# Sloan Implement Combine Quick Guide

JOHN DEERE

# 60 Series Combines

By

**SLOAN IMPLEMENT**

Call Center help line #
217-693-6209

# Table of Contents

# Hydro Handle
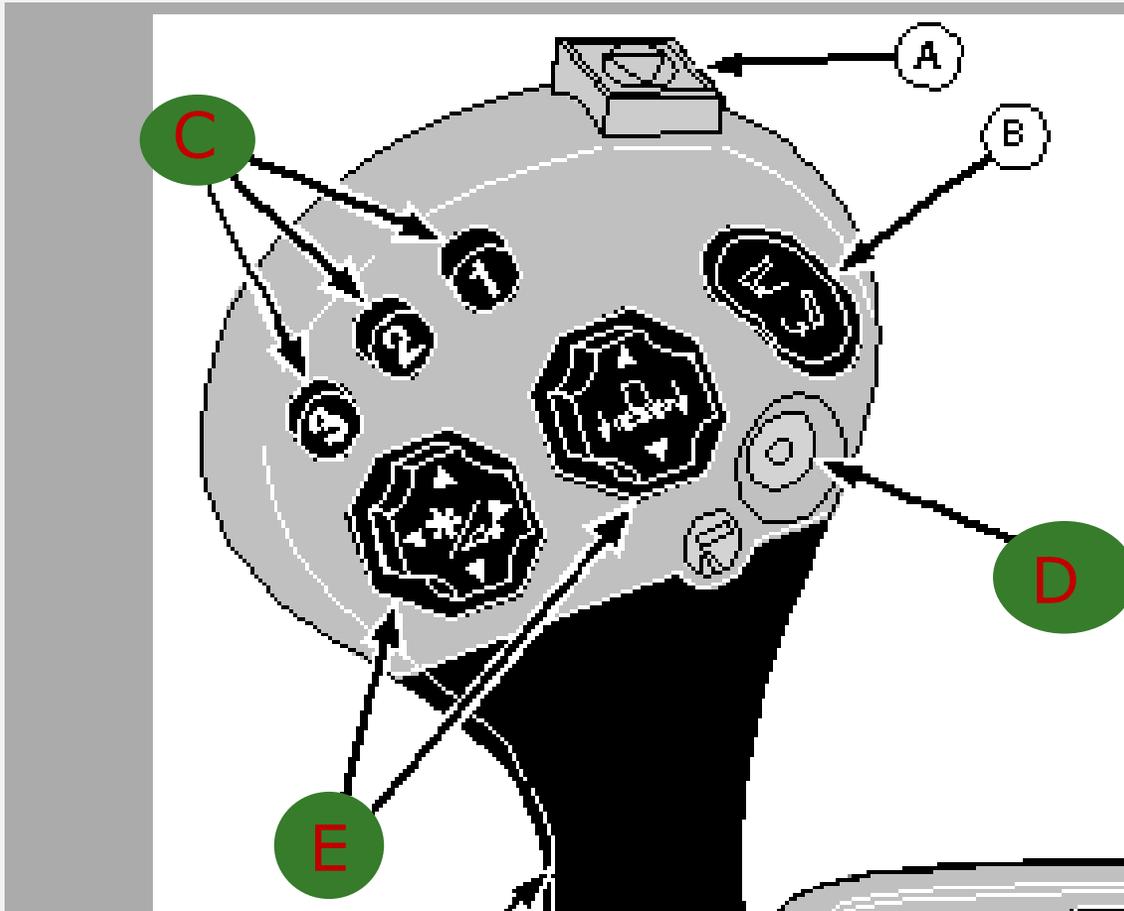
- A = Quick Stop Button
  - Will shut off header and unload auger in emergency

- B = Unloading Auger Swing
  - 5 position button
    - Swing in/out manual
    - Swing in/out auto

- C = Auto Header Activation
  - 1 = Header raise
  - 2 & 3 = header return to cut

- D = Unloading auger engage and disengage

- E = Header function switches
  - Left up/down is reel up/down and FH speed up/down
  - Left right/left reel f/a and deck plate open/close
  - Center is header up down and tilt right left

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# Armrest Display Buttons



A.  Manual Hydraflex Pressure adjust

B.  Header Switch

C.  Separator Switch

D.  Field/Road Mode Switch

E.  High, Mid, Low Engine Speed

F.  High/Low 4wd

G.  Rigid Draper Belt Speed

H.  Manual Reel Speed

I.  Concave Clearance

J.  Cylinder Speed

K.  Fan Speed

# Armrest Display Buttons



L. Chaffer Clearance Adjust

M. Sieve Clearance Adjust

N. Spreader Speed Adjust

O. Header Height/Hydraflex Pressure Encoder

P. Auto Reel Speed Encoder

Q. Manual Header rate of Drop Dial(Under armrest)

R. Auto Header Sensitivity Dial (Under Armrest)

# Lower Cornerpost Display
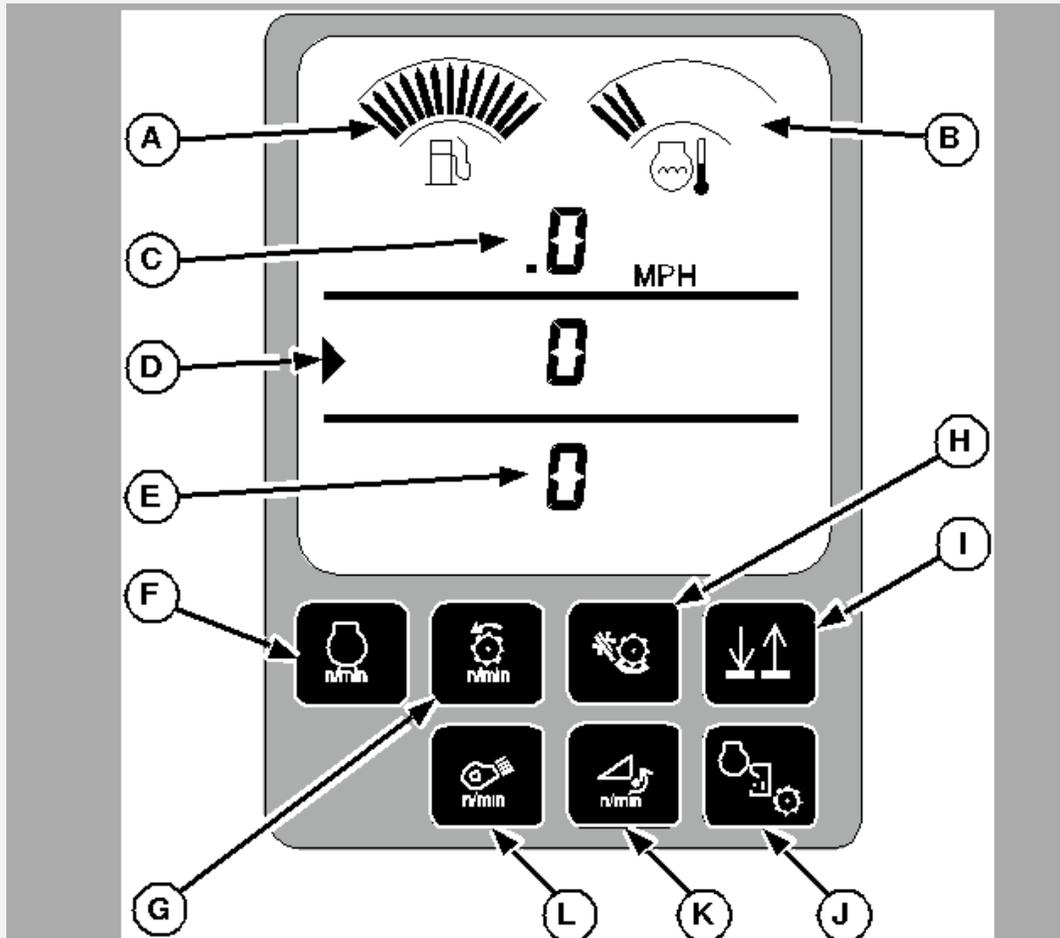
LEGEND:

A - Fuel Gauge
B - Coolant Temperature Gauge
C - Upper Line Display
D - Middle Line Display
E - Lower Line Display
F - Engine Speed Button
G - Threshing Speed Button
H - Concave Clearance Button
I - Up/Down Arrow Button (Display Line Select)
J - Engine Hours/Separator Hours Button
K - Backshaft Speed Button
L - Fan Speed Button

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# 2nd Cornerpost Display-Grain Loss Monitor
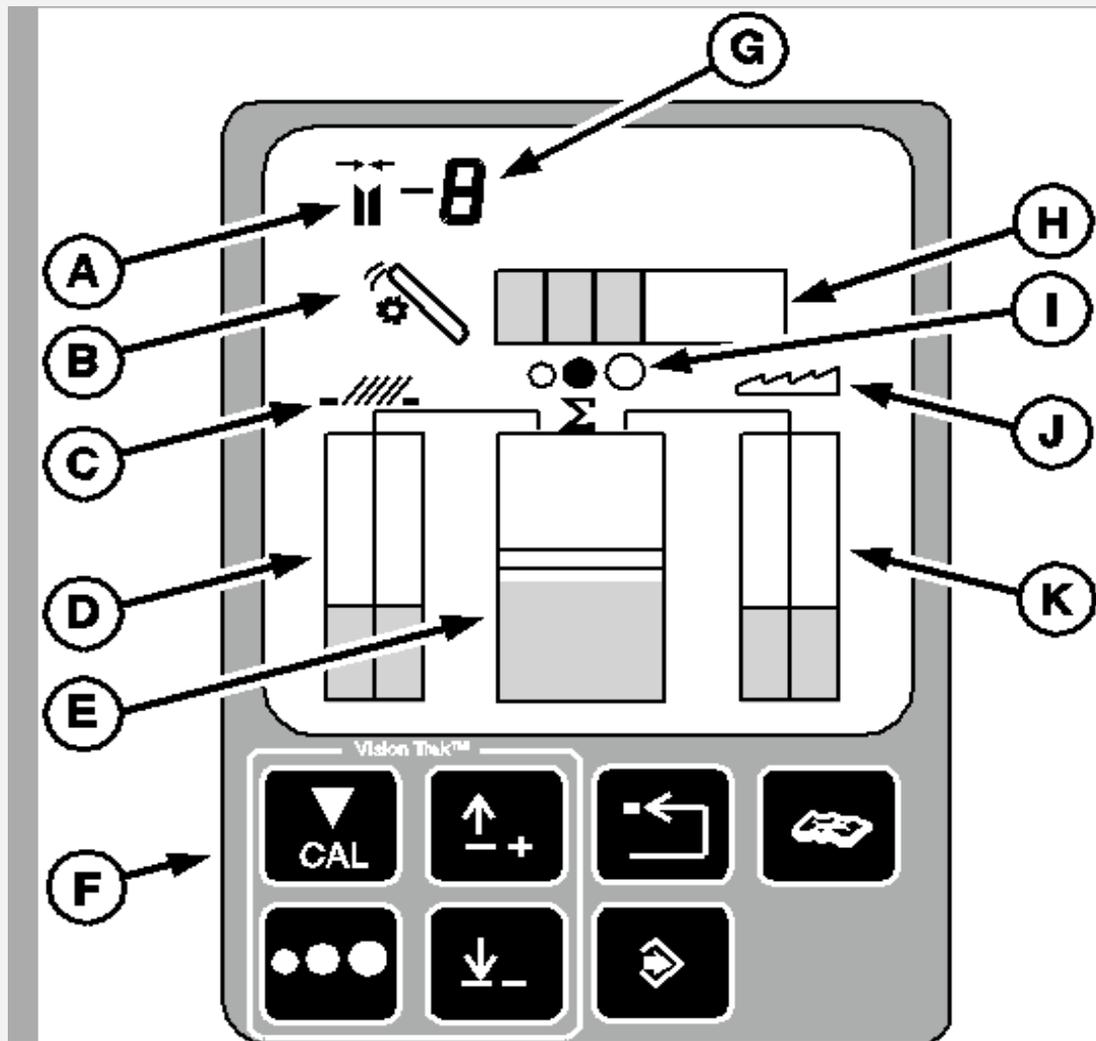


