Installation Manual

MODEL 647, 647C & 649
25 & 55 Gallon Automatic 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

C E

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: 647-647C-649-18-INST 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

Harvest Tec 647, 647C & 649 Installation Table of Contents

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Introduction

Thank you for purchasing a Harvest Tec Model 663 Moisture Monitor System. This 663 Moisture Monitoring System has been designed to be operated through an Apple iPad (not included) using the Hay App. As well as the option to plug directly into most tractors that have an ISOBUS Monitor. The 663 Moisture Monitoring System offers these advantages by operating through an Apple iPad:

1. Large bright, clear, colorful display
2. More durable and can be read in bright sunlight
3. Can be used for multiple other uses than just the applicator display
4. Option to tie-into the tractor ISOBUS system

The 663 Hay Preservative Applicator System is designed to apply buffered propionic acid to the forage crop as it is baled and will adjust the rate of application based on moisture and tonnage of the crop being harvested. This manual will take you through the steps for installing the applicator. This applicator is designed to apply Harvest Tec buffered propionic acid.

System Requirements

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

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

*Hay App version must be **at least 2.7.1 (or higher)** to operate with the iPad Integration Module

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

Model Reference Chart

Baler make	Baler Model	Model	Installation kit	Tank size
Case IH	All RBX & RB series four feet wide	647	447-SO	25 gallon
Case IH	All RBX & RB series five feet wide	647	447-SO	55 gallon
New Holland	All BR balers four feet wide	647	447-SO	25 gallon
New Holland	All BR balers five feet wide	647	447-SO	55 gallon
AGCO	5446 – 5556 & 2646 - 2766	649	4508B	55 gallon
AGCO	2846-2856A	649	4524B	55 gallon
Challenger	RB 46 - 56	649	4508B	55 gallon
Challenger	RB453 - RB563A	649	4524B	55 gallon
Hesston	800 and 900 series round balers	649	4508B	55 gallon
John Deere	582 & 854 round balers	649	4503B	55 gallon
John Deere	5, 6, and 7 series round balers	649	4504B	55 gallon
John Deere	8 & 9 series round balers	649	4517B	55 gallon
John Deere	0 Series Balers	649	4547B	55 gallon
Massey Ferguson	2646 – 2766	649	4508B	55 gallon
Massey Ferguson	2846-2856A	649	4524B	55 gallon
McHale	V660, F540, F550, F560	649	4526B	55 gallon
Vermeer	604M and 605M round balers	649	4505B	55 gallon
Roll Belt Round Baler	RBX & RB series 4 &5 foot wide	647C	N/A	55 gallon

Tools Needed

Standard wrench set	Standard socket set	Standard screw driver set
Side cutter	Hose cutter	Crescent wrench
Hammer	Metal cutting and drilling tools	Center punch

Installation of Applicator

Installation of Tank & Saddle

Place tank (005-9203) onto saddle (001-4703). Make sure side tank fitting is placed to the baler's left side when looking at it from the front. Attach straps (001-4402) to saddle using 5/16" x 4" bolts. Make sure to double nut all four bolts.

Model 647

55 Gallon Model Only (100 liter)
Locate parts bag 14. Locate the cross support (001-4445B) on the front shelf of the balers pictured below. It will butt up against the step-up on the shelf and line up flush with its upper surface. Mark and drill a 9/16" (14mm) hole on each side sheet to hold the cross piece in place with two 1/2" x 1-1/4"bolts, fender, and lock washers provided.
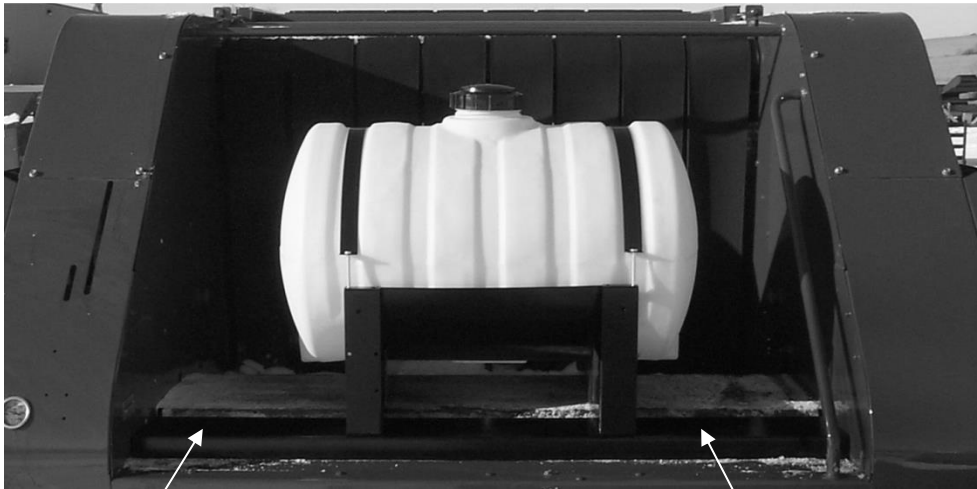
Figure 1

Locate parts bag 15. Locate the tank and frame on the shelf. Center it from side to side. On 55 gallon models 200 liter), the tank positioning going from front to back is set by lining up the front base holes with the holes in the cross support. On 25 gallon models (100 liter), line up the front tank legs with the front of the baler's shelf. Mark and drill all base holes with a 9/16" (14mm) drill. Use the 1/2" x 1-1/4" bolts, lock washers, fender washers, and nuts provided to secure the frame.
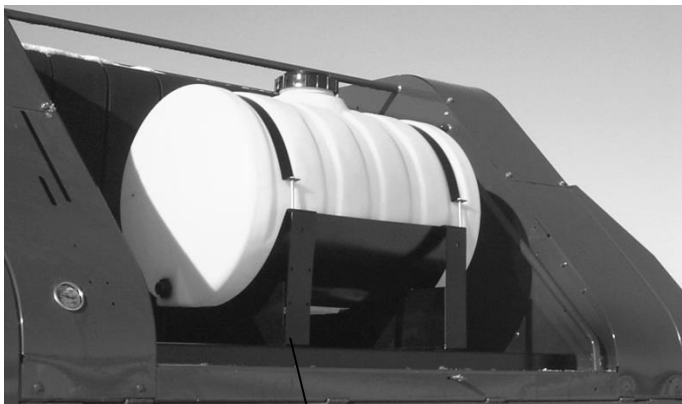
Figure 2

55 Gallon System

Figure 3

25 Gallon System

Model 647C

Installation of Tank and Saddle

1. Locate the left saddle leg, 001-4703XL, and mount to left side sheet of baler using two 1/2"x 1-1/2" hex bolts, 1/2" lock washers, and 1/2" flat washers. Do not fully tighten.
2. Locate the right saddle leg, 001-4703XR, and mount to right side sheet of baler using two 1/2"x 1-1/2" hex bolts, 1/2" lock washers, and 1/2" flat washers. Do not fully tighten.
3. ***Roll Belt 560 / 460 and RB465 Installation only!*** Locate the two anchor extension brackets, 001-4703XAX, and attach one extension bracket to the outside of each leg with two 1/2"x 1-1/2" hex bolts, 1/2" lock washers, and 1/2" flat washers.
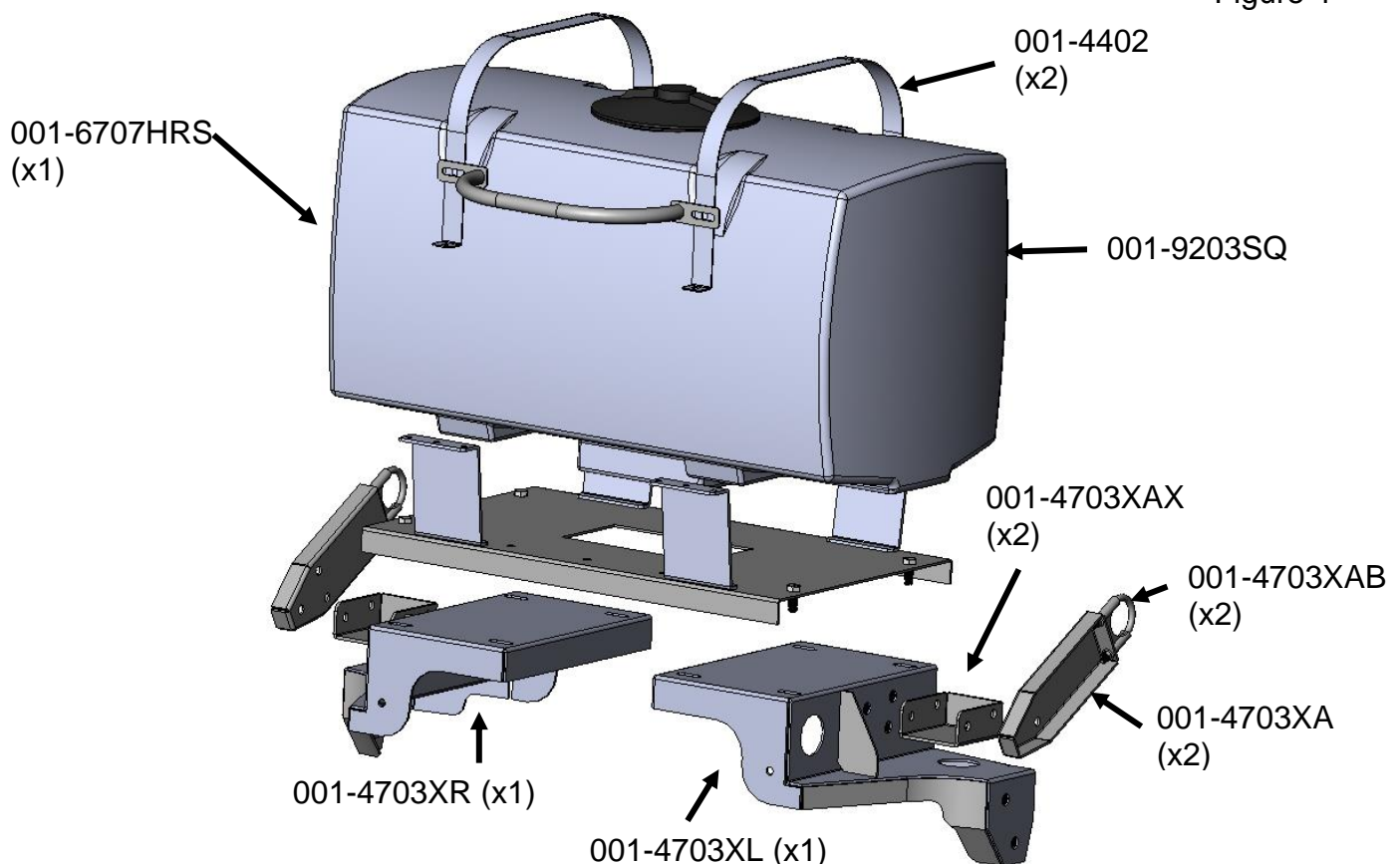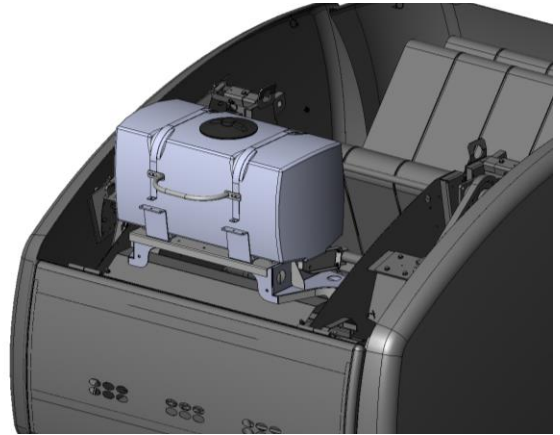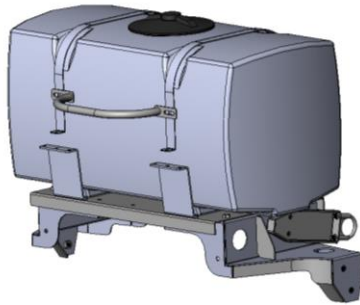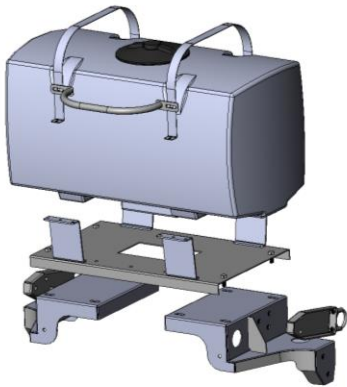4. Locate the anchor bracket, 001-4703XA, and attach to the side of the extension bracket, 001-4703XAX for 4 X 6 balers (or 001-4703XR and 001-4703XL for other balers) using two 1/2" x 1-1/2" hex bolts, 1/2" flat washers, 1/2" lock washers, and 1/2" hex nuts. Do not fully tighten. Note that 001-4703XA should be positioned so it is angled toward the round pipe that runs across the width of the baler behind the legs. Repeat procedure for the opposite side.
5. Locate the u-bolts, 001-4703XAB, and attach the 001-4703XA brackets to the round pipe running across the baler. Tighten the u-bolts evenly. **Due to minimal clearance between the anchor bracket and the side sheet, use a deep socket and long extension on a ratchet to tighten u-bolts.*
6. With the u-bolts, 001-4703XAB, securely tightened around the round pipe, tighten the bolts connecting the anchor brackets, 001-4703XA, to the saddle legs, 001-4703XL & 001-4703XR.
7. Tighten the hardware attaching the saddle legs, 001-4703XL & 001-4703XR, to side sheets of the baler.
8. Install the tank assembly (tanks, straps, handrail, and saddle pan) on the legs. Secure the saddle pan, 001-4703X, to the saddle legs with 1/2" flat washer, 1/2" lock washer, and 1/2" hex nut from the bottom side in four locations. Tighten hardware.

*****001-4703XAX (x2) are <u>ONLY</u> used on 4x6 models***
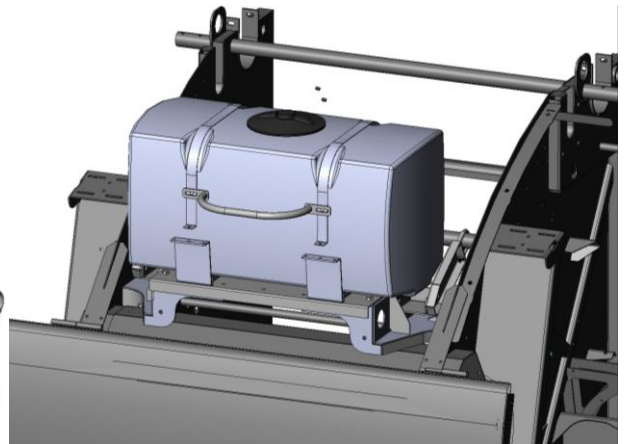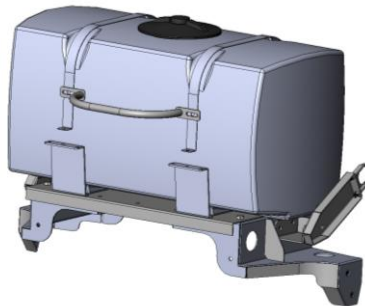
Figure 4

001-4402 (x2)

001-6707HRS (x1)

001-9203SQ

001-4703XAX (x2)

001-4703XAB (x2)

001-4703XA (x2)

001-4703XR (x1)

001-4703XL (x1)

4x5 Baler Expanded

4x6 Baler Expanded
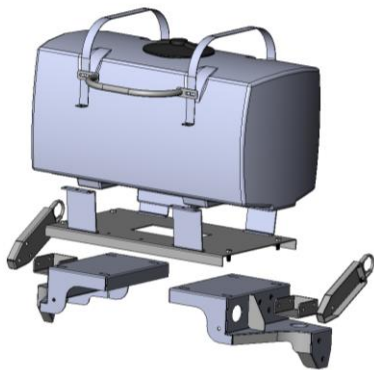
5x5 Baler Expanded
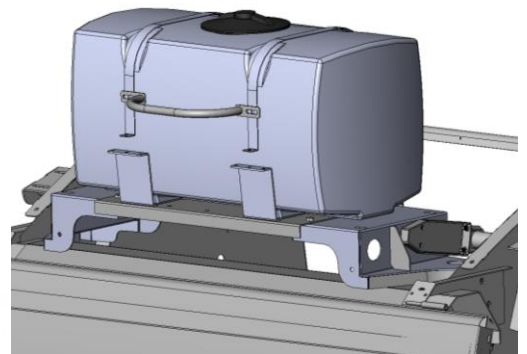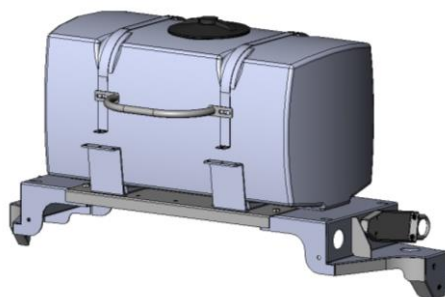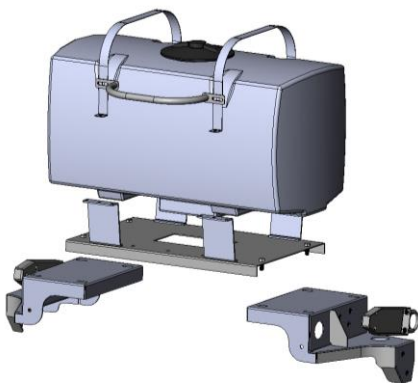
5x6 Baler Expanded
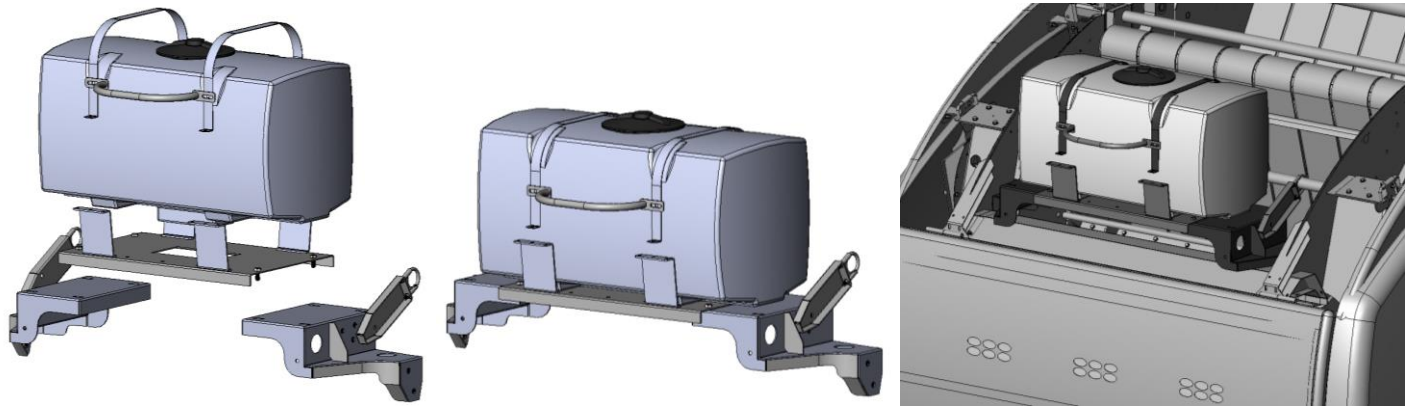
Model 649

Install kit 4503B on John Deere 582 Balers

The mounting brackets are L-shaped. There is a right and left bracket enclosed in the applicator. This can be determined by setting the right and left bracket next to each other with the longer legs laying flat toward you and the shorter legs pointing up. The short leg of the bracket will either touch each other or angle away from each other. Place the brackets so they angle away from each other and form a **V** (see below). The bracket on the left is the left bracket and the bracket to the right is the right bracket.

Short leg ——— **V** formed here

Long leg ———

Left bracket ——— Right bracket
(001-4703EL)   (001-4703ER)

Before installing the brackets, the baler tongue must be supported by some means other than the jack (ex. hooked to a tractor). Looking at the baler from the front, the right bracket bolts to the left side of the hitch using two M16 x 55mm bolts, washers, lock washers, and nuts (labeled **L1** below). Short leg of brackets will point toward the front of the hitch. Next remove the two bolts holding the jack assembly to a baler (labeled **L2** below). Insert the right L-bracket between the jack assembly and baler. Bolt together with two M16 x 70mm bolts. Attach the tank legs (001-4703B) to the tank saddle with 3/8" x 1" bolts, locks, and flat washers. Attach the saddle legs to the mounting bracket with 1/2"x 1-1/2" bolts, locks, nuts and flat washers.

001-4703B

L2

L1
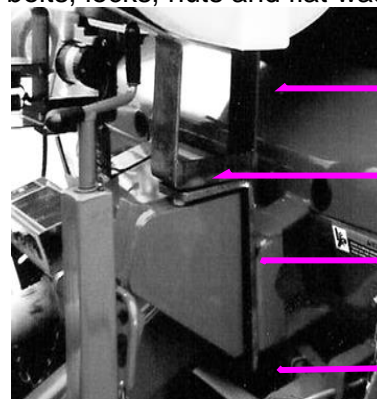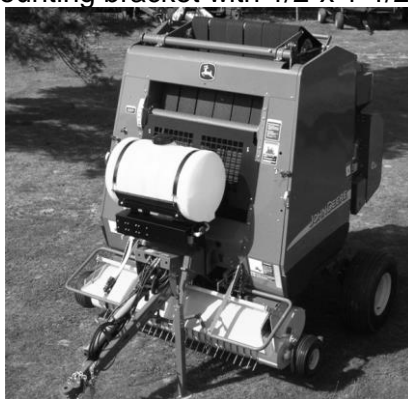
001-4703EL

Model 649

Install kit 4503B on John Deere 854 Balers

The mounting brackets are L-shaped. There is a right and left bracket enclosed in the applicator. This can be determined by setting the right and left bracket next to each other with the longer legs laying flat toward you and the shorter legs pointing up. The short leg of the bracket will either touch each other or angle away from each other. Place the brackets so they angle away from each other and form a **V** (see below). The bracket on the left is the left bracket and the bracket to the right is the right bracket.

Short leg

V formed here

Long leg

Left bracket
(001-4703EL)

Right bracket
(001-4703ER)

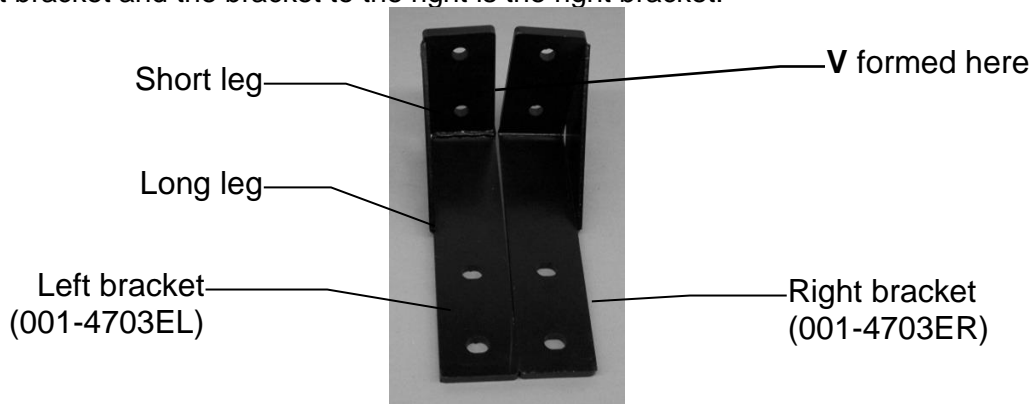Before installing the brackets, the baler tongue must be supported by some means other than the jack (ex. hooked to a tractor). Looking at the baler from the front, the right bracket bolts to the left side of the hitch using two M16 x 55mm bolts, washers, lock washers, and nuts (labeled **L1** below). Short leg of brackets will point toward the front of the hitch. Next remove the two bolts holding the jack assembly to a baler (labeled **L2** below). Remove the jack from the mounting bracket and install jack extension (001-4703EXT) as shown below (3). Use the supplied hardware to mount the jack to the extension (*hole 4* M16x2mm) (*hole 5* M20x2.5mm) (*hole 6* M12 x 1.75mm), and use the factory jack hardware and mounting plates to mount the extension to the baler. Insert the right L-bracket between the jack assembly and baler. Bolt together with two M16 x 70mm bolts. Attach the tank legs (001-4703B) to the tank saddle with 3/8" x 1"bolts, locks, and flat washers. Attach with 1/2" x 1/1/2" bolts, locks, nuts and flat washers.

4

5

L3

6

001-4703B

L2

L1
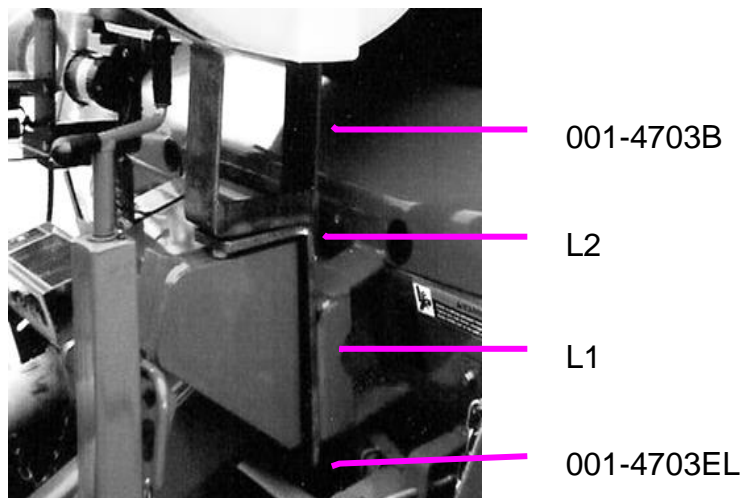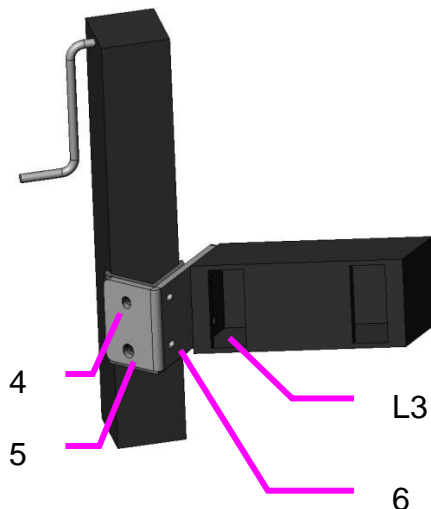
001-4703EL

Model 649

Install kit 4504B, 4517B & 4547B

Attach legs part #001-4703B to the tank saddle with 3/8" x 1" bolts, lock and flat washers. The L-shaped brackets part #001-4703DL and #001-4703DR will attach to the baler with M12 x 45 mm bolts. Three bolts will be used per side on 8 Series balers and two bolts per side with the 9 Series balers. When both sides have been attached place the legs on top of the bracket. The legs will attach to the brackets with 1/2" x 1-1/2"bolts, nuts, flat, and lock washers. Install both sides of legs before tightening down any of the bolts.

Figure 5
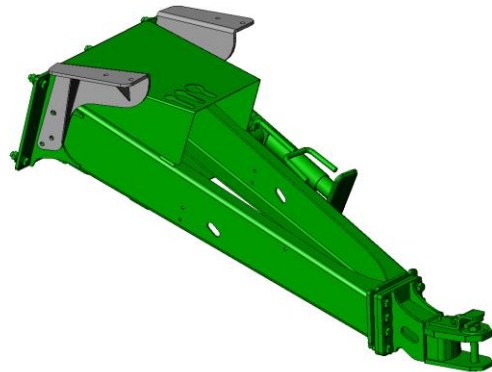
Figure 6

Model 649

Installation kit 4505B

Locate legs part #001-4703FL and part #001-4703FR. These legs will attach to the tongue of the baler using the one existing hole per side (A) as shown in Figure 7. Loosely attach the legs to (A) and mark the two holes that will need to be drilled (B) with a 9/16" bit. Attach legs loosely using the two existing bolts and lock nuts and four 1/2" x 1-1/4" bolt, nuts, locks and flat washers. Install tank and saddle assembly. Tighten all leg hardware after the tank has been installed.

Figure 7

A

B

Model 649

Install kit 4508B

Locate legs part #001-4703K and part #001-4703L. Use the diagram below to locate the placement of the holes you will need to drill. You will need to drill three 1/2" (13mm) holes per side of tongue. After drilling the holes you will need to loosely attach the legs to the tongue with 1/2' x 2" bolts with locks, nuts, and flat washers. (Figure 8) Attach the (A) saddle (001-4703) and tank assembly on top of the legs using 3/8" x 1" bolts and lock washers. (B) Do not tighten down 3/8" bolts all the way. Once saddle is attached to legs tighten down bolts and nuts attaching the legs to the tongue. Now tighten bolts attaching saddle to legs.

Figure 8

A

B

raise the tongue of the baler until
the sheet metal surface on the front of
the baler is vertical

locate the point where the bottom
of the tongue meets the sheet metal surface
and draw a horizontal line using a level on
the side of the tongue as shown

Measure over 14" and make a mark along the
line. Measure over 3-1/2" from the first mark and make
a second mark on the line. Using the level, make a
vertical line at each mark. Measure down 3/8" and
3-7/8" and mark the locations for the 9/16" holes to
be drilled

Repeat process for location holes on opposite side
of tongue. Drill holes through tongue being careful
not to contact hydraulic lines or wiring when drilling.

