DEDICATED CABINET

OPERATING MANUAL

Sammy USA Corporation

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1. SPECIFICATIONS

POWER   120VAC @ 60Hz   USA & CANADA

DIMENSIONS   **W**idth: 26.5"   (673 mm)
                 Height: 73.5"   (1867 mm)
                 Depth: 33"   (838 mm)   with Gun Assy = 40"   (1016 mm)

                 WEIGHT   311 lbs   (142 kg)

Main PCB, WSC
Part #: 47-10-001

Manual, WSC
Part #: 47-30-311

Marquee, WSC
Part #: 47-30-111

Side Decal, WSC
Part #: 47-30-200

"PUMP BEFORE
SHOOTING" Decal, WSC
Part #: 47-30-224

Instruction Decal, WSC
Part #: 47-30-210

Start Button Assy,
Hunter 1
Part #: 47-50-013

H = 73.5"
(1867 mm)

Start Button Assy,
Hunter 2
Part #: 47-50-015

Control panel Overlay,
UR 25" VIDEO
Part #: 47-30-161

Sammy 27" Shotgun Assy
Part #: 99-50-310

Security Bar KIT,
Mid door
(OPTIONAL)
Part #: 47-70-278

*D = 33"
(838 mm)

*With Gun Assy: D = 40"
(1016 mm)

W = 26.5"
(673 mm)

Wing Shooting Championship is a sports hunting game that has an exciting COMPETITION MODE. Two players can play at the same time in competition mode which is a first time for the market!

HOW TO PLAY

- Insert coin(s)

- Press Hunter 1 or Hunter 2 button to start game.

- Use Sammy 27" Shotgun to select stage and weapon. (Pump the Shotgun before you shoot the screen each time.) There are 5 kinds of weapons.

    PUMP ACTION (5 bullets), SEMI-AUTO (3 bullets)

    OVER&UNDER (2 bullets), SIDE BY SIDE (2 bullets)

    SINGLE SHOT (1 bullet)

- 6 different bird stages. (GREAT PLAINS QUAIL, RING-NECKED PHEASANT, CANADA GOOSE, AMERICAN BLACK DUCK, MALLARD DUCK and EASTERN BOB WHITE QUAIL)

- 12 areas with one bonus stage for each bird. The Bonus stage is CLAY SHOOTING.

Perfect round in bonus stage advances to a SPECIAL STAGE!

3. HANDLING AND INSTALLATION

PLEASE TAKE A MOMENT TO READ THE FOLLOWING BEFORE YOU TURN ON YOUR NEW GAME.

The **Wing Shooting Championship** video game is an indoor game machine. It is not designed for outdoor use. Avoid installing the game in the following locations:

- ♠ Locations subject to rain or water damage
- ♠ Locations in direct sunlight
- ♠ Locations subject to extreme heat
- ♠ Locations near hazardous or flammable liquids or chemicals

You will need the following minimum dimensions for egress into your location:

- ♠ 80 inches in height
- ♠ 30 inches in width

INSTALLATION

Unpack your game carefully. Be careful of the shipping staples. They can be sharp.
Your game is assembled and should not need any assembly.
Level your game using enclosed Leg levelers.
The standard voltage for U.S. and Canada 120V / 125V - 3A; Europe 220V / 240V - 2A.
Use of extension cords is prohibited.
Use only a grounded outlet. YOUR GAME MUST BE GROUNDED!!!
The minimum space required for operation in your locations should be:

- ♠ 80" high
- ♠ 30" wide
- ♠ 75" depth

THE GAME MUST BE LEVEL. USE A LEVEL TO AVOID NEEDLESS ADJUSTMENTS.

SAFETY PRECAUTIONS

- ♠ Be sure to turn the power off or unplug the game before working on the unit.
- ♠ Do not unplug game by pulling on the line cord.
- ♠ Replace line cord if the insulation is damaged in any way with one of equal quality.
- ♠ Replace open fuses with same type and rating.
- ♠ Re-check and re-seat all harness connections.

