

# CRATER RAIDERS™



## “CRATER RAIDERS” NOVELTY MERCHANDISER OPERATORS MANUAL

PLEASE KEEP AN OPERATORS MANUAL WITH THE GAME AT ALL TIMES

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## **SAFETY INSTRUCTIONS**

**\* WARNING! \***

**BEFORE SETTING UP THE GAME, PLEASE READ THE FOLLOWING INSTRUCTIONS.**

**\* WARNING! \***

**FAILURE TO FOLLOW THESE DIRECTIONS MAY RESULT IN DAMAGE TO THE GAME.**

### **NOTICE FOR INSTALLATION**

- This machine is for indoor use, and is not suitable for outdoor use.
- After the machine is completely set up, please make sure that the machine is securely and safely placed level on the floor.
- Do not assemble or disassemble the game or move the game without using caution.
- Always switch off the power and remove the power cord before moving the machine.
- Place the game on a flat floor. Do not install on unsteady or locations which may become wet.
- Do not place the game near equipment or areas which are humid, flammable or of excessive heat or cold temperature.
- Do not place any heavy equipment on the top of the machine, or on top of the power cord.
- Do not expose the electrical circuit part of the machine to open air for a long time.

### **NOTICE FOR OPERATION**

- Before plugging in or turning on the machine, please check if the power plug and power cord are in good condition, and check that the voltage is set to the proper voltage that is suitable for your country.
- Turn off the power before you check or inspect the machine.
- Only qualified technicians are allowed to perform repairs or maintenance of the game.
- Only authorized accessories and technical parts should be used for repair and maintenance replacement
- Hold the plug (not the wire) to remove the power cord from the wall outlet.
- Do not pull or twist the power cord and always power off the game before replacing fuses. Never plug in, or unplug the machine with wet hands.

## INTRODUCTION

“Crater Raiders” merchandising game is a product that features a slowly rotating prize bin which can be filled with various toys, candy and/or capsules which can be reached into by a Player using the controls of the game to maneuver a mechanical, miniature, excavating claw mechanism. The player moves the mechanical claw in and out, left and right, to position the claw above the general area where their desired prize is about to pass below, and then pressing the; “DROP” button on the control panel. The game software then begins lowering the open claw directly into the prize bin and closing it in efforts to grab the desired prize or prizes. Once the claw mechanism closes, the game software will move to the prize chute and release any prizes captured by the mechanism.

The theme of the game is whimsical Alien workers standing around a deep planet crater, all working together to “excavate” prizes from the slowly turning crater rim from outside the surface. One particular Alien character is seated on an “Alien Excavator” vehicle and moves his arms in and out to raise and lower the crane arm and to move the claw left or right. This control is operated by the Player using a 4-way joystick on the control panel.

### PACKAGING

During delivery and installation, handle the machine with care. Use a forklift to move and deliver the packaged machine to the intended installation location. Be careful not to come into contact with heavy equipment as this may cause damage to the machine.

### ACCESSORIES

The machine is packed with the following Accessories which are included with each unit:

Accessories	Quantity	Remarks
<b>Operation Manual</b>	<b>1</b>	
<b>Keys</b>	<b>4</b>	<b>4 x NF18</b>
<b>Power Cord</b>	<b>1</b>	
<b>Alternate Claw Type</b>	<b>Available for Purchase</b>	<b>ALT. 4 FINGER CLAW OPTION</b>

### TECHNICAL PARAMETER

- **Model:** LP.YQXB
- **Dimension:** 33.3” W x 36”D x 72”H (845 x 915 x 1830mm)
- **Weight:** 341.7 LBS. (155 Kgs.)
- **Power supply:** 50-60Hz, 226W
- **Maximum power:** 250W/220V 110/120V/AC
- **Fuse Type:** 110/230V 2.8A

## LOCATION REQUIREMENTS

- **Indoor temperature: between from 41 F° and 104 F°.**
- **Indoor humidity: low**
- **U.V. radiation: Very low**
- **Vibrations level: None**

## PLAYING INSTRUCTIONS

1. **Insert coin.** When the proper number of credits are entered, the game will automatically begin to play and the controls are now operational for the Player. The LCD on the control panel will then show the credits (if any) and the playtime remaining.

2. **Normal (Auto Mode) play:** Within the play time limit, move the joystick to control the position of the claw above the area where the desired prize(s) are about to pass below. Move the claw using the joystick. Press the DROP button to attempt to capture the desired prize. If the claw captures the prize, the prize will be dropped down the prize chute and come out through the prize door. The game is over when the crane returns to the original stand by home position. If the Player does not capture any prize(s), they do not get to continue play. The game is over.

3. **Vending “Win Each Play” mode \*\*\*:** (Factory default setting is Auto Mode) Within the play time limit, move the joystick to control the position of the claw above the area where the desired prize(s) are about to pass below. Move the claw using the joystick. Press the DROP button to attempt to capture the desired prize. If the claw captures the prize, the prize will be dropped down the prize chute and come out through the prize door. If a Player does not capture a prize, after the claw returns to the center home position, the Player may CONTINUE to play. Game will end only when the player wins a toy/prize successfully.

*Note: The setting of payout ratio of the game does not work in vending “Win Every Time” mode\*\*\*. And the voltage of claw coil during this version of play will always be at the strongest power so that the player can win a prize in vending mode\*\*\**

