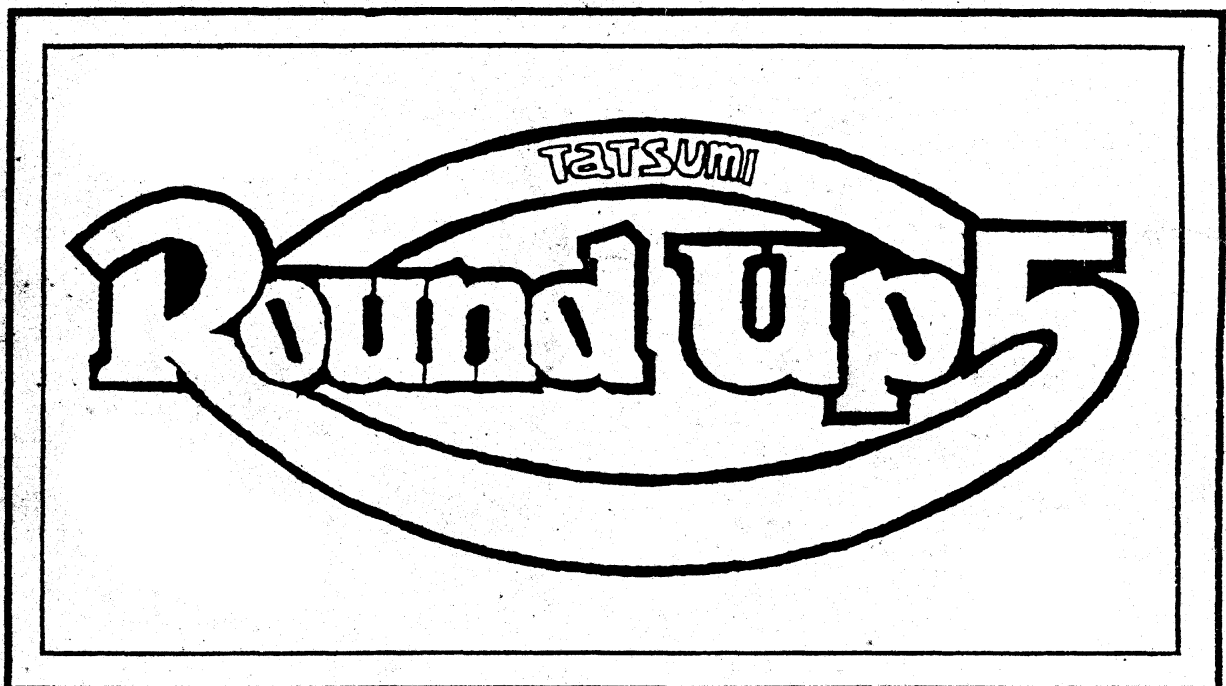
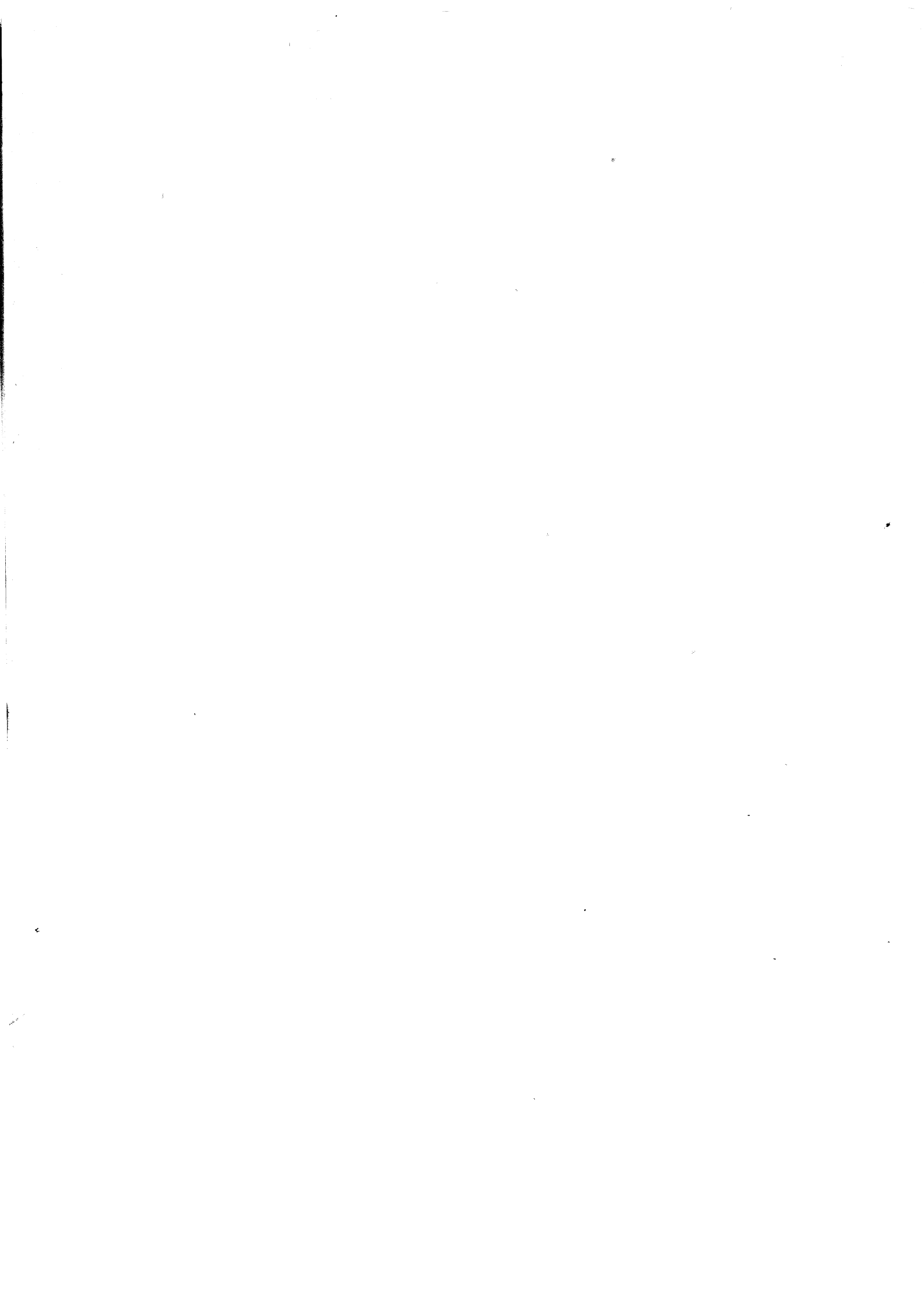


