

Bar 7

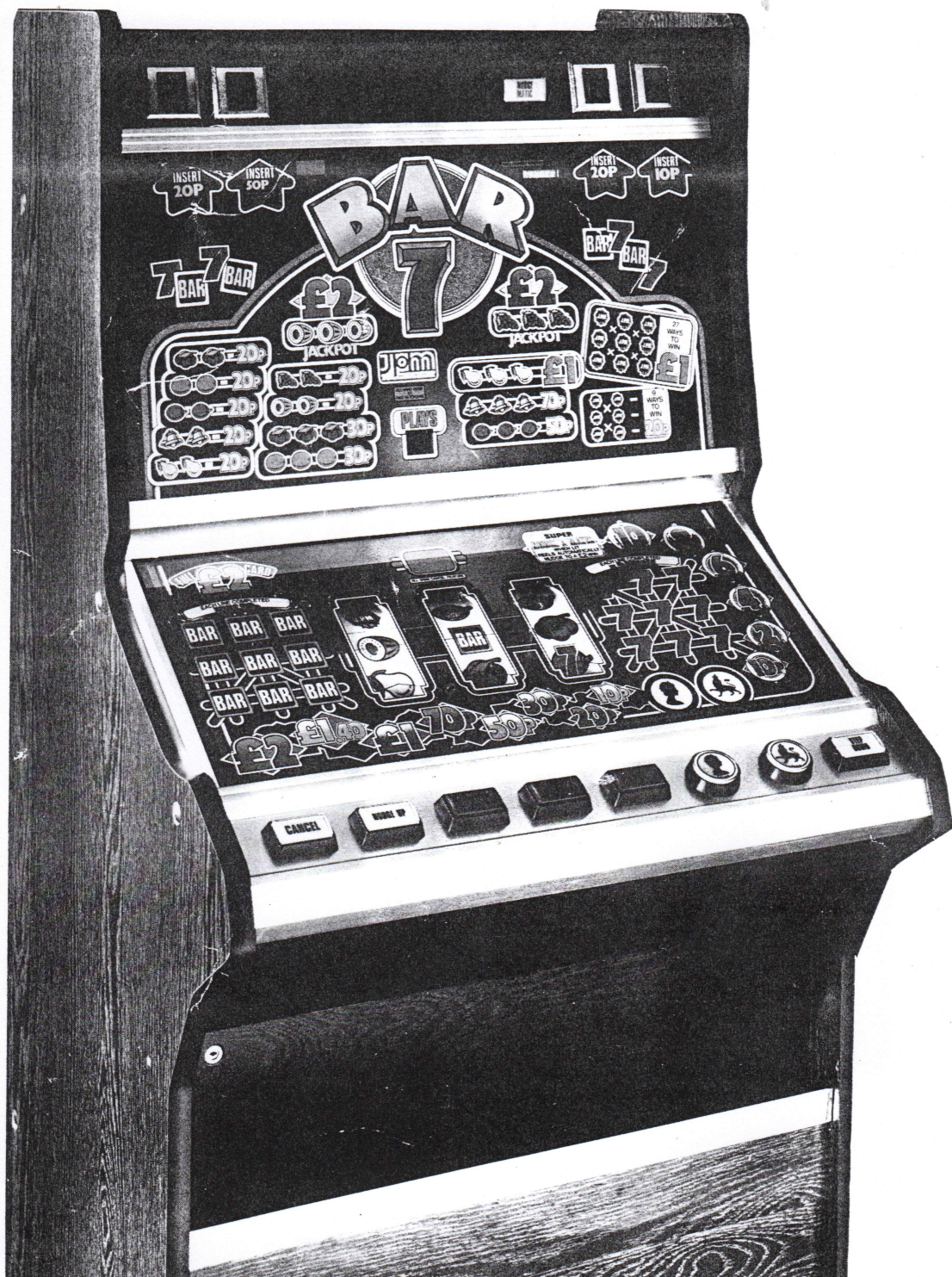
Personality Package

PART NO. 280156



JPM (Automatic Machines) Ltd.

