

INSTALLATION INSTRUCTIONS

AgGPS® TrueTracker™ Implement Steering System Load Bearing Wheels Kit

- **Spudnik 6140 Windrower**
- **Spudnik 6400 Harvester**
- **Spudnik Planter**

Version 1.00
Revision A
August 2009
Part Number 54066-11-E04



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- 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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Or

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Meerheide 45
5521 DZ Eersel, NL



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:



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



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

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

Warnings



WARNING – Before you begin work, ensure that the vehicle is parked on a clean, dry, and level surface. An uneven surface could cause the implement to shift or fall, resulting in serious injury or death, as well as implement damage.



WARNING – When you are working with a heavy, raised implement, there is a risk of the implement dropping. This can cause serious injury or even death, or damage to the implement. To ensure safety when installing the Tracker system on the implement, before you begin work ensure that all people are clear of the vehicle. Lower the implement to the ground, place the tractor in park, turn the engine off, and remove the key.



WARNING – If you must raise the primary implement, be aware that the implement can fall, causing serious injury. Use bar stands to support it. Securely support all implement components that must be raised.

Cautions



CAUTION – Make sure that the steering pot is at the center of its travel when the tongue is straight. Otherwise, the steering pot may over-travel and fail. A correctly centered pot shows 2.5 Volts.



CAUTION – When installing the steering sensor, make sure that the implement steering wheels are straight and cannot turn.

Contents

	Safety Information	3
	Warnings	3
	Cautions	3
1	Introduction	7
	Technical assistance	8
	Your comments	8
	Required components	9
	Platform kit	9
	Accessory part numbers	9
	FmX / FM-1000 accessories	9
	FieldManager display accessories	9
	Fabricating the hydraulic hoses	9
2	Manifold Installation	11
	Manifold components	12
	Installing the hydraulic hoses on the Spudnik 6140 windrower	13
	Preparing the manifold	13
	Mounting the manifold	14
	Connecting the hydraulic hoses	15
	Installing the hydraulic hoses on the Spudnik 6400 harvester	17
	Preparing the manifold	17
	Mounting the manifold	18
	Connecting the hydraulic hoses	19
	Installing the hydraulic hoses on the Spudnik planter	21
	Preparing the manifold	21
	Mounting the manifold	22
	Connecting the hydraulic hoses	23
3	Steering Sensor Installation	25
	Steering link components (P/N 56960 Rev B)	26
	Installing the steering sensor on the Spudnik 6140 windrower	27
	Installing the steering sensor on the Spudnik 6400 harvester	29
	Installing the steering sensor on the Spudnik planter	32
4	Trimble Component Installation	35
	Cable components for the FmX integrated display with the Autopilot automated steering system and TrueTracker	36
	Cable components for the FieldManager display and AgGPS 262 GPS receiver	37
	Cable components for the FieldManager display, AgGPS 432 GPS receiver and AgGPS 442 GNSS receiver	38
	Installing the AgGPS FieldManager cab harness	39
	Installing the antenna mast, controller, and receiver on the Spudnik 6140 windrower	43

Contents

Installing the <i>AgGPS</i> 262 receiver implement cabling on the Spudnik 6140 windrower	46
Installing the antenna mast, controller, and receiver on the Spudnik 6400 harvester	49
Installing the <i>AgGPS</i> 262 receiver implement cabling on the Spudnik 6400 harvester	52
Installing the antenna mast, controller, and receiver on the Spudnik planter	55
Installing the <i>AgGPS</i> 262 receiver implement cabling on the Spudnik planter	58
Installing the implement cabling for the <i>AgGPS</i> 432 GPS receiver and the <i>AgGPS</i> 442 GNSS receiver.	61

Introduction

In this chapter:

- [Technical assistance](#)
- [Your comments](#)
- [Required components](#)
- [Fabricating the hydraulic hoses](#)

This manual describes how to install the *AgGPS*® TrueTracker™ implement steering system from Trimble.

Even if you have used other Global Positioning System (GPS) 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) 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).
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.

Required components

Platform kit

Kits required	Trimble part number
Load bearing wheels kit platform kit, FmX™ integrated display / FM-1000™ integrated display	54067-11
Load bearing wheels kit platform kit, FieldManager™ display	54066-11

Accessory part numbers

Kits required	Trimble part number
Pole bracket, Orthman Tracker IV	54065-17
40' extension cable for 10-pin data cable	AG 0793-1290-450
Weather-proof enclosure for NavController II or 432/442 receiver	54065-14 (included in the platform kit)
Enclosure mounting plate bracket	54065-16 (included in the platform kit)

FmX / FM-1000 accessories

Kits required	Trimble part number
Extension cable 65' LMR400 antenna cable	67473
FmX implement steering cable kit	54065-07

FieldManager display accessories

Kits required	Trimble part number
TrueTracker upgrade kit for 432/442 receiver	54065-05
FieldManager implement steering cable kit	54065-06

Fabricating the hydraulic hoses

The hose lengths described in this manual are estimates; the actual hose lengths required may vary depending upon the implement.

Trimble recommends that hose lengths are measured on site, based on the following instructions, and the hoses should then be manufactured by your local hydraulic specialist.

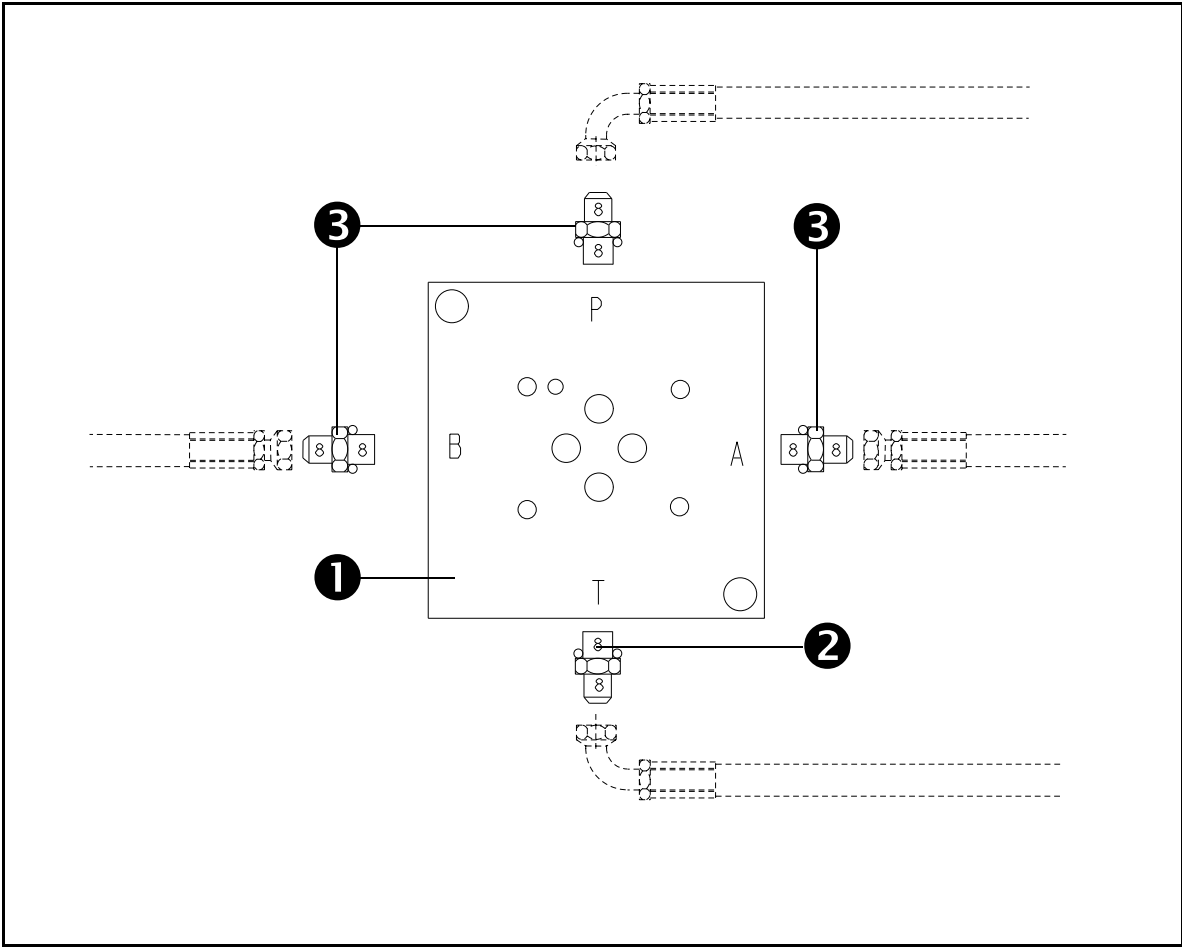
Manifold Installation

In this chapter:

- [Manifold components](#)
- [Installing the hydraulic hoses on the Spudnik 6140 windrower](#)
- [Installing the hydraulic hoses on the Spudnik 6400 harvester](#)
- [Installing the hydraulic hoses on the Spudnik planter](#)

This chapter describes how prepare, install, and configure the TrueTracker manifold for use with various Spudnik implements.

