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Operating and Safety Instructions

Product Safety

Every effort has been made to ensure this product has been designed with safety in mind.

Components used within this product are used within the manufacturers stated specification limits. Under no circumstances should replacement parts other than those specified or supplied by the manufacturer be used within this machine.

Electrical Safety

This machine must not be used unless it is correctly earthed and should be connected to a mains supply of 220v/240v at a frequency of 50Hz.

All machines leaving the manufacturer are subject to electrical safety tests. These tests consist of earth-bond and insulation tests. These tests should be carried out on a regular basis, or when a critical part is replaced.

Only suitably qualified or adequately instructed person should carry out work on the internal parts of this machine.

Connection.

A three-pin plug fitted with a fuse rated at 13 Amps should be fitted to the supply cable. A minimum rating of 7A can be fitted if required. Any value lower than this is not recommended due to transformer surge on reset. The supply cable should not exceed a length of 2 metres.

Parts list

Gold Reserve is designed to fit the list of Bell Fruit Manufacturing Trident 2 base machines on the front cover.

If the Gold Reserve kit is to be fitted on a machine other than the ones stated then additional parts may-be required depending on the base machine.

On receipt of your kit please check the content against the following list, and notify our Spares Department *immediately* of any shortages on: 01222 377402

Part	Part number
Top Glass	AT 1007
Reel Glass	AL 1007
Gold Reserve Name glass	AN 1001
Reel band 1	AR 1023
Reel band 2	AR 1024
Reel band 3	AR 1025
Reel Band 4	AR 1026
Button Legends x10	AB 1010
£5 cash disclaimer	AD 1122
£8 disclaimer	AD 1123
£15 cash disclaimer	AD 1124
Price of play decal	AD 1125
20/25/30p £15 award decal	AD 1126
5/10p £15	AD 1127
5/10p £5	AD 1128
5/10p £8	AD 1129
20p £5	AD 1130
20p £8	AD 1131
Switch settings sticker	
Top glass lamp mask loomed	
Reel glass lamp mask loomed	
Programme x 1	
Sound EPROM x 1	
Triangular button assembly x3	
Meter bracket x1	
Angle brackets x2 (1 for POP, 1 for disclaimer)	
Instruction manual	
Coin mechanism blanking plate	

Conversion instructions.

Prior to commencement ensure that the machine to be converted is in good working order.

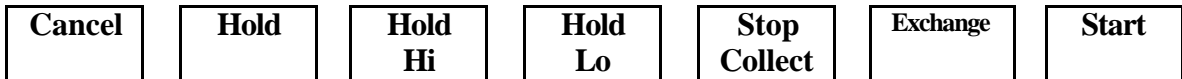
Removal of the existing glass and wooden mask.

- 1) Remove coin handling to allow easier access to the interior of the machine.
- 2) Lower the reel shelf and remove reels.
- 3) Disconnect the lamp looms attached to the lamp interface board and existing connectors. Keep the headers that connect the top glass lamps to the reel lamps, as these will be needed for the new loom.
- 4) Unplug and remove the alphanumerical display and keep safe.
- 5) Unclip the button panel.
- 6) Undo all 2BA nuts securing the left and right hand side extrusions retaining the top glass.
- 7) Go to the front of the machine and remove the fixing bracket securing the reel glass to the wooden mask (located at the base of the glass).
- 8) Remove the reel glass and the top glass along with the extrusions. With these gone the wooden mask retaining screws will be visible.
- 9) Unscrew the four retaining screws on the bottom wood and remove from the machine. Repeat this with the top wood.
- 10) To remove the existing name glass (located under the button panel), remove the three screws on the right hand side of the lower extrusion. Bend this very slightly to remove the old name glass.
- 11) The final step is to remove the 4 reel bands.

Fitting the Gold Reserve Kit.

