





# SERVICE MANUAL



[ IMPORTANT ]

- ▶ Please read the manual carefully and keep it in mind before using this machine
- ▶ Put this manual within touch of your reference in anytime.

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PRODUCT INFO	PART INFO	SUPPORT INFO	NEW PRODUCT INFO
			

※ QR(SUPPROT) - Leaflets, manuals, solution(error code,trouble shooting document, watch&solve)

# PRECAUTIONS FOR USE

The following safety precautions are given throughout this manual. They must be strictly followed to protect those who install, use or maintain this product as well as to protect players, visitors and property.

## For safety reasons.

- The following suggestions should be adhered to:



**WARNING**

Disregarding could result in serious injury.



**CAUTION**

Disregarding could result in injury or product damage.

- The following graphic suggestions describe the types of precautions to be followed.



Indicates a care should be taken.



Forbidden.



Indicates a matter which must be performed.

- **Precautions to be followed:**

**Certain procedures require a qualified in-shop maintenance person or industry specialist.**

**For such instructions, a qualified person must take care of the jobs.**

- Otherwise an electric shock, machine trouble or a serious accident may result.
- Replacing the machine parts, inspecting and maintaining the machines and troubleshooting must be assigned only to a qualified in-shop maintenance person or industry specialist. This booklet gives instructions that hazardous jobs in particular must be handled by an industry specialist. Qualified in-shop maintenance person and industry specialist are defined as follows.

### **Qualified in-shop maintenance person**

- A service staff shall have experience in operations of game machines. The staff shall be responsible for assembly, installation, inspection and maintenance of the machine.

### **Industry specialist**

- An industry specialist must be engaged in designing, manufacturing, inspecting and servicing amusement machines. He or she must have an education in electrical, electronic and mechanical engineering and routinely maintain and repair amusement machines.

# PRECAUTIONS FOR USE

## WARNING

**Be sure to consult an industry specialist when setting up, moving or transporting this product.**

- This product should not be set up, moved or transported by any one other than an industry specialist.
- When installing this product, set the 4 leg levelers evenly on the floor and make sure that the product is installed stably in a horizontal position. Unstable installation may result in injury or accident.
- When installing this product, do not apply undue force on movable parts. Otherwise, injury and accident may result, or the product may be damaged.

**The machine for indoor usage only does not install outside.**



**Do not set the game machine up near emergency exits.**



**Protect the game machine from:**

- Rain or moisture.
- Direct sunlight.
- Direct heat from air-conditioning and heating equipment, etc..
- Hazardous flammable substances.
- Otherwise an accident or malfunction may result.



**Do not place containers holding chemicals or water on or near the game machine.**



**Do not place objects near the ventilating holes.**



**Do not bend the power cord by force or place heavy objects on it.**



**Never plug or unplug the power cord with wet hands.**



**Never unplug the game machine by pulling the power cord.**



## CAUTION

**Be sure to use indoor wiring within the specified voltage requirements. For extension cord, use the specified rating or more.**

**Be sure to use the attached power cord.**

**Never plug more than one cord at a time into the electrical receptacle.**



**Do not lay the power cord where people walk through.**



**Be sure to ground this product.**



**Do not exert excessive force when moving the machine.**




**For proper ventilation, keep the game machine 100mm(4") away from the walls.**

**Do not alter the system related dipswitch settings.**

# PRECAUTIONS FOR USE

## WARNING

**If there is any abnormality such as smoke, bad smell or abnormal noise being emitted from the machine, immediately turn OFF the main power switch and unplug the power cord from the receptacle to stop operating it.** 

- Using the machine in abnormal conditions could result in fire or accidents.

### In case of abnormality

1. Turn OFF the main power switch.
2. Unplug the power cord from the receptacle.
3. Contact your nearest dealer.

**Do not leave the power cord plugged in improperly or covered with dust.** 

- Doing so could result the power cord periodically.

## CAUTION

**Do not use this product anywhere other than industrial areas.** 

- Using in a residential area or an area next to a residential area could affect signal reception of radios, television sets, telephones and etc..

- Do not give shock the surface of glass products.

- Please do not play this game if
  - When you do drinking;
  - When your physical condition is not normal;
  - When you are in pregnancy;
  - When you have on a pulse controller;
  - When you have recently experienced a cramp or fainting away while watching TV.
- Avoid excessive force/shock while playing/moving the game.
- While do games, pay attention to surrounding.

**Do not plug or unplug the power cord with wet hands.** 

**In handling the power cord, follow the instructions below.** 

- |   |  |
|---|--|
| • Do not damage the power cord.           | • Do not modify the power cord.            |
| • Do not bend the power cord excessively. | • Do not twist the power cord.             |
| • Do not heat the power cord.             | • Do not pull the power cord.              |
| • Do not bind the power cord.             | • Do not stand on the power cord.          |
| • Do not sandwich the power cord.         | • Do not drive a nail into the power cord. |

**If the power cord or power plug becomes damaged, stop using the machine immediately and ask your nearest dealer to replace the parts.**

- \* **Electromagnetic wave may cause unexpected noise from speaker.**

# PRECAUTIONS FOR USE

## ⚠ WARNING

Be sure to turn OFF the main power switch and unplug the power cord from the receptacle before inspecting or cleaning the machine.



When replacing parts, be sure to use parts of the correct specifications. Never use parts other than the specified ones.



Opening inside the machine shall be done by machine specialist only as high electric current is being sent inside. For game machine with monitor, a care should be taken while opening its back door. If not, a damage to the inside parts or the monitor may occur.



If the sub power switch of the service panel is turned OFF without turning OFF the main power switch of the power supply unit, some parts in the units remain live. When opening the back door, be sure to turn OFF the main power switch and unplug the power cord from the receptacle.



Strictly refrain from disassembly and repair of parts which are not indicated in this manual, as well as settings and remodeling.



To clean the game machine, wipe it with a soft cloth dampened in a neutral detergent.

- Using thinner or other organic solvent or alcohol may decompose the material.
- Electrical shock or equipment failure could be caused by water entering the inside of the machine.

## ⚠ CAUTION

Components in the game are sensitive to vibrations and impact. Care should be used when moving and transporting the game machine.



Be sure not to let the machine tip over.

Before moving the machine, be sure to turn OFF the main power switch, unplug the power cord from the receptacle and remove the power cord from the machine.



Before moving take the machine, off the levelers and move it on the casters.

Avoid excessive force while moving the machine.

.....

## PRECAUTIONS IN HANDLING

- When setting up, inspecting, maintaining, moving or transporting this product, follow the procedures and instructions set forth in this manual and perform such work safely.
- Do not set up, handle, inspect, maintain, move or transport this product under conditions equivalent to the condition of "WARNING" or "CAUTION" specified in this manual.
- If a new owner is to have this product as a result of transfer, and etc., be sure to give this manual to the new owner.

# PRÉCAUTION D'EMPLOI

Les consignes de sécurité suivantes sont données dans ce manuel. Elles doivent être strictement suivies pour protéger ceux qui les installent. Utiliser ou entretenir ce produit pour la sécurité des utilisateurs, des visiteurs et des biens.

Pour des raisons de sécurité.

- **Les suggestions suivantes doivent être respectées:**

## **ATTENTION**

Le non-respect peut entraîner des blessures graves.

## **PRUDENCE**

Le non-respect peut entraîner des blessures ou des dommages au produit.

- **Les suggestions graphiques suivantes décrivent les types de précautions à prendre.**



Indique qu'attention est requise.



Interdit.



Indique que quelque chose doit être effectuée.

- **Les précautions à prendre :**

**Certaines procédures exigent une personne de maintenance qualifiée en atelier ou un spécialiste de l'industrie. Pour ces instructions, une personne qualifiée doit prendre soin des travaux.**

- Sinon, un choc électrique, un dysfonctionnement de la machine, ou un accident grave peut en résulter.
- Remplacement des pièces de machines, l'inspection et la maintenance des machines, et le dépannage doit être attribué qu'à une personne de maintenance qualifiée en atelier ou spécialiste de l'industrie. Cette brochure donne des instructions que les emplois dangereux, en particulier, doivent être traités par un spécialiste de l'industrie. La personne de maintenance qualifiée en atelier et le spécialiste de l'industrie sont définis comme suit.

### **La personne de maintenance qualifiée en atelier**

- Un personnel de service doit avoir de l'expérience dans les opérations de machines de jeux. Le personnel est responsable pour l'assemblage, l'installation, l'inspection et l'entretien de la machine.


### **Le spécialiste de l'industrie**

- Un spécialiste de l'industrie doit être engagé dans la conception, la fabrication, l'inspection et l'entretien des appareils d'amusement.  
Il ou elle doit avoir une formation en génie électrique, électronique et mécanique, et de maintenir régulièrement et de réparer les appareils d'amusement.



# PRÉCAUTION D'EMPLOI


## ATTENTION

Si il y a une anomalie comme fumée, mauvaise odeur ou bruit anormal émis par la machine,  couper immédiatement l'interrupteur principal et débranchez le câble d'alimentation de la prise pour arrêter son fonctionnement.

- L'utilisation de l'appareil dans des conditions anormales peut provoquer un incendie ou un accident.

En cas d'anomalie

1. Mettez l'interrupteur principal sur ARRÊT.
2. Débranchez le câble d'alimentation de la prise.
3. Contactez votre revendeur le plus proche.

**Ne pas brancher le câble d'alimentation incorrectement ou le laisser être recouvert de poussière.** 


Cela pourrait nuire le câble d'alimentation.

## PRUDENCE

**Ne pas utiliser ce produit ailleurs que dans les zones industrielles.** 

- L'utiliser dans une zone résidentielle ou d'une zone à côté d'un quartier résidentiel pourrait nuire à la réception des radios, téléviseurs, téléphones, etc.
- Ne donnez pas de choc à la surface d'un produit en verre.

- S'il vous plaît ne pas jouer à ce jeu.
  - Quand vous buvez;
  - Lorsque votre condition physique n'est pas normale;
  - Lorsque vous êtes dans une période de grossesse;
  - Lorsque vous avez un contrôleur d'impulsion;
  - Lorsque vous avez récemment subi une crampe ou évanouissement en regardant la télévision.
- Évitez une force excessive / un choc pendant la lecture / de déplacer le jeu.
- Quand vous jouez les jeux, faites attention aux alentours.

**Ne pas brancher ou débrancher le câble d'alimentation avec les mains mouillées.** 

**Dans la manipulation du câble d'alimentation, suivez les instructions ci-dessous.** 

- |  |   |
|--|---|
| • Ne pas endommager le câble d'alimentation.                 | • Ne pas modifier le câble d'alimentation.            |
| • Ne pas plier le câble d'alimentation de manière excessive. | • Ne tordez pas le câble d'alimentation.              |
| • Ne pas chauffer le câble d'alimentation.                   | • Ne tirez pas sur le câble d'alimentation.           |
| • Ne pas lier le câble d'alimentation.                       | • Ne montez pas sur le câble d'alimentation.          |
| • Ne pas prendre en sandwich le câble d'alimentation.        | • Ne pas mettre un clou dans le câble d'alimentation. |

**Si la fiche du câble d'alimentation ou est endommagé, cessez immédiatement d'utiliser la machine et demandez à votre revendeur le plus proche de remplacer les pièces.**

# PRÉCAUTION D'EMPLOI

## ⚠ ATTENTION

**Assurez-vous de consulter un spécialiste de l'industrie lors de la mise en place, du déplacement ou le transport de ce produit.**

- Ce produit ne doit pas être mis en place, déplacé ou transporté par une quelconque autre qu'un spécialiste de l'industrie.
- Lors de l'installation de ce produit, installez 4 niveleurs de pieds uniformément sur le sol et assurez-vous que le produit est installé de façon stable dans une position horizontale. Une installation instable peut entraîner des blessures ou un accident.
- Lors de l'installation de ce produit, ne pas appliquer une force excessive sur les pièces mobiles. Sinon, des blessures et des accidents peuvent y résulter, ou le produit peut être endommagé.

**La machine pour une utilisation en intérieur uniquement, ne pas installer à l'extérieur.**



**N'installez pas la machine de jeu près des issues de secours.**



**Protéger la machine de jeu de:**



- L'humidité ou la pluie.
- La lumière directe du soleil.
- La chaleur directe de la climatisation et du chauffage, etc...
- Des substances inflammables dangereuses.
- Sinon, un accident ou un dysfonctionnement.

**Ne pas placer les récipients contenant des produits chimiques ou de l'eau sur ou près de la machine de jeu.**



**Ne placez pas d'objets à proximité des orifices de ventilation.**



**Ne pas plier le cordon d'alimentation par la force ou de placer des objets lourds au-dessus.**



**Ne jamais brancher ou débrancher le cordon d'alimentation avec les mains mouillées.**



**Ne jamais débrancher la machine de jeu en tirant le câble d'alimentation.**



## ⚠ PRUDENCE

**Veillez à utiliser le câblage intérieur selon les exigences de tension spécifiées. Pour une rallonge, utilisez la notation spécifiée ou plus.**

**Veillez à utiliser le cordon d'alimentation fourni.**

**Ne jamais brancher plus d'un cordon à la fois dans la prise électrique.**



**Ne pas poser le cordon d'alimentation où les gens marchent à travers.**



**Soyez sûr de mettre à la terre ce produit.**



**Ne pas exercer une force excessive lors du déplacement de la machine.**



**Pour une ventilation correcte, garder la machine de jeu 100mm (4 ") loin des murs.**


**Ne pas modifier les réglages des commutateurs DIP liées au système.**





# PRÉCAUTION D'EMPLOI


## ATTENTION

Veillez à éteindre l'interrupteur d'alimentation principale et débranchez le cordon d'alimentation de la prise avant d'inspecter ou de nettoyer la machine. 

Lors du remplacement des pièces, veillez à utiliser une partie des spécifications correctes. Ne jamais utiliser de pièces autres que celles spécifiées. 

L'ouverture à l'intérieur de la machine doit être effectuée par le spécialiste de la machine seulement, comme le courant électrique élevé est transmis à l'intérieur. Pour la machine de jeu avec le moniteur, un soin doit être pris lors de l'ouverture de sa porte arrière. Si non, une détérioration des pièces à l'intérieur ou à l'écran peut se produire. 


Si l'interrupteur secondaire du panneau de service est éteint sans éteindre le commutateur d'alimentation principale de l'unité d'alimentation, certaines parties dans les unités restent sous tension. Lors de l'ouverture de la porte arrière, veillez à éteindre l'interrupteur d'alimentation principale et débranchez le cordon d'alimentation de la prise. 

Il est strictement conseillé de s'abstenir de démonter et de réparer des pièces qui ne sont pas indiqués dans ce manuel, ainsi que les paramètres et le remodelage. 


Pour nettoyer la machine de jeu, l'essuyer avec un chiffon doux imbibé avec un détergent neutre.

- L'utilisation plus mince d'un autre solvant organique ou de l'alcool peut décomposer le matériel.
- Un choc électrique ou une défaillance de l'équipement pourraient être causés par la pénétration de l'eau à l'intérieur de la machine.

## PRUDENCE

Les composants de la machine de jeu sont sensibles aux vibrations et aux chocs. Il faut faire attention lors du déplacement et le transport de la machine de jeu. 

Veillez à ne pas laisser la machine se renverser.

Avant de déplacer la machine, veillez à éteindre l'interrupteur d'alimentation principale, débranchez le cordon d'alimentation de la prise et débranchez le cordon d'alimentation de la machine. 

Avant de déplacer la machine, la mettre hors des niveleurs et le déplacer sur les roulettes.

Éviter une force excessive lors du déplacement de la machine.

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## PRÉCAUTIONS LORS DU MANIEMENT

- Lors de la mise en place, l'inspection, l'entretien, déplacement ou le transport de ce produit, suivez les procédures et les instructions énoncées dans ce manuel et effectuer ce travail en toute sécurité.
- Ne pas mettre en place, manipuler, inspecter, entretenir, déplacer ou transporter ce produit dans des conditions équivalentes à l'état de "ATTENTION" ou "PRUDENCE" spécifiée dans ce manuel.
- Si un nouveau propriétaire obtient ce produit à la suite d'un transfert, etc., soyez sûr de donner ce manuel au nouveau propriétaire.

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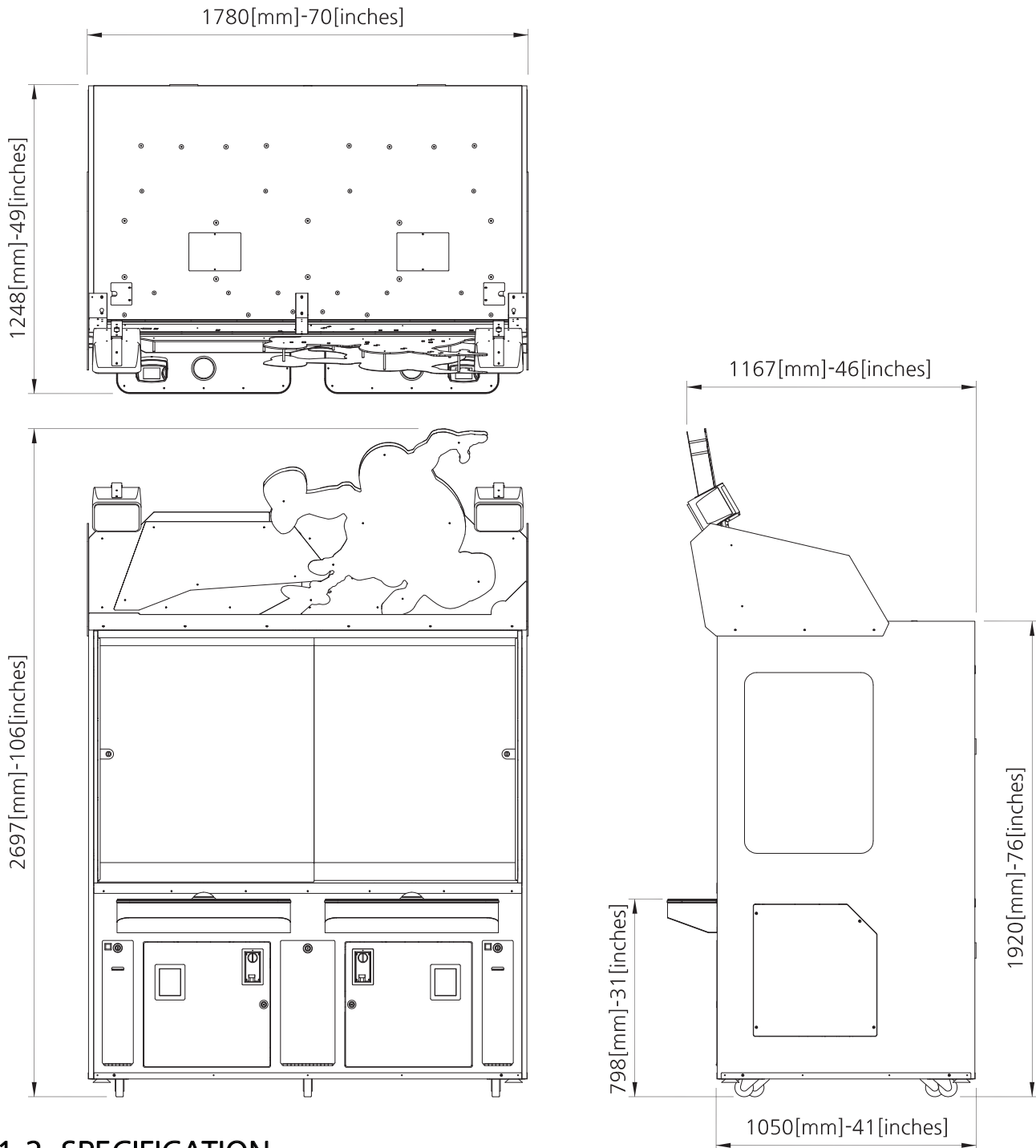
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# 1. SPECIFICATION AND DIMENSION

## 1-1. DIMENSION



## 1-2. SPECIFICATION

DIMENSIONS (W x D x H)	1780 x 1167 x 2697 (mm)	
PACKING DIMENSIONS (W x D x H)	1900 x 1400 x 2210 (mm)	
WEIGHT (kg)	494 kg [ WEIGHT INCLUDING : 544 kg ] PACKAGING	
VOLTAGE	AC 120V	AC 230V
FREQUENCY RANGE	60Hz	50/60Hz
CONSUMPTION	700W	
CERTIFICATION	-	

\* The 120V voltage specification is for the Americas only, and the 230V (50/60Hz) voltage specifications are for other countries.



## 2. INSTALL INFORMATION

**\* PLEASE DO NOT INSTALL PRODUCT IN A PLACE WITH A LOT OF SUNLIGHT. IT CAN BE A PROBLEM FOR THE OPERATION OF THE PRODUCT.**

### 2-1. INSTALLATION SPACE

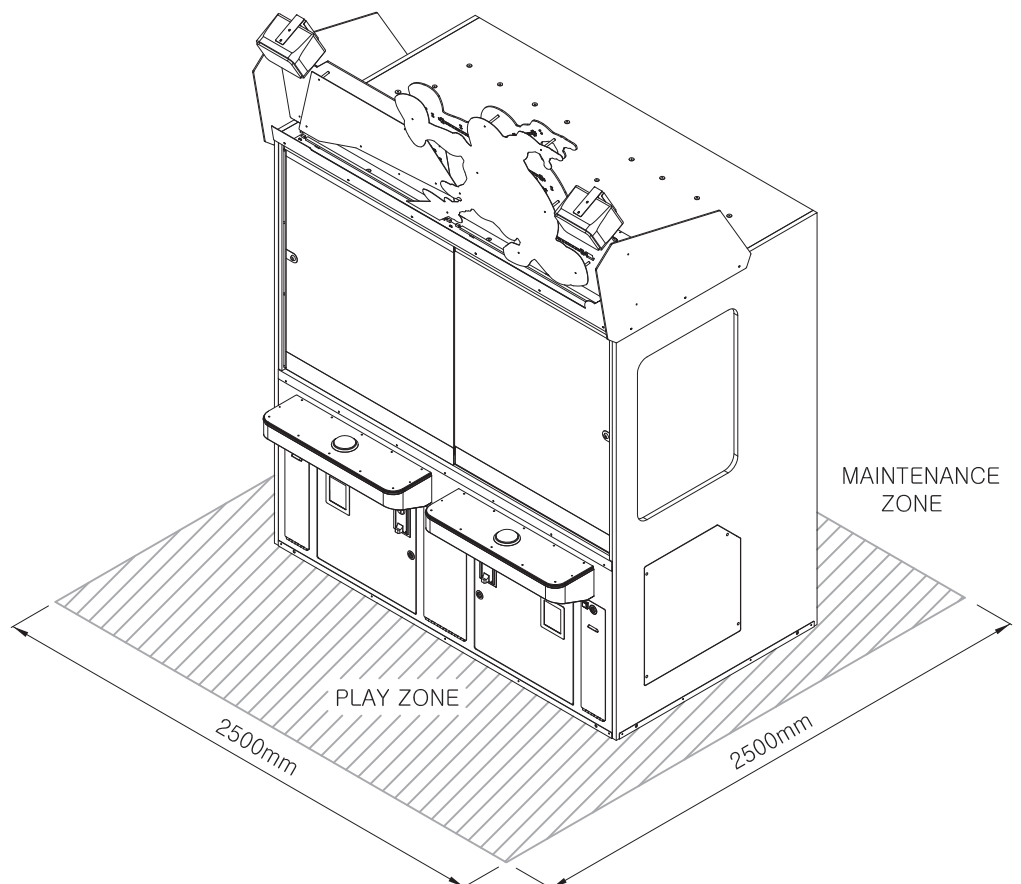
- ※ Maintenance zone & Play zone should have at least 2500mm(99 inch) \* 2500mm(99inch) each

### 2-2. MAINTAIN PRODUCT FLATNESS

- ※ After installation is complete
- ※ 2-1 After securing space, adjust the 4 adjuster so that the product is stably leveled

### 2-3. IMPORTANCE










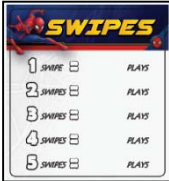
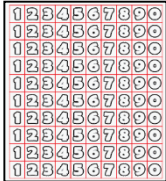

- ※ This product should be indoor use and out of direct sunlight





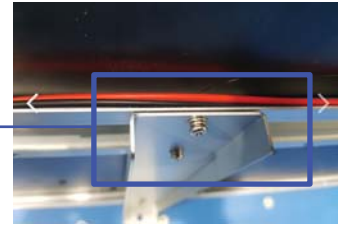
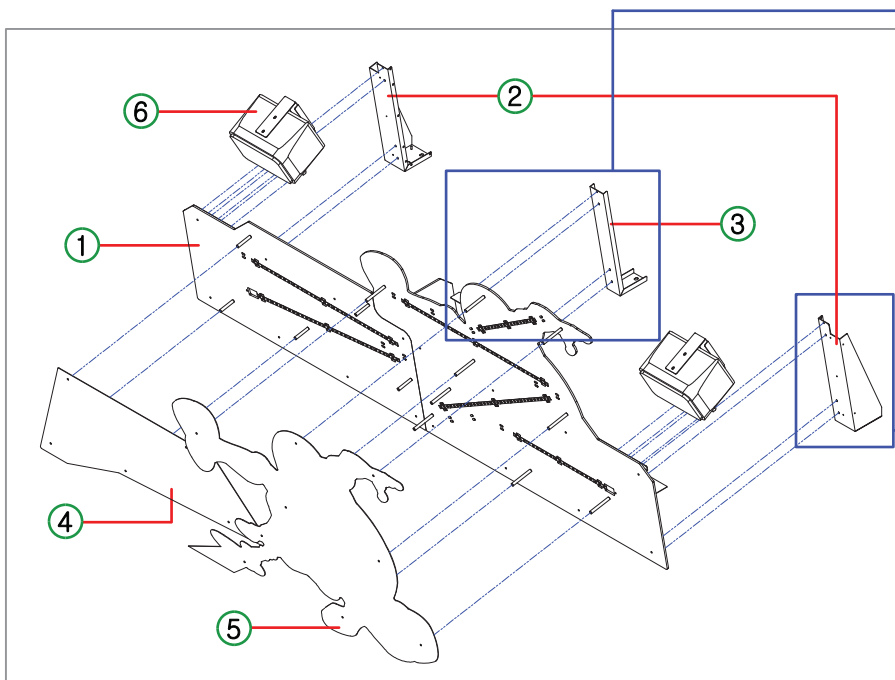
### 3. COMPONENTS

NO	PART NAME	Q'TY	SPARE	NO	PART NAME	Q'TY
1	AC POWER CORD	1		11	RENCH [4mm]	1
2	KEY 7001	2		12	RENCH [5mm]	1
3	SCREW TH [M4x8L]	-	4	13	BALL (RED) Ø55	26 / 13 per P
4	SCREW TH [M4x10L]	24	4	14	BALL (BLUE) Ø30	110 / 55 per P
5	SCREW TH [M4x20L]	4	2	15	MEDAL	2000 / 1000 per P
6	SCREW TH [M4x25L]	6	2	16	CABINET TOP HARNESS COVER BKT	2
7	SEMS NI [M4x10L]	20	4	17	SWIPES BLANK	2
8	SEMS NI [M6x25L]	6	2	18	SWIPES NUMBERS SHEET	1
9	RENCH [2.5mm]	1		19	MANUAL	1
10	RENCH [3mm]	1				

▼ 1	▼ 2	▼ 3,4,5,6	▼ 7,8	▼ 9,10,11,12	▼ 13
					
▼ 14	▼ 15	▼ 16	▼ 17	▼ 18	▼ 19
					

# 4. INSTALL

## 4-1. HOW TO INSTALL BILLBOARD

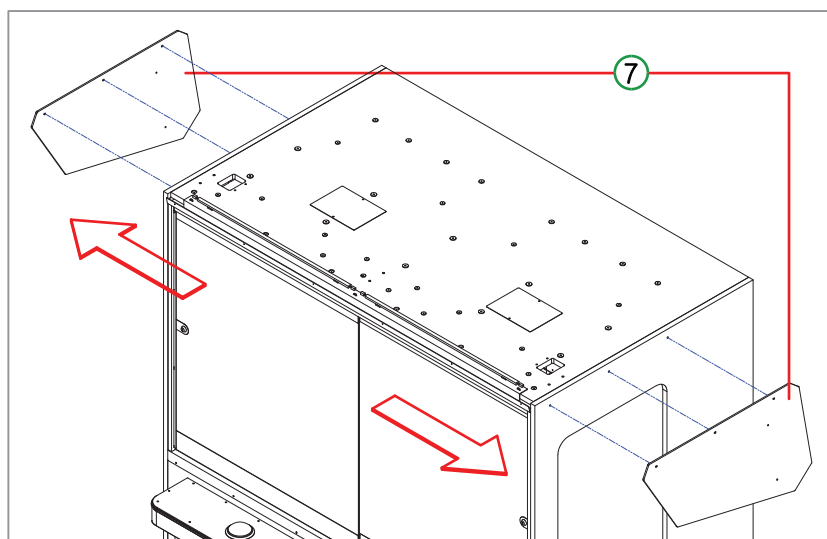


\* Pay attention to wiring when fixing the top bolt

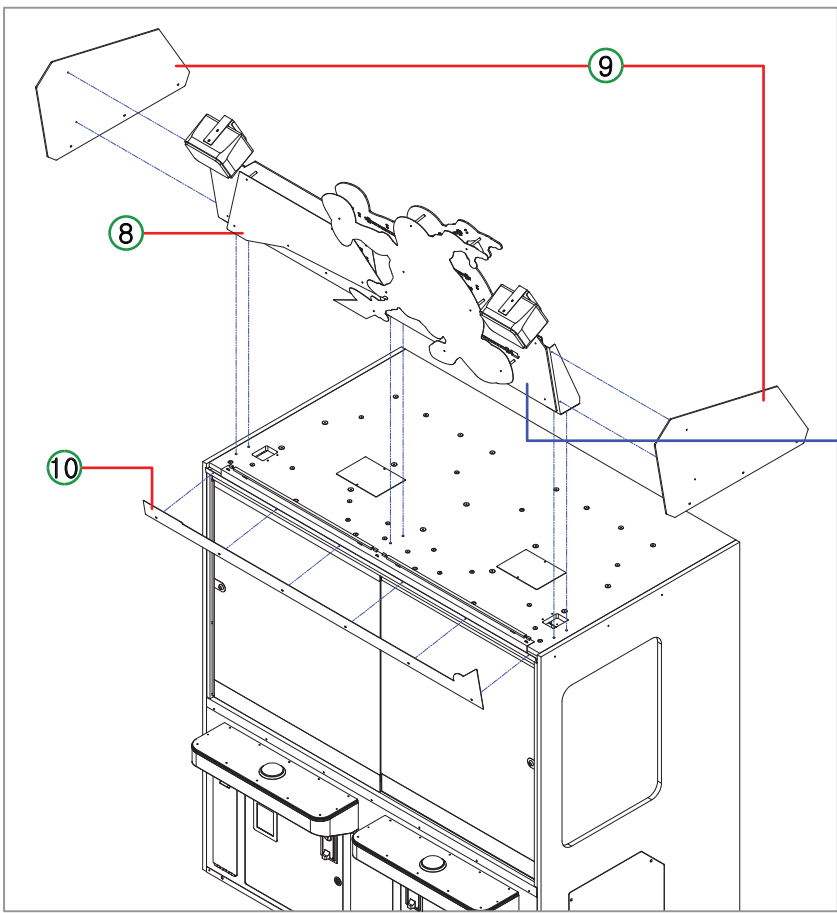


\* BILLBOARD SIDE FOMAX FRONT FIX BKT L, R are combined on the front of the BILLBOARD BODY (FORMAX). Assemble after disassembly.

NO	PROCESS	ITEM	Q'TY	BOLT	SPEC	Q'TY
1		BILLBOARD BODY	1			
2	ASSEMBLE	BILLBOARD SIDE FOMAX FRONT FIX BKT L, R	2	SEMS NI	M4*10L	8
3	ASSEMBLE	BILLBOARD FRONT FOMAX MIDDLE FIX BKT	1	SEMS NI	M4*10L	4
4	ASSEMBLE	BILLBOARD TITLE ACRYL	1	SCREW TH	M4*8L	5
5	ASSEMBLE	BILLBOARD SPIDER MAN ACRYL	1	SCREW TH	M4*8L	9
6	ASSEMBLE	BILLBOARD SPEAKER ASS'Y	2	SEMS NI	M4*10L	8

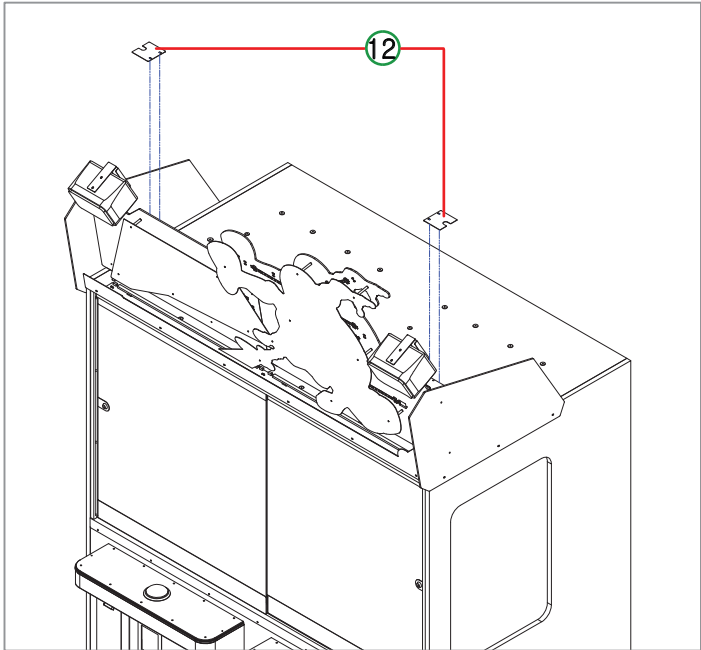


NO	PROCESS	ITEM	Q'TY	BOLT	SPEC	Q'TY
7	SEPARATION	BILLBOARD SIDE FOMAX-L, R	2	SCREW TH	M4*25L	6



\* The connector is inside

NO	PROCESS	ITEM	Q'TY	BOLT	SPEC	Q'TY
8	ASSEMBLE	BILLBOARD ASS'Y	1	SEMS NI	M6*25L	6
9	ASSEMBLE	BILLBOARD SIDE FOMAX-L, R	2	SCREW TH	M4*10L	4
				SCREW TH	M4*25L	6
10	ASSEMBLE	BILLBOARD BOTTOM COVER ACRYL	1	SCREW TH	M4*10L	6

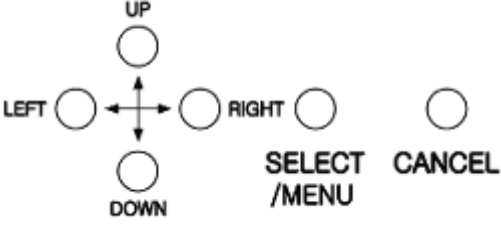



NO	PROCESS	ITEM	Q'TY	BOLT	SPEC	Q'TY	
11	CONNECTION	BILLBOARD CONNECTOR					
12	ASSEMBLE	CABINET TOP HARNESS COVER BKT	2	SCREW TH	M4*20L	4	
13	POWER ON	The voltage of this product is ( 120V or 230V ) *(LRS-350-12 / AC S/W TYPE_Transform)					

# 5. SETUP SETTING

## 5-1. MACHINE SETUP

### 1.SETUP BUTTON LAYOUT

	<p>1) UP, DOWN : MENU UP/DOWN MOVE                  2) LEFT, RIGHT : CHANGE SETTING VALUE                  3) SELECT /MENU : SETUP MENU MODE, SELECT AND PERFORM                  4) CANCEL : EXIT</p>
	<p>NORMALLY SERVICE IN,                  IN CASE OF ERROR, USE THIS BUTTON TO CLEAR ERROR                  * EACH TIME SERVICE IN IS PRESSED ONCE,                  THE NUMBER SET IN PLAYS/COIN GOES UP</p>

OPERATING OPTIONS	
PRESS MENU BUTTON. [MENU/SELECT BUTTON: ENTER]	
PROGRAM SETTINGS	MODE FOR SETTING
CLEAR MODE	MODE FOR CLEAR
BOOKKEEPING	CHECKING GAME DATA
FACTORY SETTING	INITIALIZING TO FACTORY SETTING
TEST MODE	MODE FOR TESTING
EXIT	EXIT OPERATION OPTIONS

## 5-2. PROGRAM SETTINGS

● PROGRAM SETTINGS			
LCD DISPLAY	DESCRIPTION	RANGE	DEFAULT
PLAYS / COIN [-> sub menu]	SETTING NUMBER OF PLAYS (CREDITS) PER COIN IN CASE OF CONTINUOUS COIN OR SWIPING CARDS WITHOUT PLAY, DIFFERENT PLAYS ARE PAID ACCORDING TO CONTINUED NUMBER <b>!CAUTION! VALUE IS MAINTAINED EVEN AFTER FACTORY SET</b>	=> (SUB MENU) (REFER TO BELOW TABLE #1)	
PLAYS / BILL [-> sub menu]	SETTING NUMBER OF PLAYS PER BILL IN CASE OF CONTINUOUS COIN OR SWIPING CARDS WITHOUT PLAY, DIFFERENT PLAYS ARE PAID ACCORDING TO CONTINUED NUMBER	=> (SUB MENU) (REFER TO BELOW TABLE #2)	

	<b>!CAUTION! VALUE IS MAINTAINED EVEN AFTER FACTORY SET</b>		
PAYOUT SETTING [-> sub menu]	SETTING NUMBER OF TICKETS PER SWIPE	=> (SUB MENU) (REFER TO BELOW TABLE #3)	
SHOT COUNT	THE NUMBER OF MEDALS TO BE FIRED 1 ~ 3 : FIRES A SET NUMBER OF MEDALS	1 ~ 3	3
S-BALL BALANCE	IF THE AVERAGE NUMBER OF MEDALS FIRED AFTER RAPID AUTO SHOT EVENT IS LESS THAN THE VALUE SET HERE (25), AN ADDITIONAL SMALL BALL WILL BE EJECTED (A FUNCTION THAT ADJUSTS THE RATE OF EJECTION OF ONE SMALL BALL WHEN THE AVERAGE NUMBER OF MEDAL LAUNCHES IS 25)	20 ~ 30	25
RAPID AUTO OP	RAPID AUTO SHOT EVENT MEDAL FIRE OPTION "AUTO" : AUTO "MANU" : MANUAL	"AUTO" "MANU"	"AUTO"
RAPID AUTO TIME	RAPID AUTO SHOT EVENT TIME (DURING RAPID AUTO SHOT EVENT, MEDALS ARE FIRED WITHOUT CONSUMING PLAYS)	10 ~ 30 (UNIT = SEC)	15
SP-BNS TIMING	SUPER BONUS WINNING TIMING (1 UNIT = 0.01SEC) Ex) 3 : 0.03SEC, 10 : 0.1SEC	3 ~ 10 (INCREASES BY 1)	10
SHOOTER SPEED	SETTING MEDAL SHOOTER FIRE SPEED <b>!CAUTION! VALUE IS MAINTAINED EVEN AFTER FACTORY SET</b>	=> (SUB MENU) (REFER TO BELOW TABLE #4)	
B-BALL DROP SET	SETTING BIG BALL DROP DEVICE DETAIL (CENTER POSITION, 1P/2P BALL DROP POSITION) <b>!CAUTION! VALUE IS MAINTAINED EVEN AFTER FACTORY SET</b>	=> (SUB MENU) (REFER TO BELOW TABLE #5)	
TICKET/SCORE	SETTING TICKET RATIO PER SCORE NONE : AUTOMATICALLY REDUCING TICKET COUNTS WITHOUT DISPENSING TICKETS 1/1 : 1 SCORE = 1 TICKET 1/2 : 2 SCORE = 1 TICKET 1/3 : 3 SCORE = 1 TICKET 1/4 : 4 SCORE = 1 TICKET 1/5 : 5 SCORE = 1 TICKET	"NONE", "1/1 ~ 1/5"	1/1
ATTRACT VOLUME	SETTING DEMO SOUND ON/OFF AND VOLUME "OFF" : NO SOUND	"OFF", 10 ~ 100 (INCREASES BY 10)	60

	10 ~ 100 : SOUND VOLUME (%)		
SAVE AND EXIT	SAVE AND EXIT	BY PRESSING SELECT BUTTON, PERFORM BY MOVING THE CURSOR TO [YES] or [NO]	
CANCEL AND EXIT	CANCEL AND EXIT		

<TABLE #1>

<ul style="list-style-type: none"> <li>● PROGRAM SETTINGS -&gt; PLAYS / COIN</li> <li>● SETTING PLAYS (CREDITS) PER COIN or SWIPE IN CASE OF CONTINUOUS COIN or SWIPING WITHOUT PLAYING, SETTING VALUE INCREASES AS FOLLOWS UP TO FIVE TIMES AND THE 1<sup>ST</sup> SETTING VALUE WILL BE APPLIED FROM THE 6<sup>TH</sup> TIMES (BASED ON FIVE TIMES)</li> </ul>			
LCD DISPLAY	DESCRIPTION	RANGE	DEFAULT
PAYMENT TYPE	FREE PLAY OR COIN SETTING "FREE" - FREE PLAY "COIN" - COIN OR SWIPE SETTING	"FREE" "COIN"	"COIN"
MINIMUM COIN	SETTING MINIMUM COIN NUMBER FOR PLAY APPLIED ALL SETTING VALUES BELOW EX) IF MINIMUM COIN IS 5, WHEN 5 COINS ARE INPUT, 1 <sup>ST</sup> COIN VALUE IS PAID	1 ~ 9 (INCREASES BY 1)	1
1st. COIN	SETTING NUMBER OF PLAYS PER CREDIT	1 ~ 500	12
2nd. COIN			26
3rd. COIN			42
4th. COIN			60
5th. COIN			75
SAVE AND EXIT	SAVE AND EXIT (VALUE IS MAINTAINED EVEN AFTER FACTORY SET)	BY PRESSING SELECT BUTTON, PERFORM BY MOVING THE CURSOR TO [YES] or [NO]	
CANCEL AND EXIT	CANCEL AND EXIT		

<TABLE #2>

<ul style="list-style-type: none"> <li>● PROGRAM SETTINGS -&gt; PLAYS / BILL</li> <li>● SETTING PLAYS (CREDITS) PER BILL or SWIPE</li> </ul> <p>NUMBER OF PLAYS INCREASES AS FOLLOWS IN CONJUNCTION WITH SIGNAL FROM BILL ACCEPTOR</p>			
LCD DISPLAY	DESCRIPTION	RANGE	DEFAULT
1 BILL	SETTING NUMBER OF PLAYS PER \$1.00	1 ~ 2000 (INCREASES BY 1)	12
2 BILL	SETTING NUMBER OF PLAYS PER \$2.00		26
3 BILL	SETTING NUMBER OF PLAYS PER \$3.00		42
4 BILL	SETTING NUMBER OF PLAYS PER \$4.00		60
5 BILL	SETTING NUMBER OF PLAYS PER \$5.00		75
10 BILL	SETTING NUMBER OF PLAYS PER \$10.00		150
20 BILL	SETTING NUMBER OF PLAYS PER \$20.00		300
SAVE AND EXIT	SAVE AND EXIT (VALUE IS MAINTAINED EVEN AFTER FACTORY SET)	BY PRESSING SELECT BUTTON, PERFORM BY MOVING THE CURSOR TO [YES] or [NO]	
CANCEL AND EXIT	CANCEL AND EXIT		

<TABLE #3>

<ul style="list-style-type: none"> <li>● PROGRAM SETTINGS -&gt; PAYOUT SETTINGS</li> </ul> <p>SETTING THE SCORE TABLE FOR CHECKERS, MINI BALL BOARD, BIG BALL GAME AND SUPER SPIN SCORE</p> <p>※ REFER TO &lt;TABLE #3-1&gt; BELOW REGARDING EACHPRESET TYPE TABLE VALUE</p>			
LCD DISPLAY	DESCRIPTION	RANGE	DEFAULT
PRESET TYPE	TYPES OF PRESET <REFER TO TABLE #3-1-1>	1 ~ 6 (TYPE1 ~ 6)	5 (TYPE 5)
CHECKER TABLE	TYPES OF CHECKER SCORE TABLE <REFER TO TABLE #3-1-2>	1 ~ 6 (TYPE1 ~ 6)	5 (TYPE 5)
MINI BALL TABLE	TYPES OF MINI GAME BOARD SCORE TABLE <REFER TO TABLE #3-1-3>	1 ~ 6 (TYPE1 ~ 6)	5 (TYPE 5)
B-BALL GAME TABLE	TYPES OF BIG BALL GAME SCORE TABLE <REFER TO TABLE #3-1-4>	1 ~ 6 (TYPE1 ~ 6)	5 (TYPE 5)
SUPER SPIN TABLE	TYPES OF SUPER SPIN SCORE TABLE <REFER TO TABLE #3-1-5>	1 ~ 6 (TYPE1 ~ 6)	5 (TYPE 5)
SP-BNS SCORE	SUPER BONUS SCORE (CANNOT SET BEYOND SP-BNS LIMIT VALUE)	100 ~ 9999 (INCREASES BY 10)	1000
SP-BNS INCREMENT	SUPER BONUS INCREASE SCORE	0 ~ 10	0
SP-BNS LIMIT	SUPER BONUS SCORE LIMIT VALLE	1000 ~ 9999	1000



		(INCREASES BY 50)
SAVE AND EXIT	SAVE AND EXIT	BY PRESSING SELECT BUTTON, PERFORM BY MOVING THE CURSOR TO [YES] or [NO]
CANCEL AND EXIT	CANCEL AND EXIT	

<TABLE #3-1>

- ◎ PRESET TYPE TABLE
- SCORE TABLE FOR EACHPRESET TYPE

PRESET TYPE COMBINATION SETTING TABLE						
PRESET TYPE	TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 6
AVERAGE TICKET	About 27 sheets	About 32 sheets	About 50 sheets	About 75 sheets	About 90 sheets	About 144 sheets
CHECKER TABLE	1	2	3	4	5	6
SMALL BALL TABLE	1	2	3	4	5	6
MINI BALL TABLE	1	2	3	4	5	6
B-BALL GAME TABLE	1	2	3	4	5	6
SUPER SPIN TABLE	1	2	3	4	5	6
SP-BNS SCORE	200	300	500	1000	1000	2000