∅.563x3

.375   .375

14.000   3.500

3.500   3.875

13

Model 649

Install kit 4523B

Mount the saddle and legs on the baler as shown in the picture below. Push the tank as far forward as possible and mark the four 1/2" (13mm) holes that will need to be drilled. Locate the two support legs (001-4704JR & 001-4704JL) shown below (A). Align the support legs below the tank legs and attach through the baler platform using four 1/2" x 1-1/2" bolts, locks, flats and nuts. Mark and drill four 1/2" (13 mm) holes where the support legs (A) meet the baler hitch. Attach the legs to the baler frame using four 1/2" x 1-1/2" bolts, locks, flats and nuts. Tighten all hardware.
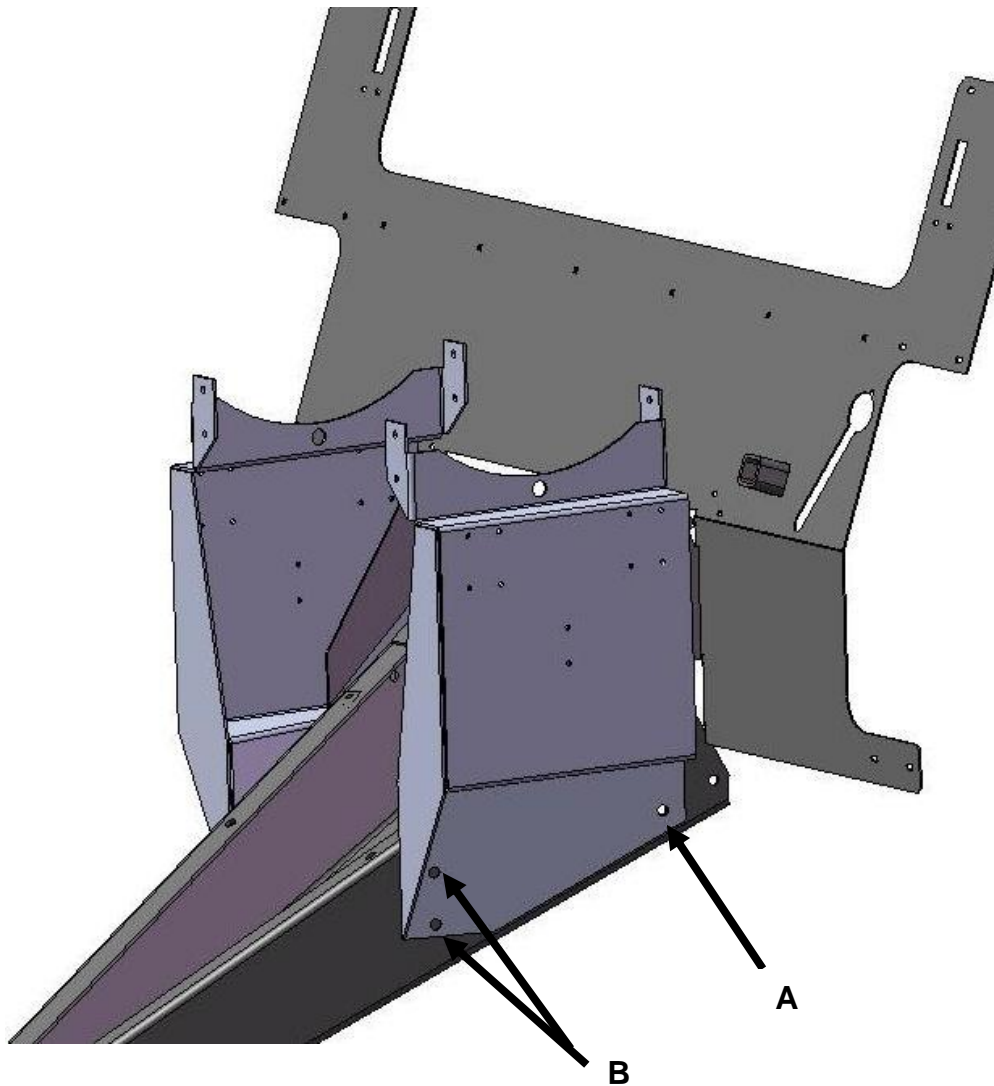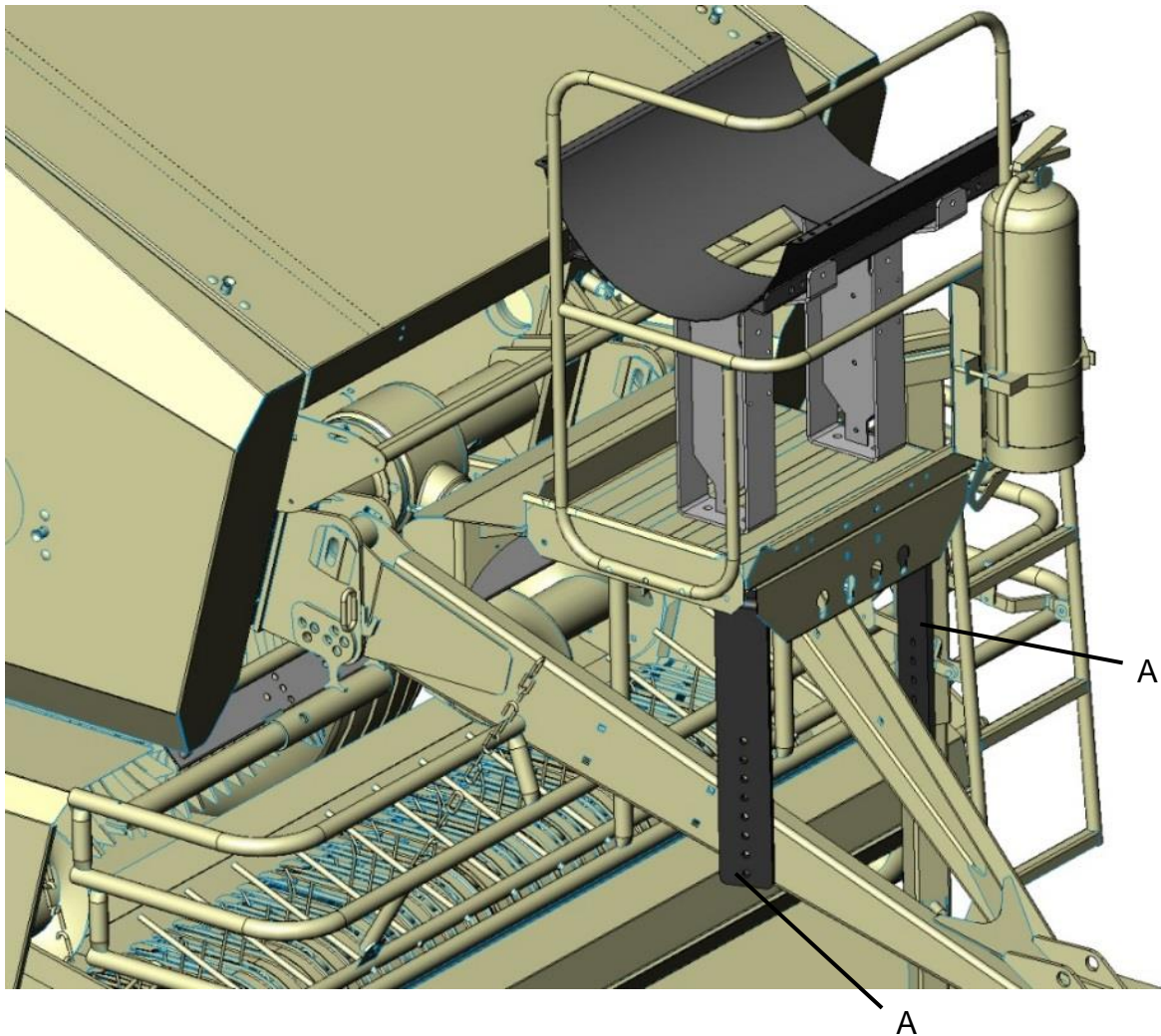
Model 4524B

Locate legs part #001-4703K and part #001-4703L. Use the diagram below to locate the placement of the holes you will need to drill. You will need to drill three 1/2" (13mm) holes per side of tongue. After drilling the holes you will need to loosely attach the legs to the tongue with 1/2" x 2" bolts with locks, nuts, and flat washers. (Figure 9) Attach the (A) saddle (001-4703) and tank assembly on top of the legs 3/8" x 1" bolts and lock washers. (B) Do not tighten down bolts all the way. Once saddle is attached to legs tighten down bolts and nuts attaching the legs to the tongue. Now tighten bolts attaching saddle to legs.
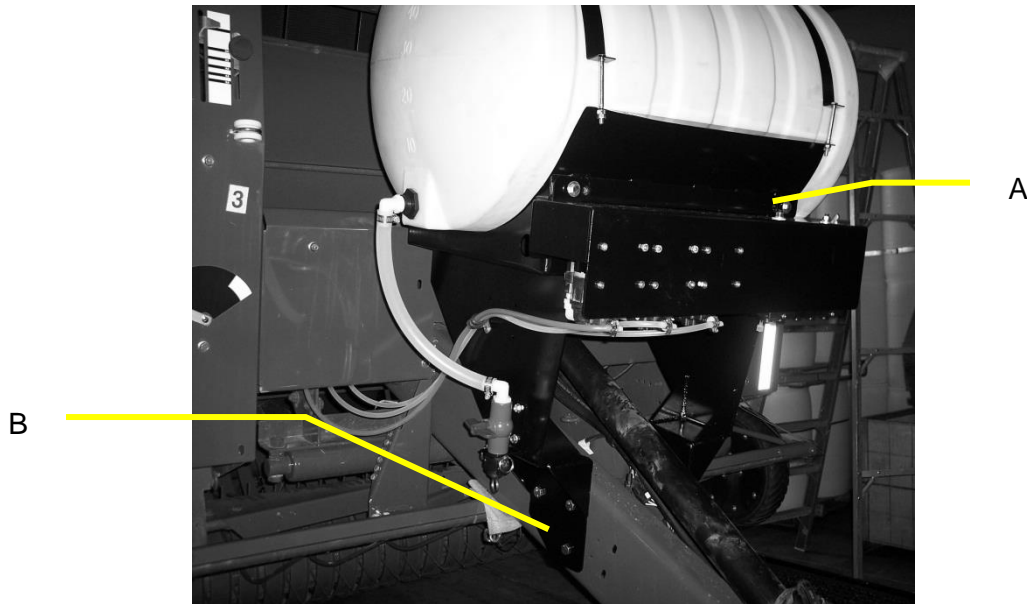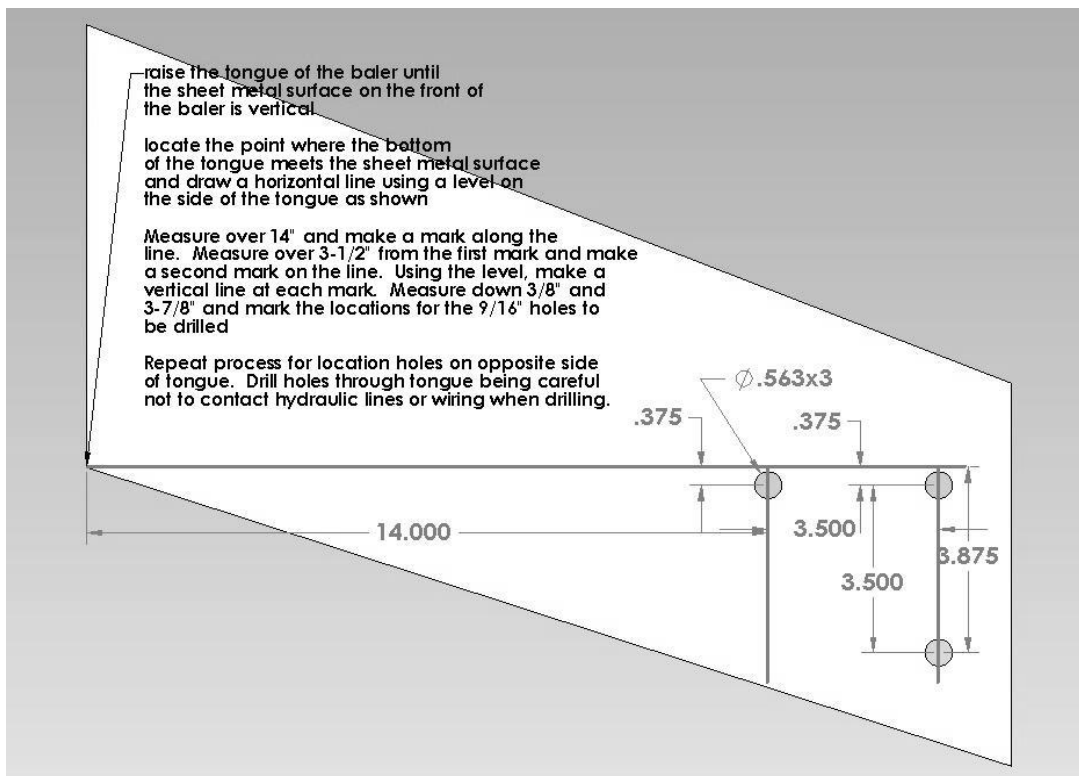
Figure 9

A

B

raise the tongue of the baler until
the sheet metal surface on the front of
the baler is vertical

locate the point where the bottom
of the tongue meets the sheet metal surface
and draw a horizontal line using a level on
the side of the tongue as shown

Measure over 31" and make a mark along the line.
Measure over 3 - 1/2" for the first mark and make a
sencond mark on the line. using the level, make a
vertical line at each mark. Measure down 3/8" and
3 - 7/8" and mark the the locations for the 9/16"
holes to be drilled.

Repeat process for location holes on opposite side
of tongue. Drill holes through tongue being careful
not to contact hydraulic lines or wiring when drilling.

Ø.563x3

.375   .375

31.0   3.500
              3.500   3.875

Installation of Pump Manifold

Model 647

55 Gallon Models
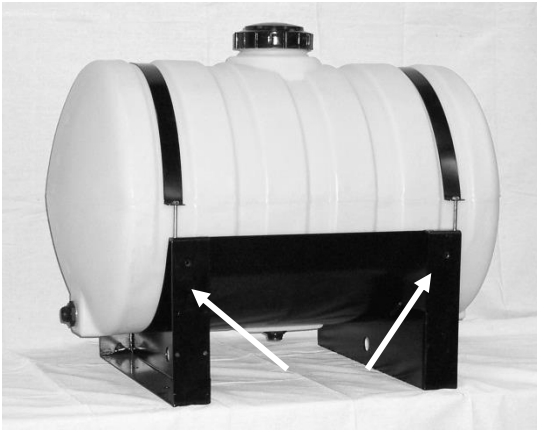
Figure 10
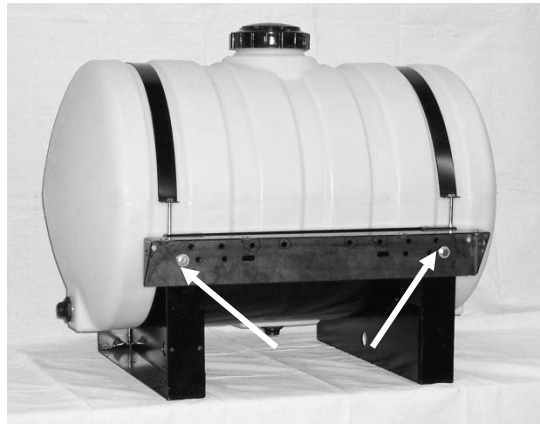
Figure 11

Figure 12

1. Locate mounting weld nuts on saddle as shown in Figure 10.
2. Connect the pump plate mounting bracket (001-4646C) to the saddle as shown in Figure 11 using two 3/8" x 3/4" bolts, locks, and flat washers.
3. Attach the pump plate holder (001-4646D) to pump plate mounting bracket (001-4646C) using four 3/8" x 3/4" flange head bolts. Figure 12.
4. Install the Pump Controller (006-5672) into the pump plate holder. Secure with two flats, locks, nuts.

The Pump Controller and pump heads must be pointing down. Failure to mount the pump plate assembly in this specified direction will void all warranty of the Pump Controller and pumps.

Model 647

25 Gallon Models
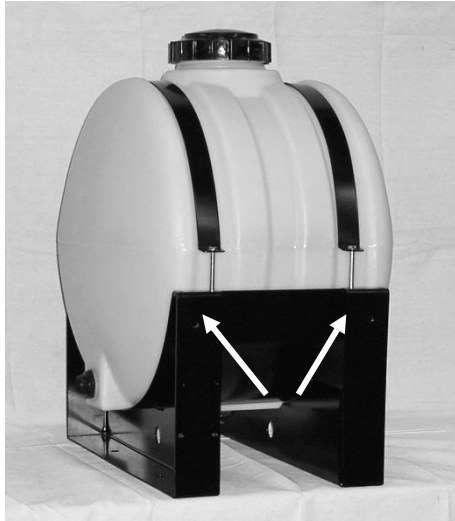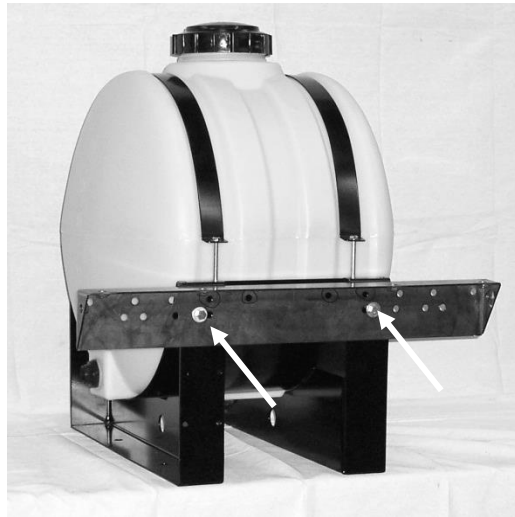
Figure 13   Figure 14

Figure 15

1. Locate mounting weld nuts on saddle as shown in Figure 13.
2. Connect the pump plate mounting bracket (001-4646C) to the saddle as shown in Figure 14, using two 3/8" x 3/4" bolts, nuts, locks, and flat washers.
3. Attach the pump plate holder (001-4646D) to pump plate mounting bracket (001-4646C) using four 3/8" x 3/4" flange head bolts. Figure 15.
4. Install the Pump Controller (006-5672) into the pump plate holder. Secure with two flats, locks, nuts.

The Pump Controller and pump heads must be pointing down. Failure to mount the pump plate assembly in this specified direction will void all warranty of the Pump Controller and pumps.

Model 647C

Mounting Front Pump Plate Support

001-4646C Pump
Mounting Plate Holes

Figure 16

4x6 and 5x6 Baler
Mounting Holes

001-4703XE

4x5 and 5x5 Baler
Mounting Holes
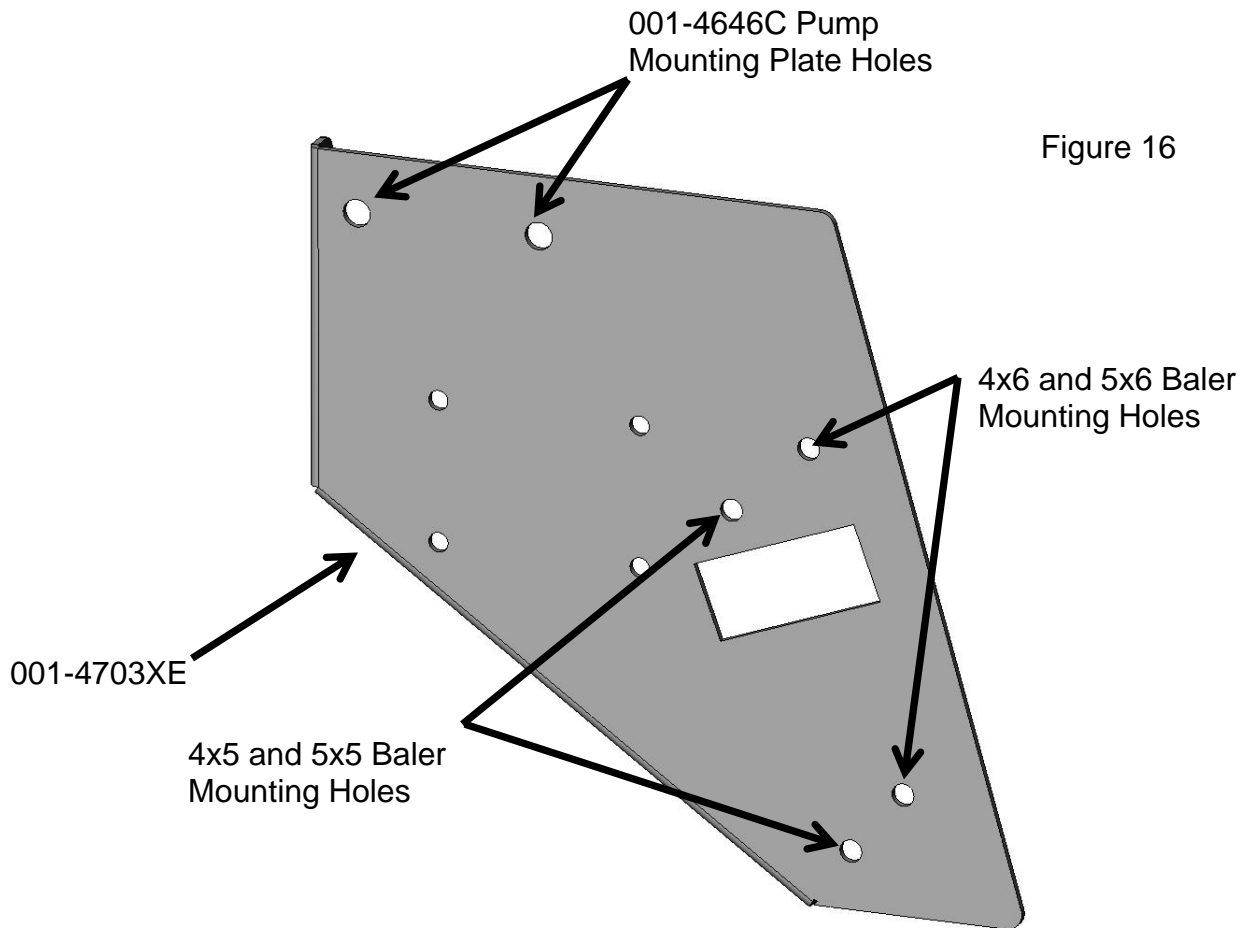
a.   Open right side door of baler.

b.   Locate mounting holes for your size baler in bracket (001-4703XE). Mount bracket to pre-stamped square holes on diagonal support structure of baler. Note pictures on following pages will help in locating the pre-stamped holes on your baler. Secure with two M8 x 25mm carriage bolts and flanged nuts.

c.   Disconnect pump mounting bracket (001-4646C) from pump plate by removing four 3/8" x 3/8" flange bolts. Attach right top corner of pump mounting bracket to bracket (001-4703XE) with two 3/8" x 3/4" hex bolts, flat washers, lock washers, and nuts. Note: top of both brackets should be flush.

Model 647C

Mounting Rear Pump Plate Support

Mounting bracket (001-4703XF) will be used to mount the pump mounting bracket to the door support bracket. However each size baler uses a different set of holes in the rear mounting bracket (001-4703XR). Follow the guidance provided below as well as the additional instructions on the next few pages for mounting on your size baler.

001-4703XF

Figure 17

Baler	Pump Plate	Door Bracket
4x5	1 & 2	D & E
5x5	1 & 2	C & E
4x6	3 & 4	A & B
5x6	3 & 4	A & E
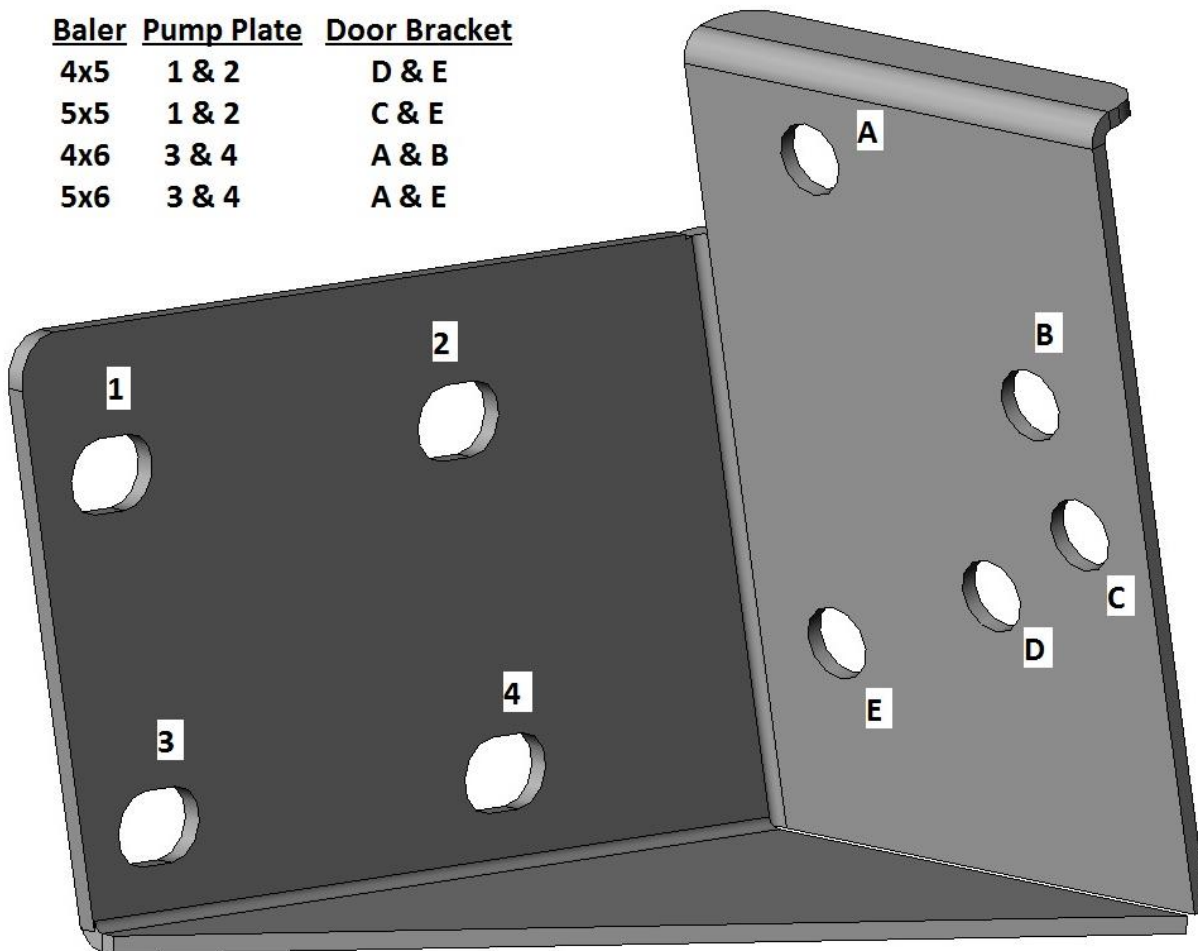
Mounting Rear Pump Plate Support for 4 X 5 Baler

1. Locate the baler door support bracket. This will be to the left of the Mounting Plate (001-4646C).
2. Use two 3/8" x 3/4" hex bolts, flat washers, lock washers, and nuts to secure Pump Plate Bracket (001-4703XF) to back side of Pump Mounting Bracket (001-4646C). Use holes **1 and 2** as designated in Figure 2 on the Pump Plate Bracket (001-4703XF). Slide the Pump Plate Bracket (001-4703XF) so it touches the door support bracket.
3. Place a level on top of the Mounting Plate (001-4646C) to make sure it is level. Using the Pump Plate Bracket (001-4703XF) as a guide mark holes (**D and E)** on the door support bracket. Remove brackets (001-4703XF and 001-4646C) for drilling. Center punch holes and drill with a 7/16" drill bit.
4. Once holes are drilled secure (001-4703XF) to door support bracket with two 3/8" x 3/4" hex bolts, flat washers, lock washers, and nuts.
5. Attach pump mounting bracket back onto brackets (001-4703XF and 001-4703XE) with 3/8" hardware.
6. Attach pump plate with pumps onto Mounting Plate (001-4646C) bracket with 3/8" x 3/4" flange bolts removed earlier.
7. Install pump controller (006-5672) in pump plate using 5/16" flat washers, lock washers, nuts.

The Pump Controller and pump heads must be pointing down. Failure to mount the pump plate assembly in this specified direction will void all warranty of the Pump Controller and pumps.

Figure 18

4x5 Baler (continued)
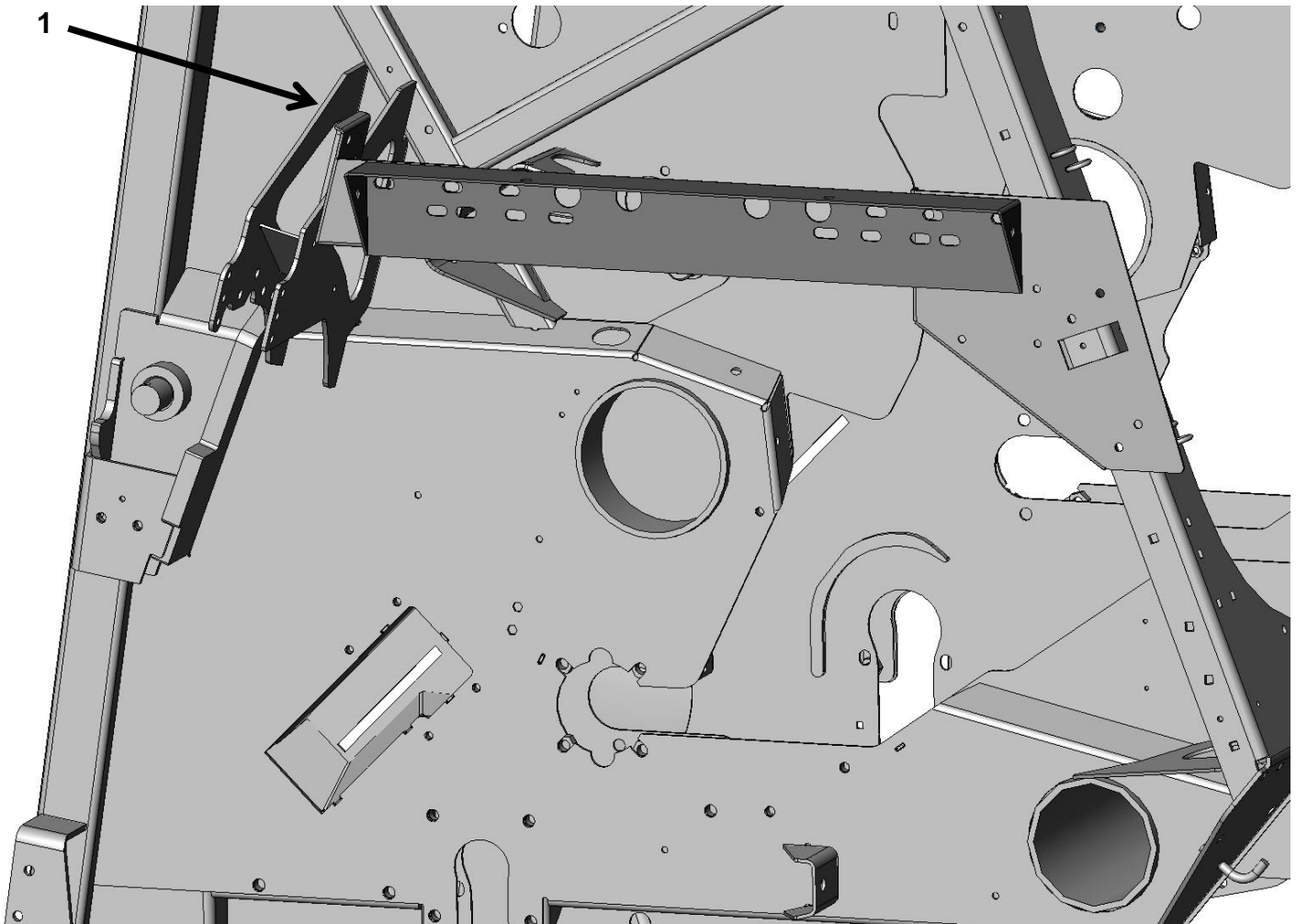
4x5 Baler Use
Holes D & E

Figure 19

Figure 20

Mounting Rear Pump Plate Support for the 4 x 6 Baler

1. Locate the baler door support bracket. This will be to the left of the Mounting Plate (001-4646C).
2. Use two 3/8" x 3/4" hex bolts, flat washers, lock washers, and nuts to secure Pump Plate Bracket (001-4703XF) to back side of Pump Mounting Bracket (001-4646C). Use holes **3 and 4** as designated in Figure 2 on the Pump Plate Bracket (001-4703XF). Slide the Pump Plate Bracket (001-4703XF) so it touches the door support bracket.
3. Place a level on top of the Mounting Plate (001-4646C) to make sure it is level. Using the Pump Plate Bracket (001-4703XF) as a guide mark holes (**A and B)** on the door support bracket. Remove brackets (001-4703XF and 001-4646C) for drilling. Center punch holes and drill with a 7/16" drill bit.
4. Once holes are drilled secure (001-4703XF) to door support bracket with two 3/8" x 3/4" hex bolts, flat washers, lock washers, and nuts.
5. Attach pump mounting bracket back onto brackets (001-4703XF and 001-4703XE) with 3/8" hardware.
6. Attach pump plate with pumps onto Mounting Plate (001-4646C) bracket with 3/8" x 3/4" flange bolts removed earlier.
7. Install Pump Controller (006-5672) in pump plate using 15/16" flat washers, lock washers, nuts.

The Pump Controller and pump heads must be pointing down. Failure to mount the pump plate assembly in this specified direction will void all warranty of the Pump Controller and pumps.

Figure 21

4x6 Baler (continued)
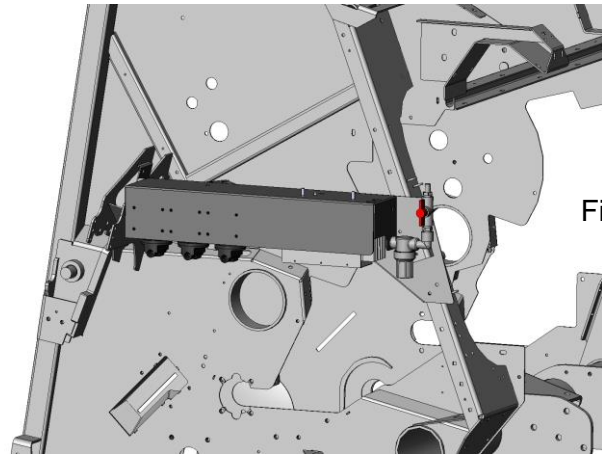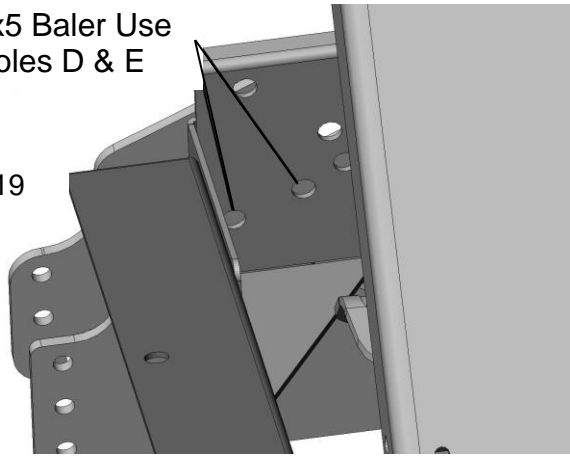
4x6 Baler – Use Holes A & B

Figure 22

Figure 23

Mounting Rear Pump Plate Support for the 5 x 5 Baler

1. Locate the baler door support bracket. This will be to the left of the Mounting Plate (001-4646C).
2. Use two 3/8" x 3/4" hex bolts, flat washers, lock washers, and nuts to secure Pump Plate Bracket (001-4703XF) to back side of Pump Mounting Bracket (001-4646C). Use holes **1 and 2** as designated in Figure 2 on the Pump Plate Bracket (001-4703XF). Slide the Pump Plate Bracket (001-4703XF) so it touches the door support bracket.
3. Place a level on top of the Mounting Plate (001-4646C) to make sure it is level. Using the Pump Plate Bracket (001-4703XF) as a guide mark holes (**C and E)** on the door support bracket. Remove brackets (001-4703XF and 001-4646C) for drilling. Center punch holes and drill with a 7/16" drill bit.
4. Once holes are drilled secure (001-4703XF) to door support bracket with two 3/8" x 3/4" hex bolts, flat washers, lock washers, and nuts.
5. Attach pump mounting bracket back onto brackets (001-4703XF and 001-4703XE) with 3/8" hardware.
6. Attach pump plate with pumps onto Mounting Plate (001-4646C) bracket with 3/8" x 3/4" flange bolts removed earlier.
7. Install Pump Controller (006-5672) in pump plate using 5/16" flat washers, lock washers, nuts.