A.   Deck Plate Indicator Icon

B.   Tailings Indicator Icon

C.   Shoe Loss Icon

D.   Shoe Loss Bar Graph

E.   Total Loss Bar Graph

F.   User Interface Buttons (See next page)

G.   Deck Plate Position (0-10)

H.   Tailings Volume Bar Graph

I.   Seed Size

J.   Separator Loss Icon

K.   Separator Loss Bar Graph

# 2nd Cornerpost Display-Grain Loss Monitor
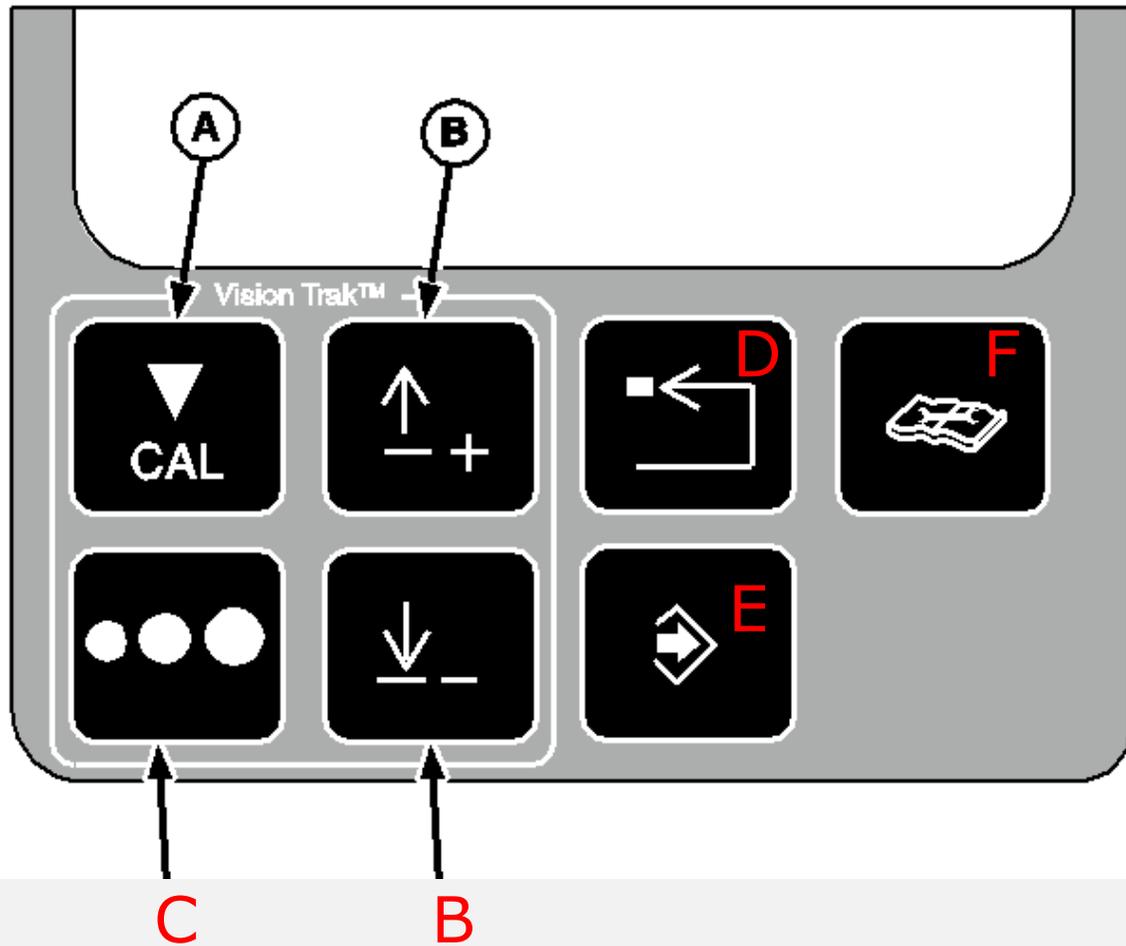
A. Calibration Button-Use to set the center/total loss bar graph to the center

B. Navigation Buttons-Use to change the sensitivity of the loss monitor or to navigate the display for calibrations in diagnostic mode

