



Service Manual
Innovative Concepts in Entertainment
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SAFETY AND WARNINGS BEFORE YOU BEGIN

WARNING: WHEN INSTALLING THIS GAME, A GROUNDED A.C. RECEPTACLE MUST BE USED. FAILURE TO DO SO COULD RESULT IN INJURY TO YOURSELF OR OTHERS. FAILURE TO USE A GROUNDED RECEPTACLE COULD ALSO CAUSE IMPROPER GAME OPERATION, OR DAMAGE TO THE ELECTRONICS.

NOTE: THIS GAME IS INTENDED FOR INDOOR USE ONLY.

DO NOT DEFEAT OR REMOVE THE GROUNDING PRONG ON THE POWER CORD FOR THE SAME REASON AS GIVEN ABOVE. USING AN IMPROPERLY GROUNDED GAME COULD VOID YOUR WARRANTY.

HAVE A QUALIFIED ELECTRICIAN CHECK YOUR A.C. RECEPTACLE TO BE SURE THE GROUND IS FUNCTIONING PROPERLY.

THIS GAME IS DESIGNED TO DISSIPATE STATIC ELECTRICITY THROUGH THE GROUNDING PLANE OF THE GAME. IF THE A.C. GROUND DOES NOT WORK, THE GAME COULD DISCHARGE STATIC ELECTRICITY THROUGH THE GAME CIRCUITRY, WHICH COULD CAUSE DAMAGE.

THE POWER SUPPLY IS NOT VOLTAGE ADJUSTABLE. TO OPERATE THE GAME AT VOLTAGES OTHER THAN THOSE IT WAS DESIGNED FOR. PLEASE CONTACT OUR SERVICE DEPARTMENT FOR VOLTAGE CONVERSION INFORMATION.

WARNING

DO NOT remove any of the components on the main board (e.g. compact flash and EPROMS) while the game is powered on. This may cause permanent damage to the parts and the main board. Removing any main board component part while powered on will void the warranty.

ALWAYS REMOVE POWER TO THE GAME, BEFORE ATTEMPTING ANY SERVICE,

UNLESS NEEDED FOR SPECIFIC TESTING. FAILURE TO OBSERVE THIS PRECAUTION

COULD RESULT IN SERIOUS INJURY TO YOURSELF OR OTHERS.

THIS GAME IS NOT SUITABLE FOR INSTALLATION IN AN AREA WHERE A WATER JET COULD BE USED.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

The game's foot print is 33.6" x 33.5" x 35.7"

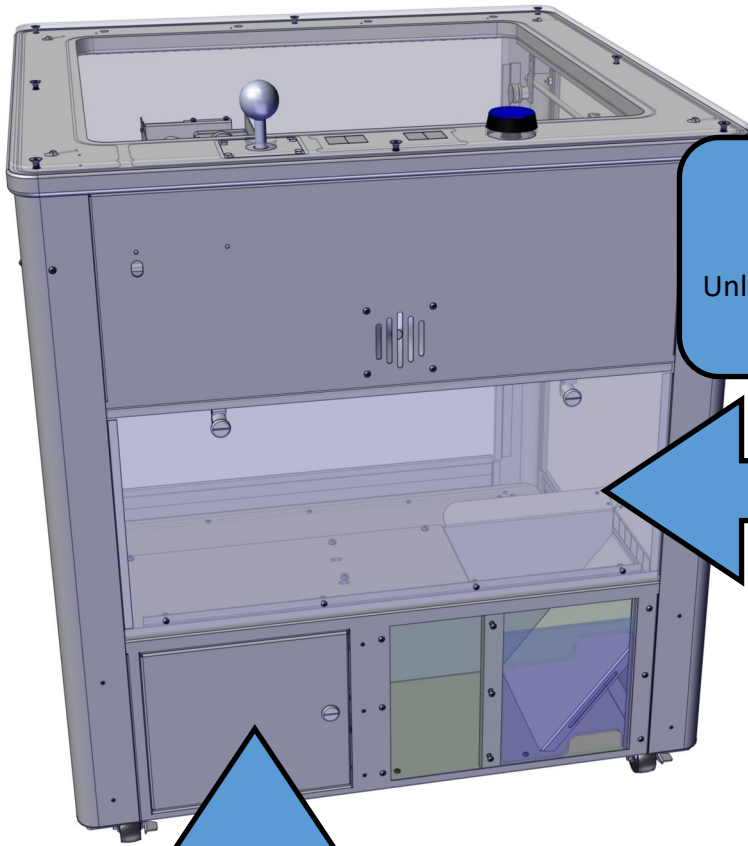
".

AC Power Information

The games main fuse is accessed through the back of the game at the power mod. Above the power cord is a small panel that contains the main fuse. The value of the fuse for 120 volt users is 3 AMPS at 250Volt type slow blow. The value of the fuse for 230 users is 2 AMPS at 250Volt type slow blow.

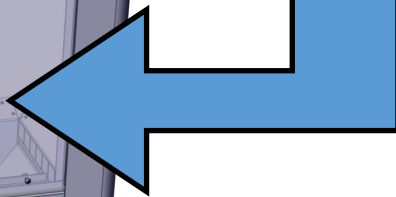


Anatomy of the Crane



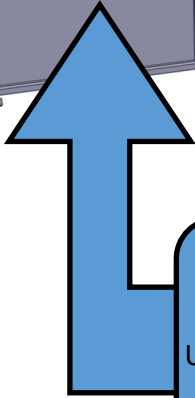
Prize Fill Door

Unlock door to fill crane with prizes.



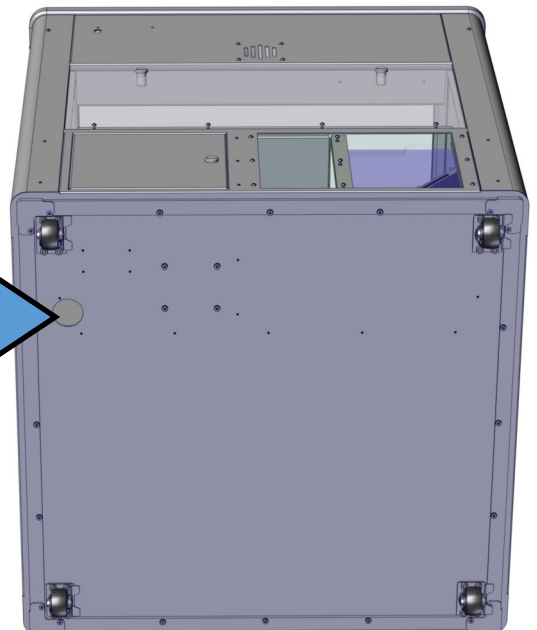
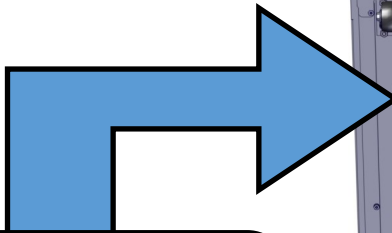
Electronics Door

Unlock door to read meters, power on crane, or access main board.



