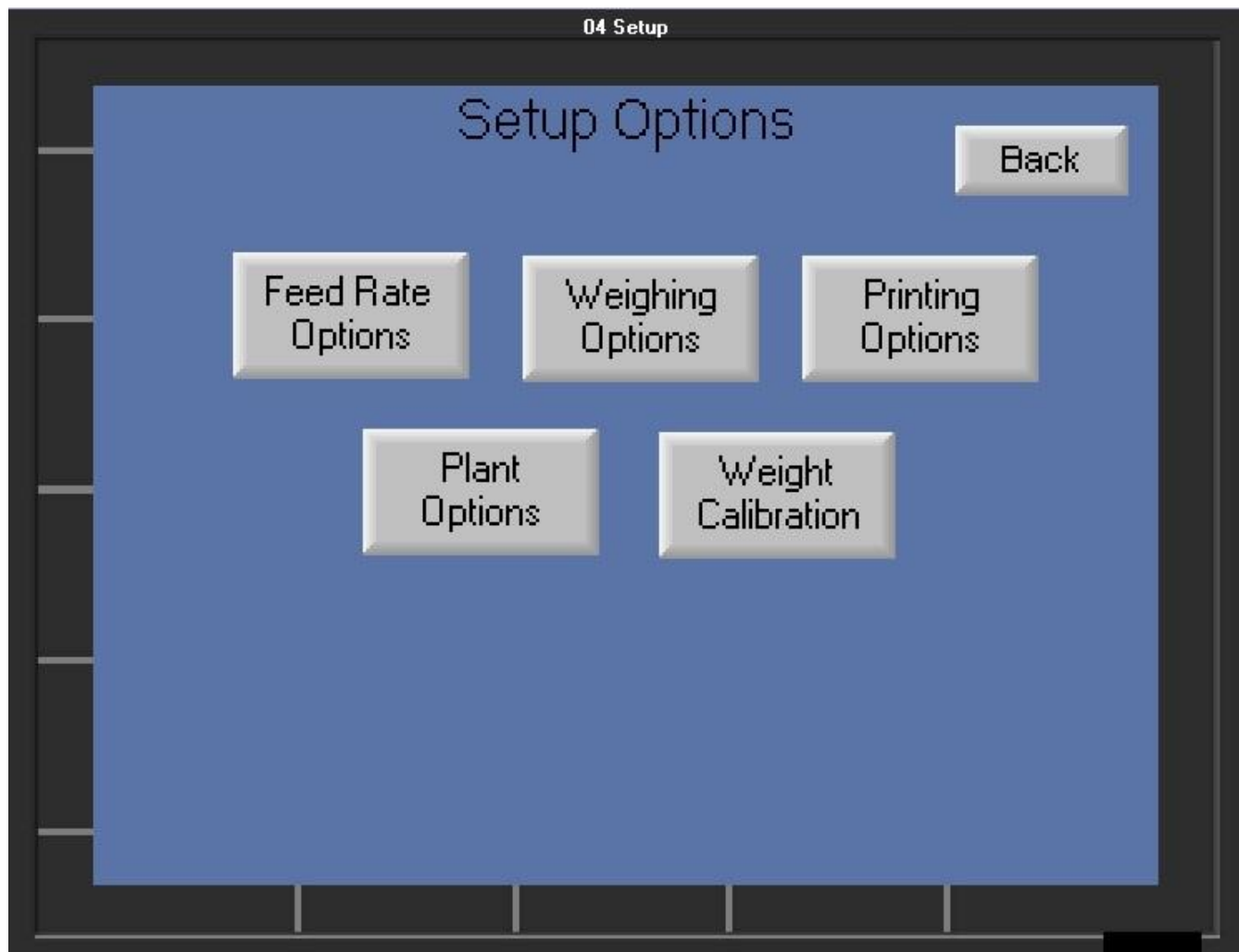


Setup



Page 3 → Feed Rate Options: This Page will hold everything to get a good feed rate regardless of the machine or the material.

