

namco[®]

CROW FOR CASH



OPERATOR'S MANUAL

IT IS THE RESPONSIBILITY OF THE OPERATOR TO MAINTAIN CUSTOMER SAFETY AT ALL TIMES, AND IT IS IMPERATIVE THAT THE DETAILS SET OUT IN THIS MANUAL ARE FOLLOWED PRECISELY

CONTENTS

OPERATOR'S MANUAL	1
INSTALLATION	3
1. Specifications	6
2. Accessories	7
3. Overall Structure	8
4. How to Play	11
5. Adjustment of Payout Rate	12
6. DIP Switch Setting Chart	15
7. Routine Maintenance	16
8. Error Codes	23
9. Test Mode	24
10. Names and Details of Parts	27
Wiring Chart	

INSTALLATION

WARNING

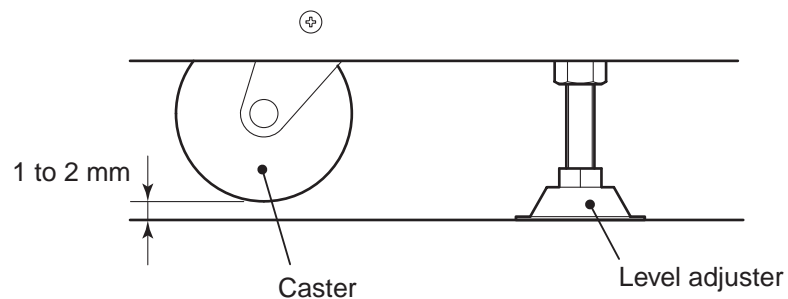
- Install the game machine according to the instructions and procedures described in this operator's manual. Failure to follow the specified procedures may result in a fire, electrical shock, injury, or machine malfunction.
- Insert the power plug firmly into an AC service outlet. Poor contact may cause overheating that can lead to a fire or burns.
- Install and set up the machine securely by using the level adjusters. Unstable machine installation can result in an accident or injury.

1) Adjusting the level adjusters

WARNING

- Be sure to extend the level adjusters until the casters are lifted off the floor. The casters must be raised above the floor in order to ensure machine stability. If the machine is not stably installed, it can move and cause accidents or injury.

Lower the two level adjusters on the front side until the casters are raised 1 to 2 mm above the floor (the casters should rotate freely in this condition).

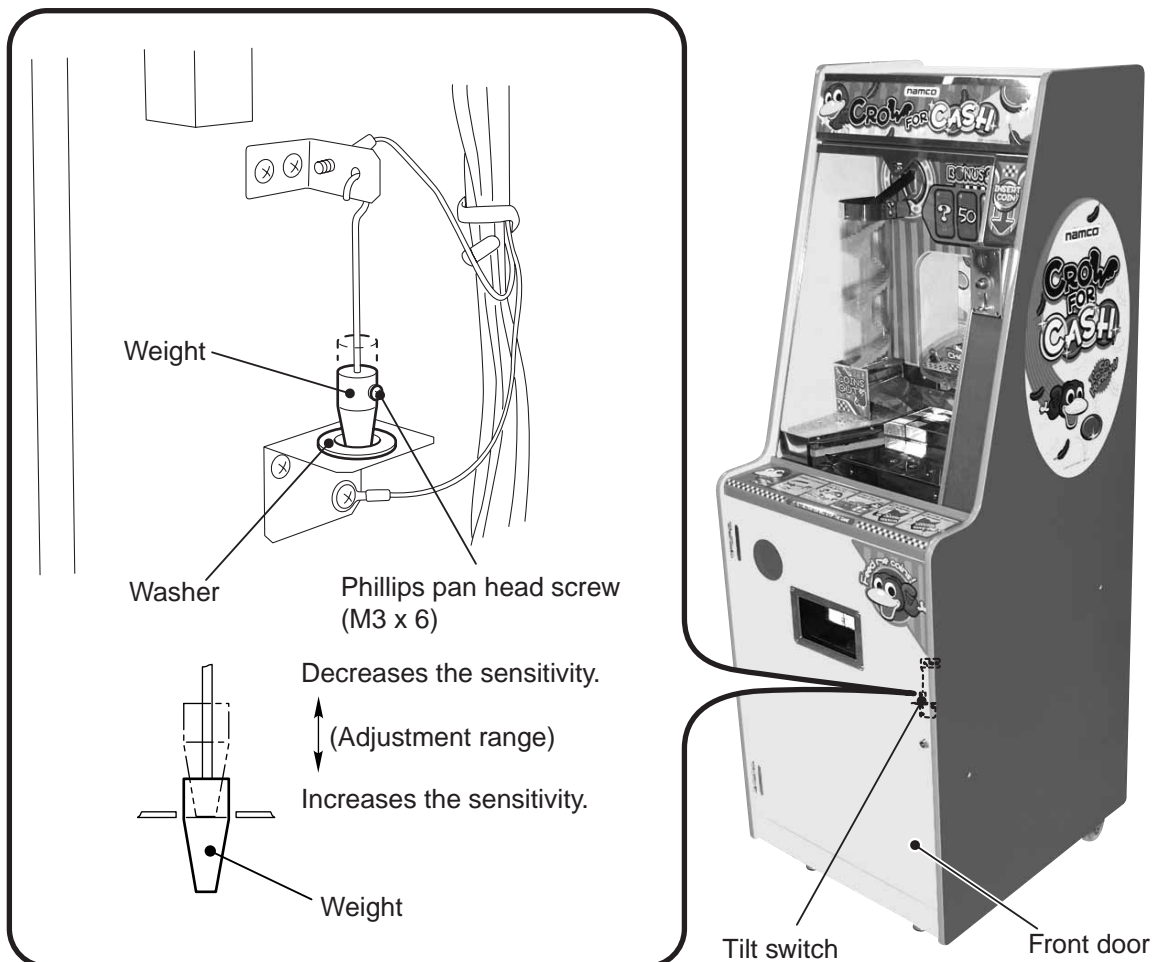


2) Adjusting the Tilt switch

WARNING

- To protect the service staff and other people from an electrical shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.

- ① Open the front door.
- ② Loosen the Phillips pan head screw (M3 x 6) on the weight.
- ③ Move the weight up or down to adjust the sensitivity. To reduce the sensitivity, raise the weight. To increase the sensitivity, lower the weight. After the sensitivity has been adjusted, secure the weight in position by tightening the screw.
- ④ Adjust the washer position so that the weight is located at the center of the hole of the washer.



If the weight is not at the center of the round hole, the machine is not level. Adjust the machine so that it is perfectly level. (See "INSTALLATION 1) Adjusting the level adjusters.")

3) Supplying coins

① Open the front glass plate. **With the power switch turned off**, let coins fall off from the pusher table. Coins will fall into the hopper and fill the hopper.

* Coins can be dropped from any of the four directions.

② Add coins onto the pusher table.

③ Close the front glass plate.

4) Attaching the installation/connection bolts, nuts and washers

WARNING

- To protect the service staff and other people from an electrical shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.

Remove the six hold plugs for transportation on the side panels of the machine, and attach the provided tamper-resistant installation/connection bolts, nuts and washers in their places.



Installation/connection bolt,
nut and washer

1. Specifications



- | | |
|--------------------------------|--|
| 1) Power supply specifications | Rated voltage: 230 VAC
Rated frequency: 50 Hz
Rated current consumption: 100 W |
| 2) External dimensions | 565 (W) x 630 (D) x 1,650 (H) mm |
| 3) Weight | Approx. 85 kg |
| 4) Coin hopper | 10-pence coins
Hopper capacity: Approx. 700 coins |
| 5) Installation location | Indoors only |

2. Accessories

Make sure that the product package contains the following parts at the time of purchase. Also, check that the provided master keys open the corresponding doors.

○ Accessory list

- 1) Operator's manual: This manual
- 2) Maintenance keys (front glass plate, front door, back door): 3
- 3) Coin box keys: 2
- 4) Installation/connection bolts, nuts and washers: 6 (used to replace hole plugs)
- 5) Power cable: 1

○ Connection of cabinets

Game machine cabinets can be arranged next to each other and connected.



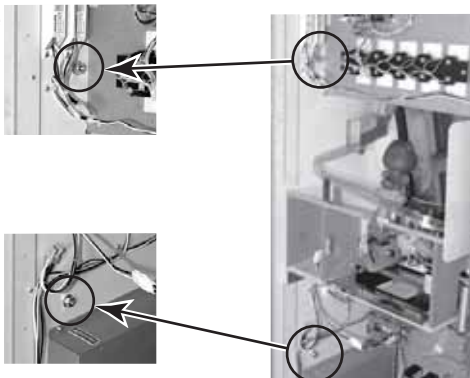
Installation/connection bolt, nut and washer

Use the provided installation/connection bolts, nuts and washers.

These bolts should be installed at the three locations indicated by circles in the right photo.

Position two game machine cabinets next to each other, and connect them by using three sets of installation/connection bolts, nuts and washers.

