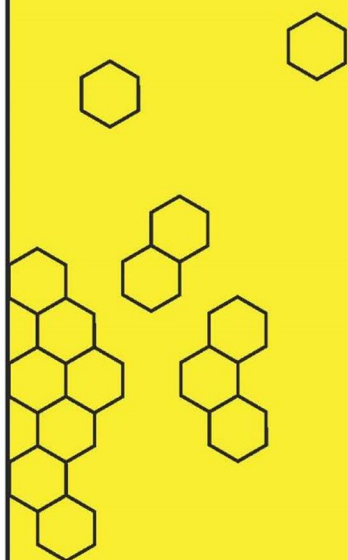


AUTOMATIX SOFTWARE  
VERSION 2.16\_095  
JUNE 2016

# AirFLEX

FLEX Header  
Operator Manual

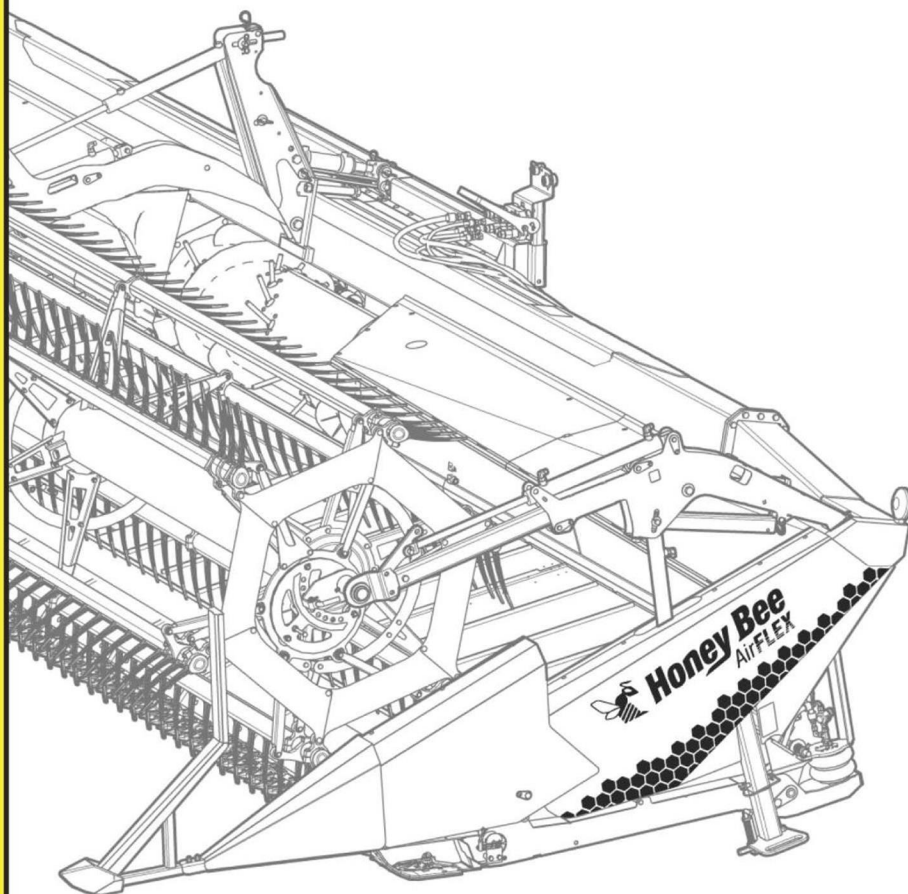


# 2014-15 AirFLEX

Operator Manual Supplement

**AUTOMATIX SOFTWARE  
UPDATE [2016 ver: 2.16]**

New display features and header functions



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## 10 - Automatix System

The two bottom rows of buttons are used for sending commands to the Automatix system and provide access to harvesting settings used in the field. The upper four buttons are used for navigating the automatix menu system. The Red button will always exit out of your current screen.

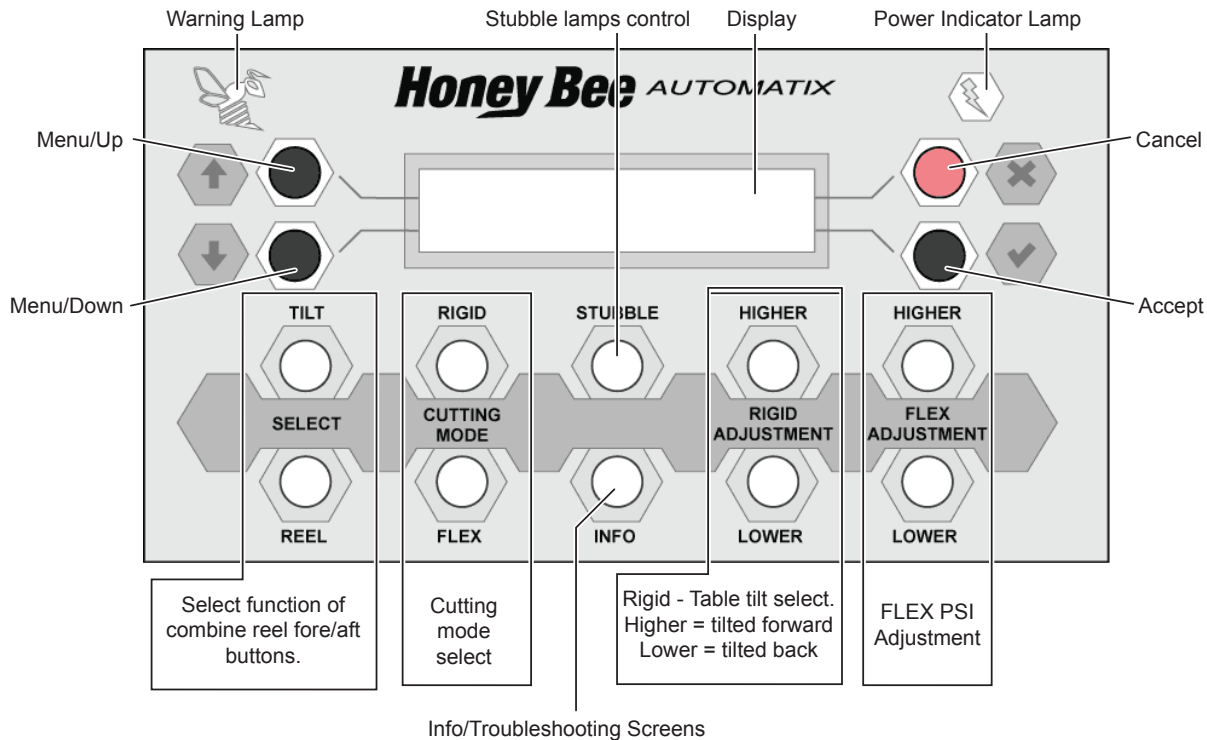
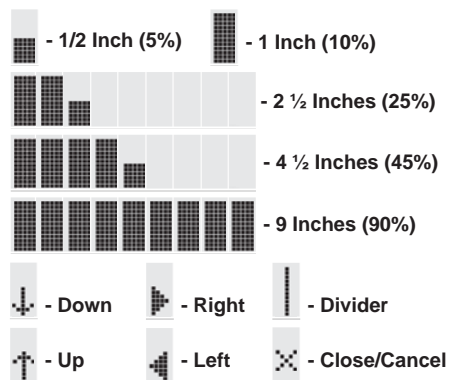


Fig. 94 - Automatix Control Panel

### 10.1 - Screen Icons

The Automatix system uses icons to provide easy to understand information at a glance.



