

## The Mob

(MPU4, set 1)

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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 $220 \mathrm{v} / 240 \mathrm{v}$ at a frequency of 50 Hz .

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 3 Amps should be fitted to the supply cable. The supply cable should not exceed a length of 2 metres.

## Parts list

The Mob is designed to fit the Barcrest Genesis base.
If the kit is to be fitted on a machine then additional parts may be required depending on the base machine. Please see the criteria stated in CONVERSION INSTRUCTIONS on page 6.

On receipt of your kit please check the content against the following list, and notify our Spares Department immediately of any shortages on 01222377402.

| Part | Part number |
| :---: | :---: |
| Top Glass | AT 1008 |
| Reel Glass | AL 1008 |
| Reel Band 1 | AR 1027 |
| Reel Band 2 | AR 1028 |
| Reel Band 3 | AR 1029 |
| Reel band 4 | AR 1030 |
| Button Legends x 11 | AB 1005 |
| £5 Cash disclaimer | AD 1132 |
| £15 cash disclaimer | AD 1133 |
| 5p £15 stake/prize decal | AD 1134 |
| $5 \mathrm{p} £ 5$ stake /prize decal | AD 1135 |
| 10p $£ 15$ stake /prize decal | AD 1136 |
| 10p $£ 5$ stake/prize decal | AD 1137 |
| 20p £15 stake/prize decal | AD 1138 |
| 20p $£ 5$ stake/prize decal | AD 1139 |
| 25p £15 stake/prize decal | AD 1140 |
| 30p £15 stake/prize decal | AD 1141 |
| 20p $£ 5+$ rep chance award decal | AD 1142 |
| 20/25/30p £15 award decal | AD 1143 |
| 5p/10p £15 award decal | AD 1144 |
| 5/10p $£ 5$ award decal | AD 1145 |
| $3 \times$ RPB assembly complete |  |
| Top Vacuum Form loomed |  |
| Reel glass vacuum form loomed |  |
| Switch matrix loom |  |
| Game EPROM x 1 |  |
| Sound EPROM's x 3 |  |
| Game manual |  |
| Switch settings sticker |  |
| Hopper Procedure sticker |  |

## The Mob Game Information

## General

The Mob is a 4-reel AWP machine for the UK single site / arcade market.

## Game Description

Wins are achieved by lining up matching symbols on all 3 reels with the help of holds and nudges. All wins may be gambled up to the jackpot and can be exchanged for the main feature. Lining up 3 cars on the winline will award the main feature.

Once the feature has been achieved the reels will respin and nudges, cash and features will be added. The player may collect cash, nudge or feature columns at any time or press the start button to spin the feature reel and move around the board to try to improve his win. Extra cash, nudges and features will be added when the player lands on an appropriate square. In addition he may also land on a Hired Hand or Weapon square which will award an extra weapon or hired hand. Matching a Hired hand with his preferred Weapon will award the player a bonus feature. Landing on the getaway car will allow the player to use his skill to stop on a position on the board. If the player lands on the "Meet the Mob" squares he may be awarded a bonus or be thrown off the board. If the player lands on the "Lightning Raid" square he will move around the board collecting prizes as he goes.

On the 5p and 10p versions low wins will award the "Bonus Arrow" feature. The player will be awarded 1, 2 or 3 arrows, which will spin around on the bonus arrows, stopping when he presses the start button. If any light stops on the $£ 1$ arrow, the player will be awarded $£ 1$, otherwise he will lose.

Features
Features on "The Mob" are as follows:

Bonus features: -
BIG MONEY The player will be awarded a big win.
BIG REPEATER
REEL STEPPER
WIN STREAK

JACKPOT
SUPER JACKPOT

WIN SPINNER
NEAREST WIN
CASH CLIMB
SKILL STEPPA The player must use his skill to stop the feature reel on a high number. This number of steps will then be transferred at random to the cash, nudge and number of steps will then be transferred at random to the cash, nudge and
feature columns. The player can then select the column offering the best win.
NUDGE PICKER The reels will spin to random positions offering a random number of nudges witch can be collected or rejected to try for a higher win.
CASH LINK Random awards will be lit, the player then has 3 climb chances to link up unlit fruits. The highest link position will be awarded.
SKILL CLIMB The player will be awarded a cherry win and can climb up the awards by completing the name "SKILL".
BANKROLL The reels will spin continuously allowing the player to skilfully stop them on a high award.
WIN SERIES The reels will spin to a winning combination and the prize will be paid, the player then has a possible chance of spinning to another win. This will continue for a random number of wins.
SUPER JACKPOT This will award the jackpot with a possible repeat into the next game.
The reels will spin to and pay a random winning combination. The reels will step to and pay the nearest winning combination. The player will be awarded a cherry win with 3 climb chances to improve his win. If successful he will be awarded a further 3 chances.

