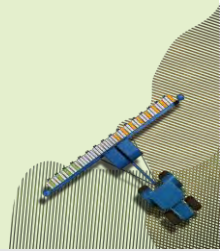




# Introduction to SmartBox®+: 24 Row Harness Installation



## Harness Design and Layout Information :

### General design

The SmartBox+ harness system is split into 3 separate groups:

1. *Communication harness*

The communication harness carries CAN communication from the display, to the ECU and the meters.

2. *Power harness*

The power harness supplies power to the meters. It is critical that all meters in the system receive adequate power, hence the power harness is separate from the communication harness to allow power to be applied at multiple points along the planter, ensuring the system is not impacted by voltage drop

3. *Display harness*

The display harness is only required if the OEM display is not used, for example when using a Trimble, AgLeader or some other brand of display  
The display harness provides power and CAN communication to the display and also provides connection to the ECU.

### Layout:

#### *Communication harness – ISO connector to the ECU*

From the ISO connector at the tractor to the ECU, the communication harness provides ISO based CAN communication between the display and the ECU, via the ISO-ECU cable.

#### *Communication harness – ECU to Meters*

The meter harness is made up of a daisy chain of harnesses from one row to the next.

The communication from the ECU to the Meters is separated from the ISO communications

#### *Power harness*

To ensure adequate power is supplied to all meters the power harness is separate from the communication harness

The power harness starts at the tractor battery and runs out to the planter bar

At specific locations along the planter power is added to the communication harness to ensure adequate power is supplied to all meters.

### Power supply and voltage drop:

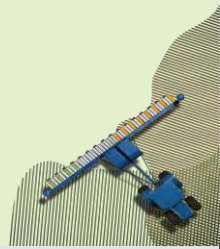
It is critical that all Meters in the system have adequate power. The power harness has been designed to provide consistent power at all points on the planter bar, due to the length of a planter it is possible that voltage drop limits the ability of the meters to function.

To avoid issues with voltage drop, power is added to the system at set intervals along the planter, using the 'Power Injection' harness. Each power injection location should be no more than 8 rows a Meter.

Number of rows	Number of injection points	Location of injection points (row number)
16	1	8-9
24	2	8-9, 16-17
32	3	8-9, 16-17, 24-25



# Introduction to SmartBox®+: 24 Row Harness Installation



This document introduces the installation process for the SmartBox+ system. For more complete details, please visit: [SIMPAS.com/resources](http://SIMPAS.com/resources)

*SmartBox is a registered trademark of AMVAC Chemical Corporation*

## Harness Components:

The SmartBox+ harness is split into three sets: One for power, one for communication, and one for the display harness (if applicable).

### Power Harness Components:

1. ME0514007 / SMSE004 – Battery Harness
2. ME0514031 / SMSE005 – Power Injection Harness
3. ME0514038 / SMSE006 – Power Tee Harness
4. ME0514008-30 / SMSE021 – Power Extension Harness

### Communication Harness Components:

1. ME0502001-36 / SMSE001 – ISO harness
2. ME0514029 / SMSE003 – ECU to Row Unit 1 harness
3. ME0514037 / SMSE017 – Row unit harness
4. ME0514030 / SMSE022 – CAN Extension harness

### Display Harness Components:

Display harnessing will vary depending upon which display is being used.

- If the OEM tractor display is used, a display harness will NOT need to be installed.
- If an aftermarket display is being used, the harnessing for that display must be installed:
  - For Trimble GFX series displays:
    - Use the display harness kit supplied by AMVAC
    - Part Number: ME0514009-SB
  - For AgLeader InCommand displays:
    - Use the display harness that includes the ISO harnessing and the ISO connector
    - Consult your AgLeader dealer for the appropriate Part Numbers

## Harness Installation tips:

**When installing SmartBox+ harnesses**, please pay attention to the following details:

- When running the power and ISO harnesses down the fold bar to the tool bar, ensure that the harness cannot be pinched between the tool bar, transport hook and the fold bar
- This is the most common cause of power harness failures
- The power harness becomes worn and eventually exposes the wires to short which causes a blown fuse

**When installing the Row Unit harness:**

- Ensure there can be no contact between the harness and the closing wheel depth adjustment T-handle
- Ensure the harness cannot rub against the parallel arms
- Ensure the harness cannot be pinched in a fold point
- Ensure the harness has adequate length in **both** the folded **and** open positions of the planter.



## Harness component introduction:

### Component introduction

The 8 harnessing components for SmartBox+ come together to supply power and communication to the system, a brief description of each component can be found below:

#### Power Harness

1. ME0514007 / SMSE004 – Battery Harness  
The battery harness is installed at the tractor power disconnect. It is routed through the tractor chassis to the back of the tractor, next to the ISO connector
2. ME0514031 / SMSE005 – Power Injection Harness  
The power injection harness is installed on the planter bar. It allows the power coming from the power harness to be connected to the meter communication harness and supplies a strong source of power to the meters.
3. ME0514038 / SMSE006 – Power Tee Harness  
The power harness tee cable is used to split the power harness from one source into two outlets.
4. ME0514008-30 / SMSE021 – Power Extension Harness  
The power extension harness is used when additional length is required in the power harness

#### Communication Harness

5. ME0502001-36 / SMSE001 – Tractor ISO to ECU  
The Tractor ISO to ECU harness carries communication between the display to the ECU.
6. ME0514029 / SMSE003 – ECU to Row Unit 1  
The ECU to row unit 1 harness carries communication between the ECU and the Granular Meter at Row 1, which is the first Meter in the system
7. ME0514037 / SMSE017 – SmartBox+ Row Unit Harness  
The Row Unit Harness connects the Granular Meters to the Communication and Power harnesses.  
The Row Unit harness is repeated at each row, forming a daisy chain all along the planter to make a continuous harness
8. ME0514030 / SMSE022 – CAN Extension Harness  
The CAN extension harness connects one Row Unit harness to another, allowing an extension of 10 feet.  
The extension harness is used to route the communication line around planter fold points, and other planter accessories.

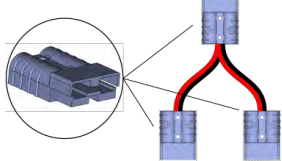
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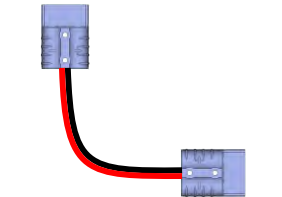
2



3



4



5



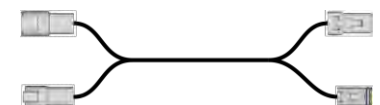
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7

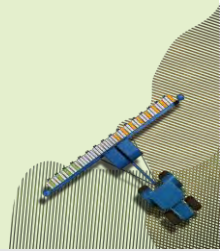


8





# Introduction to SmartBox®+: 24 Row Harness Installation



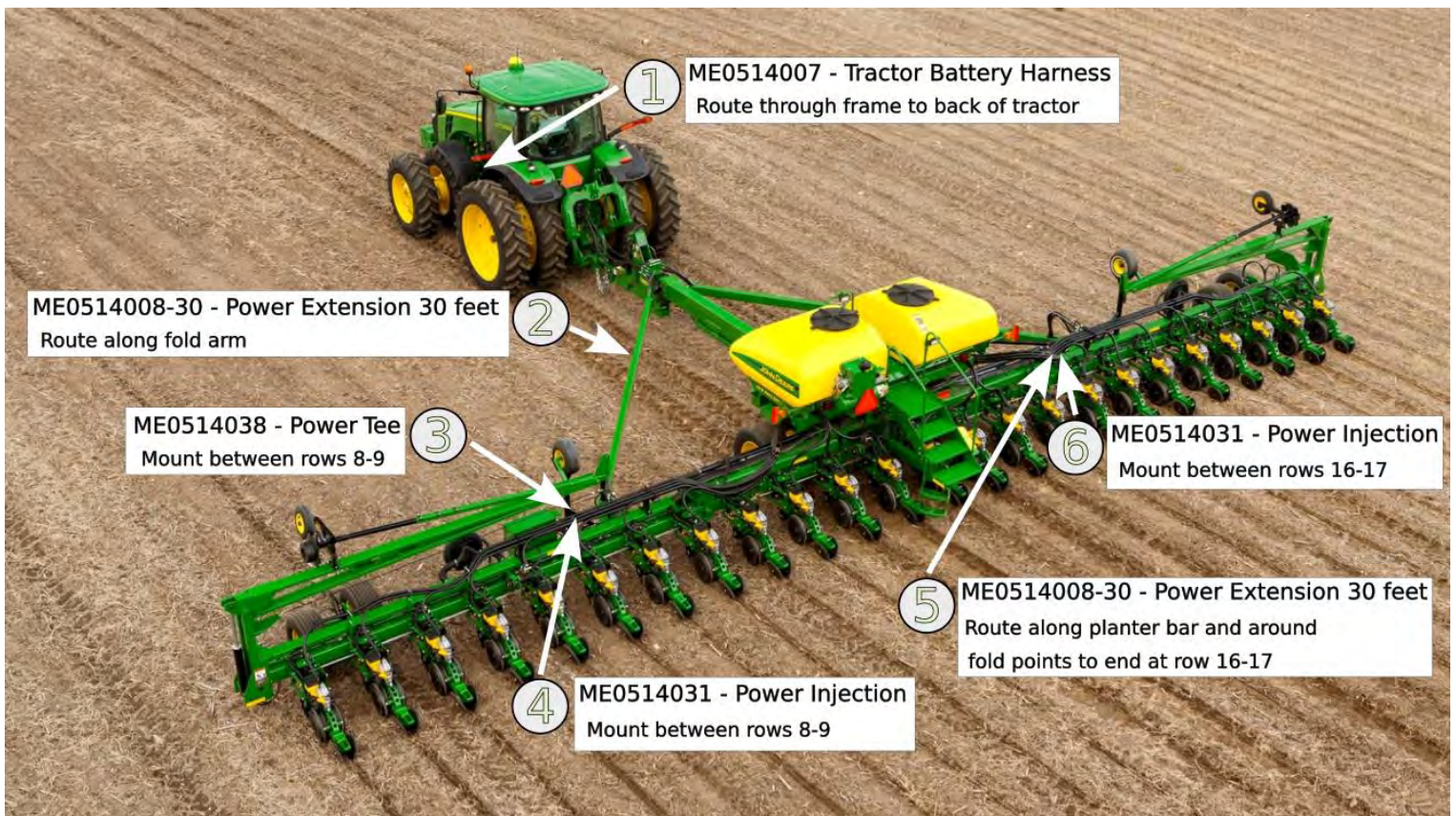
## Power Harness Installation:

### General layout

The power harness is used to ensure a strong supply of electricity to the Granular Meters and to ensure the voltage that's available to each meters is consistent and does not drop along the length of the platter bar.

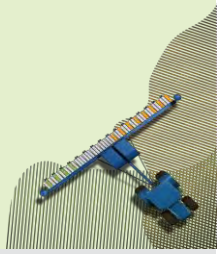
The four main components of the power harness are installed in the following parts of the system:

- 1 **ME0514007 / SMSE004 – Tractor battery harness**  
Installed on the tractor, connecting to the power disconnect, routing through the frame to the back of the tractor.
- 2, 5 **ME0514008-30 / SMSE021 – 30-foot power extension**  
Two of these are used in a 24-row planter installation  
The first is routed from the front of the planter, along the fold bar and to the planter bar at about row 8, the second is routed along the planter bar between rows 8 and 16.
- 3 **ME0514038 / SMSE006 – Power Tee**  
The Power Tee is installed at row 8-9.
- 4, 6 **ME0514031 / SME005 – Power Injection**  
Two of these are installed in a 24-row planter installation. One at row 8-9 and one at row 16-17.





# Introduction to SmartBox®+: 24 Row Harness Installation



## Communication Harness Installation:

### General layout

The Communication harness carries data between the display, ECU and granular meters to allow the system to function.

