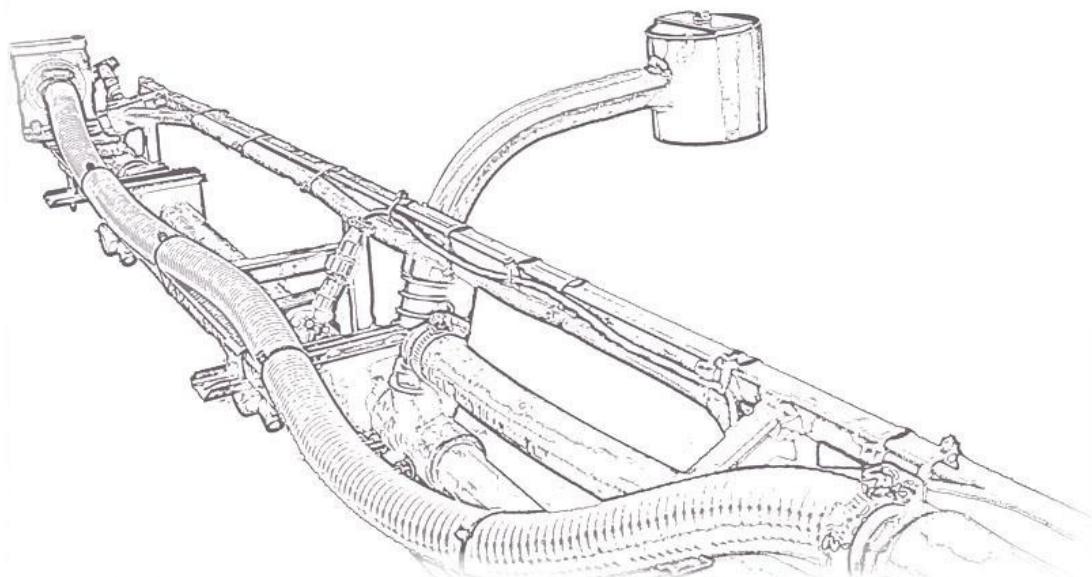


NORAC



UC5TM CAN BUS Spray Height Control System



Apache (2010+)
Active Wing Roll
Installation Manual

Printed in Canada

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Reorder P/N: UC5-BC-AP03A-INST Rev A (Apache (2010+) Active Wing Roll)

NOTICE: NORAC Systems International Inc. reserves the right to improve products and their specifications without notice and without the requirement to update products sold previously. Every effort has been made to ensure the accuracy of the information contained in this manual. The technical information in this manual was reviewed at the time of approval for publication.

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I Introduction

Congratulations on your purchase of the NORAC UC5 Spray Height Control System. This system is manufactured with top quality components and is engineered using the latest technology to provide operating reliability unmatched for years to come.

When properly used the system can provide protection from sprayer boom damage, improve sprayer efficiency, and ensure chemicals are applied correctly.

Please take the time to read this manual completely before attempting to install the system. A thorough understanding of this manual will ensure that you receive the maximum benefit from the system.

Your input can help make us better! If you find issues or have suggestions regarding the parts list or the installation procedure, please don't hesitate to contact us.

⚠ Important

Every effort has been made to ensure the accuracy of the information contained in this manual. All parts supplied are selected to specially fit the sprayer to facilitate a complete installation. However, NORAC cannot guarantee all parts fit as intended due to the variations of the sprayer by the manufacturer.

Please read this manual in its entirety before attempting installation.

2 Technical Specifications



CAN ICES-3(A)/NMB-3(A)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

This Class A digital apparatus complies with Canadian ICES-003.

Pursuant to EMC Directive – Article 9, this product is not intended for residential use.

Table I: System Specifications

Supply Voltage (rated)	12VDC
Supply Current (rated)	10A
Hydraulic Pressure (maximum)	3300 psi
Baud Rate	250 kbps
Clock Frequency (maximum)	96 MHz
Solenoid Valve PWM Frequency	300 Hz
Ultrasonic Sensor Transmit Frequency	50 kHz
Operating Temperature Range	0°C to 80°C

3 General UC5 System Layout

Figure 1 illustrates the general layout of the UC5 system components:

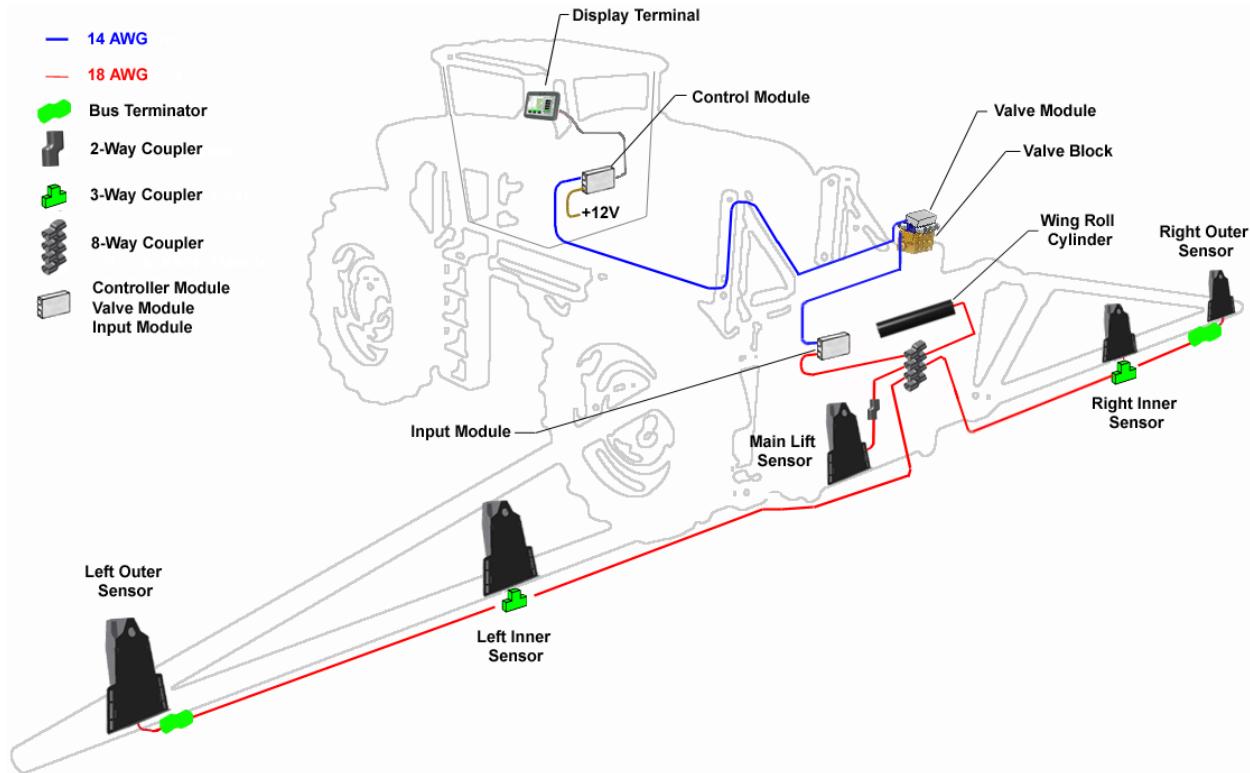


Figure 1: General UC5 System Layout

4 Kit Parts

4.1 Kit Overview

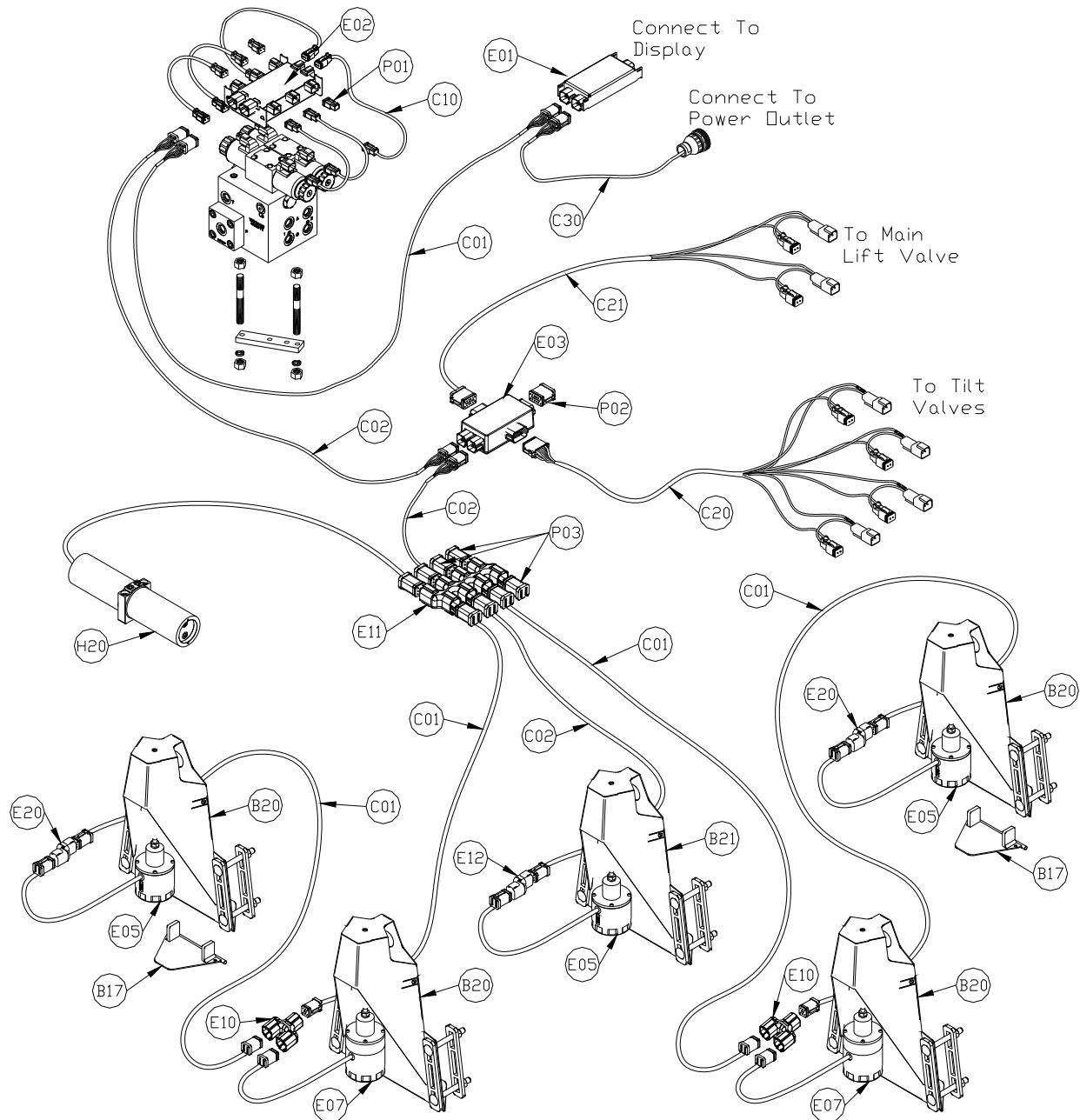
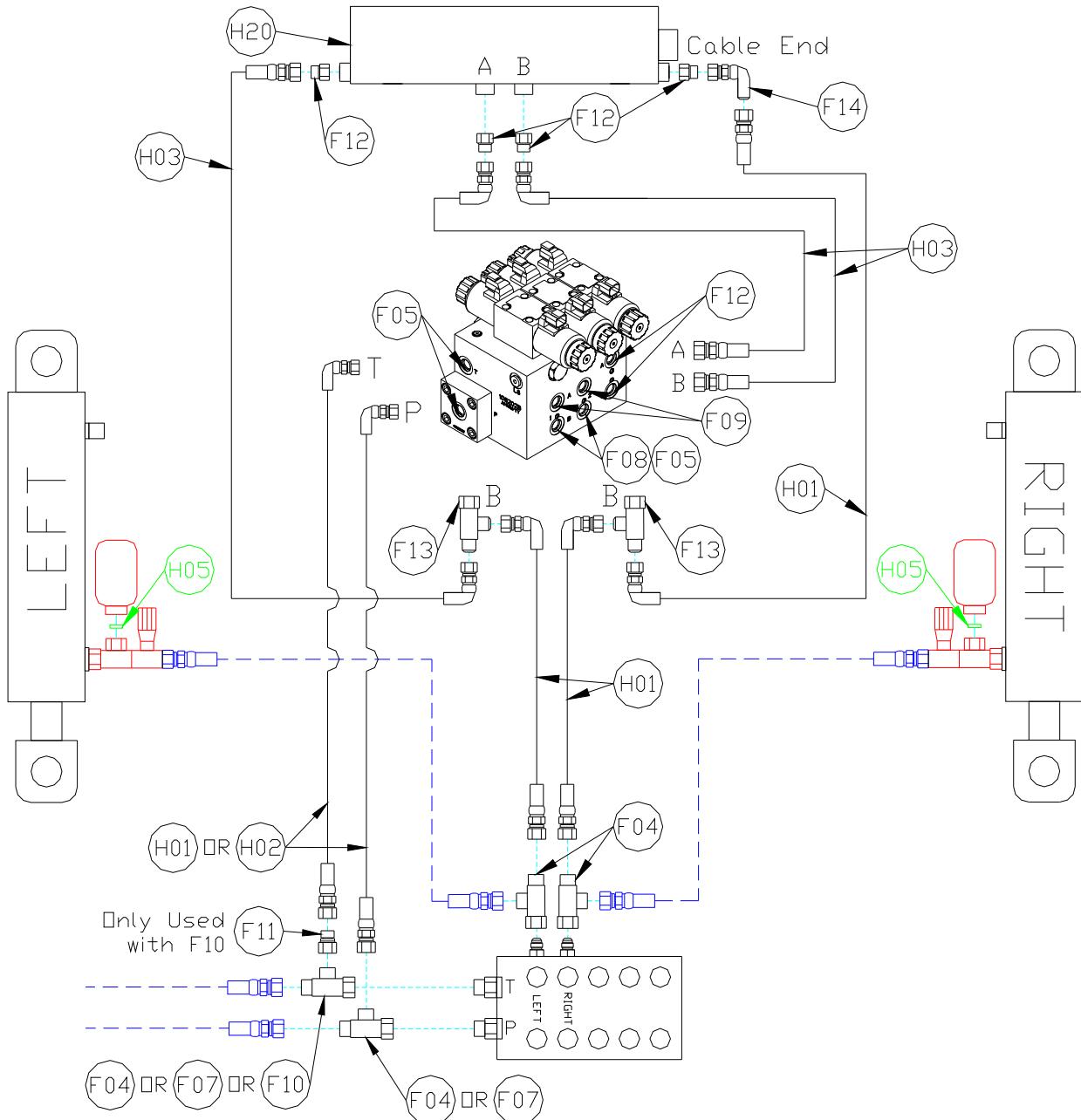