Page 4 → Printing Options: Times and Dates

Page 5 → Weighing Options: Deals with all weight related items excluding Calibration.

Page 6 → Plant Options: Plant Tie In

Page 7 → Weight Calibration : Zero and Weight of machine.

Feed Rate Options

05 Feed Rate Options

Feed Rate Options

| | | | | | |
|---|-------------------------------|-------------------------------------|---|---------------------|------|
| Tolerance 999 % | | | | Moisture % 999 % | Back |
| Tolerance Audio Timer 999 s | VFD Compensation Manual | VFD Compensation Delay 999 | Auger Slow Down at Refill 99 % | | |
| | Info | | | | |
| Process Value Over/Under 999.9 | Design Feed Rate 999.9 | Max VFD Hz 999.9 | AC Start Speed Over Ride 99.9 | | |

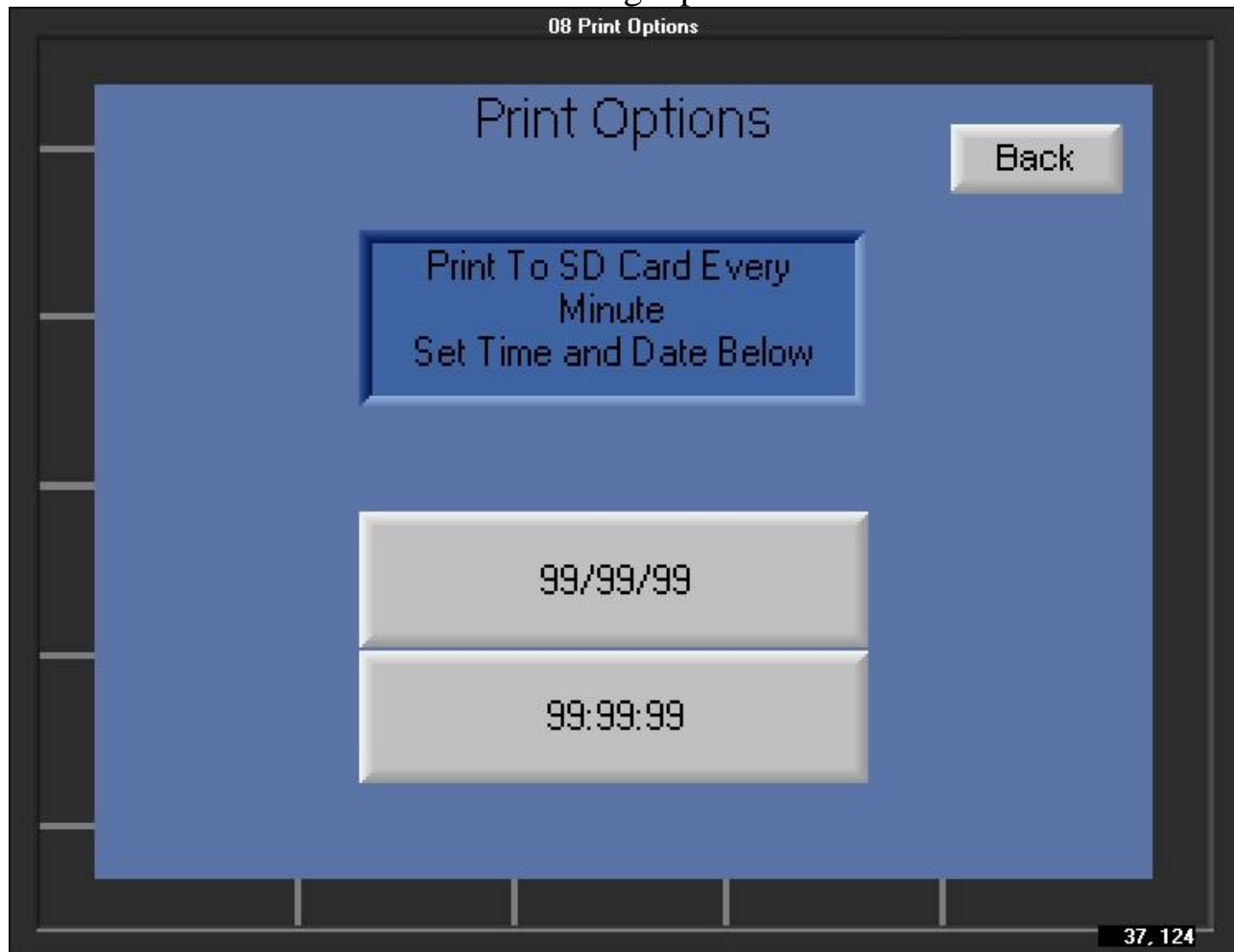
- 1.) Tolerance % → the percentage the material can be off before setting off the out of tolerance alarm
- 2.) Tolerance Audio Timer → the time the system is allowed to have an out of tolerance feed rate before the audio alarm sounds. (Zero) 0 means the alarm will never go off due to tolerance issues.
- 3.) Moisture % → will add to the target feed rate to compensate for moisture that will burn off. Any number above (Zero) 0 will make the moisture % appear on the Drum Screen.
- 4.) VFD Compensation → The amount to increase or decrease the VFD (Variable Frequency Drive) (AC Drive) in Hertz. When you hit info you will be allowed to toggle between Auto and Manual. Although manual is allowed to be completely adjustable it should never be over 0.1
- 5.) VFD Compensation Delay → The minimum time the VFD is allowed to adjust.
- 6.) Auger Slowdown at Refill → The percentage at which the VFD should slow down when material is added.
- 7.) Process Value O/U → The tolerable amount that the VFD should not correct for. (Example: With a Set point of 20.0 lbs/min if the Process Value O/U is at 2 the VFD would not adjust if the actual feed rate is between 18 and 22.
- 8.) Design Feed Rate → Used for starting VFD speed and for Scaling of Feed Rate analog output.