4. CONNECTOR TABLES

JAMMA CONNECTOR					
MAIN P.C.BOARD					
SOLDER SIDE			COMPONENT SIDE		
FUNCTION	COLOR	PIN #	PIN #	COLOR	FUNCTION
GROUND	BLK	A	1	BLK	GROUND
GROUND	BLK	B	2	BLK	GROUND
+5VDC	RED	C	3	RED	+5VDC
+5VDC	RED	D	4	RED	+5VDC
		E	5		
+12VDC	BLU	F	6	BLU	+12VDC
KEY		H	7		KEY
COIN METER B		J	8		COIN METER A
COIN LOCKOUT B		K	9		COIN LOCKOUT A
SPEAKER(-)	BLK	L	10	WHT/BLK	SPEAKER(+)
		M	11		
VIDEO GREEN	GRN	N	12	RED	VIDEO RED
VIDEO SYNC	WHT	P	13	BLU	VIDEO BLUE
SERVICE CREDIT SWITCH	BRN/WHT	R	14	BLK	VIDEO GROUND
		S	15	WHT/GRY	TEST SWITCH
COIN SWITCH B		T	16		COIN SWITCH A
2P START BUTTON		U	17		1P START BUTTON
		V	18		
		W	19		
		X	20		
		Y	21		
		Z	22		
		a	23		
		b	24		
		c	25		
		d	26		
GROUND	BLK	e	27	BLK	GROUND
GROUND	BLK	f	28	BLK	GROUND

CN6 - 4 PIN SUB CONNECTOR		
MAIN P.C.BOARD (1P GUN)		
PIN #	COLOR	FUNCTION
1		
2	GREEN	PUMP SWITCH
3	BLACK	PUMP SWITCH GND
4		

CN8 - 4 PIN SUB CONNECTOR		
MAIN P.C.BOARD (2P GUN)		
PIN #	COLOR	FUNCTION
1		
2	GREEN	PUMP SWITCH
3	BLACK	PUMP SWITCH GND
4		

CN5 - 4 PIN SUB CONNECTOR		
MAIN P.C.BOARD (1P GUN)		
PIN #	COLOR	FUNCTION
7	RED	+5VDC
8	WHITE	TRIGGER SWITCH
9	BROWN	GROUND
10	BLUE	OPTICAL

CN7 - 4 PIN SUB CONNECTOR		
MAIN P.C.BOARD (2P GUN)		
PIN #	COLOR	FUNCTION
7	RED	+5VDC
8	WHITE	TRIGGER SWITCH
9	BROWN	GROUND
10	BLUE	OPTICAL

5. DIP SWITCH TABLES

DIP SWITCH 1									SWITCH POSITIONS			
FUNCTIONS	**SETTING**				**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
COIN CHUTE A, B	1 COIN START, 1 COIN CONTINUE				OFF	OFF	OFF	OFF				
	2 COINS START, 2 COINS CONTINUE				ON	OFF	OFF	OFF				
	2 COINS START, 1 COIN CONTINUE				OFF	ON	OFF	OFF				
	3 COINS START, 3 COIN CONTINUE				ON	ON	OFF	OFF				
	3 COINS START, 2 COINS CONTINUE				OFF	OFF	ON	OFF				
	3 COINS START, 1 COIN CONTINUE				ON	OFF	ON	OFF				
	4 COINS START, 4 COINS CONTINUE				OFF	ON	ON	OFF				
	4 COINS START, 3 COINS CONTINUE				ON	ON	ON	OFF				
	4 COINS START, 2 COINS CONTINUE				OFF	OFF	OFF	ON				
	4 COINS START, 1 COIN CONTINUE				ON	OFF	OFF	ON				
	1 COIN 2 CREDITS, 1 CREDIT START & CONTINUE				*OFF*	*ON*	*OFF*	ON				
	1 COIN 3 CREDITS, 1 CREDIT START & CONTINUE				ON	ON	OFF	ON				
	1 COIN 4 CREDITS, 1 CREDIT START & CONTINUE				OFF	OFF	ON	ON				
	1 COIN 5 CREDITS, 1 CREDIT START & CONTINUE				ON	OFF	ON	ON				
	1 COIN 6 CREDITS, 1 CREDIT START & CONTINUE				OFF	ON	ON	ON				
	FREE PLAY				ON	ON	ON	ON				
NOT USED									*OFF*	*OFF*	*OFF*	
TEST MODE	*OFF*											*OFF*
	ON											ON

