MIGHTY DRIVER

OPERATING MANUAL

Ver.1.0

Sammy USA Corporation

901 Cambridge Drive
Elk Grove Village, IL 60007-2434
Phone: (847) 364-9787
FAX: (847) 364-9831
Internet: www.sammyusa.com

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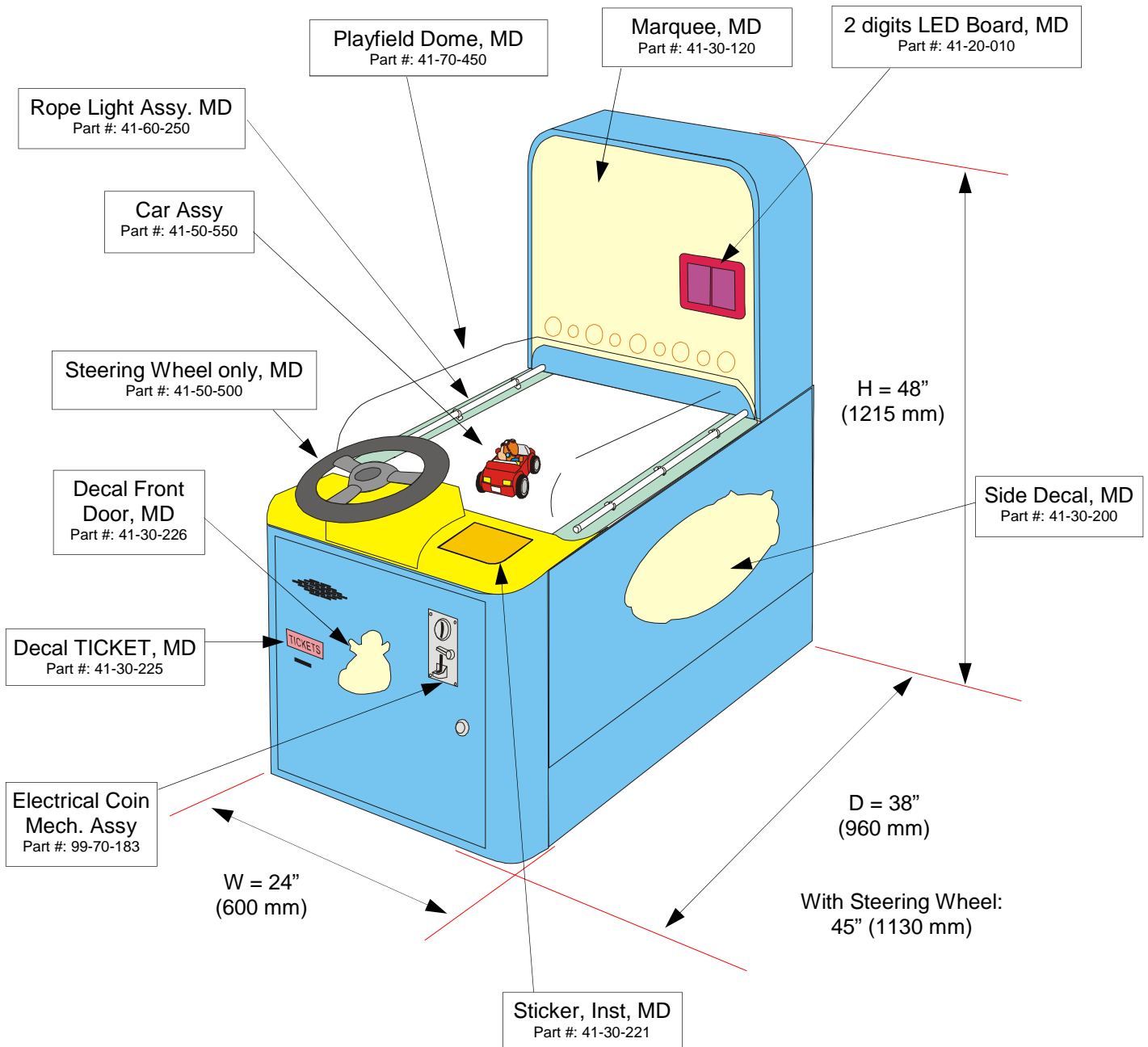
SPECIFICATIONS

