# Vertical Tower Assembly Attached to the Sprayer Mast Plates With Control Box Located in Front of the LiDAR



## INSTALLATION INSTRUCTIONS

Vertical Tower Assembly Attached to the Sprayer Mast Plates With Control Box Located in Front of the LiDAR

KK128481 ISSUE A5 (ENGLISH)

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Original Instructions. All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

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## Contents

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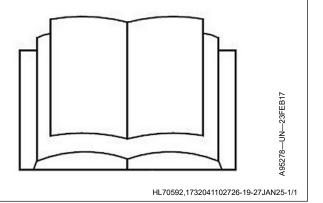
## Introduction

#### Introduction

IMPORTANT: Read this instruction thoroughly and familiarize yourself with the machine before performing the procedure. Do not skip steps or perform them out of order.

IMPORTANT: Stainless steel is a soft metal, use only hand tools or electric wrenches for tightening. Avoid using impact wrenches and prevailing torque fasteners to prevent damage.

This instruction demonstrates the proper procedure for installing the Smart Apply Intelligent Spray System onto the air blast sprayer.



## **Compatibility Chart**

IMPORTANT: Customers are advised to verify their model against the compatibility chart before proceeding with the installation.

To verify the compatibility of this kit with your machine, it is recommended to review the compatibility chart available on the Smart Apply™ website. This can be accessed using the QR Code provided below:



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Access to compatibility chart on Smart Apply™ website

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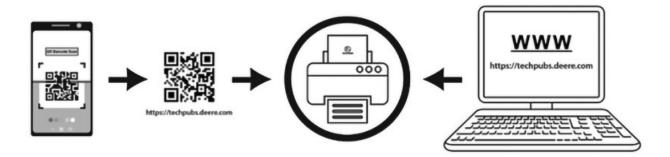
#### **Trademarks**

	Trademarks
Smart Apply®	Registered trademark of Smart Apply
Teflon™	Teflon is a trademark of the Chemours Company

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#### **Download Instructions**



Instructions, manuals, and other documents may be downloaded at www.techpubs.deere.com. Scanning the QR code on a mobile device will route to the site automatically.

Les instructions, les manuels et autres documents peuvent être téléchargés à cette adresse: www.techpubs.deere.com. Scanner le QR code via un appareil mobile mène automatiquement au site.

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## Safety

## **Recognize Safety Information**

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



## **Understand Signal Words**

**DANGER**; The signal word DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING**; The signal word WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION**; The signal word CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. CAUTION may also be used to alert against unsafe practices associated with events which could lead to personal injury.

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards. DANGER or WARNING safety signs

**A** DANGER

**AWARNING** 

**A** CAUTION

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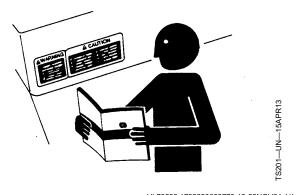
are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

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## **Follow Safety Instructions**

Carefully read all safety messages in this instruction. Read the product operator's manual for operating instructions and safety messages.

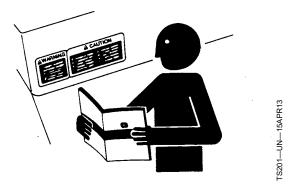
Do not let anyone operate machine until they have been properly instructed.



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## **Replace Safety Signs**

Replace missing or damaged safety signs. See the machine operator's manual for correct safety sign placement.



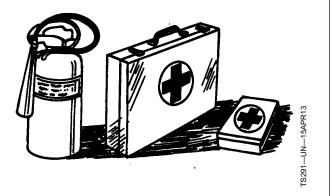
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## **Prepare for Emergencies**

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.

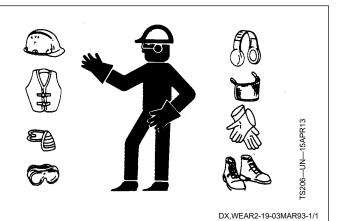


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## **Wear Protective Clothing**

Wear close fitting clothing and safety equipment appropriate to the job.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.



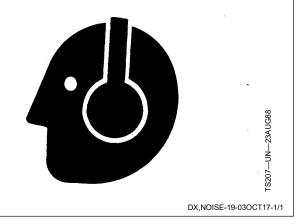
10-2

## **Protect Against Noise**

There are many variables that affect the sound level range, including machine configuration, condition and maintenance level of the machine, ground surface, operating environmental, duty cycles, ambient noise, and attachments.

Exposure to loud noise can cause impairment or loss of hearing.

**Always wear hearing protection.** Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



#### **Practice Safe Maintenance**

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing away from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

On self-propelled equipment, disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

On towed implements, disconnect wiring harnesses from tractor before servicing electrical system components or welding on machine.

Falling while cleaning or working at height can cause serious injury. Use a ladder or platform to easily reach each location. Use sturdy and secure footholds and handholds.

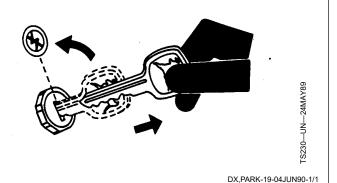


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### Park Machine Safely

Before working on the machine:

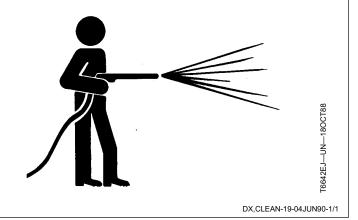
- Lower all equipment to the ground.
- Stop the engine and remove the key.
- Disconnect the battery ground strap.
- Hang a "DO NOT OPERATE" tag in operator station.



#### Work in Clean Area

Before starting a job:

- Clean work area and machine.
- Make sure you have all necessary tools to do your job.
- Have the right parts on hand.
- Read all instructions thoroughly; do not attempt shortcuts.



## **Avoid High-Pressure Fluids**

Inspect hydraulic hoses periodically – at least once per year – for leakage, kinking, cuts, cracks, abrasion, blisters, corrosion, exposed wire braid or any other signs of wear or damage.

Replace worn or damaged hose assemblies immediately with approved replacement parts.

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high-pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid



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injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.

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## **Decontaminate Spray Equipment Before** Servicing



**CAUTION: Spray solutions or vapors can be** extremely dangerous. Treat all spray chemicals, solutions, and solution residues with great caution. DO NOT take chances. When in doubt, proceed as though contamination is present.

Before performing any service activity:

• Wear appropriate personal protective equipment.

- Clean vehicle (see Clean Vehicle of Hazardous Chemicals, Including Pesticides in this section).
- Drain Solution Tank (see machine operator's manual).
- Rinse wet system (see operator's manual).

Keep spray material from contacting skin. If spray material contacts skin, wash off immediately with clean water and detergent, or follow manufacturers instructions for chemical used last.

Wear protective clothing, goggles, and gloves while attaching parts.

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## Clean Vehicle of Hazardous Chemicals, **Including Pesticides**

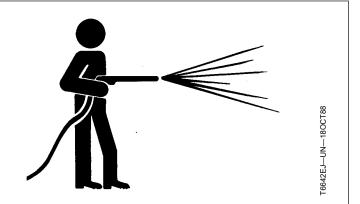


**CAUTION:** During application of hazardous chemicals, including pesticides, residue can build up on the inside or outside of the vehicle. Clean vehicle according to use instructions of hazardous chemical.

When exposed to hazardous chemicals, clean exterior and interior of vehicle daily to keep free of the accumulation of visible dirt and contamination.

- 1. Sweep or vacuum the floor of cab.
- 2. Clean headliners and inside cowlings of cab.

IMPORTANT: Directing pressurized water at electronic/electrical components or connectors, bearings and hydraulic seals, fuel injection pumps or other sensitive parts and components may cause product malfunctions. Reduce pressure, and spray at a 45 to 90 degree angle.



- 3. Wash entire exterior of vehicle.
- 4. Dispose of any wash water with hazardous concentrations of active or non-active ingredients according to published regulations or directives.

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## **Use Proper Tools**

Use tools appropriate to the work. Makeshift tools and procedures can create safety hazards.

Use power tools only to loosen threaded parts and fasteners.

For loosening and tightening hardware, use the correct size tools. DO NOT use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches.

Use only approved service parts.

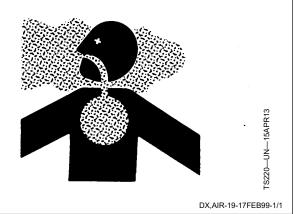


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#### Work In Ventilated Area

Engine exhaust fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

If you do not have an exhaust pipe extension, open the doors and get outside air into the area.



#### **Handling Batteries Safely**

Battery gas can explode. Keep sparks and flames away from batteries. Use a flashlight to check battery electrolyte level.

Never check battery charge by placing a metal object across the posts. Use a voltmeter or hydrometer.

Always remove grounded (-) battery clamp first and replace grounded clamp last.

Sulfuric acid in battery electrolyte is poisonous and strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

#### Avoid hazards by:

- Filling batteries in a well-ventilated area
- Wearing eye protection and rubber gloves
- Avoiding use of air pressure to clean batteries
- Avoiding breathing fumes when electrolyte is added
- Avoiding spilling or dripping electrolyte
- Using correct battery booster or charger procedure.

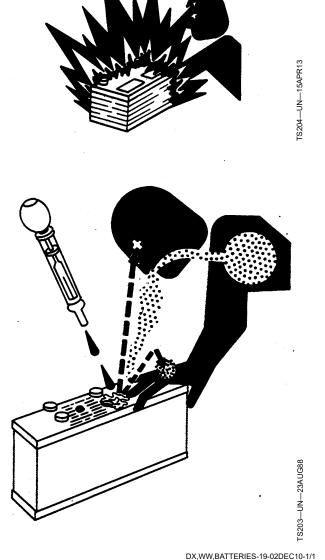
#### If acid is spilled on skin or in eyes:

- 1.Flush skin with water.
- 2. Apply baking soda or lime to help neutralize the acid.
- 3. Flush eyes with water for 15—30 minutes. Get medical attention immediately.

#### If acid is swallowed:

- 1.Do not induce vomiting.
- 2. Drink large amounts of water or milk, but do not exceed 2 L (2 qt.).
- 3. Get medical attention immediately.

