Operation Manual

700 Series Small Square Baler
Model 7684553C For Marcrest
75 gallon Preservative Applicator

HarvestTec®

EST. 1976

768SS-OPR-26
2/26

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Introduction

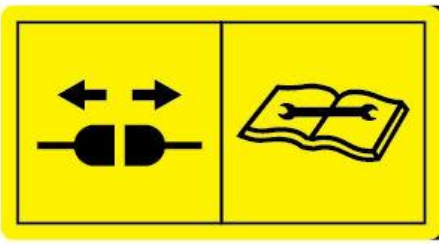
Read this manual carefully to ensure correct steps are followed to operate the applicator system on the baler. This applicator is designed to apply Harvest Tec buffered propionic acid. Use of alternative products may cause complications and voids warranty. Complications may include inaccurate readings from the flow meter and damage to system components.

Safety

Carefully read all the safety signs in this manual and on the applicator before use. Keep signs clean and in good working order. Replace missing or damaged safety signs. Replacement signs are available from your local authorized dealer. See your installation manual or 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 Signs Definitions

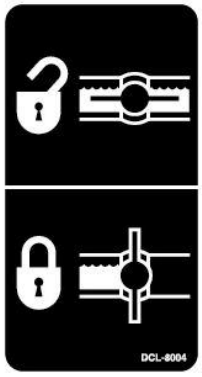


Number 1
Spraying hazard. Disconnect power before servicing the applicator
Part no. DCL-8003

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-8001

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 follow the below steps to prepare for operating the applicator both safely and correctly.

Filling the Tank through the Drain / Fill Line

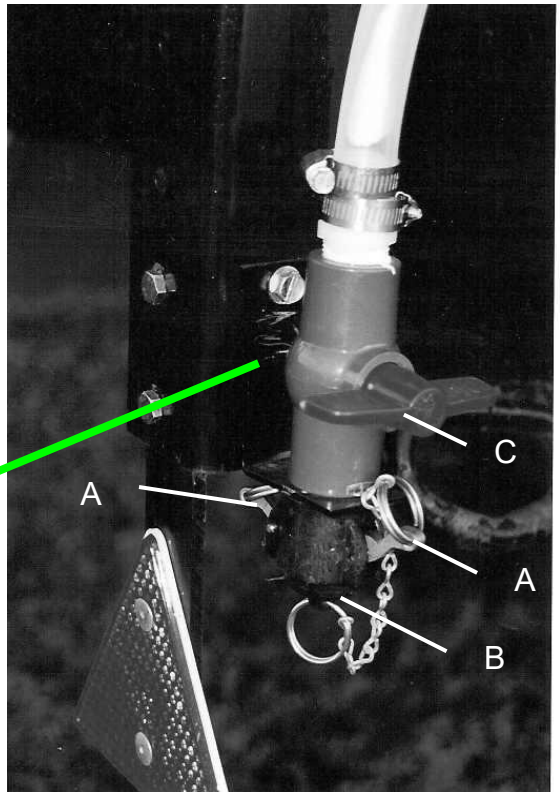
Read the label of the product being filled into the tank to determine what individual protective measures need to be taken. Locate the drain/fill line on the baler. Open the cam-couplers (A) and remove the protective plug (B). Insert the male coupler (found on transfer pump) into the female cam and close 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 transfer pump is recommended for this process.

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

Example drain/Fill line on the baler



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

Filling the Tank through the Tank Lid Opening

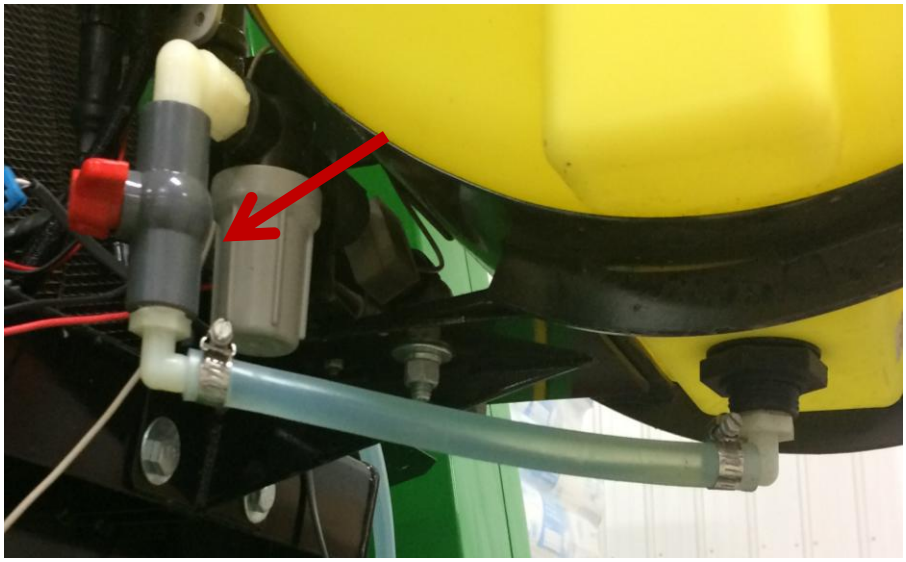
Read the label of the product being filled into the tank to determine what individual protective measures need to be taken. Clean the tank lid area and unscrew the lid. Transfer product from the container into the tank.

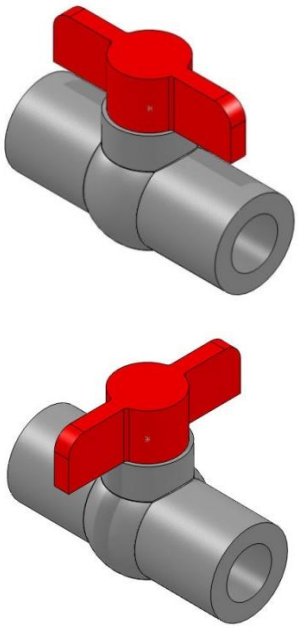
Water is recommended for first time and annual start up procedures.

Operation of the Main Ball Valve

The ball valve should always be closed when the applicator is not being used. The valve should also be closed when any service work is being done to the baler or applicator.

The valve is located next to the pump and by the applicator tank. The arrow below points at the valve.





Valve open

Valve closed

Connecting the Power Harness

The power harness that supplies power from the tractor battery to the applicator pump has a disconnect at the hitch. Connect the two together for operation. Always disconnect before jump starting (or using a booster pack) to start the tractor, when welding on tractor or baler, and before servicing the applicator or baler.

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

ICM- ISO Communication Module

With the Precision Baling app installed on iPad or Android tablet, operate the applicator by connecting the tablet by cable* to the ISO Communication Module (ICM) USB tablet port.

ISO Communication Module (ICM)

Blinking or Solid Green Light – Module is connected and ready to operate.

Recommended to use a quality data transfer communication cable with a USB-A plug. Use of plug adapters are not supported

When baling is completed, be sure to properly shut down the Precision Baling App.

<u>Pressing the Home Button on the tablet WILL NOT stop application of the Harvest Tec System</u>

*Note: By pressing the home button one time to return to the home screen, the Precision Baling App **does not** shut down. The system will, however, stop applying preservative after 10 seconds.

Shutting Down the Precision Baling App - iPad

1. To shut down the Precision Baling App double click the home button. This will show the open apps that are running on your iPad.

2. Slide the app you want to shut down toward the top of the iPad, until the app is no longer visible.

Shutting Down the Precision Baling App - Android

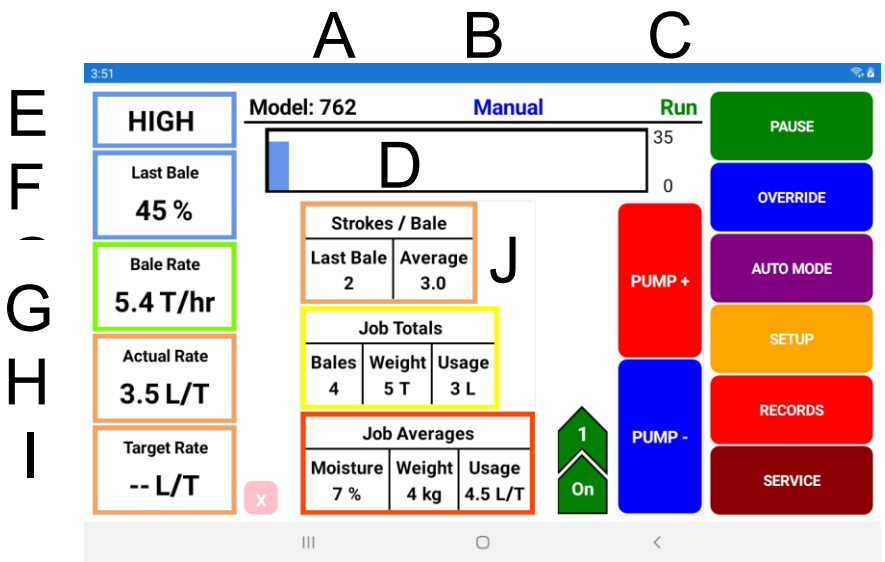
1. To shut down the Precision Baling App click the recent button. This will show the open apps that are running on your tablet.

2. Slide the app you want to shut down toward the right of the tablet screen or click on the ‘ x ‘, until the app is no longer visible.

Operating the Harvest Tec 700 Series Applicator

The 700 series display is broken down into four main categories:

- **Top**: Status Messages
- **Bottom Center**: Current Job Summary Information
- **Left Side**: Real Time Information
- **Right Side**: Operational Keys



Status Message Descriptions

A) Model: Indicates what model system.

B) Mode: Confirms which mode has been selected.

C) Status: Confirms if system is running or paused. **Note: Upon startup the system is PAUSED.**

D) Histogram: Moisture graph of the last 90 seconds or shows if system is paused.

Real Time Information Boxes

E) Current %: This displays instantaneous moisture reading of hay coming into baler.

F) Last Bale %: This displays average of all moisture readings taken from last bale made

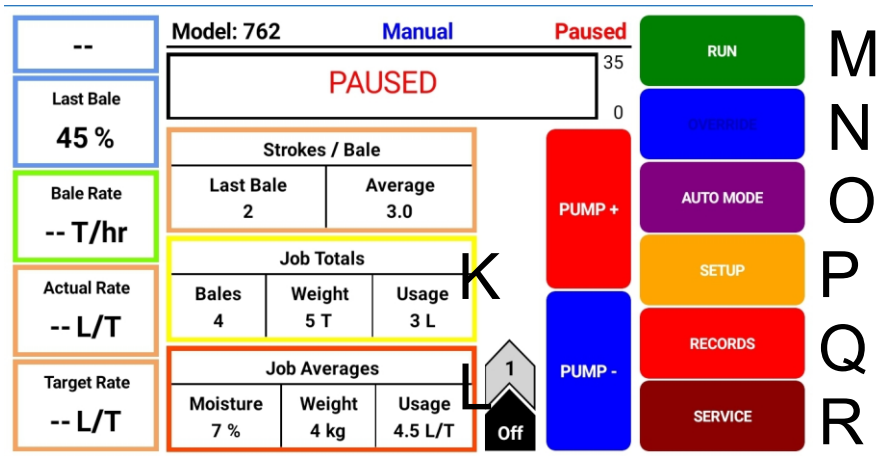
G) Bale Rate: This displays the tons per hour going through baler. Based on weight and time to make a bale.

H) Actual Rate: Actual amount of preservative being applied.

I) Target Rate: Rate of preservative that the system is set to apply.

J) Stroke Counter: ***OPTIONAL EQUIPMENT.*** When kit 030-0700SCK is connected system will provide flake count per bale upon each tie cycle

Operating the Harvest Tec 700 Series Applicator (continued)



Current Job Summary Boxes

K) Job Totals
- **Bales:** Displays the total number of bales made for the current job.
- **Tonnage:** Displays total tonnage baled in job. Based on number of bales made multiplied by weight.
- **Lbs. Used:** Displays the total amount of preservative applied for job.

L) Job Averages
- **Moisture:** Displays average moisture of all bales made in job.
- **Weight:** Displays the average weight of all bales in job.
- **Lbs. Used:** Displays average amount of preservative applied to each bale in job.

Operational Keys

M) Run / Pause: Toggles between run mode to apply and pause mode to stop applying.

N) Override: Only displays when in run mode while the applicator is applying preservative. Once in override, the applicator will apply at full rate.

O) Manual Mode / Auto Mode: Toggles between auto mode and manual mode preservative application.
- **Auto Mode**: Self-adjusts preservative based on user input values, moisture, and baling rate.
- **Manual Mode**: Allows the ability to manually adjust pump rate based on five fixed rates.

P) Setup: Allows for user inputs for values regarding moisture, baling rate, application rate, and stroke counter if equipped.

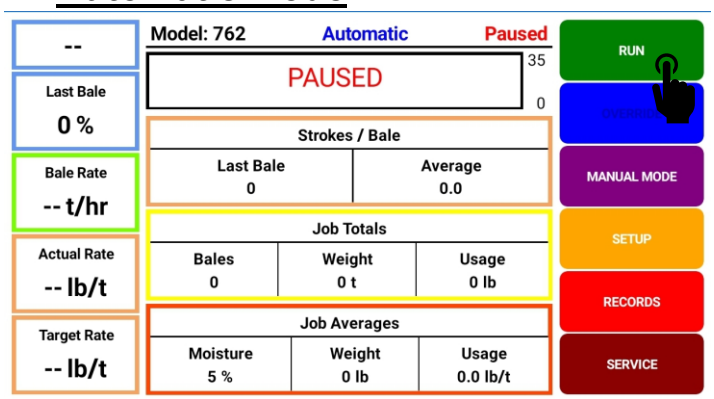
Q) Records: Access to view current job, view job list, view a selected job, create a new job, or reopen and add to existing job.

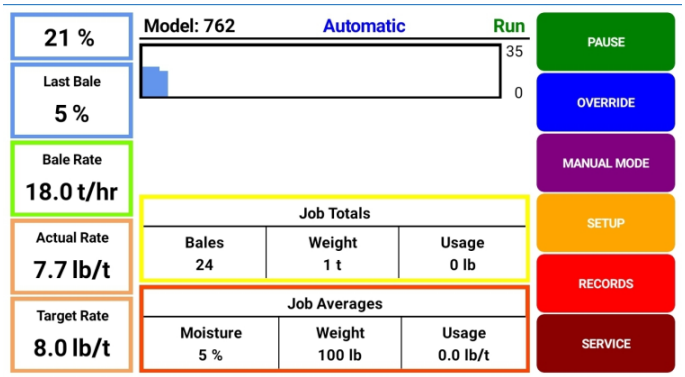
R) Service: Displays software versions, sensor assignment, annual start-up pump test

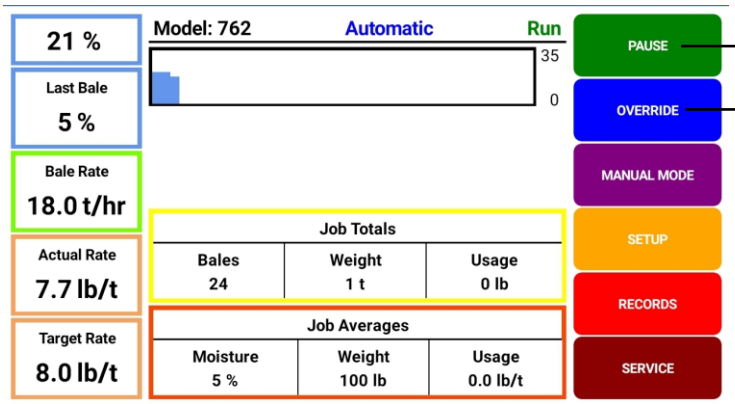
Screen Menus

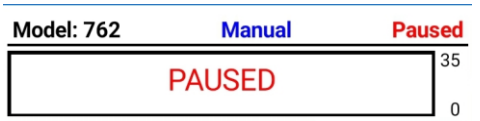
Use the screen shots below to navigate through the operation screens.

