

PinPoint™ III Lite Installation Instructions

MY2008–2016 Case IH 3000–4000 Series

Table 1: Parts List

Part Number	Description	Qty
116301-014	PRESSURE TRANSDUCER ASSY	1
118640-038	PPIII, HUB MOUNT 3000,4000	2
120048-001	GPS CABLE NH GUARDIAN INT	1
120139-002	ADAPTER, KEY SWITCHED POWER	1
120140-024	HEX STANDOFF 4-40 F/F HEX	2
122100-010	INSTALLATION KIT PINPOINT ZIP	1
123000-013	MOUNTING PLATE PPIII	1
123000-106	COVER, POWER HUB, PPIII	1
123000-115	PPIII, STRAIN RELIEF BRACKET, SS	2
123000-130	ASSY, POWER HUB PPIII LITE	1
123000-205	OP MANUAL PPIII LITE	1
123000-241	INTEGRATION, CASE IH, MY2008-2016	1
123000-253	INSTALLATION, CASE IH, MY2008-2016	1
123100-079	ADAPTER, PPIII, CASE 2016 AND OLDER, NON-ISO	1
123100-080	PPIII RS1 TERMINATOR TEE, ISO	1
123100-159	EXTENSION, CASE BOOM SIGNAL TRANSMITTER	1
123150-003	EXTENSION, CAN-BUS, 3FT UNFUSED	1
123200-021	KIT, BOOM SIGNAL TRANSMITTER B	1
123300-140	HARNESS, CHASSIS, PPIII, CASE MY2016 & OLDER	1
123300-158	ADAPTER, C202F, REV B	1
620137-001	BOLT FLANGE 3/ 8"-16 X 1" GR8	4
706530-352	DUST PLUG, 4P DT	2
706530-357	DUST CAP 12-PIN RECEPTACLE	1
706530-513	DUST CAP, 12 PIN, DTM	1
706530-525	DUST PLUG, 12P DT, GREEN, C-KEY	1
708000-051	TAPE TEFLON	1
709031-907	SCREW, 1/4-20 x 0.75 TRUSS SS	4
713501-406	BOLT 5/ 16" X 3/ 4" SS	4
713501-447	NUT, FLANGE, 5/ 16 -18, ZINC	4
713501-905	NUT 3/ 8"-16 HEX W/K-LOCK	4
713600-003	WASHER FLAT 3/8	4

Requirements

- 2016–Prior Case IH Sprayer

For proper installation, additional harnesses may be required to accommodate the correct Task Controller. Several different Task Controllers can be installed on these machines. It is **VERY IMPORTANT** to order the correct adapter harness. If the machine is being upgraded from an Aim Command system to PinPoint III, additional boom section valve harnesses may be required (Ordered through CNH) to replace existing Aim Command harnesses.

Adapter Harnesses:

- Raven Viper 4 - 123100-080
- Raven Viper 4 W/O ISO components - 123100-079
- Ag Leader 1200 Command - None Needed
- AFS GPS - 120048-001
- Trimble - 120139-002
- Pro 700 - 123300-167 & 123300-168

CNH Boom Section Valve Harnesses:

- 90ft (5 Section) - LH - 373957A1, RH - 343958A1
- 100ft (6 Section) - LH & RH - 47492140
- 120ft (7 Section) - LH - 87479157, RH - 87479158

ENVELOP Hub Installation

1. Open main machine power breaker before beginning installation.

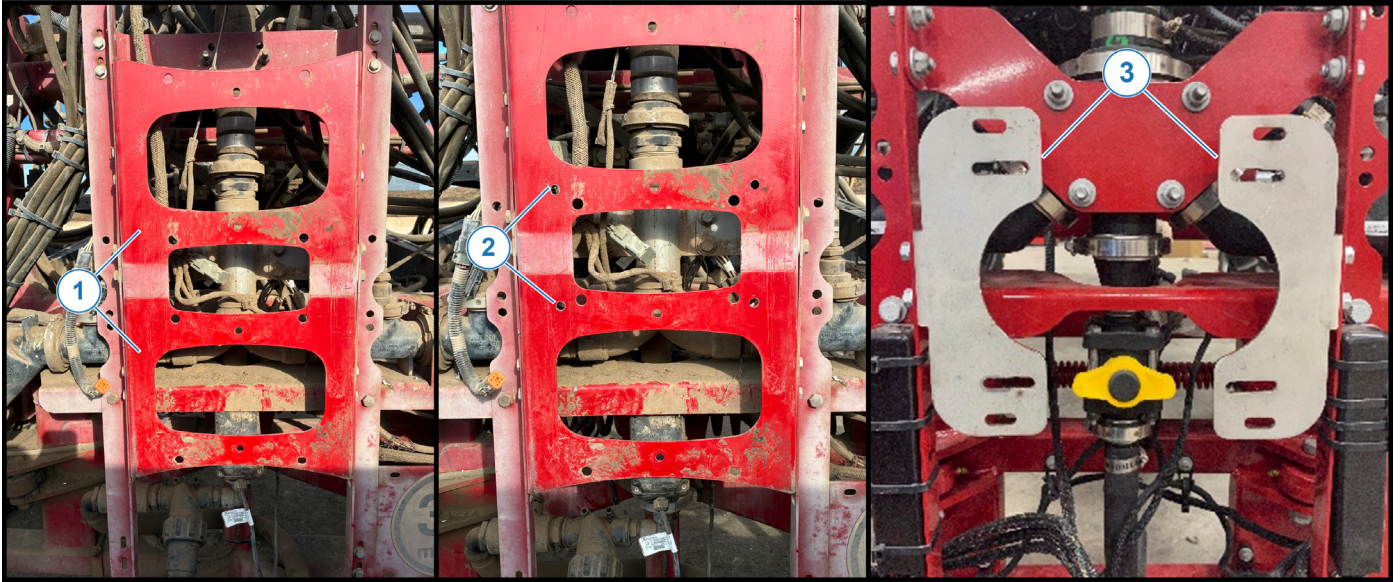


Figure 1: Hub Mounting with Aim Command removed

2. If the machine is equipped with an Aim Command system, remove the modules and existing mounting plates (**Figure 1, Item 1**).
3. Using the PinPoint III Mounting Bracket (P/N: 123000-013) as a template, mark new bolt hole locations and drill holes (**Figure 1, Item 2**).
4. If needed, use the supplied brackets (118640-038) and hardware (**Figure 1, Item 3**) to mount PPIII Lite hub and bracket assembly onto.

Provided hardware P/Ns: 620137-001, 713501-905, & 713600-003.

