

*Superior*  
**PAPER HANDLING SOLUTIONS**

# **Xtreme XM Series Friction Feeders**

## **Touchscreen Manual**



**Software version XM-13.3.6**

**Go to <http://www.superior-phs.com/setup.html>**

**For Touchscreen Setup Videos**

*Why Would You Go Anywhere Else?*

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Have this information ready when calling in about your equipment:

Model: \_\_\_\_\_ Serial #:\_\_\_\_\_

Warranty Start Date: \_\_\_\_\_

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**Illustrations in this guide are for reference only and may depict optional features that are available at additional costs.**

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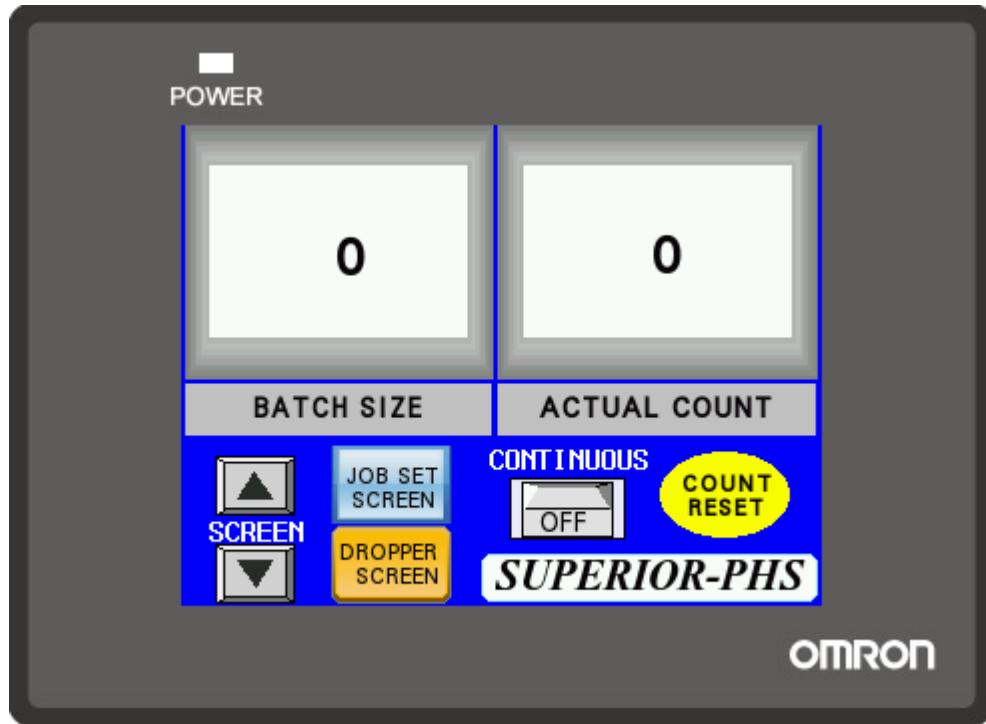
## POWER UP SCREEN



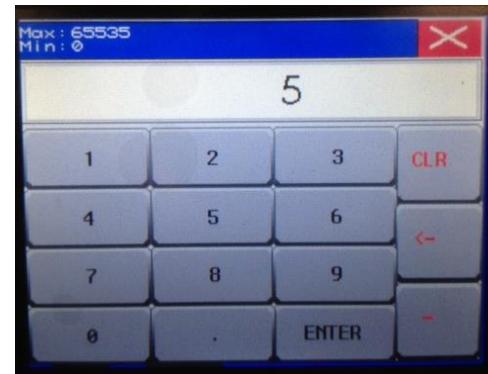
1. **Run Screen Button:** Takes operator directly to Run Screen

**NOTE:** All settings from previous power down will be retained

## RUN SCREEN



- Batch Size:** (1-9999) Press the display to bring up Keypad. Enter required batch size, press enter to save and return to Run Screen.
- Actual Count:** Displays the count as the feeder is running. If batch completes the display will show "0" zero indicating the batch is done and is waiting for next cycle signal. If feeder stops before completing the complete batch size, display will show the number of pieces fed until stopped. If the feeder is stopped because of a Double Detect Error, jog the double through and DO NOT include in the partial batch, press cycle to restage the product. Either a cycle or photo eye trigger will finish the batch set. All other feeder stops can be restaged and the batch count will complete.
- Count Reset Button:** When pressed sets Actual Count to "0" zero. You can press the Count Reset Button at any time and the complete batch count request will re-issue.