The Pump Controller and pump heads must be pointing down. Failure to mount the pump plate assembly in this specified direction will void all warranty of the Pump Controller and pumps.
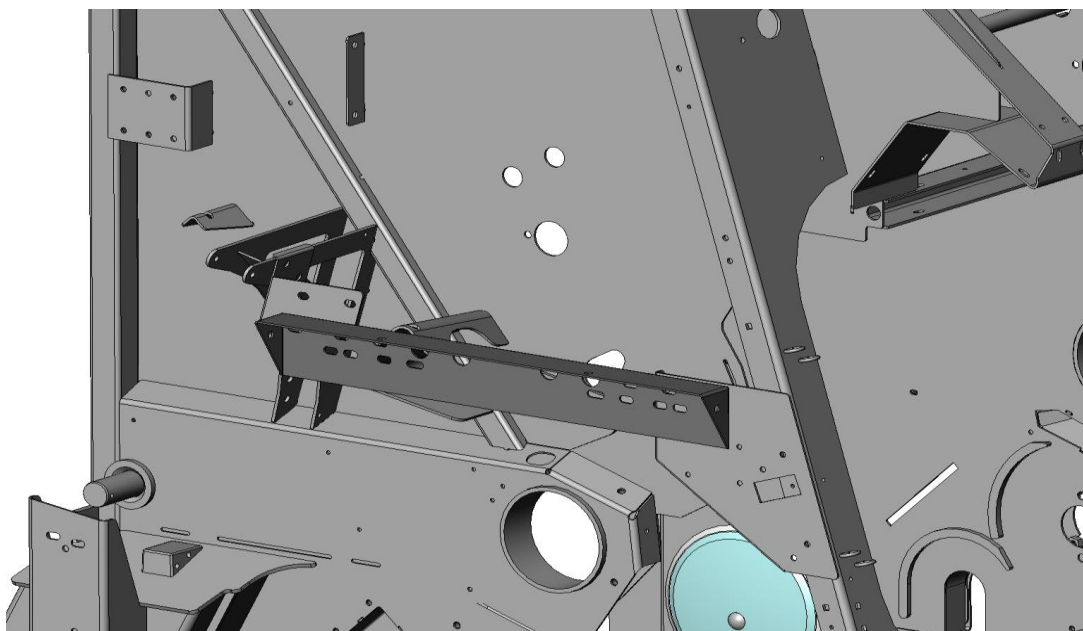
Figure 24

5x5 Baler (continued)
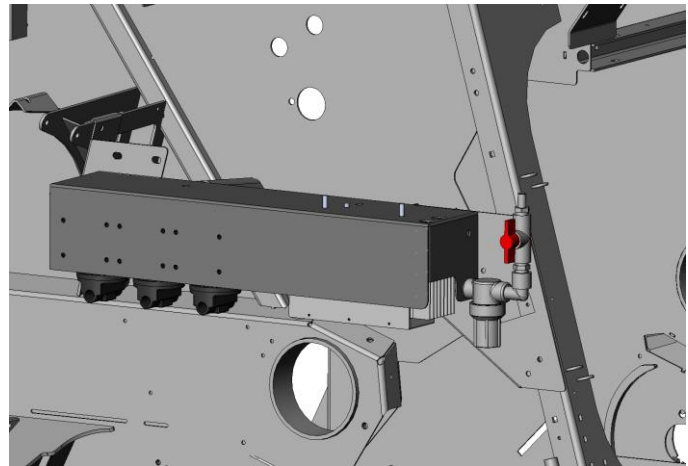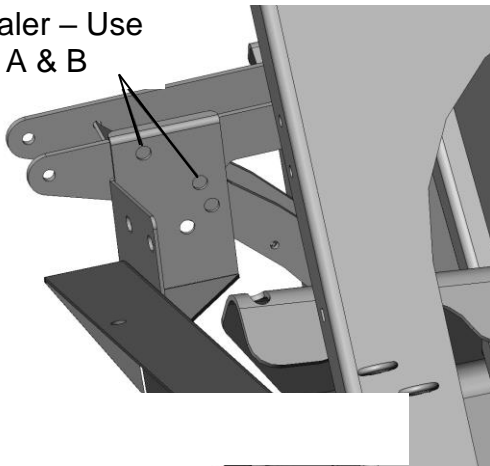
5x5 Baler – Use Holes C & E
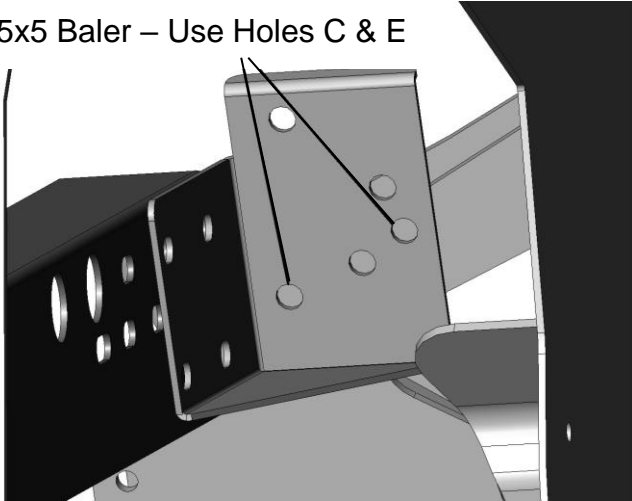
Figure 25
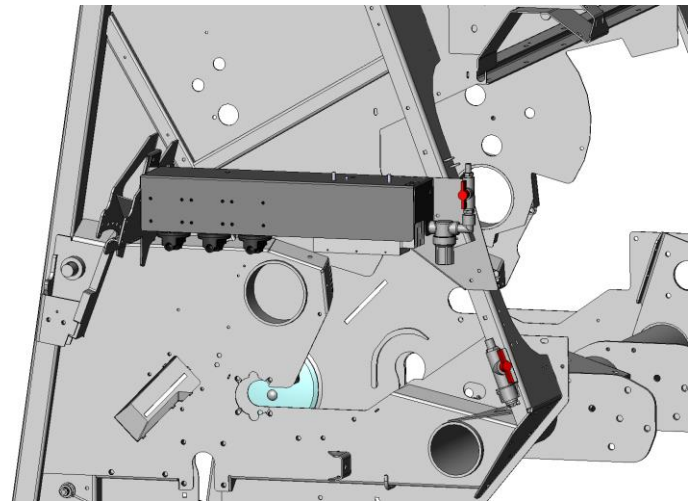
Figure 26

Mounting Rear Pump Plate Support for the 5 x 6 Baler
1. Locate the baler door support bracket. This will be to the left of the Mounting Plate (001-4646C).
2. Use two 3/8" x 3/4" hex bolts, flat washers, lock washers, and nuts to secure Pump Plate Bracket (001-4703XF) to back side of Pump Mounting Bracket (001-4646C). Use holes **3 and 4** as designated in Figure 2 on the Pump Plate Bracket (001-4703XF). Slide the Pump Plate Bracket (001-4703XF) so it touches the door support bracket.
3. Place a level on top of the Mounting Plate (001-4646C) to make sure it is level. Using the Pump Plate Bracket (001-4703XF) as a guide mark holes (**A and E)** on the door support bracket. Remove brackets (001-4703XF and 001-4646C) for drilling. Center punch holes and drill with a 7/16" drill bit.
4. Once holes are drilled secure (001-4703XF) to door support bracket with two 3/8" x 3/4" hex bolts, flat washers, lock washers, and nuts.
5. Attach pump mounting bracket back onto brackets (001-4703XF and 001-4703XE) with 3/8" hardware.
6. Attach pump plate with pumps onto Mounting Plate (001-4646C) bracket with 3/8" x 3/4" flange bolts removed earlier.
7. Install Pump Controller (006-5672) into pump plate using 5/16" flat washers, lock washers, nuts.

The Pump Controller and pump heads must be pointing down. Failure to mount the pump plate assembly in this specified direction will void all warranty of the Pump Controller and pumps.
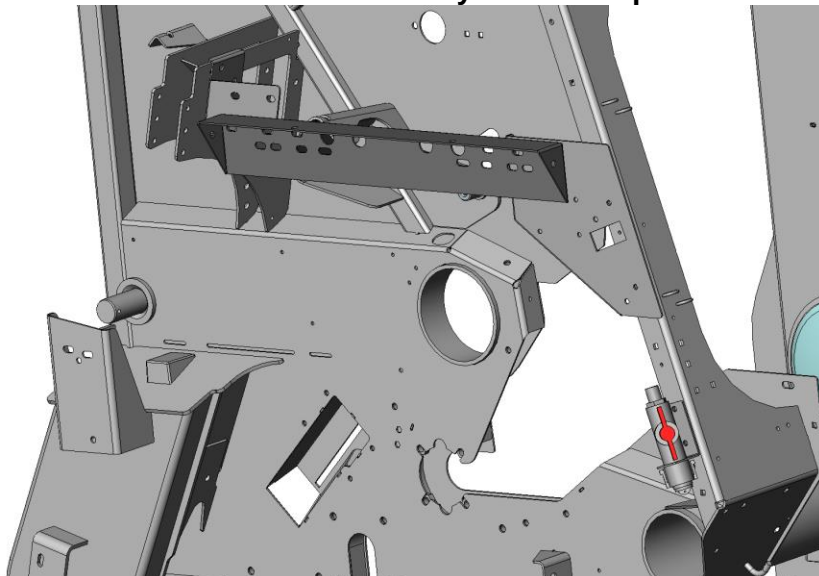
Figure 27

5x6 Baler (continued)
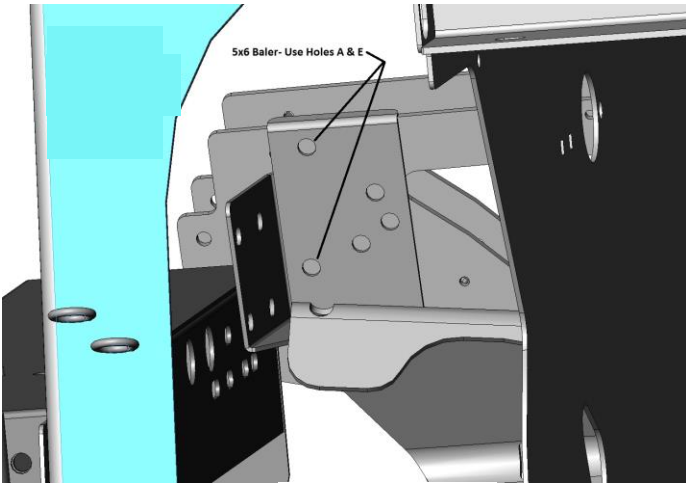
Figure 28
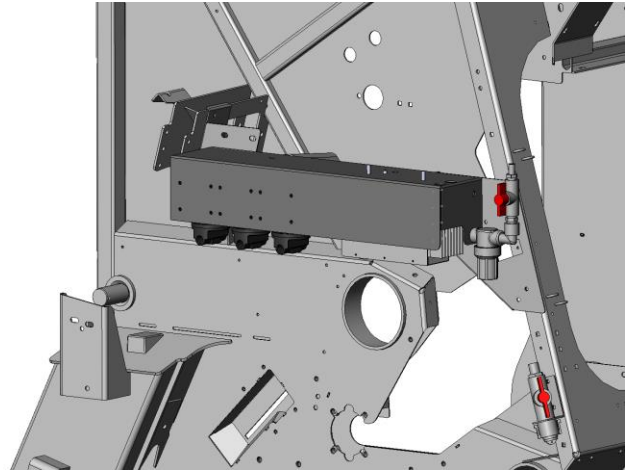
Figure 29

Model 649

Install kits 4503B, 4504B, 4517B, 4526B & 4547B
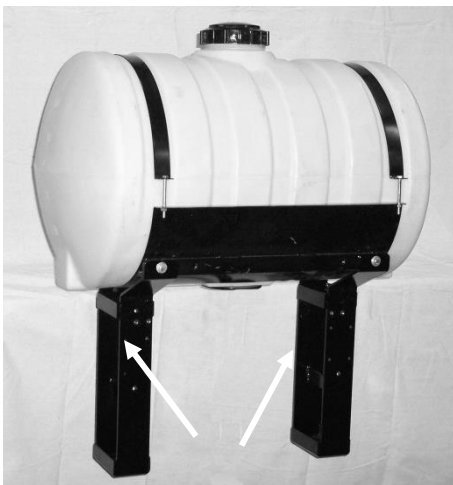
Figure 30
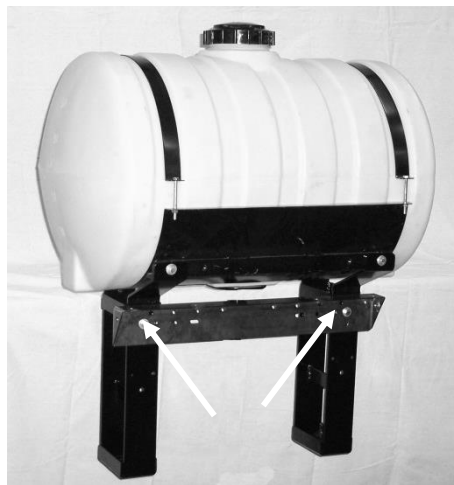
Figure 31

Figure 32

1. Locate the two mounting holes as shown in Figure 30.
2. Connect the pump plate mounting bracket (001-4646C) to the saddle as shown in Figure 31 using two 3/8" x 1/4" bolts, nuts, locks, and flat washers.
3. Attach the pump plate holder (001-4646D) to pump plate mounting bracket (001-4646C) using four 3/8" x 3/4" flange head bolts. Figure 32.
4. Install the Pump Controller (006-5672) into the pump plate holder. Secure with two flats, locks, nuts.

The Pump Controller and pump heads must be pointing down. Failure to mount the pump plate assembly in this specified direction will void all warranty of the Pump Controller and pumps.
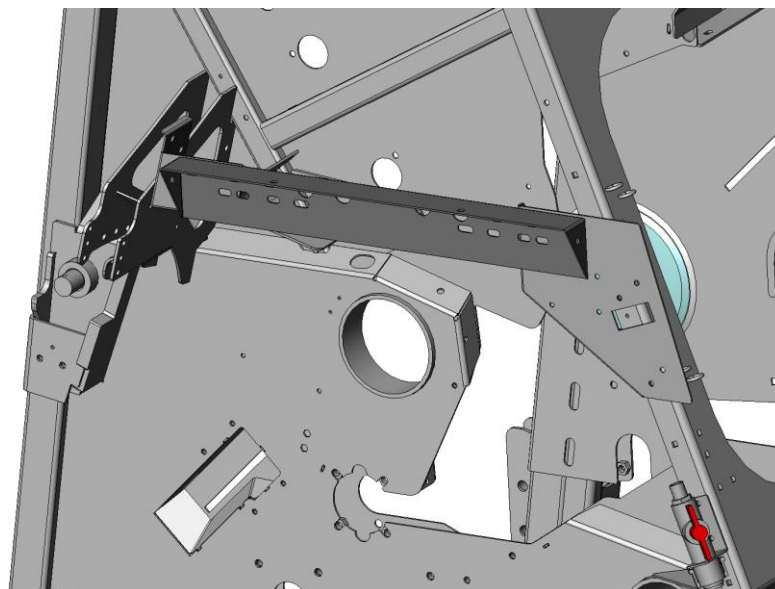
Model 649

Install kits 4505B, 4508B & 4524B

Figure 33

Figure 34

Figure 35

1. Locate the two mounting holes as shown in Figure 33.
2. Connect the pump plate mounting bracket (001-4646C to the saddle as shown in Figure 34 using two 3/8" x 1-1/4" bolts, nuts, locks, and flat washers.
3. Attach the pump plate holder (001-4646D) to pump plate mounting bracket (001-4646C) using four 3/8" x 3/4" flange head bolts. Figure 35.
4. Install the Pump Controller (006-5672) into the pump plate holder. Secure with two flats, locks, nuts.

The Pump Controller and pump heads must be pointing down. Failure to mount the pump plate assembly in this specified direction will void all warranty of the Pump Controller and pumps.

Installation of iPad Integration Control

Locate a safe location in the cab of the tractor to place the iPad Integration Control (030-6672C). Recommended location is securely fastened out of the operators way in a location that is close enough to reach with the iPad cord.

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

To operate the applicator, plug the iPad cord into the communication port indicated by:

Made for
 iPad
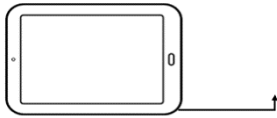
iPad Integration Control Light Signals

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

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

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

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

Bluetooth Receiver Lights

Pre-2020 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.

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

Hay App version must be **at least 2.7.1 (or higher)** to operate with the iPad Integration Module

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

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

Installation of Dual Channel Processor (DCP)

Model 647

Mount the DCP (006-6671RB) to the right side sheet metal as shown below. Mark and drill four 3/8" (10mm) holes to mount the DCP. **Check before drilling to ensure nothing will be damaged on the opposite side of the DCP.** On the bottom right of the DCP a 1-1/2" (38mm) hole will need to be drilled and insert the supplied grommet. Insert the supplied grommet into the 1-1/2" (38mm) hole. The 1-1/2" (38mm) hole will allow all the wires and harnesses to be attached to the DCP. Cover with DCP Shield 001-5650X.

Figure 36

006-6671RB

Drill hole here

Baler Belts
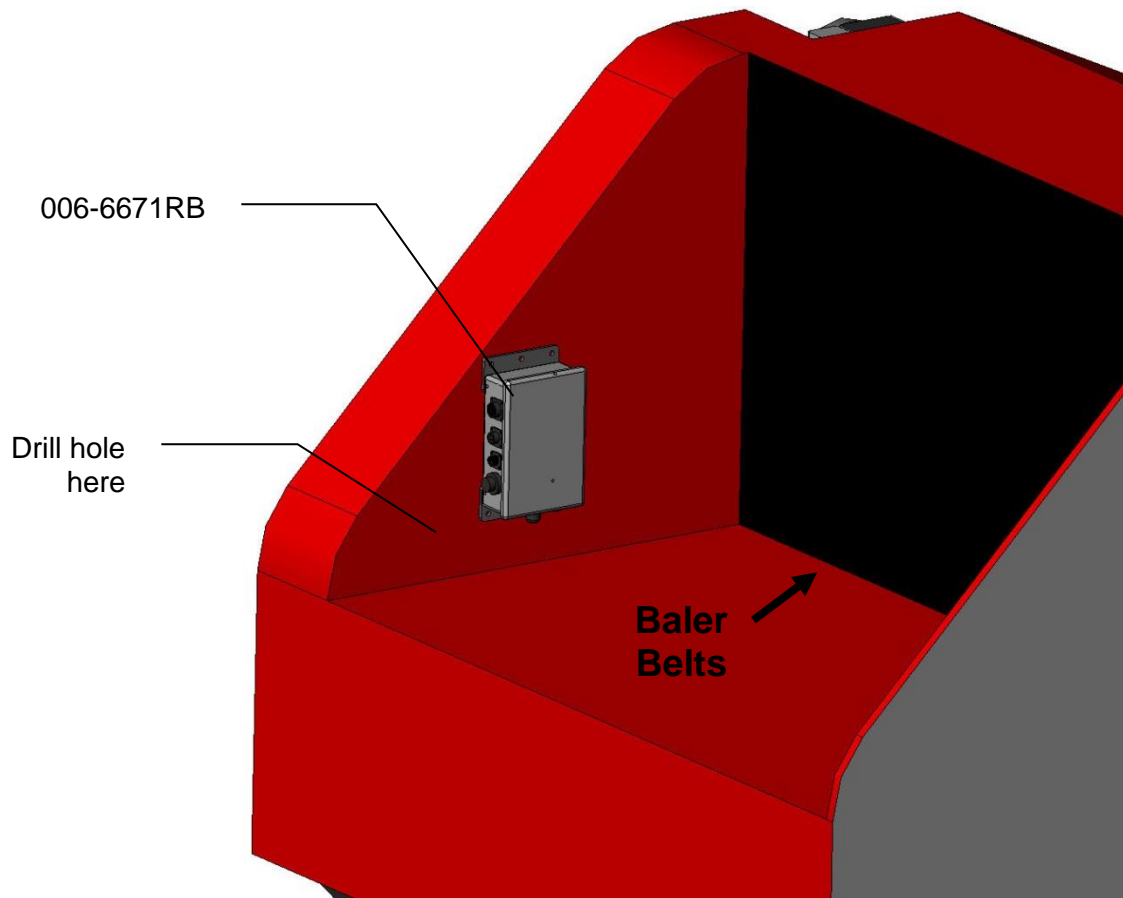
Model 647C

Use the supplied suction cup mount to position the monitor in the cab. Make sure the glass is clean before installing the suction cup mount. If a non-cabbed tractor is used, use the supplied #10 screws for installation on the fender. If unit is mounted on fender it will need to be removed at night and stored in a clean, dry area. Use the Ram mount swivel-positioning nut to tighten the entire assembly. Adjust it so that you can view the entire screen and be able to use the touch screen without interfering with other tractor functions.

Connect communication wire (006-5650T) to the bottom of the terminal.
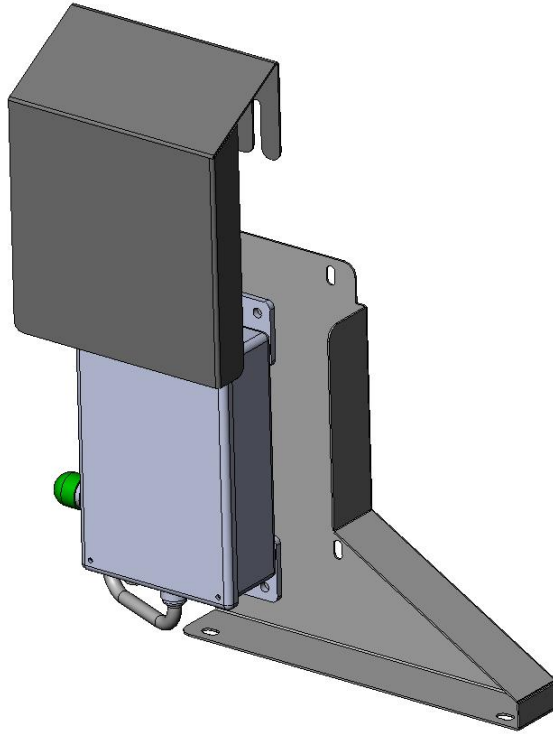
Figure 37
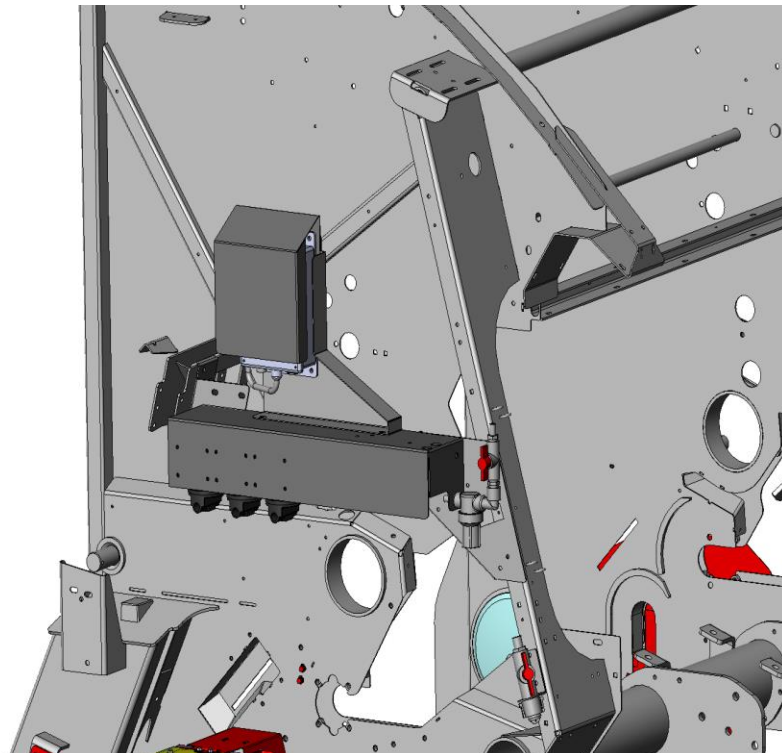
Figure 38

28

Model 649

Install kits 4503B, 4504B, 4517B, 4526B & 4547B

The DCP (006-6671RB) will mount on the right saddle leg. Install the two DCP mounts (001-4703BPM) to the leg using two 5/16" x 1" bolts, locks, and nuts. Install the DCP to the mounts using four 5/16" x 1" bolts, locks, flats and nuts. Install the DCP with power plug facing down. Cover with DCP Shield 001-5650X.

Figure 39

001-4703BPM

006-6671RB

001-4703B
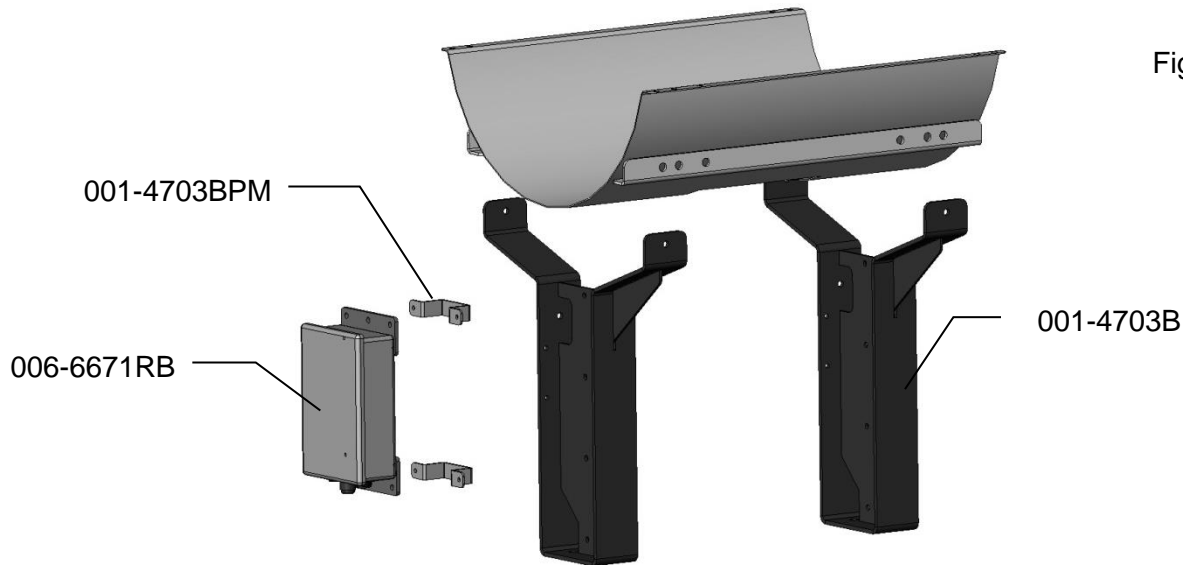
Install kits 4505B, 4508B & 4524B

The DCP (006-6671RB) will mount on the right saddle leg. Install the DCP on the four pre-drilled holes on the leg. Attach the DCP using four 5/16" x 1" bolts, locks, flats, and nuts. Install the DCP with the power plug facing down. Cover with DCP Shield 001-5650X.

Figure 40

006-6671RB
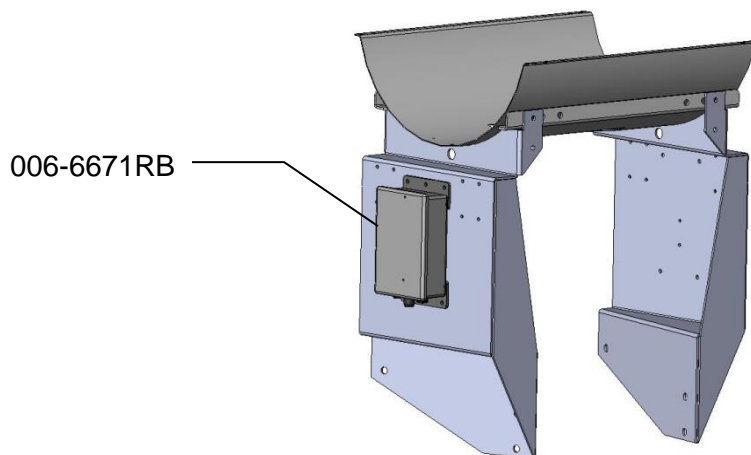
Installation of moisture sensing pads

Model 647 for four foot wide balers

Figure 41

2" from back of chamber (51mm)

1" from top of roll (25mm)

A. If your baler is equipped with bale shaping pads, remove disc and use existing hole that will need to be drilled out to 3/4" (19mm) to install new moisture sensing discs.
B. If your baler is not equipped with bale shaping pads you will need to drill a hole in the chamber directly behind and above the starting roll. (Figure 28)
C. The mounting hole will be 3/4" (19mm) in diameter. Use a plastic pad (006-4641F) and place it into the baler to use as a template. The bottom edge of the pad will be placed 1" (25mm) up from starting roll and 2" (51mm) from the back of the bale chamber.

Figure 42

006-4641G

006-4641G

006-4641I

006-4640G2

006-4641H

006-4641F

4. Locate the 006-4641G. The piece will need to be cut down to size. Use the already machined line in the bushing to cut off the small piece shown above.
5. Depending on the baler the bolt may need to be trimmed for proper fit.
6. Tighten all of the hardware to 50 ft/lbs (68N/m)
7. Make sure that the plastic pad is protecting all metal surfaces of the disc from touching baler.
8. Run the moisture wire harness (006-4640G2) from pump plate area to each disc securing with cable ties.
9. Apply silicone over nuts and washers.

Model 647 for five foot wide balers
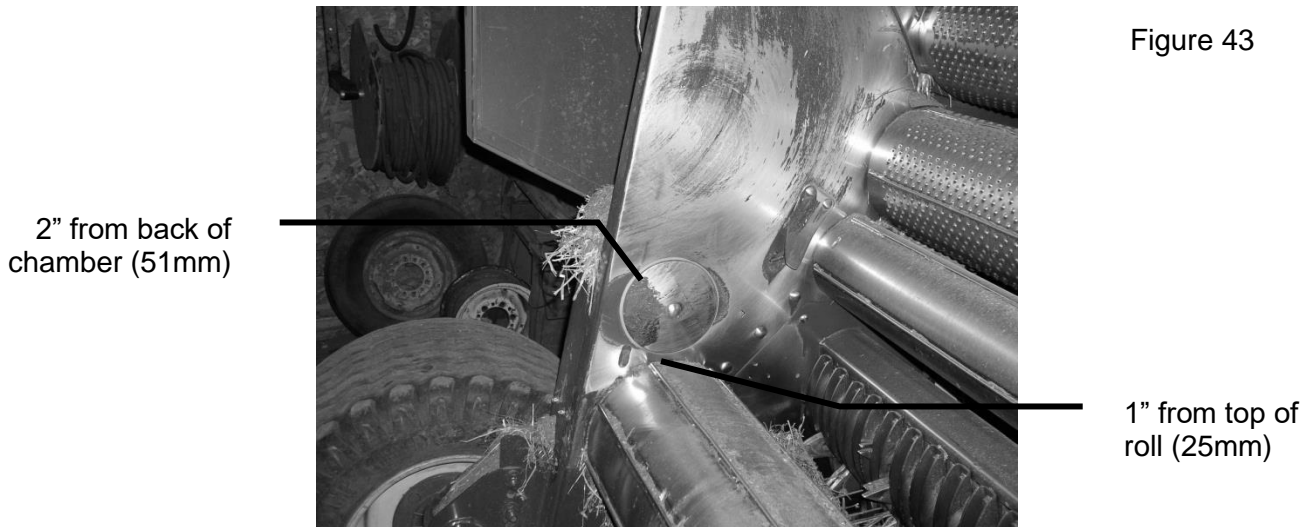
Figure 43

2" from back of chamber (51mm)

1" from top of roll (25mm)

1. If your baler is equipped with bale shaping pads, remove disc and use existing hole that will need to be drilled out to 3/4" (19mm) to install new moisture sensing discs. If the discs are welded, the welds will need to ground off for disc removal.
2. If your baler is not equipped with bale shaping pads you will need to drill a hole in the chamber directly behind and above the starting roll. (Figure 43)
3. The mounting hole will be 3/4" (19mm) in diameter. Use a plastic pad (006-4641F) and place it into the baler to use as a template. The bottom edge of the pad will be placed 1" (25mm) up from starting roll and 2" (51mm) from the back of the bale chamber.

