

# INSTALLATION INSTRUCTIONS

## **Field-IQ™ Crop Input Control System**

### **■ Pull-Type Spreader**

Version 1.00  
Revision A  
January 2010  
Part Number 80810-20-ENG



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Class B Statement – Notice to Users. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes and modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission rules.

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Meerheide 45  
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# Safety Information

Always follow the instructions that accompany a Warning or Caution. The information they provide is intended to minimize the risk of personal injury and/or damage to property. In particular, observe safety instructions that are presented in the following format:



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**WARNING** – This alert warns of a potential hazard, which, if not avoided, can cause severe injury.

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**CAUTION** – This alert warns of a hazard or unsafe practice which, if not avoided, can cause injury or damage.

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*Note* – An absence of specific alerts does not mean that there are no safety risks involved.

## Warnings



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**WARNING** – When you are working on the vehicle’s hydraulic systems, vehicle attachments that are suspended can drop. If you are working around the vehicle, you could suffer serious injury if an attachment dropped on you. To avoid this risk, lower all vehicle attachments to the ground before you begin work.

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**WARNING** – If someone else attempts to drive the vehicle while you are working on or under it, you can suffer serious or fatal injuries. To avoid this possibility, install a lockout box on the battery terminal to prevent the battery from being reconnected, remove the key from the vehicle’s ignition switch, and attach a “Do not operate” tag in the cab.

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**WARNING** – Agricultural chemicals can pose serious health risks. If the vehicle has been used to apply agricultural chemicals, steam clean the vehicle to remove any chemical residue from the areas of the vehicle where you will be working.

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**WARNING** – Vehicle cabs can be quite high in the air. To avoid potentially serious injury through falling from this height, always use the steps and handrails, and face the vehicle, when you enter or exit it.

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**WARNING** – To avoid potentially serious personal injury or illness, and to prevent damage to equipment, make sure that you read and understand the Safety Information chapter.

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## Cautions



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**CAUTION** – When the vehicle has been running, parts of the vehicle, including the engine and exhaust, can become extremely hot and can cause serious burns. To avoid burns, allow hot machine parts to cool before you begin working on them.

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**CAUTION** – The system installation may bring you into contact with chemical substances, such as oil, which can cause poisoning. Wash your hands thoroughly after you finish working on the system.

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**CAUTION** – Battery posts, terminals, and related accessories contain lead and lead compounds, which can cause serious illness. To avoid ingesting lead, wash your hands thoroughly after touching the battery.

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**CAUTION** – Always wear protective equipment appropriate to the job conditions and the nature of the vehicle. This includes wearing protective glasses when you use pressurized air or water, and correct protective welder's clothing when welding. Avoid wearing loose clothing or jewelry that can catch on machine parts or tools.

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**CAUTION** – Parts of the vehicle may be under pressure. To avoid injury from pressurized parts, relieve all pressure in oil, air, and water systems before you disconnect any lines, fittings, or related items. To avoid being sprayed by pressurized liquids, hold a rag over fill caps, breathers, or hose connections when you remove them. Do not use your bare hands to check for hydraulic leaks. Use a board or cardboard instead.

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**CAUTION** – Be sure to install the hitch connection and cables so they are free of areas that could result in damage to the cable or the Field-IQ system.

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# Introduction

- [Technical assistance](#)
- [Your comments](#)
- [Required components](#)
- [Preparing the vehicle for installation](#)

This manual describes how to install the Trimble® Field-IQ™ Crop Input Control System.

Even if you have used other Global Positioning System (GPS), or application control products before, Trimble recommends that you spend some time reading this manual to learn about the special features of this product. If you are not familiar with GPS, visit the Trimble website ([www.trimble.com](http://www.trimble.com)) for an interactive look at Trimble and GPS.

## Technical assistance

If you have a problem and cannot find the information you need in the product documentation, contact Trimble technical support:

1. Go to the Trimble website ([www.trimble.com](http://www.trimble.com)).
2. Click the **Support & Training** link at the top of the screen, select *Support* and then select *Support A-Z list of products*.
3. Scroll to the bottom of the list.
4. Click the *submit an inquiry* link. A form appears.
5. Complete the form and then click **Send**.

## Your comments

Your feedback about the supporting documentation helps us to improve it with each revision. Email your comments to [ReaderFeedback@trimble.com](mailto:ReaderFeedback@trimble.com).



## Required components

Kits required	Special tools
Field-IQ cab kit for FmX/FM-1000 - P/N 80810-00 Field-IQ cab kit for EZ-Guide 500 - P/N 80820-00 Pull-Type Spreader Kit - 99002-00 Optional: Powell Adapter - Tractor - 77413 Powell Adapter - Implement - 77611 Power Relay - 77533	$\frac{3}{16}$ " - $\frac{1}{4}$ " center punch 1 $\frac{3}{4}$ " hole saw bit Drill $\frac{3}{16}$ " steel drill bit Allen wrench set (SAE) Volt meter

## Preparing the vehicle for installation

### Step 1

Park the vehicle on a hard, level surface. Block the front and rear wheels.

### Step 2

Align the steering straight ahead. On an articulated vehicle, install the articulation locks.

### Step 3

Remove all dirt and debris from the areas of the vehicle where the Field-IQ™ Crop Input Control System will be installed.

### Step 4

Open all kit boxes and check the contents of the box against the packing list/s. Lay all of the parts out on a clean workbench.

*Note – The left and right sides of the vehicle are referenced while standing behind the unit, facing the normal direction of travel.*



# Display Installation

## In this chapter:

- Installing the FmX Integrated Display
- Preparing the EZ-Guide 500 lightbar
- Installing the EZ-Guide 500 lightbar
- EZ-Guide 500 lightbar and FmX integrated display – Installing the GPS antenna and plate
- Installing the power harness
- FmX integrated display power components
- EZ-Guide 500 lightbar power components
- Configuring the power bus options for the display

This chapter describes how to install the display.

*Note* – This chapter is not required if the display was installed previously.

## Installing the FmX Integrated Display



**WARNING** – To avoid potentially serious personal injury or illness, and to prevent damage to equipment, make sure that you read and understand the [Safety Information](#) chapter.

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### Step 1

Locate the Trimble FmX™ integrated display, the RAM mount, and the RAM mount clamp.



### Step 2

Use the provided metric hardware to attach the RAM mount to the rear of the display.

### Step 3

Attach the RAM mount to the rear of the display.

## Preparing the EZ-Guide 500 lightbar



**WARNING** – To avoid potentially serious personal injury or illness, and to prevent damage to equipment, make sure that you read and understand the [Safety Information](#) chapter.

*Note* – Before you attach the lightbar to the RAM mount, connect the EZ-Guide 500 cables to the back of the lightbar.

### Step 1

Locate the EZ-Guide 500 lightbar, the RAM mount and hardware, and the RAM mount clamp.



### Step 2

Attach the RAM mount diamond base to the display using the hardware provided.

## Installing the EZ-Guide 500 lightbar

### Step 1

Select the location for the lightbar in the cab. There must be a bar that the RAM mount can be attached to.



### Step 2

Attach the free end of the RAM mount to the bar mount. Tighten the clamp on the RAM mount so that the lightbar is held securely in place.

## EZ-Guide 500 lightbar and FmX integrated display – Installing the GPS antenna and plate



**WARNING** – To avoid potentially serious personal injury or illness, and to prevent damage to equipment, make sure that you read and understand the [Safety Information](#) chapter.

### VHB adhesive method

Standard 4" x 6" plates are provided in most kits. You can use Very High Bond (VHB) to attach either a 4" x 6" plate or a V plate.

- **L1/L2 dual band antenna (RTK, OmniSTAR, DGPS)** – To use this method for high accuracy, the surface must be rigid and free of “oil panning”. For RTK or OmniSTAR HP corrections, the spar method is recommended. The V plate provides repeatable positioning of the antenna.
- **L1 single band antenna (WAAS, EGNOS, OmniSTAR VBS, Beacon)** – Use a 4" x 6" plate for simplified installation in applications where high accuracy is not critical.

