

QuickTrax

Installation Manual



QuickTrax

CHAPTER

1

INTRODUCTION

Congratulations on your purchase of the Raven QuickTrax system! This system is designed to provide easy to install, hands-free steering of your machine via GPS coordinates.



Installation Tools

Below is a list of tools that are required to install QuickTrax on your machine.

QuickTrax Required Installation Tools

Item Description
Open-end wrench
Flat blade screwdriver
Allen key (supplied)



Important: Be sure to tighten all screws, bolts, nuts, and cable connections after the final assembly of the QuickTrax system on your machine.

CHAPTER

2

INSTALLATION

Installing the QuickTrax Control Unit

Remove the Steering Wheel

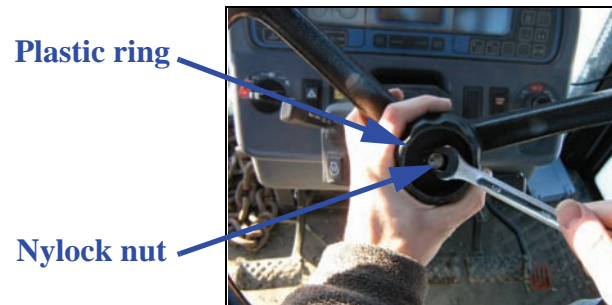
1. In the cab, pull the steering column fully outward (towards you).

Top Cap



Helpful Hint: All steering wheel assemblies are different. Yours may differ than the one in the pictures, but installation should be essentially the same.

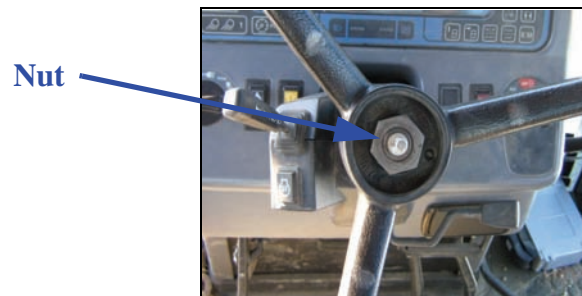
2. Remove the top cap using a small flat blade screwdriver.
3. Remove the nylock nut with a wrench, being sure to hold the plastic ring while loosening the nut.



4. Remove the plastic ring by using a small flat blade screwdriver.



5. On most tractors, the steering wheel is attached to the steering shaft with a large nut. Loosen and remove the nut using a wrench.



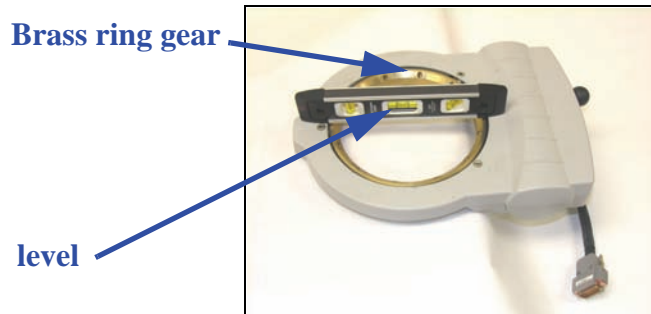
6. After the nut is removed, the steering wheel is free and should be removed. To remove the steering wheel from the steering shaft, pull the wheel manually towards you.



Attaching the Steering Wheel to the Mechanical Drive Unit

The mechanical drive unit and the steering wheel must be in a flat position for proper assembly and alignment. Using the level on the brass ring will ensure this.

1. Set the level on the brass ring gear.



2. Once the drive unit is as flat as possible, remove the level and set the steering wheel inside the brass ring gear space.



The steering wheel should be as flat as possible. Using the level over top of the steering wheel will ensure this.

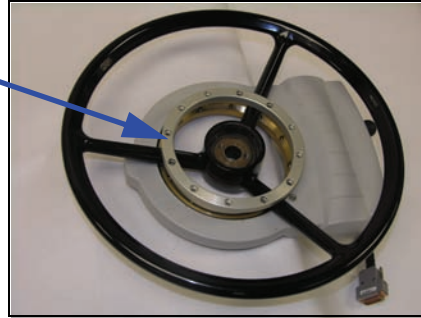
3. Set the level on the steering wheel to determine if it is level.