### 10.2 - Power Indicator Lamp

**Power Lamp On:**  
Automatix is receiving power.

**Power Lamp Off:**  
Automatix is not receiving power.

**Power Lamp Flashing:**  
Automatix has lost communication with the header.



### 10.3 - Warning Indicator Lamp

**Yellow Warning Lamp:**  
System is operating normally.

**Flashing Red Warning Lamp:**  
Unacknowledged error.

**Solid Red Warning Lamp:**  
Acknowledged but unresolved error.



## 10.4 - Navigating the Automatix System

Use the four buttons located around the Automatix display to navigate the menus. The illustration below shows the relationship between the buttons and the icons shown on the screen.

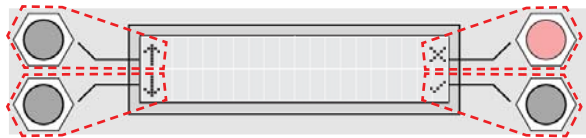


Fig. 95 - Menu Buttons & Display Screen

## 10.5 - Cutting Mode Selection

The Honey Bee AirFLEX has 2 modes of operation: FLEX and RIGID. These modes are selected by pressing the FLEX or RIGID buttons on the Automatix Control Panel.

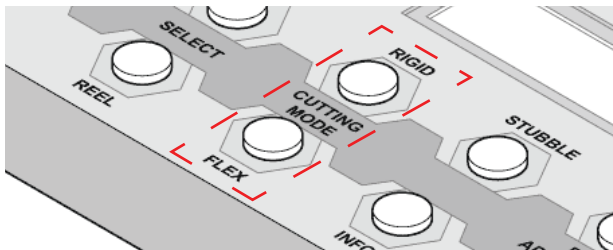


Fig. 96 - Cutting Mode Selection

The transition from RIGID to FLEX entails dumping air from the system, down to the FLEX pre-set pressure (Initially set at factory to 47 psi). This is a quick operation, taking about 60 seconds.

The transition from FLEX to RIGID entails running the onboard compressor (automatically done) until the air system pressurizes to the RIGID pre-set (about 90 PSI). The compressor takes longer to fill the system, and requires up to 15 minutes. The MODE cannot be changed while the header is in operation. This change can only be made when the knife RPM is zero (the display is in the standby state showing CUT HRS).

## 10.6 - Stubble Lights

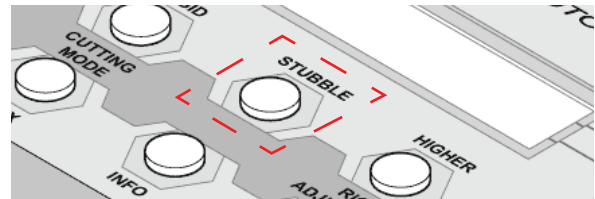


Fig. 97 - Cutter Bar FLEX Float Adjustment

This button controls the stubble lights. The stubble lights are mounted on the rear of the header to illuminate the ground so the operator can see the stubble.

This button does not impact anything on the control panel.

The stubble button backlight indicates the stubble lights current mode of operation:

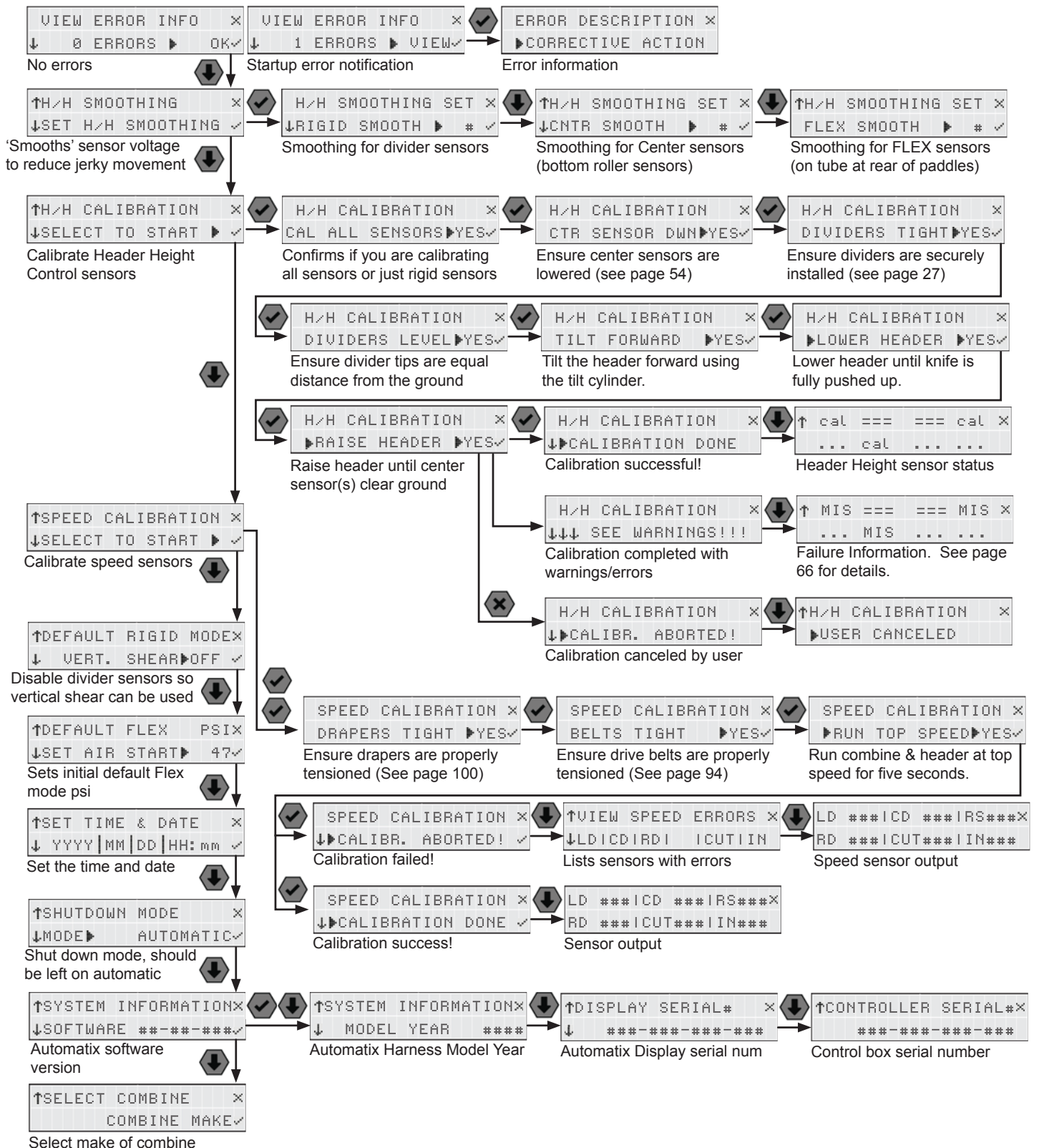
**On** - Stubble lights are on

**Off** - Stubble lights are off

**Slow blinking** - Stubble lights are on automatic and will automatically turn on when it is dark.

These three modes of operation can be cycled by pushing the stubble button.