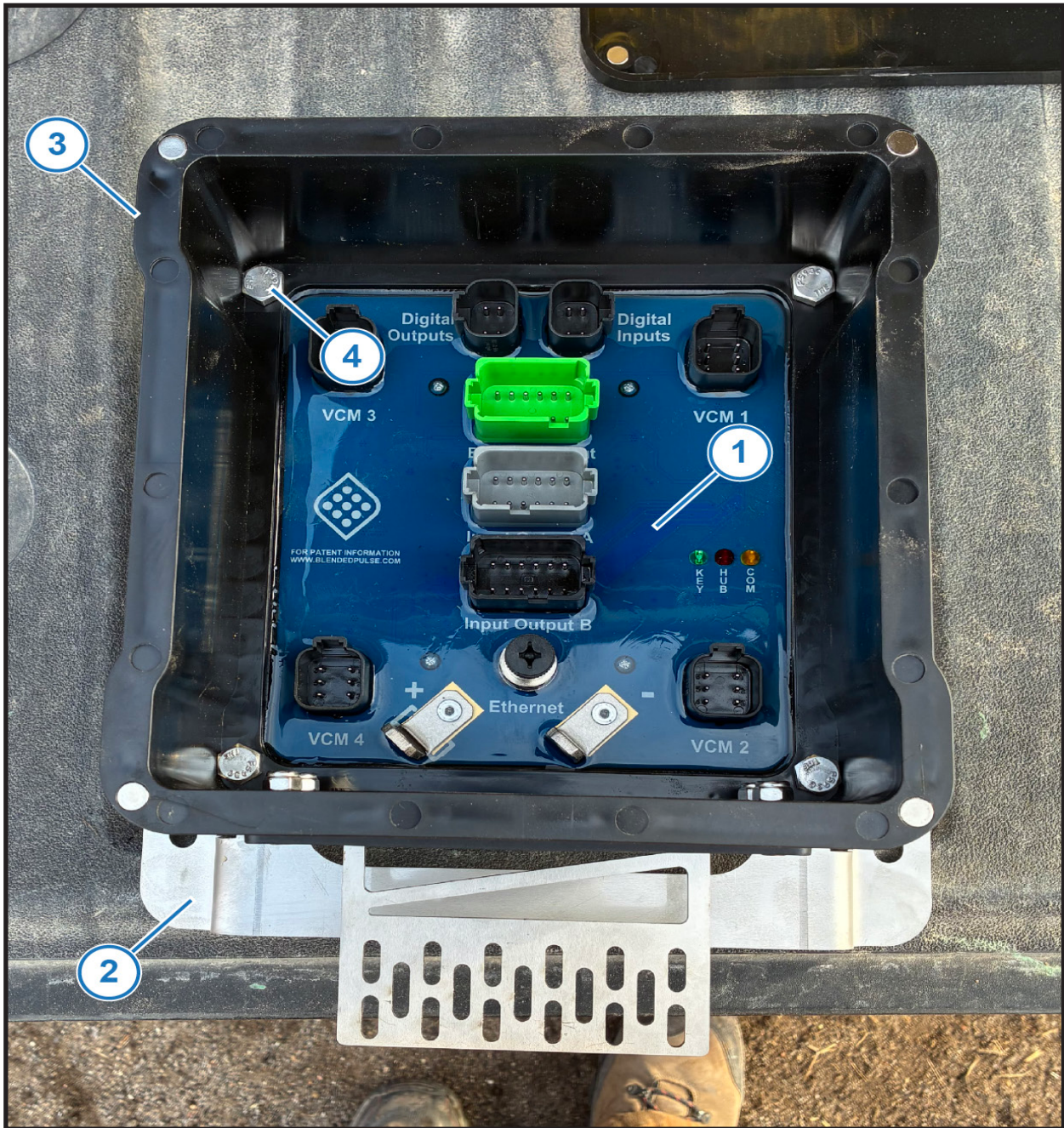


Figure 2: PPIII Lite Hub Assembly

3. Assemble the PinPoint III Lite Hub, enclosure, and mounting bracket as shown by placing the PinPoint III Lite Hub (**Figure 2, Item 1**) on top of the PinPoint Mounting Bracket (**Figure 2, Item 2**), and the PinPoint III Lite Cover (**Figure 2, Item 3**) on top of the PinPoint III Lite Hub. Secure the items together with supplied hardware (**Figure 2, Item 4**).

Note: Alternate cover/strain relief brackets included with kit if desired to be used.