### Step 1

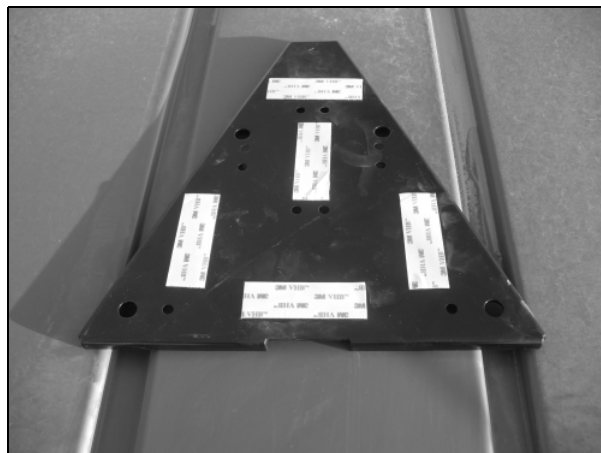
Clean the antenna location on the roof of the cab with a light solvent to remove oil and dust.

### Step 2

#### *V plate only*

Remove the backing from one side of the VHB strips provided and then apply the strips to the plate.

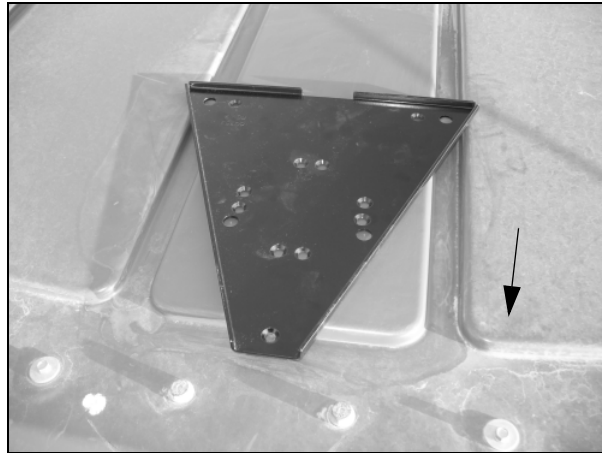
**Note** – The VHB strips are pre-applied to the 4" x 6" plate. Trimble part number for the V-Plate is 62388-01.



### Step 3

Remove the backing from the other side of the VHB strips and then apply the plate to the cab roof. The narrow end points forward. Ensure that the VHB strips make even contact with the surface. Apply pressure and then leave for approximately 30 minutes to adhere.

*Note – The arrow in this figure points to the front of the vehicle.*



V plate



4" x 6" plate

### Step 4

If the antenna has magnets built in, omit this step.

Otherwise, attach the large magnet with a  $\frac{5}{8}$ " stud to the GPS antenna.





## Step 5

### *L1/L2 dual band antenna (RTK, OmniSTAR, DGPS)*

For repeatable positioning, place the antenna against the lip at the narrow end of the V plate.



### *L1 single band antenna (WAAS, EGNOS, VBS, Beacon)*

Attach the antenna to the center of the 4" x 6" plate.



## Step 6

### *Both models*

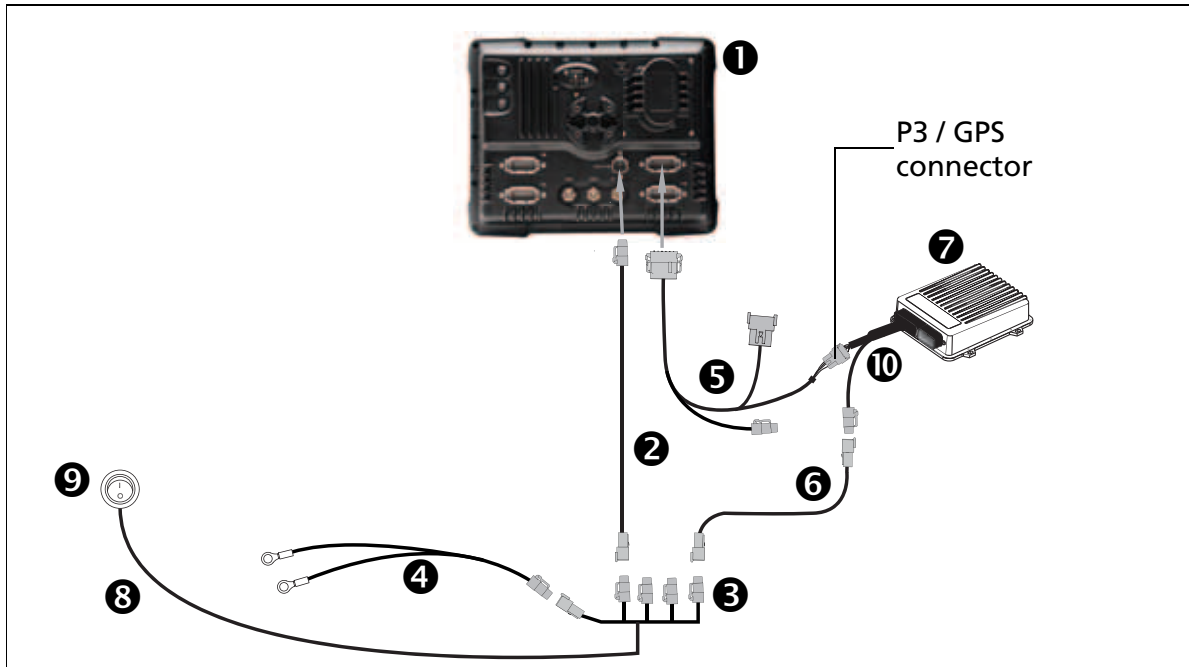
Attach the antenna/receiver cable to the antenna and then route the cable into the cab through the rubber grommet at the base of the rear window. Secure the cable along the way.

## Installing the power harness



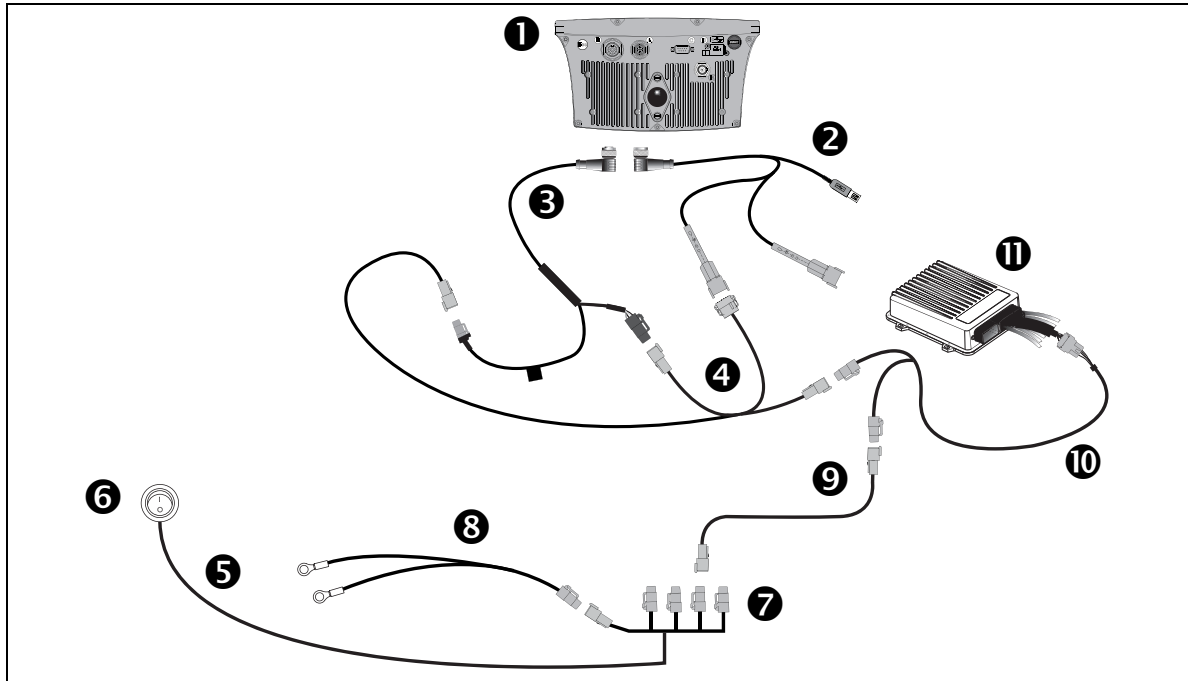
**WARNING** – To avoid potentially serious personal injury or illness, and to prevent damage to equipment, make sure that you read and understand the [Safety Information](#) chapter.