Hadfield Road, Leckwith Trading Estate, Cardiff,
South Glamorgan, CF1 8AQ.
Telephone 0222-399088/395138.



Bar 7 Personality Package

This package contains all details that are relevant to the Bar 7 System 80 AWP Machine.

CONTENTS

	<u>PAGE</u>
Game Description	1
Reel Band Positioning	2
Use of Engineers Test Box	3
Output & Input Allocations	4-8
2 Digit Display Connections	9
Test Procedure	10

N.B. Insert these pages at the end of your System '80' Manual by removing the spine and replacing, after incorporating both manuals.

COPYRIGHT

The copyright in programs entered in this machine is exclusively the property of JPM (Automatic Machines) Limited. Copyright on all illustrated panels and artwork is also exclusively the property of JPM (Automatic Machines) Limited.

Copying or any other form of transferring of any program or artwork thereof from any such machine to any other machine is expressly forbidden without the written authority of the Company.

Bar 7 Game Description

The Bar 7 is a 3 reel AWP type game, with awards of up to £2 as displayed on the artwork.

Bar 7 Feature

The bar 7 feature consists of a grid of 9 bar symbols in 3 lines of 3, on the left-hand side of the reel glass, and a grid of 9 seven symbols in 3 lines of 3, on the right-hand side of the reel glass.

A bar symbol landing in any position in the window will light the appropriate bar symbol in the bar grid. Each completed line of 3 bar symbols pay 20p. A completed card of 9 bars pays £2. NOTE: Bar feature awards are collected automatically and cannot be gambled.

Feature Held

When the feature held lamp illuminates, any lit symbols will remain for the next game. This includes paying lines. NOTE: All normal wins will cancel bar feature.

A 7 symbol landing in any position in the window, will light the appropriate 7 symbol, in the 7 grid. Each completed line of 3, 7 symbols gives 2 nudges. Nudges can be gambled via the heads and tails gamble feature as follows:

LOSE		NUDGES		WIN
10p	←————→	2	————→	4
2	←————→	4	————→	6
4	←————→	6	————→	8
6	←————→	8	————→	10
8	←————→	10	————→	Automatic £2 win via Super Nudge-A-Matic Feature.

You can nudge each reel up or down via the hold and nudge up buttons or the Nudge-A-Matic button can be pressed to give automatic nudge to highest win.

NOTE:

Feature held, works the same as 7's feature.

However, all normal wins and bar feature wins cancel 7's feature.

Heads and Tails Gamble Feature

Wins up to £1 can be gambled to a maximum of £2. Except an award of 70p which can only be gambled to £1.40.

The gamble feature is as follows:

70p —→ £1.40

10p —→ 20p —→ 30p —→ 50p —→ £1 —→ £2

NOTE: If gamble is lost, a consolation award of 10p is given.

Bar 7 Reel Band Positioning

Reel Bands will be seen to have a series of steps numbered at the beginning of the band.