SKILL CLIMB

The player will be awarded a big win with a possible repeat into the next game.
The player must skilfully stop the feature reel on a high number, this number will then be transferred to the cash column, paying the top prize lit.
The reels will spin to a winning combination and the prize will be paid, the player then has apossible chance of spinning to another win. This will continue for a random number of wins.
This will award the jackpot.
This will award the jackpot with a possible repeat into the next game.

Meet the Mob features-:
Repeat Chance The player will be awarded a possible chance of being awarded another feature in the next game.
Extra Life The player cannot lose whilst this lamp is lit.
Hired Hand
Kiss Of Death
Weapon
Informer
Lightning Raid

The player will be awarded a hired hand.
The player will be thrown out of the game.
The player will be awarded an extra weapon.
If the player is found to be an informer he will be thrown out of the game.
The player will whiz around the board collecting prizes as he goes.

## Conversion instructions.

First the base machine should reach certain criteria.
These criteria are

1) The machine must have a pre Low Voltage Directive power supply and hopper driver board fitted.
2) The machine must have four reels in the machine, three main reels and one feature $\left(4^{\text {th }}\right)$ reel.
3) An alphanumerical display must be fitted.
4) Eight large buttons on the button panel.

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

1) Disconnect and remove the reel unit and the mounting bracket.
2) Disconnect the lamp looms attached to the lamp interface board and auxiliary lamp board.
3) Remove the button switches from the button housings.
4) Remove the alphanumeric display.
5) Remove the coin entry bezel by removing the four 7 mm nuts that are mounted on the rear of the fascia.
6) Remove the three screws ( $6 \mathrm{a}, 6 \mathrm{~b}, 6 \mathrm{c}$ diag.1) from the central extrusion. Carefully slide the extrusion out towards you.
7) Once the central extrusion has been removed the reel glass should now simply be lifted out of the frame assembly.
8) Remove the three 7 mm nuts which are connected to the frame assembly ( $8 \mathrm{a}, 8 \mathrm{~b}, 8 \mathrm{c}$ diag.1). Gently push the lower half of the top glass outwards and then carefully slide the glass out from the bezel fascia. Once the glass is clear from the bezel fascia simply lift away from the frame assembly.
9) Before replacing the new glass into the framework affix the vacuum forming to the glass ensuring that it is aligned correctly. Replace glasses into the frame and secure back into the machine the same way they came out.
10) Remove the lens caps from the buttons and discard the existing button legends. Replace with legends provided. See figure 1 in the Technical Data section of the manual.
11) Reconnect button switches to the button housings.
12) Reconnect the lamp looms to the interface board and auxiliary board. See figure 4 in the Technical Data section of the manual.
13) The three circular buttons are then fitted into the top glass. Connect the feature switches
14) Fit the Sound EPROM's and the game EPROM into the program card and adjust selector links (if necessary). See figure 3.


## 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 desired position and fit the relevant decals. Run the machine through the test procedure.

## Award Structure

Located on the right hand side of the reel glass are stake and prize, and award decals that change accordingly.
For the correct decal layout relevant to the stake and prize please refer to the table below.

$$
\begin{array}{cccc}
5 / 10 \mathrm{p} £ 5 & 20 \mathrm{p} £ 5 & 5 / 10 \mathrm{p} £ 15 & \begin{array}{c}
20 / 25 / 30 \\
£ 15
\end{array}
\end{array}
$$



| $£ 5+$ repeat |
| :---: |
| $£ 5$ |
| $£ 5$ |
| $£ 5$ |
| $£ 4$ |
| $£ 3$ |
| $£ 2$ |
| $£ 1$ |


