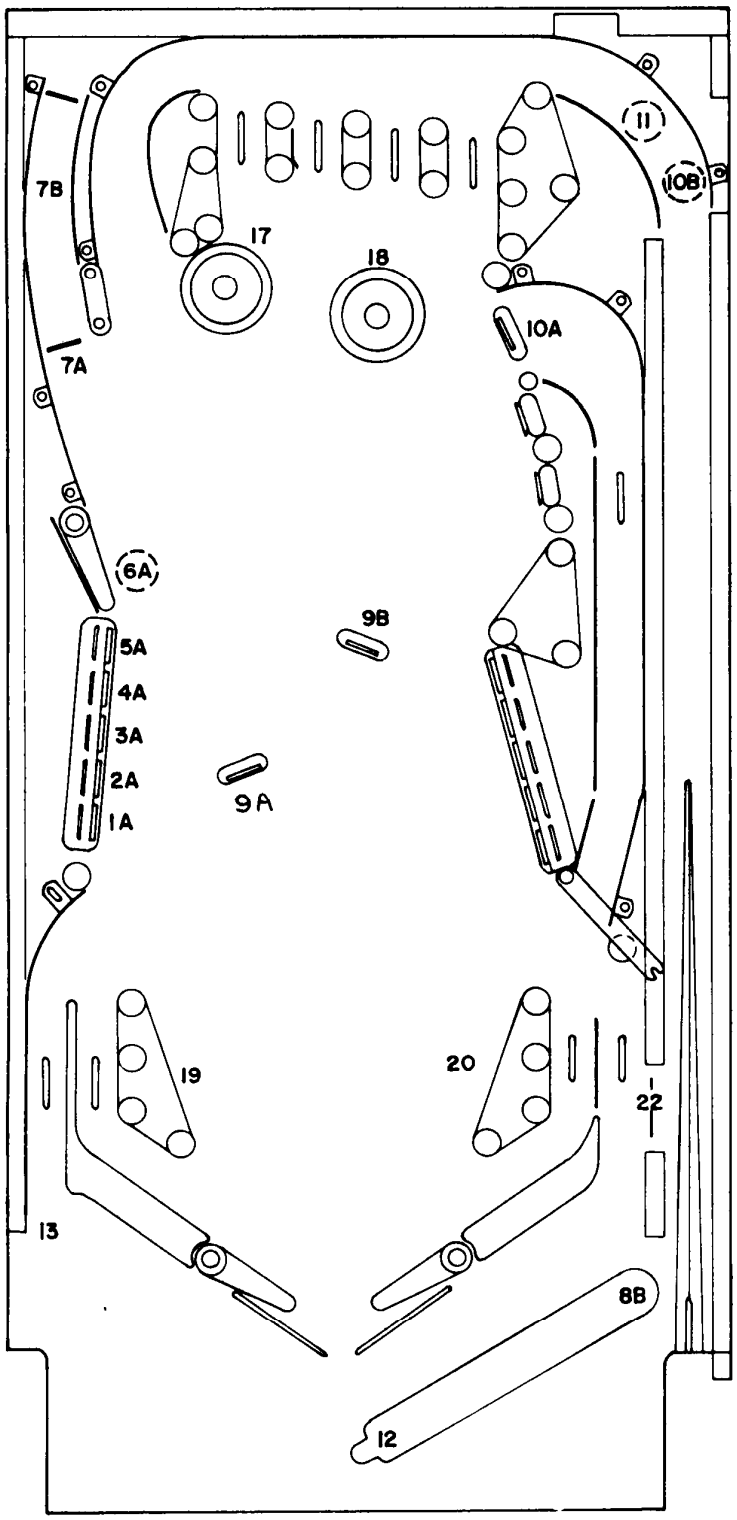
Solenoid Test—NOTE: SPECIAL PROCEDURE REQUIRED