Manifold components



Item	Description
❶	Valve subplate (P/N 57257)
❷	Check valve (P/N 62839)

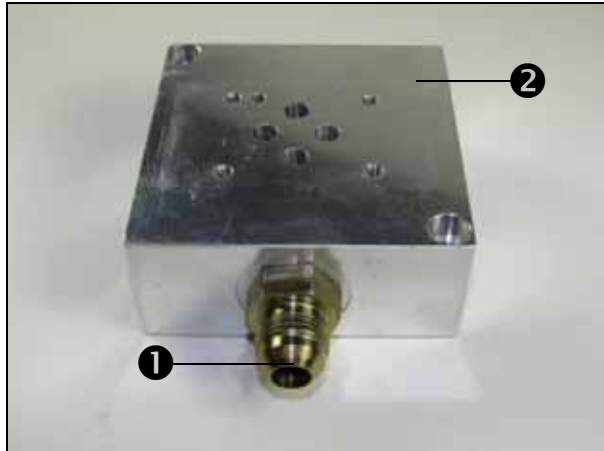
Item	Description
❸	Various fittings as required (x3)

Installing the hydraulic hoses on the Spudnik 6140 windrower

Preparing the manifold

Step 1

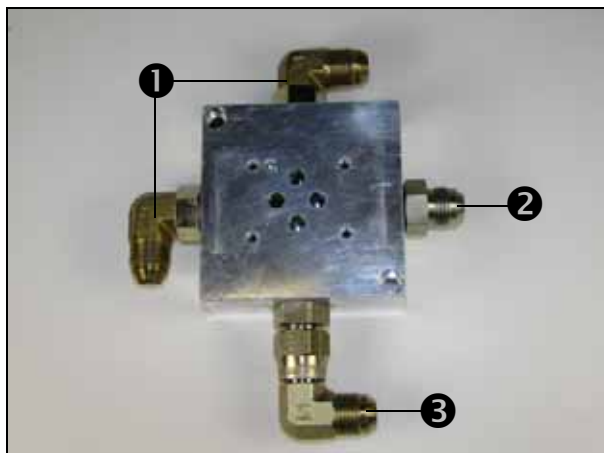
Attach the supplied check valve (❶) fitting to the T port of the manifold (❷).



Step 2

Attach the following to the manifold:

- 90° -8 ORB fittings (❶) to the P and B ports.
- -8 ORB to -6 JIC straight fitting (❷) to the A port.
- 90° -8 to -6 JIC fitting (❸) to the T port.

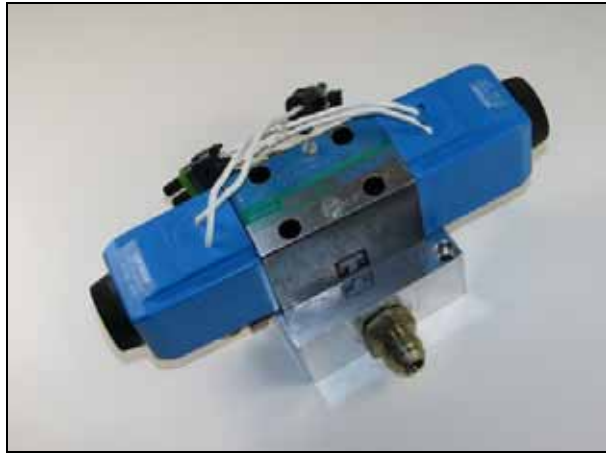


***Note** – Depending on the hoses and configuration chosen, you may need to use different fittings from those described.*



Step 3

Attach the hydraulic control valve to the sub-plate manifold using the supplied hardware.




Mounting the manifold

Step 1

Locate and open the panel that covers the hydraulic manifold on the windrower.



Step 2

Note – The manifold must be mounted on a flat surface. To achieve this, you may need to weld a plate with mounting holes to the implement ()

Do one of the following:

- Bolt the manifold to the welded plate.
- Drill and tap two 1/4"-20 mounting holes in the implement and then mount the manifold using the provided hardware.



Connecting the hydraulic hoses

Step 1

Locate the A and B lines on the existing hydraulic manifold. The connections are labelled “A6” and “B6”.

Disconnect the A and B lines and then attach a -6 JIC T-fitting to A6 and B6 ports.

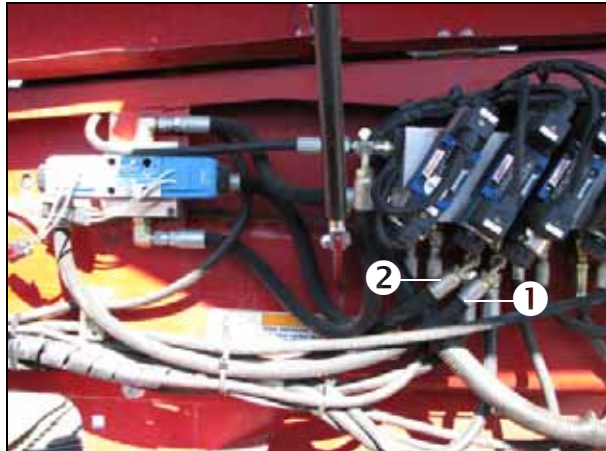
Reattach the existing A and B lines to the free end of each T-fitting.



Step 2

Run A and B lines from the TrueTracker manifold and then attach them to the corresponding T-fittings. The recommended configuration is as follows:

- A line (❶): use a 30" hose with a -6 JIC 90° fitting connected at the TrueTracker manifold and a -6 JIC straight fitting connected at the T-fitting.
- B line (❷): use a 21" hose with a -6 JIC straight fitting connected at the TrueTracker manifold and a 90° -6 JIC fitting connected at the T-fitting.

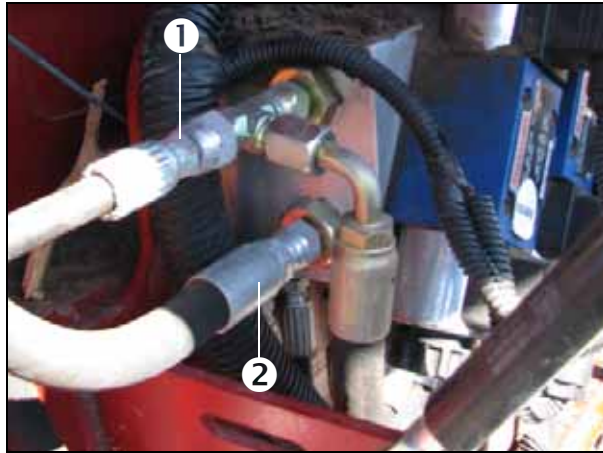


Step 3

Locate the tank line (❶) and the pressure line (❷) on the existing manifold.

Disconnect the tank line, remove the pressure port plug and then attach:

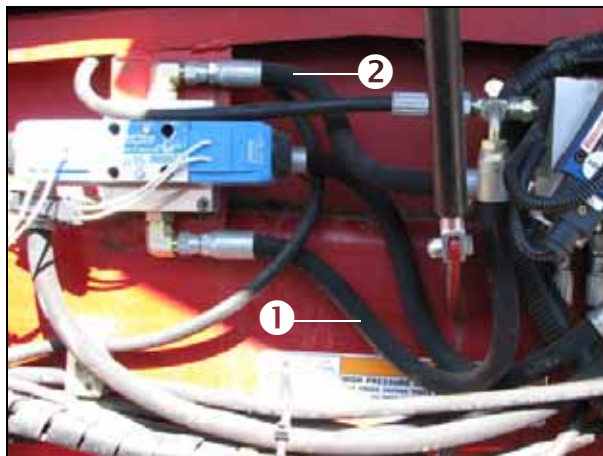
- A -6 JIC T-fitting to the tank port on the manifold. Attach the T-fitting with the spare connector facing out. Reattach the existing tank line to the free end of the T-fitting.
- A -6 JIC straight fitting to the pressure port.



