

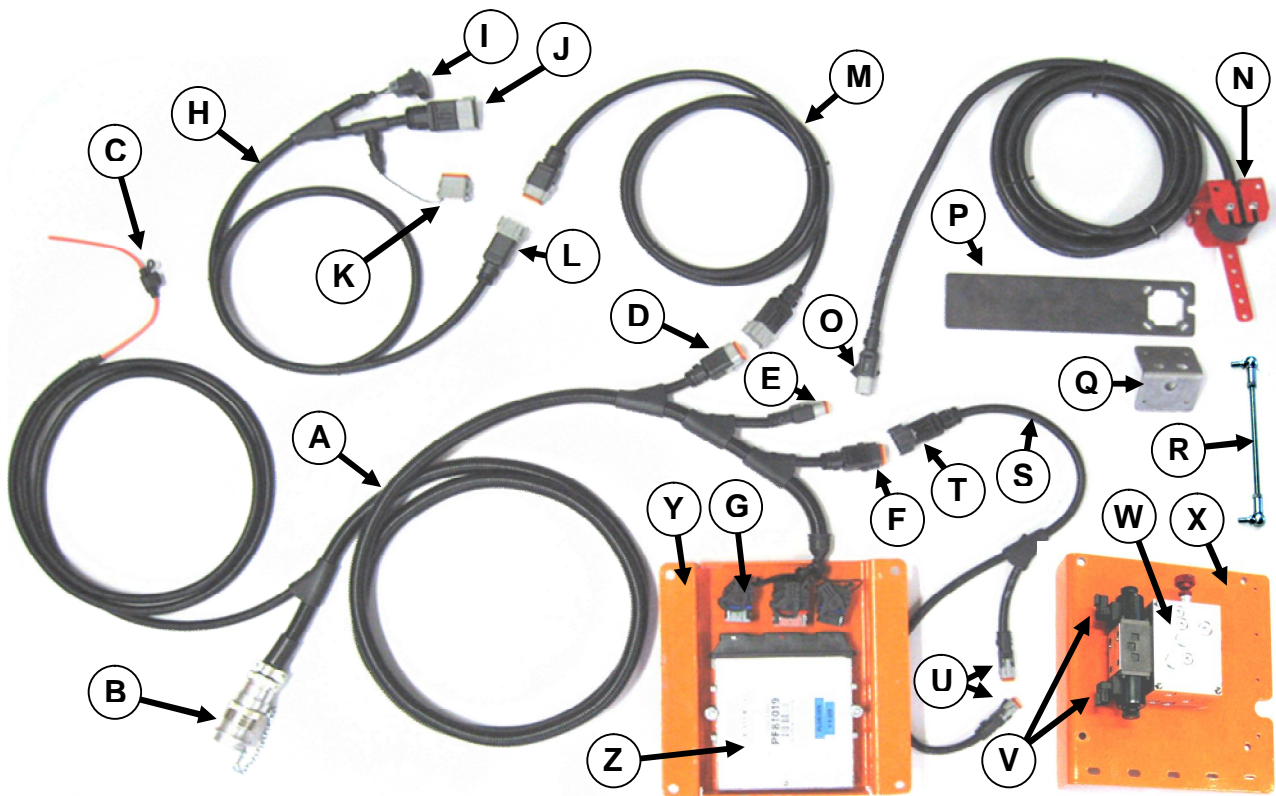
iSteer Side-Shift



INSTALLATION MANUAL (English)

SBG INNOVATIE
IM3004 (04AUG2010)

Parts overview iSteer Side-Shift



	Description	Partnr.
A	iSteer Side-Shift Main harness	SBG54HA010
B	ISOBUS connector	-
C	12 VDC power supply with fuseholder and carfuse (5A)	-
D	To StarFire harness female connector	-
E	To angle sensor female connector	-
F	To hydraulics harness female connector	-
G	iSteer controller harness connectors	-
H	StarFire harness	SBG54HA020
I	CANBus terminator	SBG54HA021
J	StarFire harness male connector	-
K	StarFire harness dust cap	-
L	StarFire harness male connector	-
M	StarFire extension harness	SBG54HA030
N	Angle sensor with extended arm	SBG54SE010
O	Angle sensor male connector	-
P	Mounting plate angle sensor flat	SBG54MN010
Q	Mounting plate angle sensor right angle	SBG54MN015
R	Threaded rod with right angled and straight ball joint	SBG54FA010
S	Hydraulics harness	SBG54HA040
T	Hydraulics harness male connector	-
U	Hydraulic valve harness female connectors	-
V	Hydraulic valve connectors male connectors	-
W	Hydraulic manifold Load Sense	SBG54HY010
	Hydraulic manifold Open Center	SBG54HY020
X	Mounting plate manifold	SBG54MN020
Y	iSteer controller cover	SBG54MN021
Z	iSteer Side-Shift controller	SBG54CN002



