

# **M.D.M LEISURE LTD.**

## **PRESENTS**

# **FIREBALL**

**A CONVERSION FOR THE FOLLOWING BARCREST MACHINES**

**ADDERS & LADDERS\*#**

**HYPER VIPER\*#**

**HOT ROD**

**ROAD HOG**

**VIVA LAS VEGAS\***

**ANDY CAPP**

**LUXOR#**

**ANDY'S GREAT ESCAPE**

**VIZ#**

**\* These machines require a sample sound card.**

# These machines require a auxiliary lamp board.

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## Introduction

Fireball is designed to fit the list of Barcrest Machines on the front page. It is available with three E.P.R.O.M versions, £8 token / £4 cash, £8 cash / £4 cash, or dedicated £10 cash all with a variable price of play.

Fireball incorporates the use of an alphanumerical display and boasts the use of a sample sound card.

On receipt of your kit please check the contents against the following list, and notify our spares department immediately of any shortages on:- 01222 377402

<u>Part List</u>	<u>Part Number</u>
1 Top Glass	AT 1000
1 Reel Glass	AL 1000
1 Set of Reel Bands ( 4 )	
Reel Band No. 1	AR 1000
Reel Band No. 2	AR 1001
Reel Band No. 3	AR 1002
Reel Band No. 4	AR 1003
1 Set of Button Legends	AB 1000
1 Set of Decals	
Disclaimer £10	AD 1000
Disclaimer £8	AD 1001
Disclaimer £4	AD 1002
Price of Play	AD 1003
Jackpot £10	AD 1004
Jackpot £8	AD 1005
Jackpot £4	AD 1006
20/25p Award	AD 1007
5/10p Award	AD 1008
20p £8 Award	AD 1009
5/10p £8 Award	AD 1010
20p £4 Award	AD 1011
5/10p £4 Award	AD 1012
1 Top Vacuum forming loomed	
1 Reel Vacuum forming loomed	
2 Sound Eproms	
1 Programme Eprom	
1 Mars Blanking Plate	

## Conversion Instructions

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

Slide payout shelf back to allow easier access to the interior of the machine.

Disconnect and remove the mars mech.

Disconnect and remove the reel unit.

Disconnect the looms attached to the plug. Break from both the top and reel glass vacuum forming.

Remove the button switches from the button housing.

Remove the alpha numeric display using either a posi driver or a 7mm (3BA) nut spinner, from the centre channel housing the two glasses.

Remove the securing screws fixing the glass frames from the machine.

Inside the machine, below the button panel are five studs securing the frame work to the button panel. Remove these which will then allow the removal of the glass housings from the machine.

Place the glass housings onto a flat surface and remove the glasses, retain all fixings to use again, discard the glasses.

Before replacing the new glass into the frame work affix the vacuum forming to the glass ensuring that it is aligned correctly. Also insert designated award decal.

Replace glasses into frame and secure back into the machine the same way they came out.

Remove the lens caps from the buttons and discard the existing button legends.

Replace with legends provided. See below the layout diagram. (Viewed from the front of the machine)

COLLECT	HOLD	HOLD	HOLD	HI	LO	EXCHANGE	START
CANCEL							

Re-connect button switches to the buttons, and re-connect the top and reel glass lamp looms to the plug break.

Place double sided tape on top and bottom edges to the reel bands.

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.



## *Dil Switch Settings*

### **Switch Bank 1**

The following outcomes occur when the switch is set in the 'ON' position

<b>Switch</b>	<b>Function</b>
1	Ram Clear
2	Coin Alarm Inhibit
3	Disable Anti Strim
4	Priority payout to 20p coin
5	Lock up if all tubes are low
6	Leave off
7	Attract mode on if in off position
8	Single Coin Play

### **Switch Bank 2**

<b>Switch</b>	<b>Function</b>
1	Price of play table ( see next page )
2	Price of play table ( see next page )
3	Jackpot Selection (Off-£ 8 token, On-£ 4 cash)
4	High Token Ratio
5	Percentage Payout Selection Table (see next page)
6	Percentage Payout Selection Table (see next page)
7	Percentage Payout Selection Table (see next page)
8	Percentage Payout Selection Table (see next page)

## Price of Play Table

### SWITCH BANK 2

*£8 Token / £4 cash, £8 cash / £4 cash versions (£5 version replaces the £4)*

<u>Switch 1</u>	<u>Switch 2</u>	<u>Outcome</u>
Off	Off	5p Play
On	Off	10p Play
Off	On	20p Play

