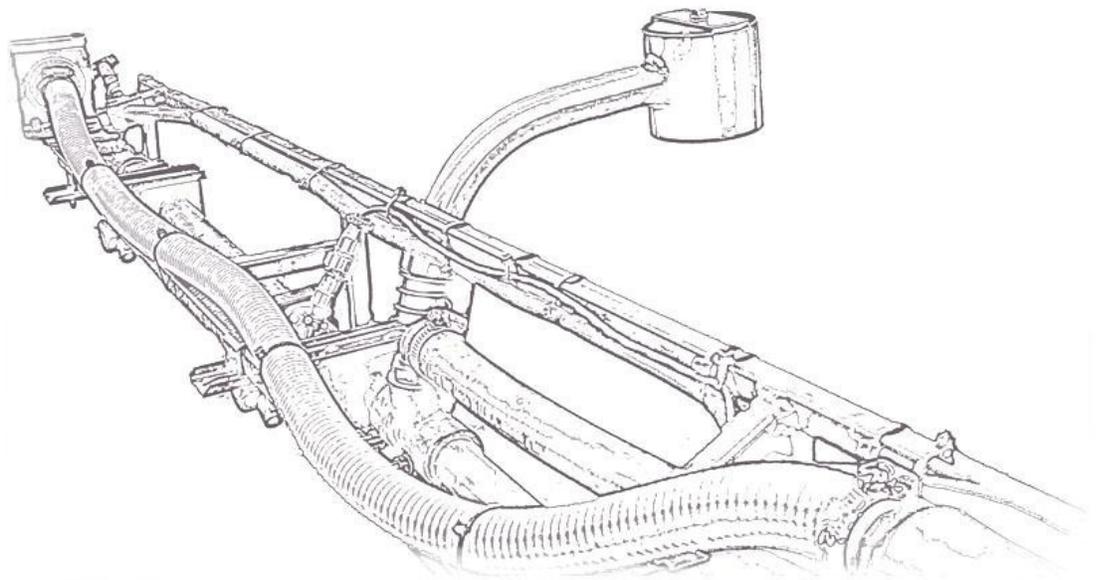




# UC5<sup>TM</sup> CAN BUS Spray Height Control System



## HARDI DAH09 Passive Roll SPB/SPC Eagle and FTZ/HAZ Force/Twin Installation Manual

Printed in Canada

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Reorder P/N: UC5-BC-HD08-INST Rev B (HARDI DAH09 SPB/SPC Eagle and FTZ/HAZ  
Force/Twin Booms Passive Roll)

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**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

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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

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### **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 1: System Specifications**

Supply Voltage (rated)	12VDC
Supply Current (rated)	5A
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 I illustrates the general layout of the UC5 system components:

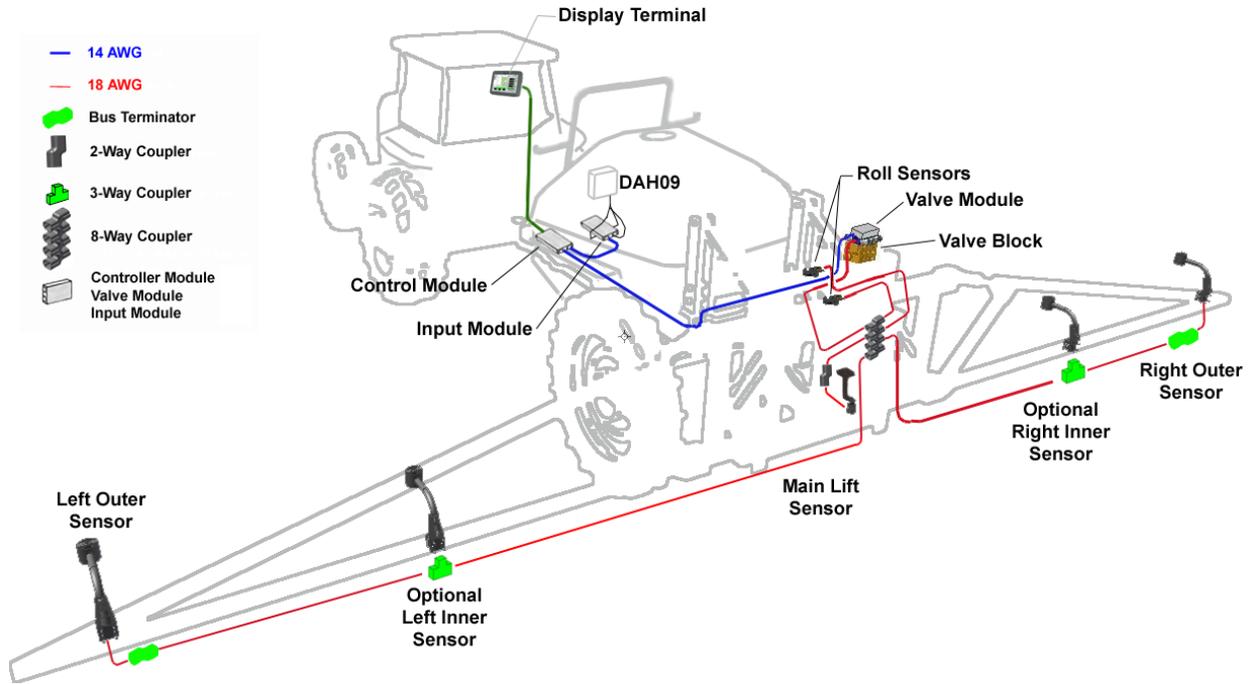


Figure I: General UC5 System Layout

## 4 Kit Parts

### 4.1 Kit Overview

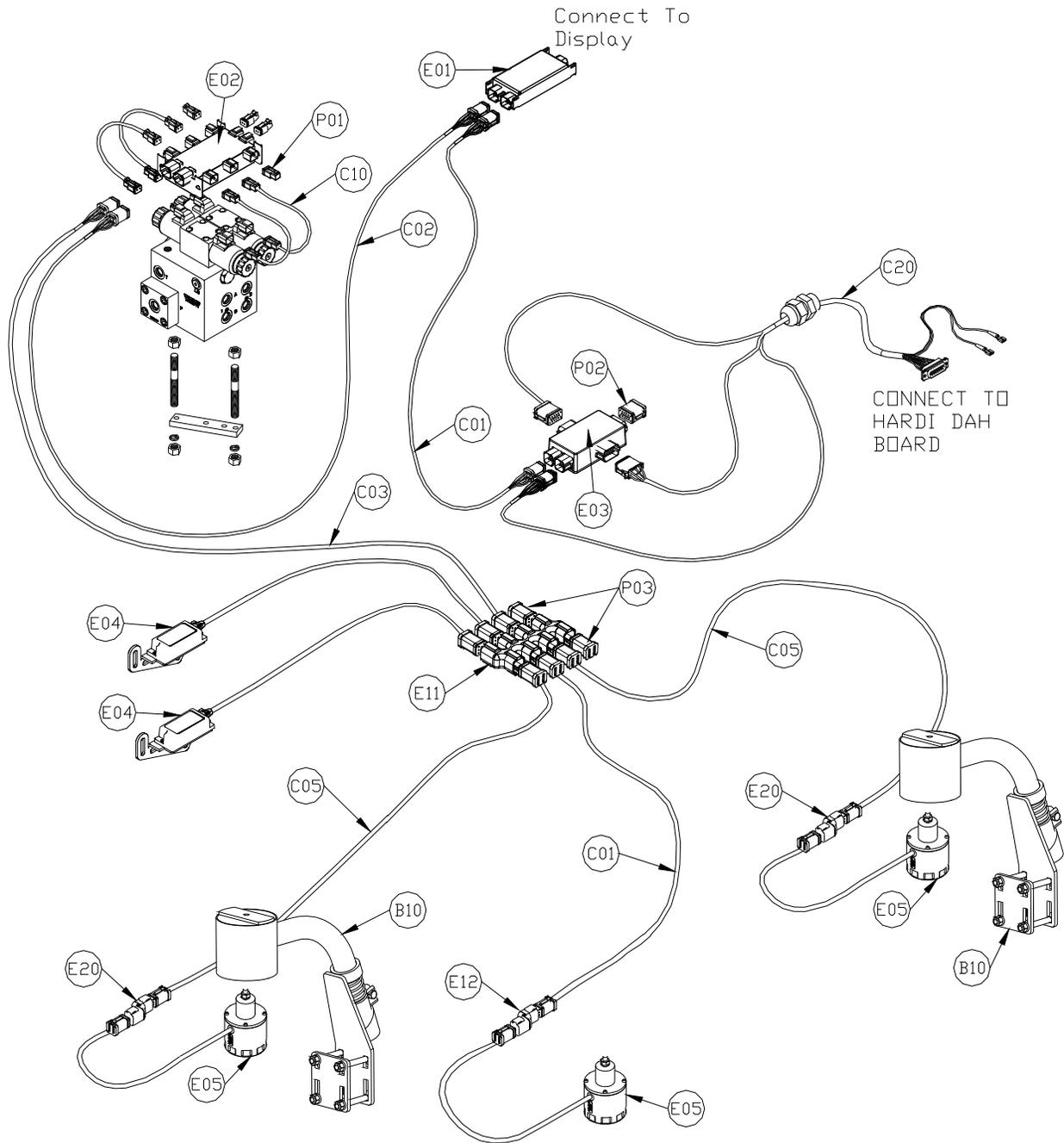
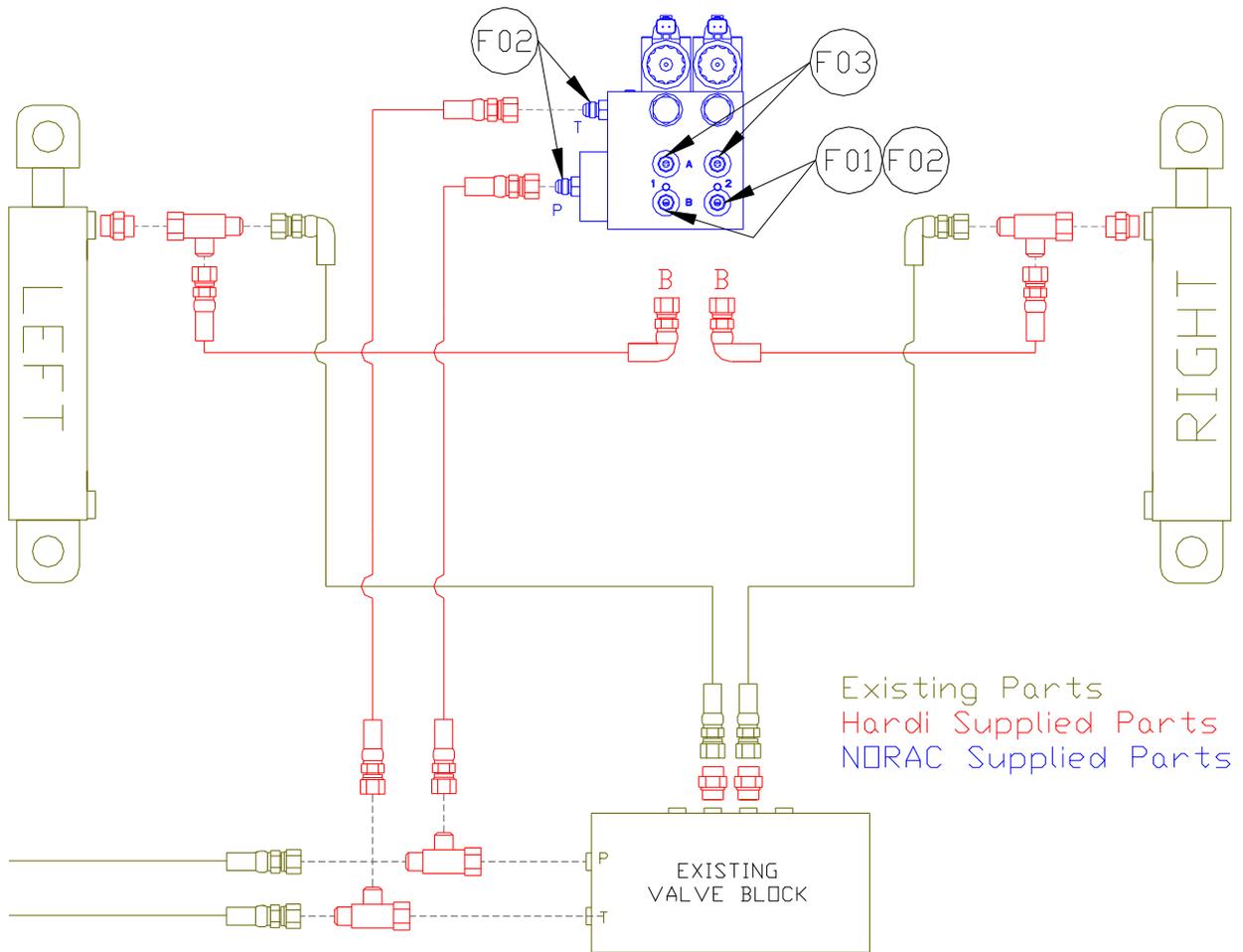
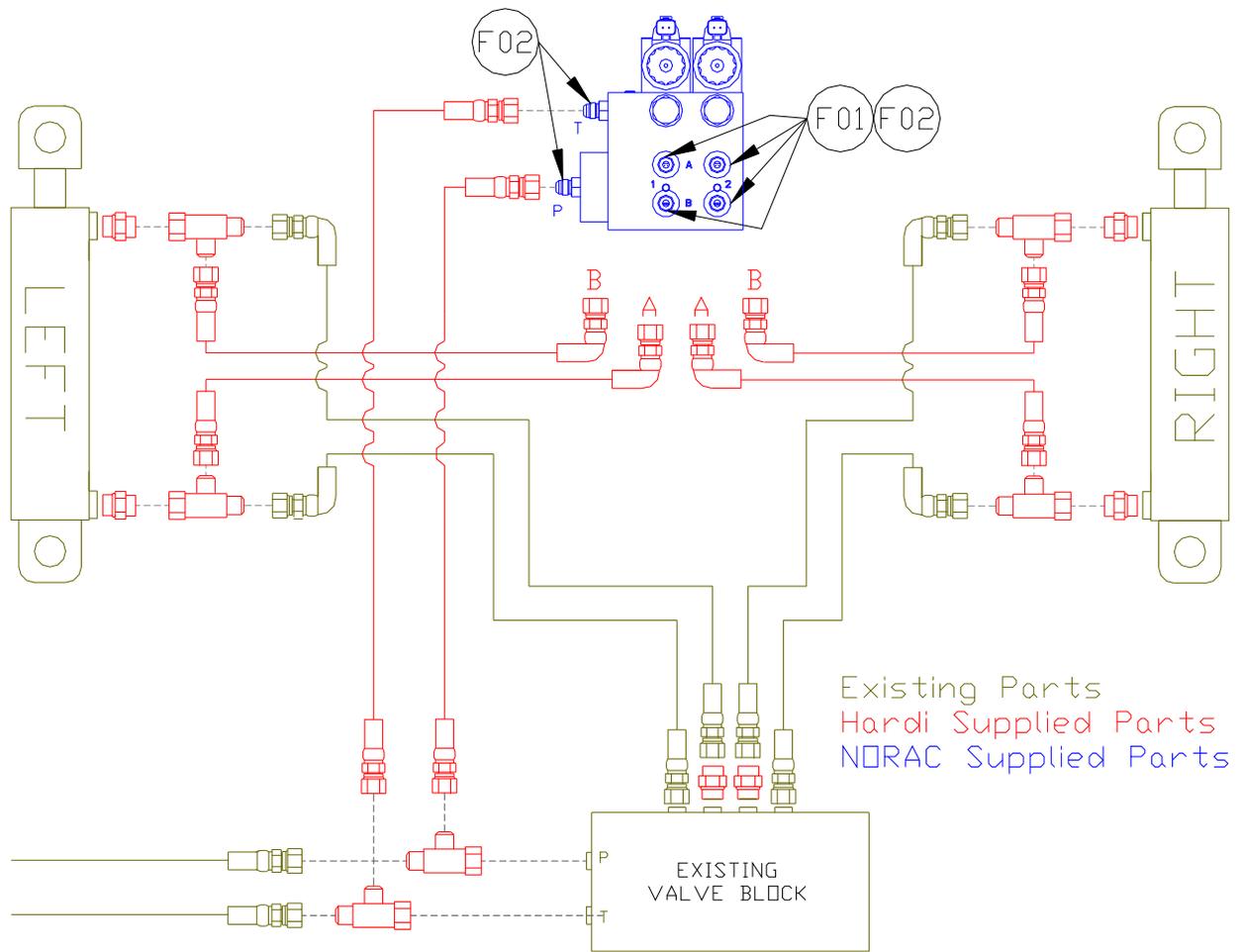


