



MAGICMRX

гм

OPERATING MANUAL



American Sammy Corporation

901 Cambridge Drive Elk Grove Village, IL 60007 Phone: (708)364, 8787

Phone: (708)364-9787 Fax: (708)364-9831





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*% Setting advice from "MAGIC MRX"





1. SPECIFICATIONS

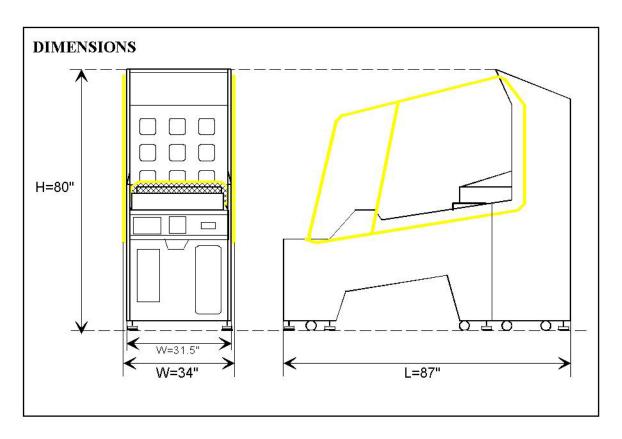
POWER Domestic 120VAC 3 Amps @ 60 Hz

DIMENSIONS 31.5" (with Net: 34") (Approx.) Width:

> Depth(L): 87" (Approx.) 80" (Approx.) Height:

* Outside carton measurement: W=35", D(L)=93", H=87"

WEIGHT 600 lbs.



SPARE PARTS LIST

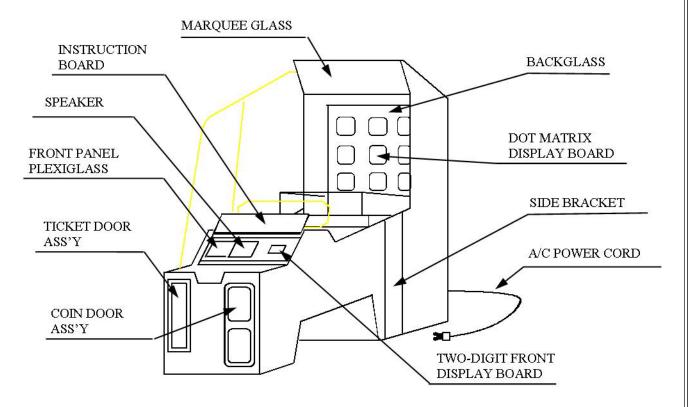
- 1) Ball
- 2) Allen wrench
- 2 extra pcs
 - 2 pcs (Each different size)
- 3) Ticket payout cards 3 sets (4 pcs each)



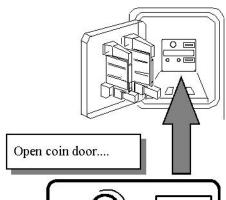


2. MAIN PARTS of MACHINE

MAIN CABINET



COIN DOOR ASS'Y



VOLUME COUNTER AUDIT ADVANCE AUDIT TIČKET CLEAR O

VOLUME

Turn clockwise to increase volume.

COIN COUNTER

Counts coins inserted.

TICKET COUNTER

Counts number of tickets that have been "paid out ".

AUDIT ADVANCE BUTTON & AUDIT CLEAR BUTTON

Used for "TEST MODE". See pages 12-15.





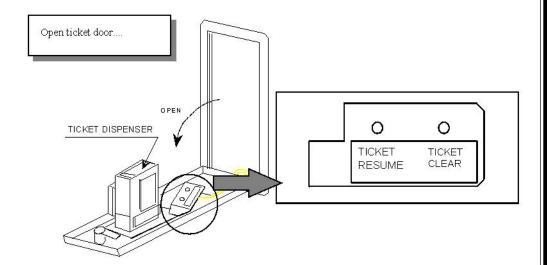
TICKET DOOR ASS'Y

TICKET RESUME BUTTON & TICKET CLEAR BUTTON

The two buttons in the ticket door determine how the machine handles the ticket payout when the machine runs out of tickets. One button is labeled TICKET RESUME, the other is labeled TICKET CLEAR.