Figure 2: AP03A System Parts

4.2 Hydraulic Plumbing



Existing Lines
 Existing Needle Valve and Accumulator
 on Pommier Boom
 Accumulator Orifice on Pommier Boom

Figure 3: AP03A Hydraulic Plumbing

4.3 List of Parts

Item	Part Number	Name	Quantity
B05	44706-01	KIT CABLE TIE BLACK 10 PCS 21 IN 150 PCS 7.5 IN	1
B07	44746	BRACKET WRC CS	1
B12	44747	SPACER 2IN SQUARE TUBING 8IN	2
B17	44972	SENSOR MOUNTING BRACKET LOW PROFILE RAINFLAP 16GA	2
B20	44971	SENSOR MOUNTING BRACKET LOW PROFILE 16GA	4
B21	44973	SENSOR MOUNTING BRACKET LOW PROFILE 16 GA LARGE FLANGE	1
C01	43220-10	CABLE UC5 NETWORK 14 AWG 10M	5
C02	43220-01	CABLE UC5 NETWORK 14 AWG 1M	3
C10	43230-04	CABLE UC5 VALVE 2PIN DT TO 2PIN DT	6
C20	43240-01	CABLE UC5 INTERFACE TILT DT	1
C21	43240-22	CABLE UC5 INTERFACE MAIN DT (240")	1
C30	43250-04	CABLE UC5 BATTERY AMP FUSED	1
E01	43710	UC5 CONTROLLER MODULE	1
E02	43720	UC5 VALVE MODULE	1
E03	43732	UC5 INPUT MODULE PASS THRU	1
E05	43750	UC5 ULTRASONIC SENSOR	3
E07	50100	ULTRASONIC MAX SENSOR	2
E10	43760	UC5 NETWORK COUPLER 3-WAY	2
E11	43765	UC5 NETWORK COUPLER 8-WAY	1
E12	43764	UC5 NETWORK COUPLER 2-WAY	1
E20	43764T	UC5 NETWORK COUPLER 2-WAY WITH TERMINATOR	2
H01	44863-06	HOSE ASSEMBLY 122R2-06 40 IN L 6FJX90 6FJX	5
H02	44863-49	HOSE ASSEMBLY 122R2-06 40 IN L 6FJX90 8FJX	1
H03	44863-07	HOSE ASSEMBLY 122R2-06 60 IN L 6FJX90 6FJX	3
H05	106820	ORIFICE INSERT 1.2MM 5MM THICKNESS	2
H10	44865-03	HYDRAULICS FITTING KIT - AP2	1
H11	44865-77	HYDRAULICS FITTING KIT - AWR2	1
H20	44978	WING ROLL CYLINDER W/POSITION SENSOR	1
M02	UC5-BC-AP03A-INST	MANUAL INSTALLATION UC5 APACHE (2010+) ACTIVE WING ROLL	1
M04	106821	BOLT SS M12x1.75 x 200mm	2

Item	Part Number	Name	Quantity
P01	106034	UC5 NETWORK 2 PIN PLUG	2
P02	106602	UC5 NETWORK 12 PIN PLUG (A-KEY)	1
P03	105882	UC5 NETWORK 6 PIN PLUG	3
V01	44960D	VALVE BLOCK ASSEM 3 STATION CC/LS PROP DT 4 BOLT	1

⚠️ Important

Do not use high speed power tools/drills when installing hardware.

⚠️ Important

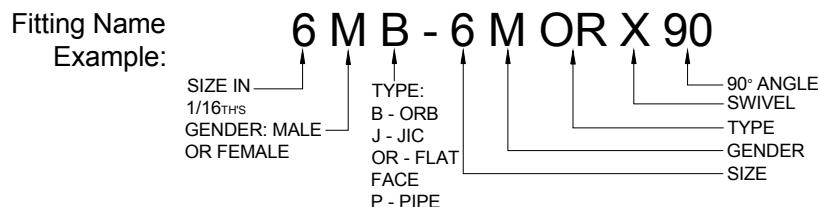
The use of dielectric grease is not recommended on any NORAC electrical connections.

⚠️ Important

To ensure all stainless steel hardware does not gall or seize apply a light coating of the supplied Permatex Anti-seize grease to all threaded parts upon installation. Permatex Anti-seize lubricant is preferred, but other similar anti-seize products may be used.

4.4 Hydraulic Fitting Kit Details (P/N: 44865-03)

Item	Part Number	Name	Quantity	Picture
F04	103839	T ADAPTER - 6FJXR 6MJT	4	
F05	103312	MALE ADAPTER - 6MB 6MJ	4	
F07	104632	T ADAPTER - 8FJXR 8MJT	1	
F08	44928	ORIFICE INSERT .047 IN ONE WAY	2	
F09	104369	PLUG - 6MPB	2	
F10	104635	T ADAPTER - 10FJXR 10MJT	1	
F11	105003	FEMALE TO MALE ADAPTER - 10FJ 6MJ	1	

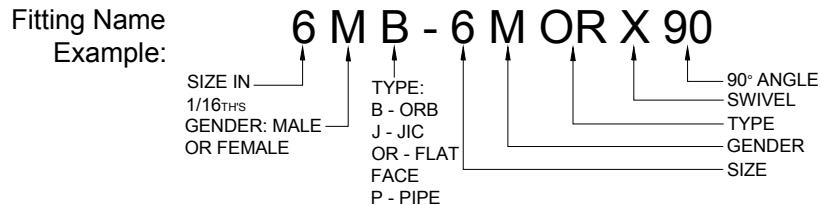


Important

Not all fittings are used for this installation.

4.5 Hydraulic Fitting Kit Details (P/N: 44865-77)

Item	Part Number	Name	Quantity	Picture
F12	103312	MALE ADAPTER - 6MB 6MJ	6	
F13	103839	TEE ADAPTER - 6FJXR 6MJT	4	
F14	103345	ELBOW ADAPTER - 6MJ 6FJX90	9	



Important

Not all fittings are used for this installation.

5 Pre-Install Checklist

The pre-install checklist is necessary to check the existing sprayer functionality before the installation.

1. Unfold the sprayer over a flat, unobstructed area (i.e. no power lines...etc.).
2. Ensure all boom-fold operations are functional (place a check mark in boxes below).
3. Bring engine to field-operational RPM and record below.
4. Record the time (seconds) it takes for a full stroke for all boom functions. To ensure repeatable measurements, take the average of 3 trials.
5. Not all sprayers will have the functions listed below in **Figure 4**.

Important

Ensure the boom has sufficient travel so it does not contact the ground during these tests.

