

OPERATORS
AND
SERVICE MANUAL

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QUICKER ON THE DRAW!

PART No. 64178

SPECIFICATIONS

1. POWER SUPPLY..... Hantarex US 150 (240/220VAC)
2. POWER CONSUMPTION..... 140w
3. PLAY PRICING..... On Credit Pcb / Main Pcb
4. TV MONITOR..... Hantarex 25" Polo Monitor
5. CABINET SPEC. Width : 706mm
Depth : 875mm
Height : 1815mm
6. WEIGHT..... Approximately : 150 Kg.

* Specifications and appearance may change for improvement.

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Refer to makers manual for information on the Power supply and the Colour Monitor.

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.

DIP SWITCH SETTINGS

This game is equipped with 2 way 8-bit Dip switch on the main PCB; The following changes will easily be done with this DIP switch.

<DIP SWITCH 1>

	CONTENTS	ON	OFF
SW1	SOUND OUTPUT	MONAURAL	<u>STEREO</u>
SW2	COIN MECHANISM	INDEPENDENT	<u>COMMON</u>
SW3	STAGE SELECTION	YES	<u>NO</u>

* Underlined shows default settings.

NOTE :

1. Sw 4 thru Sw 8 on Dip switch 1 and Dip switch 2 are not used.
2. On the Stereo cabinet, set Sw 1 on Dip switch 1 at "ON" so that you can get better music and sound effects.
3. Regarding other sound options, game options and coin options, refer to "Manual Test".

CONTROL PANEL

The player controls are a gun and a start button per player.

PLAY INSTRUCTION

<STARTING ON STAGE SELECTION TYPE GAME>

1 or 2 players can play at the same time. The second player can join in at any time.

Deposit coins and press Start Button.

<STARTING STAGE SELECTION TYPE GAMES>

1 or 2 players can play at the same time. The second player can join in at any time.

Deposit coins and press Start Button, the stage select screen will now appear. Aim the gun at the screen and shoot at the stage you require. If you are playing with another player, the first selection is accepted.

<HOW TO PLAY>

Aim the gun at the enemies and shoot to kill them.

Don't shoot the innocent people. If you do you lose a life.

To re-load the gun shoot off the screen at any time.

Shoot at the weapons which will appear during the game for the power of that weapon.

50 Caliber Sharp...Large caliber bullets. 6 Bullets to reload.

Rifle...12 round bullets. 12 Bullets before reload.

Double Rig...2 round burst. 12 bullets before reload.

Shot Gun...Large gauge. 5 Bullets before reload.

Gatling Gun...Full automatic. You have 24 bullets only.

Cannon...Explosive. You have 8 bullets only.

When you set the game mode with no stage selection, there are 5 stages and 2 bonus stages. when you defeat the boss enemy in each stage, you can go on to the next stage.

When you set the game mode with stage selection, you can choose the stage out of 5 stages.

Continuation is available.

SELF TEST

NORMAL : "OK" will be displayed then the game will start.

ABNORMAL : "BAD" will be displayed and self test will repeat.

MANUAL TEST

How To Start

After switching on the power, press the Test Button on the main Pcb or on the cabinet, and you will get the MAIN MENU of the manual test.

NOTE : Switching on with the TEST BUTTON pressed causes the program in the EEPROM to be initialized to default.

How To Return To The Game Mode

Select "Game Mode" on the Main Menu with the Start Button then pull the trigger to return to the game mode.

ITEMS AND HOW TO SELECT

Press player 1 Start Button to move up the menu, and press player 2 Start Button to move down the menu. Selected menu items are shown by the colour RED, then pull either player 1 or player 2 gun trigger to initiate testing. Press player 1 Start Button during or at the end of each test to return to the Main Menu.

