

ELECTROCOOLING AUTOMATICS LTD

BRIGHT

SERVICE MANUAL

Aquastar

TẬP ĐOÀN TAITO CORPORATION

PART NO. 64045

AQUAJACK

SPECIFICATIONS:

1. Power Supply	240/220 V AC (nguồn điện Hantarex HS 250 power supply)
2. Power Consumption	140W
3. Plug Ground	Adjustable on Dip switches
4. TV Monitor	20" Hantarex 9000E colour monitor Màn hình màu Hantarex 9000E
5. Dimensions	Width : 588mm Độ rộng : 588mm Depth : 746mm Độ sâu : 746mm Height : 1808mm Chiều cao : 1808mm
6. Weight	Approximately: 140 KG Khoảng: 140 KG

* The specifications and appearance may be changed for improvement.

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PRIORITATIONSONG TỐI ƯU SỬ DỤNG KHI CÀI ĐẶT MÁY

**THIS VIDEO GAME IS FOR INDOOR USE ONLY.
KHI CÀI ĐẶT KHÔNG ĐỂ TRONG MÁI KẼM VÀO ĐÂY 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. **PROXIMITY OF HIGHLY INFLAMMABLE/VOLATILE CHEMICALS.**
5. **UNEVEN SURFACES.**
6. **PROXIMITY OF FIRE EXITS AND FIRE EXTINGUISHERS.**
7. **DUSTY ATMOSPHERE.**

INSTALLATION

**IT IS IMPORTANT TO AVOID BRUTAL HANDLING OF THIS MACHINE AS CERTAIN PARTS
ARE PRAGILE.**

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 PCB BOARD. CÁC Ổ NẤM LẮP VÀO BỘ MẠCH PCB. NEU PHẠT HIỆN BẤT KỲ Ổ NẤM KHÔNG
LẮP LÊN QUÁ LINH ĐỘNG HÌNH KÉM, CÁC Ổ NẤM LẮP VÀO BỘ MẠCH CPU CỦA MÁY KHÔNG THỂ HƯỚNG ĐÚNG
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) **KIỂM XEM CÁC CỤM CHIẾU HÌNH VÀ BỘ MẠCH PCB ĐÃ LẮP LÊN QUÁ LINH ĐỘNG HÌNH KÉM
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 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 SCREEN 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.**

REPAIR

**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.**

PLAY INSTRUCTIONS

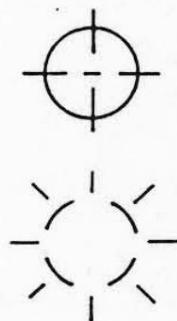
1. This game is a shooting game in which the player controls the hovercraft to destroy the enemy..
2. A round can be cleared by defeating the Boss Mech appearing in each scene.
3. The game ends when the player has cleared 8 stages or the stocks of Aquajack players have been lost.
4. EXPLANATION FOR THE CONTROL MECH AND FUNCTIONS

Control Mech

By moving the Control Mech Aquajack can be moved Left/Right or Up/Down.

Vulcan Gun

Fully Automatic Fire.



MARK(Khóa súng)

MARK(Thường)

LOCK ON GUN SIGHT

When the sight sees an enemy lock on will happen automatically for approx 0.5 sec 'FIRE' will then be heard.
lock on can be released after shooting 15 bullets or the trigger has been pressed.

START/MISSILE BUTTON

Three Missiles can be used per round to wipeout the enemy.
On completion of each strike one round is added.

NUMBER BUTTON

This button can be used for avoiding obstacles and carries bullets.

ACCELERATOR

By depressing the Foot Pedal Aquajack accelerates.

5. GAME PLAY

Press Start Button to Start.
The screen changes the game mode. Aquajack departs from a garage then the play starts.

ROUND COMPOSITION

There are 8 stages.

After finishing each stage, the round map is shown so that the player can confirm his score.