POWER　　　120VAC @ 60Hz　　　USA & CANADA

DIMENSIONS　**W**idth:　24"　　(600 mm)
　　　　　　　　　Height:　48"　　(1215 mm)
　　　　　　　　　Depth:　38"　　(960 mm)

WEIGHT　　　146 lb　　(66 kg)

Playfield Dome, MD
Part #: 41-70-450

Marquee, MD
Part #: 41-30-120

2 digits LED Board, MD
Part #: 41-20-010

Rope Light Assy. MD
Part #: 41-60-250

Car Assy
Part #: 41-50-550

Steering Wheel only, MD
Part #: 41-50-500

Decal Front
Door, MD
Part #: 41-30-226

Decal TICKET, MD
Part #: 41-30-225

Electrical Coin
Mech. Assy
Part #: 99-70-183

Side Decal, MD
Part #: 41-30-200

H = 48"
(1215 mm)

D = 38"
(960 mm)

W = 24"
(600 mm)

With Steering Wheel:
45" (1130 mm)

Sticker, Inst, MD
Part #: 41-30-221

TICKETS

SPECIFICATIONS (CONT.)

LIMITED WARRANTY

Sammy USA Corp. warrants all products to be free from defective materials and workmanship for a period of thirty (30) days from the Sammy USA Corp. invoice date unless otherwise specified in writing by Sammy USA Corp. 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 Corp. There are no additional warranties described above. The limited warranties described above shall be in lieu of any other warranty, expressed or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose.

HANDLING AND INSTALLATION

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

The **Mighty Driver** redemption 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:

- ♠ 60 inches in height
- ♠ 25 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. Prizes will then fall properly.
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
- ♠ 60" depth

THE GAME MUST BE LEVEL. IF THE GAME IS NOT ON A LEVEL SURFACE, THE TILT SYSTEM WILL MALFUNCTION. 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.

GAME PLAY, GAME SETTING MODE AND DIPSW SETTING

GAME PLAY

- Insert coin(s) or token(s) .
- Control the Car using steering wheel to hit the FLAGS.
- More FLAGS, more tickets.

GAME SETTING MODE

HOW TO ENTER THE GAME SETTING MODE

Re-power on while pressing and holding the **RESET** Switch which is located inside of front door. Digits of **88** are shown first. Then release the **RESET** switch OFF to show the **–1** on 2 digits LED display on Marquee box.

HOW TO SELECT AND DECIDE EACH CONTENTS

After entering **GAME SETTING** mode, press **SERVICE** switch to move the number of **FUNCTIONS**. (2 digits will be changed by pressing the **SERVICE** switch.) Press **RESET** switch to select it. After selecting, display shows each setting numbers.

Press **SERVICE** switch to move the number of **SETTINGS**. (2 digits will be changed by pressing the **SERVICE** switch) Press **RESET** switch to select it.

RETURN TO PREVIOUS MENU

Change **FUNCTIONS** and **SETTINGS** to selection "**oo**". Select these Digits then press **RESET** switch to return to previous menu.

RETURN TO GAME MODE

After selecting any **SETTINGS**, re-power on the game.

For the FUNCTIONS and SETTINGS, please refer to the setting table on next page.

DIP SW SETTING

Payout setting is set by DIPSW on Main PCB. Please refer below table.