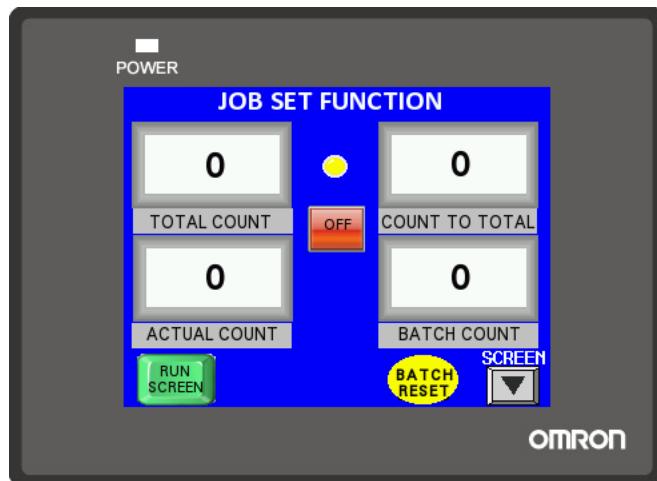


4. **Up/Down Screen Arrow Buttons**: When pressed moves to the next or previous screen.
5. **Dropper Screen Button**: Takes operator directly to Dropper screen.
6. **Continuous ON/OFF**: To run in ‘Continuous Mode’, turn ‘ON’ and press the CYCLE button. Press the STOP button to pause/stop. In this operating mode:
  - a. First cycle stages product to the sheet sensor. Second cycle runs continuously.
  - b. Miss-detect, double detect, and time out functions work in conjunction with continuous mode. Time out feature will not work if a jam blocks the sensor.
  - c. Ignores Pause/Resume function.
  - d. It will not batch count, but will perform ‘Total Count’ then stop. This mode will not perform sub-batches or ‘Count to Total’. (See Job Set Function screen)
  - e. Works with ‘Piece Counter’ and ‘Total Piece Counter’. (See Counters screen)

## JOB SET FUNCTION

The Job Set Function screen is designed to break down a set number of pieces into smaller batches. For this example: you have 200 pieces that need to be broken down into sets of 5.

1. Set the Batch Size to 5 on the Run Screen.
2. Press the 'Total Count' screen and set it to 200. Press enter.
3. Press the center on/off button to 'ON'
4. The circle above the on/off button will illuminate yellow during a job.
5. Cycle the feeder manually or by the trigger sensor.
6. The 'Count to Total' screen will count down showing how many pieces are left to complete the job.
7. The 'Batch Count' screen will represent how many sets of 5 have been counted. This is a mirror image on the 'Counter Screen'.
8. The 'Actual Count' represents how many pieces in each 5 count set have been counted out. Most likely, the count will happen too quickly to keep up, but in the event of a mis-feed or miss-count, the 'Actual Count' will represent how many pieces in the 5 count set have been completed. This count is a mirror image of the count on the 'Run Screen'.
9. The yellow light will have turned blue when the total count is completed.
10. Press and hold the 'Batch Reset' to reset the 'Batch Count' to '0'.
11. Turn the on/off button to 'OFF' when not using this function.

