mfd, 500v, disc
16	4006-01003-06		Mach. Screw, 6-32 x 3/8	40	5040-09421-00	C7	Capacitor, 100 mfd, 25v, radial
17	4006-01003-08		Mach. Screw, 6-32 x 1/2	41	5040-09422-00	C8	Capacitor, 47 mfd, 50v, radial
18	20-9229		Thermal Compound	42	5040-09420-00	C9	Capacitor, 1000 mfd, electr
19	4406-01117-00		Nut, 6-32 Hex.		5040-08893-00		25v, axial or radial
20	5010-09534-00	W1	Resistor,0Ω	43	5040-09419-00	C10	Capacitor, 18,000 mfd, electr,
21	4703-00007-00		Lockwasher, #6 Ext.				20v, axial
22	5705-12330-00		Heatsink 4"	44	5040-09423-00	C12	Capacitor, 330 mfd, electr,
23	5705-09199-00		Heatsink 6030B				10v,radial
24	5070-09054-00	D1, D3-D6	Diode, 1N4004	45	5043-09446-00	C14	Capacitor, 0.1 mfd, 50v, disc
		,	·	46	5043-09065-00	C15	Capacitor, 470 pfd
				47	5824-09428-00	TP1, TP3, TP4	Terminal, #1502-1 (Test Post)

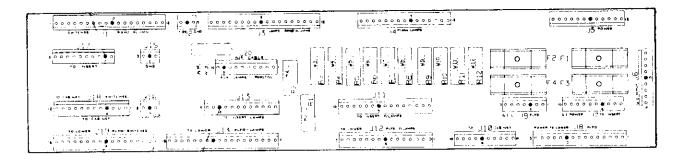
NOTES:

- Heat sink compound must be applied between transistor and heat sink.
 Observe index mark on integrated circuit, polarity of capacitors and diodes, and position of transistors.



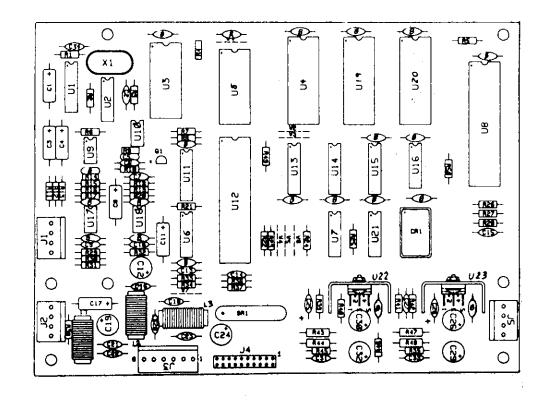
Aux Power Driver Unit Board p/n D-12247-566

Part No.	Ckt Designator	Description	Part No.	Ckt Designator	Description
5763-12184-00		Bare P. C. Board	5191-12179-00	Q1 - Q8	Transistor, TIP36C
5040-09537-00	C1, C3	Capacitor, 100 µfd., 100v, Radial	5580-09555-01	K1	Relay, DPDT, 13A
5040-12181-00	C5, C6	Capacitor, 10 µfd., 100v, Radial	5733-12060-01		Fuseholder
5043-09072-00	C2, C4	Capacitor, 0.1 µfd., 500v	5731-08665-00	F4. F5. F6	Fuse, 2, S-B, 250v
5010-09160-00	R1 - R8	Resistor, 220Ω, 1/4w C.F., 5%	5731-09128-00	F1, F2A, F3	Fuse, 2-1/2A, S-B, 250v
5012-12238-00	R9	Resistor, 8.2K, 5w, 5%	5731-09651-00	F2C	Fuse, 5A, S-B, 250v
5010-09534-00	W1, W3, W4, W6	Resistor, 0Ω, 1/4w	5731-06314-00	F7	Fuse, 4A, S-B, 250v
5017-12180-00	VR1, VR2	Varistor, 100v	5731-09432-00	F8	Fuse, 7A, S-B, 250v
5017-09064-00	VR2	Varistor, 47v	5791-10862-09	J1, J2, J4 - J6, J8	Connector, 9-pin Hdr, Sq Pin
5100-09690-00	BR1, BR2	Bridge Rectifier, 35A, 200v	5791-10862-07	J3, J7, J9	Connector, 7-pin Hdr, Sq Pin
5070-08785-00	D1 - D23	Diode, 1N4003	5791-10862-12	J11, J12	Connector, 12-pin Hdr, Sq Pin
5070-09045-00	D31 - D46	Diode, MR501	5791-10862-04	J10	Connector, 4-pin Hdr, Sq Pin



Backbox Interconnect Board p/n D-12185-553

Part No.	Ckt Designator	Description	Part No.	Ckt Designator	Description
5791-10862-03	J2, J16	3H STR SQ. PIN .156	5768-12304-00		Master Interconnect Board
5791-10862-07	J9 .	7H STR SQ. PIN .156	5010-09534-00	W11 - W13	Resistor, 0Ω
5791-10862-09	J6	9H STR SQ. PIN .156	5012-10023-00	R6, R7, R9	Resistor, 4Ω 5W 10%
5791-10862-10	J7, J10	10H STR SQ. PIN .156	5012-10024-00	R1 - R5, R8, R10	Resistor, 5.6Ω 5W 10%
5791-10862-12	J5, J13, J18	12H STR SQ, PIN .156	Not used		
5791-10862-15	J8, J11, J12	15H STR SQ. PIN .156	Not used		
5791-10862-16	J19	16H STR SQ. PIN .156	5731-09651-00	F1, F2, F3, F4	Fuse, 5A.S.B., 250V
5791-10862-18	J1. J3. J14	18H STR SQ. PIN .156	5733-12062-01	F1, F2, F3, F4	Fuse Holder

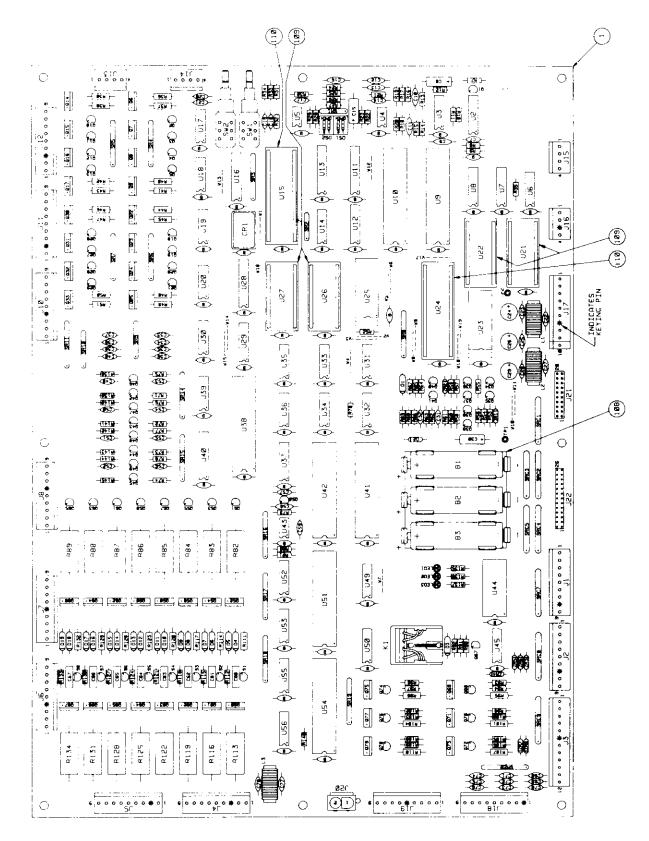


Audio Board Assembly p/n D-11581-553

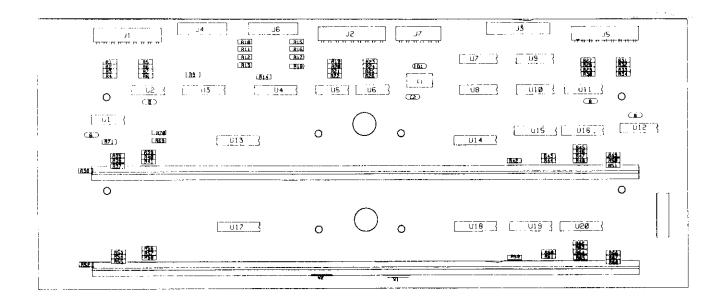
Part No.	Ckt Designator	Description	Part No.	Ckt Designator	Description
5766-12130-00 5371-11087-00 a) 5700-09006-00	U1	Bare P. C. Board IC, D/A Conv, YM3012 Socket, IC, 16-pin (U1)	5010-08991-00	R1, R4, R5, R11, R25 - R28, R33, R36, R37, R49, R50	Resistor, 4.7K, 1/4w, 5%
5370-11086-00	U3	IC, Sound Processor, YM2151	5010-09034-00	R14 - R17	Resistor, 10K, 1/4w, 5%
a) 5700-09004-00		Socket, IC, 24-pin (U3)	5010-09324-00	R6, R38	Resistor, 27K, 1/4w, 5%
5400-10320-00	U8	IC, µProcessor, MC68B09E	5010-09162-00	R39	Resistor, 100K, 1/4w, 5%
a) 5700-08985-00		Socket, IC, 40-pin (U8)	5010-10258-00	R40	Resistor, 1M, 1/4w, 5%
A-5343-553-5	U4	IC, Audio ROM 1	5010-09179-00	R10	Resistor, 3.3M, 1/4w, 5% Resistor, 0Ω, 1/4w, 5% Consolter, 10utd, 20u, ±200/
A-5343-553-6	U19	IC, Audio ROM 2	5010-09534-00	W9	
a) 5700-10176-00 5371-09152-00 5430-10322-00	U11 U12	Socket, IC, 28-pin (U4, U19, U20) IC, D/A Convtr, MC1408 IC, PIA, MC68B21	5040-09343-00 5040-10974-00 5040-09776-00	C1, C3, C4, C8 C12, C19, C24 C26, C30	Capacitor, 10µfd, 20v, ±20% Capacitor, 100µfd, 35v Capacitor, 470µfd, 16v; +50, -10%
5340-09878-00 5281-09487-00	U5 U16	IC, PIA, MCGGB21 IC, RAM, 2016 IC, Dual D Flipflop, 74LS74	5040-12006-00 5041-09243-00	C26, C30 C29, C32 C25, C28	Capacitor, 1000µfd, 16v, 20% Capacitor, 10ufd, 10v,±10%
5281-10043-00	U13	IC, 74LS175	5043-08980-00	C5, B (17)*	Capacitor, 0.01µfd, 50v,+80, -20%
5281-09235-00	U21	IC,Triple NAND, 74LS10	5043-08996-00	C31, C33	Capacitor, 0.1µfd, 50v, ±20%
5370-09321-00	U9, U10, U17	IC, Op Amp, MC1458	5043-09065-00	C13 - C15	Capacitor, 470 pfd, 50v, ±20%
5281-09215-00	U2	IC, Hex Inv, 74LS04	5043-09492-00	C2, C34	Capacitor, 100 pfd, 50v, ±10%
5281-09246-00 5281-09745-00 5370-09156-00	U14 U15 U22, U23	IC, 2-4 Dec, 74LS139 IC, Dual Mux, 74LS138 IC, Audio Amp, TDA2002	5043-09844-00 5043-09845-00	C6 C16, C18, C20 - C23, C27	Capacitor, 47 pfd, 50v, ±20% Capacitor, 1000 pfd, 50v, ±20%
a) 5705-09199-0	0	Heatsink, #6030B	5520-09020-00	X1	Crystal, 3.58 MHz
b) 4006-01003-0		Mach. Screw, 6-32 x 3/8	5521-10931-00	CR1	Oscillator, 8 MHz
c) 4406-01117-0	00	Nut, 6-32 Hex.	5551-09822-00	L1 - L3	Inductor, 4.7 µH, 3A
d) 4703-00007-0		Lockwasher, #6 Ext.	5791-09437-00	J4	Connector, 20 pin, (Hdr), Rib. Cbl
5160-10269-00 5060-10396-00 5010-09181-00	Q1 SR1 R44, R48	Transistor, 2N3904, NPN SIP 4.7K & 470pfd, 8R8C Resistor, 1.0Ω, 1/2w, 5%	5791-10862-04 5791-10862-06	J1, J2, J5 J3	Connector, 4 pin (Hdr) Connector, 6 pin (Hdr)
5010-09161-00 5010-09361-00 5010-09358-00 5010-08998-00 5010-08983-00	R35, R45 R43, R46, R47 R41, R42 R2, R3, R12 R7 - R9	D1-4- 0.00 4/4W FO	+5V All can	capacitors (shown on diagra DC filtering for ICs. pacitors are ceramic, 50v, a listors are 5%, 1/4w, Carbo	m with "B" symbol) provide xial, unless otherwise noted. n Film, unless otherwise noted.