MAIN MENU

I/O CHECK
GUN CHECK
SCREEN CHECK
COLOUR CHECK
MASK ROM CHECK
DIP SWITCH CHECK
SOUND CHECK
GAME OPTIONS
COIN OPTIONS
GAME MODE

1 PLYR START = UP / 2 PLYR = DOWN
GUN TRIGGER = DO CHECK

EXPLANATION OF THE ITEMS

1. I/O CHECK
To check that the Start Buttons and Triggers work correctly, "ON" will be displayed next to that item.
2. GUN CHECK
To check the guns and also the monitor condition. The cross-hatch screen appears, then you can aim both guns and shoot at the screen. You'll see a green dot after you shoot at the screen. If you cannot shot at some areas you must adjust the gun or the monitor.
3. SCREEN CHECK
To adjust the focus, alignment etc using the cross-hatch screen.
4. COLOUR CHECK
To adjust the colour brightness using the colour bar screen so that the specified area will be colourless. Improper adjustment can cause problems with the game.

5. MASK ROM CHECK

ROMs will be checked one after another, and the message "OK" or "BAD" will be displayed on the screen.

6. DIP SWITCH SETTINGS

The screen shows the current settings. To modify settings turn the Dip switches ON/OFF on Dip switch 1 on the main Pcb.

7. SOUND OPTIONS

The screen will appear as table below. Push player 1 or player 2 Start Button to select item, and pull the gun trigger to modify setting. Factory settings are shown in green and the modified results in red. (Settings below are not always the factory settings.)

After modification is completed, select "SAVE AND EXIT" and pull player 1 (2) trigger to save and return to Main Menu.

SOUND OPTIONS

SOUND IN ATTRACT MODE

ALL THE TIME

SOUND VOLUME = 13

SOUND SCALE CHECK

FACTORY SETTINGS

SAVE AND EXIT

1 PLYR START = UP / 2 PLYR START = DOWN

GUN TRIGGER = MODIFY SETTING

...Select out of ALL THE TIME, COMPLETELY OFF,
"ONCE EVERY 4 CYCLES"
...Sound volume from 0 to 3
...Music scale sounds
...All the settings return to default
...Save the modified settings

If you select "EXIT" instead of "SAVE AND EXIT" after modifying some settings, the message appears: "YOU DID NOT SAVE. DO YOU WANT TO SAVE YES/NO". When you choose "YES" the screen shows "NOW SAVING..." and returns to MAIN MENU. If you choose "NO", "NO MODIFICATION" is shown and then MAIN MENU appears.

8. GAME OPTIONS

GAME OPTIONS

DIFFICULTY LEVEL 4/MEDIUM

PLAYERS LIFE 1 PLAY 5 LIVES

EXTRA LIFE 1ST AT 2000 PTS

EVERY ADDITIONAL 200 PTS

VIDEO SCREEN FLIP MIRROR

VIOLENT MODE BLOODY

FACTORY SETTINGS

SAVE AND EXIT

EXIT

1 PLYR START = UP / 2 PLYR START = DOWN

GUN TRIGGER = MODIFY SETTING

...Select out of 8 levels
...Select from 1 to 9 lives
...Select out of "1st /1000, 2nd /1000", "1st /1000, 2nd /2000",
"1st /2000, 2nd 2000", "1st /200, 2nd /3000", "NO FLIP A"
... "MIRROR", "UPSIDE DOWN", "NO MIRROR", "MIRROR F"
...Select out of "BLOODY" or "CLEAN"

...Same as "SOUND OPTIONS"

4h COIN OPTIONS

COIN OPTIONS

FREE PLAY NO

COIN MECHANISM COMMOM

 COIN SLOT 1 1 COIN 1 CREDIT

 COIN SLOT 2 1 COIN 1 CREDIT

PREMIUM START YES 1

 2 CREDITS TO START

 1 CREDIT TO CONTINUE

FACTORY SETTINGS

SAVE AND EXIT

EXIT

P1 START=UP/P2 START=DOWN

GUN TRIGGER=MODIFY SETTINGS

... "NO" , "YES

... You can change this with DIP SWITCH on the PCB (SW2)

..."NO" or "YES" to "YES UP TO 4 CREDITS".(You can set the play fee for starting higher than the play fee for continuation)

... Same as "GAME OPTIONS"