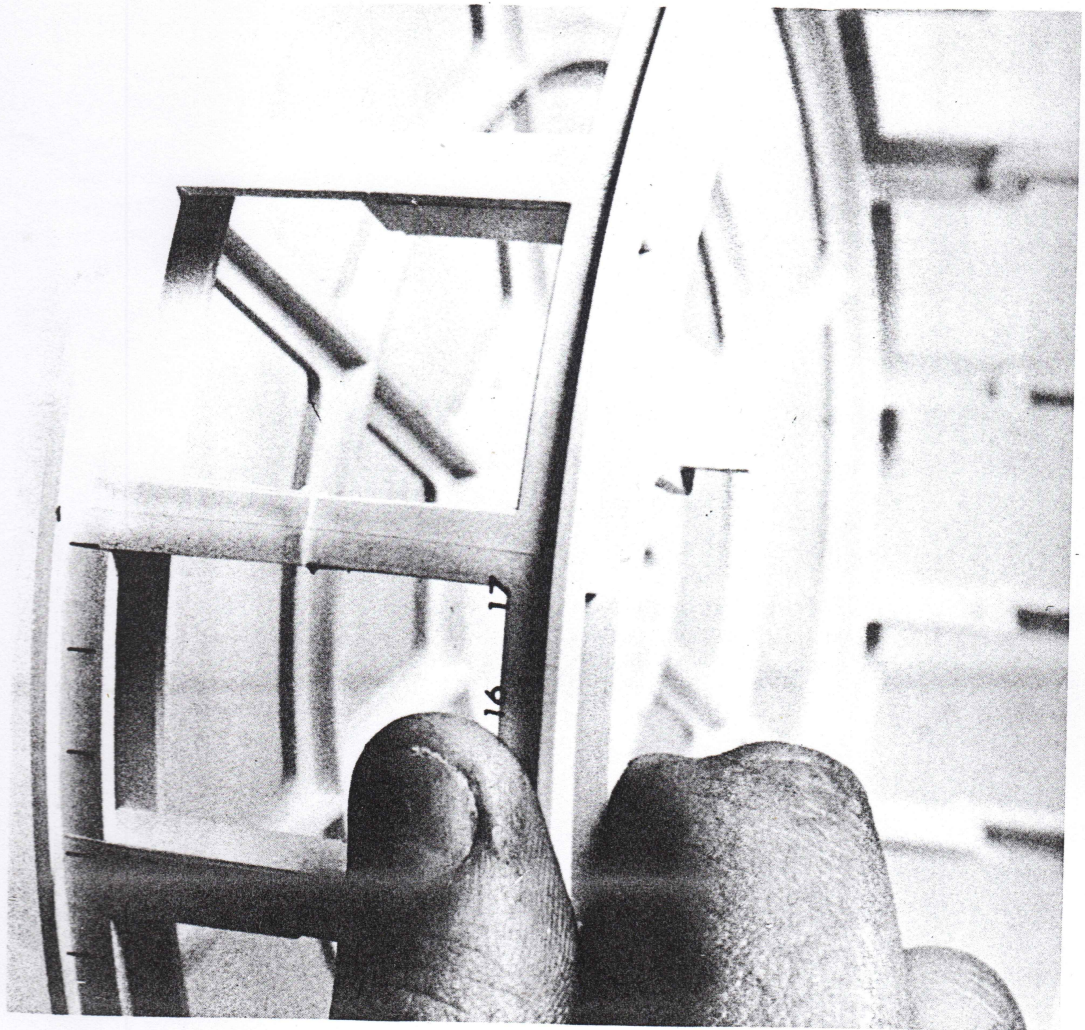
These are to ensure accurate positioning of the band.

Place reel band on reel with step marker 17 exactly to the bottom of the reel spoke which incorporates the sensor tab.

(see illustration)

To check the Reel Band Positions proceed as follows:-

1. Switch ON machine.
2. Press Self-Test Button
3. Press Start Button.
4. Reels will spin and position themselves with tabs just before sensors. In this position Bingo Symbols on the Reel Bands should line up one step above pay-line.



System '80' Engineers Test Box

To allow a Service Engineer to check the static operation of the main I/O board and any sub-boards, switches, buttons, lamps, etc. connected to it without removal from the machine.

The main I/O board has 80 output drive lines and 32 input lines numbered 00 To 79 and 00 To 31 respectively.

Use of System '80' Test Box

1. Switch machine off.
2. Remove 26 way ribbon cable from right hand plug (HD2) on I/O board using the eject toggles. (This isolates the CPU memory card).
3. Insert 20 way ribbon cable of the test box into the left hand plug (HD1 see photograph) ensuring that the coloured trace wire is on the left, i.e. pin 1.
4. Set test box digital switches to 00.
5. Ensure extended address range switch is in the off position.
6. Switch on power to machine.

