

Installation Manual

Model 602A

***Microwave Moisture Bale Chute System
AGCO 2100 & 2200 Series Balers***



*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



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 inoculants onto forage crops.

MODEL: 602A-INST-17-Imp&Metric

BRAND: Harvest Tec

PATENT NUMBER: US 9,854,743 B2:

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

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

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

Richard Snell, President, Profitable Farming Company

Signed on May 21, 2011: Middle Barlington, Roborough
Winkleigh, Devon, EX19 8AG
ENGLAND

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Introduction

Congratulations and thank you for purchasing a Harvest Tec Model 602A Microwave Moisture kit. Please read this manual carefully to ensure correct steps are taken to attach the system to the baler. This is designed to read moisture through the baler's monitor or Apple iPad. A parts break of the system is located in the back of the manual.

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

System Requirements



The Baler Processor must have Version 3.3 or higher.

C1000 monitor must have Version 3.0.1 or higher

If equipped with the SBM, the SBM must have Version 4.0 or higher.



***Requirement to run iPad option are
iOS8 or greater operating system, plus the Hay App.**

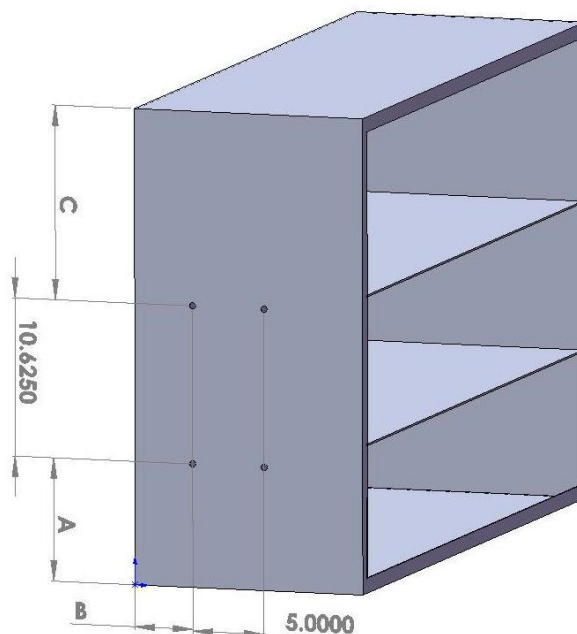
Tools Needed:

Standard wrench set
Electric drill and bits
Side cutter
Standard nut driver set
Standard socket set

Hammer
Center punch
Plasma cutter
Grinding wheel

Installation of the Dual Channel Processor

Follow the instructions below to mount the Dual Channel Processor (DCP) on to your specific baler model and type. The locations shown are on the right twine box (looking at the back of the baler). Mark and drill the four 3/8 (10mm) holes and install DCP with four 5/16 x 1 bolts, locks, flats and nuts. If your baler is not listed below mount the DCP on the back of the twine box on the right side.



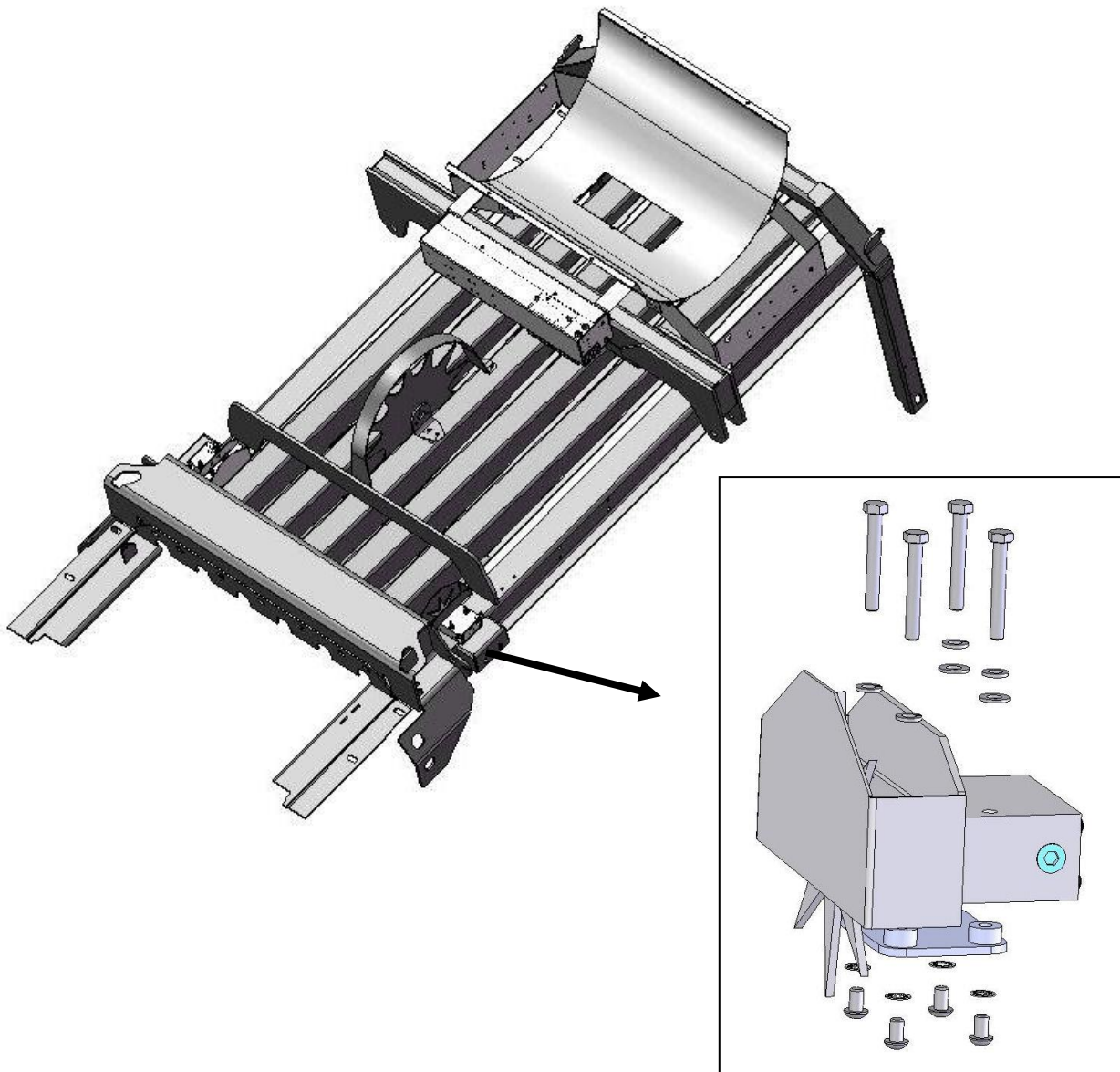
Baler Type	A	B	C
AGCO Hesston	12" (30cm)	3" (70mm)	N/A
Challenger	12" (30cm)	3" (70mm)	N/A
Massey Ferguson	12" (30cm)	3" (70mm)	N/A

Installation of the Star Wheels

The star wheel block has a plug on one side and a wire grommet on the other side. If there is interference or problems with the star wheel wires on one side of the block, exchange the wire grommet with the plug so the wire can exit the block on the opposite side. Mount the twine guards using the two inner holes on the star wheel block.