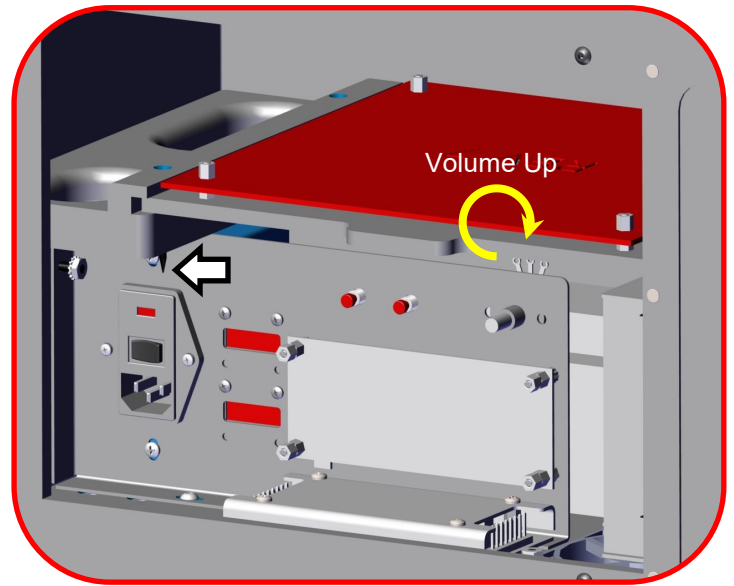
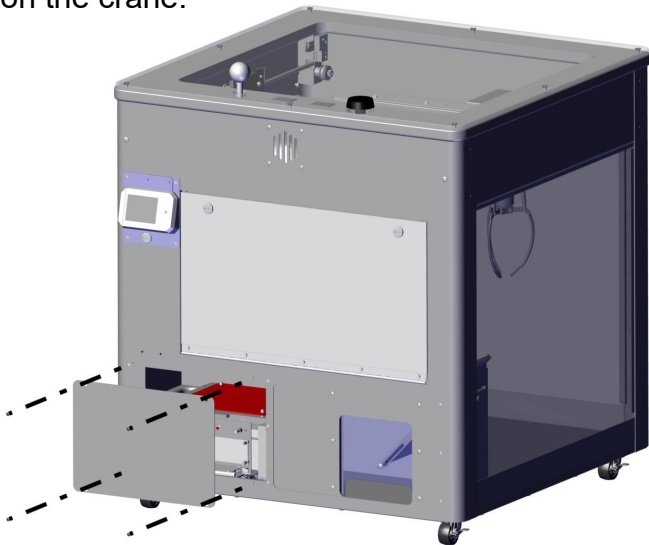
AC CORD HOLE

Run AC cord through this hole.



AC Power and Product Install

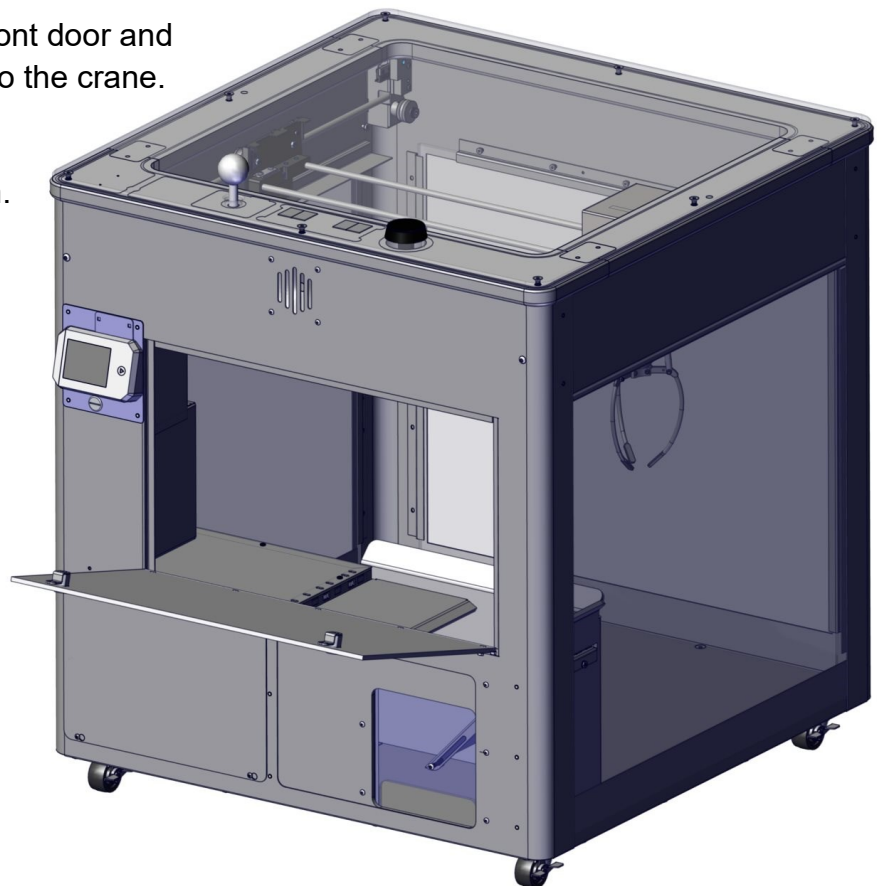
Remove the CS1864 electronics cover by unscrewing four 6479 Allen screws to access the AC plug. A hole is located at the bottom of the cabinet for the AC cord to plug into a AC outlet. Before you power on the crane, remove any shipping straps installed. To the AC switch to the "I" position to power on the crane.



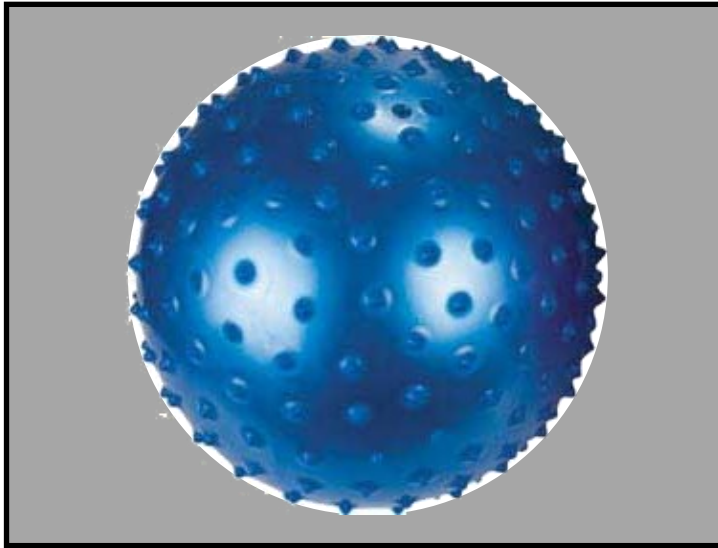
To adjust the volume of the crane, turn the volume pot to the right. To lower, turn to the left.

Using the supplied keys, unlock the front door and open the front door to load product into the crane.

See next page for product preparation.