C. Seed Size Selection Button-Grain Loss Monitor

D. Back out or Escape Button

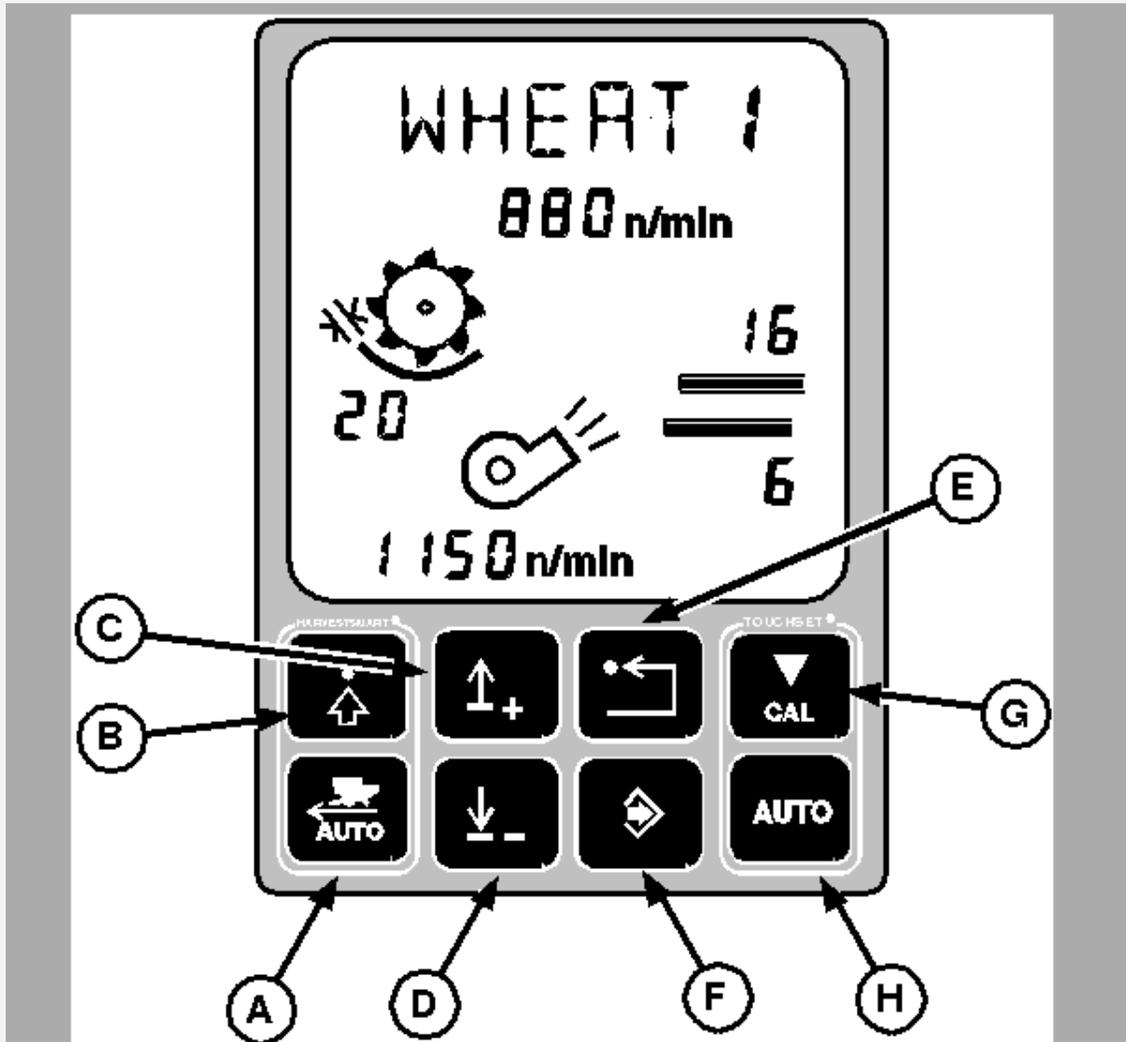E. Enter or Accept Button

F. Diagnostic Button

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# 3rd Cornerpost Display-Header Control Display
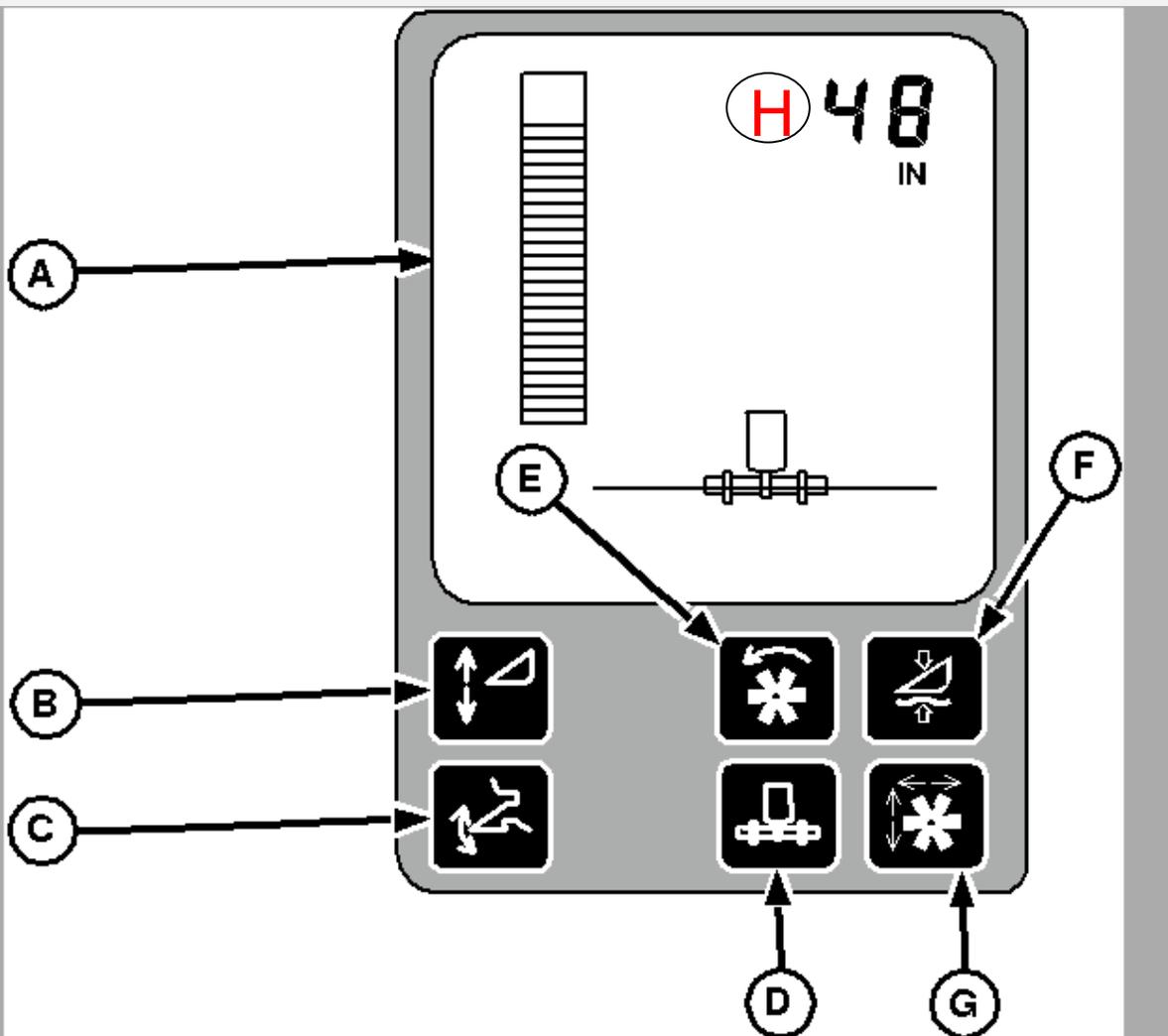
A. Header position bar graph

B. Header Height Sensing Enable Button

C. Header Height Resume Enable Button

D. Contour Master Enable Button

E. Automatic Reel Speed Enable Button

F. Rigid Mode (Never use this button)

G. Automatic Reel F/A or Auto Deck Plate Button

H. Header position/Hydraflex pressure

Make sure B, C, and D are all on with any header that has ground sensing. Letter F should always be off. An Icon matching the button will appear on the screen when that function is on. If header does NOT have ground sensing then only use letter C with all others off.

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# Top Cornerpost Display-AutoSet



A. HarvestSmart Engage (Optional Equipment)

B. HarvestSmart Enable (Optional Equipment)

C. Navigation Button-Use to change crop name

D. Navigation Button-Use to change crop name

E. Escape or Back out Button

F. Enter or Accept Button

G. Cal Button-Used to change custom settings

H. Activate AutoSet for combine to set the machine to the displayed settings (must have separator engaged)

Use arrows (C&D) to select desired crop. Engage separator at full throttle and press the Auto (H) button. Settings will flash as combine adjusts to the factory settings for the selected crop.

# Initial Crop Settings-Corn

Corn over 25% moisture

- Concave – 30
- Cyl Speed – 400
- Fan – Wide open (1200+)
- Chaffer – 22
- Sieve – 12
- Feed Accelerator – Slow (Belt outside postion)
- FH Drum – Up
- Chopper – Slow w/ knives out
  - Chopper belt-inside postion = slow

Corn under 25% moisture

- Concave – 30
- Cyl Speed – 350
- Fan – 1200
- Chaffer – 22
- Sieve – 12
- Feed Accelerator – Slow (belt outside postion)
- FH Drum – Up
- Chopper – Slow w/knives out
  - Chopper belt-inside postion=slow

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# Setting the combine in corn

- With engine off, raise the chopper, put belt on top of top belt shield to prevent movement. Connect chopper speed sensor bypass connector to disable the alarm with chopper raised.

- Set combine to initial settings listed on previous page or preferred starting combine settings.

- Begin harvesting at a speed that will keep the engine around 2250 rpm while going through the field. Note the loss monitor indicators and the tailings monitor.

- Perform a power shut down. To do this, press the low idle button and then quickly shut off the separator switch and pull the hydro handle to neutral. Allow engine to cool and shut down.

- Check behind the header for losses. Inspect deck plate settings. Should be wide enough for stalk to enter put tight enough to reduce ear shelling.

- Check to make sure that the corn head auger is not damaging grain on the ear. Raise auger until it will not engage singular ears.

- Check around the combine for other leaks or losses before the rear of the combine.

- Look at the cob condition. Cobs should be fully round and not "split". Broken in ½ or by 1/3 is ok. There should be no kernels left on the cob. If kernels remain on a round cob, tighten the concave. If cobs are split then concave is too tight.

- Look for free grain on the ground behind the machine. Remember to factor in the header loss and reduce the overall loss by this number. Losses equal to one bushel per acre with the chopper raised and not turning:
  - 8 row – 8 kernels per square foot = 1 bu/acre loss
  - 12 row- 10 kernels per square foot = 1 bu/acre loss

- Look on the chaffer to see if free grain is present.  If so open the chaffer or increase fan speed.

- Check the grain tank for trash.  If grain tank has excessive trash, reduce sieve clearance if tailings volume was not overly high or increase the fan speed.

- Remember to use the loss monitor indicators to determine whether more loss is from the cleaning system or the cylinder.  Make adjustment accordingly.

- If tailings volume is high and the grain tank condition is acceptable, open the sieve.

- If kernel condition is not acceptable, consider installing feed accelerator slow down kit and smooth feed accelerator bars.

- If rotor loss has excessive free grain, increase rotor speed.

- If this does not reduce rotor loss to acceptable levels, install tailings return cover plates (BH84535) in right side of machine.

- Make sure that the spacers are between the separator grates and the top cover channel in every other separator grate.  This will reduce the corn cob bits in the tank and let the crop fluff and provide turbulence in the crop flow to help grain to separate from trash.

- Repeat until losses are acceptable

- Once losses are acceptable, lower chopper, re-install belt, and re-connect the chopper speed sensor.  Remember to operate the machine with engine rpm around 2250.  Running for extended periods below this will increase losses and reduce grain tank cleanliness.

- Concave-15

- Cyl Speed-550

- Fan Speed-1000

- Chaffer-16

- Sieve-8

- Feed Accelerator-Slow in dry stems(can help with seed quality)-Fast in green stems (belt outside position is slow, inside is fast)

- FH Drum-Down

- Chopper Speed-High-Insert knives as necessary to size residue(belt outside postion)

- Make sure to remember to slow variable speed FH belt all the way down

# Setting the combine in soybeans

- Raise the chopper, remove belt and install belt on upper belt shield, plug in chopper speed sensor bypass harness to disable the alarm.

- Set the combine to the initial settings on the previous page or to other preferred settings.

- Begin harvesting at a speed that keeps the engine rpm around 2250.  Running consistently lower than this could increase losses and decrease grain tank cleanliness. Note the loss monitor and the tailing monitor volume

- Perform a power shut down.  To do this, press the low engine speed button and quickly shut off the separator switch and pull the hydro handle to neutral.  Allow engine to cool and shut down.

- Inspect behind the header and determine header loss.  Remember to account for this when determining total loss behind the machine.

- Inspect around machine for leaks or other losses before the rear of the combine.

- Check on the ground behind the machine for bean pods that are not threshed.  If you have pods that are not threshed tighten the concave.

- Look for free grain on the ground behind the machine.  Seeds per square ft =1bu/acre loss with chopper raised and not running
  - 30' header=24 seeds per square foot=1 bu loss
  - 35' header=30 seeds per square foot=1 bu loss

- Remember to account for the loss behind the header in this calculation

- If you have excessive free grain loss, use the loss monitor as a guide to indicate if losses are rotor loss or cleaning shoe loss

- Continued on next page

- If losses are indicated on the cleaning shoe then look on the shoe for free grain.  Open the chaffer if you have this condition.  If free grain is entangled in trash increase fan speed.

- If you have free grain indicated on the rotor, increase rotor speed.

- Make sure that you have the spacers in every other separator grate.  This will help provide turbulence in the grain flow and increase separation of free grain.

- It will be difficult to thresh the green "butter beans" and get all of the unthreshed butter beans out of the grain tank.  Trying to do so can affect grain quality.

- A combine that is set properly should have the pods fully threshed but the pod is still attached to the stem

- Over-threshing (too tight and too fast) can cause overloading of the shoe and make keeping a clean grain tank difficult to achieve.  It can also lead to excessive free grain entangled in the trash in the rotor resulting in unacceptable losses.