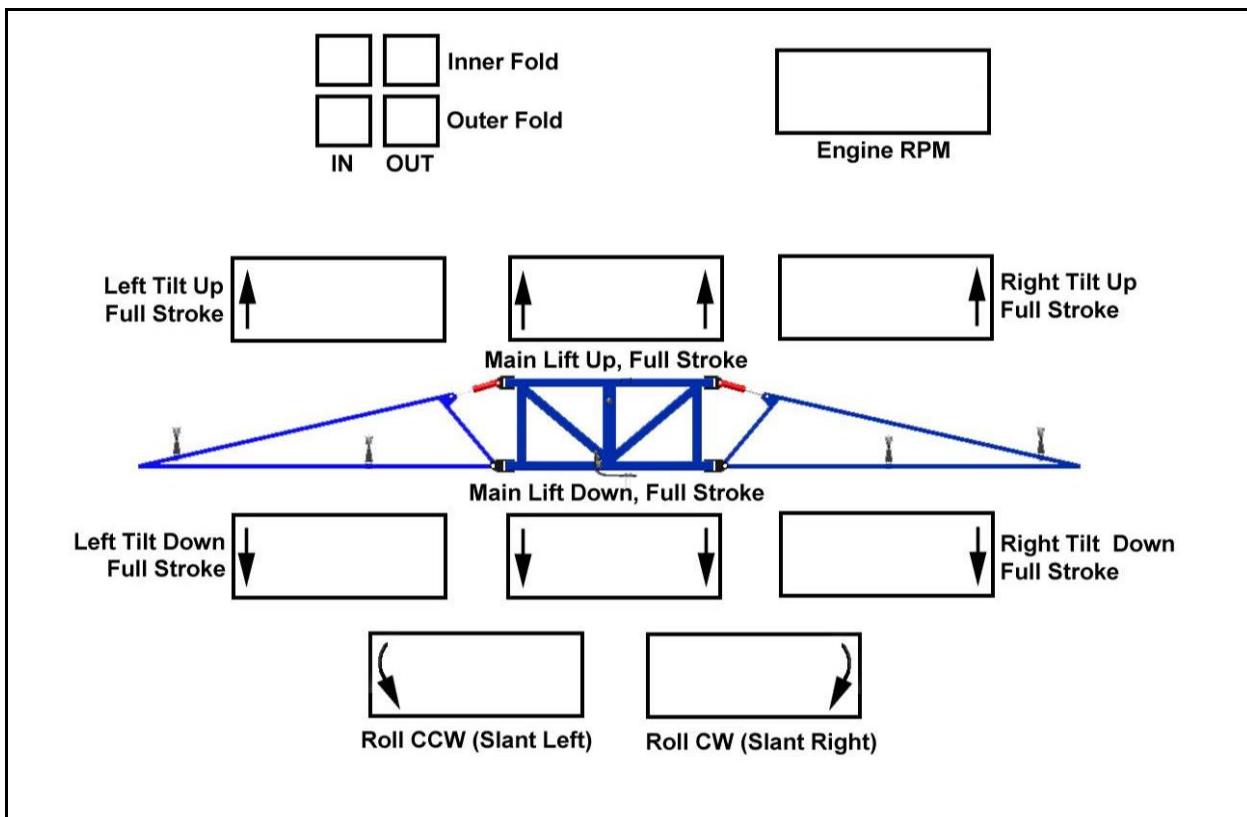


Figure 4: Pre-Install Boom Speeds

6 Ultrasonic Sensor Installation

6.1 Ultrasonic Sensor Serial Number Arrangement

The UC5 sensors (E05) are mounted in the outer wing and main lift positions. Mount the smallest serial number on the outer left hand side and proceed to the largest serial number on the outer right hand side. The Ultrasonic MAX sensors (E07) are mounted in the inner wing positons with the lowest serial number on the left side and the highest serial number on the right side. Each UC5 sensor has a serial number stamped on the sensor housing.

Apply a light coating of the supplied Permatex Anti-seize grease to all threaded parts upon installation.

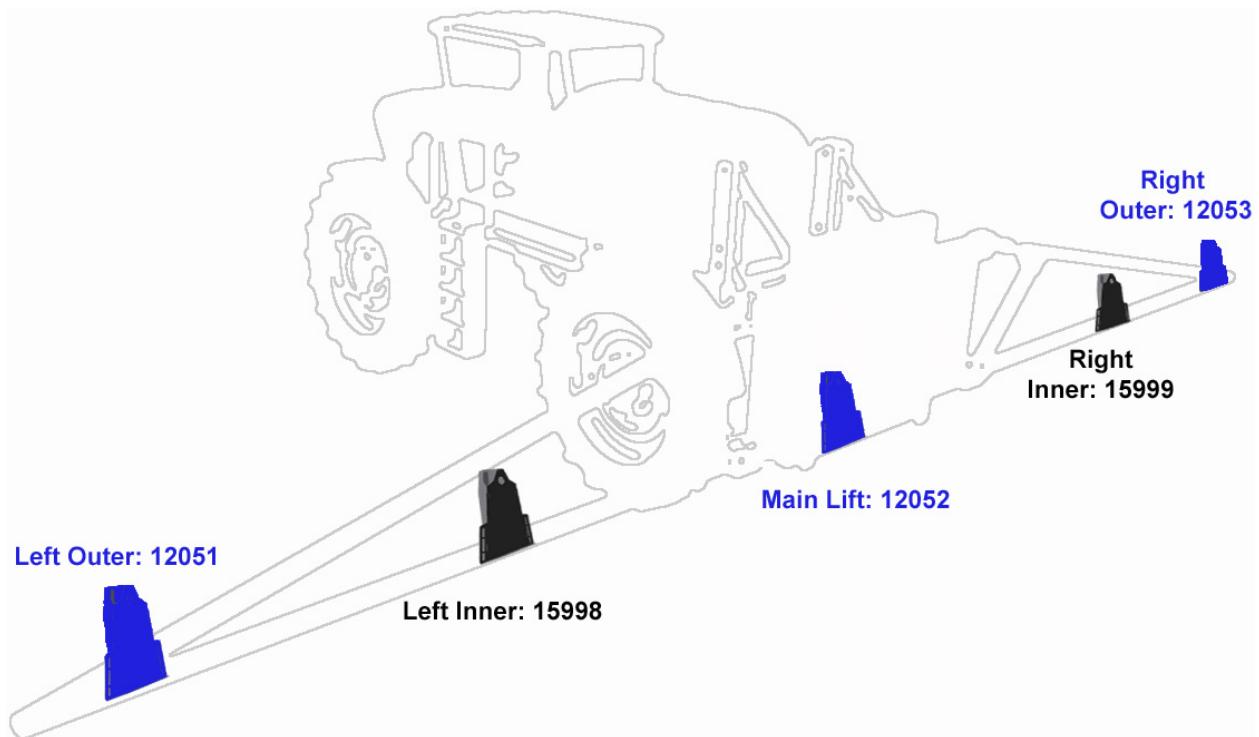


Figure 5: Sensor Serial Number Arrangement



The E07 sensors will be mounted in the positions shown in black.

6.2 Ultrasonic Sensor Mounting Guidelines

The following guidelines will ensure optimal sensor performance and prevent sensor measurement.

1. In its lowest position, the sensor must be 9 inches (23 cm) or more from the ground.
2. Ensure that there are no obstructions within a 12-inch diameter circle projected directly below the center of the sensor.
3. The sensor should be approximately vertical at normal operating heights.

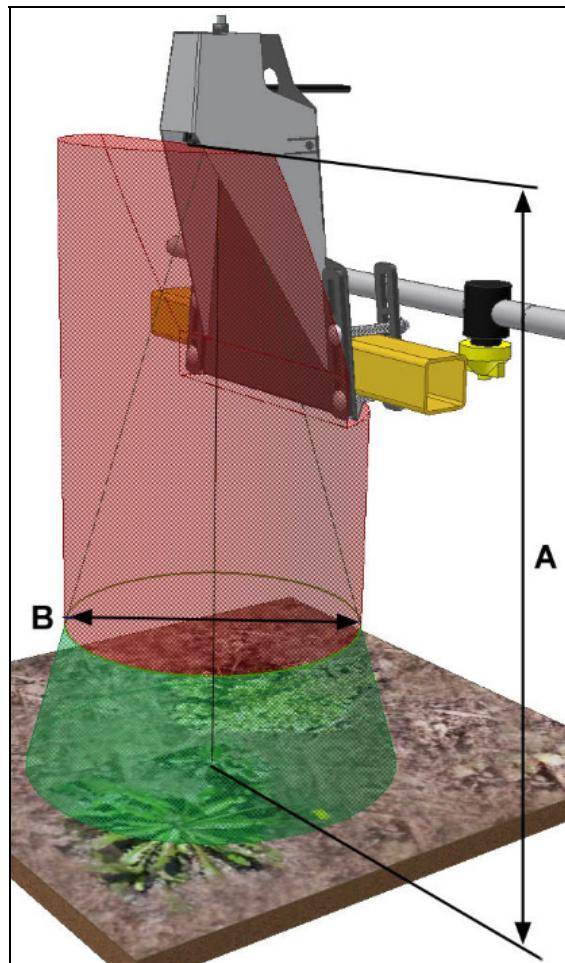


Figure 6: Sensor Mounting Guidelines

6.3 Low Profile Bracket Mounting Guidelines

1. Minimize the distance between the bolts to prevent bending the bracket and prevent the bracket from loosening over time.
2. Ensure the bracket is mounted tight against the bottom of the boom, minimizing the distance between the boom structure and the angled flange.

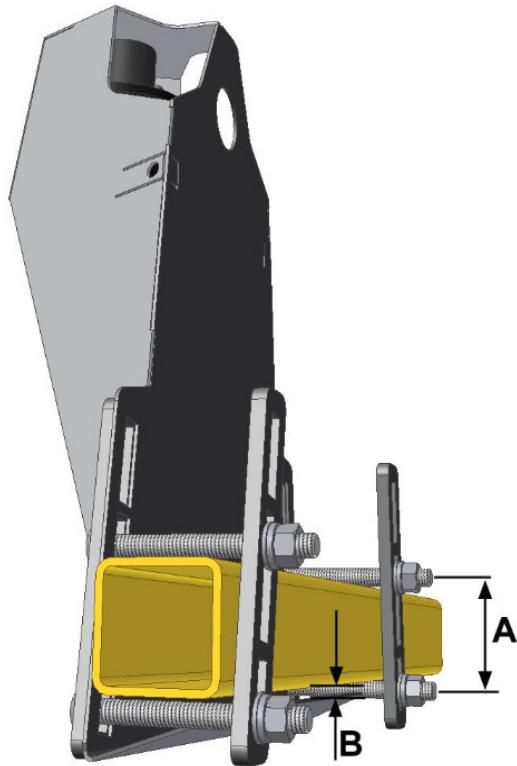


Figure 7: Bracket Mounting Guidelines

⚠ Important

A problem can arise if a sensor is not mounted correctly. It is possible for the sensor to read off of the boom instead of the ground. This may only become apparent once the control system is switched from soil to crop mode.

Also be careful that the sensor bracket does not collide with any other part of the boom when the boom is folded to transport position. If possible, mount the sensor brackets while the booms are folded to ensure they will not cause interference.

6.4 Wing Sensor Installation

1. The sensor bracket should be oriented forward (ahead of the boom).
2. Typically the best mounting location for the outer wing sensor brackets will be near the end of the boom tips, approximately two feet (60cm) from the end.
3. Depending on the boom design, some breakaway sections will lift upwards as they break back. If the sensor is mounted to this portion of the boom, the system will force the boom downwards towards the ground as the boom folds backwards.
4. Mount the inner wing sensor brackets onto the boom half way between the tip and center of the sprayer. Use spacers (B12) to mount the bracket on the lowest part of the boom. The spacer must be placed between the lowest part of the boom and the back face of the bracket. The plate is placed behind the boom. (**Figure 10**)

NOTE: The spacers (B12) are not used when installing the brackets on a Pommier boom (**Figure 11**).

5. Mount the NORAC UC5 ultrasonic sensor into the sensor bracket and run the sensor cable either through hole in the back or through the side cut-out and behind the bracket. Ensure the cable is clear of moving parts and will not be damaged during folding.