CHECKER TABLE TYPE			
	HOLE 1 (LEFT)	HOLE 2 (CENTER)	HOLE 3 (RIGHT)
TYPE 1	1 Ticket	1 Ticket	1 Ticket
TYPE 2	1 Ticket	2 Ticket s	1 Ticket
TYPE 3	2 Tickets	2 Tickets	2 Tickets
TYPE 4	2 Tickets	3 Tickets	2 Tickets
TYPE 5	2 Tickets	4 Tickets	2 Tickets
TYPE 6	3 Tickets	5 Tickets	3 Tickets

SMALL BALL (MAP) TABLE TYPE												
	1	2	3	4	5	6	7	8	9	10	11	12
TYPE 1	3 tickets	BIG BALL	2 tickets	2 tickets	3 tickets	BIG BALL	2 tickets	2 tickets	3 tickets	BIG BALL	2 tickets	2 tickets

TYPE 2	4 tickets	BIG BALL	2 tickets	3 tickets	4 tickets	BIG BALL	2 tickets	3 tickets	4 tickets	BIG BALL	2 tickets	3 tickets
TYPE 3	6 tickets	BIG BALL	2 tickets	4 tickets	6 tickets	BIG BALL	2 tickets	4 tickets	6 tickets	BIG BALL	2 tickets	4 tickets
TYPE 4	8 tickets	BIG BALL	4 tickets	6 tickets	8 tickets	BIG BALL	4 tickets	6 tickets	8 tickets	BIG BALL	4 tickets	6 tickets
TYPE 5	10 tickets	BIG BALL	6 tickets	8 tickets	10 tickets	BIG BALL	6 tickets	8 tickets	10 tickets	BIG BALL	6 tickets	8 tickets
TYPE 6	12 tickets	BIG BALL	8 tickets	10 tickets	12 tickets	BIG BALL	8 tickets	10 tickets	12 tickets	BIG BALL	8 tickets	10 tickets

<TABLE #3-1-4>

BIG BALL GAME TABLE TYPE  
(BIG BALL GAME)

	HOLE 1	HOLE 2	HOLE 3	HOLE 4	HOLE 5
TYPE 1	SUPER SPIN Chance	SPIDER SENSE 5 Tickets	10 Tickets	8 Tickets	SPIDER SENSE 6 Tickets
TYPE 2	SUPER SPIN Chance	SPIDER SENSE 5 Tickets	15 Tickets	10 Tickets	SPIDER SENSE 8 Tickets
TYPE 3	SUPER SPIN Chance	SPIDER SENSE 10 Tickets	30 Tickets	20 Tickets	SPIDER SENSE 15 Tickets
TYPE 4	SUPER SPIN Chance	SPIDER SENSE 16 Tickets	40 Tickets	30 Tickets	SPIDER SENSE 20 Tickets
TYPE 5	SUPER SPIN Chance	SPIDER SENSE 20 Tickets	50 Tickets	40 Tickets	SPIDER SENSE 30 Tickets
TYPE 6	SUPER SPIN Chance	SPIDER SENSE 30 Tickets	100 Tickets	70 Tickets	SPIDER SENSE 50 Tickets

<TABLE #3-1-5>

SUPER SPIN TABLE TYPE  
(From No. 1 (Super Bonus) -> Number order to the right)

	1 Super Spin	2	3	4	5	6	7	8
TYPE 1	SUPER BONUS 200 Tickets	20 Tickets	70 Tickets	30 Tickets	90 Tickets	20 Tickets	50 Tickets	30 Tickets
TYPE 2	SUPER BONUS 300	30 Tickets	90 Tickets	50 Tickets	100 Tickets	30 Tickets	70 Tickets	50 Tickets

	Tickets							
TYPE 3	SUPER BONUS 500 Tickets	50 Tickets	100 Tickets	70 Tickets	150 Tickets	50 Tickets	90 Tickets	70 Tickets
TYPE 4	SUPER BONUS 1000 Tickets	70 Tickets	100 Tickets	90 Tickets	200 Tickets	70 Tickets	120 Tickets	90 Tickets
TYPE 5	SUPER BONUS 1000 Tickets	100 Tickets	150 Tickets	120 Tickets	300 Tickets	100 Tickets	200 Tickets	120 Tickets
TYPE 6	SUPER BONUS 2000 Tickets	200 Tickets	300 Tickets	250 Tickets	500 Tickets	200 Tickets	400 Tickets	250 Tickets

<TABLE #4>

- PROGRAM SETTINGS -> SHOOTER SPEED
    - MEDAL SHOOTER FIRE SPEED AND RANGE LIMIT ADJUSTMENTS
      - SPEED AFFECTS MEDAL LAUNCH DISTANCE
      - HIGHER SPEEDS RESULT IN LONGER DISTANCES AND LOWER SPEEDS RESULT IN SHORTER FIRING DISTANCES
      - DUTY LIMIT IS THE SPEED - RELATED LIMIT OF THE MEDAL LAUNCHED LATER IN THE SERIES LAUNCH
      - (WHEN FIRING CONTINUOUSLY, THE SPEED CAN BE ADJUSTED BY THE FIRING SPEED COMPENSATION FUNCTION)
    - ※ 1P START BUTTON : 1P MEDAL LAUNCH TEST
    - ※ 2P START BUTTON : 2P MEDAL LAUNCH TEST
    - ▶ AFTER CHANGING THE SPEED OR DUTY LIMIT VALUE AND COMPLETING THE FIRING RATE ADJUSTMENT, YOU CAN TEST MEDAL FIRING WITH THE START BUTTON (MEDAL CAN BE FIRED WHEN RAPID AUTO SHOT FND IS DISPLAYED [ON])
    - ▶ TICKET FND [ ■■■■ ] DISPLAYS CURRENT MOTOR SPEED
    - ▶ PLAYS FND [ ■■■ ] DISPLAYS CURRENT OPERATING MOTOR DUTY VALUE
    - ▶ BIG BALL STOCK FND [ ■ ] DISPLAYS CURRENT OPERATING BLDC ROLLER MOTOR STATUS
- [3]: SPEED SETTING ON PROCESSING, [5]: NORMAL SPEED SETTING

LCD DISPLAY	DESCRIPTION	RANGE	DEFAULT
SPEED 1P	1P MAIN SHOOTER MEDAL LAUNCH SPEED SETTING	120 ~ 150	135
SPEED 2P	2P MAIN SHOOTER MEDAL LAUNCH SPEED SETTING		
DUTY LIMIT 1P	1P MAIN SHOOTER MEDAL LAUNCH SPEED LIMIT SETTING	0 ~ 50	10
DUTY LIMIT 1P	2P MAIN SHOOTER MEDAL LAUNCH SPEED LIMIT SETTING		
SAVE AND EXIT	SAVE AND EXIT (VALUE IS MAINTAINED EVEN AFTER FACTORY SET)	BY PRESSING SELECT BUTTON, PERFORM BY MOVING THE CURSOR TO [YES] or [NO]	
CANCEL AND EXIT	CANCEL AND EXIT		

### <TABLE #5>

<ul style="list-style-type: none"> <li>● PROGRAM SETTINGS -&gt; B-BALL DROP SET <ul style="list-style-type: none"> <li>● DETAILED SETTING OF THE CENTER POSITION OF THE BIG BALL DISCHARGE DEVICE AND THE POSITION OF THE 1P, 2P BALL FALLING <ul style="list-style-type: none"> <li>※ 1P START BUTTON : CENTER POS 1P AND DROP POS 1P POSITION SETTING TEST On / Off</li> <li>※ 2P START BUTTON : CENTER POS 2P AND DROP POS 2P POSITION SETTING TEST On / Off</li> <li>▶ RAPID AUTO SHOT FND [ ■■ ] DISPLAY TEST STATUS</li> <li>▶ TICKET FND [ □□ ■■ ] DISPLAY DROP POS POSITION COUNT</li> </ul> </li> </ul> </li> </ul>			
LCD DISPLAY	DESCRIPTION	RANGE	DEFAULT
CENTER POS 1P	1P CENTER POSITION CORRECTION AFTER BIG BALL EJECTION	- 30 ~ 0 ~ 30 (Motor operation in 0.01 second unit)	0
CENTER POS 2P	2P CENTER POSITION CORRECTION AFTER BIG BALL EJECTION		
DROP POS 1P	1P SET THE POSITION TO EJECT THE BIG BALL	- 6 ~ 9 (Encoder count range)	9
DROP POS 2P	2P SET THE POSITION TO EJECT THE BIG BALL		
SAVE AND EXIT	SAVE AND EXIT (VALUE IS MAINTAINED EVEN AFTER FACTORY SET)	BY PRESSING SELECT BUTTON, PERFORM BY MOVING THE CURSOR TO [YES] or [NO]	
CANCEL AND EXIT	CANCEL AND EXIT		

## 5-3. CLEAR MODE

<ul style="list-style-type: none"> <li>● CLEAR MODE</li> <li>● GAME DATA AND BOOKKEEPING DATA CAN BE DELETED</li> </ul>		
LCD DISPLAY	DESCRIPTION	EXECUTION
CLEAR TICKETS	DELETE REMAINING TICKETS TO BE DISPENSED NOW	BY PRESSING SELECT BUTTON, PERFORM BY MOVING THE CURSOR TO [YES] or [NO]
CLEAR PLAYS	ERASE ALL REMAINING PLAYS (CREDITS)	

	AND GAMEPLAYS	
CLEAR DATA	DELETE ALL GAME DATA AND BOOKKEEPING DATA INCLUDING CREDITS AND TICKETS	
EXIT	EXIT	

## 5-4. BOOKKEEPING

● BOOKKEEPING		
LCD DISPLAY 1P : 1 Player 2P : 2 Player TOTAL : 1P, 2P TOTAL	DESCRIPTION	
- COIN IN - 1P: 0 2P: 0 TOTAL: 0	NUMBER OF COIN IN (1P, 2P, TOTAL)	
- BILL IN - 1P: 0 2P: 0 TOTAL: 0	NUMBER OF BILL IN (1P, 2P, TOTAL)	
- SERVICE PLAYS - 1P: 0 2P: 0 TOTAL: 0	1P, 2P PLAYER TOTAL SERVICE PLAY COUNT	
- GAME SHOT COUNT - 1P: 0 2P: 0 TOTAL: 0	1P, 2P PLAYERS ALL GAME PLAY MAIN SHOOTER MEDAL SHOTS	
- TOTAL SCORE - 1P: 0 2P: 0 TOTAL: 0	NUMBER OF TOTAL SCORE OF 1P, 2P (TICKET)	
- SMALL BALL - 1P      2P WIN:    0,    0 OUT:    0,    0	1P, 2P SMALL BALL WINNING INFORMATION WIN : NUMBER OF SMALL BALL DISCHARGES OUT : NUMBER OF SMALL BALL WON (DROPPED UNDER PUSHER FIELD)	
- BIG BALL - 1P      2P WIN:    0,    0 OUT:    0,    0	1P, 2P BIG BALL WINNING INFORMATION WIN : NUMBER OF BIG BALL DISCHARGES OUT : NUMBER OF BIG BALL WON (DROPPED UNDER PUSHER FIELD)	
- CHECKER HOLE 1P - 1>:    0 2>:    0	1P CHECKER HOLE SENSOR MEDAL CHECK COUNT #1 HOLE (LEFT) #2 HOLE (CENTER)	

3>: 0	#3 HOLE (RIGHT)
- CHECKER HOLE 2P - 1>: 0 2>: 0 3>: 0	2P CHECKER HOLE SENSOR MEDAL CHECK COUNT #1 HOLE (LEFT) #2 HOLE (CENTER) #3 HOLE (RIGHT)
- MINI GAME BOARD 1 - 1P 2P CNT: 0, 0 SCR: 0, 0	1P, 2P PLAYER SMALL BALL BOARD GAME COUNT AND SCORE CNT: YEARS OF SMALL BALL BOARD GAME SCR : POINTS EARNED IN THE SMALL BALL BOARD GAME
- MINI GAME BOARD 2 - 1P 2P BIG: 0, 0 END: 0, 0	1P, 2P SMALL BALL MINI GAME COUNTS AND SCORES BIG: SMALL BALL MINI GAME NUMBER OF BIG BALLS ACQUIRED END : SMALL BALL MINI GAME COUNT TO THE END (RAPID AUTO(FREE FIRE))
- BIG BALL GAME - 1P 2P CNT: 0, 0 SCR: 0, 0	1P, 2P BIG BALL GAME COUNTS AND SCORES CNT : GAME COUNT SCR : TOTAL SCORE
- BIG BALL GAME TYPE 1 - 1P 2P 1>: 0, 0 2>: 0, 0	1P, 2P BIG BALL GAME HOLE INDIVISUAL COUNT 1: NUMBER OF TICKET HOLE WINNING 2: NUMBER OF TICKET HOLE WINNING
- BIG BALL GAME TYPE 2 - 3>: 0, 0 4>: 0, 0 5>: 0, 0	1P, 2P BIG BALL GAME HOLE INDIVISUAL COUNT 3: NUMBER OF SPIDER SENS HOLE WINNING 4: NUMBER OF SPIDER SENS HOLE WINNING 5: NUMBER OF SPIDER SENS HOLE WINNING
- SUPER SPIN COUNT - 1P: 0 2P: 0 TOTAL: 0	NUMBER OF SUPER SPIN GAME OF 1P, 2P, TOAL
- SUPER SPIN SCORE - 1P: 0 2P: 0 TOTAL: 0	TOTAL SCORE OF SUPER SPIN GAME OF 1P, 2P, TOTAL
- SUPER SPIN TYPE 1 - 1P 2P SB: 0, 0 1>: 0, 0	1P, 2P PLAYER SUPER SPIN GAME SB: SUPER BONUS WINNING COUNT 1 : 1ST RIGHT SIDE FROM SUPER BONUS
- SUPER SPIN TYPE 2 - 2>: 0, 0 3>: 0, 0 4>: 0, 0	1P, 2P PLAYER SUPER SPIN GAME NUMBER OF WINNINGS FOR EACH DIVIDEND 2 : 2ND RIGHT SIDE FROM SUPER BONUS 3 : 3RD RIGHT SIDE FROM SUPER BONUS 4 : 4TH RIGHT SIDE FROM SUPER BONUS
- SUPER SPIN TYPE 3 - 5>: 0, 0 6>: 0, 0 7>: 0, 0	1P, 2P PLAYER SUPER SPIN GAME NUMBER OF WINNINGS FOR EACH DIVIDEND 5 : 5TH RIGHT SIDE FROM SUPER BONUS 6 : 6TH RIGHT SIDE FROM SUPER BONUS 7 : 7TH RIGHT SIDE FROM SUPER BONUS
** VER INFO **	VERSION INFORMATION 1

INT Ver 0.xx Snd Ver None LED Ver None	- MAINBOARD PROGRAM VERSION - SOUND VERSION - LED IO VERSION
** VER INFO 2 ** BLDC Ver	VERSION INFORMATION 2 - MEDAL SHOOTING DEVICE BLDC IO VERSION
CANCEL BUTTON : EXIT	

<ul style="list-style-type: none"> <li>● FACTORY - SETTING INITIALIZE TO FACTORY SETTING VALUE (DELETE ALL DATA AND SET TO GAME DEFAULT VALUE)</li> <li>★ COIN, BILL SETTINGS AND SHOOTING SPEED CAN NOT BE INITIALIZED AGAINST FACTORY SETTING</li> </ul>	
LCD DISPLAY (PERFORM)	LCD DISPLAY (PERFORM)
FACTORY -SETTING ARE YOU SURE? YES or [ <u>NO</u> ] PERFORM BY MOVING THE CURSOR	FACTORY -SETTING REALLY ? YES or [ <u>NO</u> ] PERFORM BY MOVING THE CURSOR





## 5-5. TEST MODE

● TEST MODE		
LCD DISPLAY	COMPOSITION	DESCRIPTION
INPUT TEST	[=>]	ENTER INPUT TEST MODE
		1P GAME BTN, 2P GAME BTN : 1P, 2P GAME BUTTON 1P COIN SEN, 2P COIN SEN : 1P, 2P COIN SENSOR 1P BILL SEN, 2P BILL SEN : 1P, 2P BILL SENSOR 1P TICKET BTN, 1P TICKET SEN : 1P TICKET BUTTON, SENSOR 2P TICKET BTN, 2P TICKET SEN : 2P TICKET BUTTON, SENSOR 1P SERVICE, 2P SERVICE : 1P, 2P SERVICE BUTTON TILT : TILT SWITCH SETUP UP, DOWN, LEFT, RIGHT, SELECT, CANCEL BUTTON : SETUP BUTTON INPUT STATUS PER EACH NUMBER AND EACH IO PORT (INPUT 0 ~ 4, GPIO A ~ E) 0: 0000000000000000 1: 0000000000000000 2: 0000000000000000 3: 0000000000000000 4: 0000000000000000 A: 0000000000000000 B: 0000000000000000 C: 0000000000000000 D: 0000000000000000 E: 0000000000000000
FND & LAMP	“STEP” “ON” “ON/OFF” “OFF”	LAMP, FND, LED TEST EVERY TIME YOU PRESS SELECT BUTTON, EACH STEP IS EXECUTED STEP : DISPLAY LAMP, FND, LED ORDER PATTERN ON : ALL ON ON/OFF : ALL ON / OFF REPETITIVE MOTION OFF : ALL OFF
MOT PUSHER	“ALL” “1P” “2P”	MAIN PUSHER MOTOR TEST ◎ AFTER SELECTING A PLAYER WITH THE LEFT AND RIGHT BUTTONS, PRESS THE SELECT BUTTON TO OPERATE (OR 1P, 2P INDIVIDUAL ON/OFF ACTION WITH 1P, 2P FIRING BUTTON )  RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY FND [■■] : [On], [Of]  TICKET FND 4-DIGIT MOTOR ENCODER SENSOR STATUS DISPLAY FND [■■□□] : ENCODER SENSOR COUNT FND [□□■■] : DISPLAYS THE MAXIMUM NUMBER OF ENCODER SENSOR COUNTS  BIG BALL STOCK FND 1-DIGIT MOTOR ENCODER SENSOR STATUS DISPLAY FND [■] : ENCODER SENSOR (0 - Off, 1 - On)

		<p>SUPER BONUS FND 4-DIGIT SMALL BALL, BIG BALL AT THE BOTTOM OF THE PUSHER BALL CHECK SENSOR STATUS</p> <p>FND [■□□□] : 1P SMALL BALL DROPPED S ENSOR CHECK STATUS DISPLAY (0 or 1)</p> <p>FND [□■□□] : 1P BIG BALL DROPPED SENSOR CHECK STATUS DISPLAY (0 or 1)</p> <p>FND [□□■□] : 2P SMALL BALL DROPPED SENSOR CHECK STATUS DISPLAY (0 or 1)</p> <p>FND [□□□■] : 2P BIG BALL DROPPED SENSOR CHECK STATUS DISPLAY (0 or 1)</p> <p>※ SMALL BALL BOARD LED LAMP STATUS DISPLAY</p> <ul style="list-style-type: none"> <li>- SMALL BALL DETECTION : FIRST(TICKETS) LAMP On</li> <li>- BIG BALL DETECTION : SECOND(BIG BALL) LAMP On</li> </ul>
MOT SHOT-SHOT	<p>“ALL”</p> <p>“1P”</p> <p>“2P”</p>	<p>MEDAL SHOOTER FIRING TEST</p> <ul style="list-style-type: none"> <li>◎ AFTER SELECTING A PLAYER WITH THE LEFT AND RIGHT BUTTONS, PRESS THE SELECT BUTTON TO OPERATE (OR 1P, 2P INDIVIDUAL ON/OFF ACTION WITH 1P, 2P FIRING BUTTON)</li> <li>◎ MEDAL FIRING SPEED ADJUSTMENT WITH SERVICE BUTTON (0 TO 10 STEPS)</li> </ul> <p>(※ 0.1 SECOND UNIT ~ 1.0 SECOND RANGE, CURRENT SPEED NUMBER DISPLAYED ON PLAYS FND WHEN BUTTON IS PRESSED)</p> <p>BIG BALL STOCK FND 1-DIGIT MEDAL SHOOTER SENSOR STATUS DISPLAY</p> <p>FND [■] : MEDAL SHOOTER SENSOR DETECTION STATUS DISPLAY (0 or 1)</p> <p>RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY</p> <p>FND [■■] : [On], [Of]</p> <p>TICKETS FND 4-DIGIT MEDAL FIRING CHECK COUNT AND FIRING SPEED DISPLAY</p> <p>FND [■■■■] : COUNT THE NUMBER OF MEDALS FIRED (000 ~ 9999)</p> <p>PLAYS FND 3-DIGIT MEDAL LAUNCH BLDC ROLLER MOTOR SPEED DISPLAY</p> <p>FND [■■■] : CURRENT MOTION SPEED OR DISPLAY FIRING SPEED (WHEN SERVICE BUTTON IS PRESSED)</p> <p>FND [-■■] : MEDAL FIRING SPEED DISPLAY</p> <p>[-00] ~ [-10] : 00 NO TIME LIMIT, RANGE FROM 01 TO 10 (IN UNITS OF 0.1 SECONDS)</p>

		CHECKER HOLE LED CHECKER SENSOR STATUS DISPLAY OFF - NO CHECKERS SIGNAL RED LED ON - WITH CHECKERS SIGNAL
MOT SHOT-MOVE	“ALL” “1P” “2P”	<p>MAIN MEDAL SHOOTER LEFT/RIGHT MOVEMENT TEST ◎ AFTER SELECTING A PLAYER WITH THE LEFT AND RIGHT BUTTONS, PRESS THE SELECT BUTTON TO OPERATE (OR 1P, 2P INDIVIDUAL ON/OFF ACTION WITH 1P, 2P FIRING BUTTON )</p> <p>SUPER BONUS FND 4-DIGIT MEDAL SHOOTER LEFT/RIGHT MOVEMENT MOTOR ENCODER STATUS FND [■□□□] : 1P MOTOR ORIGIN ENCODER SENSOR STATUS (0 or 1) FND [□■□□] : 1P MOTOR ORIGIN ENCODER SENSOR CHECK COUNT (0 ~ 9) FND [□□■□] : 2P MOTOR ORIGIN ENCODER SENSOR STATUS (0 or 1) FND [□□□■] : 2P MOTOR ORIGIN ENCODER SENSOR CHECK COUNT (0 ~ 9)</p> <p>RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY FND [■■] : [On], [Of]</p> <p>TICKET FND 4-DIGIT MOTOR ENCODER STATUS FND [■□□□] : ENCODER SENSOR STATUS DISPLAY (0 or 1) FND [□□■■] : ENCODER SENSOR CHECK COUNT (00 ~ 99)</p>
MOT SMB-ELEV	“ALL” “1P” “2P”	<p>SMALL BALL ELEVATOR MOTION TEST - THE SMALL BALL ELEVATOR STOPS FOR 1 SECOND AFTER OPERATING WHEN THERE IS A SWITCH CHANGE AT THE TOP, AND THEN OPERATES AGAIN . ◎ AFTER SELECTING A PLAYER WITH THE LEFT AND RIGHT BUTTONS, PRESS THE SELECT BUTTON TO OPERATE (OR 1P, 2P INDIVIDUAL ON/OFF ACTION WITH 1P, 2P FIRING BUTTON )</p> <p>BIG BALL STOCK FND 1-DIGIT UPPER ELEVATOR SWITCH STATUS DISPLAY FND [■] : ELEVATOR TOP SWITCH DETECTION STATUS DISPLAY (0 or 1) ※ SMALL BALL BOARD LED LAMP STATUS INDICATION - SWITCH DETECTION : FIRST(TICKETS) LAMP On</p> <p>RAPID AUTO SHOT FND 2-DIGIT MOTOR TEST STATUS DISPLAY FND [■■] : [On], [Of]</p>

		<p>TICKET FND 4-DIGIT MOTOR ENCODER STATUS  FND [■□□□] : ENCODER SENSOR STATUS DISPLAY (0 or 1)  FND [□□■ ■] : ENCODER SENSOR CHECK COUNT (00 ~ 99)</p>
MOT JP-WHEEL	<p>“OFF”  “ON”</p>	<p>SUPER BONUS STEP MOTOR WHEEL ROTATION TEST  ◎ OPERATION BY PRESSING SELECT BUTTON (OR ON/OFF OPERATION WITH 1P, 2P FIRING BUTTON)  ◎ STEP MOTOR SPEED ADJUSTABLE WITH LEFT AND RIGHT BUTTONS (5 STEPS FROM 0 TO 4)  ◎ OPERATION AND STOP SETTING WITH 1P, 2P START BUTTON WHEN STOPPED BY PRESSING THE START B UTTON, IT STOPS AT THE ORIGIN POSITION</p> <p>WHEN THE STEP MOTOR ORIGIN POSITION IS CHECKED, THE LED LAMP INSIDE THE WHEEL IS DISPLAYED AS ON</p> <p>1P RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY  FND [■ ■] : [On], [Of]  2P RAPID AUTO SHOT FND 2 -DIGIT WHEEL SCORE SEQUENCE NUMBER DISPLAY  FND [■ ■] : SCORE TABLE NUMBER DISPLAY 0 ~7 (#0 Super Bonus)</p> <p>1P TICKET FND 4-DIGIT STEP MOTOR ROTATION TIME DISPLAY (1ms UNIT)  1P FND [■ ■ ■ ■] : TIME DISPLAY FOR EACH ROTATION BASED ON THE JP ORIGIN</p> <p>2P TICKET FND 4-DIGIT STEP MOTOR 1 ROTATION STEP COUNT DISPLAY  2P FND [■ ■ ■ ■] : 1200 (REFERENCE COUNT)</p> <p>SUPER BONUS FND 4-DIGIT SCORE DISPLAY  FND [■ ■ ■ ■] : SUPER SPIN WHEEL SCORE (CHECKING THE SCORE IS POSSIBLE BY SETTING THE STEP MOTOR SPEED TO VERY SLOW)</p> <p>PLAYS FND : STEP MOTOR ROTATION S PEED TYPE DISPLAY  FND [■ ■ ■ ■] : SP0 : VERY SLOW  SP1 : SLOW  SP2 : NORMAL  SP3 : FAST  SP4 : VERY FAST</p>
MOT JP-MOVE	<p>“OFF”</p>	<p>SUPER BONUS MOTOR LEFT/RIGHT MOVEMENT TEST</p>

	<p>“ON”</p>	<p>◎ OPERATION BY PRESSING SELECT BUTTON (On Off)  ◎ 1P, 2P FIRE BUTTON MOVES EACH PLAYER DIRECTION</p> <p>RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY  FND [■■] : [On], [Off]</p> <p>TICKET FND 4-DIGIT MOTOR POSITION SWITCH, SENSOR STATUS DISPLAY  FND [□■□□] : 1P POSITION LIMIT SWITCH STATUS DISPLAY (0 OR 1)  FND [□□■□] : CENTER POSITION SENSOR STATUS DISPLAY (0 OR 1)  FND [□□□■] : 2P POSITION LIMIT SWITCH STATUS DISPLAY (0 OR 1)</p>
<p>MOT BIG-DROP</p>	<p>“OFF”  “ON”</p>	<p>BIG BALL SUPPLY LEFT/RIGHT MOVEMENT MOTOR OPERATION TEST  ◎ OPERATION BY PRESSING SELECT BUTTON (ON, OFF)  ◎ 1P, 2P FIRE BU TTON MOVES EACH PLAYER DIRECTION  ◎ IF THE CENTER ORIGIN IS MOVED WHILE MOVING LEFT/RIGHT, IT STOPS FOR 1 SECOND AND THEN PROCEEDS WITH THE MOVEMENT AGAIN (LEFT -&gt; CENTER -&gt; RIGHT -&gt; CENTER ... MOVEMENT)</p> <p>SUPER BONUS FND 4 -DIGIT MOTOR MOVEMENT OPERATION TIME DISPLAY (10ms UNIT)  FND [■■■■] : LEFT ~ MIDDLE ~ RIGHT POSITION MOVEMENT OPERATION TIME</p> <p>BIG BALL STOCK FND 1 -DIGIT  FND [■] : DISPLAY LEFT/RIGHT MOVEMENT LIMIT SWITCH STATUS  0: NO SIGNAL, 1: 1P POSITION DETECTION, 2: 2P POSITION DETECTION, 3 : 1P, 2P ALL DETECTION)</p> <p>RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY  FND [■■] : [On], [Of]</p> <p>1P TICKET FND 4-DIGIT MOTOR DIVIDEND ENCODER STATUS  1P FND [■□□□] : DIVIDEND ENCODER SENSOR STATUS DISPLAY (0 OR 1)  1P FND [□□■■] : DIVIDEND ENCODER SENSOR CHECK COUNT (00 ~ 99)</p> <p>2P TICKET FND 4-DIGIT MOTOR ENCODER STATUS  2P FND [■□□□] : ENCODER SENSOR STATUS DISPLAY (0 or 1)  2P FND [□□■■] : ENCODER SENSOR CHECK COUNT (00 ~ 99)</p>

MOT BIG-ELEV	“OFF” “ON”	BIG BALL ELEVATOR MOTION TEST ◎ OPERATION WHEN THE SELECT BUTTON IS PRESSED (OR 1P, 2P INDIVIDUAL ON/OFF OPERATION WITH THE 1P, 2P FIRING BUTTON)  BIG BALL STOCK FND 1 -DIGIT UPPER ELEVATOR SWITCH STATUS DISPLAY FND [■] : ELEVATOR TOP SWITCH DETECTION STATUS DISPLAY (0 OR 1) ※ SMALL BALL BOARD LED LAMP STATUS DISPLAY - SWITCH DETECTION: SECOND(BIG BALL) LAMP ON  RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY FND [■■] : [On], [Of]  TICKET FND 4-DIGIT MOTOR ENCODER STATUS FND [■□□□] : ENCODER SENSOR STATUS DISPLAY (0 or 1) FND [□□■■] : ENCODER SENSOR CHECK COUNT (00 ~ 99)
MOT BNS-GAME	“ALL” “1P” “2P”	BIG BALL GAME MOTOR WHEEL MOTION TEST ◎ AFTER SELECTING A PLAYER WITH THE LEFT AND RIGHT BUTTONS, PRESS THE SELECT BUTTON TO OPERATE (OR 1P, 2P INDIVIDUAL ON/OFF ACTION WITH 1P, 2P FIRING BUTTON)  SUPER BONUS FND 4 -DIGIT 1P, 2P BIG BALL GAME WHEEL MOTOR ENCODER STATUS FND [■□□□] : 1P MOTOR ORIGIN ENCODER SENSOR STATUS (0 or 1) FND [□■□□] : 1P MOTOR ORIGIN ENCODER SENSOR CHECK COUNT (0 ~ 9) FND [□□■□] : 2P MOTOR ORIGIN ENCODER SENSOR STATUS (0 or 1) FND [□□□■] : 2P MOTOR ORIGIN ENCODER SENSOR CHECK COUNT (0 ~ 9)  BIG BALL STOCK FND 1-DIGIT BALL START, GOAL DETECTION SWITCH STATUS FND [■] : 0 : NO BALL DETECTION STATUS 1 : BALL START POSITION DETECTED 2 : BALL GOAL INSPECTION SWITCH DETECTED 3 : BALL START, GOAL SWITCH BOTH DETECTED  LED LAMP DISPLAY : 1. BALL START POSITION STATUS [SPIDER SENSE LAMP ON, OFF] 2. BALL GOAL INSPECTION SWITCH STATUS [SMALL BALL BOARD LED LAMP ALL ON, OFF]

		<p>RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY FND [■■] : [On], [Of]</p> <p>TICKET FND 4-DIGIT MOTOR ENCODER STATUS FND [■□□□] : ENCODER SENSOR STATUS DISPLAY (0 OR 1) FND [□■■□] : ENCODER SENSOR CHECK COUNT (01 ~ 20) FND [□□□■] : GOAL-IN HOLE POSITION (12 O'CLOCK DIRECTION) STANDARD HOLE NUMBER DISPLAY (0 ~ 4), - 0 : SUPER SPIN CHANCE HOLE PLAYS FND 3-DIGIT WHEN THE GOAL HALL SWITCH IS CHECKED, THE WINNING SCORE IS DISPLAYED (MORE THAN ONE ROTATION OF THE WHEEL PLATE IS REQUIRED FOR ACCURACY) FND [■■■] : [SSC] : SUPER SPIN CHANCE [S-1, S-2] : SPIDER SENSE LAMP 1, 2 [040, 050] : NUMBER SCORE</p>
SOL BNS-GAME	<p>“ALL” “1P” “2P”</p>	<p>BIG BALL GAME SOLENOID TEST ◎ AFTER SELECTING A PLAYER WITH THE LEFT AND RIGHT BUTTONS, PRESS THE SELECT BUTTON TO OPERATE (OR 1P, 2P INDIVIDUAL ON/OFF ACTION WITH 1P, 2P FIRING BUTTON)</p> <p>FND, LED STATUS SAME AS MOT BNS -GAME STATUS</p>
COIN	<p>OFF ON</p>	<p>COIN TEST ◎ AFTER SELECTING A TYPE WITH THE LEFT AND RIGHT BUTTONS, PRESS THE SELECT BUTTON TO OPERATE (OR 1P, 2P INDIVIDUAL ON/OFF ACTION WITH 1P, 2P FIRING BUTTON)</p> <p>RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY FND [■■] : [On], [Of]</p> <p>TICKET FND 4-DIGIT COIN SENSOR STATUS DISPLAY FND [■□□□] : COIN SENSOR STATUS DISPLAY (0 or 1) FND [□□■■] : COIN SENSOR CHECK COUNT (00 ~ 99)</p>
BILL	<p>OFF ON</p>	<p>BILL ACCEPTOR TEST ◎ AFTER SELECTING A TYPE WITH THE LEFT AND RIGHT BUTTONS, PRESS THE SELECT BUTTON TO OPERATE (OR 1P, 2P INDIVIDUAL ON/OFF ACTION WITH 1P, 2P FIRING BUTTON)</p> <p>RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY FND [■■] : [On], [Of]</p>



		TICKET FND 4-DIGIT BILL ACCEPTOR SENSOR STATUS DISPLAY FND [■□□□] : BILL ACCEPTOR SENSOR STATUS DISPLAY (0 or 1) FND [□□■ ■] : BILL ACCEPTOR SENSOR CHECK COUNT (00 ~ 99)
TICKET	“ALL” “1P” “2P”	TICKET TEST (DISPENSE 3 TICKETS ) ◎ AFTER SELECTING A TYPE WITH THE LEFT AND RIGHT BUTTONS, PRESS THE SELECT BUTTON TO OPERATE (OR 1P, 2P INDIVIDUAL ON/OFF ACTION WITH 1P, 2P FIRING BUTTON)  RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY FND [■ ■] : [On], [Of]  TICKET FND 4-DIGIT TICKET SENSOR STATUS DISPLAY FND [■□□□] : TICKET SENSOR STATUS DISPLAY (0 or 1) FND [□□■ ■] : TICKET SENSOR CHECK COUNT (00 ~ 99)
COUNTER	“COIN” “TICKET”	COUNTER MACHINE TEST ◎ AFTER SELECTING THE TYPE WITH THE LEFT AND RIGHT BUTTONS, PRESS THE SELECT BUTTON TO TEST ◎ 1P, 2P START BUTTON INDIVIDUAL COIN COUNT TEST ◎ 1P, 2P TICKET BUTTON INDIVIDUAL TICKET COUNT TEST  RAPID AUTO SHOT FND 2-DIGIT TEST STATUS DISPLAY FND [■ ■] : [On], [Of]
SOUND	“OFF” “CH” “PLAY”	SOUND TEST ◎ AFTER SELECTING THE TYPE WITH THE LEFT AND RIGHT BUTTONS, TEST WITH THE SELECT BUTTON (PLAY, STOP) - STOP PLAYING SOUND - EACH PLAYER SPEAKER (1P LEFT, 2P RIGHT) TEST - PLAY FULL SOUND LIST
EXIT		EXIT FROM TEST MODE

## 5-6. ERROR CODE

ONLY "E.02", "E.03", "E.31 ~ E.34", "E.61 ~ E.67" ERROR CODES STOP THE ENTIRE GAME, AND FOR OTHER ERRORS, ONLY THE PLAYER WITH THE ERROR CANNOT PLAY THE GAME. “TICKET ERROR”, DOES NOT STOP GAMEPLAY, ONLY “HELP” MESSAGE IS DISPLAYED.

ERROR CODE	ERROR TYPE	DESCRIPTION	CHECK POINT
E.02	SYSTEM	SETUP SAVE DATA PROBLEM	1. CHECK AND SAVE SETUP SETTINGS 2. DO FASTORY SET 3. CHECK POWER ON/OFF

			4. IF THE PROBLEM PERSISTS, REPLACE THE MAIN BOARD
E.03		GAME SAVE DATA PROBLEM	1. SETUP IN CLEAR MODE CLEAR DATA 2. CHECK POWER ON/OFF 3. IF THE PROBLEM PERSISTS, REPLACE THE MAIN BOARD
E.11	COIN MACHINE	PLAYER COIN SENSOR SIGNAL STILL PRESENT	CHECK THE PROBLEM PLAYER COIN MACHINE
E.13	BILL ACCEPTOR	PLAYER BILL SENSOR SIGNAL STILL PRESENT	CHECK THE PROBLEM PLAYER BILL ACCEPTOR
E.31	SUPER SPIN WHEEL MOTOR	SUPER SPIN WHEEL ENCODER NO SIGNAL OR STILL PRESENT	1. CHECK MOTOR OPERATION STATUS 2. CHECK THE ENCODER SENSOR INPUT STATUS
E.36	SUPER SPIN MOVE MOTOR	LEFT/RIGHT MOVEMENT LEFT (1P) LIMIT SWITCH PROBLEM	1. CHECK THE MOVEMENT MOTOR OPERATION STATUS 2. CHECK THE STATUS OF 1P LEFT LIMIT SWITCH
E.37		LEFT/RIGHT MOVEMENT RIGHT (2P) LIMIT SWITCH PROBLEM	1. CHECK THE MOVEMENT MOTOR OPERATION STATUS 2. CHECK THE STATUS OF 2P RIGHT LIMIT SWITCH
E.38		LEFT/RIGHT MOVEMENT BOTH SIDES (1P, 2P) LIMIT SWITCH PROBLEM	CHECK LEFT AND RIGHT LIMIT SENSOR STATUS
E.41	PUSHER MOTOR	PUSHER MOTOR PROBLEM	1. CHECK MOTOR OPERATION STATUS 2. CHECK THE ENCODER SENSOR INPUT STATUS
E51	BIG BALL GAME MOTOR	WHEEL SUB (DEVIDE) ENCODER PROBLEM	1. CHECK MOTOR OPERATION STATUS 2. CHECK THE ENCODER SENSOR INPUT STATUS
E52		WHEEL MAIN (ORIGIN) ENCODER PROBLEM	1. CHECK MOTOR OPERATION STATUS 2. CHECK THE ENCODER SENSOR INPUT STATUS
E53	BIG BALL GAME SWITCH(SENSOR)	BALL EJECTION START POSITION SWITCH PROBLEM	1. CHECK SWITCH OPERATION 2. CHECK SOLENOID OPERATION
E54		BALL GOAL CHECK SWITCH SIGNAL PROBLEM (NO SWITCH SIGNAL, STILL PRESENT)	1. CHECK SWITCH OPERATION
E55		PROBLEMS INPUTTING THE BALL EJECTION START POSITION AND THE GOAL CHECK SWITCH SIGNAL AT THE SAME TIME	1. CHECK EACH SWITCH OPERATION STATUS
E56	BIG BALL GAME MOTOR SUB ENCODER COUNT	WHEEL SUB (DEVIDE) ENCODER COUNT COUNT OUT OF BOUNDS.	1. CHECK THE ENCODER SENSOR INPUT STATUS 2. CHECK THE NUMBER OF ENCODER DISK COUNTS (COUNT REFERENCE VALUE 20)
E.61	BIG BALL ELEVATOR	BIG BALL ELEVATOR MOTOR ENCODER PROBLEM	1. CHECK MOTOR OPERATION STATUS 2. CHECK THE ENCODER SENSOR INPUT STATUS

E.62		BIG BALL ELEVATOR TOP SENSOR PROBLEM	1. CHECK MOTOR OPERATION STATUS 2. CHECK FOR BIG BALLS 3. CHECK THE TOP SWITCH OPERATION STATUS
E.63	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR SUB (DEVIDE) ENCODER	1. CHECK MOTOR OPERATION STATUS 2. CHECK THE ENCODER SENSOR INPUT STATUS
E.65	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR LIMIT SWITCH	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR LEFT LIMIT SWITCH PROBLEM (NO SIGNAL, STILL PRESENT)	1. CHECK LEFT LIMIT SWITCH OPERATION STATUS
E.66		BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR RIGHT LIMIT SWITCH PROBLEM (NO SIGNAL, STILL PRESENT)	1. CHECK RIGHT LIMIT SWITCH OPERATION STATUS
E.67		BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR 1P, 2P (BOTH SIDES) LIMIT SWITCH PROBLEM (CONTINUES)	1. CHECK THE 1P, 2P POSITION LIMIT SWITCH OPERATION STATUS
E.71	SMALL BALL ELEVATOR	SMALL BALL ELEVATOR MOTOR ENCODER PROBLEM	1. CHECK MOTOR OPERATION STATUS 2. CHECK THE ENCODER SENSOR INPUT STATUS
E.72		SMALL BALL ELEVATOR TOP SENSOR PROBLEM	1. CHECK MOTOR OPERATION STATUS 2. MAKE SURE YOU HAVE A SMALL BALL 3. CHECK THE TOP SWITCH OPERATION STATUS
E.81	MEDAL SHOOTER HOPPER OR SENSOR	MEDAL SHOOTER HOPPER LAUNCH PROBLEM (NO LAUNCH SENSOR SIGNAL)	1. MAKE SURE YOU HAVE MEDALS 2. CHECK HOPPER MOTOR OPERATION STATUS 3. CHECK LAUNCH SENSOR OPERATION STATUS
E.82		MEDAL SHOOTER HOPPER LAUNCH SENSOR PROBLEM (FIRE SENSOR SIGNAL STILLPRESENT)	1. CHECK BLDC ROLLER MOTOR OPERATION STATUS 2. CHECK LAUNCH SENSOR OPERATION STATUS
E.83	MEDAL SHOOTER BLDC ROLLER MOTOR	MEDAL SHOOTER BLDC MOTOR ROLLER PROBLEM	1. CHECK BLDC ROLLER MOTOR IO COMMUNICATION STATUS 2. CHECK THE BLDC ROLLER MOTOR OPERATION STATUS
E.84	MEDAL SHOOTER LEFT/RIGHT MOVE MOTOR	MEDAL FIRING LEFT/RIGHT MOVE MOTOR SUB (DEVIDE) ENCODER PROBLEM	1. CHECK MOTOR OPERATION STATUS 2. CHECK THE ENCODER SENSOR INPUT STATUS
E.87	MEDAL SHOOTER BLDC ROLLER MOTOR	MEDAL SHOOTER BLDCMOTOR IO SPEED SETTING PROBLEM	BLDC ROLLER MOTOR IN OPERATION 1. CHECK THE BLDC ROLLER MOTOR 2. BLDC ROLLER MOTOR IO OPERATION CHECK
E.91	CHECKER SENSOR & PUSHER BOTTOM BALL DROP SENSOR	CHECKER SENSOR SIGNAL STILL PRESENT	1. CHECK MEDAL JAM STATUS 2. CHECK SENSOR OPERATION STATUS
E.92		CHECKER SENSOR NO SIGNAL	1. CHECK SENSOR OPERATION STATUS

E.93		SMALL BALL FALL DETECTION SENSOR PROBLEM AT THE BOTTOM OF THE PUSHER PLATE (SIGNAL STILL EXISTS)	1. CHECK BALL OR MEDAL JAM STATUS 2. CHECK SENSOR OPERATION STATUS
E.94		BIG BALL FALL DETECTION SENSOR PROBLEM AT THE BOTTOM OF THE PUSHER PLATE (SIGNAL STILL EXISTS)	1. CHECK BALL OR MEDAL JAM STATUS 2. CHECK SENSOR OPERATION STATUS
HELP (DISPLAY AT TICKET FND)	TICKET ERROR	NO TICKET	1. CHECK TICKET 2. CHECK TICKET MOTOR OPERATION 3. CHECK TICKET EJECT SENSOR
<p>※ BASICALLY, THE ERROR CODE IS DISPLAYED ON THE SETUP LCD AND TICKET FND OF THE PLAYER WHERE THE ERROR OCCURRED. IF AN ERROR OCCURS IN BOTH 1P AND 2P, THE PLAYER AND ERROR CODE ARE DISPLAYED ON SUPER BONUS FND. THE PHRASE "ER" AND AN ERROR CODE NUMBER ARE DISPLAYED.</p>			

## - ERROR CODE ERROR DETECTION METHOD

ERROR CODE	ERROR TYPE	DESCRIPTION	CHECK POINT
E.02	SYSTEM	SETUP SAVE DATA PROBLEM	TURN ON THE POWER AND CHECK THE BACKUP MEMORY RELATED TO THE MAIN BOARD SETUP
E.03		GAME SAVE DATA PROBLEM	TURN ON THE POWER AND CHECK THE BACKUP MEMORY RELATED TO THE MAIN BOARD GAME
E.11	COIN MACHINE	PLAYER COIN SENSOR SIGNAL STILL PRESENT	WHEN INHIBIT IS ON, SIGNAL IS CONTINUOUSLY PRESENT FOR MORE THAN 2 SECONDS
E.13	BILL ACCEPTOR	PLAYER BILL SENSOR SIGNAL STILL PRESENT	WHEN INHIBIT IS ON, SIGNAL IS CONTINUOUSLY PRESENT FOR MORE THAN 2 SECONDS
E.31	SUPER SPIN WHEEL MOTOR	SUPER SPIN WHEEL ENCODER NO SIGNAL OR STILL PRESENT	ENCODER SIGNAL CONTINUED FOR MORE THAN 10 SECONDS OR NO SIGNAL DURING MOTOR OPERATION
E.36	SUPER SPIN MOVE MOTOR	LEFT/RIGHT MOVEMENT LEFT (1P) LIMIT SWITCH PROBLEM	1P (LEFT) POSITION OR 2P (RIGHT) POSITION LIMIT S/W SIGNAL IS NOT PRESENT DURING MOTOR OPERATION, SO IT IS PROCESSED BASED ON THE FOLLOWING TWO CONDITIONS
E.37		LEFT/RIGHT MOVEMENT RIGHT (2P) LIMIT SWITCH PROBLEM	1> NO SIGNAL FOR MORE THAN 10 SECONDS DURING BOOT MODE 2> NO SIGNAL FOR MORE THAN 6 SECONDS DURING GAMEPLAY 3> 1P OR 2P LIMIT SENSOR SIGNAL