## 10.7 - Automatix Main Menu



10.7.1 - Errors

There are 2 types of errors: Warnings & Failures.

**Warnings** indicate items that need your immediate attention such as a slipping draper. A warning will clear after displaying for 30 seconds.

**Failures** indicate that equipment has stopped functioning (such as a jammed/stopped draper) and must be addressed immediately. A failure must be manually acknowledged via the check mark button.

When an error is encountered, it will appear on the Automatix display. Pressing the check mark button will acknowledge the error and return to the main operating screen. To review the error in detail, select the 'VIEW ERROR INFO' screen via the main menu. If the error is corrected, it will no longer be visible on the screen.

The Bee Indicator Light and alert sounds will notify you of errors.

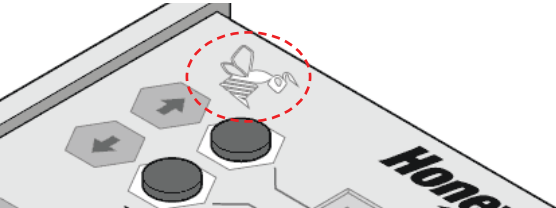


Fig. 98 - Bee Indicator Light

- Yellow Bee Indicator Light** = System is operating normally.
- Flashing Red Bee Indicator** = Unacknowledged errors are present.
- Solid Red Bee Indicator** = Error has been acknowledged but the cause has not been corrected.

Press any black button to enter the menu and view the error details.

|      |       |        |       |
|------|-------|--------|-------|
| VIEW | ERROR | INFO   | X     |
| ↓    | 0     | ERRORS | OK✓   |
|      | 1     | ERRORS | VIEW✓ |

Entering the menu, presents you with the ERROR menu item (first in list). This screen will indicate if errors are present, and how many there are (if any). Below is a summary of Warnings and

Failures that the system is aware of. The 4 categories of errors are: header height, draper speeds, knife speed, air pressure issues. See sections 10.12 on page 77 and 10.13 on page 78

10.7.2 - Smoothing

|        |           |     |     |
|--------|-----------|-----|-----|
| ↑H/H   | SMOOTHING | SET | X   |
| ↓RIGID | SMOOTH    | ▶   | 3 ✓ |
| ↓CNTR  | SMOOTH    | ▶   | 3 ✓ |
| ↓FLEX  | SMOOTH    | ▶   | 0 ✓ |

The smoothing function provides the ability to reduce hunting (primarily in RIGID mode) while using a higher sensitivity setting on the combine header height system. The recommended settings are 3 in RIGID, 3 in CENTER and 0 (zero) in FLEX. These are the factory default settings. The smoothing function averages the changes in header height voltage over time. The larger the number, the longer the time.



### 10.7.3 - Header Height Sensor Calibration

#### NOTE:

If the calibration is performed while the header is in FLEX cutting mode, both the FLEX and RIGID sensors are calibrated.

If the calibration is performed while the header is in RIGID cutting mode, only the RIGID sensors are calibrated. If the header is in RIGID Vertical Shear mode, only the center sensors are calibrated.

This calibration is required when:

- The header is used for the first time
- If divider extensions are adjusted or changed
- If you change combines.
- If the header height sensor are serviced.

When the header height calibration is performed, combine header height calibration must also be done (See 7.2.5 on page 40).

The calibration process must be completed without skipping any steps.

1. Select H/H Calibration via the main menu on the Automatix control panel.



2. CAL ALL SENSORS. This screen is simply a confirmation of which header height sensors will be calibrated.

- If in RIGID mode prior to calibration, only the RIGID sensors will get calibrated.
- If in FLEX mode prior to calibration, both the RIGID and FLEX sensors get calibrated.



3. CTR SENSOR DWN. Unlock and let down the center sensor.

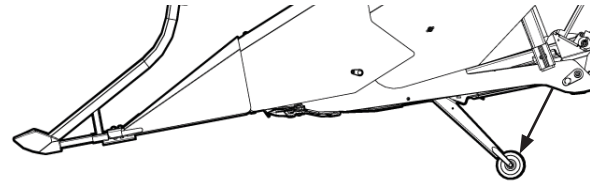


Fig. 99 - Lower center sensor(s)



4. DIVIDERS TIGHT. The crop dividers must be tightly secured prior to calibration. Loose dividers will cause inaccurate readings.

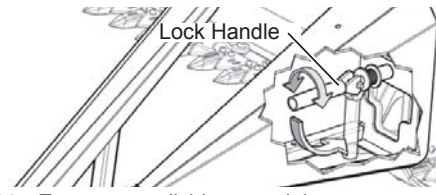


Fig. 100 - Ensure crop dividers are tight



5. DIVIDERS LEVEL. Use lateral tilt to adjust the header until the divider tips are touching the ground evenly. This ensures that the dividers are moving up/down at the same rate and simulates level ground.



6. TILT FORWARD. Tilt the table fully forward using the hydraulic tilt cylinder. Do not change the combine faceplate angle.



7. LOWER HEADER. Lower the header until the FLEX cutter bar is pushed all the way up. If the table tilts back, you have pushed too far. Once you have achieved the lowered position, wait a few seconds before selecting the check mark.



8. **RAISE HEADER.** Raise the header until the crop divider tips are about 2 feet off the ground. This ensures that the center sensor is also off the ground. Once you have achieved the raised position, wait a few seconds for the header to stop bouncing, before selecting the check mark.

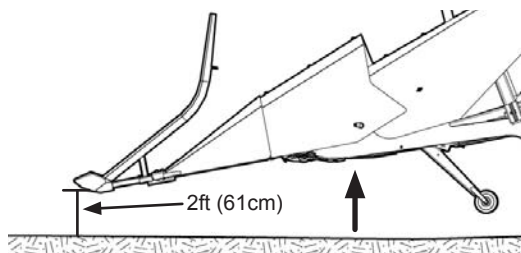


Fig. 101 - Raise Header

▶RAISE HEADER ▶YES✓

9. If successful, your Automatix display will read "Calibration Done!". Select the check mark to view raw sensor voltages, X to exit.