DIP SWITCH 1				SWITCH POSITION	
FUNCTIONS	SETTING	NOTE	1	2	3
PAYOUT SETTING	**REDEMPTION GAME**	Ticket payout.	OFF	OFF	OFF
	CARD PAYOUT	Use Asahi Seiko Card Dispenser.	ON	OFF	OFF
	EXTEND GAME	No Ticket, No Card Payout. Extend game play.	ON	ON	OFF
	OFF	Only game play. No payout.	OFF	OFF	ON

ATTEMTION!!! PLEASE KEEP OFF OTHER SWITCHES. (SW 4, 5, 6, 7 AND 8)

TABLE OF SETTING FUNCTIONS (MIGHTY DRIVER, USA)

FUNCTION# (2 Digits LED)	FUNCTION	SETTING# (2 Digits LED)	SETTING	NOTE
-1	COIN CHUTE	11	1 COIN / 1 PLAY	$0.25 per play (or $1.00 coin per 1 play)
		12	*2 COINS / 1 PLAY*	$0.50 per play
		13	3 COINS / 1 PLAY	$0.75 per play
		14	1 COIN / 2 PLAYS	$0.25 per 2 plays (or $1.00 coin per 2 plays)
		15	3 COINS / 2 PLAYS	$0.75 per 2 plays
		16	2 COINS / 3 PLAYS	$0.50 per 3 plays
		17	3 COINS / 4 PLAYS	$0.75 per 4 plays
		18	3 COINS / 5 PLAYS	$0.75 per 5 plays
		19	FREE PLAY	Spin the Steering Wheel to start the game
		oo	RETURN TO PREVIOUS	
-2	DIFFICULTY LEVEL Number of LAPS and speed of control	21	EASY	5 LAPS, EASIER
		22	▲	5 LAPS, EASY
		23		5 LAPS, NORMAL
		24		5 LAPS, HARD
		25		5 LAPS, HARDER
		26		4 LAPS, EASIER
		27		4 LAPS, EASY
		28		4 LAPS, NORMAL
		29		4 LAPS, HARD
		2A		4 LAPS, HARDER
		2b		3 LAPS, EASIER
		2C		3 LAPS, EASY
		2d		3 LAPS, NORMAL
		2E	▼	3 LAPS, HARD
		2F	HARD	3 LAPS, HARDER
		oo	RETURN TO PREVIOUS	
-3	AUTO START	31	0 SECOND	
		32	*5 SECONDS*	
		33	10 SECONDS	
		34	15 SECONDS	
		35	20 SECONDS	
		36	25 SECONDS	
		37	30 SECONDS	
		oo	RETURN TO PREVIOUS	
-4	AUTO CAR FINDING	41	OFF	
		42	*ON*	Start to search for Magnet of Car Assy when Magnet Base is off.
		oo	RETURN TO PREVIOUS	
-5	ATTRACT SOUND	51	OFF	
		52	*ON*	
		oo	RETURN TO PREVIOUS	
-6	ATTRACT CAR MOVING (Waiting time)	61	OFF	
		62	3 MINUTES	
		63	*5 MINUTES*	
		64	10 MINUTES	
		oo	RETURN TO PREVIOUS	
-7	CARD PAYOUT SETTING	*71*	*1 PC*	
		72	2 PCS	
		73	3 PCS	
		74	4 PCS	
		75	5 PCS	
		oo	RETURN TO PREVIOUS	

"FACTORY INSTALLED" SETTING

TABLE OF SETTING FUNCTIONS (MIGHTY DRIVER, USA)