			CONTINUES FOR MORE THAN 2 SECONDS WHILE THE MOTOR IS MOVING
E.38		LEFT/RIGHT MOVEMENT BOTH SIDES (1P, 2P) LIMIT SWITCH PROBLEM	BOTH 1P AND 2P LIMIT S/W SIGNALS ARE PRESENT FOR MORE THAN 2 SECONDS
E.41	PUSHER MOTOR	PUSHER MOTOR PROBLEM	CHECK DURING MOTOR OPERATION 1> NO ENCODER SENSOR SIGNAL FOR MORE THAN 3 SECONDS 2> MOTOR STOPS 1 SECOND 3> PROCEED REVERSE ROTATION-> GO TO NO. 1 IF THERE IS NO SIGNAL EVEN IF YOU TRY THE ABOVE METHOD 3 TIMES, AN ERROR OCCURS
E51	BIG BALL GAME MOTOR	WHEEL SUB (DEVIDE) ENCODER PROBLEM	CHECK DURING MOTOR OPERATION 1> NO ENCODER SENSOR SIGNAL FOR MORE THAN 3 SECONDS 2> MOTOR STOPS 1 SECOND 3> PROCEED REVERSE ROTATION-> GO TO NO. 1 IF THERE IS NO SIGNAL EVEN IF YOU TRY THE ABOVE METHOD 3 TIMES, AN ERROR OCCURS
E52		WHEEL MAIN (ORIGIN) ENCODER PROBLEM	CHECK DURING MOTOR OPERATION NO SENSOR SIGNAL FOR MORE THAN 15 SECONDS
E53	BIG BALL GAME SWITCH(SENSOR)	BALL EJECTION START POSITION SWITCH PROBLEM	CHECK DURING THE BIG BALL GAME 1> BALL DISCHARGE ACTION (SOLENOID ACTION) 2> WHEN THE START POSITION SENSOR SIGNAL IS PRESENT FOR MORE THAN 5 SECONDS 3> BALL EJECTION ATTEMPT 3 TIMES IN TOTAL 4> ERROR IF SIGNAL CONTINUES ※ IF THERE IS A BALL GOAL SWITCH SIGNAL DURING THE E53 ERROR CHECK, IT IS TREATED AS NORMAL GAME PLAY AND THE ERROR CHECK IS SKIPPED
E54		BALL GOAL CHECK SWITCH SIGNAL PROBLEM (NO SWITCH SIGNAL, STILL PRESENT)	CHECK DURING MOTOR OPERATION 1> GOAL SWITCH SIGNAL PRESENT CONTINUOUSLY FOR MORE THAN 3 SECONDS 2> NO GOAL RECOGNITION SENSOR SIGNAL FOR MORE THAN 90 SECONDS AFTER BALL LAUNCH DURING BIG BALL GAME (ADDITIONALLY REDUCE WHEEL SPEED EVERY 5 SECONDS)
E55		PROBLEMS INPUTTING THE BALL EJECTION START POSITION AND THE GOAL CHECK SWITCH SIGNAL AT THE SAME TIME	IF THE SIGNAL IS CONTINUOUS FOR MORE THAN 3 SECONDS, AN ERROR OCCURS. (SIMULTANEOUS SIGNAL OF 2 SWITCHES)

E.56	BIG BALL GAME MOTOR SUB ENCODER COUNT	WHEEL SUB (DEVIDE) ENCODER COUNT COUNT OUT OF BOUNDS	CHECK DURING MOTOR OPERATION 1. WHEN THE ORIGIN IS CHECKED, THE NUMBER OF BRANCH COUNTS SO FAR IS COMPARED TO THE STANDARD COUNT OF 20 2. DURING ORIGIN CHECK, A DIFFERENCE OF 2 OR MORE OR 2 OR LESS FROM THE REFERENCE COUNT OCCURS MORE THAN 3 TIMES IN A ROW
E.61	BIG BALL ELEVATOR	BIG BALL ELEVATOR MOTOR ENCODER PROBLEM	NO ENCODER SENSOR SIGNAL FOR MORE THAN 3 SECONDS
E.62		BIG BALL ELEVATOR TOP SENSOR PROBLEM	CHECK DURING MOTOR OPERATION 1. NO SIGNAL FROM TOP SENSOR FOR MORE THAN 20 SECONDS 2. THE TOP SENSOR SIGNAL IS CONTINUOUSLY PRESENT FOR MORE THAN 3 SECONDS
E.63	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR SUB (DEVIDE) ENCODER	CHECK DURING MOTOR OPERATION 1. NO ENCODER SENSOR SIGNAL FOR MORE THAN 3 SECONDS 2. PAUSE 1 SECOND 3. PROCEED WITH REVERSE ROTATION -> GO TO NO. 1 IF THERE IS NO SIGNAL EVEN IF YOU TRY THE ABOVE METHOD 3 TIMES, AN ERROR OCCURS
E.65	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR LIMIT SWITCH	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR LEFT LIMIT SWITCH PROBLEM (NO SIGNAL, STILL PRESENT)	1. WHILE MOTOR IS OPERATING LEFT LIMIT SWITCH SIGNAL STILL PRESENT FOR MORE THAN 3 SECONDS 2. NO LEFT LIMIT SWITCH SIGNAL FOR MORE THAN 10 SECONDS
E.66		BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR RIGHT LIMIT SWITCH PROBLEM (NO SIGNAL, STILL PRESENT)	1. WHILE MOTOR IS OPERATING RIGHT LIMIT SWITCH SIGNAL STILL PRESENT FOR MORE THAN 3 SECONDS 2. NO RIGHT LIMIT SWITCH SIGNAL FOR MORE THAN 10 SECONDS
E.67		BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR 1P, 2P (BOTH SIDES) LIMIT SWITCH PROBLEM (CONTINUES)	ALWAYS CHECK OVER 3 SECONDS 1P, 2P LIMIT SENSOR SIGNAL PRESENT
E.71	SMALL BALL ELEVATOR	SMALL BALL ELEVATOR MOTOR ENCODER PROBLEM	WHILE MOTOR IS OPERATING NO ENCODER SENSOR SIGNAL FOR MORE THAN 3 SECONDS  <b>EXCEPTION) WHEN THE SMALL BALL IS DISCHARGED, RESET THE ENCODER CHECK TIME BY 3 SECONDS AND CHECK AGAIN. (EVEN IF THERE IS NO ENCODER SIGNAL, IF THE BALL DISCHARGE IS CONFIRMED WITH THE TOP SWITCH, NO ERROR HANDLING)</b>

E.72		SMALL BALL ELEVATOR TOP SENSOR PROBLEM	1. NO SIGNAL FROM TOP SENSOR FOR MORE THAN 60 SECONDS 2. THE UPPER SENSOR SIGNAL IS CONTINUOUSLY PRESENT FOR MORE THAN 3 SECONDS DURING MOTOR OPERATION
E.81	MEDAL SHOOTER HOPPER OR SENSOR	MEDAL SHOOTER HOPPER LAUNCH PROBLEM (NO LAUNCH SENSOR SIGNAL)	CHECK DURING MEDAL FIRING OPERATION 1> NO SENSOR SIGNAL FOR MORE THAN 3 SECONDS 2> PAUSE 1 SECOND 3> RETRY -> GO TO #1 ERROR HANDLING AFTER 3 OR MORE FIRING ATTEMPTS IN THE ABOVE METHOD
E.82		MEDAL SHOOTER HOPPER LAUNCH SENSOR PROBLEM (FIRE SENSOR SIGNAL STILL PRESENT)	MEDAL FIRING IN ACTION ERROR PROCESSING WHEN THERE IS CONTINUOUS FIRING SENSOR SIGNAL FOR MORE THAN 3 SECONDS
E.83	MEDAL SHOOTER BLDC ROLLER MOTOR	MEDAL SHOOTER BLDC MOTOR ROLLER PROBLEM	1. WHEN COMMUNICATION FAILS WHEN MOTOR SPEED SETTING AND VERSION INFORMATION IS RETRIEVED IN BOOT MODE 2. IN THE BASIC OPERATION, IF THE MEDAL FIRING BLDC ROLLER MOTOR IO PASSES TO THE ERROR CODE COMMUNICATION, AN ERROR OCCURS
E.84	MEDAL SHOOTER LEFT/RIGHT MOVE MOTOR	MEDAL FIRING LEFT/RIGHT MOVE MOTOR SUB (DEVIDE) ENCODER PROBLEM	CHECK DURING MOTOR OPERATION 1. NO ENCODER SENSOR SIGNAL FOR MORE THAN 3 SECONDS 2. PAUSE 1 SECOND 3. PROCEED WITH REVERSE ROTATION -> GO TO NO. 1 IF THERE IS NO SIGNAL EVEN IF YOU TRY THE ABOVE METHOD 3 TIMES, AN ERROR OCCURS
E.87	MEDAL SHOOTER BLDC ROLLER MOTOR	MEDAL SHOOTER BLDC MOTOR IO SPEED SETTING PROBLEM	BLDC ROLLER MOTOR IN OPERATION 1. WHEN THE SELF-SET SPEED IS CALIBRATED, IT IS RECEIVED THROUGH STATUS PLUG COMMUNICATION, BUT THERE IS NO STATUS PLUG INFORMATION FOR A CERTAIN PERIOD OF TIME (20 SECONDS)
E.91	CHECKER SENSOR & PUSHER BOTTOM BALL DROP SENSOR	CHECKER SENSOR SIGNAL STILL PRESENT	GAME IN PROGRESS SENSOR SIGNAL STILL PRESENT FOR MORE THAN 10 SECONDS
E.92		CHECKER SENSOR NO SIGNAL	IN CASE OF SETTING CHECKER SENSOR ENABLE (BOOT MODE, PROCEEDING WITH GAMEPLAY) IF THERE IS NO SIGNAL DURING VERIFICATION PROCESS WITH CHECKER SENSOR MCU OPERATION STATUS CONFIRMATION CODE, AN

			ERROR OCCURS
E.93		SMALL BALL FALL DETECTION SENSOR PROBLEM AT THE BOTTOM OF THE PUSHER PLATE (SIGNAL STILL EXISTS)	GAME IN PROGRESS SENSOR SIGNAL STILL PRESENT FOR MORE THAN 10 SECONDS
E.94		BIG BALL FALL DETECTION SENSOR PROBLEM AT THE BOTTOM OF THE PUSHER PLATE (SIGNAL STILL EXISTS)	GAME IN PROGRESS SENSOR SIGNAL STILL PRESENT FOR MORE THAN 10 SECONDS
HELP (DISPLAY AT TICKET FND)	TICKET ERROR	NO TICKET	1. CHECK YOUR TICKET 2. CHECK TICKET MOTOR OPERATION 3. CHECK TICKET EJECT SENSOR



## 6. MAINTENANCE

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### 6-1. Precautions for turning on the power

: When it is newly turned on after power is turned off, the power must be turned on after 10 seconds.

### 6-2. When installing the device

: Connect the device with a ground outlet to which fg is connected.

### 6-3. Main board management

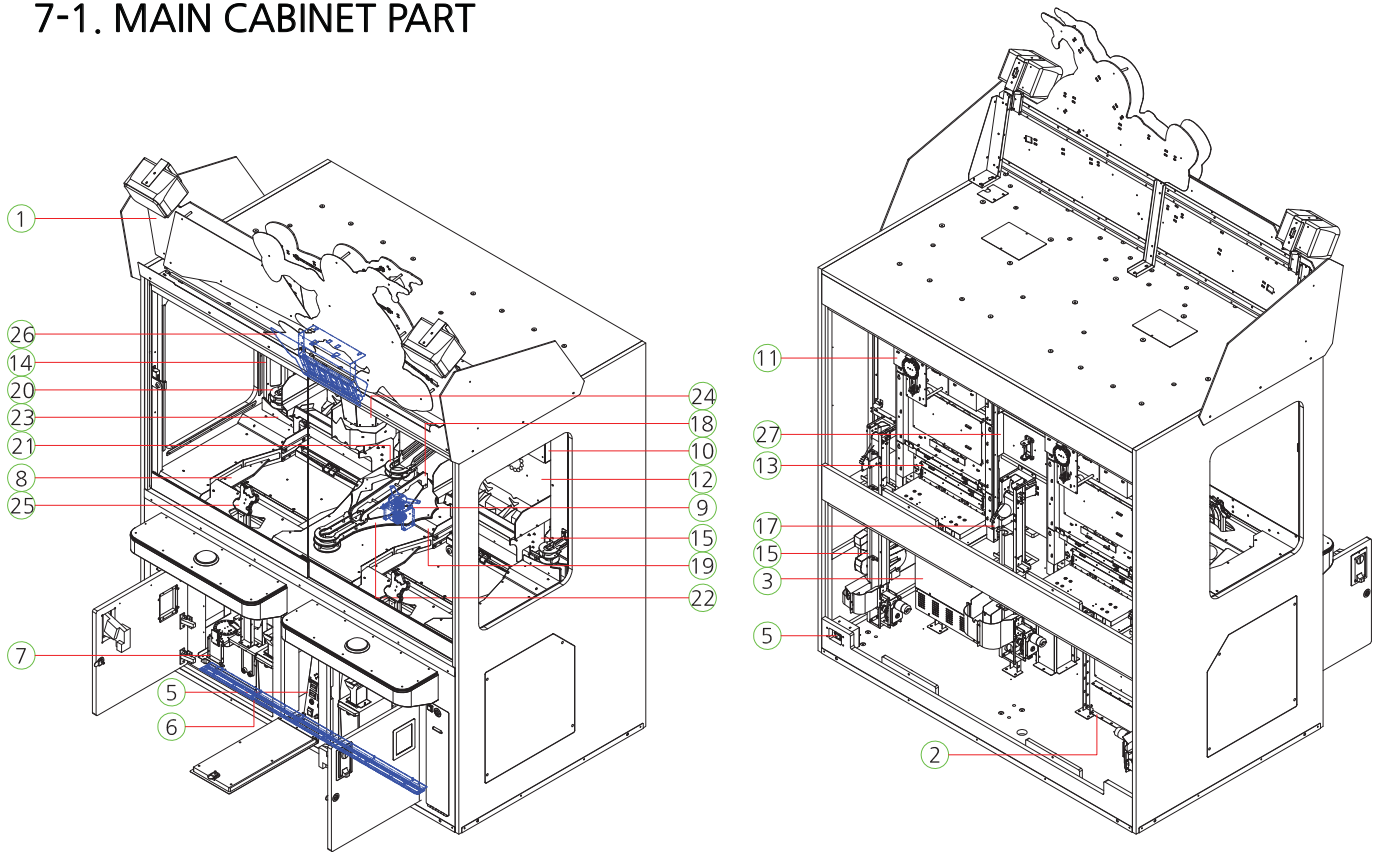
: Dust removal on the main board will be carried out once a month.

### 6-4. Basic product management : Clean it regularly

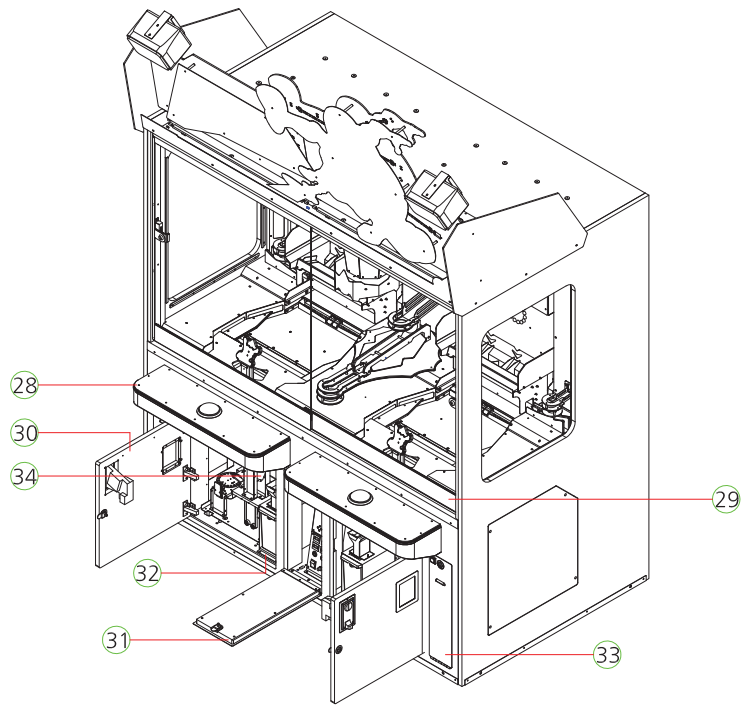
### 6-5. This product should only be used for indoor use

# 7. EXPLODE VIEW

## 7-1. MAIN CABINET PART

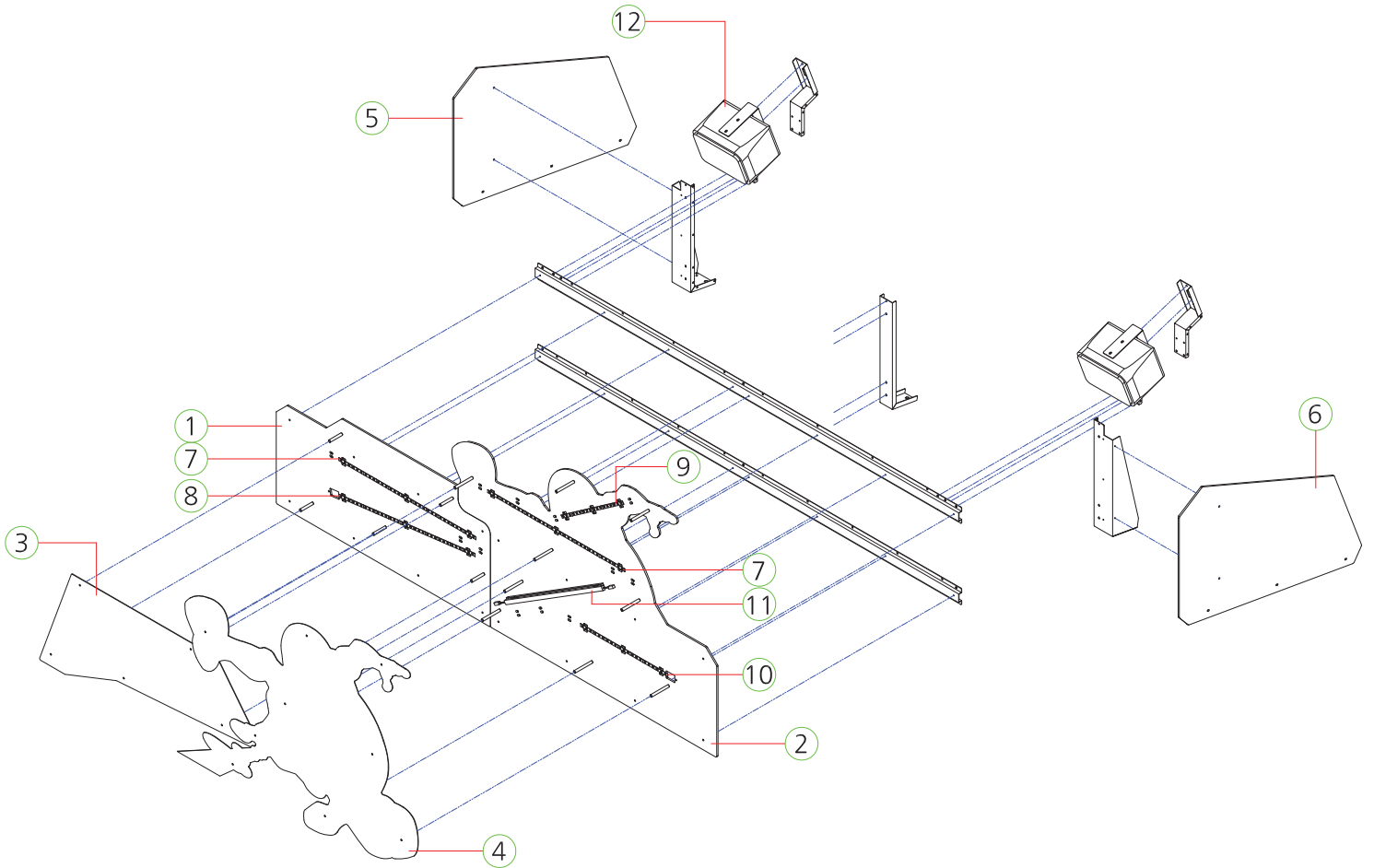


NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	BILLBOARD PART	-	1	-
2	MAIN BOARD PART	-	1	-
3	SMPS PART	-	1	-
4	CONTROL PANEL PART	-	1	-
5	AC INLET PART	-	1	-
6	CABINET BOTTOM FLEX_LED PCB PART	-	1	-
7	ELEVATOR HOPPER ROTATE PART	-	2	-
8	PUSHER PLATE PART	-	2	-
9	BIG BALL DIVIDE DEVICE PART	-	1	-
10	BONUS WHEEL COVER PART	-	2	-
11	BONUS WHEEL DEVICE PART	-	2	-
12	GAME BOARD MAIN UPPER PART	-	2	-
13	GAME BOARD MAIN LOWER PART	-	2	-
14	CABINET SIDE LIGHTING PART	-	2	-
15	CHECKER PART	-	2	-
16	SMALL BALL ELEVATOR PART	-	2	-
17	BIG BALL ELEVATOR PART	-	1	-
18	BIG BALL DIVIDE UPPER RAIL PART	-	1	-
19	BIG BALL DIVIDE LOWER ACRYL PART	-	1	-
20	SMALL BALL OUT CHUTE PART	-	2	-
21	BIG BALL OUT CHUTE PART	-	1	-
22	PUSHER MIDDLE REAR UPPER COVER PART	-	1	-
23	PUSHER SIDE REAR UPPER COVER PART	-	1	-
24	SUPER BONUS PART	-	1	-
25	SHOOTER PART	-	2	-
26	SUPER BONUS FND PART	-	1	-
27	TILT PART	-	1	-



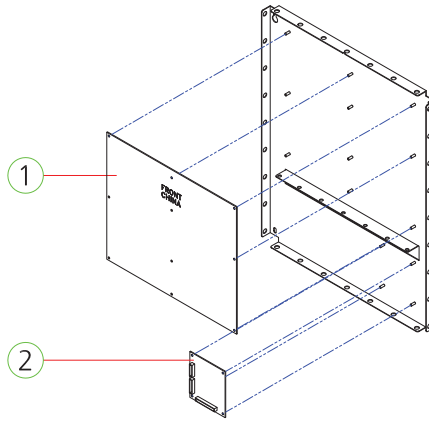
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
28	BUTTON PLATE PART	-	2	-
29	FRONT WINDOW PART	-	2	-
30	FRONT LOWER DOOR PART	-	2	-
31	CONTROL PANEL DOOR PART	-	1	-
32	COIN BOX COVER PART	-	2	-
33	TICKET DOOR PART	-	2	-
34	ELEVATOR HOPPER BODY PART	-	2	-

## 7-2. BILLBOARD PART



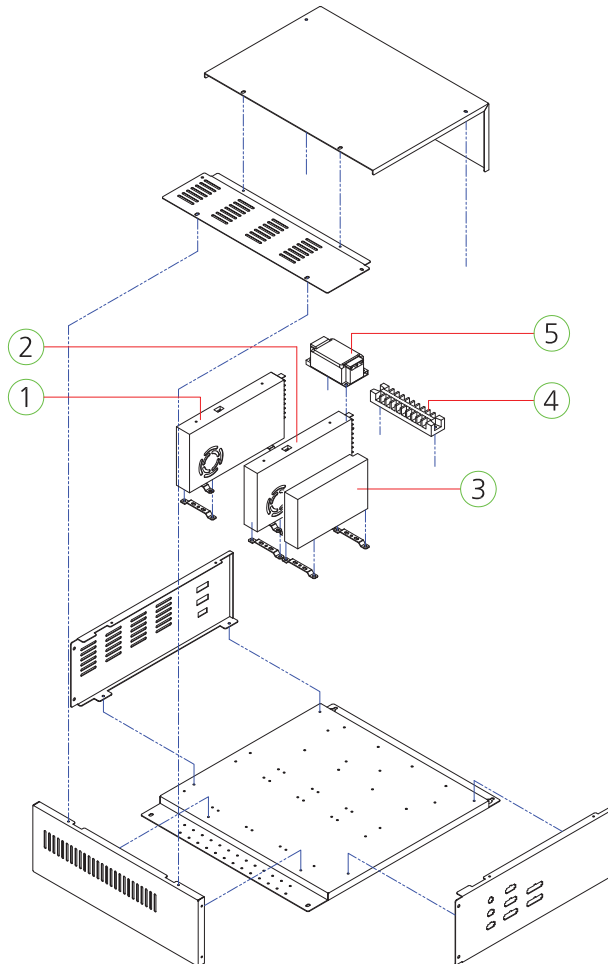
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	BILLBOARD FRONT FOMAX-L	FOMAX-5t	1	MSPM0ACR037
2	BILLBOARD FRONT FOMAX-R	FOMAX-5t	1	MSPM0ACR038
3	BILLBOARD TITLE ACRYL	PET-1.5t	1	MSPM0ACR042
4	BILLBOARD SPIDER MAN ACRYL	PET-1.5t	1	MSPM0ACR041
5	BILLBOARD SIDE FOMAX-L	FOMAX-5t	1	MSPM0ACR039
6	BILLBOARD SIDE FOMAX-R	FOMAX-5t	1	MSPM0ACR040
7	FLEX_5050_WHITE_550_NWP_LR_33	T5050 TOP300_33	2	MELE0LED112
8	FLEX_5050_WHITE_550_NWP_L_33	T5050 TOP300_33	1	MELE0LED113
9	FLEX_5050_WHITE_300_NWP_L_18	T5050 TOP300_18	1	MELE0LED037
10	FLEX_5050_WHITE_350_NWP_LR_21	T5050 TOP300_21	1	MELE0LED028
11	12V_LED BAR PCB ASS'Y	460mm	1	AZZZ0PCB124
12	SPEAKER BOX	S00110D1_4OHM 40W	2	MZZZ0SPE048

### 7-3. MAIN BOARD PART



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	MAIN PCB ASS'Y [WITH CPU & SOUND]	-	1	ASPM0PCB013
2	NUVOTON WS2813B IO V3 PCB ASS'Y	2813 PCB	1	AZZZ0PCB224

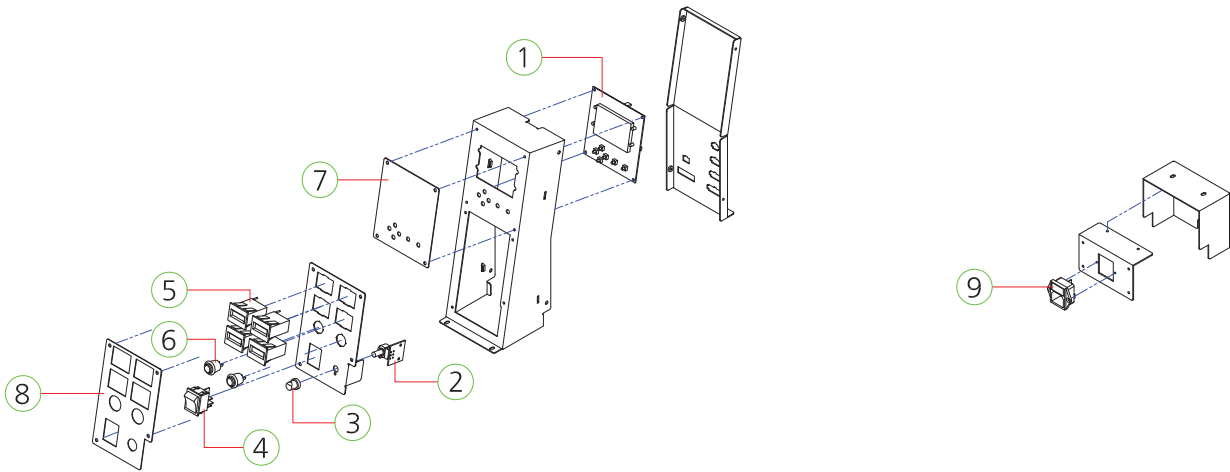
### 7-4. SMPS PART



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	POWER SMPS	LRS 350-5V	1	MELE0SMP154
2	POWER SMPS	LRS 350-12V ( AC 120V, 230V conversion required )	1	MELE0SMP148
3	POWER SMPS	LRS-150F-24	1	MELE0SMP085
4	TERMINAL BLOCK	250V 10P UL_CE	1	MELE0TEB003
5	NOISE FILTER	RNS-2010	1	MELE0NOI009

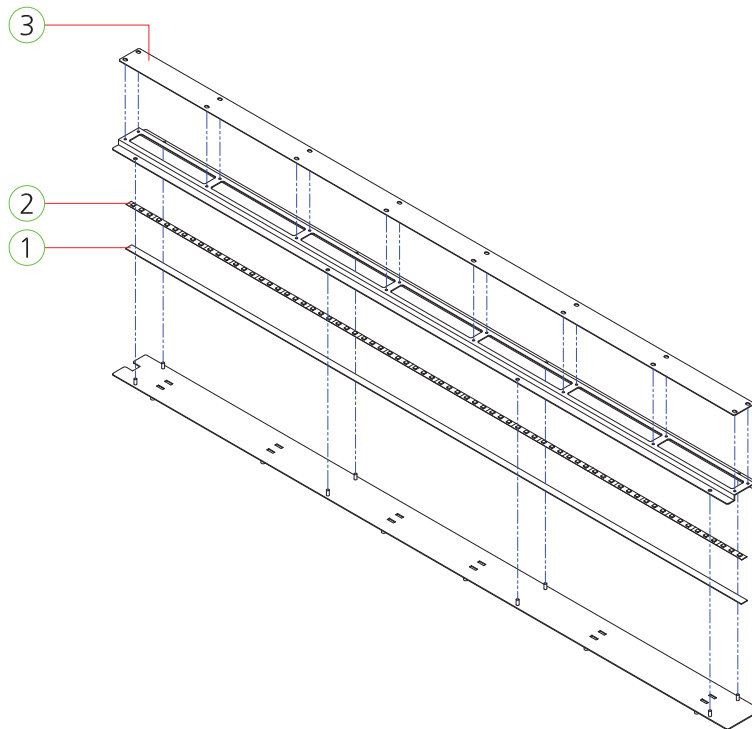
## 7-5. CONTROL PANEL PART

## 7-6. AC INPUT PART



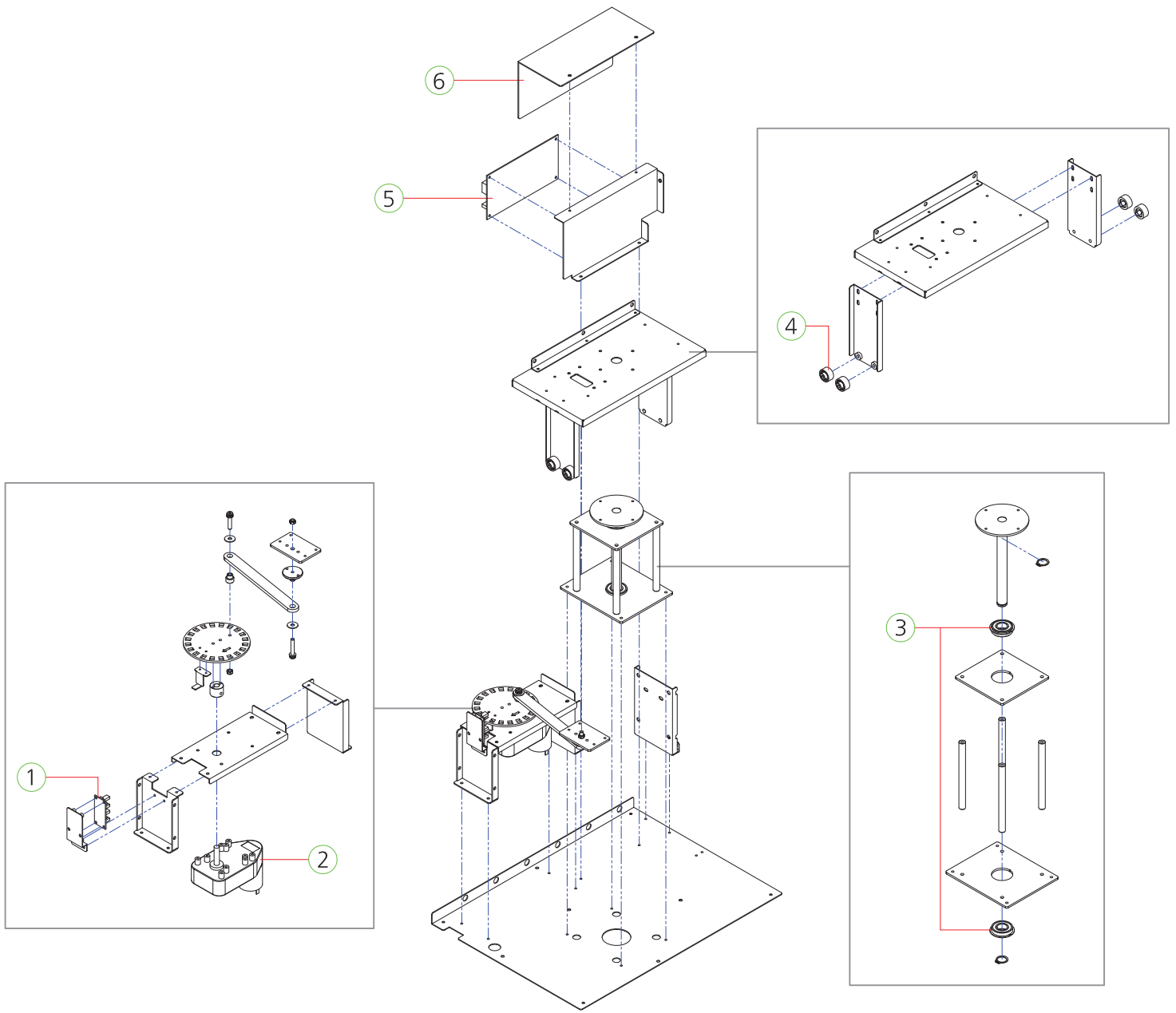
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	SETUP LCD PCB ASS'Y	-	1	AZZZ0PCB113
2	VOLUME PCB ASS'Y	1 VOLUME	1	AHM20PCB016
3	VOLUME KNOB	CAP BLUE	1	MELE0VOL007
4	ROCKER SWITCH	R595KDF	1	MELE0SWI021
5	COUNTER	OA127CL W/2P CONNECTOR_20CM WIRE	4	MZZZ0COU002
6	PUSH BUTTON SWITCH	DS-412R ROHS	2	MELE0PUS006
7	CONTROL PANEL FRONT COVER ACRYL	PET-1.0t_SLIK_BLACK	1	MSPM0ACR056
8	CONTROL PANEL COVER ACRYL	PET-1.0t_SLIK_BLACK	1	MSPM0ACR055
9	AC INPUT ASS'Y	DAC-13H, WITH FUSE 10A_2EA	1	AELE0FUS002

## 7-7. CABINET BOTTOM FLEX\_LED PCB PART



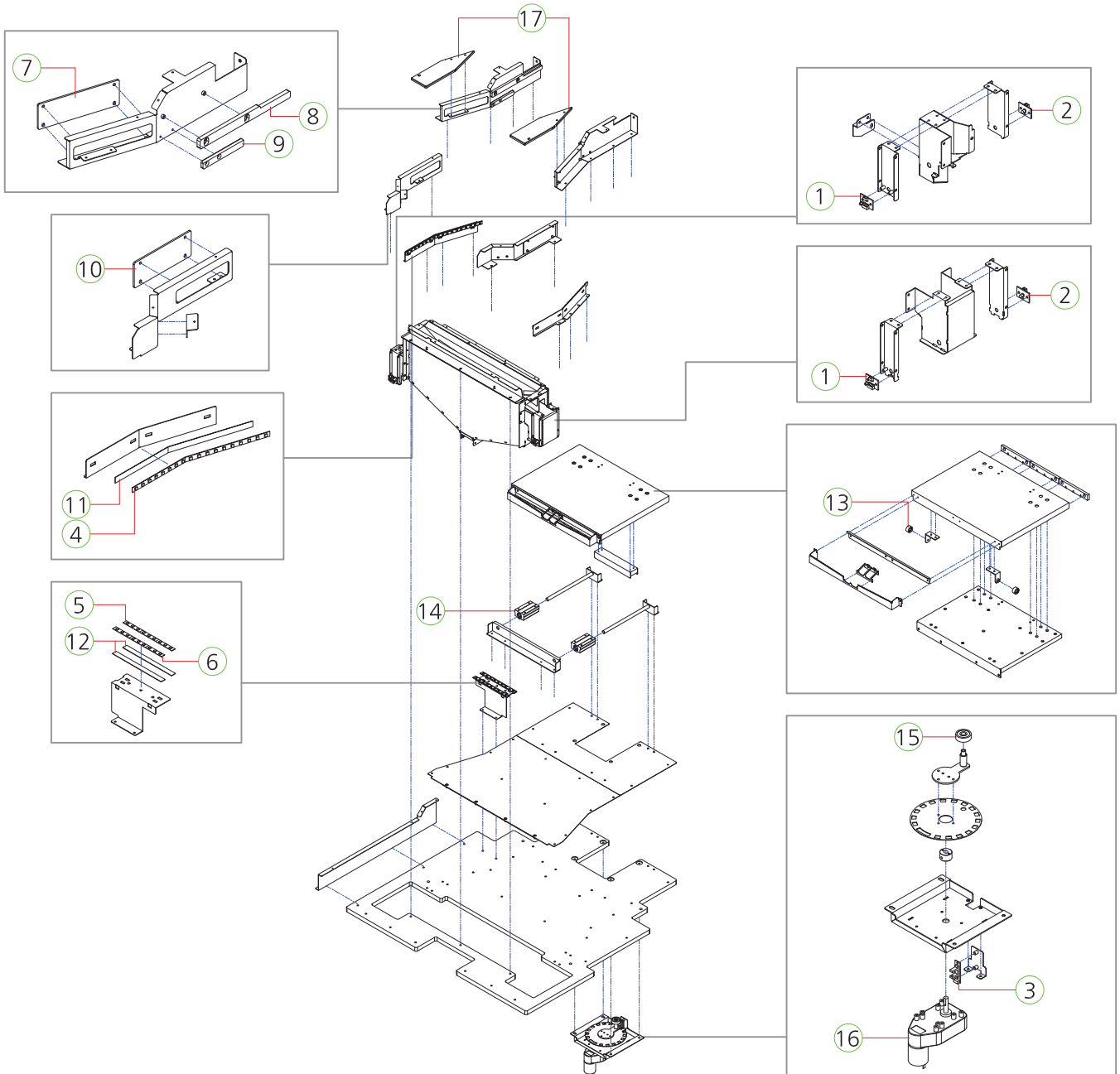
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	CABINET BOTTOM LED FIX ACRYL	PET-1.0t_CLEAR	1	MSPM0ACR012
2	FLEX_3528_RED_1200_NWP_L_72	T3528 TOP300_72	1	MELE0LED111
3	CABINET BOTTOM LED COVER ACRYL	PET-1.0t_CLEAR	1	MSPM0ACR011

# 7-8. ELEVATOR HOPPER ROTATE PART



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	PHOTO INT-2 PCB ASS'Y	-	1	AWIW0PCB009
2	MOTOR_BLDC	KGV2-0500-NB3640S1	1	MZZZ0MOT160
3	BEARING	6002ZZNR	2	MZZZ0BEA116
4	PUSHER BEARING	-	4	MSBP0PRO002
5	STM BLDC IO PCB ASS'Y	SHOOTER BLDC MT IO	1	ASPM0PCB001
6	E.H ROTATE PCB COVER ACRYL	PC-1.0t_CLEAR	1	MSPM0ACR027

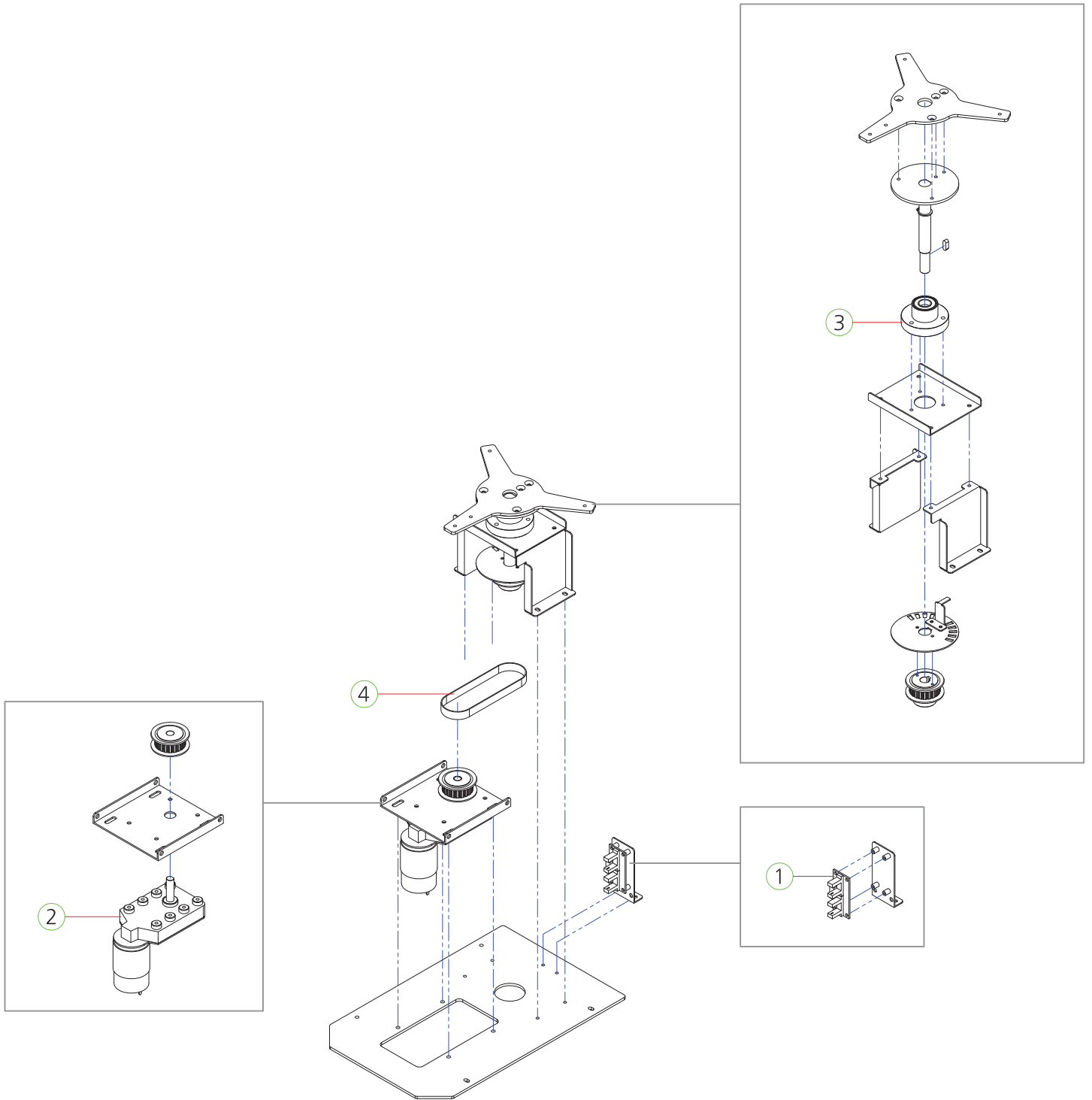
## 7-9. PUSHER PLATE PART



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	SENSOR_R PCB ASS'Y	-	2	MEIFOPAR014
2	SENSOR_T PCB ASS'Y	KEL5008A / 560Ω	2	AAV20PCB011
3	PHOTO INT-1 PCB ASS'Y	ANGLE TYPE	1	AZZZ0PCB103
4	FLEX_WS2813B_300_NWP_LR_18	WS2813 V5 TOP300, 18	2	MELE0LED120
5	FLEX_WS2813B_150_NWP_LR_9	WS2813 V5 TOP300, 9	1	MELE0LED118
6	FLEX_WS2813B_150_NWP_L_9	WS2813 V5 TOP300, 9	1	MELE0LED119
7	PUSHER REAR SIDE LED PCB COVER ACRYL	ACRYL-3.0t_POINT CLEAR	2	MSPM0ACR029
8	PUSHER SIDE FENCE BLOCK ACRYL	ACRYL-5.0t_CLEAR	2	MSPM0ACR030
9	UPPER PUSHER SIDE GUIDE ACRYL	ACRYL-8.0t_CLEAR	2	MSPM0ACR033
10	PUSHER FRONT SIDE LED PCB COVER ACRYL	ACRYL-3.0t_POINT CLEAR	2	MSPM0ACR028
11	PUSHER SIDE LED PCB FIX ACRYL	PET-1.0t_CLEAR	2	MSPM0ACR031
12	PUSHER SMALL BALL OUT LED PCB FIX ACRYL	PET-1.0t_CLEAR	2	MSPM0ACR032
13	PUSHER BEARING	-	2	MSBP0PRO002
14	LM BEARING	SL 10UU	2	MZZZ0BEA125
15	BEARING	638ZZ(D28d8t9)	1	MZZZ0BEA064
16	MOTOR_BLDC	KGV2-0350-NB3640S1	1	MZZZ0MOT152
17	PUSHER BALL OUT SIDE GUIDE ACRYL L, R	ACRYL-8.0t	2	MSPM0ACR071

