

Owner's Manual

Model 6672B **600 Series iPad Conversion Kit**



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800-635-7468 • www.harvesttec.com

DECLARATION OF INCORPORATION



MANUFACTURER:

Harvest Tec Inc.
2821 Harvey St.
P.O. Box 63
Hudson, WI 54016, U.S.A.

REPRESENTATIVE ESTABLISHED IN COMMUNITY: Profitable Farming Company
Middle Barlington, Roborough
Winkleigh, Devon, EX19 8AG
ENGLAND

The person above certifies and declares that:

VIRTUAL MACHINE: Equipment mounted on a farm press and for the application of inoculants onto forage crops.

MODEL: 6672B-INST-17-Imp&Metric

BRAND: Harvest Tec

SERIAL NUMBER:

This application preservatives for hay Harvest Tec system meets the Directive 2006/42/EC of the European Parliament and the Council of 17 May 2006 and other applicable European Directives including Directive 2004/108/EC on the Electromagnetic compatibility.

The application of preservatives for hay Harvest Tec system will be turned on after being installed on a farm press has been declared in conformity with the Machinery Directive.

Person in the community authorized to provide information on the partly completed machinery and making this statement:

Richard Snell, President, Profitable Farming Company
Signed on May 21, 2011: Middle Barlington, Roborough
Winkleigh, Devon, EX19 8AG
ENGLAND

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Introduction

Read this manual carefully to ensure correct steps are done to install the iPad Conversion Kit to the baler, as well as operate the system correctly. The iPad Conversion kit is designed to connect to an iPad via Bluetooth communication to run the applicator through the Hay App. The preservative applicator is designed to apply Harvest Tec buffered propionic acid.

Left and Right sides are determined by facing in the direction of forward travel.

Installation of Bluetooth Receiver

Locate a safe location in the cab of the tractor to place the Bluetooth Receiver (030-6672B). Recommended location is as close to the iPad being used as possible.

Connect the Power / Communication harness (006-6650TM) to the bottom of the receiver.

If applicator was previously running through the baler VT. Remove the Baler Interface Harness and reconnect the terminating resistor from the baler, back onto the baler harness. Also remove the red TSD terminating resistor (006-6650Z) on the tractor harness (006-6650TM). This will be the location to connect the Bluetooth receiver.

*New for production year 2018. All Bluetooth receivers (030-6672B) are now equipped with lights to indicated both power and iPad connection.

Blinking Lights – System is waiting for the processor to connect, which could take up to 35 seconds.

Red Light – The Bluetooth receiver has power

Green Light – When the proper active connection is selected in the Hay App menu, the green light will indicate connection with the iPad.



Be sure to update your applicator to the latest software version available by visiting www.harvesttec.com/product-updates/ and follow the updating instructions.

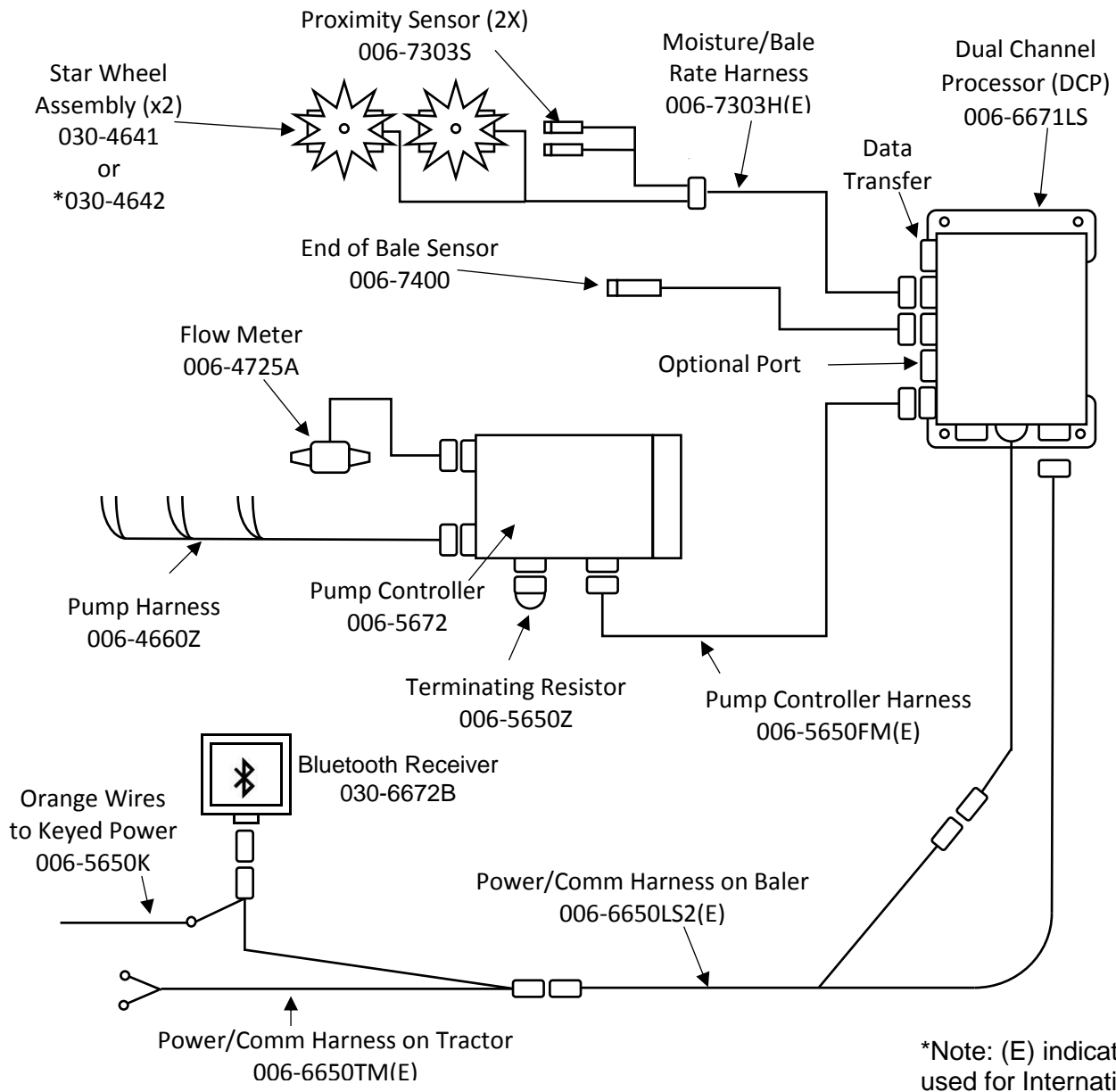
Large Square Baler Power Cable and Main Wiring Harness Installation

1. Locate the tractor power/communication harness (006-6650TM(E)) to the battery and communication lead to the ISOBUS plug.
2. Connect the red power wire with the 50 amp fuse to the positive side of the battery (12 volt).



- a. **The power harness must be connected to the battery!** The unit will draw more amps than convenience outlets can handle. Any modifications of the power harness will void systems warranty. IF MODIFICATIONS ARE REQUIRED CONTACT HARVEST TEC FIRST!
- b. **This unit will not function on positive ground tractors.**
- c. **If the unit loses power while operating it will not keep track of accumulated pounds of product used and bale records.**

3. Connect the black ground wire to frame of tractor or negative side of battery (12 volt).
4. Connect the Bluetooth Receiver (030-6672B) to Communication Harness (006-6650TM(E)) in place of the ISO adapter (shown below) and connect the keyed power wire to a keyed power source on tractor.



*Claas 3200-3400 balers will have star wheel assembly 030-4642 for mounting on side of bale chamber

Round Baler Power Cable and Main Wiring Harness Installation

1. Locate the tractor power/communication harness (006-6650TM(E)).
2. On the back of the tractor run the power leads of the power / communication harness (006-6650TM(E)) to battery and the communication lead to ISOBUS plug.
3. Connect the red power wire with the 50 amp fuse to the positive side of the battery (12 volt).

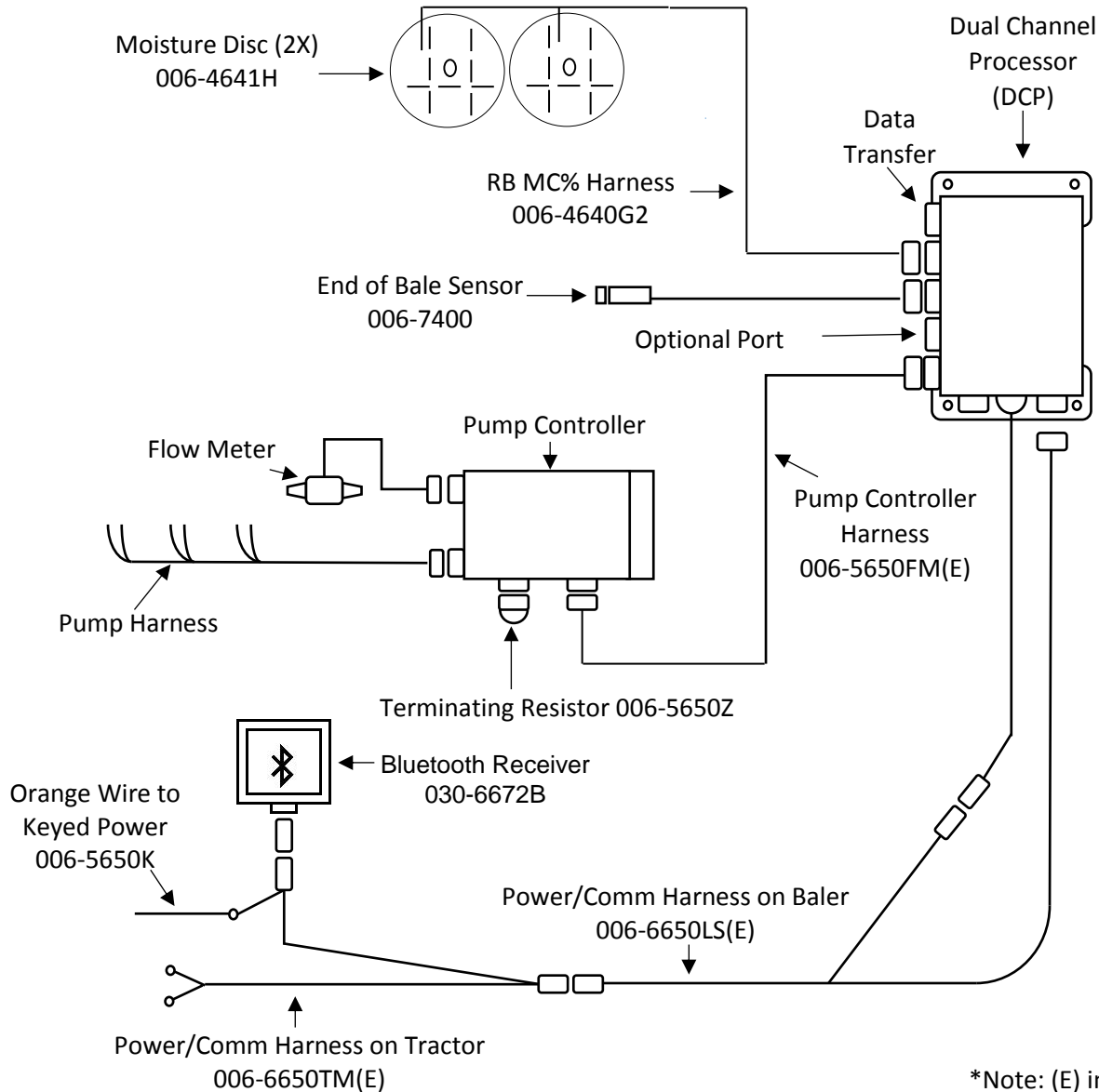


A. The power harness must be connected to the battery! The unit will draw more amps than convenience outlets can handle. Any modifications of the power harness will void systems warranty. **CONTACT HARVEST TEC IF MODIFICATION IS REQUIRED!**

B. This unit will not function on positive ground tractors.

C. If the unit loses power while operating it will not record accumulated product used.

4. Connect the baler power and communication harness (006-6650LS) to the power port on the DCP and to the display port on the DCP.
5. Connect the Bluetooth Receiver (030-6672B) to Communication Harness (006-6650TM(E)) in place of the ISO adapter (shown below) and connect the keyed power wire to a keyed power source on tractor.
6. Connect the orange wires and attach the plug to the tractor's ISOBUS port.
7. Connect Flow Meter (006-4725A) and pump harness (006-4660Z) to the Pump Controller.
8. Install one terminating resistor to the pump controller (006-5650Z).
9. Attach moisture cable (006-4640G2) to the DCP



*Note: (E) indication is used for International

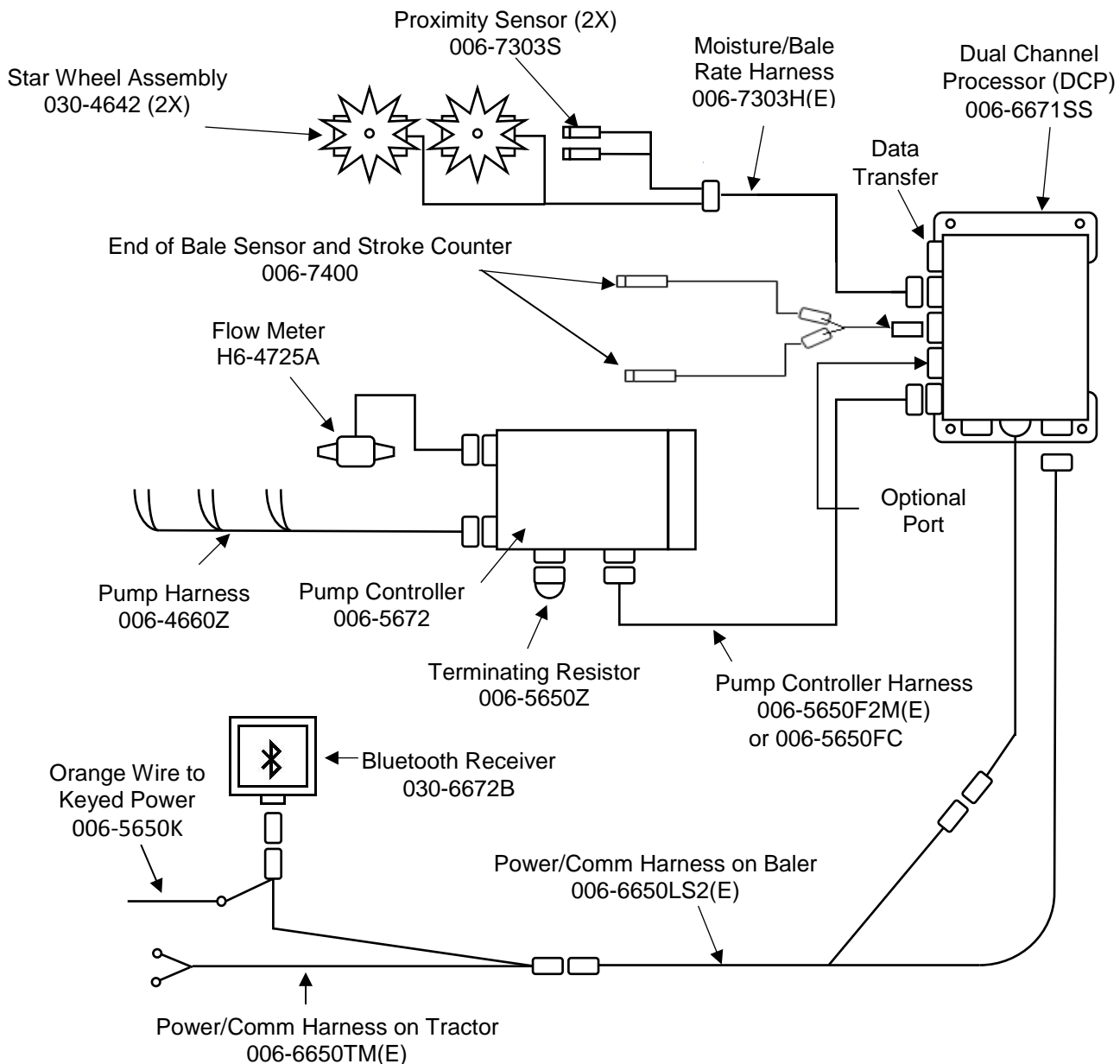
Small Square Baler Power Cable and Main Wiring Harness Installation

1. On the back of the tractor run power leads of the power / communication harness (006-6650TM(E)) to the battery and communication lead to the ISOBUS plug.
2. Connect the red power wire with the 50 amp fuse to the positive side (12 volt) of the battery.
 - a. **The power harness must be connected to the battery!** The unit will draw more amps than convenience outlets can handle. Any modifications of the power harness will void systems warranty. IF MODIFICATIONS ARE REQUIRED CONTACT HARVEST TEC FIRST!
 - b. **This unit will not function on positive ground tractors.**
 - c. **If the unit loses power while operating it will not keep track of accumulated pounds of product used and bale records.**
3. Connect the black ground wire to frame of tractor or negative side of (12 volt) battery.
4. Connect Bluetooth Receiver (030-6672B) to Communication Harness (006-6650TM) in place of the ISO adapter (shown below) and connect the keyed power wire to a keyed power source on tractor.



*Pump Control Harnesses 650 & 645 Models – 006-5650FC(E) | 651 Model – 006-5650F2M(E)

SYSTEM WIRING DIAGRAM



*Note: (E) indication is used for International

600T Bluetooth Operation – General Operation of SS, RB, LS Balers

Turn On / Off iPad using the Sleep/Wake button

*(Info from Apple User's Guide)

**Use the following information for Small Square Balers, Round Balers, and Large Square Balers.*

Turn iPad on. Hold down the Sleep/Wake button until Apple logo appears. iPad will take a moment to load.

You can lock iPad and put it to sleep when you're not using it. Locking iPad puts the display to sleep, saves the battery, and prevents anything from happening if you touch the screen.

Sleep/Wake Button

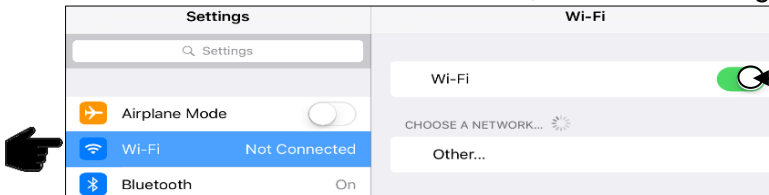


When you are not going to use the iPad for an extended period of time put the unit into sleep mode by pressing the Sleep/Wake button. Press Sleep/Wake button to wake iPad and then unlock iPad by entering passcode.

Turn iPad off. Hold down the Sleep/Wake button for a few seconds until the slider appears onscreen, then drag the slider to the right.

Downloading the Hay App

1. If iPad does not have Wi-Fi turned on, select the Settings tab  then select the Wi-Fi tab (below).



2. Turn Wi-Fi on by sliding button to the right.
*Green bar indicates ON

3. Use same process to turn on Bluetooth function

4. Select an available network when detected by the iPad, shown in area above that currently says 'Other'.

5. Select App Store icon (below) and open. *You will need a Wi-Fi connection available to view App Store.

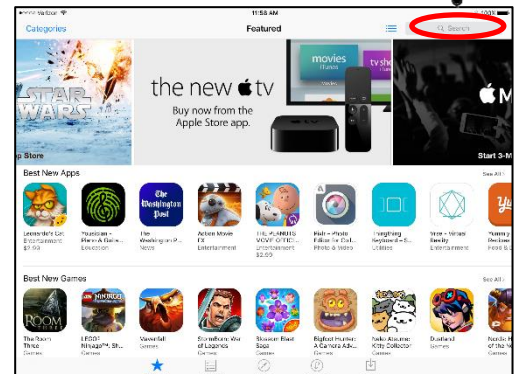


****The Harvest Tec system WILL NOT appear under the Bluetooth tab in the Setting App. Open the Hay App to connect.**

Download the Hay App in the App Store by searching for 'Hay App' in the search bar in the top right corner of screen (right):

*The advertisements displayed on the App Store screen will change.