Step 4

Connect the following:

- Use a 20" hose (❶) with a -6 JIC straight fitting and a 90° -6 fitting to connect the T port of the TrueTracker manifold to the newly installed T-fitting on the tank line.
- Use a 15" hose (❷) with -6 JIC straight fittings at either end to connect the P port of the TrueTracker manifold to the newly installed fitting on the pressure line.

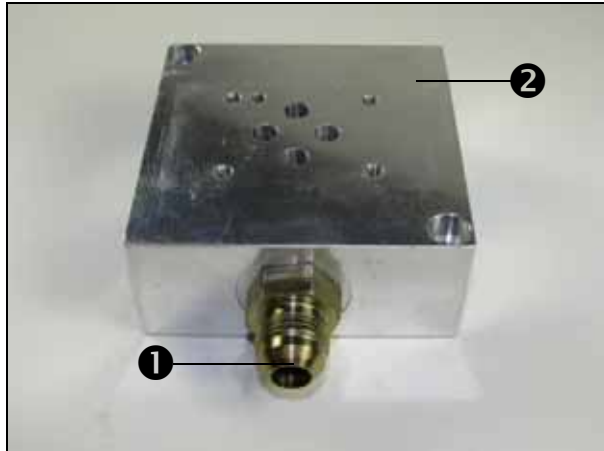


Installing the hydraulic hoses on the Spudnik 6400 harvester

Preparing the manifold

Step 1

Attach the supplied check valve (❶) fitting to the T port of the manifold (❷).



Step 2

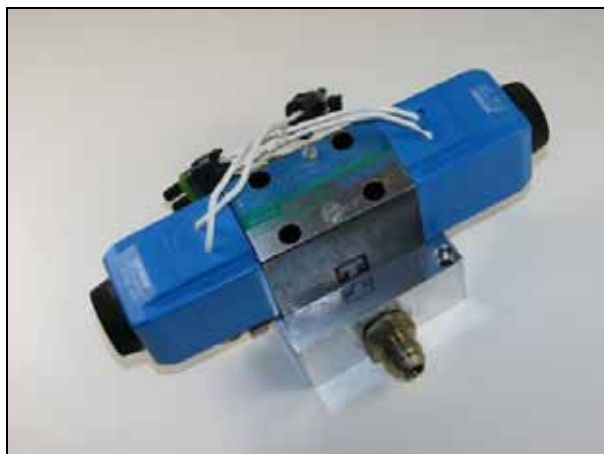
Attach three -8 ORB fittings to the manifold.

Note – Depending on the hoses and configuration chosen, the installation of different fittings to the manifold may be required.



Step 3

Attach the hydraulic control valve to the sub-plate manifold using the supplied hardware.



Mounting the manifold

Step 1

Locate and open the panel that covers the hydraulic manifold on the harvester.



Step 2

***Note** – The manifold must be mounted on a flat surface. To achieve this, you may need to weld a plate with mounting holes to the implement*

Do one of the following:

- Bolt the manifold to the welded plate.
- Drill and tap two ¼"-20 mounting holes in the implement and mount the manifold using the provided hardware.



Connecting the hydraulic hoses

Step 1

Locate the A and B lines on the existing hydraulic manifold. The connections are labelled “A6” and “B6”.

Disconnect the A and B lines and attach -6 JIC T-fittings to the A6 and B6 ports.

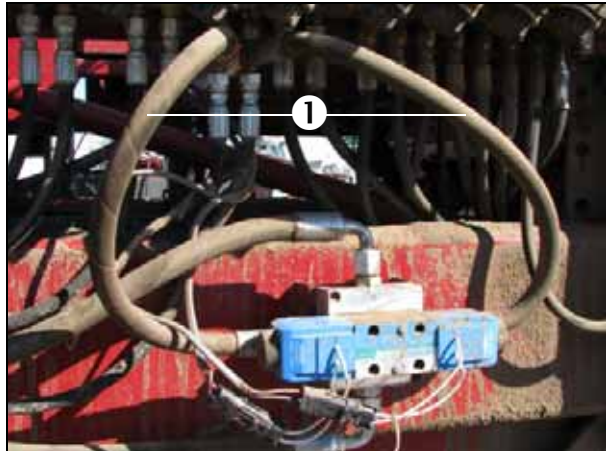
Reattach the existing A and B lines to the free end of each T-fitting.



Step 2

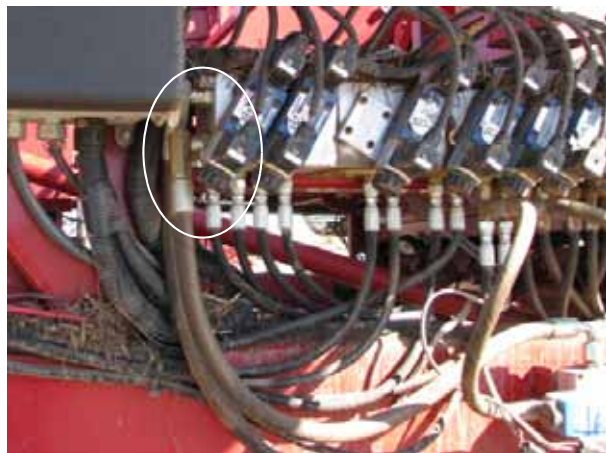
Run A and B lines from the TrueTracker manifold and then attach them to the corresponding T-fittings.

Use two 26" hoses (❶) with a -6 JIC 90° fitting connected at the T-fitting and a -6 JIC straight fitting connected at the TrueTracker manifold.



Step 3

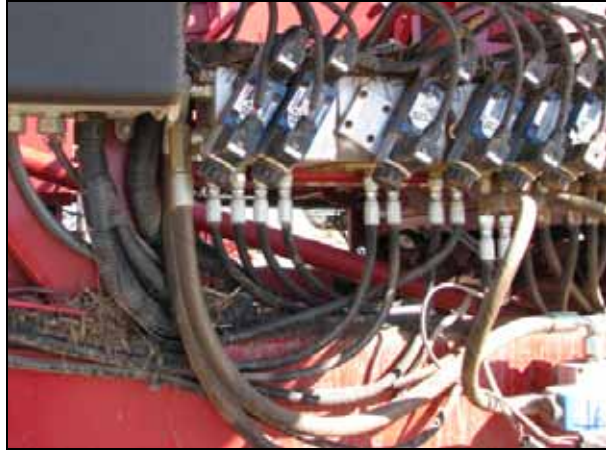
Locate the tank line (❶) and the pressure line (❷) ports on the existing manifold.



Step 4

Use two 36" hydraulic hoses with a -6 straight JIC fitting and a short -6 90° fitting to connect the implement's pressure and tank ports to the P and T ports on the TrueTracker manifold.

Note – *The short 90° fitting is required for the hose installation at the vehicle's manifold.*

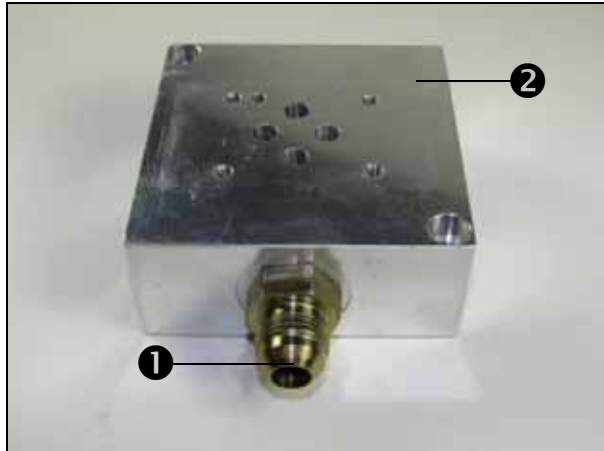


Installing the hydraulic hoses on the Spudnik planter

Preparing the manifold

Step 1

Attach the supplied check valve (❶) fitting to the T port of the manifold (❷).