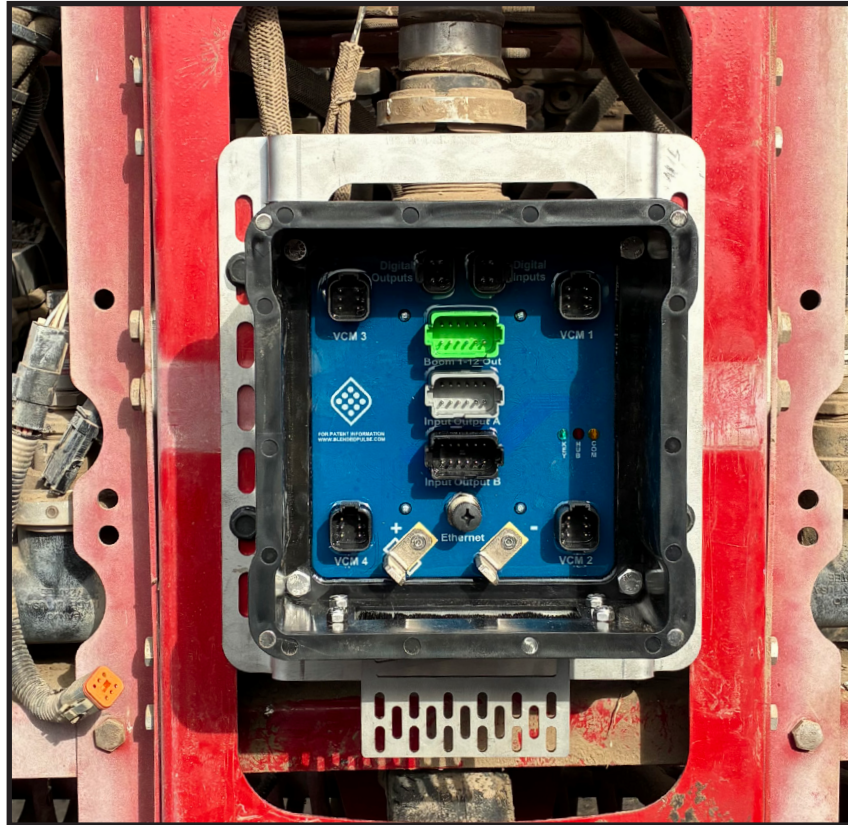


Figure 3: PIII Lite Hub Mounted

4. PIII Lite Hub Assembly mounted to machine should look similar to **Figure 3**.

Chassis Harness Installation

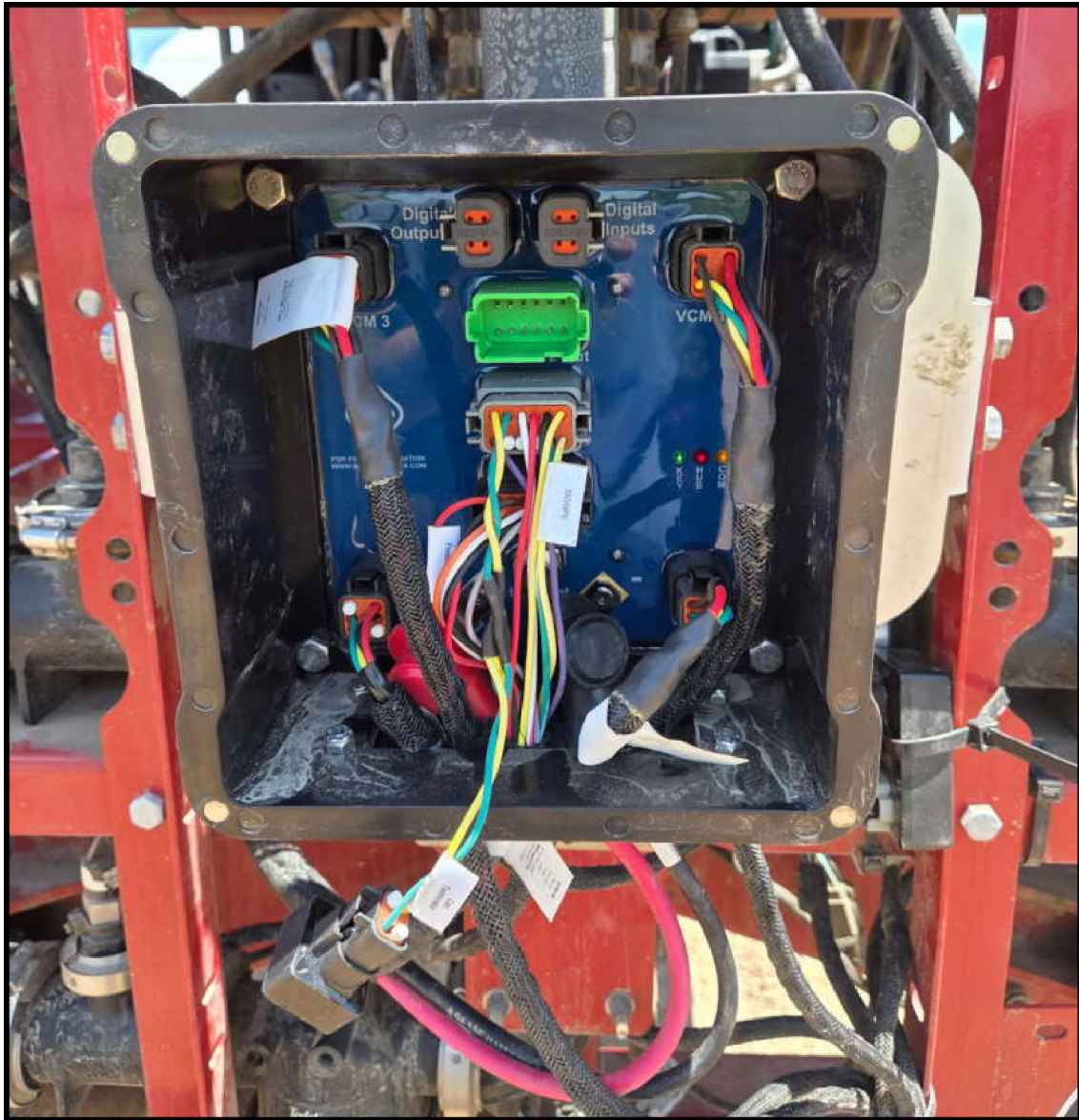


Figure 4: Hub Connections

5. Install the I/O A and I/O B chassis harness connectors into their corresponding ports. Connect the power and ground lugs to the positive and negative studs on the hub.



Figure 5: Boom Control Node

6. Locate Accuboom control node located on the left hand side of the back rack (Figure 5).
7. Trace harnessing coming from the Accuboom Control Node and disconnect from chassis harnessing.
8. Plug the connectors previously disconnected from the Accuboom Control Node harnessing into one another as shown below (Figure 6).



Figure 6: Boom Control Node Connections

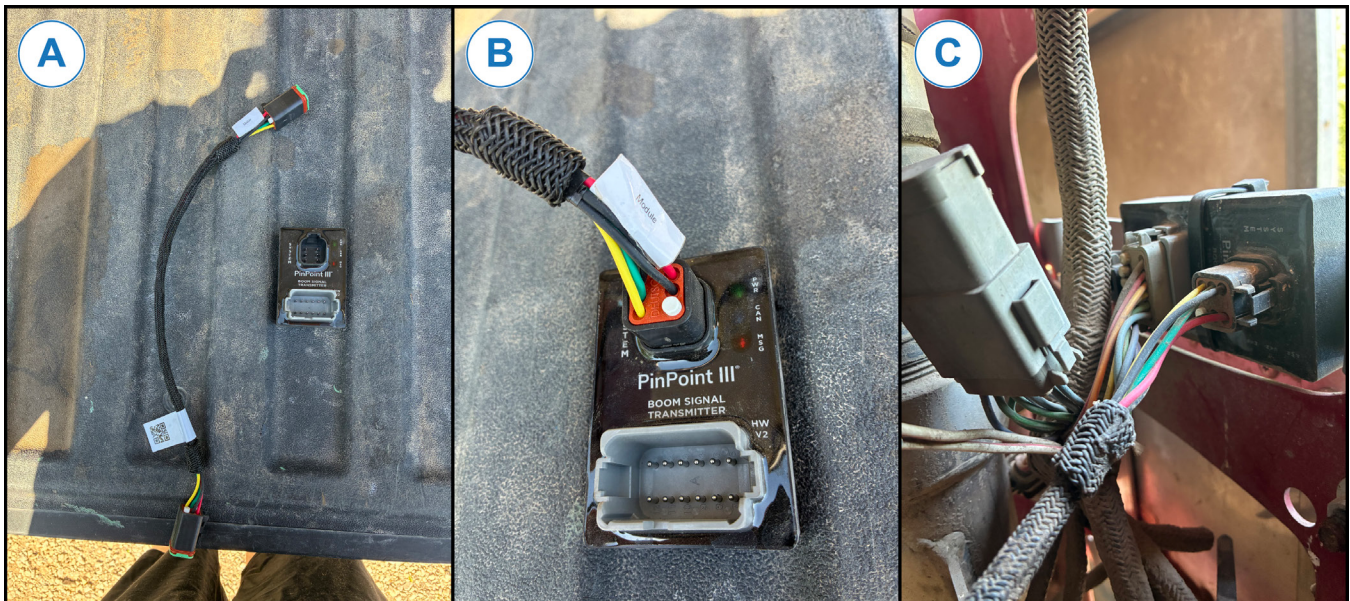


Figure 7: Boom Signal Transmitter Installation

9. Locate the Boom Signal Transmitter and adapter harness included in the kit (Figure 7-A).
10. Plug the Boom Signal Transmitter adapter end labeled **Module** into the Boom Signal Transmitter (Figure 7-B).
11. Locate the Aim Command Section Interface 12-pin Connector labeled C522F and if equipped its accompanying 2-pin connector for boom section 7 on the center of the back rack.
 - On machines equipped with Aim Command, there will be an existing harness plugged into the connector(s). Remove and dust cap it.
 - On machines without Aim Command, the connector(s) will be loose and dust capped, remove the caps.
12. Plug the 12-pin C522F connector into the Boom Signal Transmitter (Figure 7-C).
 - If machine has a separate section 7 signal wire in a 2 Pin Deutsch connection, remove it and insert into Pin 7 of the C522F connector.
 - If needed, use provided Boom Section Transmitter Extension harness (P/N 123100-159) to provide more length to reach Boom Signal Transmitter mounting location.
13. Plug the Boom Signal Transmitter adapter into an extension harness (P/N 123150-003), route to the PinPoint III Hub, and plug into VCM Port 4.