£15
£10
£8
£5
£4
£3
£2
£1

## Switch Settings

## Switch bank 1

| Switch | OFF | ON |
| :---: | :---: | :---: |
| 1 | Ram clear toggle | Ram Clear toggle |
| 2 | Enable coin alarm | Coin Alarm Inhibit |
| 3 | Wins banked | Direct Payout |
| 4 |  | Not Used |
| 5 | Not Used |  |
| 6 | Not Used |  |
| 7 | Show float with door open | Show float level with door closed |
| 8 | Multi-coin play | Single coin play |

## Switch bank 2

| Switch | Function |
| :---: | :---: |
| 1 | Stake \& Prize selection (see overleaf) |
| 2 | Stake \& Prize selection (see overleaf) |
| 3 | Stake \& Prize selection (see overleaf) |
| 4 | Not used |
| 5 | Payout percentage selection (see overleaf) |
| 6 | Payout percentage selection (see overleaf) |
| 7 | Payout percentage selection (see overleaf) |
| 8 | Payout percentage selection (see overleaf) |

## Stake, Prize and Percentage Settings.

The stake and prize can be selected via the DIL switches.
NO STAKE \& PRIZE KEY SHOULD BE FITTED

| Switch 1 | Switch 2 | Switch 3 | Outcome |
| :---: | :---: | :---: | :---: |
| OFF | OFF | OFF | $\mathbf{5 p} £ 5$ |
| ON | OFF | OFF | $\mathbf{5 p} £ 15$ |
| OFF | ON | OFF | $\mathbf{1 0 p} £ 5$ |
| ON | ON | OFF | $\mathbf{1 0 p} £ 15$ |
| OFF | OFF | ON | 20p $£ 5$ |
| ON | OFF | ON | 20P $£ 15$ |
| OFF | ON | ON | 25P $£ 15$ |
| ON | ON | ON | 30P $£ 15$ |

The percentage can be selected via the DIL switches. If a percentage key is fitted this will override the DIL switch selection. If all the switches are off then the percentage defaults to $78 \%$.

| Switch 5 | Switch 6 | Switch 7 | Switch 8 | \% |
| :---: | :---: | :---: | :---: | :---: |
| ON | OFF | OFF | OFF | $\mathbf{7 0}$ |
| OFF | ON | OFF | OFF | $\mathbf{7 2}$ |
| ON | ON | OFF | OFF | $\mathbf{7 4}$ |
| OFF | OFF | ON | OFF | $\mathbf{7 6}$ |
| ON | OFF | ON | OFF | $\mathbf{7 8}$ |
| OFF | ON | ON | OFF | $\mathbf{8 0}$ |
| ON | ON | ON | OFF | $\mathbf{8 2}$ |
| OFF | OFF | OFF | ON | $\mathbf{8 4}$ |
| ON | OFF | OFF | ON | $\mathbf{8 6}$ |
| OFF | ON | OFF | ON | $\mathbf{8 8}$ |
| ON | ON | OFF | ON | $\mathbf{9 0}$ |
| OFF | OFF | ON | ON | $\mathbf{9 2}$ |
| ON | OFF | ON | ON | $\mathbf{9 4}$ |
| OFF | ON | ON | ON | $\mathbf{9 6}$ |
| ON | ON | ON | ON | $\mathbf{9 8}$ |

## 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 top door and press the 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. The reel can also be stepped up by holding down the Cancel and HI buttons, to induce reel wins or to play the feature.

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 top door must be open and the test-button pressed twice.
Navigation.

| CANCEL COLLECT | HOLD NUDGE | HOLD NUDGE | HOLD NUDGE | HI | LO | EXCHANGE | START GAMBLE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LH1 | LH2 | LH3 | LH4 | LH5 | LH6 | LH7 | LH8 |
| RH8 | RH7 | RH6 | RH5 | RH4 | RH3 | RH2 | 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 alphanumerical display. To activate the desired test the RH2 button is then pressed. Press the RH1 once to exit that test.

| Test Number | Test procedure |
| :--- | :--- |
| 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 $£ 1$ coins when 'COIN IN DIV' is displayed

## Test 1.2 - Coin out.

Button LH1 is used to payout coins. Press this button once at the time and the hopper will pay out one coin at a time and the alphanumerical display will increment with each coin being paid out. Once the coin has been paid out the hopper motor will stop.

If the LH1 button is held down for 3 seconds then all coins in the hopper will be paid out. This will initialise the hopper float level. The display will read 'FLOAT UPDATED' the '1PND HOP=***' Where ${ }^{* * *}$ is the amount.
To activate the hopper again the test must then be exited and then re-entered.