The app will have the icon as shown:



Note: Operation requires iPad Mini or iPad 3rd Generation (2012) or newer, running the current iOS operating system or one version previous required for iPad option.

Shutting Down the Hay App

1. To shut down the Hay App double click the home button (Figure A). This will show the open apps that are running on your iPad (Figure B).
*Note: By pressing the home button one time to return to the home screen, the Hay App does not shut down. The system will however, stop applying preservative after 10 seconds.



Figure A

2. Slide the app you want to shut down by sliding the app toward the top of the iPad, until the app is no longer visible (Figure C).

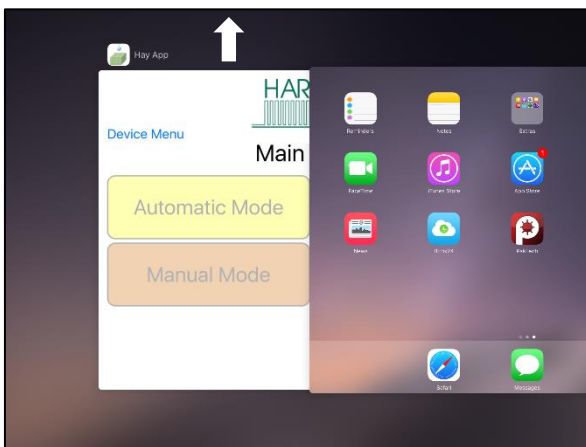


Figure B

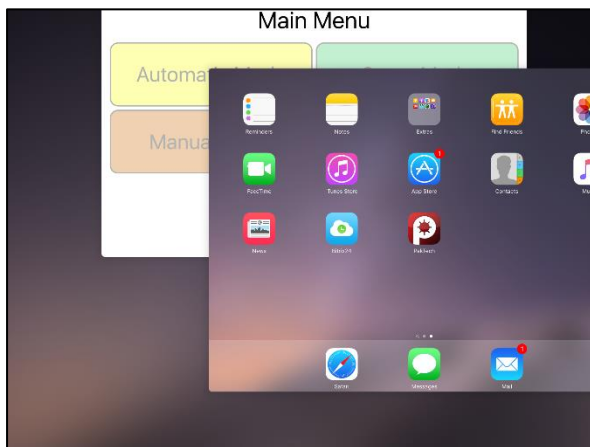


Figure C

Operating the Harvest Tec iPad App (continued)

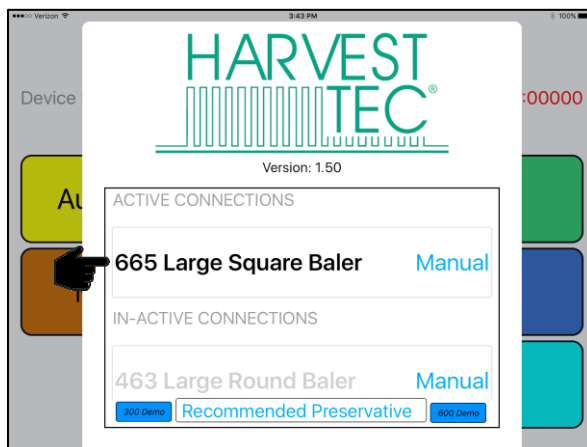
When ready to operate your applicator system, open the Hay App on the iPad by selecting the Hay App icon.

**Use the following information for Small Square Balers, Round Balers, and Large Square Balers.*

Device Selection

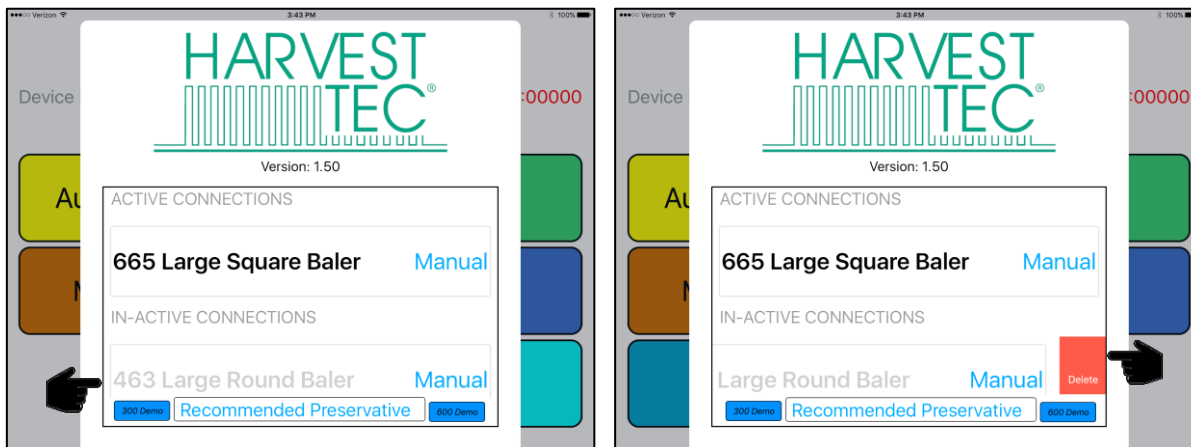
The app will open to the Device Menu screen as shown below. Applicators which are equipped with the Bluetooth receiver that are within range (20') of the iPad and have power going to them, will be shown under the Active Connections section.

After the iPad connects to the Bluetooth receiver, select the applicator you want to connect with.



The In-Active Connections section will show applicator systems that have been connected in the past, but are not within range of the iPad or do not currently have power going to them (bottom left).

To remove a baler from the In-Active list, slide the bar displaying the baler name to the left, and select the Delete button that will appear (bottom right).

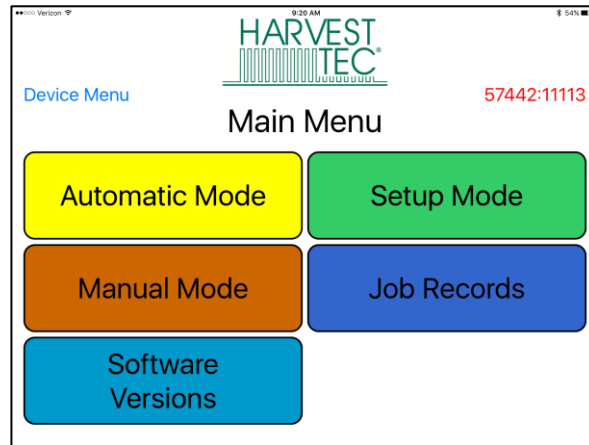


Operating the Harvest Tec iPad App (continued)

Once you have selected the baler you want to connect with from the Device Menu, the applicator main menu will display (below).

Ensure the iPad Bluetooth function is turned on in the Settings App.

*The applicator system will not appear under the Bluetooth Devices in the Settings App upon initial connection. You must open the Hay App to view the available devices by selecting the Device Menu. After you have connected through the Hay App, the system will then appear under the Bluetooth Devices in the Settings App.



Tab Descriptions

Automatic Mode: This mode allows you to use all of the applicator features such as adjusting preservative application on the go and counting total pounds of product used.

Manual Mode: Allows operator to manually turn pumps on and off. This mode also has moisture content displayed. Use this mode to prime pumps.

Software Versions: Selecting this tab will display the software currently installed.

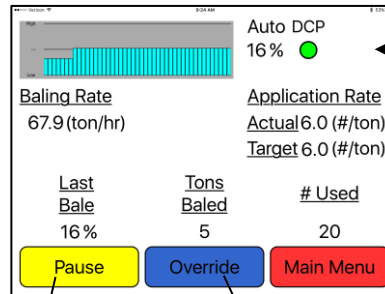
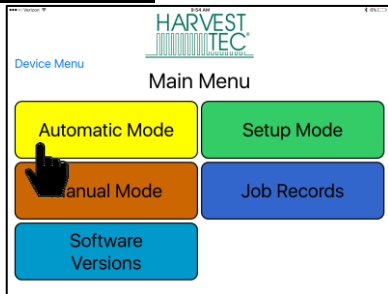
Setup Mode: This mode allows the operator to adjust bale rate, application rate settings and select tip output.

Job Records: Keep track of up to 300 jobs with total product used, average moisture content, tons baled, and baling date.

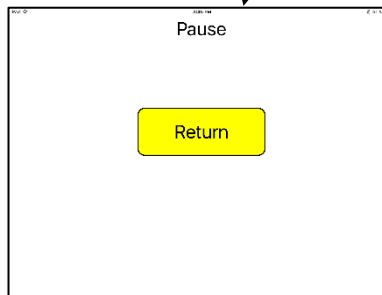
Screen Menus

Use the screen shots below to navigate through the operation screens.

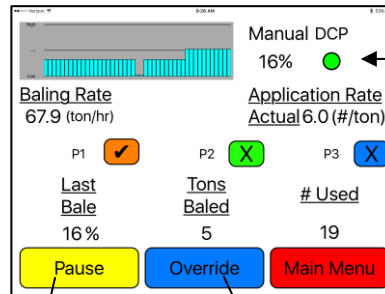
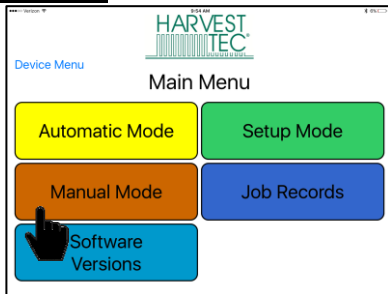
Automatic Mode



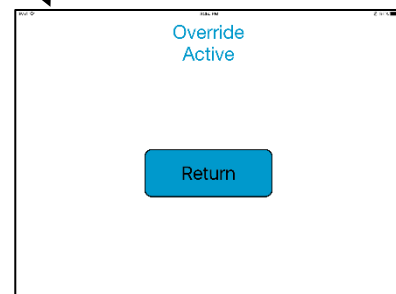
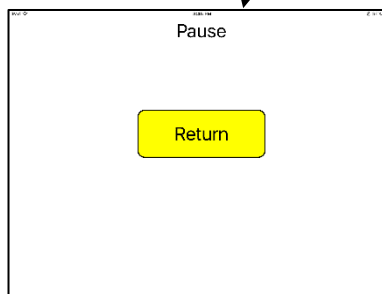
Bluetooth Connection Indicator
 Green -DCP is connected
 Yellow -DCP connecting
 Red -DCP not connected



Manual Mode

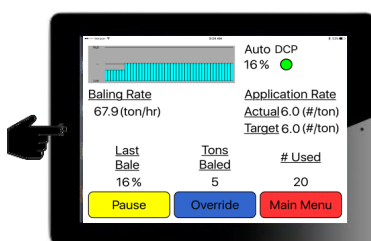


Bluetooth Connection Indicator
 Green -DCP is connected
 Yellow -DCP connecting
 Red -DCP not connected
 X -Pump is OFF
 ✓ -Pump is ON



Operation Note:

Pressing the Home Button on the iPad **WILL NOT** immediately stop application of the System (see below):

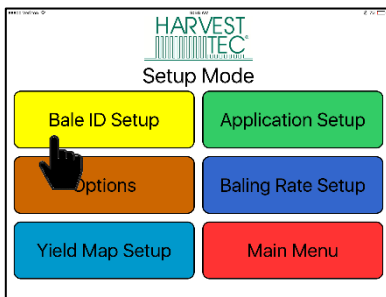
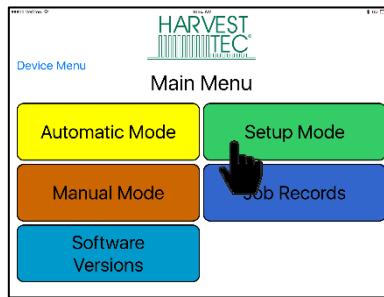


Select **Pause** or **Main Menu** to stop application

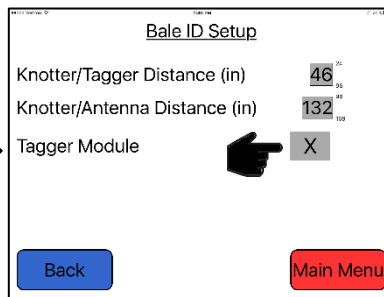
*To close app see the Shutting Down Hay App Section

**When the app is not displayed for 10 seconds, preservative application will stop.

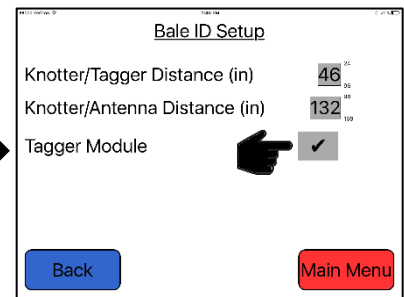
Setup Mode – Large Square Balers



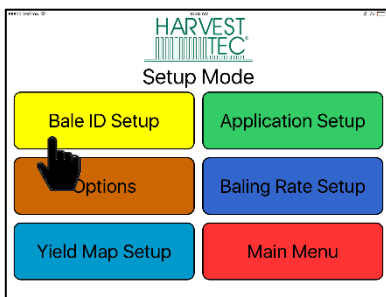
*Only used if equipped with Tagger



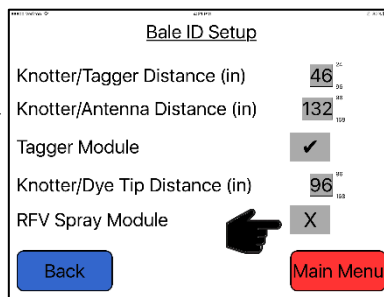
Turn Tagger ON by selecting the X



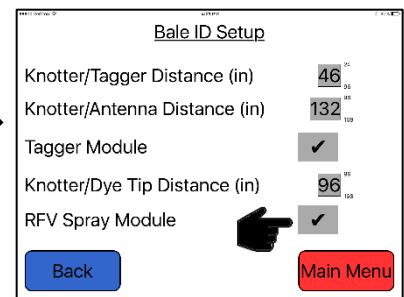
✓ Indicates tagger is ON



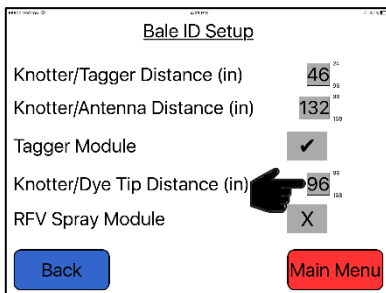
*If RFV Equipped, additional options will appear on Bale ID Screen (next)



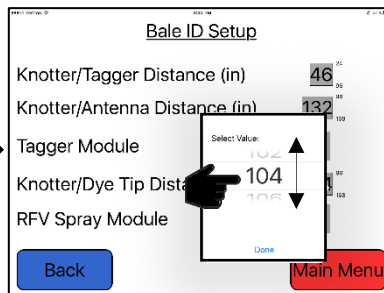
If using RFV Spray Module, turn ON by selecting the X



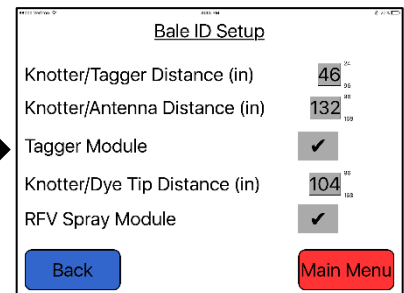
✓ Indicates Spray Module is ON



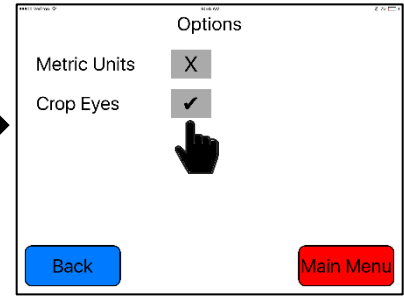
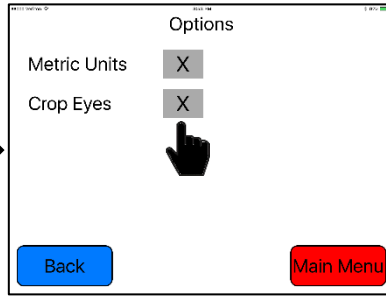
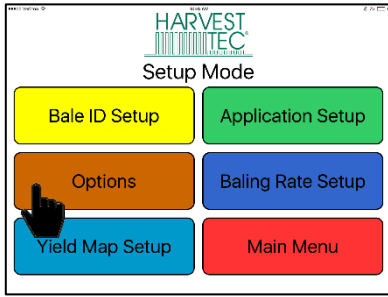
Make sure Knotter/Dye Tip Distance is correct



Select correct distance

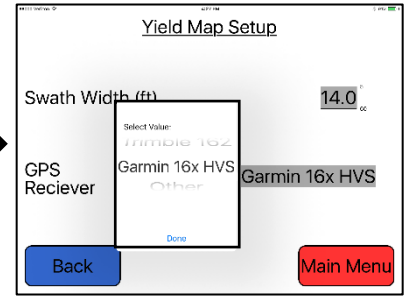
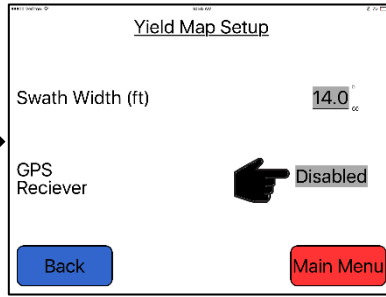
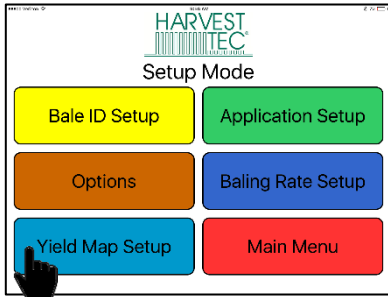


Setup Mode – Large Square Baler (continued)



*Select X to turn on options shown

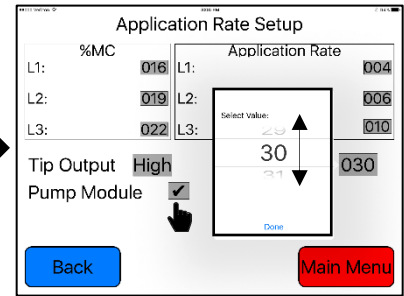
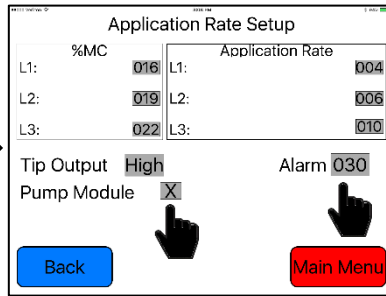
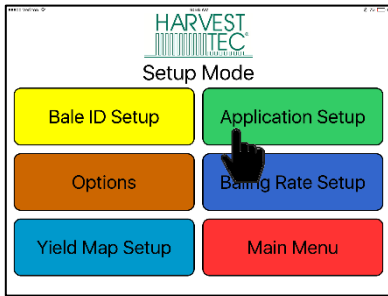
✓ Indicates Crop Eyes are ON



*Only used if equipped with GPS

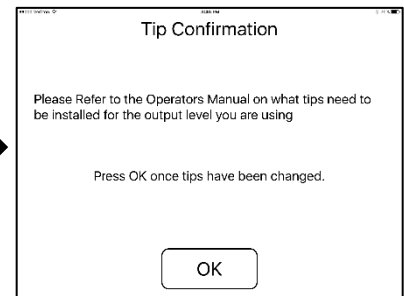
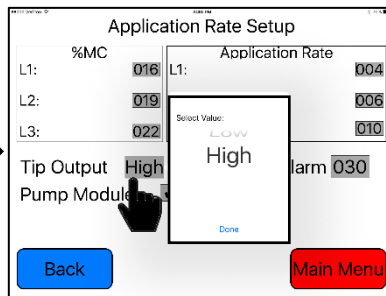
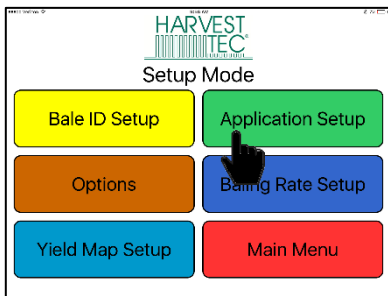
*Select grey area to change