System 11B CPU Board p/n D-11883-553

item	Part No.	Ckt Designator	Description	ltem	Part No.	Ckt Designator	Description
1	5784-12206-00		Bare P. C. Board	64	5010-10170-00	R69	Resistor, 47Ω, 5%, 1/4w, C. F.
	5370-09891-00	U3	IC, CVSD Mod., 55536	65	5010-09160-00	R59, R61, W12, W13	Resistor, 220Ω, 5%, 1/4w, C. F.
	5370-09321-00	U4, U5	IC, Dual Op Amp, 1458	66	5010-09416-00	R33, R34, R71-R78,	Resistor, 470Ω, 5%, 1/4w, C. F.
_	5281-09308-00	U16	IC, Octal Bus Xovr, 74LS245			R135-R137	
	5430-08972-00	U9, U10, U36, U41, U42, U51, U54	IC, PIA, MC6820/6821	67 68	5010-09179-00 Not Used	R9	Resistor, 3.3MΩ, 5%, 1/4w, C. F.
6	5340-10139-00	U25	IC, 2K x 8 CMOS Static RAM	69	5010-10361-00	R111, R114, R117,	Resistor, 1.2KΩ, 5%, 1/2w, C. F.
-	5280-09010-00 5281-09246-00	U44 U7, U8, U12	IC, 4-16 Decoder, 74154 IC, 2-4 Decoder, 74LS139	70	Not Used	R120, R123, R126, R126	9, N132
9	5075-09406-00	ZR3 - ZR8	Diode, Zener, 6.2v, 0.5w	71	Not Used		
	5164-10998-00	Q42 - Q49	Transistor, NPN, 2N5550, TO-92	72	5010-09120-00	R17	Resistor, 270KΩ, 5%, 1/4w, C. F.
11	5281-09487-00	U6	IC, Dual D Flip-flop,74LS74	73	5010-09333-00	R15, R16, R18	Resistor, 160KΩ, 5%, 1/4w, C. F.
12	5431-09449-00	U43	IC, Timer, MC1455	74	5010-09324-00	R29, R30	Resistor, 27KΩ, 5%, 1/4w, C. F.
13	5310-09236-00	U29	IC, 14-b Counter, 4020	75	5010-09269-00	R20, R21	Resistor, 12KΩ, 5%, 1/4w, C. F.
14	5281-09743-00	U32	IC, Quad 2-Input AND, 74LS08	76	5010-09356-00	R27, R28	Resistor, 820Ω, 5%, 1/4w, C. F.
15 18	5281-09247-00 5281-09235-00	U14 U35	IC, Quad 2-Input NOR, 74LS02 IC, Triple 3-Input NAND, 74LS10	77 78	5019-09783-00 5019-09362-00	SR18 SR3, SR15, SR17,	SIP, 9R, 10-pin, 6.8KΩ, .125w/R, 5% SIP, 9R, 10-pin, 4.7KΩ, .125w/R, 5%
17	5280-09013-00	U36	IC, Hex Inverter, 7404	70	3018-0830E-00	SR19, SR20	on , or , 10-pin, 4.7142, .1254711, 576
18	5281-09499-00	U31, U34	IC, Quad 2-Input NAND, 74LS00	79	5019-09608-00	SR4, SR6, SR11	SIP, 9R, 10-pin, 560Ω, .125w/R, 5%
19	5281-10014-00	U33	IC, Dual 4-Input NAND, 74LS20	80	5019-09785-00	SR16	SIP, 9R, 10-pin, 2.2KΩ, .125w/R, 5%
20	5281-09486-00	U28	IC, Octal D Flip-flop, 74LS374	81	5019-10472-00	SR14	SIP, 9R, 10-pin, 3.3KΩ, .125w/R, 5%
21	5371-09152-00	U2	IC, D/A Converter, MC1408	82	5019-09669-00	SR8	SIP, 9R, 10-pin, 1.0KΩ, .125w/R, 5%
22	5281-09745-00	U37	IC, 3-8 Decoder, 74LS138	83	5019-09780-00	SR9, SR10	SIP, 4R, 8-pin, 1KΩ, 5%
23	5340-09878-00	U23	IC, 2K x B Static RAM, 2016	84 85	5019-09786-00 5019-09792-00	SR1, SR2 SR5, SR7	SIP, 5R, 6-pin, 4.7KΩ, .125w/R, 5% SIP, 9R, 10-pin, 2.7KΩ, .125w/R, 5%
24 25	Not Used	U11, U13, U40	IC Ortal Buller, 741 9944	86	5060-10396-00	SRC1 - SRC5,	SIP, 8R, 8C,10-pin, 4.7KΩ & 470pfd
26	5281-09867-00 5280-08973-00	U17-U20, U52, U53	IC, Octal Buffer, 74LS244 IC, Quad 2-Input AND, 7408	•	5555 15555 55	SRC7 - SRC9	On join, oo, to pin, three a trapia
27	5280-06974-00	U56, U56	IC. Hex Inverter, 7406	87	5010-08774-00	R22	Resistor, 22KΩ, 5%, 1/4w, C. F.
28	5310-09155-00	U30, U39	IC, Quad 2-Input NAND, MC14011	88	5043-08980-00	C14, C17-C21, C31,	Capacitor, 0.01 µfd, 50v(+80,-20%), Axial
29	5280-08948-00	U45, U50	IC, Quad 2-Input NOR, 7402			C32, C49-C56, C59,	
30	5280-09309-00	U49	IC, Hex Buffer, 7407			+ 54 Bypass, marked B	
31	5671-09019-00	LED1-LED3	LED, Red, Display	89	5043-09845-00	C22, C23, C25, C27,	Capacitor, 1K pfd, 50v(±20%), Axial
32	5521-10508-00	CR1	Oscillator, 4 MHz	90	5043-08996-00	C28 C9, C70-75, C77,	Capacitor, 0.1 µld, 50v(±20%), Axial
33	5162-08976-00	Q51, Q53, Q55, Q57, Q59, Q61, Q63, Q65	Transistor, NPN Darl. 2N6427, TO-92			C78	
34	5191-08978-00	Q52, Q54, Q56, Q58,	Transistor, PNP, TIP42, TO-220	91	5040-09343-00	C8, C15	Capacitor, 10 µld, Electr., 20v(±20%), Axial
		Q60, Q62, Q64, Q66	T	92 93	5043-09844-00 5040-10974-00	C7	Capacitor, 47 pfd, 50v(±20%), Axial Capacitor, 100 µfd, Electr., 25v(+50,-10%),
35	5162-09410-00	Q6-Q9, Q14-Q17, Q22-Q25, Q30-Q33,	Transistor, NPN, TIP122, TO-220	94	Not Used	C24, C26, C29	Axial
		Q69, Q71, Q73, Q75, Q77, Q79, Q80-Q87		95	5045-09796-00	C60-C67	Capacitor, 0.1 µfd, Polycarbonate Rad.,
36	5160-08938-00	Q2-Q5, Q10-Q13, Q18- Q21, Q26-Q29, Q34-	Transistor, NPN, 2N4401, TO-92	96	5043-09065-00	C33-C40, C68, C69,	100v(±10%) Capacitor, 470 ptd, 50v(±20%), Axial
		Q38, Q41, Q67, Q68,				C76, C10, C12	,
		Q70, Q72, Q74, Q76, Q7		97	5040-09545-00	C30	Capacitor, 22 µld, Electr., 10v(+50,-10%),
37	5160-10269-00	Q1, Q40	Transistor, NPN, 2N3904, TO-92		FR44 80004 00	Cro	Axial
38	5190-09016-00	Q39, Q50	Transistor, PNP, 2N4403, TO-92 SCR, 30v, 0.8A, 2N5060	98 99	5041-09031-00 5043-09030-00	C58 C16, C57	Capacitor, 1 µfd, Tant., 25v(±20%), Axial Capacitor, 0.047 µfd, 50v(±20%), Axial
39 40	5130-09014-00 5070-06258-00	S1-S8 D3-D19	Diode, 1N4001	100	Not Used	010, 007	Capabiles, 5.547 pie, 554 (12575), Fortal
41	5070-08919-00	D2	Diode, 1N4148, 150mA	101	5043-09492-00	C11	Capacitor, 100 pfd, ceramic,100v(±20%)
42	5070-09266-00	D1	Diode, 1N5817, 1.0A	102	Not Used		,
43	5075-09018-00	ZR1	Diode, Zener, 1N5996A, 6.8v, 0.5v		5048-10992-00	C13	Capacitor, 4700 pfd, ceramic,50v(±10%)
44	5075-09058-00	ZR2	Diode, Zener, 1N5990, 3.9v, 0.5w		5551-09822-00	L1-L3	Inductor, 4.7 µH, 3A
45	5010-08992-00	R94, R97, R100, R103, R106, R109	Resistor, 560Ω, 5%, 1/4w, C. F.	105	5641-09312-00) 5641-09653-00)	SW1, SW2	Switch, Pushbutton, DPDT, 100v, 5A
46	5010-09039-00	R56	Resistor, 10Ω, 5%, 1/4w, C. F.	106	5880-09022-00	B1-B3	Battery, Alkaline, 1.5v, AA
47	5010-09534-00	W1, W2, W4, W5, W7,	Resistor, 0Ω, 5%, 1/4w, C. F.	107	20-9491 5881-09021-00	W18, W19	Bus Wire, Jumper Battery Holder, #171
40	E010 00001 00	W6, W11, W14, W16, W R31, R32, R35, R52	Resistor, 4.7KΩ, 5%, 1/4w, C. F.	109	5700-10176-00		IC Socket, 28 pin
48	5010-08991-00	R55, R68, R92, R146	nediator, 4.77(22, 576, 1744, 6.11.	e)	A-5343-553-1	U26	IC, Game ROM 2, 27128
49	5010-09358-00	R54, R57, R58, R64,	Resistor, 1.0KΩ, 5%, 1/4w, C. F.	b)	A-5343-553-2	U27	IC, Game ROM 1, 27256
		R66,R138-R145		d	A-5343-553-4	U21	IC, Sound ROM 1, 27256
50	5010-09113-00	R79	Resistor, 33KΩ, 5%, 1/4w, C. F.	d)	A-5343-553-3	U22	IC, Sound ROM 2, 27256
51	5010-08983-00	R7, R8, R10, R70, R80	Resistor, 3.3KΩ, 5%, 1/4w, C. F.	110	5700-08985-00	1145	IC Socket, 40 pin tC, μProcessor, 6802
52	5010-09034-00	R11-R14, R25, R26,	Resistor, 10KΩ, 5%, 1/4w, C. F.	a) b)	5400-09150-00 5400-09150-00	U15 U24	IC, μProcessor, 6802
50	E010 00000 00	R53, R60, R65, R90 R81	Resistor, 6.8KΩ, 5%, 1/4w, C. F.	111	5824-09248-00	TP1, TP2	Test Point
53 54	5010-09086-00 5010-09363-00	R3	Resistor, 5.6KΩ, 5%, 1/4w, C. F.		- 115 Not Used	,	
55	5010-08997-00	R23, R24, R91, R93,	Resistor, 2.7KΩ, 5%, 1/4w, C. F.	116	20-9229		Thermal Compound
		R96, R99, R102, R105,		117	5580-08994-01	K1	Relay, 4-pole, 40Ω, 6V
		R118, R121, R124, R12	7, R130, R133	118	5791-10862-09	1J1, 1J2, 1J4-1J8,	Connector, 9 pin (Hdr)
562	5012-09037-00	R113, R116, R119,	Resistor, 0.4Ω, 5%, 3w, Wire-Wnd		5701.10000.04	1J10-1J12, 1J17-1J19	Connector, 4 pin (Hdr)
		R122, R125, R128, R13		119 120	5791-10862-04 5791-10862-12	1J13, 1J14,1J16 1J3	Connector, 12 pin (Hdr)
57	5010-08993-00	R36-R51, R95, R98,	Resistor, 68Ω, 5%, 1/2w, C. F.	120	Not Used	100	
500	5012-10860-00	R101, R104, R107, R11 R82-R89	O Resistor, 27Ω, 5%, 2w, C. F.	122		1J22	Connector, 26 pin Ribbon (Hdr)
582 59	Not Used	1102-1100	i terrotori, Eras, Viro, STI, V. I.	123		1J21	Connector, 20 pin Ribbon (Hdr)
60	Not Used						
61	5010-10987-00	R19	Resistor, 56KΩ, 5%, 1/4w, C. F.		mac.		
62	5010-10003-00	R62, R63	Resistor, 390Ω, 5%, 1/4w, C. F.		TES:	A. A	
63	5010-10171-00	R67	Resistor, 56Ω, 5%, 1/4w, C.F.	1.		r to drawing #16-9019.	shove PCB surface
				2. 3.	Items 30 and 38 (res	ristors) must be mounted 1/8" V1, W2, W4, W5, W7, W8, W	/11. W14. W16, W17, W19.
				Э.	Summer sumper: *	,,	



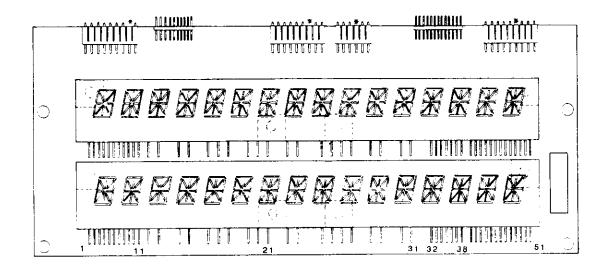
System 11B CPU Board (D-11883) Parts Information



Master Display Board

p/n D-12232-2

Part No.	Ckt Designator	Description	Part No.	Ckt Designator	Description
5760-12306-00 5670-12308-00 5310-09882-00 5310-08975-00 5680-08968-00	DSPL1, DSPL2 U1, U2, U5, U6 U7 - U12 U3, U13, U14,	Bare P.C. Board Display, 16-Character, A/N I.C.4001 I.C. 4049 Anode Driver, UDN 6113	5791-10869-06 5791-10851-00 5791-09438-00 5010-08773-00	J7 J3 J4 R1-R8, R19-R35,	6Pin Header, Rt. Angle 26 Pin Header, Rt. Angle 20 Pin Header Rt. Angle Resistor, 18KΩ, 1/4w
5680-08969-00 5040-09343-00	U17, U18 U15, U16, U19, U20 C1	Cathode Driver, UDN 7180 Axial Cap, 10 μF, 25v	5010-10258-00 5010-10927-00	R41, R43, R45, R53, R58, R71 R9, R38, R52, R69 R36, R39, R40, R42, R47, R48, R50, R51,	Resistor, $1M\Omega$, $1/4w$ Resistor, $8.2K\Omega$, $1/2w$
5043-08980-00 5075-09135-00 5791-10869-09	Bypass D1, D2 J1, J2, J59	Axial Cap, 0.01μF, 50v Zener, 1N4740A, 10v, 1w Pin Header, Rt. Angle	5010-08981-00 5010-09534-00 03-8088-1	R59, R68 R10-R13, R15-R18, R55, R61, R63, R66 W1, W2 Support	Resistor, 10KΩ, 1/2w Resistor, 0Ω Support, Display



16-Character Display Glass p/n 5670-12308-00

Lamp Board ("17-C")

p/n D-12295 enlacement Parts

Replacement Parts

Part No.

