

GAME OPERATIONS & INSTRUCTION MANUAL

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1. SPECIFICATIONS

(1) VOLTAGE: AC 110V ±5% 60HZ

(2) POWER: MIN: 72 W - MAX: 110 W

(NOTE: PLEASE REFER TO THE

LABEL ON THE GAME FOR THE

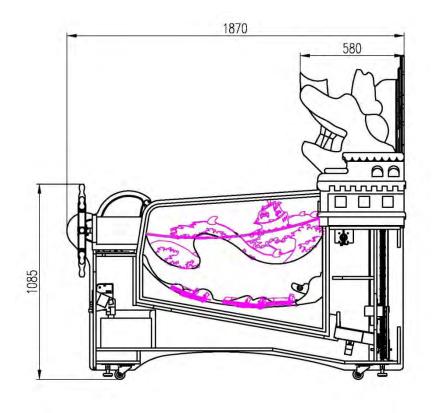
ACTUAL VOLTAGE)

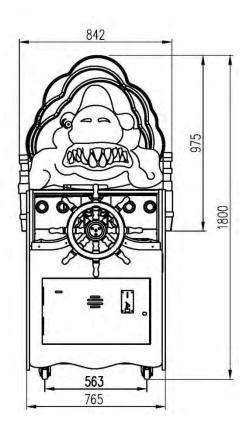
(3) DIMENSION: L 1870 × W 842 ×H 1800 MM

(4) WEIGHT: APPROX. 190 KG

(5)TEMPERATURE (INDOOR ONLY)-10°C~+40°C

HUMIDITY≦





NOTE: GAME PARAMETERS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

2. INTRODUCTION

2-1 OVERVIEW:

1. BRIEF DESCRIPTION

"THE REVENGE OF HAMMERHEAD" IS A COIN-OPERATED, TICKET REDEMPTION

AMUSEMENT GAME OF SKILL DEVELOPED BY OUR COMPANY FOR USE IN ALL TYPES

OF FAMILY ENTERTAINMENT CENTERS AND GAME ROOMS FOR ALL AGES. THIS

MACHINE IS OF VERY HIGH QUALITY AND AN UNUSUAL, WHIMSICAL DESIGN. IT IS AS

SIMPLE AND QUICK TO INSTALL AS IT IS FOR SMALL CHILDREN TO LEARN HOW TO

PLAY.

WE ARE CONFIDENT "THE REVENGE OF HAMMERHEAD" WILL BE A FUN,
RELIABLE, AND LONG TERM INCOME GENERATING MACHINE FOR YOUR LOCATION!

2-2. CAUTION

TO MAINTAIN SAFETY:

TO ENSURE THE SAFE USAGE OF THE PRODUCT, BE SURE TO READ THE FOLLOWING BEFORE USING THE PRODUCT. THE FOLLOWING INSTRUCTIONS ARE INTENDED FOR THE USERS, OPERATORS AND THE PERSONNEL IN CHARGE OF THE OPERATION OF THE PRODUCT. AFTER CAREFULLY READING AND SUFFICIENTLY UNDERSTANDING THE WARNING DISPLAY AND CAUTIONS, HANDLE THE PRODUCT APPROPRIATELY. BE SURE TO KEEP THIS OPERATION MANUAL NEARBY THE PRODUCT OR ELSEWHERE CONVENIENT FOR REFERRING TO IT WHEN NECESSARY.

FOR THE SAFE USAGE OF THE PRODUCT, THE FOLLOWING PICTOGRAPHS ARE USED:



INDICATES: "HANDLE WITH CARE". IN ORDER TO PROTECT THE HUMAN BODY AND EQUIPMENT, THIS DISPLAY IS ATTACHED TO PLACES WHERE THE INSTRUCTION MANUAL SHOULD BE REFERRED TO.

DICATES: A "PROTECTIVE EARTH TERMINAL". BEFORE OPERATING THE EQUIPMENT, BE SURE TO CONNECT IT TO THE GROUND. (THE STEP MAY BE OMITTED FOR PRODUCTS IN WHICH A POWER CABLE WITH EARTH IS USED.)

BE SURETOUNDERSTANDTHECONTENTSOFTHEDISPLAYSBEFORE OPERATINGTHEEQUIPMENT ORREADINGTHETEXT.

I <u></u> GER	INDICATESTHATMISHANDLINGTHEPRODUCTBYDISREGARDINGTH ISPICTOGRAPHWILL CAUSESEVEREINJURYOR DEATH.
⚠ WARNING	INDICATESTHATMISHANDLINGTHEPRODUCTBYDISREGARDINGTHI SWARNINGWILLCAUSE A POTENTIALLYHAZARDOUSSITUATIONWHICHCANRESULTINDEATH
⚠ CAUTION	INDICATESTHATMISHANDLINGTHEPRODUCTBYDISREGARDINGTHI SCAUTIONWILLCAUSEASLIGHTHAZARDOUSSITUATIONWHICHCAN RESULTINPERSONALINJURYAND/ORMATERIALDAMAGE.

NOTICE FOR INSTALLATION

- THIS MACHINE IS ONLY INTENDED FOR INDOOR USE.
- THIS PRODUCT IS HEAVY, NECESSITATED BY THE DESIGN. WHEN MOVING THIS GAME, BE SURE YOU HAVE ADEQUATE HELP. USE A SUITABLE DOLLY OR HAND TRUCK WHERE PRACTICAL.
- AFTER INSTALLATION, WE RECOMMEND ALWAYS LOWERING THE FOUR STABILIZING LEVELERS DOWN.
- DO NOT TAKE APART, DISASSEMBLE OR REMOVE THE MACHINE AT RANDOM WHILE UNDER POWER.
- BEFORE MOVING OR MAKING ANY INTERNAL ADJUSTMENTS, SWITCH THE POWER OFF, AND DISCONNECT THE POWER CORD.
- LOCATE THE MACHINE ON A FLAT FLOOR. DO NOT PLACE IT ON ANY UNEVEN.

- UNSTEADY OR EASILY OBSTRUCTED PLACE.
- AVOID PLACING THE MACHINE IN LOCATIONS HAVING VERY HIGH TEMPERATURES, HIGH HUMIDITY OR WET AND DAMP LOCATIONS.

NOTICE FOR OPERATION

- INSPECT WHETHER THE POWER PLUG AND POWER CORD ARE IN GOOD CONDITION BEFORE SWITCHING THE POWER ON. MAKE SURE THAT THE VOLTAGE IS SUITABLE FOR THE MACHINE.
- THE POWER SUPPLY VOLTAGE MUST BE CONSISTENT WITH THE SPECIFICATIONS ON THE BACK OF THE MACHINE.
- SWITCH THE POWER OFF BEFORE ANY MAINTENANCE OR REPAIR.
- ONLY QUALIFIED PERSONS CAN EXAMINE AND REPAIR THE ELECTRONIC CONTROL UNITS.
- USE OEM STYLE, SUITABLE ACCESSORIES AND/OR PARTS TO REPLACE THE OLD ONES.
- WHEN YOU PULL OUT THE POWER CORD, HOLD THE PLUG. DO NOT HOLD THE LINE.
- DO NOT PLUG OR UNPLUG THE PLUG WITH WET HANDS. DO NOT PULL OR
 TWIST THE LINE CORD HEAVILY.
- BE SURE TO PLUG THE GAME INTO A PROPER, AC., GROUNDED, RECEPTACLE. DO NOT USE LONG EXTENSION CORDS UNLESS ABSOLUTELY NECESSARY AND IF SO, BE SURE IT IS A HEAVY DUTY CORD OF AT LEAST 16 GA. AND NO LONGER THAN 20 FT. CHECK THE LABEL ON THE BACK OF THE GAME TO MAKE SURE THE POWER REQUIREMENTS OF THE GAME MATCH THAT OF YOUR LOCATION.

3.PACKAGE CONTENTS

BE SURE TO CHECK THAT YOU HAVE RECEIVED ALL PACKAGES INDICATED BELOW

INCLUDED GAME UNITACCESSORIES;

No.	DESCRIPTION	SPECIFICATION	QTY	IMAGES	REMARK
1	POWER CABLE	1.8m	1		
2	FUSE	Ф5×20mm 6.3A/110V	1		110V VERSION
3	KEY	X919	2	Gara Service Control of the Control	SERVICE DOOR
3	KLI	X818	1		COIN BOX
4	MANUAL	ENGLISH	1		
5	IR SENSOR	SJMHW	1		BALLS DISPENSE
6	T4 IR SENSOR	MOC70T4	1	4	BALL LIFT MOTOR SENSOR
7	LED SCORE PCB	CTCZ-LED12.PCB	1	C	SCORE RING



THE ABOVE ARE SUBJECT CHANGE WITHOUT NOTICE.