*Select appropriate GPS unit



*Adjust alarm setting and turn on pump module by selecting X in grey area

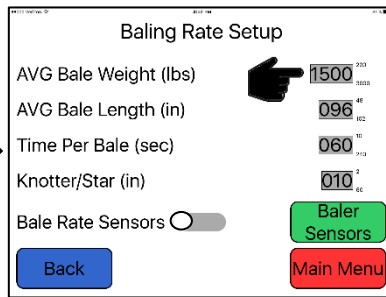
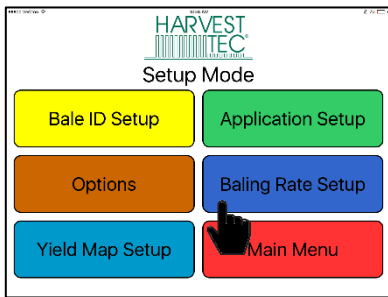
✓ indicates Pump Module is on



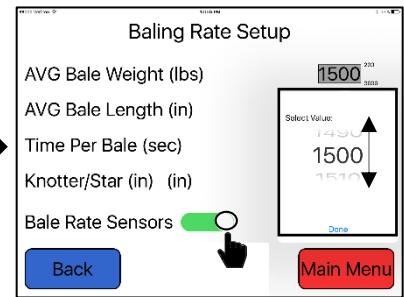
Select correct tip setting
*High tips are installed from factory

Press OK if correct tip output has been selected

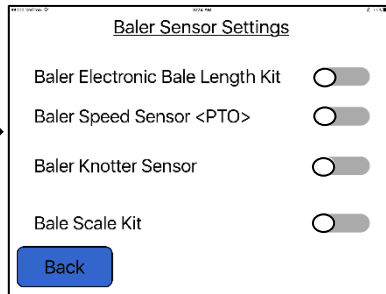
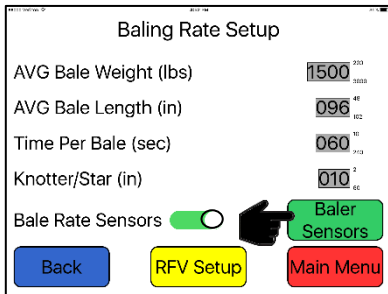
Setup Mode – Large Square Baler (continued)



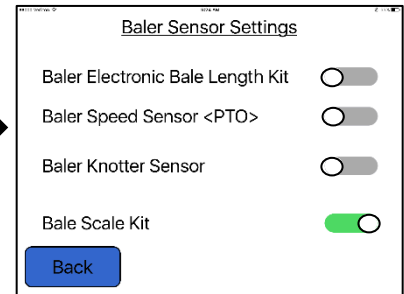
*Select correct bale weight, length, and time per bale information



*Turn on Bale Rate sensor, Green bar indicates sensors are ON

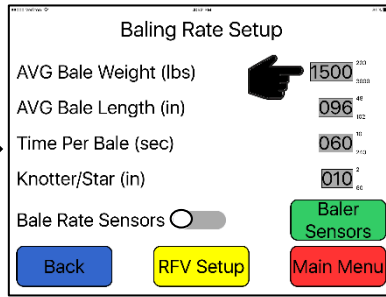
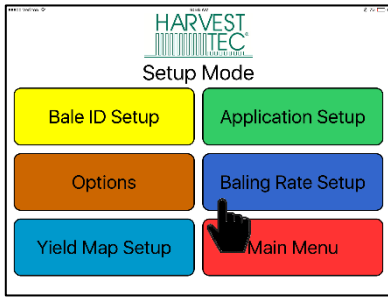


*Ensure all baler sensors are turned OFF

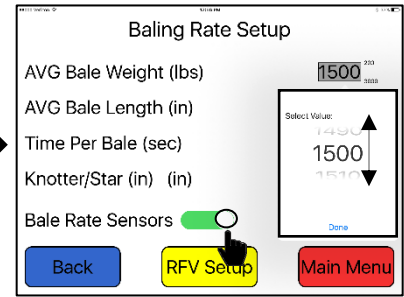


*If using a scale kit, turn sensor ON

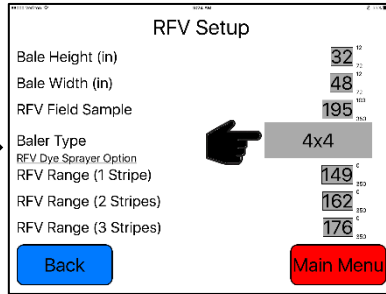
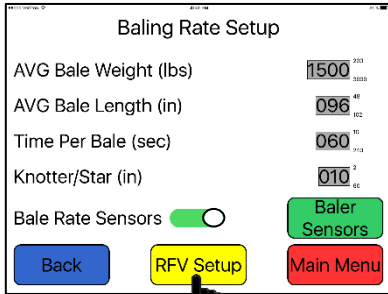
Setup Mode – Large Square Baler (If RFV Equipped)



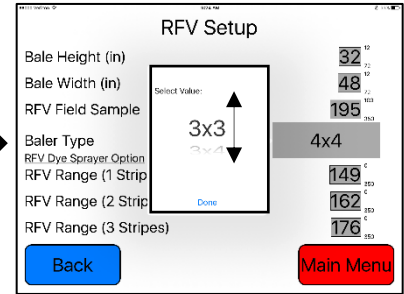
*Select correct bale weight, length, and time per bale information



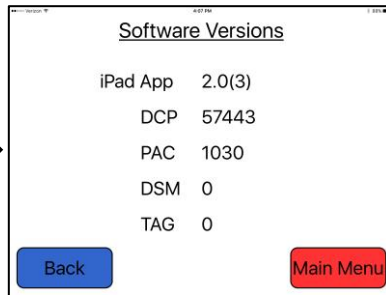
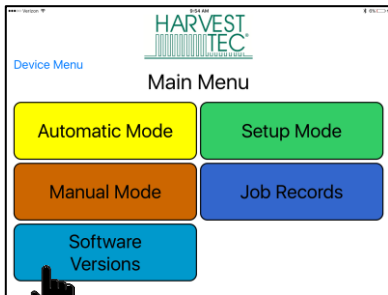
*Turn on Bale Rate sensor, Green bar indicates sensors are ON



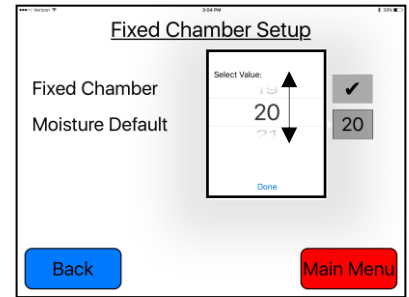
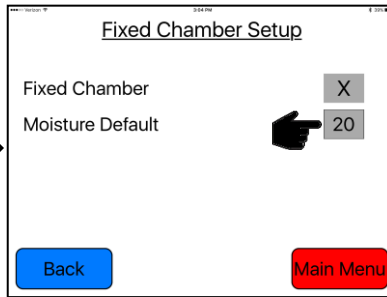
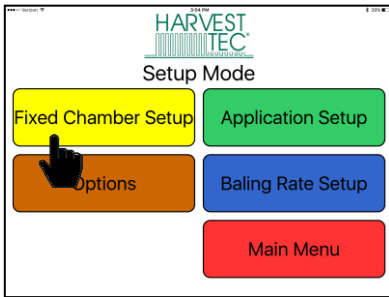
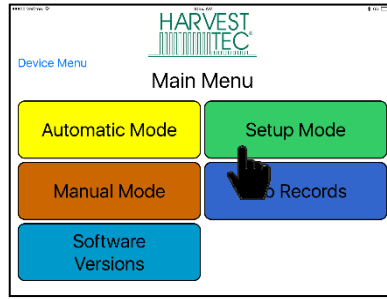
*Select correct bale size



Software Versions

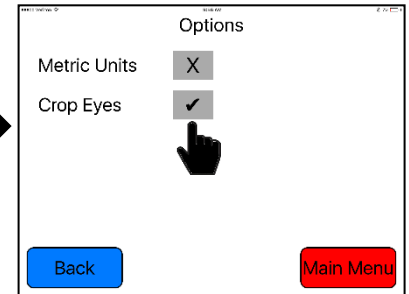
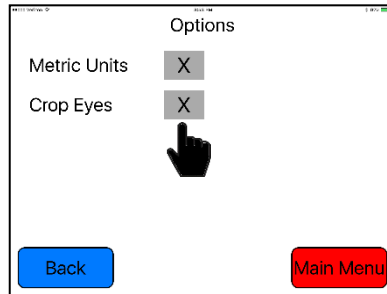
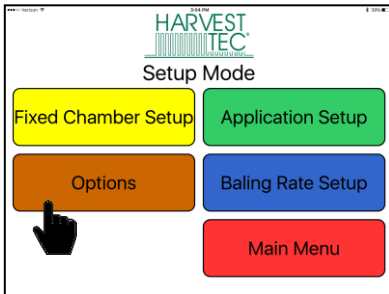


Setup Mode – Round Baler



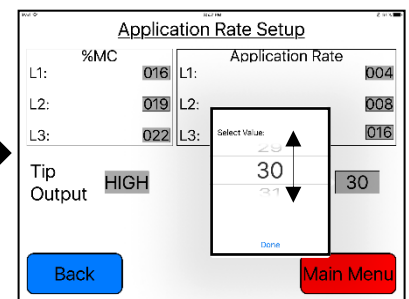
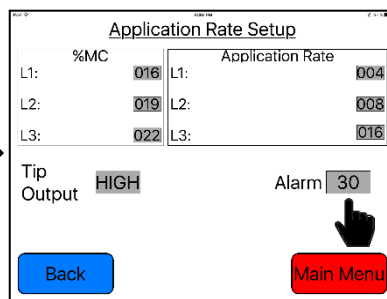
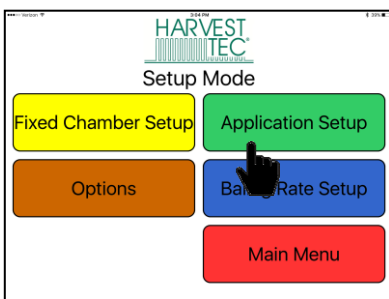
If using a fixed chamber baler, select the X to turn on

Adjust the moisture default to the moisture of the last bale reading



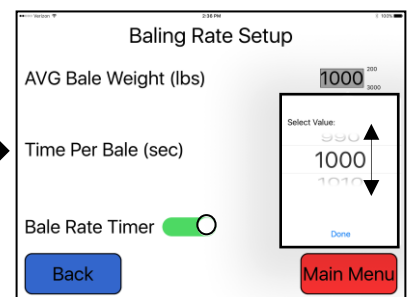
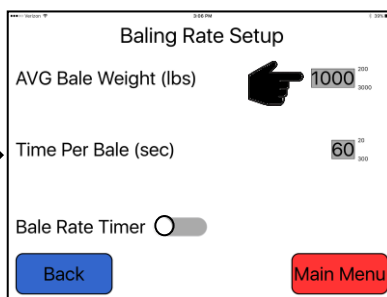
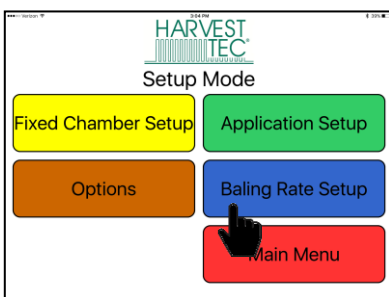
*Select X to turn on options shown

✓ Indicates Crop Eyes are ON



Adjust moisture alarm to desired level

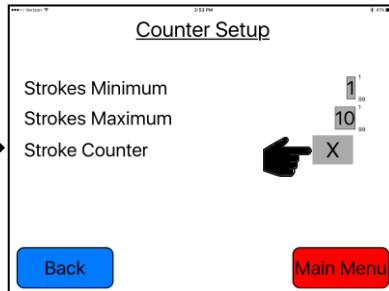
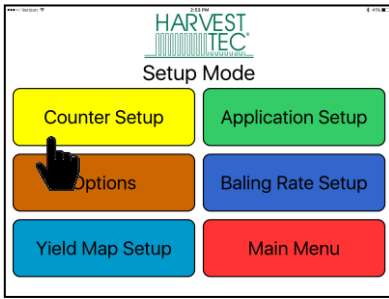
Select desired alarm moisture



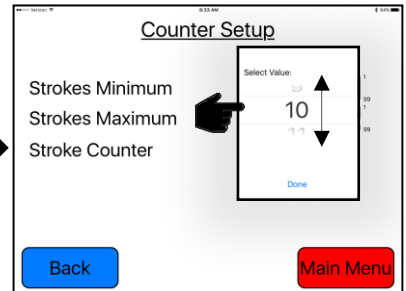
Adjust bale weight information

Select desired bale weight

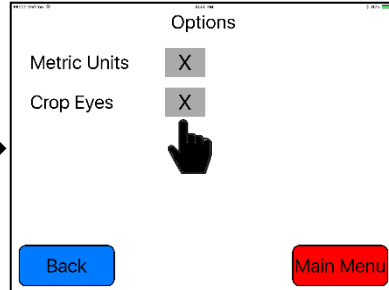
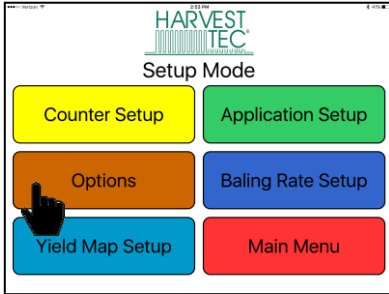
Setup Mode – Small Square



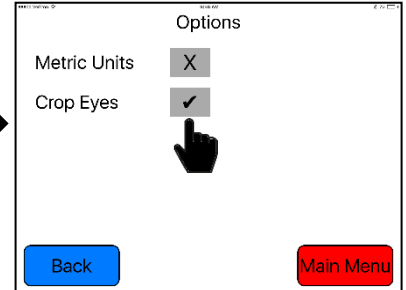
Turn on Stroke Counter by selecting the X, Adjust min/max by selecting number areas



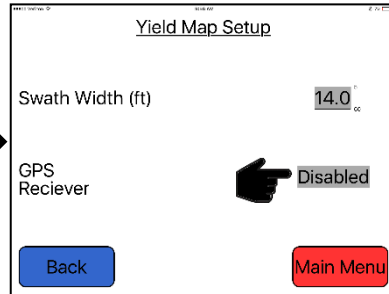
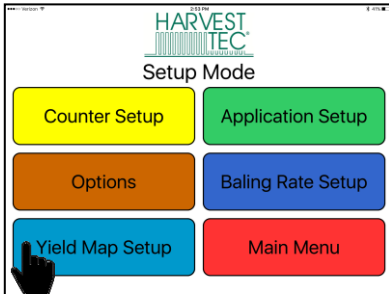
Scroll up or down to correct min/max
✓ Indicates Stroke Counter is ON



Select X to turn on options shown

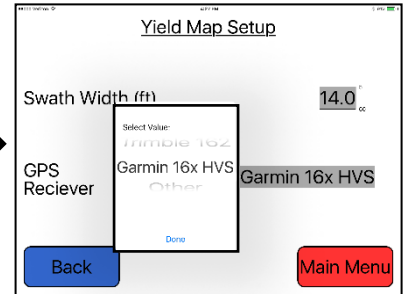


✓ Indicates Crop Eyes are ON

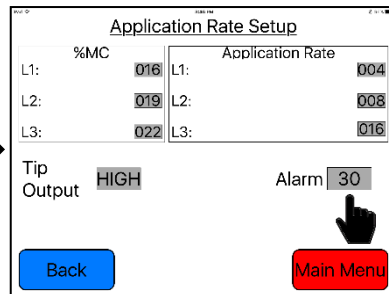
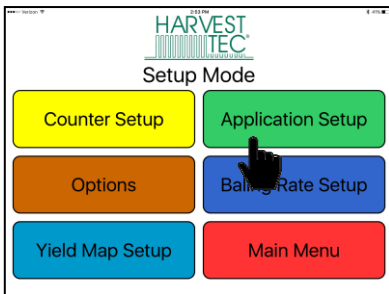


Only used if equipped with GPS

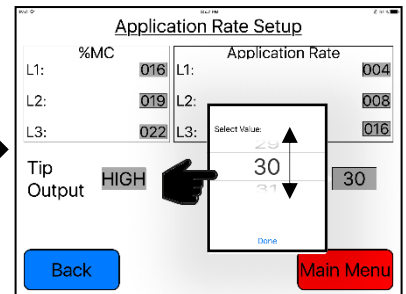
Select grey area to change



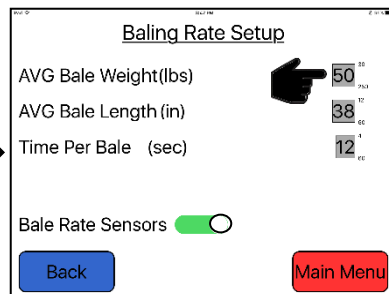
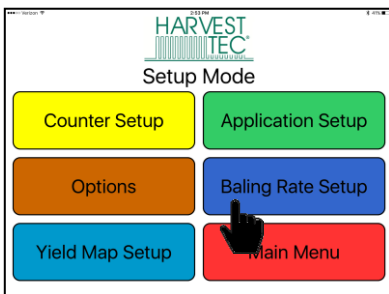
Select appropriate GPS unit



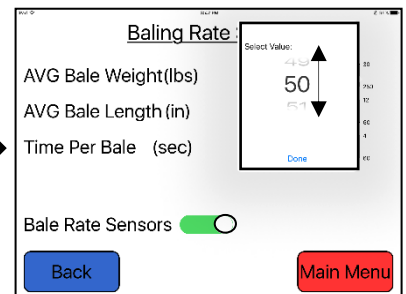
Adjust alarm setting by selecting the grey area



Select desired alarm setting by scrolling up or down

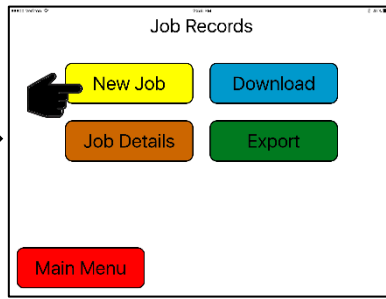
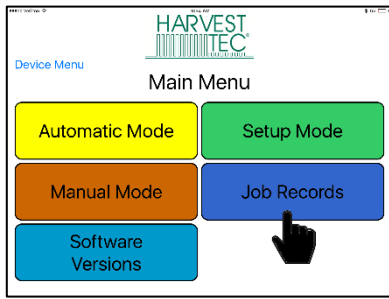


Input correct weight, length, time per bale

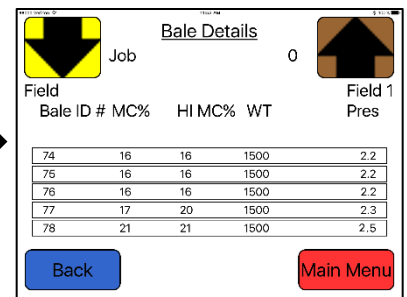
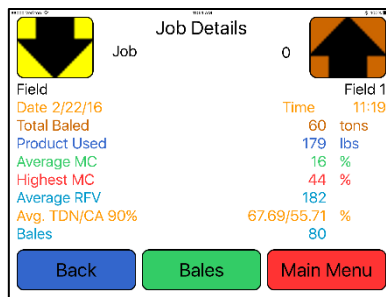
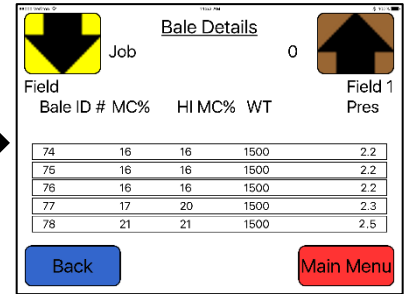
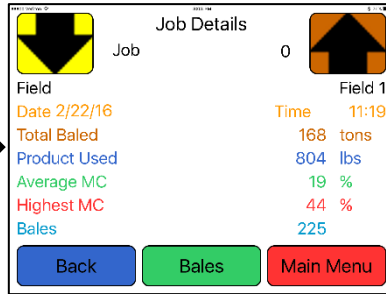
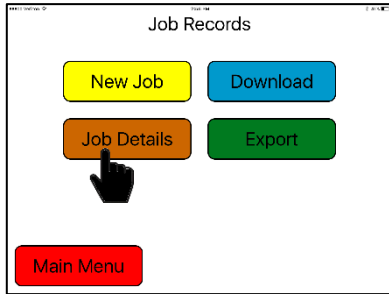