4. Once the steering wheel is level, set the supplied upper ring (6 5/16") on the steering wheel. Align the upper ring to the brass ring gear mounting holes. Fasten the upper ring to the brass ring using the

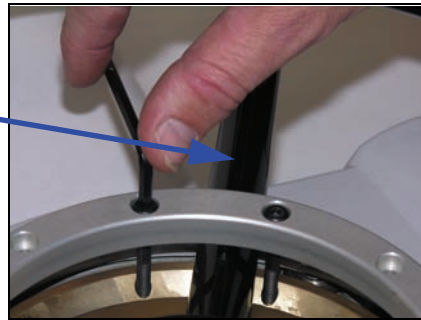
provided screws (making sure two screws surround each steering wheel spoke).

6 5/16"
Upper ring



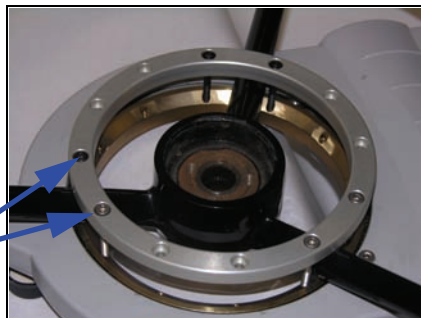
5. Tighten the screws with the supplied Allen key. Before doing this, set the level on the upper ring to ensure that the entire assembly remains as flat as possible while tightening the screws.

**Steering
wheel
spoke**



6. Below is what the assembly should look like after the screws are tightened.

**Screws around
one of the
spokes**

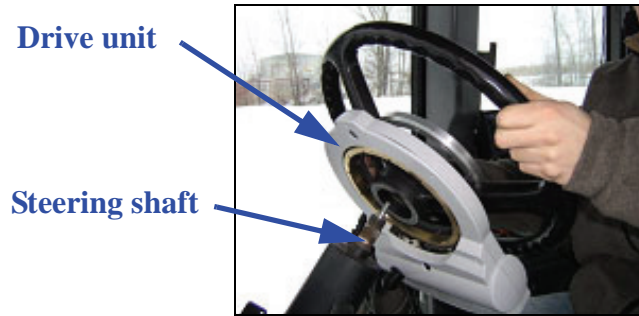


Important: Some steering wheel shapes may require an adjustment using a spacer ring to correctly tighten the steering wheel to the drive unit. See Appendix A in this document for more information.

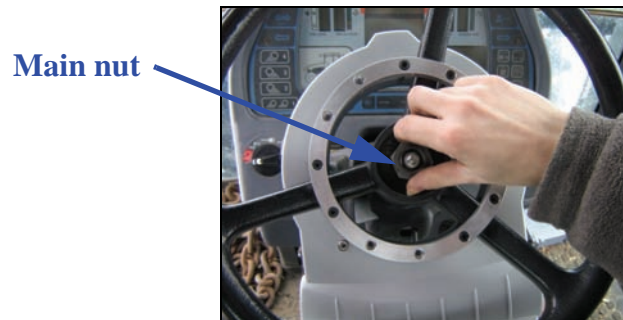
Reinstalling the Steering Wheel Assembly

You will now need to reinstall the steering wheel (equipped with the drive unit) onto the steering shaft.

1. Place the steering wheel back onto the steering shaft.



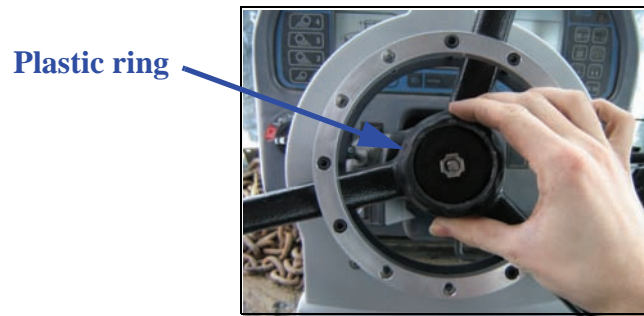
2. Reinstall the main nut onto the steering shaft and screw it on manually.



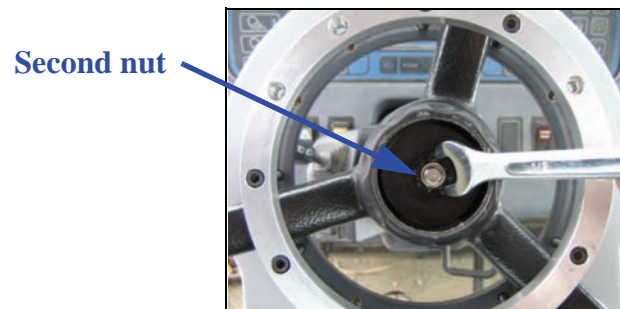
3. Tighten the nut using a wrench. This will seat the assembly onto the steering column.