Step 2

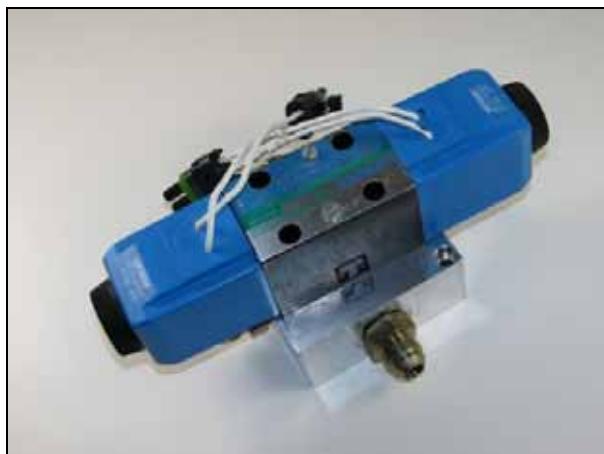
Attach three -8 ORB fittings to the manifold.

Note – Depending on the hoses and configuration chosen, you may need to use different fittings from those described.



Step 3

Attach the hydraulic control valve to the sub-plate manifold using the supplied hardware.



Mounting the manifold

Step 1

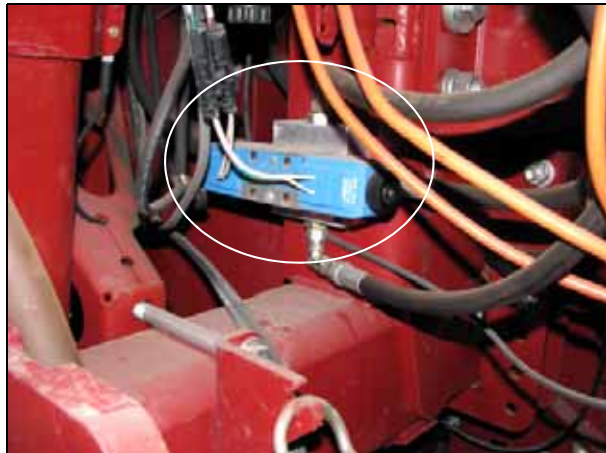
Locate the vehicle's existing manifold and then find a place nearby to attach the TrueTracker manifold.



Step 2

Use a transfer punch to mark hole locations and then drill and tap two 1/4" -20 mounting holes.

Attach the manifold using the supplied hardware.



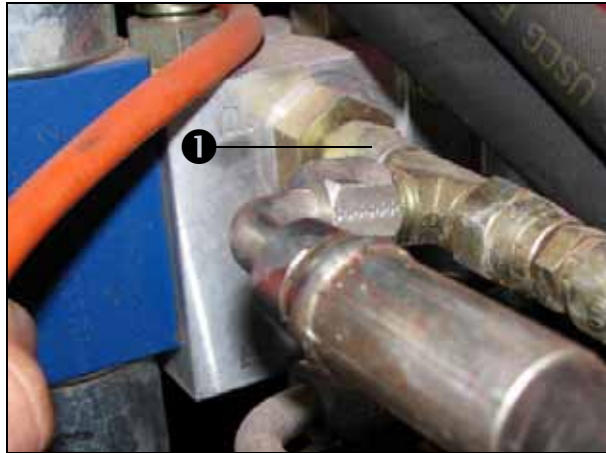
Connecting the hydraulic hoses

Step 1

Locate the tank line and the pressure line on the existing manifold. The pressure line (❶) is above the tank line and is tagged as “P” on the manifold.

Disconnect the tank and pressure lines and then attach two -6 JIC T-fittings.

Reattach the existing tank and pressure lines to the free ends of the T-fittings.



Step 2

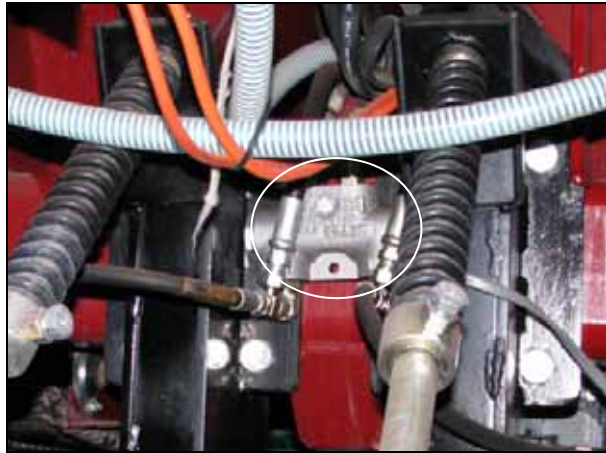
Connect the following:

- Use a 24" hose (❶) with a -6 JIC straight fitting and a 90° -6 fitting to connect the P port of the TrueTracker manifold to the newly installed T-fitting on the pressure line.
- Use a 28" hose (❷) with a -6 JIC straight fitting and a 90° -6 fitting to connect the T port of the TrueTracker manifold to the newly installed T-fitting on the tank line.



Step 3

From behind the implement, facing forward, find the implement steering flow divider.



Step 4

Find the A and B lines of the implement and then attach a T-fitting to each, downstream of the flow divider.



Step 5

Use two 104" hydraulic hoses with -6 straight JIC fittings at each end (1) to connect the A and B lines to the A and B ports on the TrueTracker manifold.



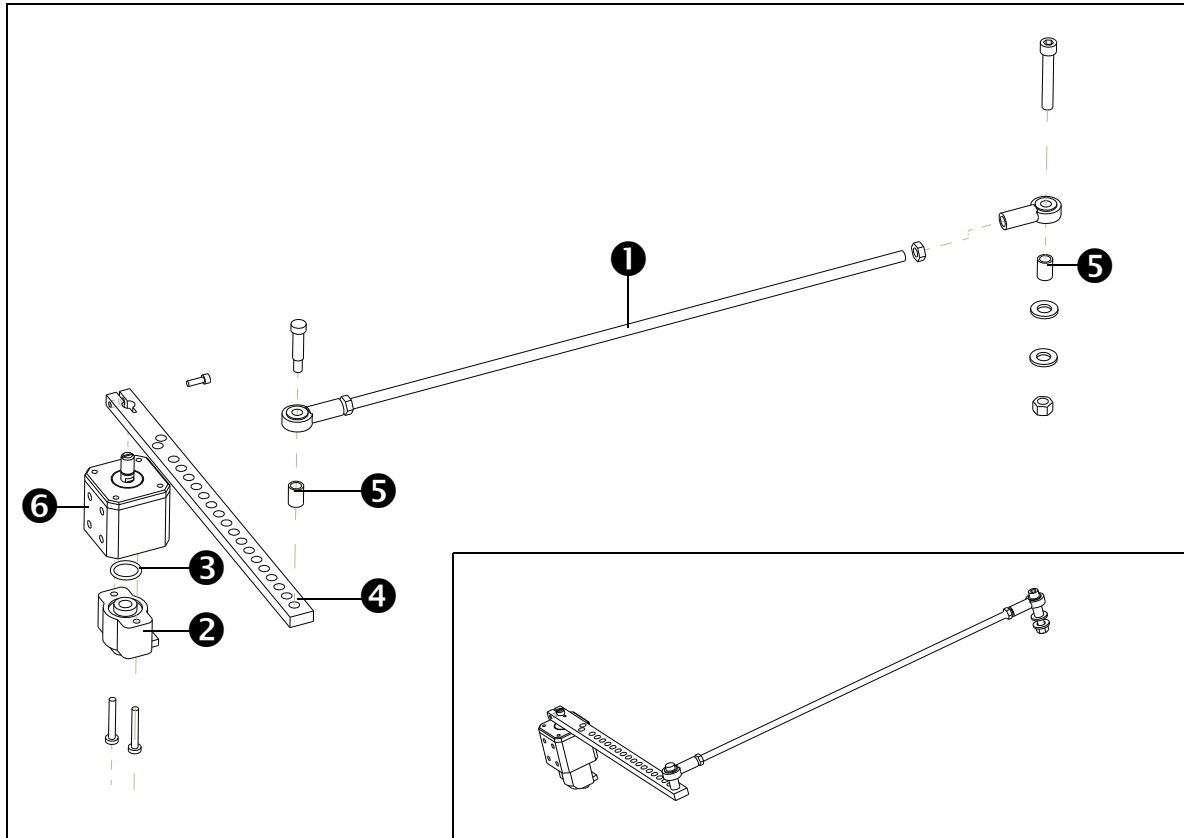
Steering Sensor Installation

In this chapter:

- Steering link components (P/N 56960 Rev B)
- Installing the steering sensor on the Spudnik 6140 windrower
- Installing the steering sensor on the Spudnik 6400 harvester
- Installing the steering sensor on the Spudnik planter

This chapter describes how to install the steering sensor to various Spudnik implements.