Select correct weight

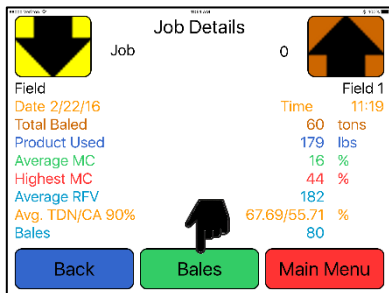
Job Records – Large Square Balers



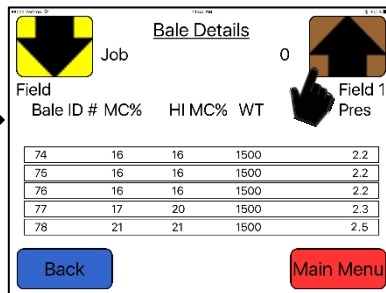
Type desired Field Name, select Create Job



*When RFV Equipped, Average RFV, Ave TDN/CA90% info will be added

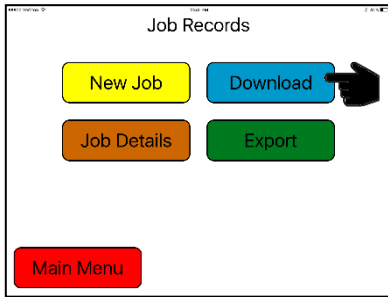


For Bale details select Bale Button

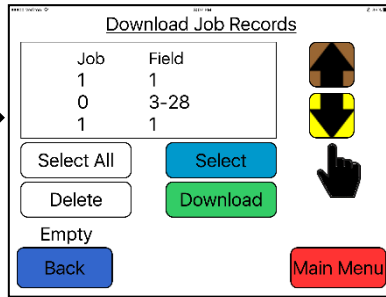


Use arrows to change jobs shown

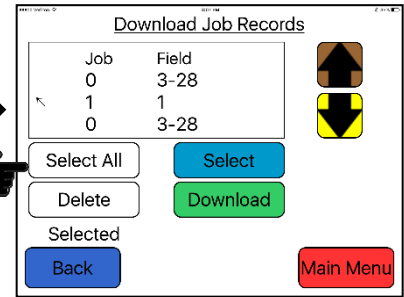
Job Records – Round and Small Square Balers



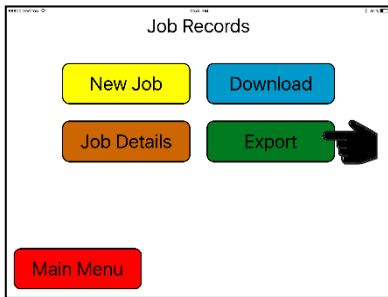
Select Download when wanting to download job records to USB Stick



Use arrows to change jobs shown.
↖ Indicates selected jobs



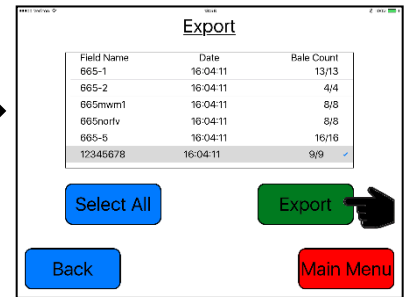
Pressing the Select or Select All tab to choose which job to download or delete.



The Export allows you to send an email a file with selected job records



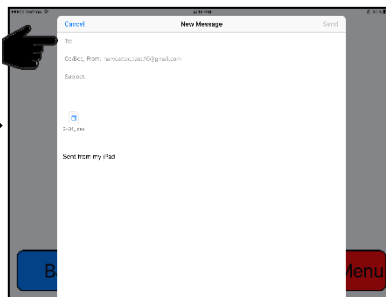
When the Export page is opened the bale information in each job will be retrieved.



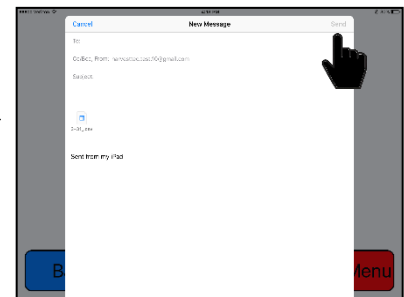
When all bales have been retrieved, Export tab will activate, select a job(s) to export



If choosing one job to email, select the Mail tab. Multiple jobs can be selected



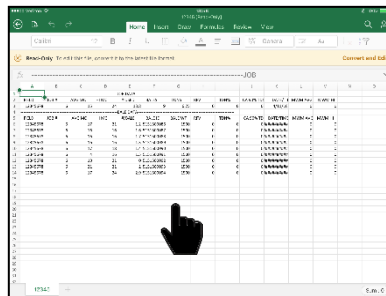
Email will appear w/file attached, enter address
*If two or more jobs selected, email will appear



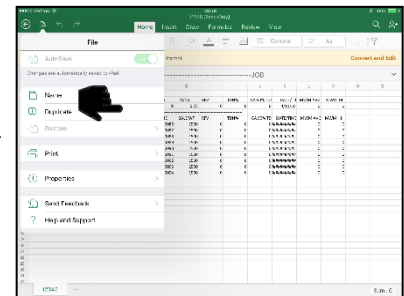
Press the Send button in top right corner, (your iPad notification sound will play)



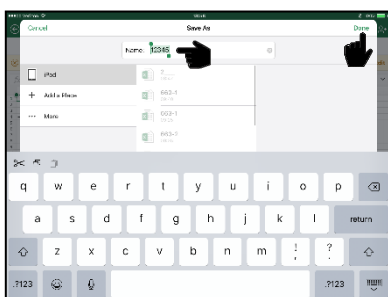
If choosing to view job on iPad, recommended to download Excel app to view job records information



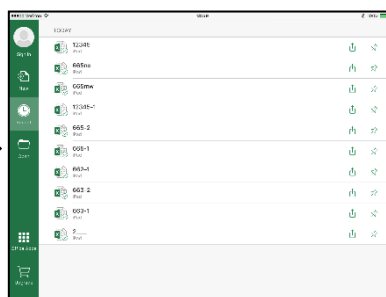
After Excel app is selected, the job record spreadsheet will open
*iPad can only view 1 job at a time.



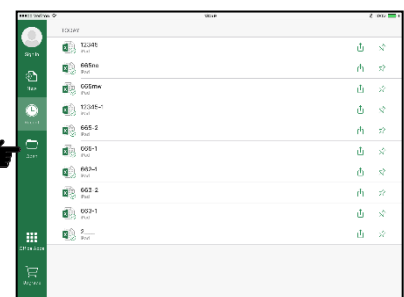
To save the job, select Name from the drop down tab



Enter desired name in center of page and press Save on the top right corner



After selecting Save, the list of saved files in Excel will appear. Select any job to view



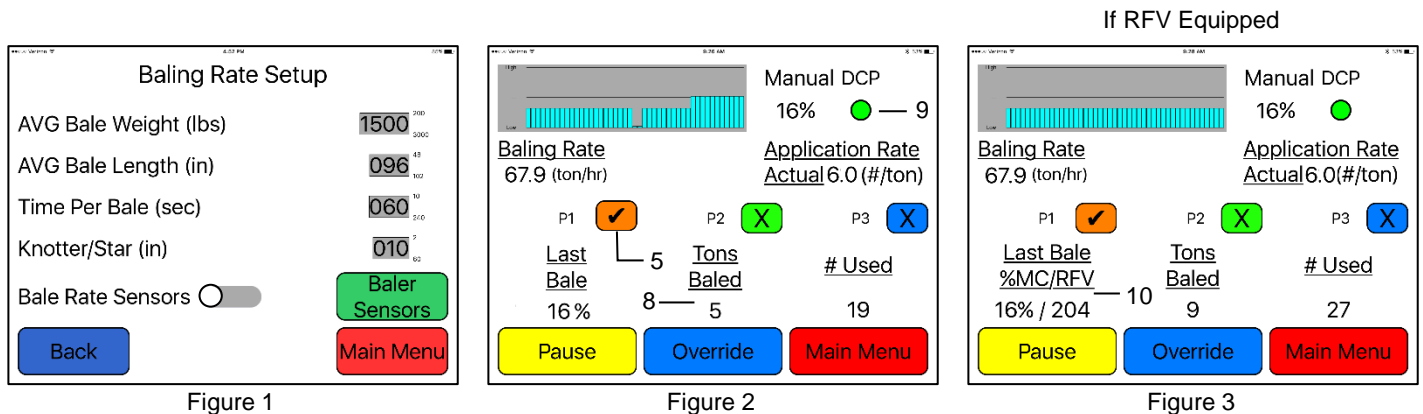
You also can view the jobs saved by selecting Open tab after opening the Excel app

First Time and Annual Startup Instructions – Large Square Balers

THE UNIT MUST BE CHECKED OUT BEFORE FIELD OPERATION!

Check and Prime the Pumps

1. Put 10 gal of water in tank and turn main ball valve on.
2. Inspect for any leaks or drips at this time. If any are found tighten or replace area or fitting.
3. Press the SETUP MODE key. Turn bale rate sensors off (Figure 1). Make sure the AVG Bale Weight is 1500 lbs (680kg) and the AVG Baler Length is 96" (243cm), Time per bale is 60 seconds, and press the MAIN MENU key to return to the opening screen.
4. Press the MANUAL MODE key and the screen will appear.



Note: The system comes with the tips already installed on the spray shield or nozzle tubes.

Pump	Low Output (Lbs / Ton) (L/MT)	High Output (Lbs / Ton) (L/MT)
1	1.1 – 1.5 (.5 - .7L)	1.9 – 2.6 (.9 – 1.2L)
2	1.9 – 2.6 (.86 – 1.2L)	2.9 – 3.9 (1.3 – 1.8L)
3	2.9 – 3.9 (1.3 – 1.8L)	5.7 – 7.7 (2.6 – 3.5L)

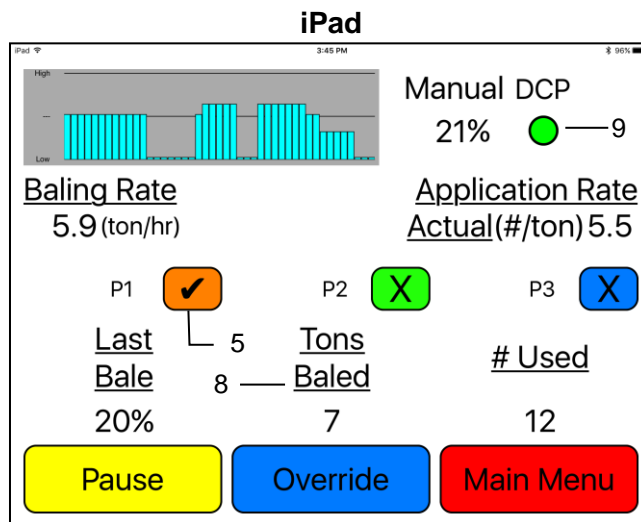
5. Turn pump 1 on (P1). To turn the pump on, select the colored box next to P1 and change the 'X' to a check mark. Repeat the process for pumps 2 and 3 (P2 and P3).
6. This process will also be used to prime the pumps whenever needed.
7. While running pumps check for a good spray pattern out of the respective tips and verify that no parts of the system are leaking.
8. While doing these tests the Volume Used on the bottom of the screen will be increasing, this verifies that the flow meter is functioning.
9. The DCP button displays your connection signal with the Bluetooth receiver. Green – DCP is connected, Yellow – DCP is connecting, Red – DCP not connected. Pressing MAIN MENU key to return to the initial startup screen.
10. If your applicator is RFV equipped (figure 3), the RFV value of the last bale will be displayed next to the last bale moisture reading.

First Time and Annual Startup Instructions – Round Balers

THE UNIT MUST BE CHECKED OUT BEFORE FIELD OPERATION!

Check and Prime the Pumps

1. Put 10 gal (5L) of water in tank and turn main ball valve on.
2. Inspect for any leaks or drips at this time. If any are found tighten or replace area or fitting.
3. Turn controller on.
4. Press the SETUP MODE key. Make sure the AVG Bale weight is 1500 lbs (680kg), and Time Per Bale is 60 seconds. Press the MAIN MENU key to return to the opening screen.
5. Press the MANUAL MODE key and the screen shown below will appear.



Note: The system comes with the high tips already installed on the spray shield or nozzle tubes. Test the system with the tips you will use most often.

Pump	Low Output (Lbs / Ton) (L/MT)	High Output (Lbs / Ton) (L/MT)
1	0.7 – 1.2 (.3 - .5L)	1.3 – 1.9 (.6 - .9L)
2	1.7 – 2.4 (.7 - 1.1L)	2.6 – 3.6 (1.2 - 1.6L)
3	2.5 – 3.5 (1.2 - 1.6L)	4.9 – 6.8 (2.2 - 3.0L)

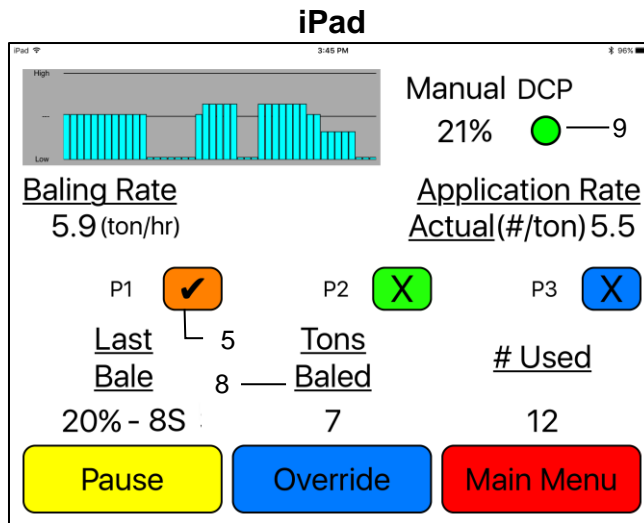
6. Turn pump 1 on (P1). To turn the pump on, select the colored box next to P1 and change the 'X' to a check mark Repeat the process for pumps 2 and 3 (P2 and P3).
7. This process will also be used to prime the pumps whenever needed.
8. While running pumps check for a good spray pattern out of the respective tips and verify that no parts of the system are leaking.
9. While doing these tests the Volume Used on the bottom of the screen will be increasing, this verifies that the flow meter is functioning.
10. The DCP button displays your connection signal with the Bluetooth receiver. Green – DCP is connected, Yellow – DCP is connecting, Red – DCP not connected. Pressing MAIN MENU key to return to the initial startup screen.

First Time and Annual Startup Instructions – Small Square Balers

THE UNIT MUST BE CHECKED OUT BEFORE FIELD OPERATION!

Check and Prime the Pumps

11. Put 10 gal (5L) of water in tank and turn main ball valve on.
12. Inspect for any leaks or drips at this time. If any are found tighten or replace area or fitting.
13. Turn controller on.
14. Press the SETUP MODE key. Turn bale rate sensors off. Make sure the AVG Bale Weight is 100 lbs (45kg) and the AVG Baler Length is 36" (92cm), Time per bale is 10 seconds, and press the MAIN MENU key to return to the opening screen.
15. Press the MANUAL MODE key and the screen shown below will appear.



Note: The system comes with the tips already installed on the spray shield or nozzle tubes.

Pump	2-Tie Baler Tip Output (Lbs / Ton) (L/MT)	3-Tie Baler Tip Output (Lbs / Ton) (L/MT)
1	1.2 – 1.6 (.5 - .7L)	1.8 – 2.6 (.8 - 1.2L)
2	3.6 – 5.0 (1.6 - 2.3L)	3.6 – 5.0 (1.6 - 2.3L)
3	6.7 – 9.3 (3.0 - 4.2L)	10.0 – 13.4 (4.5 - 6.1L)

16. Turn pump 1 on (P1). To turn the pump on, select the colored box next to P1 and change the 'X' to a check mark Repeat the process for pumps 2 and 3 (P2 and P3).
17. This process will also be used to prime the pumps whenever needed.
18. While running pumps check for a good spray pattern out of the respective tips and verify that no parts of the system are leaking.
19. While doing these tests the Volume Used on the bottom of the screen will be increasing, this verifies that the flow meter is functioning.
20. The DCP button displays your connection signal with the Bluetooth receiver. Green – DCP is connected, Yellow – DCP is connecting, Red – DCP not connected. Pressing MAIN MENU key to return to the initial startup screen.

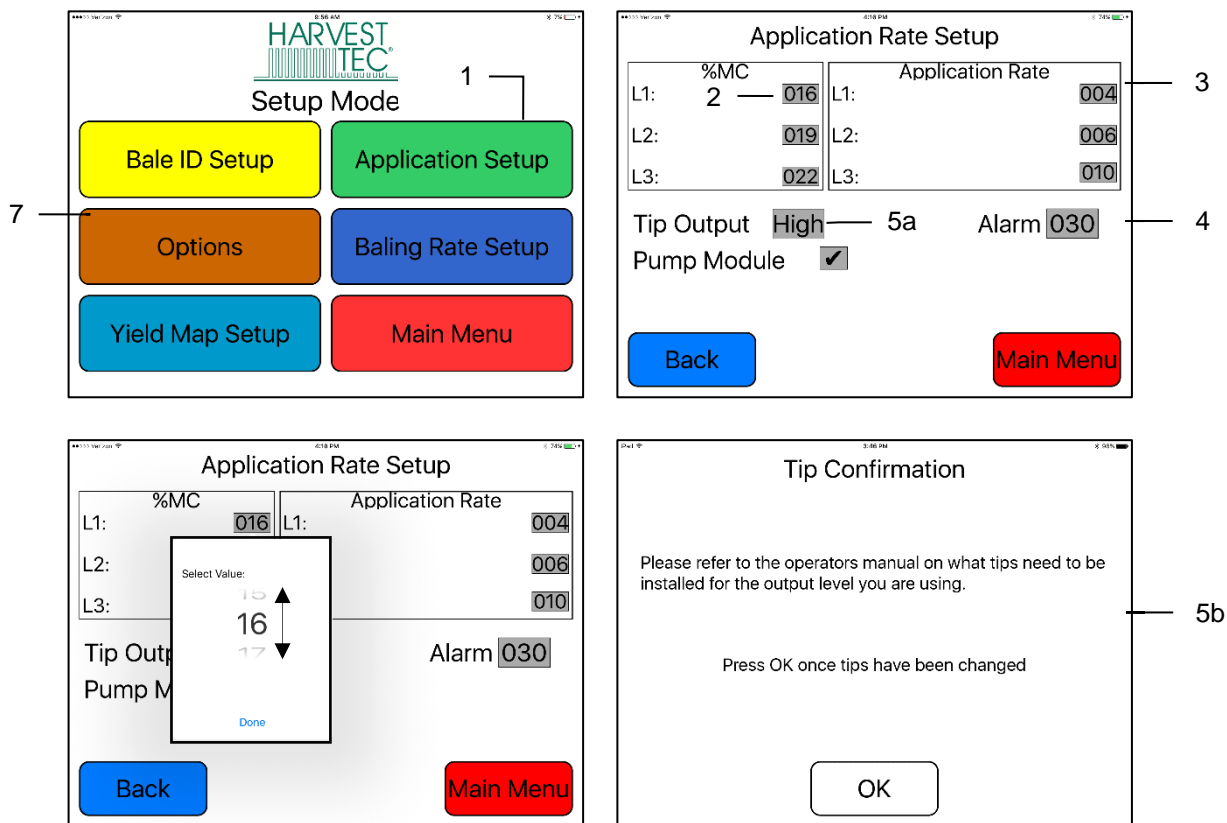
Setting Up the System for initial use with the iPad – Large Square Balers

In this mode you will setup your initial application rate and baling rate.

