

Operation Manual

Model 696J ***110 Gallon Preservative Applicator***



P.O. Box 63 • 2821 Harvey Street • Hudson, WI 54016
800-635-7468 • www.harvesttec.com

(intentionally blank)

Harvest Tec Model 696J Operations Table of Contents

	<u>PAGE</u>
Introduction	4
System Requirements	4
Safety	4
Safety Decals	5
Safety Sign Locations	5
Preparing the Applicator for Operation	6-11
Filling the tank	6
Connecting power and communication harnesses	7
Operation of the main ball valve	7
Operation of the ISOBUS Monitor	8-11
Descriptions of Screens and Menus	12-18
Description of Screens & Menus for ISOBUS Monitor	12
Automatic mode	13
Manual mode	14
Diagnostics	15
Setup mode	16-17
Job records	18
First time and Annual Startup	19
Setting up Application and Bale Weight Parameters	20-21
Application rate	20
Selecting high and low tips	20
Baling rate	21
Operating Instructions	22-26
Automatic mode	22
Manual mode	23
Diagnostics	24
Job Records	23-26
iPad Integration Control Module	27
iPad Integration Control Light Signals	27
Bluetooth Receiver Lights	27
Maintenance	27-29
Maintenance schedule	27
Diagnostics & Filter Bowl Cleaning	28
Tips & tip screen cleaning	28
Tank lid cleaning	29
Dielectric grease connections	29
Rebuild pumps & Battery Connections	29
Check valves & Miscellaneous Maintenance	29
Winter Storage & Status Alerts	30
Wiring Diagram	31
Pin Outs	32-34
Common Questions	35
Troubleshooting	36-37
Parts Breakdown	38-44
Tank, Saddle & Legs	38
Pump Manifold	39
Star wheel sensors, Bale rate sensors, Hose and Drain/Fill Line	40
Control boxes and Wiring Harnesses	41
4525JB Installation Kit	42
Optional iPad Mini Mounting Kit	43
Optional iPad Display Kit	44
Notes	45-46
Warranty Statement	47

Introduction

Thank you for purchasing a Harvest Tec Model 696J Hay Preservative Applicator. This 696J applicator system has been designed to plug directly into the baler's ISOBUS system and display on the ISOBUS monitor. The system can also be operated through an Apple iPad (not included) using the Hay App. The 696J Applicator System offers these advantages when running through the ISOBUS virtual terminal:

1. Operation coordinated with baler operation
2. Less cab clutter providing better visibility
3. Ease of use with all information on one screen
4. Records kept together
5. The system is ready for future updates.

The 696J Hay Preservative Applicator System is designed to apply buffered propionic acid to the forage crop as it is baled and will adjust the rate of application based on moisture and tonnage of the crop being harvested. The model 696J base kit includes: tank, frame, pumps, hose, and the Dual Channel Processor (DCP). This manual will take you through the steps for installing the applicator. If you are unsure about installing the system after consulting this manual, contact your local authorized dealership for additional assistance. If you are in need of parts for the system please see the parts breakdown in the back of this manual and contact your local authorized dealer to order the parts. This applicator is designed to apply Harvest Tec buffered propionic acid.

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

System Requirements

 **The Baler must have SoftwareVersion 2.0.7 or higher**
GreenStar 4th Generation Arm Command Display must have version 8.10.2393-23 

***Made for iPad® (3rd through Pro 2nd generation), running the current iOS operating system or one version previous required for iPad option**

*iPad is a trademark of Apple Inc., registered in the U.S. and other countries.

****600 Series Applicators with serial number before DCP27000 will require the DCP to be sent to Harvest Tec for a required update in order to use the iPad Integration Module (030-6672C).**

*Hay App version must be **at least 2.5.18 (or higher)** to operate with the iPad Integration Module

If choosing to operate the unit through the ISOBUS monitor, part number 006-6670A will need to be ordered through your local equipment dealer.

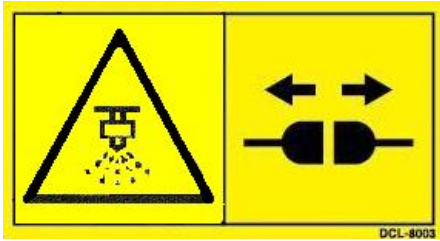
Safety

Carefully read all the safety signs in this manual and on the applicator before use. Keep signs clean and visible. Replace missing or damaged safety signs. Replacement signs are available from your local authorized dealer. See your installation manual under the replacement parts section for the correct part numbers.

Keep your applicator in proper working condition. Unauthorized modifications to the applicator may impair the function and/or safety of the machine.

Carefully read and understand all of the baler safety signs before installing or servicing the baler. Always use the supplied safety equipment on the baler to service the applicator.

Safety Decals



Number 1
Spraying hazard. Disconnect power before servicing the applicator
Part no. DCL-8007



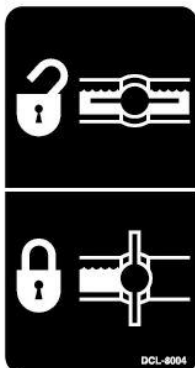
Number 2
Falling hazard. Do not step in this area.
Part no. DCL-8002



Number 3
Use caution when working around chemicals. **Wear all protective equipment according to the label of the product.**
Part no. DCL-8006



Number 4
Read and understand the operator's manual before using or working around the equipment.
Part no. DCL-8000



Number 5
Open (unlocked) and closed (locked) position of the ball valve.
Part no. DCL-8004

Preparing the Applicator for Operation

After the Applicator has been installed on the baler, please follow the steps below to prepare for operating the applicator both safely and correctly.

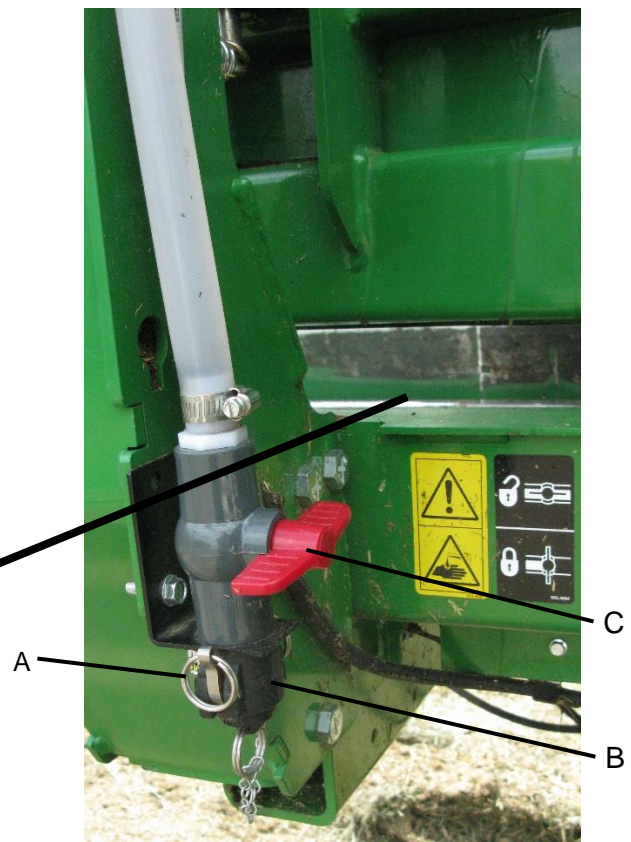
Filling the tank:

Read the label of the product you choose to fill the tank to determine individual protective measures you the operator should take. Locate the drain/fill line on the right side of the baler. Open the cam-couplers (A) and remove the protective plug (B). Insert the male coupler (found on transfer pump) into the female cam and close the cams (A). To open the ball valve (C) turn the handle so it is vertical. After the ball valve has been turned on switch the pump to the On position. Monitor the level on the tank visually and shut off the pump before over filling. Once the pump is turned off, close the ball valve and remove the male coupler. The handle of the ball valve (C) will be horizontal when closed. Reinstall the protective plug and close the cams. The Harvest Tec model 9212 and 9215 transfer pumps are recommended for this process.

Water is recommended for first time and annual start up procedures.



Drain/Fill line on right side of baler



Enlarged view of the drain/fill line valve and cam-coupler assembly.

Connecting Power and Communication Harness

The harnesses are located at the front of the baler near the hitch and at the back of the tractor near the drawbar. See arrow below. Make sure all connections have enough slack between the hitch of the baler and the back of the tractor, especially when tractor is turning away.

WARNING: Stop tractor engine and shift to park or neutral, set brakes and remove key before leaving the tractor.



Operation of the Main Ball Valve

The ball valve shall be closed at all times when the applicator is not being used. The valve shall also be closed when any service work is being done to the baler or applicator.

The ball valve is located on the left side of the baler, connected to the pumping manifold. See arrow below.



Open valve position



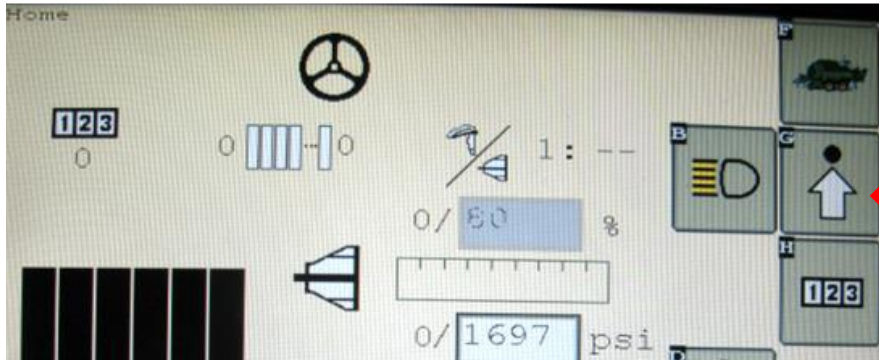
Closed valve position

Operation of the ISOBUS Monitor

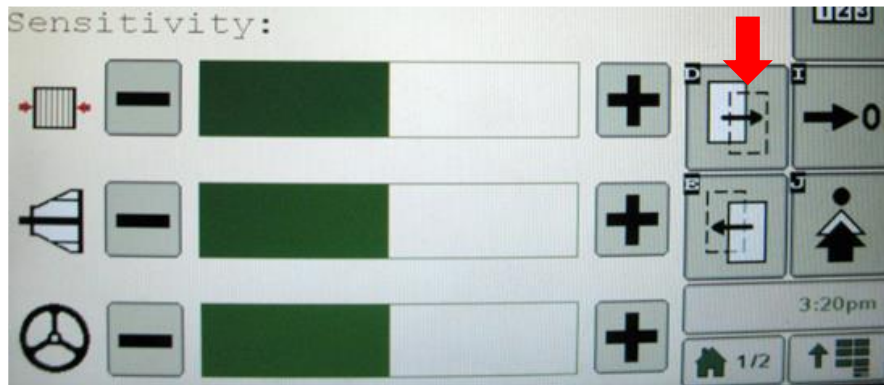
Follow the instructions below to operate the Harvest Tec 696J system through the John Deere ISOBUS monitors.

2600 Series Monitors

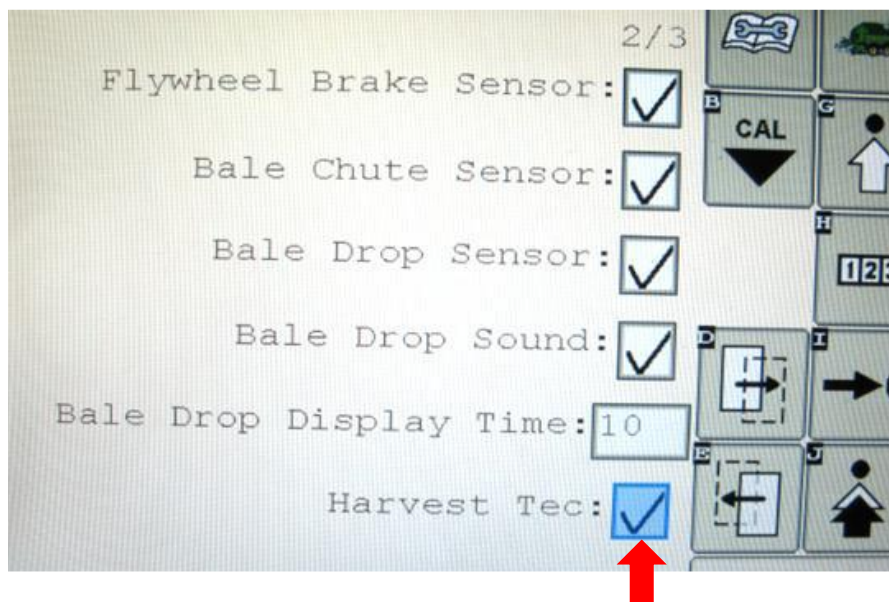
1. Starting from the Home Page select the Up Arrow with the dot on top.



2. On the Machine Setup page that will appear, select soft key D (Page Right)



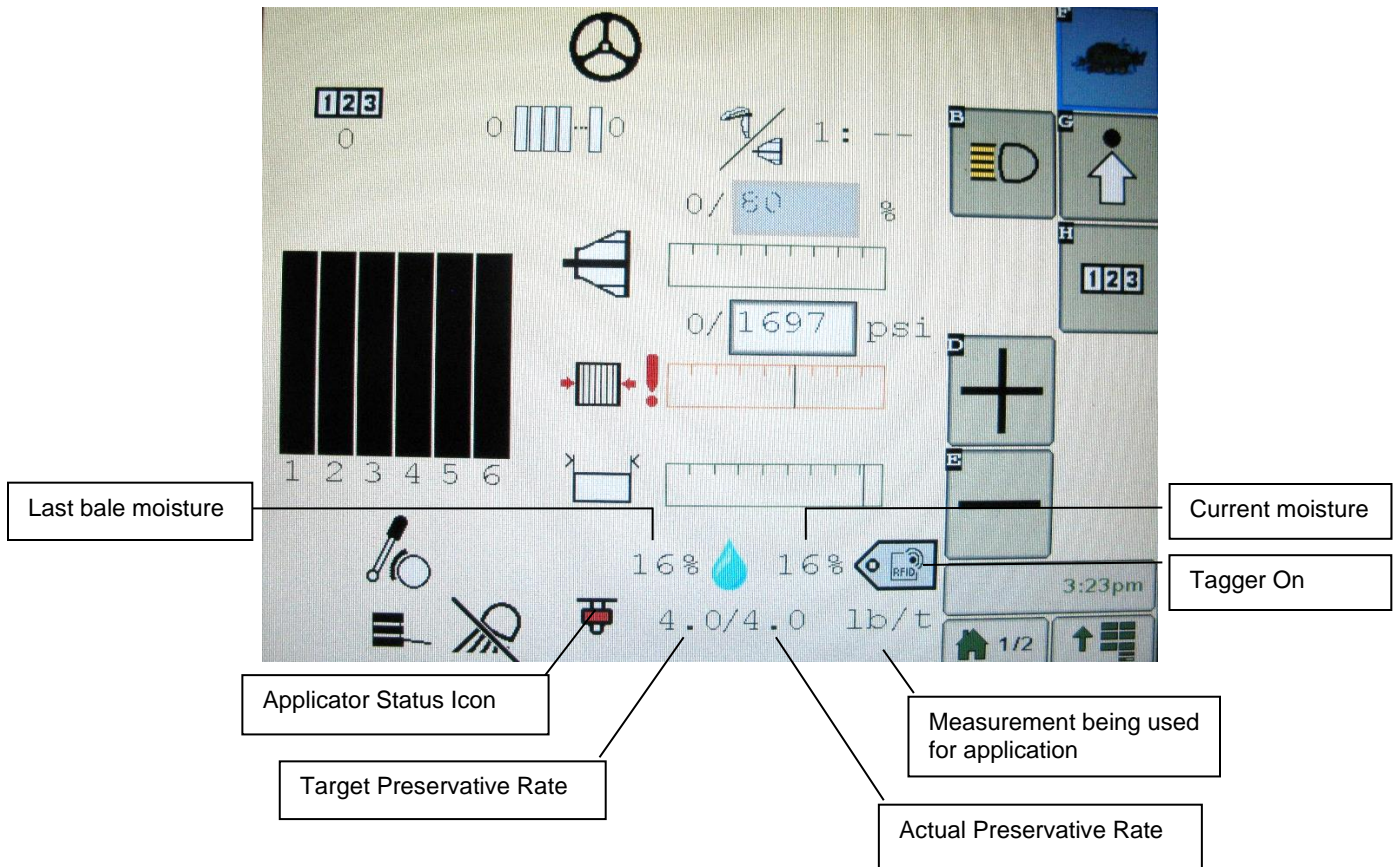
3. On the next page select the Harvest Tec option. The Check mark indicates that the system is now on.