Figure 2: HD08 System Parts

## 4.2 Hydraulic Plumbing



**Figure 3: HD08 Hydraulic Plumbing: Single Acting (FTZ/HAZ Force/Twin Booms)**



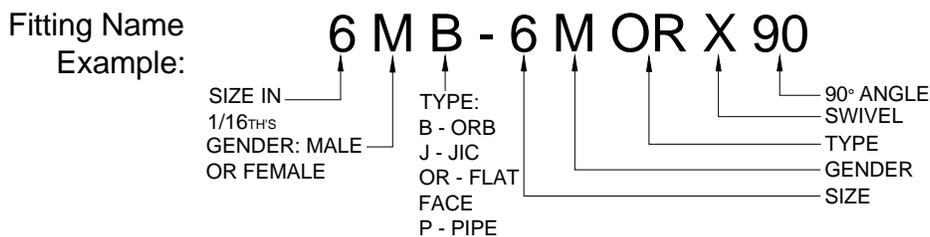
**Figure 4: HD08 Hydraulic Plumbing: Double Acting (SPB/SPC Eagle Booms)**

### 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
B10	44728	MOUNTING BRACKET COMPLETE UC4 BREAKAWAY EXTENDED	2
C01	43220-01	CABLE UC5 NETWORK 14 AWG 1M	2
C02	43220-10	CABLE UC5 NETWORK 14 AWG 10M	1
C03	43220-0.5	CABLE UC5 NETWORK 14 AWG 0.5M	1
C05	43210-20	CABLE UC5 NETWORK 18 AWG 20M	2
C10	43230-04	CABLE UC5 VALVE 2PIN DT TO 2PIN DT	4
C20	43240-30	CABLE UC5 BC HARDI DAH09	1
E01	43710	UC5 CONTROLLER MODULE	1
E02	43720	UC5 VALVE MODULE	1
E03	43732	UC5 INPUT MODULE PASS THRU	1
E04	43741	UC5 ROLL SENSOR VER. 2	2
E05	43750	UC5 ULTRASONIC SENSOR	3
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
H10	44865-68	HYDRAULICS FITTING KIT - HD08	1
M02	UC5-BC-HD08-INST	MANUAL INSTALLATION UC5 HARDI DAH09 PASSIVE ROLL	1
M06	45015	ANTI-SEIZE LUBRICANT KIT	1
P01	106034	UC5 NETWORK 2 PIN PLUG	4
P02	106602	UC5 NETWORK 12 PIN PLUG (A-KEY)	1
P03	105882	UC5 NETWORK 6 PIN PLUG	2
V01	44963D	VALVE BLOCK ASSEMBLY 2 STATION CC/LS PROP DT 4 BOLT	1

#### 4.4 Hydraulic Fitting Kit Details (P/N: 44865-68)

Item	Part Number	Name	Quantity	Picture
F01	44928	ORIFICE INSERT .047 IN ONE WAY	4	
F02	44917	MALE ADAPTER - 6MB-6MOR MACHINED ORB	6	
F03	104369	PLUG - 6MBP	2	



#### Important

The **6MBP** plugs (F03) are only used for the single acting plumbing installation.

#### 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 (M06)** to all threaded parts upon installation. **Permatex Anti-seize** lubricant is preferred, but other similar anti-seize products may be used.

#### 4.5 Optional Pressure and Tank Hose Kit (P/N: 44865-49)

If a separate pressure and tank line from the tractor to the **NORAC** valve block is required, the hoses and fittings can be ordered as a kit (P/N: 44865-49).

Part Number	Name	Quantity
44863-11	HOSE ASSEMBLY 122R2-06 402 IN L 6FJX 8MB WITH QUICK COUPLER	2
103312	MALE ADAPTER - 6MB 6MJ	2

## 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 5**.

### ⚠ Important

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

<input type="checkbox"/>	<input type="checkbox"/>	Inner Fold	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Outer Fold	<input type="checkbox"/>
	IN	OUT	Engine RPM
Left Tilt Up Full Stroke	<input type="checkbox"/>	<input type="checkbox"/>	Right Tilt Up Full Stroke
	↑	↑	↑
	Main Lift Up, Full Stroke		
	Main Lift Down, Full Stroke		
Left Tilt Down Full Stroke	<input type="checkbox"/>	<input type="checkbox"/>	Right Tilt Down Full Stroke
	↓	↓	↓
	<input type="checkbox"/>	<input type="checkbox"/>	
	↶	↷	
	Roll CCW (Slant Left)	Roll CW (Slant Right)	

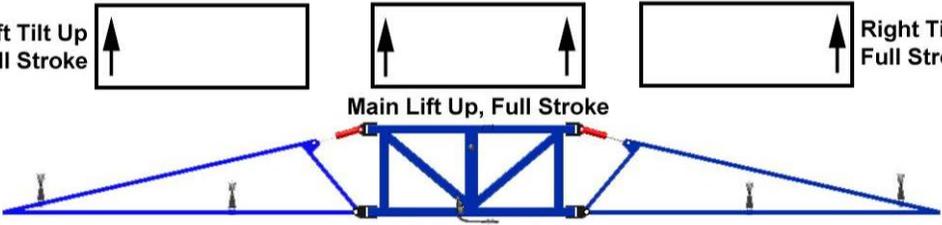
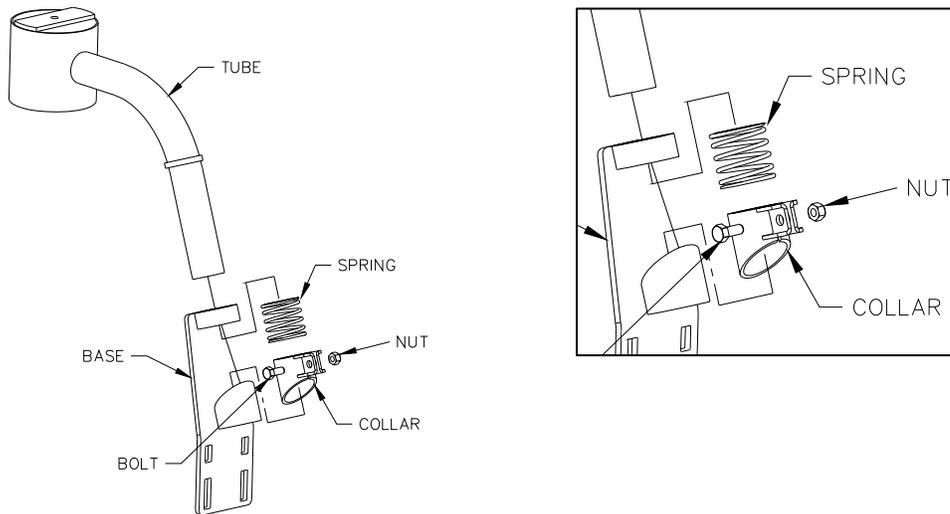


Figure 5: Pre-Install Boom Speeds

## 6 Ultrasonic Sensor Installation

### 6.1 Bracket Assembly

Assemble the breakaway sensor bracket as illustrated in **Figure 6**, following the instructions below.