4. INSTALLATION

4-1 OPERATION ZONE:

THIS MACHINE REQUIRES SPACE FOR PLAYING THE GAME. BE SURE TO LEAVE ENOUGH SPACE WHEN INSTALLING THE MACHINE.

NARNING —

- ●BE SURE TO CHECK THE ELECTRICAL SPECIFICATIONS. ENSURE THAT THIS PRODUCT IS COMPATABLE WITH YOUR LOCATION'S POWER SUPPLY, VOLTAGE AND FREQUENCY REQUIREMENT. A PLATE DESCRIBING ELECTRICAL SPECIFICATIONS IS ATTACHED TO THE PRODUCT. NON-COMPLIANCE WITH THE ELECTRICAL SPECIFICATIONS CAN CAUSE A FIRE AND ELECTRIC SHOCK.
- PUTTING MANY LOADS ON ONE ELECTRICAL OUTLET CAN CAUSE GENERATION OF HEAT AND A FIRE RESULTING FROM OVERLOAD.

4-2 LOCATIONS TO AVOID:



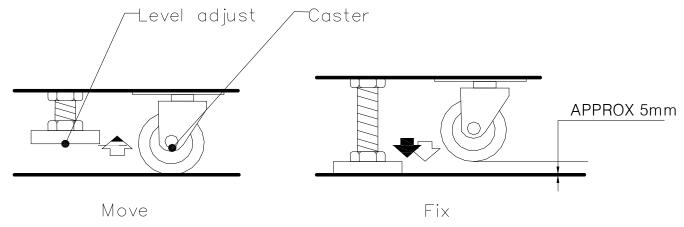
THE MACHINE IS DESIGNED FOR INDOOR USE ONLY. NEVER INSTALL THIS MACHINE OUTDOORS OR IN ANY OF THE FOLLOWING:

- LOCATIONS EXPOSED TO DIRECT SUNLIGHT
- LOCATIONS SUBJECT TO RAIN OR WATER LEAKAGE.
- UNSTABLE LOCATIONS OR LOCATIONS SUBJECT TO VIBRATION.
- DUSTY, HOT, OR DAMP LOCATIONS.

4-3 GAME LEVELING:

INSTALL THIS MACHINE ON A FLAT SURFACE. ADJUST LEVELERS TO LIFT THE LEGS AND LEVEL GAME.

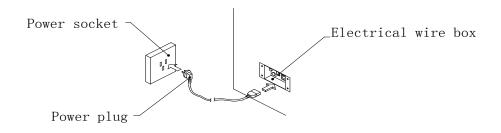
MAKE SURE THAT THE MACHINE IS LEVEL WITH THE FLOOR. IF THE MACHINE IS NOT LEVEL, THE GAME MAY NOT PLAY WELL.

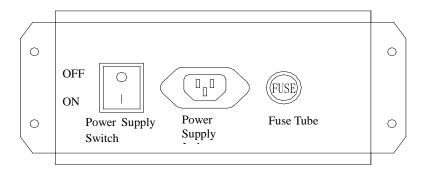


WARNING

- DISCONNECT GAME POWER BEFORE MOVING
- MAKE SURE ALL WHEELS ARE INTACT. REPLACE ANY WHEELS THAT ARE DAMAGED OR BROKEN BEFORE MOVING THE GAME.
- WHEN MOVING THE GAME, <u>DO NOT SLIDE</u> THE GAME ACROSS THE FLOOR
- ENSURE THE GAME IS LEVEL BEFORE CONNECTING THE POWER

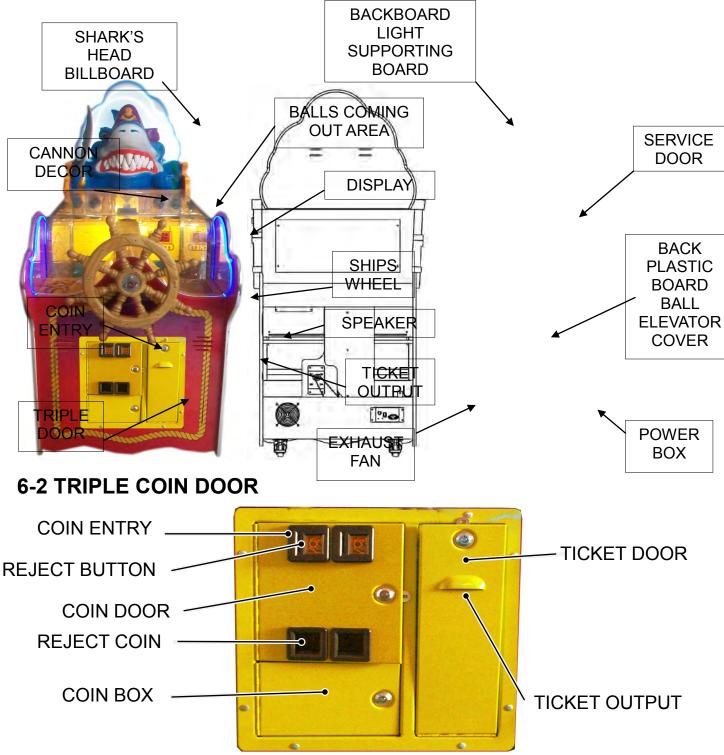
5. CONNECTING THE POWER CORD



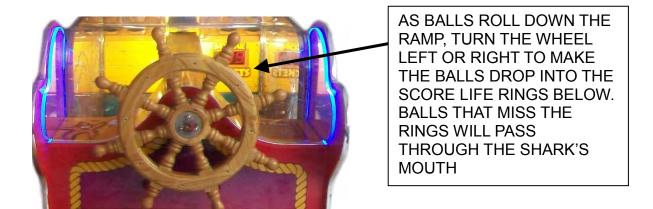


6. PARTS DESCRIPTION

6-1 GAME APPEARANCE:



6-3SHIPS WHEEL



6-4 BALL EXIT AND RAMP "PLANK" ASSY



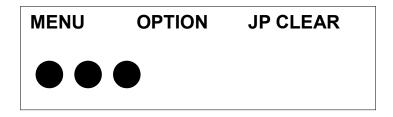
- SHIPS CANNONS DECOR: THESE WILL FLASH WHEN ANY BALL PASSES THROUGH THE SCORE LIFE RING.
- BALL EXIT & RAMP: AS THE GAME PLAYS, THE BALLS EXIT HERE CONTINUOUSLY, ROLLING TOWARD THE RAMP "PLANK". USE THE SHIPS WHEEL TO TRY AND GUIDE THE BALLS TO DROP THROUGH THE LIFE RINGS BELOW TO EARN TICKETS.
- TICKET and SCORE DISPLAY: DISPLAYS THE SCORE AND TICKETS DURING GAME PLAY AND USED TO DISPLAY ERROR AND MENU & ADJUSTMENT CODES DURING SET UP.

6-5 INSIDE THE FRONT DOOR



UNPAID TICKETS HELD IN MEMORY

6-6 MENU & ADJUSTMENT PUSHBUTTONS



- MENU: PRESS TO ENTER THE GAME MENUS WHICH ARE SHOWN IN THE TICKET/SCORE DISPLAY ABOVE THE PLAYFIELD. WHEN FINISHED, PRESS THROUGH TO THE LAST MENU -0-0-0- TO RETURN TO NORMAL PLAY.
- OPTION: PRESS WHILE IN THE DESIRED MENU TO SELECT THE DESIRED PLAY OPTION VALUE.

 JP-CLEAR: PRESS TO RESET THE JACKPOT VALUE ON THE DISPLAY WHEN WON.

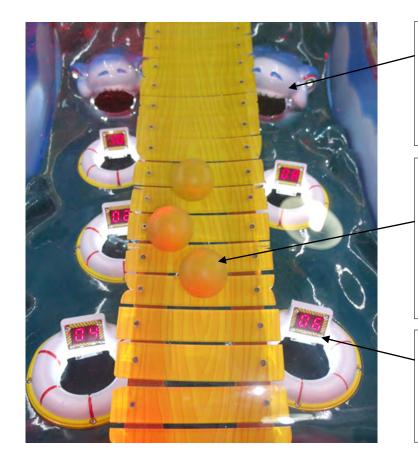
6-7 TICKET RESET BUTTON

PRESING THE "JP-CLEAR" BUTTON WILL ERASE AND DISPENSE ANY UNPAID TICKET AMOUNTS HELD IN MEMORY. OFTEN, WHEN TICKET BINS RUN EMPRY AND PLAY CONTINUES, TICKETS WILL BE STORED IN MEMORY. WHEN AN ATTENDANT HAS REFILLED THE EMPTY TICKET BIN, PRESSING "JP CLEAR" WILL DISPENSE THE UNPAID BALANCE OF STORED TICKETS AND CLEAR THE MEMORY.