Operation of the ISOBUS Monitor (continued)

2600 Series Monitor Baler run Screen Details

Harvest Tec information will display on the bottom of screen in the center



Stats Icon Descriptions



Applicator is not in a run mode.



System is at End of Row as indicated by the Hay Indicators (Crop-Eyes).



Applicator is in Automatic or Manual Mode.



System is in Pause Mode from pressing the Pause button.

Operation of the ISOBUS Monitor (continued)

GreenStar 4th Generation Arm Command Display

Display software version **8.10.2393-23** or later, is required on the display to ensure compatibility. Earlier versions are not all compatible. This information can be found by selecting “Menu” in the lower right hand corner of the display, select the third tab down labeled “System”, press “Software Manager”, then the “Version Information” tab and the software versions will be displayed (Figure 1).

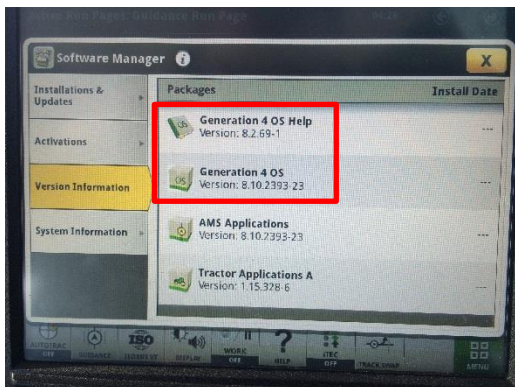


Figure 1



Figure 2

Once you have made sure the software version is at or above the recommended version, return to the tractor run screen. When on the run screen, there will be an ISO button (Figure 2) on the bottom toolbar. Pressing this will bring you into the “Connected ISOBUS Implements” page (Figure 3). If Harvest Tec is powered up correctly and active on the ISOBUS, the icon labeled “Forage, Harvest Tec, Inc.” will display. If the files are still loading you will see a loading status shown in Figure D.

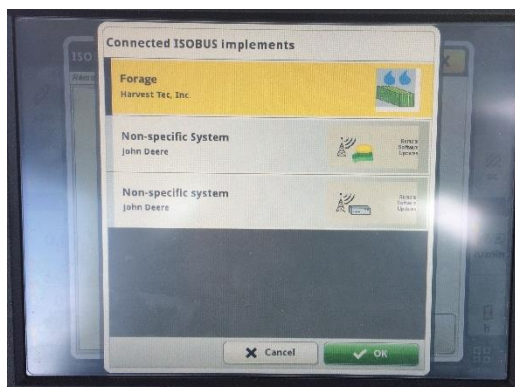


Figure 3



Figure 4

Once the files are loaded onto the display, you will receive a warning (Figure 5) to inform the operator that another device has been added onto the ISOBUS. This can be accepted and then selecting the Harvest Tec device in the ISOBUS menu will bring up the Harvest Tec Main Menu (Figure 6).

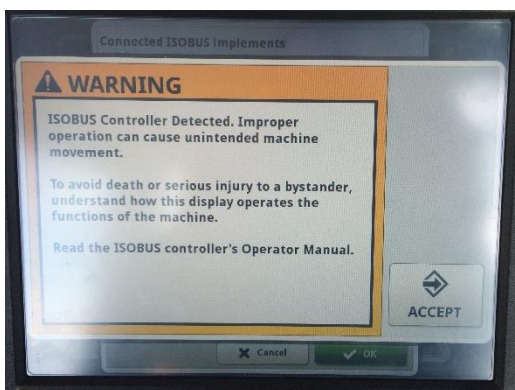


Figure 5

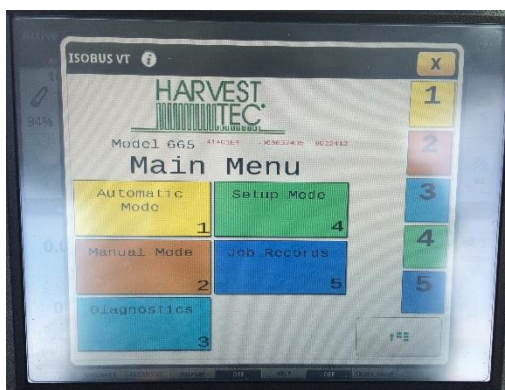
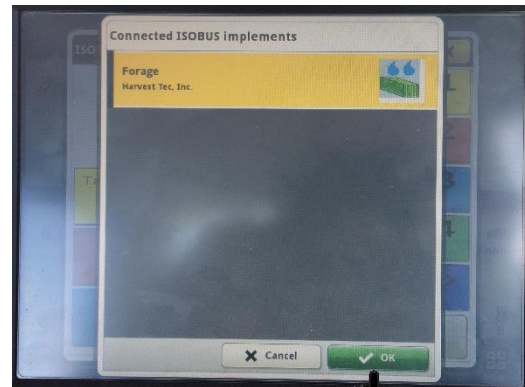
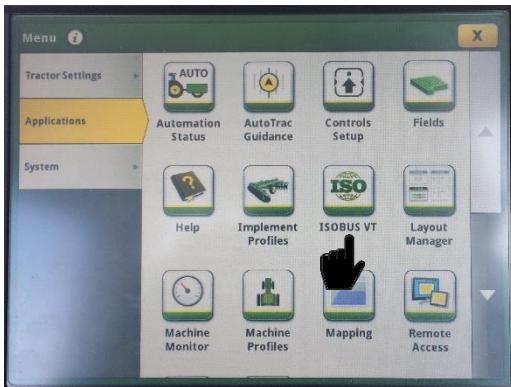


Figure 6

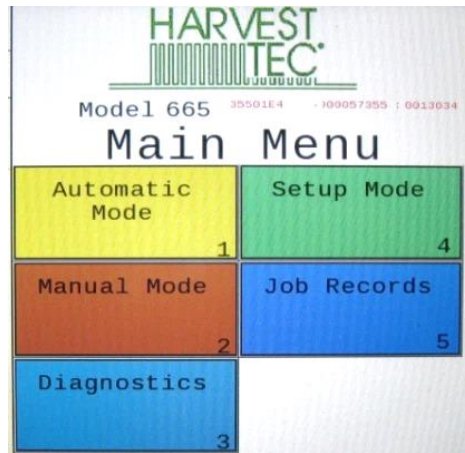
Operation of the ISOBUS Monitor (continued)

When the Harvest Tec system is connected you can also access the applicator by following these screens:



Description of Screens & Menus for ISOBUS Monitor

This system is calibrated for use with Harvest Tec buffered propionic acid. The use of other products can cause application problems and damage to system components. It is designed to apply rates of 44 to 632 pounds of acid per hour and read moisture levels of 6 to 70 percent. The 665 monitor will allow you to set your bale size, weight, single bale formation time, moisture levels and application rates. The Automatic Mode will automatically adjust the application rates as the moisture level changes. Manual Mode will allow you to control the application rates on the go.



Main Menu for the Hay Preservative

Listed below are the Main Menu Options.

Automatic Mode (1) This operating mode automatically adjusts preservative application as you bale. The following items are displayed in the mode while baling: Moisture, Baling Rate, Application Rate (actual and target), Last Bale Average Moisture, Tons Baled, and Pounds of Product Used.

Manual Mode (2) This operating mode allows the three different pumps to be turned on at a fixed rate as you bale. The following items are displayed in the mode while baling: Moisture, Baling Rate, Application Rate (actual only), Last Bale Average Moisture, Tons Baled, and Pounds of Product Used. This mode can also be used to prime the pumps.

Diagnostics (3) Allows operator to set the date and time. The installed software versions can also be viewed here.

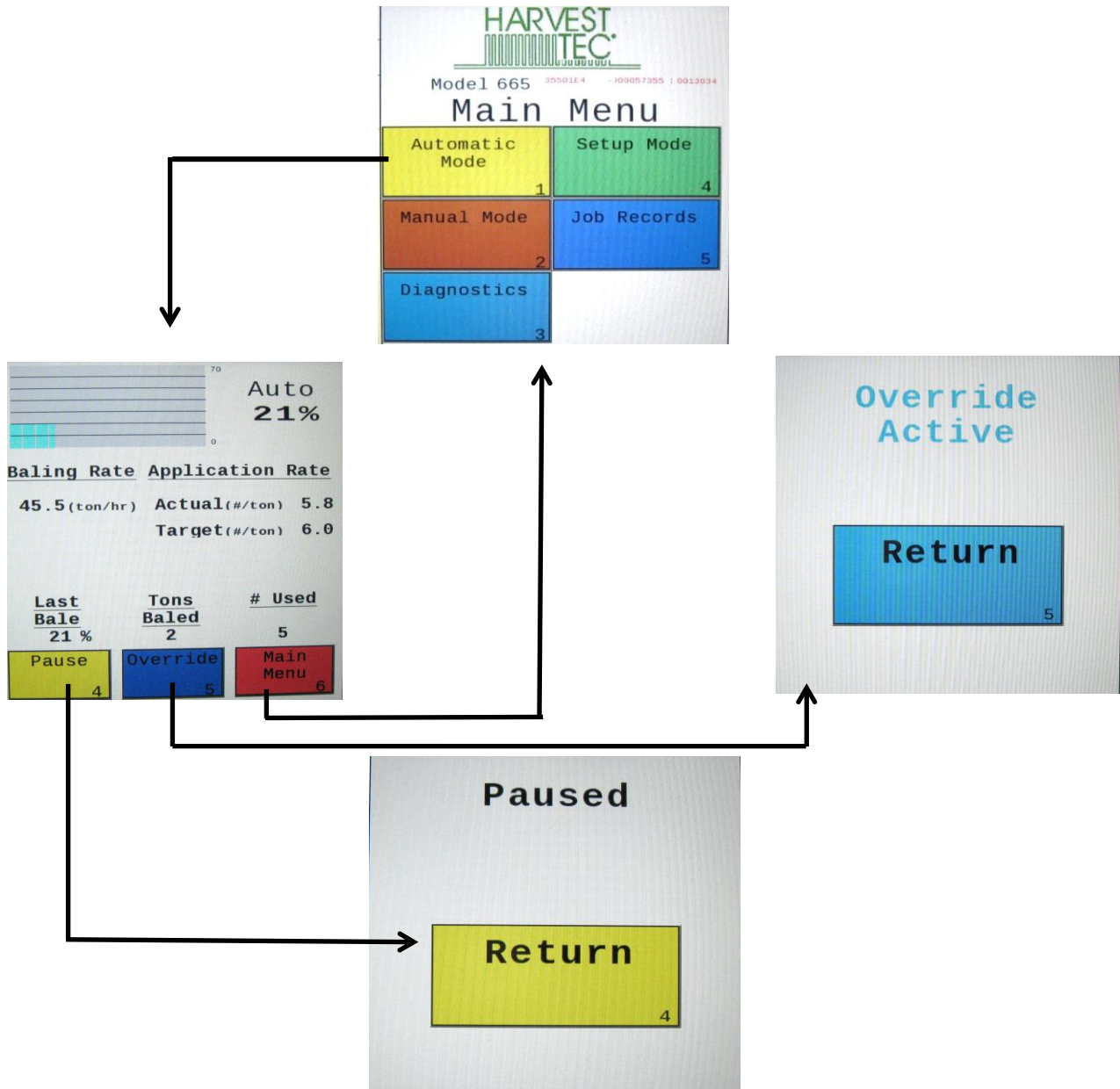
Setup Mode (4) This mode allows the operator to customize the applicators settings for their baler and baling needs. This mode allows changes to be made to the following areas: Application Rate, Baling Rate, Language, US or Metric units, and turn on/off the optional Hay Indicators.

Job Records (5) Keeps track of up to 300 plus jobs with total product used, average moisture content, highest moisture content, tons baled, date of baling, and total number of bales made. Individual bales are also able to be viewed and the records can also be downloaded to a USB drive in this mode.

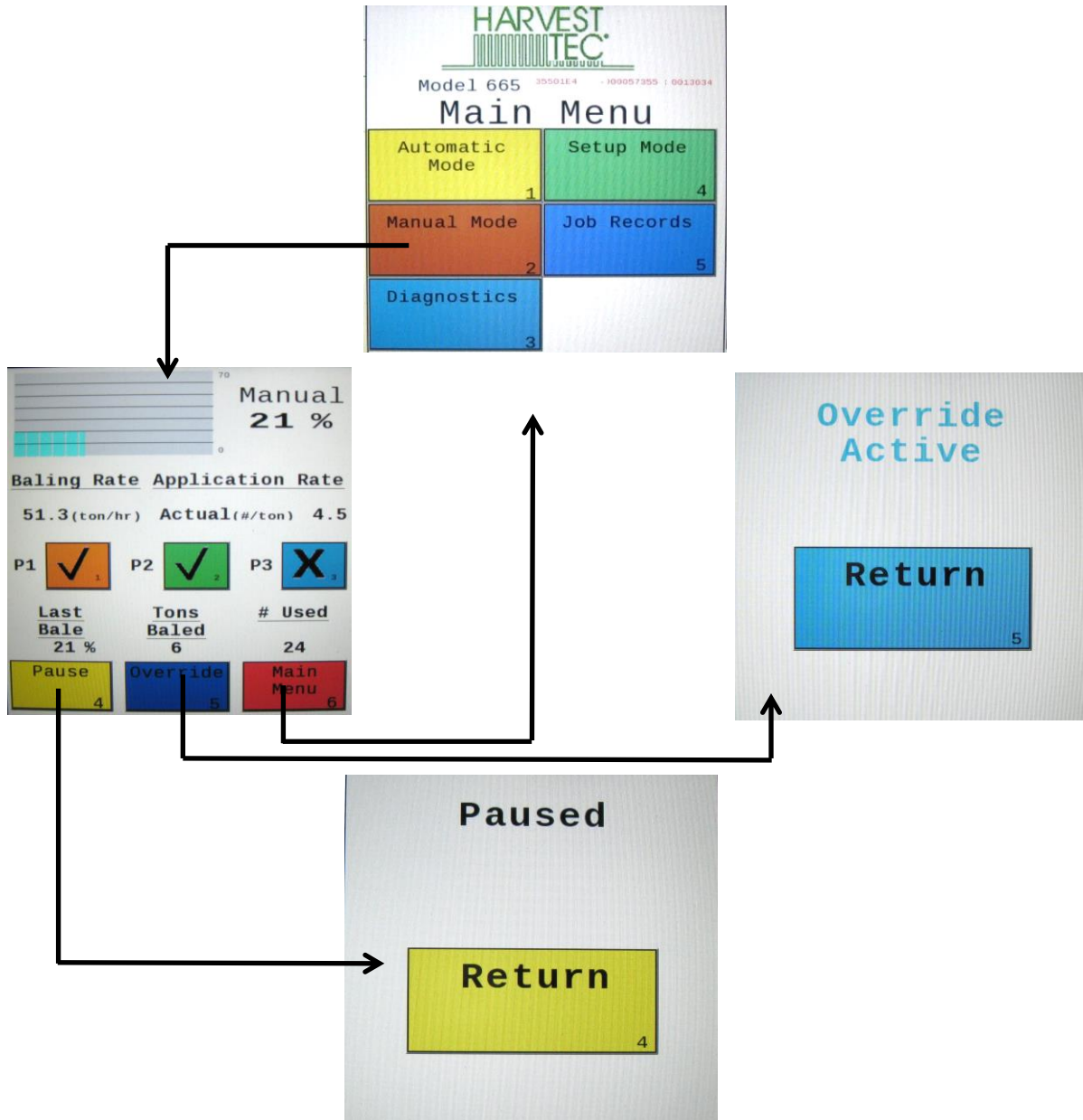
Screen Menus

Use the below listed screen menus to navigate through all of the operation screens. Navigation through the screens is accomplished by using the touch screen of the controller and pressing.