Back side of the cabinet

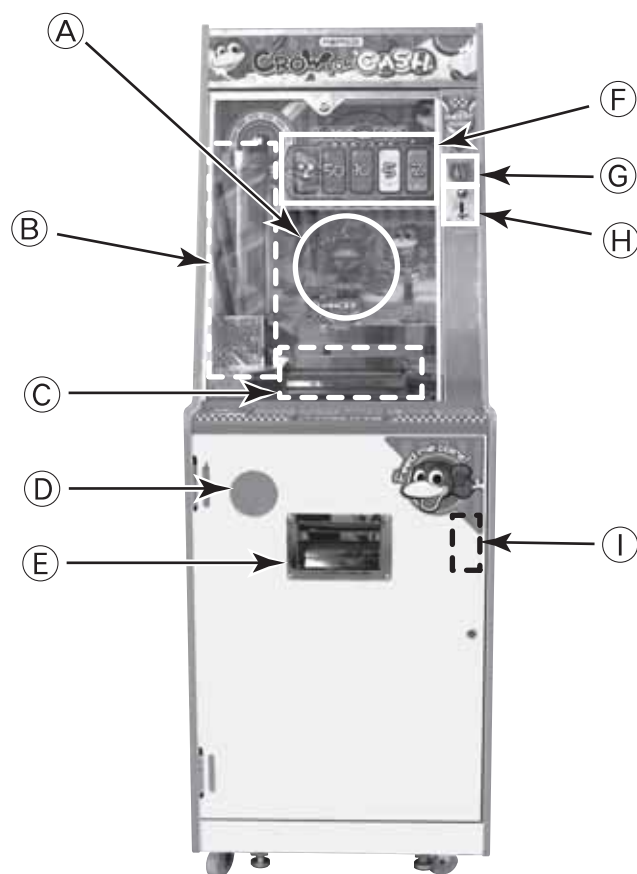


Front side of the cabinet



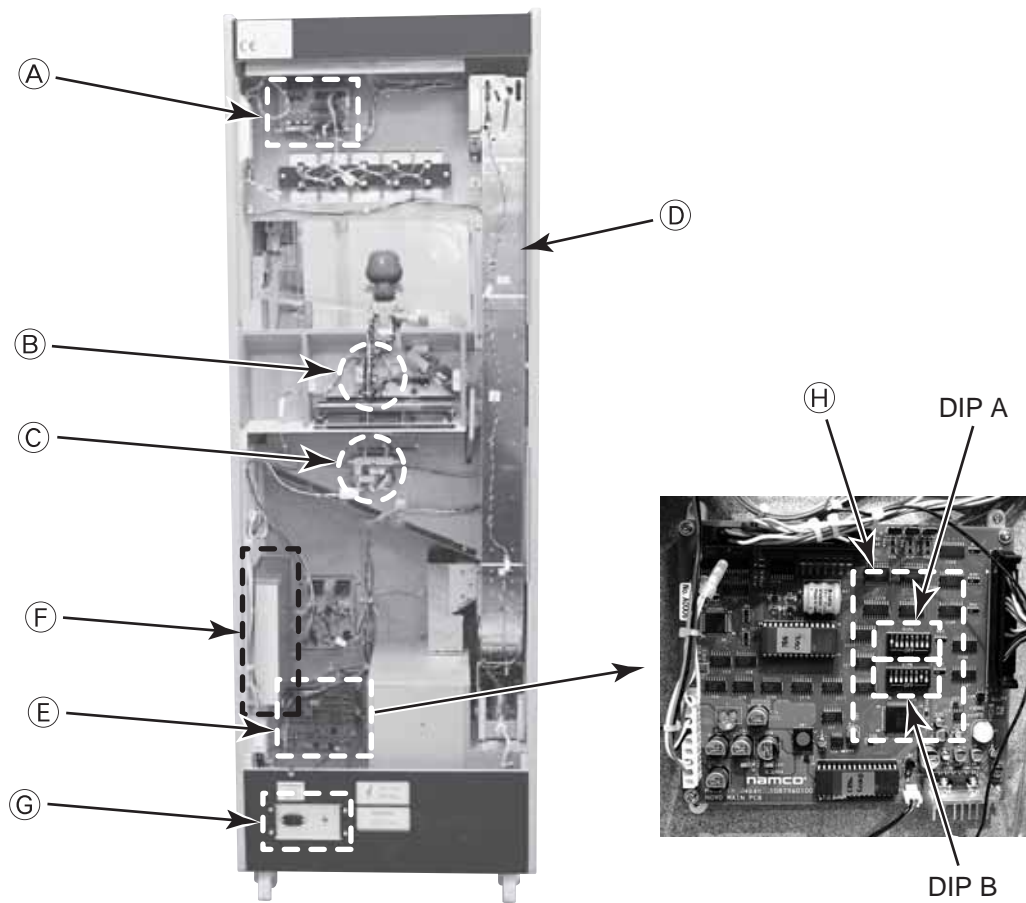
3. Overall Structure

1. Front view



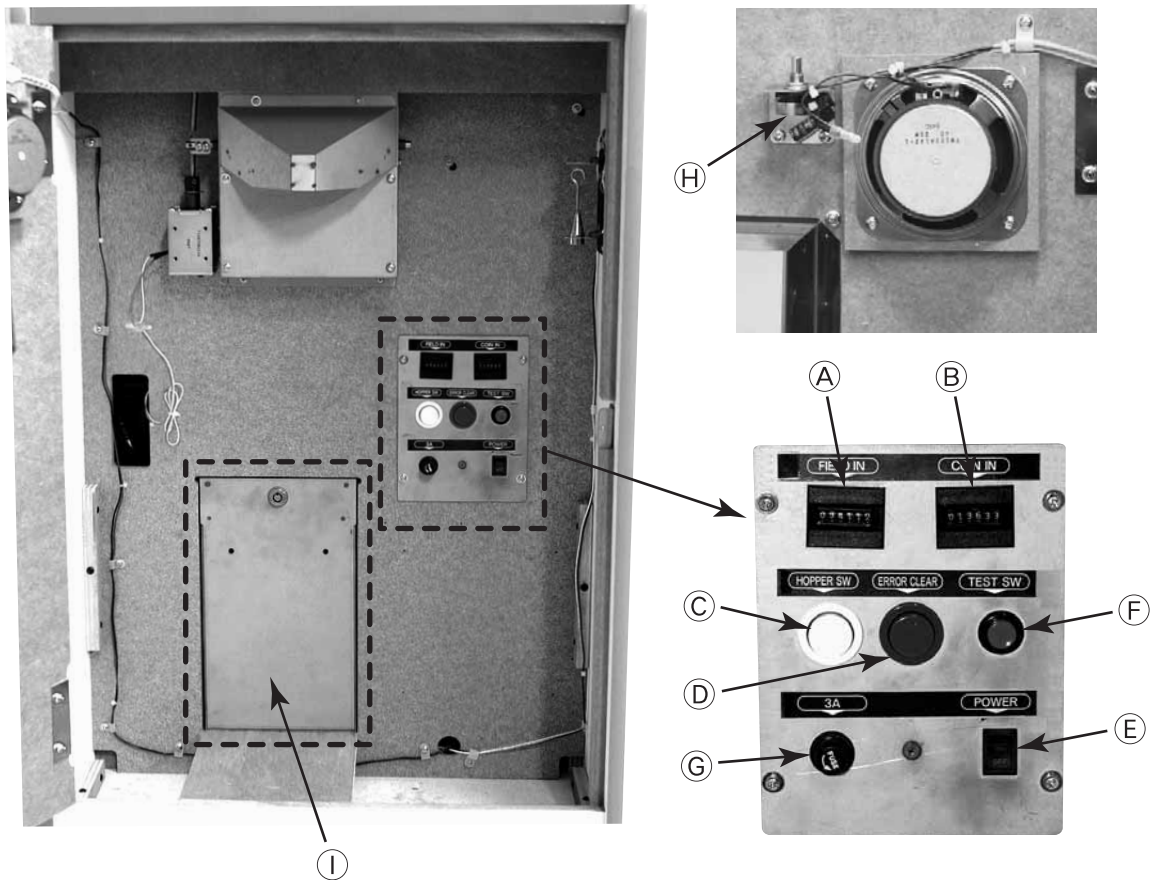
- (A) Rail • Character: The rail for carrying coins and the character section which judges the win/loss result of inserted coins.
- (B) Spiral unit: This unit discharges coins.
- (C) Pusher table: Coins discharged from the spiral unit are collected on this table.
- (D) Speaker: Produces background music and special sound effects.
- (E) Coin payout outlet: The coins dispensed to a player are taken out from this section.
- (F) Roulette: This roulette determines the number of winning coins.
- (G) Coin inlet: Coins are inserted from this slot.
- (H) Coin return outlet: Coins of incorrect size are returned to this outlet.
- (I) Tilt switch: Dishonest actions such as shaking the machine are detected.

2. Back view (internal view)



- | | |
|-------------------------|---|
| (A) I/O drive board: | Circuit board for operating and driving lamps, motors, etc. |
| (B) Character motor: | Motor for moving the character up and down. |
| (C) Pusher motor: | Motor for moving the pusher table back and forth. |
| (D) Coin hopper: | Supplies coins to the spiral unit. |
| (E) Main circuit board: | Circuit board for game control. |
| (F) Power supply unit: | The power supply circuit board can be accessed by removing the cover. |
| (G) Inlet: | Connect the power cord. |
| (H) DIP switches: | DIP switches A on the top, and DIP switches B on the bottom. |

3. Inside of the front door (service panel)



- (A) Field-in counter: Displays the cumulative number of coins dispensed to the pusher section.
- (B) Coin-in counter: Displays the cumulative number of inserted coins.
- (C) Hopper switch: Dispenses coins without operating the counter.
- (D) Clear Error switch: After the causes of errors are removed, use this switch to resume the game.
- (E) Power switch: Turns on the machine.
- (F) Test switch: Activates the Test mode.
- (G) Fuse: 3A
- (H) Volume control: Located on the back side of the front door. When it is turned to the right, the sound level increases.
- (I) Coin box: Coins overflowing from the hopper are collected in this box.

4. How to Play

- 1) Insert a coin into the coin inlet.
- 2) The inserted coin rolls down on the rail.
- 3) If the character can pick up the coin successfully, the roulette starts.
If the character fails to pick up the coin, the coin falls onto the pusher table.

When the character catches the coin:

The character puts the coin into the Chance hole located near the character's feet, and the roulette starts to determine the number of coins to be dispensed.

Coins are dispensed from the spiral unit onto the pusher table according to the number indicated by the roulette.

- 4) The player obtains the coins that are pushed by the pusher and end up in the coin payout outlet.

*** If the game machine is shaken or jolted, the Tilt switch is activated and stops the game.**

At the same time, the shutter closes to disallow removal of coins from the machine.

(The DIP switches can be used to select automatic reset mode or manual reset mode.)

5. Adjustment of Payout Rate

About payout ratio

In this game machine, there are two types of payout rate. One indicates the ratio of coins dispensed from the hopper to the number of inserted coins (intermediate payout ratio). The other is the ratio of the number of coins falling into the coin payout outlet to the number of coins dispensed from the hopper (field payout ratio).

By setting/changing these payout ratios, the final payout rate can be adjusted.

Final payout rate = Intermediate payout rate x Field payout rate

(Example 30% = 275% [factory setting] x 11%)

1) Adjusting the DIP switches (adjustment of intermediate payout rate)

The intermediate payout rate can be adjusted by setting/changing the DIP switch positions.

Intermediate payout rate = Number of coins dispensed from hopper ÷ Number of inserted coins

- The intermediate payout rate should be used only as a guideline figure.
- Regarding the setting of the payout rate with the DIP switches, refer to the explanation of the setting of DIP switches B in "6. DIP Switch Setting Chart."

2) Adjusting the front edge (adjustment of field payout rate)

The field payout rate can be adjusted by raising or lowering the front edge.

(For the adjustment of the front edge, refer to page 13.)

- Raising the front edge decreases the field payout rate.
- Lowering the front edge increases the field payout rate.

Field payout rate = Number of coins to coin payout outlet ÷ Number of coins dispensed from hopper

- The guideline field payout rate can be measured by using the Auto Text in Test Mode 6 described in "9. Test Mode."

