Fan Jet Duo TM

ORIGINAL OPERATING MANUAL & PARTS LIST

Read carefully before installation and operation

MADE IN BRITAIN
EST.1977

Stocks Ag Limited.
Cromwell Road, Wisbech, Cambridgeshires, PE14 0SD, UK
01945 464909 sales@stocks-ag.co.uk www.stocks-ag.co.uk

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E.C. DECLARATION OF CONFORMITY

Machine Type: Mounted Agricultural Implement - Pellet and Seed application broadcasters

Model(s):

Fan Jet Pro	All Variants and Versions
Fan Jet Pro Plus	All Variants and Versions
Fan Jet Twin	All Variants and Versions
Fan Jet Mini	All Variants and Versions
Fan Jet Duo	All Variants and Versions
Turbo Jet	All Variants and Versions
Rotor Meter	All Variants and Versions
Rotor Meter Air Force	All Variants and Versions
Micro Meter	All Variants and Versions
Maxi Meter	All Variants and Versions

Serial No. .....

Manufacturer:
Stocks Ag Ltd
Cromwell Road
Wisbech
Cambridgeshire PE14 OSD
United Kingdom

This is to declare that the above machine conforms to the relevant Essential Health and Safety Requirements of the Machinery Directive 2006/42/EC, implemented in the United Kingdom by Statutory Instrument 2008 No. 1597 – The Supply of Machinery (Safety) Regulations 2008 as amended.

The following standards have been applied in the design and construction of this machine:

BS EN ISO 12100:	2010	Safety of machinery – General principles for design – Risk assessment and Risk reduction.
BS EN ISO 4254-1:	2015	Agricultural machinery – Safety - General requirements.
BS EN ISO 4254-8:	2018	Agricultural machinery. Safety - Solid fertilizer distributors
BS EN ISO 13854:	2019	Safety of machinery – Minimum gaps to avoid crushing of parts of the human body.
BS EN ISO 13857:	2019	Safety of machinery – Safety distances to prevent hazard zones being reached by the upper and lower limbs.

The manufacturer stated above holds the technical file for this machine.

Signed on behalf of Stocks Ag Ltd

Name:..... J Woolway

Date: 06th August 2020

Position: Managing Director

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UKCA. DECLARATION OF CONFORMITY

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Signed on behalf of Stocks Ag Ltd

Name:..... J Woolway

Date: 01st December 2020

Position: Managing Director

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1.0 General Information

Congratulations on your Fan Jet Duo purchase:

Please check the machine for any transport damage upon receipt and advise your supplier of any problems immediately. Late claims regarding any damage may be rejected.

Specifications descriptions and illustrations in this manual are accurate at the time of this publication but may be subject to change these manual was correct at the time of printing but we reserve the right to change and improve them. This machine is designed with safety in mind. Maintenance and servicing in accordance with this manual will ensure safe operation and reliability of your machine for many years.

This Operating Manual forms part of the machine and must be readily available for the operator who must read and follow the points covered before use

1.1 Technical Data

Model: Fan Jet Duo Plus VS-2

Hopper capacity: 2 x 65 litre or 2 x 130 litre

Max spreading width: 36m

Recommended working width: 18-36m

Power Requirement: 60 amps

Motor outputs: 720 watts

Noise level: 95dB

Operating Voltage: 12v

***Combined data for both left and right hand machines**

65 litre machine:

Net weight: 90kg

Dimensions: (WxDxH) 50 x 56 x 82cm

(boxed 52cm x 58cm x 85cm)

130 litre machine:

Net weight: 98kg

Dimensions: (WxDxH) 61 x 61 x 95cm

(boxed 62cm x 62cm x 98cm)

1.2 Intended Use

This Fan Jet Duo has been designed for use in the agricultural, horticulture, and amenity sector to apply large dense slug pellets from 18-36m and various small seeds and granular products to varying widths depending upon the seed or product density. Can also be used for game cover cropping and as a game feeder.

