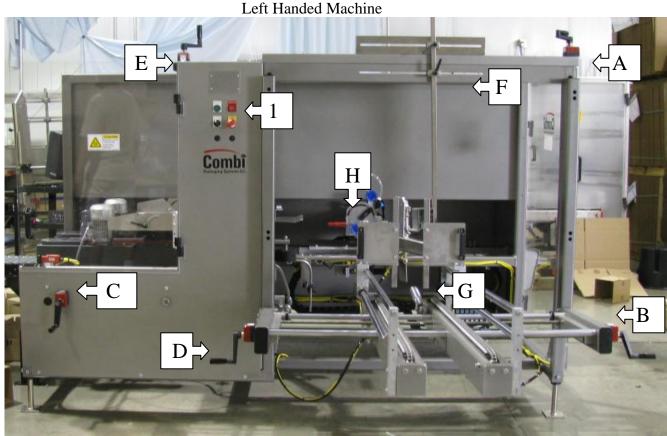


## 2EZSB Case Erector Setup Guidelines



#### Figure 1 – Overview

1 – Controls (may vary from machine to machine)

- A Magazine Height Adjustment Crank with Indicator (case width)
- B Magazine Case Adjustment (case width)
- C Plow and Tape Head Adjustment Crank with Indicator (case width)
- D Magazine Case Adjustment (case length)
- E Hold-down Plate Adjustment Crank with Indicator (height with bottom flaps closed)
- F Top Case Opener Spring with Adjustable Height Handles
- G Bottom Case Opener Spring
- H Vacuum cups
- I Major Flap Opener (Not Shown)

The following instructions are guidelines and will serve as a starting point for the setup of the case erector. Depending on the corrugate, fine tuning of the settings may be required.



**Step 1** Follow all lockout and tag-out procedures per your company's policies.

Push Emergency Stop (E-Stop) Before Starting Setup! When set up is complete, release E-stop, and then push the GREEN button to start.



Figure 2 –Control Panel

EMERGENCY STOP: Red "mushroom" button. Push in for emergency stop. Twist and pull to reset the "E-stop".

ERECTOR START: Green push-button - push to start the case erector.

ERECTOR STOP: Red push-button to stop the case erector.

CALL FOR CASE: Black ON and OFF switch. Call For Case – AUTO will erect cases until the backup photo eye is blocked or the call for case switch is turned to the OFF position. When the Call for Case is OFF – The erector will not index cases.



### WARNING!

## Carefully follow the Combi installation and set up procedures. The manufacturer will not be responsible for damages caused by improper installation and set up.

#### MAIN AIR



Figure 3 - Filter Regulated Soft Start (FRSS) Photo may vary from actual machine.

- 1. Push **EMERGENCY STOP** before starting set up. (See figure 2).
- 2. Close the Main Air Shutoff Valve at the FRSS Main Air handling unit. (Push Orange Tab Down). **NOTE**: Airflow to the machine must be stopped to manually set up the machine.
- 3. Stopping the Main Air releases air pressure to all Pneumatic Components and allows them to be moved manually.



#### Step 2

Measure width (minor side) of case to within 1/8"

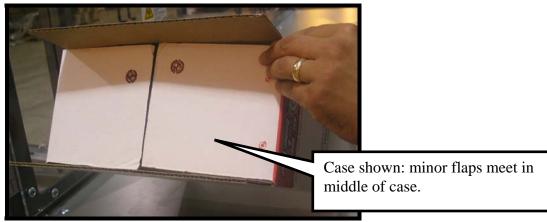
NOTE: The width is always the shortest side of the case



Figure 4– Measuring Minor Panel (Case Width)

# **NOTE:** SPECIAL INSTRUCTIONS FOR CASES WITH MEETING MINORS

## If minor flaps meet in middle, use <u>length</u> instead of case width for magazine height adjustment.



**Figure 5**– Meeting Minor Flaps



#### Step 3

Crank <u>magazine height adjustment</u> handle, located on top of equipment (A), until the indicator reads proper width measurement on the magazine height scale. Indicator is in decimals, so you must convert your measurement from fractions to decimal.