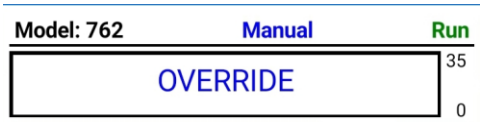
Automatic Mode



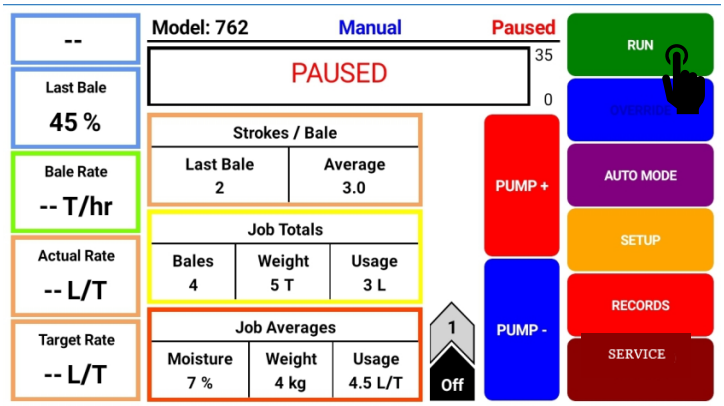


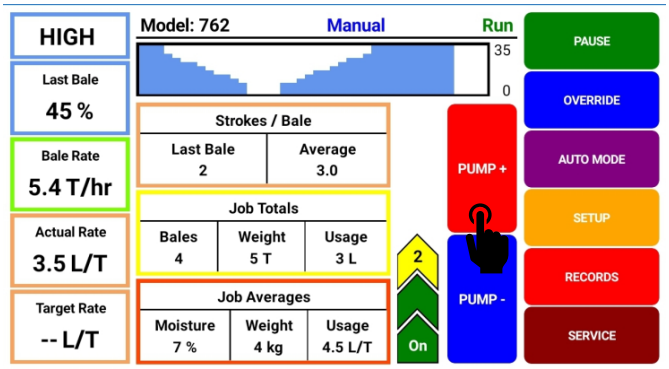


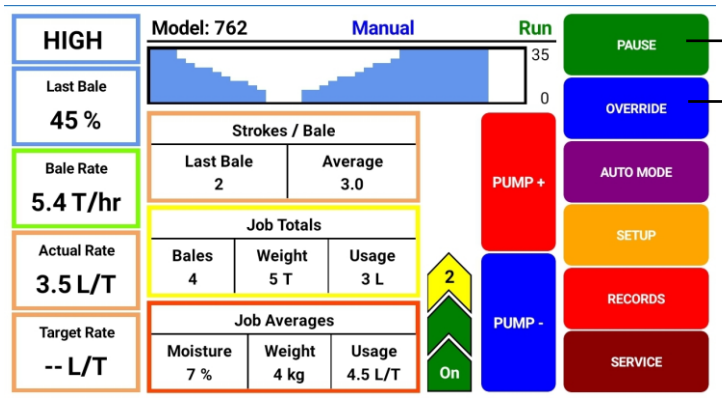


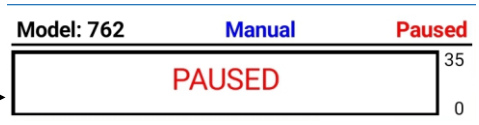


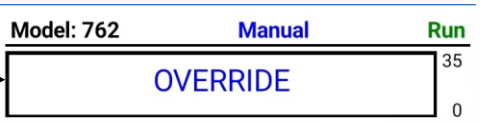
Manual Mode





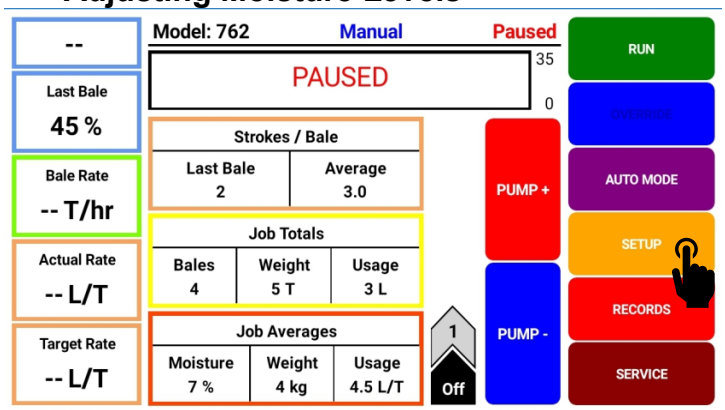


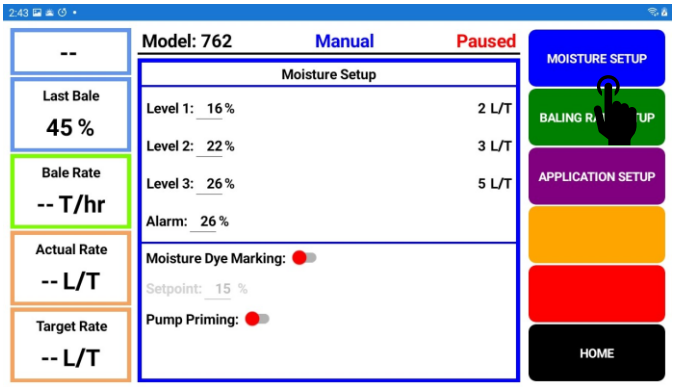




Setup Mode

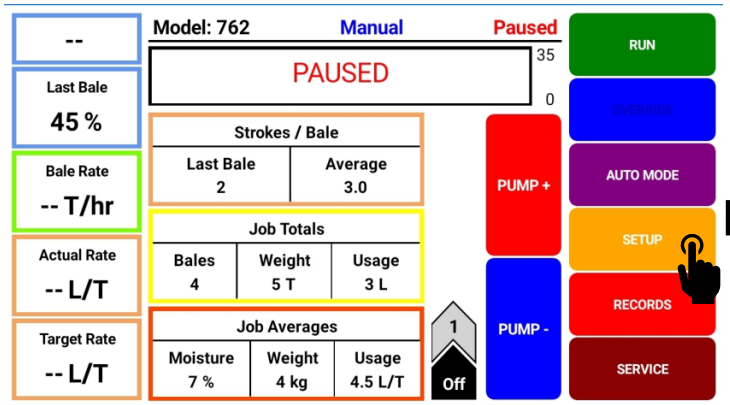
Adjusting Moisture Levels

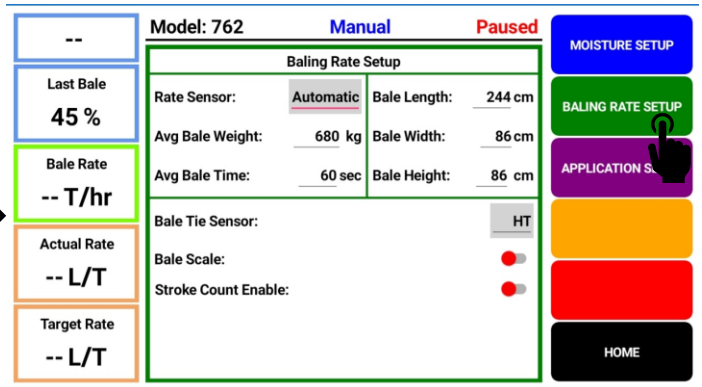




Select and change input boxes / sliders as needed

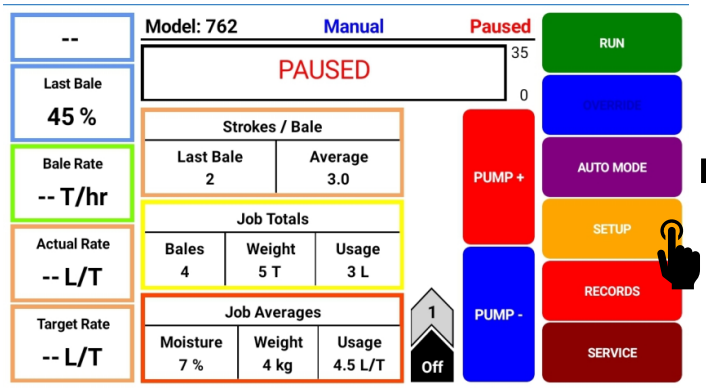
Adjusting Baling Rate

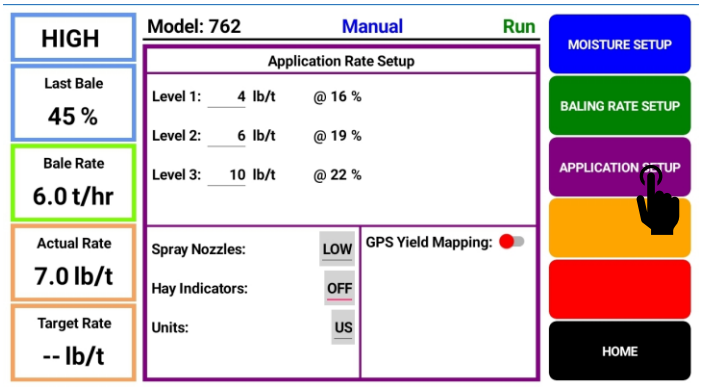




Select and change input boxes / sliders as needed

Adjusting Application Rate



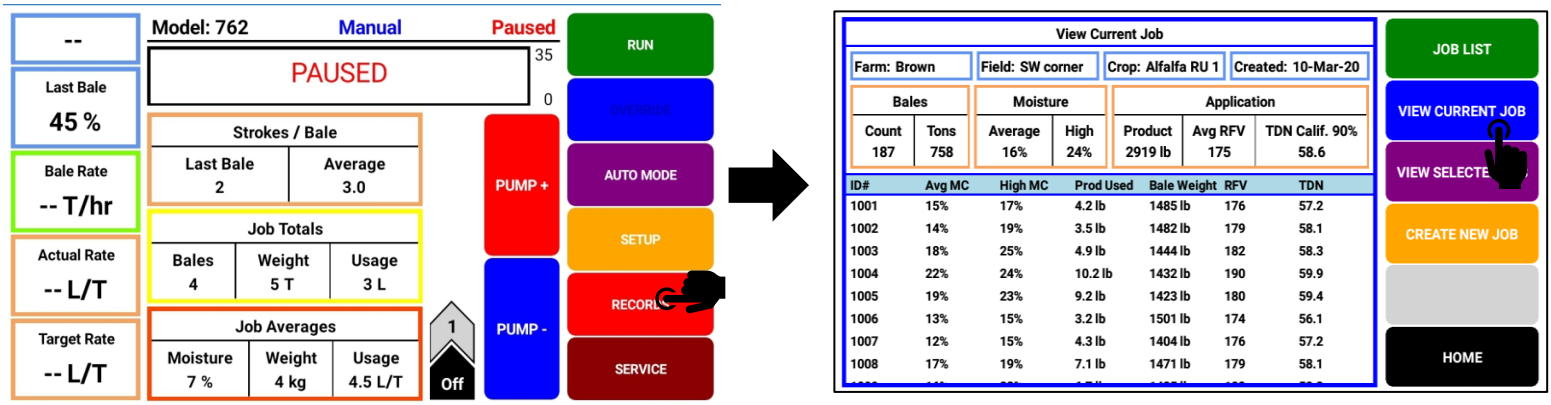


Select and change input boxes / sliders as needed

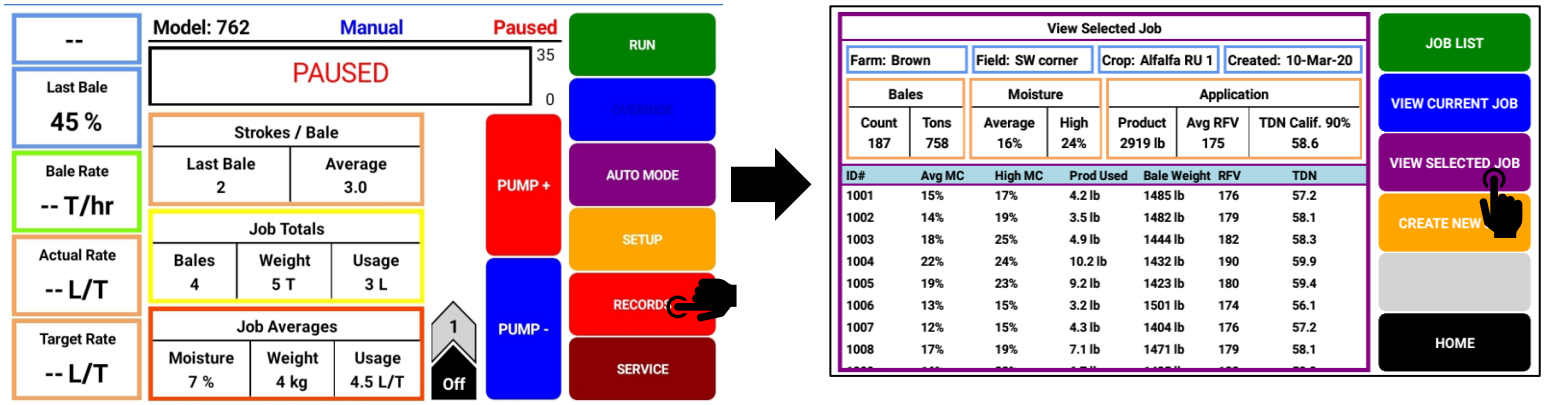
Job Records

View Job List

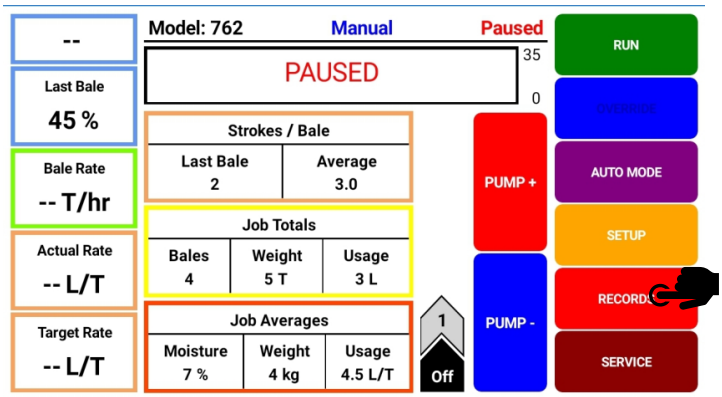
View Current Job List



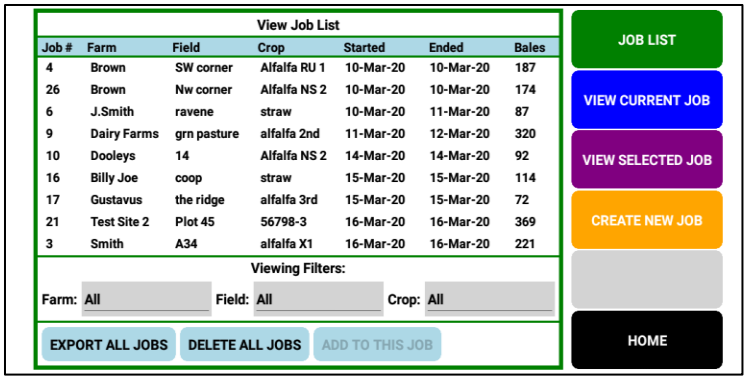
View Selected Job List



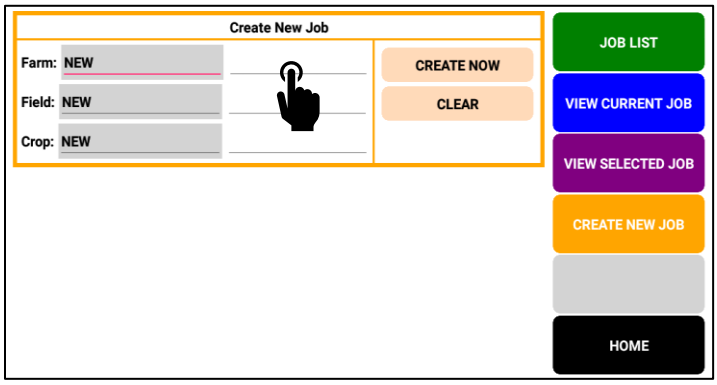
Create a New Job

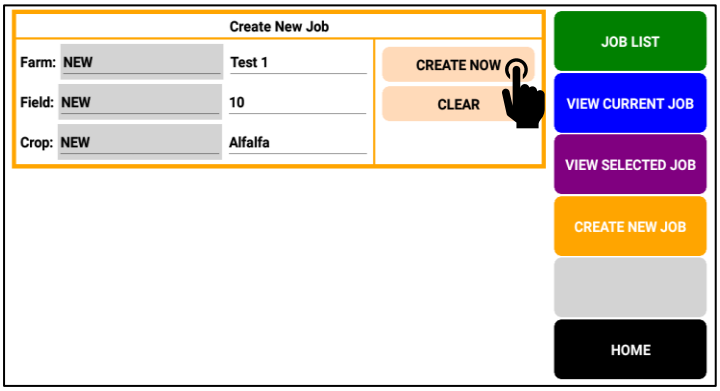


Select Job Details to view job records



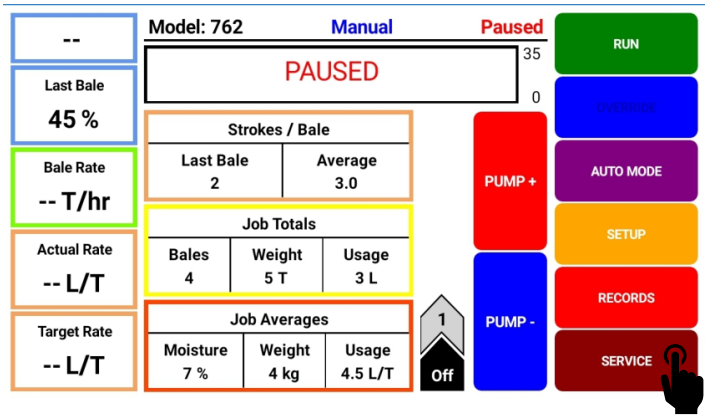
Press Create Job

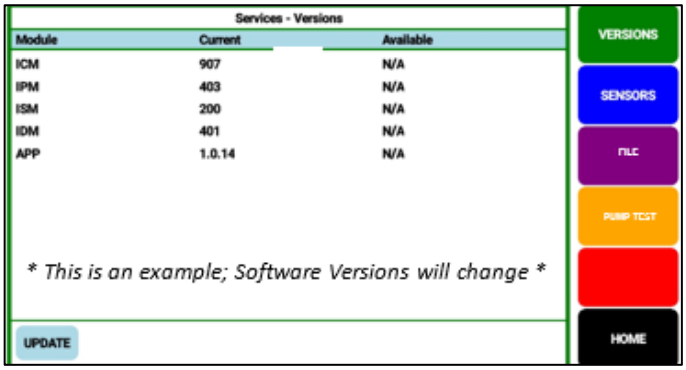




Select and fill out blank input boxes as needed

Software Versions

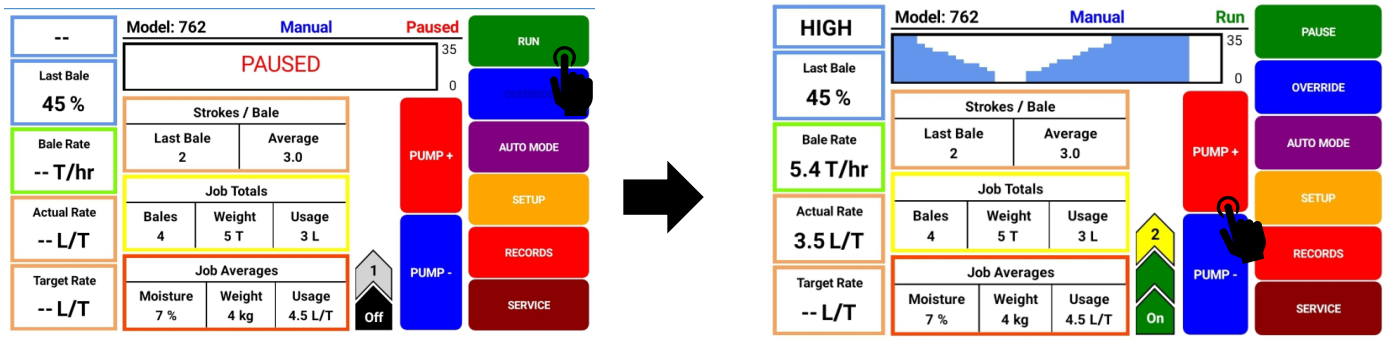




First Time and Annual Startup Instructions

Check and Prime the Pumps - THE UNIT MUST BE CHECKED OUT BEFORE FIELD OPERATION!

1. Put 10 gal (5L) of water or preservative in tank and turn main ball valve on.
2. Inspect for any leaks or drips currently. If any are found tighten or replace area or fitting.
3. Turn system on.
4. Press the SETUP key, then press BALING RATE SETUP key. Make the following adjustments:
   - Change Rate Sensor to **Manual**
   - Change Average Bale Weight to match with either HIGH (80lbs/36kg) or LOW (50lbs/23kg) nozzles found in charts below – confirm correct nozzles installed on spray shield
   - Change Average Bale Time to either 8 sec (HIGH nozzles) or 10 sec (LOW nozzles). Reference charts below.
   - Press the HOME key to return to run screen once changes have all been made.
5. Press MANUAL MODE and the RUN key and the screen shown below will appear.



6. Turn the pump on (Level 1). To turn the pump on, press the red PUMP+ key. This will add a chevron indicating level 1, turning the pump on.
7. Verify the pump output is set on level 1.
8. Move the pump output settings to 2, 3, 4, and 5. With the Bale Rate set as shown in chart t/hr (T/hr), the application rate actual reading should be:

762 Small Square Baler **HIGH** Nozzles (**2x 11004 OR 6504** tips)

Bale Weight: **80 lbs (36 kg)**
Bale Time (sec): **8**
Bale Rate: **18 t/hr (16.3 T/hr)**

Preservative #/ton (L/T)			*Water #/ton (L/T)*		
LEVEL	**MIN**	**MAX**	**LEVEL**	**MIN**	**MAX**
1	3.0 (1.4)	4.4 (2.1)	***1***	4.4 (2.2)	6.4 (3.2)
2	4.6 (2.2)	7.2 (3.4)	***2***	5.8 (2.9)	8.3 (4.2)
3	7.3 (3.5)	13.1	***3***	10.3 (5.1)	14.4 (7.2)
4	10.9 (5.1)	17.2 (8.1)	***4***	15.0 (7.5)	21.1 (10.6)
5	14.2 (6.7)	22.2 (10.5)	***5***	18.1 (9.0)	25.0 (12.5)

762 Small Square Baler **LOW** Nozzles (**2x 11001 OR 6501** tips)

Bale Weight: **50 lbs (23 kg)**
Bale Time (sec): **10**
Bale Rate: **9 t/hr (8.2 T/hr)**

Preservative #/ton (L/T)			*Water #/ton (L/T)*		
LEVEL	**MIN**	**MAX**	**LEVEL**	**MIN**	**MAX**
1	1.8 (.8)	4.4 (2.1)	***1***	3.1 (1.5)	6.1 (3.0)
2	4.7 (2.2)	6.9 (3.2)	***2***	6.4 (3.2)	9.8 (4.9)
3	6.2 (2.9)	9.3 (4.4)	***3***	7.8 (3.9)	11.1 (5.5)
4	8.7 (4.1)	13.9 (6.5)	***4***	8.9 (4.4)	17.8 (8.8)
5	10.4 (4.9)	15.6 (7.3)	***5***	11.1 (5.5)	20 (9.9)

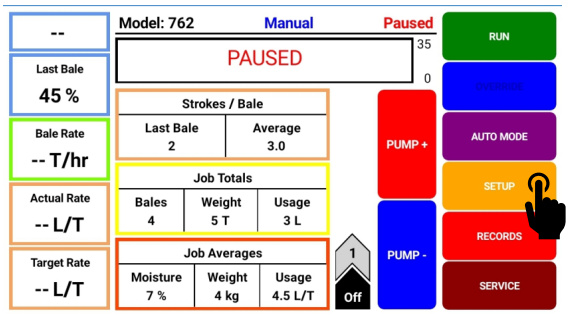
9. This process will also be used to prime the pump whenever needed.
10. While running pump check for a good spray pattern out of the respective tips and verify that no parts of the system are leaking.
11. While doing these tests the Volume (Lbs. Used) in Job Totals/Averages on the screen will be increasing, this verifies that the flow meter is functioning.
12. When test is completed, change settings back to original.

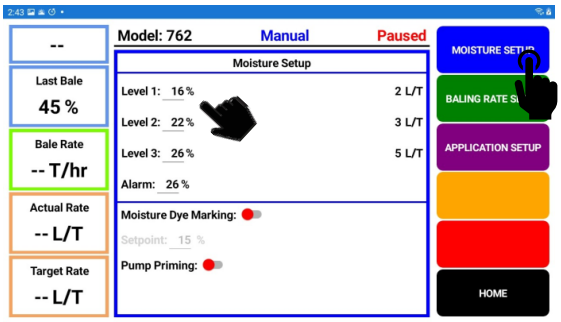
Setting Up System for Initial Use

When setting up your system for initial use, you will need to setup three main categories: These consist of Moisture Setup, Baling Rate Setup, and Application Setup. The setup screens can be adjusted during operation of the system and will accept new values after any key is pressed. Be sure to reference the barrel or tote of preservative during setup to know what is needed for different moisture levels. Also, the average weight of bale should be known.

Moisture Setup

This screen allows for the adjustment of three moisture set points. As well as gives the feature to set the moisture alarm and additional features such as setting up the Moisture Dye Marking (optional).