## METERS

### COIN MECH METER

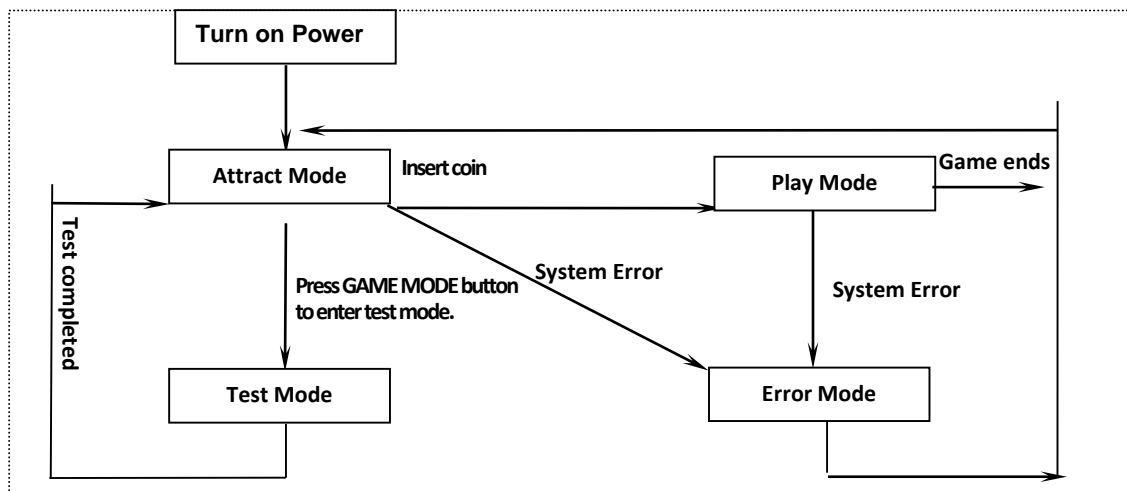
The number of credits accepted will incrementally be displayed by the Coin Mechanism Meter and will increase the meter count by one for every coin accepted by the coin mechanism. The Coin Mechanism Meter will also be incremented accordingly when the bill validator option is used and a bill is inserted..

### PRIZE METER

The Prize Meter will increase by one when a prize or prizes are dispensed and detected by the prize chute optical sensor. This meter increments by one, any time prizes are won and is not an exact count of how many pieces are released into the prize chute as each time a Player captures a prize or prizes, it can be anything from 1 piece to as many as 5 pieces. This meter counts the number of plays where prizes were dispensed to the Player.

## OPERATION

This game has three adjustable play modes. FREE PLAY mode, and the other two are coin play modes, AUTO MODE and WIN EACH PLAY. The factory default is set to WIN EACH PLAY. When the machine is in free play mode, after pressing the DROP button, no coin is required to start the game. The machine will be in play mode continuously. When the machine is in coin play mode, it can be adjusted in one of the following six modes: 1) Attract Mode, 2) Test Mode, 3) Claw Test Mode, 4) Game Play Mode, 5) Error state, 6) Prize-Out Mode. Please refer to the Flow Chart below for details;



Press; the Reset button on main board after clearing the error.

## **TURN ON THE POWER**

Before turning on the power, please check the plug and cord, and make sure that the game is set to the proper voltage.

## **GAME PLAY MODE**

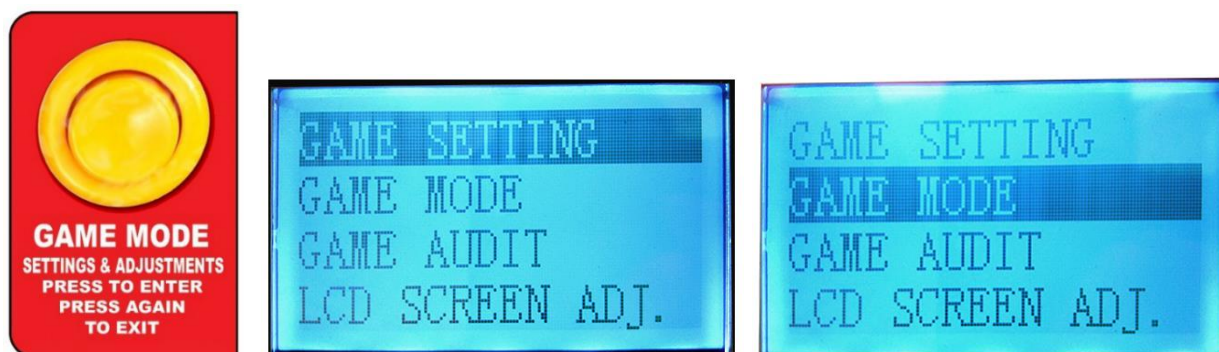
When the Game is started, the LCD on the control panel will display the time and credit the player has entered or remaining. There will be background audio at this time.

## **ATTRACT MODE**

According to the Operator adjustments and settings within the game MENU and OPTIONS for “ATTRACT MODE” the attract audio will play according to the frequency as chosen by the Operator. Or, alternatively, OFF and no Attract audio will be played.

## **GAME ADJUSTMENTS, GAME SETTINGS, AND TEST MODES**

During the ATTRACT MODE, Press the “MODE” button inside the cabinet door and the game will enter into the game settings & adjustment mode on the LCD display;



In “GAME MODE”, the Operator can make all necessary game operations adjustments, custom game settings, review bookkeeping records, and perform test and diagnostic functions using the joystick and “DROP” button on the control panel while information is displayed in the LCD panel.

To Exit the Game Mode, simply press the “GAME MODE” push button again to return to normal game play and standby state.

## **FIND ALL GAME ADJUSTMENTS BELOW IN THE GAME PARAMETER SECTION;**

## **ERROR MODE**

During the game play, whenever there is ERROR, the system will enter into ERROR MODE. The coordinating ERROR Code will then be displayed to the Operator on the LCD display. Refer to the trouble shooting guide for the Error code explanations below.

## **PRIZE OUT AUDIO CONFIRMATION**

When a prize has been won by the Player, there is a specific “win” audio music played to confirm a prize has been detected by the prize chute sensors. The number displayed on the Prize Meter will also increase by one.

## **Mainboard Cable Connection Table**

### **CPU Wiring Pin Out**

Plug NO	Pin NO	Wire color	Function	I/O CODE	Function of I/O
J5	PIN 1	0.3—Brown	Speaker +	-----	Speaker +
	PIN 2	0.3—White	Speaker -	-----	Speaker -
	PIN 3	0.3—Blue	DC MOTOR #1 POWER	-----	
	PIN 4	0.3—Yellow	Speaker_PWR	-----	+12V
	PIN 5	0.3—Black	DC MOTOR #1 GND	-----	
	PIN 6	0.3—Yellow	+12V Output	-----	
	PIN 7	0.3—Brown	DC MOTOR #2 POWER	-----	+12V
	PIN 8	0.3—Yellow	+12V Output	-----	
	PIN 9	0.3—Black	DC MOTOR #2 POWER	-----	GND
	PIN 10	0.3—Yellow	+12V Output	-----	
	PIN 11	0.3—Red	RED LED DRIVE	-----	Side Led Control
	PIN 12	0.3—Yellow	+12V Output	-----	
	PIN 13	0.3—Green	GREEN LED DRIVE	-----	Prize Chute Control
	PIN 14	0.3—Yellow	+12V Output	-----	
	PIN 15	0.3—Blue	BLUE LED DRIVE	-----	
	PIN 16	0.3—Yellow	+12V Output	-----	