HOW TO FILL PRIZE BALLS

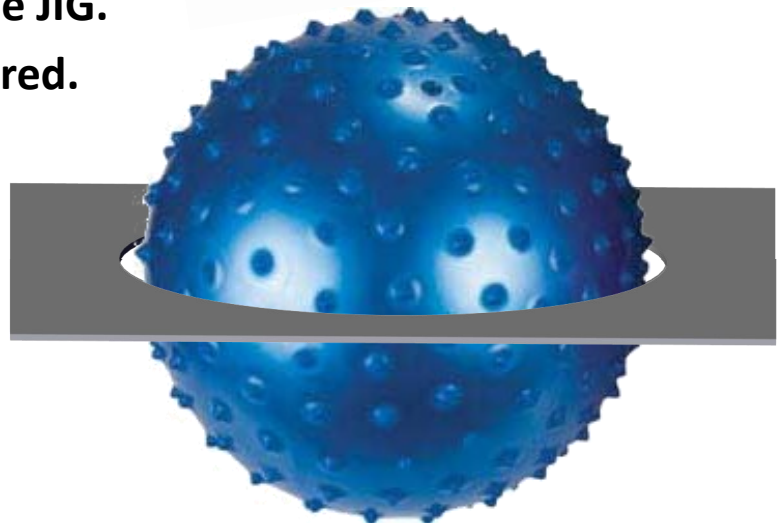


!!Check Balls Daily!!

Fill to 5 inches ONLY!

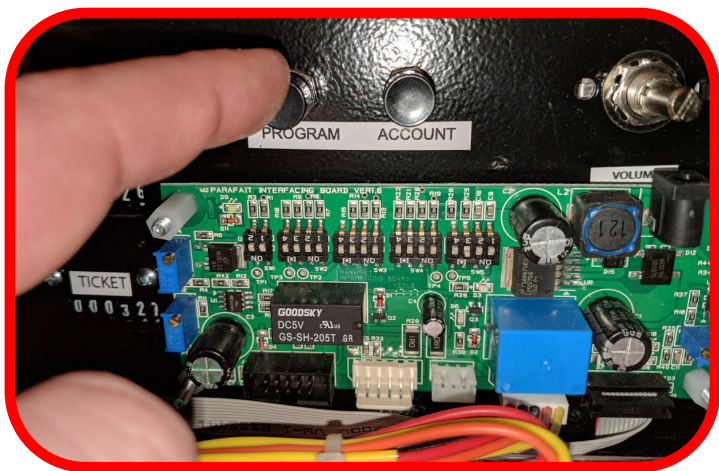
- **DO NOT OVER FILL**
- **DO NOT UNDER FILL**
- **Balls deflate over time.**

Balls must not drop through the jig!
Balls are good when slightly push
with one finger through the JIG.
Release or add air as required.



How to Program your Crane:

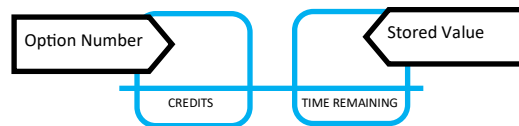
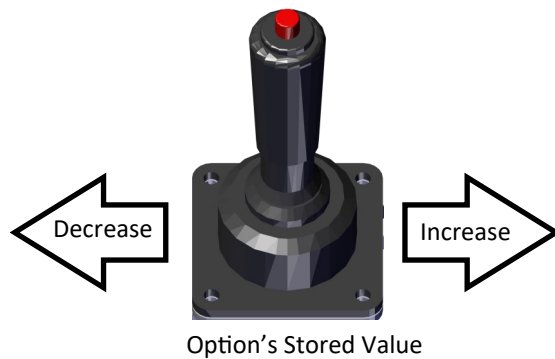
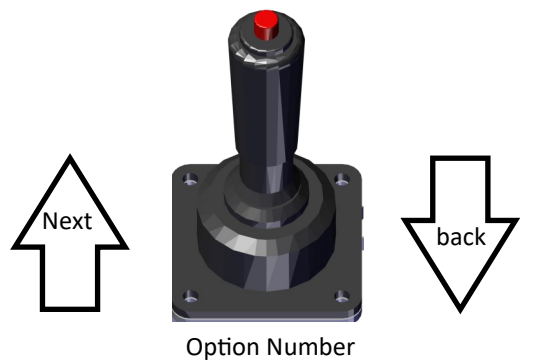
- The crane must be powered on and in attract mode.
- It will not enter programming mode when in play.



Remove the bottom door to access the control panel and press the “PROG” button. The control panel display will show “PP” in the credits display and “0” in the time display. You must move the joystick forward to enter program mode. The credit display will show a 0. The Time display will show the value stored for option 0.

Moving the joystick forward will advance to the next option while moving the joystick back will revert back to the previous option. Moving the joystick left will decrease the current option’s value and moving the joystick right will increase the current option’s value.

See “Programming Options” for the list of settings their descriptions. When finished, press the red button to save and exit.



BASIC Programming Options 9.6XS with Using Joystick Mode

Option	Description
0 "Payout Regulator Reset"	This option will reset the current payout percentage back to 0 and clear the accounting of prizes. It will not reset any options.
1 "Game Cost"	This option tells the crane how much you wish to charge to play in pulses. For example, a setting of 1 would be equivalent to .25¢ while a setting of 2 would be equivalent to .50¢. The maximum value is 99.
2 "Coin 2 Cost"	This option tells the crane how many coin 1 pulses does this pulse give. This line would be the switch with the white/red wire attached to it. This option should be set to 1 unless you are using different coins that have different values. For example if the coin you are using in coin 1 is a quarter and coin line 2 is accepting \$1.00 coins, then this would be set to 4, not 1. If coin line 2 is accepting the same coin as coin line 1, then this would be set to 1. The maximum value is 99.
3 Not Used	Not used.
4 Not Used	Not Used.
5 "Claw Strength"	This option sets the amount of power to use to keep the claw closed.
6 "Attract Time"	This value determines how many minutes between doing attract modes and doing nothing. As an example a value of 3 would be 3 minutes sitting idle then performing its attract mode. The maximum time between attract modes is 90 minutes.
7 "Attract Type"	This value determines which attract mode to perform. A value of 0 would disable attract mode. A value of 1 would only play audio. A value of 2 would be only motion and a value of 3 would do both audio and motion.
8 "Attract Volume"	When set to 0 the attract audio will be lower than when playing the crane. You cannot adjust the lowered attract volume. A setting of 1 disables this feature and plays attract audio and game audio at the same level (adjusted by the volume pot).
9 Not Used	Not Used.
10 "RED Color 1"	Percentage of power to the Red LEDs for color number 1.
11 "Green Color 1"	Percentage of power to the Green LEDs for color number 1.
12 "Blue Color 1"	Percentage of power to the Blue LEDs for color number 1.
13 "RED Color 2"	Percentage of power to the Red LEDs for color number 2.
14 "Green Color 2"	Percentage of power to the Green LEDs for color number 2.
15 "Blue Color 2"	Percentage of power to the Blue LEDs for color number 2.
16 "RED Color 3"	Percentage of power to the Red LEDs for color number 3.
17 "Green Color 3"	Percentage of power to the Green LEDs for color number 3.
18 "Blue Color 3"	Percentage of power to the Blue LEDs for color number 3.
19 "RED Color 4"	Percentage of power to the Red LEDs for color number 4.
20 "Green Color 4"	Percentage of power to the Green LEDs for color number 4.
21 "Blue Color 4"	Percentage of power to the Blue LEDs for color number 4.
22 "Factory Default"	When set to 1 this option will load factory defaults. It will not reset the current payout.