To Test Inputs

1. Dial up relevant input port number using digital switches on the test box, (consult Input Allocations contained in this manual).
2. Operate appropriate input switch on machine and the CRU state LED on the test box should change state.

Example 1: Set digital switches to 00. This is the allocation for No.1 reel sensor, spin No.1 reel slowly by hand and note that the CRU state LED changes state when the reel tab passes through the sensor, this indicates that the sensor is working.

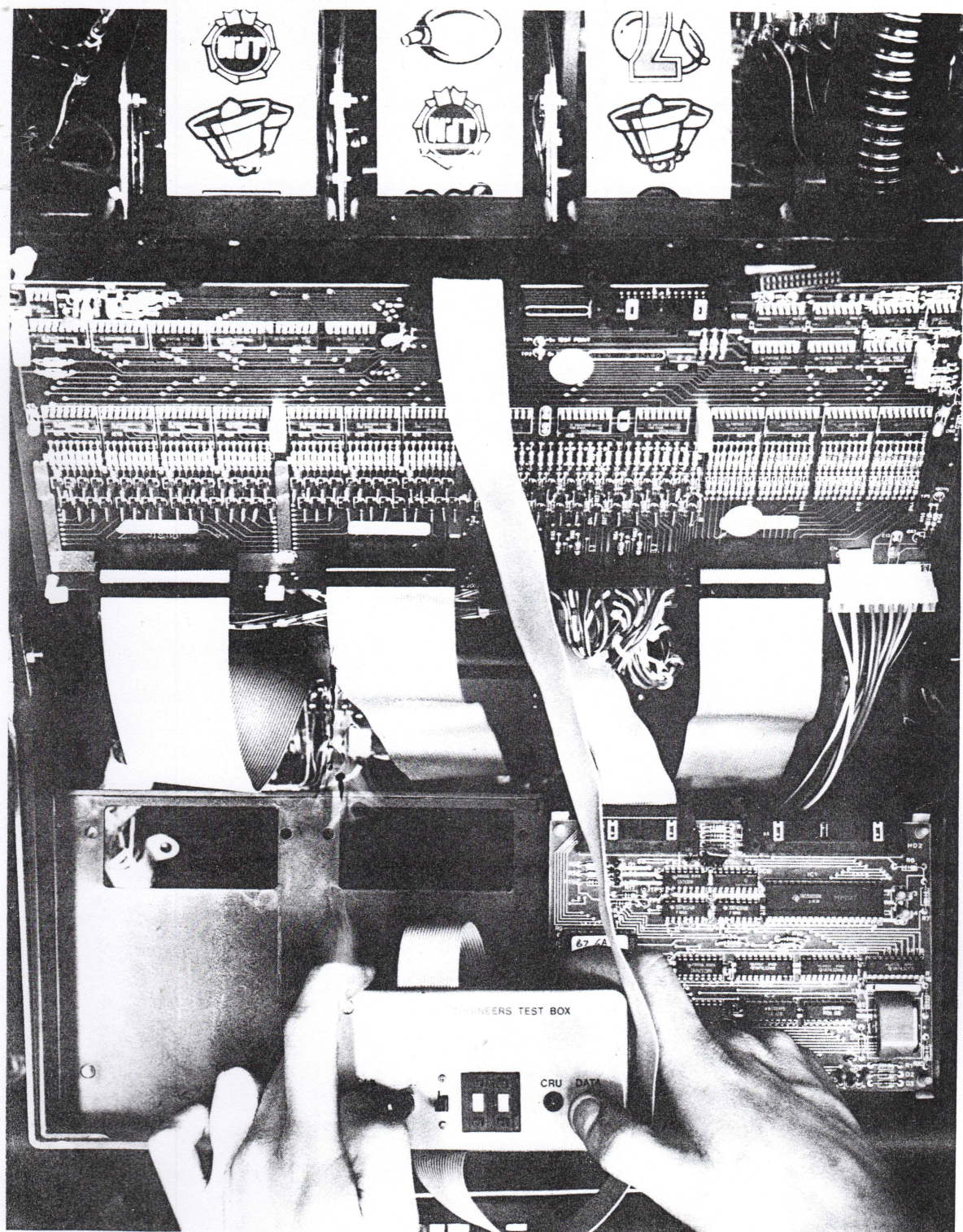
All other inputs may be checked in a similar manner by referring to input allocation chart.