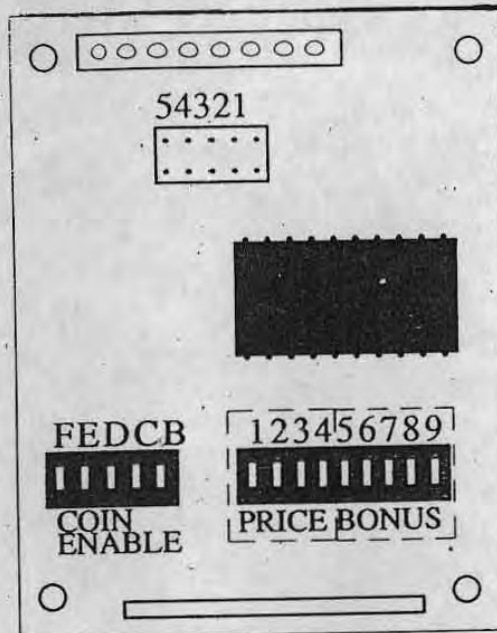
When the "coin mechanism" is set at "common" on the dip switches (SW2 is "off"). All coins are inserted into one coin mech which must be set at 1 coin for 1 credit as a credit board would be fitted. On a cabinet with 2 coin slots "coin mechanism" must be set at "independent" (SW2 is "on") ,coin settings must be done for each coin slot. The left coin slot will be for player one, the right coin slot for player two. When you want "premium start" setting choose the number of extra coins necessary for starting then decide the coin setting for continuation. The number of coins for starting will be the sum of both numbers. If you do not set premium start, the number of coins necessary for start and continuation will be the same.

COIN SETTING OPTIONS

COIN(S)	1	1	1	1	1	1	1	2	2	2	3	3	3	4	4	4
CREDIT(S)	1	2	3	4	5	6	7	1	3	5	1	2	4	1	3	5

CREDIT BOARD SETTINGS

This machine is fitted with a mars MS111 coin mech and a mars credit board. Settings are as follows (NOTE THE FOLLOWING SETTINGS ARE FOR THE UK ONLY. FOR OTHER COUNTRIES A CREDIT BOARD INFORMATION SHEET WILL BE PUT LOOSE IN THIS MANUAL).



GAME PRICE INCREMENT & METER PULSING

10p

LINKS				
○ LINKS REMOVED				
● LINK FITTED				
5	4	3	2	1
○	○	○	○	○

COIN ENABLE					
On = Accept coin					
Off = Reject coin					
Coin	F	E	D	C	B
Value	£1	50p	20p	10p	

GAME PRICE SETTING

123456789



NOTE ; Power unit down before changing switch settings

GAME PRICE	SWITCH				BONUS GAME AWARDED AT:	
	1	2	3	4	LEVEL 1	LEVEL 2
10p	0	0	0	0	50P	£1
20p	1	0	0	0		
30p	0	1	0	0		
40p	1	1	0	0		
50p	0	0	1	0		
60p	1	0	1	0	£1	£2
70p	0	1	1	0		
80p	1	1	1	0		
90p	0	0	0	1		
£1.00	1	0	0	1	£2	£5
£1.10	0	1	0	1		
£1.20	1	1	0	1		
£1.30	0	0	1	1		
£1.40	1	0	1	1		
£1.50	0	1	1	1		
£1.60	1	1	1	1		

THE PRICE OF GAMES IS CONTROLLED BY SWITCHES 1 TO 4 .

BONUS GAMES SETTINGS

BONUS LEVEL 1

No. OF BONUS GAMES AWARDED	SWITCH		1= ON 0= OFF
	5	6	
0	0	0	0
1	1	0	0
2	0	1	1
3	1	1	1

NOTE : VALUE AT WHICH BONUS GAMES ARE AWARDED DEPENDS ON GAME PRICE SET.

