KEY CATCHER

OPERATING MANUAL

Ver. 1.00
(01/24/00)

Sammy USA Corporation

Table of Contents

1. SPECIFICATION

POWER	120VAC @ 60Hz	USA & CANADA		
	230VAC @ 50Hz	EUROPE		
DIMENSIONS	**W**idth:	33.25"	(845 mm)	Approximately
	Height:	78.5"	(1994 mm)	Approximately
	Depth:	39.5"	(1004 mm)	Approximately
WEIGHT		430 lbs.	(195 kg)	Approximately

CABINET

Marquee

Color Plastic Cover

Arm Unit

Front Glass Door

Push button instruction sheet

Push Button (UP)

"Prize must drop" Instruction sheet

LED Display Board, Credit

Control Panel

Push Button (SIDE)

"How to Play" Instruction sheet

Speaker

Coin Door

"Prize Out" Decal

Side Decal (Both side)

Prize Out Door

Cash door

ARM UNIT

Arm Unit Cover

Arm Unit

Motor Cover
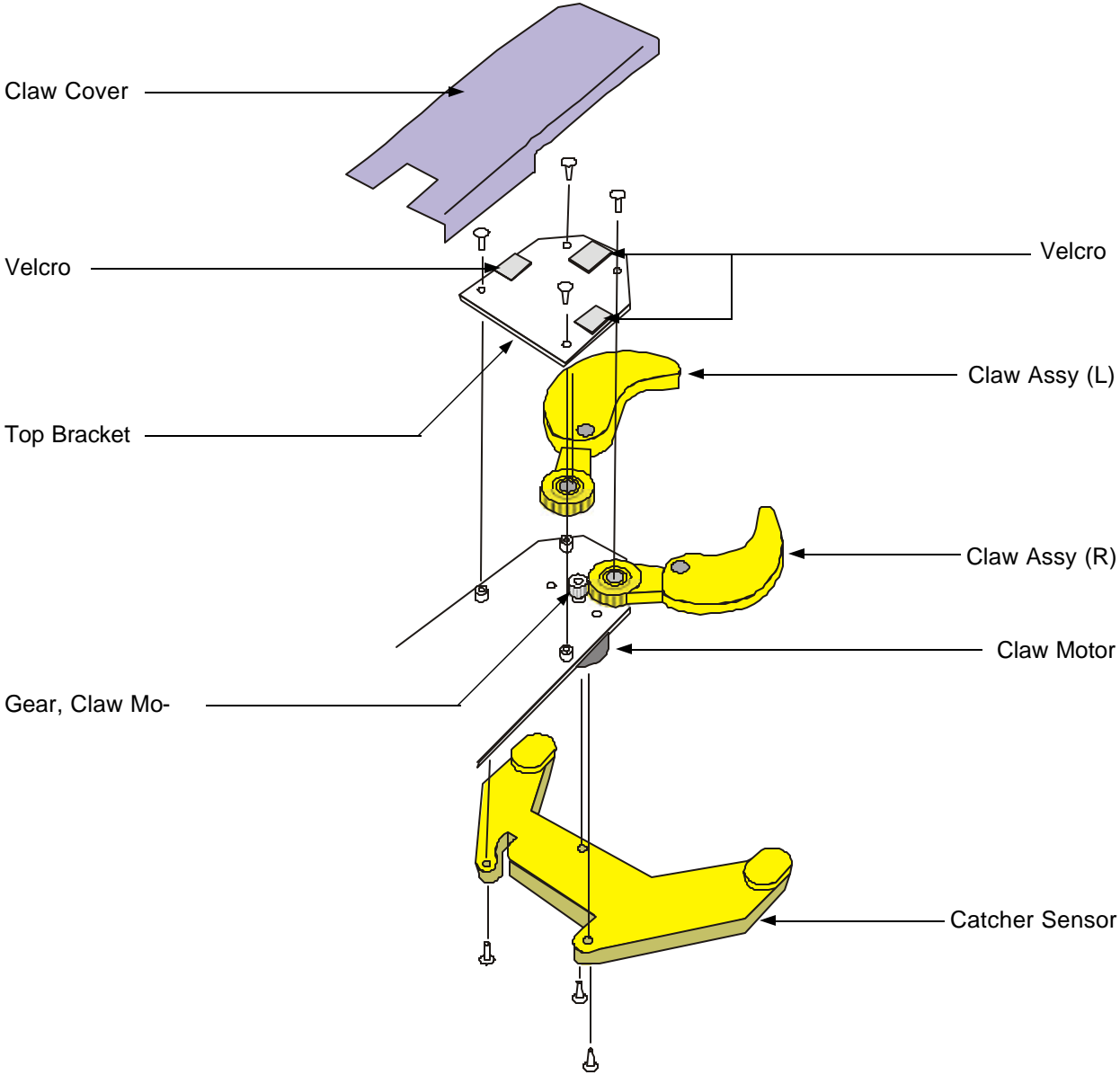
A

Forward-Back Motor

Mount Base, Arm Unit

Connectors

B

HOW TO REMOVE THE ARM UNIT
1   Remove 3 screws to take off ARM UNIT COVER.
2   Remove 2 screws to take off MOTOR COVER.
3   Disconnect the 3 of connectors.
4   Remove Screws "A" and loose Screws "B" to take off ARM UNIT.

