



 **CAPTO
CRANE**

Operating instructions



Machine operating instructions



D840*W812*H2100MM

Product Name: Capto Crane Type : Claw Crane Machine

Model: MK-I Machine voltage power: 110V/220V @200w

Specification Version: Ver1.2 System version: SG401

Please refer to the detailed instructions before use ,and please keep the manual for future reference

The product you actually receive may be slightly different from the one shown in this instruction, and the contents of this instruction may not be changed as a result of the product update.




BEFORE USING THE PRODUCT, BE SURE TO READ THE FOLLOWING:

TO MAINTAIN SAFETY:



To ensure the safe operation of this product, be sure to read the following before usage:

The following instructions are intended for the users, operators and the personnel in charge of the operation of the product. After carefully reading and sufficiently understanding the warning displays and cautions, handle the product appropriately. Be sure to keep this manual close to the product or in a convenient place for future reference.

Herein, explanations which require special attention are enclosed with dual lines. Depending on the potentially hazardous degrees, the terms of "DANGER", "WARNING", "CAUTION", etc. are used. Be sure to understand the contents of the displays before reading the text.

 DANGER	Indicates that mishandling the product by disregarding this pictograph will cause severe injury or death
 WARNING	Indicates that mishandling the product by disregarding this warning will cause a potentially hazardous situation which can result in death or serious injury
 CAUTION	Indicates that mishandling the product by disregarding this caution will cause a slight hazardous situation which can result in personal injury and/or material damage

For the safe usage of the product, the following pictographs are used:

	Indicates "HANDLE WITH CARE". In order to protect the human body and equipment, this display is attached to places where the instruction manual should be referred to
	Indicates a "protective earth terminal." Before operating the equipment, be sure to connect it to the ground (this step may be omitted for products in which a power cable with earth is used)

- **PERFORM WORK IN ACCORDANCE WITH THE INSTRUCTIONS HEREIN STATED**
Instructions for work are explained by paying attention to the aspect of accident prevention. Failing to perform work as per the instructions can cause accidents. In the case where only those who have technical expertise should perform the work to avoid hazardous situation, the instructions herein state that the site maintenance personnel should perform such work
- **BE SURE TO TURN OFF THE POWER BEFORE WORKING ON THE MACHINE**
To prevent an electric shock, be sure to turn off the power and unplug the power cable before carrying out any work that requires direct contact with the interior of the product. If the work is to be performed in the power-on status, the instruction manual herein always states to that effect
- **BE SURE TO GROUND THE EARTH TERMINAL (THIS IS NOT REQUIRED IN THE CASE WHERE A POWER CABLE WITH EARTH IS USED)**
This product is equipped with the earth terminal. When installing the product, connect the earth terminal to the "accurately grounded indoor earth terminal" by using an earth wire. Unless the product is grounded appropriately, the user can be subject to an electric shock. After performing repair, etc. for the control equipment, ensure that the earth wire is firmly connected to the control equipment
- **ENSURE THAT THE POWER SUPPLY USED IS EQUIPPED WITH AN EARTH LEAKAGE BREAKER**
Using a power supply which is not equipped with the earth leakage breaker can cause a fire when earth leakage occurs
- **BE SURE TO USE FUSES WHICH MEET THE SPECIFIED RATING (ONLY FOR THE MACHINES WHICH USE FUSES)**
Using fuses exceeding the specified rating can cause a fire and an electric shock

- SPECIFICATION CHANGES (REMOVAL OF EQUIPMENT, CONVERSIONS AND ADDITIONS) NOT DESIGNATED BY SEGA ARE NOT ALLOWED

The parts of the product include warning labels for safety, covers for personal protection, etc. It is very hazardous to operate the product by removing parts and/or modifying the circuits. Should doors, lids and protective parts be damaged or lost, refrain from operating the product, and contact where the product was purchased from or the office herein stated.

