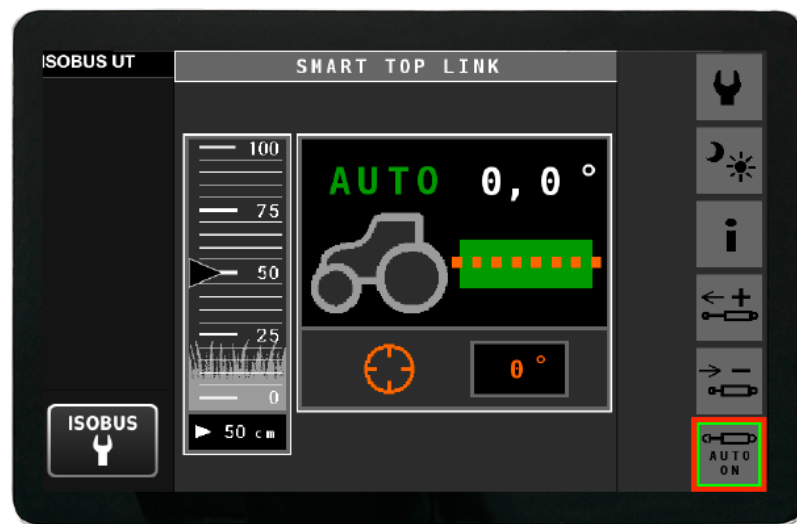


SMART TOP LINK

OPERATOR'S MANUAL



All the product information, pictures and videos are also available online:
<https://access.agcocorp.com/en.html>



TABLE OF CONTENT

1.	PRODUCT OVERVIEW	3
1.1	INTRODUCTION	3
1.2	REQUIREMENTS	3
2.	SAFETY	3
2.1	SAFETY INSTRUCTIONS	4
2.2	MACHINE SAFETY	4
3.	INSTALLATION	5
3.1	TO THE TRACTOR - HARDWARE INSTALLATION	6
3.2	VALTRA N/T SERIES	8
3.3	VALTRA Q,S SERIES AND MF 8S,9S	14
3.4	MF 6S/7S	19
3.5	Fendt	26
3.2	TO THE IMPLEMENT - HARDWARE INSTALLATION	32
4.	OPERATION	34
4.1	PREPARATION	34
4.2	ISOBUS UT OPERATION	34
4.3	CALIBRATION	35
4.4	FIELD OPERATION	38
5.	WARRANTY	39

1. PRODUCT OVERVIEW

1.1 INTRODUCTION

This is the operator's manual for the Smart Top Link. The instructions here only apply to the operation and installation of the Smart Top Link.

The Smart Top Link is supplied with:

- 1x Electronic Control Unit (ECU)
- 4x Electrical harnesses
- 1x Hydraulic block
- 3x Hydraulic quick couplers with fittings
- 2x Radar sensors
- 2x Radar sensor mounting plates
- Mounting plate according to your order

To view more information, visit www.access.agcocorp.com.

1.2 REQUIREMENTS

ISOBUS

Tractor must be ISOBUS compatible to allow communication between the implement and the terminal.





HYDRAULIC FEATURES

System requires load-sensing hydraulic lines and hydraulic top link installed in the tractor.

IMPLEMENT

Smart Top Link system is designed to be used with mounted fertilizer spreader with discs. Installation of radar sensors may vary depending on the manufacturer and model of the spreader.

2. SAFETY

	Follow the operation and safety instructions included with the machine, implement and system. Read this manual carefully before operating, installing, or servicing the Smart Top Link system.
	Stand clear when 3-point linkage is moving.
	Caution: Make sure implement and connected cables have enough space for movement.
	Warning: Angles for safe driving should be smaller than stated in the tractors Operator's Manual to avoid the tractor from tipping over.

2.1 SAFETY INSTRUCTIONS

DISPLAYS AND CONTROL CONSOLES

The tractor and implements and react to any warnings given by tractor.

If Smart Top Link System behaves faulty or gives Diagnostic Trouble Codes, refer to Workshop manual for further descriptions of causes and resolutions or contact your local AGCO service dealer.

HYDRAULIC SAFETY

****Use Only AGCO Approved Top-Link Cylinders**

When installing or servicing a hydraulic system or hydraulic components, be aware that hydraulic fluid may be extremely hot and under high pressure. Never attempt to open or work on a hydraulic system with the implement running or under load. The implement or machine must remain stationary during installation or maintenance.

Take precautions to prevent foreign material or contaminants from being introduced into the implement hydraulic system.

Use protection gears and stand clear of the implement when starting the system for the first time after installing or servicing hydraulic components in case a hose has not been properly connected or tightened.

ELECTRICAL SAFETY

Verify that electric harness cables are intact and connected correctly. To avoid entanglement hazards, route cables and harnesses carefully on the implement. Leave enough space for movement and make sure that moving parts cannot touch the cable.

2.2 MACHINE SAFETY

Make sure that top link has enough range for movement and therefore doesn't cause implement collision with the tractor or ground surface. When doing maintenance or other works near the top link or the implement outside the tractor, make sure that the smart top link is switched off.

3. INSTALLATION

Installation is done in two parts, parts **TO THE TRACTOR** and parts **TO THE IMPLEMENT**. Calibrate the system after both installation steps are completed.



TO THE TRACTOR – 45min

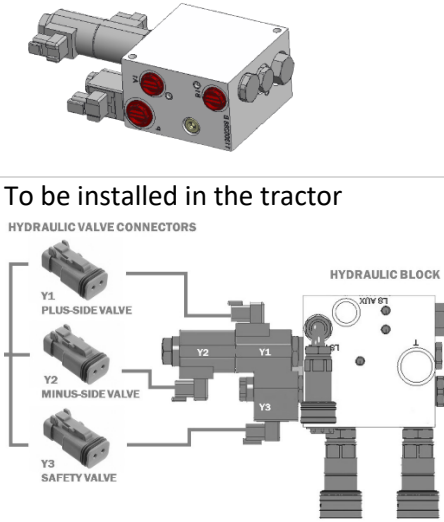
Parts that are installed to the tractor. Installation varies according to the tractor brand and model. If you purchased your Smart Top Link trough Valtra Unlimited, the installation is completed for you and you can jump to the section TO THE IMPLEMENT.



TO THE IMPLEMENT – 30min

Parts that are installed to the implement.