**WARNING:** Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash hands after handling.** 



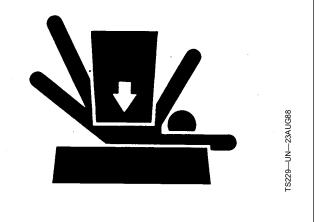
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## **Support Machine Properly**

Always lower the attachment or implement to the ground before you work on the machine. If the work requires that the machine or attachment be lifted, provide secure support for them. If left in a raised position, hydraulically supported devices can settle or leak down.

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load. Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.

When implements or attachments are used with a machine, always follow safety precautions listed in the implement or attachment operator's manual.

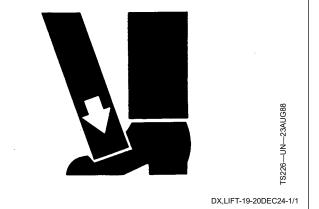


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### **Use Proper Lifting Equipment**

Lifting heavy components incorrectly can cause severe injury or machine damage.

Follow recommended procedure for removal and installation of components in the manual.



## **Bracket Frame Assembly**

NOTE: If the top 2 holes are available, you may use them to skip steps 1 and 2.

#### Step 1 of 5: Hitch bolts removal

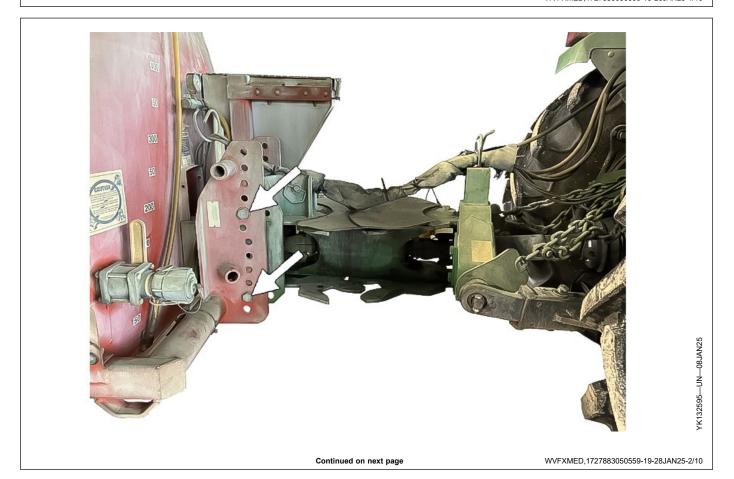
- 1. Use a jack to support the hitch.
- 2. Locate and remove sprayer-to-hitch mast bolts.

NOTE: Remove accessories or weights blocking the bolts except from mixing tanks.

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CAUTION: Use proper lifting equipment. Lifting heavy components incorrectly can cause severe injury or machine damage. Follow recommended procedure for removal and installation of components in these instructions.

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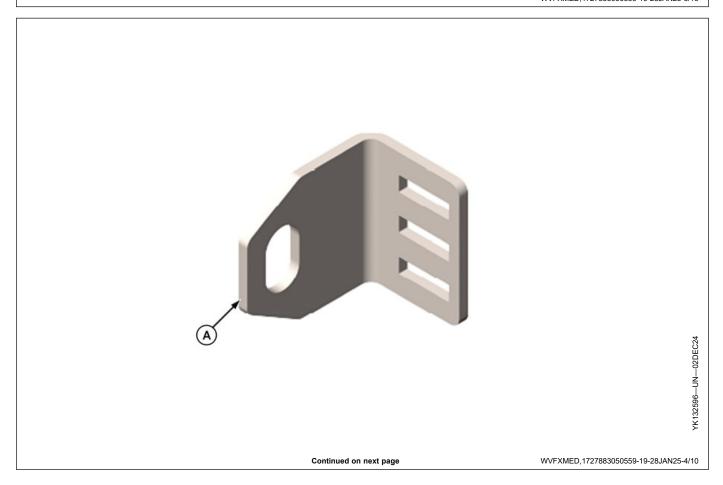
#### Step 2 of 5: Mount bracket installation

Parts required for this step				
Identifier Part Number Description Quantity				
A 1100296 Mount bracket 4				

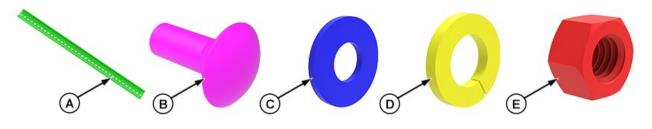
1. Install mount bracket (A) to the sprayer using the existing bolts and hardware.

NOTE: Do not tighten (or hand tighten only) to leave room for further adjustment in the next steps.

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Step 3 of 5: Bracket frame installation



Parts required for this step				
Identifier	Part Number	Description	Quantity	
Α	1100266	Bracket	1	
В	7100462	Bolts	2	
С	7100460	Washers	2	
D	7100520	Split washers	2	
E	7100521	Nut	2	

- 1. Take tower bracket (A) and align the bottom end to the bottom of the sprayer mast bracket and assemble using bolts (B), washers (C), split washers (D), and nuts (E).
- 2. Align top mount bracket to the frame bracket and assemble using bolts (A), washers (B), split washers (C), and nuts (D).
- 3. Repeat (1) and (2) on the opposite side and tighten all hardware from previous steps.

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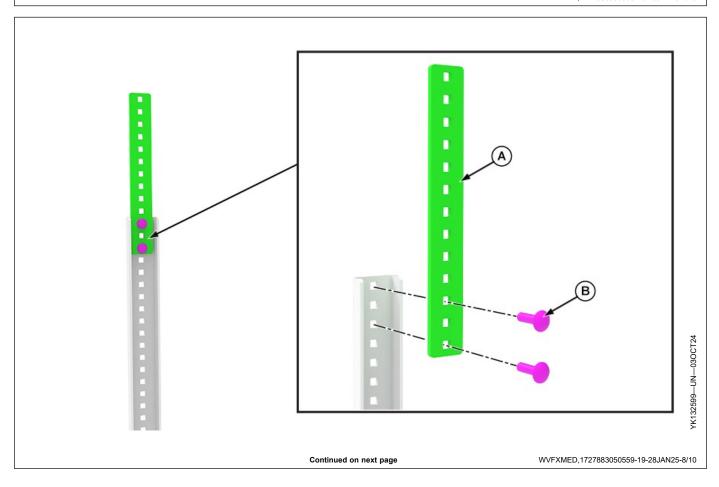
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#### Step 4 of 5: Bracket extension installation

Parts required for this step				
Identifier	Part Number	Description	Quantity	
A	1100305	Bracket extension	1	
В	7100462	Bolts	2	

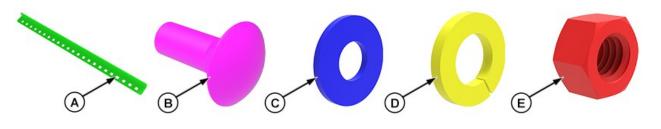
1. Install bracket extension (A) onto the right-side tower bracket using bolts (B).

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#### Step 5 of 5: Bracket installation



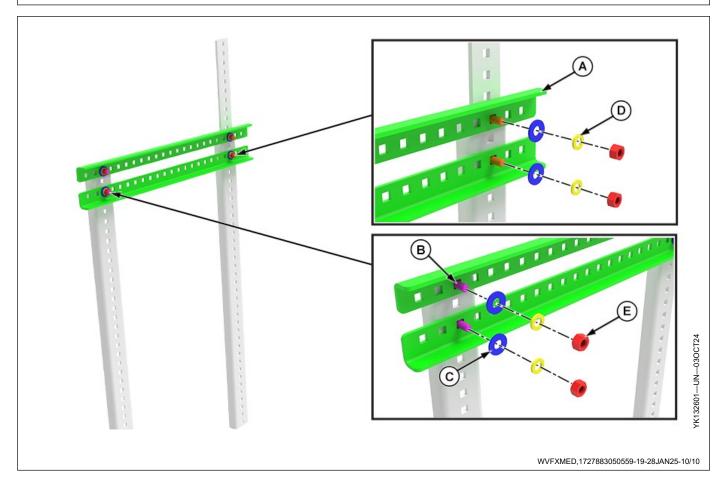
Parts required for this step				
Identifier	Part Number	Description	Quantity	
А	1100278	Bracket	2	
В	7100462	Bolts	2	
С	7100460	Washers	4	
D	7100520	Split washers	4	
E	7100521	Nuts	4	

<sup>1.</sup> Locate slots # 1 & 3 on the frame brackets and install brackets (A) centered between them using bolts (B), washers (C), split washers (D), and nuts (E).

NOTE: Use the bolts previously installed on the right side.

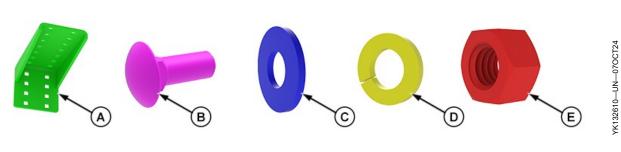
NOTE: To ensure the LiDAR is raised between 30 and 40 inches from the ground in the next steps, the upper bracket should also be positioned at the same height. Do not exceed 60 inches; if it goes beyond that height, it will not be able to detect objects 5 ft to the left or right.

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## **LiDAR Assembly**

Step 1 of 2: Bracket aligning

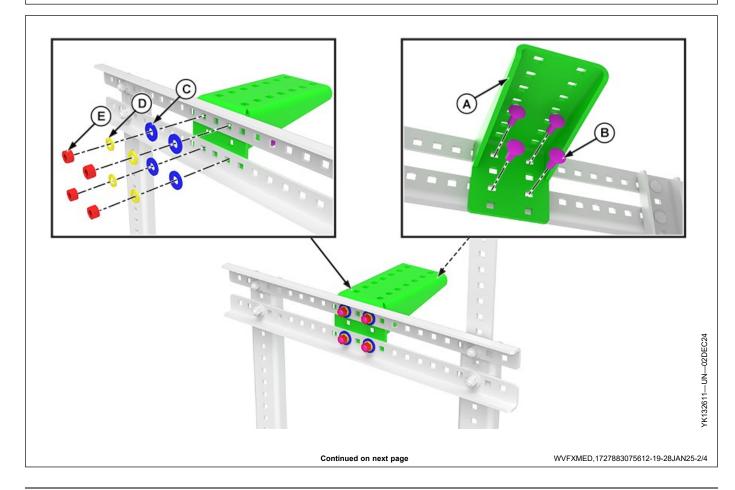


Parts required for this step				
Identifier	Part Number	Description	Quantity	
A	1100355	Support	1	
В	7100462	Bolts	4	
С	7100460	Washers	4	
D	7100520	Washers	4	
E	7100521	Nuts	4	

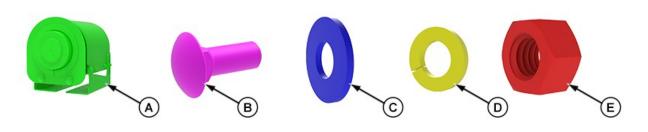
- 1. Install LiDAR support bracket (A) centered onto the bracket frame using bolts (B), washers (C), washers (D), and nuts (E).
- 2. Use a level across the assembly to validate the LiDAR bracket is leveled. Adjust bracket frame as needed to accomplish this step.