The three main components of the Communication harness are installed in the following parts of the system:

**1 ME0502001-36 / SMSE001 – Tractor ISO to ECU Harness**

Installed at the planter hitch, routed along the fold bar and terminating at the ECU  
Connects the ECU to the tractor ISO connector (or the aftermarket display ISO connector if applicable)

**2 ME0514029 / SMSE003 – ECU to Row Unit 1 Harness**

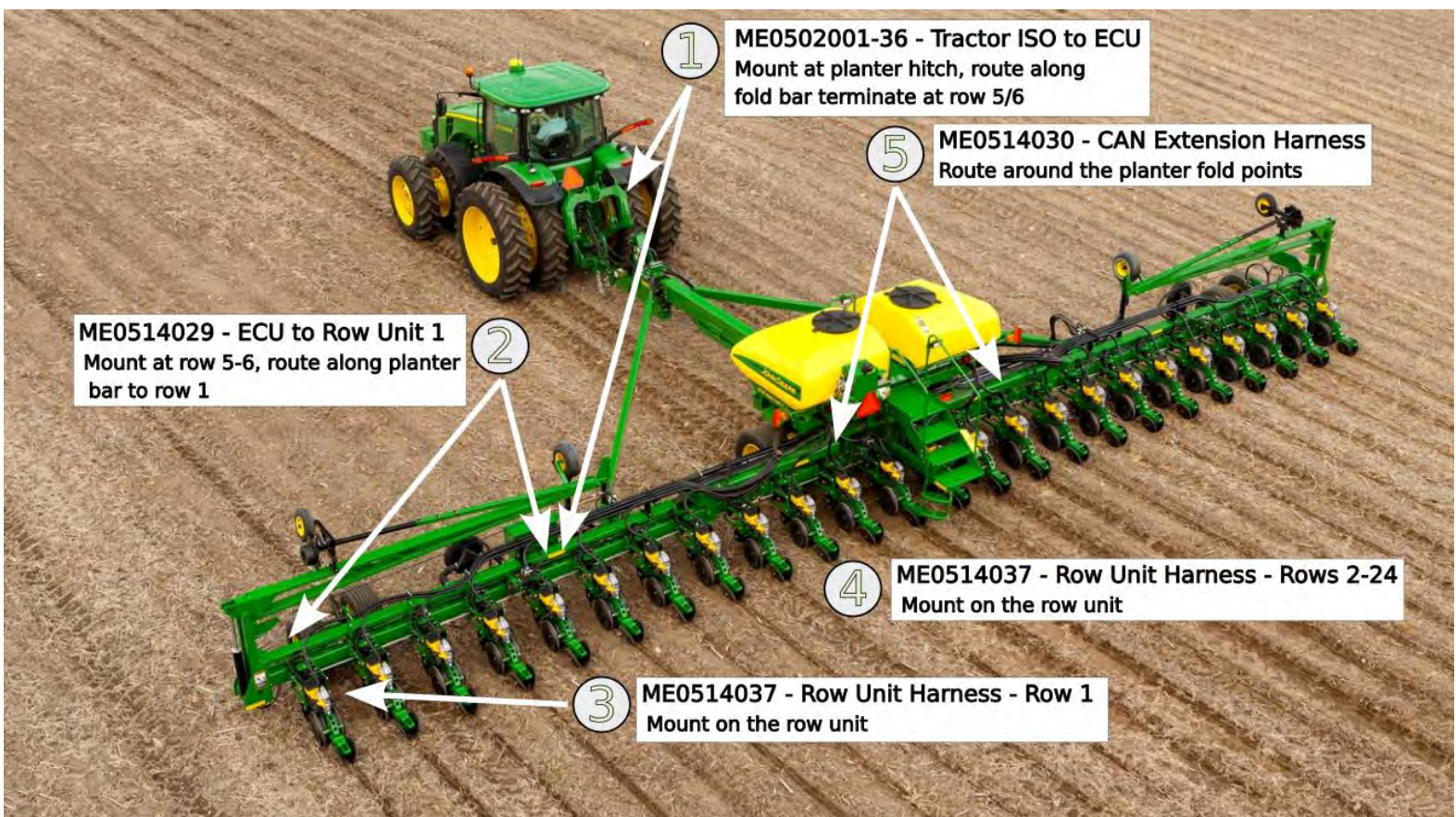
Installed along the planter bar, starting at the ECU (row 5-6) and terminating at the first row unit on the planter bar (row 1).  
Connects the ECU to the first Granular Meter

**3, 4 ME0514037 / SMSE017– SmartBox+ Row Unit Harness**

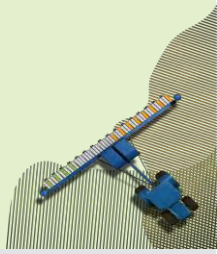
Installed at each row unit on the planter (i.e. for a 24-row system, there will be 24 SMSE017 harnesses)  
The first row unit harness connects to the second, the second connects to the third and so-on, forming a daisy chain down the entire planter bar

**ME0514030 / SMSE022– CAN Extension Harness**

Installed at each of the planter fold points, also in cases where the Row Unit Harness must be routed around planter accessories



# Introduction to SmartBox®+: 24 Row Harness Installation



## Power Harness Installation Details:

### **ME0514007 / SMSE004 – Battery Harness**

- 1 Connect the battery harness to the power disconnect on the tractor.  
Route through the tractor frame.

### **ME0514008-30 / SMSE021 – Power Extension Harness**

- 2 Route the first extension harness along the fold arm.  
Route the second extension harness along the planter bar, around the fold points

### **ME0514038 / SMSE006 – Power Tee Harness**

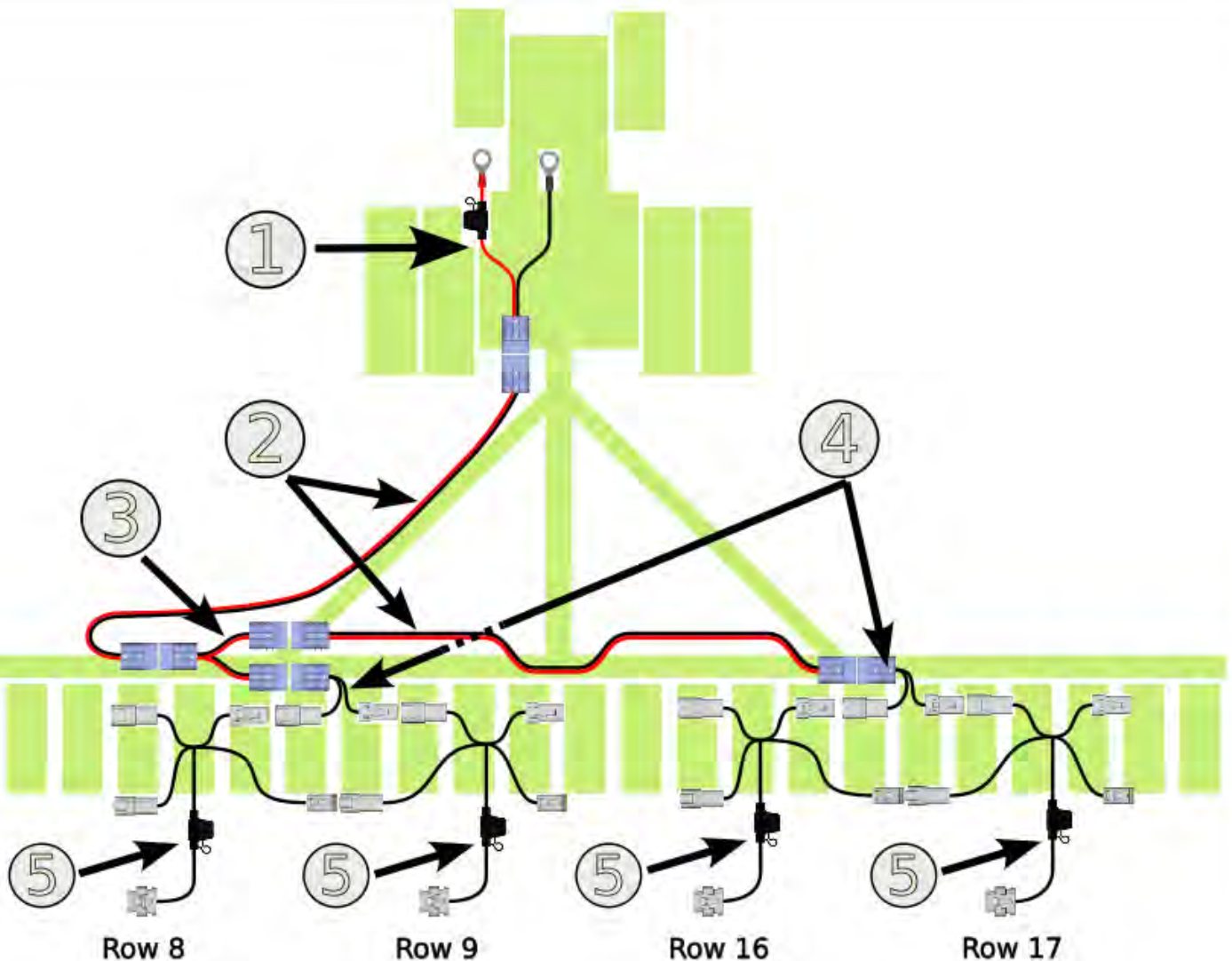
- 3 Connect the Power Tee input to the first power extension coming from the hitch. Connect the outputs to the first Power injection harness and second Power extension

### **ME0514031 / SMSE005 – Power Injection**

- 4 Connect the first Power Injection harness to the Power Tee at row 8-9 and the second to the Power Extension at row 16-17

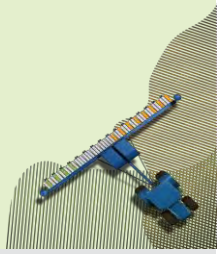
### **ME0514037 / SMSE017– Row Unit Harness**

- 5 Connect the row unit harness at row 8-9 and row 16-17 to the power injection harness



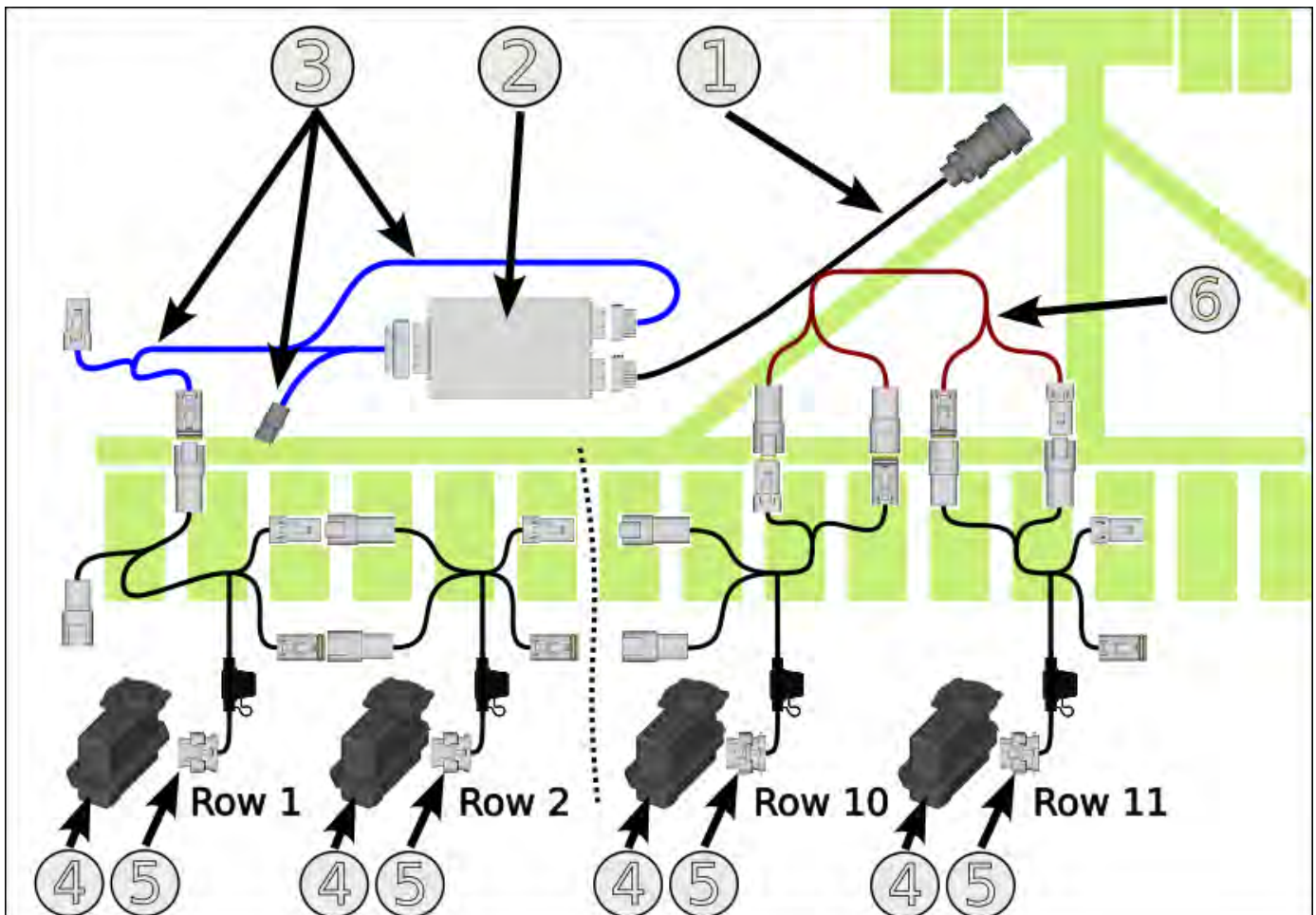


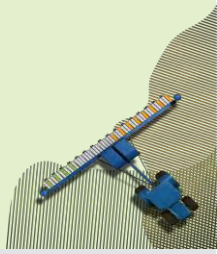
# Introduction to SmartBox®+: 24 Row Harness Installation



