



**Operators Guide
i4M Depth Command
Version 030**



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Foreward

This is a basic guide for the i4M Control System only. Important Safety and Operating information is contained in your tractor and implement Operators Manuals and must be read prior to operating this equipment. This guide provides supplementary information only.

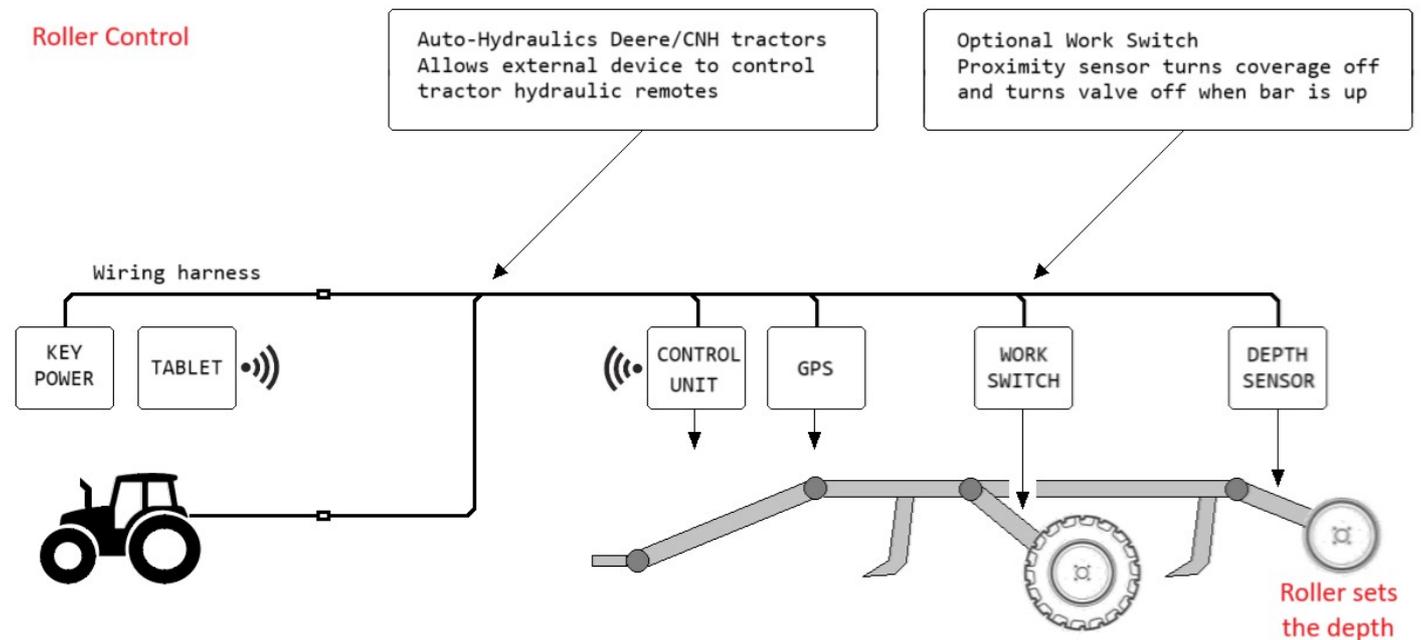
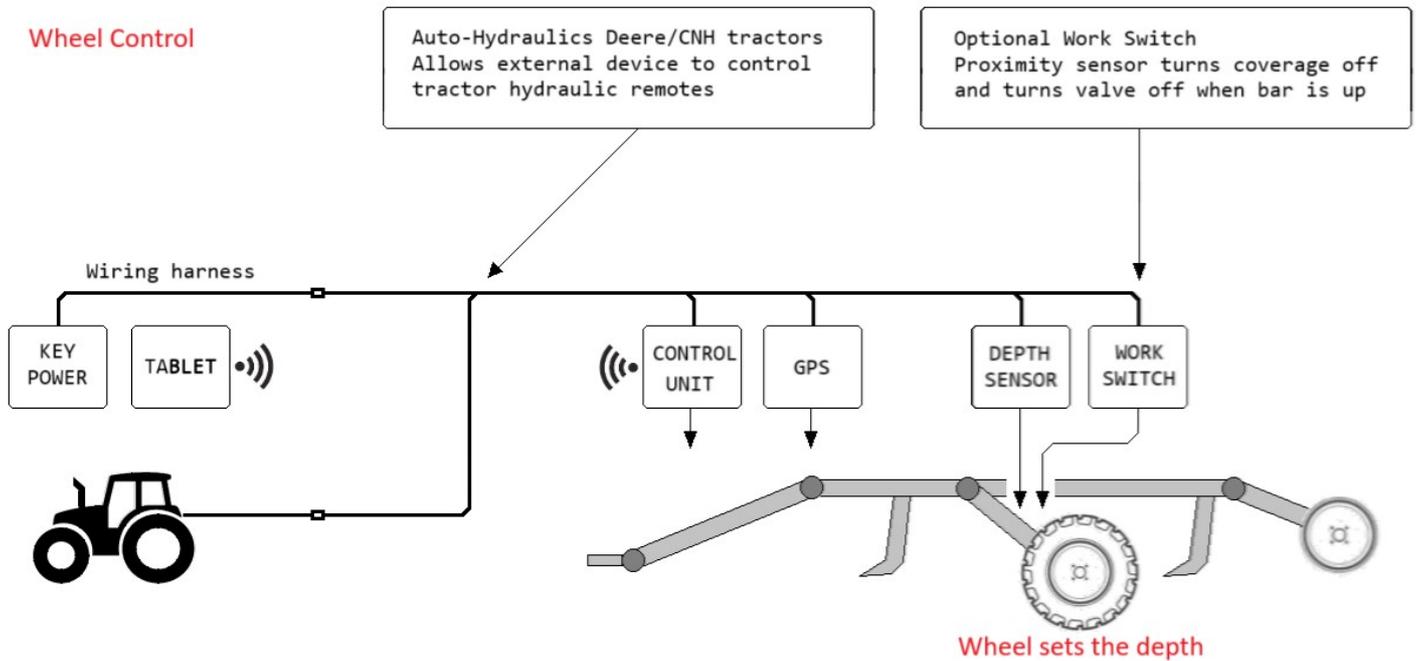
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**WANT THE FASTEST SETUP?
FOLLOW THIS GUIDE
IT'S ONLY A FEW PAGES WITH PICTURES**