CLAW ASSY

Claw Cover

Velcro

Top Bracket

Gear, Claw Mo-

Velcro

Claw Assy (L)

Claw Assy (R)

Claw Motor

Catcher Sensor

2. GAME PLAY

HOW TO PLAY

- Insert coin(s) / token(s).

- Press and hold PUSH BUTTON 1 (UP) to move the arm up.

  NOTE: When player releases the PUSH BUTTON, the arm will not
         move any more.

- Press and hold PUSH BUTTON 2 (SIDE) to move the arm sideways.

  NOTE: When player releases the PUSH BUTTON, the arm will not
         move any more.

- The arm automatically grabs the prize.

HOW TO CONTROL

| 2. Press and hold PUSH BUTTON 2 (SIDE) to move the arm sideways. | 1. Press and hold PUSH BUTTON 1 (UP) to move the arm up. |
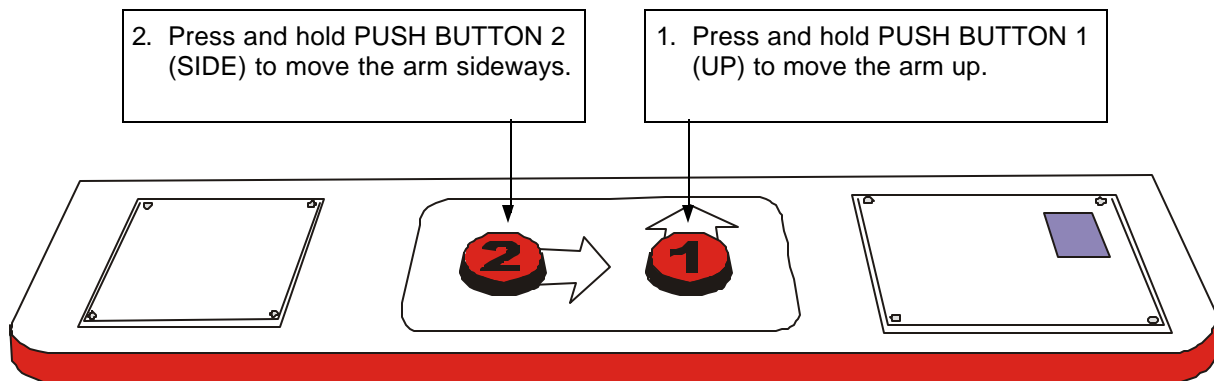
3. GAME PRIZE

ARM SENSOR

CLAW (L)   CLAW (R)
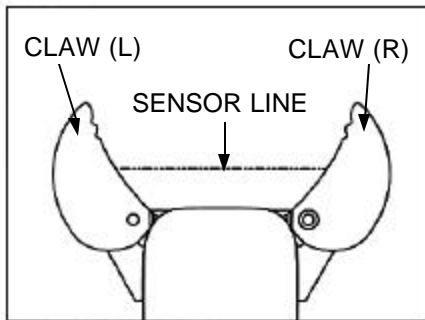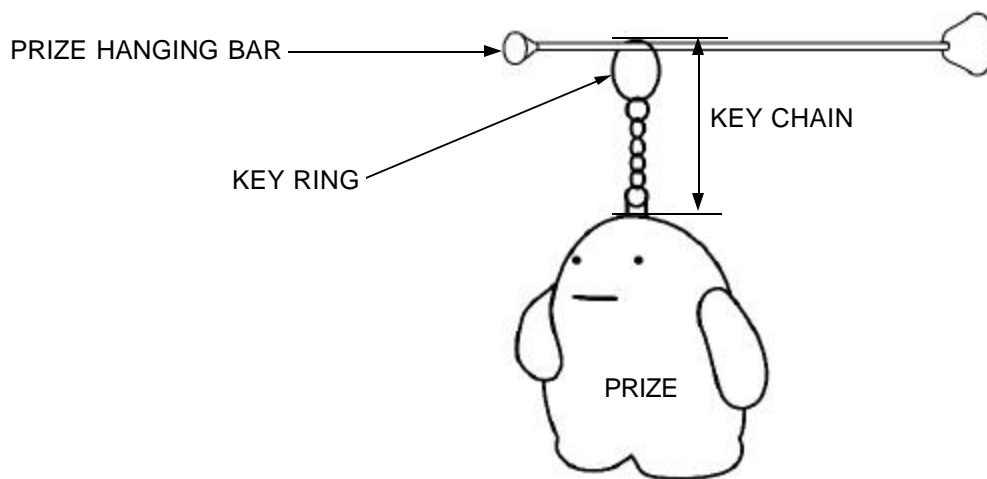
SENSOR LINE

HOW THE CLAW SENSES THE PRIZE
After Prize breaks the SENSOR LINE between CLAW,
Claws start to close and try to grab Prize.