## Communication Harness Installation Details – Left side:

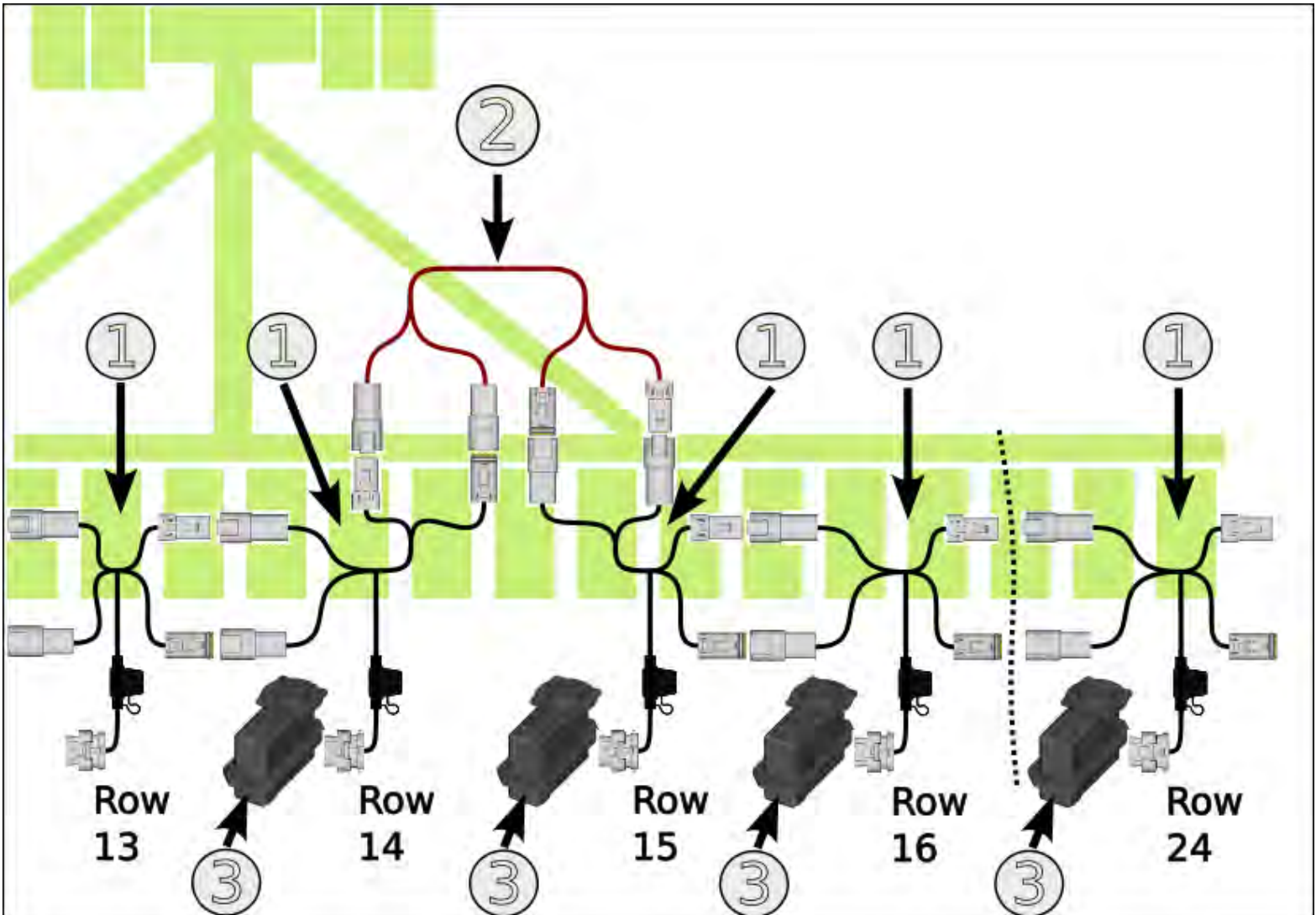
- 1 **ME0502001-36 / SMSE001 – Tractor ISO to ECU**  
Connect the ISO connector to the tractor or aftermarket display ISO connector and to the 'IN' port of the ECU. Route the harness along the planter fold arm.
- 2 **SMSE002 – ECU**  
Mount the ECU securely to the planter bar somewhere around row 5-6
- 3 **ME0514029 / SMSE003 – ECU to Row unit 1 Harness**  
Connect to the 'OUT' port of the ECU and the large 42 pin ECU connector.  
Route along the planter bar to row 1.  
Connect 'Master left hand' connector to 'CAN IN' of the ME0514037 row unit harness on Row 1  
Connect the 'Implement Switch' connector to the implement switch.  
Do not connect the 'Alt Power' connector
- 4 **SMMA100 – Granular Meter**  
Connect the SMSE017 harness to the Granular Meter.  
Mount the granular meter using the latches
- 5 **ME0514037 / SMSE017 – Row Unit Harness**  
Route the Row Unit Harness from the planter bar, along the parallel arms to the row unit.  
Connect the 'CAN IN' 'PWR IN' connectors to the previous row's 'CAN OUT' and PWR OUT' connectors
- 6 **ME0514030 / SMSE022 – CAN Extension Harness**  
Connect to the ME0514037 Row unit harness at row 10.  
Route the extension harness around the fold point to Row 11.  
Connect to the ME0514037 harness on row 11.



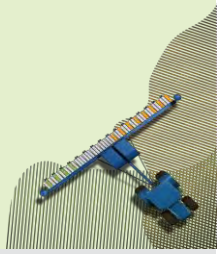


## Communication Harness Installation Details – Right side:

- ME0514037 / SMSE017 – Row Unit Harness**  
Route the Row Unit Harness from the planter bar, along the parallel arms to the row unit. Connect the 'CAN IN' 'PWR IN' connectors to the previous row's CAN OUT' and PWR OUT' connectors
- ME0514030 / SMSE022 – CAN Extension Harness**  
Connect to the ME0514037 Row unit harness at row 14. Route the extension harness around the fold point to Row 14. Connect to the ME0514037 harness on row 15.
- SMMA100 – Granular Meter**  
Connect the ME0514037 harness to the Granular Meter. Mount the granular meter using the latches







## Harness Connection Details:

### ME0514007 / SMSE004 – Battery Harness - Tractor

#### Connections:

##### At the tractor battery:

Connect ring terminals to power disconnect

##### At the tractor hitch:

Connect power connector to SMSE021 power connector

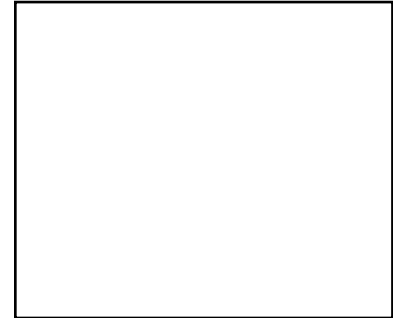
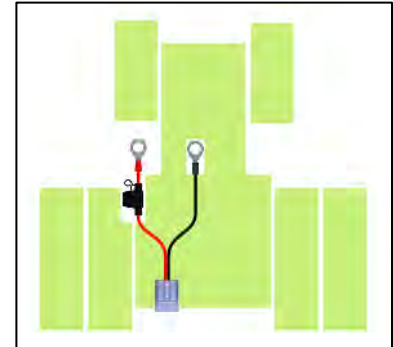
#### Installation:

- Connect the ring terminal connectors of the Battery Harness to the power disconnect of the tractor. Doing this ensures that power is removed from the SmartBox+ system when the tractor is keyed off and the disconnect is opened.
- The battery harness is 30 feet in length, so it has plenty of length available to route through the tractor chassis and out to the hitch point.

#### Tips:

Ensure the ring terminals are tightened fully

Ensure the harness is routed safely, where it cannot be pinch or worn by moving parts



**Connect to  
Tractor Power  
Disconnect**



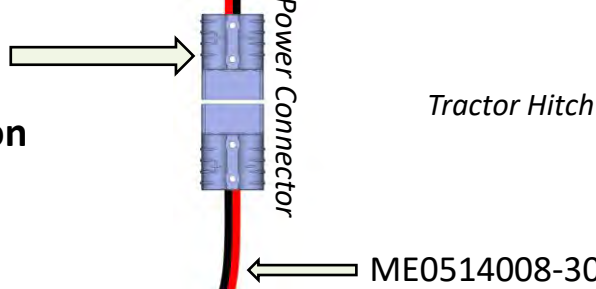
Battery

**Route through  
tractor chassis to  
rear of tractor**



ME0514007

**Connect to  
SMSE021 Power  
Harness Extension**



Power Connector

Tractor Hitch

ME0514008-30



Power Connector



# Introduction to SmartBox®+: 24 Row Harness Installation



## Harness Connection Details:

### ME0514008-30 / SMSE021– Power Extension Harness 1 – Hitch to Bar

#### Connections:

##### At the tractor hitch:

Connect power connector to ME0514007 Battery Harness

##### At the planter bar row 8-9:

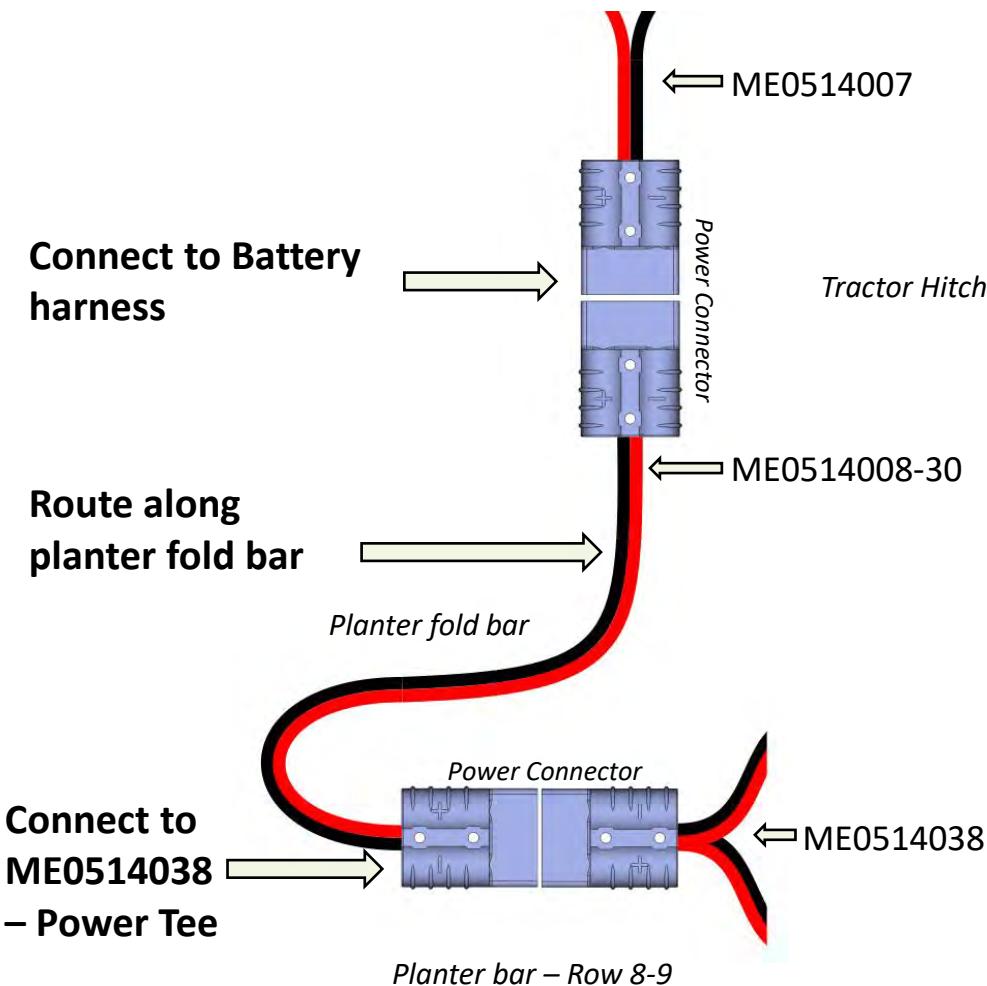
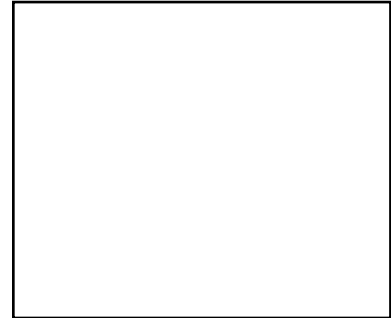
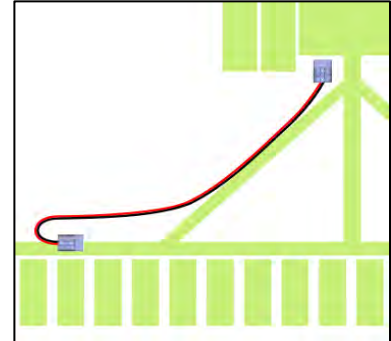
Connect power connector to ME0514038 Power Harness Tee

#### Installation:

- Start with one end at the planter hitch.
- Route the extension harness along the planter fold bar and to the planter bar and terminate at Row 8-9.

#### Tips:

When routing along the planter fold bar, ensure the harness cannot be pinched by the rack bracket, this is a common pinch point which can cause severe damage to the harness.