Steering link components (P/N 56960 Rev B)



Item	Description	Trimble part number
❶	All Thread rod (including rod ends and bolt kit)	57512
❷	Rotary potentiometer	49288
❸	Sensor o-ring seal	41335
❹	Bracket link	54406
❺	Spacer (x2)	40913
❻	Steering angle sensor	48582-10

Notes:

- The steering sensor bracket (P/N 49294) is not shown in the preceding diagram.
- The steering link kit (P/N 56960 Rev B) is suitable for various vehicle models, including all those mentioned in this manual.

Installing the steering sensor on the Spudnik 6140 windrower



CAUTION – Make sure that the implement steering wheels are straight and cannot turn.

Step 1

Locate the right rear steering wheel of the implement; the steering sensor will be installed here.



Step 2

To install the steering sensor bracket (P/N 49294), do one of the following:

- Weld the bracket to the implement.
- Drill and tap $\frac{1}{4}$ "-20 holes. Attach the bracket using the supplied hardware.

Note – You can use the bracket as a template to mark the hole locations.



Step 3

Attach the steering bracket (P/N 54639) to the steering linkage in the location shown.

You can attach the bracket using the existing tie-rod end bolt. Weld the bracket to the tie-rod to prevent it rotating.



Step 4

Attach the following to the steering pot mount assembly (P/N 48583):

- bracket link (P/N 54406)
- the steering pot (P/N 49288).

Place the bracket so that the steering pot is in the middle of the travel range. Otherwise, the steering pot may over-travel and fail.



Step 5

Cut the provided All Thread rod to approximately 7" and then screw the provided jam nuts and rod ends onto it.

Attach the All Thread link to:

- the bracket link (P/N 54406) at the #5 position
- the steering bracket (P/N 54639)

Use the provided spacers and socket head cap screws to complete this installation.



CAUTION – Make sure that the steering pot is at the center of its travel when the tongue is straight. Otherwise, the steering pot may over-travel and fail. A correctly centered pot shows 2.5 Volts.

Installing the steering sensor on the Spudnik 6400 harvester



CAUTION – Make sure that the implement steering wheels are straight and cannot turn.

***Note** – The steering pot should be installed at the driver's right rear wheel on the implement. However, some steps in this manual show the components at the left rear wheel.*

Step 1

Locate the right rear steering wheel of the implement; the steering sensor will be installed here.



Step 2

To install the steering sensor bracket (P/N 49294), do one of the following:

- Weld the bracket to the implement.
- Drill and tap $\frac{1}{4}$ "-20 holes. Attach the bracket using the supplied hardware.

You can use the bracket as a template to mark the hole locations.

Place the bracket so that the steering sensor holder is approximately 7" behind the gusset on the implement.

Align the edge of the bracket with the inside surface of the square tube on the implement.



Step 3

Use the All Thread rod at full length to start with.

Once the linkage is installed on the tractor, measure and cut the All Thread rod so that when the wheels are centered, the linkage forms an angle of approximate 90°.

Cut the bracket link (P/N 54406) at the hole past the #9 hole position.



Step 4

Assemble the components (P/N 40999 and P/N 40998) as shown, using the spacer (P/N 40913) between the bracket and the rod end.

Attach bracket to the steering cylinder using two hose clamps.

Cycle the cylinder and watch the bracket to make sure that it does not touch the cylinder seal when the cylinder is collapsed. If needed, trim the bracket.



Step 5

Connect the tie-rod end and the opposite end of the threaded rod to the bracket link (P/N 54406) in the #9 position.



Step 6

Attach the bracket link to the steering pot mounting assembly (P/N 48583).

Attach the steering pot to the steering pot mount assembly.

Install the bracket so that the steering pot is in the middle of the travel range. Otherwise, the steering pot may over-travel and fail.



CAUTION – Make sure that the steering pot is at the center of its travel when the tongue is straight. Otherwise, the steering pot may over-travel and fail. A correctly centered pot shows 2.5 Volts.

Installing the steering sensor on the Spudnik planter



CAUTION – Make sure that the implement steering wheels are straight and cannot turn.

Step 1

Locate the right rear steering wheel of the implement; the steering sensor will be installed here.



Step 2

To install the steering sensor bracket (P/N 49294), do one of the following:

- Weld the bracket to the implement.
- Drill and tap $\frac{1}{4}$ "–20 holes. Attach the bracket using the supplied hardware.

You can use the bracket as a template to mark the hole locations.



Step 3

Attach the steering bracket (P/N 54639) to the steering linkage in the location shown.

You can attach the bracket using the existing tie-rod end bolt. Weld the bracket to the tie-rod to prevent it rotating.



Step 4

Attach the following to the steering pot mount assembly (P/N 48583):

- bracket link (P/N 54406)
- the steering pot (P/N 49288).

Install the bracket so that the steering pot is in the middle of the travel range. Otherwise, the steering pot may over-travel and fail.



Step 5

Cut the provided All Thread rod to approximately $8 \frac{1}{8}$ " and then screw the provided jam nuts and rod ends onto it.

Attach the All Thread link to:

- the bracket link (P/N 54406) at the #4.5 position
- the steering bracket (P/N 54639)

Use the provided spacers and socket head cap screws to complete this installation.



CAUTION – Make sure that the steering pot is at the center of its travel when the tongue is straight. Otherwise, the steering pot may over-travel and fail. A correctly centered pot shows 2.5 Volts.

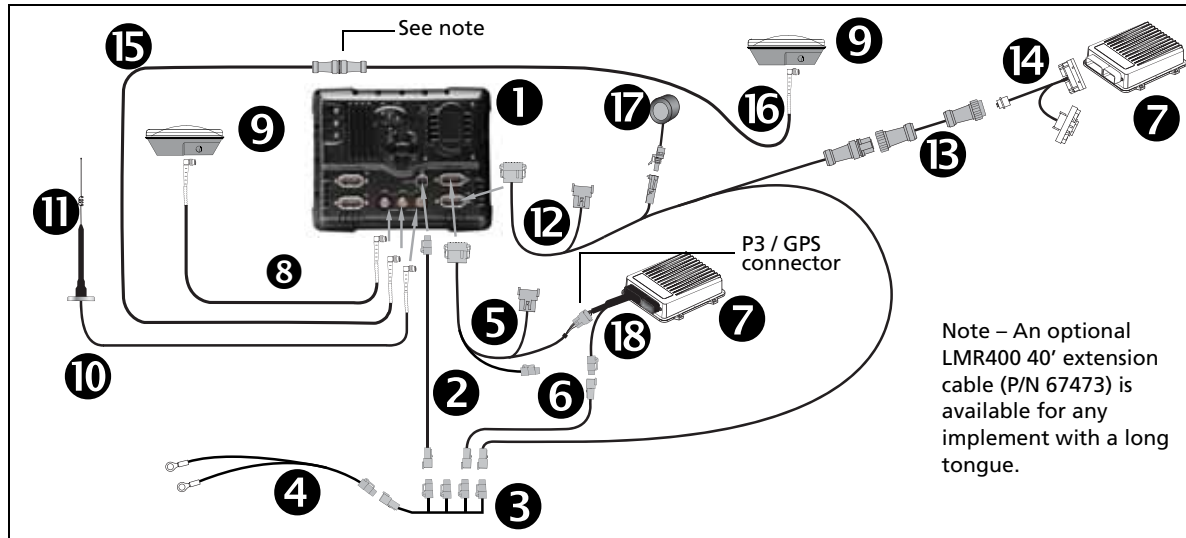
Trimble Component Installation

In this chapter:

- Cable components for the FmX integrated display with the Autopilot automated steering system and TrueTracker
- Cable components for the FieldManager display and AgGPS 262 GPS receiver
- Cable components for the FieldManager display, AgGPS 432 GPS receiver and AgGPS 442 GNSS receiver
- Installing the AgGPS FieldManager cab harness
- Installing the antenna mast, controller, and receiver on the Spudnik 6140 windrower
- Installing the AgGPS 262 receiver implement cabling on the Spudnik 6140 windrower
- Installing the antenna mast, controller, and receiver on the Spudnik 6400 harvester
- Installing the AgGPS 262 receiver implement cabling on the Spudnik 6400 harvester
- Installing the antenna mast, controller, and receiver on the Spudnik planter
- Installing the AgGPS 262 receiver implement cabling on the Spudnik planter
- Installing the implement cabling for the AgGPS 432 GPS receiver and the AgGPS 442 GNSS receiver