## 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 first reel symbols will be on the win line. Reels $1,2,3$ will show MDM jackpot and reel 4 will show 12 .

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 3 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.
TheRH2 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 |
| :---: | :---: |
| Test switch | Man in Car |
| Refill key | Nudge Now |
| Hopper Top up switch | 1 Nudge |
| Hopper Dump switch | 2 Nudge |

## 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.

## Test 6.1 - Meters.

Pressing the RH1 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.
It is recommended that the manual volume control is set to maximum (fully clockwise) to
allow the software to control the volume correctly.

## Test 9.1 - Keys

The display will show whether the percentage and the stake and prize is currently controlled off the DIL switches or a key. The display will then change to display the current aiming percentage, the current stake and prize and then the actual 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 RH2 button for five seconds the alarm log can be cleared.

## Alarm codes

| Code | Fault | Causes (in order of probability) |
| :--- | :--- | :--- |
| 0.1 | Ram clear/ checksum fail | Change of program, faulty battery, M.P.U |
| 0.2 | Mode change | Stake, prize or percentage changed |
| 0.3 | Manual ram clear | Dil switch 1 toggled |
| 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 | Reel 1 fault | Coin mech., coin loom, M.P.U |
| 2.1 | Reel 2 fault | Reet-up, opto, loom, motor, M.P.U |
| 2.2 | Reel 4 fault | As above |
| 2.3 | Meter error | As above |
| 2.4 | Meter 1 fault | More than 1 meter disconnected |
| 6.0 | Meter 2 | Meter1 faulty |
| 6.1 | Meter 3 | " |
| 6.2 | Meter 4 | " |
| 6.3 | Meter 5 | " |
| 6.4 | E.D.C failure | Dataport unit not fitted, M.P.U, no -12v |
| 6.5 | Incorrect switch settings | Adjust switch settings, faulty MPU |
| 7.1 | Faulty processor | Faulty MPU, programme card |
| 9.1 | Jam,Hopper not connected,faulty |  |
| $9.2-9.8$ | opto,No18.5vAC,PSU |  |
| HOPPER ERROR |  |  |

## Technical Data

## Machine Description

## Cabinet

| Cabinet name: | Genesis |
| :--- | :--- |
| Manufacturer: | Barcrest |
| Technology: | MPU4 |
| Height: | 1680 mm |
| Width: | 680 mm |
| Depth: | 650 mm |
| Weight: | 120 Kg (approx.) |

## Coin H andling

## Routing

Depending on which coin validator and loom is fitted in the machine the routing plug configuration is different. The pins are identified with the notch of the routing plug facing downward and the wire links facing you.
The sorter over-ride connector pins are identified with the wire facing towards you.


PINS

2 THROUGH TO 18


PINS
1 THROUGH TO 17

| Coin Validator Type | Way | Routing | Sorter Over-ride |
| :--- | :--- | :--- | :--- |
| Me126 Parallel | 18 | Pin 3 to Pin 11 of AUX 2 of <br> MPU. Links 5+6, 7+14, 8+13, <br> 15+18 (or 15+11) | NONE |
| Me126 CashFlow Binary | 22 | Pin1 to Pin 2 of AUX 2 Links <br> $11+13,14+20$ | Pin 8 White/Brown to Pin 11 <br> of AUX2 |
| Coin Controls C435 Binary | 18 | Pin 1 to Pin 3 of AUX 2, Links <br> $7+8,7+13,15+18$ | Pin 1 Red to Pin 2 of AUX2 <br> Pin 9 white/brown to Pin 11 <br> of AUX2 <br> Pin 10 Brown to Pin 1 of <br> AUX 2 |

## Hopper

This machine is a round pound payout machine fitted with a Coin Controls Compact $£ 1$ hopper. When the machine pays out, the coin is passed through an opto sensor, breaking the beam. With each break of the beam the machine recognises that a coin has been paid out.

## Hopper Level

The float level of the machine is dependant on the price of play see table below:
Price of Play
5p
10p
Hopper float level
£75
£100
20,25,30p
£125

## Manually refilling the hopper

1) With the machine on, insert and turn the refill key.
2) Open the top door and place the relevant amount into the $£ 1$ hopper.
3) Press the HOPPER TOP UP button, a beep will be heard and the alphanumerical display will show "HOPPER FULL".
4) Remove the refill key and close the top door. The hopper is now correctly topped up.