-  Once losses are acceptable lower the chopper, re-install the belt, re-connect the chopper speed sensor harness.
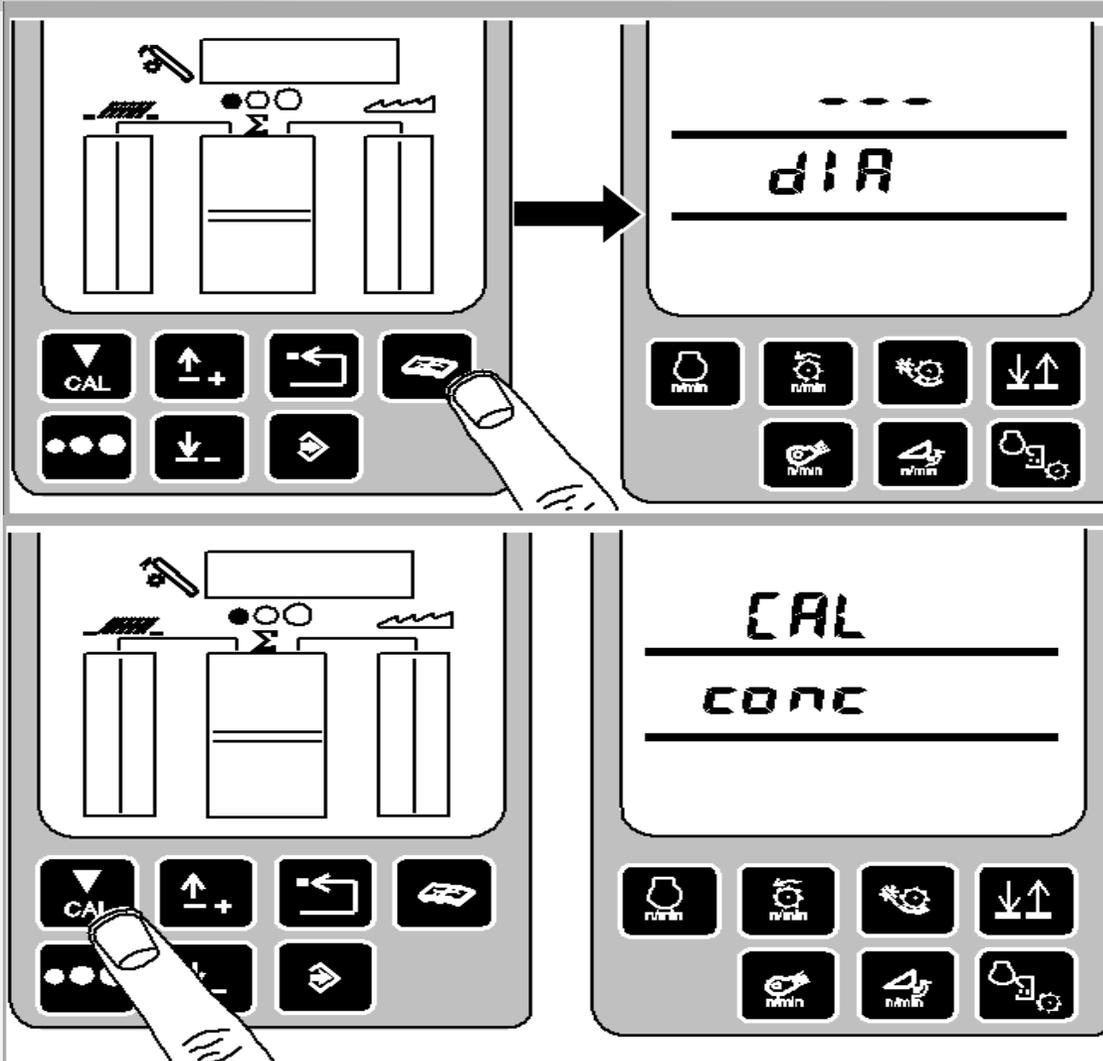
- Press the "book button"on the second display

- "DIA" will appear on the bottom screen

- Next Press the "CAL" button

- "CAL" will appear on the lower display
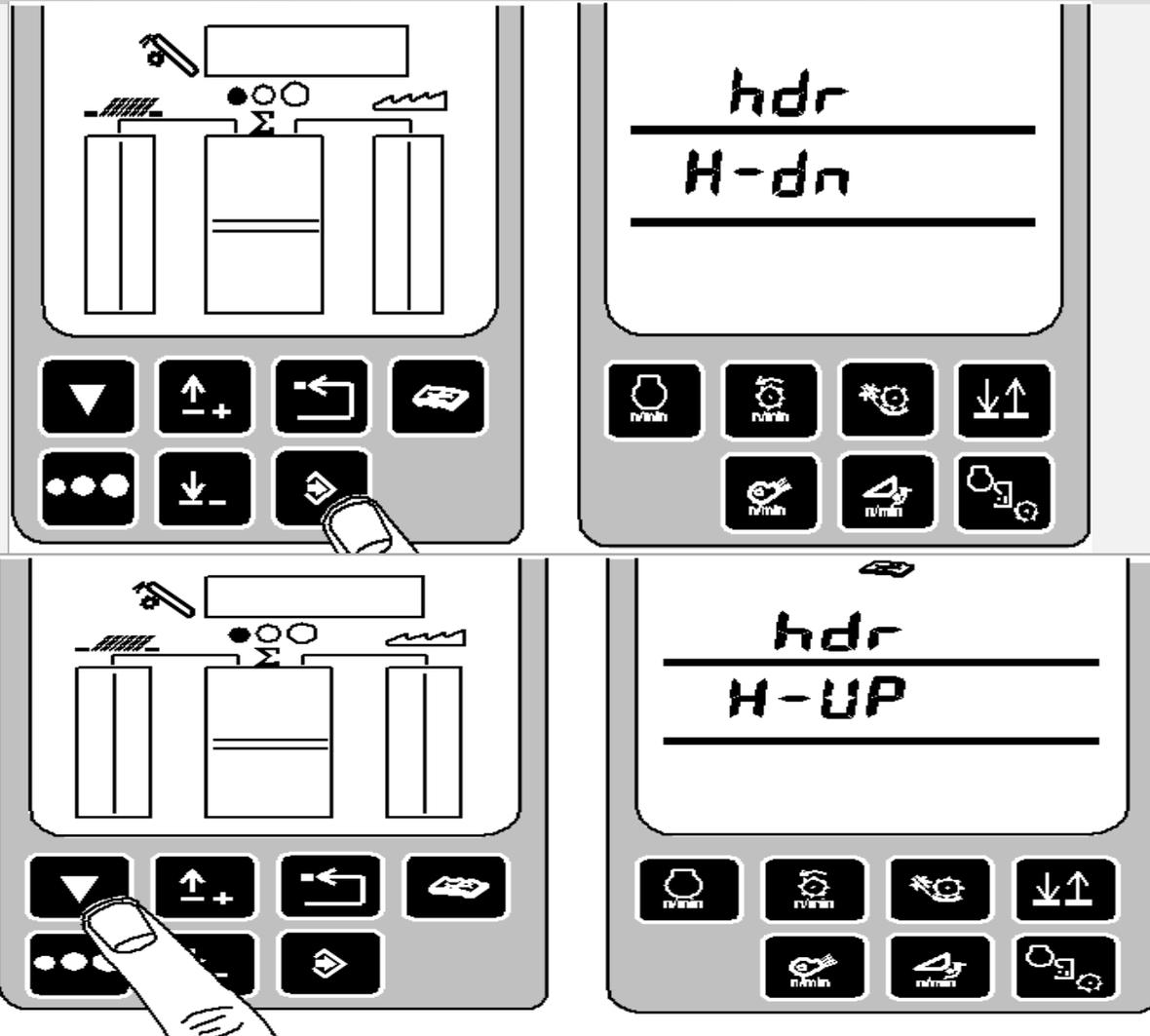
- Press "Enter" and "conc" will appear
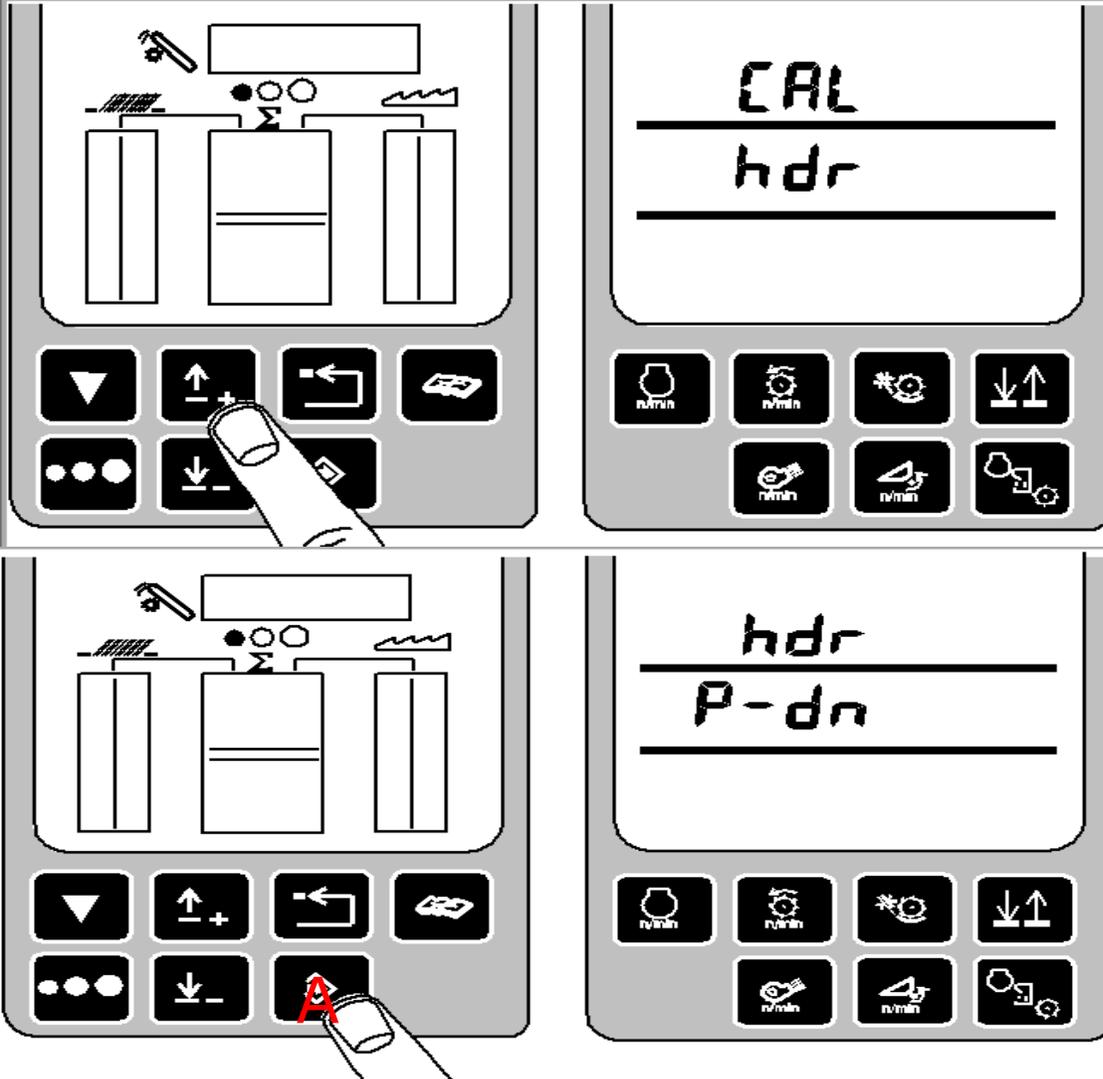
- Press the up arrow to "HDR"

- Press Enter (A)

- Press the H-Flex Button (below) to lower the Hydraflex Pressure if 600F platform is connected to below 1000 psi