The star wheels are to be mounted on top of the baler, just behind the knotters and under the walkway on both sides. The notch and holes for the star wheel are precut. **If the star wheels are cutting the twine the sensors and notch must be moved out an additional 1/2" (13mm). Use the template in the back of the manual for hole spacing.** Place the spacer plate (001-6707E) over the precut holes.

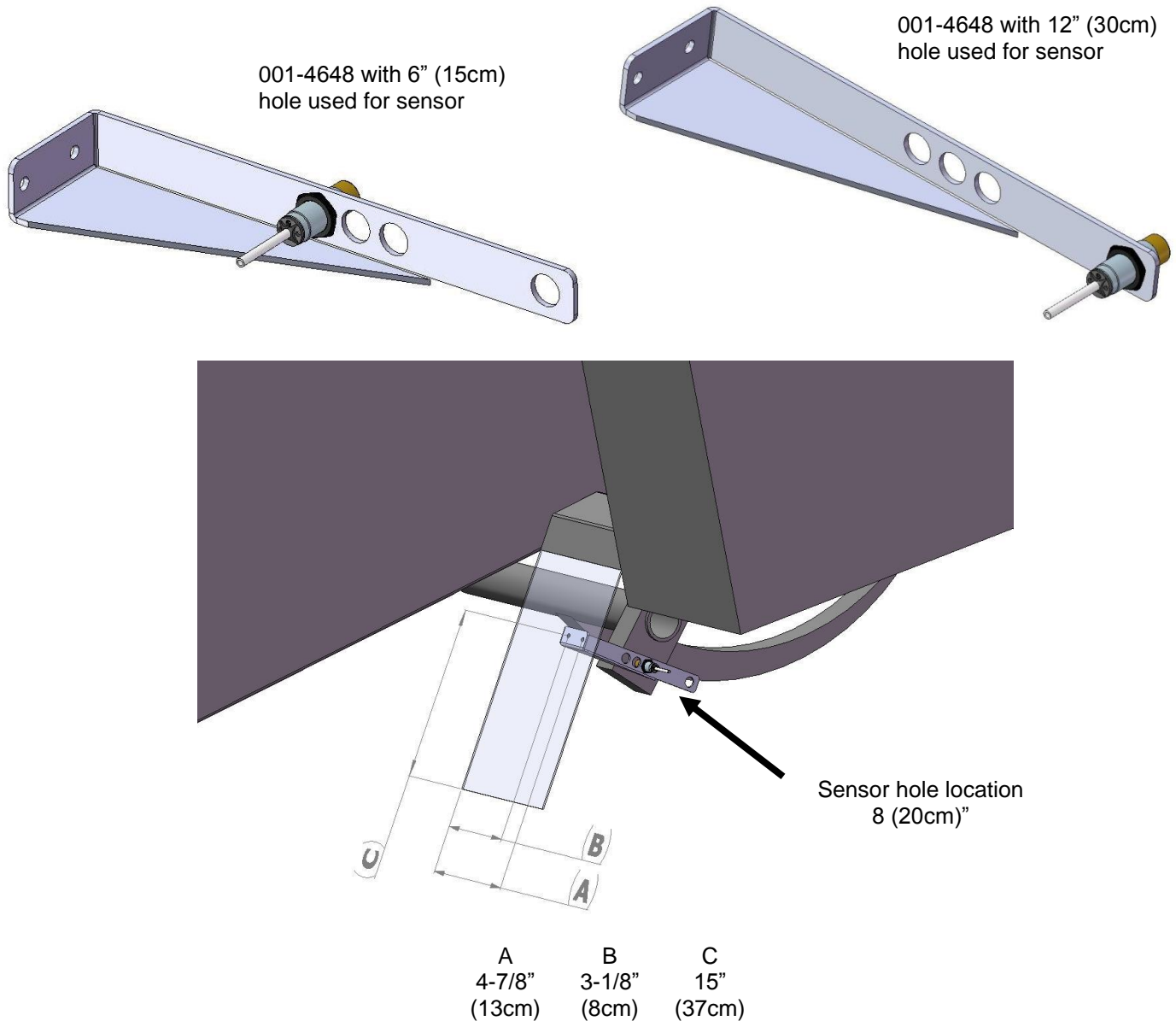
Attach with 5/16 x 1/2 Allen head bolts and internal star washers from inside the bale chamber. Center the star wheels over the top of the spacer plate, place the twine diverters on top of the star wheel and attach with 5/16 x 2 1/4 hex bolt and lock washers. For remainder two holes per star wheel attach with 5/16 x 2 1/4" hex bolt, lock washer, and one 5/16" (8mm) thick flat washers per bolt. Verify that star wheels align with bale chamber before tightening down all hardware. **The twine guard containing the bale rate sensors will be placed on the right side of the baler.** See Step 4 for directions on how to hook-up the star wheel wires.



Installation of End of Bale Sensor

The end of bale sensor determines the position of the needles on the baler. When the needles cycle the sensor communicates this information to the Dual Channel Processor. This information is used for job records and will be used by the optional Bale Identification systems. Follow the steps below to mount the sensor.

End of bale sensor bracket (001-4648) will be used. Cutoff excess metal not used during installation.

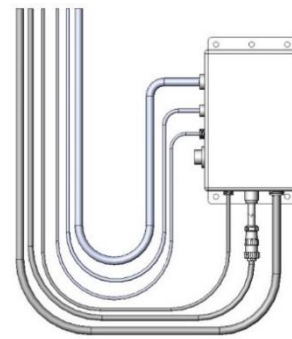


Mount the end of bale sensor bracket (001-4648) as shown. Mark and drill two 5/16" (8mm) holes and attach the bracket using two 1/4" x 1" bolts, locks, flats, and nuts. Mount the sensor in the 8" (20cm) hole location, keep the sensor 1/4" (7mm) from the needle and tighten both nuts. Cut off excess metal past the sensor. Run the sensor cable up to the Dual Channel Processor and secure to the baler.