IMPORTANT: To ensure performance of the LiDAR, it is crucial that there are no obstructions or moving objects within its vision range.

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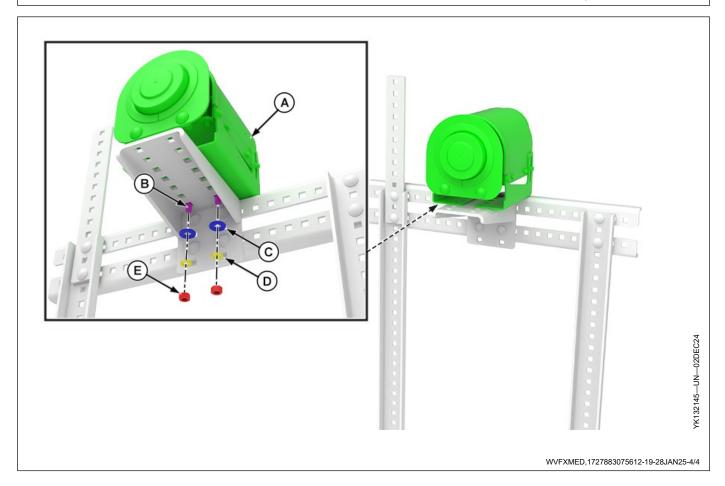
## Step 2 of 2: Bracket installation



Parts required for this step				
Identifier	Part Number	Description	Quantity	
A	1000040	LiDAR sub-assembly	1	
В	7100462	Bolts	4	
С	7100460	Washers	4	
D	7100520	Washers	4	
E	7100521	Nuts	4	

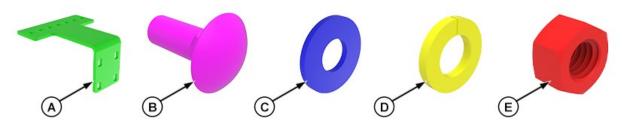
<sup>1.</sup> Install LiDAR sub-assembly (A) centered onto the bracket frame using bolts (B), washers (C), split washers (D), and nuts (E). NOTE: Use level on the left side of the LiDAR housing to level.

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## Air Blower and Filter Assembly

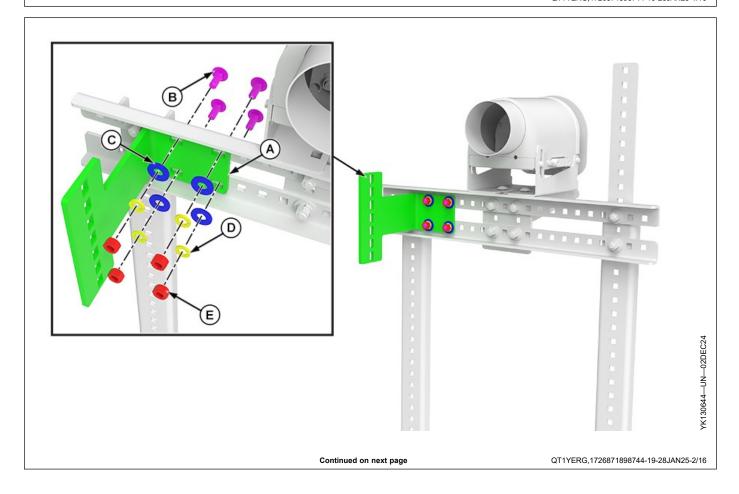
Step 1 of 8: Bracket installation



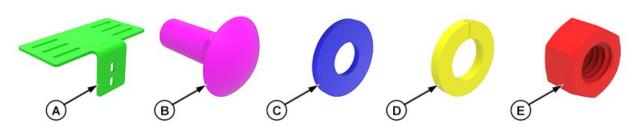
Parts required for this step				
Identifier	Part Number	Description	Quantity	
A	1100347	Bracket	1	
В	7100462	Bolts	4	
С	7100460	Washers	4	
D	7100520	Split washers	4	
E	7100521	Nuts	4	

1. Install bracket (A) next to the left tower bracket and secure using bolts (B), washers (C), split washers (D), and nuts (E).

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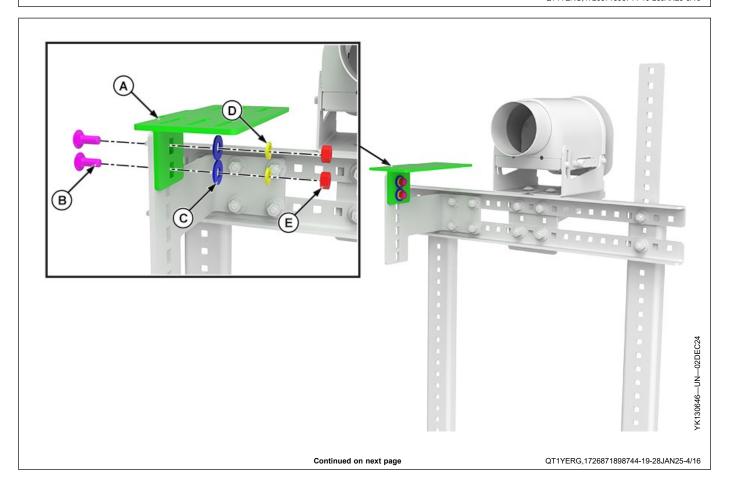
## Step 2 of 8: Bracket installation (blower support)



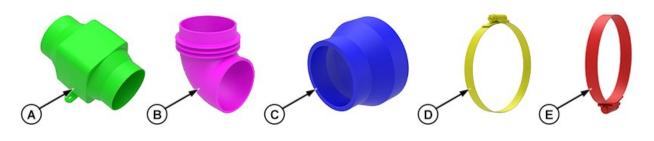
Parts required for this step				
Identifier	Part Number	Description	Quantity	
A	1100353	Bracket	1	
В	7100462	Bolts	2	
С	7100460	Washers	2	
D	7100520	Split washers	2	
D	7100521	Nuts	2	

<sup>1.</sup> Install bracket (A) onto the previous bracket and secure using bolts (B), washers (C), split washers (D), and nuts (E).

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#### Step 3 of 8: Blower assembly

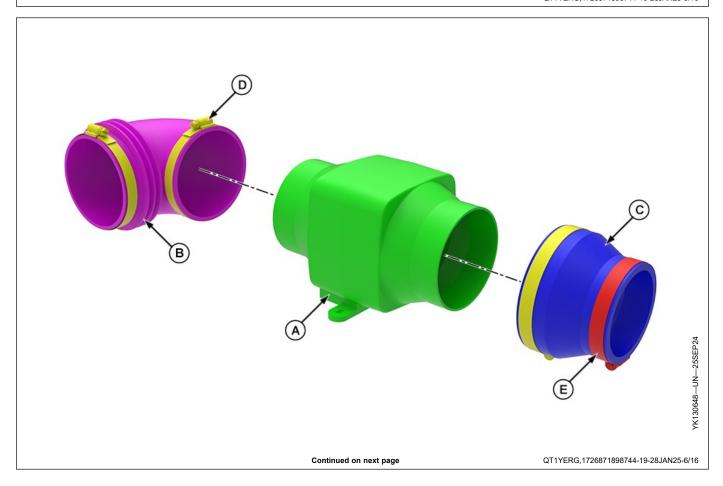


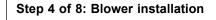
Parts required for this step				
Identifier	Part Number	Description	Quantity	
A	2000138	Blower	1	
В	4200326	Elbow	1	
С	4200366	Coupler	1	
D	7100509	Clamp	3	
E	7100504	Clamp	1	

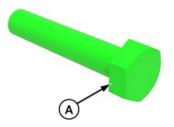
- 1. Ensure that the airflow is directed towards the LiDAR by locating the arrow imprinted on the blower.

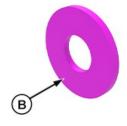
  2. Assemble flexible elbows (B) and (C) to the blower (A) and secure with clamps (D) and (E) on each connection. Use a 90° angle hook to pull and adjust the flexible elbow if needed.

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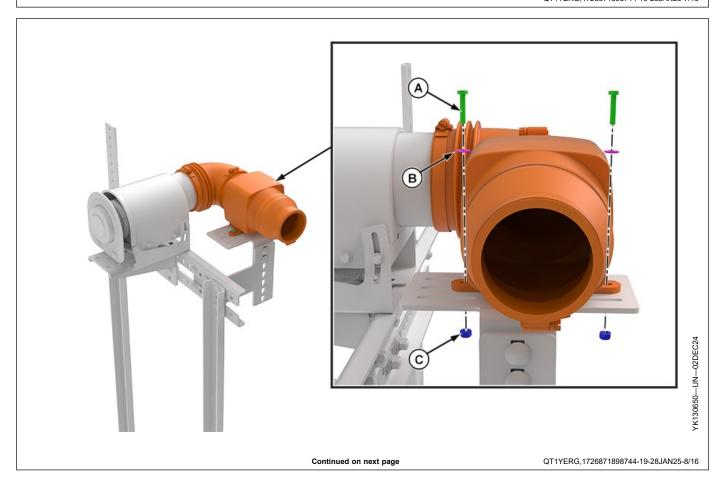




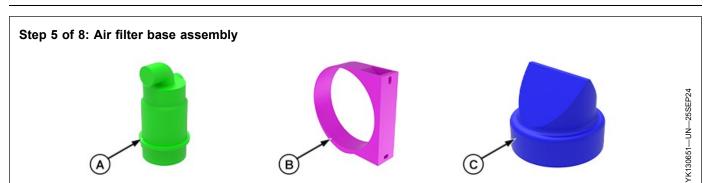
Parts required for this step			
Identifier	Part Number	Description	Quantity
A	7100469	Bolts	2
В	7100467	Washers	2
С	7100468	Nuts	2