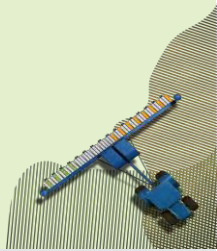


Power Connector





# Introduction to SmartBox®+: 24 Row Harness Installation



## Harness Connection Details:

### ME0514038 / SMSE006 – Power Harness Tee – Row 8-9

#### Connections:

At the planter bar row 8-9:

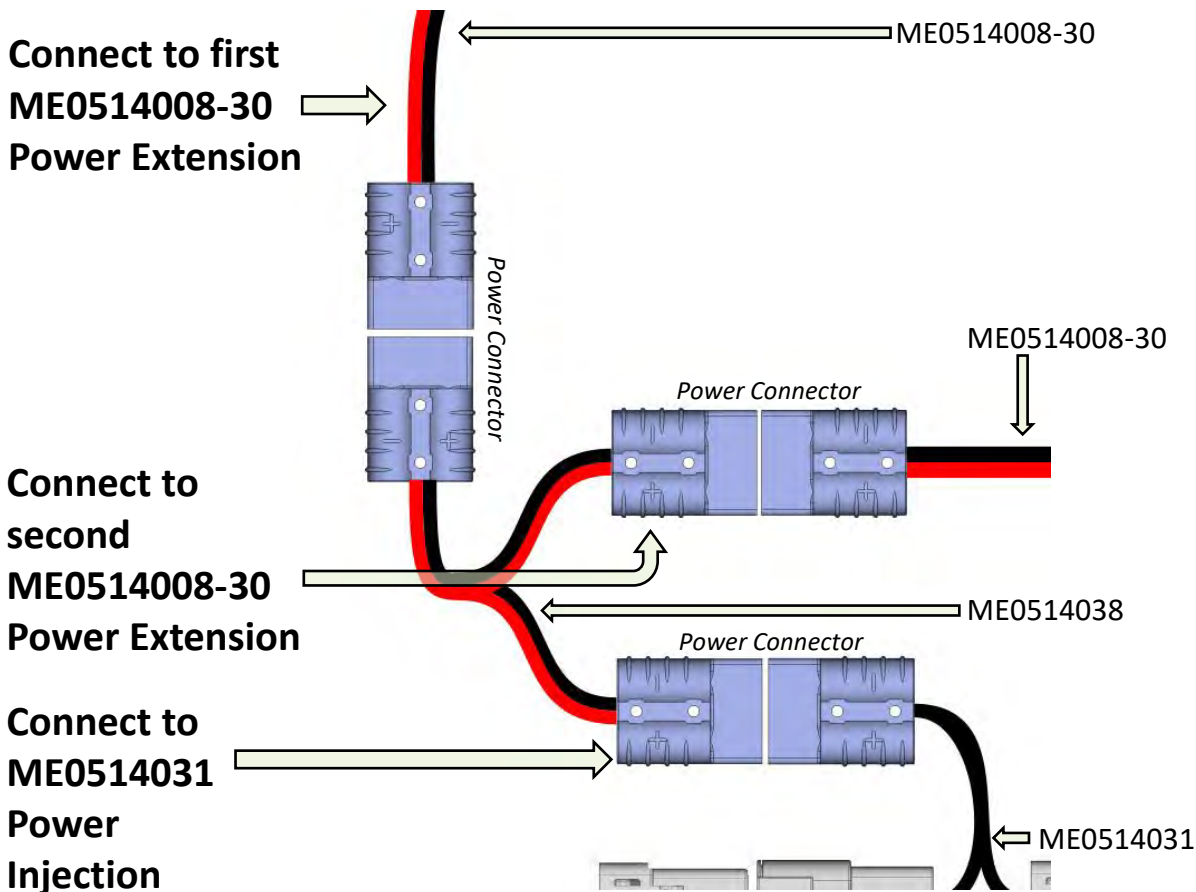
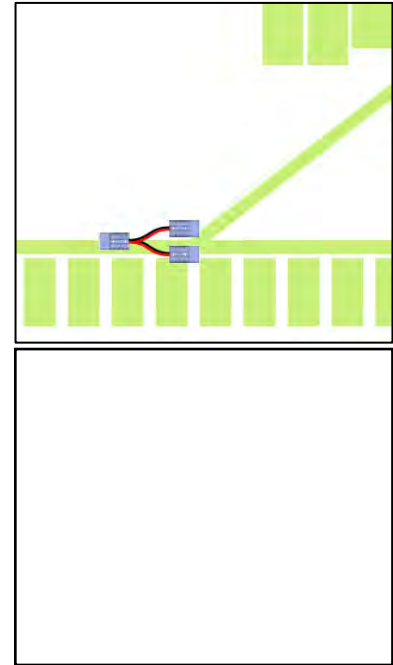
Connect the input connector to the ME0514008-30 Power Extension Harness  
Connect the first output to the first ME0514031 Power Injection Harness  
Connect the second output to the second ME0514008-30 Power Extension Harness

#### Installation:

- Install the Power Tee at row 8-9 on the planter bar, at the end of the first ME0514008-30 power extension

#### Tips:

Note the orientation of the rubber boots on each connector, when mated correctly a low-level protective seal is formed



Power Connector

Planter bar – Row 8-9



# Introduction to SmartBox®+:

## 24 Row Harness Installation



### Harness Connection Details:

### ME0514031 / SMSE005 – Power Injection Harness 1 – Row 8-9

#### Connections:

##### At the planter bar row 8-9:

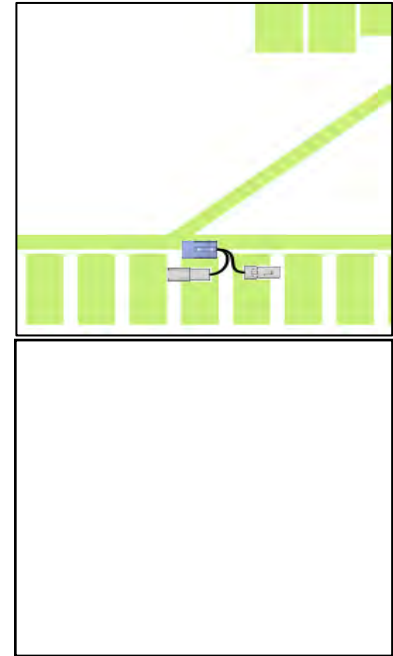
- Connect the power connector to the ME0514038 Power Tee Harness
- Connect the Deutsch connector labelled 'POWER IN' to the connector on ME0514037 harness from row 8 labelled 'PWR OUT'
- Connect the Deutsch connector labelled 'POWER OUT' to connector on the ME0514037 harness from row 9 labelled 'PWR IN'

#### Installation:

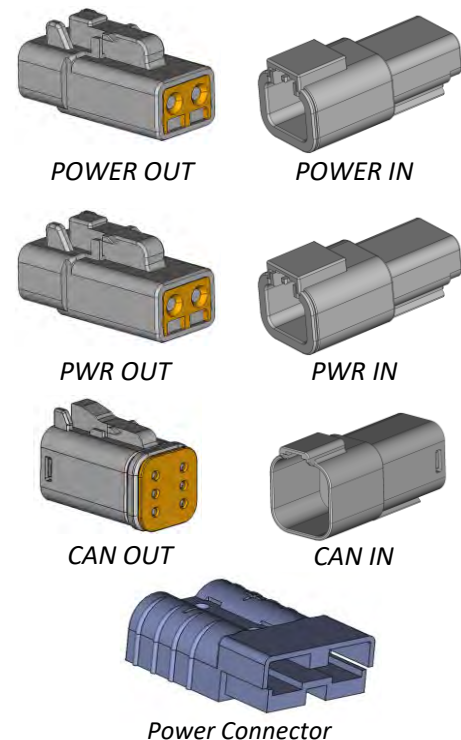
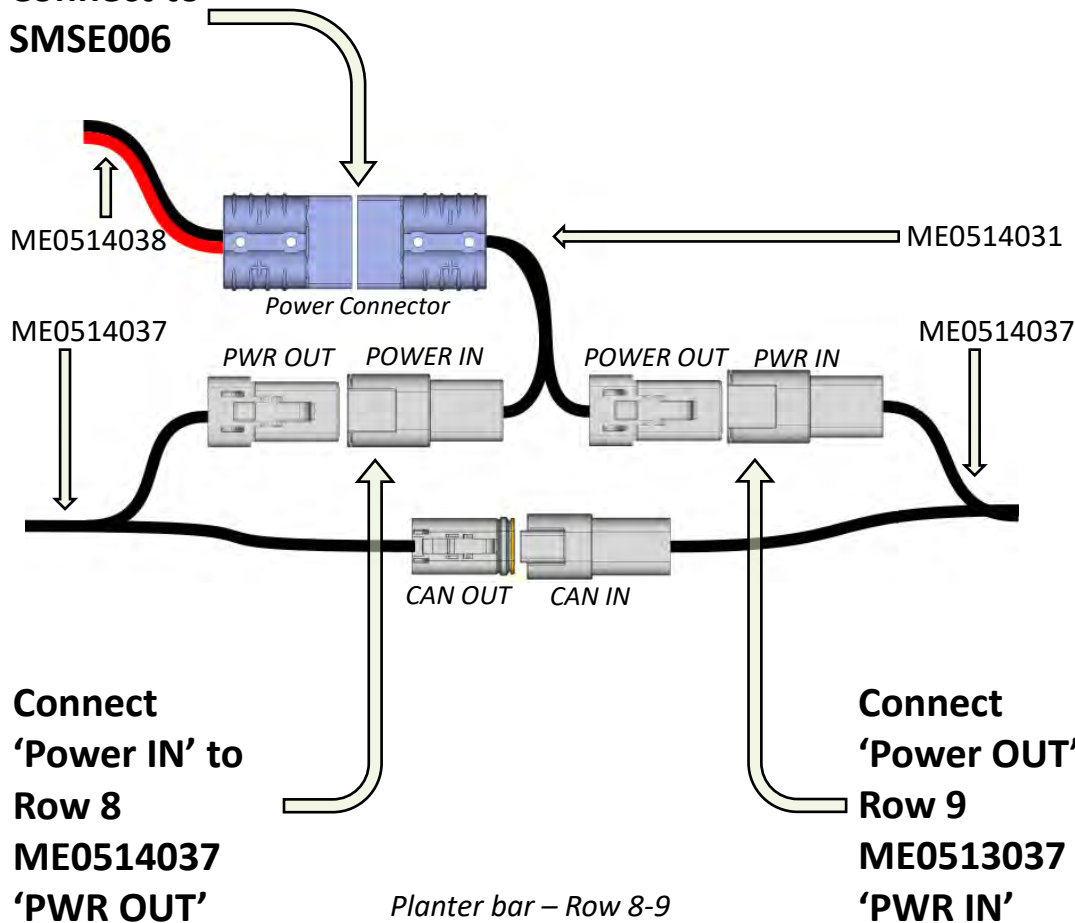
- Install the Power Injection harness at row 8-9 on the planter bar

#### Tips:

- The ME0514031 Power Injection Harness is installed between the two power connectors of the communication harness at row 8-9



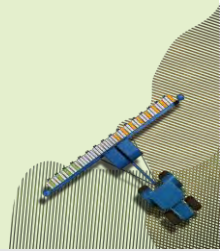
#### Connect to SMSE006







# Introduction to SmartBox®+: 24 Row Harness Installation



## Harness Connection Details:

### **ME0514008-30 / SMSE021 – Power Extension Harness 2 – Row 8-9 to Row 16-17**

#### Connections:

*At the planter bar row 8-9:*

Connect power connector to ME0514038 Power Harness Tee

*At the planter bar row 16-17:*

Connect power connector to ME0514031 Power Injection

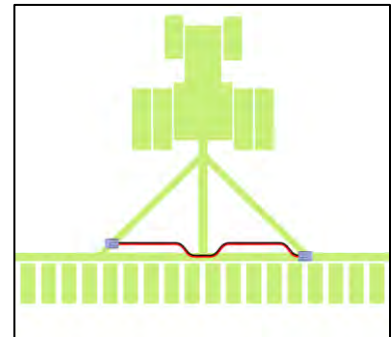
#### Installation:

- Start with one end at Row 8-9 on the planter.
- Route the extension harness along the planter bar and around the fold points
- End at Row 16-17

#### Tips:

When routing around the planter fold points ensure that the harness cannot be worn or pinched.

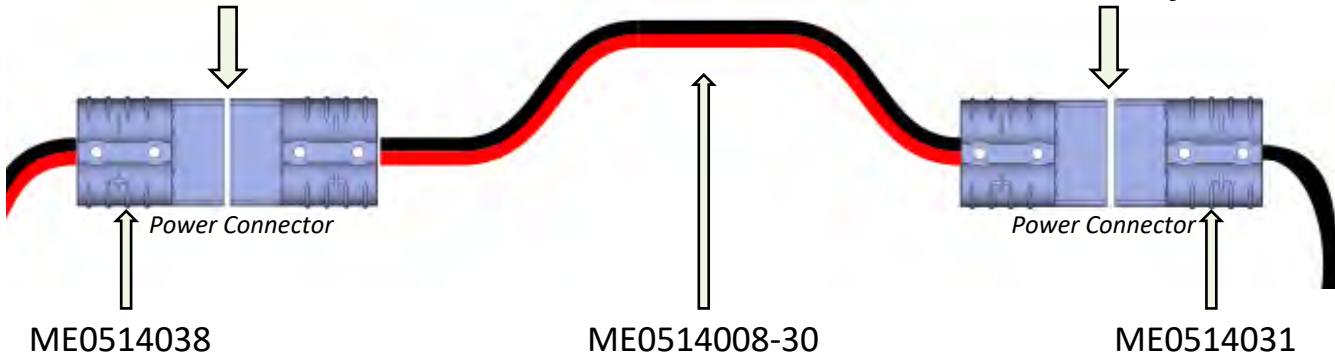
It is recommended to follow the path of the hydraulic lines around the fold points.



