

MDM

PRESENTS

COLOSSUS

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

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Introduction

Colossus is designed to fit the list of Barcrest Machines on the front page. It is available on 5p,10p or 20p play with the jackpot either £4 cash, £8 Tokens or £8 Cash.

The machine incorporates an Alpha Numeric Display and also boasts sample sound.

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

Part List

- 1 Top Glass
 - 1 Reel Glass
 - 1 Set of Decals (8)
 - 1 Set of Reel Bands (4)
 - 1 Top Vacuum forming loomed
 - 1 Reel Vacuum forming loomed
 - 1 Set of button legends (8 Large 2 Small)
 - 1 ME129 coin mech. Blanking plate
 - 1 Sample sound program card complete with proms
- Or if machine already has the correct program card then EPROM's only.
- 1 48VAC Meter
 - 1 Alpha Bracket

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)

CANCEL	HOLD	HOLD	HI	LO	COLLECT	START
NUDGE	NUDGE	NUDGE				

Reconnect button switches to the buttons, and reconnect the top and reel glass lamp looms to the plug break.

Alpha Display

The fixing plate attached to the alpha casing needs to be placed on the bottom of the housing (this may already be the case in certain machines.) Affix the plate back onto the alpha and affix into the machine with the securing bolts on the central extrusion.

Remove existing bands and discard.

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.

Reel Band Layout

Reel 1	Reel 2	Reel 3	Reel 4
C	C	C	12
Melon	Melon	Melon	4
Single Bar	Double Bar 1	Single Bar	11
Cherry	Cherry	Cherry 3	5

Dil Switch Settings

Switch Bank 1

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

Switch

- 1 Ram Clear
- 2 Coin Alarm Inhibit
- 3 Disable Anti Strim
- 4 Priority payout to 20p coin (or 10p if fitted)
- 5 Lock up if all tubes are low
- 6 Make sure switch is in off position
- 7 Make sure switch is in off position
- 8 Single Coin Play

Switch Bank 2

Switch

- 1 Price of play table (see below)
- 2 Price of play table (see below)
- 3 Jackpot Selection (Off-£ 8, On-£ 4/£ 5)
- 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 1	Switch 2	Outcome	
Off	Off	20p Play	£ 8-£4/£5 Version
On	Off	5p Play	
Off	On	10p Play	
On	On	20p Play	

Switch 1	Switch 2	Outcome	
Off	Off	5p Play	£ 10/£ 15 Cash Version
On	Off	10p Play	
Off	On	20p Play	
On	On	25p Play	

Percentage Payout Table

Switch 5	Switch 6	Switch 7	Switch 8	%
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)

Pin no Function

1	48v AC
2	0V
3	20p Slide
4	£1 Slide
5	Token Slide A
6	Token Slide B
7	Key
8	
9	Lockout
10	Cash Refill Meter (if connected)
11	Token Refill

Misc.(Male MTA blue 11-way)

Pin no Function

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

Pin No	Function
1	20p Level
2	£1 Level
3	Token Level A
4	Token Level B
5	Not Used
6	Not Used
7	Not Used
8	Not Used
9	
10	
11	Not Used
12	Not Used
13	Not Used
14	Key
15	Not Used
16	Not Used
17	Not Used
18	Enable Pins 1-8
19	Enable Pins 9-17

Male MTA 19-way Black

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
10	Hold-Nudge
11	Hold-Nudge
12	Hold-Nudge
13	HI
14	LO
15	Collect
16	Key
17	Start
18	Enable Pins 1-8
19	Enable Pins 9-17