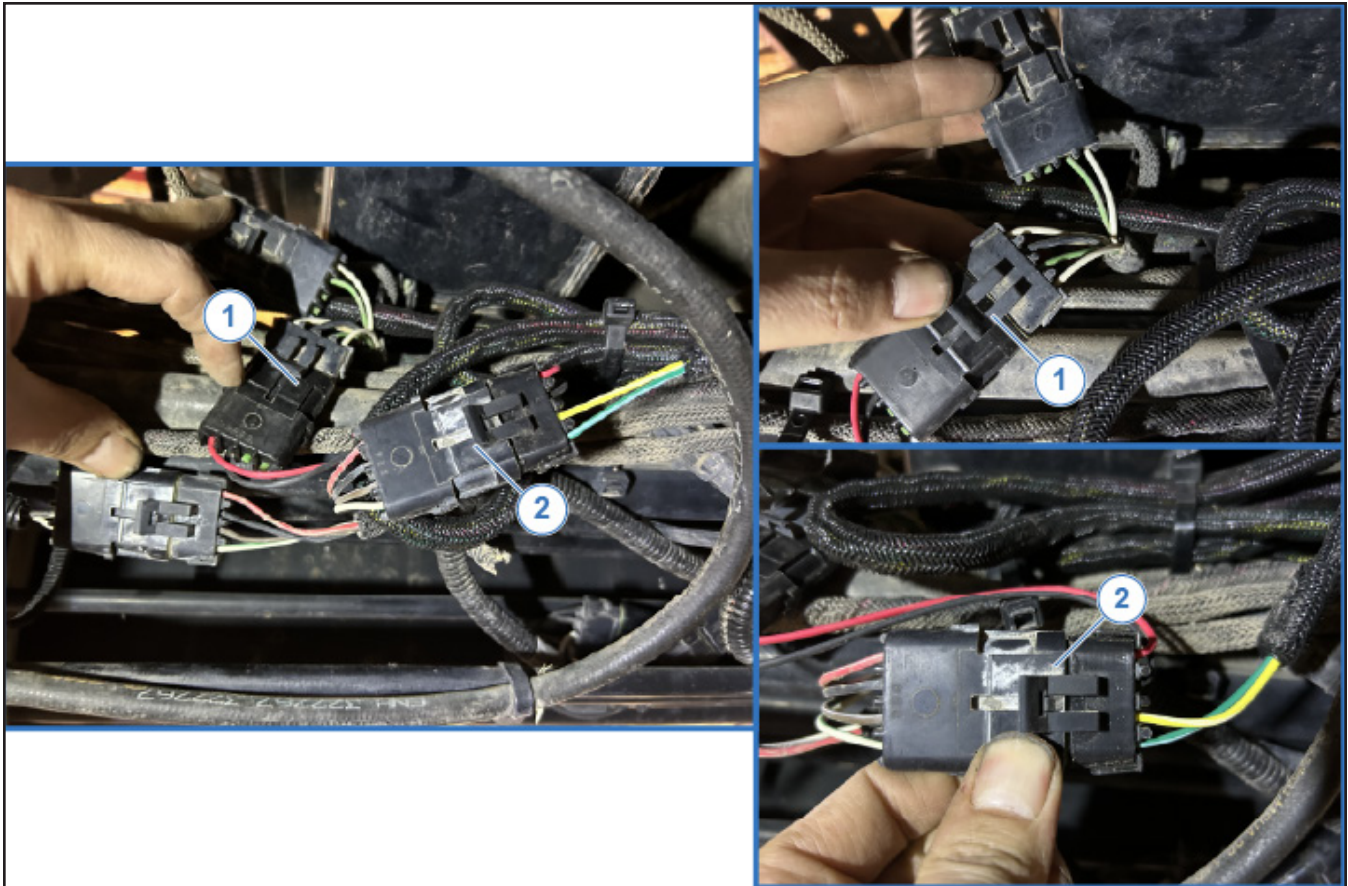


Figure 8: C517 Connector

14. After all connections have been made on PPIII Lite Hub, route the chassis harness up and over the back rack and along left side of frame towards the cab.
15. Locate the Remote/AIM interface connector C517 (Figure 8, Item 1) and disconnect it.
16. Plug the appropriate Chassis harness connectors (Figure 8) into each of the disconnected plugs.

NOTE: The chassis side connectors required to be plugged into the PinPoint III Chassis Harness have the following color scheme:

4-Pin Plug (Figure 8, Items 1)

- Pin A - White
- Pin B - Black
- Pin C - Green
- Pin D - White

4-Pin Receptacle (Figure 8, Items 2)

- Pin A - Red/White
- Pin B - Black
- Pin C - Brown/White
- Pin D - White/Green

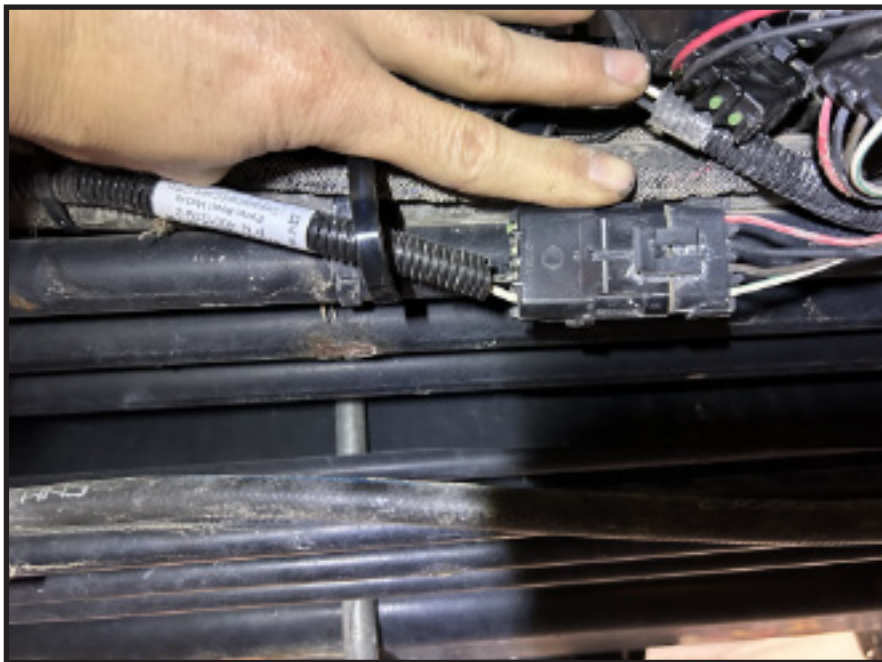


Figure 9: Pump PWM Valve Connection

IMPORTANT: There are two connectors labeled REMOTE/AIM. DO NOT connect to the harness which runs to the PWM valve or boost module.

