

SERVICE MANUAL
UPRIGHT MODEL

SPECIAL
CRIMINAL
INVESTIGATION



TAITO CORPORATION

PART NO 64050

SPECIFICATIONS:

- 1. Power Supply 240/220 VAC (Hantarex US 250 power supply)
- 2. Power Consumption 140w
- 3. Play Pricing Adjustable on Dip switches
- 4. TV Monitor 20" Hantarex 9000E colour monitor
- 5. Dimensions
Width : 589mm
Depth : 730mm
Height : 1825mm
- 6 Weight Approximately 140KG

* The specifications and appearance may be changed for improvement.

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WARNING

IN ORDER TO INCREASE THE LIFE OF YOUR MACHINE AND REDUCE GAME DOWN TIME, CERTAIN CHECKS SHOULD BE CARRIED OUT WEEKLY.

- 1) CHECK STEERING GEAR, LEVER AND FOOT PEDAL MOUNTING BOLTS FOR SECURITY & TIGHTEN IF NECESSARY.
- 2) INSPECT WIRING HARNESS GOING TO PLAY PANEL FOR SIGNS OF CHAFFING OR LOOSE CONNECTIONS.
- 3) LUBRICATE GEAR AND BEARINGS AT 3 MONTHLY INTERVALS.
- 4) PLAY PANEL LATCHES ARE ADJUSTABLE, ENSURE THEY ARE ALWAYS KEPT TIGHT.

NOTE:- THESE CHECKS SHOULD ONLY TAKE 5 MINUTES OF YOUR TIME, BUT COULD SAVE DAYS OF MACHINE DOWNTIME.

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.

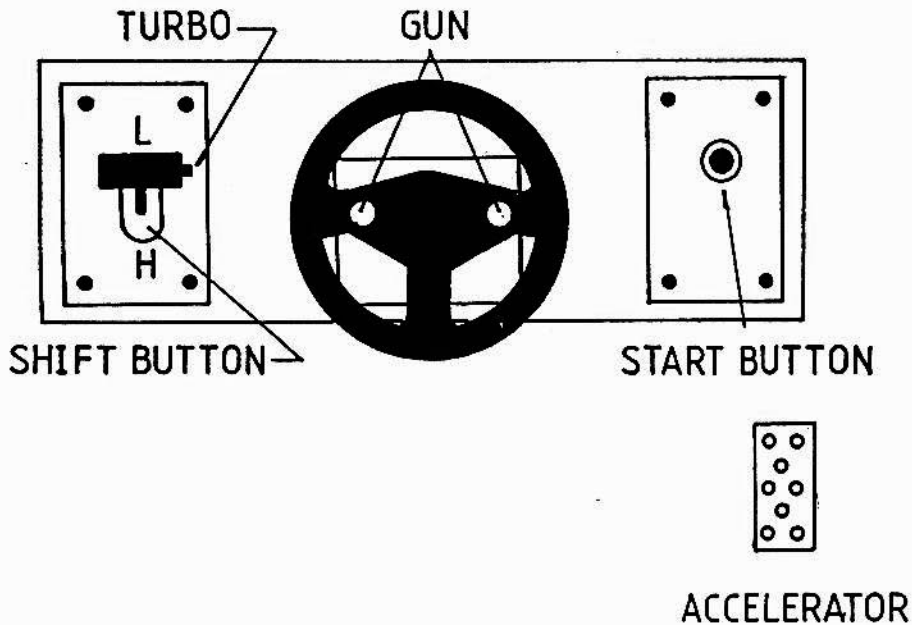
REGULARLY CLEAN THE OUTSIDE OF THE CABINET. DO NOT DRY WIPE ANY OF THE ACRYLIC PANELS, BECAUSE ANY DUST CAN SCRATCH THE SURFACE AND RESULT IN FOGGING THE PLASTIC. ACRYLIC SURFACES MAY BE CLEANED WITH ANY NON-ABRASIVE HOUSEHOLD CLEANER.

SCI PLAY INSTRUCTIONS

The object of the game is to chase and capture the criminals before the time reaches zero. The game consists of five separate stages. Each stage must be completed before proceeding to the next stage.