*£10 or £15 cash version*

<u>Switch 1</u>	<u>Switch 2</u>	<u>Outcome</u>
Off	Off	5p Play
On	Off	10p Play
Off	On	20p Play
On	On	25p Play

## Percentage Payout Table

<u>Switch 5</u>	<u>Switch 6</u>	<u>Switch 7</u>	<u>Switch 8</u>	<u>%</u>
OFF	OFF	OFF	OFF	70
ON	OFF	OFF	OFF	72
OFF	ON	OFF	OFF	74
ON	ON	OFF	OFF	76
OFF	OFF	ON	OFF	78
ON	OFF	ON	OFF	80
OFF	ON	ON	OFF	82
ON	ON	ON	OFF	84
OFF	OFF	OFF	ON	86
ON	OFF	OFF	ON	88
OFF	ON	OFF	ON	90
ON	ON	OFF	ON	92
OFF	OFF	ON	ON	94
ON	OFF	ON	ON	96
OFF	ON	ON	ON	98
ON	ON	ON	ON	99

## **Inputs & Outputs**

### **Triac Drives (Male MTA white 11-way)**

<b>Pin No.</b>	<b>Function</b>
1	48v AC
2	0V
3	20p Slide
4	£ 1 Slide
5	Token Slide A
6	Token Slide B
7	Key
8	Not used
9	Lockout
10	Cash Refill Meter (if connected)
11	Token Refill

### **Misc. (Male MTA blue 11-way)**

<b>Pin No.</b>	<b>Function</b>
1	48v AC
2	0V
3	Audio Output
4	0V
5	0V
6	0V
7	+12v DC
8	Key
9	-12v DC
10	+34v DC
11	Aerial

## Switch Inputs

### Male MTA 10-way Orange

### Male MTA 19-way Black

<b>Pin No</b>	<b>Function</b>	<b>Pin No</b>	<b>Function</b>
1	20p Level	1	Not Used
2	£1 Level	2	Not Used
3	Token Level A	3	Not Used
4	Token Level B	4	Not Used
5	Not Used	5	Not Used
6	Not Used	6	Test Switch
7	Not Used	7	Refill Key Switch
8	Not Used	8	Door Switches
9	Not Used	9	Collect/Cancel
10	Not Used	10	Hold-Nudge
11	Not Used	11	Hold-Nudge
12	Not Used	12	Hold-Nudge
13	Not Used	13	HI
14	Key	14	LO
15	Not Used	15	Exchange
16	Not Used	16	Key
17	Not Used	17	Start
18	Enable Pins 1-8	18	Enable Pins 1-8
19	Enable Pins 9-17	19	Enable Pins 9-17

### Multiplexed Inputs

<b>Blue Plug</b>	<b>Green Plug</b>	<b>Lamp No</b>	<b>Function</b>
1	1	56	Token Bezel
1	2	57	Cash Bezel
3	1	40	Exchange Button
3	2	41	Start Button
4	1	32	Hold Nudge Button 3
4	2	33	HI Button
4	3	34	LO Button
5	1	24	Collect/Cancel Button
5	2	25	Hold-Nudge Button 1
5	3	26	Hold-Nudge Button 2
5	4	27	Respin
5	5	28	Super Hold
5	6	29	Skill Numbers
7	1	16	Reel A Bottom
7	2	17	Reel B Bottom
7	3	18	Reel C Bottom
7	4	19	1 ( Nudge )
7	5	20	2 ( Nudge )
7	5	21	3 ( Nudge )
8	1	8	Reel A Middle
8	2	9	Reel B Middle
8	3	10	Reel C Middle
8	4	11	Trail 1
8	5	12	Hold
8	6	13	Trail 2
8	8	14	Trail 3
9	1	0	Reel A Top
9	2	1	Reel B Top
9	3	2	Reel C Top
9	4	3	Trail 4
9	5	4	Trail 5
9	6	5	Trail 6
9	8	6	Trail 7
10	10	120	Cherry
10	11	121	Lemon
10	12	122	Plum
10	13	123	Melon
10	14	124	Bar
10	15	125	2 Bar
10	16	126	3 Bar

10	17	127	Fireball
11	10	112	Cash Attack (secret)
11	11	113	Cherry Spinner (secret)