FUNCTION# (2 Digits LED)	FUNCTION	SETTING# (2 Digits LED)	SETTING	NOTE
-8	CARD PAYOUT SCORE SETTING	81	GOAL & PAYOUT	30 Flags or more.
		82	PAYOUT EVERY TIME	Payout after game over.
		oo	RETURN TO PREVIOUS	
-9	TICKET PAYOUT SETTING	91	DURING THE GAME	
		92	AFTER GAME OVER	
		oo	RETURN TO PREVIOUS	
-A	SCORE SETTING PER 1 TICKET PAYOUT	A1	1 FLAG	
		A2	2 FLAGS	
		A3	3 FLAGS	
		A4	4 FLAGS	
		A5	5 FLAGS	
		A6	6 FLAGS	
		A7	7 FLAGS	
		A8	8 FLAGS	
		A9	9 FLAGS	
		AA	10 FLAGS	
		Ab	11 FLAGS	
		AC	12 FLAGS	
		Ad	13 FLAGS	
		AE	14 FLAGS	
		AF	15 FLAGS	
		oo	RETURN TO PREVIOUS	
-b	MERCY TICKET	b1	OFF	Payout when game is over.
		b2	1 TICKET	
		b3	2 TICKETS	
		b4	3 TICKETS	
		b5	4 TICKETS	
		b6	5 TICKETS	
		b7	6 TICKETS	
		b8	7 TICKETS	
		b9	8 TICKETS	
		bA	9 TICKETS	
		bb	10 TICKETS	
		oo	RETURN TO PREVIOUS	
-C	EXTEND GAME PLAY SETTING Not used when Ticket & Card payout is active.	C1	Up to 1 GAME	Used when player gets 30 flags
		C2	Up to 2 GAMES	
		C3	Up to 3 GAMES	
		C4	Up to 4 GAMES	
		C5	Up to 5 GAMES	
		oo	RETURN TO PREVIOUS	
-D	Do not use	D1	OFF	
-E	Do not use	E4	OFF	
-0	RESET	01	RESET TO DEFAULT	
		oo	RETURN TO PREVIOUS	

"FACTORY INSTALLED" SETTING

TEST MODE

You can check 3 tests in this mode.

HOW TO ENTER THE TEST MODE

Re-power on while pressing and holding the **SERVICE** Switch which is located inside of front door. Digits of **88** are shown first. Then release the **SERVICE** switch OFF to show the **1–** on 2 digits LED display on Marquee box.

HOW TO SELECT AND DECIDE CONTENTS

After entering **TEST MODE**, press **SERVICE** switch to move the number of contents. (2 digits will be changed by pressing the **SERVICE** switch.) Press **RESET** switch to select it. After selecting, display shows each function numbers.

TEST MENU FUNCTION NUMBER

- **I/O & DISPLAY TEST**   **>>>** Display shows **1–**
- **MECHANISM TEST**   **>>>** Display shows **2–**
- **SOUND TEST**   **>>>** Display shows **3–**

RETURN TO PREVIOUS MENU

Each test function has the number "**OO**", select this and press **RESET** switch.
If you want to quit the test during testing, press **RESET** switch when the LED Display does not show any numbers.

⬟ I/O & DISPLAY TEST

Display shows **1–** then press **SERVICE** switch to select following **TEST** menu. There are 3 kinds as below. (**11**, **12** and **13**)

STEERING WHEEL TEST (Press **SERVICE** switch to select **11** then press **RESET** switch)

Check the Optic sensor functions on Steering Wheel Assy. LED Display shows digits from 0 to 48 when the Optic sensor is activate. Spin the wheel to move the digits, this means the Optic sensor works fine.

SWITCH TEST (Press **SERVICE** switch to select **12** then press **RESET** switch)

Check the Coin switch and Magnet under the CAR Assy.
If the Magnet is positioned properly and Coin Switch is OFF, Display shows "**0**".
When the Coin Switch is ON, Display shows "**1**" then **Lamp #1** on the Marquee will be ON. Lock out coin of Coin mech will work, too.
When the Magnet is OFF, Display shows "**2**" and **Lamp #3** on the Marquee will be ON.

LAMP TEST (Press **SERVICE** switch to select **13** then press **RESET** switch)

Check the 9 Lamps and LED Display PCB on the Marquee. They automatically Light up and count up.

♠ MECHANISM TEST

Display shows **2–** then press **SERVICE** switch to select following **TEST MENU**. There are 3 kinds as below. (**21**, **22** and **23**)

X-MECH. UNIT TEST (Press **SERVICE** switch to select **21**, then press **RESET** switch.)

X-MECH is controlling the CAR Assy by Magnet base and Motor. Spin the Steering Wheel to move the Magnet base with Car Assy left and right. When the Left & Right Limit Sensor in the X-MECH is activated, **Lamp #1** or **#9** on the Marquee will light up. Display will show Moving Digits when the Motor is moving.