1. Install Air blower base using bolts (A), washers (B) and nuts (C).

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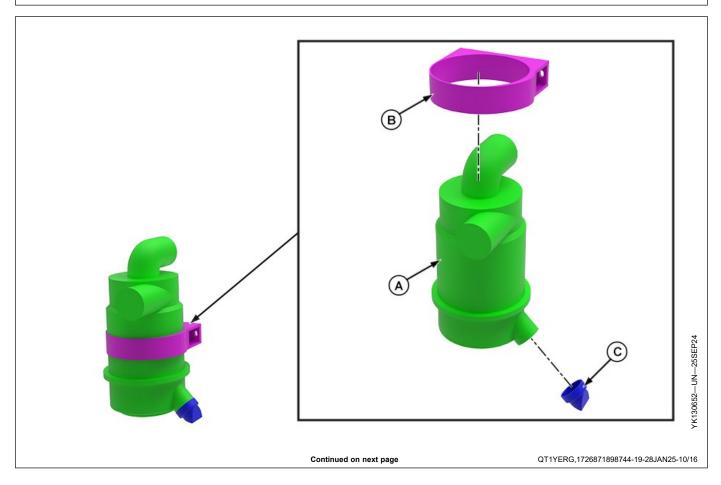
<sup>021125</sup> PN=24 20-11



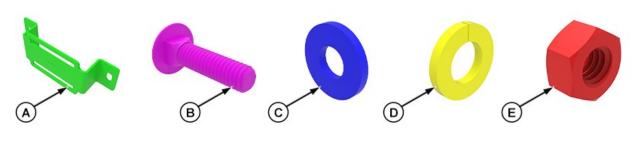
Parts required for this step			
Identifier	Part Number	Description	Quantity
A	4200351	Air filter	1
В	4200352	Air filter clamp	1
С	4200382	Air filter vacuator	1

1. Assemble air filter (A), air filter clamp (B) and air filter vacuator (C) as shown.

QT1YERG,1726871898744-19-28JAN25-9/16



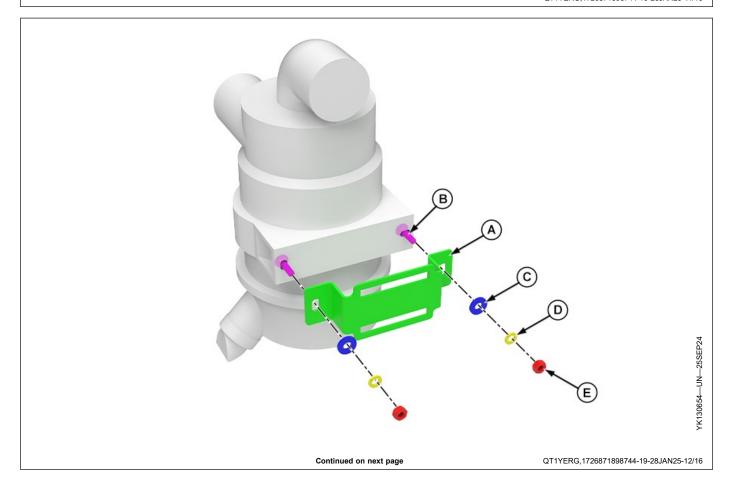




Parts required for this step			
Identifier	Part Number	Description	Quantity
A	1100303	Bracket	1
В	93180A325	Bolts	2
С	93852A132	Washers	2
D	92147A030	Split Washers	2
E	94804A030	Nuts	2

<sup>1.</sup> Install bracket (A) onto the air filter base using bolts (B), washers (C), split washers (D), and nuts (E).

QT1YERG,1726871898744-19-28JAN25-11/16



20-13 PN=26

## Step 7 of 8: Elbow installation

Identifier

В



Part Number 4200354

7100504

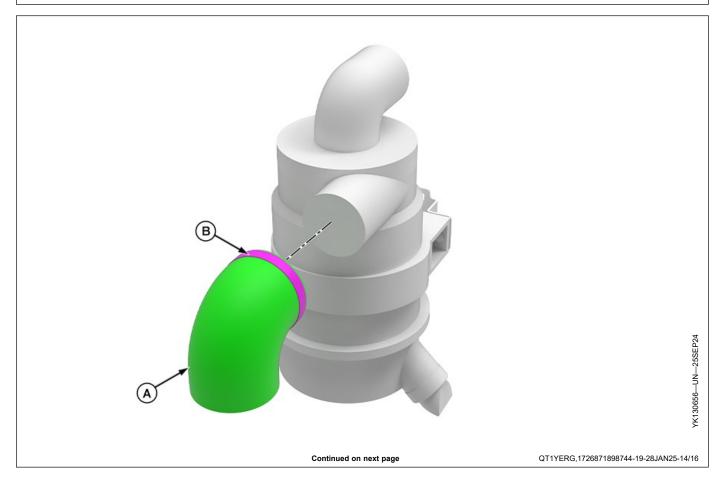


Clamp

	B	YK130655—UN—25SEP24	
Parts require	d for this step		
per	Description	Quantity	
1	Flhow	1	

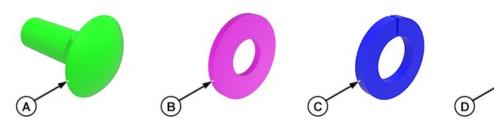
1. Install 90° elbow (A) onto the air filter facing down and secure with clamp (B).

QT1YERG,1726871898744-19-28JAN25-13/16



021125 PN=27 20-14

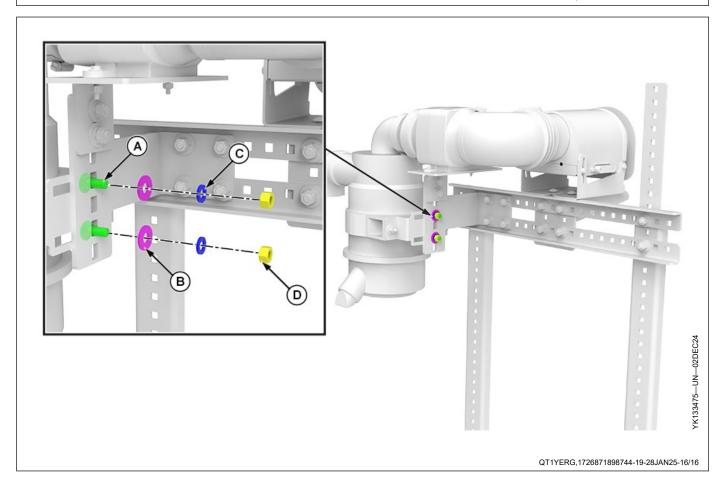
## Step 8 of 8: Air filter base installation



Parts required for this step			
Identifier	Part Number	Description	Quantity
A	7100462	Bolts	2
В	7100460	Washers	2
С	7100520	Split washers	2
D	7100521	Nuts	2

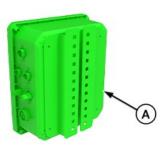
- 1. Install air filter onto the frame bracket and secure using bolts (A), washers (B), split washers (C), and nuts (D).
- Connect air filter elbow to LIDAR coupler and secure using the previously installed clamp.
   Make sure all clamps and hardware previously installed are tightened.

QT1YERG,1726871898744-19-28JAN25-15/16



## **Control Box Assembly**

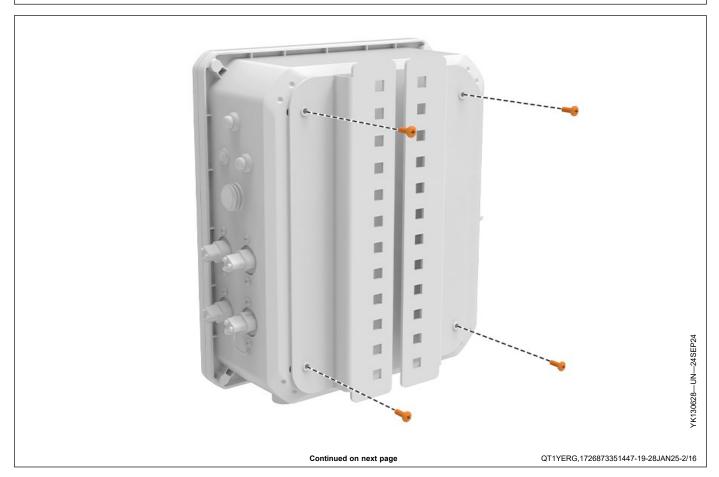
## Step 1 of 8: Bracket disassembly



Parts required for this step			
Identifier	Part Number	Description	Quantity
А	2000165	Controller box	1

1. Loose the 4 bolts holding the brackets to the controller box (A) and remove the brackets.

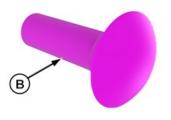
QT1YERG,1726873351447-19-28JAN25-1/16



<sup>021125</sup> PN=29 20-16

## Step 2 of 8: Bolts placement

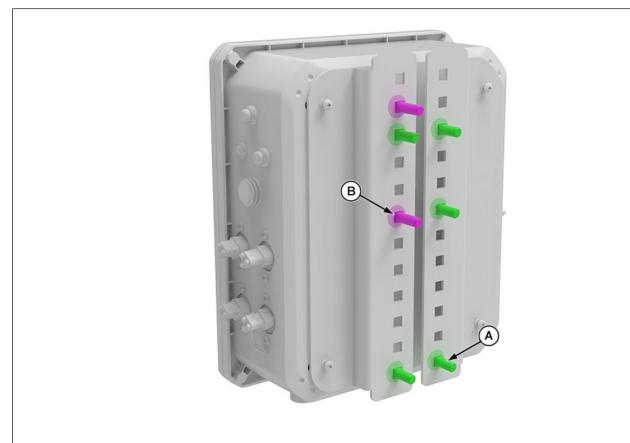




Parts required for this step			
Identifier	Part Number	Description	Quantity
Α	7100462	Bolts	5
В	7100463	Bolts	2

1. Insert bolts (A) between the control box enclosure and brackets and bolts (B) as shown on reference.

QT1YERG,1726873351447-19-28JAN25-3/16

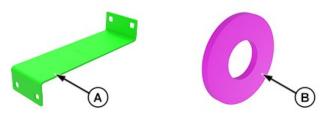


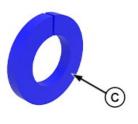
YK130630-UN-24SEP24

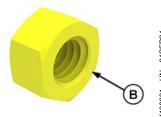
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QT1YERG,1726873351447-19-28JAN25-4/16