The first button, -the TICKET RESUME button-, will restart the ticket dispenser, after it is reloaded, from where it left off when it ran out.

The second, -the TICKET CLEAR button-, will end the Out of Tickets condition and clear the remaining ticket count. The remaining tickets to be paid out are displayed in the bottom right corner display.





3. INSTALLATION

SET UP MACHINE

Please take a moment to read the following before you turn on your new game.

Unpack your game carefully. Be careful of the shipping staples, they can be sharp. Your game is assembled and will not need anything done to it. The keys are in the coin return chute. Also, 2 spare deflated balls are in the cash box.

Open up the coin door and remove the other keys. Open all doors and inspect for shipping damage. Are the PC boards in place? Are the connectors seated? It is a good idea to "RESEAT" all connectors as they may become loose during shipping. Carefully walk around your game, and inspect the cabinet for cracks and separation of the joints. If OK, plug in line cord and turn game on. Drop in a few coins and play a game. If you have not put in tickets, the game will say "CALL ATTENDANT-OUT OF TICKETS," if you earned tickets that cannot be paid out. The "TICKET CLEAR" button in the ticket dispenser door will clear this problem.

Your new game has carefully been percentaged. We suggest you keep this setting for a few weeks and find out what your ticket average per coin is. This information is available through the builtin audit system discussed later in the manual.

(See page 12)

SAFETY **PRECAUTIONS**

- 1) Be sure to turn the power **OFF**, or unplug the game, before working on the machine.
- Do not unplug game by pulling on the line-cord.
- 3) Use only a grounded outlet.

YOUR GAME MUST BE GROUNDED!!!

- 4) Replace line cord if the insulation is damaged in any way with one of equal quality.
- 5) Periodically make sure the two halves of the game are securely bolted together.
- 6) Check the side tubing weekly to be sure it is secured to the game. Tighten/fix tubing that is not secured.
- 7) Repair damaged netting to protect the customer.
- 8) Replace blown fuses with same type and rating.
- This game is for INDOOR USE ONLY.





LIMITED WARRANTY

American Sammy Corporation warrants all products to be free from defective materials and workmanship for a period of thirty (30) days from the American Sammy Corporation invoice date unless otherwise specified in writing by American Sammy 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 American Sammy 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.

F.C.C. REGULATION COMPLIANCE

This equipment complies with the limits for a Class A digital device pursuant to Part 15 of the F.C.C. Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

U.L. COMPLIANCE

This game has been tested & approved as being in compliance by Underwriters Laboratory. This approval is subject to no modifications done by operator of this game. Any modifications not approved by American Sammy Corporation will void such U.L. compliance approval.

4. GAME PLAY

GAME THEME & HOW TO PLAY

MAGIC MR X is the easiest way to play tic tac toe in an arcade!

Just toss the balls into the playfield and watch the ${f X}$ mark the spot!

Throw the balls into a horizontal, vertical, or diagonal configuration or connect 2 balls, and win tickets!

Then, watch as the MAGIC MR X dances around the back glass—if MR X matches one of your X's, the player will win bonus tickets! Never before has this matching magical X appeared on any redemption game....you may have seen it on pinball...now American Sammy incorporates this digital technology into MAGIC MR X!!!

Insert up to 4 coins and increase your ticket value!

PLUS, MAGIC MR X incorporates these proven features:

- Metal Ticket Door for durability and operating ease.
- Ticket Dispenser either resets or finishes payout after new tickets are fed in its up to the Operator!
- Game shipped with Deltronics Ticket Dispenser, but is easily changeable to any Ticket Dispenser.
- LED Display shows number of coins played up to 4 Coins.
- Colorful, easy to read instruction panel.
- Different levels of pay out percentages are operator adjustable as are the bonus levels for the magic X!
- Drain hole provided in front of cabinet, in case of spills.
- Game shipped with 5 Balls 3 for Game play, 2 for Back Up!
- Game shipped in 1 Carton with skid for forklift.
 accessibility Uncrate and place on location!
- UL Approved.