Multiplexed Inputs

Blue Plug	Green Plug	Lamp No	Function
1	1	56	Token Bezel
1	2	57	Cash Bezel
1	3	58	Super Hold
1	4	59	Trail Held
1	5	60	Lose
1	6	61	Cherry Illumination 1
1	8	62	Cherry Illumination 2
1	9	63	Cherry Award
2	1	48	
2	2	49	
2	3	50	3 Kill Numbers
2	4	51	3 Nudges
2	5	52	Trail 1
2	6	53	Mixed Bars Illumination 1
2	8	54	Mixed Bars Illumination 2
2	9	55	Mixed Bars Award
3	1	40	Collect Button
3	2	41	Start Button
3	3	42	Bonus
3	4	43	2 Nudges
3	5	44	Trail 2
3	6	45	Plum Illumination 1
3	8	46	Plum Illumination 2
3	9	47	Plum Award
4	1	32	Hold Nudge Button 3
4	2	33	HI Button
4	3	34	LO Button
4	4	35	1 Nudge
4	5	36	Trail 3
4	6	37	Melon Illumination 1
4	8	38	Melon Illumination 2
4	9	39	Melon Award
5	1	24	Cancel Button
5	2	25	Hold-Nudge Button 1
5	3	26	Hold-Nudge Button 2
5	4	27	Numbers in View
5	5	28	Trail 4
5	6	29	Single Bar Illumination 1
5	8	30	Single Bar Illumination 2
5	9	31	Single Bar Award

Blue Plug	Green Plug	Lamp No	Function
7	1	16	Reel A Bottom
7	2	17	Reel B Bottom
7	3	18	Reel C Bottom
7	4	19	Choose Trail
7	5	20	Double Bar Illumination 1
7	8	22	Double Bar Illumination 2
7	9	23	Double Bar Award
8	1	8	Reel A Middle
8	2	9	Reel B Middle
8	3	10	Reel C Middle
8	4	11	Add Numbers
8	5	12	Trail 6
8	6	13	Triple Bar Illumination 1
8	8	14	Triple Bar Illumination 2
8	9	15	Triple Bar Award
9	1	0	Reel A Top
9	2	1	Reel B Top
9	3	2	Reel C Top
9	4	3	Respin
9	5	4	Trail 7
9	6	5	Colossus Illumination 1
9	8	6	Colossus Illumination 2
9	9	7	Colossus Award
10	10	121	Spin-a-Win
10	12	122	Cash Trail 40p
10	13	123	Hidden Cherry
10	14	124	
10	15	125	Cherry Spinner
10	16	126	£4 Repeat or £8
10	17	127	
11	10	112	Feature 2 Nudges
11	11	113	Stop-a-Fruit
11	12	114	Cash Trail 80p
11	13	115	Hidden Triple Bar
11	14	116	LO Panel
11	15	117	Nudge Time
11	16	118	T.T
11	17	119	

Blue Plug	Green Plug	Lamp No	Function
12	10	104	Feature 3 Nudges
12	11	105	Choose A Win
12	12	106	Cash Trail £1.20
12	13	107	Hidden Double Bar
12	14	108	Jackpot Repeater
12	15	109	HI LO Climber
12	16	110	Colossus Cash
12	17	111	Name Lamp 1
13	10	96	Feature 5 Nudges
13	11	97	Orions Belt
13	12	98	Cash Trail £1.60
13	13	99	Hidden Plum
13	14	100	Nudge Climber
13	15	101	Skill
13	16	102	Feature 45 Nudges
13	17	103	Name Lamp 2
14	10	88	Feature 7 Nudges
14	11	89	Skill Multiplier
14	12	90	Cash Trail £2.00
14	13	91	Hidden Single Bar
14	14	92	Bargain
14	15	93	Lovely Eyes
14	16	94	Feature 15 Nudges
14	17	95	Name Lamp 3
15	10	80	Feature 9 Nudges
15	11	81	Skill Climb
15	12	82	Cash Trail £2.40
15	13	83	Hidden Colossus
15	14	84	Win Climb
15	15	85	Step to Nearest Win
15	16	86	Colossus Climber
15	17	87	Name Lamp 4
16	10	72	Feature 12 Nudges
16	11	73	Win Rollover
16	12	74	Cash Trail £3.00
16	13	75	Hidden Melon
16	14	76	Stop-a-Win
16	15	77	HI Panel
16	16	78	Cash Trail £4.00
16	17	79	Name Lamp 5
17	10	64	Nudge Arrow
17	11	65	Feature Arrow
17	12	66	Cash Arrow
17	13	67	
17	14	68	4th Reel Illumination
17	15	69	Cash Attack
17	16	70	
17	17	71	

Test Procedure

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 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.

<u>Test No</u>	<u>Test Procedure</u>
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 **COLLECT** button, the lamps will light in the following order.