PIN 17	0.3—Blue	CLAW POWER	-----	+48V
PIN 18	0.3—Black	CLAW GND	-----	GND
PIN 19	0.3—Green	Serial Output CLK	-----	<b>CLK</b>
PIN 20	0.3—Brawn	Serial Output DAT	-----	DAT
PIN 21	0.3—White	Serial Output LATCH	-----	<b>LATCH</b>
PIN 22	0.3—Black	GND	-----	
PIN 23	0.3—Black	GND	-----	
PIN 24	0.3—Black	GND	-----	
PIN 25	0.3—Black	GND	-----	
PIN 26	0.3—Black	GND	-----	
PIN 27	0.3—Brown	Output	OUT0	Coin meter
PIN 28	0.3—Pink	Output	OUT1	Prize meter
PIN 29	0.3—Orange	Output	OUT2	Coin Selector Enable
PIN 30	0.3—SkyBlue	Output	OUT3	Catch Button Indicator
PIN 31	0.3—Green	Output	OUT4	Joystick Indicator
PIN 32	0.3—Blue	Output	OUT5	
PIN 33	0.3—Purple	Output	OUT6	
PIN 34	0.3—Gray	Output	OUT7	Lamp Box Led
PIN 35	0.3—Brown	Output	OUT8	Lower Arm Move Up
PIN 36	0.3—Pink	Output	OUT9	Lower Arm Move Down
PIN 37	0.3—Orange	Output	OUT10	Upper Arm Move Up
PIN 38	0.3—SkyBlue	Output	OUT11	Upper Arm Move Down
PIN 39	0.3—Green	Output	OUT12	Bill Validator Enable

	PIN 40	0.3—Blue	Output	OUT13	
	PIN 41	0.3—Purple	Output	OUT14	
	PIN 42	0.3—Gray	Output	OUT15	
	PIN 43	0.3—Brown	Output	-----	Arm Spin Motor Reverse
	PIN 44	0.3—Brown/White	Output	-----	Arm Spin Motor Reverse
	PIN 45	0.3—Orange	Output	-----	
	PIN 46	0.3—Orange/White	Output	-----	
	PIN 47	0.3—Green	Output	-----	
	PIN 48	0.3—Green/White	Output	-----	
	PIN 49	0.3—Blue	Output	-----	Claw Power Out+
	PIN 50	0.3—Blue/White	Output	-----	Claw Power Out-
	PIN 1	0.3—Brown	TTL output (0---+5V)	-----	
	PIN 2	0.3—Pink	TTL output (0---+5V)	-----	LCD RS
	PIN 3	0.3—Orange	TTL output (0---+5V)	-----	LCD CS
	PIN 4	0.3—SkyBlue	TTL output (0---+5V)	-----	LCD RST
	PIN 5	0.3—Purple	TTL input (0---+5V)	-----	
	PIN 6	0.3—Brown	TTL output (0---+5V)	-----	
	PIN 7	0.3—White	TTL output (0---+5V)	-----	LCD SO
	PIN 8	0.3—Green	TTL output (0---+5V)	-----	LCD CLOCK
	PIN 9	0.3—Purple	RS232 TX (PIN3)	-----	
	PIN 10	0.3—Green	RS485 TR+	-----	
	PIN 11	0.3—Gray	RS232 RX (PIN2)	-----	
	PIN 12	0.3—Blue	RS485 TR-	-----	

J6	PIN 13	0.3-Brown/white	Input	IN0	Coin In Sensor
	PIN 14	0.3-Red/white	Input	IN1	Prize Out Sensor
	PIN 15	0.3-Orange/white	Input	IN2	Bill In Sensor
	PIN 16	0.3-Yellow/white	Input	IN3	Home Sensor
	PIN 17	0.3-Green/white	Input	IN4	Left Sensor
	PIN 18	0.3-Blue/white	Input	IN5	Middle Sensor
	PIN 19	0.3-Purple/white	Input	IN6	Right Sensor
	PIN 20	0.3-Gray/white	Input	IN7	
	PIN 21	0.3-Brown/white	Input	IN8	Joystick forward
	PIN 22	0.3-Red/white	Input	IN9	Joystick backward
	PIN 23	0.3-Orange/white	Input	IN10	Joystick move left
	PIN 24	0.3-Yellow/white	Input	IN11	Joystick move right
	PIN 25	0.3-Green/white	Input	IN12	Upper Motor Sensor A
	PIN 26	0.3-Blue/white	Input	IN13	Upper Motor Sensor B
	PIN 27	0.3-Purple/white	Input	IN14	
	PIN 28	0.3-Gray/white	Input	IN15	
	PIN 29	0.3-Brown/white	Input	IN16	Lower Motor Sensor A
	PIN 30	0.3-Red/white	Input	IN17	Lower Motor Sensor B
	PIN 31	0.3-Orange/white	Input	IN18	Drop Button Input
	PIN 32	0.3-Yellow/white	Input	IN19	Claw limit switch
	PIN 33	0.3-Green/white	Input	IN20	GAME MODE SETTING BUTTON
PIN 34	0.3-Blue/white	Input	IN21		

	PIN 35	0.3-Purple/white	Input	IN22	
	PIN 36	0.3-Gray/white	Input	IN23	
	PIN 37	0.3-Brown/white	Input	IN24	
	PIN 38	0.3-Red/white	Input	IN25	
	PIN 39	0.3-Orange/white	Input	IN26	
	PIN 40	0.3-Yellow/white	Input	IN27	
	PIN 41	0.3-Green/white	Input	IN28	
	PIN 42	0.3-Blue/white	Input	IN29	
	PIN 43	0.3-Purple/white	Input	IN30	
	PIN 44	0.3-Gray/white	Input	IN31	
	PIN 45	0.3-White	+3.3V Output	-----	<b>3.3V</b>
	PIN 46	0.3-Black	GND	-----	
	PIN 47	0.3-Red	+5V Output	-----	<b>+5V</b>
	PIN 48	0.3-Black	GND	-----	
	PIN 49	0.3-Red	+5V Output	-----	<b>Sensor A B POWER SUPPLY +</b>
	PIN 50	0.3-Black	GND	-----	<b>Sensor A B POWER SUPPLY -</b>
J8	PIN 1	0.3-Blue	CLAW POWER	-----	
	PIN 2	0.3-Black	CLAW GND	-----	
	PIN 3			-----	
J9	PIN 1	0.3-Green	Output	-----	
	PIN 2	0.3-Green/White	Output	-----	