6-8 METER PANEL



6-9 SCORE RING PLAYFIELD;

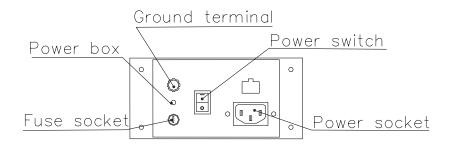


ANY TIME A PLAYER LOSES A BALL WHICH DOES NOT PASS THROUGH A LIFE RING, [NO SCORE] THEN THE BALL WILL DRAIN INTO THE WAITING SHARK'S MOUTH AT THE BACK END OF THE PLAYFIELD.

BALLS ARE RELEASED ACCORDING TO THE OPERATOR DESIRED NUMBER, TIME, AND FREQUENCY AND TRAVEL DOWN THE RAMP. USING THE SHIPS WHEEL, THE PLAYER MUST STEER THE BALLS LEFT OR RIGHT TO DROP INTO THE SCORE RINGS BELOW.

EACH TIME A BALL SUCCESSFULLY PASSES THROUGH A SCORE RING, THE TICKET SCORE SHOWN ON THAT RING'S DISPLAY WILL BE ADDED TO THE TOTAL DISPLAY.

6-10 POWER JUNCTION BOX

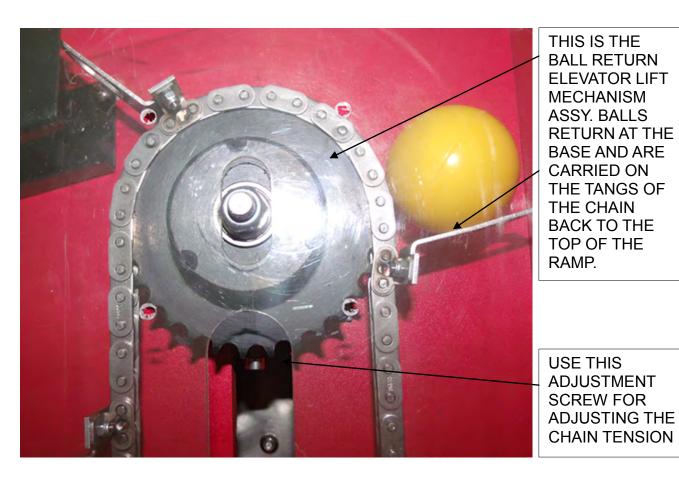


POWER SOCKET & MAIN POWER SWITCH:

THIS MACHINE'S SUPPLY VOLTAGE IS: AC110V ±5% - 60HZ FOR ACTUAL POWER SUPPLY VOLTAGE, PLEASE REFER THE LABEL OF THE MACHINE.

GROUND TERMINAL: USE TO CONNECT THE GROUND CORD WHEN AVAILABLE.

6-11BALL ELEVATOR and CHAIN ADJUSTMENT



ADJUST THE SCREW TO CHANGE THE TENSIONING OF THE CHAIN

7. GAME PLAY INSTRUCTION

- UPON ENTERING THE CORRECT NUMBER OF CREDITS, THE GAME WILL AUTOMATICALLY START. BALLS WILL BEGIN TO APPEAR AT THE TOP OF THE EXIT RAMP AND BEGIN ROLLING TOWARDS THE PLAYER.
- USING THE SHIPS WHEEL, TURN THE WHEEL LEFT OR RIGHT AS BALLS TRAVEL DOWN THE RAMP IN ORDER TO GUIDE THEM TO POINTS ALONG THE RAMP WHERE THEY MAY BE DROPPED OFF AND PASS THROUGH THE VARIOUS LIGHTED SCORE RINGS BELOW THE RAMP. EACH SCORE RING HAS A TICKET VALUE DISPLAYED ON THE LED DISPLAY. PASSING BALLS THROUGH THE RING, EARN THAT TICKET SCORE.
- AS PLAY CONTINUES, ANY BALLS LOST BY THE PLAYER WHICH DO NOT PASS THROUGH THE SCORE RINGS WILL THEN ROLL THROUGHOUT THE PLAYFIELD AND END UP BEING SWALLOWED BY THE WAITING SHARKS AT THE END OF THE PLAYFIELD! THERE IS NO SCORE FOR BEING EATEN BY SHARKS!
- THE GAME JACKPOT [OPERATOR ADJUSTABLE] MAY BE WON BY ANY PLAYER WHO SUCCESSFULLY PASSES EVERY BALL THROUGH THE SCORE RINGS WITHOUT LOSING A SINGLE BALL!
- OPERATOR ADJUSTABLE PLAY INCLUDES THE NUMBER OF BALLS PER GAME, LENGTH OF PLAY, FREQUENCY OF BALLS RELEASED AND INDIVIDUAL SCORE RING VALUE SETS. ADDITIONALLY, EVEN THE SCORE RING DISPLAYS CAN BE EITHER FIXED POSITION~ OR SET TO CYCLE AROUND THE PLAYFIELD IN ORDER TO ENCOURAGE PLAYERS TO AIM FOR THE MOVING HIGHER SCORE LIFE RINGS.

8. PRINCIPAL GAME PARTS LIST

THE FOLLOWING IS AN OEM LIST OF PRINCIPAL GAME COMPONENTS FOR REPLACEMENT AND SERVICE WHEN NECESSARY

RHH-E-1	SCORING PLAYFIELD FIBERGLASS		1
RHH-E-2	TOP SHARK' HEAD FIBERGLASS		1
RHH-E-3	POWER BOX 1 12V/12.5A		1
RHH-E-4	POWER BOX 2 24V/6.5A		1
RHH-E-5	EXHAUSE FAN 110V/4"		1
RHH-E-6	DECORATION GUN PLASTIC BLACK ABS		4
RHH-E-7	COUNTER 12/6 DIGIT	DON TICKET	1
RHH-E-8	SPEAKER		2
RHH-E-10	YELLOW PLASTIC BALLS Φ45mm,		18

RHH-E-11	BALLS COMING OUT PVC YELLOW ABS		1
RHH-E-12	SHARK' HEAD BACK JP BILLBOARD COMPLETE	The second secon	1
RHH-E-13	CONTROL PANEL YELLOW PLASTIC ABS		1
RHH-E-14	CONTROL WOODEN WHEEL		1
RHH-E-15	MAINBOARD STAR- 2010.PCB		1
RHH-E-16	BLUE LED ROPE 0.9m*5mm 54 12V		2
RHH-E-17	CONTROL PANEL LED- DC.PCB	E significant de la constitución	2
RHH-E-18	MOTOR CONVERTER PLATE	O TOB	1
RHH-E-19	TOP LIGHT LED T5 14W		1
RHH-E-20	TRIPLE DOOR YELLOW		1

RHH-E-21	COIN MECH TB-100B		2
RHH-E-22	WHITE LED ROPE 1.0m*5mm 60		2
RHH-E-23	MR16 SPOTLIGHT 12V/1W RED		4
RHH-E-24	MR16 SPOTLIGHT 12V/1W WHITE		2
RHH-E-25	WINDOW LED-9G-PCB		4
RHH-E-26	IR BOARD MOC70T4(BALL COMING OUT MOTOR)		1
RHH-E-27	LED DISPLAY SMG_23101_3W	888	1
RHH-E-28	SCORE LED DESPLAY SMG8102_2W.PCB V3.0	88	5
RHH-E-29	TICKET MECH TRANSFORMATOR PJQD.PCB	Puna, ecu vi, o	1
RHH-E-30	BALL EXIT LED	Carrie Ca	1

RHH-E-31	LEDS BAR ON JP BILLBOARD JP灯箱灯条		4
RHH-E-32	FILTER 10A	Tributa National Nati	1
RHH-E-33	LED CIRCLE CTCZ-LED12.PCB		7
RHH-E-34	SENSOR PS6002.PCB BALL COMING OUT AREA	BLG 1200564 AD NI 3135	1
RHH-E-35	IR SJMHW BALL COMING OUT CHANNEL		1
RHH-E-36	MOTOR FOR RESET BELT 55ZY12V-15W-03		1
RHH-E-37	BUOY PLASTIC ABS		5
RHH-E-38	KEY COIN BOX/SERVICE DOOR		3
RHH-E-39	SHARK'S EYES LED 1R3BW64C-CA-J08-C		4
RHH-E-40	SPOINLIGHTS LED MR16 APS215		2

RHH-E-41	FLASHERS ON JP BILLBOARD JP灯箱闪灯		6
RHH-E-42	FUSE SHIELD R3-11		1
RHH-E-43	DISPENSE BALL MOTOR 12v 45r/min		1
RHH-E-44	STEP MOTOR HS00028 6LINE		1
RHH-E-45	MOTOR FOR CARRYING BALLS DC24V60JB50G8		1
RHH-E-46	PLAYFIELD TRANSPARENT SHIELD		1
RHH-E-47	SPRING FOR WHEEL MECH		1
RHH-E-48	SPRING FOR BALL DISPENSE MECH	C	1
RHH-E-49	SPRING FOR WHEEL MECH BACK BASE		1
RHH-E-50	METAL PLATE FOR CARRY BALL MECH.		15