- 1) Fit the 2 x 5mm bolts in the Gold Reserve wooden mask into the holes located by the space provided for the top reel.
- 2) Fit the top wooden mask and secure using the four retaining screws previously removed.
- 3) Fit a 4mm counter-sunk bolt into the hole provided in the lower wooden mask to secure the decal cutout. Then secure the mask into the machine with the retaining screws.
- 4) Fit the HI/LO number vacuum form.
- 5) Fit the extrusion to the left and right hand side of the top glass and fit into the machine.
- 6) Fit the left and right hand side extrusion to the reel glass and refit into the machine.
- 7) Fit the reel glass, the fixing bracket which was removed in step 8 of "Removal of existing glass" is no longer used as there are plastic ones already fitted to the wood.
- 8) Remove the switches and the buttons. Remove the lens caps, and replace the legends (for button layouts see the diagram on the next page).
- 9) Refit the buttons and switches. The triangular button assemblies are then fitted into the holes provided in the top glass.
- 10) To fit the Gold Reserve name glass reverse step 11 of "Removal of existing glass".
- 11) Secure the 4th reel mounting-bracket using the 5mm nuts and washers.
- 12) Fit the terminals provided on the top lamp loom to the switches on the top glass. Fit the Pink wire to the Normally Open terminal and the Orange is fitted to Common (the base of the switch) of the top switch. The separate orange and yellow to the second switch, and the separate green and orange to the lower switch.
- 13) Fit the other coloured wires to either side of the lamp terminals.
- 14) The trailing connector is then fitted to the switch interface board, which is located in the middle of the right hand side of the cabinet.
- 15) Fit the HI and LO lamp holders into the respective position on the HI/LO number vacuum form.
- 16) Fit the Push to Reject lamp holder in to the relevant position on the coin entry bezel.
- 17) Connect the top lamps to the lower lamps with the header removed in step 3 of "Removal of existing glass".
- 18) Connect the remaining lamp loom plugs to the lamp interface board.
- 19) The reel bands are now ready to be fitted. Identification of the reel bands can be found on the clear tail or by the diagram on page 17 in the technical description section.
To fit the reel bands locate the notch in the reel band and align this with the lug on the reel drum (on the end of the spoke with the optic tab fitted). Secure the end of the strip.
- 20) Refit the reels into the machine.
- 21) Fit the Sound EPROM (with the notch of the EPROM pointing down) in position IC 9 on the BFM Scorpion 2 MPU. Check that there is a link in position LK2 above the EPROM.
- 22) Fit the game EPROM into the socket provided on the PROM Card. The prom card is then fitted in to slot Z1 (the left-hand slot) on the MPU.

Button Layout



Setting-up

No connector or component must be removed or reconnected whilst the power is turned on.

Check that all connectors, assemblies, and wiring harness are correctly engaged inside the machine.

Set the DIL switch options on the MPU board to the correct position, set the token cash switch to the desired position and fit the relevant decals.

Run through the test procedure.

Award Structure

Reel Glass

5p/10p £5

£5
£4
£3
£2
£1
60p
40p
20p

5p/ 10p £8

£8
£4
£3
£2
£1
60p
40p
20p

5p/10p £15

£15
£4
£3
£2
£1
60p
40p
20p

20p £5

£5+repeat
£5
£4
£3
£2.40
£2
£1.40
£1

20p £8

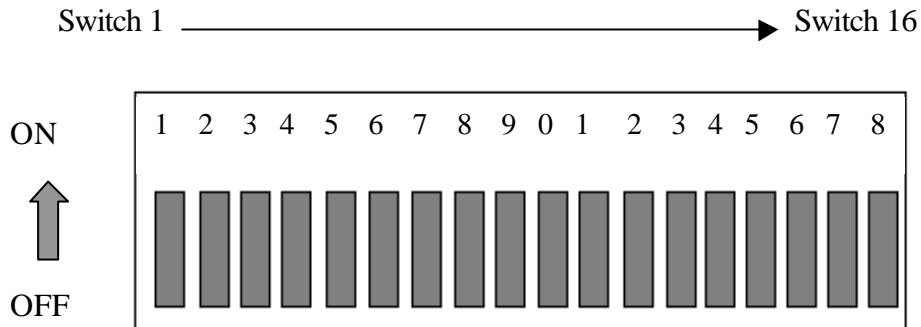
£8
£5
£4
£3
£2.40
£2
£1.40
£1

20/25/30p £15

£15
£7
£6
£5
£4
£3
£2
£1

DIL Switch Settings

Located on the Scorpion 2 MPU is a bank of DIL switches. The switches are numbered 1 to 16 from left to right.



The functions are as follows: -

SWITCH	OFF	ON
1	Not used	
2	Alarm if coin jammed	Alarm inhibited
3	Wins Banked	Direct payout
4	No 5p acceptance board	5p acceptance board fitted
5	Non lock up tube if tubes low	Lock up if tubes low
6	15RM reel (red carrier)	16RM reel (cream carrier)
7	Stake & Prize selection	
8	Multi Coin play	Single coin play
9	Not used	
10	Stake & Prize selection	
11	Stake & Prize selection	
12	Stake & Prize selection	
13	Percentage selection	
14	Percentage selection	
15	Percentage selection	
16	Percentage selection	

*To obtain the desired jackpot, see table on next page.