	Description	Partnr.
A	2,5 Tons Side-Shift Cylinder CAT2	SBG54HY032
B	3,5 Tons Side-Shift Cylinder CAT3	SBG54HY033
C	8,0 Tons Side-Shift Cylinder CAT3	SBG54HY038
D	Mounting plate StarFire receiver	SBG54MN030

In order to use iSteer Side-Shift it must be possible to adjust the implement sideways. In case the implement has no hydraulic sideway capabilities an iSteer Side-Shift cylinder can be mounted. With this cylinder it is possible to adjust the implement sideways. The iSteer cylinder has a total stroke of 25 cm. From the middle position 12,5 cm to the left and 12,5 cm to the right.

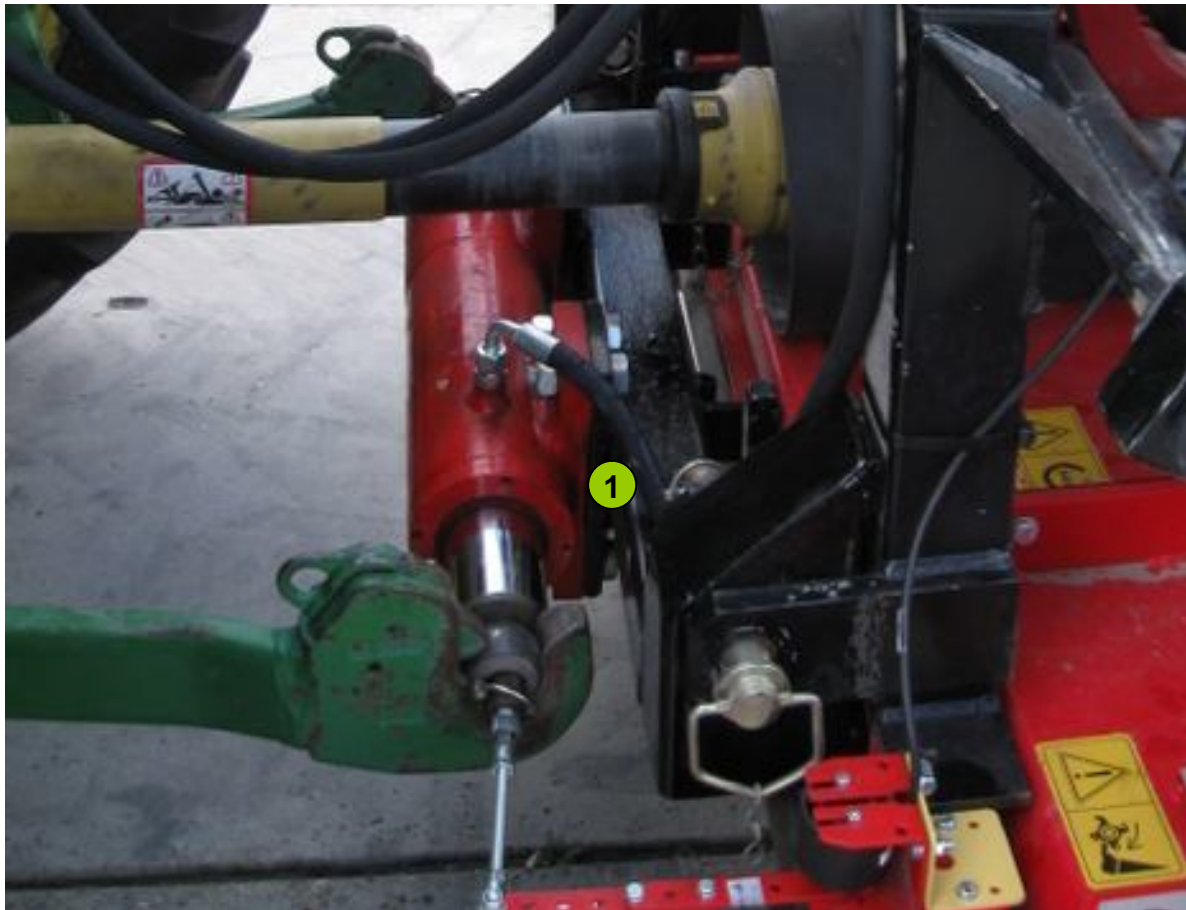
There are 3 types of iSteer Side-Shift cylinders: 2,5 ton (cat 2), 3,5 ton (cat 3) and 8 tons. These are peak forces the Side-Shift cylinder can withstand perpendicular to the cylinder.