ELECTROCOIN AUTOMATICS LTD
UPRIGHT
SERVICE MANUAL



TATSUMI

PART No 64062



ROUND UP 5 (UPRIGHT)

SPECIFICATIONS:

- | | |
|----------------------|---|
| 1. Power Supply | HANTAREX US 300 |
| 2. Power Consumption | 140w |
| 3. Play Pricing | Adjustable on Dip switches |
| 4. TV Monitor | 20" Hantarex 9000E colour monitor |
| 5. Dimensions | Width : 590mm
Depth : 870mm
Height : 1828mm |
| 6 Weight | Approximately: 140 kg |

* The specifications and appearance may be changed for improvement.

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Adjustments of Color Video Monitor, Refer to Hantarex Manual)	
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Power supply(Refer to Hantarex Manual).	
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PRECAUTIONS TO BE OBSERVED WHEN INSTALLING MACHINE

THIS VIDEO GAME IS FOR INDOOR USE ONLY.
WHEN INSTALLING AVOID PLACES MENTIONED BELOW

1. PLACES SUBJECT TO CONDENSATION DUE TO HUMIDITY.
2. IN THE PROXIMITY OF AN INDOOR SWIMMING POOL OR SHOWER.
3. PLACES SUBJECT TO DIRECT SUNLIGHT.
4. VICINITY OF HIGHLY INFLAMMABLE/VOLATILE CHEMICALS.
5. UNEVEN SURFACES.
6. VICINITY OF FIRE EXITS AND FIRE EXTINGUISHERS.
7. DUSTY ATMOSPHERE.

INSTALLATION

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 INTERIOR OF THE CABINET AS FOLLOWS:

A) CHECK THAT ALL THE PLUG IN CONNECTORS ARE FIRMLY SEATED i.e. THE EDGE CONNECTOR ON THE CPU BOARD. IF ANY CONNECTORS ARE FOUND UNPLUGGED IT IS IMPORTANT WHEN RE-PLUGGING NOT TO FORCE THE CONNECTORS TOGETHER. AS SOME MAY BE KEYED AND ONLY GO ON IN THE PROPER ORIENTATION.