**Use the following information for Large Square Balers.*

Application Rate

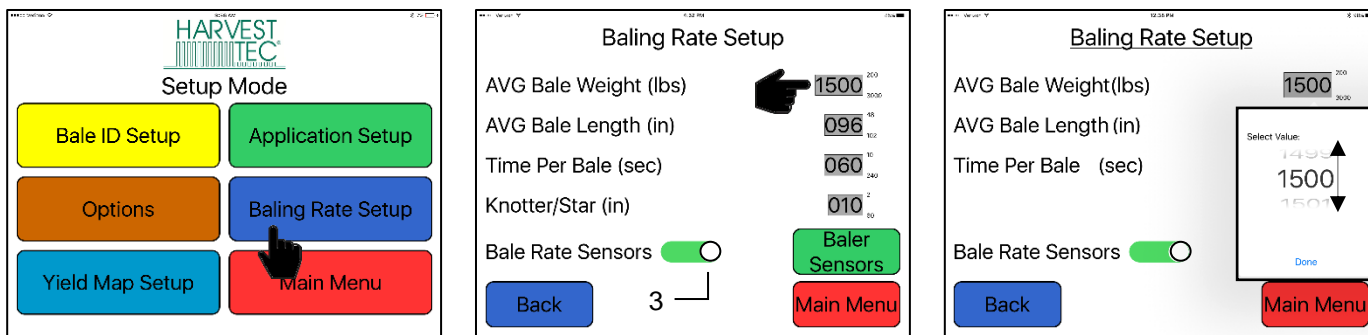
After pushing the SETUP MODE key in the Main Menu screen, the top left screen will appear:



1. On the Setup Mode screen press the APPLICATION RATE key. Once selected the SETUP APPLICATION RATE screen will be shown. (Top right picture)
2. Press any of the grey number values to the right of %MC to adjust their figures. The scroll pad shown on the bottom left will display. Remember level 1 must be lower than level 2 and level 2 must be lower than level 3. Press Done, when value has been selected. Harvest Tec products recommend set points of 16, 19, and 22 % MC levels. These are preset from the factory.
3. To change rate of chemical application, press any of the grey number values to the right of RATE. Remember level 1 must be lower than level 2 and level 2 must be lower than level 3. Press Done, when value has been selected. Harvest Tec products recommend rates of 4, 6, and 10 lbs/ton (2,3, 5 L/MT). These rates are preset from the factory. Press Back to return to previous screen. **IT IS THE OPERATORS RESPONSIBILITY TO FOLLOW THE RECOMMENDATIONS OF THE PRESERVATIVE. ONLY THE OPERATOR CAN APPLY THE PROPER RATE.**
4. To set the alarm, press the grey number value and set the level at which you want the alarm to activate. To turn the alarm off, set level above 50.
5. Press the grey area next to Tip Output to **cycle between the high and low sets of tips (5a)**. Use the correct tip set for the field conditions. The tip confirmation screen will appear (5b). Press OK once tips are changed.
6. Next press the BACK key found on the bottom left hand figure of the screen to return to SETUP MODE screen or press MAIN MENU key on bottom right hand figure of the screen to return to opening screen.
7. Press OPTIONS to adjust the unit between metric and standard units.

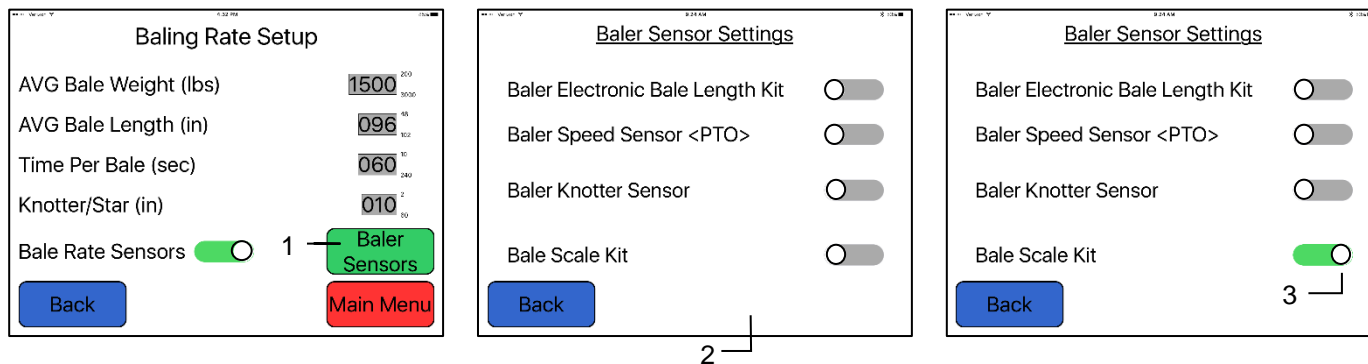
Baling Rate Settings – Large Square Balers

After pushing the SETUP MODE key in the Main Menu screen, the screen on the left will appear:



1. On the setup mode screen press the BALING RATE key.
2. Press the grey number value to the right of AVG Bale Weight (Lbs). To adjust the weight of your bales, the scroll tool shown on the right will display. Scroll through the values to select correct information, press DONE when value has been selected. The information will be saved until updated. Use the same procedure for adjusting bale length and time per bale.
3. Large square balers are equipped with Bale Rate Sensors which can be turned ON by sliding the bar to the right as shown above. A green bar indicates that the bale rate sensors are on. While a grey bar means the bale rate sensors are off.
Note: Bale rate sensors are used instead of a fixed time per bale to help determine a ton per hour reading.
4. Press the BACK key found on the bottom left hand figure of the screen to return to SETUP MODE screen or press the MAIN MENU key to return to the opening screen.

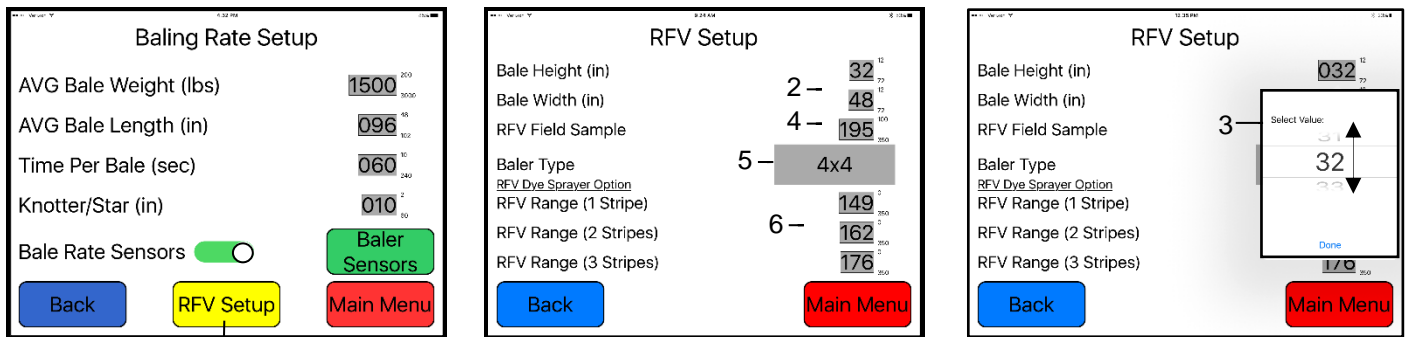
Baling Rate Settings – Baler Sensors



1. On the Baling Rate Setup screen select the Baler Sensors Tab.
2. Ensure all baler sensors are turned off on the Baler Sensor Settings Tab.
3. If using a Bale Scale Kit, turn on that sensor by sliding the tab to the right. A green bar indicates the sensor is turned on.

RFV Setup – Large Square Balers Only

Use the information below when your applicator is RFV Equipped. *Only available on large square balers.



1. Select the RFV Setup tab on the Baling Rate Setup Screen.
2. Select the correct height and width of bale by selecting the grey area. All values can be changed.
3. After selecting a value to change, a menu will appear to scroll through and select the correct value and press done to save the information.
4. Select the RFV Field Sample value and input the correct value. *This is the RFV value that has been tested by a lab, which is needed to properly measure the RFV value when baling.
5. Choose the correct baler type: 3x4, 3x4, 4x4, or 3x4 Krone HDP
6. Select your desired RFV ranges from each tip to show either 1 stripe, 2 stripes, or 3 stripes. The preset values from the factory will be set at 150, 170, and 190.

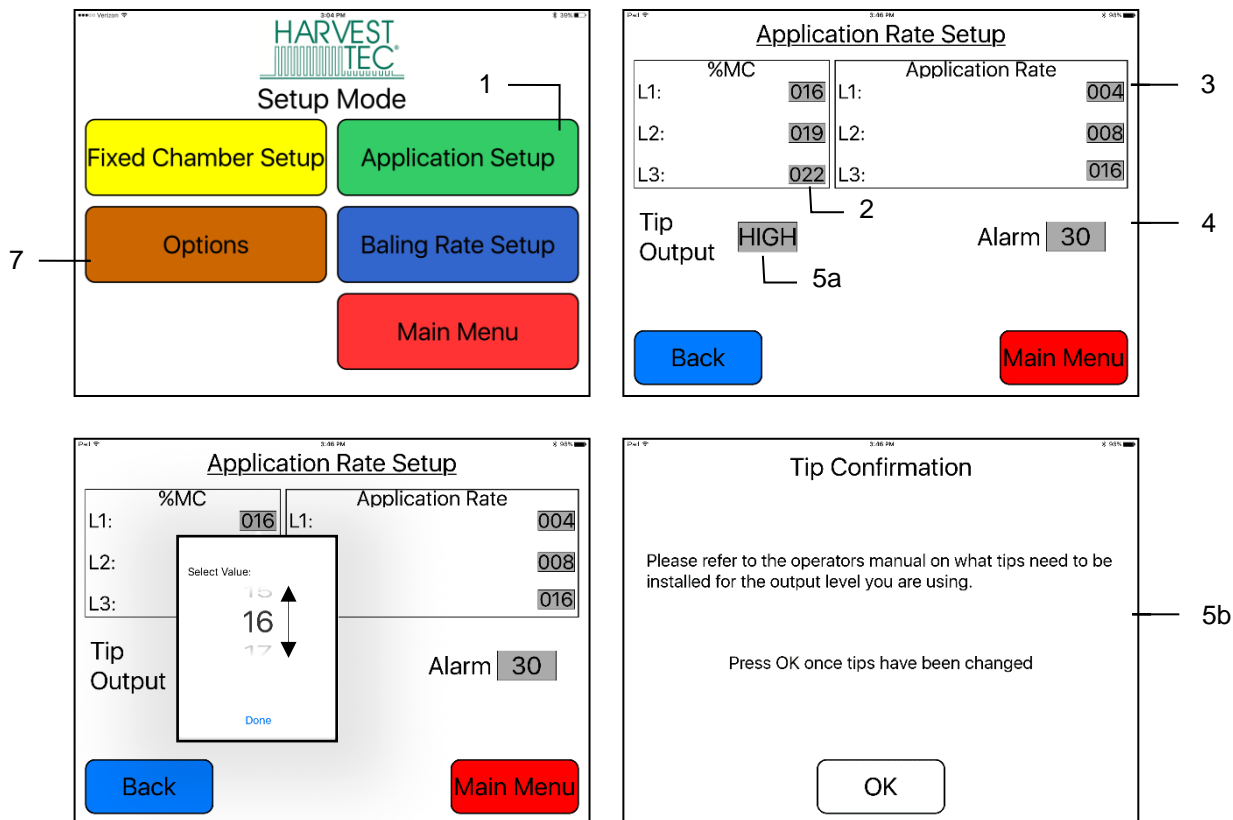
***If you are baling hay with an RFV value below the selected 1 stripe value, the system will not spray the bale.**

Setting Up the System for initial use with the iPad – Round Balers

In this mode you will setup your initial application rate and baling rate.

Application Rate

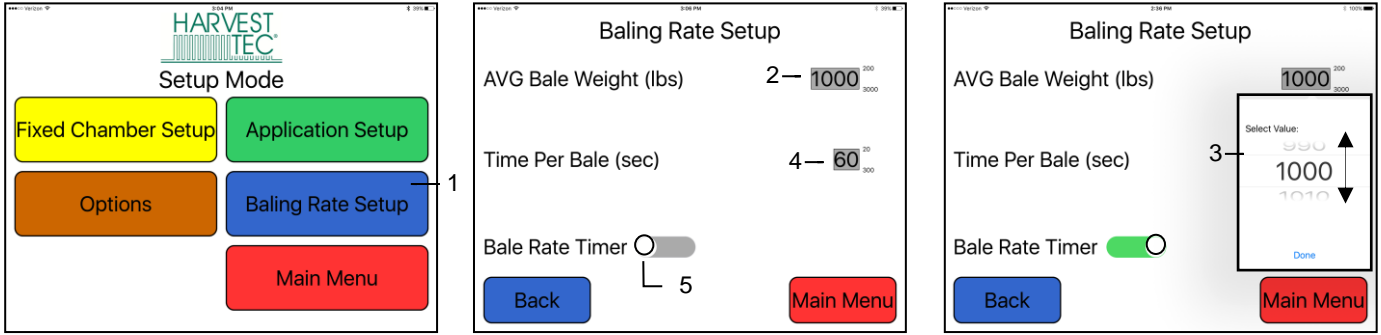
After pushing the SETUP MODE key in the Main Menu screen, the top left screen will appear:



1. On the Setup Mode screen press the APPLICATION RATE key. Once selected the SETUP APPLICATION RATE screen will be shown. (Top right picture)
2. Press any of the grey number values to the right of %MC to adjust their figures. The scroll pad shown on the bottom left will display. Remember level 1 must be lower than level 2 and level 2 must be lower than level 3. Press Done, when value has been selected. Harvest Tec products recommend set points of 16, 22, and 26 % MC levels. These are preset from the factory. Press Back to return.
3. To change rate of chemical application, press any of the grey number values to the right of RATE. Remember level 1 must be lower than level 2 and level 2 must be lower than level 3. Press Done, when value has been selected. Harvest Tec products recommend rates of 4, 8, and 16 lbs/ton (2,3,5 L/MT). These rates are preset from the factory. Press Back to return to previous screen. **IT IS THE OPERATORS RESPONSIBILITY TO FOLLOW THE RECOMMENDATIONS OF THE PRESERVATIVE. ONLY THE OPERATOR CAN APPLY THE PROPER RATE.**
4. To set the alarm, press the grey number value and set the level at which you want the alarm to activate. To turn the alarm off, set level above 50.
5. Press the grey area next to Tip Output to **cycle between the high and low sets of tips** (5a). Use the correct tip set for the field conditions. The tip confirmation screen will appear (5b). Press OK once tips are changed.
6. Next press the BACK key found on the bottom left hand figure of the screen to return to SETUP MODE screen or press MAIN MENU key on bottom right hand figure of the screen to return to opening screen.
7. Press OPTIONS to adjust the unit between metric and standard units.

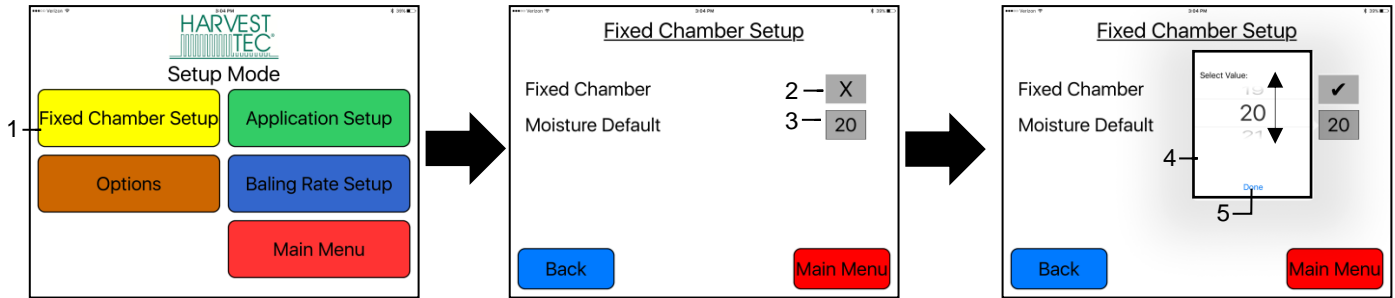
Baling Rate Settings – Round Balers

iPad Operation



1. On the setup mode screen press the BALING RATE key.
2. Press the grey number value to the right of AVG Bale Weight (Lbs). To adjust the weight of your bales, the scroll tool shown on the right will display.
3. Scroll through the values to select correct information, press DONE when value has been selected.
4. Use the same procedure for adjusting time per bale.
 Note: Only count time that hay is coming into the baler, do not count tie time or drive time.

Fixed Chamber Setup



1. Press the Fixed Chamber Setup tab
2. If using a fixed chamber baler, select the X to turn the feature on. The ✓ indicates ON.
3. When using a fixed chamber baler, select the moisture default reading to adjust.
4. Adjust the moisture level to the previous bale moisture, by scrolling up or down to the desired level.
5. Press the Done key to save this information. The information will remain until it is changed again. The moisture default number needs to be set for the highest moisture that will be found in the bale. The moisture default will be the moisture setting used for the first half of the bale formation. During the second half of the bale formation the system will utilize the moisture discs to adjust the moisture reading every three seconds.
 - a. The first half of the next bale will use the average moisture readings from the previous bale, until the moisture discs can take a reading and adjust accordingly; during the second half of bale.

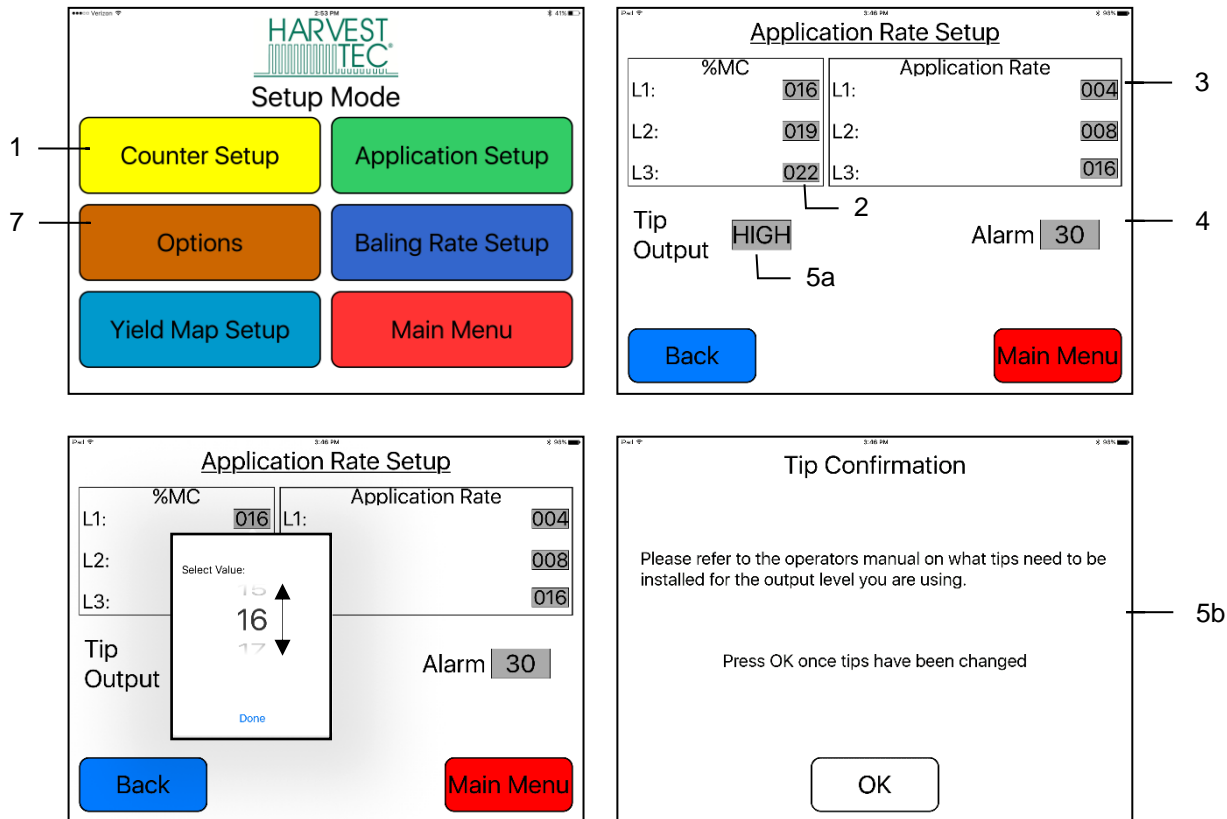
- The Bale Rate Timer needs to always be set to ON when operating in Fixed Chamber mode.
- If the Bale Rate Timer is set to OFF and in Fixed Chamber mode the system will **only** use the default moisture level for the entire bale and the tons/hour that is set up in the Baling Rate screen. Once the Bale Rate Timer is set to ON the system will return to normal operation.

