

BOOMPILOT[®]

INSTALLATION MANUAL

Automatic Boom Section Control Installation Manual
for Kit Number 90-02669

For use with Spra Coupe 3000/4000 w/Raven 4xx series monitor



TeeJet[®]
TECHNOLOGIES

BoomPilot[®]

A Subsidiary of  Spraying Systems Co.[®]

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Safety Information

TeeJet Technologies is not responsible for damage or physical harm caused by failure to adhere to the following safety requirements.

As the operator of the vehicle, you are responsible for its safe operation.

The BoomPilot is not designed to replace the vehicle’s operator.

Do not leave a vehicle while the BoomPilot is engaged.

Be sure that the area around the vehicle is clear of people and obstacles before and during engagement.

The BoomPilot is designed to support and improve efficiency while working in the field. The driver has full responsibility for the quality and work related results.

Disengage BoomPilot before operating on public roads or when not in use to prevent loss of vehicle control.

KIT CONTENTS

Unpack the installation kit and identify the required parts.

Item	Part Number	Description	Quantity
A	401-0016	Cable Power, 1 Lead, 2 ft, w/Packard Connector	1
B	45-05626	Power/CAN/Data Cable	1
C	45-05738	BoomPilot Harness, Raven Spra Coupe 3000/4000 Series	1
D	45-10101	Harness, Relay Interface, SM5 to Spra Coupe 3000/4000.....	1
E	78-05077	BoomPilot Section Driver Module (SDM).....	1
F	98-05276	Installation Manual, Spra Coupe 3000/4000 w/Raven.....	1
G	98-05243	Matrix Pro BoomPilot Setup Guide	1