Continued on Page 4 →

Feed Rate Options Continued

- 9.) Max VFD Hz → For Troubleshooting purposes only. Should always be left at 100.
- 10.) AC Start Speed Over Ride → The Hz the VFD will be running at the start. The controller will run at its last known speed if this is left untouched. (You can find the last known speed on the upper right of the Drum Screen.)

Printing Options



Date and Time. The Time must be entered in 24 hour increments.

Weighing Options

07 Weighing Options

The screenshot shows a blue-themed menu with the following elements:

- Auto Refill Weight:** 9999.9
- Refill Hold Seconds:** 99 s
- Measurement:** LBS
- Low Weight:** -99999.9
- High Weight:** -999999.9
- Low Weight / Dev Timer:** Includes buttons for 'Low Weight' and '99999'.
- Hopper Weight:** -99999.9
- Back:** Button in the top right corner.

Auto Refill Weight → The weight at which the lift platform will begin to dump. If this is Set to 0 (Zero) it will not automatically tell the lift to dump.

Refill Hold Seconds → The amount of time to not adjust and not calculate the feed rate.

Recommended to be set for 10-15. If there are massive refill issues it can be pushed further.

Measurement → Once the machine is calibrated to LBS it can automatically Swap to Kg

Low Weight → is tied to an output for special circumstances and can be further manipulated by the Low Weight / Dev Timer.

High Weight → is tied to an output for special circumstances. This is simply on or off.