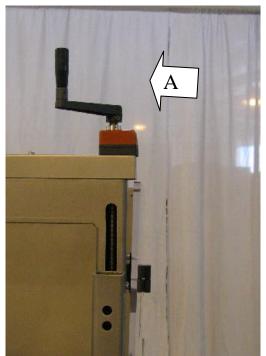


Figure 6– Magazine Height Adjustment Handle and Indicator

Fraction – Indicator
1/8 -  12 1/4 -  25 3/8 -  37 1/2 -  50 5/8 -  62 3/4 -  75 7/8 -  87
Example: 8 3/8 = <b>008</b>   <b>37</b>

Figure 7 – Indicator



#### Step 4

Adjust the magazine guide (minor side), (B), to the width of the case by loosening the handles underneath the magazine. Manually move the guide until the pointer located in the inside the magazine reads the proper width measurement. This is also the same side closest to the squaring arm.

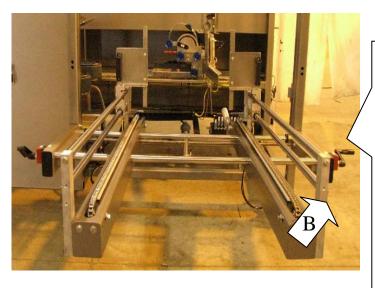


Figure 8 Magazine Case Width Adjustments (B)

#### Step 5

Adjustment of the <u>case plow, tape head, and side belts</u> by the hand crank (C), located in the front of equipment, until the indicator reads the proper **width** of the case.

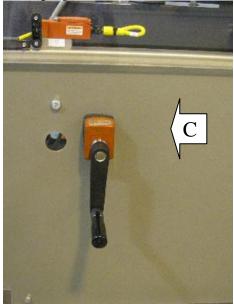


Figure 9 – Plow / Tape head and Side belt Assembly Adjustment Handle and Indicator



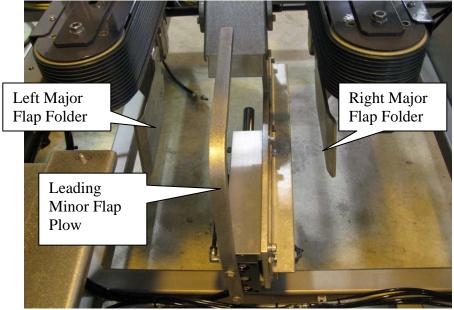


Figure 10 – Plow Assembly

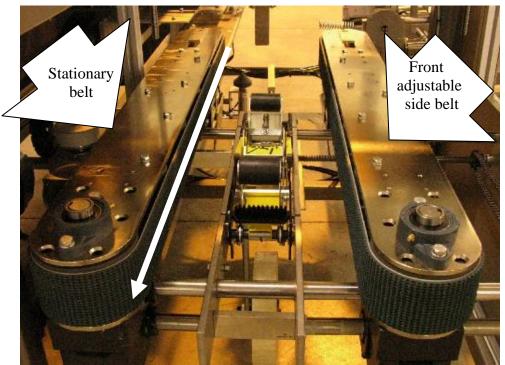


Figure 11 – Side belt

If the case is too loose between the belts, continue to adjust the front side belt by manually turning the hand crank, just enough pressure to pull case over tape head. (C) *Note: Only the front side belt is adjustable. The back side belt is stationary or fixed into place.* 

Description, Installation and Setup Procedures



Step 7Measure the Length of case.*NOTE: The length is always the longest side of case.* 



Figure 11 – Measuring Major Panel (Case Length)

#### **STEP 8**

Adjust the magazine case guide <u>major side</u>, (D), to the length of the case. There should be about  $\frac{1}{4}$  to  $\frac{1}{2}$  in. space between the case and the side rail. This will be on the side of the magazine opposite of the squaring arm.

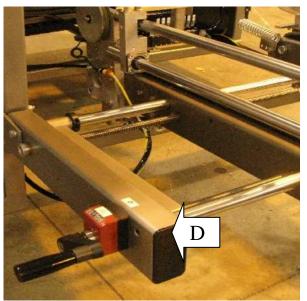


Figure 12 - Magazine case length adjustment (D)



#### Step 10

Fold the bottom flaps closed and measure height of case with top flaps open.



Figure 13 – Measure Case Height (RSC case type)

#### Step 11

Adjust hold-down plate (E) until the indicator reads the proper case **height** (bottom flaps closed, top flaps open)

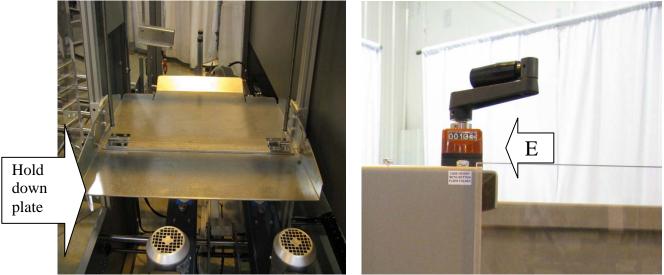


Figure 14a & b - Hold down plate and adjustment indicator (E)



Step 12

Load a bundle of cases into magazine orientated so that when facing the cases the short side of the cases are towards the discharge end of the machine. Then swing case followers into position. COMBI suggests starting with the "GLUE" seam towards the vacuum cups.