LAMPS ON THE MARQUEE (9 POSITIONS)

LED DISPLAY

| Lamp #1 | Lamp #2 | Lamp #3 | Lamp #4 | Lamp #5 | Lamp #6 | Lamp #7 | Lamp #8 | Lamp #9 |
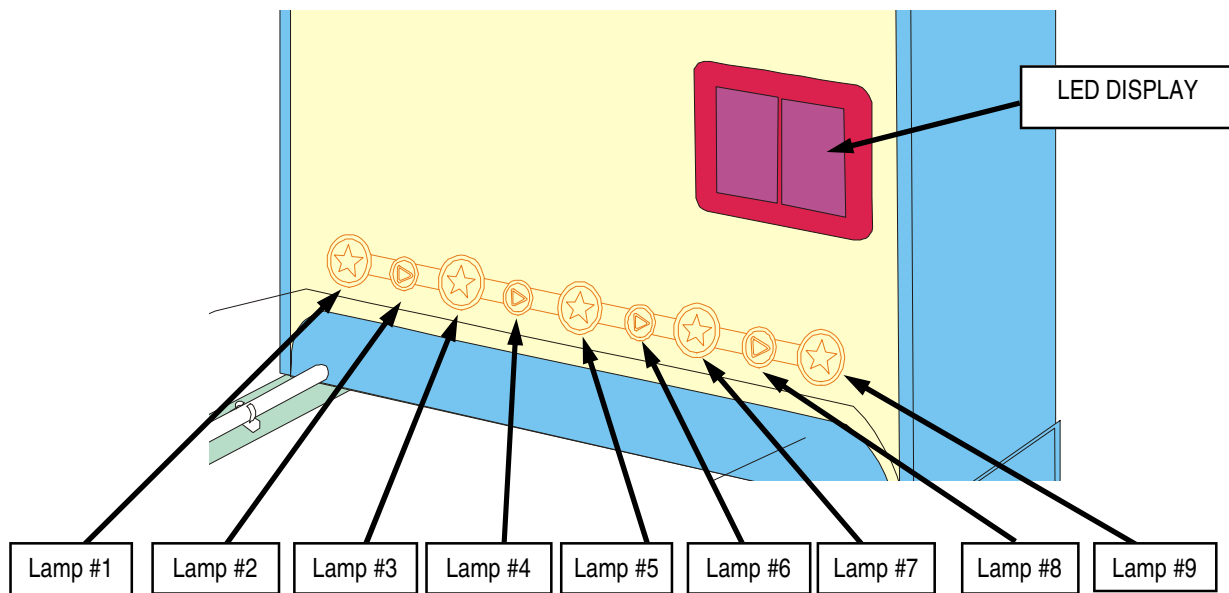
- **BELT MECH. TEST** (Press **SERVICE** switch to select **22**, then press **RESET** switch.)

    Spin the Steering Wheel clockwise to move the BELT forward. Spin the Steering Wheel counter clockwise to move the BELT backward. Spin more to make the BELT move faster. Each Lamp on Marquee shows the function of each Sensor on BELT MECH.

    Lamp #1: Positioning sensor
    Located Right bottom of BELT from back side view. 2 pcs per set. (Receiver and Sender.) Count the hole on left side of Belt.
    Lamp #3: Adjusting sensor
    Located Left bottom of BELT from back side view. Counts the 5 Holes on the Belt.
    Lamp #5 & 7: Photo. Reflector
    Located Left top of BELT from back side view. Reading the Black and White marks on Right side of Belt.

