

**CROPLANDS**

**QUICK START GUIDE**  
**ORCHARD**  
**4000**

[WWW.CROPLANDS.COM.AU](http://WWW.CROPLANDS.COM.AU)

**STOP**

**BEFORE COMMENCING**  
operation, **ENSURE** you read  
& understand this manual, its  
contents, and any additional  
information supplied.



HT-ORCHHERB-QS1

# ORCHARD 4000

## QUICK START GUIDE

### SEE SEPARATE GUIDE FOR THE WEED-IT ORCHARD 4000

The Orchard 4000 (Standard) is a specialised trailed herbicide sprayer from Croplands for almonds or similar orchard crops with the unique combination of a front mounted boom for under tree and a rear mounted boom for centre row spacing.

**Note these units are “WEED-IT Ready”.**  
**See separate quick start guide for the WEEDit version.**

1. Rugged chassis with single axle / flotation tyres.
2. Front mounted under tree boom shrouds (L & R). Hydraulic fold & height adjustment. Manual width adjust. Fitted with 1/2-inch stainless boom tubes & single nozzle bodies positioned at 25 cm spacings. Fitted with 110 degree air induction nozzles. Fitted with adjustable dual fence line jets.
3. Rear mounted mid row boom shrouds (L & R). Manual fold from work position to transport position. Shear pin breakaway protection. Fitted with 1/2 inch stainless steel boom tubes & single nozzle bodies positioned at 50 cm spacings. Fitted with 110 degree air induction nozzles.
4. Maximum spray width is 6.5 metres (not including the adjustable “fence line” nozzles).
5. 4000 Litre main tank (other tank capacities are available to special order), with a 15 litre hand wash tank. Note there is no separate flushing tank.

6. Operator control panel for Fill, Probe & Agitation functions.
7. Hydraulically driven Centrifugal spray pump.
8. Arag Bravo 180S spray rate, 3 section controller and Arag switch box for boom control functions.

This quick start guide highlights the basic operational requirements. For broader information refer the operators manual HT-OMORCHHERB-B.

This version, dated 23/03/2023 is the original Quick Start Guide.



## ORCHARD 4000 QUICK START GUIDE

### SAFETY FIRST

Please read and understand all supplied manuals, guides and safety decals before operating this sprayer. This includes the **Croplands Operators Safety Manual** – as pictured here.

This manual is available on the Croplands Web site, or for printed versions contact Croplands customer support and ask for part number GP-SAFE-A (or later version if available).



### HAND WASH TANK

This sprayer is equipped with an external 15 litre HAND WASH tank. Front and rear mounted taps.



### HITCH SPRAYER TO TRACTOR

The tractor must be of a size and configuration suitable for towing this sprayer. Sprayer must be connected to a tractor before opening the boom. Use safety chains and wheel chocks where required.



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Weights, in spray mode, (aproximate), kg.

Empty tank, drawbar weight	tba
Empty tank, axle weight	tba
Full tank, drawbar weight	tba
Full tank, axle weight	tba

**CONNECT HYDRAULICS**

A single set of hydraulic hoses are used for all (closed centre) hydraulic functions ....

The hydraulic pressure line is identified with a double red band. Hydraulic functions include :

- Spray Pump
- Boom Height lift
- Boom Left Arm lift
- Boom Right Arm lift

Note hydraulic priority is given to the centrifugal pump.



For further questions on the pump's operations, consult the separate pump instruction manual that has been supplied at the time of delivery.

**CONNECT ELECTRICAL LOOMS**

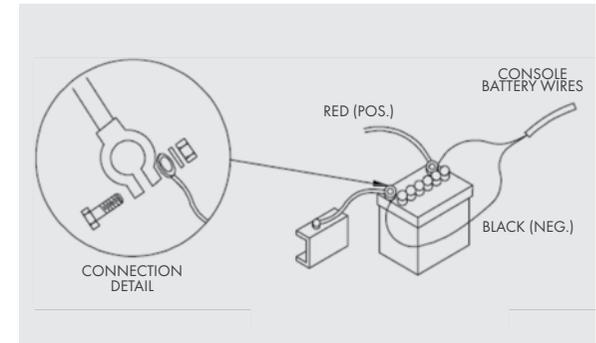
Connect the circular plug to the rear of the Arag Bravo 180S console.



Connect the rectangular plug to the Switch Box.



Connect both controller and switch box to tractor battery.