IMPORTANT: There are other 4-Pin WeatherPack connectors in the vicinity which have dust caps/plugs. Do not plug chassis harness into these connectors.

Pressure Sensor Installation

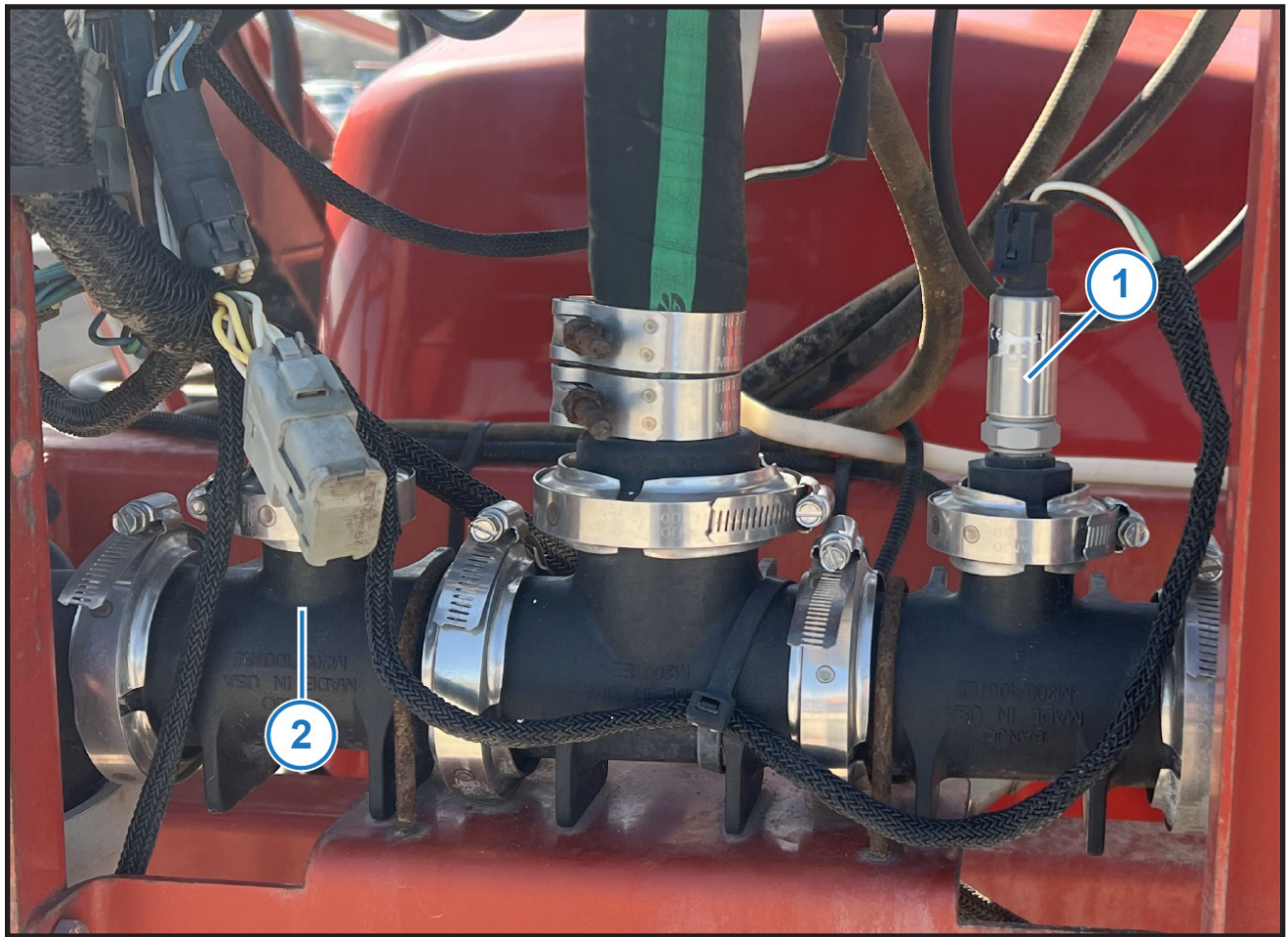


Figure 10: Pressure Sensor

17. Locate the existing pressure sensor on the right side of the back rack (Figure 10, Item 1) and remove.
18. Install the PinPoint III pressure sensor and connect it to the Chassis harness.

On machines equipped with an Aim Command system, there will be a Capstan pressure sensor on the left side (Figure 10, Item 2) with a 3-pin weatherpack connector. Remove and replace this sensor with the PinPoint III pressure sensor, if equipped.

NOTE: The existing Capstan pressure sensor can be used if working properly.



Figure 11: Power Harness

19. Continue routing the Power and Flowmeter harnesses to the machine battery tray, following the machine's battery cables located under the radiator mounting frame.
20. Connect the red power (+) (Figure 11, Item 1) and black ground (-) (Figure 11, Item 2) cables to the batteries, installing the provided 80 amp circuit breaker (Figure 11, Item 3) inline with the red power (+) cable.