Install – Tractors with Auto-Hydraulics (Deere / CNH)

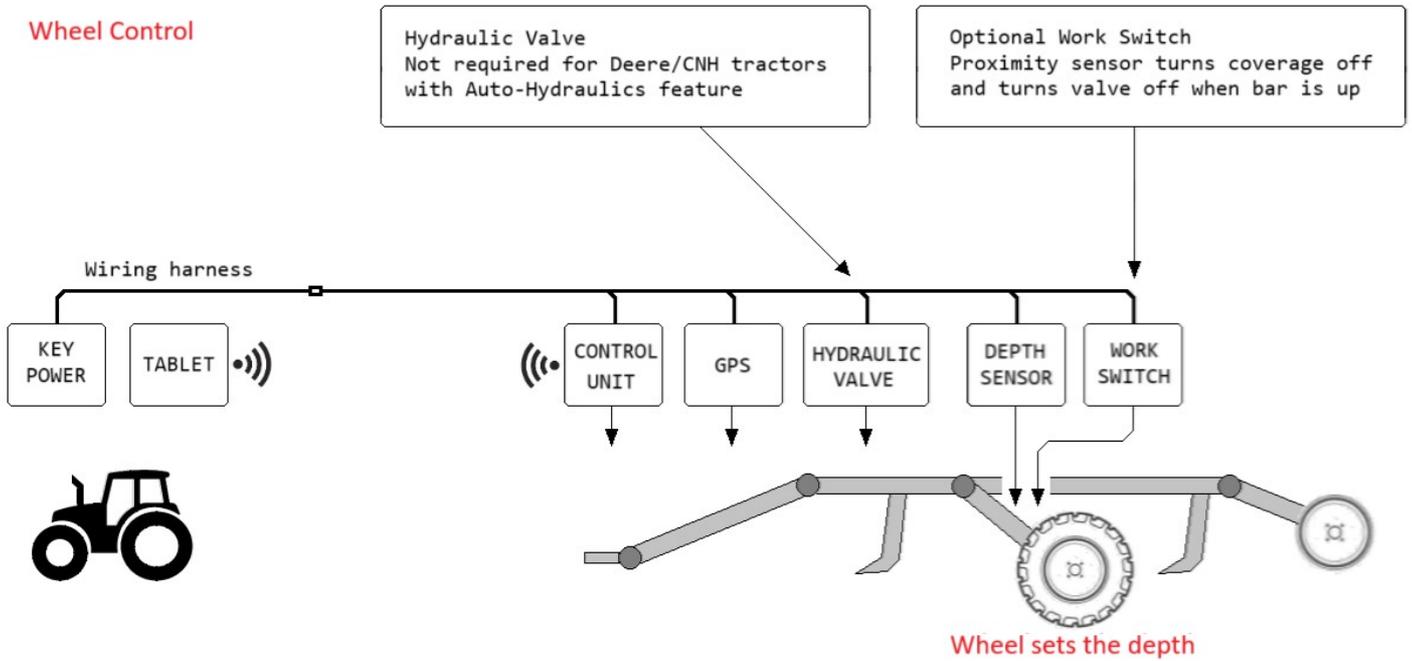
- Connect as shown below
- Use power from the ISO socket or a power outlet in the cab
- The ISO socket is used for power only, it is not connected to the tractor CANBUS
- Fit the GPS to the implement or the tractor, on the centre line
- The GPS communicates automatically with the control unit using wifi