Power Connector

**Connect to  
ME0514038 –  
Power Tee**

**Connect to  
ME0514031 –  
Power Injection**



ME0514038

ME0514008-30

ME0514031

Planter bar – Row 8-9

Planter fold points

Planter bar – Row 16-17



# Introduction to SmartBox®+: 24 Row Harness Installation



## Harness Connection Details:

### ME0514031 / SMSE005 – Power Injection Harness 2 – Row 16-17

#### Connections:

At the planter bar row 16-17:

Connect the power connector to the second ME0514008-30 Power Extension Harness

Connect the Deutsch connector labelled 'POWER IN' to the connector on ME0514037 harness from row 16 labelled 'PWR OUT'

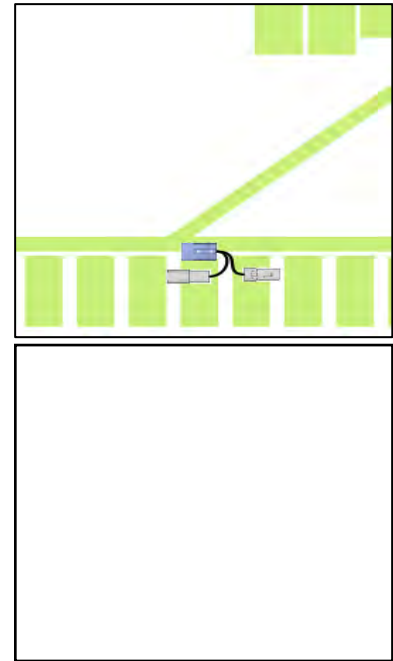
Connect the Deutsch connector labelled 'POWER OUT' to the ME0514037 harness from row 17 labelled 'PWR IN'

#### Installation:

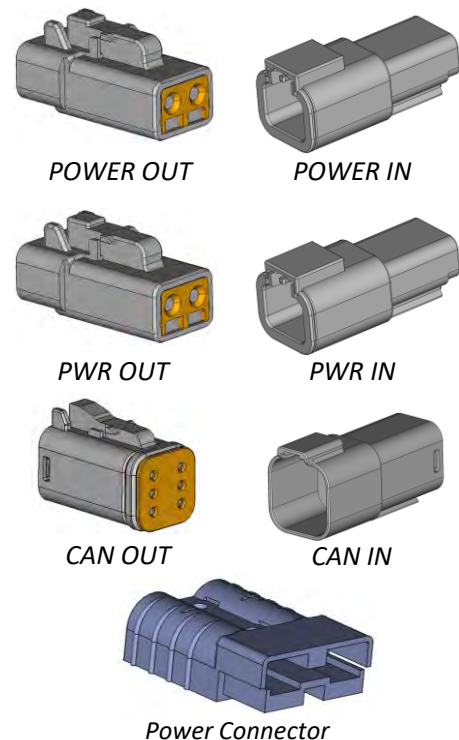
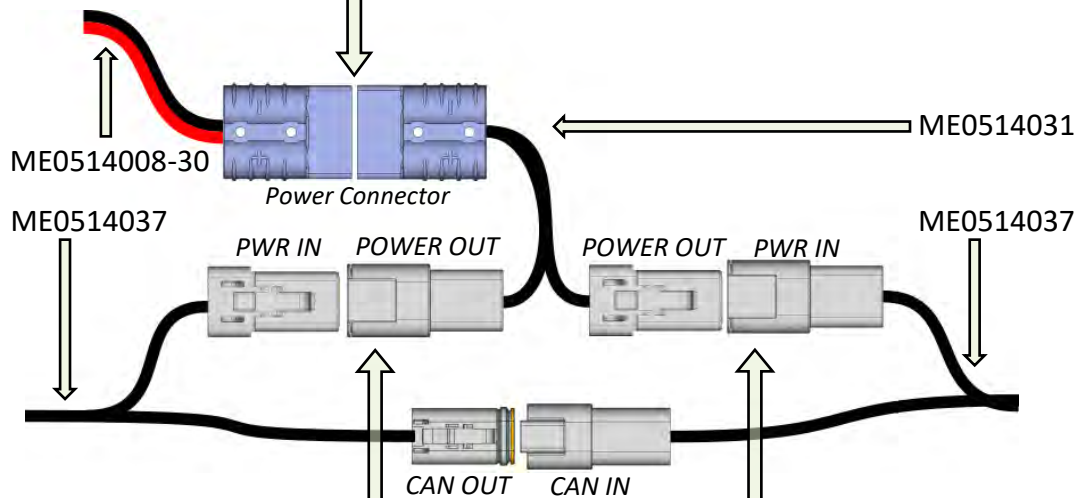
- Install the Power Injection Harness at row 16-17 on the planter bar

#### Tips:

The SMSE005 Power Injection Harness is installed between the two power connectors of the communication harness at row 16-17



Connect to  
ME0514008-30



Connect 'Power IN' to Row 16  
ME0514037 'PWR OUT'

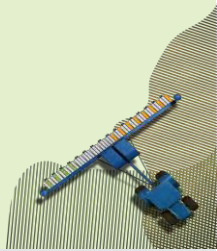
Connect 'Power OUT' to Row 17  
ME0514037 'PWR IN'

Planter bar – Row 16-17





# Introduction to SmartBox®+: 24 Row Harness Installation



## Harness Connection Details:

### ME0502001-36 / SMSE001 – Tractor ISO to ECU Harness

#### Connections:

##### At the tractor hitch:

Connect ISO connector to the tractor ISO connection (or the aftermarket display ISO connector if applicable)

##### At the planter bar row 5-6:

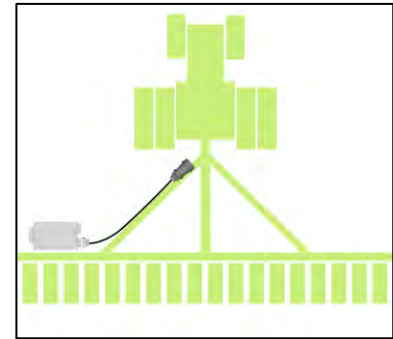
Connect the ECU Connector to the 'IN' port of the ECU.

#### Installation:

- Mount the ISO connector at the planter hitch.
- Route the ISO harness along the planter fold bar.
- Mount the ECU connector at row 5-6

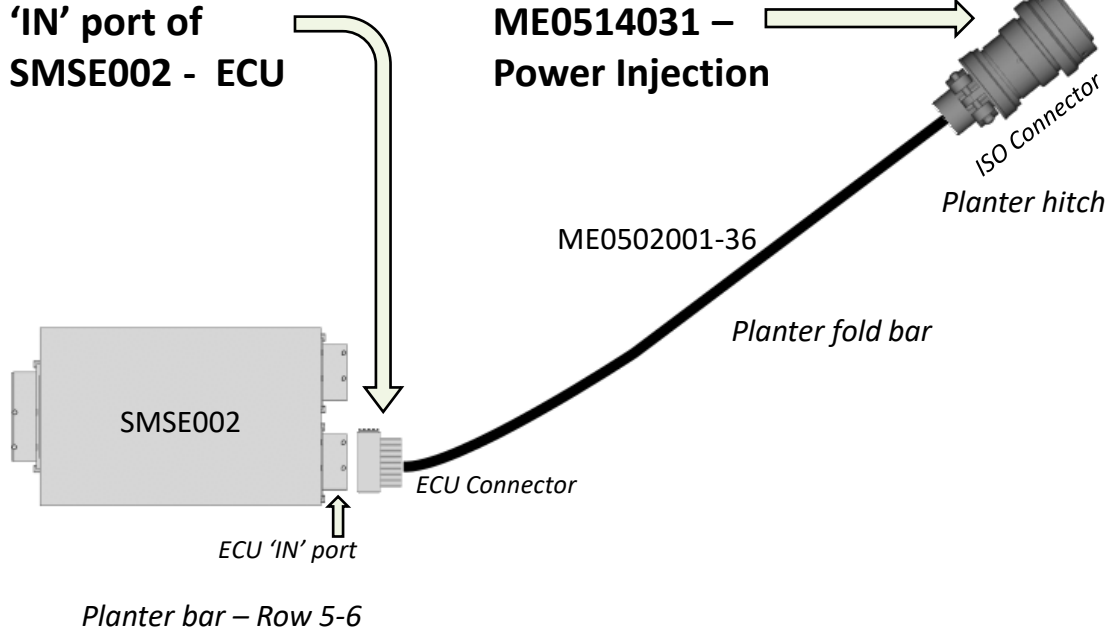
#### Tips:

When routing along the planter fold bar, ensure the harness cannot be pinched by the rack bracket, this is a common pinch point which can cause severe damage to the harness.

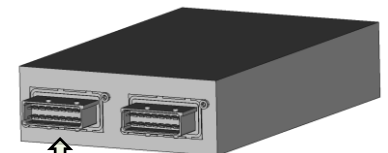


Connect to the  
'IN' port of  
SMSE002 - ECU

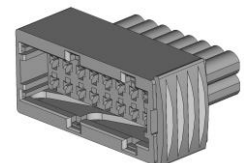
Connect to  
ME0514031 –  
Power Injection



ISO Connector



ECU IN Port



ECU Connector



# Introduction to SmartBox®+: 24 Row Harness Installation



## Harness Connection Details:

### ME0514029 / SMSE003 – ECU to Row Unit 1 Harness

#### Connections:

##### At the ECU Row 5-6:

Connect the '16 pin' connector to the OUT port of the ECU and the 42 pin 'ECU connector' to the large port on the ECU

##### At the planter bar row 3-4:

Connect the Work Position switch connector to the implement switch. If necessary, use the 10-foot implement switch extension to reach the switch.

##### At the planter bar row 1:

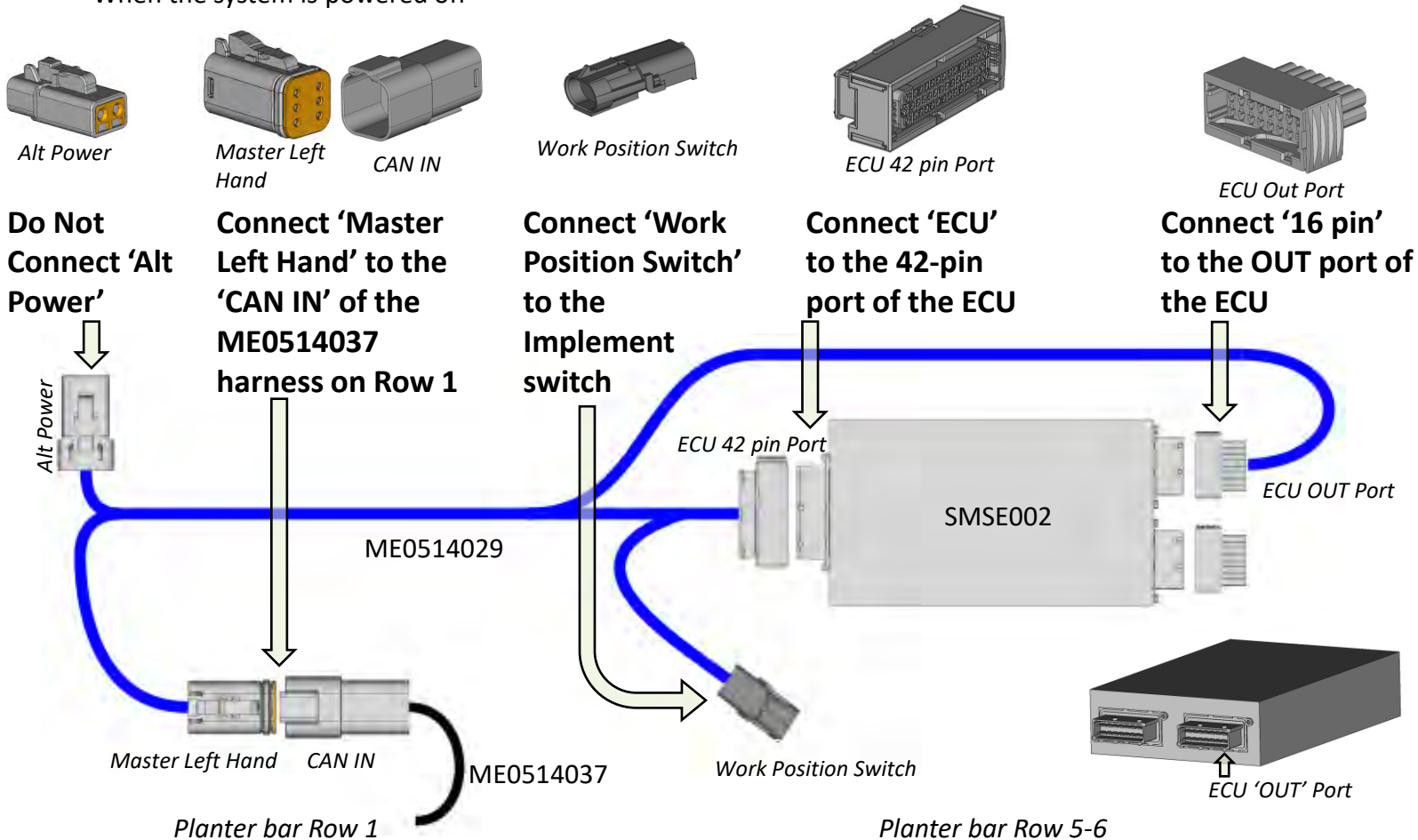
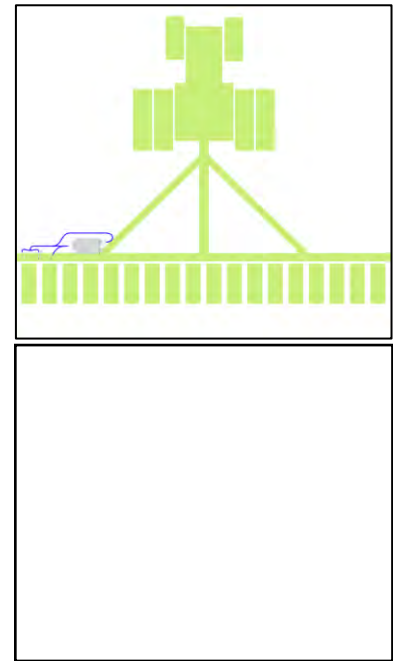
Connect the 'Master Left Hand' connector to the 'CAN IN' connector of the ME0514037 Row unit harness on row 1