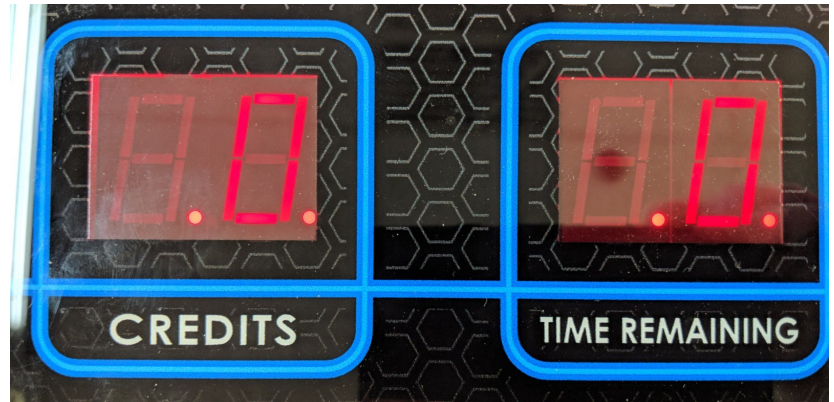
Programming Options with Using Joystick Mode

Option	Description
23 Not Used	Not really used, leave at default 99
24 Game Time	Time in Seconds of game
25 Front Back Speed	F/B movement speed
26 Left/Right Speed	L/R movement speed
27 Claw Down Speed	Claw Down speed
28 Claw Up Speed	Claw Up Speed
29 Dig Time	Not really used should be 0
30 Pickup time	Not really used leave at default
31 Top Pause	Pause in 1/8 of second at top
32 Stop and Drop	Stop and Drop time 0 = off
33 Home Pause	Pause at Home 1/8 of second
34 Play Til Win	1 = play til you win
35 Game over Delay	Game over Delay
36 Snap	Claw Snap
37 Center X Time	Center x Time
38 Center Y Time	Center y Time
39 Discount Credits	How many credits til discount
40 Discount Games	How many games given for discount

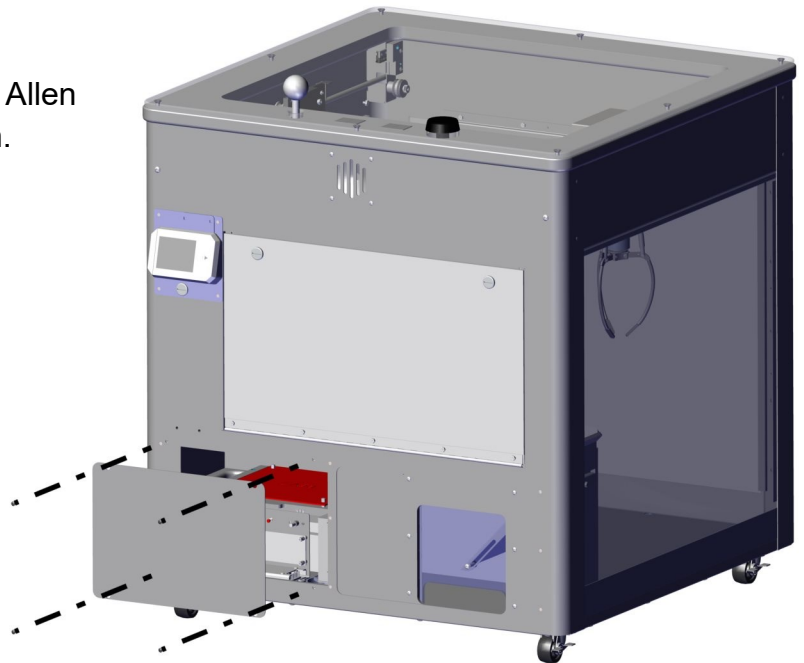
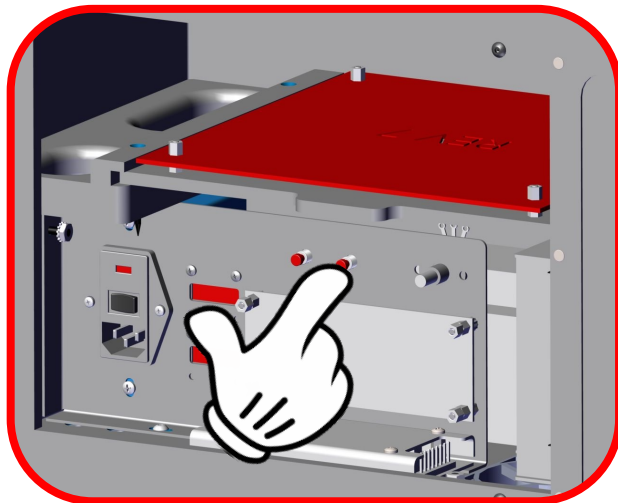
Crane Errors

If dots appear and stay on the display you will need to press the “Account” button.

Doing so will determine what error you are experiencing.



To access the “Account” button, remove the electronics cover by removing the four 6379 Allen screws. Then press the “ACCOUNT” button.



Errors will be displayed on the control panel at the top.

Error Number = Error Description

3 = L/R Motor ; No Left and Right movement.

4 = F/B Motor ; No Forward and backwards movement.

5 = Up ; Claw up switch not seen.

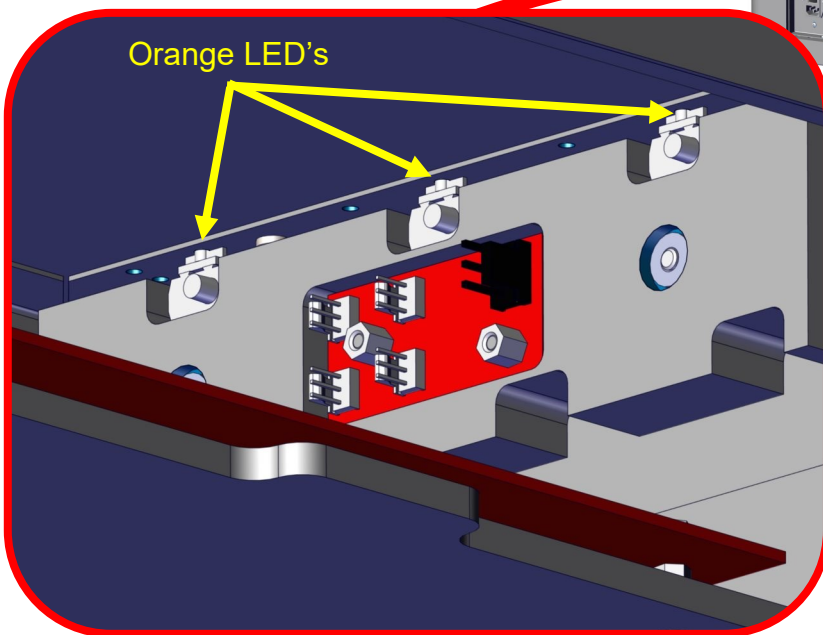
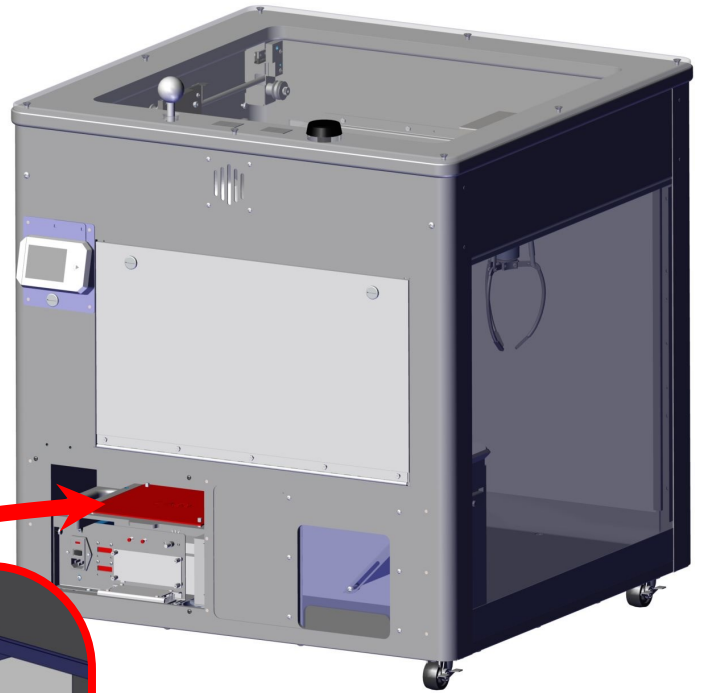
6 = Down ; Claw down switch not seen.