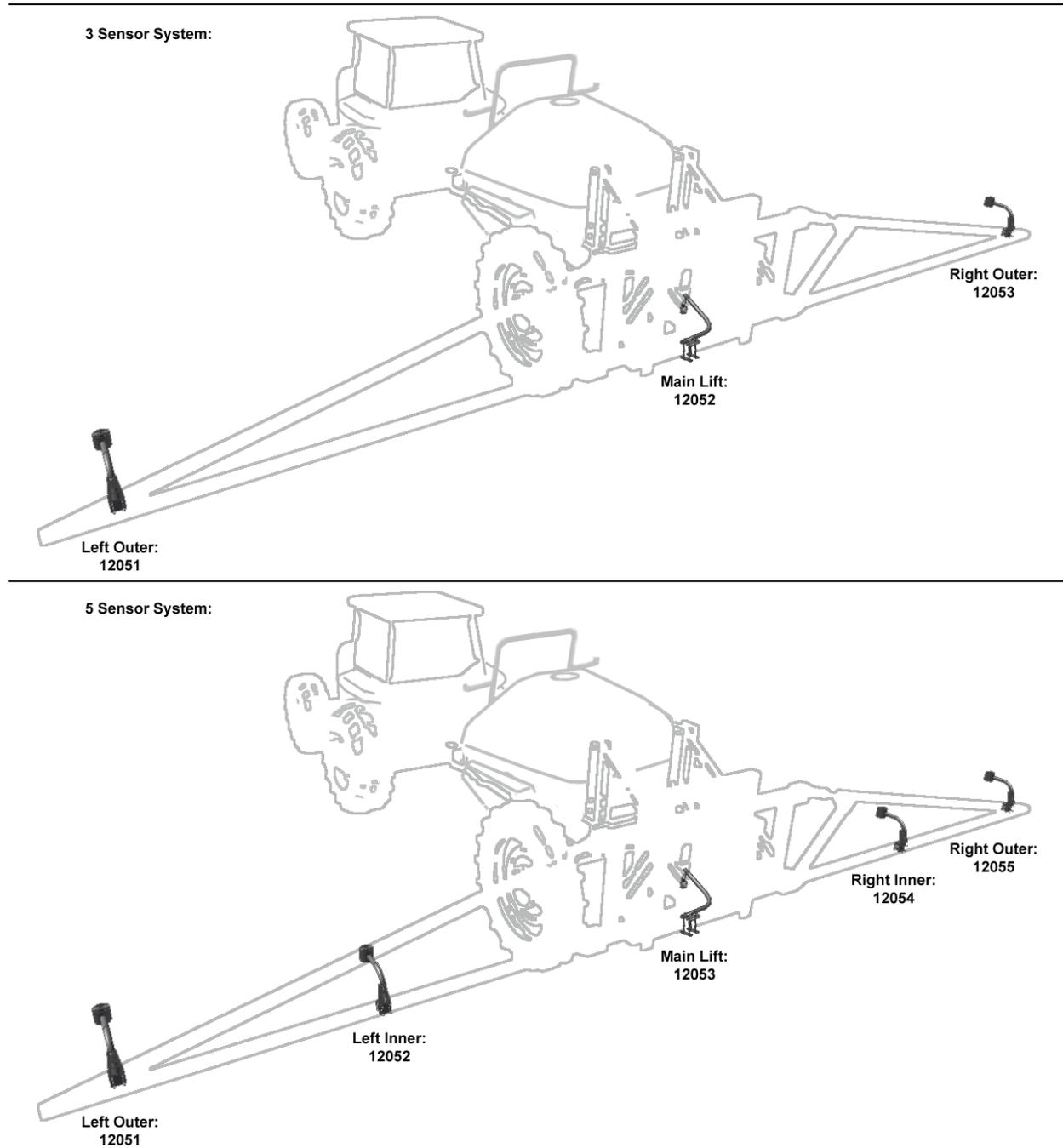
**Figure 6: Breakaway Bracket Assembly**

1. Compress the spring and insert it together with the collar into the base.
2. Slide the tube through the assembled part.
3. Using the bolt and nut, tighten the collar to the tube with the sensor tube centered.
4. Apply a small amount of grease to the rotating surfaces of the bracket.

## 6.2 Ultrasonic Sensor Serial Number Arrangement

When installing the UC5 sensors, start with the smallest serial number on the left-hand side, and proceed to the largest serial number on the right hand side. Each UC5 sensor has a serial number stamped on the sensor housing.

**Apply a light coating of the supplied Permatex Anti-seize grease (M06) to all threaded parts upon installation.**



**Figure 7: Sensor Serial Number Arrangement**

### 6.3 Ultrasonic Sensor Mounting Guidelines

The following guidelines will ensure optimal sensor performance and prevent sensor measurement error. These rules should be followed for both the wing sensors and the main lift (middle) sensor.

1. In its lowest position, the sensor must be 9 inches (23 cm) or more from the ground (**A**).
2. The centerline of the acoustic cone should be approximately vertical at normal operating heights (**A**).
3. The bottom of the sensor must be at least 9 inches in front of the spray nozzles and boom structure (**B**). (This does not apply for the main lift sensor)
4. The bottom of the sensor must be at least 9 inches above the spray nozzles (**C**).
5. Ensure there are no other obstructions with a 12 inch (23 cm) diameter circle projected directly below the sensor (**D**).

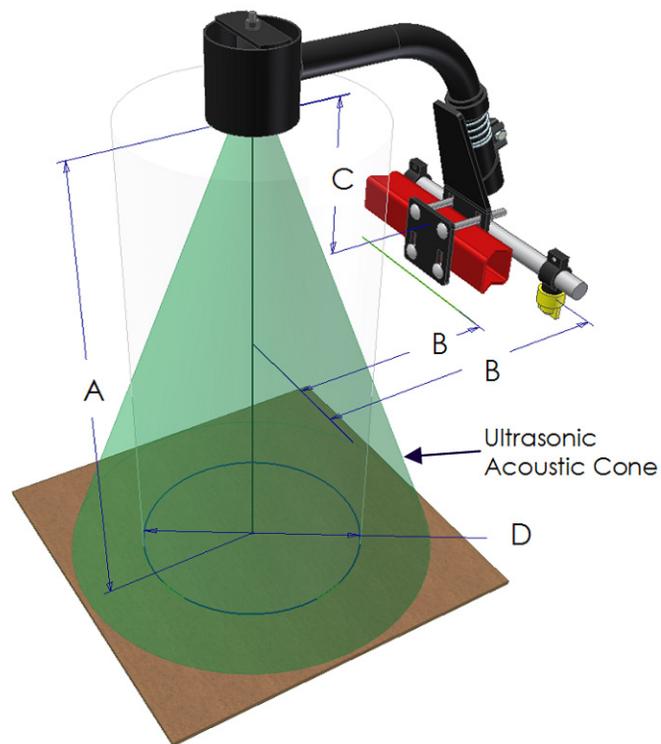


Figure 8: Sensor Mounting Guidelines

## 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 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 NORAC UC5 ultrasonic sensor into the sensor bracket and run the sensor cable through the sensor tube.

### 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.**



**Figure 9: Sensor Reading Off Boom**

## 6.5 Main Lift Sensor Installation

1. 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 10**.
2. Mount the ultrasonic sensor to the main lift bracket.

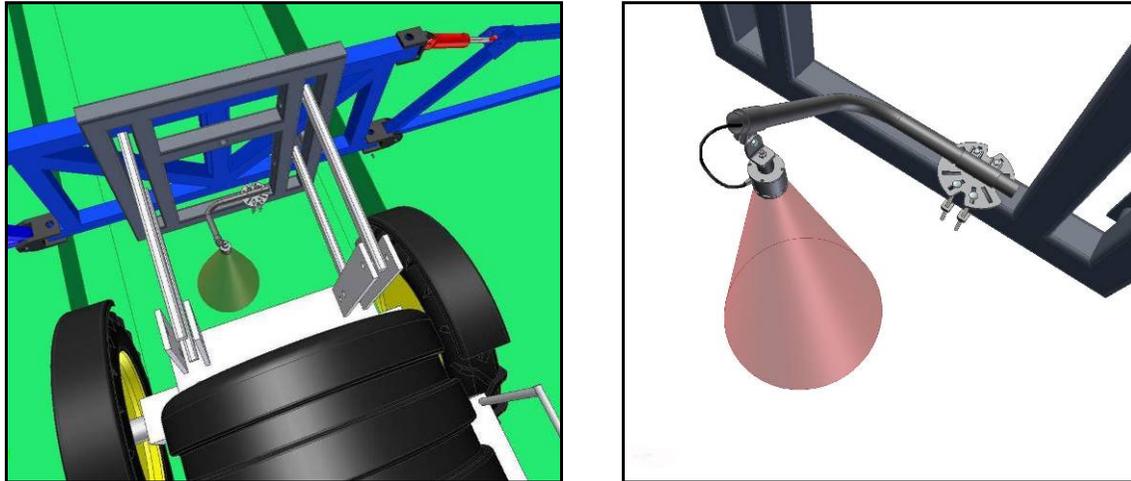


Figure 10: Example Mounting of the Main Lift Bracket

### 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.**

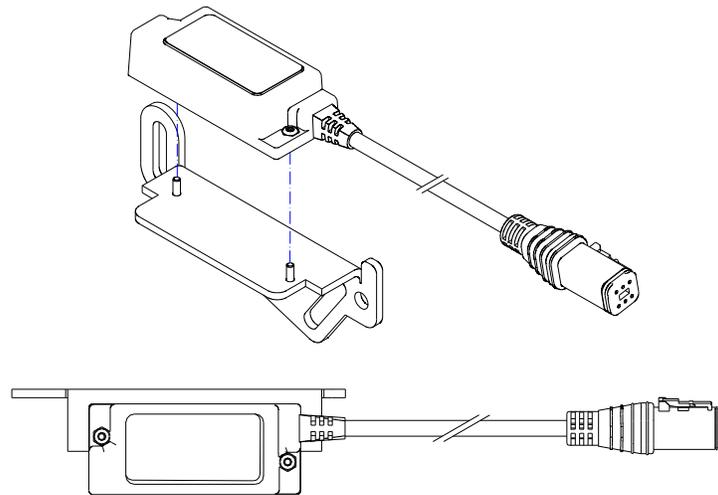
**Ensure the bracket does not collide with any other part of the sprayer throughout the full range of main lift motion.**

## 7 Roll Sensor Installation

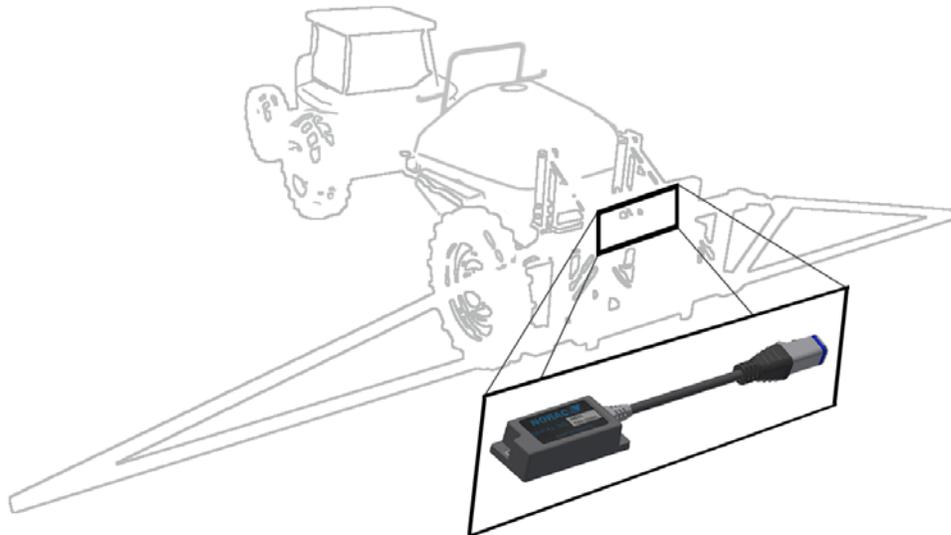
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### 7.1 Bracket Assembly

1. Securely mount the roll sensors to the included roll sensor brackets using the #6 machine screws.
2. The orientation of the mounted roll sensor to the roll sensor bracket will depend on the bracket mounting. The roll sensor CANbus connector must be pointing towards the right side of the sprayer (when looking from the rear of the sprayer).