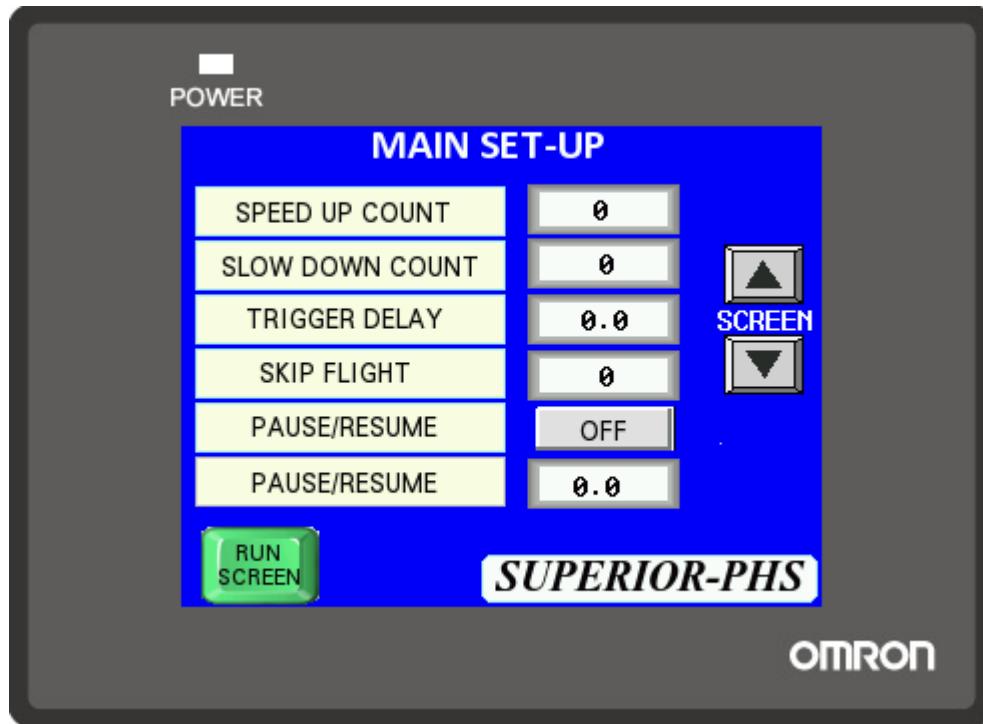


**At the end of a job, the yellow reset button and red stop button will illuminate and the yellow light on the screen will turn blue.** This means the job is complete. To reset, turn the Job Set Function to 'OFF' then hit the 'Reset Button'. The red and yellow button will turn off and the green ready button will illuminate. You can then run in standard mode or start a new job.