Figure 44

006-4641G

006-4641I

006-4640G2

006-4641H

006-4641F
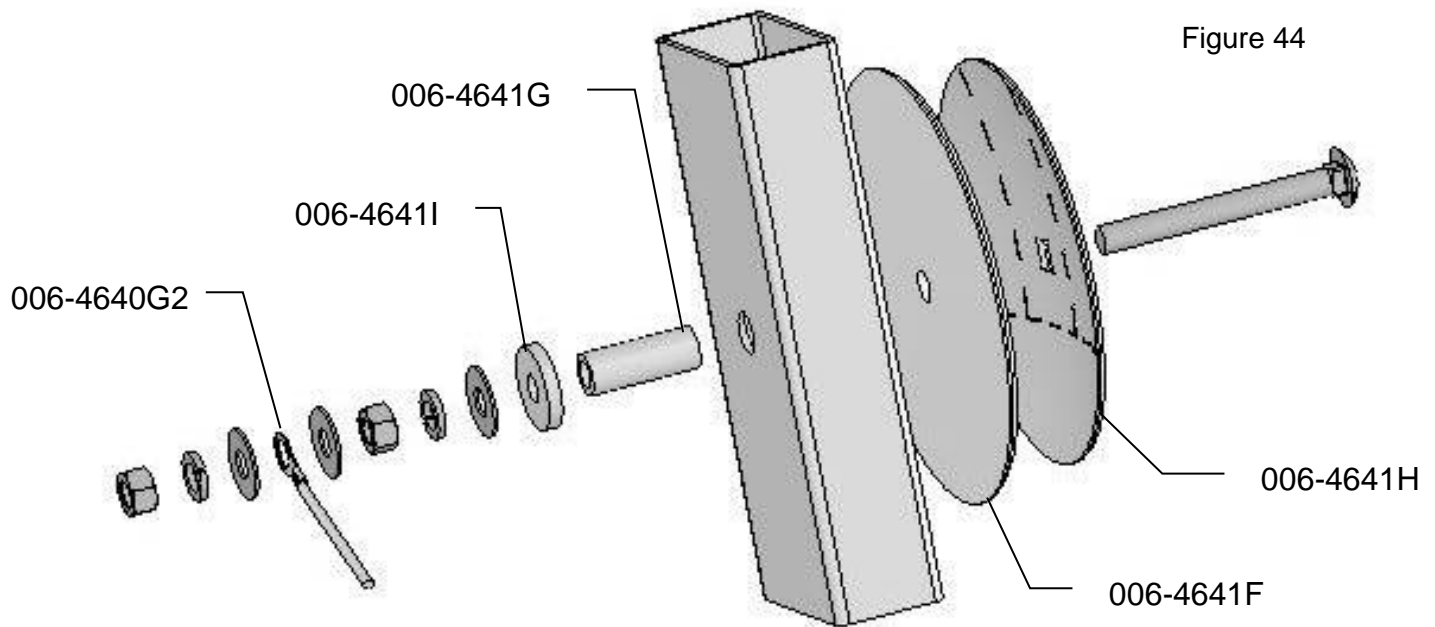
4. Depending on the baler the bolt may need to be trimmed for proper fit.
5. Tighten all of the hardware to 50 ft/lbs 68 N/m).
6. Make sure that the plastic pad is protecting all metal surfaces of the disc from touching baler.
7. Run the moisture wire harness (006-4640G2) from pump plate area to each disc securing with cable ties.
8. Apply silicone over nuts and washers.

Install kit 4503B for John Deere 582
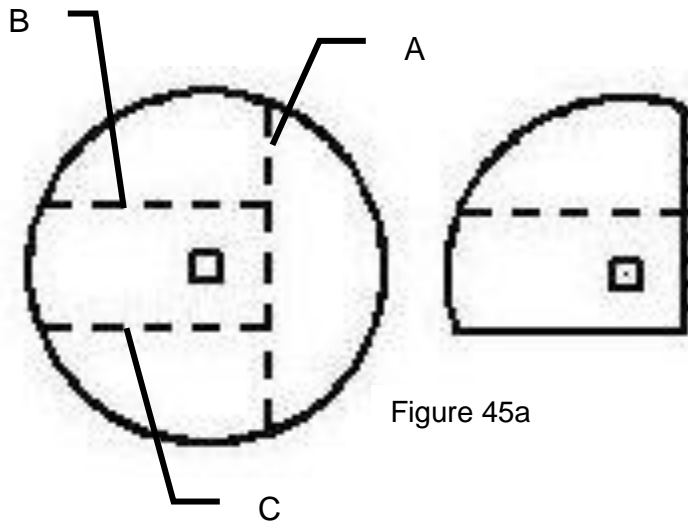
Figure 45a
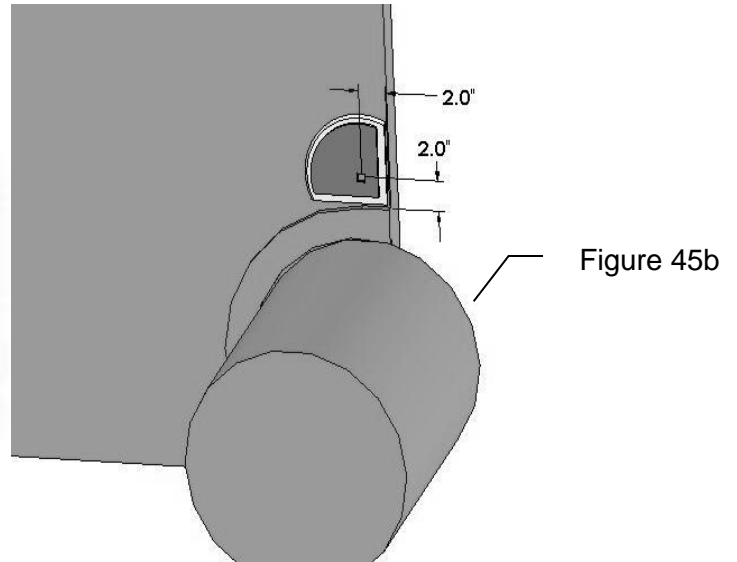
Figure 45b

1. The moisture discs (006-4641H) will both need to be cut on line A. (Figure 45a) One disc will need to be cut on line B and one disc on line C.
2. The plastic pad (006-4641F) will also need to be cut 6mm longer than the back of the disc.
3. Bevel all sides of the cut discs to allow the smooth travel of crop over them.
4. The mounting hole will be 3/4" (19mm) in diameter. The disc will need to be placed on the baler to line up the location of 1" (25mm) up from bottom and 2" (51mm) from the back of chamber to the center of the bolt. (Figure 45b)

Figure 46

006-4641G

006-4641I

006-4640G2

006-4641H

006-4641F

4. Make sure that plastic pad is protecting all metal surfaces of disc from touching baler.
5. Run the moisture wire harness (006-4640G2) from the DCP to each disc securing with cable ties.
6. On some balers the bolt may need to be trimmed for proper fit.
7. Tighten all hardware to 50 ft/lbs (68 N/m)
8. Apply silicone over nuts and washers.

Install kit 4503B for John Deere 854

Figure 47a

B   A

C

Figure 47b

2.00"
50.8mm

3.50"
88.9mm

6.25"
158.8mm

D

1.50"
38.1mm

Install kit 4503B for John Deere 854 (continued)

1. The moisture discs (006-4641H) will both need to be cut on line A. (Figure 47a) One disc will need to be cut on line B and one disc on line C.
2. The plastic pad (006-4641F) will also need to be cut 1/4" (7mm) longer than the back of the disc.
3. Bevel all sides of the cut discs to allow the smooth travel of crop over them.
4. Remove the shield directly above the starter roll shown as figure D on both sides of the baler. Cut the 6-1/4" (16cm) notch out using the supplied measurements. Reinstall both sides.
5. The mounting hole will be 3/4" (19mm) in diameter. The disc will need to be placed on the baler to line up the location of 3-1/2" (89mm) up from bottom and 2" (51mm) from the back of the chamber to the center of the bolt.

Figure 48

006-4641G
006-4641I
006-4640G2
006-4641H
006-4641F
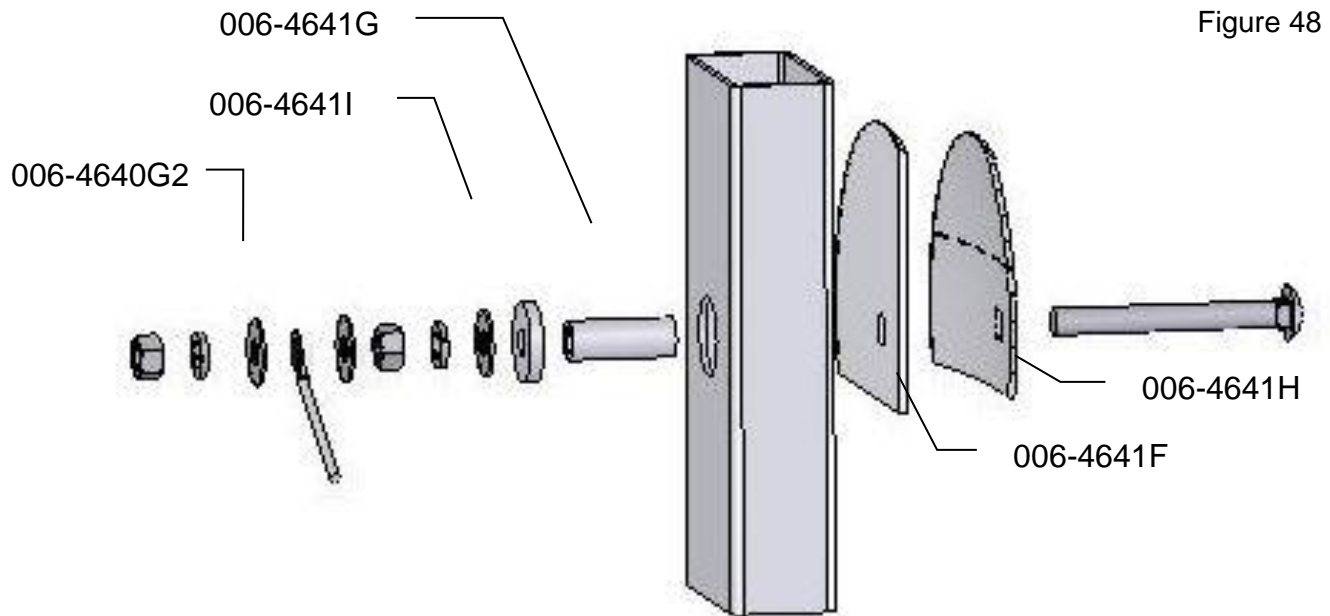
6. Make sure that plastic pad is protecting all metal surfaces of disc from touching baler.
7. Run the moisture wire harness (006-4640G2) from the DCP to each disc securing with cable ties.
8. On some balers the bolt may need to be trimmed for proper fit.
9. Tighten all hardware to 50ft/lb (68N/m)
10. Apply silicone over nuts and washers

Install kit 4504B, 4517B & 4547B

Figure 49b

A
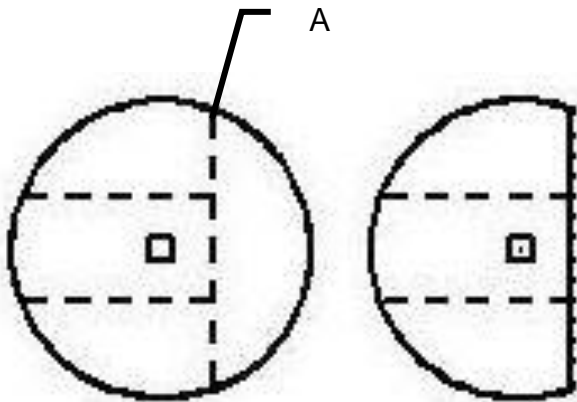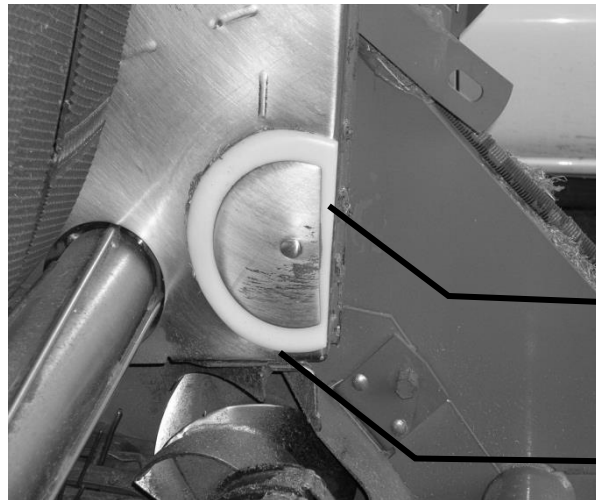
Figure 49a

5/16" in from back of baler (8mm)

1" from bottom (25mm)

1. Both moisture discs (006-4641H) will need to be cut along the serrated line (A) (Figure 49a). Only cut on the line shown on Figure 64, do not cut the other line.
2. The plastic pad (006-4641F) will also need to be cut 1/4" (7mm) longer than the back of the disc.
3. Bevel all sides of the cut discs to allow the smooth travel of crop over them.
4. Using the cut disc as a pattern, mark and drill a 3/4" (19mm) hole in the side of the bale chamber. The disc will need to be placed on baler 1" (25mm) up from bottom and 1/4" (7mm) in from the back of chamber.

006-4641G

006-4641I

006-4640G2

Figure 50

006-4641H

006-4641F
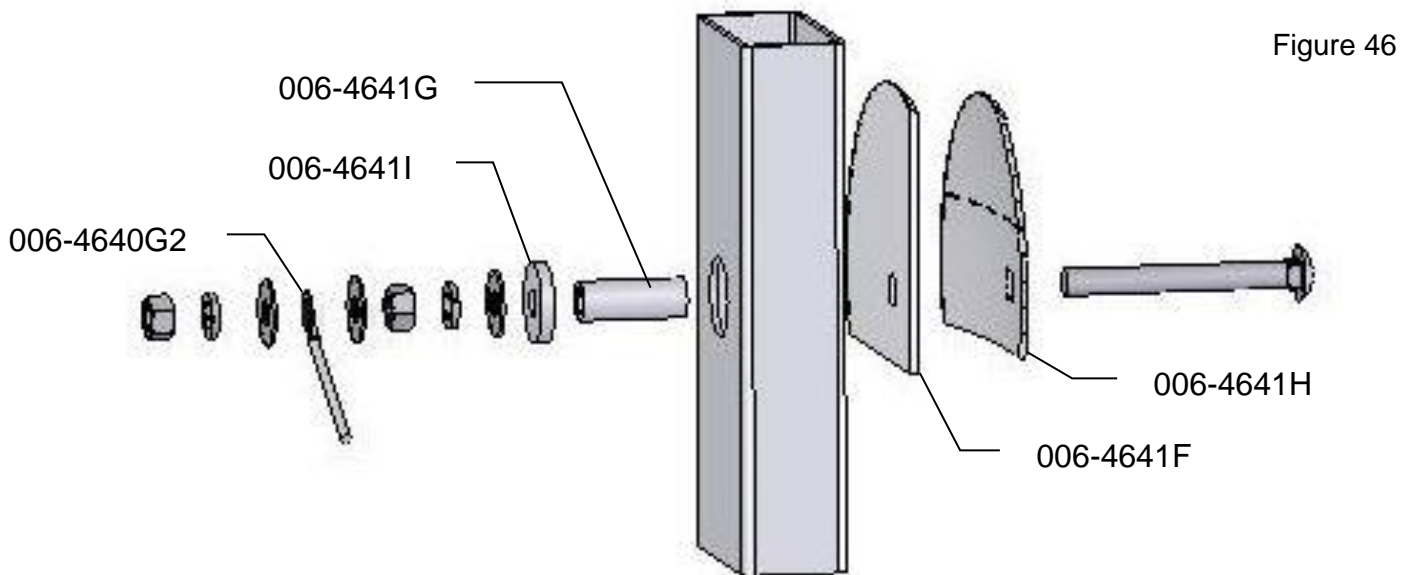
5. Make sure that plastic pad is protecting all metal surfaces of disc from touching baler.
6. Run the moisture wire harness (006-4640G2) from the DCP to each disc securing with cable ties.
7. On some balers the bolt may need to be trimmed for proper fit.
8. Tighten all hardware to 50 ft/lbs (68N/m)
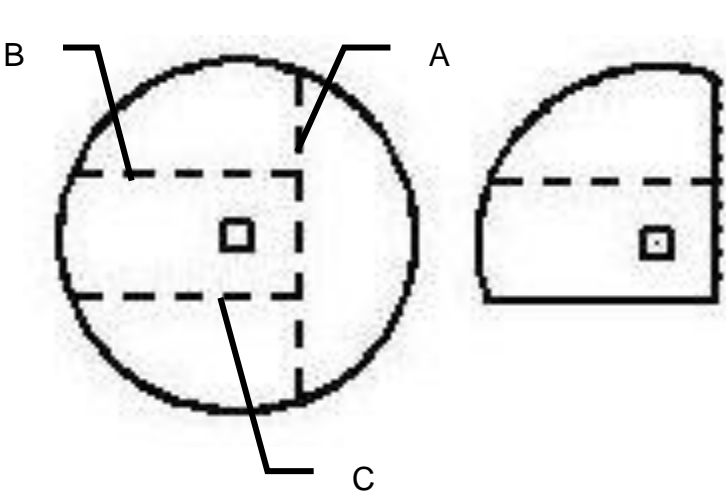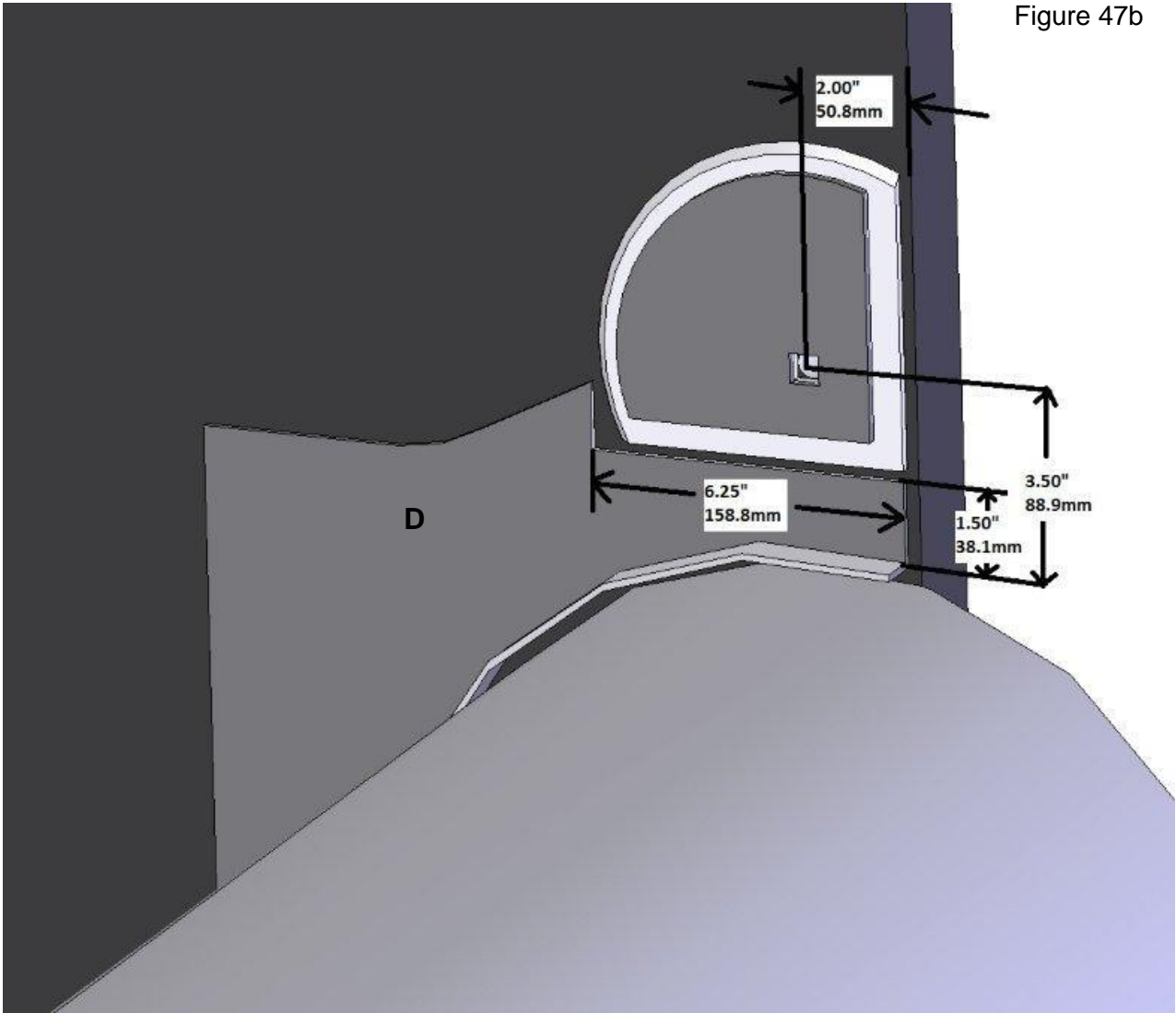9. Apply silicone over nuts and washers.

Install kit 4505B
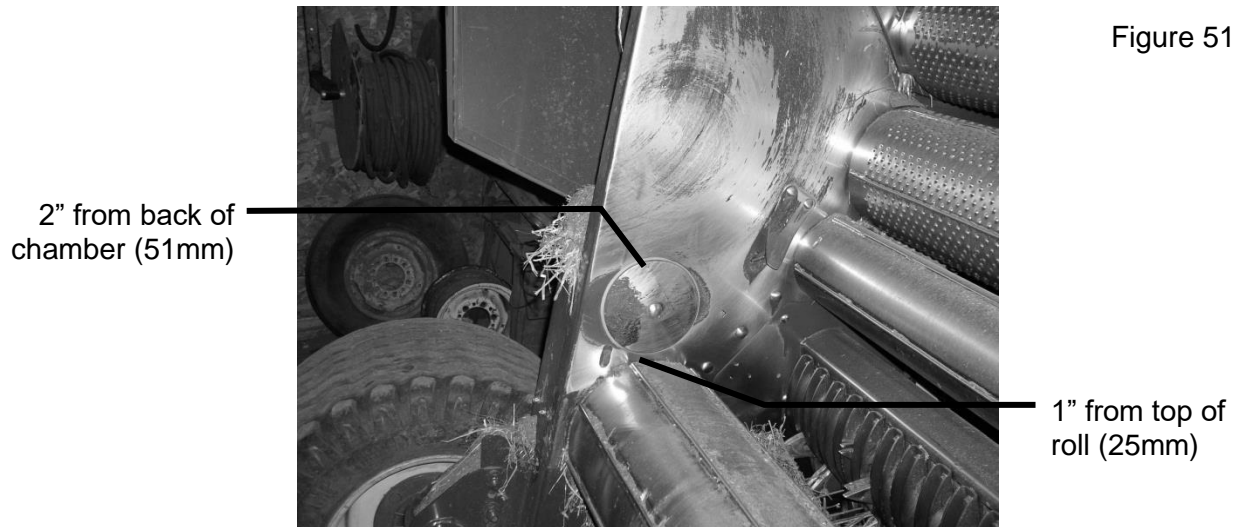
Figure 51

2" from back of chamber (51mm)

1" from top of roll (25mm)

1. If your baler is equipped with bale shaping pads, remove disc and use existing hole (may need to be drilled larger, 3/4" (19mm) to install new moisture sensing discs.
2. If your baler is not equipped with bale shaping pads you will need to drill a hole in the chamber directly behind and above the starting roll. (Figure 51)
3. The mounting hole will be 3/4" (19mm) in diameter. Use a plastic pad (006-4641F) and place it into the baler to use as a template. The bottom edge of the pad will be placed 1" (25mm) up from starting roll and 2" (51mm) from the back of the bale chamber.

Figure 52

006-4641G

006-4641I

006-4640G2

006-4641H

006-4641F

4. Locate the 006-4641G. The piece will need to be cut down to size. Use the already machined line in the bushing to cut off the small piece shown above.
5. Depending on the baler the bolt may need to be trimmed for proper fit.
6. Tighten all of the hardware to 50 ft/lbs (68 N/m)
7. Make sure that the plastic pad is protecting all metal surfaces of the disc from touching baler.
8. Run the moisture wire harness (006-4640G2) from the DCP to each disc securing with cable ties.
9. Apply silicone over nuts and washers.

Install kit 4508B and 4523B & 4526B

1. If your baler is equipped with bale shaping pads, remove disc and use existing hole (may need to be drilled larger) to install new moisture sensing discs.
2. If your baler is not equipped with bale shaping pads you will need to drill a hole in the chamber directly behind and above the starting roll. (Figure 53)
3. Remove the main chain assembly and install the pad on the right side of baler. (Figure 54)
4. The hole size is 1" (25mm) diameter. Before drilling the hole make sure hole is accessible from opposite side of chamber to tighten down mounting hardware and to install moisture harness. (Fig. 55)
5. Make sure that the plastic pad is protecting all metal surfaces of disc from touching baler. (Figure 56)

Figure 53

Figure 54

Figure 55

Figure 56

*Continued on next page

Install kit 4508B and 4523B & 4526B continued

Figure 57
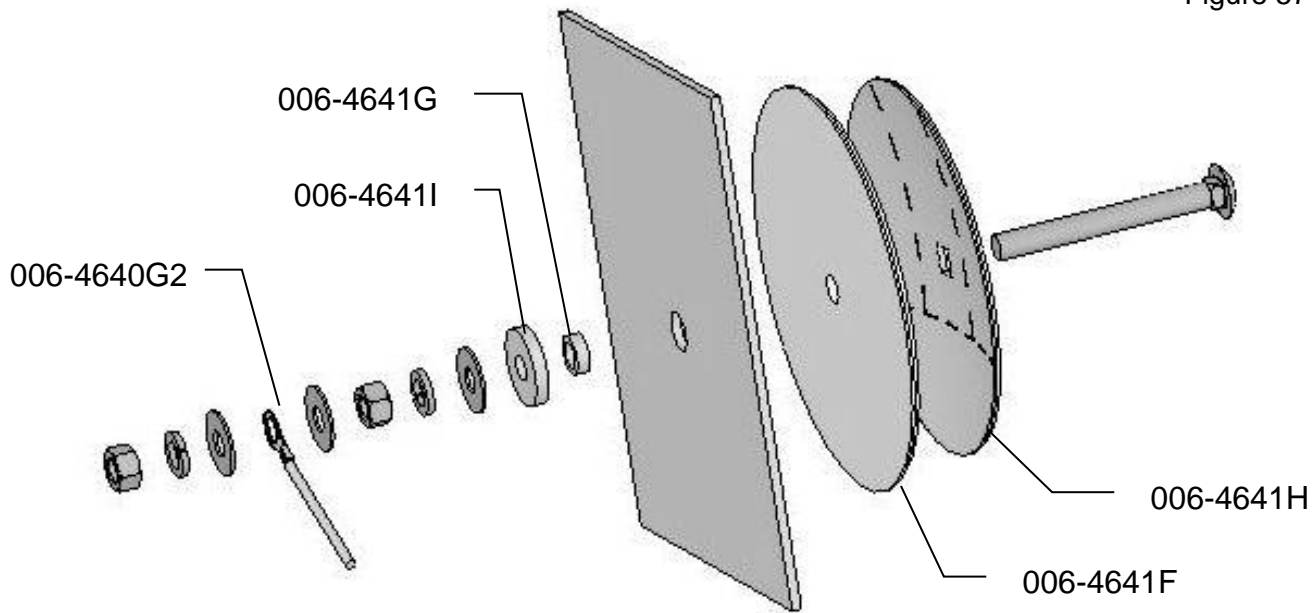
006-4641G

006-4641I

006-4640G2

006-4641H

006-4641F

5. Locate the 006-4641G. The piece will need to be cut down to size. Use the already machined line in the bushing to cut off the small piece shown above.
6. Depending on the baler the bolt may need to be trimmed for proper fit.
7. Tighten all of the hardware to 50 ft/lbs (68 N/m)
8. Make sure that the plastic pad is protecting all metal surfaces of the disc from touching baler. Run the moisture wire harness (006-4640G2) from the DCP to each disc securing with cable ties.
9. Apply silicone over nuts and washers.

Install kit 4524B
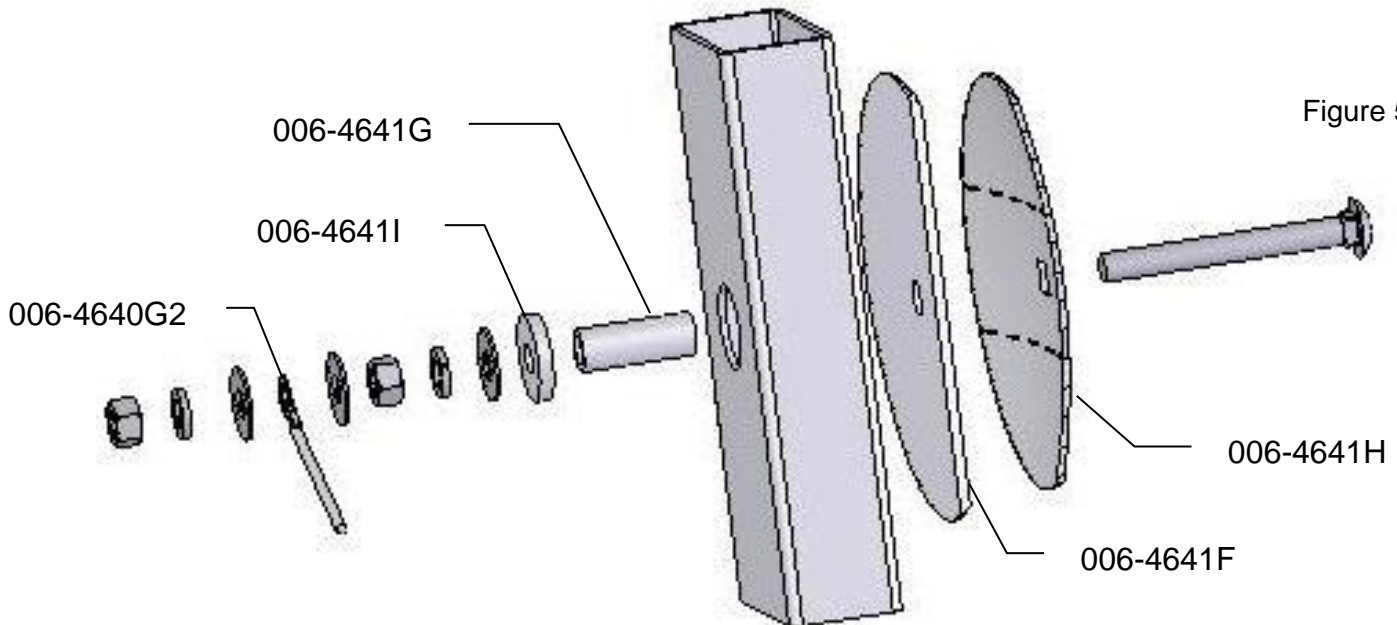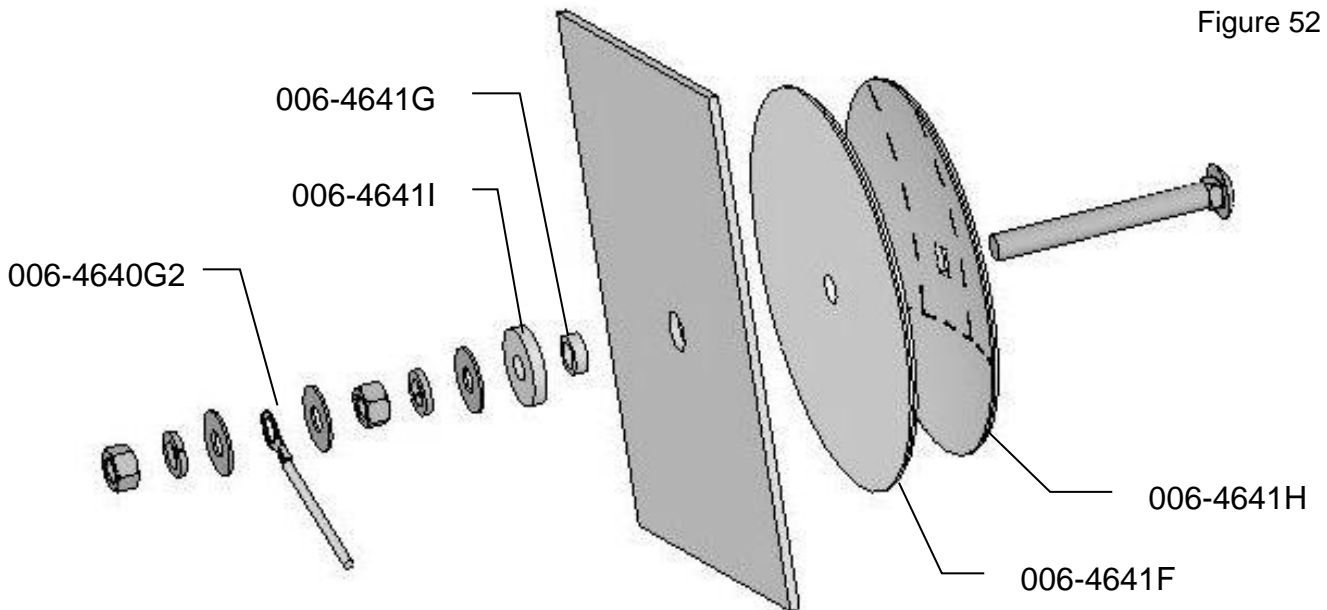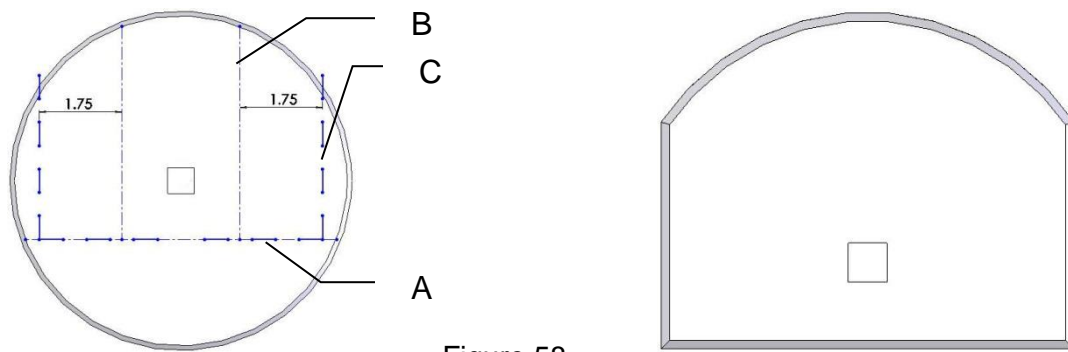

Figure 58
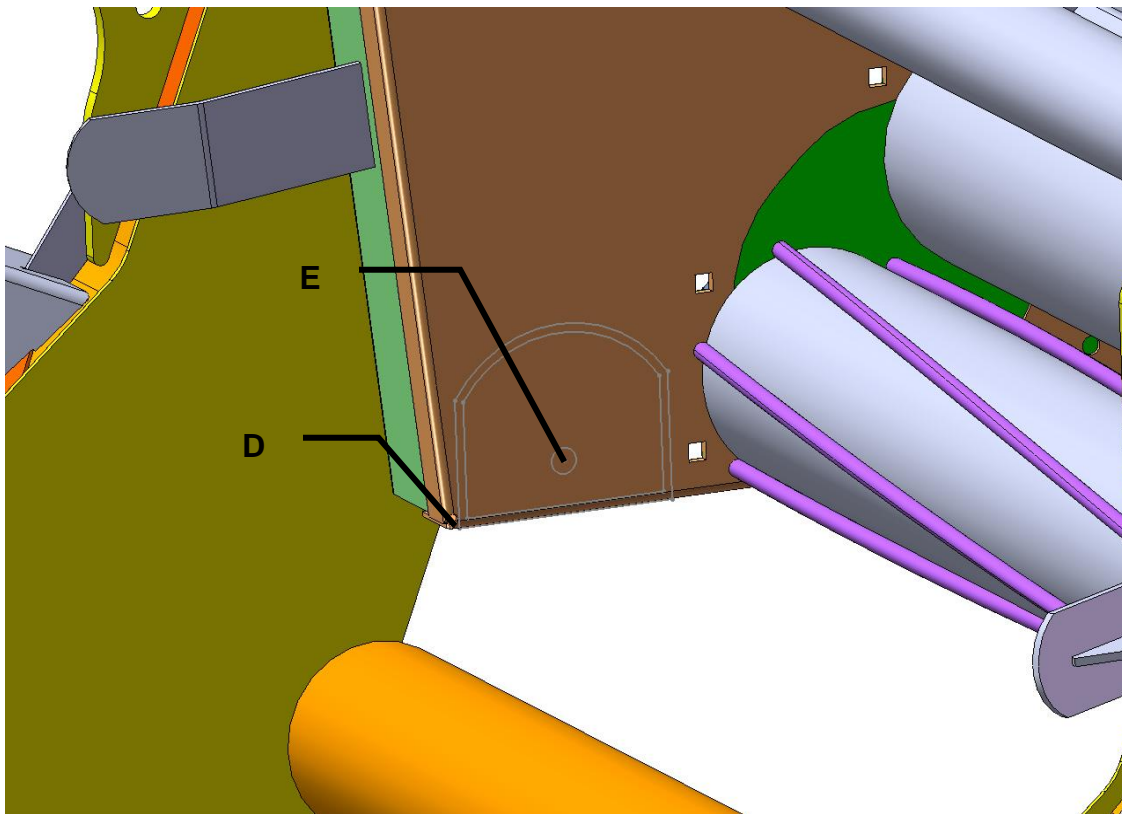
Figure 59

1. Both moisture discs (006-4641H) will need to be cut along the serrated line (A) shown on Figure 58. Measure from the laser etched line (B) 1-3/4" (45mm) on both side. Mark and cut the disc. Completed disc in shown to the top right.
2. The plastic pad (006-4641F) will also need to be cut 6mm larger than the steel disc.
3. Bevel all sides of the cut discs to allow the smooth travel of crop over them.
4. Mark a line 1-1/2" (38mm) up and 3-1/2" (89mm) over from point D. Drill a 3/4" hole at the point (E). Repeat for the opposite side.

CONTINUED ON NEXT PAGE
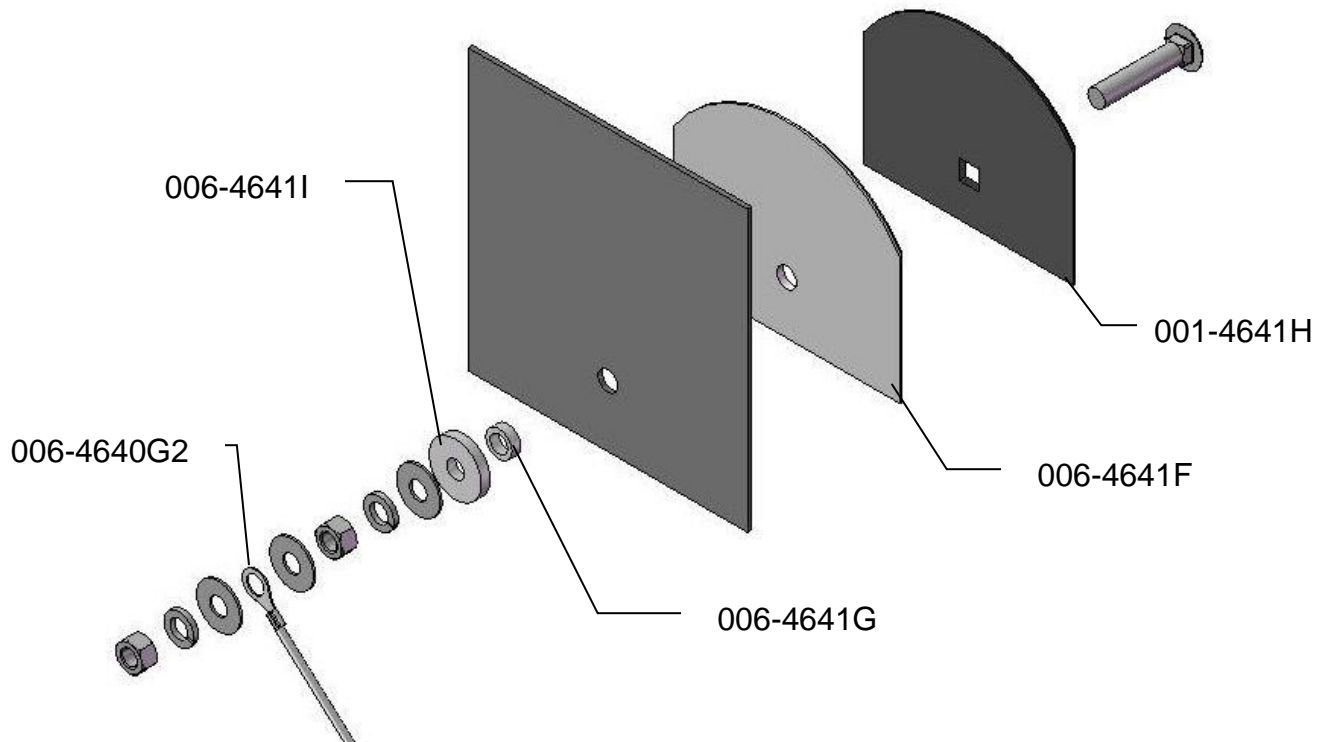
Install kit 4524B continued

Figure 60

006-4641I

006-4640G2

001-4641H

006-4641F

006-4641G

5. Locate the 006-4641G. The piece will need to be cut down to size. Use the already machined line in the bushing to cut off the small piece shown above.
6. Depending on the baler the bolt may need to be trimmed for proper fit.
7. Tighten all of the hardware to 50 ft/lbs (68 N/m)
8. Make sure that the plastic pad is protecting all metal surfaces of the disc from touching baler.
9. Run the moisture wire harness (006-4640G2) from the DCP to each disc securing with cable ties.
10. Apply silicone over nuts and washers.

## 647C Moisture Sensor Pads and Disks

1. Open rear tail gate of baler and lock in the up position. Refer to baler manual to lock door open.
2. Remove bale shaping discs on each side of chamber by grinding welds. Once removed grind any remaining welds so sides of bale chamber are smooth.
3. Place plastic isolator (006-4641FX) in the same spot that the shaping disc had. There should be a hole in the baler that matches up with the hole in the plastic isolator. If not, use the isolator as a template and mark the hole. Center punch the hole and drill it to 3/4" (19mm) (Note: before drilling make sure you are not drilling into sensitive equipment on the outside of the baler). Drill through the complete square tube. About 2" (51mm). Repeat for other side of the baler.
4. Insert plastic bushing (006-4641G) from the outside of baler. Make sure it is flush with the outside of the baler frame. Go to the inside of the baler and mark amount that protrudes into the chamber. Remove and cut off excess material. Repeat for other side.
5. Using 4" carriage bolt slide the parts on in following order: metal disc (001-4641HX), plastic isolator (006-4641FX) and shortened plastic bushing (006-4641G).
6. Insert disc assembly into 3/8" (10mm) hole from inside of bale chamber. Secure to outside of baler by attaching to the protruding carriage bolt in the following order: small isolator (006-4641), 1/2" D shaped washer, 1/2" lock washer, 1/2" jam nut. Tighten down and repeat for the other side. Make sure no part of the bolt or hardware makes contact with the frame of baler-no metal to metal.
7. Route moisture harness (006-4640G3E) from processor down to the carriage bolt on each side. Make sure it does not come in contact with any moving parts. Secure with cable ties.
8. Attach moisture cable to moisture carriage bolt by placing items in the following order: 1/2" D shaped washer, Ring terminal of moisture harness (006-4640G3E), second 1/2" D washer, 1/2" lock washer, 1/2" Jam Nut. Tighten down and repeat for other side. Make sure none of the hardware comes in contact with the frame of the baler.

*If there are Rotor Transition Kit (CNH part# 48093991) transition plates installed, they will need to be removed in order to install the moisture discs.

Figure 61
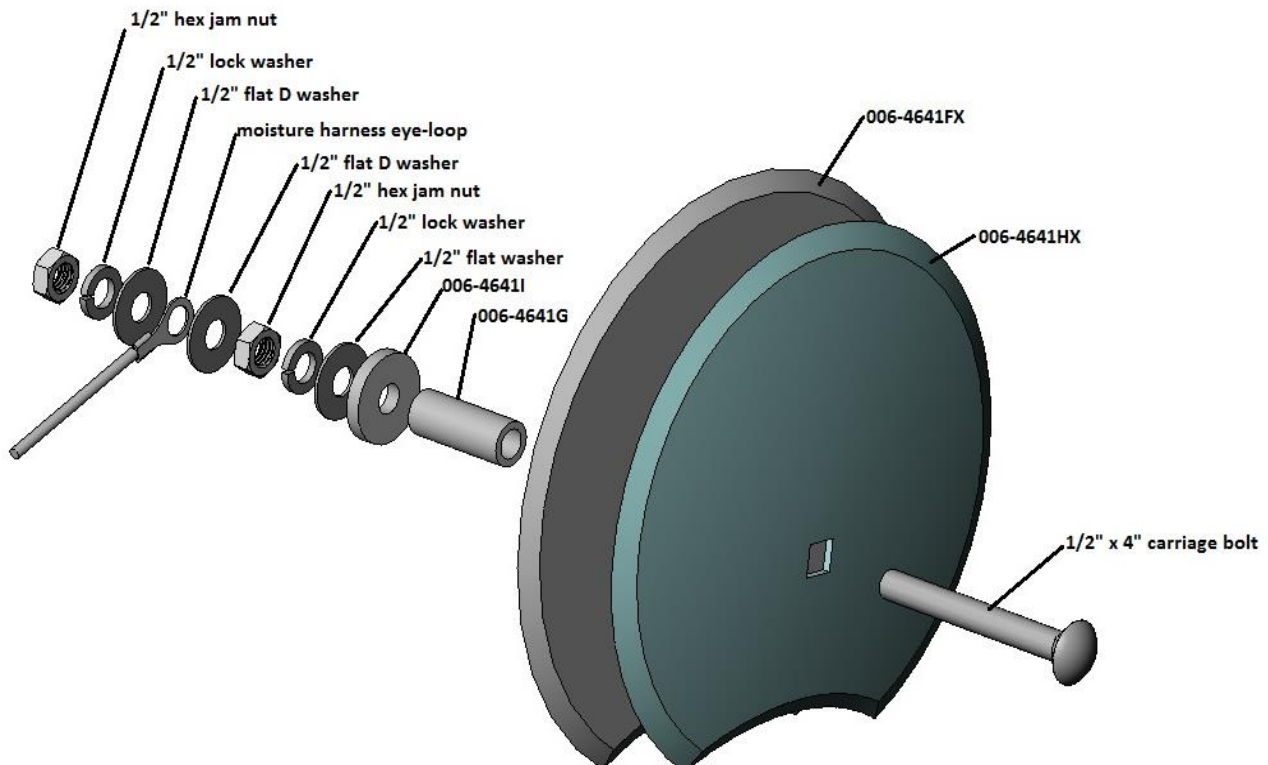
647C Moisture Sensor Pads and Disks (continued)

OSR (over-shot)
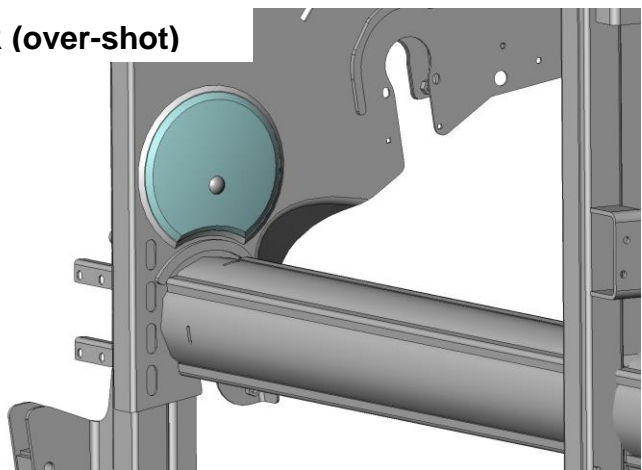
Figure 62

USR (under-shot rotor)
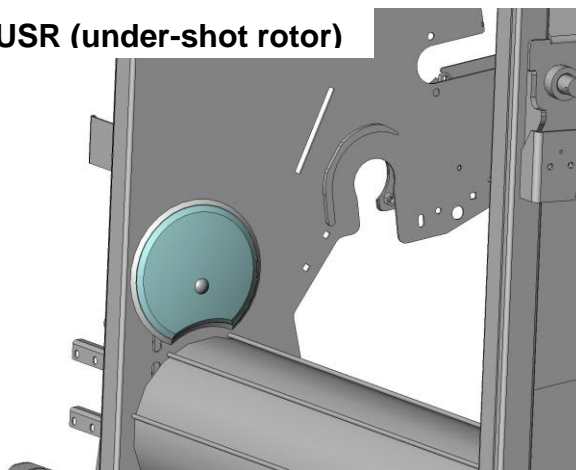
Figure 63

Installation of bale rate timer sensor 647, 647C & 649

The bale rate timer sensor is used to determine when the baler door is open. With this information the system is able to change the tons/hour automatically (see Operating Instructions, Automatic Mode) and also record information per bale (see Job Records).

Locate the sensor (006-7400) and the sensor bracket (001-4648RB). On the right side of the baler find a location 1"– 6" (22mm-15cm) down from the hinge to mount the bracket. Check for clearance with hydraulic cylinders before mounting the bracket. The bracket should be mounted to the front side of the hinge point, with the sensor aligned over the back door.

Mark and drill two 1/4" (7mm) holes and install the bracket using two 5/16" x1/4" self-tapping bolts.

Install the sensor into the bracket and leave 6mm of clearance between the end of the sensor and the door.

The harness will need to be routed towards the DCP. Secure with cable ties and take care to avoid pinch points. The harness extension (006-7400EXT) may need to be used.

Hinge Point

Figure 64

006-7400

001-4648RB

Back Door

Front of baler
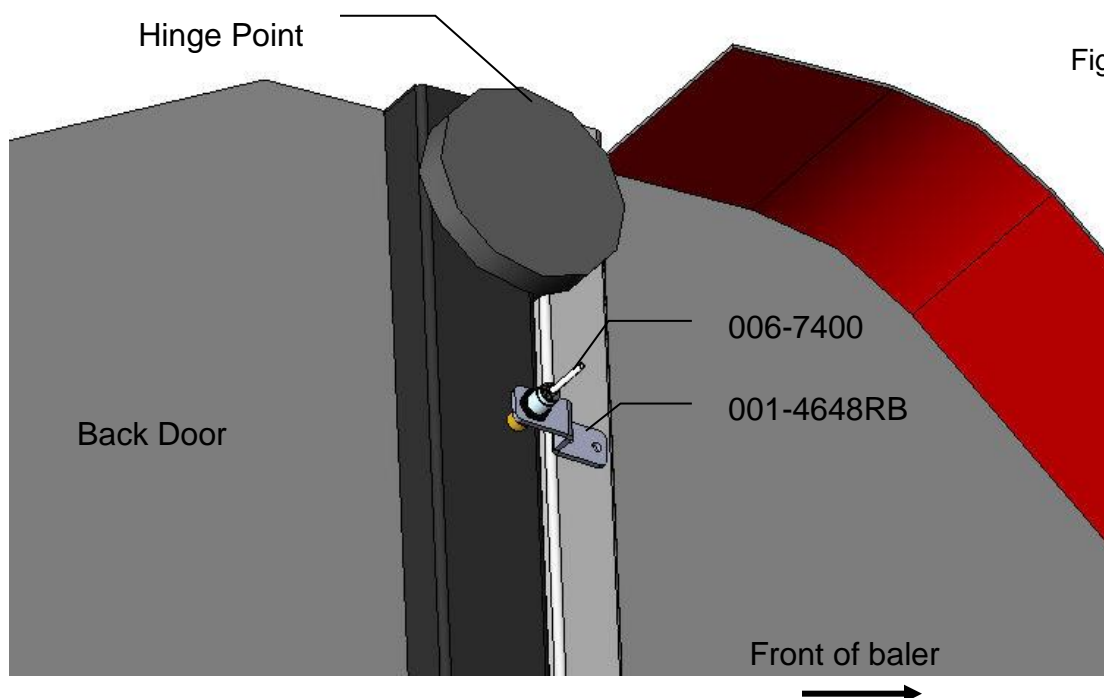
Installation of Drain Fill Kit

Model 647C

Locate parts bag 1. Thread 3/4" elbow fitting (003-EL3434) into end of tank. Run 3/4" hose from the elbow down the frame to the bottom of the baler. Locate the two holes on the baler's angled support bracket that line up with the holes in the valve bracket and attach using two 5/16" x 1" self-tapping screws and secure with two 5/16" flange nuts. Connect valve assembly to other end of hose. Place hose clamps on both ends. Install supplied safety decals (DCL-8001 & DCL-8005) next to the ball valve assembly.

Locate the two holes near the bottom of the angled support tube that the drain/fill bracket matches up with (A). Remove the existing nuts and install the drain/fill bracket. Reinstall the original nuts to secure the drain/fill bracket to the baler.

*Secure hose to frame using cable locks**.**
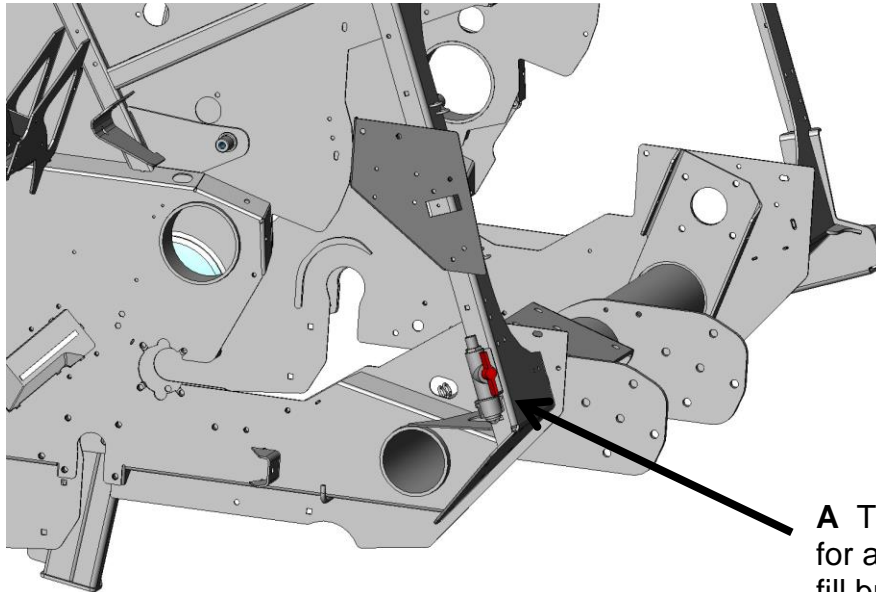
Figure 65

A The nuts and holes for attaching the drain fill bracket

Model 647 & 649

Thread 19mm elbow fitting (#003-EL3434) into end of tank. Run 3/4" (19mm) hose from the elbow down the frame to the bottom of the baler or to the saddle leg. Drill 1/4" (7mm) holes to accept the valve holder bracket and use 5/16" x 1" self-tapping screws and two 5/16" flange nuts. Connect valve assembly to other end of hose. Place hose clamps on both ends.
*Secure hose to frame using cable locks.

Figure 66

Figure 67
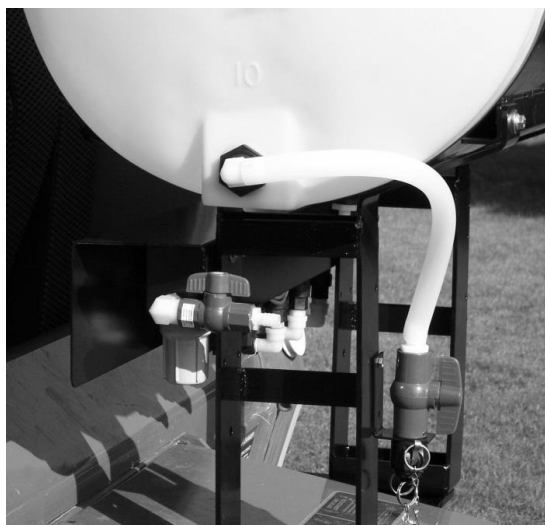
Installation of spray shield assembly

Install kit 447-SO

Locate parts bag 10. Locate the spray shield (001-4810B) and the spray shield holder (001-4810BRH). The assembly will mount as shown in Figure 68. The location shown in figure 1 is directly above the baler pickup. Four 3/8" (10mm) holes will need to be drilled to mount the shield holder to the baler (Figure 69). Mount the spray shield holder using four 5/16" x 1-1/2" bolts, locks, flats, and nuts. Attach the shield to the holder using the two supplied lynch pins.

Front of Baler

Figure 68

Figure 69

.500   .500

⌀.375 x2

6.500

8.000

44
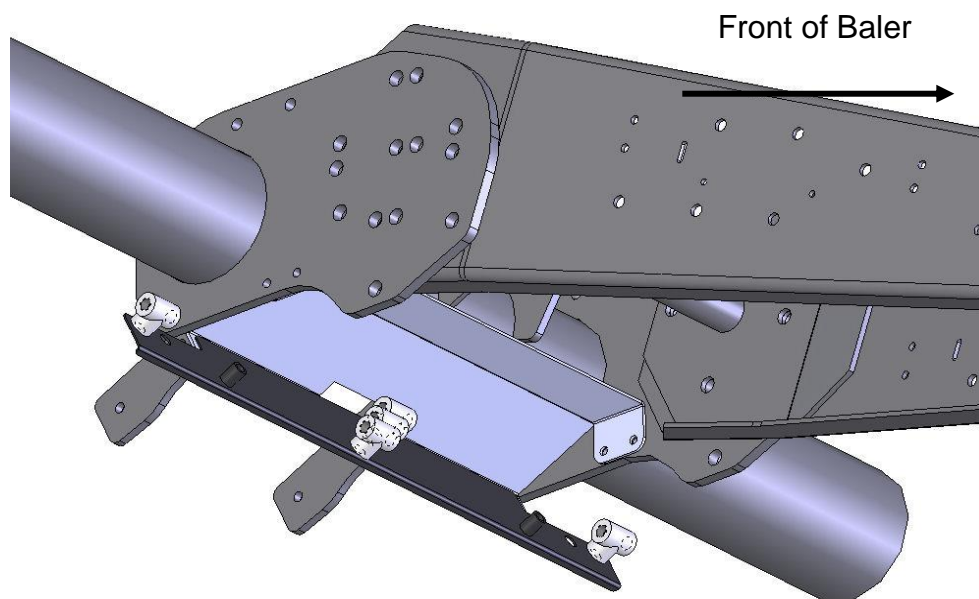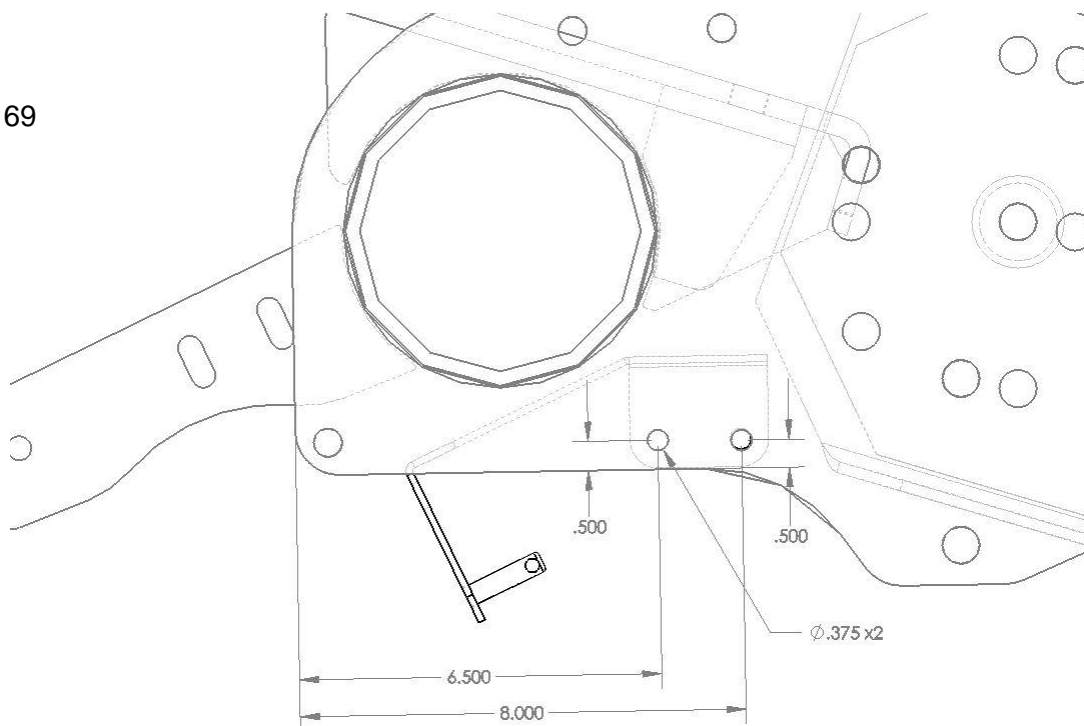
Install kit 4503B

The top cross bar above the full-shielded wind guard provides a mounting point for the short nozzle pipes. (Figure 70) The lip on the full-shielded wind guard will need to be notched behind Figure 70 for the 45 degree elbow to mount above. Space the nozzles by the chart below:

Figure 70

PICK-UP HEAD WIDTH	LEFT SIDE (Use plugged fitting)	CENTER (Use 2-way fitting)	RIGHT SIDE (Use 2-way fitting)
48" (121cm)	12" from left (30cm)	Center	12" from right (121cm)
60" (152cm)	14" from left (35cm)	Center	14" from right (152cm)
72" (180cm)	15" from left (38cm)	Center	15" from right (38cm)

Install kit 4504B & 4505B

The cross bar on the wind guard above the pick-up head provides a mounting point for the nozzle pipes. Space the nozzles by the chart below:

Aim the nozzle pipes up so that the tips spray in a generally horizontal direction. The tips should be pointed toward the starter rolls of the baler. The tips should be located so they will be somewhere between 36cm and 46cm from the normal path of hay.
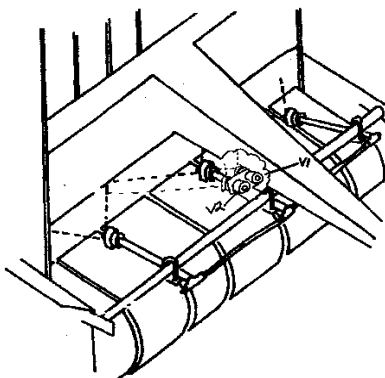
Install kit 4508B

Locate the spray shield assembly (030-4508B). Fit shield with tips facing down onto the baler as shown below with the shield hangers (001-4703JB). Mark both sides of the shield (only mark one hole per side) and drill a 3/8" (10mm) hole to allow the shield to be bolted to the baler using 3/8" x 1-1/2" bolts, locks, nuts, and flat washers. Remove the spray shield from the mounting brackets to install. Attach hoses to shield before installing on bracket. (See installation of plumbing)

001-4703JB

Figure 71

Drill Holes
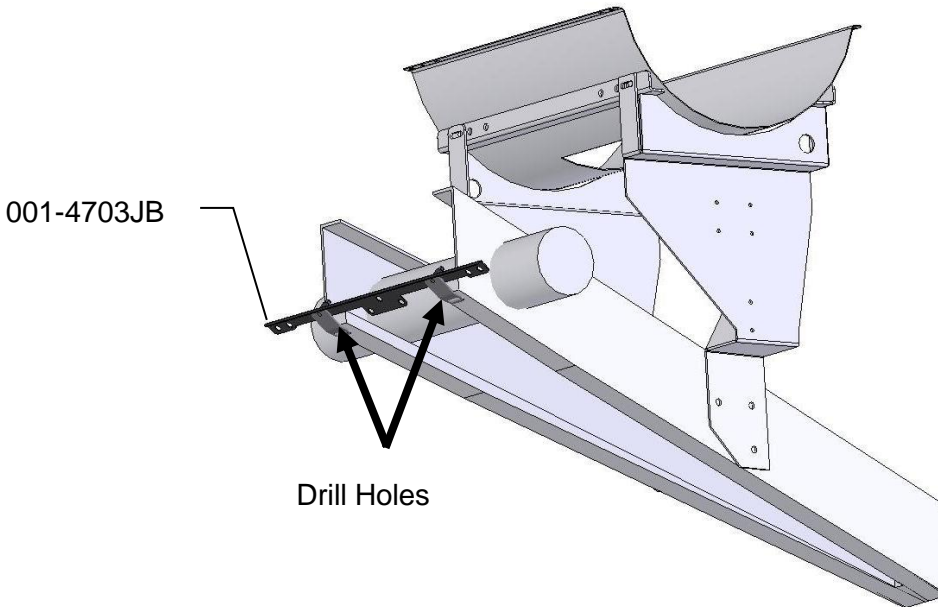
Install kit 4508B

Locate the spray shield assembly (030-4508B). Fit shield with tips facing down onto the baler as shown below with the shield hangers (001-4703JC). The shield hangers will be positioned on the sheet metal between the balers tongue and belts. The shield hangers should be positioned so that the bottom of the sheet metal is aligned with the bottom of the bend below the mounting holes and on the tongue side of the sheet metal. Mark both sides of the shield hangers (two holes per side) and drill four 3/8" (10mm) holes to allow the shield to be bolted to the baler using 3/8" x 1-1/2" bolts, locks, nuts, and flat washers. Remove the spray shield from the mounting bracket to install. Attach hoses to shield before installing on bracket. (See installation of plumbing)

Drill Holes
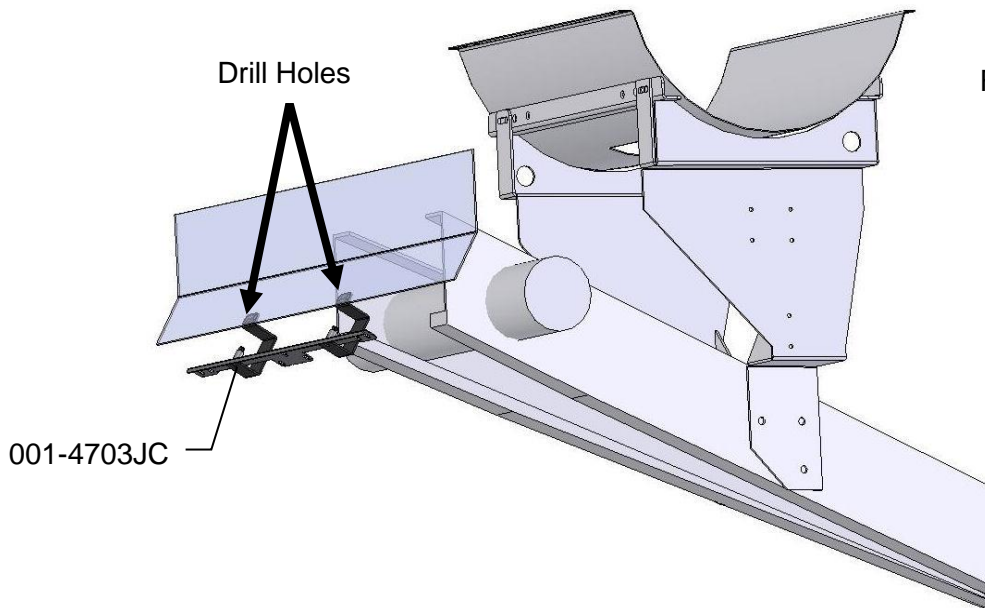
Figure 72

001-4703JC

Install kit 4517B

Twine and Net Balers

Figure 73
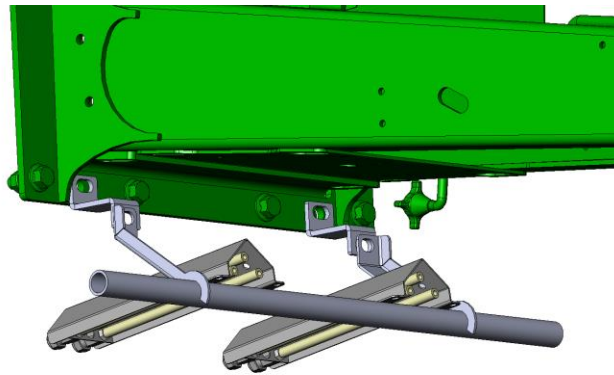
Locate the four flange head bolts where the baler hitch bolts to the bottom side of the baler frame. Remove the two outside bolts. Attach the spacers (001-4703NS) to the **hitch side** of the baler frame. Use original hardware to secure. Attach the nozzle holder (001-4703R) to the spacers with the supplied M16 x 40mm flange bolts and nuts. Attach the nozzle mount (001-4714J) to the nozzle holder (001-4703R) with 5/16" U bolts, locks, and nuts. The Nozzle mount should be about 6"apart for 4' (1.2M) wide balers and 9" apart for 5' (1.5M) wide balers. Do not fully tighten. Lift the roller baffle and position the end of the nozzle holder bracket so the tips are just above the roller baffle (if equipped) when it is lifted to its highest point. Tighten all hardware and attach the hoses.

Net Only Baler

Figure 74
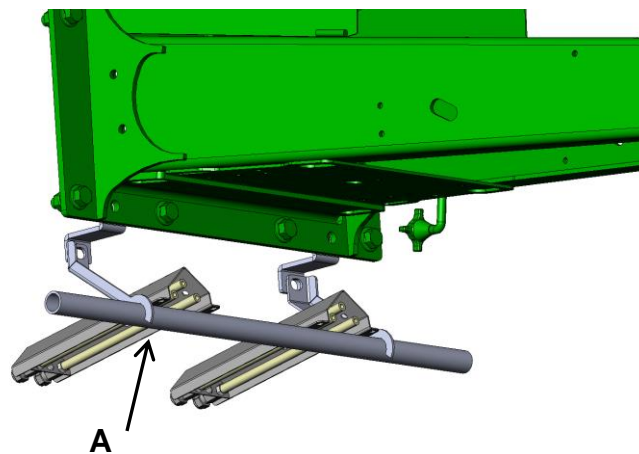
Locate the four flange head bolts where the baler hitch bolts to the bottom side of the baler frame. Remove the two bolts. Attach the spacers (001-4703NS) to the **chamber side** of the baler frame. Use original hardware to secure. Attach the nozzle holder (001-4703R) to the spacers with the supplied M16 x 40mm flange bolts and nuts. Attach the nozzle mount (001-4714J) to the nozzle holder (001-4703R) with 3/8" U bolts, locks and nuts. The nozzle mount should be about 9" (23cm) apart with bracket **A** as close to the V-shaped stop as possible. Do not fully tighten. Lift the roller baffle (if equipped) and position the end of the nozzle holder bracket so the tips are just above the baffle when it is lifted to its highest point. Tighten all hardware and attach the hoses.

Install Kit 4523B & 4526B

Locate the spray shield (001-4704G) and spray shield hangers (001-4704H). Mount the spray shield above the pickup reel and directly in front of the rotor on the baler. Use the two existing holes to mount the shield using four 3/8" x 1-1/2" bolts, locks, flats, and nuts. Tighten all hardware.
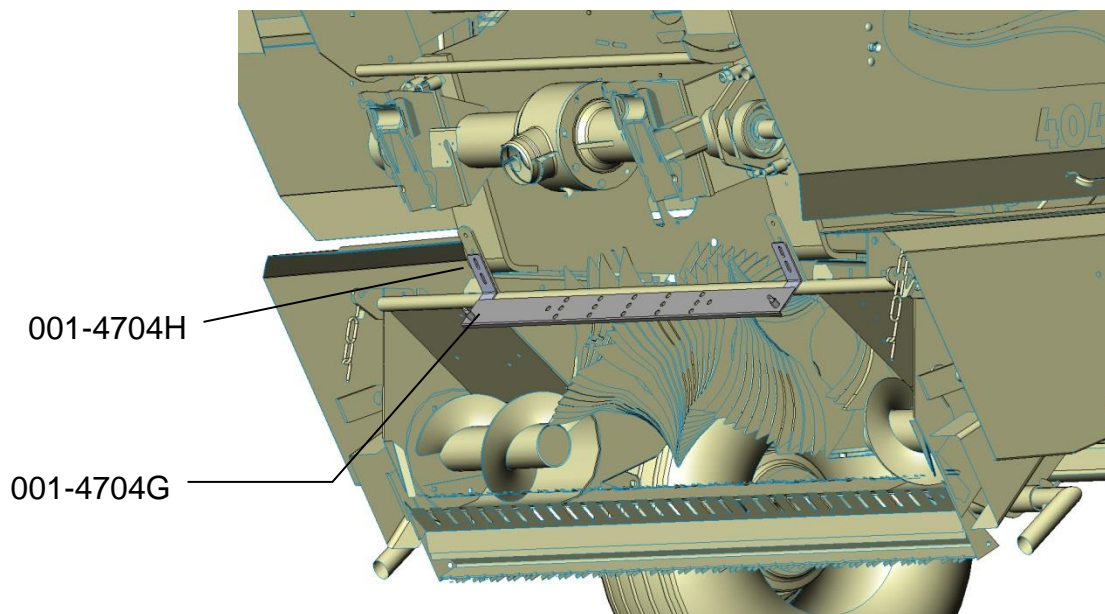
Figure 75

001-4704H

001-4704G

Install Kit 4524B

Locate the spray nozzle holder (001-4703T). Situate the holder, centered on the baler sheet metal and mark one hole per side. (Figure A) Drill two 5/16" (8mm) holes and attach the holder using two 3/8 x 1" bolts, locks, flats, and nuts. Install one nozzle tube in the center.The two remaining nozzle tubes, will mount one inch in from each end. Do not fully tighten. Position the nozzle tubes so that the tips will be 14 – 18" (35cm-45cm) away from the normal path of hay. Tighten the nozzle tubes to the nozzle holder.

001-4703T

Figure A

Figure A
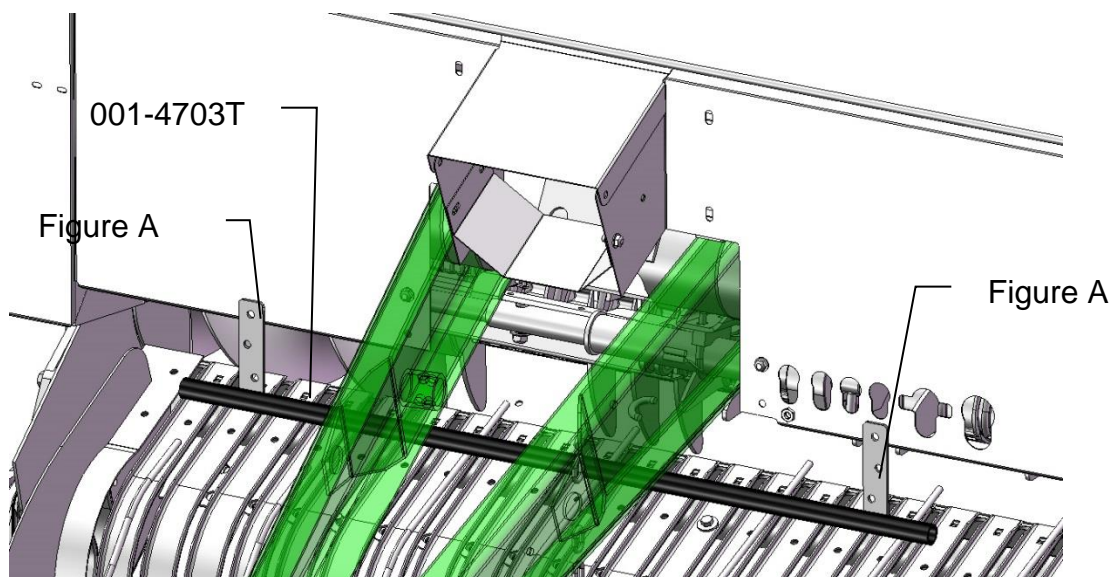
Install Kit 4547B

Locate the spray shield (001-4435NSX) and the shield holder (001-4435NCX2). Position the assembly over the center of the pickup and secure the shield holder to the cross bar support as shown on right using the two 2" Ubolts (001-4714UBX) include with the kit.

Attach the spray shield to the shield holder as shown below by using the two lynch pins provided (008-4576).

Position the spray shield so the preservative will be spraying in front of the rotating precutter. Test with water to adjust as needed.
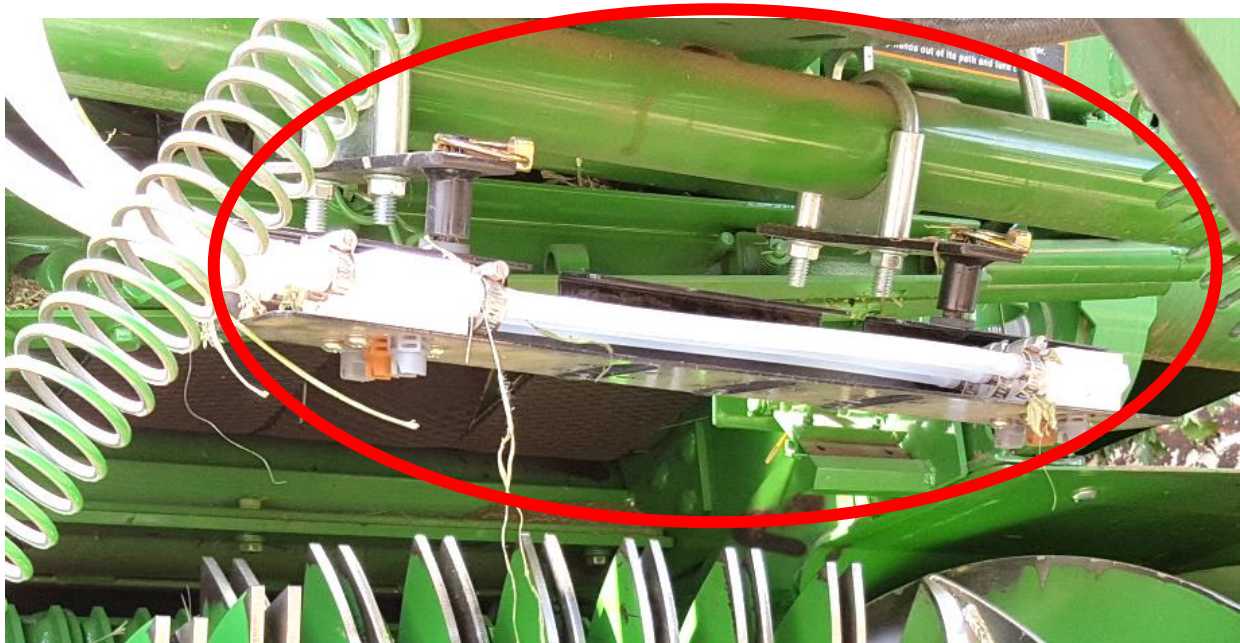
647C Installation of Spray Nozzles

    a. Locate nozzle block hanger assemblies with tips pre-installed.

    b. The assembly with the check valves will be mounted to the left hitch support plate when standing next to the PTO just in front and under the large round cross support tube. Use 1/2" x 1-1/4" Bolt, flat washer, lock washer, and nut to secure to baler. Repeat for the other assembly on the other side.

    c. Loosen Philip screw on nozzle block and turn them slightly in toward each other.

    d. Measure distance between hose barb fittings and cut one each of the three colors of hose to that length. Attach them to the nozzle assemblies with the same color and secure them with hose clamps.

Figure 76
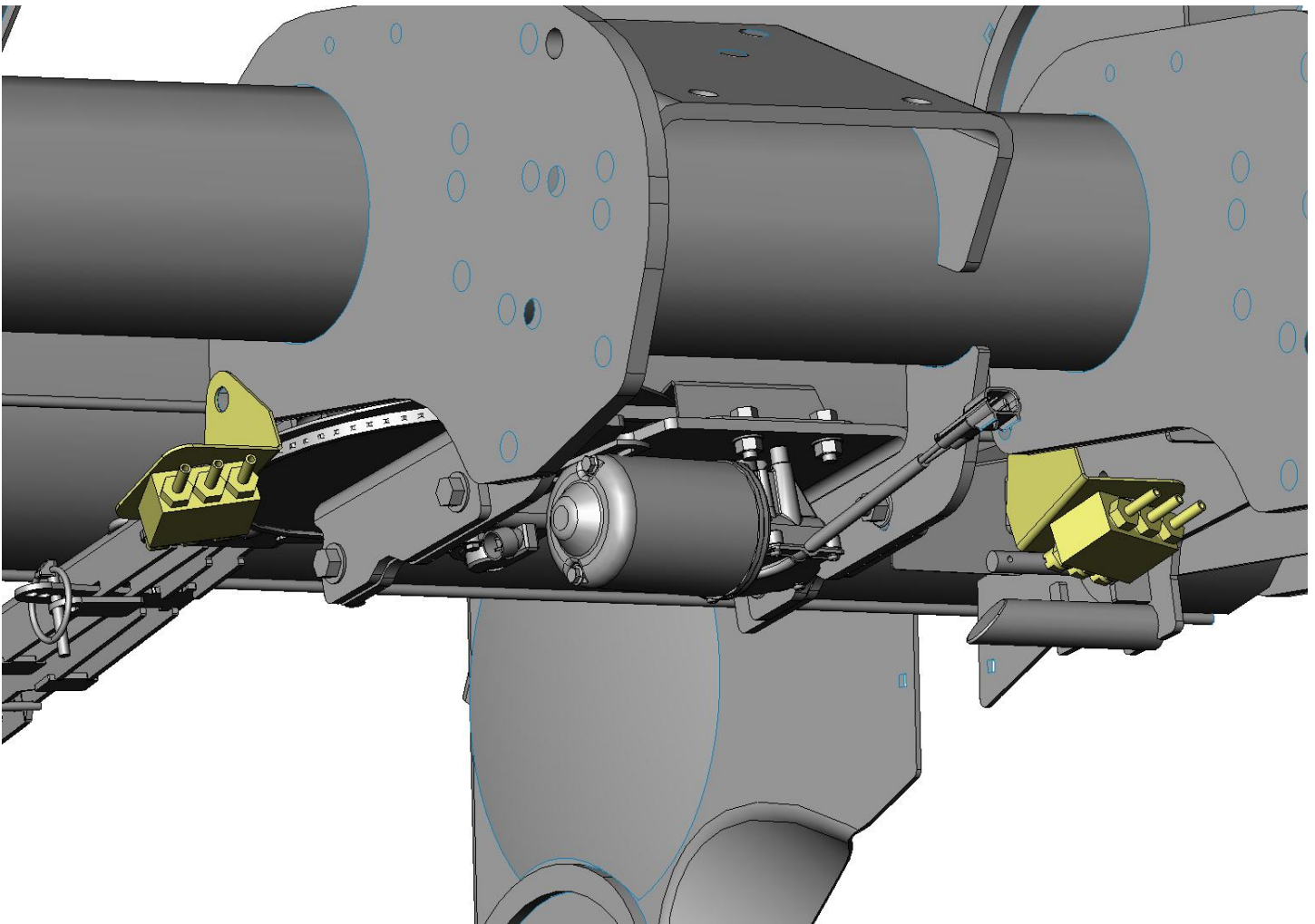
Installation of plumbing 647, 647C & 649

A. Intake
Use the 003-EL3412 on the bottom of the tank to route 1/2" line (002-9001) to the 003-A1212 fitting on the ball valve already attached to the pump plate. Attach hose clamps (003-9003) on both of the fittings.

B. Discharge
The three – 1/4" hose assembly will be used to attach the pumps to the spray nozzles. The pump order is, from closest to the filter bowl 1, 2, and 3. Pump 1 will attach to the three main nozzles. Pump 2 will use the green hose and Pump 3 will use the blue hose to attach to the auxiliary nozzles.

C. High and Low Output Tips
Your baler comes with two sets of tips: a low set and a high set.
-**The low set will cover outputs of 32 to 440 lbs/hr (14-220L/hr) approximately 8-27 tons/hour.**
   Install the following tips for low output:
   　　Clear hose to silver tips on all three connected nozzles.
   　　Green hose to green tip.
   　　Blue hose to red tip.
-**The high set will cover outputs of 84 to 632 lbs/hr (38-287L/hr) approximately 21-40 tons/hour.**
   Install the following tips for high output:
   　　Clear hose to white outside tips and orange middle tip.
   　　Green hose to blue tip.
   　　Blue hose to gray tip.

**Refer to Tip Output under APPLICATION RATE of the control unit to calibrate system.

Installation of latch extension (model 647 only)
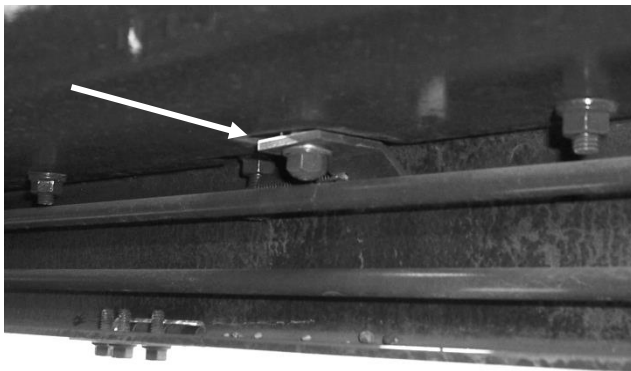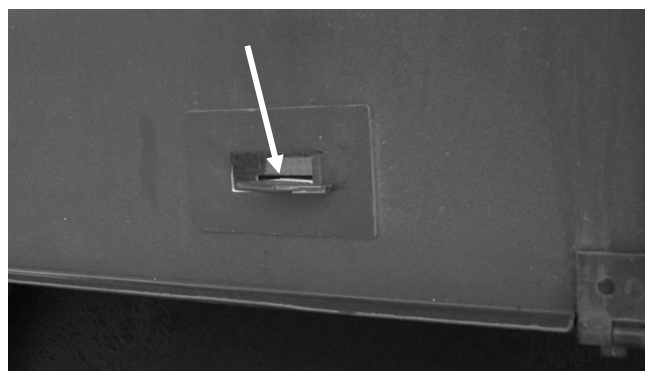
Figure 77   Figure 78

Remove the nut and spring on the existing latch. Replace with the extended latch. Retighten nut and attach the spring. The latch may need to be bent to fit through the doors opening.

647 & 649 Wiring Diagram

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

   ⚠ **a. The power harness must be connected to the battery!** The unit will draw more amps than convenience outlets can handle. Any modifications of the power harness will void systems warranty. **CONTACT HARVEST TEC IF MODIFICATION IS REQUIRED!**
   - **b. This unit will not function on positive ground tractors.**
   - **c. If the unit loses power while operating it will not record accumulated product used.**
4. Connect the baler power and communication harness (006-6650LS(E)) to the power port on the DCP and to the display port on the DCP.
5. Connect the Communication Harness (006-6650TM(E)) to the iPad Integration Control (030-6672C)
6. Connect Pump Controller Harness (006-5650FC) to DCP and Pump Controller (006-5672).
7. Connect Flow Meter (006-4725A) and pump harness (006-4660Z) to the Pump Controller.
8. Install one terminating resistor to the pump controller (006-5650Z).
9. Attach moisture cable (006-4640G2) to the DCP

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

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647C Wiring Diagram

1. Locate the tractor power/communication harness (006-6650TM(E)).
2. On the back of tractor run power leads of power / communication harness (006-6650TM(E)) to battery.
3. Connect the red power wire with the 50 amp fuse to the positive side of the battery (12 volt).
   a. **The power harness must be connected to the battery!** The unit will draw more amps than convenience outlets can handle. Any modifications of the power harness will void systems warranty. **CONTACT HARVEST TEC IF MODIFICATION IS REQUIRED!**
   b. **This unit will not function on positive ground tractors.**
   c. **If the unit loses power while operating it will not record accumulated product used.**
4. Connect the baler power and communication harness (006-6650LS(E)) to the power port on the DCP and to the display port on the DCP.
5. Connect the Communication Harness (006-6650TM(E)) to the iPad Integration Control (030-6672C).
6. Connect Pump Controller Harness (006-5650FC) to DCP and Pump Controller (006-5672).
7. Connect Flow Meter (006-4725A) and pump harness (006-4660Z) to the Pump Controller.
8. Install one terminating resistor to the pump controller (006-5650Z).
9. Attach moisture cable (006-4640G3) to the DCP

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

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Pin Outs

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

Power/Comm Harness at Hitch
Pin 1   Red   +12V Power to TSD
Pin 2   Red   +12V Power to DCP
Pin 3   Orange   Keyed Power
Pin 4   Gray   Shield
Pin 5   Green   HT Can Low
Pin 6   Yellow   HT Can Hi
Pin 7   Orange   Can1 Hi
Pin 8   Black   Ground from TSD
Pin 9   Black   Ground from DCP
Pin 10 Blue   Can1 Low
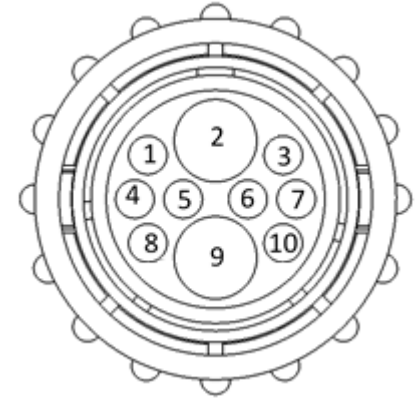
iPad Integration Control / BLE Plug on Harness
Pin 1   Red   +12V Power from DCP
Pin 2   Black   Ground from TSD
Pin 3   Yellow   HT Can Low
Pin 4   Gray   Shield
Pin 5   Green   HT Can Hi
Pin 6   Orange   Can1 Hi
Pin 7   Blue   Can1 Low

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

ISOBUS Plug Tractor Side
Pin 1   N/A
Pin 2   N/A
Pin 3   +12V Keyed Tractor Power
Pin 4   N/A
Pin 5   N/A
Pin 6   N/A
Pin 7   N/A
Pin 8   Orange   Can1 Hi
Pin 9   Blue   Can1 Low
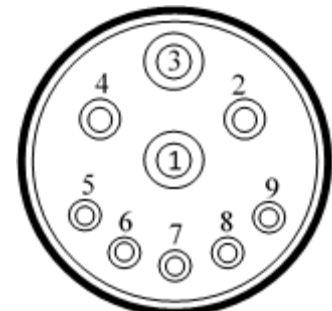
Pin Outs (continued)

Main Power Connector on DCP
Pin 1   Red   +12V Power from tractor
Pin 2   Black   Ground from tractor
Pin 3   Orange   Keyed power
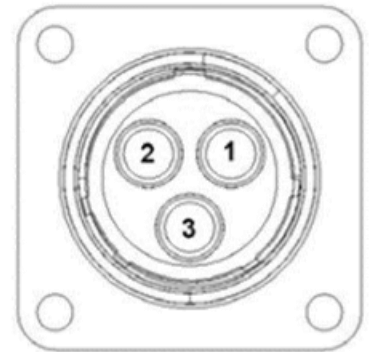
Star Wheel and Bale Rate Sensor Connector on DCP
Pin 1   Blue   +12V Power
Pin 2   Orange   Ground
Pin 3   Black   Signal for sensor 1
Pin 4   White   Signal for sensor 2
Pin 5   N/A
Pin 6   N/A
Pin 7   N/A
Pin 8   Violet   Star wheel input 1
Pin 9   Brown   Star wheel input 2

End of Bale Sensor on DCP
Pin 1   Brown   Sensor Power
Pin 2   Blue   Sensor Ground
Pin 3   N/A
Pin 4   Black   Signal from Sensor
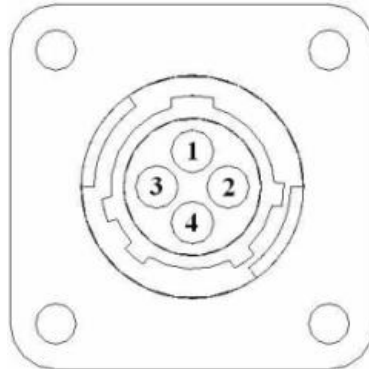
Pump Communication Plug on DCP
Pin 1   Red   +12V Can
Pin 2   Red   +12V Power
Pin 3   Gray   Shield
Pin 4   Green   Comm Channel OH
Pin 5   Yellow   Comm Channel OL
Pin 6   Blue   Comm Channel IH
Pin 7   Orange   Comm Channel IL
Pin 8   Black   Can Ground
Pin 9   Black   Power Ground
Pin 10 N/A
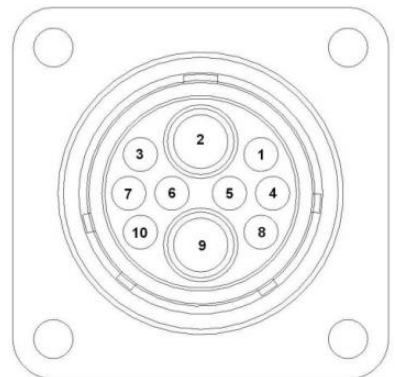
Pin Outs (continued)

Pump Connection Colors
Pin 1   Black with Orange Stripe   Pump 1 Ground
Pin 2   Black with Green Stripe   Pump 2 Ground
Pin 3   Black with Yellow Stripe   Pump3 Ground
Pin 4   N/A
Pin 5   Orange with Black Stripe   Pump 1 Positive
Pin 6   Green with Black Stripe   Pump 2 Positive
Pin 7   Yellow with Black Stripe   Pump 3 Positive
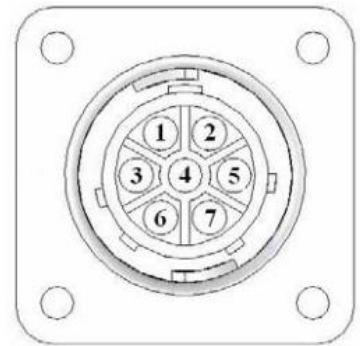
Flow Meter Connection on Pump Controller
Pin 1   White   +5-12V Power
Pin 2   Green   Ground
Pin 3   Brown   Signal
Pin 4   Black   Shield
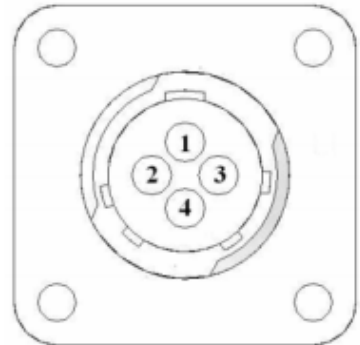
Connector for Crop Eyes on DCP
Pin 1   Red   +12V Power
Pin 2   Black   Ground
Pin 3   White   Signal
Pin 4   N/A
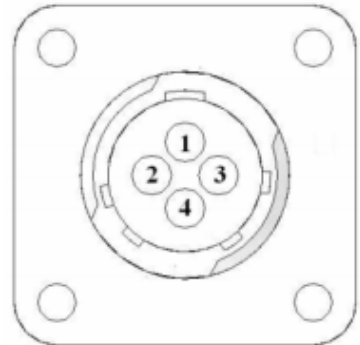
Parts Breakdown

Harvest Tec Model 647 Base Kit
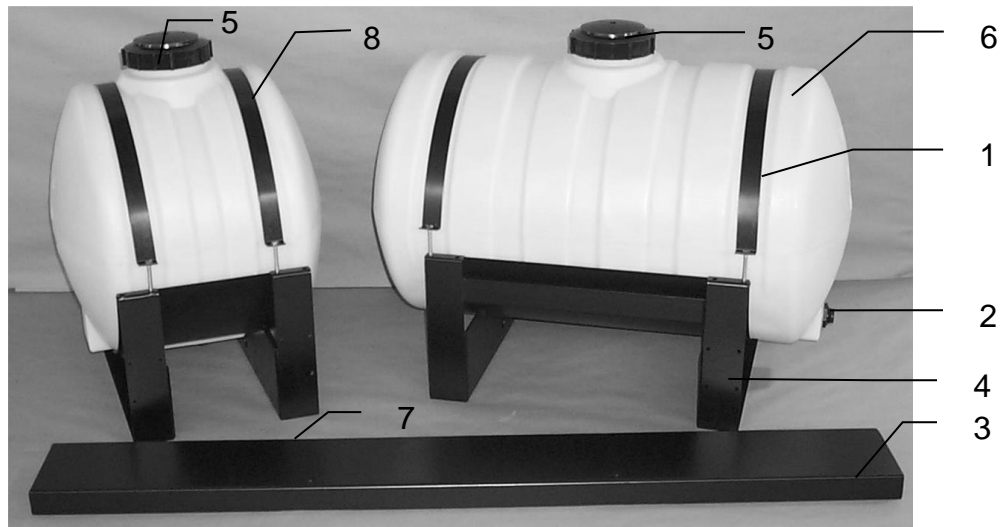
Ref #	Description	Part #	Qty		Ref #	Description	Part #	Qty
1	55 Gallon tank	005-9203	1		5	Tank lid	005-9022C	1
2	Tank fitting	005-9100	1			Tank lid gasket	005-9022CG	1
3	Cross support bracket	001-4445B	1		6	Tank strap	001-4402	1
4	55 Gallon saddle	001-4445A	1		7	25 Gallon saddle	001-4442	1
					8	25 Gallon tank	005-9022	1

Harvest Tec Model 649 Base Kit
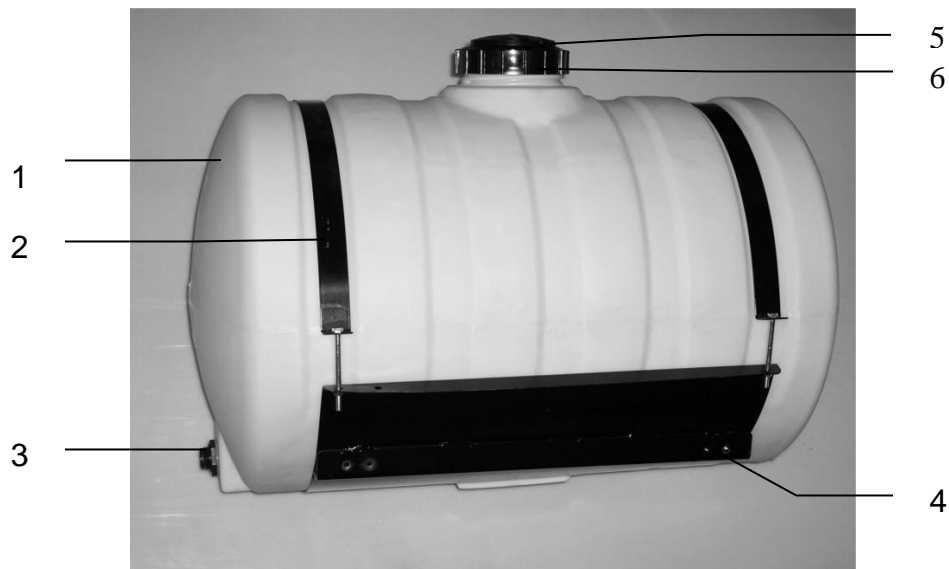
Ref#	Description	Part #	Qty
1	Tank	005-9203	1
2	Straps	001-4402	2
3	Tank Fitting	005-9100	2
4	Saddle	001-4703	1
5	Tank Cap	005-9022C	1
6	Tank Gasket	005-9022CG	1

