



901T- Totalizer




901D – Dual Chute

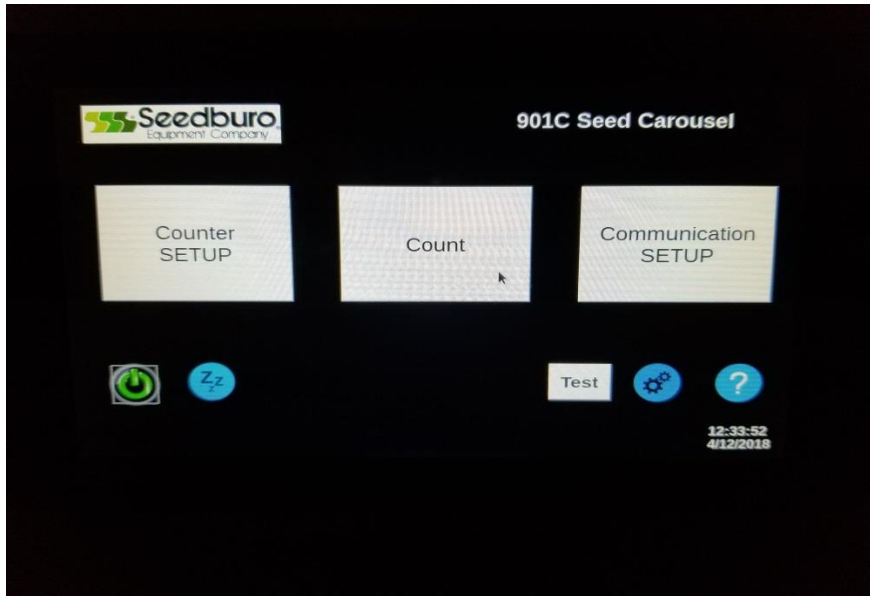


901C- Carousel with 8 chutes



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## Main Menu





The main Menu is the same for all three counters


To Setup a LOT code and Product ID select Counter Setup

To Setup Printer / Wired /Wireless select Communication Setup

To put the unit asleep select 

The Power down  should only be used if you are turning off the AC in back.

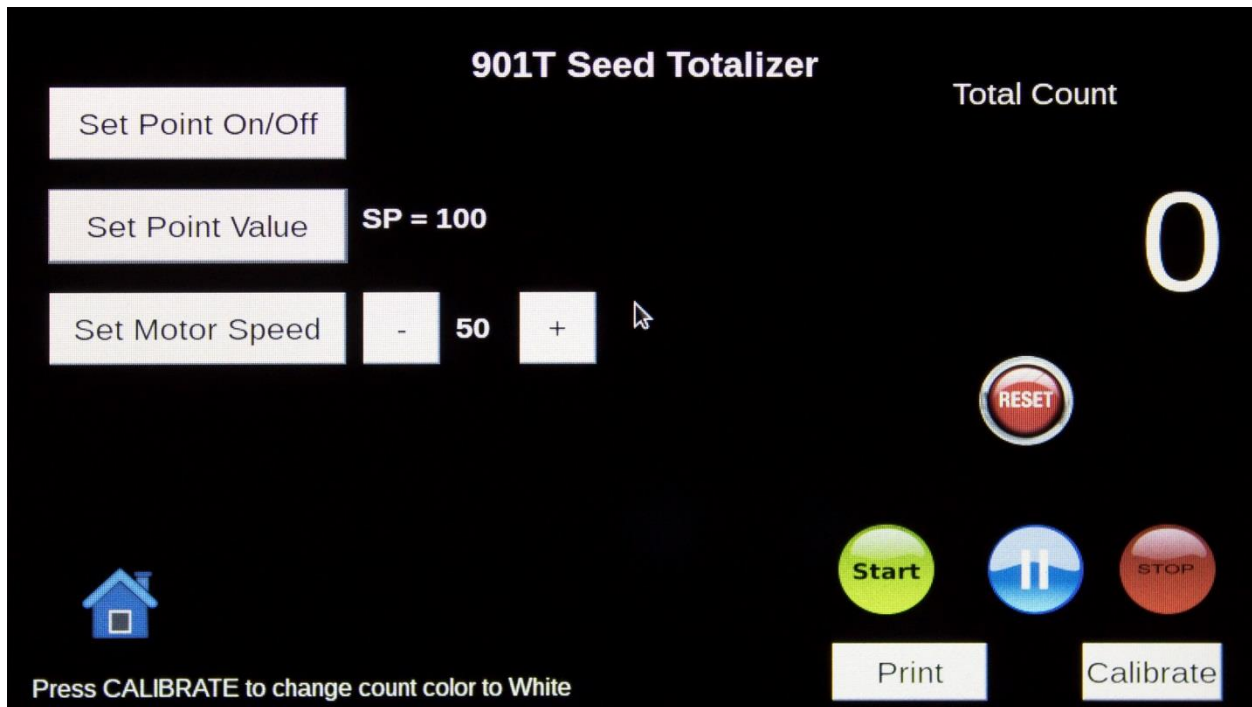
USE  to put the display asleep on a nightly basis or when you are not going to use the counter for a few hours.

 is used to observe serial number/ Software Version etc...

## Section 1


## 901T Totalizer counting and operation

SELECT **COUNT** from the Main Menu the Screen below appears



The 901T is designed to be used in the following Way:

SetPoint Count Mode

1. Enter a Set Point Value by touching **Set Point Value** button. A number keypad will appear.
2. Select  Start the Bowl will vibrate the seeds to the Chute Increase or decrease speed using the + and – and keys next to Set Motor speed.
3. The counter will stop when it reaches the Set Point Value.