Adjusting Moisture Set Points

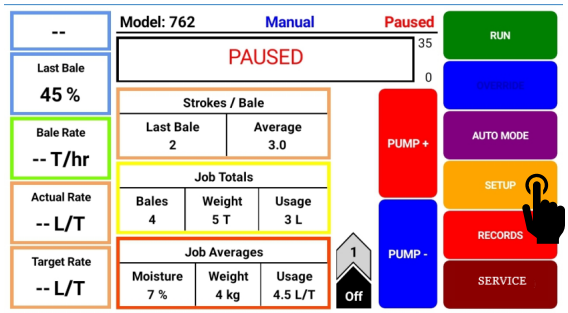
- Push the SETUP key on the main run screen, as shown in top left picture.
- On the Setup Mode screen press the MOISTURE SETUP key. Once selected the MOISTURE SETUP screen will be shown. (Top Right Picture)
- Press any of the number values to the right of Level 1, 2, and 3 to adjust their figures. Remember level 1 must be lower than level 2, and level 2 must be lower than level 3. Press OK 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 Home to return.
- To set the alarm, press the number value and set the level at which you want the alarm to activate. To turn the alarm off, set level above 70.

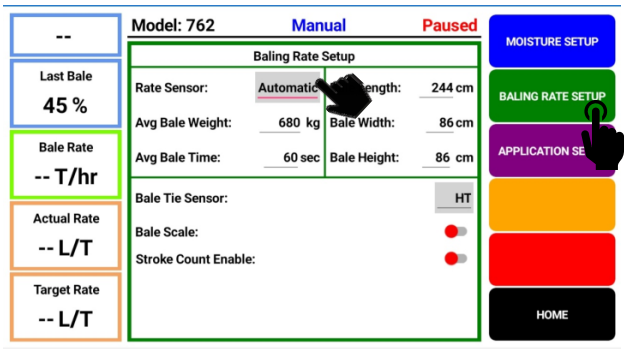
Moisture Dye Marking (Kit 740DM Optional Equipment)

- Reference 740DM Manual. Turn on and off the moisture dye marker.
- Set the moisture level for moisture dye marker to spray at.

Baling Rate Setup

This screen allows for adjustment of the following: Type of baling rate sensor being used, average bale weight, average bale time, bale length, bale width, bale height, bale tie sensor, bale scale.





- Push the SETUP key on the main run screen, as shown in top left picture.
- On the setup mode screen press the BALING RATE SETUP key.

Rate Sensor

Option to select between Manual, Automatic, ISOBUS.

- **Manual** uses average bale weight and time to determine tons/hour. Note – manual selection can be used if star wheel encoder fails to give a fixed baling rate.
- **Automatic** uses average bale weight and star wheel encoder to determine tons/hour. Note – if star wheel encoder is damaged, system will continue using end of bale sensor to adjust baling rate.
- **ISOBUS** – this selection should **not** be used with 762 small square baler software

Average Bale Weight

- Set the weight of bale. Bale weight influences Baling Rate.

Average Bale Time

- Set the time between knotter cycles. This value is used until 3 bales are tied within a job and upon coming out of PAUSE. If end of bale sensor is damaged the Bale Rate will default to using Average Bale Time to generate a T/hr.

Average Bale Length, Width, and Height

- Set the length, width, and height of the bale in the chamber.

- Bale Tie Sensor

- this feature is currently not used with 762 small square baler software (*2023*) and should be set as HT (Harvest Tec)

- Bale Scale

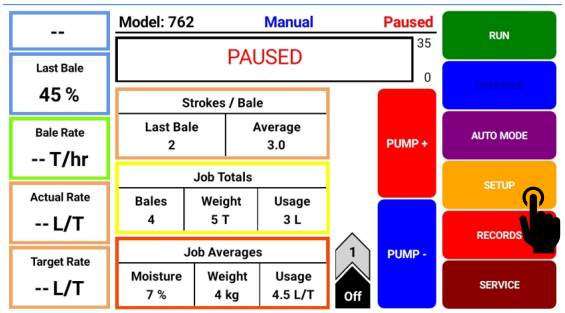
- this feature is currently not used with 762 small square baler software (*2023*)

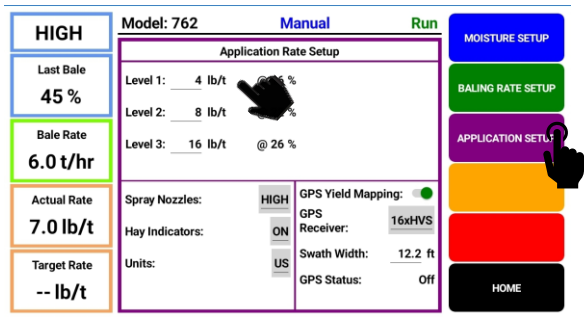
- Stroke Count Enable

- this feature requires installation of OPTIONAL Kit 030-0700SCK. When installed set your stroke count Minimum & Maximum (between 3 & 42 strokes) to be alerted if strokes per bale are outside of preferred range

Application Rate Setup

This screen allows for adjustment of preservative usage: Spray nozzles being used, hay indicator (optional), swath width (optional) needed to use GPS, units (English or Metric), GPS yield mapping (optional), and GPS receiver model (optional).





Adjusting Application Set Points

- Push the SETUP key on the main run screen, as shown in top left picture.
- On the Setup Mode screen press the APPLICATION SETUP key. Once selected the APPLICATION SETUP screen will be shown as seen in top right picture.
- To change rate of chemical application, press any of the number values to the right of level 1, 2, or 3. Remember level 1 must be lower than level 2, and level 2 must be lower than level 3. Press OK when value has been selected. Harvest Tec products recommend rates of 4, 8, and 16 lbs./ton (1.8, 3.6, 7.3 L/MT). These rates are preset from the factory. Press HOME to return to main screen.

IT IS THE OPERATOR'S RESPONSIBILITY TO FOLLOW THE RECOMMENDATIONS OF THE PRESERVATIVE. ONLY THE OPERATOR CAN APPLY THE PROPER RATE.

Adjusting Spray Nozzles

Tip Selection - System is set from factory with High 004-XR11004-SS or 004-T6504-PT tips. Be sure to change tip output in application setup as needed.

Tip Color	Tip Part Number	Qty	Baling Rate (t/hr)	Tip Output (lb/hr)
Orange	011001 OR 6501	2	0.75 - 8.5	12 - 136

Manual Mode Output Ranges (For Approx. Reference Only)	L1	L2	L3	L4	L5
	24 lb/hr	48 lb/hr	72 lb/hr	96 lb/hr	120 lb/hr

Tip Color	Tip Part Number	Qty	Baling Rate (t/hr)	Tip Output (lb/hr)
Red	11004 OR 6504	2	1.0 - 21.75	16 - 348

Manual Mode Output Ranges (For Approx. Reference Only)	L1	L2	L3	L4	L5
	48 lb/hr	108 lb/hr	172 lb/hr	256 lb/hr	320 lb/hr

Turn ON/OFF Hay Indicators

- Turn sliders on for Hay Indicators if system is equipped, otherwise leave off. Mount at baler pickup and automatically pause applicator upon crop flow discontinuing. Kit number: 030-474C.

Adjusting Swath Width

- Input average swath width in the field.

Change Units

- Adjust the unit between metric and standard units.

Application Rate Setup (cont.)