HOW TO PLAY

- * Insert coin(s) and press Start Button.
- * The criminals car is indicated at the start of the scene.
- * When game commences the distance to the criminals car is displayed on the right of the screen and the damage on the left.
- * When the "TURBO" button is pressed the players car is greatly accelerated for a given time (the number of "TURBO'S" available is displayed in the lower left of the screen).
- * Extra time is added upon first reaching the criminals car. "Bullets may be fired at will". Force the criminals off the road by crashing into their car.
- * The game ends when the time reaches zero.
- * To increase your Fire Power catch the Bazookas dropped from the Helicopter.



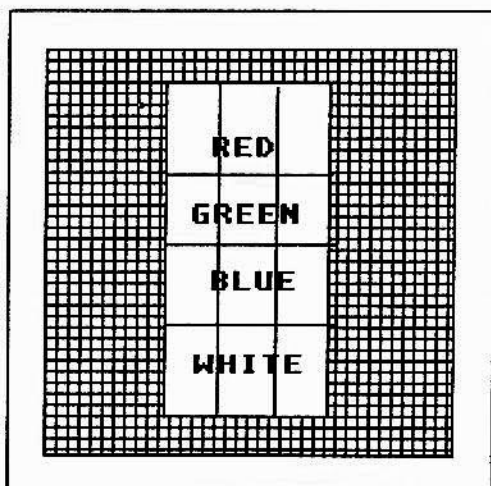
TEST MENU

By turning on the Dip Switch A-3 located on the main PC board and by turning on the main power switch. The screen changes to the Test Mode menu.

1. CRT TEST

When the Cross Hatch and colour bars are displayed on the screen, colours and brightness can be adjusted.

CROSS HATCH



When the Start button is pressed the screen returns to the next test.

TEST MODE

COIN A	:	OFF	COIN B	:	OFF
SERVICE	:	OFF	TILT	:	OFF
ACCEL	:	OFF	SHIFT	:	OFF
BRAKE	:	OFF	NITRO	:	OFF
START	:	OFF	GUN	:	OFF
HANDLE	:	000	CENTRE	:	OFF

DIP SW		8	7	6	5	4	3	2	1	
A		H	H	H	H	H	H	H	H	L= ON
B		H	H	H	H	H	H	H	H	H= OFF

SOUND CODE : 80:00

RAM OK

SCI DIP SWITCHES

<> SETTING OF DIP SWITCH A

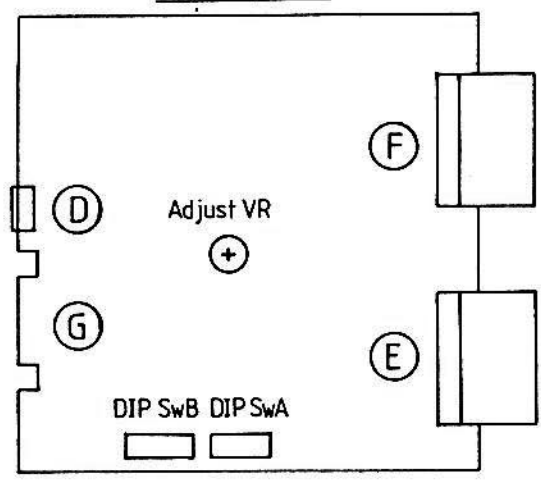
SETTINGS	POSITIONS	1	2	3	4	5	6	7	8
CABINET	* COCKPIT * UPRIGHT	OFF ON							
DOME LIGHT	* ROTATING * FLASHING		ON OFF						
TEST MODE	* NORMAL GAME TEST MODE			OFF ON					
ATTRACT SOUND	* WITH WITHOUT				OFF ON				
PLAY PRICING COIN A	* 1 COIN 1 PLAY 2 COINS 1 PLAY 3 COINS 1 PLAY 4 COINS 1 PLAY					OFF ON OFF ON	OFF OFF ON ON		
PLAY PRICING COIN B	* 1 COIN 2 PLAYS 1 COIN 3 PLAYS 1 COIN 4 PLAYS 1 COIN 6 PLAYS							OFF ON OFF ON	OFF OFF ON ON