Description

24-8767 24-8768 Socket, Twist Lamp (#555) Bulb, #555 6.3V, 0.25A.

5010-09534-00 Resistor, 0 Ω

Lamp Board ("5-D")

p/n D-12220 Replacement Parts

Part No. D

Description

24-8767 24-8768 Socket, Twist Lamp (#555)

Bulb #555 6.3V, 0.25 A.

Lamp Board ("3-T")

p/n C-12000

Replacement Parts

Description

24-8767 24-8768

Part No.

Lamp Socket, PCB Twist Bulb #555 6.3V, .25A. Lamp Board ("8-I")

p/n C-12330

Replacement Parts

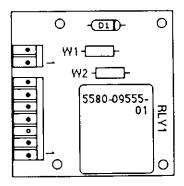
Part No.

Description

24-8804 24-8768 V-Wedge PCB Socket Bulb #555, 6.3V, 0.25A.

Relay Board (Sol. 11 Gen. Illum)

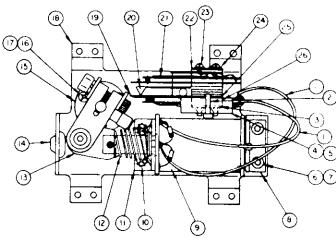
p/n C-11998-1



Lower Right Flipper

p/n C-11626-R-3

Item	Part No.	Description
1	HW-30018-6	Wire, 18 AWG, Blue
2	03-7520-2	Ty-Wrap, Nylon (
3	20-6516	Speednut, Tinnerman
4	5045-12098-00	Capacitor, 2.2 μFd, 250V, 20%
5	RM-21-06	Sleeve, Vinyl (Cap. leads)
6	4010-01066-06	Cap Screw, 10-32 x 3/8, SH
7	4701-00004-00	Lockwasher, #10 split
8	A-12111	ripper Stop Assembly
9	FL-11630	Flipper Coil (* - Refer to Note 3)
10 11	4006-01017-04 01-7695	Mach. Screw, 6-32 x 1/4, P-RH-S
12	10-376	Solenoid Bracket
13	B-10655-R	Coil Plunger Spring
a)	02-4179	Crank Link Assembly
b)	4010-01086-14	Link Spacer Bushing Cap Screw, 10-32 x 7/8, SH
c)	4700-00023-00	Washer, 5/8 o.d. x 13/64 i. d. x 16 ga.
ď)	4701-00004-00	Lockwasher, #10 split
e)	4410-01132-00	Nut, 10-32 ESNA
f)	A-10656**	Flipper Link Assembly
	02-4219	Coil Plunger
	20-9370-1	Spring Pin, 5/32 dia. x 7/16
3.)	03-8050-1	Flipper Link
g) ĺ		Flipper Crank Assembly, Right
1.)	01-8073-R	Flipper Crank, Right
2.)	17-1037	Crank Washer
3.)	4010-01066-18	Cap Screw, 10-32 x 1-1/8, HCS
,	4410-01127-00	Nut, 10-32 Hex Hd.
•	4700-00107-00	Washer, 5/8 o.d. x 13/64 i. d. x 12 ga
,	4701-00004-00	Lockwasher, #10 split
,	RM-23-06	Tubing, H. S. 1/4 DWP
14	23-6577	Bumper Plug
15	03-7568	Flipper Bushing
16 17	4006-01005-06	Mach. Screw, 6-32 x 3/8, P-PH
17	4406-01117-00 C-11627-R	Nut, 6-32 Hex
19	06-14G	Flipper Base Assembly, R.
20	Not Used	Insulating Blade
21	Not Used	
22	Not Used	
23	4105-01019-10	Sh. Metal Screw, #5 x 5/8, P-PH-A
24	4701-00002-00	Lockwasher, #6 split
25	23-6622	Tape, Double-sided
26	03-7811	End of Stroke (EOS) Switch
		,



ga. Flipper Assembly Notes:

- 1 Each Flipper Assembly on the Lower Playfield (and the two Lower Flipper Assemblies on the Upper Playfield) is mounted beneath the playfield, in conjunction with the plastic Flipper Paddle and Shaft (20-9250-5) and flipper Rubber (23-6519-4) on the upper side of the playfield. The Upper Flipper Assembly on the Upper Playfield uses a plastic Flipper Paddle and Shaft (C-11927-5) and flipper Rubber (23-6553-4).
- 2 The tip of the EOS Switch must travel 0.0150 (+ .010, .000) inch, before the contacts fully open, with the flipper in the actuated position. The EOS Switch contacts must have a gap of 0.062 (± .015) inch. Adjustment of the EOS Switch must be made at a minimum distance of 0.25 inch from the switch body.
- 3 Flipper Assembly C-11626-R-8 (upper right flipper on Mini-Playfield) and C-11626-L-8 (upper left flipper on Main Playfield) use a Flipper Coil, FL-11753/50V.
- 4 All moving elements of the assembly must operate freely, with no evidence of binding.
- 5 The large end of the Coil Plunger Spring (item 12) must fit within the four lugs of the Solenoid Bracket.
- 6 For coil replacement, remove the Solenoid Bracket (item 11) to prevent screw damage.
- 7 Use LoctiteTM 242 when reattaching screws to the Flipper Stop Assembly, the Solenoid Bracket, and the Flipper Bushing.
- 8 When replacing the Bumper Plug (item 14) to restore proper flipper operation, readjust the flipper paddle and shaft position.
- 9 Solid color blue wire connects to the banded end of each diode, mounted on the connector end of the Flipper Coil (item 9). Trace color wire connects to the unbanded end of the diode.

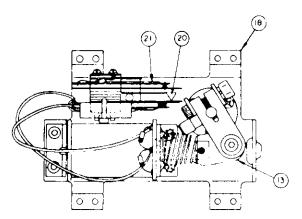
** - also see separate diagram

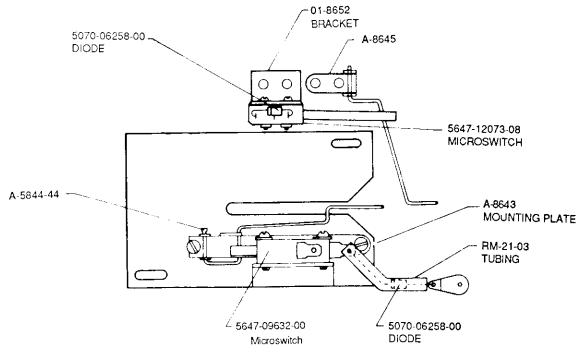
Lower Left Flipper

p/n C-11626-L-3

(Parts listed replace same Items of C-11626-R-3)

Item	Part No.	Description
13	B-10655-L	Crank Link Assembly
g)	B-10657-L	Flipper Crank Assembly, Left
1.)	01-8073-L	Flipper Crank, Left
18	C-11627-L	Flipper Base Assy, L.
20	Not Used	•
21	Not Used	



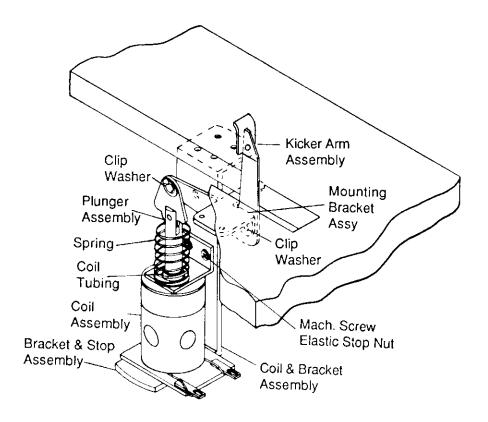


Ball Trough Switches (viewed from underside of playfield to show locations)

Part No.	Description		
B-8644	Ball Trough Switch Plate Assy		
A-5844-44	Switch Wire & Bracket Assy		
A-8643	Bracket & Mounting Plate Assy		
5647-09957-00	μswitch; Cntr & L Ball Trough		
4004-01060-08	Mach. Screw, 4-40 x 1/2		
4005-01005-02	Mach. Screw, 5-40 x 1/8		
5070-06258-00	Diode, 1N4001		
5825-09372-00	Solder Lug		
RM-21-03	Insulating Tubing, #10 x 1.75		
A-11680	Ball Trough Switch, Right		
5647-12073-08	Submin, Switch		
5070-06258-00	Diode, 1N4001		
A-8645	Switch Wire & Bracket Assy		

Rt. Lock - Eject Hole Arm Assembly p/n B-9361-R-5

Item	Part No.	Description	50	
1	12-6227	Hairpin Clip	~	
2	A-7471-R	Eject Cam Assy	(59)	(3)
3	10-320	Eject Spring (Red)		
4	A-6949-R	Spring Plate Assy		(4)
5	A-8050-1	Coil Plunger Assy		
	a) 02-3407-2	Plunger	Associated Parts for	or Rt. Lock - Eject
	b) 20-8716-5	Roll Pin		
	c) 03-8085	Plastic Link	B-11203-R-1	Coil & Bracket Assembly
6	4700-00030-00	Flat Washer,	B-7572-1	Bracket & Stop_Assy
		17/64 x 1/2 x 15 ga.	01-8-508-S	Coil Retaining Bracket
7	4700-00103-00	Flat Washer,	4006-01017-06	Mach. Screw, 6-32 x 3/8
		17/64 x 1/2 x 28 ga.	4406-01119-00	Nut, 6-32 ESN
8	A-8268	Mounting Bracket Assy	AE-26-1500 03-7066	Coil Assy Coil Tubing



Left & Right Kicker Arm Assembly

p/n B-12283 (Left & Right Kickers)

Part No.	Description
12-6227	Clip, Hairpin
A-7986	Kicker Arm Assembly
A-8050-1	Plunger Assembly
02-3407-2	Coil Plunger
20-8716-5	Roll Pin
03-8085	Armature Link
4700-00073-00	Flat Washer, 1/2 o.d. x 9/32
	i.d. x 21 ga.
A-5653	Mounting Bracket Assy

Associated Parts for Left Kicker

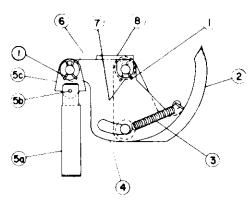
Associated Parts for Right Kicker

B-11203-R-1	Coil & Bracket Assembly	B-11203-R-1	Coil & Bracket Assembly
B-7572-1	Bracket & Stop Assembly	B-7572-1	Bracket & Stop Assembly
01-8-508-S	Coil Retaining Bracket	01-8-508-S	Coil Retaining Bracket
4006-01017-06	Mach. Screw, 6-32 x 3/8	4006-01017-06	Mach. Screw, 6-32 x 3/8
4406-01119-00	Nut, 6-32 ESN	4406-01119-00	Nut, 6-32 ESN
AE-26-1500	Coil Assembly	AE-26-1500	Coil Assembly
03-7066	Coil Tubing	03-7066	Coil Tubing

Ball Shooter Lane Feeder

C-9638-3 & Associated Parts

Item	Part No.	Description
1	12-6227	Clip, Hairpin
2	A-8247	Eject Cam Assy
3	10-362	Eject Spring (Plain)
4	A-6949-L	Spring Plate Assy
5	A-8050-1	Coil Plunger Assy
a)	02-3407-2	Coil Plunger
b)	20-8716-5	Roll Pin, 1/8 x 7/16
c)	03-8085	Armature Link
6	4700-00030-00	Flat Washer,
		17/64 x 1/2 x 16 ga.
7	4700-00103-00	Flat Washer,
		17/64 x 1/2 x 28 ga.
8	A-8268-2	Eject Cam Brkt Assy