## Refilling via the coin validator.

1) With the machine on and both doors closed, insert and turn the refill key.
2) The alphanumerical display will show " $\mathrm{R}=* * *$ " (where ${ }^{* * *}$ is the amount refilled).
3) Put the $£ 1$ coins through the coin validator to the required float level. The minimum float level should be no less than $£ 30$. Once the hopper is full the $£ 1$ coins will be locked out.

Hopper dump procedure.

1) Open the outer and inner cash box doors.
2) Insert and turn the refill key.
3) Press the HOPPER DUMP button, a beep will be heard and the alphanumerical will show "HOPPER DUMP" and the START button will be flashing.
4) Pressing the START button will payout all the $£ 1$ coins in the hopper.
5) If there is LESS than the float level in the hopper the display will read "SHORT BY ***" (where the ${ }^{* * *}$ is the amount).
6) If there is MORE than the float level in the hopper, then the float level will paid out and the display will read "DEFLOAT EXCESS".
7) Pressing the START button again will continue to pay out the excess in the hopper. EXCESS = *** will be displayed.

To check the float level in all cases open one of the doors, insert and turn the refill key. The display will read " $\mathrm{F}=* * *$ " where $* * *$ is the amount in $£ 1$ coins.

## Meters

$2 \times 12 \mathrm{vDC}$
1 x 48 v AC or 1 x 12 v DC for refill

## Software Meters (electronic)

In all there are 50 meters, but there are useful meters that have been incorporated for the operators benefit. These are Cash in, Cash out, Games played, and Cash refilled. For the desired meter refer to the table below.
To access the software meters open the top door and press the 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 third Hold/Nudge button, to display the previous meter press the first Hold button.
To clear the meters, press and hold the Start button. A countdown sequence will be initiated and can be aborted by releasing the Start button. Once the countdown reaches zero the meters will be cleared.


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 s

## Motor alignment

Put the machine into reel test (test 2.1). This will spin the reels showing the first symbols on the reel band in the win line.
A pointer moulded into the reel drum should line up with a pointer on the side of the frame with the exception of the fourth reel. Any miss-alignment can be adjusted by slackening off the motor mounting screws and rotating the motor.

## Reel Band Placement

Place the notched reel band on to the notch on the reel drum and rotate. When fully rotated remove the double-sided tape on the bottom edge of the reel band and affix to the top edge of the reel band.

## Reel band Layout



## Button Layout

Figure $1 \quad$ 8-way button panel


Figure 3 Program Card and EPROM location


A = Game EPROM
B = Sound EPROM 3
C = Sound EPROM 2
D = Sound EPROM 1
$\mathrm{E}=$ Manual volume control

## Connections

Figure 4 Lamp interface board.


Figure 5 Auxiliary lamp board.