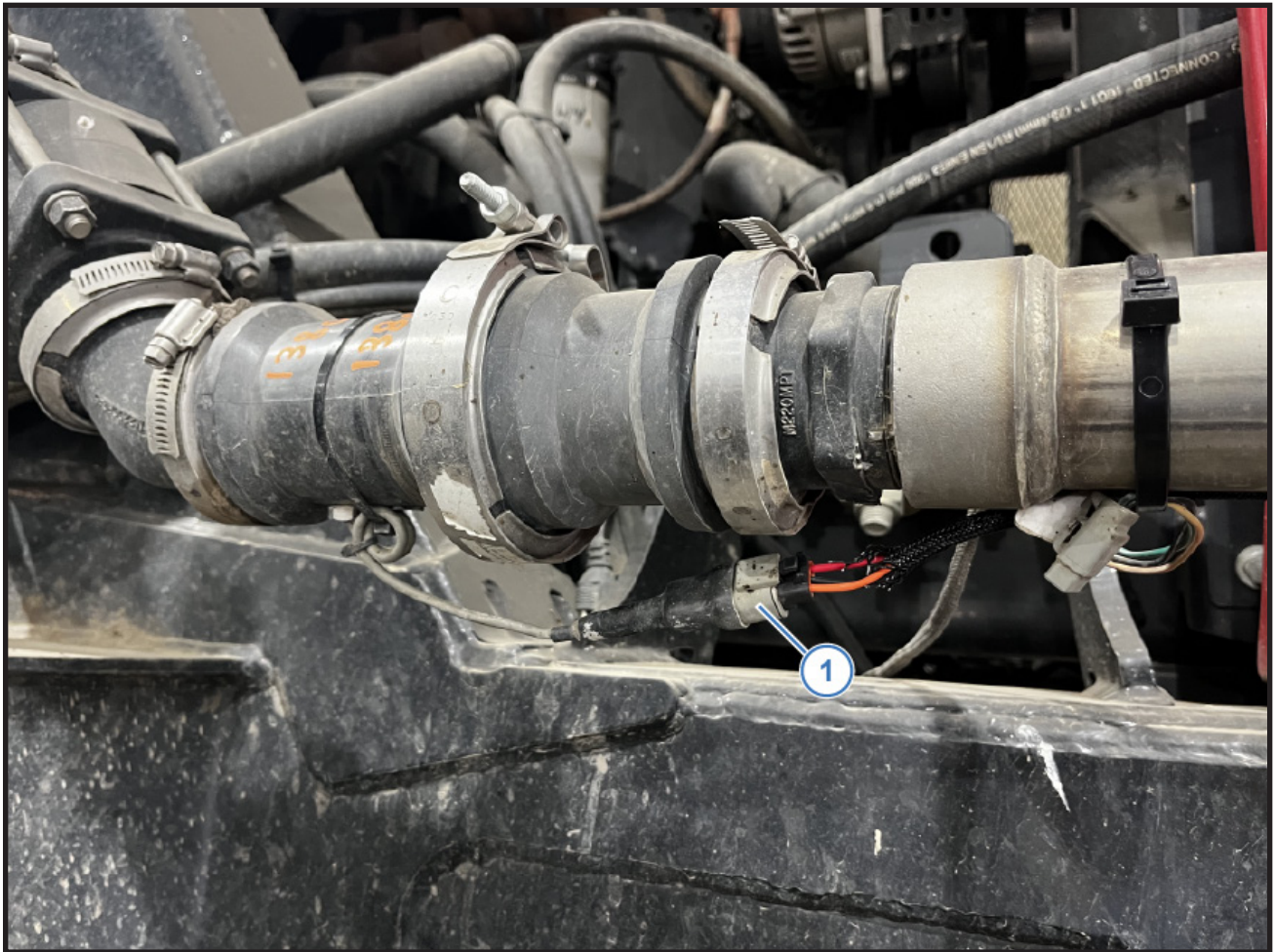


Figure 12: Flowmeter Harness

16. Route the Flowmeter lead of the Chassis Harness to the machine flowmeter.
17. Disconnect the existing machine harness from the flowmeter and connect the Chassis Harness connector (Figure 12, Item 1).
18. Continue routing the Chassis Harness toward the machine cab.

Sparge Sensor



Figure 13: Sparge Sensor

19. Locate the sparge pressure sensor (Figure 13, Item 1) between the back of the cab and front of the tank.
20. Remove the existing connector from the sensor.
21. Route the Chassis harness to the sparge sensor and connect it.
22. Continue routing the remaining Chassis harness toward the machine cab.

AccuBoom Connector



Figure 14: Accuboom Interface Connector

23. Locate the AccuBoom boom interface connector C523F (Figure 14, Item 1) under the cab, behind front axle. Disconnect and remove the 2-wire fence row jumper (Figure 14, Item 2). Reconnect the existing harness connectors.

Cab Harness Connections

24. Route the remaining Chassis harness toward the machine cab.
 - 3000 series: Harness will enter the cab through the back window on, the right side
 - 4000 series: Harness will enter the cab underneath on the right side, in front of the front axle.
25. Locate the machine Foam Advance Enable C202F or P042 connector and remove the jumper connector from it.
26. Install master switch connector C202F from the Chassis harness into the machine C202F connector.

Note: The location of this connector varies by model. Below are pictures and descriptions of locations for each model.

Note: Some machines have been found to have the pins swapped in in connector C202F. If so, the master switch will not work properly. An adapter harness (P/N: 123300-158) is supplied in the kit if required.

3000 Series C202F Connector Location

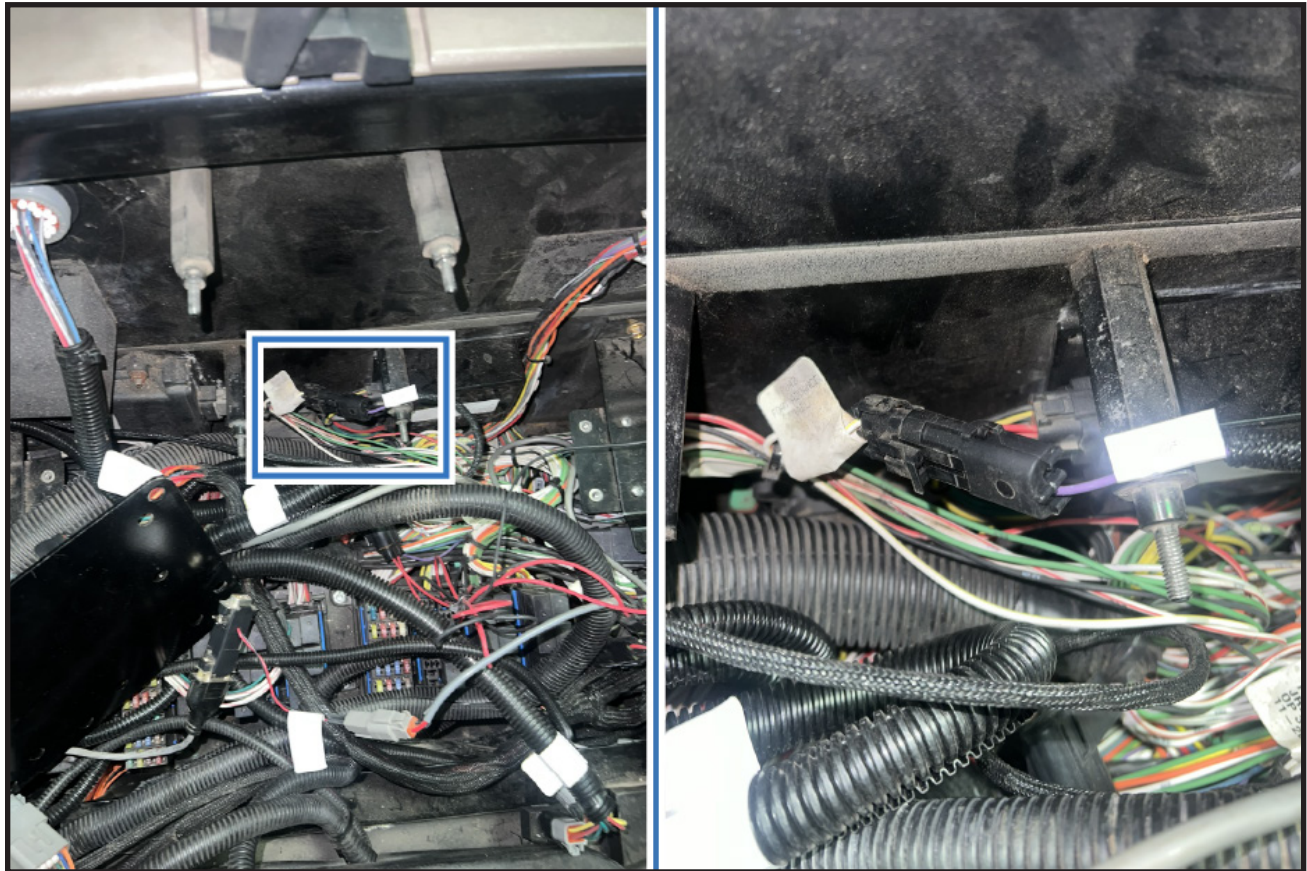


Figure 15: 3000 Series C202F Connector

The back cover and lower plate will need removed to locate connector.