B) CHECK THAT ALL PLUG-IN INTEGRATED CIRCUITS AND SUB BOARDS ON THE GAME PCB ARE FIRMLY SEATED IN THEIR SOCKETS.

C) CHECK ALL SUB ASSEMBLIES SUCH AS THE POWER SUPPLY FOR SECURE MOUNTING.

ENSURE THE MAINS SUPPLY IS CORRECT FOR OPERATION OF THE MACHINE, AND THAT THE SUPPLY HAS A GOOD EARTH CONNECTION.

SAFETY/MAINTENANCE

THIS VIDEO GAME REQUIRES CERTAIN MAINTENANCE TO KEEP IT IN GOOD WORKING ORDER.

IT IS ADVISED THAT THE SITE MANAGER CHECKS THE SERVICEABILITY OF THE MACHINE DAILY.

WARNING

HIGH VOLTAGES EXIST WITHIN THE MACHINE SO IT IS ADVISABLE THAT ONLY QUALIFIED SKILLED PERSONNEL SHOULD TOUCH ANY INTERNAL PARTS OF THE MACHINE. THE HIGH VOLTAGES PRESENT MAY CAUSE SHOCK OR EVEN FATALITY WITH MISUSE. ALWAYS TURN THE MACHINE OFF BEFORE COMMENCING ANY WORK.

HIGH VOLTAGES MAY EXIST IN ANY MONITOR UNIT, EVEN WITH THE POWER DISCONNECTED. USE EXTREME CAUTION AND DO NOT TOUCH ELECTRICAL PARTS, OR THE YOKE WITH YOUR HANDS OR WITH METAL OBJECTS HELD IN YOUR HANDS. INFORMATION ON THE MONITOR FUSES ARE CONTAINED IN THE MONITOR MANUAL SUPPLIED WITH THIS MACHINE.

CAUTION

DO NOT USE FUSES OTHER THAN THOSE SPECIFIED, FOR THE CONTINUED PROTECTION OF YOUR GAME.

NEVER CONNECT OR DISCONNECT ANY CONNECTORS OF THE PCB, OR RESET THE DIP SWITCH SETTINGS WHILE THE POWER IS ON.

REGULARLY CLEAN THE OUTSIDE OF THE CABINET. DO NOT DRY WIPE ANY OF THE ACRYLIC PANELS, BECAUSE ANY DUST CAN SCRATCH THE SURFACE AND RESULT IN FOGGING THE PLASTIC. ACRYLIC SURFACES MAY BE CLEANED WITH ANY NON-ABRASIVE HOUSEHOLD CLEANER.

GAME DESCRIPTION

During this game you must pursue and round up a gang of criminals who are on the run after committing atrocious crimes. There are five criminals in all and each has eluded the law and are now in different cities in America.

The criminals are:-

CODE:	01B315	CODE:	23C007
NAME:	LOID GERBLL	NAME:	MC. WALLAN
SUSPICION:	JAIL ESCAPES	SUSPICION:	WAREHOUS PLUNDERS
DISTRICT:	NEW ORLEANS	DISTRICT:	SEATTLE

CODE:	62A228	CODE:	82J725
NAME:	JUDY COATES	NAME:	RONALD HENRY
SUSPICION:	BANK ROBBER	SUSPICION:	MURDERS
DISTRICT:	LAS VEGAS	DISTRICT:	NEW YORK

CODE:	11K358
NAME:	HARRY MURRAY
SUSPICION:	NARCOTIC SMUGGLERS
DISTRICT:	LOS ANGELES

At the start of your game a course map will appear informing you of your position and the position of the criminals.

After starting you will come to a junction in the road in which you have a choice, to go after the criminals.

Beware of the time limit. To increase your chances of reaching the gang use your Turbo Button wisely.

On reaching the gang you must fight off the Robots on Motorbikes by crashing into them and destroying them.

Once you have destroyed all the Robots you must then crash into the criminals vehical three times then the stage is over and you have arrested the criminal.

The game is finally over when the boss is arrested on the last stage.

