Dried Vegetable Weighting Portioning Machine

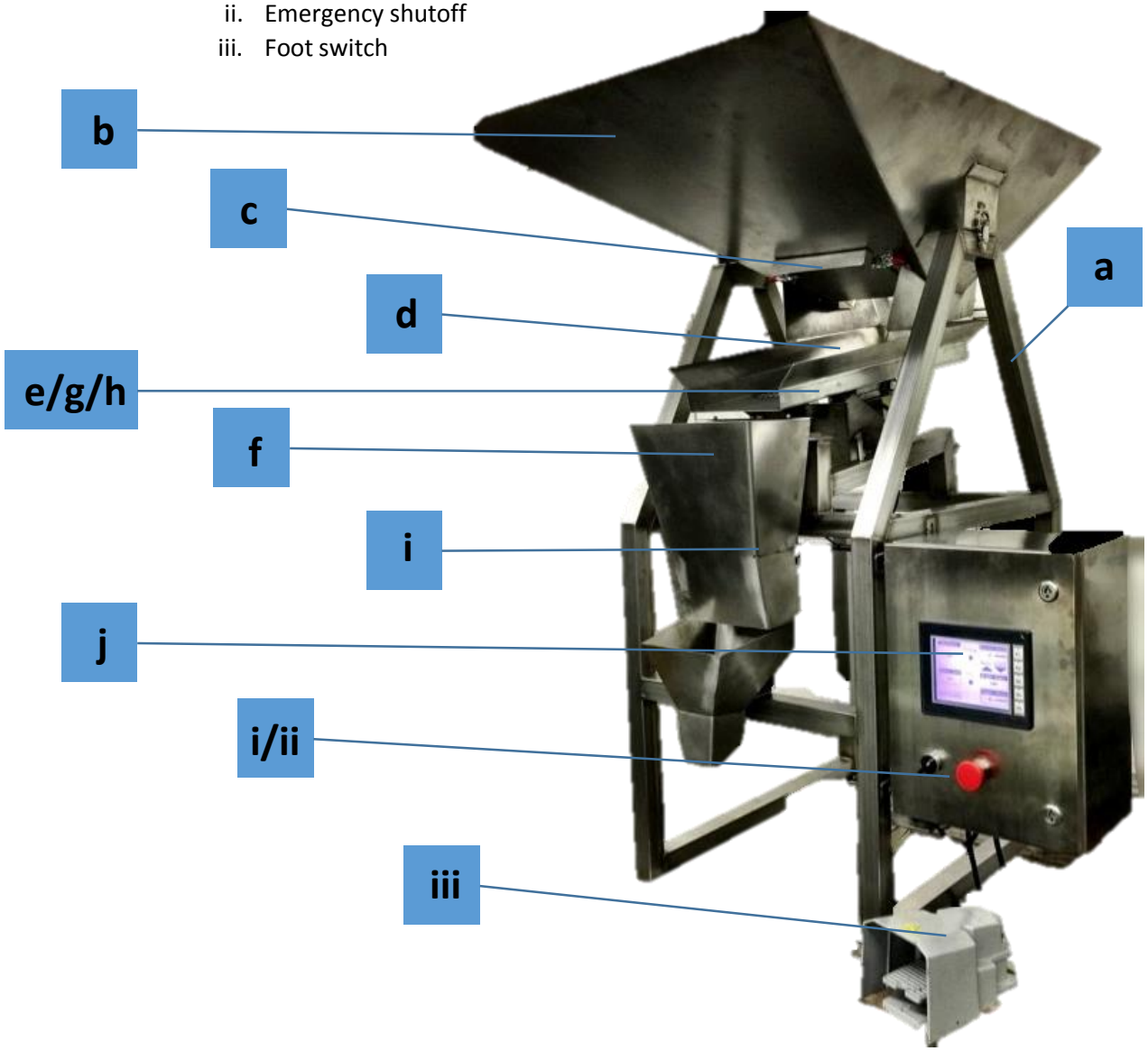
User Manual

Manufactured by: GsE LLC

Date of Manufacture: 11/21/14

Overview of machine

1. List of components
    a. Frame
    b. Hopper
    c. Adjustable hopper gate
    d. Trough
    e. Flake deflector (hidden)
    f. Weigh hopper
    g. Load cell (hidden)
    h. Vibration device
    i. Weigh hopper backing plate
    j. Funnel
    k. Control box
        i. Power switch
        ii. Emergency shutoff
        iii. Foot switch



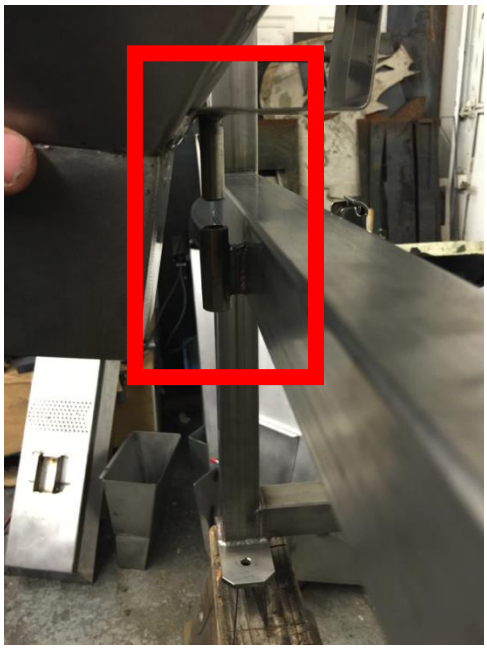
Assembly/Disassembly

Assembly is a “bottom to top” process and disassembly is “top to bottom” process.