Total Count Mode

4. Disable SETPOINT by touching **Set Point On/Off** . A RED line will appear crossing out the set point number.
5. Weigh a sample of Seeds and place them in the bowl.
6. Select Start the Bowl will vibrate the seeds to the Chute Increase or decrease seed using the – and keys next to St Motor speed

Reset Button – Sets Count to zero

Start and Stop will Start and Stop the Motor and Reset the counter

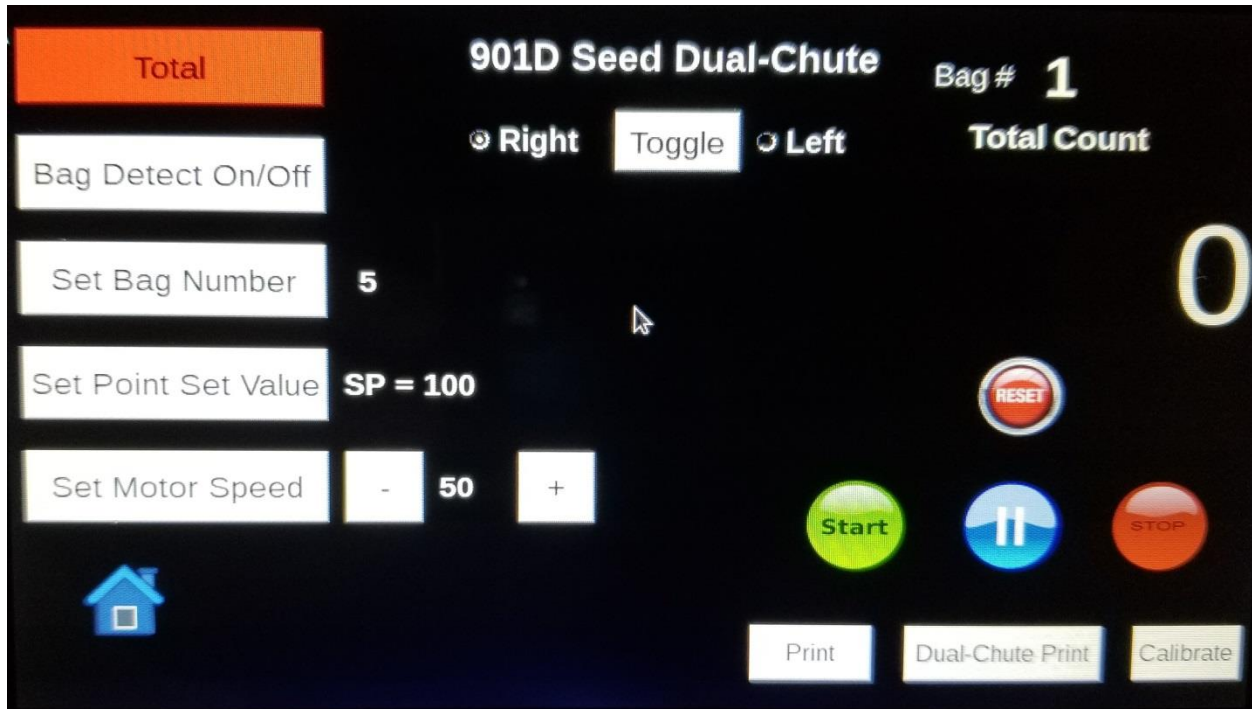
Pause will stop the motor but keep the count number as long as you select PAUSE/RESUME to continue.

Note: When you select  it will turn into a play button  select this button to resume the count.

## Section 2


## 901D Dual Chute Packaging System Operation



SELECT **COUNT** from the Main Menu the Screen below will appear




Counting with the Dual Chute is simple. There are two modes.



Total Count Mode:

1. Select the Total Button so it is GREEN (RED is OFF & GREEN is ON)
2. BAG DETECT does not work in TOTAL mode.
3. Select START 
4. Adjust Motor Speed to your preference.
5. Reset Button – Sets Count to zero
6. Start and Stop will Start and Stop the Motor and Reset the counter
7. Pause will stop the motor but keep the count number as long as you select PAUSE/RESUME to

continue. Note: When you select  it will turn into a play button  select this button to resume the count.

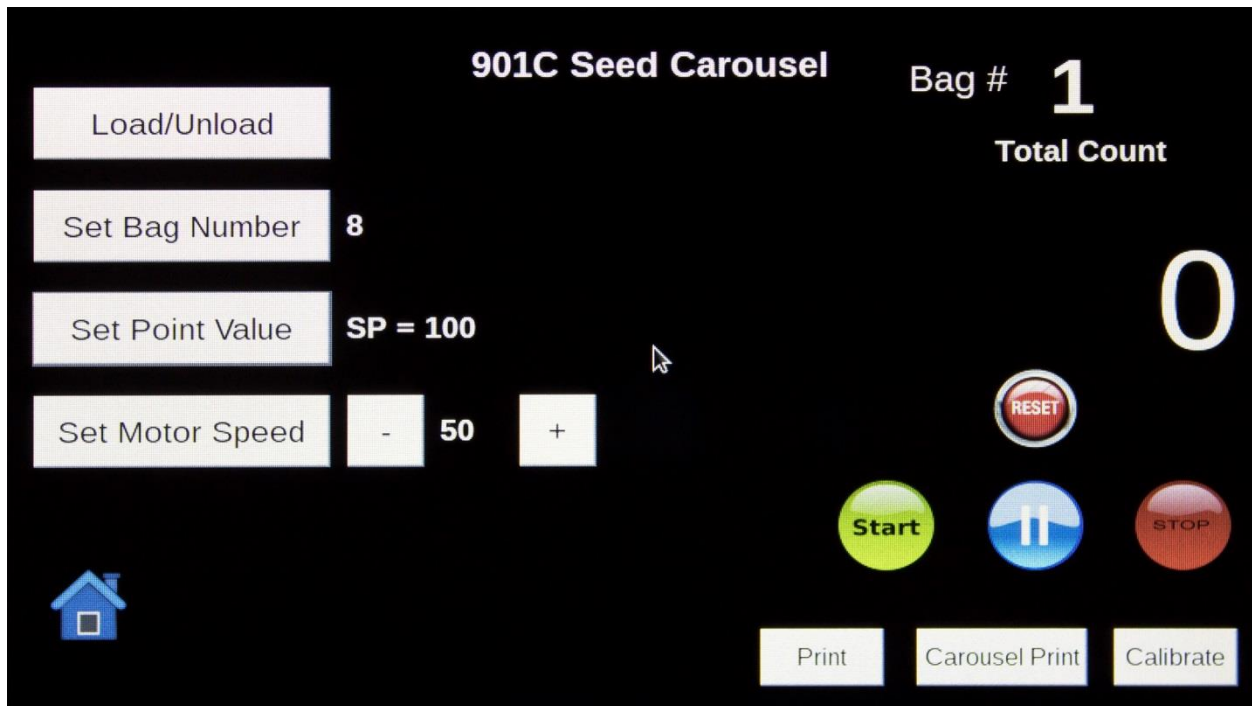
## Dual Chute Packaging:

1. Make sure the Total Button is off.(RED is OFF & GREEN is ON)
2. BAG DETECT is ON WHITE in color.
3. Select the number of bags you want to package by touching the Set Bag Number button.
4. A keypad will appear select the number and enter.
5. Set the number of seeds you want in each bag by touching the Set Point Set Value button.
6. A keypad will appear select the number and enter.
7. The counter will always start on the right side chute.
8. Select START 
9. Adjust Motor Speed to your preference.
10. For accurate counting the seeds must file in a single row.
11. After the counter has finished with the right side remove the envelope and insert a new envelope. Repeat on each side. The counter sensors will see 4 inches out so make sure operators are not standing closer than 4 inches.
12. SELECT DUAL CHUTE PRINT for a record of what you counted.
13. Reset Button – Sets Count to zero
14. Start and Stop will Start and Stop the Motor and Reset the counter
15. Pause will stop the motor but keep the count number as long as you select PAUSE/RESUME to

continue. Note: When you select  it will turn into a play button  select this button to resume the count.


## 901C Carousel Packaging System Operation

SELECT **COUNT** from the Main Menu the Screen below will appear



Counting with the Carousel is simple.

Carousel Packaging:

1. The default settings are to count 8 bags than UNLOAD/RELAOD bags. Start process again HOWEVER you can select less or more than 8 bags and the counter will keep track of the total number of bags for you and stop when the bag number is reached.
2. Select the number of bags you want to package by touching the Set Bag Number button.
3. A keypad will appear select the number and enter.
4. Set the number of seeds you want in each bag by touching the Set Point Set Value button.
5. A keypad will appear select the number and enter.
6. Select **START** 
7. Adjust Motor Speed to your preference.
8. For accurate counting the seeds must file in a single row.
9. After the counter has finished touch the LOAD/UNLOAD button .
10. Select MANUAL to turn the carousel until you reload all bags.
11. Select EXIT to go back to the COUNT Screen.
12. Continue this process until the bag number (batch) is reached.
13. SELECT CAROUSEL PRINT for a record of the batch you counted

## Counter SETUP screen

The screenshot shows the Counter SETUP screen with the following elements:

- Set Sensitivity:** A dropdown menu is set to '2'. Below it, the seed size is listed as '3.1mm to 4.9 mm (Medium Vegetable, Wheat)'. A mouse cursor is pointing at the text.
- Teach Window:** A text label.
- Response Speed:** 50 us
- Offset %:** 2%
- Button Lock:** Unlocked
- Total Counts:** Off
- Total One Shot:** 0 ms
- Dynamic Event Stretch:** Off
- Lot Code:** A dropdown menu is set to '180309'. Below it are 'Add' and 'Remove' buttons.
- Product ID:** A dropdown menu is set to 'soybeans'. Below it are 'Add' and 'Remove' buttons.
- Program:** A large button at the bottom right.
- Instructions:** Step 1: Set Sensitivity; Step 2: Press PROGRAM; Step 3: Press OK and HOME.
- Home Icon:** A blue house icon at the bottom left.
- Timestamp:** 11:48:41 3/9/2018 at the bottom right.

This screen will allow the USER to set the counter sensitivity, Product Lot code, Product ID code.

SET the COUNTER Sensitivity:

1. The counter is very sensitive and will count down to 1mm. There are six settings. To change the sensitivity select the **Set Sensitivity** pull down Menu and choose the appropriate number for the seed you are counting.
2. SELECT the **Program** button to change the counting module to the new Sensitivity Number.

## Enter Product ID:

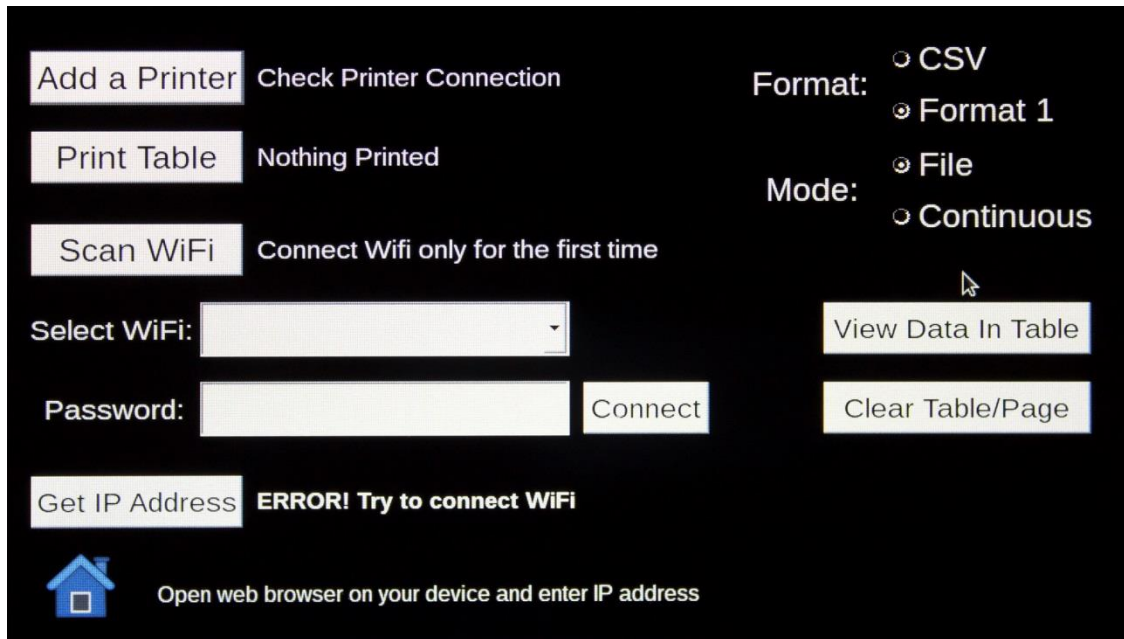
1. The 901 can store 99999 Product IDs it will store them in a file for future use. To store a Product ID select **Add**
2. A keyboard will appear enter the new product ID and select Enter.
3. You can remove a Product ID from the file by selecting **Remove**.