" MAGIC " **Game Player Instructions** of "MRX"

These are the screened instructions on the panel next to the speaker. Please reference......

Game Player Instructions

3 BALLS MAX. PER GAME

- 1) Toss balls into playfield
- 2) X lights up on backglass to match ball
- 3) Throw ball into any horizontal, vertical or diagonal line OR Connect 2 or 3 balls to Win
- 4) Insert 1-4 Coins (Ticket value increases with each coin)

Bonus tickets awarded when floating X matches any X on playfield! Winning tickets pay out at end of game.



5. DIP SW SETTING

DIP SW 4 (sw41~48)

:Factory setting

CONTENTS / SWITCH NUMBER	sw41	sw42	sw43	sw44	sw45	sw46	sw47	sw48
Normal game	OFF	OFF					3	
NJ version 1 : Any time payout 1 ticket.	OFF	ON]					
NJ version 2 : Any time payout 3 tickets.	ON	OFF	1					
NJ version 3 : Any time pay out 5 tickets.	ON	ON]					

"Magic X " Difficulty Level at end of game

Harder (Approx. 12.5% : 1 out of every 8play)	OFF	OFF
Hard (Approx. 25%: 2 out of every 8play)	OFF	ON
Normal (Approx. 37.5% : 3 out of every 8play)	ON	OFF
Easy (Approx. 50% : 4 out of every 8play)	ON	ON

Ticket payout table for "Diagonal"- " H&V"-" 3 connecting"-" 2 connecting"

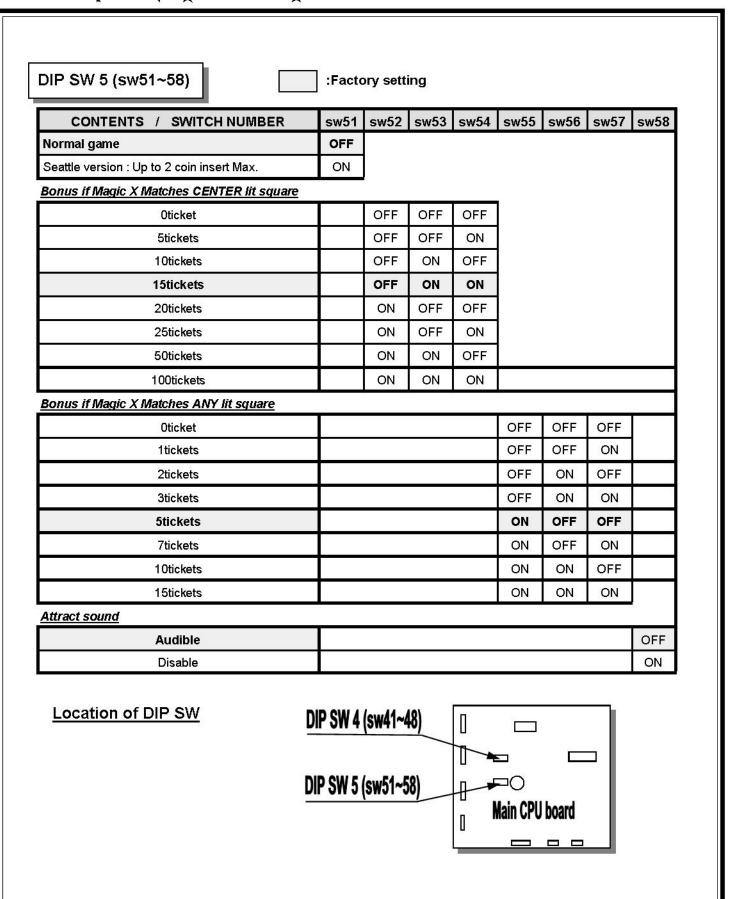
10tickets - 5tickets - 4tickets - 3tickets	OFF	OFF	OFF	OFF
10tickets - 5tickets - 4tickets - 0tickets	OFF	OFF	OFF	ON
15tickets - 5tickets - 4tickets - 3tickets	OFF	OFF	ON	OFF
15tickets - 10tickets - 6tickets - 4tickets	OFF	OFF	ON	ON
15tickets - 7tickets - 4tickets - 0tickets	OFF	ON	OFF	OFF
20tickets - 5tickets - 4tickets - 3tickets	OFF	ON	OFF	ON
20tickets - 10tickets - 6tickets - 0tickets	OFF	ON	ON	OFF
25tickets - Otickets - Otickets - Otickets	OFF	ON	ON	ON
25tickets - 5tickets - 4tickets - 3tickets	ON	OFF	OFF	OFF
25tickets - 10tickets - 8tickets - 4tickets	ON	OFF	OFF	ON
25tickets - 10tickets - 0tickets - 0tickets	ON	OFF	ON	OFF
25tickets - 15tickets - 0tickets - 0tickets	ON	OFF	ON	ON
50tickets - Otickets - Otickets - Otickets	ON	ON	OFF	OFF
50tickets - 10tickets - 0tickets - 0tickets	ON	ON	OFF	ON
100tickets - Otickets - Otickets	ON	ON	ON	OFF
Oticket - Oticket - Oticket	ON	ON	ON	ON