ROUND 1
ROUND 2
ROUND 3
ROUND 4

LAKE
RIVER
Grass Plain Village
Rocky Mountain

ROUND 5
ROUND 6
ROUND 7
ROUND 8

LAKE
JUNGLE
Factory area
Base

chan huoi JUNG LE
Economy base

Each round can be cleared by defeating the Boss-Mech appearing towards the end of each round..

6. GAME OVER

The game ends when all 8 rounds have been cleared.
The game also ends when all stocks of the players 'Aquajack' have been lost.

7. CONTINUE PLAY

If the Game ends during playing, a continued play can be played.

* Trong khi chơi kết thúc trong khi đang chơi, bạn có thể tiếp tục chơi.
* Khi trò chơi kết thúc trong khi đang chơi, hãy đưa xu vào để ghi có và nhấn Bắt đầu Button.

8. NAME REGISTRATION

When the Player's score is ranked in the Top Ten places, his name registration can be made.
In such case by controlling 'Aquajack' and pressing the Start Button when it reaches a desired letter. (Only three letters can be used).

9. Difficulty Levels:

By using the Dip Sw. the difficulty levels can be changed in 4 steps.
Bằng cách sử dụng Dip Sw. các cấp độ khó có thể thay đổi theo 4 bước.

In detail, refer to the table for settings.

TEST MODE

COIN A :: OFF
SERVICE :: OFF
1 PLAYER SELECT : OFF

COIN B :: OFF
TILT :: OFF 01'1'
2 PLAYER SELECT : OFF

1 P SW1 :: OFF
1 P SW2 :: OFF
1 P SW3 :: OFF

2 P SW1 :: OFF
2 P SW2 :: OFF
2 P SW3 :: OFF

1 PULL :: OFF
D TÁ OFF
L :: OFF
R :: TÁ OFF

2 PULL :: OFF
D TÁ OFF
L :: OFF
R :: OFF

DIP SW	8	7	6	55	4	33	2	T01	L =BON
A	H	H	HH	H	LL	HH	H	HH	H - TÁ OFF
B	H	H	HH	H	HH	H	0	H	

SOUND CODE : 00H

RAM OK
RAM OK

AQUAMASK

TEST

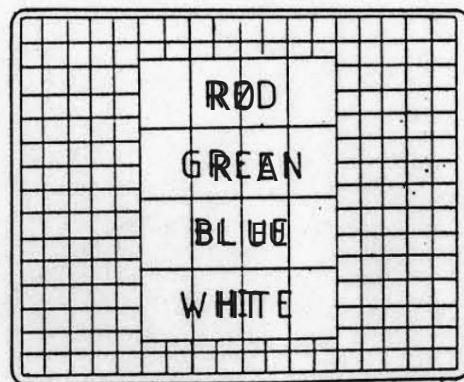
CROSSHATCH

By turning on the Dip Switch A3 located on the main PC boards and by turning on the main power switch. The screen changes to the test mode menu.

CRT TEST

Also this Cross Hatch and colour bars are displayed on the screen condition. Colours and brightness can be adjusted.

CROSS HATCH



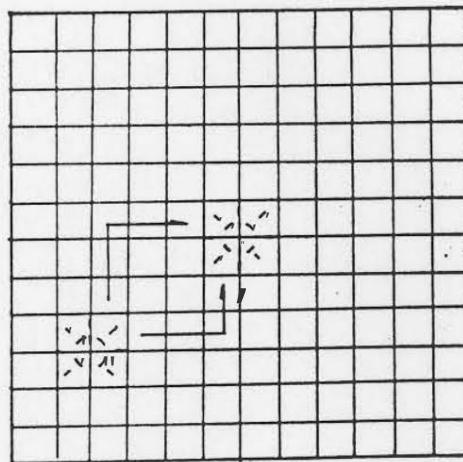
When the service switch button is pressed the screen returns to the next test.

ADJUST TEST

This test will allow the user to indicate the tip/Down/Left/Right movement of the Steering Mech. Adjust position using ADJ X and ADJ Y potentiometers as necessary with the steering mechanism in its central position.

NOTE: ADJ X and ADJ Y potentiometers are located just inside the coin door mounted on bracket.

