

CLASSIC
BAR X
NOTE ACCEPTOR

A.W.P.

93.403.157

**OPERATORS
GUIDE
&
SERVICE
MANUAL**

Issue 1

ELECTROCOIN AFTERSALES & SERVICE LTD

The above company has been formed as part of the Electrocoin Automatics Group of companies, to provide the Aftersales and service necessary to support the variety of machines manufactured by Electrocoin Automatics Ltd. The company will be responsible for servicing both Spares and Technical requirements for all U.K. manufactured Electrocoin machines, and all "Famous Games" products, and all Board games distributed by Electrocoin Ltd.

Normal working hours are Monday to Friday 08.00 to 17.00 .

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PLEASE REMEMBER, TO HELP US HELP YOU, PROMPT RETURN OF FAULTY PARTS IS ESSENTIAL.

Assuring you of the best attention at all times.

Jeff Langley
General Manager

ELECTROCOIN AFTER SALES & SERVICE LTD.

Supporting the world of play

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PRECAUTIONS TO BE OBSERVED WHEN INSTALLING MACHINE

SITING

The correct siting of the Classic Bar X machine is likely to reflect on its performance. The view and policies of the various interested parties will have a major influence on this decision and it is clearly outside the scope of this manual. However in siting this machine, the following points should be taken into consideration:

- 1) The machine must stand on a flat, level and stable floor.
- 2) Ensure the machine is positioned away from direct sunlight and away from area subject to extreme heat e.g. radiator.
- 3) Avoid nylon carpets which can cause resetting problems from the static.
- 4) Mains plugs and sockets should be tight fitting and in good order.
- 5) A good earth is necessary for safety and correct operation.
- 6) Avoid positioning the machine in the vicinity of fire exits and fire extinguishers.
- 7) Avoid positioning the machine in the proximity of an indoor swimming pool, shower or in an area where highly flammable and/or volatile liquids are stored.
- 8) Machines look attractive and perform their best when positioned in subdued lighting.

SUPPLY / MAINTENANCE REQUIREMENTS

Connection to the mains through an IEC socket which is located at the rear of the machine.

The machine requires a nominal supply of 230V A.C. 50 Hz.

The supply should be protected by a 5 Amp fuse. In most installations this is achieved by the fuse rating at the other end of the mains lead. A good earth is essential if safety is to be assured and problems from static are to be avoided.

The machine requires a nominal supply of **230V A.C. 50Hz**, but should easily tolerate a +/- 10% in variation.

This machine requires certain maintenance routines to keep it in good working order. It is therefore, advisable that the site manager checks the condition of the machine on a daily basis.

INSTALLATION & SAFETY

It is important to avoid rough handling of this machine as certain parts are fragile. Upon removal of the shipping carton examine the exterior of the cabinet for dents, chips or broken parts. Access to the appliance should only be made by qualified personnel for any purpose. Inspect the cabinets interior as follows:

- 1) Check that all plug-in connectors are firmly seated. If any of the connectors are found un-plugged, do not force them together when re-plugging, as some may be keyed. They will only go together in the proper orientation.
- 2) Check that all plug-in Integrated Circuit components and sub boards which are situated on the main PCB, are firmly seated together.
- 3) Check all sub assembly components such as the power supply for secure mounting.

WARNING

Ensure that the mains supply is sufficient for the correct operation of the machine, and that the supply has a good earth connection.

High voltages exist within the machine so it is important that only qualified personnel touch any internal parts of the machine. The high voltages which are present can cause shock or even fatality if misused.

Always switch the machine off before commencing any work.

CAUTION

Only use the correct fuse ratings which are specified, to ensure maximum safety, and protection to all the components.

Whilst the power to the machine is switched on never connect or disconnect any of the Integrated Circuit components, or adjust the dip switch settings as this can cause serious damage.

MACHINE DIMENSIONS (BASED ON A CASINO STYLE CABINET)

Width	675mm
Depth	600mm
Height	1850mm
Weight	120kg

POWER REQUIREMENTS

230 Volts A.C.

50/60 Hz

150 Watts

GAME DESCRIPTION

Classic Bar X is a 3 reel A.W.P machine that accepts 5p, 10p, 20p, 50p, £1 & £2 coins.

There are two prizes available.

The actual amounts paid out will depend on a **Dip Switch Setting**, but in normal game mode i.e. 30p for 1 credit the prize will be £5, £25.

FEATURES

From a players point of view, the machine is extremely simple to operate.

The number of features has been kept to a minimum, resulting in a very fast game cycle.

Auto Start

When there are credits available (which will be shown in the credits display window), the player may press the Auto Start button. At the end of each game the machine will automatically start a new game.

When the nudge and hold features become available the game will stop, allowing the player to use them. The game is then continued by pressing the **Start Button**. The **Auto Start Mode** will end when there are no credits left.

Holds & Nudges

These will occur at random, for all 3 reels. **Holds** after **holds**, **holds** after **nudges** and **holds** after **wins** are all available.

Nudges

When the Nudge **Now lamp** is lit, the player may use any flashing **Hold/Nudge Button** to nudge the corresponding reel down one position at a time. Occasionally, if the player fails to get a win with three nudges then the machine will give another three nudges and sometimes-another three nudges after that.

Hold

When the **Nudge Now** lamp is off, the player may use any flashing **Hold/Nudge Button** to hold the corresponding reel in the current position. The machine has an **Auto Hold** facility if two of the same symbols are displayed on the win line. Also, winning lines are held automatically. Press the **Cancel Button** to remove the **Auto Hold**.

COLLECT

All cash prizes are paid into the **Bank**. Prizes may be paid out either directly or into the bank (switchable option). The bank display will show the amount due to the player.

When there are no credits left, the player may use the **Collect Button** to retrieve the prize(s). When the **Bank** reaches £50 or more, the player is forced to collect the money from the bank before continuing.

PAYOUT STOP

When there are no coins in the hoppers the machine will flash HP on the credit display and make an audible sound. The machine will have to be reset and the hopper refilled for the machine to payout (see Refill procedures).

CASH REFILL PROCEDURE REQUIRING THE USE OF THE REFILL METER

The following procedure should be carried out when there is a requirement to refill the £1 coin hopper:

ALL CASH SETTING

When the refill key is turned any £1 coins inserted will be counted as refill coins and not credits. The display will show 'CASH' then 'FILL' in the credits window. All £1 coins refilled will be counted on the display and the refill meter will clock the required units.

REFILL KEY

When the refill key is turned and the following buttons pressed a set message will be shown on the BANK LED

- i) Pressing HOLD A button shows the set percentage
- ii) Pressing HOLD B button shows the software issue number
- iii) Pressing HOLD C button is for factory testing purposes only

PLEASE QUOTE THESE NUMBERS WHEN REPORTING A PROGRAM FAULT

REFILL KEY OPTIONS

Turn the refill key and the machine will enter normal refill mode. Any coins entered in refill mode are added to their respective level counters and refill meters will pulse. It is possible to refill above the float level and coins will only divert into the cashbox once the hopper float level has been reached.

With the refill still turned press the start button once and the last bank will be displayed ("LB" on credit LED & the bank amount on bank LED). This will be refreshed by the next game.

Press the start button again and the last win will be displayed ("F L") on credit LED and amount won on bank LED)

ACTIVE COIN DIVERT

There is a float level associated with each hopper.

£1 hopper - £200 (£250 if note validator fitted).

When this float level is reached in door closed game mode £1 coins are diverted to the cashbox and tokens are locked out.

HOPPER REFLOAT

The Classic Bar X Casino machine retains its float by means of an electronic counting method, which means that all coins fed into the coin mech and paid out via the hoppers during normal game mode are electronically counted and deducted from the float value. If the machine has been initially set up and correctly floated with £200 or £250 with note acceptor (recommended and default float values) then the hopper should never exceed its float limit.

HOPPER FLOAT

To select refloat option :

- 1) Open top front door
- 2) Turn refill key
- 3) Press float switch (located in front of £1 hopper)

The hopper level is reset to its respective float level.

HOPPER DUMP

To select hopper dump option :

- 1) Open outer and inner cashbox doors
- 2) Turn refill key
- 3) press dump switch (located front left of inner cashbox door)

Each hopper is then dumped with each press of the start button. The value of the float paid out for each hopper whether it is the full float or not is then stored as the float level for that hopper. Any difference between the hopper level and the amount dumped will be displayed on the bank LED.

HOPPER LEVELS

To read the hopper levels open front door and turn the refill key, each press of the start button will provide the following information :

- 1) The last bank
- 2) The last win
- 3) £1 hopper level
- 4) Token hopper level (if applicable)

ADDITIONAL REFILL DOOR OPEN OPTIONS

Upon turning the Refill Key and with each press of the Start button in Door Open, the machine provides the following options:

1. LB = Last Bank
2. [] = Last Win
3. L1 = Hopper 1 Float level
4. L2 = Hopper 2 Float level
5. SEC = SEC Meter renewal (see below*)
6. UT = Used Time (see below**)

*Option 5 SEC

Press the start button again and the SEC Meter counter will be displayed (" S E ") on credit LED. The SEC Meter counter will be displayed on the bank LED, this represents the number of times the SEC Meter has been physically renewed whilst on site without RAM clear. Note: default value is "0"

****Option 6 UT**

Press the start button again and the machines “**Used Time**” counter will be displayed (“**U T**”) on the credit LED. The machines used time counter value will be displayed on the bank LED, this number represents the number of hours the machine has been switched on without a RAM clear.