SEGA shall not be held responsible for any accidents or compensation for damage to a third party resulting from the specifications not designated by SEGA

- ENSURE THAT THE PRODUCT MEETS THE REQUIREMENTS OF APPROPRIATE ELECTRICAL SPECIFICATIONS

Before installing the product, check for electrical specifications. SEGA products have a nameplate on which the electrical specifications are described. Ensure that the product is compatible with the power supply voltage and frequency requirements of the location. Using any electrical specifications different from the designated specifications can cause a fire and an electric shock

- INSTALL AND OPERATE THE PRODUCT IN PLACES WHERE APPROPRIATE LIGHTING IS AVAILABLE, ALLOWING WARNING LABELS TO BE CLEARLY READ

To ensure safety for the customers, labels and printed instructions describing potentially hazardous situations are applied to places where accidents can be caused. Ensure that where the product is operated has sufficient lighting allowing the warnings to be read. If any label is peeled off, apply it again immediately. Please place an order with where the product was purchased from or the office herein stated

- WHEN HANDLING THE MONITOR, BE VERY CAREFUL (APPLIES ONLY TO PRODUCTS WITH MONITORS)

Some of the monitor parts are subject to high tension voltage. Even after turning off the power, some portions are still subject to high tension voltage. Monitor repair and replacement should be performed only by those technical personnel who have knowledge of electricity and technical expertise

- BE SURE TO ADJUST THE MONITOR PROPERLY (APPLIES ONLY TO PRODUCTS WITH MONITORS)

Do not operate the product leaving on-screen flickering or blurring as it is. Using the product with the monitor not properly adjusted may cause dizziness or a headache to an operator, a player, or customer

- WHEN TRANSPORTING OR RESELLING THIS PRODUCT, BE SURE TO ATTACH THIS MANUAL TO THE PRODUCT

* *In the case where commercially available monitors and printers are used in this product, only the contents relating to this product are explained herein. Some commercially available equipment has functions and reactions not stated in this manual. Read this manual together with the specific instruction manual of such equipment*

* *Descriptions herein contained may be subject to improvement changes without notice*

* *The contents described herein are fully prepared with due care. However, should any question arise or errors be found, please contact SEGA*

INSPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION

Normally, at the time of shipment, SEGA products are in a state allowing for usage immediately after transporting to the location. Nevertheless, an irregular situation may occur during transportation. Before turning on the power, check the following points to ensure that the product has been transported in a satisfactory status:

- Are there any dented portions or defects (cuts, etc.) on the external surfaces of the cabinet? Are casters and/or adjusters damaged?
- Do the power supply voltage and frequency requirements meet with those of the location?
- Are all wiring connectors correctly and securely connected? Unless connected in the correct way, connector connections cannot be made accurately. Do not insert connectors forcibly.
- Do power cables have cuts and/or dents? Are all accessories available?
- Can all doors and lids be opened with the accessory keys? Can doors and lids be firmly closed?

INTRODUCTION

This manual is intended to provide detailed descriptions together with all necessary information covering the general operation of electronic assemblies, electromechanical, servicing control, spare parts, etc. for the product:

"Capto Crane"

This manual is intended for the owners, personnel managers in charge of operation of this product. Operate the product after carefully reading and sufficiently understanding the instructions.

In the unlikely event that the product does not function correctly, **DO NOT** allow anyone other than a technician to touch the internal system. Turn off the power to the machine, making sure to unplug the electrical cord from the outlet, and contact the office listed below or the point-of-purchase for this product.

Use of this product is unlikely to cause physical injuries or damage to property. However, points that require special attention are indicated by bold text, the words "STOP, IMPORTANT or CAUTION" and the symbols below.



Indicates important information that, if ignored, may result in the mishandling of the product and cause faulty operation or damage to the product.



Indicates a warning or caution that, if ignored, may result in the mishandling of the product and cause faulty operation or damage to the product.

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email:	mailbox@sega.co.uk	Web:	http://www.segaarcade.com

SPECIFICATIONS

Standard Cabinet	
Machine Dimensions:	0.82m[Width] x 0.84m [Depth]
Machine Height:	2.09m (Installed)
Machine Weight:	130kg Approx. (Installed)
Power, maximum current:	1A @220V / 1.8A @115VAC
Rating:	110vac @ 50/60Hz – 220W (consumption)

Definition of 'Site Maintenance Personnel' or Other Qualified Individuals



Procedures not described in this manual or marked as 'to be carried out by site maintenance personnel or other qualified professionals' should not be carried out by personnel without the necessary skill or technological experience. Work carried out by unqualified persons may cause serious accidents, including electrocution.

Parts replacement, maintenance inspections and troubleshooting should be carried out by site maintenance personnel or other qualified professionals. This manual includes directions for potentially dangerous procedures which should only be carried out by professionals with the appropriate specialised knowledge.

The site maintenance personnel or other qualified professionals mentioned in this manual are defined as follows:

Site maintenance personnel:

Individuals with experience in maintaining amusement equipment, vending machines, etc., working under the supervision of the owner/operator of this product to maintain machines within amusement facilities or similar premises by carrying out everyday procedures such as assembly, maintenance inspections, and replacement of units/expendable parts.