^{*} Game will payout 1, 3 or 5 tickets per coin regardless of where the balls are thrown. For example, if player inserts 3 coins when DIP SW 41 is ON and DIP SW 42 is OFF, the game will give this player a total of 9 tickets ONLY (3 coins x 3 tickets = 9 tickets).

NOTE: SETTING EITHER DIP SW 4 (SW 41 & SW 42) "ON" WILL DISABLE SW45~SW48.









6. TEST MODE

2 types of TEST MODES as follows....

- * AUDITS MODE
- * ADJUSTMENT/TEST MODE

AUDIT MODE

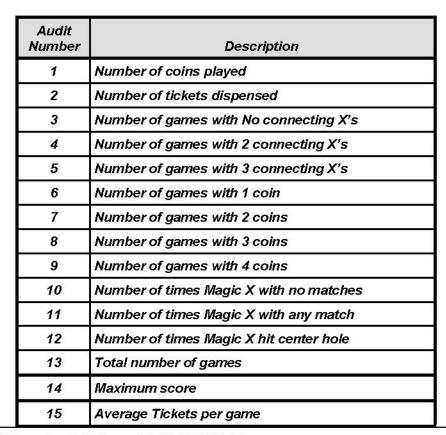
You can check 13 kinds of audits in this mode as listed below.....

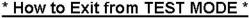
How to enter and control AUDIT MODE

- 1) Enter by hitting **AUDIT ADVANCE** switch once in Attract Mode ONLY.
- 2) Letters of "AU-DI-T" are shown on Dot matrix display.
- 3) Hit AUDIT CLEAR once. Now, you have selected Audit Mode.
- 4) Advance through Audits by repeatedly pressing AUDIT ADVANCE switch. You can check many audits that are listed below.
- 5) Clear Audit by hitting AUDIT CLEAR switch at each audit.
- 6) Audit Mode terminates after last audit is viewed.

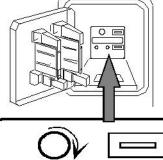
Miscellaneous notes

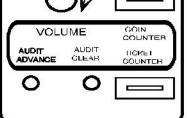
* Clearing Audit #13 (Average Tickets per game) has no permanent effect on Audits since it is automatically recalculated each time Audit Mode is entered.

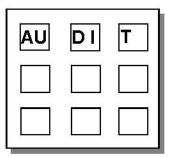




Press delete AUDIT ADVANCE again and you will return to game mode.







Back board shows above...



ADJUSTMENT /TEST MODE

- 1) Enter by hitting AUDIT ADVANCE switch once in Attract Mode ONLY.
- 2) Letter of "AU-DI-T "are shown on Dot matrix display.
- 3) Hit AUDIT ADVANCE switch AGAIN, Letters of "TE-ST-S" are shown on Dot matrix display.
- 3) Hit AUDIT CLEAR once. Now, you have selected ADJUSTMENT/ TEST MODE.
- 4) Advance through adjustments by repeatedly pressing AUDIT ADVANCE switch.
- 5) This mode terminates after last test is viewed.