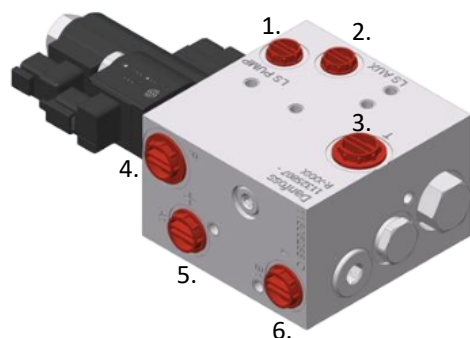
SMART TOP LINK

PART	LOCATION
Electronic Control Unit with wiring harness	To be installed in the tractor
Sensor wiring harness	To be installed in the implement and connected to tractor
2 pieces of Radar sensors	To be installed in the implement
2 Pieces of Stainless-Steel Plate	To be installed in the implement
Hydraulic valve block	To be installed in the tractor / Horizontal Level
Hydraulic valve block wiring harness <ul style="list-style-type: none"> Connector 1 (Y1) = Plus Valve connector (inner solenoid) Connector 2 (Y2) = Minus Valve connector (outer solenoid) Connector 3 (Y3) = Safety Valve connector (separate solenoid) 	<p>To be installed in the tractor</p> 
Hydraulic hoses and connections <ol style="list-style-type: none"> T = Tank return line P = LS-hydraulic pressure line LS Pump = LS-hydraulics Pump signal line LS AUX = LS-hydraulics pump signal from external implement A1 = Top Link plus hose B1 = Top Link minus hose 	<p>List for suitable matches is provided with</p> <ol style="list-style-type: none"> Not included in the kit Not included in the kit Not included in the kit 3/8" quick coupler for implement (pre-installed) 1/2" quick coupler 1/2" quick coupler

3.1 TO THE TRACTOR - HARDWARE INSTALLATION

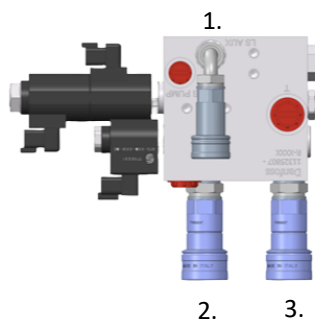


HYDRAULIC BLOCK



- | | |
|-----------------------------------|-----|
| 1. LS PUMP (for tractor LS line) | M14 |
| 2. LS AUX (for implement LS hose) | M14 |
| 3. Tank | M22 |
| 4. Pressure | M22 |
| 5. Top Link + | M18 |
| 6. Top Link - | M18 |

Hydraulic connectors **provided with the system** are LS AUX with 3/8" female quick coupler and two 1/2" female quick couplers for top link hoses:



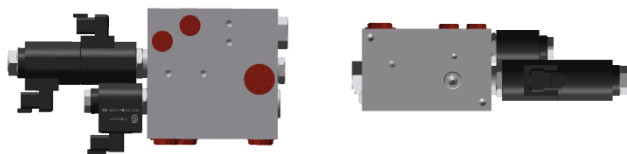
- | |
|--------------------------------------------------------------|
| 1. 3/8" quick coupler with 90-angle pipe and M14-3/8" nipple |
| 2. 1/2" quick coupler with M18-1/2" adapter and washers |
| 3. 1/2" quick coupler with M18-1/2" adapter and washers |

For the remaining items and hoses which will connect the hydraulic block to the tractor, there is a list of suitable items presented with each mounting bracket

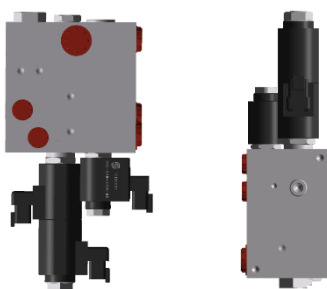
Installation orientation of the hydraulic block is important for the correct operation, always install the hydraulic block in a way where the magnet valves are in horizontal direction:



Correct way to install the hydraulic block



Incorrect way to install the hydraulic block



ELECTRICAL CONNECTIONS

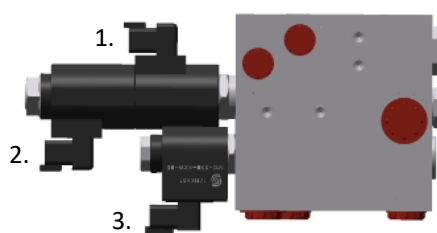
ECU connections. Connector "B" remains empty:



A. C. D. B.

- A. Hydraulic connector
- C. ISOBUS connector
- D. Sensor harness
- B. -

Hydraulic block connections:



- 1. "Y1", plus-side valve
- 2. "Y2", minus-side valve
- 3. "Y3", safety valve



Select the instruction for your tractor model for more in detailed installation instructions for the parts **TO THE TRACTOR**. After **TO THE TRACTOR** - installation follow the steps **TO THE IMPLEMENT** - installation and calibration to complete the installation.

3.2 VALTRA N/T SERIES

TO THE TRACTOR - In the box, you will have the following items:



MOUNT



HYDRAULIC BLOCK



HYDRAULIC PARTS



ECU



HARNESS

You will also need the following:

HYDRAULIC HOSES, presented with Dunlop Hiflex codes:

Valtra T Series (2024 -)

	Qty	DH Item	Length
Hose 1: Pump	2	2SC-1/2" Hose	0.43m
	2	A50A50-08-08	
Hose 2: Tank (tractor)	1	2SC-1/2" Hose	0.32m
	1	A50005-10-08	
	1	A50054-08-08	
Hose 3: Tank (hyd block)	1	2SC-1/2" Hose	0.45m
	1	A50005-08-08	
	1	A50054-08-08	
Hose 4: LS	1	2SC-3/8" Hose	0.43m
	1	A50A50-05-06	
	1	500120-06-06	

Valtra N Series & T Series (-2023)

	Qty	DH Item	Length
Hose 1: Pump	2	2SC-1/2" Hose	0.43m
	2	A50A50-08-08	
Hose 2 : Tank	1	2SC-1/2" Hose	0.60m
	2	A50146-08-08	
Hose 3: LS	1	2SC-3/8" Hose	0.43m
	1	A50A50-05-06	
	1	500120-06-06	

HYDRAULIC COMPONENTS, choose according to your Valtra model:

Common components	Qty	DH Item
	1	24-XOCL-10M
	1	08-USITR-06
	2	25-C23072-06
	1	25-C26914-06-R

Components T Series (2024-)

Components N Series & T Series (-2023)

Qty	DH Item
1	R1A25MT52Q-0818
2	24-XOCL-15M22
3	24-XOCL-15M22
1	24-XOCL-15M

INSTALLATION – 45MIN

Valtra N & T series machines. More detailed instructions & videos go to agcocorp.access.com or scan the QR-code.