1. Mounting the Side-Shift cylinder

The most common way to attach the Side-Shift cylinder is to cut off the 2 lower existing connection points of 3 point linkage and weld two 4-hole mounting plates to the frame of the implement. The Side-Shift cylinder can be bolted to this plates with 8 bolts (1).



Attention: Make sure the PTO or other parts don't get stuck while lifting or Side-Shifting the implement. The most critical position is when the implement is lifted and de implement is Side-Shifted to its most right or left position.



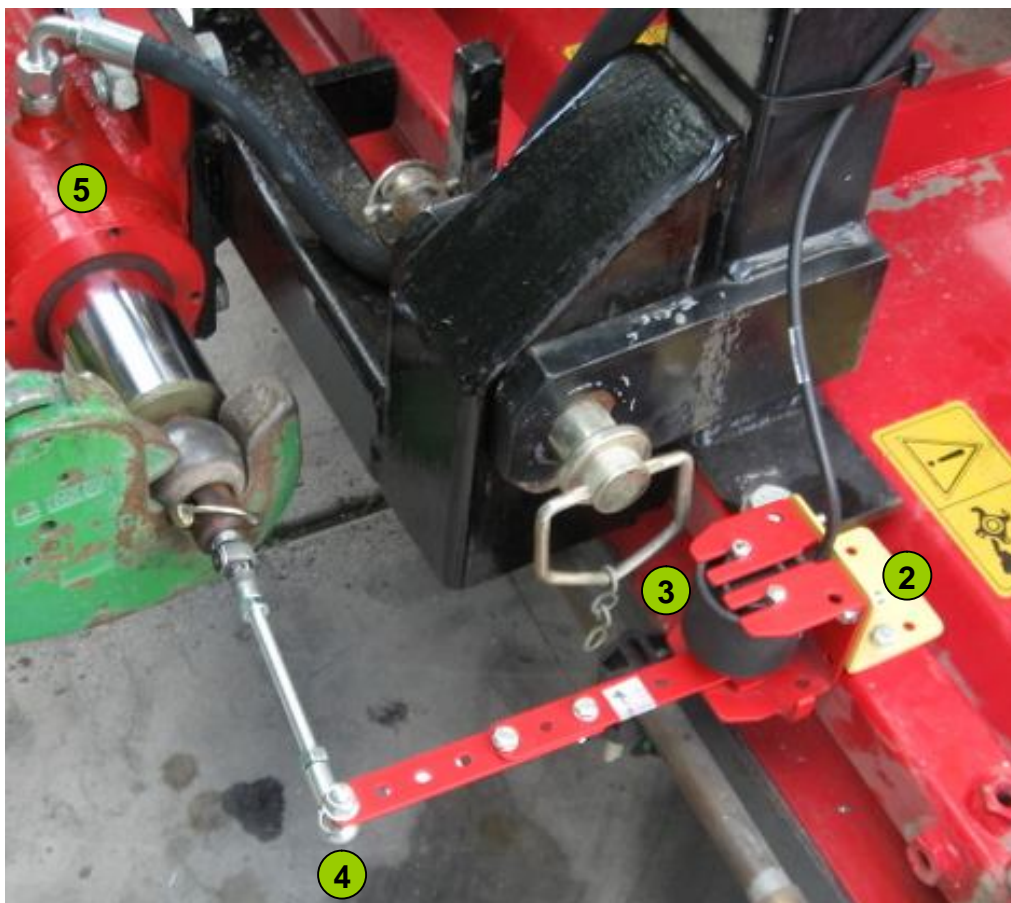
2. Mounting the Angle sensor

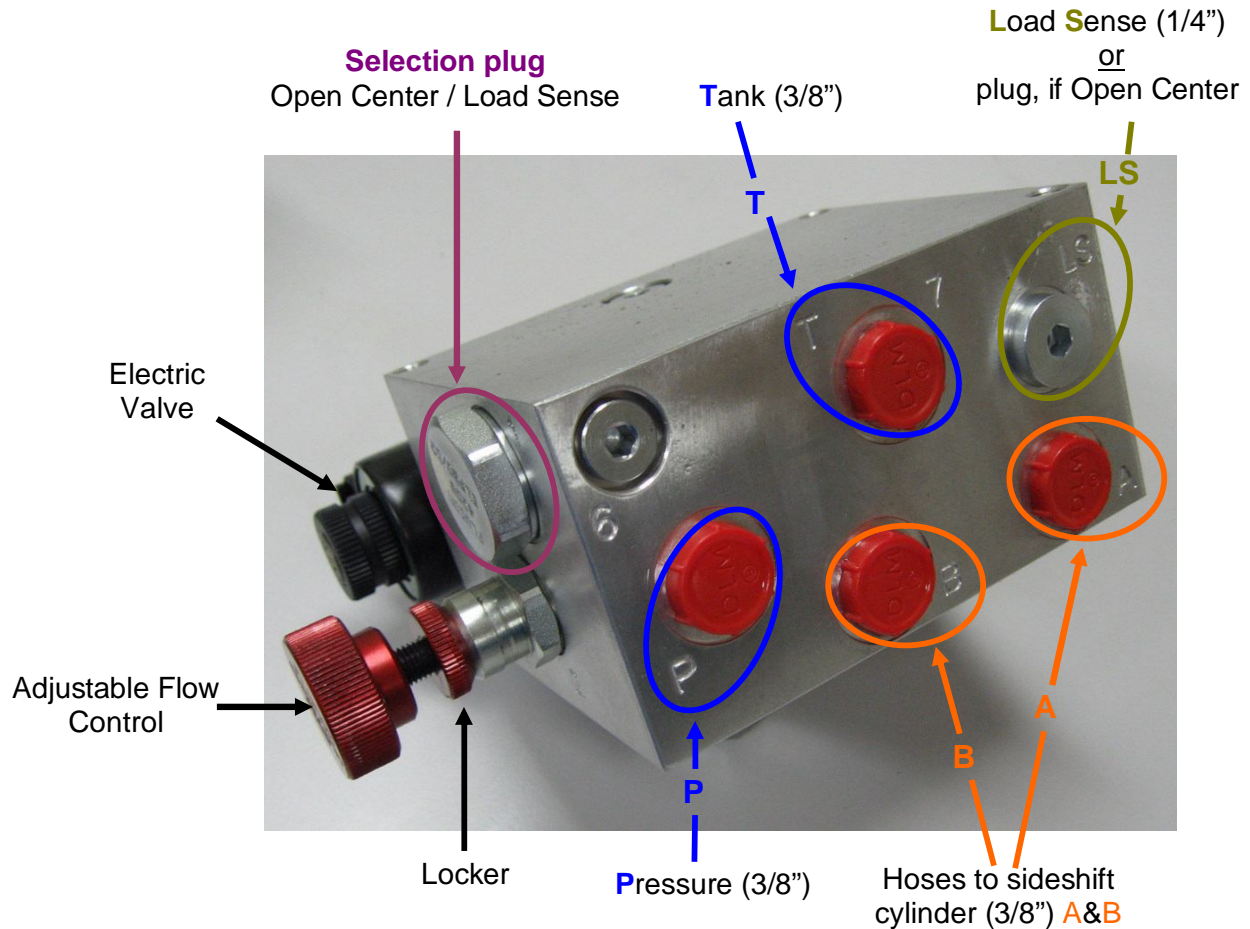
The sensor housing of the angle sensor is mounted to the frame of the implement. To attach this sensor housing to the frame there are two mounting plates supplied. Choose the most appropriate mounting plate which makes mounting of the sensor housing easiest. In the picture below the right angled mounted plate is used (2).