Nhấn nút Bắt đầu để tiếp tục bài kiểm tra.



TOPI SWIPE SETTINGSDIP SWIPE A

1	- - - - -	tôi	1	2	3	4	5	6	7	8
GAME STYLE	MOVING NON MOVING KHONG_ M-IV N;	Tôi OFF ON BAT								
SOUND INVERSION	NORMAL INVERSION	I	OFF ON							
TEST MODE	Tôi NORMAL TEST MODE			OFF ON						
DEMO SOUND	WITH WITHOUT				OFF ON					
COIN A	1 h COIN chơi PLAY 2 h COIN chơi PLAY 3 h COIN chơi PLAY 4 h COIN chơi PLAY					OFF ON OFF ON	OFF ON			
COIN B	Tôi và xu 2 PLAY ¹ h COIN 3 xPLAY h COIN 4 PLAY h COIN 6 PLAY							OFF ON OFF ON	TÔI TRÊN TÔI OFF ON	OFF ON

Tô i 1

DIP SWIPE B

		1	2	3	4	5	6	7	8
DIFFICULTY LEVEL	B A C D	OFF ON OFF ON	OFF ON						
BONUS	50000 80000 100000 20000			OFF ON OFF ON	OFF ON				
STOCK OF PLAY AGAIN LIVES	3 2 1 5					OFF ON OFF ON	OFF ON		

HIGH SETTINGS V-2

<u>Flame On</u>	1	2	3	4	5	6	7	Trial
-----------------	---	---	---	---	---	---	---	-------

<u>Bonus Games</u>	Not used							
--------------------	----------	--	--	--	--	--	--	--

None	on	on
For every 50p	off	on
For every £1	on	off
For every £2	off	off

1 Pulse per credit	on
2 Pulses per credit	off

Price per play

10p	on	on	on
20p	off	on	on
30p	on	off	on
40p	off	off	on
50p	on	tat	on
60p	off	on	off
£1	on	off	off
£2	off	off	off

Please Note:- A bonus game will only be awarded if the game price of play is less than the bonus value set. Also if a mixture of coins are inserted, the time interval between coins inserted must be of less than 5 seconds for the bonus to be awarded.

EXAMPLES OF SETTINGS (FOR 51 INSERTED).

Price of Play	Bonus Games	Credits	Bonus	Total
10p	off	10	None	10
10p	For every 50p	10	2	12
10p	For every £1	10	1	11
20p	off	5	None	5
20p	For every 50p	5	2	7
20p	For every £1	5	1	6
30p	off	3	None	3
30p	For every 50p	3	2	5
30p	For every £1	3	1	4
40p	off	2	None	3
40p	For every 50p	2	2	4
40p	For every £1	2	1	3
50p	off	2	None	2
50p	For every £1	2	1	3

PART NO 12164

ELECTRONIC CREDIT BOARDPINOUT INFORMATIONPIN COLOURFUNCTION

1. YEL\BLK	10p MICROSWITCH OR N.P.N OPEN COLLECTOR INPUT
2. WHI\BLD	10p INPUT (MS 111\SENTINEL)
3. NIC\BLU	10p INPUT (MS 111\SENTINEL 201)
4. NIC	20p INPUT (MICROSWITCH)
5. WHIT\GRN	20p INPUT (MS 111\SENTINEL 501)
6. NIC	50p INPUT (MICROSWITCH)
7. WHI\BLK	50p INPUT (MS 111\SENTINEL) DÀU VÀO (MICROSWITCH 501)
8. NIC	£1 INPUT (MS 111\SENTINEL) DÀU VÀO (MS 111\SENTINEL 6 VOLTS)
9. WHT\YEL	£1 INPUT (MS 111\SENTINEL) 0 VOLTS (20p ÚC CHÉ) 0 VOLTS (50p ÚC CHÉ) 6 VOLTS
10. BLU\BLK	0 VOLTS (10p INHIBIT) 0 VOLTS (20p INHIBIT)
11. BLU\YEL	0 VOLTS (50p INHIBIT)
12. BLU\ORG	0 VOLTS (£1 INHIBIT)
13. BLU\WHT	0 VOLTS
14. BLACK	0 VOLTS
15. BLACK	0 VOLTS
16. NIC	0 VOLTS
17. NIC	0 VOLTS
18. ORANGE	+ 12v DC
19. ORANGE	+ 12v DC
20. ORANGE	+ 12v DC
21. BLUVIO	- POSITIVE COMMON FOR MS111\SENTINEL
22. WHT\RED	METER OUTPUT (PNP OPEN COLLECTOR)
23. ORG\BLK	CREDIT OUTPUT (NPN OPEN COLLECTOR)
24. NIC	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) C) 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.