Activities to be carried out by site maintenance personnel:

Amusement equipment/vending machine assembly, maintenance inspection and replacement of units/expendable parts.

Other qualified professionals:

Persons employed by amusement equipment manufacturers, or involved in design, production, testing or maintenance of amusement equipment. The individual should have either graduated from technical school or hold similar qualifications in electrical/electronics/mechanical engineering.

Activities to be carried out by other qualified professionals:

Amusement equipment/vending machine assembly, repair/adjustment of electrical/electronic/mechanical parts.

Waste of Electrical and Electronic Equipment (WEEE) Statement.

The WEEE (Waste of Electrical and Electronic Equipment) directive places an obligation on all EU based manufacturers and importers of Electrical and Electronic Equipment (EEE) to ensure waste equipment is disposed of in accordance with the directive at the end of their useful life.

The symbol shown below will be placed on all products manufactured from 13th August 2005, which indicates this product must NOT be disposed of with other normal waste. Upon purchasing any EEE from SEGA Amusements International Ltd. The user accepts responsibility to dispose of their waste equipment by arranging to return it to a designated UK collection point (AATF) or an Approved Exporter (AE) for the correct recycling of waste electrical and electronic equipment.

For more information on Approved Authorised Treatment Facilities (AATF) within the UK please consult the government website www.gov.uk

For users outside of the UK EEE should be disposed of in accordance with the local policy on the recycling of Waste Electrical and Electronic Equipment.

Battery Recycling Statement.

The EC Directive on Batteries and Accumulators (2006/66/EC) aims to minimise the impact of batteries on the environment and encourage the recovery of the materials they contain. To achieve increased collection and recycling of waste batteries, the Directive places 'producer responsibility' obligations on manufacturers and importers of portable, industrial and automotive batteries.

The symbol shown below will be on all equipment fitted with batteries from 26th September 2008 and indicates they must NOT be disposed of with other normal waste. Instead, it is the user's responsibility to dispose of used batteries by arranging to return them to a designated collection point for the correct recycling.

For more information about where you can send your waste batteries for recycling contact your local authority office.



REGISTERED IN ENGLAND REGISTERED NO. 1711515

REGISTERED OFFICE: BLOCK C 42 BARWELL BUSINESS PARK, CHESSINGTON, SURREY KT9 2NY

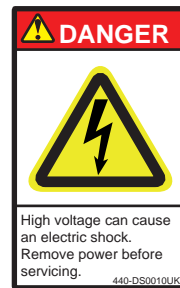




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Gameplay

CAPTO CRANE

-  After the coin has satisfied the number of credits required for a game, start the game by operating the joystick.
-  Operate the joystick direction to control the crane to aim above your selected target and release the joystick. When you start to move the joystick, the LCD screen will start to display the game time countdown.
-  When you press the Item button or the game time countdown is over, the claw hook begins drop the claw.
-  If the game has the " Grab At Once" enabled, you can press the Get Item button again to immediately perform claw closing in the air before the claw hook reaches the bottom.
-  After the claw reaches the top the claw stops and then it moves towards the prize chute to release any item it has caught

System settings

(This product uses the digital version of the full LCD screen function settings.)

Setup system and operation method:

Access settings Menu

Press the "Settings" button for 3 seconds to enter the "System Settings Interface" . In the system settings push "Joystick Right" or push joystick down to enter the corresponding function settings
Push the joystick left to exit the setup interface and start the game.



● 2.1 A Check Ledger:

Total Income:	Display the total number of coins and the total number of awards.
Daily Income:	The date of the day is displayed by default. Joystick up and down to select the date of the daily report, press Get Item button to enter the corresponding daily report. Date range for daily statement accounts is 30 days
Monthly Income:	The month is displayed by default. Joystick up and down to select the monthly report month, press the Get Item button to enter the corresponding monthly report. The monthly report record range is 12 months.

● 2.2 B Award Set:

Mode selection and setting operation: Press "Get Item" button to enter the "Game Mode" interface. Joystick up and down selection "Game Mode", joystick "right" or "get object key" to enter the "Game Mode" sub-category, joystick "up and down" to select parameters, press "Get Item button" to save exit.