### FmX integrated display power components



Item	Description	Trimble part number
1	FmX integrated display	93100-02
2	FmX power cable	66694
3	FmX power cable with relay and switch (power bus)	67259
4	Basic power cable	67258
5	FmX to NavController II cable with port replicator	65522
6	2-pin DTM to 2-pin DT power adapter	67095
7	NavController II	55563-00
8	External switch cable incl with kit	Part of 67259
9	External switch incl with kit	Part of 67259
10	Main NavController II cable	54601

## EZ-Guide 500 lightbar power components



Item	Description	Trimble part number
1	EZ-Guide 500 lightbar	
2	EZ-Guide 500 lightbar 19-pin port expansion cable	62069
3	EZ-Guide 500 lightbar/CAN 90° 5-pin connector	62817
4	EZ-Guide 500 lightbar port A to NavController II cable	62754
5	Switch cable	Part of 67259
6	Switch	67095
7	FmX power cable with relay and switch	67259
8	FmX basic power cable	67258
9	2-pin DTM to 2-pin 2 DT power adapter	67095
10	NavController II main cable	54601
11	NavController II	55563-00

## Power bus installation

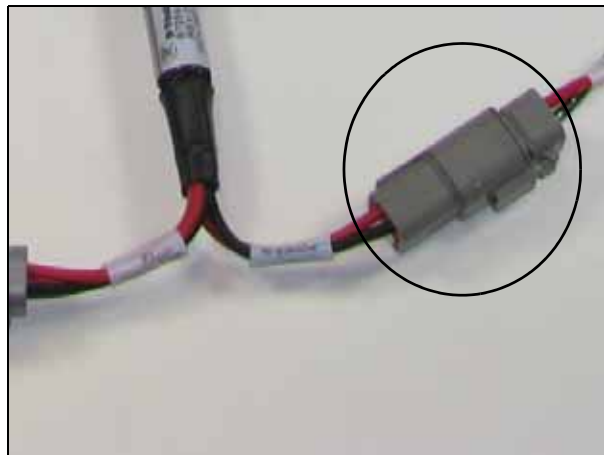
### Step 1

Connect the basic power cable to the vehicle battery and then route the cable into the cab.



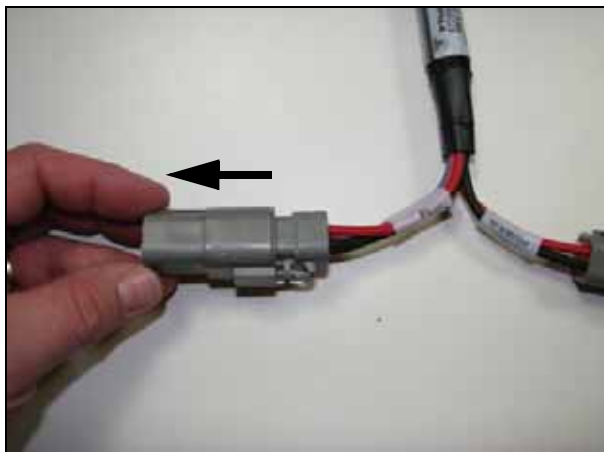
### Step 2

Locate and connect the 4-pin Deutsch DTP receptacle on the power bus to the 4-pin Deutsch DTP plug on the basic power cable.



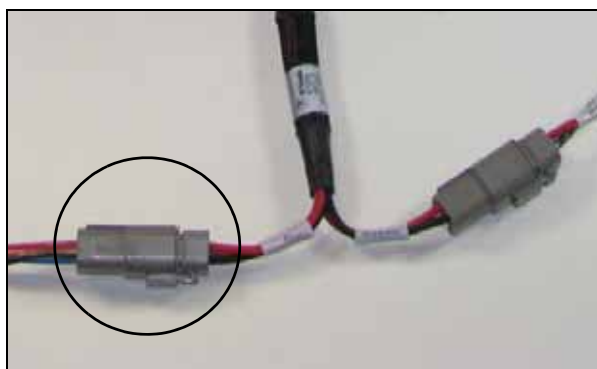
### Step 3

Remove the protective receptacle from the power bus.



### Step 4

Locate and connect the 4-pin Deutsch DTP receptacle on the FmX integrated display power adapter to the 4-pin Deutsch DTP plug on the power bus.



### Step 5

Route the FmX integrated display power adapter to the display mounting location and then connect it to the display.

**Note** – The power bus may be used with EZ-Guide 500 and the AgGPS Autopilot NavController II. If the EZ-Guide 500 is not used with a power bus then connect the EZ-Guide 500 directly to battery using cable Trimble P/N 75743.



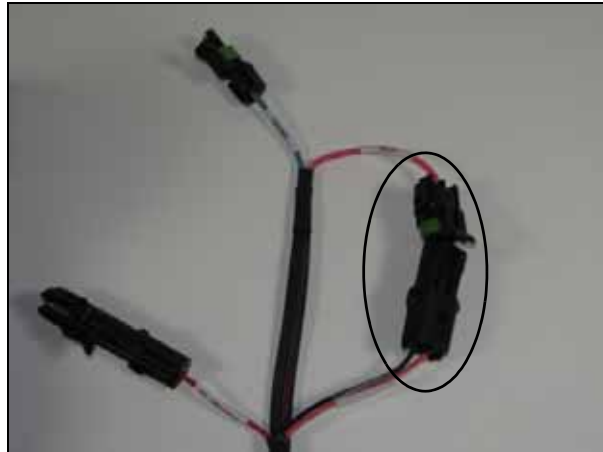
## Configuring the power bus options for the display

When you use the power bus cable, use one of the following configuration methods to turn on the Trimble Autopilot™ system:

- FmX integrated display power button is used to turn on the system
- External switch is used to turn on the FmX Integrated display or EZ-Guide 500

### FmX integrated display power button is used to turn on the system

Connect the 2-pin connectors labeled R2 and P2 on the power bus.



### External switch is used to turn on the FmX Integrated display or EZ-Guide 500

#### Step 1

Connect the cable labeled R7 switch (included with the power bus) to connector labeled P2 on the power bus.



## Step 2

Route the cable labeled R7 to a switch location.

*Note* – To install the switch provided, drill a  $\frac{3}{4}$ " hole.



## Step 3

Connect the cable labeled R7 to the switch pins.

*Note* – Polarity is not important.







## Field-IQ Cab Kit and Switch Box Installation

### In this chapter:

- [Field-IQ Switch box installation](#)
- [Field-IQ System Cable Installation for the EZ-Guide 500](#)
- [Optional cable installation](#)

This chapter describes how to install the cab components of the Field-IQ Crop Input Control system.

## Field-IQ Switch box installation



**WARNING** – To avoid potentially serious personal injury or illness, and to prevent damage to equipment, make sure that you read and understand the [Safety Information](#) chapter.

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The Field-IQ system requires the 4-switch master switch box to be connected and installed. The master switchbox is used to control the system.

The optional 12 section switchbox is not required. The 12 section switchbox allows for manual control of individual sections.

Use the following steps to install one or both of the switchboxes.

### Step 1

Locate the Master Switch Box and mounting hardware.



### Step 2

Use a Phillips screwdriver to secure the two mounting brackets to the master switch box using the supplied screws.



### Step 3

Use a Phillips screwdriver to secure the master switch box to the bottom of the display using the supplied screws.