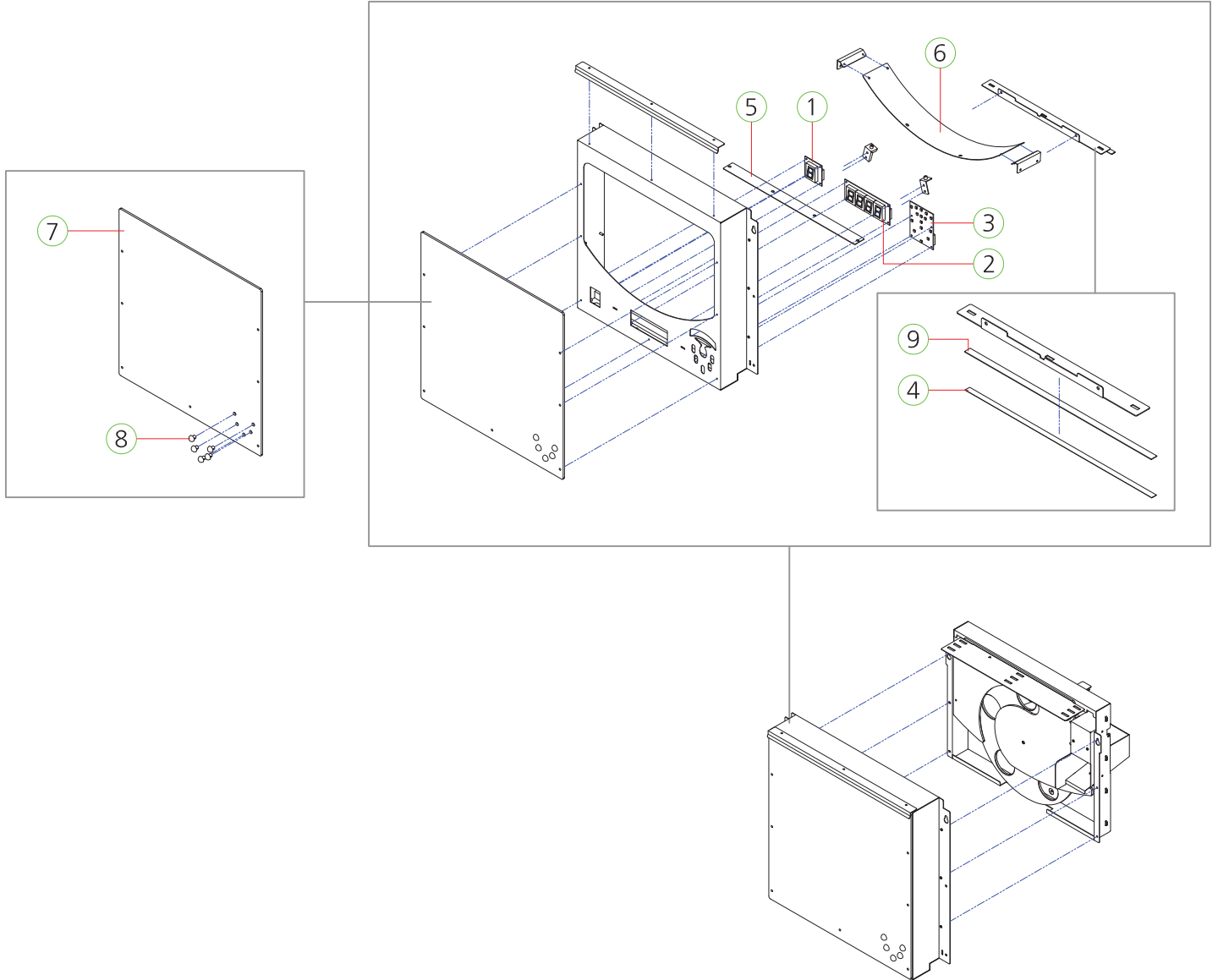


# 7-10. BIG BALL DEVICE ROTATE PART



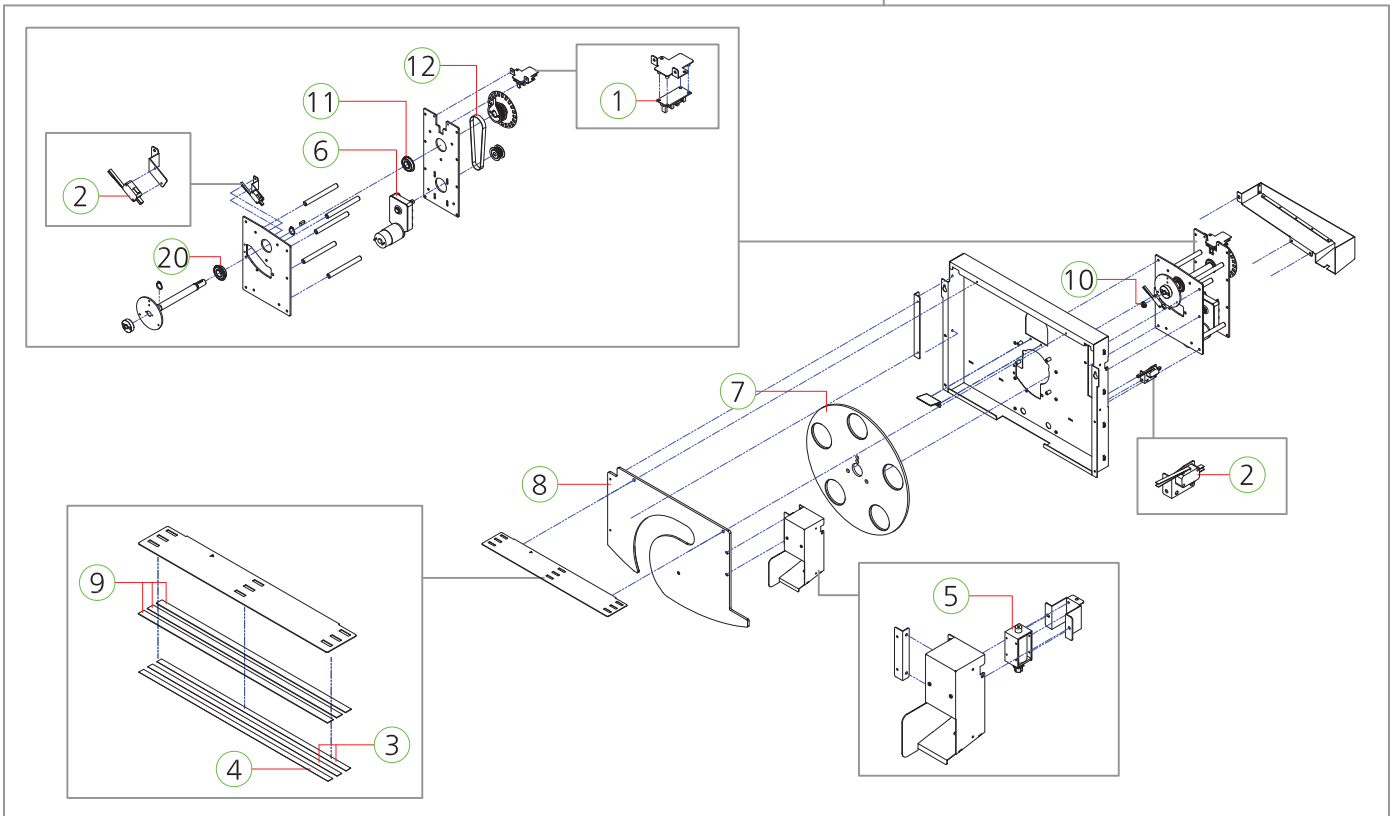
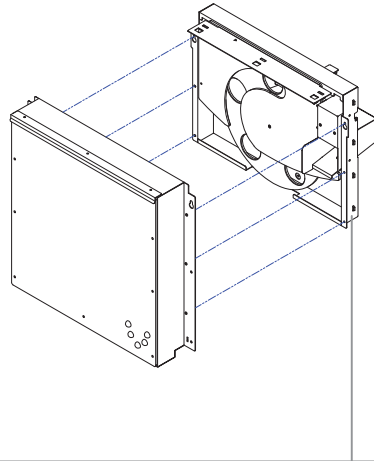
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	PHOTO INT-2 PCB ASS'Y	-	1	AWIW0PCB009
2	MOTOR	KGE-0615-3657-NB1 DC12V 6000RPM	1	MZZZ0MOT100
3	BIG BALL DIVIDE BEARING HOUSING ASS'Y	-	1	ASPM0ASS003
4	TIMMING BELT	100XL-037	1	MZZZ0BEL036

# 7-11. BONUS WHEEL PART-01



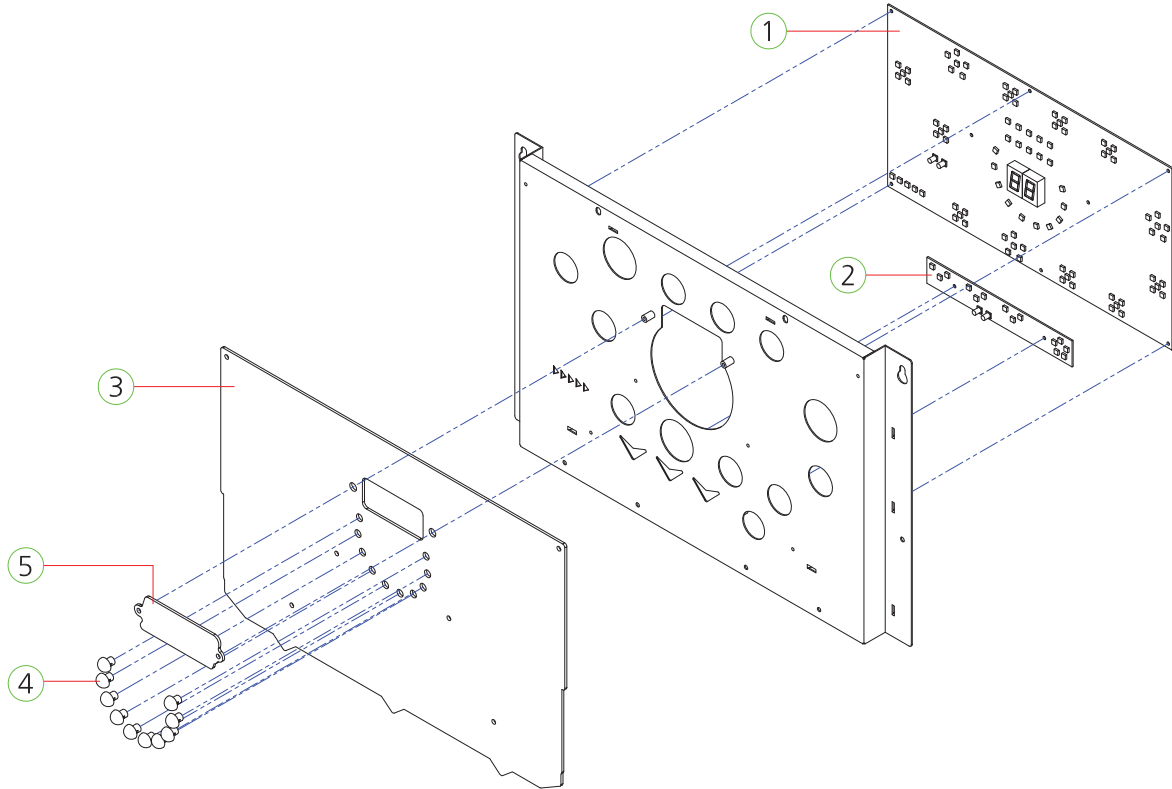
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	FND PCB ASS'Y	2941-1(STRAIGHT)	1	AFND0PCB036
2	FND PCB ASS'Y	2941-4(STRAIGHT)	1	AFND0PCB004
3	SPIDER SENSE LED PCB ASS'Y	SPIDER SENSE LED PCB	1	ASPM0PCB012
4	FLEX_5050_WHITE_400_NWP_L_24	T5050 TOP300, 24	1	MELE0LED114
5	BONUS WHEEL BOTTOM ACRYL	PET-1.0t_CLEAR	1	MSPM0ACR004
6	BONUS WHEEL BALL GUIDE ACRYL	PET-1.0t_CLEAR	1	MSPM0ACR044
7	BONUS WHEEL FRONT ACRYL-1P	ACRYL-4.5t_SHEET	1	MSPM0ACR045
8	LED CAP	10MM_CLEAR	5	MWOL0PLA002
9	BONUS WHEEL FLEXIBLE LED FIX ACRYL	PET-1.0t_CLEAR	1	MSPM0ACR005

## 7-12. BONUS WHEEL PART-02



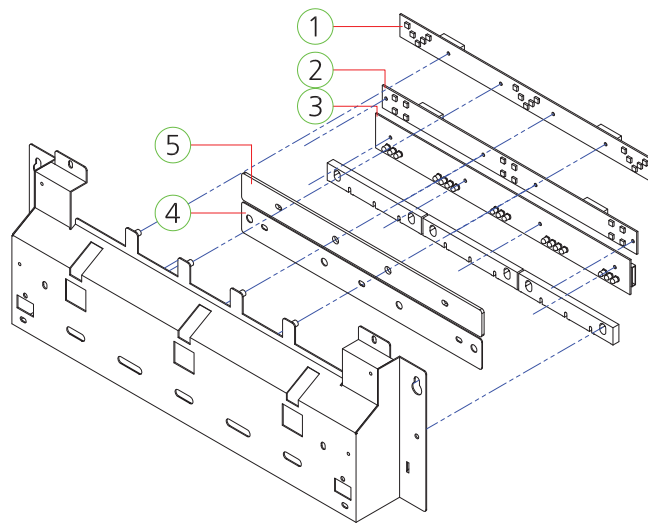
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	PHOTO INT-2 PCB ASS'Y	-	1	AWIW0PCB009
2	MICRO SWITCH	GSM-V1631A1	2	MELE0MIC032
3	FLEX_WS2813B_400_NWP_LR_24	WS2813 V5 TOP300, 24	2	MELE0LED116
4	FLEX_WS2813B_400_NWP_L_24	WS2813 V5 TOP300, 24	1	MELE0LED115
5	SOLENOID	DS12ES12V	1	MELE0SOL012
6	MOTOR	KGE 3657-240-U1 (F-TYPE,20RPM)	1	MZZ0MOT130
7	BONUS WHEEL ACRYL	PC-5t_SHEET	1	MSPM0ACR043
8	BONUS WHEEL MIDDLE COVER ACRYL	PC-5t_SHEET	1	MSPM0ACR047
9	BONUS WHEEL FLEXIBLE LED FIX ACRYL	PET-1.0t_CLEAR	3	MSPM0ACR005
10	BEARING	MF126ZZ	1	MZZ0BEA126
11	BEARING	600ZZNR	1	MZZ0BEA116
12	TIMMING BELT	126XL-037	1	MZZ0BEL007

## 7-13. GAME BOARD MAIN UPPER PART



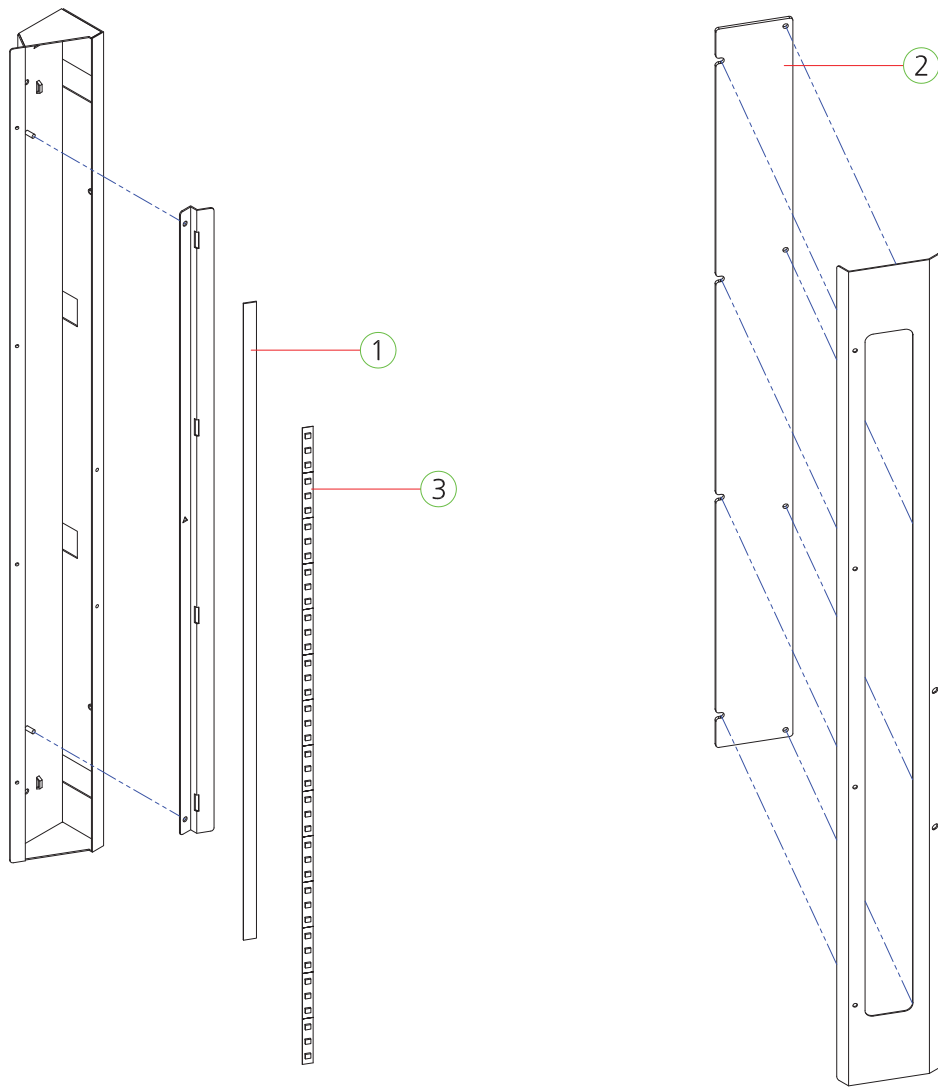
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	GAME BOARD MAIN UPPER	GAME BOARD LED PCB	1	ASPM0PCB017
2	GAME BOARD SUCCESS LED PCB ASS'Y	SUCCESS LED PCB	1	ASPM0PCB016
3	GAME BOARD FRONT COVER ACRYL_1P	ACRYL-2.7t_SHEET	1	MSPM0ACR060
4	LED CAP	10MM_CLEAR	10	MWOL0PLA002
5	RAPID AUTO SHOT ACRYL	ACRYL-2.7t_SHEET	1	MSPM0ACR070

## 7-14. GAME BOARD MAIN LOWER PART



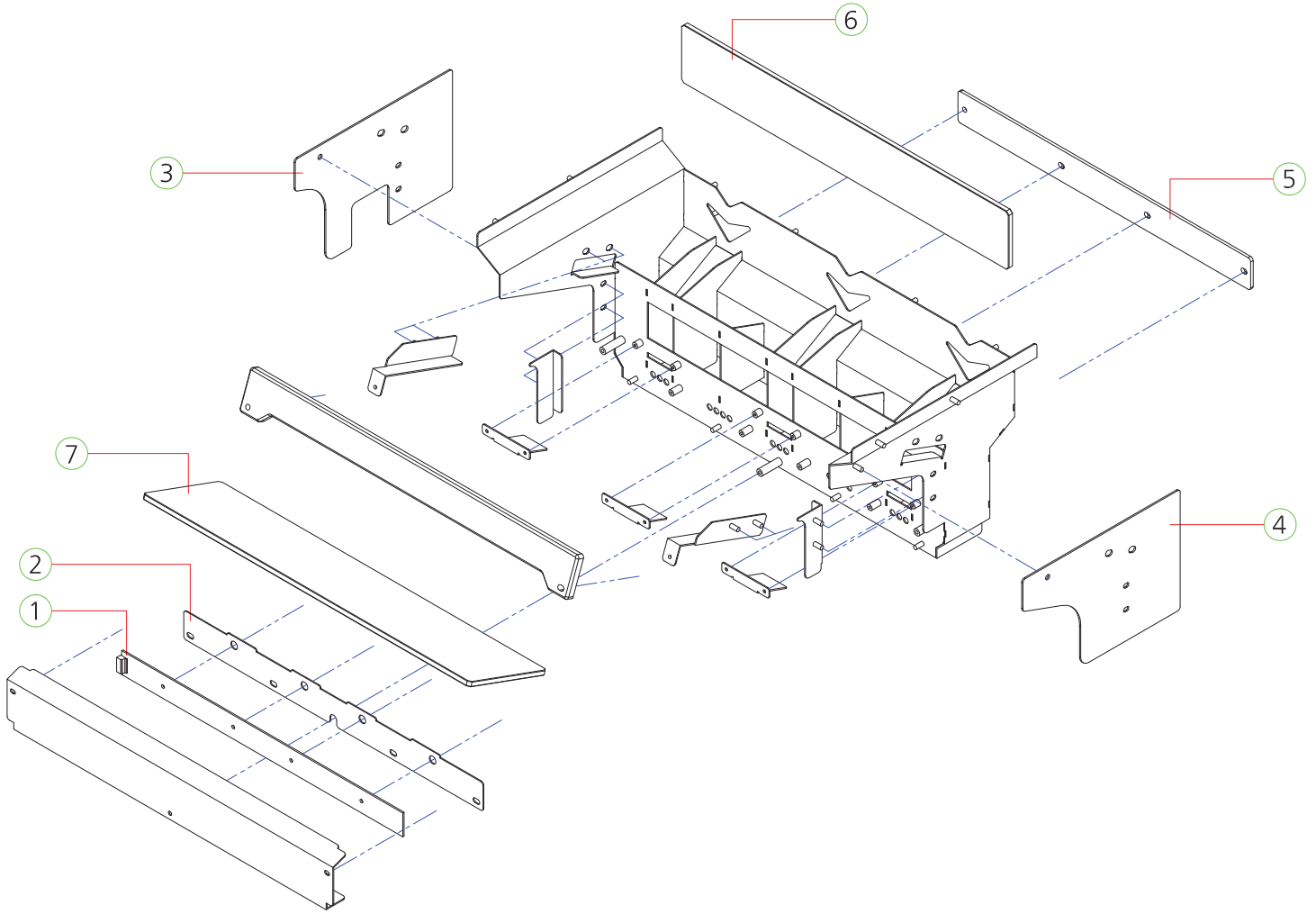
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	CHECKER REAR UPPER LED PCB ASS'Y	REAR UPPER LED PCB	1	ASPM0PCB015
2	CHECKER REAR LED PCB ASS'Y	CHECKER LED PCB	1	ASPM0PCB004
3	CHECKER SENSOR RX PCB ASS'Y	CHECKER SEN_RECEIVER	1	ASPM0PCB002
4	CHECKER REAR UPPER COVER ACRYL	ACRYL-3.0t_POINT CLEAR	1	MSPM0ACR023
5	CHECKER REAR LOWER COVER ACRYL	PET-1.0t_CLEAR	1	MSPM0ACR022

# 7-15. GAME BOARD MAIN UPPER PART



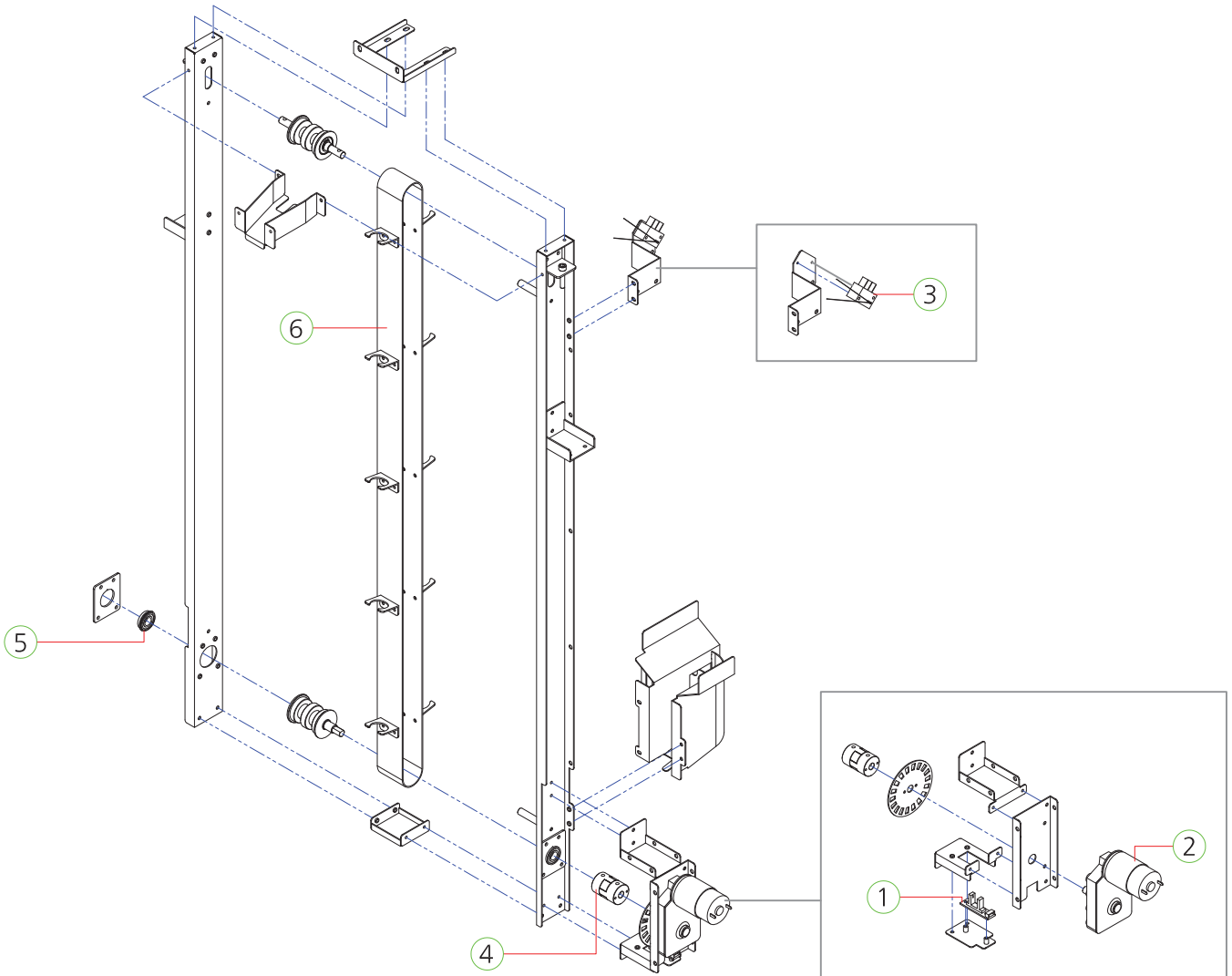
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	CABINET SIDE LIGHTING LED PCB FIX ACRYL	PET-1.0t_CLEAR	1	MSPM0ACR014
2	CABINET SIDE LIGHTING ACRYL	ACRYL-3.0t_POINT CLEAR	1	MSPM0ACR013
3	FLEX_WS2813B_700_NWP_LR_42	WS2813 V5 TOP300, 42	1	MELE0LED117

# 7-16. CHECKER PART



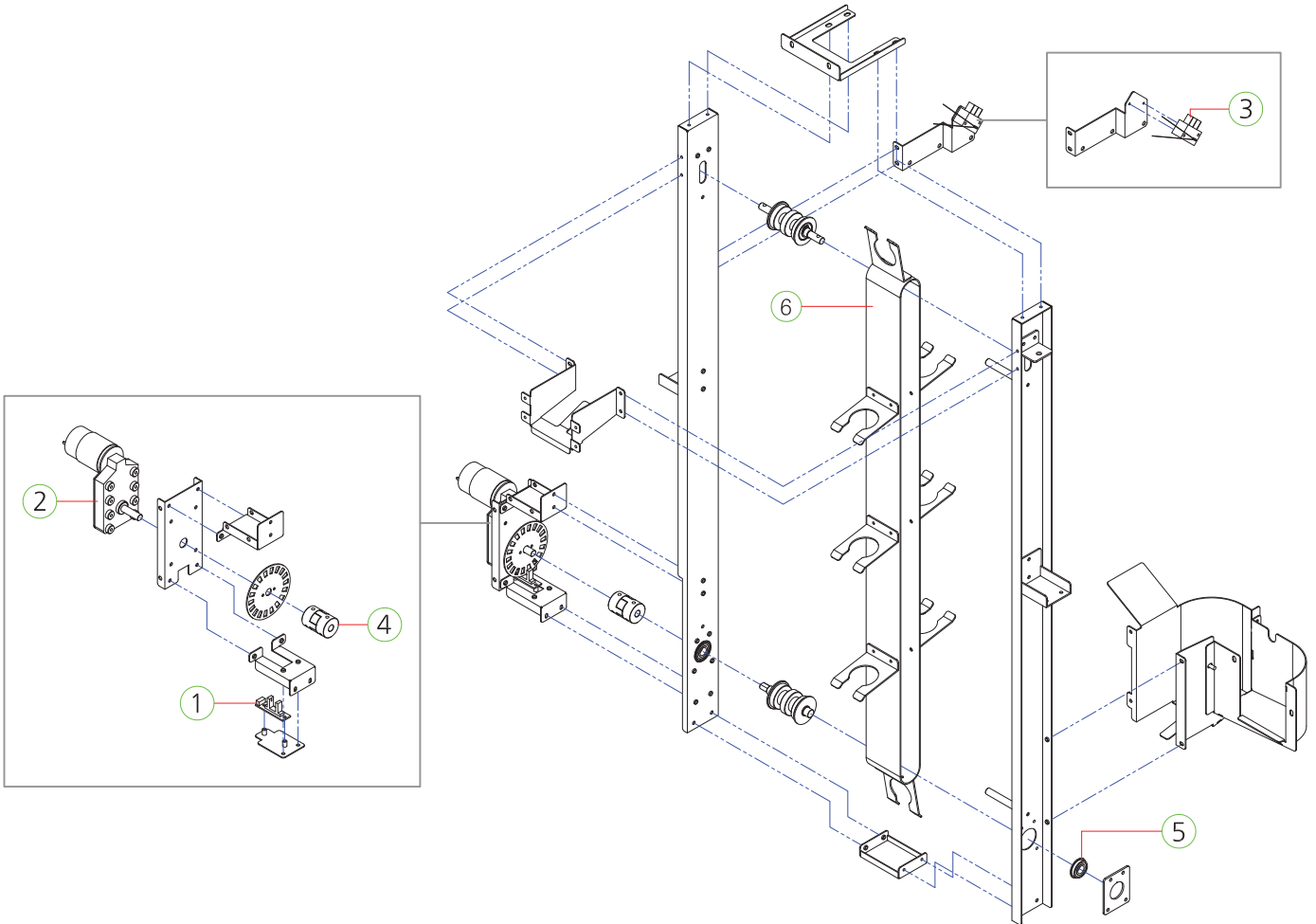
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	CHECKER SENSOR TX PCB ASS'Y	CHECKER SEN_EMITTING	1	ASPM0PCB003
2	CHECKER FRONT LOWER COVER ACRYL	PET-1.0t_CLEAR	1	MSPM0ACR021
3	CHECKER SIDE LOWER COVER ACRYL_L	PET-1.5t_CLEAR	1	MSPM0ACR024
4	CHECKER SIDE LOWER COVER ACRYL_R	PET-1.5t_CLEAR	1	MSPM0ACR025
5	CHECKER UPPER LED COVER ACRYL	ACRYL-3.0t_POINT CLEAR	1	MSPM0ACR067
6	CHECKER FRONT COVER GLASS	TEMPERED-5.0t_396x61	1	MSPM0GLA004
7	CHECKER COIN FENCE GLASS	TEMPERED-5.0t_396x100	1	MSPM0GLA003

# 7-17. SMALL BALL ELEVATOR PART



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	PHOTO INT-1 PCB ASS'Y	ANGLE TYPE	1	AZZ0PCB103
2	MOTOR	KGE-0116-ND3657 U1	1	MZZ0MOT155
3	MICRO SWITCH	CNR-05H-03 ZIPPY-FOR COIN	1	MELE0MIC002
4	COUPLING CR050 ASS'Y	-	1	AZZ0COP003
5	BEARING	6900ZZNR	2	MZZ0BEA129
6	SMALL BALL CONVEYOR BELT	-	1	MSPM0BEL002

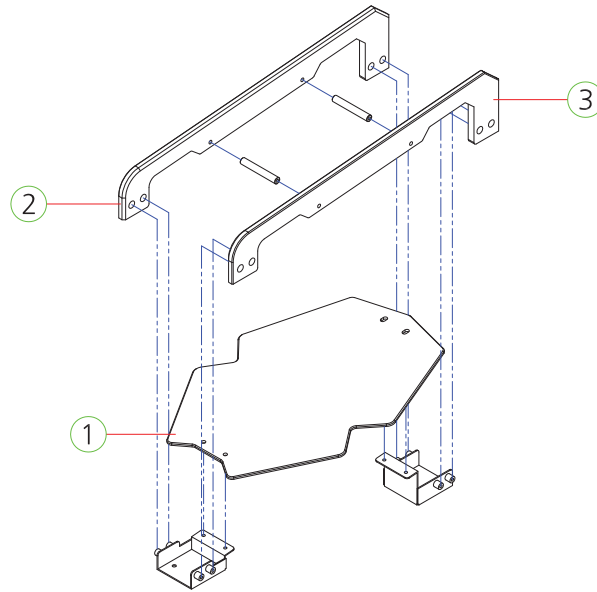
# 7-18. BIG BALL ELEVATOR PART



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	PHOTO INT-1 PCB ASS'Y	ANGLE TYPE	1	AZZZ0PCB103
2	MOTOR	KGE-0116-ND3657 U1	1	MZZZ0MOT155
3	MICRO SWITCH	CNR-05H-03 ZIPPY-FOR COIN	1	MELE0MIC002
4	COUPLING CR050 ASS'Y	-	1	AZZZ0COP003
5	BEARING	6900ZZNR	2	MZZZ0BEA129
6	BIG BALL CONVEYOR BELT	-	1	MSPM0BEL001

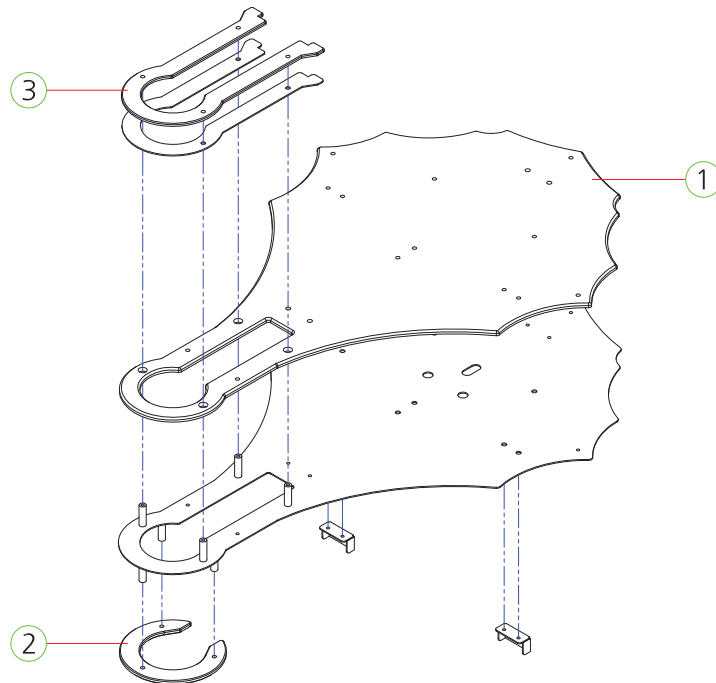


## 7-19. BIG BALL DIVIDE PART



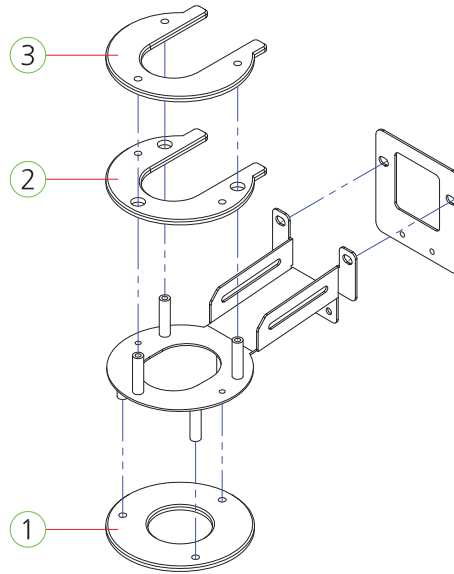
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	BIG BALL DIVIDE SPIDER ACRYL	ACRYL-2.7t_SHEET	1	MSPM0ACR036
2	BIG BALL DIVIDE UPPER RAIL ACRYL-L	ACRYL-8.0t_CLEAR	1	MSPM0ACR003
3	BIG BALL DIVIDE UPPER RAIL ACRYL-R	ACRYL-8.0t_CLEAR	1	MSPM0ACR003

## 7-20. BIG BALL DIVIDE LOWER ACRYL PART



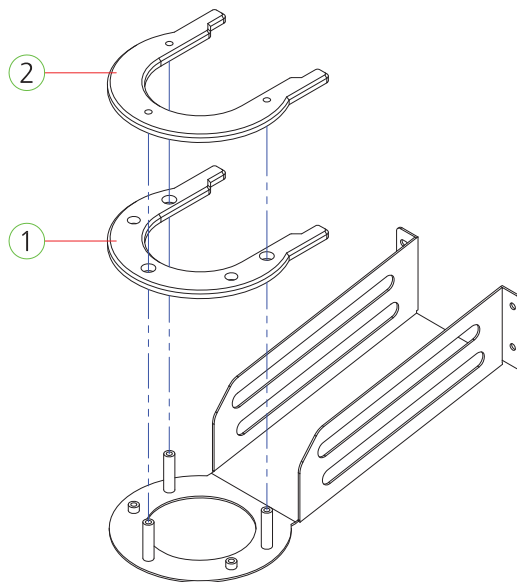
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	BIG BALL DIVIDE LOWER ACRYL	ACRYL-4.5t_SHEET	1	MSPM0ACR035
2	BIG BALL DIVIDE FRONT BOTTOM ACRYL	ACRYL-4.5t_GREEN CLEAR	1	MSPM0ACR001
3	BIG BALL DIVIDE FRONT RAIL ACRYL	ACRYL-3.0t_GREEN CLEAR	1	MSPM0ACR002

## 7-21. SMALL BALL OUT CHUTE PART



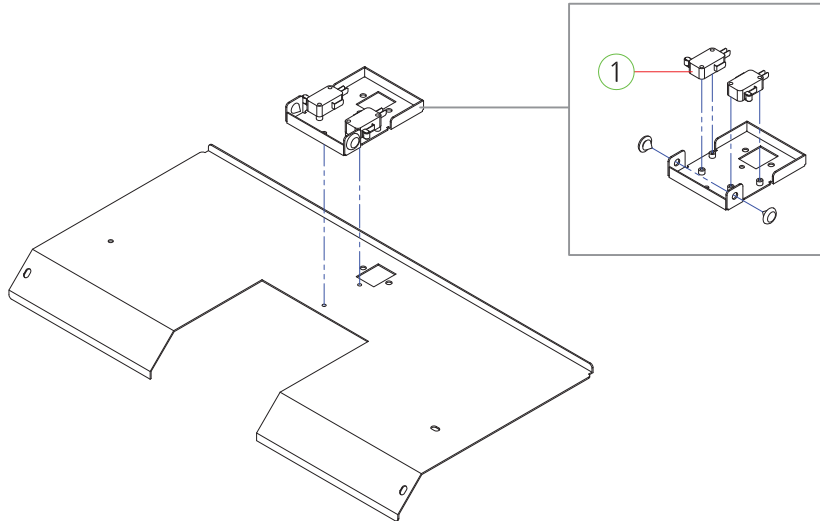
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	CABINET SMALL BALL OUT DISPLAY LOWER ACRYL	ACRYL-3.0t_GREEN CLEAR	1	MSPM0ACR015
2	CABINET SMALL BALL OUT DISPLAY MIDDLE ACRYL	ACRYL-3.0t_GREEN CLEAR	1	MSPM0ACR016
3	CABINET SMALL BALL OUT DISPLAY UPPER ACRYL	ACRYL-3.0t_GREEN CLEAR	1	MSPM0ACR017

## 7-22. BIG BALL OUT CHUTE PART



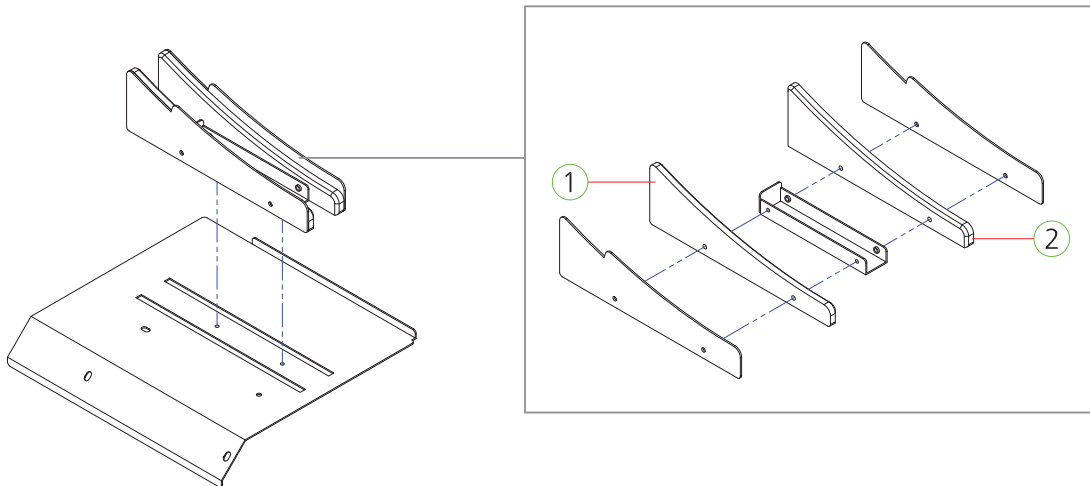
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	CABINET BIG BALL OUT CHUTE LOWER ACRYL	ACRYL-4.5t_GREEN CLEAR	1	MSPM0ACR009
2	CABINET BIG BALL OUT CHUTE UPPER ACRYL	ACRYL-4.5t_GREEN CLEAR	1	MSPM0ACR010

## 7-23. PUSHER MIDDLE REAR UPPER COVER PART



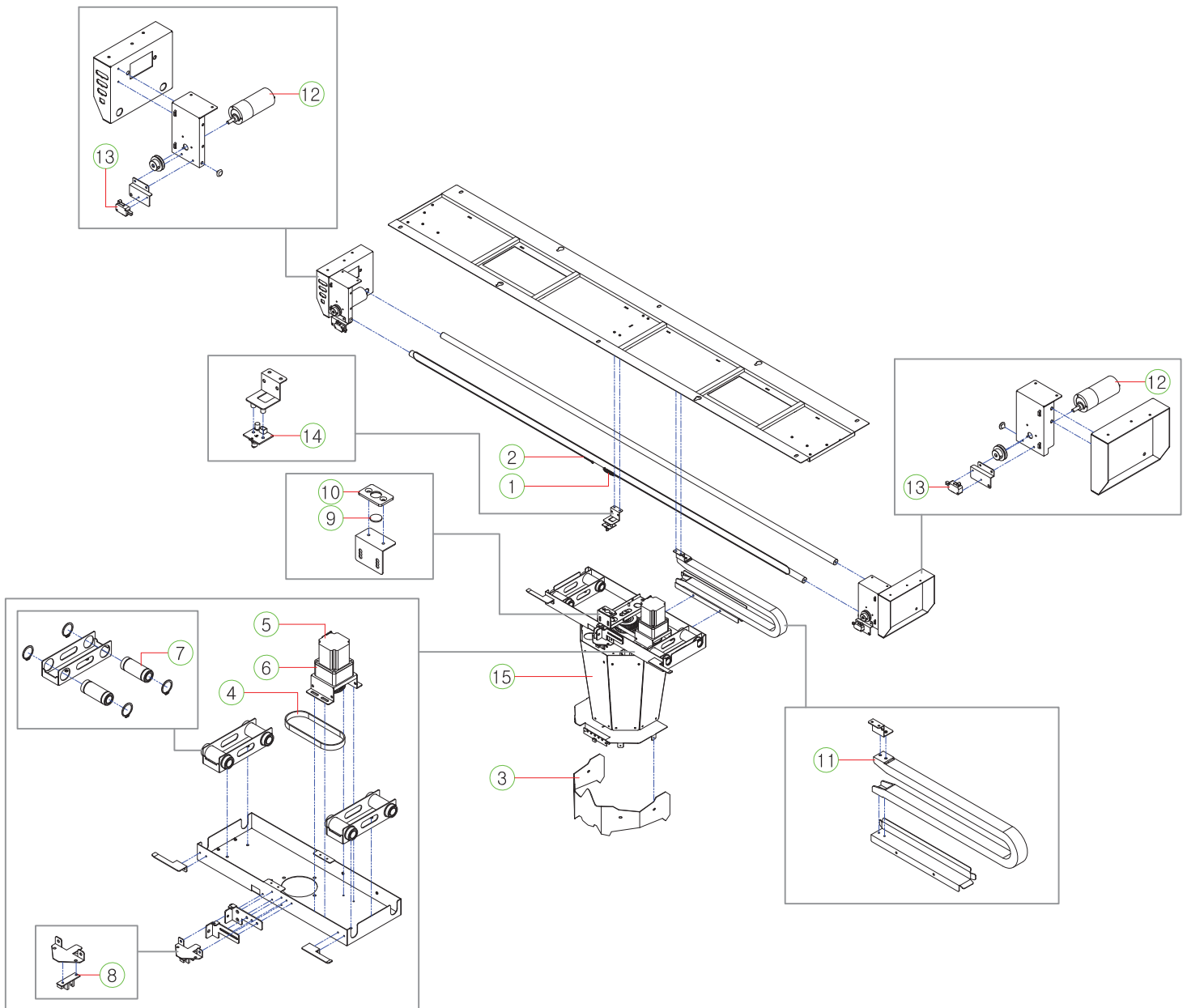
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	MICRO SWITCH	GSMV1651A2 (SHORT ROLLER)	2	MELE0MIC021