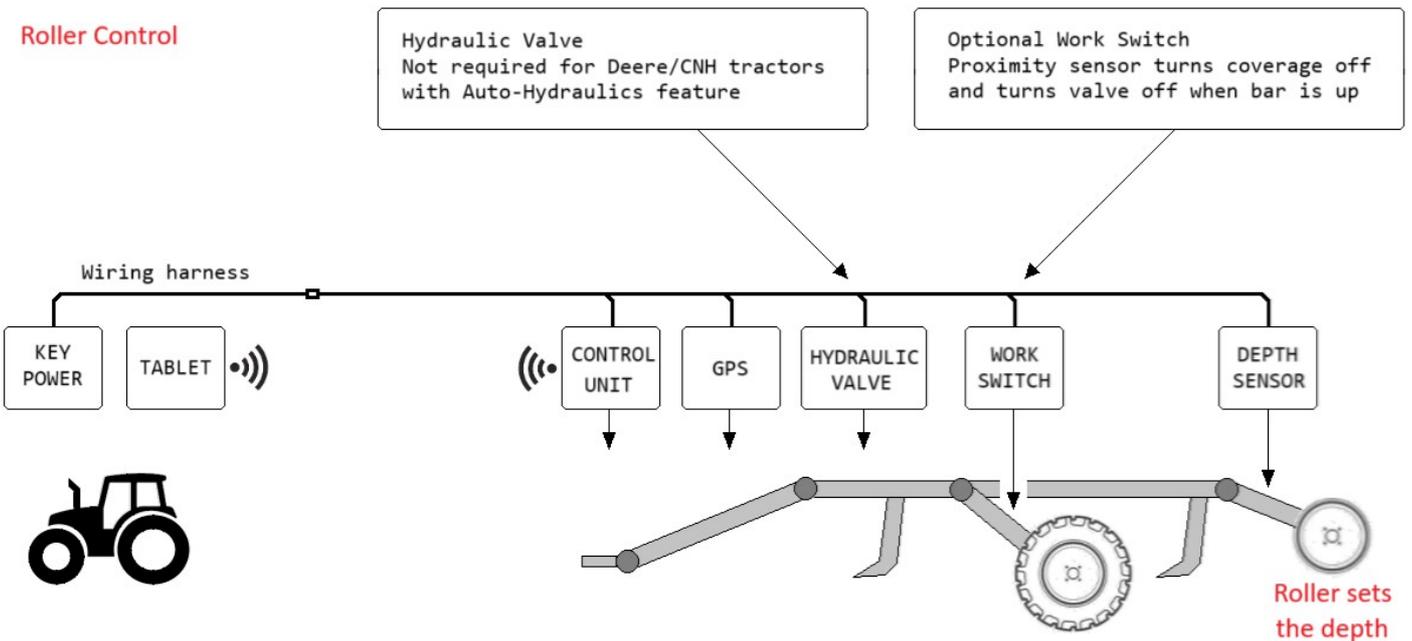
Install – Tractors without factory Auto-Hydraulics (uses solenoid valve to control depth)