Back board shows as follows				
TE	ST	s 		

CONTENTS OF "ADJUSTMENT / TEST MODE"	3
1) LAMP INTENSITY	
2) SWITCH TEST	
3) MOTOR / LIMIT SWITCH TEST	
4) SOUND TEST	
5) TICKET DISPENSER TEST	
6) DOT MATRIX DISPLAY TEST	
7) LAMP BAR TEST	

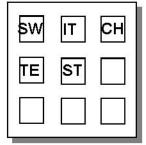
1) LAMP INTENSITY

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The Back Glass Lamp intensity can be adjusted. The default value is a compromise between life and intensity.

Pressing AUDIT CLEAR causes X to cycle from 1 to 8 which varies the intensity of the light bulbs which change lighting levels as the X is changed. Select intensity best for your location.

2) SWITCH TEST



Pressing AUDIT ADVANCE again (3rd time) will put you into **SWITCH TEST**. This is the test to check if switches are functioning properly. Pressing the Playfield switches will cause the corresponding display to change to a solid red block. When Coin and Ticket switches are pressed their activation will be displayed on the Back Board.

SWITCH NAME	Display (Back board) show
Coin Switches	COIN SWITCH 1
	COIN SWITCH 2
Ticket Resume	TICKET RESUME SWITCH
Ticket Clear	TICKET CLEAR SWITCH
Audit Clear	AUDIT CLEAR SWITCH



3) MOTOR/LIMIT SWITCH TEST

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TE	ST	

Pressing the **AUDIT ADVANCE** again (4th time) will put you into Motor/Limit Switch Test.

This is the test to adjust limit switches if the balls are not dropping. The arm of the limit switches should ride up on the bracket attached to the Playfield Frame Arm. This can be viewed with the lower Back Door removed.

1) First press of AUDIT CLEAR attempts to run the frame to the OUT Limit Switch. If this limit switch is closed when AUDIT CLEAR is pressed, nothing happens.

3 Possible Outcomes:

- a) OUT Limit Switch is activated within approximately 2 seconds;
 - —-Display reads "MOTOR OUT OK".
- b) OUT Limit Switch is <u>NOT</u> activated within approximately 2 seconds;
 - —-Display reads "MOTOR OUT BAD".
- c) OUT Limit Switch activated when AUDIT CLEAR is pressed (explained above);
 - —Display does not change.
- 2) Next press of AUDIT CLEAR attempts to run the frame back to the HOME Limit Switch. If this limit switch is closed when AUDIT CLEAR is pressed, nothing happens.

3 Possible Outcomes:

- a) HOME Limit Switch is activated within approximately 2 seconds;
 - —-Display reads "MOTOR HOME OK".
- b) HOME Limit Switch is **NOT** activated within approximately 2 seconds:
 - —-Display reads "MOTOR HOME BAD".
- c) HOME Limit Switch activated when AUDIT CLEAR is pressed (explained above);
 - —-Display does not change.
- 3) When the AUDIT ADVANCE Switch is pressed to exit this test, the software checks to see if the frame is resting against the HOME Limit Switch. If it is NOT, the Motor is turned ON and the Frame is advanced back to the HOME Limit Switch. If the HOME Limit is not functional, the Motor will turn OFF automatically after about 2 seconds. During the time that the Frame is being reset, the display reads WAIT in red. See section "Solutions to Possible Problems" if MOTOR OUT BAD or MOTOR HOME BAD is displayed.





4) SOUND TEST

so	UN	D
TE	ST	

Pressing AUDIT ADVANCE again (5th time) will put you into the SOUND TEST.

Theme music comes ON. Pushing AUDIT CLEAR plays the same sound effect as making a square in the normal game play. This test is used to verify that sounds work and for adjusting the volume.