## **GAME PARAMETERS**

### **GAME ADJUSTMENTS, SETTINGS, BOOKKEEPING, and TEST FUNCTIONS**

Enter by pressing the “MODE” button inside the door – press again to EXIT



PRESSING THE “MODE” BUTTON INSIDE THE CABINET DOOR CHANGES THE CONTROL PANEL LCD DISPLAY TO SHOW THE VARIOUS GAME PARAMETER OPTIONS, BOOKKEEPING TOTALS, AND TEST FUNCTIONS. PRESS THE “MODE” BUTTON AGAIN TO EXIT THIS FUNCTION.

**MOVE THE JOYSTICK UP OR DOWN TO SCROLL THROUGH THE MENUS. MOVE THE JOYSTICK RIGHT TO ENTER A MENU AND CHANGE A SETTING. MOVING THE JOYSTICK LEFT EXITS THAT MENU. USE THE “DROP” BUTTON TO CONFIRM A SELECTION.**

### **AFTER ENTERING THE “MODE” MENU;**

**MENU            SUB MENU > ENTER    OPTION            > ENTER            >EXIT**

#### **GAME SETTING**

Credits Per Play	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26
Attract Mode Set	OFF – 10, 15, 20, 25, 30, 40, 60, 90, 120 Sec.
Alarm Sound	OFF - ON
Play Time Out	20, 25, 30, 35, 40, 45, 50, 55, 60 Sec.
Avg. Win Ratio	1/1, 1/3, 1/5, 1/7, 1/9, 1/12, 1/15, 1/18, 1/20, 1/22, 1/24, 1/26, 1/28, 1/30, 1/32,

1/34, 1/36, 1/38, 1/40, 1/42, 1/44, 1/46,  
1/48, 1/50, 1/52, 1/54

**GAME MODE**

Win Each Play Plays continuously until a prize is won.

AUTO MODE Auto Mode Settings

Displays AUTO MODE game setting options per table below.

Free Play No credit required- press; "DROP" to enter a credit (for game demo and display purposes)

**GAME AUDIT**

Credit QTY: Display total credits to date since last cleared.

Clear Credit Clears credits to date. Confirm "yes".

Payout QTY: Display total prizes dispensed to date since last clear.

Clear Payout: Clears prizes to date. Confirm "yes".

Stored Credits Displays stored credits.

Clear Credits Clears stored credits. Confirm "yes".

**LCD SCREEN ADJ.**

Brightness Set (Adjust brightness high-low)

**I/O TEST**

Burn In Test Continuous operation for test

Switch Test Every switch input has sound effect when actuated by hand to confirm.

Test All Outputs All lamps and motors cycle through test one at a time- then repeat until exit.

Test Audio Plays main background audio.

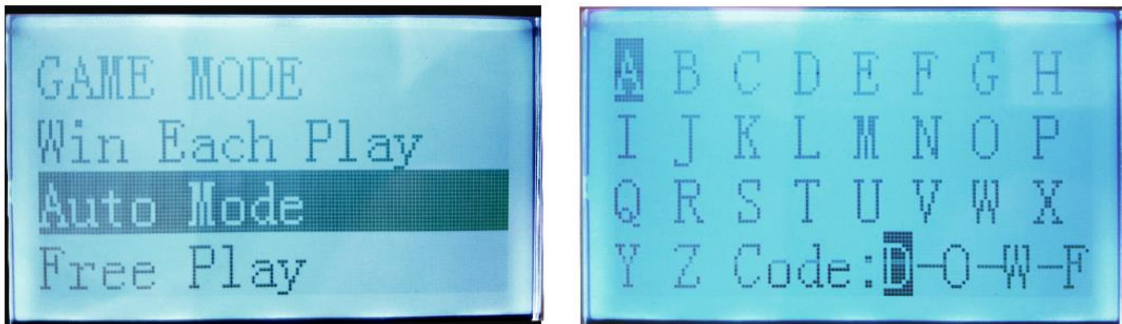
Cycle Play Test Press "DROP" button to start free play testing.

	Test Mech Switch	Claw moves in all directions and actuates all switches on the mechanism limit switches to confirm showing each switch # on the LCD screen as audio sfx confirms each switch.
	Test All Inputs	Check and Confirm if all input is normal.
<b>MECHANISM TEST</b>	Test Claw	Operate claw coil-open/close one time
	Test High Power	Operate claw coil high power one time.
	Test Low Power	Operate claw coil low power one time.
<b>FACTORY SETTING</b>	<b>Restore</b>	<b>Restores factory default settings.</b>
<b>SYSTEM INFO</b>	(CANNOT BE CHANGED)	
	Serial Number	
	Software Vers.	
	Date of MFG	

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**Auto Mode Functions as follows;**

Selecting “Auto Mode” in the game play options, [Factory Default] the control panel LCD Display appears as follows:



THE “AUTO MODE” GAME SET UP SCREEN FOR ENTERING THE 4- LETTER SET UP CODE;

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>
<b>I</b>	<b>J</b>	<b>K</b>	<b>L</b>	<b>M</b>	<b>N</b>	<b>O</b>	<b>P</b>
<b>Q</b>	<b>R</b>	<b>S</b>	<b>T</b>	<b>U</b>	<b>V</b>	<b>W</b>	<b>X</b>
<b>Y</b>	<b>Z</b>			<b>Code:</b>	<b>X-X-X-X</b>		