TEST PROCEDURE

1. Press Test Switch which is located inside the coin door.
The screen will now display as shown below.

COIN 1	00	START	OFF	HANDLE	00
COIN 2	00	TURBO	OFF	ACCEL	OFF
SERV.	00	SHIFT	ON	BRAKE	OFF

COIN 1	1	COIN	1	CREDIT	SW1
COIN 2	1	COIN	1	CREDIT	0 0 0 0 0 0 0 0
GAME TIME		MEDIUM		SW2	
GAME DIFFICULTY		MEDIUM		1 1 0 0 0 0 0 0	
ATTRACT SOUND		ON			
DISPLAY TYPE		ENGLISH			
STAGE 5 CONTINUE		ON			
OUTPUT MODE		A		0 0 0 0	

2. Press Test Switch again and the machine will now display the colour Bar Test for the monitor.
3. To Exit Test Mode press Test Switch again.

DIP SWITCH SETTINGS

DIP SW1

		1	2	3	4	5	6	7	8
GAME TIME	MEDIUM LONG SHORT SHORTEST	ON OFF ON OFF	ON ON OFF OFF						
GAME DIFFICULTY	MEDIUM EASY HARD HARDEST			ON OFF ON OFF	ON ON OFF OFF				
ATTRACT SOUND	ON OFF					ON OFF			
DISPLAY TYPE	ENGLISH JAPANESE						ON OFF		
STAGE 5 CONTINUE	ON OFF							ON OFF	
OUTPUT MODE	LIGHT VIBRATION								ON OFF

DIP SW2

		1	2	3	4	5	6
COIN 1	1 COIN 1 CREDIT	ON	ON	ON			
	1 COIN 2 CREDIT	OFF	ON	ON			
	2 COINS 1 CREDIT	ON	OFF	ON			
	3 COINS 1 CREDIT	OFF	OFF	ON			
	4 COINS 1 CREDIT	ON	ON	OFF			
	5 COINS 1 CREDIT	OFF	ON	OFF			
	6 COINS 1 CREDIT	ON	OFF	OFF			
FREE PLAY	OFF	OFF	OFF				
COIN 2	1 COIN 1 CREDIT				ON	ON	ON
	1 COIN 2 CREDITS				OFF	ON	ON
	1 COIN 3 CREDITS				ON	OFF	ON
	1 COIN 4 CREDITS				OFF	OFF	ON
	1 COIN 5 CREDITS				ON	ON	OFF
	1 COIN 6 CREDITS				OFF	ON	OFF
	1 COIN 7 CREDIT				ON	OFF	OFF
FREE PLAY				OFF	OFF	OFF	

PINOUT INFORMATION

<u>PIN</u>	<u>COLOUR</u>	<u>FUNCTION</u>
1.	YEL/BLK	10p MICROSWITCH OR N.P.N OPEN COLLECTOR INPUT.
2.	N/C	10p MICROSWITCH OR N.P.N. OPEN COLLECTOR INPUT.
3.	WHT/BLU	10p PNP INPUT (MS 111/SENTINEL)
4.	N/C	20p INPUT (MICROSWITCH)
5.	WHT/GRN	20p INPUT (MS 111/SENTINEL)
6.	N/C	50p INPUT (MICROSWITCH)
7.	WHT/BLK	50p INPUT (MS 111/SENTINEL)
8.	N/C	£1 INPUT (MICROSWITCH)
9.	WHT/YEL	£1 INPUT (MS 111/SENTINEL)
10.	BLU/BLK	0 VOLTS (10p INHIBIT)
11.	BLU/YEL	0 VOLTS (20p INHIBIT)
12.	BLU/ORG	0 VOLTS (50p INHIBIT)
13.	BLU/WHT	0 VOLTS (£1 INHIBIT)
14.	BLACK	0 VOLTS
15.	BLACK	0 VOLTS
16.	N/C	0 VOLTS
17.	N/C	0 VOLTS
18.	ORANGE	+ 12v DC
19.	ORANGE	+ 12v DC
20.	ORANGE	+ 12v DC
21.	BLU/VIO	- POSITIVE COMMON FOR MS111/SENTINEL
22.	WHT/RED	METER OUTPUT (NPN OPEN COLLECTOR)
23.	ORG/BLK	CREDIT OUTPUT (NPN OPEN COLLECTOR)
24.	N/C	0 VOLTS

NOTES:-

- 1) Use 0 volts for negative common if plugging into MS 125 seperator unit.
- 2) Ensure that there is no coin meter connected across any input, eg. via a microswitch or an adaptor card.