5) TICKET DISPENSER TEST

TI	ск	ET
D	IS	Р
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Pressing AUDIT ADVANCE again (6th time) and you enter the TICKET DISPENSER TEST.

Pressing AUDIT CLEAR performs the dispense function. If the ticket notch is seen within about three seconds, the display shows TICKET DISP OK. If the notch is not seen in this time, the display shows TICKET DISP ERROR.

6) DOT MATRIX DISPLAY TEST

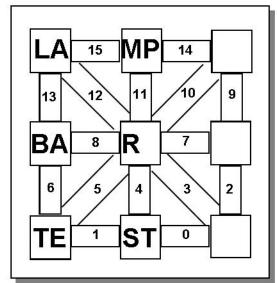
	* *

Pressing AUDIT ADVANCE again (7th time) and you enter the DOT MATRIX DISPLAY TEST.

Bottom right display comes on in alternating green, red, and yellow blocks with all light bulbs for the display ON.

Each time AUDIT CLEAR is pressed, a different display is being checked.

7) LAMP BAR TEST



Pressing AUDIT ADVANCE again (8th time) and you enter the LAMP BAR TEST.

One connecting bar lights up. Each time AUDIT CLEAR is pressed, a different light bar is lit up until each of the 16 bars have been lit. The number of the lit bar is placed on the display each time the AUDIT **CLEAR** button is pressed. Each of the sixteen bars has a unique number 0 through 15. Pressing AUDIT ADVANCE at any time during this test will end the test.

Press AUDIT ADVANCE again (9th time) and you will return to game mode.



7. SERVICE & MAINTENANCE

SOLUTIONS TO POSSIBLE PROBLEMS

Size of Balls Balls should have a diameter of 7-3/8" Max. or a circumference of

23-1/4". Balls under-inflated or over-inflated WILL cause mechanical

problems. Note: Be sure to inflate balls slowly.

Ball caught Is the Playfield bent? If so, the Balls may be getting caught between the

Playfield frame and Cabinet (the Limit switch arms may be out of adjustment.) The switches should just ride up on the Activation Bracket.

The lower rear door provides access to the switching.

One or more balls are under-inflated.

Fuse blown If the fuse on the I/O Board is blown, check the following:

a) Motor binding or motor defective. To check: power game "off", replace fuse, unplug connector at I/O Board (J9) and power game "on". If the fuse does not blow, motor is defective.

Replace motor.

b) Dot Matrix Display Board(s) defective. To check: power game "off", replace fuse, unplug connector at **I/O Board (J4)** and power game "on". If the fuse does not blow, 1 or more Dot Matrix Display Board is defective. Disconnect each connector between the Dot Matrix Display Boards, replace fuse, power game "on" and begin by reconnecting Dot Matrix Display Board

#1, then #2, etc.

c) If the above are OK, then the I/O Board is defective.

Incorrect ticket payout

If ticket payout is incorrect, check to make sure the leads to the **Ticket Dispenser** are **OK**. Clean the **Opto Switch** that counts the tickets.

Low or High Voltage

If the GREEN L.E.D. on the C.P.U. board is <u>not blinking</u>, the C.P.U. board is either defective or the power supply voltage is out of spec. The power supply voltage should be **5.15 Volts**. (On the C.P.U. board, this voltage should be **5.00 Volt** [± 5%].)

MOTOR OUT BAD or MOTOR HOME BAD

If, in test, **MOTOR OUT BAD** or **MOTOR HOME BAD** is displayed, check the following:

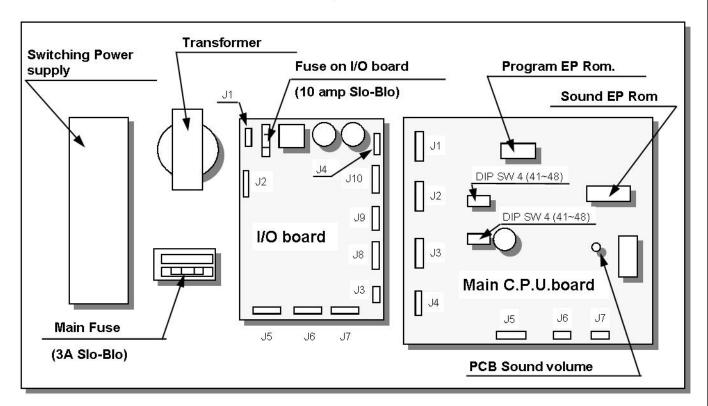
- a) Limit Switch defective. Replace.
- b) Playfield does not move freely when disconnected from Motor Shaft.
- c) **Motor** defective. (See above for checking under "Fuse blown".)
- d) Motor or Limit Switch wiring defective.



PCB Location and name

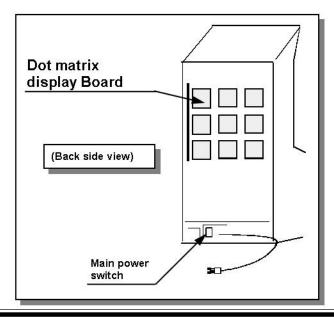
Main C.P.U.Board & I/O Board.

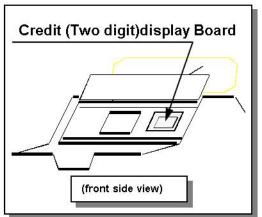
You can see the following when you open the Lower Back door of the cabinet. They are located at the bottom of the cabinet.



Dot matrix display Board &

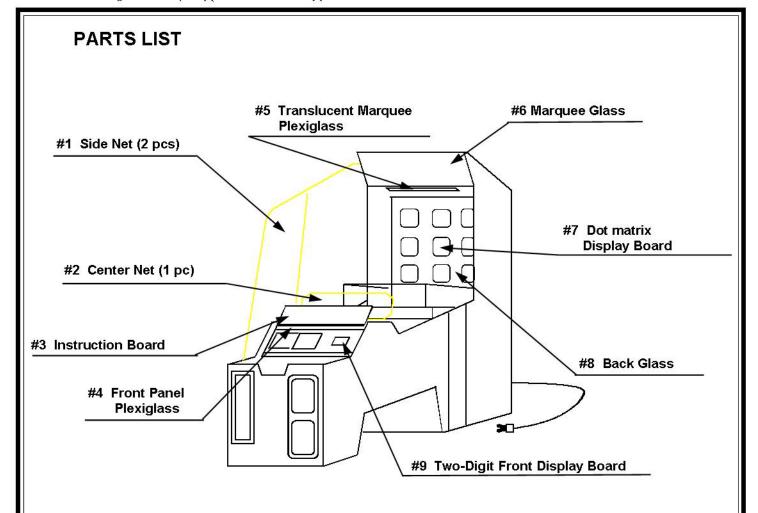
You can view the **Dot matrix display Board** when you open the Upper Back door of the cabinet. The Credit (Two digit) display Credit display Board. Board is located next to speaker inside the front of cabinet.