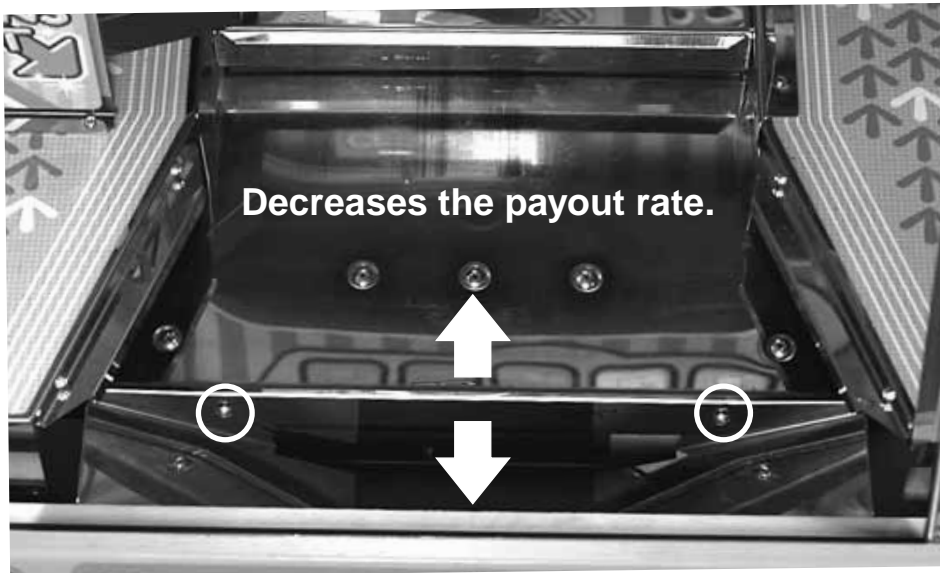
* For more precise measurement of field payout rate, refer to "4) Procedure for measuring the field payout rate."

* The payout rate has been provisionally set at the factory. Be sure to adjust the settings to match the business style of your facility.

3) Adjusting the front edge

To adjust the front edge, follow the procedure described below.

- ① Remove the front glass plate.
- ② A Loosen the two screws that are holding the front edge (see the photo below).
 - * Only loosen the screws. If the screws are removed, they can accidentally fall into the hopper.
- ③ Adjust the vertical positioning of the front edge.
 - Raising the front edge decreases the field payout rate.
 - Lowering the front edge increases the field payout rate.
- ④ Tighten the two screws on the front edge.



Increases the payout rate.

4) Procedure for measuring the field payout rate

Calculate the field payout rate by following the procedure below.

1. Preparation for the measurement

Before starting the measurement, conduct Test Mode 6 (Auto Test) once to ensure proper measuring conditions.

- ① Remove all coins from the pusher table.
- ② Fill the hopper with ample coins.
- ③ Set Test Mode 6 (Auto Test) and press the Clear Error switch.
- ④ In Test Mode 6, the hopper dispenses 1,000 coins, and stops automatically (it takes about 17 minutes).
- ⑤ Make sure that coins are evenly distributed on the pusher table to ensure proper measurement.

2. Measurement

1. After the preparation described in 1 is completed, start the measurement.

- ① Check the coin payout outlet to make sure there is no coin in the outlet.
- ② Fill the hopper with ample coins.
- ③ Set Test Mode 6 (Auto Test) and press the Clear Error switch.
- ④ In Test Mode 6, the hopper dispenses 1,000 coins, and stops automatically (it takes about 17 minutes).

* If Test Mode 6 stops before completing the process, check the following possible causes.

- There were not enough coins in the hopper, and the hopper became empty.
→ The machine displays "out of coins" indication, and the operation pauses.
→ Fill the hopper with coins, and press the Hopper switch to resume the operation.
- Coins of incorrect size are used.
→ The machine displays "out of coins" indication, and the operation pauses.
→ Remove the coins of incorrect size, and press the Hopper switch to resume the operation.
- The field payout rate is set too high.
→ Adjust the front edge by referring to "3) Adjusting the front edge."

⑤ Count the number of coins that ended up in the coin payout outlet.

⑥ Calculate the field payout rate by using the following formula.

Field payout rate = Number of coins to coin payout outlet ÷ Number of coins dispensed from hopper (1,000 coins) x 100

* Use the calculated field payout rate only as a guideline figure.

By repeating the above measurement, the accuracy of the guideline value improves. When repeating the measurement, be sure to conduct the preparation described in 1 before each measuring operation.

6. DIP Switch Setting Chart

○ Setting of DIP switches A

Description of setting		1	2	3	4	5	6	7	8
Demo sound	OFF	OFF							
	ON	ON							
Fixed at OFF			OFF	OFF	OFF	OFF		OFF	OFF
Tilt setting	Automatic reset						OFF		
	Manual reset						ON		
Standard factory setting		ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF

○ Setting of DIP switches B

Description of setting		1	2	3	4	5	6	7	8
Intermediate payout rate (guideline value)	220%	OFF	OFF	OFF	OFF				
	225%	ON	OFF	OFF	OFF				
	230%	OFF	ON	OFF	OFF				
	235%	ON	ON	OFF	OFF				
	240%	OFF	OFF	ON	OFF				
	245%	ON	OFF	ON	OFF				
	250%	OFF	ON	ON	OFF				
	255%	ON	ON	ON	OFF				
	260%	OFF	OFF	OFF	ON				
	265%	ON	OFF	OFF	ON				
	270%	OFF	ON	OFF	ON				
	275%	ON	ON	OFF	ON				
	280%	OFF	OFF	ON	ON				
	285%	ON	OFF	ON	ON				
	290%	OFF	ON	ON	ON				
	295%	ON	ON	ON	ON				
Number of coins for "?"	50							ON	
	90							OFF	
Fixed at OFF						OFF	OFF		OFF
Standard factory setting		ON	ON	OFF	ON	OFF	OFF	ON	OFF

* Set the payout rate by referring to "5. Adjustment of Payout Rate."

* Turn off the power switch before changing settings.

* When settings are changed, the internal memory will be cleared.

The internal memory can be also cleared by turning on the power switch while holding the Test switch pressed.

When the internal memory has been successfully cleared, the "Namco" announcement will not be produced at power ON.

7. Routine Maintenance

WARNING

- Before conducting maintenance (troubleshooting, repair, parts replacement, etc.), turn off the power switch to protect the service staff and other people from electric shock, accidents and injury.

○ Pre-service check

☆ Test operation

Play the game machine before commencing service operation to make sure that the character moves properly, there is no abnormal noise or vibration, all lamps are working, the machine is safe to operate, and there is no broken section that could be hazardous.

If the machine produces any abnormal noise, turn off the power immediately and take an appropriate measure.

☆ Supplying coins

Check the coin hopper, and add more coins or remove coins to adjust the amount of coins if necessary.

○ Cleaning and maintenance

CAUTION

- Conduct maintenance regularly. Failure to conduct maintenance can lead to unexpected accidents.

● Cleaning

Turn off the main power switch. Apply a diluted neutral detergent to a soft cloth, such as flannel, and wipe the machine.

* Never use any solvent such as alcohol and thinner (lacquer).

● Periodic maintenance

Periodically check the lamps, switches, etc. of the machine.

If both ends of the fluorescent tube have darkened or the fluorescent lamp starts blinking, replace at the earliest convenient time.

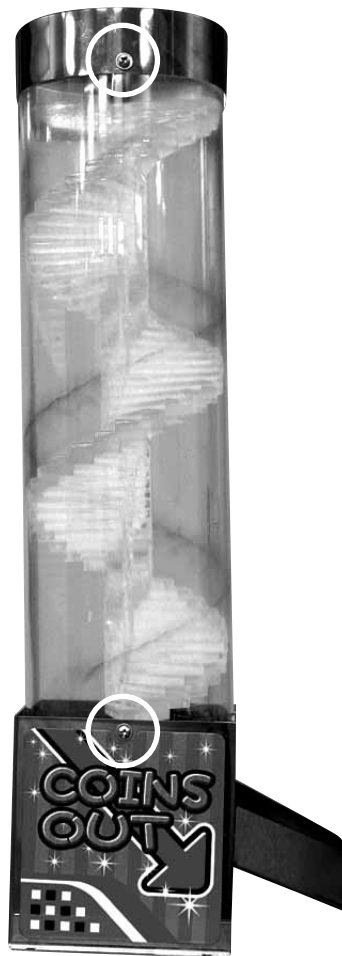
Periodic maintenance can prevent power consumption increase as well as overheating and other malfunctions.

(1) Cleaning the spiral unit

Since many coins pass through the spiral unit, dust and dirt can collect inside the unit after many hours of operation.

When the spiral unit becomes dirty, clean it by following the procedure described below. Conduct the cleaning work at a site where the hopper can be placed stably.

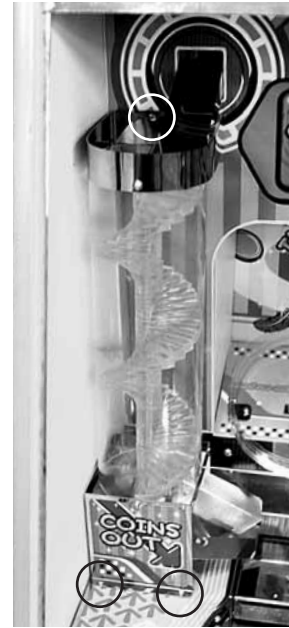
- a. Dismount the spiral unit by referring to “* Removing the spiral unit” on the following page.
- b. Remove the four screws on the front and back sections that are indicated with circles in the photo, and remove the top and bottom fixtures from the spiral unit.
- c. After taking out the inside section, wash thoroughly with a neutral detergent.
- d. After cleaning, dry it thoroughly. Reassemble by following the removal sequence in reverse.



* Removing the spiral unit

- a. Remove the front glass plate.
- b. Remove the three screws indicated with circles in the right photo, and pull the spiral unit forward.

* Place a sheet under the unit in order to prevent screws from falling into the hopper during the removal work.



(2) Replacing the fluorescent lamp

! WARNING

- To protect the service staff and other people from an electrical shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.

- a. Remove the front glass plate.
- b. Replace the fluorescent lamp.