Installation of Star Wheel and Bale Rate Harness

First, remove the cover from the star wheel block and use a 1/4" nut driver to remove the nut from the electronic swivel. Next, run the star wheel sensor wire through the black grommet and place the eye terminal on the star wheel sensor. Tighten the eye loop with the nut on the sensor and put the star wheel cover back on the base. Next, tighten the grommet to form a tight seal around the wire. The bale rate sensors will be factory installed on the right side twine guard in the correct position. The sensor with the longer sensor wire should say "FRONT", which indicates it should be placed in the front sensor hole. The sensor wire with the shorter wire should say "BACK." The tip of the sensor should be placed no more than 1/4" (7mm) away from the star wheel teeth and no less than 1/8" (3mm) from the star wheel teeth. Each sensor will have an LED light located on the sensor by the diverter. Once the unit is powered up spin the wheel and make sure that both led lights turn on and off. If they don't turn on and off, adjustments may need to be made.

Main Wire Harness and Baler Interface Harness Routing and Connections



A. Route harness 006-6650LS2 along this path or similar inside of the baler. Keep harnesses away from moving parts and hydraulic hoses. Secure with existing cable clamps or use cable ties. When all connections are made to the DCP secure wires as shown above to allow for water to be shed away from the DCP.



B. Under the chamber locate the Active Terminator from the end of the baler harness. It is located at the right rear corner of the baler frame. Attach Baler Interface Harness (006-6650VA) to that location. Reconnect Active Terminator to open port of that same harness (006-6650VA). If your baler does not have a Terminator at this location please call Harvest Tec.

If your baler has the White Terminating Resistor you will need to attach the Pre 2012 AGCO Integration Harness (006-6650VAX) to the end of the Baler Interface harness (006-6650VA). Please contact Harvest Tec for this harness. This style terminator may be next to the Baler's Main Processor.

Installation of Bluetooth Receiver

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

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



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

Red Light – The Bluetooth receiver has power

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

Microwave Sensor Installation

Locate the mounting holes on the back of both the left and right side of the bale chute (figure 1).

Mount the rear microwave moisture mounting brackets 001-2601 (figure 2) on the holes using two 3/8" x 3 1/2" hex bolts, nuts and lock washers located in parts bag D.



Figure 2



Figure 1

Attach the microwave moisture sensors to each mounting bracket. Sensor 006-4641MTX will be mounted on the left side of the bale chute (figure 3). Sensor 006-4641MRX will be mounted on the right side (figure 4). Mount the sensors with the wire connection port toward the baler.



Figure 3



Figure 4

Locate the MWM wiring harness (006-6650MWL) in the kit. Start by locating the connector with the white heat shrink label marked RX. Connect this connector to the sensor mounted on the right side chute (006-4641MRX).

If connecting to a *moisture only system* route the MWM harness (006-6650MWL) to the DCP on the baler and remove the green capped terminating resistor (006-5650Z) on the pump modular port, connecting the MWM sensors. Secure the harness.

If connecting to a *complete applicator system* route the MWM harness (006-6650MWL) to the Pump Controller (006-5672) on the pump plate next to the tank and remove the green capped terminating resistor (006-5650Z) on the pump modular port. Connect the MWM harness to the pump controller in the modular port. Secure the harness. The green resistor is no longer needed.

Microwave Sensor Installation (continued)

Locate the 006-7400 harness (stuffer sensor) and the L-shaped bracket (001-4648SS) from the parts bag. Attach the stuffer sensor to the bracket loosely and locate the shielding on the right hand side of the baler ahead of the stuffer.

Position the stuffer sensor and L-bracket against the outside of the shield so the sensor is positioned within 3/8" (10mm) of the stuffer (figure 9). Mark mounting hole location and attach bracket to the shielding using at least one of the 5/16-1" hex bolts and a flange nut. Secure the sensor to the bracket by tightening the jam nuts.

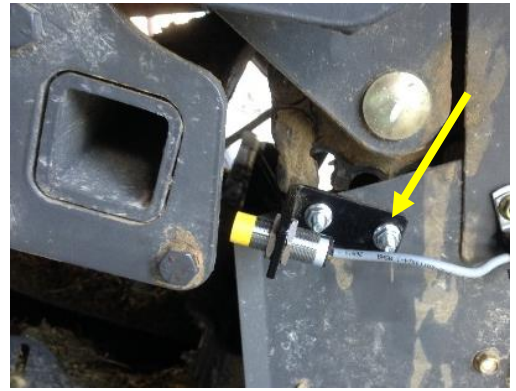


Figure 9

Route the wire from the sensor along the existing wiring along the frame towards the rear of the baler. Connect an extension harness and route to rear of baler. Secure with cable ties.