The applicator can be mounted to operate facing forwards or backwards. Often mounted on the rear of drills and sets of rolls to apply slug pellets. Any other use is considered to be unintended and the manufacturer will not be liable for any resulting damage.

If mounting to a self propelled crop sprayers or tractor front linkage we recommend the use of our purpose built Central Mounting Beam and for suitable UTV vehicles our UTV fitting kit.

NOTE: When fitting to a UTV vehicle the minimum alternator output required is **55amps** and the spread width is limited to a maximum of a maximum of **32m** due to the power supply available and height of machine when mounted.

Any other use is considered to be non-intended and the manufacturer will not be liable for any resulting damage.

The manufacturer is not liable for any resulting damage if the machine is used for any other purpose than the intended use and also includes compliance with the conditions for operation, maintenance, and repairs prescribed within this instruction manual.

The applicable accident prevention regulations as well as the other generally safety-related, occupational health and road traffic regulations must also be observed.

1.3 Unintended Use

This machine is not designed to apply abrasive materials such as sand & grit or for applying salt products.

The operator alone bears the associated risk if used for non-intended use.

1.4 Machine Identification

Example Decal Only

The machine serial number decal is mounted on the steel chassis to one side of the hopper

1.5 Warranty

We provide a 12 month warranty from the date of invoice (the invoice for the machine will serve as a warranty certificate).

This warranty is applicable for cases of material or construction faults and does not include parts that are damaged by normal or excessive wear.

Warranty expires if damage is caused by external forces, operator error, modifications, jet washing or if the machine has been used for unintended use.

In the event of any problems, or before attempting any repair please contact the company from where the machine was purchased. If the base machine or the controls system are modified in any way this will void any warranty claim.

Please see our conditions of sale for full details, a copy of which available upon request.

Please record the machine serial number here: S/N .....

Purchase date: ..... Dealer .....

2.0 Safety

Ensure care is taken when lifting the machine. Safe lifting practice to be observed when handling as the net weight is over 25kg.

- We advise safety shoes and protective gloves are worn when handling the machine.
- Assistance will be required when lifting or lowering the machine.
- Care to be taken to avoid crushing due to the weight of the machine.
- When lifting or fitting the machine on to a parent vehicle or implement ensure work is performed on level ground or flat surface to avoid slipping, stumbling or falling.

PERSONAL PROTECTION EQUIPMENT

It is the responsibility of the operator or maintenance engineer to ensure safe handling of the machine and the appropriate personal protection equipment must be worn for the material being applied and to prevent contamination to the machine or the environment.

⚠ **WARNING! Ear protection required if working in close proximity to the machine as it exceeds 80dB.**

PRODUCT APPLIED

If applying slug pellets or other toxic material and the parent vehicle has a closed cab the operator must ensure the cabin is always closed and the air filter system is in good order. If fitted to a UTV vehicle ensure the stability of the parent vehicle is not affected when the machine is in use. If in doubt contact the vehicle manufacturer for more information. After working the machine ensure that any unused product is returned safely to its original packaging. Stocks Ag Ltd. does not accept any liability for the storage and use of the material being applied.

NOTE: If unsure contact your seed or product supplier for more information.

⚠ **WARNING! Always observe all application standards and guidelines provided by the product manufacturer as some seed dressings and granular products may be toxic.**

OPERATION AND MAINTENANCE

The machine may only be used, maintained and repaired by persons who have relevant experience or a machinery dealer who is aware of any risks involved. The applicable accident prevention regulations as well as the other generally safety related, occupational health and road traffic regulations must also be observed.

The manufacturer is not liable for any damage resulting from unauthorised modifications and the use of components and auxiliary parts. The machine must be checked regularly by the operator (before each use) for any damage, loose bolts or electrical connections, vibrations, unusual sounds, and to ensure they function correctly.

The machine must not be operated in wet weather conditions or during thunderstorms. Observe the generally applicable safety and accident prevention regulations. Always empty the hopper of toxic materials to prevent harm to humans and animals after each use and prior to storage.