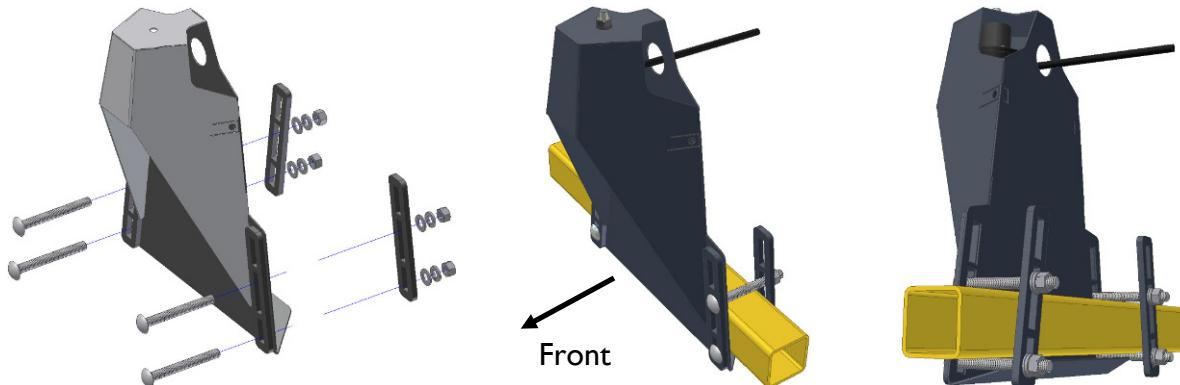


Figure 8: Bracket Mounting Example



Figure 9: Outer Wing Sensor Bracket Mounting Example

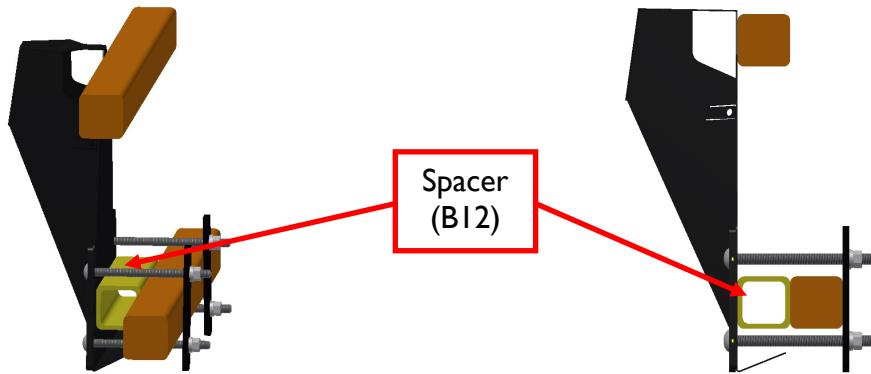


Figure 10: Apache Spacer Placement on Inner Wing Brackets



Figure 11: Inner Wing Bracket on Pommier Boom



Figure 12: Outer Wing Bracket on Pommier Boom

6.5 Rainflap Installation

⚠ Important

Rainflaps are only installed on the **OUTER** wing sensor brackets.

Rainflaps are not needed on Pommier booms.

1. Insert one side of the rainflap rod into the pre-bent hinge tab on the sensor bracket. (**Figure 13**)

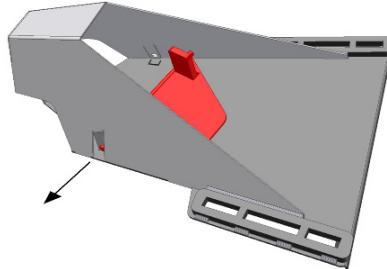


Figure 13: Rainflap Rod in Pre-Bent Hinge Tab

2. Align the other side of the rainflap rod with the unbent hinge tab. (**Figure 14**)

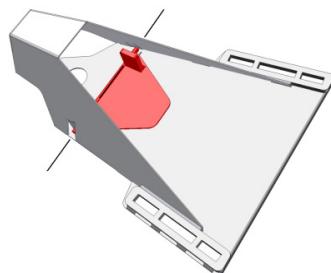


Figure 14: Align Rainflap Rod

3. Bend the hinge tab inward over the rainflap rod until the hinge tab fits securely in the detent groove on the backside of the sensor bracket. (**Figure 15**)

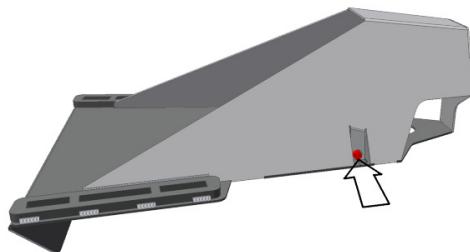


Figure 15: Bend Rainflap Hinge Tab

4. Ensure the rainflap actuates smoothly when the bracket is turned upside down and returns to the open position when the sensor bracket is returned to its operating position (sensor pointing downwards toward the ground).

6.6 Main Lift Sensor Installation

1. The main lift mounting bracket (B21) is the bracket with the longer mounting flange.
2. There are a variety of ways to mount the main lift bracket on most sprayers. The bracket should position the sensor approximately in the center of the sprayer, forward of the boom. An example of this mounting is illustrated in **Figure 17**.

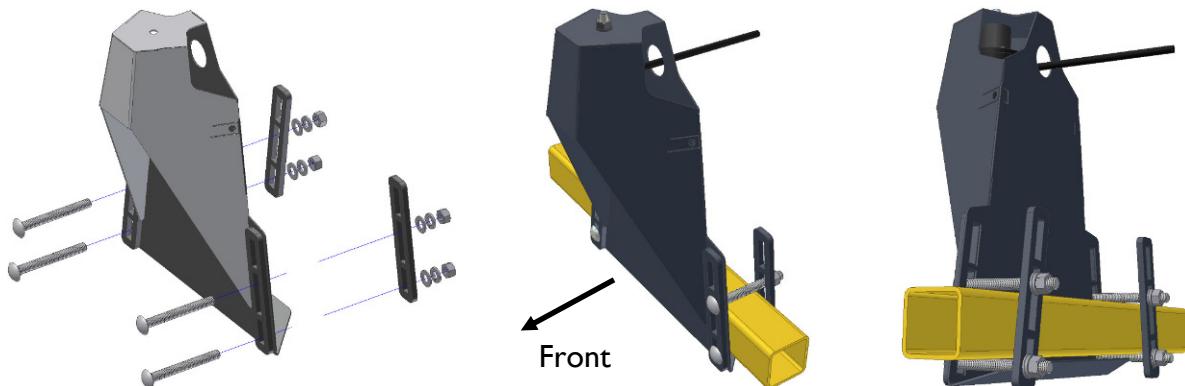


Figure 16: Bracket Mounting Example

3. Mount the ultrasonic sensor to the main lift bracket. Run the sensor cable through hole and behind the bracket.

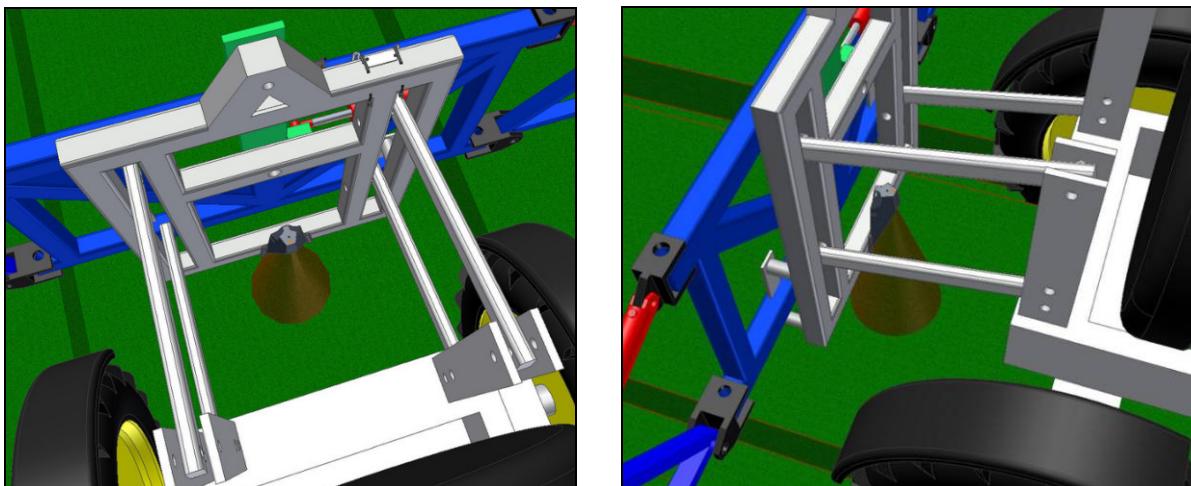


Figure 17: Example Mounting of the Main Lift Bracket

! Important

Avoid mounting the main lift sensor over or near a wheel-track. Measurements from the wheel-track do not provide an accurate crop height and will cause measurement and control error.

Ensure the bracket does not collide with any other part of the sprayer throughout the full range of main lift motion.

7 Module Installation

An optional module mounting bracket kit is available for purchase from NORAC. The mounting brackets are compatible with control modules and input modules. One kit is needed per module.

Item	Part Number	Name	Quantity
B20	43708	UC5 MOUNTING BRACKET KIT (CONTROL AND INPUT MODULES)	1

7.1 Control Module

1. Refer to **Figure I** and **Figure 18**.
2. Securely mount the control module (E01) inside the sprayer cab, using screws, cable ties or optional brackets.
3. Connect the display terminal to the control module using the existing display cable. This cable must be connected to the end of the control module with only one Deutsch connector.
4. Connect the power cable (C30) to one of the two CANbus connectors on the control module. Connect the other end of the power cable to an appropriate power supply.
5. Route cable C01 from the other CANbus connector towards the rear of the sprayer.

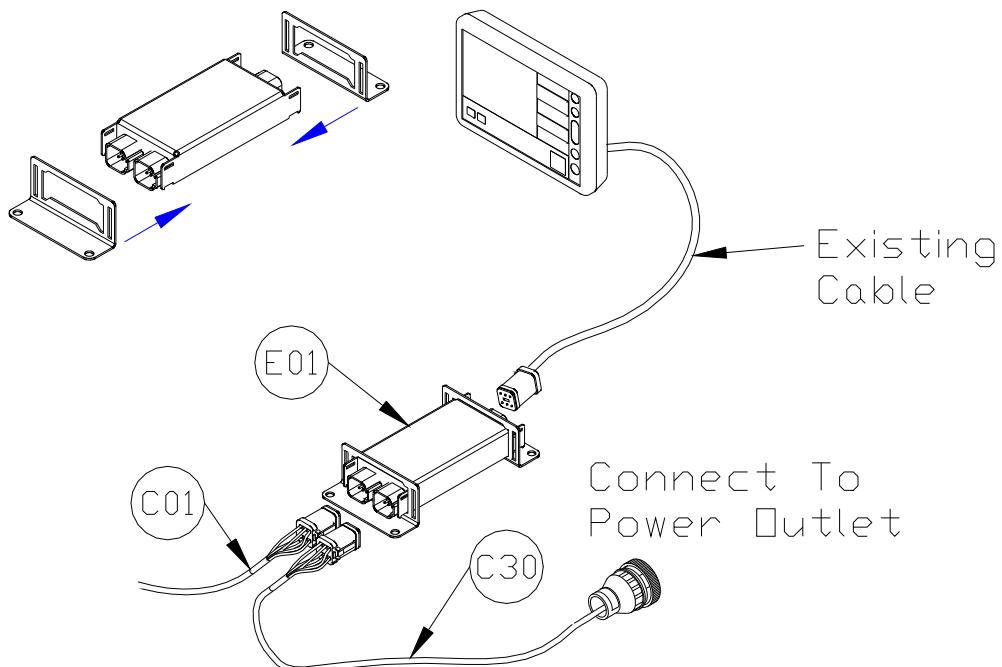


Figure 18: Control Module Mounting

7.2 Valve Module

1. Install the valve module (E02) to the top of the NORAC valve block. Orient the 6-pin Deutsch (CANbus) connectors towards the “P” and “T” ports with the label facing up.