Turn ON/OFF GPS

- Turn on or off GPS if equipped with Harvest Tec GPS module. Optional Kit number: 030-780GPS.

Selecting GPS Receiver

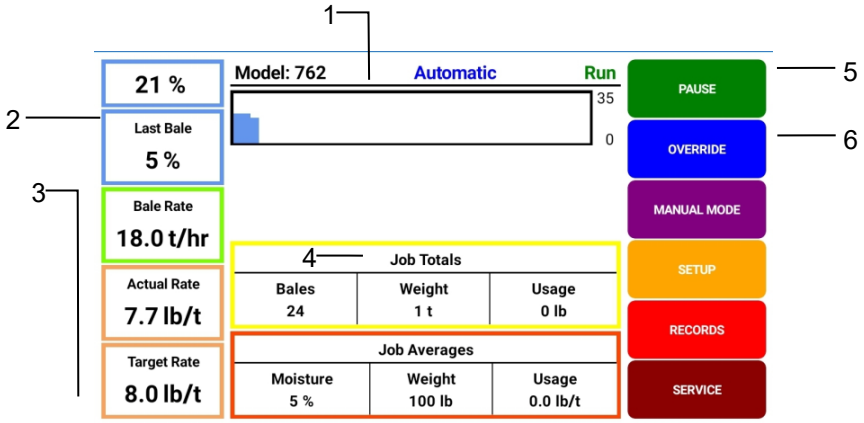
- Select style of GPS device equipped on baler.

Operation Instructions

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 settings.

Automatic Mode

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



1. The graph shows the moisture trend from the past 90 seconds in 3 second intervals.

2. The moisture content is shown in the upper left corner.

3. Baling Rate and Application Rate are shown on the middle left of the screen. The operator sets the target application rate and baling rate in the setup mode; it is common the actual rate will fluctuate above and below the target rate.

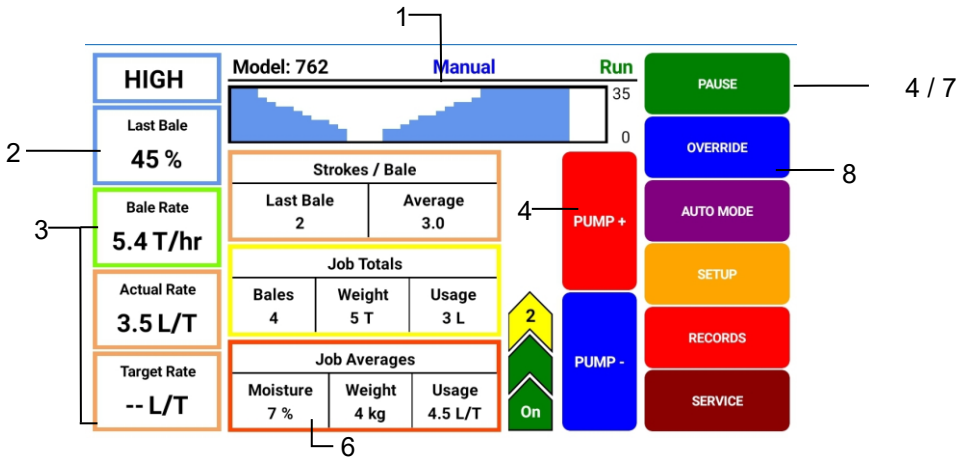
4. Job Totals and Job Averages will show at the bottom center of the screen. These numbers will only reset once a new job record is created. **NOTE: Initial start-up requires pressing the CREATE NEW JOB key in the RECORDS screen for volume used accumulation to be recorded**. **This only needs to be done once on initial start-up of system and not every time.** (See JOB RECORDS screen)

5. To pause the unit while in operation select the PAUSE key, select RUN key to resume operation.

6. Push the OVERRIDE key to turn the pump for full output of the system. Use this mode when going through a short area of wet crop. Select NORMAL key to resume operation.

Manual Mode

After pushing the MANUAL MODE key on the main run screen, the following screen will appear:
When pump is ON, manual mode will apply preservative to the hay at a fixed rate regardless of the moisture or tonnage.



1. This graph shows the moisture trend from the last 90 seconds in 3 second intervals.

2. The moisture content is shown in the upper left-hand corner.

3. Baling rate and Application rate are shown in the bottom left of the screen.

4. To turn the pump on, press the RUN key. Every time PUMP+ is pressed this adds a chevron.

   In Manual Mode (regardless of moisture and baling rate) the outputs are fixed rates.

5. Press PUMP+ key from level 1 → 5 to increase the amount of preservative being applied.

6. Job Totals and Job Averages will show at the bottom center of screen. These numbers will reset once a new job record is created **NOTE: Initial start-up requires pressing the CREATE NEW JOB key in the RECORDS screen for volume used accumulation to be recorded**. **This only needs to be done once on initial start-up of system and not every time.** (See JOB RECORDS instructions)

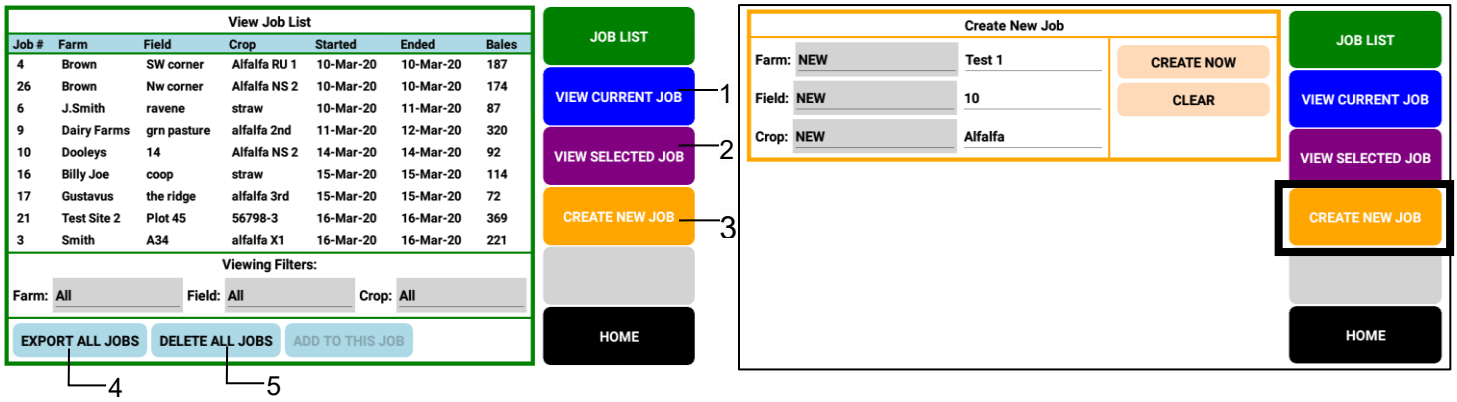
7. To pause the unit during operation, select the PAUSE key, select RUN key to resume operation.

8. Push the OVERRIDE key to turn on the pump for full output of the system. Use this mode when going through a short area of wet crop. Select NORMAL key to resume operation.

Manual Mode Output Levels					
With Low Tips Installed (For Approx. Reference Only)	L1 24 lb/hr	L2 48 lb/hr	L3 72 lb/hr	L4 96 lb/hr	L5 120 lb/hr
With High Tips Installed (For Approx. Reference Only)	L1 48 lb/hr	L2 108 lb/hr	L3 172 lb/hr	L4 256 lb/hr	L5 320 lb/hr

Job Records

NOTE – We recommend creating all new jobs on Precision Baling App using table functionality. This screen allows for adding, editing, and continuation of all job records. After pushing the RECORDS key on the main run screen, the following screen on left will appear:



View Current Job (1)

- This will display current real time job information.

View Selected Job (2)

- Allows the user to select any job in JOB LIST and view, edit, or continue to add to the selection.

Create New Job (3)

- Select the CREATE NEW JOB key to generate a new job record.
- Enter desired farm, field, and crop name and press CREATE NOW. System is able to store up to 19 Farm Names, and unlimited number of Filed and Crops under each Farm Name. Farm Names <u>cannot</u> be edited or deleted once created.
- The job details screen will appear with name of the job shown under the Job List. Information shown on this screen will include Job Number, Field Name, Crop, Date, and Total Bales.
- Every time the CREATE NEW JOB key is pressed the accumulated pounds on auto and manual modes will be reset to zero.
- To return the operating screen, press the HOME key. *NOTE*: Initial start-up requires pressing the CREATE NEW JOB key in the Records. This only needs to be done once on initial start-up of system and not every time the system is started for operation.

Export Job (4)

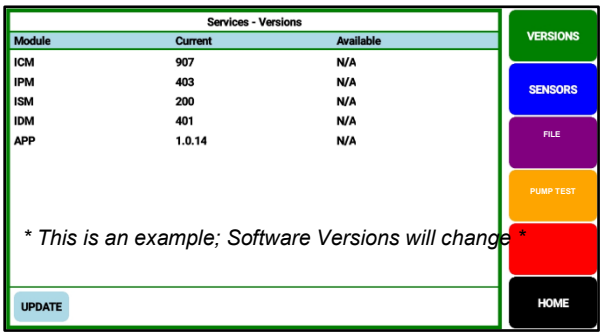
- Insert USB drive to ICM Port located in tractor cab. Select the job(s) wished to export, once selected, press EXPORT key.

Delete Job (5)

- Select the job(s) wished to delete, once selected, press the DELETE key.

Service

After pushing the Service key on the main run screen, the following will appear:

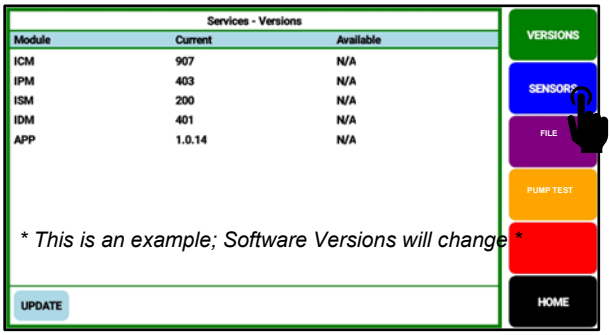


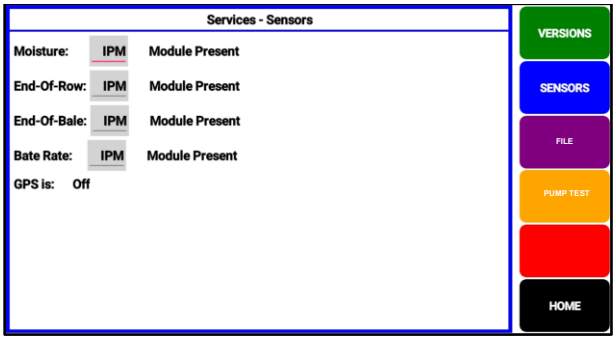
This will show the current version of software being used on the 700 series applicator system.

Note: Any software updates that are available will be shown at: www.harvesttec.com/product-updates/

Sensors

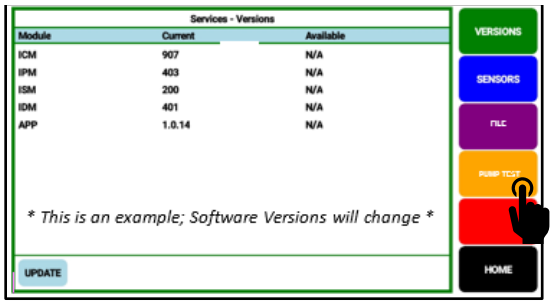
Within the Service menu, select SENSORS key to select sensor setup. NOTE – all sensors should be set to IPM for operation of 762 software.

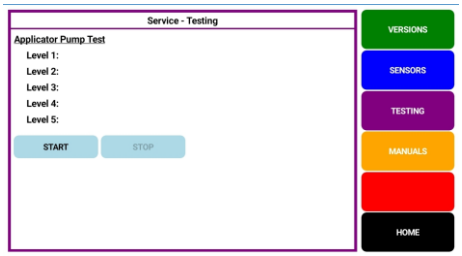


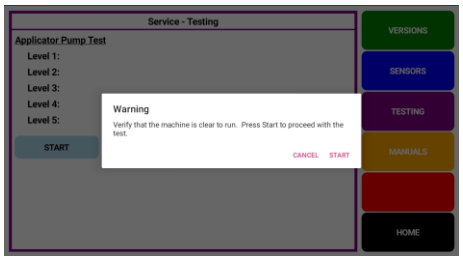


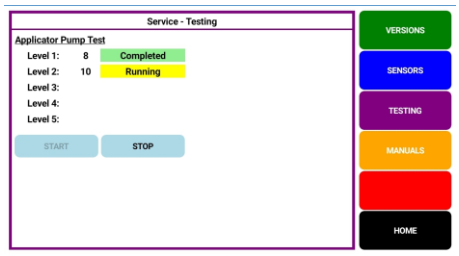
Pump Test

Within the Service menu, select PUMP TEST key. Once in Pump Test screen, select TESTING:









Make sure baler is in an area where spray from the applicator will not cause any unwanted mess. The test will run for one minute and 40 seconds, spraying up to two gallons of fluid. Readings will update every 3 seconds and the last reading will be the completed value. Each level will run for 20 seconds.

Use range tables below to compare Pump Test values:

762 Small Square Baler **LOW** Nozzles *(2x 11001 OR 6501)*						
Preservative #/Hr				***Water #/Hr***		
LEVEL	**MIN**	**MAX**		**LEVEL**	**MIN**	**MAX**
1	16	40		***1***	28	55
2	42	62		***2***	58	88
3	56	84		***3***	70	100
4	78	125		***4***	80	160
5	94	140		***5***	100	180

762 Small Square Baler **HIGH** Nozzles *(2x 11004 OR 6504)*						
Preservative #/Hr				***Water #/Hr***		
LEVEL	**MIN**	**MAX**		**LEVEL**	**MIN**	**MAX**
1	54	80		***1***	80	115
2	82	130		***2***	105	150
3	132	235		***3***	185	260
4	196	310		***4***	270	380
5	256	400		***5***	325	450

Maintenance

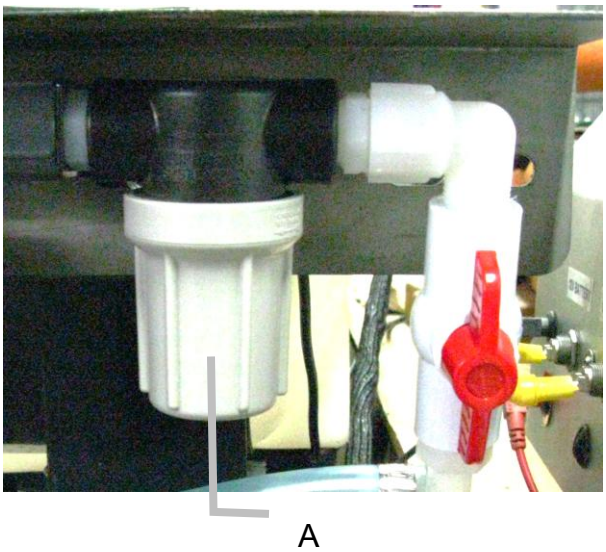
If you are unsure how to perform any of the maintenance steps have your local authorized dealer perform the tasks.

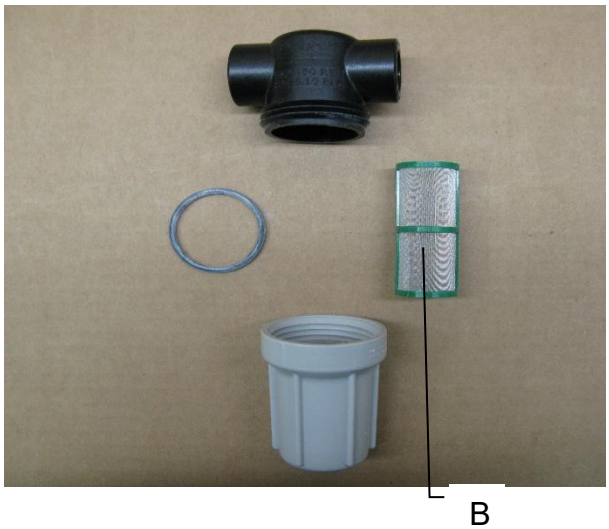
Maintenance Schedule

	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 pump			X			
Battery connections				X		X
Check valves			X			
Visually inspect hoses				X		X

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.