Note: max hours recorded are 9999hrs (approx 14 months of continuous use).

GAME DIP (OPTION) SWITCH SETTINGS

The Dip Switch (located on the main logic board), controls the various settings available for running the machine (see page 34 for location of Dip Switch).
The option and settings are as follows:

DIP SWITCH

OPTION

1

2

COST OF GAME

OFF
OFF
ON
ON

OFF
ON
OFF
ON

10P
20P
25P
30P

3

4

5

PERCENTAGE

OFF
OFF
OFF
OFF
ON
ON
ON
ON

OFF
OFF
ON
ON
OFF
OFF
ON
ON

OFF
ON
OFF
ON
OFF
ON
OFF
ON

82%
84%
86%
88%
90%
92%
94%
96%

6

7

PRIZE STRUCTURE

OFF
OFF
ON
ON

OFF
ON
OFF
ON

£1, £5 all cash
£2, £8 all cash
£5, £25 all cash
£10, £25 all cash

8

DIRECT PAYOUT

OFF
ON

Wins banked then collected
Wins banked and then immediately paid out

Note: Refer to following page 10 for Percentage / Stake Key Settings.

PERCENTAGE/STAKE/PRIZE KEY SETTINGS

The machine is fitted with the facility to accommodate both Percentage Keys and Stake/Prize Keys.

If required the key facility is available on a PCB fitted with a 9 way "D" type plug and socket.

The following switch settings are for reference if **No** fixed value keys are fitted:

Prize
SET ON MPU DIP SWITCHES REFER TO PREVIOUS PAGE

Stake	SW 5	SW6	SW7
10p	0	0	1
20p	0	1	0
25p	0	1	1
30p	1	0	0

Note: If no prize/stake key is fitted the price of play will default to 30p.

% Percentage	SW 1	SW 2	SW 3	SW 4
70%* Not Available	0	0	0	1
72%* Not Available	0	0	1	0
74%* Not Available	0	0	1	1
76%* Not Available	0	1	0	0
78%* Not Available	0	1	0	1
80%* Not Available	0	1	1	0
82%	0	1	1	1
84%	1	0	0	0
86%	1	0	0	1
88%	1	0	1	0
90%	1	0	1	1
92%	1	1	0	0
94%	1	1	0	1
96%	1	1	1	0
**V2 % Key Sw Settings	SW4	SW3	SW2	SW1

Note: Percentages that are not available ie: (70 - 80*) will cause the % key alarm (see error codes).

PROCEDURE FOR CHECKING THE MACHINES PERCENTAGE %

Open the front door, turn the refill key then press Hold 1, the set percentage will be displayed in the "Collect/Bank" display. The % is recognized when the machine is first initialized, including door state changes ie: door open/door closed. If no % key is fitted the machine will run at the default of 88%

**Note: If the incorrect % is displayed refer to V2 % Key Sw Settings and recheck %.

OPERATIONAL ERROR CODES

In the event of a fault occurring during normal operation, the **credits display** should flash, showing alternatively an **Error Code** and the normal **credits display**. The **bank display** should continue to show the amount remaining in the bank.

To clear the error condition, switch the machine off and on. The **Error Codes** are as follows:

Error N°.	Error Code	Fault	Possible Cause
0		Unassigned	
1	r1	Reel #1 faulty	Faulty sensor (reel spins, then stops), OR Faulty drive transistor (reel does not spin smoothly), OR Faulty power supply (reels do not move)
2	r2	Reel #2 faulty	
3	r3	Reel #3 faulty	
4	c1	10p coin input	Fault coin acceptor. Pulse too long. Acceptor switch jammed
5	c2	Token input	As above Pulse too long.
6	c3	20p coin input	As above Pulse too long.
7	c4	50p coin input	As above Pulse too long.
8	c5	,1 coin input	Faulty coin lockouts.
9	c0	Credit overflow	ROM pins bent. ROM not correctly inserted. Faulty ROM.
12	F	ROM checksum error	Cash tube (s) empty of coins. Coin handling disconnected.
13		No coins being paid out.	Hopper empty of coins.
14	HP		Hopper disconnected.
15	PP (02)	Security board error	SEC board loose or not fitted
16	PP (05)	Security board error	SEC board incompatible with ROM
17	F.E.0.0 (NN)	SEC meter error	SEC Meter not fitted, Faulty or wired incorrectly
18	0.0.7.0 (P.C)	% Key error	Incorrect % Key value fitted (ie: 0.0.7.0 indicates 70% for example)
19	N.O.T.E	Note acceptor error	Note acceptor Jam, Pulse too long or fraud

The Possible Cause list is intended as a rough guide only and is by no means exhaustive.

HOPPER ALARM

If during any stage of the **Bank Payout** there is power interruption ie: 230V Mains Failure, the machine will reinitialize and an alarm audio will sound indicating **Payout Power Failure**, the Collect/Bank and Credit displays will flash alternately between the hopper payout alarm and the amount left to be payed out.

“-H.P.-” indicates “Hopper Payout” on the Collect/Bank LED’s

“07.00” indicates the amount left to be paid on the Collect/Bank LED’s ie: £07.00

The following procedure must be adhered to, before resetting of the Hopper Payout alarm can be achieved.

1. Turn the machine off at the mains switch
2. Unlock and open the front door of the machine
3. Turn the machine on at the mains switch and ensure the machine initiates in door open.
4. Close the front door of the machine and lock/secure accordingly
5. Normal payout can now commence once the “Collect” button is pressed.

METERS

ELECTRONIC SEC METER

Using the industry standard SEC meter there are 6 electronic meters that can be accessed in door open mode, these are numbered as follows

- 1) CASH IN
- 2) CASH OUT
- 3) TOKEN IN
- 4) TOKEN OUT
- 5) REFILL
- 6) NOTES IN

The amounts shown on all meters are in units of 10p.

ACCESSING THE ELECTRONIC SEC METER

In normal operation the “Refill” value stored within the electronic meter will be visible. To access the meters data the machine must be in “Door Open” mode only then can the electronic SEC meter title and it’s corresponding value will be displayed by pressing the “Hold 1” button.

The Electronic SEC meter will flash the meter’s title and it’s corresponding value in turn until the Hold 1 button is pressed, the next meter’s title and corresponding value will be displayed (see meter list above).

SEC METER INPUT / OUTPUT TABLES

INPUT

Coin Type		Effect on meter reading:					
Meter Function:-		CASH IN	CASH OUT	TOKEN IN	TOKEN OUT	REFILL	NOTE IN
Meter Index/Reference:-		1	2	3	4	5	6
Cash In:	10p	+1					
Cash In:	20p	+2					
Cash In:	50p	+5					
Cash In:	£1	+10					
Cash In:	£2	+20					
Token In:	20p			+2			
Refill:	TKN / £1					+2 / +10	
Note In:	£5						+50
Note In:	£10						+100
Note In:	£20						+200

OUTPUT

Coin Type		Effect on meter reading:					
Meter Function:-		CASH IN	CASH OUT	TOKEN IN	TOKEN OUT	REFILL	NOTE IN
Meter Index/Reference:-		1	2	3	4	5	6
Cash In:	£1		+10				
Token In:	20p				+2		
Note In:	£5		+50				
Note In:	£10		+100				
Note In:	£20		+200				

CALCULATIONS

METER 1 + METER 3 = TOTAL GAMES PLAYED / PRICE OF PLAY

METER 1 + METER 3 = TOTAL MONEY TAKEN.

METER 2 + METER 4 = TOTAL MONEY PAID OUT.

TOTAL MONEY TAKEN - TOTAL MONEY PAID OUT = TOTAL MONEY TAKEN.

(TOTAL MONEY PAID OUT / TOTAL MONEY TAKEN) x 100 = PERCENTAGE PAID OUT.

TEST PROCEDURES

The purpose of each test procedure is two fold:

- 1) To ensure that the machine is functioning correctly.
- 2) To assist the engineer in locating any faults that may occur.

To enter the test procedures, open the front door and press the Test Button. The Initial Test will then commence (see below). The credits display window will always show the current test number, and the bank display window will show the status information regarding each test.

At the beginning of any test, the Test Button may be pressed to advance you to the next one.

INITIAL TEST

All segments of the bank and credits display, including the decimal point, will illuminate and each digit will change from 0 to 8.

The coin accept sound will be emitted approximately once every second. At this stage the coin lockout function can be checked, by inserting a 10p, 20p, 50p, £1, and £2 and ensuring that each coin is rejected.

Press any button to proceed to the next test.

T-1 BUTTON TEST

This test refers to the following list of button and switch numbers:

No.	Button/Switch	No.	Button/Switch
1	Hold 1 button	11	Hopper front lo level switch
2	Hold 2 button	12	Hopper front coin out switch
3	Hold 3 button	13	Hopper back hi level switch
4	Cancel button	14	Hopper back lo level switch
5	Auto button	15	Hopper back coin out switch
6	Start button	16	Refill key switch
7	Reel index 1	17	Cash Door
8	Reel index 2	18	Test button switch
9	Reel index 3	19	Hopper refloat switch
10	Hopper front high level switch	20	Hopper dump switch

Please note that when the machine's front door is opened, the Front Door Switch will be in the ON position. To turn the Front Door Switch off, pull the switch outwards until it clicks.