The sensor is made out of a cup and a magnetic disk that is turning inside the cup. Make sure the cup is mounted upside down so that dirt will not accumulate inside the cup. See picture below for an example of how the sensor should be mounted (3).

The arm of the angle sensor is connected to the cylinder with a M8 threaded rod with two ball joints. One ball joint is right angled, the other ball joint is straight. The ball joint that is connected to cylinder should be straight because the cylinder itself can rotate.

The supplied sensor comes default with an extended arm. If the ball joint is connected to the last hole of the sensor arm (4) the sensor has a measuring range of 28 cm. This sensor range is enough to measure the range of standard iSteer cylinders (5).



3. Checking the hydraulic manifold:

The iSteer hydraulic manifold can be used Load Sense (LS) or Open Center (OC). If the manifold is connected to the external valves of the tractor the manifold should be set as Open Center.

Open Center: The "**Selection plug**" should be a plug with the marking "**ELP30/D2**". The **LS** connection of the manifold is closed with a plug.

Load Sense: The "**Selection plug**" should be a closed plug without any marking on it. The **LS** Connection will be connected to the LS connection on the tractor.



Attention: Using Open Center there are different plugs in the manifold as with Load Sense!



Tip: The coils of the valves can be twisted if the plastic nuts are not tight enough. Do not forget to tighten them again after adjusting the coils position.

4. Mounting the manifold

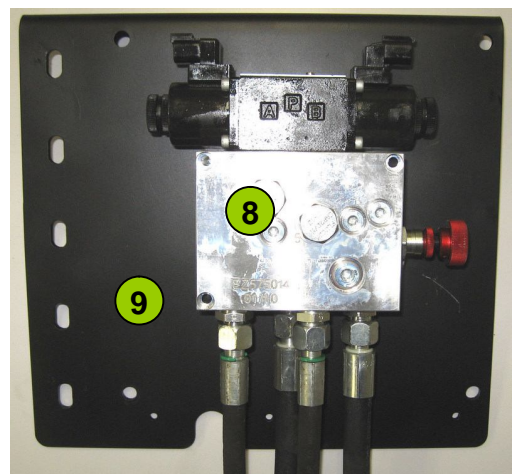
With the supplied mounting plate the hydraulic manifold (6) and the iSteer-controller (7) are mounted on the implement. The mounting of the iSteer-controller is described on the next page.



The hydraulic hoses of the Side-Shift cylinder can be mounted directly to the **A** and **B** port of the manifold (see previous page) (8).



Tip: Mount the hydraulic hoses to the manifold before mounting the manifold to the mounting plate (13). Then mount the mounting plate to the implement.



5. Mounting the iSteer controller

Connect the 3 harness connectors to the controller and lock the connectors with its clamps. Use the color marking on the controller and the color of the connectors (10).



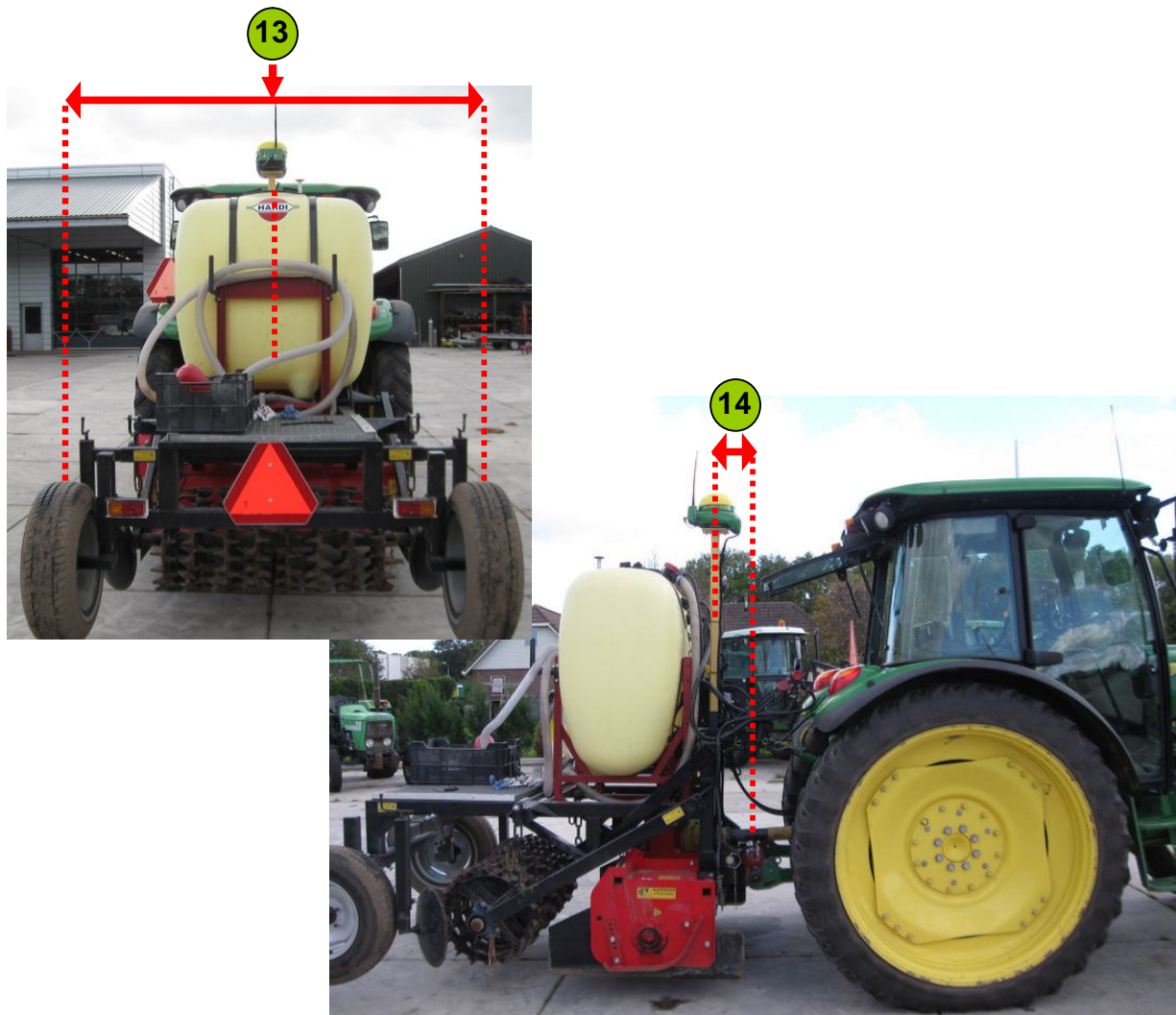
Mount the iSteer controller with 2 x M8 bolts and locknuts to the cover (11).



Mount the cover with 4 x M8 bolts and nuts to the hydraulic mounting plate (12).



6. Mounting the StarFire receiver



Mount the StarFire receiver in the middle of the implement (13).

Mount the StarFire receiver above the cylinder. If the wheels or the implement parts that have the most contact with the soil are far enough (for instance 1,5 meters or more) behind the cylinder you are allowed to place the StarFire receiver a little bit (10-30 cm) behind the cylinder (14).

For the best results the best position is always above the cylinder, because the StarFire receiver will immediately measure the responses if the Side-Shift cylinder is adjusted.

Mount the StarFire receiver high enough on the implement to make sure the satellite reception is good enough. At least half way the rear window.

Mount the StarFire receiver not higher than necessary to avoid too much vibration of the StarFire receiver. Vibrations can make the position nervous and less accurate.

Mount the StarFire receiver firm enough to avoid too much vibration of the StarFire receiver.



Attention: The distance between the StarFire receiver and the cylinder (14) should not be too big. The most ideal position is above the cylinder.

7. Mounting the cable harness

In step 5 the iSteer-controller is mounted with the iSteer Side-Shift main harness already connected to the controller.

Connect the hydraulics harness to the main harness (15).

Connect the two valve plugs of the hydraulics harness to the hydraulic valve (16).

Connect the StarFire harness to the main harness (17).
If necessary use the StarFire extension harness.

Connect the StarFire harness to StarFire receiver (18).
Connect the dustcap (19).
Check if the CANbus terminator is present (20).

Connect the angle sensor to the main harness (21).

Connect the power supply in the cabin or at the battery (22).

Connect the ISOBUS connector to the tractor (23).

Now you are ready to setup the software of the implement.

An iSteer button should appear on the screen when after you power up your Greenstar 2 system.