For a video demonstration, watch the 'Job Set Screen' video at

<http://www.superior-phs.com/setup.html>

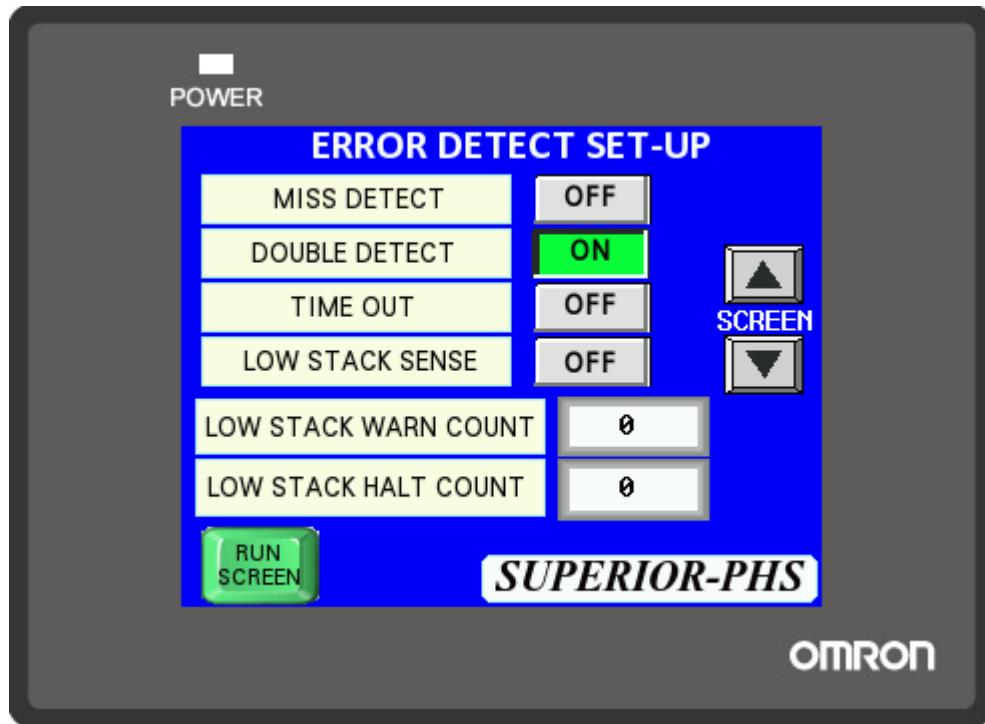
## MAIN SET-UP SCREEN



1. **Slow Down CNT:** Slow Down Count is used to automatically slow down on the X to last piece of the Batch Size, where X is the valued entered. Typically set to "0" or "1". When running a 1 count or 2 count, it is recommended to set the value to "0". If running a count of 3 or higher it is highly recommended the Slow Down Count value be set to 1. At the maximum speeds of the XM High Speed feeder, the motor can coast on the last piece, and for shorter pieces an extra piece can sometimes be dispensed. The Slow Down Count is used to ensure the correct count is provided, and that the first piece of the next Batch Size is staged in the correct position within the discharge of the feeder. Press the value/number button to bring up keypad. Enter required value, press enter to save and return to Main Set-up Screen.
2. **Trigger Delay:** The Trigger Delay is the time between receiving the Trigger Signal and the time the feeder begins to feed. If you want to change where in the pocket the feeder starts feeding, rather than move feeder or trigger photocell, you can add a Trigger delay time. Press adjacent time button to bring up keypad. Enter required delay time, press enter to save and return to Main Set-up Screen.

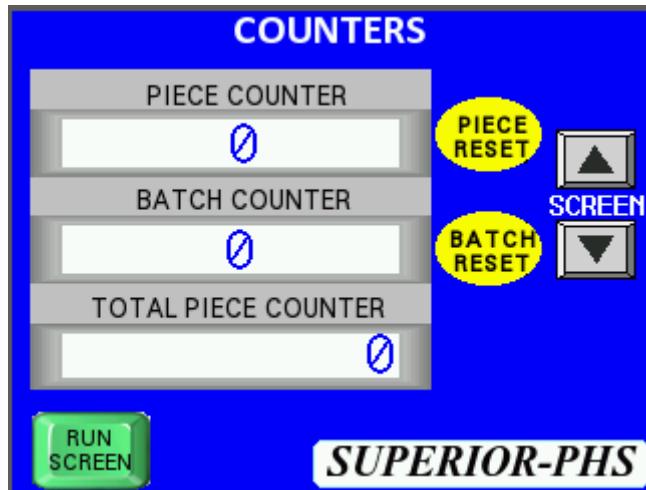
3. **Skip Flight:** When running on a lugged/flighted conveyor you can add a Skip Count to miss desired lug pockets. When set to "0"/zero the system will feed or drop into every pocket. When set to 1 the system will feed/drop into the first pocket, then skip one pocket, then feed the next pocket and repeat sequence. If Skip Flight is set to 2, then system will feed first pocket and skip the next 2, and etc. Press the value/number button to bring up keypad. Enter required value, press enter to save and return to Main Set-up Screen.
4. **Pause/Resume ON/OFF:** Pause/Resume can operate in feeder only or with the dropper on. When Pause/Resume mode is turned ON, press the cycle button to start the first batch, then Feeder will automatically "Pause" at the end of the first batch for the preset amount of Pause Time, then Automatically Resume the next batch. This creates a gap on the shingling conveyor notifying the operator where the batches begin and end. Press the ON/OFF button to toggle between ON and OFF. The pause time can be set by using the pause/resume input ( #5 below ).
5. **Pause/Resume Time:** When Pause/Resume mode is turned ON, sets amount of Pause time between end of a batch and the automatic starting of the next batch. Press adjacent time button to bring up keypad. Enter required Pause time, press enter to save and return to Main Set-up Screen.
6. **Up/Down Screen Arrow Buttons:** When pressed moves to the next screen.
7. **Run Screen Button:** Takes operator directly to Run Screen
8. **Dropper Screen Button:** Takes operator directly to Dropper screen.