	Rule	Parameter	Defaults
Regular Mode:	The game operates the claw strength at the set parameters C1,C2,C3. The game will use C4 when the set parameter is reached. e.g. Setting '10' will operate max power of the claw on the 10th play	1~99	10
Random Mode:	The game operates the claw strength at the set parameters C1,C2,C3. The game will use C4 when the set parameter is reached. e.g.. Setting '10' will operate max power of the claw between the 1st and 10th play	1~99	10
Fixed Random mode:	This mode is a mix between 'Regular' & 'Random' and alternates between the two	Fixed 1~99 Random 1~99	10
Free Mode:	This option is for exhibitions or demo mode. It operates the same as regular mode but without the need for inserting coins to play	1~99	10



System settings

Vending Mode:	The game operates at C4 claw strength until a prize is won. No further coins are required to play until a prize has been vended. The player must insert the set number of credits to play. e.g.. set to '10' will cost 10 coins to play and win a prize	1~99	10
GMVending Mode:	Winner every time mode. The game will operate at C4 claw strength (full strength) until a prize is won. e.g. If the game is set to '1' it will continue to allow play until a prize is vended	1~99	10

D

● 2.3 C Crane set:

C1Strength setting: Set power values at different stages of movement push the joystick up or down to set the clawforce. Press " Item button " to save and exit

	Rule	Parameter	Defaults
C1Voltage	Sets the claw power from initial grab to when the claw reaches the top of the gantry	1V~48V	36V
C2Voltage	Sets the claw power after the claw is at the top of the gantry before moving to home	1V~48V	21V
C3Voltage	Sets the claw power while the gantry is moving towards the prize chute	1V~48V	16V
C4Voltage	Sets the claw power in win conditions (Max strength).	1V~48V	35V
ManualVol-Test	Manually tests the claw power when grabbing the prize		
AutoVol-Test	Automatic test of claw power in varied conditions. This option takes 20 minutes and can't be canceled without power cycle		

AutoVol-Test features: Automatically test the best value of claw power. The system will grab the gift and hover over the prize chute and gradually reduce the claw power until the gift falls. The process will cycle until the system has obtained valid data measured 30 times

⚠ Note: In the automatic testing process, the current test data can be recorded and archived at any time.

System settings

Catchtimeset: sets the duration of the claw drop. The longer the time the longer the length of the claw drop. Set the time range from 1s to 5s. default 3.5s. If you want to dig the claw into the bed set a longer time

C2 Triggering: This denote the point when the game changes from C1 to C2 claw strength. You can set the option to be random ON/OFF. If you have the option set to 'OFF' it will change when the claw reaches the top of the gantry. Random will change between the bottom of the playfield & the top of the gantry and is determined at random points

C3 Triggering: This denote the point when the game changes from C2 to C3 claw strength. You can set the option to be between 0.1-0.5 seconds. If you have the option set to 0.5 seconds the claw strength will change from C2 to C3 0.5 seconds after it has reached the top of the gantry.

C3 Crane Test:

Auto test :	Let the crane cycle automatically to test the status of motor operation Manually control the direction of the joystick to test the movement of the motor
Manual Test:	Adjust the speed of the crane movement. The higher the percentage, the faster the speed Left Motor: Value 50%-100% Default 100% Right Motor: Value 50%-100% Default 100%
Motor Set:	Front Motor: Value 50%-100% Default 100% Back Motor: Value 50%-100% Default 100% Up/Down Motor: Value 50%-100% Default 100%

⚠ (Note: At any time during the automatic test, you can press 'Item' to exit.)

2.4 D Advanced Set:

GameTime Set:

Set the time given to the player to operate the crane before the crane automatically drops the claw. After the time is adjusted, press 'Item' button to save and exit
Value 5s-120s

Coin Rate:

Set how many coins are required for one game. Set the parameters by pushing up/down on the joystick. Press 'Item' button to save and exit. Value 1-99

Grab At Once:

This allows the player to press the grab button while the claw is descending to close the claw at this point. This stops the claw from digging into the prize bed Value Enable/Disable

PWD Set:

System password setting. Push up/down on the joystick to change the setting. Press 'Item' button to save and exit. Value 0-9, Default 0000.

Time Set:

System time setting. Push up/ down on the joystick to change the setting. Press 'Item' button to save and exit

System settings

2.5 E Sound Set:

Volume Set: Adjust the volume. Value 0-7, Default 7

Music Set: Choose music type

Background music: Value 00-02, Default 00

Win music: Value 00-02, Default 00

Drop claw music: Value 00-02, Default 00

Plays music when choosing options. Control the joystick left or press the "Get Item" button to save and exit

2.6 F System Reset:

Reset system to factory settings: After you enter the correct system password, press the "Get Item" button to execute the reset command. Use up/down to select option.