↑H/H CALIBRATION X  
↓▶CALIBRATION DONE ✓

↑ cal == == cal X  
... cal ... ..

#### 10.7.4 - Header Height Calibration Warnings

This screen will show if at least one of the header height sensors calibration failed. This can be caused by something limiting the physical range of motion of a sensor or by a faulty sensor. If any of the voltages are not changing enough (they must change by a minimum of 1.5 volts), then a physical look at the sensors and linkages will be required.

H/H CALIBRATION X  
↓↓↓ SEE WARNINGS!!!

↑ ERR == == ERR X  
... ERR ... ..

The calibration results screen indicates which sensors were calibrated and if any problems are encountered.

**cal** - The sensor was successfully calibrated

**ERR/DNM** - The sensor did not move enough. Readings are valid, but the range of motion was not enough.

**ERR/MIS** - The required sensor readings are missing or below system threshold.

**==** - Indicates the sensor was ignored during calibration.

**...** - Optional sensor not found

**e-L, e-H, eL-, eLH, eH-, eHL, eHH** - Indicates the header height sensor linkages require adjustment.

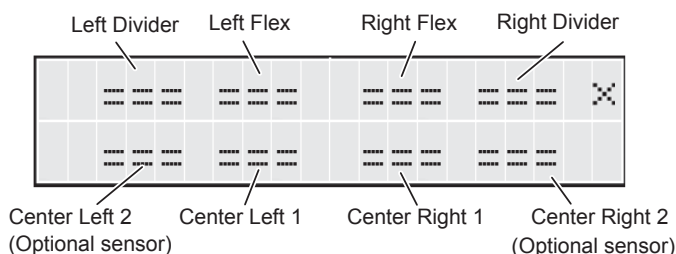


Fig. 102 - Sensor identification

See section 15.3 on page 124 for sensor locations.



### 10.7.5 - Speed Sensor Calibration

This calibrates the draper, knife, and reel speed, then relates them to the combine PTO speed so that the system can tell if a belt is slipping. When calibrated, the system will give warning if a belt is loose.

Before you start calibration, ensure the drapers and belts are properly adjusted.

1. Select 'Speed Calibration' via the main menu on the Automatix display.

```

↑SPEED CALIBRATION ×
↓SELECT TO START ▶ ✓

```

2. DRAPERS TIGHT: set your deck hardware to correct physical setting and "check mark".

```

DRAPERS TIGHT ▶YES✓

```

3. BELTS TIGHT: adjust your knife drive belt for correct physical tension. Check cog belts and pulleys and "check mark".

```

BELTS TIGHT ▶YES✓

```

4. RUN TOP SPEED: set throttle to maximum setting and wait for top speed and "check mark".

```

▶RUN TOP SPEED▶YES✓

```

When properly completed, the display will read "Calibration Done!".

```

SPEED CALIBRATION ×
↓▶CALIBRATION DONE!✓

```

```

LD ###ICD ###IRS###X
RD ###ICUT###IN###

```

### 10.7.6 - Speed Sensor Calibration Failure

If the display reads "Calibration Fail!", it indicates that one or more of the header speed sensors did not register the correct speed. Failure results in a screen that shows which sensor failed, and the speeds (in RPM) that the system sees.

```

SPEED CALIBRATION ×
↓▶CALIBR. ABORTED! ✓

```

The screen shown below displays a list of sensors (bottom row) that did not return appropriate values.

```

↑VIEW SPEED ERRORS ×
↓LD|CD|RD|RS|CUT|IN✓

```

The screen shown below displays the actual speeds (in RPM) returned by the sensors.

```

LD ###|CD ###|RS###X
RD ###|CUT###|IN###

```

- An incorrect speed indicates a gap adjustment is required. See section 13.17 on page 115 for speed sensor locations & adjustment instructions.
- No speed indication indicates a bad wire or sensor.

### 10.7.7 - Default RIGID Mode (Vertical Shear)

When operating the header with a vertical shear option, the end divider header height sensors must be disabled in order to avoid Automatix errors. The two options on this screen are:



**ON** - Vertical Shear mode enabled, end divider sensors become disabled.

**OFF** - For normal RIGID cutting mode without vertical shear installed, header height sensors work as usual.

### 10.7.8 - Default FLEX PSI

The default air pressure is the value that will be used when you change from RIGID to FLEX mode. However, if you have been in FLEX mode and changed this to another value via the HIGHER and LOWER buttons, then the last value used will be active. When the combine is restarted, the default value will be used again.

The decimal is not displayed: 475 = 47.5 PSI.



### 10.7.9 - Time and Date

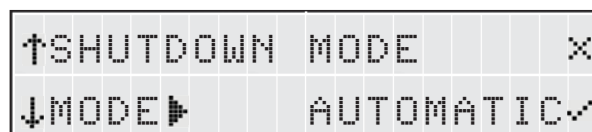
Time and date are set at the factory for Honey Bee's time zone. If operating in another time zone, adjust this to reflect your local time.



### 10.7.10 - Shut Down Mode

There are two shutdown modes which can be accessed via the main menu:

**Automatic Mode (Default):** In automatic mode, the Automatix system will monitor the combine's output voltage. When the voltage changes from approximately 14 volts (supplied via the alternator while the combine is running) to about 12 volts (supplied via the battery when the combine is shut down), the system will wait for 30 minutes then shut itself off.



**Manual Mode:** In manual mode, the automatix system will still power on with the combine, but to turn it off, you must hold down the red menu button, then release it when the power indicator lamp starts to flash.

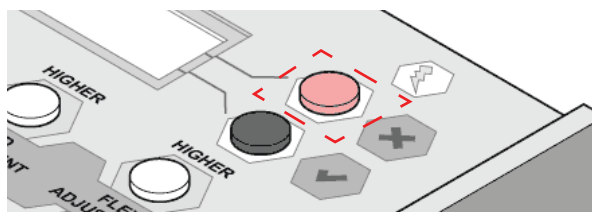
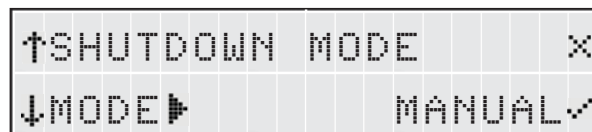


Fig. 103 - Red Menu Button

### 10.7.11 - Software & Hardware Version information.

These screens are used to show the version and serial numbers for various AirFLEX components and software. These can be useful when ordering or troubleshooting components.