7 = Prize Sensor Failure ; Prize sensor malfunction. See section on resolving this error.

8 = SD Card ; Unable to read SDCARD.

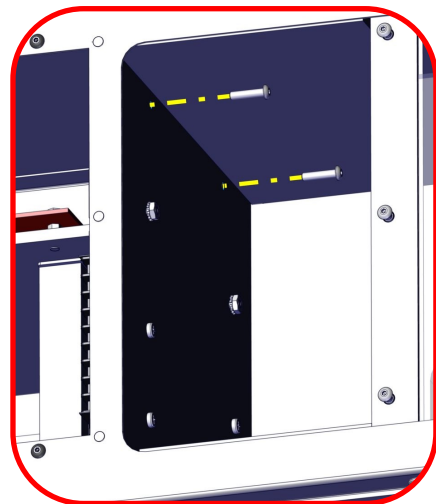
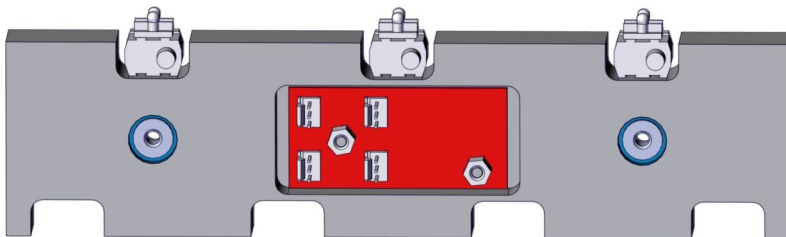
Resolving Error 7

There are three 90 degree reflective sensors that project a beam across the prize shoot. When the beam is reflected back to the sensor it will indicate this with an orange LED. If the LED is on constant, the sensor is working correctly and nothing is blocking the beam. If the LED is flashing, this means the sensor is most likely dirty or the reflective decal is dirty. It could also not be aligned. If the LED is off, then the beam is not being seen.

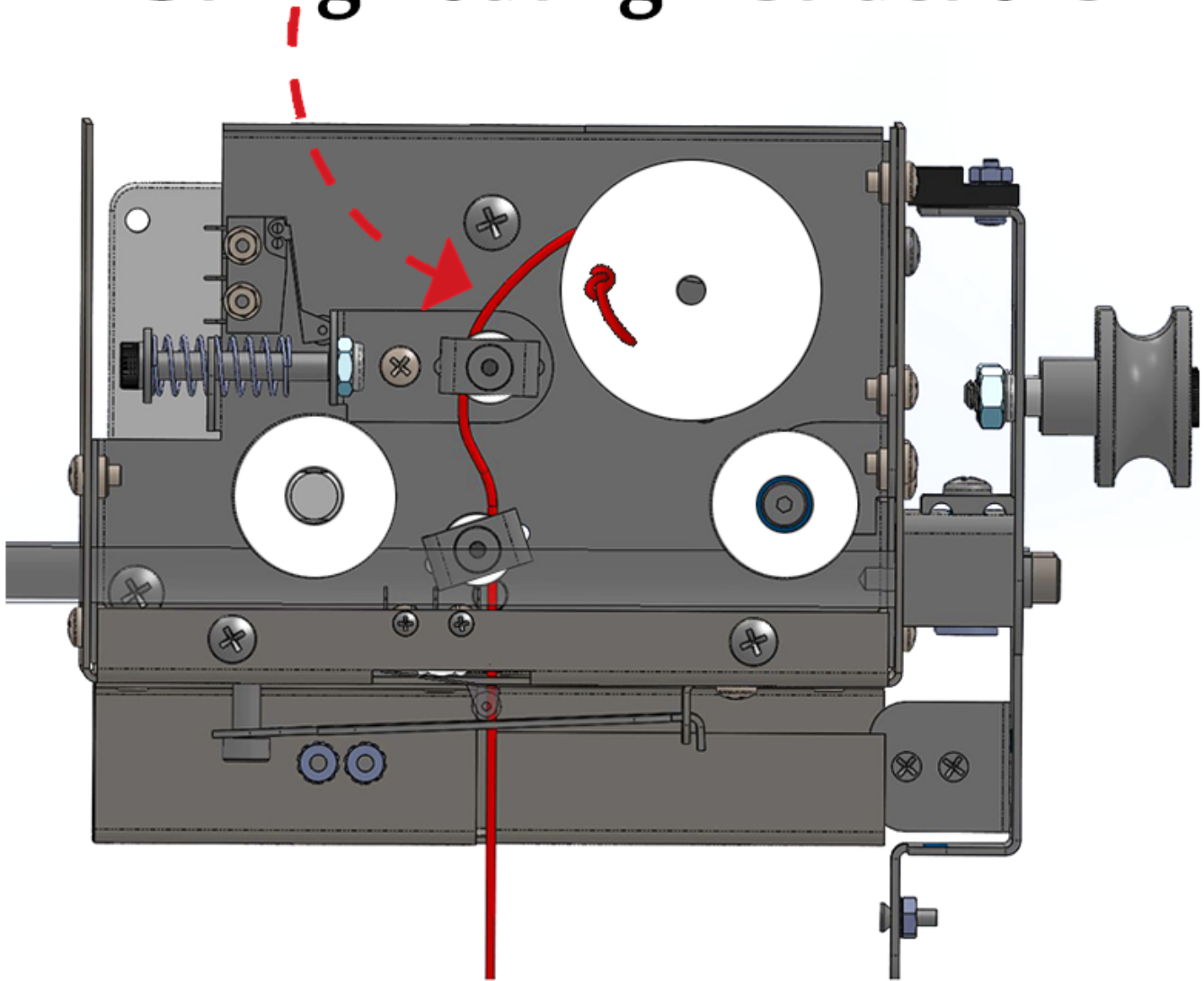


Removing the Sensor Assembly

To remove the sensor assembly, from within the prize chute, remove the two 1/4-20 Allen bolts. The sensor assembly will come out of the electronic door.