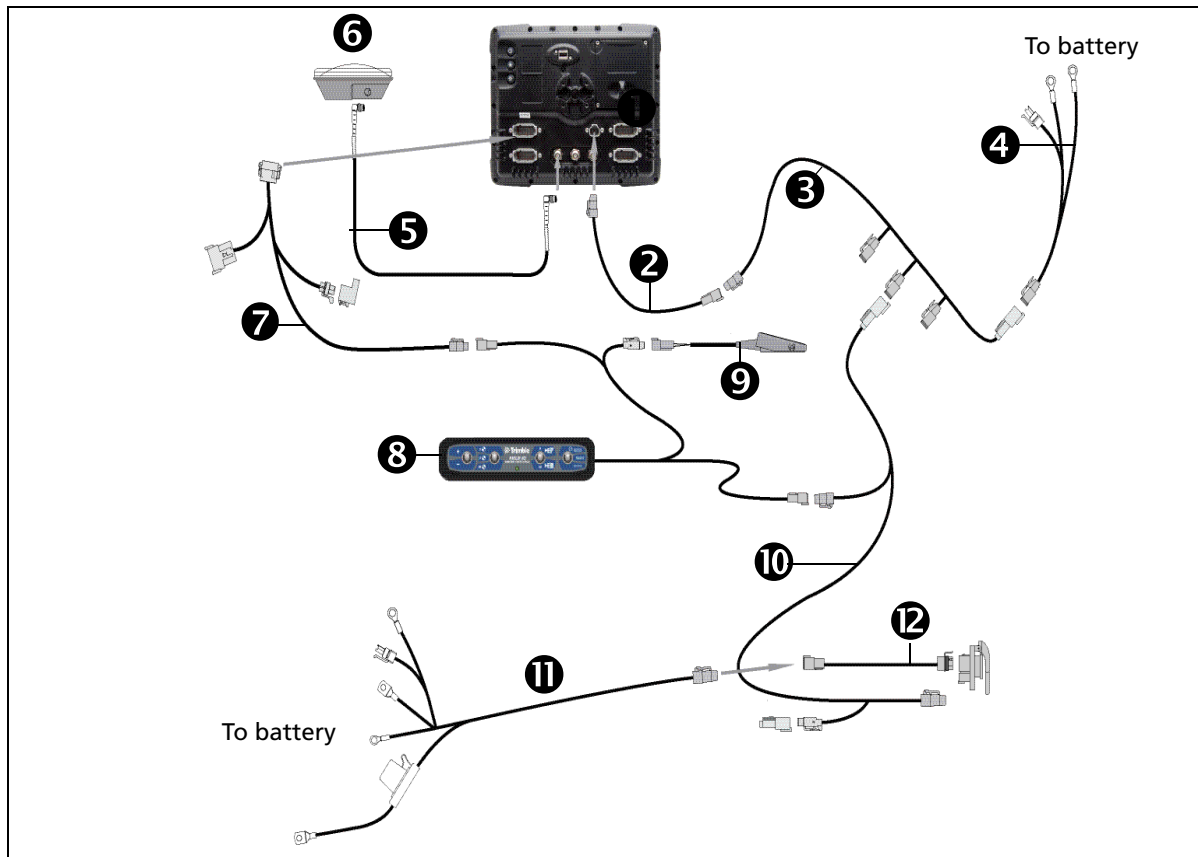
If the display does not have the mounting option on the bottom of the display then use the flat mounting brackets to secure the switchboxes to the top of the display.

*Note – Optional 12 section switch box is shown in the picture.*



## Field-IQ System Cable Installation for the FmX Integrated Display

The following describes how to install the Field-IQ cab kit for the FmX Integrated Display and EZ-Guide 500.



Item	Description	Trimble part number
1	Trimble FmX™ integrated display	93100-01
2	FmX power cable	66694
3	Power bus	67259
4	Basic power cable	67258
5	8 m GPS TNC/TNC RT angle cable	50449
6	Ag25 GNSS antenna	68040-005
7	Cable assembly, display to Field-IQ	75834
8	Field-IQ master switch box	75050-01
9	Optional: Remote foot switch	60490
10	Cable assembly, CAN, cab to hitch	77368

Item	Description	Trimble part number
①	Cable assembly, power to cab	76941
②	Optional: IBRC to DPT adapter cable	77413

The following steps are required to connect the FmX Integrated display and switch boxes to the Field-IQ system components.

*Note* – These steps provide general guidance for connecting the cables. Cable routing depends on the vehicle and individual preference and is not detailed in these steps.



**CAUTION** – When routing the Field-IQ cables be sure to avoid areas of the vehicle that may cause damage to the cable and possibly the Field-IQ system.

### Step 1

Connect the 12-pin DTM plug on the display harness to the rear of the display.

*Note* – Ensure the harness is plugged into either the A or B CAN connector only.



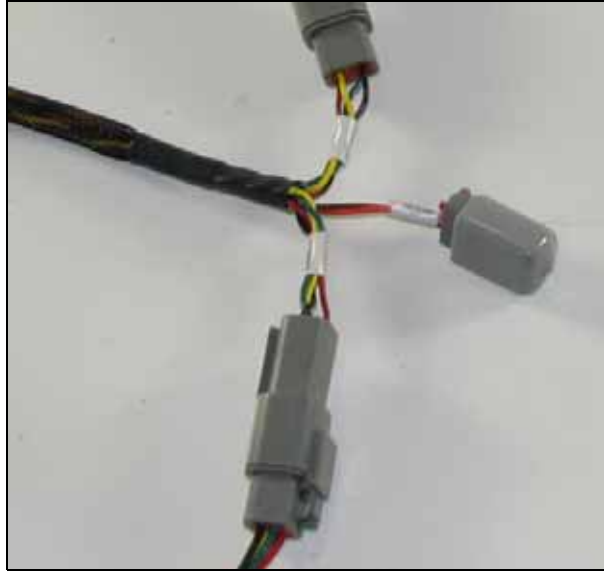
### Step 2

Connect the CAN terminator to the R2 connector on the display cable.



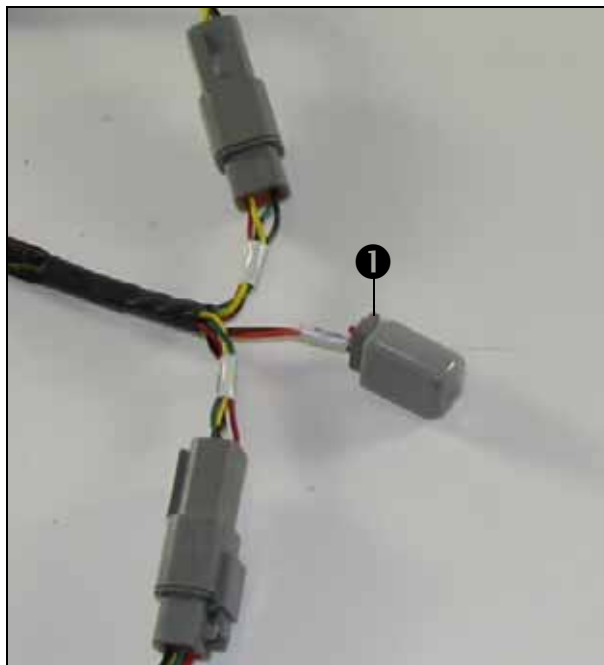
### Step 3

Locate the 4-pin CAN plug connection on the display cable and then insert the connector in the 4-pin receptacle on the master switch box harness.



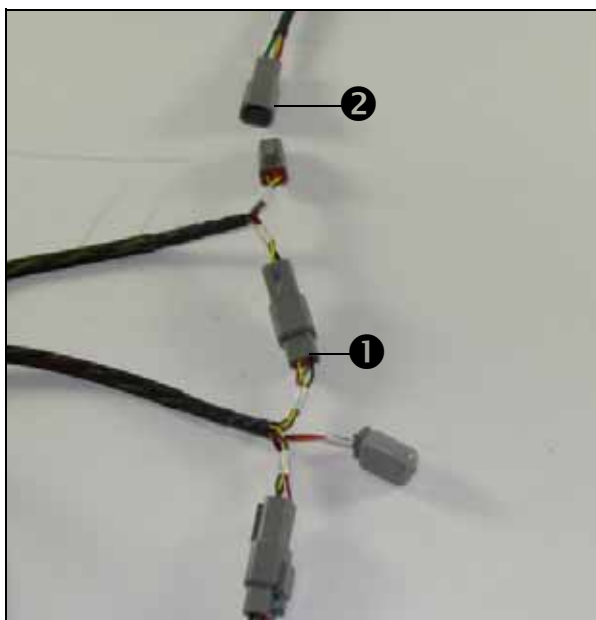
### Optional step

Connect the optional remote foot switch to the P4 connector ❶ on the master switch box harness. The foot switch can be used to remotely control the master on/off switch.



