Operation Manual

300 Series Round Baler Models

25 & 55 Gallon Preservative Applicators

HARVEST TEC *Equipment and Products for Quality Hay.* ™

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

DECLARATION OF INCORPORATION

CE UKCA

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

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

The person above certifies and declares that:

VIRTUAL MACHINE: Equipment mounted on a farm press and for the application of innoculants onto forage crops.
MODEL: 331-337-346-347-347C-347U-349-23-OPR-Imp & Metric
BRAND: Harvest Tec
SERIAL NUMBER:

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

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

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

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

Round Baler Models Operation Table of Contents

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Introduction

This applicator is designed to apply Harvest Tec buffered propionic acid on to the forage crop as it is being baled. Use of alternative products may cause complications. Including inaccurate readings from the flow meter and damage to all parts. Resulting in the warranty being void. The applicator will adjust the rates based on the moisture and tonnage of the crop being harvested.

*Made for iPad® running the current iOS operating system
*iPad is a trademark of Apple Inc., registered in the U.S. and other countries.

300 Series Applicators with serial number **before THS0700** will require the THS to be sent to Harvest Tec for a required update in order to use the corded iPad Integration Module (030-6670C).
Hay App version must be **at least 2.7.1 (or higher)** to operate with the iPad Integration Module (030-6672C)

Model reference

Baler Make	Baler Model	Model	Installation kit	Tank size
Case IH	All RBX & RB series 4 & 5 wide	347	447C-SO	25 Gallon
Case IH	All Rollbelt four and five foot wide	347C	447C-SO	55 Gallon
Case IH	RB 455A	347U	447U-SO	25 Gallon
Challenger	RB 46 & 56	349	4508C	55 Gallon
Challenger	453, 463 & 563	349	4524C	55 Gallon
Claas	All Variant balers	346	4484C	25 Gallon
New Holland	640-688 round balers	346	4486C	25 Gallon
New Holland	630-638 round balers, & BR 730	346	4484C	25 Gallon
New Holland	All BR series 4 & 5 foot wide	347	447C-SO	25 Gallon
New Holland	All Rollbelt four and five foot wide	347C	447C-SO	55 Gallon
New Holland	Rollbelt Utility baler	347U	347U-SO	25 Gallon
New Holland	Rollbelt 450 Utility Plus	347UP	347UP- SO	55 Gallon
New Holland	Pro Belt 450, 460	347P	347P-SO	55 Gallon
John Deere	582 & 854 round balers	349	4503C	55 Gallon
John Deere	5, 6 & 7 series	346	4483C	25 Gallon
John Deere	5, 6 & 7 series	349	4504C	55 Gallon
John Deere	8, 9 , 0 & 1 (E & M models) series	346	4516C	25 Gallon
John Deere	8, 9, 0 & 1 (E & M models) series	349	4517C	55 Gallon
John Deere	960, 990	349	4538C	55 Gallon
John Deere	0 & 1 (R-model) Series w/HC2 Cutter	346	4546C	25 Gallon
John Deere	0 & 1 (R-model) Series w/ HC2 Cutter	349	4547C	55 Gallon
Kubota	BV 4160, 4180, 5160	346	4481C	25 Gallon
Kuhn	VB 2160 & 2190	337	437-SO	25 Gallon
Massey Ferguson	800-900 series round balers & 5446-5556 & 2646-2766	349	4508C	55 Gallon
Massey Ferguson	1 Series round balers	349	4531C	55 Gallon
Vermeer	404, 504 & 604 Pro	331	4523C	20 Gallon
Massey Ferguson	2846-2856A	349	4524C	55 Gallon
Massey Ferguson	4100 V Series	331	4523C	20 Gallon
McHale	V660	349	4526C	55 Gallon
Vermeer	404, 504 & 604 Pro	331	4523C	20 Gallon
Vermeer	604M & 605M	349	4505C	55 Gallon
Other	Round Balers	346	4484C	25 Gallon

Safety

Carefully read all the safety signs in this manual and on the applicator before use. Keep signs clean and in clear view. Replace missing or damaged safety signs. Replacement signs are available from your local authorized dealer. Keep your applicator in proper working condition. Unauthorized modifications to the applicator may impair the function and/or safety of the machine.

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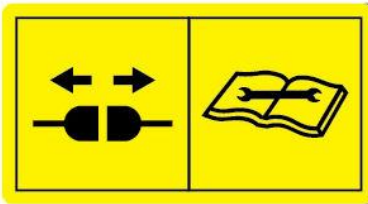
Number 1
Spraying hazard. Disconnect power before servicing the applicator
Part no. DCL-8003

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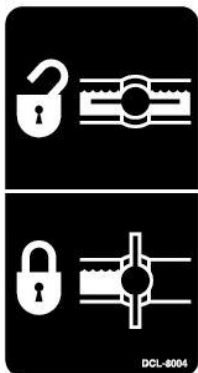Part no. DCL-8002

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.
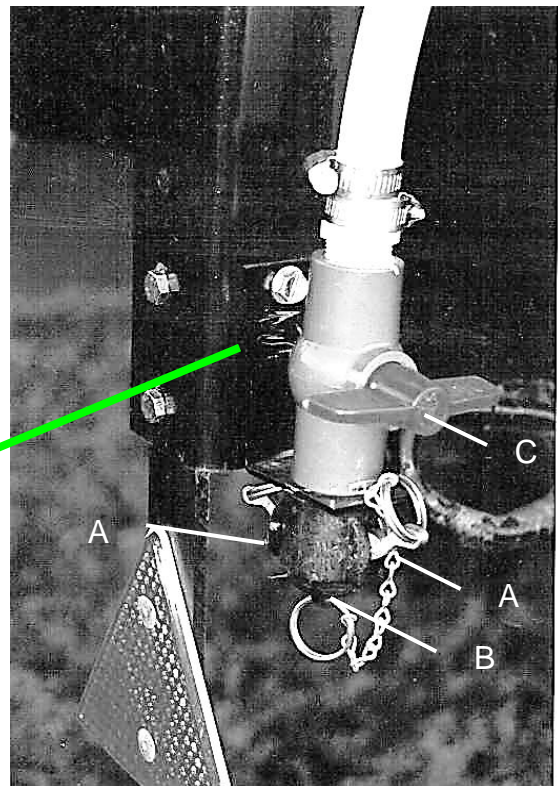
Filling the tank through the Drain / Fill Line
(Models 347, 347C, 347U & 349 only)

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.

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 (model 346 only):

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 be closed at all times 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.
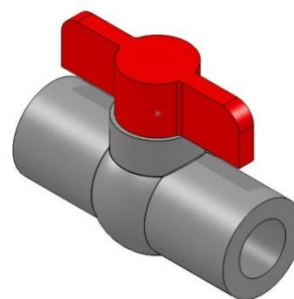
Valve open
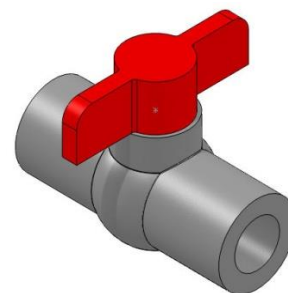
Valve closed

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 servicing the applicator or baler.

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

Operation

Turn On / Off iPad using the Sleep/Wake button

*(Info from Apple User's Guide)

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

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

Sleep/Wake Button

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

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

Downloading Harvest Tec App

1. If iPad does not have Wi-Fi turned on, select the Settings tab then select the Wi-Fi tab (below).
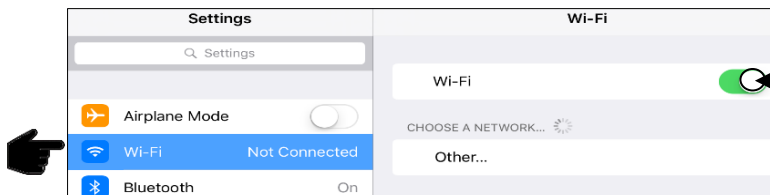
2. Turn Wi-Fi on by sliding button to the right. *Green bar indicates ON

3. Use same process to turn on Bluetooth function

4. Select an available network when detected by the iPad, shown in area above that currently says 'Other.'
5. Select App Store icon (below) and open. *You will need a Wi-Fi connection available to view App Store.

**The Harvest Tec system WILL NOT appear under the Bluetooth tab in the Setting App. Open the Hay App to connect.
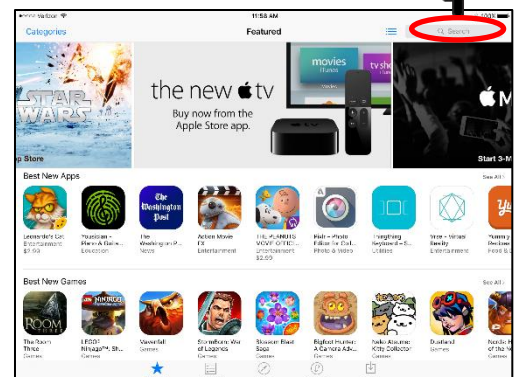
Download the Hay App in the App Store by searching for 'Hay App' in the search bar in the top right corner of screen (right):
 *The advertisements displayed on the App Store screen will change.

The app will have the icon as shown:

Hay App

Note: Made for iPad® running the current iOS operating system

iPad Integration Control Module

030-6672C

To operate the applicator, connect the iPad lightning communication cable* to the iPad Integration Control in the port indicated by:

iPad Integration Control Light Signals

Made for iPad

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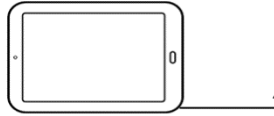
Green Double Blink – Indicating the iPad module recognizes the iPad but the app is not open or connected.

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

*Recommended to use a quality data transfer communication cable that is included with the applicator kit (006-6672USBC) for Lightning to USB-A connections. Alternative USB-C to USB-A connection cable is available (006-6672USBX). Use of plug adapters is not recommended or supported.

Bluetooth Receiver Lights

Pre-2020 applcaitors 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.

300 Series Applicators with serial number before THS0700 will require the THS to be sent to Harvest Tec for a required update in order to use the iPad Integration Module (030-6670C).

Hay App version must be **at least 2.5.18 (or higher)** to operate with the iPad Integration Module (030-6672C)

*Made for Apple iPad badge – Apple device must run software version 15 or higher to be supported.
Devices 10 years or older are no longer supported by Apple and are unable to download from the Apple store. 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.

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Shutting Down the Hay App

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

Figure A

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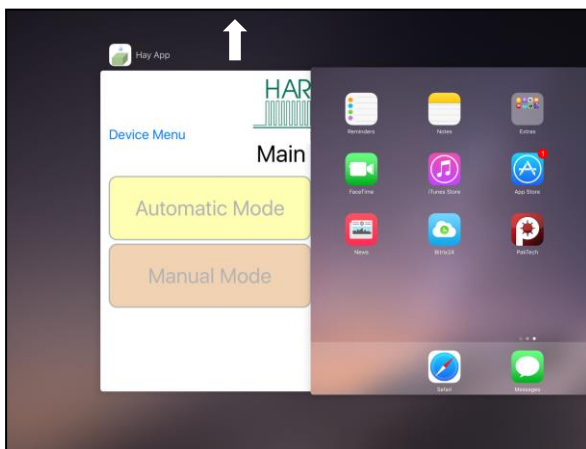

Figure B

Figure C

Operating the Harvest Tec iPad App

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

Device Selection

The app will open to the Device Menu screen as shown below.

Pre-2020 applicators which are equipped with the Bluetooth receiver (030-6672B) that are within range (20') of the iPad and have power going to them, will be shown under the Active Connections section (below) after the initial startup of the system (35-45 seconds).

Production year 2020 applicator systems and beyond will include the iPad Integration Module 030-6672C, shown on the previous page. When plugging in the iPad cord to the module the app will change to the applicator Main Menu for immediate operation. Unplug the cord to return to the Device Menu page.

*Hay App version must be **at least 2.5.18 (or higher)** to operate with the iPad Integration Module (030-6672C)

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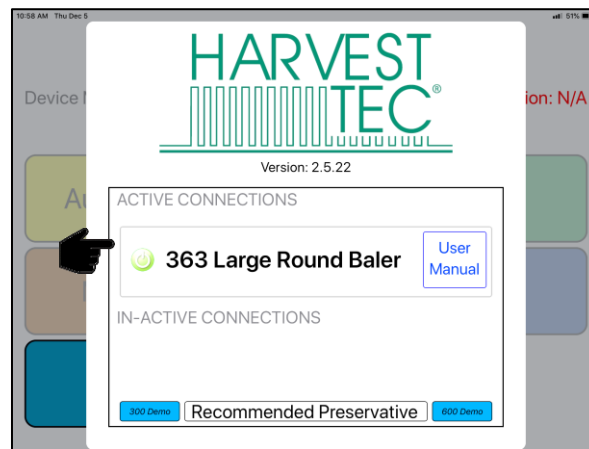
The In-Active Connections section will show applicator systems that have been connected in the past, but are not within range of the iPad or do not currently have power going to them (bottom left).

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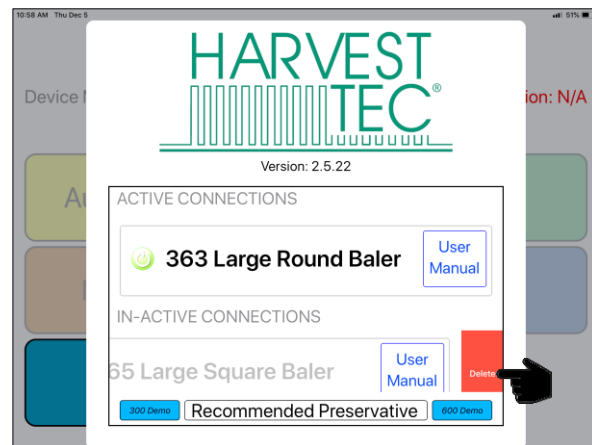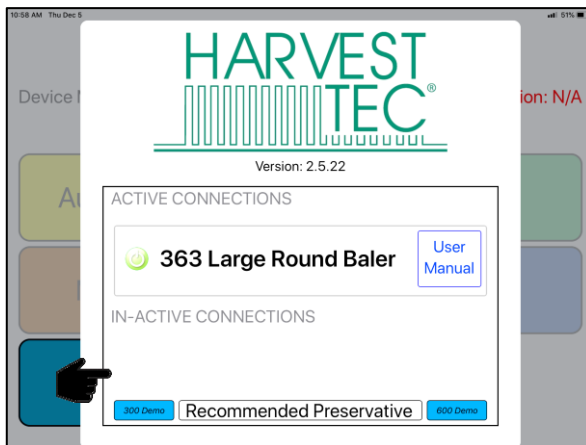
Operating the Harvest Tec iPad App (continued)

Demo Mode

Selecting the 300 Demo or 600 Demo button (below) will allow you to view the different screens of the applicator without requiring connection to an applicator system.

*This function is intended to be used as a visual aid, no values will be displayed.
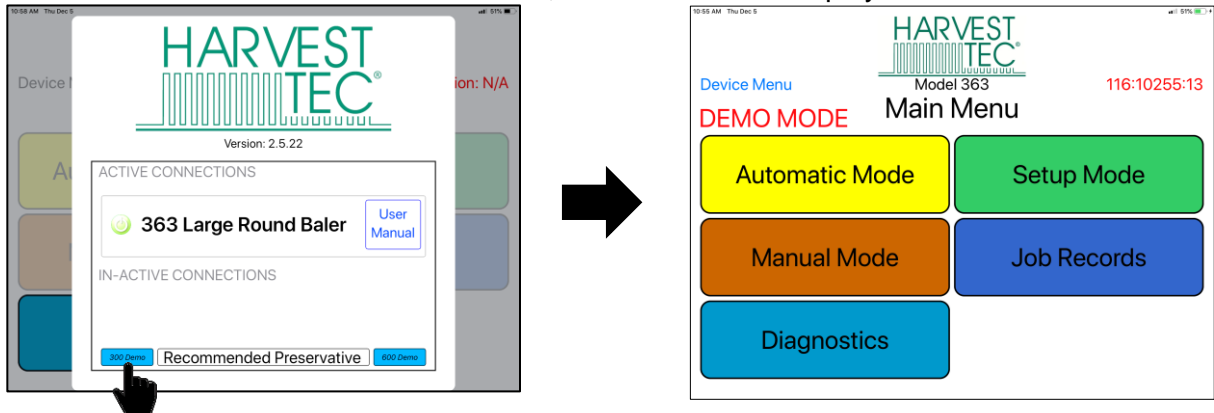
Manual Selection

Selecting the Manual button (below) displayed to the right of the baler name will open the operation manual for your baler.
*You do not need to be connected to a baler to open the manual and recommended preservative tabs after a baler has been connected.
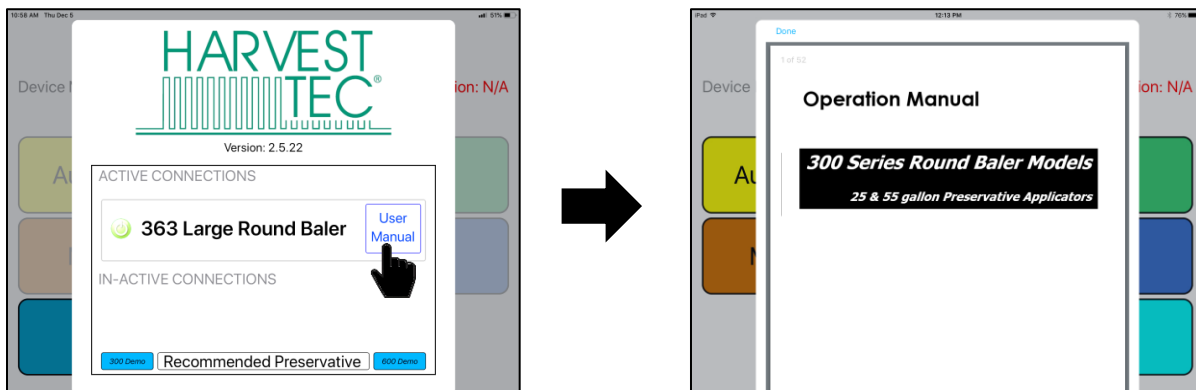
Recommended Preservative

To view recommended preservative information, application rates, and frequently asked preservative questions, select Recommended Preservative (below).

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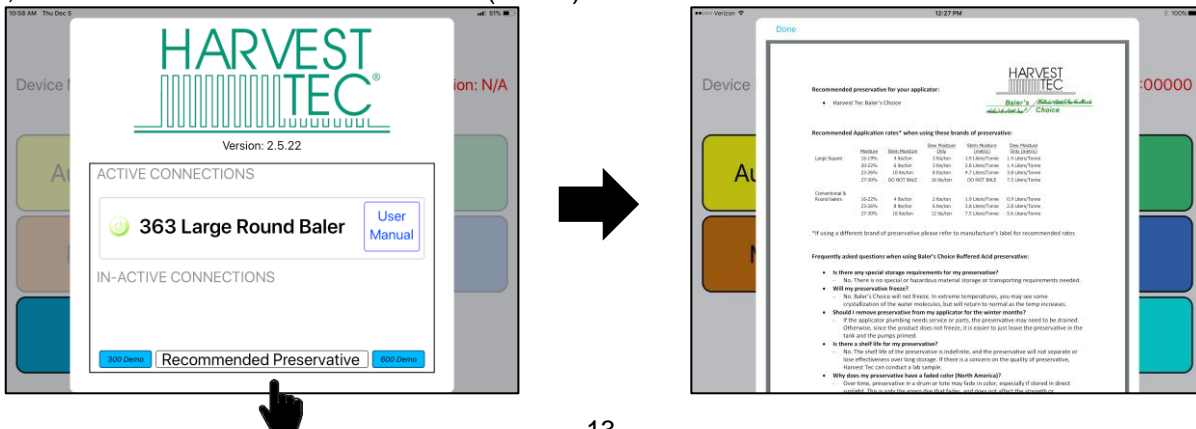
Operating the Harvest Tec iPad App (continued)

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

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

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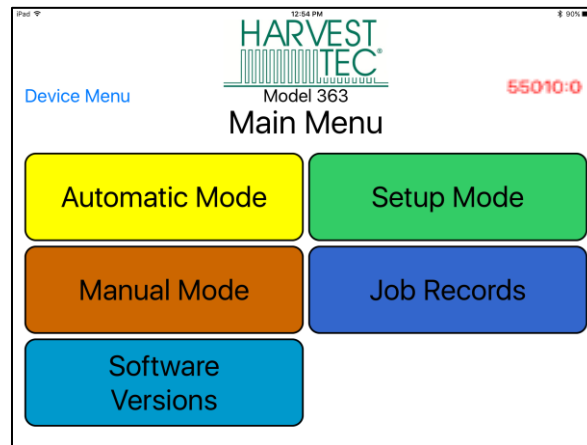
Tab Descriptions

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

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

Software Versions: This will allow you to view the current software versions running on the applicator.

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

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

Device Menu: This button will take you back to the Device Menu to select an applicator to connect with.

Screen Menus

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

Automatic Mode.

Bluetooth Connection Indicator
Green   -iPad Connected
Yellow   -iPad connecting
Red   -iPad not connected

Manual Mode

Bluetooth Connection Indicator
Green   -iPad connected
Yellow   -iPad connecting
Red   -iPad not connected
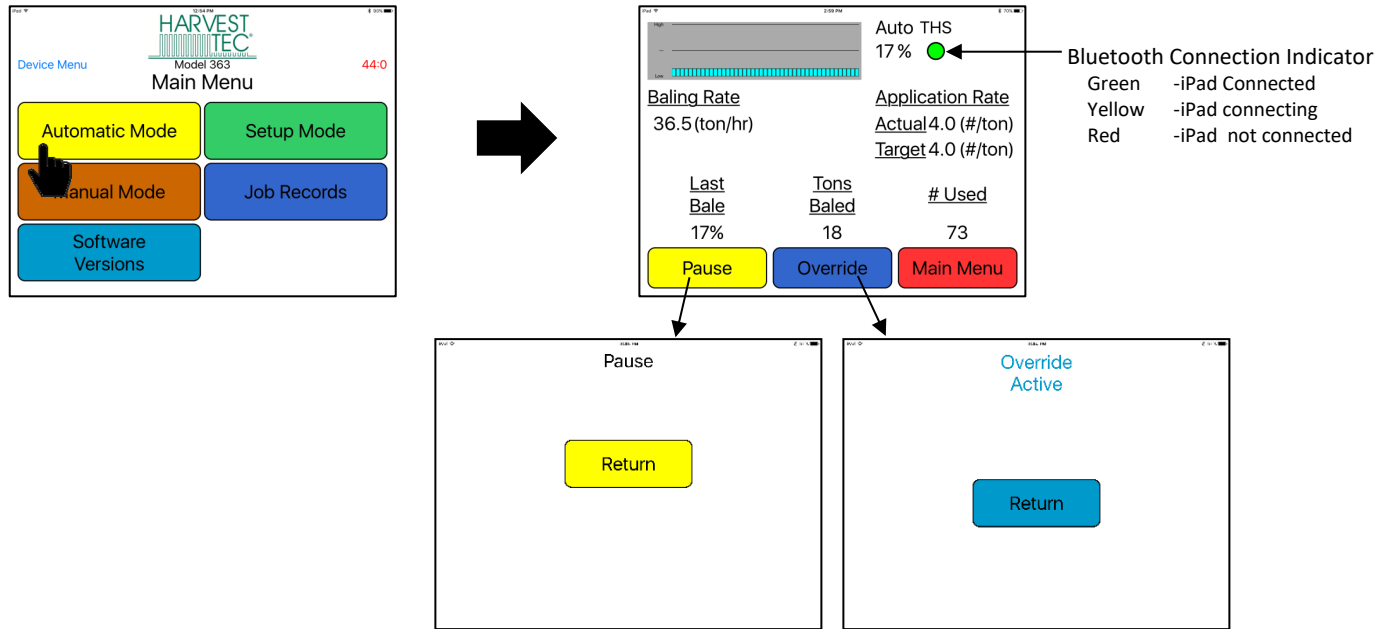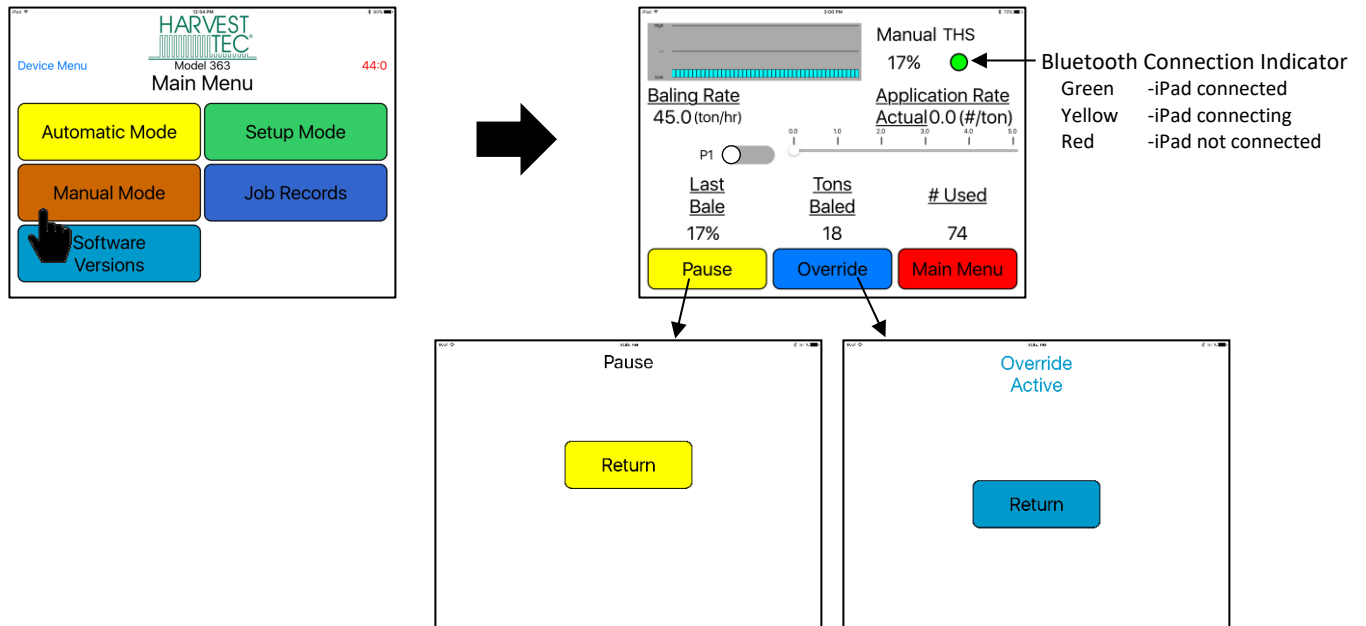
Operation Note:

Pressing the Home Button on the iPad **WILL NOT** immediately stop application of preservative. (see below):
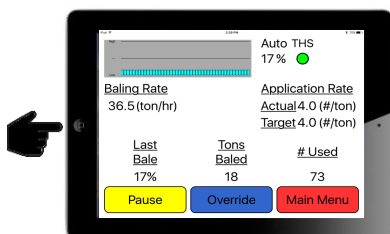
Select [Pause] or [Main Menu] to stop application.