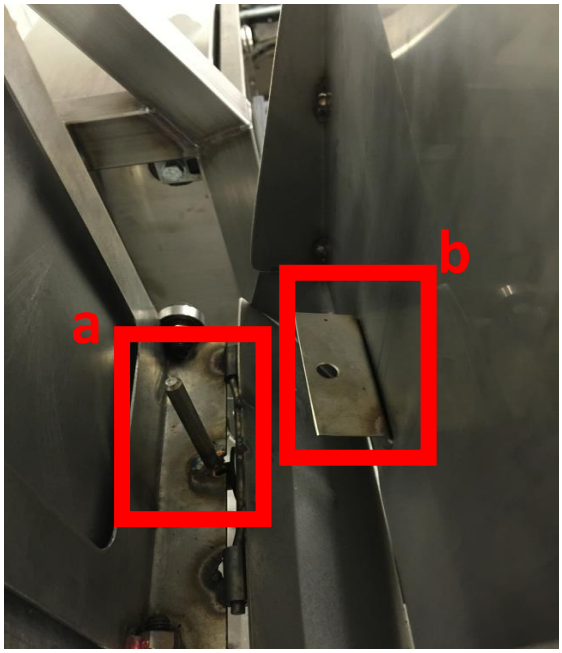
Starting with a disassembled machine:

To assemble:

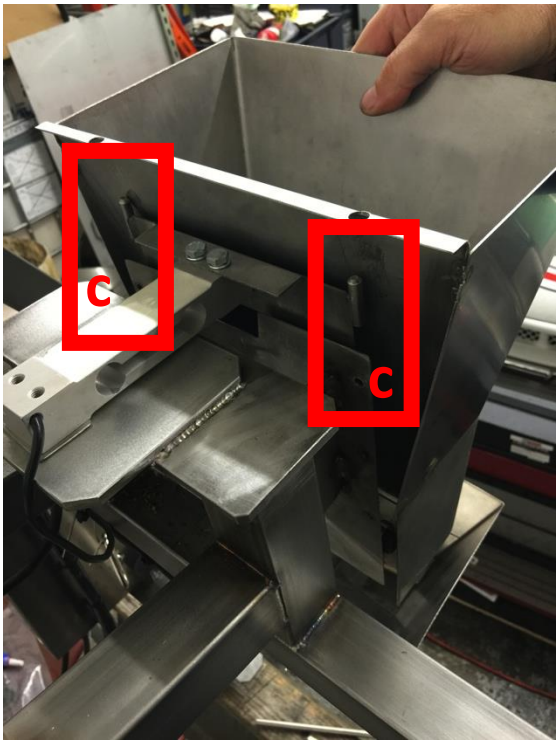
1. Funnel
    a. Attach funnel by aligning pin on back of funnel with tube on frame
    b. Secure spring clasp on frame behind funnel



2. Weigh hopper
    a. Align lower post (a) of backing plate with hole in weigh hopper (b)
    b. Lower part way

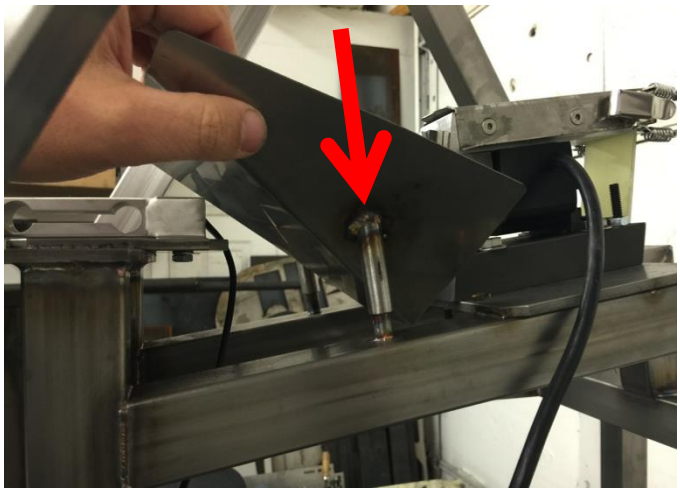


    c. Align both upper posts (c) with holes in lip of weigh hopper
    d. Lower rest of way