⚠ **WARNING! Do not put your hands inside the hopper when the agitator motor is turning as the agitator shaft inside the hopper rotates at high speed and is sharp and dangerous**.

⚠ **WARNING! Always isolate the power supply if servicing or leaving the machine unattended.**

2.1 Safety Warning Decals

Important: **Be aware of the safety warning below which are all relevant to this machine**

⚠ WARNING!

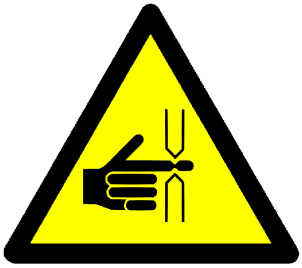
Read and understand the Operators Manual instructions before operating this machine.

Operator errors can result in serious injury.

⚠ WARNING!

Danger due to thrown or flying objects.

Always maintain a safe distance whilst the machine is in operation.



⚠ WARNING!

Risk of injury. Possible trapping point when tipping hopper.

⚠ WARNING!

Risk of injury.

Be aware the feed mechanism is powerful and can cause serious injury.

⚠ WARNING!

Keep Clear!

Maintain a safe distance from the machine when in operation.

Wear the appropriate protective personal equipment.

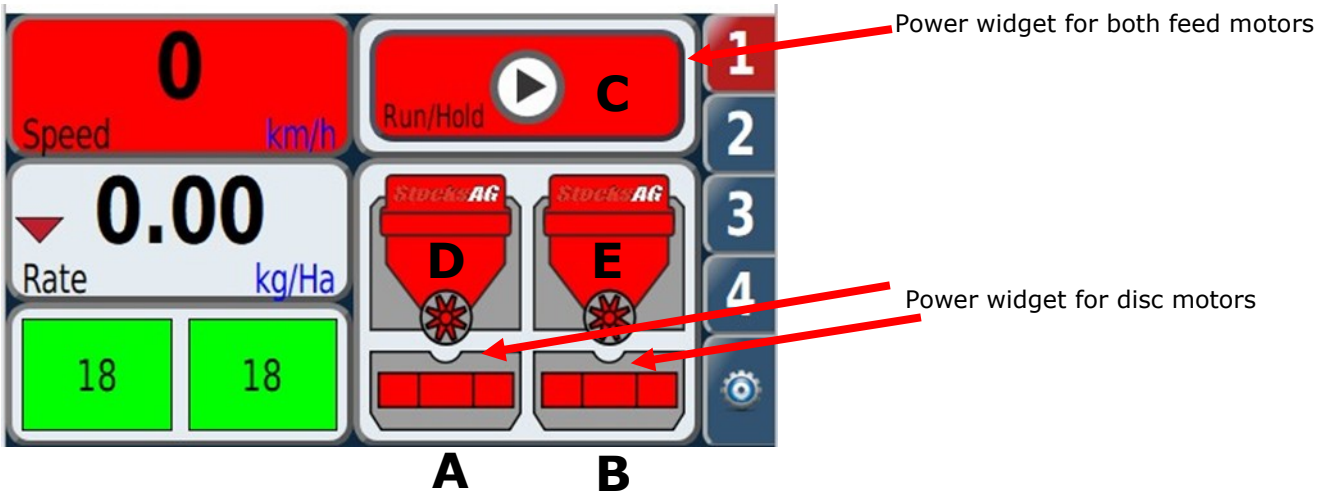
⚠ WARNING!

Do Not Jet Wash This machine is not designed to withstand Jet Washing.

3.0 Emergency Stop Instructions

In the case of an emergency always turn off the feed motors and spinning disc motors by touching widgets A B and C which will switch off the power to the feed and disc motors.

NOTE: Symbols A, B, C, D, and E should all be RED in colour to indicate all motors are off. Then isolate the power supply immediately by disconnecting the power cable at the battery.



4.0 Storage

Disconnect the power supply by unplugging the power cable or by removing the 60amp fuse fitted in the power cable.