Step 3 of 8: Bracket installation (control box)



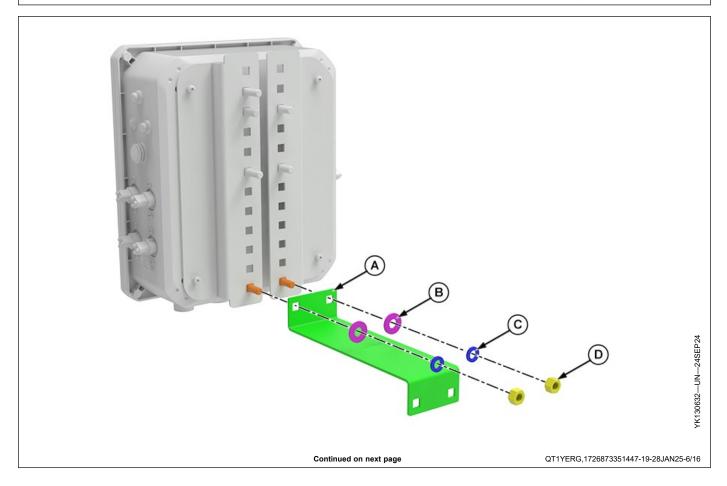




Parts required for this step				
Identifier	Part Number	Description	Quantity	
A	1100395	Brackets	1	
В	7100460	Washers	2	
С	7100520	Split Washers	2	
D	7100521	Nuts	2	

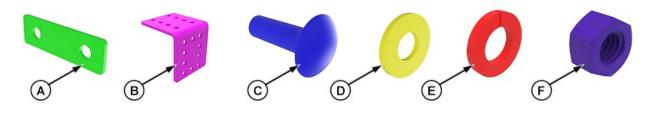
1. Install bracket (A) onto the control box using the previously installed. Secure with washers (B), split washers (C), and nuts (D).

QT1YERG,1726873351447-19-28JAN25-5/16



20-18

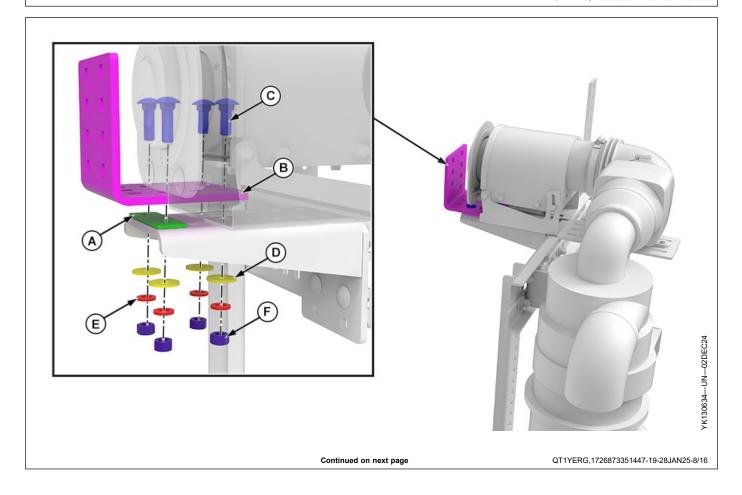
#### Step 4 of 8: Support bracket installation



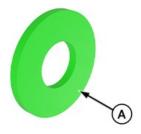
	Parts required for this step			
Identifier	Part Number	Description	Quantity	
A	1100356	Spacer	1	
В	12200281	Bracket	1	
С	7100463	Bolts	4	
D	7100460	Washers	4	
E	7100520	Split Washers	4	
F	7100521	Nuts	4	

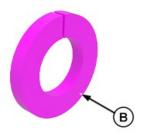
- 1. Install spacer (A) above the first two holes of the LIDAR support bracket.
  2. Install support bracket (B) onto the LIDAR support bracket aligning its initial holes with the last holes of the LIDAR housing and secure using bolts (C), washers (D), split washers (E), and nuts (F).

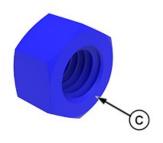
QT1YERG,1726873351447-19-28JAN25-7/16



Step 5 of 8: Controller box installation





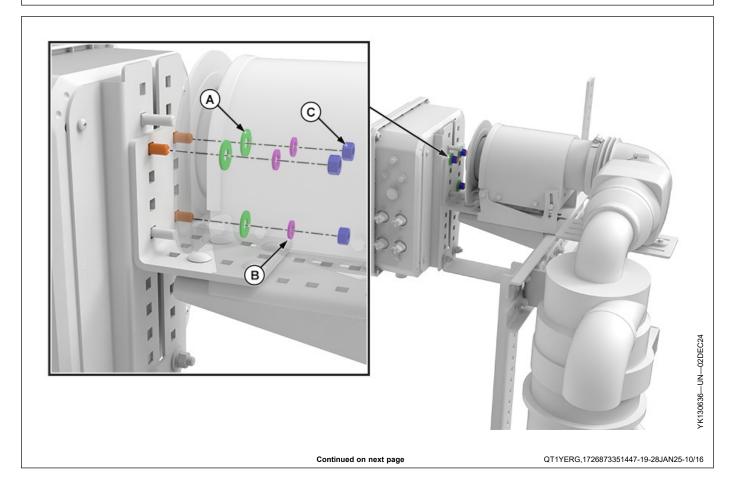


Parts required for this step			
Identifier	Part Number	Description	Quantity
A	7100460	Washer	3
В	7100520	Split washer	3
С	7100521	Nut	3

1. Mount controller box onto the bracket using the previously installed bolts and secure using washers (A), split washers (B), and nuts (C).

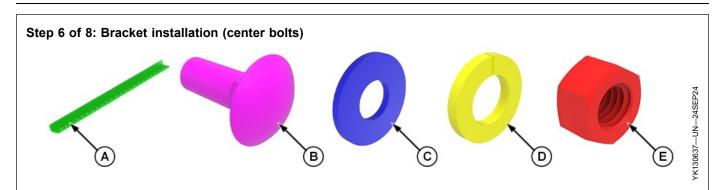
QT1YERG,1726873351447-19-28JAN25-9/16

YK130635-UN-24SEP24



20-20

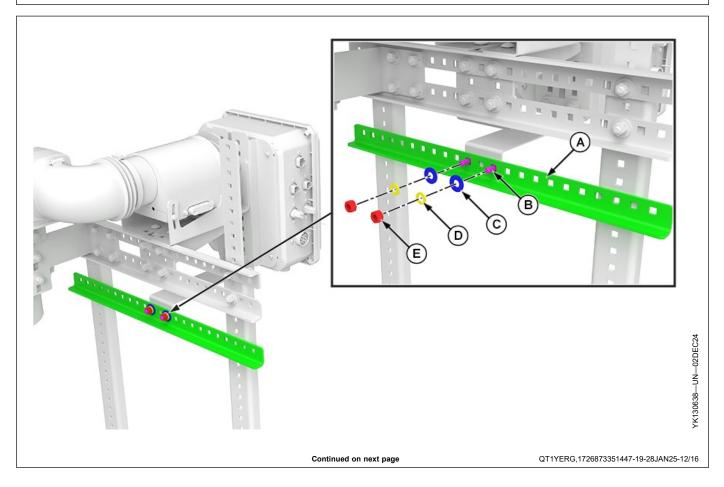
<sup>021125</sup> PN=33



Parts required for this step			
Identifier	Part Number	Description	Quantity
A	1100278	Bracket	1
В	7100462	Bolt	2
С	7100460	Washers	2
D	7100520	Split washers	2
E	7100521	Nuts	2

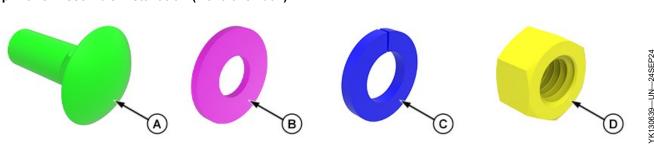
<sup>1.</sup> Install bracket (A) using bolts (B), washers (C), split washers (D), and nuts (E).

QT1YERG,1726873351447-19-28JAN25-11/16



<sup>021125</sup> PN=34 20-21

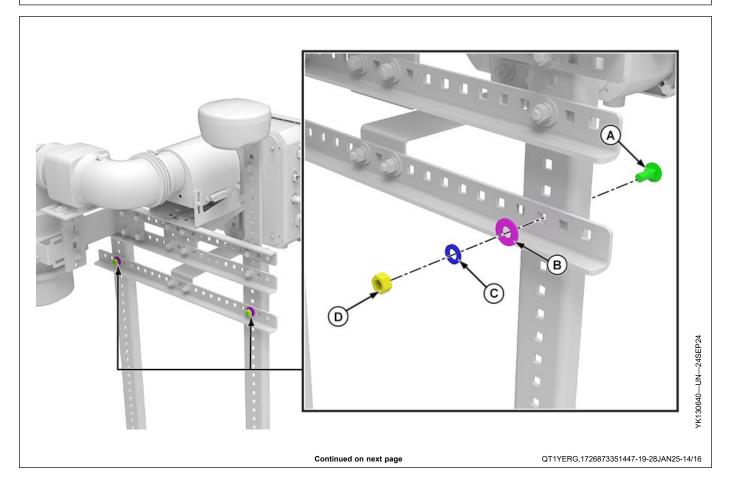
Step 7 of 8: Assemble installation (Controller box)



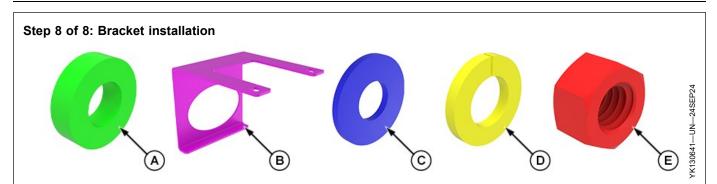
Parts required for this step			
Identifier	Part Number	Description	Quantity
Α	7100462	Bolt	2
В	7100460	Washers	2
С	7100520	Split washers	2
D	7100521	Nuts	2