**Figure 11: Mounting Roll Sensor to Bracket**



**Figure 12: Roll Sensor Orientation - Connector Facing Right Wing**

## 7.2 Roll Sensor Mounting Guidelines: Trapeze-Suspended Booms

1. When mounting the roll sensors, mount one to the trapeze link (boom frame) and one to the trapeze support (chassis). For optimal performance, minimize the distance from the boom frame roll sensor to the pivot point (A) and minimize the vertical distance between the chassis roll sensor and the pivot point (B).

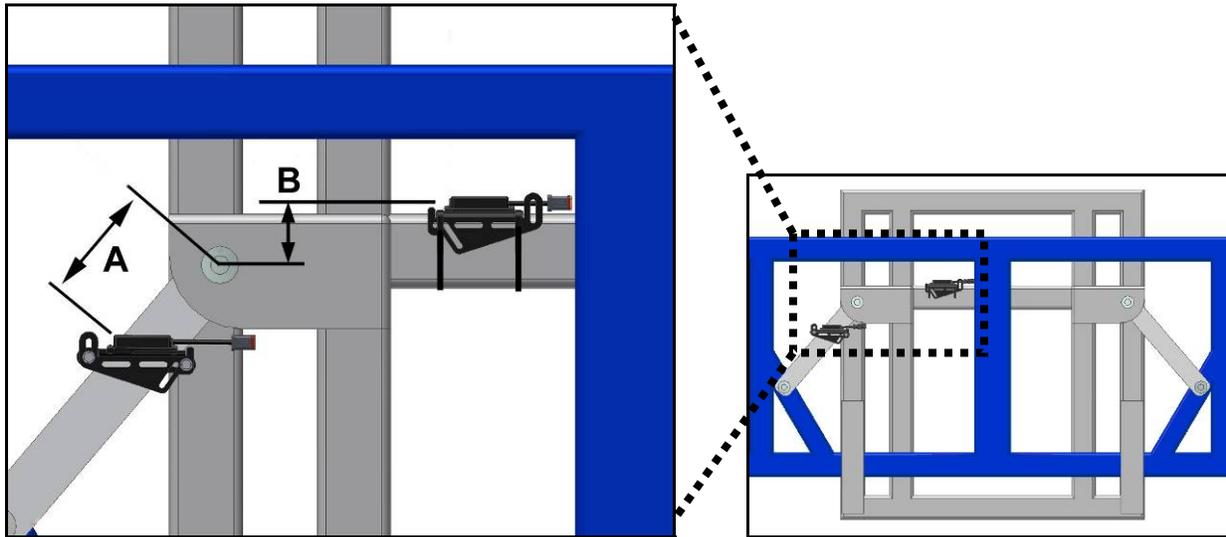


Figure 13: Roll Sensor Mounting on a Trapeze Suspended Boom

2. Ensure the roll sensors are relatively level when the sprayer boom and chassis are level.
3. Both roll sensor cables should be pointing towards the right hand wing of the sprayer.
4. Ensure both roll sensors are mounted adequately and that the cables provide enough slack to allow sufficient boom roll.

### 7.3 Roll Sensor Mounting on FTZ/HAZ Force/Twin Booms

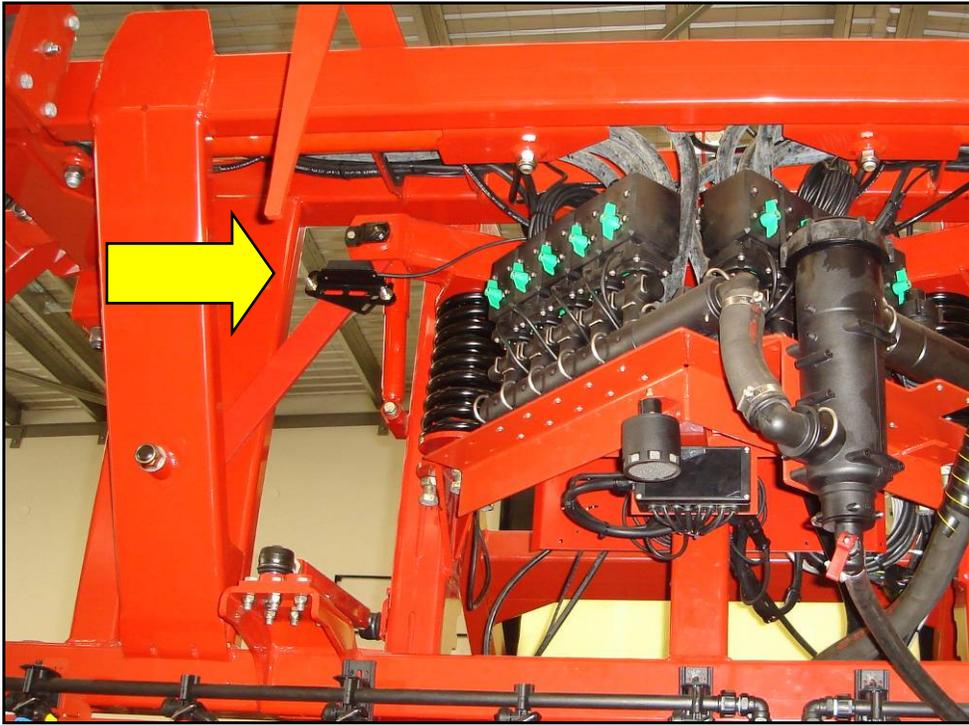


Figure 14: Boom Frame Roll Sensor Mounting (Viewed from the rear of sprayer)

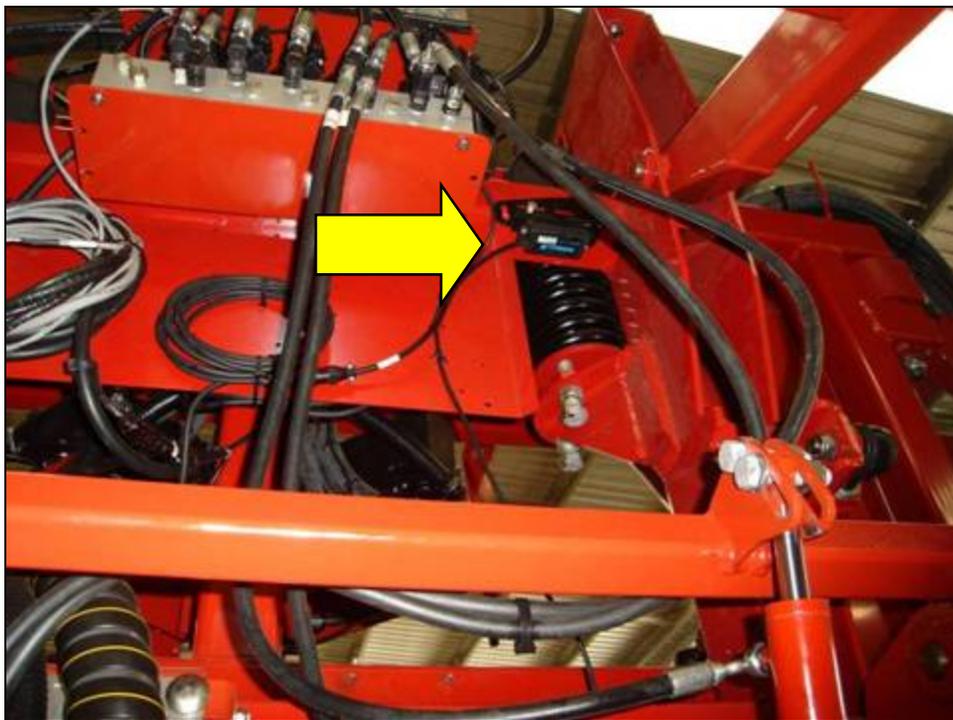


Figure 15: Chassis Roll Sensor Mounting (Viewed from the front of sprayer)



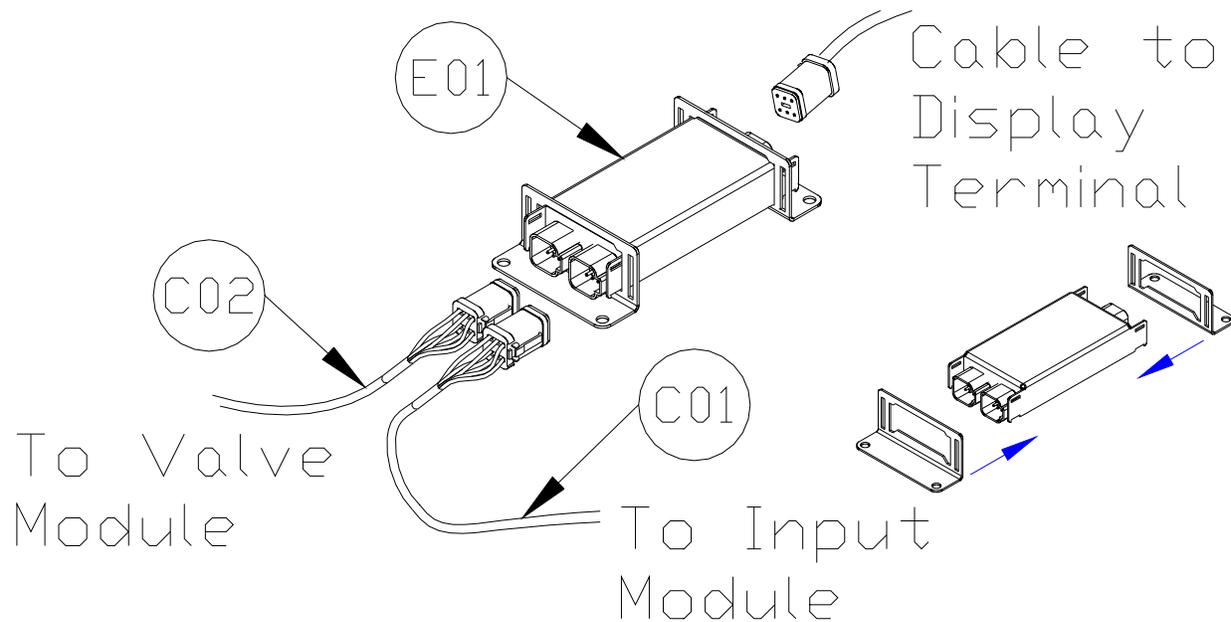
## 8 Module Installation

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

### 8.1 Control Module

1. Refer to **Figure 1** and **Figure 17**.
2. Securely mount the control module (E01) on the sprayer, within reach of the display terminal connections, using screws, cable ties or optional brackets.
3. Connect the display terminal to the control module using the display CANbus cable. This cable must be connected to the end of the control module with only one Deutsch connector.
4. Route cable C02 from one of the control module CAN connectors towards the valve block. This will connect to the valve module.
5. Route cable C01 from the other CANbus connector towards the DAH09 enclosure. This will connect to the input module.