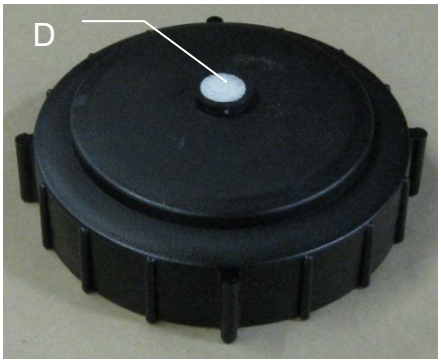




Tips & tip screen cleaning: Before cleaning the tips and screens all personal protective equipment must be worn (Face shield or goggles, chemically resistant apron, boots, and gloves).

Verify that the ball valve located next to the pump is turned off. Disconnect spray shield from hangers if possible or remove tips in place. Remove the tip, and screen if equipped. Some models may require a wrench to remove. Clean off any debris and soak tip and screen 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. Unscrew the tank lid and bring down ground level. Use compressed air clean out the tank screen (D). Once the screen is cleaned reinstall the cover.

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

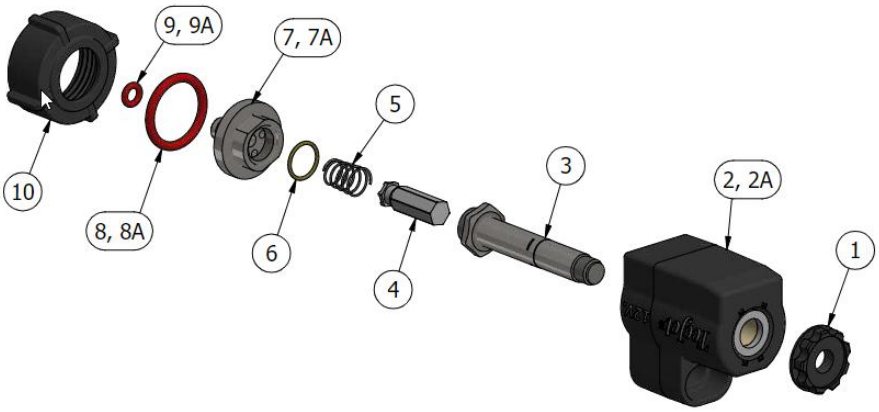
Rebuild pump: If Manual mode shows that the pump is running lower than normal, a pump rebuild may be necessary. To do this rebuild the pump must be removed from the pump manifold. The pump rebuild is part number 007-4581.

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.

Solenoid Valves: Before servicing the solenoid(s), all personal protective equipment must be worn (Face shield or goggles, chemically resistant apron, boots, and gloves), inlet side of solenoid could be under pressure Clean the solenoid valve body (004-1207VF).

Verify the ball valve is turned off before service the solenoid. Replace the solenoid if needed (002-2203F). Replacement Pulsing Solenoid EPDM O-Ring kit available (002-2203FG).



To clean solenoid valves:
The Center Section can be removed from Housing #2 by loosening #1 from #3. Once removed, use wrenches on components #3 and #7 and gently turn to loosen and separate. Soak parts #3-10 in warm soapy water, clean with a soft bristle brush, rinse with clean water to remove buildup before reassembly.

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.
4. **DO NOT PRESSURE WASH CONTROL BOXES, PLUG CONNECTIONS OR MOISTURE SENSORS.**

Winter Storage: If system is used with the Harvest Tec buffered propionic acid, the system does not need to be drained as long as the tank, tank cap, and system components are in good condition and free of cracks or leaks. Turning off the tank supply line, removing the filter bowl and running the pump for a short duration is sufficient to purge the preservative from the intake lines. Disconnect hose from solenoid, remove spray tips and drain all lines on the outlet side. Store any collected preservative in a sealed container or return to tank. Reinstall filer bowl, solenoid hose and spray tips after draining.

If other products are used, then follow this procedure:

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. Drain all lines on the outlet side.
4. Never use oils or alcohol based anti-freeze in the system.
5. For spring start-up, if the pump is frozen, turn off the power immediately to avoid burning the motor or damaging the circuit board. The pump head can be disassembled and freed or rebuilt in most cases.
6. Disconnect power from the IPM module.
7. Remove display from tractor and store in a warm, dry place

Common Questions

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

   To turn the system ON, turn tractor key on to power up.

   To turn the system OFF, turn off tractor key.

   If operating via Tablet, see SHUTTING DOWN THE PRECISION BALING APP for more details.

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

   Press the SETUP key. Select MOISTURE SETUP to change moisture level settings, select APPLICATION SETUP to change your application settings, select BALING RATE SETUP to change tons/hour settings. See SETTING UP SYSTEM FOR INITIAL USE for a detailed explanation of this process.

3. **The unit is stuck in the Application Setup 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 set higher than level 2.

4. **How does OVERRIDE work?**

   Override turns on the pump and opens the solenoid for full output. The pump and solenoid will remain at full output until the operator turns the pump off by pressing the NORMAL 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 motor as well as varying tractor voltages inputted to the control box. The flow meter reading is an accurate measure of how much product is being applied. The set points then will need to be adjusted if you want to attain a different flow meter reading.

6. **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. Check all star wheel wires and connectors to see if there is a continuity or grounding problem.
   Open star wheel blocks and ensure swivels are tightly seated within holder.
   When moisture harness is disconnected moisture should read “LO”
   When star wheels are grounded (connect jumper wire to both) moisture should read “HI”

7. **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.

8. **I press the “RUN” button, but the system shows “EOR” and doesn’t run.**

   “EOR” stands for ‘End of Row’ and indicates that the Crop Eye Sensors are activated and are keeping the applicator from spraying preservative on an empty baler pickup. The applicator system will start spraying again when forage is actively being taken in the pickup. For testing purposes, a rag can be placed over one crop eye sensor to simulate forage being taken in by the pickup.

Troubleshooting

Problem	Possible cause(s)	Solution(s)
Pump will not run	1. No voltage to IPM.	1. Check for short, low voltage, and replace fuse if necessary.
	2. Pump locked up.	2. Clean or rebuild pump if motor ok
	3. Damaged wire.	3. Repair damaged wire.
	4. Damaged solenoid	4. Replace / Clean
Pump runs but will not prime	1. Air leak in intake.	1. Tighten fittings on intake side. Replace filter bowl O-ring.
	2. Clogged intake.	2. Clean.
	3. Restricted outlet.	3. Check and clean tips.
	4. Check valve 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.	1. Tighten or clean filter bowl
	2. Pump worn or dirty.	2. Rebuild pump.
Moisture reading errors (reading high or low)	1. Wire disconnected or bad connection between star wheels and IPM.	1. Reconnect wire.
	2. Low power supply to IPM	2. Check voltage at box for min of 12V
	3. Bale not forming full top of bale allowing star wheels to not properly contact bale.	3. Adjust flake to contact star wheel sensors.
	4. Short in star wheel harness.	4. Replace wire.
Moisture reading erratic	1. Check all wiring connections for corrosion or poor contact.	1. Apply dielectric grease to all connections.
	2. Check power supply at tractor. Voltage should be 12V-14V	2. Replace battery harness. Install voltage surge protection on tractors alternator.
Product is less than actual product used.	1. Voltage supplied to flow meter is less than 11 volts.	1. Check for a min of 11 volts supplied at IPM module.
	2. Wiring short in signal to IPM.	2. Inspect wire and replace if necessary.
	3. Using product other than Harvest Tec	3. Catch and weigh product for output.
Product shown is 10% different than actual product used.	1. High voltage supplied to the meter.	1. Check voltage at IPM. Max of 18V.
	2. Air leak in intake.	2. Look for air bubbles in line. Replace line or other defective area that is allowing air into the system.
	3. Using product other than Harvest Tec	3. Catch and weigh product for output.
System leaks product out of tips after shutting down.	1. Dirty or defective solenoid	1. Clean or Replace.
System does not pause at the end of a row.	1. Short in harness 2. Damaged sensor 3. Sensor misalignment	1. Replace harness 2. Replace sensor 3. Align sensors – see 474C manual
Solenoid will not pulse	1. Dirty or plugged solenoid 2. Damaged wire from control 3. Wire disconnected	1. Clean or Replace 2. Repair 3. Reattach
ISO Communication Module light will not illuminate	1. ICM Module receiver not connected 2. Harness disconnected 3. Low power	1. Check connections and voltage. Minimum of 12.5 volts required.
	Green Light – When the ISO Communication Module is properly connected, the blinking green light will indicate connection.	

Error Messages

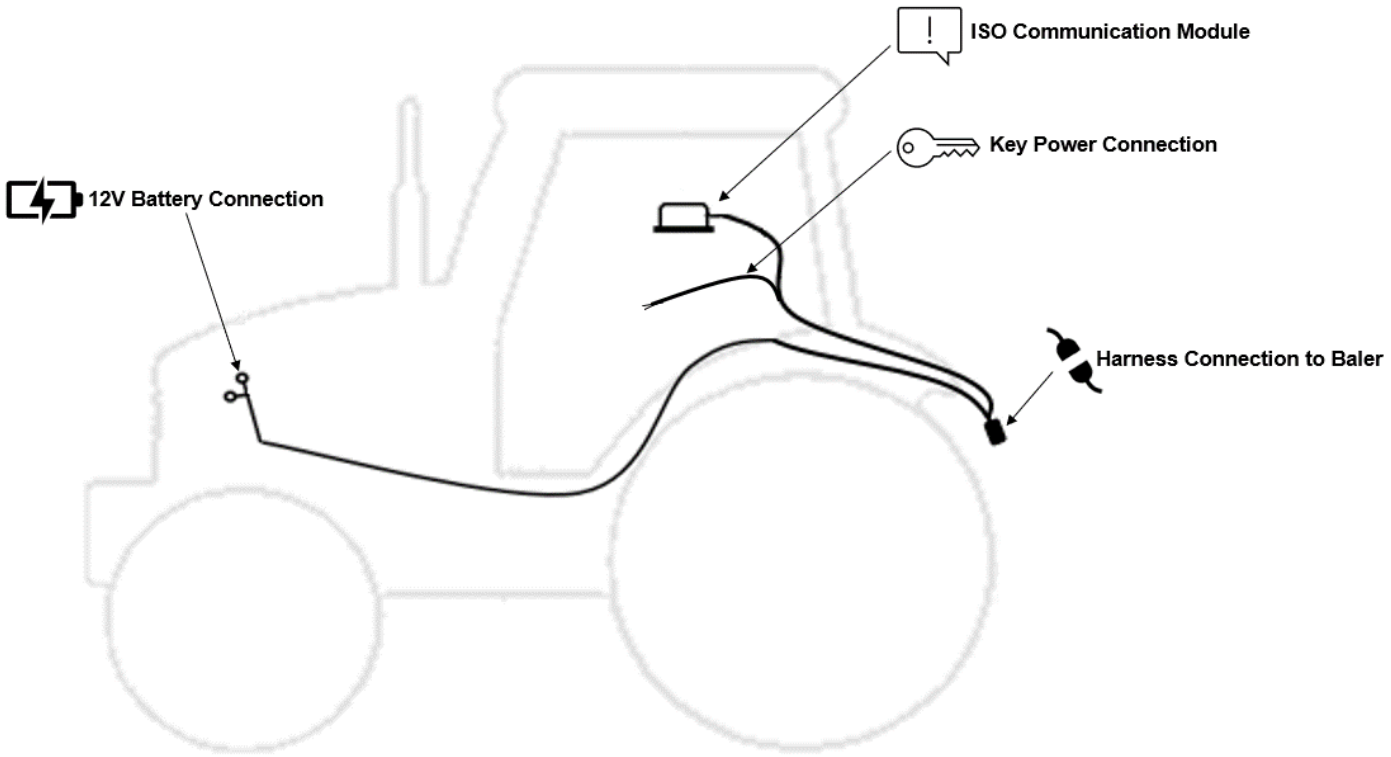
Message	Troubleshooting
Baling Rate shows "ERROR"	- The star wheel with the encoder is installed incorrectly so it is spinning the wrong direction. Ensure star wheel is installed according to arrow diagram on the back.
Main Screen Shows "EOR"	- The Crop Eye Sensors are engaged and have paused the applicator system. Cover one of the sensors with a rag or piece of carboard to simulate forage being taken in by the pickup.
For other issues refer to Install Manual or contact Harvest Tec	

Tablet Troubleshooting

iPad Symptom	Troubleshooting
Tablet will not turn on	- Turn tablet off and on. Press and hold the Sleep/Wake button for a few seconds until powered completely off. Press and hold the Sleep/Wake button to turn on again.
	- Battery may be drained. Plug tablet into computer or AC adapter and see if anything happens. The tablet 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.
Tablet touchscreen is slow or does not respond	- Screen may be dirty. Clean screen. Unplug everything, turn off tablet and with soft, lint-free, slightly damp cloth gently wipe screen. DO NOT use window cleaner and paper towels. - If screen protector sheet installed, try removing it.
Tablet is not charging or is slow to charge	- To charge tablet, you can try either connecting to a power outlet or connecting to a USB 2.0 port on a computer.
How can I unlock my tablet if I forgot the passcode	- If cannot remember passcode, will need to restore device using the computer with which was last synced. This allows for ability to reset your passcode and resync the data from the device (or restore from a backup).
How do I send in my tablet for service?	- Refer to tablet owner's manual. DO NOT SEND TABLET TO HARVEST TEC
For other issues refer to iPad Owner's Manual or contact Apple Directly	

Harvest Tec Does Not Service Tablets

Tractor Setup



The general tractor setup of the 700 Series applicator can be seen above. The main harness of interest is the tractor power/communication harness (006-765IC). This harness will connect at the tractor battery, to the ISO Communication Module (ICM) mounted in the cab, a keyed power connection point, and connect at the hitch area to the baler power/communication harness (006-765B). View below to see highlighted installation instruction:

12V Battery Connection

The 12V battery connection must be at the tractor battery. Connection to alternative locations such as an accessory port can cause problems with applicator system.
MUST BE CONNECTED DIRECT TO TRACTOR BATTERY TERMINALS

ISO Communication Module

The ISO communication module is to be mounted inside the cab. Other mounting locations can lead to issues with weathering and operation. Once installed and the system is powered, a green light will turn on with the ICM module.

Key Power Connection

Ensure a solid keyed connection is found inside the cab and wired into. Poor keyed power connection can result in applicator system issues.

Harness Connection to Baler

The tractor harness connects at the hitch to baler power/communication harness (006-765B). This will allow the system components to communicate with one another. Ensure connections are debris and corrosion free.

Display Options

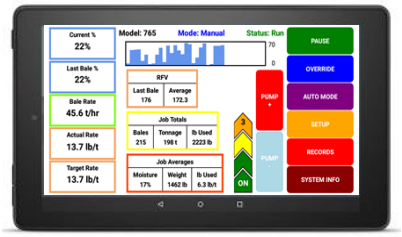
Optional Harvest Tec Display

The 700 series Harvest Tec Display will allow you to set your real time baling parameters to ensure the most precise application to every bale. This is done by utilizing the improved touch technology to select objects, enter data, and swipe through operational screens.

The Harvest Tec Display offers easy integration by connecting to the additional CAN plug on the 006-765IC harness. Once, connected the Harvest Tec display will power up with applicator system.

Note: The Harvest Tec Display must be used as a standalone display, the baler cannot run both integrated and on the Harvest Tec Display. Must be one or the other. Removal of the 006-765VA or integration harness is required when equipped. 006-770R Terminator must be placed on only one CAN/IDM port on the baler harness.