1. Install bracket across the frame brackets and secure using bolts (A), washers (B), split washers (C), and nuts (D).

QT1YERG,1726873351447-19-28JAN25-13/16



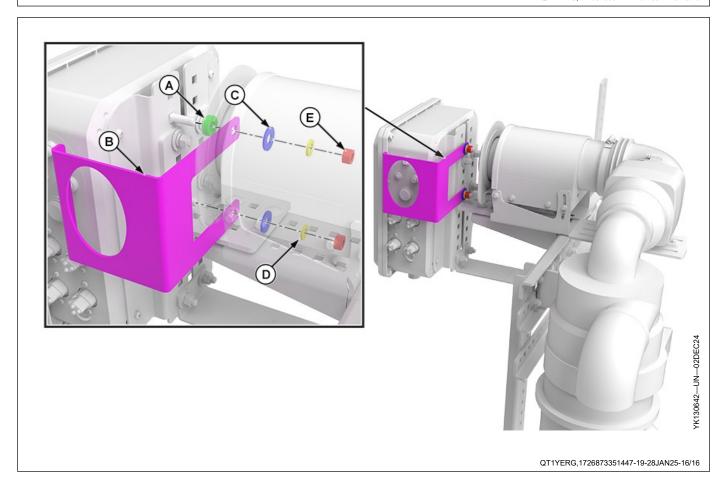
<sup>021125</sup> PN=35



Parts required for this step			
Identifier	Part Number	Description	Quantity
Α	1100320	Spacer	3
В	1100384	Bracket	1
С	7100460	Washer	2
D	7100520	Split washer	2
E	7100521	Nuts	2

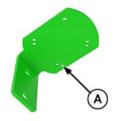
<sup>1.</sup> Insert one spacer (A) and install bracket (B) onto the control box using the previously installed bolts and secure with washers (C), split washers (D), and nuts (E).

QT1YERG,1726873351447-19-28JAN25-15/16

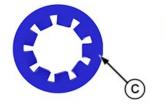


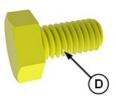
## **GPS Antenna Assembly**

Step 1 of 2: Bracket installation







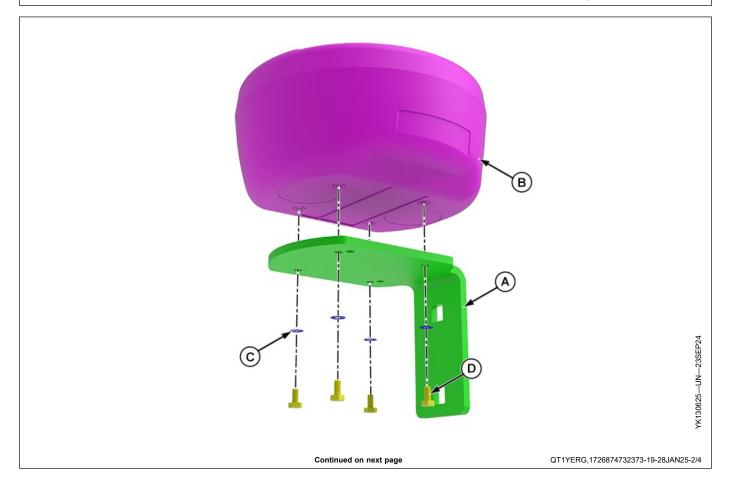


YK130624-UN-23SEP24

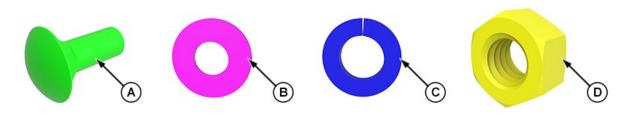
Parts required for this step				
Identifier	Part Number	Description	Quantity	
A	1100263	Bracket	1	
В	6000132	Antenna	1	
С	7100207	Washers	4	
D	7100044	Bolts	4	

1. Install bracket (A) onto the GPS (B) using washers (C) and bolts (D).

QT1YERG,1726874732373-19-28JAN25-1/4



## Step 2 of 2: GPS assembly installation

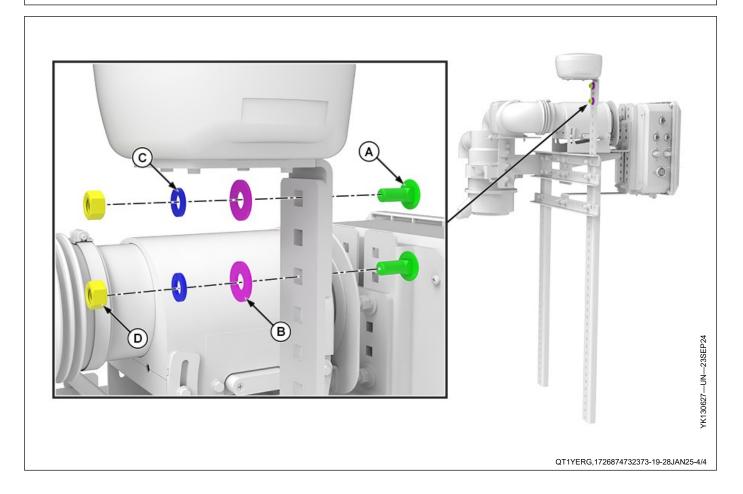


Parts required for this step				
Identifier	Part Number	Description	Quantity	
A	7100462	Bolts	2	
В	7100460	Washers	2	
С	7100520	Split washers	2	
D	7100521	Nuts	2	

1. Take the GPS sub-assembly and install onto the tower bracket assembly using bolts (A), washers (B), split washers (C), and nuts (D).

QT1YERG,1726874732373-19-28JAN25-3/4

YK130626-UN-23SEP24



# **Boom Disassembly**

## Step 1 of 5: Compartment location

1. Locate the rear sprayer compartment behind the sprayer tires

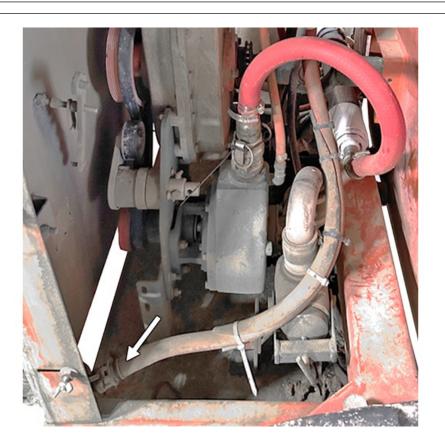
WVFXMED,1727883109967-19-28JAN25-1/10



## Step 2 of 5: Hoses removal

1. Disconnect the boom hoses.

WVFXMED,1727883109967-19-28JAN25-3/10



YK132147—UN—090CT24

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WVFXMED,1727883109967-19-28JAN25-4/10

#### Step 3 of 5: Nozzles removal

- Remove all nozzles from the boom using a crescent wrench.
   Loose bolts on the sprayer to remove top shields.

WVFXMED,1727883109967-19-28JAN25-5/10





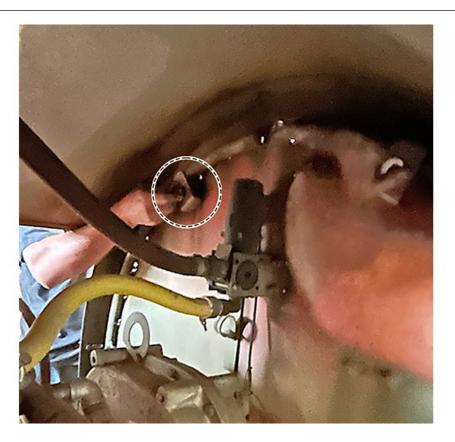
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WVFXMED,1727883109967-19-28JAN25-6/10

## Step 4 of 5: Boom bracket removal

1. Remove boom brackets from inside the rear sprayer compartment.

WVFXMED,1727883109967-19-28JAN25-7/10



YK132149—UN—090CT24

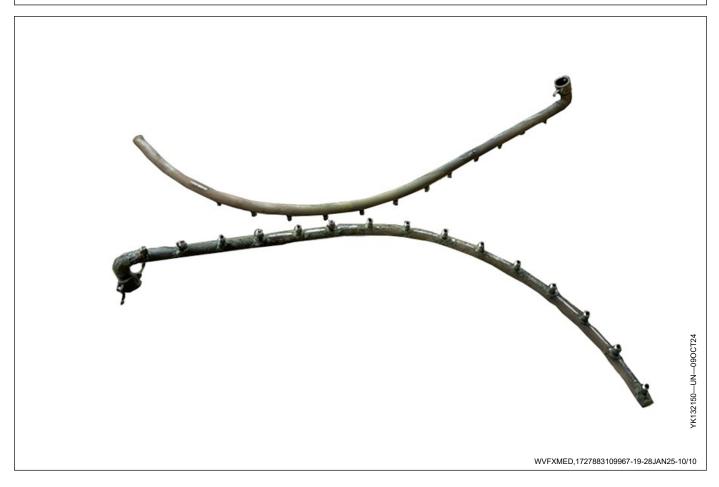
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WVFXMED,1727883109967-19-28JAN25-8/10

#### Step 5 of 5: Boom residues removal

1. Remove both boom lines and clean thoroughly to remove any residues on the inside

WVFXMED,1727883109967-19-28JAN25-9/10



## **Brass Assembly**

Step 1 of 3: Valve connections







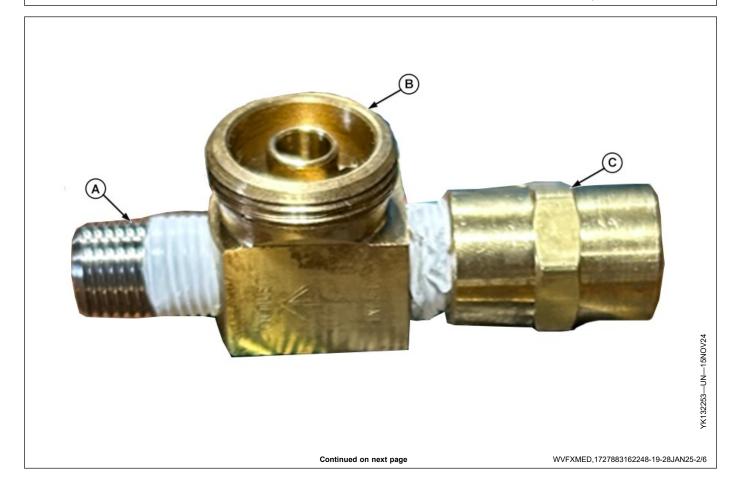
YK132252-UN-15NOV24

Parts required for this step Identifier Part Number Quantity Description Α 4200376 1/4" Nipple 1 В 4200016 Valve 1 С 4200342 1/4" Union 1

NOTE: Identify the locations of the solenoids as specified by the customer or salesperson in the configuration sheet. Install the brass fittings only in those specific boom sections, while capping off the others (caps not supplied by Smart Apply).