**Figure 17: Control Module Mounting**

## 8.2 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.

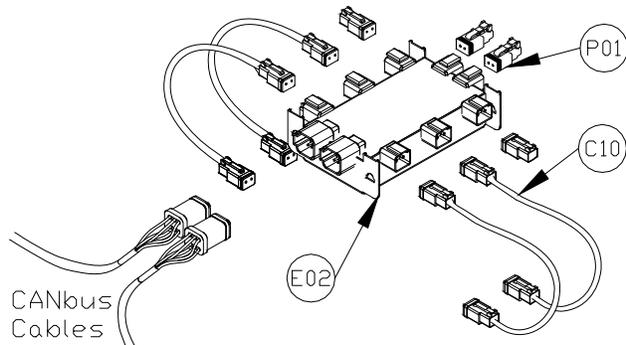


Figure 18: Valve Module

Output Number	Normal Function
1	Left Up
2	Left Down
3	Right Up
4	Right Down
5	Option 1
6	Option 2
7	Option 3
8	Option 4

2. Verify the valve coil connectors are oriented vertically (**Figure 19**).

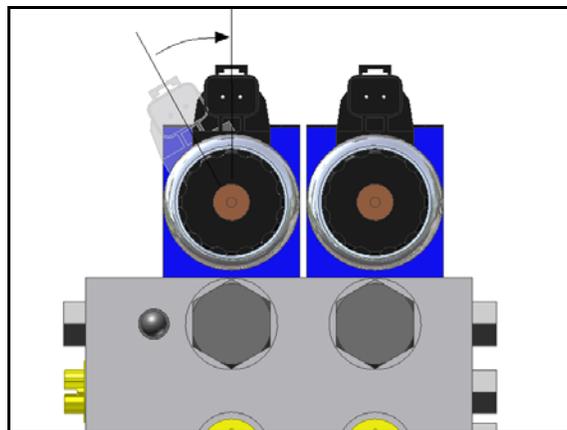
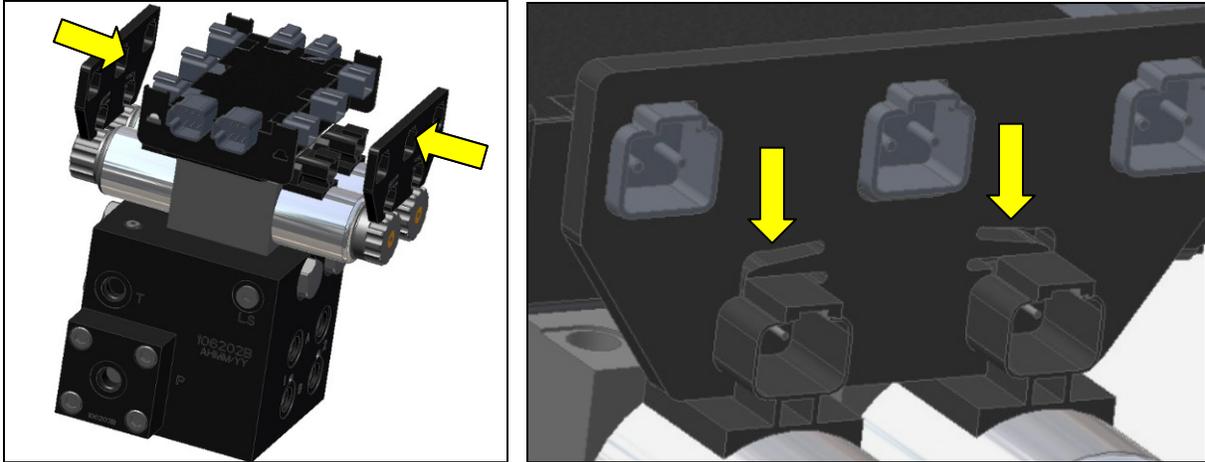


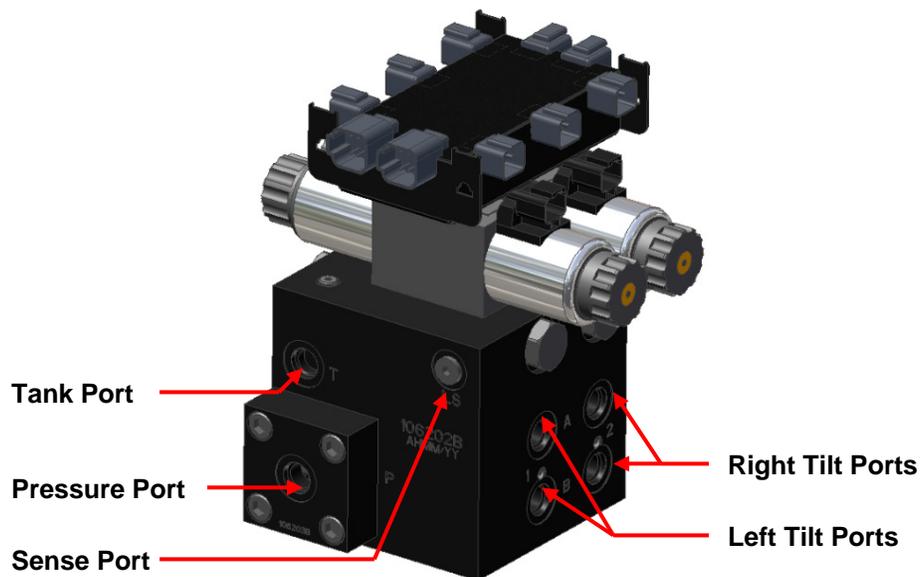
Figure 19: Align Coils

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 20**).
4. Ensure the bracket is pushed over the connectors far enough to allow the clips to engage behind the valve connectors.



**Figure 20: Valve Module Bracket Installation**

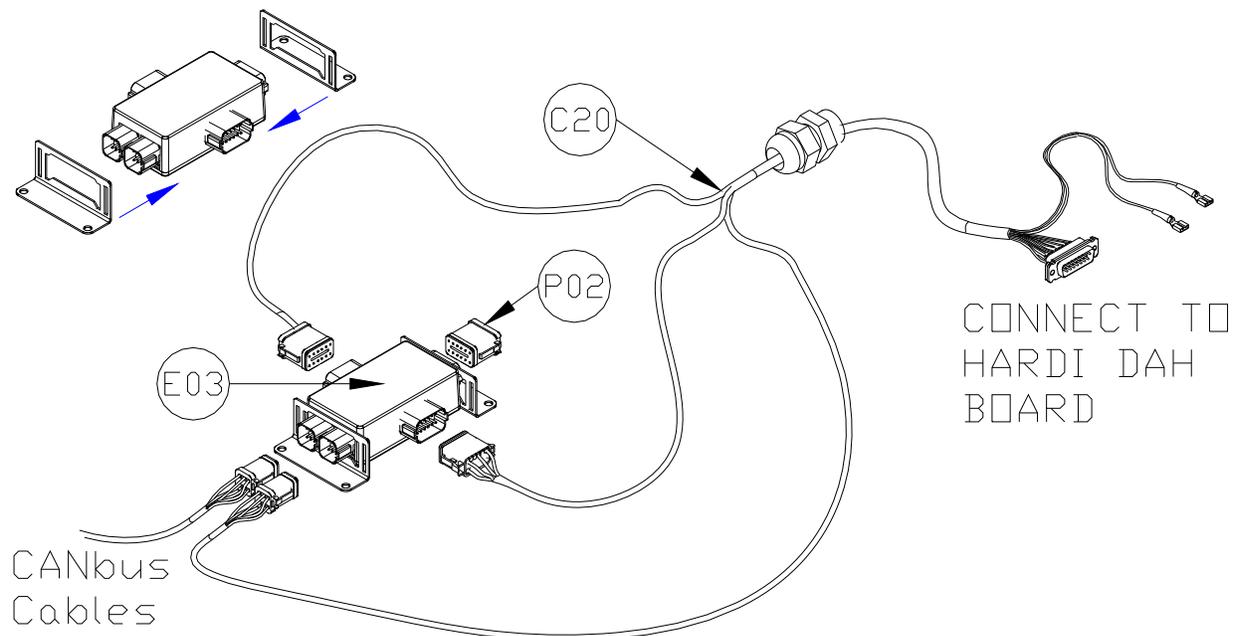
5. Connect the valve module CANbus to cable C02 from the control module. Route cable C03 from the other CANbus connector to the 8-way coupler.
6. With the valve module securely mounted to the valve block, connect the valve cables (C10), to the valve coils. Insert the 2-pin plugs (P01) into the unused 2-pin connectors on the valve module.
7. Connect the temperature probe to the valve block using the supplied 3/8" x 1/2" bolt.



**Figure 21: Valve Module - Valve Coil Connections**

### 8.3 Input Module

1. Install the input module (E03) on the boom near the enclosure that houses the HARDI DAH09 PCB. Secure it to the boom using cable ties or optional brackets.
2. Connect the free end of the CANbus cable (C01) from the control module to the input module.
3. Connect the 6 pin connector of C20 to the other CANbus connector on the input module.
4. Connect one 12 pin Deutsch connector on C20 to the *Thru 2* connector on the side of the input module.
5. Connect the second 12 pin Deutsch connector on C20 to the *Thru 1* connector on the input module.
6. Insert the 12 pin plug (P02) into the *OEM 3* connector on the input module.



**Figure 22: Input Module Connections**

7. Run the DB15 connector and the wires with the spade connectors of C12 to the DAH 09 PCB by passing it through a hole in the enclosure. Seal the hole using the weather-proof strain relief fitting.
8. Connect the DB15 connector of cable C12 to the DAH09 DB15 connector.
9. Connect the red wire with spade connector on C12 to the switched 12VCC on the DAH09 board (**Figure 23**).