#### Installation:

- Mount the harness along the planter bar

#### Tips:

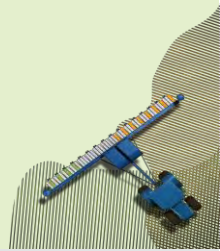
If the Alt Power connector is connected, the ECU may not just down correctly. When the system is powered off





# Introduction to SmartBox®+:

## 24 Row Harness Installation



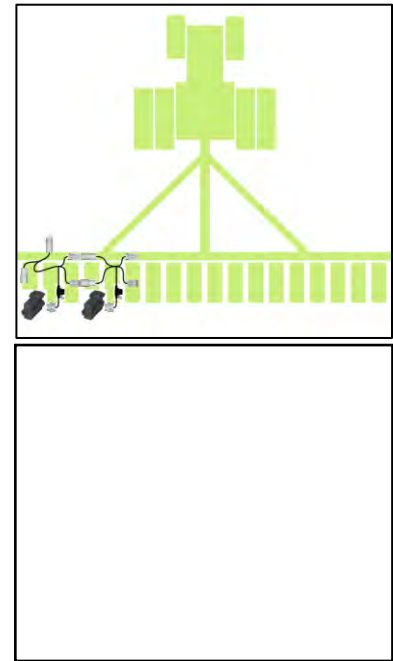
### Harness Connection Details:

### ME0514037 / SMSE017 – Row Unit Harness – Row 1-2

#### Connections:

##### At Row 1-2:

- Connect the 'Master Meter' connector to the Granular Meter
- Connect the 'CAN IN' connector to the 'Master left hand' connector of the ME0514029 harness, coming from the ECU.
- Connect the 'PWR OUT' connector to the 'PWR IN' connector of the ME0514037 Row unit harness on Row 2.
- Connect the 'CAN OUT' connector to the 'CAN IN' connector of the ME0514037 Row Unit Harness on Row 2.
- Do not connect the 'PWR IN' connector on Row 1.



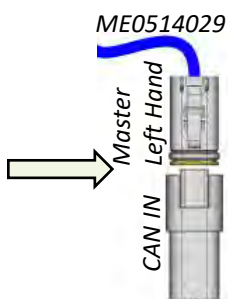
#### Installation:

- Mount the Row unit harness on the row unit. Start with the CAN IN/OUT and POWER IN/OUT connectors at the planter bar.
- Route the Row Unit Harness along the parallel arms and to the Granular meter.

#### Tips:

- Ensure the harness cannot be worn or rubbed by movement in the parallel arms
- Ensure that the harness cannot be damaged by movement of the row unit depth adjustment handle

Connect the 'CAN IN' connector to 'Master Left Hand' of ME0514029

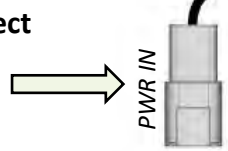


Connect the 'CAN OUT' connector to 'CAN IN' connector on Row 2

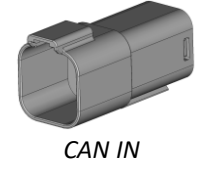
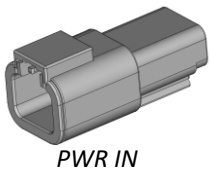
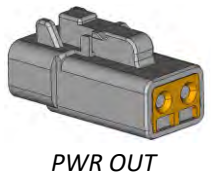
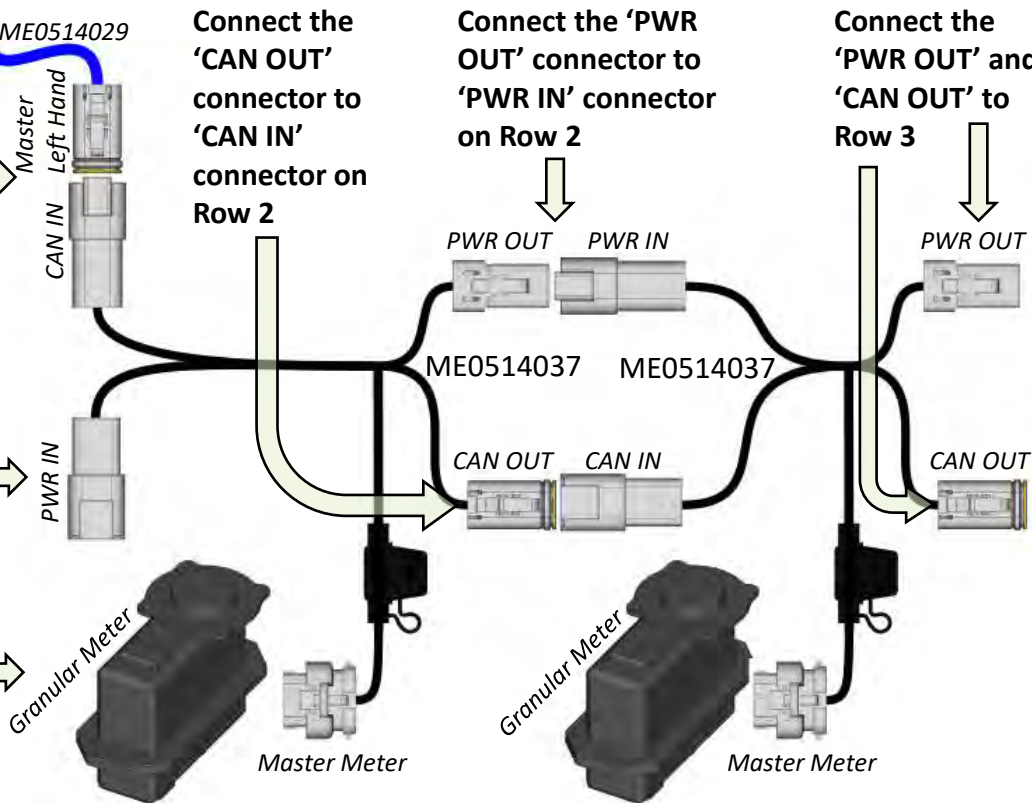
Connect the 'PWR OUT' connector to 'PWR IN' connector on Row 2

Connect the 'PWR OUT' and 'CAN OUT' to Row 3

Do not connect the 'PWR IN' connector



Connect 'Master Meter' to the Granular Meter



Planter Row Unit 1

Planter Row Unit 2

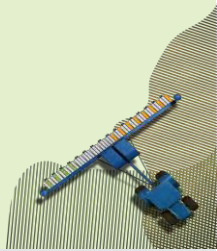
CAN IN





# Introduction to SmartBox®+:

## 24 Row Harness Installation



### Harness Connection Details:

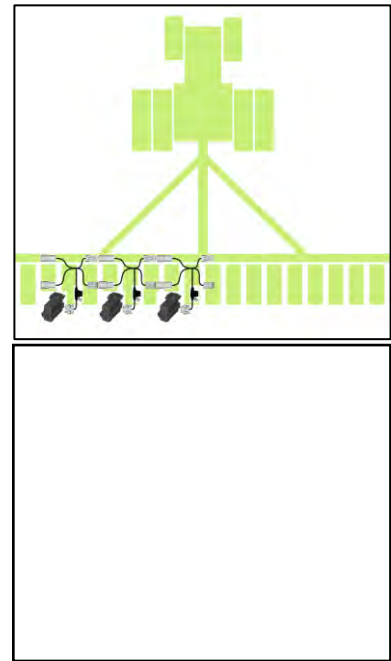
### ME0514037 / SMSE017 – Row Unit Harness – Rows 2-9

Installation of the Row Unit harness repeats from one row to the next from row 2 through 9.

#### Connections:

At Rows 2-9:

- Connect the 'Master Meter' connector to the Granular Meter
- Connect the 'CAN IN' connector to the 'CAN OUT' connector of the ME0514037 Row Unit Harness from the previous row.
- Connect the 'PWR IN' connector to the 'PWR OUT' connector of the ME0514037 Row Unit Harness from the previous row
- Connect the 'PWR OUT' connector to the 'PWR IN' connector of the ME0514037 Row unit harness on the next row.
- Connect the 'CAN OUT' connector to the 'CAN IN' connector of the ME0514037 Row Unit Harness on the next row.



#### Installation:

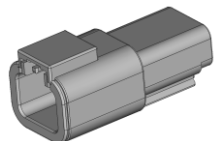
- Mount the Row unit harness on the row unit. Start with the CAN IN/OUT and PWER IN/OUT connectors at the planter bar.
- Route the Row Unit Harness along the parallel arms and to the Granular meter.

#### Tips:

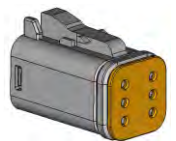
- Ensure the harness cannot be worn or rubbed by movement in the parallel arms
- Ensure that the harness cannot be damaged by movement of the row unit depth adjustment handle



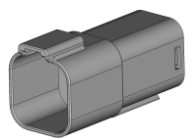
PWR OUT



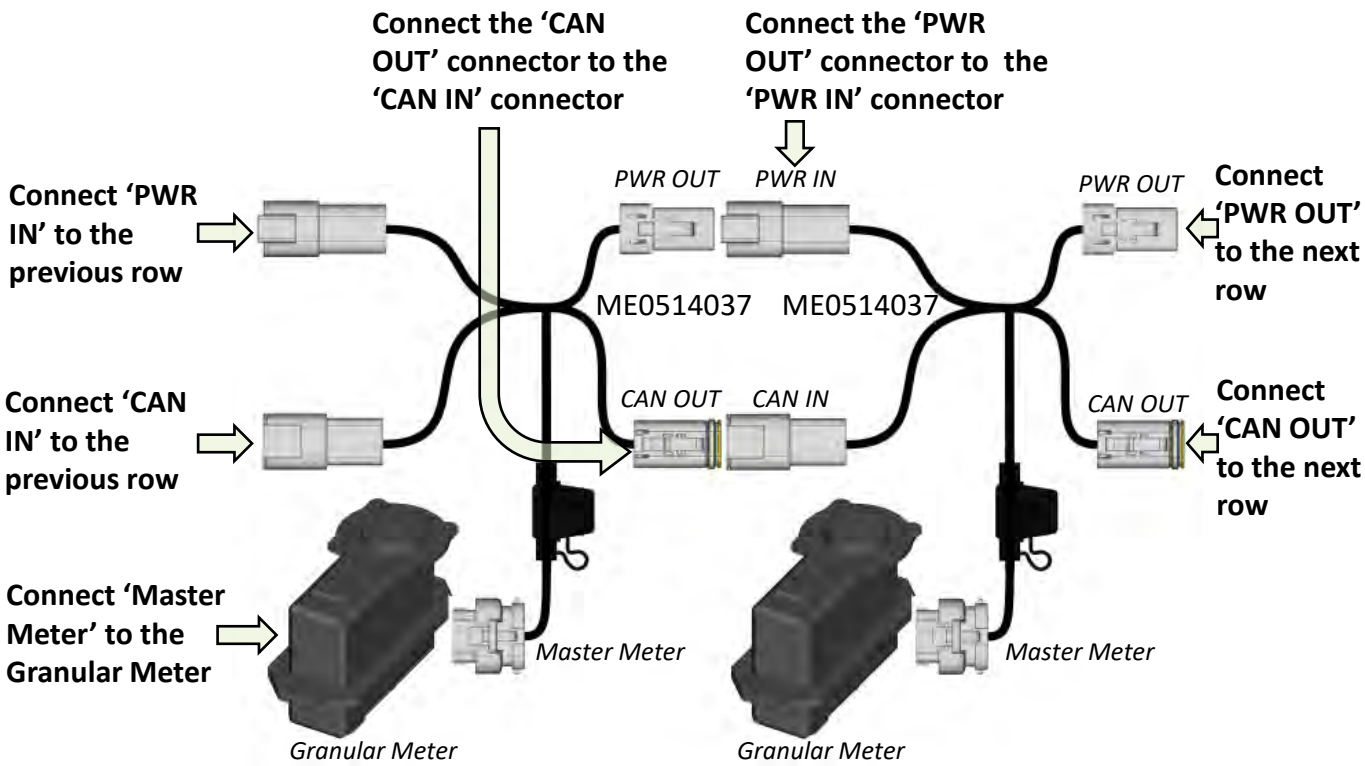
PWR IN



CAN OUT

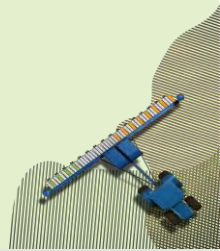


CAN IN





# Introduction to SmartBox®+: 24 Row Harness Installation



## Harness Connection Details:

### SMSE022 / ME051430 – Extension Harness – Rows 10-11

Between rows 10 and 11 will be the point where planter folds for transport.