It is the responsibility of the operator to ensure the hopper is empty after each and use and cleaned thoroughly before storage.

Store in dry conditions to protect the machine and control system from moisture.

Always clean and spray electrical connectors with a moisture repellent spray when not in use for long periods.

Fit the PVC waterproof cover (if available).

Ensure feed blocks are free to turn and all electrical cables checked following periods of storage.

5.0 PVC Waterproof Covers - Optional

Heavy duty White PVC covers fitted with eyelets and bungie cord for easy attachment available for all machines.

Please contact your locals Stocks Ag Ltd dealer for more information.

Heavy duty White PVC covers available— Sold Individually

65L Waterproof PVC Covers- **Part No. 45FJT5003**

130L Waterproof PVC Covers- **Part No. 45FJT5008**

6.0 Disposal

Ensure that any persons handling the machine are aware that the machine may have been used to apply toxic chemicals and so the appropriate personal protection equipment should be worn.

Ensure the hopper contents have been removed and any toxic residue removed and put back into a sealed container or disposed of in accordance with the manufacturers guidelines to eliminate any possible contamination of others or the environment.

Always adhere to the local disposal regulations paying particular attention to the plastics, rubber, and electrical components.

7.0 General Maintenance

⚠ **WARNING! Always ensure the power supply is disconnected before any maintenance work or cleaning of this machine.**

The machine must be checked regularly by the operator for any damage loose bolts or electrical connections, vibrations, unusual sounds, and to ensure they function correctly.

⚠ **WARNING! Protective clothing must be worn when applying or handling toxic products.**

Always observe all guidelines provided by the product manufacturer with regards to handling, storage and disposal of products. Take care not to spill any product that could contaminate the machine or the environment ensuring any product removed from the machine is put back into its original container.

7.1 Before Use

1. Ensure the machine is securely mounted.

2. Check the power supply.

3. Check the feed block assembly to ensure the feed rollers are clean and replace any worn feed rollers.

4. Check the feed rollers rotate freely before starting work.

7.2 Daily Checks

1. Check the disc to motor shaft socket screws on the lower side of the spinning disc to ensure they are tight and the spinning turns with the motor.

2. Check the stainless disc vanes for any wear or distortion and replace prior to use if necessary. Vane Kit available if required: Part Number FJ009C (set of vanes and fixings for one disc assembly).

3. Check the feed block assembly to ensure the feed rollers rotate freely.

7.3 After Each Use

1. Empty hopper before removing the feed block assembly and clean the machine thoroughly ensuring all pellets residue has been cleaned from the hopper feed rollers and body of the machine.

2. Store in dry conditions to protect the machine and control system from moisture.

⚠ **WARNING!**

DO NOT JET WASH THIS MACHINE

8.0 Installation Guide

Safe lifting practice to be observed when handling the machine as the net weight is over 25kg.

Safety shoes and protective gloves to be worn when handling the machine.

With a full hopper the 65L machine could weigh in excess of 80kg and the 130L machine 135kg and so ensure the machine is securely attached to a suitably strong rigid mounting point.

We recommend front mounting direct to the chassis of self propelled sprayers or tractor front linkage, using the bolt holes provided in a large vertical bracket of the Central Beam Assembly

NOTE: Many self propelled sprayer manufacturers offer a suitable bracket or hydraulic raise and lower linkage for this purpose.

Locally fabricated mounting frames are not the responsibility of Stocks Ag Ltd.

If unsure seek advise from the parent machine manufacturer or supplier.

Ensure the disc height is a minimum of 1.5 metre above the crop canopy or the ground – more height may improve the maximum spread width. **(minimum disc height of 2m required for 36m work)**
Ensure the power cable is connected direct to the parent vehicle 12v battery and the fuse is fitted correctly.

Always adhere to Health and Safety guidelines when mounting or fabricating an appropriate mounting frame and always wear suitable protective clothing.