10. Connect the black wire with spade connector on C12 to the GND on the DAH09 board (Figure 23).

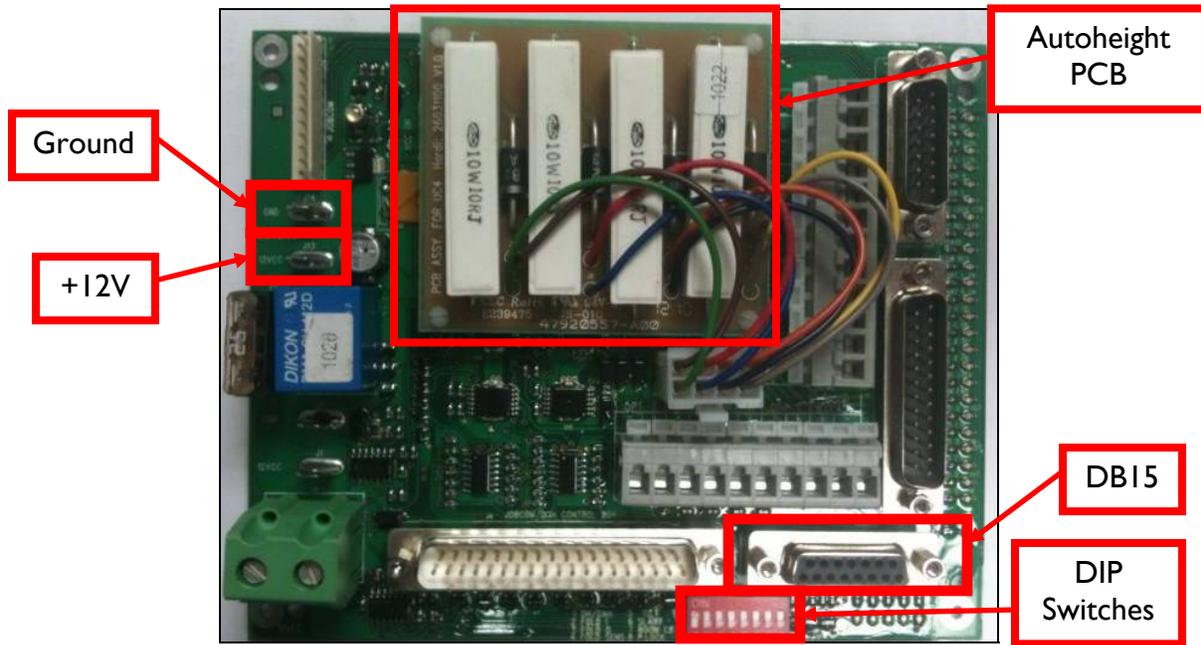


Figure 23: HARDI DAH09 Connections

11. Set the DIP switches as shown in Figure 24. .

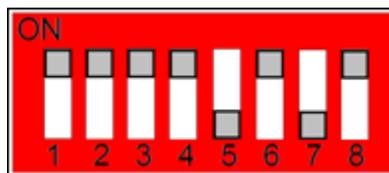


Figure 24: Settings for DIP Switches

## 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: Single Acting

1. On a clean surface remove the plastic plugs from the block.
2. Install 6MB 6MOR (F02) fittings into the “P” and “T” ports on the NORAC block. Tighten to 18 ft-lbs (24 Nm).
3. Insert orifices (F01) into the “B” ports with the notch facing out.
4. Install 6MB 6MOR (F02) fittings into the “B” ports on the NORAC block. Tighten to 18 ft-lbs (24 Nm).
5. Install the 6MBP (F03) plugs into the “A” ports on the NORAC block and tighten to 18 ft-lbs (24 Nm).

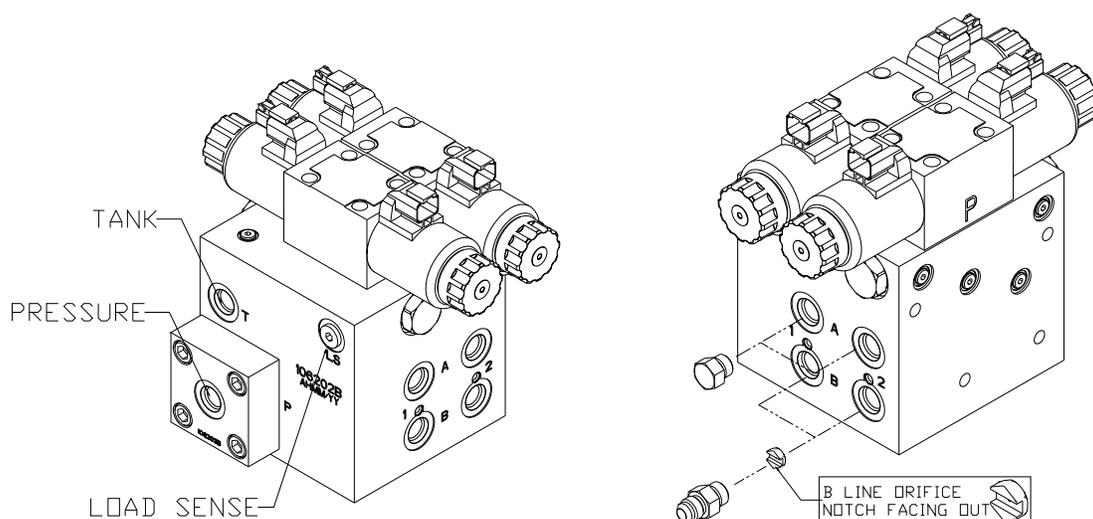
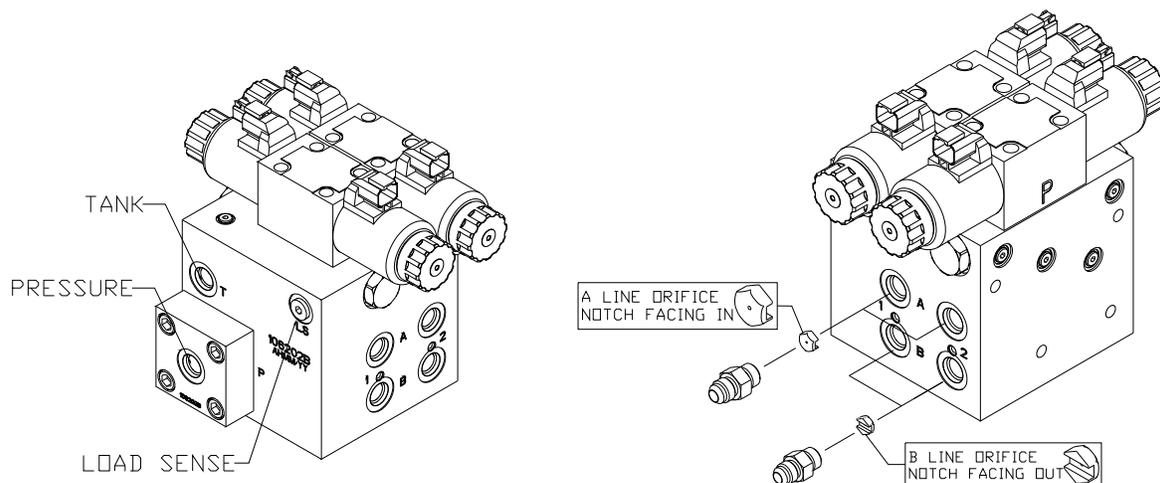


Figure 25: NORAC Valve Block Details

## 9.2 Valve Assembly: Double Acting

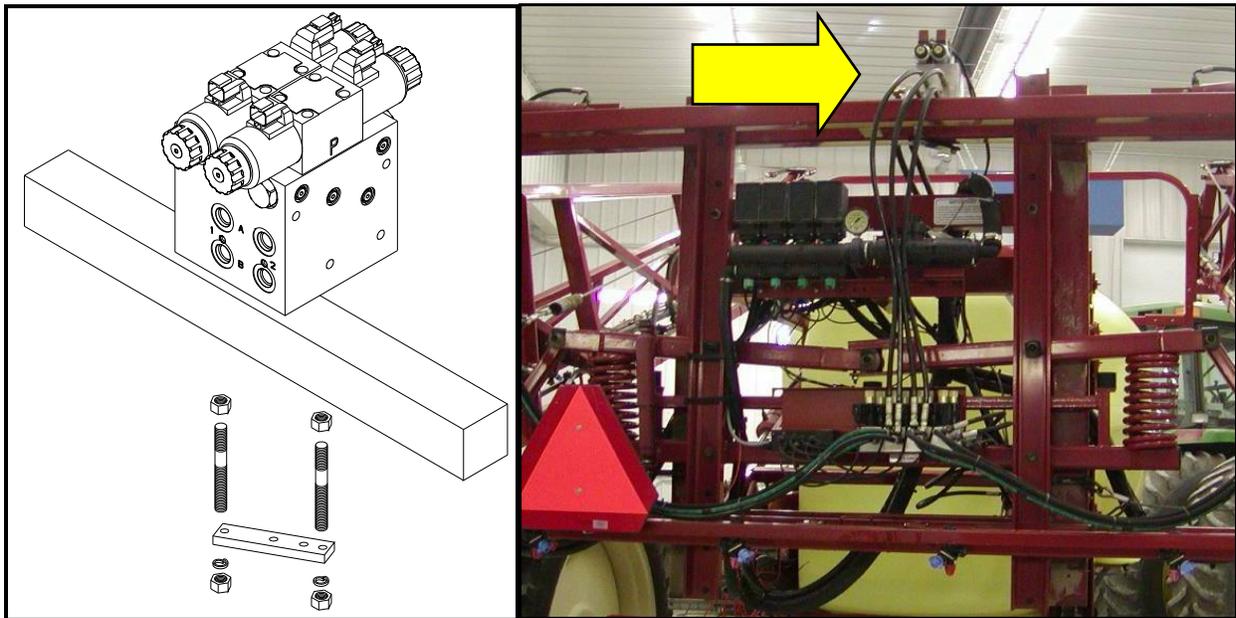
1. On a clean surface remove the plastic plugs from the block.
2. Install 6MB 6MOR (F02) fittings into the “P” and “T” ports on the NORAC block. Tighten to 18 ft-lbs (24 Nm).
3. Insert orifices (F01) into the “B” ports with the notch facing out.
4. Install 6MB 6MOR (F02) fittings into the “B” ports on the NORAC block. Tighten to 18 ft-lbs (24 Nm).
5. Insert orifices (F01) into the “A” ports with the notch facing in.
6. Install 6MB 6MOR (F02) fittings into the “A” ports on the NORAC block. Tighten to 18 ft-lbs (24 Nm).



**Figure 26: NORAC Valve Block Details**

### 9.3 Valve Block Mounting

1. A suitable mounting location for the valve block is illustrated in **Figure 27**.
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.



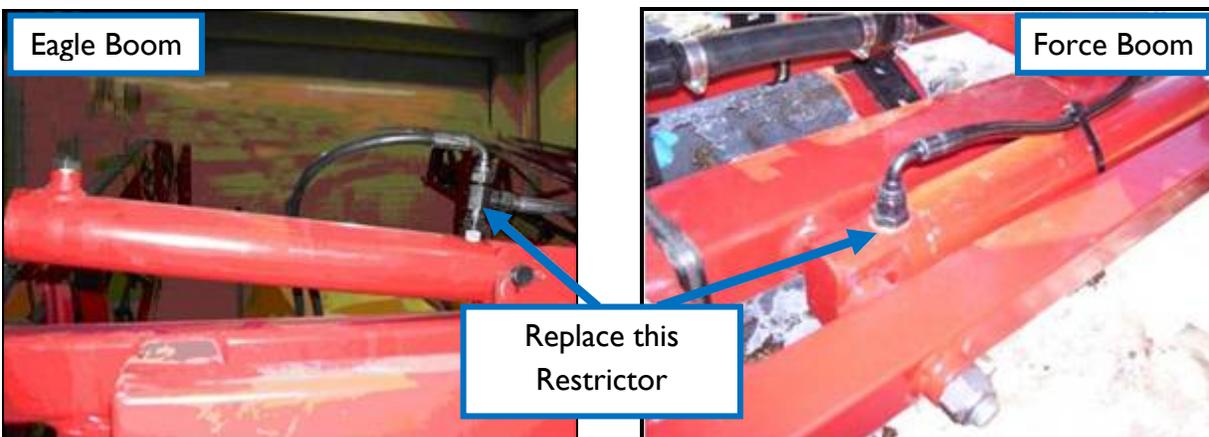
**Figure 27: Valve Block Mounting**

## 9.4 Hydraulic Plumbing: Single Acting

### ⚠ 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. Install hoses with 90 degree fittings onto the “B” ports on the NORAC valve block.
3. Route the free ends of the hoses to each of the wing tilt cylinders.
4. Remove the Hardi hoses from the tilt cylinders and replace the restricted BSPP fittings from the butt ends of the cylinders with straight through 1/4 x 3/8 BSP fittings (**Figure 28**).
5. Install a 1/4 inch BSP tee union onto the fitting on the cylinder and install the NORAC and Hardi hoses onto the tee union.