## Enter Product ID:

1. The 901 can store 99999 Lot Code it will store them in a file for future use. To store a Lot Code select **Add**
2. A keyboard will appear enter the new Lot Code and select Enter.
3. You can remove a Lot Code from the file by selecting **Remove**.



Communication Setup Screen and Print Functions



The 901 Counter supports the EPSON USB Printer Model M267D. Which can be purchased from Seedburo.

Add the EPSON Printer:

1. Connect the power module for the Printer to the EPSON printer. Plug In the power module.
2. LOAD paper into the Printer.
3. Plug the USB cable to Either USB port in back of the 901.
4. Select Add a Printer. The counter will verify the connection and return **Printer Connected**.

Each time the 901 completes a count it will store the results in a file. To view the data file select **View Data in Table**. It is recommended the data is cleared **monthly**.

To print the entire table, select **Print Table**.

901 Data Table:

	Lot Code	Product ID	Date	Time	Count	Bag
1	180309	soybeans	3/16/18	12:4:35	20	1
2	180309	soybeans	3/16/18	12:4:42	20	2
3	180309	soybeans	3/16/18	12:4:48	20	3
4	180309	soybeans	3/16/18	12:4:53	20	4
5	180309	soybeans	3/16/18	12:4:58	20	5
6	180309	soybeans	3/16/18	12:5:4	20	6
7	180309	soybeans	3/16/18	12:5:9	20	7
8	180309	soybeans	3/16/18	12:5:14	20	8
9	180309	soybeans	3/16/18	12:5:19	20	9
10	180309	soybeans	3/16/18	12:5:25	20	10
11	180309	soybeans	3/16/18	12:5:31	20	11

Exit

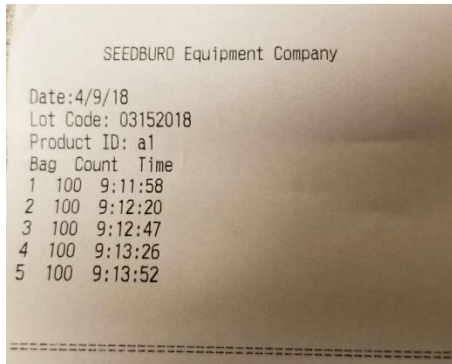
### Printer Output Format:

There are two options when printing. **CSV** or **Format 1**

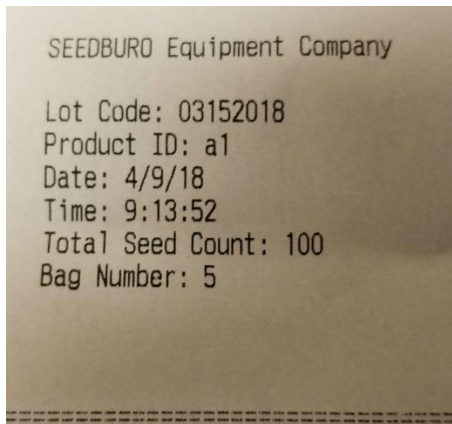
CSV is the preferred format when passing data to a computer spreadsheet. This is a straight line of data with a comma delimiter. No carriage returns or line feeds.

Format 1 examples are shown below:

#### Carousel Print out:




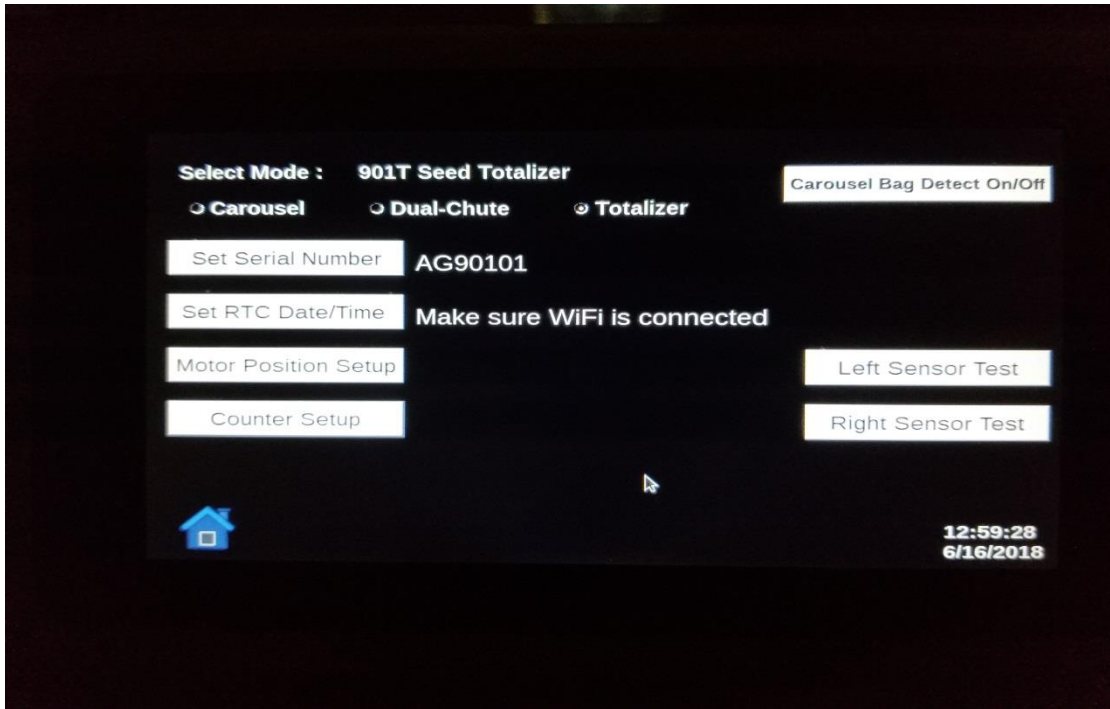
#### Total/Dual/Carousel Individual Bag Print Out




### WiFi Setup:

1. The 901 can be connected to a WiFi connection for time and date as well as a way to pass the Print data Table to a computer.
2. Select **Scan WiFi**. A list of Available WiFi connections will appear. Select the one you want.
3. Select **Password** and Enter the WiFi password.
4. Select **Connect**
5. The IP address will be returned to the 901 and display next to the **Get IP address** button.