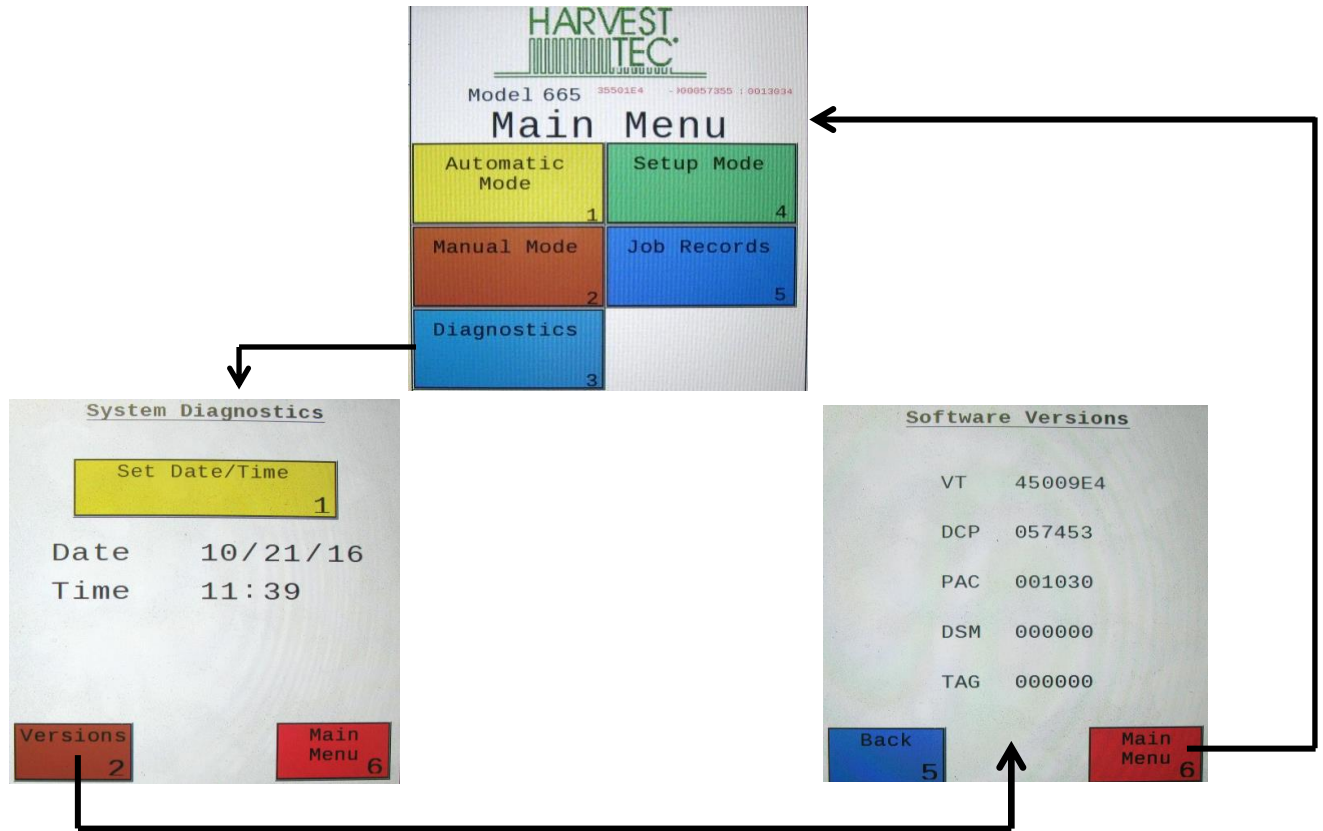
Automatic Mode:



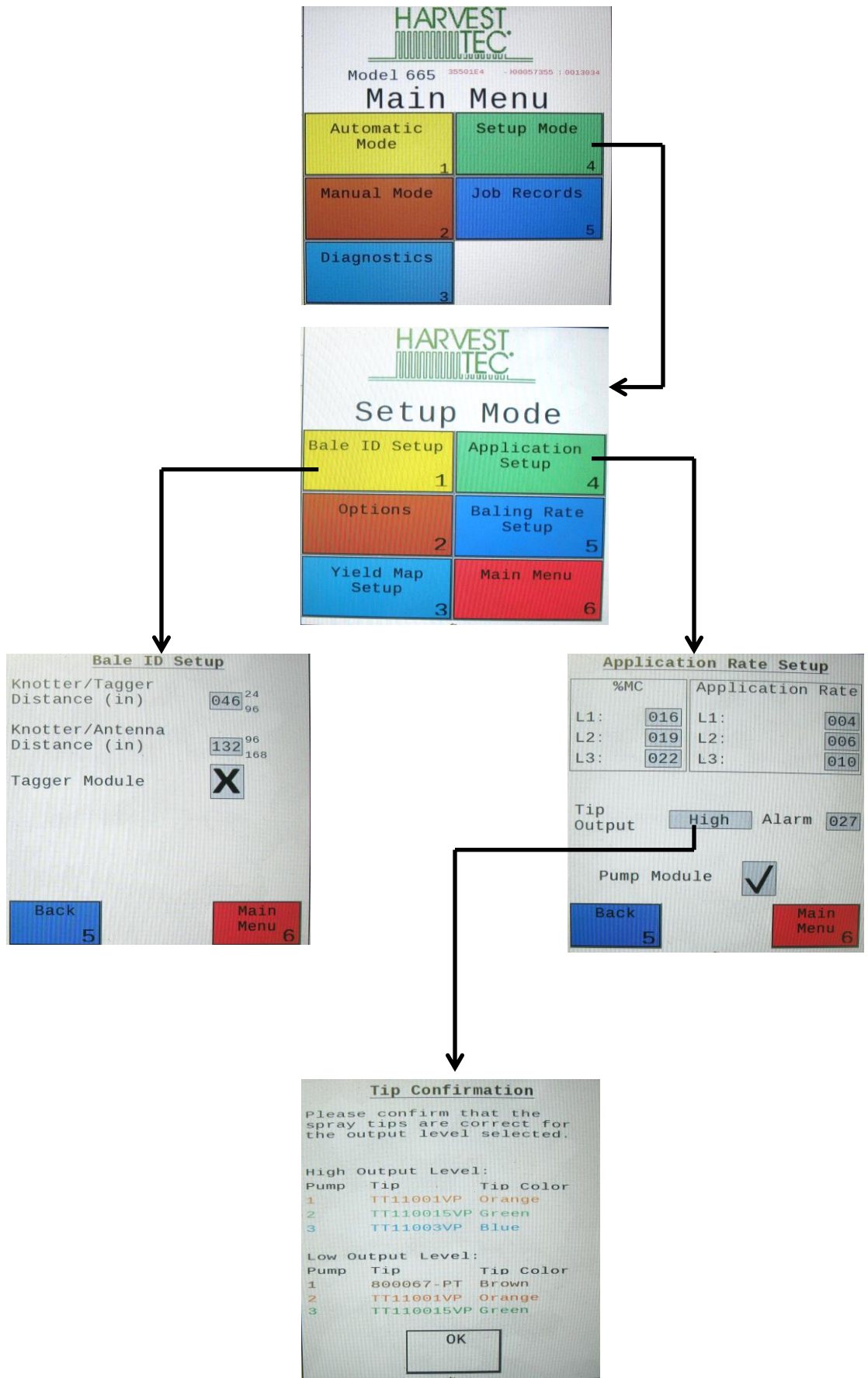
Manual Mode:



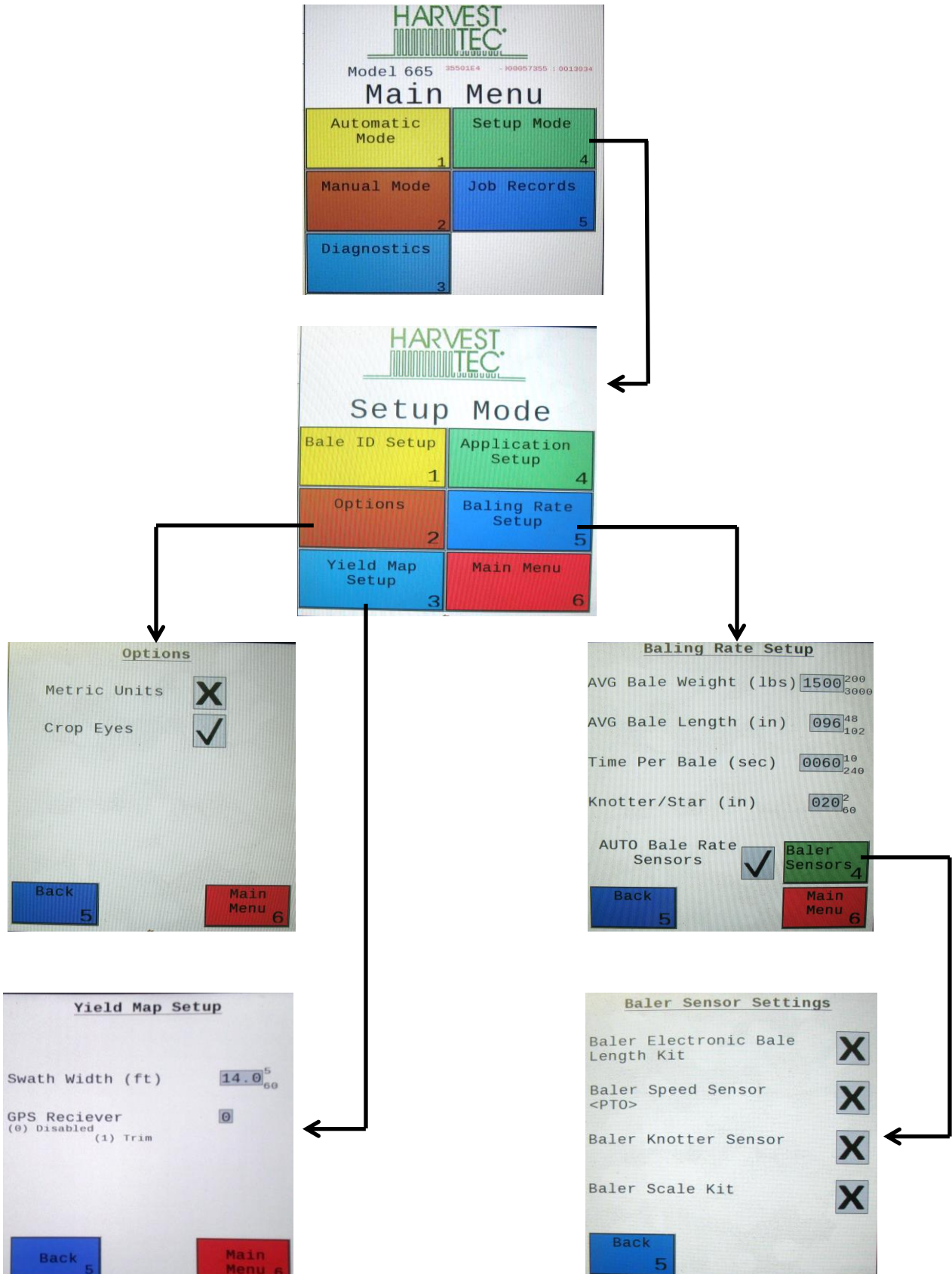
Diagnostics:



Setup Mode:

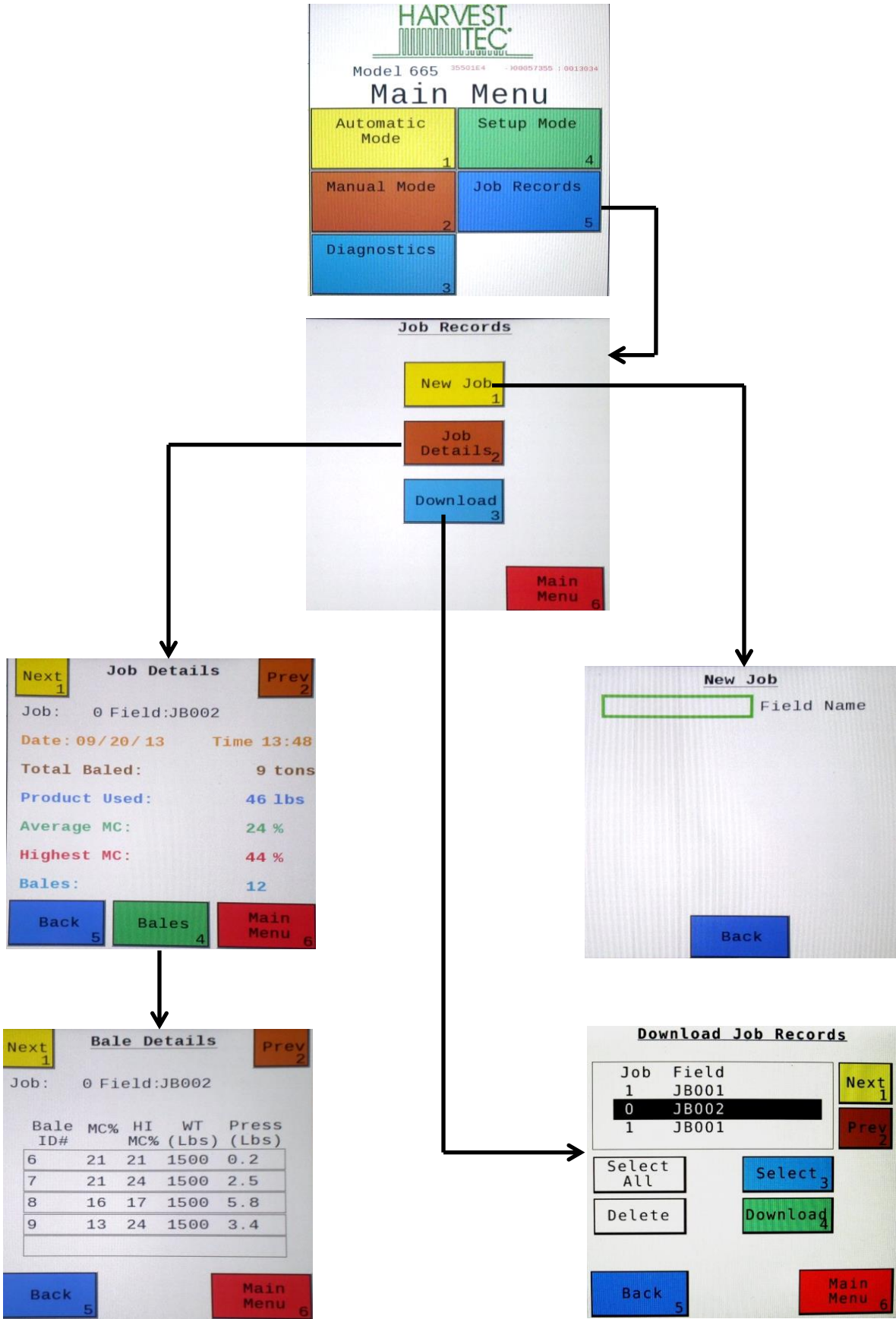


Setup Mode (continued):



- All baler sensors need to be turned OFF.
- If a scale is being used, turn that sensor ON.