### Step 4

Connect the 4-pin plug labelled ❶ in the picture to the 4-pin receptacle labelled ❷.

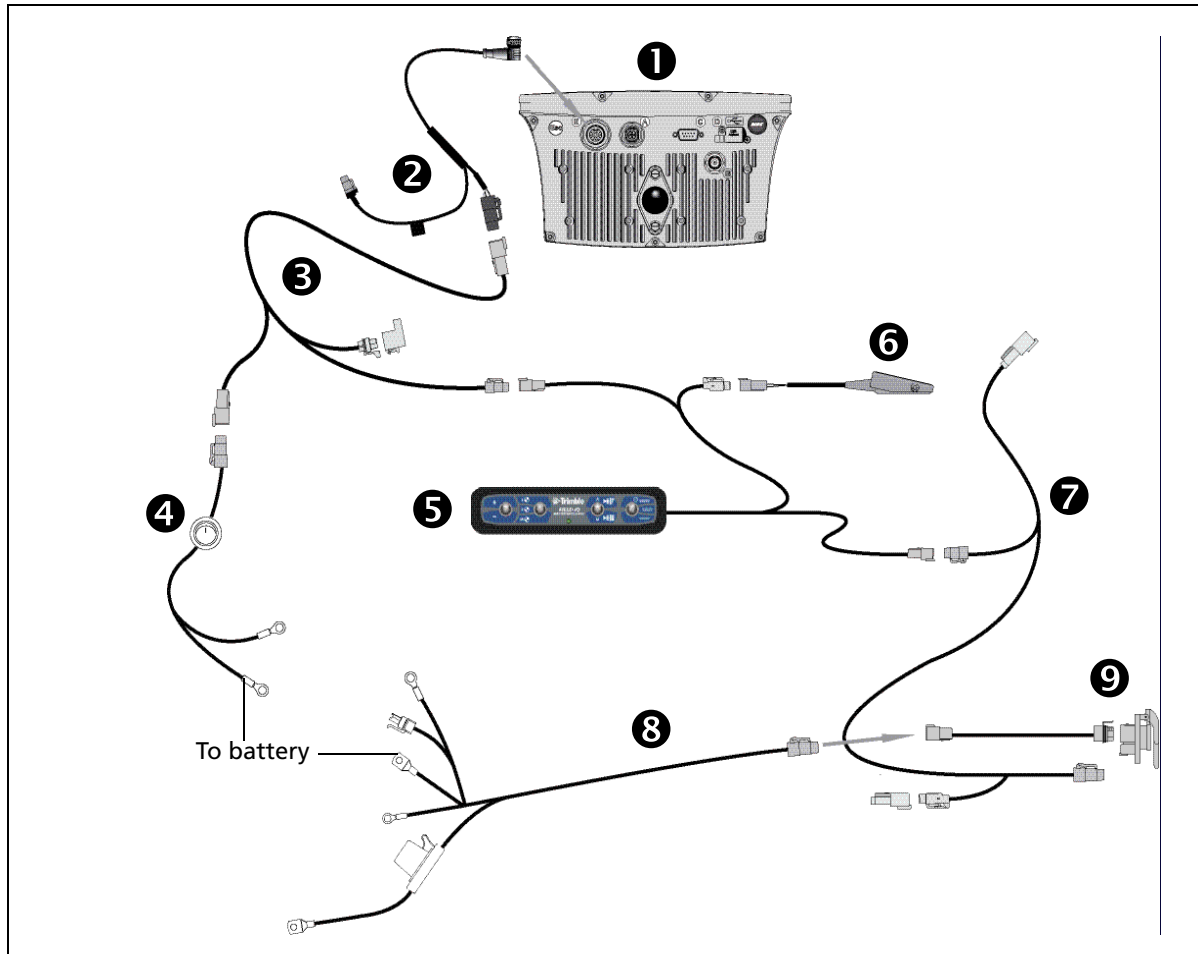


### Step 5

The cab-to-hitch cable must be routed from the display adapter cable to the back of the tractor to allow connection to be made to the implement.

Route the cable out of the cab and to the tractor hitch.

## Field-IQ System Cable Installation for the EZ-Guide 500



Item	Description	Trimble part number
❶	EZ-Guide 500	66100-xx
❷	Power cable	62817
❸	Cable assembly, CAN-TBC active terminator with power	75522
❹	Cable assembly, power with switch	75743
❺	Field-IQ master switch box	75050-01
❻	Optional: remote foot switch	60490
❼	Cable assembly, CAN, cab to hitch	77368
❽	Cable assembly, power to cab	76941
❾	Optional: IBRC to DPT adapter cable	77413



The following steps are required to connect the EZ-Guide 500 display and switch boxes to the Field-IQ system components.

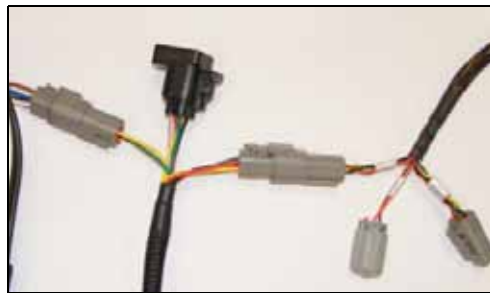
### Step 1

Connect the 4-pin DTM plug on the EZ-Guide 500 power cable to the 4-pin DTM receptacle on EZ-Guide 500/Application control adapter cable.



### Step 2

Connect the 4-pin DTM plug on the EZ-Guide 500/Application control adapter cable to the 4-pin DTM receptacle on the master switch box harness.



### Step 3

Connect the 2-pin receptacle on the EZ-Guide 500/Application control adapter cable to the EZ-Guide 500 power cable. The EZ-Guide 500 power cable will then be connected direct to the battery.



### Step 4

Complete the optional step and step 4 as described above to complete the installation of the cab cables.

### Optional cable installation

The Field-IQ system may also be connected via the EZ-Guide 19-pin port expansion cable. (Trimble part number 54609)

### Step 1

Locate and connect the 12-pin DTM to 4-pin DTM adapter and connect it to the grey 12-pin DTM, labeled P2, connector on the port expander cable.



### Step 2

Connect the 4-pin DTM plug on the EZ-Guide 500/Application control adapter cable to the 4-pin DTM receptacle on the 12- to 4-pin DTM adapter.



### Step 3

Complete the step 3 through step 5 as described on [page 31](#) to complete the installation of the cab cables.

# Field-IQ Power Harness Installation

## In this chapter:

- [Field-IQ Power Harness Installation](#)
- [Articulating and Track Tractors](#)
- [Optional: Power Relay Cable](#)

This chapter describes how to install the Field-IQ Crop Input Control system power harness to the pull-type spreader.



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**CAUTION** – Install the power cable so it is free from areas of the vehicle that may cause damage to the cable. These include areas that rub, pinch or cut the cable. Make sure that you do not short power with the cables or wrench.

---

## Field-IQ Power Harness Installation

The power for the Field-IQ system must be connected to the vehicle battery. Use the following steps to install the power cable and options.

### Step 1

Remove the existing nut on the battery terminal.



### Step 2

Using an open ended wrench connect the battery terminal extender to the existing battery terminal bolt.



### Step 3

Remove the nut from the nut from the terminal extender and reconnect the existing vehicle battery connectors. Connect the terminals located on the Field-IQ power cable and reconnect the nut.