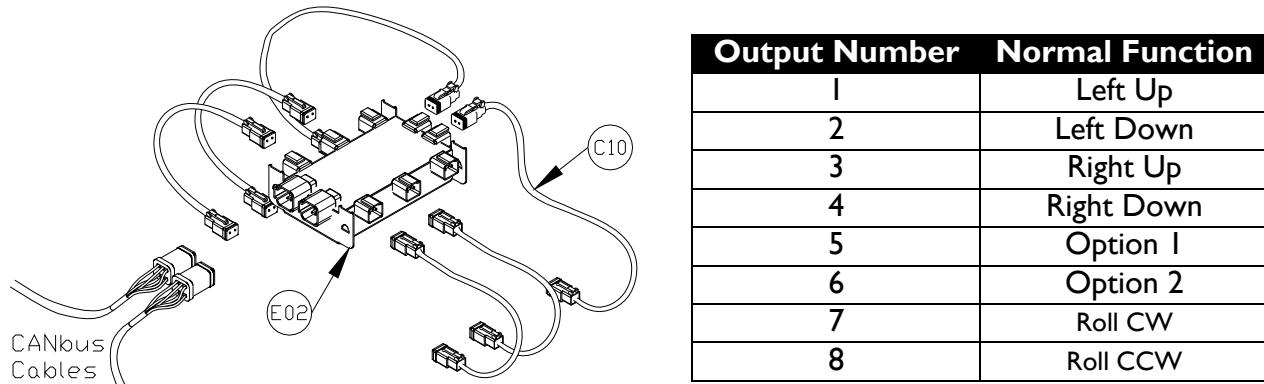


Figure 19: Valve Module

2. Verify the valve coil connectors are oriented vertically (**Figure 20**).

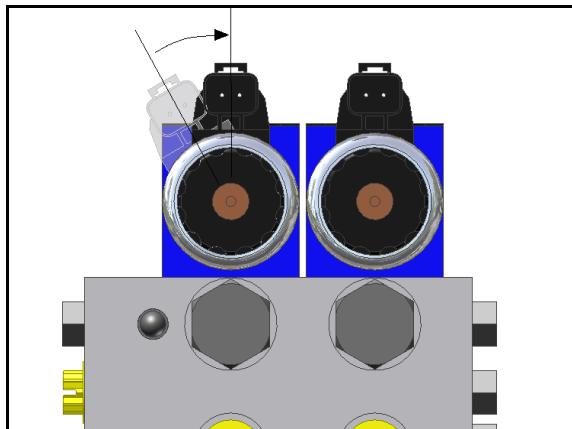


Figure 20: Align Coils

3. Place the valve module between the valve coils. Slide a valve mounting bracket over the connectors of the valve module and the valve coil connectors. This may require flexing the plastic bracket slightly (**Figure 21**).
4. Ensure the bracket is pushed over the connectors far enough to allow the clips to engage behind the valve connectors.

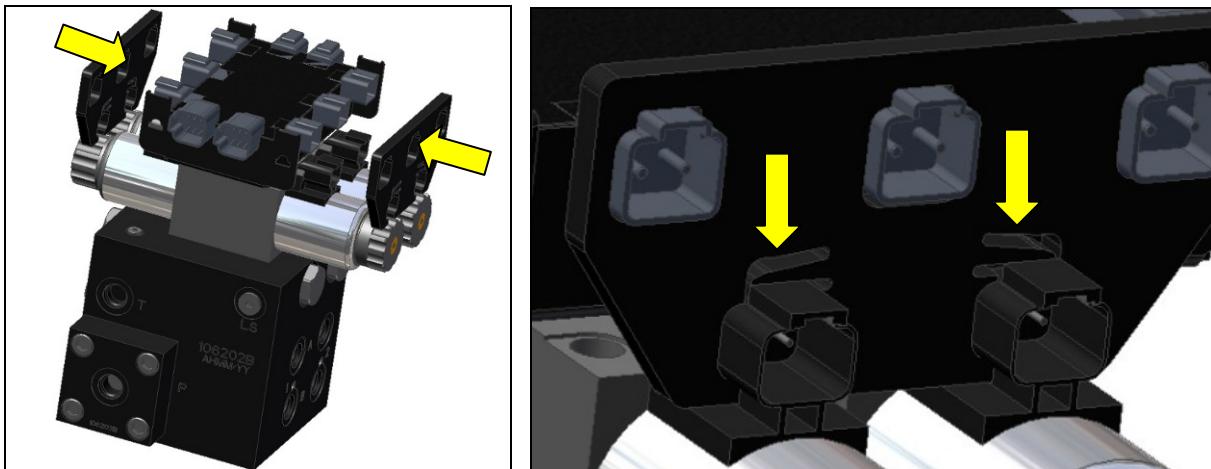


Figure 21: Valve Module Bracket Installation

5. Connect the valve module CANbus to cable C01 from the control module. Route cable C02 from the other CANbus connector to the input module.
6. With the valve module securely mounted to the valve block, connect the valve cables (C10), to the valve coils. Insert the 2-pin plugs (P01) into the unused 2-pin connectors on the valve module.
7. Connect the temperature probe to the valve block using the supplied 3/8" x 1/2" hex bolt.

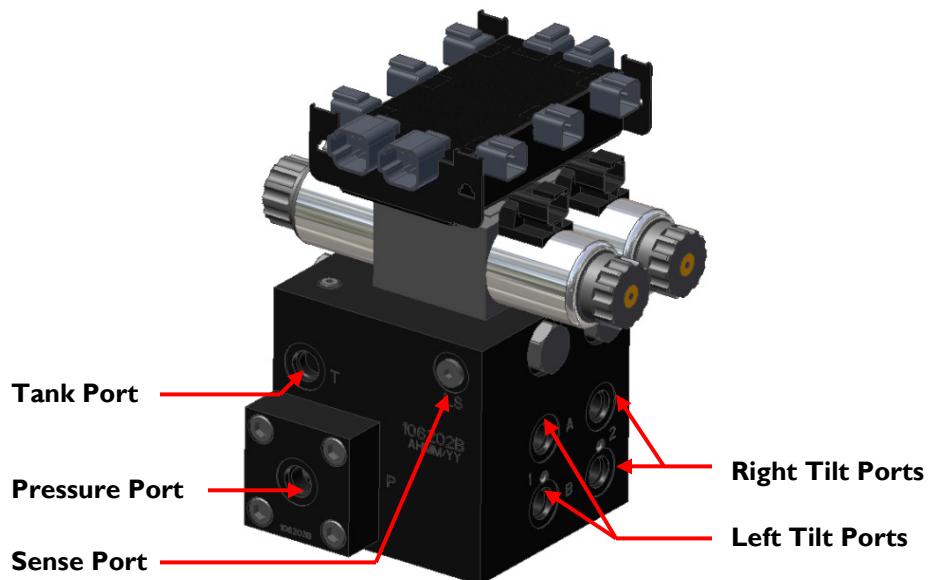


Figure 22: Valve Coil Connections

7.3 Input Module

1. Install the input module (E03) on the boom near the sprayer valve block. Secure it to the boom using cable ties or optional brackets.
2. Connect the free end of the CANbus cable (C02) from the valve module to the input module.
3. Connect cable C02 to the other CANbus connector and route towards the 8-way coupler (E11).
4. Insert the 12 pin plug (P02) into the OEM 3 connector on the end of the input module
5. Connect the 12 pin connector on the tilt interface cable (C20) to the *Thru 2* connector on the side of the input module.
6. Insert the other connectors on C20 into the tilt connectors on the sprayer valve block.

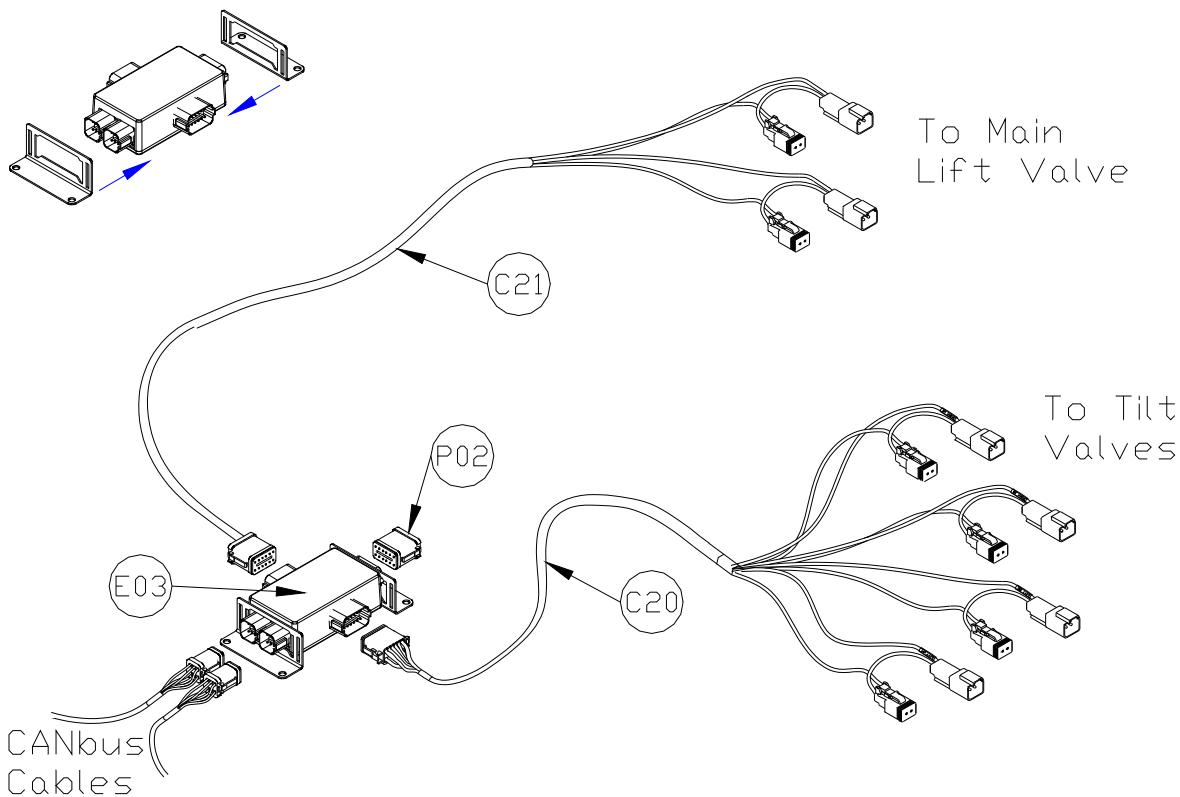


Figure 23: Input Module Connections

7. Connect the 12 pin connector on the main lift interface cable (C21) to the *Thru 1* connector on the side of the input module.
8. Insert the other connectors on C21 into the main lift connectors on the sprayer valve block.

8 Connecting the Sensors to the CANbus

1. Fasten the 8-way coupler to the boom with cable ties. Connect cable C02 from the input module to the 8-way coupler (E11).
2. Connect the wing roll cylinder (H20) to the 8-way coupler.
3. Connect the main lift sensor to the 8-way coupler using cable C02 and a 2-way coupler (E12). Cable C02 and item E12 may not be needed if the 8-way coupler is mounted close enough to the main lift sensor.
4. Attach a 3-way coupler (E10) to the boom at the inner sensor brackets. Connect two cables (C01) to the 8-way coupler and route along the booms to the inner wing sensors. Plug the sensor and the CANbus cable into the 3-way coupler.
5. Connect cable C01 to the remaining connector on the 3-way coupler and route along the boom to the outer wing sensors.
6. At the sensor brackets, attach a 2-way coupler with terminator (E20) to the sprayer boom. The 2-way coupler with terminator is the white two way coupler. Plug the sensor and the CANbus cable into the 2-way coupler.
7. Insert the 6 pin plugs (P03) into the remaining receptacles of the 8-way coupler.

⚠️ Important

Ensure that all unused connectors are plugged with the plugs provided.

9 Hydraulic Installation

! Warning!

Ensure all pressure has been bled from the system before disconnecting any lines or fittings. Hydraulic pressure will exist on the wing tilt circuits unless the wings are being supported by other means. The hydraulic installation may be performed with the wings in transport position, resting on the ground or with the tilt cylinders fully extended.

! Important

Component failure due to oil contamination is not covered under the NORAC UC5 system warranty. It is recommended that a qualified technician perform the hydraulic installation.