(3) Removing the hopper

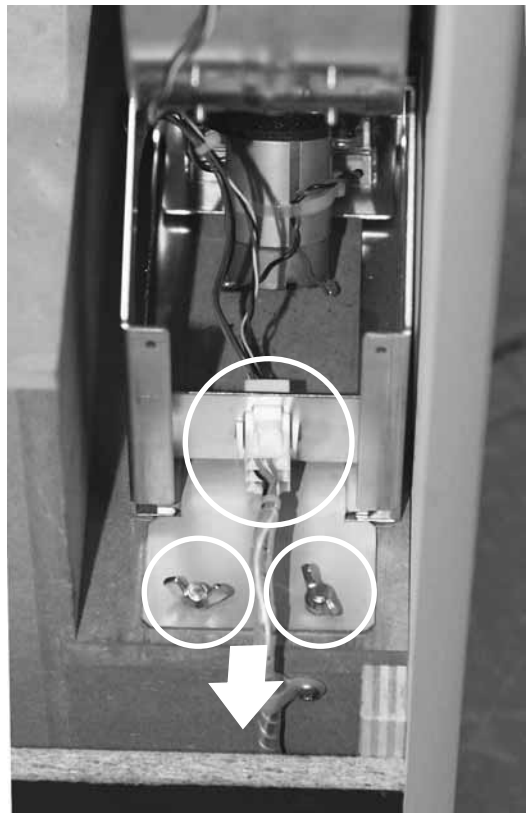
WARNING

- To protect the service staff and other people from an electrical shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.

To clean the hopper or conduct maintenance, remove the hopper by following the procedure described below.

- Remove the back door from the game machine cabinet.
 - Remove the one screw located at the upper section of the hopper rail.
 - Unplug the hopper motor connector, and remove the two wing bolts that are holding the main unit.
 - Remove the hopper by pulling it carefully toward the back, making sure that it does not contact other parts.
 - To reinstall the hopper, follow the removal sequence in reverse.
- * Special parts are installed to the upper section of the hopper rail.

When replacing the hopper, be sure to install the special parts by referring to the page showing the internal parts in the back section of the cabinet in "10. Names and Details of Parts."



(4) Adjusting the side covers

WARNING

- To protect the service staff and other people from an electrical shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.

- If the pusher generates abnormal noise or stops operating, the problem may be solved by adjusting the positions of the side covers. To adjust the side cover positions, follow the procedure described below.

○ Preparation for the adjustment

- With the pusher fully extended toward the front, turn off the power switch.
- Remove coins from the pusher.
- Dismount the spiral unit.



○ Adjustment procedure

- a. Loosen the screws (3 screws on each side) that are holding the side covers.
- b. Provide a gap of 0.5 mm to 1 mm between the pusher sheet metal and each cover, and tighten the screws.
- c. Turn on the power switch and check the operation.



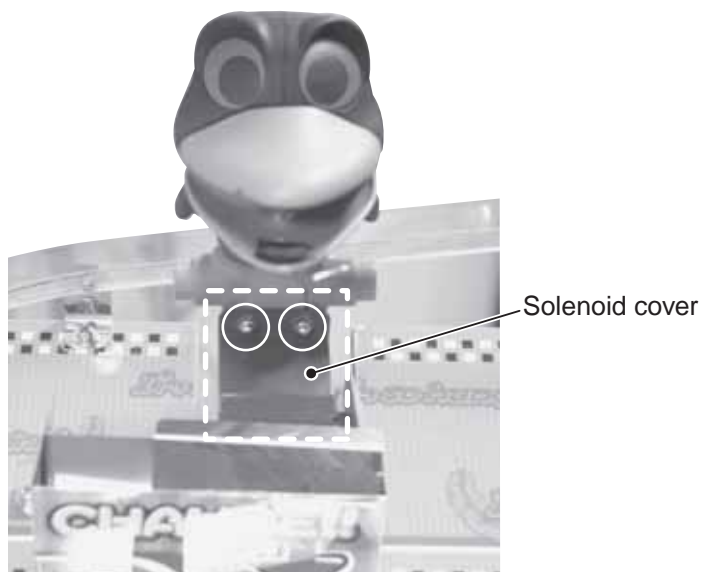
Gap measuring 0.5 mm to 1 mm in width

(5) Replacing the character drive motor

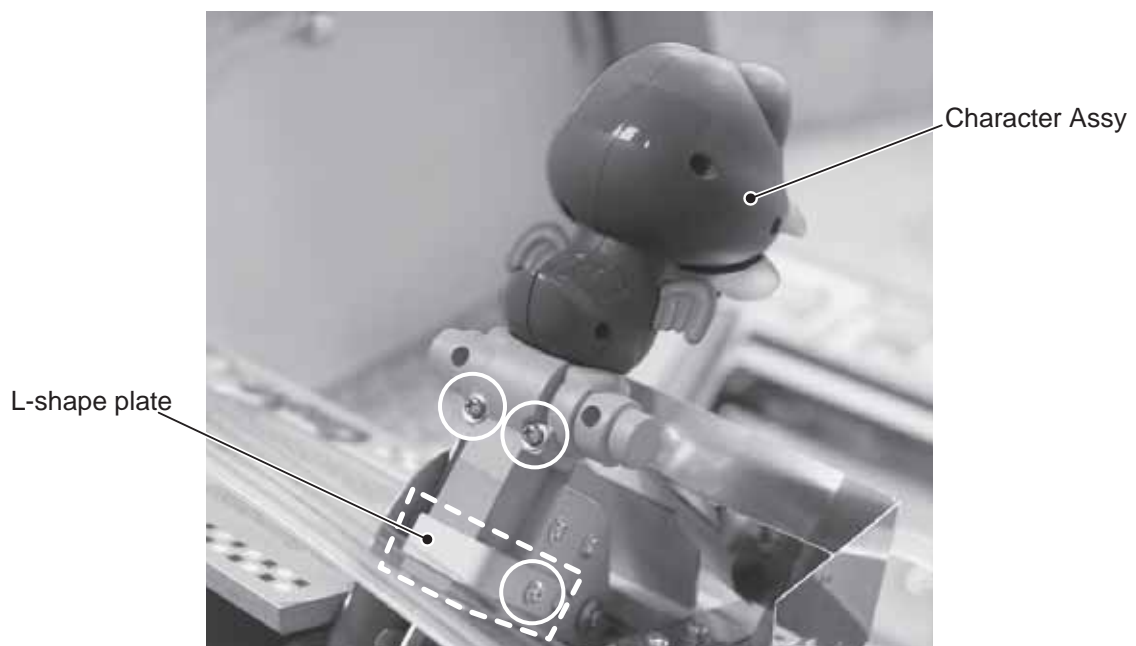
WARNING

- To protect the service staff and other people from an electrical shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.

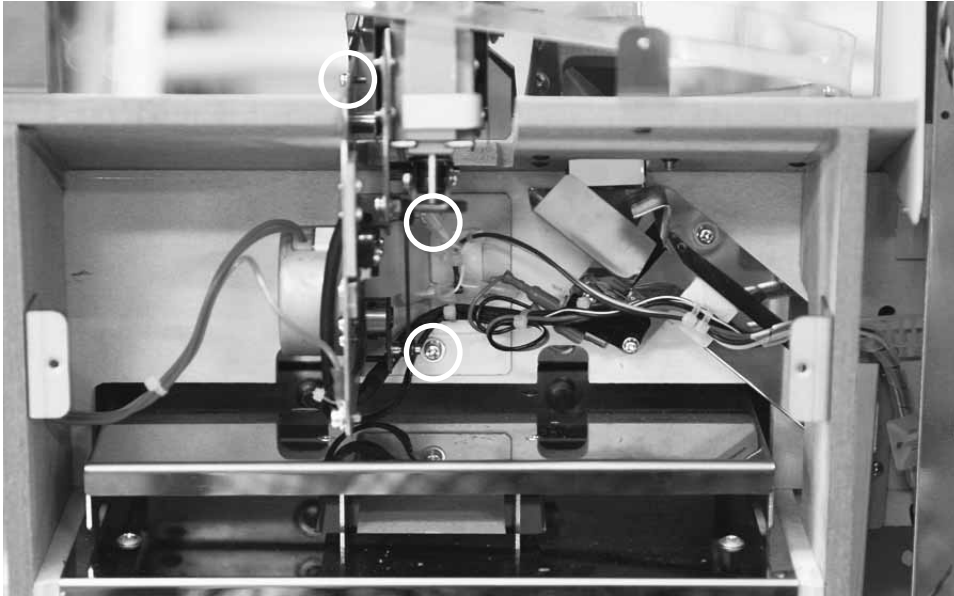
- a. Remove the two nuts, and dismount the solenoid cover.



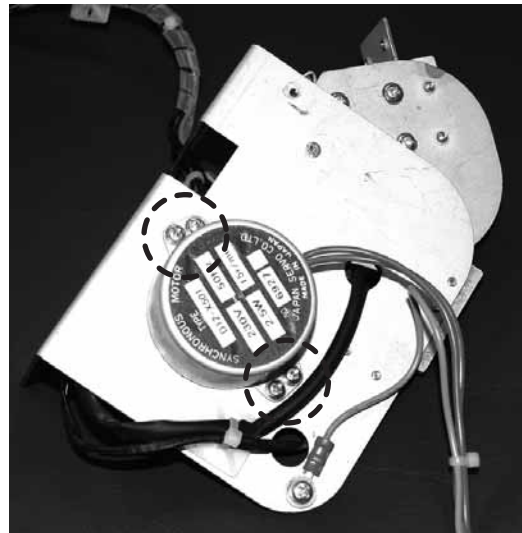
- b. Remove the two screws located on the back side of the Character Assy.
c. Remove the one screw and one L-shape plate, and dismount the Character Assy.



- d. Unplug the two connectors from the Character Drive Assy.
- e. Remove the three screws, and dismount the Character Drive Assy.



- f. Loosen the two hexagon socket head screws on the motor shaft section.
- g. Remove the four screws, and replace the character drive motor.
- h. To reassemble, follow the removal sequence in reverse.



8. Error Codes

If an error is generated, the roulette lamp flashes to indicate the type of the generated error.

When an error is generated, check the lamp flashing pattern to identify the type of the generated error, and take the corrective measure indicated below.

If the following measures do not correct the problem or if you have any question regarding the game machine, contact your distributor.

Error indication	Type of error	Main symptom	Corrective measure and resetting method
Flashing of 2-point lamp	Jammed coins	Coins are jammed.	Remove the jammed coins. When the jammed coins are removed, the machine automatically resets.
Flashing of 5-point lamp	Tilt error	The Tilt switch detected shaking of the machine.	DIP switch A No. 6 ON Press the Clear Error switch. The machine resets after 10 seconds. DIP switch A No. 6 OFF The machine automatically resets after 10 seconds.
Flashing of 10-point lamp	Jammed Goal switch	The Goal switch is not operating properly.	Remove the cause of the jamming, and press the Clear Error switch to reset the machine.
Flashing of 50-point lamp	Mouse Open/Close switch error	The Mouse Open/Close switch is not operating properly.	Remove the cause of the jamming, and press the Clear Error switch to reset the machine.
Flashing of ?-point lamp	Hopper error	There is no coin in the hopper. Foreign items or incorrect-size coins are jammed inside the hopper.	Fill the hopper with coins or remove foreign items and incorrect-size coins from the hopper, and then press the Hopper Test switch to reset the machine.