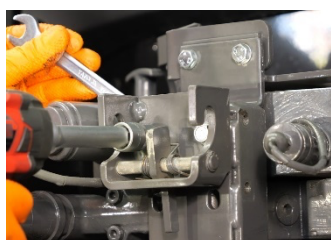
REMOVE EXISTING HARDWARE



1. Remove the mounting bracket for the ABS plug



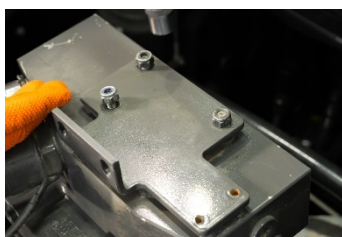
2. Remove the accessories (airline bracket) from the back plate of the tractor and place them to the side



3. Remove the top link holder mount



4. Remove the remaining bolts from the back plate and take the plate off



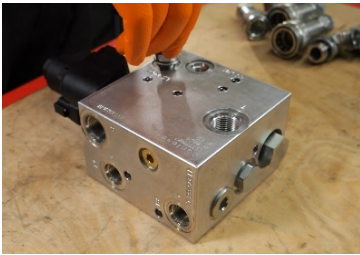
5. Remove the three bolts from the top plate and remove the top plate



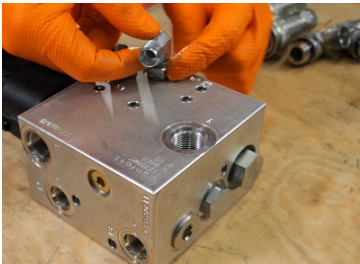


6. Disassemble the emergency brake handle from the mount

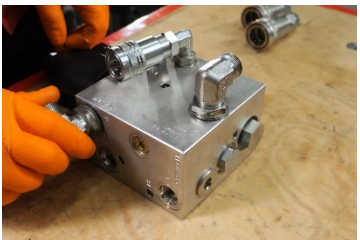
ASSEMBLE HYDRAULIC BLOCK



7. Install the male – male fitting for the LS pump



8. Install the 90-degree angle fitting for the LS AUX and secure the quick coupler



9. Install the 90-degree angle fittings for both the tank and the pump line



10. Finally, mount the 2 hydraulic top link quick couplers

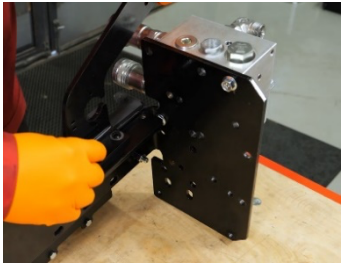
MOUNTING THE HARDWARE ON THE TRACTOR



11. Assemble the mounting bracket, ECU bracket and the top link holder



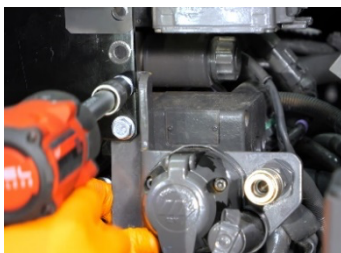
12. Line up the hydraulic block to the top of the mounting plate and secure with the bolts supplied



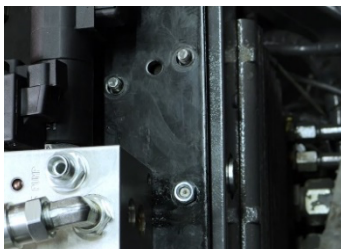
13. Mount the Hella socket and ABS mount on the side of the mounting plate



14. Bring the Pre assembled Smart top Link mount to the rear of the tractor and line up the top three bolts to the holes in the mounting bracket

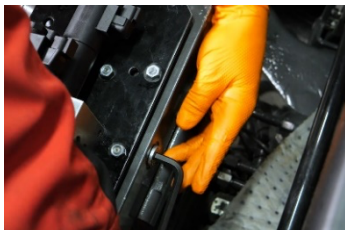


15. Re-mount all of the accessories and bolts back to their original positions, as they were when the original mounting plate was un-installed



16. Replace the three nuts to secure the top of the smart top link mount

HYDRAULIC INSTALLATION



17. Remove the Pump plug on the rear of the tractors hydraulic system and replace this with the 90-degree angle fitting.



18. Now remove the tank plug on the side of the tractors hydraulic system and replace with the 90-degree angle fitting



19. Run the appropriate hoses from the tank and pump on the tractor to the tank and pump on the smart top link hydraulic block



20. Secure the LS Pump line to the Smart Top Link hydraulic block and plug the other end directly into the tractor's LS system (Quick coupler)



21. Mount the new emergency brake fitting to the Smart Top Link bracket and secure the handle back into place

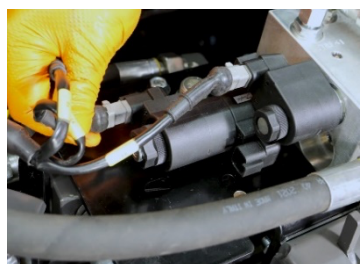
INSTALLING THE ELECTRONICS



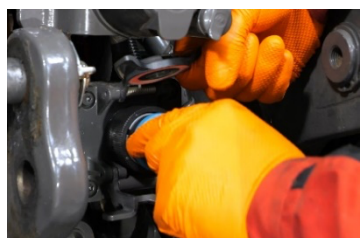
22. Mount the ECU onto the mounting plate with the fittings provided



23. Mount the Hella socket to the new ABS mount, this gets plugged into ECU port "D"



24. Plug the hydraulic harness into the correct valve connectors (see below for correct configuration) This harness gets plugged into ECU port "A"



25. Plug the ISOBUS harness directly into the Tractors ISOBUS socket, this harness gets plugged into ECU port "D"



26. Plug the hydraulic top link hoses directly into the Smart Top Link hydraulic block. Next follow the "To the implement" installation guide to install the parts to the implement.