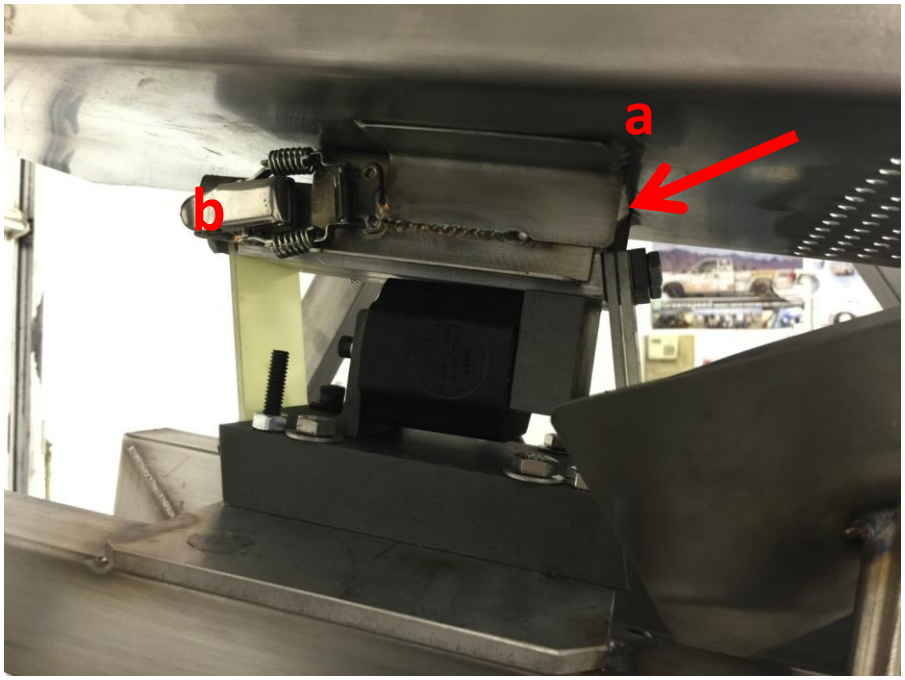


Step back, should now look like this:

3. Flake deflector
    a. Flake deflector has posts on left and right side. Simply lower the flake deflector onto posts to install.

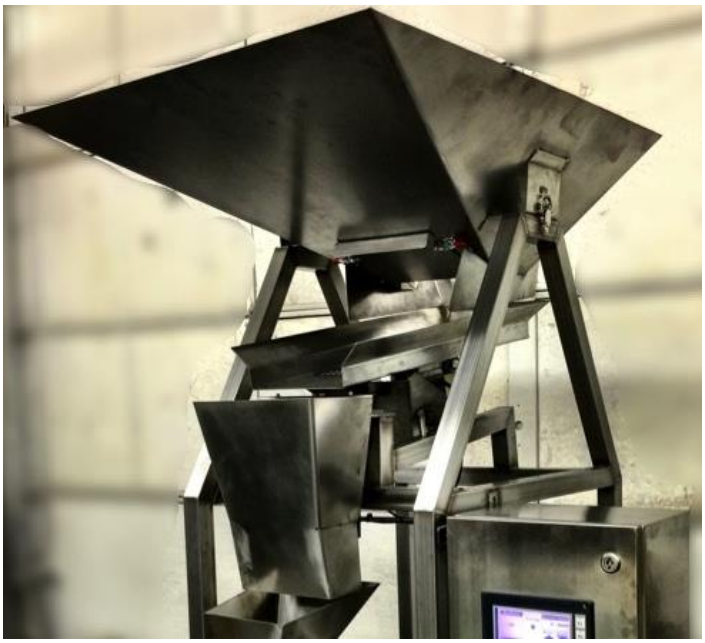


4. Trough
    a. Set trough on vibration device, making sure it is as far back as possible (there is a lip (a) on the front that holds it in place)
    b. Secure both spring clasps (one each side, (b))

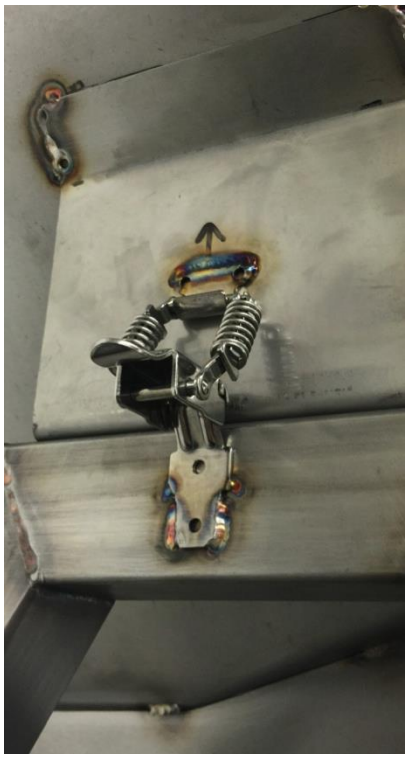


Now should look like this:

5. Hopper
    a. **BE CAREFUL, IN THE FOLLOWING STEP, THE HOPPER WILL NOT STAY IN PLACE BY ITSELF. HOLD HOPPER FIRMLY UNTIL SECURELY LATCHED.**
    b. Set hopper on top of frame with flat side toward you:



    c. Secure spring clasp on both sides of hopper to frame:

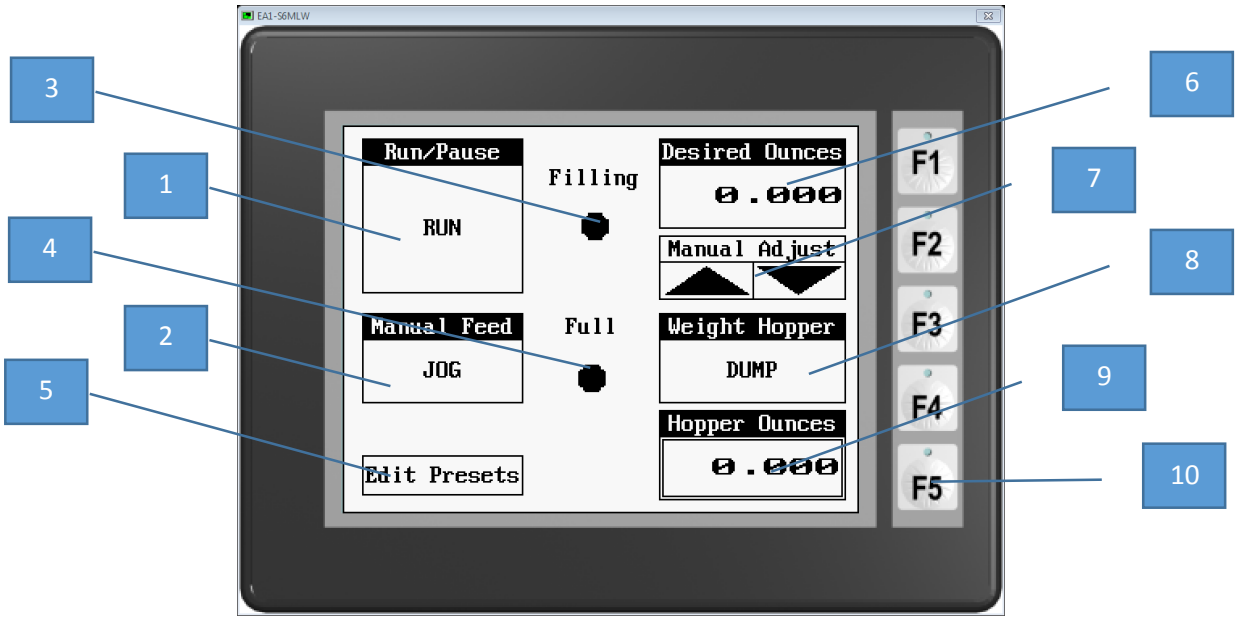


6. All done!

Disassembly
Follow steps 1-5 in reverse order.

Operation

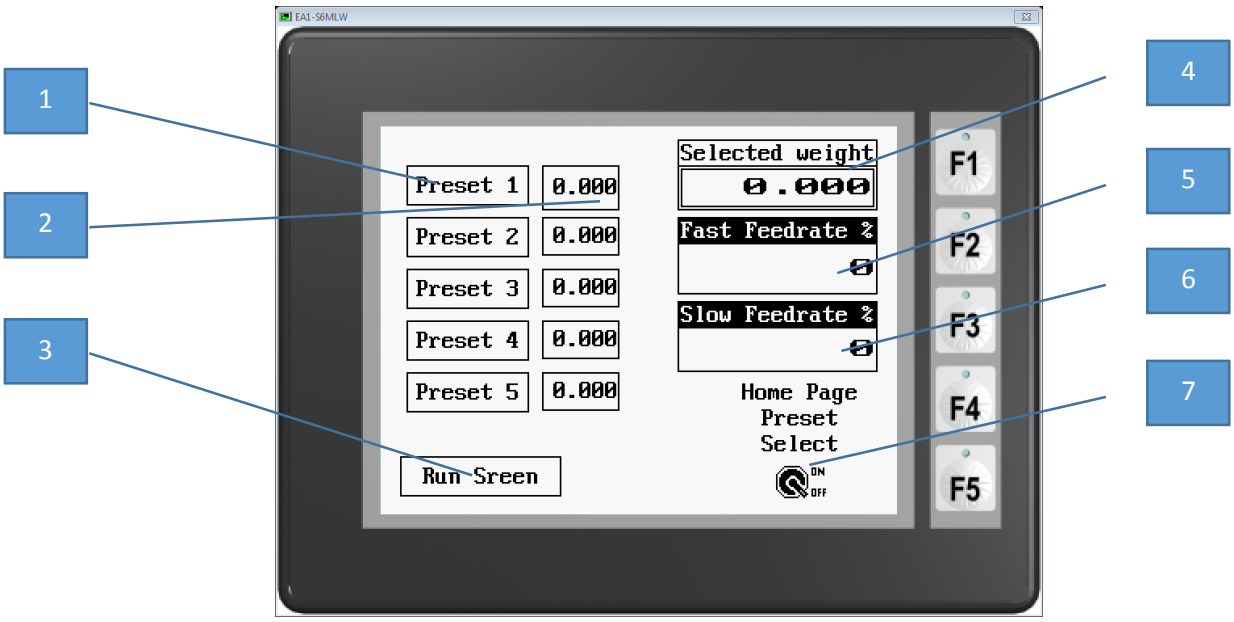
1. User Interface
    a. With the machine turned on the user interface will appear on the 6 inch touch screen
        i. Home Screen



        ii. Button Identification
            1. Starts and stops the portioning machine
            2. Jogs the machine for 1 sec. each time pressed
            3. Icon illuminates when the machine is filling a portion
            4. Tells the user the portion is ready to be bagged
            5. Enters the preset and federate edit screen (See 1.B.i)
            6. Displays/programs the desired portioning amount (push to edit)
            7. Manually adjust the desired weight up or down by 0.125 oz. increments
            8. Can be used to activate the weigh hopper dumping action (Instead of the attached footswitch)
            9. Displays the actual weight in the weigh hopper
            10. F1-F5 buttons associated with the user defined 1-5 preset values