The Software screen shows the Automatix software version.

```

↑SYSTEM INFORMATION×
↓SOFTWARE  ##-##-###✓
  
```

The Model Year screen shows the main automatix electrical harness version. This will be useful to service personnel to determine what features are installed.

```

↑SYSTEM INFORMATION×
↓MODEL YEAR  ####
  
```

The Display Serial screen shows the Automatix display box serial number. This will be useful to service personnel to determine what features are installed.

```

↑DISPLAY SERIAL#  ×
↓  ####-###-###-###
  
```

The fourth screen shows the serial number for the Automatix control box (located on the header).

```

↑CONTROLLER SERIAL#×
  ####-###-###-###
  
```

### 10.7.12 - Config. Info (combine selection)

The configuration screen allows you to select the make of combine to be used with the AirFLEX.

```

↑SELECT COMBINE  ×
  MAKE  ✓
  
```

To change the combine brand, select the check mark so the brand starts flashing.

Press the up and down arrows until your combine brand appears.

When satisfied, select the check mark again to lock in your selection.

#### **NOTE:**

If an asterisks (\*) is visible next to the combine name, it indicates the combine settings have been modified via the System Menu. The settings can be reset to defaults by re-selecting the combine make.

## 10.8 - Automatix System Menu

The Automatix system menu is used for making modifications to various advanced system settings. Most equipment operators will never need to access these settings

To access this menu hold the 'up' and 'down' buttons next to the Automatix display until the menu appears.

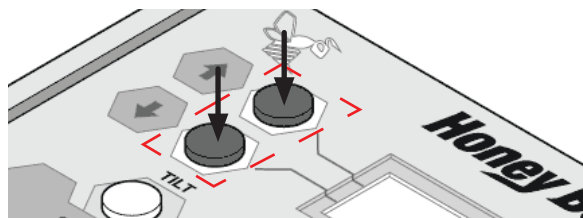


Fig. 104 - Press and hold to access system menu

|   |   |
|---|---|
| <div>AIR OFFSET</div> <div>↓ 0.00✓</div>                                  | <p>If the actual air tank PSI does not match the display, use this to offset the display values to match. (i.e. Tank is 20 psi, display shows 30 psi, enter -10 as the value to make the display match the tank)</p>  |
| <div>↓</div> <div>↑AIR FAULT RATE</div> <div>↓ 1.30✓</div>                | <p>Error threshold for air compressor, the number represents the minimum psi increase over 30 seconds. 1.3 is the default value when using 90 psi in rigid mode. If higher psi is required for rigid mode, this value must be lowered. If the fill rate drops below this value, errors will occur.</p>            |
| <div>↓</div> <div>↑RIGID DEFAULT PSI</div> <div>↓ 90✓</div>               | <p>The rigid default psi. May need to be increased if optional cutter bar addons are present. Acceptable values range from 90 to 115 psi. NOTE: Higher psi will require longer compressor time to achieve.</p>  |
| <div>↓</div> <div>↑SIDE DECK SPEED</div> <div>↓ERROR WARNING OFF✓</div>   | <p><b>ON</b> = Show side draper speed warnings, <b>OFF</b> = Do not show side draper speed warnings. Brand new drapers can be prone to slipping for the first week or two, it may be desirable to <b>TEMPORARILY</b> disable the warnings during the break-in period.</p>   |
| <div>↓</div> <div>↑FEED AUGER STOPPED</div> <div>↓ERROR WARNING ON✓</div> | <p>This setting should only be disabled if there is no feed auger sensor present. <b>IN ALL OTHER SITUATIONS FEED AUGER WARNINGS MUST NOT BE DISABLED.</b></p>  |
| <div>↓</div> <div>↑B7/B8 TILT</div> <div>↓ ON✓</div>                      | <p>Determines the function of the 'RIGID ADJUSTMENT' 'HIGHER' and 'LOWER' buttons. <b>ON</b> = Use buttons for picking tilted forward or tilted backward rigid mode. <b>OFF</b> = Use buttons for rigid mode air psi adjustment (90-115 psi)</p>  |
| <div>↓</div> <div>↑ENVIRO UNITS</div> <div>↓ Celsius✓</div>               | <p>Used for picking the temperature units of measurement on the standby screen.</p>   |
| <div>↓</div> <div>↑COMB OUT MIN</div> <div>↓ 3.00✓</div>                  | <p>Adjusts header height sensor output voltage <b>lower limit</b> for non-standard combines. Only for use with combines not listed in the combine selection screen on the main menu. Reset values by picking a pre-defined combine in the main menu combine selection screen.</p>                                 |
| <div>↓</div> <div>↑COMB OUT MAX</div> <div>↓ 7.00✓</div>                  | <p>Adjusts header height sensor output voltage <b>upper limit</b> for non-standard combines. Only for use with combines not listed in the combine selection screen on the main menu. Reset values by picking a pre-defined combine in the main menu combine selection screen.</p>                                 |
| <div>↓</div> <div>↑REEL COMB PPR</div> <div>↓ 48✓</div>                   | <p>Adjusts header reel speed output pulses per rotation for non-standard combines, this mimics the function of a tone wheel. Only for use with combines not listed in the combine selection screen on the main menu. Reset values by picking a pre-defined combine in the main menu combine selection screen.</p> |

**NOTE:** These values should only be adjusted under the direction of a qualified service technician if the combine make can not be found on the main menu combine selection screen. If any of these values are modified, a "\*" will be displayed next to the combine make name on the startup screen.

## 10.9 - Information Screens

The Automatix information screens are useful for monitoring equipment and crop conditions while harvesting. Some of this information can also be useful for troubleshooting purposes. To access the information screens, press the info button. Every time the button is pressed, the system will cycle to the next information screen.

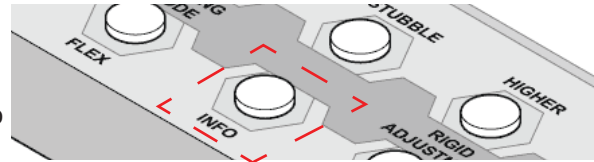


Fig. 109 - Press Info button to cycle info screens

```
CUT HRS1-40 C I RIGID
00000.01 0 % 1 0
```



```
@GROUND1-40 C IDEW 0
%RH 0%1-40 F IDEW 32
```



```
LD 000ICD 000IRD 000
HH 300ICUT000IHH 300
```



```
*### RIGD HH[V] ###*
... *### ...
```

```
*### ****
FLEX HH[V]
```



```
CUTIAIR PRESSUREIAIR
01 0 TANK PSI 90
```



```
RIGHT % ████████ 1 50
LEFT % ████████ 1 50
```

```
RIGHT " ████████ 1 35
LEFT " ████████ 1 35
```

Standby Screen. Shows total hours in operation (useful for maintenance scheduling), temperature, current cutting mode and air pressure.

Ground-level environmental data (sensor located on bottom-rear of frame strut) Shows temperature in C and F, Dewpoint in C and F, and Relative Humidity percentage.

LD = Left Draper Speed (RPM)

CD = Center Draper Speed (RPM)

RD = Right Draper Speed (RPM)

HH = The corrected header height values relayed to the combine. These values should match those on the combine display.

CUT = Knife Speed (RPM)

This screen displays the raw sensor voltages for Rigid and in Flex modes.