4420 Series C202F Connector Location

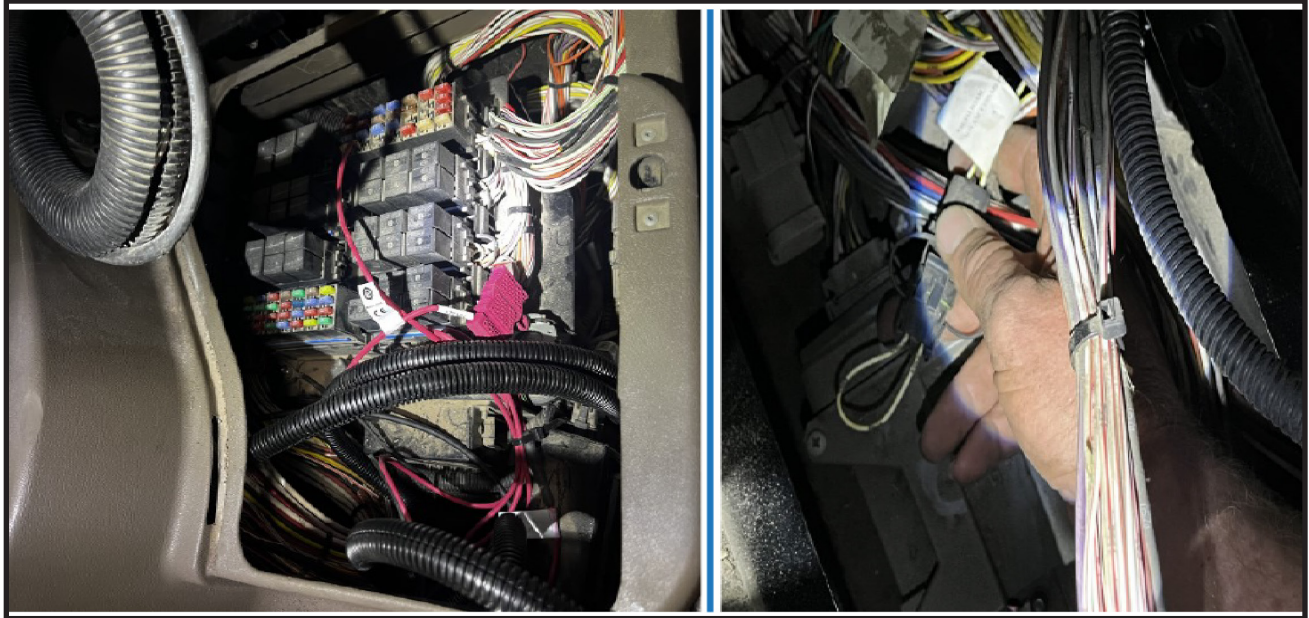


Figure 16: 4420 Series C202F Connector

The connector is located under the fuse panel below the armrest. The fuse panel must be lifted out to access the connector below it. The connector can be found close to the seat side toward the back.

4430 Series C202F Connector Location

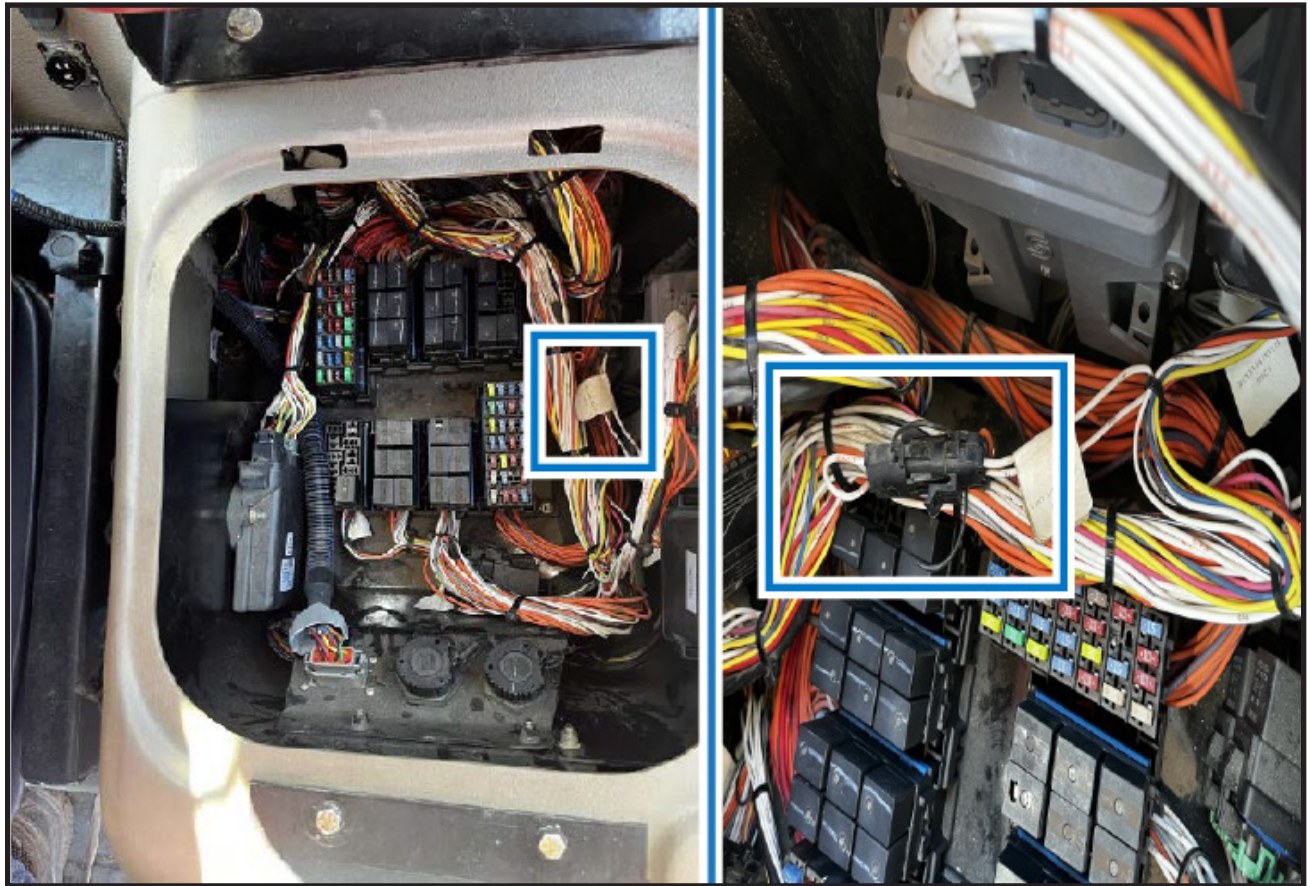


Figure 17: 4430 Series C202F Connector

The connector can be found under the buddy seat toward controller/cab door.