HOW TO FILL PRIZE

1 Turn off MAIN POWER SWITCH.

2 Open FRONT GLASS DOORS.

3 Fill prizes on to PRIZE HANGING BAR as shown.

4 Close FRONT GLASS DOORS.

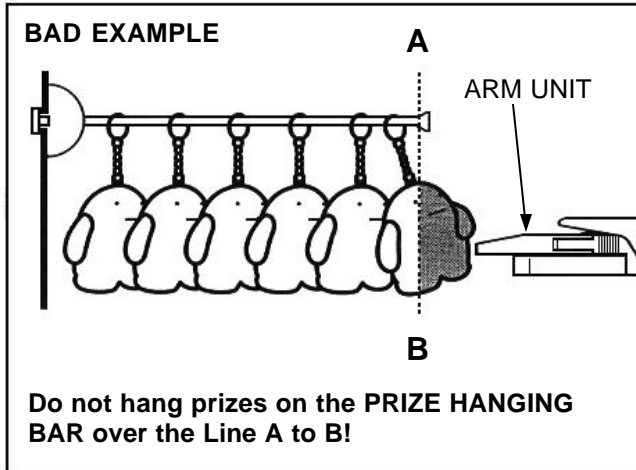PRIZE HANGING BAR

KEY CHAIN

KEY RING

PRIZE

NOTICE
1   When you fill prizes, do not put weight on the arm units.
2   Keep clean all arm unit rails.
3   Do not move the ARM UNIT (Do not press the control panel buttons when the credit is in) when you
     fill the prize.

HOW TO HANG PRIZE

When you hang prize on the PRIZE HANGING BAR, you should hang by the KEY RING as shown.
Usually the PRIZE HANGING BAR accepts 4 to 5 prizes when you hang prizes but you should not allow them to hang over the Line A to B.
Also do not hang one prize on two PRIZE HANGING BARS.

BAD EXAMPLE

A

ARM UNIT

B

Do not hang prizes on the PRIZE HANGING BAR over the Line A to B!

STANDARD PRIZE SIZE

Maximum	**W**idth:	3.35"	(85 mm)
	Height:	6"	(150 mm)
	(Include Key Chain)		
	Depth:	2"	(50 mm)
Minimum	**W**idth:	1.2"	(30 mm)
	Height:	2"	(50 mm)
	Depth:	0.4"	(10 mm)

Maximum Weight 4.2 oz.

BAD EXAMPLE

Do not use 2 PRIZE HANGING BARS!
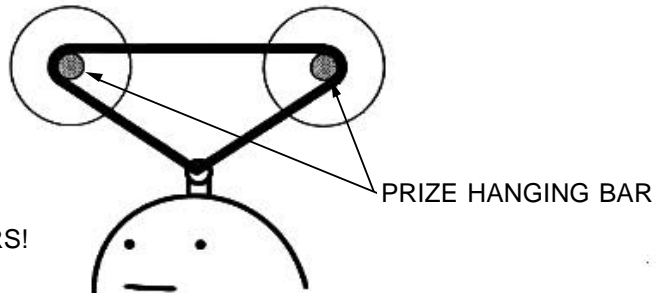
PRIZE HANGING BAR

Do not place Prize on the PRIZE HANGING BAR!
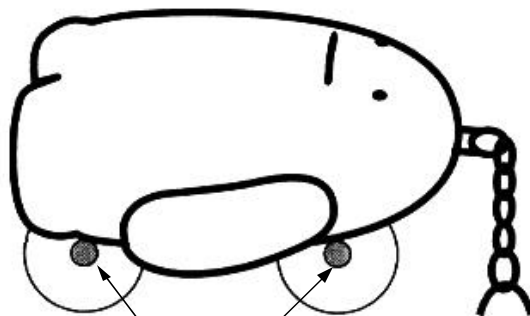
PRIZE HANGING BAR

GOOD EXAMPLE
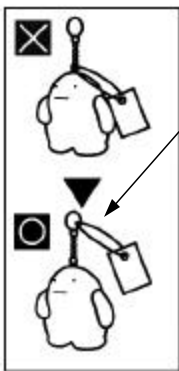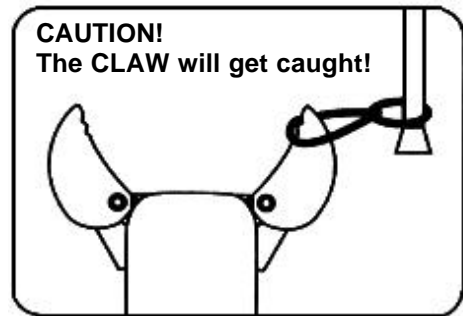
PRIZE HANGING BAR
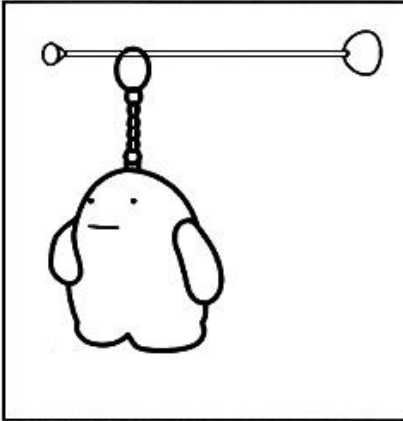
HOW TO FILL A PRIZE OF SPECIAL SHAPE

If you fill a Prize which has a Tag or any Handles, you must cut the Tag off or you must place the whole Prize which includes Tag or Handle into a plastic bag before hanging.

Tag

Handle

CAUTION!
The CLAW will get caught!
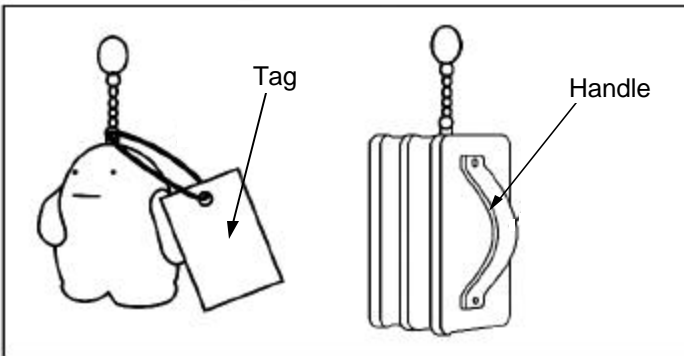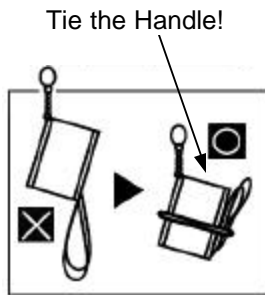
Move the Tag!