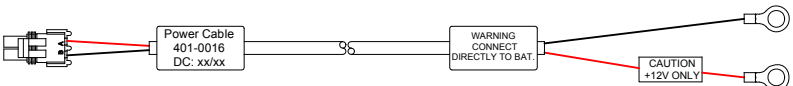
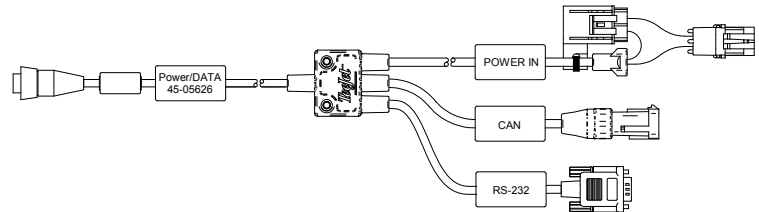
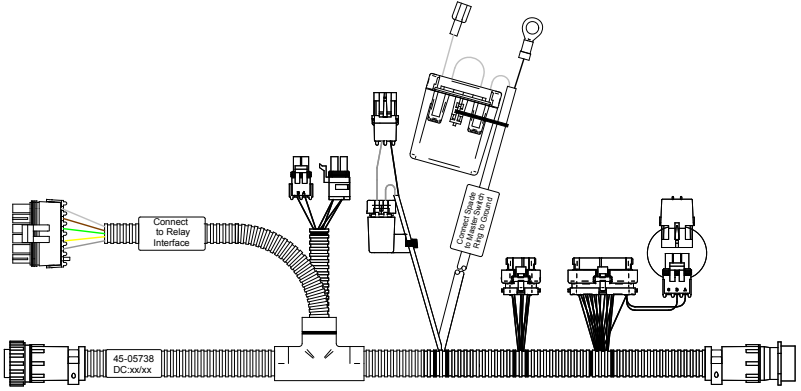
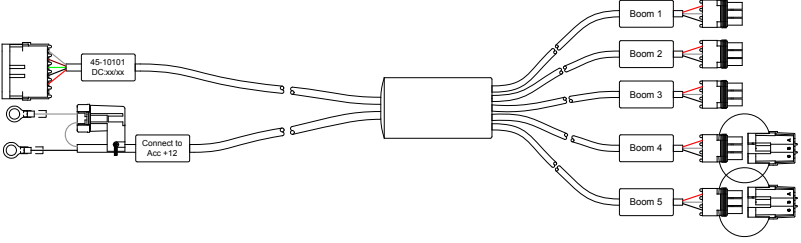
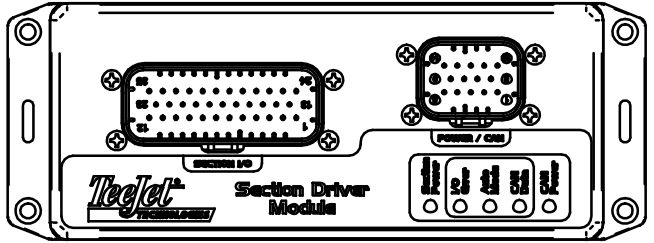
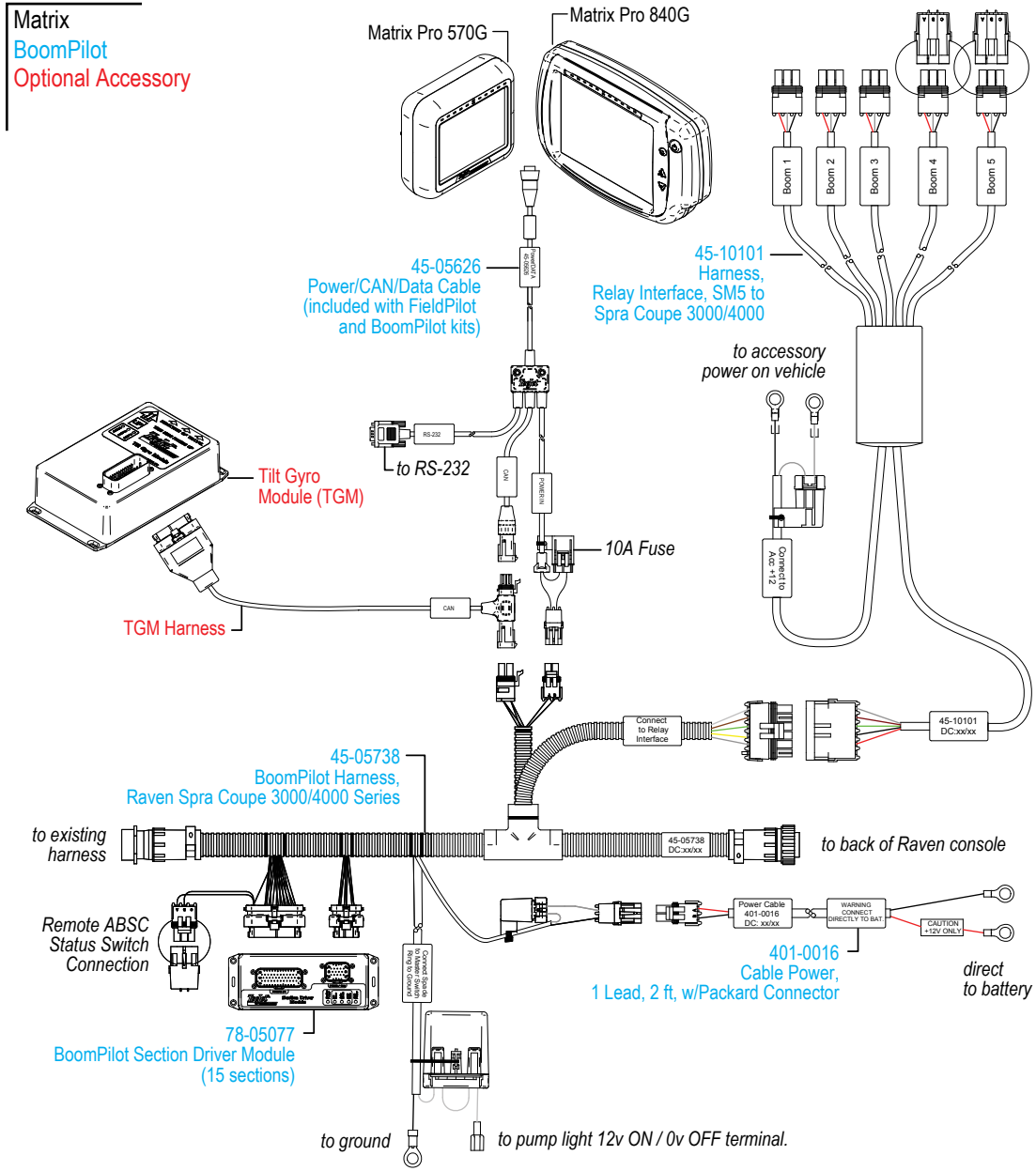
Item	Part #	Description	Illustration
A	401-0016	Cable Power, 1 Lead, 2 ft, w/ Packard Connector	
B	45-05626	Power/CAN/Data Cable	
C	45-05738	BoomPilot Harness, Raven Spra Coupe 3000/4000 Series	
D	45-10101	Harness, Relay Interface, SM5 to Spra Coupe 3000/4000	
E	78-05077	BoomPilot Section Driver Module (SDM)	