Figure 15 & 16 Loading Magazine

#### Step13

Adjust the upper case opener springs by loosening the handles above the case magazine and manually lowering or lifting the spring so that it rest on the case.

When adjusting spring height also slide springs to the minor side (towards the squaring arm)  $\frac{1}{2}$ " – 1" past the die cut. *Note: Top spring to be at the same angle as cases.* 

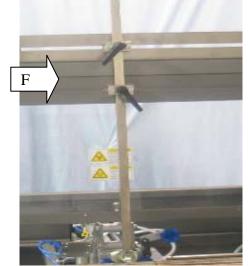


Figure 17 Top Case Opener Height & Adjustment



**Figure 18** Case Opener Spring (viewed from inside of machine)



#### Step 14

Bottom spring to be angled slightly up and about a finger's width (1/2") from the case. Bottom spring should not engage case in magazine. When the case is pulled from the magazine, the spring should engage the case because of the angle.

The lower case opening spring (G).

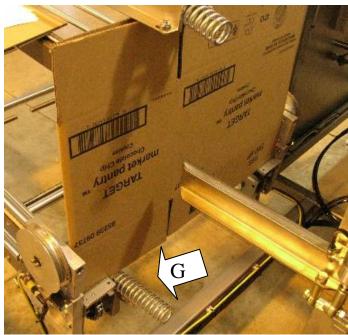


Figure 19 – Lower Case Spring



#### Step 15

Adjust the top Vacuum Cups by loosening respective mountings and rotating so that the cups can cover as much of the major panel of the case as possible <u>without</u> locating the cups <u>on</u> the score line of the case. (H)



Figure 20 - Vacuum Cup Adjustment

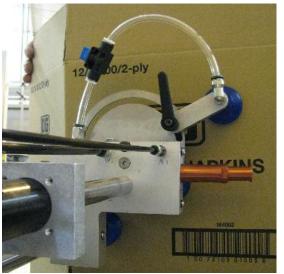


Figure 21 – Do not Place Vacuum Cups on Score Line

- 1. Rotate squaring arm to the 90° position and fold the rear minor flap kicker up. Place a case on the flap kicker and adjust the top Vacuum Cups by loosening their adjustment handles and rotating so that the largest amount of the case body is grabbed by the Vacuum Cups. Spread Vacuum Cups out as far as you can on major panel.
- 2. Tighten mounting arms and close the doors.



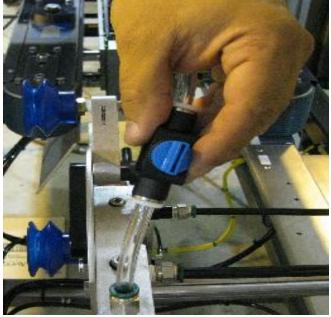


Figure 22 – Vacuum Shut Off Valve

3.

**NOTE:** If the case is so small that the Vacuum Cup cannot contact it, use the factory supplied Manual Shut off Valves to shut off vacuum and rotate the cup away from the case and not hit hold down plate during transfer. The valves are mounted near the Vacuum Plate. Note that the lower Vacuum Cups are fixed. It is recommended that the upper Vacuum Cups be adjusted so that they contact as much of the major panel as possible without locating the cups on the score line of the case. Also, do not move Vacuum Cup Mountings out so far that the cups hit bolts on side of assembly when retracting with case.

4. Tighten the adjustment handles and close the doors.



Step 16



Figure 23 – HMI Control Panel

Close all doors and release E-stop knob by twist and pull motion

From the Operator's Station, push the **GREEN** start button to start the machine. Press the GREEN button again to run cases.

Push the RED button to stop the machine.