Error code

Upon power-on the game will perform a system check of sensors and switches. If a fault is detected, the game will halt and show the error code on the screen

Fault code description:

Fault Code	FAULT EXPLANATION
1	Prize sensor fault
2	Forward Moving fault
3	Backwards Moving fault
4	Left Moving fault
6	Up Moving fault
7	Down Moving fault




Troubleshooting

Fault description and troubleshooting:

When a fault occurs, check the switching power supply. The LED of the switching power supply in the normal state . If the LED is blinking or dark, the power supply status is abnormal.





No.	Error description	Inspection and troubleshooting
1	The joystick operates freely but the crane gantry does not move.	<p>Check wiring between the joystick and main board. Check logic voltage for joystick is present and pulls low when activated Check voltage is present at the motor when operating the joystick. Check PSU voltage</p> <p>If the <i>above</i> steps do not solve the problem, please contact Customer service</p>
2	Press the Get Item button does not activate the drop of the claw	<p>Check if the switch is making good contact Check the wiring between the switch and main board Check logic voltage of the switch</p> <p>If the <i>above</i> steps do not solve the problem, please contact Customer service</p>
3	No display on LCD	<p>Check whether the liquid crystal display wire on the console has come off Check whether the plug of the "matrix screen interface" of the main-board is off Check whether the two red LEDs on the mainboard are always on. If not, check the switch</p>
4	No sound	<p>Check whether the system setting volume is set to "0". The maximum volume is "7".</p> <p>Check the condition of the wiring between the main board and potentiometer and potentiometer and speaker</p> <p>Check the operation of the potentiometer</p>

Troubleshooting

NO	Error description	Inspection and troubleshooting
5	No credit	<p>Check the wiring at the main board is good (J5)</p>  <p>Check the credit board has power and you get a credit when you press the service button</p> <p>If the above steps do not solve the problem, please contact customer service</p>
6	LCD Displays "Sensor Error"	<p>Check if the prize sensor is blocked</p> <p>Check if the signal line of the sensor is short circuit</p>