- Connect as shown below
- Use power from the ISO socket or a power outlet in the cab
- The ISO socket is used for power only, it is not connected to the tractor CANBUS
- Fit the GPS to the implement or the tractor, on the centre line
- The GPS communicates automatically with the control unit using wifi

Wheel Control

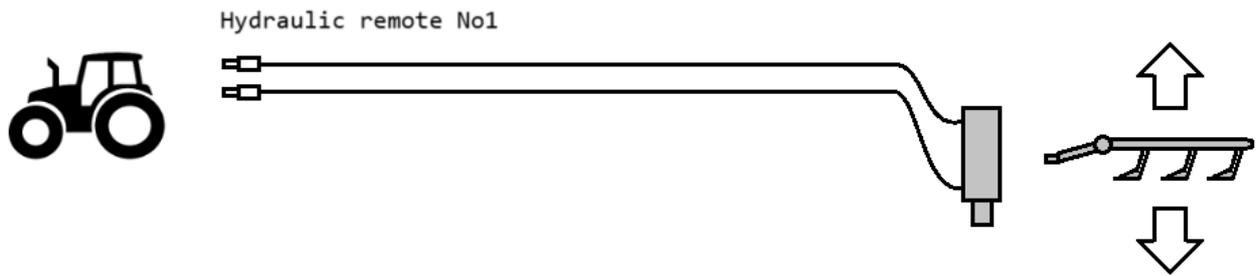


Roller Control



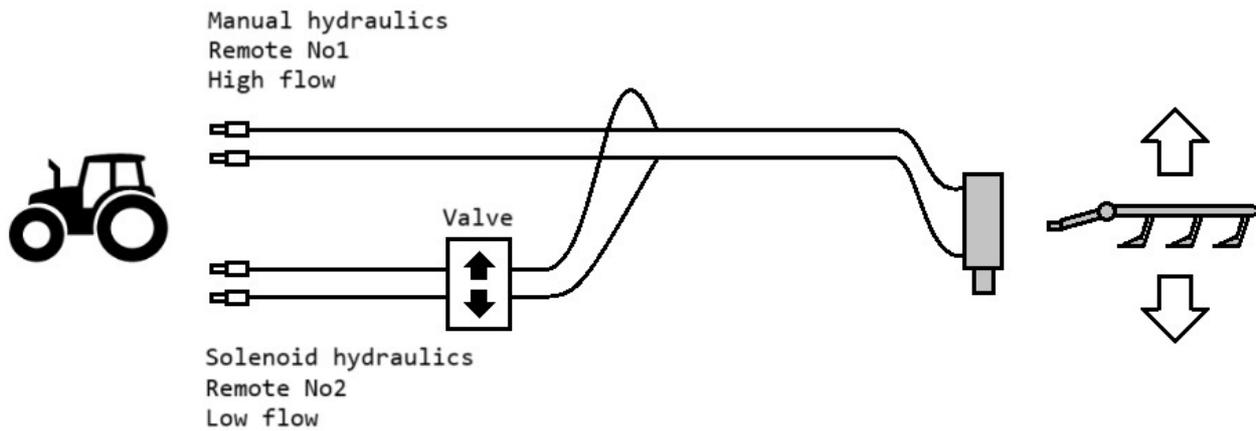
Auto Hydraulics

- Large Deere / CNH tractors have Auto-Hydraulics, allows external devices to control the tractor remotes
- Connect the raise/lower hoses to remote no 1
- Adjust the tractor remotes flow to set your desired raise/lower speed



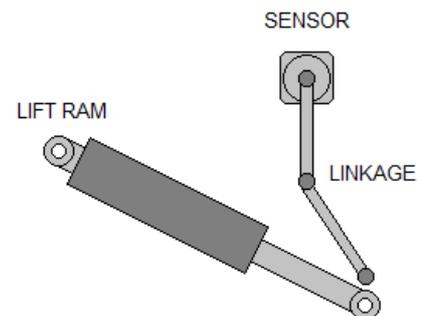
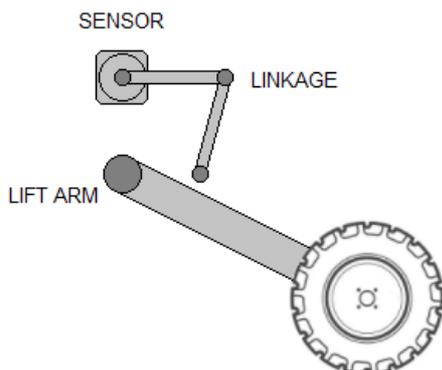
Solenoid Valve Hydraulics