3.3 VALTRA Q,S SERIES AND MF 8S,9S

TO THE TRACKTOR - In the box, you will have the following items:



MOUNT



HYDRAULIC BLOCK



HYDRAULIC PARTS



ECU



HARNESS

You will also need the following:

HYDRAULIC HOSES & COMPONENTS, presented with Dunlop Hiflex codes:

	Qty	DH Item			Qty	DH Item	
HOSE 1: P	1	2SC-3/8" Hose	0,64m	Components	1	08-USITM-14	
		A50179-06-06			1	08-USITM-16	
		A50A50-05-06			1	24-XEBDL-10M16	
HOSE 2: T	1	2SC-3/8" Hose	0,84m		3	24-XBEDL-10M	
		A50179-06-06			2	24-XOCL-15M	
		A50A50-05-06			2	24-XOCL-15M22	
					1	24-XOCL-10M	
HOSE 3: LS	1	2SC-1/4" Hose	1,02m		1	25-FPKM-06	
		A50A50-05-04			1	25-C26914-06-R	
		500120-06-04					
HOSE 4: LS-AUX	1	2SC-1/4" Hose	0,88m				
		A50A50-05-04					
		500120-06-04					
HOSE 5: A1/B1	1	2SC-3/8" Hose	0,82m				
		A50A57-06-06					
		500120-08-06					

INSTALLATION – 45min

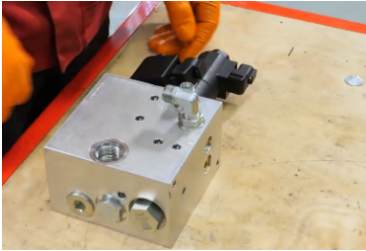
Valtra Q Series, Valtra S Series and Massey Ferguson 8S&9S Machines
More detailed instructions & videos go to agcocorp.access.com or scan the QR-code.



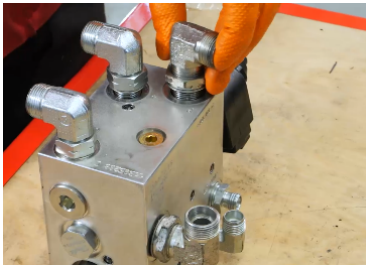
ASSEMBLE THE HYDRAULIC BLOCK



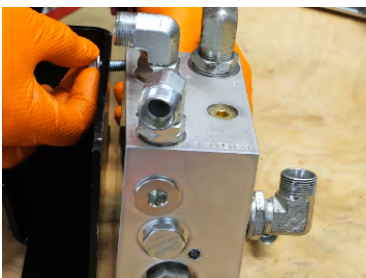
1. Insert the male – male fitting for the LS AUX



2. Insert the 90-degree angle fitting for the LS AUX

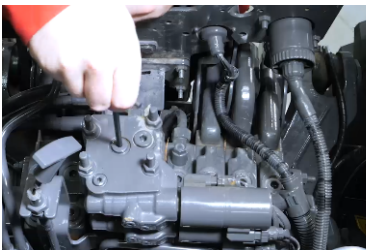


3. Insert the 4 x 90 degree angle fittings for the tank, pump and top link inlets

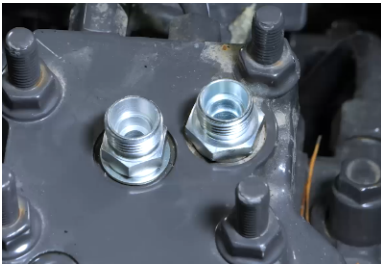


4. Line the hydraulic block to the mounting plate and secure with the two bolts supplied

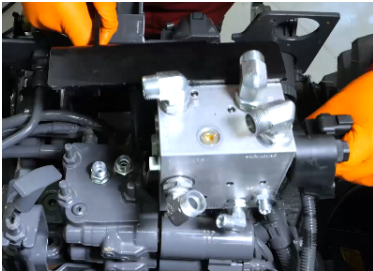
MACHINE INSTALLATION



5. On the rear of the tractor, remove both tank and pump plugs



6. Insert the 2x male – male fittings for the tank and pump



7. Line up the assembled mount and hydraulic block to the following position



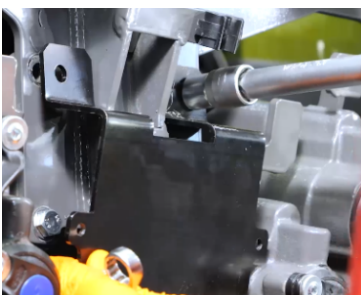
8. Remove the bolt for the top link support and bring in the mount to line up.



9. Re-insert the bolt and secure



10. Place the 2 nuts provided onto the bolts that run through to the back of the smart top link mount



11. Remove the top 2 bolts and place the ECU mount on and replace them in the same position



- 12.** Run the hoses from the tank and the pump on the tractor side and connect them to the appropriate fittings on the hydraulic block.



- 13.** Run the hoses for the top link from the 90 degree angle fittings from the block



- 14.** Next up, mount the ECU onto the ECU mounng with the fittings provided



- 15.** Secure the LS AUX line to the hydraulic block



- 16.** Secure the LS Pump to the hydraulic block



- 17.** Attach the quick coupler to the other end of the LS pump line and plug straight into the tractors LS system



- 18.** Mount the Hella socket to the Smart Top Link mount with the fittings supplied, this then gets plugged into ECU port "D"



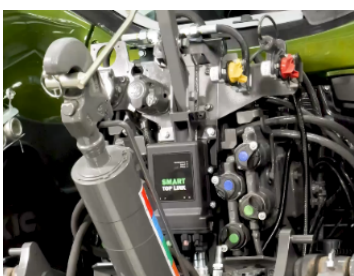
- 19.** Run the hydraulic harness to the block, this then gets plugged into ECU port "C"



- 20.** Run the ISOBUS harness to the tractors ISOBUS system, it gets plugged into ECU port "A"



- 21.** Re-Mount the hydraulic top link and plug straight into the hydraulic quick connectors running to the smart top link hydraulic block



- 22.** The Smart Top Link is now installed to the tractor, next follow the "To the implement" installation guide to install the parts to the implement.