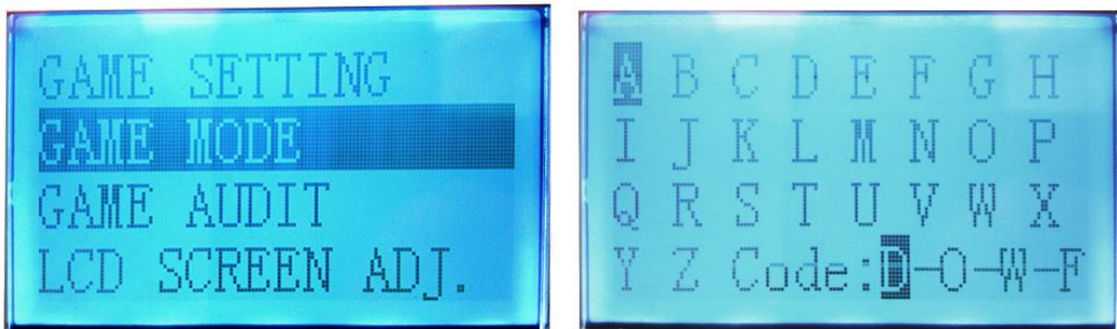
Here is a prize setting example in “Auto Mode” when an Operator chooses the following example based on the “Prize Code” table shown in the LCD display;

Example:

Coins [pulse] required per Credit:	<b>4</b>	[First letter; “D”]
Average Win ratio desired:	<b>1 in 42</b>	[Second letter; “O”]
High Power setting:	<b>Claw Coil PWM level 23</b>	[Third letter; “W”]
Low Power setting:	<b>Claw Coil PWM level 6</b>	[Fourth letter; “F”]

The above “Auto Mode” Screen example would be set using the MENU options like this;

**D – O – W – F**



Using the joystick, move through the letters in the code table to hi-light the desired setting one at a time from the chart below. Once chosen, press the “DROP” button to confirm. This moves the highlighted section to the next letter in the code. Continue to make your selections until all 4 desired game setting code letters have been confirmed.

After confirming the 4th code letter, press the joystick left to exit the Auto Mode Menu.

By entering this Prize Code in “Auto Mode” the game would set the four principal desired adjustments automatically through software. No further set up is required.

### The AutoMode Feature;

The AutoMode settings are designed to allow the Operator to quickly set up the machines once the primary 4- letter code has been determined. Fill kits can be shipped to the route Operator pre-marked with the 4- letter code allowing for the complete set up of the machine in under 60 seconds.

The AutoMode Table of 4 Letter Code Settings follows;

[Control Panel LCD Display]

#1 #2 #3 #4

Prize Code for "CRATER RAIDERS":

**X X X X**

CODE	Coins Per Credit	Avg. Win Ratio	Claw Hi Power	Claw Low Power
A	1	1 in 1	1 [weakest]	1[weakest]
B	2	1 in 3	2	2
C	3	1 in 6	3	3
D	4	1 in 9	4	4
E	5	1 in 12	5	5
F	6	1 in 15	6	6
G	7	1 in 18	7	7
H	8	1 in 21	8	8
I	9	1 in 24	9	9
J	10	1 in 27	10	10
K	11	1 in 30	11	11
L	12	1 in 33	12	12
M	13	1 in 36	13	13
N	14	1 in 39	14	14
O	15	1 in 42	15	15
P	16	1 in 45	16	16
Q	17	1 in 48	17	17
R	18	1 in 51	18	18
S	19	1 in 54	19	19
T	20	1 in 57	20	20
U	21	1 in 60	21	21
V	22	1 in 63	22	22
W	23	1 in 66	23	23
X	24	1 in 69	24	24
Y	25	1 in 72	25	25
Z	26	1 in 75	26 [strongest]	26[strongest]

## ERROR CODES

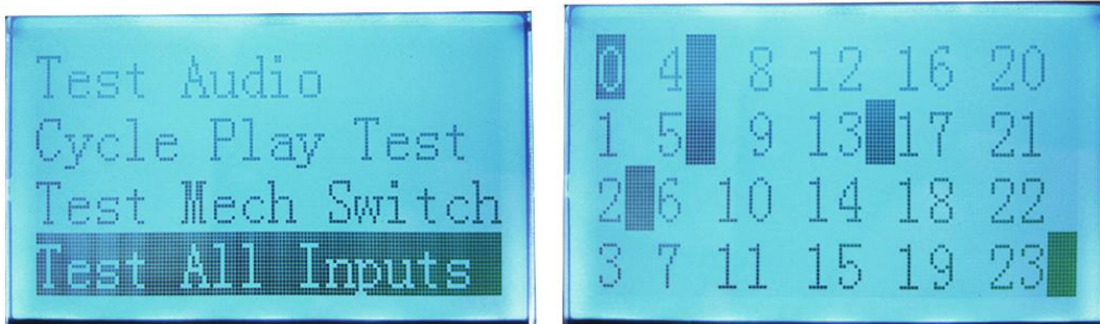
At any time a particular issue should evolve, a corresponding Error Code will appear on the LCD display on the control panel. Most switch and input errors can be found by entering the test modes for both, inputs and outputs within the test menu and is shown in the LCD display on the control panel. Below is a troubleshooting guide which describes the Error Codes;

The most common errors follows;

### 1. Coin SW Error

This indicates a faulty coin mechanism connection or jammed coin inside the acceptor itself. Inspect the coin mechanism first to clear any jammed coins. Then, check the cables between the main board and the coin mechanism and confirm them in the input test within the test menu.

If an alarm error remains in case of the disconnection between coin selector and cable, the main board might be damaged. Change for a new main board.