- Tractors without factory Auto-Hydraulics will need a solenoid valve on the implement
- Connect the main hoses to remote no 1, dial the flow up high, use this to manually raise and lower the implement
- Connect the aux hoses to remote no 2, dial the flow below 50%, use this remote for auto depth control



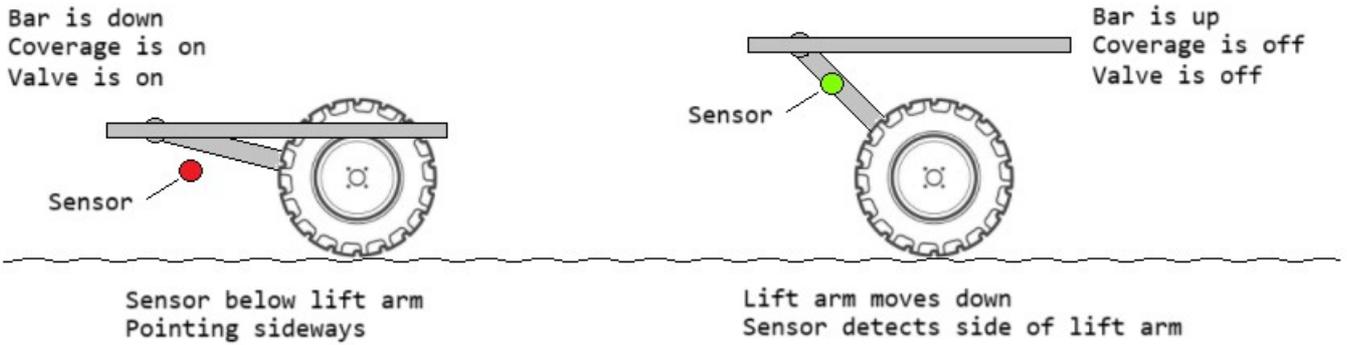
Depth Sensor

- Fit the sensor to the rear roller lift arms
- The rotary sensor reads the lift arm or lift ram position
- Fit the sensor and linkage so it travels freely for the entire raise or lower movement
- The sensor can be mounted in any direction, the sensor calibration will orient it correctly



Work Switch

- Optional not essential
- On / Off proximity sensor
- Turns off coverage and turns off the hydraulic valve when the bar is up
- Point the sensor towards the side of the main lift arm
- When the bar is up, the sensor should be on (LED turns on)



Power On

- The i4M controller takes a few seconds to boot up
- There is a diagnostic LED on the control unit and on the Tracer GPS
- The Tracer GPS will auto connect to the box after a few seconds



Clear = Power off



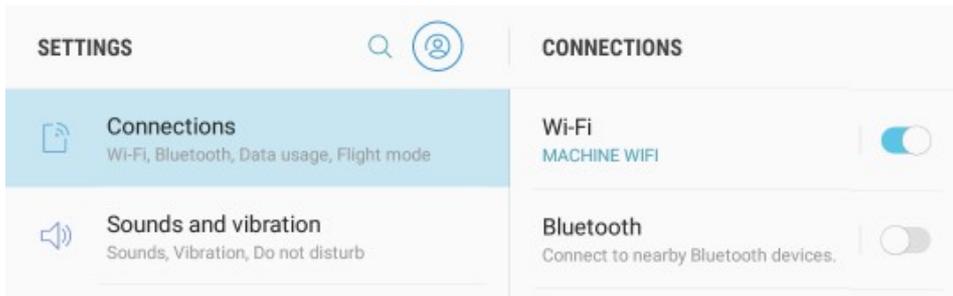
Red = Booting up



Green = Ready

Android App

- Install the [i4M Depth Command](#) app on your tablet
- After the app is installed, connect the tablet to the controller
- Open the wifi settings and connect to MACHINE WIFI 1



Machine Setup

- Open the i4M Depth Command app



- Tap SETTINGS > MACHINE

The screenshot shows the 'Machine Settings' screen. On the left is a navigation menu with 'Home', 'Settings' (checked with a green checkmark), 'Hectares', 'Machine' (highlighted with a green hand icon), 'GPS', 'Device', and 'Checks'. The main settings list includes:

- Implement width metres: 9.00
- Setup implement depth positions (i)
- Reverse the hydraulic flow direction (i) (highlighted with a red X)
- Hydraulic flow for fine adjustment (i): 40
- Valve green zone (i): 20

Callout boxes provide additional instructions:

- 'Enter machine width' points to the 9.00 value.
- 'Follow the steps in this depth calibration setup' points to the 'Setup implement depth positions' option.
- 'Tap this if the machine moves the wrong direction' points to the 'Reverse the hydraulic flow direction' option.
- 'These settings will improve the depth accuracy. Adjust them when you are working in the field' points to the 'Hydraulic flow for fine adjustment' and 'Valve green zone' options.

Setting Depths

-  Work Screen
-  Maps
-  Machine
-  Help

Go to the Home Menu
Tap Maps, so we can set the working
depth and recording files

Do you want to use a Prescription Map or Preset depth?

-  Use a Map
-  Preset Depth

Tap Preset Depth, so we can manually
enter some depths to control the
machine

Don't want to control the machine? Just record the depth.

-  Record Only

Enter depth to use on the Work Screen

- Preset 1
- Preset 2 (optional)
- Preset 3 (optional)

Enter a depth that you want the
machine to work at

You can enter more depths if you want
This will allow you to select different
depths on the run

Recording Files

-  Home
 -  Recording
 -  Help
- Enter depth to use on the Work Screen
- Preset 1
 - Preset 2 (optional)

Tap Recording, so we can select a
recording file

Home

Help

Choose a Recording File

Recording file 0 - Western Block 09

Recording file 1 - Deep Valley Field

Recording file 2 - Chief Wiggum's Back Yard

Edit

Recording file 3

You have 10 recording files
These files store your Coverage and Recorded data

Choose any file you want

Tap Edit to enter a name for the file

When you have finished the job, you can Export the recording file
You can also delete the recording

Operating the Machine

Work Screen

Maps

Machine

Help

From the Home Menu, tap Work Screen

Home

GPS



GPS Connected to Controller

Tap to turn ON/OFF
Or press the Master Switch

On / Off



WARNING: The implement will move!

0



Wifi



Wifi Connected to Controller

Hectares

250



Target depth
Tap to change preset depths

0



Tap to see Alerts

Actual live depth



Map and coverage settings

View Controls



Auto-Hydraulics Setup – DEERE Tractors

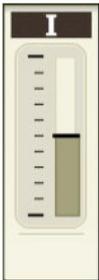
- **WARNING:** Prevent error codes - the key and battery isolator must be off
- Connect the Auto-Hydraulics cable to the 10pin metripack connector shown below
- Connect the hoses to tractor remote number 1
- Set the hydraulic flow to the speed you want (move the implement using the tractor lever)



AUTO CONNECTOR

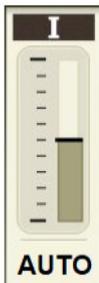
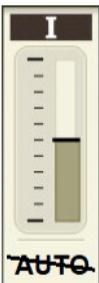


- Check the tractor hydraulic display shows AUTO below remote number 1



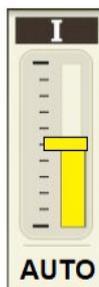
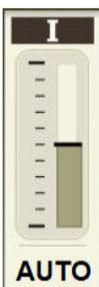
If AUTO is missing

- Turn tractor off, kill battery isolator
- Unplug the auto hydraulics connector
- Start the tractor
- Move the remote lever forward for 5 seconds
- Turn tractor off, kill battery isolator
- Plug in the auto hydraulics connector
- Start the tractor, check the display shows AUTO



If AUTO is crossed out

- Quickly click the lever forward and release it
- The line should disappear
- Don't click too far forward, that will engage float



If AUTO is showing

- The hydraulics will run automatically when the tablet commands it
- Display will turn yellow when oil is flowing
- The tractor must be moving (this is a tractor safety feature, cannot be changed)