## 7-24. PUSHER SIDE REAR UPPER COVER PART



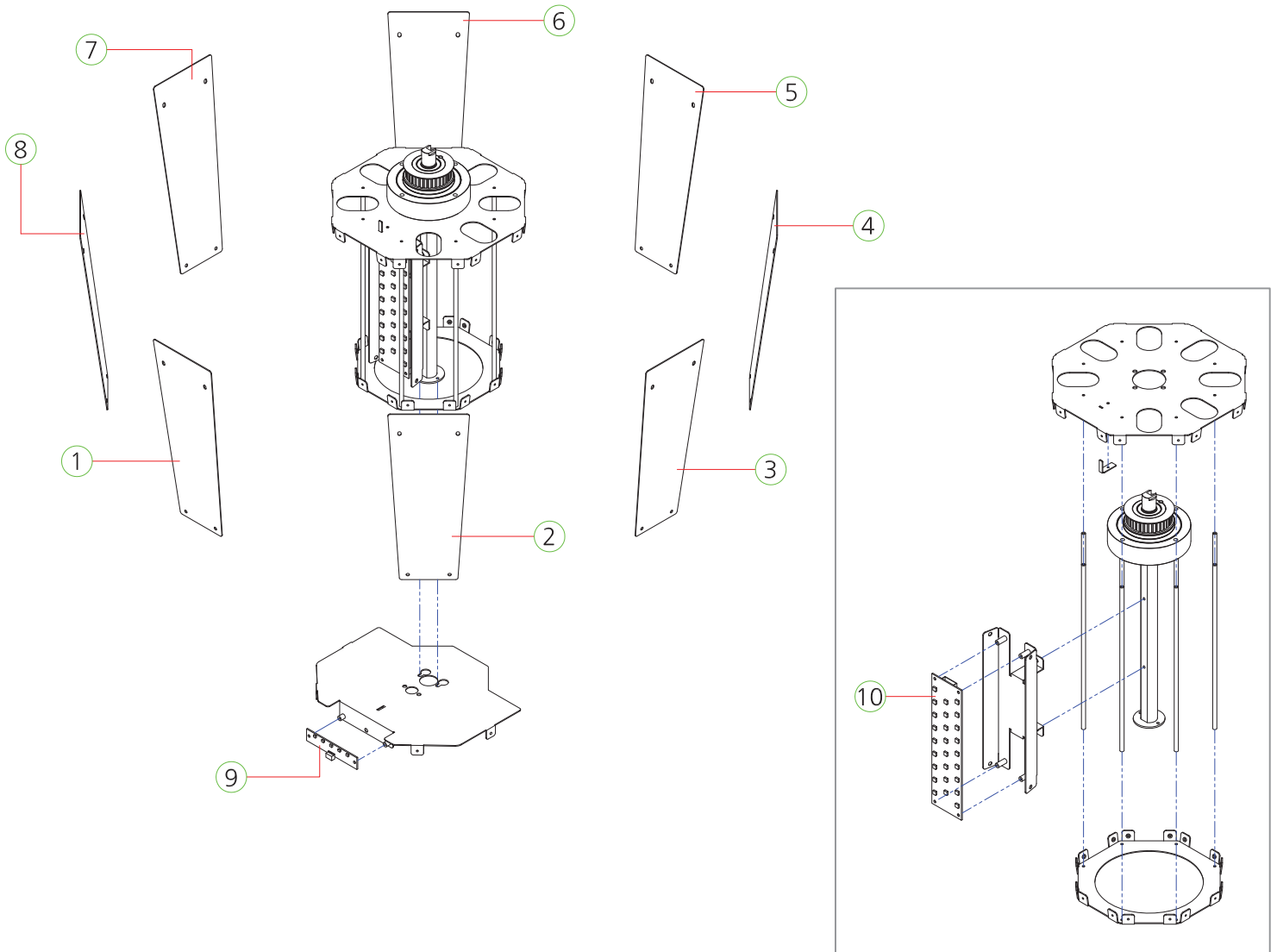
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	CABINET SMALL BALL OUT REAR GUIDE ACRYL	ACRYL-8.0t_CLEAR	1	MSPM0ACR019
2	CABINET SMALL BALL OUT REAR GUIDE ACRYL_mir	ACRYL-8.0t_CLEAR	1	MSPM0ACR019

# 7-25. BIG BALL ELEVATOR PART



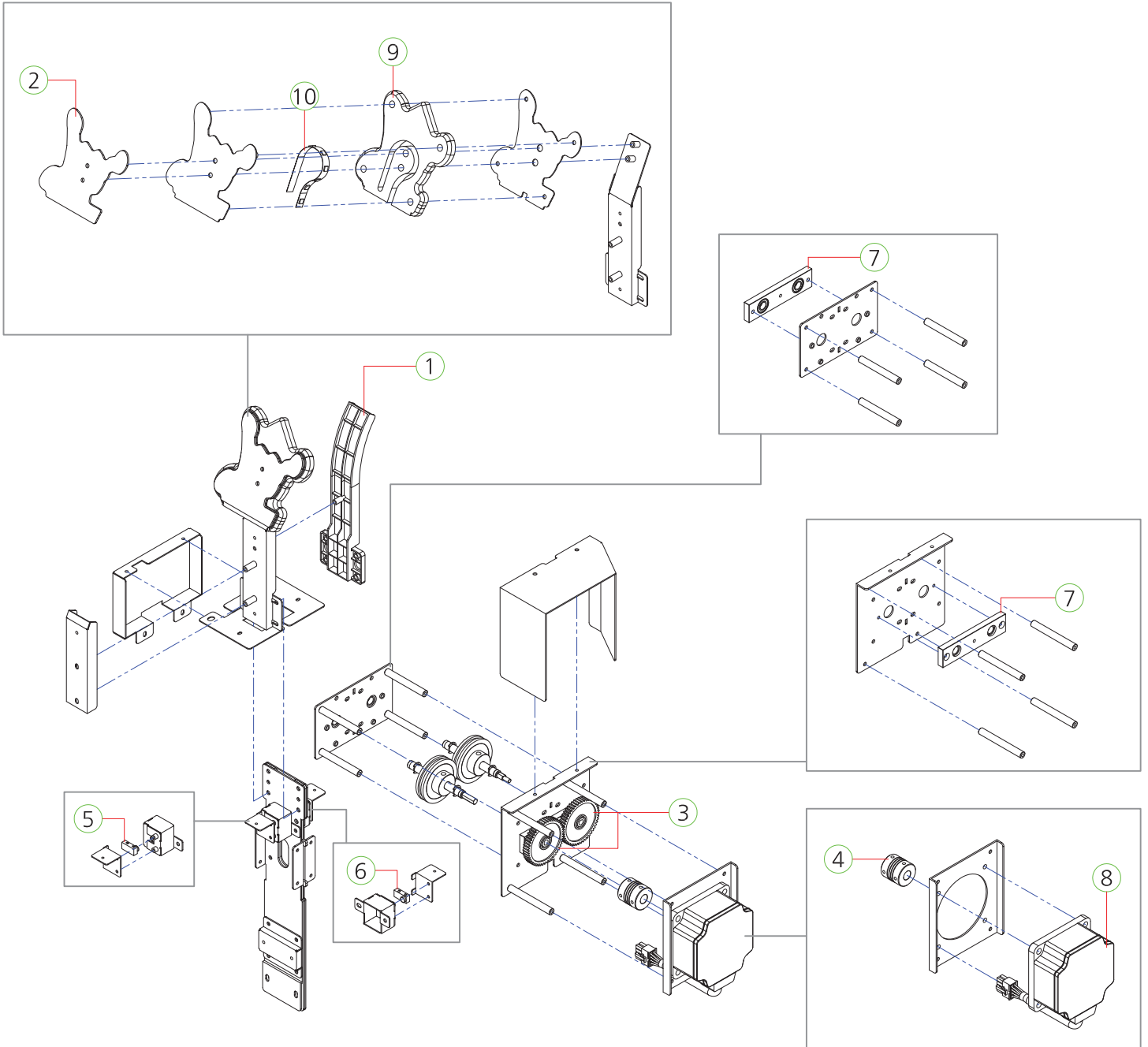
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	X WIRE TENSION SPRING	SUS-Φ1.3	1	MAV20SPR005
2	SUPER BONUS WIRE	SUS WIRE	1	MSPM0PRO037
3	SUPER BONUS WHEEL LOWER DISPLAY ACRYL	PET-1.5t_SHEET	1	MSPM0ACR065
4	TIMMING BELT	140XL-050	1	MZZZ0BEL052
5	STEPPING MOTOR NO WIRE	4S56Q-P02554SG	1	MZZZ0MOT166
6	GEAR HEAD	K6G3C	1	MWIC0PAR028
7	LM BEARING BUSH	16LUU	4	MZZZ0BEA139
8	PHOTO INT-1 PCB ASS'Y	STRIGHT	1	ACIR0PCB011
9	MAGNETIC BLOCK	Φ15 X T1.5	1	MNFL0ZZZ003
10	SUPER BONUS POSITION SENSING ACRYL	ACRYL-2.7t_CLEAR	1	MSPM0ACR034
11	CABLE CHAIN	KJP0180-1B-R18-40LINK	1	MZZZ0CBC008
12	MOTOR	KGC-0070-3657-U1	2	MZZZ0MOT127
13	MICRO SWITCH	GSMV1651A2	2	MELE0MIC021
14	MEDAL CIRCULATION CHECK-B PCB ASS'Y	-	1	ADCC0PCB007
15	SUPER BONUS WHEEL PART			

# 7-26. BIG BALL ELEVATOR PART



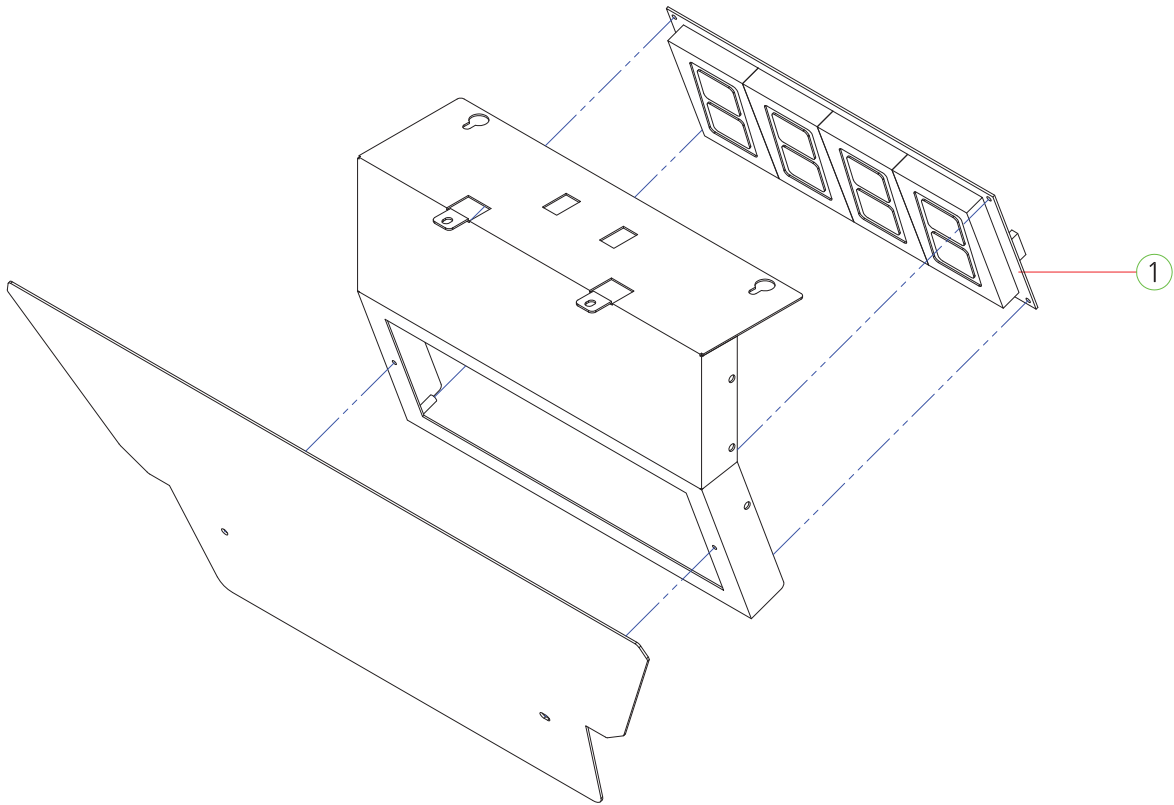
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	SUPER BONUS SCORE SHEET_SP	PET-1.0t	1	MSPM0ACR064
2	SUPER BONUS SCORE SHEET_100_PRESET 4	PET-1.0t	1	MSPM0ACR064
3	SUPER BONUS SCORE SHEET_150_PRESET 4	PET-1.0t	1	MSPM0ACR064
4	SUPER BONUS SCORE SHEET_120_PRESET 4	PET-1.0t	1	MSPM0ACR064
5	SUPER BONUS SCORE SHEET_300_PRESET 4	PET-1.0t	1	MSPM0ACR064
6	SUPER BONUS SCORE SHEET_100A_PRESET 4	PET-1.0t	1	MSPM0ACR064
7	SUPER BONUS SCORE SHEET_200_PRESET 4	PET-1.0t	1	MSPM0ACR064
8	SUPER BONUS SCORE SHEET_120A_PRESET 4	PET-1.0t	1	MSPM0ACR064
9	LED PCB ASS'Y	-	1	AMUM0PCB005
10	NEW SPOT LED PCB ASS'Y	ONE CHIP_WHITE	1	AZZZ0PCB191

# 7-27. SHOOTER PART



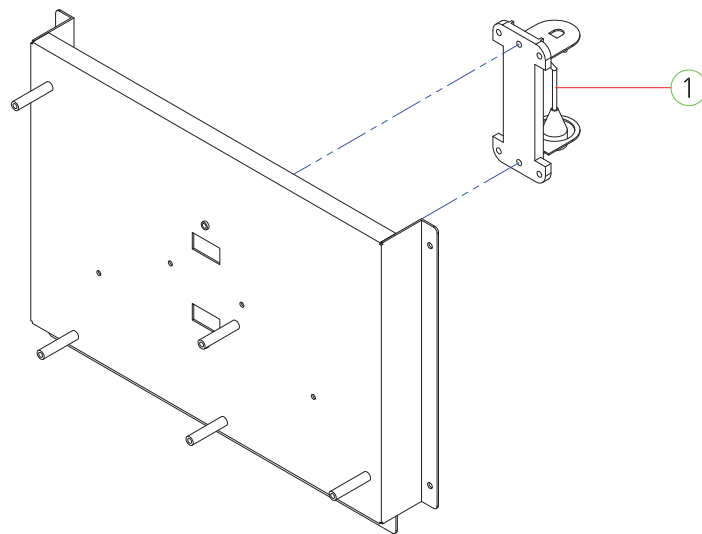
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	SHOOTER CHUTE MOLD	ACETAL_BLACK	1	MSPM0PLA001
2	SHOOTER LED COVER ACRYL	PET-2.0t	1	MSPM0ACR063
3	GEAR-50	ACETAL_BLACK	2	MPOCOPLA002
4	COUPLING	SHC-25	1	MZZZ0COP013
5	SENSOR	G-310	1	PSEN0PHO013
6	SENSOR	ST-310	1	PSEN0PHO014
7	SHOOTER ROLLER BEARING HOUSING ASS'Y	-	2	ASPM0ASS008
8	MOTOR	BLDC_K8XS50N2	1	MZZZ0MOT180
9	SHOOTER LED ACRYL	ACRYL-12.0t_CLEAR	1	MSPM0ACR069
10	FLEX_WS2813B_150_NWP_L_9	WS2813 V5 TOP300, 9	1	MELE0LED123

## 7-28. SUPER BONUS FND PART



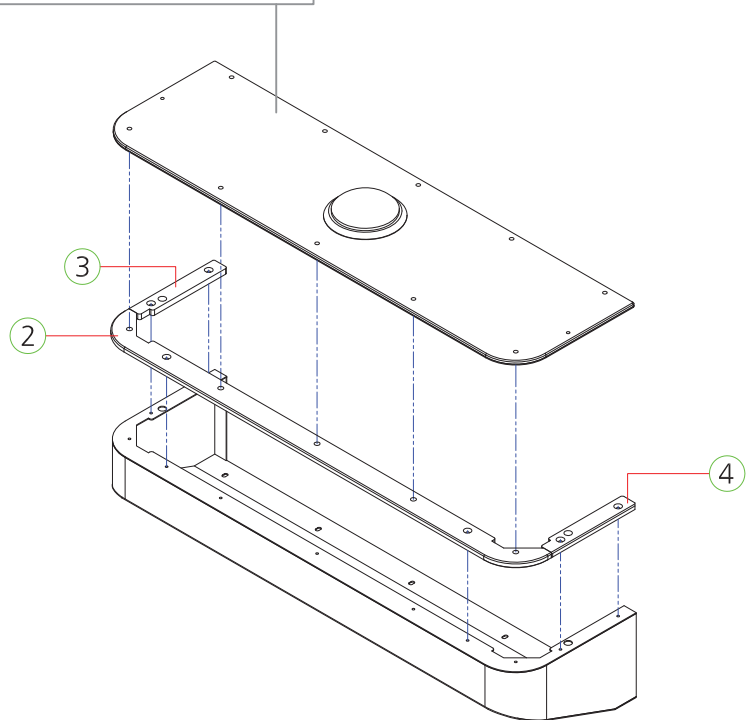
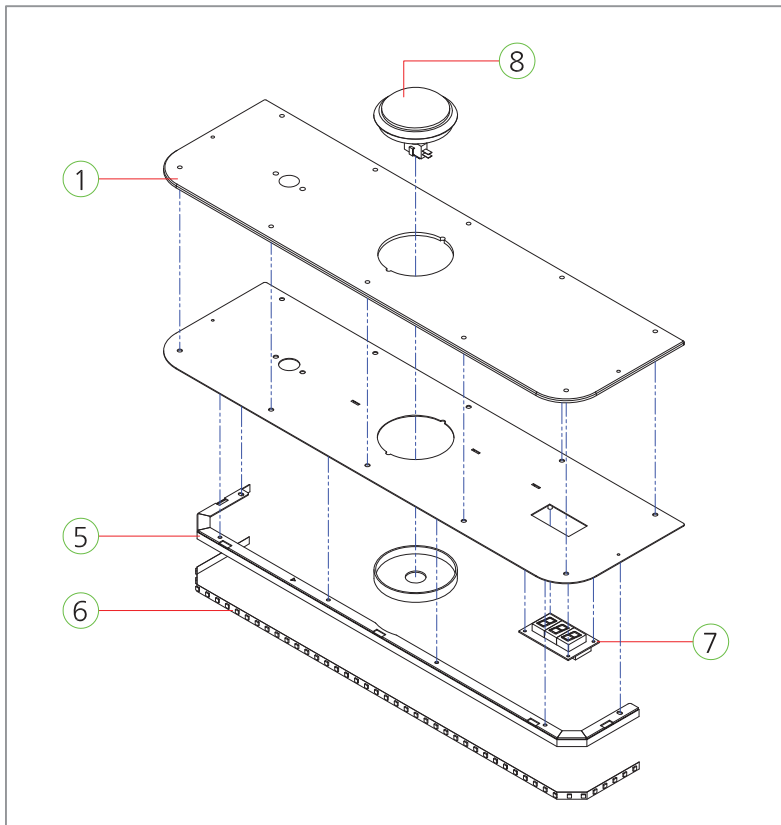
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	FND PCB ASS'Y	6390-4(STRAIGHT)	1	AFND0PCB011
2	SUPER BONUS FND COVER ACRYL	PET-1.5t	1	MSPM0ACR057

## 7-29. TILT PART



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	TILT	-	1	MWICOPAR100

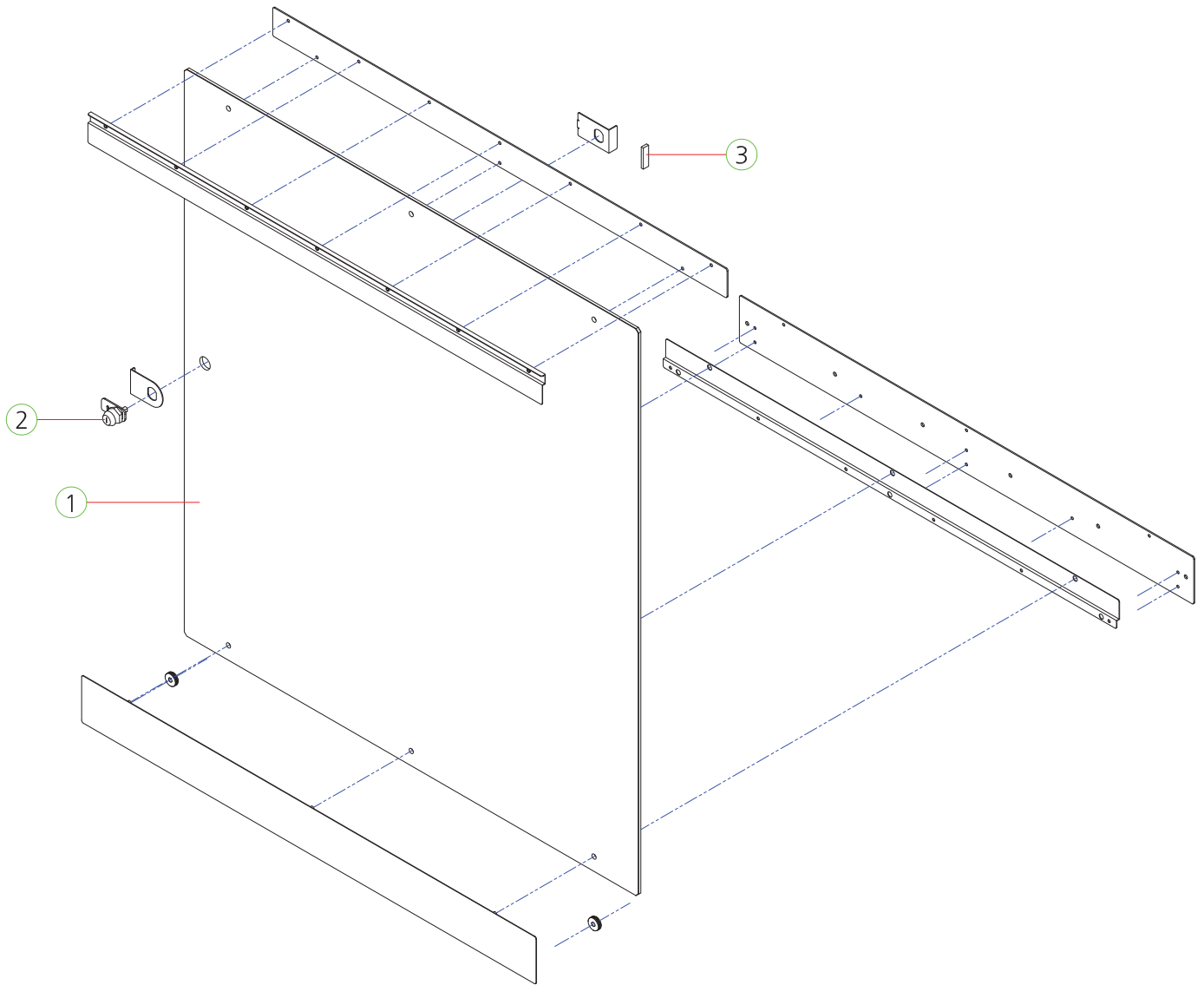
## 7-30. BUTTON PLATE PART



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	BUTTON PLATE COVER ACRYL-1P	ACRYL-4.5t_SHEET	1	MSPM0ACR049
2	BUTTON FRONT ACRYL	ACRYL-8.0t_CLEAR	1	MSPM0ACR007
3	BUTTON FRONT REAR ACRYL_mir	ACRYL-8.0t_CLEAR	1	MSPM0ACR008
4	BUTTON FRONT REAR ACRYL	ACRYL-8.0t_CLEAR	1	MSPM0ACR008
5	BUTTON FLEXIBLE LED FIX ACRYL	PET-1.0t_CLEAR	1	MSPM0ACR006
6	FLEX_WS2813B_850_NWP_LR_51	WS2813 V5 TOP300, 51	1	MELE0LED121
7	FND PCB ASS'Y	2029-3(STRAIGHT)	1	AFND0PCB028
8	BUTTON ASS'Y	CWB 401-WHITE 100MM LED	1	MZZZ0BUT080

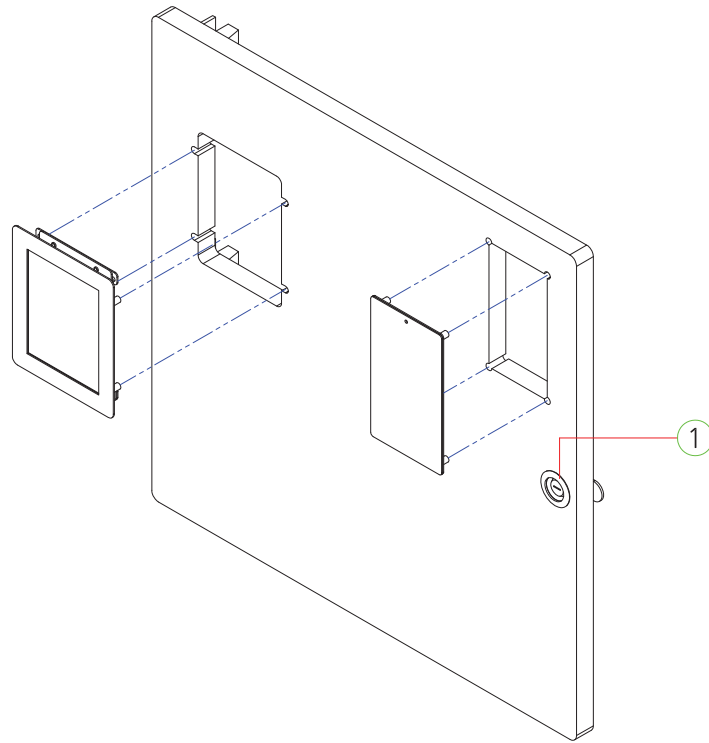


# 7-31. FRONT WINDOW PART



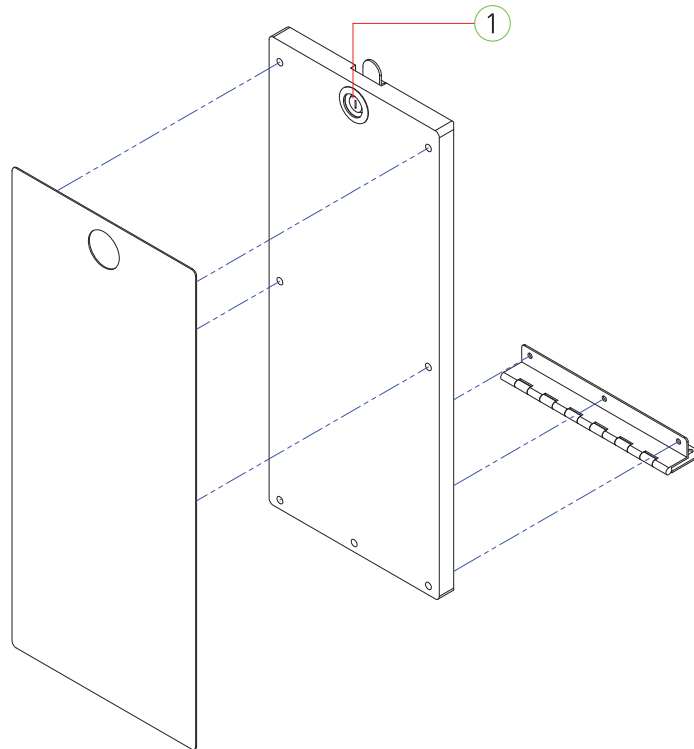
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	FRONT DOOR GLASS	TEMPERED-5t_940x870	1	MSPM0GLA001
2	KEY ASS'Y	7001	1	MZZZ0KEY076
3	SPONGE	4T BLACK	1	MPCX0PLA007

## 7-32. FRONT LOWER DOOR PART



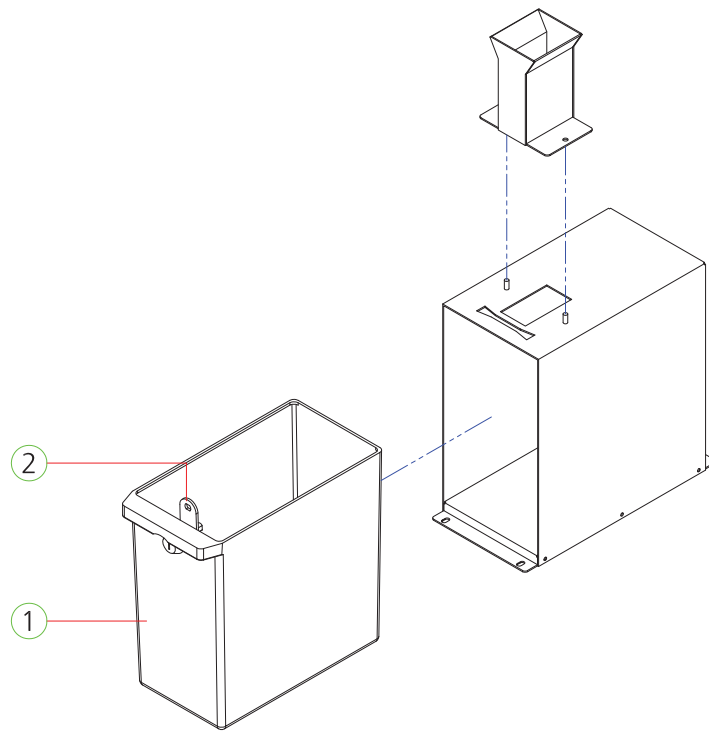
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	KEY ASS'Y	7001	1	MZZZ0KEY076

## 7-33. CONTROL PANEL DOOR PART



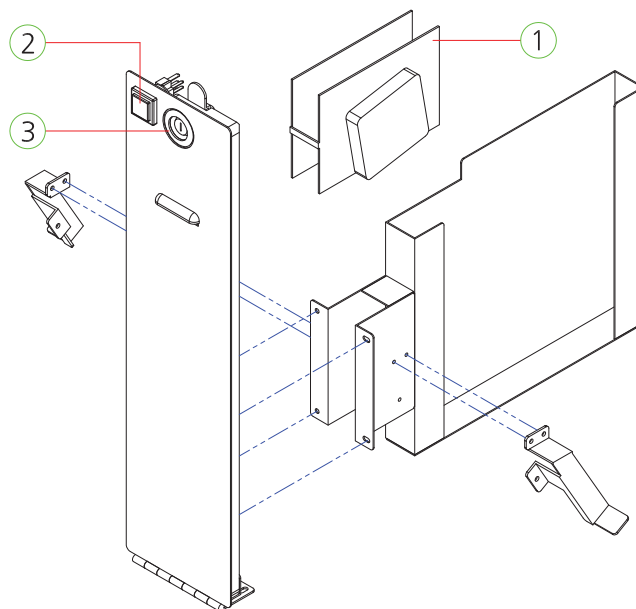
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	KEY ASS'Y	7001	1	MZZZ0KEY076

## 7-34. COIN BOX COVER PART



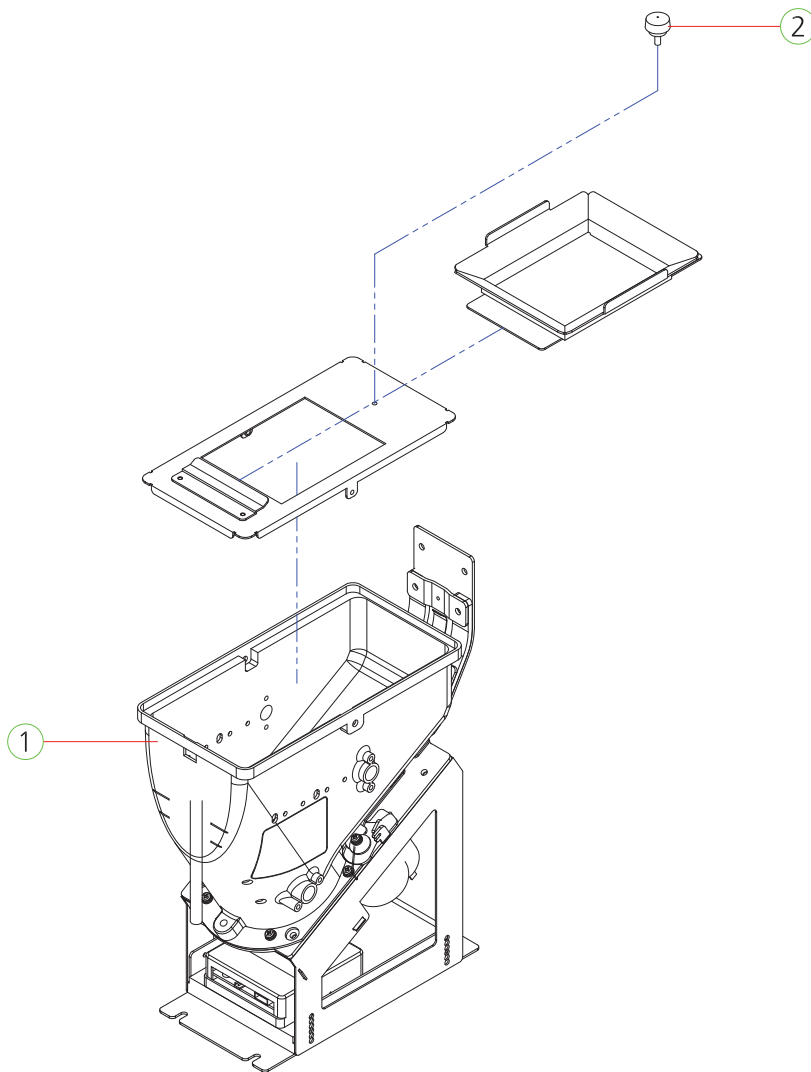
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	COIN BOX SMALL	200*198*107 BLACK	1	MDRE0PLA007
2	KEY ASS'Y	6001	1	MZZZ0KEY075

## 7-35. TICKET DOOR PART



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	[OPTION] TICKET DISPENSER	-	1	-
2	BUTTON SWITCH	TICKET AM1PB-26SH R12D	1	MMUM0BUT002
3	KEY ASS'Y	7001	1	MZZZ0KEY076

# 7-36. ELEVATOR HOPPER BODY PART



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	ELEVATOR HOPPER BODY ASS'Y	-	1	ASPM0ASS011
2	HAND BOLT	M4, PKB4 4*10L	1	MZZZ0PLA030

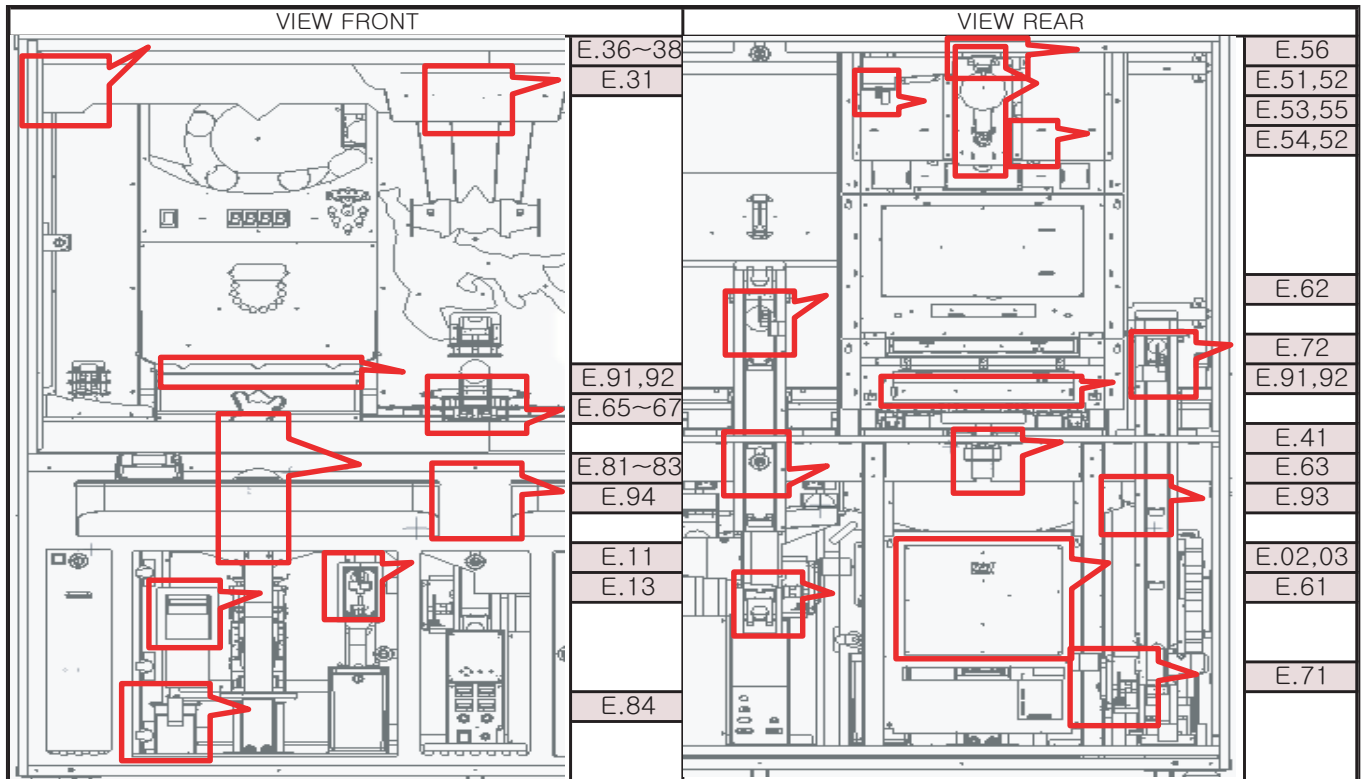
## 8. SOLUTION

### \* ERROR CODES

CODE	ERROR	NOTE
E.02	SYSTEM (SETUP OR BACK UP)	SETUP SAVE DATA PROBLEM
E.03		GAME SAVE DATA PROBLEM
E.11	COIN MACHINE	PLAYER COIN SENSOR SIGNAL STILL PRESENT
E.13	BILL ACCEPTOR	PLAYER BILL SENSOR SIGNAL STILL PRESENT
E.31	SUPER SPIN WHEEL MOTOR	SUPER SPIN WHEEL ENCODER NO SIGNAL OR STILL PRESENT
E.36	SUPER SPIN MOVE MOTOR	LEFT/RIGHT MOVEMENT LEFT (1P) LIMIT SWITCH PROBLEM
E.37		LEFT/RIGHT MOVEMENT RIGHT (2P) LIMIT SWITCH PROBLEM
E.38		LEFT/RIGHT MOVEMENT BOTH SIDES (1P, 2P) LIMIT SWITCH PROBLEM
E.41	PUSHER MOTOR	PUSHER MOTOR PROBLEM
E.51	BIG BALL GAME MOTOR	WHEEL SUB (DEVIDE) ENCODER PROBLEM
E.52		WHEEL MAIN (ORIGIN) ENCODER PROBLEM
E.53	BIG BALL GAME SWITCH (SENSOR)	BALL EJECTION START POSITION SWITCH PROBLEM
E.54		BALL GOAL CHECK SWITCH SIGNAL PROBLEM (NO SWITCH SIGNAL, STILL PRESENT)
E.55		PROBLEMS INPUTTING THE BALL EJECTION START POSITION AND THE GOAL CHECK SWITCH SIGNAL AT THE SAME TIME
E.56	BIG BALL GAME MOTOR SUB ENCODER COUNT	WHEEL SUB (DEVIDE) ENCODER COUNT COUNT OUT OF BOUNDS
E.61	BIG BALL ELEVATOR	BIG BALL ELEVATOR MOTOR ENCODER PROBLEM
E.62		BIG BALL ELEVATOR TOP SENSOR PROBLEM
E.63	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR SUB (DEVIDE) ENCODER
E.65	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR LIMIT SWITCH	BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR LEFT LIMIT SWITCH PROBLEM (NO SIGNAL, STILL PRESENT)
E.66		BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR RIGHT LIMIT SWITCH PROBLEM (NO SIGNAL, STILL PRESENT)
E.67		BIG BALL SUPPLY LEFT/RIGHT MOVE MOTOR 1P, 2P (BOTH SIDES) LIMIT SWITCH PROBLEM (CONTINUES)
E.71	SMALL BALL ELEVATOR	SMALL BALL ELEVATOR MOTOR ENCODER PROBLEM
E.72		SMALL BALL ELEVATOR TOP SENSOR PROBLEM
E.81	MEDAL SHOOTER HOPPER OR SENSOR	MEDAL SHOOTER HOPPER LAUNCH PROBLEM (NO LAUNCH SENSOR SIGNAL)
E.82		MEDAL SHOOTER HOPPER LAUNCH SENSOR PROBLEM (FIRE SENSOR SIGNAL STILL PRESENT)
E.83	MEDAL SHOOTER BLDC ROLLER MOTOR	MEDAL SHOOTER BLDC MOTOR ROLLER PROBLEM
E.84	MEDAL SHOOTER LEFT/RIGHT MOVE MOTOR	MEDAL FIRING LEFT/RIGHT MOVE MOTOR SUB (DEVIDE) ENCODER PROBLEM
E.87	MEDAL SHOOTER BLDC ROLLER MOTOR	MEDAL SHOOTER BLDC MOTOR IO SPEED SETTING PROBLEM
E.91	CHECKER SENSOR & PUSHER	CHECKER SENSOR SIGNAL STILL PRESENT
E.92	BOTTOM BALL DROP SENSOR	IN CASE OF SETTING CHECKER SENSOR ENABLE

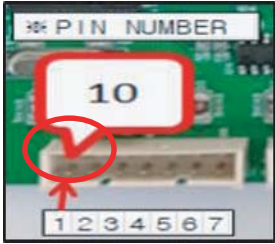
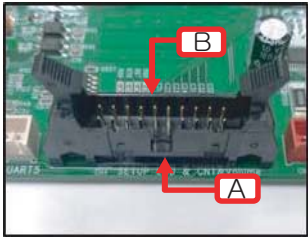
E.93		SMALL BALL FALL DETECTION SENSOR PROBLEM AT THE BOTTOM OF THE PUSHER PLATE (SIGNAL STILL EXISTS)
E.94		BIG BALL FALL DETECTION SENSOR PROBLEM AT THE BOTTOM OF THE PUSHER PLATE (SIGNAL STILL EXISTS)
HELP (DISPLAY AT TICKET FND)	TICKET ERROR	NO TICKET

※ Reset button after taking actions

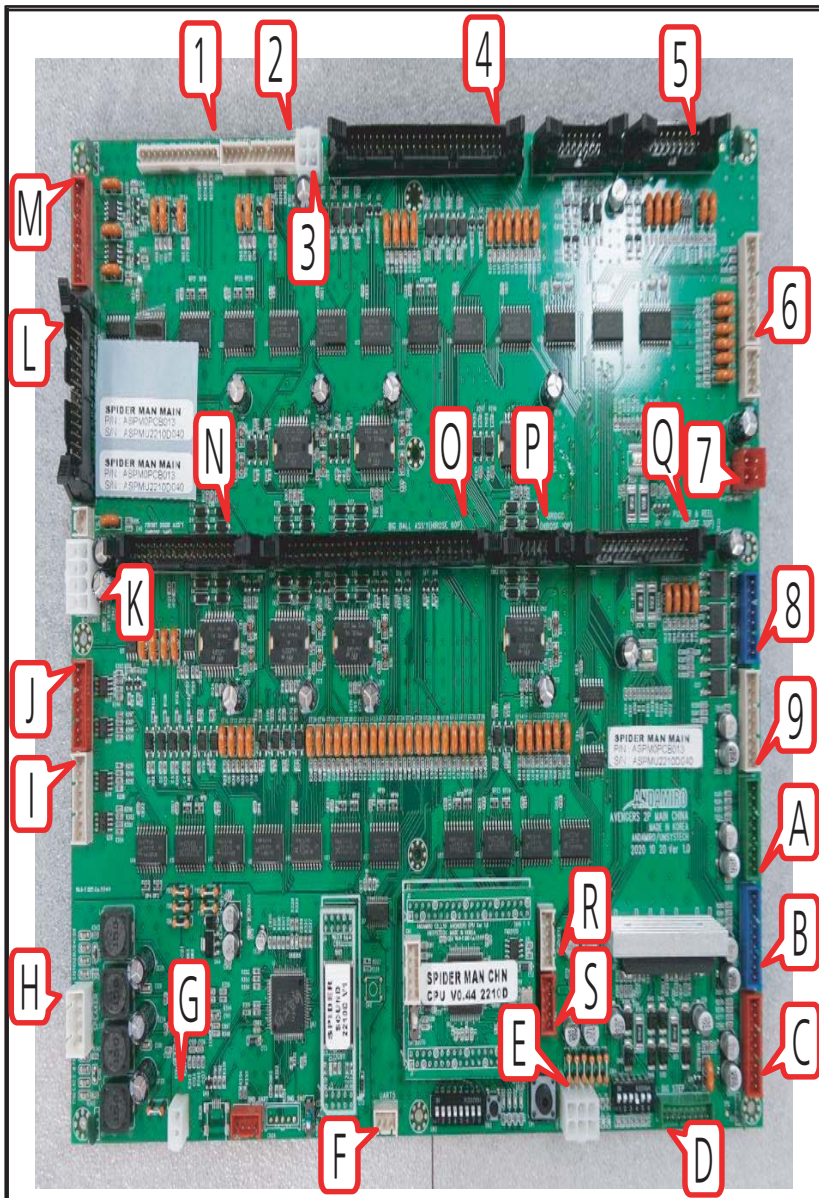


# 9. PCB CONNECTOR LOCATION

## \* PIN INFORMATION

1	2	PIN DESCRIPTION
		<ol style="list-style-type: none"> <li>1. The arrow point means the contact pin number 1</li> <li>2. direction of Hirose connector</li> </ol>

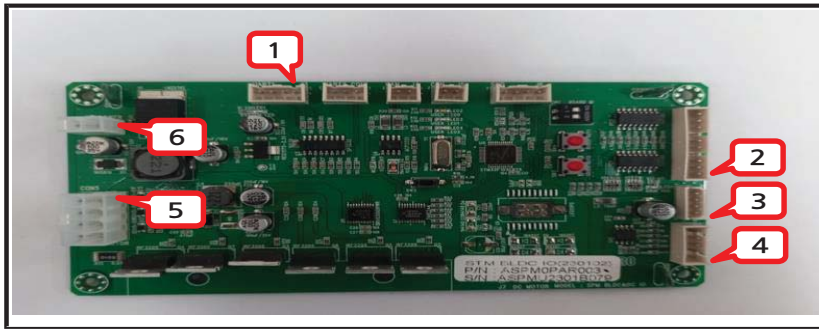
### 9-1. MAIN PCB ASS'Y



NO	FUNCTION	LOCATION	PIN
1	1P SHOOTER ROTATE MOTOR & SENSOR	CN14	13
2	2P SHOOTER ROTATE MOTOR & SENSOR	CN13	12
3	HOPPER POWER 24V	CN34	4
4	BLDC IO PCB, BIG & SMALL BALL CHECK SENSOR, HP PCB	CN5	50
5	TICKET & LAMP SWITCH	CN11	16
6	SUPER SPIN MOTOR LIMIT SW	CN24	10
7	STEP MOTOR POWER 24V	CN32	4
8	SOLENOID, CEILING LED BAR	CN23	8
9	2P LED(GAME BOARD & SPIDER SENSE), FND(BALL STOCK&TICKET)	CN18	9
A	1P LED(GAME BOARD & SPIDER SENSE), FND(BALL STOCK&TICKET)	CN17	9
B	2P LED(SUCCESS, CHECKER REAR CHECKER REAR), PLAY FND	CN16	9
C	1P LED(SUCCESS, CHECKER REAR CHECKER REAR), PLAY FND	CN15	9
D	SUPER SPIN MOTOR & SENSOR	CN8	8
E	MAIN POWER 5V, 12V	CN31	6
F	WS2813B IO PCB	CN3	3
G	AUDIO POWER 12V	CN30	2
H	SPEAKER	CN29	4
I	2P GAMEBOARD FLEX LED	CN20	8
J	1P GAMEBOARD FLEX LED & SUPER SPIN INNER & ARROW LED	CN19	8
K	DC MOTOR POWER 12V	CN33	8
L	SETUP LCD & COUNTER & VOLUME	CN4	26
M	CEILING MAGNETIC SENSOR	CN25	10
N	COIN & BILL, GAME BUTTON, S-BALL ELEVATOR MT & SW & SENSOR	CN6	34
O	SUPER SPIN MOVE MOTOR, BONUS WHEEL ASS'Y, CHECKER SENSOR, PUSHER MT SENSOR	CN7	60
P	BIG BALL DIVIDER ASS'Y, B-BALL ELEVATOR MOTOR	CN12	10
Q	PUSHER MOTOR, B-BALL ELEVATOR OR SENSOR & SW, DIVIDER SENSOR	CN9	30
R	1P BLDC IO PCB	CN1	5
S	2P BLDC IO PCB	CN2	5