Figure 1-1: System Diagram



INSTALLATION



If there are questions concerning the installation of the BoomPilot system on this vehicle, or due to the changes in component specifications the parts supplied in the kit are not exactly as presented in this document, please contact your dealer or TeeJet Customer service representative for clarification before installation. TeeJet Technologies is not responsible for misuse or incorrect installation of the system.

NOTE: All references to left and right are stated as if the user is seated in the driver's seat.

NOTE: BE VERY CAREFUL TO ABSOLUTELY SECURE ALL CABLES AND HOSES SO THAT THEY DON'T INTERFERE WITH THE MANY MOVING PARTS OF THE MACHINE!

1. LOCATE THE CONNECTION POINT FOR THE SDM HARNESS

Locate the existing system's flow control harness on the right side of the cab under the control panel inside the black cowling as it routes up to the back of the Raven console.

Figure 1-2: Locate the Connection Point



2. MOUNT & CONNECT SDM

1. Mount SDM (**E**) as shown where LED's can be seen for troubleshooting.
2. Connect SDM (**E**) to BoomPilot Harness (**C**).

Figure 1-3: Mount SDM

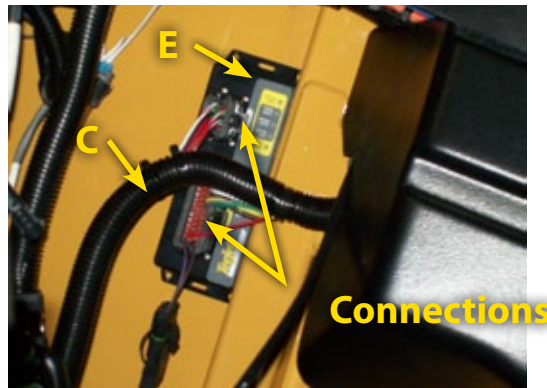
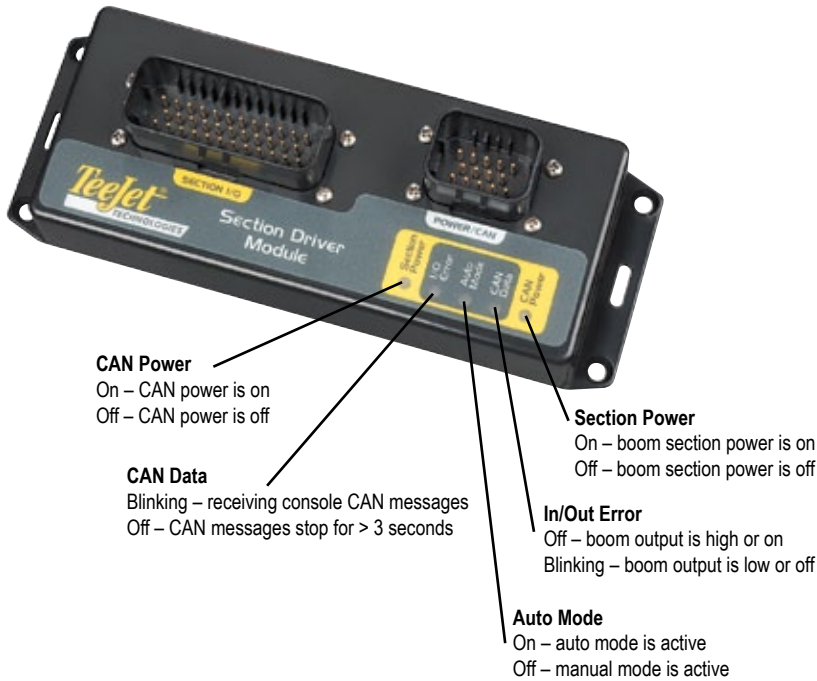


Figure 1-4: LED Description



3. DISCONNECT & RECONNECT HARNESSSES & CABLES

The BoomPilot SDM harness (C) tees into the existing system's connection between the Raven rate controller and flow control harness.

1. Disconnect existing connection at the back of the Raven console.
2. Connect BoomPilot harness (C) to Raven console.
3. Connect BoomPilot harness (C) to existing Raven flow control harness.