*Pressing the home button will cause the system to stop application after 10 seconds.

Setup Mode

Main Menu
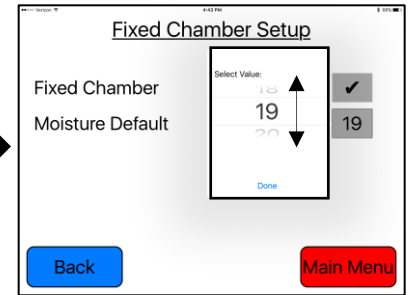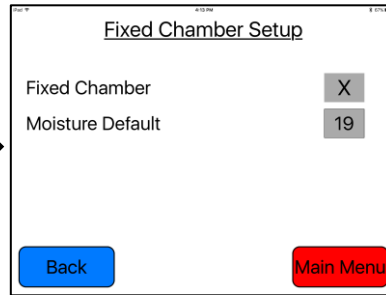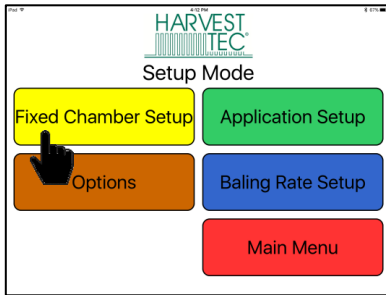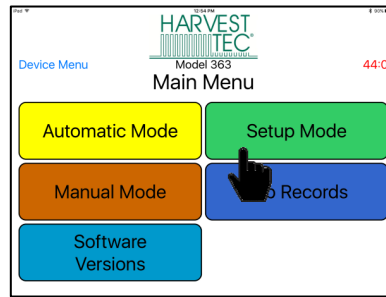
Change X to ✔ if using a
Fixed Chamber baler

If using Fixed Chamber Baler,
Select Moisture Default level
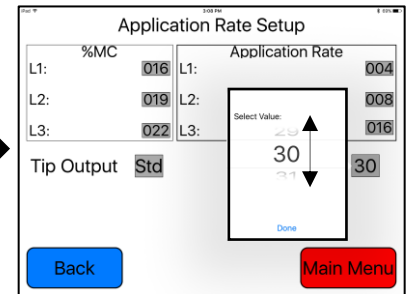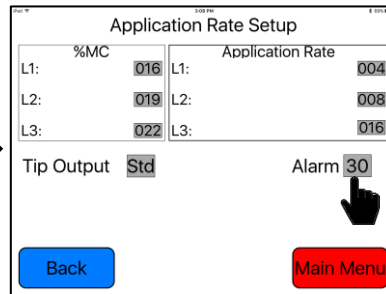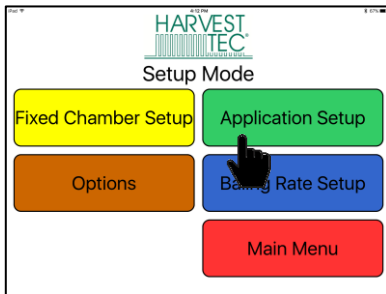
*All values can be changed
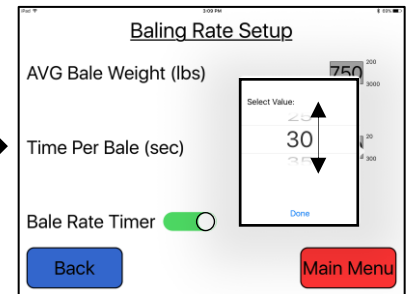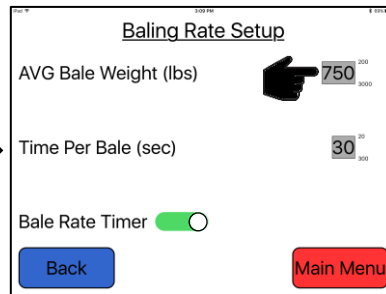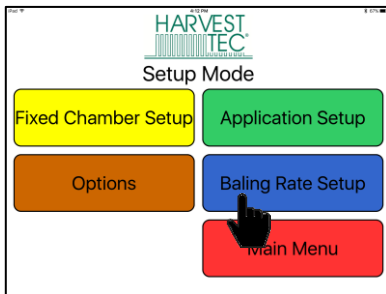
*All values can be changed
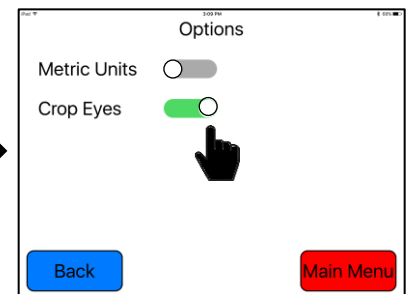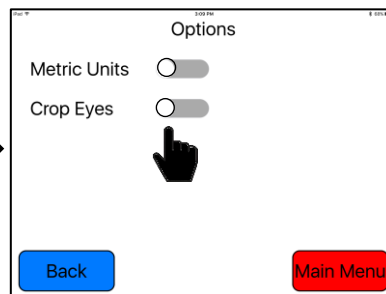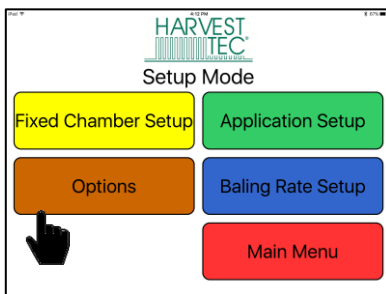
Slide option to right to turn On

Job Records
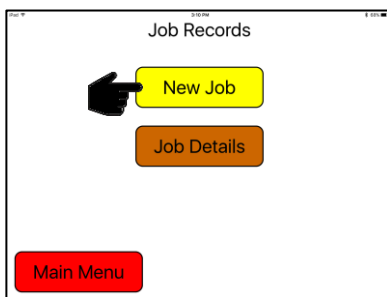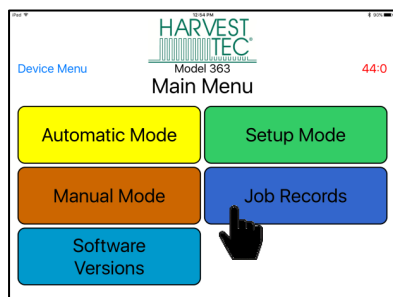
Select New Job to create a new job record
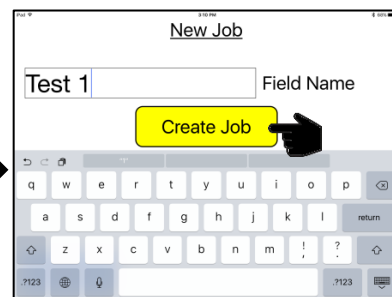
Type in Field Name and press Create Job
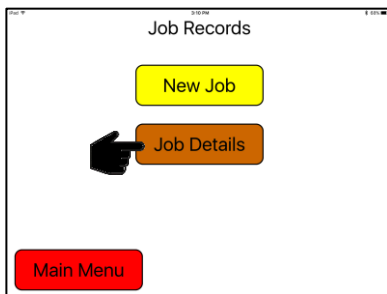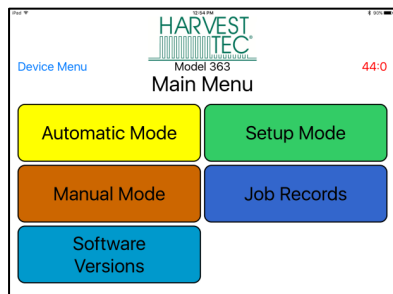
Select Job Details to view job records

Select the Up and Down arrows to view different jobs

Software Versions
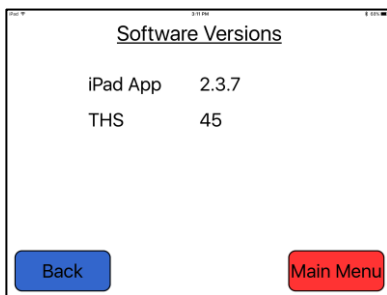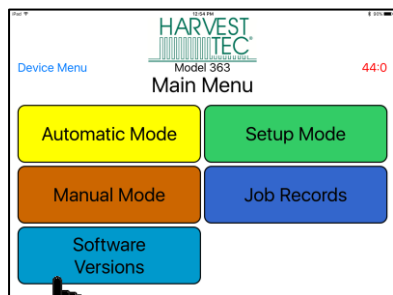
First Time and Annual Startup Instructions

THE UNIT MUST BE CHECKED OUT BEFORE FIELD OPERATION!

Check and Prime the Pumps

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

iPad

Note: The system comes with the standard tips already installed on the spray shield. Test the system with the tips you will use most often.
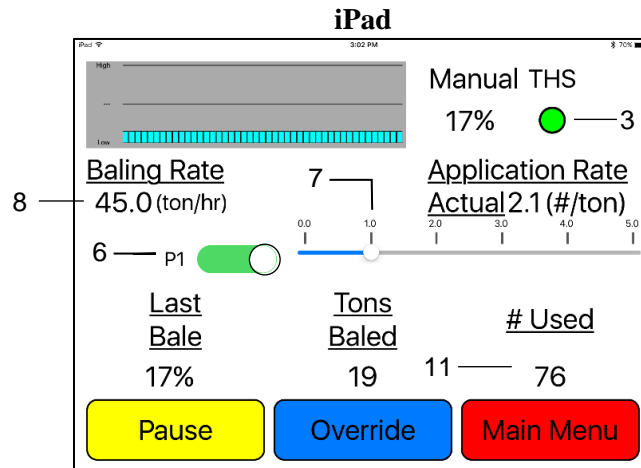
6. Turn the pump on (P1). To turn the pump on slide the button next to P1 to the right. This will turn the bar next to P1 green, indicating the pump is on.
7. Set the pump output to setting 1.0.
8. Move the pump output settings to 2.0, 3.0, 4.0 and 5.0. With the baling rate set at 45 tons/hr, the application rate actual reading should be:

Testing Liquid	Tips	Level 1.0 #/Ton (L)	Level 2.0 #/Ton (L)	Level 3.0 #/Ton (L)	Level 4.0 #/Ton (L)	Level 5.0 #/Ton (L)
Water	Low	1.4-1.6 (.6-.7)	2.4-2.8 (1.0-1.3)	3.8-4.5 (1.6-2.0)	5.8-6.9 (2.5-3.0)	7.1-8.3 (3.0-3.6)
Water	Standard	1.7-2.0 (.7-.8)	3.7-4.3 (1.6-1.9)	5.8-6.8 (2.5-2.9)	8.4-9.9 (3.6-4.2)	7.9-9.3 (3.4-4.0)
Water	High	2.4-2.8 (1.0-1.2)	7.2-8.4 (3.1-3.6)	11.2-13.2 (4.8-5.6)	12.4-14.6 (5.3-6.3)	17.4-20.5 (7.5-8.8)
Preservative	Low	1.3-1.6 (.6-.7)	3.2-3.7 (2.2-2.6)	5.2-6.1 (2.2-2.6)	7.3-8.6 (3.1-3.7)	9.0-10.6 (3.9-4.5)
Preservative	Standard	1.9-2.3 (.8-1.0)	4.7-5.5 (2.0-2.4)	8.4-9.8 (3.6-4.2)	12.1-14.2 (5.2-6.1)	16.0-18.8 (6.9-8.1)
Preservative	High	2.0-2.3 (.8-1.0)	5.5-6.5 (2.4-2.8)	8.8-10.3 (3.8-4.4)	13.3-15.6 (5.7-6.7)	18.1-21.3 (7.8-9.1)

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 Used on the bottom of the screen will be increasing, this verifies that the flow meter is functioning.
12. The THS (Three Hundred Series) button displays your connection signal with the Bluetooth receiver. Green – THS is connected, Yellow – THS is connecting, Red – THS not connected. Pressing MAIN MENU key to return to the initial startup screen.
13. Press main menu to return to the initial startup screen. Go to Setup Mode, select Baling Rate Setup and reset your Avg Bale Weight, the time per bale and turn the Bale Rate Timer on.

*Additional hardware needed if High output tip application is required. Kit 300RBHTK will need to be ordered.

Setting Up the System for initial use with the iPad

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

Application Rate

After pushing the SETUP MODE key in the Main Menu screen, the top left screen will appear:
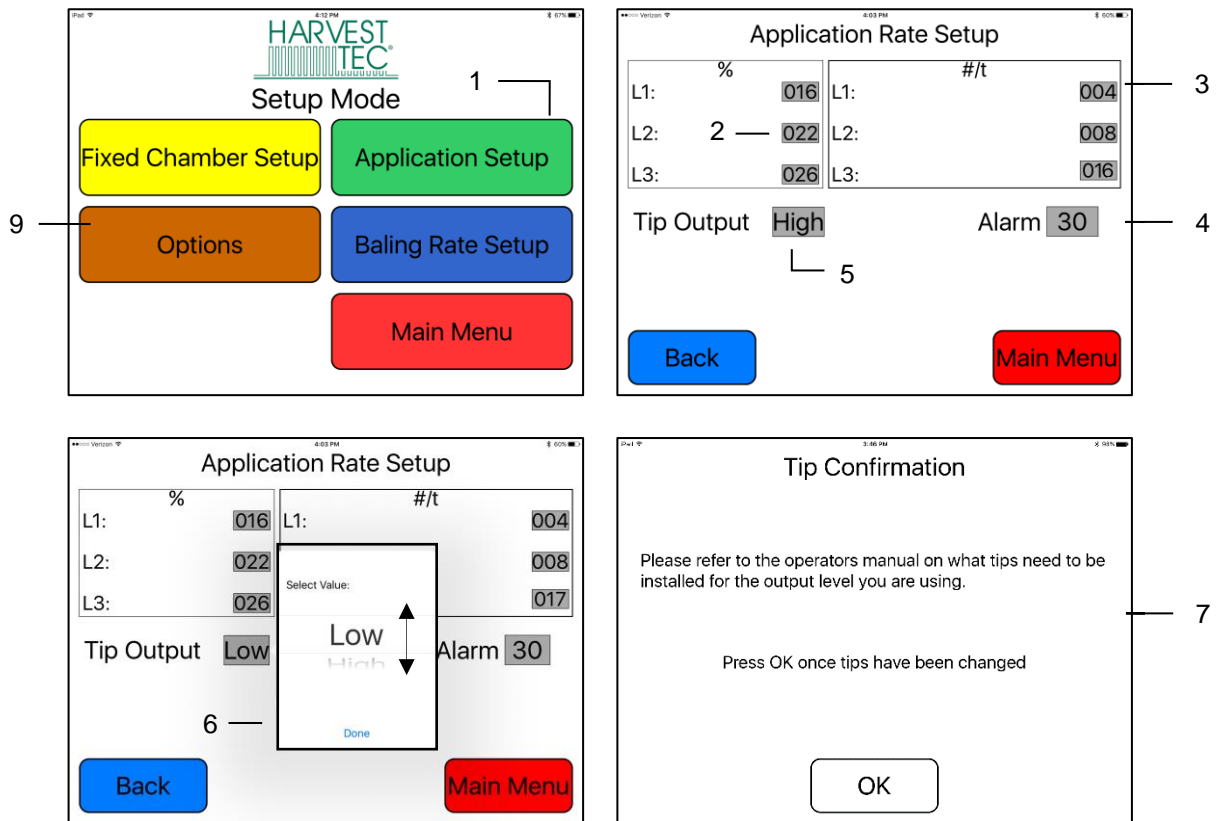
1. On the Setup Mode screen press the APPLICATION RATE key. Once selected the SETUP APPLICATION RATE screen will be shown. (Top right picture)
2. Press any of the grey number values to the right of %MC to adjust their figures. The scroll pad shown on the bottom left will display. Remember level 1 must be lower than level 2 and level 2 must be lower than level 3. Press Done, when value has been selected. Harvest Tec products recommend set points of 16, 22, and 26 % MC levels. These are preset from the factory. Press Back to return.
3. To change rate of chemical application, press any of the grey number values to the right of RATE. Remember level 1 must be lower than level 2 and level 2 must be lower than level 3. Press Done, when value has been selected. Harvest Tec products recommend rates of 4, 8, and 16 lbs/ton (2,3,8 L/MT). These rates are preset from the factory. Press Back to return to previous screen. **IT IS THE OPERATORS RESPONSIBILITY TO FOLLOW THE RECOMMENDATIONS OF THE PRESERVATIVE. ONLY THE OPERATOR CAN APPLY THE PROPER RATE.**
4. To set the alarm, press the grey number value and set the level at which you want the alarm to activate. To turn the alarm off, set level above 50.
5. Press the grey area next to Tip Output to cycle between sets of tips. Use the correct tip set for the field conditions.
6. The menu will appear to choose between Low, Standard and High Output tips. Based on 4, 8, 16 #/Ton application rates, select the one that best represents your ton/hr rate:
   Low 4-25 Ton/hr, Standard 6-31 Ton/hr, High* 6-56 Ton/hr. *High tip setup requires additional hardware.
7. The tip confirmation screen will appear. Press OK once tips are changed.
8. Next press the BACK key found on the bottom left hand figure of the screen to return to SETUP MODE screen or press MAIN MENU key on bottom right hand figure of the screen to return to opening screen.
9. Press OPTIONS to adjust the unit between metric and standard units.

Baling Rate Settings – Round Balers
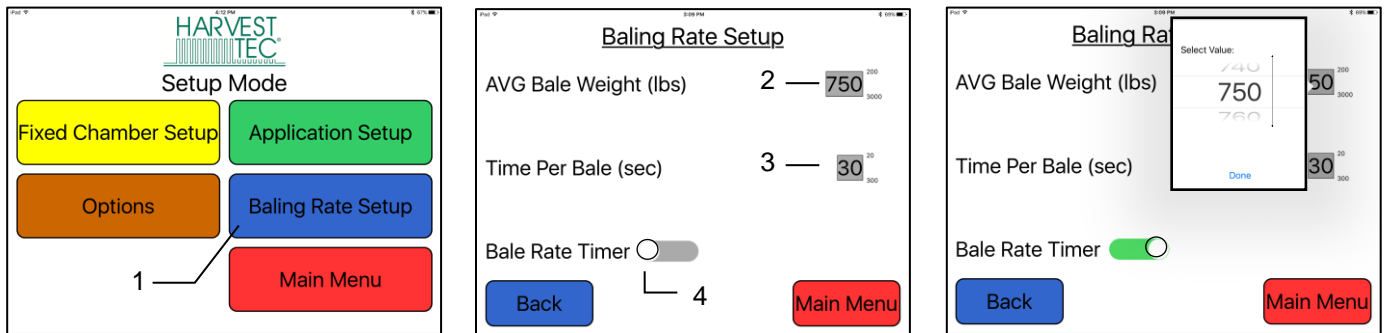
1. On the setup mode screen press the BALING RATE SETUP key.

2. Press the grey number value to the right of AVG Bale Weight (Lbs). Adjust the weight of your bales, by using the scroll tool shown on the right. The information will be saved until updated.

3. Press the grey number value to the right of time per bale. Adjust the time per bale, by using the scroll tool that will appear. The information will be saved until updated
    Note: Only count time that hay is coming into the baler, do not count tie time or drive time.

4. Turn the Bale Rate Timer on by sliding the button on the grey bar to the right. This will turn the bar green, indicating the bale rate timer is on.

5. Press the BACK key found on the bottom left hand figure of the screen to return to SETUP MODE screen or press the MAIN MENU key to return to the opening screen.

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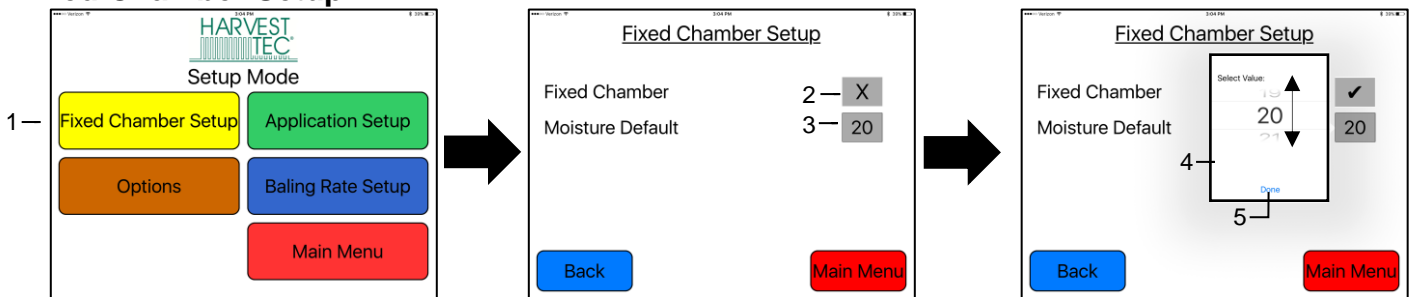
1. Press the Fixed Chamber Setup tab
2. If using a fixed chamber baler, select the X to turn the feature on. The ✔ indicates ON.
3. When using a fixed chamber baler, select the moisture default reading to adjust.
4. Adjust the moisture level to the previous bale moisture, by scrolling up or down to the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

*The Bale Rate Timer needs to always be set to ON when operating in Fixed Camber mode.

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

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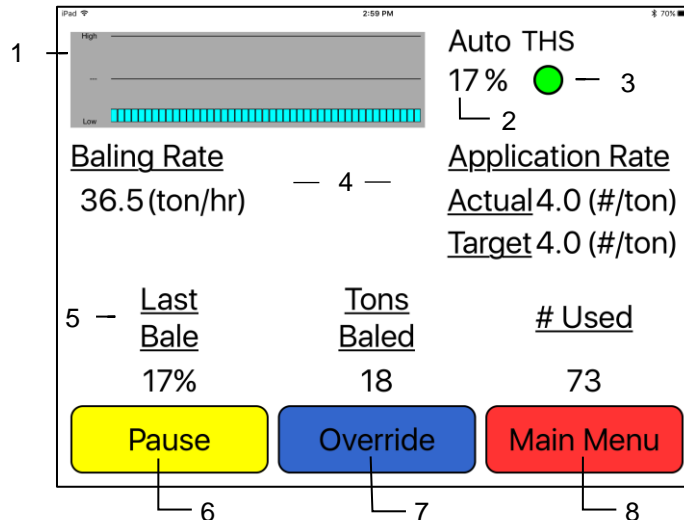
1. The graph shows the moisture trend from the past 90 seconds in 3 second intervals.

2. The moisture content is shown in the upper right hand corner. Moisture range is 0-60%.

3. The THS (Three Hundred Series) button displays your connection signal with the Bluetooth receiver. Green – THS is connected, Yellow – THS is connecting, Red – THS not connected.

4. Baling Rate and Application Rate are shown in the middle of the screen. The operator sets the target application rate and baling rate in the setup mode; the actual rate should be within +/- one pound.

5. Last Bale Moisture, Tons Baled, and # Used (pounds used) will show at the bottom of the screen. These numbers will only reset once a new job is created. **NOTE: Initial start-up requires pressing the New Job key in the Job Records screen in order for Volume Used accumulation to be recorded**. **This only needs to be done once on initial start-up of system and not every time.** (See JOB RECORDS screen)

6. To pause the unit while in operation select the Pause key.

7. Push the OVERRIDE key to turn on the pump at full output of the system. Use this mode when going through a short area of wet crop.

8. Press the MAIN MENU key to return to the opening screen.

Manual Mode

After pushing the MANUAL MODE key in the Main Menu screen, the following screen will appear: **Manual mode will apply preservative to the hay at a fixed rate regardless of the moisture.**
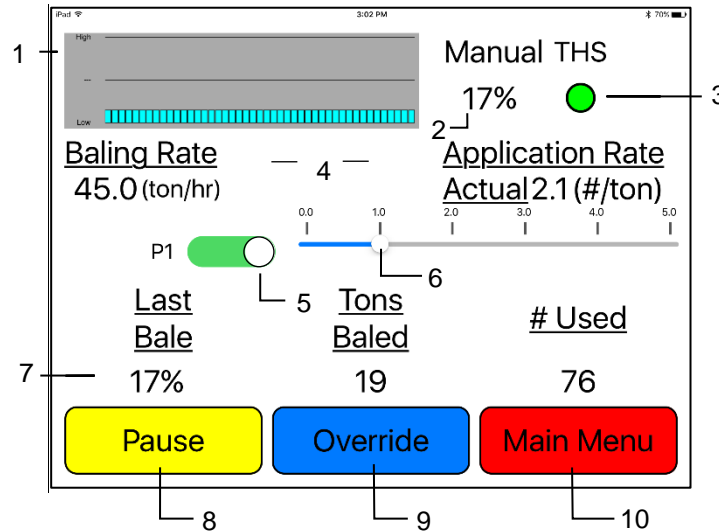
1. This graph shows the moisture trend from the last 90 seconds of baling (one every 3 seconds).
2. The moisture content is shown in the upper right hand corner. Moisture range is 0-60%.
3. The THS (Three Hundred Series) button displays your connection signal with the Bluetooth receiver. Green – THS is connected, Yellow – THS is connecting, Red – THS not connected. Pressing MAIN MENU key to return to the initial startup screen.
4. Baling rate and Application rate are shown in the middle of the screen.
5. To turn the pump on, by moving the slider, so it shows green (P1). In Manual Mode (regardless of moisture, baling rate or bale weight) the outputs are fixed rates.
6. Slide the pump output button from level 1.0 → 5.0 to increase the amount of preservative being applied. The application rates are shown below. Pump outputs are considered normal when they are within +/- 8%.