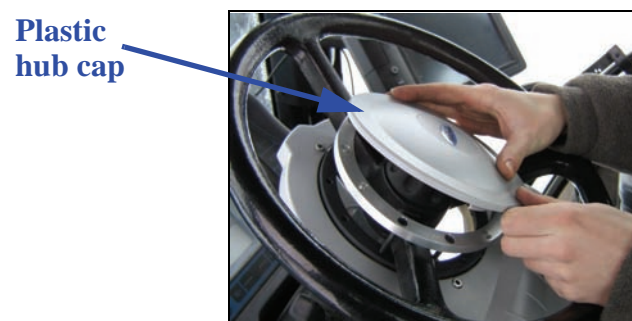
4. Reinstall the plastic ring onto the main nut.



5. Reinstall and screw the second small nut above the plastic ring using a small wrench.



6. Put the plastic hub cap on top of the upper ring.

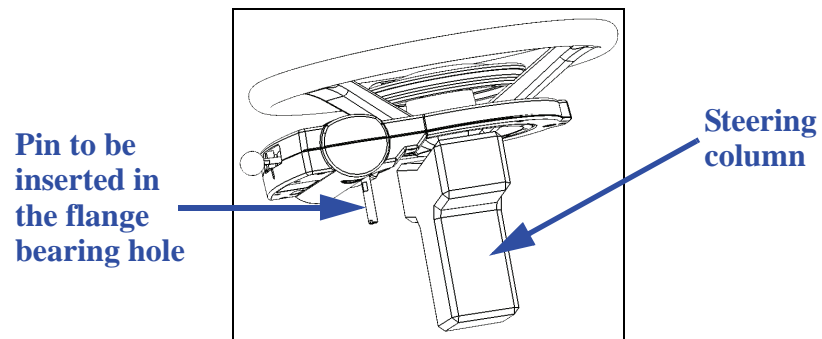


Mounting the Bracket Kit

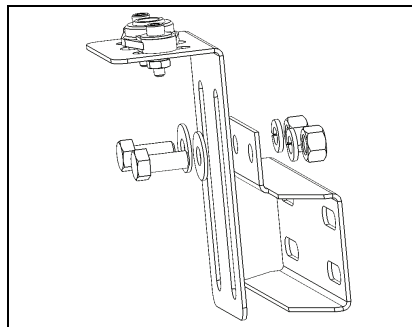
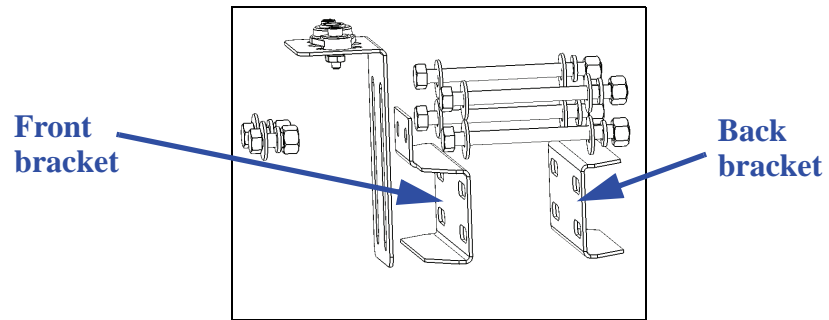
The bracket kit is designed to prevent the drive unit from rotating around the steering column when you are operating your QuickTrax system. In this kit, there will be a front bracket and a back bracket.



Helpful Hint: If you purchased a machine specific installation kit, refer to the supplemental installation sheet for instructions on mounting the supplied brackets.

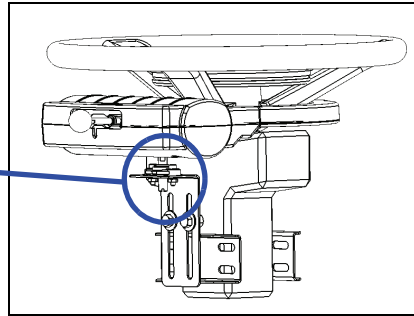


1. Use the two bolts (5/16"-18 x 3/4") provided with your kit to attach the fifth wheel slider to the front bracket. You will need to adjust this assembly later so do not tighten the bolts all the way.