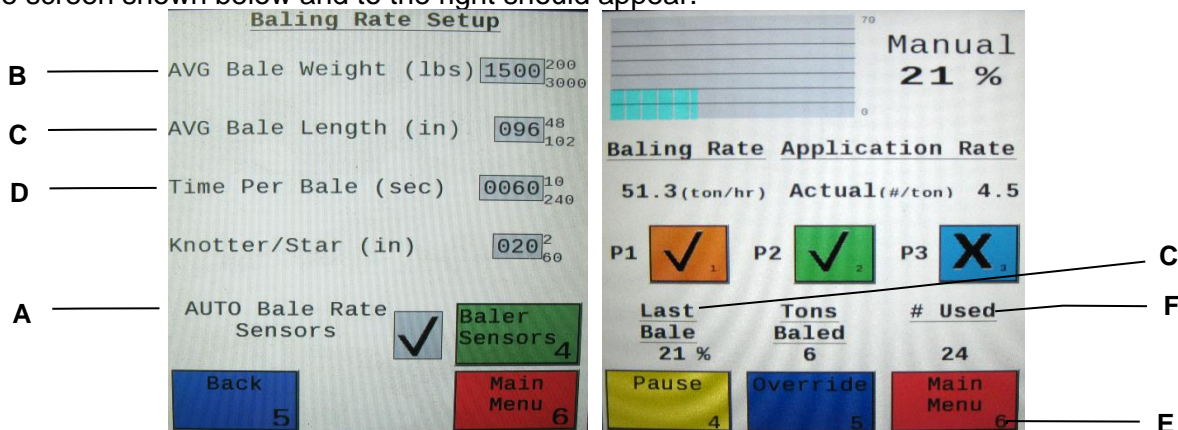
Job Records:



First Time and Annual Start Up Instructions

Checking and Priming the Pumps

- Put 10 (5L) gal of water in tank and turn main ball valve on.
- Inspect for any leaks or drips at this time. If any are found tighten or replace area or fitting.
- Turn controller ON (turn key ON to the tractor).
- Press the **SETUP MODE** key. Select **AUTO Baler Rate** sensors **OFF** (A) to disable bale rate sensors. Make sure the **AVG Bale Weight** (B) is 1500 lbs (680kg) and the **AVG Baler Length** (C) is 96" (243cm) and **EST Baling Time** (D) is 60 sec. Press **MAIN MENU** (E) key to return to opening screen.
- Press the **MANUAL MODE** key.
- The screen shown below and to the right should appear.



- NOTE: the system comes with the High tips already installed on the spray shield. Test the system with the tips you will use most often.** The rates listed below are for Harvest Tec buffered propionic acid. Other products will need to be collected and weighed to assure proper performance.

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 (.9 - 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)

- This process will also be used to prime the pumps whenever needed.
- While running pumps check for a good spray pattern out of the respective tips and verify that no parts of the system are leaking.
- While doing these tests the **# Used** (Volume Used) near the bottom of the screen (F) should be counting up and verifies that the flow meter is functioning.
- Last Bale** (G) shows the average moisture content of the last bale made. This information will then be saved in your **Job Records**.
- Press the **MAIN MENU** (E) key to return to the initial start up screen.

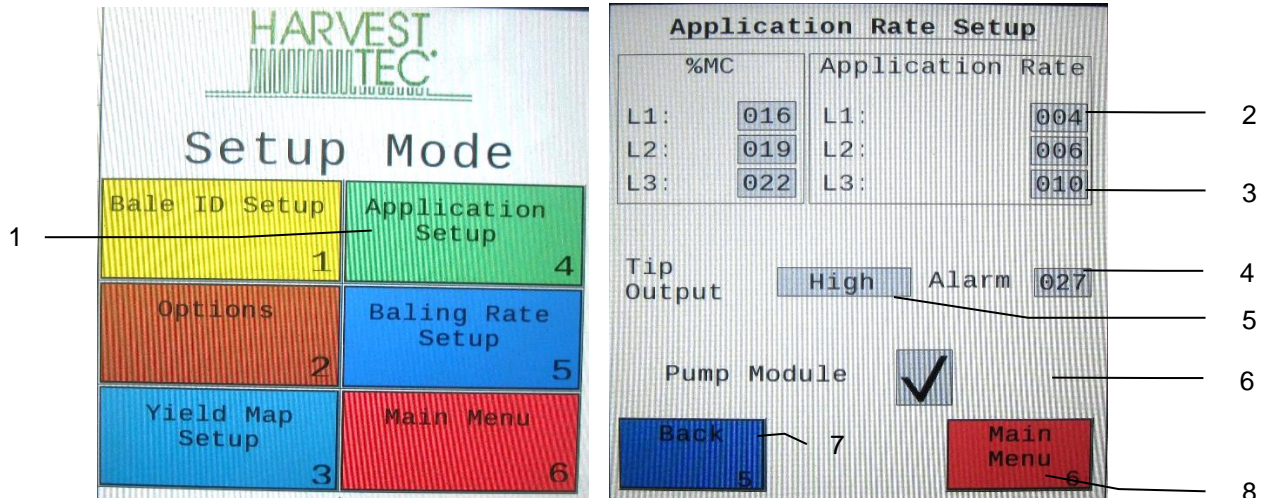
NOTE: After completing First Time and Annual Start Up press the **SETUP MODE** key and turn the **AUTO Baler Rate** sensors back **ON** for normal operation. In normal operation it is recommended that the system be run with the **AUTO Baler Rate** sensors **ON**. Also see Baling Rate to adjust bale weight, length, and time.

Setting Up Application Rate and Bale Parameters for Initial Use

In the SETUP MODE you will set your initial application rate and baling rate.

Application Rate Setup

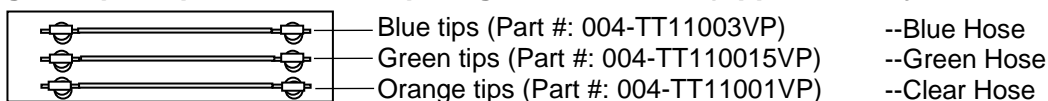
After pushing the **SETUP MODE** key in the **MAIN MENU** screen, the top left screen will show on the display:



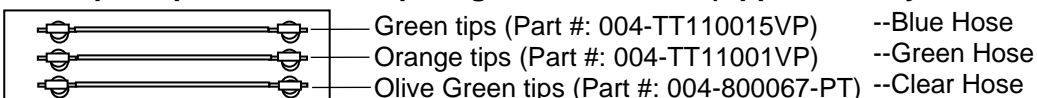
1. On this screen the operator will press the **APPLICATION SETUP** (1) key.
2. Press any of the underlined numbers to the right of **%MC** (2) to adjust their figures. Remember level 1 must be lower than level 2 and level 2 must be lower than level 3. Harvest Tec products recommend set points of 16, 19 and 22% MC levels. These are preset from the factory.
3. To change **Rate** (3) of chemical application press any of the underlined numbers to the right of **RATE**. Remember level 1 must be lower than level 2 and level 2 must be lower than level 3. 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** (7) to return to previous screen. **IT IS THE OPERATORS RESPONSIBILITY TO FOLLOW RECOMMENDATIONS OF PRESERVATIVE. ONLY THE OPERATOR CAN APPLY PROPER RATE.**
4. To set the **Alarm** (4) press on the underlined area and set the level at which you want the alarm to activate. **To turn the Alarm OFF, set level above 80.**
5. Press the underlined area next to **Tip Output** (5) to cycle between the High and Low sets of tips. The High tips will cover outputs of 84-632 lbs/hr at approximately 21-63 tons/hr. The Low tips will cover outputs of 44-400 lbs/hr at approximately 11-40 tons/hr. Use the correct tip set for the field conditions.
6. The **Pump Module** (6) needs to be turned **ON** for the pumps and flow meter to function.
7. Next press the **Back** (7) key found on the bottom left hand side of the screen to return to **SETUP MODE** screen or press the **MAIN MENU** (8) key to return to the opening screen.

Tip Outputs

High Output Tips for Rates Requiring 84-632 lbs/hr. (Approximately 21-63 tons/hr)

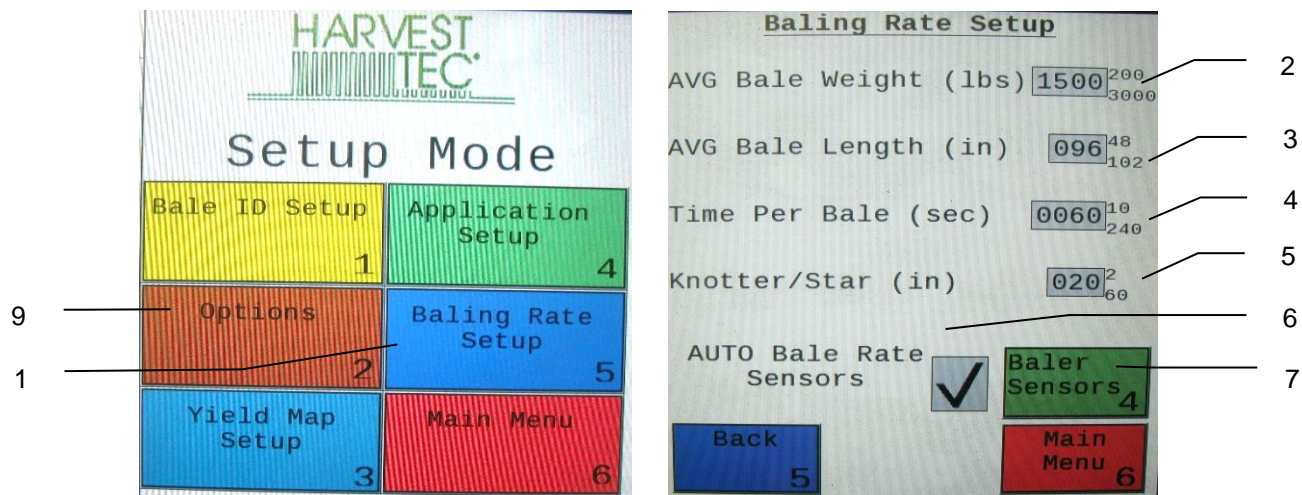


Low Output Tips for Rates Requiring 44-400 lbs/hr. (Approximately 11-40 tons/hr)

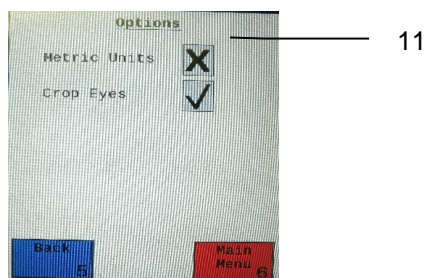


Baling Rate Setup

After pushing the **SETUP MODE** key in the **MAIN MENU** screen, the top screen should appear:



1. On this screen the operator will Select the **BALING RATE SETUP** (1) key.
2. Select the number to the right of **AVG Bale Weight** (2): to adjust the weight of your bales. The key pad shown will display. Select any number combination in this screen within the min/max limits. The information will remain until it is changed again.
3. Select the number to the right of **AVG Bale Length** (3): to adjust the length of your bales. Select any number combination in this screen within the min/max limits. The information will remain until it is changed again.
4. Select the number to the right of **Time Per Bale** (4): to adjust the time it takes to make a bale. Select any number combination in this screen within the min/max limits. The information will remain until it is changed again.
5. Select the number to the right of **Knotter/Star** (5) to adjust the distance between the knotter and star wheel. To determine the distance, measure between the center of the starwheel and the center of the knotter. This is important so the job record correlates to the bale being made.
6. When the **AUTO Bale Rate** (6) sensors are **ON** the applicator will calculate your tons per hour automatically. When the **AUTO Bale Rate** sensors are **OFF** a constant tons per hour (your inputed bale weight and time) will be used. Operating the unit with the **AUTO Bale Rate** sensors **OFF** will cause total tons per hour in Job Records to be left blank. Select the underlined word to toggle between **ON** or **OFF**. **First Time and Annual Setup is checking with AUTO Bale Rate sensors OFF.**
7. Selecting the **Sensors** (7) will allow you to use the Baler Sensor if your baler is equipped with them from the factory. The sensors will come **OFF** as a default. If you choose to use the baler sensors be sure your baler is equipped with that option. For example, if you do not have an electronic bale length kit, turn the sensor to **OFF**. The baler End of Row sensors are triggered once the PTO speed goes below 600RPM. The End of Bale sensor is triggered by the tie cycle alarm. The Bale Scale sensor is for the baler equipped with a Chute Scale. **Note: Baling on rough terrain or hills can cause the scale to give an inaccurate reading. Turn Bale Scale option OFF in the Bale Rate Screen and use AVG Bale Weight (2) reading as weight of bale.**
8. Next select the **Back** (8) key found on the bottom left hand of the screen to return to the **SETUP MODE** screen, or select the **MAIN MENU** (9) key on the bottom right hand of the screen to return to the opening screen.
9. Select the **OPTIONS** (10) key to adjust the system between metric and standard units. The **Crop Eyes** (11) can also be turned **ON** or **OFF** in the **OPTIONS** screen. Select the **ON/OFF** next to Crop Eyes to change this setting. **Note: If you change languages you may need to reset the system from the MAIN MENU screen.**