## ERROR DETECT SET-UP SCREEN



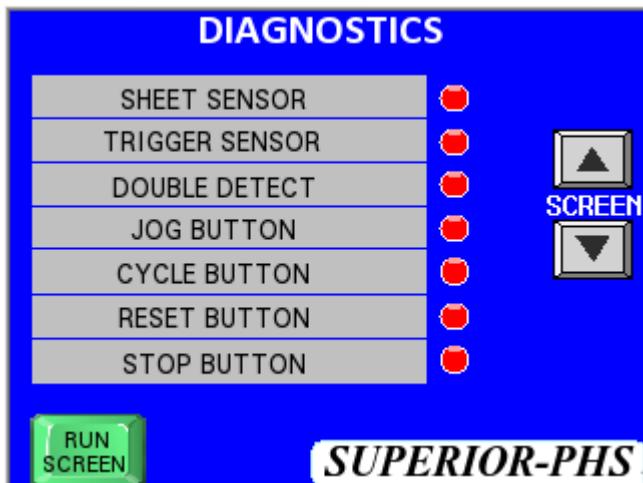
1. **Miss Detect:** Miss Detect occurs when a new trigger signal or cycle signal is received prior to finishing the current Batch Size, provided this error condition is turned ON. Feeder and Dropper will stop and the Yellow Fault Light will flash. Press the ON/OFF button to toggle between ON and OFF.
2. **Double Detect:** Double Detect occurs when the Double Detect Sensor is activated and provided this error condition is turned ON. See Mechanical or Burn-Thru Double Detect Setting Section of the manual, depending on type of Double Detect provided with feeder. Feeder and Dropper will stop and the Yellow Fault Light will flash. Press the ON/OFF button to toggle between ON and OFF.
3. **Time Out Detect:** Time Out Detect occurs when the feeder sheet sensor does not change states (stays blocked or unblocked) for about 2 seconds, and provided this error condition is turned ON. Typically used to determine if feeder runs out of product or has a product jam. Feeder and Dropper will stop and the Yellow Fault Light will flash. Press the ON/OFF button to toggle between ON and OFF.
4. **Up/Down Screen Arrow Buttons:** When pressed moves to the next screen.
5. **Run Screen Button:** Takes operator directly to Run Screen
6. **Dropper Screen Button:** Takes operator directly to Dropper screen.