Parts Breakdown for the Tank and Saddle
Harvest Tec Model 647C Base Kit
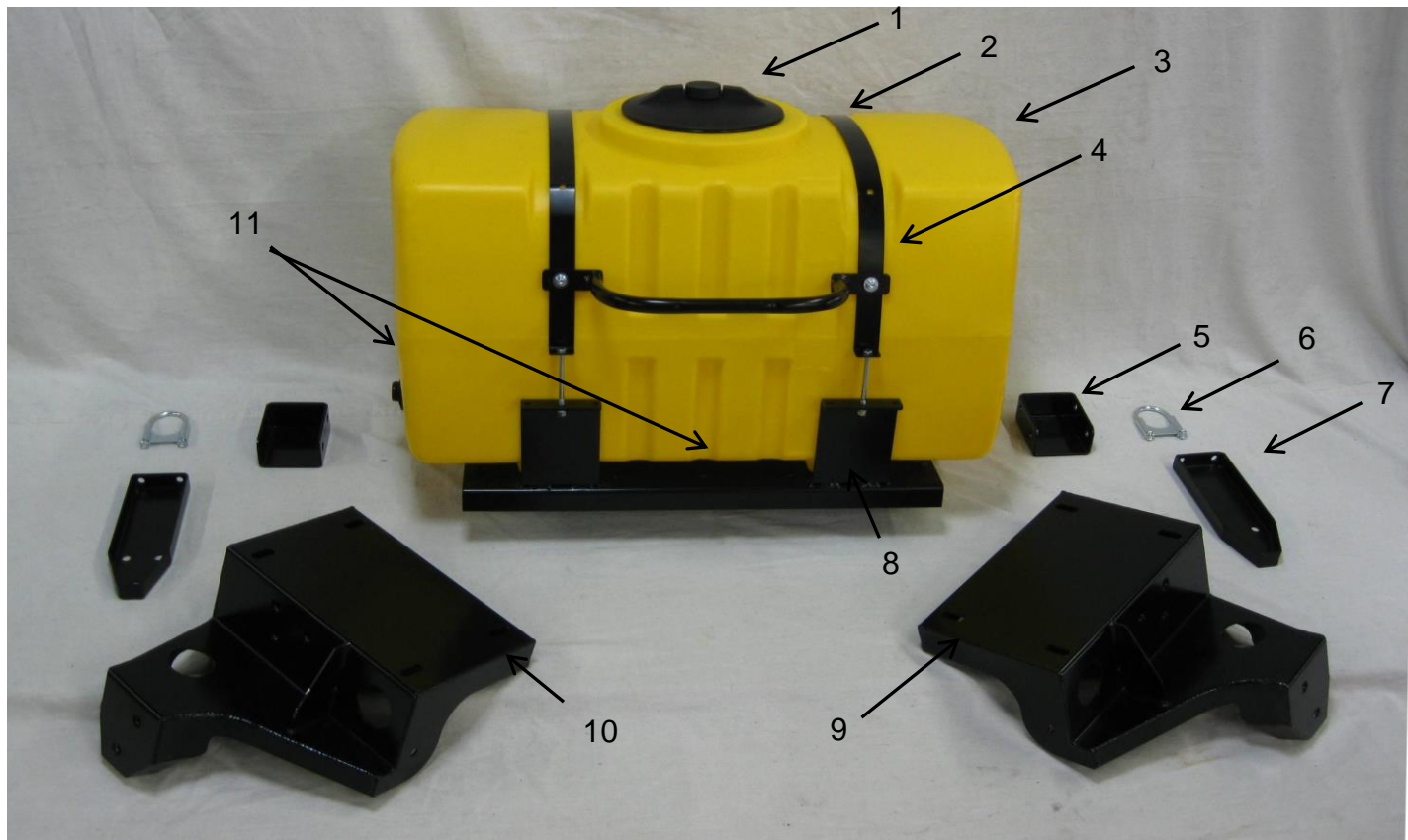
Ref #	Description	Part #	Qty	Ref #	Description	Part #	Qty
1	55 Gallon tank lid	005-9022H	1	7	Anchor Bracket	001-4703XA	2
2	Strap	001-4402	2	8	Saddle	001-4703X	1
3	Tank	005-9203SQ	1	9	Left Leg	001-4703XL	1
4	Handle	001-6707HRS	1	10	Right Leg	001-4703XR	1
5	Anchor Bracket Ext	001-4703XAX	2	11	Tank fitting	005-9100	2
6	U Clamp	001-4703XAB	2				

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

647, 647C & 649 Parts Breakdown for Drain Fill Kit
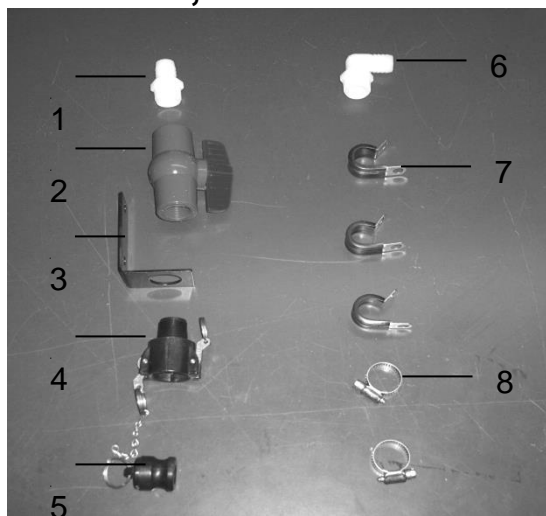
Ref #	Description	Part #	Qty
1	Straight Fitting	003-A3434	1
2	Ball valve	002-2200	1
3	Valve Holder	001-6702H	1
4	Female Coupler	002-2204A	1
5	Male Coupler	002-2205G	1
6	Elbow	003-EL3434	1
7	Jiffy Clip	008-9010	3
8	Hose Clamps	003-9004	2
NP	3/4" Hose	002-9002	8ft

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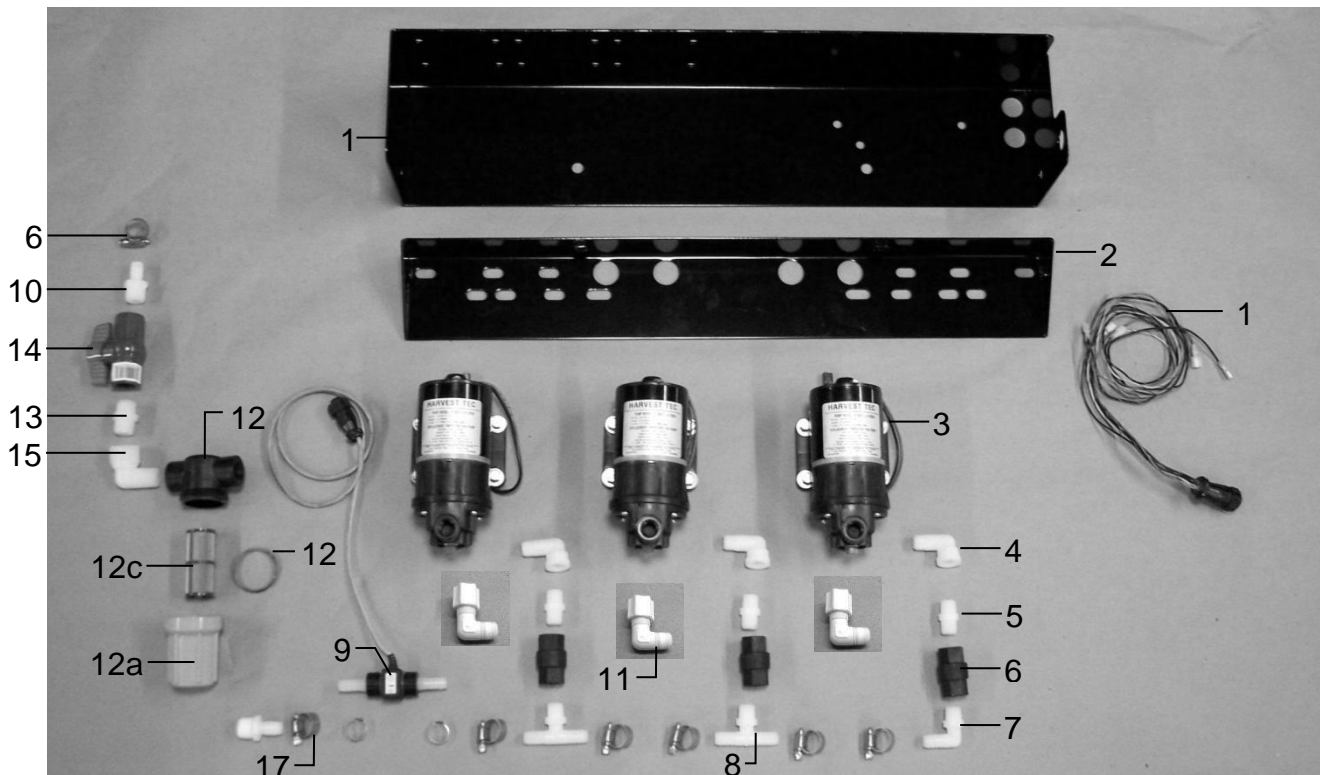
Ref#	Description	Part#	Qty
1	Pump plate	001-4646D	1
2	Mounting Bracket	001-4646C	1
3	Pump	007-4120H	3
4	Street elbow fitting	003-SE38	3
5	Nipple fitting	003-M3838	3
6	Check valve	002-4566F	3
7	Elbow fitting	003-EL3812	1
8	Tee fitting	003-T3812HB	2
9	Flow meter assembly	006-4725A	1
10	Straight fitting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

647 & 649 Moisture Pads and Hose Breakdown
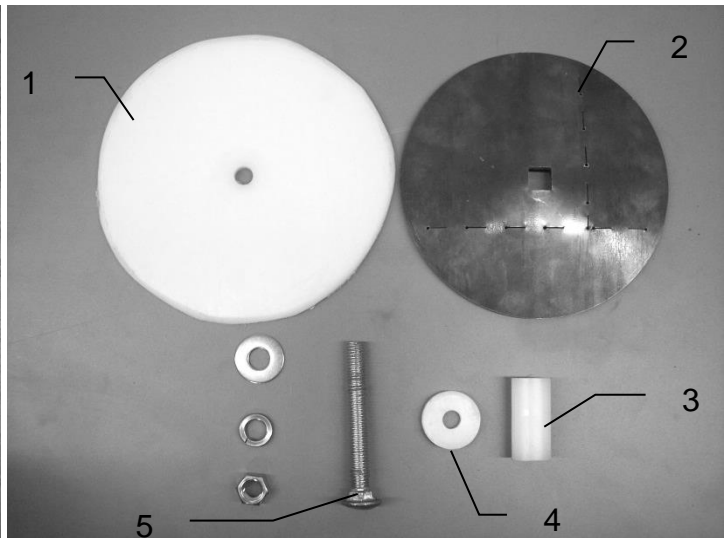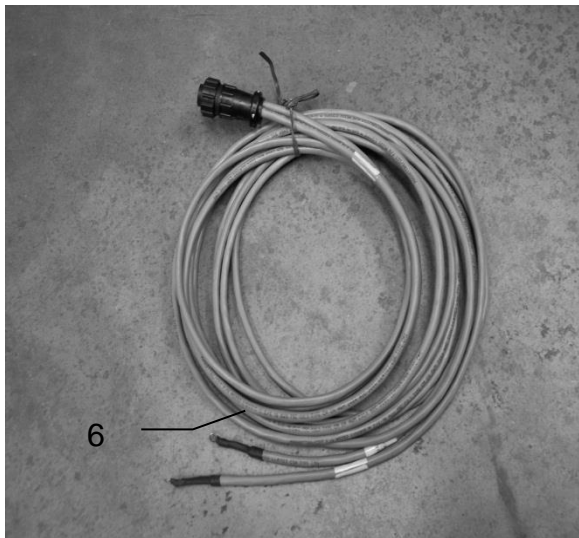
Ref#	Description	Part #	Qty
1	Plastic Pad	006-4641F	2
2	Moisture Disc	006-4641H	2
3	Plastic Bushing	006-4641G	2
4	Plastic Isolator	006-4641I	2
5	4" x 1/2" Bolt	Hardware	2
6	Moisture Cable	006-4640G2	1
1-5	Moisture Pad Assembly	030-4643	2

647, 647C & 649 Hose Parts Breakdown
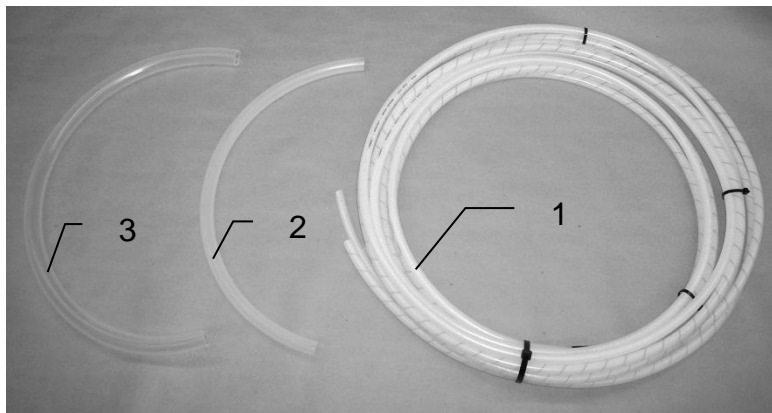
Ref #	Description	Part #	Qty
1	Triple Weld (pumps to tips)	002-9016	15ft
		002-9016B	15ft
		002-9016G	15ft
	Hose assembly	030-9016RB	1
2	1/2" Hose (tank to filter)	002-9001	6ft
3	3/4" Hose Drain Fill Line	002-9002	10ft

647C Parts Breakdown for Moisture Sensor Discs
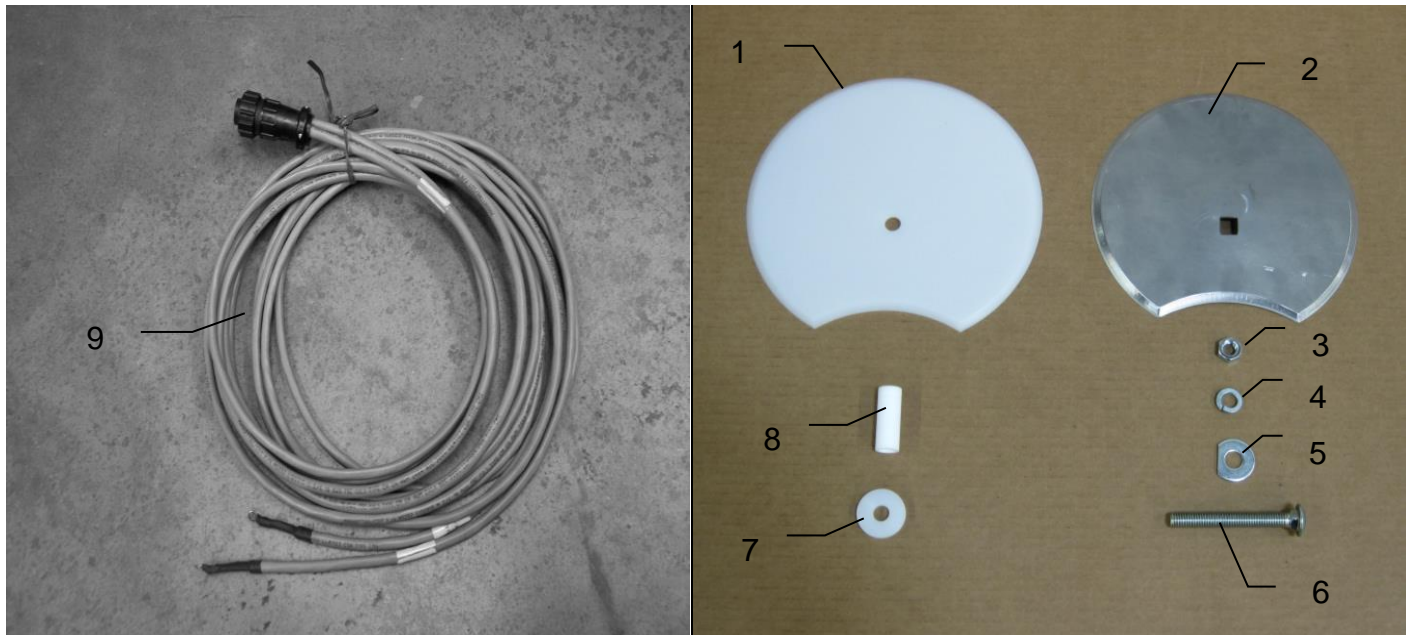
Ref	Description	Part #	Qty
1	CNH RB Moisture Isolator	006-4641FX	2
2	CNH RB Moisture Disk	006-4641HX	2
3	1/2" JAM Nut	Misc Hardware	4
4	1/2" Lock	Misc Hardware	4
5	1/2" D Washer	Misc Hardware	6
6	1/2"x 4" Bolt	Misc Hardware	2
7	Sensor Bushing	006-4641G	2
8	Sensor Isolator	006-4641I	2
9	Moisture Cable	006-4640GX	1
	Moisture Disc Assembly	030-4643C (Includes Ref # 1-8)	

647, 647C & 649 Hose Parts Breakdown
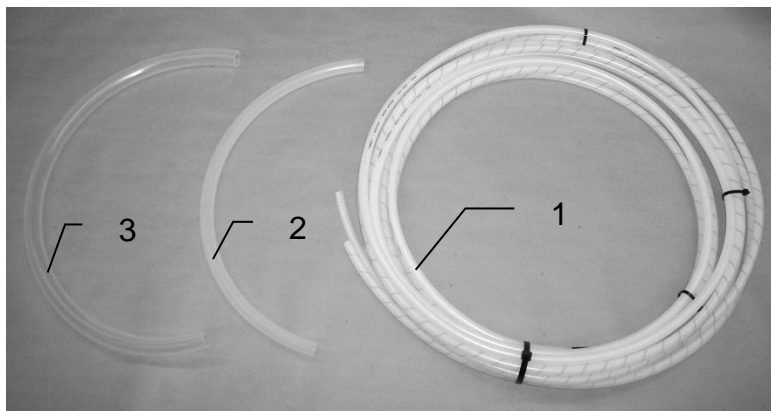
Ref #	Description	Part #	Qty
1	Triple Weld (pumps to tips)	002-9016	15ft
		002-9016B	15ft
		002-9016G	15ft
	Hose assembly	030-9016RB	1
2	1/2" Hose (tank to filter)	002-9001	6ft
3	3/4" Hose Drain Fill Line	002-9002	10ft

Parts Breakdown for Control Boxes and Wiring Harnesses
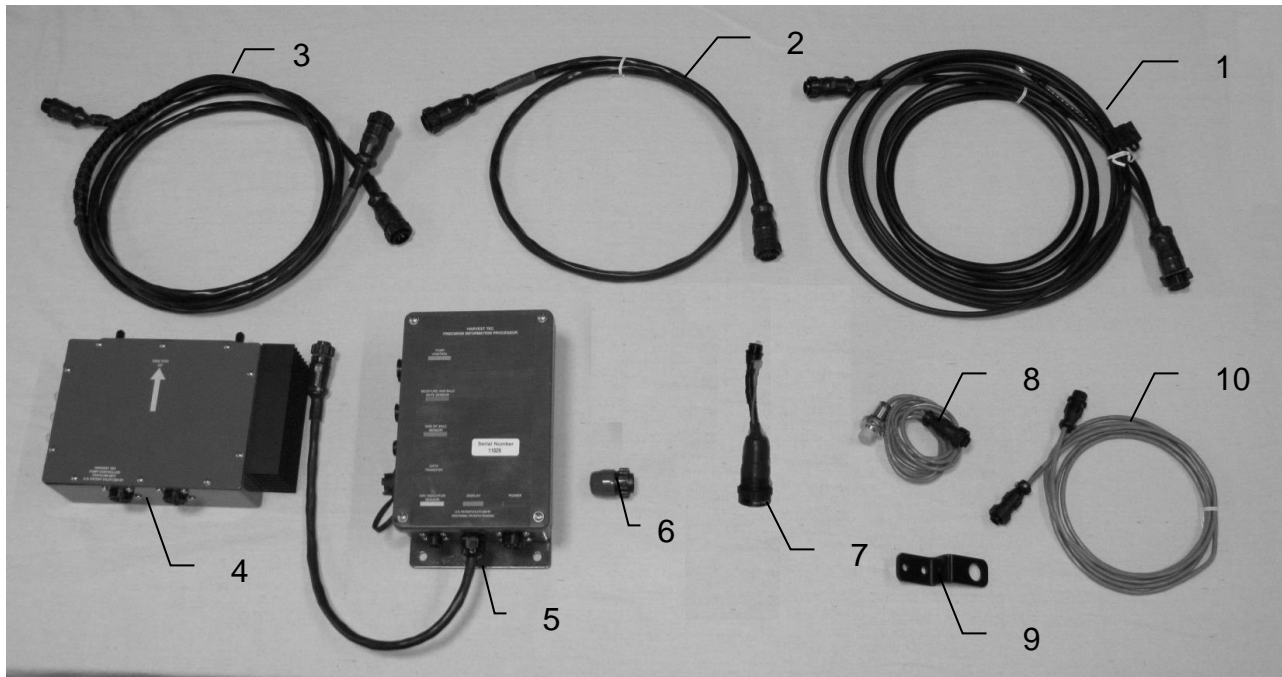
Ref	Description	Part#	Qty
1	Power & communication tractor	006-6650TM(E)	1
2	Pump controller harness	006-5650FC	1
3	Power & communication baler	006-6650LS(E)	1
4	Pump controller	006-5672	1
5	Dual Channel Processor (DCP)	006-6671RB	1
6	Terminating resistor	006-5660Z	1
7	Optional ISOBUS Tractor Plug (not included)	006-6670A	1
8	Bale rate timer	006-7400	1
9	Bale rate timer bracket	001-4648RB	1
10	Bale rate timer sensor extension	006-7400EXT	1
11	iPad Integration Control	030-6672C	1
NP	Key switch wire	006-5650K	1
NP	Dust plug kit	006-5651PLUGS	1
NP	USB Cord	006-6672USBC	1

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

Harvest Tec Model 447-SO Installation Kit
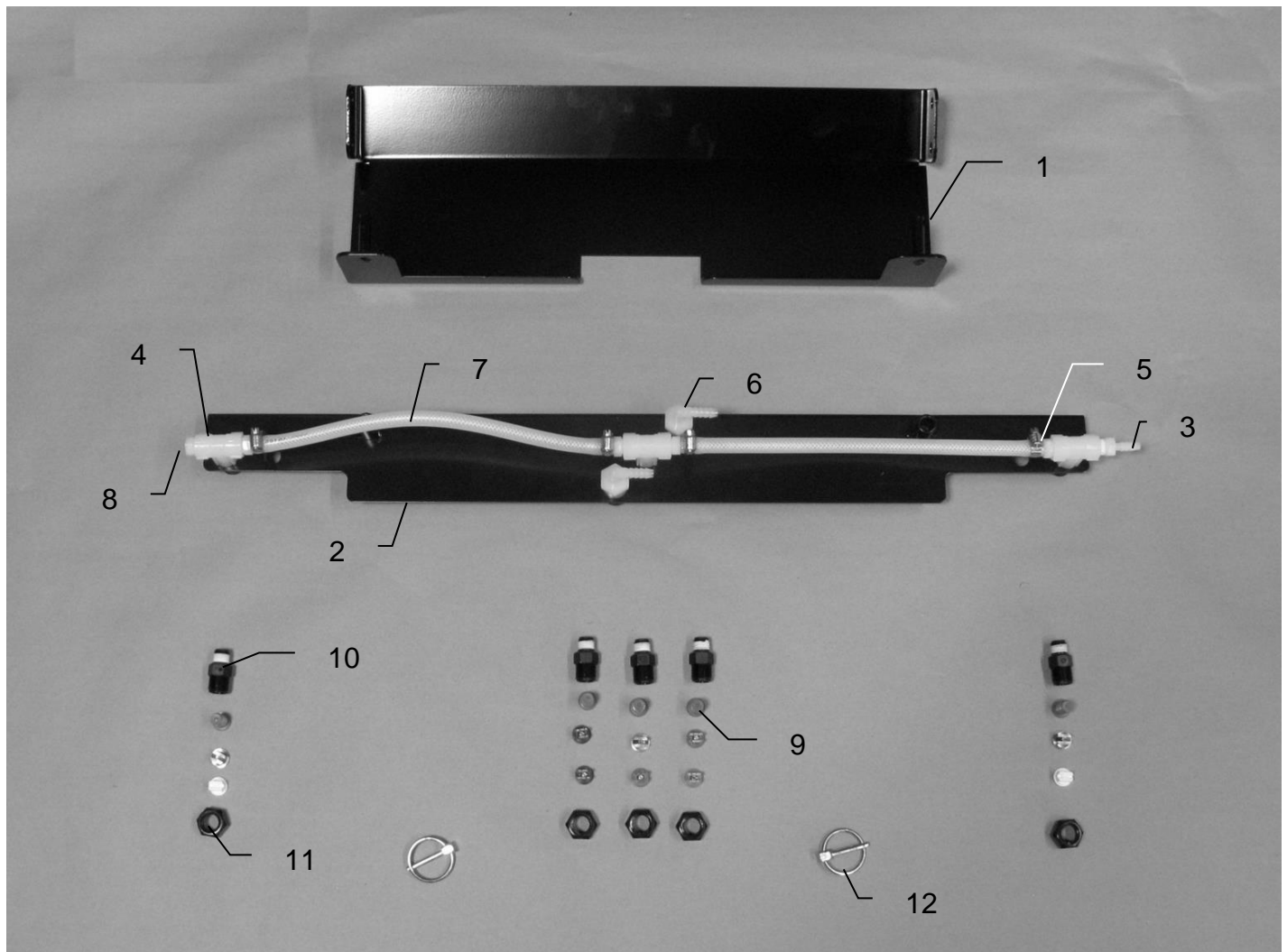
Ref	Description	Part #	Qty	Ref	Description	Part#	Qty
1	Shield bracket	001-4810BRH	1	NP	Tip – Low (silver)	004-650033-SS	3
2	Spray shield	001-4810B	1	NP	Tip – Low (green)	004-XR110015VS	1
3	Straight fitting	003-A1414	5	NP	Tip – Low (red)	004-XR11004VS	1
4	Tee	003-TT14	3	NP	Tip – High (white)	004-650050-PT	2
5	Hose clamp	003-9002	7	NP	Tip – High (orange)	004-XR11001VS	1
6	Elbow	003-EL1414F	2	NP	Tip – High (blue)	004-XR11003VS	1
7	Hose	002-9016	3ft	NP	Tip – High (grey)	004-XR11006VS	1
8	Plug	003-F14	1				
9	Tip strainer	004-4213-200	5		* Tip color subject to change		
10	Nozzle body	004-4722	5				
11	Nozzle cap	004-4723	5	NP	Not Pictured		
12	Lynch pin	008-4576	2				

Harvest Tec Model 647C Installation Kit
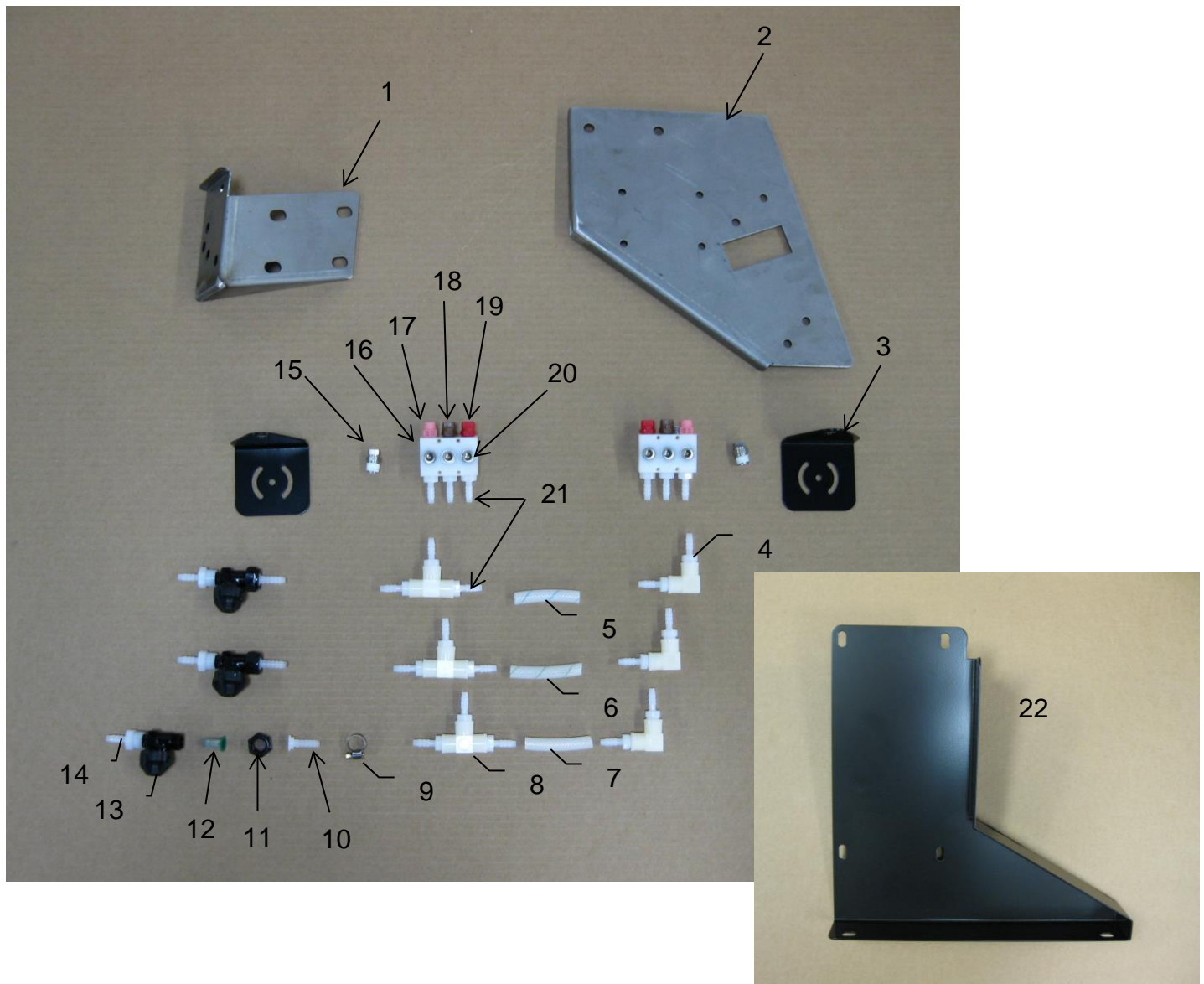
Ref	Description	Part #	Qty	Ref	Description	Part#	Qty
1	Pump Plate Bracket	001-4703XF	1	15	Tip –Stainless	004-T800067-SS	2
2	Pump/Valve Mount	001-4703XE	1	16	Spray Shield Manifold	001-4435NSB	2
3	Spray Block Holder	001-4703XD	2	17	Tip (pink)	004-T8001-PT	2
4	Elbow	003-SE14F	3	18	Tip (brown)	004-T80015-PT	2
5	Hose-clear	002-9016	6 ft	19	Tip (red)	004-T8003-PT	2
6	Hose-green striped	002-9016G	6 ft	20	Plug Allen SS	003-F14A	6
7	Hose-blue striped	002-9016B	6 ft	21	Fitting	003-A1414	21
8	Tee	003-TT14SQ	3				
9	Hose Clamp	003-9002	27	22	Comm RB Bracket	001-4703XG	1
10	Fitting	003-A1414VB	3		600 Series		
11	Nozzle cap	004-4723	3				
12	Tip Strainer	004-1203-100	3		Shield Only Assembly	030-0447C-SO	
13	Check Valve	004-1207VB	3			(Includes Ref # 3-21)	
14	Fitting	003-A1414F	3		* Tip color subject to change		

Harvest Tec Model 4503B Installation Kit

Ref	Description	Part#	Qty
1	Plug	003-F14	1
2	Straight fitting	003-A1414	5
3	Tee	003-TT14	3
4	Elbow	003-EL1414	2
5	Nozzle body	004-4721	5
6	U bolt	001-4714UBS	3
7	Hose clamp	003-9002	7
8	Nozzle cap	004-4723	5
9	Strainer w/check	004-4213-200	5
10	Nozzle tube	001-4714P	2
11	Nozzle tube auto	001-4714AP	1
12	Saddle legs	001-4703B	2
13	Left mtg bracket	001-4703EL	1
14	Right mtg bracket	001-4703ER	1
NP	DCP mount	001-4703BPM	2
NP	45 degree elbow	003-SE4514	5
NP	Jack extension	001-4703EXT	1