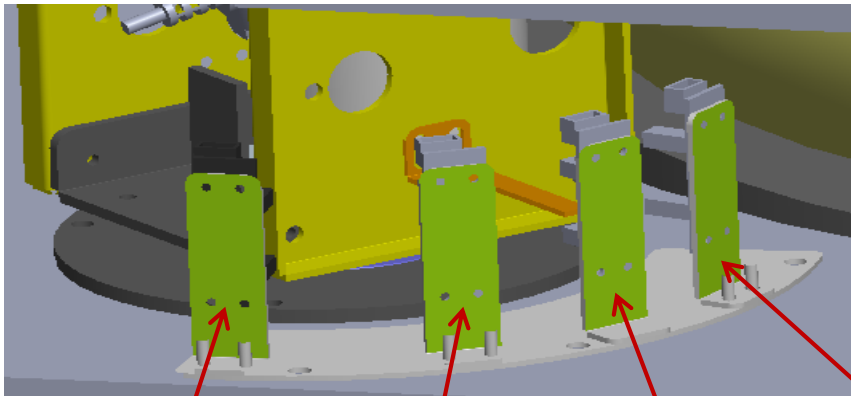


### 2. Prize Chute Error

If the prize chute sensor becomes blocked, there will be a prize chute sensor error which will prevent the game from being played further until the error has been cleared and the game powered off and then on again. After checking to clear the prize chute of any objects, run the switch input test and place your hand down the prize chute. You will hear a “ding” audio confirmation that the sensors are working correctly. If there is no audio feedback in the test mode, check if the prize sensor might be damaged, and replace it with a new one.

**THE FOLLOWING PAGE OUTLINES MORE COMPLEX TROUBLESHOOTING. ALL ERRORS WILL BE SHOWN IN THE LCD DISPLAY, INPUT AND/OR OUTPUT TEST;**

## CRATER RAIDERS LIMIT, BACK UP SWITCHES, AND POSITION SENSORS



HOME position Sensor <b>HOME SW ERROR</b>	Left side of prize bin Sensor <b>LEFT SW ERROR</b>	Center of prize bin Sensor <b>MIDDLE SW ERROR</b>	Right side of prize bin Sensor <b>RIGHT SW ERROR</b>
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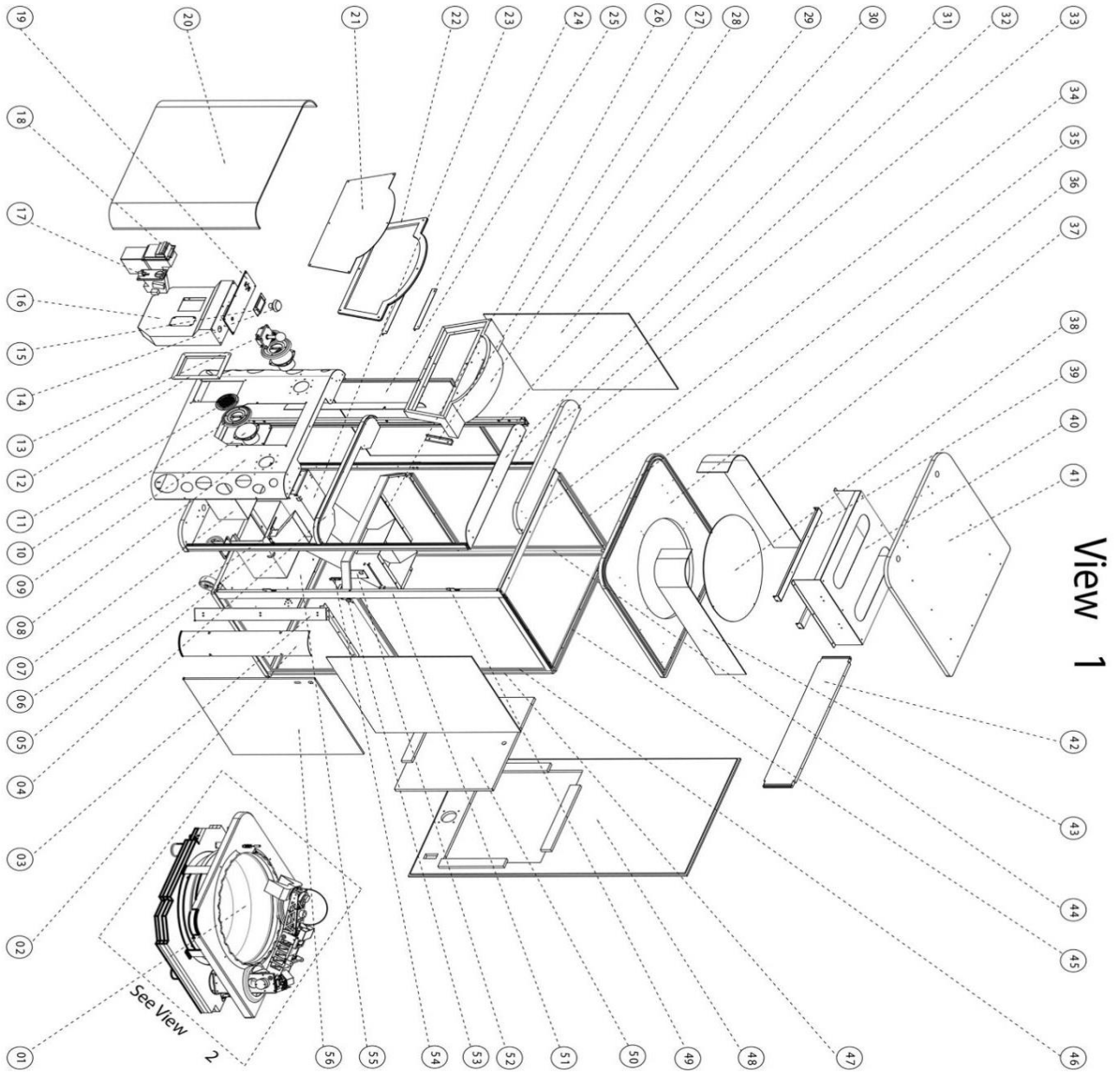
All of the end of stroke [safety] switches and position sensors on the arm left-home-right movement are located on the 1 pc metal plate. This way they can be replaced together as a group or individually. There are small slotted holes allowing for slight adjustment. Considering the assembly process, this allows faster trouble shooting and assembly.