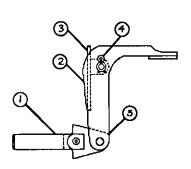


Associated Parts

B-9362-R-1	Coil & Bracket Assy
B-7572-1	Bracket & Stop Assy
01-8-508-S	Coil Retaining Bracket
4006-01017-06	Mach. Screw, 6-32 x 3/8
4406-01119-00	Nut, 6-32 ESN
AE-23-800	Coil Assembly
03-7066	Coil Tubing

Spinout Kickbig p/n B-11395-1

Item	Part No.	Description	
1 a) b) c) 2 3 4 5 *	A-5103 02-2364 03-8085 20-8716-5 A-5652-1 A-11396 12-6227 4700-00030-00	Coil Plunger Assy Coil Plunger Armature Link Roll Pin 1/8 x 7/16 Kicker Crank Assy Kicker Mounting Assy Hairpin Clip Flat Washer, 9-32 x 1/2 x 1.	B- ⁄32
	* Not Shown		

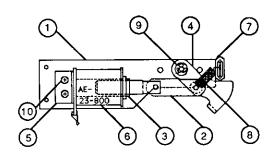


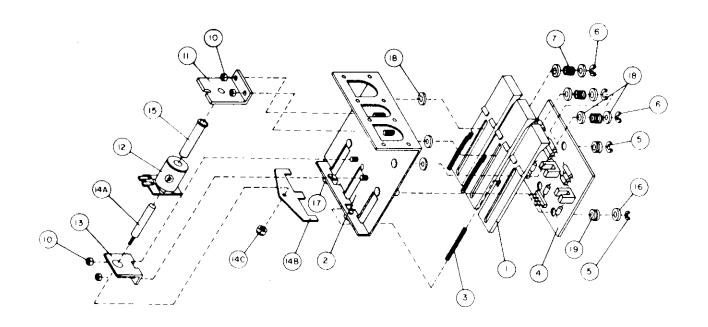
Associated Parts

B-1	1203-R-1	Coil & Bracket Assy
	B-7572-1	Brkt & Stop Assy
2	01-8-508-S	Coil Retaining Brkt
	4006-01017-06	Mach. Screw, 6-32 x 3/8
	4406-01119-00	Nut, 6-32 ESN
AE-	26-1500	Coil Assy
03-	7066	Coil Tubing

Outhole Kicker Assembly p/n B-8039-2

Item	Part No.	Description
1	A-6378	Mounting Plate Assy
2	A-8335	Coil Plunger Assy
a)	02-2364	Coil Plunger
b)	20-8716-5	Roll Pin, 1/8 x 7/16
c)	01-4251	Ball Return Link
3	03-7066	Coil Tubing
4	A-6889	Kicker Lever Assy
5	A-8038	Coil Stop Assy
6	AE-23-800	Coil Assy
7	03-7176-1	Striker Ring
8	10-101-4	Spring-Reset
9	20-8712-25	"E" Ring, 1/4" Shaft
10	4006-01003-03	Mach. Screw, 6-32 x 3/16



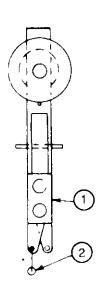


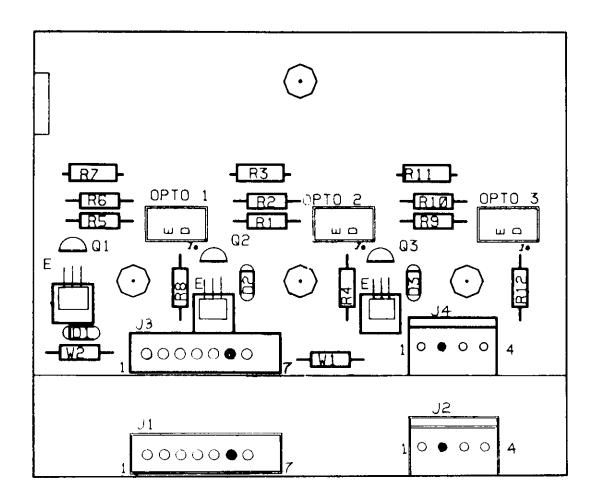
Rt & Mdl 3-Bank Drop Targets p/n C-11223-1

Item	Part No.	Description	Item	Part No.	Description
1	03-8036	Target, Plain	11	A-11397	Stop Brkt Assy
2	B-11224	3-Bank Tgt Sub-Assy	12	AE-26-1200	Coil Assy
3	10-364	Spring - Extension	13	01-8413	Bracket Coil Mtg
4	C-11318-1	3-Drop Target Opto Assy	14	A-11389	Plunger & Reset Plt Assy
5	20-8712-18	"E" Ring, 3/16 Shft	15	03-7066-4	Coil Tubing
6	20-8712-25	"E" Ring, 1/4 Shft	16	4700-00016-00	Flat Washer, 3/16 x 7/16 x 17 ga.
7	10-392	Spring-Compression	17	4008-01016-10	Mach. Screw, 8-32 x 5/8
8	Not Used	. • .	18	4700-00072-00	Flat Washer, 17/64 x 1/2 x 21 ga.
9	Not Used		19	23-6626	Rubber Grommet
10	4408-01119-00	Nut, 8-32 ESN			

Standup Target Assembly

Item	Part No.	Description
· ·	B-11696-6 5070-06258-00	Standup Target (Yellow) Diode, 1N4001 1.0 A.



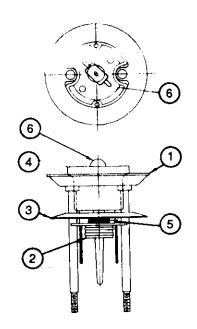


3-Bank Opto Board p/n C-11318-1

Item	Part No.	Ckt Designation	Description
1	5768-12069-00		Bare PCB Board
2	5490-10159-00	Opto 1- Opto3	Opto Interruptor, MDL, S/G
3	16-8850-202		PCB ID Label
4	5010-08930-00	R3, R7, R11	Resistor, C.F., 470 Ω 5% 1/2w
5	5010-09534-00	W1, W2	Resistor, 0Ω 1/4 w
6	5010-09356-00	R4, R8, R12	Resistor, C.F., 820Ω 5% 1/4w
7	5010-09162-00	R1, R5, R9	Resistor, C.F., 100KΩ 5% 1/4w
8	5010-09324-00	R2, R6, R10	Resistor, C.F., 27KΩ 5% 1/4w
9	5070-08919-00	D1 - D3	Diode, IN4148 150 MA
10	5190-10270-00	Q1 - Q3	Transistor, TO-92, 2N3906, PNP
12	5791-10871-04	J2 (J4 Not Used)	Header 4H SPL SQ. PIN .156
13	5791-10871-07	J1 (J3 Not Used)	Header 7H SPL SQ. PIN .156

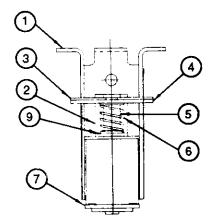
Jet Bumper (Lwr, H, L) p/n B-9414-1

item	Part No.	Description
1	A-4754	Bumper Ring Assy
2	03-6009-A5	Bumper Base-Wht
3	03-6035-1	Bumper Wafer-Blu
4	03-7443-5	Bumper Body-Wht
5	10-7	Spring-Jet Bumper
6	A-11199	Socket & Bulb Assy



Jet Bumper Coil Assembly p/n B-9415-1

item	Part No.	Description
1	B-7417	Bracket & Stop Assy
2	01-1747	Coil Retaining Bracket
3	01-5492	Armature Link, Steel
4	01-5493	Armature Link, Bakelite
5	02-3406-1	Coil Plunger
6	10-326	Armature Spring
7	AE-23-800	Coil Assy
8	4006-01017-04	Mach. Screw, 6-32 x 1/4
9	03-7066	Coil Tubing

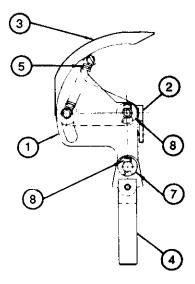


Top Eject Hole Arm Assembly p/n B-9361-R-1

Item	Part No.	Description
1	A-6949-R	Spring Plate
2	A-6930-R	Mounting Bracket Assy
3	A-7471-R	Eject Cam Assy
4	A-8050-1	Coil Plunger
5	10-362	Spring-Eject (Red)
6	12-6227	Hairpin Clip
7	4700-00030-00	Flat Washer 17/64 x 1/2 x 15 ga.
8	4700-00103-00	Flat Washer,17/64 x 1/2 x 28 ga.

Associated Parts for Top Eject

B-9362-L-1	Coil & Bracket Assembly
B-7572-1	Bracket & Stop Assembly
01-8-508-S	Coil Retaining Bracket
4006-01017-06	Mach. Screw, 6-32 x 3/8
4406-01119-00	Nut, 6-32 ESN
AE-23-800	Coil Assembly
03-7066	Coil Tubing



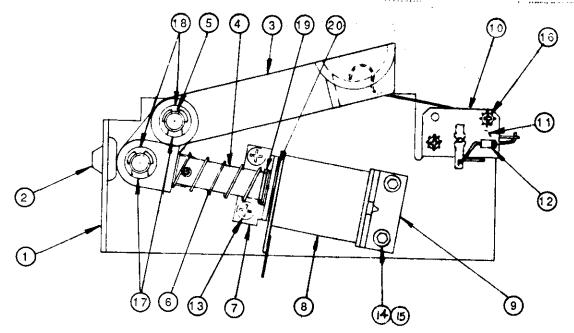
Left Ramp Assembly p/n D-12263

Right Ramp Assembly p/n D-12264

Part No.	Description	Part No.	Description
A-7438-1	Terminal Strip Assy	A-7438-1	Terminal Strip Assy
H-12300	Left Ramp Cable	H-12301	Right Ramp Cable
01-8641	Micro Switch Mtg. Brkt.	01-8641	Micro Switch Mtg. Brkt.
01-8795	Ramp Flap	01-8795	Ramp Flap
01-8947	Wire Ramp Holding Brkt.	01-8947	Wire Ramp Holding Brkt.
03-8185	Ramp, Left	03-8186	Ramp, Right
07-6688-16N	Rivet 1/8 x 1/8, Nickel	07-6688-16N	Rivet 1/8 x 1/8, Nickel
07-6688-17N	Rivet 1/8 x 5/32, Nickel	07-6688-17N	Rivet 1/8 x 5/32, Nickel
07-6688-18N	Rivet 1/8 x 3/16	07-6688-18N	Rivet 1/8 x 3/16
4004-01003-10	Mach. Screw 4-40 x 5/8	4004-01003-10	Mach. Screw 4-40 x 5/8
4700-00003-00	Flat Washer 1/8 x 9/32 x 21 ga.	4700-00003-00	Flat Washer 1/8 x 9/32 x 21 ga.
5070-06258-00	Diode, 1N4001	5070-06258-00	Diode, 1N4001
5647-12133-04	Miniature Switch	5647-12133-04	Miniature Switch
31-1467-1	Decal Sheet-Ramps	31-1468-3	Decal Sheet
31-1468-2	553-Pifd. Decal	31-1467-2	Decal Sheet-Ramps
31-1468-1	553-Plfd. Decal	01-8961	PI/Plastic Mtg. Clip
31-1006-553-21	Plfd. Plastic	01-8979	Ramp Cover Clip
4106-01033-08	SMS #6 x 1/2	03-8221	Side Ramp Cover

Spinout Ramp p/n R-12262

Part No.	Description
03-8191	Ball Shooter Ramp assy
5647-12073-17	Sub-Mini Switch
4102-01087-10	SMS #2 x 5/8
C-12309	Lamp & Cable Assy
4106-01033-08	SMS #6 x 1/2
B-12267	Ball GateAssy
31-1006-553-16	Plfd. Plastic
03-8207	Spinout Ball Return
H-12303	Skill Shot Cable
5070-06258-00	Diode, 1N4001

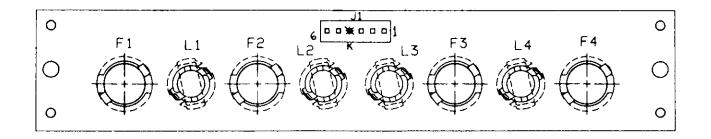


Catapult Assembly p/n C-11641-1

ltem	Part No.	Description	ltem	Part No.	Description
1 2 3 4 5 6 7 8 9 10	B-11640 23-6577 03-8089 A-12293 02-4301 10-135 01-8413 AL-23-800 A-10821 5647-12133-12	Catapult Assy Plug Bumper, 5/8 Catapult Arm Cat Plunger Assy Catapult Arm Pin Spring-Coil Plngr Bracket-Coil Mtg. Coil Assy Flipper Stop Brkt Assy Micro-Switch	11 12 13 14 15 16 17 18 19 20	A-7438-1 5070-06258-00 4008-01017-04 4010-01066-06 4701-00004-00 4004-01003-10 4700-00104-00 20-8712-31 03-7066 23-6622	Terminal Strip Assy Diode, 1N4001, 1A. Mach. Screw, 8-32 x 1/4 Cap Screw, 10-32 x 3/8 Lockwasher, #10 split Mach. Screw, 4-40 x 5/8 Flat Washer, 23/64 x 1/2 x 16 ga. "E" Ring, 5/16 Shaft Coil Tubing Foam Tape-Dbl Side