#### **Step 4**

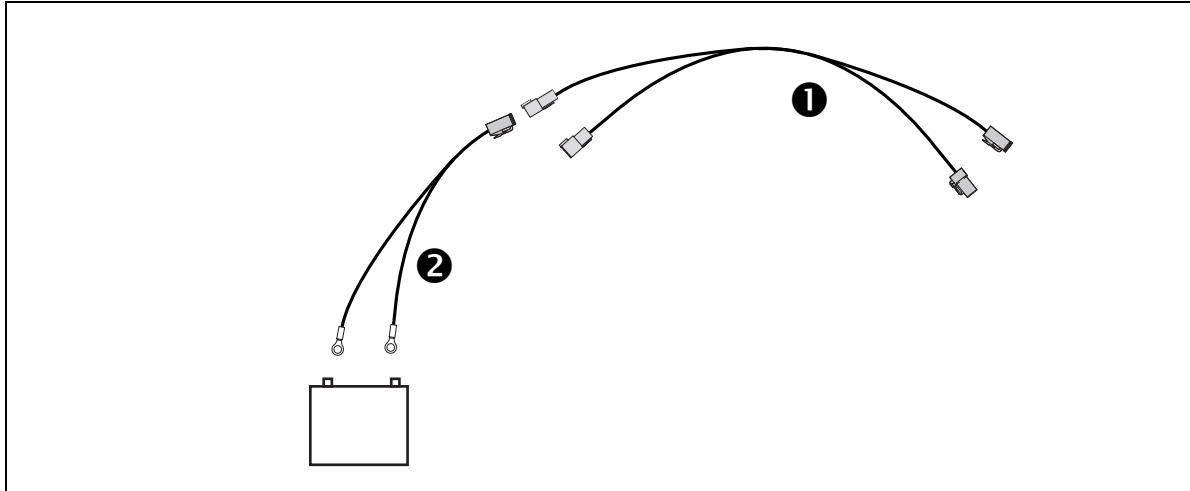
Repeat the steps for the second battery connection.

#### **Step 5**

Route the cable to the back of the vehicle to the hitch connection.

## Articulating and Track Tractors

An additional implement hitch extension cable may be required to extend the length of the battery adapter harness to the rear of the vehicle.



Item	Description	Trimble part number
①	CAN-power extension cable	75528-xx
②	Power-to-cab cable assembly (connects to the battery)	76941

Connect the 4-pin DTP connectors on the implement hitch extension cable to the battery adapter harness and the harness from the implement or the Powell adapter harness. Route the cable to the rear of the tractor.

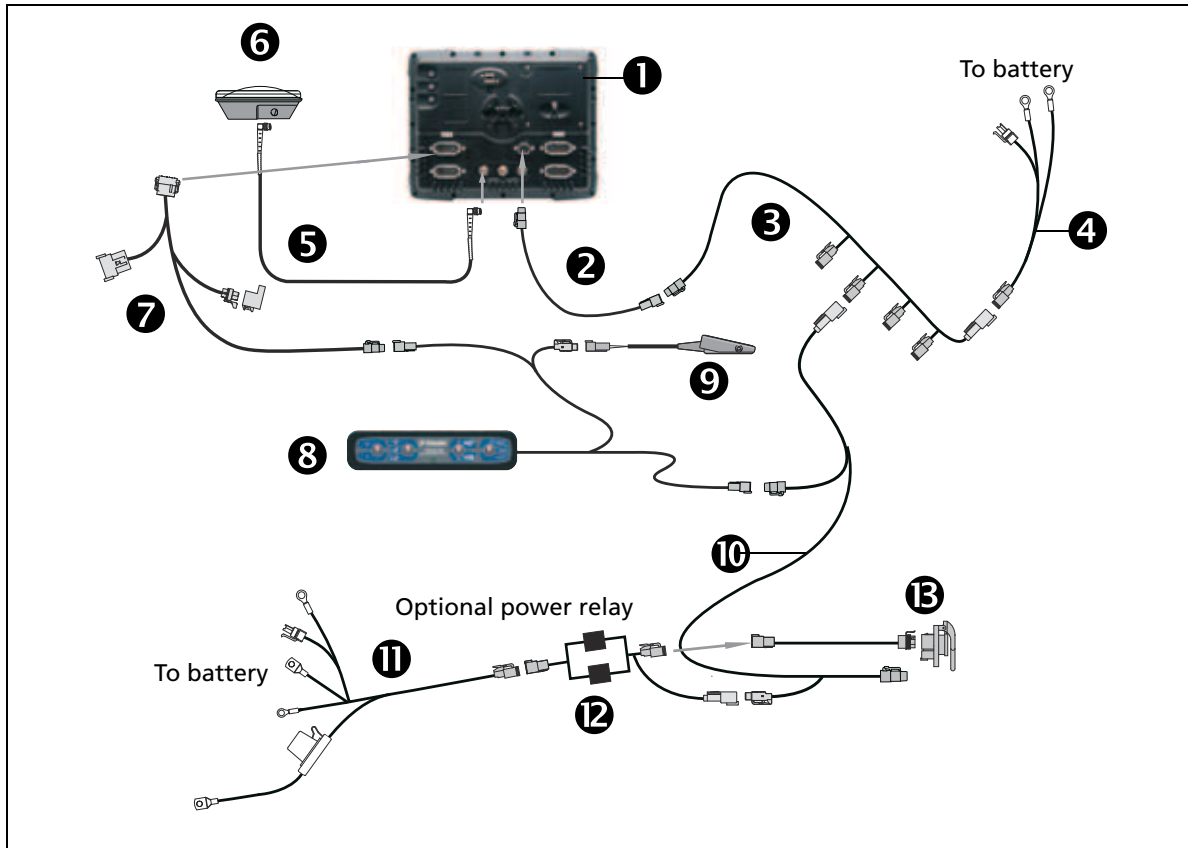
*Note – If the cab-to-hitch cable must be extended then connect the cable to the 4-pin DT connector.*



**CAUTION** – Be sure to route and install the cable free from areas that may result in damage to the cable. For example, the tractor drive shaft.

## Optional: Power Relay Cable

The optional power relay cable is used to prevent power from being supplied to the implement when the system is powered down. The optional power relay also requires the power bus to be installed in the cab.

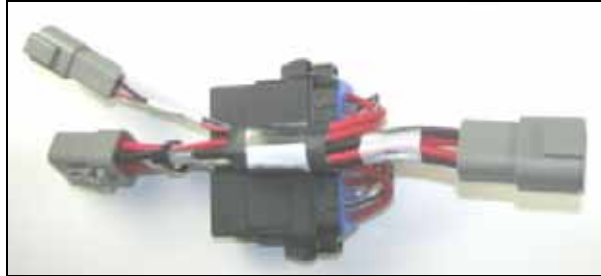


Item	Description	Trimble part number
①	FmX integrated display	93100-01
②	FmX power cable	66694
③	Power bus	67259
④	Basic power cable	67258
⑤	8 m GPS TNC/TNC RT angle cable	50449
⑥	Ag25 GNSS antenna	68040-005
⑦	Cable assembly, display to Field-IQ	75834
⑧	Field-IQ master switch box	75050-01
⑨	Optional: Remote foot switch	60490
⑩	Cable assembly, CAN, cab to hitch	77368
⑪	Cable assembly, power to cab	76941

Item	Description	Trimble part number
12	Dual relay power cutoff cable	77533
15	Optional: IBRC to DPT adapter cable	77413

### Step 1

Locate the power relay.



### Step 2

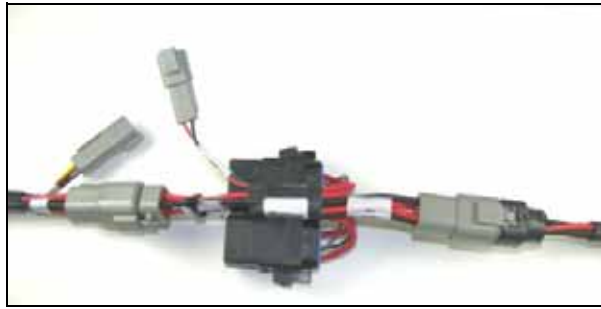
Connect one of the 4-pin connectors to the power cable.