<> THE SETTING OF DIP SWITCH B

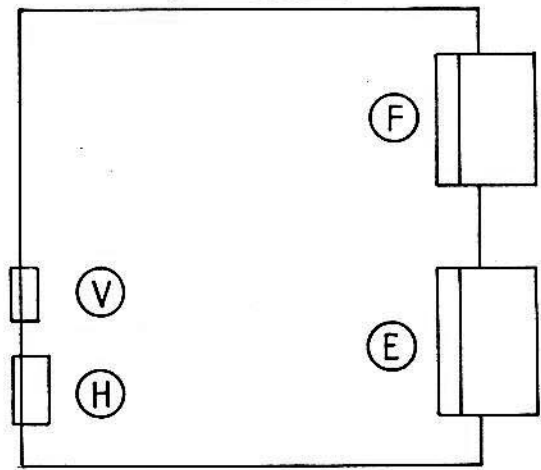
SETTINGS	POSITIONS	1	2	3	4	5	6	7	8
GAME DIFFICULTY A (EASY) D (DIFFICULT)	* RANK B RANK A RANK C RANK D	OFF ON OFF ON	OFF OFF ON ON						
TIMER (INITIAL SETTING)	* 60 SEC 70 SEC 65 SEC 55 SEC			OFF ON OFF ON	OFF OFF ON ON				
NUMBER OF TURBO STOCKED	* 3 5					OFF ON			
HANDLE STOPPER	* WITH WITHOUT						OFF ON		
DAMAGE CLEARING WHEN GAME IS CONTINUED	* WITH WITHOUT							OFF ON	
VOLUME OF SIREN	* NORMAL LOW								OFF ON

* FACTORY SETTINGS.

CPU PCB



VIDEO PCB



KEY

CONNECTOR	DESCRIPTION
D	5 WAY JST 0.1" PITCH
G	28 WAY EDGE CONN. KEYWAY 7.H.
H	12 WAY MOLEX 0.156" PITCH KEY. 10.
V	7 WAY JST 0.1" PITCH

JOB NO.		DRAWN		SCALE		DATE		DRG. NO.		PART NO.	
11/1/89		CJF		1/11/89		1997					
ELECTROCOIN AUTOMATICS LTD. AOI INDUSTRIAL ESTATE PERRY ROAD CHADDY TEL. 372718											
SCJ GAME PCB BOARD DRWG											
REFERENCE DRAWINGS											
NO.	REV.	DESCRIPTION	BY	DATE	ON	BY	DATE				

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 separator 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.

SCI MAIN LOOM

CONNECTOR A

LOGIC PCB

28 WAY EDGE CONNECTOR KEYWAY PINS 7,H

BLK	GND	1 A	GND	BLK
BLK	GND	2 B	GND	BLK
PNK	+5v	3 C	+5v	PNK
PNK	+5v	4 D	+5v	PNK
VIO	-5v	5 E	-5v	VIO
ORG	+12v	6 F	+13v	RED/BLK
	KEYWAY	7 H	KEYWAY	
WHT/ORG	METER A	8 J	METER B	WHT/YEL
		9 K		
GRY/WHT	L SPEAKER (+)	10 L	R SPEAKER (+)	GRY/BLK
WHT/GRY	L SPEAKER (-)	11 M	R SPEAKER (-)	BLK/GRY
YEL/RED	VOL. 2	12 N	VOL 1	YEL/BRN
YEL/GRN	VOL. 3	13 P		
BLK	GND	14 R	SERVICE SW	RED/ORG
BLK	GND	15 S		
ORG/BLK	COIN A	16 T	COIN B	YEL/BLK
		17 U		
ORG/RED	NITRO SW	18 V		
YEL/VIO	CENTER SW	19 W	START SW	GRN/BLK
PNK/BLK	SHIFT SW	20 X	ACCELERATOR	YEL/BLU
		21 Y		
WHT/VIO	PT LIGHT	22 Z		
		23 a	GUN SW	PNK/BLU
		24 b		
		25 c		
ORG/BLU	HANDLE (+)	26 d	HANDLE (-)	GRN/BRN
BLK	GND	27 e	GND	BLK
BLK	GND	28 f	GND	BLK