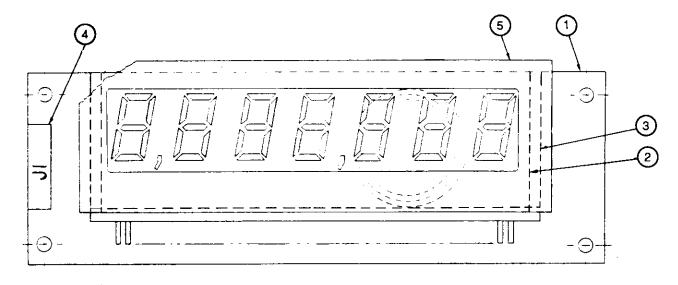
Bell Assembly

p/n C-8461-1				
ltem	Part No.	Description	3	
1 2 3 4 5 6 7 8 9 10 11 12 13 14	B-8459 B-8460 B-8462 SM-26-600-DC SW-10A-52 10-363 20-6516 4006-01003-04 4008-01021-07 4105-01001-14 4700-00089-00 4701-00003-00 HW-30122-4 5043-09072-00	Relay Frame Assy Bell & Mtg. Plate Assy Armature Assy Coil Assy Switch-Bell Extension Spring Tinnerman, Speed Nut Mach. Screw, 6-32 x 1/4 Mach. Screw, 8-32 x 7/16 SMS #5 x 7/8 Flat Washer, 11/64 x 7/16 x 16 ga. Lockwasher, #8 Split Wire, 22AWG (Yellow) Capacitor, 0.1 µfd., 500v		



Dome Light PCB Assembly (Backbox Top) p/n C-12272

Part No.	Ckt Designator	Description		
5768-12329-00		Dome Lights PCB		
24-8767	L1 - L4	Lamp Socket PCB Twist		
24-8768	L1 - L4	Bulb #555, 6.3V, 25A.		
Not Used			Associated	Parts for Dome Light
5791-10871-06	J1	6H SPL SQ. PIN .156		_
24-8803	F1 - F4	Skt-L/PCB Twist	03-8184	Back Box-Top Sign
24-8802	F1 - F4	Bulb #906 13V, 0.69A.	31-1469	Decal-Dome Lite



JACKPOT/Meter Display Assembly p/n C-8364-1

Item	Part No.	Ckt Designator	Description
1	5762-10933-00		PCB Slave Display
2	23-6545		Foam Display-Back
3	5670-09439-00		Display 7-Digit Glass
4	5791-09438-00	J1	20 HCN 2 x 10 Rt. Ang.
5	23-6546		Foam Display-Front

Backbox Parts List

Item	Part No.	Description	
1	01-6645	Venting Screen	
2	B-10686-2*	Knocker Assy	
3	A-7984	Upr Insert Bd Hinge Assy	
4	D-12184-1	PCB Plate Assy	
5	Not Used	•	
6	A-10815	Lwr Insert Bd Hinge Assy	
7	D-11883-553*	System 11B CPU Board	
8	01-8569	Lwr Spkr Panel Bracket	
9	5100-09418-00	Bridge Rectifier, 100v,35 A	
10	5040-09051-00	Capacitor, 30,000 μFd, 25V	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
11	Not Used	,	
12	11-858-559	Backbox	
13	D-12247-566*	Aux. Pwr Driver Board	
14	01-8084	Insert Stop Bracket	
15	Not Used		
16	D-12246*	Power Supply Assy	8 (n) (i) (ii)
17	20-9549	Cam Lock	9
18	Not Used		9
19	D-11581-553*	Audio Board Assy	
20	D-12282	Display/Speaker Panel Assy	
a)	31-1420-553	Cover, Displ/Spkr Pnl Assy	
b)	31-1422-554	Speaker Grill	
c)	D-12232-2*	Master Display PC Board Assy	, []
d)	D-12295*	Display Lamp Board ("5-D")	
21	D-12185-553*	Backbox Interconnect Board	

^{*} Refer to individual unit's parts list

Miscellaneous TAXI Parts

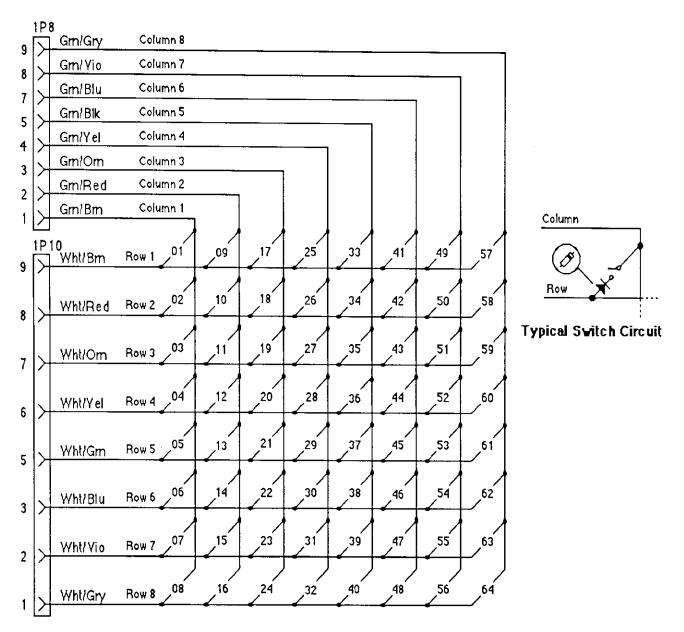
A-8552-553	Backglass Assy	553-1N	TAXI Insert
31-1357-553	Backglass, TAXI	31-1006-553	Plastics Set, TAXI
B-12333	Back Mirror Assy	31-1008-553	Bottom Arch (Screened)
20-9583	Back Mirror	31-1009-553	Shooter Plate (Screened)
B-12322	Domestic Cash Box Assy	31-1467	Ramp Decal Set, TAXI
03-7960-553	Playfield Mylar	31-1468	Playfield Decal Set
03-8184	Backbox, Top Sign	31-1469	Decal-Dome Lite
08-7028-T	Glass-Playfield	5795-10703-36	Ribbon Cable, 20-Conductor, 36"
20-9347	Toggle Latch	5795-10937-09	Ribbon Cable, 20-Conductor, 9"
20-9518	Backbox Hinge	5795-10938-27	Ribbon Cable, 26-Conductor, 27"

Solenoids/Flashers

item	Part No.	Description	(I)	_
01A	AE-23-800	Outhole Kicker		∮ ®
01C	#89 Flashlamps	PIN-BOT (p,i) Flashers		
02A	AE-23-800	Ball Shooter Lane Feeder	0	(1)
02C	#89 Flashlamps	Dracula (p,i) Flashers		
03A	AL-23-800	Catapult		
	#89 Flashlamps	Marilyn (p,i) Flashers		
	AE-26-1200	Middle 3-Bank Drop Target		40
	#89 Flashlamps	Santa (p,i) Flashers		è
	AE-23-800	Top Eject Hole		$\bigcup \mathfrak{S}$
05C	#89 Flashlamps	Gorbie (p,i) Flashers		P @
	AE-26-1200	Right 3-Bank Drop Target		
		Left Ramp (p,d) Flasher		.∤⊛
	AE-26-1500	Spinout Kickbig	@	4 1
		Right Ramp (p,d) Flasher		
	AE-26-1500	Right Lock (Eject Hole)		
08C		Spinout (p) Flasher		7
09	SM-1-35-4000-DC	Top Ball Gate		
10	5580-12145-01	Insert Bd Gen Illumin Relay *		100
11	5580-12145-01	Playfield Gen Illumin Relay *		
12	5580-09555-01	Solenoid A/C Select Relay**		رفع
13	SM-26-600-DC	Bell		1-
14	AE-26-1200	Knocker/Ticket Dispenser (b)		
15	#89 Flashlamps	JACKPOT (p,i) Flashers		
16	#89 Flashlamp	JOYRIDE (p) Flasher		11
17	AE-23-800	Left Jet Bumper		
18	AE-26-1500	Left Kicker ("Sling")		7
19	AE-23-800	Right Jet Bumper		$\{[$
20 21	AE-26-1500 AE-23-800	Right Kicker ("Sling")]
22	Not Used	Lower Jet Bumper		(A)
~~	FL 11630/50VDC	Lewar Laft and Dight Elippar		\mathcal{H}
-	LE 11030/3010C	Lower Left and Right Flipper		
* - O	Relay Board, C-11998	-1, on Playfield and Insert Board		Ш
	backbox on Aux Power			
		•		
			~	

Rubber Parts

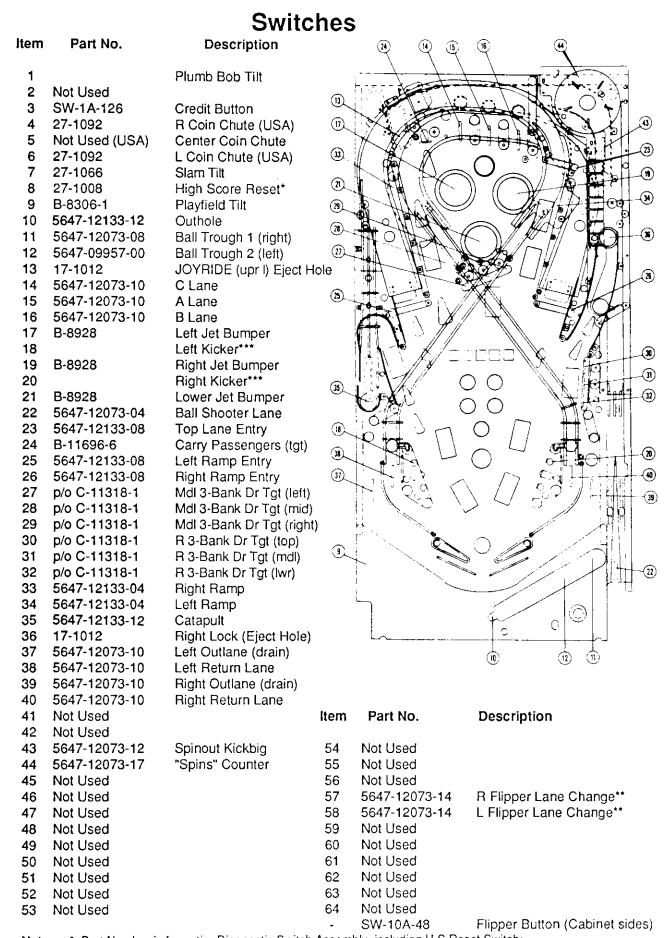
Part No.	Description	Qty	Part No.	Description	Qty
23-6300	5/16" Ring	11	23-6313-1	Grommet	1
23-6301	3/4" Ring	1	23-6327	Ball Shooter Tip	1
23-6302	1" Ring	2	23-6519-4	Lg Red Flipper Ring	2
23-6303	1-1/4" Ring	1	23-6535	Bumper	7
23-6304	1-1/2" Ring	1	23-6552	Sleeving, Black	7
23-6305	2" Ring	1	23-6556	Sleeving, Black	1
23-6306	2-1/2" Ring	3	23-6626	Grommet	6
23-6310	5" Ring	1			



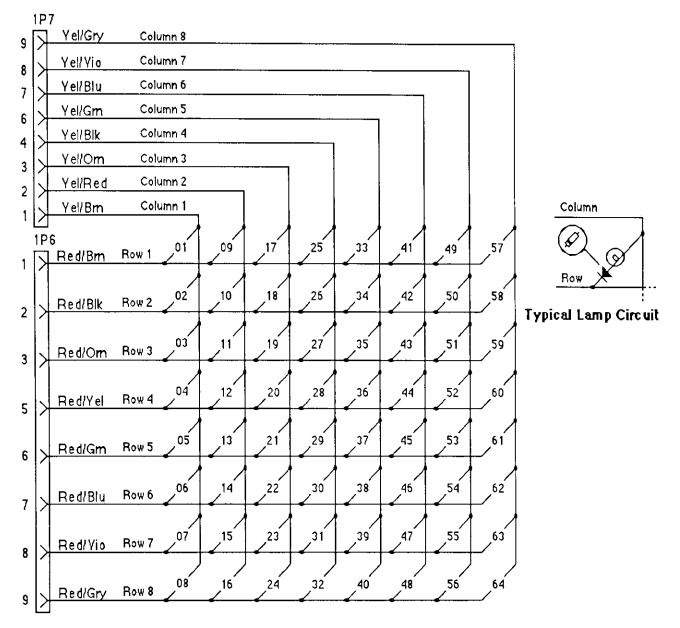
TAXI Switch-Matrix Table

R	COLUMN	1 Q45 GRN-BRN 1J8-1	2 Q49 GRN-RED 1J8-2	3 Q44 GRN-ORN 1J8-3	4 Q48 GRN-YEL 1J8-4	5 Q43 GRN-BLK 1J8-5	6 Q47 GRN-BLU 1J8-7	7 Q42 GRN-VIO 1J8-8	8 C46 GRN-GRY 1J8-9
1	WHT- BRN 1J10-9	Plumb Bob Tilt 1	Playfield Tilt g	Left Jet Bumper 1 7	Left Ramp Entry 25	Right Ramp Exit 3 3	4 1	4 9	Lane Change Right 5.7
2	WHT- RED 1J10-8	2	Outhole 1 0	Left Kicker ("sling")	Right Ramp Entry 2 6	Left Ramp Exit 3 4	4 2	5 0	Lane Change Left 5 8
3	WHT- ORN 1J10-7	Credit Button 3	Ball Trough #1 1 1	Right Jet Bumper 1 9	Mdl 3-Bank DT (left) 2 7	Catapult 3 5	SPINOUT Kickbig 4 3	5 1	5 9
4	WHT- YEL 1J10-6	Left Coin Chute 4	Ball Trough #2 1 2	("slina")	Mdl 3-Bank DT (mid) 2 8	Right Eject 3 6	"Spins" Counter	5 2	6.0
5	WHT- GRN 1J10-5	Center Coin Chute 5	Tap Eject Hole 13	Lower Jet Bumper 2 1	Mdl 3-Bank DT (right) 2 9	Left Outlane 3 7	4 5	5 3	6 1
6	WHT- BLU 1J10-3	Right Coin Chute 6	C Top Lane _{1 4}	Ball Shooter 2 2	R 3-Bank DT (top) 3 0	Left Return Lane 3 8	4 6	5 4	6 2
7	WHT- VIO 1J10-2	Slam Tilt 7	A Top Lane 1 5	Top Lane Entry 23	R 3-Bank DT (mid) 3 1	Right Outlane 3 9	4.7	5 5	6.3
8	WHT- GRY 1J10-1	High Score Reset 8	B Top Lane 1 6	Carry Pasengers 2 4	R 3-Bank DT (bottom) 3 2	Right Return Lane 4 0	48	5 6	_ 6 4