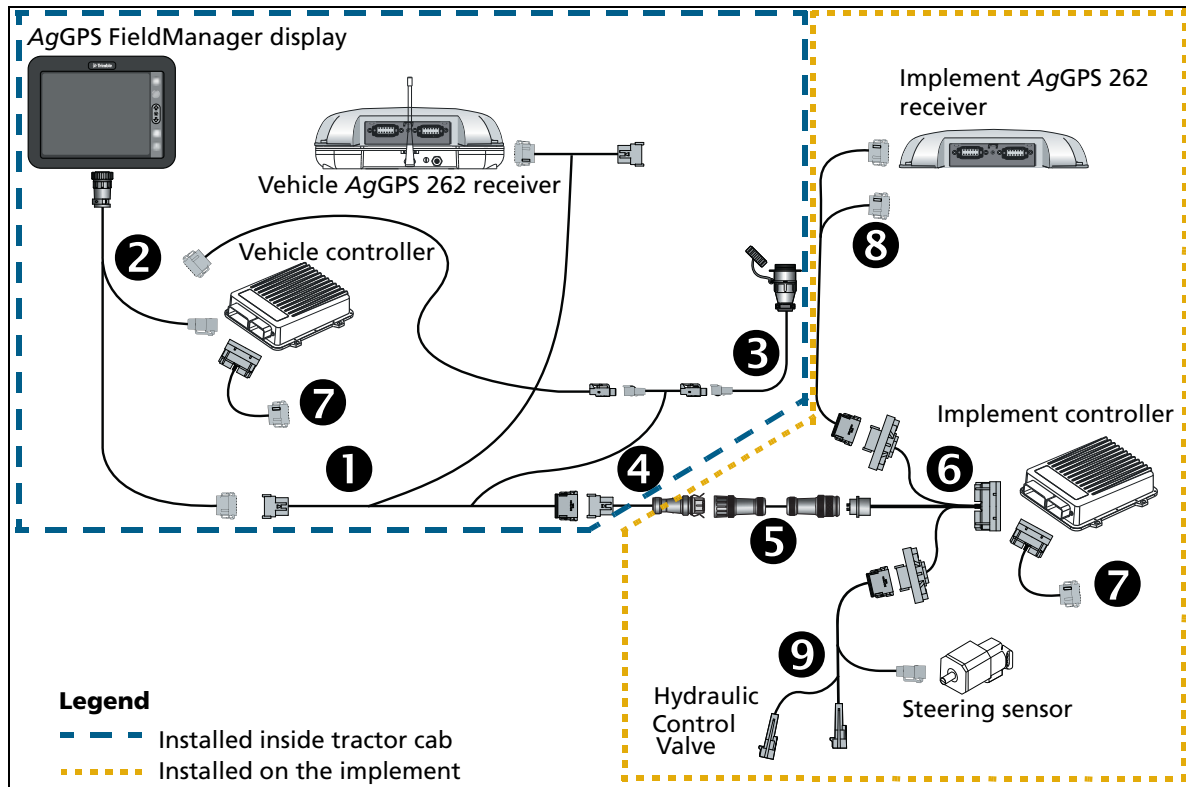
This chapter describes how to install the Trimble components of the TrueTracker system.

Cable components for the FmX integrated display with the Autopilot automated steering system and TrueTracker



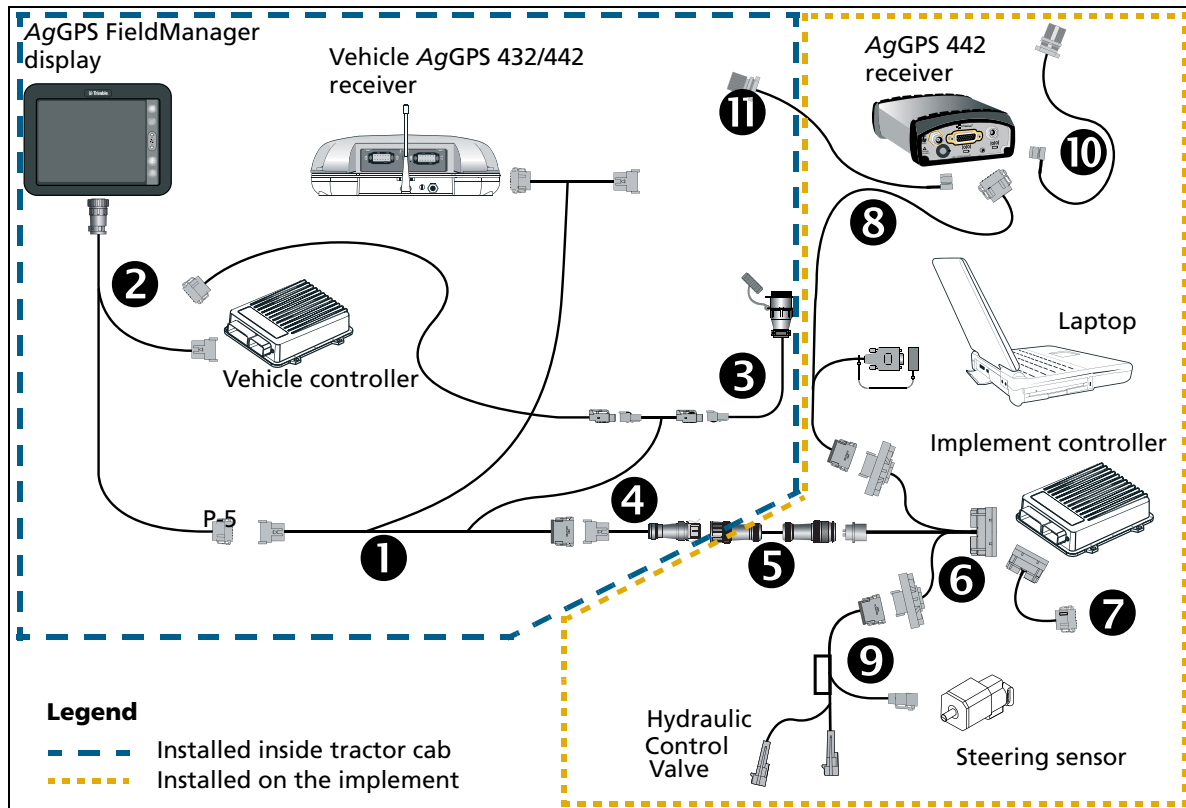
Item	Description	Trimble part number
①	FmX integrated display	93100-02
②	FmX power cable	66694
③	FmX power cable with relay and switch (power bus)	67259
④	Basic power cable	67258
⑤	FmX to NavController II cable with port replicator	75741
⑥	2-pin DTM to 2-pin DT power adaptor	67095
⑦	NavController II (x2)	55563-00
⑧	8 m GPS TNC/TNC RT angle cable	50449
⑨	Z-Plus GPS antenna (x2)	57200-00
⑩	NMO to TNC 20 ft antenna cable and base	62120
⑪	900 MHz radio antenna kit	22882-10
⑫	FmX to TrueTracker cable	67092
⑬	Implement extension cable	0793-8740-450
⑭	FmX to NavController II and TrueTracker main harness	67612
⑮	Coaxial 160" N/f + TNC/m-ra cable	68295
⑯	Coaxial 480" N/m + TNC/m-ra cable	67472
⑰	Sonalert	43104
⑱	Main NavController II cable	54601

Cable components for the FieldManager display and AgGPS 262 GPS receiver



Item	Description	Trimble part number
①	Cab interconnect harness	60630
②	AgGPS FieldManager display full harness	59872
③	Auxiliary power cable	54630
④	Quick disconnect jumper	0395-9150-030
⑤	Implement extension cable	0793-8740-450
⑥	Implement main harness	60724
⑦	Auxiliary harness	54602
⑧	AgGPS 262 Implement receiver cable	60725
⑨	Implement valve and steering sensor cable	60632

Cable components for the FieldManager display, AgGPS 432 GPS receiver and AgGPS 442 GNSS receiver



Item	Description	Trimble part number
①	Cab interconnect harness	60630
②	AgGPS FieldManager display full harness	59872
③	Auxiliary power cable	54630
④	Quick disconnect jumper	0395-9150-030
⑤	Implement extension cable	0793-8740-450
⑥	Implement main harness	60724
⑦	Auxiliary harness	54602
⑧	AgGPS 432/442 implement receiver cable	67046
⑨	Implement valve and steering sensor cable	60632
⑩	Radio jumper	67214
⑪	Antenna jumper	66993

Installing the AgGPS FieldManager cab harness

Note – Step 1 through Step 7 applies to a FieldManager display installation only. Step 8 through Step 10 applies to a FieldManager display and to an FmX integrated display installations.