Photo Reflector
KR291-AA
Part #: 41-60-559

Adjusting Sensor
Photo Sensor, KB1240-AA
Part #: 41-60-558

Positioning Sensor
Photo Sensor, KB1240-AA
Part #: 41-60-558
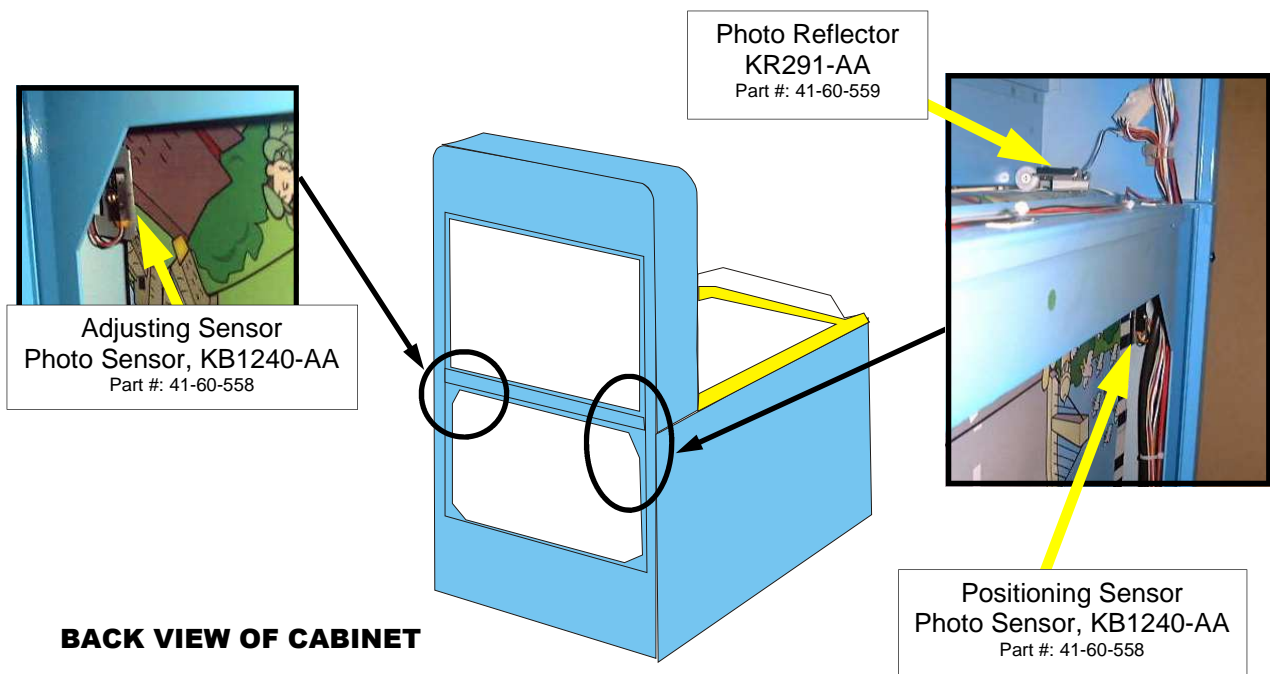
BACK VIEW OF CABINET

VENDING DEVICE TEST (Press **SERVICE** switch to select **23**, then press **RESET** switch.)

    Press SERVICE switch to payout Ticket or Card when the setting is Ticket or Card Payout.

- **SOUND TEST**

    Display shows **3–** then press **SERVICE** switch to go to **SOUND TEST**.
    Press **RESET** switch to count up the number on Display and output the sound. Press & hold to skip thru the numbers faster.
    Press **SERVICE** Switch and Display shows **OO**, then press **SERVICE** Switch again to return to previous menu.

RETURN TO GAME MODE

    After TESTING, re-power on the game.