TAXI 58



Notes: * Part Number is for entire Diagnostic Switch Assembly, including H S Reset Switch; ** with Flipper Button switch on cabinet side; *** [Paired Kicker Actuating Sw: A-4834-H; B-8734-1]

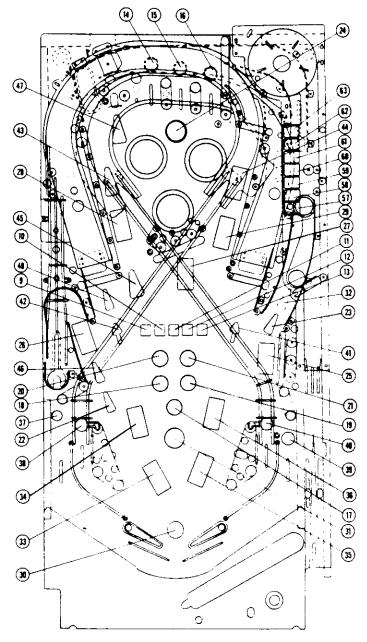


TAXI Lamp-Matrix Table

ROW	OLUMN	1 Q66 YEL-BRN 1J7-1	2 Q64 YEL-RED 1J7-2	3 Q62 YEL-ORN 1J7-3	4 Q60 YEL-BLK 1J7-4	5 Q58 YEL-GRN 1J7-6	6 Q56 YEL-BLU 1J7-7	7 Q54 YEL-VIO 1J7-8	8 Q52 YEL-GRY 1J7-9
Q80 1	RED- BRN 1J6-1	JOYRIDE 10,000 1	AIRPORT 20K 9	PIN•BOT (Center) 1.7	PIN•BOT 2 5	2X cab 3 3	AIRPORT RIDE (Right) 41	JACKPOT (left above Meter) 49	SPINOUT 1,000 5.7
Q81 2	RED- BLK 1J6-2	JOYRIDE Spot Pasngr 2	AIRPORT 40K 1.0	DRACULA (Center) 1 8	DRACULA 26	4X cab 3 4	AIRPORT RIDE (Left) 42		SPINOUT 5,000 58
Q82 3	RED- ORN 1J6-3	JOYRIDE Mystery 3	AIRPORT 60K 11	MARILYN (Center)	MARILYN 27	3X cab 3.5	JOYRIDE 4 3	METER (left below Meter) 5 1	SPINOUT 10,000 5 9
Q83 4	RED- YEL 1J6-5	JOYRIDE EXTRA BALL 4	AIRPORT 80K 1.2	SANTA (Center) 2 0			JACKPOT When Lit	METER (right below Meter) 5.2	SPINOUT 25,000 6.0
Q84 5	RED- GRN 1J6-6	JOYRIDE SPECIAL 5	AIRPORT 100K 13	GORBIE (Center)	00000	SPECIAL W/L (L Outlane) 3 7	1 MILLION When Lit 4 5	RED Traffic Light 5 3	SPINOUT 50,000 6 1
Q85 6	RED- BLU 1J6-7	Williams Pinball Palace (upr l) 6	C (Top Lane) 1 4	1 Express Lane (left) 2.2	RIDE AGAIN	BONUS W/L (L Return Lane) 3 8		YELLOW Traffic Light 5_4	SPINOUT 75,000 <u>6 2</u>
Q86 7	RED- VIO 1J6-8	Williams Pinball Palace (mid l) 7	A (Top Lane) _{1.5}	2 Express Lane (right) 23	Passengers Carried	SPECIAL W/L (R Outlane) 3 9	CARRY PASSENGERS W/L 47	GREEN Traffic Light 5 5	SPINOUT 100,000 63
Q87 8	RED- GRY 1J6-9	Williams Pinball Palace (lwr l) 8	B (Top Lane) _{1 6}	RAISE JACKPOT 2 4	LOCK 32	BONUS W/L (R Return Lane) 40	RELEASE 48	Williams Pinball Palace (upr r) 5.6	Williams Pinball Palace (wrr) 6.4

TAXI 60

Lamps



Lamp	Location/Description
55	Green Traffic Light (insert)
56	Williams Pinball Palace (upr r)
57	SPINOUT 1,000
58	SPINOUT 5,000
59	SPINOUT 10,000
60	SPINOUT 25,000 & Spot Psngr
61	SPINOUT 50,000
62	SPINOUT 75,000
63	SPINOUT 100,000
64	Williams Pinball Palace (lwr r)

Lamp Location/Description

- 1 JOYRIDE 10,000
- 2 JOYRIDE Spot Psngr
- 3 JOYRIDE Mystery
- 4 JOYRIDE EXTRA BALL
- 5 JOYRIDE SPECIAL
- 6 Williams Pinball Palace (upr l)
- 7 Williams Pinball Palace (mid I)
- 8 Williams Pinball Palace (Wrpr I)
- 9 AIRPORT 20K
- 10 AIRPORT 40K
- 11 AIRPORT 60K
- 12 AIRPORT 80K
- 13 AIRPORT 100K
- 13 AIRPORT TOUR
- 14 C Lane
- 15 A Lane
- 16 B Lane
- 17 PIN•BOT (center)
- 18 Dracula (center)
- 19 Marilyn (center)
- 20 Santa (center)
- 21 Gorbie (center)
- 22 1 EXPRESS LANE (left)
- 23 2 EXPRESS LANE (right)
- 24 Raise JACKPOT
- 25 PIN·BOT
- 26 Dracula
- 27 Marilyn
- 28 Santa
- 29 Gorbie
- 30 Ride Again
- 31 Passengers Carried
- 32 LOCK
- 33 2X cab
- 34 4X cab
- 35 3X cab
- 36 5X cab
- 37 SPECIAL W/L (L Outlane)
- 38 BONUS W/L (L Return Lane)
- 39 SPECIAL W/L (R Outlane)
- 40 BONUS W/L (R Return Lane)
- 41 AIRPORT RIDE (right)
- 42 AIRPORT RIDE (left)
- 43 JOYRIDE (left)
- 44 JACKPOT (right)
- 45 1 MILLION W/L
- 46 EXTRA BALL W/L
- 47 Carry Passengers W/L
- 48 RELEASE
- 49 Jackpot (#1 above Meter)
- 50 Jackpot (#2 above Meter)
- 51 Meter (#1 below Meter)
- 52 Meter (#2 below Meter)
- 53 Red Traffic Light (insert)
- 54 Yellow Traffic Light (insert)