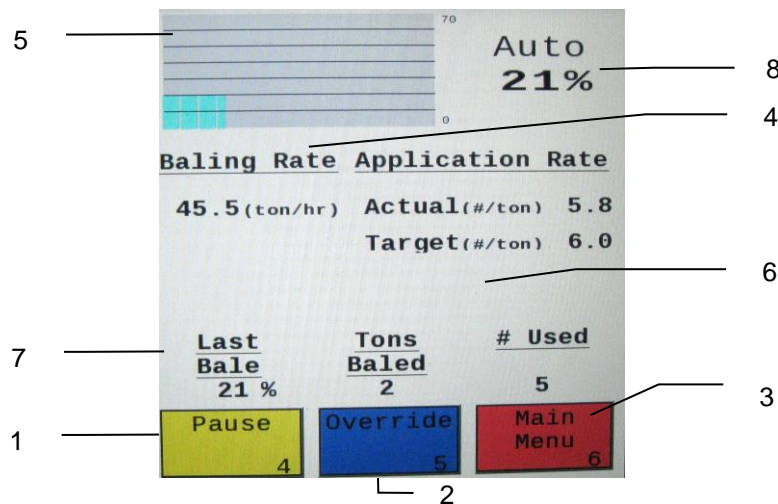


Operating Instructions

Automatic Mode will automatically apply product based on both hay moisture content sensed by the star wheels and the operator's preset parameters. 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 or baling rate.**

Automatic Mode

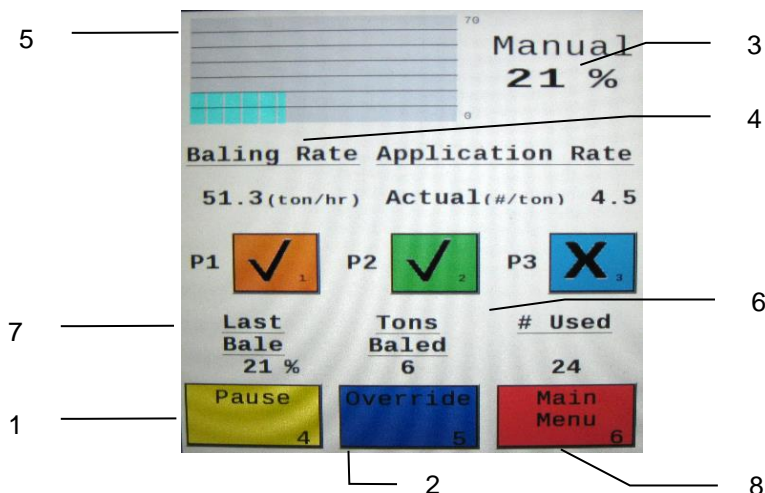
After pushing the **AUTOMATIC MODE** key in the **MAIN MENU** screen, the following screen should appear:



1. Push the **Pause** key (1) to stop application while in operation.
2. Push the **Override** key (2) 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** (3) is shown in the upper right hand corner.
4. **Baling Rate** and **Application Rate** (4) are shown in the middle. The operator sets the target application rate in the **SETUP MODE**. The ACTUAL rate should be within +/- one pound when running. The Baling Rate is also calculated in the **SETUP MODE**.
5. The **Graph** (5) shows the moisture trend from the past 90 seconds in 3 second intervals.
6. The totals on the bottom of the screen show the total **Tons Baled** and **# Used** (pounds of product used) (6) for the current job. These numbers will reset to zero when a new Job Record is started. If operating with Bale Rate Sensors OFF total Tons Baled will be zero.
7. **Last Bale** (7) shows the average moisture content for the last bale.
8. Any Status Alerts for the system will appear in the middle of the screen. See the Status Alerts section for information.
9. Press the **MAIN MENU** (8) key to return to the opening screen.

Manual Mode

After pushing the **MANUAL MODE** key in the **MAIN MENU** screen, the following screen should appear:



1. Push the **Pause** key (1) to stop application while in operation.
2. Push the **Override** key (2) 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. In **MANUAL MODE** you can turn the pumps **ON** or **OFF** by pressing the underlined area next to the pump numbers. In **MANUAL MODE** (regardless of moisture, tons per hour or bale weight) the outputs of the pumps are fixed rates as follows:

Low output tips:

Pump 1 = 60 LBS/HR
Pump 2 = 100 LBS/HR
Pump 3 = 150 LBS/HR

High output tips:

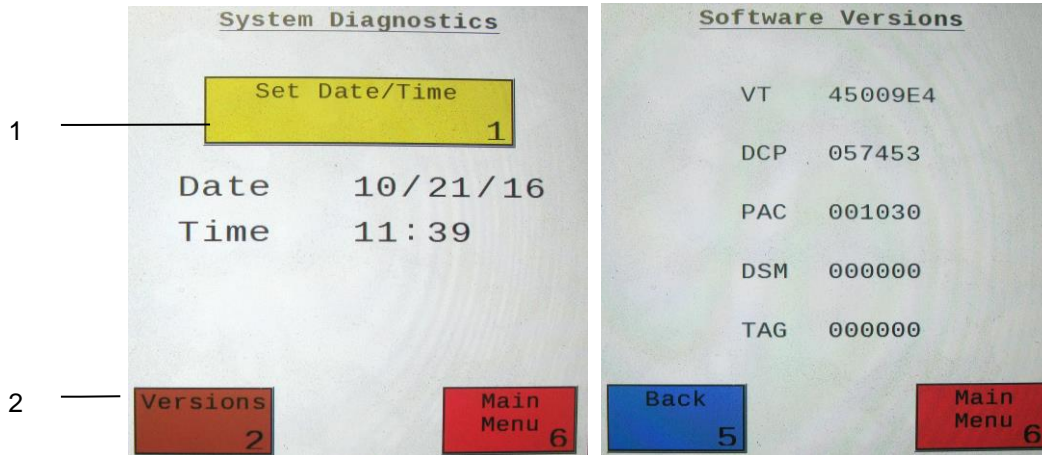
Pump 1 = 100 LBS/HR
Pump 2 = 150 LBS/HR
Pump 3 = 300 LBS/HR

4. The **Moisture Content** (3) is shown in the upper right hand corner.
5. **Baling rate** and **Application rate** (4) are shown in the middle. The output of a pump can be checked by dividing the preset output (shown in step 3) by the baling rate. For example, if you have the high output tips in and are running pump three by itself, your output is 300 lbs/hr. Given the Baling Rate (4) shown on the above screen (79.5 tons/hr), the application rate should be about 3.77 lbs/ton (300lbs/hr divided by 79.5 tons/hr).
6. The **Graph** (5) shows the moisture trend from the last 90 seconds of baling (one reading every 3 seconds).
7. The Totals at the bottom of the screen show the total **Tons Baled** and **# Used** (pounds of product used) (6) for the current job. These numbers will reset to zero when a new Job Record is started. If operating with AUTO Bale Rate sensors OFF total tons baled will be zero.
8. The **Baling Rate** (4) is set in the **SETUP MODE** menu.
9. **Last Bale** (7) shows the average moisture content for the last bale.
10. Press the **MAIN MENU** (8) key to return to the opening screen.

Diagnostics

After pressing the **DIAGNOSTICS** key in the **MAIN MENU** screen, the screen on the left should appear:

1. To set date and time select the **Set Date/Time** (1) key. In the next screen enter the date (month, day, year format) followed by the time. When done select the **OK** key (2). NOTE: The clock uses military (or 24 hour) time.
2. Select the **Software Versions** key to check all software versions of modules attached to the Dual Channel Processor (DCP). The information will appear in the screen shown below right.



3. Press the **MAIN MENU** (4) key to return to the opening screen.

Job Records

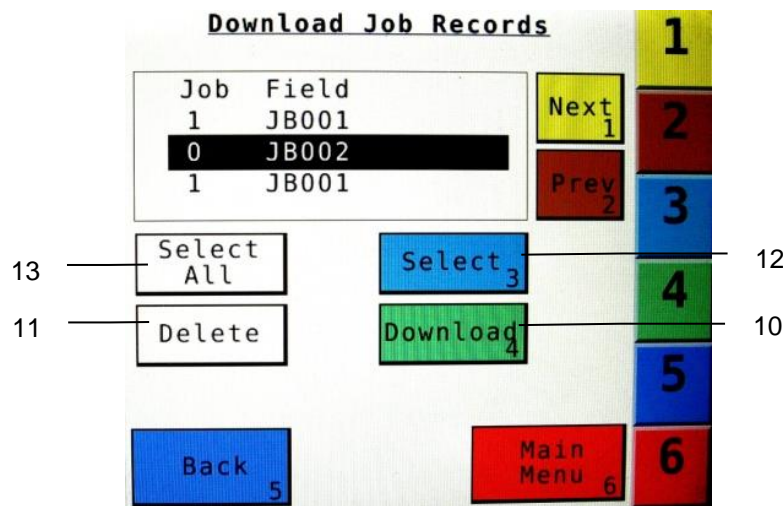
After pushing the **JOB RECORDS** key in the **MAIN MENU** screen, the upper left screen below should appear:



1. Selecting **New Job** (1) will save all the previous bale records and open the **Field Name** (2) screen.
2. Use the key pad in the Field Name screen to enter up to an eight character field name. Use the asterisk key to move on to the next letter or number if they are identical. Use the pound sign as a space between the characters. When you have completed the field name press enter.
3. Pressing **Job Details** (3) will open the Job Details screen. Use the **Next** and **Prev** (4) icons to view the different jobs. Job: 0 will always be your current and open job record. Press **Back** (5) to go to the **Job Records** screen or **Main Menu** (6) for the main screen.
4. Selecting **Bales** (7) at the center bottom of the screen will open a **Bale Details** screen (8). This screen lets you look at the individual bale records for the first five bales made. Use the **Next** and **Prev** icons to scroll through five bales at a time. Select **Back** to go to the **Job Details** screen or **Main Menu** for the main screen.

Continued on the next page

Job Records (continued)



The left screenshot shows Microsoft Excel with a spreadsheet titled "JOB DATA". The data is as follows:

FIELD	JOB #	AVG MC	HI MC	#USED	BALES	TONS	DATE/TIME
JB001	1	21	55	16	12	8	16 JAN 09 08 32

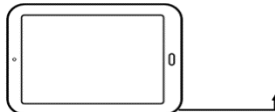
The right screenshot shows Notepad with a detailed view of the job data, including columns for "FIELD NAME", "JOB NUMBER", "AVG MC/BALE", "HIGH MC/BALE", "PRODUCT USED", "TOTAL BALES", "TOTAL TONS", and "DATE/TIME".

1. Selecting the **Download** (9) key (in the job records screen) will open the Download Job Records screen, shown above. This screen lets you select jobs to download onto a USB drive. To download insert a USB drive into the port on the Dual Channel Processor. Select the job(s) you would like to download using the Next and Prev icons to highlight the job(s). Once the desired jobs are selected press the **Download** (10) key. Press the **Download** key again to confirm. When the USB drive light goes off all the jobs selected will be saved. The jobs can then be opened on any computer with Excel or Notepad. To delete jobs highlight, select them and press **Delete** (11) followed by pressing **Delete** again for confirmation. Press **Back** to go to the Job Records screen or **Main Menu** for the main screen.
2. Pressing the **Select** (12) key will select or unselect the highlighted job.
3. Pressing the **Select All** (13) key will select all jobs, except for the current job (0). To unselect press the Back key.
4. The job record in Excel will show as on the left above. The Bale ID column will need to be adjusted for proper viewing.
5. The job record in Notepad will show as on the right above. You will need to scroll right to see all the information.

iPad Integration Control Module

030-6672C

To operate the applicator, connect the iPad cord to the iPad Integration Control in the port indicated by:



iPad Integration Control Light Signals

Green Slow Blink – Power supplied to the applicator system and the unit is going through its startup process. This will take approximately 25-35 seconds.



Green Double Blink – Indicating the iPad module recognizes the iPad but the app is not open or connected.

Green Solid Light – Module is connected to the app and is ready to operate.

*Recommended to use the USB cable included with the applicator kit (006-6672USBC)

Bluetooth Receiver Lights

Pre-2020 applicators equipped with Bluetooth receivers (030-6672B) are now equipped with lights to indicate both power and Hay App connection on the Apple iPad. Clean light regularly

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 – The Bluetooth receiver is connected to the Hay App.



****600 Series Applicators with serial number before DCP27000 will require the DCP to be sent to Harvest Tec for a required update in order to use the iPad Integration Module (030-6672C).**

Hay App version must be **at least 2.5.18 (or higher)** to operate with the iPad Integration Module

*Made for Apple iPad badge

Use of the Made for Apple iPad badge means that an accessory has been designed to connect specifically to the Apple product(s) identified in the badge and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

Please note that the use of this accessory with an Apple product may affect wireless performance.

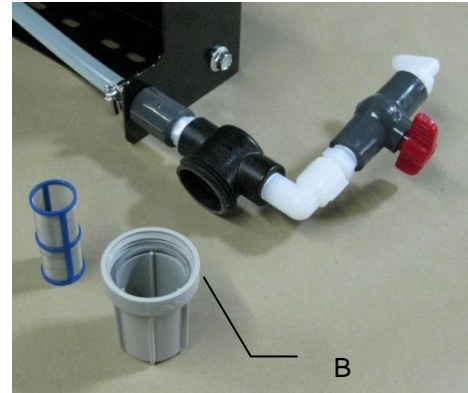
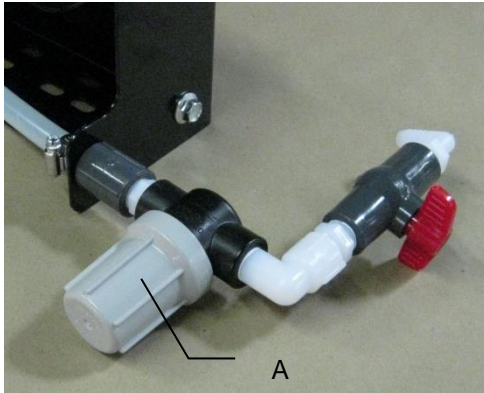
Maintenance Schedule

	Daily	10 hrs	400 hrs	Weekly	Monthly	Season
Diagnostics	X					X
Filter bowl cleaning		X				X
Tips & tip screen cleaning		X				X
Tank lid cleaning		X				X
Dielectric grease connections					X	X
Rebuild pumps			X			
Battery connections				X		X
Check valves			X			
Visually inspect hoses				X		X

Diagnostics: Is used for setting the date and confirming the Version.

Filter Bowl Cleaning: The filter bowl is located in front of the applicators tank and is connected to the ball valve. Before cleaning the filter bowl all personal protective equipment must be worn (Face shield or goggles, chemically resistant apron, boots, and gloves).

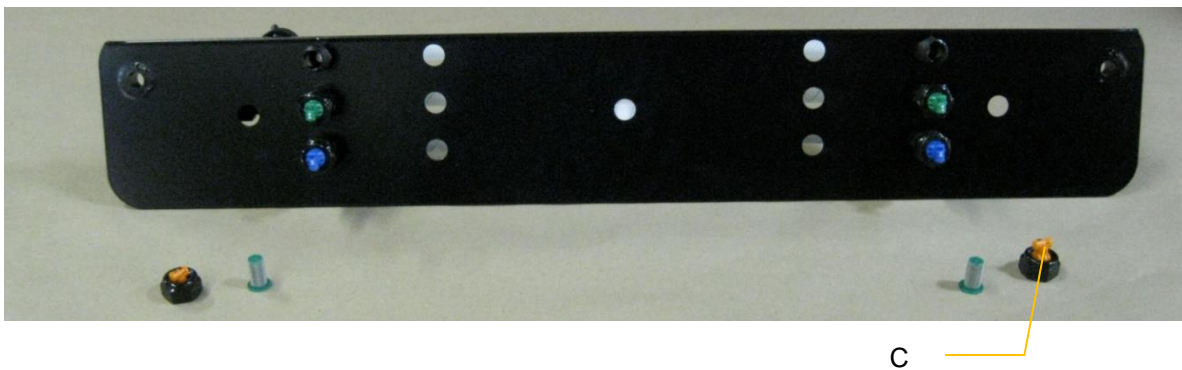
Verify that the ball valve located next to the pump is turned off. Locate the filter bowl on the side of the pump manifold (A). Unscrew the bottom section of the filter bowl and remove the strainer. (B) Clean off any debris and soak in warm water with a mild soap if necessary. Once the screen is clean reinstall by following the directions in reverse.