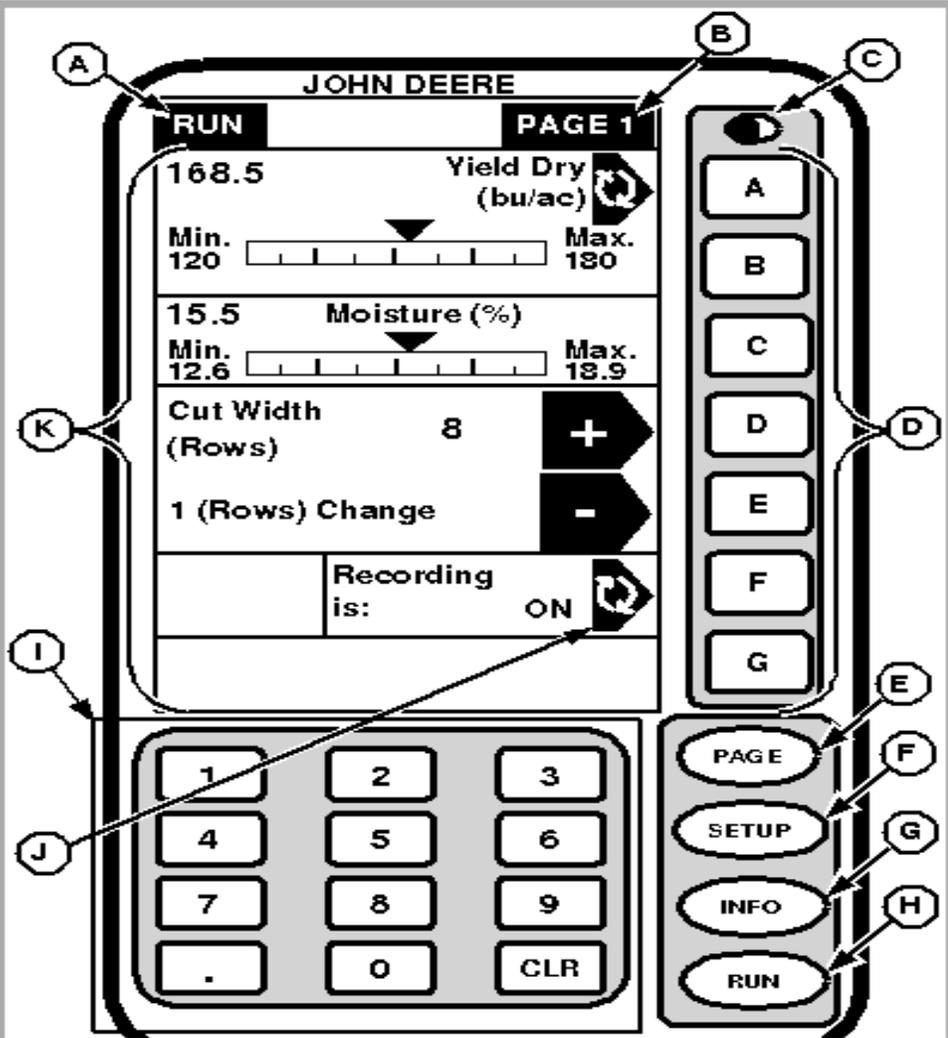- If corn head or 900F platform is connected proceed to next page
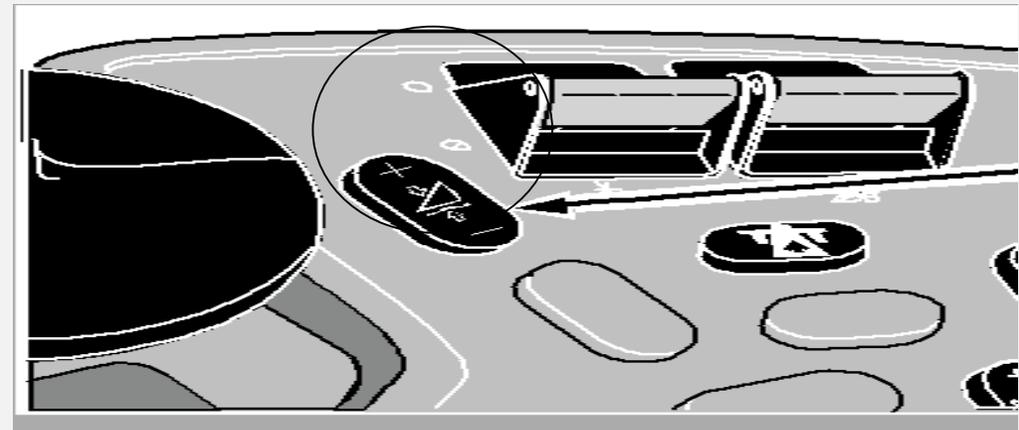
- Once you see H-dn

- Lower header all the way down

- Press "CAL"

- Raise header all the way up

- Press "CAL"

- Should get "EOC" if everything went well.

- Error code definitions are at the back of section 40 in the operators manual if they arise.

# Yield Monitor

A. Display Mode indicator

B. Page #

C. Screen Contrast button

D. A-G operation buttons

E. Page Button

F. Setup Button

G. Info Button

H. Run Button

I. Numerical Keypad

J. Recording Indicator

K. Display Screen
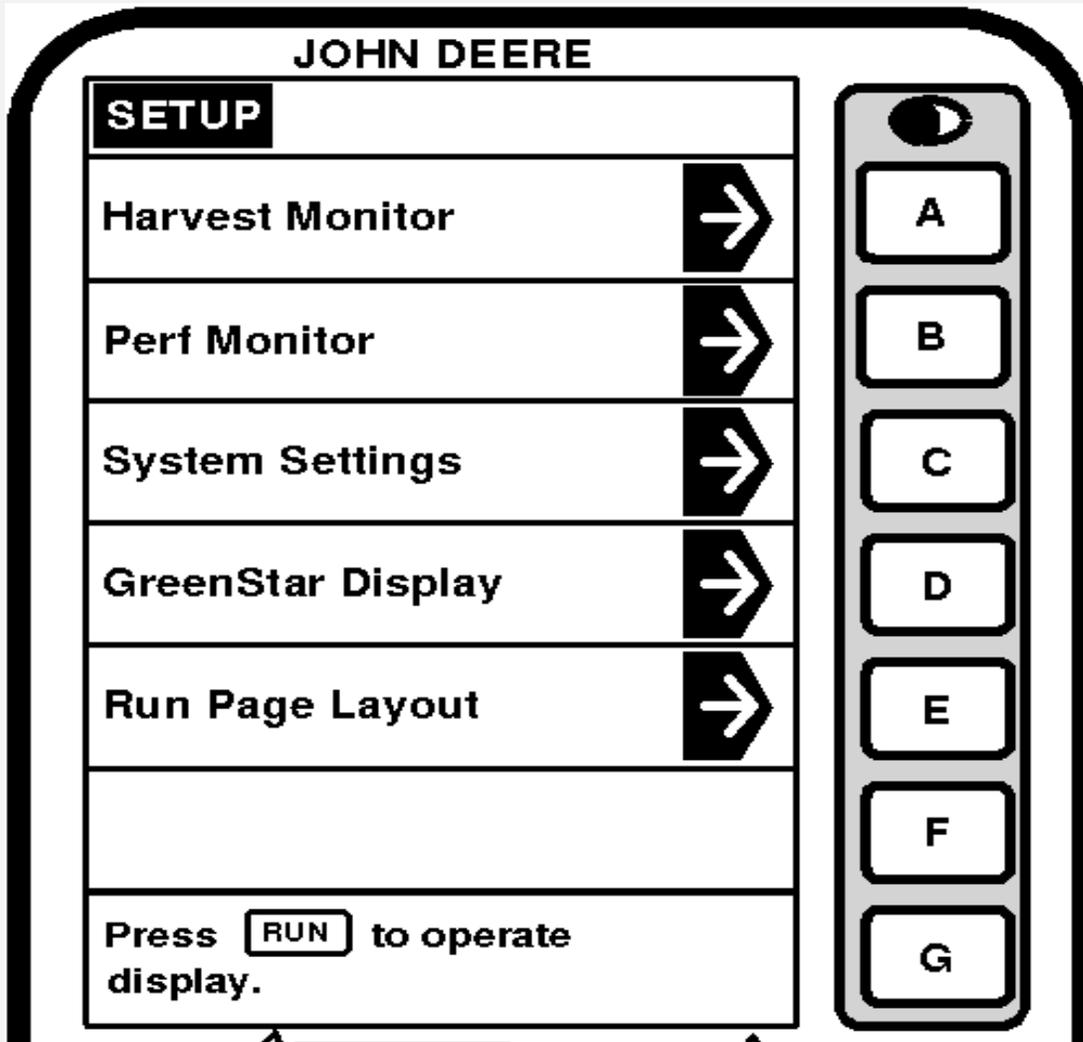
- Press the Setup Button, then press letter A next to Harvest Monitor, and then select Yield Calibration (D).
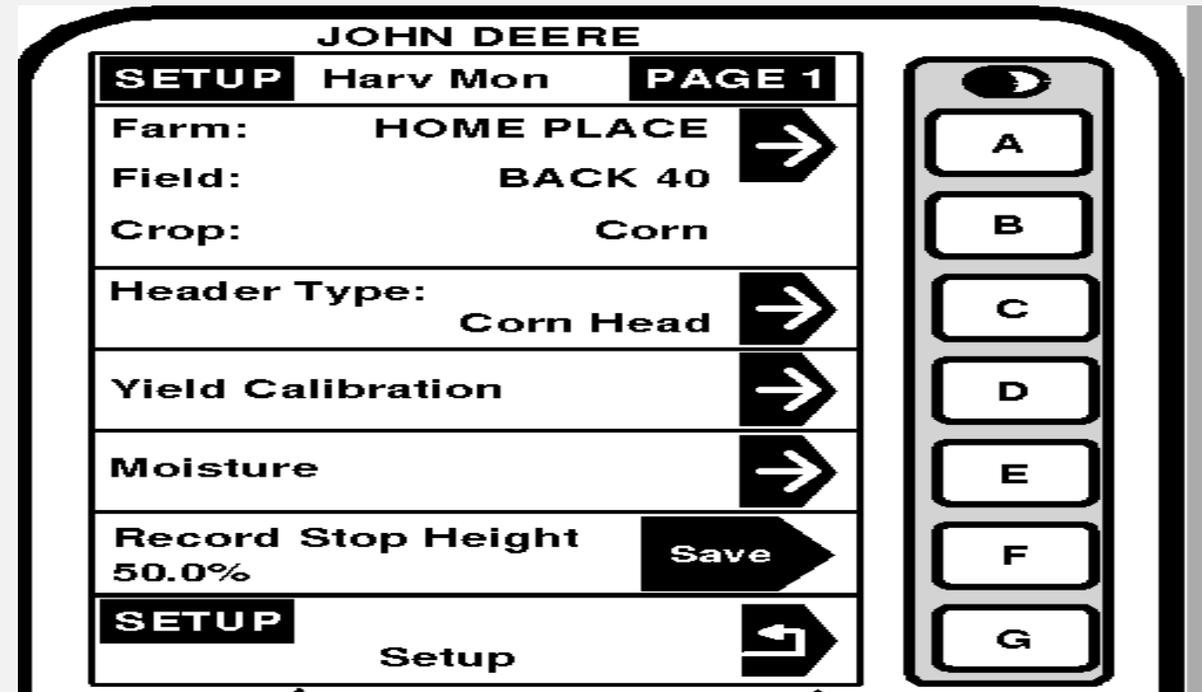
# Yield Calibration
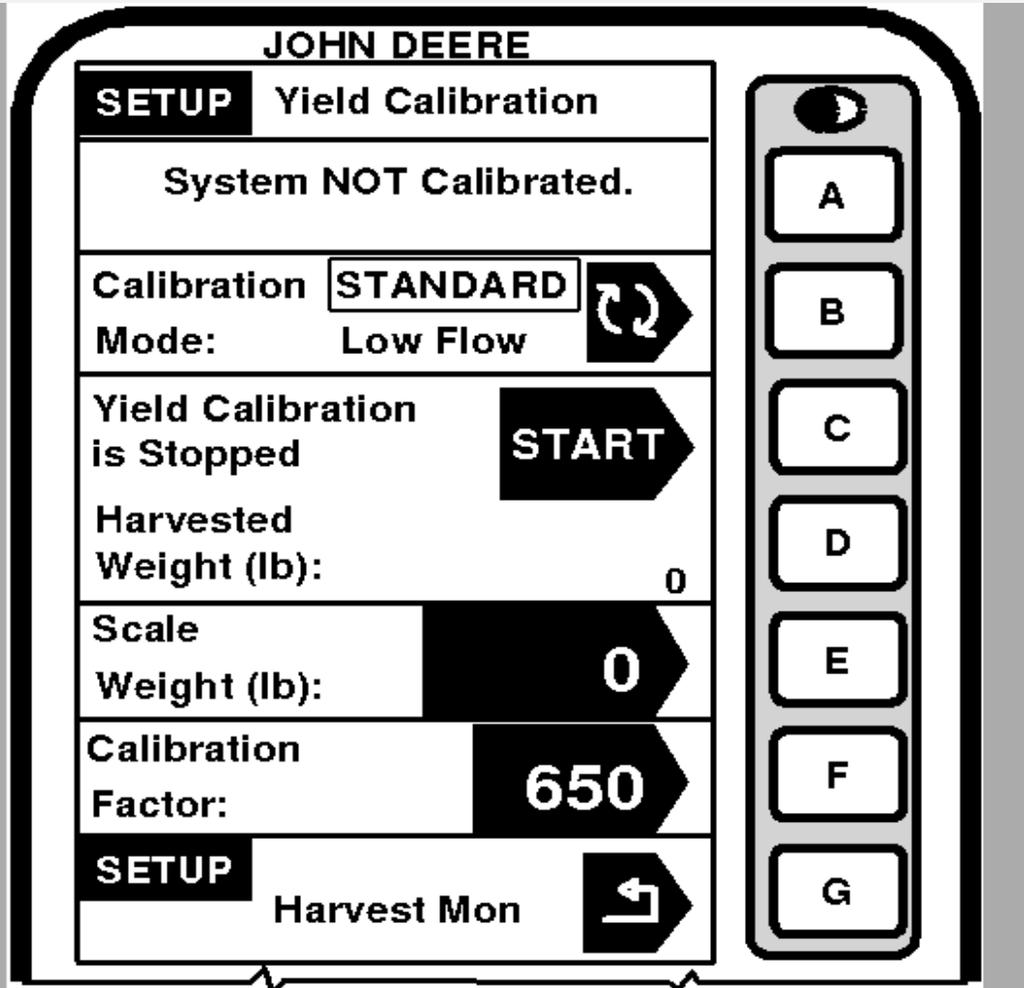