Low Weight/Dev Timer → See Low Weight

Plant Options

09 Plant Tie In

Plant Tie In Options

| | | |
|---|---|---|
| Plant Speed <input type="button" value="No Analog"/> <input style="background-color: yellow;" type="text" value="0-10 VDC"/> | Plant Min TPH <input type="text" value="-9999"/> | Plant Max TPH <input type="text" value="9999"/> |
| False Feed Rate For Plant Output Calibrating <input type="text" value="9999.9"/> lbs/min | Design Feed Rate <input type="text" value="9999.9"/> lbs/min | <input type="button" value="Plant Controls Material %"/> |

Allow Plant Shut Down

Plant Speed → “No Analog” means the user must manually type in the Plant Tons Per Hour.

“Source” Means it will get TPH calculations from the Following signal.

0-10VDC or 4-20mA

Plant Min TPH → This is used for a finer adjustment of the plant signal (0 unless needed)

Plant Max TPH → This must be set accordingly. The Plants Designed Maximum Tons Per Hour Must be inputted here when using “Source” in Plant Speed settings.

False Feed Rate → This will send out an analog signal on both VDC and mA for the Feedrate
It lasts 5 min or until changed back to Zero

Plant Control TPH → This was set in place for a special application. It takes out all math and runs at a target directly proportional to what the plant give it.

Recommended not to use this function

Allow Plant Shutdown → This will bring you to another screen when clicking on it to say YES

You will be asked if you want to Send a signal when the controller goes into alarm, or alternately Break the signal when the controller goes into alarm.

Either way the timer must be set above Zero or it will not function.

Weight Calibration

0 Calibration

Use 100 lbs or greater
for calibration weight

Zero Machine

Calibrated Weight
to be used.

Calibrate Scale to
above Specified Weight

Calibration Must be
in LBS.
May be changed to kg
In Setup after calibration

Hopper Weight

44, 187

Zero → Zeros the hopper.

Calibrated Weight to be used. → This is the known weight that will be used for Calibration.

Calibrate → Once the above weight is added to the hopper this button will calibrate the scale to that weight.

Advanced → Brings up a new Screen. Should not be accessed unless instructed.

Advanced

Advanced

| | | |
|--------------------------------------|--------------|-------------------------------|
| Scale Factor | -9.999999999 | Back |
| Empty Hopper Weight (Base Weight) | -9.999999999 | |
| Scale Dampening | 99999 | |
| | | Hopper Weight (Net Weight) |
| Raw: -9999999999 | | -99999.9 |