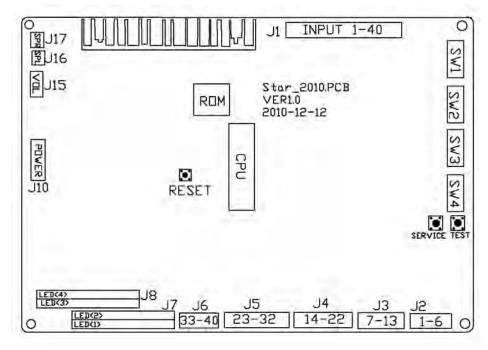
RHH-E-51	XL290 TIMING BELT FOR CARRYING BALL MECH		1
RHH-E-52	BEARING FOR POP BALL		2
RHH-E-53	TIMING PULLEY FOR CARRYING BALL MECH		1
RHH-E-54	608 BEARING FOR WHEEL MECH		1
RHH-E-55	F63800 BEARING FOR CARRYING BALL MECH		4
RHH-E-56	6205 BEARING FOR WHEEL MECH		2
RHH-E-57	SHOCK AVOIDANCE RUBBER FOR WHEEL MECH		2
RHH-E-58	BIG TIMING PULLEY FOR CARRY BALL MECH		1
RHH-E-59	FL004 BEARING FOR WHEEL MECH		1
RHH-E-60	DISPLAY ACRYLIC 732×280 (δ3)	SCORE	1

RHH-E-61	CTCZ-HM-02 FRONT DOOR 757×856 (UV)		1
RHH-E-62	CTCZ-HM-03 CABINET LEFT SIDE 1868×1009UV)	HAMMERHED	1
RHH-E-63	CTCZ-HM-04 CABINET RIGHT SIDE 1868×1009(UV)	AA HIMEPOHENO	1
RHH-E-64	CTCZ-HM-05 PLAYFIELD RIGHT 1040×614(δ1PVC)		1
RHH-E-65	CTCZ-HM-06 PLAYFIELD LEFT 1040×614(δ1PVC)		1
RHH-E-66	CTCZ-HM-07 CONTROL PANEL 934×267UV)		1
RHH-E-67	CTCZ-HM-09 BALL COMING OUT COVER 152×152UV)		2
RHH-E-68	CTCZ-HM-10 WINDOW LEFT A 62×72(UV)		3
RHH-E-69	CTCZ-HM-11WINDOW LEFT B 61×61(UV)		2
RHH-E-70	CTCZ-HM-12 WINDOW RIGHT A 62×72(UV)		3

RHH-E-71	CTCZ-HM-13RIGHT WINDOW B 61×61(UV)		5
RHH-E-72	CTCZ-HM-14 BUOY LED 56×44.5(δ3)		2
RHH-E-73	CTCZ-HM-16 LABLE 40×67(UV)	WARNING NON-PROFESSIONAL MAINTENANCE STAFF DO NOT OPEN THE DOOR	1
RHH-E-74	LABLE CTCZ-HM- 17LABLE 63×73 (UV)	WARNING HIGH VOLTAGE	1
RHH-E-75	CTCZ-HM-19 NAMEPLATE 104×120 (δ0.5)	MOCH MICHAEL M	
RHH-E-76	FUSE 110V,6.3A		1
RHH-E-77	CLE TICKET MECH		1
RHH-E-78	POWER CABLE USA TYPE		1
RHH-E-79	CLUTCH		1

9. GAME DIAGRAMS & OPTIONS SETTINGS

9-1 PCB PLANE GRAPH



J1 IS FOR INPUT, J2, J3, J4, J5, J6 ARE FOR OUTPUT, J7, J 8 ARE FOR LED OUTPUT PORT. J15 IS FOR REGULATOR POTENTIOMETER CONNECTION PORT, J16, J17ARE FOR SPEAKERCONNECTION PORT. SWI,SW2, SW3.SW4 ARE NOT USED.

10. GENERAL TROUBLESHOOTING:

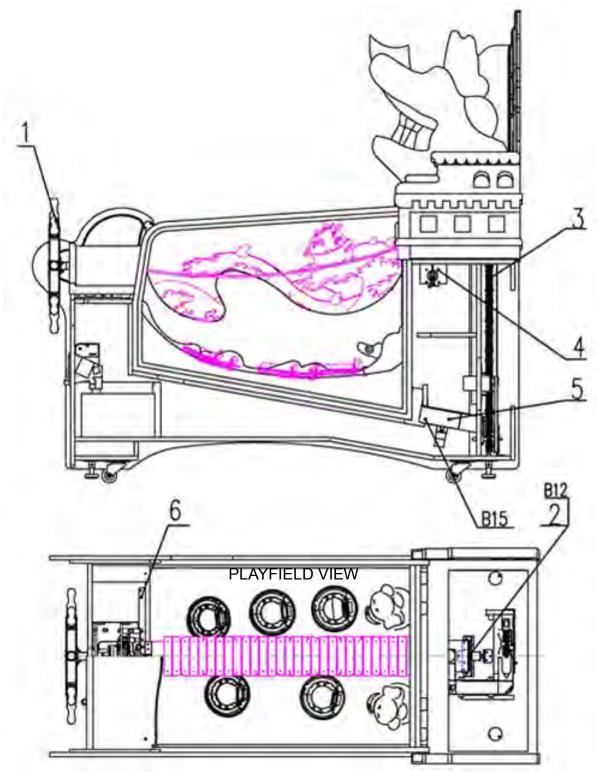
NO.	SYMPTOM	POSSIBLE PROBLEM	SOLUTION
1	COIN ENTERED MIS- FUNCTION	 INCORRECT COIN。 POOR CABLE CONNECTION。 COIN MECHANISM FAILED ADJUSTMENT. COIN JAMS IN THE MECH. 	REPLACE CORRECT COIN CONFIRM CABLE CONNECTION ADJUST COIN SIZE SETTING. REMOVE JAMMED COINS.
2	NO TICKETS OUTPUT	 NO 12V INPUT TO TICKET MECHANISM. POOR CONTACT OF THE DRIVE SIGNAL AND OUTPUT SIGNAL. TICKETS ARE NOT DRIVEN BY WHEEL. TICKET DRIVE OR RESET TICKET FUNCTION FAILS TO WORK ON MAIN BRD. MENU SETTING FOR THE TICKET MECH. DISABLED 	 CHECK THE OUTPUT OF POWER BOX AND WIRING. CHECK THE VOLTAGE OF SIGNAL CODE AND CIRCUIT ADJUST THE WHEEL TO PRESS AGAINST THE TICKETS REPLACE THE MAIN BOARD. CONFIRM MENU SET TO "ENABLE".
3	SCORE RING FAILURE	1) SCORE IR SENSOR FAILS TO DETECT BALLS	REPLACE WITH NEW IR SENSOR RING
4	NO BALLS COME OUT OR BALLS BLOCKED	1) BALL ELEVATOR LIFT ASSY. FAILS TO CARRY BALLS TO TOP TROUGH.	 ADJUST CHAIN TENSION CHECK BALL SEPARATOR FOR ANY JAM OR OBJECT.
5	NO AUDIO	1) AUDIO LEVEL SET TO "0"	ADJUST VOLUME
6	LED DISPLAY FAILURE	1) POOR CONTACT OFTHE DISPLAY CONNECTOR. 2) LED DISPLAY FAILURE 2	RECONNECT THE DISPLAY REPLACE WITH NEW DISPLAY 。

10-1 ERROR CODES [SHOWN IN THE LED SCORE/TICKET DISPLAY]