Testing Liquid	Tips	Level 1.0 Lbs/HR (L)	Level 2.0 Lbs/HR (L)	Level 3.0 Lbs/HR (L)	Level 4.0 Lbs/HR (L)	Level 5.0 Lbs/HR (L)
Water	Low	61.6-72.4 (26.4-31.0)	109.2-128.2 (46.8-54.9)	171.4-201.2 (73.5-86.3)	263.4-309.2 (112.9-132.6)	318.9-374.4 (136.7-160.5)
Water	Standard	75.7-88.9 (32.5-38.1)	165.9-194.8 (71.1-83.5)	258.8-303.8 (110.9-130.2)	379.7-445.7 (162.7-191.0)	356-418 (152.6-179.2)
Water	High	105.8-124.2 (45.4-53.2)	323.8-380.2 (138.8-163.0)	505.1-592.9 (216.5-254.2)	559.4-656.6 (239.8-281.5)	784.8-921.2 (336.4-394.9)
Preservative	Low	35.0-41.0 (15.0-17.6)	84.6-99.4 (36.3-42.6)	150.9-177.1 (64.7-75.9)	239.2-280.8 (102.5-120.4)	326.6-383.4 (140.0-164.3)
Preservative	Standard	60.7-71.3 (26.0-30.6)	143.5-168.5 (61.5-72.2)	235.5-276.5 (101-118.5)	329.4-386.6 (141.2-165.7)	404.8-475.2 (173.5-203.7)
Preservative	High	88.3-103.7 (37.9-44.4)	248.4-291.6 (106.5-125)	395.6-464.4 (169.6-199.1)	542.8-637.2 (232.7-273.1)	722.2-847.8 (309.6-363.4)

7. Last Bale Moisture, Tons Baled, and # Used (pounds used) will show at the bottom of the screen. These numbers will only reset once a new job is created. **NOTE: Initial start-up requires pressing the New Job key in the Job Records screen in order for Volume Used accumulation to be recorded**. **This only needs to be done once on initial start-up of system and not every time.** (See JOB RECORDS screen)
8. To pause the unit during operation select the Pause key.
9. Push the OVERRIDE key to turn on the pump at full output of the system. Use this mode when going through a short area of wet crop.
10. Pressing MAIN MENU will return you to the opening screen.

*Additional hardware needed if High output tip application is required. Kit 300RBHTK will need to be ordered.

Job Records

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

1. Select the New Job tab when creating a new job record.

2. Type in the desired field name and press Create Job

3. The job details screen will appear with name of the job shown under the up arrow. Information shown on this screen will include Date, Total Baled (tons baled), Product Used, Average Moisture Content, Highest Moisture Content and Bales.

4. Every time the NEW JOB key is pressed the accumulated pounds on auto and manual modes will be reset to zero. After 300 jobs have been stored, the next time the NEW JOB key is pressed the system will start over with job one and the old job will be replaced.

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

Software Versions

After pushing the Software Versions key in the Main Menu screen, the following screen will appear:
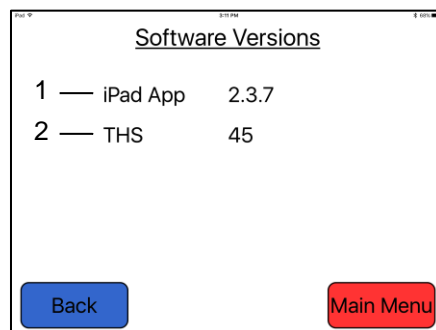
*This is an example,
Software Versions will change

1. The first line will show the current version of the Hay App being used on the iPad.
   Note: When an update is available, your iPad will prompt you when connected to the internet

2. The second line will show the current version of software being used on the Three Hundred Series (THS) applicator system.

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

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Wiring Diagram – 346, 347, 349

1. Connect the power harness (006-3650T) 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!** The unit will draw more amps than convenience outlets can handle. Any modifications of the power harness will void systems warranty. **CONTACT HARVEST TEC BEFORE MODIFICATIONS.**
   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 (006-3650T) will run from the tractor battery to the hitch. The power harness on the baler (006-3650B1) will connect to the tractor power harness (006-3650T) at the hitch.
3. Connect the keyed power wire (006-5650K) 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 iPad Integration Control (030-6672C) to the tractor power harness (006-3650T).
5. Attach the End of Bale (EOB) connection on the controller to the End of Baler Sensor (006-7400).
6. Attach the Solenoid (V1) (Delphi connector) connection on the controller to the wire from the solenoid (002-2203F). Note: If solenoid is connected to V2-DSM (not used) connection, solenoid will not work.
7. Attach the Flowmeter (FLOW) connection on the controller to the flowmeter (006-4729A).
   a. Attach the spade connectors on the FLOW harness to the Pump (007-4120DE).

System Wiring Diagram

Harness	Color
EOB	Brown
V1	White (Delphi Connector)
EOR	Yellow
FLOW	White
V2-DSM	White (Delphi Connector)
Pump	Orange

Wiring Diagram – 347C

1. Connect the power harness (006-3650T) 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!** The unit will draw more amps than convenience outlets can handle. Any modifications of the power harness will void systems warranty. **CONTACT HARVEST TEC BEFORE MODIFICATIONS.**
   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 (006-3650T) will run from the tractor battery to the hitch. The power harness on the baler (006-3650B1) will connect to the tractor power harness (006-3650T) at the hitch.
3. Connect the keyed power wire (006-5650K) 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 iPad Integration Control (030-6672C) to the tractor power harness (006-3650T).
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6. Attach the Solenoid (V1) (Delphi connector) connection on the controller to the wire from the solenoid (002-2203F). Note: If solenoid is connected to V2-DSM (not used) connection, solenoid will not work.
7. Attach the Flowmeter (FLOW) connection on the controller to the flowmeter (006-4729A).
   a. Attach the spade connectors on the FLOW harness to the Pump (007-4120DE).

System Wiring Diagram

iPad Integration Control*
030-6672C

Orange Wires to
Keyed Power
006-5650K

300 Control Box
006-3671RB

End of Bale (EOB)

End of Bale Sensor
006-7400

Solenoid (V1)

(V2-DSM)

Solenoid
002-2203F

Power Harness on Tractor
006-3650T

Power/ Harness on Baler
006-3650B1

End of Row (EOR)
(Optional)

Hay Indicator Harness
006-7502H

Hay Indicators

Flowmeter (FLOW)

*Recommend connecting to iPad with communication cable 006-6672USBC (Lightning to USB-C) or for newer iPads 006-6672USBX (USB-A to USB-C)

Pump (PUMP)

Flow Meter
006-4729A

Moisture Content (MC%)

Pump
007-4120DE

Moisture Disc
006-4641HX (x2)

Moisture Harness
006-4640GX2

Harness	Color
EOB	Brown
V1	White (Delphi Connector)
EOR	Yellow
FLOW	White
V2-DSM	White (Delphi Connector)
Pump	Orange

Common Questions

1. **How do I turn the system on/off?**
   To turn the system ON open the Hay App and select the active system for the baler you are using.

2. **How to get in the LBS/TON, MC%, and TONS/HR screens?**
   In the Main Menu press the SETUP MODE key. From this screen you can change your application rates and how much product is applied. See SETTING UP FOR INITIAL USE for a detailed explanation of this process.

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

4. **How does OVERRIDE work?**
   Override turns on the pump and opens the solenoid at full output. The pump and solenoid will remain at full output until the operator turns the pump 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 input 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. **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 moisture disc connection. Check if there is build up around the moisture discs and for grounding between the disc and the bale chamber. Also, check all moisture disc wires and connectors to see if there is a continuity problem.

7. **How does having a fixed chamber baler affect the moisture readings?**
   Fixed chamber balers do not give a good moisture reading until half of the bale is formed in the chamber. This option allows you to put preservative on the first half of the bale, at a set moisture that you pre-determine. The application rate will adjust according to the moisture disc for the second half of the bale.

8. **Should the battery connections be removed before jump starting or charging a battery?**
   Yes. Anytime the tractor will have voltage going up rapidly the connections should be removed.

9. **What is the expected battery life of the iPad when baling?**
   3.5 hours is the expected amount of time for the battery when continuously baling. Shut off all other applications, wireless internet, and Wi-Fi signal to reduce the amount of programs iPad is running.
   It is recommended to use an accessory outlet charger when operating (not included with iPad).
   *Note: Not all chargers are designed to charge an iPad, verify before purchasing.

10. **What is the max distance for connection between the iPad and the Bluetooth Receiver?**
    Pre-2020 applicators were equipped Bluetooth receivers (030-6672B). The range for the connection will depend on the amount of equipment (tractor, baler, etc.). The max distance will range between 10'–20'.

11. **What do the two lights on the Bluetooth receiver 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(s)	Solution(s)
Pump will not run.	1. No voltage to THS.	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.
	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 moisture disc and THS	1. Reconnect wire.
	2. Low power supply to THS	2. Check voltage at box. Min of 12V
	3. Hay over 60% moisture	
	4. Ground contact with one or both moisture disc and THS	4. Reconnect.
	5. Short in wire between moisture disc and THS	5. 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 constant between 12V-14V	2. 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 THS.
	2. Wiring short in signal to baler mounted processor.	2. Inspect wire and replace if necessary.
	3. Using product other than Harvest Tec	3. Catch and weigh product to check outputs.
Product shown is 10% different than actual product used.	1. High voltage supplied to the meter.	1. Check voltage at THS Max of 18 volts.
	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 to check outputs.
System leaks product out of tips after shut down.	1. Dirty or defective solenoid	1. Clean or Replace.
System does not pause at the end of a row.	1. Short in cable.	1. Replace cable.
Solenoid will not pulse.	1. Dirty or plugged 2. Damaged wire from control 3. Wire disconnected 4. Loose plastic nut on top of solenoid	1. Clean or Replace 2. Repair 3. Reattach wire 4. Tighten plastic nut (do not over tighten)
BLE/ IIC Module lights will not illuminate	1. Module not connected 2. Harness disconnected 3. Low power	1. Check connections and voltage. Minimum 12.5V needed.
	Red Light – The Bluetooth receiver has power *Green Light* – When the proper active connection is selected in the Hay App menu, the green light will indicate connection with the iPad.	

iPad Troubleshooting

iPad Symptom	Troubleshooting
iPad won't turn on	-Turn your iPad off and on. Press and hold the Sleep/Wake button for a few seconds until a red slider appears; then slide it. Press and hold the Sleep/Wake button to turn on again.
	-Reset your iPad. Press the "Sleep/Wake" button and the "Home" button simultaneously for at least 10 seconds until the Apple logo appears on the screen. This reset will not damage your files.
	-Battery may be drained. Plug iPad into your computer or AC adapter. The iPad will recognize it has been connected to a power source and charge its battery. If it will no longer charge, the battery must be swapped with a replacement battery. Battery level displays in top right corner of iPad. Battery must be above 75% to connect.
Cannot get an active baler connection - Bluetooth	-Make sure that your Bluetooth accessory and iOS device are close to each other when connecting.
	-Make sure that your Bluetooth accessory is on and fully charged or connected to power. If it uses batteries, test them to see if they need to be replaced.
	-Restart your Bluetooth receiver, by removing power and reconnecting after 30 seconds.
	-Make sure that you have iPad with iOS15 or greater operating system on your iPad
	-On your iPad, go to Settings > Bluetooth and make sure that Bluetooth is on. If you can't turn Bluetooth on or you see a spinning gear, restart your iPad
	-Unpair the Bluetooth accessory, put the accessory back in discovery mode, then pair and connect it again. By tapping on its name in the Bluetooth accessories tab and then Forget this Device. In settings, tap on a device's name, then Unpair.
Cannot get an active baler connection – Corded IIC	-Use a quality Data Transfer cable ending in a USB-A connection. Not all power cords support data transfer. Do not use plug adapters.
	-Close all apps in the background, restart the Hay App before turning on tractor and starting applicator system.
iPad touchscreen is slow or does not respond	-Screen may be dirty. Clean screen. Unplug everything, turn off iPad and with soft, lint-free, slightly damp cloth gently wipe screen. Do NOT use window cleaners and paper towels.
	-If you have a screen protector sheet, try removing it.
How can I unlock my iPad if I forgot the passcode	-If you cannot remember the passcode, you will need to restore your device using the computer with which you last synced. This allows you to reset your passcode and resync the data from the device (or restore from a backup). If you restore on a different computer that was never synced with the device, you will be able to unlock the device for use and remove the passcode, but your data will not be present.
How do I send in my iPad for service?	-Refer to your iPad owner's manual or contact Apple. DO NOT SEND iPad TO HARVEST TEC.
For other issues refer to your iPad Owner's Manual or contact Apple Directly	

Harvest Tec Does Not Service iPads

Pin Outs

Tractor Power Harness 006-3650T at Tractor Hitch
Pin 1 Red   +12V Power to BLE
Pin 2 Red   +12V Power to THS
Pin 3 Orange   Keyed Power
Pin 4 Not Used
Pin 5 Green   HT Can Low
Pin 6 Yellow   HT Can Hi
Pin 7 Not Used
Pin 8 Black   Ground from BLE
Pin 9 Black   Ground from THS
Pin 10 Not Used

Baler Power Harness 006-3650B1 at Baler Hitch
Pin 1 Red   +12V Power to BLE
Pin 2 Red   +12V Power to THS
Pin 3 Orange   Keyed Power
Pin 4 Not Used
Pin 5 Green   HT Can Low
Pin 6 Yellow   HT Can Hi
Pin 7 Not Used
Pin 8 Black   Ground from BLE
Pin 9 Black   Ground from THS
Pin 10 Not Used

Bluetooth / IIC Module on Tractor Harness 006-3650T
Pin 1 Red   +12V Power for BLE
Pin 2 Black   Ground for BLE
Pin 3 Yellow   HT Can Low
Pin 4 Not Used
Pin 5 Green   HT Can Hi
Pin 6 Not Used
Pin 7 Not Used
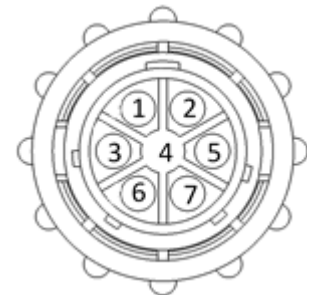
End of Bale Sensor at 300 Controller Harness
Pin 1 Brown   Sensor Power
Pin 2 Blue   Sensor Ground
Pin 3 N/A
Pin 4 Black   Signal from Sensor
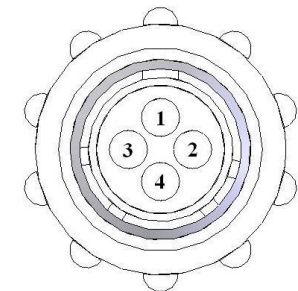
Flow Meter at 300 Controller Harness
Pin 1 White   +5-12V Power
Pin 2 Brown   Ground
Pin 3 Green   Signal
Pin 4 Not Used

Pin Outs (continued)

End of Row Sensor at 300 Controller Harness
Pin 1   Red/White   +12V Power
Pin 2   Black/White   Ground
Pin 3   Yellow   Signal
Pin 4   N/A
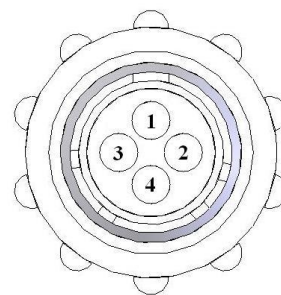
Moisture Sensor connection at 300 Controller Harness
Pin 1   Not Used
Pin 2   Not Used
Pin 3   Not Used
Pin 4   Not Used
Pin 5   Not Used
Pin 6   Not Used
Pin 7   Not Used
Pin 8   Blue   Signal for Sensor 1
Pin 9   Blue   Signal for Sensor 2

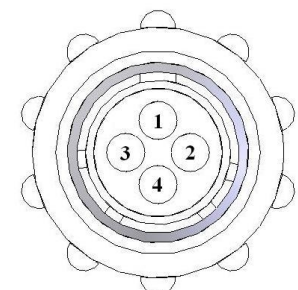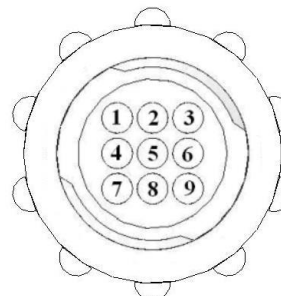Pump connection at 300 Controller Harness
Pin 1   Red   Power to Pump
Pin 2   Black   Ground to Pump
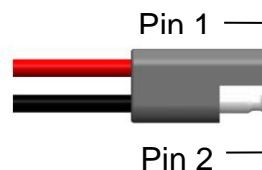
Solenoid Connection at 300 Controller Harness
Pin A   Black   Solenoid Pause
Pin B   White   Solenoid Ground
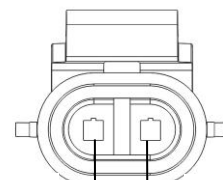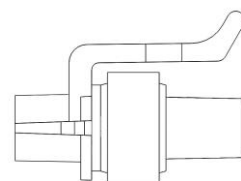
Optional V2-DSM (High Output Solenoid) at 300 Controller Harness
Pin A   Black   Solenoid Pause
Pin B   White   Solenoid Ground
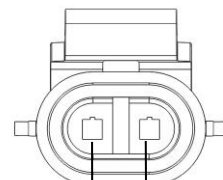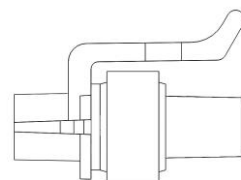
Maintenance

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.

A

B

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). If the screen cannot be thoroughly cleaned with compressed air, replace fitting (005-9022B3). Once the screen is cleaned reinstall the cover.
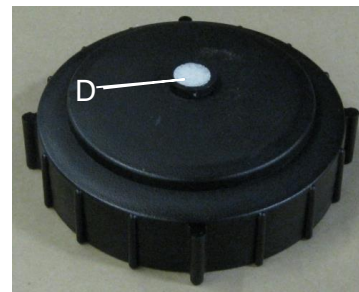
Dielectric grease connections: Disconnect all harnesses on the applicator, clean the connections, and repack with dielectric grease.

Rebuild pump: If Manual mode show 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. 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.

Solenoid Valves: Before servicing the solenoid 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)- see solenoid parts breakdown for details.

Verify the ball valve is turned off before service the solenoid. Replace the solenoid if needed (002-2203F).

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

The Harvest Tec buffered propionic hay preservative will not freeze and does not need to be removed from the applicator system for storage. Prior to storage, ensure that the tank, cap and gasket are in good condition and that there are no leaks in the system. Defects in the tank or tank cap can allow evaporation of the acid and allow for excess moisture to enter the system.

If preference is to drain the system for storage, follow these steps:
1. Turn off the ball valve that is located between the tank and the filter bowl.
2. Disconnect the filter bowl- use a clean bucket to catch any spilling preservative.
3. Place a clean bucket under the spray tips and remove spray tips and tip screens (if equipped).
4. With filter bowl removed, run the pump for a short duration to empty the lines.
5. Replace filter bowl and spray tips once lines are emptied.
6. Pour collected preservative back into the tank or store in a sealed container if tank has been drained.

If other products are used:
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, alcohol based anti-freeze or marine/RV 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.

Additional storage notes:
Disconnect power from the Three Hundred Series (THS) control Box.
Remove display from tractor and store in a warm, dry place.
DO NOT PRESSURE WASH CONTROL BOXES OR MOISTURE SENSORS

Tip Selection

Be sure to change tip output in application setup as needed.

4-25 Ton / Hr (Low Tip Selection)

Tip Color	Tip Part Number	Qty
Red Tips	004-XR11004VS	2
Pink Tips	004-T8004-PT	2

6-31 Ton / HR (Standard Tip Selection)

Tip Color	Tip Part Number	Qty
White Tips	004-XR11008VS	2
Gray Tips	004-T8008-PT	2

*6-56 Ton / Hr (High Tip Selection)

Tip Color	Tip Part Number	Qty
White Tips	004-XR11008VS	4
Gray Tips	004-T8008-PT	4

*High tip output requires extra hardware (not included), part number for the kit is 300RBHTK.

Parts Breakdown

Model 331 Base Kit
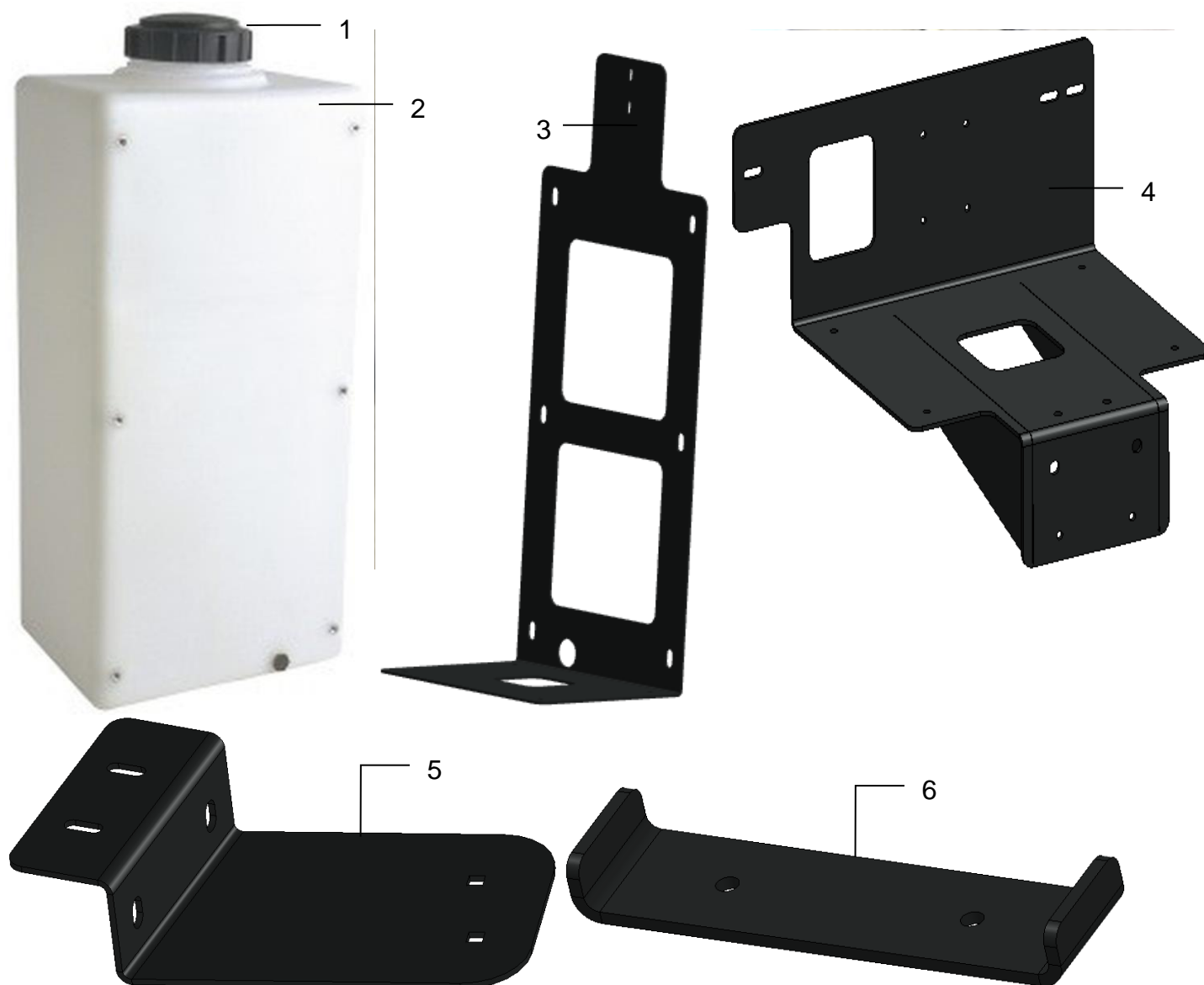
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Tank Cap	005-9022C	1	8	Inside Reach Rod	001-4405	2
2	20 Gallon Tank	005-4705T	1	NP	3/4" Tank Fitting	005-9100	2
3	20 Gal Tank Bracket	001-4705A	1	NP	3/4" Street Fitting	003-SE34	1
4	20 Gal Tank Frame	001-4705B	1	NP	3/4" x 3/4" Elbow	003-EL3434	1
5	20 Gal Platform Bracket	001-4705C	1	NP	Cap Gasket (included)	005-9022CG	1
6	20 Gal Platform Standoff	001-4705D	1	NP	U-Bolt - Small	001-4714UBS	1
7	Outside Reach Rod	001-4404	2				
					Complete Kit	030-0431-TK	

Model 336K Base Kit
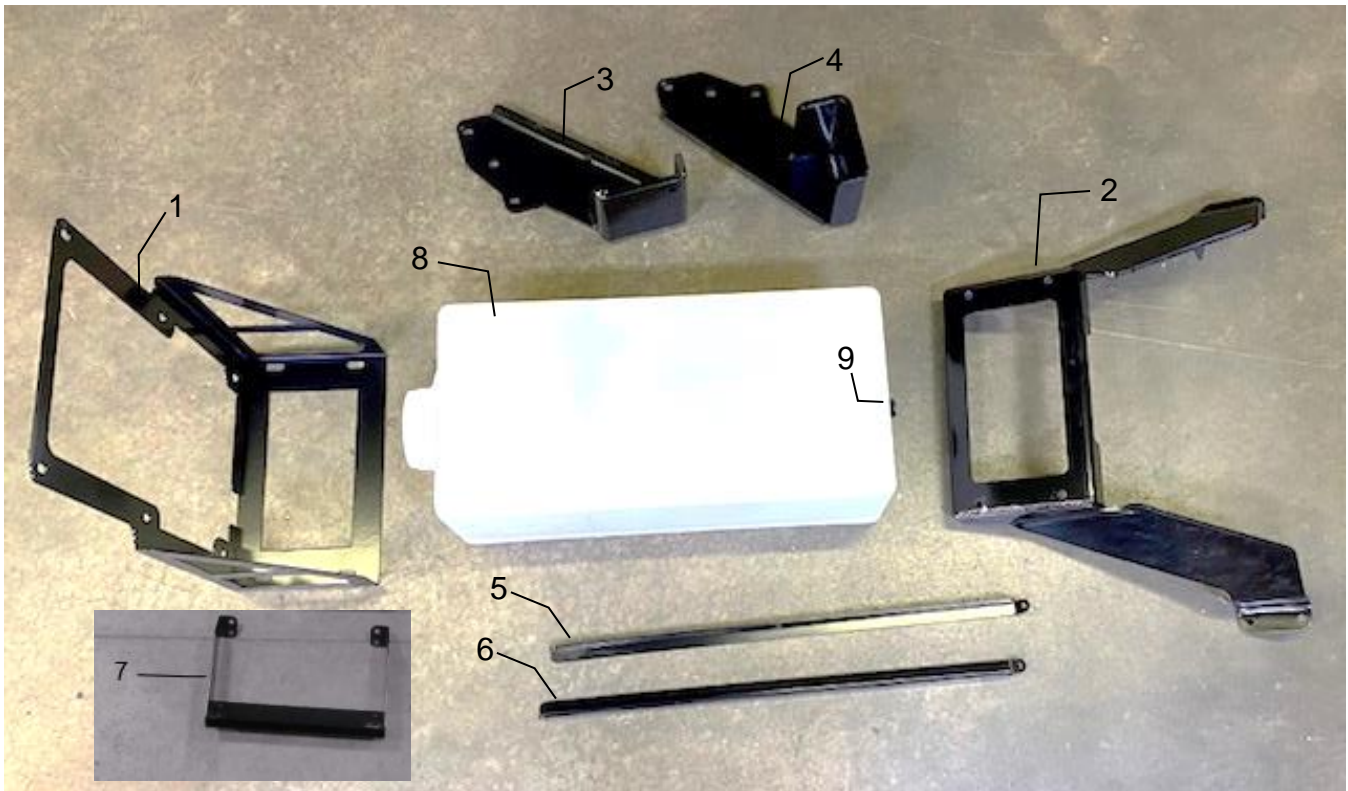
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Tank Bracket	001-4704KA	1	8	20 Gallon Tank	005-4705T	1
2	U-Bracket	001-4704KB	1	9	Tank Fitting	005-9100	2
3	Mounting Bracket LH	001-4704KC	1	NP	Tank Cap	005-9022C	1
4	Mounting Bracket RH	001-4704KD	1	NP	Elbow	003-EL3434	1
5	Support Bracket LH	001-4704KH	1	NP	Street Elbow	003-SE34	1
6	Support Bracket RH	001-4704KI					
7	Toolbox Bracket	001-4704KJ					
					Complete Kit	030-0436K-TK	