NOTE: On most unigame adaptors pin 10 is linked to pin 24, and pin 11 is linked to pin 25, these links should be removed completely. Then short pin 11 to pin 12 on the adaptor card. This then uses the output from the credit board meter drive.

- 3) The meter will always total cash in 10p units regardless of any credit setting.
- 4) More than one coin mech may be fed into the PCB.

e.g. A) S10 (up to four)
 B) S10 X MS 111
 C) S10 X MS 125
 D) S10 X Sentinel

- 5) Most credit boards are supplied with a standard credit loom.
 (Part No 16315) fitted with a male 6 way amp mate 'N' lock connector.

Pinouts are shown below.

<u>PIN</u>	<u>COLOUR</u>	<u>FUNCTION</u>
1.	ORANGE	+12v DC SUPPLY
2.	PINK	+5v DC (LAMP SUPPLY)
3.	N/C	
4.	WHT/RED	TO COIN METER
5.	BLACK	0v DC
6.	ORG/BLK	COIN INPUT TO GAME PCB.

CONNECTOR INFORMATION

CONNECTOR CNA (MAIN BOARD)

		<u>A</u>	<u>B</u>	
GRY	TEST SW	1	COIN 1	BRN
RED	SERVICE SW	2	COIN 2	YEL
BLK	SW GROUND	3	SW GROUND	BLK
		4	START SW	VIO
		5	SW GROUND	BLK
		6	TURBO SW	BRN
		7		
RED	GEAR SW	8		
BLK	SW GROUND	9	ACCEL SW	GRN
YEL	BRAKE SW	10	SW GROUND	BLK
BLK	SW GROUND	11	START LAMP	BLU
RED	HANDLE A	12	HANDLE PCB +v	ORG
BRN	HANDLE B	13		
BLK	HANDLE GROUND	14		
		15	METER 1	WHT
		16	METER 2	GRY
BLK	COIN LAMP GROUND	17		
ORG	COIN LAMP +12vdc	18		
		19		
		20	START LAMP +v	ORG

CONNECTOR CNE (MAIN BOARD)

VIDEO PLUG

PIN 1	VIDEO RED	MONITOR LEFT	RED
2	VIDEO GREEN	MONITOR LEFT	GRN
3	VIDEO BLUE	MONITOR LEFT	BLU
4	VIDEO GROUND	MONITOR LEFT	BLK
5	HORZ. SYNC	MONITOR LEFT	WHT

THESE APPL TO 3 MONITOR VERSION

6	VIDEO RED	MONITOR CENTRE	RED
7	VIDEO GREEN	MONITOR CENTRE	GRN
8	VIDEO BLU	MONITOR CENTRE	BLU
9	VIDEO GROUND	MONITOR CENTRE	BLK
10	HORZ. SYNC	MONITOR CENTRE	WHT
11	VIDEO RED	MONITOR RIGHT	RED
12	VIDEO GREEN	MONITOR RIGHT	GRN
13	VIDEO BLU	MONITOR RIGHT	BLU
14	VIDEO GROUND	MONITOR RIGHT	BLK
15	HORZ. SYNC	MONITOR RIGHT	WHT
16	N/C		

CONNECTORS CNC/CND (MAIN BOARD
LOGIC BOARD SUPPLY PLUGS)

PIN 1	GROUND	BLK
2	GROUND	BLK
3	GROUND	BLK
4	+5vdc	PNK
5	+5vdc	PNK
6	N/C POLARIZING KEY	
7	+5vdc	PNK

CONNECTOR H (INTERFACE PCB)
VOLUME CONTROL

PIN 1	VOLUME	YEL/RED
2	VOLUME	YEL/BRN
3	VOLUME	YEL/GRN

CONNECTOR G (INTERFACE PCB)
INTERFACE PCB SUPPLY

PIN 1	+12vdc	ORG
2	POLARIZING KEY	
3	GROUND	BLK
4	N/C	

CONNECTOR CNF (INTERFACE PCB)
SPEAKERS

PIN 1	SPEAKER RIGHT	VIO
2	SPEAKER RIGHT	BLU
3	SPEAKER LEFT	GRN
4	SPEAKER LEFT	BLU
5	WOOFER	GRY
6	WOOFER	WHT
7	N/C	

CONNECTOR M (BRAKE PEDAL) (ONLY USED OF SITDOWN)