To Test Outputs

1. Dial up relevant output port number using digital switches.
2. Press and hold the data button.
3. Press and release the clock button.
4. Release data button.
This switches on the output line.
To switch off the output line, press and release the clock button.
To switch off more than one output line press and release the reset button.

Example 1:

1. To test Hold Lamp 1 dial 18 on digital switches.
2. Press and hold Data button.
3. Press and release Clock Button.
4. Release Data Button
Lamp should be lit, to extinguish lamp press and release Clock Button.
All other outputs may be checked in a similar manner by referring to output allocation chart.



Bar 7 Output & Input Allocations

SYSTEM '80' OUTPUTS:

PORT NO. (HEX)	PLUG NO.	PIN NO.	TRANSISTOR	WIRE COLOUR	FUNCTION
0	REEL 1	9	Q1	WHT/RED	1ST REEL MOTOR
1	REEL 1	8	Q2	GRN	1ST REEL MOTOR
2	REEL 1	7	Q3	RED	1ST REEL MOTOR
3	REEL 1	6	Q4	WHT/GRN	1ST REEL MOTOR
4	REEL 2	9	Q5	WHT/RED	2ND REEL MOTOR
5	REEL 2	8	Q6	GRN	2ND REEL MOTOR
6	REEL 2	7	Q7	RED	2ND REEL MOTOR
7	REEL 2	6	Q8	WHT/GRN	2ND REEL MOTOR
8	REEL 3	9	Q9	WHT/RED	3RD REEL MOTOR
9	REEL 3	8	Q10	GRN	3RD REEL MOTOR
A	REEL 3	7	Q11	RED	3RD REEL MOTOR
B	REEL 3	6	Q12	WHT/GRN	3RD REEL MOTOR
-----NOT USED-----					
PORT C	TO PORT F				
10	OUTPUTS 1	36	Q17	BRN/YEL	SWITCH GAMBLE
11	OUTPUTS 1	35	Q18	BLK/YEL	LAMPS
12	OUTPUTS 1	34	Q19	WHT/GRN	NUDGE AVAILABLE
13	OUTPUTS 1	33	Q20	GRY/GRN	NUDGE 2
14	OUTPUTS 1	32	Q21	PUR/GRN	NUDGE 4
15	OUTPUTS 1	31	Q22	BLU/GRN	NUDGE 6
16	OUTPUTS 1	30	Q23	GRN	NUDGE 8
17	OUTPUTS 1	29	Q24	YEL/GRN	NUDGE 10
18	OUTPUTS 1	28	Q25	ORG/GRN	HOLD LAMPS 1 ✓
19	OUTPUTS 1	27	Q26	RED/GRN	HOLD LAMPS 2 ✓
1A	OUTPUTS 1	26	Q27	BRN/GRN	HOLD LAMPS 3 ✓
1B	OUTPUTS 1	25	Q28	BLK/GRN	PANEL GAMBLE