Step 1

Install a full AgGPS FieldManager display harness with P-5 drop.

See the cabling diagram for part numbers.



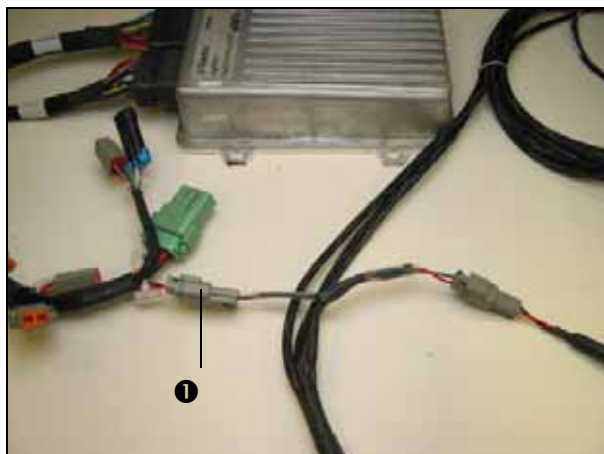
Step 2

Connect the pink DTM connector on the cab interconnect harness to the P-5 leg of the FieldManager display harness.



Step 3

Insert the power jumper leg ❶ of the interconnect cable at the tractor controller power connection P-2.



Step 4

Disconnect the radio jumper from port B on the receiver.

Step 5

Route the radio jumper leg of the interconnect cable to the AgGPS 900 radio on the tractor.



Step 6

The radio jumper section of the interconnect harness has two connectors:

- Connect one connector to the radio jumper that is connected to the radio.
- Connect the other connector to Port B on the receiver.



Step 7

Connect the gray DT implement leg connector to the quick-connect jumper.



Step 8

Attach the Sonalert to the extension on the cab interconnect cable.

Note – The second Sonalert provides implement feedback separate from the vehicle.



Step 9

Route the jumper out of the cab to the bulkhead at the rear of the tractor.



Step 10

Attach the provided bulkhead clamp and quick-disconnect end of the cable to the tractor.

To attach the aluminum bulkhead, do one of the following:

- Tap 5/16" holes into existing brackets and then attach the bulkhead to the tractor.



- Weld the provided bar stock to the tractor and then attach the bulkhead to the bar stock.



Installing the antenna mast, controller, and receiver on the Spudnik 6140 windrower

Step 1

Attach the controller/antenna mast to the center of the main member on the steering unit.

If this location is not available, measure the distance from the center line of the implement to the mast and enter that value at roll calibration.



Step 2

Attach the mast with the U-bolt provided.



When you secure the mast, use a level.



Step 3

Attach the round AMP bulkhead connector to the main harness using #40 screws.

Attach the provided gasket between the bulkhead and electrical box.



Step 4

Attach the bulkheads to the main harness using the provided hardware:

- ❶ Black DT: two 6 mm Phillips head screws
- ❷ Gray DT: two 6 mm Phillips head screws



Step 5

Attach the main harness and auxiliary harness to the controller.



Step 6

Attach the controller to the aluminum mounting plate with the connectors pointing up. Use 10-32 screws.



Step 7

Attach the AgGPS 262 GPS receiver to the controller/antenna mast. The antenna must be clear of obstructions that can block satellite signals.

Note – If you need to reposition the mast, enter the measured distance in the calibration/setup page.



Installing the AgGPS 262 receiver implement cabling on the Spudnik 6140 windrower



CAUTION – When attaching cables to the implement, make sure that no part of the cable touches moving implement components.

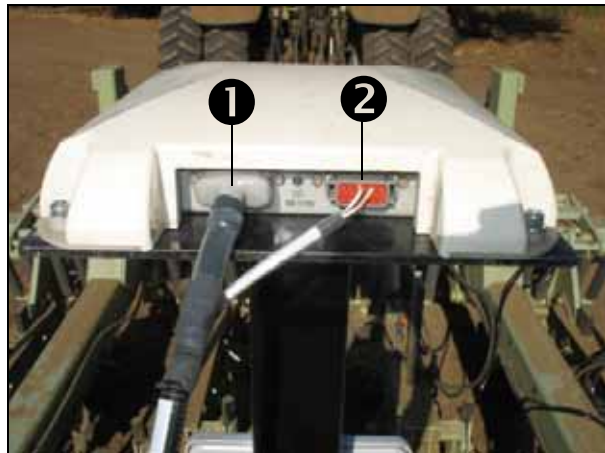
Step 1

Connect the implement receiver cable to the gray DT bulkhead at the controller box.



Step 2

Route the cable to the receiver and then connect the A ❶ and B ❷ legs.



Step 3

Connect the implement valve and steering cable to the black DT bulkhead at the controller box.



Step 4

Attach the steering valve harness extension to the existing steering valve connectors, and then route the cable to the steering valve.

- Connect the “Valve A” connector to the left valve coil.
- Connect the “Valve B” connector to the right valve coil.



Step 5

Route the steering sensor cable to the steering sensor and then connect it to the steering sensor pot.



Step 6

Connect the implement extension cable to the round bulkhead connector at the controller.



Step 7

Route the implement extension cable along the implement to the tractor.



Installing the antenna mast, controller, and receiver on the Spudnik 6400 harvester

Step 1

Attach the controller/antenna mast to the center of the main member on the steering unit.

If this location is not available, measure the distance from the center line of the implement to the mast and enter that value at roll calibration.



Step 2

Attach the mast with the U-bolt provided.



When you secure the mast, use a level.



Step 3

Attach the round AMP bulkhead connector to the main harness using #40 screws.

Attach the provided gasket between the bulkhead and electrical box.



Step 4

Attach the bulkheads to the main harness using the provided hardware:

- ❶ Black DT: two 6 mm Phillips head screws
- ❷ Gray DT: two 6 mm Phillips head screws



Step 5

Attach the main harness and auxiliary harness to the controller.



Step 6

Attach the controller to the aluminum mounting plate with the connectors pointing up. Use 10-32 screws.



Step 7

Attach the AgGPS 262 GPS receiver to the controller/antenna mast. The antenna must be clear of obstructions that can block satellite signals.

Note – If you need to reposition the mast, enter the measured distance in the calibration/setup page.



Installing the AgGPS 262 receiver implement cabling on the Spudnik 6400 harvester



CAUTION – When attaching cables to the implement, make sure that no part of the cable touches moving implement components.

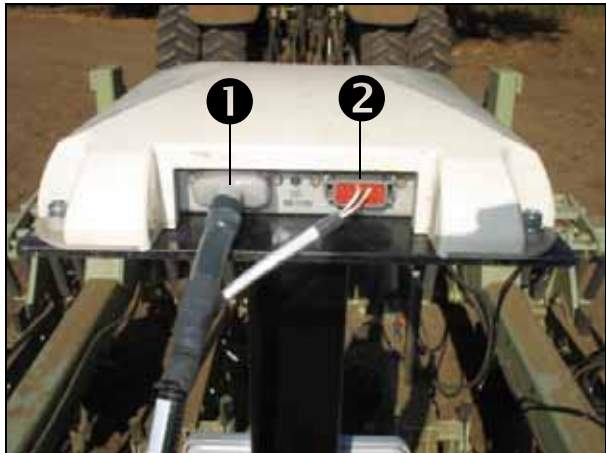
Step 1

Connect the implement receiver cable to the gray DT bulkhead at the controller box.



Step 2

Route the cable to the receiver and connect the A ❶ and B ❷ legs.



Step 3

Connect the implement valve and steering cable to the black DT bulkhead at the controller box.



Step 4

Attach the steering valve harness extension to the existing steering valve connectors and then route the cable to the steering valve.

- Connect the “Valve A” connector to the left valve coil.
- Connect the “Valve B” connector to the right valve coil.



Step 5

Attach the steering sensor extension to the steering sensor cable, route the steering sensor cable to the steering sensor and then attach it to the steering sensor pot.



Step 6

Connect the implement extension cable to the round bulkhead connector at the controller.