3.4 MF 6S/7S

TO THE TRACKTOR - IN THE BOX



MOUNT



HYDRAULIC BLOCK



HYDRAULIC PARTS



ECU



HARNESS

You will also need the following:

HYDRAULIC HOSES & COMPONENTS, presented with Dunlop Hiflex codes:

COMPONENTS	Qty	DH Item	HOSES	Qty	DH Item	Length
	1	24-XRL-22	HOSE 1 - PUMP	1	2SC-3/8" Hose	0.44m
	1	24-XEFL-22		2	A50A50-08-06	
	1	24-EGEL-22R				
	1	24-XREFL-22-15	HOSE 2 - TANK	1	2SC-3/8" Hose	0.36m
	1	25-C23071-12		1	A50179-06-06	
	2	24-XOCL-15M22		1	A50A50-08-06	
	1	24-XRL-18	HOSE 3 - LS			1m
	1	24-EGEL-18R12		1	2SC-1/4" Hose	
	1	24-XREFL-18-15		1	A50A50-05-04	
	1	24-XEFL-18		1	500120-06-04	
	1	25-C23071-12				
	1	24-XOCL-10M				
	2	25-FPKM-06				
	2	26-04510-06				
	1	25-C26914-06-R				
	1	25-FPKM-06				

INSTALLATION - 45min

Massey Ferguson 6s & 7s Machines

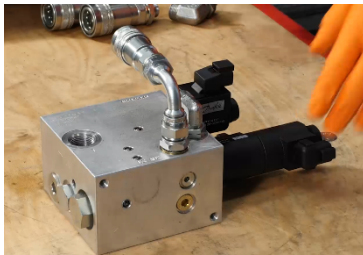
More detailed instructions & videos go to agcocorp.access.com or scan the QR-code.



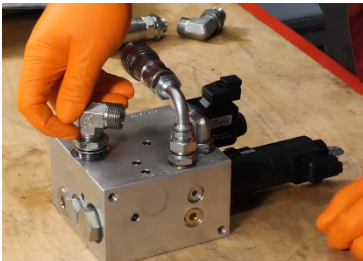
ASSEMBLE THE HYDRAULIC BLOCK



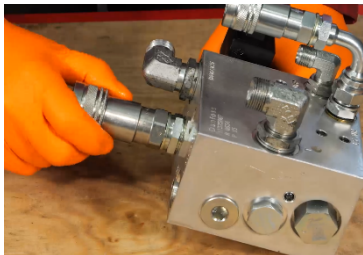
1. Insert the male – male fitting for the LS AUX



2. Insert the 90-degree angle and quick coupler fitting for the LS AUX



3. Insert the two 90-degree angle fittings for the tank and pump



4. Secure the two top link quick couplers to the block



5. Line the hydraulic block to the mounting plate and secure with the two bolts supplied

MOUNTING HARDWARE



6. Fit the ECU to the mounting plate

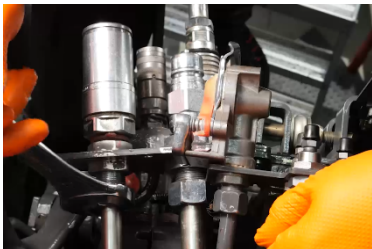


7. Secure the Hella socket to the mount

TRACTOR INSTALLATION



8. Remove the airline system bracket



9. Move the airline system to the side and loosen the pump hose and quick coupler



10. Now remove the other end of the pump line on the tractor side



11. Mount the T piece on the back side of the quick coupler



12. Run the Pump hose from the T piece to the tractor's pump system



13. Remove the tank line quick coupler and loosen the hose



14. Follow the hose and remove the banjo fitting on the tractor side



15. Remove the hose, but remember to temporarily place the bolt back so that no dirt enters the hydraulic system



16. Replace the washer onto the threaded extension. Make sure this is now on the rear side of the plate (closest to the cab) Originally it was located on the front side.



17. Now replace the original banjo fitting side first



18. Then replace the other side after.



19. You can now fit the T piece to the tank outlet you just previously fitted.

MOUNTING OF THE SYSTEM



20. Place the First of the two brackets over the banjo fitting to line up with the existing 4 x bolts. Add the nuts supplied to secure.



21. Slide the pre-assembled smart top link mount above the leg and secure this with the 2 bolts supplied



22. Mount the pump hose from the T piece to the relevant fitting on the hydraulic block



23. Run the tank hose from the T piece to the Relevant fitting on the hydraulic block



23. Secure the LS pump line to the block Secure the fittings for the quick coupler to the other end of the hose for the LS and plug directly into the tractors LS system



24. Re-mount the airline bracket

INSTALLING THE ELECTRICS



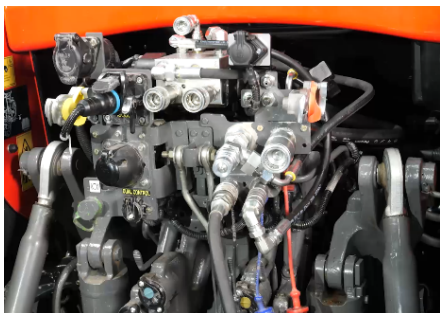
25. Secure the hydraulic harness to the hydraulic block (see hydraulic valve connection diagram below) this gets plugged into ECU port "A"



26. Plug the Hella socket into ECU port "D"



27. Plug the Isobus harness into the tractors hydraulic system, this then gets plugged into ECU port "D"



28. The Smart Top Link is now installed to the tractor, next follow the “To the implement” installation guide to install the parts to the implement.