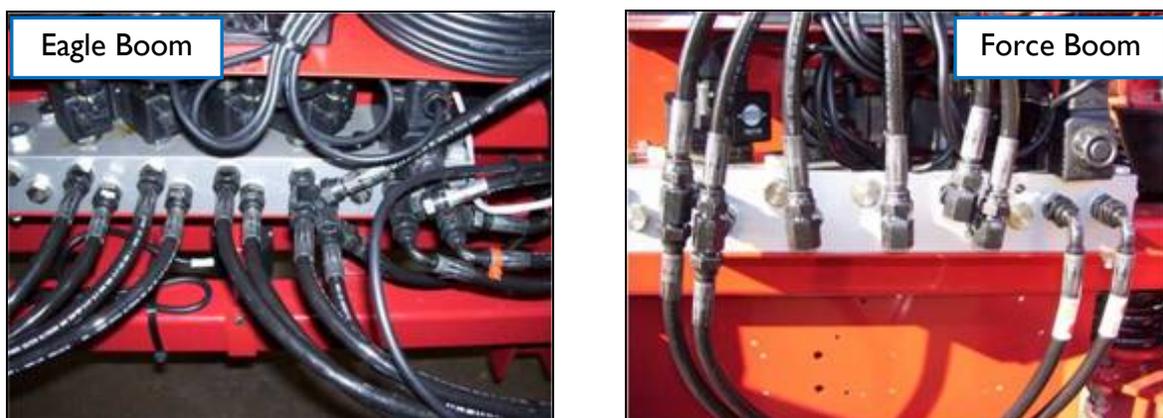


**Figure 28: Restrictor to be Replaced on the Tilt Cylinders**

6. At the Hardi main valve block, remove the hydraulic hoses that run from the butt end of the tilt cylinders to the valve block.
7. Install a 1/4 x 1/4 1.8 restrictor between the hoses and the valve block.
8. Remove the pressure and tank hoses from the Hardi valve block and install a 1/4 inch BSP tee union between the valve block and hoses.
9. Connect hoses to each of the tee fittings and route to the NORAC valve block.
10. Install the corresponding hose to the pressure and tank port on the NORAC valve block.

## 9.5 Hydraulic Plumbing: Double Acting

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 4**.
2. Install hoses with 90 degree fittings onto the “A” ports on the NORAC valve block.
3. Install hoses with 90 degree fittings onto the “B” ports on the NORAC valve block.
4. Route the free ends of the hoses to each of the wing tilt cylinders.
5. Remove the Hardi hoses from the “raise” line (the “B” line) of the cylinder and replace the restricted straight BSPP fittings with straight through 1/4 x 3/8 BSP fittings.
6. Install a 1/4 inch BSP tee union on the “raise” line of the cylinder and install the NORAC and Hardi hoses onto the tee union.
7. Remove the Hardi hoses from the “lower” line (the “A” line) of the cylinder and install a 1/4 inch BSP tee union onto the fitting on the cylinder.
8. Install the NORAC and Hardi hoses onto the tee union on the tilt cylinders.
9. At the Hardi main valve block, remove the hydraulic hoses that run from the “raise” line of the tilt cylinders to the valve block (**Figure 29**).
10. Install a 1/4 x 1/4 1.8 restrictor between the hoses and the valve block.
11. Remove the pressure and tank hoses from the Hardi valve block and insert a 1/4 inch BSP tee union.
12. Connect hoses to each of the tee fittings and install the corresponding hose to the pressure and tank port on the NORAC valve block.



**Figure 29: Location of Hoses on Hardi Valve Block**

## 10 Connecting the Sensors to the CANbus

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1. Fasten the 8-way coupler to the boom with cable ties.
2. Route cable C03 from the valve module to the 8-way coupler (E11).
3. Connect both roll sensors to the 8-way coupler.
4. Connect the main lift sensor to the 8-way coupler using cable C01 and a 2-way coupler (E12). Cable C01 and item E12 may not be needed if the 8-way coupler is mounted close enough to the main lift sensor.
5. Connect two cables (C05) to the 8-way coupler and route along the booms to the wing sensors. Follow existing cables and hoses to be sure the cable will not be pinched or stretched.
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 unused connectors on the 8-way coupler.

### Important

**Follow existing cables and hoses to be sure the cable will not be pinched or stretched.**

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

## 11 Software Setup

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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.

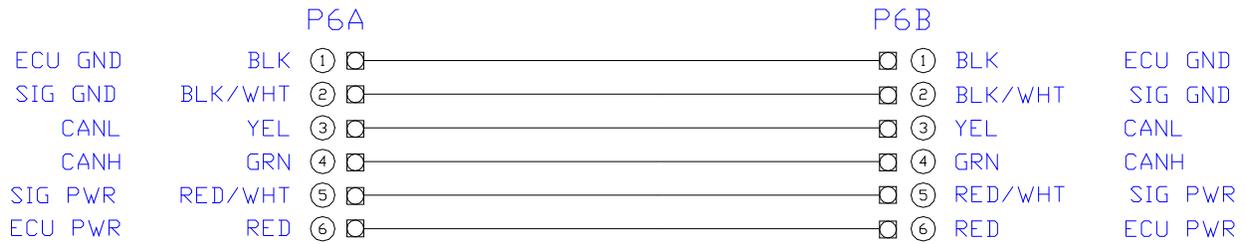
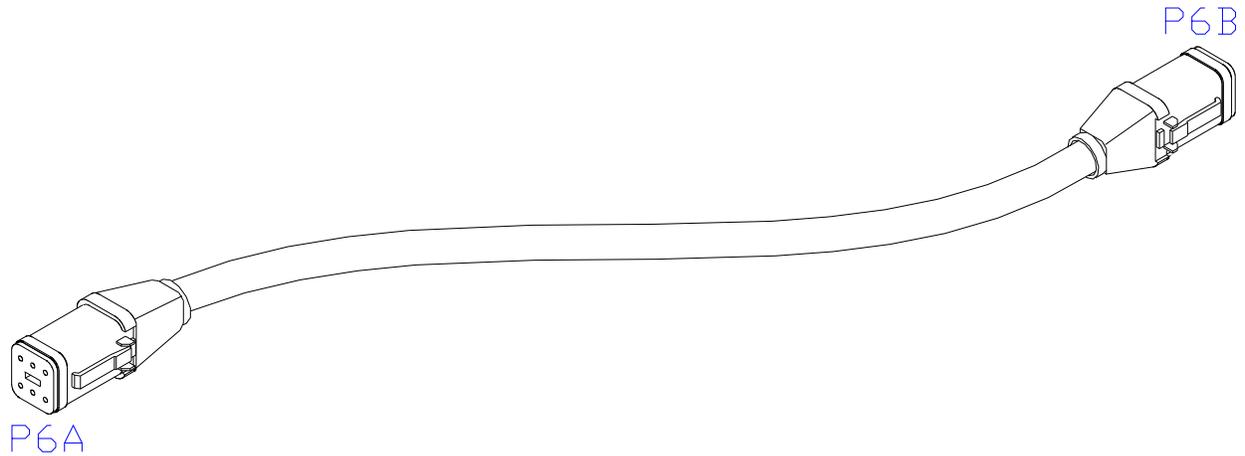
### Important

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

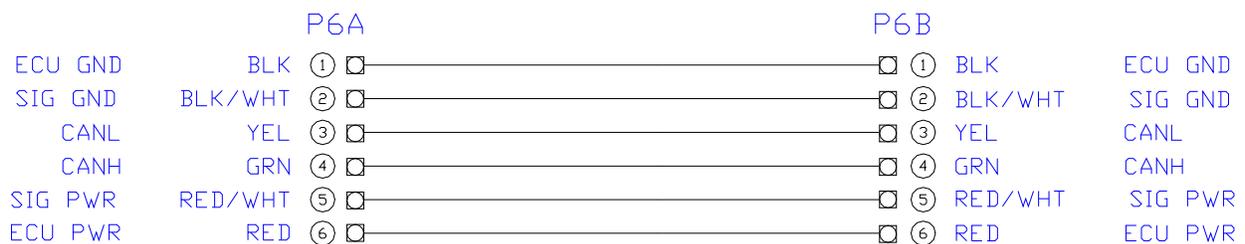
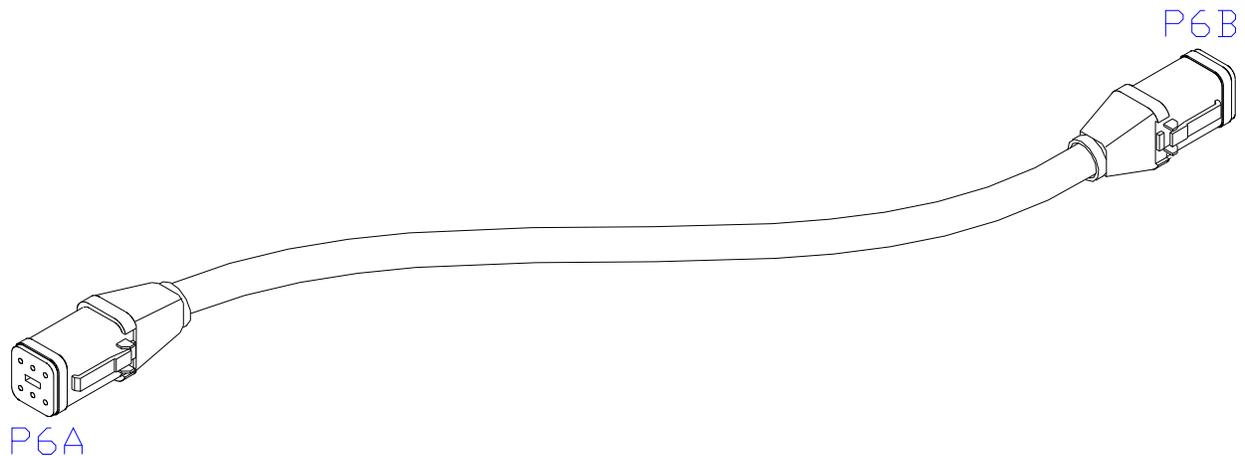
2. If any functions do not work, review the hydraulic and electrical portions of this manual to check for proper installation.
3. Turn on the power for the display terminal using the switch on the side.
4. The procedure for the installation of the UC5 Spray Height Control system is now complete. Begin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