Model 338K Base Kit
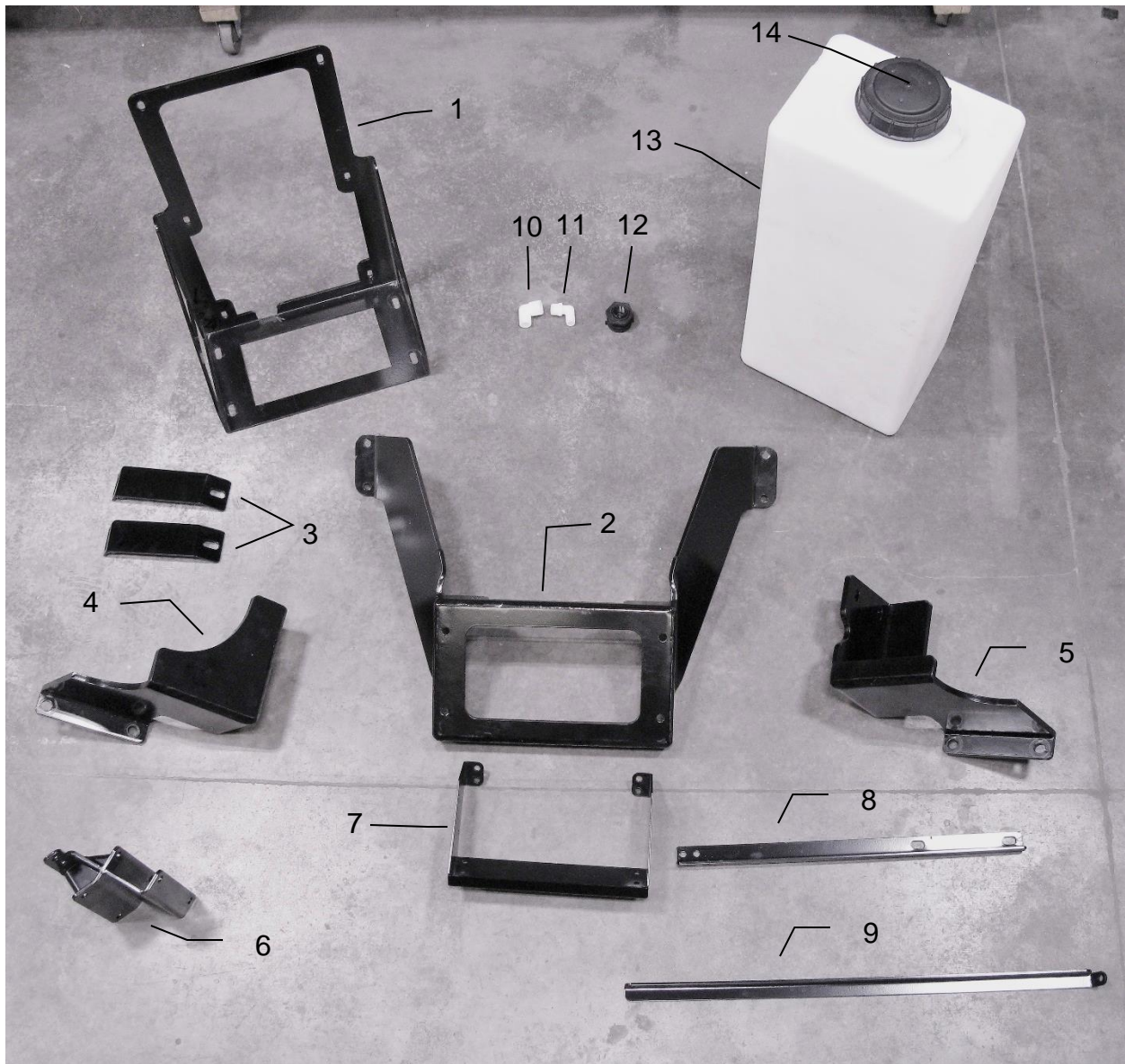
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Tank Bracket (V2)	001-4704KA	1	10	Elbow	003-EL3434	1
2	U-Bracket (V2)	001-4704KB	1	11	Street Elbow	003-SE34	1
3	Frame Mount Stiffener Bracket (V1)	001-4704KS	2	12	Tank Fitting	005-9100	2
4	Mounting Bracket LH (V2)	001-4704KE	1	13	20 Gallon Tank	005-4705T	1
5	Mounting Bracket RH (V2)	001-4704KF	1	14	Tank Cap	005-9022C	1
6	Jack Bracket Assembly (V1)	001-4704KM	1				
7	Toolbox Bracket (V2)	001-4704KJ	1				
8	Support Bracket (V1)	001-4704KG	1				
9	Tank Mount Stiffener Bracket (V1)	001-4704KR	1		Complete Kit	030-0438K-TK	

Model 339K Base Kit
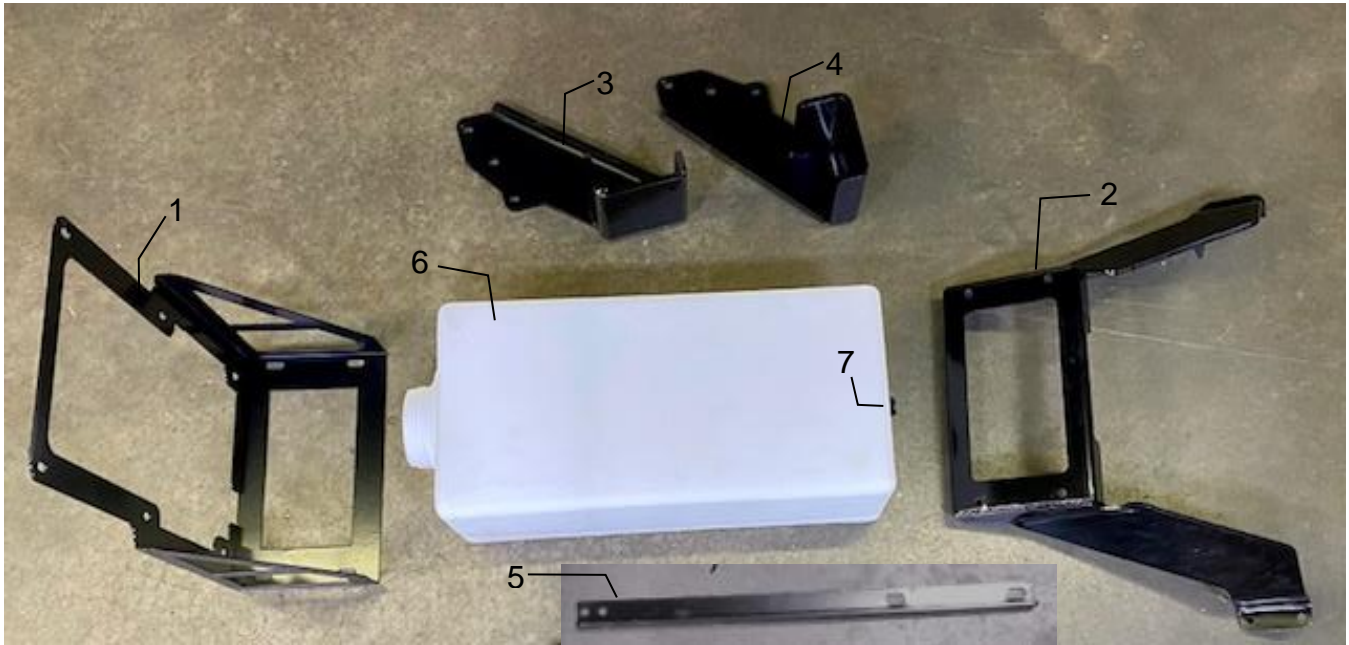
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Tank Bracket	001-4704KA	1	6	20 Gallon Tank	005-4705T	1
2	U-Bracket	001-4704KB	1	7	Tank Fitting	005-9100	2
3	Mounting Bracket LH	001-4704KC	1	NP	Tank Cap	005-9022C	1
4	Mounting Bracket RH	001-4704KD	1	NP	Elbow	003-EL3434	1
5	Support Bracket	001-4704KG	1	NP	Street Elbow	003-SE34	1

Complete Kit   030-0439K-TK

Model 337 Base Kit
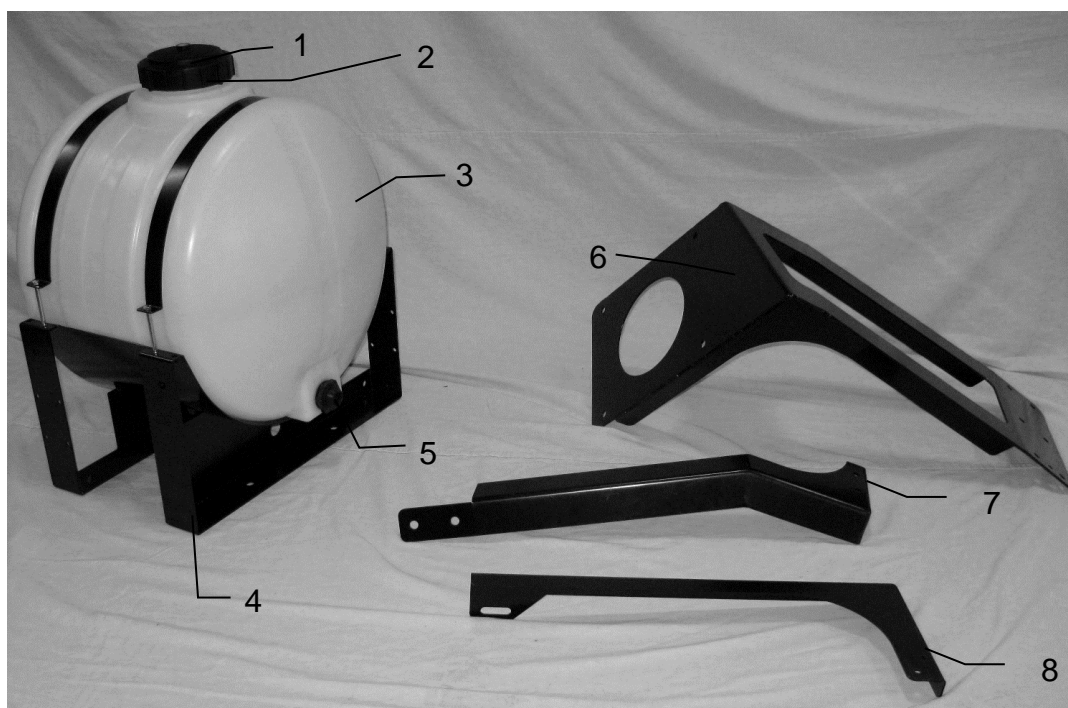
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Tank Cap	005-9022C	1	6	Tank mount bracket	001-4442K	1
	Tank Cap Gasket	005-9022CG	1	7	Tank support	001-4442KD	1
2	Tank Strap	001-4402	2	8	Mounting support	001-4442KE	1
3	Tank	005-9022	1				
4	Saddle	001-4442	1		Tank Saddle Kit (1-5)	030-044225-TK	
5	Tank Fitting	005-9100	1		Mounting Kit (6-8)	TMK-337	

Model 346 Base Kit
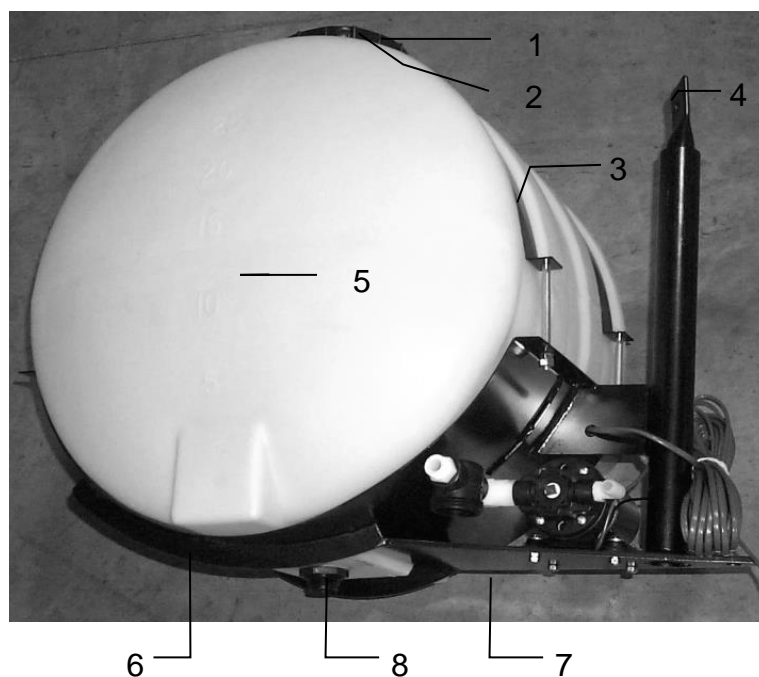
Ref	Description	Part #	Qty
1	Tank Cap	005-9022C	1
2	Tank Cap Gasket	005-9022CG	1
3	Tank Strap	001-4402	2
4	Stub Pipe	001-4403	1
5	Tank	005-9022	1
6	Saddle	001-4401	1
7	Mounting Bracket	001-4647	1
8	Tank Fitting	005-9100	1

*25 Gal Tank Includes Bottom Fitting Only
Tank Saddle Kit   030-0441-TK

Model 347 Base Kit
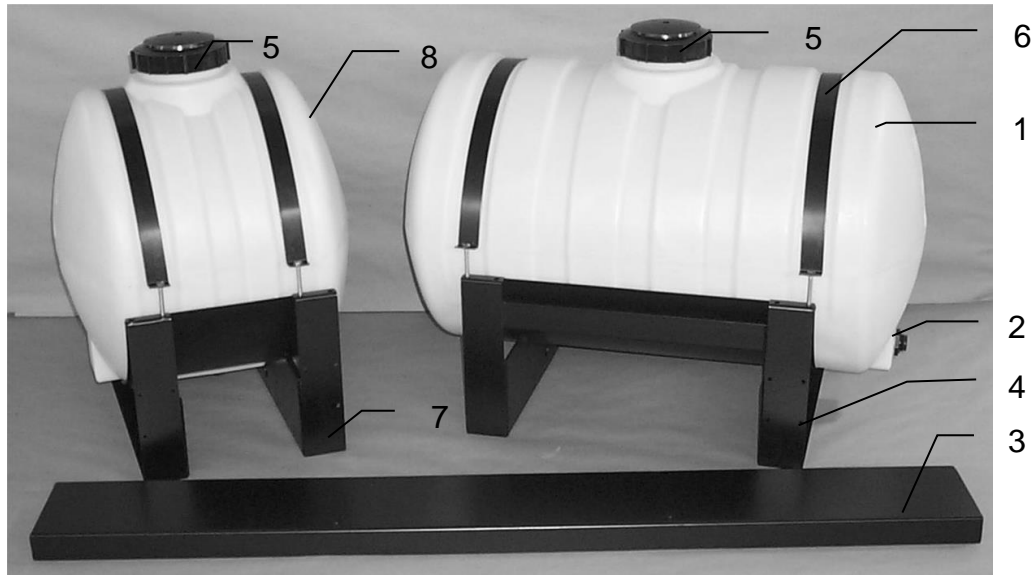
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	55 Gallon tank	005-9203	1	5	Tank lid	005-9022C	1
2	Tank fitting	005-9100	1		Tank lid gasket	005-9022CG	1
3	Cross support bracket	001-4445B	1	6	Tank strap	001-4402	1
4	55 Gallon saddle	001-4445A	1	7	25 Gallon saddle	001-4442	1
				8	25 Gallon tank	005-9022	1

25 Gal Tank Saddle Kit   030-044225-TK (5-8)
55 Gal Tank Saddle Kit   030-044255-TK (1-6)

Model 347U/347UP Base Kit
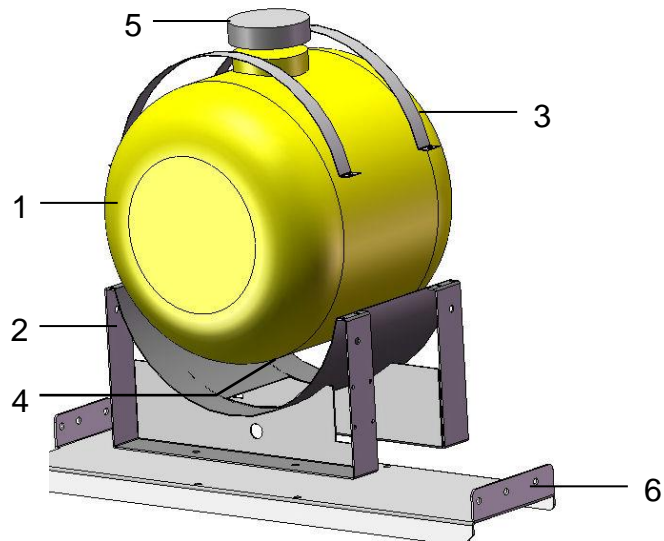
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	25 Gallon tank	005-9022	1	5	Tank lid	005-9022C	1
2	25 Gallon saddle	001-4442	1		Tank lid gasket	005-9022CG	1
3	Strap	001-4402	2	6	Tank mounting bracket	001-4442U	1
4	Tank fitting	005-9100	2		Tank mounting bracket for 450 Roll Belt	001-4442UP	
					Tank Saddle Kit	030-044225-TK (1-5)	

Model 347P Base Kit

Ref	Description	Part #	Qty		Ref	Description	Part #	Qty
1	50 Gallon tank	030-9203SQ	1		7	Tank Support	001-4703XPG	1
2	Tank Strap	001-4402	2		8	Leg Shim	001-4703XS	2
3	Hand Rail	001-6707HRS	1		9	Beacon Bracket	001-4703XBM	1
4	Saddle	001-4703X	1		10	Tank Cap and Gasket	005-9022H	1
5	Left Tank Leg	001-4703XPL	1					
6	Right Tank Leg	001-4703XPR	1			Tank Kit Assembly	030-0447P-TK (1-10)	

Model 347C Base Kit
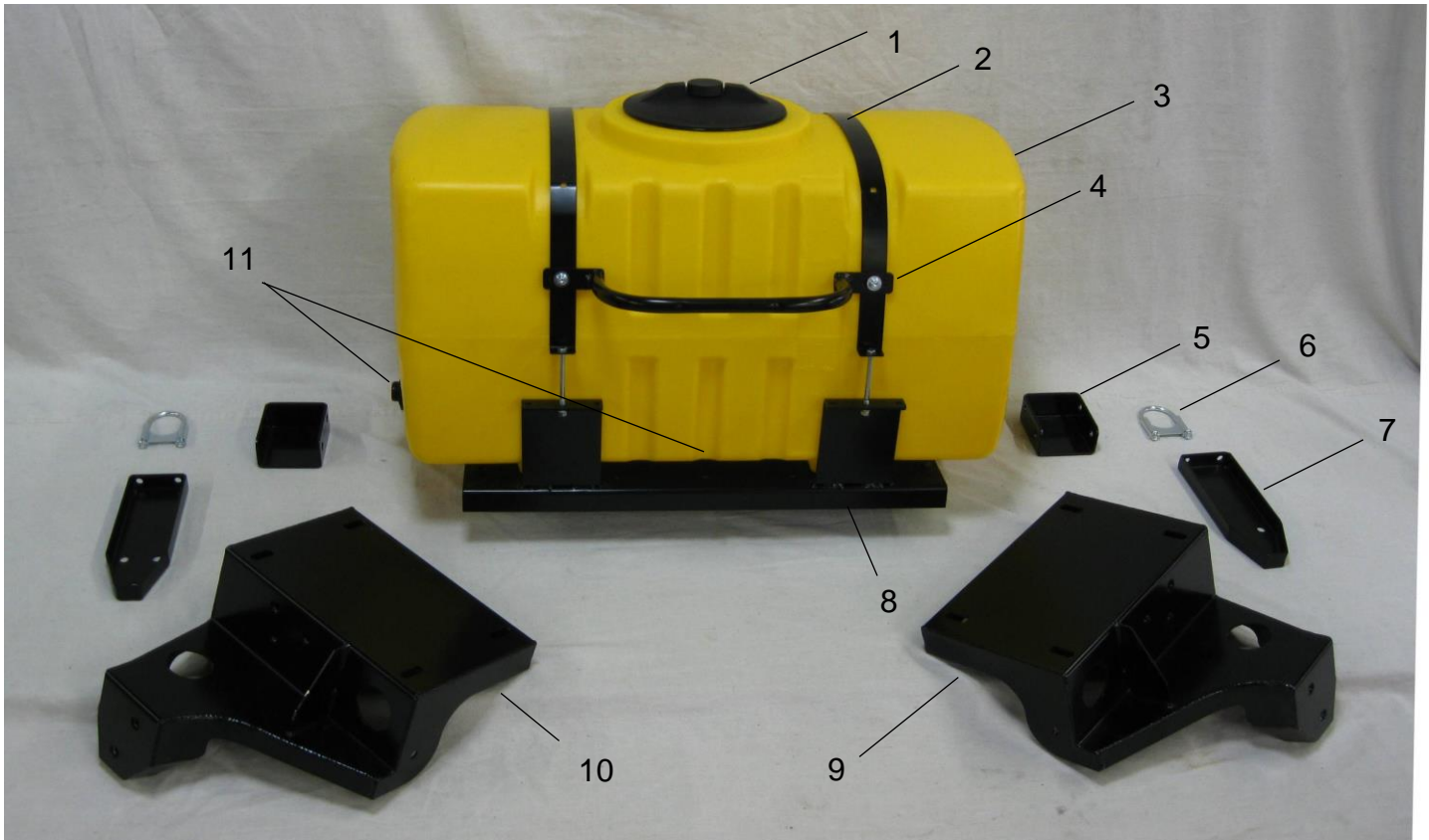
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	55 Gallon tank lid	005-9022H	1	7	Anchor Bracket	001-4703XA	2
2	Strap	001-4402	2	8	Saddle	001-4703X	1
3	Tank	005-9203SQ	1	9	Left Leg	001-4703XL	1
4	Handle	001-6707HRS	1	10	Right Leg	001-4703XR	1
5	Anchor Bracket Ext	001-4703XAX	2	11	Tank fitting	005-9100	2
6	U Clamp	001-4703XAB	2				

Tank Kit Assembly   030-0447C-TK (1-11)

Model 349 Base Kit
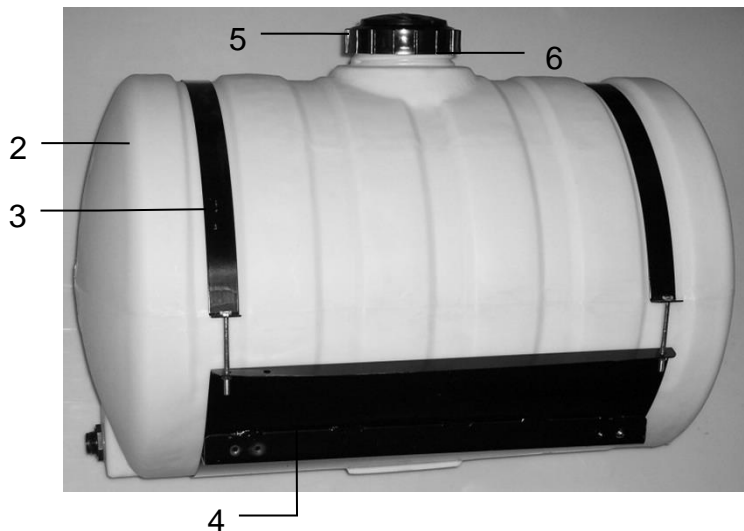
Ref#	Description	Part #	Qty
1	Tank	005-9203	1
2	Straps	001-4402	2
3	Tank Fitting	005-9100	2
4	Saddle	001-4703	1
5	Tank Cap	005-9022C	1
6	Tank Gasket	005-9022CG	1

Tank Saddle Kit   030-0448-TK (1-6)