- Make sure that the combine is empty before you start.

- Make sure the field is opened up before you start. Do NOT calibrate while opening the field.

- Press the "Start" Button and make a pass through the field. The harvested weight should begin to count up as you harvest.

- Harvest at your normal harvesting speed and maintain that speed throughout the field.

- Do not make end turns, stop, or change speeds

- Once you have made the pass through field, press the "Stop" Button which will have replaced the "Start" Button once the calibration is started.

# Yield Calibration
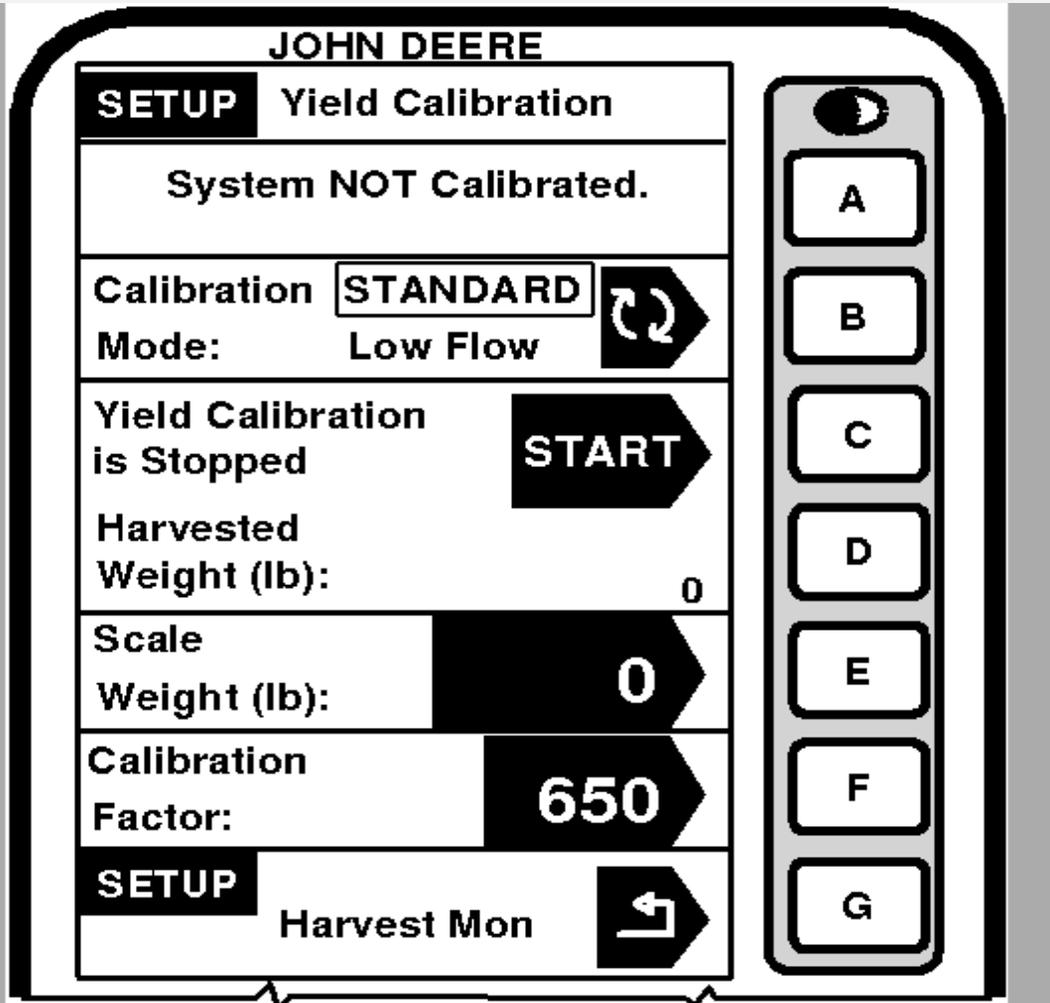


- Now weigh the grain and enter the actual weight in the "Scale Weight" line.

- This will automatically update the Calibration Factor

- You will need to do at least 3 calibrations and then average the 3 calibration factors to determine the best calibration factor.

- A weigh wagon from a seed dealer or grain cart with scales will speed this process up immensely.