### *Multiplexed Inputs*

11	12	114	Matrix Cash (secret)
11	13	115	LO
11	14	116	Skill Climb (secret)
11	15	117	Bargain (secret)
11	16	118	Stop a Win (secret)
11	17	119	Jackpot Repeater (secret)
12	10	104	1 Nudge
12	11	105	2 Nudges
12	12	106	3 Nudges
12	13	107	5 Nudges
12	14	108	7 Nudges
12	15	109	9 Nudges
12	16	110	12 Nudges
12	17	111	15 Nudges
13	10	96	Spin a Win Green Triangle
13	11	97	Cash Lines Green Triangle
13	12	98	Stop a Fruit Green Triangle
13	13	99	Super Cash Belt Green Triangle
13	14	100	Cash Cade Green Triangle
13	15	101	Cash Link Green Triangle
13	16	102	Win Rollover Green Triangle
13	17	103	Cash Climber Green Triangle
14	10	88	Spin a Win
14	11	89	Cash Lines
14	12	90	Stop a Fruit
14	13	91	Super Cash Belt
14	14	92	Cash Cade
14	15	93	Cash Link
14	16	94	Win Rollover
14	17	95	Cash Climber
15	10	80	Spin a Win Red Triangle
15	11	81	Cash Lines Red Triangle
15	12	82	Stop a Fruit Red Triangle
15	13	83	Super Cash Belt Red Triangle

15	14	84	Cash Cade Red Triangle
15	15	85	Cash Link Red Triangle
15	16	86	Win Rollover Red Triangle
15	17	87	Cash Climber Red Triangle

### Multiplexed Lamp Inputs.

<b>Blue Plug</b>	<b>Green Plug</b>	<b>Lamp No</b>	<b>Function</b>
16	10	72	Cherry Award
16	11	73	Mixed Bar Award
16	12	74	Lemon Award
16	13	75	Plum Award
16	14	76	Melon Award
16	15	77	Bar Award
16	16	78	2 Bar Award
16	17	79	3 Bar Award
17	10	64	Cherry
17	11	65	Mixed Bars
17	12	66	Lemon
17	13	67	Plum
17	14	68	Melon
17	15	69	Bar
17	16	70	2 Bar
17	17	71	3 Bar

### Auxiliary Lamp Driver Board

1	13	131	20p coin
1	14	132	20p coin
1	15	133	20p coin
1	16	134	20p coin
2	13	139	20p coin
2	14	140	20p coin
2	15	141	20p coin
2	16	142	50p coin
3	13	147	20p coin
3	14	148	20p coin
3	15	149	50p coin
3	16	150	50p coin
5	13	155	20p coin
5	14	156	50p coin
5	15	158	Pound coin
5	16	158	Pound coin
6	13	163	Pound coin
6	14	164	Pound coin
6	15	165	Pound coin
6	16	166	Pound coin
7	13	171	Red Triangle

7	14	172	Red Triangle
7	15	173	Red Triangle
7	16	174	Red Triangle

**General Information**

To enter test, open back door and press the test switch twice. Alternatively if you wish to enter 'DEMO' mode, open the back door and press the test button once.

The test numbers are shown on the Alpha numeric Display. These can be increased or decreased via the Hold-Nudge buttons.

Hold-Nudge 3 **INCREASES** test number  
 Hold-Nudge 1 **DECREASES** test number

Once the designated test has been reached it can then be activated via the Start button.

**Test Procedure**

<b><u>Test No</u></b>	<b><u>Test Procedure</u></b>
1	Lamp Test
2	Meter Test
3	Switch Test
4	Reel Test
5	Coin Test
6	Percentage Test
7	RS232 Test
8	Alpha Test
9	Payout Test
10	Alarm Log
11	Sound Test

## **Test 1 - Lamp Test**

On pressing the **START** button, the lights on the button panel and coin mech's will illuminate.

On pressing the **COLLECT** button the lamps will single step, and display the lamp number on the Alpha Display.

On pressing the **HOLD-NUDGE 3** it will allow to stop and start on any lamp at any one time. To bring all the lamps on again press the **EXCHANGE** button, the lamps will light in the following order.

### **Lamp Test - Lamp numbers in brackets**

**Group 1 -** Button Panel Left to Right  
Token acceptor, Cash acceptor

**Group 2 -** Reels

**Reel** 1 - TOP, MIDDLE, BOTTOM  
2 - TOP, MIDDLE, BOTTOM  
3 - TOP, MIDDLE, BOTTOM

**Group 3 -** Reel Glass

**Group 4 -** Top Glass

**CANCEL TO EXIT**

## **Test 2 - Meter Test**

On pressing the **START** button, each meter will pulse five times, in the following order:-

<b>Cash In</b>	<b>Cash Out</b>	<b>Token In</b>	<b>Token Out</b>	<b>Token Refill</b>
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Once pulsed the machine will automatically advance to test 3

\*\*\* Note that all meters operate in 10p units \*\*\*

### **Test 3 - Switch Test**

Press **START** to activate

On the press of each button, it's corresponding lamp will light and a tone will sound.