PIN 1	GROUND	BLK/GRY
2	BRAKE SW	BLU/YEL
3	N/C	
4	N/C	

CONNECTOR L (ACCEL PEDAL)

PIN 1	GROUND	BLK/RED
2	ACCEL SW	YEL/BLU
3	N/C	
4	N/C	

CONNECTOR J (CONTROL PANEL)

PIN 1	GROUND	BLK/GRN
2	START SW	GRN/BLK
3	START LAMP	BLU/BLK
4	HANDLE GND	BLK/BLU
5	HANDLED A	GRN/BRN
6	HANDLE +V	ORG
7	HANDLE B	ORG/BLU
8	START LAMP +V	YEL
9	N/C	
10	N/C	
11	N/C	
12	N/C	

CONNECTOR N (COIN DOOR)

PIN 1	+12vdc	ORG
2	COIN LAMP +V	PNK
3	COIN 2	YEL/BLK
4	CREDIT BD METER	WHT/RED
5	GROUND	BLK/WHT BLK
6	COIN 1	ORG/BLK

CONNECTOR I (SERVICE/VOLUME CONTROL)

PIN 1	GROUND	BLK/BRN
2	TEST SW	YEL/ORG
3	SERVICE SW	RED/ORG
4	VOLUME	YEL/RED
5	VOLUME	YEL/BRN
6	VOLUME	YEL/GRN

CONNECTOR F (LOGIC SUPPLY)

PIN 1	+5vdc	PNK
2	+5vdc	PNK
3	+5vdc	PNK
4	N/C	
5	GROUND	BLK
6	GROUND	BLK
7	GROUND	BLK
8	GROUND	BLK
9	+12V DC	ORG
10	N/C	
11	N/C	
12	N/C	

CONNECTOR K (GEAR LEVER)

PIN 1	GROUND	BLK/RED
2	GEAR SW	PNK/BLK
3	TURBO SW	ORG/RED
4	N/C	

CONNECTOR Q (METERS)

PIN 1	+5vdc	PNK	
2	*	WHT/ORG	METER 1
3	*	WHT/YEL	METER 2
		WHT/RED	CREDIT BD METER

* THESE WIRES HAVE BEEN TIED BACK TO USE WHEN REQUIRED.

WIRE LIST

PART NO 16894

TITLE

SHEET 1 OF 2

REVISION B

MAIN LOOM

DATE 12-3-90

WIRE NO	FROM	TO	COLOUR	FUNCTION	WIRE SIZE
1	A-1	TEST SW	YEL/ORG	TEST SW	13/02
2	A-2	N-6	ORG/BLK	COIN 1	13/02
3	A-3	SERV SW	RED/ORG	SERVICE SW	13/02
4	A-4	N-3	YEL/BLK	COIN 2	13/02
5	A-5	N-5	BLK/WHT	COIN SW GND	13/02
6	A-6	TEST SW	BLK/BRN	SW GROUND	13/02
7	A-8	L-2	YEL/BLU	ACCEL SW	13/02
8	A-10	L-1	BLK/RED	ACCEL SW GND	13/02
9	A-11	N-2	PNK	COIN LAMP +V	13/02
10	A-15	SERV	BLK	COIN SW GND	13/02
11	A1-1	J-2	GRN/BLK	START SW	13/02
12	A1-2	J-1	BLK/GRN	START SW GND	13/02
13	A1-3	J-7	ORG/BLU	HANDLE B	13/02
14	A1-4	J-3	BLU/BLK	START LAMP	13/02
15	A1-5	J-5	GRN/BRN	HANDLE A	13/02
16	A1-6	J-6	ORG	HANDLE +V	13/02
17	A1-7	J-4	BLK/BLU	HANDLE GND	13/02
18	A1-9	J-8	YEL	START LAMP +V	13/02
19	A2-1	J-9	ORG/RED	TURBO SW	13/02
20	A2-2	J-10	PNK/BLK	GEAR SW	13/02
21	A2-3	J-11	BLK/RED	SW GROUND	13/02
22	A2-4	Q-tied back	WHT/ORG	METER 1	13/02
23	A2-5	Q-tied back	WHT/YEL	METER 2	13/02
24	R-1	Q-1	PNK	METER +V	24/02
25	D-1	D1-3	RED	VIDEO RED MC	13/02
26	D-2	D1-2	GRN	VIDEO GRN MC	13/02
27	D-3	D1-1	BLU	VIDEO BLU MC	13/02
28	D-4	D1-4	BLK	VIDEO GND MC	13/02
29	D-5	D1-6	WHT	VIDEO H SYNC	13/02
30	B-1	F-5	BLK/GRN	GROUND	24/02
31	B-2	F-5	BLK/GRN	GROUND	24/02
32	B-3	F-6	BLK/YEL	GROUND	24/02
33	B-4	F-1	PNK	+5vDC	24/02
34	B-5	F-1	PNK	+5vDC	24/02
35	B-7	F-2	PNK	+5vDC	24/02
36	C-1	F-6	BLK/YEL	GROUND	24/02
37	C-2	F-7	BLK/RED	GROUND	24/02
38	C-3	F-7	BLK/RED	GROUND	24/02
39	C-4	F-2	PNK	+5vDC	24/02
40	C-5	F-3	PNK	+5vDC	24/02
41	C-7	F-3	PNK	+5vDC	24/02
42	G-1	F-9	ORG	+12vDC	24/02
43	G-3	F-8	BLK	GROUND	24/02
44	H-1	POT-B	YEL/RED	VOLUME	13/02
45	H-2	POT-B	YEL/BRN	VOLUME	13/02
46	H-3	POT-C	YEL/GRN	VOLUME	13/02
47	F-9	N-1	ORG	+12vDC	24/02
48	F-8	N-5	BLK	GROUND	24/02
49	N-4	Q-tied back	WHT/RED	Credit Bd Meter	13/02
50	S-1	T-1	BRN	MON 0v	24/02