BONUS LEVEL 2

No. OF BONUS GAMES AWARDED	SWITCH			1= ON 0= OFF
	7	8	9	
0	0	0	0	0
1	1	0	0	0
2	0	1	0	0
3	1	1	0	0
4	0	0	1	1
5	1	0	1	1
6	0	1	1	1
7	1	1	1	1

OUTLINE SPECIFICATION FOR MARS ELECTRONICS INTERNATIONAL CREDIT BOARD

Machine interface connector

The board is fitted with a 0.2" Pitch Molex Compatible

- | | | |
|---|-----------|----------------|
| 1 | 0v | - Supply input |
| 2 | 12v | - Supply input |
| 3 | 0v | - Output |
| 4 | Game o/p | - Output |
| 5 | 12v | - Output |
| 6 | Meter o/p | - Output |
| 7 | 12v | - Output |
| 8 | Lamp o/p | - Output |

Supply Voltage

MAX 15v

MIN 10v

MAX CURRENT CONSUMPTION 200mA
(excluding validator, game o/p, lamp, meter)

GAME OUTPUT

npn transistor switching to 0v

Sink current > 100mA @ max voltage of 0.5V

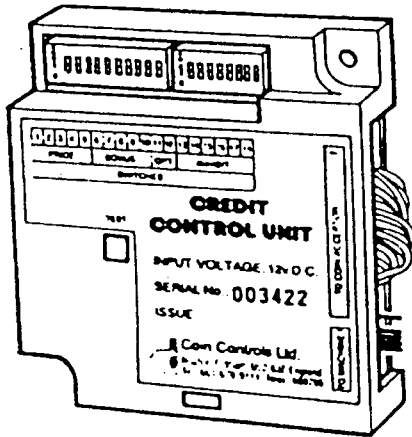
100ms pulse with 200ms min gap

(timing +/- 20% over 0 - 40C temperature range).

COIN CONTROLS CREDIT CONTROL UNIT

CCU

This multicoin, adjustable credit, totalising option sophisticated interface, works effectively with Coin Control's range of electronic validators.



Features

- Microprocessor controlled
- 12v operation
- 10p Unit calculation
- Industry standard interface
- Totalising on all coins switch selectable
- Function test switch

Programming Information

Price per game for 100, 50, 20, 10 coin set

SW1	SW2	SW3	SW4	SW5	UNITS/GAMES
X	ON	ON	ON	ON	5
X	OFF	ON	ON	ON	10
X	ON	OFF	ON	ON	20
X	OFF	OFF	ON	ON	30
X	ON	ON	OFF	ON	40
X	OFF	ON	OFF	ON	50
X	ON	OFF	OFF	ON	60
X	OFF	OFF	OFF	ON	70
X	ON	ON	ON	OFF	80
X	OFF	ON	ON	OFF	100
X	OFF	OFF	ON	OFF	110
X	ON	ON	OFF	OFF	120
X	OFF	ON	OFF	OFF	130
X	ON	OFF	OFF	OFF	140
X	OFF	OFF	OFF	OFF	150

X=Don't Care

Additional games for highest value coin (Coin 1)

SW6	SW7	SW8	FUNCTION
ON	ON	ON	NO ADDITIONAL GAMES
OFF	ON	ON	1 ADDITIONAL GAME
ON	OFF	ON	2 ADDITIONAL GAMES
OFF	ON	OFF	3 ADDITIONAL GAMES
ON	ON	OFF	4 ADDITIONAL GAMES
OFF	ON	OFF	5 ADDITIONAL GAMES
ON	OFF	OFF	6 ADDITIONAL GAMES
OFF	OFF	OFF	7 ADDITIONAL GAMES

Additional games for second highest coin (Coin 2)

SW9	SW10	FUNCTION
ON	ON	NO ADDITIONAL GAMES
OFF	ON	1 ADDITIONAL GAME
ON	OFF	2 ADDITIONAL GAMES
OFF	OFF	3 ADDITIONAL GAMES

Totalising Switches

S11	ON -	TOTALISE MODE
S11	ON -	NON-TOTALISE MODE

Currency Select Switches

S12	ON -	NON STANDARD COIN SET (100, 25, 10, 5)
S12	OFF -	STANDARD COIN SET (100, 50, 20, 10)