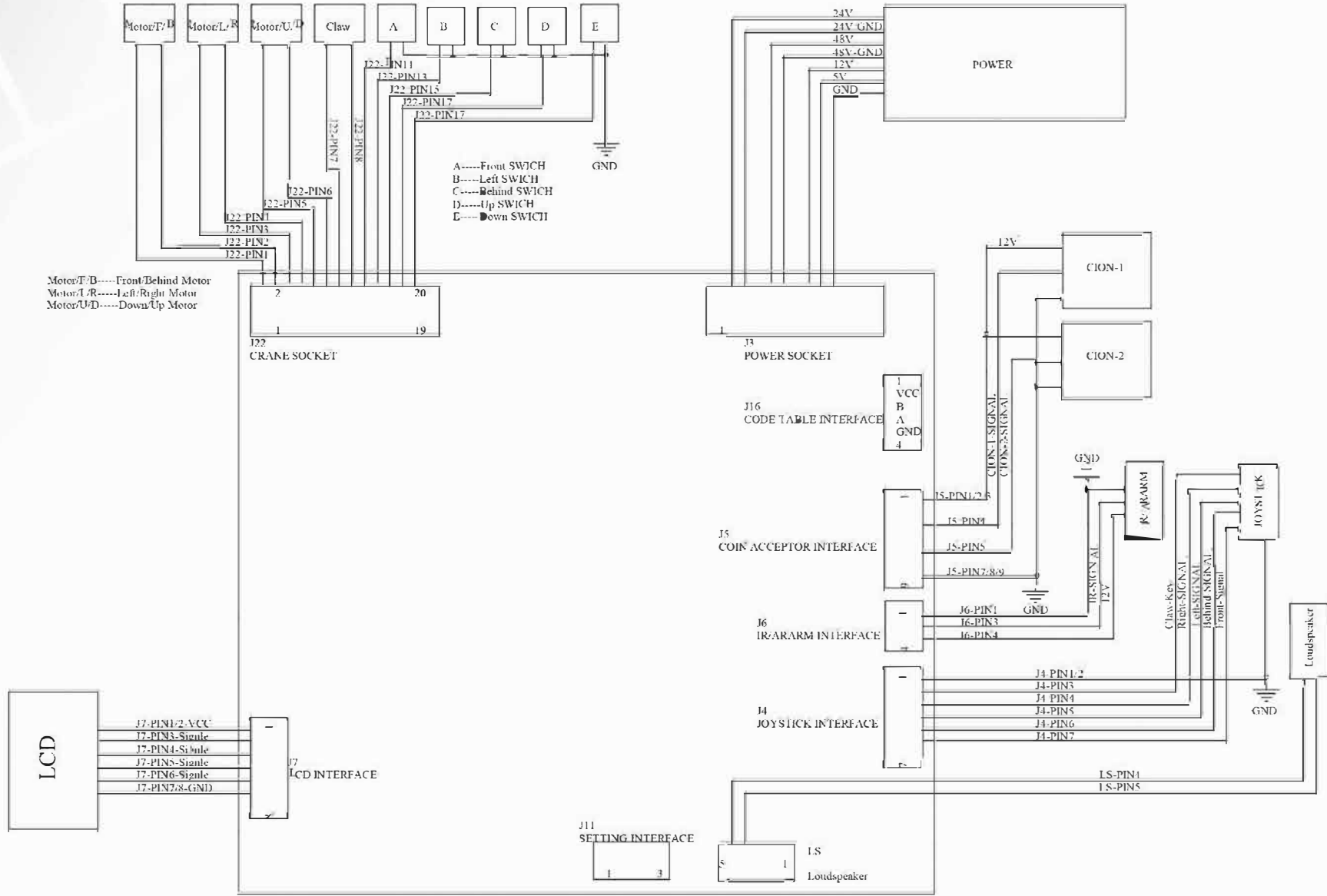
Spare List for Capto Crane

NO.	Pictures	Part Name	Number	Dimension (mm)	PCS/CRANE MACHINE	Unit	
1		wheel with brake	PX64	2.5 inch	4	pcs	
2		wheels without brake	PX65	2.5 inch	5	pcs	
3		Solid Letters	PX69	\	1	set	
4		light bar-1	PX70	DC24V 5420mm	1	set	
5		light bar-2	PX71	DC24V 5040mm	1	set	
6		WARM LAMP 3000K	PX72	600mm*75mm	1	set	
7		WHITE LAMP 6000K	PX73	600mm*75mm	2	set	
8		12V Power supply box	PX74	WA-100-12	1	set	
9		Overhead crane rubber	PX76	25*25*50	4	pcs	