Figure 1-5: Disconnect Existing Connection



Figure 1-6: BoomPilot Harness to flow control harness BoomPilot Harness to Controller

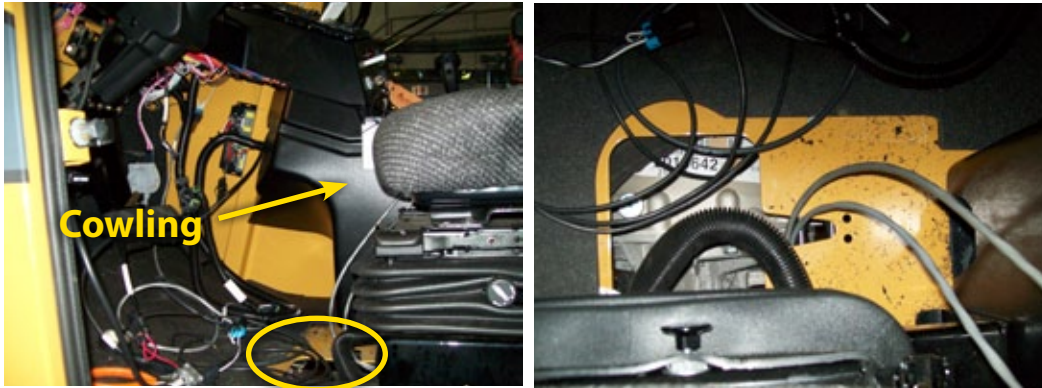


4. CONNECTION DIRECT TO BATTERY

Locate the cab access panel on the floor in front of the seat.

Power cable will be routed through or tucked behind black cowling to access BoomPilot Harness.

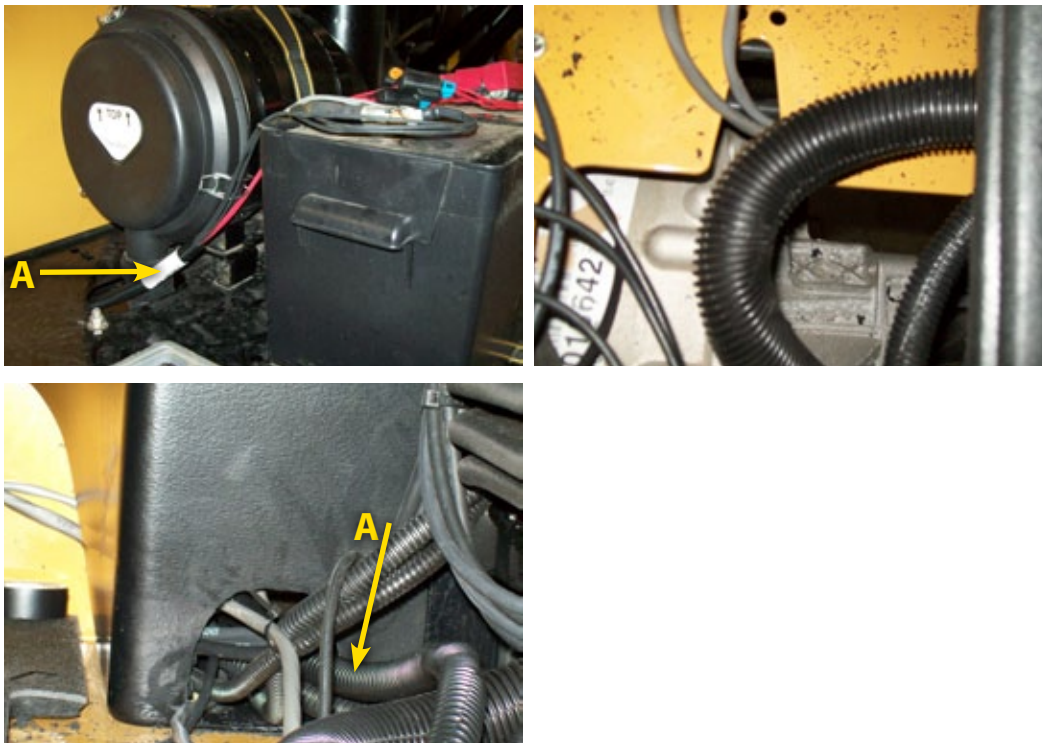
Figure 1-7: Locate Cab Access Panel



NOTE: (A) could be 45-05381 if FieldPilot is installed. If FieldPilot is not installed then extension will be required to extend 401-0016.