Parts Breakdown for Pump Assembly

003-RB1214PB
006-4729A
003-M1212F
003-M1212
003-RB3814PB
002-4315-100
002-4566F
003-M1212
003-SE38
003-SE12
003-M3838
007-4120DE
001-4648XL
002-2212
003-EL1212
003-EL3812
001-4648X
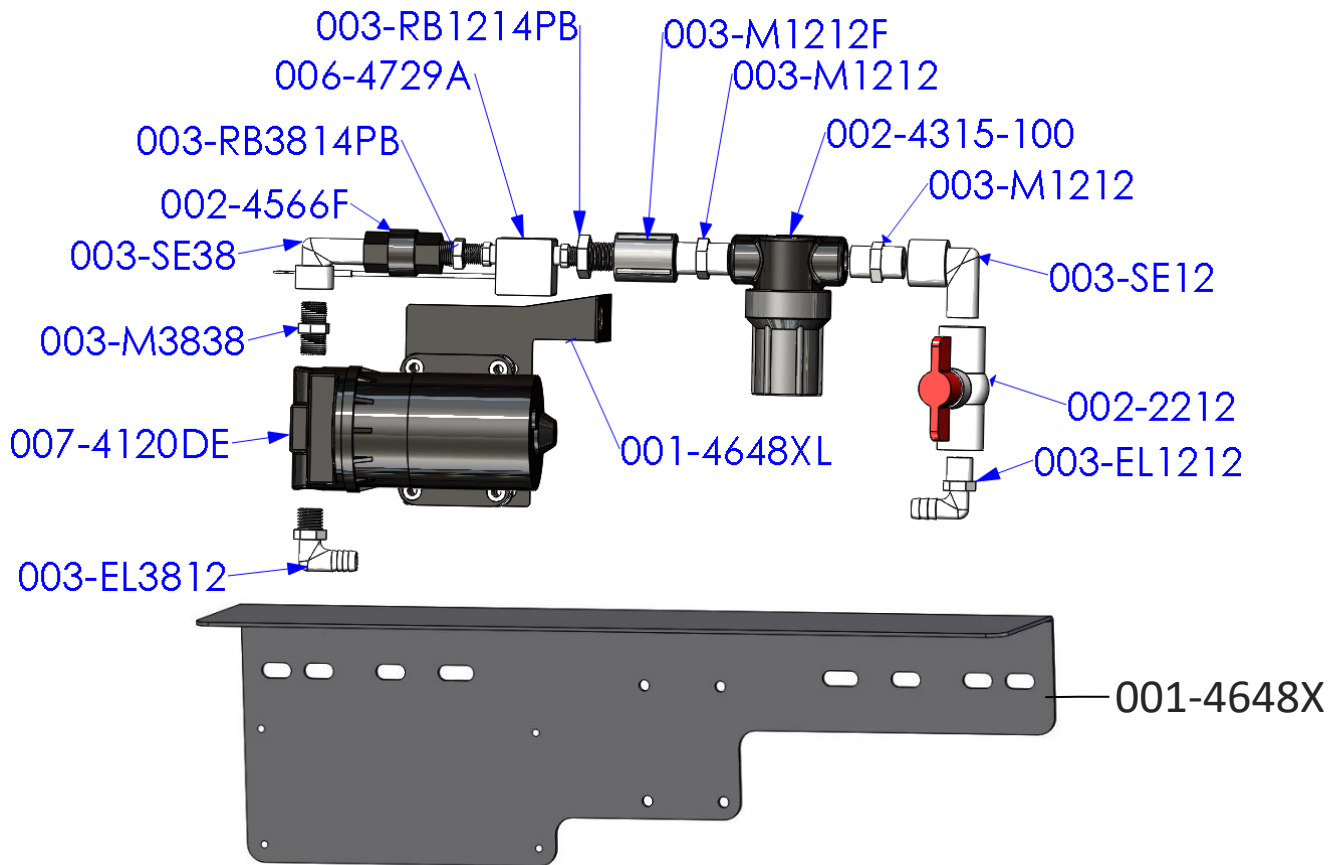
Part#	Description	Qty	Part#	Description	Qty
003-EL3812	3/8"MPT X 1/2"HB Elbow	1	003-M1212	1/2" Union	2
007-4120DE	300 Series Pump	1	002-4315-100	1/2"Line Strainer-100 Mesh	1
003-M3838	3/8" x 3/8" Union	1	003-SE12	1/2" Street Elbow	1
003-SE38	3/8" Street Elbow	1	002-2212	1/2" Ball Valve	1
002-4566F	3/8" 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
006-4729A	Flow Meter – Block Style	1	001-4648X	Pump Plate Mount	1
003-RB1214PB	RB 1/2" x 1/4" Reducer	1	003-A1212	Straight Fitting (Not Pictured)	
003-M1212F	1/2" Coupler	1	003-A3812	Straight Fitting (Not Pictured)	

PMP-0442CMT   347C Pump Plate Mtg kit (*for 347C kit only)

Pump Assembly PMP-3636P (001-4648X Not Included)

Completed Assembly
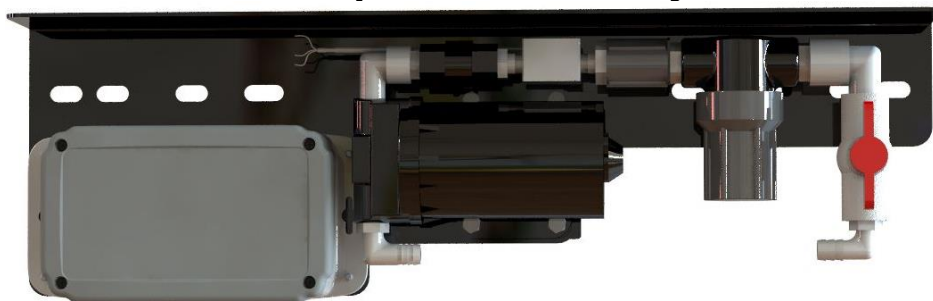
*Note: Due to alternative baler designs, elbow 003-EL3812 can be replaced by straight fitting 003-A3812. As well as elbow 003-EL1212 can be replaced by straight fitting 003-A1212. Both straight fittings are included.

Moisture Sensor and Hoses Parts Breakdown
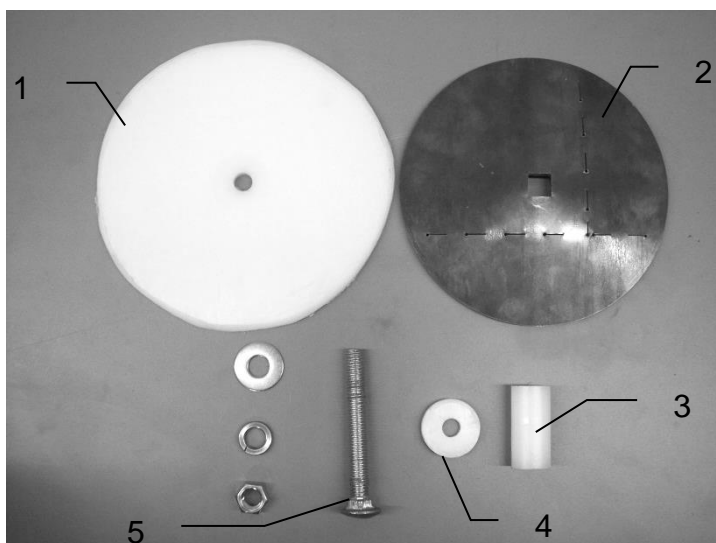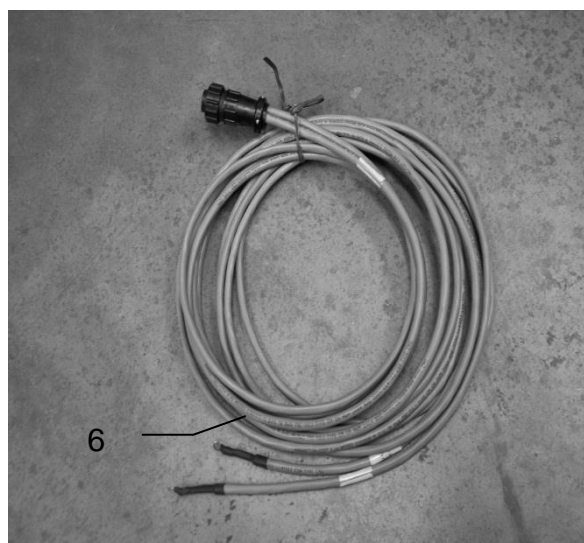
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Plastic Pad	006-4641F	2	4	Plastic Isolator	006-4641I	2
2	Moisture Disc	006-4641H	2	5	1/2X4 1/2" Carriage Bolt		2
3	Plastic Bushing	006-4641G	2	6	Moisture Cable	006-4640G2	1
					Moisture Pad Assembly (Ref 1-5)	030-4643	2
					Complete Assembly (Ref 1-6)	MSH-RB-A	

Moisture Sensor and Hoses Parts Breakdown (347C only)
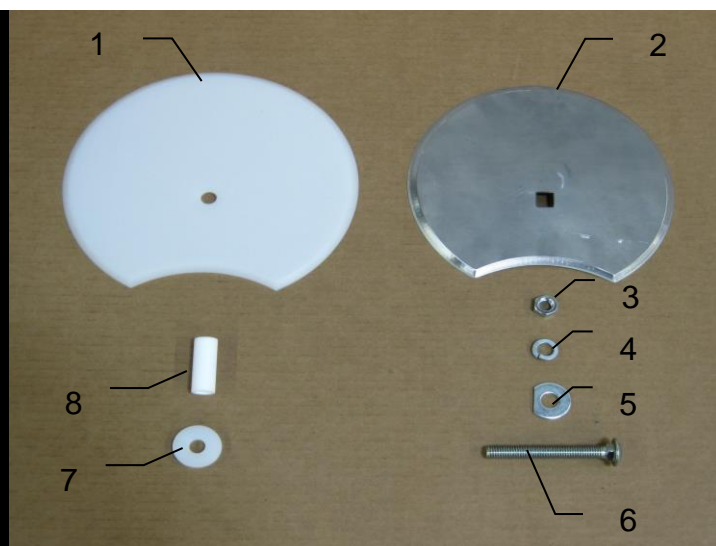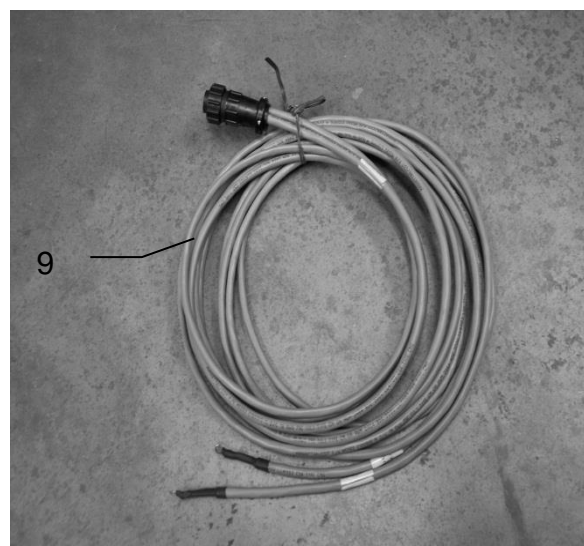
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	RB Isolator	006-4641FX	2	6	1/2" x 4 1/2" Carriage Bolt	Hardware	2
2	RB Moisture Pad	006-4641HX	2	7	Sensor Bushing	006-4641G	2
3	1/2" Nut	Hardware	4	8	Plastic Isolator	006-4641I	2
4	1/2" Lock	Hardware	4	9	Moisture Cable	006-4640GX2	1
5	1/2" D Washer	Hardware	6				
					Moisture Assembly (Ref 1-8)	030-4643C	2
					Complete Assembly (Ref 1-9)	MSH-RB-B	

Control Box and Wiring Harnesses
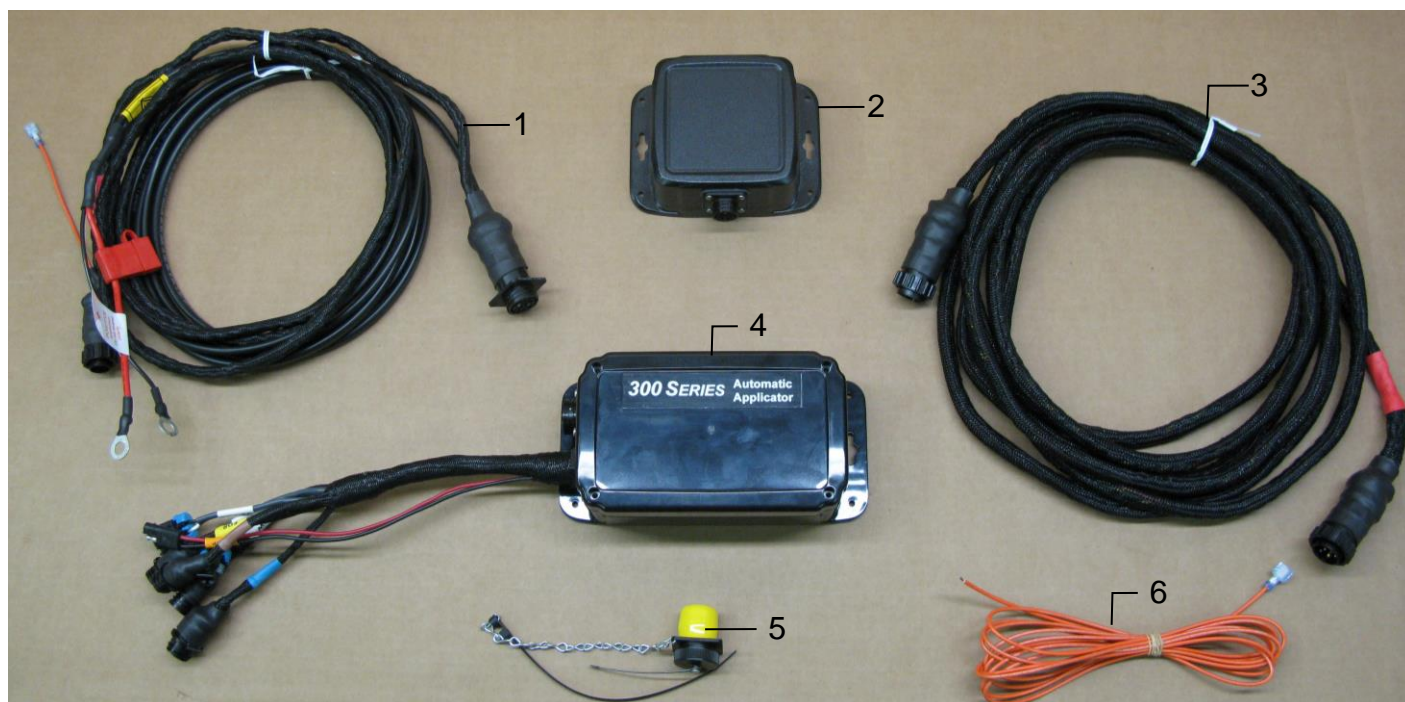
Ref	Description	Part #	Qty
1	Tractor Power Harness	006-3650T	1
2	iPad Integration Control	006-6672C	1
3	Baler Power Harness (20')	006-3650B1	1
4	Control Box	006-3671RB	1
5	Dust Plug Kit	006-5651Plug	1
6	Key Switch Harness	006-5650K	1
NP	USB Cable	006-6672USBC	
	Complete Assembly	030-363CPA	

End of Bale Sensor Kit A
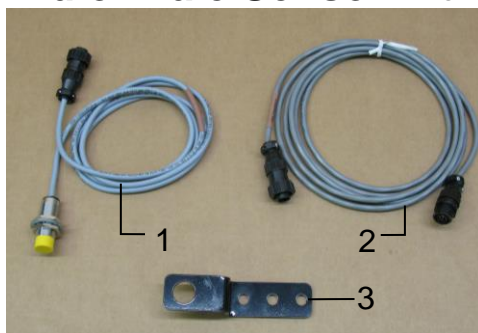
Ref	Description	Part #	Qty
1	End of Bale Sensor	006-7400	1
2	EOB Extension	006-7400EXT	1
3	End of Bale Bracket	001-4648RB	1
	Complete Assembly	EOB-RB-A	

300 Solenoid Packages

1A or 1B
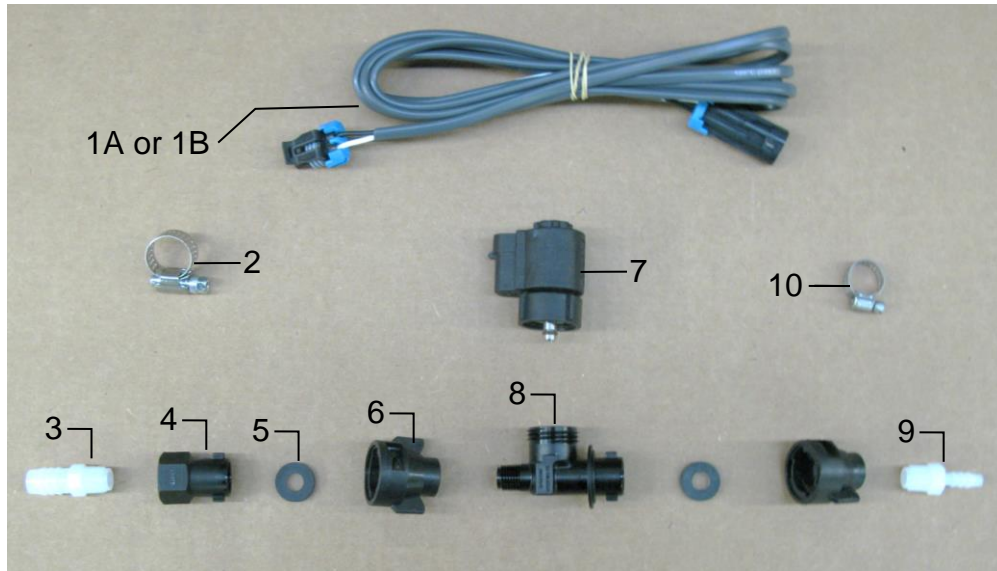
Solenoid Packages

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1A	Solenoid Harness (5')	006-3650-S1		6	1/4" Female Disconnect	004-1207H	2
1B	Solenoid Harness (10')	006-3650-S2		7	Solenoid	002-2203F	1
2	#6 Hose Clamp	003-9003	1	8	Solenoid Valve Body	004-1207VF	1
3	1/4"x1/2" Straight Fitting	003-A1412	1	9	1/4" x 1/4" Straight Fitting	003-A1414	1
4	1/4" Female Connector	004-1207G	1	10	Mini Hose Clamp	003-9002	1
5	Rubber Washer	004-1207W	2				

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

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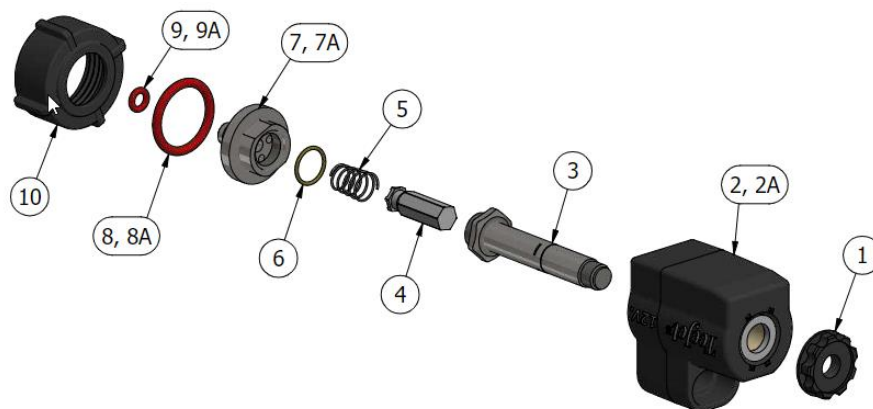
To clean solenoid valves:
The Center Section can be removed from Housing #2 by loosening #1 from #3. Once removed, use wrenches on components #3 and #7 and gently turn to loosen and separate. Soak parts #3-10 in warm soapy water, clean with a soft bristle brush, rinse with clean water to remove buildup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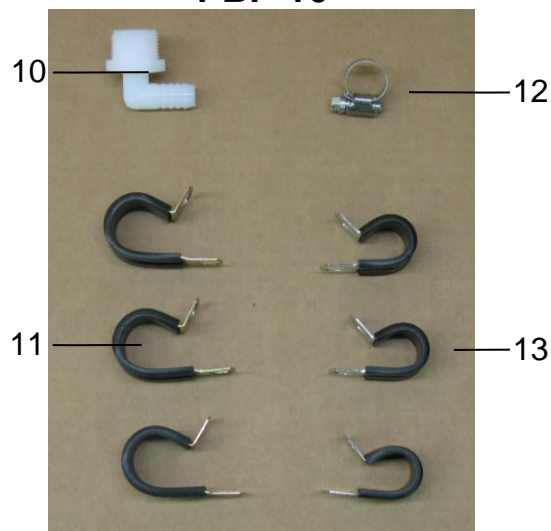
Parts Bag Packages

PBA-1
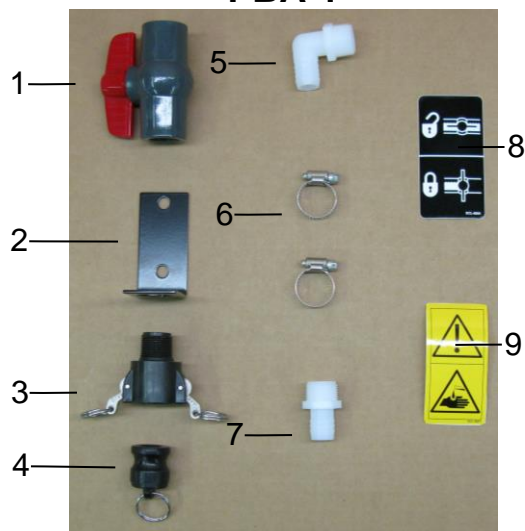
Ref	Description	Part #	Qty
1	3/4" Ball Valve	002-2200	1
2	Valve Holder	001-6702H	1
3	Female Coupler	002-2204A	1
4	Male Shut-Off Plug	002-2205G	1
5	3/4" x 3/4" Elbow	003-EL3434	1
6	#10 Hose Clamp	003-9004	2
7	3/4" x 3/4" Straight Fitting	003-A3434	1
8	Valve Decal	DCL-8004	1
9	Chemical Hazard Decal	DCL-8001	1

Complete Drain Fill Kit   030-0493DFK
(1-9 and 10' of 3/4" hose)

PBP-16

Ref	Description	Part #	Qty
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

PBP-12
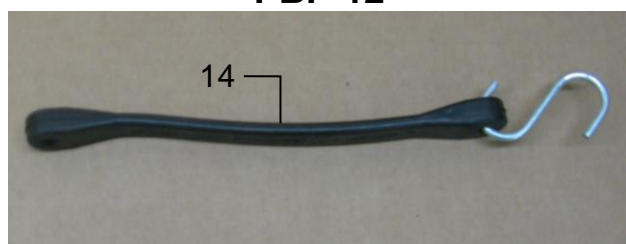
Ref	Description	Part #	Qty
14	Door Latch	001-4703CL	1

PBP-17
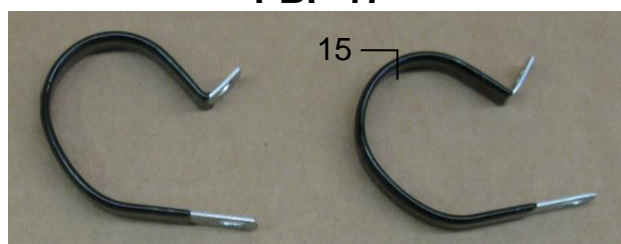
Ref	Description	Part #	Qty
15	Vinyl Clamp	008-9013	1

Hoses

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

Optional High Output Kit (300RBHTK)
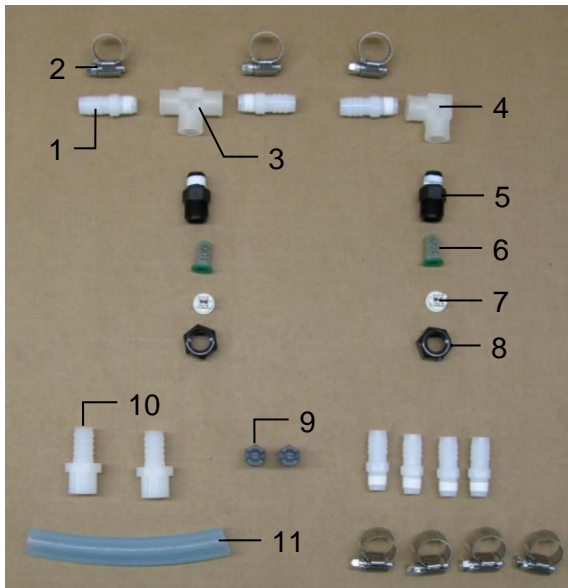
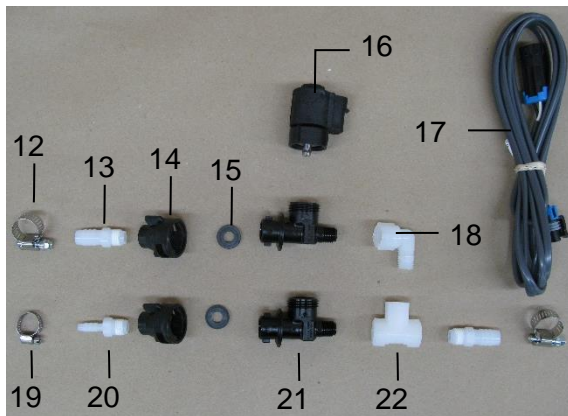| Ref	Description	Part #	Qty
1	1/4" x 1/2" Straight Fitting	003-A1412	7
2	#6 Hose Clamp	003-9003	7
3	1/4" Tee	003-TT14SQ	1
4	1/4" Sq Elbow	003-SE14F	1
5	Nozzle Body	004-4722	2
6	Tip Screens	004-1203-100	2
7	High Output Tip – White	004-XR11008VS	2
8	Nozzle Body Cap	004-4723	2
9	High Output Tip – Grey	004-T8008-PT	2
10	1/4" x 1/2" Sq Fitting	003-A1412F	2
11	1/2" Hose	002-9001	6ft

* Tip color subject to change

High Output Solenoid
(Included with 300RBHTK Kit)

Ref	Description	Part #	Qty
12	#6 Hose Clamp	003-9003	2
13	1/4" x 1/2" Straight Fitting	003-A1412	2
14	Female Quick Coupler	004-1207H	2
15	Rubber Washer	004-1207W	1
16	Solenoid	002-2203F	1
17	Solenoid Harness (10')	006-3650-S2	1
18	1/4" Street Elbow	003-SE14	1
19	Mini Hose Clamp	003-9002	1
20	1/4" x 1/4" Straight Fitting	003-A1414	1
21	Solenoid Check Valve	004-1207VF	2
22	1/4" Tee	003-TT14	1