WARNING

- Before performing the maintenance, be sure to turn off the power switch of the machine to prevent an electrical shock.
- Use only specified parts when replacing consumables. Using improper parts can result in a fire or equipment malfunctions.
- Inspect the inside of the machine regularly, and remove any foreign items. Foreign items can cause a fire or electrical shock.
- If the machine generates an abnormality, turn off the machine immediately and contact your distributor.
Operating the machine without correcting a problem can result in a fire or electrical shock.

9. Test Mode

When the Test switch is pressed, the machine enters the Test mode.
The numeric lamp on the roulette section flashes to indicate the active Test mode.
Each time the Test switch is pressed, the active Test mode changes to the next.

<< Test Mode 1 >> Roulette lamp test

The roulette lamp "2" flashes.

- Each time the Clear Error switch is pressed, the lamps light in the following order.
1. Roulette lamp "2" → "5" → "10" → "50" → "?"

<< Test Mode 2 >> Switch test

The roulette lamp "5" flashes.

- Each time a switch is pressed, the corresponding roulette lamp lights.
If no switch is operated, the roulette lamp "5" flashes.

- | | |
|-------------------------|-----------------------------|
| (1) Hopper Test switch: | Roulette lamp "2" lights. |
| (2) Clear Error switch: | Roulette lamp "5" lights. |
| (3) Coin microswitch: | Roulette lamp "10" lights. |
| (4) Hopper sensor: | Roulette lamp "50" lights. |
| (5) Tilt switch: | Roulette lamp "?" lights. |
| (6) Goal switch: | Roulette lamp "2" flashes. |
| (7) Mouse Open switch: | Roulette lamp "10" flashes. |
| (8) Mouse Close switch: | Roulette lamp "50" flashes. |

<< Test Mode 3 >> Counter, motor, blocker tests

The roulette lamp "10" flashes.

- Each time the Clear Error switch is pressed, the following operation is activated in the sequence indicated below.
 - (1) Coin blocker
 - (2) Shutter solenoid
 - (3) Character solenoid
 - (4) Hopper motor

<< Test Mode 4 >> Sound test

The roulette lamp "50" flashes.

- Each time the Clear Error switch is pressed, the sound used in the game is produced.

<< Test Mode 5 >> DIP switch test

The roulette lamp "?" flashes.

- Pressing the Clear Error switch toggles between the DIP switch A indication and the DIP switch B indication.

* Setting two or more switches to ON at the same time does not activate indication.

DIP switches A: Coin insertion sound is produced and the roulette lamp "?" lights.

Setting DIP switch No. 1 to ON: Roulette lamp "2" lights.

Setting DIP switch No. 2 to ON: Roulette lamp "5" lights.

Setting DIP switch No. 3 to ON: Roulette lamp "10" lights.

Setting DIP switch No. 4 to ON: Roulette lamp "50" lights.

Setting DIP switch No. 5 to ON: Roulette lamp "2" flashes.

Setting DIP switch No. 6 to ON: Roulette lamp "5" flashes.

Setting DIP switch No. 7 to ON: Roulette lamp "10" flashes.

Setting DIP switch No. 8 to ON: Roulette lamp "50" flashes.

DIP switches B: Coin dispensing sound is produced and the roulette lamp "?" turns off.

Setting DIP switch No. 1 to ON: Roulette lamp "2" lights.

Setting DIP switch No. 2 to ON: Roulette lamp "5" lights.

Setting DIP switch No. 3 to ON: Roulette lamp "10" lights.

Setting DIP switch No. 4 to ON: Roulette lamp "50" lights.

Setting DIP switch No. 5 to ON: Roulette lamp "2" flashes.

Setting DIP switch No. 6 to ON: Roulette lamp "5" flashes.

Setting DIP switch No. 7 to ON: Roulette lamp "10" flashes.

Setting DIP switch No. 8 to ON: Roulette lamp "50" flashes.

<< Test Mode 6 >> Auto test (Field payout rate test)

All roulette lamps flash.

- When the Clear Error switch is pressed, the hopper starts dispensing coins.
- The number of coins being dispensed is indicated by the roulette lamps.

No. of dispensed coins

0 to 99:	Roulette lamp "2" flashes.
100 to 199:	Roulette lamp "2" lights.
200 to 299:	Roulette lamp "5" flashes.
300 to 399:	Roulette lamp "5" lights.
400 to 499:	Roulette lamp "10" flashes.
500 to 599:	Roulette lamp "10" lights.
600 to 699:	Roulette lamp "50" flashes.
700 to 799:	Roulette lamp "50" lights.
800 to 899:	Roulette lamp "2" flashes.
900 to 999:	Roulette lamp "2" lights.

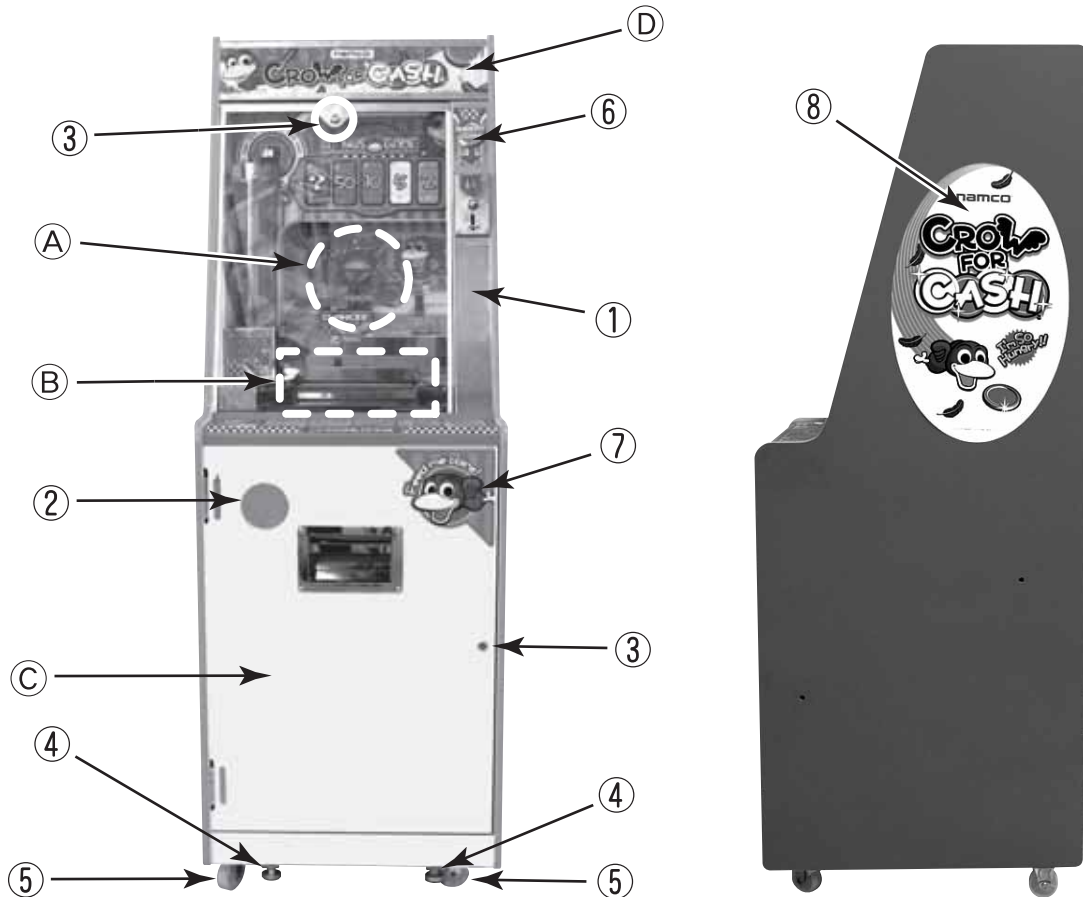
When the test is completed, the roulette lamps "2" and "10" light.

* When the hopper becomes empty, the machine indicates "out of coins" and pauses the test.
To resume the test, fill the hopper with coins and press the Hopper switch.

(When the hopper runs out of coins, an error will be generated even if there is a coin in the rail.)

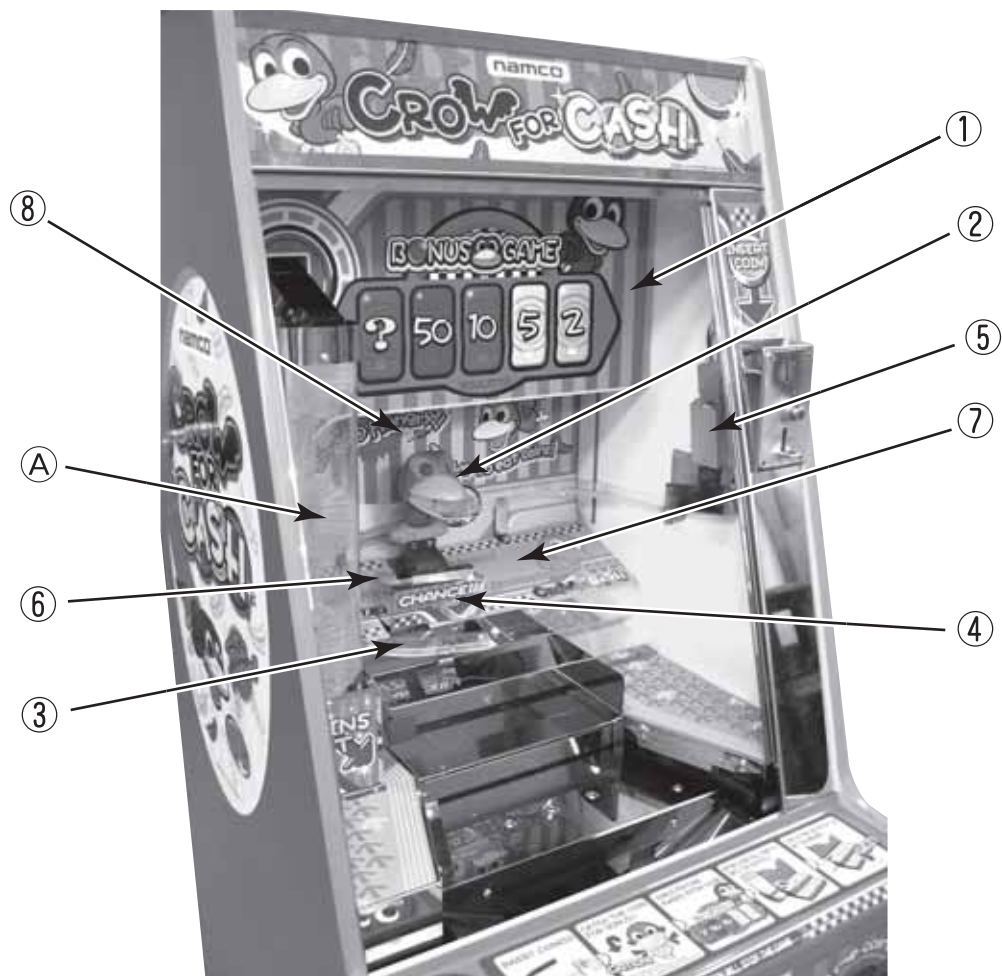
To exit from the Test mode, press the Test switch while in Test Mode 6.