Stake, Prize and Percentage Settings

Switch 7	Switch 10	Switch 11	Switch 12	Outcome
OFF	OFF	OFF	OFF	5p £5
OFF	ON	OFF	OFF	5p £8 cash
OFF	OFF	ON	OFF	5p £8 token
OFF	ON	ON	OFF	5p £15
OFF	OFF	OFF	ON	10p £5
OFF	ON	OFF	ON	10p £8 cash
OFF	OFF	ON	ON	10p £8 token
OFF	ON	ON	ON	10p £15
ON	OFF	OFF	OFF	20p £5
ON	ON	OFF	OFF	20p £8 cash
ON	OFF	ON	OFF	20p £8 token
ON	ON	ON	OFF	20p £15
ON	OFF	OFF	ON	25p £15
ON	ON	OFF	ON	30p £15

If a percentage key is not fitted the payout percentage may be set via the following dil switches: -

Switch 13	Switch 14	Switch 15	Switch 16	%
ON	OFF	OFF	OFF	70
OFF	ON	OFF	OFF	72
ON	ON	OFF	OFF	74
OFF	OFF	ON	OFF	76
ON	OFF	ON	OFF	78
OFF	ON	ON	OFF	80
ON	ON	ON	OFF	82
OFF	OFF	OFF	ON	84
ON	OFF	OFF	ON	86
OFF	ON	OFF	ON	88
ON	ON	OFF	ON	90
OFF	OFF	ON	ON	92
ON	OFF	ON	ON	94
OFF	ON	ON	ON	96
ON	ON	ON	ON	98

If all switches are off and no percentage key is fitted the machine will default to 78%.

Demonstration mode

A demonstration mode is provided which enables the game to be played or tested without having the need to insert coins and without any actual payout of prizes.

To enter the demonstration mode, open the back door and press the green test button once. To achieve £5 worth of credits press the Start button. By holding down the Cancel button and any of the Hold buttons the reels can be stepped down or stepped up by holding down the Take feature button, to induce reel wins or to play the feature.

Once on the desired balloon, the position can be incremented by pressing the Start button.

If the MPU does not recognise any activity after approximately 20 seconds the machine enters the attract mode. Credits can then be achieved by pressing the Start button again.

Test Routine.

To enter the test routine the back door must be open and the green test button on the MPU pressed twice.

Navigation.

Cancel	Hold	Hold Hi	Hold Lo	Stop Collect	Exchange	Start
LH1 RH7	LH2 RH6	LH3 RH5	LH4 RH4	LH5 RH3	LH6 RH2	LH7 RH1

To step to the next test press the RH1 button. To step to a previous test press the RH3 button. The relevant test will be displayed on the alphanumeric display. To activate the desired test the RH2 button is then pressed. Press the RH1 once to exit that test.

<i>Test Number</i>	<i>Test procedure</i>
1.1	Coin in
1.2	Coin out
2.1	Reels 1
3.2	Lamps
4.1	Inputs
4.2	DILS
5.1	Alphanumeric
6.1	Meters
7.1	Communications
8.2	Volume
9.1	Keys
A.1	Alarm log

Test 1.1 – Coin In.

All coins accepted by the machine will display the relevant coin value on the display.

To inhibit the coins the LH1 button is pressed. To return to coin acceptance then the LH1 button is pressed again.

The LH2 button is used to toggle coin diversion ON, or OFF. Coin diversion will only affect the coins that are routed to the coin tubes.

Test 1.2 – Coin out.

Button RH2 and RH3 are used to select payout tube.

Button LH1 is used to payout coins. The alphanumeric display will read how many coins have been paid out.

Test 2.1– Reels 1.

On entry to this test reels 1 to 4 will spin to the SYNC position and light all the lamps behind the reel bands. The message SYNC POSITION will be displayed. At this point the optic tab will be in the centre of the optic sensor and the first reel symbols will be on the win line.

The relevant HOLD/NUDGE button can be pressed to step the reels down.

Pressing the CANCEL button will nudge the feature reel.

The symbol on the last reel pressed will be displayed.

If the CANCEL button is held for 2 seconds or more any win/feature available will be indicated.

Test 3.2 – Lamp test

On entering the test the display will read 3.2 FLASH, and all the lamps will flash.

Pressing the LH1 button will toggle the step lamp test.

The RH2 and RH3 buttons will respectively step through the lamps forwards and backwards.

Test 4.1 – Inputs

When any input changes a sound will be generated and the relevant information is displayed.

To exit this test, hold down RH1 for longer than two seconds.

The following table indicates lamps that will light upon various switches being made.