1. Enter Test 04 and operate ADVANCE to display function 35 on the Match Display.
2. Operate credit button to display 01 on the Player 1 display.
3. Operate ADVANCE until function 50 is advanced through and the special Solenoid Test will be activated. Test 05 is indicated in the credits display and the match display sequences from 1 to 25 showing the solenoid being pulsed.
4. For multiplexed solenoids 1 through 10, Solenoid 11 selects whether the A or B solenoids are pulsed. The left digit on the match display shows 1 and pulses solenoid 1A then the right digit shows 1 and pulses solenoid 1B and continues cycling from left to right pulsing the **A** and then the **B** solenoids.
5. For solenoids 10A and 10B, the match display shows 0.
6. Next, the Match Display sequences from 11 to 25 and pulses the associated solenoids. The flipper relay is de-energized for solenoid number 25.
7. To continuously pulse a single solenoid set switch to MANUAL-DOWN. To resume sequencing set to AUTO-UP.
8. To exit test turn game off and on ***with coin door open.***



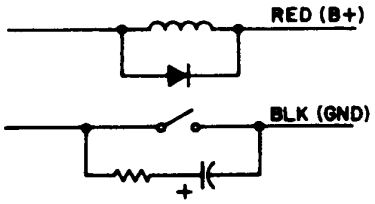
SOL. NO.	FUNCTION
1A	Left Bank Drop Target #1 Reset (Bottom)
1B	Right Bank Drop Target #1 Reset (Bottom)
2A	Left Bank Drop Target #2 Reset
2B	Right Bank Drop Target #2 Reset
3A	Left Bank Drop Target #3 Reset
3B	Right Bank Drop Target #3 Reset
4A	Left Bank Drop Target #4 Reset
4B	Right Bank Drop Target #4 Reset
5A	Left Bank Drop Target #5 Reset (Top)
5B	Right Bank Drop Target #5 Reset (Top)
6A	Left Bank Drop Target Release
6B	Right Bank Drop Target Release
7A	Disappearing Pod Target Reset (Bottom)
7B	Disappearing Pod Target Reset (Top)
8A	Ball Ramp Thrower
8B	Lockup Trough Release
9A	Disappearing Baiter Target Reset (Bottom)
9B	Disappearing Baiter Target Reset (Center)
10A	Disappearing Baiter Target Reset (Top)
10B	Disappearing Baiter Target Release Relay
11	Solenoid B+ Select Relay
12	Ball Release
13	Reverse Ball Shooter
14	General Illumination Relay
15	Bell
16	Coin Lockout
17	Left Jet Bumper
18	Right Jet Bumper
19	Left Kicker
20	Right Kicker
21	Not Used
22	Ball Shooter Return Gate

NOTE: SOLENOID TEST 02 can be entered from Lamp Test 01, but is not recommended because it does not exercise Solenoids 1B through 10B.