Optional iPad Display Kit (030-4670DK)
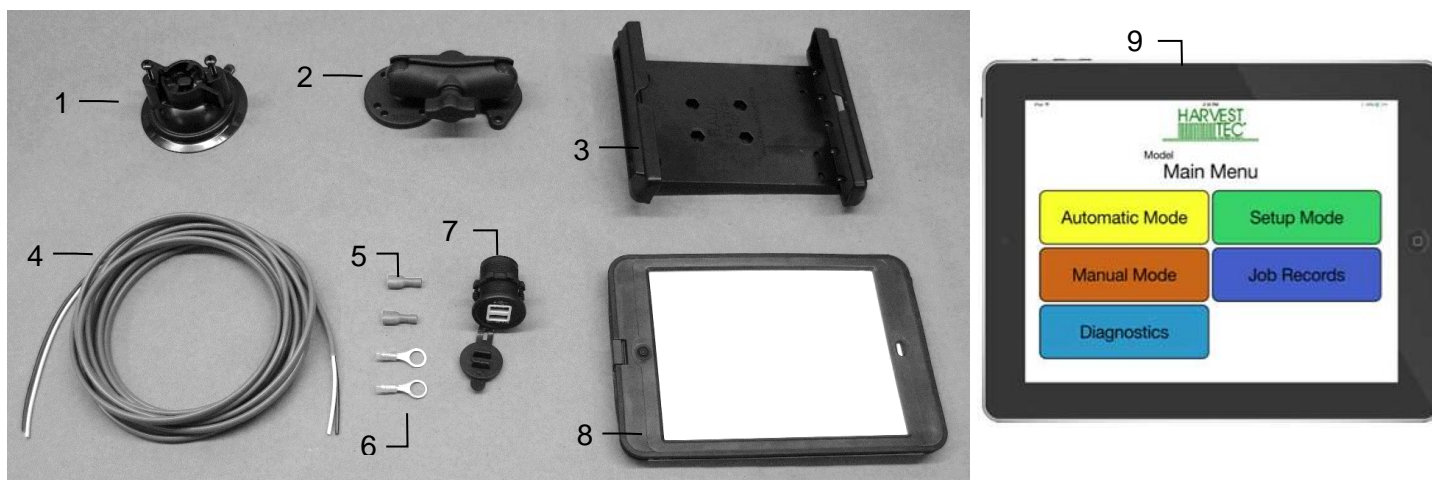
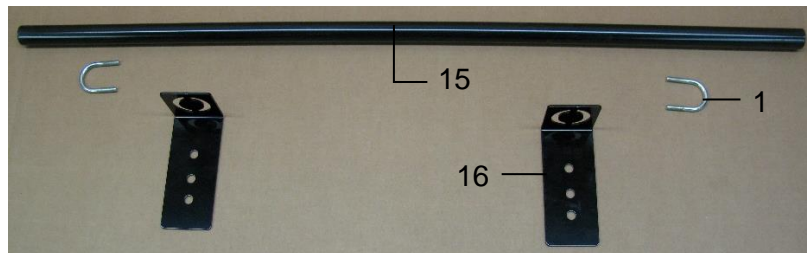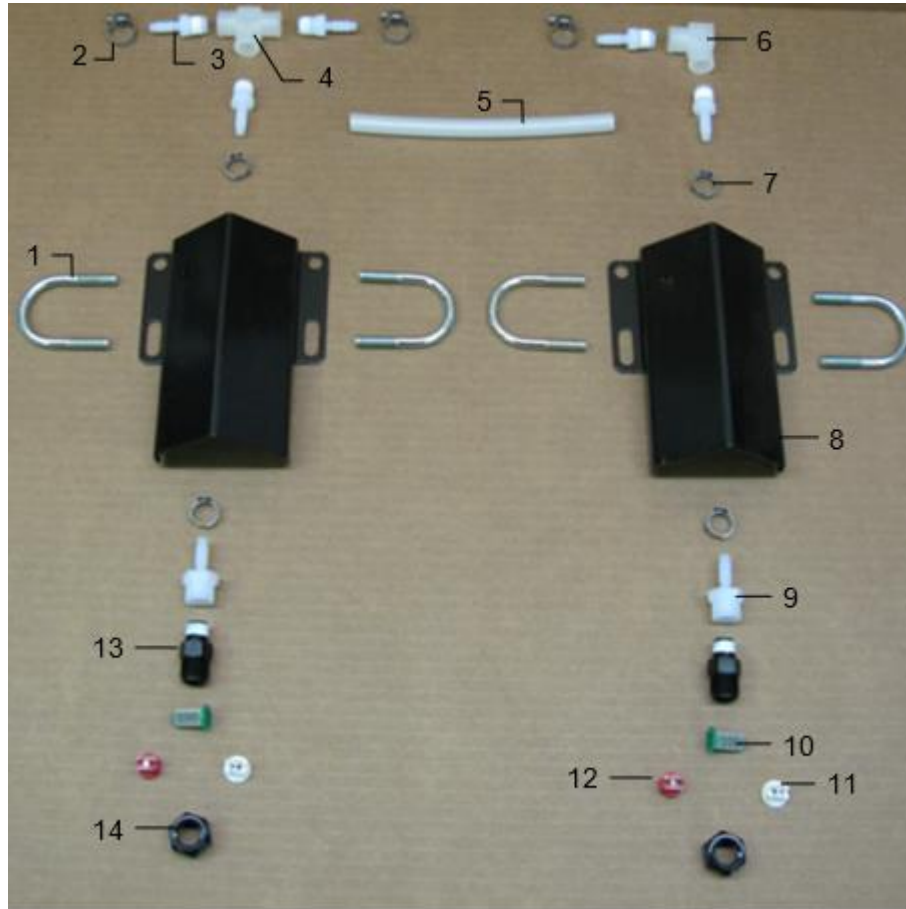| Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Suction cup mount	001-2012SCM	1	7	iPad Mini Charger 12V	001-2012P	1
2	Ram mount	001-2012H	1	8	iPad Mini 4 case	001-2012C4	1
3	iPad Mini spring load cradle (Mini 4)	001-2012SLC	1	9	iPad Mini 4	006-4670IP	1
4	Power Harness	006-4723P	1	NP	4 amp fuse	Hardware	1
5	Female spade connector	Hardware	2		Complete iPad Display Kit	030-4670DK (Includes All Parts)	
6	Eye loop connector	Hardware	2		Mounting Kit Only	030-2014MK (Parts 1-8)	

Installation Instructions

1. Identify 12V power source for wires to connect.
2. Eye loops included if wiring directly to the battery is desired.
3. Test for key power source if preferred to have power to the USB shut off with the key.
4. Once power source is identified, cut wires to desired length.
5. Crimp the two supplied quick connectors onto the white and black wire.
6. Remove the round locking plastic nut from USB plug before connecting the wires. Black (+) White (-).
7. The wires will then be hooked to the designated terminals on the bottom of the USB plug
8. Drill a 1 1/8" hole in the preferred mounting location. Be sure to clean any sharp edges after drilling.
9. Feed the wires through the mounting hole.
10. 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.
11. Connect the wires to the identified power source if easier to do so before tightening the plug into place.
12. Tighten plug using either the round plastic nut or mounting plate and two screws, both options supplied.
13. 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.

336K & 339K Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	13	Nozzle Body	004-4722	2
2	Hose clamp	003-9002	3	14	Nozzle Cap	004-4723	2
3	1/4" x 1/4" Fitting	003-A1414	5	15	Univ Nozzle Tube Holder	001-4703TH	1
4	1/4" Sq Tee	003-TT14SQ	1	16	Univ Nozzle Mount	001-4703TP	2
5	Hose	002-9016	4ft				
6	1/4" St Elbow	003-SE14F	1				
7	Oetiker Clamp	003-9008	4		Shield Only (Ref 1-11)	030-4714JS-SO	
8	Nozzle Holder	001-4714JS	2		Shield Mounting Kit (25-26)	SMK-UNIV-PIPE	
9	1/4" x 1/4" Fitting	003-A1414F	2		Complete Assembly	030-0336K-SO	
10	Tip Strainer	004-1203-100	2				
11	Tip – White	004-XR11008VS	2				
12	Tip - Red	004-XR11004VS	2				

 * Tip color subject to change

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338K Installation Kit
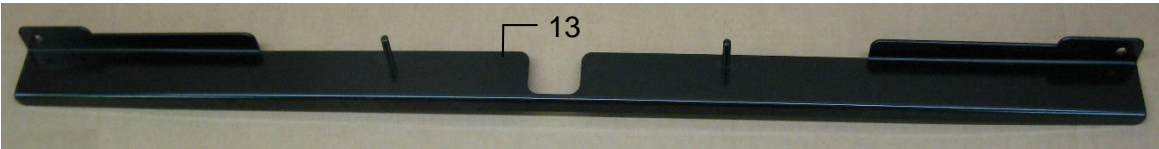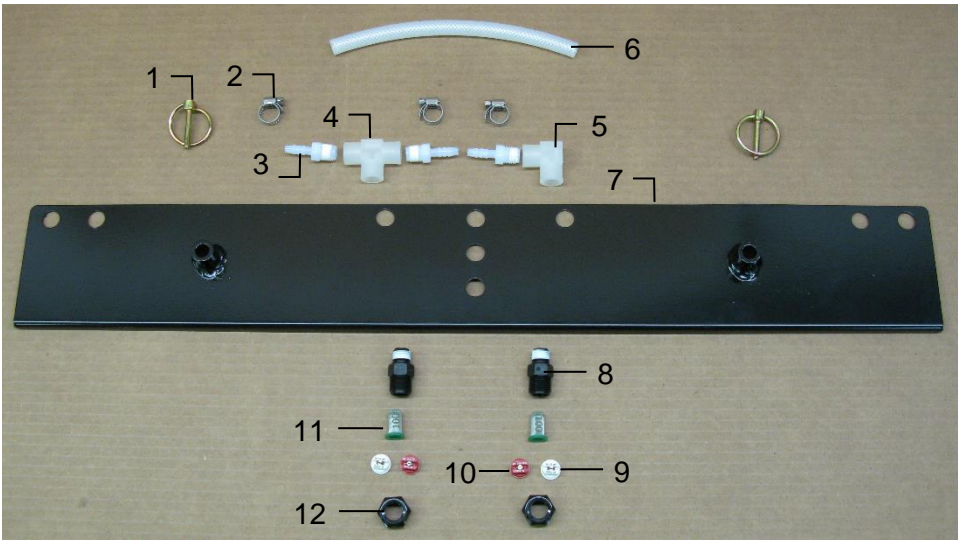
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Lynch Pin	008-4576	2	9	Tip – White	004-XR11004VS	2
2	Mini Hose Clamp	003-9002	3	10	Tip – Red	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	3	11	100 Mesh Strainer	004-1203-100	2
4	1/4" Tee Sq	003-TT14SQ	1	12	Nozzle Cap	004-4723	2
5	1/4" Female St Elbow	003-SE14F	1	13	Spray Shield Holder	001-4704E2	1
6	1/4" Braided Hose	002-9016	2ft				
7	Spray Shield	001-4703GK	1		Complete Assembly	030-0337-SO	
8	Nozzle Body	004-4722	2		* Tip color subject to change		

337-SO Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Lynch Pin	008-4576	2	9	Tip – Red	004-XR11004VS	2
2	Mini Hose Clamp	003-9002	3	10	Tip – White	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	3	11	100 Mesh Strainer	004-1203-100	2
4	1/4" Tee Sq	003-TT14SQ	1	12	Nozzle Cap	004-4723	2
5	1/4" Female St Elbow	003-SE14F	1	13	Spray Shield Holder	001-4704E2	1
6	1/4" Braided Hose	002-9016	2ft				
7	Spray Shield	001-4703GK	1				
8	Nozzle Body	004-4722	2				

* Tip color subject to change   Complete Assembly   030-0337-SO

34725-SO Spray Shield Assembly
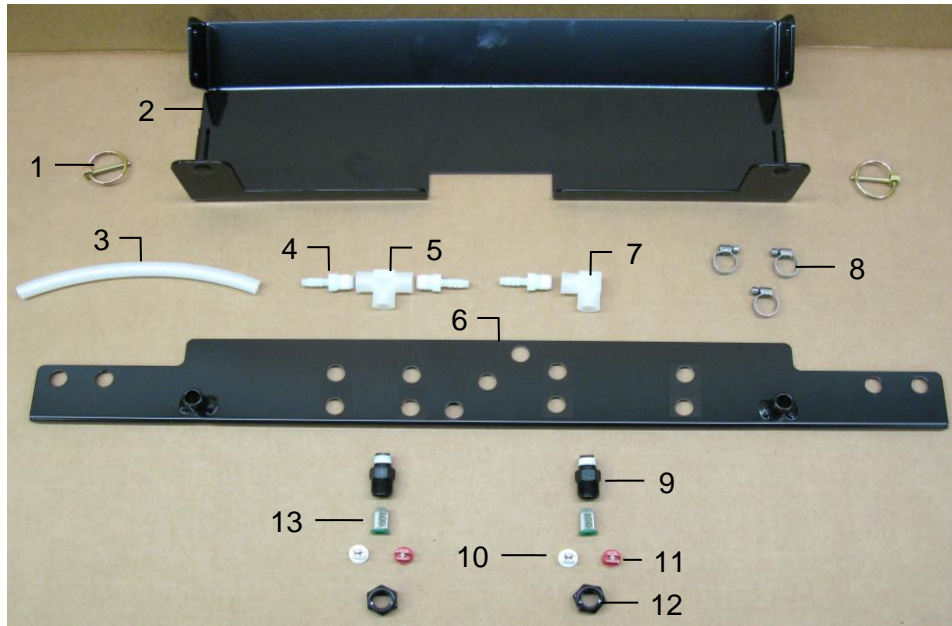
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	3/16" Lynch Pin	008-4576	2	8	Hose clamp	003-9002	3
2	Shield bracket	001-4810BRH	1	9	Nozzle body	004-4722	2
3	Hose	002-9016	2 ft	10	Tip – White	004-XR11008VS	2
4	Straight fitting	003-A1414	3	11	Tip – Red	004-XR11004VS	2
5	Tee	003-TT14SQ	1	12	Nozzle cap	004-4723	2
6	Spray shield	001-4810B	1	13	Tip strainer	004-1203-100	2
7	1/4" Female Elbow	003-SE14F	1				

* Tip color subject to change   Complete Assembly   030-034725-SO

347C-SO Installation Kit
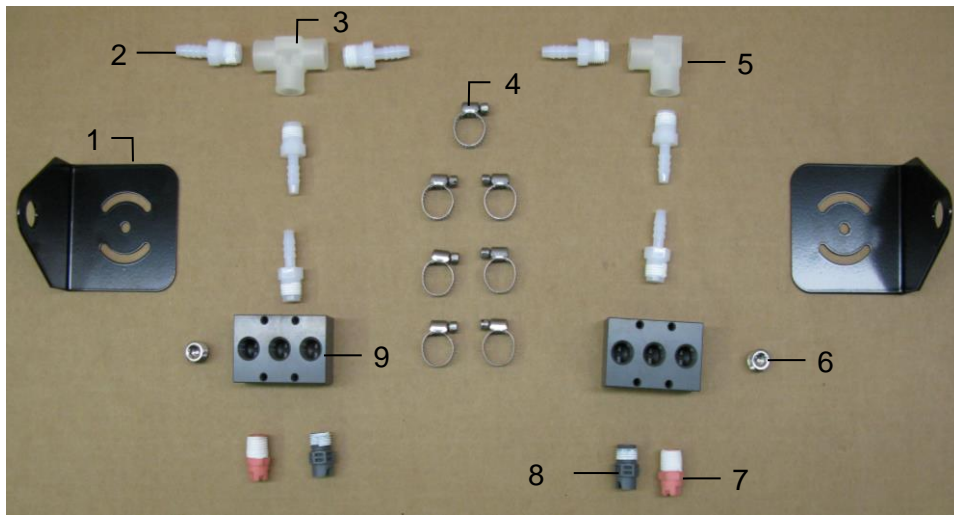
Ref	Description	Part #	Qty		Ref	Description	Part#	Qty
1	Spray Block Holder	001-4703XD	2		6	Plug Allen SS	003-F14A	2
2	1/4" x 1/4" Straight Fitting	003-A1414	5		7	Tip – Pink	004-T8004-PT	2
3	1/4" Sq Tee	003-TT14SQ	1		8	Tip - Grey	004-T8008-PT	2
4	Mini Hose Clamp	003-9002	6		9	Spray Shield Manifold	001-4435NSB	1
5	1/4" Female Street Elbow	003-SE14F	1					

* Tip color subject to change

Complete Assembly   030-0347C-SO

347P-SO Installation Kit
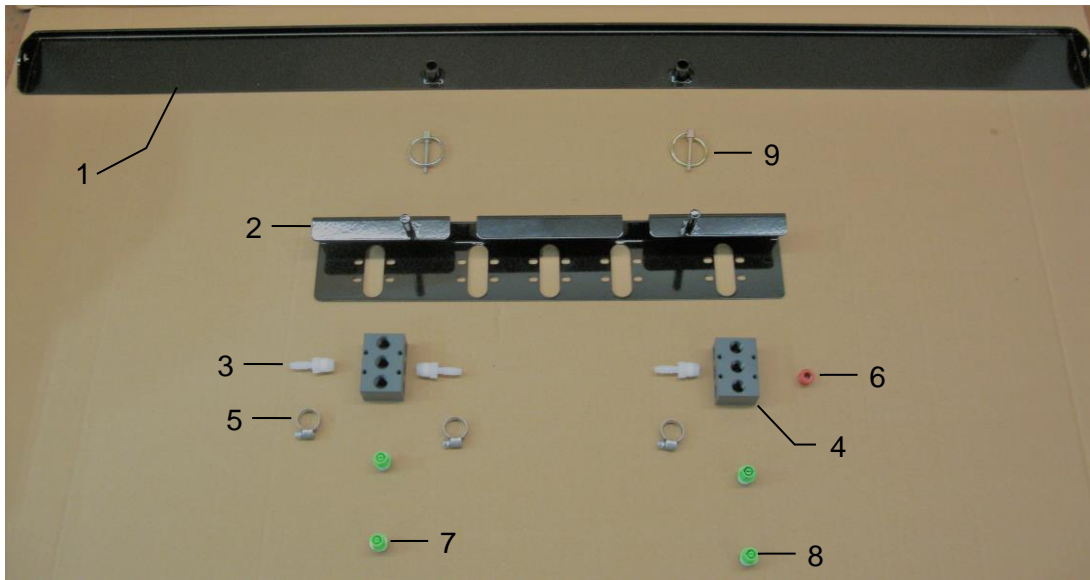
Ref	Description	Part #	Qty	Ref	Description	Part#	Qty
1	Spray Sheild Holder	001-4435NCP	1	6	Plug Allen SS	003-F14A	1
2	Spray Sheild	001-4435NSX	1	7	Tip – Green	004-T8004-PT	2
3	1/4" x 1/4" Straight Fitting	003-A1414	3	8	Tip - Green	004-T8008-PT	2
4	Spray Shield Manifold	001-4435NSB	2	9	Pin Lynch 3/16	008-4576	2
5	Mini Hose Clamp	003-9002	3				

* Tip color subject to change

Complete Assembly   030-0347P-SO

347U/347UP-SO Installation Kit
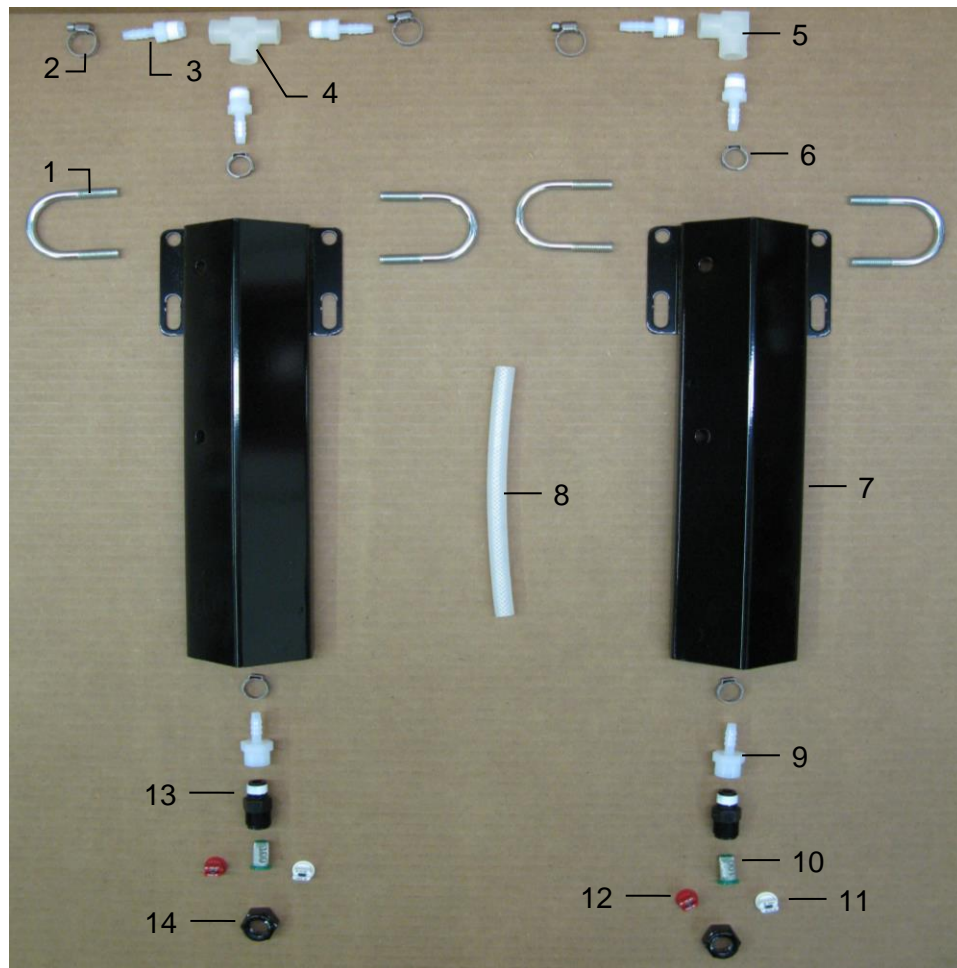
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	11	Tip – White	004-XR11008VS	2
2	Hose clamp	003-9002	4	12	Tip – Red	004-XR11004VS	2
3	1/4"MPT x 1/4" HB	003-A1414	5	13	Nozzle Body	004-4722	2
4	1/4" Sq Tee	003-TT14SQ	1	14	Nozzle Cap	004-4723	2
5	1/4" Female St Elbow	003-SE14F	1	NP	477 Jiffy Clip	008-9014	2
6	Oetiker Clamp	003-9008	4				
7	Nozzle Holder	001-4714J	2		* Tip color subject to change		
8	Hose	002-9016	3 ft				
9	1/4" x 1/4" Fitting	003-A1414F	2		Complete Assembly	030-4714J-SO	
10	Tip Strainer	004-1203-100	2				

4481C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	6	11	Tip – White	004-XR11008VS	2
2	Hose clamp	003-9002	2	12	Tip – Red	004-XR11004VS	2
3	1/4" x 1/4" Fitting	003-A1414	5	13	Nozzle Body	004-4722	2
4	1/4" Sq Tee	003-TT14SQ	1	14	Nozzle Cap	004-4723	2
5	1/4" Female St Elbow	003-SE14F	1	15	Side Tank Support	001-4704MAK	2
6	Oetiker Clamp	003-9008	4	16	Tank Support	001-4704MK	1
7	Nozzle Holder	001-4714J	2	17	Nozzle holder	001-4703TP	1
8	Hose	002-9016	3 ft	18	Pipe Holder	001-4703TH	2
9	1/4" x 1/4" Fitting	003-A1414F	2	NP	477 Jiffy Clip	008-9014	2
10	Tip Strainer	004-1203-100	2				

* Tip color subject to change

Shield Only (Ref 1-14)   030-4714J-SO
Tank Mount (Ref 15-16)   TMK-4481
Pipe Kit (Ref 17-18)   SMK-UNIV-PIPE
Complete Assembly   030-4481C

4482C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	6	10	Tip Strainer	004-1203-100	2
2	Hose clamp	003-9002	2	11	Tip – White	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	5	12	Tip – Red	004-XR11004VS	2
4	1/4" Sq Tee	003-TT14SQ	1	13	Nozzle Body	004-4722	2
5	1/4" Female St Elbow	003-SE14F	1	14	Nozzle Cap	004-4723	2
6	Oetiker Clamp	003-9008	4	15	Mounting Bracket	001-4704MAK	2
7	Nozzle Holder	001-4714	2	16	Front Mount Plate Pro	001-4703VZ	1
8	Hose	002-9016	3 ft	17	Top Support	001-4704MRF	1
9	1/4" x 1/4" Fitting	003-A1414F	2	NP	477 Jiffy Clip	008-9014	2

* Tip color subject to change

Shield Only (Ref 1-14)   030-4714-SO
Tank Mount Kit (Ref 15-16)   TMK-4482
Complete Assembly   030-4482C

4483C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	6	10	Tip Strainer	004-1203-100	2
2	Hose clamp	003-9002	2	11	Tip – White	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	5	12	Tip – Red	004-XR11004VS	2
4	1/4" Sq Tee	003-TT14SQ	1	13	Nozzle Body	004-4722	2
5	1/4" Female St Elbow	003-SE14F	1	14	Nozzle Cap	004-4723	2
6	Oetiker Clamp	003-9008	4	15	Mounting Bracket	001-4411	1
7	Nozzle Holder	001-4714J	2	16	Tank Bracket Brace	001-4411A	1
8	Hose	002-9016	3 ft	NP	477 Jiffy Clip	008-9014	2
9	1/4" x 1/4" Fitting	003-A1414F	2				

 * Tip color subject to change

Shield Only (Ref 1-14)	030-4714J-SO
Tank Mount Kit (Ref 15-16)	TMK-4483
Complete Assembly	030-4483C

4484C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	10	Tip Strainer	004-1203-100	2
2	Hose clamp	003-9002	2	11	Tip – White	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	5	12	Tip – Red	004-XR11004VS	2
4	1/4" Sq Tee	003-TT14SQ	1	13	Nozzle Body	004-4722	2
5	1/4" St Elbow	003-SE14F	1	14	Nozzle Cap	004-4723	2
6	Oetiker Clamp	003-9008	4	15	Reach Rod – Outside	001-4404	2
7	Nozzle Holder	001-4714J	2	16	Tank Mount Bracket	001-4418	1
8	Hose	002-9016	3 ft	17	Reach Rod - Inside	001-4405	2
9	1/4" x 1/4" Fitting	003-A1414F	2	NP	477 Jiffy Clip	008-9014	2