Tips and Tip Screen Cleaning: The spray shield assembly that holds the tips and tip screens is located above the pickup head.

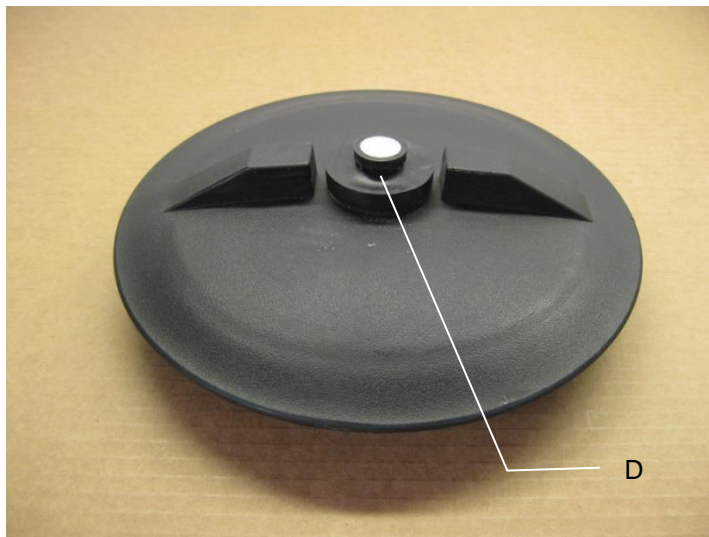
Before cleaning the tips and screens all personal protective equipment must be worn (Face shield or goggles, chemically resistant apron, boots, and gloves).

Verify that the ball valve located next to the pump is turned off. Disconnect spray shield from hangers by removing the lynch pins (A). Disconnect check valve nuts and remove hoses from shield (B). Remove shield from baler. Remove all six nozzle caps with a 7/8 inch wrench (C). Hold the nozzle body from turning while removing the nozzle caps with a 11/16 inch wrench. Remove the tip, and screen. Clean off any debris and soak in warm water with a mild soap if necessary. Once the tips and screens are cleaned reinstall by following the directions in reverse.



Tank Lid Cleaning: Before cleaning the tank lid all personal protective equipment must be worn (Face shield or goggles, chemically resistant apron, boots, and gloves).

The tank lid is located on the top of the tank. Use the supplied handle on the tank to secure your person and use the other hand to remove any debris from the top of the tank. Unscrew the tank lid and bring down ground level. Use compressed air clean out the tank breather (D). Once the breather is cleaned reinstall the cover.



Dielectric Grease Connections: Disconnect all harnesses on the applicator, clean the connections, and repack with dielectric grease.

Rebuild Pumps: If Diagnostic or Manual mode show that the pumps are running lower than normal, a pump rebuild may be necessary. To do this rebuild the pump must be removed from the pump manifold. Pump rebuild is part no. 007-4581. A service pack that includes pump rebuilds and check valves is available from your local dealer.

Verify that the ball valve is turned off. Before working around the pumps all personal protective equipment must be worn (Face shield or goggles, chemically resistant apron, boots, and gloves). Remove pump from manifold. Follow rebuild instructions supplied with pump rebuild kit. Reinstall after rebuild is complete.

Battery Connections: Follow the batteries safety warnings and clean the battery connections. If the connections cannot be cleaned, replace harness.

Check Valves: Before servicing the check valves all personal protective equipment must be worn (Face shield or goggles, chemically resistant apron, boots, and gloves).

Verify the ball valve is turned off before service the check valves. Replace the intake check valves by the pumps (002-4566F) and the discharge check valves by the tip (004-1207VB).

Miscellaneous Maintenance:

1. Depending on the product being used, the system may need to be flushed with water at a regular interval (consult with manufacturer of the chemical.) If Harvest Tec product is being used, flushing is not necessary.
2. Although the pump can run dry, extended operation of a dry pump will increase wear. Watch the preservative level in the tank.
3. If you are using bacterial inoculants, flush your system daily after every use.

Winter Storage

1. Thoroughly flush the system with water.
2. Remove the filter bowl and run dry until the water has cleared out of the intake side.
3. Remove the red plug from the bottom of the pump, drain, and run the pump for 30 seconds or until dry.
4. Drain all lines on the outlet side.
5. Never use oils or alcohol based anti-freeze in the system.
6. For spring start-up, if the pump is frozen, turn off the power immediately to avoid burning the motor out or blowing a fuse. The pump head can be disassembled and freed or rebuilt in most cases. Check the fuses after the pump has been freed.
7. Disconnect power from the Precision Information Processor.
8. Remove display from tractor and store in a warm, dry place.

Status Alerts

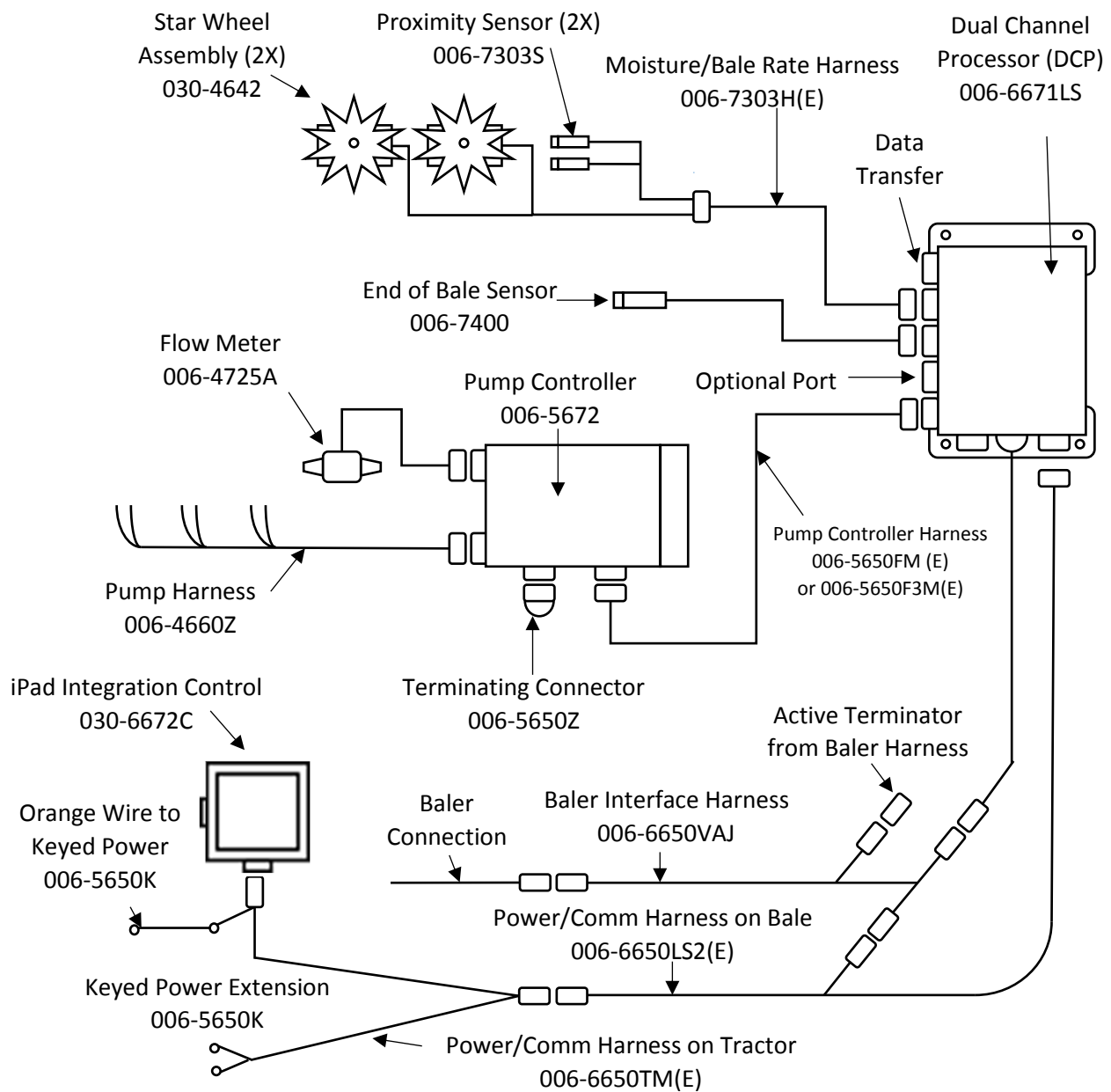
Two Status Alerts will appear on the Auto and Manual mode screens when the Job Records are approaching, or full of records.

Status Alert **“Bale Records: Less than 1K remaining”**. The system is now approaching the maximum amount of records that can be saved. When this code appears, download and delete jobs in the Job Records menu. Follow the instructions in Job Records to accomplish this.

Status Alert **“Bale Records failed – Memory Full”**. The system will no longer accept any new data until jobs in the Job Records menu are downloaded and deleted. Follow the instructions in Job Records to accomplish this.

Wiring Diagram

- A. The Baler Power/Communication Harness (006-6650LS2(E)) will attach to the open port of the Tractor Harness (006-6650TM(E)) and run back to the Dual Channel Processor (DCP 006-6671LS).
- B. Connect the large plug of the Baler Power/Communication Harness (006-6650LS2(E)) to the bottom (shorter side) of the DCP. Attach the Baler Interface Harness (006-6650VAJ) in between the short whip cable hardwired to the DCP and the main Power/Communication Harness. Make sure Active Terminator removed from the baler processor is attached to the Baler Interface Harness (006-6650VAJ).
- C. Install the Terminating Connector (006-5650Z) to the Modular Port on the Pump Controller (006-5672).
- D. Attach moisture and bale rate harness (006-7303H) to the DCP (006-6671LS).
- E. Attach the Pump Control Harness (006-5650FM(E)) between the Pump Controller (006-5672) and the DCP (006-6671LS).
- F. Connect Keyed Power Extension harness (006-5650K) to a keyed power source.
- G. Connect iPad Integration Control (030-6672C) to Communication Harness (006-6650TM(E)).
- H. Note: the Optional Port and the Data Transfer Port are not used in this application.



*Note: (E) indication is used for International Dealers

Pin Outs

Power/Comm Harness 006-6650TM at Hitch

Pin 1	Red	+12V Power to TSD
Pin 2	Red	+12V Power to DCP
Pin 3	Orange	Keyed Power
Pin 4	Gray	Shield
Pin 5	Green	HT Can Low
Pin 6	Yellow	HT Can Hi
Pin 7	Orange	Can1 Hi
Pin 8	Black	Ground from TSD
Pin 9	Black	Ground from DCP
Pin 10	Blue	Can1 Low



Power/Comm Harness 006-6650LS2 at Hitch

Pin 1	Red	+12V Power to TSD
Pin 2	Red	+12V Power to DCP
Pin 3	Orange	Keyed Power
Pin 4	Gray	Shield
Pin 5	Green	HT Can Low
Pin 6	Yellow	HT Can Hi
Pin 7	Orange	Can1 Hi
Pin 8	Black	Ground from TSD
Pin 9	Black	Ground from DCP
Pin 10	Blue	Can1 Low



iPad Integration Control / BLE on Harness 006-6650TM

Pin 1	Red	+12V Power from DCP
Pin 2	Black	Ground from TSD
Pin 3	Yellow	HT Can Low
Pin 4	Gray	Shield
Pin 5	Green	HT Can Hi
Pin 6	Orange	Can1 Hi
Pin 7	Blue	Can1 Low



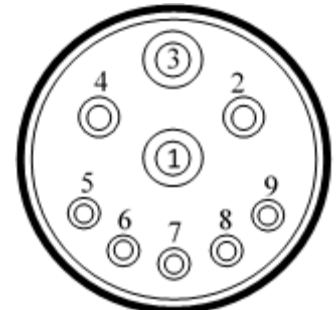
ISOBUS Plug Baler Side

Pin 1	N/A	
Pin 2	N/A	
Pin 3	120 OHM with Pin 5	
Pin 4	N/A	
Pin 5	120 OHM with Pin 3	
Pin 6	Orange	Can1 Hi
Pin 7	Blue	Can1 Low



ISOBUS Plug Tractor Side

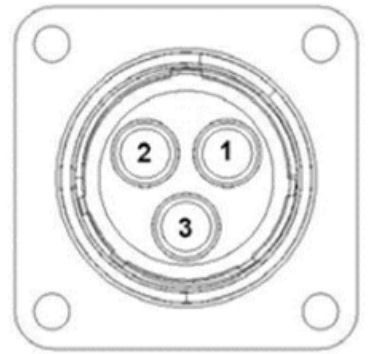
Pin 1	N/A	
Pin 2	N/A	
Pin 3	+12V Keyed Tractor Power	
Pin 4	N/A	
Pin 5	N/A	
Pin 6	N/A	
Pin 7	N/A	
Pin 8	Orange	Can1 Hi
Pin 9	Blue	Can1 Low



Pin Outs (continued)

Main Power Connector on DCP

Pin 1	Red	+12V Power from tractor
Pin 2	Black	Ground from tractor
Pin 3	Orange	Keyed power



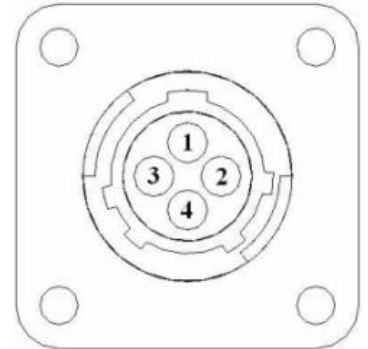
Star Wheel and Bale Rate Sensor connector on DCP

Pin 1	Blue	+12V Power
Pin 2	Orange	Ground
Pin 3	Black	Signal for sensor 1
Pin 4	White	Signal for sensor 2
Pin 5	N/A	
Pin 6	N/A	
Pin 7	N/A	
Pin 8	Violet	Star wheel input 1
Pin 9	Brown	Star wheel input 2



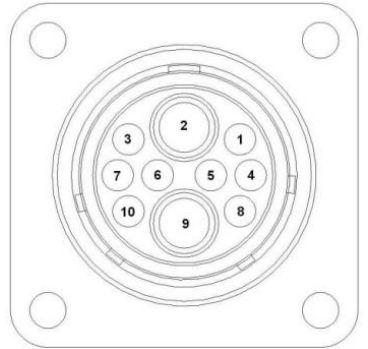
End of Bale sensor on DCP

Pin 1	Brown	Sensor Power
Pin 2	Blue	Sensor Ground
Pin 3	N/A	
Pin 4	Black	Signal from Sensor