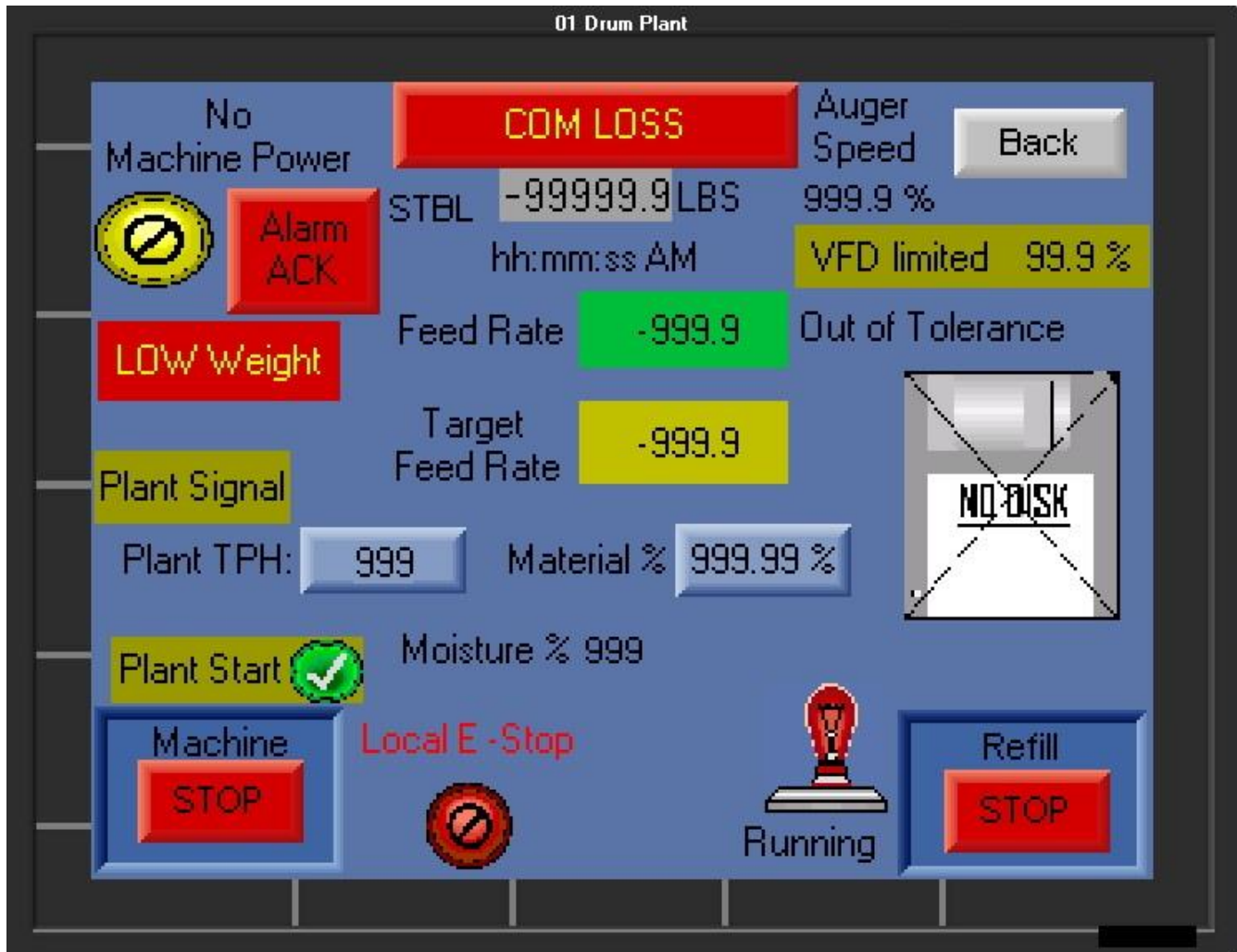
118, 166

Manual input and display of Calibration information. Should not be changed unless instructed.
 Scale Dampening → Will Soften the Weight fluctuations Due to wind and/or vibration.

Calibration Procedure

Press Setup
 Press Weight Calibration
 Press Zero
 Press Yes
 Type in Calibration weight
 Add said Calibration weight to machine
 Press Calibrate

Drum Plant



Alarm ACK is only for Out of Tolerance. It will Reset the timer and if Out of Tolerance persists within the set time frame it will again sound.

If the Yellow Plant Signal is visible the Plant TPH will not be adjustable by any means other than the analog input from the plant. → Setup → Plant Options → Source/No Analog

If the Yellow Plant Start is visible the Controller will only start from the plant 120V signal.
→ Setup → Plant Options → Manual/Auto