## 12 Cable Drawings

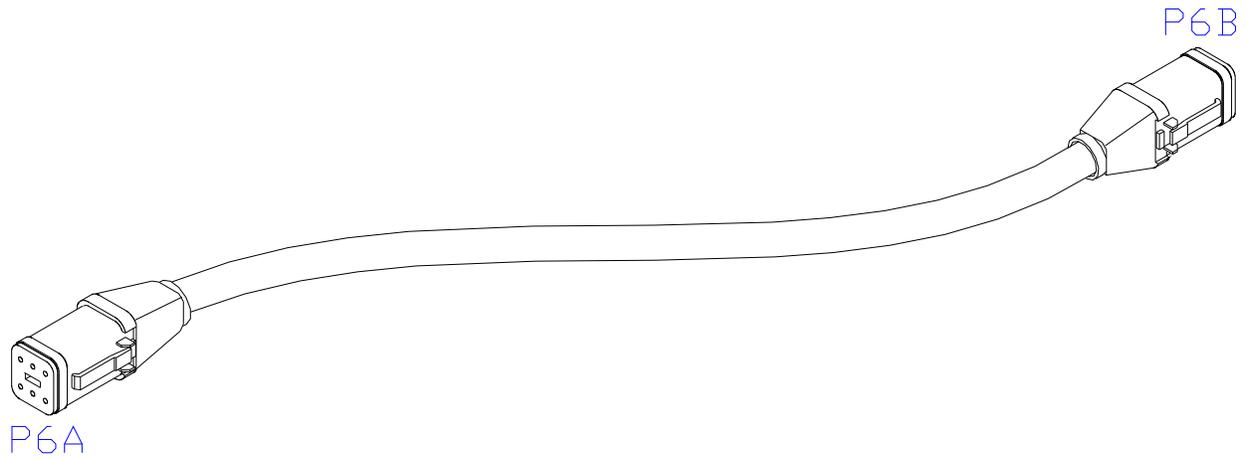
### 12.1 ITEM C01: 43220-01 - CABLE UC5 NETWORK 14 AWG - 1M



### 12.2 ITEM C02: 43220-10 - CABLE UC5 NETWORK 14 AWG - 10M

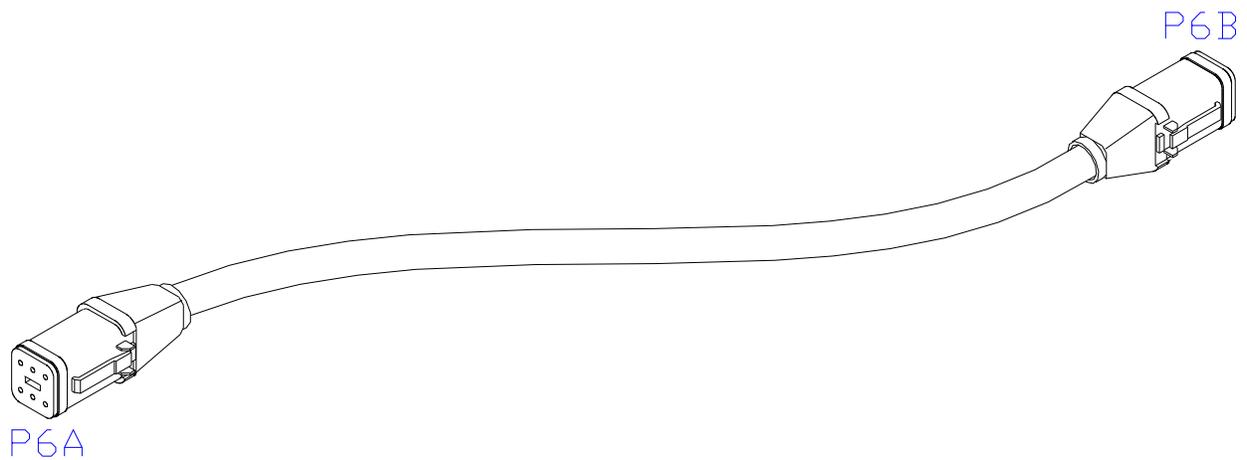


### 12.3 ITEM C03: 43220-0.5 - CABLE UC5 NETWORK 14 AWG – 0.5M



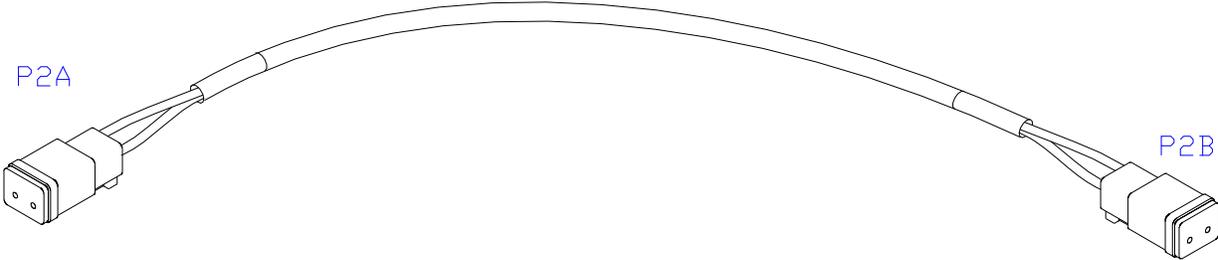
		P6A		P6B			
ECU GND	BLK	①	□	□	①	BLK	ECU GND
SIG GND	BLK/WHT	②	□	□	②	BLK/WHT	SIG GND
CANL	YEL	③	□	□	③	YEL	CANL
CANH	GRN	④	□	□	④	GRN	CANH
SIG PWR	RED/WHT	⑤	□	□	⑤	RED/WHT	SIG PWR
ECU PWR	RED	⑥	□	□	⑥	RED	ECU PWR

### 12.4 ITEM C05: 43210-20 - CABLE UC5 NETWORK 18 AWG - 20M

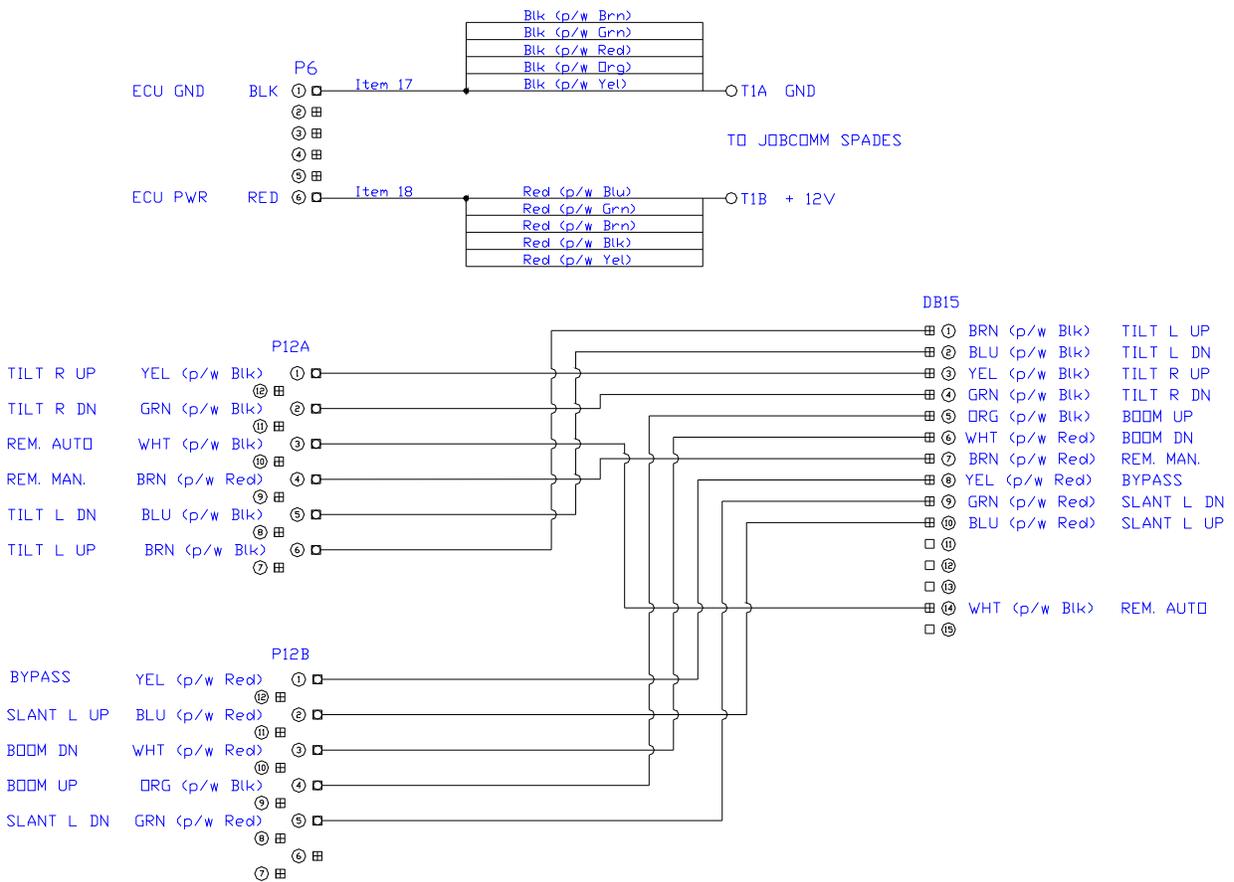
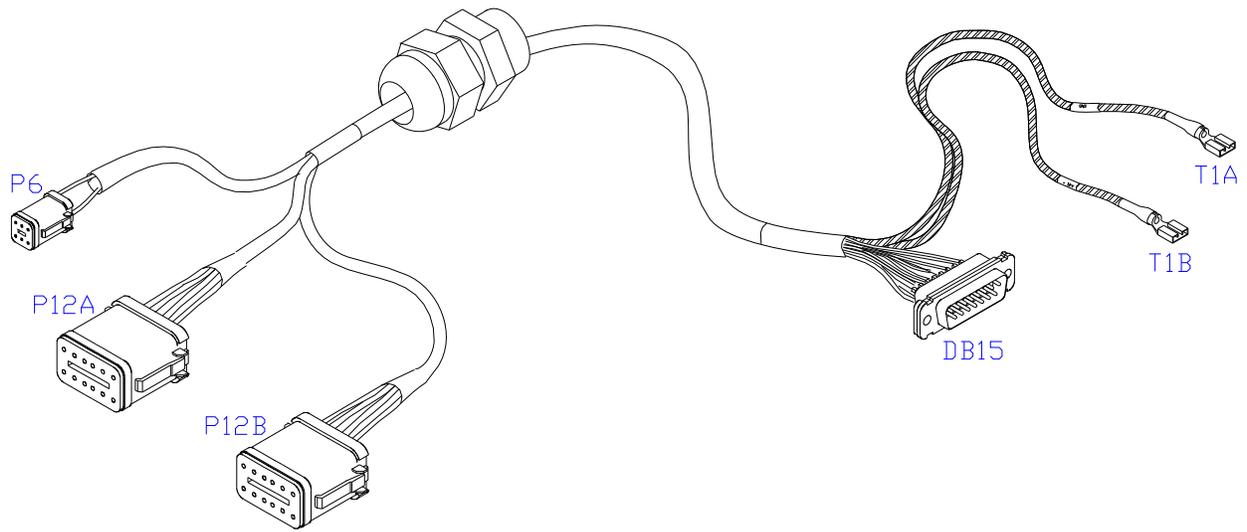


		P6A		P6B			
ECU GND	BLK	①	□	□	①	BLK	ECU GND
SIG GND	BLK/WHT	②	□	□	②	BLK/WHT	SIG GND
CANL	YEL	③	□	□	③	YEL	CANL
CANH	GRN	④	□	□	④	GRN	CANH
SIG PWR	RED/WHT	⑤	□	□	⑤	RED/WHT	SIG PWR
ECU PWR	RED	⑥	□	□	⑥	RED	ECU PWR

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



## 12.6 ITEM C20: 43240-30 – CABLE UC5 BC HARDI DAH09



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