Once tested, the Front Door Switch, as well as the Cash Box Switch and the Token Refill Switch, should be turned to the OFF position to ensure that the button test will function correctly. Press each button and switch individually, and ensure that the corresponding number is shown on the bank display (see Table).

To test the Reel Index Sensors, spin each reel one revolution by hand and ensure that the correct number is shown on the bank display.

The Test Button itself is tested implicitly (you would not have got this far if it was not working).

Therefore, only press the Test Button if you wish to continue to the next test.

T-2 LAMP TEST

This test refers to the following list of lamp numbers:

No.	Lamp	No.	Lamp
1	Hold 1 button	10	2
2	Hold 2 button	11	3
3	Hold 3 button	12	Take Nudges
4	Cancel button	13	Collect left
5	Auto button	14	Collect right
6	Start button	15	Reject
7	Service (refill)	16	
8	'Nudge now'	17	
9	1	18	

This test begins with lamp 1 lit.

Press the Start Button and ensure that the number shown on the bank display corresponds with the lamp currently lit. Press the Auto Start Button to check the lamps in the opposite direction.

Press the Test Button to proceed to the next test.

TEST PROCEDURES

T-3 COIN TEST

For all the coin tests mentioned below insert the appropriate coin(s) for that test. The coin accept sound will emit and the bank display will show the number of coins inserted.

Press the Collect Button to pay out the coin(s) inserted.

The machine will pay out the same number of coins as shown on the bank display.

a) 5P COIN TEST

The bank display will show test name 00C1 for 5p coin test.

In the event of a fault the bank display will show the following error code:

ERROR CODE	CAUSE OF FAULT
FAC1	Pulse from coin acceptor too long.

b) 10P COIN TEST

The bank display will show test name 00C2 for 10p coin test.

In the event of a fault the bank display will show the following error code:

ERROR CODE	CAUSE OF FAULT
FAC2	Pulse from coin acceptor too long.

c) 20P COIN TEST

The bank display will show test name 00C3 for 20p coin test.

In the event of a fault the bank display will show the following error code:

ERROR CODE	CAUSE OF FAULT
FAC3	Pulse from coin acceptor too long.

d) 50P COIN TEST

The bank display will show test name 00C4 for 50p coin test.

In the event of a fault the bank display will show the following error code:

ERROR CODE	CAUSE OF FAULT
FAC4	Pulse from coin acceptor too long.

TEST PROCEDURES

e) £1 COIN TEST

The bank display will show test name 00C5 for ,1 coin test.

In the event of a fault the bank display will show the following error code:

ERROR CODE	CAUSE OF FAULT
FAC5	Pulse from coin acceptor too long.

f) £2 COIN TEST

The bank display will show test name 00C6 for ,2 coin test.

In the event of a fault the bank display will show the following error code:

ERROR CODE	CAUSE OF FAULT
FAC6	Pulse from coin acceptor too long.

g) NEW COIN TEST (This facility is available for future coins and is not utilised at present).

The bank display will show test name OOC6 for new coin test.

In the event of a fault the bank display will show the following error code:

ERROR CODE	CAUSE OF FAULT
FAC6	Pulse from coin acceptor too long.

Additional testing may be performed after a fault simply by inserting more coins. The bank display will show the number of coins inserted minus the total number of coins paid out, since the last test.

If coins are paid out correctly the corresponding test name will be shown on the bank display.

Press the **Start Button** to proceed to the next coin test, alternatively:

Press Hold 1 to empty front hopper.

Press Hold 2 to empty back hopper.

Press Hold 3 to divert the pound coins.

Or

Press the Test Button to enter into T-5

T-4

T4 is not accessed on Classic Bar X's software.

TEST PROCEDURES

T-5 REEL TEST

This test begins with the reels rotating. The bank display will show 0. Each reel will stop at the first symbol situated above the tape join on the reel band i.e. configured as 0, X, 0.

The bank display will show 1.

Pressing the Start Button will initialise the reels to rotate and stop at the symbols 0,0,0.

Pressing the Start Button will initialise the reels to rotate and stop at the symbols X,X,X.

Pressing the Start Button will initialise the reels to rotate and stop at the symbols BAR,BAR,BAR.

Pressing the Start Button will initialise the reels to rotate and stop at the symbols BAR,BAR,BAR.

Pressing the Auto Button will initialise the reels to rotate and stop at the zero position (end of tape just below the win line).

The flashing Hold Buttons can be used to nudge the corresponding reel down one position at a time.

Pressing the Start Button will repeat T-6, and pressing the Test Button will enter T-1.

T-6

This test is for factory testing purposes only.

Pressing the test button again will cause the machine to reset.

Closing the front door will abort the machine's Testing Procedures.

CONNECTION DETAILS.

Code

BLK - Black	BRN - Brown	RED - Red	ORG - Orange
YLW - Yellow	GRN - Green	BLU - Blue	VLT - Violet
GRY - Grey	WHT - white	PNK - Pink	
SLV - Silver	GLD - Gold	LHT - Light	DRK - Dark
n.COR - n Core screened cable		SCR - Screen	

PSU Plug CN4. +12VDC Supply. 12 way 0.156" KK Molex Hsg

Pin.01 - n/a	: AC_CNT	Pin.07 - 24/0.2 GRN	: +12VDC_Audio
Pin.02 - n/a	: PWR_GOOD	Pin.08 - 7/0.2 GRY x2	: +12VDC_Mars
Pin.03 - 24/0.2 RED	: +12VDC_MPU	Pin.09 - 24/0.2 BLK	: GND_Lamps
Pin.04 - (7&16)/0.2 RED	: +12VDC_Lamps	Pin.10 - 24/0.2 BLK	: GND_Lamps
Pin.05 - 7/0.2 RED x2	: +12VDC_Lamps	Pin.11 - 24/0.2 BLK	: GND_Audio
Pin.06 - 7/0.2 RED X2	: +12VDC_Meters	Pin.12 - 7/0.2 BLK x2	: GND_Mars

PSU Plug CN3. -12V, +5V, +24V & +44V DC Supplies.

9 way 0.156" KK Molex Hsg + Ferrite Ring

Pin.01 - (16&24)/0.2 PNK	: +24VDC	Pin.06 - 7/0.2 BLK x2	: GND_SPB&SEC
Pin.02 - 24/0.2 YLW	: +5VDC	Pin.07 - 7/0.2 BLK x2	: GND_Hoppers
Pin.03 - 16/0.2 WHT	: -12VDC	Pin.08 - n/a	: +44VDC
Pin.04 - 24/0.2 BLK	: GND	Pin.09 - n/a	: +44VDC
Pin.05 - 7/0.2 BLK	: GND_NV7		

Hopper Isolation Relay & AC Sense Connector. Choke Assembly.

4 way Molex Plug (Molex 03-09-2049) + 2 off PIN Crimp

Pin.01 - 16/0.2 BLU	: 9.5VAC Sense	Pin.03 - 16/0.2 ORG	: 9.5VAC Sense
Pin.02 - 16/0.2 PNK	: +24VDC_In	Pin.04 - 7/0.2 PNK x2	: +24VDC_Out

CONNECTION DETAILS.

Edge Connector CN 1. Electrocoin MPU. Label housing "CN-1".

Position 4A

Pin. A – n/a	: GND
Pin. B – 7/0.2 BRN/YLW	: Bank LED C
Pin. C – 7/0.2 BRN/GRN	: Bank LED D
Pin. D – 7/0.2 BRN/BLU	: Bank LED E
Pin. E – 7/0.2 BRN/RED	: Bank LED A
Pin. F – 7/0.2 BLK/BRN	: Credit/Notes LED dp
Pin. H – 7/0.2 BRN/BLK	: Bank LED dp
Pin. J – 7/0.2 GRN/BLU	: Acceptor 5p
Pin. K – 7/0.2 GRN/YLW	: Acceptor TKN
Pin. L – 7/0.2 GRN/BLK	: Acceptor £1
Pin. M – 7/0.2 GRY/RED	: £1 Full Switch
Pin. N – 7/0.2 GRY/BLU	: Hopper Refloat
Pin. P – 7/0.2 ORG/RED	: Hold/Nudge But.3
Pin. R – 7/0.2 GRY/BLK	: £1 Coin Sensor
Pin. S – 7/0.2 GRY/GRN	: 20p Full Switch
Pin. T – 7/0.2 GRY/BRN	: £1 Empty Switch
Pin. U – n/a	: (I/P 100)
Pin. V – n/a	: (I/P 103)
Pin. W – n/a	: (I/P 102)
Pin. X – n/a	: (I/P 135)
Pin. Y – 7/0.2 ORG/GRN	: Auto Start But.5
Pin. Z – 7/0.2 YLW/BLU	: Back Door Switch
Pin.AA – 7/0.2 YLW/GRN	: Refill Switch
Pin.AB – 7/0.2 YLW/GRY	: Cash Box Door
Pin.AC – 7/0.2 GRN/BRN	: Acceptor 50p
Pin.AD – 7/0.2 GRN/RED	: Acceptor 20p
Pin.AE – 7/0.2 GRN/ORG	: Acceptor 10p
Pin.AF – 7/0.2 BLK	: GND (Cab I/Ps)