DIP SWITCH 2									SWITCH POSITIONS			
FUNCTIONS	**SETTING**				**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
MONITOR SETTING 1	*NORMAL*				*OFF*							
	REVERSE VERTICAL				ON							
MONITOR SETTING 2	*NORMAL*					*OFF*						
	REVERSE HORIZONTAL					ON						
ATTRACT SOUND	*ON*						*OFF*					
	OFF						ON					
DIFFICULTY LEVEL	*NORMAL*							*OFF*	*OFF*			
	EASY							ON	OFF			
	HARD							OFF	ON			
	HARDEST							ON	ON			
NOT USED										*OFF*		
										ON		
CHANCES	*2*										*OFF*	
	3										ON	
GUN TYPE	*PUMP ACTION GUN UNIT*											*OFF*
	HAND GUN UNIT											ON

"FACTORY INSTALLED" SETTING

MAIN P.C.BOARD

SUB CONNECTOR
4 PINS X 2 (2P GUN)

JAMMA CONNECTOR

VOLUME

1 → 10

1 → 8 ON

OFF

CN 8   **CN 7**   **DIPSW 1**

SUB CONNECTOR
4 PINS X 2 (1P GUN)

1 → 10

CN 6   **CN 5**
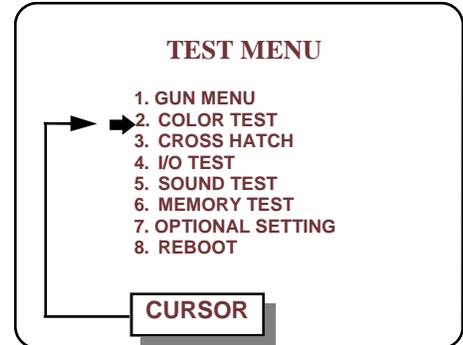
MAX

MAIN P.C.BOARD

1 → 8 ON

OFF
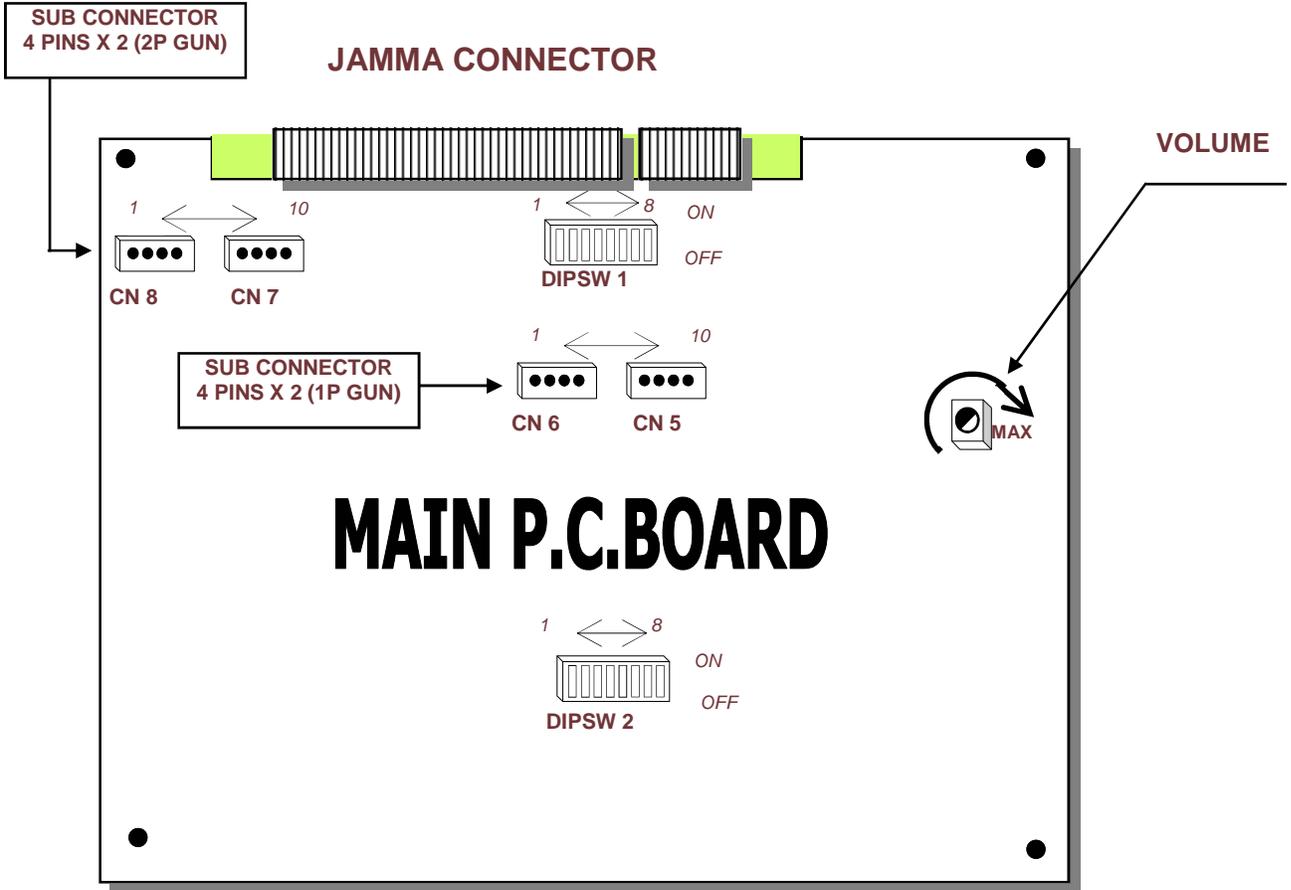
DIPSW 2

7. TEST MODE

Entering the TEST MODE

If you need to check the condition of the game circuitry and controls, you can use the TEST MENU. Turn ON "DIP SWITCH 1, #8" and re-power on the game. The game will go into TEST MODE (diagnostics) and the screen appears as follows:

Select TEST

Use this screen to choose which of the 7 screens you want to see. Move cursor using the START BUTTON.
Then pull the TRIGGER to enter the function.

```
           TEST MENU

         1. GUN MENU
    ➡️    2. COLOR TEST
         3. CROSS HATCH
         4. I/O TEST
         5. SOUND TEST
         6. MEMORY TEST
         7. OPTIONAL SETTING
         8. REBOOT

              CURSOR
```

1. GUN MENU

You can adjust GUN unit in GUN ADJUST mode.