Take off the Tag!

Tie the Handle!
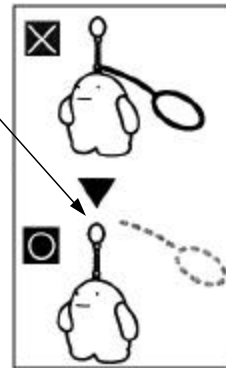
FALLEN PRIZE

You may find a few FALLEN PRIZES on the bottom of the game. At this time, please remove them because FALLEN PRIZES will disturb arm's movement.
NOTE: Always check for fallen prize underneath arm unit.

> **NOTICE**
> Although this machine has cushion on the bottom of the game field, do not use Prize which can be broken easily from falling.

PLASTIC EDGE OF PRIZE HANGING BAR

Change the angle of PLASTIC EDGE to adjust the Difficulty level more easier. (Some prize not effect this adjustment)

Plastic Edge

Screw

Prize Hanging Bar

90° turn

NORMAL

EASY
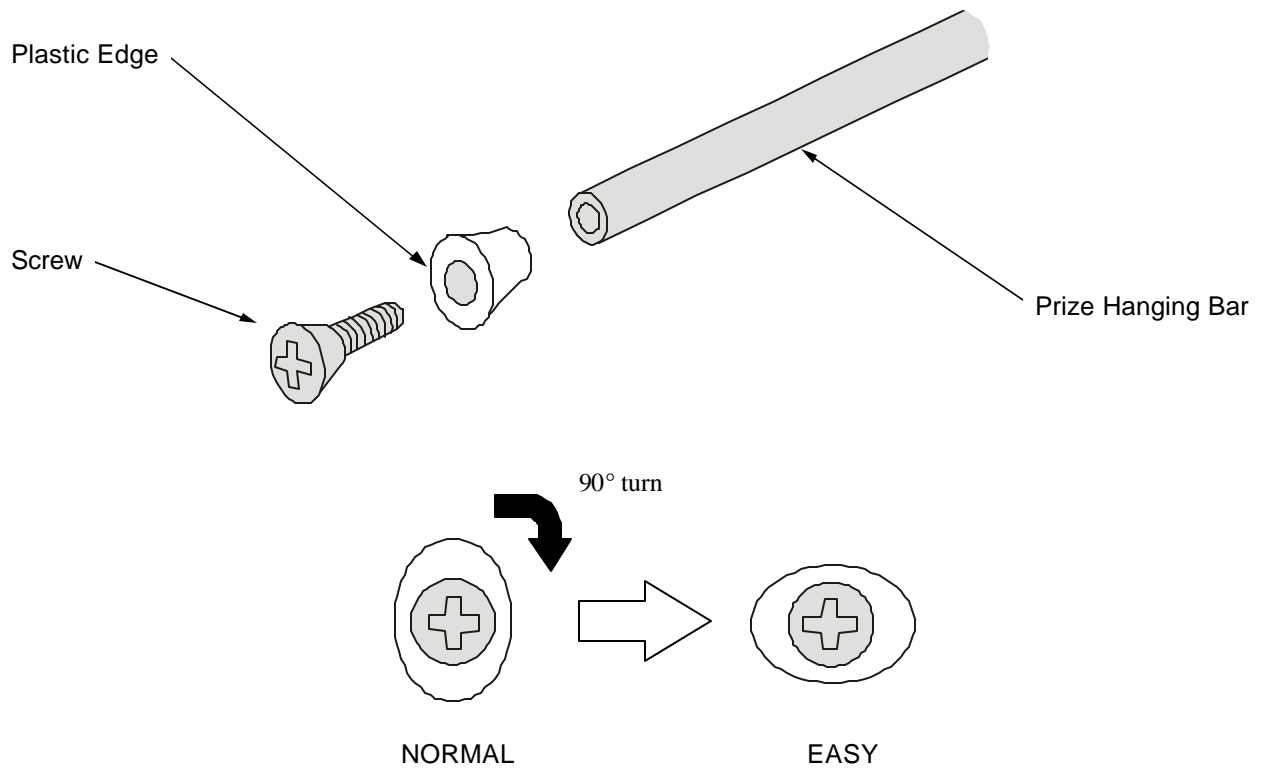
4. METERS and SWITCH BOARD

There are COIN IN METER, PRIZE PAYOUT METER and SWITCH BOARD in the Upper Coin Door.
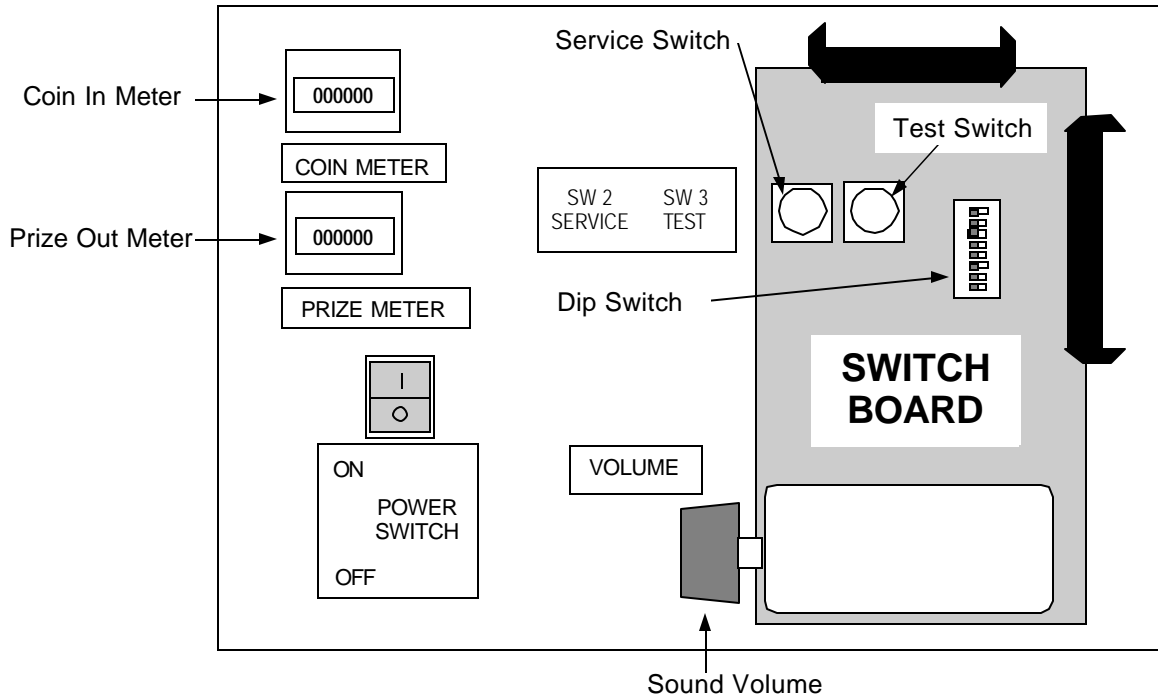
METERS:

COIN IN METER: This meter counts number of inserted coins.

PRIZE OUT METER: This meter counts number of prize payout.

SWITCH BOARD:

VOLUME: You can adjust game sounds.

DIP SWITCH: You can adjust game settings for game.

SERVICE SWITCH: Receive 1 free play for player by hitting this switch.
                        When you get any errors, you can stop error noise by hitting this
                        switch.

TEST SWITCH: If you hit this switch in the game mode, it does no work.
                        If you hit this switch with TEST SWITCH at the same time, you
                        will go to the test mode.