## COUNTERS SCREEN



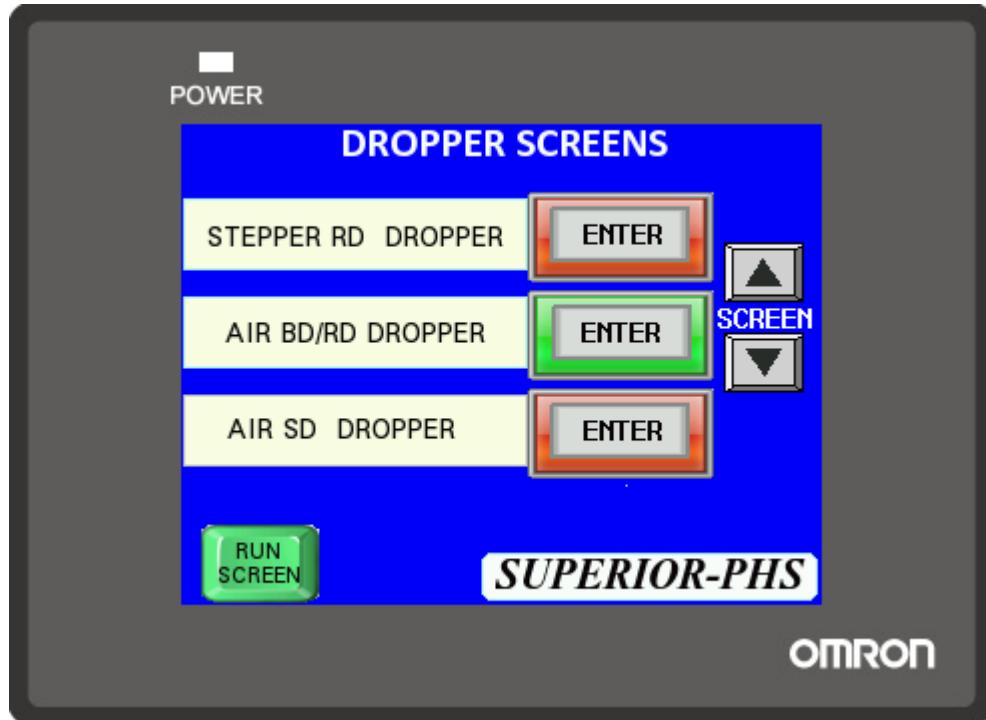
1. **Piece Counter:** Counts individual pieces fed. If Batch Size is set to 5 and the batch is counted, the piece counter will increment by 5. Counter is resettable.
2. **Piece Reset Button:** Resets Piece Counter to "0"/zero.
3. **Reset:** Hold till count turns 0
4. **Batch Counter:** Counts completed batches. If Batch Size is set to 5 and the batch is counted, the Batch Counter will increment by 1. Counter is resettable.
5. **Batch Reset Button:** Resets Batch Counter to "0"/zero.
6. **Total Piece Counter:** Counts total individual pieces fed on the feeder. If Batch Size is set to 5 and the batch is counted, the piece counter will increment by 5. Counter is NOT resettable.
7. **Up/Down Screen Arrow Buttons:** When pressed moves to the next screen.
8. **Run Screen Button:** Takes operator directly to Run Screen
9. **Dropper Screen Button:** Takes operator directly to Dropper screen.

## DIAGNOSTICS SCREEN



1. **Sensor Diagnostics:** Activate either the Sheet, Trigger, or Double Detect sensor. When sensor is active, respective green light will come on. Green light indicates sensor, all wiring, and PLC inputs are good.
2. **Button Diagnostics:** Press the Stop, Cycle, Jog, or Reset/Fault Button. When button is active, respective green light will come on. Green light indicates button contact, all wiring, and PLC inputs are good.
3. **Up/Down Screen Arrow Buttons:** When pressed moves to the next screen.
4. **Run Screen Button:** Takes operator directly to Run Screen
5. **Dropper Screen Button:** Takes operator directly to Dropper screen.

## DROPPER SCREEN



If You Did Not Purchase an Automatic Dropper,

Keep This Function In The 'OFF' Position And Disregard This Screen.

## OVERVIEW OF DROPPER OPERATION:

1. Adjust Dropper Side Guide Plates for width of the product. Allow 1/8 to 1/4 inch clearance on each side for best operational results.
2. Adjust Dropper Back Stop Plate to length of product. Back stop plate is factory preset to vibrate back and forth with each product fed. This helps to absorb energy from the product and the vibration helps to square up the stack. Ensure back stop plate in the full back position is inside the side guides of the conveyor below, otherwise product might land on the side guide when dropped causing a jam. Back stop plate also holds the full extend sensor. Dropper forks will extend until this sensor is blocked then they will stop.
3. Position dropper over the side guides of the lugged infeed, and verify the fixed, non-adjustable dropper plate below the feeder discharge is inside of the side guide below, otherwise product might land on the side guide when dropped causing a jam. Dropper will need to be adjusted in and out when conveyor side guides are adjusted in and out.

4. Select Small Product or Large Product Deflector plate and install on Feeder Discharge nose using screws provided. Brass hold down guide fingers should not hang substantially below the dropper forks.
5. Turn Dropper ON in the Dropper Screen. See Dropper Screen settings below for details.
6. Make sure Dropper Cover is closed. Dropper and Feeder will not operate with cover open. Dropper will operate in manual mode with the cover open.
7. When Dropper is turned ON, then when a Trigger Signal is received or the Cycle button is pressed: the dropper forks will retract, then start to extend, then the feeder will start next Batch Size and continue until Batch Size is complete. Sequence will repeat with each new Trigger Signal or push of the Cycle button. When Dropper is Turned OFF, Feeder will run as normal.