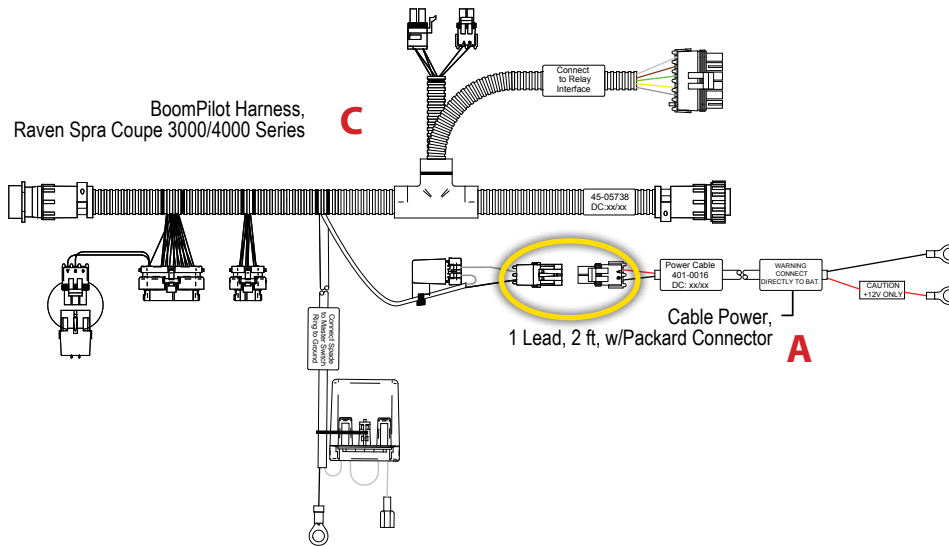
Attach Power Cable (A) to the battery. Route cable (A) through the cab access panel.

Figure 1-8: Through Cab Access Panel



Route cable through access hole or tuck behind black cowling, and connect Power Cable (A) to BoomPilot Harness (C). Connection point will be tucked behind black cowling.

Figure 1-9: Power Cable to BoomPilot Harness



5. MASTER SWITCH CONNECTION

Carefully remove switch cover on top of black cowling to obtain access to the pump light area. Connect spade connector of the BoomPilot Cable (C) connection labeled “Connect Spade to Master Switch” to the pump light terminal that is “12v ON / 0v OFF”.

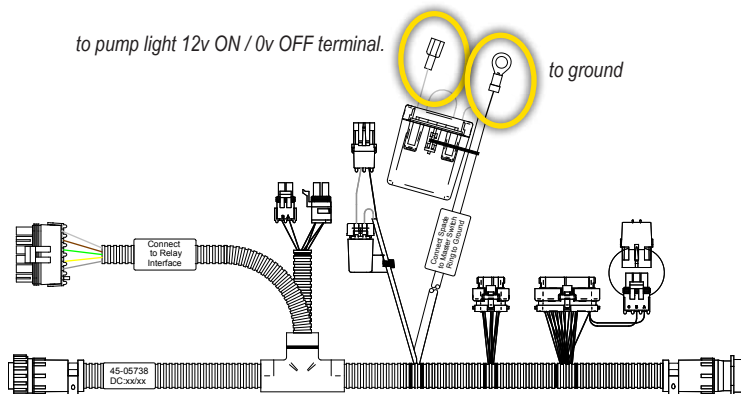
Connect ring section of the BoomPilot Cable (C) connection labeled “Connect Ring to Ground” to the cab stud ground point on the right-hand side of the cab wall.

Replace switch cover.

Figure 1-10: Locate Cab Access Panel



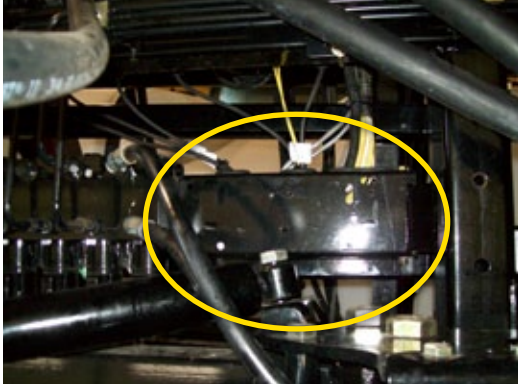
to pump light 12v ON / 0v OFF terminal.