 * Tip color subject to change

Shield Only (Ref 1-14)   030-4714J-SO
Tank Mount Kit (Ref 15-17)   TMK-4484
Complete Assembly   030-4484C

4486C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	10	Tip Strainer	004-1203-100	2
2	Hose clamp	003-9002	2	11	Tip – White	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	5	12	Tip – Red	004-XR11004VS	2
4	1/4" Sq Tee	003-TT14SQ	1	13	Nozzle Body	004-4722	2
5	1/4" St Elbow	003-SE14F	1	14	Nozzle Cap	004-4723	2
6	Oetiker Clamp	003-9008	4	15	Reach Rod-Outside	001-4405A	2
7	Nozzle Holder	001-4714J	2	16	Tank Mount Bracket	001-4404A	2
8	Hose	002-9016	3 ft	17	Reach Rod-Inside	001-4420	1
9	1/4" x 1/4" Fitting	003-A1414F	2	NP	477 Jiffy Clip	008-9014	2

* Tip color subject to change

Shield Only (Ref 1-14)   030-4714J-SO
Tank Kit (Ref 15-17)   TMK-4486
Complete Assembly   030-4486C
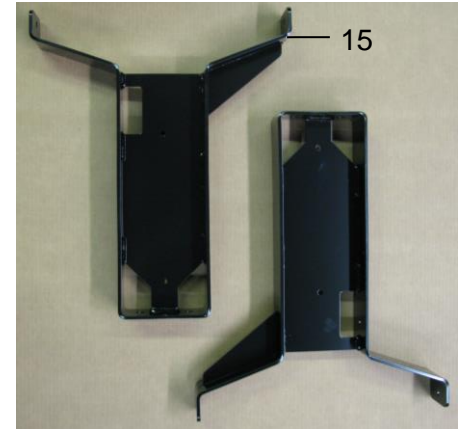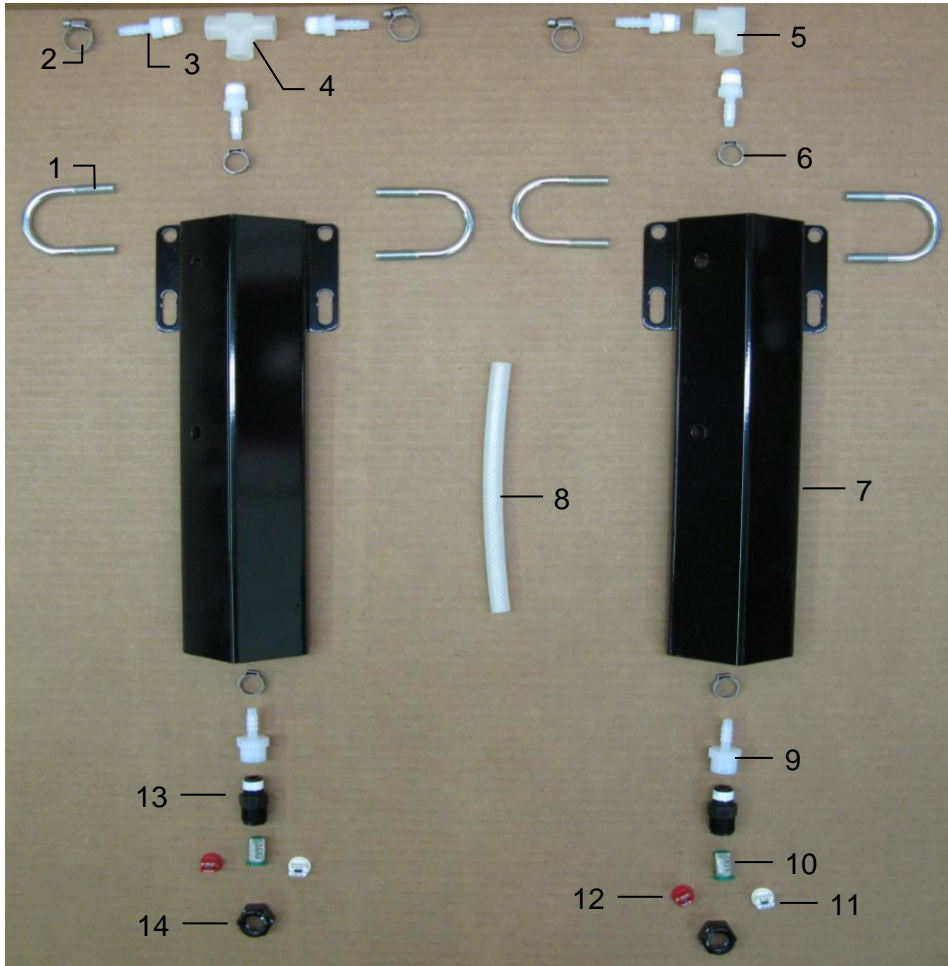
4503C Installation Kit
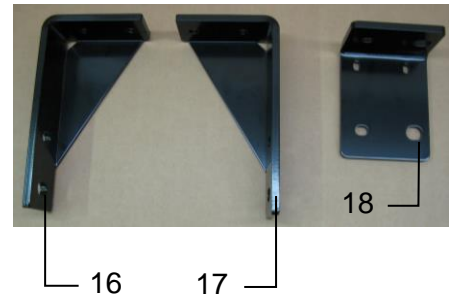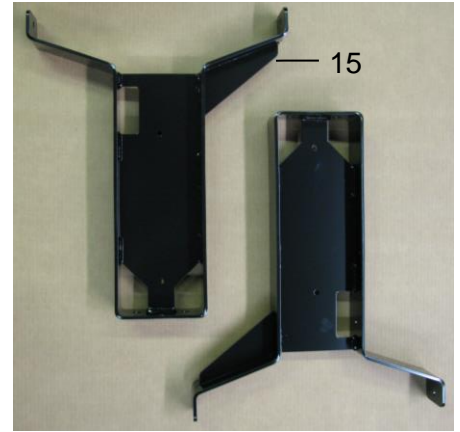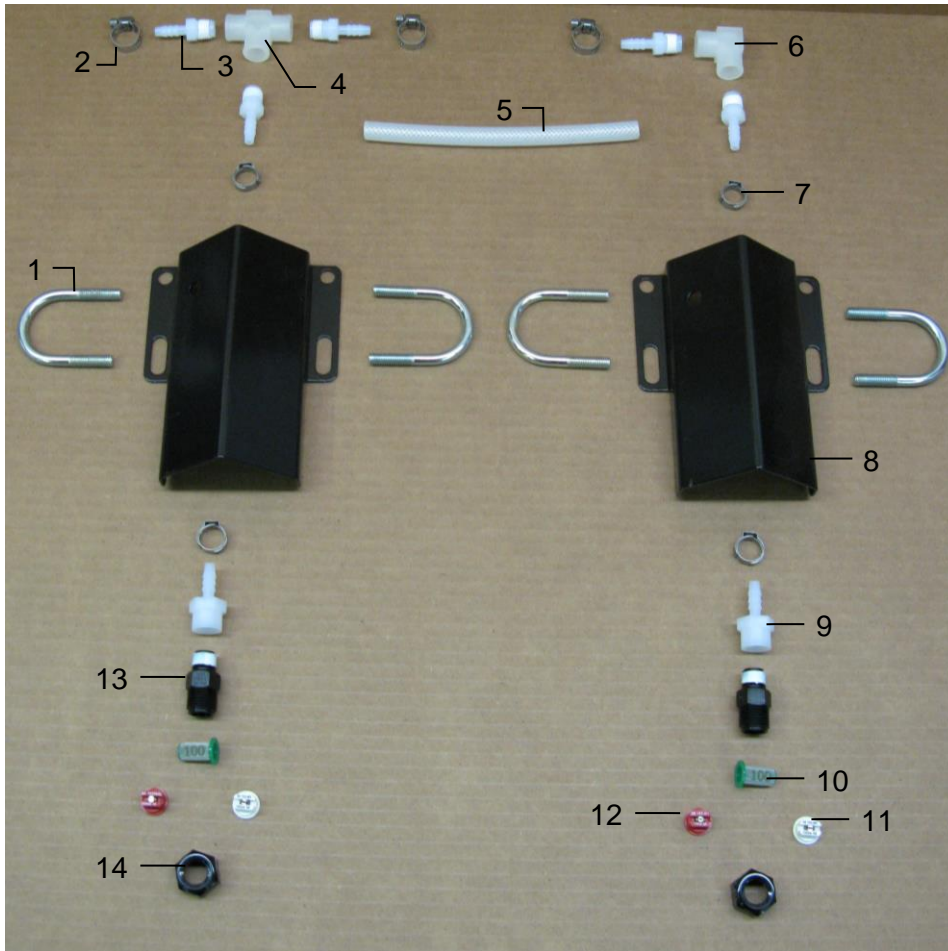
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	10	Tip Strainer	004-1203-100	2
2	Hose clamp	003-9002	3	11	Tip – White	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	5	12	Tip - Red	004-XR11004VS	2
4	1/4" Sq Tee	003-TT14SQ	1	13	Nozzle Body	004-4722	2
5	Hose	002-9016	4ft	14	Nozzle Cap	004-4723	2
6	1/4" St Elbow	003-SE14F	1	15	Tank Leg – Long	001-4703B	2
7	Oetiker Clamp	003-9008	4	16	Left Mounting Bracket	001-4703EL	1
8	Nozzle Holder	001-4714JS	2	17	Right Mounting Bracket	001-4420	1
9	1/4" x 1/4" Fitting	003-A1414F	2	18	Mount Extension	001-4703EXT	1

* Tip color subject to change

Shield Only (Ref 1-15)   030-4714JS-SO
Tank Mount Kit (Ref 16-19)   TMK-4503
Complete Assembly   030-4503C

4504C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	10	Tip Strainer	004-1203-100	2
2	Hose clamp	003-9002	2	11	Tip – White	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	5	12	Tip – Red	004-XR11004VS	2
4	1/4" Sq Tee	003-TT14SQ	1	13	Nozzle Body	004-4722	2
5	1/4" St Elbow	003-SE14F	1	14	Nozzle Cap	004-4723	2
6	Oetiker Clamp	003-9008	4	15	Tank Leg – Long	001-4703B	2
7	Nozzle Holder	001-4714J	2	16	Left Mounting Bracket	001-4703DL	1
8	Hose	002-9016	3ft	17	Right Mounting Bracket	001-4703DR	1
9	1/4" x 1/4" Fitting	003-A1414F	2	NP	477 Jiffy Clip	008-9014	2

* Tip color subject to change

Shield Only (Ref 1-14)   030-4714J-SO
Tank Mount Kit (Ref 15-17)   TMK-4504
Complete Assembly   030-4504C

4505C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	10	Tip Strainer	004-1203-100	2
2	Hose clamp	003-9002	2	11	Tip – White	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	5	12	Tip – Red	004-XR11004VS	2
4	1/4" Sq Tee	003-TT14SQ	1	13	Nozzle Body	004-4722	2
5	1/4" St Elbow	003-SE14F	1	14	Nozzle Cap	004-4723	2
6	Oetiker Clamp	003-9008	4	15	Tank Leg – Long	001-4703FL	1
7	Nozzle Holder	001-4714J	2	16	Left Mounting Bracket	001-4703FR	1
8	Hose	002-9016	3ft	NP	477 Jiffy Clip	008-9014	2
9	1/4" x 1/4" Fitting	003-A1414F	2				

* Tip color subject to change

Shield Only (Ref 1-14)   030-4714J-SO
Tank Mount Kit (Ref 15-16)   TMK-4505
Complete Assembly   030-4505C

4508C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	10	Tip Strainer	004-1203-100	2
2	Hose clamp	003-9002	2	11	Tip – White	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	5	12	Tip – Red	004-XR11004VS	2
4	1/4" Sq Tee	003-TT14SQ	1	13	Nozzle Body	004-4722	2
5	1/4" St Elbow	003-SE14F	1	14	Nozzle Cap	004-4723	2
6	Oetiker Clamp	003-9008	4	15	Tank Leg – Long	001-4703L	1
7	Nozzle Holder	001-4714J	2	16	Left Mounting Bracket	001-4703K	1
8	Hose	002-9016	3ft	NP	477 Jiffy Clip	008-9014	2
9	1/4" x 1/4" Fitting	003-A1414F	2				

* Tip color subject to change

Shield Only (Ref 1-14)   030-4714J-SO
Tank Mount Kit (Ref 15-16)   TMK-4508
Complete Assembly   030-4508C

4512C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Lynch Pin	008-4576	2	9	Tip – Red	004-XR11004VS	2
2	Mini Hose Clamp	003-9002	3	10	Tip – White	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	3	11	100 Mesh Strainer	004-1203-100	2
4	1/4" Tee Sq	003-TT14SQ	1	12	Nozzle Cap	004-4723	2
5	1/4" Female St Elbow	003-SE14F	1	13	Spray Shield Holder	001-4704E2	1
6	1/4" Braided Hose	002-9016	2ft	14	Tank Mount Bracket	001-4418	1
7	Spray Shield	001-4703GK	1	15	Reach Rod – Outside	001-4404	2
8	Nozzle Body	004-4722	2	16	Reach Rod - Inside	001-4405	2

* Tip color subject to change

Shield Only (Ref 1-13)	030-4512C-SO
Tank Mount Kit (Ref 14-16)	TMK-4484
Complete Assembly	030-4512C

4513C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Lynch Pin	008-4576	2	9	Tip – Red	004-XR11004VS	2
2	Mini Hose Clamp	003-9002	3	10	Tip – White	004-XR11008VS	2
3	1/4" x 1/4" Fitting	003-A1414	3	11	100 Mesh Strainer	004-1203-100	2
4	1/4" Tee Sq	003-TT14SQ	1	12	Nozzle Cap	004-4723	2
5	1/4" Female St Elbow	003-SE14F	1	13	Spray Shield Holder	001-4704D	1
6	1/4" Braided Hose	002-9016	2ft	14	Tank Mount Bracket	001-4418	1
7	Spray Shield	001-4703GK	1	15	Reach Rod – Outside	001-4404	2
8	Nozzle Body	004-4722	2	16	Reach Rod - Inside	001-4405	2

* Tip color subject to change

Shield Only (Ref 1-13) 030-4513C-SO
Tank Mount Kit (Ref 14-16) TMK-4484
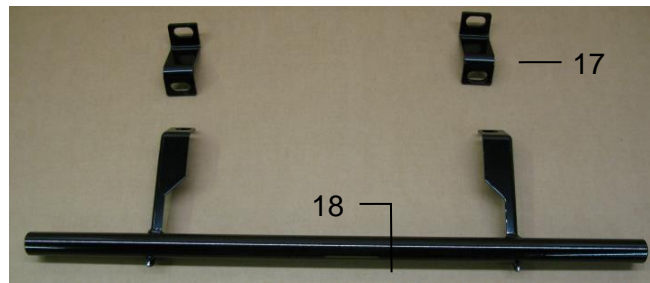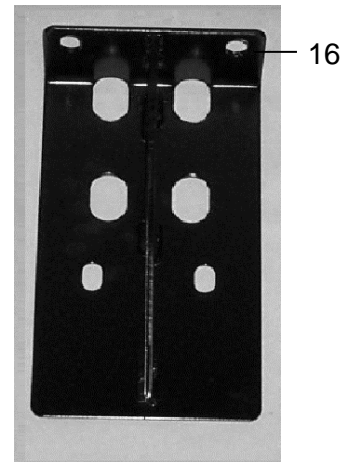Complete Assembly 030-4513C

4516C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	13	Nozzle Body	004-4722	2
2	Hose clamp	003-9002	2	14	Nozzle Cap	004-4723	2
3	1/4" x 1/4" Fitting	003-A1414	5	15	Tank Mounting Bracket	001-4411	1
4	1/4" Sq Tee	003-TT14SQ	1	16	Tank Brace	001-4411A	1
5	1/4" St Elbow	003-SE14F	1	17	Space Bracket	001-4703NS	2
6	Oetiker Clamp	003-9008	4	18	Nozzle Tube	001-4703R	1
7	Nozzle Holder	001-4714J	2	NP	447 Jiffy Clip	008-9014	2
8	Hose	002-9016	3ft				
9	1/4" x 1/4" Fitting	003-A1414F	2				
10	Tip Strainer	004-1203-100	2				
11	Tip – White	004-XR11008VS	2		Shield Only (1-14)	030-4714J-SO	
12	Tip – Red	004-XR11004VS	2		Tank Mount Kit (15-16)	TMK-4483	
					Shield Mount Kit (17-18)	SMK-4516	
* Tip color subject to change					Complete Assembly	030-4516C	

4517C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	13	Nozzle Body	004-4722	2
2	Hose clamp	003-9002	2	14	Nozzle Cap	004-4723	2
3	1/4" x 1/4" Fitting	003-A1414	5	15	Tank Leg	001-4703B	2
4	1/4" Sq Tee	003-TT14SQ	1	16	Left Mounting Bracket	001-4703DL	1
5	1/4" St Elbow	003-SE14F	1	17	Right Mounting Bracket	001-4703DR	1
6	Oetiker Clamp	003-9008	4	18	Space Bracket	001-4703NS	2
7	Nozzle Holder	001-4714J	2	19	Nozzle Tube	001-4703R	1
8	Hose	002-9016	3ft	NP	477 Jiffy Clip	008-9014	2
9	1/4" x 1/4" Fitting	003-A1414F	2				
10	Tip Strainer	004-1203-100	2				
11	Tip – White	004-XR11008VS	2		Shield Only (1-14)	030-4714J-SO	
12	Tip – Red	004-XR11004VS	2		Tank Mount Kit (15-16)	SMK-4516	
					Shield Mount Kit (17-18)	TMK-4483	
	* Tip color subject to change				Complete Assembly	030-4517C	

4523C Installation Kit
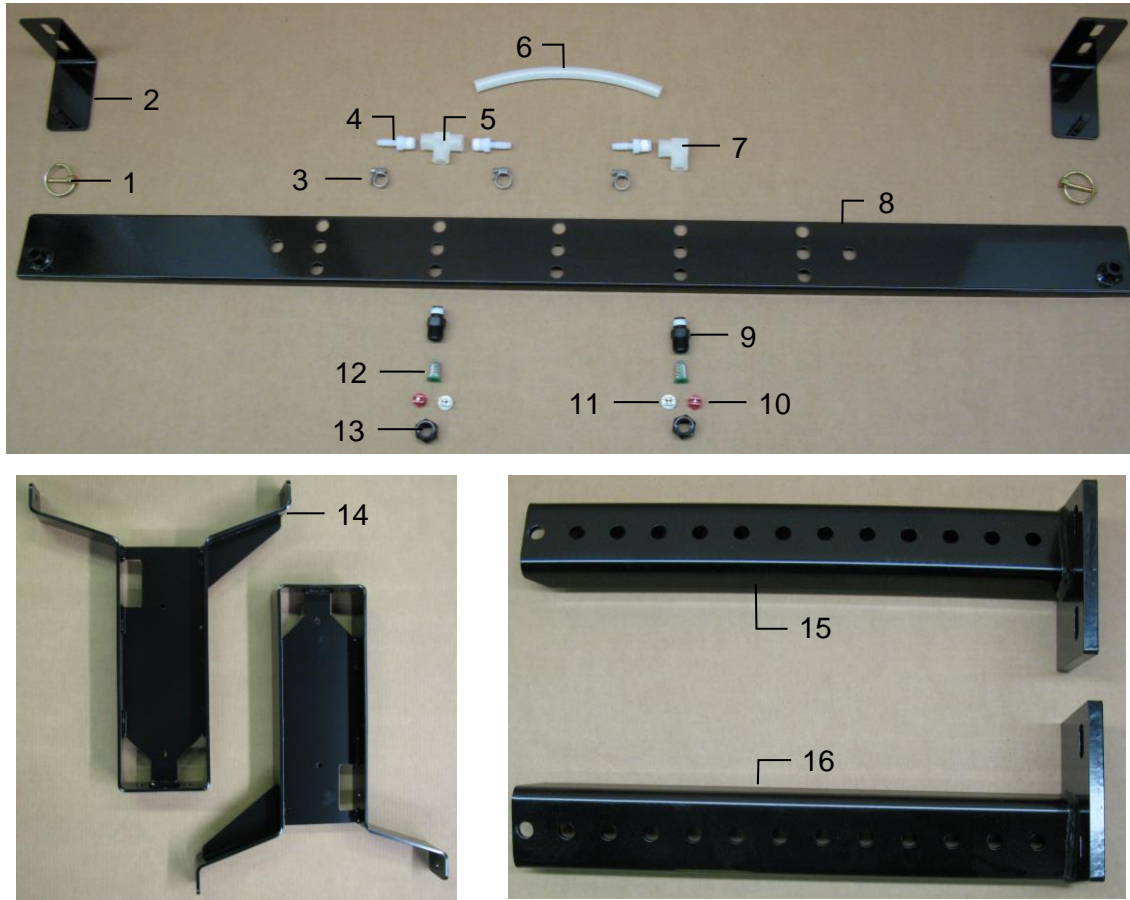
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	3/16" Lynch Pin	008-4576	2	9	Nozzle Body	004-4722	2
2	Shield Holder	001-4704H	2	10	Tip – Red	004-XR11004VS	2
3	Mini Hose Clamp	003-9002	3	11	Tip – White	004-XR11008VS	2
4	1/4"FPT x 1/4"HB	003-A1414	3	12	Tip Strainer	004-1203-100	2
5	1/4" Tee Sq	003-TT14SQ	1	13	Nozzle Cap	004-4723	2
6	1/4" Hose	002-9016	2ft	14	Tank Leg – Long	001-4703B	2
7	1/4" Female Elbow	003-SE14F	1	15	Left RB Support	001-4704JL	1
8	Spray Shield	001-4704G	1	16	Right RB Support	001-4704JR	1

* Tip color subject to change

Shield Only (Ref 1-13)	030-4523-SO
Tank Mount Kit (Ref 14-16)	TMK-4523
Complete Assembly	030-4523C

4524C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	11	Tip – White	004-XR11008VS	2
2	Hose clamp	003-9002	2	12	Tip – Red	004-XR11004VS	2
3	1/4" x 1/4" Fitting	003-A1414	5	13	Nozzle Body	004-4722	2
4	1/4" Sq Tee	003-TT14SQ	1	14	Nozzle Cap	004-4723	2
5	1/4" St Elbow	003-SE14F	1	15	Left Tank Leg	001-4703L	1
6	Oetiker Clamp	003-9008	4	16	Right Tank Leg	001-4703K	1
7	Nozzle Holder	001-4714J	2	17	Nozzle Tube	001-4703T	1
8	Hose	002-9016	3ft				
9	1/4" x 1/4" Fitting	003-A1414F	2		Shield Only (1-14)	030-4714J-SO	
10	Tip Strainer	004-1203-100	2		Tank Mount Kit (15-16)	TMK-4508	
					Shield Mounting Kit (17)	SMK-4524	
					Complete Assembly	030-4524C	

 * Tip color subject to change

4526C Installation Kit
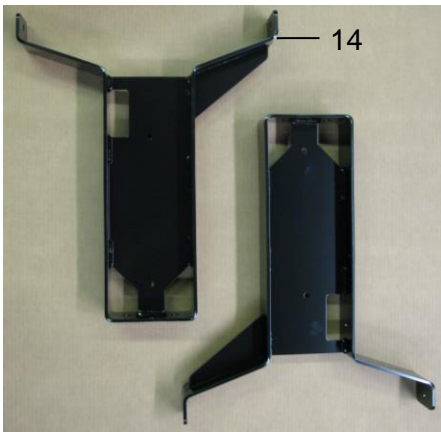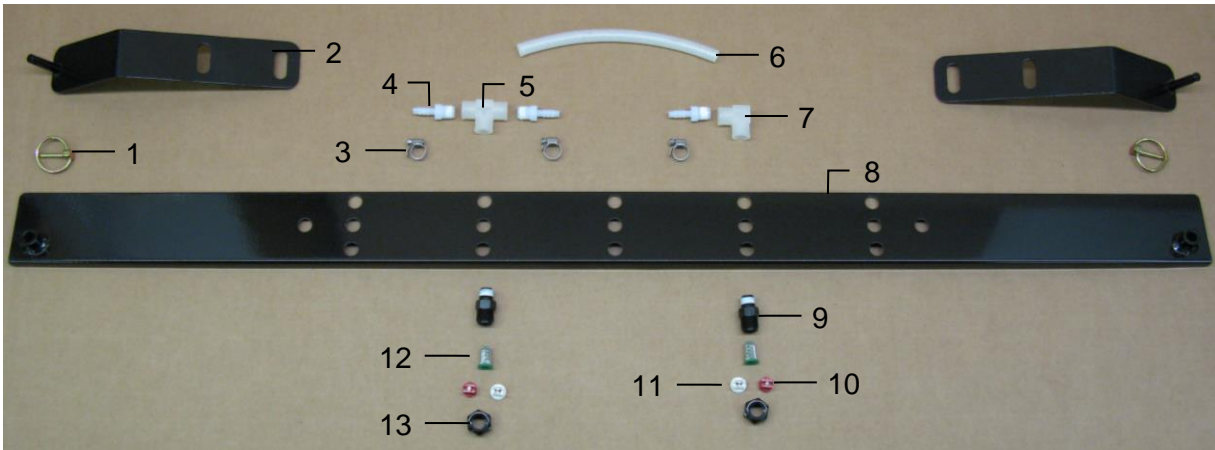
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	3/16" Lynch Pin	008-4576	2	10	Tip – Red	004-XR11004VS	2
2	Shield Holder	001-4704MC	2	11	Tip – White	004-XR11008VS	2
3	Mini Hose Clamp	003-9002	3	12	Tip Strainer	004-1203-100	2
4	1/4"FPT x 1/4"HB	003-A1414	3	13	Nozzle Cap	004-4723	2
5	1/4" Sq Tee	003-TT14SQ	1	14	55 Gal Leg	001-4703B	2
6	1/4" Hose	002-9016	2ft	15	Side Support	001-4704MA	2
7	1/4" Female Elbow	003-SE14F	1	16	Brace Support	001-4704MD	2
8	Spray Shield	001-4704G	1	17	Top Support	001-4704ME	1
9	Nozzle Body	004-4722	2				

* Tip color subject to change

Shield Only (Ref 1-11)   030-4526C-SO
Tank Mount Kit (Ref 12-14)   TMK-4526
Complete Assembly   030-4526C