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### MAIN TANK BALL VALVE

The main ball valve has 3 positions. Always check this position before proceeding with filling, spraying, flushing or draining. The yellow handle has a "FLOW arrow".

<b>Left</b>	to the Pump / spraying
<b>Up (or down)</b>	OFF
<b>Right</b>	Drain



### FILL MAIN TANK

The main tank has a maximum capacity of 40000 Litres with fill via the top lid & basket (not recommended unless the work site has a purpose built platform to allow safe access to the lid), or .....

**Do not use the lid as a fill point unless the operator has purpose-built platform to allow safe access to the lid.**

Check the main tank ball valve / drain tap is closed / or Spray mode (pointing towards the pump).

Bottom Fill is via a 2" camlock fitting from an external water (and / or chemical source). Shown below left with the fill port capped and the valve turned off. Below right is connected to the water source and turned on. Note there is a one way valve to prevent flow back to the operator. Water supply must be filtered.



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### SETUP / CHECK FUNCTIONALITY

Before adding chemical to the tank, the functionality of the sprayer should be checked as it's much easier to resolve any problems at this stage.

- If starting up for the first time, or the first start up of a new spray program, a quick run through all boom, pump, spray functions and a check for leaks should be performed.
- Throughout a spray program – perform a walk around to visually check for leaks or unusual wear and tear.



Clean the filter before or after running the spray system. Wear GLOVES and appropriate PPE.

With the following tasks completed;

- sprayer hitched
- hydraulics connected
- spray controller connected
- hydraulic switch box connected
- water in the main tank and tractor running at an operational speed .....



1. Main tank ball valve set to the Pump / Spraying (left)



2. Panel's WEEDIT Ready valve set to OFF (vertical).  
Set the Agitator and Probe tap valve set to OFF (down)



3. Go to the Arag controller, turn on the master on/off switch and all three boom sections. Hold the manual pressure switch up for 5 seconds to set maximum pressure with all boom sections spraying. Note the photo above is of a 5 section controller (using middle 3 sections).

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4. Engage the pump, by turning the pump switch to ON (up)
5. Adjust the tractor's oil flow
- a. to the sprayer until 4 bar pressure is achieved at the pump (yellow arrow)
  - b. **This assumes the required spray pressure is 3 Bar** (as is the case for WEEDit versions). At this stage the spray pressure gauge will probably be reading between 3 to 4 Bar.



6. Adjust the Spray pressure via the pressure regulator
- a. whilst monitoring the main pressure gauge
  - b. Set to required pressure – nominally 3 Bar.



- Check that all nozzles are spraying correctly. Clean if required.
- Check for fence line operation – adjust spray position / turn off or on as required.



- Clean the filter before or after running the spray system.  
**Wear GLOVES and appropriate PPE.**

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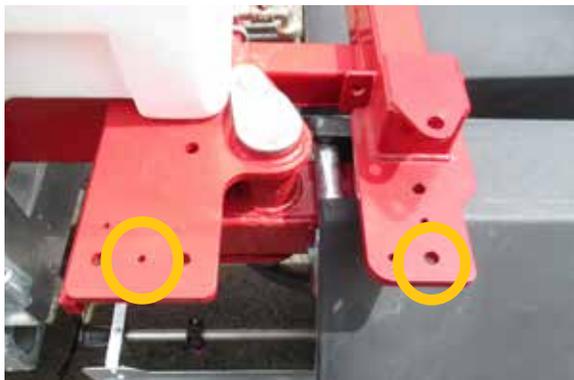


### CHECK BOOM FUNCTIONS

Use the hydraulic switch box to check boom functionality.

- Left arm – up and down (spray)
- Complete boom lift up and down
- Right arm – up and down (spray)

Check and adjust the boom width in the spray position vs next spray job plantings.



The rear boom is fixed – but foldable for transport. Shown here in the “folded” position. When open to the spray position, a 6 mm breakaway shear pin is installed (where circled). U-Bolts supplied (not shown here) for travelling in the fold back position.

### CHEMICAL INDUCTION PROBE

**Wear GLOVES and appropriate PPE.**

The probe is used to add chemical to the tank from a drum, bucket, etc.