Step 7

Route the implement extension cable along the implement to the tractor.



Installing the antenna mast, controller, and receiver on the Spudnik planter

Step 1

Attach the controller/antenna mast to the center of the main member on the steering unit.

If this location is not available, measure the distance from the center line of the implement to the mast and enter that value at roll calibration.



Step 2

Attach the mast with the U-bolt provided.

Depending on the implement frame, you may need to attach the mast in a different way.



When you secure the mast, use a level.



Step 3

Attach the round AMP bulkhead connector to the main harness using #40 screws.

Attach the provided gasket between the bulkhead and electrical box.



Step 4

Attach the bulkheads to the main harness using the provided hardware:

- ❶ Black DT: two 6 mm Phillips head screws
- ❷ Gray DT: two 6 mm Phillips head screws



Step 5

Attach the main harness and auxiliary harness to the controller.



Step 6

Attach the controller to the aluminum mounting plate with the connectors pointing up. Use 10-32 screws.



Step 7

Attach the AgGPS 262 GPS receiver to the controller/antenna mast. The antenna must be clear of obstructions that can block satellite signals.

Note – If you need to reposition the mast, enter the measured distance in the calibration/setup page.



Installing the AgGPS 262 receiver implement cabling on the Spudnik planter



CAUTION – When attaching cables to the implement, make sure that no part of the cable touches moving implement components.

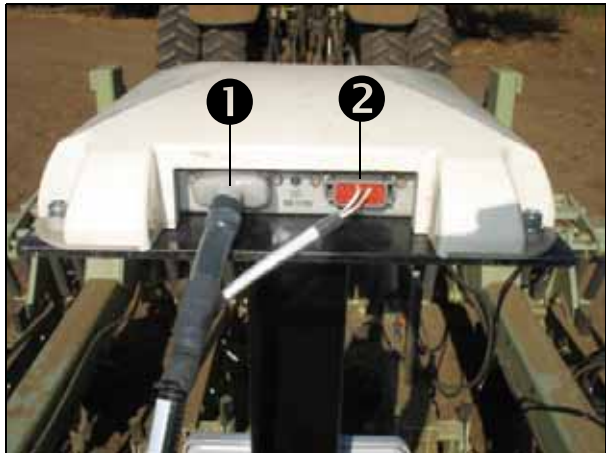
Step 1

Connect the implement receiver cable to the gray DT bulkhead at the controller box.



Step 2

Route the cable to the receiver and connect the A ❶ and B ❷ legs.



Step 3

Connect the implement valve and steering cable to the black DT bulkhead at the controller box.



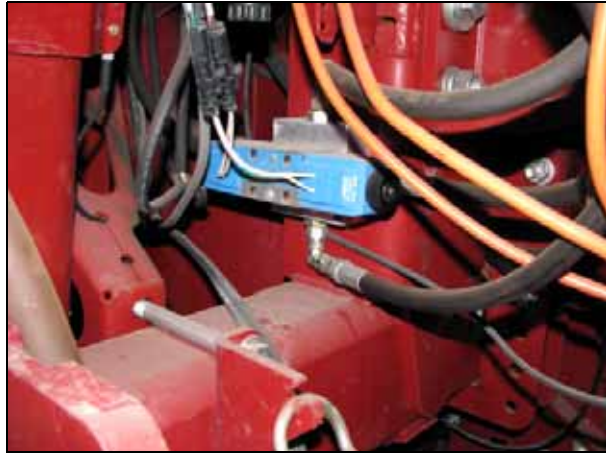
Step 4

Attach the Steering valve harness extension to the existing steering valve connectors.

Route the cable to the steering valve. Due to the location of the steering pot, you must run the harness toward the steering sensor and then run the implement harness extension forward to the steering valve.

- Connect the “Valve A” connector to the left valve coil.
- Connect the “Valve B” connector to the right valve coil.

Secure the cable to the implement so that it does not touch moving implement components.



Step 5

Attach the steering sensor extension to the steering sensor cable, route the steering sensor cable to the steering sensor and then connect it to the steering sensor pot.



Step 6

Connect the implement extension cable to the round bulkhead connector at the controller.

Step 7

Route the implement extension cable along the implement to the tractor.

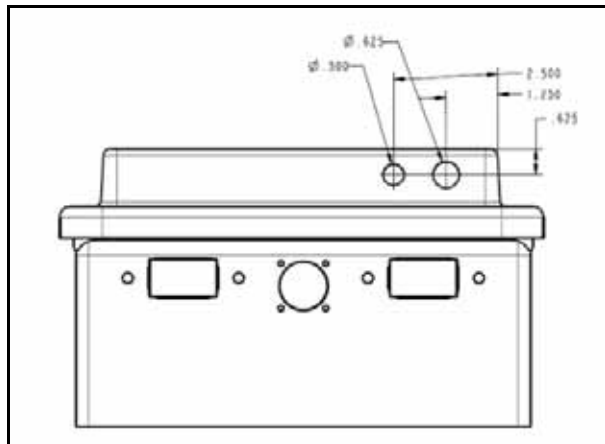


Installing the implement cabling for the AgGPS 432 GPS receiver and the AgGPS 442 GNSS receiver

Step 1

Use a step drill to drill two holes in the cover of the TrueTracker box:

- One $\frac{1}{2}$ inch hole.
- One $\frac{5}{8}$ inch hole.



Step 2

Place the provided decal over the left opening on the TrueTracker box.

Place a decal on the inside of the box, covering the same opening.



Step 3

Thread the provided cables through the drilled holes.

Tighten the jam nut to hold the bulk head connector in place.



Step 4

Remove the rubber guards from the receiver.



Step 5

Use a Phillips screwdriver to remove the screws that hold the metal clip to the receiver.



Step 6

Stick the provided high-strength Velcro to the receiver in the position shown.

Press firmly on the Velcro so that the adhesive bonds to the surface of the receiver.



Step 7

To correctly position the Velcro in the lid of the TrueTracker box, partially attach the two provided mating pieces of Velcro to the receiver, remove the protective film and place the receiver in the box as shown. The adhesive on the Velcro sticks to the cover of the TrueTracker box.

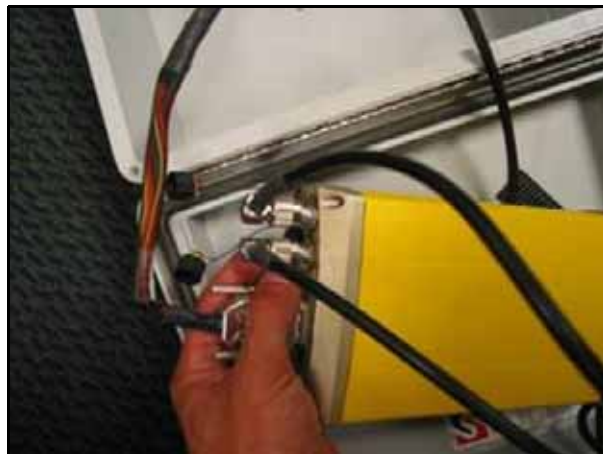
Remove the receiver and then press firmly on the Velcro so that the adhesive bonds to the cover of the TrueTracker box.



Step 8

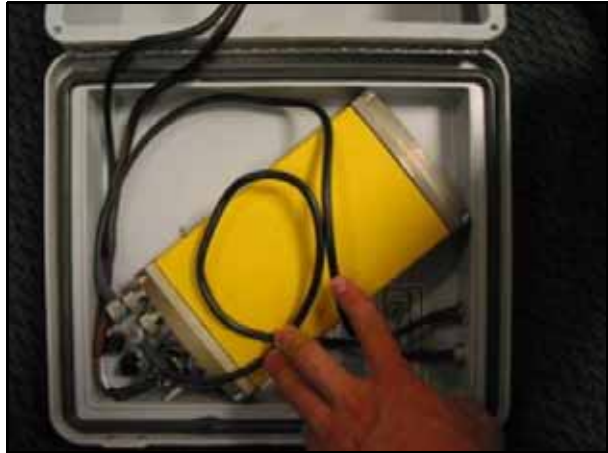
Remove the protective covers from the GPS and antenna ports and then attach the connectors to the receiver.

Plug the provided cable in to the serial port on the receiver.



Step 9

Place the receiver in the cover of the TrueTracker box and then press firmly to fix the receiver to the Velcro.



Step 10

Attach the other end of the provided cable to the connector labeled GPS.