The screen shows a different layout depending on which cutting mode is activated.

The asterisks (\*) indicates a sensor that is not calibrated (and therefore ignored).

See section 15.3 on page 124 for details on which sensors are represented by which sections on the screen.

This screen shows the Knife Speed in RPM (CUT), the current air tank pressure (AIR PRESSURE TANK PSI), and the current cutting mode pressure set point in PSI (AIR)

This screen shows how much movement downward is left before the header height sensors reach their limit.

In RIGID mode, this is shown as a percentage, with 0% indicating the header has reached its lowest limit. Each bar on the display represents 10%. 50% is shown in the example to the left.

In FLEX mode, this is shown in inches, with each bar on the display representing one inch. 3.5" is shown in the example to the left.

### 10.9.1 - Standby Screen

The Standby Screen is shown when the unit is powered up but the knife is not running. This screen shows useful information such as:

**Cut Hours** - The total time that the knife has been running.

**Temperature & Relative Humidity** - Measured from about 2 feet above ground.

**Cutting Mode & Pressure** - Displays the cutting mode (RIGID or FLEX) and the current air pressure.

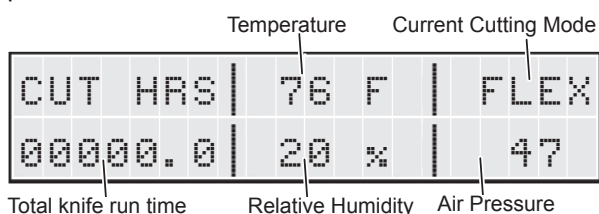


Fig. 105 - Standby Screen

### 10.9.2 - Ground Environmental Data

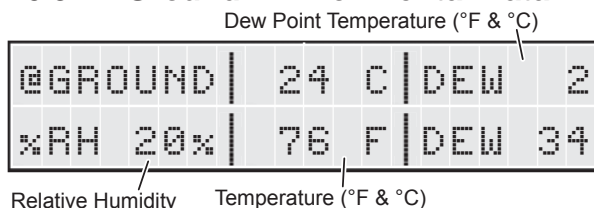


Fig. 106 - Info Screen - Environmental

This screen shows the relative humidity, temperature and dew point to give you an indication of crop condition. This is facilitated by having the sensors located about 2 feet off the ground (about mid strut).

Take note of the values here when the crop is getting tough, and later you can predict harvesting conditions. Relative humidity and temperature are the most consistent measure of this.

### 10.9.3 - Speeds and Corrected Auto Header Height Values

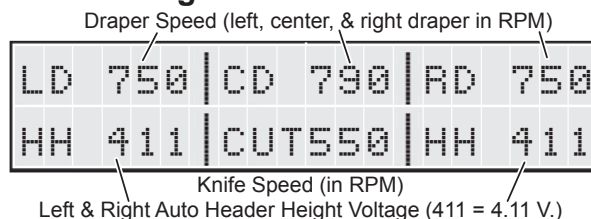


Fig. 107 - Info Screen - Environmental

This screen shows the draper speeds, knife speed, and auto header height voltages that the AUTOMATIX system sends to the combine.

The auto header height voltages (HH) are not the raw values of the sensors, but are the conditioned outputs from the Automatix controller that are being fed to the combine. This range varies from brand to brand and model to model. The Raw sensor voltage range is generally fixed, so AUTOMATIX does this conversion.

#### NOTE:

The displayed HH values are not showing the decimal point: 411 = 4.11 volts.



### 10.9.4 - Raw Auto Header height Voltages

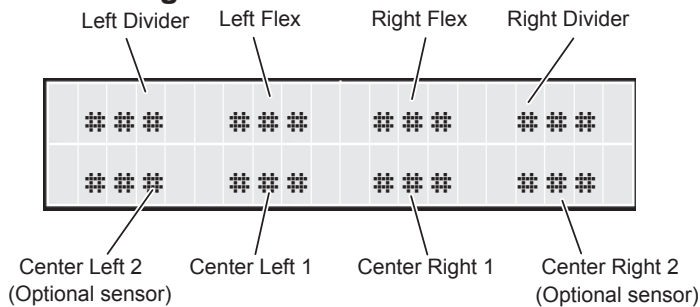


Fig. 108 - Info Screen - Raw Header Height Voltages

These screens show the raw auto header height sensor voltages.

**RIGID** mode uses the floating dividers at the ends of the table to sense header height. These are the primary auto header height sensors in RIGID mode. The center sensor does not output to the combine, instead, it will affect the values of the end sensors if the terrain in the middle zone of the table is rising more than at the ends.

|        |        |       |        |
|--------|--------|-------|--------|
| * **** | RIGD   | HH[V] | **** * |
| ****   | * **** | ****  | ****   |

**RIGID - VERTICAL SHEAR** mode disables the floating divider sensors on the ends and only uses the center sensors located underneath the header.

|          |        |        |        |
|----------|--------|--------|--------|
| VERTICAL | SHEAR  | HH[V]  |        |
| * ****   | * **** | **** * | **** * |

**FLEX** sensors are mounted on the middle left and right struts, and are linked to each paddle by a rock shaft and linkages. This allows the entire cutter bar to impact the auto header height voltages for left and right, when operating in FLEX cutting mode.

|  |  |        |        |
|--|--|--------|--------|
|  |  | * **** | **** * |
|  |  | FLEX   | HH[V]  |

### NOTE:

The displayed HH values are not showing the decimal point: 396 = 3.96 volts.

The \* indicates a sensor that is not calibrated and thus ignored by the system. The required sensors depend on the harness model year.

10.9.5 - Air Tank PSI vs Cutting Mode Pressure Setpoint



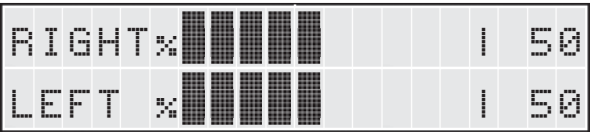
This screen shows the Knife Speed in RPM (CUT), the current air tank pressure (AIR PRESSURE TANK PSI), and the current cutting mode pressure set point in PSI (AIR)

This screen is useful for comparing the actual air tank PSI and the target PSI for the selected cutting mode when transitioning between cutting modes to ensure the system is pressurizing properly.

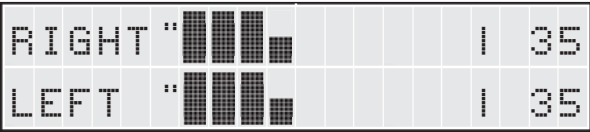
10.9.6 - Header Height Values

This screen shows how much movement downward is left before the header height sensors reach their limit.

In RIGID mode, this is shown as a percentage, with 0% indicating the header has reached its lowest limit. Each bar on the display represents 10%.



In FLEX mode, this is shown in inches, with each bar on the display representing one inch.