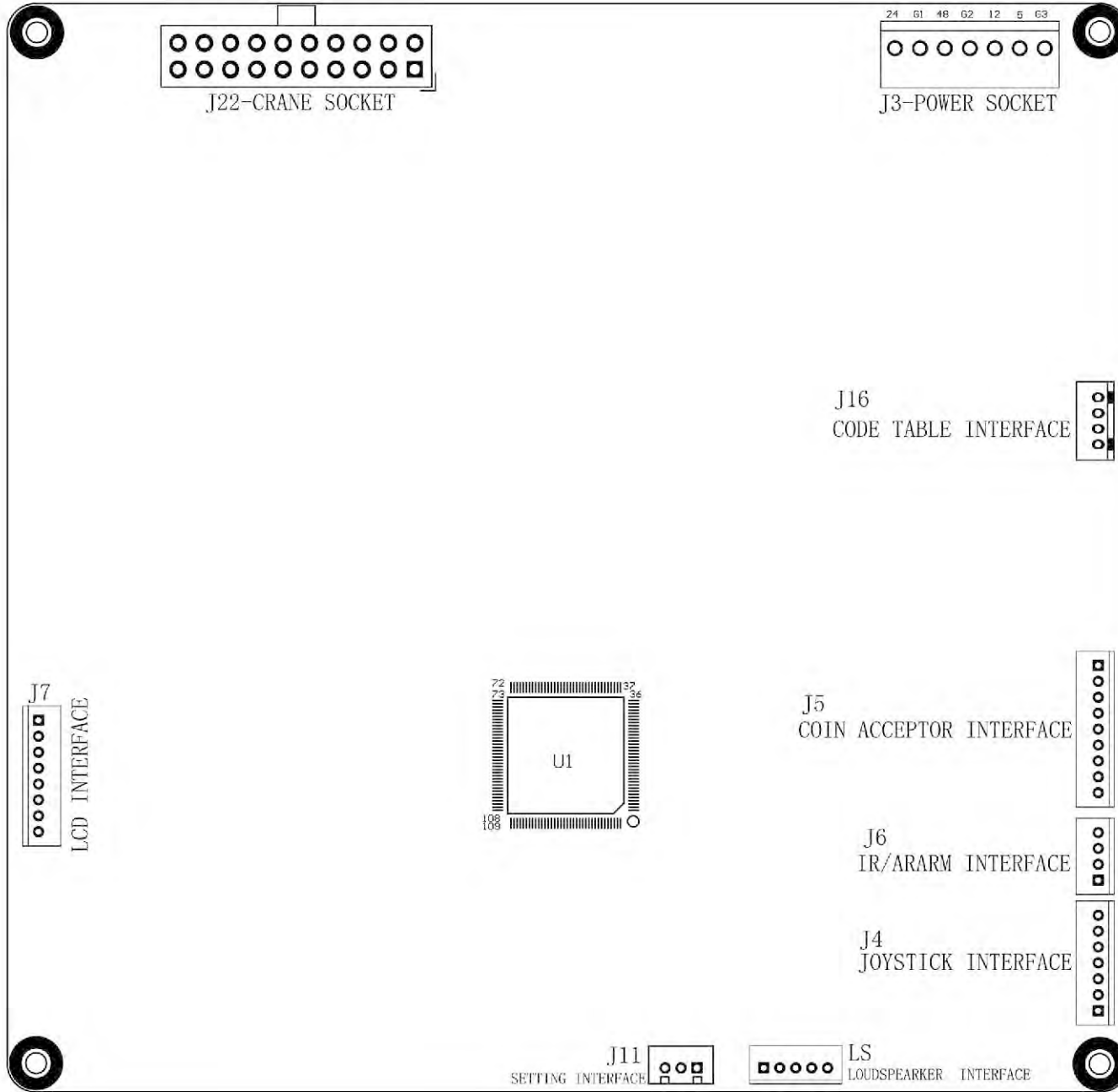
10		LCD Panel	PX100	\	1	set	
11		Claw crane machine main Panel	PX101	\	1	set	
12		White plastic outside box for overhead crane		\	1	pcs	
21		Overhead Crane Switch NO.1		3 pcs in each overhead crane	3	pcs	
		Overhead Crane Switch NO.2		1 pcs in each overhead crane	1	pcs	
		Overhead Crane Switch NO.3		1 pcs in each overhead crane	1	pcs	
22		Overhead crane motor	TC-13	\	3	pcs	
13		12V Power Supply	PX104	WA-200Q-A	1	pcs	

14		Sensor panel	PX105	\	1	pcs	
15		Control button	PX107	\	1	pcs	
16		Joystick	PX108	\	1	pcs	
17		PRIZE TELESCOPIC POLE	PX116	\	2	pcs	
18		Speaker	PX117	4 inches	1	pcs	
19		220V FILTER REJECTOR	PX123	5*20	1	pcs	
20		ELECTONIC METER FOR COINS AND PRIZE	PX124	CL-9014-A	1	pcs	