901 Service screen 



When you select the  from the Main Menu a keypad will appear enter 901 and enter to get to the Service Screen

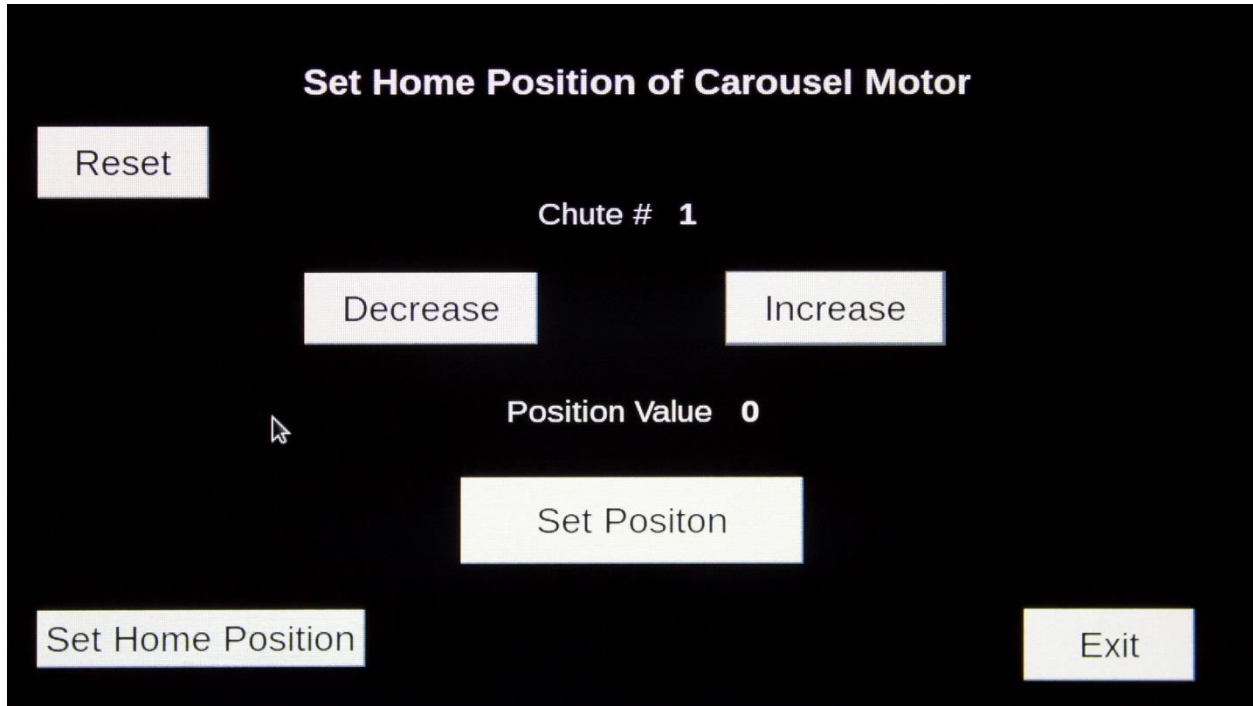
**Select Mode:** You can change the software in this screen to match the hardware on your unit.

**SET Serial Number Screen** is used to add the Serial Number assigned to the unit.

**Set RTC/Date Time.** The 901 can have an optional time/date IC installed this is where you would set the date . Fist you have to be logged into a WiFi connection see communication setup screen.

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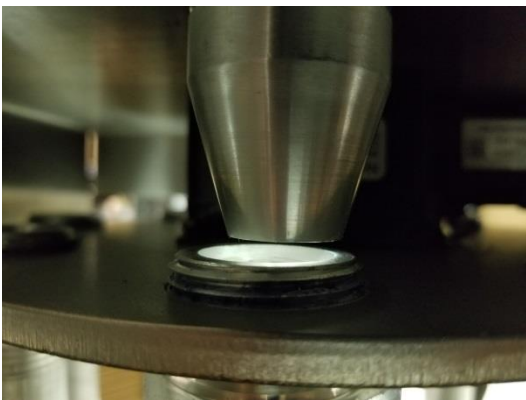
**Motor Position Setup:** This screen is for the Carousel Model. You will have to use this screen if the motor STALLS and you have to reset the HOME POSITION.



USE this screen to reset the Motor HOME POSITION

Reset Home Position:

1. Select **Decrease** to find the nearest chute and align with the 901 Seed counter chute adaptor.  
See picture below:



2. Once chutes are aligned select **Set Home Position**.
3. Select **Exit** to go back to the service screen.

**Counter Setup:** Select this screen when you need to change the Response Time on the counter when counting big Seeds like pumpkin, sunflower seeds you may have to change the response time to a larger number. Default is 50 micro seconds the large seeds may need to be at 150 micro seconds.

The screenshot shows a control panel with two columns of settings: 'Basic' and 'Advanced'. Below the settings are four buttons: 'Default', 'Calibrate', 'Program', and 'Exit'. A mouse cursor is pointing at the 'Default' button.

Basic		Advanced	
Teach	Window	Total Counts	Off
Response Speed	50 us	Total One-Shot	0 ms
Offset %	2%	Dynamic Event Stretch	Off
Button Lock	Unlock		

Buttons: Default, Calibrate, Program, Exit

The 901 uses a Fiber Optic counting module.

To program this module this screen can be used. The only parameter we recommend changing in the **Response Time**. Change only if you cannot get the large seeds to count accurately.

Change response time:

1. Select the **Response Speed** button. A pull down menu will appear.
2. Select the speed required. We recommend 50 micro seconds for most seeds. 150 micro seconds for LARGE seed.
3. Select the **Program** button.
4. Wait for the 901 to come back with Program Done message. Select OK.
5. Select Exit to go back to SERVICE menu.