Position 4B

Pin. 1 – n/a	: GND
Pin. 2 – 7/0.2 BRN/VLT	: Bank LED F
Pin. 3 – 7/0.2 BRN/ORG	: Bank LED B
Pin. 4 – 7/0.2 BRN/GRY	: Bank LED G
Pin. 5 – 7/0.2 BLK/YLW	: Credit/Notes LED C
Pin. 6 – 7/0.2 BLK/GRN	: Credit/Notes LED D
Pin. 7 – 7/0.2 BLK/BLU	: /Notes LED E
Pin. 8 – 7/0.2 BLK/VLT	: Credit/Notes LED F
Pin. 9 – 7/0.2 BLK/GRY	: Credit/Notes LED G
Pin.10 – 7/0.2 BLK/ORG	: Credit/Notes LED B
Pin.11 – 7/0.2 BLK/RED	: Credit/Notes LED A
Pin.12 – 7/0.2 YLW/BLK	: Reel 1 Optic
Pin.13 – 7/0.2 YLW/BRN	: Reel 2 Optic
Pin.14 – 7/0.2 YLW/RED	: Reel 3 Optic
Pin.15 – n/a	: (I/P 111)
Pin.16 – n/a	: (I/P 104)
Pin.17 – 7/0.2 ORG/YLW	: Cancel But.4
Pin.18 – 7/0.2 GRY/ORG	: 20p Coin Sensor
Pin.19 – 7/0.2 GRY/YLW	: 20p Empty Switch
Pin.20 – 7/0.2 ORG/VLT	: Start But.7
Pin.21 – n/a	: (I/P 105)
Pin.22 – n/a	: (I/P 106)
Pin.23 – n/a	: (I/P 206)
Pin.24 – 7/0.2 ORG/BRN	: Hold/Nudge But.2
Pin.25 – 7/0.2 ORG/BLK	: Hold/Nudge But. 1
Pin.26 – 7/0.2 YLW/VLT	: Test Switch
Pin.27 – n/a	: (I/P 107)
Pin.28 – 7/0.2 BLK	: GND (Switch I/Ps)

CONNECTION DETAILS.

Edge Connector CN 2. Electrocoin MPU. Label housing "CN- 2".

Position 5A

Pin. A – 7/0.2 **BLK** : GND (Reels 1,2,3)
Pin. B – 7/0.2 **BRN/GRN** : Reel 3 Phase 1
Pin. C – 7/0.2 **BRN/BLK** : Reel 1 Phase 1
Pin. D – 7/0.2 **BRN/BLU** : Reel 3 Phase 2
Pin. E – 7/0.2 **BRN/RED** : Reel 1 Phase 2
Pin. F – 7/0.2 **BRN/VLT** : Reel 3 Phase 3
Pin. H – 7/0.2 **BRN/ORG** : Reel 1 Phase 3
Pin. J – 7/0.2 **BRN/GRY** : Reel 3 Phase 4
Pin. K – 7/0.2 **BRN/YLW** : Reel 1 Phase 4
Pin. L – 7/0.2 **PNK/BLK** : Reel 1 Common
Pin. M – 7/0.2 **PNK/BRN** : Reel 2 Common
Pin. N – 7/0.2 **RED/WHT** : Notes LED Dig.3
Pin. P – 7/0.2 **RED/BLK** : Credit LED Dig.1
Pin. R – 7/0.2 **RED/BRN** : Credit LED Dig.2
Pin. S – 7/0.2 **RED/ORG** : Bank LED Dig.1
Pin. T – 7/0.2 **RED/GRY** : Notes LED Dig.2
Pin. U – n/a : (O/P 270)
Pin. V – n/a : (O/P 250)
Pin. W – S.COR **RED** : Audio Out
Pin. X – 7/0.2 **GRY/YLW** : TKN Inhibit
Pin. Y – 7/0.2 **BLU/BLK** : Cash In Meter
Pin. Z – 7/0.2 **GRN/VLT** : Divert 1
Pin.AA – 7/0.2 **BLU/ORG** : TKN Out Meter
Pin.AB – 7/0.2 **BLU/RED** : TKN In Meter
Pin.AC – 7/0.2 **BLU/BRN** : Cash Out Meter
Pin.AD – 7/0.2 **BLU/YLW** : Refill Meter
Pin.AE – S.COR **SCREEN** : GND (Audio_Out)
Pin.AF – 7/0.2 **BLK** : GND (%+S&P_Key)

Position 5B

Pin. 1 – 7/0.2 **BLK** : GND (Reels 1,2,3)
Pin. 2 – n/a : Reel 4 Phase 1
Pin. 3 – 7/0.2 **BRN/BLK** : Reel 2 Phase 1
Pin. 4 – n/a : Reel 4 Phase 2
Pin. 5 – 7/0.2 **BRN/RED** : Reel 2 Phase 2
Pin. 6 – n/a : Reel 4 Phase 3
Pin. 7 – 7/0.2 **BRN/ORG** : Reel 2 Phase 3
Pin. 8 – n/a : Reel 4 Phase 4
Pin. 9 – 7/0.2 **BRN/YLW** : Reel 2 Phase 4
Pin.10 – n/a : Reel 4 Common
Pin.11 – 7/0.2 **PNK/RED** : Reel 3 Common
Pin.12 – 7/0.2 **RED/GRN** : Bank LED Dig.3
Pin.13 – 7/0.2 **RED/BLU** : Bank LED Dig.4
Pin.14 – 7/0.2 **RED/PNK** : Notes LED Dig.4
Pin.15 – 7/0.2 **RED/YLW** : Bank LED Dig.2
Pin.16 – 7/0.2 **RED/VLT** : Notes LED Dig.1
Pin.17 – n/a : ?
Pin.18 – n/a : (O/P 260)
Pin.19 – n/a : (O/P 240)
Pin.20 – 7/0.2 **GRY/ORG** : 10p Inhibit
Pin.21 – 7/0.2 **GRY/RED** : 20p Inhibit
Pin.22 – 7/0.2 **GRN/GRY** : Divert 2
Pin.23 – 7/0.2 **GRY/BLK** : £1 Inhibit
Pin.24 – 7/0.2 **GRY/BRN x2** : 5p & 50p Inhibit
Pin.25 – n/a : (O/P 256)
Pin.26 – n/a : (O/P 266)
Pin.27 – 7/0.2 **BLK** : GND_Mars.Mode
Pin.28 – 7/0.2 **BLK** : GND_Accept.Comm

HD 1. High Current Outputs. Label housing "HD- 1".

Pin. 1 – 16/0.2 **WHT/BLK** : Clt.Bank L.Lamp
Pin. 2 – 16/0.2 **WHT/BRN** : Clt.Bank R.Lamp
Pin. 3 – 16/0.2 **GRY/VLT** : 20p Hopper
Pin. 4 – 16/0.2 **WHT/RED** : Nudge 3 Lamp
Pin. 5 – 16/0.2 **WHT/ORG** : Coin Rjt.Lamp
Pin. 6 – 16/0.2 **GRY/WHT** : £1 Hopper
Pin. 7 – 16/0.2 **WHT/YLW** : Nudge 2 Lamp
Pin. 8 – 16/0.2 **WHT/GRN** : Nudge 1 Lamp
Pin. 9 – 16/0.2 **WHT/BLU** : Nudge Now Lamp
Pin.10 – 16/0.2 **WHT/VLT** : Take Nudges Lamp
Pin.11 – 7/0.2 **WHT/GRY** : Coin Inhibit Lamp
Pin.12 – 16/0.2 **WHT/PNK** : TT Lamp

CONNECTION DETAILS.

HD 2. Outputs. Label housing "HD- 2".

Pin. 1 – n/a	: (O/P 171)	Pin. 7 – n/a	: (O/P 107)
Pin. 2 – 7/0.2 WHT/BLK	: Jackpot 1 Lamp	Pin. 8 – n/a	: (O/P 106)
Pin. 3 – 7/0.2 WHT/BRN	: Jackpot 2 Lamp	Pin. 9 – n/a	: (O/P 105)
Pin. 4 – 7/0.2 WHT/RED	: Jackpot 3 Lamp	Pin.10 – n/a	: (O/P 104)
Pin. 5 – n/a	: (O/P 127)	Pin.11 – n/a	: (O/P 061)
Pin. 6 – n/a	: (O/P 114)	Pin.12 – n/a	: (O/P 051)

HD 7. Outputs. Label housing "HD- 7".

Pin. 1 – 7/0.2 BLU/ORG	: SEC.Rst	Pin. 7 – 7/0.2 RED/BLK	: SPB LED Units
Pin. 2 – 7/0.2 BLU/BRN	: SEC.Clk	Pin. 8 – 7/0.2 RED/BRN	: SPB LED 10s
Pin. 3 – n/a	: (O/P 334)	Pin. 9 – 7/0.2 RED/ORG	: SPB LED A
Pin. 4 – 7/0.2 BLU/RED	: SEC.In	Pin.10 – 7/0.2 RED/YLW	: SPB LED B
Pin. 5 – n/a	: (O/P 336)	Pin.11 – 7/0.2 RED/GRN	: SPB LED C
Pin. 6 – n/a	: (O/P 337)	Pin.12 – 7/0.2 RED/BLU	: SPB LED D

HD 8. Outputs. Label housing "HD- 8".