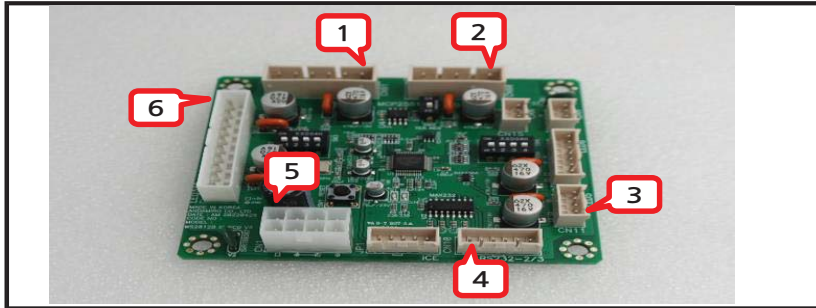


### 9-2. STM BLDC IO PCB ASS'Y



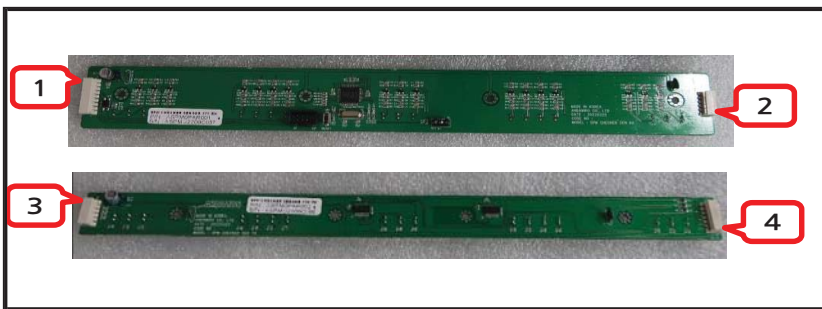
NO	FUNCTION	LOCATION	PIN
1	MAIN PCB(CN1 or CN2)	J3	4
2	MAIN PCB(CN5)	CON2	10
3	SHOOTER MEDAL SENSOR	JP1	4
4	MAIN PCB(CN5)	JP2	5
5	SHOOTER BLDC MOTOR	JP3	8
6	BLDC IO POWER 24V	JP4	2

### 9-3. WS2812B IO PCB ASS'Y



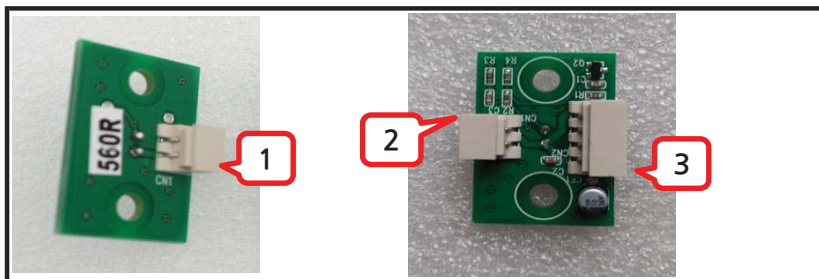
NO	FUNCTION	LOCATION	PIN
1	1P S-BALL OUT,PUSHER SIDE, BUTTON PLATE LED	CN91	6
2	2P S-BALL OUT,PUSHER SIDE, BUTTON PLATE LED	CN90	5
3	MAIN PCB(CN3)	CN10	6
4	RIGHT SIDE, 2P BONUS WHEEL TOP	CN11	4
5	WS2812B IO POWER 5V	CN1	8
6	LEFT SIDE, 1P BONUS WHEEL TOP	CN92	10

### 9-4. CHECKER SENSOR RX,TX PCB ASS'Y



NO	FUNCTION	LOCATION	PIN
1	MAIN PCB(CN7)	J1	8
2	CHECKER SENSOR TX PCB	J2	5
3	CHECKER SENSOR RX PCB	J1	5
4	NONE	J2	6

### 9-5. SENSOR\_T, R PCB ASS'Y



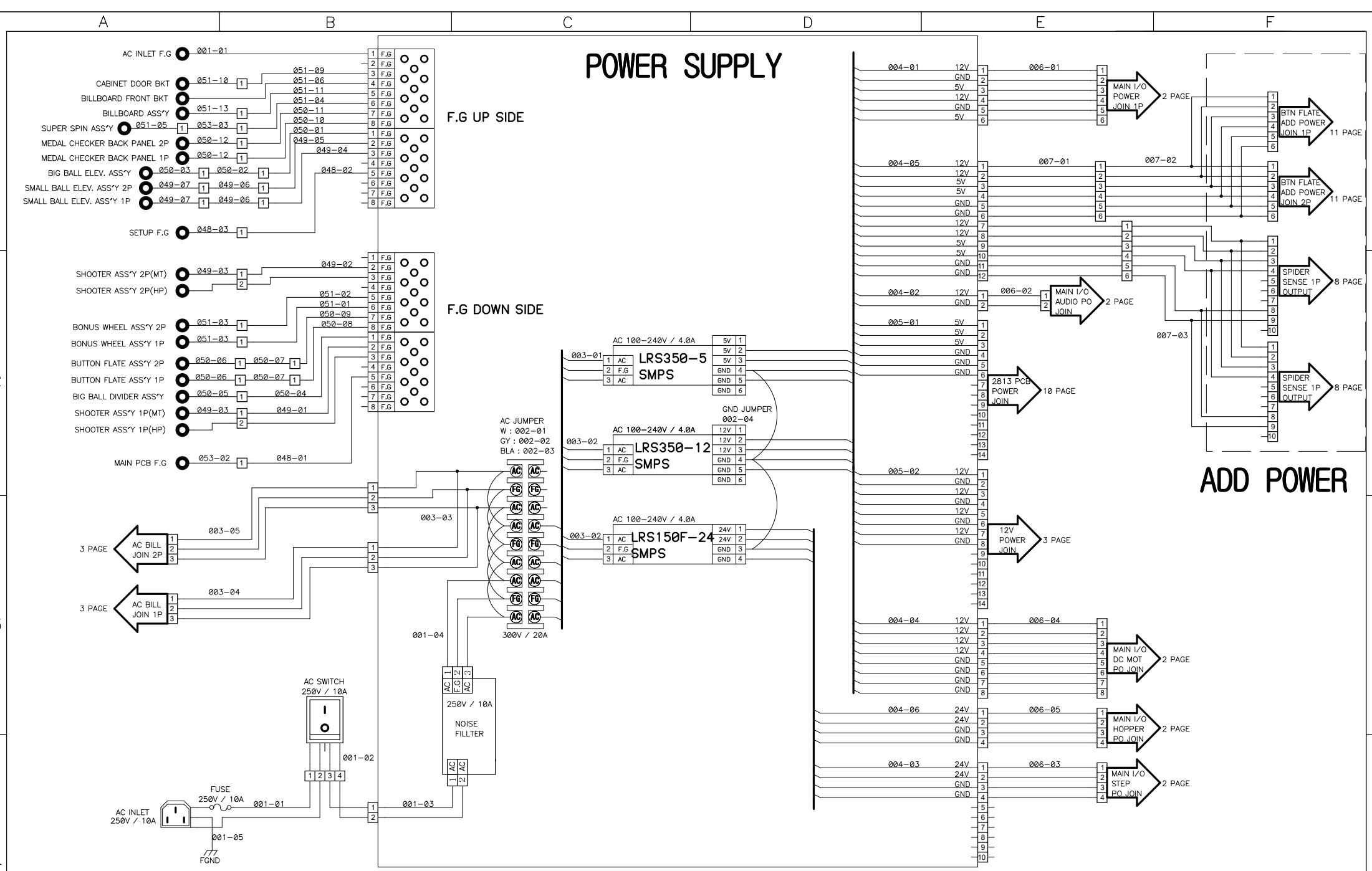
NO	FUNCTION	LOCATION	PIN
1	TO SENSOR RX PCB	CN1	2
2	TO SENSOR TX PCB	CN1	2
3	MAIN PCB	CN2	4

### 9-6. PHOTO INT-1, 2 PCB ASS'Y

NO	FUNCTION	PIN No
1	POWER 5V	1
2	ENABLE VOLTAGE	2
3	SENSOR OUT VOLTAGE	3
4	GND	4

NO	FUNCTION	PIN No
1	POWER 5V	1
2	ENABLE VOLTAGE	2
3	SENSOR1 OUT VOLTAGE	3
4	SENSOR2 OUT VOLTAGE	4
5	GND	5





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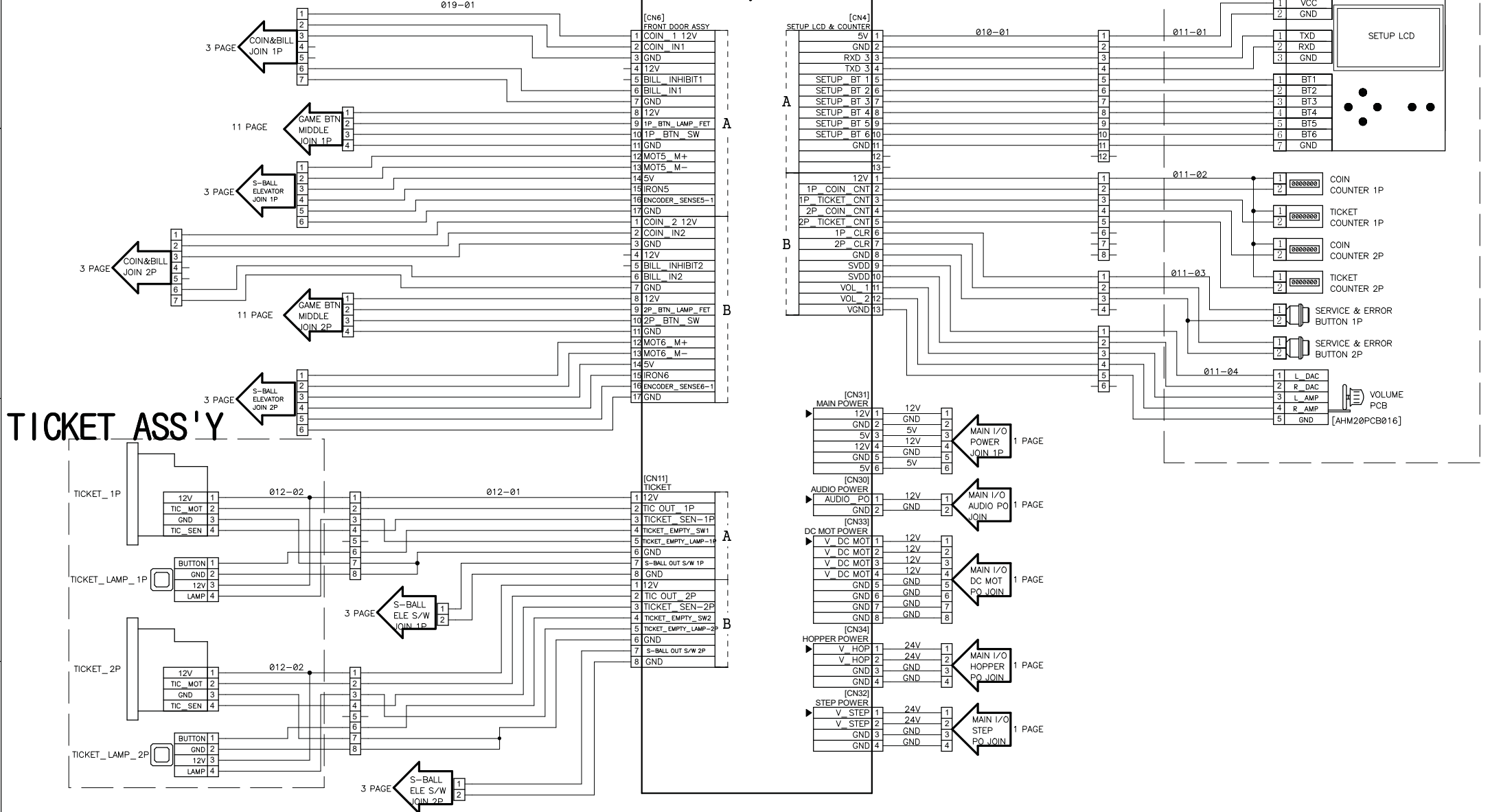
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H/W	E.S.KIM			PAGE	2023.03.20
				DATE	1 PAGE



# MAIN PCB 1/6

# SETUP ASS'Y



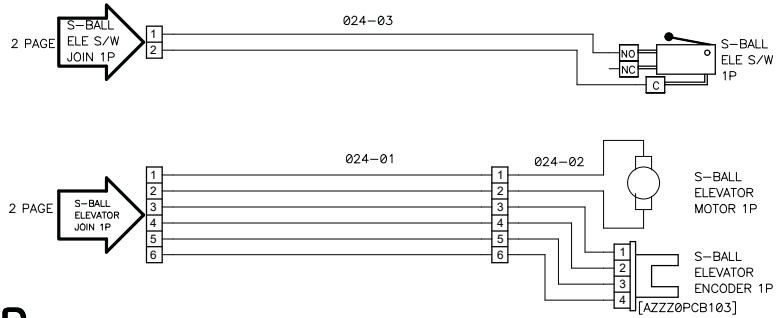
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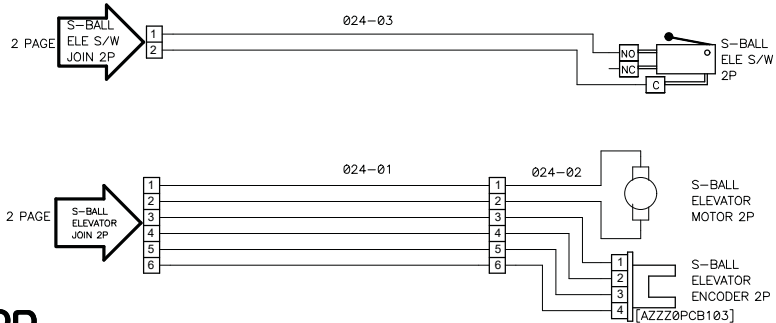
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# Small Ball Elevator Ass'y

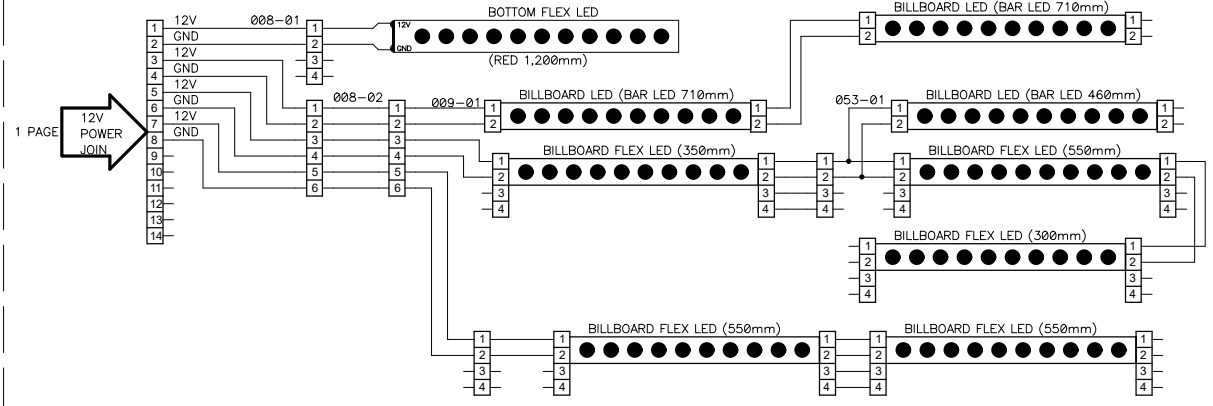


1P

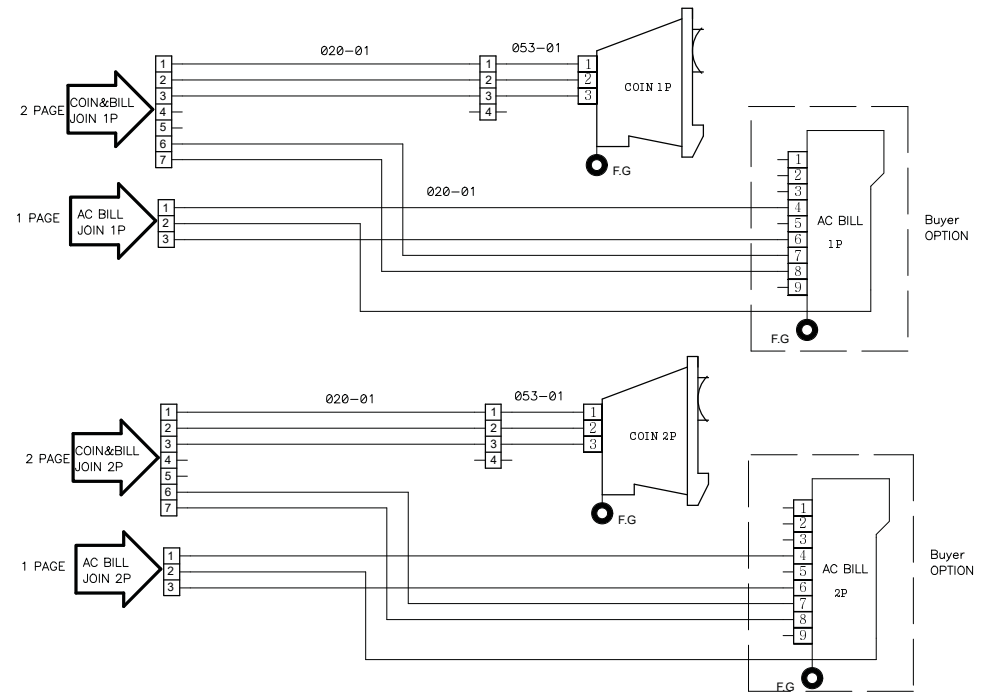


2P

# 12V LED & BILLBOARD



# COIN & BILL

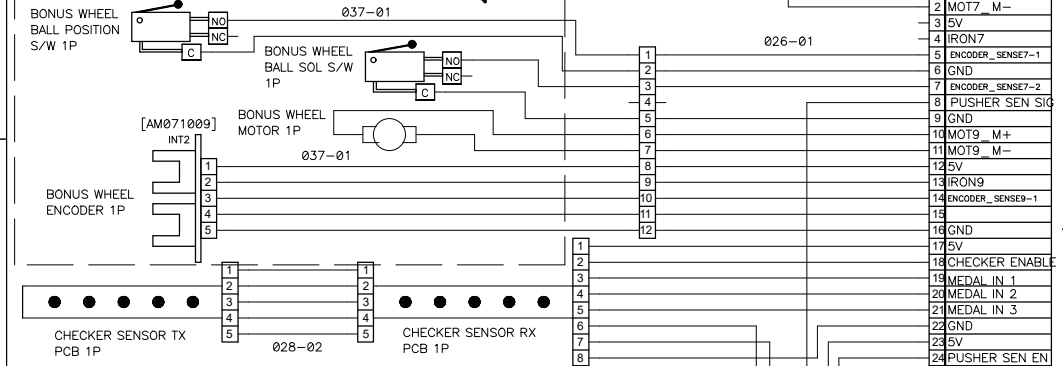


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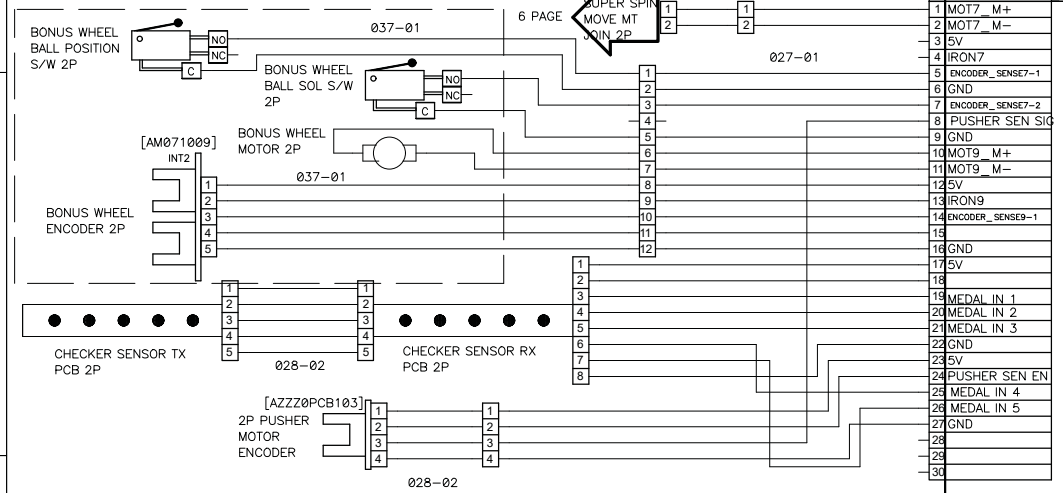
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# BONUS WHEEL ASS'Y 1P



# 2P



# MAIN PCB 2/6

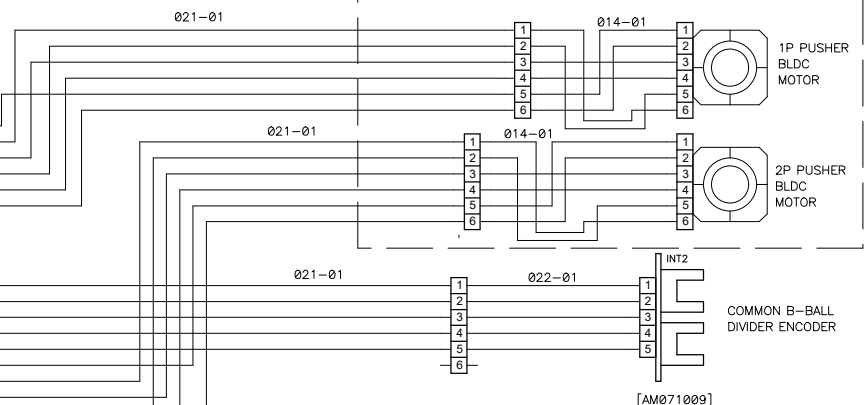
[CN7]	BIG BALL ASSY
1	MOT7 M+
2	MOT7 M-
3	5V
4	IRON7
5	ENCODER_SENSE7-1
6	GND
7	ENCODER_SENSE7-2
8	PUSHER SEN SIG
9	GND
10	MOT9 M+
11	MOT9 M-
12	5V
13	IRON9
14	ENCODER_SENSE9-1
15	GND
16	GND
17	5V
18	CHECKER ENABLE
19	MEDAL IN 1
20	MEDAL IN 2
21	MEDAL IN 3
22	GND
23	5V
24	PUSHER SEN EN
25	MEDAL IN 4
26	MEDAL IN 5
27	GND
28	GND
29	GND
30	GND
1	MOT7 M+
2	MOT7 M-
3	5V
4	IRON7
5	ENCODER_SENSE7-1
6	GND
7	ENCODER_SENSE7-2
8	PUSHER SEN SIG
9	GND
10	MOT9 M+
11	MOT9 M-
12	5V
13	IRON9
14	ENCODER_SENSE9-1
15	GND
16	GND
17	5V
18	GND
19	MEDAL IN 1
20	MEDAL IN 2
21	MEDAL IN 3
22	GND
23	5V
24	PUSHER SEN EN
25	MEDAL IN 4
26	MEDAL IN 5
27	GND
28	GND
29	GND
30	GND

[CN9]	PUSHER ASS'Y
1	V-DCMOT1
2	BLDC_STOP1
3	BLDC_DIR1
4	BLDC_CLK1
5	ENCODER_SENSE11-1
6	GND
7	STEP_2B
8	STEP_2A
9	STEP_1A
10	STEP_1B
11	5V
12	IRON13
13	ENCODER_SENSE13-1
14	GND
15	GND
1	V-DCMOT1
2	BLDC_STOP2
3	BLDC_DIR2
4	BLDC_CLK2
5	ENCODER_SENSE12-1
6	GND
7	STEP_1B
8	STEP_1A
9	STEP_2A
10	STEP_2B
11	VCC
12	IRON14
13	ENCODER_SENSE14-1
14	COM B-B SW
15	GND

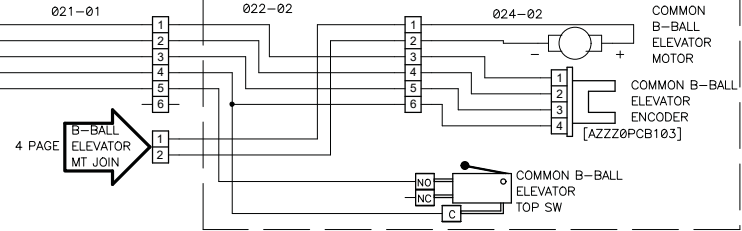
[CN12]	BRIDGE
1	MOT13 M+
2	MOT13 M-
3	B-B LIMIT SW 1P
4	B-B LIMIT SW 2P
5	GND
1	MOT14 M+
2	MOT14 M-
3	BONUS BTN 1P
4	BONUS BTN 2P
5	GND

[CN22]	TILT
1	TILT
2	GND

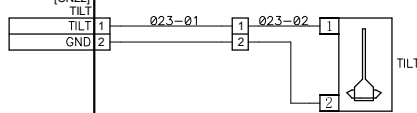
# PUSHER MT



# BIG BALL ELEV. ASS'Y



# TILT ASS'Y



# BIG BALL DIVIDER ASS'Y

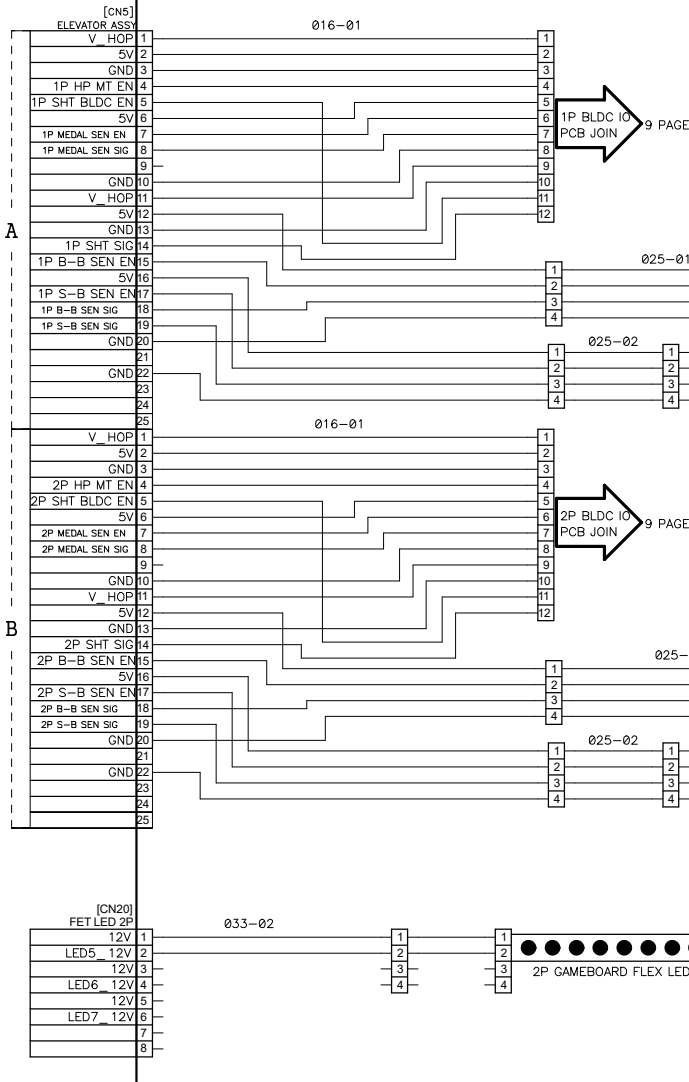
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# MAIN PCB 3/6



## BALL CHECK SENSOR 1P

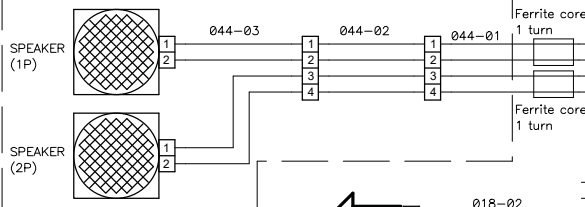
## BALL CHECK SENSOR 2P

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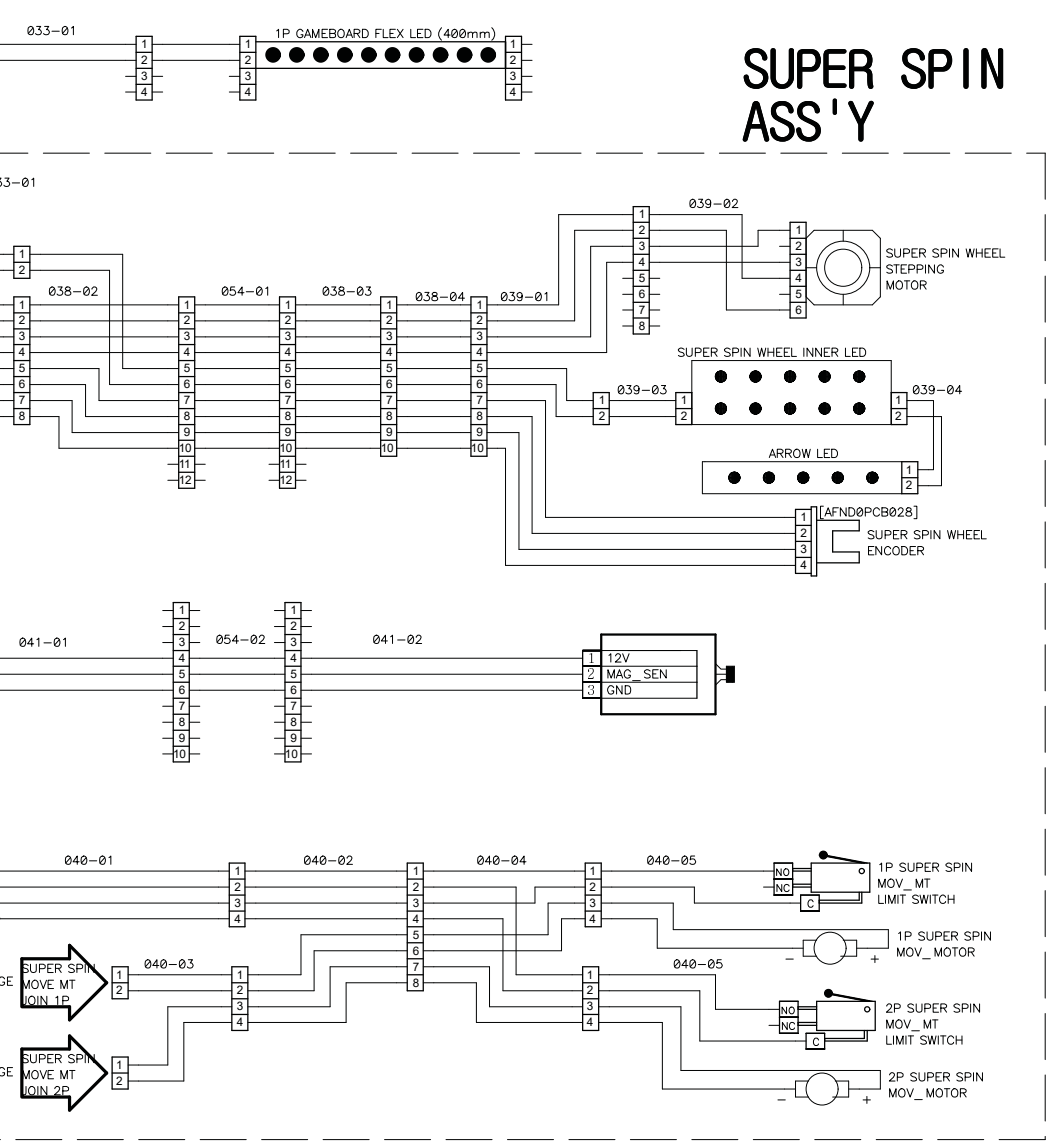
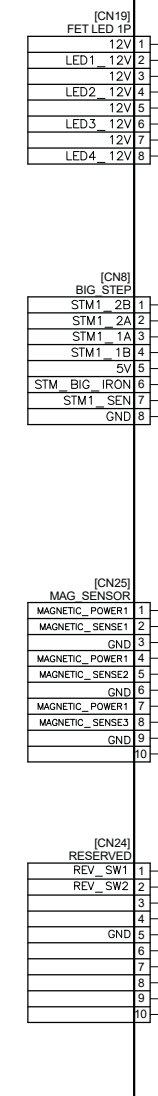
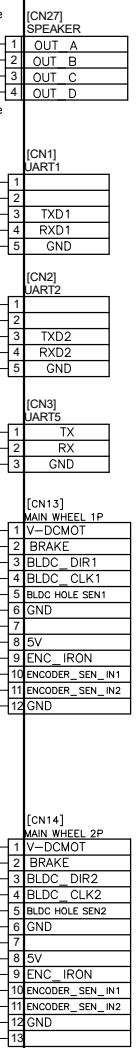
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ANDAMIRO				DATE	5 PAGE

# SPEAKER ASS'Y



# MAIN PCB 4/6



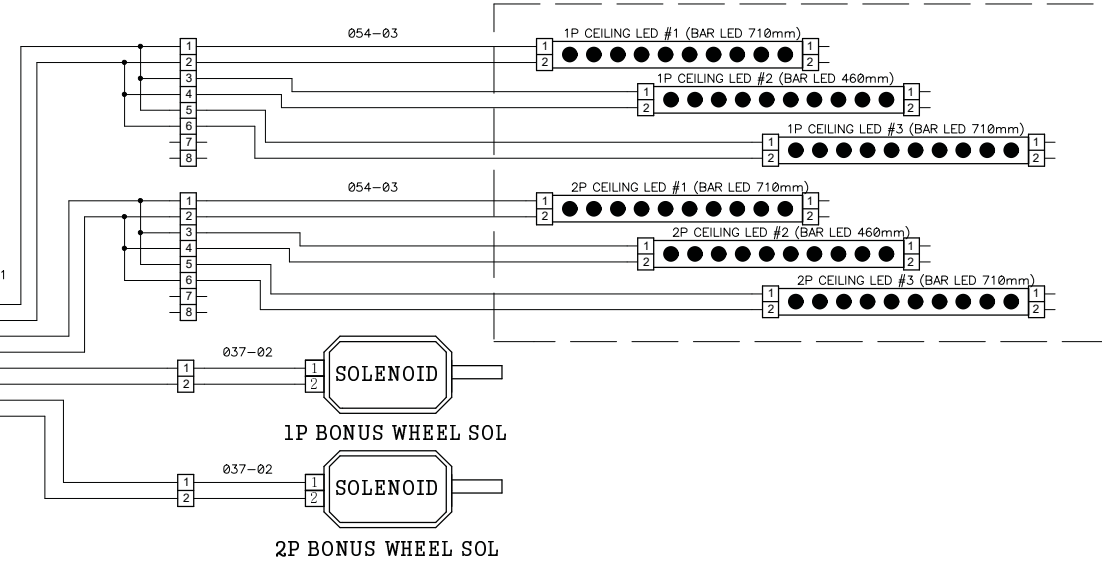
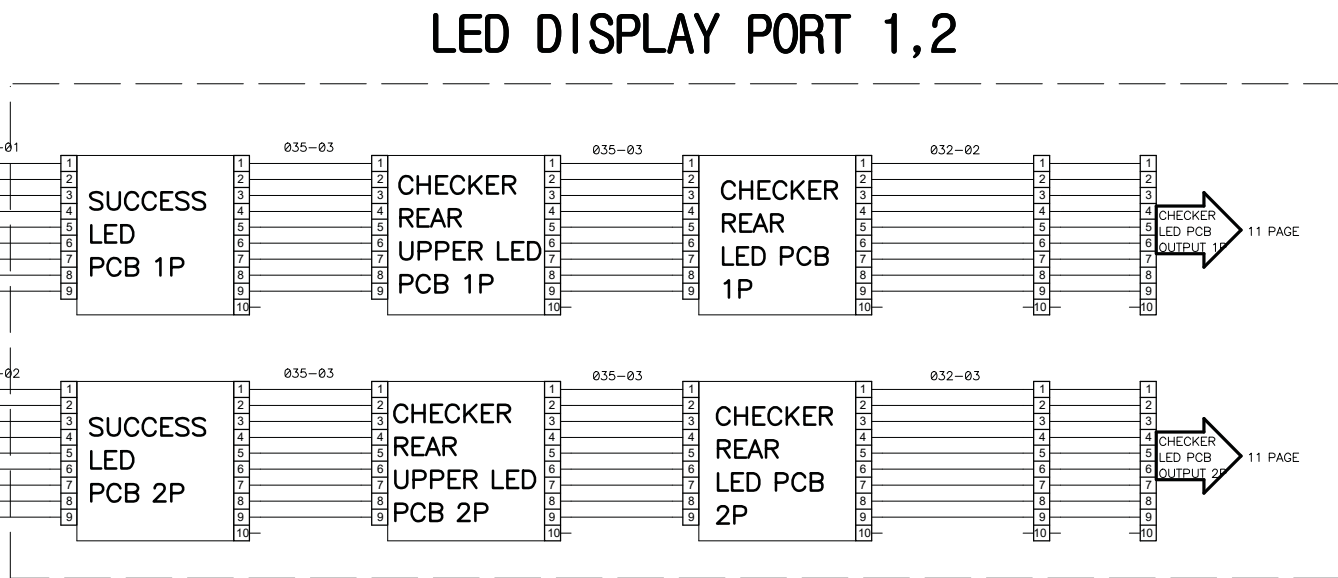
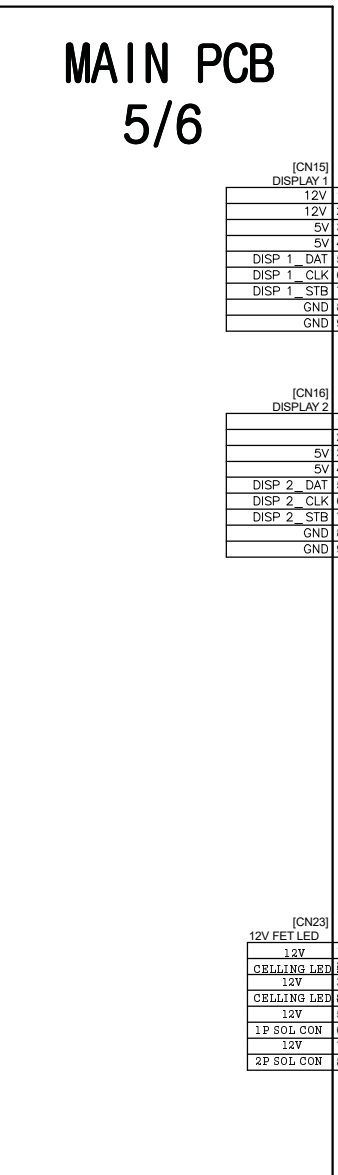
# SUPER SPIN ASS'Y

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# LED DISPLAY PORT 3,4

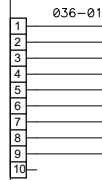
MAIN PCB  
6/6

[CN17]  
DISPLAY 3

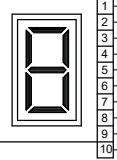
12V	1
12V	2
5V	3
5V	4
DISP 3_DAT	5
DISP 3_CLK	6
DISP 3_STB	7
GND	8
GND	9

035-01

GAME BOARD  
LED PCB ASS'Y  
1P

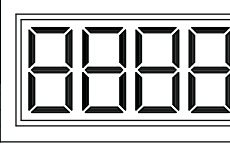


BIG BALL STOCK 1P



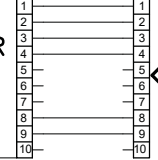
035-03

TICKET FND 1P



035-03

1P SPIDER  
SENSE  
LED PCB



007-03

SPIDER  
SENSE 1P  
OUTPUT

1 PAGE

[CN18]  
DISPLAY 4

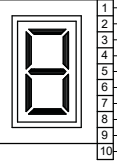
12V	1
12V	2
5V	3
5V	4
DISP 4_DAT	5
DISP 4_CLK	6
DISP 4_STB	7
GND	8
GND	9

035-02

GAME BOARD  
LED PCB ASS'Y  
1P

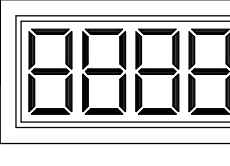


BIG BALL STOCK 1P



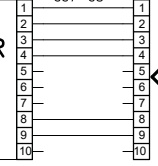
034-03

TICKET FND 1P



034-03

1P SPIDER  
SENSE  
LED PCB



007-03

SPIDER  
SENSE 1P  
OUTPUT

1 PAGE

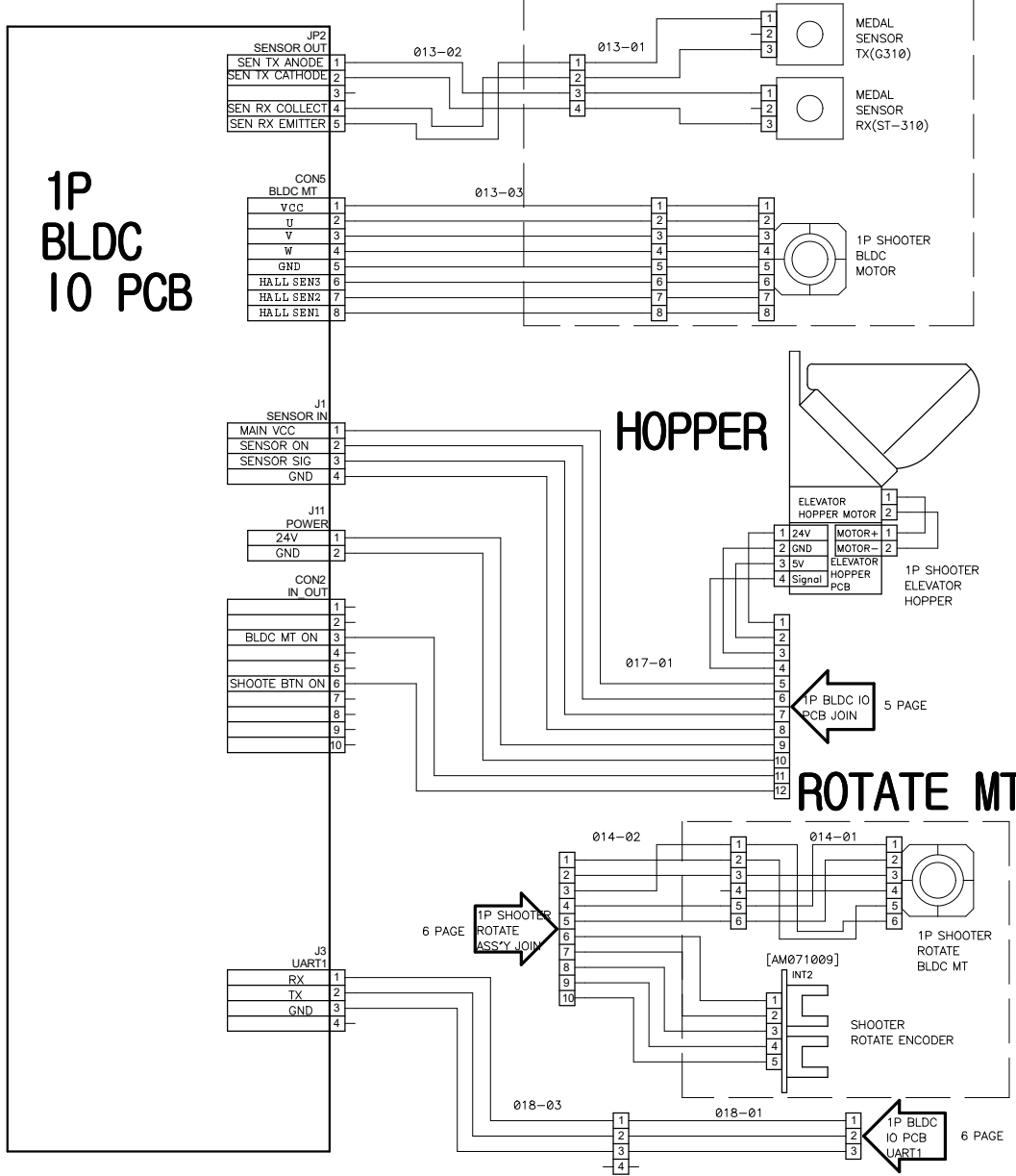
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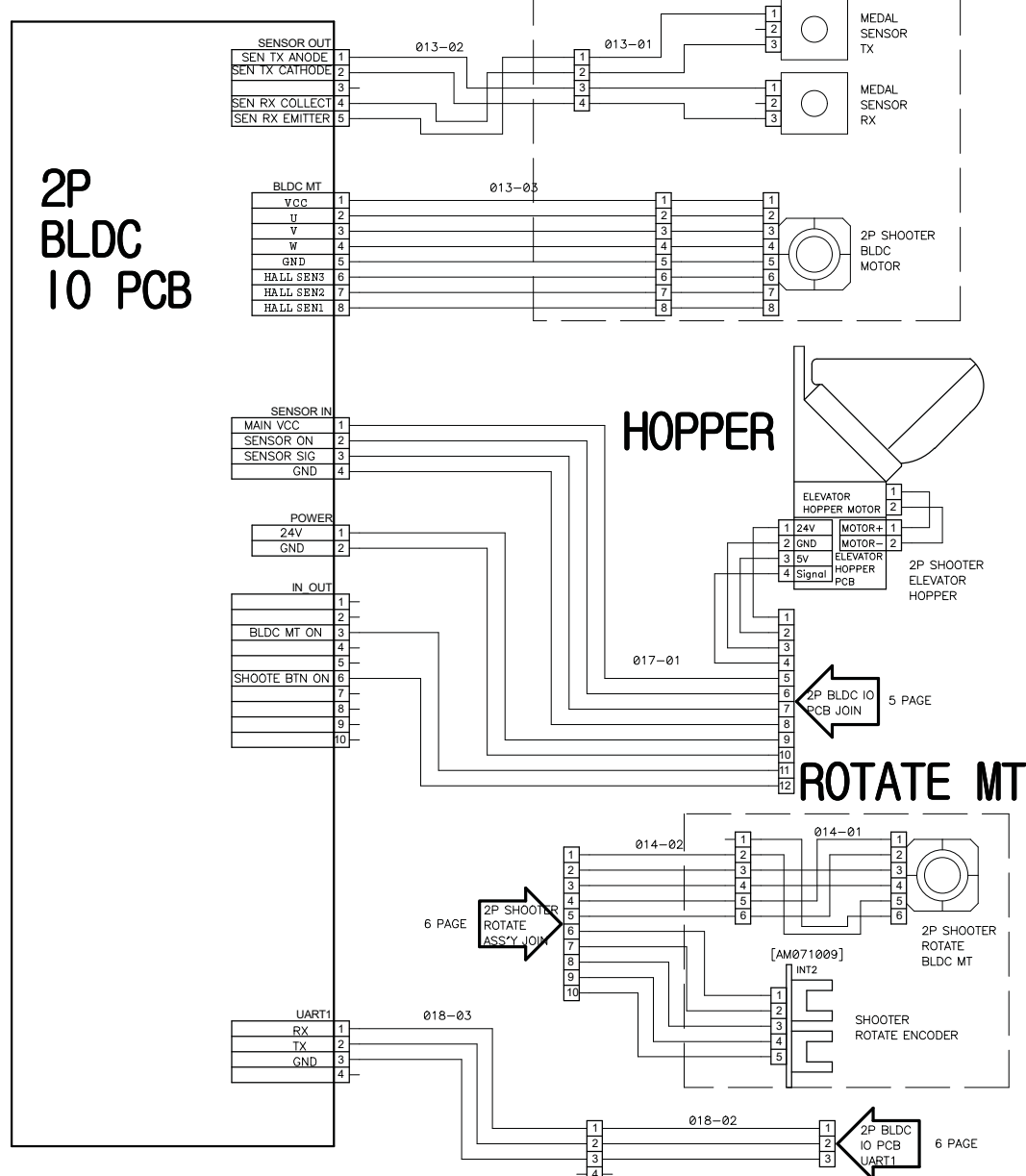
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# SHOOTER ASS'Y