3.5 Fendt

TO THE TRACTOR - In the box, you will have the following items and one of the mounts (500/700/800/900)



HYDRAULIC PARTS



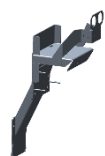
HYDRAULIC BLOCK



ECU



HARNESS



MOUNT 500
ACX5490970



MOUNT 700
ACX5454440



MOUNT 800
ACX5419780



MOUNT 900
ACX5454110

You will also need the following:

HYDRAULIC HOSES, presented with Dunlop Hiflex codes:

Common components	Qty	DH item			Qty	DH item	Length
	2	24-XOCL-15M22		HOSE 1: PUMP	1	2SC-1/2" Hose	0,7m
	1	25-C23071-12				A50179-08-08	
	1	25-C23071-12				A50A50-08-08	
	1	25-C23072-06					
	2	26-04510-06		HOSE 2: TANK	1	2SC-1/2" Hose	1m
	1	25-C26914-06-R				A50146-08-08	
	1	24-XOCL-10M				A50A50-08-08	
				HOSE 3: LS	1	2SC-1/4" Hose	1m
						A50A50-05-04	
						500120-06-04	

HYDRAULIC COMPONENTS, choose according to your Fendt model:

Components Fendt 500-724	1	24-XEFL-22	Components Fendt 828-900	1	24-XRL-28
	1	24-EGEL-22R		1	24-XEFL-28
	1	24-XRL-22		1	24-XREFL-28-15
	1	24-XREFL-22-15		1	24-EGEL-28R12
	1	24-XEFS-20		1	24-XRS-25
	1	24-EGES-20R		1	24-XEFS-25
	1	24-XREFS-20-16		1	24-XREFS-25-16
	1	24-XRS-20		1	24-EGES-25R12

INSTALLATION – 45min

Fendt 700,800 & 900 series machines. Installation follows Fendt 700.

More detailed instructions & videos go to agcocorp.access.com or scan the QR-code.



REMOVE AND REPLACE (TRACTOR HYDRAULICS)

Note – pump and tank hoses can be directly plugged into the quick coupler if your spreader does not require load sensing hydraulics.



1. Remove the left-hand hydraulic fitting, for easy access to the pump fitting on the right-hand side.



2. Remove the pump fitting and replace with the splitter fitting (make sure you have the correct fitting. The pump and tank fittings do have minor differences)



3. Replace the initial left hand hydraulic fitting back to the machine.

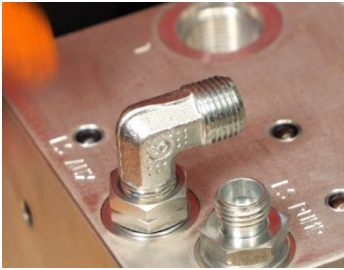


4. Remove the tank fitting and replace with the splitter fitting.

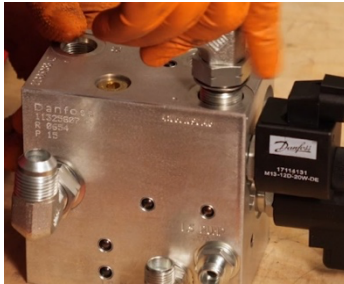
HYDRAULIC BLOCK ASSEMBLY



5. Install the male – male fitting into the LS pump outlet



6. Install the 90-degree angle fitting to the LS AUX outlet



7. Install the 90-degree angle for both the tank and pump outlets

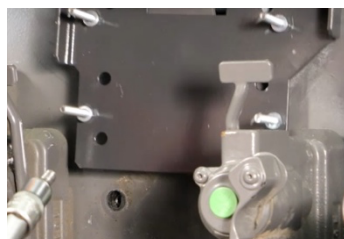


8. Finally, mount the 2 top link quick couplers.

MOUNTING THE HARDWARE ON THE TRACTOR



9. Remove the Existing top link holder from the tractor.



10. Replace this with the new smart top link mount, utilising the same bolt holes.



11. Place the hydraulic block onto the Smart Top Link mount and secure it via the two bolt holes underneath the bracket.



12. Run the hoses from the tank and pump splitters up to the necessary fittings on the hydraulic block.



13. Run the LS pump line from the hydraulic block to the tractor's LS quick coupler

INSTALLING THE ELECTRONICS ON THE TRACTOR



14. Mount the ECU onto the Smart Top Link bracket



15. Mount the Hella socket onto the Smart Top Link bracket. The Hella socket gets plugged into ECU port "D"



16. For the hydraulic harness, plug the three connectors into the block, making sure configuration matches wiring diagram (*see below*).

This harness gets plugged into ECU port "A"



17. Now run the cable for the ISOBUS, this gets plugged into ECU port "C"

INSTALLING THE NEW TOP LINK HOLDER



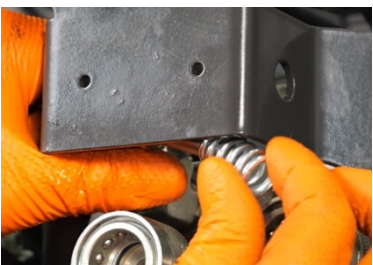
18. Line the Ball up with the hole on the steel rod.



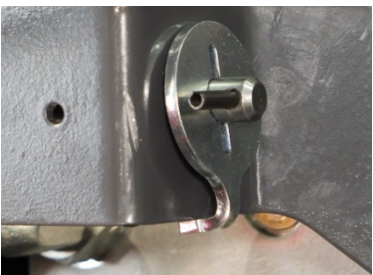
19. Punch the roll pin through to secure.



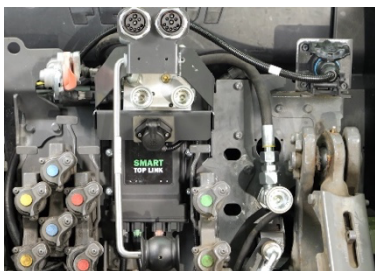
20. Place the plastic grommet in the top link holder hole and insert the steel rod.



21. Insert the spacer and spring to the steel rod



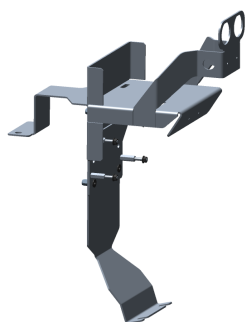
22. Push the rod through the second hole and secure the washer, then punch through the second roll pin.



23. The Smart Top Link is now installed to the tractor, next follow the "To the implement" installation guide to install the parts to the implement.



DIFFERENCES IN INSTALLATION BETWEEN 800 & 900 SERIES MACHINES



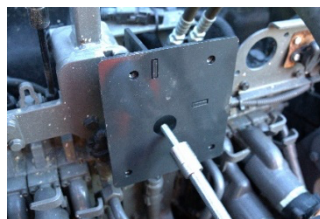
800 SERIES MOUNT (EXTRA BACK PLATE)

- Remove the 2 bolts above the top link pin
- Remove the 2 bolts shown at the top of the hydraulic system
- Fit the back plate and replace all bolts
- Now mount the smart top link mount to the back plate



900 SERIES MOUNT (EXTRA BACK PLATE)

- Add supplied bolt on the right of the main top link support frame as shown.
- Remove the bolt shown and replace it with the new bolt and bracket supplied
- The main mount is now ready to fit on with 4x bolts



3.2 TO THE IMPLEMENT - HARDWARE INSTALLATION

In the box, you will have the following items



STEEL PLATES



SENSORS



CABLES



At this point, installation for the Smart Top Link tractor parts has been completed. Smart Top Link system uses two sensors, which need to be installed to the implement along with the sensor harness. Follow these steps to complete the sensor installation.