PIN COLOURFUNCTION

1. CAM ORANGE	+12v DC SUPPLY
2. PINK	+5v DC (LAMP SUPPLY)
3. NIC	TO COIN METER
4. WHIT\RED	DÀU VÀO PCB DC
5. BLACK	COIN INPUT TO GAME PCB.
6. ORG\BLK	

2X WAY EDGE CONNECTOR

BLK	GND	A 1 1 GND GND	BLK
BLK	GND	B 2 2 5V C 4 1 GND	BLK
PNK	+5V	C ; 1 1 5V E 1 1 +12V	PNK
PNK	+5V	D1 RĂNG KHÓA II 8 1+5V	PNK
VIO	-5V	E THANH 5) -5V	VIO
ORG	+12V 1:2V	F 6 +12V	ORG
BLK	KEYWAY	H 7 KEYWAY	
GRY/BLK	L. SOUND (-)	J 8 L SOUND (+)	GRY/WHT
GRY/BLK	R SOUND (-)	K 9 1 R AN THANH (+) R SOUND (+)	GRY/WHT
YEL/BLK	YIELD VOL.2	L 10 TẬP L 1 VOL.1	YEL/BLK
YEL/GRN	VOL.3	M PHỤC VỤ SW	
BLU/PNK	VULCAN GUN COIN B	N 12 SERVICE SW	RED/ORG
YEL/BLK	COIN B	PANG 16 1 NHẠC	
YEL/BLU	ACCELERATOR	R 14	
GRN	VIDEO GRN	S 15 MISSILE START	GRY/GRN
WHT	VIDEO SYNC	T 16 JUMP	BLU/YEL
BLK	GND	U 17 COIN A	ORG/BLK
BLK	GND	V 18 METER A	WHT/ORG
YEL/BLU	ACCELERATOR	W 19	
GRN	VIDEO GRN	X 20	
WHT	VIDEO SYNC	Y 21 VIDEO RED	RED
BLK	GND	Z 22 VIDEO BLU	BLU
BLK	GND	AA 23 VIDEO GND	BLK
BLK	GND	AB 24	
BLK	GND	AC 25	
BLK	GND	AD 26	
BLK	GND	AE 27 GND	BLK
BLK	GND	AF 28 GND	BLK

AQUARIUS KCONNECTORS

<u>CONNECTOR B</u>	<u>PSU</u>	<u>9 WAY AMP M-F PLUG MALE PINS</u>
1	+5v	PINK
2	+5v	PINK
3		
4	GND	BLK
5	GND	BLK
6	GND	BLK
7		
8	+12v	ORG
9	-5v	VIO

<u>CONNECTOR C</u>	<u>MONITOR SUPPLY</u>	<u>4 WAY AMP M-F PLUG MALE PINS</u>
1	0v	BRN
2	135v	RED
3	0v	ORG
4	220v	VAN

<u>CONNECTOR D</u>	<u>MONITOR</u>	<u>12 WAY AMP M-F PLUG FEMALE PINS (RED)</u>
1	VIDEO GND	BLK/BLU
2		
3	VIDEO BLU	BLU
4	Sync	WHT
5	VIDEO RED	RED
6	VIDEO GRN	GRN
7	0v	BRN
8		
9	220k	VAN
10	135v	RED
11	0v	ORG
12		