From MPU

Lamp Allocation

| Lamp | Blue Pin | Green Pin | Position |
| :---: | :---: | :---: | :---: |
| 0 | 9 | 1 | Reel 1 top |
| 1 |  | 2 | Reel 2 top |
| 2 |  | 3 | Reel 3 Top |
| 3 |  | 4 |  |
| 4 |  | 5 | Lose |
| 5 |  | 6 | Cherry 1 award |
| 6 |  | 8 | Cherry 2 award decal |
| 8 | 8 | 1 | Reel 1 middle |
| 9 |  | 2 | Reel 2 middle |
| 10 |  | 3 | Reel 3 middle |
| 11 |  | 4 | Feature 2 any 3 cars |
| 12 |  | 5 | Nudge Now |
| 13 |  | 6 | Lemon 1 award |
| 14 |  | 8 | Lemon 2 award decal |
| 15 |  | 9 |  |
| 16 | 7 | 1 | Reel 3 bottom |
| 17 |  | 2 | Reel 3 bottom |
| 18 |  | 3 | Reel 3 bottom |
| 19 |  | 4 | Feature 1 award any 3 cars |
| 20 |  | 5 | 1 nudge |
| 21 |  | 6 | Plum 1 award |
| 22 |  | 8 | Plum 2 award decal |
| 23 |  | 9 | Awards below $£ 1$ give... |
| 24 | 5 | 0 | Cancel button |
| 25 |  | 1 | Hold Nudge 1 button |
| 26 |  | 2 | Hold Nudge 2 button |
| 27 |  | 3 | MDM Winner |
| 28 |  | 4 | 2 nudges |
| 29 |  | 5 | Orange 1 award |
| 30 |  | 8 | Orange 2 award decal |
| 31 |  | 9 | Arrow 2 secret |
| 32 | 4 | 0 | Hold Nudge 3 button |
| 33 |  | 1 | HI button |
| 34 |  | 2 | LO button |
| 35 |  | 3 | Jackpot 1 stake \& prize decal |
| 36 |  | 4 | 3 nudges |
| 37 |  | 5 | Grape 1 award |
| 38 |  | 6 | Grape 2 award decal |
| 39 |  | 8 | Arrow 3 secret |
| 40 | 3 | 0 | Exchange button |
| 41 |  | 1 | Start/Gamble button |
| 43 |  | 2 | Lamp not utilised |
| 42 |  | 3 | Take cash button |
| 44 |  | 5 | 4 nudges |
| 45 |  | 6 | Bell 1 award |
| 46 |  | 7 | Bell 2 award decal |
| 47 |  | 8 | Arrow 1 secret |
| 48 | 2 | 1 | Take feature button |
| 49 |  | 2 | Take nudge button |
| 50 |  | 3 |  |
| 51 |  | 4 | Jackpot 3 stake \& prize decal |
| 52 |  | 5 |  |
| 53 |  | 6 | Melon 1 award |
| 54 |  | 8 | Melon 1 award decal |
| 55 |  | 9 | Arrow 4 secret |


| Lamp | Blue pin | Green pin | Position |
| :---: | :---: | :---: | :---: |
| 56 | 1 | 1 |  |
| 57 |  | 2 |  |
| 59 |  |  | Jackpot 4 stake \& prize decal |
| 60 |  | 5 |  |
| 61 |  | 6 | Jackpot 1 award |
| 62 |  | 8 | Jackpot 2 award decal |
| 63 |  | 9 | Arrow $5 £ 1$ secret |
| 64 | 17 | 10 | Weapon |
| 65 |  | 11 | Gun |
| 66 |  | 12 | TNT |
| 67 |  | 13 | Razor |
| 68 |  | 14 | Rope |
| 69 |  | 15 | Poison |
| 70 |  | 16 | knife |
| 71 |  | 17 | Extra Life secret |
| 72 | 16 | 10 |  |
| 73 |  | 11 | Super jackpot |
| 74 |  | 12 | Jackpot |
| 75 |  | 13 | Win streak |
| 76 |  | 14 | Step |
| 77 |  | 15 | Repeat |
| 78 |  | 16 | Big money |
| 79 |  | 17 |  |
| 80 | 15 | 10 | Hired Hand heading |
| 81 |  | 11 | Bugsy |
| 82 |  | 12 | Barney |
| 83 |  | 13 | Scar face |
| 84 |  | 14 | Ronnie |
| 85 |  | 15 | Paulie |
| 86 |  | 16 | Mack |
| 87 |  | 17 | Meet the Mob |
| 88 | 14 | 10 | Kiss of death secret |
| 89 |  | 11 | Repeat chance secret |
| 90 |  | 12 | Hired Hand secret |
| 91 |  | 13 | Lightning Raid secret |
| 92 |  | 14 | Informer secret |
| 93 |  | 15 | Weapon secret |
| 94 |  | 16 | Getaway Car bottom left |
| 95 |  | 17 | Meet the Mob right |
| 96 | 13 | 10 | Getaway Car top right |
| 97 |  | 11 | Nudge +2 board right |
| 98 |  | 12 | Cash +2 board right |
| 99 |  | 13 | Weapon box board right |
| 100 |  | 14 | Feature +2 board right |
| 101 |  | 15 | Nudge +2 right |
| 102 |  | 16 | Cash +1 right |
| 103 |  | 17 | Feature +2 right |
| 104 | 12 | 10 | 7 nudge trail |
| 105 |  | 11 | 6 nudge trail |
| 106 |  | 12 | 5 nudge trail |
| 107 |  | 13 | 4 nudge trail |
| 108 |  | 14 | 2 nudge trail |
| 109 |  | 15 | 3 nudge trail |
| 110 |  | 16 | 1 nudge trail |
| 111 |  | 17 | Win spinner |