Optional Tablet Display

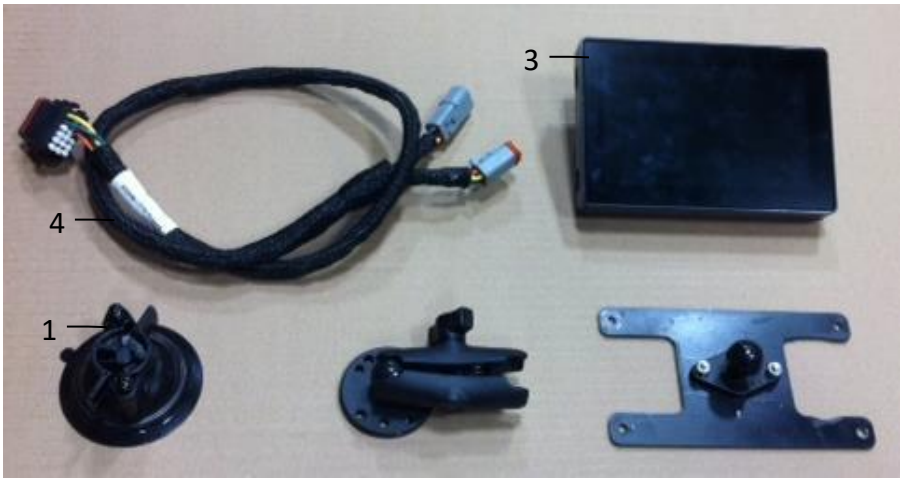


The iOS or Android Tablet displays offer the ability to communicate with the 700 series applicator system via hard-wired connection to the ISO Communication Module (ICM). Recommended to use a quality communication cable to connect with the IIC- adapters are not supported. Through the free Precision Baling App, the operator can set real time baling parameters to ensure the most precise application to every bale.

This provides a multi-use option while utilizing the improved app to select objects, enter data, and easily switch through operational screens. The Tablet Display offers easy integration by connecting a charging cable to the USB port on the ICM module. Once connected the Harvest Tec applicator will display upon opening the app and powering up the applicator system. Tablets can be used in addition to integrated baler VT display.

Required to be running a current supported iOS operating system.
*iPad is a trademark of Apple Inc., registered in the U.S. and other countries.

Optional Harvest Tec Display Kit (030-7670DK)



Ref	Description	Part #	Qty
1	Suction Cup Mount	001-2012SCM	1
2	Ram Mount	001-2012H	1
3	Harvest Tec Display	006-765GVT	1
4	Display Harness	006-765GH	1
5	Mounting Plate	001-700GH	1
NP	700 Series Resistor	006-700R	1

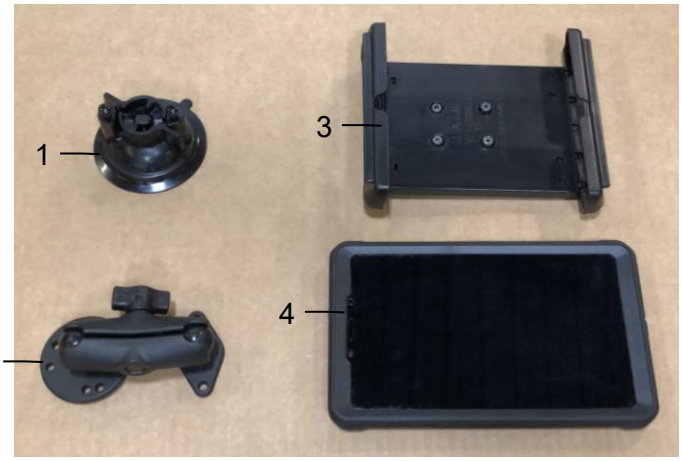
Complete HT Display Kit 030-7670DK

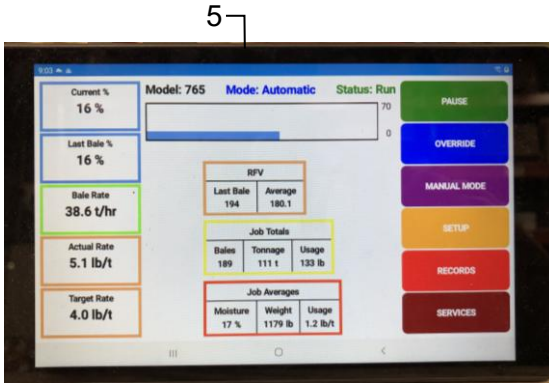
Installation Instructions

1. Connect 006-765GH harness connection to 006-765IC tractor harness key power plug.
2. Connect 006-765GH harness to the Harvest Tec VT Display before tightening mount in place.
3. Tighten the mounting and display. Streamline harness as necessary.
4. Once connected, power cycle the system and ensure display is working properly.

NOTE: CANNOT OPERATE APPLICATOR SYSTEM WITH HARVEST TEC DISPLAY AND BALER ISO INTEGRATION or TABLET/ iPad AT THE SAME TIME.

Optional Android Display Kit (030-1670DK)



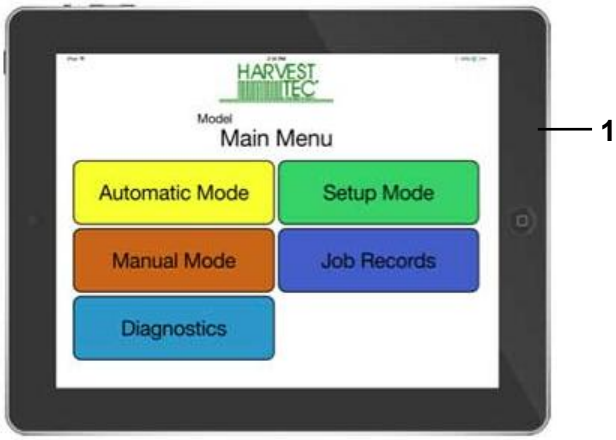


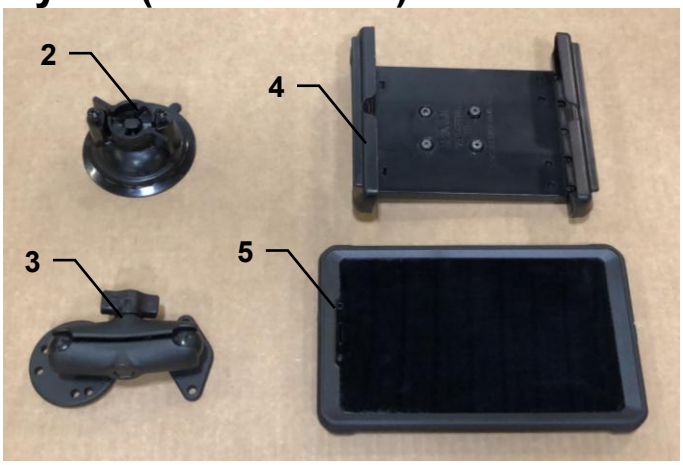
Ref	Description	Part #	Qty
1	Suction Cup Mount	001-2012SCM	1
2	Ram Mount	001-2012H	1
3	Spring Load Cradle	001-2012SLC	1
4	Android Case	001-2012A1	1
5	Android Tablet	006-1670AT	1
NP	USB-C to USB-A Cable	006-6672USBX	1

Complete Android Tablet Display Kit — 030-1670DK

Note: Use a quality communication cable ending with a USB-A connection to connect tablet to (006-765ICM) control module - plug into the USB port showing a tablet.

Optional iPad Display Kit (030-6670DK)





Ref	**Description**	**Part #**	**Qty**
1	iPad Mini 6	006-6670IP	1
2	Suction Cup Mount	001-2012SCM	1
3	Ram Mount	001-2012H	1
4	Spring Load Cradle	001-2012SLC	1
5	iPad Mini 6 Case	001-2012C6	1
NP	Power/Comm. Cable	006-6672USBX	1

Complete iPad Mini Display Kit — **030-6670DK**

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

Optional ISO Display Adapter (006-7670A)
For use with a dedicated ISO display

The 700 Series Applicator has the option to tie into compatible dedicated ISO monitors by utilizing the diagnostic port. When connected, the Harvest Tec System will populate as its own object pool within the ISO display. When this object pool is selected, the ISO monitor will then function as a dedicated monitor for the Harvest Tec System.

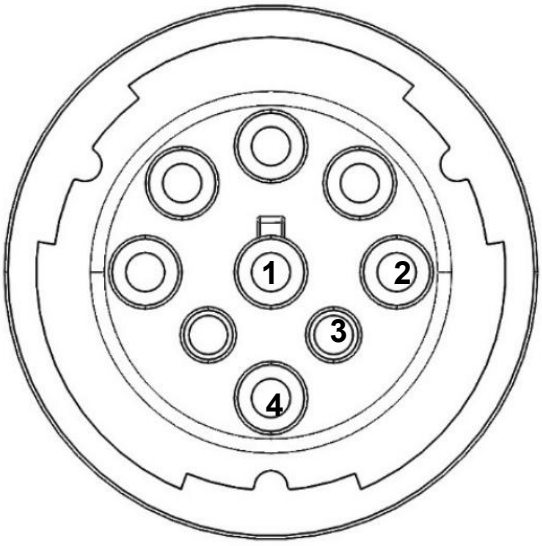
The Harvest Tec System will function as a stand-alone system with the 006-7670A adapter. System will not integrate with the ISO system software using this adapter.

Any tablet connected to the ICM module must be disconnected from the ICM before the Harvest Tec program screen will activate within the ISO display.

To connect adapter 006-7670A, unplug the 4-pin 006-765CPH Key Power Plug connection from the 006-765IC Tractor Harness and replace with the plug from the 006-7670A Adapter. Connect the round plug end of the 006-7670A Adapter to the Tractor ISO Display Diagnostic port.

Scan the QR code to view a short video for the 7670A Adapter Harness for ISO Display:

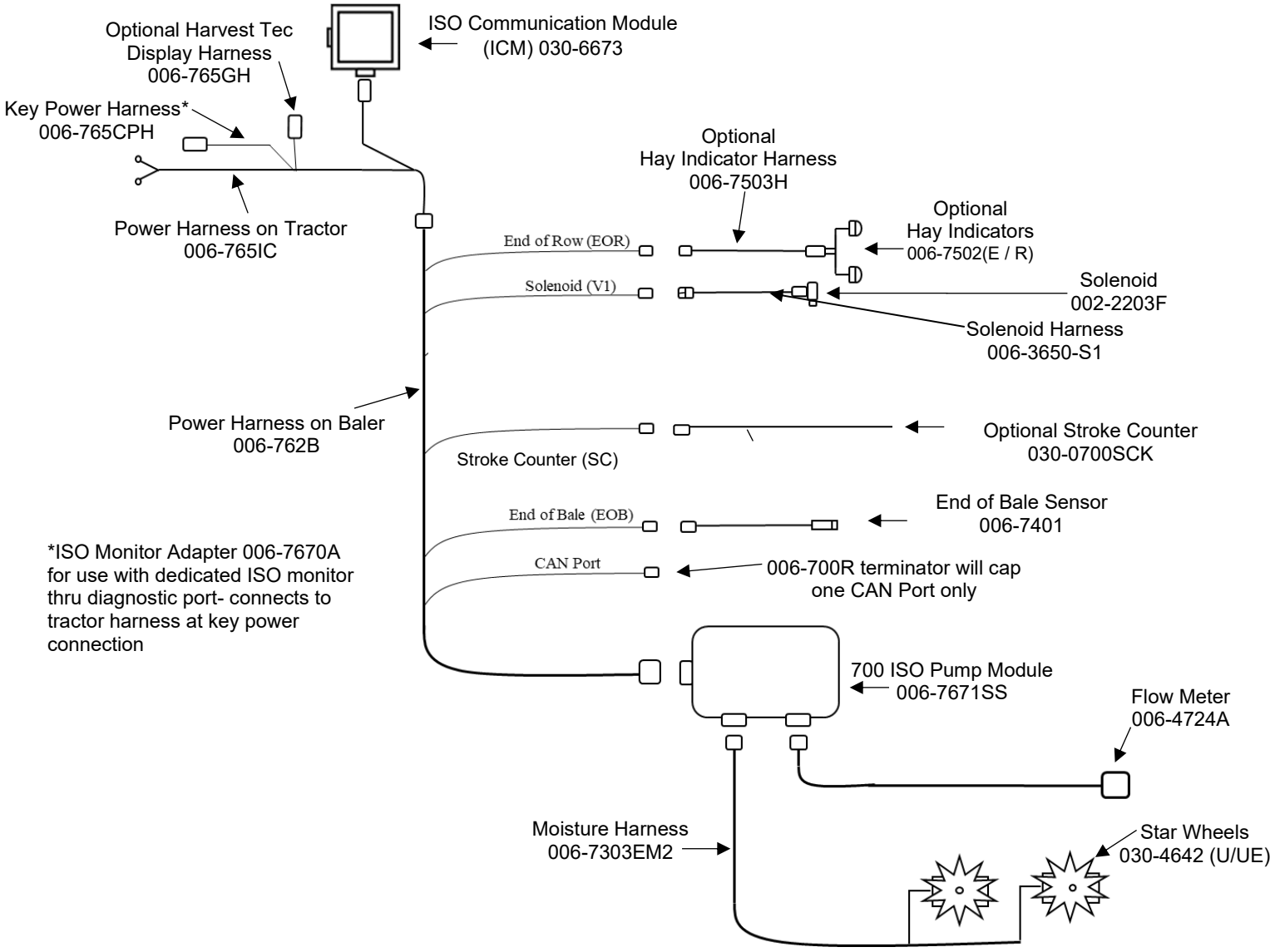
For additional product and service information:
See our YouTube Channel https://www.youtube.com/@harvesttec



Pin 1	Black	Ground
Pin 2	Yellow	CAN High
Pin 3	Green	CAN Low
Pin 4	Red	12V+ Key Power

Wiring Diagram – 744, 745, 750, 751, 767, 768 – Small Square Balers

1. Connect the power harness (006-765IC) to the tractor battery (12 volt) using the red wire with fuse to the positive side and the black wire to the negative.
   A. **The power harness must be connected to the battery!**
      CONTACT HARVEST TEC BEFORE MODIFICATIONS.
      The unit will draw more amps than convenience outlets can handle. Any modifications of the power harness will void systems warranty
   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.**
2. The power harness on the tractor (006-765IC) will run from the tractor battery to the hitch. The power harness on the baler (006-762B) will connect to the tractor power harness (006-765IC) at the hitch.
3. Connect the keyed power wire (006-765CPH) to a keyed power source on the tractor.
   The keyed power wire must connect to a keyed source or the unit will not power up correctly.
4. Attached the ISO Communication Module (006-6673) to the tractor power harness (006-765IC).
5. Attach the End of Bale (EOB) connection on baler harness (006-762B) to the EOB Sensor (006-7401).
6. Attach the Solenoid (SOL 1) connections on the baler harness (006-762B) and to the solenoids (002-2203F).
7. Attach the Flowmeter (006-4724A) to the Pump Module connection on pump plate assembly.
8. Attach the rubber molded connector on pump plate to the Pump (007-4120DE).
9. Attach star wheel (030-4642U/UE) connection to the pump module
10. Ensure 006-700R terminator is connected to CAN/IDM port on 006-762B harness

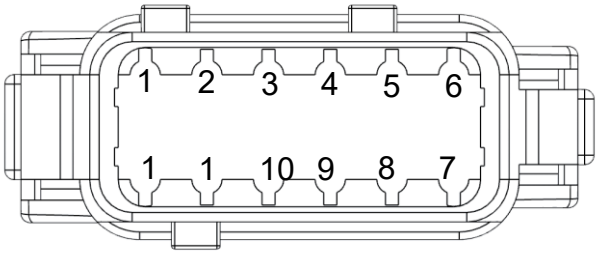


Pin Outs

Integrated Control Module (ICM) on Tractor Harness 006-765IC

(Deutsch Plug Number: DTM06-12SA)

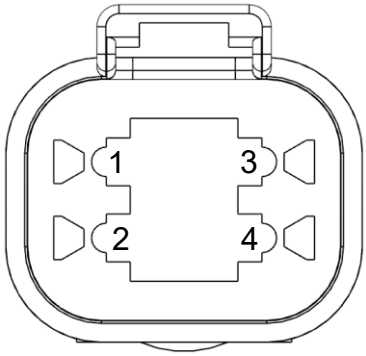
Pin 1	Red	+12V from ECU
Pin 2	Purple	Signal Wire
Pin 3	Red/White	+12V CAN X
Pin 4	Black/White	Ground CAN X
Pin 5	Orange	CAN X Hi
Pin 6	Blue	CAN X Lo
Pin 7	Green	ISO CAN Lo
Pin 8	Yellow	ISO CAN Hi
Pin 9	White	GPS Expansion 1
Pin 10	Gray	GPS Expansion 2
Pin 11	Brown	GPS Expansion 3
Pin 12	Black	Ground from ECU



ISOBUS Plug on Tractor Harness 006-765IC

(Deutsch Plug Number: DT04-4P)