### **CORRECT POSITION**

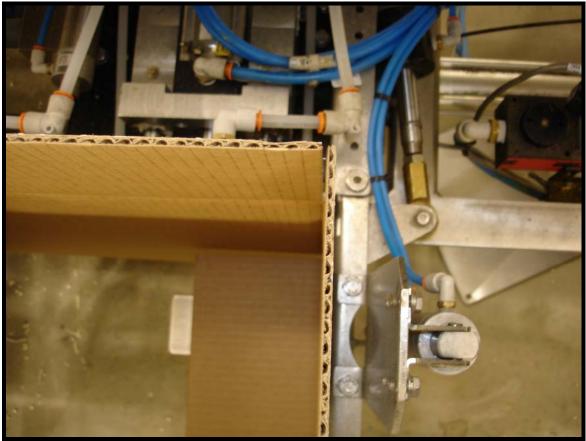


Figure 24

**Squaring Arm and Correct Case Placement** Notice the flaps are square and up against squaring arm.



### **INCORRECT POSITION**

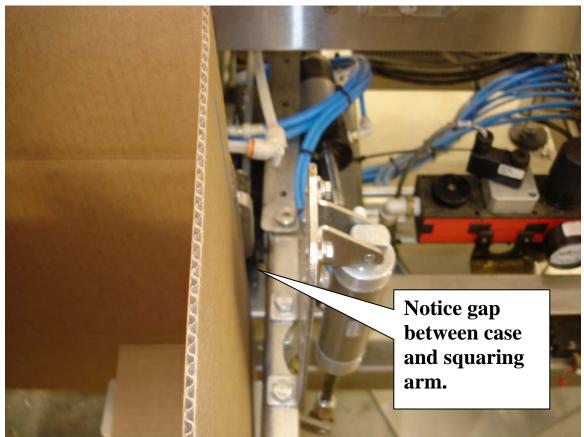


Figure 25

**Squaring arm and case placement indicating that the magazine will need adjusting** Notice gap between case and squaring arm. Indicates magazine is too far away from the squaring arm.

To correct, move magazine towards from the squaring arm.



## **INCORRECT POSITION**

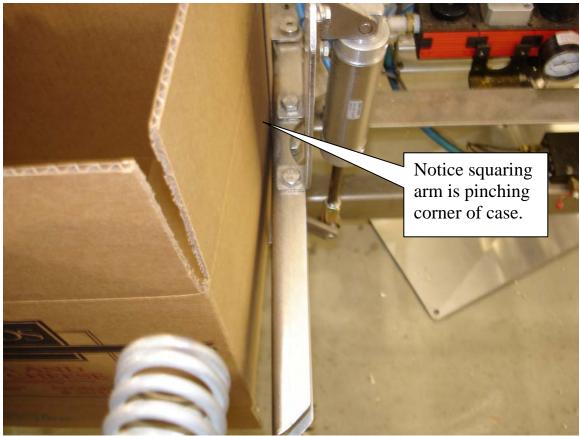


Figure 26

Squaring arm and case placement indicating that the magazine will need adjusting Notice squaring arm is pinching corner of case. Indicates magazine is too far towards the squaring arm.

To correct, move magazine away form squaring arm



### **CORRECT POSITION**



Figure 27

**Flap Kicker and Correct Case Placement** Notice that the case is sitting flat on the flap kicker.



## **INCORRECT POSITION**



Figure 28

**Flap kicker and case placement indicating that the magazine will need adjusting** Notice gap between case and flap kicker. Case is not sitting on flap kicker. Indicates magazine is too high.

To correct, lower magazine by turning the magazine height adjustment crank.



## **INCORRECT POSITION**



Figure 29

Flap kicker and case placement indicating that the magazine will need adjusting Notice flap kicker is crushing case. Indicates magazine is too low.

To correct, raise magazine by turning the magazine height adjustment crank.



## **CORRECT POSITION**

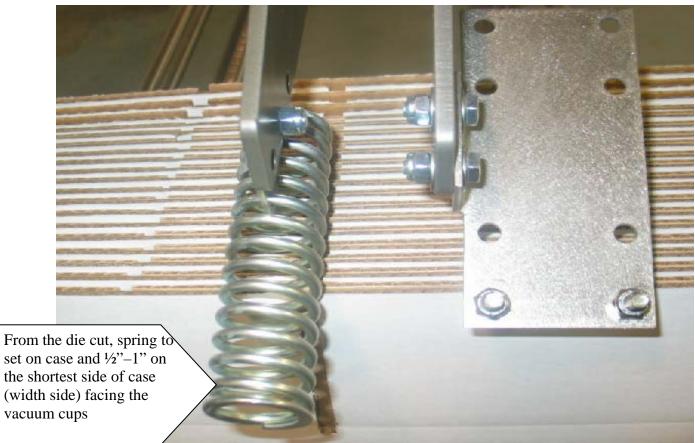


Figure 30

**Correct position for top opener spring** 

Spring is to the minor side (towards the squaring arm). Notice: Photo is viewed from inside the machine.