**1. Dropper Ext Delay:** (.01 - .99) Dropper

Extend delay is used when the dropper forks are full in/back (forks not showing) and it is the delay between when the forks are full back and before forks Extend back out. Normally adjusted for greater delay time when accumulating large stack heights to allow time for stack to drop before extending the dropper forks. Press adjacent time button to bring up keypad.

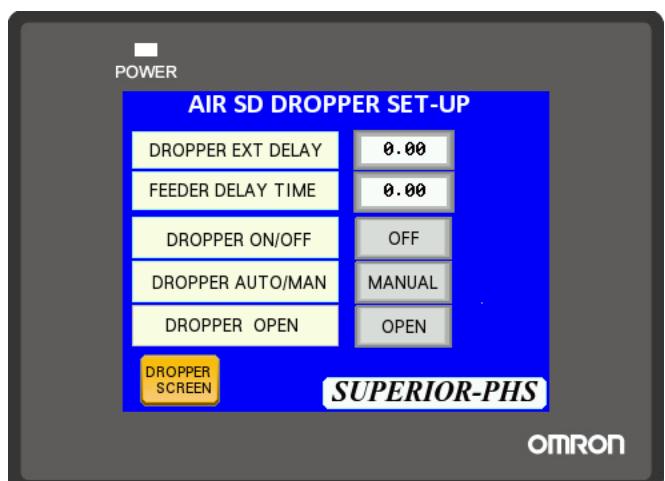
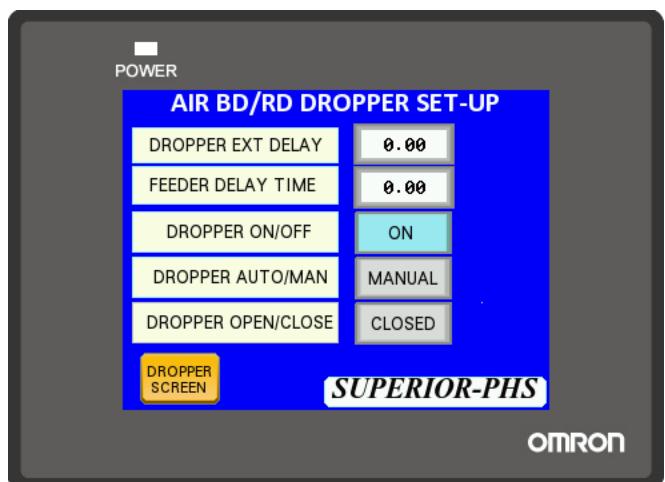
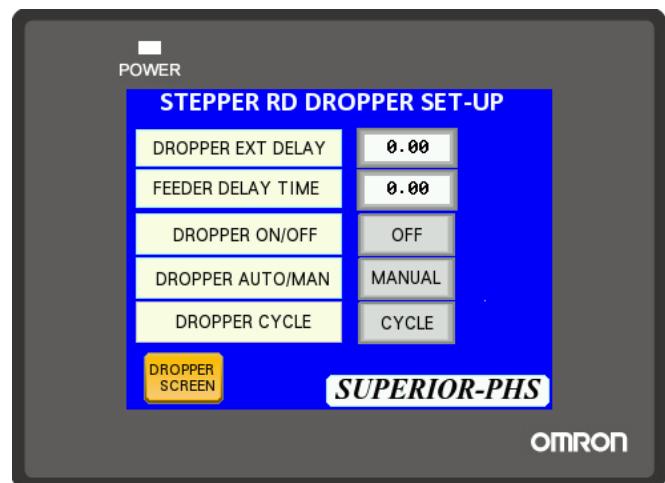
Enter required delay time, press enter to save and return to Dropper Screen.