Description	Part#	Qty
Tip – Low (silver)	004-650033-SS	3
Tip – Low (green)	004-XR110015VS	1
Tip – Low (red)	004-XR11004VS	1
Tip – High (white)	004-650050-PT	2
Tip – High (orange)	004-XR11001VS	1
Tip – High (blue)	004-XR11003VS	1
Tip – High (grey)	004-XR11006VS	1

 * Tip color subject to change

Harvest Tec Model 4504B Installation Kit

Ref	Description	Part#	Qty	Description	Part#	Qty
1	Plug	003-F14	1	Tip – Low (silver)	004-650033-SS	3
2	Straight fitting	003-A1414	5	Tip – Low (green)	004-XR110015VS	1
3	Tee	003-TT14	3	Tip – Low (red)	004-XR11004VS	1
4	Elbow	003-EL1414	2	Tip – High (white)	004-650050-PT	2
5	Nozzle body	004-4721	5	Tip – High (orange)	004-XR11001VS	1
6	U bolt	001-4714UBS	3	Tip – High (blue)	004-XR11003VS	1
7	Hose clamp	003-9002	7	Tip – High (grey)	004-XR11006VS	1
8	Nozzle cap	004-4723	5			
9	Tip strainer with check	004-4213-200	5	* Tip color subject to change		
10	Nozzle tube	001-4714	2			
11	Nozzle tube auto	001-4714A	1			
12	Saddle leg	001-4703B	2			
13	Left mtg bracket	001-4703DL	1			
14	Right mtg bracket	001-4703DR	1			
NP	DCP mount	001-4703BPM	2			

Harvest Tec Model 4505B Installation Kit

Ref	Description	Part#	Qty
1	Plug	003-F14	1
2	Straight fitting	003-A1414	5
3	Tee	003-TT14	3
4	Elbow	003-EL1414	2
5	Nozzle body	004-4721	5
6	U bolt	001-4714UBS	3
7	Hose clamp	003-9002	7
8	Nozzle cap	004-4723	5
9	Tip strainer with check	004-4213-200	5
10	Nozzle tube	001-4714	2
11	Nozzle tube auto	001-4714A	1
12	Left saddle leg	001-4703FL	1
13	Right saddle leg	001-4703FR	1

Description	Part#	Qty
Tip – Low (silver)	004-650033-SS	3
Tip – Low (green)	004-XR110015VS	1
Tip – Low (red)	004-XR11004VS	1
Tip – High (white)	004-650050-PT	2
Tip – High (orange)	004-XR11001VS	1
Tip – High (blue)	004-XR11003VS	1
Tip – High (grey)	004-XR11006VS	1

* Tip color subject to change

Harvest Tec Model 4508B Installation Kit
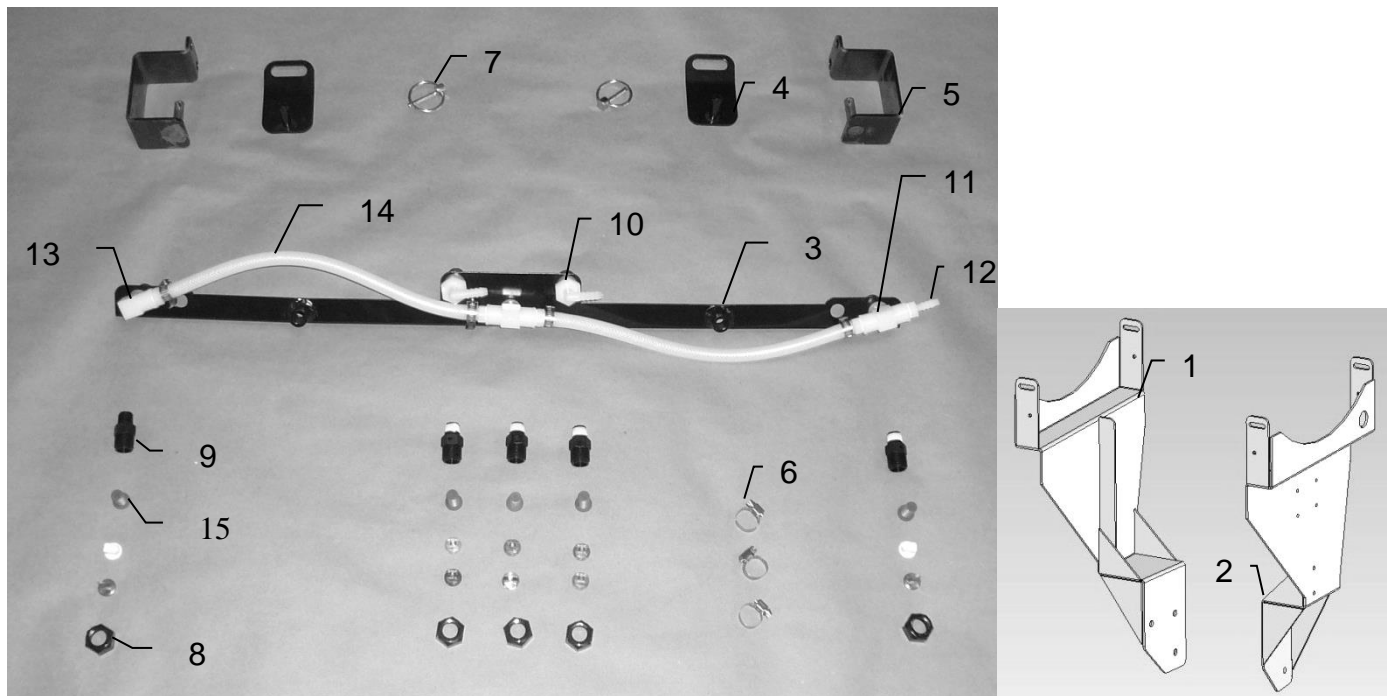
Ref	Description	Part#	Qty	Description	Part#	Qty
1	Left leg	001-4703L	1	Tip – Low (silver)	004-650033-SS	3
2	Right leg	001-4703K	1	Tip – Low (green)	004-XR110015VS	1
3	Spray shield	001-4703GR	1	Tip – Low (red)	004-XR11004VS	1
4	Shield Holder	001-4703JB	2	Tip – High (white)	004-650050-PT	2
5	Shield Holder	001-4703JC	2	Tip – High (orange)	004-XR11001VS	1
6	Hose clamp	003-9002	7	Tip – High (blue)	004-XR11003VS	1
7	Lynch pin	008-4576	2	Tip – High (grey)	004-XR11006VS	1
8	Nozzle Cap	004-4723	5			
9	Nozzle body	004-4722	5	* Tip color subject to change		
10	Elbow	003-EL1414F	2			
11	Tee	003-TT14SQ	2			
12	Straight fitting	003-A1414	5			
13	Elbow	003-SE14F	1			
14	Hose	002-9016	2			
15	Tip strainer	004-4213-200	5			

Harvest Tec model 4517B Installation Kit
For John Deere 8 & 9 Series Round Balers
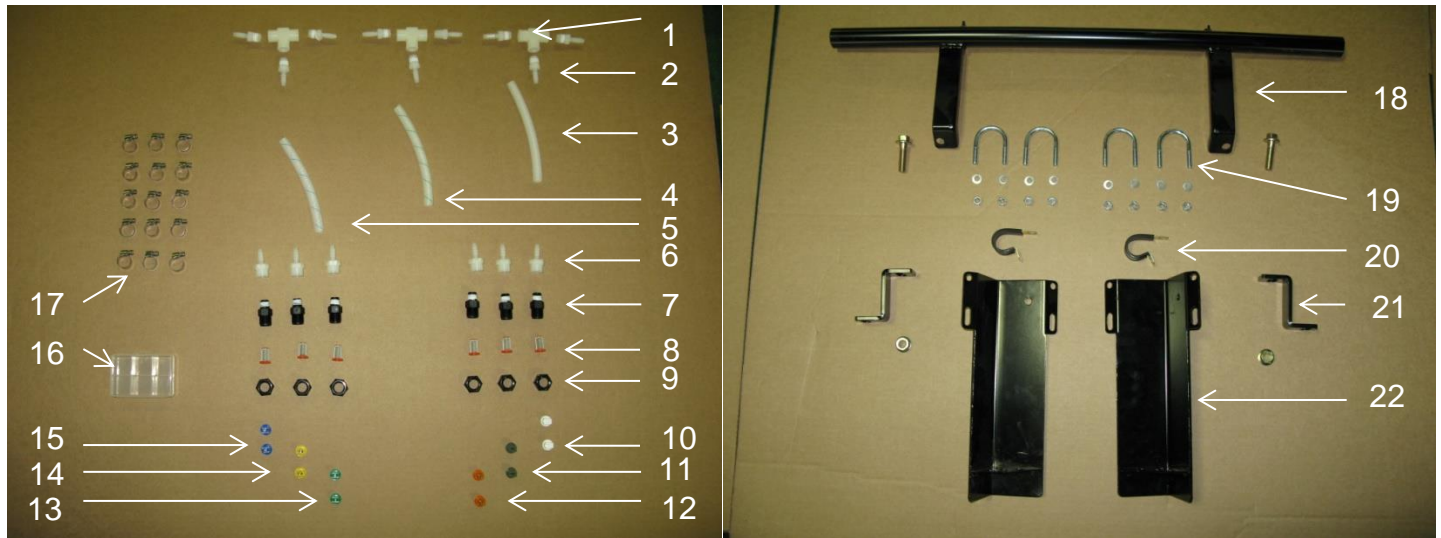
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Tee	003-TT14SQ	3	13	Tip-green	004-XR110015VS	2
2	Fitting	003-A1414	9	14	Tip-yellow	004-XR11002VS	2
3	Hose-White	002-9016	4ft	15	Tip-blue	004-XR11003VS	2
4	Hose-Green Stripe	002-9016G	4ft	16	Mini Plano Box	008-9001	1
5	Hose-Blue Stripe	002-9016B	4ft	17	Hose Clamps	003-9002	15
6	Fitting	003-A1414F	6	18	Nozzle Holder	001-4703R	1
7	Fitting	003-4722	6	19	5/16" U Bolt	001-4714UBS	4
8	Strainer	004-4213-200	6	20	Jiffy Clips	008-9009	2
9	Fitting	004-4723	6	21	Spacer	001-4703NS	2
10	Tip-white	004-650050-PT	2	22	Nozzle Mount	001-4714J	2
11	Tip-olive	004-800067-PT	2	23	Saddle Leg	001-4703B	2
12	Tip-orange	004-XR11001VS	2	24	Right Mtg Bracket	001-4703DR	1
				25	Left Mtg Bracket	001-4703DL	1

* Tip color subject to change
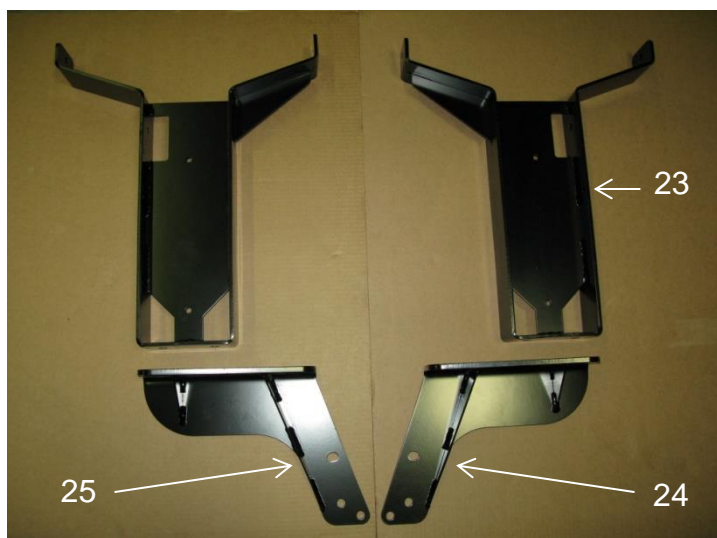
Harvest Tec Model 4523B Installation Kit
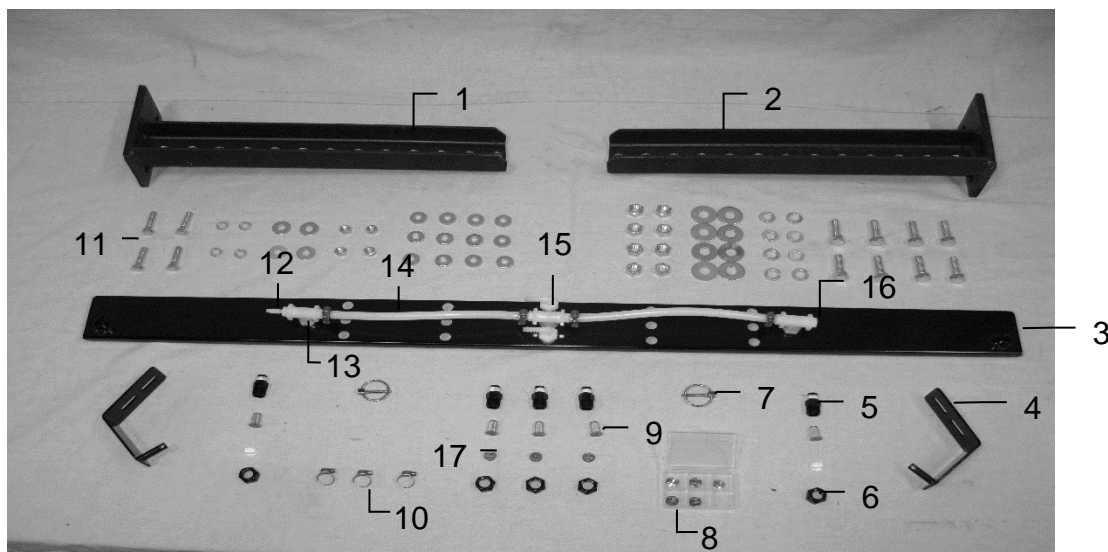
Ref	Description	Part#	Qty	Ref	Description	Part#	Qty
1	Left Support Leg	001-4704JL	1	15	1/4" Elbow FPT	003-EL1414F	2
2	Right Support Leg	001-4704JR	1	16	Hex Plug	003-F14	1
3	Spray Shield	001-4704G	1				
4	Lynch Pin	001-4704H	2	17	Tips		
5	Nozzle Body	004-4722	5		Low – Silver	004-650033-SS	3
6	Nozzle Cap	004-4723	5		Low – Green	004-XR11015VS	1
7	Lynch Pin	008-4576	2		Low – Red	004-XR11004VS	1
8	Plano Box	008-9001	1		High – White	004-650050-PT	2
9	Strainer w/Check	004-4213-200	5		High – Orange	004-XR11001VS	1
10	Hose Clamp	003-9002	7		High – Blue	004-XR11003VS	1
11	Hardware				High – Grey	004-XR11006VS	1
12	Straight Fitting	003-A1414	5				
13	Tee	003-TT14	3		* Tip color subject to change		
14	1/4" Hose	002-9016	2 ft				
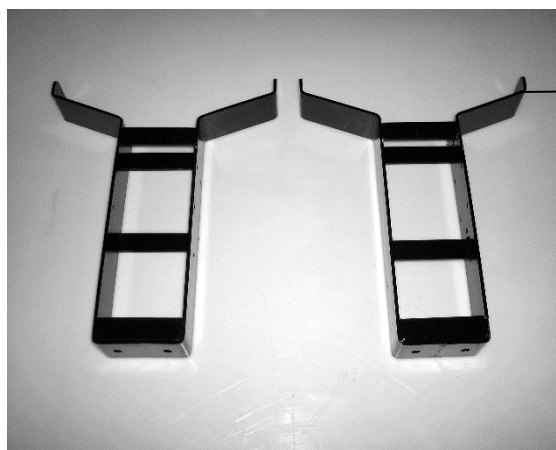
Tank Mounting Legs
001-4703B (x2)

Harvest Tec Model 4524B Installation Kit

Ref	Description	Part#	Qty	Description	Part#	Qty
1	Plug	003-F14	1	Tip – Low (silver)	004-650033-SS	3
2	Straight fitting	003-A1414	5	Tip – Low (green)	004-XR110015VS	1
3	Tee	003-TT14	3	Tip – Low (red)	004-XR11004VS	1
4	Elbow	003-EL1414	2	Tip – High (white)	004-650050-PT	2
5	Nozzle body	004-4721	5	Tip – High (orange)	004-XR11001VS	1
6	U bolt	001-4714UBS	3	Tip – High (blue)	004-XR11003VS	1
7	Hose clamp	003-9002	7	Tip – High (grey)	004-XR11006VS	1
8	Nozzle cap	004-4723	5			
9	Tip strainer with check	004-4213-200	5	* Tip color subject to change		
10	Nozzle tube	001-4714	2			
11	Nozzle tube auto	001-4714A	1			
12	Nozzle holder	001-4703R	1			
13	Left leg	001-4703L	1			
14	Right leg	001-4703K	1			

4526B Installation Kit
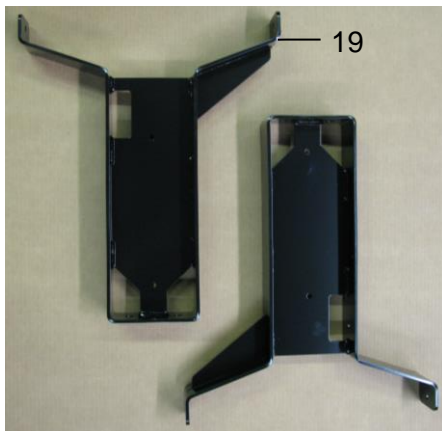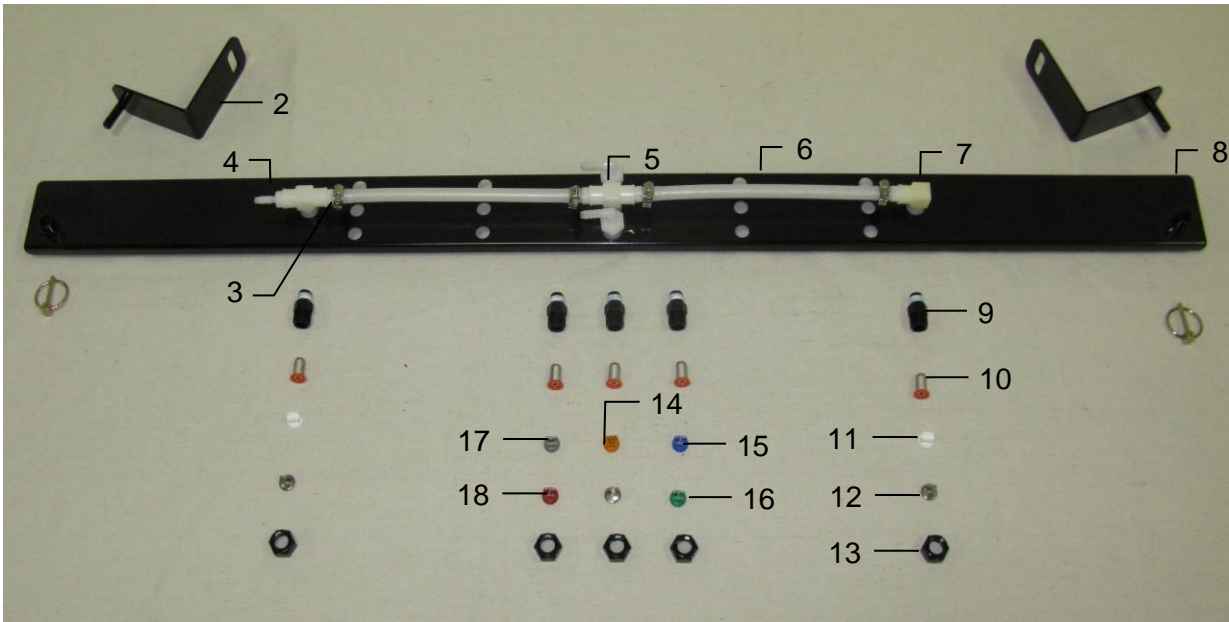
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	3/16" Lynch Pin	008-4576	2	14	Tip – Orange	004-XR11001VS	1
2	Shield Holder	001-4704MC	2	15	Tip – Blue	004-XR11003VS	1
3	Mini Hose Clamp	003-9002	7	16	Tip – Green	004-XR110015VS	1
4	1/4"FPT x 1/4"HB	003-A1414	5	17	Tip - Gray	004-XR11006VS	1
5	1/4" Sq Tee	003-TT14	1	18	Tip – Red	004-XR11004VS	1
6	1/4" Hose	002-9016	1ft	19	55 Gal Leg	001-4703B	2
7	1/4" Female Elbow	003-EL1414F	1	20	Side Support	001-4704MA	2
8	Spray Shield	001-4704G	1	21	Brace Support	001-4704MD	2
9	Nozzle Body	004-4722	2	22	Top Support	001-4704ME	1
10	Tip Strainer	004-4213-200	5	NP	Hex Plug	003-F14	1
11	Tip – White	004-650050-PT	2				
12	Tips – Silver	004-650033-SS	2		* Tip color subject to change		
13	Nozzle Cap	004-4723	2				

Model 4547B Installation Kit
John Deere 0 Series Round Balers
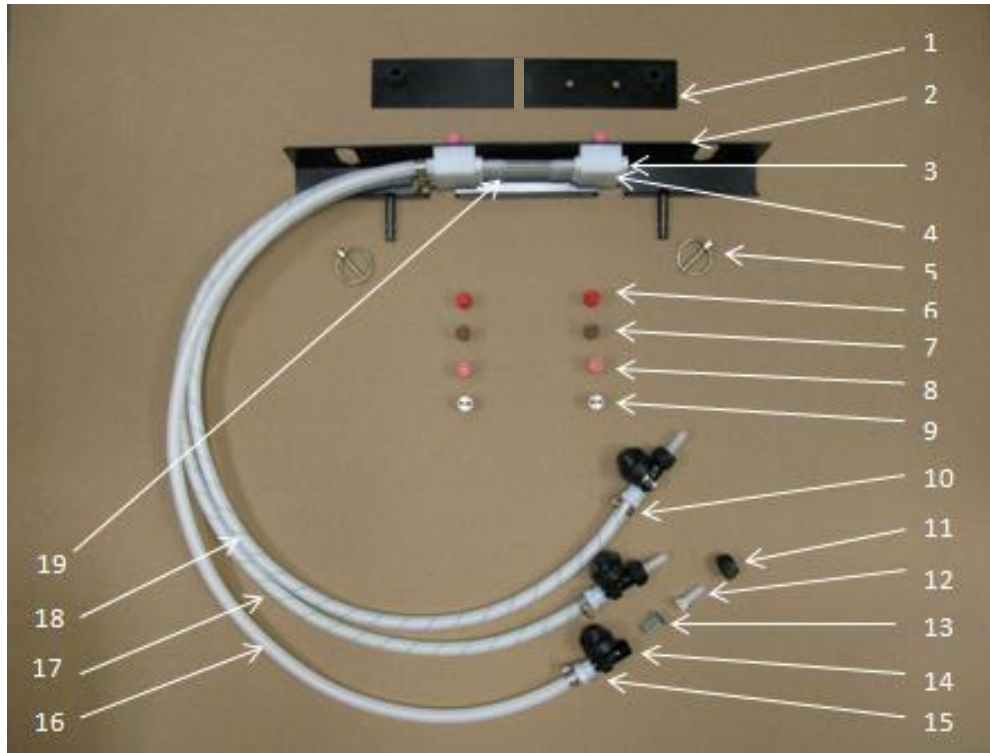
Ref	Description	Part Number	Qty	Ref	Description	Part Number	Qty
1	Holder	001-4435NCX	1	13	Strainer	004-1203-100	3
2	Shield	001-4435NSX	1	14	Check Valve	004-1207VB	3
3	Fitting	003-F14	3	15	Fitting	003-A1414F	3
4	Manifold Block	001-4435NSB	2	16	Clear Tubing-1/4"	002-9016	4 ft
5	Lynch Pin	008-4576	2	17	Blue Stripe Tubing	002-9016B	4 ft
6	Tip-Red	004-T8003-PT	2	18	Green Stripe Tubing	002-9016G	4 ft
7	Tip-Brown	004-T80015-PT	2	19	EVA-1/4"	002-9006	1 ft
8	Tip-Pink	004-T8001-PT	2	20	Saddle Leg	001-4703B	2
9	Tip-Stainless	004-T800067-SS	2	21	Right Mtg Bracket	001-4703DR	1
10	Hose Clamp	003-9002	15	22	Left Mtg Bracket	001-4703DL	1
11	Cap	004-4723	3	NP	1/4" x 1/4" Fitting	003-A1414	9
12	Fitting	003-A1414VB	3	NP	2" U-Bolt	001-4714UBX	2

* Tip color subject to change

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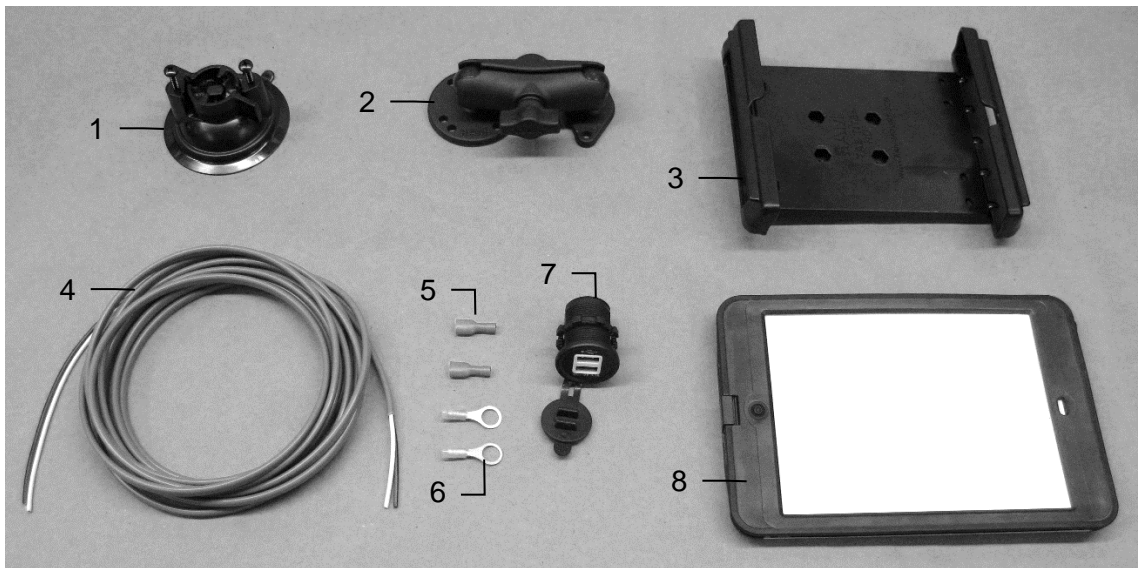
Ref	Description	Part #	Qty
1	Suction cup mount	001-2012SCM	1
2	Ram mount	001-2012H	1
3	iPad Mini® spring load cradle (Mini 4)	001-2012SLC	1
4	16 gauge power wire	006-4723P	1
5	Female spade connector	Hardware	2
6	Eye loop connector	Hardware	2
7	iPad Mini Charger 12V	001-2012P	1
8	iPad Mini 4 case	001-2012C4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

**Installation Instructions**

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

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

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

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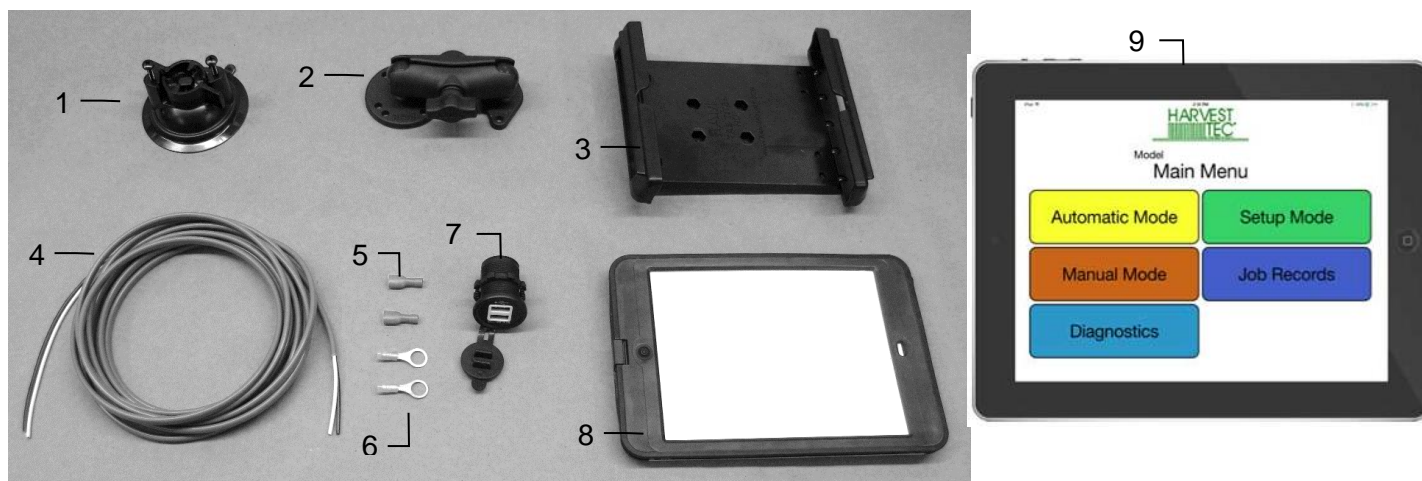
Ref	Description	Part #	Qty	Ref	Description	Part #	Qty
1	Suction cup mount	001-2012SCM	1	7	iPad Mini Charger 12V	001-2012P	1
2	Ram mount	001-2012H	1	8	iPad Mini 4 case	001-2012C4	1
3	iPad Mini® spring load cradle (Mini 4)	001-2012SLC	1	9	iPad Mini 4	006-4670IP	1
4	16 gauge power wire	006-4723P	1	NP	4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

Installation Instructions

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

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

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647 & 649 Selecting Tips-Reference Guide

The applicator is sent from the factory with High output tips installed. The tips used are determined by how many ton per hour you are baling at. You can see this on either the automatic or manual screen.

1 – 7 tons of hay per hour
-   Too low for system to apply at. Increase baling speed or rake more hay together. System will show over application when at these tonnages.

8– 27 tons of hay per hour, 32 – 440lbs of hay preservative per hour (14-200L/hr)
-   Use low output tips

    o For most balers

        ▪ Pump 1 = Qty 3 - (650033-SS) Silver

        ▪ Pump 2 = Qty 1 - (XR110015VS) Green

        ▪ Pump 3 = Qty 1 - (XR11004VS) Red

    o For John Deere 8 and 9 Series balers (2013 and newer)

        ▪ Pump 1 = Qty 2 – (650050-PT) White

        ▪ Pump 2 = Qty 2 – (800067-PT) Olive

        ▪ Pump 3 = Qty 2 – (XR11002VS) Yellow

21 – 40 tons of hay per hour, 84– 632lbs or hay preservative per hour (38-287 L/hr)
-   Use high output tips

    o For most balers

        ▪ Pump 1 = Qty 2 - (650050-PT) White and Qty 1 (XR11001VS) Orange in the center

        ▪ Pump 2 = Qty 1 - (XR11003VS) Blue

        ▪ Pump 3 = Qty 1 - (XR11006VS) Gray

    o For John Deere 8 and 9 Series balers (2013 and newer)

        ▪ Pump 1 = Qty 2 – (XR11001VS) Orange

        ▪ Pump 2 = Qty 2 – (XR110015VS) Green

        ▪ Pump 3 = Qty 2 – (XR11003VS) Blue

647C Selecting Tips-Reference Guide

The applicator is sent from the factory with High output tips installed. The tips used are determined by how many ton per hour you are baling. You can see this on either the automatic or manual screen.

1 – 7 tons of hay per hour
- Too low a level for the system to apply at. Increase baling speed or rake more hay together. System will show over application when at these tonnages.

8 – 27 tons of hay per hour, 32 – 440 lbs of hay preservative per hour (14-200L/hr)
- Use low output tips

  o For most 4 ft balers

    ▪ Pump 1 = Qty 2   004-T800067-SS   80 degrees   Silver

    ▪ Pump 2 = Qty 2   004-T8001-PT   80   Pink

    ▪ Pump 3 = Qty 2   004-T80015-PT   80   Brown

21 – 40 tons of hay per hour, 84 – 632 lbs or hay preservative per hour (38-287 L/hr)
- Use high output tips

  o For most 5 ft balers

    ▪ Pump 1 = Qty 2   004-T8001-PT   80 degrees   Pink

    ▪ Pump 2 = Qty 2   004-T80015-PT   80   Brown

    ▪ Pump 3 = Qty 2   004-T8003-PT   80   Red

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.

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