Quick Manual Test

- Drive the tractor slowly (tractor must be moving)
- On the tablet go to SETTINGS > MACHINE and tap RAISE or LOWER
- The implement will raise or lower

Auto-Hydraulics Setup – CNH Tractors

- **WARNING:** Prevent error codes - the key and battery isolator must be off
- Connect the Auto-Hydraulics cable to the 6pin deutsch connector shown below
- Connect the hoses to tractor remote number 1
- Set the hydraulic flow to the speed you want (move the implement using the tractor lever)



- Check the tractor cornerpost display shows AUTO 1
- If not, you need to activate AUTO mode
- Steps may be different for some tractors, please contact your tractor dealer

Key off

Press the PROG button, do not release it

Key on

Wait 5 seconds

Release PROG button

Cornerpost shows CONFIG MENU

Select AUX/HITCH/PTO option from the list

Select EHR from the list (Electronic Hyd Controller)

Select AUX SETUP from the list

Set the SCRPR option to: 2 LASER

Select EXIT

- Press button 1 to put the remote in auto mode



Quick Manual Test

- Drive the tractor slowly (some machines need to be moving)
- On the tablet go to SETTINGS > MACHINE and tap RAISE or LOWER
- The implement will raise or lower

Hydraulic Setup Tips

- All tractors require some fine tuning
- Go to the Machine Settings menu

Machine Settings

9.00 Implement width metres

Setup Setup implement depth positions ⓘ

Reverse the hydraulic flow direction ⓘ

40 Hydraulic flow for fine adjustment ⓘ

20 Valve green zone ⓘ

Checks

• Hydraulic flow for fine adjustment

For tractors with Auto-Hydraulics only

When the machine is close to the target depth, it will adjust slowly

This setting controls the speed

Increase this if it is too slow or never reaches the target depth

Decrease this if it is too fast and overshoots the target depth

• Valve green zone

When the depth is in the green zone, the valve will stop adjusting

If the number is too large, it will stop before it reaches the target

If it's too small, it will never stop adjusting

Increase this if the machine overshoots the target depth and hunts up and down

Decrease this if it stops adjusting before it reaches the desired depth

Using Multiple Machines

- When using multiple machines nearby, set different network names for each machine
- The GPS must be connected to receive the new Wi-Fi network name
- To confirm your GPS is connected, go to CHECKS > GPS
- Then follow steps by tapping the Wi-Fi network name

Device Settings

Factory Setup Load the factory setup ⓘ

Reset All Reset all settings, products and calibrations ⓘ

MACHINE WIFI 1 Wi-Fi network name ⓘ

Checks

Prescription Maps

 Work Screen

  Maps

 Machine

 Help

Do you want to use a Prescription Map or Preset depth?

  Use a Map

 Preset Depth

 Home

 User 

 Download

 Help

Select a Prescription Map

 World Sample Map

Login to your i4M account

If you don't have an account:

- Create one online at i4m.tech
- Upload your shapefile maps

 Home

 User

 Download 

 Help

Select a Prescription Map

 World Sample Map

 Springfield Inc Harvey Yard depth Depth Test

 Springfield Inc Gravel Pit depth Depth Test 

 Recording

 Airstrip Dairy Main Block depth Depth Test

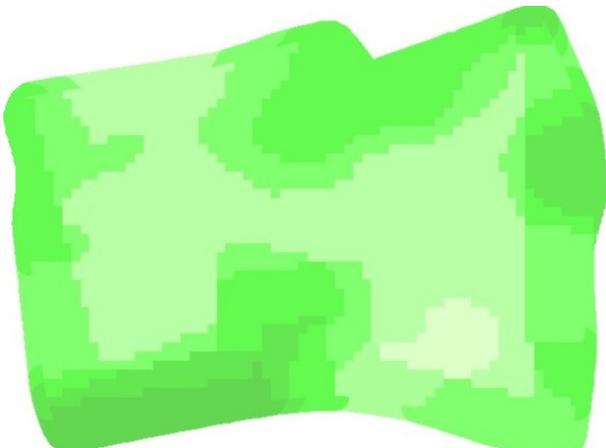
Download your maps

Select the map you want to use

 Home



On / Off 

0 

0 

0 

Go to the Work Screen

Your map will be loaded