Figure 2. Playfield Solenoid Locations and Solenoid Chart

Table 4. Solenoid Connections

SOL. NO.	FUNCTION	WIRE COLOR	CONNECTIONS	DRIVER TRANS.	SOLENOID PART NO.
1A	Left Bank Drop Target #1 Reset (Bottom)	GRY-BRN, VIO-BRN	2P11-4, 8P3-1	Q15	SA5-24-750-DC
1B	Right Bank Drop Target #1 Reset (Bottom)	GRY-BRN, BLK-BRN	2P11-4, 8P3-1	Q15	SA5-24-750-DC
2A	Left Bank Drop Target #2 Reset	GRY-RED, VIO-RED	2P11-5, 8P3-2	Q17	SA5-24-750-DC
2B	Right Bank Drop Target #2 Reset	GRY-RED, BLK-RED	2P11-5, 8P3-2	Q17	SA5-24-750-DC
3A	Left Bank Drop Target #3 Reset	GRY-ORN, VIO-ORN	2P11-7, 8P3-3	Q19	SA5-24-750-DC
3B	Right Bank Drop Target #3 Reset	GRY-ORN, BLK-ORN	2P11-7, 8P3-3	Q19	SA5-24-750-DC
4A	Left Bank Drop Target #4 Reset	GRY-YEL, VIO-YEL	2P11-8, 8P3-4	Q21	SA5-24-750-DC
4B	Right Bank Drop Target #4 Reset	GRY-YEL, BLK-YEL	2P11-8, 8P3-4	Q21	SA5-24-750-DC
5A	Left Bank Drop Target #5 Reset (Top)	GRY-GRN, VIO-GRN	2P11-9, 8P3-5	Q23	SA5-24-750-DC
5B	Right Bank Drop Target #5 Reset (Top)	GRY-GRN, BLK-GRN	2P11-9, 8P3-5	Q23	SA5-24-750-DC
6A	Left Bank Drop Target Release	GRY-BLU, VIO-BLU	2P11-3, 8P3-6	Q25	SA6-24-750-DC
6B	Right Bank Drop Target Release	GRY-BLU, BLK-BLU	2P11-3, 8P3-6	Q25	SA6-24-750-DC
7A	Disappearing Pod Target Reset (Bottom)	GRY-VIO, VIO-BLK	2P11-2, 8P3-7	Q27	SA5-24-750-DC
7B	Disappearing Pod Target Reset (Top)	GRY-VIO, BLK-VIO	2P11-2, 8P3-7	Q27	SA5-24-750-DC
8A	Ball Ramp Thrower	GRY-BLK, VIO-GRY	2P11-1, 8P3-8	Q29	SG1-23-850-DC
8B	Lockup Trough Release	GRY-BLK, BLK-GRY	2P11-1, 8P3-87	Q29	SG1-23-850-DC
9A	Disappearing Baiter Target Reset (Bottom)	BRN-BLK, VIO-WHT	2P9-9, 8P3-9	Q31	SA5-24-750-DC
9B	Disappearing Baiter Target Reset (Center)	BRN-BLK, BLK-WHT	2P9-9, 8P3-9	Q31	SA5-24-750-DC
10A	Disappearing Baiter Target Reset (Top)	BRN-RED, ORN-WHT	2P9-7, 8P3-10	Q33	SA5-24-750-DC
10B	Disappearing Baiter Target Release Relay	BRN-RED, BLU-WHT	2P9-7, 8P3-10	Q33	A-8592
11	Solenoid B+ Select Relay	BRN-ORN	2P9-1, 8P3-11	Q35	A-8592
12	Ball Release	BRN-YEL	2P9-2, 8P3-12	Q37	SA-23-850-DC
13	Reverse Ball Shooter	BRN-GRN	2P9-3, 8P3-13	Q39	SG-23-850-DC
14	General Illumination Relay	BRN-BLU	2P9-4, 3P7-1	Q41	5580-09555-00
15	Bell	BRN-VIO	2P9-5, 7P1-15	Q43	SM-29-1000-DC
16	Coin Lockout	BRN-GRY	2P9-6, 7P1-18, 7P2-4	Q45	904218-696
17	Left Jet Bumper	BLU-BRN	2P12-7, 8P3-17	Q2	SG-23-850-DC
18	Right Jet Bumper	BLU-RED	2P12-4, 8P3-18	Q4	SG-23-850-DC
19	Left Kicker	BLU-ORN	2P12-3, 8P3-19	Q6	SG1-23-850-DC
20	Right Kicker	BLU-YEL	2P12-6, 8P3-20	Q8	SG1-23-850-DC
21	Not Used	BLU-GRN	2P12-8, 8P3-21	Q10	—
22	Ball Shooter Return Gate	BLU-BLK	2P12-9, 8P3-22	Q12	SZ-35-4000-DC
	Lower Left Flipper	BLU-GRY	7SW73, 7P1-10, 8P3-32		SFL-19-400/ 30-750
	Upper Left Flipper	BLK-BLU	7SW77, 7P1-30, 8P3-31		SFL-19-400 30-750
	Lower Right Flipper	BLU-VIO	7SW72, 7P1-8, 8P3-34		SFL-19-400/ 30-750

NOTES:

1. Contacts of Solenoid 11 Switch +28VDC from solenoids 1A through 10A to solenoids 1B through 10B.
2. Contacts of Solenoid 10B Switch +28VDC to the releae coils on solenoids 9A, 9B, and 10A.
3. Second wire color for solenoids 1 through 10 are between isolation diodes on playfield and solenoid.
4. Solenoid 16 (Coin Lockout) Part No. is Coin-Co number.
5. Special Switch connections for solenoids 17 through 20 are as follows:
   17—ORN-BRN—2P13-5
   18—ORN-RED—2P13-3
   19—ORN-BLK—2P13-2
   20—ORN-YEL—2P13-4
6. Connections for flipper switches 7SW72, 7SW73, and 7SW77 are as follows:
   Lower Left—ORN-GRY—2P12-2, 7P1-9
   Upper Left—ORN-GRY—2P12-2, 7P1-9
   Lower Right—ORN-VIO—2P12-1, 7P1-7
7. Typical Wiring for solenoids and special switches: