Antenna Roll Compensation Calibration
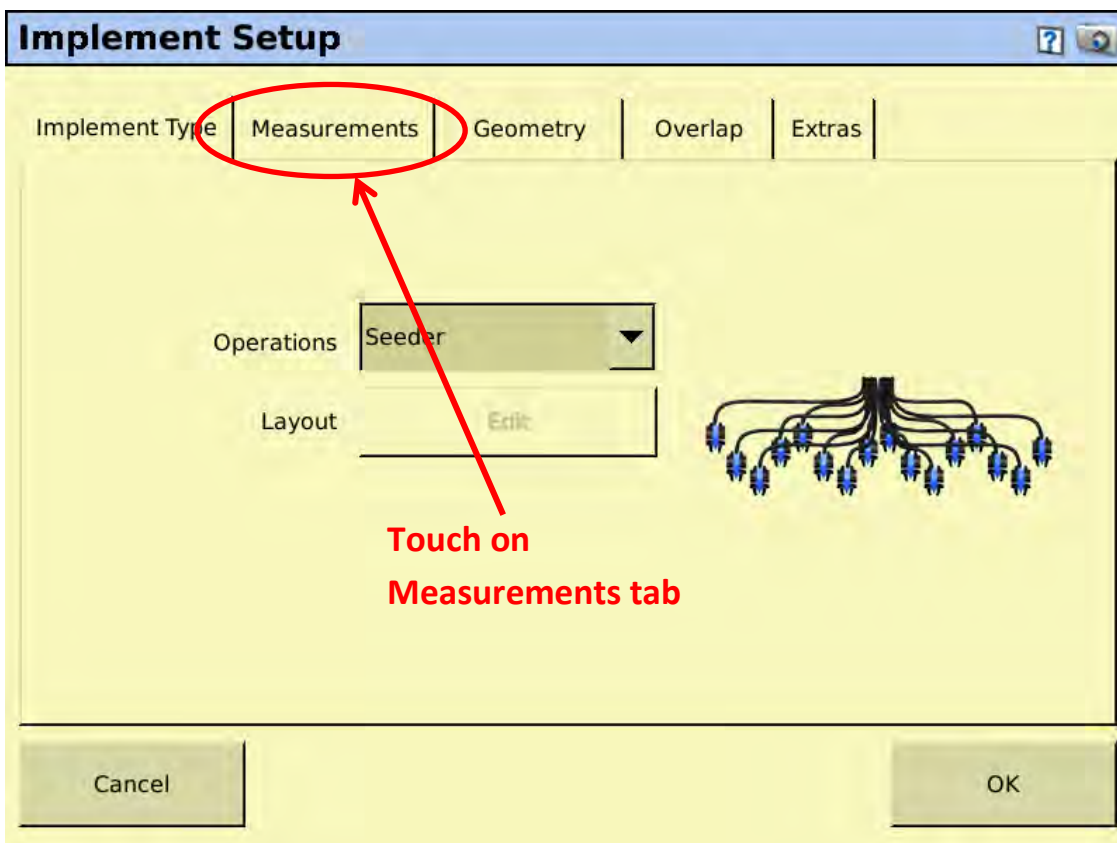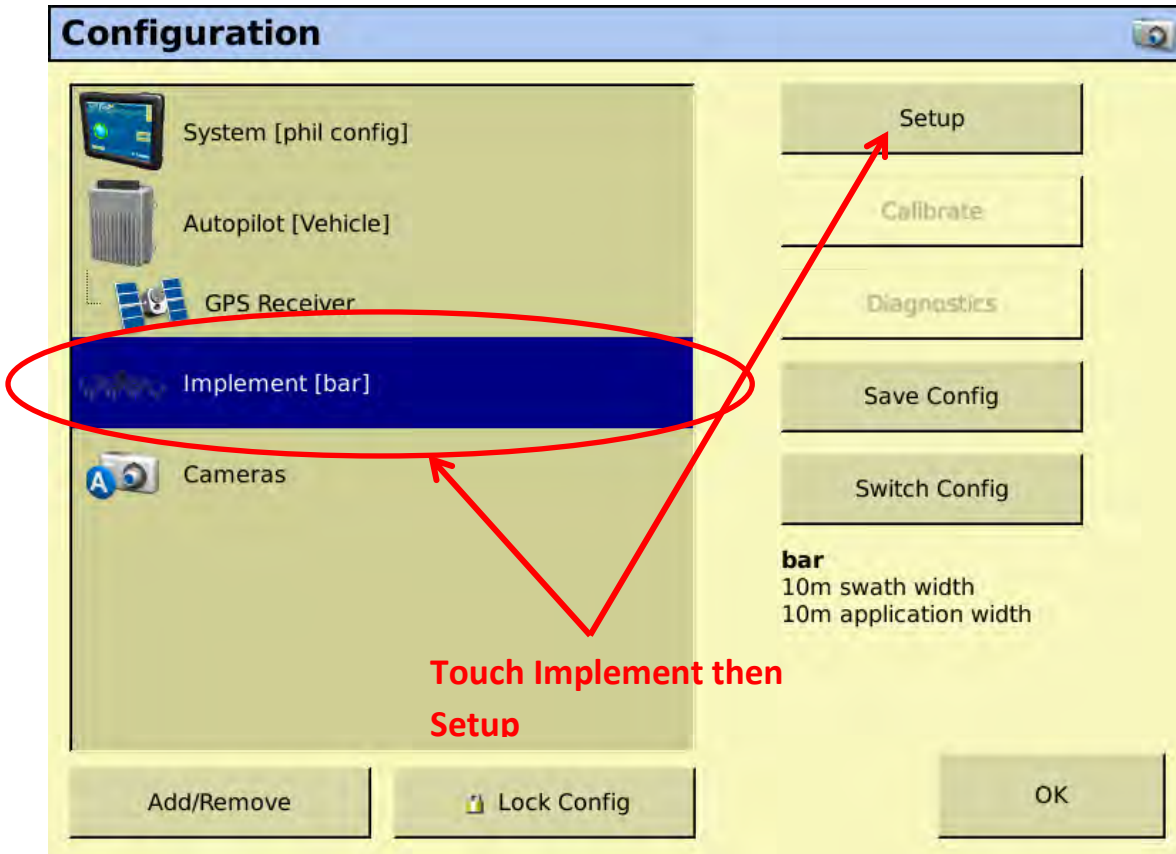
When do you need it