GPS and Task Controller Connections



Figure 18: GPS Connector

27. Make the Chassis Harness GPS connection.

- If equipped with a Pro 700/AFS ready machine, the GPS DB9 Serial cable will be utilized.
- If equipped with any other display/task controller, GPS messages will be broadcast over the CAN.

IMPORTANT: If the GPS is broadcast over the CAN, do NOT make the serial GPS connection.

28. Connect the ISO/keyswitch power connector to the Task Controller display using the corresponding display adapter harness for the Task Controller the machine is equipped with.

Refer to Adapter Harnesses under [Requirements](#) on Page 1 of this document.

The Agleader AG Command monitor will not need an adapter harness and should plug directly into the ISO/Keyswitch Power Chassis harness connector.

Trimble 1260 displays will use an external power adapter harness, plugged into a power port in the cab, for keyswitch power.

29. After installation is complete, set up the system in accordance with integration instructions (PN 123000-241) Case IH MY2016-prior Series PPIII Integration.

30. Install the VCMs as shown in Figures 20 through 24. **The right half of the boom will mirror the left half.**

31. **Leap Start VCMs are required to be installed with the Left 1-6 side to the left side of the boom.**

Leap Start VCM Identification

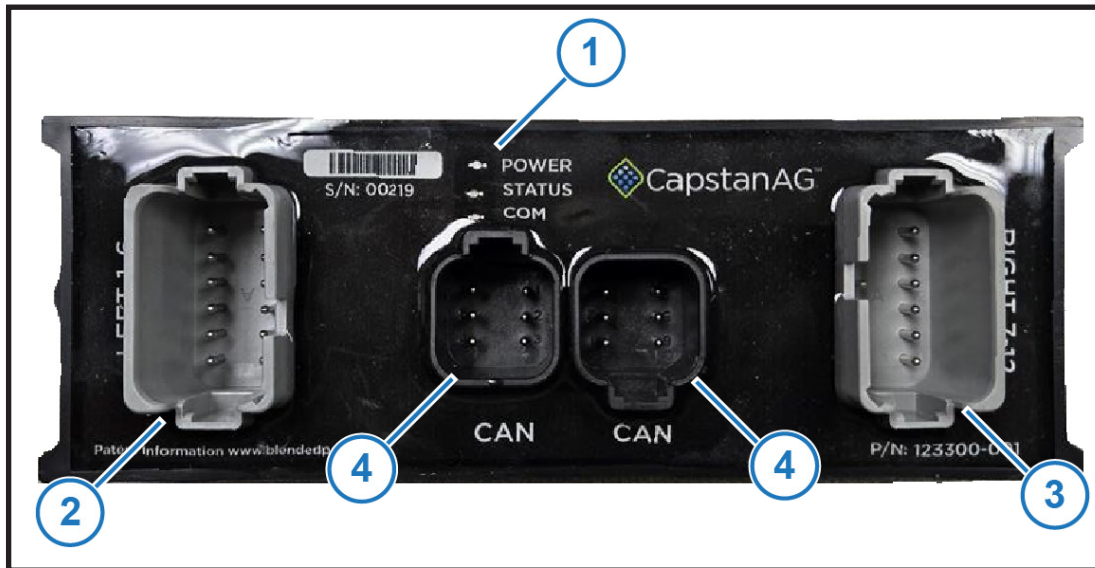


Figure 19: Leap Start VCM

Item	Description
1	VCM Status Lights
2	Valve Harness Connector for Valves LEFT 1-6
3	Valve Harness Connector for Valves RIGHT 7-12
4	CAN/Power Connections

Table 2: Leap Start VCM Identification

Pin	Wire Color	Description	
		Left 1-6	Right 7-12
1	Red	Valve 6 Power	Valve 7 Power
2	Black	Valve 5 Power	Valve 8 Power
3	Blue	Valve 4 Power	Valve 9 Power
4	Yellow	Valve 3 Power	Valve 10 Power
5	Green	Valve 2 Power	Valve 11 Power
6	Brown	Valve 1 Power	Valve 12 Power
7	Brown/White	Valve 1 Return	Valve 12 Return
8	Green/White	Valve 2 Return	Valve 11 Return
9	Yellow/White	Valve 3 Return	Valve 10 Return
10	Blue/White	Valve 4 Return	Valve 9 Return
11	Black/White	Valve 5 Return	Valve 8 Return
12	Red/White	Valve 6 Return	Valve 7 Return

Table 3: Leap Start VCM Valve Connection Pinout

VCM Installation



Figure 20: VCM 1 Installation Location



Figure 21: VCM 2 Installation Location



Figure 22: VCM 3 Installation Location

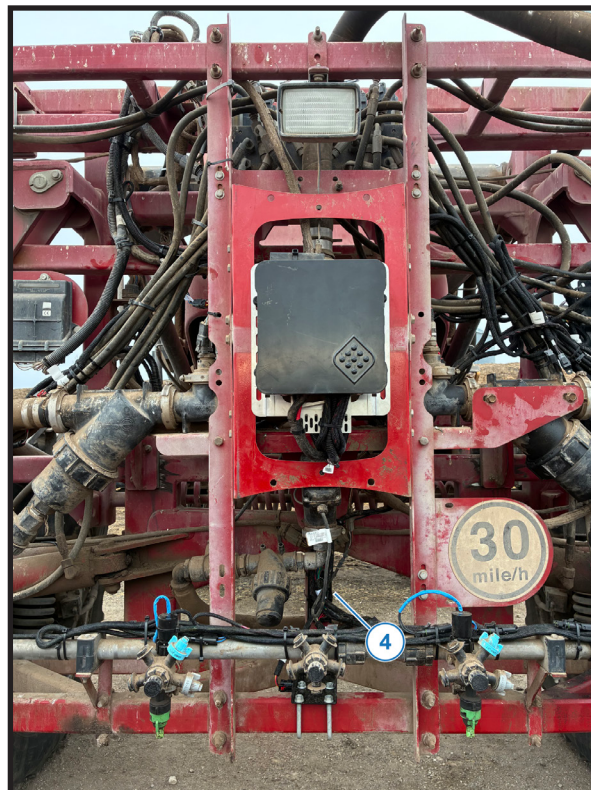


Figure 23: VCM 4 Installation Location