<u>CONNECTOR E</u>	<u>COIN MECH</u>	<u>6 WAY AMP M-F SOCKET MALE PINS</u>
1	+12v	ORG
2	+5v	PINK
3	COIN B	YEL/BLK
4	CREDIT BD	WHT/RED
5	GND	BLK
6	COIN A 1111 GND COIN A	ORG/BLK

<u>CONNECTOR G</u>	<u>STEERING MECH</u>	<u>12 WAY AMP M+L SOCKET MALE PINS</u>
1	WILL CAN GUN	BLK/PNK;
2	JUMP	BLU/YEL
3		
4		
5	UP/DOWN	BLK/RED
6	LEFT/RIGHT	BLK/RED
7	STABAH (MISSHEE)	GRG/GRN
8		
9	+SW	PNK:
10 ¹⁰	GND	BLK
11	(GNP)	BLK
12	EARHT	GRN/VEL

<u>CONNECTOR H</u>	<u>SERVICE BRKT</u>	<u>ROTARY SW (PART NO. 13-FALK 1026) MINI PRESS FRUITION (PART NO 43EC45A02)</u>
1	SERVICE GND	BLK
2	SERVICE SW	RED/ORG
3	VOL. 1	YEL/BRN
4	VOL. 2	YEL/RED
5	VOLN13	YEL/GRN
6	VOL. GND	BLK

<u>CONNECTOR I</u>	<u>METER</u>	<u>3 WAY AMP M+L SOCKET MALE PINS</u>
1	+SW	METER
2	GREEN/BLD	WHT/RED
3	METERAA	WHT/ORG

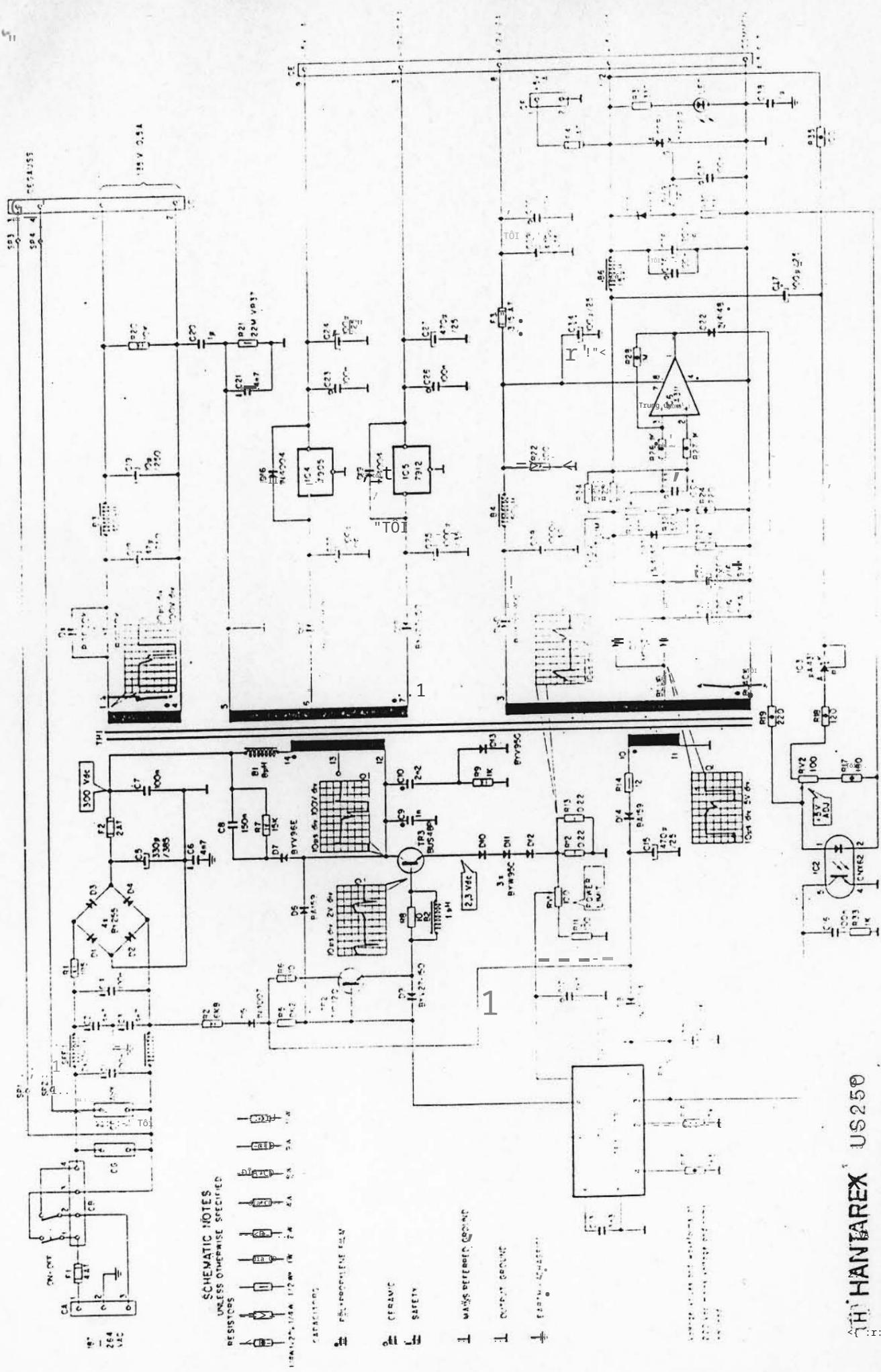
<u>CONNECTOR J</u>	<u>SPEAKERS</u>	<u>SIRIA ONLY</u>
1	SPEAKER (+)	GRM/WHT
2	SPEAKER (-)	GRY/BLK
3	SPEAKER (+)	GRM/WHT
4	SPEAKER (-)	GRY/BLK