ERRORS

Display Shows	Contents of ERROR	Cause of problem and Solution.
CE	Card or Ticket Empty	Check the Card or Ticket Dispenser. If empty, re-fill the Cards or Tickets and press RESET switch to payout remaining number of Cards or Tickets. Do not power off because remaining number will be cleared.
CJ	Jamming of Card or Ticket Dispenser	Check the Card or Ticket Dispenser, clear the jam of Cards or Tickets and re-power on the game.
E1	Coin Switch Error	Check the Coin Mech. Any jamming in the coin or token in there or not? Correct and re-power on the game.
E2	Magnet Error	This is error code when the Magnet base is off from the X-Mech. Unit. Open Playfield dome and check the Car Assy mounting.
E3	EP-ROM Error	Data writing Error. Press RESET switch to clear. If error is not cleared, need to exchange the Main PCB.
E4	Malfunction of X Mech.	Check wiring and pin connection of X-Mech. connector. Or Check output for Power supply assy.
E5	Malfunction of Belt Unit	Problem with Belt Unit. Check if motor is turning or not. Check harness of Belt motor Assy.
E6	Card or Ticket Dispenser Error	Check the Card or Ticket Dispenser harness, connection…etc. Or exchange the Unit.
E7	Belt Home positioning or Adjustment Sensor Error	Check the sensor connector, harness and wiring. Or exchange those sensors.
E8	X-Limit Sensor Error	Check the Harness or Limit switch of X-mech. Unit. Or exchange the X-Limit Sensor.
E9	Switch Error	This error code appears when the SERVICE and RESET switches are kept on over 10 sec. after powering on the game. Check those switches continuity.
EA	Belt speed Error	If EA error appears after game over, check Photo Reflector. (Dirty, scratch on Sensor or broken.)

Press RESET switch to clear error code. If Error still exists, check above again.

PART NUMBERS

PARTS NAME	Parts number	PARTS NAME	Parts number
Mighty Driver, Main CPU Board	41-10-001	Belt Assy, MD	41-70-911
2 digits LED Board, MD	41-20-010	Gear Head, Conveyor Belt, MD	41-60-336
Rope Light Assy, MD	41-60-250	DC Motor, X-Mech. 24V, MD DME34BML30B (1P/rev D-cut)	41-60-337
Marquee, MD	41-30-120	DC Motor, Conveyor Belt. MD DME60B6HFPB	41-60-338
Decal, TICKET, MD	41-30-225	Motor PCB, MD, TA8428K (X-Mech.)	41-20-176
Sticker, Inst, MD	41-30-221	Motor PCB, MD, TA8429H (Conveyor Belt)	41-20-177
Decal, Front MD	41-30-226	Car Assy, MD	41-50-550
Side Decal, MD	41-30-200	Photo Sensor, LG-217D-3 (Limit Switch, X-Mech.), MD	41-60-557
Steering Wheel only, MD	41-50-500	Photo Sensor, KB1240-AA, MD (Positioning and Adjusting sensors)	41-60-558
Steering Wheel Assy, MD	41-50-501	Photo Reflector, KR291-AA, MD	41-60-559
Opto. Sensor, Steering Wheel, MD	41-60-556	Electrical Coin Mech. Assy	99-70-183
Playfield Dome, MD	41-70-450	Ticket Dispenser, Entropy, 963CR	99-70-051