- 1. Apply teflon tape to the male threaded section.
- 2. Connect nipple (A) and union (C) to valve (B) and repeat for each nozzle.

WVFXMED,1727883162248-19-28JAN25-1/6



021125

#### Step 2 of 3: Tape to coupler

1. Apply Teflon tape or use sealant paste to your own discretion to the boom male coupler

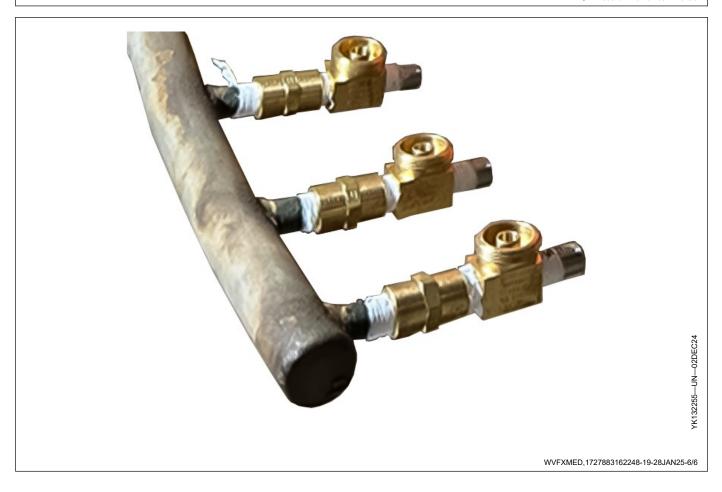
WVFXMED,1727883162248-19-28JAN25-3/6



## Step 3 of 3: Brass installation

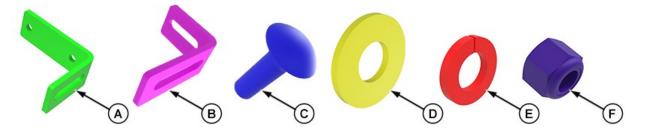
1. Install brass subassemblies to boom with the valves towards the center.

WVFXMED,1727883162248-19-28JAN25-5/6



## **Raiser Brackets**

Step 1 of 6: Manifold base assembly

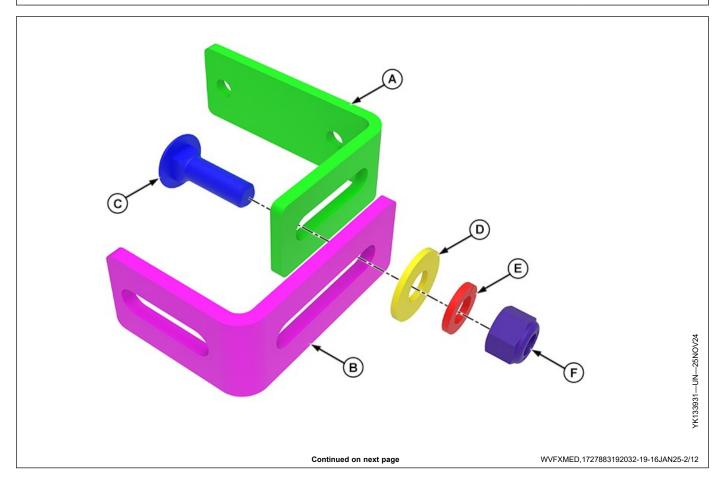


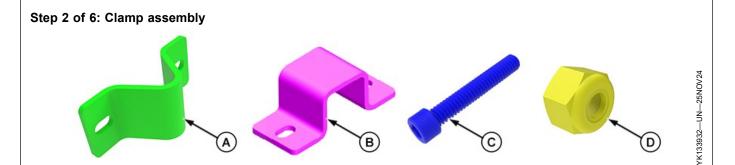
Parts required for this step				
Identifier	Part Number	Description	Quantity	
Α	1100269	Manifold Base	1	
В	1100268	Manifold Support	1	
С	7100463	Bolt	1	
D	7100460	Washer	1	
E	7100520	Split Washer	1	
F	7100521	Nut	1	

1. Align manifold base (A) and support (B) and secure one side using bolt (C), washer (D), split washer (E) and nut (F).

WVFXMED,1727883192032-19-16JAN25-1/12

YK133930-UN-25NOV24



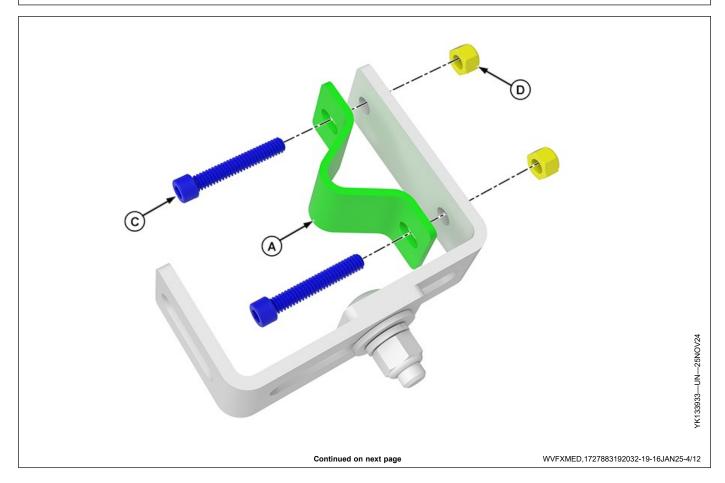


Parts required for this step				
Identifier	Part Number	Description	Quantity	
A	1100270	Manifold clamp	1	
В	1100272	Manifold clamp	1	
С	92185A516	Screw	1	
D	7100472	Nut	1	

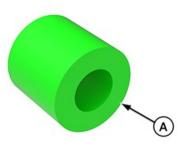
<sup>1.</sup> Install manifold clamp (A) or (B) on the inside or outside of the manifold base, depending on the required adjustment. Use bolt (C) and nut (D) to secure the clamp in place.

NOTE: Hand tighten only to allow further bracket adjustment. NOTE: Use manifold clamp (B) instead of clamp (A) if required.

WVFXMED,1727883192032-19-16JAN25-3/12



## Step 3 of 6: Placer installation

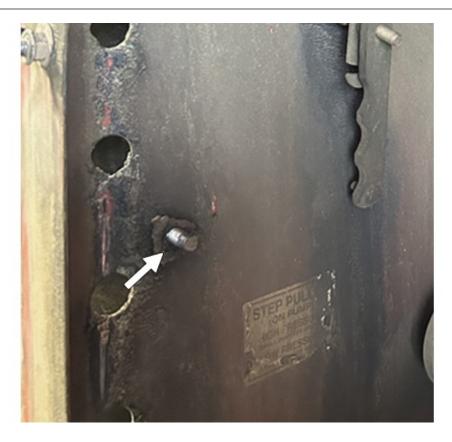


Parts required for this step				
Identifier Part Number Description Quantity				
A 1100267 Spacer 1				

1. Locate the welded studs on the sprayer compartment and place a spacer (A) on each.

WVFXMED,1727883192032-19-16JAN25-5/12

YK133934—UN—25NOV24



YK132278—UN—30SEP24

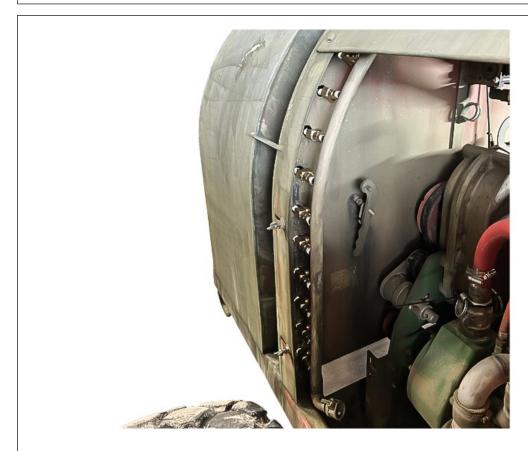
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WVFXMED,1727883192032-19-16JAN25-6/12

## Step 4 of 6: Boom installation

1. Install the boom on the sprayer.

WVFXMED,1727883192032-19-16JAN25-7/12

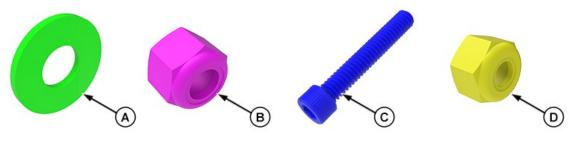


YK133935-UN-25NOV24

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WVFXMED,1727883192032-19-16JAN25-8/12

#### Step 5 of 6: Mounting bracket installation



Parts required for this step				
Identifier	Part Number	Description	Quantity	
A	7100460	Washer	1	
В	7100521	Nut	1	
С	92185A516	Screw	1	
D	7100472	Nut	1	

<sup>1.</sup> Install mounting brackets onto the welded stud using washer (A) and nut (B). Secure clamp around boom with screw (C) and nut (D). NOTE: Hand tighten only to allow further bracket adjustment.

WVFXMED,1727883192032-19-16JAN25-9/12

YK133936-UN-25NOV24



YK133937—UN—25NOV24

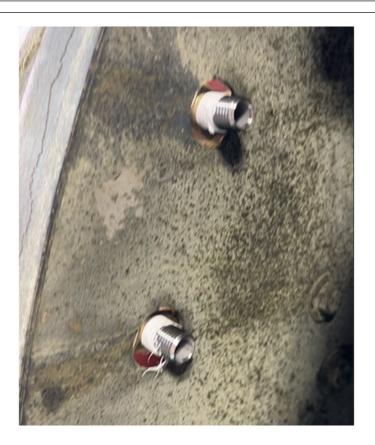
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WVFXMED,1727883192032-19-16JAN25-10/12

#### Step 6 of 6: Mounting bracket adjustment

1. Adjust all mounting brackets across the boom arms. Make sure that each section is centered, and that the nipple end is on the spray zone.