Wiring instructions

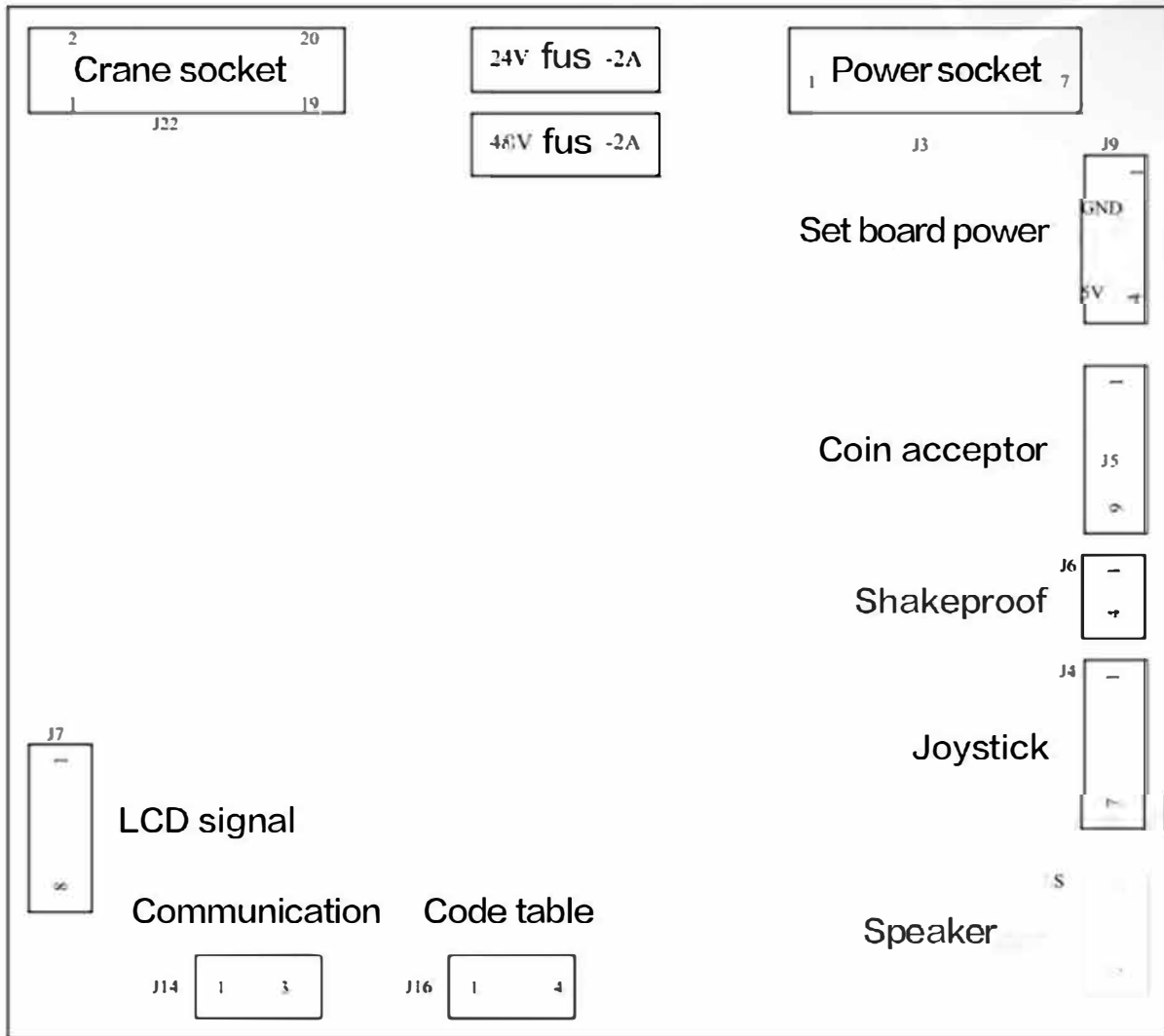


Mainboard wiring position description





Interface Description



J22Socket							
1	Upper and lower motor	2	Upper and lower motor	3	Left and right motor	4	Left and right motor
5	Front and back motor	6	Front and back motor	7	Claw solnoid	8	Claw solnoid
9	NC	10	NC	11	Stop the switch forward	12	GND
13	Stop switch left	14	GND	15	Stop switch back	16	GND
17	Stop switch up	18	GND	19	Stop switch down	20	GND
J3Socket							
1	24V+	2	24V-	3	48V+	4	48V-
5	12V+	6	5V+	7	GND		



Interface Description

J9							
1	NC	2	5V+	3	NC	4	GND
J5							
1	12V+	2	12V+	3	12V+	4	Coin Signal 1
5	Coin signal 2	6	NC	7	GND	8	GND
9	GND						
J6							
1	GND	2	Shakeproof	3	Sensor	4	12V+
J4							
1	GND	2	GND	3	button	4	Joystick right
5	Joystick left	6	Joystick forward	7	Joystick backward		
LS							
1	GND	2	NC	3	NC	4	Horn +
5	Horn -						
J16							
1	GND	2	Code table 1	3	Code table 2	4	5V+
J14							
1	Communication line +	2	Communication line -	3	GND		
J7							
1	3.3V+	2	3.3V+	3	LCD signal 1	4	LCD signal 2
5	LCD signal 2	6	LCD signal 3	7	GND	8	GND
Fuse: 220V/2A, size 5*2 0.please strictly follow the parameters							

SPARES AND SERVICE CONTACT INFORMATION

-SEGA TOTAL SOLUTIONS-

42 Barwell Business Park
Leatherhead Road
Chessington
Surrey
KT9 2NY
United Kingdom

Contact: +44 (0) 208 391 8060
Option 1 for Spares, Prize, and Sales
Option 2 for Technical, Warranty, and Repairs



-PLAY IT AMUSEMENTS-

870 Lively Blvd
Wood Dale
Illinois
60191
United States of America

Main/General: 847-364-9787
Part Sales: 224-265-4287
Technical Support: 224-265-4283





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