| Lamp | Blue pin | Green pin | Position |
| :---: | :---: | :---: | :---: |
| $\mathbf{1 1 2}$ | $\mathbf{1 1}$ | $\mathbf{1 0}$ | $\mathbf{1 0}$ nudge trail |
| 113 |  | 11 | 8 nudge trail |
| 114 |  | 12 | Super jackpot |
| 115 |  | 13 | Bell |
| 116 |  | 14 | Grape |
| 117 |  | 15 | Orange |
| 118 |  | 16 | Cherry |
| 119 |  | 17 | Cash climb |
| $\mathbf{1 2 0}$ | $\mathbf{1 0}$ | $\mathbf{1 0}$ | 99 nudge trail |
| 121 |  | 11 | 16 nudge trail |
| 122 |  | 12 | Jackpot |
| 123 |  | 13 | Melon |
| 124 |  | 14 | Plum |
| 125 |  | 15 | Lemon |
| 126 |  | 16 | Skill Steppa |
| 127 |  | 17 | Nearest win |

## Auxiliary Lamp Allocations

| Lamp | Blue Pin | Green Pin | Position |
| :---: | :---: | :---: | :---: |
| 129 | 9 | 11 |  |
| $\begin{aligned} & 144 \\ & 145 \\ & \hline \end{aligned}$ | 7 | 10 | Lose feature board top Hired Hand Board top |
| 160 | 4 | 10 | Feature +1 board top |
| $\begin{aligned} & \hline \mathbf{1 6 8} \\ & 169 \end{aligned}$ | 3 | $\begin{aligned} & \hline \mathbf{1 0} \\ & 11 \end{aligned}$ | Name 4 <br> Name 5 number plate |
| $\begin{aligned} & \hline \mathbf{1 7 6} \\ & 177 \\ & \hline \end{aligned}$ | 2 | $\begin{aligned} & \hline \mathbf{1 0} \\ & 11 \end{aligned}$ | Win series Bank roll |
| $\begin{aligned} & \hline \mathbf{1 8 4} \\ & 185 \end{aligned}$ | 1 | $\begin{aligned} & \hline \mathbf{1 0} \\ & 11 \end{aligned}$ | Feature reel |
| $\begin{aligned} & 193 \\ & 194 \\ & 195 \\ & 196 \\ & 197 \end{aligned}$ | 9 | $\begin{aligned} & 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \end{aligned}$ |  |
| $\begin{aligned} & 200 \\ & 203 \end{aligned}$ | 8 | $\begin{aligned} & 1 \\ & 4 \end{aligned}$ |  |
| $\begin{aligned} & 208 \\ & 209 \\ & 210 \\ & 211 \\ & 212 \\ & 213 \end{aligned}$ | 7 | $\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \end{aligned}$ | Lose board left Nudge +1 board left Feature +2 board left Meet the Mob board top Raid board top Nudge+1 board top |
| $\begin{aligned} & 216 \\ & 217 \\ & 218 \\ & 219 \\ & 220 \\ & 221 \end{aligned}$ | 5 | $\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \end{aligned}$ | Meet the Mob board left Cash +1 board left Nudge +2 board left <br> Name 8 <br> Name 9 <br> Name 10 |
| $\begin{aligned} & 224 \\ & 225 \\ & 226 \\ & 227 \\ & 228 \\ & 229 \end{aligned}$ | 4 | $\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \end{aligned}$ | Weapon box board left Feature 1 board left Getaway board bottom left Hi <br> Meet the mob board top Cash +2 board top |
| $\begin{aligned} & 232 \\ & 233 \\ & 234 \\ & 235 \\ & 236 \\ & 237 \end{aligned}$ | 3 | $\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \end{aligned}$ | Meet the Mob board Hired Hand board Nudge+1 board Skill climb Cash link Nudge picker |
| $\begin{aligned} & 240 \\ & 241 \\ & 242 \\ & 243 \\ & 244 \\ & 245 \\ & 246 \end{aligned}$ | 2 | $\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \\ & 7 \end{aligned}$ | Name 6 left headlight Name 7 <br> Getaway car top left Name 1 Lo Super jackpot |
| $\begin{aligned} & 248 \\ & 249 \\ & 250 \\ & 251 \\ & 252 \end{aligned}$ | 1 | $\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 5 \end{aligned}$ | Feature +1 board bottom Nudge +2 board bottom Cash +3 board bottom Lose nudges board bottom Start feature board |