PORT NO. (HEX)	PLUG NO.	PIN NO.	TRANSISTOR	WIRE COLOUR	FUNCTION
1C	OUTPUTS 1	24	Q29	WHT/ORG	LAMPS
1D	OUTPUTS 1	23	Q30	GRY/ORG	SPEAKER
1E	OUTPUTS 1	22	Q31	PUR/ORG	START LAMP
1F	OUTPUTS 1	21	Q32	BLU/ORG	NO 50P CHANGE
20	OUTPUTS 1	20	Q33	GRN/ORG	50/20 COIN LAMP
21	OUTPUTS 1	19	Q34	YEL/ORG	NUDGE UP LAMP
22	OUTPUTS 1	18	Q35	ORG	COIN LOCKOUT
23	OUTPUTS 1	17	Q36	RED/ORG	COIN LOCKOUT 50P
24	OUTPUTS 1	16	Q37	BRN/ORG	DRIVE 10P OUT
25	OUTPUTS 1	15	Q38	BLK/ORG	20P TOKEN OUT
26	OUTPUTS 1	14	Q39	WHT/BRN	CONSULATION 10P
27	OUTPUTS 1	13	Q40	GRY/BRN	M7- METER 10P OUT
28	OUTPUTS 1	12	Q41	PUR/BRN	M9- METER REFILL
29	OUTPUTS 1	11	Q42	BLU/BRN	M1- METER TOT.PLAY
2A	OUTPUTS 1	10	Q43	GRN/BRN	M4- METER TOK.IN
2B	OUTPUTS 1	9	Q44	YEL/BRN	M2- METER COINS IN
2C	OUTPUTS 1	8	Q45	ORG/BRN	M3- METER 50P IN
2D	OUTPUTS 1	7	Q46	RED/BRN	M8- METER 20P TOK.
2E	OUTPUTS 1	6	Q47	BRN	DIGIT 1
2F	OUTPUTS 1	5	Q48	BLK/BRN	DIGIT 2
30	OUTPUTS 2	36	Q49	PUR/YEL	DIGIT 4
31	OUTPUTS 2	35	Q50	BLU/YEL	DIGIT 8
32	OUTPUTS 2	34	Q51	WHT/PNK	STROBE 1
33	OUTPUTS 2	33	Q52	GRY/PNK	STROBE 2
34	OUTPUTS 2	32	Q53	PUR/PNK	X10)
35	OUTPUTS 2	31	Q54	BLU/PNK)
)
)

PORT NO. (HEX)	PLUG NO.	PIN NO.	TRANSISTOR	WIRE COLOUR	FUNCTION
36	OUTPUTS 2	30	Q55	GRN/PNK	X30)
37	OUTPUTS 2	29	Q56	YEL/PNK	X50) GAMBLE
38	OUTPUTS 2	28	Q57	ORG/PNK	X70) FEATURE
39	OUTPUTS 2	27	Q58	RED/PNK	X100)
3A	OUTPUTS 2	26	Q59	BRN/PNK	X140)
3B	OUTPUTS 2	25	Q60	BLK/PNK	X200)
3C	OUTPUTS 2	24	Q61	WHT/YEL	NUDGE-A-MATIC
3D	OUTPUTS 2	23	Q62	GRY/WHT	FEATURE HELD
3E	OUTPUTS 2	22	Q63	PUR/WHT	1.1 SEVEN ARRAY
3F	OUTPUTS 2	21	Q64	BLU/WHT	1.2
40	OUTPUTS 2	20	Q65	GRN/WHT	1.3 1.1 1.2 1.3
41	OUTPUTS 2	19	Q66	YEL/WHT	2.1 2.1 2.2 2.3
42	OUTPUTS 2	18	Q67	ORG/WHT	2.2 3.1 3.2 3.3
43	OUTPUTS 2	17	Q68	RED/WHT	2.3
44	OUTPUTS 2	16	Q69	BRN/WHT	3.1
45	OUTPUTS 2	15	Q70	BLK/WHT	3.2
46	OUTPUTS 2	14	Q71	WHT/GRY	3.3
47	OUTPUTS 2	13	Q72	GRY	1.1 BAR ARRAY
48	OUTPUTS 2	12	Q73	PUR/GRY	1.2
49	OUTPUTS 2	11	Q74	BLU/GRY	1.3 1.1 1.2 1.3
4A	OUTPUTS 2	10	Q75	GRN/GRY	2.1 2.1 2.2 2.3
4B	OUTPUTS 2	9	Q76	YEL/GRY	2.2 3.1 3.2 3.3
4C	OUTPUTS 2	8	Q77	ORG/GRY	2.3
4D	OUTPUTS 2	7	Q78	RED/GRY	3.1
4E	OUTPUTS 2	6	Q79	BRN/GRY	3.2
4F	OUTPUTS 2	5	Q80	BLK/GRY	3.3