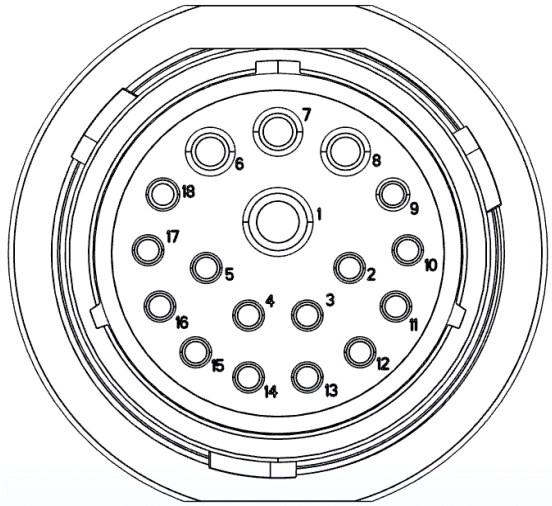
Pin 1	Red	+12V from ECU
Pin 2	Yellow	ISO CAN Hi
Pin 3	Green	ISO CAN Lo
Pin 4	Black	Ground from ECU



Power / Communication Tractor Harness 006-765IC at Baler Hitch

(Deutsch Plug Number: HDP24-24-18PN)

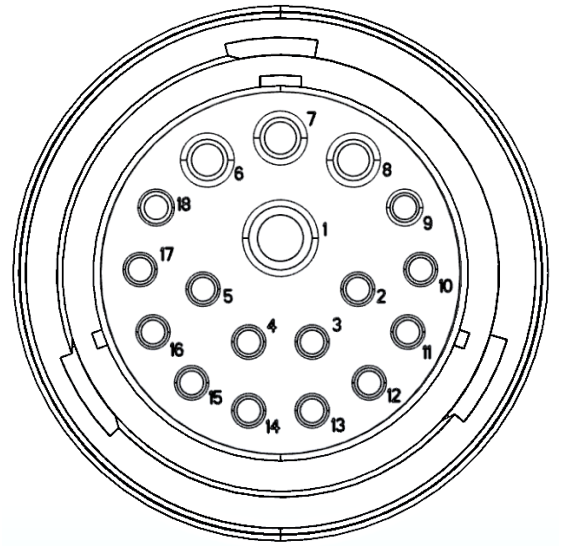
Pin 1	Not Used	----
Pin 2	Yellow	ISO CAN Hi
Pin 3	Green	ISO CAN Lo
Pin 4	Red	+12V Power to ECU
Pin 5	Black	Ground to ECU
Pin 6	Red	+12V From Battery
Pin 7	Not Used	----
Pin 8	Black	Ground From Battery
Pin 9	Not Used	----
Pin 10	Purple	Signal Wire
Pin 11	Red/White	+12V CAN X
Pin 12	Black/White	Ground CAN X
Pin 13	Orange	CAN X Hi
Pin 14	Blue	CAN X Lo
Pin 15	White	GPS Expansion 1
Pin 16	Gray	GPS Expansion 2
Pin 17	Brown	GPS Expainsion 3
Pin 18	Not Used	----



Pin Outs (continued)

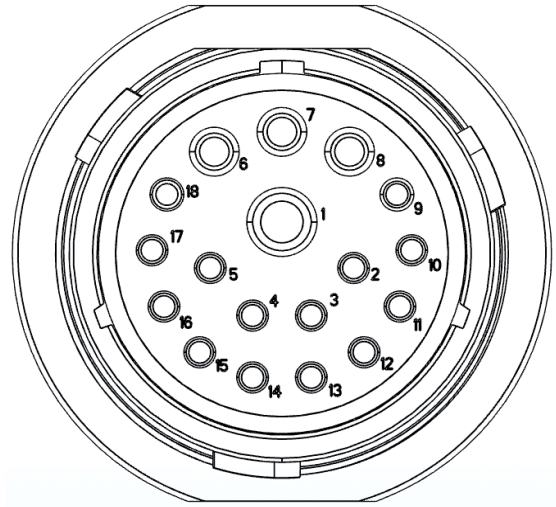
Power / Communication Baler Harness 006-765B at Baler Hitch IPM
(Deutsch Plug Number: HDP26-24-18SN)

Pin 1	Not Used	----
Pin 2	Yellow	ISO CAN Hi
Pin 3	Green	ISO CAN Lo
Pin 4	Red	+12V Power to ECU
Pin 5	Black	Ground to ECU
Pin 6	Red	+12V From Battery
Pin 7	Not Used	----
Pin 8	Black	Ground From Battery
Pin 9	Not Used	----
Pin 10	Orange/White	+12V Power to EOR
Pin 11	Not Used	----
Pin 12	Not Used	----
Pin 13	Not Used	----
Pin 14	Not Used	----
Pin 15	Not Used	----
Pin 16	Not Used	----
Pin 17	Not Used	----
Pin 18	Not Used	----



Power / Communication Baler Harness 006-765B at IPM Module
(Deutsch Plug Number: HDP24-24-18SN)

Pin 1	Not Used	----
Pin 2	Yellow	ISO CAN Hi
Pin 3	Green	ISO CAN Lo
Pin 4	Red	+12V Power to ECU
Pin 5	Black	Ground to ECU
Pin 6	Red	+12V From Battery
Pin 7	Not Used	----
Pin 8	Black	Ground From Battery
Pin 9	Not Used	----
Pin 10	Orange/White	+12V Power to EOR
Pin 11	Orange/Black	Ground to EOR
Pin 12	Purple/Green	EOR Signal
Pin 13	Blue/White	EOB Signal
Pin 14	Gray/Red	+12V Power to Solenoid 1
Pin 15	White/Black	Ground to Solenoid 1
Pin 16	Orange/Red	+12V Power to Solenoid 2
Pin 17	White/Black	Ground to Solenoid 2
Pin 18	Not Used	----



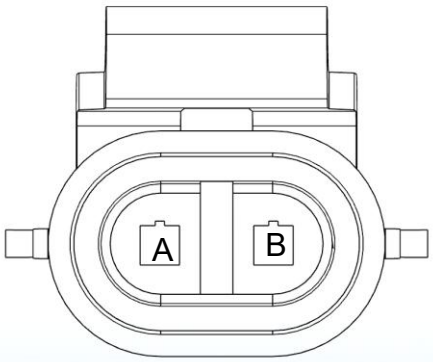
*IPM Module Whip Plug- Pin # 5 Not Used

Solenoid 1 Plug on Baler Harness 006-765B
(Deutsch Plug Number: APTIV 12052641)

Pin B	Gray/Red	+12V to Solenoid 1
Pin A	White/Black	Ground to Solenoid 1

Solenoid 2 Plug on Baler Harness 006-765B
(Deutsch Plug Number: APTIV 12052641)

Pin B	Orange/Red	+12V to Solenoid 2
Pin A	White/Black	Ground to Solenoid 2

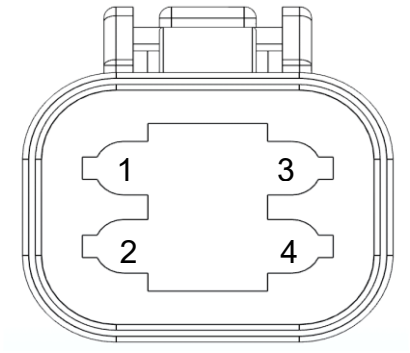


Pin Outs (continued)

CAN / IDM on Baler Harness 006-765B

(Deutsch Plug Number: DT06-4S)

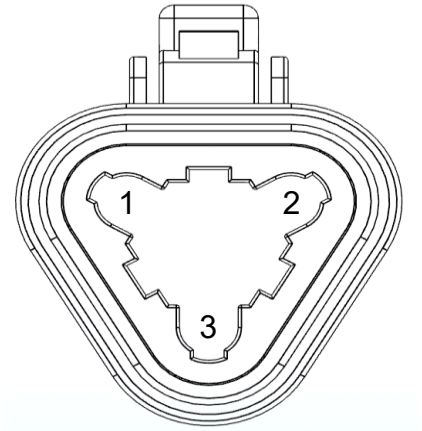
Pin 1	Red	+12V to Solenoid 2
Pin 2	Yellow	ISO CAN Hi
Pin 3	Green	ISO CAN Lo
Pin 4	Black	Ground to Solenoid 2



End of Bale Sensor Plug on Baler Harness 006-765B

(Deutsch Plug Number: DT06-3S)

Pin 1	Orange/White	+12V to End of Bale Sensors
Pin 2	Orange/Black	Ground to End of Bale Sensors
Pin 3	Blue/White	Signal



End of Row Sensors Plug on Baler Harness 006-765B

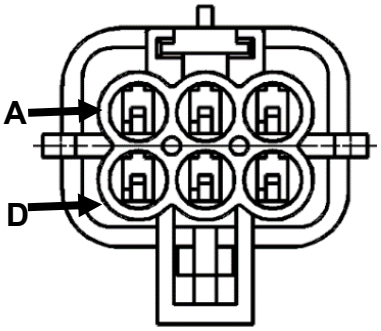
(Deutsch Plug Number: DT06-3S)

Pin 1	Orange/White	+12V to End of Bale Sensors
Pin 2	Orange/Black	Ground to End of Bale Sensors
Pin 3	Blue/White	Signal

Integration Harness Plug on Baler Harness 006-765B

(Plug: APTIV 12052848)

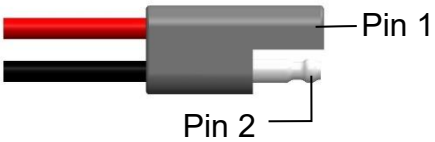
Pin A	Not Used	----
Pin B	Red	+12V Power
Pin C	Not Used	----
Pin D	Gray	Ground
Pin E	Orange	CAN Hi
Pin F	Blue	CAN Lo



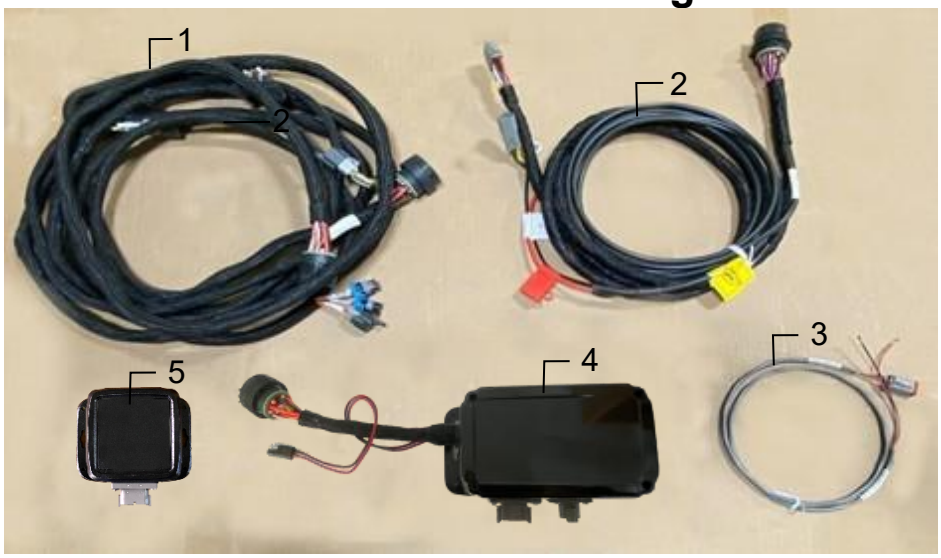
Pump Connection on 700 Controller Harness

(16 AWG Two-Wire Plug)

Pin 1	Red	Power to Pump
Pin 2	Black	Ground to Pump



Main Control Modules and Wiring Harnesses

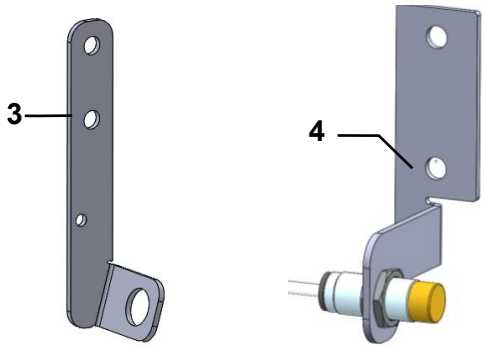


Ref	Description	Part#	Qty
1	Power Lead Baler 20’	006-762B	1
2	Power Lead Tractor	006-765IC	1
3	Key Switch Wire	006-765CPH	1
4	ISO Pump Module	006-7671SS	1
5	ISO Comm. Module	006-6673	1

Ref	Description	Part#	Qty
NP	120 Ohn Resistor	006-700R*	1
NP	Dust Plug Kit	006-765DP	1
NP	Optional Lightning to USB-A Communication Cable	006-6672USBC	1
NP	Optional USB-C to USB-A Communication Cable	006-6672USBX	1

*006-700R installation on 006-762B harness is required at all times when operating the small square 700 series applicator

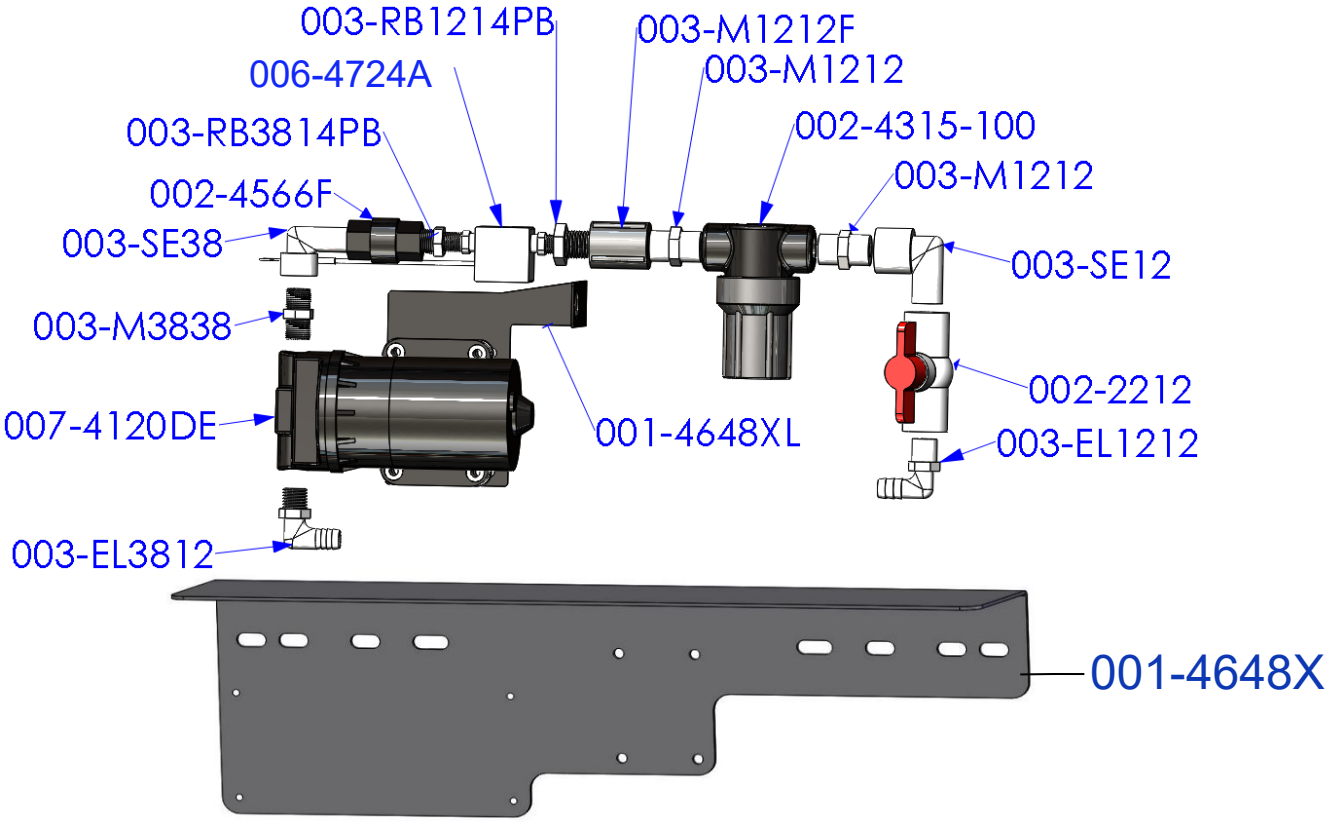
End of Bale (Flake/Stroke) Sensor Kit
EOB-7SS-M



Ref	Description	Part #	Qty
1	End of Bale Sensor	006-7401	2
2	End of Bale Ext.	006-7401EXT	2
3	Marcrest EOB Bracket	001-4648ME	1
4	Marcrest Flake Bracket	001-4648MSC	1

Complete Assembly **EOB-7SS-MDB**

Parts Breakdown for Pump Assembly



Part#	Description	Qty	Part#	Description	Qty
003-EL3812	3/8”MPT X 1/2"HB Elbow	1	003-M1212	1/2" Union	2
007-4120DE	700/300 Series Pump	1	002-4315-100	1/2" Line Strainer-100 Mesh	1
003-M3838	3/8” x 3/8” Union	1	003-SE12	1/2" Street Elbow	1
003-SE38	3/8” Street Elbow	1	002-2212	1/2" Ball Valve	1
002-4566F	3/8” Check Valve	1	003-EL1212	1/2"MPT x 1/2"HB	1
003-RB3814PB	RB 3/8” x 1/4” Reducer	1	001-4648XL	300 Pump Support	1
006-4724A	Flow Meter-Deutsch Plug	1	001-4648X	Pump Plate Mount	1
003-RB1214PB	RB 1/2" x 1/4" Reducer	1	003-A1212*	1/2" MPTx1/2”HB(Not Pictured)	1
003-M1212F	1/2" Coupler	1	003-A3812*	3/8" MPTx1/2”HB(Not Pictured)	1

*Note: Due to alternative baler designs, elbow 003-EL3812 can be replaced by straight fitting 003-A3812. Elbow 003-EL1212 can also be replaced by straight fitting 003-A1212. Both straight fittings are included.