Input Definition	Lamp Definition
20p low level	Silver level – Spot light (bottom left)
Pound low level	Silver level – Silver pick (bottom left)
Token 1 low level	Silver level – Silver swag (bottom middle)
Token 2 low level	Silver level – Spot light (bottom right)
20p high level	Silver level – Short cut
Pound high level	Silver level – Silver swag (top)
Token 1 high level	Silver level – Silver pick (top)
Token 2 high level	Silver level – Spot light (top)
Cancel button	Cancel button lamp
Hold 1 button	Hold 1 button lamp
Hold 2 button	Hold 2 button lamp
Hold 3 button	Hold 3 button lamp
Collect button	Collect button lamp
Exchange button	Exchange button lamp
Start button	Start button lamp
Bronze pick button	Bronze pick button lamp
Silver pick button	Silver pick button lamp
Gold pick button	Gold pick button lamp
Test switch	Gold Reserve name lamp 1
Refill key	Gamble lose lamp
Back door switch	Gamble high lamp
Cash door switch	Gamble low lamp

Test 4.2 – DIL Switches.

On entry to this test the status of the DIL switches are displayed. When a number 1 is displayed then the switch is ON. If the number is 0 then the switch is OFF.

Test 5.1 – Alphanumerical display.

On pressing the RH2 button each segment of the alphanumeric will light from left to right. Once all the segments have been tested they will then be tested simultaneously. The RH1 and RH2 buttons will toggle between the two tests.

Test 6.1 – Meters.

Pressing the LH1 button initiates the test. Each meter will pulse 5 times. **The refill key is not required for this test.**

Test 7.1 – Comms.

If machine recognises that there is a Datapak connected to the RS232 port the machine will display PASS. If there is no Datapak fitted then FAIL is displayed.

Test 8.2 – Volume.

This test will allow adjustment of the electronic volume control and is identical to the volume adjustment via the refill key with the doors closed.

The display will show the volume in a percentage.

The LH1 and LH2 buttons will be used to adjust the volume down and up respectively.

The RH2 and RH3 buttons will allow the sample number to be increased or decreased respectively.

Test 9.1 – Keys

This will display the current setting of the percentage key, if there is one fitted and the current stake and payout percentage.

Test A.1- Alarm log.

On pressing the RH1 button the alarm log number will be shown on the left-hand side of the display, the alarm code on the right.

By pressing the LH4 button and the LH2 buttons you can increment or decrement the log number respectively.

By holding the RH1 button for five seconds the alarm log can be cleared.

Alarm codes

<u>Code</u>	<u>Fault</u>	<u>Causes (in order of probability)</u>
0.1	Ram clear	Program change, faulty battery, M.P.U
0.2	Mode change	Percentage, stake, prize setting changed
1.1	£1 coin input	Coin jam. Coin mech., coin loom,
1.2	50p coin input	As above
1.3	20p coin input	As above
1.4	10p coin input	As above
1.6	5p coin input	As above
1.5	Token input	As above
1.9	Anti-strim alarm	Coin mech., coin loom, M.P.U
2.1	Reel 1 fault	Set-up, opto, loom, motor, M.P.U
2.2	Reel 2 fault	As above
2.3	Reel 3 fault	As above
2.4	Reel 4 fault	As above
6.0	Meter error	More than 1 meter disconnected
6.1	Meter 1 fault	Meter1 faulty
6.2	Meter 2	“
6.3	Meter 3	“
6.4	Meter 4	“
6.5	Meter 5	“
7.1	E.D.C failure	Datport unit not fitted, M.P.U, no -12v
9.1	Incorrect switch settings	Adjust switch settings, faulty MPU
9.2 – 9.8	Faulty processor	Faulty MPU, programme card

Technical Data

Machine Description

Cabinet

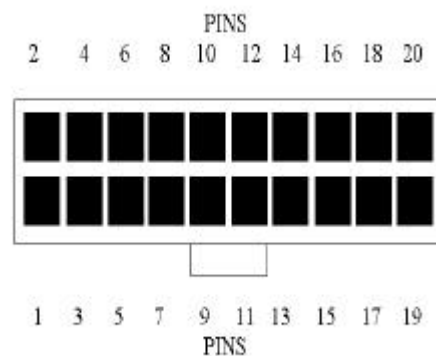
Cabinet name: Trident 2
Manufacturer: Bell Fruit Manufacturing
Technology: BFM Scorpion 2
Height: 1785mm
Width: 632mm
Depth: 600mm
Weight: 110Kg

ME 129 Coin Routing

This machine uses a 20 way routing plug. The pins are identified with the notch of the routing plug facing downward and the wire links facing you.