By selecting the “Edit Presets” button, the machine can be programed for up to 5 preset portioning weights and set material feed rates.

    b. Machine Preset and feed rate edit screen
        i. Edit Screen

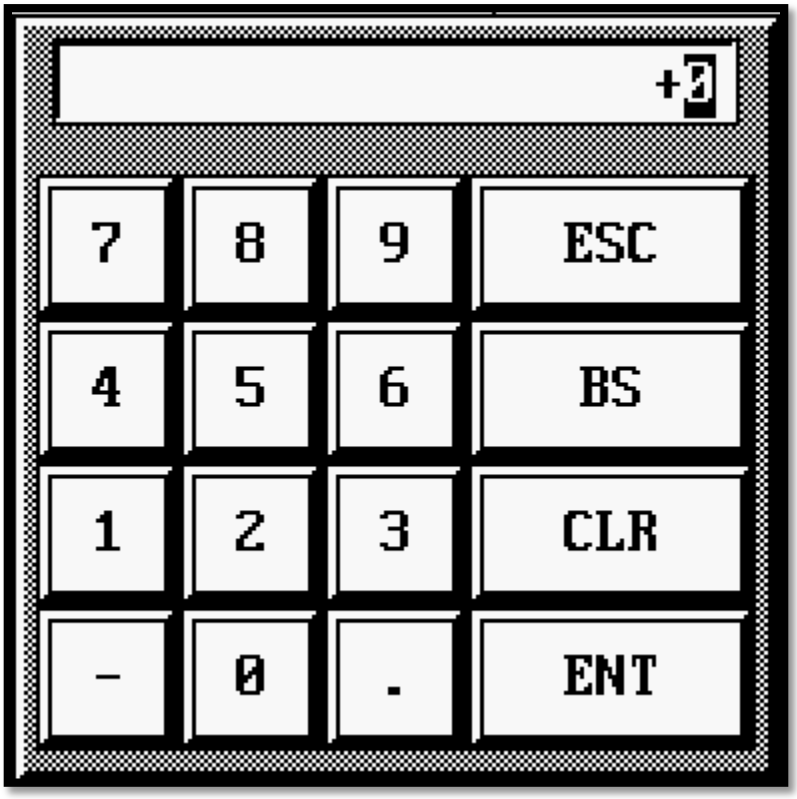


ii. Button Identification

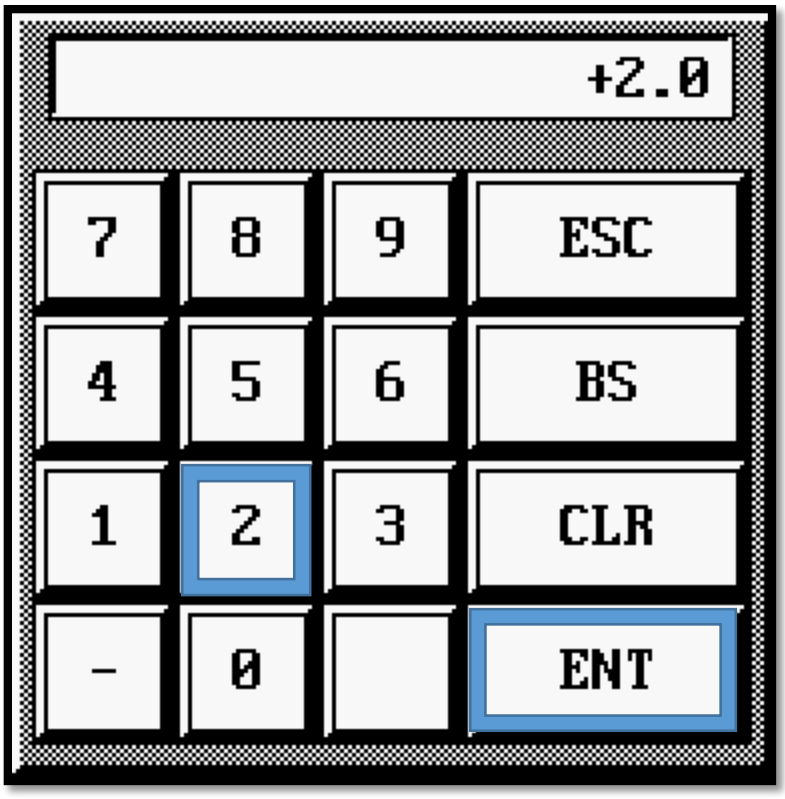
1. Preset 1-5 selection
2. Preset values 1-5 (touch to edit)
3. Returns to Home Screen
4. Displays/edits desired portioning weight (Push to edit)
5. Fast Feed rate of material down linear feeder to ¾ of desired porting weight (Push to edit, 0-100% Vibration speed)
6. Slow Feed rate of material down linear feeder from 75% to full (Push to edit, 0-100% Vibration speed)
7. Enables or disables the F1-F5 buttons on the home screen