## MPU Connections

| 11 Way | White -Triac Drives |
| :---: | :---: |
| Pin | Function |
| 1 | 48 v AC |
| 2 | 0 v |
| 3 | Solenoid diverter |
| 4 | Not used |
| 5 | Not used |
| 6 | Not used |
| 7 | Not used |
| 8 | Not used |
| 9 | Not used |
| 10 | Not used |
| 11 | Refill meter |


| 11 Way | Blue - Power Out |
| :---: | :---: |
| Pin | Function |
| 1 | 48 v AC |
| 2 | 0 v |
| 3 | Audio output |
| 4 | 0 v |
| 5 | 0 v |
| 6 | 0 v |
| 7 | +12 v DC supply |
| 8 | Key |
| 9 | -12 v DC supply |
| 10 | +34 v DC supply |
| 11 | Aerial |


| 19 Way | Orange-switches |
| :---: | :---: |
| Pin No | Function |
| 1 | Float Switch |
| 2 | 20p level sense |
| 3 | £1 level sense |
| 4 | Hopper dump switch |
| 5 | Not used |
| 6 | Stake |
| 7 | Stake |
| 8 | Stake |
| 9 | Jackpot select |
| 10 | Jackpot select |
| 11 | Jackpot select |
| 12 | Jackpot select |
| 13 | $\%$ key pin 4 |
| 14 | Key |
| 15 | \% key pin 3 |
| 16 | \% key pin 2 |
| 17 | \% Key pin 1 |
| 18 | Enable pins 1-8 |
| 19 | Enable pins 9-17 |


| 19 Way | Black-Switches |
| :---: | :---: |
| Pin No | Function |
| 1 | Not used |
| 2 | Not used |
| 3 | Not used |
| 4 | Not used |
| 5 | Not used |
| 6 | Test switch |
| 7 | Refill key switch |
| 8 | Door switches |
| 9 | Cancel/Take |
| 10 | Hold-Nudge |
| 11 | Hold-Nudge |
| 12 | Hold-Nudge |
| 13 | HI |
| 14 | LO |
| 15 | Exchange |
| 16 | Key |
| 17 | Start |
| 18 | Enable Pins 1-8 |
| 19 | Enable pins 9-17 |


| 10 Way | Yellow -Meters |
| :---: | :---: |
| Pin | Function |
| 1 | Cash In |
| 2 | Cash Out |
| 3 | Token In |
| 4 | Token Out |
| 5 | Not used |
| 6 | Not used |
| 7 | Not used |
| 8 | Refill meter |
| 9 | Key |
| 10 | +12 v DC Common |


| 9 Way | Green - Photo |  |
| :---: | :---: | :---: |
| Pin | Function |  |
| 1 | +5v supply |  |
| 2 | LED Drive |  |
| 3 | Signal |  |
| 4 | Key |  |
| 5 | Reel D input |  |
| 6 | +12v supply |  |
| 7 | Reel C input |  |
| 8 | Reel B input |  |
| 9 | Reel A input |  |
|  |  |  |


| 15 Way | Red-Power In |
| :---: | :---: |
| Pin No | Function |
| 1 | -12v Return |
| 2 | +34 v Supply |
| 3 | +34 v Supply |
| 4 | Key |
| 5 | 48 v Return |
| 6 | -12 v supply |
| 7 | +12 v supply |
| 8 | +12 v supply |
| 9 | +12 v supply |
| 10 | +12 v return |
| 11 | +12 v return |
| 12 | +12 v return |
| 13 | +34 v return |
| 14 | +34 v return |
| 15 | 48v supply |


| 19 Way | Red-Stepper Motors |
| :---: | :---: |
| Pin No | Function |
| 1 | +12v supply |
| 2 | Reel D drive |
| 3 | Reel D drive |
| 4 | Reel D drive |
| 5 | Reel D drive |
| 6 | Reel C drive |
| 7 | Reel C drive |
| 8 | Reel C drive |
| 9 | Reel C drive |
| 10 | Reel B drive |
| 11 | Reel B drive |
| 12 | Key |
| 13 | Reel B drive |
| 14 | Reel B drive |
| 15 | Reel A drive |
| 16 | Reel A drive |
| 17 | Reel A drive |
| 18 | Reel A drive |
| 19 | +12v supply |