***Carousel Bag Detect On/Off:*** Use this button to turn off the Bag Detect on the Carousel model

***Test Dual Chute Bag Detect Sensors:***

1. By select the ***Left Sensor Test*** you can Test the operation of the Left Bag Detect Sensor. The sensors will see objects from 0 to 4 inches away.
2. With no object within 4 inches of the sensor select ***Left Sensor Test***. The message “No bag detected” should appear.
3. Place an object within 4 inches of the left sensor select ***Left Sensor Test***.
4. A message “Bag Detected” should come back.
5. Press the ***Left Sensor Test*** again and the message “same bag detected” appears.

## Appendix A

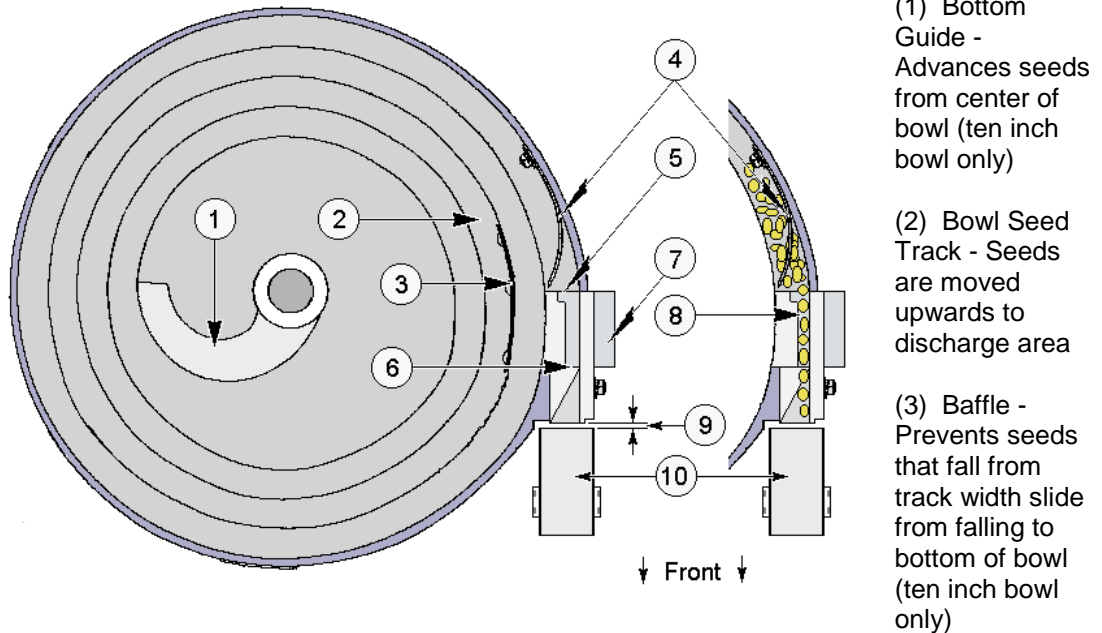
### 7.4 Feeder Bowl Alignment

The feeder bowl should be aligned such that the gap between the discharge area of the bowl and the diverter chute is approximately 1/16 inch (1.6 mm). See Figure 7-3 Item 9. If a sharp knocking occurs, STOP feeder immediately. The gap may be set too small.

### 7.5 Adjusting Bowl Devices

The Track Width Slide (Figure 7-3 Item 7) should be adjusted (it is held in place with nylon set screws and may be moved without tools) in or out to accommodate various seed sizes. It should be set to allow only a single file of seeds to pass.

The Track Wiper (Figure 7-3 Item 4) should be adjusted slightly higher than the seeds. It is intended to return seeds to feeder bowl when they tend to ride "Piggyback" or travel on edge of track. Figure 7.3 Below



- (4) Track Wiper - Proper adjustment returns seeds to feeder bowl when they tend to ride "piggyback" or travel on edge of track
- (5) Track Width Slide is slightly lower than adjacent portion of seed track
- (6) Track Width Slide is slightly higher than adjacent portion of seed track (If Track Width Slide position needs adjusting at 5 or 6, two mounting screws are provided on the side of the track width slide holder)
- (7) Track Width Slide - Adjusts as indicated. Slide is held in place with nylon set screws and may be moved without tools. Slide should be adjusted to allow only one file of seeds as illustrated by 8.
- (8) Single file of seeds illustration
- (9) Clearance A - Distance between edge of discharge area of bowl and diverter chute, approximately 1/16 inch (1.6 mm)

## 7.6 Checking and Changing Vibratory Feeder Springs

Unplug the power line cord from the power outlet.

Remove the feeder bowl from the vibratory feeder.

Remove eleven screws holding the cover on the SHB.

Remove the four screws holding the SHB control connector (the larger of the two connectors). The retaining nuts on these screws can be accessed by placing the SHB on its side.

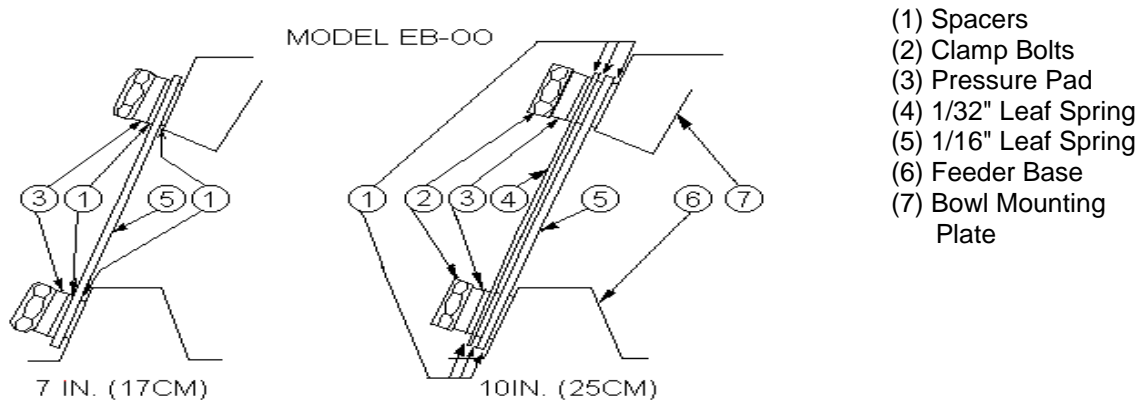
Carefully remove cover without damaging the wiring.