                        When you get any errors, stop error noise by first hitting SERVICE
                        SWITCH and then hit this switch. The errors will be cleared.

5. DIP SWITCH TABLE

There are DIP SWITCH on the SWITCH BOARD and Main CPU Board.

NOTICE: Before you change any DIP SWITCH setting, turn off the Main Power!

DIP SWITCH ON SWITCH BOARD

DIP SWITCHES								DIP SW		
FUNCTIONS	**SETTING**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
DIFFICULTY LEVEL * RANDOM GRAB	HARDEST	OFF	ON	OFF	OFF				
	HARD	ON	OFF	ON	OFF				
	NORMAL	*ON*	*OFF*	*OFF*	*ON*				
	EASY	OFF	OFF	ON	ON				
	EASIEST	OFF	ON	ON	ON				
* SAME GRAB	EASY	ON	ON	OFF	ON				
	NORMAL	ON	ON	ON	OFF				
	HARD	ON	ON	OFF	OFF				

COIN CHUTE	1 COIN 1 CREDIT					OFF	OFF	OFF	OFF
	1 COIN 2 CREDITS					ON	OFF	OFF	OFF
	1 COIN 3 CREDITS					OFF	ON	OFF	OFF
	2 COIN 3 CREDITS					ON	ON	OFF	OFF
	2 COINS 1 CREDIT					OFF	OFF	ON	OFF
	3 COINS 1 CREDIT					ON	OFF	ON	OFF
	3 COINS 2 CREDITS					OFF	ON	ON	OFF
	5 COINS 1 CREDIT					ON	ON	ON	OFF
	FREE PLAY MODE					OFF	OFF	OFF	ON
	4 COINS 1 CREDIT					OFF	ON	ON	ON
	5 COINS 2 CREDIT					ON	ON	ON	ON

"FACTORY INSTALLED" SETTING

* RANDOM GRAB: To be used with prizes of various or shapes.
* SAME GRAB: You can select the claws closing on each grab. The machine always closes the claws at the same width.

DIP SWITCH ON MAIN CPU BOARD

Main CPU Board

Open the Back door of cabinet and Main CPU Board is located left inside.
Only one Switch is available which is "ATTRACT SOUND setting.