- If moisture conditions change more than 4-5% you will need to recalibrate

- If average field yield changes by more than 10% you will need to re-calibrate

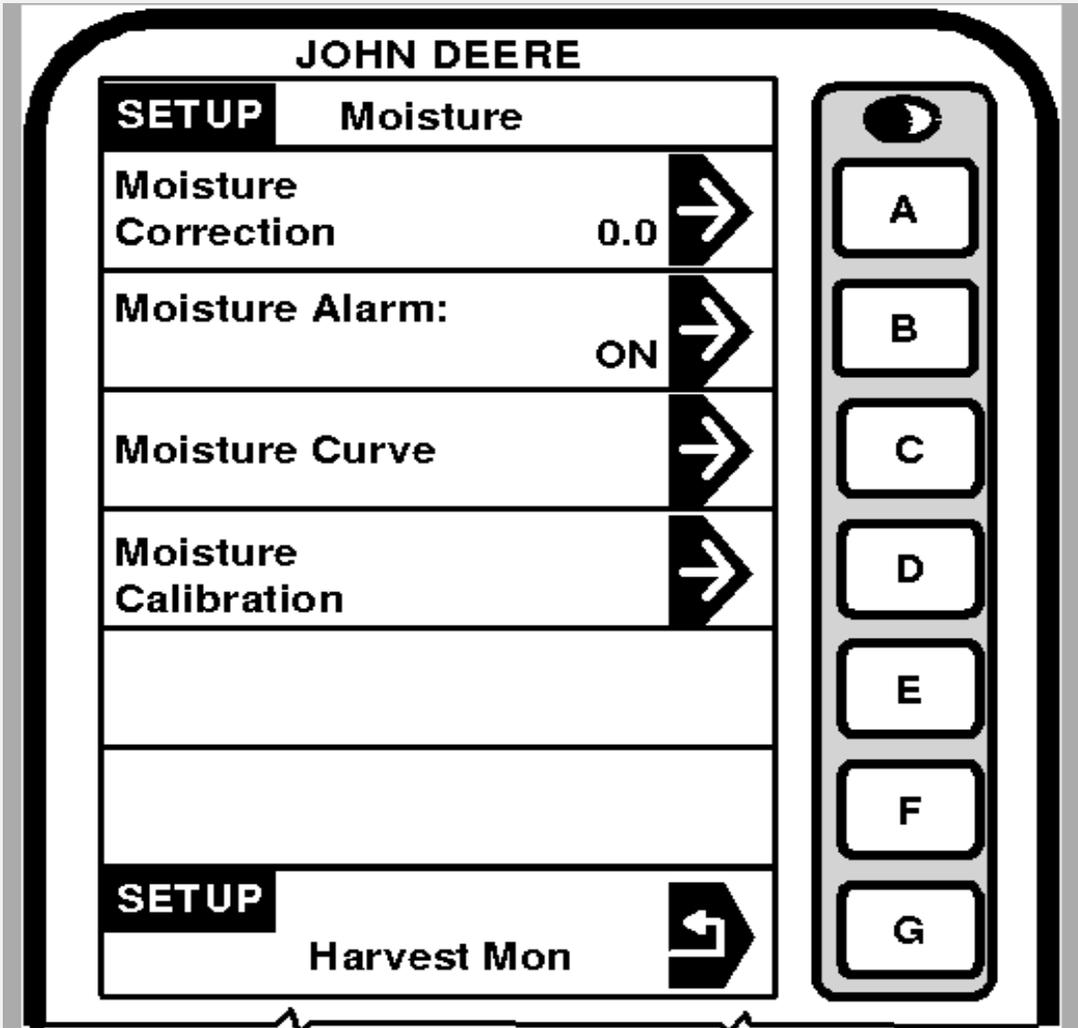- Ex: If you were in 200 bu corn and now you are in 180 bu corn you will need to recalibrate
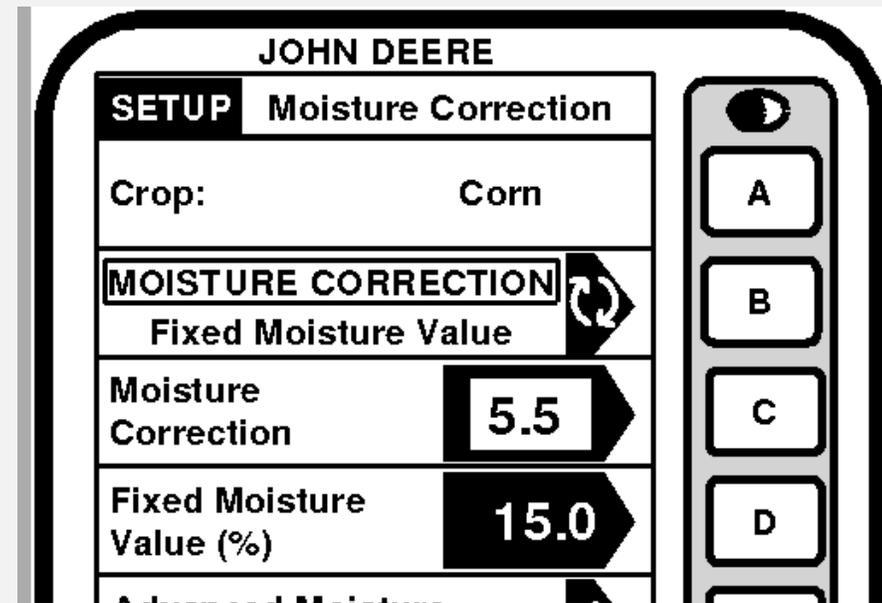
# Moisture Correction
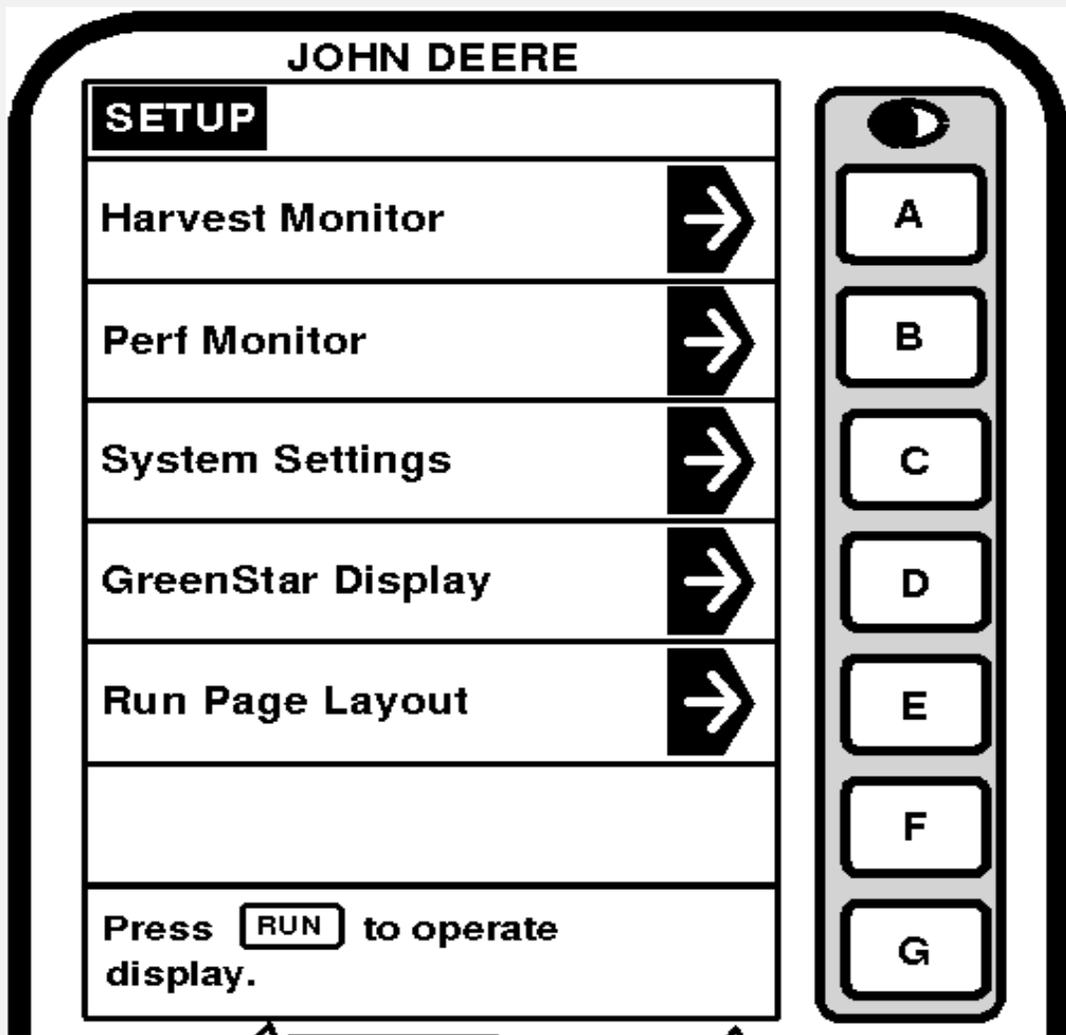


- Press the SETUP Button and then Select Harvest Monitor (A)

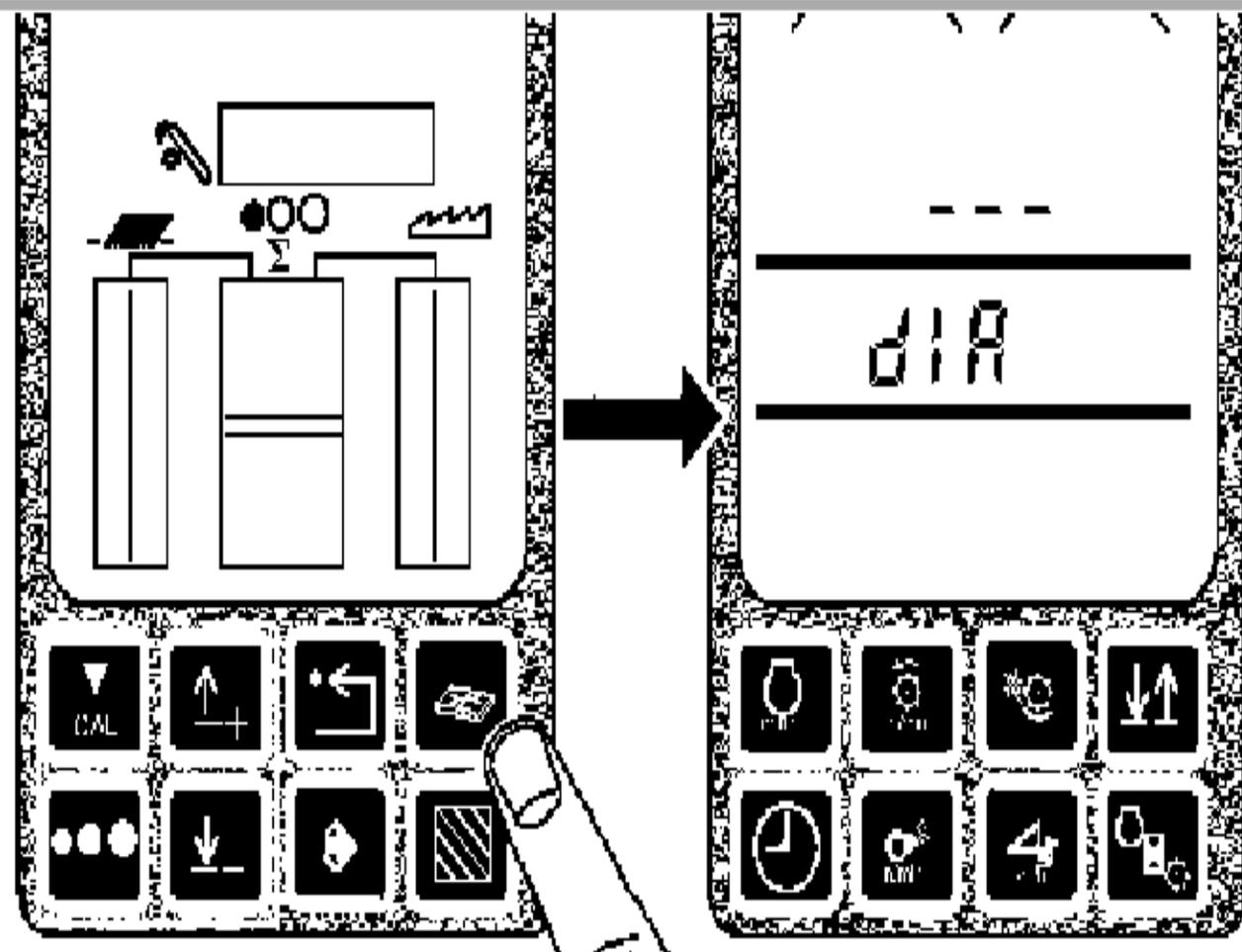- Select Moisture from the list (E)
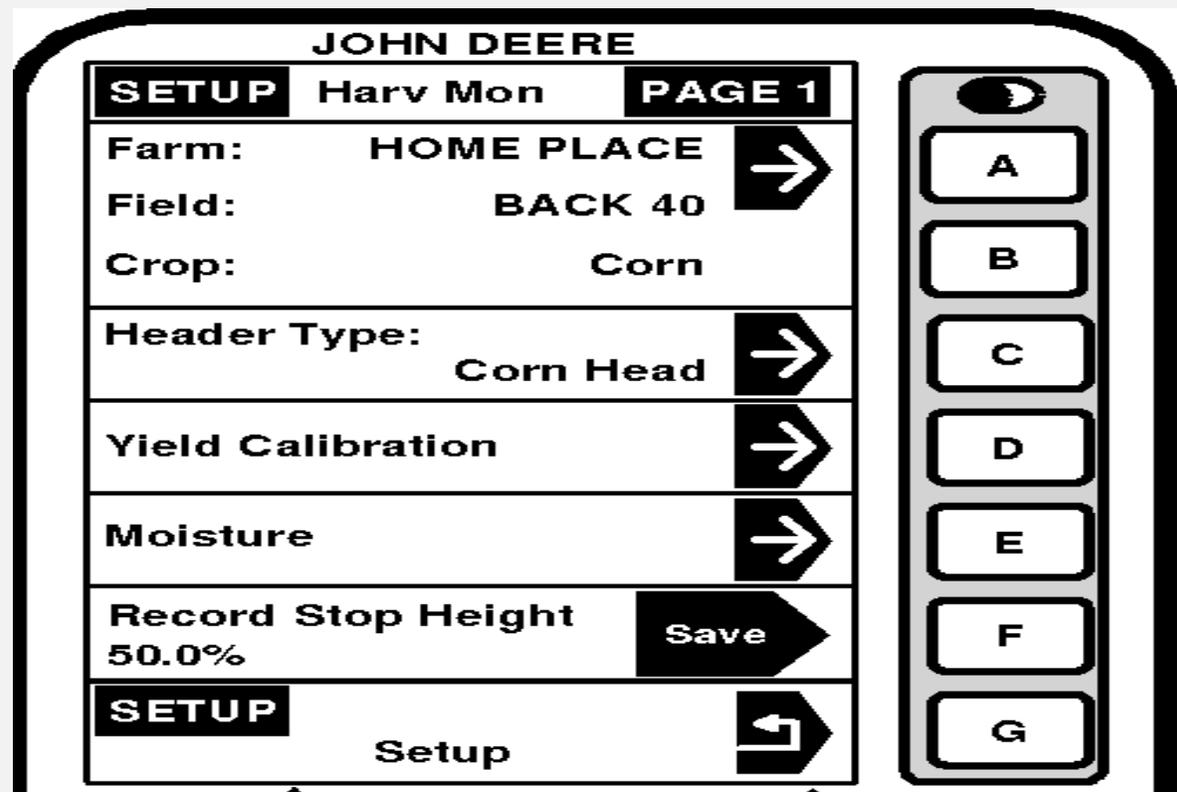
# Moisture Correction