10. Names and Details of Parts



Cabinet section

No.	Name of part	Parts No.
1	Coin panel	719-105
2	Speaker net	719-106
3	Key	719-107
4	Adjuster leg	719-108
5	Swivel caster	Front wheel 719-109
6	Insert coin sticker	719-110
7	Cabinet front sticker	719-111
8	Cabinet side sticker	719-112
A	Character section	See the detailed view.
B	Pusher unit section	See the detailed view.
C	Internal parts behind the front door	See the detailed view.
D	Title panel section	See the detailed view.



Detailed view of the character section

No.	Name of part	Parts No.
1	Bonus game sticker	719-113
2	Character unit	719-114
3	Rail	719-115
4	Chance sticker	719-116
5	Coin selector	KWM740 (MB), 12 V, for special 10-pence coins
6	Field sticker (L)	719-117
7	Field sticker (R)	719-118
8	Background sticker	719-119
A	Spiral unit	See the detailed view.

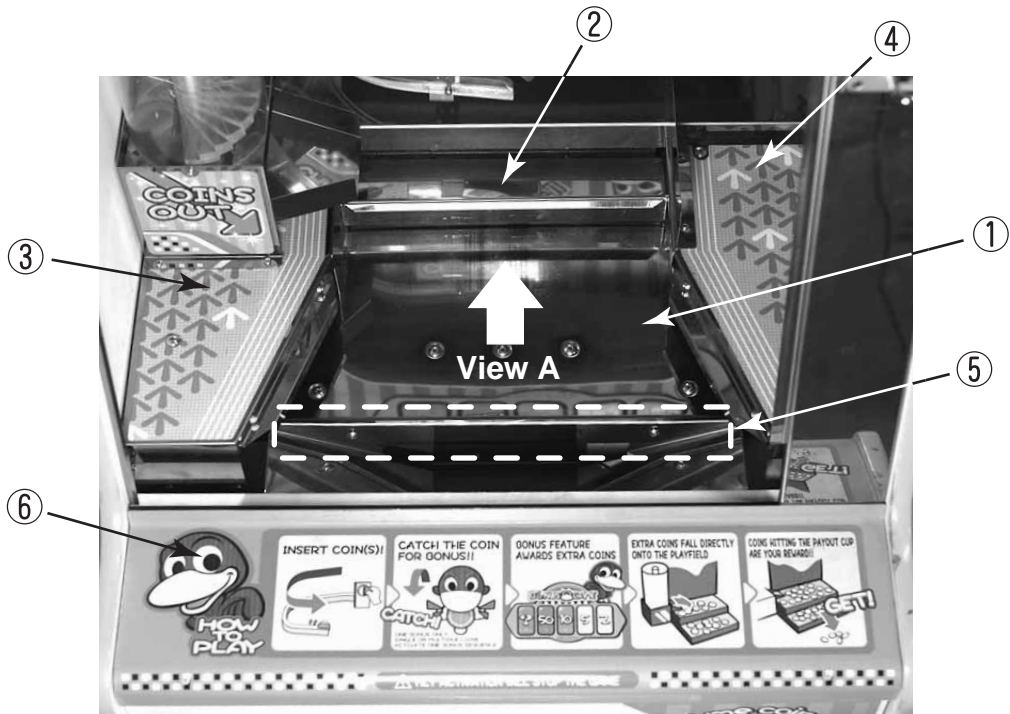
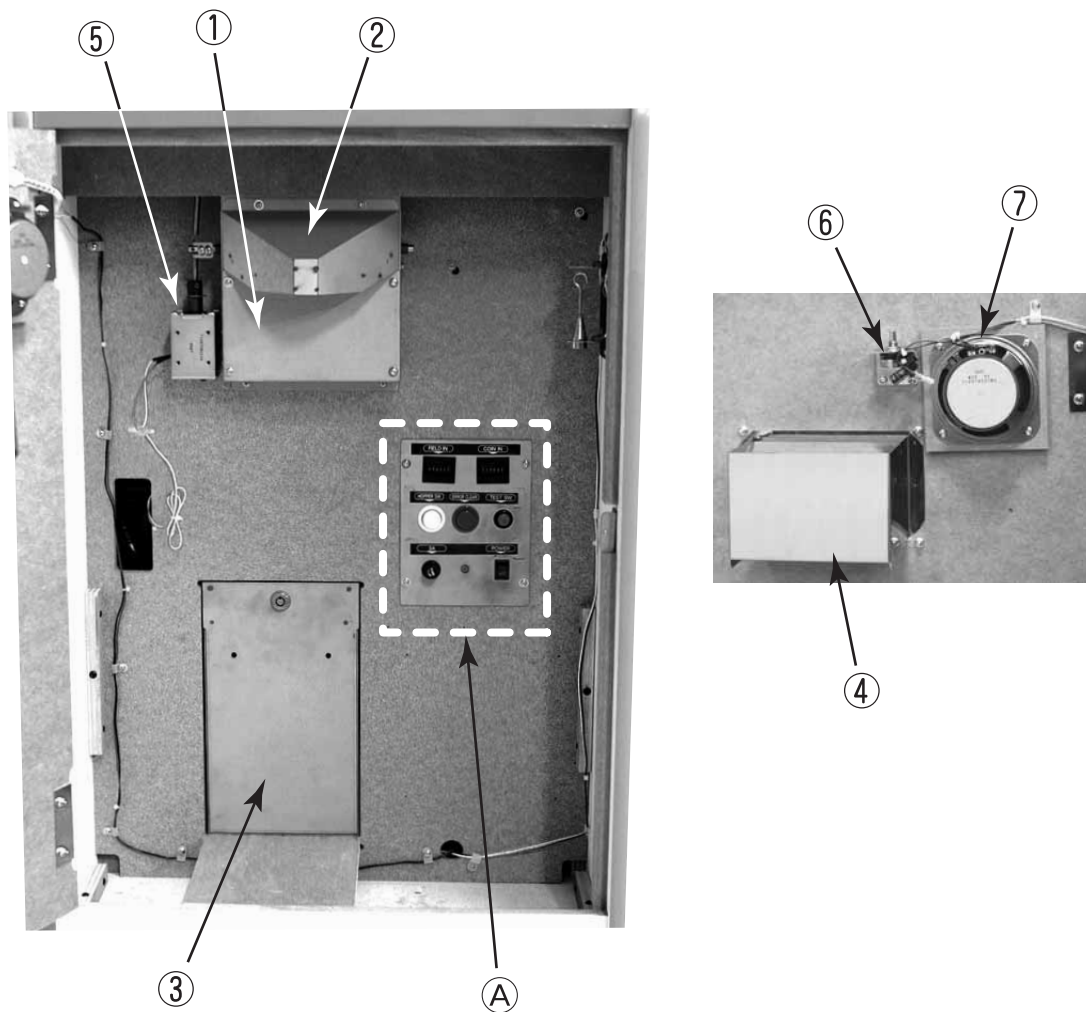


Fig. View A

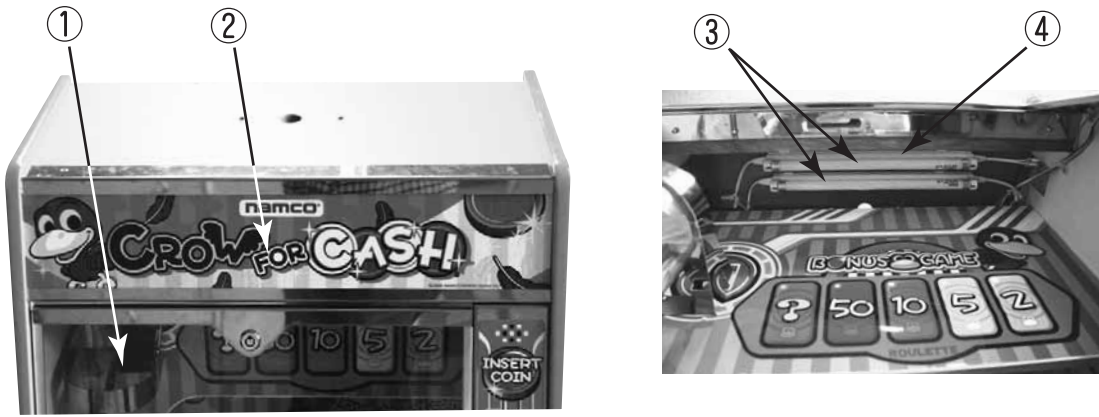
Detailed view of the pusher unit section

No.	Name of part	Parts No.
1	Pusher front panel	719-120
2	Pusher moving plate	719-121
3	Table side sticker (L)	719-122
4	Table side sticker (R)	719-123
5	Front edge	719-124
6	Game explanation sticker	719-125
7	Slide plate	719-126



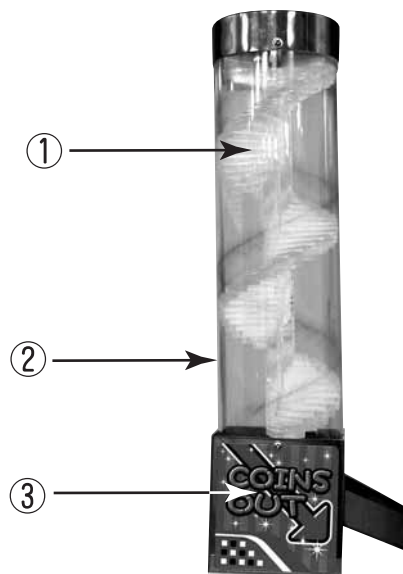
Detailed view of the internal parts behind the front door

No.	Name of part	Parts No.
1	Shutter case	719-127
2	Shutter shooter	719-128
3	Coin box	719-129
4	Coin payout outlet	719-130
5	Shutter solenoid	With harness and connectors 719-131
6	Sound volume control	200 Ω 719-132
7	Speaker	20 W, 4 Ω 719-133
A	Service panel	See the detailed view.