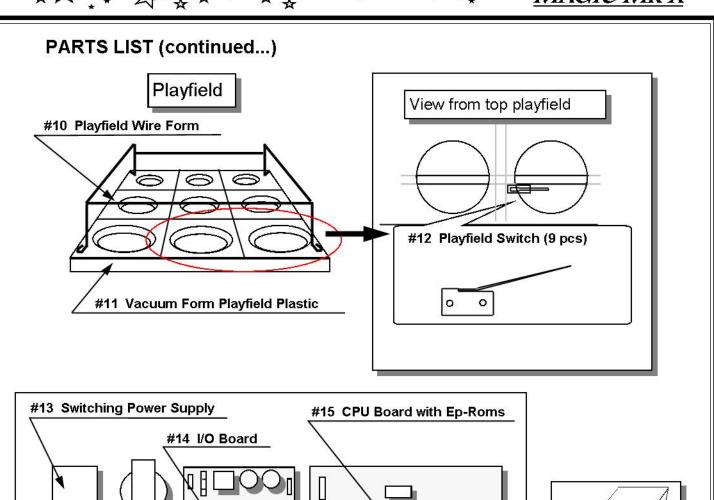


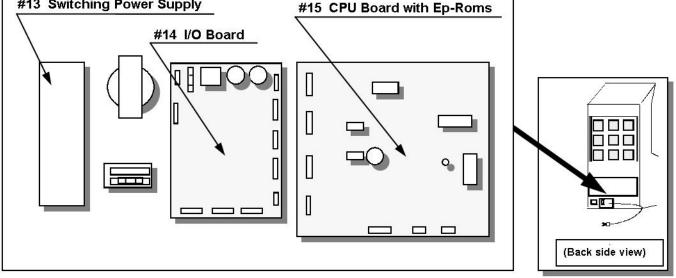


No.	Description	Part Number
#1	Side Net	09-70-610
#2	Center Net	09-70-611
#3	Instruction Board	09-30-250
#4	Front Panel Plexiglass	09-30-501
#5	Translucent Marquee Plexiglass	99-30-500
#6	Marquee Glass	09-30-120
#7	Dot Matrix Display Board	99-20-010
#8	Back Glass	09-30-350
#9	Two-Digit Front Display Board	99-20-015







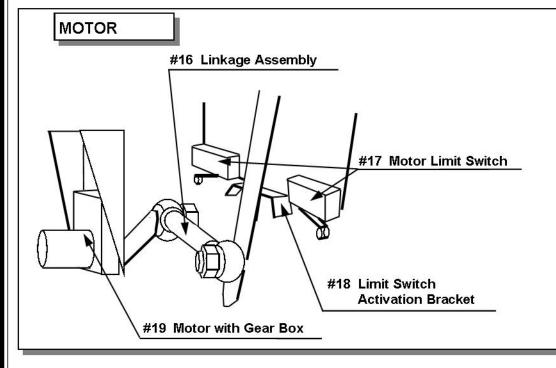


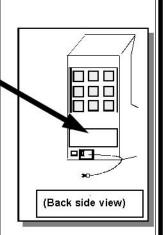
No.	Description	Part Number
#10	Playfield Wire Form	09-70-620
#11	Vacuum Form Playfield Plastic	09-70-450
#12	Playfield Switch	99-60-400
#13	Switching Power Supply	99-60-100
#14	I/O board (Mr.X :237-0063-00))	09-20-001
#15	CPU Board with EP-Roms	09-10-001





PARTS LIST (continued...)







No.	Description	Part Number
#1	Linkage Assembly	99-70-250
#1	Motor Limit Switch	99-60-410
#1	Limit Switch Activation Bracket	99-70-260
#1	Motor with Gear Box	99-60-300
#2	Vinyl Ball	99-70-600
	Bonus Card Set	09-30-260



8. OTHER

NJ Version and **SEATTLE Version**

You will notice Dip Sw 4 (SW 41 & SW 42) is listed as NJ or "New Jersey" version. Similarly Dip Sw 5 (SW 51) is listed as "Seattle" version. These 2 features were incorporated into Magic MR X's programming.

These versions are available when state or local ordinances prevent percentage payout OR individually you would prefer one of these settings.

NOTE: SETTING EITHER DIP SW 4 (SW 41 & SW 42) "ON" WILL DISABLE SW45~SW48.

% setting advice X "

Some locations may find that the factory settings are not suitable to from " MAGIC MR their location. The payout ratio is either too high or too low. Please reference the following advice from MR.X when you have a problem with the payout # of tickets.

> Begin by checking the "Number of coins played" and the "Number of tickets dispensed" each week. Refer to page 12 in "Audit Mode". After making note of these figures, you can calculate the "Ticket payout %" as follows:

Formula -Number of tickets dispensed x 100 = Payout % of Tickets(Number of coins played x 25)

If you get a result under 25% or over 40%, you need to reset the Dip Switches. Adjust any of the following:

- a) The Difficulty Level to an easier or harder setting.
- b) The Ticket Payout for Diagonal, H&V, 3 connecting or 2 connecting.
- c) The Bonus Magic X settings.
- d) To NJ version.