The Level sensor switches, when operated, will also light and make a sound.

20p Level sensor	<b>Lights</b>	2 Nudges
£1 Level sensor	<b>Lights</b>	1 Nudge
Front Token level sensor	<b>Lights</b>	3 Nudges
Back Token Level sensor	<b>Lights</b>	5 Nudges

The **D.I.L** Switches on the MPU will light as follows

Bank 1 - Switch 2-8- Lights -Top Glass No`s 73, 74, 75, 76, 77, 78, 79

Bank 2 - Switch 1-8- Lights -Top Glass No`s 88, 89, 90, 91, 92, 93, 94, 95

Switch 1 Bank 1 is Ram Clear **DO NOT OPERATE**

**TO EXIT THIS TEST PRESS 'START' AND 'COLLECT' SIMULTANEOUSLY**

### **Test 4 - Reel Test**

On pressing the '**START**' button, the reels will spin and bring the jackpot symbols to the win line. The appropriate win value will be displayed on the alpha display.

The reels can be stepped down via the **HOLD-NUDGE** buttons or can be stepped up if the button is held down. These wins can then be paid out by pressing the **START** button.

**CANCEL TO EXIT**

### **Test 5 - Coin Test**

Press **START** to activate test which will allow coins to be accepted.

Press **EXCHANGE** button to lock out coins.

Each coin will show it's value on the Alpha Display.

To pay coins out advance to test 9.

**CANCEL TO EXIT**

### **Test 6 - Percentage Test**

On pressing the **START** button the aiming percentage and the actual percentage will be displayed on the alpha. These will continue to scroll until such time the **START** button is depressed.

### **Test 7 - RS232 Test**

If the RS232 Data Port is not present the Alpha will display **FAIL**

**THIS TEST WILL AUTOMATICALLY ADVANCE TO TEST 8**

### **Test 8 - Alpha Test**

On pressing the **START** button each segment will light from left to right.

**THIS TEST WILL AUTOMATICALLY ADVANCE TO TEST 9**

### **Test 9 - Payout Test**

Press **START** to activate.

On pressing the lit buttons in the mech. will pulse. To continually pulse keep the buttons depressed.

Hold-Nudge 1 - 20p Coin

Hold-Nudge 2 - £1 Coin

Hold-Nudge 3 - Token 2

HI - Token 1

**CANCEL TO EXIT**

### **Test 10 - Alarm Log**

On pressing the **START** button the Alarm Log number will be shown on the left hand side of the display, the alarm number on the right.

On pressing **HOLD-NUDGE 3** you can advance the log number

On pressing **HOLD-NUDGE 1** you can decrease the log number.

On pressing the **EXCHANGE** button you can clear the Alarm Log.

## Alarm Codes

<b>Code</b>	<b>Fault</b>	<b>Causes (in order of probability)</b>
0.1	Checksum Fail	Faulty Battery, Change of Program
0.2	Mode Change	Price of Play Change
0.3	Manual Ram Clear	D.I.L Switch 1 Operated
0.8	Door has previously been opened	
0.9	Door has previously been closed	
1.1	£1 Coin Input	Coin jam, Coin Mech., M.P.U
1.2	50p Coin Input	As Above
1.3	20p Coin Input	As Above
1.4	10p Coin Input	As Above
1.5	20p Token Input	As Above
1.9	Strim Alarm	Strim detected, Coin mech., Loom, M.P.U
2.1	Reel 1 Fault	Opto, Motor, Backboard, Looms, Main Board
2.2	Reel 2	As Above
2.3	Reel 3	As Above
7.1	EDC Failure	EDC not fitted, Main Board
9.1	Incorrect switch settings	

**CANCEL TO EXIT**

## Test 11 - Sound Test

On pressing the **START** button the Sample number will be listed on the Alpha. To activate the sample press **START**. To increase use **HOLD-NUDGE 3**, to decrease use **HOLD-NUDGE 1**. On pressing the exchange button the machine will auto sound each sound.

**CANCEL TO EXIT**