**2. Feeder Delay Time:** (.01-.99) Feeder

delay time between when the dropper forks start to extend back out and the time when the feeder begins to feed the next batch. Normally adjusted so the first sheet of the batch arrives in the dropper at the same time the forks are fully extended. Press adjacent time button to bring up keypad. Enter required delay time, press enter to save and return to Dropper Screen.

**3. Dropper On/Off Button:** Press ON/OFF button to toggle between dropper being ON and dropper being OFF. When in the OFF position, dropper forks will retract and the feeder can be used as a standard feeder.

**4. Dropper Auto/Manual Button:** Press Auto/Manual button to toggle between dropper being in Auto Mode and Manual Mode. When in the Auto Mode, when Feeder Cycle Button is pressed or a Trigger Signal is received, the dropper will retract, then extend, then feeder will feed next

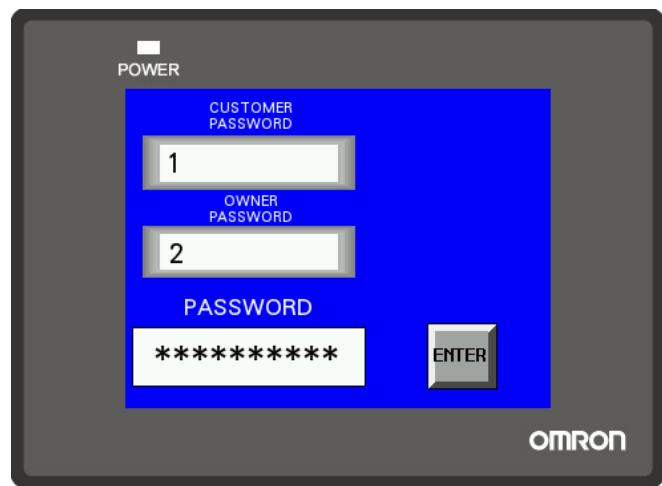
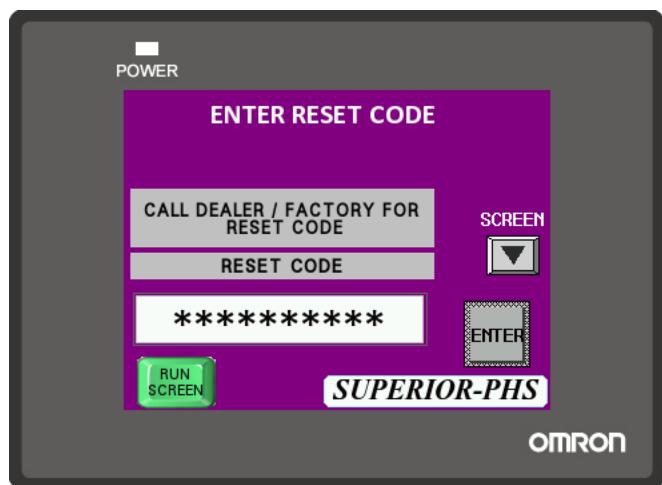


batch. When in the Manual Mode and Dropper is ON, system will not cycle as in Auto Mode. System will ONLY allow operator to press Dropper Cycle Button. See Section 5 below.

5. **Dropper Cycle and Open/Close Button:** When Dropper is ON and Dropper is in Manual Mode, this button will manually cycle the dropper forks one half of a cycle. If the button is pressed when dropper forks are fully extended, forks will fully retract into the base. If the button pressed with forks fully retracted into the base, forks will fully extend out. If the button pressed with forks in between fully retracted and fully extended, dropper forks will fully retract into base. This button will only activate the dropper forks and it will not activate the feeder. Note: This feature is active with the cover open if it's in manual mode.
6. **Up/Down Screen Arrow Buttons:** When pressed moves to the next or previous screen.
7. **Run Screen Button:** Takes operator directly to Run Screen
8. **Dropper Screen Button:** Takes operator directly to Dropper screen.



**NOTE: Dropper is programmed with a safety fault. If for any reason the forks while extending were to jam the feeder and dropper will reset to the retracted stage**



## OPERATORS NOTE PAGE

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