Must be performed whenever the NAV controller is removed or if there's a change in the GPS antenna location

What do you need

- Tape Measure
- Marker
- Plumb bob & string
- An area we can drive a vehicle over with a relatively flat area at least 300m long

Preparations before you perform a Roll Cal

- Remove the implement from the vehicle
- Vehicle draw-bar must be centred
- Ensure that you have the offline distance showing on your screen or status tab
- Set the Roll Offset value to zero first - see below

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Configuration

| System [phil config] |
| Autopilot [Vehicle] |
| GPS Receiver |
| **Implement [bar]** |
| Cameras |

Setup
Calibrate
Diagnostics
Save Config
Switch Config

bar
10m swath width
10m application width

Add/Remove   Lock Config   OK

Touch Implement then Setup

Implement Setup

Implement Type | Measurements | Geometry | Overlap | Extras

Operations   Seeder ▼
Layout   Edit

Touch on Measurements tab

Cancel   OK

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Implement Setup

Implement Type | **Measurements** | **Geometry** | **Overlap** | **Extras**

Swath Width	10.00 m	Ⓐ
Application Width	10.00 m	
Application Offset	-5.00 m	Ⓑ
Rows	1	
Left/Right Offset	0.00 m	Ⓒ

Check if zero – if not touch on box

Cancel | OK

Enter Left/Right Implement Offset
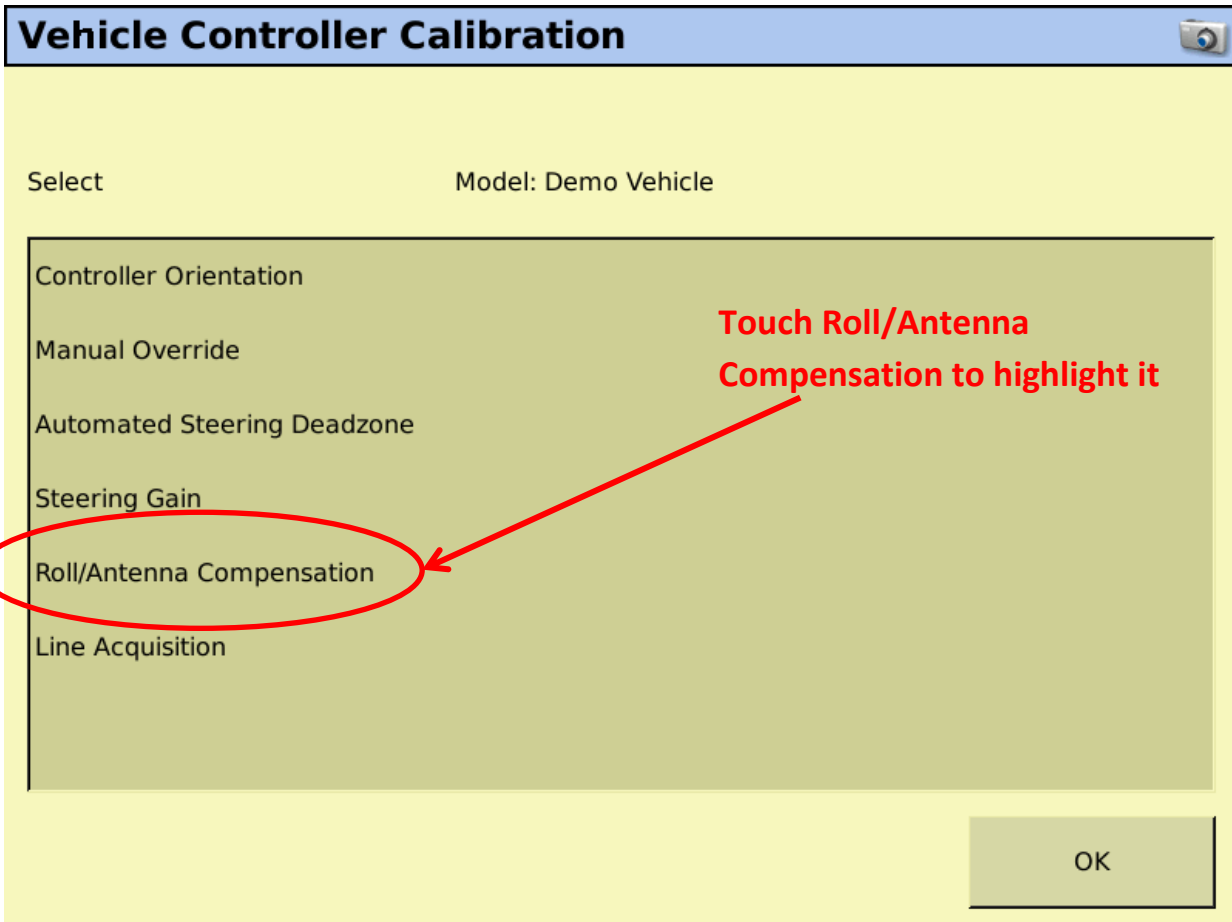
Range: 0.0 m ... 60.96 m
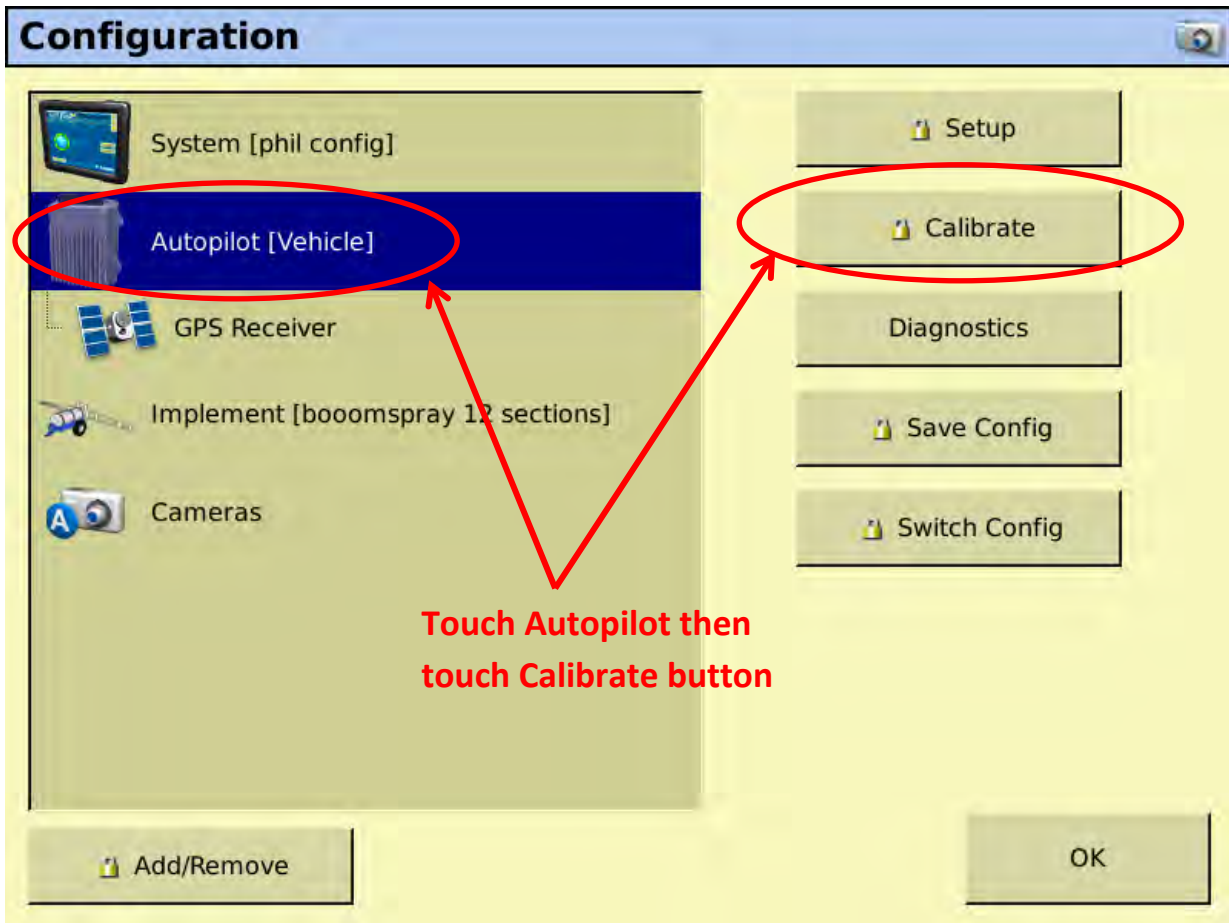
clear | 0 | <<