■ **DIP SW #4 OFF = ATTRACT SOUND ON**
■ **DIP SW #4 ON = ATTRACT SOUND OFF**

DIP Switch
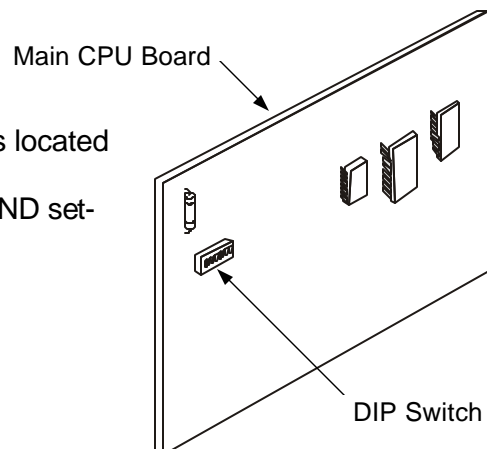
6. ERROR

When the machine gets any errors, the LED DISPLAYS on the control panel show an error number and an error letter. After you stop the error noise by hitting the SERVICE SWITCH, you have to check which machine part has the error.

> **NOTICE**
> Hit the SERVICE SWITCH and stop the error noise!
> You can not stop the error noise by hitting the TEST SWITCH.

LED	ERROR	CONTENTS
A → 3	**ARM DRIVE MOTOR/ FOR-WARD-BACK**	Check the around ARM Unit which is stuck to correct. Check the tension of belt for forward -back mechanism on ARM unit. Press
A → 2	**ARM DRIVE MOTOR/ UP-DOWN**	Check the around Up-Down Motor which is stuck to correct. Check the tension of belt for up-down mechanism which located under the playfield. Press the TEST SWITCH and the error will be
A → 1	**ARM DRIVE MOTOR/ LEFT-RIGHT**	Check the around Left-Right Motor which is stuck to correct. Check the tension of belt for Left-Right mechanism which located front of ARM Unit. Press the TEST SWITCH and the error will be
b → 6	**ARM DRIVE SHAFT SEN-SOR**	The drive shaft sensor has a problem. Check the harness and the sensor around the arm.
b → 5	**PRIZE COUNT SENSOR**	A prize is left or stuck in the Prize out door. Take out the prize which has been left in the payout door. Press the TEST SWITCH and the error will be cleared. Or Prize Count Sensor problem or does not line up correctly. If
b → 4	**PRIZE CATCH SENSOR**	The sensors on the Claw has a problem. Take off the prize which hang or stuck on the Claw. (Catcher unit)
b → 3	**DRIVE SENSOR/ FOR-WARD-BACK**	This drive sensor has a problem. Check the harness and sensor for it.
b → 2	**DRIVE SENSOR/UP-DOWN**	This drive sensor has a problem. Check the harness and sensor for it.
b → 1	**DRIVE SENSOR/LEFT-RIGHT**	This drive sensor has a problem. Check the harness and sensor for it.
E → 1	**CLAW TIMER**	This is the error not open the Claw after the claws closed. Remove any stuffs from Claw.
C → 2	**COIN SWITCH**	Not used
C → 1	**COIN SWITCH**	The coin is jamming in the coin mech. or around the coin switch. Press the coin reject button and take the coin out.

LED	ERROR	CONTENTS
d → 2	**TEST SWITCH**	This error code will appears when you press hold the TEST SWITCH too long. Press the SERVICE SWITCH to stop the error sound. Press the TEST SWITCH and the error will be cleared.
d → 1	**SERVICE SWITCH**	You are pressing the SERVICE SWITCH too long. Press the SERVICE SWITCH to stop the error sound. Press the
H → 2	**FRONT GLASS DOOR SW**	NOT USED.
H → 1	**TILT**	The cabinet is not placed on a level surface or has been shaken. Press the TEST SWITCH and the error will be cleared.

7. TEST MODE

HOW TO ENTER TEST MODE

- In the attract mode, press the TEST SWITCH and SERVICE SWITCH at the same time and you will enter the TEST MODE.
- Turn off the MAIN POWER SWITCH in the Upper Coin Door and turn on the switch again while pressing TEST SWITCH and SERVICE SWITCH. Also you will enter the TEST

NOTICE
- Before entering the TEST MODE, you should check the number of credits because the credits will be "0" after exiting the TEST MODE.
- If you want to replace the number of credits, hit the SERVICE SWITCH.

TEST MENU

1 LED AND LIGHT TEST

- The LED DISPLAYS show "0" to "9" and "A" to "F".
- To test lights of PUSH BUTTONS, Press each button on control panel.

* Press one of the TEST SWITCH in this menu and you will go to #2/SOUND TEST.

2 SOUND TEST

- The LED DISPLAYS show from "2" to "1" to "•".• : No number
- The number changes by pressing PUSH BUTTON 1 (UP).
- The machine will make the corresponding sound by pressing PUSH BUTTON 2 (SIDE).
- Attract sound will be output during this mode even DIP Switch setting is "No Attract sound" by DIP Switch on Main CPU Board.

LED DISPLAY	SOUND
2 → 1 → •	ATTRACT
2 → 2 → •	PLAY
2 → 3 → •	GET A PRIZE
2 → 4 → •	MISTAKE
2 → 5 → •	ARM HIT TO THE BAR
2 → 6 → •	INSERT COIN
2 → 7 → •	ERROR

* Press one of the TEST SWITCH in this menu and you will go to #3/MOTOR AND SENSOR TEST.

| 3 | MOTOR AND SENSOR TEST |

- The LED DISPLAYS show from "3" to "1" to "•".• : No number
- The number changes by pressing PUSH BUTTON 1 (UP).
- Each part will move by pressing PUSH BUTTON 2 (SIDE),
- All Motors automatically move continuity. Can not stop by pressing the Push bottom on Control panel.