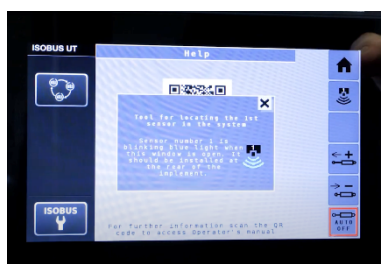


1. Power on the machine and make sure ISOBUS UT is activated from tractor terminal. Open ISOBUS UT view from the terminal and wait for application to load. After loading, display shows the Home Screen view of the Smart Top Link system.



2. Connect the wiring harness to the 4-pin socket located at the rear of the tractor.

Find the 4-pin socket behind the tractor and connect the wiring harness

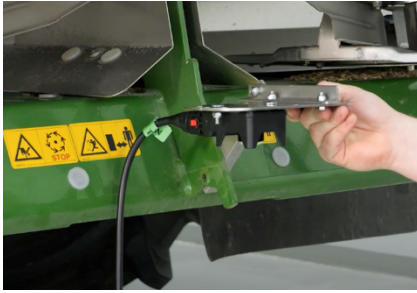


3. Turn on the sensor identification mode from your tractors ISOBUS display.

- Mount **sensor 1 (Blue)** to the **rear of the implement**
- Mount sensor 2 (Green/Yellow) to the front of the implement.



4. Attach the sensors to the steel plates



5. Installing the sensors to the implement

- Pointing straight down to the ground
- Make sure sensors are underneath the spreading disc
- At the **minimum height of 30cm from the ground** while the spreader at its operating height. Sensors should be approximately at the same height.
- Both sensors should be approximately **in line with each other**.
Distance between sensors should be minimum of 70cm.
- Installing them to the middle of the implement is preferred.
- If sensor is too close to the frame of the implement, there might be reflections which affect the sensor reading in a negative way
- **Make sure that the sensors do not collide with ground surface when lowering the implement**



6. Fasten the cables

- Do not tightly bend the cables.
- All cables should be securely fastened to the implement's frame.
- Make sure they are not pinched between metal objects.
- Cables shouldn't affect the movements of any implement parts.
- Ensure that the connectors are properly locked in place.
- Make sure that the cable is not too loose, being in a risk of interfering with ground surface.
- Make sure that the cable is not too tight, being in a risk of braking while the implement is moved



7. Set implement to working height and make sure it is level with the ground surface.

4. OPERATION

4.1 PREPARATION

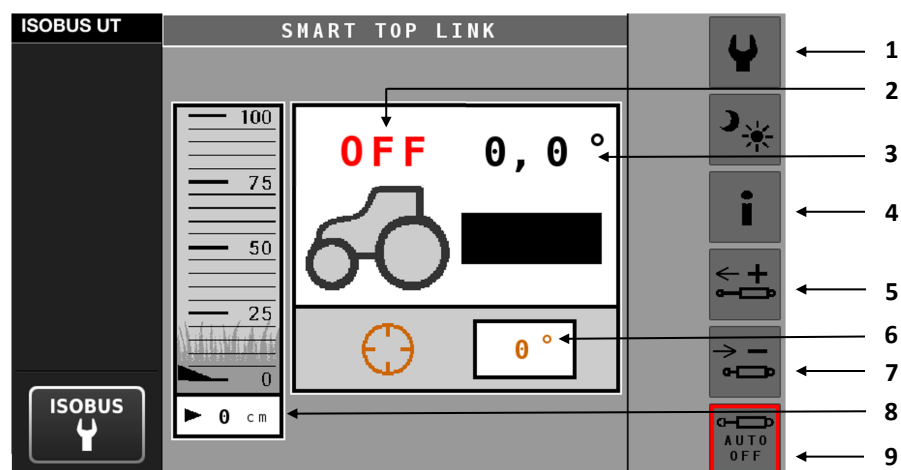
Familiarize yourself with the functions and positions of all controls. Ensure that all controls are in their neutral positions and engage the parking brake before starting the machine. Ensure that no one is within your working area.

Be aware of the machine's dimensions and ensure you have enough space to operate it safely. Confirm that the machine is in proper working condition. Consult the operator's manual specific to your machine. Verify that the machine is equipped with the necessary components as required by local regulations.

4.2 ISOBUS INTERFACE

HOME SCREEN

1. Settings menu
2. System status (OFF/PAUSE/AUTO)
3. Current angle of implement
4. Help view
5. Manually extend top link
6. Target angle
7. Manually shorten top link
8. Current height of implement
9. AUTO ON/OFF button to activate and deactivate Smart Top Link function





SETTINGS



CALIBRATION

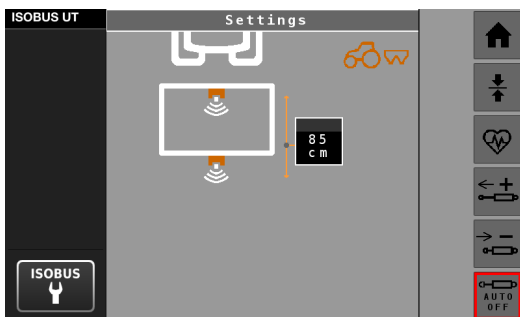
Calibration procedure needs to be executed every time installation of sensors is changed. It is preferred to perform calibration **with an empty spreader**.