No	Code	Signification				
1	E1	EPROM ERROR – REPLACE THE MAIN GAME EPROM				
2	E2	BALL TROUGH – NO BALLS DETECTED AT THE SENSOR POSITION FO LOADING BALLS AT THE EXIT. THE BALL LIFT ELEVATOR MAY HAV STOPPED DELIVERING BALLS TO THE EXIT TROUGH SENSOR. CHEC THE SENSOR, ELEVATOR AND MOTOR FOR ERRORS.				
3	E3	AT POWER UP TEST – STEPPER MOTOR TEST FAILURE. THE SENSOR FOR THE STEPPER MOTOR FAILS TO DETECT THE POSITION OF THE MOTOR. CHECK THE SENSOR AND STEPPER MOTOR FOR OPERATION.				
4	E4	BALL EXIT SENSOR AT THE RAMP – NO BALLS ARE BEING DETECTED BY THE SENSOR WHERE THEY ENTER THE RAMP. CHECK THE SENSOR, BALL ELEVATOR AND STEPPER MOTOR.				
5	E11	AT POWER UP TEST – SCORE RING #1 SHOWS A SIGNAL IS BEING RECEIVED. SENSOR FAILURE. CHECK THIS SENSOR FOR DIRT OR ANYTHING BLOCKING THE SENSOR CAUSING INTERRUPTION.				
6	E12	AT POWER UP TEST – SCORE RING #2 SHOWS A SIGNAL IS BEING RECEIVED. SENSOR FAILURE. CHECK THIS SENSOR FOR DIRT OR ANYTHING BLOCKING THE SENSOR CAUSING INTERRUPTION.				
7	E13	AT POWER UP TEST – SCORE RING #3 SHOWS A SIGNAL IS BEING RECEIVED. SENSOR FAILURE. CHECK THIS SENSOR FOR DIRT OR ANYTHING BLOCKING THE SENSOR CAUSING INTERRUPTION.				
8	E14	AT POWER UP TEST – SCORE RING #4 SHOWS A SIGNAL IS BEING RECEIVED. SENSOR FAILURE. CHECK THIS SENSOR FOR DIRT OR ANYTHING BLOCKING THE SENSOR CAUSING INTERRUPTION.				
9	E15	AT POWER UP TEST – SCORE RING #5 SHOWS A SIGNAL IS BEING RECEIVED. SENSOR FAILURE. CHECK THIS SENSOR FOR DIRT OR ANYTHING BLOCKING THE SENSOR CAUSING INTERRUPTION.				
10	E21	AT POWER UP TEST – SHARK MOUTH SENSOR #1 SHOWS A SIGNAL IS BEING RECEIVED. SENSOR FAILURE. CHECK THIS SENSOR FOR DIRT OR ANYTHING BLOCKING THE SENSOR CAUSING INTERRUPTION.				
11	E22	AT POWER UP TEST – SHARK MOUTH SENSOR #2 SHOWS A SIGNAL IS BEING RECEIVED. SENSOR FAILURE. CHECK THIS SENSOR FOR DIRT OR ANYTHING BLOCKING THE SENSOR CAUSING INTERRUPTION.				

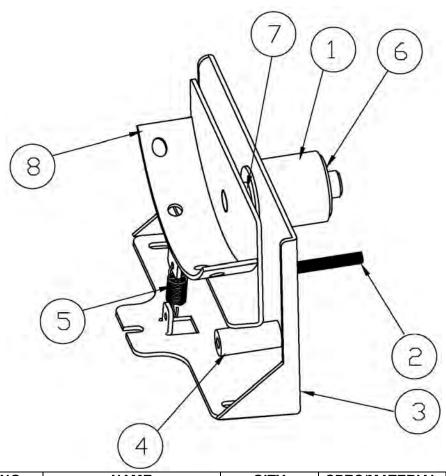
11. MAIN MECHANICAL DESCRIPTION

11-1 MAIN MECHANICAL LOCATION:



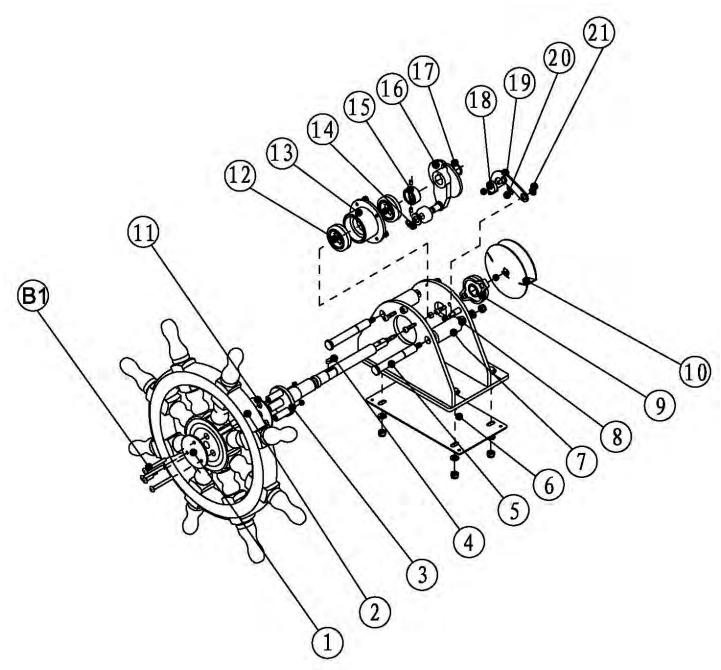
NO.	PART NO.	NAME	SPECIFICATION	Q'TY	CROSS
1	RHH-1-1	STEERING WHEEL MECH.	COMPONET	1	
2	RHH-1-2	STEERING WHEEL BACK MECH.	COMPONET	1	
2B	RHH-B-1-2B	HEXAGON SOCKET HEAD CAP SCREWS	M5x16	3	
3	RHH-1-3	TRANSPORT MECH.	COMPONET	1	
4	RHH-1-4	APEX BALL MECH	COMPONET	1	
5	RHH-1-5	DRIBBLE BALL MECH.	COMPONET	1	
5B	RHH-1-5B	CROSS RECESSED COUNTERSUNK HEAD SCREW	M4x16	4	
6	RHH-1-6	CONSOLE SUPPORT FIXED IRON	COMPONET	1	

11-2
STEERING WHEEL BACK MECHANICAL
COMPONET



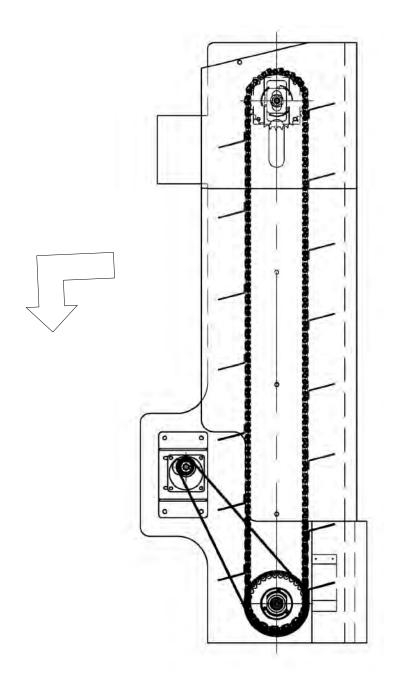
NO.	PART NO.	NAME	Q'TY	SPEC/MATERIAL	CROSS
1	RHH-2-1	BELT AXLE SLEEVE	1	Q235	
2	RHH-2-2	ROUND HEXAGON SCREW	1	M5x50	
3	RHH-2-3	BELT SUPPORT BACK	1	Q235	
4	RHH-2-4	DAMPER RUBBER	2	POLYURETHANE GLUE	RHH-E-57
5	RHH-2-5	SPRING	1	Ф9х1	
6	RHH-2-6	F6901BEARING	2		
7	RHH-2-7	BELT OSCILLATING BEARING	1	Q235	
8	RHH-2-8	BELT FIXED BAORD BACK	1	Q235	

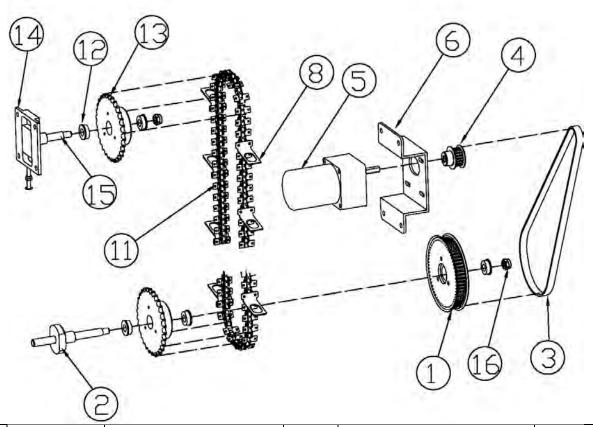
11-3 STEERING WHEEL MECHANICAL COMPONENTS:



NO.	PART NO.	NAME	Q'TY	SPEC./MATERIAL	CROSS
1	RHH-3-1	STEERING DECORATIVE BOARD FORM	1	А3	
2	RHH-3-2	WHEEL	1	ELM	RHH-E-14
3	RHH-3-3	MAIN AXIS	1	45#	
4	RHH-3-4	FLAT KEY	1		
5	RHH-3-5	LIMITED SHAFT 2	2	45#	
6	RHH-3-6	REINFORCEMENT PLATE	1	Q235	
7	RHH-3-7	SPACING RUBBER	2		
8	RHH-3-8	15 AXIS LOCK	2		
9	RHH-3-9	FL004 BEARING	1		
10	RHH-3-10	RETAINING PLATE	1	STAINLESS STEEL	
11	RHH-3-11	LOCKING RUBBER MAT	1	RUBBER	
12	RHH-3-12	6205 BEARING	2	6205	
13	RHH-3-13	FLANGE PEDESTAL	1	45#	
14	RHH-3-14	12 BEARING CLIP	1		
15	RHH-3-15	LOCK NUT	1	Q235GALVANIZE	
16	RHH-3-16	LIMITED BLOCK ASS	1		
17	RHH-3-17	20 BEARING CLIP	1		
18	RHH-3-18	PINCH ROLLER	1	608 BEARING	
19	RHH-3-19	PINCH ROLLER ASSY	1		
20	RHH-3-20	SPRING	1	65Mn	
21	RHH-3-21	MOLD INSERT	1	COPPER	