Lift off the aluminum cover plate (see Figure 7-6, Item 9) and remove the three screws that hold the vibratory feeder cover on. Carefully lift the cover off (see Figure 7-6, Item 6).

There are 3 stacks of springs on each feeder (see Figure 7-6, Item 7). On 7" bowls there are three stacks with a 1/16" spring in each stack. On 10" bowls there are three stacks with a 1/16" spring and a 1/32" spring in each stack. Remove springs 1 stack at a time. Check to make sure there are no cracked or broken springs. The 1/16" spring is the one that breaks most often and usually around the bolt hole.

If springs are OK then replace, making sure round spacers are inserted correctly between and outside springs. Leave clamp bolts a little loose at this time.

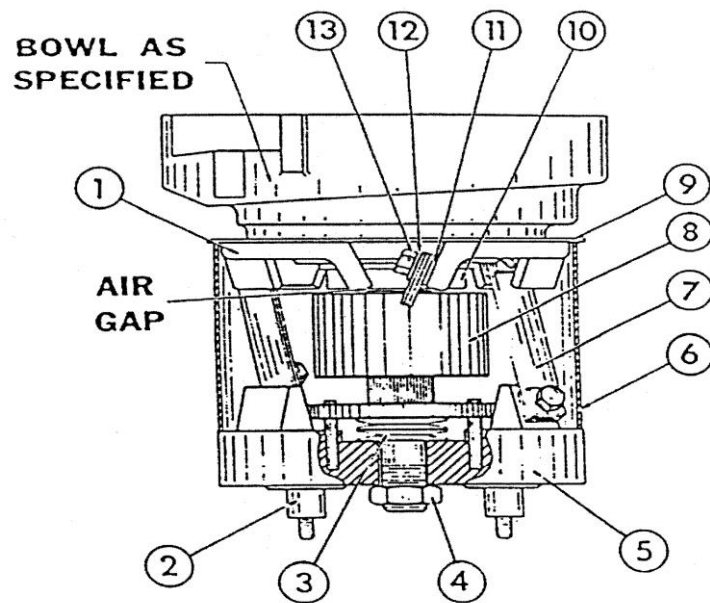
Repeat for second and third stack of springs.



**Figure 7-5 Side view of feeder spring stacks**



1. Bowl mounting plate
2. Rubber feet
3. Disk spring
4. Hex jam nut
5. Base
6. Cover
7. Leaf springs
8. Magnet
9. Aluminum cover disk
10. Armature assembly
11. Spring spacer
12. Spring clamp
13. Hex head screw



**Figure 7-6 Model EB-00 Vibratory Feeder**

Place a .020 inch (0.5 mm) air gap spacer gauge (may be obtained from our service department) between magnet assembly (see Figure 7-6, Item 8) and bowl mounting plate (see Fig. 7-6, item 10) to keep magnet assembly and mounting plate parallel. Tighten all 3 bottom clamp bolts first. While applying pressure to the bowl mounting plate, tighten all 3 top clamp bolts, starting with the 2 at the wider part of the magnet assembly and ending with the one at the narrow part of the magnet assembly. This air gap is an initial setting only.

Clamp bolts must be very tight to avoid loosening from vibration (25 Ft-Lb, if torque wrench is available).

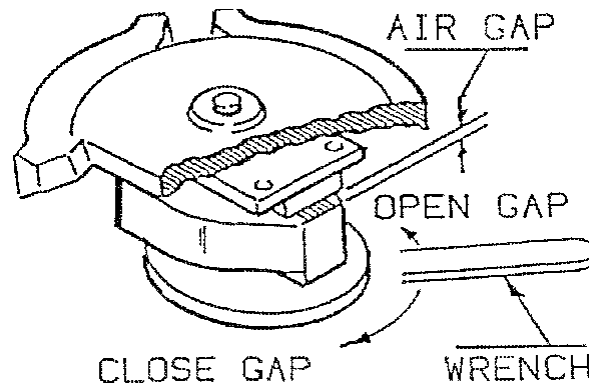
Remove air gap gauge. Do not reinstall cover yet. Temporarily reinstall cover plate (see Figure 7-6, Item 9). Install bowl onto vibratory feeder.

Connect SHB power cable from OCC to feeder power connector (small connector). Connect SHB control cable to feeder control connector (large connector which was removed from cover during disassembly). Connect OCC line power plug to power line only after the above cables are connected. Turn on power. Wait until "SELECT MODE" appears in the message display. Select TOTAL mode, press ENTER/YES three times, and press START. Increase SPEED to 99. Check feed rate. If feeder is moving too slowly, use wrench to turn 15/16" air gap adjustment nut on bottom of vibratory feeder (see Figure 7-7) to close air gap. If feed rate is too fast or there is a striking noise when speed is increased to 99, turn air gap adjusting nut to open air gap.

Turn off power. Unplug the power line cord from the power outlet. Disconnect the SHB power and control cables from the OCC.

Remove bowl from vibratory feeder. Remove bowl hold-down shaft. Remove cover plate.

Reverse disassembly procedure to reassemble.



**Figure 7-7 Adjusting Feeder Air Gap**

## Appendix B

### 8.1 Vibratory Feeder

A broken leaf spring causes either slow or uncontrollable feeding. If no loose bolts, broken springs or isolation mounts are found, the cause may be electrical.

### 8.2 Diverter Assembly

If chutes are sharply bumped or used as handles to move the Count-A-Pak, the diverter assembly may be damaged. Electrical failures are often broken or loose solenoid cable connections. Correct any malfunctions immediately. The majority of diverter chute problems are mechanical binding.

To test the operation of the diverter chute assembly, run a BATCH REPEAT test. Set terminal count to a small number (i.e., 3). Interrupt light beam with finger, pencil, or similar object. A solenoid is energized to change delivery chutes at the end of each batch.