Setting Up the System for initial use with the iPad – Small Square Balers

In this mode you will setup your initial application rate and baling rate.

Application Rate

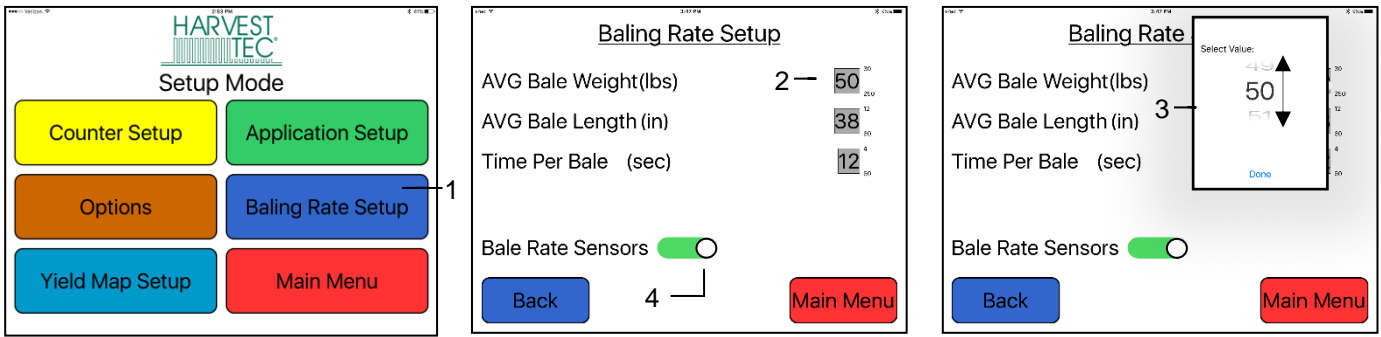
After pushing the SETUP MODE key in the Main Menu screen, the top left screen will appear:



8. On the Setup Mode screen press the APPLICATION RATE key. Once selected the SETUP APPLICATION RATE screen will be shown. (Top right picture)
9. Press any of the grey number values to the right of %MC to adjust their figures. The scroll pad shown on the bottom left will display. Remember level 1 must be lower than level 2 and level 2 must be lower than level 3. Press Done, when value has been selected. Harvest Tec products recommend set points of 16, 22, and 26 % MC levels. These are preset from the factory. Press Back to return.
10. To change rate of chemical application, press any of the grey number values to the right of RATE. Remember level 1 must be lower than level 2 and level 2 must be lower than level 3. Press Done, when value has been selected. Harvest Tec products recommend rates of 4, 6, and 10 lbs/ton (2,3,5 L/MT). These rates are preset from the factory. Press Back to return to previous screen. **IT IS THE OPERATORS RESPONSIBILITY TO FOLLOW THE RECOMMENDATIONS OF THE PRESERVATIVE. ONLY THE OPERATOR CAN APPLY THE PROPER RATE.**
11. To set the alarm, press the grey number value and set the level at which you want the alarm to activate. To turn the alarm off, set level above 50.
12. Press the grey area next to Tip Output to **cycle between the high and low sets of tips (5a)**. Use the correct tip set for the field conditions. The tip confirmation screen will appear (5b). Press OK once tips are changed.
13. Next press the BACK key found on the bottom left hand figure of the screen to return to SETUP MODE screen or press MAIN MENU key on bottom right hand figure of the screen to return to opening screen.
14. Press OPTIONS to adjust the unit between metric and standard units.

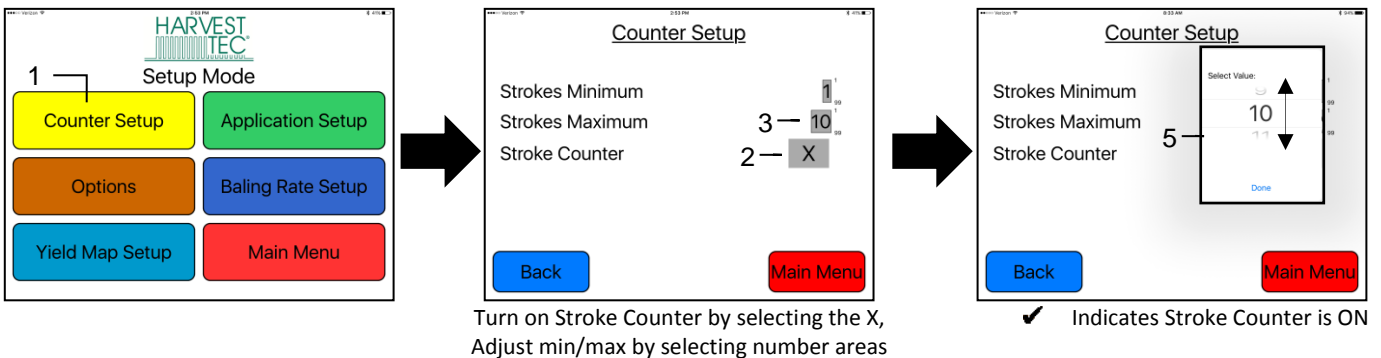
Baling Rate Settings

After pushing the SETUP MODE key in the Main Menu screen, the screen on the left will appear:



5. On the setup mode screen press the BALING RATE key.
 6. Press the grey number value to the right of AVG Bale Weight (Lbs).
 7. To adjust the weight of your bales, the scroll tool shown will display. Scroll through the values to select correct information, press DONE when value has been selected. The information will be saved until updated. Use the same procedure for adjusting bale length and time per bale.
 8. Small square balers are equipped with Bale Rate Sensors which can be turned ON by sliding the bar to the right as shown above. A green bar indicates that the bale rate sensors are on. While a grey bar means the bale rate sensors are off.
- Note: Bale rate sensors are used instead of a fixed time per bale to help determine a real time ton per hour reading.

Stroke Counter Setup



1. On the setup mode screen press the COUNTER SETUP key.
2. Turn on the stroke counter by select the X, which will change to an ✓, indicating the sensor is ON
3. Adjust the stroke maximum and minimum level by selecting the grey area on the right screen
4. Scroll through the values to select correct setting, press DONE when value has been selected

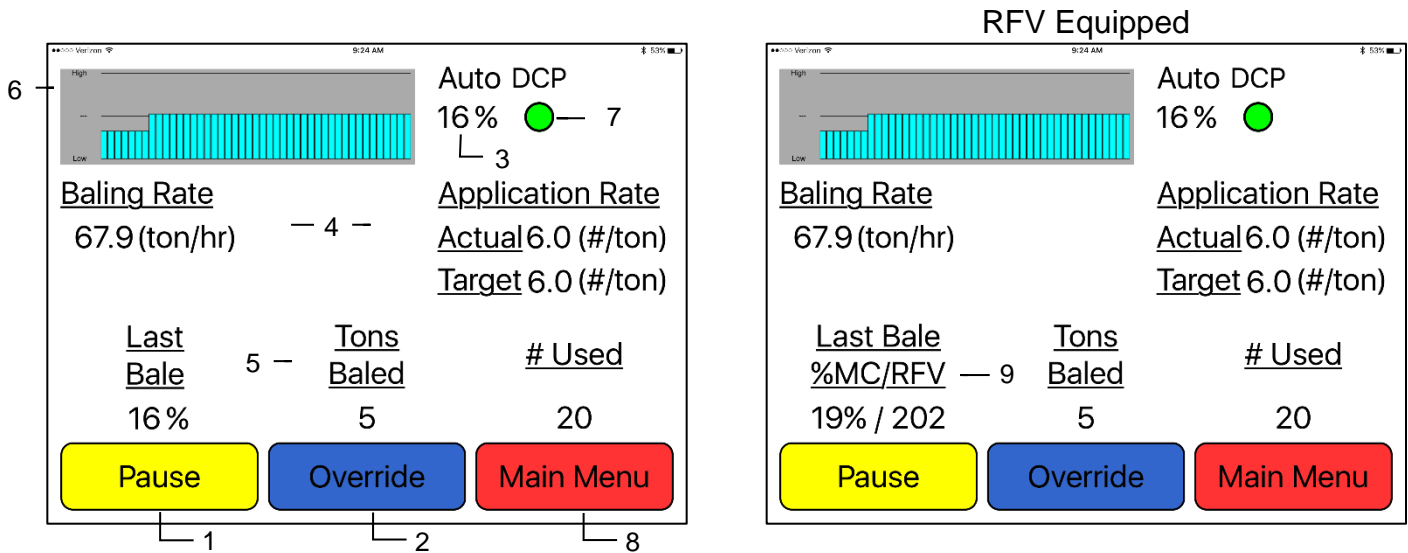
Operation Instructions – Large Square Balers

Automatic mode will automatically apply product based on hay moisture content sensed by the moisture sensors and the operator's presets. See SETTING UP SYSTEM FOR INITIAL USE to change any of these settings. Manual mode will apply preservative to the hay at a fixed rate regardless of the moisture content.

**Use the following information Large Square Balers.*

Automatic Mode

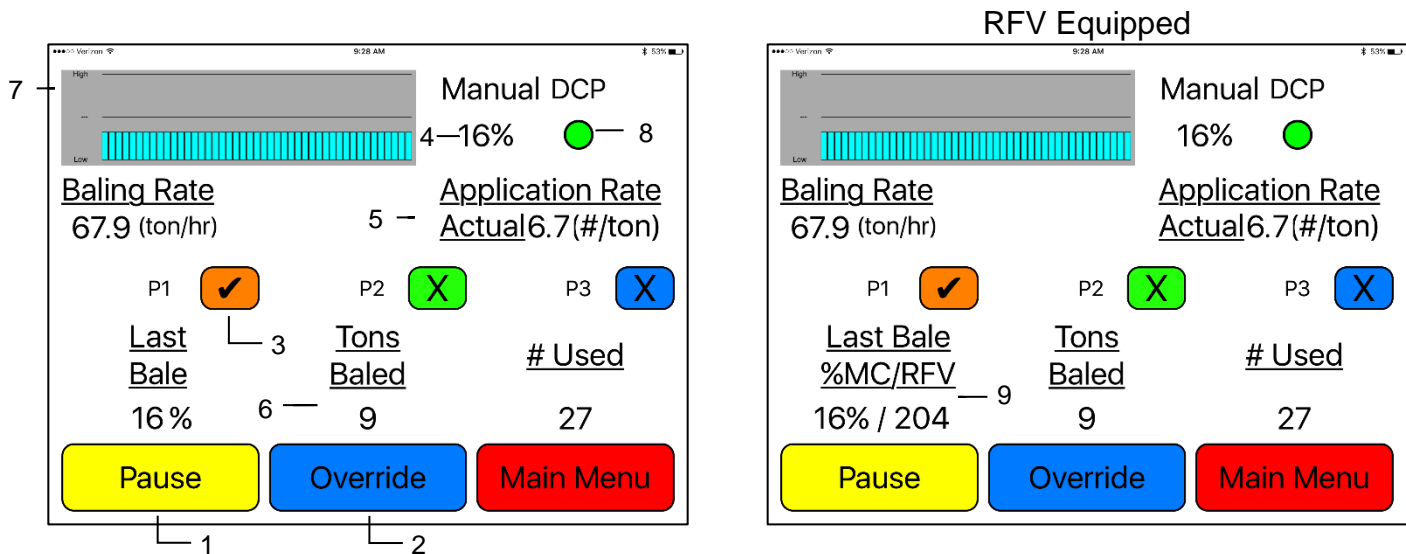
After pushing the AUTOMATIC MODE key in the Main Menu screen, the following screen will appear:



1. To pause the unit while in operation select the Pause key.
2. Push the OVERRIDE key to turn on all three pumps at the same time for full output of the system. Use this mode when going through a short area of wet crop.
3. The moisture content is shown in the upper right hand corner.
4. Baling Rate and Application Rate are shown in the middle of the screen. The operator sets the target application rate and baling rate in the setup mode; the actual rate should be within +/- one pound.
5. Volume used shown at the bottom of the screen will show accumulated pounds of preservative used on the go. This number will reset at power down, but remains in the job record screen. **NOTE: Initial start-up requires pressing the New Job key in the Job Records screen in order for Volume Used accumulation to be recorded. This only needs to be done once on initial start-up of system and not every time the system is started for operation.** (See JOB RECORDS screen)
6. The graph shows the moisture trend from the past 90 seconds in 3 second intervals.
7. The DCP button shown when using an iPad displays your connection signal with the Bluetooth receiver. Green – DCP is connected, Yellow – DCP is connecting, Red – DCP not connected.
8. Press the MAIN MENU key to return to the opening screen.
9. When your applicator is RFV Equipped, the RFV value will be displayed next to the Last Bale moisture reading in the bottom left corner of the screen.

Manual Mode – Large Square Balers

After pushing the MANUAL MODE key in the Main Menu screen, the following screen will appear:



1. To pause the unit during operation select the Pause key.
2. Push the OVERRIDE key to turn on all three pumps at the same time for full output of the system. Use this mode when going through a short area of wet crop.
3. To turn the pump on, select the colored box next to P1 and change the 'X' to a check mark. In Manual Mode (regardless of moisture, baling rate or bale weight) the outputs are fixed rates as follows:

Large Square Balers

Pump	Low Tips Output (Lbs / HR) (L)	High Tips Output (Lbs / HR) (L)
1	60 (27L)	100 (45L)
2	100 (45L)	150 (68L)
3	150 (68L)	300 (136L)

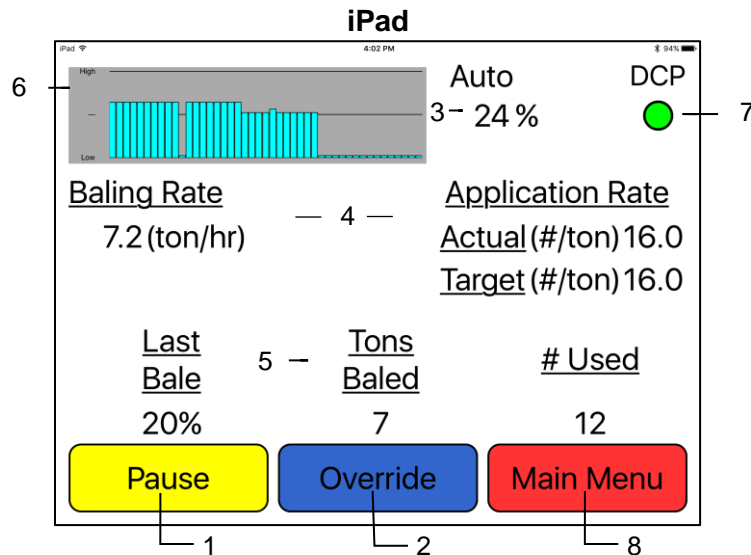
4. The moisture content is shown in the upper right hand corner.
5. Baling rate and Application rate are shown in the middle of the screen. The output of a pump can be checked by dividing the preset output by the displayed baling rate. For example, if you have the high output tips in a large square baler and are running pump 1, by itself, your output is 100 lbs/hr. Given the baling rate shown on the above screen of 67.9 tons/hr, the application rate should be about 6.7 lbs/ton (100 lbs/hr divided by 6.7 tons/hr). The baling rate is set in the SETUP MODE.
6. Volume used shown at the bottom of the screen will show accumulated pounds of preservative used on the go. This number will reset at power down, but remains in the job record screen. **NOTE: Initial start-up requires pressing the New Job key in the Job Records screen in order for Volume Used accumulation to be recorded. This only needs to be done once on initial start-up.**
7. This graph shows the moisture trend from the last 90 seconds of baling (one reading every 3 seconds).
8. The DCP button shown displays your connection signal with the Bluetooth receiver. Green – DCP is connected, Yellow – DCP is connecting, Red – DCP not connected.
9. When your applicator is RFV Equipped, the RFV value will be displayed next to the Last Bale moisture reading in the bottom left corner of the screen.

Operation Instructions – Round Balers

Automatic mode will automatically apply product based on hay moisture content sensed by the moisture sensors and the operator's presets. See SETTING UP SYSTEM FOR INITIAL USE to change any of these settings. **Manual mode will apply preservative to the hay at a fixed rate regardless of the moisture.**

Automatic Mode

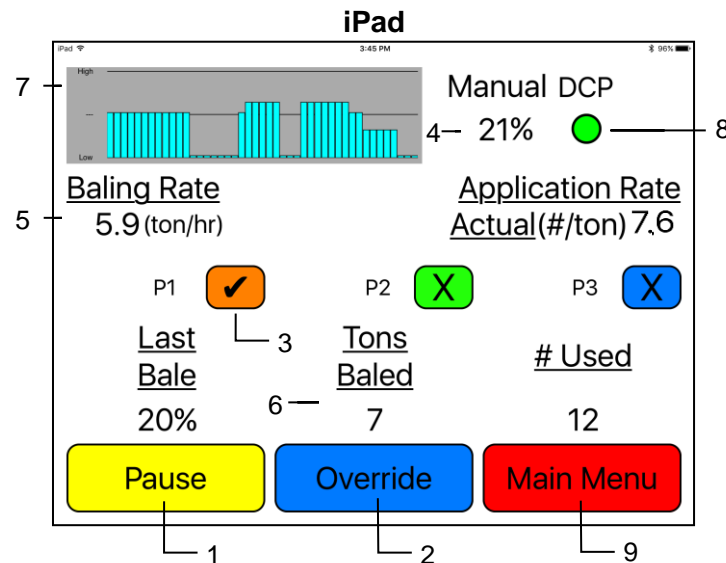
After pushing the AUTOMATIC MODE key in the Main Menu screen, the following screen will appear:



1. To pause the unit while in operation select the Pause key.
2. Push the OVERRIDE key to turn on all three pumps at the same time for full output of the system. Use this mode when going through a short area of wet crop.
3. The moisture content is shown in the upper right hand corner.
4. Baling Rate and Application Rate are shown in the middle of the screen. The operator sets the target application rate and baling rate in the setup mode; the actual rate should be within +/- one pound.
5. Volume used shown at the bottom of the screen will show accumulated pounds of preservative used on the go. This number will reset at power down, but remains in the job record screen. **NOTE: Initial start-up requires pressing the New Job key in the Job Records screen in order for Volume Used accumulation to be recorded. This only needs to be done once on initial start-up of system and not every time the system is started for operation.** (See JOB RECORDS screen)
6. The graph shows the moisture trend from the past 90 seconds in 3 second intervals.
7. The BMP button shown when using an iPad displays your connection signal with Bluetooth receiver. Green – DCP is connected, Yellow – DCP is connecting, Red – DCP not connected.
8. Press the MAIN MENU key to return to the opening screen.