9.1 Valve Assembly

1. On a clean surface remove the plastic plugs from the block.
2. Install the 6MB-6MJ (F05) fittings into the “P” and “T” ports. Tighten to 18 ft-lbs (24 Nm).
3. Insert the two orifices (F08) into the “B” ports of the first and second stations of the valve block with the notch facing outward.
4. Install the 6MB-6MJ (F05) fittings into the “B” ports of the first and second stations of the valve block. Tighten to 18 ft-lbs (24 Nm).
5. Install the 6MBP plugs (F09) fittings into the “A” ports of the first and second stations of the valve block. Tighten to 18 ft-lbs (24 Nm).
6. Install the 6MB-6MJ (F12) fittings into the “A” and “B” ports of the third station of the valve block. Tighten to 18 ft-lbs (24 Nm).

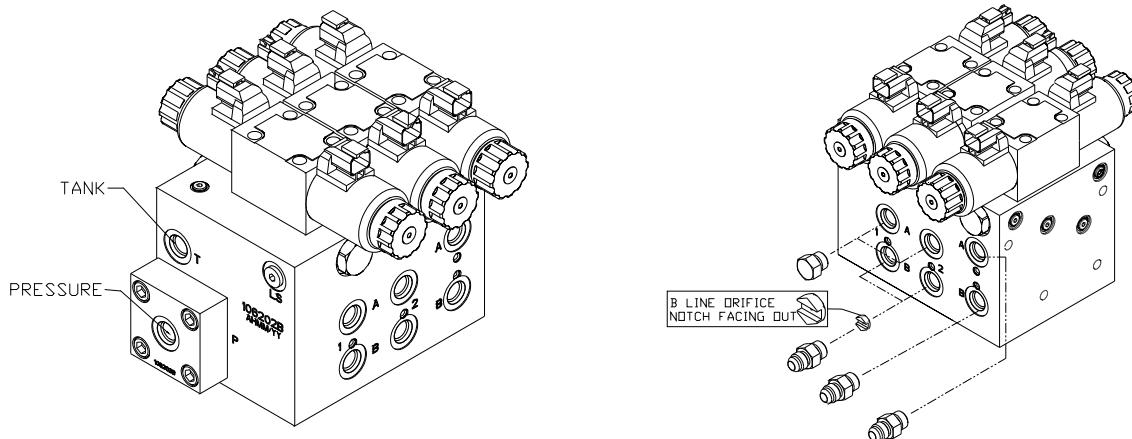


Figure 24: NORAC Valve Block Details

9.2 Valve Block Mounting

1. A suitable mounting location for the valve block is illustrated in **Figure 25**.
2. Insert the threaded rod into the block and use a hex nut to hold the rod. The block holes are 3/8" NC-1" deep. If bolts are used instead of the threaded rod, ensure the bolts thread in at least 3/8".
3. Use the remaining hardware to secure the block to the sprayer.
4. Cut off excess threaded rod, if necessary.

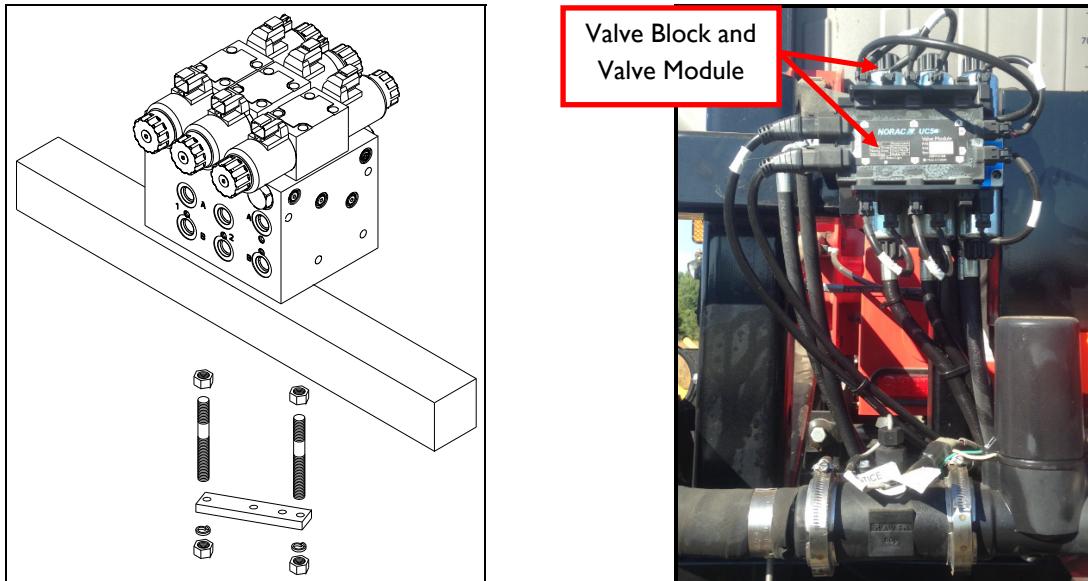


Figure 25: Valve Block Mounting

9.3 Wing Roll Cylinder Mounting

1. Install the wing roll cylinder mounting bracket (B07) on the boom frame. Clamp bracket to boom frame using supplied hardware. Tighten hardware to 30-40 ft-lb (41-54 Nm).
2. Mount the wing roll cylinder (H20) to the bracket using the supplied 12mm x 200mm bolts (M04) and lock washers (included with the bracket). Install the wing roll cylinder with the cable end pointing towards the right-hand wing (when looking from the rear of the sprayer). Tighten mounting bolts to 60-70 ft-lb (81-95 Nm).
3. Route the wing roll cylinder sensor cable to the 8-way coupler (E11).

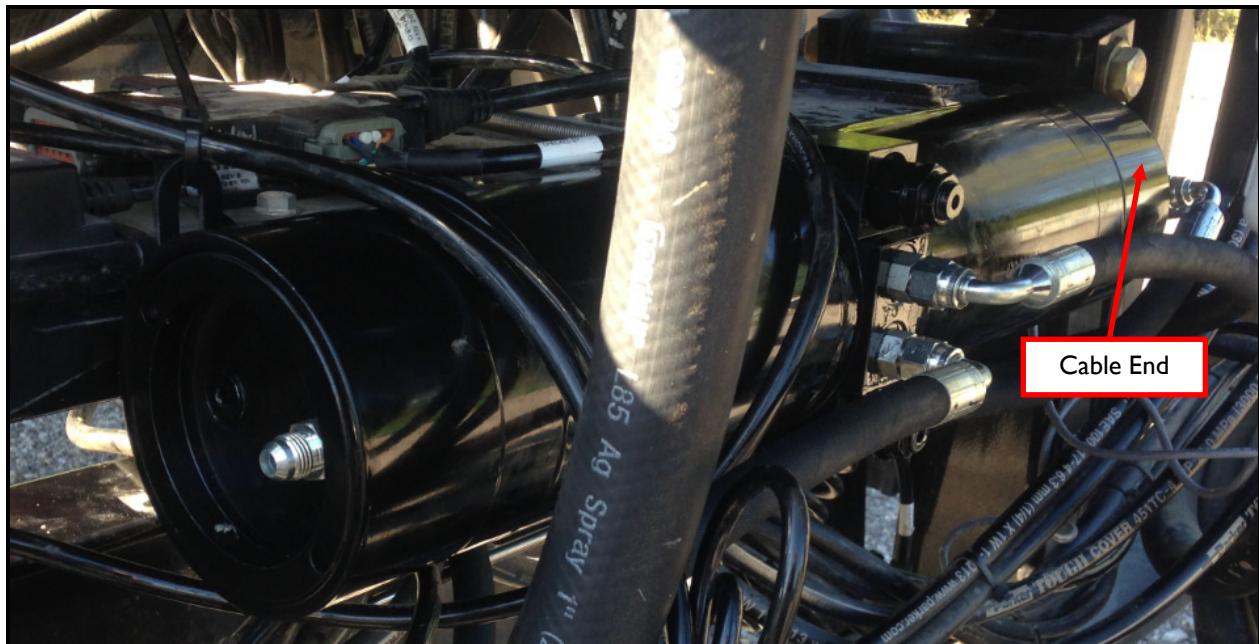


Figure 26: Wing Roll Cylinder Installed on the Boom Frame

9.4 Hydraulic Plumbing

❗ Warning!

From this point on in the installation the booms will be inoperative until the hydraulics are fully installed.

1. After the NORAC valve is mounted, the hydraulic hoses and fittings can be plumbed. The plumbing for the hydraulic circuit is shown schematically in **Figure 3**.
2. Disconnect the tilt cylinder “raise” lines from the sprayer valve block and insert the 6FJXR-6MJT tees (F04). Reconnect the “raise” lines.
3. Connect straight end of two hoses (H01) to the free end of the tees (F04).
4. Install 6FJXR-6MJT tees (F13) onto the “B” ports on the NORAC valve block.
5. Connect the other end of the hoses (H01) to the tee fittings (F13) the “B ports” on the NORAC valve block.
6. Disconnect the pressure hose from the sprayer valve block and insert a 6FJXR-6MJT tee (F04). Use the 8FJXR-8MJT tee (F07) if needed.
7. If the F04 tee was used, connect the straight end of hose H01 to the free end of the tee. If the F07 tee was used, connect the straight end of hose H02 to the free end of the tee.
8. Connect the other end of the hose to the pressure port on the NORAC valve block.
9. Disconnect the tank hose from the sprayer valve block and insert a 6FJXR-6MJT tee (F04). Use the 8FJXR-8MJT tee (F07) or the 10FJXR-10MJT tee (F10) if needed.
10. If the F04 tee was used, connect the straight end of hose H01 to the free end of the tee. If the F07 tee was used, connect the straight end of hose H02 to the free end of the tee. If the F10 tee was used, connect the 10FJ-6MJ adapter (F11) to the free end of the tee. Connect the straight end of hose H01 to F11.
11. Connect the other end of the hose to the tank port on the NORAC valve block.
12. Connect the 90 degree end of hose H03 to the tee (F13) on the left “raise” (“B”) line.
13. Connect the 90 degree end of hose H01 to the tee (F13) on the right “raise” (“B”) line.
14. Install four (4) 6MB-6MJ fittings (F12) onto the ports on the wing roll cylinder (H20).
15. Install a 6MJ-6FJX90 fitting (F14) onto the F12 fitting on the cable end port of the wing roll cylinder (H20).

16. Connect hose H01 from the right “raise” line to the outer port on the cable end of the wing roll cylinder (H20).
17. Connect hose H03 from the left “raise” line to the outer port on the opposite end of the wing roll cylinder (H20).
18. Connect hose H03 between the “A” port on the wing roll cylinder (H20) and the “A” port on the NORAC expansion block with the 90 degree end on the wing roll cylinder.
19. Connect hose H03 between the “B” port on the wing roll cylinder (H20) and the “B” port on the NORAC expansion block with the 90 degree end on the wing roll cylinder.

9.4.1 Pommier Boom Installations

NOTE: The following steps are only for Pommier boom installations.

1. Open the needle valves all the way (**Figure 28**).
2. Remove the accumulator and install a 1.2mm 5mm thick orifice (H05) between the accumulator and the existing fitting (**Figure 29**).