# SHOOTER ASS'Y



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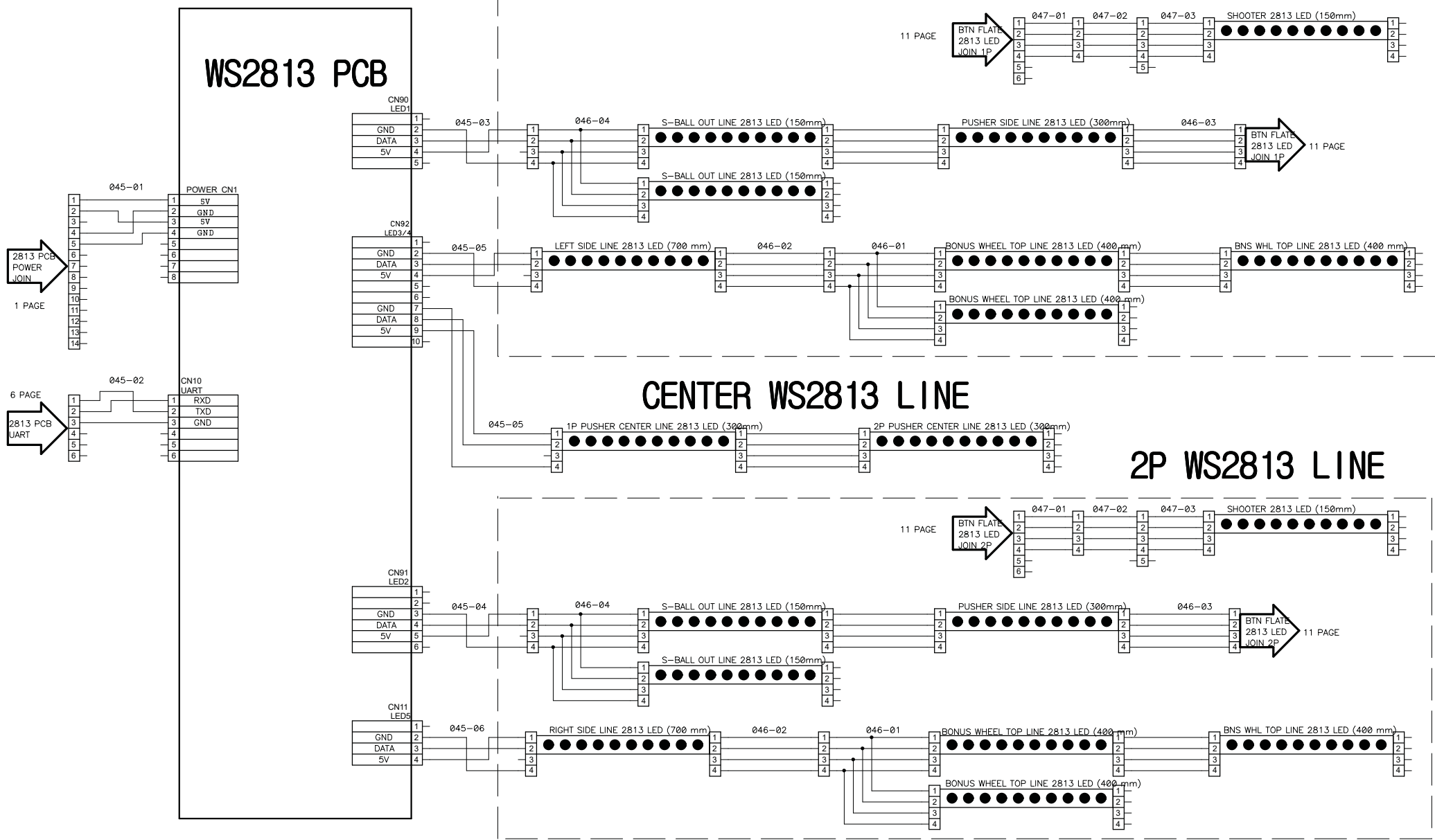
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# WS2813 LED CONNECT

# 1P WS2813 LINE

## WS2813 PCB

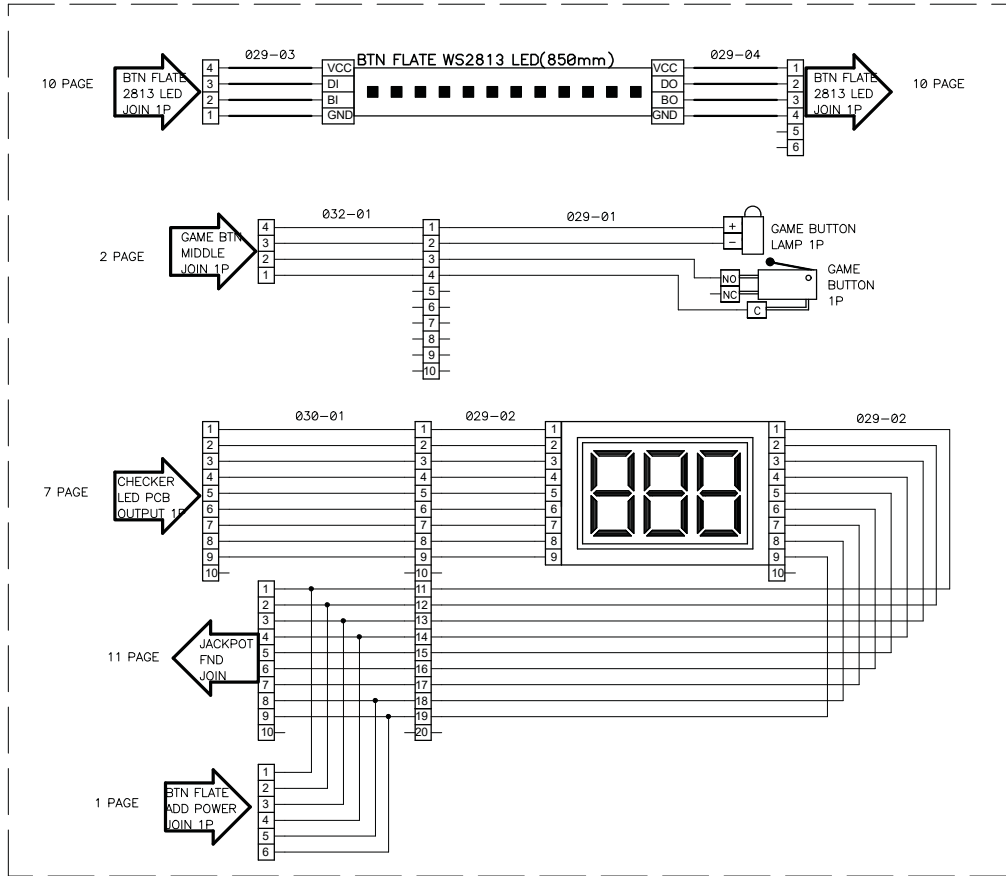


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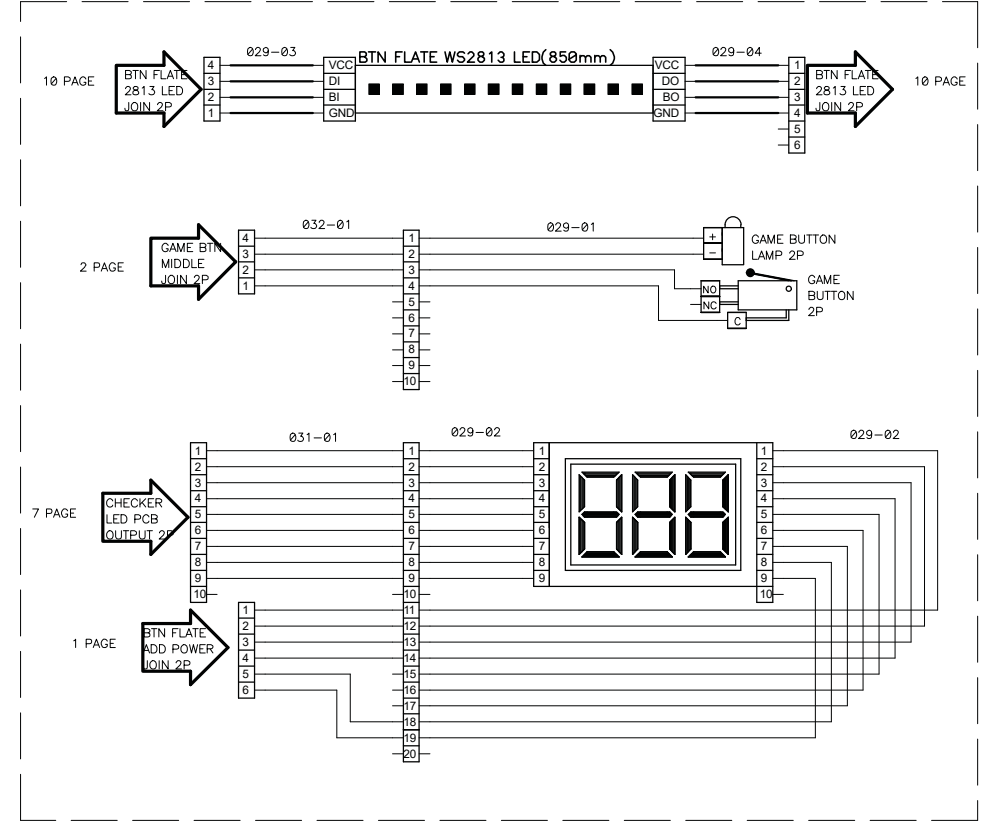
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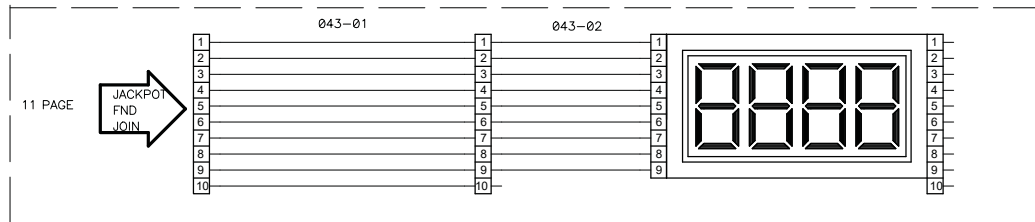
# 1P BUTTON FLATE



# 2P BUTTON FLATE



# JACKPOT FND



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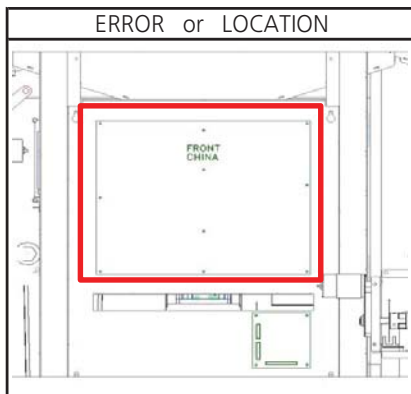
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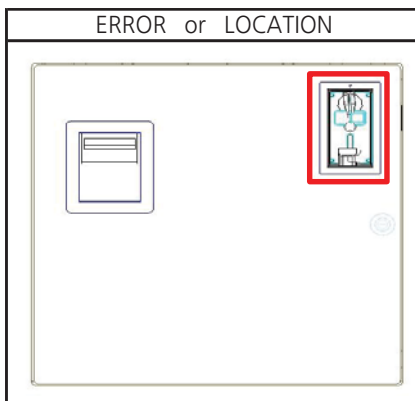
# 11. TROUBLE SHOOTING

## 11-1. SYSTEM ERROR (Er02, Er03)



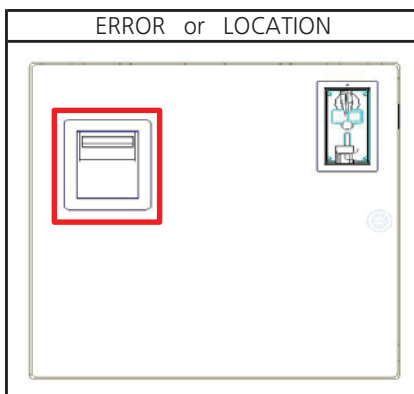
► SOLUTION			
1. CHECK : 1) Recheck after power off/on 2) Recheck after factory set 3) MAIN PCB replacement			
PART NAME		CODE	
MAIN PCB ASS'Y WITH CPU & MEMORY		ASPM0PCB013	

## 11-2. COIN MACHINE ERROR (Er.11)



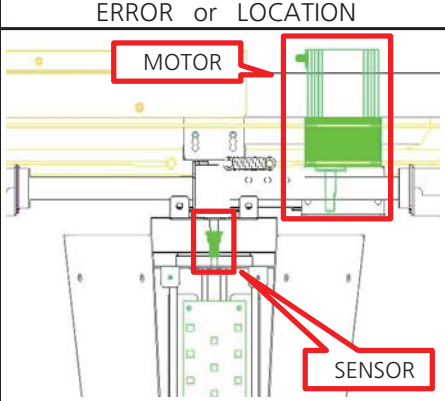
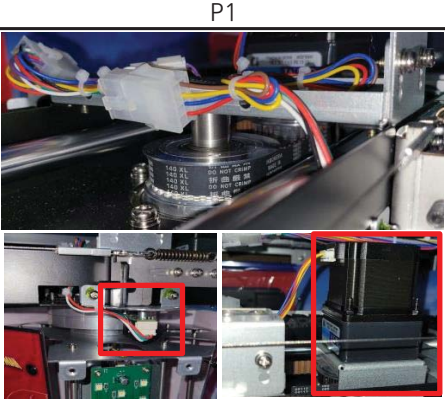
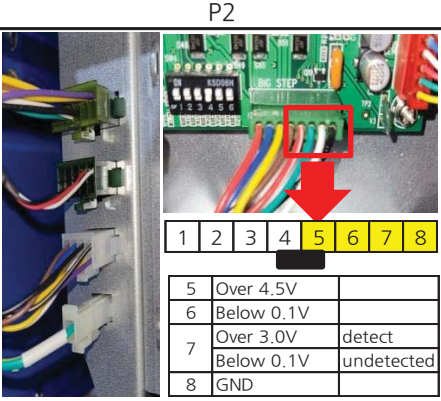
► SOLUTION			
1. TEST MODE → COIN TEST 2. CHECK : 1) Check whether COIN JAM 2) Check the cable connection status 3) REPLACE COIN MACHINE 4) MAIN PCB replacement			
PART NAME		CODE	
COIN SELECTOR		MZZZ0COS052	MAIN PCB ASS'Y WITH CPU & MEMORY
		ASPM0PCB013	

## 11-3. BILL ACCEPTOR ERROR (Er.13)



► SOLUTION			
1. TEST MODE → BILL TEST 2. CHECK : 1) Check whether BILL JAM 2) Check the cable connection status 3) REPLACE BILL ACCEPTOR 4) MAIN PCB replacement			
PART NAME		CODE	
MAIN PCB ASS'Y WITH CPU & MEMORY		ASPM0PCB013	

## 11-4. SUPER SPIN WHEEL MOTOR & SENSOR ERROR (Er.31)

ERROR or LOCATION	P1	P2																																																
		 <table border="1" data-bbox="1193 338 1465 519"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td> </tr> <tr> <td>5</td><td>Over 4.5V</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>6</td><td>Below 0.1V</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>7</td><td>Over 3.0V</td><td>detect</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td>Below 0.1V</td><td>undetected</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>8</td><td>GND</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>	1	2	3	4	5	6	7	8	5	Over 4.5V							6	Below 0.1V							7	Over 3.0V	detect							Below 0.1V	undetected						8	GND						
1	2	3	4	5	6	7	8																																											
5	Over 4.5V																																																	
6	Below 0.1V																																																	
7	Over 3.0V	detect																																																
	Below 0.1V	undetected																																																
8	GND																																																	

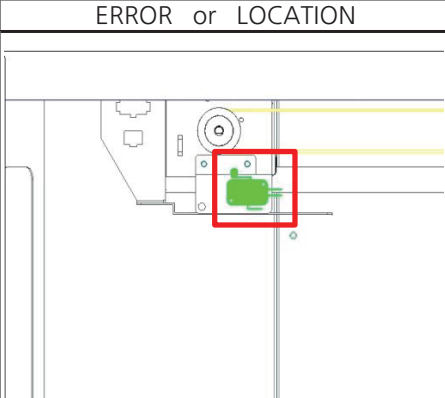
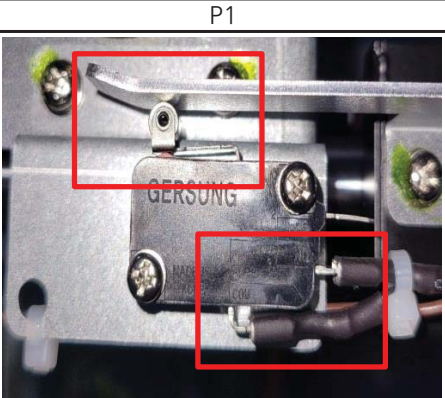
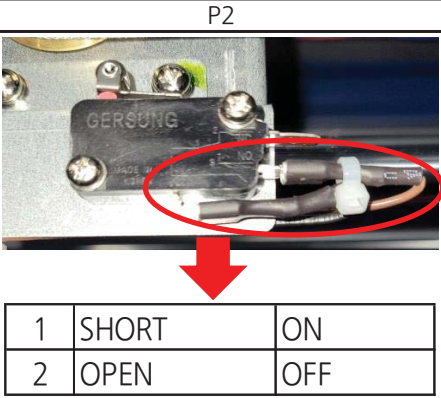
### ► SOLUTION

- TEST MODE → MOT JP-WHEEL, INPUT TEST
  - 2P TICKET FND : Motor 1 rotation STEP count display(1,200)
  - 2P RAPID AUTO SHOT FND : Score table number table (0 ~ 7)
- CHECK :
  - 1) Check motor pull assembly status and belt assembly status (P1)
  - 2) JP ASS'Y and PULLE assembly status confirmation (P1)

- 3) Check wiring connection (P2)
- 4) Motor replacement
- 5) Check sensor voltage (P2) / check at INPUT TEST
- 6) Sensor PCB replacement
- 7) Main PCB replacement

PART NAME	CODE	PART NAME	CODE
STEPPING MOTOR NO WIRE	MZZZ0MOT166	PHOTO INT-1 PCB ASS'Y	ACIR0PCB011
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-5. SUPER SPIN MOVE LEFT LIMIT SWITCH ERROR (Er.36)

ERROR or LOCATION	P1	P2						
		 <table border="1" data-bbox="1034 1547 1465 1641"> <tr> <td>1</td><td>SHORT</td><td>ON</td> </tr> <tr> <td>2</td><td>OPEN</td><td>OFF</td> </tr> </table>	1	SHORT	ON	2	OPEN	OFF
1	SHORT	ON						
2	OPEN	OFF						

### ► SOLUTION

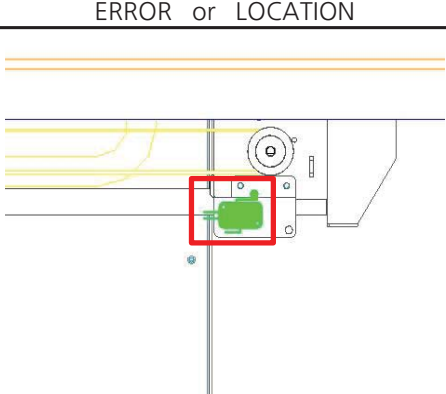
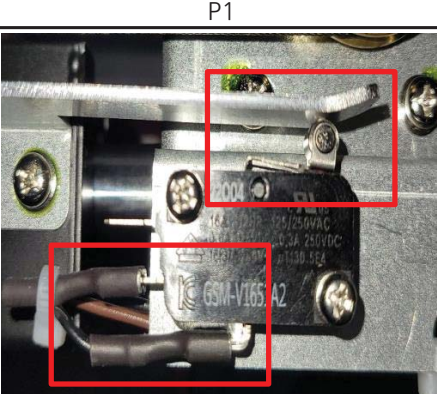
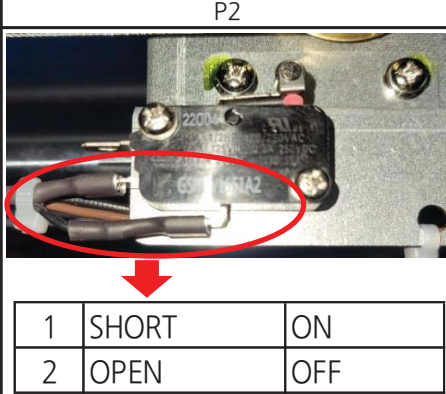
- TEST MODE → MOT JP-MOVE
  - 1P (LEFT), 2P (RIGHT) direction movement action with fire button
  - TICKET FND
    - Ⓐ Second digit : LEFT LIMIT switch status display(0,1)
    - Ⓑ Third digit : Center position sensor status display(0,1)
    - Ⓒ 4th digit : RIGHT LIMIT switch status display (0,1)

- CHECK :
  - 1) Check the state of equipment and switch assembly (P1)
  - 2) Wiring change status confirmation (P1)
  - 3) LIMIT SWITCH resistance measurement (P2)
  - 4) REPLACE LIMIT SWITCH
  - 5) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MICRO SWITCH	MELE0MIC021	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013



## 11-6. SUPER SPIN MOVE RIGHT LIMIT SWITCH ERROR (Er.37)

ERROR or LOCATION	P1	P2						
								
		<table border="1"> <tr> <td>1</td> <td>SHORT</td> <td>ON</td> </tr> <tr> <td>2</td> <td>OPEN</td> <td>OFF</td> </tr> </table>	1	SHORT	ON	2	OPEN	OFF
1	SHORT	ON						
2	OPEN	OFF						

### ► SOLUTION

#### 1. TEST MODE → MOT JP MOVE

- ▶ 1P (LEFT), 2P (RIGHT) direction movement action with fire button

#### ▶ TICKET FND

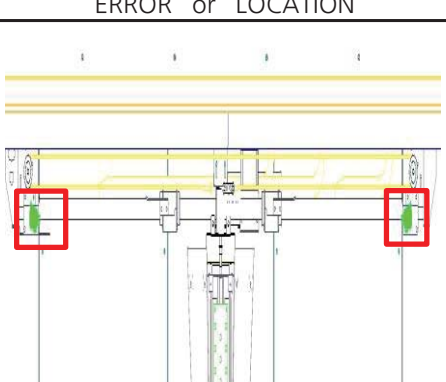
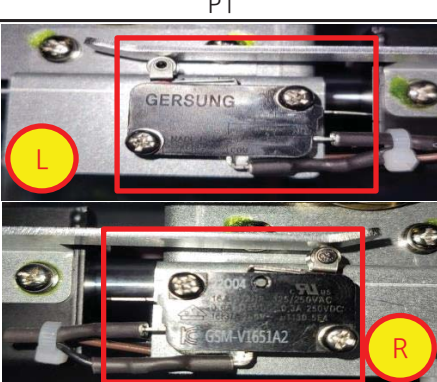
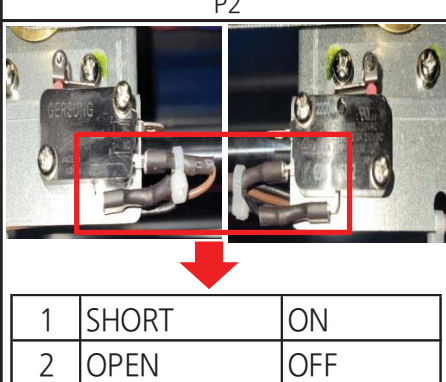
- Ⓐ Second digit : LEFT LIMIT switch status display(0,1)
- Ⓑ Third digit : Center position sensor status display(0,1)
- Ⓒ 4th digit : RIGHT LIMIT switch status display (0,1)

#### 2. CHECK :

- 1) Check structure and switch assembly status (P1)
- 2) Wiring change status confirmation (P1)
- 3) LIMIT SWITCH resistance measurement (P2)
- 4) REPLACE LIMIT SWITCH
- 5) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MICRO SWITCH	MELEOMIC021	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013

## 11-7. SUPER SPIN MOVE LEFT / RIGHT LIMIT SWITCH ERROR (Er.38)

ERROR or LOCATION	P1	P2						
								
		<table border="1"> <tr> <td>1</td> <td>SHORT</td> <td>ON</td> </tr> <tr> <td>2</td> <td>OPEN</td> <td>OFF</td> </tr> </table>	1	SHORT	ON	2	OPEN	OFF
1	SHORT	ON						
2	OPEN	OFF						

### ► SOLUTION

#### 1. TEST MODE → MOT JP MOVE

- ▶ 1P(LEFT),2P(RIGHT) Directional movement action with fire button

#### ▶ TICKET FND

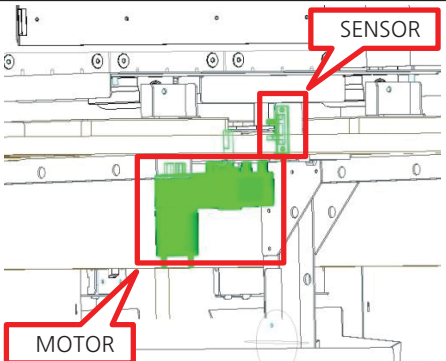
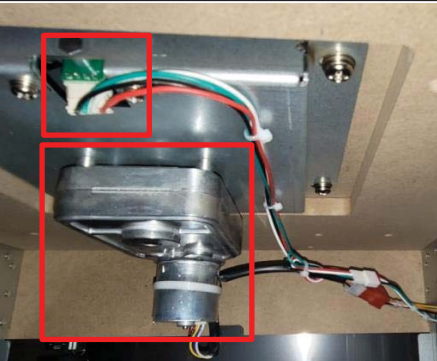

- Ⓐ Second digit : LEFT LIMIT switch status display(0,1)
- Ⓑ Third digit : Center position sensor status display(0,1)
- Ⓒ 4th digit : RIGHT LIMIT switch status display (0,1)

#### 2. CHECK :

- 1) Check structure and switch assembly status (P1)
- 2) Wiring change status confirmation (P1)
- 3) LIMIT SWITCH resistance measurement (P2)
- 4) REPLACE LIMIT SWITCH
- 5) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MICRO SWITCH	MELEOMIC021	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013

## 11-8. PUSHER MOTOR & SENSOR ERROR (Er.41)

ERROR or LOCATION	P1	P2																														
		 <table border="1" data-bbox="1021 280 1332 459"> <tr> <td>4</td> <td>3</td> <td>2</td> <td>1</td> <td></td> </tr> <tr> <td>1</td> <td>Over 4.5V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>Below 0.1V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Over 4.5V</td> <td>detect</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Below 0.1V</td> <td>undetected</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>GND</td> <td></td> <td></td> <td></td> </tr> </table>	4	3	2	1		1	Over 4.5V				2	Below 0.1V				3	Over 4.5V	detect				Below 0.1V	undetected			4	GND			
4	3	2	1																													
1	Over 4.5V																															
2	Below 0.1V																															
3	Over 4.5V	detect																														
	Below 0.1V	undetected																														
4	GND																															

### ► SOLUTION

1. TEST MODE → MOT PUSHER , INPUT TEST

#### ► TICKET FND

Ⓐ First, second digit : sensor count display

Ⓑ Third and fourth digits : Display the maximum number of sensor counts

#### ► BIG BALL STOCK FND

Ⓐ Sensor status display : ON → "1" / OFF → "0"

2. CHECK :

1) Check motor assembly condition (P1)

2) Check wiring connection status (P1)

3) Motor replacement

4) MAIN PCB Replacement

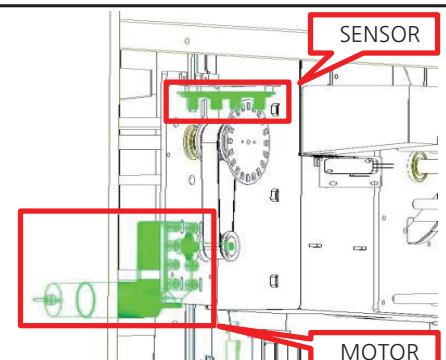
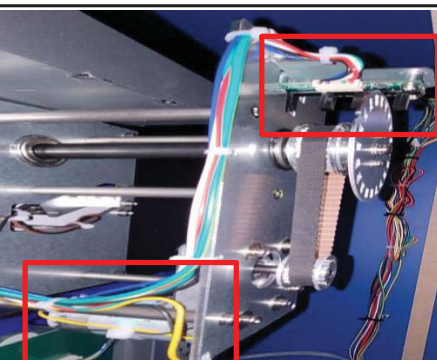
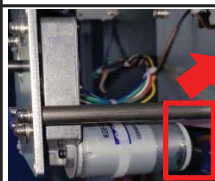
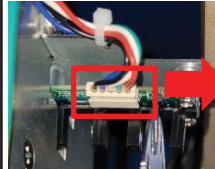
5) Check sensor voltage measurement (P2) / INPUT TEST

7) Sensor PCB replacement

8) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MOTOR_BLDC	MZZZ0MOT152	PHOTO INT-1 PCB ASS'Y	AZZZ0PCB103
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-9. BIG BALL GAME MOTOR & SENSOR ERROR (Er.51,Er.52)

ERROR or LOCATION	P1	P2																																																						
		 <table border="1" data-bbox="1244 1120 1468 1198"> <tr> <td>1</td> <td>Over 7.5V</td> <td></td> </tr> <tr> <td>2</td> <td>GND</td> <td></td> </tr> </table>  <table border="1" data-bbox="1244 1310 1468 1478"> <tr> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>1</td> <td></td> </tr> <tr> <td>1</td> <td>Over 4.5V</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>Below 0.2V</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Over 4.5V</td> <td>detect</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Below 0.1V</td> <td>undetected</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>Over 4.5V</td> <td>detect</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Below 0.1V</td> <td>undetected</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>GND</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	1	Over 7.5V		2	GND		5	4	3	2	1		1	Over 4.5V					2	Below 0.2V					3	Over 4.5V	detect					Below 0.1V	undetected				4	Over 4.5V	detect					Below 0.1V	undetected				5	GND				
1	Over 7.5V																																																							
2	GND																																																							
5	4	3	2	1																																																				
1	Over 4.5V																																																							
2	Below 0.2V																																																							
3	Over 4.5V	detect																																																						
	Below 0.1V	undetected																																																						
4	Over 4.5V	detect																																																						
	Below 0.1V	undetected																																																						
5	GND																																																							

### ► SOLUTION

1. TEST MODE → MOT BNS GAME , INPUT TEST

#### ► SUPER BONUS FND

Ⓐ First digit : 1P motor origin encoder sensor status(0,1)

Ⓑ Second digit : 1P motor origin encoder check count(0,9)

Ⓒ Third digit : 2P motor origin encoder sensor status(0,1)

Ⓓ 4th digit : 2P motor origin encoder check count(0,9)

#### ► TICKET FND

Ⓐ First digit : Encoder sensor status display(0,1)

Ⓑ Second, Third digit : Encoder sensor check count

Ⓒ Third digit : 2P motor origin encoder sensor status(0,1)

2. CHECK :

1) Check motor assembly status

2) Check wiring connections (P1)

3) Motor voltage measurement (P2)

4) Motor replacement

5) MAIN PCB Replacement

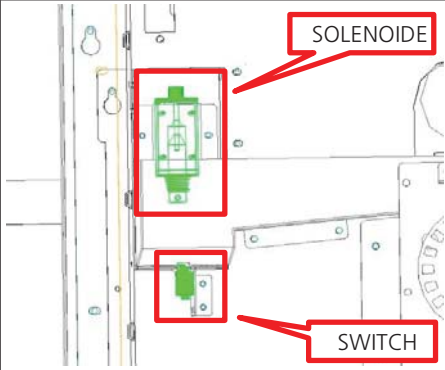
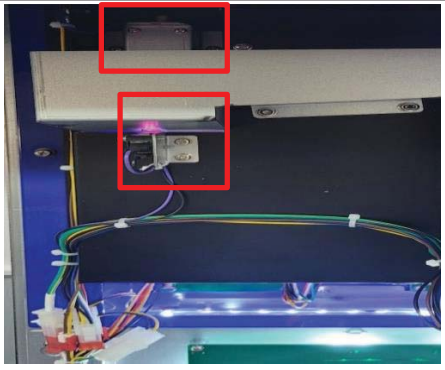
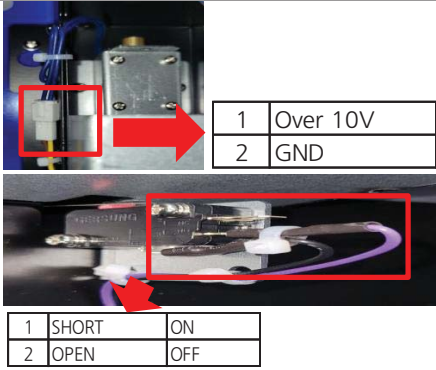
6) Check sensor voltage measurement (P2) / INPUT TEST

7) Sensor PCB replacement

8) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MOTOR	MZZZ0MOT130	PHOTO INT-2 PCB ASS'Y	AWIW0PCB009
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-10. BIG BALL GAME START SWITCH & SOLENOIDE ERROR (Er.53)

ERROR or LOCATION	P1	P2										
		 <table border="1" style="float: right; margin-top: 10px;"> <tr> <td>1</td> <td>Over 10V</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> </table> <table border="1" style="float: right; margin-top: 10px;"> <tr> <td>1</td> <td>SHORT</td> <td>ON</td> </tr> <tr> <td>2</td> <td>OPEN</td> <td>OFF</td> </tr> </table>	1	Over 10V	2	GND	1	SHORT	ON	2	OPEN	OFF
1	Over 10V											
2	GND											
1	SHORT	ON										
2	OPEN	OFF										

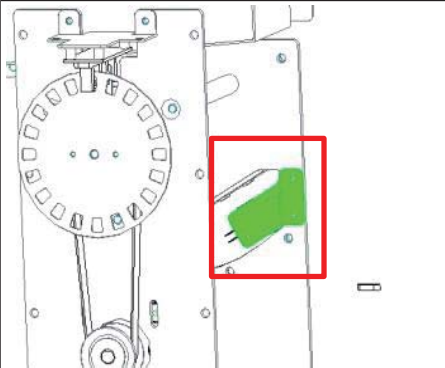
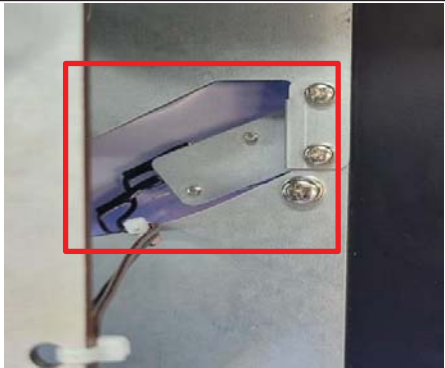
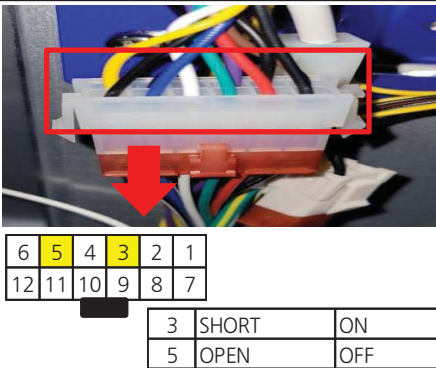
### ► SOLUTION

1. TEST MODE → MOT BNS GAME
  - BIG BALL STOCK FND
    - ⓐ "0" : No ball detection status
    - ⓑ "1" : Ball start switch detected
  - SPIDER SENSE LAMP
    - : Ball start switch status indication(ON,OFF)
2. CHECK :
  - 1) Check switch assembly status and solenoid assembly status (P1)

- 2) Wiring regularity check (P1)
- 3) Switch resistance measurement (P2)
- 4) Switch replacement
- 5) MAIN PCB Replacement
- 6) Solenoid voltage measurement (P2)
- 7) Solenoid replacement
- 8) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MICRO SWITCH	MELEOMIC032	SOLENOIDE	MELEOSOL012
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-11. BBIG BALL GAME SUCCES SWITCH ERROR (Er.54)

ERROR or LOCATION	P1	P2																		
		 <table border="1" style="float: right; margin-top: 10px;"> <tr> <td>6</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>1</td> </tr> <tr> <td>12</td> <td>11</td> <td>10</td> <td>9</td> <td>8</td> <td>7</td> </tr> </table> <table border="1" style="float: right; margin-top: 10px;"> <tr> <td>3</td> <td>SHORT</td> <td>ON</td> </tr> <tr> <td>5</td> <td>OPEN</td> <td>OFF</td> </tr> </table>	6	5	4	3	2	1	12	11	10	9	8	7	3	SHORT	ON	5	OPEN	OFF
6	5	4	3	2	1															
12	11	10	9	8	7															
3	SHORT	ON																		
5	OPEN	OFF																		

### ► SOLUTION

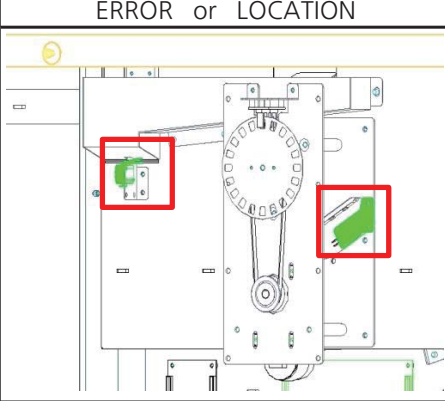
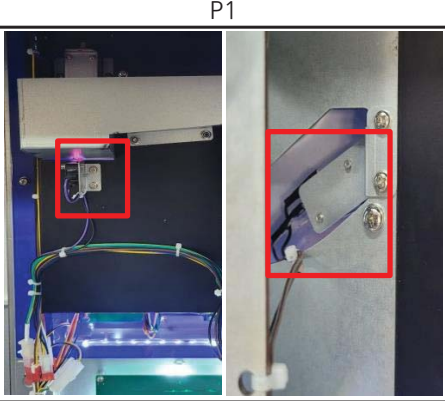
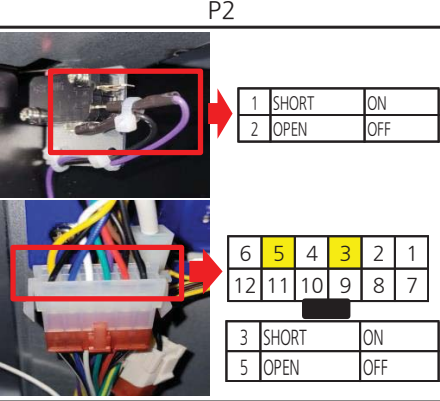
1. TEST MODE → MOT BNS-GAME
  - BIG BALL STOCK FND
    - ⓐ "0" : No ball detection status
    - ⓑ "2" : Ball Goal Inspection Switch Detected
  - GAME BOARD LED LAMP
    - : Ball Goal Inspection Switch State Display (All ON,OFF)
2. CHECK :
  - 1) Check switch assembly (P1)

- 2) Wiring regularity check (P1)
- 3) Switch resistance measurement (P2)
- 4) Switch replacement
- 5) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MICRO SWITCH	MELEOMIC032	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013



## 11-12. BIG BALL GAME START SWITCH & SUCCES SWITCH ERROR (Er.55)

ERROR or LOCATION	P1	P2																								
		 <table border="1" data-bbox="1260 212 1460 268"> <tr> <td>1</td> <td>SHORT</td> <td>ON</td> </tr> <tr> <td>2</td> <td>OPEN</td> <td>OFF</td> </tr> </table> <table border="1" data-bbox="1252 358 1460 436"> <tr> <td>6</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>1</td> </tr> <tr> <td>12</td> <td>11</td> <td>10</td> <td>9</td> <td>8</td> <td>7</td> </tr> </table> <table border="1" data-bbox="1252 448 1460 504"> <tr> <td>3</td> <td>SHORT</td> <td>ON</td> </tr> <tr> <td>5</td> <td>OPEN</td> <td>OFF</td> </tr> </table>	1	SHORT	ON	2	OPEN	OFF	6	5	4	3	2	1	12	11	10	9	8	7	3	SHORT	ON	5	OPEN	OFF
1	SHORT	ON																								
2	OPEN	OFF																								
6	5	4	3	2	1																					
12	11	10	9	8	7																					
3	SHORT	ON																								
5	OPEN	OFF																								

### ► SOLUTION

#### 1. TEST MODE → MOT BNS-GAME

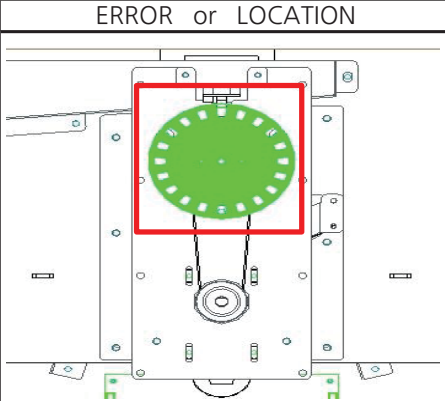
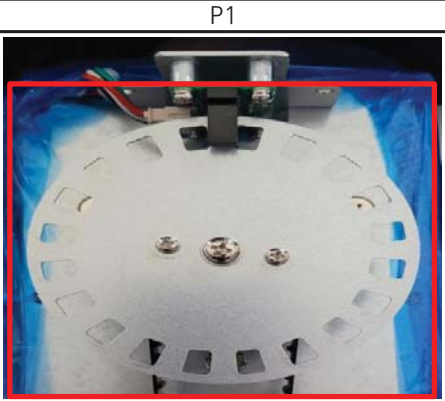
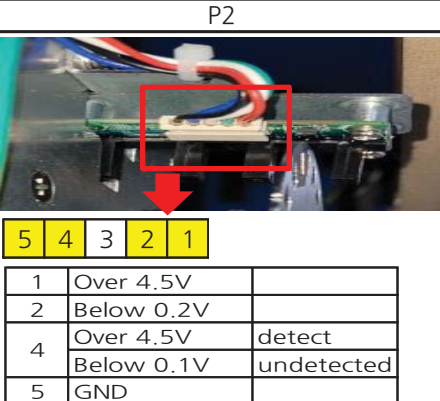
- BIG BALL STOCK FND
  - Ⓐ "0" : No ball detection status
  - Ⓑ "1" : Ball start switch detected
  - Ⓒ "2" : Ball Goal Inspection Switch Detected
- SPIDER SENSE LAMP
  - : Ball start switch status indication(ON,OFF)
- GAME BOARD LED LAMP
  - : Ball Goal Inspection Switch State Display (All ON,OFF)

#### 2. CHECK :

- 1) Check start/check switch assembly (P1)
- 2) Wiring regularity check (P1)
- 3) Start switch resistance measurement (P2)
- 4) Start switch replacement
- 5) MAIN PCB Replacement
- 6) Test switch resistance measurement (P2)
- 7) Replacing the Inspection Switch
- 8) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MICRO SWITCH	MELE0MIC032	MICRO SWITCH	MELE0MIC032
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-13. BIG BALL GAME MOTOR SUB ENCODER COUNT ERROR (Er.56)

ERROR or LOCATION	P1	P2																				
		 <table border="1" data-bbox="1027 1444 1236 1489"> <tr> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>1</td> </tr> </table> <table border="1" data-bbox="1027 1489 1428 1624"> <tr> <td>1</td> <td>Over 4.5V</td> <td></td> </tr> <tr> <td>2</td> <td>Below 0.2V</td> <td></td> </tr> <tr> <td>4</td> <td>Over 4.5V</td> <td>detect</td> </tr> <tr> <td></td> <td>Below 0.1V</td> <td>undetected</td> </tr> <tr> <td>5</td> <td>GND</td> <td></td> </tr> </table>	5	4	3	2	1	1	Over 4.5V		2	Below 0.2V		4	Over 4.5V	detect		Below 0.1V	undetected	5	GND	
5	4	3	2	1																		
1	Over 4.5V																					
2	Below 0.2V																					
4	Over 4.5V	detect																				
	Below 0.1V	undetected																				
5	GND																					