Manual Mode – Round Balers

After pushing the MANUAL MODE key in the Main Menu screen, the following screen will appear:



1. To pause the unit during operation select the Pause key.
2. Push the OVERRIDE key to turn on all three pumps at the same time for full output of the system. Use this mode when going through a short area of wet crop.
3. To turn the pump on, select the colored box next to P1 and change the 'X' to a check mark. In Manual Mode (regardless of moisture, baling rate or bale weight) the outputs are fixed rates as follows:

Pump	Low Tips Output (Lbs / HR) (L)	High Tips Output (Lbs / HR) (L)
1	45 (20L)	75 (34L)
2	90 (41L)	140 (64L)
3	135 (61L)	265 (120L)

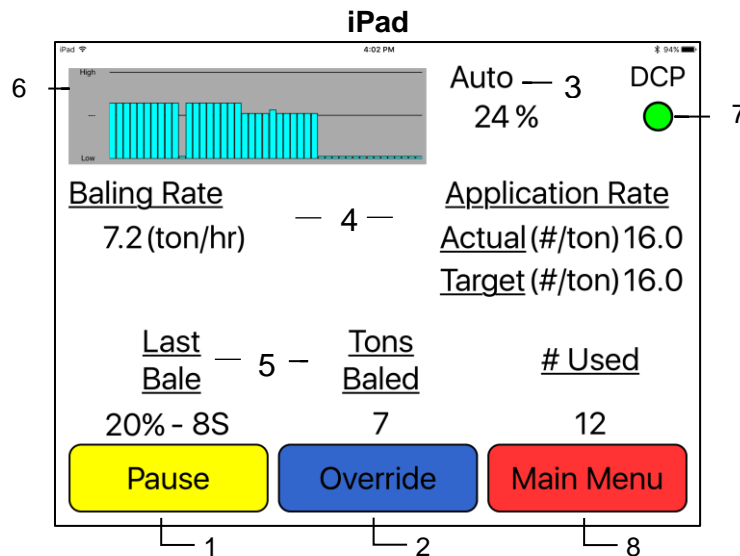
4. The moisture content is shown in the upper right hand corner.
5. Baling rate and Application rate are shown in the middle of the screen. The output of a pump can be checked by dividing the preset output (shown in step 3) by the displayed baling rate. For example, if you have the low output tips in and are running pump one, by itself, your output is 45 lbs/hr. Given the baling rate shown on the above screen of 5.9 tons/hr, the application rate should be about 7.6 lbs/ton (45 lbs/hr divided by 5.9 tons/hr). The baling rate is set in the SETUP MODE menu.
6. Volume used shown at the bottom of the screen will show accumulated pounds of preservative used on the go. This number will reset at power down, but remains in the job record screen. **NOTE: Initial start-up requires pressing the New Job key in the Job Records screen in order for Volume Used accumulation to be recorded. This only needs to be done once on initial start-up of system and not every time the system is started.**
7. This graph shows the moisture trend from the last 90 seconds of baling (one every 3 seconds).
8. The DCP button shown displays your connection signal with Bluetooth receiver.
Green – DCP is connected, Yellow – DCP is connecting, Red – DCP not connected.
9. Pressing MAIN MENU will return you to the opening screen.

Operation Instructions – Small Square Balers

Automatic mode will automatically apply product based on hay moisture content sensed by the moisture sensors and the operator's presets. See SETTING UP SYSTEM FOR INITIAL USE to change any of these settings. **Manual mode will apply preservative to the hay at a fixed rate regardless of the moisture.**

Automatic Mode

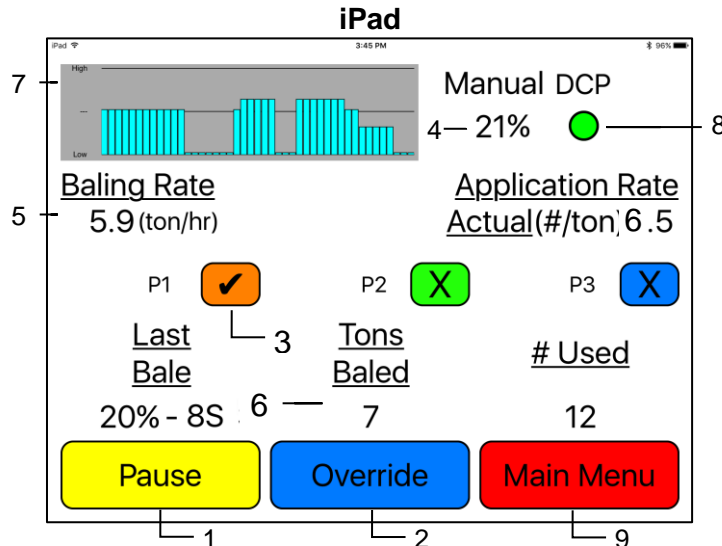
After pushing the AUTOMATIC MODE key in the Main Menu screen, the following screen will appear:



9. To pause the unit while in operation select the Pause key.
10. Push the OVERRIDE key to turn on all three pumps at the same time for full output of the system. Use this mode when going through a short area of wet crop.
11. The moisture content is shown in the upper right hand corner.
12. Baling Rate and Application Rate are shown in the middle of the screen. The operator sets the target application rate and baling rate in the setup mode; the actual rate should be within +/- one pound.
13. Volume used and strokes per bale are shown at the bottom of the screen will show accumulated pounds of preservative used, and strokes per bale on the go. This number will reset at power down, but remains in the job record screen. **NOTE: Initial start-up requires pressing the New Job key in the Job Records screen in order for Volume Used accumulation to be recorded. This only needs to be done once on initial start-up of system and not every time the system is started for operation.** (See JOB RECORDS screen)
14. The graph shows the moisture trend from the past 90 seconds in 3 second intervals.
15. The DCP button shown when using an iPad displays your connection signal with the Bluetooth receiver. Green – DCP is connected, Yellow – DCP is connecting, Red – DCP not connected.
16. Press the MAIN MENU key to return to the opening screen.

Manual Mode – Small Square Balers

After pushing the MANUAL MODE key in the Main Menu screen, the following screen will appear:



- To pause the unit during operation select the Pause key.
- Push the OVERRIDE key to turn on all three pumps at the same time for full output of the system. Use this mode when going through a short area of wet crop.
- To turn the pump on, select the colored box next to P1 and change the 'X' to a check mark. In Manual Mode (regardless of moisture, baling rate or bale weight) the outputs are fixed rates as follows:

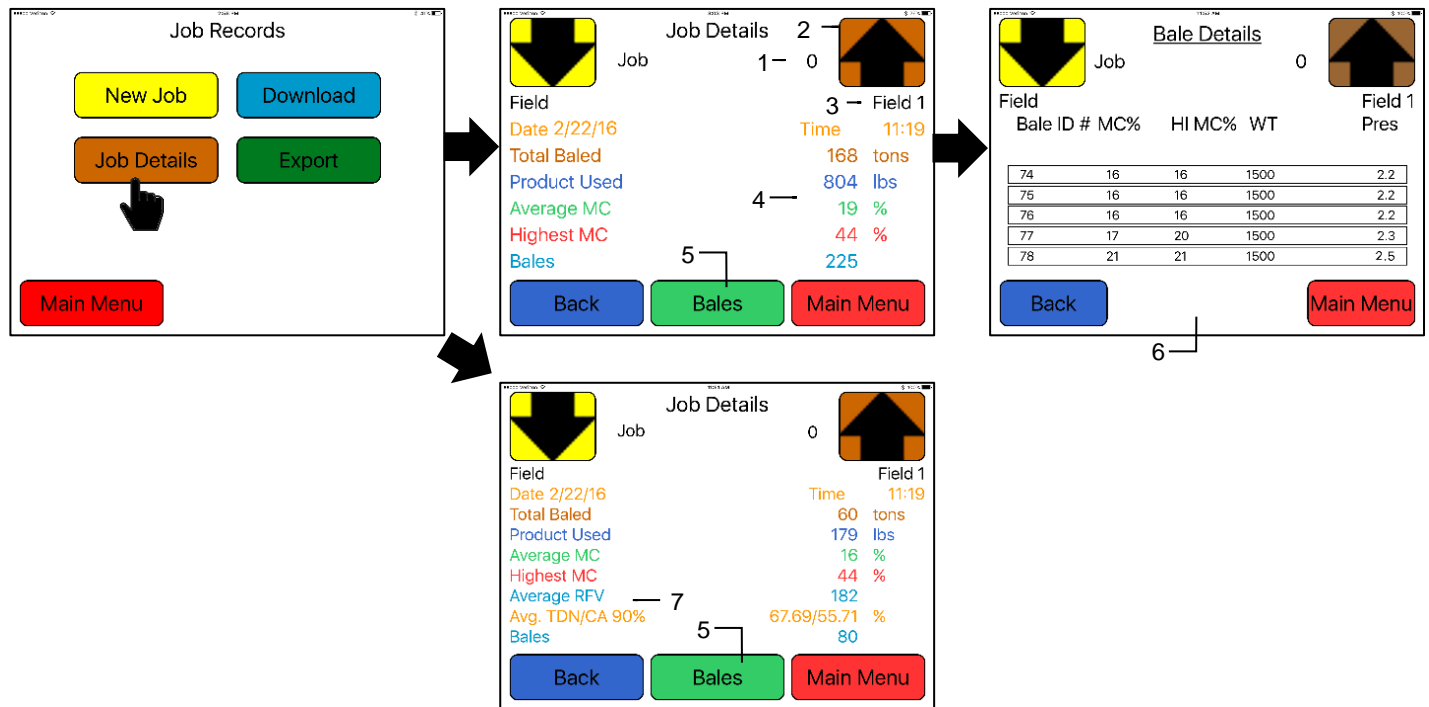
Small Square Balers

Pump	Low Tips Output (Lbs / HR) (L)	High Tips Output (Lbs / HR) (L)
1	25 (11L)	40 (18L)
2	75 (34L)	75 (34L)
3	145 (66L)	205 (93L)

- The moisture content is shown in the upper right hand corner.
- Baling rate and Application rate are shown in the middle of the screen. The output of a pump can be checked by dividing the preset output (shown in step 3) by the displayed baling rate. For example, if you have the high output tips in and are running pump 1, by itself, your output is 40 lbs/hr. Given the baling rate shown on the above screen of 5.9 tons/hr, the application rate should be about 6.5 lbs/ton (40 lbs/hr divided by 5.9 tons/hr). The baling rate is set in the SETUP MODE menu.
- Volume used and strokes per baler are shown at the bottom of the screen will show accumulated pounds of preservative used and strokes per bale on the go. This number will reset at power down, but remains in the job record screen. **NOTE: Initial start-up requires pressing the New Job key in the Job Records screen in order for Volume Used accumulation to be recorded. This only needs to be done once on initial start-up of system and not every time the system is started.**
- This graph shows the moisture trend from the last 90 seconds of baling (one reading every 3 seconds).
- The DCP button shown displays your connection signal with the Bluetooth receiver. Green – DCP is connected, Yellow – DCP is connecting, Red – DCP not connected.
- Pressing MAIN MENU will return you to the opening screen.

Job Records – Large Square Balers

After pushing the JOB RECORDS key in the Main Menu screen, the following screen will appear:



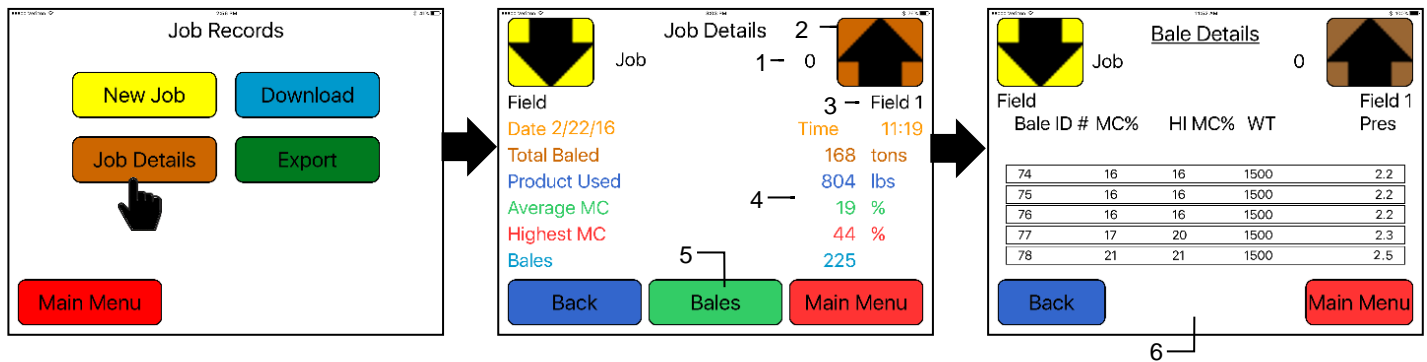
*When RFV Equipped, Average RFV, Ave TDN/CA90% info will be added

1. The job number will be displayed at the top center. The current job being viewed will always read "Job #: 0". Product used and average moisture content will be reset when the NEW JOB key is pressed. The job records screen will store up to 300 jobs allowing access previous jobs by using the up and down arrows.
2. Scrolling through previous jobs is done by pressing the UP or Down keys.
3. The field name is located under the up arrow.
4. The accumulated information from the field will be displayed in the middle of the screen. **Every time the NEW JOB key is pressed the accumulated pounds on auto and manual modes will be reset to zero.** After 300 jobs have been stored, the next time the NEW JOB key is pressed the system will start over with job one and the old job will be replaced.
5. Selecting the Bales button will open the Bale Details Screen.
6. The Bale Detail screen will display the individual bale information onto each line. Including Bale ID#, MC% (moisture percentage), HI MC% (high moisture percentage), WT (weight of bale) and Pres (preservative used per bale).
7. When your applicator system is RFV Equipped, the Average RFV and Avg. TDN/CA 90% calculations will be added to the job details screen.
8. To return the opening screen, press the MAIN MENU key.

NOTE: Initial start-up requires pressing the New Job key in the Job Records screen in order for Volume Used accumulation to be recorded. This only needs to be done once on initial start-up of system and not every time the system is started for operation.

Job Records – Round and Small Square Balers

After pushing the JOB RECORDS key in the Main Menu screen, the following screen will appear:



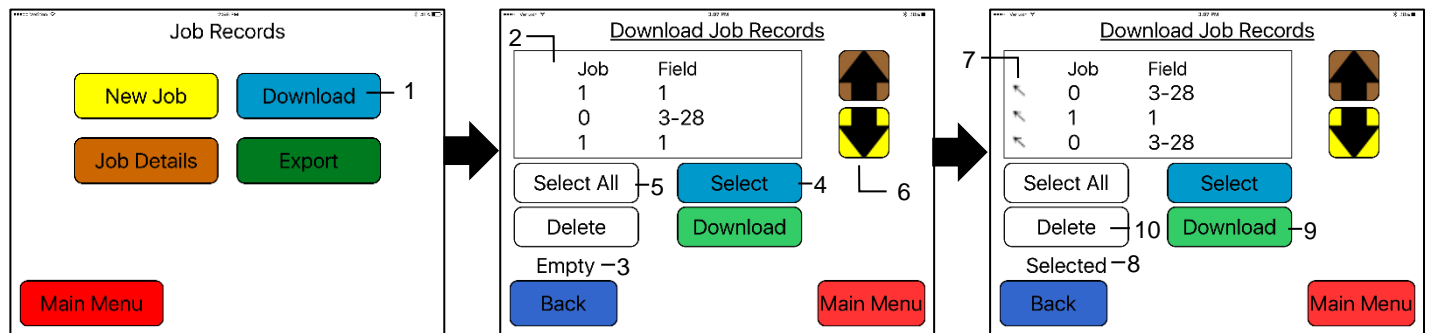
1. The job number will be displayed at the top center. The current job being viewed will always read "Job #: 0". Product used and average moisture content will be reset when the NEW JOB key is pressed. The job records screen will store up to 300 jobs allowing access previous jobs by using the up and down arrows.
2. Scrolling through previous jobs is done by pressing the UP or Down keys.
3. The field name is located under the up arrow.
4. The accumulated information from the field will be displayed in the middle of the screen. **Every time the NEW JOB key is pressed the accumulated pounds on auto and manual modes will be reset to zero.** After 300 jobs have been stored, the next time the NEW JOB key is pressed the system will start over with job one and the old job will be replaced.
5. Selecting the Bales button will open the Bale Details Screen.
6. The Bale Detail screen will display the individual bale information onto each line. Including Bale ID#, MC% (moisture percentage), HI MC% (high moisture percentage), WT (weight of bale) and Pres (pservative used per bale).

NOTE: Initial start-up requires pressing the New Job key in the Job Records screen in order for Volume Used accumulation to be recorded. This only needs to be done once on initial start-up of system and not every time the system is started for operation.


Download Job Records

**Use the following information for Large Square Balers, Round and Small Square Balers*

After pushing the JOB RECORDS key in the Main Menu screen, the following screen will appear:

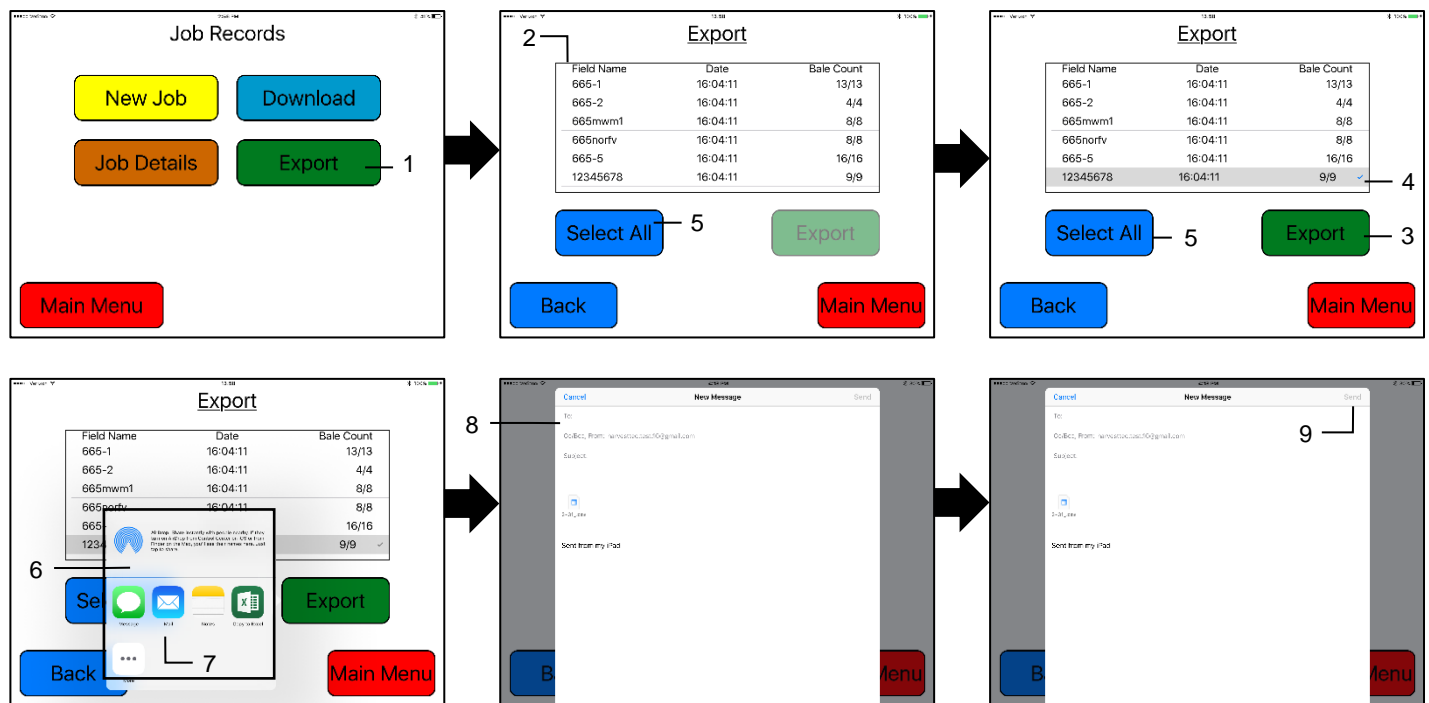


Prior to downloading job records a USB stick will need to be placed into the USB port on the applicator's Dual Channel Processor (DCP). Jobs will not be downloaded if the USB stick is plugged into the monitor.