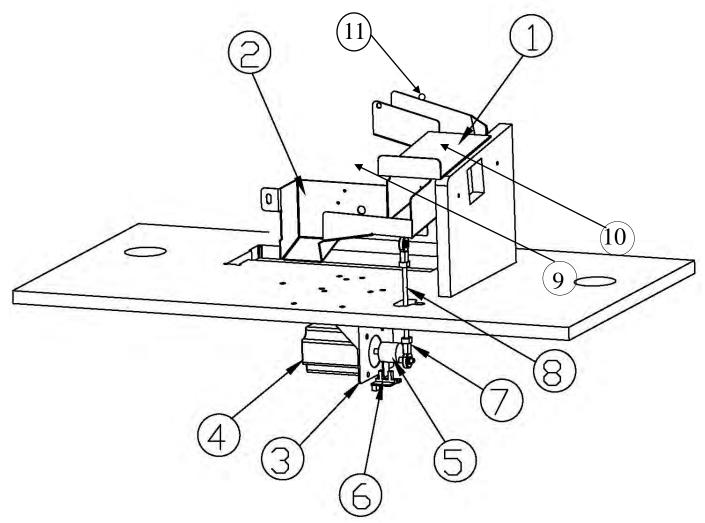
11-4
BALL ELEVATOR LIFT COMPONET





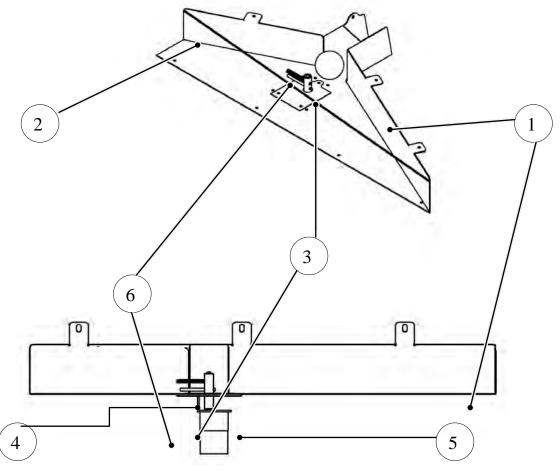
NO.	PART NO.	DESCRIPTION	QTY	SPECIFICATION/MATERIAL	CROSS
1	RHH-4-1	VICE- SYNCHRONIZING WHEEL	1	60 TEETH / ALUMINUM	
2	RHH-4-2	FIXED AXIS A	1	45#	
3	RHH-4-3	SYNCHRONIZING BELT	1	XL 290 WIDTH 10	RHH-E-51
4	RHH-4-4	MAIN SYNCHRONIZING WHEEL	1	15t TEETH/ ALUMINUM	RHH-E-53
5	RHH-4-5	24V DC MOTOR DC24V60JB50G8	1		RHH-E-45
6	RHH-4-6	BALL ELEVATOR LIFT MOTOR DEAD PLATE	1	A3	
8	RHH-4-8	HOOK BALLS PLATE	15	ONE SIDE STEEL	RHH-E-50
11	RHH-4-11	06B DOUBLE EDGEFOLD CHAIN	1		
12	RHH-4-12	F6901 BEARING	2		
13	RHH-4-13	3 30 TOOTHED CHAIN WHEEL	2		
14	RHH-4-14	CLIP FRAME	1	45#	
15	RHH-4-15	FIXED BEARING C	1	45#	
16	RHH-4-16	CHECK NUT	2	M8	

11-5
BALL EXIT MECHANISM [AT RAMP]

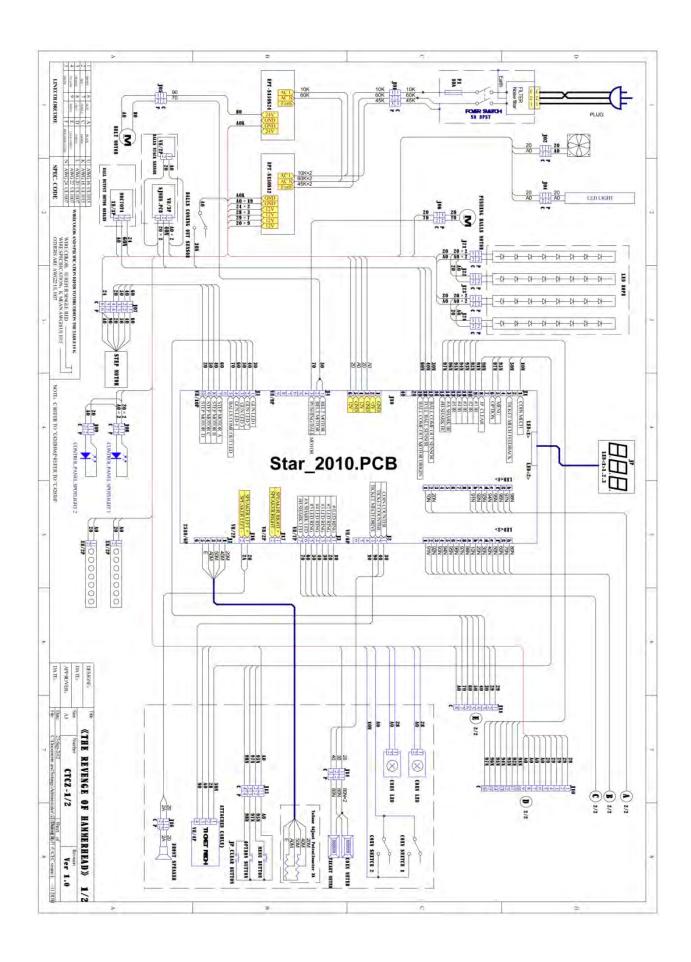


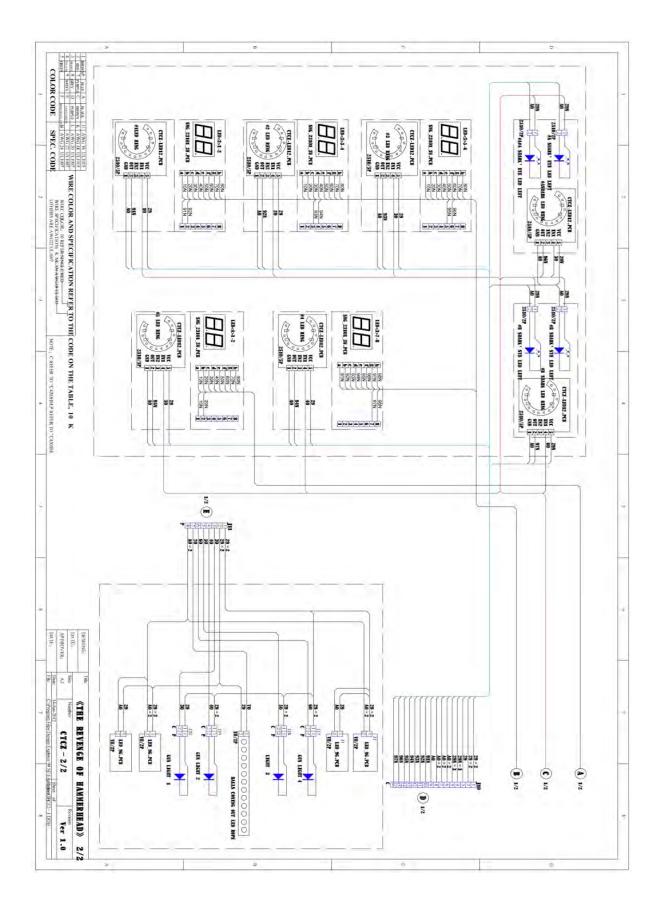
NO.	NO.	DESCRIPTION	QTY	SPECIFICATION/MATERIAL	REMARK
1	RHH-5-1	BALL TROUGH COVER PLATE	1	TRANSPARENT PLASTIC	
2	RHH-5-2	BALLS CHANNEL	1	A3	
3	RHH-5-3	MOTOR MOUNTED PLATE	1	А3	
4	RHH-5-4	MOTOR	1	JIE MEI KANG HS00028	RHH-E-44
5	RHH-5-5	UP AND DOWN CAM ACTION WHEEL	1	STAINLESS STEEL	
6	RHH-5-6	IR HOMING SENSOR	1		
7	RHH-5-7	SI6 BEARING	2		RHH-E-52
8	RHH-5-8	M5 LEAD SCREW	1	L=105mm	
9	RHH-5-9	IR BOARD (Reflective)	1	SENSOR PS6002.PCB	RHH-E-34
10	RHH-5-10	IR	1	SJMHW-out. PCB. V1.0	RHH-E-35
11	RHH-5-11	IR	1	SJMHW-OUT. PCB. V1.0	

11-6
BALL SEPARATOR AND DISPENSE ASSY.