Type in zero then OK

Left		1	2	3	Metric
Right		4	5	6	Feet & Inches
		7	8	9	Decimal Feet
			0	.	

Cancel | Calculator | OK

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Configuration

- System [phil config]
- **Autopilot [Vehicle]**
- GPS Receiver
- Implement [booomspray 12 sections]
- Cameras

Setup
Calibrate
Diagnostics
Save Config
Switch Config

Touch Autopilot then touch Calibrate button

Add/Remove

OK

Vehicle Controller Calibration

Select   Model: Demo Vehicle

Controller Orientation

Manual Override

Automated Steering Deadzone

Steering Gain

Roll/Antenna Compensation

Line Acquisition

Touch Roll/Antenna Compensation to highlight it

OK

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c:\documents and settings\andhob\my documents\bulletins (o'connors)\fm1000 roll cal.docx

Autopilot Roll/Antenna Compensation

Antenna Height Above Ground	3.239 m
Antenna Distance From Fixed Axle	0.000 m
Roll Offset	0.100 m
Vehicle Position	Right of the line ▼

If roll offset distance is not zero, you need to touch in the box and it will bring up an input screen

Cancel   OK

Enter Roll Offset

clear   0   <<

Type in zero then OK

1	2	3
4	5	6
7	8	9
	0	.

Metric

Feet & Inches

Decimal Feet

Cancel   Calculator   OK

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Autopilot Roll/Antenna Compensation

Antenna Height Above Ground	3.239 m
Antenna Distance From Fixed Axle	0.000 m

Now your offset starts at zero

|	
Roll Offset	0.000 m
Vehicle Position	Right of the line ▼

Cancel   OK

1. Start a field and select an AB swath (or make a new one)
2. Drive for at least 50 to 100 meters and stop the vehicle is as close to zero as you can get (less than 0-01m)
3. Drop a plumb bob through the centered drawbar and mark on the ground with something like a screwdriver - level with the center.
4. Go forward at least 50-100 meters before you turn around and then come back on the same AB line and stop over the previously marked centre line. Ensure that the offline distance is still close to zero (less than 0.01m).
5. Measure the offset with a tape measure and which side the offset is.

Plumb bob in center of drawbar pin

Mark the position with a screwdriver or something suitable
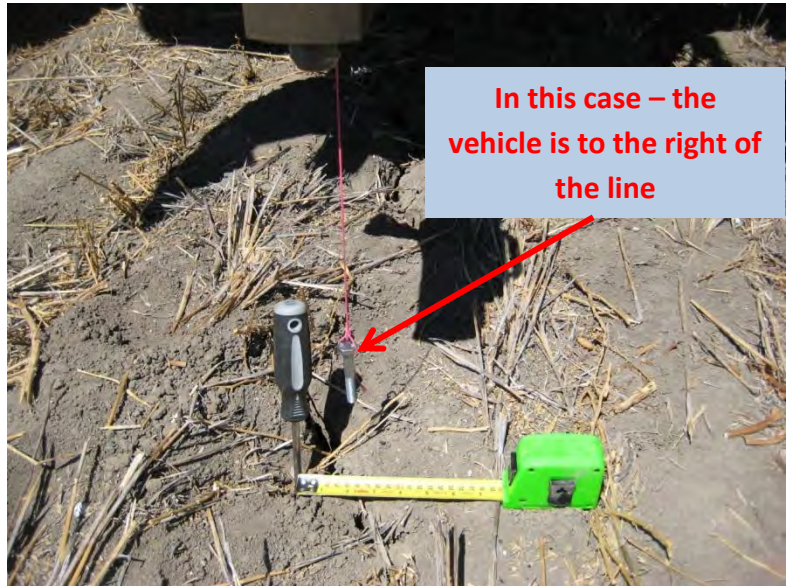
In this case – the vehicle is to the right of the line

Autopilot Roll/Antenna Compensation

Antenna Height Above Ground	3.239 m
Antenna Distance From Fixed Axle	0.000 m

Type in the offset distance

Roll Offset	0.000 m
Vehicle Position	Right of the line ▼

Ensure you choose whether the vehicle is right or left of your mark

Cancel   OK

Repeat the steps above and ensure that you end up with an offset not exceeding 0.01m You may need to do this 2-3 times before you get it completely correct

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