LED DISPLAY	ARM MOVEMENT
3 ➜ 1 ➜ •	LEFT & RIGHT
3 ➜ 2 ➜ •	UP & DOWN
3 ➜ 3 ➜ •	FORWARD & BACK
3 ➜ 4 ➜ •	CLAWS OPEN & CLOSE

* Press one of the TEST SWITCHES in this menu and you will go to #4/SENSOR TEST.

| 4 | SENSOR TEST |

- The LED DISPLAY shows "4".
- When you break the sensor line between the claws with your hand, PUSH BUTTON 1 (UP) will light.
- When you push on the front of the arm unit, PUSH BUTTON 2 (SIDE) will light.
- When you break the sensor line in the prize door duct by your hand, the prize door light will light a few seconds and the prize payout meter will count.

* Press one of the TEST BUTTONS in this menu and you will go to #5/COIN TEST.

| 5 | COIN TEST |

- The LED DISPLAY shows "5".
- When you insert a coin, the coin meter will count.
- When you insert a coin while pressing the PUSH BUTTON (UP), the coin will be rejected. At this time, the coin meter will not count. (This is the option check who uses Coin Lock out Coil)

* Press one of the TEST BUTTONS in this menu and you will go to #6/DIAGNOSTIC.

6	DIAGNOSTIC

NOTICE
> You have to close the FRONT GLASS DOORS after finishing this test because you will automatically enter next test (#7/ARM TEST).

- The LED DISPLAY shows "6".
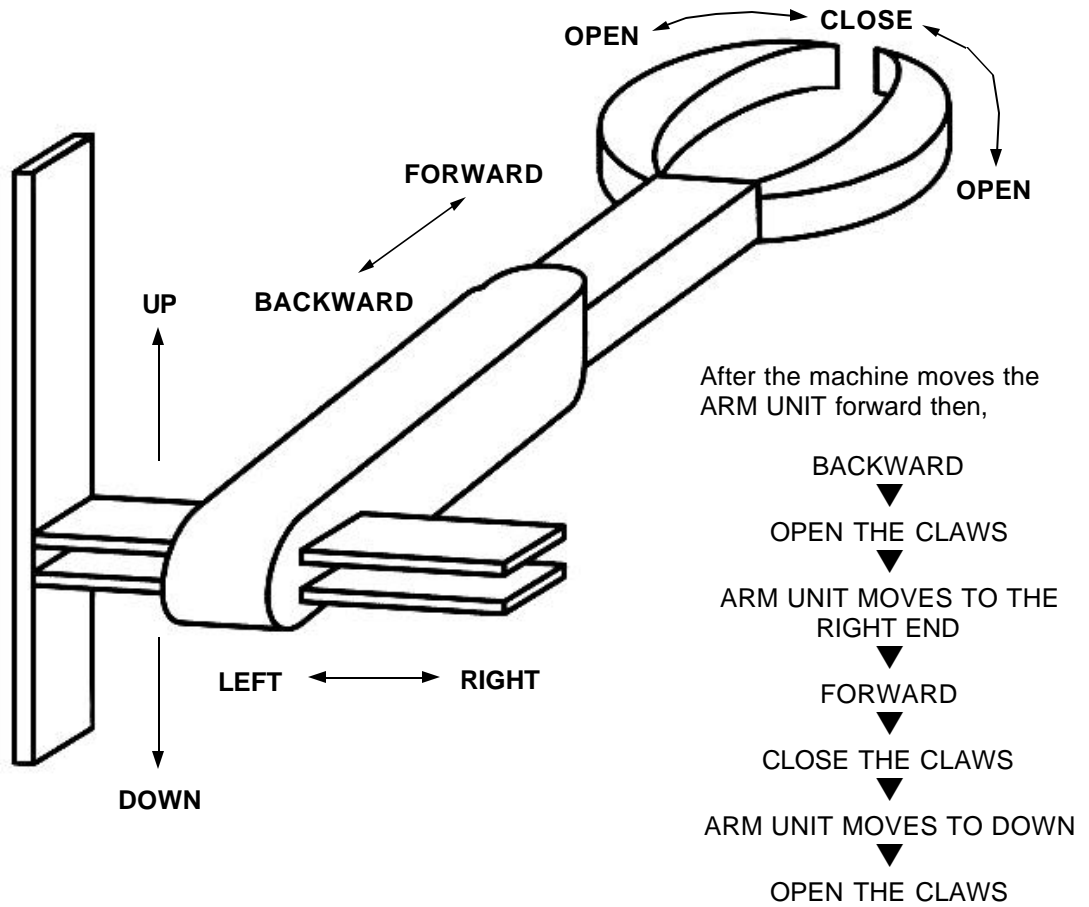- When you press PUSH BUTTON 1 (UP), the LED DISPLAY shows the following setting number.

LED DISPLAY	COINAGE	DIP SW 5	DIP SW 6	DIP SW 7	DIP SW 8
0	1 COIN 1 CREDIT	OFF	OFF	OFF	OFF
1	1 COIN 2 CREDITS	ON	OFF	OFF	OFF
2	1 COIN 3 CREDITS	OFF	ON	OFF	OFF
3	2 COINS 3 CREDITS	ON	ON	OFF	OFF
4	2 COINS 1 CREDIT	OFF	OFF	ON	OFF
5	3 COINS 1 CREDIT	ON	OFF	ON	OFF
6	3 COINS 2 CREDITS	OFF	ON	ON	OFF
7	5 COINS 1 CREDIT	ON	ON	ON	OFF
8	FREE PLAY MODE	OFF	OFF	OFF	ON
E	4 COINS 1 CREDIT	OFF	ON	ON	ON
F	5 COINS 1 CREDIT	ON	ON	ON	ON

- When you press PUSH BUTTON 2 (SIDE), the LED DISPLAY shows the following setting number.