To achieve the correct routing, link pins: -

1 + 19*
2 + 15*
2 + 17*
3 + 9
5 + 7
8 + 18
10 + 20
11 + 13
14 + 16



*Please note that links 1 + 19, 2 + 15, and 2 + 17 each have a diode fitted between them with the cathode (the striped end) at pins 1 and 2.

Coin Payout

1 x 20p Coin Controls compact 50v AC.
1 x £1 Coin Controls compact 50v AC.
2 x 20p Token Coin Controls compact 50vAC (if fitted).
6 x Cream Starpoint 3CLD AA level sensors for £1 and Token tubes.
2 x Red Starpoint 3CLD AA level sensor for 20p tube.

Note that the rear token tube will fill first then when the level sensor is activated the front tube will then fill. The front tube will pay first.

Coin Tube Capacities

The coin tube capacities are listed below with the level sensor positions.

Coin Tube	Capacity	Low sensor	High sensor
20p	£ 30	£ 3.80	£ 30
£ 1	£ 70	£ 12	£ 70
20p token front (1)	£ 44.60	£ 5.40	£ 44.60
20p token rear (2)	£ 25.40	£ 9.60	£ 25.40

Meters

5 x 12v DC

Software Meters (electronic)

In all there are 91 meters, but there are useful meters that have been incorporated for the operators benefit. These are Cash in, Cash out, Token in, Token out, Games played, Token refilled, and Cash refilled. For the desired meter refer to the table below.

To access the software meters open the back door and press the Green test button once. The machine will go into demonstration mode. Next turn the refill key to the on position.

The alphanumerical display will show meter number 0. To display the next meter press the **Hold/Hi** button, to display the previous meter press the **Hold** button. To clear the meters, press and hold the **Start/Feature** button. A countdown sequence will be initiated and can be aborted by releasing the **Start** button. One the countdown reaches zero the meters will be cleared.

Meter No.	Description	Divide by

Note that the software will be cleared down every time the RAM has been reset and the percentage or price of play has been altered.

Reel Set-up

Gold Reserve can be fitted with 4 x Starpoint 15RM (red carrier frame) or 4 x Starpoint 16RM reel motors (cream carrier frame).

The lamp modules for the 3 main reels have to be set to 90 degrees. The fourth reel has the lamp module set at 0 degrees.

With DIL switch 6 set to desired position (Off = 15RM, ON = 16RM) the four reel modules can be set up by following the seven steps below.

Step 1) With the machine turned off, press and hold the green test button on the MPU.

Step 2) Keeping the button pressed turn the machine on.

Step 3) Turn the reel module by hand until the optic tab is as near to the opto sensors as possible.

Step 4) Release the screws securing the motor and turn the motor so the optic tab is in the centre of the opto sensor. Once the optic sensor is in the centre, the red LED on the back of the reel module should extinguish.

Step 5) Secure the motor adjustment screws.

Step 6) Switch the machine off.

Step 7) Switch the machine back on. The machine is now ready for use.

The reel bands can be identified by the number printed on the top of the reel band or by the diagram below.

Reel 1	Reel 2	Reel 3	Reel 4
MDM Jackpot Cherry Lemon+2	MDM Jackpot Cherry+1 Lemon	MDM Jackpot Cherry Lemon+1	1 2 3

Lamp Allocation

For allocation of strobe and data pin connections refer to the MPU connections on page 24.

Lamp	Strobe	Data	Function
0	0	0	Cancel Button
1		1	Hold 1 Button
2		2	Hold/Hi Button
3		3	Hold/Lo Button
4		4	Stop/Collect Button
5		5	Exchange Button
6		6	
7		7	Start Button
8	1	0	Jackpot Award 1
9		1	Jackpot Award 2
10		2	Jackpot Award 3
11		3	
12		4	
13		5	
14		6	
15		7	
16	2	0	Melon Award 1
17		1	Melon Award 2
18		2	Melon Award 3
19		3	Orange Award 1
20		4	Orange Award 2
21		5	Orange Award 3
22		6	
23		7	
24	3	0	Reel 1 Bottom
25		1	Reel 1 Middle
26		2	Reel 1 Top
27		3	Reel 2 Bottom
28		4	Reel 2 Middle
29		5	Reel 2 Top
30		6	
31		7	
32	4	0	Reel 3 Bottom
33		1	Reel 3 Middle
34		2	Reel 3 Top
35		3	Reel 4 Bottom
36		4	Reel 4 Middle
37		5	Reel 4 Top
38		6	
39		7	
40	5	0	Bell Award 1
41		1	Bell Award 2
42		2	Bell Award 3
43		3	Plum Award 1
44		4	Plum Award 2
45		5	Plum Award 3
46		6	
47		7	