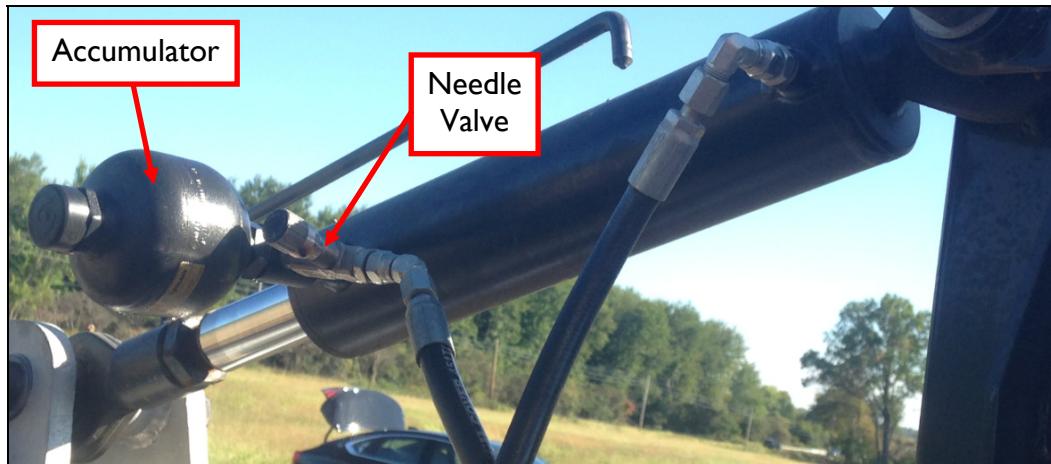


Figure 27: Accumulator and Needle Valve Location on Pommier Boom



Figure 28: Needle Valve Opened (Pommier Boom)



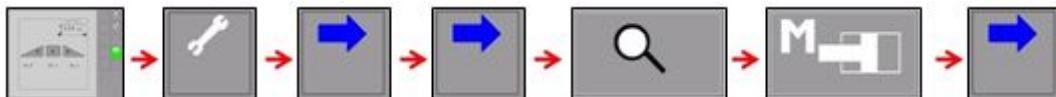
Figure 29: Accumulator Orifice (H05) (Pommier Boom)

10 Wing Roll Cylinder Air Bleed Procedure

After installing the Wing Roll Cylinder, air will have to be removed from the system. The following is a step by step procedure for bleeding air from the system using both the sprayer joystick and the NORAC manual valve drive screen.

10.1 Using a Virtual Terminal (VT) or PULSE™ Display

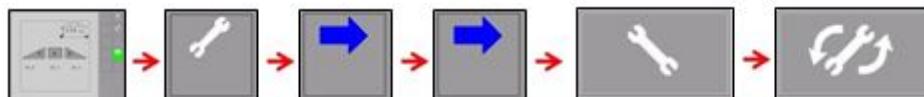
1. Remove the air from the tilt cylinders, using the sprayer's joystick controls.
 - a) Move the left tilt cylinder full stroke three times.
 - b) Move the right tilt cylinder full stroke three times.
2. The NORAC screen on the VT or PULSE must be used to remove air from the roll channel:
 - a) Start an Automatic Install.
 - i) If this is a new install, the system will automatically start an automatic install.
 - ii) If an install has already been performed, follow the icons in step 3 to start the install.
 - b) Select the appropriate sprayer make and model on the screen.
 - c) Read the disclaimer menus and move through the screens.
 - d) At the screen reading “level the boom at 35in”, press the button with a house on it to exit the install and return to the main run screen.
 - e) Using the sprayer’s controls raise the boom center to the maximum height and level the wings.
 - f) Follow the symbols below to navigate to the manual valve drive screen.



- g) Use the roll arrows to roll the boom over as far as possible in each direction a few times, allowing the air to escape. ***Don't adjust the wings individually, only use the roll arrows.**



- h) Stop with the wings at approximately the same height.
 - i) Ensure that each roll button allows for the boom to rotate in both directions. If the boom doesn't roll in one direction, roll it the opposite way and adjust the wings to their level position.
3. Run a complete automatic install.



II Software Setup

1. Start up the sprayer and test the sprayer's functionality. The display terminal does not need to be powered on for the original boom function switches to operate. Unfold the booms and raise/lower each boom and the main section.

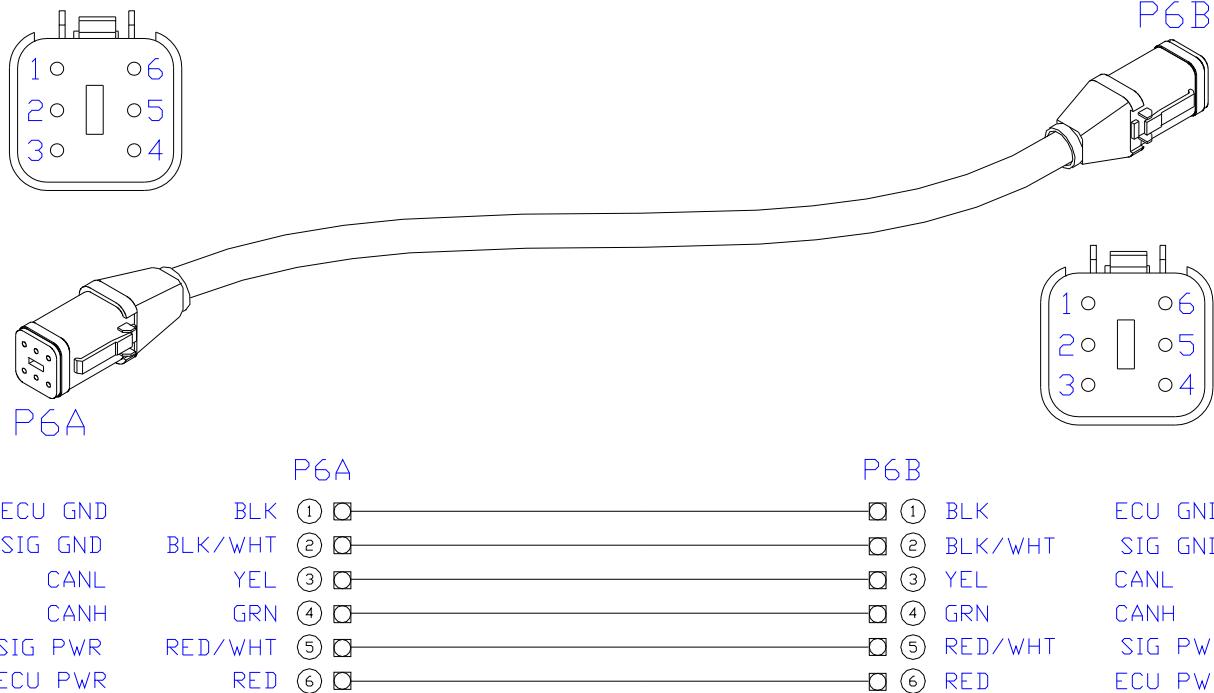
Important

Confirm that the cabling and hoses are agreeable to the entire range of motion.

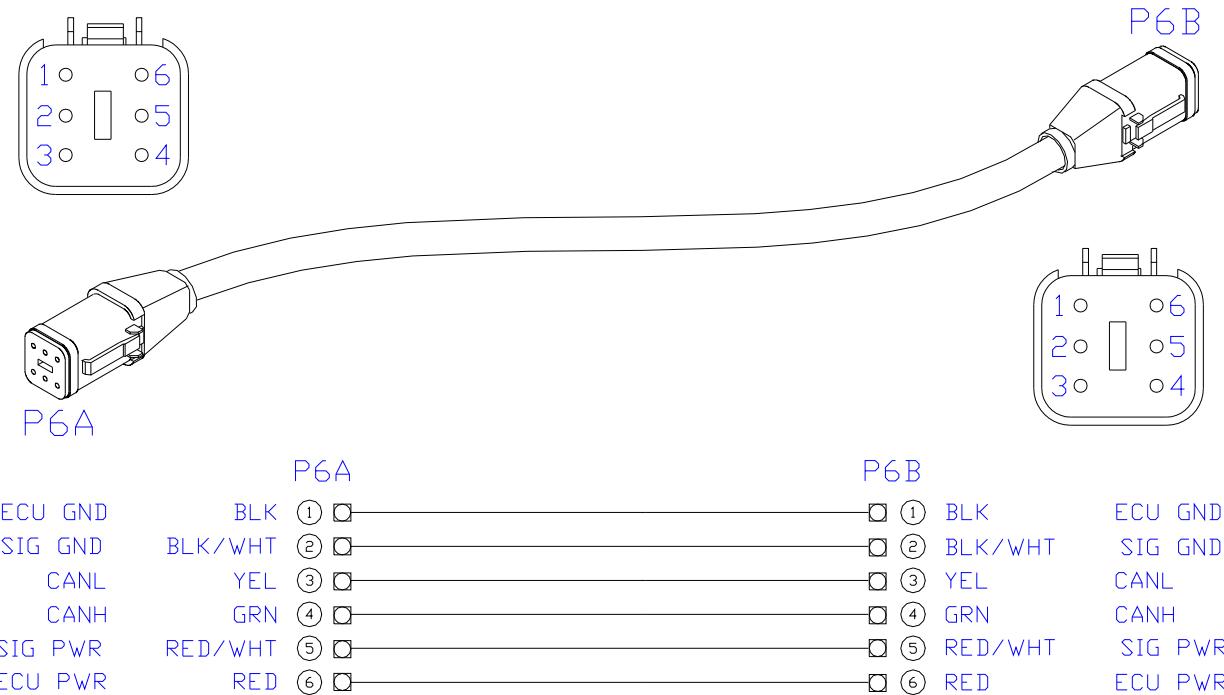
2. If any functions do not work, review the hydraulic and electrical portions of this manual to check for proper installation.
3. Turn on the power for the display terminal using the switch on the side.
4. The procedure for the installation of the UC5 Spray Height Control system is now complete. Begin the AUTOMATIC SYSTEM SETUP procedure as described in the UC5 Spray Height Control Operator's Manual.

I2 Cable Drawings

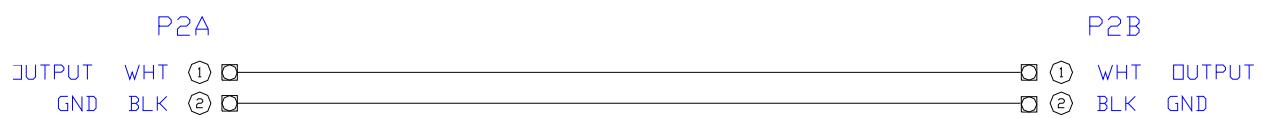
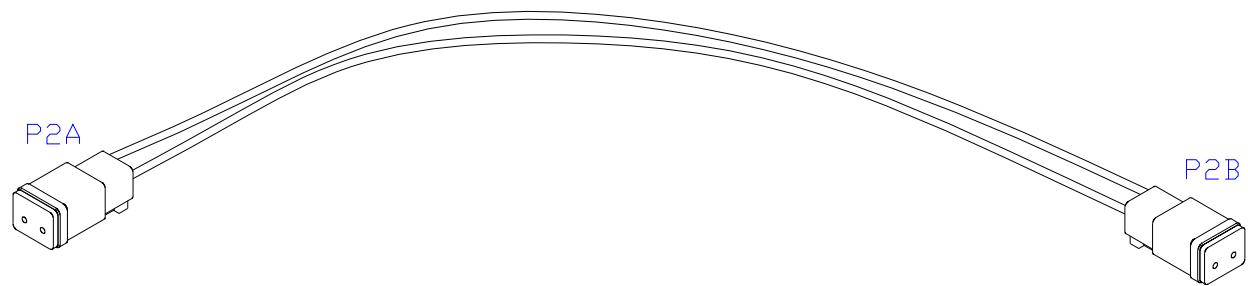
12.1 ITEM C01: 43220-10 - CABLE UC5 NETWORK 14 AWG - 10M