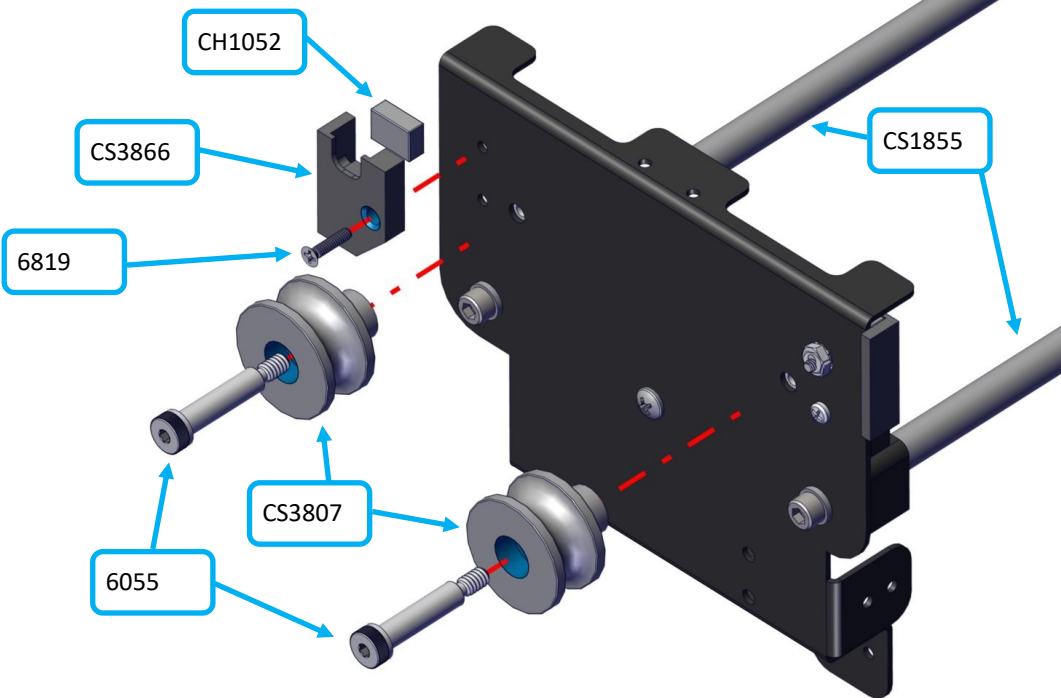
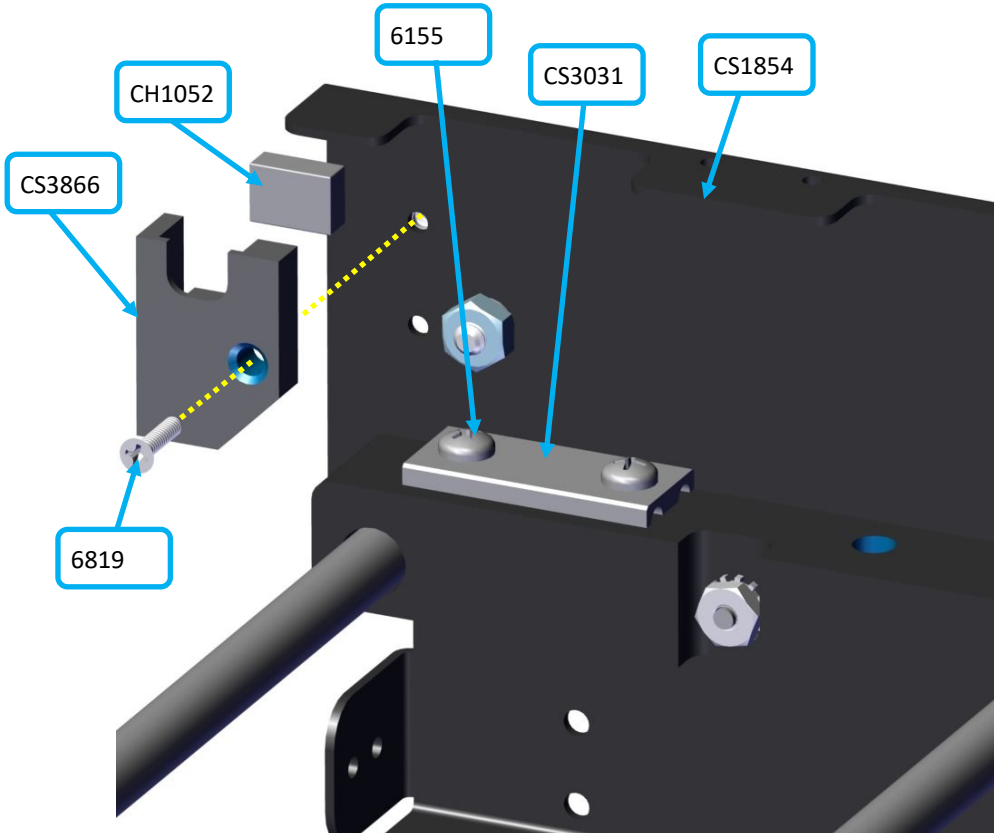
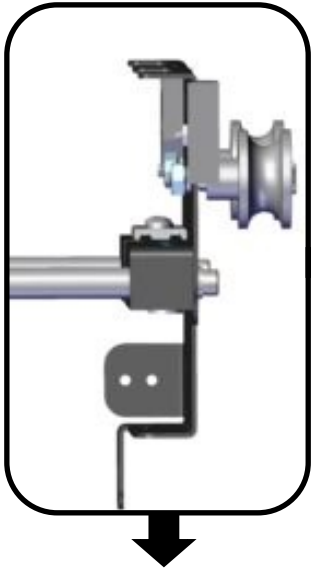
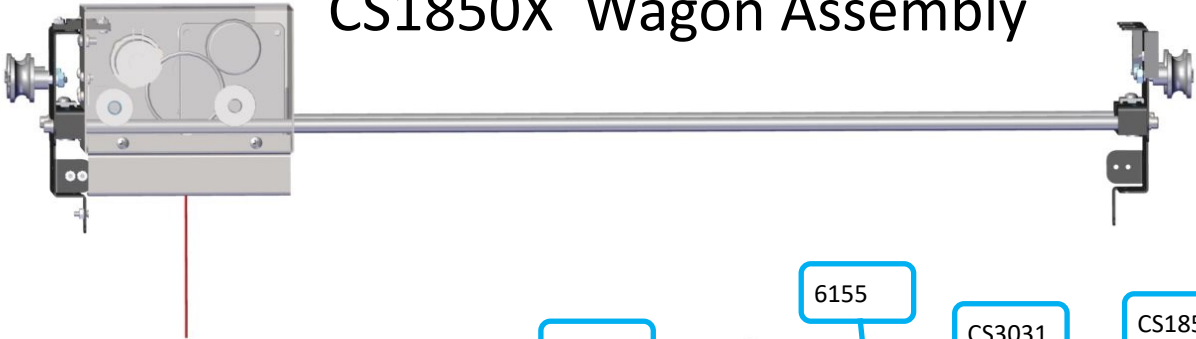
String Routing Instructions