This screen is useful for setting the correct combine feeder house angle without the need to run the knife system.

## 10.10 - FLEX Operating Screens

### 10.10.1 - FLEX Mode Live View

The live view is displayed on the automatix screen during normal operation in FLEX mode. The number of bars shown on the display indicate how much further the cutter bar can be pushed up. Each bar represents 1" (2.5 cm), half a bar represents 1/2" (1.27 cm). A total of 9" (22.86 cm) of motion is possible for the cutter bar when in FLEX mode.

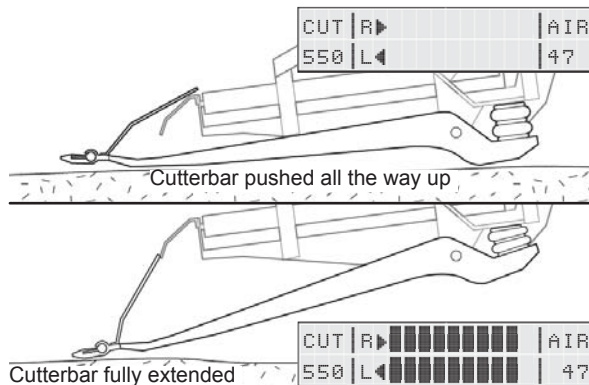


Fig. 110 - FLEX Live View - full range of travel

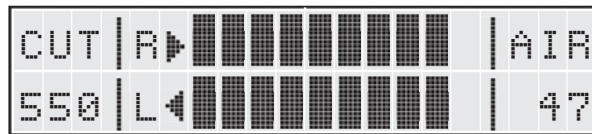


Fig. 111 - FLEX Live View - 9" of travel available

When in FLEX mode, adjust the table to a set point of 1 1/2" - 2". This will result in having 1 1/2" - 2" of upwards motion remaining before the auto header height system lifts the table.

This set point allows 7" - 7 1/2" of down motion available for the cutter bar to drop into depressions, without having to lower the table.

This setting is extremely important for optimal AirFLEX performance. If the set point is too high, then the cutter bar will not follow the terrain properly.

### 10.10.2 - FLEX Mode Live View - Warning

When the cutter bar is running while fully pushed up with no remaining travel, there will be no bars remaining on the display..

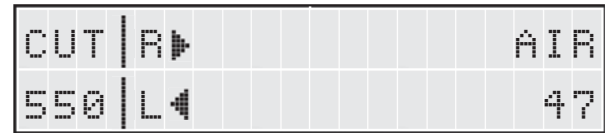


Fig. 112 - FLEX Live View- Warning - Cutter bar at highest limit

This usually indicates that the auto header height is not turned on or the set point is too low.

The set point must be high enough to leave some sensor range of up travel to trigger the lift command. If your set point is placed where the FLEX cutter bar is fully compressed, then the auto header height system will NEVER lift.

### 10.10.3 - Air Pressure Setting for Cutter Bar Ground Pressure

When in FLEX mode, access this screen by pressing one of the 'FLEX ADJUSTMENT' buttons.

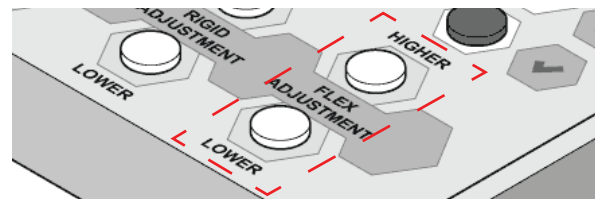


Fig. 113 - Cutter Bar FLEX Float Adjustment

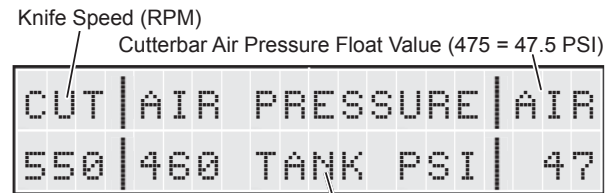


Fig. 114 - Air Pressure Setting

In FLEX mode, the normal range is from 25 PSI up to 80 PSI. A higher pressure results in a RIGID cutter bar, which will reduce the FLEX performance. The 'HIGHER' button adds air, making the cutter bar lighter on the ground. The 'LOWER' button removes air from the system, making the cutter bar heavier. Lighter is better in most cases. Adjust as necessary to prevent the cutter bar from dragging or hanging up (dragging is normally seen on the ends).

## 10.11 - RIGID Operating Screens

### 10.11.1 - RIGID Mode Live View

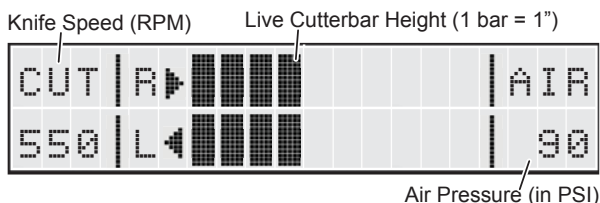


Fig. 115 - RIGID Header Height Live View

The Rigid mode live view is displayed on the automatix screen during rigid operation. The middle display area shows a live view of the cutter bar height above ground and is determined by all valid & calibrated center and divider sensors. This is useful for determining and setting the cut height set point.

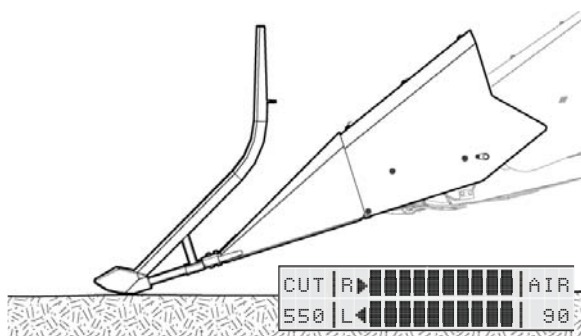


Fig. 116 - Full range of travel available

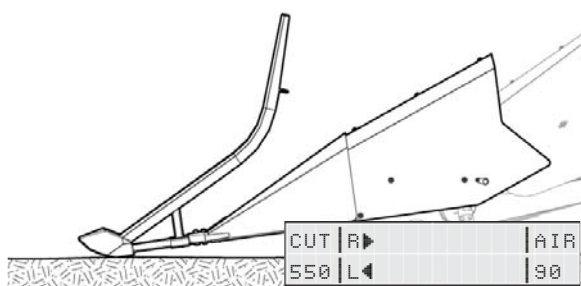


Fig. 117 - Header all the way down, no travel available

### 10.11.2 - Rigid Vertical Shear Mode Live View

Indicates vertical shear rigid mode is active

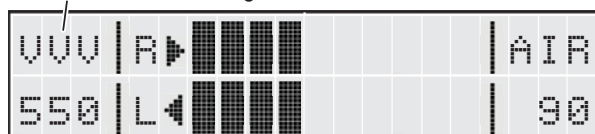


Fig. 118 - RIGID Vertical Shear Mode Live View

### 10.11.3 - Rigid Mode Live View - Warning

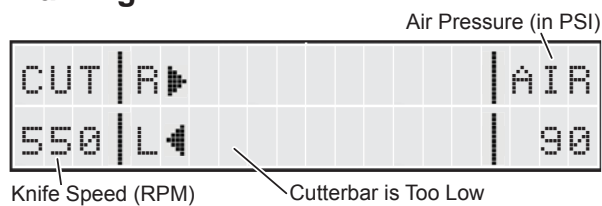


Fig. 119 - RIGID - Header Height - Warning Screen

If the dividers get pushed all the way up (resulting in the cutter bar running on the ground), then no bars will be visible on the screen. This is a high wear situation and should be avoided but will not stop the header from functioning.