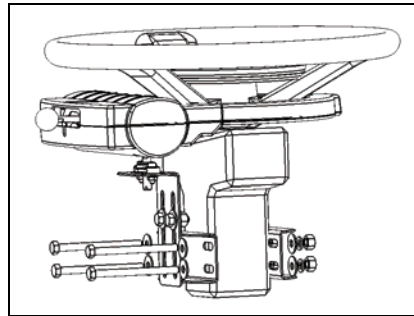


2. Insert the pin into the flange bearing hole. This pin prevents the mechanism from rotating when the QuickTrax system is operating.

Pin inserted into the flange bearing hole

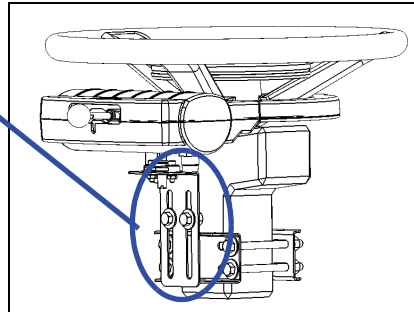


3. Using the four screws (1/4" - 20 x 4"), attach the back bracket to the front bracket.



4. Adjust the height of the fifth wheel slider and tighten the bolts.

Adjustment of the fifth wheel slider



Notes:

CHAPTER

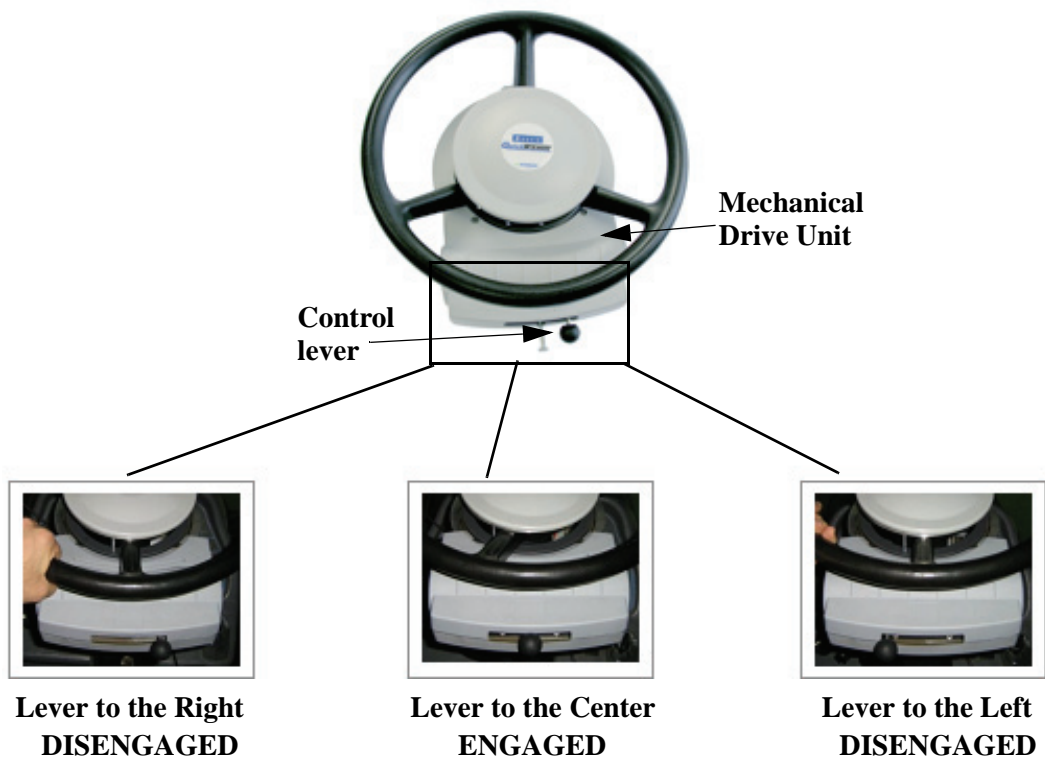
3

USING THE QUICKTRAX SYSTEM

This chapter gives an overview of how to engage and disengage the QuickTrax system while installed in the cab of a tractor.

The control lever engages or disengages the mechanical drive unit on the tractor. To engage the QuickTrax system, the control lever must be in the center position.