Gun Adjust
1. Enter TEST MENU and select GUN ADJUST.
2. Shoot center mark only with gun sight.
3. If you need more accuracy, try again.
4. Press START button to save Gun accuracy and enter GUN TEST mode, press START button again to go back to Main menu.

```
           GUN ADJUST

                X


    SHOOT CENTER MARK ONLY TO ADJUST
     PRESS START BUTTON TO GUN TEST
```

You can test accuracy in GUN TEST mode.

Gun Test
1. At Gun Adjust screen, press START button to go to test mode.
2. Shoot all around the screen to see Gun's accuracy.
3. Press START button to go back to Main menu.

```
            GUN TEST

                X


       PRESS START BUTTON TO EXIT
```

2. COLOR TEST

Use this screen to check the color of monitor. The color blocks in the center should be four bands (Red, Green, Blue and White from top to bottom), each with a color scale from dark to bright, left to right.
If the screen does not match this description, adjust the Monitor as described in the Monitor's manual.
* Press the START button to exit and go back to the TEST MENU screen.

```
           COLOR TEST

    RED    ▓▓▓▓▓▓▓▓▓
    GREEN  ▓▓▓▓▓▓▓▓▓
    BLUE   ▓▓▓▓▓▓▓▓▓
    WHITE  ▓▓▓▓▓▓▓▓▓

       PRESS START BUTTON TO EXIT
```
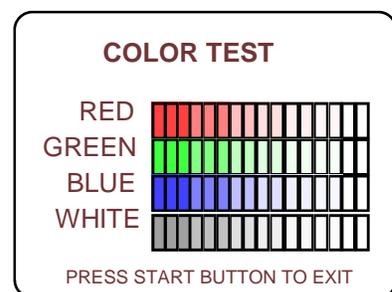
3. CROSS HATCH

Use this screen to check the size of picture. The CROSS HATCH test pattern has a White grid on a Black background. Check following:
- The grid line should be straight, and the lines should not have excessive pincushion or barrel distortion.
- "Out"line of grid line is the same size as "Out"line of game screen. So, "Out"line should be able to be seen with no overflow of grid lines on screen.