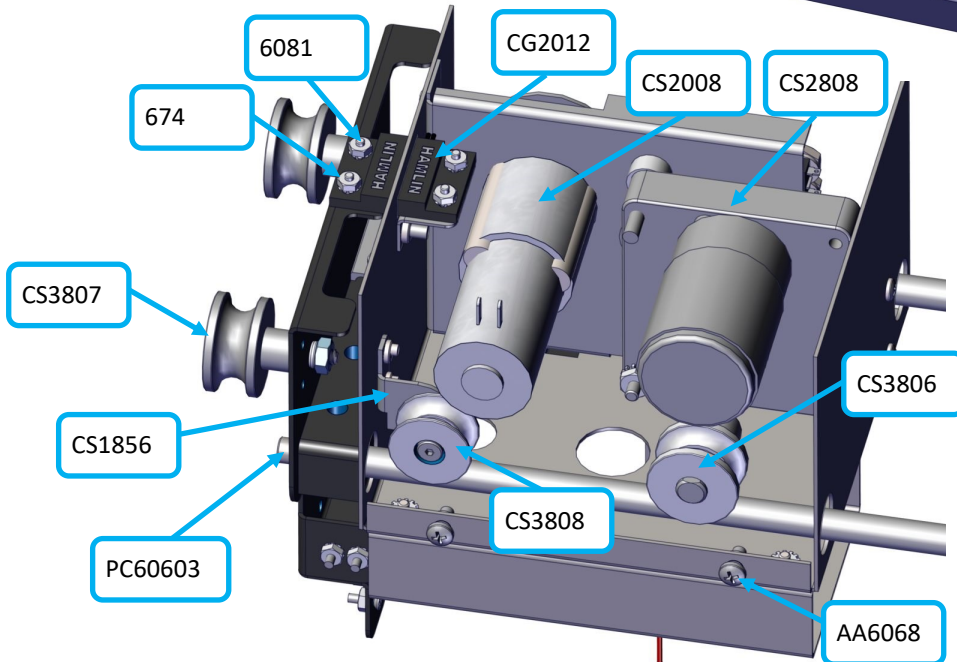
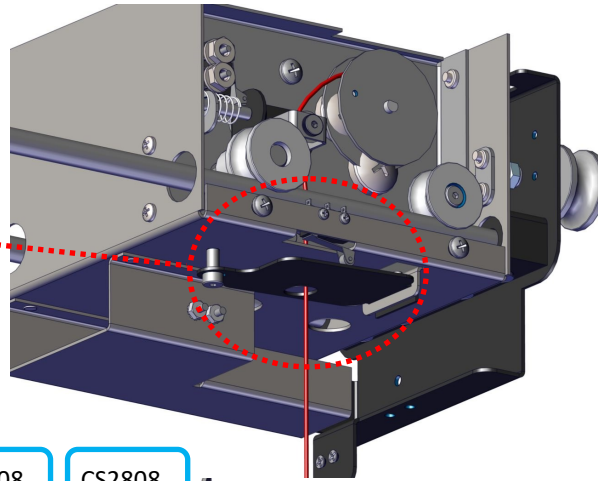
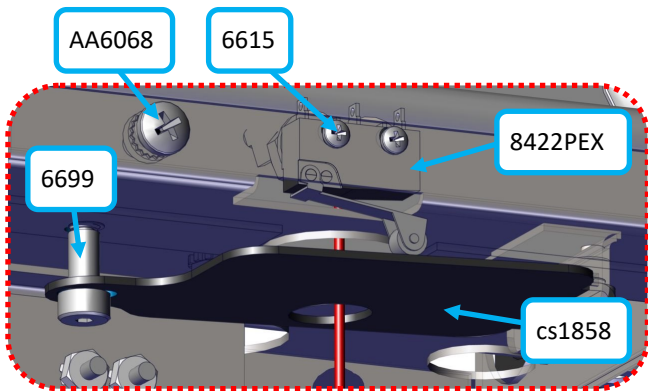
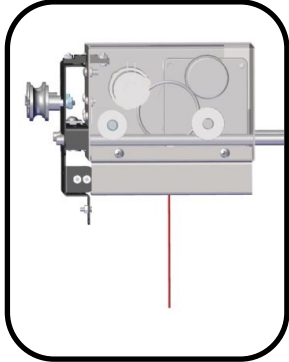
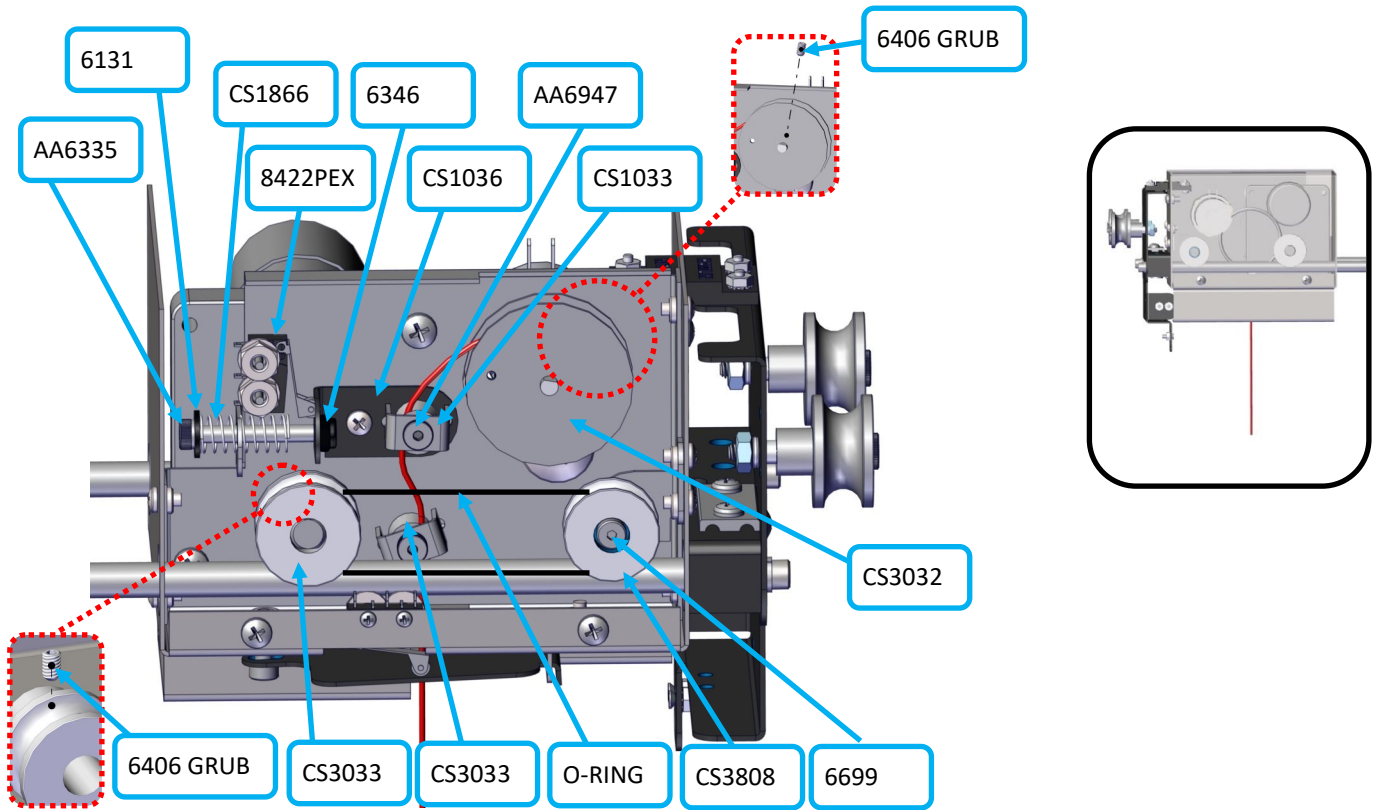


When replacing the string, attach the string first to the pulley and tie the end into a knot.

Then string as shown above diagram.