LED DISPLAY	DIFFICULTY	DIP SW 1	DIP SW 2	DIP SW 3	DIP SW 4
2	HARDEST	OFF	ON	OFF	OFF
5	HARDER	ON	OFF	ON	OFF
9	NORMAL	ON	OFF	OFF	ON
C	EASY	OFF	OFF	ON	ON
E	EASIEST	OFF	ON	ON	ON
b	SAME GRAB, EASY	ON	ON	OFF	ON
7	SAME GRAB, NORMAL	ON	ON	ON	OFF
3	SAME GRAB, HARD	ON	ON	OFF	OFF

This test will be performed automatically by the

OPEN   **CLOSE**

OPEN

FORWARD

UP

BACKWARD

After the machine moves the
ARM UNIT forward then,

BACKWARD
▼
OPEN THE CLAWS
▼
ARM UNIT MOVES TO THE
RIGHT END
▼
FORWARD
▼
CLOSE THE CLAWS
▼
ARM UNIT MOVES TO DOWN
▼
OPEN THE CLAWS

LEFT ←→ **RIGHT**

DOWN

NOTICE
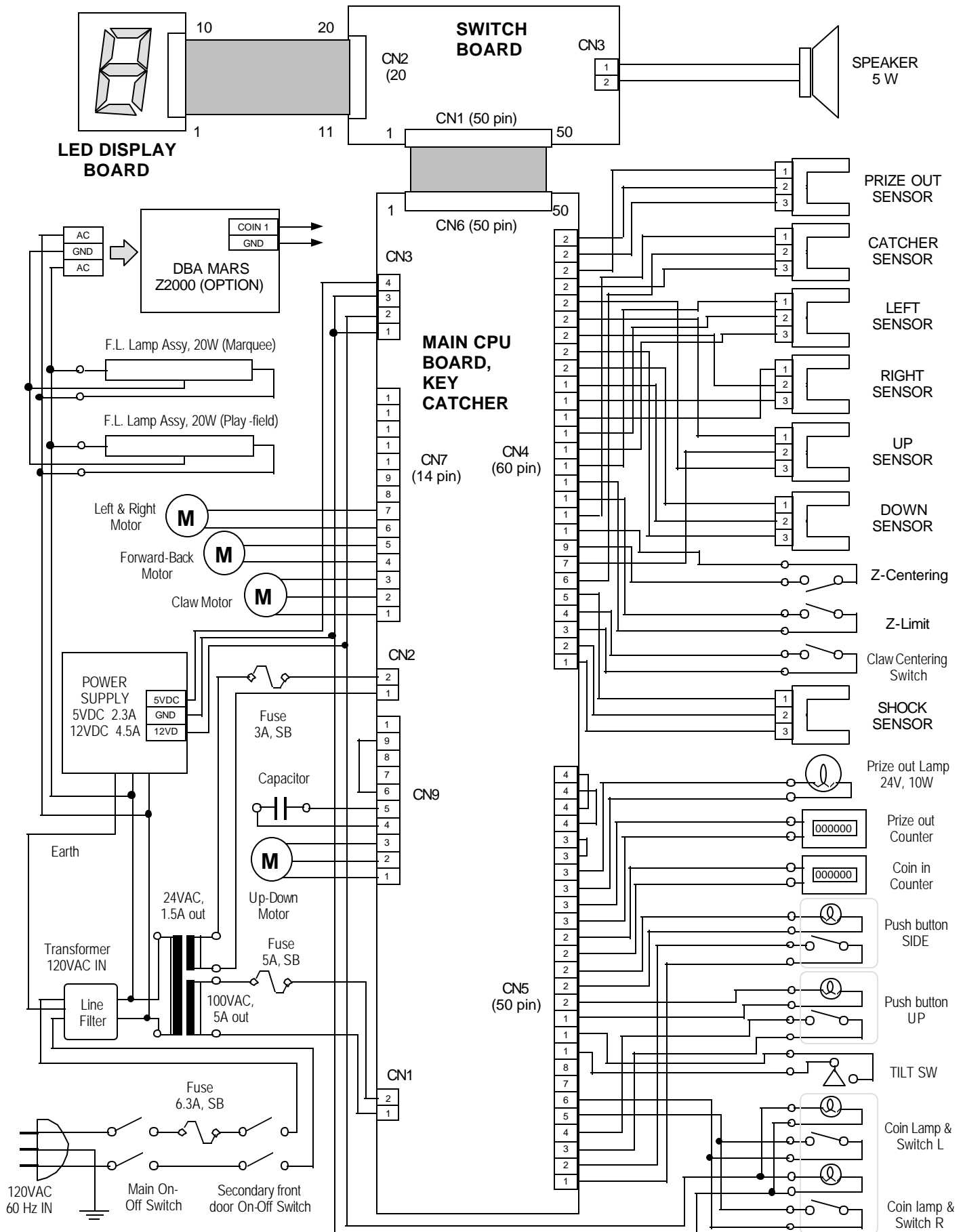   After finishing the TEST MODE, you go back to regular game
     mode automatically.

8. CABINET WIRING DIAGRAM (USA, CANADA)