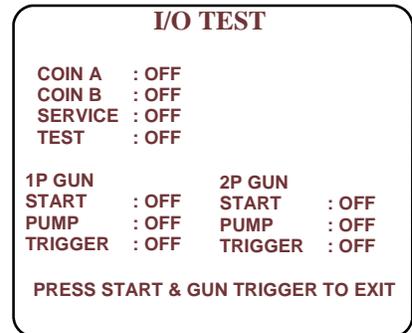If these are not as above, adjust the Monitor as described in the Monitor's manual.
* You can exit and go back to the TEST MENU screen by press START button.

```
         CROSS HATCH



    PRESS START BUTTON TO EXIT
```
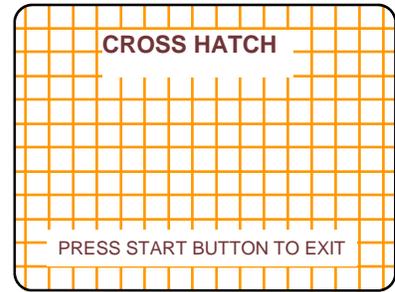
4. I/O TEST

Use this screen to check the switches in this game. To check the functioning of each switch, activate it and watch the corresponding OFF letters change to ON. If the ON and OFF letters do not appear correctly, check the Harness connections and Switches.
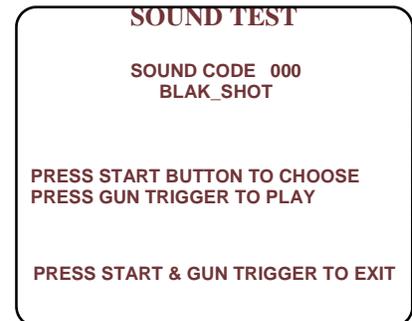
* Press START button and Gun trigger simultaneously to exit.

```
              I/O TEST

   COIN A    : OFF
   COIN B    : OFF
   SERVICE  : OFF
   TEST      : OFF

   1P GUN              2P GUN
   START     : OFF     START     : OFF
   PUMP      : OFF     PUMP      : OFF
   TRIGGER   : OFF     TRIGGER   : OFF

    PRESS START & GUN TRIGGER TO EXIT
```

5. SOUND TEST

Use this screen to check all game sounds. Choose a sound with the START buttons. (Hunter 1 = forward, Hunter 2 = Back) Then pull the TRIGGER. You can check each sound in this game.

* Press START button and Gun trigger simultaneously to exit.

```
            SOUND TEST


        SOUND CODE   000
          BLAK_SHOT


    PRESS START BUTTON TO CHOOSE
    PRESS GUN TRIGGER TO PLAY


    PRESS START & GUN TRIGGER TO EXIT
```

6. MEMORY TEST

Use this screen to check RAM and ROM on the Main P.C.B. The Main P.C.B. will automatically check them when you enter this screen. If there are no problems, the word **OK** will appear on screen.
If you get the word **ERROR**, check the mounting of RAMs or ROMs on the Main P.C.B. and if **ERROR** reappears, it needs to be replaced.

```
            MEMORY TEST


   WORK RAM    :  OK
   BACKUP RAM :  OK

   ROM (U06)     :  OK
   ROM (U07)     :  OK
```

* This mode will automatically exit after testing is finished.
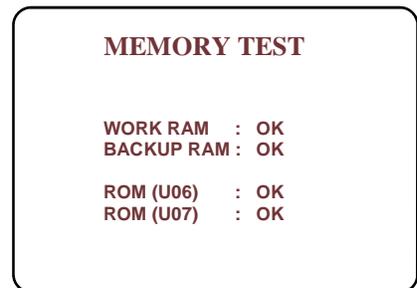
7. OPTIONAL SETTING

HIGH SCORE CLEAR

If you desire to clear HIGH SCORE data, do the following.