Standard Hitch Connection:

Connect the second 4-pin connector to the implement harness.

Powell Connector:

Connect the second 4-pin connector to the Powell connector adapter harness.



### Step 3

Locate the 2-pin receptacle, labeled Power Bus, on the cab to hitch harness and connect to the power bus harness.

*Note – The power bus is used with the FmX and the AgGPS® Autopilot or EZ-Steer system. The power bus is not included in the Field-IQ kit and may need to be purchased separately depending on the system configuration.*





**Step 4**

Connect the 2-pin connector on the relay to the 2-pin receptacle on the cab to hitch harness.

**Step 5**

If no Powell connection is used then connect the relay and the cab to hitch harness to the implement CAN-power harness.



## Vehicle And Implement Hitch Connection

### In this chapter:

- Optional: Powell Connector Installation
- Standard: Basic Hitch Connection
- Installation of protective caps
- Optional bracket for hitch connection

This chapter describes how to install the Field-IQ™ Crop Input Control System to the planter.

## Introduction



**WARNING** – To avoid potentially serious personal injury or illness, and to prevent damage to equipment, make sure that you read and understand the Safety Information chapter.

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There are two methods for the hitch installation. The Powell connector is the preferred method as it provides a quick disconnection between the vehicle and implement. The Powell connector parts are an option for the Field-IQ system. The second method is the basic cab kit. Both methods are shown below.

*Note* – Be sure to install the hitch connection and cables so they are free of areas that could result in damage to the cable or the Field-IQ system.

Verify the cables are installed so they are free from the following which could result in damage:

- PTO Shafts
- Vehicle tires when the implement is turning.
- 3-Point linkage

To complete the hitch connection installation, do the following:

## Optional: Powell Connector Installation

The Powell connector provides a robust mounting and connection option for the implement. Use the steps below to add the Powell connector option to the Basic Cab kit.



**CAUTION** – Use only the connectors supplied with this option. The connectors used for the Powell connector option are different than the hitch connectors on some vehicles.

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### Step 1

Install the Powell connector on the vehicle in a secure location that allows for easy access to the connector.

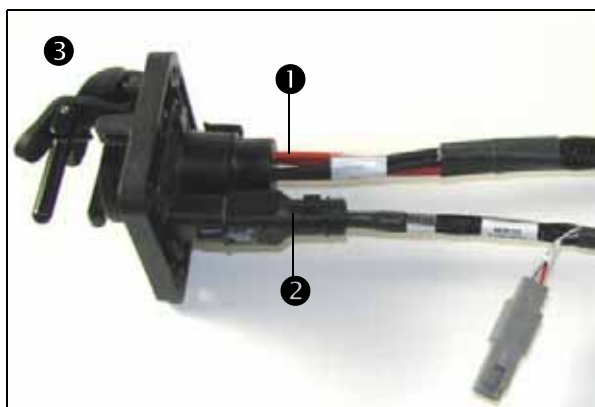
*Note* – If this mounting option is not available, use the optional hitch bracket shown later in this chapter. The Trimble P/N is 78668.



**Step 2**

Connect the 4-pin DT plug (❶ shown in the picture) on the CAN cab harness to the 4-pin DT receptacle on the Powell connector (❸ shown in the picture).

Connect the IBRC plug connector (❷ shown in the picture) to the receptacle on the Powell connector (❸ shown in the picture).

**Step 3**

Connect the 4-pin DTP plug on the power harness to the 4-pin DTP receptacle on the Powell adapter cable.

**Step 4**

Connect the implement Powell adapter to the vehicle.

**Step 5**

Connect the 4-Pin DT and 4-Pin DTP connectors to the implement CAN/Power harness. The implement harness will then connect the vehicle to the Field-IQ control modules mounted on the implement.



## Standard: Basic Hitch Connection

Use the following steps for the basic hitch connection.

### Step 1

Route the power cable and the cab-to-hitch cable to the hitch of the vehicle.

### Step 2

Connect the 4-Pin DT and 4-Pin DTP connectors to the implement CAN/Power harness.



### Step 3

Route the implement harness to the Field-IQ control modules on the implement.

## Installation of protective caps

The protective caps provide a way to secure the ends of the cables as well as protect the cable connectors when disconnected from the implement.

### Step 1

Locate the protective caps.



### Step 2

Connect the protective caps to the cables.



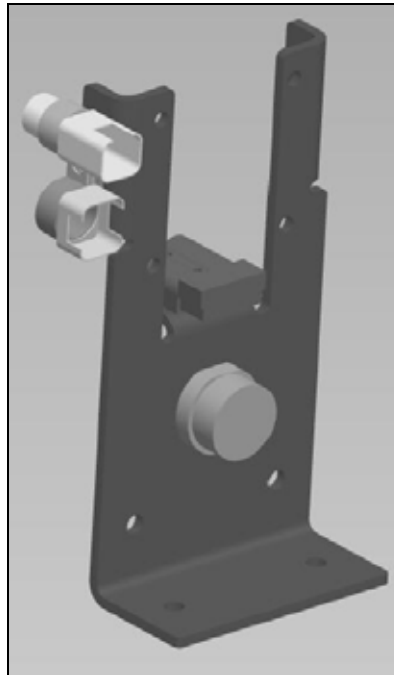
### Step 3

Secure the caps to the cable or vehicle using the provided tie strap.

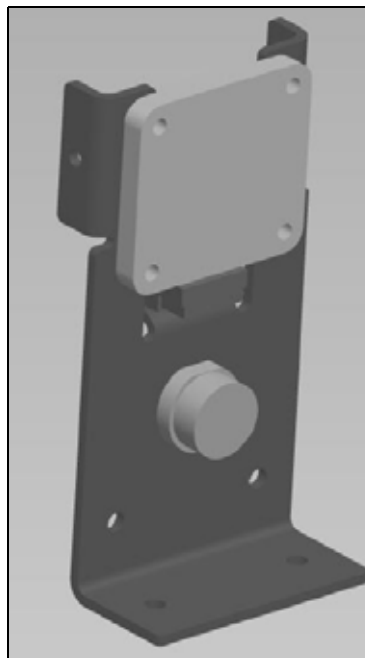
## Optional bracket for hitch connection

The optional bracket for the hitch connection may be installed on the tractor near the hitch. The bracket may be used for either the Powell connector or the basic hitch connection. Securely mount the bracket near the hitch of the tractor and install either the Powell adapter or the basic cables.

Picture shows an example of the basic hitch method.



Picture shows an example of the Powell method.





## Field-IQ Rawson Control Module and Cable Installation

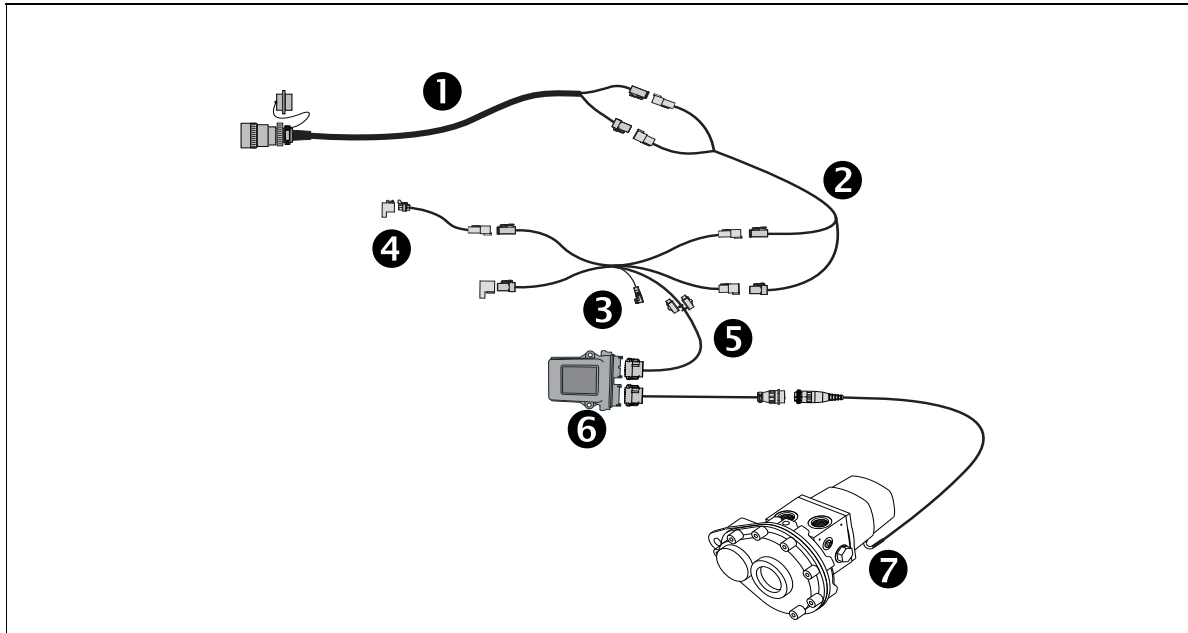
- Rawson Control Module and cables
- Cabling layout for Field-IQ system with Rawson Par 40
- CAN terminator installation

This chapter describes how to install the Field-IQ components and cables on the pull-type spreader.