Lamp	Strobe	Data	Function
48	6	0	Grape Award 1
49		1	Grape Award 2
50		2	Grape Award 3
51		3	Lemon Award 1
52		4	Lemon Award 2
53		5	Lemon Award 3
54		6	Lose
55		7	Gold Swag – Lightening Trail
56	7	0	Trail 1
57		1	Trail 2
58		2	Trail 3
59		3	Cherry Award 1
60		4	Cherry Award 2
61		5	Cherry Award 3
62		6	Trail Held
63		7	
64	8	0	Gold Swag – Grape
65		1	
66		2	
67		3	
68		4	Silver Level – Silver Swag Top
69		5	Silver Name 1
70		6	
71		7	Gold Pick 1
72	9	0	Gold Pick 2
73		1	
74		2	
75		3	
76		4	
77		5	
78		6	
79		7	
80	10	0	
81		1	
82		2	
83		3	
84		4	
85		5	
86		6	
87		7	
88	11	0	
89		1	Gold Reserve Name 4
90		2	Gold Reserve Name 3
91		3	Gold Reserve Name 5
92		4	TT
93		5	
94		6	
95		7	

Lamp	Strobe	Data	Function
96	12	0	Gold Pick 4
97		1	Gold Pick 5
98		2	
99		3	
100		4	
101		5	
102		6	
103		7	
104	13	0	Gold Pick 3
105		1	Gold Pick 6
106		2	Gold Swag – Gold Series
107		3	Gold Swag – Jackpot 2
108		4	Gold Swag – 4 Steps
109		5	Gold Swag – Bank Roll
110		6	Gold Reserve – Win 4
111		7	Gold Swag – Jackpot 1
112	14	0	
113		1	
114		2	
115		3	
116		4	
117		5	
118		6	
119		7	
120	15	0	
121		1	
122		2	
123		3	
124		4	
125		5	
126		6	
127		7	
128	0	8	9 Nudges
129		9	10 Nudges
130		10	Spot Light – Captured
131		11	Bronze Swag – 3 Nudges
132		12	Bronze Swag – Step To Win
133		13	Bronze Swag – 2 Steps
134		14	Bronze Swag – 6 Nudges
135		15	Bronze Swag – 3 Steps
136	1	8	8 Nudges
137		9	Spot Light – Run Around
138		10	Bronze Swag – Pick A Win
139		11	Bronze Swag – Bronze Series
140		12	Silver Swag – Double Money
141		13	Silver Swag – Money Grabber
142		14	Silver Swag – Silver Series
143		15	

Lamp	Strobe	Data	Function
144	2	8	7 Nudges
145		9	Spot Light – Short Cut
146		10	Bronze Swag – Cherry
147		11	Bronze Pick Button
148		12	Bronze Swag – Orange
149		13	Silver Swag – Orange
150		14	Silver Pick Button
151		15	Silver Swag – Grape
152	3	8	6 Nudges
153		9	Spot Light – Spotter
154		10	Bronze Pick 2
155		11	Bronze Pick 3
156		12	Bronze Pick 6
157		13	Silver Pick 2
158		14	Silver Pick 3
159		15	Silver Pick 6
160	4	8	5 Nudges
161		9	Spot Light – Shot At
162		10	Bronze Pick 1
163		11	Bronze Pick 4
164		12	Bronze Pick 5
165		13	Silver Pick 1
166		14	Silver Pick 4
167		15	Silver Pick 5
168	5	8	4 Nudges
169		9	Spot Light – Bank Bonus
170		10	Bronze Level – Bronze Swag
171		11	Bronze Level – Spot Light
172		12	Bronze Level – Short Cut
173		13	Silver Level – Silver Pick
174		14	Silver Level – Silver Swag
175		15	Silver Level – Run Around
176	6	8	3 Nudges
177		9	Spot Light – Boost
178		10	Bronze Level – Bronze Pick
179		11	Bronze Level – Bronze Pick
180		12	Silver Level – Spot Light
181		13	Silver Level – Spot Light
182		14	
183		15	Gold Swag – 9 Nudges
184	7	8	2 Nudges
185		9	Spot Light – Repeat Chance
186		10	Bronze Level – Spot Light
187		11	Bronze Name 2
188		12	Bronze Level – Bronze Swag
189		13	Silver Level – Silver Swag
190		14	Silver Name 2
191		15	Silver Level – Silver Pick