4531C Installation Kit

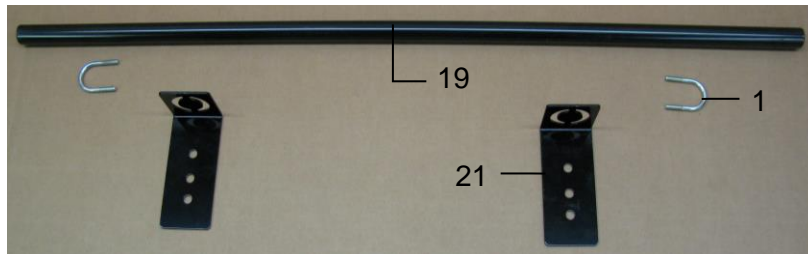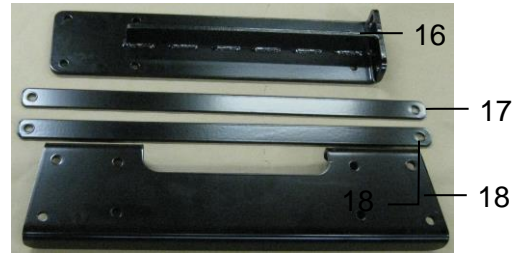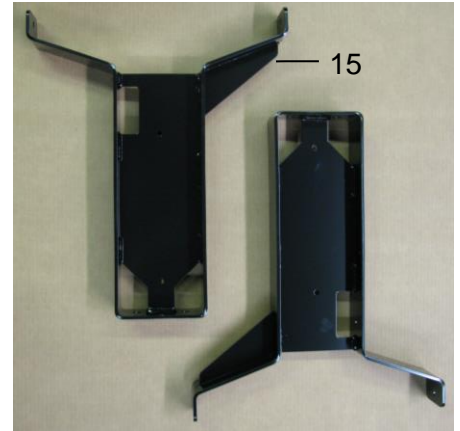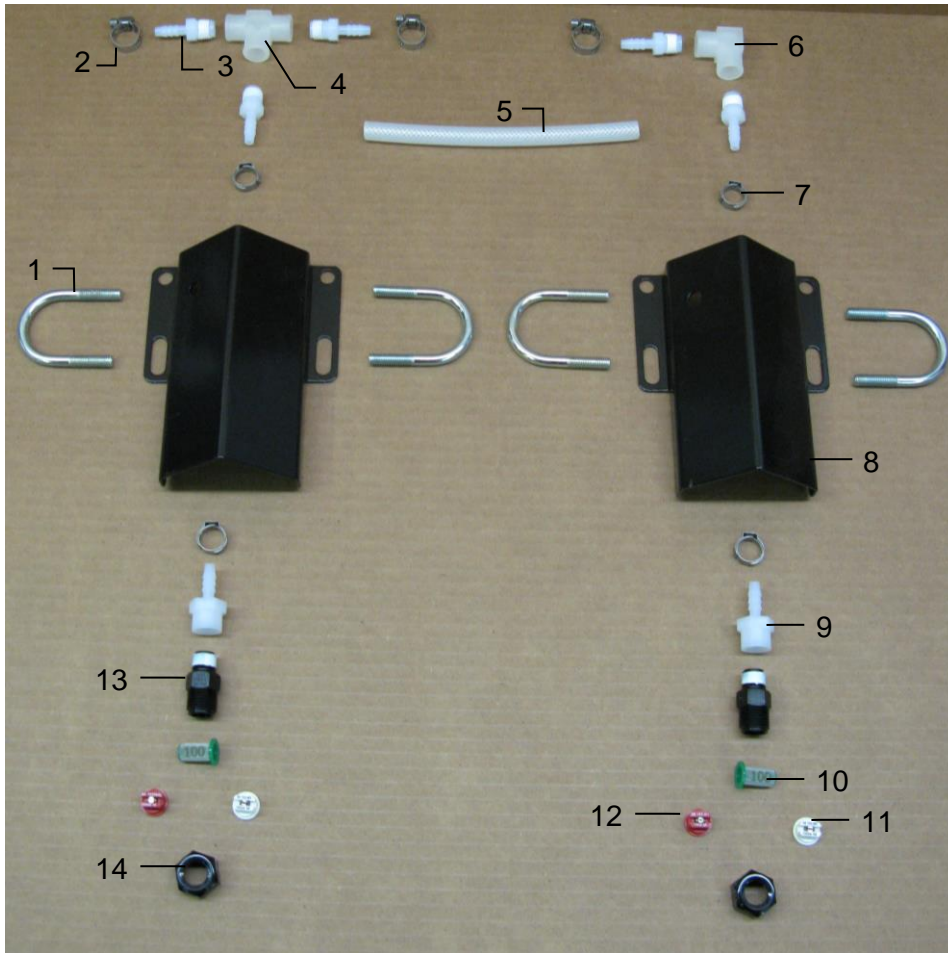| Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	3/16" Lynch Pin	008-4576	2	9	Nozzle Body	004-4722	2
2	Shield Holder	001-4704H	2	10	Tip* – Red	004-XR11004VS	2
				11	Tip* - White	004-XR11008VS	2
3	Mini Hose Clamp	003-9002	3	12	Tip Strainer	004-1203-100	2
4	1/4"FPT x 1/4"HB	003-A1414	3	13	Nozzle Cap	004-4723	2
5	1/4" Tee Sq	003-TT14SQ	1	14	Hanger Extender	001-4704HZ	2
6	1/4" Hose	002-9016	2ft	15	Tank Leg – Long	001-4703B	2
7	1/4" Female Elbow	003-SE14F	1	16	Left Tank Leg Support	001-ACX2873560	1
8	Spray Shield	001-4704G	1	17	Right Tank Leg Support	001-ACX2873280	1

* Tip color subject to change

Spray Shield Only* (Ref 1-13)   030-4523C-SO
(*hanger extenders not included)
Tank Mount Kit (Ref 15-17)   TMK-4531

4538C Installation Kit

Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	13	Nozzle Body	004-4722	2
2	Hose clamp	003-9002	3	14	Nozzle Cap	004-4723	2
3	1/4" x 1/4" Fitting	003-A1414	5	15	Tank Leg – Long	001-4703B	2
4	1/4" Sq Tee	003-TT14SQ	1	16	Side Support	001-4704MA	2
5	Hose	002-9016	4ft	17	Brace Support	001-4704MDJ	2
6	1/4" St Elbow	003-SE14F	1	18	Top Support	001-4704MEJ	1
7	Oetiker Clamp	003-9008	4	19	Univ Nozzle Tube Holder	001-4703TH	2
8	Nozzle Holder	001-4714JS	2	20	Univ Nozzle Mount	001-4703TP	1
9	1/4" x 1/4" Fitting	003-A1414F	2				
10	Tip Strainer	004-1203-100	2				
11	Tip – White*	004-XR11008VS	2		Shield Only (Ref 1-11)	030-4714JS-SO	
12	Tip – Red*	004-XR11004VS	2		Shield Mounting Kit (25-26)	SMK-UNIV-PIPE	
					Tank Mount Kit (Ref 12-14)	TMK-4538	
					Complete Assembly	030-4538C	

 * Tip color subject to change

4543C Installation Kit
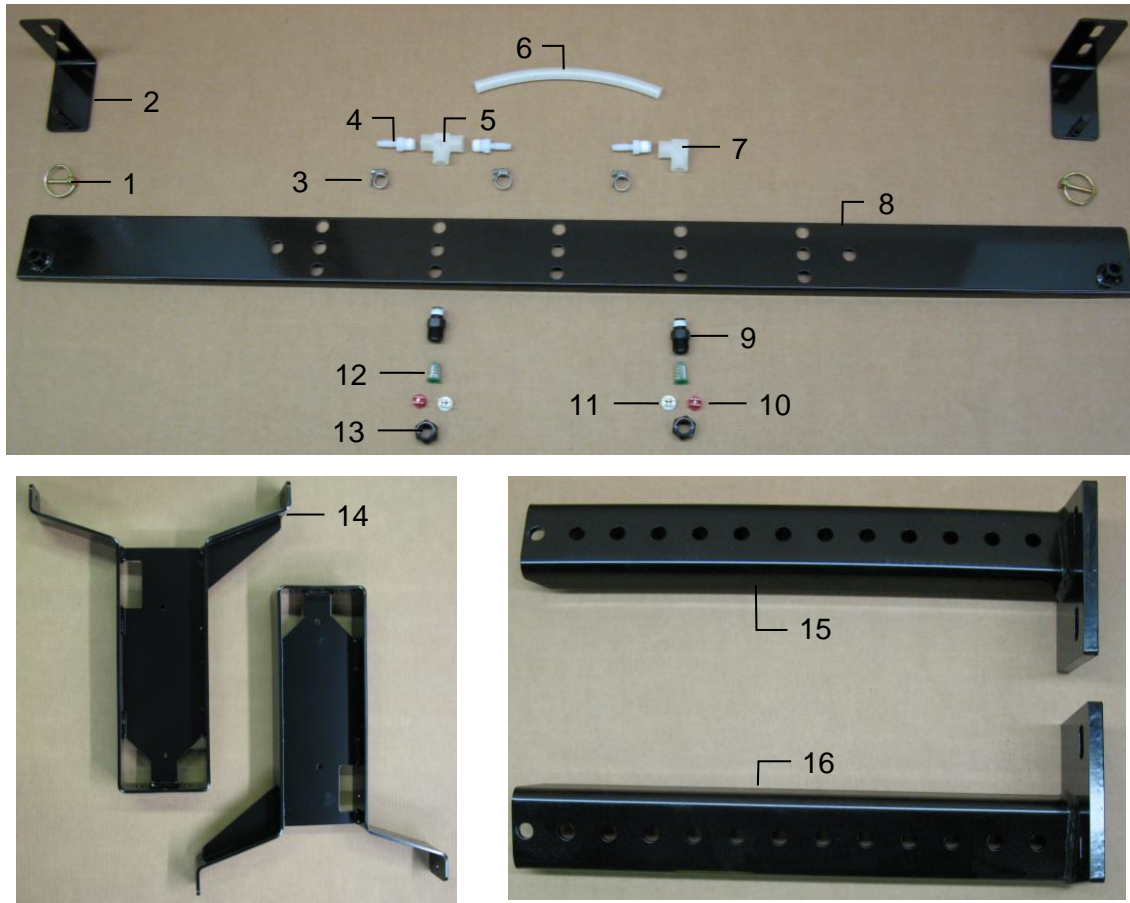
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	3/16" Lynch Pin	008-4576	2	10	Tip – Red	004-XR11004VS	2
2	Shield Holder	001-4704H	2	11	Tip – White	004-XR11008VS	2
3	Mini Hose Clamp	003-9002	3	12	Tip Strainer	004-1203-100	2
4	1/4"FPT x 1/4"HB	003-A1414	3	13	Nozzle Cap	004-4723	2
5	1/4" Tee Sq	003-TT14SQ	1	14	Tank Leg – Long	001-4703B	2
6	1/4" Hose	002-9016	2ft	15	Left RB Support	001-4704JL	1
7	1/4" Female Elbow	003-SE14F	1	16	Right RB Support	001-4704JR	1
8	Spray Shield	001-4704G	1	17	604 Pro RT Bkt	001-6055VER	1
9	Nozzle Body	004-4722	2	18	604 Pro LT Bkt	001-6055VEL	1

 * Tip color subject to change

Shield Only (Ref 1-13)   030-4523C-SO
Tank Mount Kit (Ref 14-16)   TMK-4523
Complete Assembly   030-4523C

17 & 18
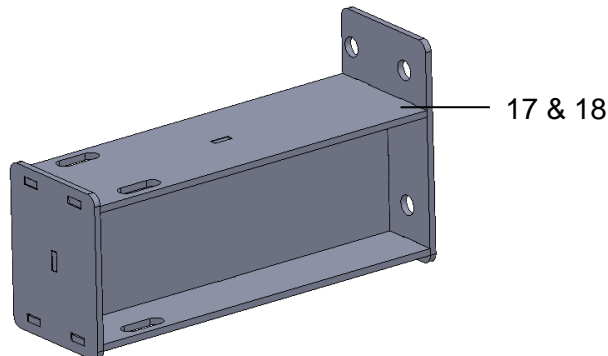
4546C Installation Kit
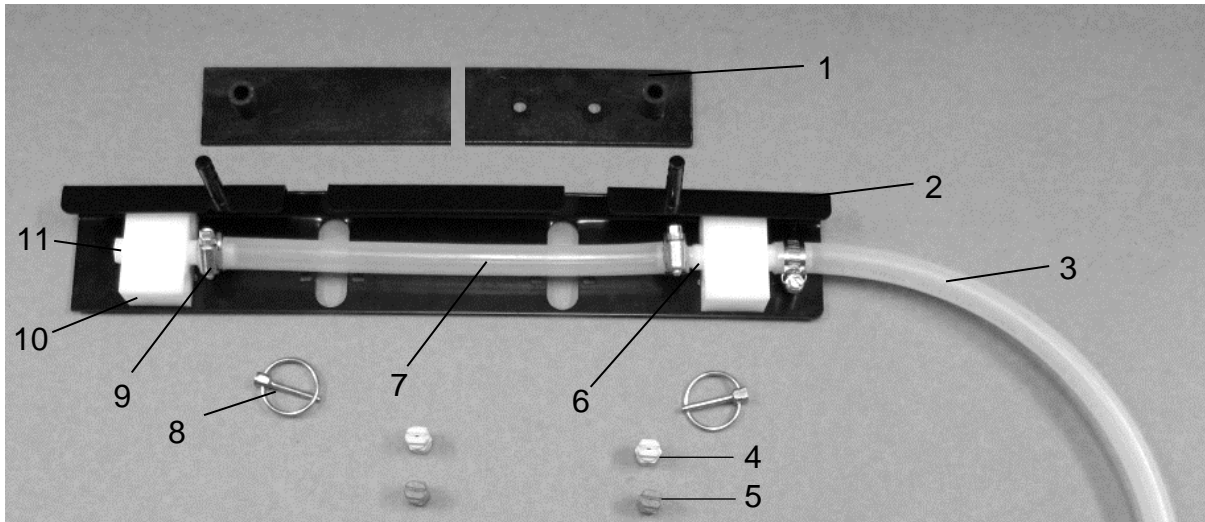
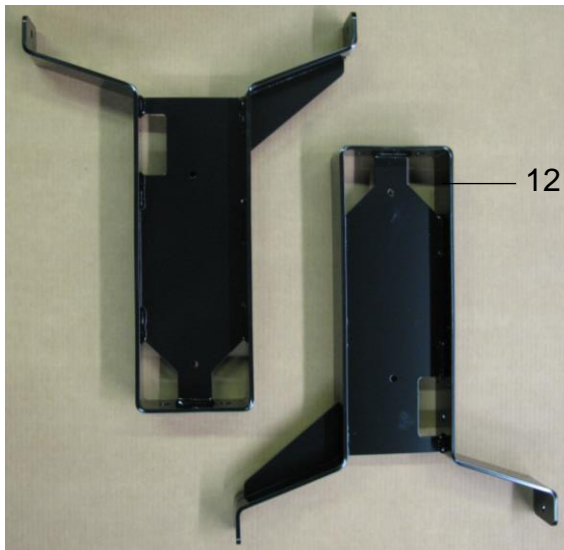| Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Holder	001-4435NCX2	2	10	Manifold Block	001-4435NSB	2
2	Shield	001-4435NSX	1	11	Fitting	003-F14	1
3	Braided Hose-1/4"	002-9016	3 ft	12	Tank Mounting Bracket	001-4411	1
4	Tip-	004-T8004-PT	2	13	Tank Brace	001-4411A	1
5	Tip-	004-T8008-PT	2	NP	Clamping UBolt 2"	001-4714UBX	2
6	Fitting	003-A1414	3				
7	Hose 1/4"	002-9006	1 ft		Shield Only (1-11)	030-4546-SO	
8	Lynch Pin	008-4576	2		Tank Mount Kit (12-13)	TMK-4483	
9	Hose Clamp	003-9002	3		Complete Assembly	030-4546C	

 * Tip color subject to change
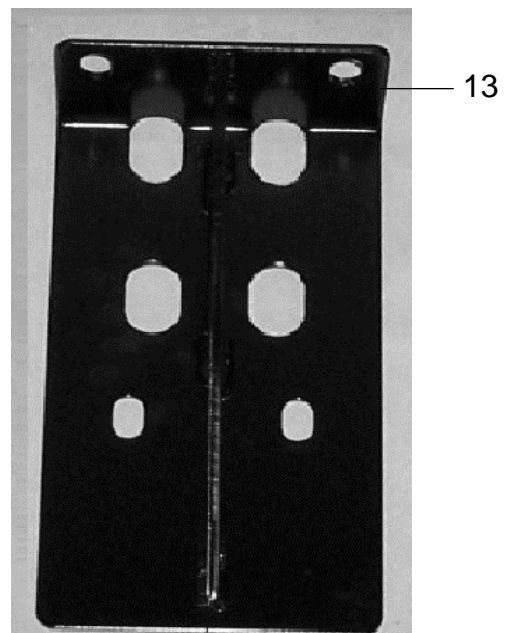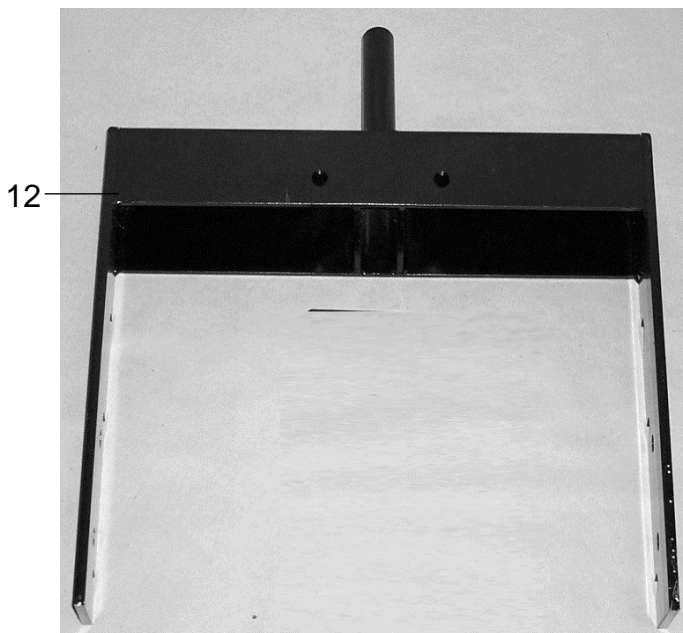
4547C Installation Kit
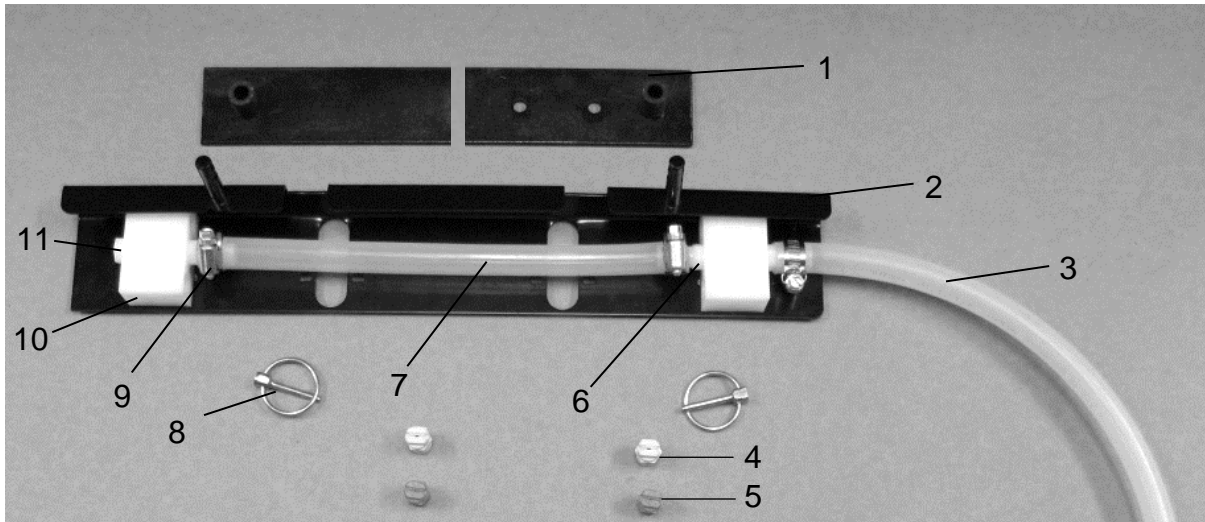
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Holder	001-4435NCX2	2	10	Manifold Block	001-4435NSB	2
2	Shield	001-4435NSX	1	11	Fitting	003-F14	1
3	Braided Hose-1/4"	002-9016	3 ft	12	Tank Leg – Long	001-4703B	2
4	Tip-	004-T8004-PT	2	13	Left Mounting Bracket	001-4703DL	1
5	Tip-	004-T8008-PT	2	14	Right Mounting Bracket	001-4703DR	1
6	Fitting	003-A1414	3	NP	Clamping UBolt 2"	001-4714UBX	2
7	Hose 1/4"	002-9006	1 ft				
8	Lynch Pin	008-4576	2		Shield Only (1-11)	030-4546-SO	
9	Hose Clamp	003-9002	3		Tank Mount Kit (12-14)	TMK-4504	
					Complete Assembly	030-4547C	

* Tip color subject to change

4549C Installation Kit
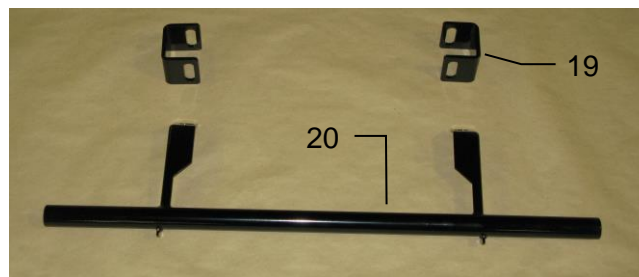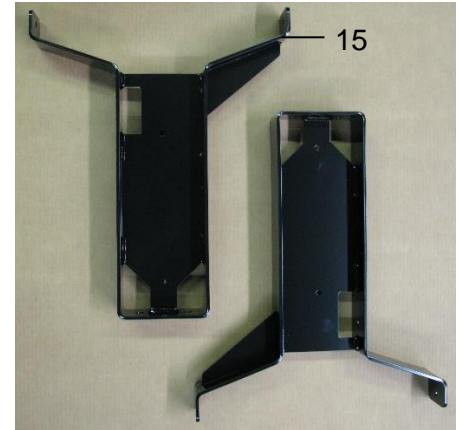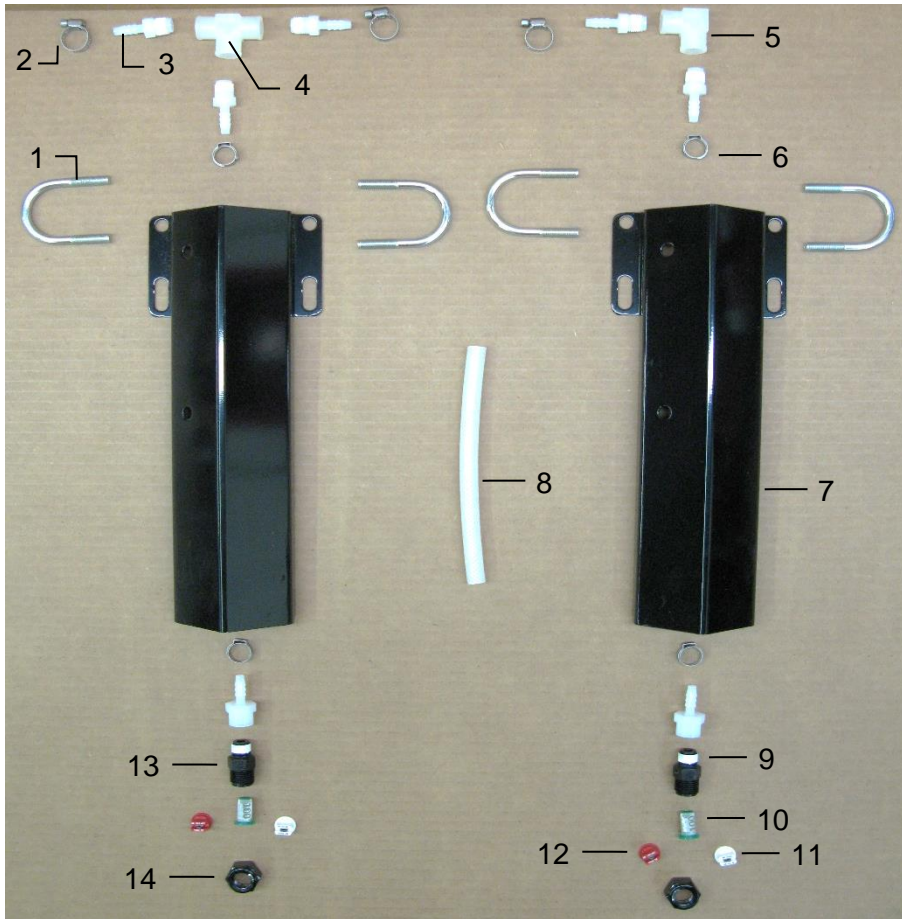
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	U bolt	001-4714UBS	4	15	Tank Leg	001-4703B	2
2	Hose clamp	003-9002	2	16	Mounting Bracket	001-4703F	2
3	1/4" x 1/4" Fitting	003-A1414	5	17	Hinge	001-4703VHG	2
4	1/4" Sq Tee	003-TT14SQ	1	18	Latch	001-4703CL	1
5	1/4" St Elbow	003-SE14F	1	19	Space Bracket	001-4703NV	2
6	Oetiker Clamp	003-9008	4	20	Nozzle Tube	001-4703R	1
7	Nozzle Holder	001-4714J	2	NP	477 Jiffy Clip	008-9014	2
8	Hose	002-9016	3ft				
9	1/4" x 1/4" Fitting	003-A1414F	2		Shield Only (1-14)	030-4714J-SO	
10	Tip Strainer	004-1203-100	2		Tank Mount Kit (15-18)	TMK-4549	
11	Tip – White	004-XR11008VS	2		Shield Mount Kit (19-20)	SMK-4549	
12	Tip – Red	004-XR11004VS	2		Complete Assembly	030-4549C	
13	Nozzle Body	004-4722	2				
14	Nozzle Cap	004-4723	2		* Tip color subject to change		

Notes

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 4/17

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