CONNECTOR B+24v MOTOR5 WAY JST 0.1" PITCH

1	+24v IN	GRY
2	+24v IN	GRY
3	GND	BLK
4	GND	BLK
5	DRIVE	BLK/WHT

CONNECTOR DLOGIC PCB12 WAY MOLEX 0.156" PITCH KEYWAY PIN 10

1	GND	BLK
2	GND	BLK
3	GND	BLK
4	GND	BLK
5	+5v	PNK
6	+5v	PNK
7	+5v	PNK
8	+5v	PNK
9		
10	KEYWAY	
11		
12		

CONNECTOR CVIDEO7 WAY JST

1	VIDEO GND	BLK/BLU
2	VIDEO RED	
3	VIDEO GRN	
4	VIDEO BLU	
5	V-SYNC WHT	
6	NOT USED	
7	NOT USED	

CONNECTOR FMETER3 WAY AMP M+L SOCKET MALE PINS

1	+5V	PNK
2	CREDIT BD	WHT/RED
3	METER A	WHT/ORG
4	METER B	WHT/YEL (tied back)

CONNECTOR GACCELERATOR4 WAY AMP MINI M+L SOCKET MALE PINS

1	GND	BLK
2	ACCEL	YEL/BLU
3	+5v	PNK
4	EARTH	GRN/YEL

CONNECTOR HMONITOR SUPPLY4 WAY AMP M+L PLUG MALE PINS

1	0v	BRN
2	135v	RED
3	0v	ORG
4	220v	YEL

CONNECTOR I9 WAY AMP M+L PLUG FEMALE PINS

1	+13v	RED/BLK
2	+13v	RED/BLK
3	+13v	RED/BLK
4	GND	BLK
5	GND	BLK
6	GND	BLK
7	GND	BLK
8	+24v	GRY
9	+24v	GRY

CONNECTOR BOXCONNECTOR J9 WAY AMP M+L PLUG MALE PINS

1	+5v	PNK
2	+5v	PNK
3		
4	GND	BLK
5	GND	BLK
6	GND	BLK
7	GND	BLK
8	+12v	ORG
9	-5v	VIO

PSUCONNECTOR KROTARY SW (PART NO 13 FACK 1026)+
MINI PUSH BUTTON (PART NO 43EC45A02)

1	GND	BLK
2	SERVICE SW	RED/ORG
3	VOL 1	YEL/BRN
4	VOL 2	YEL/RED
5	VOL 3	YEL/GRN
6	VOL GND	BLK

SERVICE BRKTCONNECTOR L6 WAY AMP M+L SOCKET MALE PINS

1	+12v	ORG
2	+5v	PNK
3	COIN B	YEL/BLK
4	CREDIT BD	WHT/RED
5	GND	BLK
6	COIN A	ORG/BLK

COIN DOORCONNECTOR M15 WAY AMP MINI M+L SOCKET MALE PINS

1	+5v PNK	PNK	8	DRIVE	BLK/WHT
2	HANDLE (+)	ORG/BLU	9	+24v	GRY
3	HANDLE (-)	GRN/BRN	10	SHIFT SW	PNK/BLK
4	CENTRE	YEL/VIO	11	NITRO SW	ORG/RED
5	GND	BLK	12	GND	BLK
6	START SW	GRN/BLK	13		
7	GUN SW	PNK/BLK	14		
			15	EARTH	GRY/YEL

CONTROL MECH (STEERING)

CONNECTOR NPATROL LIGHT2 WAY AMP MINI M+L SOCKET MALE PINS

1	GND	BLK
2	PT LIGHT	WHT/VIO

CONNECTOR OSPEAKERS4 WAY AMP MINI M+L SOCKET MALE PINS

1	L SPEAKER (+)	GRY/WHT
2	L SPEAKER (-)	WHT/GRY
3	R SPEAKER (+)	GRY/BLK
4	R SPEAKER (-)	BLK/GRY

CONNECTOR PMONITOR12 WAY AMP M+L PLUG (RED) FEMALE PINS

1	VIDEO GND	BLK/BLU
2		
3	VIDEO BLU	BLU
4	V-SYNC	WHT
5	VIDEO RED	RED
6	VIDEO GRN	GRN
7	0v	BRN
8		
9	220v	YEL
10	135v	RED
11		
12	0v	ORG