If diverter flap is stuck, turn off the OCC. Locate the indicator knob (on front of chute assembly) and turn with fingers. Flap should turn freely in either direction until contact is made with diverter housing. Even the slightest binding may cause sticking. A slight squeak is OK.

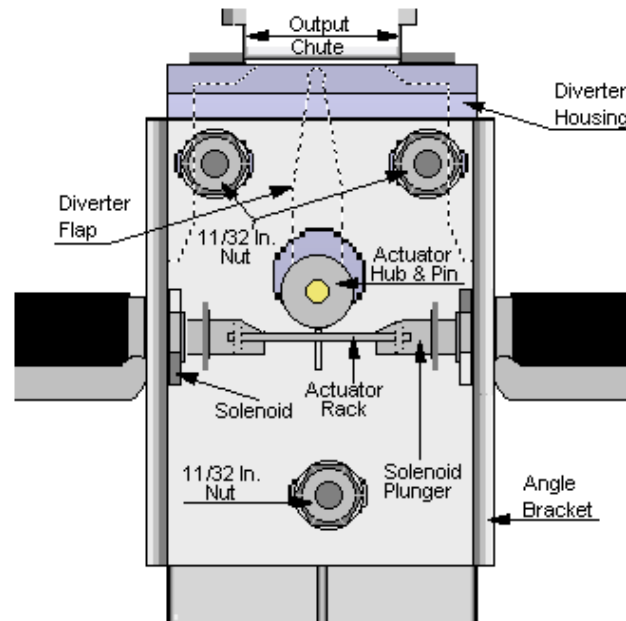
#### 8.2.1 Electrical Problems

It is an electrical problem when one or both solenoids fail to energize. Solenoids are energized alternately as batch totals are reached. Do a BATCH REPEAT test. A de-energized solenoid offers no resistance to turning. If one solenoid fails to energize, the problem is either the solenoid, the cable, or the drive circuitry in the OCC. If an ohmmeter is available, the solenoid circuits in the SHB can be checked for open circuits. A reading of 30 to 45 ohms should be obtained between pins 4 and 5 of the larger connector on the rear of the SHB for the right solenoid. The left solenoid should read the same between pins 7 and 8. The solenoid connections can be switched between the right-hand and left-hand solenoid to help isolate the problem also.

## 8.2.2 Mechanical Problems

The diverter flap actuator is located on back of the diverter chute assembly (see Figure 8-1). It is necessary to remove entire diverter chute assembly from cabinet to check or adjust actuator.

To adjust actuator, loosen three 11/32" (8.8 mm) nuts on back of assembly. Do not remove. Adjust angle bracket to position actuator so that solenoid plungers and diverter flap are centered as shown. Tighten all three screws and test flap movement. Position diverter assembly for proper gap to feeder bowl when cabinet.



**Figure 8-1 Diverter Assembly**

discharge area  
assembling to

\*\*\*\*\*

ALWAYS MAKE CERTAIN THAT EQUIPMENT IS DISCONNECTED FROM ALL  
ELECTRICAL POWER BEFORE REMOVING THE COVERS.  
DANGEROUS VOLTAGES ARE PRESENT IN THIS EQUIPMENT.

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## WARRANTY APPENDIX C

Count-A-Pak instruments are warranted to be free from defects in workmanship and material for a period of one year from date of shipment.

Liability of seller under this warranty is limited to replacing or repairing any such instrument returned by the buyer during this period, provided:

- 1) Buyer promptly notifies seller in writing requesting authorization to return instrument. Letters should include model and serial numbers, date of purchase, and itemization of all complaints.
- 2) The instrument is returned to the seller, transportation charges prepaid.
- 3) Manufacturer's examination shall disclose to its satisfaction that defects have not been caused by misuse, neglect, or improper installation.

Under no conditions shall seller/manufacturer be liable for collateral or consequential damages. This warranty is in lieu of all other warranties expressed or implied. Seller/Manufacturer reserves the right to change specifications, design, and price. Replacement parts will be billed at current prices for out of warranty instruments.

**To return a product for repair, first contact the AgPoint Precision Service Department at 1-866-668-4855 for a return authorization number or go to [agpointprecisiononline.com](http://agpointprecisiononline.com) and complete a service request form. We will E-mail an RMA number.**

**An RMA (Return Material Authorization) is required for any returned product. A delay in the repair can be expected if a product is returned without proper documentation, including the RMA number.**

**All returns MUST be packaged in good sturdy protective packaging**  
**Please save your original packaging**

After receiving an RMA number, package the equipment in its original shipping carton. If the original shipping carton is not available, contact the service department to get a set of the correct packaging sent to you. You will be charged a nominal fee. If you choose to use other packaging material and boxes, the unit will be sent back in the proper packaging for which you will be charged and you will also be charged for any shipping damage.

Clearly mark the package with the RMA number and ship to:

AgPoint Precision LLC  
24121 West Theodore Street  
Plainfield, IL 60586  
866-668-4855 ext. 801  
[Agpointonline.com](http://Agpointonline.com)  
Attn: Service Department  
RMA: XXXXXXXX

## Appendix D Specifications

POWER CONSUMPTION	120 volt-amperes, maximum
VOLTAGE RANGE	100-130 and 200-260 volts, 50 or 60 hertz as specified
UNIT SIZE	901 Enclosure - 16" W x 8" H x 14"D(add two inches for Chute) (Add approx. 8" to Height with Feeder Bowl mounted.)
SHIPPING WEIGHT	901 Enclosure - 49 Lbs.
OPERATING TEMPERATURE RANGE	0 to 100 degrees F. (-18 to 38 °C)
COUNT RANGE	99,999,999
FEEDER BOWL SIZE (specified with order)	10" (25 cm) Diameter, .5" (13 mm) Track Width for seeds .03 to .4" (.8-10 mm) Diam. and .03 to 1" (.8 - 25 mm) in Length  7" (18 cm) Diameter, .5" (13 mm) Track Width for seeds .03 - .4" (.8 - 10 mm) Diam. and .03 - .4" (.8 - 10 mm) in Length