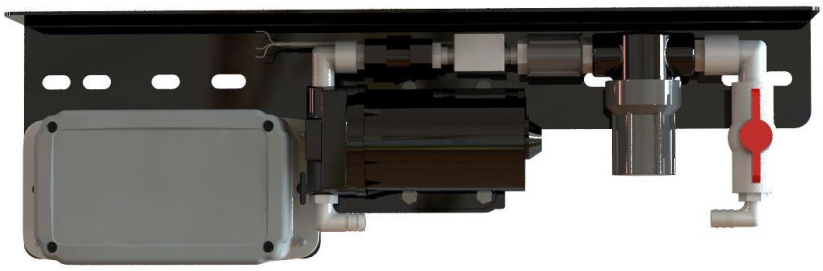
Filter Bowl Replacement Parts

002-4315F	Filter Bowl
002-4315D	Filter Bowl Gasket
002-4315A	Replacement Screen-100 Mesh
002-4315B	Replacement Screen- 80 Mesh

Pump Plate Mounting – 768 Kits only

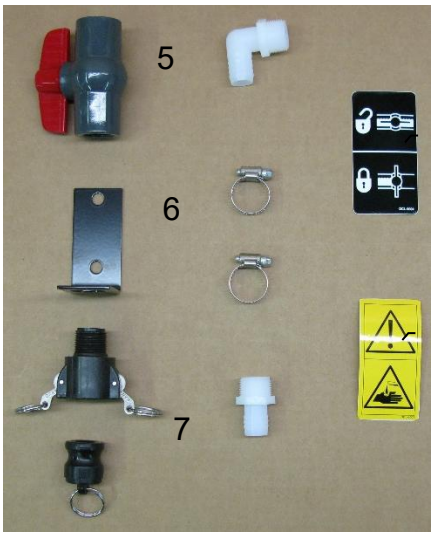
001-4445MP	Pump Plate Mount Bracket

Completed Assembly – PMP-7636P

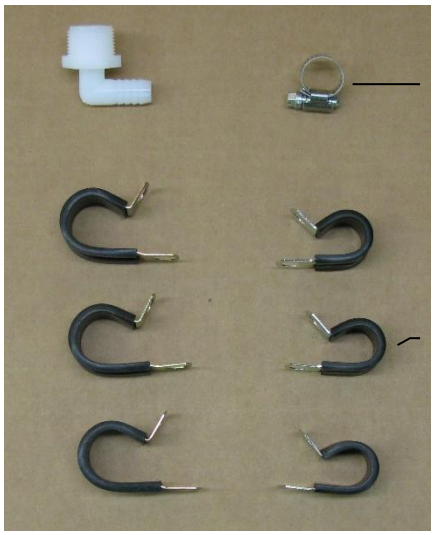


Parts Bag Packages and Hosing

PBA-1



PBP-16



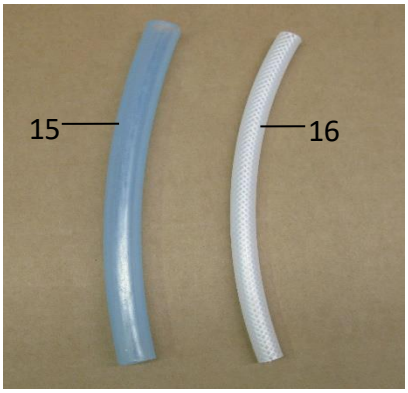
Ref	Description	Part #	Qty
1	3/4" Ball Valve	002-2200	1
2	Valve Holder	001-6702H	1
3	Female Coupler	002-2204A	1
4	Male Shut-Off Plug	002-2205G	1
5	3/4” x 3/4" Elbow	003-EL3434	1
6	#10 Hose Clamp	003-9004	2
7	3/4" x 3/4" Straight Fitting	003-A3434	1

Ref	Description	Part #	Qty
8	Valve Decal	DCL-8004	1
9	Hazard Decal	DCL-8001	1
10	3/4" x 1/2" Elbow	003-EL3412	1
11	3/4" Jiffy Clip	008-9010	3
12	#6 Hose Clamp	003-9003	1
13	Small Jiffy Clip	008-9009	3

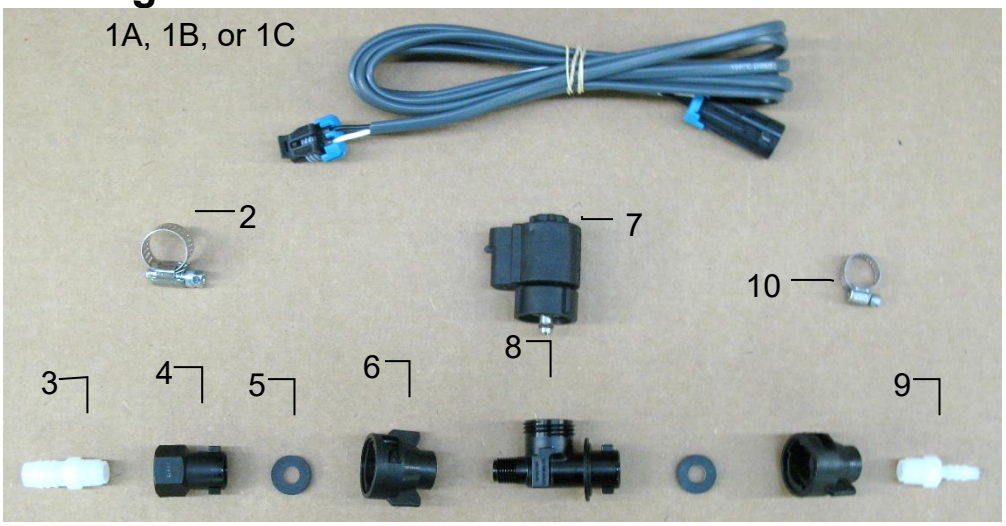
Complete Drain Fill Kit **030-0493DFK**
(Includes 3/4" Hose Not Pictured)

Hosing

Ref	Description	Part #	Qty
15	1/2” Hose (Tank to Solenoid)	002-9001	15ft
16	1/4" Braided Hose (Solenoid to Tips)	002-9016	6ft
NP	3/4" Hose (Drain / Fill Line)	002-9002	10ft



700 Pulsing Solenoid Breakdown – Small & Round Balers



Ref	Description	Part #	Qty
1A	Solenoid Harness (5’)	006-3650-S1	
1B	Solenoid Harness (10’)	006-3650-S2	
1C	Solenoid Harness (15’)	006-3650-S3	
2	#6 Hose Clamp	003-9003	1
3	1/4"x1/2" Straight Fitting	003-A1412	1
4	1/4" Female Connector	004-1207G	1
5	Rubber Washer	004-1207W	2

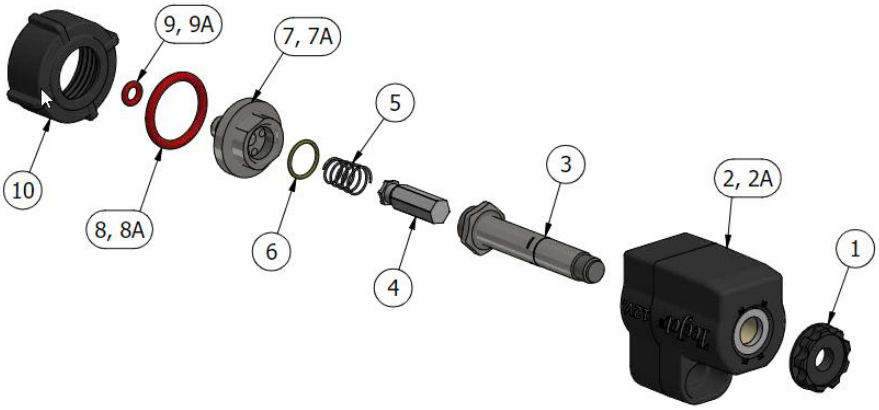
Ref	Description	Part #	Qty
6	1/4" Female Disconnect	004-1207H	2
7	Solenoid	002-2203F	1
8	Solenoid Valve Body	004-1207VF	1
9	1/4" x 1/4" Straight Fitting	003-A1414	1
10	Mini Hose Clamp	003-9002	1

Solenoid Packages

Complete Assembly Pkg. A	SOL-3SP-A
Complete Assembly Pkg. B	SOL-3SP-B
Complete Assembly Pkg. C	SOL-3SP-C

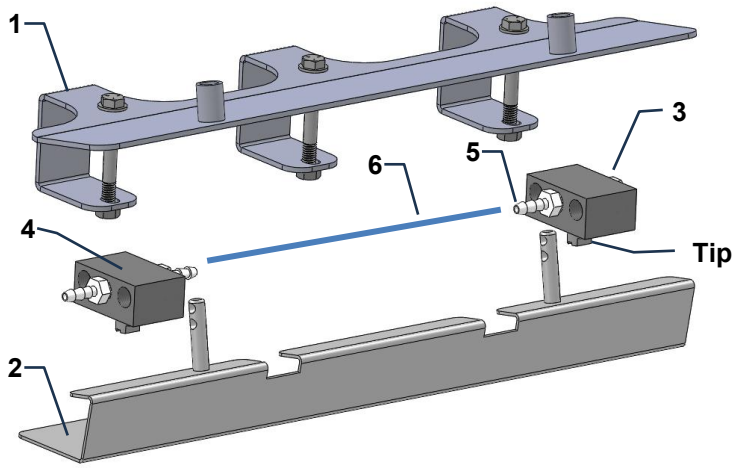
Expanded View of Pulsing Solenoid (002-2203F)

Replacement Pulsing Solenoid O-Ring Kit available (002-2203FG)
(Includes EPDM O-Rings 6, 8, 9 shown below)



To Clean Solenoid Valves:
The Center Section can be removed from Housing #2 by loosening #1 from #3. Once removed, use wrenches on components #3 and #7 and gently turn to loosen and separate. Soak parts #3-10 in warm soapy water, clean with a soft bristle brush, rinse with clean water to remove buildup before reassembly.

Spray Shield - Installation Kit 4553C

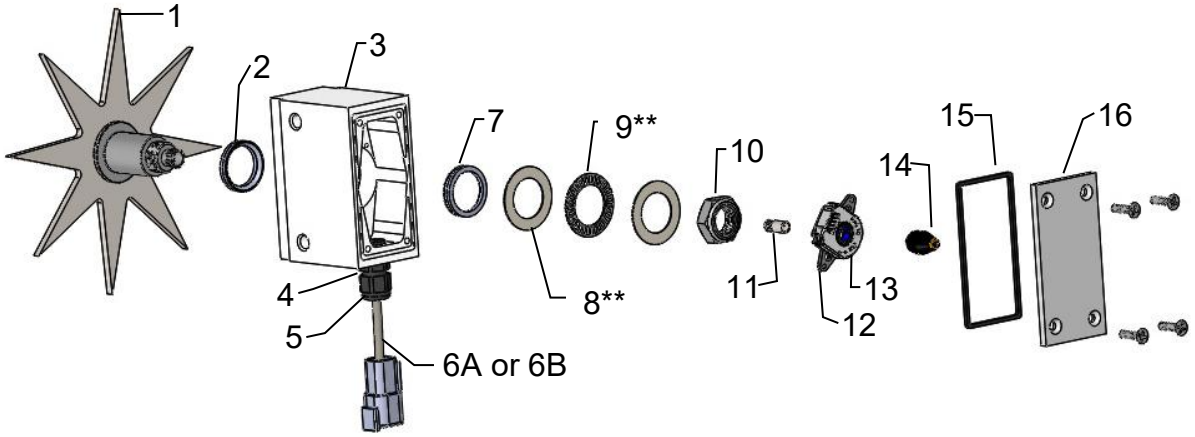


Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Shield Holder	001-4445M	1	NP	Tip* -Low	004-T8001-PT	2
2	Spray Shield	001-4435NSX	1	NP	Tip* -Standard	004-T8004-Pt	2
3	1/4” Hex Plug	003-F14	1				
4	Spray Manifold	001-4435NSB	2	NP	Lynch Pin	008-4576	2
5	1/4MPT x 1/4HB	003-A1414	3				
6	1/4" EVA Hose	002-9016	6 ft				
NP	Hose Clamp	003-9002	3		*Tip color subject to change		

Complete Assembly **030-4553C**

Star Wheel Sensors- 700 Series

(for All Small Square Balers – Updated 1/26)



Ref	Description	Part#	Qty
1	Star Wheel	006-4642US	1
2	Dust Seal Gasket	006-4642UG	1
3	Star Wheel Block (Avail. in 2026 style only)	006-4642UB	1
NP	3/8” Grommet Nut	008-0821B	1
4	3/8” Grommet Seal	008-0821G	1
5	3/8” Comp. Grommet	008-0821A	1
6A	Encoder Harness Plug (6 Pin)	006-7307EM	1
6B	Moisture Harness Plug (2 Pin)	006-7307M	1
7	Spacer (only used in some of the pre-2024 blocks)	006-4642UBS	1
8	Thrust Bearing Washer	006-4642TA	2
9	Thrust Bearing	006-4642TB	1
**	Bearing Washer (Replaces parts 8 & 9)	006-4642W	1
NP	Spacer Plate (use one per star wheel)	001-6707ES	
NP	S.W. Drilling Template	001-4642T	

Ref	Description	Part#	Qty
10	Star Wheel Nut	006-4642U	1
11	Swivel Insert	006-4642B	1
12	Encoder Mount	006-4512P	1
13	Encoder	006-4512E	1
14	Electric Swivel	006-4642A	1
15	Star Wheel Block Gasket (Fits pre-2024 block style)	006-4642UG	1
15	Star Wheel Block Gasket (Fits 2024 and newer blocks)	006-4642UG2	1
16	Block Cover (Fits pre-2024 block style)	006-4642UC	1
16	Block Cover (Fits 2024 and newer block style)	006-4642UC2	1
	Bearing Rebuild Kit (parts 2, 7-10)	006-4642UK	

Complete Assembly w/Encoder 030-4642UE

Complete Assembly No Encoder 030-4642U

Moisture Harnesses

Ref	Description	Part #	Qty
17	Moisture Wire Harness (12’ & 13’ Length Sections)	006-7307EM2	1
NP	Moisture Wire Harness (16’ & 17.5’ Length Sections)	006-7307EM3	1
NP	MF DB Moisture Harness (for 3 Sensor Connections)	006-7307EMX	1
NP	Kubota DB Moisture Harness (for 4 sensor connections)	006-7307EMK	1

Harvest Tec LLC. Warranty and Liability Agreement

Harvest Tec, LLC. 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, LLC. 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, LLC.

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, LLC. 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, LLC. 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, LLC. 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, LLC. will not affect our ability to obtain materials or manufacture necessary replacement parts.

Harvest Tec, LLC. 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 5/22

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