Colossus 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
4 - TOP, MIDDLE, BOTTOM

Group 3 - Reel Glass

Bonus (42), Skill Numbers (50), Super Hold (58), Respin (3), Add Numbers (11), Choose Trail (19), Numbers in View (27), 1 Nudge (35), 2 Nudges (43), 3 Nudges (51), Trail Held (59), Lose (60), Trail 1 (52), Trail 2 (44), Trail 3 (36), Trail 4 (28), Trail 5 (20), Trail 6 (12), Trail 7 (4), Cherry Illum 1 (61), Cherry Illum 2 (62), Cherry Award (63), Mixed Bar Illum 1 (53), Mixed Bar Illum 2 (54), Mixed Bar Award (55), Plum Illum 1 (45), Plum Illum 2 (46), Plum Award (47), Melon Illum 1 (37), Melon Illum 2 (38), Melon Award (39), Single Bar Illum 1 (29), Single Bar Illum 2 (30), Single Bar Award (31), Double Bar Illum 1 (21), Double Bar Illum 2 (22), Double Bar Award (23), Triple Bar Illum 1 (13), Triple Bar Illum 2 (14), Triple Bar Award (15), Colossus Illum 1 (5), Colossus Illum2 (6), Colossus Award (7)

Group 4 - Top Glass

Cherry (123), Triple Bar (115), Double Bar (107), Plum (99), Single Bar (91), Colossus (83), Melon (75), HI (77), LO (116), Jackpot Illum 2 (70), Jackpot Illum 1 (71), Jackpot Award 1 (119), Jackpot Award 2 (127), Skill (101), Eyes (93), Step To Nearest (85), Cash Attack (69), Cherry Spinner (125), Nudge Time (117), HI LO Climber (109), Stop A Win (76), Win Climb (84), Bargain (92), Nudge Climber (100), Jackpot Repeater (108), Cash Arrow (66), 40p (122), 80p (114), £1.20 (106), £1.60 (98), £2.00 (90), £2.40 (82), £3.00 (74), £4.00 (78), £8/£4 Repeat (126), Feature Arrow (65), Spin A Win (121), Stop a Fruit (113), Choose A Win (105), Orions Belt (97), Skill Multiplier (89), Skill Climb (81), Win Rollover (73), Colossus Climb (86), Colossus Cash (110), Nudge Arrow (64), 1 Nudge (120), 2 Nudges (112), 3 Nudges (104), 5 Nudges (96), 7 Nudges (88), 9 Nudges (80), 12 Nudges (72), 15 Nudges (94), 45 Nudges (102), Name Lamp 1 (111), Name Lamp 2 (103), Name Lamp 3 (95), Name Lamp 4 (87), Name Lamp 5 (79),

CANCEL TO EXIT

Test 2 - Meter Test

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

Cash In Cash Out Token In Token Out Token Refill

Once pulsed the machine will automatically advance to test 3

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	Lights	2 Nudges
£1 Level sensor	Lights	1 Nudge
Front Token level sensor	Lights	3 Nudges
Back Token Level sensor	Lights	5 Nudges

The **DIL** Switches on the MPU will light as follows

Bank 1	-	Switch 2-8-	Lights	-Cash Column 80p to £4
Bank 2	-	Switch 1-8-	Lights	-Feature Column Spin-a-Win to Colossus Climber

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 alphas 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.

The fourth reel will spin to show 12 in the window.

CANCEL TO EXIT

Test 5 - Coin Test

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

Press **COLLECT** 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

Collect - 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 **COLLECT** button you can clear the Alarm Log.

Alarm Codes

Code	Fault	Causes (in order of probability)
0.1	Checksum Fail	Change of Program
0.2	Mode Change	Price of Play Change
0.3	Manual Ram Clear	
0.8	Door has previously been opened	
0.9	Door has previously been closed	
1.1	£1 Coin Input	Coin jam, Coin Mech, Main Board
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	Coin Mech, Strim detected, Main Board
2.1	Reel 1	Backboard, Looms, Main Board, Opto
2.2	Reel 2	As Above
2.3	Reel 3	As Above
2.4	Reel 4	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.

THIS TEST DOES NOT ADJUST THE VOLUME. The volume adjust is via a variable resistor in the program card.

CANCEL TO EXIT.