8.1 Central Beam Assembly - Optional

Central Beam: Part No. 45FJT5600
(available through your local dealer)

Heavy duty tubular design offers a sturdy support for the two hopper units when fitting to the front of a SP sprayer or tractor.

Approx. dimensions of unit when assembled.

65L machines (W) 960 x (H) 700 x (L) 1250.

130L machines (W) 960 x (H) 700 x (L) 1350.

Approx. weight 130 and 135kg.

8.2 UTV Fitting Kit - Optional

UTV Fitting Kit: Part Number 45FJT5132 (available through your local dealer).

Offering a sturdy fitting option for most UTV fitments with 4 hooked anchor points with hand release fittings.

One piece tubular steel construction with detachable machine mounting plates.

Fixed fork lift point offers safe and easy lifting on and off of the utility vehicle.

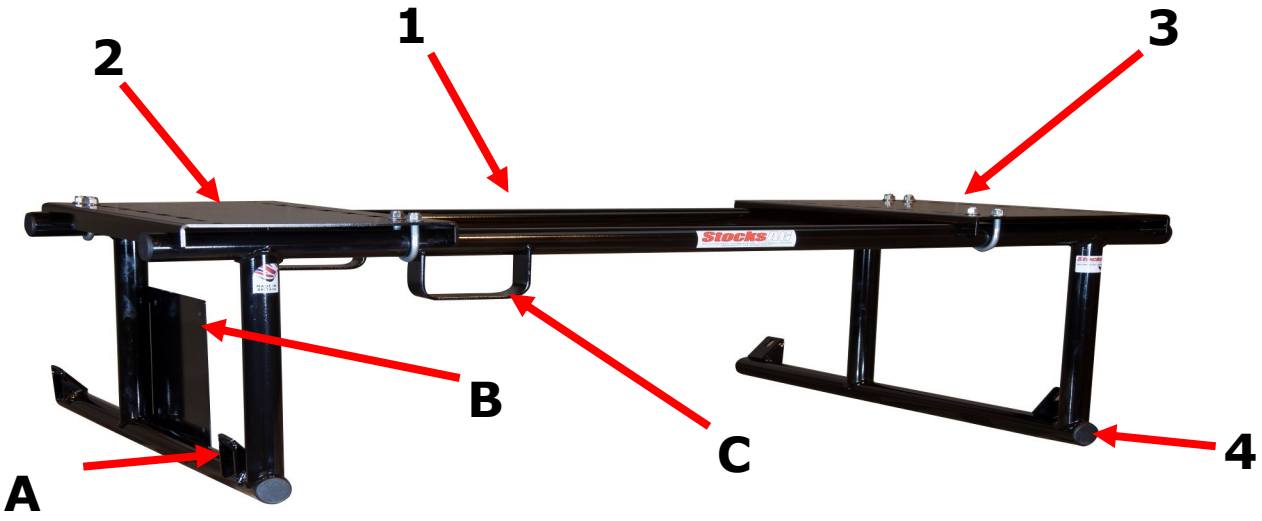
8.3 UTV Fitting Kit Parts - Optional

Part No. 45FJT5132 (available through your local dealer).

Offering a sturdy fitting option with 4 hooked anchor points with hand release fittings our UTV kit is suitable for most common UTV fitments.