Pin. 1 – 7/0.2 GRY/VLT	: Notes Inhibit	Pin. 7 – n/a	: (O/P 347)
Pin. 2 – 7/0.2 WHT/BLK	: £5 Lamp	Pin. 8 – n/a	: (O/P 346)
Pin. 3 – 7/0.2 WHT/BRN	: £10 Lamp	Pin. 9 – n/a	: (O/P 345)
Pin. 4 – 7/0.2 WHT/RED	: £20 Lamp	Pin.10 – n/a	: (O/P 343)
Pin. 5 – 7/0.2 WHT/ORG	: No Notes Acc Lamp	Pin.11 – n/a	: (O/P 342)
Pin. 6 – n/a	: (O/P 357)	Pin.12 – n/a	: (O/P 341)

HD 9. Outputs. Label housing "HD- 9".

Pin. 1 – 7/0.2 WHT/VLT	: Start Lamp But.7	Pin. 7 – n/a	: (O/P 367)
Pin. 2 – 7/0.2 WHT/BLU	: Opt. Trf Lamp But6	Pin. 8 – n/a	: (O/P 365)
Pin. 3 – 7/0.2 WHT/BLK	: Hld/Ndg Lamp But.1	Pin. 9 – 7/0.2 WHT/BRN	: Hld/Ndg Lamp But.2
Pin. 4 – 7/0.2 WHT/RED	: Hld/Ndg Lamp But.3	Pin.10 – n/a	: (O/P 363)
Pin. 5 – n/a	: (O/P 375)	Pin.11 – n/a	: (O/P 362)
Pin. 6 – 7/0.2 WHT/YLW	: Cnl/Clt Lamp But.4	Pin.12 – 7/0.2 WHT/GRN	: Auto Start LampBtn.5

HD 10. Outputs & Inputs. Label housing "HD-10".

Pin. 1 – n/a	: (O/P 370)	Pin. 7 – 7/0.2 ORG/RED	: S&P Key SW3
Pin. 2 – n/a	: (O/P 372)	Pin. 8 – 7/0.2 ORG/YLW	: S&P Key SW4
Pin. 3 – 7/0.2 BLK	: GND_LAMPS	Pin. 9 – 7/0.2 ORG/GRN	: S&P Key SW5
Pin. 4 – n/a	: GND_LAMPS	Pin.10 – 7/0.2 ORG/BLU	: S&P Key SW6
Pin. 5 – 7/0.2 ORG/BLK	: S&P Key SW1	Pin.11 – 7/0.2 ORG/VLT	: S&P Key SW7
Pin. 6 – 7/0.2 ORG/BRN	: S&P Key SW2	Pin.12 – 7/0.2 YLW/WHT	: Hopper Dump Switch

CONNECTION DETAILS.

11. Inputs. Label housing "HD-11".

Pin. 1 – n/a	: (I/P 204)	Pin. 7 – n/a	: (I/P 216)
Pin. 2 – n/a	: (I/P 205)	Pin. 8 – n/a	: (I/P 206)
Pin. 3 – 7/0.2 GRN/VLT	: Notes Accept	Pin. 9 – 7/0.2 YLW/BLK	: % Key SW1
Pin. 4 – 7/0.2 BLU/BLK	: SEC.Out	Pin.10 – 7/0.2 YLW/BRN	: % Key SW2
Pin. 5 – 7/0.2 ORG/BLU	: Opt.Trf But.6	Pin.11 – 7/0.2 YLW/RED	: % Key SW3
Pin. 6 – n/a	: (I/P 226)	Pin.12 – 7/0.2 YLW/ORG	: % Key SW4

HD 12. Power In.

Pin. 1 – 24/0.2 PNK	: +24VDC_Reel	Pin. 7 – 16/0.2 YLW	: +5VDC_Opto out
Pin. 2 – n/a	: n/c	Pin. 8 – 24/0.2 BLK	: GND_Lamps
Pin. 3 – 16/0.2 BLU	: 9.5VAC Sense	Pin. 9 – 24/0.2 RED	: +12VDC
Pin. 4 – 24/0.2 YLW	: +5VDC	Pin.10 – 7/0.2 YLW	: +5VDC_SPB out
Pin. 5 – 24/0.2 BLK	: GND_Lamps	Pin.11 – 24/0.2 BLK	: GND_MPU
Pin. 6 – 16/0.2 ORG	: 9.5VAC Sense	Pin.12 – 16/0.2 WHT	: -12VDC

Coin Acceptor I/O Interface.

Pin.1 - 7/0.2 GRY/BRN	: Inhibit 5p	Pin.10 - 7.0.2 BLK	: Mars Mode
Pin.2 - 7/0.2 GRY/YLW	: Inhibit TKN	Pin.11 - 7/0.2 GRN/RED	: Accept 20p
Pin.3 - 7/0.2 GRY/BLK	: Inhibit £1	Pin.12 - 7/0.2 GRN/BRN	: Accept 50p
Pin.4 - 7/0.2 GRY/BRN	: Inhibit 50p	Pin.13 - Polarising key	: n/c
Pin.5 - 7/0.2 GRY/RED	: Inhibit 20p	Pin.14 - 7/0.2 GRN/BLK	: Accept £1
Pin.6 - 7/0.2 BLK	: GND	Pin.15 - 7/0.2 BLK	: Accept Comm
Pin.7 - 7/0.2 GRY	: +12VDC_Mars	Pin.16 - 7/0.2 GRN/YLW	: Accept TKN
Pin.8 - 7/0.2 GRY/ORG	: Inhibit 10p	Pin.17 - 7/0.2 GRN/BLU	: Accept 5p
Pin.9 - 7/0.2 GRN/ORG	: Accept 10p		

Coin Acceptor Diverts Interface.

Pin.1 - 7/0.2 BLK	: GND	Pin.6 - n/a	: (b)
Pin.2 - Polarising key	: n/c	Pin.7 - n/a	: (a)
Pin.3 - n/a	: (B)	Pin.8 - 7/0.2 GRN/GRY	: (c) Divert 2
Pin.4 - n/a	: (D)	Pin.9 - n/a	: (d)
Pin.5 - 7/0.2 GRN/VLT	: (C) Divert 1		

Oscar (NV7.) Note Validator.

Pin. 1 - 7/0.2 GRY	: +12VDC_Mars	Pin. 9 - 7/0.2 GRY/VLT x2	: Notes Inhibit (In3)
Pin. 2 - 7/0.2 BLK	: GND_NV7	Pin. 10 - 7/0.2 GRY/VLT x2	: Notes Inhibit (In4)
Pin. 3 - n/a	: n/c	Pin. 11 - 7/0.2 GRY/VLT x2	: Notes Inhibit (In1)
Pin. 4 - n/a	: n/c	Pin. 12 - 7/0.2 GRY/VLT	: Notes Inhibit (In2)
Pin. 5 - n/a	: n/c	Pin. 13 - n/a	: V3
Pin. 6 - n/a	: n/c	Pin. 14 - n/a	: V4
Pin. 7 - n/a	: n/c	Pin. 15 - 7/0.2 GRN/VLT	: Notes Accept (V1)
Pin. 8 - n/a	: ESCROW	Pin. 16 - n/a	: V1

CONNECTION DETAILS.

Notes Accept Lamps Connector.

Pin.1	- 7/0.2 RED	: +12VDC	Pin.7	- n/a	: n/c
Pin.2	- n/a	: n/c	Pin.8	- 7/0.2 WHT/BLK	: £5 Lamp
Pin.3	- n/a	: n/c	Pin.9	- 7/0.2 WHT/BRN	: £10 Lamp
Pin.4	- n/a	: n/c	Pin.10	- Polarising key	: n/c
Pin.5	- n/a	: n/c	Pin.11	- 7/0.2 WHT/RED	: £20 Lamp
Pin.6	- n/a	: n/c	Pin.12	- 7/0.2 WHT/ORG	: No Notes Acc Lamp

Hopper Assembly Connector.

Pin. 1 – 7/0.2 GRY/BLK	: £1 Coin Sensor	Pin. 9 – n/a	: n/c
Pin. 2 – 7/0.2 GRY/BRN	: £1 Empty Switch	Pin.10 – 7/0.2 PNK x2	: +24VDC_Hoppers
Pin. 3 – 7/0.2 GRY/RED	: £1 Full Switch	Pin.11 – 7/0.2 PNK x2	: +24VDC_Hoppers
Pin. 4 – 7/0.2 GRY/ORG	: 20p Coin Sensor	Pin.12 – n/a	: n/c
Pin. 5 – 7/0.2 GRY/YLW	: 20p Empty Switch	Pin.13 – 7/0.2 BLK x2	: GND_Hoppers
Pin. 6 – 7/0.2 GRY/GRN	: 20p Full Switch	Pin.14 – 7/0.2 BLK x2	: GND_Hoppers
Pin. 7 – 7/0.2 GRY/BLU	: Hopper Refloat	Pin.15 – 16/0.2 GRY/VLT	: 20p Hopper
Pin. 8 – n/a	: n/c	Pin.16 – 16/0.2 GRY/WHT	: £1 Hopper

Refill Meter.