HOW TO SET UP
1. Enter TEST MENU and select OPTIONAL SETTING.
2. Press START BUTTON to choose HIGH SCORE CLEAR.
3. Select YES by pressing START BUTTON and pressing GUN TRIGGER to clear HIGH SCORE data.
4. The screen will return to previous screen automatically after clearing HIGH SCORE data.

```
          OPTIONAL SETTING

  1. HIGH SCORE CLEAR
  2. GUN ADJUST DEFAULT
  3. RETURN TO TEST MENU
    PRESS START BUTTON TO CHOOSE
    PRESS GUN TRIGGER TO SELECT
```

```
  HIGH SCORE CLEAR

  ARE YOU SURE YOU WANT TO CLEAR
     HIGH SCORE?
       YES
  ➜  NO

    PRESS START BUTTON TO CHOOSE
    PRESS GUN TRIGGER TO SELECT
```

NOTE: Do not proceed if Gun test is accurate.

GUN DATA DEFAULT

If you have problem with Gun sighting , you may have to clear the Gun data.
After clearing Gun data, the game will be reset to **factory default setting.**
See the following for how to clear saved data.

1. Enter TEST MENU and select OPTIONAL SETTING.
2. Press START BUTTON to choose GUN ADJUST DEFAULT.
3. Select YES by pressing START BUTTON and pressing GUN TRIGGER to clear Gun data.
4. The screen will return to previous screen automatically after clearing Gun data.

```
      GUN ADJUST DEFAULT

  ARE YOU SURE YOU WANT TO SET
  GUN ADJUST DEFAULT?
       YES
  ➜  NO

    PRESS START BUTTON TO CHOOSE
    PRESS GUN TRIGGER TO SELECT
```

8. REBOOT

Use this screen to go back to normal game mode. After selecting this function, the game will automatically take you to the normal game screen.
Make sure to turn OFF "DIP SWITCH 1, #8" or you will return to test mode upon powering on.

Returning to GAME MODE

You can return to normal game mode by doing one or the other of the following:
Turn OFF "DIP SWITCH 1, #8" and re-power on the game.
Select REBOOT at TEST MENU. (But you will have to make sure to turn OFF "DIP SWITCH 1, #8".)

If you have trouble because you can't shoot to the corner of the screen, you may have to adjust the monitor brightness. Turn up the monitor brightness until you can shoot the corner of screen.

Plus, monitors tend to develop a magnetic field from continuous use, which would cause the gun unit not to function properly. Therefore, it is recommended that the monitor is demagnetized [degaussed] every so often in order to keep the gun unit functioning properly.

In addition, the following conditions of the monitor may result in Gun shooting problems:

- Picture burned on monitor screen
- Over gauzed monitor
- Non adjustable brightness feature

Also, the following conditions of the cabinet may result in Gun shooting problems.

- Combination of low performing adjustable brightness monitor and low reflection mirror
- Dirty monitor screen or monitor grass

GUNSHOT ACCURACY IMPROVEMENT

If you have trouble because you can't calibrate the gun unit properly. For example you can't shoot corner of screen or you can shoot only in the center of the screen, do the following:

1) CHECK THE +5V LINE **ON THE PCB**. YOU CAN CHECK VOLTAGE AT THE JAMMA EDGE CONNECTOR BETWEEN PIN #2 AND #3.

2) ADJUST +5V LINE TO +5.25V BY TURNING UP POTENTIOMETER ON THE POWER SUPPLY.

 WARNING: DO NOT TURN UP VOLTAGE MORE THAN +5.25V OTHERWISE YOUR PCB WILL SUSTAIN SERIOUS DAMAGE.

3) ENTER BACK UP CLEAR IN TEST MODE, THEN SELECT YES TO CLEAR BACK UP DATA.

 NOTE: YOU DON'T HAVE TO DO "GUN ADJUST" IN TEST MODE.

4) ENTER GUN TEST IN TEST MODE TO CHECK GUNSHOT. IF THE GUNSHOT IS NOT CORRECTED REPEAT STEP #3.