Before you start

- Lift fertilizer spreader to **operating height** (you can check spreader manual for precise height requirements).
- Drive on **flat and dry area**, such as workshop floor.
- Make sure the **fertilizer spreader is levelled** (you can measure the front and rear part of the implement manually with a measuring tape)



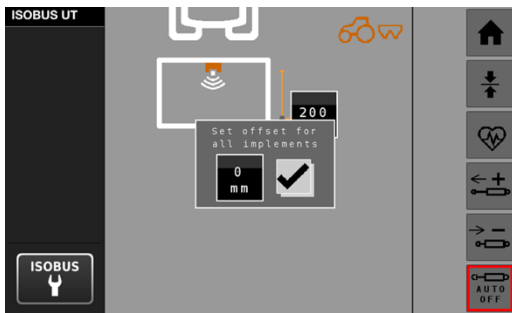
1. Measure the distance between the sensors and add the value to the settings



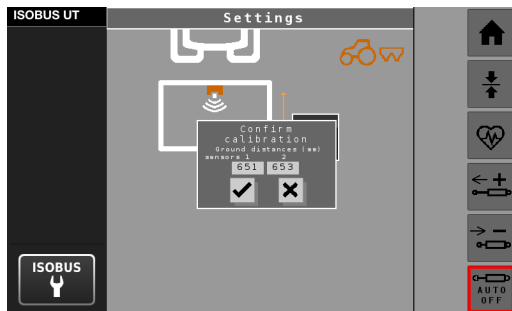
2. Open the settings and add the value to the field



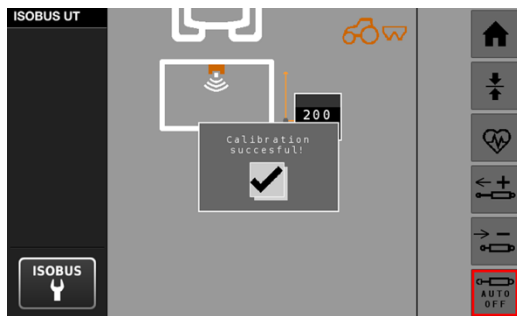
3. Measure the distance of the spreading disc to the ground.



4. Press calibrate button and enter the measured value into the offset



5. Check that the sensor values seem realistic. You can measure the sensor heights with a measuring tape.



Calibration complete!



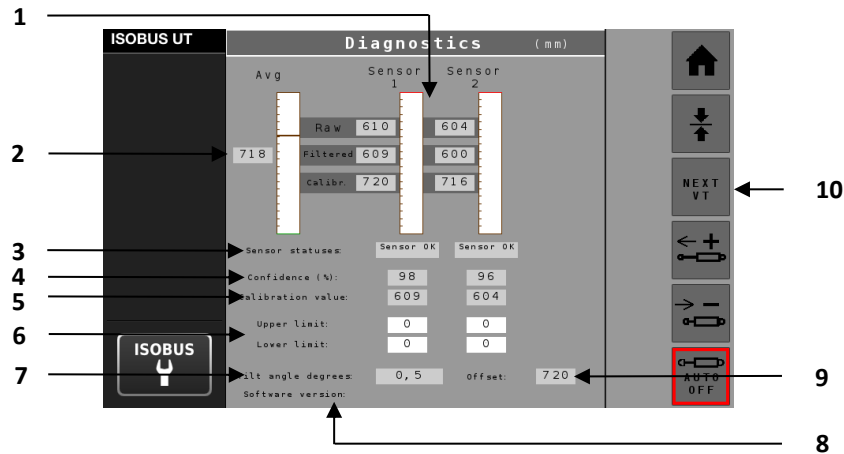
DIAGNOSTICS

In Diagnostics Screen:

1. Ground distance values (raw, filtered, and calibrated values)
 - Raw = Unfiltered signal from radar
 - Filtered = Signal from radar with filtering, sensors actual distance to ground
 - Calibrated = Filtered value with calibration offset, presents working height
2. Average ground distance value.
 - Average working height of the system, $(\text{sensor1} + \text{sensor2}) / 2$
3. Sensor statuses.
 - Presents the internal errors of 1 or 2 sensors (if sensor not OK)
4. Sensor data quality values.
 - Presents the quality of the data on a scale from 0 to 100%, normal variation is 70-99%
5. Calibration values.
 - Sensor height during calibration
6. Upper and Lower limit of the height range (can be adjusted).
 - Minimum and maximum measurement ranges for sensors
7. Tilt angle degrees
 - Presents the implement inclination calculated by the system
8. Software version number

9. Offset values.
 - Offset value (set by the user) during calibration
10. NEXT VT (change the ISOBUS UI priority when multiple ISOBUS implements)

Measurement unit is millimeters (mm) unless stated otherwise.



HELP

In Help Screen you can see active errors and descriptions and find the ACCESS portal QR code for Operator's Manual.

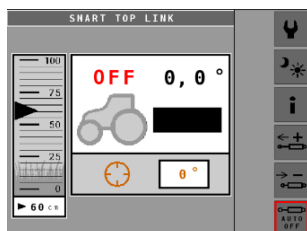


Tool for locating the 1st sensor in the system can also be found in the help screen.

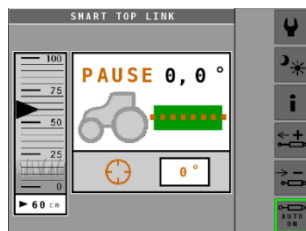
4.3 FIELD OPERATION

HOW TO USE

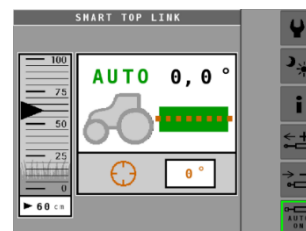
Once you have done the calibration, press AUTO ON/OFF button to activate the Smart Top Link. System switches to PAUSE if the tractor is not moving, tractor speed is over 25km/h or the data is not reliable enough for automatic control. Once the right conditions are met, the system will switch to AUTO after a small delay.



System is OFF



System is on PAUSE



System is on AUTO

Once the system is on AUTO, the top link will move automatically to keep the implement levelled. You can also observe (and adjust) the height of the implement if necessary (you can often find the correct height for the implement in the implement manual). **On transport, the Smart Top Link should be turned off for safety reasons.**

When filling the spreader, it's recommended to lower the tractor hitch (by at least 3%). This way the Smart Top Link system will detect the refill and correct the spreader angle quicker afterwards.

5. WARRANTY

Use product only for its intended purpose and refer to local regulations. Changes to product construction can decrease safety and durability and have an effect on the warranty terms.

Smart Top Link is installed in an AGCO Customization studio as an option and covered by one year of factory warranty. All the components are installed on the factory assembly line and tested to be functioning in the installed machine as they should.

All the product information, pictures and videos are also available online:
<https://access.agcocorp.com/en.html>