### LCD DISPLAYED ERROR CODES;

<b>LCD ERROR CODES;</b>	ISSUE CAUSED BY	REMEDY
<b>A1 CNT SW Error</b>	UPPER ARM MVMT COUNT SW NOT DETECTED	CHECK UPPER ARM MOTOR
<b>A2 CNT SW Error</b>	LOWER ARM MVMT COUNT SW NOT DETECTED	CHECK LOWER ARM MOTOR
<b>A1 BTM SW Error</b>	UPPER ARM DOWN LIMIT SW NOT DETECTED –	CHECK UPPER ARM MOTOR
<b>A2 BTM SW Error</b>	LOWER ARM DOWN LIMIT SW NOT DETECTED –	CHECK LOWER ARM MOTOR
<b>COIN SW Error</b>	COIN SENSOR INPUT IS ABNORMAL	CHECK SENSOR
<b>PRIZE CHUTE Error</b>	PRIZE CHUTE AND/OR PRIZE SENSORS BLOCKED	CLEAR SENSORS
<b>RIGHT SW Error</b>	RIGHT MOVEMENT LIMIT SWITCH NOT DETECTED	CHECK SENSOR
<b>MID SW Error</b>	MIDDLE MOVEMENT LIMIT SWITCH NOT DETECTED	CHECK SENSOR
<b>LEFT SW Error</b>	LEFT MOVEMENT LIMIT SWITCH NOT DETECTED	CHECK SENSOR
<b>HOME SW Error</b>	HOME MOVEMENT LIMIT SWITCH NOT DETECTED	CHECK SENSOR

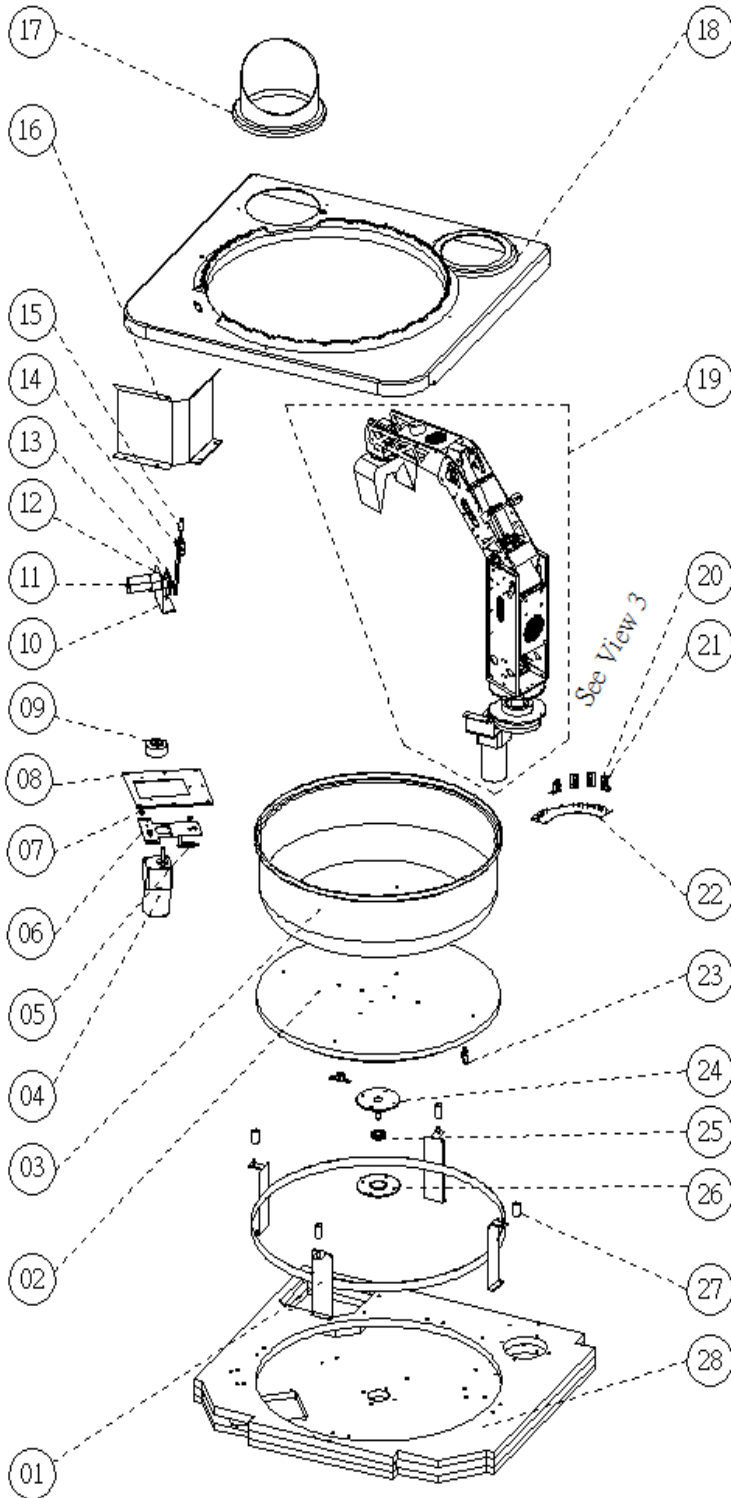
### THE FOLLOWING EXPLODED VIEWS REFERENCE THE MAIN ASSEMBLIES;

## PRIMARY CABINET ASSEMBLY



NO.	Parts Name	Qty
1-01	Prize district	1
1-02	Bottom side plastic with holes	2
1-03	Side LED support panel	2
1-04	Glass fix seat	1
1-05	Coin box frame	1
1-06	Coin chute	1
1-07	Coin box	1
1-08	Bottom front door	1
1-09	Speaker	2
1-10	Speaker acrylic ring	2
1-11	Speaker cover	2
1-12	Prize door shroud	1
1-13	Joystick	1
1-14	Button	1
1-15	LCD	1
1-16	Console	1
1-17	Coin mech	1
1-18	Bill acceptor	1
1-19	Console acrylic cover	1
1-20	Glass door	1
1-21	Light box plastic cover	1
1-22	Light box frame	1
1-23	Prize chute	1
1-24	Light tube support panel	2
1-25	Right side cabinet board	1
1-26	Left side cabinet board	1
1-27	Light box support barrier	2
1-28	Light box	1
1-29	Side glass	2
1-30	Front door right side corner	1
1-31	The front door top support	1
1-32	Cabinet front right corner	1
1-33	Glass door fix plastic	1
1-34	The top frame in front	1
1-35	Side frame	6
1-36	Plastic panel under the light box	1
1-37	Plastic panel in right side of light box	1
1-38	Plastic in center of light box	1
1-39	Roof light box fix panel	1
1-40	Light box link panel	2
1-41	Top plastic in light box	1
1-42	Back board of light box	1
1-43	Left side plastic in light box	1
1-44	Cabinet right back corner	1
1-45	Back cross glider	2
1-46	Cabinet left back corner	2
1-47	Corner cover	2
1-48	Cabinet back board	1
1-49	Lock bracket	2
1-50	Back door	1
1-51	Front door left side corner	1
1-52	Lock fix panel	1
1-53	Lock	1
1-54	Lock bracket barrier	1
1-55	Seat board	1
1-56	Left side board	1