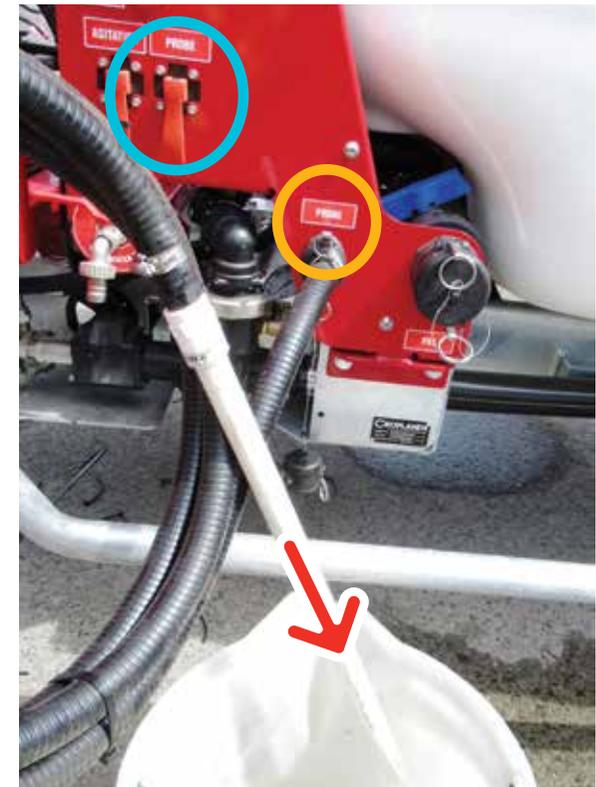
The main tank must have sufficient water to enable the pump’s operation for the duration of the probe’s use. Note as this is a closed circuit, all water returns to the Main tank.

Set main tank ball valve (ref p.4) to the left (pump/spray).

Connect the probe to the camlock fitting, (yellow circle).

Place the probe into the source container (use fresh water if checking the functionality).

Engage the pump (assuming sprayer hitched, hydraulics connected, switch box connected, tractor on), by turning the pump switch to ON, refer image below.



With the pump running, engage (lift) the PROBE tap (blue circle) whilst making sure the probe is in liquid (red arrow).

Once sufficient chemical has been transferred to the main tank, turn off the red tap valve. Note the photo is in the off position.

The probe should be rinsed by repeating the process with a supply of fresh water. Shut down and disconnect. Re-cap the probe port.

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### AGITATION

When chemical is added to the spray tank, the pump and agitator must be operating at all times to ensure chemical does not settle.

Agitation is via ...

1. Bypass flow from the pressure regulating and "dump" valves.
2. Rear venturi type agitator – activated via the red tap valve on the control panel (shown here in the ON position (**Green circle**)).

### PROCEED TO SPRAY

Once the pre-operation checks on the preceding pages has been completed, and chemical mixture is in the tank, proceed to spray:

- Anyone operating this sprayer must be conversant with the Croplands Safety manual.
- Spray operations should be done in conjunction with an agronomist/spray manager/someone skilled in the art of spraying and operating machinery.



The spray manager will have predetermined the job requirements, such as the following example ....

- The block to be sprayed, and hence row width and any special instruction on the setup
- Operating speed (often around 6 ~ 8 Kph)
- Application rate (for example 300 L/Hectare).
- The nozzles to be used
- Spray pressures to be used (normally around 3 bar)

**To stop spraying** at any stage, flick the switches down. The MASTER OFF is on the left hand side.



### DRAIN

Ensure the site for draining, flushing and cleaning the sprayer meets with environmental and statutory regulations. Open main tank drain valve to drain the remaining spray mixture from the tank



### FLUSHING

This sprayer is not equipped with an on board flushing tank. Flushing is via fresh water fills & drain (refer page 4), with agitator on and spray system pumping back to tank. Make sure to also flush the spray boom lines and filter.

For a more comprehensive clean, refer to **the full operators manual, HT-OMORCHHERB-B**

### NOTES:

The Orchard Herbicide Sprayer will be delivered with the following manuals ...

- This Quick Start Guide, part no. HT-ORCHHERB-QS 1
- The full Operators manual, part no. HT-OMORCHHERB-B
- Safety Manual, part no. GP-SAFE-A
- Sprayer Specification, Safety, Warranty & Delivery booklet, GP-WARB-B
- And relevant manuals for pumps and controllers etc.

The above manuals will be updated from time to time. When this happens the suffix will change from A to Z. For details not covered by this quick start guide or the operators manual(s), please contact Technical Support.

**ALL PARTS INFORMATION is now listed on the Croplands website.**

## NOTE

Contact Croplands Technical Support  
for further information:  
1300 650 724

- Go to [croplands.com.au](http://croplands.com.au)
- Search in the Parts Information section linked to the home page.

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