### ► SOLUTION

#### 1. TEST MODE → MOT BNS-GAME , INPUT TEST

- TICKET FND
  - Ⓐ First digit : Encoder sensor status display(0,1)
  - Ⓑ Second, Third digit : Encoder sensor check count display(01~20)

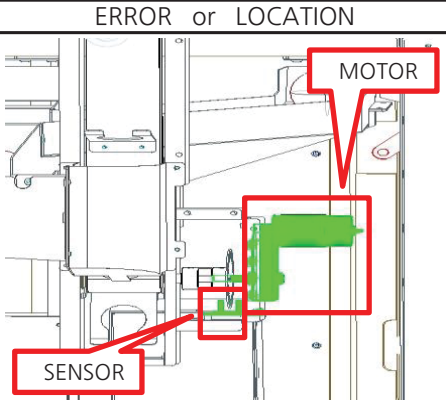
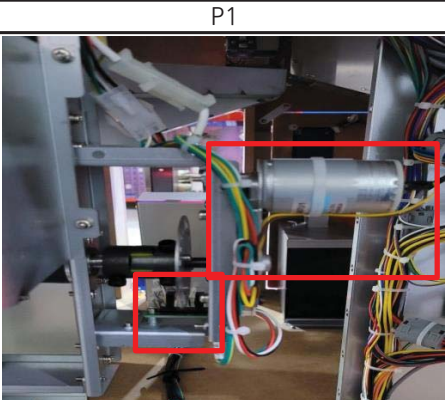
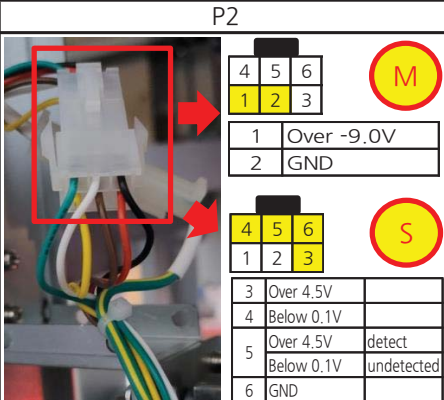
#### 2. CHECK :

- 1) Check the assembly status of encoder sensor and equipment (P1)
- 2) Check whether the odd number of encoder brackets is 20 (P1)

- 3) Check wiring connections
- 4) Check sensor voltage (P2) / Check in INPUT TEST
- 5) Sensor PCB replacement
- 6) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
PHOTO INT-2 PCB ASS'Y	AWIW0PCB009	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013

## 11-14. BIG BALL ELEVATOR MOTOR & SENSOR ERROR (Er.61)

ERROR or LOCATION	P1	P2																																	
		 <table border="1" style="margin-top: 10px;"> <tr> <td>4</td><td>5</td><td>6</td></tr> <tr> <td>1</td><td>2</td><td>3</td></tr> <tr> <td>1</td><td colspan="2">Over -9.0V</td></tr> <tr> <td>2</td><td colspan="2">GND</td></tr> </table> <table border="1" style="margin-top: 10px;"> <tr> <td>4</td><td>5</td><td>6</td></tr> <tr> <td>1</td><td>2</td><td>3</td></tr> <tr> <td>3</td><td colspan="2">Over 4.5V</td></tr> <tr> <td>4</td><td colspan="2">Below 0.1V</td></tr> <tr> <td>5</td><td>Over 4.5V</td><td>detect</td></tr> <tr> <td></td><td>Below 0.1V</td><td>undetected</td></tr> <tr> <td>6</td><td colspan="2">GND</td></tr> </table>	4	5	6	1	2	3	1	Over -9.0V		2	GND		4	5	6	1	2	3	3	Over 4.5V		4	Below 0.1V		5	Over 4.5V	detect		Below 0.1V	undetected	6	GND	
4	5	6																																	
1	2	3																																	
1	Over -9.0V																																		
2	GND																																		
4	5	6																																	
1	2	3																																	
3	Over 4.5V																																		
4	Below 0.1V																																		
5	Over 4.5V	detect																																	
	Below 0.1V	undetected																																	
6	GND																																		

### ► SOLUTION

1. TEST MODE → MOT BIG-ELEV, INPUT TEST

#### ► TICKET FND

Ⓐ First digit : Encoder sensor status display(0,1)

Ⓑ Third and fourth digits :  
Encoder sensor check count (00~99)

2. CHECK :

- 1) Check the assembly state of motor and encoder mechanism(P1)
- 2) Check wiring connections(P1)

3) Check motor voltage (P2)

4) Motor replacement

5) MAIN PCB Replacement

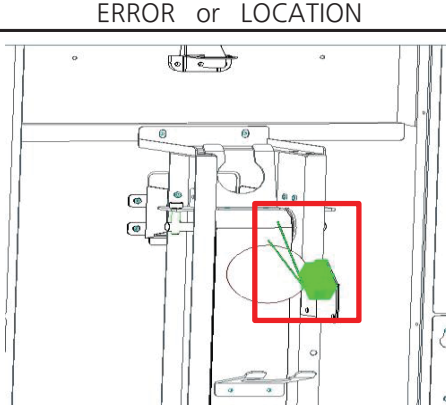
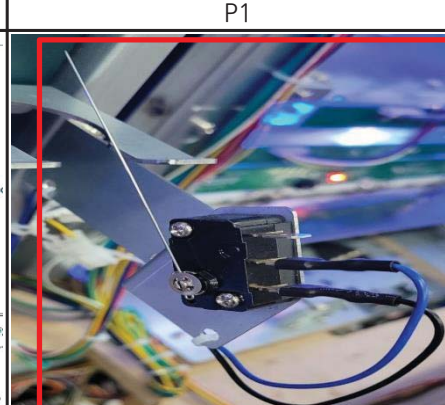
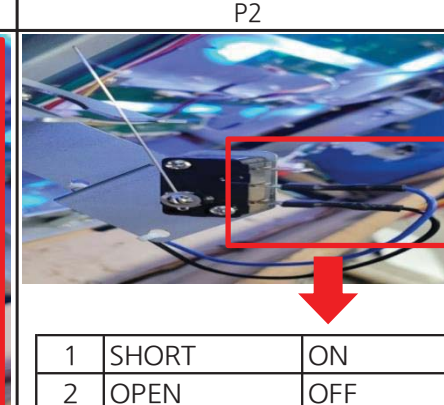
6) Check sensor voltage (P2) / check at INPUT TEST

7) Sensor PCB replacement

8) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MOTOR	MZZZ0MOT155	PHOTO INT-1 PCB ASS'Y	AZZZ0PCB103
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-15. BIG BALL ELEVATOR UPPER SWITCH ERROR (Er.62)

ERROR or LOCATION	P1	P2						
		 <table border="1" style="margin-top: 10px;"> <tr> <td>1</td><td>SHORT</td><td>ON</td></tr> <tr> <td>2</td><td>OPEN</td><td>OFF</td></tr> </table>	1	SHORT	ON	2	OPEN	OFF
1	SHORT	ON						
2	OPEN	OFF						

### ► SOLUTION

1. TEST MODE → MOT BIG-ELEV , INPUT TEST

#### ► GAME BOARD LED LAMP

Ⓐ Second digit (BIG BALL) :  
switch detection status indication (ON,OFF)

2. CHECK :

- 1) Check the assembly state of the switch mechanism (P1)
- 2) Check wiring connections (P1)

3) Check switch resistance value (P2)

4) Switch replacement

5) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MICRO SWITCH	MELEOMIC002	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013

## 11-16. BIG BALL FEEDING MOTOR & SENSOR ERROR (Er.63)

ERROR or LOCATION	P1	P2																																																										
		<table border="1"> <tr> <td>2</td> <td>1</td> <td></td> <td></td> <td rowspan="2"> </td> </tr> <tr> <td>1</td> <td>Over 6.5V</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>GND</td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>5</td> <td>4</td> <td></td> <td rowspan="2"> </td> </tr> <tr> <td>3</td> <td>2</td> <td>1</td> <td></td> </tr> <tr> <td>1</td> <td>Over 4.5V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>Below 0.1V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Over 4.5V</td> <td>detect</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Below 0.1V</td> <td>undetected</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>Over 4.5V</td> <td>detect</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Below 0.1V</td> <td>undetected</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>GND</td> <td></td> <td></td> <td></td> </tr> </table>	2	1				1	Over 6.5V			2	GND				6	5	4			3	2	1		1	Over 4.5V				2	Below 0.1V				3	Over 4.5V	detect				Below 0.1V	undetected			4	Over 4.5V	detect				Below 0.1V	undetected			5	GND			
2	1																																																											
1	Over 6.5V																																																											
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3	Over 4.5V	detect																																																										
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4	Over 4.5V	detect																																																										
	Below 0.1V	undetected																																																										
5	GND																																																											

### ► SOLUTION

- |   |  |
|---|--|
| <p>1. TEST MODE → MOT BIG-DROP , INPUT TEST</p> <p>► 1P TICKET FND</p> <ul style="list-style-type: none"> <li>Ⓐ First digit : Dividend encoder sensor status display(0,1)</li> <li>Ⓑ Third and fourth digits : Branch encoder sensor check count display(00~99)</li> </ul> <p>► 2P TICKET FND</p> <ul style="list-style-type: none"> <li>Ⓐ First digit : Home encoder sensor status display(0,1)</li> <li>Ⓑ Third and fourth digits : Origin encoder sensor check count display(00~99)</li> </ul> | <p>2. CHECK :</p> <ol style="list-style-type: none"> <li>1) Check the assembly state of motor and encoder mechanism(P1)</li> <li>2) Check wiring connections(P1)</li> <li>3) Check motor voltage(P2)</li> <li>4) Motor replacement</li> <li>5) MAIN PCB Replacement</li> <li>6) Check sensor voltage (P2) / check at INPUT TEST</li> <li>7) Sensor PCB replacement</li> <li>8) MAIN PCB Replacement</li> </ol> |
|---|--|

PART NAME	CODE	PART NAME	CODE
MOTOR	MZZZ0MOT100	PHOTO INT-2 PCB ASS'Y	AWIW0PCB009
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-17. BIG BALL FEEDING LEFT LIMIT SWITCH ERROR (Er.65)

ERROR or LOCATION	P1	P2						
		<table border="1"> <tr> <td>1</td> <td>SHORT</td> <td>ON</td> </tr> <tr> <td>2</td> <td>OPEN</td> <td>OFF</td> </tr> </table>	1	SHORT	ON	2	OPEN	OFF
1	SHORT	ON						
2	OPEN	OFF						

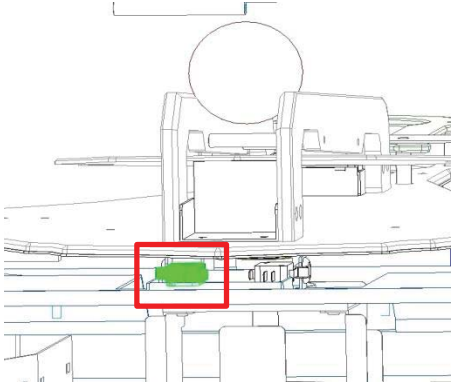
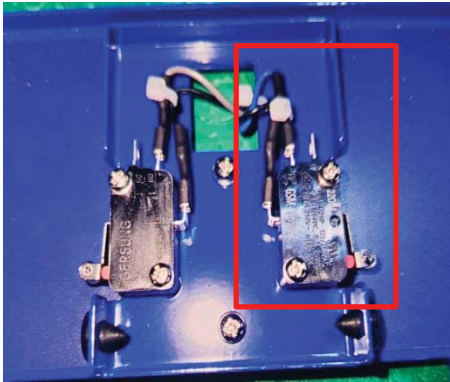
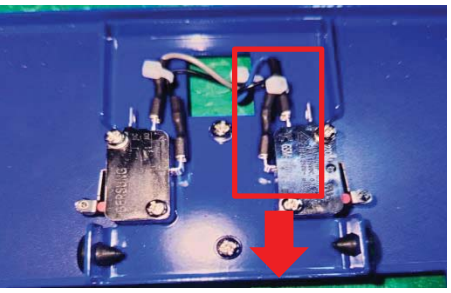
### ► SOLUTION

- |  |   |
|--|---|
| <p>1. TEST MODE → MOT BIG-DROP</p> <p>► BIG BALL STOCK FND First digit</p> <ul style="list-style-type: none"> <li>Ⓐ "0" : No signal</li> <li>Ⓑ "1" : LEFT SWITCH position detection</li> <li>Ⓒ "2" : RIGHT SWITCH position detection</li> <li>Ⓓ "3" : Detect both LEFT and RIGHT SWITCH</li> </ul> | <p>2. CHECK :</p> <ol style="list-style-type: none"> <li>1) Check the assembly state of the switch mechanism (P1)</li> <li>2) Check wiring connections (P1)</li> <li>3) Check switch resistance value (P2)</li> <li>4) Switch replacement</li> <li>5) MAIN PCB Replacement</li> </ol> |
|--|---|

PART NAME	CODE	PART NAME	CODE
MICRO SWITCH	MELEOMIC021	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013



## 11-18. BIG BALL FEEDING RIGHT LIMIT SWITCH ERROR (Er.66)

ERROR or LOCATION	P1	P2						
		 <table border="1" data-bbox="1061 492 1481 571"> <tr> <td>1</td> <td>SHORT</td> <td>ON</td> </tr> <tr> <td>2</td> <td>OPEN</td> <td>OFF</td> </tr> </table>	1	SHORT	ON	2	OPEN	OFF
1	SHORT	ON						
2	OPEN	OFF						

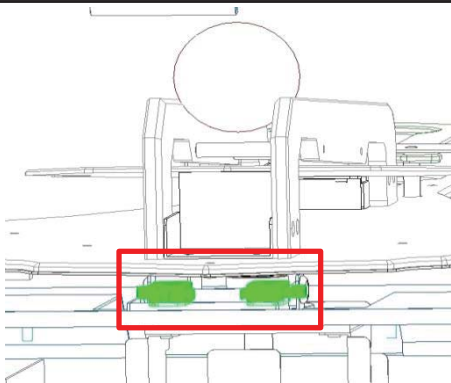
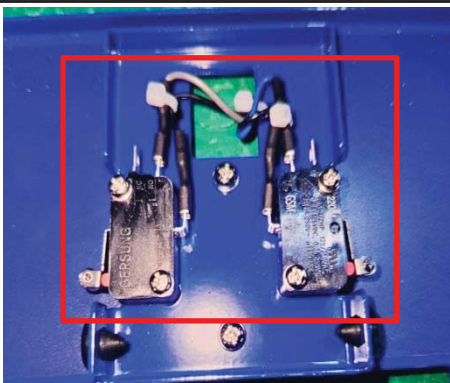
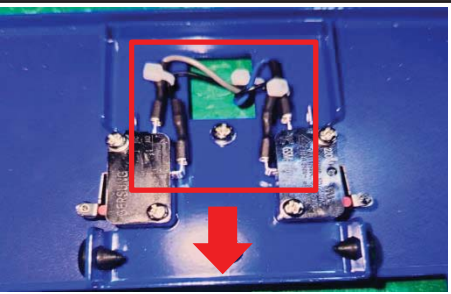
### ► SOLUTION

1. TEST MODE → MOT BIG-DROP
  - BIG BALL STOCK FND First digit
    - Ⓐ "0" : No signal
    - Ⓑ "1" : LEFT SWITCH position detection
    - Ⓒ "2" : RIGHT SWITCH position detection
    - Ⓓ "3" : Detect both LEFT and RIGHT SWITCH

2. CHECK :
  - 1) Check the assembly state of the switch mechanism (P1)
  - 2) Check wiring connections (P1)
  - 3) Check switch resistance value (P2)
  - 4) Switch replacement
  - 5) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MICRO SWITCH	MELE0MIC021	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013

## 11-19. BIG BALL FEEDING LEFT / RIGHT LIMIT SWITCH ERROR (Er.67)

ERROR or LOCATION	P1	P2						
		 <table border="1" data-bbox="1061 1507 1481 1585"> <tr> <td>1</td> <td>SHORT</td> <td>ON</td> </tr> <tr> <td>2</td> <td>OPEN</td> <td>OFF</td> </tr> </table>	1	SHORT	ON	2	OPEN	OFF
1	SHORT	ON						
2	OPEN	OFF						

### ► SOLUTION

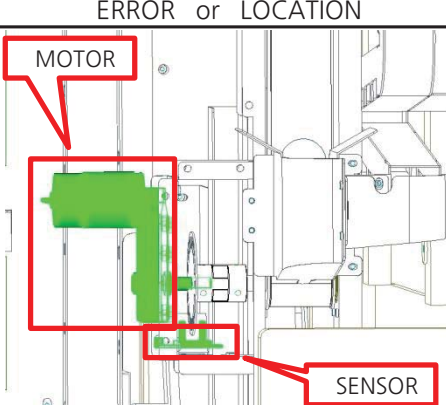
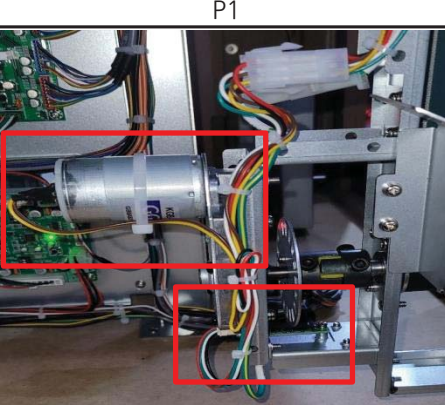
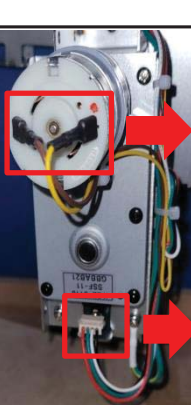
1. TEST MODE → MOT BIG-DROP
  - BIG BALL STOCK FND First digit
    - Ⓐ "0" : No signal
    - Ⓑ "1" : LEFT SWITCH position detection
    - Ⓒ "2" : RIGHT SWITCH position detection
    - Ⓓ "3" : Detect both LEFT and RIGHT SWITCH

2. CHECK :
  - 1) Check the assembly state of the switch mechanism (P1)

- 2) Check wiring connections (P1)
- 3) Check the 1P switch resistance value (P2)
- 4) 1P switch replacement
- 5) MAIN PCB Replacement
- 6) Check the 2P switch resistance value (P2)
- 7) 2P switch replacement
- 8) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MICRO SWITCH	MELE0MIC021	MICRO SWITCH	MELE0MIC021
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-20. SMALL BALL ELEVATOR MOTOR & SENSOR ERROR (Er.71)

ERROR or LOCATION	P1	P2																																
		 <table border="1" style="margin-top: 10px;"> <tr> <td colspan="2" style="text-align: right;"><b>M</b></td> </tr> <tr> <td>1</td> <td>Over 10V</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> </table> <table border="1" style="margin-top: 10px;"> <tr> <td colspan="2" style="text-align: right;"><b>S</b></td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>1</td> <td>Over 4.5V</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>Below 0.1V</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Over 4.5V</td> <td>detect</td> <td></td> </tr> <tr> <td></td> <td>Below 0.1V</td> <td>undetected</td> <td></td> </tr> <tr> <td>4</td> <td>GND</td> <td></td> <td></td> </tr> </table>	<b>M</b>		1	Over 10V	2	GND	<b>S</b>		1	2	3	4	1	Over 4.5V			2	Below 0.1V			3	Over 4.5V	detect			Below 0.1V	undetected		4	GND		
<b>M</b>																																		
1	Over 10V																																	
2	GND																																	
<b>S</b>																																		
1	2	3	4																															
1	Over 4.5V																																	
2	Below 0.1V																																	
3	Over 4.5V	detect																																
	Below 0.1V	undetected																																
4	GND																																	

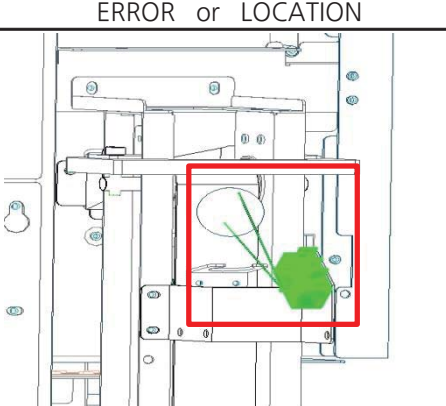
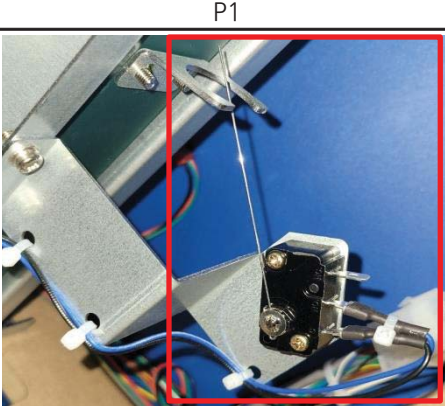

### ► SOLUTION

1. TEST MODE → MOT SMB-ELEV , INPUT TEST
  - TICKET FND
    - Ⓐ First digit : Encoder sensor status display(0,1)
    - Ⓑ Third and fourth digits : Encoder sensor check count display(00~99)
2. CHECK :
  - 1) Check the assembly state of motor and encoder mechanism (P1)
  - 2) Check wiring connections (P1)

- 3) Check motor voltage (P2)
- 4) Motor replacement
- 5) MAIN PCB Replacement
- 6) Check sensor voltage (P2) / check at INPUT TEST
- 7) Sensor PCB replacement
- 8) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MOTOR	MZZZ0MOT155	PHOTO INT-1 PCB ASS'Y	AZZZ0PCB103
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-21. SMALL BALL ELEVATOR UPPER SWITCH ERROR (Er.72)

ERROR or LOCATION	P1	P2						
		 <table border="1" style="margin-top: 10px;"> <tr> <td>1</td> <td>SHORT</td> <td>ON</td> </tr> <tr> <td>2</td> <td>OPEN</td> <td>OFF</td> </tr> </table>	1	SHORT	ON	2	OPEN	OFF
1	SHORT	ON						
2	OPEN	OFF						

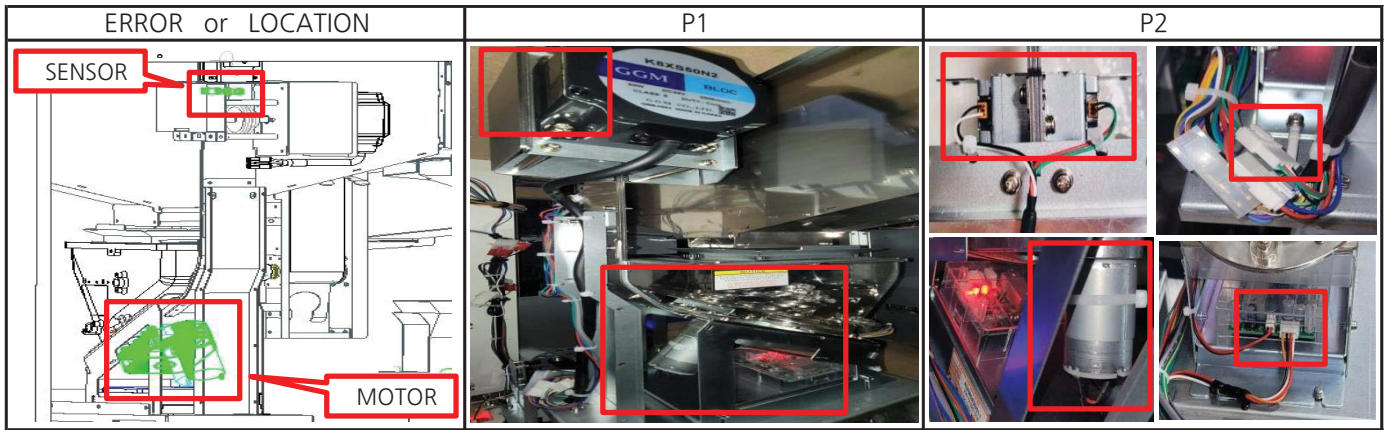
### ► SOLUTION

1. TEST MODE → MOT SMB-ELEV
  - GAME BOARD LED LAMP
    - Ⓐ First digit (TICKETS) : Switch detection status indication (ON,OFF)
2. CHECK :
  - 1) Check the assembly state of the switch mechanism(P1)
  - 2) Check wiring connections(P1)

- 3) Check switch resistance value (P2)
- 4) Sensor PCB replacement
- 5) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MICRO SWITCH	MELE0MIC002	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013

## 11-22. SHOOTER HOPPER MOTOR & SENSOR ERROR (Er.81)



### ► SOLUTION

#### 1. TEST MODE → MOT SHOT-SHOT

##### ► BIG BALL STOCK FND

: Shooter sensor detection status display(0,1)

##### ► TICKETS FND

: Count the number of medals fired(0000~9999)

#### 2. CHECK :

1) Check the motor and sensor assembly condition (P1)

2) Check wiring connections (P2)

3) Motor replacement (P2)

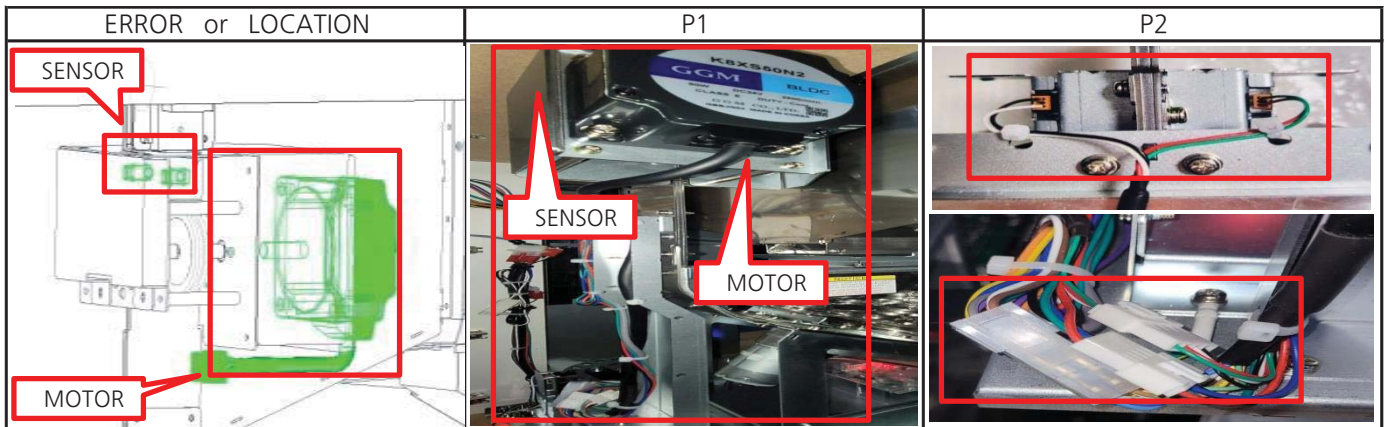
4) MAIN PCB Replacement

5) Sensor PCB replacement (P2)

6) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MOTOR	MZZZ0MOT181	PHOTO SENSOR G310_RX	PSEN0PHO013
PHOTO SENSOR ST310_TX	PSEN0PHO014	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013

## 11-23. SHOOTER MOTOR & SENSOR ERROR (Er.82)



### ► SOLUTION

#### 1. TEST MODE → MOT SHOT-SHOT

##### ► BIG BALL STOCK FND

: Shooter sensor detection status display(0,1)

##### ► TICKETS FND

: Count the number of medals fired(0000~9999)

#### 2. CHECK :

1) Check the motor and sensor assembly condition (P1)

2) Check wiring connections (P2)

3) Motor replacement (P2)

4) MAIN PCB Replacement

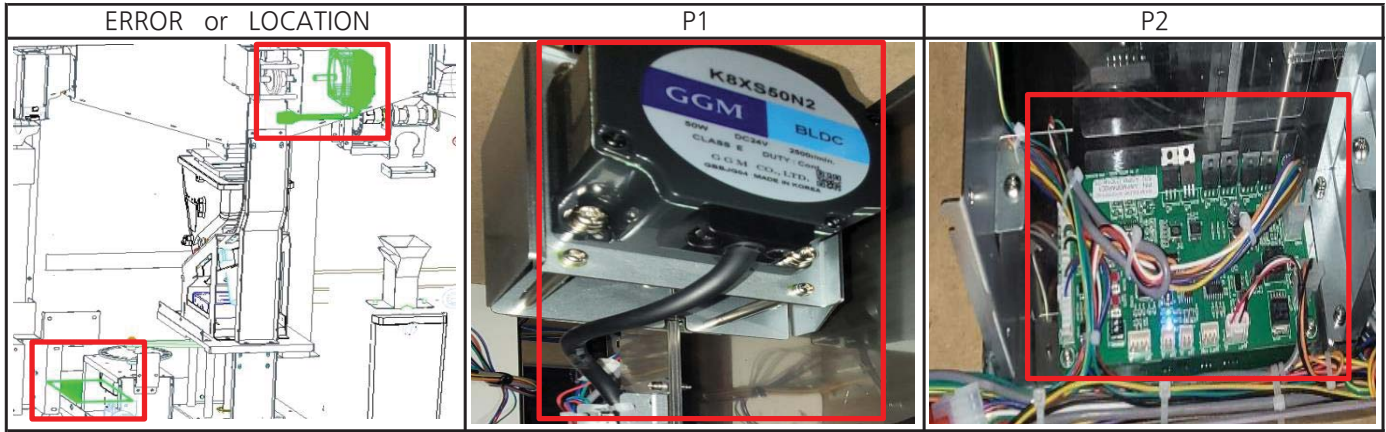
5) Sensor PCB replacement (P2)

6) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MOTOR	MZZZ0MOT180	PHOTO SENSOR G310_RX	PSEN0PHO013
PHOTO SENSOR ST310_TX	PSEN0PHO014	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013



## 11-24. SHOOTER BLDC ROLLER MOTOR ERROR (Er.83)



### ► SOLUTION

1. TEST MODE → MOT SHOT-SHOT

#### ► PLAYS FND

: Medal Launch BLDC Roller Motor Speed Display

2. CHECK :

1) Check the assembly condition of the motor mechanism (P1)

2) Check wiring connections (P1)

3) Check the BLDC I/O PCB assembly status (P1)

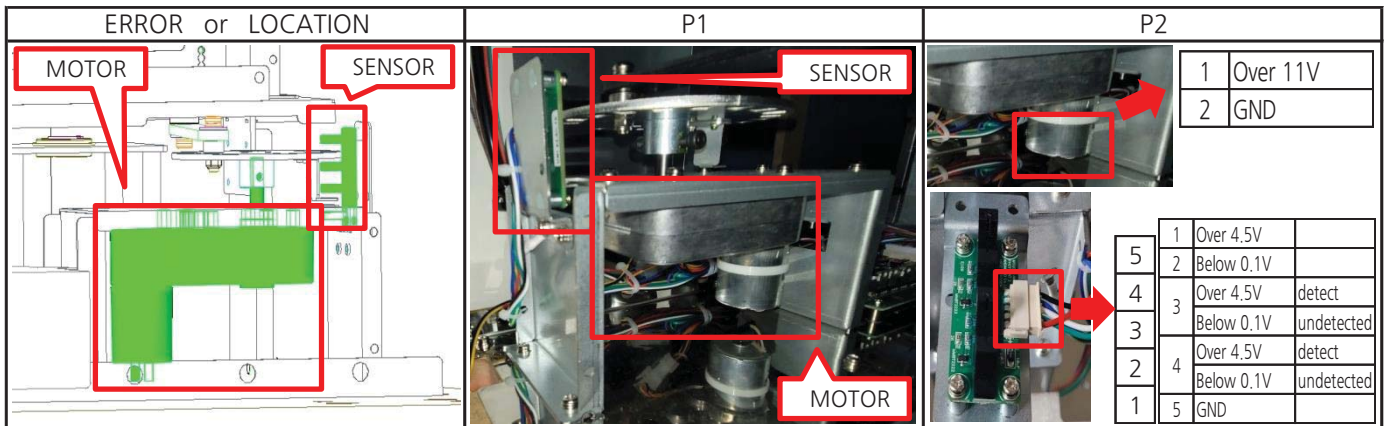
4) Check BLDC I/O PCB wiring connection status (P1)

5) BLDC I/O PCB Replacement

6) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
STM BLDC IO PCB ASS'Y	ASPM0PCB001	MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013

## 11-25. SHOOTER MOVE MOTOR & SENSOR ERROR (Er.84)



### ► SOLUTION

1. TEST MODE → MOT SHOT-MOVE , INPUT TEST

#### ► SUPER BONUS FND

Ⓐ First digit : 1P motor origin encoder sensor status(0,1)

Ⓑ Second digit : 1P motor origin encoder sensor check counter (0~9)

Ⓒ Third digit : 2P motor origin encoder sensor status(0,1)

Ⓓ Second digit : 1P motor origin encoder sensor check counter(0~9)

#### ► TICKET FND

2. CHECK :

1) Check the assembly state of the motor and sensor mechanism (P1)

2) Check wiring connections (P1)

3) Check motor voltage (P2)

4) Motor replacement

5) MAIN PCB Replacement

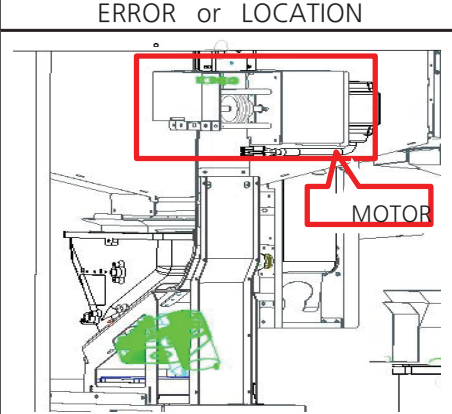
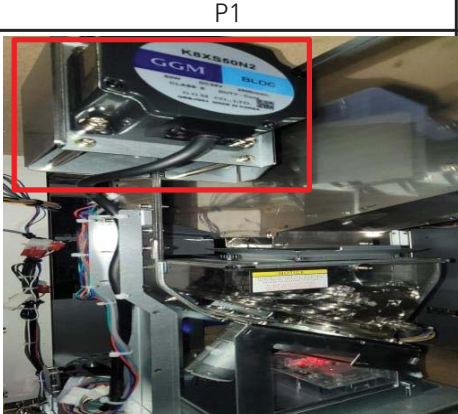
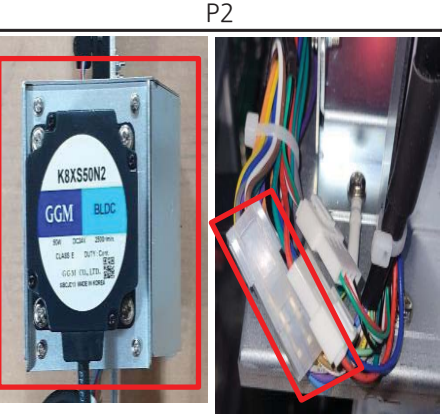
6) Check sensor voltage measurement (P2) / INPUT TEST

7) Sensor PCB replacement

8) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
MOTOR_BLDC	MZZZ0MOT160	PHOTO INT-2 PCB ASS'Y	AWIW0PCB009
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-26. SHOOTER BLDC ROLLER MOTOR SPEED ERROR (Er.87)

ERROR or LOCATION	P1	P2
		

### ► SOLUTION

#### 1. TEST MODE → MOT SHOT-SHOT

##### ► BIG BALL STOCK FND

: Medal Shooter BLDC IO Status Display


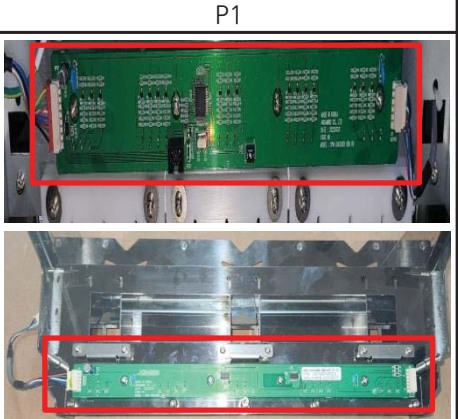
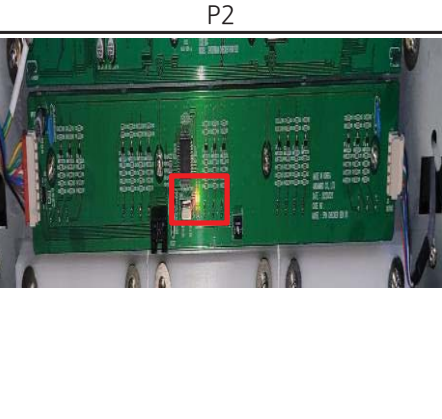
- Ⓐ "0" : No action
- Ⓑ "3" : Checking speed
- Ⓒ "5" : Motor operation and speed check completed

#### 2. CHECK :

- 1) Check the assembly condition of the motor mechanism (P1,P2)
- 2) Check wiring connections (P2)
- 3) Reassembly of the motor mechanism
- 4) Motor replacement
- 5) BLDC IO PCB Replacement

PART NAME	CODE	PART NAME	CODE
MOTOR	MZZZ0MOT180	STM BLDC IO PCB ASS'Y	ASPM0PCB001

## 11-27. CHECKER SENSOR ERROR (Er.91,Er92)

ERROR or LOCATION	P1	P2
		

### ► SOLUTION

#### 1. TEST MODE → MOT SHOT-SHOT

##### ► CHECKER HOLE LED

- Ⓐ RED LED ON : Checker sensor signal present
- Ⓑ OFF : Checker sensor no signal

#### 2. CHECK :

- 1) Check the state of assembly of equipment (P1)
- 2) Check PCB assembly status (P1)

#### 3) Check wiring connections (P1)

- 4) Check whether the LED on the back of the PCB is lit (P2)

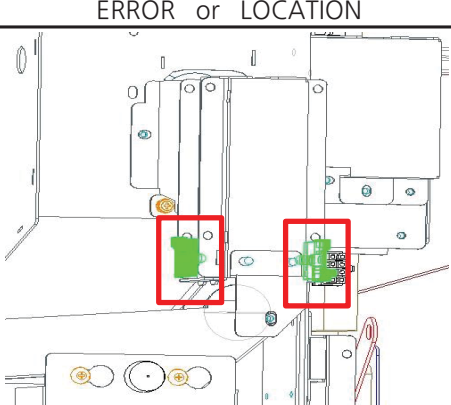
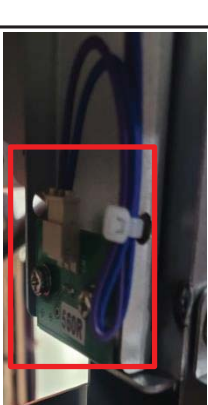
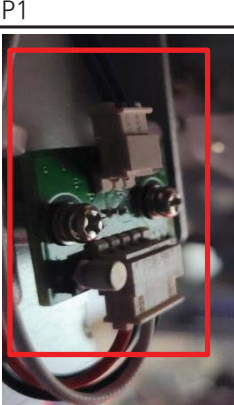
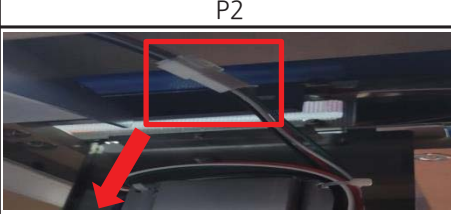
( RED : ON , GREEN : LIGHT ON )

- 5) CHECKER SENSOR RX PCB Replacement
- 6) CHECKER SENSOR TX PCB Replacement
- 7) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
CHECKER SENSOR RX PCB ASS'Y	ASPM0PCB002	CHECKER SENSOR TX PCB ASS'Y	ASPM0PCB003
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		



## 11-28. PUSHER PLATE SMALL BALL DROP SENSOR ERROR (Er.93)

ERROR or LOCATION	P1	P2																								
	 	 <table border="1" data-bbox="1040 347 1492 526"> <tr> <td>4</td> <td>3</td> <td>2</td> <td>1</td> </tr> <tr> <td>1</td> <td>Over 4.5V</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>Below 0.2V</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Over 4.5V</td> <td>detect</td> <td></td> </tr> <tr> <td></td> <td>Below 0.1V</td> <td>undetected</td> <td></td> </tr> <tr> <td>4</td> <td>GND</td> <td></td> <td></td> </tr> </table>	4	3	2	1	1	Over 4.5V			2	Below 0.2V			3	Over 4.5V	detect			Below 0.1V	undetected		4	GND		
4	3	2	1																							
1	Over 4.5V																									
2	Below 0.2V																									
3	Over 4.5V	detect																								
	Below 0.1V	undetected																								
4	GND																									

### ► SOLUTION

1. TEST MODE → MOT PUSHER , INPUT TEST

#### ► SUPER BONUS FND

- ⓐ First digit : 1P Small ball drop sensor check status display (0,1)
- ⓑ Third digit : 2P Small ball drop sensor check status indication (0,1)

#### ► GAME BOARD LED LAMP

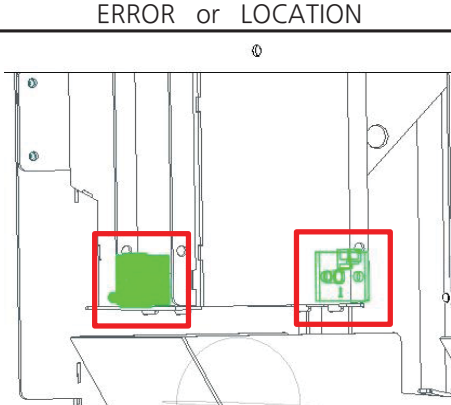

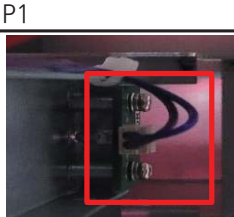
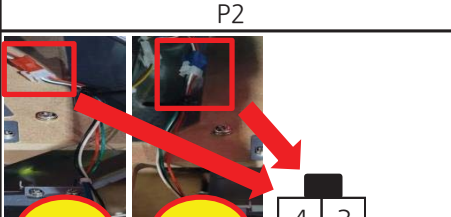
- ⓐ First digit (TICKETS) : ON when small ball is detected

2. CHECK :

- 1) Check the state of assembly of equipment (P1)
- 2) Check wiring connections (P1)
- 3) Check sensor voltage (P2)
- 4) Sensor PCB replacement
- 5) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
SENSOR_R PCB ASS'Y	MEIF0PAR014	SENSOR_T PCB ASS'Y	AAV20PCB011
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-29. PUSHER PLATE BIG BALL DROP SENSOR ERROR (Er.94)

ERROR or LOCATION	P1	P2																								
	 	 <table border="1" data-bbox="1040 1444 1492 1621"> <tr> <td>4</td> <td>3</td> </tr> <tr> <td>2</td> <td>1</td> </tr> </table> <table border="1" data-bbox="1040 1500 1492 1621"> <tr> <td>1</td> <td>Over 4.5V</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>Below 0.2V</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Over 4.5V</td> <td>detect</td> <td></td> </tr> <tr> <td></td> <td>Below 0.1V</td> <td>undetected</td> <td></td> </tr> <tr> <td>4</td> <td>GND</td> <td></td> <td></td> </tr> </table>	4	3	2	1	1	Over 4.5V			2	Below 0.2V			3	Over 4.5V	detect			Below 0.1V	undetected		4	GND		
4	3																									
2	1																									
1	Over 4.5V																									
2	Below 0.2V																									
3	Over 4.5V	detect																								
	Below 0.1V	undetected																								
4	GND																									

### ► SOLUTION

1. TEST MODE → MOT PUSHER , INPUT TEST

#### ► SUPER BONUS FND

- ⓐ Second digit : 1P Big ball fall sensor check status display (0,1)
- ⓑ 4th digit : 2P Big ball fall sensor check status display (0,1)

#### ► GAME BOARD LED LAMP

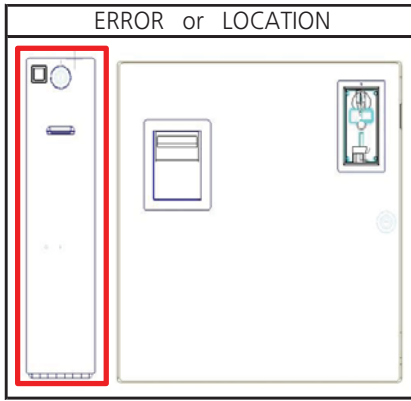
- ⓐ Second digit (BIG BALL) : ON when big ball is detected

2. CHECK :

- 1) Check the state of assembly of equipment (P1)
- 2) Check wiring connections (P1)
- 3) Check sensor voltage (P2)
- 4) Sensor PCB replacement
- 5) MAIN PCB Replacement

PART NAME	CODE	PART NAME	CODE
SENSOR_R PCB ASS'Y	MEIF0PAR014	SENSOR_T PCB ASS'Y	AAV20PCB011
MAIN PCB ASS'Y WITH CPU & MEMORY	ASPM0PCB013		

## 11-30. TICKET ERROR (HELP)



► SOLUTION			
1. TEST MODE → TICKET TEST 2. CHECK : 1) Check whether TICKET JAM 2) Check the cable connection status 3) REPLACE TICKET DISPENSER 4) MAIN PCB replacement			
PART NAME	CODE	PART NAME	CODE
MAIN I/O PCB ASS'Y	ASBTOASS001	TICKET DISPENSER	MZZZOTID010



## **ANDAMIRO WARRANTY POLICY**



Andamiro warrants to the original purchaser that all of its products will be free from defects in material and workmanship.

**Andamiro warrants the parts from date of shipment as follows.**

- **One Year Limited Warranty : Electronic Boards**
- **6 Months Limited Warranty : Moving Parts**

For any key components within the warranty period, Andamiro will repair or replace defective components free of charge.

When placing a warranty request, the customer is requested to furnish the following information:

1. Name of the game.
2. Serial Number of the game.
3. A Detailed Description of the defect/s experienced.

This warranty does not apply to the defects caused due to misuse or abuse of the product.

Any alterations made to game or game parts will void this warranty.

For warranty details on our product range please visit our website, [www.andamiro.com](http://www.andamiro.com).

ANDAMIRO CO., LTD.  
[www.andamiro.com](http://www.andamiro.com)





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**ANDAMIRO CO., LTD.**

TEL : 82-31-909-2123~5

**[ADDRESS OFFICE]** 704-1 Techno Town, 138, Ilsan-ro, Ilsandong-gu, Goyang-si,  
Gyeonggi-do, Republic of Korea 10442

**[FACTORY]** 72 Nochemgil, Ilsan-donggu Goyang-si, Gyonggi-do, 410-834 korea

**USA BRANCH**

ANDAMIRO USA CORP.

TEL : 1-310-767-5800

**[ADDRESS USA]** 2222 Century Cir, Irving TX 75062 U.S.A

Homepage <http://www.andamiro.com/>