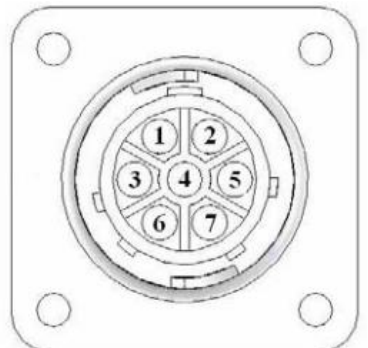
Pump Communication Plug on DCP

Pin 1	Red	+12V Can
Pin 2	Red	+12V Power
Pin 3	Gray	Shield
Pin 4	Green	Comm Channel OH
Pin 5	Yellow	Comm Channel OL
Pin 6	Blue	Comm Channel IH
Pin 7	Orange	Comm Channel IL
Pin 8	Black	Can Ground
Pin 9	Black	Power Ground
Pin 10	N/A	



Pump Connection Colors

Pin 1	Black with Orange Stripe	Pump 1 Ground
Pin 2	Black with Green Stripe	Pump 2 Ground
Pin 3	Black with Yellow Stripe	Pump 3 Ground
Pin 4	N/A	
Pin 5	Orange with Black Stripe	Pump 1 Positive
Pin 6	Green with Black Stripe	Pump 2 Positive
Pin 7	Yellow with Black Stripe	Pump 3 Positive



Pin Outs (continued)

Flow Meter Connection on Pump Controller

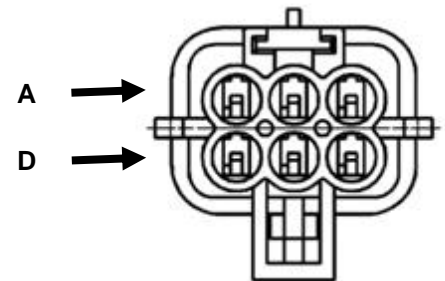
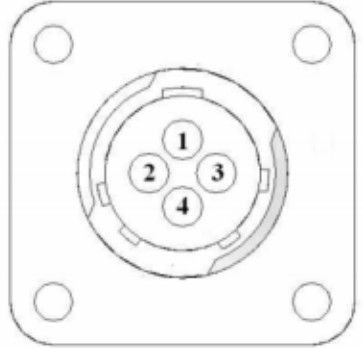
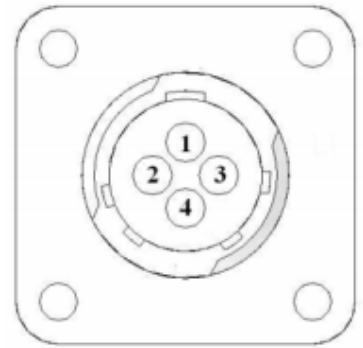
Pin 1	White	5 – 12V (+) Supply
Pin 2	Green	Ground
Pin 3	Brown	Signal
Pin 4	Black	Shield

Connector for Crop Eyes on DCP

Pin 1	Red	+12V Power
Pin 2	Black	Ground
Pin 3	White	Signal
Pin 4	N/A	

006-6650VAJ Harness to Baler Plug

Pin A	N/A	
Pin B	Red	TBC Power
Pin C	N/A	
Pin D	Gray	TBC Ground
Pin E	Orange	Can1 Hi
Pin F	Blue	Can1 Low



Common Questions

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

Turn the key in the tractor to the ON/OFF position.

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

In the **Main Menu** press the **Setup Mode** option. From this screen you can change your application rates and how much product is applied. See the section on **Setting Up For Initial Use** for a detailed explanation of this process.

3. The unit is stuck in the MC% screen.

In the MC% 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 set higher than level 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. The set points then will need to be adjusted if you want to attain a different flow meter reading.

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. One of the first places to check is inside the white star wheel block. Check to see if the electronic swivel is in the star wheel shaft and check to see that the star wheel shaft is not working out of the block. Also, check all star wheel wires and connectors to see if there is a continuity or 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. How can I turn the optional hay indicators Crop Eyes On/Off from the cab?

From the **Setup Mode** screen press **Options**. Press the **On/Off** underlined area next to **Crop Eyes**.

10. Bale scale does not give a consistent reading.

Baling on rough terrain or hills can cause the scale to give an inaccurate reading. Turn Bale Scale option OFF in the Bale Rate Screen and use AVG Bale Weight reading as weight of bale.

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

Pre-2020 applicators were equipped Bluetooth receivers (030-6672B) and are now equipped with lights to indicate both power and Hay App connection on the Apple iPad. Red Light – The Bluetooth receiver has power. Green Light – The Bluetooth receiver is connected to the Hay App.

Troubleshooting

Problem	Possible cause	Solution
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.
Product shown is more than actual product used.	1. High voltage supplied to the meter.	1. Check voltage at Pump controller. Max of 18 volts.
	2. Light interference with meter.	2. Reflection into meter can cause a high reading. Move meter or protect from sunlight.
	3. Air leak in intake.	3. Look for air bubbles in line. Replace line or other defective area that is allowing air into the system.
	4. Using product other than Harvest Tec	4. Catch and weigh product to check outputs.

System leaks product 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 the end of a row.	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
Bale rate displays zero.	1. Bale rate sensors are reversed. 2. Short in cable. 3. Damaged sensor.	1. Switch the sensors next to the star wheel. 2. Replace cable. 3. Replace sensor.
Display is locked up/froze.	1. CAN communication not responding. 2. Broke connection between the display and DCP or Pump control and DCP.	1. Check connections at DCP and Pump controller including the terminating resistors. 2. Check, clean, and tighten connections. 3. Power unit down and restart after steps 1 & 2 are complete.
Display powers up when key is turned and will not go to the Main Menu screen.	1. CAN communication not responding. 2. Broke connection between the display and DCP or Pump control and DCP.	1. Check connections at DCP and Pump controller including the terminating resistors. 2. Check, clean, and tighten connections. 3. Power unit down and restart after steps 1 & 2 are complete.
Display is locked up/froze and pumps continue to run.	1. CAN communication not responding. 2. Broke connection between the display and DCP or Pump control and DCP.	1. Check connections at DCP and Pump controller including the terminating resistors. 2. Check, clean, and tighten connections. 3. Power unit down and restart after steps 1 & 2 are complete.
Display says PAC error	1. The DCP and Pump controller are not communicating. 2. Broke connection between the display and DCP or Pump control and DCP.	1. Check all connections at DCP and Pump controller including terminating resistors. 2. Check, clean, and tighten connections.
Bluetooth Receiver lights will not illuminate	1. Bluetooth receiver not connected 2. Harness disconnected Low power	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>	

Parts Breakdown Tank, Saddle and Legs 110 Gallon



- Tank Lid**
Part#: 005-9022E
or 005-9208L
- Tank-110 gallon**
Part#: 005-9208
- Hand Rail**
Part#: 001-6707HR
- Tank Straps**
Part#: 001-4402B
- Tank Saddle**
Part#: 001-6707A
- Tank Fitting**
Part#: 005-9100

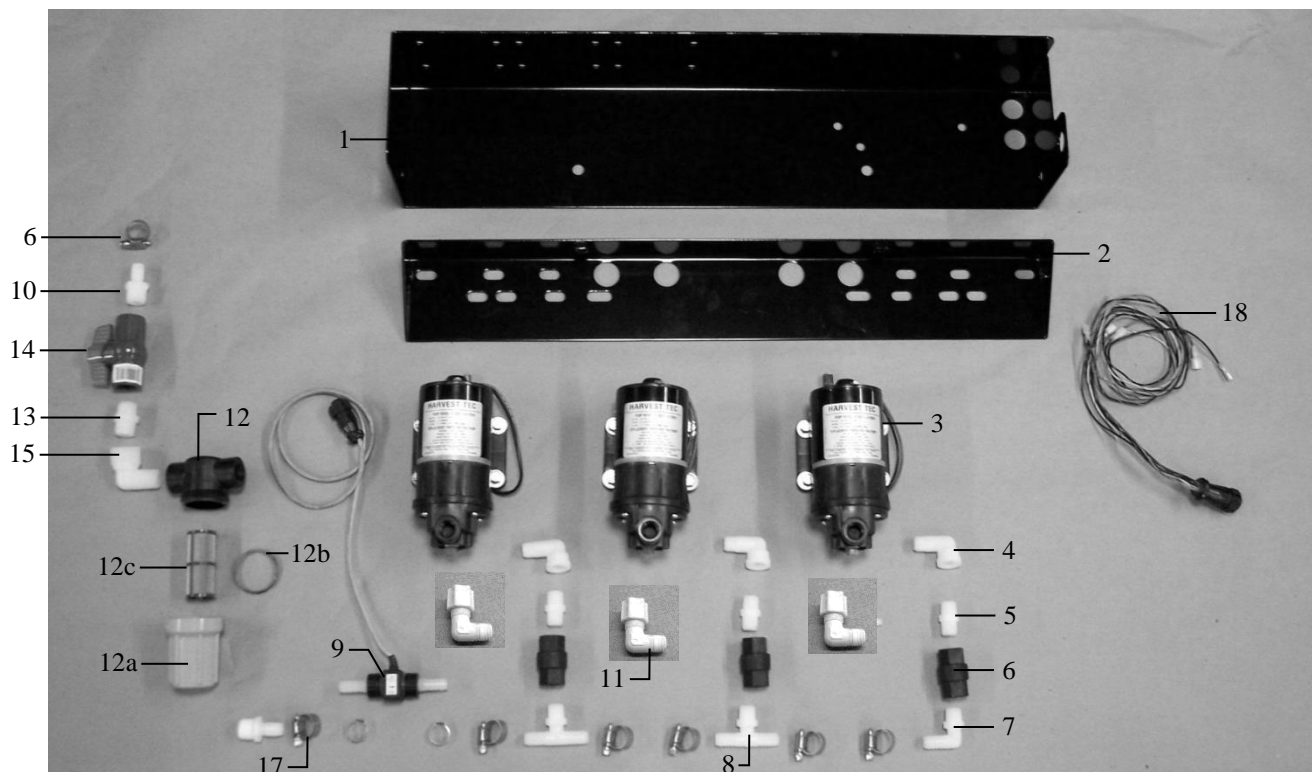
Not Pictured: Elbow
Part#:003-EL3412

John Deere L330 / L340

Part#: 001-6707J

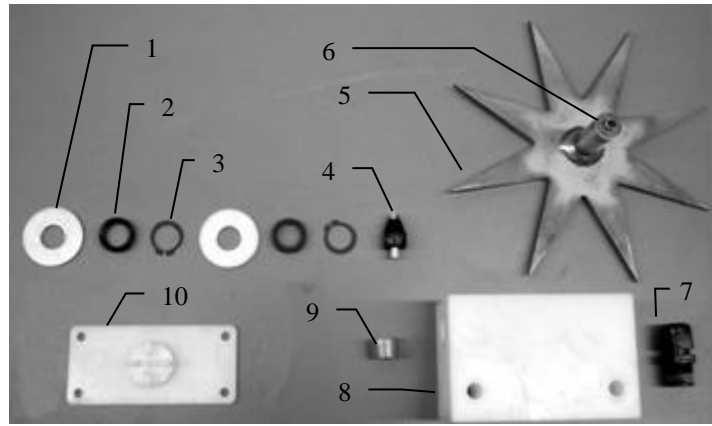


Parts Breakdown for Pump Manifold



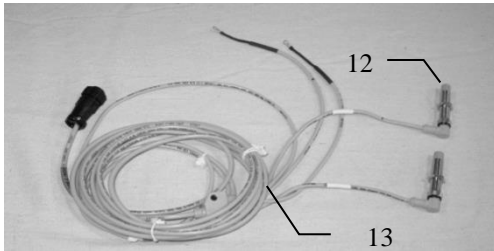
<u>Ref#</u>	<u>Description</u>	<u>Part#</u>	<u>Qty</u>
1	Pump plate	001-4646D	1
2	Mounting Bracket	001-4646C	1
3	Pump	007-4120H	3
4	Street elbow fitting	003-SE38	3
5	Nipple fitting	003-M3838	3
6	Check valve	002-4566F	3
7	Elbow fitting	003-EL3812	1
8	Tee fitting	003-T3812HB	2
9	Flow meter assembly	006-4725A	1
10	Straight fitting	003-A1212	2
11	Jaco fitting	003-JEL1238	3
12	Filter bowl assembly	002-4315-100	1
12a	Filter bowl only	002-4315F	1
12b	Filter bowl gasket	002-4315D	1
12c	Filter bowl screen	002-4315A	1
13	Nipple fitting	003-M1212	1
14	Ball valve	002-2212	1
15	Street elbow fitting	003-SE12	1
16	Hose clamp	003-9003	7
17	Hose clamp (Flow Meter)	003-9005	2
18	Pump Cable	006-4660Z	1
NP	Elbow	003-EL1212	1
NP	Pump rebuild kit (1 per pump)	007-4581	1
	Complete Pump Assembly	030-4646	

Parts Breakdown for Star Wheel Moisture Sensors



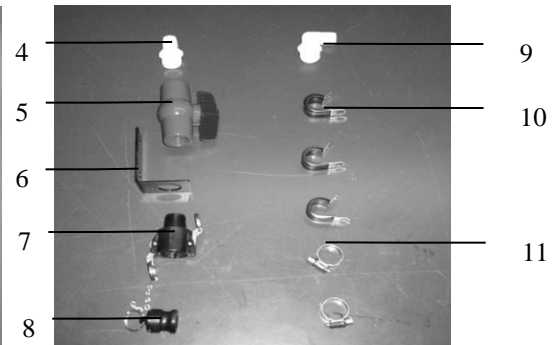
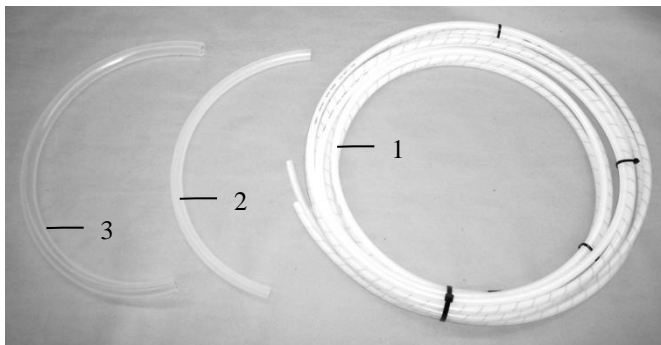
<u>Ref</u>	<u>Description</u>	<u>Part#</u>	<u>Qty</u>	<u>Ref</u>	<u>Description</u>	<u>Part#</u>	<u>Qty</u>
1	Washer (per side)	006-4642K	2	8	Star wheel block	006-4641D	2
2	Dust seal (per side)	w/006-4642K	1	9	Plug fitting	003-F38	2
3	Snap ring (per side)	w/006-4642K	2	10	Block Cover	006-4641B	2
4	Swivel	006-4642A	2	1-10	Star wheel assembly	030-4642	2
5	Star wheel	030-4641E	2	NP	Twine guard – right (prox)	001-4644H	1
6	Insert	w/ Ref # 5	2	NP	Twine guard – left	001-4645H	1
7	Wiring grommet	008-0821A	2				

Bale Rate Sensors



<u>Ref</u>	<u>Description</u>	<u>Part#</u>	<u>Qty</u>
12	Bale rate sensor	006-7303S	2
13	Moisture and bale rate harness	006-7303H	1
	Complete Assembly	006-7202	