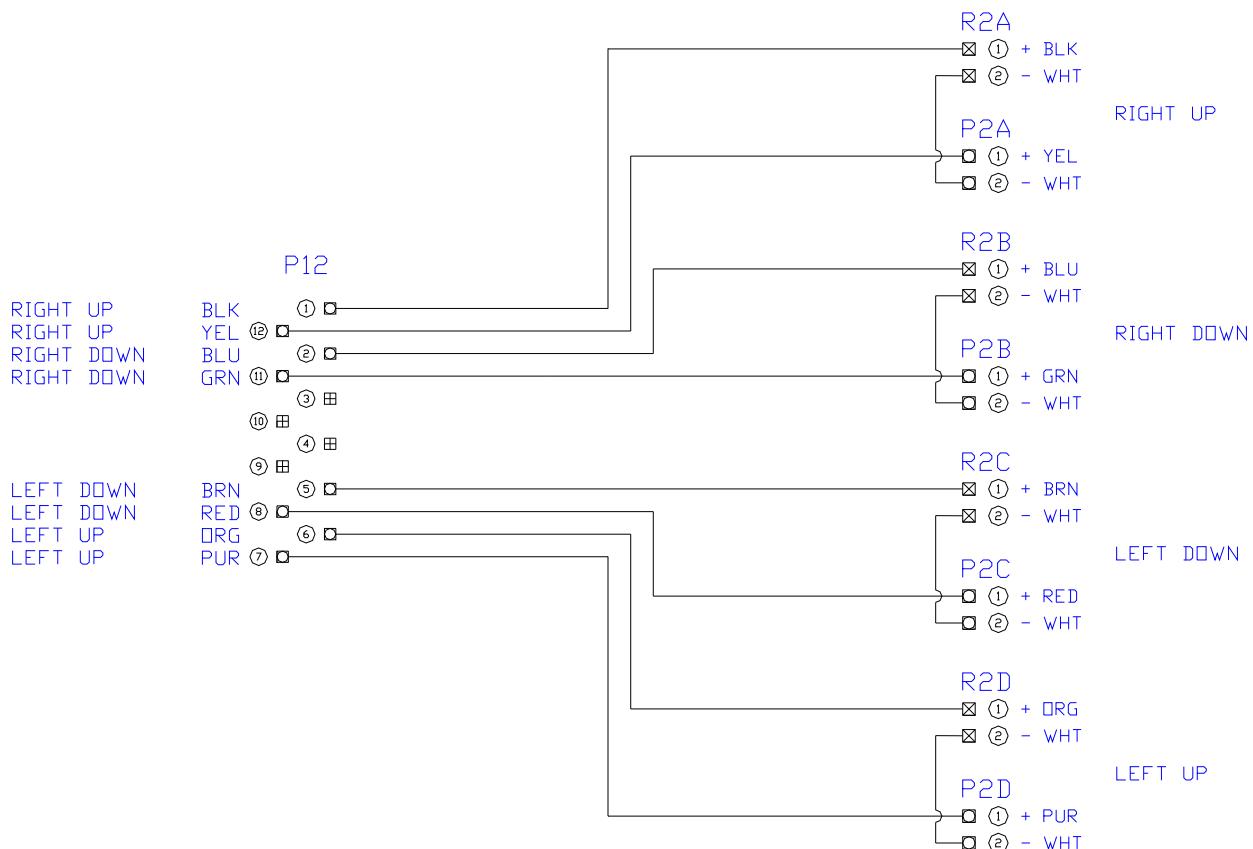
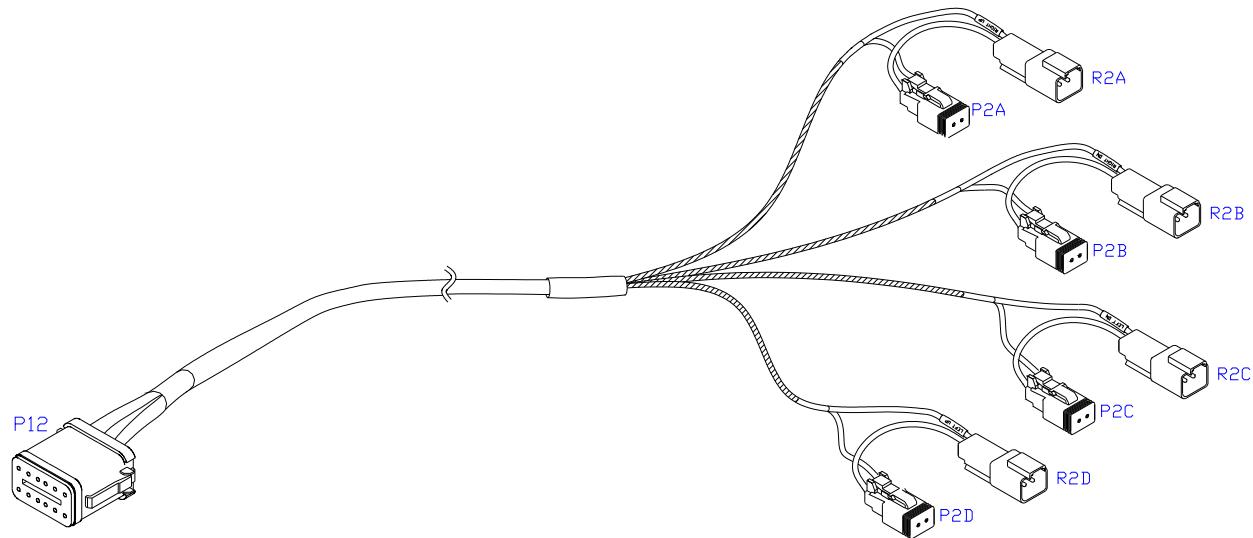
12.2 ITEM C02: 43220-01 - CABLE UC5 NETWORK 14 AWG - 1M



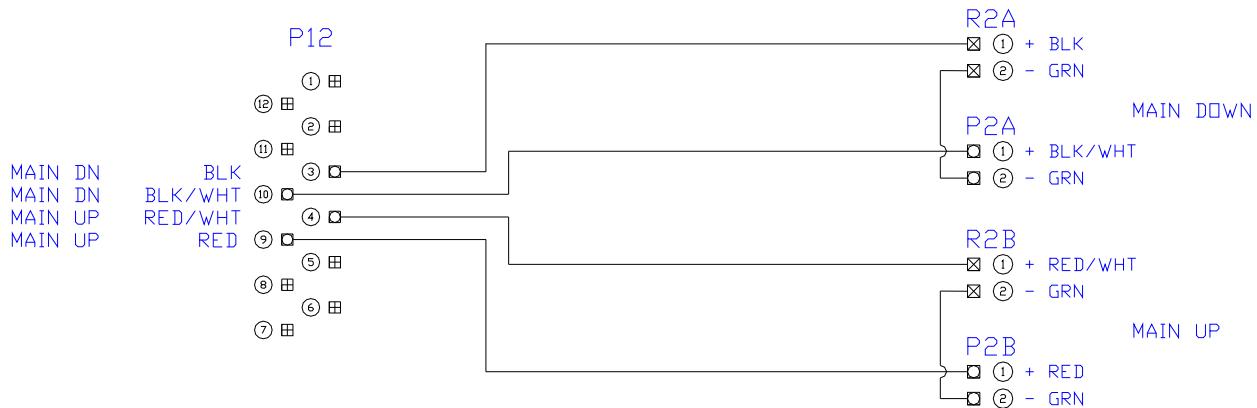
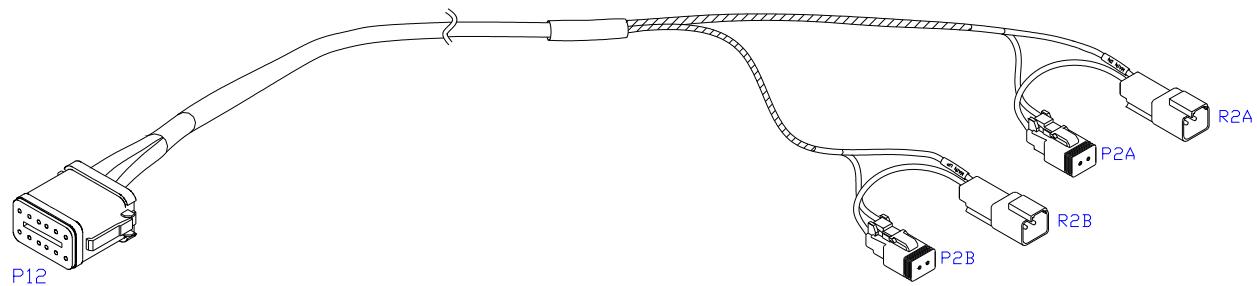
12.3 ITEM C10: 43230-04 – CABLE UC5 VALVE DT TO DT



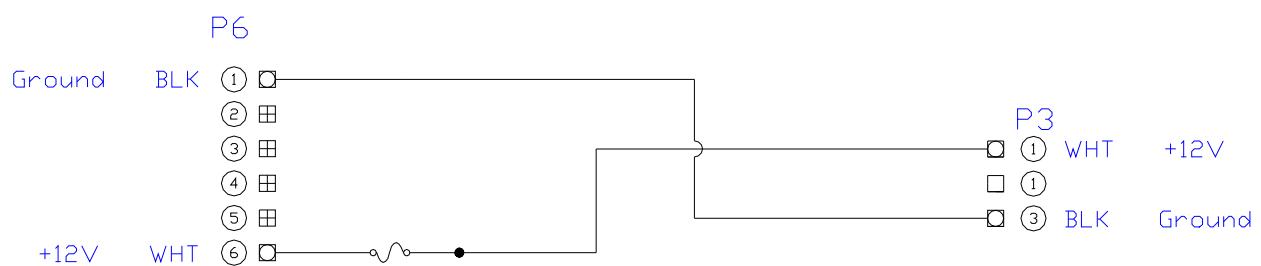
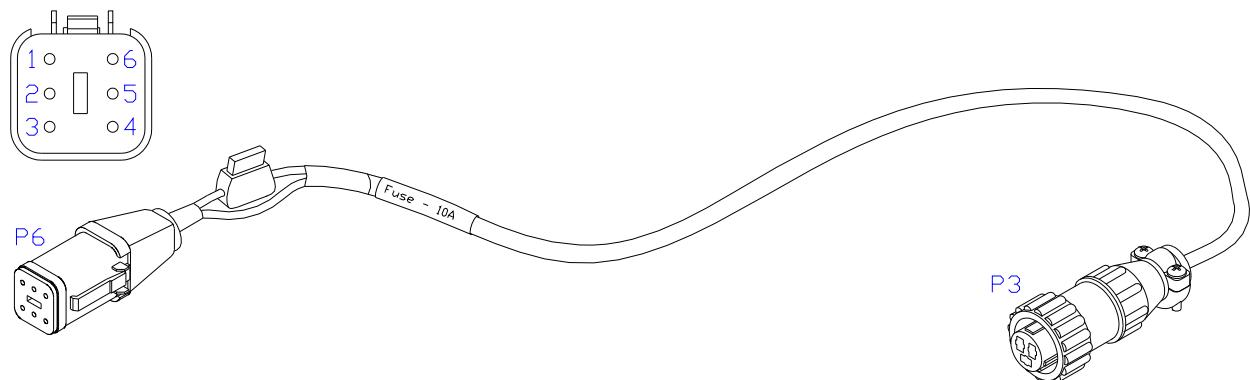
12.4 ITEM C20: 43240-01 – CABLE UC5 INTERFACE TILT DT



12.5 ITEM C21: 43240-22 – CABLE UC5 INTERFACE MAIN DT (240")



12.6 ITEM C30: 43250-04 – CABLE UC5 BATTERY AMP FUSED



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