9. WARRANTY

Limited warranty, Repair and Return Policy

Sammy USA Corporation warrants all products to be free from defective materials and workmanship for a period of thirty (30) days from the Sammy USA Corporation invoice date unless otherwise specified in writing by Sammy USA Corporation. The extent of this warranty applies to all electronic assemblies only, and does not include lamps and fuses.

This limited warranty is invalid for any product that upon examination, is deemed to have been subject to misuse, improper repair or installation, neglect or violation of specification or other instructions published by Sammy USA Corporation.

There are no additional warranties which extend beyond those limited warranties described above. The limited warranties described above shall be in lieu of any other warranty, express or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose.

Return Merchandise Authorization

1. Contact your authorized Sammy USA distributor to receive a Return Merchandise Authorization for return.
2. You must obtain RMA numbers from Sammy USA Corporation through an authorized Sammy USA distributor. Please have your serial number available when calling for an RMA number.
3. All items must have an RMA number marked clearly on the outside of the package.
4. Products must be shipped prepaid. Products returned without an RMA number will not be accepted.
5. Credits to accounts are subject to inspection of products for damage and suitability for resale.

JAMMA Connector (56 pins) on Main CPU Board

A/C Line cord

9 PIN CONNECTOR

GND	1	
GND	A	
GND	2	
GND	B	
+5VDC	3	
+5VDC	C	
+5VDC	4	
+5VDC	D	
	5	
	E	
+12VDC	6	
+12VDC	F	
KEY	7	
KEY	H	
COIN METER A	8	
	J	
COIN LOCKOUT A	9	
	K	
SPEAKER (+)	10	
SPEAKER (-)	L	
	11	
	M	
VIDEO RED	12	
VIDEO GREEN	N	
VIDEO BLUE	13	
VIDEO SYNC	P	
VIDEO GND	14	
SERVICE CREDIT SWITCH	R	
TEST SWITCH	15	
	S	
COIN SWITCH A	16	
	T	
1P START BUTTON	17	
2P START BUTTON	U	
	18	
	V	
	19	
	W	
	20	
	X	
	21	
	Y	
	22	
	Z	
	23	
	a	
	24	
	b	
	25	
	c	
	26	
	d	
GND	27	
GND	e	
GND	28	
GND	f	

9 PIN CONNECTOR

1	+5VDC (RED)
2	GROUND (BLACK)
3	+12VDC (YELLOW)

AC 115V IN

BLK
GRN
WHT

Fluorescent Lamp Assy, Marquee

3 PIN CONNECTOR

1	AC115V
2	EARTH
3	AC115V

Power Supply UNIT (BS200P)
+5VDC (20A)
+12VDC (8A)

1	AC115V
2	EARTH
3	AC115V
10	RED
9	GREEN
8	BLUE
7	GND
1	SYNC

25" TV MONITOR ASSY

Speaker 8 ohm, 4W

Speaker 8 ohm, 4W

Switch Bracket

Service Credit Switch   TEST Switch

Coin Door

8	COIN IN
7	GND
6	AC115V
4	AC115V
3	NEUTRAL

Option 9 PIN connector (DBA Mars AE2451)

Coin Switch

Coin Switch

Sub Connector CN6 (4 pins) on Main CPU Board (1P GUN)

	1
1P PUMP SW	2
1P PUMP SW GND	3
	4

Sub Connector CN5 (4 pins) on Main CPU Board (1P GUN)

+5VDC	7
1P TRIGGER SW	8
GROUND	9
OPTICAL	10

Gun Connector, 1P (JST 10 PIN)

Sub Connector CN8 (4 pins) on Main CPU Board (2P GUN)

	1
2P PUMP SW	2
2P PUMP SW GND	3
	4

Sub Connector CN7 (4 pins) on Main CPU Board (2P GUN)

+5VDC	7
2P TRIGGER SW	8
GROUND	9
OPTICAL	10

Gun Connector, 2P (JST 10 PIN)

1P Start Button (Hunter 1)

2P Start Button (Hunter 2)

GUN ASSY, 1P

GUN ASSY, 2P