PORT NO. (HEX)	PLUG NO.	PIN NO.	TRANSISTOR	WIRE COLOUR	FUNCTION
-------------------	----------	---------	------------	-------------	----------

50	-----	SOFTWARE INTERRUPT	LEVEL 1	-----	
51	-----	SOFTWARE INTERRUPT	LEVEL 2	-----	
52	-----	SOFTWARE WATCHDOG		-----	
53	-----	SOFTWARE ENABLE		-----	

PORT 54 TO PORT 7F -----NOT USED-----

SYSTEM '80' INPUTS

PORT NO. (HEX)	PLUG NO	PIN NO.	WIRE COLOUR	FUNCTION
0	REEL 1	3	GRY/PUR	1ST REEL SENSOR
1	REEL 2	3	GRY/PUR	2ND REEL SENSOR
2	REEL 3	3	GRY/PUR	3RD REEL SENSOR
3	REEL 4	3	-----NOT USED-----	
4	INPUTS	9	-----NOT USED-----	
5	INPUTS	10	PNK	I/O ISOLATION
PORT 6 TO PORT 7			-----NOT USED-----	
8	INPUTS	13	YEL/BLK	HOLD/NUDGE 1
9	INPUTS	14	GRN/BLK	HOLD/NUDGE 2
A	INPUTS	15	BLU/BLK	HOLD/NUDGE 3
PORT B TO PORT D			-----NOT USED-----	
E	INPUTS	19	BLK/RED	CANCEL/HOLD
F	INPUTS	20	BRN/RED	START/TAKE WIN BUTTON
10	INPUTS	21	RED	TEST
11	INPUTS	22	ORG/RED	TEST HOLD
12	INPUTS	23	YEL/RED	REVERSE NUDGE
13	INPUTS	24	GRN/RED	20P (2 CREDIT)
14	INPUTS	25	BLU/RED	10P (1 CREDIT)
15	INPUTS	26	PUR/RED	TOKEN (2 CREDIT) COINS IN
16	INPUTS	27	GRY/RED	50P (1 CREDIT)

SYSTEM 80 2 DIGIT DISPLAY CONNECTIONS

1	WHT/YEL	-	EARTH	
4	GRY/PNK	-	STR 10	
6	BLK/BRN	-	DIG. 2	
7	BRN	-	DIG. 1	
8	BLU/YEL	-	DIG. 8	MK 111
9	WHT/PNK	-	STR 1	
10	PUR/YEL	-	DIG. 4	
12	PUR/BLU	-	+12V	
2	BROWN	-	DIG. 1	
3	BLU/YEL	-	DIG. 8	
5	PUR/YEL	-	DIG. 4	MK 11
11	BLK/BRN	-	DIG. 2	

Bar 7 Test Procedure

DO NOT SWITCH THE MACHINE OFF DURING THE TEST ROUTINE, AS THE NON VOLATILE MEMORY WILL RETAIN THE TEST INSTRUCTION. TEST SHOULD BE CANCELLED WITH EITHER THE 'CANCEL BUTTON' OR THE RESET SWITCH ON THE I/O BOARD.

1. Press test switch, with zero credit.
Display shows 88.
2. Press 'Start' button,
Display shows aiming percentage. Press Nudge-A-Matic button to alter if required.
3. Press 'Start' button, machine shows actual payout % then plays tone.
3 J.P.M. symbols appear one position above winline.
4. Press 'Start' button.
Half of lamps light.
5. Press 'Start' button,
Other half of lamps light.
6. Press 'Start' button,
Meters plus - payout mechanisms pulse - lamps light in sequence.
7. Press 'Hold' buttons to nudge reels - awards are displayed 7's and Bars on reels light appropriate symbols on reel glass.
8. Press 'Cancel' button
END OF TEST.