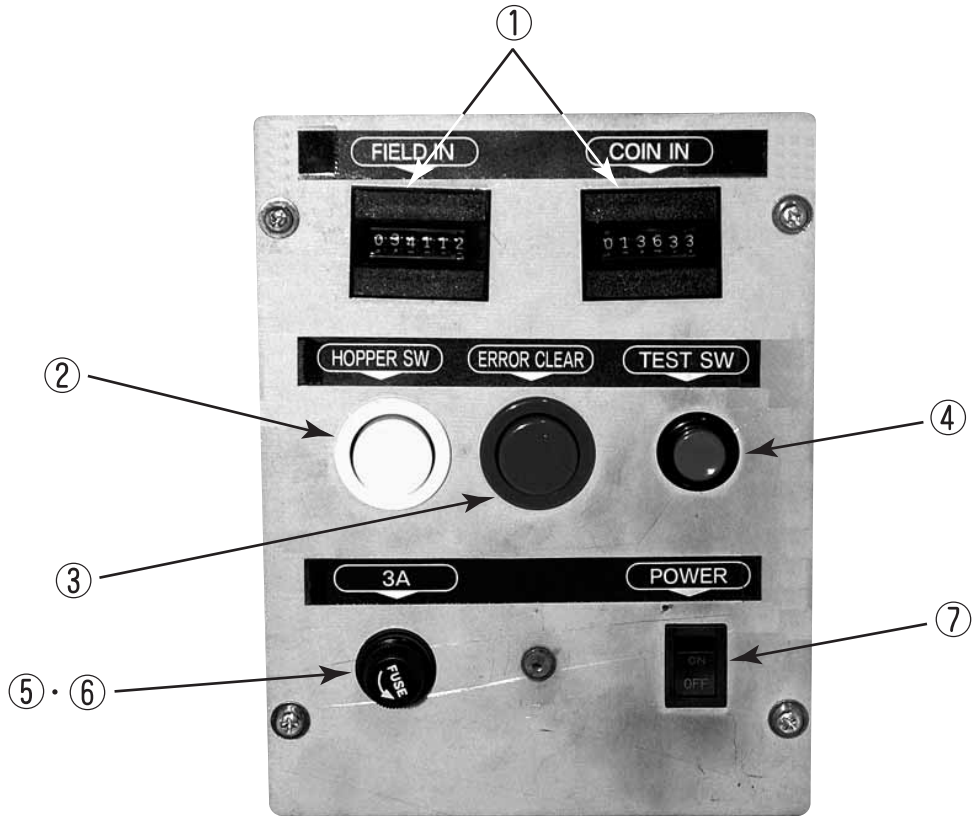
Detailed view of the title panel section

No.	Name of part	Parts No.
1	Front glass plate With edge guard	719-134
2	Title panel	719-135
3	Fluorescent lamp 8 W	719-136
4	Fluorescent lamp fixture	719-137



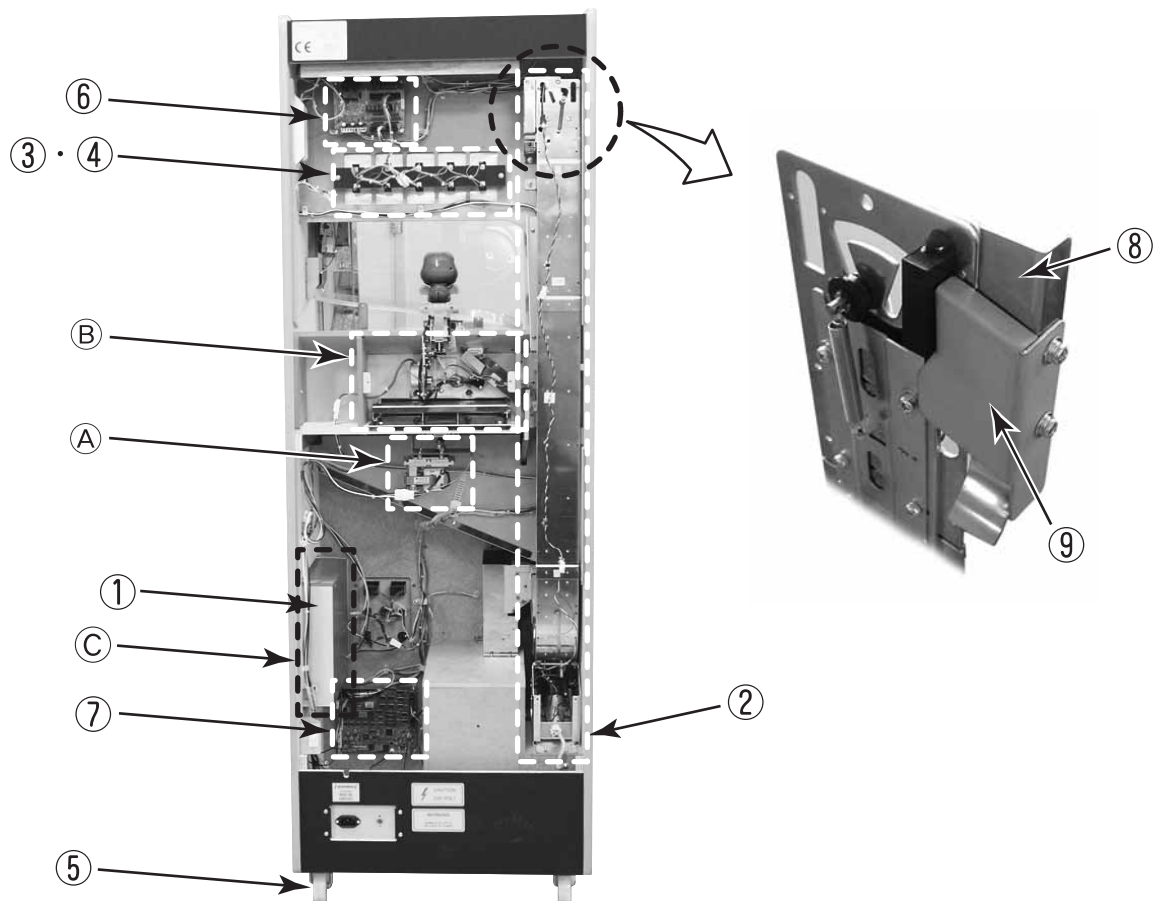
Detailed view of the spiral unit

No.	Name of part	Parts No.
1	Spiral	719-138
2	Spiral outer tube	719-139
3	Coin payout outlet sticker	719-140



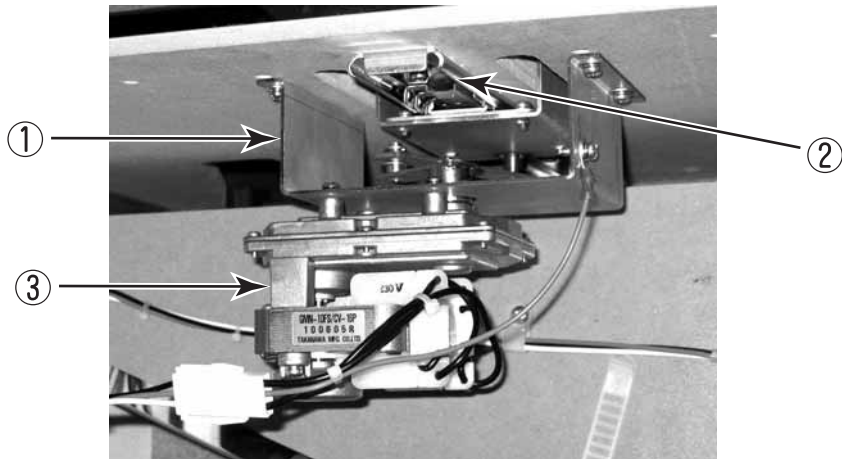
Detailed view of the service panel

No.	Name of part		Parts No.
1	Counter	DC 12 V	719-141
2	Hopper switch	Yellow	719-142
3	Clear Error switch	Blue	719-143
4	Test switch		719-144
5	Fuse holder		719-145
6	Fuse	3A	719-146
7	Power switch		719-147



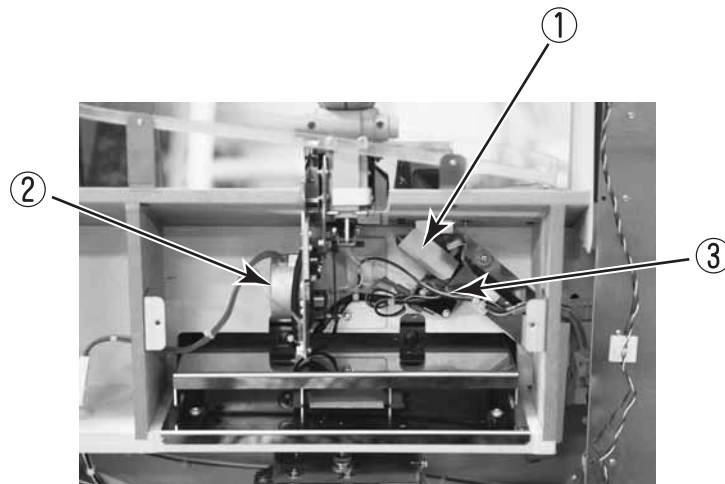
Internal parts in the back section of the cabinet

No.	Name of part	Parts No.
1	Power supply unit cover	719-148
2	Hopper (with escalator)	SCH-701U1, 1250 mm, for 10-pence coins
3	Lamps	24 V, 5 W
4	Lamp sockets	719-151
5	Stationary caster	Rear wheel
6	I/O drive board	---
7	Main board	---
8	Hopper top plate 1	719-153
9	Hopper top plate 2	719-154
A	Pusher motor section	See the detailed view.
B	Character motor section	See the detailed view.
C	Power panel section	See the detailed view.