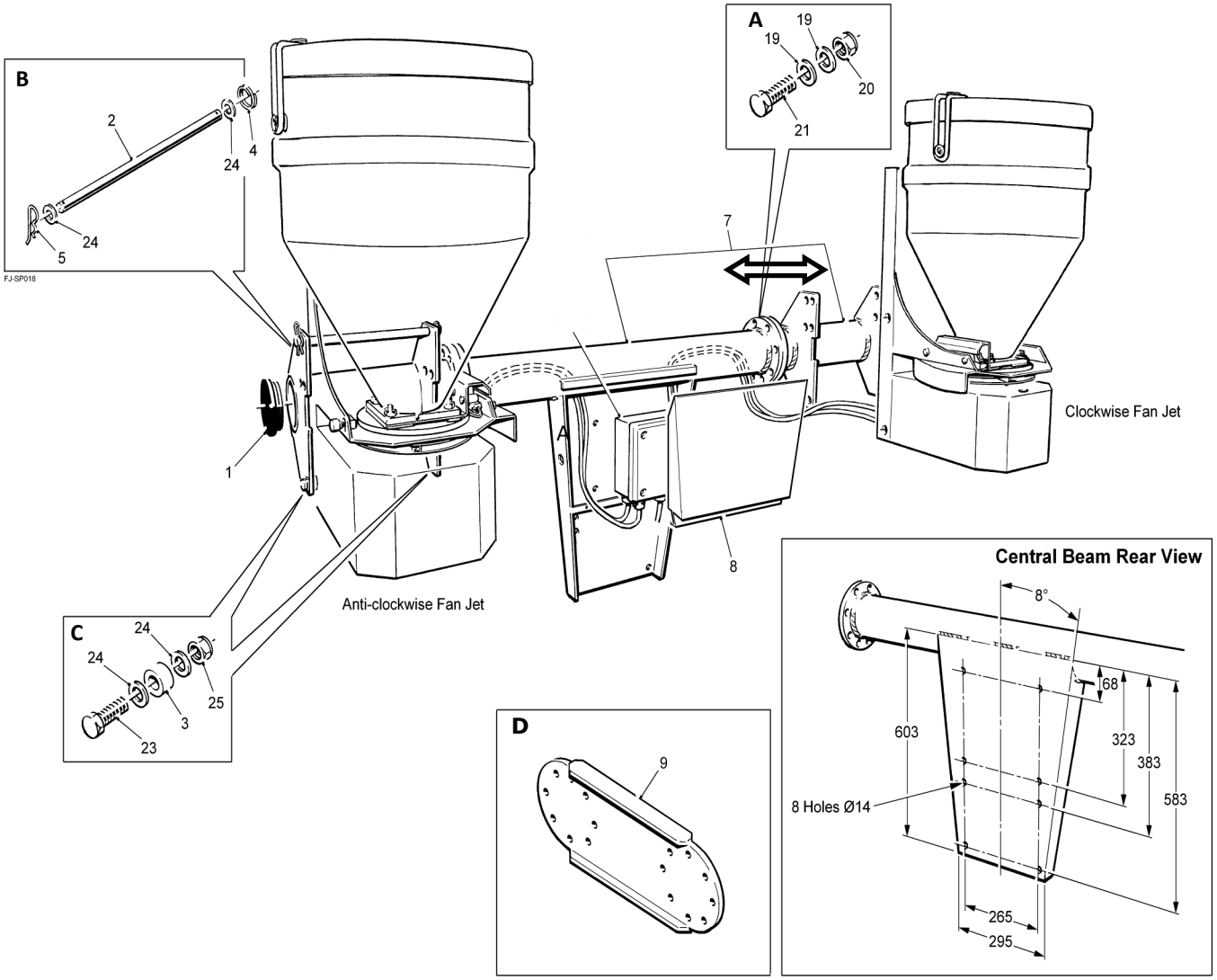
One piece tubular steel construction with detachable machine mounting plates with fixed fork lift point for safe and easy lifting on and off of vehicle.

Standard dimensions: 1220mm wide x 900mm deep x 350mm high.



Item	Part No.	Description	Qty.	Remarks
1	FJ800A	Main Frame		
2	FJ805	Machine Mounting Plate	2	
3	FJ810	"U" Bolt	8	
4	FJ811	Protective PVC End Cap	8	
5	FJ809	M12 PVC Handwheel	4	(not shown)
6	FJ807A	Retaining Hook	4	(not shown)
7	FJ814	*Underfloor Strengthening Bar		Cost option (not shown)
*available upon request to reinforce the floor area of the UTV if required to enable mounting points to be used				
A		Fixing Points	4	
B		Plate for VS-2 Control Junction Box	1	Not used on the TM model
C		Forklift Point	1	

8.4 Central Beam Assembly Parts - Optional



Ensure care is taken when lifting and securing the central beam to the parent vehicle and when fitting the machines onto the beam.