7 SEG. LED BOARD

Connector S

+5VDC	1
DATA	2
CLK	3
LATCH	4
GND	5
+12VDC	6

Connector L

+5VDC	1
DATA	2
CLK	3
LATCH	4
GND	5

Connector P

+5VDC	1
+5VDC	2
+12VDC	3
+12VDC	4
+24VDC	5
+24VDC	6
GND	7
GND	8
GND	9
GND	10

MAIN PCB, MIGHTY DRIVER

DME34BML30B

24VDC Motor

MOTOR PCB

TA8428K

M	D		
1		DATA 1	1
2		DATA 2	2
		+5VDC	3
		+24VDC	4
		+24VDC	5
		GND	6
		GND	7

ENCORDER +5VDC OUTPUT GND

E

	1
	2
	3

Magnet SW

Magnet SW

Limit sensor (L) LG-217

+5VDC	1
GND	2
OUTPUT	3

Limit sensor (R) LG-217

+5VDC	1
GND	2
OUTPUT	3

X-MECH. UNIT

Positioning Sensor KB-1241

S1

+5VDC	1
OUTPUT	2
GND	3

S2

Anode	1
Anode	2
Cathode	3

1K

Adjusting Sensor KB-1241

S3

+5VDC	1
OUTPUT	2
GND	3

S4

Anode	1
Anode	2
Cathode	3

1K

Photo. Reflector KR-291

S5

OUTPUT	1
GND	2
+5VDC	3

24VDC Motor

MOTOR PCB

DME60B6HFPB
TA8429H

M	D		
1		DATA 1	1
2		DATA 2	2
		+5VDC	3
		+24VDC	4
		+24VDC	5
		GND	6
		GND	7

BELT MOTOR UNIT

COIN MECH. ASSY

+12VDC (RED)	1
COIN-S (WHITE)	2
GND (BLACK)	3
	4

Coin in Counter

Prize out Counter

RESET Switch

SERVICE Switch

Speaker 8 ohm 5 W

Steering Wheel ASSY Happ Control Inc

OUTPUT A	1
+5VDC	2
GND	3
OUTPUT B	4

Ticket Dispenser ENTROPY 963CR

NOTCH	1
GND	2
MOTOR ENABLE	3
+12VDC	4

Connector G

+5VDC	1A
+5VDC	1B
X-ENCORDER SEN	2A
MAGNET SW	2B
GND	3A
GND	3B
+5VDC	4A
+5VDC	4B
X-LIMIT LEFT	5A
X-LIMIT RIGHT	5B
GND	6A
GND	6B
LOAD POS. SEN	7A
GND	7B
LOAD ADJST. SEN	8A
GND	8B
PHOTO. REF. SEN	9A
GND	9B
COIN SW	10A
GND	10B
RESET SW	11A
GND	11B
SERVICE SW	12A
GND	12B
	13A
GND	13B
	14A
GND	14B
STEERING SEN. 1	15A
GND	15B
STEERING SEN. 2	16A
GND	16B
	17A
GND	17B
	18A
GND	18B
CARD JAM SIGN	19A
TICKET SENSOR	19B
CARD EMPTY	20A
	20B
STAND BY SIGN	21A
	21B
	22A
	22B
COIN COUNTER	23A
PRIZE COUNTER	23B
LOCK OUT	24A
	24B
X-MOTOR 1	25A
X-MOTOR 2	25B
BELT MOTOR 1	26A
BELT MOTOR 2	26B
	27A
	27B
	28A
CARD JAM RESET	28B
CARD OUT SIGN	29A
	29B
	30A
GND	30B
GND	31A
GND	31B
SPEAKER (+)	32A
SPEAKER (-)	32B

Connector R

+24VDC	A1
+24VDC	B1
	A2
LAMP 1	B2
	A3
LAMP 2	B3
	A4
LAMP 3	B4
	A5
+24VDC	B5
+24VDC	A6
+24VDC	B6
	A7
LAMP 4	B7
MOTOR ENABLE	A8
LAMP 5	B8
	A9
LAMP 6	B9
	A10
+24VDC	B10
+24VDC	A11
+24VDC	B11
	A12
LAMP 7	B12
	A13
LAMP 8	B13
	A14
LAMP 9	B14
	A15
+24VDC	B15
+12VDC	A16
+12VDC	B16
GND	A17
	B17
GND	A18
	B18
GND	A19
	B19
+5VDC	A20
+5VDC	B20

120VAC to Bill Acceptor

MAIN SWITCH

LINE IN 120VAC, 60Hz

FUSE 3 Amp SB

BLK

WHT

GND

Fluorescent Light FL-15 (Marquee)

Starter

Ballast

Rope Lights (Right)

Rope Lights (Left)

120V AC IN

Power Supply UNIT

+5VDC
+12VDC
+24VDC
GND

Earth

MARQUEE LIGHTS

LAMP 1
LAMP 2
LAMP 3
LAMP 4
LAMP 5
LAMP 6
LAMP 7
LAMP 8
LAMP 9

Card Dispenser CD1300-340 ASAHI SEIKO

V

1	GND IN
2	+24VDC IN
3	
4	Card Out Sig
5	Card Jam Reset
6	
7	
8	Stand-by Sig
9	
10	Card Jam Sig
11	
12	Card Empty