6. RELAY INTERFACE CONNECTION

Carefully remove black panel to shutoff electrical compartment (located at the boom rack) with existing yellow wires.

Figure 1-11: Locate Valve Electrical Compartment



Connect boom sections of Relay Interface Harness (D) to valve connections inside electrical compartment. The two (2) gray wires of the Relay Interface Harness will exit the top of the compartment. The AGCO valve connections unplugged in previous step will not be used and should remain in the electrical compartment.

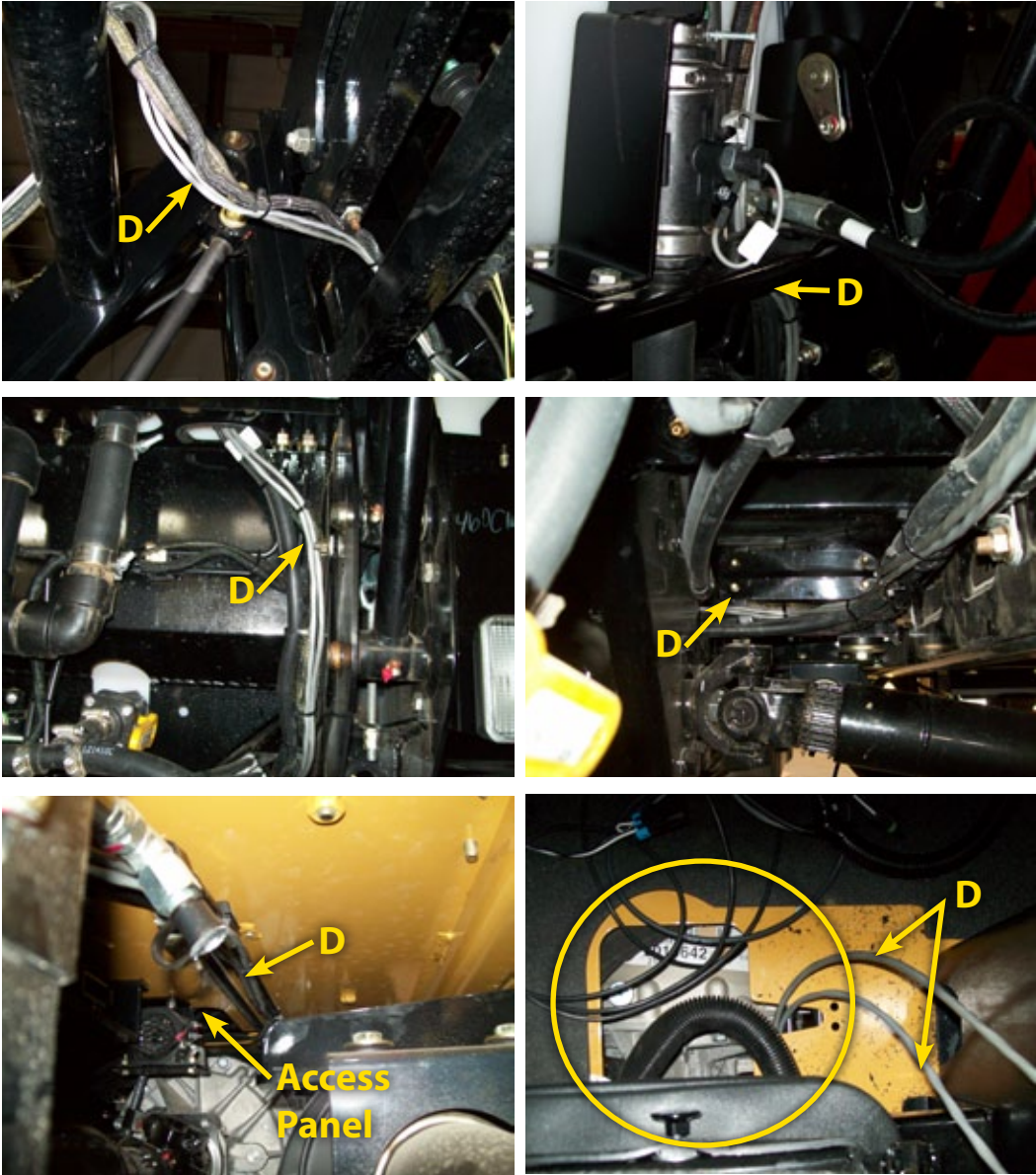
Figure 1-12: Connect Valve Connections



Replace black panel to valve electrical compartment.