Lamp	Strobe	Data	Function
192	8	0	1 Nudge
193		8	Trail 7
194		9	Swag Bags 2
195		10	Bronze Level – Run Around
196		11	Bronze Name 1
197		12	Bronze Level – Spot Light
198		13	Silver Level – Silver Pick
199		15	
200		9	8
201	9		Swag Bags 1
202	10		Bronze Level – Bronze Pick
203	11		Bronze Level – Bronze Swag
204	12		Bronze Level – Run Around
205	13		Lo
206	14		Silver Level – Spot Light
207	15		Silver Level – Run Around
208	10	8	Trail 5
209		9	Trail 4 Bonus
210		10	Bonus – Respin
211		11	Bonus – Skill
212		12	Bonus – Spotter
213		13	Bonus – Advance
214		14	Bonus – Selector
215		15	MDM Winner
216	11	8	Gold Level – Gold Pick
217		9	Gold Level – Run Around
218		10	Gold Level – Spot Light
219		11	Hi
220		12	Gold Reserve Name 2
221		13	Gold Reserve Name 1
222		14	
223		15	
224	12	8	Gold Level – Gold Pick
225		9	Gold Name 1
226		10	Gold Level – Gold Swag
227		11	Gold Level – Gold Swag
228		12	Gold Level – Short Cut
229		13	Gold Name 2
230		14	Gold Level – Spot Light
231		15	Silver Level – Short Cut
232	13	8	Gold Reserve – Win 1
233		9	Gold Reserve – Stop 1
234		10	Gold Reserve – Win 2
235		11	Gold Reserve – Stop 2
236		12	Gold Reserve – Win 3
237		13	Gold Reserve – Stop 3
238		14	Gold Pick Button
239		15	Coin Reject Lamp

Lamp	Strobe	Data	Function
240	14	8	Bottom Glass Name 1
241		9	Bottom Glass Name 2
242		10	Bottom Glass Name 3
243		11	Bottom Glass Name 4
244		12	Bottom Glass Name 5
245		13	Bottom Glass Name 6
246		14	Bottom Glass Name 7
247		15	Bottom Glass Name 8
248	15	8	
249		9	
250		10	
251		11	
252		12	
253		13	
254		14	
255		15	

Switch Matrix

Switch	Strobe	Data	Function	Strobe wire colour	Data wire colour
1	1	0	Cancel	Orange/white	Orange/Black
2		1	Hold		Orange/Brown
3		2	Hold/Hi		Orange/Red
4		3	Hold/Lo		Orange/Yellow
5		4	Take Feature		Orange/Green
6	2	0	Take win	Orange/white	Orange/Black
7		1			Orange/Brown
8		2	Start		Orange/Red
9		3	Change number		Orange/Yellow
10		4			Orange/Green
11	3	0	Front door	Orange/white	Orange/Black
12		1	Back door		Orange/Brown
13		2	Refill		Orange/Red
14		3	Token/cash		Orange/Yellow
15		4			Orange/Green
16	4	0	£ 1 tube low	Orange/blue	Orange/Black
17		1	20p tube low		Orange/Brown
18		2	Token front low		Orange/Red
19		3	Token rear low		Orange/Yellow
20		4			Orange/Green
26	6	0	%Key 1	Orange/White	Orange/Black
27		1	%Key 2		Orange/Brown
28		2	% Key 3		Orange/Red
29		3	% Key 4		Orange/Yellow
31	7	0	£ 1 tube high	Orange/violet	Orange/Black
32		1	20p tube high		Orange/Brown
33		2	Tok front high		Orange/Red
34		3	Tok rear high		Orange/Yellow

MPU Connections

Plug A 13 Way		Power supply
Pin	Function	
1	+12V unregulated	
2	+12V unregulated	
3	+12V unregulated	
4	Polarised	
5	50V ac common	
6	55V dc	
7	+12V validator	
8	Ground	
9	Ground	
10	Ground	
11	55V dc	
12	50V ac	
13	12v unsmoothed	

Plug B 9 Way		Payslides
Pin	Function	
1	Triac 4 (blue)	
2	Triac 3 (green)	
3	Polarised	
4	Triac 2 (pink)	
5	Triac 1*	
6	Not used	
7	Not used	
8	50V ac common *	
9	50v ac (orange)	

Plug D. 6 Way		Alphanumeric
Pin	Function	
1	+12V	
2	Clock	
3	Polarised	
4	Data	
5	Reset	
6	Ground	