c. Push to edit feature

i. Numerical values are entered by the following pop up screen on the display



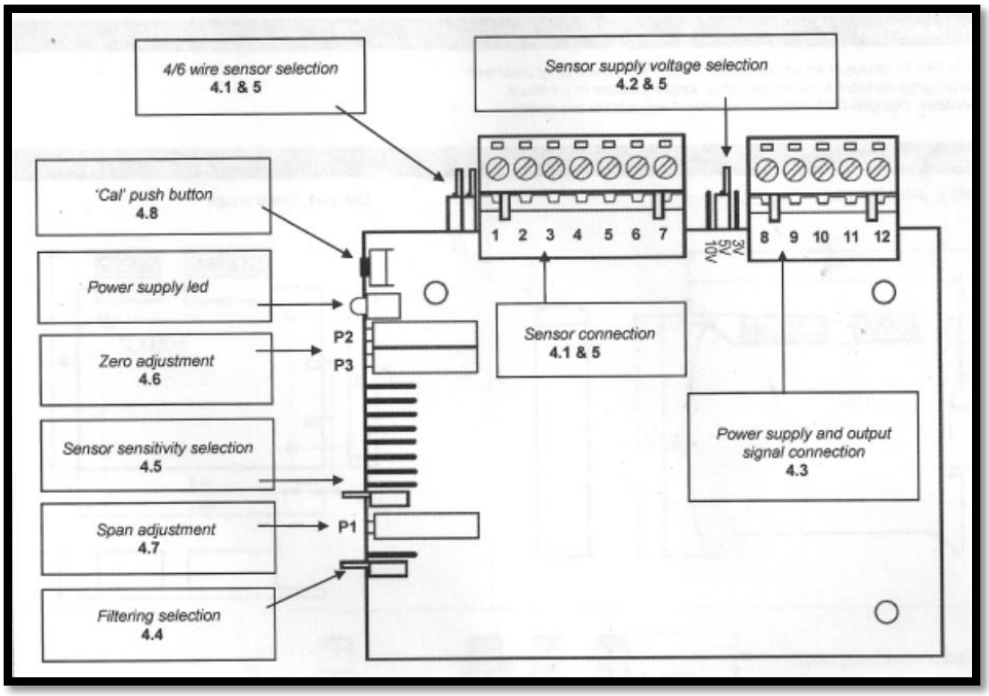
ii. Enter the amount desired then push enter to save. EXAMPLE: 2 Grams



Note: The

values for desired weight are limited to 0-8 oz. and the feed rates can be edited from 0-100%. If a number is entered out of this range an error message will notify the entry is not valid.

2. Calibrating the weigh hopper
    a. The following steps are completed to calibrate the machine. This should happen if the machine is dispensing outside the desired range of the target value. **Note: Adjustments are made in the machine housing electronics enclosure which contains live 120 VAC and 24VDC circuits. This operation should only be conducted by a knowledgeable technician do to shocking hazard.** The following figure shows the green load cell central signal conditioner schematic. Adjustments will be made to the P1 and P3 flat head screw adjusters.



    i. Clear the linear feeder of all crumbs and material
    ii. Push the run button and pause the machine after a few seconds of dry running.
    iii. Open the electronics enclosure
    iv. Lift the clear flap on the green “Load Cell Central”OM-19 signal conditioner
    v. Adjust P3 until the “Hopper ounces” is in between 0.000 and the first positive decimal value to display. Note: The adjustment can be turned down well below zero and make the scale inaccurate. Take care to ensure the displayed value is bordering turning to a positive decimal number from 0.000
    vi. Place the supplied 7 oz. calibration weight gently into the empty hopper. Adjust P1 so that “Hopper ounces” is 7.000 +/-0.050. Note: The value may not display exactly 7.000 due to the resolution scale of the machine
    vii. Remove the weight and verify the machine returns back to zero. If it does not repeat steps v. and vi.
    viii. It is recommended that the machines dispensed product is verified with a commercial scale periodically to ensure the machine is working accurately