Inhibit Switches

S13	COIN 1	ON = ACCEPT	OFF = INHIBIT
S14	COIN2		
S15	COIN3		
S16	COIN 4		
S17	COIN 5/6		
S18	COIN 7/8		

PROGRAMMING INFORMATION

PRICE PER GAME FOR 100, 50, 20, 10 COIN SET

<u>SW1</u>	<u>SW2</u>	<u>SW3</u>	<u>SW4</u>	<u>SW5</u>	<u>UNITS/GAME</u>
X	ON	ON	ON	ON	5
X	OFF	ON	ON	ON	10
X	ON	OFF	ON	ON	20
X	OFF	OFF	ON	ON	30
X	ON	ON	OFF	ON	40
X	OFF	ON	OFF	ON	50
X	ON	OFF	OFF	ON	60
X	OFF	OFF	OFF	ON	70
X	ON	ON	ON	OFF	80
X	OFF	ON	ON	OFF	90
X	ON	OFF	ON	OFF	100
X	OFF	OFF	ON	OFF	110
X	ON	ON	OFF	OFF	120
X	OFF	ON	OFF	OFF	130
X	ON	OFF	OFF	OFF	140
X	OFF	OFF	OFF	OFF	150

X = DON'T CARE

ADDITIONAL GAMES FOR HIGHEST VALUE COIN(COIN 1)

<u>SW6</u>	<u>SW7</u>	<u>SW8</u>	<u>FUNCTION</u>
ON	ON	ON	NO ADDITIONAL GAMES
OFF	ON	ON	1 ADDITIONAL GAME
ON	OFF	ON	2 ADDITIONAL GAMES
OFF	OFF	ON	3 ADDITIONAL GAMES
ON	ON	OFF	4 ADDITIONAL GAMES
OFF	ON	OFF	5 ADDITIONAL GAMES
ON	OFF	OFF	6 ADDITIONAL GAMES
OFF	OFF	OFF	7 ADDITIONAL GAMES

ADDITIONAL GAMES FOR SECOND HIGHEST COIN (COIN 2)

<u>SW9</u>	<u>SW10</u>	<u>FUNCTION</u>
ON	ON	NO ADDITIONAL GAMES
OFF	ON	1 ADDITIONAL GAME
ON	OFF	2 ADDITIONAL GAMES
OFF	OFF	3 ADDITIONAL GAMES

TOTALISING SWITCHES

S11 ON TOTALISE MODE
S11 OFF NON-TOTALISE MODE

CURRENCY SELECT SWITCHES

S12 ON NON-STANDARD COIN SET (100, 25, 10, 5)
S12 OFF STANDARD COIN SET (100, 50, 20, 10)

INHIBIT SWITCHES

S13 COIN 1 ON = ACCEPT OFF = INHIBIT
S14 COIN 2
S15 COIN 3
S16 COIN 4
S17 COIN 5/6
S18 COIN 7/8

TROUBLE SHOOTING OF GUN AND MONITOR

HERE IS A LIST OF COMMONLY FOUND PROBLEMS AND THEIR POSSIBLE SOLUTIONS.

ERRATIC GUN SHOT PLACEMENT.

Check to see that there is no reflected light from fluorescent or neon lights bouncing off the screen. Strong sunlight also affects the shot placement.

YOU CANNOT SHOOT CERTAIN AREA/S ON THE SCREEN.

Check the monitor's purity with red, green, blue and white screen in the "colour check" in manual test. If you find purity problems, you should degauss the monitor. Check to see there is no magnetic equipment around the cabinet. This may also cause the monitor to become magnetized. After degaussing the monitor, you can check the gun and monitor in the "gun check" in the manual test. The polo monitor has automatic degauss, check if this is operational. If problem persists a manual degauss coil may have to be used. Available from your distributor.

SCREEN FLASHES WHEN TRIGGER IS PULLED BUT NO SHOT IS MADE.

Check to see the gun lens inside the barrel is clean. Adjust the monitor brightness with colour bar screen in the "colour check" of the manual test. If this does not cure fault, swop over gun plugs to ascertain whether the gun or PCB is faulty.