¼" F.Amp - 7/0.2 BLU/YLW	: Refill Meter	¼" F.Amp - 7/0.2 RED	: +12VDC
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SEC Meter Interface.

Pin.1	- 7/0.2 BLU/BLK	: SEC.Out	Pin.4	- 7/0.2 BLU/ORG	: SEC.Rst
Pin.2	- 7/0.2 BLU/BRN	: SEC.Clk	Pin.5	- 7/0.2 RED	: SEC.12V
Pin.3	- 7/0.2 BLU/RED	: SEC.In	Pin.6	- 7/0.2 BLK	: SEC.GND

4 Bank Mechanical Meters Connector.

Pin. 1 – 7/0.2 RED	: +12VDC	Pin. 7 – 7/0.2 RED	: +12VDC
Pin. 2 – n/a	: n/c	Pin. 8 – 7/0.2 RED	: +12VDC
Pin. 3 – 7/0.2 BLU/BLK	: Cash In Meter	Pin. 9 – Polarising Key	: n/c
Pin. 4 – 7/0.2 BLU/BRN	: Cash Out Meter	Pin.10 – Polarising Key	: n/c
Pin. 5 – 7/0.2 BLU/RED	: TKN In Meter	Pin.11 – 7/0.2 RED	: +12VDC
Pin. 6 – 7/0.2 BLU/ORG	: TKN Out Meter		

Front Door Switch.

¼" F.Amp - 7/0.2 YLW/BLU	: Switch 1.N/C	¼" F.Amp - 7/0.2 BLK x2	: Switch 1.COM
¼" F.Amp - 7/0.2 BLU	: Switch 2.N/C	¼" F.Amp - 7/0.2 WHT	: Switch 2.COM
¼" F.Amp - 7/0.2 WHT/BLU	: Link		

Cash Box Door Switch.

¼" F.Amp - 7/0.2 YLW/GRY	: Switch 1.N/C	¼" F.Amp - 7/0.2 BLK x2	: Switch 1.COM
¼" F.Amp - 7/0.2 BLU x2	: Switch 2.N/C	¼" F.Amp - 7/0.2 WHT x2	: Switch 2.COM

CONNECTION DETAILS.

Newtek Guard Connections.

¼" F.Amp - 7/0.2 **BLK x2** : *GND*

¼" F.Amp - 7/0.2 **WHT/BLU**: *Link*

Datapack Door Switches.

¼" F.Amp - 7/0.2 **BLU** : *Switch Feed*

¼" F.Amp - 7/0.2 **WHT** : *Switch Return*

Hopper Dump Switch.

¼" F.Amp - 7/0.2 **YLW/WHT** : *Dump Switch N/O.*

¼" F.Amp - 7/0.2 **BLK** : *Dump Switch COM.*

Reel 1 Connector.

Pin. 1 – 7/0.2 **PNK/BLK** : *Reel Common*

Pin.11 – n/a : *n/c*

Pin. 2 – 7/0.2 **BRN/BLK** : *Reel Phase 1*

Pin.12 – n/a : *n/c*

Pin. 3 – 7/0.2 **BRN/RED** : *Reel Phase 2*

Pin.13 – n/a : *n/c*

Pin. 4 – 7/0.2 **BRN/ORG** : *Reel Phase 3*

Pin.14 – n/a : *n/c*

Pin. 5 – 7/0.2 **BRN/YLW** : *Reel Phase 4*

Pin.15 – n/a : *n/c*

Pin. 6 – 7/0.2 **YLW/ORG** : *Opto Photo LED+*

Pin.16 – n/a : *n/c*

Pin. 7 – 7/0.2 **YLW** : *Opto +5VDC*

Pin.17 - n/a : *VLT Link*

Pin. 8 – 7/0.2 **BLK x2** : *Opto GND*

Pin.18 – n/a : *VLT Link*

Pin. 9 – 7/0.2 **YLW/BLK** : *Opto O.C. O/P*

Pin.19 – 7/0.2 **BLK x2** : *Opto Photo LED-*

Pin.10 – n/a : *Opto Photo O/P*

Pin.20 – n/a : *n/c*

Reel 2 Connector.

Pin. 1 – 7/0.2 **PNK/BRN** : *Reel Common*

Pin.11 – n/a : *n/c*

Pin. 2 – 7/0.2 **BRN/BLK** : *Reel Phase 1*

Pin.12 – n/a : *n/c*

Pin. 3 – 7/0.2 **BRN/RED** : *Reel Phase 2*

Pin.13 – n/a : *n/c*

Pin. 4 – 7/0.2 **BRN/ORG** : *Reel Phase 3*

Pin.14 – n/a : *n/c*

Pin. 5 – 7/0.2 **BRN/YLW** : *Reel Phase 4*

Pin.15 – n/a : *n/c*

Pin. 6 – 7/0.2 **YLW/ORG** : *Opto Photo LED+*

Pin.16 – n/a : *n/c*

Pin. 7 – 7/0.2 **YLW** : *Opto +5VDC*

Pin.17 - n/a : *VLT Link*

Pin. 8 – 7/0.2 **BLK x2** : *Opto GND*

Pin.18 – n/a : *VLT Link*

Pin. 9 – 7/0.2 **YLW/BRN** : *Opto O.C. O/P*

Pin.19 – 7/0.2 **BLK x2** : *Opto Photo LED-*

Pin.10 – n/a : *Opto Photo O/P*

Pin.20 – n/a : *n/c*

CONNECTION DETAILS.

Reel 3 Connector.

Pin. 1 – 7/0.2 PNK/RED	: Reel Common	Pin.11 – n/a	: n/c
Pin. 2 – 7/0.2 BRN/GRN	: Reel Phase 1	Pin.12 – n/a	: n/c
Pin. 3 – 7/0.2 BRN/BLU	: Reel Phase 2	Pin.13 – n/a	: n/c
Pin. 4 – 7/0.2 BRN/VLT	: Reel Phase 3	Pin.14 – n/a	: n/c
Pin. 5 – 7/0.2 BRN/GRY	: Reel Phase 4	Pin.15 – n/a	: n/c
Pin. 6 – 7/0.2 YLV/ORG	: Opto Photo LED+	Pin.16 – n/a	: n/c
Pin. 7 – 7/0.2 YLV	: Opto +5VDC	Pin.17 - n/a	: VLT Link
Pin. 8 – 7/0.2 BLK x2	: Opto GND	Pin.18 – n/a	: VLT Link
Pin. 9 – 7/0.2 YLV/RED	: Opto O.C. O/P	Pin.19 – 7/0.2 BLK x2	: Opto Photo LED-
Pin.10 – n/a	: Opto Photo O/P	Pin.20 – n/a	: n/c

P1. Reel Opto Resistor Board.

Pin. 1 – 16/0.2 YLV	: +5VDC_Opto	Pin. 3 – Polarising Key	: n/c
Pin. 2 – 16/0.2 YLV	: +5VDC_Opto	Pin. 4 – n/a	: +5VDC_Opto

P2. Reel Opto Resistor Board.

Pin. 1 – 7/0.2 YLV	: Opto +5VDC	Pin. 5 – 7/0.2 YLV/ORG	: Opto Photo LED+
Pin. 2 – 7/0.2 YLV	: Opto +5VDC	Pin. 6 – n/a	: n/c
Pin. 3 – 7/0.2 YLV	: Opto +5VDC	Pin. 7 – Polarising Key	: n/c
Pin. 4 – 7/0.2 YLV/ORG	: Opto Photo LED+	Pin. 8 – 7/0.2 YLV/ORG	: Opto Photo LED+

CN9. % + S&P Key PCBA.

Pin. 1 – 7/0.2 BLK	: GND	Pin. 8 – 7/0.2 ORG/BLU	: S&P Key SW6
Pin. 2 – 7/0.2 ORG/BLK	: S&P Key SW1	Pin. 9 – 7/0.2 ORG/GRN	: S&P Key SW5
Pin. 3 – 7/0.2 ORG/BRN	: S&P Key SW2	Pin.10 – 7/0.2 YLV/ORG	: % Key SW1
Pin. 4 – 7/0.2 ORG/RED	: S&P Key SW3	Pin.11 – 7/0.2 YLV/RED	: % Key SW2
Pin. 5 – 7/0.2 ORG/YLV	: S&P Key SW4	Pin.12 – 7/0.2 YLV/BRN	: % Key SW3
Pin. 6 – Polarising Key	: n/c	Pin.13 – 7/0.2 YLV/BLK	: % Key SW4
Pin. 7 – 7/0.2 ORG/VLT	: S&P Key SW7		

CN 1. Audio Amplifier PCBA.

Pin. 1 – S.CORE RED	: Audio I/P+	Pin. 4 – 16/0.2 BLK	: Audio O/P-
Pin. 2 – S.CORE SCN	: Audio I/P-	Pin. 5 – 16/0.2 RED	: Audio O/P+
Pin. 3 – 24/0.2 BLK	: GND_Audio	Pin. 6 – 24/0.2 GRN	: +12VDC_Audio

CONNECTION DETAILS.