3. Quick start guide to running the machine
    a. Load the main hopper with material
    b. Selected a desired weight up to 8 oz.
    c. Set the fast and slow feed rates try 80% and 60% respectively for a starting point
    d. Push the run button to begin feeding material
    e. Adjust the hopper chute to allow a desired flow of material out of the hopper while vibrating
    f. Let the machine fill the portioning hopper. If material is stopping or clogged gently assist the material out of the chute or down the feed ramp
    g. When the current weight is greater than 75%, the linear feeder will automatically slow down to the preselected slow feed rate. Verify the material flows desirable in both modes.
    h. If the machine is overfilling the bag the screen will flash red. Adjust the feed rates so the machine is no longer over feeding product into the portioning hopper. This can be done by reducing the fast and/or slow feed rate depending on the material being portioned.
    i. With adequate settings established bagging can begin. The hopper loading will illuminate while the product is loading. When ready to de dumped, the “Full” icon will illuminate. The operator can either use the foot switch or push the “Dump” button to dispense into the funnel.
    j. The machine will automatically start refilling the portioning hopper until it is at the desired weight or until the “Pause” button is pushed.
4. Electronics troubleshooting
    a. Fuse listing
        1. Power supply module
        2. PLC
        3. Not used
        4. Power on/off and emergency stop fuse
        5. Load Cell conditioner
        6. Touch screen display
        7. PLC I/O board for inputs and outputs
        8. 24VDC Solenoid
    b. Condition
        i. Machine Does not turn on
            1. Check that the Emergency stop button is not pressed- pull to reset if so
            2. Check Fuses inside the electronics enclosure (Unplug the machine to remove power before checking/handling any fuses) Replace any fuses with the same rated fast blow fuse if needed
        ii. Linear Feeder does not vibrate
            1. Check that the feed rate is not set to low on the preset edit page-Set above 50% to verify if vibrating
            2. Check the exposed circuit board inside the electronics box. If there are no red lights illuminated (See figure 2) check the fuse under the board. Replace with a 15 Amp fast blow if needed. (Unplug the machine to remove power before checking/handling any fuses)

3. Compare the figure below to the inside of the electronics enclosure. If there is a light not illuminated like that in the figure 2 below contact the manufacturer for further assistance.

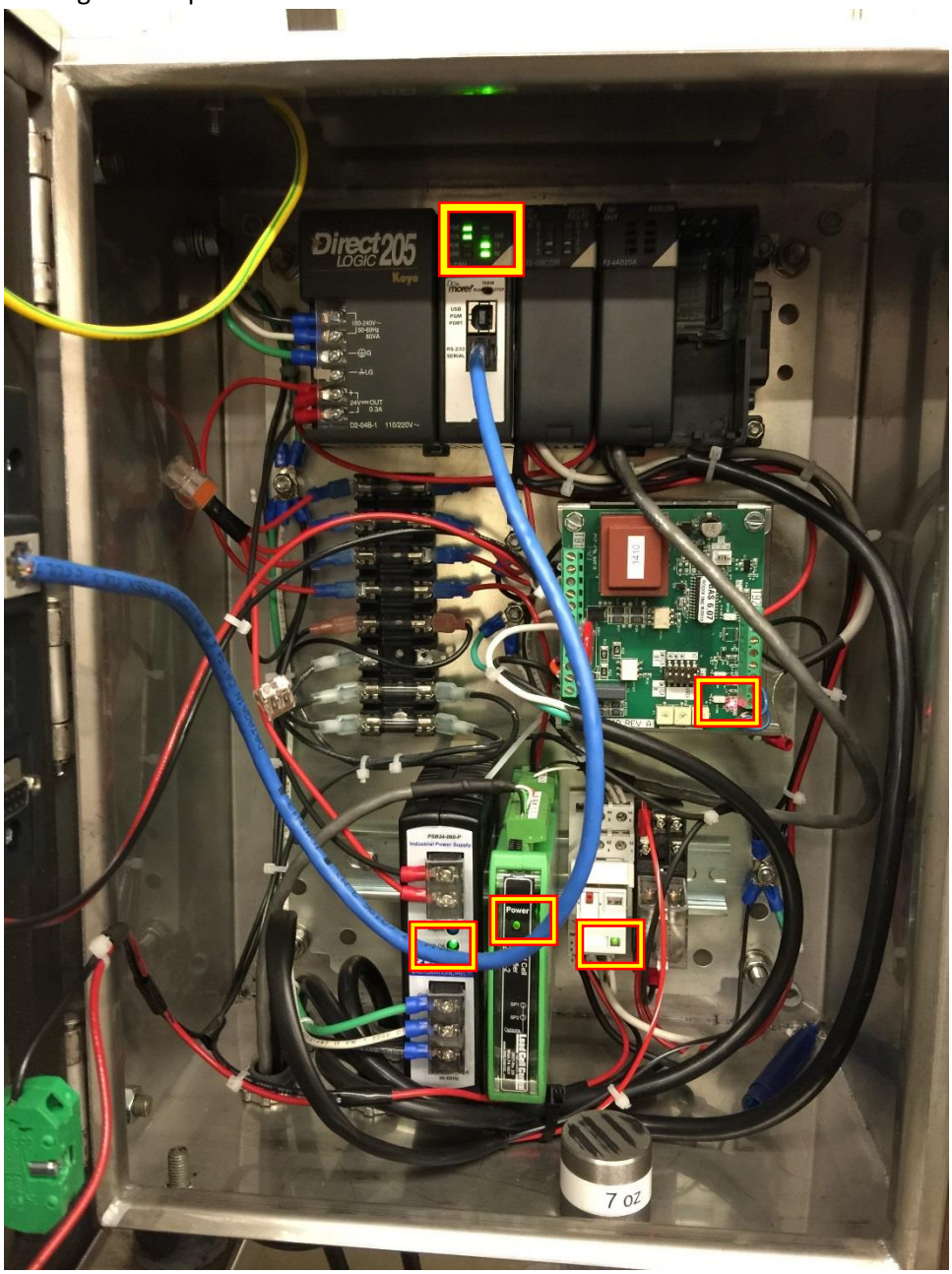
iii. Weigh Hopper does not dispense
   1. Check the 24 VDC Power supply in the electronics enclosure. If the power light is not illuminated turn off the power and check the fuse 1
   2. Check that the bottom right relay and the PLC light output card light up like in figure 1 for 1 sec or as long as the foot switch is pressed. If it doesn't and all the fuses are fine then contact the manufacturer for further assistance.