#### Connections:

##### At Row 10-11:

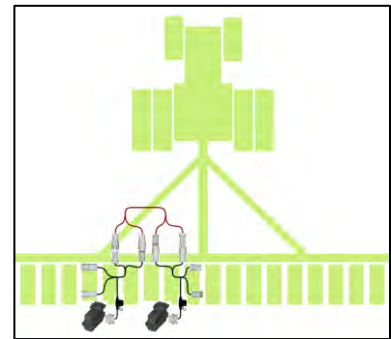
Connect the row 10 ME0514037 Row Unit Harness CAN IN and PWR IN to the CAN OUT and PWR OUT from Row 9

Connect the row 10 and 11 'Master Meter' connector to the Granular Meters on rows 10 and 11

Connect the row 11 ME0514037 Row Unit Harness CAN OUT and PWR OUT to the CAN IN and PWR IN on Row 12

On Row 10, connect the ME0514037 Row Unit Harness CAN OUT and PWR OUT connector to the CAN IN and PWR IN connector of the SMSE022 extension harness

On Row 11, connect the ME0514037 Row Unit Harness CAN IN and PWR IN connector to the CAN OUT and PWR OUT connector of the SMSE022 extension harness

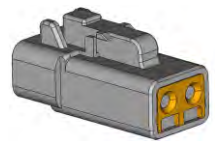


#### Installation:

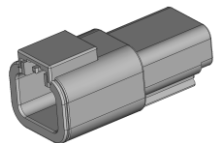
- Mount the extension harness on the planter bar at row 10 and route around the fold point to row 11, following the path of the nearby hydraulic lines.

#### Tips:

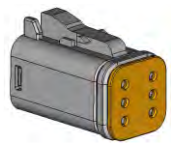
- Ensure the harness cannot be pinch or rubbed due to the movement of the fold
- Ensure there is enough length to allow the full range of movement of the planter



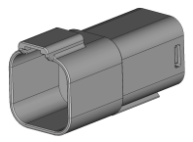
PWR OUT



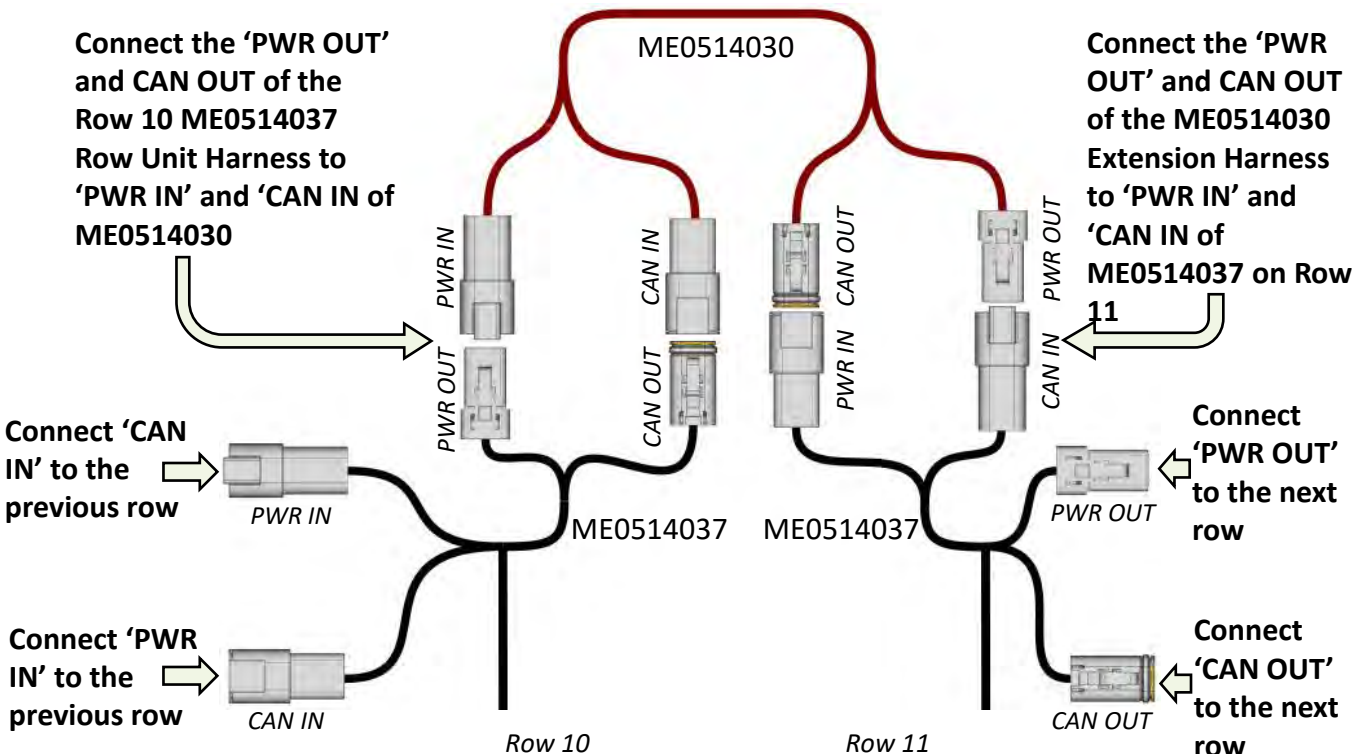
PWR IN



CAN OUT



CAN IN





# Introduction to SmartBox®+: 24 Row Harness Installation



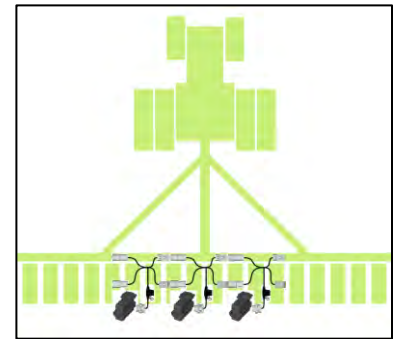
## Harness Connection Details:

### ME0514037 / SMSE017 – Row Unit Harness – Rows 11-14

#### Connections:

At Rows 11-14:

- Connect the 'Master Meter' connector to the Granular Meter
- Connect the 'CAN IN' connector to the 'CAN OUT' connector of the ME0514037 Row Unit Harness from the previous row.
- Connect the 'PWR IN' connector to the 'PWR OUT' connector of the ME0514037 Row Unit Harness from the previous row
- Connect the 'PWR OUT' connector to the 'PWR IN' connector of the ME0514037 Row unit harness on the next row.
- Connect the 'CAN OUT' connector to the 'CAN IN' connector of the ME0514037 Row Unit Harness on the next row.

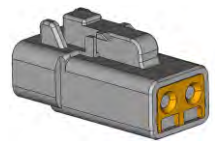


#### Installation:

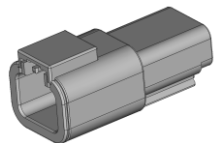
- Mount the Row unit harness on the row unit. Start with the CAN IN/OUT and PWER IN/OUT connectors at the planter bar.
- Route the Row Unit Harness along the parallel arms and to the Granular meter.

#### Tips:

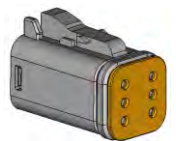
- Ensure the harness cannot be worn or rubbed by movement in the parallel arms
- Ensure that the harness cannot be damaged by movement of the row unit depth adjustment handle



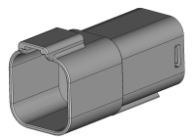
PWR OUT



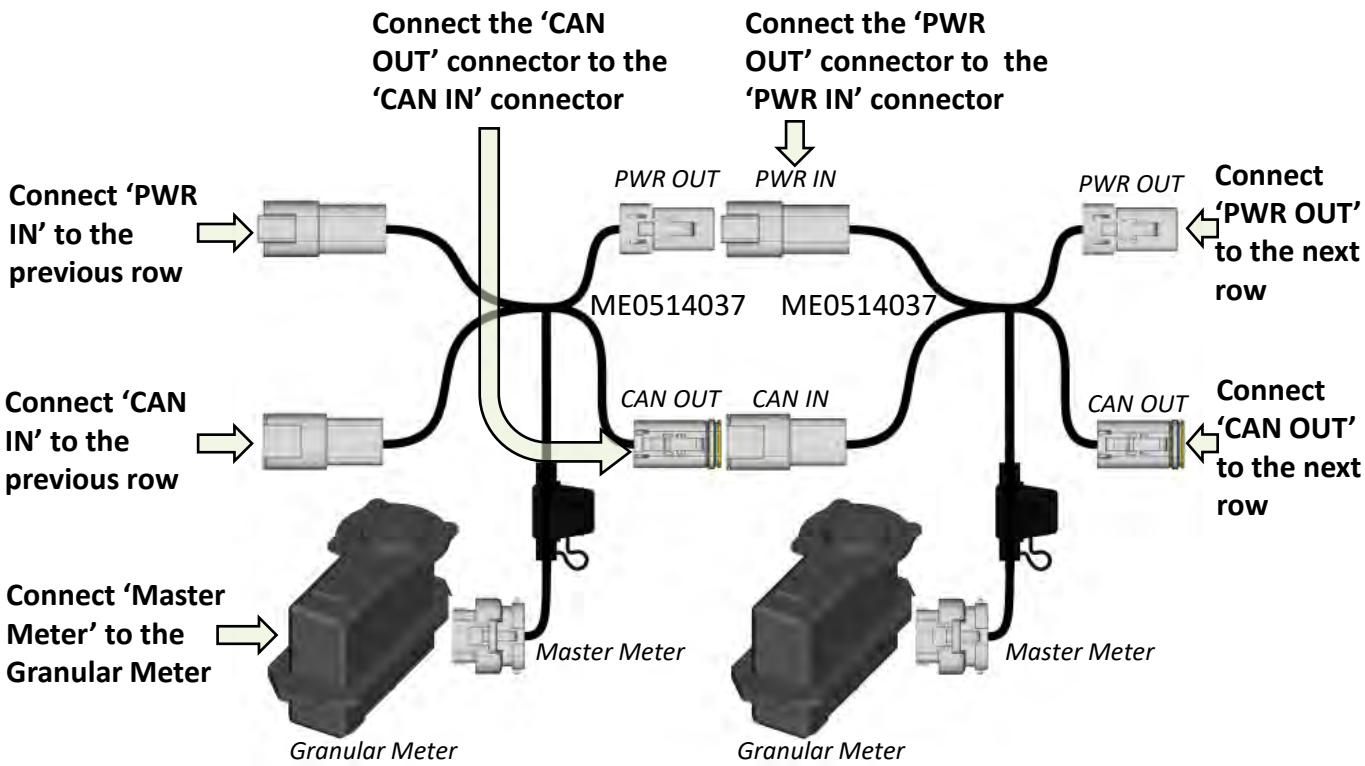
PWR IN



CAN OUT



CAN IN

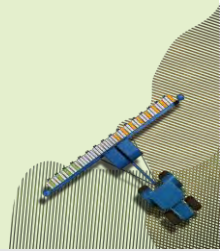






# Introduction to SmartBox®+:

## 24 Row Harness Installation



### Harness Connection Details:

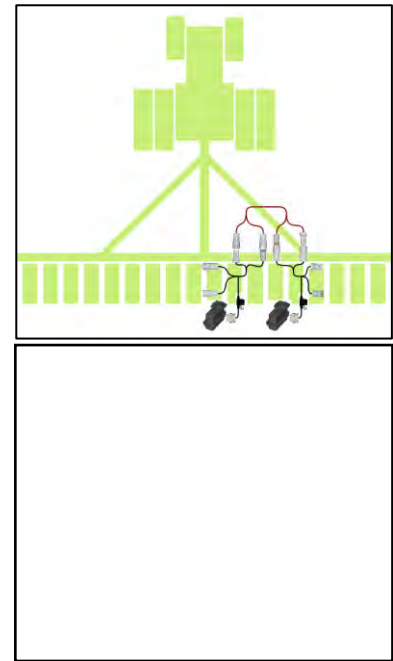
#### SMSE022 – Extension Harness – Rows 14-15

Between rows 14 and 15 will be the point where planter folds for transport.

#### Connections:

##### At Row 14-15:

- Connect the row 10 ME0514037 Row Unit Harness CAN IN and PWR IN to the CAN OUT and PWR OUT from Row 9
- Connect the row 14 and 15 'Master Meter' connector to the Granular Meters on rows 14 and 15
- Connect the row 15 ME0514037 Row Unit Harness CAN OUT and PWR OUT to the CAN IN and PWR IN on Row 16
- On Row 14, connect the ME0514037 Row Unit Harness CAN OUT and PWR OUT connector to the CAN IN and PWR IN connector of the ME0514030 extension harness
- On Row 15, connect the ME0514037 Row Unit Harness CAN IN and PWR IN connector to the CAN OUT and PWR OUT connector of the ME0514030 extension harness

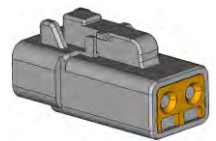


#### Installation:

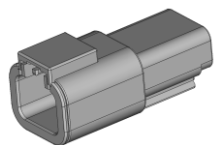
- Mount the extension harness on the planter bar at row 14 and route around the fold point to row 15, following the path of the nearby hydraulic lines.