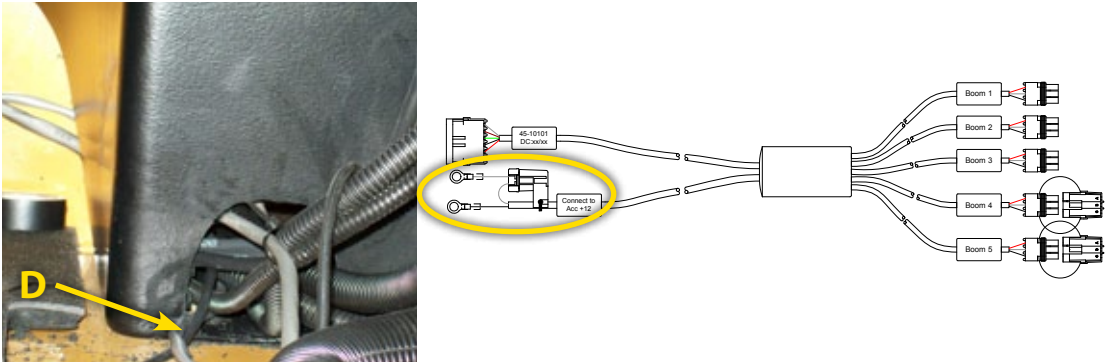
Route the gray Relay Interface Harness cables forward to the cab access panel along other AGCO wires to avoid moving parts.

Figure 1-13: Route the Gray Relay Interface Harness Cables



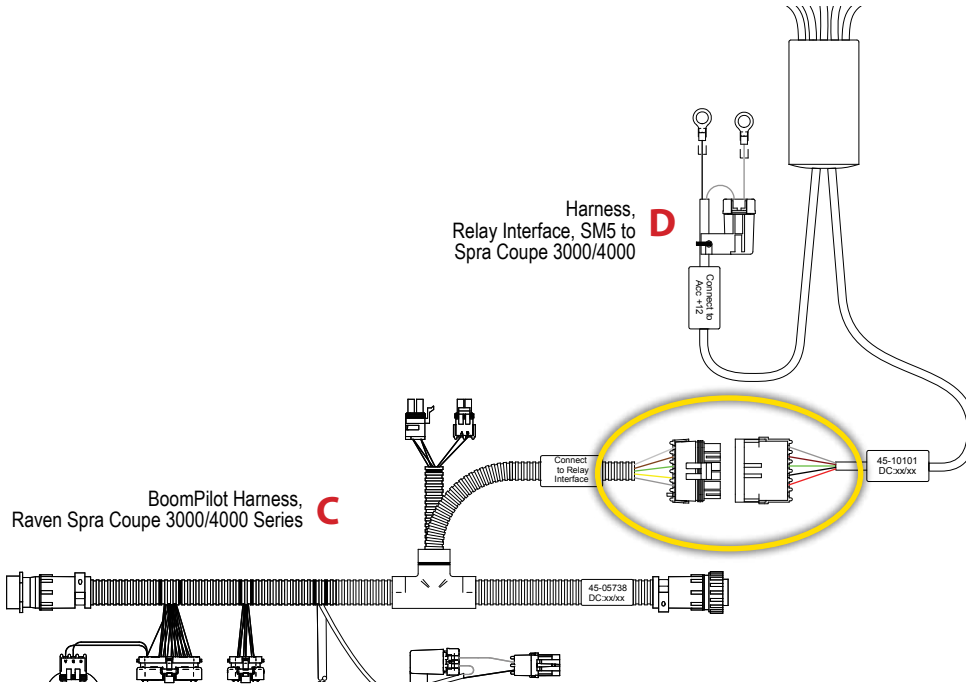
Route accessory power connection of the Relay Interface Harness (D) through or behind the black cowling and connect to accessory power on vehicle.

Figure 1-14: Route the Gray Relay Interface Harness Cable



Route 6 position Weather Pack end of the Relay Interface Harness (D) through or behind the black cowling and connect to the BoomPilot Harness (C).

Figure 1-15: Route the Gray Relay Interface Harness Cable



7. SECURE CABLES AND HARNESSSES

Gather cables and harnesses together, and neatly secure them to not obstruct the operator.