## Rawson Control Module and cables

This section describes how to install and connect the Rawson control module.

### Cabling layout for Field-IQ system with Rawson Par 40



Item	Description	Trimble part number
①	Optional: Powell adapter– implement harness	77611
②	CAN-power extension cable	75528-xx
③	Rawson control module tee, cable assembly	75527
④	Implement terminator kit	75529 (includes part number 75491)
⑤	DTM to CPC motor adapter, cable assembly, Field IQ	75531
⑥	Rawson control module	75070-00
⑦	Rawson motor	Rawson PAR 40, single, 304152

## Step 1

Locate the Rawson control module.

## Step 2

Locate a secure mounting location on the implement for the Rawson control module. Verify the location is where the module will not be damaged. The module mounting location must be near the Rawson drive mounting location.



**CAUTION** – The preferred mounting is with the red and green connectors pointing down. The control module may also be mounted with connectors pointed to the side. Do not mount with the red and green connectors pointing up.



## Step 3

Connect the green 12-pin DTM connector on the Rawson adapter cable to the module.



### Step 4

Connect the round connector on the Rawson adapter cable to the Rawson motor cable.



### Step 5

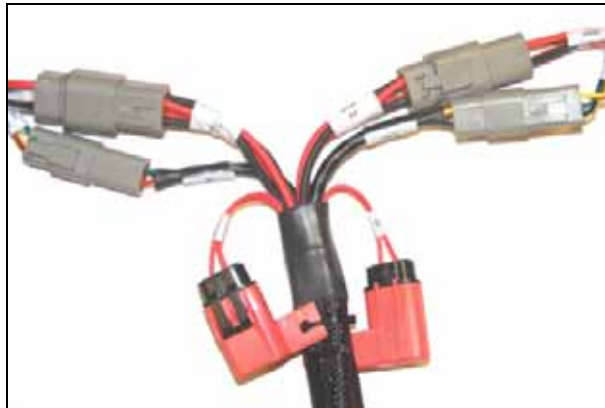
Connect the red 12-pin DTM connector on the Rawson Module to CAN system adapter cable to the Rawson control module.



### Step 6

Connect each of the 4-pin DTP and DT connectors to the CAN backbone cable.

*Note – If the control module is the last module connected on the CAN-power cable then proceed to installation of the CAN terminator.*



## CAN terminator installation

The Field-IQ requires two CAN terminators. The first terminator is located in the vehicle cab. Use the following steps to install the second CAN terminator located on the implement at the end of the CAN-power harness.

### Step 1

Locate the CAN terminator, cable, and protective 4-pin DTP cap.



### Step 2

Verify the CAN terminator is installed on the CAN adapter cable.



### Step 3

Connect the 4-pin DT receptacle on the CAN adapter cable to the 4-pin DT plug on the CAN backbone cable.

Connect the 4-pin DTP protective cap to the 4-pin DTP plug on the CAN/Power backbone cable.



### Step 4

Secure the cable to prevent damage to the cable and system.



## Rawson Drive Installation

### In this chapter:

- [Ground drive spreader conversion](#)
- [Rawson drive installation](#)

This chapter describes how to perform an installation of a Rawson drive. Follow the installation instructions provided with the Rawson Drive. This chapter describes specific items for Pull-Type Spreaders.

## Ground drive spreader conversion

Most pull-type spreaders use a ground drive system to drive the material belt/chain in the spreader. The ground drive system must be removed to allow the Field-IQ system to connect and control the spreader.

These installation instructions do not provide a step-by-step process to remove the ground drive system as pull-type spreaders use different types of ground drive systems.

Below is an example of the ground drive system that must be removed.



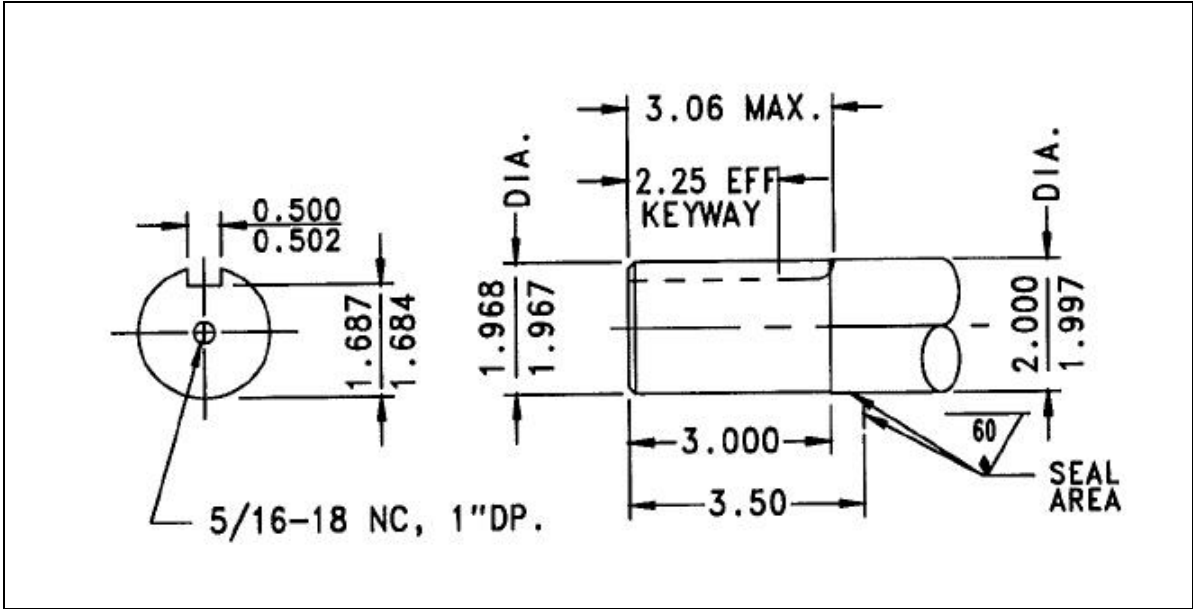
## Rawson drive installation

Follow the instructions provided with the Rawson drive to install the drive on the pull-type spreader.

### PAR 40 installation requirements

The shaft that the Rawson PAR 40 is connected to must be 1.968" and have one or two keyways cut to accept a 1/2" keyway. See figure below for dimensions.





**Note** – The shaft will need to be machined to these dimension if the existing measurements are not correct. If shaft size is not 1.968 then an adaptor may be required.

This is an example of the PAR 40 installed on a pull-type spreader.





## Final Machine Check

### In this chapter:

- [Performing the final machine check](#)

This chapter describes how to perform a final check of the vehicle.

## Performing the final machine check



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**WARNING** – To avoid potentially serious personal injury or illness, and to prevent damage to equipment, make sure that you read and understand the [Safety Information](#) chapter.

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### Step 1

Connect the battery.

### Step 2

Connect the hydraulic hoses to the tractor.

### Step 3

Run system to verify operation. Use the steps in the Field-IQ User Guide to calibrate the system.