Credit LED - 10s.

Pin.1	- 7/0.2 BLK/RED : Seg. A	Pin.6	- 7/0.2 BLK/VLT : Seg. F
Pin.2	- 7/0.2 BLK/ORG : Seg. B	Pin.7	- 7/0.2 BLK/GRY : Seg. G
Pin.3	- 7/0.2 BLK/YLW : Seg. C	Pin.8	- Polarising Key : n/c
Pin.4	- 7/0.2 BLK/GRN : Seg. D	Pin.9	- 7/0.2 BLK/BRN : Seg. dp
Pin.5	- 7/0.2 BLK/BLU : Seg. E	Pin.10	- 7/0.2 RED/BRN : Comm. Anode

Credit LED - Units.

Pin.1	- 7/0.2 BLK/RED : Seg. A	Pin.6	- 7/0.2 BLK/VLT : Seg. F
Pin.2	- 7/0.2 BLK/ORG : Seg. B	Pin.7	- 7/0.2 BLK/GRY : Seg. G
Pin.3	- 7/0.2 BLK/YLW : Seg. C	Pin.8	- Polarising Key : n/c
Pin.4	- 7/0.2 BLK/GRN : Seg. D	Pin.9	- 7/0.2 BLK/BRN : Seg. dp
Pin.5	- 7/0.2 BLK/BLU : Seg. E	Pin.10	- 7/0.2 RED/BLK : Comm. Anode

Notes LED - 1000s.

Pin.1	- 7/0.2 BLK/RED : Seg. A	Pin.6	- 7/0.2 BLK/VLT : Seg. F
Pin.2	- 7/0.2 BLK/ORG : Seg. B	Pin.7	- 7/0.2 BLK/GRY : Seg. G
Pin.3	- 7/0.2 BLK/YLW : Seg. C	Pin.8	- Polarising Key : n/c
Pin.4	- 7/0.2 BLK/GRN : Seg. D	Pin.9	- 7/0.2 BLK/BRN : Seg. dp
Pin.5	- 7/0.2 BLK/BLU : Seg. E	Pin.10	- 7/0.2 RED/PNK : Comm. Anode

Notes LED - 100s.

Pin.1	- 7/0.2 BLK/RED : Seg. A	Pin.6	- 7/0.2 BLK/VLT : Seg. F
Pin.2	- 7/0.2 BLK/ORG : Seg. B	Pin.7	- 7/0.2 BLK/GRY : Seg. G
Pin.3	- 7/0.2 BLK/YLW : Seg. C	Pin.8	- Polarising Key : n/c
Pin.4	- 7/0.2 BLK/GRN : Seg. D	Pin.9	- 7/0.2 BLK/BRN : Seg. dp
Pin.5	- 7/0.2 BLK/BLU : Seg. E	Pin.10	- 7/0.2 RED/WHT : Comm. Anode

Notes LED - 10s.

Pin.1	- 7/0.2 BLK/RED : Seg. A	Pin.6	- 7/0.2 BLK/VLT : Seg. F
Pin.2	- 7/0.2 BLK/ORG : Seg. B	Pin.7	- 7/0.2 BLK/GRY : Seg. G
Pin.3	- 7/0.2 BLK/YLW : Seg. C	Pin.8	- Polarising Key : n/c
Pin.4	- 7/0.2 BLK/GRN : Seg. D	Pin.9	- 7/0.2 BLK/BRN : Seg. dp
Pin.5	- 7/0.2 BLK/BLU : Seg. E	Pin.10	- 7/0.2 RED/GRY : Comm. Anode

Notes LED - Units.

Pin.1	- 7/0.2 BLK/RED : Seg. A	Pin.6	- 7/0.2 BLK/VLT : Seg. F
Pin.2	- 7/0.2 BLK/ORG : Seg. B	Pin.7	- 7/0.2 BLK/GRY : Seg. G
Pin.3	- 7/0.2 BLK/YLW : Seg. C	Pin.8	- Polarising Key : n/c
Pin.4	- 7/0.2 BLK/GRN : Seg. D	Pin.9	- 7/0.2 BLK/BRN : Seg. dp
Pin.5	- 7/0.2 BLK/BLU : Seg. E	Pin.10	- 7/0.2 RED/VLT : Comm. Anode

CONNECTION DETAILS.

Bank LED - 1000s.

Pin.1	- 7/0.2 BRN/RED : Seg. A	Pin.6	- 7/0.2 BRN/VLT : Seg. F
Pin.2	- 7/0.2 BRN/ORG : Seg. B	Pin.7	- 7/0.2 BRN/GRY : Seg. G
Pin.3	- 7/0.2 BRN/YLW : Seg. C	Pin.8	- Polarising Key : n/c
Pin.4	- 7/0.2 BRN/GRN : Seg. D	Pin.9	- 7/0.2 BRN/BLK : Seg. dp
Pin.5	- 7/0.2 BRN/BLU : Seg. E	Pin.10	- 7/0.2 RED/BLU : Comm. Anode

Bank LED - 100s.

Pin.1	- 7/0.2 BRN/RED : Seg. A	Pin.6	- 7/0.2 BRN/VLT : Seg. F
Pin.2	- 7/0.2 BRN/ORG : Seg. B	Pin.7	- 7/0.2 BRN/GRY : Seg. G
Pin.3	- 7/0.2 BRN/YLW : Seg. C	Pin.8	- Polarising Key : n/c
Pin.4	- 7/0.2 BRN/GRN : Seg. D	Pin.9	- 7/0.2 BRN/BLK : Seg. dp
Pin.5	- 7/0.2 BRN/BLU : Seg. E	Pin.10	- 7/0.2 RED/GRN : Comm. Anode

Bank LED - 10s.

Pin.1	- 7/0.2 BRN/RED : Seg. A	Pin.6	- 7/0.2 BRN/VLT : Seg. F
Pin.2	- 7/0.2 BRN/ORG : Seg. B	Pin.7	- 7/0.2 BRN/GRY : Seg. G
Pin.3	- 7/0.2 BRN/YLW : Seg. C	Pin.8	- Polarising Key : n/c
Pin.4	- 7/0.2 BRN/GRN : Seg. D	Pin.9	- 7/0.2 BRN/BLK : Seg. dp
Pin.5	- 7/0.2 BRN/BLU : Seg. E	Pin.10	- 7/0.2 RED/YLW : Comm. Anode

Bank LED - Units.

Pin.1	- 7/0.2 BRN/RED : Seg. A	Pin.6	- 7/0.2 BRN/VLT : Seg. F
Pin.2	- 7/0.2 BRN/ORG : Seg. B	Pin.7	- 7/0.2 BRN/GRY : Seg. G
Pin.3	- 7/0.2 BRN/YLW : Seg. C	Pin.8	- Polarising Key : n/c
Pin.4	- 7/0.2 BRN/GRN : Seg. D	Pin.9	- 7/0.2 BRN/BLK : Seg. dp
Pin.5	- 7/0.2 BRN/BLU : Seg. E	Pin.10	- 7/0.2 RED/ORG : Comm. Anode

Starpoint 2 Digit LED Button Connector.

Pin. 1 – 7/0.2 BLK	: GND	Pin. 7 – 7/0.2 RED/GRN	: LED C
Pin. 2 – 7/0.2 YLW	: +5VDC	Pin. 8 – 7/0.2 RED/BLU	: LED D
Pin. 3 – 7/0.2 RED/BRN	: LED 10s	Pin. 9 – 7/0.2 ORG/VLT	: Start But. 7
Pin. 4 – 7/0.2 RED/BLK	: LED Units	Pin.10 – 7/0.2 WHT/VLT	: Start Lamp
Pin. 5 – 7/0.2 RED/ORG	: LED A	Pin.11 – 7/0.2 RED x2	: +12VDC
Pin. 6 – 7/0.2 RED/YLW	: LED B	Pin.12 – 7/0.2 WHT/BLU	: Opt. Tfr Lamp

Reel Mask Lamps Connector.

Pin. 1 – 16/0.2 WHT/BLK	: Clt. Bank L. Lamp	Pin. 7 – 16/0.2 WHT/GRN	: Nudge 1 Lamp
Pin. 2 – 16/0.2 WHT/BRN	: Clt. Bank R. Lamp	Pin. 8 – 16/0.2 WHT/BLU	: Nudge Now Lamp
Pin. 3 – 16/0.2 WHT/RED	: Nudge 3 Lamp	Pin. 9 – 16/0.2 WHT/VLT	: Take Nudges Lamp
Pin. 4 – 16/0.2 WHT/ORG	: Coin Rjt. Lamp	Pin.10 – 16/0.2 WHT/PNK	: TT Lamp
Pin. 5 – n/a	: n/c	Pin.11 – n/a	: n/c
Pin. 6 – 16/0.2 WHT/YLW	: Nudge 2 Lamp	Pin.12 – 16/0.2 RED	: +12VDC

CONNECTION DETAILS.

Jackpot Tower Lamps Connector.

Pin. 1 – 7/0.2 RED x2 : +12VDC

Pin. 2 – 7/0.2 RED x2 : +12VDC

Pin. 3 – 7/0.2 RED x2 : +12VDC

Pin. 4 – 7/0.2 WHT/BLK : *Jackpot 1 Lamp*

Pin. 5 – 7/0.2 WHT/BRN : *Jackpot 2 Lamp*

Pin. 6 – 7/0.2 WHT/RED : *Jackpot 3 Lamp*

Mars Lamp.