NO.	PART NO.	DESCRIPTION	QTY	SPECIFICATION/MATERIAL	CROSS
1	RHH-6-1	BALL SET COVER PLATE	1	TRANSPARENT PLASTIC	
2	RHH-6-2	BALL STRIKER	1	A3	
3	RHH-6-3	DIAL BALL AXIS	1	Q235	
4	RHH-6-4	DIAL BALL MOTOR MOUNTED PLATE	1	A3	
5	RHH-6-5	45r/min DC SMALL MOTOR	1	A3	RHH-E-43
6	RHH-6-6	SPRING	1		





12. GAME MENU and OPTIONS Directory

MENU and OPTIONs Directory

MENU # OPTION#

<u>000</u>

*NOTES FACTORY DEFAULT SETTING

DISPLAYED ON THE SCORE AND TICKET DISPLAY

MENU#	OPTION#	ACTION
00	0	RETURN TO GAME PLAY
01	0	FREE PLAY
01	1	1 CREDIT PLAY
01	2 *	2 CREDIT PLAY
01	3	3 CREDIT PLAY
01	4	4 CREDIT PLAY
02 ROUND	OF PLAY TIME or	BALLS PER GAME
02	0	ROUND OF PLAY 20 SECONDS-UNLIMITED BALLS
02	1	ROUND OF PLAY 30 SECONDS-UNLIMITED BALLS
02	2 *	ROUND OF PLAY 40 SECONDS-UNLIMITED BALLS
02	3	ROUND OF PLAY 50 SECONDS-UNLIMITED BALLS
02	4	BALLS PER PLAY; 10
02	5	BALLS PER PLAY; 12
02	6	BALLS PER PLAY; 14
02	7	BALLS PER PLAY; 16
03 TICKET	MECHANISM- ENA	ABLE or DISABLE
03	0	TICKET MECHANISM DISABLED- OFF
03	1*	TICKET MECHANISM ENABLED – ON
04 TICKE 1	「TYPE-TICKET FA 1 *	CE VALUE TICKET VALUE - 1 PT.
04	2	TICKET VALUE - 2 PT.

MENU#	OPTION#	ACTION
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05 GAME ATTRACT MODE SETTINGS

05	1	ATTRACT OFF
05	2	ATTRACT EVERY 15 SECONDS
05	3 *	ATTRACT EVERY 30 SECONDS
05	4	ATTRACT EVERY 45 SECONDS
05	5	ATTRACT EVERY 60 SECONDS
05	6	ATTRACT EVERY 90 SECONDS
05	7	ATTRACT EVERY 120 SECONDS

06 GAME ATTRACT AUDIO SETTING

06	0	ATTRACT AUDIO OFF
06	1 *	ATTRACT AUDIO ON

07 BALL RELEASE INTERVALS- RELEASE FREQUENCY

1	1.0 SECOND
2	1.25 SECOND
3	1.5 SECOND
4 *	1.75 SECOND
5	2.0 SECONDS
6	2.25 SECONDS
7	2.50 SECONDS
8	2.75 SECONDS
9	3.0 SECONDS
	3 4 * 5 6 7 8

08 JACKPOT FIXED AMOUNT

* The requirement to win the "Deep Sea Treasure" Jackpot is to pass at least one ball through EVERY life ring during the game play.

This setting is displayed in the 4 block LED display of the Jackpot Device:

DEEP SEA TREASURE JACKPOT:

08	00	Jackpot disabled- [no jackpot]
08	01	Jackpot 25 Tickets
08	02	Jackpot 50 Tickets
08	03	Jackpot 100 Tickets
08	04	Jackpot 150 Tickets
08	05 *	Jackpot 200 Tickets
08	06	Jackpot 250 Tickets
08	07	Jackpot 300 Tickets

08 JACKPOT FIXED AMOUNT Continued;

08 08 08 08	08 09 10 11	Jackpot 400 Tickets Jackpot 500 Tickets Jackpot 600 Tickets
08	12	Jackpot 700 Tickets
08	13	Jackpot 800 Tickets Jackpot 900 Tickets
08	14	Jackpot 1000 Tickets
08	15	Jackpot 1250 Tickets
08	16	Jackpot 1500 Tickets
08	17	Jackpot 1750 Tickets
08	18	Jackpot 2000 Tickets
08	19	Jackpot 2250 Tickets
08	20	Jackpot 2500 Tickets
08	21	Jackpot 2750 Tickets
08	22	Jackpot 3000 Tickets
08	23	Jackpot 3250 Tickets
08	24	Jackpot 3500 Tickets
08	25	Jackpot 3750 Tickets
08	26	Jackpot 4000 Tickets
08	27	Jackpot 4250 Tickets
08	28	Jackpot 4500 Tickets
08	29	Jackpot 4750 Tickets
08	30	Jackpot 5000 Tickets
08	31	Jackpot 5250 Tickets
08	32	Jackpot 5500 Tickets
08	33	Jackpot 5750 Tickets
08	34	Jackpot 6000 Tickets
08	35	Jackpot 6250 Tickets
08	36	Jackpot 6500 Tickets
08	37	Jackpot 6750 Tickets
08	38	Jackpot 7000 Tickets
08	39	Jackpot 7250 Tickets
08	40	Jackpot 7500 Tickets
08	41	Jackpot 7750 Tickets
08	42	Jackpot 8000 Tickets
08	43	Jackpot 8250 Tickets
08	44 45	Jackpot 8500 Tickets
08 08	45	Jackpot 8750 Tickets
08	47	Jackpot 9000 Tickets
08	48	Jackpot 9250 Tickets Jackpot 9500 Tickets
08	49	Jackpot 9750 Tickets
08	50	•
UO	50	Jackpot 9999 Tickets

MENU#	OPTION#	ACTION	
09 SCORE RING DISPLAY POSITIONS CYCLE FREQUENCY			
09 09 09 09	1 2 3 4 5 *	CHANGES EVERY 2 SECONDS CLOCKWISE CHANGES EVERY 4 SECONDS CLOCKWISE CHANGES EVERY 6 SECONDS CLOCKWISE CHANGES EVERY 8 SECONDS CLOCKWISE CHANGES UPON ANY BALL THROUGH ANY RING	
10 LIFE RII	NG LED SCORE VAI	LUES FROM LEFT TO RIGHT [TICKETS]	
10 10 10 10 10 10 10 10	1 2 3 4 * 5 6 7 8 9	1, 1, 1, 1, 2 1, 1, 1, 1, 3 1, 2, 3, 4, 5 2, 4, 6, 8, 10 2, 4, 6, 8, 20 2, 4, 6, 8, 30 2, 4, 6, 8, 40 2, 4, 6, 8, 50 4, 6, 8, 10, 12	
11 MERCY	TICKET OPTION [O	NLY IF NO SCORE RINGS MADE]	
11 11 11 11 11 11	1 2 3 4* 5 6 7	OFF – NO MERCY TICKET ON- NO SCORE = 1 MERCY TICKET ON- NO SCORE = 2 MERCY TICKETS ON- NO SCORE = 3 MERCY TICKETS ON- NO SCORE = 4 MERCY TICKETS ON- NO SCORE = 5 MERCY TICKETS ON- NO SCORE = 6 MERCY TICKETS	
TEST ME	NU# OPTION#	ACTION	
12 - GAME	TEST FUNCTIONS	FOR ALL GAME COMPONENTS	
12	1	TEST: ALL CONTROLLED LAMPS FLASH	
12	2	TEST: ALL OPTO SENSOR BALL DETECT- "DING" [WITH GLASS REMOVED, ACTUATE SWITCHES TO HEAR "DING" AUDIO CONFIRMATION].	
12	3	TEST: BALL RELEASE MECHANISM- RUN AND ACTUATE > HEAR "DING" AUDIO SOUND EFFECT WHEN BALLS ARE RELEASING	

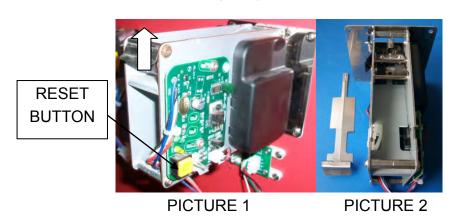
12	4	PROPERLY. TEST: COIN MECHANISMS- HEAR "DING" AUDIO SOUND EFFECT WHEN COIN ENTERED.
12	5	TEST: SCORE AND LIFE RING LED DISPLAY> PASS A BALL THROUGH ANY SCORE RING AND CONFIRM THE SENSOR IS FUNCTIONING PROPERLY BY SEEING THE WHITE LEDS FLASHING.
12	6	TEST: AUDIO > PLAY MAIN GAME PLAY
12	7	TEST: BALL RAMP EXIT SENSOR-ACTUATE "DING"
12	8	TEST: TICKET MECHANISM RUNS.