WVFXMED,1727883192032-19-16JAN25-11/12



YK132281-UN-30SEP24

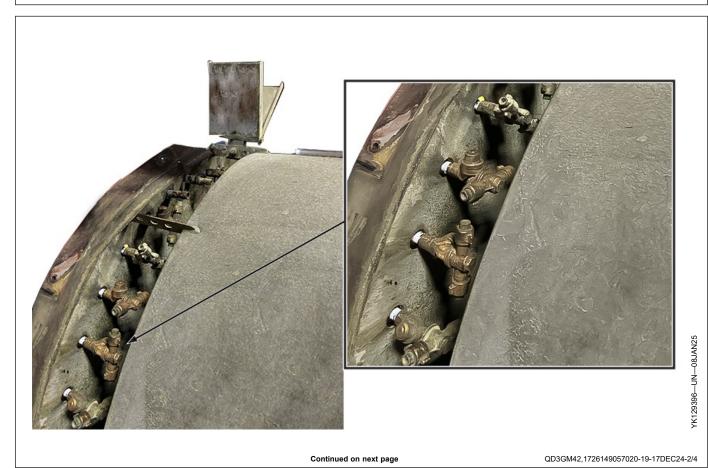
WVFXMED,1727883192032-19-16JAN25-12/12

# **Nozzles Assembly**

## Step 1 of 2: Nozzles and caps installation

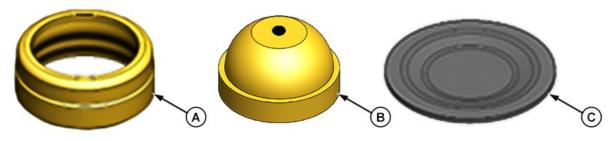
1. Install nozzles and caps following the desired sprayer configuration.

QD3GM42,1726149057020-19-17DEC24-1/4



20-40 PN=

Step 2 of 2: Check valve installation for inactive nozzles

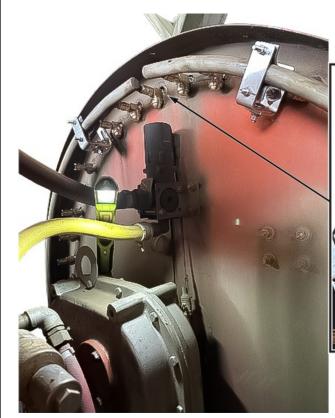


Parts required for this step			
Identifier	Part Number	Description	
A	CP4624	Threaded ring	
В	9758	Check valve	
С	CP4620	Gasket	

1. Identify the nozzles that are not being used and install threaded ring (A) and check valve (B) with gasket (C) in between.

QD3GM42,1726149057020-19-17DEC24-3/4

YK129397—UN—08JAN25





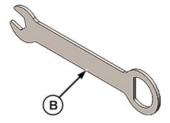
QD3GM42,1726149057020-19-17DEC24-4/4

20-41 021125 PN=54

## **Solenoids Assembly**

#### Step 1 of 2: Solenoid installation





Parts required for this step				
Identifier Part Number Description				
A	4100022	Solenoid		
В	1100258	Wrench		

- 1. Identify the installation position of the solenoid (A), ensuring the connector is facing either up or down.
- 2. If the solenoid is positioned above the line, use wrench (B) to loosen the solenoid tube while holding the nylon nut in place with another wrench.
- 3. Remove the solenoid body, rotate 180° inside the coil, and install nut.
- 4. Locate the O-ring on the nylon nut, remove it and install it inside the brass ring.

NOTE: Ideally the solenoid will be above the line to ensure it drains effectively by gravity when not in use.

These steps should be followed for all solenoids.

QD3GM42,1726149094021-19-07JAN25-1/4



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QD3GM42,1726149094021-19-07JAN25-2/4

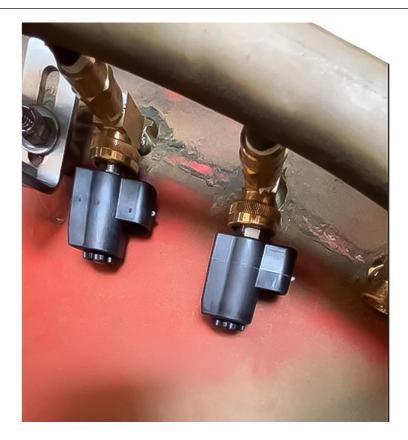
Step 2 of 2: Solenoids to valve



Parts required for this step				
Identifier Part Number Description				
A 7100487 O-ring lubricant				

- 1. Apply O-ring lubricant (A) to the outside surface of the small O-ring.
- 2. Connect the solenoids to the valve, ensuring that the connector is oriented towards the outside of the sprayer.
- 3. Do final adjustments to the mounting brackets across the boom arms. Make sure that each section is centered, and that the nipple end is on the spray

QD3GM42,1726149094021-19-07JAN25-3/4



QD3GM42,1726149094021-19-07JAN25-4/4

## **Harness Routing**

## Step 1 of 7: Harness to solenoids

Parts required for this step				
Identifier Part Number Description Quantity				
A 6100130 Nozzle potted harness 2				

1. Connect left and right-side nozzle potted harness (A) terminal to the solenoids beginning from the bottom and working your way up.

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## Step 2 of 7: Bolts removal

1. Locate the 4 bolts supporting the sprayer tank to the frame and remove.

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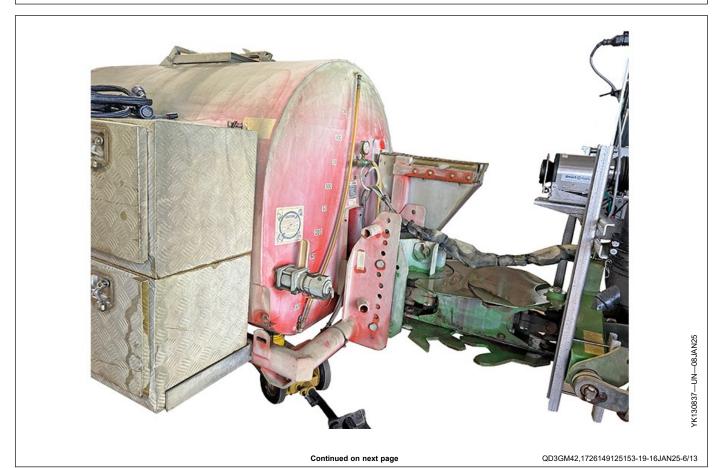
#### Step 3 of 7: Tank lifting

1. Use a hydraulic jack to raise the front of the tank 2 inches.



CAUTION: Use proper lifting equipment. Lifting heavy components incorrectly can cause severe injury or machine damage. Follow recommended procedure for removal and installation of components in these instructions.

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#### Step 4 of 7: Harness extension routing

Parts required for this step				
Identifier Part Number Description Quantity				
A 6100117 Nozzle harness extension 2				

<sup>1.</sup> Route harness extensions (A) underneath the sprayer frame, ensuring that the connectors remain on the outside.

NOTE: Make sure there is enough distance from the control box to the rear sprayer compartment.

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#### Step 5 of 7: Harness extensions connection

- 1. Connect harness extensions to the nozzle potted harness.
- 2. Lower the tank and secure it using the original bolts and nuts.
- 3. Connect harness extension to controller box.

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#### Step 6 of 7: Battery harness connection

Parts required for this step				
Identifier Part Number Description Quantity				
A	6100111	Battery harness	1	
В	6100185	Battery harness extension	1	

- 1. Connect battery harness (A) to the battery inside the sprayer compartment when available, use harness extension (B) when connecting to the tractor's battery.
- 2. Route the harness from the battery to the control box, ensuring it avoids any moving parts. Follow the existing path of the tractor harnesses to the battery for proper installation.

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#### Step 7 of 7: Harnesses connection

Parts required for this step							
Identifier	Part Number	Description	Quantity				
A	6100110	Antenna harness	1				
В	6100134	Antenna harness extension	1				
С	6100123	LiDAR Harness	1				
D	6100127	Power extension harness	1				

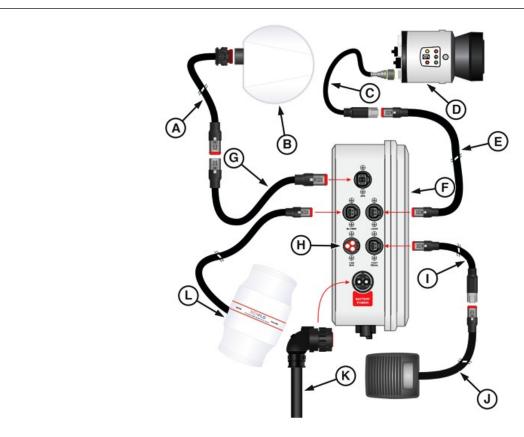
- 1. Connect one plug of harness extension (A) to the GPS antenna and the other plug to the controller box. Use harness extension (B) if needed.
- 2. Connect one plug of harness extension (C) to the LiDAR harness and the other plug to the controller box.
- 3. Connect one plug of harness (D) to the blower/fan harness and the other plug to the controller box.

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# **Electrical Diagram**

Refer to the diagram below to identify the correct connections for each harness to the control box.

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Parts required for this step						
Identifier	Part Number	Description	Identifier	Part Number	Description	
Α	6100110	GPS antenna harness	G	6100134	GPS extension harness	
В	6000132	GPS antenna	Н	-	CAN BUS is to connect a second controller	
С	6100126	LiDAR power harness	I	6100132	Foot pedal extension	
D	6000047	LiDAR	J	6100075	Foot pedal switch	
Е	6100123	LiDAR power extension	K	6100185	Battery extension	
F	2000165	Gen 2 control enclosure	L	2000138	LiDAR blower	

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## **Liquid Filter Kit**

NOTE: It is recommended to have two stages of filtration in the system. If there is already a filter on the boom, you may not need to install the additional filter shown in this section.

#### Step 1 of 1: Strainer installation

Parts required for this step							
Identifier	Part Number	Description	Quantity				
Α	4200195	Strainer	1				
В	4200188	Hose barb to 3/4 inch	2				
С	4200194	Hose barb to 1 inch	2				
D	7100348	Clamp	2				

- 1. Locate the boom lines and cut a section of hose to fit strainer (A).
- 2. Install one end of hose barb (B) or (C) on each side of the strainer (A), and connect the other end of the hose barb to the previously cut boom lines.
- 2. Secure the connection between the strainer and the boom line using clamps (D).

NOTE: Choose the appropriate hose barb (B) or (C) from list according to the hose size.

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