Pin. 1 – 7/0.2 RED : +12VDC_Lamps

Pin. 2 – 7/0.2 BLK : GND_Lamps

Coin Inhibit Lamp.

Pin. 1 – 7/0.2 RED : +12VDC_Lamps

Pin. 2 – 7/0.2 WHT/GRY : *Coin Inhibit Lamp*

SPARE PARTS REQUIREMENT

Item	Part No.	Description
1)	48.879.101	TOKEN REFILL KEYSWITCH
2)	52.910.030	SPEAKER 5" 8 OHM MAX. 8W
3)	96.941.342	ASSEMBLY PSU AWP
4)	53.524.156	MARS MECH GBL5 ME126 4 WAY SELECTOR
5)	77.521.100	0.56" Interlocking LED
6)	77.521.101	0.56" Interlocking LED
7)	36.779.001	RESISTOR PCB
8)	36.058.001	PCBA % + S&P Key I/F
9)	52.292.733	7 Digit Electronic Counter
10)	81019	LAMP WEDGE TYPE 12V, 2.2W
11)	11333	A.W.P. GAME PCB
12)	96.001.125	PCBA HOPPER INTERFACE
13)	51.801.305	REEL UNIT (WIDE TYPE)
14)	12567	AUDIO AMPLIFIER PCB
15)	51.520.287	HOPPER "U" £1 & 10p or 20p TOKEN
16)	53.524.911	ROUTING PLUG (MARS MECH)
17)	91.018.941	Disclaimer Decal Set
18)	91.019.073	Decal Set Classic Bar X
19)	92.933.898	Top Glass
20)	92.933.899	Middle Glass
21)	92.933.900	Bottom Glass
22)	92.492.947	Reel Strips
23)	92.479.060	Legend Plates, 7/Set Classic Bar X
24)	53.000.018	NV7 UK Note Validator With Lockable Stacker

EMC PROCEDURE AND CRITICAL PARTS REQUIREMENT

In order to comply with the EMC directives the following parts are critical to there machine and should only be replaced with the same part. Failure to do this may cause damage to other equipment.

Parts can be ordered from Electrocoin Aftersales and Service Ltd (Tel. No. 02920 343888)

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Quantity</u>
1.	96.941.342	Power Supply Assembly	

Failure to comply to the above items will invalidate the CE mark.

The machine has been tested to EMC DIRECTIVES.

For specific service or part assistance regarding the machine construction please contact your local distributor or:

Electrocoin Automatics Aftersales and Service Ltd.,
C1,c2
Southpoint ind-estate,
Foreshore Road,
Cardiff,
South Wales,
CF10 4sp.
Tel. No. +44 (0) 02920 450345 08452600345
Fax No. +44 (0) 02920 450385
www.electrocoinaftersales.co.uk

WARNING

**THE CABLES OR THE MAIN WIRING HARNESS WITHIN THIS MACHINE MUST NOT BE MOVED WITHOUT WRITTEN PERMISSION OF ELECTROCOIN AUTOMATICS LTD.
FAILURE TO COMPLY WITH THIS WARNING WILL INVALIDATE THE CE MARKING.**

AUDIO AMPLIFIER

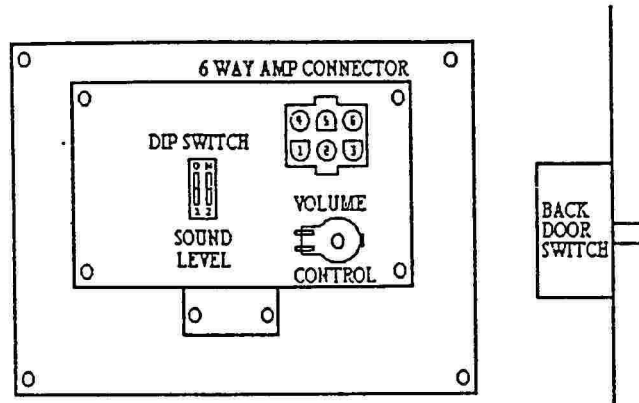


FIG. 1
Position of Audio Amplifier and layout of controls (see above).

6 Way Amp Connector

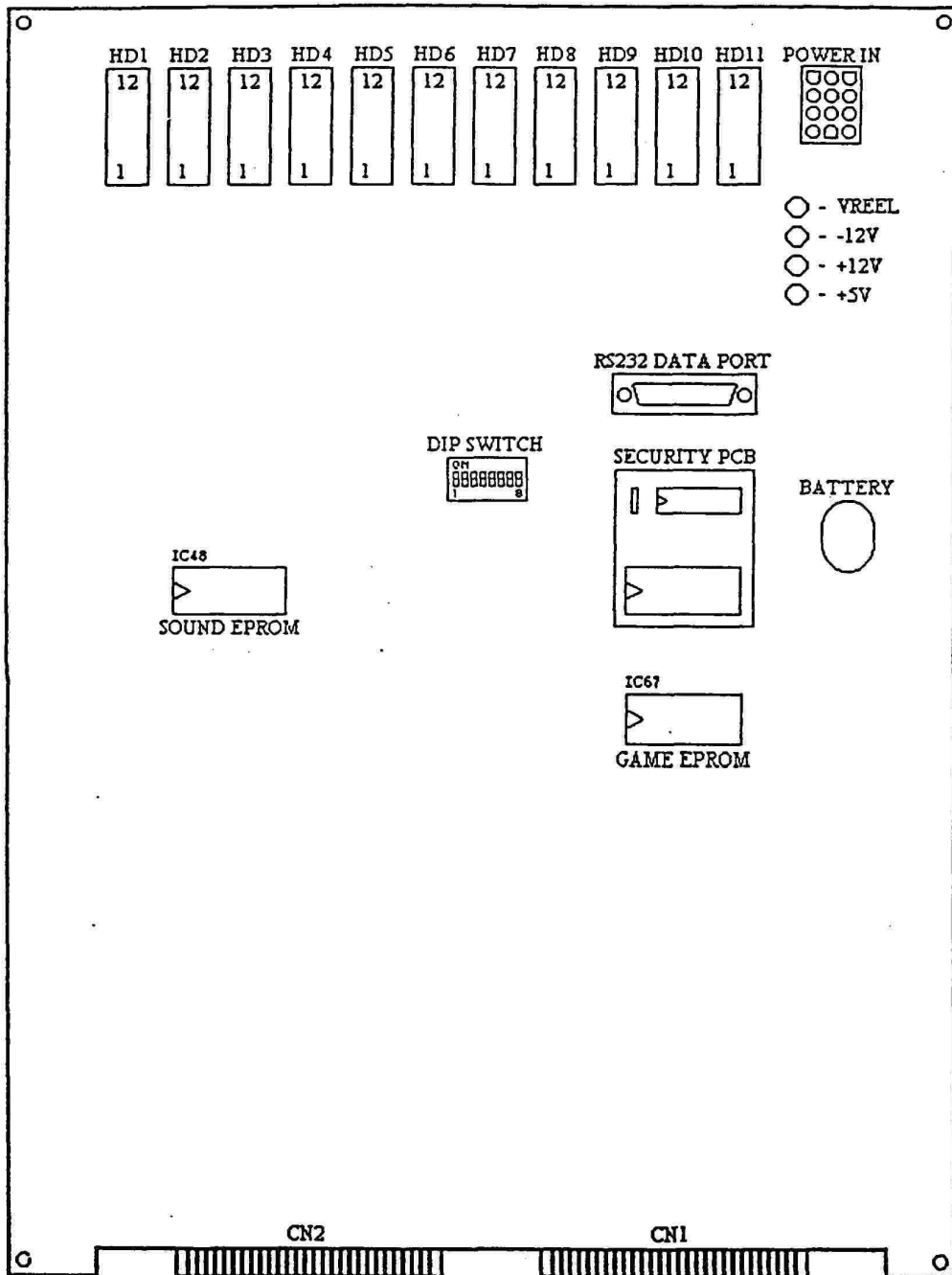
PIN	COLOUR	FUNCTION
1	SCREEN CORE (RED)	CORE AUDIO IN
2	SCREEN GND	AUDIO GND
3	BLACK	AUDIO GND
4	VIOLET/BLACK	SPEAKER
5	VIOLET/BLACK	SPEAKER
6	GREEN	+12VDC

DIP SWITCH SOUND LEVEL SETTINGS

Dip Switch	Setting	Sound Function
1&2	OFF	LEVEL 1 (minimum)
1	ON	LEVEL 2
2	ON	LEVEL 3 (maximum)
1 & 2	ON	LEVEL 4 (maximum)

NOTE: FINE TUNING OF SOUND CAN BE ACHIEVED BY USING VOLUME CONTROL ON THE BOARD.

LOGIC BOARD DIAGRAM



Note. Battery life is approx. 3 years (voltage should be 3.6v).
 If the battery has a fault this will cause poor percentage control and faulty data retrieval etc.
 To Check. Leave a credit on the machine overnight and if credit is still there when the machine is switched on the following day, the battery is O.K.