Control Lever Positions



Engaging QuickTrax

1. Move the control lever to the center position to engage the QuickTrax system.



2. Once the system is engaged, release the steering wheel. The QuickTrax system will now take over steering and the steering wheel will turn and steer without any operator interventions.



Important: In order for the QuickTrax system to take over steering, you must have an AB Line already set.

Disengaging QuickTrax

1. Grip and turn the steering wheel, causing the system to disengage and the control lever to switch to the left or right position. The vehicle now must be driven manually.



Notes:

APPENDIX

A

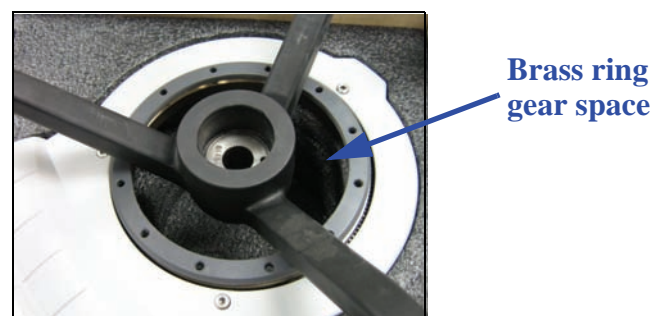
SPACER RING

Some steering wheel shapes may require an adjustment using a spacer ring to correctly tighten the steering wheel to the mechanical drive unit. Follow the instructions below on how to attach a steering wheel to the drive unit using a spacer ring.

1. Align the 6 5/16" spacer ring to the brass ring gear mounting holes.

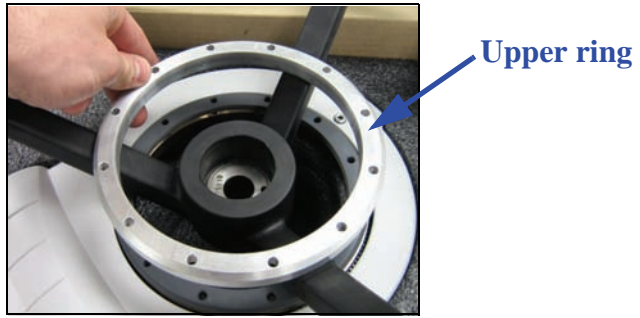


2. Set the steering wheel inside the brass ring gear space.



3. Make sure the steering wheel is as flat as possible.
4. Set the level on the steering wheel to be sure it is level.

5. Align the upper ring to the spacer ring mounting holes.

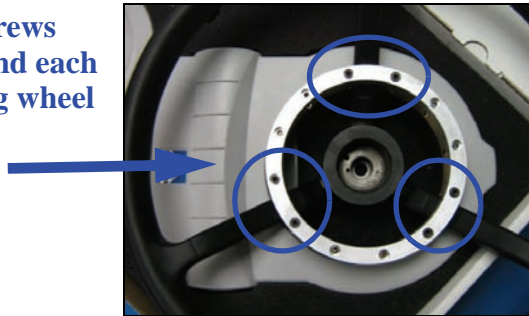


6. Fasten the upper ring to the mechanical drive unit using the screws and Allen key that were provided with the kit.



7. Below is what the assembly should look like after the screws are tightened.

Two screws surround each steering wheel spoke





RAVEN INDUSTRIES

LIMITED WARRANTY

WHAT IS COVERED?

This warranty covers all defects in workmanship or materials in your Raven Flow Control Product under normal use, maintenance, and service.

HOW LONG IS THE COVERAGE PERIOD?

This warranty coverage runs for 12 months from the purchase date of your Raven Flow Control Product. This warranty coverage applies only to the original owner and is not transferrable.

HOW CAN YOU GET SERVICE?

Bring the defective part, and proof of date of purchase, to your local dealer. If your dealer agrees with the warranty claim, he will send the part, and proof of purchase to his distributor or to Raven for final approval.

WHAT WILL RAVEN INDUSTRIES DO?

When our inspection proves the warranty claim, we will, at our option, repair or replace the defective part and pay for return freight.

WHAT DOES THIS WARRANTY NOT COVER?

Raven Industries will not assume any expense or liability for repairs made outside our plant without written consent. We are not responsible for damage to any associated equipment or product and will not be liable for loss of profit or other special damages. The obligation of this warranty is in lieu of all other warranties, expressed or implied, and no person is authorized to assume for us any liability. Damages caused by normal wear and tear, mis-use, abuse, neglect, accident, or improper installation and maintenance are not covered by this warranty.



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