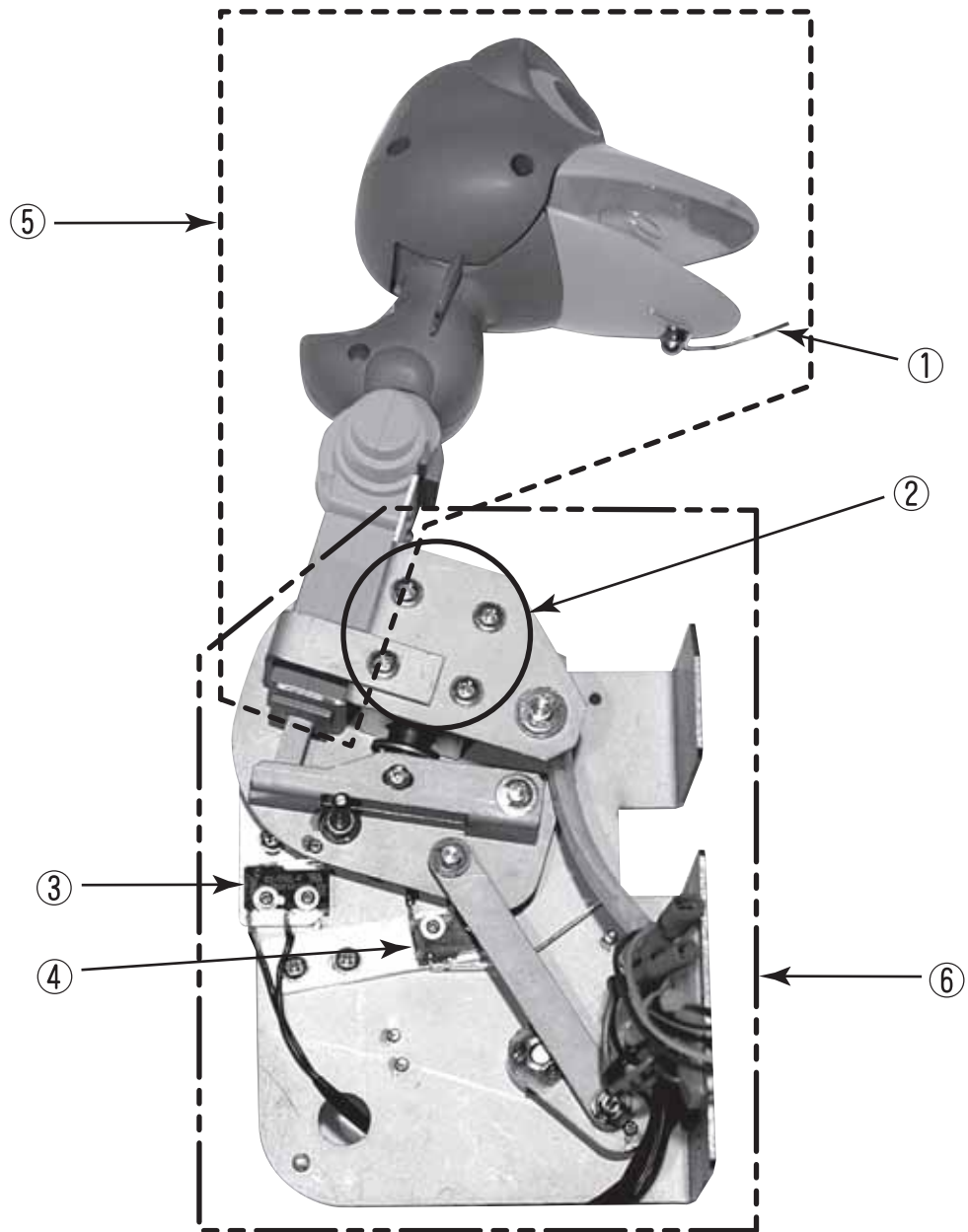
Detailed view of the pusher motor section

No.	Name of part	Parts No.
1	Pusher motor mounting plate	719-157
2	Slide rail	719-158
3	Pusher motor With harness and connectors	719-159



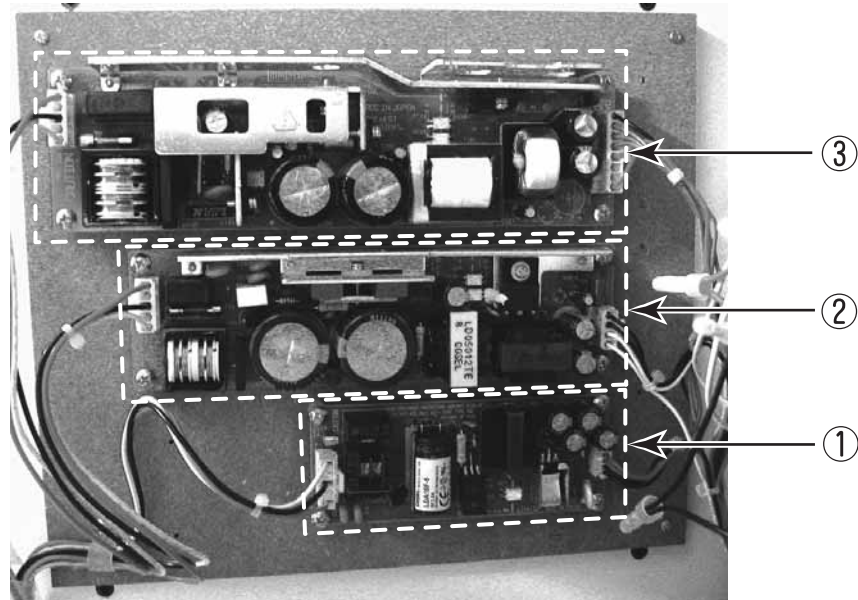
Detailed view of the character motor section

No.	Name of part	Parts No.
1	Goal chute A	719-160
2	Character motor With harness and connectors	719-161
3	Microswitch (with actuator) (for goal) D2MV-01-1C1 (VAV-5)	719-162



Detailed view of the character drive section

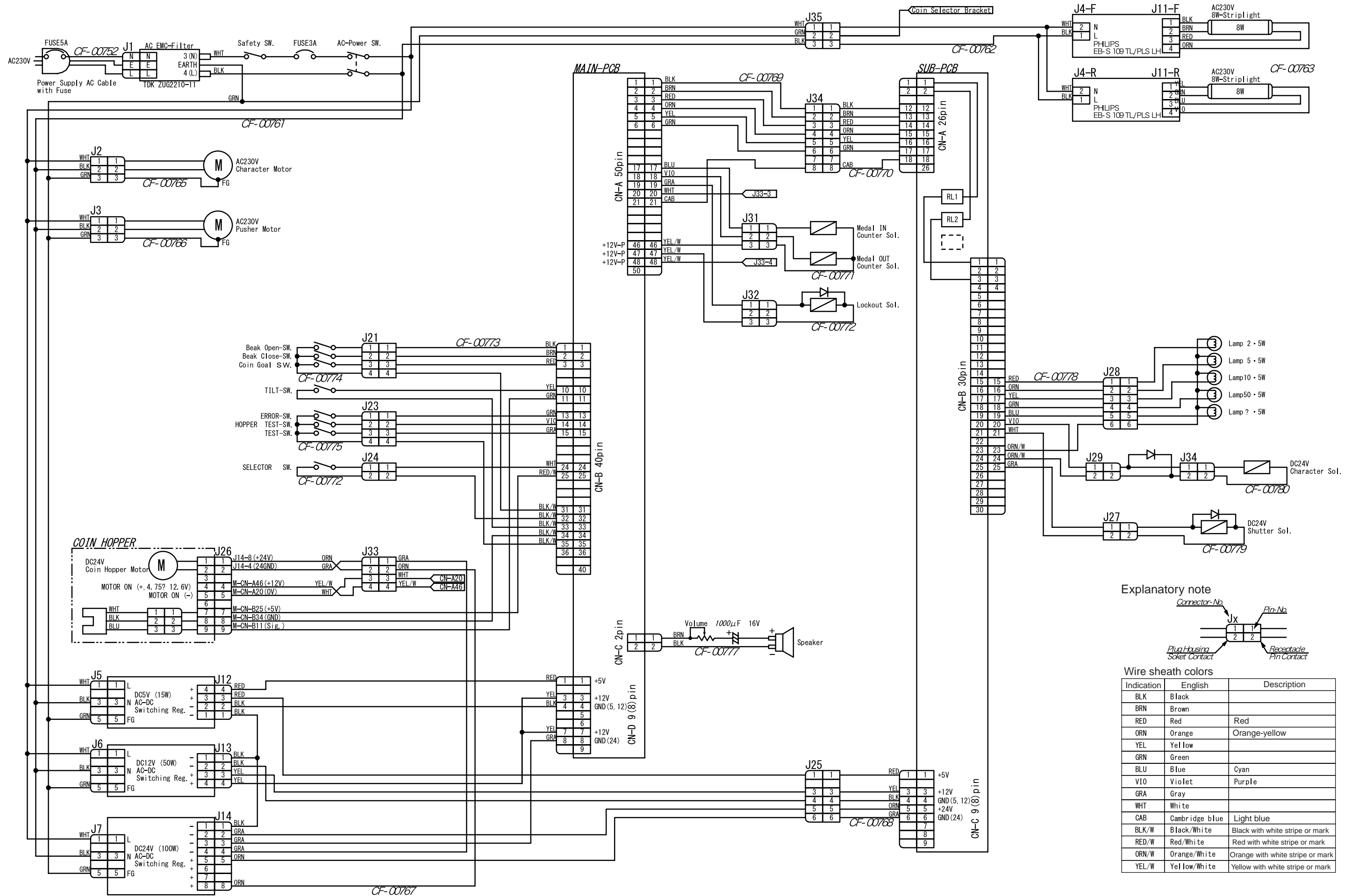
No.	Name of part	Parts No.
1	Coin catch support wire	719-163
2	Character solenoid	719-164
	With harness and connectors	
3	Microswitch (with actuator) (for opening of the mouth)	SS-01 GL-F
4	Microswitch (with actuator) (for closing of the mouth)	SM3-07N-6S-C5
5	Character Assy	719-167
6	Character Drive Assy	719-168



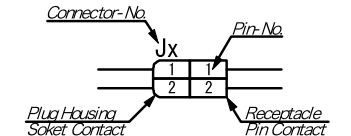
Detailed view of the power panel

No.	Name of part		Parts No.
1	5-VDC power supply	LDA 15F-5	009-197
2	12-VDC power supply	LDA 50F-12	009-198
3	24-VDC power supply	LDA 100W-24	009-199

Wiring Chart



Explanatory note



Wire sheath colors

Indication	English	Description
BLK	Black	
BRN	Brown	
RED	Red	Red
ORN	Orange	Orange-yellow
YEL	Yellow	
GRN	Green	
BLU	Blue	Cyan
VIO	Violet	Purple
GRA	Gray	
WHT	White	
CAB	Cambridge blue	Light blue
BLK/W	Black/White	Black with white stripe or mark
RED/W	Red/White	Red with white stripe or mark
ORN/W	Orange/White	Orange with white stripe or mark
YEL/W	Yellow/White	Yellow with white stripe or mark