CS1850X Wagon Assembly

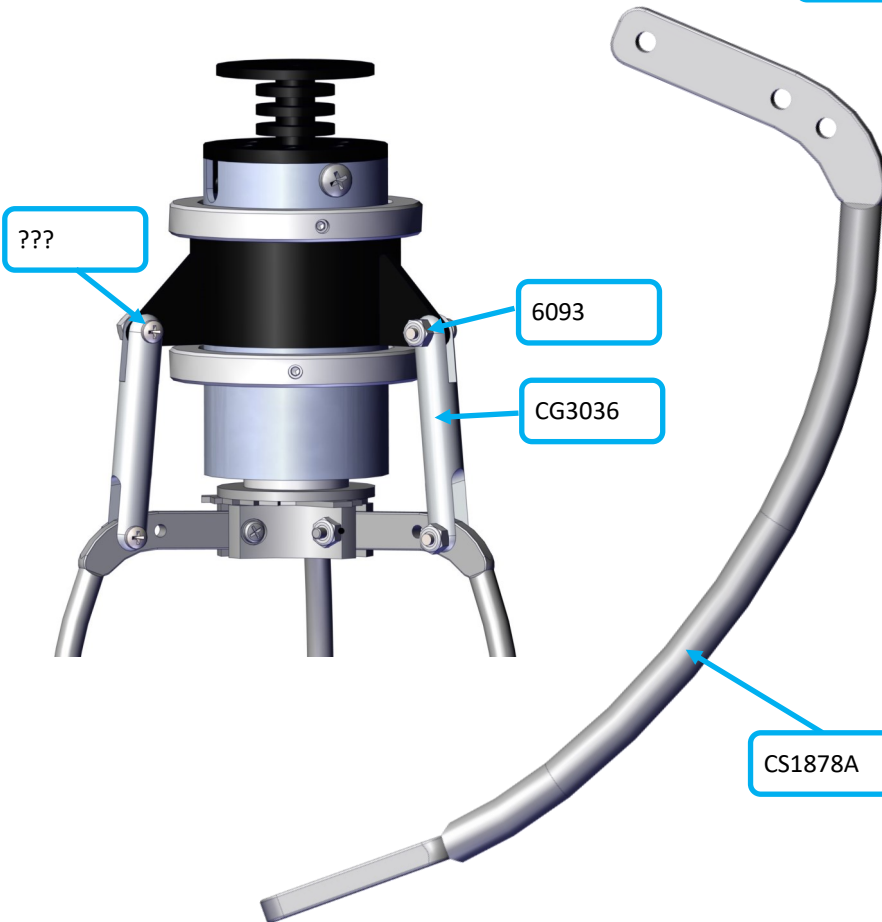
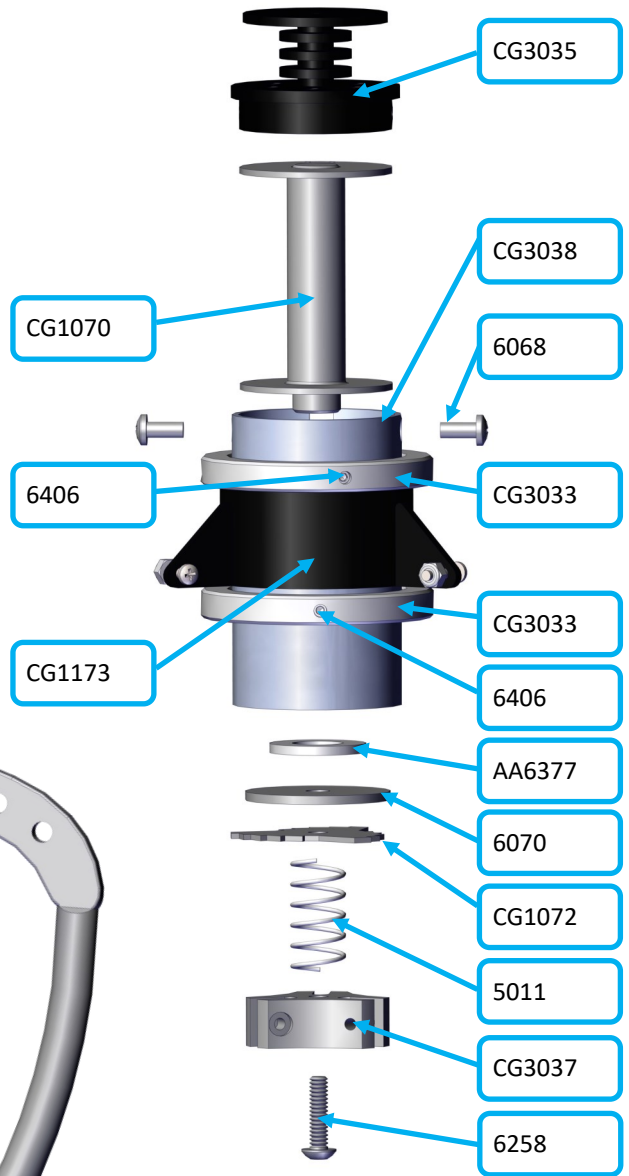
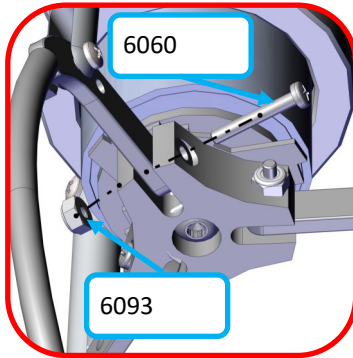
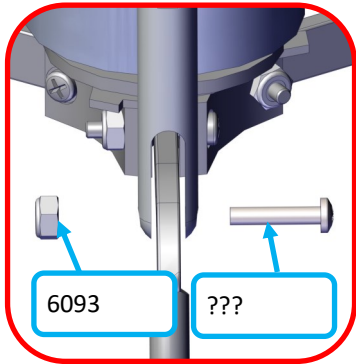




Cover (not shown) = CS1853

O-Ring = (2"idx.110in)

CS1878X Claw Assembly





WARRANTY POLICY

I.C.E. Inc warrants all components in new machines to be free of defects in materials and workmanship for the period listed below:

- 180 days on Main PCB's, Computers & Motors
- 1 year on all LCD monitor panels
- 90 days on all other electronic and mechanical components
- 30 days on all I.C.E. repairs and parts purchases

I.C.E. Inc shall not be obligated to furnish a warranty request under the following conditions:

- Equipment or parts have failed through normal wear and tear
- Equipment has been subjected to unwarranted stress, abuse or neglect
- Equipment has been damaged as a result of arbitrary repair/modification

Products will only be covered under warranty by obtaining an I.C.E. authorized RMA #. To obtain an RMA # please provide I.C.E. tech support with the game serial # or original I.C.E. invoice # and a detailed description of the failure or fault symptoms.

I.C.E. Inc will assume no liability whatsoever for costs associated with labor or travel time to replace defective parts. All defective warranty covered components will be replaced with new or factory refurbished components equal to OEM specifications.

I.C.E. Inc will cover domestic UPS ground, or comparable shipping costs during the warranty period. International or expedited shipments are available for an additional charge. To obtain credit defective parts must be returned to I.C.E. Inc, at the customer's expense, within 30 days. After 30 days a 15% re-stocking fee will apply to all returns.

ICE distributors are independent, privately owned and operated. In their judgment, they may sell parts and/or accessories other than those manufactured by I.C.E. Inc. We cannot be responsible for the quality, suitability or safety of any non-I.C.E. part or modification (including labor) that is performed by such a distributor.

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