iv. No value displays from the Scale
   1. Check fuses 1 and 5 after pushing the run button and pausing the machine. Replace id needed
   2. Verify the load cell green LED illuminates and the PLC is on- if it does not then contact the manufacturer for further assistance.

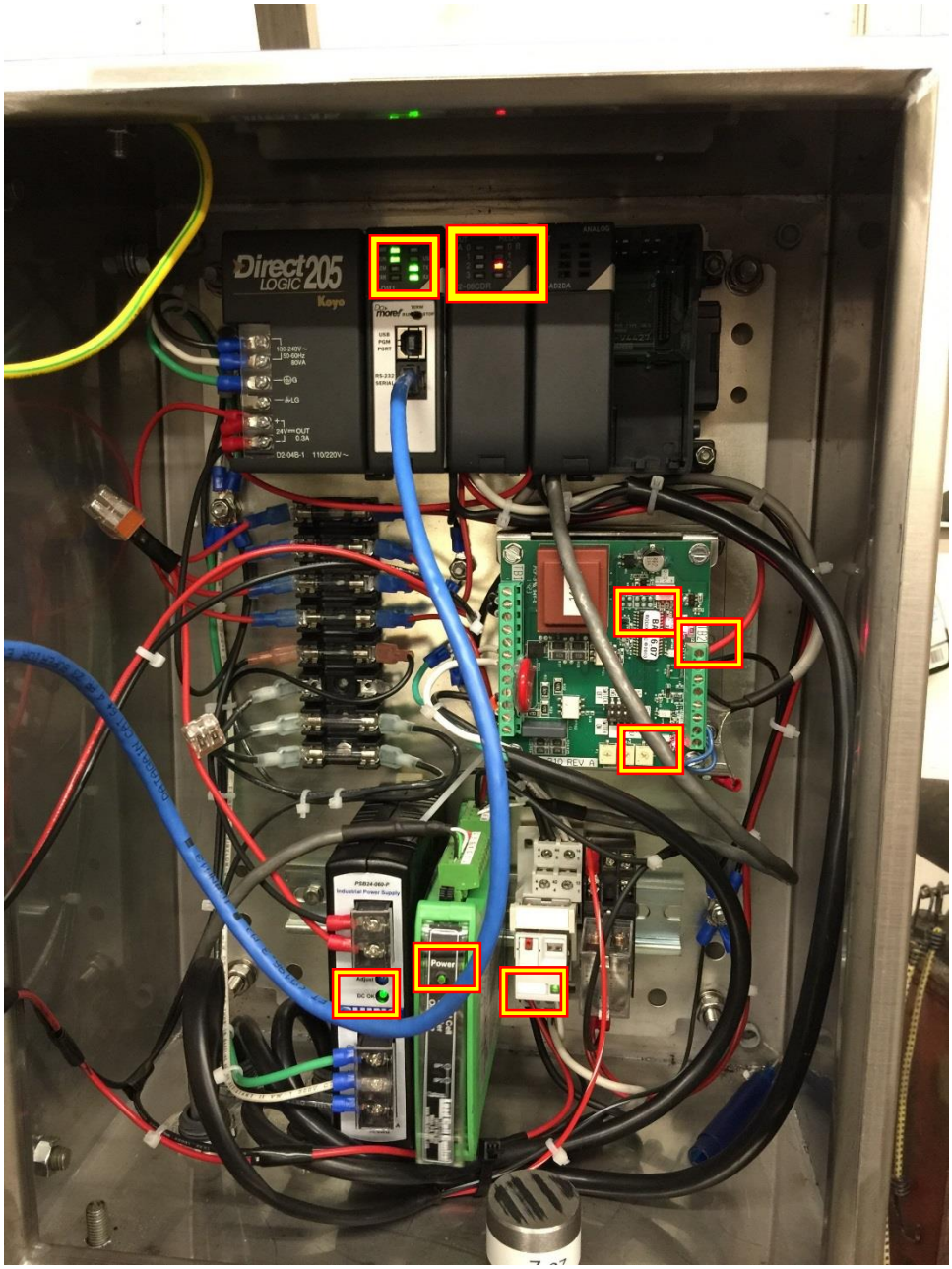
v. Error Message PLC time out
   1. Check that the blue rj32 cable is plugged into the plc and the touchscreen
   2. Verify the PLC is on- if it is not and the fuses are ok, contact the manufacturer for further assistance

c. Lighting and function figures

i. The machine should have the following lights illuminated when turned on and waiting for an operator command



ii. The machine should have the following lights illuminated when the run button is pushed



iii. The machine should have the following lights illuminated when dumping the weigh hopper