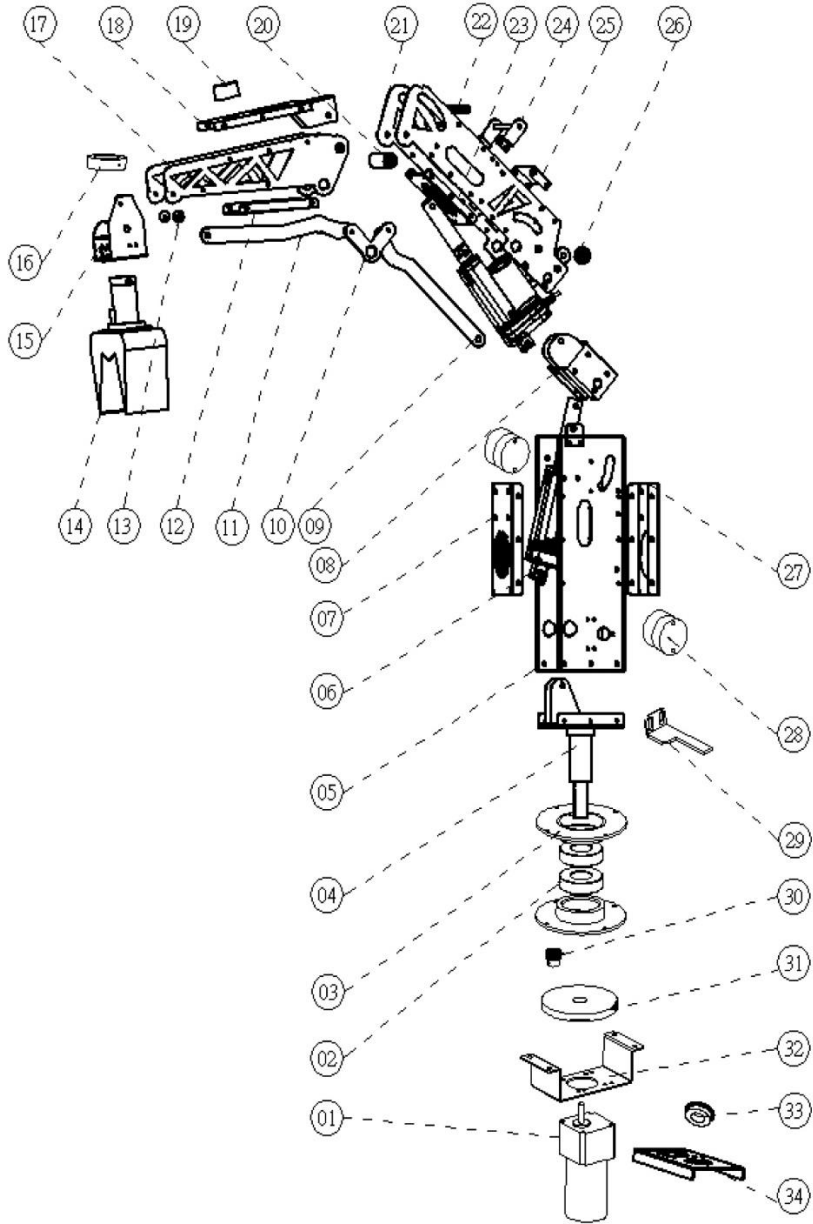
### PRIMARY PLAY FIELD ASSEMBLY



NO.	Parts Name	Qty
2-01	Round light fix board	1
2-02	Wheel wooden board	1
2-03	Wheel plastic cover	1
2-04	Motor	1
2-05	Spring	2
2-06	Motor fix panel A	1
2-07	Pad piece	1
2-08	Motor fix panel B	1
2-09	Small wheel	1
2-10	Wave motor fix board	1
2-11	DC motor	1
2-12	Rotation shaft	1
2-13	Shaft	1
2-14	Wave shaft seat	1
2-15	Wave shaft	1
2-16	Prize cuff barrier	1
2-17	Prize cuff acrylic tube	1
2-18	Prize area plastic cover	1
2-19	Mechanical arm	1
2-20	Sensor	4
2-21	Switch seat	4
2-22	Position limit Sensor seat	1
2-23	Bearing seat	3
2-24	Wheel fix axle	1
2-25	Bearing	1
2-26	Wheel surport seat	1
2-27	Pillar	4
2-28	Prize board	1

**PRIMARY MECHANICAL CLAW ASSEMBLY**

NO.	Parts Name	Qty
3-01	Motor	1
3-02	Bearing	2
3-03	Bearing seat	2
3-04	Turning shaft bottom board	1
3-05	Turning seat	1
3-06	Pole	2
3-07	Turning seat link piece 01	1
3-08	Claw arm 08	1
3-09	Claw arm 16	1
3-10	Claw arm 14	1
3-11	Claw arm 15	1
3-12	Shaft B link piece 01	1
3-13	Claw arm 13	2
3-14	Claw	1
3-15	Switch	2
3-16	Claw fixed ring	1
3-17	Front claw arm	1
3-18	Front claw arm link piece	1
3-19	Character fixed plastic piece 01	1
3-20	Front arm tuning shaft	1
3-21	Rear arm	1
3-22	Rear arm strengthening shaft	1
3-23	Rear arm link piece 01	1
3-24	Handle pole	1
3-25	Rear arm link piece 02	1
3-26	Rear arm tuning shaft	2
3-27	Turning seat link piece 02	1
3-28	Character fixed plastic piece 02	2
3-29	Turning seat sensor detect metal piece	1
3-30	Gear A	1
3-31	Gear B	1
3-32	Motor fixed metal piece 03	1
3-33	Bearing	1
3-34	Bearing fixed metal piece	1



**FOR ALL PARTS, SERVICE, AND TECHNICAL SUPPORT**

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