Safe lifting practice to be observed when handling each component each net weight is over 25kg.

1. Attach the two outer beam sections to the centre section (**7**)using the fixing bolt kit (fig **A**) provided ensuring not to trap the electrical supply cables.

2. Attach machines to the outer beam section by using the tipping pin components (fig **B**) and pivot fixing bolts and spacers (fig **C**) provided. The steel tipping pins then secured in position by the 'R' clips (**5**).

NOTE: There are 2 positions for the pin – use these to help level the Fan Jet.

3. Connect all electrical cables to each Fan Jet unit as required.

Ensure there is sufficient room to tip the hopper for emptying and ensure any potential trapping points are noted taking care not to trap hands or fingers.

The machine must be on level ground or flat surface before tipping the hopper to avoid the hopper accidently tipping forward once the tipping pin has been removed.

To tip the hopper, remove the pin whilst supporting the hopper, lower gently when emptying the hopper.

NOTE: Adaptor plates shown in fig D are not included as part of the standard kit (for more information contact your local Stocks Ag dealer)

8.5 Central Beam Assembly Parts List

Part No. 45FJT5600

Item	Part No.	Description	Qty.	Remarks
1	FJ090A	Ø114.3 PVC End Cap	2	
2	FJ415D	Tipping Plate Pin	1	
3	FJ417A	Nylon Spacer	1	
4	FJ418A	Split Ring	1	
5	FJ419A	3mm 'R' Pin	2	
8	FJ630A	Guard Panel	1	
9	FJ601B	Adaptor Plate Kit (pair of adaptor plates c/w fixings)	--	Cost Option
19	M10-016	M10 Flat Washer	32	
20	M10-024	M10 Nyloc Nut	16	
21	M10-009	M10x40 Set Screw	16	
23	M12-006	M12x40 Screw	4	
24	M12-008	M12 Flat Washer	12	
25	M12-014	M12 Nyloc Nut	4	

8.6 Mounting Plate - Optional

Part No. 45FJT5139 (available through your local dealer)

Machines are best mounted to our purpose built Central Beams or UTV kits but can also be mounted by using these optional tipping base plate kits.