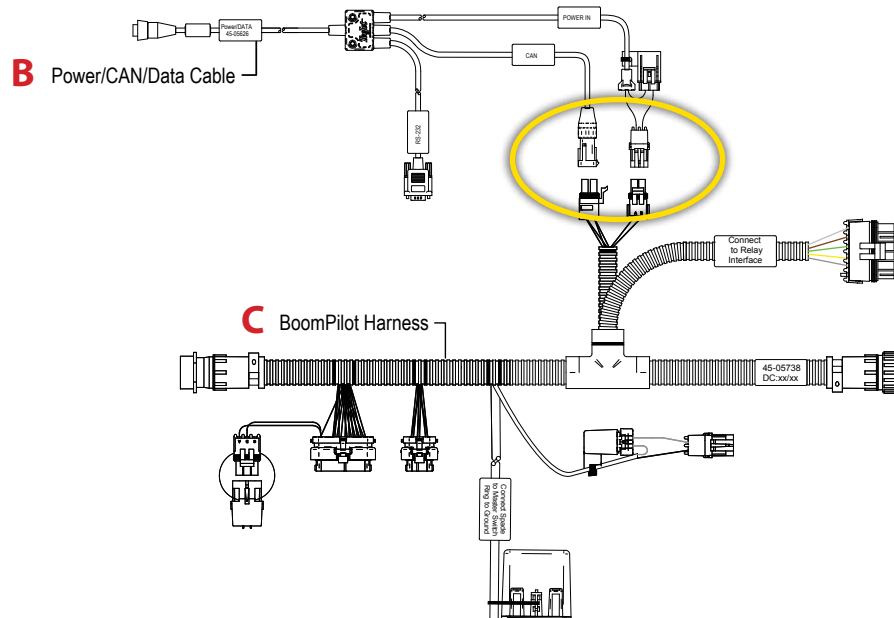
Figure 1-16: Secure Cables and Harnessses



8. CONNECT POWER/CAN/DATA CABLE TO BOOMPILOT HARNESS

Connect Power/CAN/Data Cable (B) to BoomPilot Harness (C).

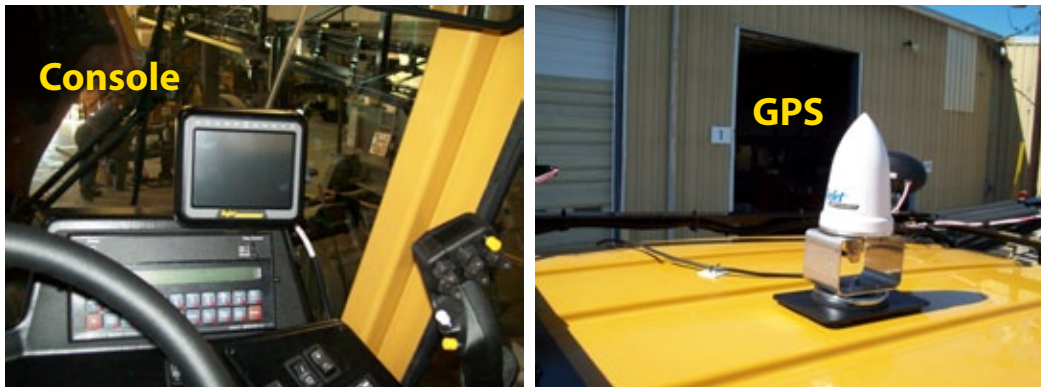
Figure 1-17: Connect Power/CAN/Data Cable to BoomPilot Harness



9. RECOMMENDED ELECTRONICS INSTALLATION

The control console can be mounted to the operator's preference. The GPS antenna should be mounted in the center on top of the cab on a metal surface of at least 4" square.

Figure 1-18: Recommended Electronics Installation



10. COMPLETE ELECTRONIC INSTALLATION

Refer to the Matrix Pro BoomPilot Setup Guide for further instructions on setting up and using your Matrix Pro for ABSC.

If not using a Matrix Pro, please refer to the owner's manual supplied with the guidance system to complete the electronic installation and setup.

BOOMPILOT[®]


INSTALLATION MANUAL

A series of equipment-specific installation kits have been developed to work in conjunction with your automated boom section control system. This kit contains the necessary components and instructions to install ABSC on a Spra Coupe 3000/4000 w/Raven. Please review this manual thoroughly before beginning the installation process.

BoomPilot[®]



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98-05276 R1 EN-US English-US
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