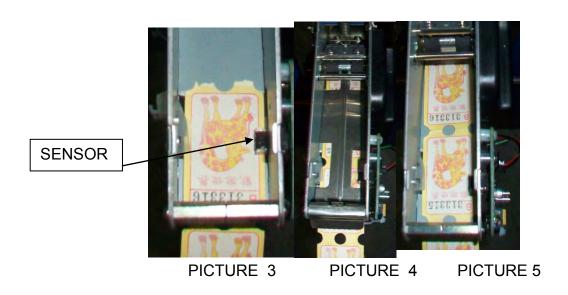
13. TICKET MECHANISM

INSTALLING TICKETS:

- 1. AS SHOWN ON PICTURE1, PUSH THE METAL BLOCK UP AND LIFT THE ALUMINUM PLATE;
- 2. FEED THE TICKET THROUGH THE INSPECTING SENSOR UNTIL THEY REACH THE ROLLER AND INSTALL THE TICKET.
- 3. PRESS THE "RESET" BUTTON TO ADVANCE THE TICKETS THROUGH THE ROLLER.
- 4. INSTALL THE ALUMINUM PLATE BACK IN PLACE:
- 5. WHEN ALL TICKETS HAVE BEEN DISPENSED, AND AN UNPAID BALANCE IS HELD IN THE GAME MEMORY, PRESS THE "JP CLEAR" BUTTON ON THE MENU & ADJUSTMENT PANEL ABOVE THE CASH BOX AREA TO DISPENSE REMAINING BALANCES. THIS WILL CLEAR ANY UNPAID TICKETS FROM MEMORY.

Continued on the following page:





14. COIN MECHANISM.

INSTRUCTION OF ELECTRONIC COIN COMPARATOR TYPE



Continued on the following page;

INSTRUCTION OF ELECTRONIC COIN COMPARATOR TYPE

A. REMOVE THE PLASTIC COIN FROM COIN SLOT, REPLACE WITH THE DESIRED TOKEN OR COIN INSIDE THE SPRING TENSIONED COIN HOLDER.

B. LOOSEN BOLTS AT THE BACK OF COIN ENTRANCE. USE THE DESIRED COIN DIAMETER TO ADJUST SPACE AT THE BACK OF COIN ENTRANCE. AVOID ERROR CAUSED BY LARGE DIAMETER TOKENS.

C. ADJUST FOR GAME MAIN BOARD PULSE RATE NEEDS. CHOOSE COIN LONG SHORT AND FAST SLOW THREE PHASE SWITCH (TIMER SWITCH): 30MS IS SHORT FAST SIGNAL BEST FOR MACHINE THAT HAS HIGH POWER AND REQUIRES THE INSERT OF COIN QUICKLY, 50MS IS MIDDLE SIGNAL, BEST FOR ORDINARY MACHINES (IF NOT SPECIAL CIRCUMSTANCE, THE MACHINE USUALLY CAN USE THIS PHASE). 100MS IS LONG, SLOW SIGNAL, BEST FOR MACHINE THAT DOES NOT NEED INSERT TO COINS QUICKLY.

D. VR COIN CHOOSE SENSITIVITY ADJUSTMENT, ANTICLOCKWISE ADJUSTMENT (—), ACCEPT SMALLER AREA OF COIN TOLERANCE, COIN TYPE FILTRATION WILL BE MORE RESTRICTED.

Wiring:

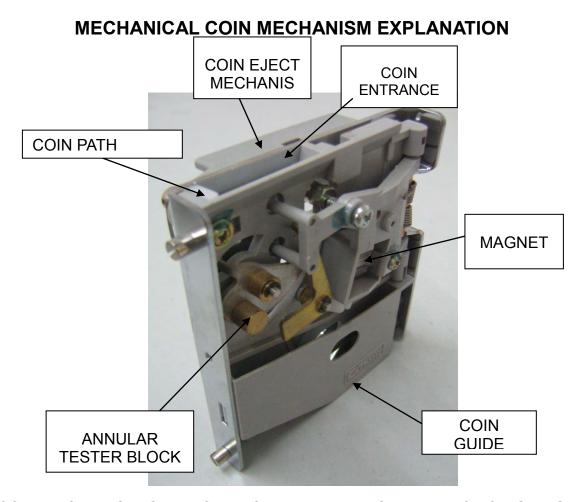
● Grey———

Red -DC+12V

• White –COIN signal

Code Table

- Black-Grounded
- Grey————



THIS COIN MECHANISM IS A MECHANICAL TYPE. IT HAS THE FUNCTION OF A SUPER MAGNET FOR GUARDING AGAINST COIN CHEAT SUCH AS ANTI-FALSE COIN, ("SLUG") ANTI-FISHING, TAMPERING OR MACHINE INCLINATION.

ACCEPTABLE COIN SIZE: Φ 24MM \sim Φ 26MM IN DIAMETER, 1.6MM \sim 2.0MM THICK, EACH COUNTRY HAS VARIOUS SIZE COINS DEPENDING ON THE COIN MECHANISM.

<u>COIN EXIT BUTTON</u>: IF THE INSERTED COIN GETS BLOCKED IN THE COIN SELECTOR, PRESS IT, THE COIN WILL COME OUT OF THE EXIT.

<u>COIN EXIT</u>: IF THE INSERTED COIN IS THE WRONG DENOMINATION, IT WILL USUALLY COME OUT OF THE COIN EXIT AUTOMATICALLY.

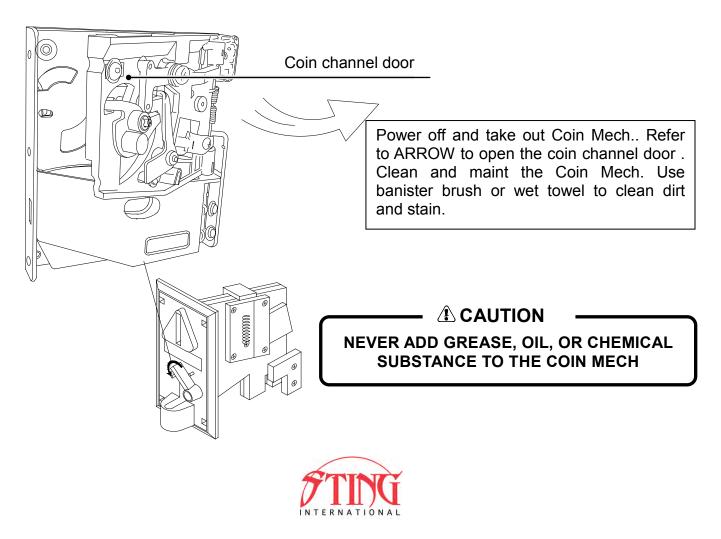
COIN PATH MOUTHADJUSTER BLOCK: ADJUST THE DIAMETER OF THE COIN. IF YOU HAVE TO INSERT ANY SMALLER COIN, MOVE IT RIGHT. IN GENERAL SITUATION, YOU DO NOT INSERT SMALL COINS, SO MOVE THE BLOCK LEFT. IT CAN CONTROL THE DIAMETER OF SUITABLE COINS BY 0.1MM.

ANNULAR TESTER BLOCK: CONTROL FLOOR LEVEL OF DIAMETER OF ACCEPTABLE COIN. USED TOGETHER WITH BLOCKING STICK LIMITATION ADJUSTER PIECE,

ADJUSTS THE DIAMETER OF THE COIN TO VARIES WITHIN A LIMITATION OF 0.1MM. COINS OF DIFFERENT SPECIFICATIONS ARE SUITABLE FOR DIFFERENT TYPES OF ANNULAR

TESTER BLOCK. AS FOR TEST BLOCK OF THE SAME SPECIFICATION, THE LARGER IT IS, THE TIGHTER IT IS AND THE SMALLER IS, THE LOOSER IT IS.

<u>MAGNET</u>: SELECT COINS WITH SUITABLE IRON-CONTAINED QUANTITY. THOSE CONTAINING A LARGE IRON QUANTITY EASILY GET ATTRACTED BY THE MAGNET, WHILE THOSE CONTAINING A SMALL IRON QUANTITY GET THROUGH EASILY; IF IRON CONTENT COINS ARE USED, REMOVE THE MAGNET.



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