Plug F. Reel mech. drives 8Way		Plug G. reel mech. drives 8Way		Plug H Reel mech. drives 8Way	
Pin	Function	Pin	Function	Pin	Function
1	Phase 0	1	Phase 0	1	Phase 0
2	Polarised	2	Phase 1	2	Phase 1
3	Phase 1	3	Polarised	3	Phase 2
4	Phase 2	4	Phase 2	4	Polarised
5	Phase 3	5	Phase 3	5	Phase 3
6	+12V	6	+12V	6	+12V
7	+12V	7	+12V	7	+12V
8	+12V	8	+12V	8	+12V

Plug J. Reel mech. drives 8Way		Plug K. reel mech. drives 8Way		Plug L Reel mech. drives 8Way	
Pin	Function	Pin	Function	Pin	Function
1	Phase 0	1	Phase 0	1	Phase 0
2	Phase 1	2	Phase 1	2	Phase 1
3	Phase 2	3	Phase 2	3	Phase 2
4	Phase 3	4	Phase 3	4	Phase 3
5	Polarised	5	+12V	5	+12V
6	+12V	6	Polarised	6	+12V
7	+12V	7	+12V	7	Polarised
8	+12V	8	+12V	8	+12V

Plug N Coin Validator 15Way	
Pin	Function
1	Coin 5 input
2	Coin 1 inhibit
3	Coin 2 inhibit
4	Coin 3 inhibit
5	Ground
6	+12V
7	Coin 4 inhibit
8	Coin 4 input
9	Polarised
10	Coin 3 input
11	Coin 2 input
12	Polarised
13	Coin 1 input
14	+12V
15	Coin 5 inhibit

Plug O Aux. Outputs 7 Way ME129 Seperator	
Pin	Function
1	+12v (Not used)
2	0v (Black)
3	Output 1 (Gn/Org)
4	Output 2 (Gn/Blu)
5	Polarised
6	Output 3 (Gn/Vi)
7	Output 4 (Gn/Grey)

Plug P	
Reel Mech. lamps	
10Way	
Pin	Function
1	Lamp data 0
2	Lamp data 1
3	Lamp data 2
4	Lamp data 3
5	Lamp data 4
6	Lamp data 5
7	Polarised
8	Lamp strobe 3
9	Lamp strobe 4
10	Lamp strobe 5

Plug Q	
Meters	
11Way	
Pin	Function
1	+12V
2	Meter 0
3	Meter 1
4	Meter 2
5	Meter 3*
6	Meter 4*
7	Meter 5*
8	Meter 6*
9	Polarised
10	Polarised
11	Meter 7*

Plug S	
Reel Mech. Inputs	
10Way	
Pin	Function
1	+5V
2	Ground
3	Polarised
4	Data 1
5	Data 2
6	Data 3
7	Data 4
8	Data 5
9	Polarised
10	Data 6

Plug T	
Switch Matrix	
16 Way	
Pin	Function
1	Data 1
2	Data 2
3	Data 3
4	Data 4
5	Data 5
6	-
7	-
8	Polarised
9	Strobe 1
10	Strobe 2
11	Polarised
12	Strobe 3
13	Strobe 4
14	Strobe 5
15	Strobe 6
16	Strobe 7

Plug V	
Audio output	
6Way	
Pin	Function
1	Audio out
2	Ground
3	Ground
4	+12V
5	Polarised
6	Audio In

MPU Connections

Plug W 17 way		Lamp Matrix		Plug X 17 way		Lamp Matrix	
Pin		Function		Pin		Function	
1		Data 8		1		Data 0	
2		Polarised		2		Data 1	
3		Data 9		3		Data 2	
4		Data 10		4		Data 3	
5		Data 11		5		Data 4	
6		Data 12		6		Data 5	
7		Data 13		7		Data 6	
8		Data 14		8		Data 7	
9		Data 15		9		Strobe 0	
10		Strobe 8		10		Strobe 1	
11		Strobe 9		11		Strobe 2	
12		Strobe 10		12		Strobe 3	
13		Strobe 11		13		Strobe 4	
14		Strobe 12		14		Strobe 5	
15		Strobe 13		15		Polarised	
16		Strobe 14		16		Strobe 6	
17		Strobe 15		17		Strobe 7	

Power Supply fuse specification.

Voltage	Fuse	Supplies
220/240V AC	Anti-surge 5A	Transformer input
12V DC	Quick Blow 3.15A	Coin Validator
12V DC	Quick Blow 10A	MPU
12V DC	Quick Blow 10A	Reel Mechanism
12V DC	Quick Blow 10A	Display
55V DC	Quick Blow 6.3A	Lamps
50V AC	Quick Blow 5A	Payslides