Parts Breakdown for Hose and Drain Fill Line

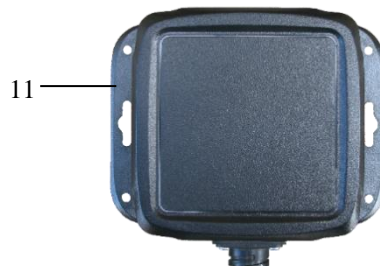


<u>Ref</u>	<u>Description</u>	<u>Part#</u>	<u>Qty</u>	<u>Ref</u>	<u>Description</u>	<u>Part#</u>	<u>Qty</u>
1	Triple weld hose (pumps to tips)	002-9016	35ft	6	Valve Holder	001-6702H	1
		002-9016B	35ft	7	Female Coupler	002-2204A	1
		002-9016G	35ft	8	Male Coupler	002-2205G	1
	Three hose assembly	030-9016LS	1	9	Elbow	003-EL3434	1
2	1/2" Hose (tank to filter)	002-9001	6ft	10	Jiffy Clip	008-9010	3
3	3/4" Hose (tank to drain/fill)	002-9002	10ft	11	Hose Clamps	003-9004	2
4	Straight Fitting	003-A3434	1				
5	Ball valve	002-2200	1				

Parts Breakdown for 696J Series Control and Harnesses Dual Channel Processor (DCP)

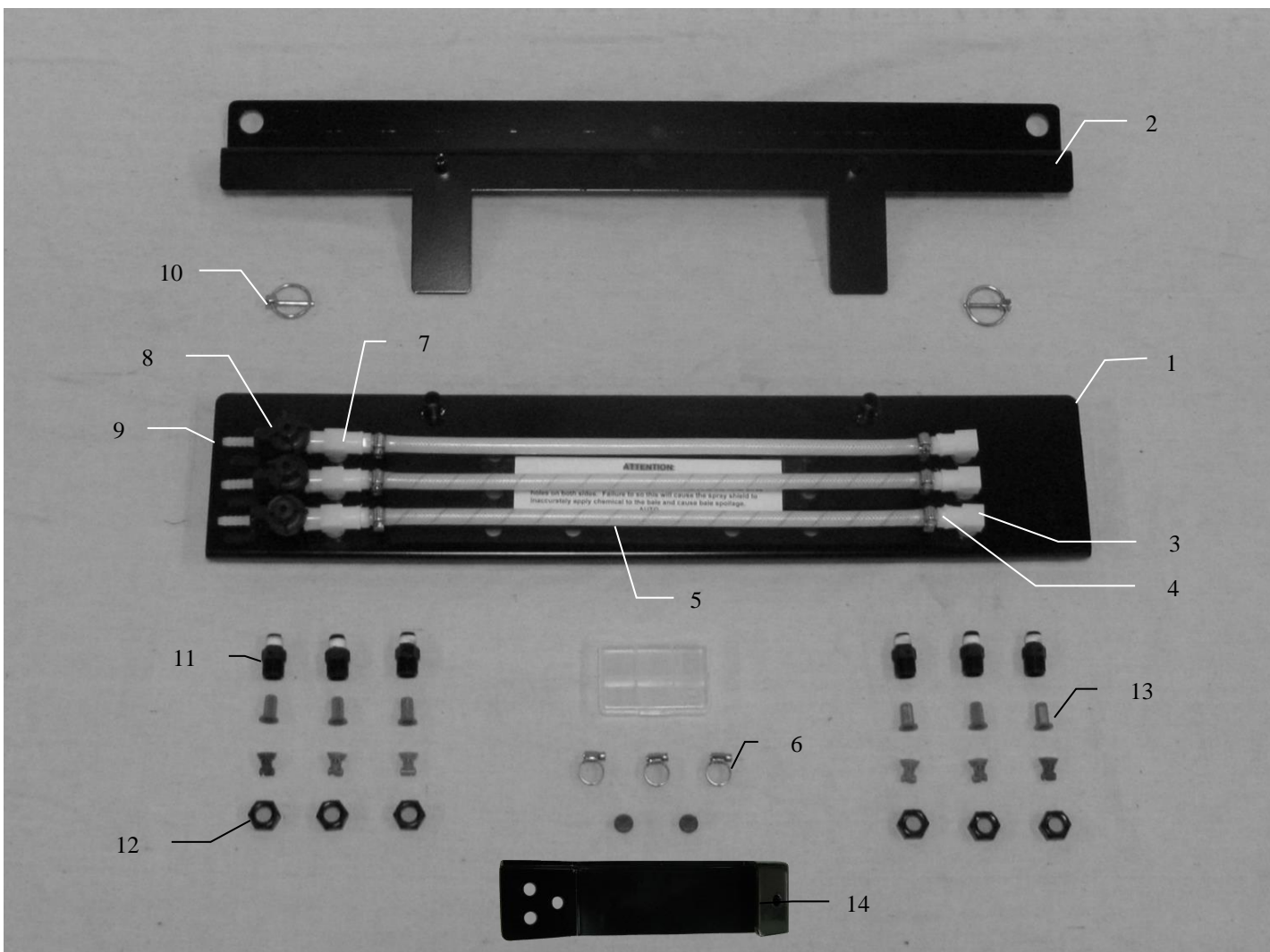


<u>Ref</u>	<u>Description</u>	<u>Part Number</u>	<u>Qty</u>
1	Pump Controller	006-5672	1
2	End of Bale Sensor	006-7400	1
3	DCP Shield Cover	001-5650X	1
4	DCP Main Control LS 600 AUTO	006-6671LS(E)	1
5	Terminating Connector w Green Cap	006-5650Z	1
6	DCP Baler Harness 30 Ft	006-6650LS2(E)	1
7	Modular Power/Comm 10 Ft Harness	006-5650FM(E)	1
8	DCP Tractor Harness	006-6650TM(E)	1
9	Key Switch Wire	006-5650K	1
10	Dust Plugs	006-5651PLUGS	1
11	iPad Integration Control	030-6672C	1
NP	EOB Bracket (JD L330, L340)	001-4648J	1
NP	Baler Integration Harness	006-6650VAJ	1
NP	Optional ISOBUS Adapter Plug	006-6670B	1
NP	USB Cable	006-6672C	1



*Note: (E) indication is used for International Dealers

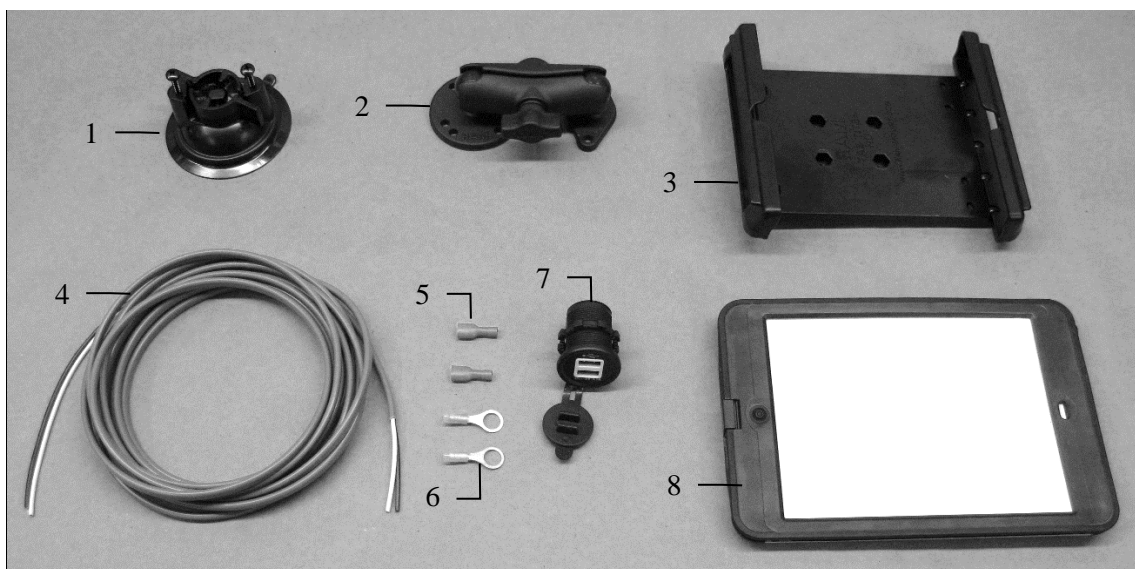
4525JB Installation Kit



<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	Spray shield	001-4435ES	1	Tip (olive green)	004-800067-PT	2
2	Shield holder	001-4435EJ	1	Tip (orange)	004-TT11001VP	2
3	Elbow	003-SE14F	3	Tip (green)	004-TT110015VP	2
4	Straight fitting	003-A1414	6	Tip (blue)	004-TT11003VP	2
5	Hose	002-9016	6ft			
6	Hose clamp	003-9002	9			
7	Tee	003-TT14SQ	3			
8	Check valve	004-1207VB	3			
9	Straight fitting	003-A1414VB	3			
10	Lynch pin	008-4576	2			
11	Nozzle body	004-4722	6			
12	Nozzle cap	004-4723	9			
13	Tip strainer	004-1203-100	6			
14	Pump Plate Holder	001-6707JX	2			

(Not Included w/ Install Kit)

Optional iPad Mini Mounting Kit (030-2014MK)



<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	Suction cup mount	001-2012SCM	1
2	Ram mount	001-2012H	1
3	iPad Mini® spring load cradle (Mini 4)	001-2012SLC	1
4	16 gauge power wire	006-4723P	1
5	Female spade connector	Hardware	2
6	Eye loop connector	Hardware	2
7	iPad Mini Charger 12V	001-2012P	1
8	iPad Mini 4 case	001-2012C4	1
NP	4 amp fuse	Hardware	1
Mounting Kit Assembly		030-2014MK (Includes All Parts)	

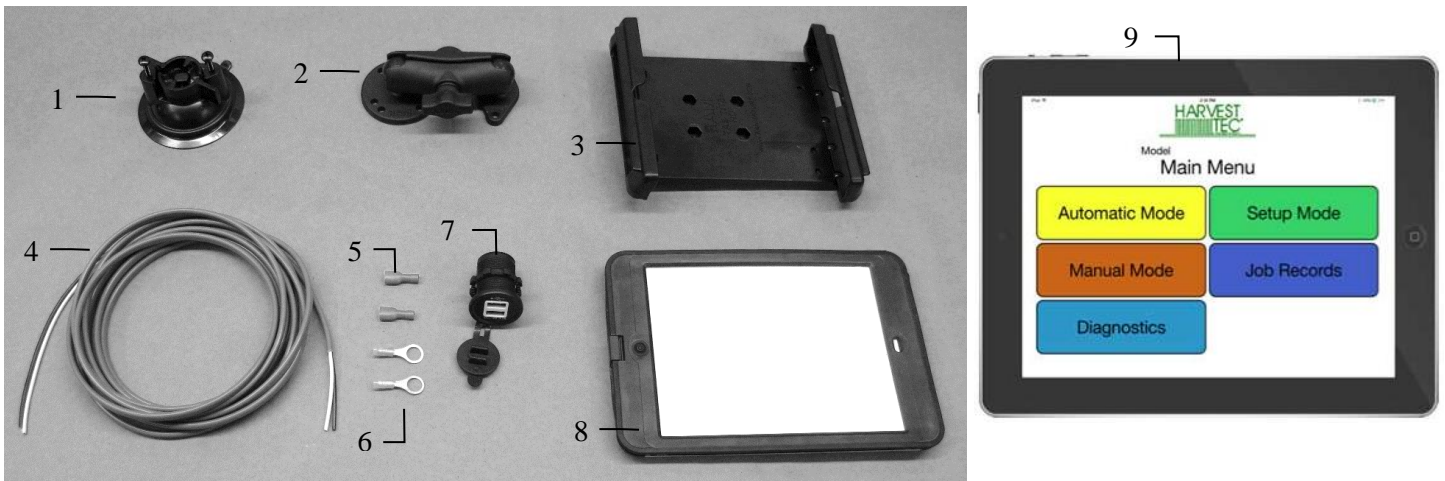
Installation Instructions

1. Identify 12V power source for wires to connect.
 - a. Eye loops included if wiring directly to the battery is desired.
 - b. Test for key power source if preferred to have power to the USB shut off with the key.
2. Once power source is identified, cut wires to desired length.
3. Crimp the two supplied quick connectors onto each the white and black wire.
4. Remove the round locking plastic nut from USB plug before connecting the wires. Black (+) White (-).
5. The wires will then be hooked to the designated terminals on the bottom of the USB plug
6. Drill a 1 1/8" hole in the preferred mounting location. Be sure to clean any sharp edges after drilling.
7. Feed the wires through the mounting hole.
8. If using the round plastic nut to secure plug in place, slide the nut back over the wiring before connecting the wires to powered source.
9. Connect the wires to the identified power source if easier to do so before tightening the plug into place.
10. Tighten plug using either the round plastic nut or mounting plate and two screws, both options supplied.
11. Once connected, hook a USB charging cord into the plug and connect a mobile device/tablet to ensure the plug is operating as you wish (key power working properly if necessary).

NOTE: This plug is not designed to charge two iPads. System damage could occur if this is attempted. System will charge a mobile phone and iPad simultaneously without problem.

*iPad mini is a trademark of Apple Inc., registered in the U.S. and other countries.

Optional iPad Display Kit (030-4670DK)



<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>	<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	Suction cup mount	001-2012SCM	1	7	iPad Mini Charger 12V	001-2012P	1
2	Ram mount	001-2012H	1	8	iPad Mini 4 case	001-2012C4	1
3	iPad Mini® spring load cradle (Mini 4)	001-2012SLC	1	9	iPad Mini 4	006-4670IP	1
4	16 gauge power wire	006-4723P	1	NP	4 amp fuse	Hardware	1
5	Female spade connector	Hardware	2				
6	Eye loop connector	Hardware	2				
					Mounting Kit Assembly	030-4670DK (Includes All Parts)	

Installation Instructions

1. Identify 12V power source for wires to connect.
 - a. Eye loops included if wiring directly to the battery is desired.
 - b. Test for key power source if preferred to have power to the USB shut off with the key.
2. Once power source is identified, cut wires to desired length.
3. Crimp the two supplied quick connectors onto the white and black wire.
4. Remove the round locking plastic nut from USB plug before connecting the wires. Black (+) White (-).
5. The wires will then be hooked to the designated terminals on the bottom of the USB plug
6. Drill a 1 1/8" hole in the preferred mounting location. Be sure to clean any sharp edges after drilling.
7. Feed the wires through the mounting hole.
8. If using the round plastic nut to secure plug in place, slide the nut back over the wiring before connecting the wires to powered source.
9. Connect the wires to the identified power source if easier to do so before tightening the plug into place.
10. Tighten plug using either the round plastic nut or mounting plate and two screws, both options supplied.
11. Once connected, hook a USB charging cord into the plug and connect a mobile device/tablet to ensure the plug is operating as you wish (key power working properly if necessary).

NOTE: This plug is not designed to charge two iPads. System damage could occur if this is attempted. System will charge a mobile phone and iPad simultaneously without problem.

*iPad mini is a trademark of Apple Inc., registered in the U.S. and other countries.

Notes

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.

Revised 4/17

HARVEST TEC, INC.
P.O. BOX 63
2821 HARVEY STREET
HUDSON, WI 54016
PHONE: 715-386-9100
1-800-635-7468
FAX: 715-381-1792