WIRE LIST

PART NO 16894

TITLE

SHEET 2 OF 2

REVISION B

MAIN LOOM

DATE 12-3-90

WIRE NO	FROM	TO	COLOUR	FUNCTION	WIRE SIZE
51	S-2	T-2	RED	MON 135v	24/02
52	S-3	T-3	ORG	MON 0v	24/02
53	S-4	T-4	YEL	MON 240v	24/02
54	E	E1	GRN/YEL	EARTH	24/02
55	E1	E2	GRN/YEL	EARTH	24/02
56	E	E3	GRN/YEL	EARTH	24/02
57	E3	E4	GRN/YEL	EARTH	24/02
58	E3	E5	GRN/YEL	EARTH	24/02
59	E5	E6	GRN/YEL	EARTH	24/02
60	E6	E7	GRN/YEL	EARTH	24/02
61	E	K-4	GRN/YEL	EARTH	24/02
62	L1	SP	VIO	SPEAKER 1	13/02
63	L2	SP	BLU	SPEAKER 1	13/02
64	L3	SP	GRN	SPEAKER 2	13/02
65	L4	SP	BLU/WHT	SPEAKER 2	13/02
66	L5	M	GRY	WOOFER	13/02
67	L6	M	WHT	WOOFER	13/02



ELECTROCOIN AFTERSALES & SERVICE LTD

The above company has been formed as part of the Electrocoin Automatics Group at the Cardiff factory to provide the AfterSales 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, all "Famous Games" products, and all Board Games distributed by Electrocoin Ltd.

Normal working hours are Monday to Friday 08.00 to 17.30
and Saturday morning 08.00 to 12.30

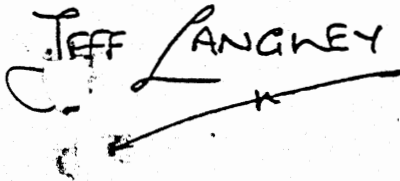
Aftersales & Service Tel No: 0222 615100 during working hours, 0836 536195 after hours / weekends.

Please contact the following staff for:

PARTS ENQUIRIES	-	GARY SCOBLE
TECHNICAL INFORMATION	-	IAN COLLEY
ACCOUNTS ENQUIRIES	-	JULIE TIPPER
WORKSHOP SUPERVISOR	-	CLAUDE LEWIS
CREDIT CONTROLLER	-	STEPHEN HARRIS

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

Assuring you of the best attention at all times.



JEFF LANGLEY
General Manager

ELECTROCOIN AFTERSALES & SERVICE LTD.