Playfield Parts

Item Part No.	Description		\$ D@ 3
1 B-8039-2	Outhole Kicker Assy	B B B	(a) (a)
2 12-6468	Anti-Rebound Wireform		
3 C-11626-L-3	Lwr Left Flipper Assy		
a) 20-9250-6	Lg Flipper Paddle & Shaft	3 7 6 9	
4 12-6803-L	Left Flipper Return Frame		()
5 B-12283	Kicker Arm ("Sling") Assy		
a) B-11203-R-1	Coil & Bracket Assy	① H	
6 12-6466-8	Wireform, 2"		
7 12-6794	Left Ramp Exit Wireform*		
8 A-12291	Ball Guide Assembly		
9 C-11641-1	Catapult	i	
10 B-12305 11 12-6466-12	Ball Guide Assembly	(a)	
12 B-12289	Wireform, 3"	0	
13 12-6795	Ball Guide Assembly Catapult Wireform		
14 B-12290	Ball Guide Assembly		
15 A-12171	Ball Gate Assembly	2	
a) 12-6800	Gate Wire		
b) 12-6785	Switch Wire		
16 C-11223-1	3-Bank Drop Target	ŏ lott	
17 D-12263	Left Ramp Assembly		
18 B-9414-1	Jet Bumper Assy (3)		
a) B-9415-1	Bmpr Coil/Bracket Assy	0 1 5 a	
19 B-11696-6	Standup Target, Yellow	0 1 CO	V 4 69/1-4-1
20 B-9361-R-1	JOYRIDE Eject Hole	0	
a) B-9362-L-1	Coil & Bracket Assy		
b) 03-7351-1	Tr Red Plastic Ball Seat	0	
21 A-12285	Ball Guide Assembly	(a)	
22 01-8626	Eject Hole Deflector		1 (2) (3)
	4 - 5.46 - 4		
23 B-10732-L	1-way Ball Gate Assy		D 0
23 B-10732-L 24 B-12294	Ball Guide Assembly	0	
23 B-10732-L 24 B-12294 25 12-6548	Ball Guide Assembly Curved Wireform	Itom Port No.	() () () () () () () () () () () () () (
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274	Ball Guide Assembly Curved Wireform Ball Gate Assembly	Item Part No.	
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire		① ① ① Description
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly	41 A-12321	Description Ball Gate Assembly
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly	41 A-12321 a) 12-6800	Description Ball Gate Assembly Gate Wire
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy	41 A-12321 a) 12-6800 b) 12-6785	Description Ball Gate Assembly Gate Wire Switch Wire
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy	41 A-12321 a) 12-6800 b) 12-6785	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly Gate Wire
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262 31 C-12284	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy Ball Guide Assembly	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267 a) 12-6802	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262 31 C-12284 32 C-12391 33 A-12319 a) 12-6800	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy Ball Guide Assembly Lamp PC Board Ball Gate Assembly Gate Wire	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267 a) 12-6802 43 B-12292	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly Gate Wire Ball Guide Assembly
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262 31 C-12284 32 C-12391 33 A-12319 a) 12-6800 b) 12-6785	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy Ball Guide Assembly Lamp PC Board Ball Gate Assembly Gate Wire Switch Wire	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267 a) 12-6802 43 B-12292 44 12-6793 45 12-6772-1 46 12-6803-R	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly Gate Wire Ball Guide Assembly Right Ramp Exit Wireform Shooter Lane Wireform Right Flipper Return Frame
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262 31 C-12284 32 C-12391 33 A-12319 a) 12-6800 b) 12-6785 34 B-11395-1	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy Ball Guide Assembly Lamp PC Board Ball Gate Assembly Gate Wire Switch Wire SPINOUT Kickbig	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267 a) 12-6802 43 B-12292 44 12-6793 45 12-6772-1 46 12-6803-R 47 C-11626-R-3	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly Gate Wire Ball Guide Assembly Right Ramp Exit Wireform Shooter Lane Wireform Right Flipper Return Frame Lwr Right Flipper Assy
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262 31 C-12284 32 C-12391 33 A-12319 a) 12-6800 b) 12-6785 34 B-11395-1 a) B-11203-R-1	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy Ball Guide Assembly Lamp PC Board Ball Gate Assembly Gate Wire Switch Wire SPINOUT Kickbig Coil & Bracket Assy	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267 a) 12-6802 43 B-12292 44 12-6793 45 12-6772-1 46 12-6803-R 47 C-11626-R-3 a) 20-9250-6	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly Gate Wire Ball Guide Assembly Right Ramp Exit Wireform Shooter Lane Wireform Right Flipper Return Frame Lwr Right Flipper Assy Flipper Arm on Shaft
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262 31 C-12284 32 C-12391 33 A-12319 a) 12-6800 b) 12-6785 34 B-11395-1 a) B-11203-R-1 35 01-6933	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy Ball Guide Assembly Lamp PC Board Ball Gate Assembly Gate Wire Switch Wire SPINOUT Kickbig Coil & Bracket Assy R Eject Hole Deflector	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267 a) 12-6802 43 B-12292 44 12-6793 45 12-6772-1 46 12-6803-R 47 C-11626-R-3 a) 20-9250-6 48 C-9638-3	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly Gate Wire Ball Guide Assembly Right Ramp Exit Wireform Shooter Lane Wireform Right Flipper Return Frame Lwr Right Flipper Assy Flipper Arm on Shaft Ball Shooter Lane Feeder
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262 31 C-12284 32 C-12391 33 A-12319 a) 12-6800 b) 12-6785 34 B-11395-1 a) B-11203-R-1 35 01-6933 36 B-9361-R-5	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy Ball Guide Assembly Lamp PC Board Ball Gate Assembly Gate Wire Switch Wire SPINOUT Kickbig Coil & Bracket Assy R Eject Hole Deflector Right Lock Eject Hole	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267 a) 12-6802 43 B-12292 44 12-6793 45 12-6772-1 46 12-6803-R 47 C-11626-R-3 a) 20-9250-6 48 C-9638-3 a) B-9362-R-1	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly Gate Wire Ball Guide Assembly Right Ramp Exit Wireform Shooter Lane Wireform Right Flipper Return Frame Lwr Right Flipper Assy Flipper Arm on Shaft Ball Shooter Lane Feeder Coil & Bracket Assembly
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262 31 C-12284 32 C-12391 33 A-12319 a) 12-6800 b) 12-6785 34 B-11395-1 a) B-11203-R-1 35 01-6933 36 B-9361-R-5 a) B-11203-R-1	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy Ball Guide Assembly Lamp PC Board Ball Gate Assembly Gate Wire Switch Wire SPINOUT Kickbig Coil & Bracket Assy R Eject Hole Deflector Right Lock Eject Hole Coil & Bracket Assy	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267 a) 12-6802 43 B-12292 44 12-6793 45 12-6772-1 46 12-6803-R 47 C-11626-R-3 a) 20-9250-6 48 C-9638-3 a) B-9362-R-1 49 B-8623	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly Gate Wire Ball Guide Assembly Right Ramp Exit Wireform Shooter Lane Wireform Right Flipper Return Frame Lwr Right Flipper Assy Flipper Arm on Shaft Ball Shooter Lane Feeder Coil & Bracket Assembly Upr Trough Baffle Assy
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262 31 C-12284 32 C-12391 33 A-12319 a) 12-6800 b) 12-6785 34 B-11395-1 a) B-11203-R-1 35 01-6933 36 B-9361-R-5 a) B-11203-R-1 37 C-12288	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy Ball Guide Assembly Lamp PC Board Ball Gate Assembly Gate Wire Switch Wire SPINOUT Kickbig Coil & Bracket Assy R Eject Hole Deflector Right Lock Eject Hole Coil & Bracket Assy Ball Guide Assembly	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267 a) 12-6802 43 B-12292 44 12-6793 45 12-6772-1 46 12-6803-R 47 C-11626-R-3 a) 20-9250-6 48 C-9638-3 a) B-9362-R-1 49 B-8623 50 01-5575	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly Gate Wire Ball Guide Assembly Right Ramp Exit Wireform Shooter Lane Wireform Right Flipper Return Frame Lwr Right Flipper Assy Flipper Arm on Shaft Ball Shooter Lane Feeder Coil & Bracket Assembly Upr Trough Baffle Assy Bottom Arch Mtg Bracket
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262 31 C-12284 32 C-12391 33 A-12319 a) 12-6800 b) 12-6785 34 B-11395-1 a) B-11203-R-1 35 01-6933 36 B-9361-R-5 a) B-11203-R-1 37 C-12288 38 C-12287	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy Ball Guide Assembly Lamp PC Board Ball Gate Assembly Gate Wire Switch Wire SPINOUT Kickbig Coil & Bracket Assy R Eject Hole Deflector Right Lock Eject Hole Coil & Bracket Assy Ball Guide Assembly Ball Guide Assembly	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267 a) 12-6802 43 B-12292 44 12-6793 45 12-6772-1 46 12-6803-R 47 C-11626-R-3 a) 20-9250-6 48 C-9638-3 a) B-9362-R-1 49 B-8623 50 01-5575 51 C-8235	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly Gate Wire Ball Guide Assembly Right Ramp Exit Wireform Shooter Lane Wireform Right Flipper Return Frame Lwr Right Flipper Assy Flipper Arm on Shaft Ball Shooter Lane Feeder Coil & Bracket Assembly Upr Trough Baffle Assy Bottom Arch Mtg Bracket Lwr Trough Baffle Assy
23 B-10732-L 24 B-12294 25 12-6548 26 B-12274 a) 12-6648 27 B-12306 28 C-12286 29 A-12323 30 R-12262 31 C-12284 32 C-12391 33 A-12319 a) 12-6800 b) 12-6785 34 B-11395-1 a) B-11203-R-1 35 01-6933 36 B-9361-R-5 a) B-11203-R-1 37 C-12288	Ball Guide Assembly Curved Wireform Ball Gate Assembly Gate Wire Ball Guide Assembly Ball Guide Assembly SPINOUT Baffle Assy SPINOUT Ramp Assy Ball Guide Assembly Lamp PC Board Ball Gate Assembly Gate Wire Switch Wire SPINOUT Kickbig Coil & Bracket Assy R Eject Hole Deflector Right Lock Eject Hole Coil & Bracket Assy Ball Guide Assembly	41 A-12321 a) 12-6800 b) 12-6785 42 B-12267 a) 12-6802 43 B-12292 44 12-6793 45 12-6772-1 46 12-6803-R 47 C-11626-R-3 a) 20-9250-6 48 C-9638-3 a) B-9362-R-1 49 B-8623 50 01-5575	Description Ball Gate Assembly Gate Wire Switch Wire Ball Gate Assembly Gate Wire Ball Guide Assembly Right Ramp Exit Wireform Shooter Lane Wireform Right Flipper Return Frame Lwr Right Flipper Assy Flipper Arm on Shaft Ball Shooter Lane Feeder Coil & Bracket Assembly Upr Trough Baffle Assy Bottom Arch Mtg Bracket

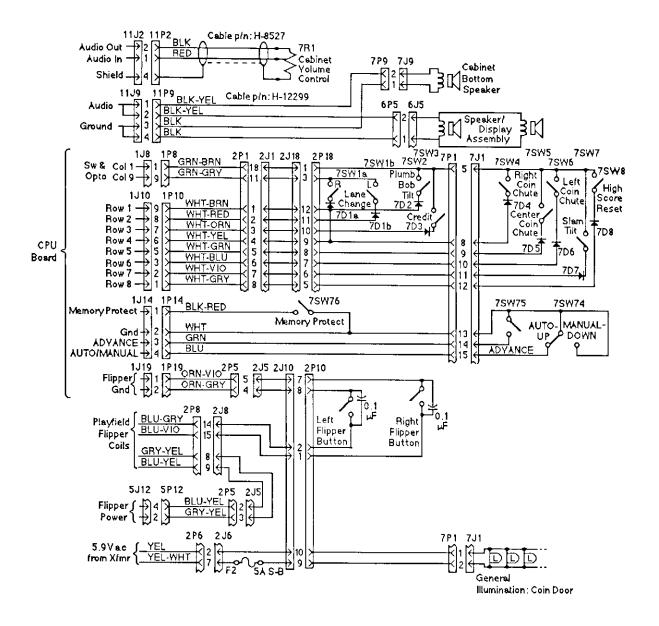
Section 3

Reference Diagrams & Schematics

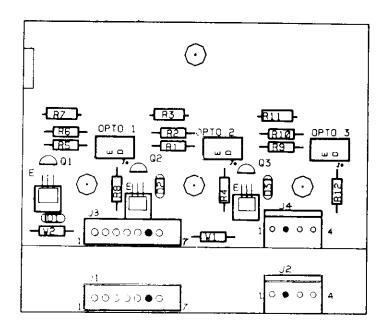
Diagrams and Schematics:

Cabinet Wiring
3-Bank Opto Board
Power Supply Board
System 11B CPU Board
Master Display Board
Audio Board
Aux Power Driver Board
Backbox Interconnect Board
Controlled, Special, & Switched Solenoids
Power Wiring
Game Circuit Boards Interboards Signals

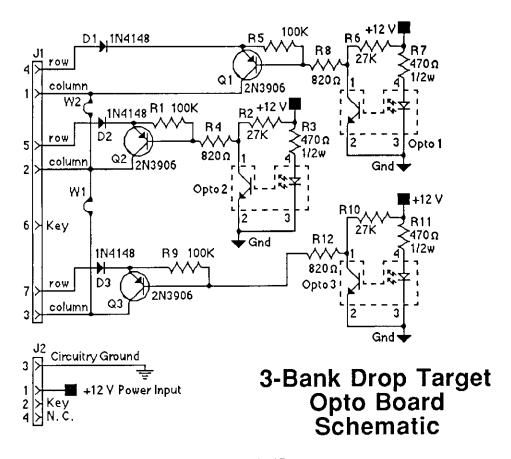
Diagnostic Test Flowchart



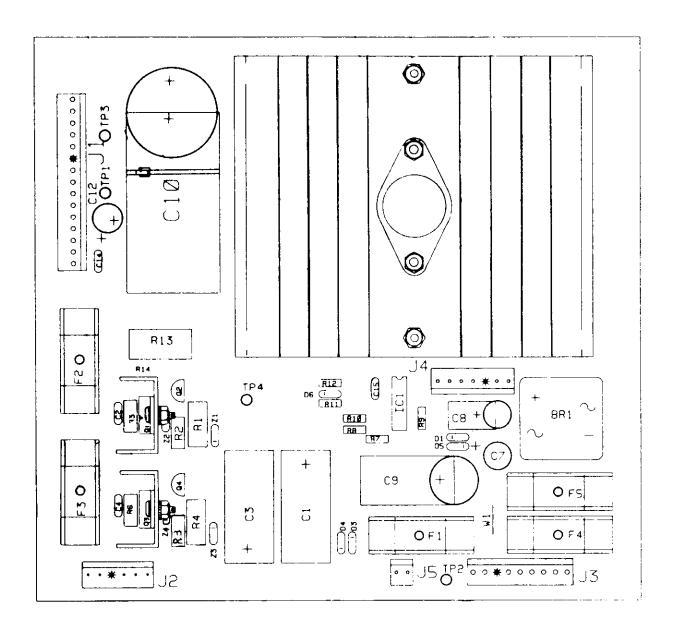
TAXI Cabinet Wiring



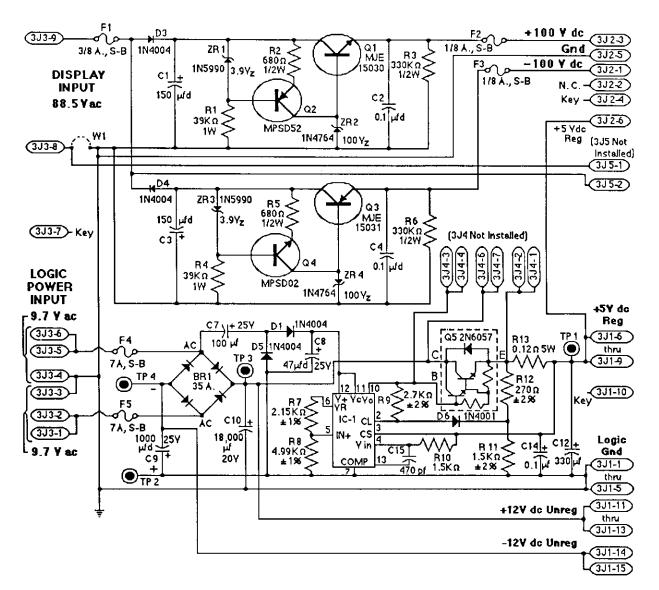
3-Bank Drop Target Opto Board p/n C-11318-1



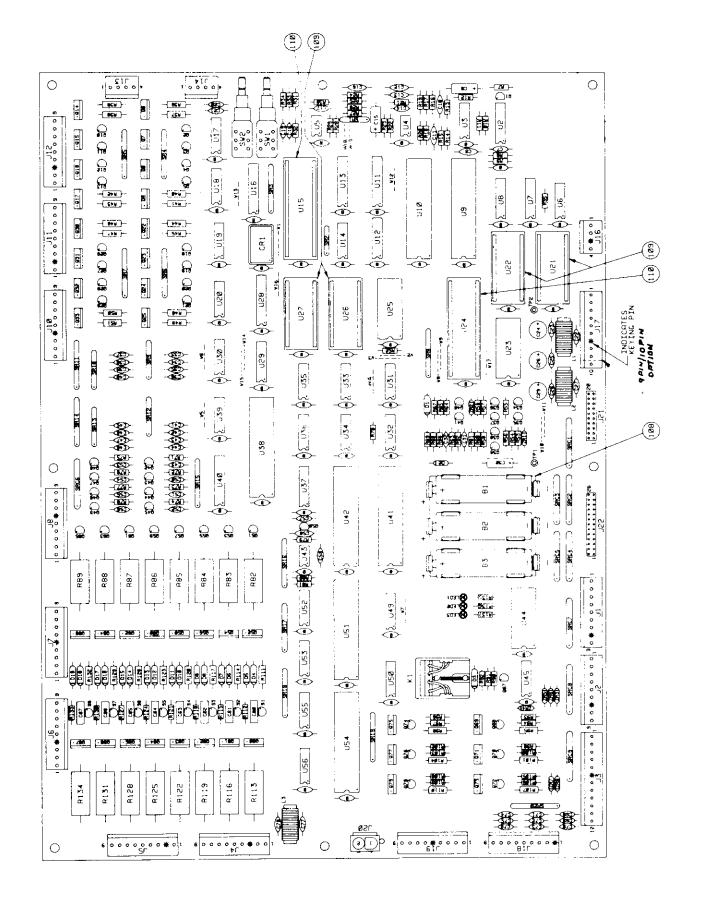
TAXI 65



Power Supply Board p/n D-12246



Power Supply Board Schematic



System 11B CPU Board (D-11883)