### 10.11.4 - Rigid Mode - Table Tilt Selection

#### **IMPORTANT!**

When operating your header in rigid mode, it is extremely important to tell the automatix system if you are running the header tilted forward or tilted backward. This will ensure that the automatic header height control system will work properly

Use the 'Rigid Adjustment' buttons to indicate the table tilt orientation.

- Press 'Higher' to indicate that the header is tilted forward (out)
- Press 'Lower' to indicate the header is tilted backward (in)

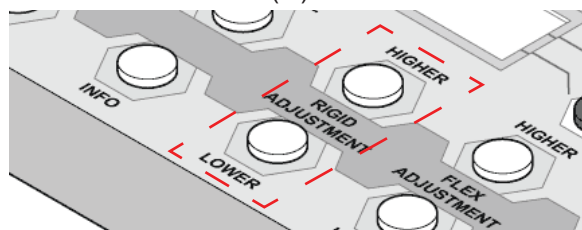


Fig. 120 - Header Tilt Selection - Rigid Mode

## 10.12 - Error Screens

The error screens warn that something is wrong but it can be fixed.

### 10.12.1 - Header is Running Low

- The header height values have been at minimum for a short time and set point may need to be raised. Adjust and evaluate.

|     |  |   |   |  |  |  |  |  |     |
|-----|--|---|---|--|--|--|--|--|-----|
| CUT |  | R | ▶ |  |  |  |  |  | AIR |
| 550 |  | L | ◀ |  |  |  |  |  | 47  |

### 10.12.2 - Drapers are Running Slow

- The draper speed values have been lower than as calibrated for a short time and the draper tension may need to be tightened. Adjust and evaluate.

|   |   |      |  |        |  |       |  |  |   |
|---|---|------|--|--------|--|-------|--|--|---|
| ↑ |   | LH   |  | DRAPER |  | SLOW  |  |  | × |
| ↓ | ▶ | MAKE |  | DRAPER |  | TIGHT |  |  | ◀ |

|   |   |      |  |        |  |       |  |  |   |
|---|---|------|--|--------|--|-------|--|--|---|
| ↑ |   | RH   |  | DRAPER |  | SLOW  |  |  | × |
| ↓ | ▶ | MAKE |  | DRAPER |  | TIGHT |  |  | ◀ |

|   |   |      |  |        |  |       |  |  |   |
|---|---|------|--|--------|--|-------|--|--|---|
| ↑ |   | CTR  |  | DRAPER |  | SLOW  |  |  | × |
| ↓ | ▶ | MAKE |  | DRAPER |  | TIGHT |  |  | ◀ |

### 10.12.3 - Knife Speed is Slow

- The knife speed value has been lower than as calibrated for a short time and the belt tension may need to be tightened. Adjust and evaluate.

|   |   |       |  |       |  |       |  |  |   |
|---|---|-------|--|-------|--|-------|--|--|---|
| ↑ |   | KNIFE |  | SPEED |  | SLOW  |  |  | × |
| ↓ | ▶ | MAKE  |  | BELT  |  | TIGHT |  |  | ◀ |

### 10.12.4 - Poor Header Height Control

- An uncalibrated sensor has a valid voltage (the header has an optional sensor installed that could be used if it is calibrated).
- A required sensor is uncalibrated.

|   |   |           |  |        |  |        |  |  |   |
|---|---|-----------|--|--------|--|--------|--|--|---|
| ↑ |   | POOR      |  | HEIGHT |  | CONTRL |  |  | × |
| ↓ | ▶ | CALIBRATE |  | H/H    |  |        |  |  | ◀ |

### 10.12.5 - Air Pressurizing Slowly

- The air system is not filling or releasing air at the rate expected. Air compressor inlet or dump valve outlet may be plugged. Clean and evaluate. May be cause by incorrect fill rate set for Rigid PSI Settings.

|   |   |      |  |            |  |      |  |  |   |
|---|---|------|--|------------|--|------|--|--|---|
| ↑ |   | AIR  |  | COMPRESSOR |  | ERR  |  |  | × |
| ↓ | ▶ | SLOW |  | AIR        |  | FILL |  |  | ◀ |

|   |   |       |  |      |  |        |  |     |   |
|---|---|-------|--|------|--|--------|--|-----|---|
| ↑ |   | AIR   |  | DUMP |  | VALVE  |  | ERR | × |
| ↓ | ▶ | CLEAN |  | O/P  |  | SCREEN |  |     | ◀ |

## 10.13 - Failure Screens

Failure screens indicate failure of a critical system that likely needs repair or adjustment.

### 10.13.1 - Drapers Have Stopped

- The draper speed values have gone to zero. A draper drive belt may be broken or a draper is jammed. Stop and investigate.

```

↑  LH DRAPER STOP!  ×
↓▶CHECK DRIVE BELT ◀
  
```

```

↑  RH DRAPER STOP!  ×
↓▶CHECK DRIVE BELT ◀
  
```

```

↑  CTR DRAPER STOP!  ×
↓▶CHECK DRIVE BELT ◀
  
```

### 10.13.2 - Knife Has Stopped

- The knife speed value has gone to zero. The knife drive belt may be broken or knife is jammed. Stop and investigate.

```

↑  KNIFE SPEED STOP  ×
↓▶CHECK DRIVE BELT ◀
  
```

### 10.13.3 - HH Sensor Failure

- A calibrated sensor (optional or required) has an invalid voltage (no voltage, voltage too high, or voltage too low)

```

↑INVALID HH SENSOR  ×
↓▶CHECK / CAL H/H ◀
  
```

### 10.13.4 - Air Pressure Failure

- The air system is not filling or releasing air at the rate expected. Air compressor may be overheated due to continuous running because of an air leak. Evaluate and tighten hoses at leak. If dump valve is not releasing air, there may be a damaged wire. Evaluate and repair as needed. May be caused by incorrect fill rate set for Rigid PSI Settings.

```

↑AIR COMPRESOR FAIL×
↓ OVER HEATED ▶COOL◀
  
```

```

↑AIR DUMP VALVE ERR×
↓▶FLUSH DUMP VALVE ◀
  
```