1. To download the Job Records to a USB stick, select the Download button
2. The list of job records you have created, will display in the middle of the screen
3. When no jobs have been selected the status line will read Empty
4. To download individual job(s), tap the desired job(s) to be downloaded, or press the Select button
5. To select all of the jobs stored, press the Select All Button
6. Move through job records by selecting the up or down arrows
7. The  indicates selected jobs to be downloaded
8. When chosen jobs have been selected the status line will read Selected
9. Press Download button to download job records to USB Stick. The status line will read Downloading
10. Delete selected jobs by pressing the Delete button

Export Job Records (emailing records)

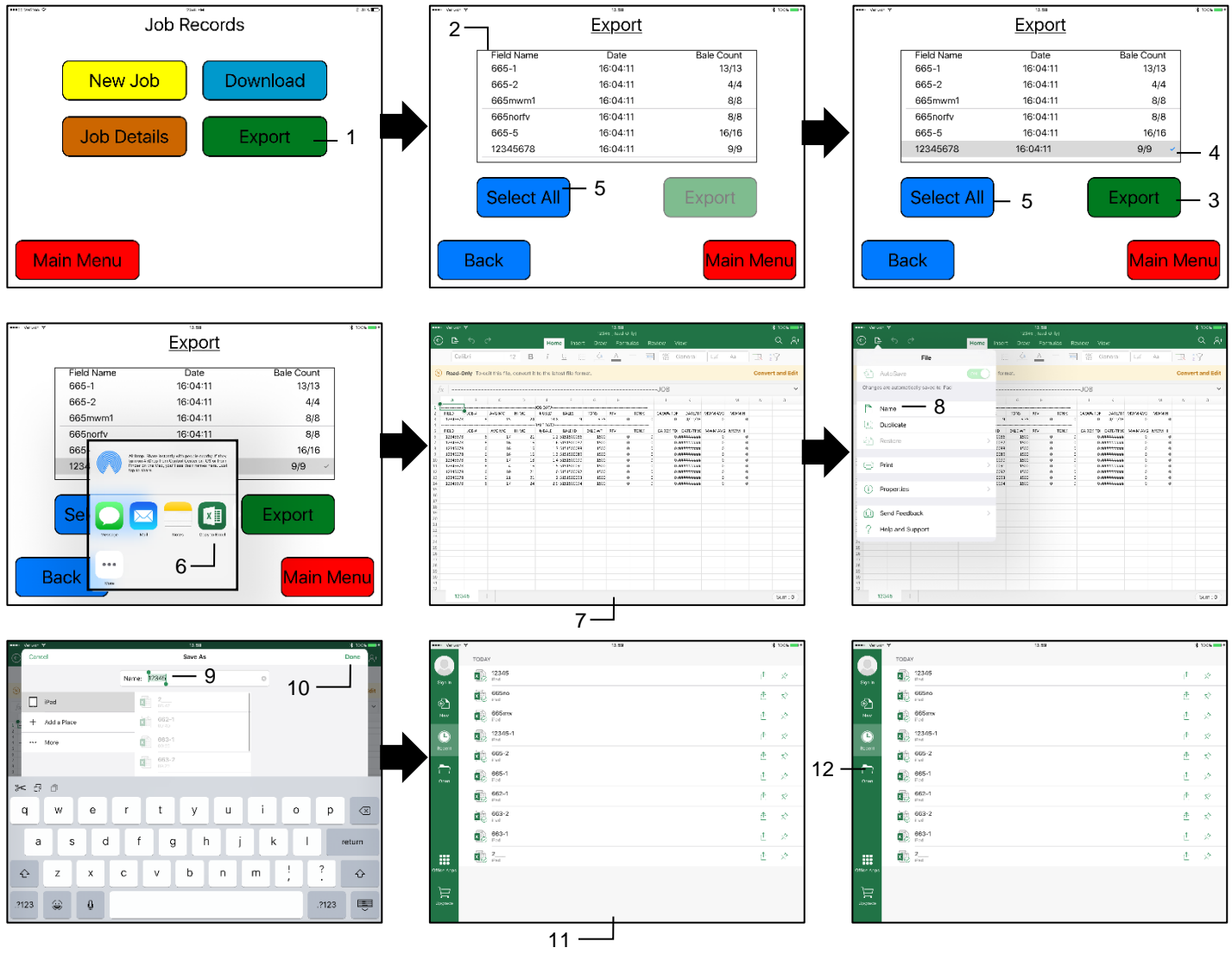
*Use the following information for Large Square Balers, Round and Small Square Balers



1. To export the Job Records through an email or save to the iPad select the Export button
2. The list of job records you have created, will display in the middle of the screen and the individual bale information will begin to download automatically. The number of bales will grow until equal to the number of bales available to export for each job record.
 - a. For example: When looking at a job record with 62 bales, the bale count will read 0/62 upon initially opening the page. The number will increase until it reads 62/62.
3. When all bales have been retrieved, the Export tab will become active
4. To export individual job(s), tap the desired job(s) to be exported. The ✓ indicated chosen job(s).
5. To select all of the jobs stored to be export, press the Select All Button
6. After selecting the Export tab, a small screen will appear with the mail app icon.
 - a. If selecting two or more jobs the email will automatically appear (skipping step 7)
7. Select the Mail app to open
8. Enter in the desired email address in the (To:) line of the email that will appear.
9. Press the send button to email the file to the email you have entered.

Export Job Records (saving to iPad)

*Use the following information for Large Square Balers, Round and Small Square Balers



- To export the Job Records through an email or save to the iPad select the Export button
- The list of job records you have created, will display in the middle of the screen and the individual bale information will begin to download automatically. The number of bales will grow until equal to the number of bales available to export for each job record.
 - For example: When looking at a job record with 62 bales, the bale count will read 0/62 upon initially opening the page. The number will increase until it reads 62/62.
- When all bales have been retrieved, the Export tab will become active
- To export individual job(s), tap the desired job(s) to be exported. The ✓ indicated chosen job(s).
- To select all of the jobs stored to be export, press the Select All Button
- After selecting the Export tab, a small screen will appear with the Excel app icon.
 - It is recommended to download the Excel App to properly view the job records
 - Only one job can be selected at a time to view on iPad
- After the Excel app has been selected the job record spreadsheet will open
 - The iPad can only view one job at a time
- To save the job, select Name from the drop down tab
- Enter your desired file name
- Press the save button after entering your file name
- The list of saved files will appear
- You can also view the files by selecting the Open tab, when opening the Excel app

Common Questions

1. How do I turn the system on/off?

To turn the system ON open the Hay App, then select the active system for the baler you are using. Press the Wake Up tab if the system was put into Standby mode when last used. If not in Standby mode, select Automatic or Manual mode to begin. To turn the system OFF click the Standby tab on the Main Menu screen. To close the app double click the home button on the iPad and swipe the app that you would like closed, toward the top of the screen until it is no longer visible.

2. How to get in the LBS/TON, MC%, and TONS/HR screens?

In the Main Menu press the SETUP MODE key. From this screen you can change your application rates and how much product is applied. See SETTING UP FOR INITIAL USE for a detailed explanation of this process.

3. The unit is stuck in the Application Rate screen.

In the Application Rate screen, level 1 must be less than level 2, and level 2 must be less than level 3. For example, if level 1 is set at 16, level 2 must be set at 17 or higher, and level 3 must be above 2.

4. How does OVERRIDE work?

Override turns on all three pumps at full output. The pumps will remain at full output until the operator turns these pumps off by pressing the OVERRIDE key again.

5. The flow meter reading is more or less than the programmed level set in the box.

Some variation in flow meter readings compared to the programmed set point is normal due to factory tolerances on the pump motors as well as varying tractor voltages inputted to the control box. The flow meter reading is an accurate measure of how much product is actually being applied.

6. Why don't all the pumps turn on even at higher application rates?

The selections of what pumps turn on when are automatically controlled by the control box's flow rate look up chart. Thus, not all the pumps turn on at once and the combination of what pumps turn on when is automatically controlled by the software. If you want to make sure all three pumps are working, go to the Diagnostics screen and run pump outputs.

7. The moisture content displays "LO" or "HI" all the time.

When the moisture content display does not change frequently while baling, there is likely a faulty star wheel connection. Initially check inside the white star wheel block, to see if the electronic swivel is in the star wheel shaft and that the star wheel shaft is not coming out of the block. Also, check all star wheel wires and connectors to see if there is a continuity of grounding problem.

8. Should the battery connections be removed before jump starting or charging a battery?

Yes. Anytime the tractor will have voltage going up rapidly the connections should be removed.

9. What is the expected battery life of the iPad when baling?

3.5 hours is the expected amount of time the battery when continuously baling. Shut off all other applications, wireless internet, and Wi-Fi signal to reduce the amount of programs iPad is running.

*It is recommended to use an accessory outlet charger when operating (not included with iPad).

10. What is the max distance for connection between the iPad and the Bluetooth Receiver?

The range for the connection will depend on the amount of equipment (tractor, baler, ect.) between the two devices. The max distance will range between 10' – 20'.

11. What do the lights on the 030-6672B indicate?

Blinking Lights – System is waiting for the processor to connect, which could take up to 35 seconds.

Red Light – The Bluetooth receiver has power. *Green Light* – When the proper active connection is selected in the Hay App menu, the green light will indicate connection with the iPad.

Troubleshooting

<u>Problem</u>	<u>Possible Cause</u>	<u>Solution</u>
Pump will not run.	1. No voltage to DCP or Pump controller.	1. Check for short, low voltage, and replace fuse(s) if necessary.
	2. Pump locked up.	2. Clean or rebuild pump if motor is OK.
	3. Damaged wire.	3. Repair damaged wire.
	4. Fuse blown on Pump controller.	4. Replace fuse and check pump for short in wire or locked motor.
Pump runs but will not prime.	1. Air leak in intake.	1. Tighten fittings on intake side.
	2. Clogged intake.	2. Clean.
	3. Restricted outlet.	3. Check and clean tips.
	4. Check valve on the outlet is stuck closed.	4. Clean or repair check valve.
	5. Dirt inside pump.	5. Replace pump check valve.
Pump does not develop enough output.	1. Air leaks or clogs on inlet side.	1. Tighten or clean filter bowl assembly.
	2. Pump worn or dirty.	2. Rebuild pump.
Moisture reading errors (high or low)	1. Wire disconnected or bad connection between star wheels and DCP	1. Reconnect wire.
	2. Low power supply to DCP	2. Check voltage at box. (Min of 12 volts required.) See Diagnostics section of manual.
	3. Wet hay over 75% moisture	
	4. Ground contact with one or both star wheels and baler mounted processor.	4. Reconnect.
	5. Short in wire between star wheels and DCP.	5. Replace wire.
	6. Check hay with hand tester to verify.	6. Contact Harvest Tec if conditions persist.
Moisture readings erratic.	1. Test bales with hand tester to verify that cab monitor has more variation than hand tester.	
	2. Check all wiring connections for corrosion or poor contact.	2. Apply dielectric grease to all connections.
	3. Check power supply at tractor. Voltage should be constant between 12 and 14 volts.	3. Install voltage surge protection on tractors alternator.
Flow meter readings do not match up with product usage.		
Product is less than actual product used.	1. Voltage supplied to meter is less than 6 volts.	1. Check for a min of 6 volts supplied at Pump controller.
	2. Wiring short in signal to baler mounted processor.	2. Inspect wire and replace if necessary.
	3. Clog in meter.	3. Back flush with water. DO NOT USE AIR.
	4. Using product other than Harvest Tec	4. Catch and weigh product to check outputs.
System leaks product out of tips after shut down.	1. Dirty or defective check valves.	1. Clean or Replace.
Terminal reads under or over power.	1. Verify with multi-meter actual voltage. Voltage range should be between 12-14 volts.	1. Clean connections and make sure applicator is hooked to battery. See Diagnostics section of manual.
System does not pause at end of row when using 474A crop eyes.	1. Short in cable. 2. Damaged sensor. 3. Bad alignment of sensors	1. Replace cable. 2. Replace sensor 3. Check 474 manual for alignment instructions

Troubleshooting (continue)

<u>Problem</u>	<u>Possible Cause</u>	<u>Solution</u>
Bale rate displays zero.	<ol style="list-style-type: none"> 1. Bale rate sensors are reversed. 2. Short in cable. 3. Damaged sensor. 	<ol style="list-style-type: none"> 1. Switch the sensors next to the star wheel. 2. Replace cable. 3. Replace sensor.
Display says PAC error	<ol style="list-style-type: none"> 1. The DCP and Pump controller are not communicating. 2. Broke connection between the display and DCP or Pump control and DCP. 	<ol style="list-style-type: none"> 1. Check all connections at DCP and Pump controller including terminating resistors. 2. Check, clean, and tighten connections.
Bale scale not giving accurate reading	Load cell calibration is off	1. Refer to your scale owner's manual for instructions on recalibrating.
Job records are showing as symbols or incorrect values	The job file is corrupted on SD card	Write down all job record information the operator wishes to keep. Update the DCP software to the most current version available on the Harvest Tec website. Delete all existing jobs by selecting all in the download screen and pressing delete. Be sure to start a new job and verify it is saved by checking job details screen.
Values in auto / manual mode are obscure	The job file is corrupted on SD card	
Can't download job records, stuck at "Saving to USB Stick"	One of more jobs are corrupted on SD card. If "saving to USB" is displayed, some jobs have been downloaded correctly.	
Can't download job records, stuck at "Searching"	If searching is displayed then the first job is corrupted and download will not work.	
No green baler sensors button in bale rate setup screen	DCP is not configured to communicate with baler	If baler is compatible, Harvest Tec can reconfigure DCP to correct setting. Contact your dealership to send back to Harvest Tec for repair.
Bale rate goes to zero and prox sensors/star wheels check out fine	DCP is set to use "Bale Rate Sensor" from baler in calculation and baler does not have this option installed	Turn off Bale Rate Sensor in baler sensors screen, make sure Auto baling rate is turned on in baling rate setup screen
"Cannot open USB" message when trying to download	DCP does not see a USB stick in the Data Transfer port	Make sure the operator has the USB in the DCP with good connect and not the VT port in the cab of the tractor.
Bluetooth Receiver lights will not illuminate	<ol style="list-style-type: none"> 1. Bluetooth receiver not connected 2. Harness disconnected 3. Low power 	<ol style="list-style-type: none"> 1. Check connections and voltage. Minimum 12.5V needed.
	<p><i>Blinking Lights</i> – System is waiting for the processor to connect, which could take up to 35 seconds.</p> <p><i>Red Light</i> – The Bluetooth receiver has power</p> <p><i>Green Light</i> – When the proper active connection is selected in the Hay App menu, the green light will indicate connection with the iPad.</p>	

iPad Troubleshooting

<u>iPad Symptom</u>	<u>Troubleshooting</u>
iPad won't turn on	- Turn your iPad off and on. Press and hold the Sleep/Wake button for a few seconds until a red slider appears; then slide it. Press and hold the Sleep/Wake button to turn on again.
	-Reset your iPad. Press the "Sleep/Wake" button and the "Home" button simultaneously for at least 10 seconds until the Apple logo appears on the screen. This reset will not damage your files.
	You may have a drained battery. Plug your iPad into your computer or AC adapter and see if anything happens. Ideally your iPad will recognize it has been connected to a power source and charge its battery. If it will no longer charge, the battery must be swapped with a replacement battery. Battery level is display in top right corner of iPad.
iPad won't connect to Bluetooth accessory	-Make sure that your Bluetooth accessory and iOS device are close to each other when connecting.
	-Make sure that your Bluetooth accessory is on and fully charged or connected to power. If it uses batteries, test them to see if they need to be replaced.
	-Restart your Bluetooth receiver, by removing power and reconnecting after 30 seconds.
	-Make sure that you have at least a 3 rd generation iPad with iOS8 or greater operating system on your iPad
	-On your iPad, go to Settings > Bluetooth and make sure that Bluetooth is on. If you can't turn Bluetooth on or you see a spinning gear, restart your iPad
	-Unpair the Bluetooth accessory, put the accessory back in discovery mode, then pair and connect it again. By tapping on its name in the Bluetooth accessories tab and then Forget this Device. In settings, tap on a device's name, then Unpair.
iPad touchscreen is slow or does not respond	-It may be that your screen is dirty. Try cleaning your screen. To do this, unplug everything, turn off iPad then with a very soft, lint-free and slightly damp cloth gently wipe the screen. Do NOT use window cleaners and paper towels.
	-If you have any screen protector sheet, try removing it.
iPad is not charging or is slow to charge	-In order to charge your iPad you can try either connecting your iPad to a power outlet or connecting to a USB 2.0 port on a computer. However, note that computers generally don't supply enough power to their USB ports to be able to charge an iPad. When this happens, a "Not Charging" message will appear.
How can I unlock my iPad if I forgot the passcode	If you cannot remember the passcode, you will need to <i>restore your device using the computer with which you last synced it</i> . This allows you to reset your passcode and resync the data from the device (or restore from a backup). If you restore on a different computer that was never synced with the device, you will be able to unlock the device for use and remove the passcode, but <i>your data will not be present</i> .
How do I send in my iPad for service?	Refer to your iPad owner's manual or contact apple customer service. DO NOT SEND iPad TO HARVEST TEC.
For other issues refer to your iPad Owner's Manual or contact Apple Directly	

Harvest Tec Does Not Service iPads

Helpful Hints

- Bluetooth devices use large amounts of battery power. Make sure your iPad is fully charged before heading to the field.
- If using a car charger to charge the iPad, make sure it is designed to charge an iPad. Most phone chargers do not supply enough voltage to maintain or charge an iPad.
- If you have other Bluetooth or WiFi devices in the cab of that tractor that are not being used. Turn them off to improve the signal for the preservative applicator.
- The Hay App must be displayed on the main screen of the iPad for operation of the application system. After the app is not displayed for 10 seconds the preservative applicator will stop applying.
Example: When pressing the iPad home button to look at another app or the internet, the Hay App will stop application after 10 seconds.

Parts Breakdown

Bluetooth Receiver -- 030-6672B



Notes

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Notes

Harvest Tec Inc. Warranty and Liability Agreement

Harvest Tec, Inc. will repair or replace components that are found to be defective within 12 months from the date of manufacture. Under no circumstances does this warranty cover any components which in the opinion of Harvest Tec, Inc. have been subjected to negligent use, misuse, alteration, accident, or if repairs have been made with parts other than those manufactured and obtainable from Harvest Tec, Inc.

Our obligation under this warranty is limited to repairing or replacing free of charge to the original purchaser any part that in our judgment shows evidence of defective or improper workmanship, provided the part is returned to Harvest Tec, Inc. within 30 days of the failure. If it is determined that a non-Harvest Tec branded hay preservative has been used inside the Harvest Tec applicator system where the failure occurred, then Harvest Tec reserves the right to deny the warranty request at their discretion. Parts must be returned through the selling dealer and distributor, transportation charges prepaid.

This warranty shall not be interpreted to render Harvest Tec, Inc. liable for injury or damages of any kind, direct, consequential, or contingent, to persons or property. Furthermore, this warranty does not extend to loss of crop, losses caused by delays or any expense prospective profits or for any other reason. Harvest Tec, Inc. shall not be liable for any recovery greater in amount than the cost or repair of defects in workmanship.

There are no warranties, either expressed or implied, of merchantability or fitness for particular purpose intended or fitness for any other reason.

This warranty cannot guarantee that existing conditions beyond the control of Harvest Tec, Inc. will not affect our ability to obtain materials or manufacture necessary replacement parts.

Harvest Tec, Inc. reserves the right to make design changes, improve design, or change specifications, at any time without any contingent obligation to purchasers of machines and parts previously sold.

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