<u>CONNECTOR K</u>	<u>FOOT PEDAL</u>	<u>4 WAY AMP M+L MINI SOCKET MALE PINS</u>
1	GND	BLK
2	ACCELERATOR	YEL/BLU
3		
4	EARHT	GRN/YEL

<u>CONNECTOR I</u>	<u>(X-Y)</u>	<u>6 WAY JST WITH 1W ARCH 10P PART NO 3ASH6P-SHF-AA</u>
1	GND	BLK
2	45°	PINK
3	UP/DOWN	GRN/RED
4	LEFT/RIGHT	BRN/GRN
5	UP/DOWN	BLU/RED
6	LEFT/RIGHT	ORG/GRN

<u>CONNECTOR M</u>	<u>ADJUST UP/DOWN</u>	<u>HK POT (PART NO 36AF23LINK)</u>
1	GND	BLK
2	UP/DOWN	GRN/RED
3	45°	PINK

<u>CONNECTOR N</u>	<u>ADJUST LEFT/RIGHT</u>	<u>HK POT (PART NO 36AF23LINK)</u>
1	GND	BLK
2	LEFT/RIGHT	BRN/GRN
3	45°	PINK



ELECTROCOIN AUTOMATICS LTD

AFTER SALES & SERVICE DEPARTMENT - CARDIFF.

We would like to take this opportunity to introduce you to the NEW service department at Electrocoin Automatics - CARDIFF.

Normal working hours 0800 16:30 Mondays - Fridays

Telephonic number 0836 536195 (This telephone number is now exclusive to Electrocoin After Sales).

After Hours/Weekends/Emergencies - we can now be contacted on the following telephone number - 0836 536195.

For the following enquiries please contact:

Spares Enquiries - Phil Hayes Pugh or Gary Scoble

Technical Information - Ian Colley

Workshop Manager - Mike Callan

Spares & Repairs Accounts - Julie Tipper

N.B.

Electrocoin Automatics at Cardiff are responsible for U.K. manufactured machines and all FAMOUS GAMES products.

To ensure fast and efficient service prompt return of faulty parts is essential.

Hoping you will avail yourselves of the facilities offered by the After Sales Department thus assuring you of our continued best attention at all times.

PHIL HAYES PUGH
After Sales Manager.