- Select Moisture Correction (A)

- Press © and enter the correction number

- Pos+ will raise displayed moisture value
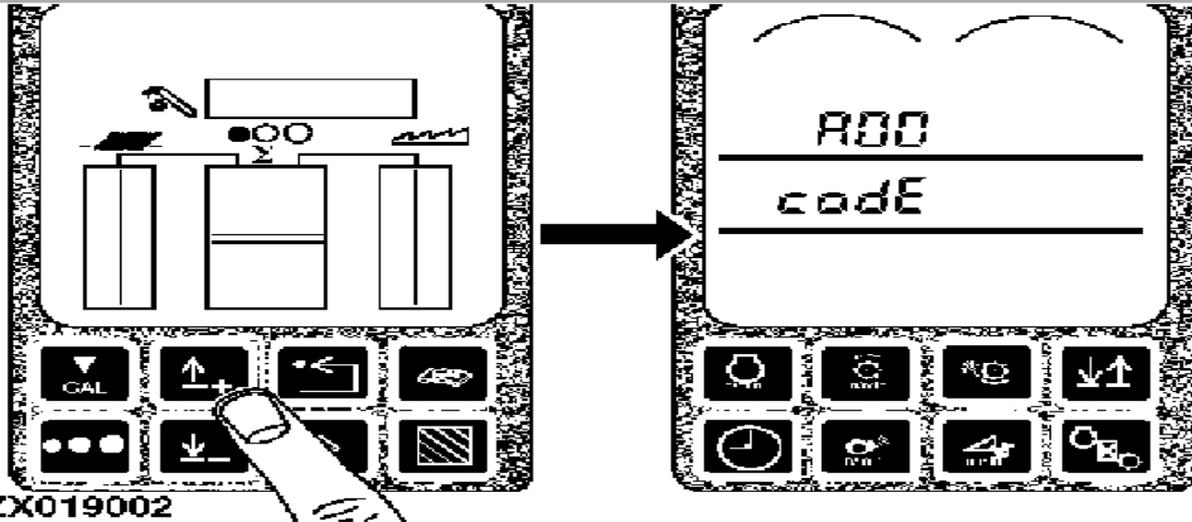
- Use the "CLR" Button to change from + to -

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# Accessing Codes

- Press the 🗐 button on the screen that is 2nd from the bottom.

- You will see "DIA" on the lower screen

- Use the UP arrow on the 2nd screen to navigate until you see "ALL" in the lower screen.
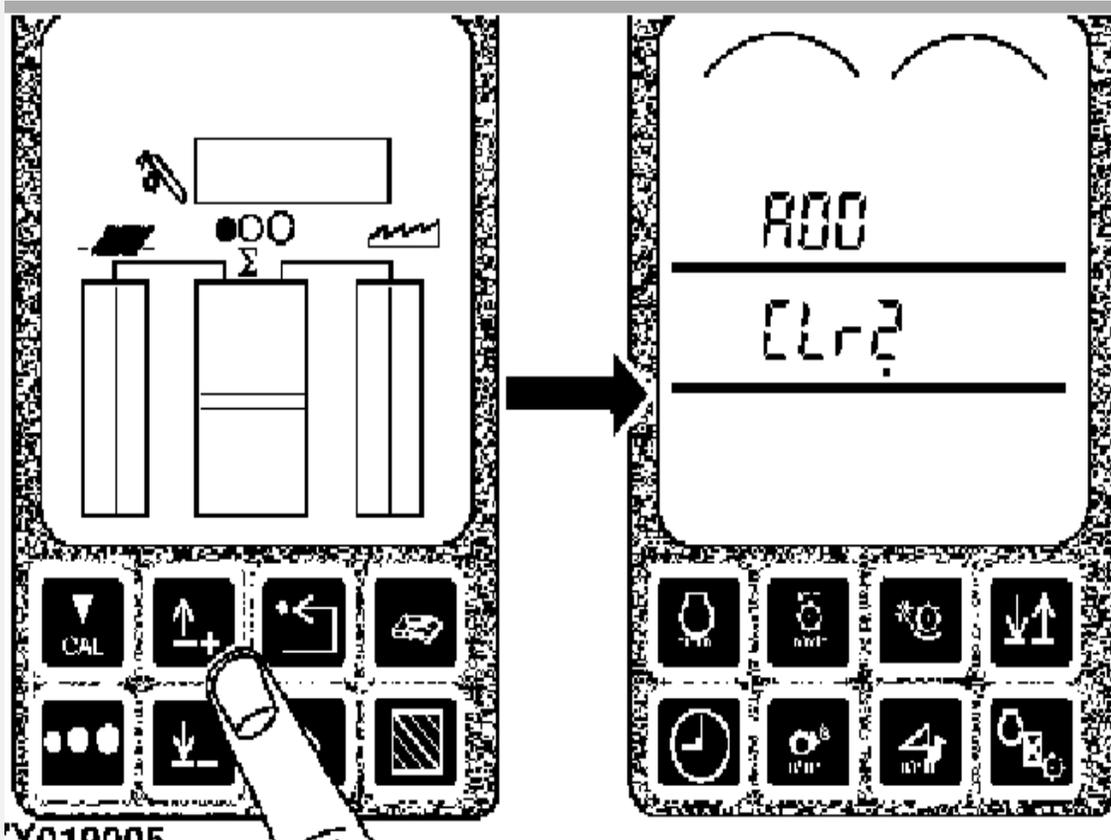
- Press the Enter – ◆ – Button

- Use the up/down arrow to navigate through the controllers.  If a given controller has a code you will see the controller listed and the word code below it.
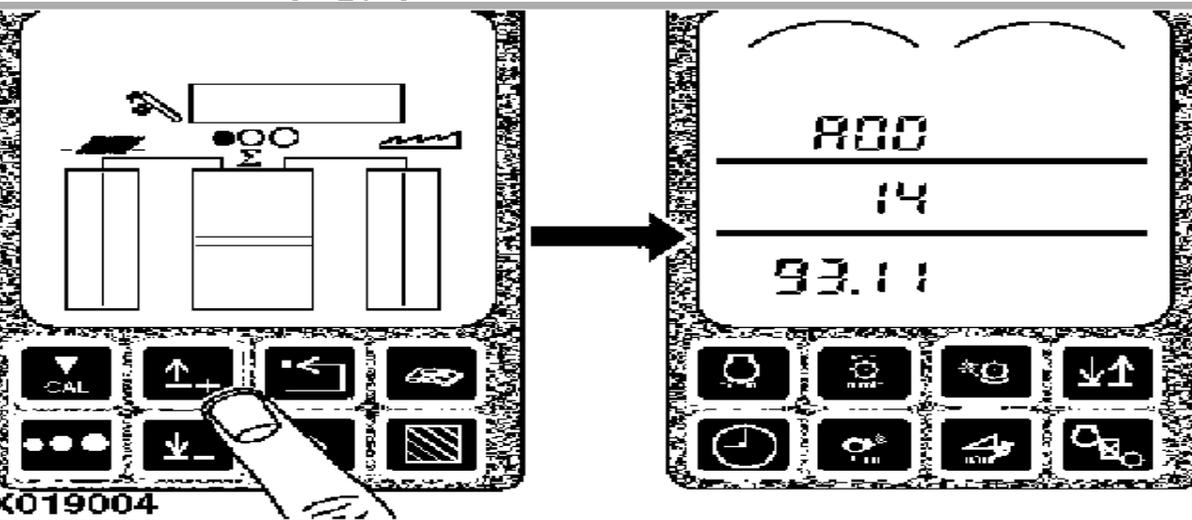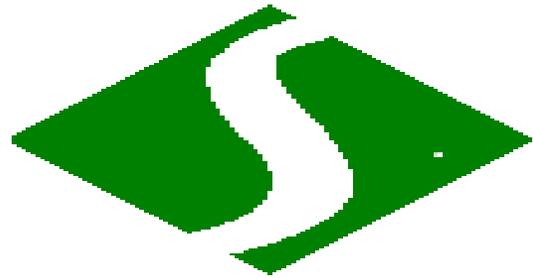
- Press the – ⬦ – button to access that controller

- The first code will appear.  Use the up and down arrow to scroll through the remaining codes

- Once you have scrolled through all of the codes you will see "CLR?" in the lower screen.

- If you wish to clear the code, press the Enter  Button to clear the codes

- To get back to the run page press the  Button a couple times

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