#### Tips:

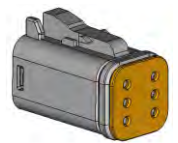
- Ensure the harness cannot be pinch or rubbed due to the movement of the fold
- Ensure there is enough length to allow the full range of movement of the planter



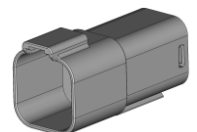
PWR OUT



PWR IN



CAN OUT

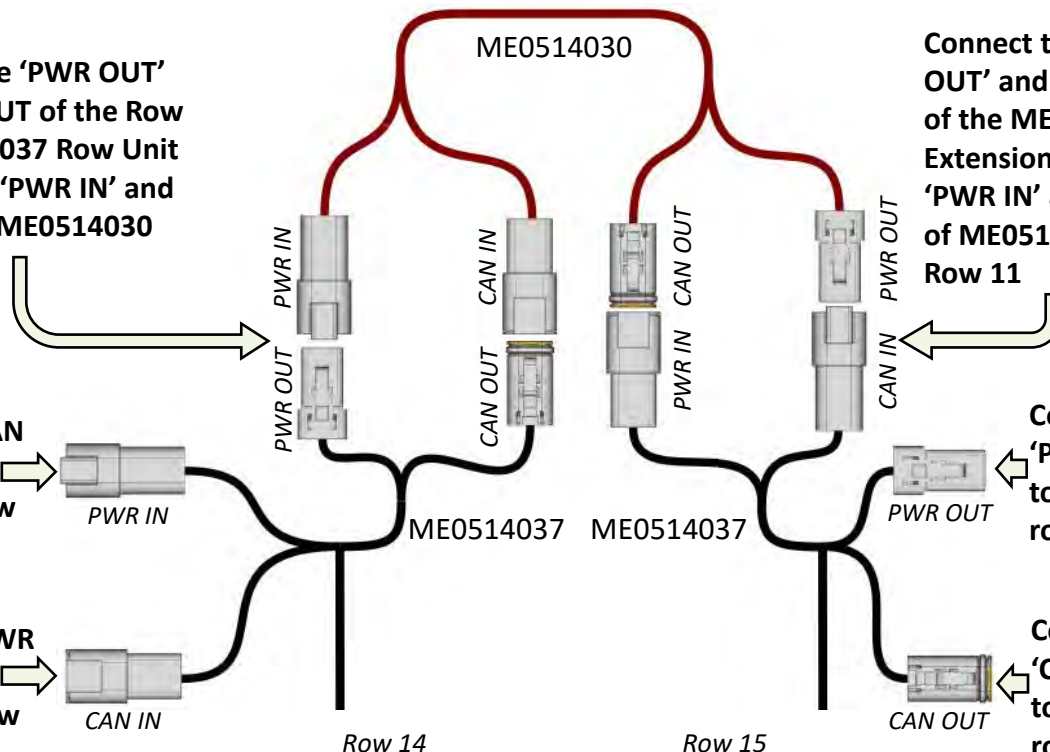


CAN IN

Connect the 'PWR OUT' and CAN OUT of the Row 10 ME0514037 Row Unit Harness to 'PWR IN' and 'CAN IN' of ME0514030

Connect 'CAN IN' to the previous row

Connect 'PWR IN' to the previous row



Connect the 'PWR OUT' and CAN OUT of the ME0514030 Extension Harness to 'PWR IN' and 'CAN IN' of ME0514037 on Row 11

Connect 'PWR OUT' to the next row

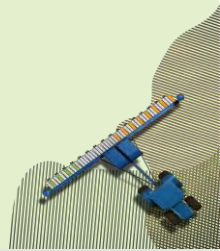
Connect 'CAN OUT' to the next row

Row 14

Row 15



# Introduction to SmartBox®+: 24 Row Harness Installation



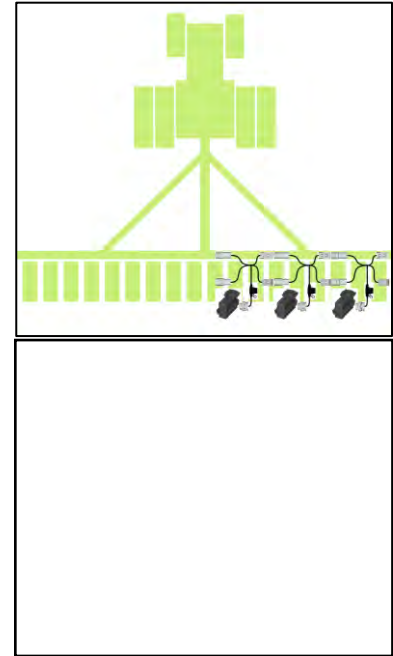
## Harness Connection Details:

### ME0514037 / SMSE017– Row Unit Harness – Rows 15-24

#### Connections:

At Rows 15-24:

- Connect the 'Master Meter' connector to the Granular Meter
- Connect the 'CAN IN' connector to the 'CAN OUT' connector of the ME0514037 Row Unit Harness from the previous row.
- Connect the 'PWR IN' connector to the 'PWR OUT' connector of the ME0514037 Row Unit Harness from the previous row
- Connect the 'PWR OUT' connector to the 'PWR IN' connector of the ME0514037 Row unit harness on the next row.
- Connect the 'CAN OUT' connector to the 'CAN IN' connector of the ME0514037 Row Unit Harness on the next row.

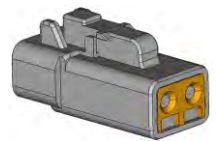


#### Installation:

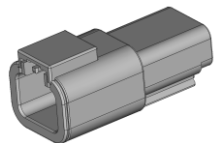
- Mount the Row unit harness on the row unit. Start with the CAN IN/OUT and POWER IN/OUT connectors at the planter bar.
- Route the Row Unit Harness along the parallel arms and to the Granular meter.

#### Tips:

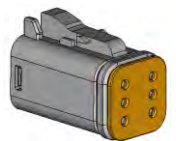
- Ensure the harness cannot be worn or rubbed by movement in the parallel arms
- Ensure that the harness cannot be damaged by movement of the row unit depth adjustment handle



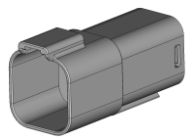
PWR OUT



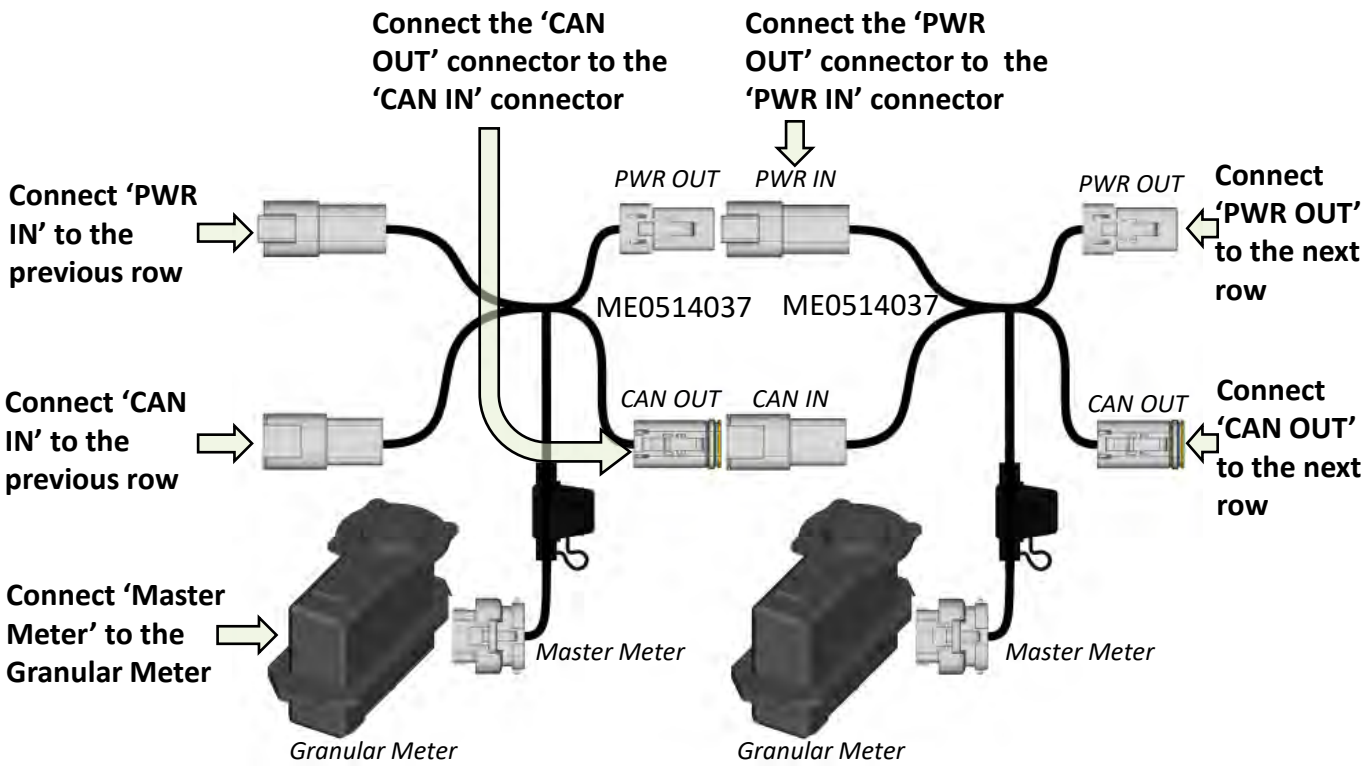
PWR IN



CAN OUT



CAN IN

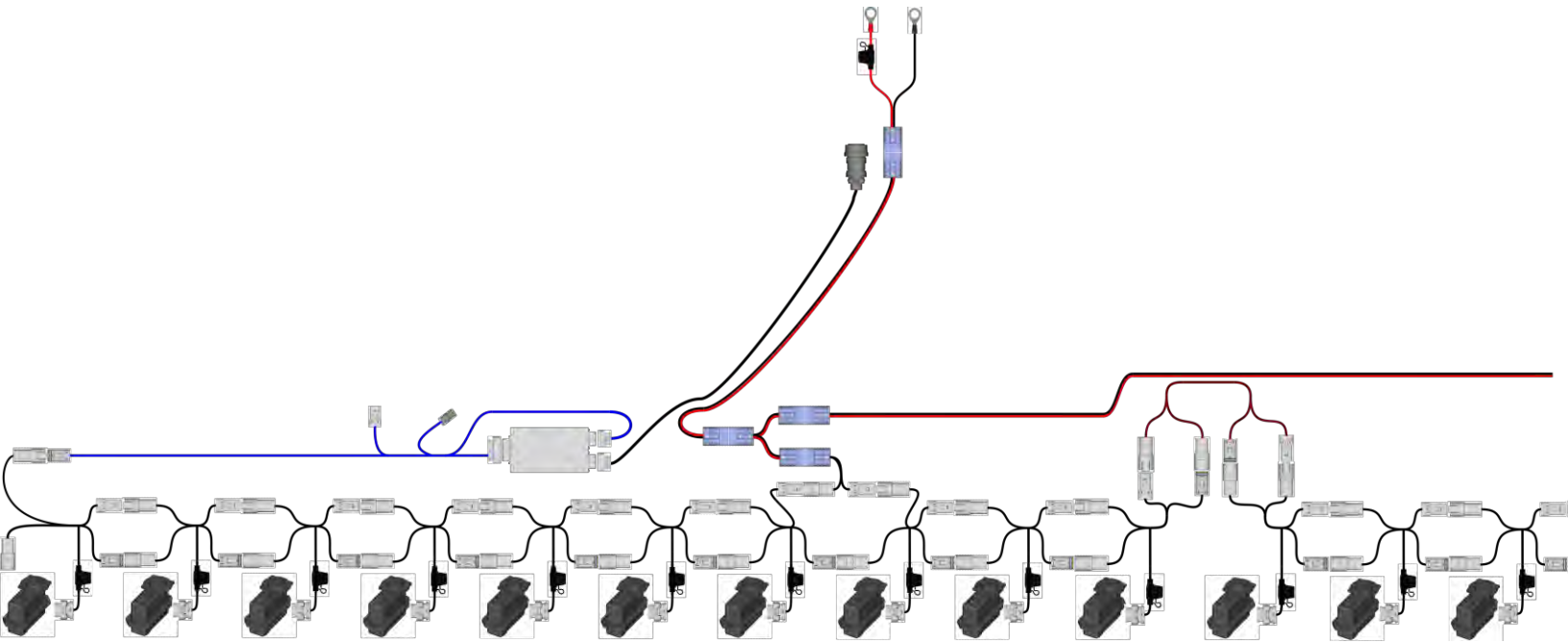


# Introduction to SmartBox®+: 24 Row Harness Installation



## Harness Connection Overview Diagram:

### *All harness connections, Rows 1-12:*



### *All harness connections, Rows 13-24:*