TAXI ROM and Jumper Table

Game	System 11B CPU Rev.	P/N - U15 Game μP			P/N - U21 S. ROM 1			Jumpers
BIG GUNS	-	5400-09150-00	A-5343- 557-2	A-5343- 557-1	A-5343- 557-4	A-5343- 557-3	5400-09150-00	W1, 2, 4, 5, 7, 8, 11, 14, 16, 17, and 19
SPACE STATION	-		A-5343- 552-2	A-5343- 552-1	A-5343- 552-4	A-5343- 552-3		W1, 2, 4, 5, 7, 8, 11, 14, 16, 17, and 19
CYCLONE			A-5343- 564-2	A-5343- 564-1	A-5343- 564-4	A-5343- 564-3		W1, 2, 4, 5, 7, 8, 11, 14, 16, 17, and 19
BANZAI RUN			A-5343- 566-2	A-5343- 566-1	A-5343- 566-4	A-5343- 566-3		W1, 2, 4, 5, 7, 8, 11, 14, 16, 17, and 19
SWORDS OF FURY	•		A-5343- 559-2	A-5343- 559-1	A-5343- 559-4	A-5343- 559-3		W1, 2, 4, 5, 7, 8, 11, 14, 16, 17, and 19
TAXI		+	A-5343- 553-2	A-5343- 553-1	A-5343- 553-4	A-5343- 553-3	•	W1, 2, 4, 5, 7, 8, 11, 14, 16, 17, and 19

TAXI Solenoid Table

	TAXT Colemon Table								
Sol.		Solenoid	Wire ¹	<u> </u>	nnections	Driver	Solenoid Part Nu		
No.	Function	Type	Color	CPU Bd	Playfield/ Cabinet	Trnetr	Flashlemp Typ i=Insert Bd; p=Playfield;		
01A ³	Outhole Kicker	Switched	∫Vio-Brn l	1P11-1	5J1-9: 5J4-9 (A)	Q33	AE-23-800		
01C3	Pin•Bot Flasher	Switched	Blk-Bm	(Gry-Bm)		Q33		p,1i	
02A3	Ball Release (Shtr Lane Feeder)	Switched	(Vio-Red)	1P11-3	5J1-7: 5J4-8 (A)	Q25	AE-23-800	9,11	
02C3	Dracula Flasher	Switched		(Gry-Red)		Q25		,1i	
03A ³	Catapult	Switched		1P11-4	5J1-6: 5J4-7 (A)	Q32	AL-23-800		
03C ³	Marilyn Flasher	Switched	\ Blk-Om ∫	(Gry-Om)	5J5-7(C)	Q32	#89 flashlamps 1;	,li	
04A ³	Middle 3-bank Dr Tgt	Switched	ر Vio-Yel ۱	1P11-5	5J1-5: 5J4-6 (A)	Q24	AE-26-1200		
04C3	Santa Flasher	Switched	{ Blk-Yel }	(Gry-Yel)	5J5-5 (C)	Q24	#89 flashlamps 1p	,1i	
05A ³	Top Eject Hole	Switched	∫ Vio-Grn {	1P11-6	5J1-4: 5J4-5 (A)	Q31	AE-23-800		
05C3	Gorbie Flasher	Switched	\ Blk-Gm ∫	(Gry-Gm)		Q31	#89 flashlamps 1p	,li	
06A3	Right 3-bank Dr Tgt	Switched	r Vio-Blu ነ	1P11-7	5J1-3: 5J4-4 (A)	Q23	AE-26-1200		
06C3	Left Ramp Flasher	Switched	Blk-Blu	(Gry-Blu)		Q23	#89, #906 flashlamps	lp.1d	
07A ³		Switched	r Vio-Blk ۱	1P11-8	5J1-2: 5J4-2 (A)	Q30	AE-26-1500	•••	
07C ³	Right Ramo Flasher	Switched	Blk-Vio	(Gry-Vio)	5J5-2 (C)	Q30	#89 , #906 flashlamps	lp,ld	
08A ³	Right Lock (Eject Hole)	Switched	r Vio-Gryn	1P11-9	5J1-1: 5J4-1 (A)	Q22	AE-26-1500		
08C3	Spinout Flasher	Switched	Blk-Gry	(Gry-Bik)	5J5-1 (C)	Q22	#89 flashlamps 2r	,	
09	•	Cambrallad	Brn-Blk	l` <i>'</i> '	1	Q17	SM1-35-4000-DC	'	
10	Top Ball Gate Insert Gen Illumin Relay	Controlled Controlled	Brn-Red	1P12-1 1P12-2	5J2-9: 5J6-9: 2J4-3 5J2-8: 5J6-8: 2J4-5	Q1/	5580-12145-01		
11	Playfield Gen Illum	Controlled	Brn-Om	1P12-4	5J2-6: 5J6-7: 2J4-6	Q16	5580-12145-01 ⁴		
12	A/C Select Relay	Controlled	Brn-Yel	1P12-5	5J2-5	Q8	5580-09555-01 5		
13	Bell	Controlled	Bm-Gm	1P12-5	5J2-5 5J2-4: 5J6-5	Q15	SM-28-600-DC		
14	Knocker	Controlled	Brn-Blu	1P12-7	5J2-4: 5J6-3	Q7	AE-26-1200		
15	JACKPOT Flasher	Controlled	Brn-Vio	1P12-8	5J2-2: 5J6-2	Q14		,2i	
16	JOYRIDE Flasher	Controlled	Bm-Gry	1P12-9	5J2-2, 5J6-2 5J2-1: 5J6-1	Q6	#89 flashlamp 1p		
i l			•				•	,	
17	Left Jet Bumper	Special #1	Blu-Brn	1P19-7	5J3-7: 5J7-7	Q75	AE-23-800		
18	Left Kicker ("sling")	Special #2	Blu-Red	1P19-4	5J3-6: 5J7-6	Q71	AE-26-1500		
19	Right Jet Bumper	Special #3	Blu-Om	1P19-3	5J3-3: 5J7-3	Q73	AE-23-800		
20	Right Kicker ("sling")	Special #4	Blu-Yel	1P19-6	5 J 3-4: 5J7-5	Q69	AE-26-1500		
21	Lower Jet Bumper	Special #5	Blu-Gm	1P19-8	5J3-2:5J7-2	Q77	AE-23-800		
22	Not Used	Special #6	Blu-Blk	1P19-9	5J3-1: 5J7-1	Q79			
-	Right Flipper	-	Orn-Vio	1P19-1	2J3-1: 2J18-10: 7P1-15	-			
	Lower Right Flipper		[Blu-Vio] 2		[7P1-16: 2J18-6: 2J17-4]		FL11630/50VDC	İ	
-	Left Flipper	- 1	Om-Gry	1P19-2	2J3-2: 2J18-9: 7P1-18	- 1			
	Lower Left Flipper		[Blu-Gry] 2		[7P1-19,2J18-5:2J17-3]		FL11630/50VDC		
					[
								_	

Notes: 1. Wire colors, except flipper Orn-Vio and Orn-Gry, are ground connections (to coil terminal with unbanded end of diode). Flipper Orn-Vio and Orn-Gry wires connect from CPU Board to flipper switch. 2. Flipper connections shown in braces are from flipper switch to flipper coil. 3. "A" circuits are pulsed, when Sol. 12 is de-energized; "C" circuits are pulsed, with Sol. 12 energized. Wire colors in brackets are those from respective A and C terminals corresponding to the J1-terminal connection listed for the Aux Power Driver Bd, which controls the device pulsing by Sol. 12.

4. Relay is mounted on Relay Bd, p/n C-11998-1. 5. Relay is mounted on Aux Power Driver Bd, D-12247 in the backbox.

TAXI Lamp-Matrix Table

ROV	OLUMN	1 Q66 YEL-BRN 1J7-1	2 Q64 YEL-RED 1J7-2	3 Q62 YEL-ORN 1J7-3	4 Q60 YEL-BLK 1J7-4	5 Q58 YEL-GRN 1J7-6	6 Q56 YEL-BLU 1J7-7	7 Q54 YEL-VIO 1J7-8	8 Q52 YEL-GRY 1J7-9
Q80 1	RED- BRN 1J6-1	JOYRIDE 10,000 1	AIRPORT 20K 9	PIN•BOT (Center) 1.7	PIN•BOT 2 5	2X cab	AIRPORT RIDE (Right) 41	JACKPOT (left above Meter) 49	SPINOUT 1,000 5.7
Q81 2	RED- BLK 1J6-2	JOYRIDE Spot Pasngr 2	AIRPORT 40K 10	DRACULA (Center) 18	DRACULA 26	4X cab	AIRPORT RIDE (Left) 42	JACKPOT (right above Meter) 5 0	SPINOUT 5,000 58
Q82 3	RED- ORN 1J6-3	JOYRIDE Mystery 3	AIRPORT 60K 11	MARILYN (Center) 19	MARILYN 27	3X cab 3 5	JOYRIDE 4 3	METER (left below Meter) 5 1	SPINOUT 10,000 5 9
Q83 4	RED- YEL 1J6-5	JOYRIDE EXTRA BALL 4	AIRPORT 80K 1 2	SANTA (Center) 2 0	SANTA 28	5X cab 3 6	JACKPOT When Lit	METER (right below Meter) 5.2	SPINOUT 25,000 6 0
Q84 5	RED- GRN 1J6-6	JOYRIDE SPECIAL 5	AIRPORT 100K 13	GORBIE (Center) 2 1	GORBIE 29	SPECIAL W/L (L Outlane) 3 7	1 MILLION When Lit 4 5	RED Traffic Light 5 3	SPINOUT 50,000 6 1
Q85 6	RED- BLU 1J6-7	Williams Pinball Palace (upr l) 6	C (Top Lane) _{1 4}	1 Express Lane ^(left) 2.2	RIDE AGAIN 3 0	BONUS W/L (L Return Lane) 38	EXTRA BALL W/L 46	YELLOW Traffic Light 5 4	SPINOUT 75,000 6 2
Q86 7	RED- VIO 1J6-8	Williams Pinball Palace (mid l) 7	A (Top Lane) _{1 5}	2 Express Lane (right) 23	Passengers Carried 3 1	SPECIAL W/L (R Outlane) 3 9	CARRY PASSENGERS W/L 47	GREEN Traffic Light 5 5	SPINOUT 100,000 63
Q87 8	RED- GRY 1J6-9	Williams Pinball Palace (lwr1) 8	B ^(Top Lane) 1 6	RAISE JACKPOT 2 4	LOCK	BONUS W/L (R Retum Lane) 4 0	RELEASE 48	Williams Pinball Palace (uprr) 56	Williams Pinball Palace (lwrr) 64

TAXI Switch-Matrix Table

	COLUMN	1 Q45 GRN-BRN 1J8-1	2 Q49 GRN-RED 1J8-2	3 Q44 GRN-ORN 1J8-3	4 Q48 GRN-YEL 1J8-4	5 Q43 GRN-BLK 1J8-5	6 Q47 GRN-BLU 1J8-7	7 Q42 GRN-VIO 1J8-8	8 Q46 GRN-GRY 1J8-9
-	WHT- BRN 1J10-9	Plumb Bob Tilt 1	Playfield Tilt 9	Left Jet Bumper 1 7	Left Ramp Entry 2 5	Right Ramp Exit 3 3	4 1	4 9	Lane Change Right 5 7
2	WHT- RED 1J10-8	2	Outhole 1 0	Left Kicker ("sling")	Right Ramp Entry 2 6	Left Ramp Exit 3 4	4 2	5 0	Lane Change Left
3	WHT- ORN 1J10-7	Credit Button 3	Ball Trough #1 _1 1	Right Jet Bumper 1 9	Mdl 3-Bank DT (left) 2 7	Catapult 3 5	SPINOUT Kickbig 4 3	5 1	59
4	WHT- YEL 1J10-6	Left Coin Chute 4	Ball Trough #2 1 2	Right Kicker ("sling") 2 0	Mdl 3-Bank DT		"Spins" Counter 4 4	5 2	6.0
5	WHT- GRN 1J10-5	Center Coin Chute 5	Top Eject Hole 13	Lower Jet Bumper 2 1	Mdl 3-Bank DT (right) 2 9	Left	4 5	5 3	6.1
6	WHT- BLU 1J10-3	Right Coin Chute 6	C Top Lane _{1 4}	Ball Shooter 2 2	R 3-Bank DT (top) 3 0	Left Return	4 6	5 4	6 2
7	WHT- VIO 1J10-2	Slam Tilt	A Top Lane 1 5	Top Lane Entry 2 3	R 3-Bank DT	Right Outlane 3 9	4 7	5 5	6 3
8	WHT- GRY 1J10-1	High Score Reset 8	B Top Lane 1 6	Carry Pasengers 2 4	R 3-Bank DT (bottom) 3 2	Right Return Lane 4 0	4 8	5 6	6 4

WARNINGS & NOTICES

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