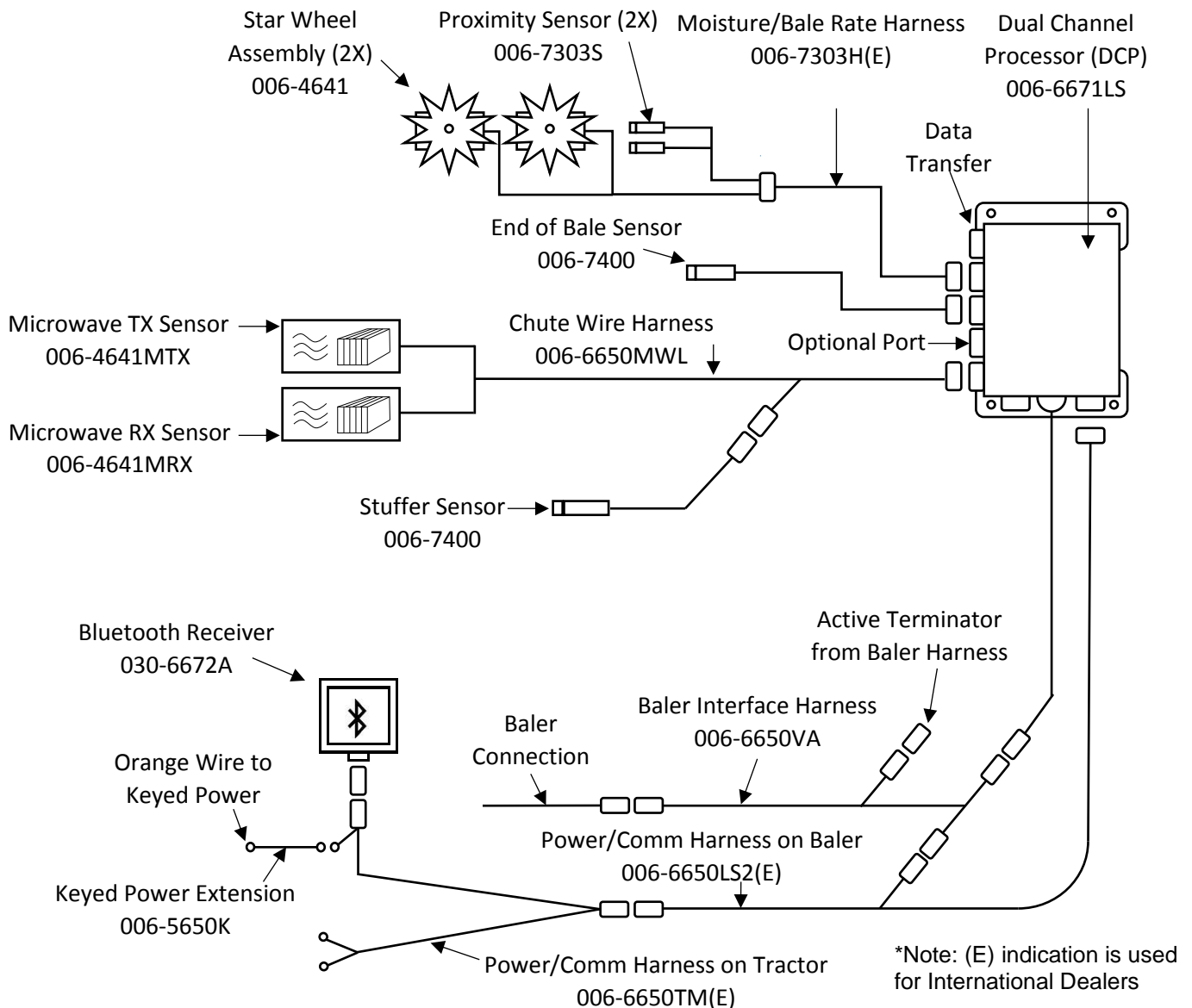
Route the rest of the harness along the existing wiring toward the top of the chamber. The wire from the stuffer sensor will be connected to the 4 pin connector coming off the main harness about 2' (.6M) from the right hand sensor.

Route the MWM harness (006-6650MWL) to the DCP on the baler and remove the green capped terminating resistor (006-5650Z) on the pump modular port, connecting the MWM sensors. Secure the harness. The green resistor is no longer needed.

If connecting to a complete applicator system route the MWM harness (006-6650MWL) to the Pump Controller (006-5672) on the pump plate next to the tank and remove the green capped terminating resistor (006-5650Z) on the pump modular port. Connect the MWM harness to the pump controller in the modular port. Secure the harness. The green resistor is no longer needed.

Wiring Diagram

1. Locate the tractor power/communication harness (006-6650TM(E)).
2. At the back of the tractor run the power leads to the battery.
3. Connect the red power wire with the 50 amp fuse to the positive side (12 volt) of the battery.
 - a. **The power harness must be connected to the battery!** The unit will draw more amps than convenience outlets can handle. Any modifications of the power harness will void systems warranty.
 - b. **This unit will not function on positive ground tractors.**
4. Connect the black ground wire to frame of tractor or negative side of (12 volt) battery.
5. Connect the Bluetooth Receiver (030-6672A) to the Communication Harness (006-6650TM). Place in a safe location in the cab. Behind the seat for example.
6. Connect the orange Keyed Power wire (006-5650K) to a keyed power source.
7. Connect the end to the Communication Harness (006-6650TM(E)) to the Bluetooth Receiver.
8. Connect the orange keyed power wire (006-5650K) to a keyed power source on the tractor.
9. Connect the Chute Wire Harness (006-6650MWL) into the Pump Controller port on the DCP.
10. Connect Microwave Sensors (006-4641MTX & 006-4641MRX) to the Chute Wire Harness.
11. Connect the Stuffer Sensor (006-7400) to the Chute Wire Harness.
12. When running a steamer, connect the Power / Comm extension harness (006-6650FMX) to the baler mounted Power / Comm Harness (006-6650LS2(E)) an additional 25' length from the tractor to the baler.

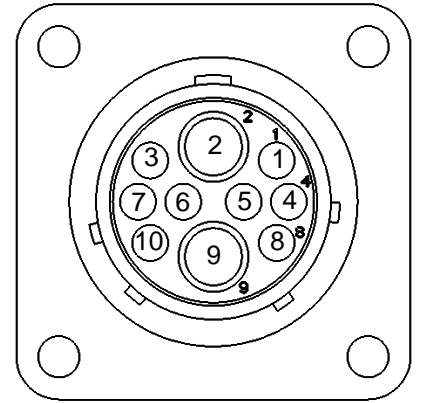


AGCO 2100 Series Balers Pre 2012 need the AGCO Integration Harness (006-6650VAX)

Pin Outs

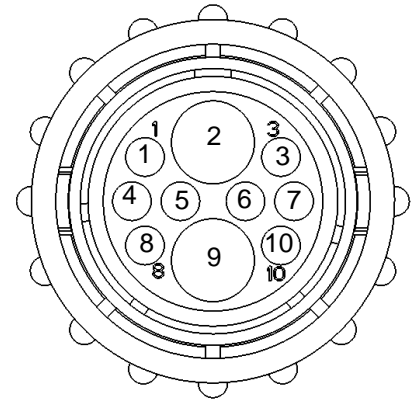
Power/Comm Harness 006-6650TM(E) at Hitch

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



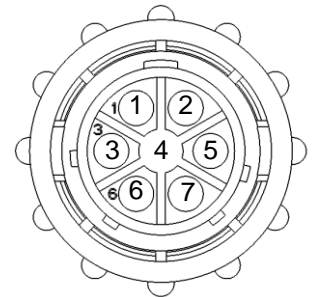
Power/Comm Harness 006-6650LS2(E) at Hitch

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



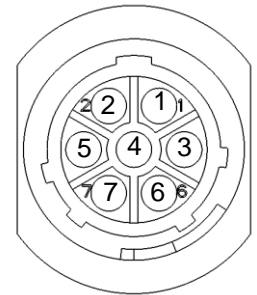
Bluetooth Receiver on Harness 006-6650TM(E)

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



006-6650VA to DCP Whip

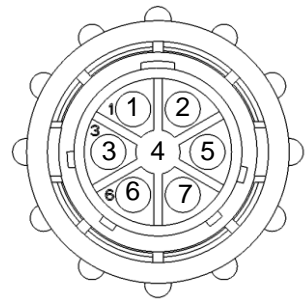
Pin 1	Red	Can Power
Pin 2	Black	Can Ground
Pin 3	Yellow	HT Can Hi
Pin 4	Gray	Shield
Pin 5	Green	HT Can Low
Pin 6	Orange	Can1 Hi
Pin 7	Blue	Can1 Low



Pin Outs (continued)

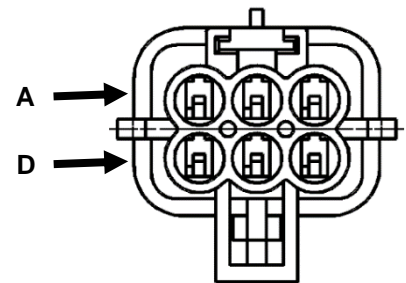
006-6650VA to 006-6650LS2(E)

Pin 1	Red	Can Power
Pin 2	Black	Can Ground
Pin 3	Yellow	HT Can Hi
Pin 4	Gray	Shield
Pin 5	Green	HT Can Low
Pin 6	N/A	
Pin 7	N/A	



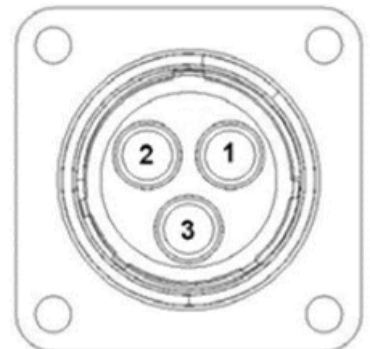
006-6650VA Harness to Baler Plug

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



Main Power Connector on Dual Channel Processor (DCP)

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



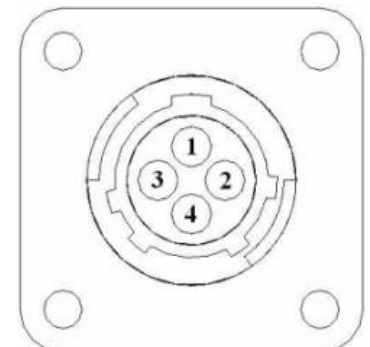
Star Wheel and Bale Rate Sensor Connector on DCP

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

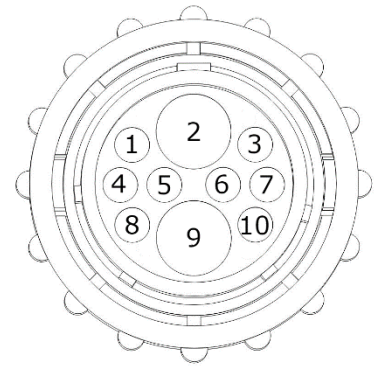
Pin 1	Brown	Sensor Power
Pin 2	Blue	Sensor Ground
Pin 3	N/A	
Pin 4	Black	Signal from Sensor



Pin Outs (continued)

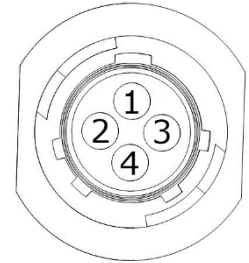
Microwave Pre-Compression Chamber Harness 006-6650MWL

Pin 1	Red	Power
Pin 2	N/A	Not Used
Pin 3	N/A	Not Used
Pin 4	Yellow	Can H In
Pin 5	Green	Can L In
Pin 6	Orange	Can H Out
Pin 7	Blue	Can L Out
Pin 8	Black	Ground
Pin 9	N/A	Not Used
Pin 10	N/A	Not Used



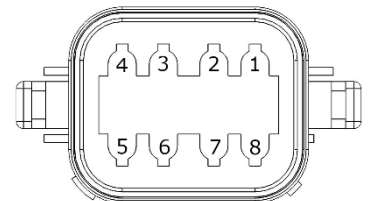
Microwave Pre-Compression Chamber Harness 006-6650MWL

Pin 1	Red	Power
Pin 2	Black	Ground
Pin 3	N/A	Not Used
Pin 4	Brown	Signal



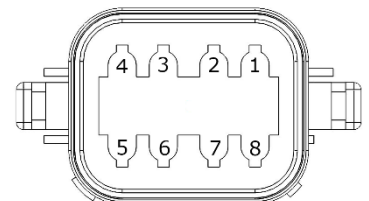
Microwave Pre-Compression Chamber Harness 006-6650MWL (RX)

Pin 1	Black	Ground
Pin 2	Red	Power
Pin 3	Yellow	Can H
Pin 4	Green	Can L
Pin 5	Plugged	
Pin 6	Plugged	
Pin 7	Brown	Signal
Pin 8	Black	Ground



Microwave Pre-Compression Chamber Harness 006-6650MWL (TX)

Pin 1	Black	Ground
Pin 2	Red	Power
Pin 3	Yellow	Can H
Pin 4	Green	Can L
Pin 5	Plugged	
Pin 6	Plugged	
Pin 7	Plugged	
Pin 8	Plugged	



Common Questions

1. Can microwave sensors function with 500 series PIP?

No, microwave sensors are only compatible w/600 Series unit running software version dcp46227 or later.

2. Can microwave sensors function through a Harvest Tec Touch Screen Display?

No, microwave sensors require an ISOBUS Interface (VT) or iPad system to set the microwave settings.

3. What terminal is required to operate microwave sensor?

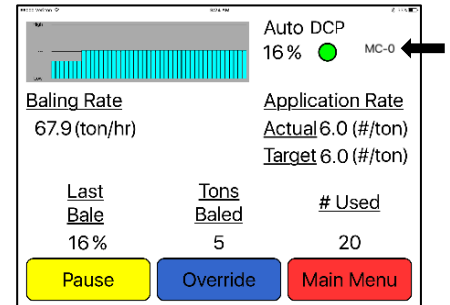
Microwave sensors are compatible with VT & iPads.

4. What moisture range will sensors detect?

Pre-Compression Chamber microwave sensors have a moisture range of 6-60% moisture. The Bale Chute chamber sensors have a range of 6-40%.

5. How do I know if I'm displaying microwave or star wheel moisture?

The sensor type selected is indicated in the upper right corner of the run screen (right). MC-0 indicates starwheels, MC-1 indicates MWM Pre-Compression Chamber, MC-2 indicates MWM Bale Chamber System, MWM-3 indicates other.



6. What crops are the microwave sensors designed for?

The Microwave sensors are designed and calibrated for Alfalfa.

7. Is there a calibration to the microwave sensors for different crops?

No, there is no adjustments needed.

8. Do the sensors emit harmful waves?

No

9. How often should a Zero Adjust (ZA) be performed?

A zero adjust should be performed on initial installation. It is also recommended during a zero adjust calibration at the beginning of each season.

10. When reading moisture with microwave sensors why can I not select Automatic mode?

MWM Pre-Compression sensors can be used in both Auto and Manual mode.

MWM Bale Chute sensors can only be used in Manual Mode due to the lag time between the application tops and the sensors.

11. Where does the green terminating resistor plug in to microwave sensors?

The green resistor (006-5650Z) is not used. Store the resistor for potential updates and changes you may make to the system in the future.

12. Where do I position 840 moisture dye marker spray tip when operating microwave sensors in pre-compression chamber?

Dye marking tips should be located behind (toward rear end of chute) MWM Chute sensors, with the tips angled toward the rear at a 45 degree angle. Alternative mounting would locate the dye marking tips above the bale w/ the brackets mounted off the top cross beam.

When using a Pre-Compression system mount the tips as close to the front of the bale chamber as possible, either on the side if there is clearance or on the top of the bale.

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

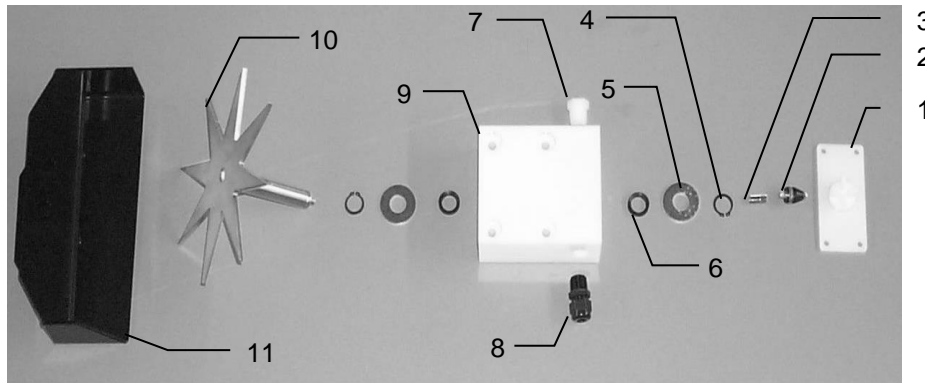
Red Light – The Bluetooth receiver has power. *Green Light* – When the proper active connection is selected in the Hay App menu, the green light will indicate connection with the iPad.

Troubleshooting

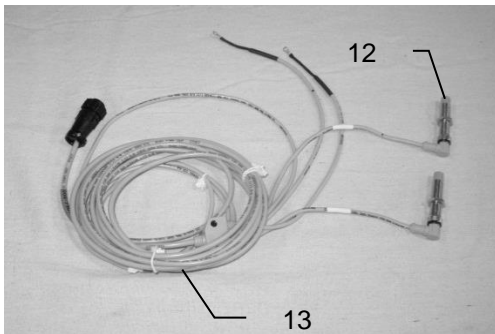
PROBLEM	POSSIBLE CAUSE	SOLUTION
Moisture reading errors (high or low)	1. Wire disconnected or bad connection between star wheels and DCP	1. Reconnect wire.
	2. Low power supply to DCP	2. Check voltage at box. (Min of 12 volts required.) See Diagnostics section of manual.
	3. Dry hay lower than 8% moisture or wet hay over 75%.	3. Pre-Compression System reads 6-60% moisture. The Bale Chute system read 6-40% moisture.
	4. Ground contact with one or both star wheels and baler mounted processor.	4. Reconnect.
	5. Short in wire between star wheels and DCP.	5. Replace wire.
	6. Check hay with hand tester to verify.	6. Contact Harvest Tec if conditions persist.
Moisture readings erratic.	1. Test bales with hand tester to verify that DCP has more variation than hand tester.	
	2. Check all wiring connections for corrosion or poor contact.	2. Apply dielectric grease to all connections.
	3. Check power supply at tractor. Voltage should be constant between 12 and 14 volts.	3. Install voltage surge protection on tractors alternator.
Display reads under or over power.	1. Verify with multi-meter actual voltage. Voltage range should be between 12-14 volts.	1. Clean connections and make sure applicator is hooked to battery. See Diagnostics section of manual.
Bale rate displays zero.	1. Bale rate sensors are reversed. 2. Short in cable. 3. Damaged sensor. 4. Sensor too far from starwheel.	1. Switch the sensors next to the star wheel. 2. Replace cable. 3. Replace sensor. 4. Adjust gap between prox sensor and star wheel so it is 1/8-1/4" away.
MWM moisture reads low all the time	1. Stuffer sensor out of adjustment	1. Verify stuffer sensor is not damage and is sensing the stuffer moving each time
Bluetooth Receiver lights will not illuminate	1. Bluetooth receiver not connected 2. Harness disconnected 3. Low power	1. Check connections and voltage. Minimum 12.5V needed.
	<i>Red Light</i> – The Bluetooth receiver has power <i>Green Light</i> – When the proper active connection is selected in the Hay App menu, the green light will indicate connection with the iPad.	

Parts Breakdown

Star Wheel Moisture Sensor and Bale Rate Sensors

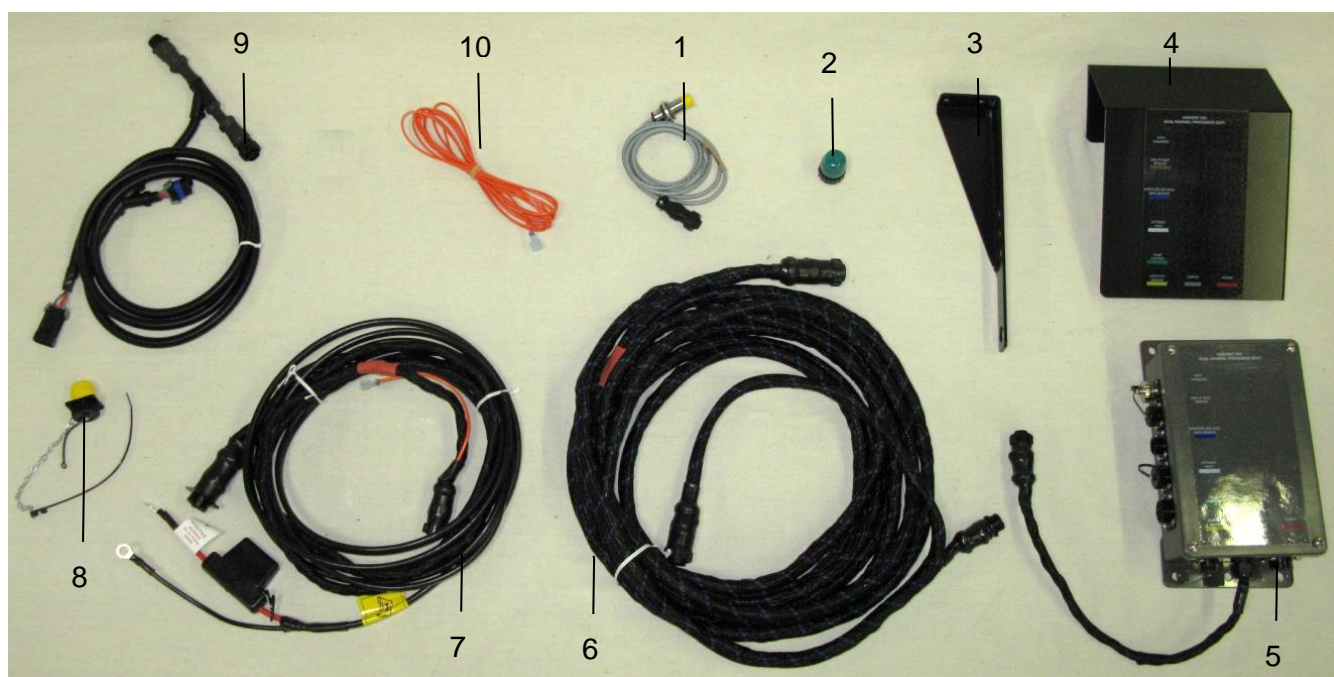


<u>Ref</u>	<u>Description</u>	<u>Part#</u>	<u>Qty</u>	<u>Ref</u>	<u>Description</u>	<u>Part#</u>	<u>Qty</u>
1	Block cover	006-4641B	2	9	Star wheel block	006-4641A	2
2	Electronic swivel	006-4642A	2	10	Star wheel sensor	030-4641C	2
3	Swivel insert	w/ Ref # 10	2	11	Twine guard-left for AGCO	001-4645H	1
4	Snap ring (per side)	006-4641K	2		Twine guard-right for AGCO	001-4644H	1
5	Washer (per side)	w/006-4641K	2		(w/bale rate sensor holes)		
6	Dust seal (per side)	w/006-4641K	2				
7	Plug fitting	003-F38	2	1-10	Star wheel assembly	030-4641	2
8	Wiring grommet	008-0821A	2				



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

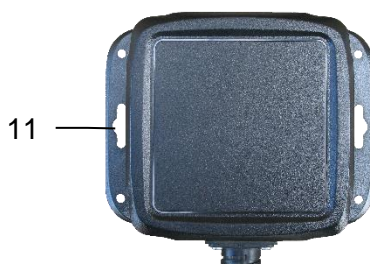
602A Control and Harnesses



<u>Ref</u>	<u>Description</u>	<u>Part Number</u>	<u>Qty</u>
1	End Of Bale Sensor	006-7400	1
2	Terminating Connector w green cap	006-5650Z	1
3	End of Bale Sensor Bracket	001-4648	1
4	DCP Shield/Cover	001-5650X	1
5	DCP Main Control LS 600 AUTO	006-6671LS	1
6	DCP Baler Harness 30 FT	006-6650LS2(E)	1
7	DCP Tractor Harness	006-6650TM(E)	1
8	Dust Plugs	006-5651PLUGS	1
9	DCP Baler Interface Harness	006-6650VA	1
10	Key Switch Wire	006-5650K	1
11	Bluetooth Receiver	030-6672A	1

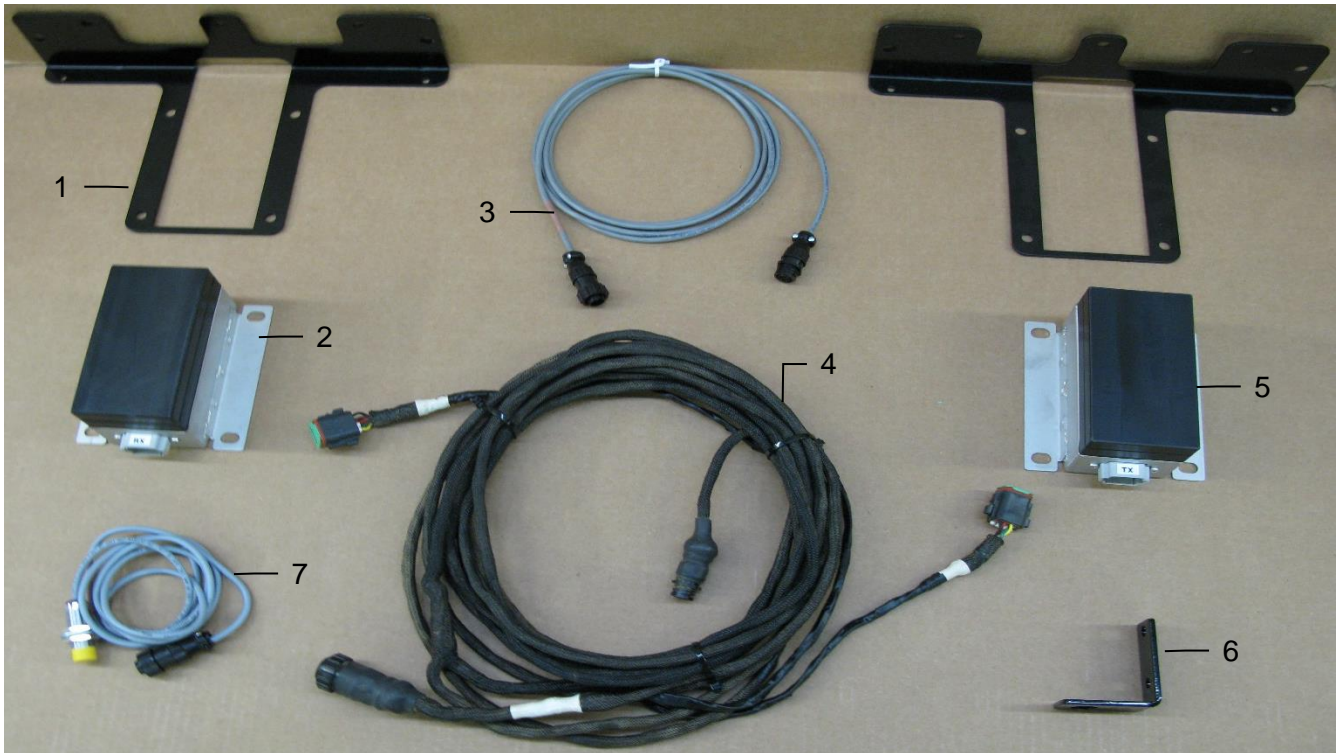
AGCO 2100 Series Balers Pre 2012 need

006-6650VAX



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

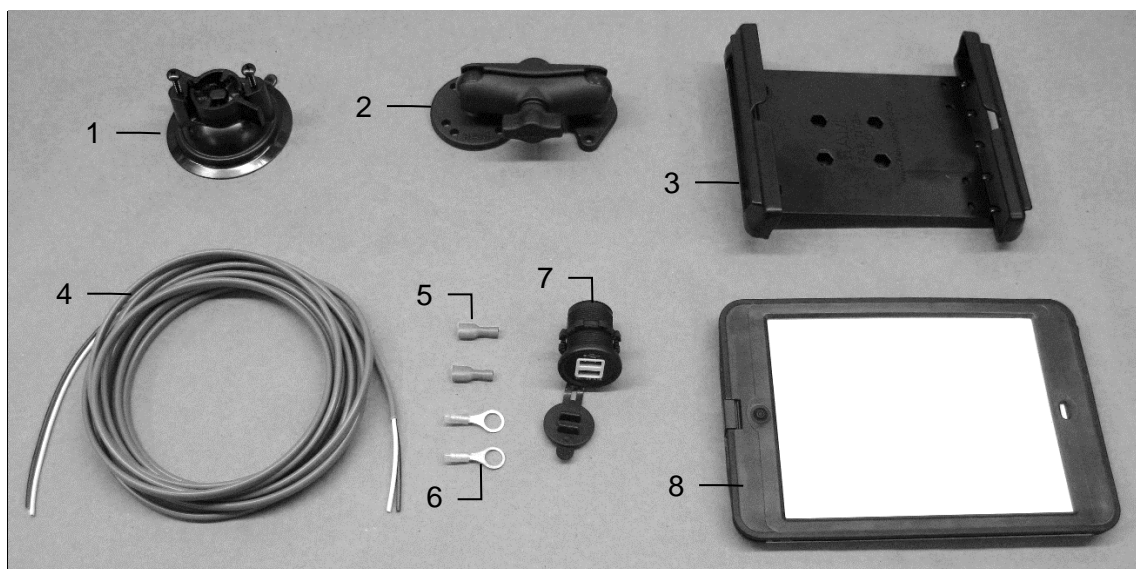
Microwave Moisture Bale Chute System



<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	MWM Rear Mounting Bracket	001-2601	2
2	Microwave TX Sensor	006-4641MTX	1
3	End of Bale Extension Harness (20')	006-7400MXT	1
4	MWM Pre-Compression Harness	006-6650MWL	1
5	Microwave RX Sensor	006-4641MRX	1
6	End of Bale Bracket (Stuffer Bracket)	001-4648SS	1
7	End of Bale Sensor (Stuffer Sensor)	006-7400	1
NP	Power / Comm Extension Harness (25')	006-6650FMX	1

Complete Assembly 030-0701MWM
(Ref 1-7)

Optional iPad Mini Mounting Kit (030-2014MK)



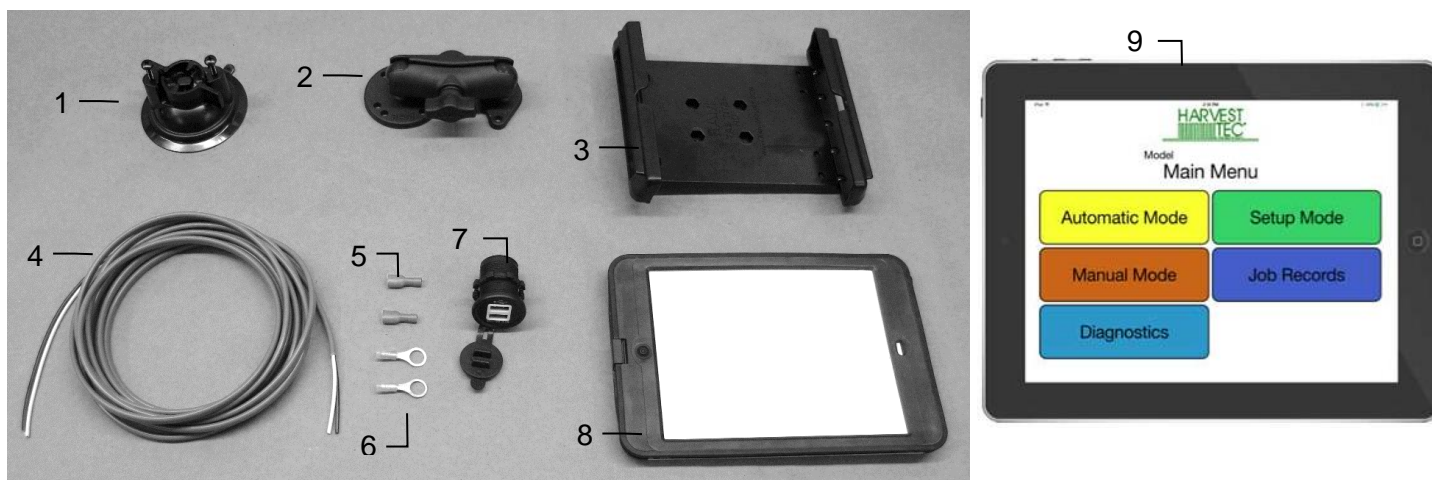
<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	Suction cup mount	001-2012SCM	1
2	Ram mount	001-2012H	1
3	iPad Mini spring load cradle (Mini 4)	001-2012SLC	1
4	16 gauge power wire	006-4723P	1
5	Female spade connector	Hardware	2
6	Eye loop connector	Hardware	2
7	iPad Mini Charger 12V	001-2012P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

Installation Instructions

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

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

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

Notes

Harvest Tec LLC. Warranty and Liability Agreement

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

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

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

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

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

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

Revised 4/17

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