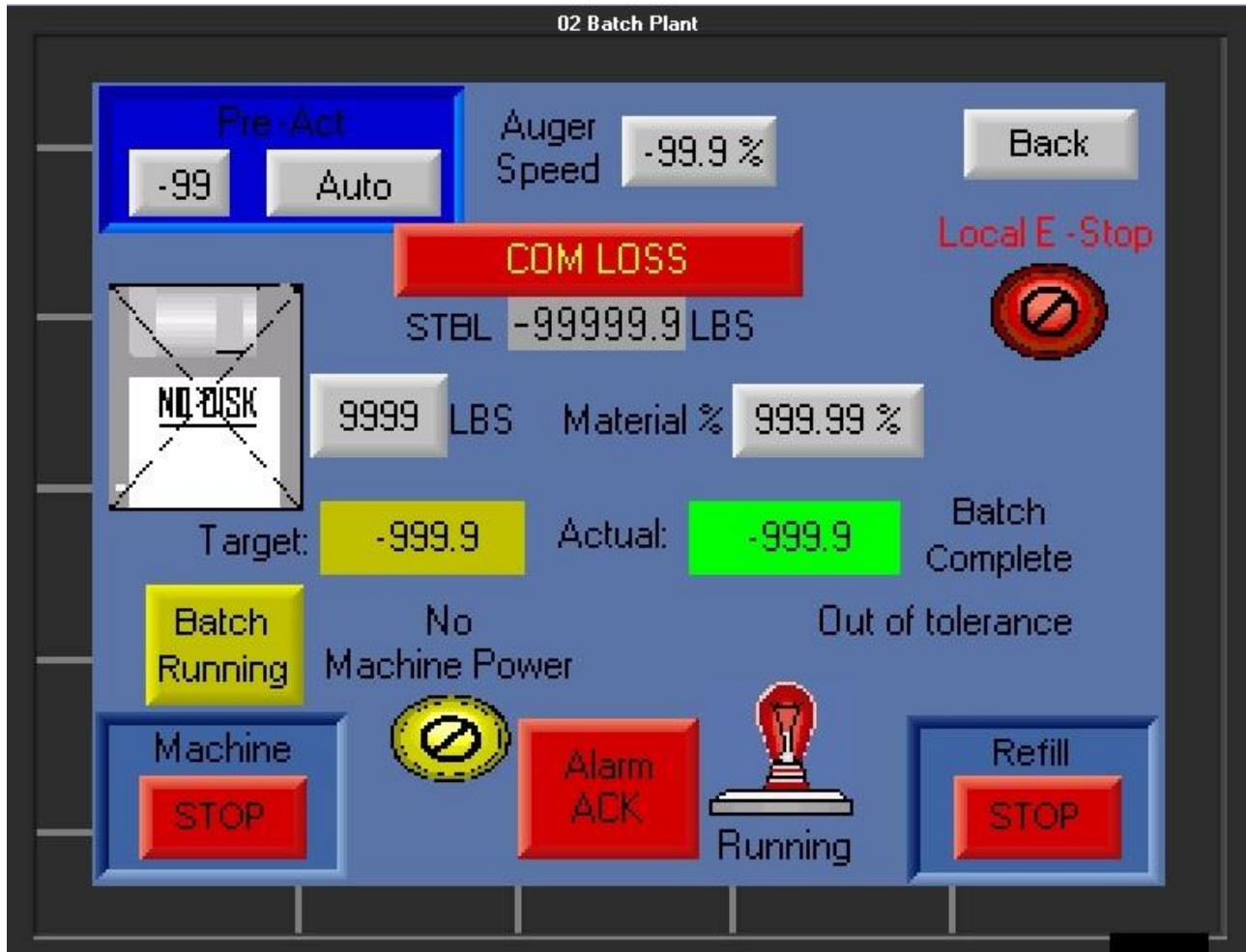
Without the yellow Plant boxes Visible simply touch the Plant TPH box and input the desired plant TPH. The Target Feed Rate will be figured out according to the Material % that is also User adjustable.

Start and Stop Refill doesn't work as you would desire. It does start the refill process but as it was built to be a direct replacement for the Merrick without running more wires the only stop for it is the E-Stop just as it always has been.

Machine Start/Stop → Run the machine. The running Light will turn Green and the Feed Rate will

begin.

Batch Plant



To run a batch you must first Start the machine.

This will turn on only the Blower and the airlock.

From this point either manually hitting "Start Batch" or from the 120V plant Start signal will start the batch.

(The Batch Running button depicted here is the Batch Start Button)

Set Auger Speed to 75 typically.

Pre-Act can be set to Auto or manual. Before setting to auto type in a desired pre-act and auto will take it from there.

Type in the Batch in LBS and chose the material % to get the target