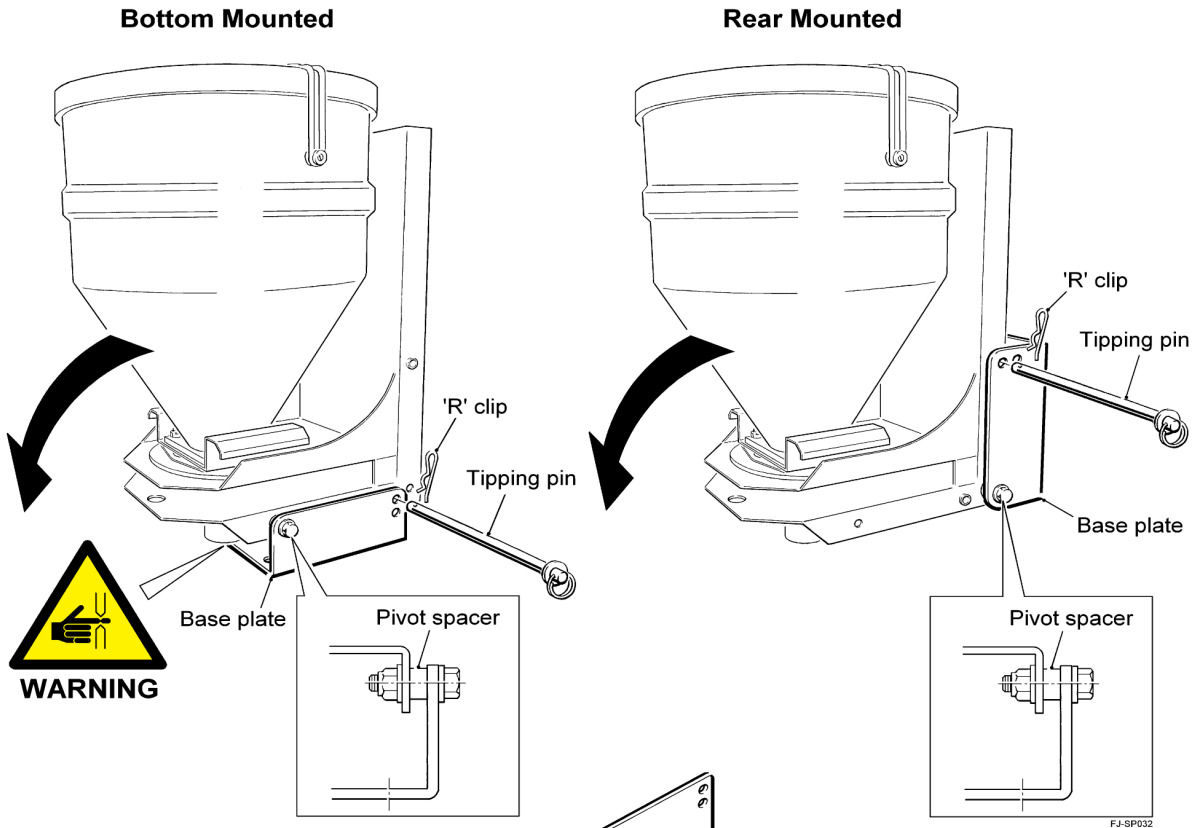
These have 4 holes in the base to take M12 bolts (see below) use these to attach to any support fabrication. The base plate can be repositioned to fit the holes in the back of the machine to attach to a vertical mounting point – use whichever is best for you.

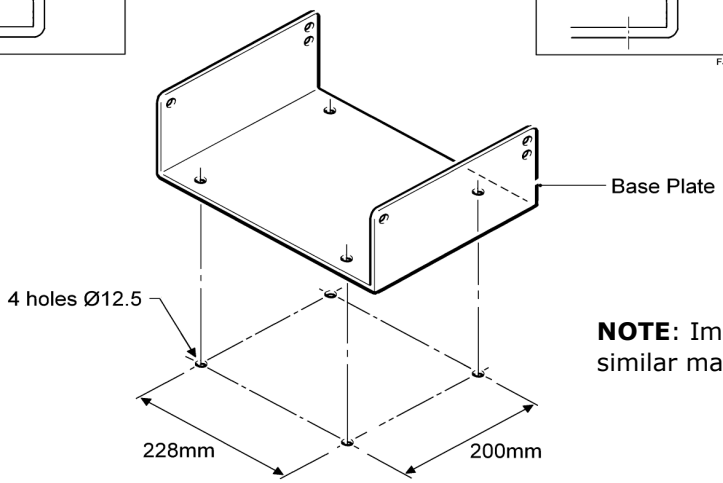
Ensure there is sufficient room to tip the hopper for emptying and ensure any potential trapping points are noted taking care not to trap hands or fingers.

The tipping base plate is attached to the chassis by 2 bolts and spacers which act as the pivot, and a removable steel pin secured by an 'R' clip **(as when fitting to the optional Central Beam or UTV kit)** There are 2 positions for the pin – use these to help level the Fan Jet.

The machine must be on level ground or flat surface before tipping the hopper to avoid the hopper accidently tipping forward once the tipping pin has been removed.

To tip the hopper, remove the pin whilst supporting the hopper, lower gently when emptying the hopper.





PLEASE NOTE

Not required if fitting to a Central Beam.

Supplied as part of the UTV fitting kit.

NOTE: Image of similar machine.

9.0 Hopper Emptying & Removal Procedure

Removing the hopper for cleaning and maintenance.

Ensure appropriate personal protection equipment is worn for the product being applied.

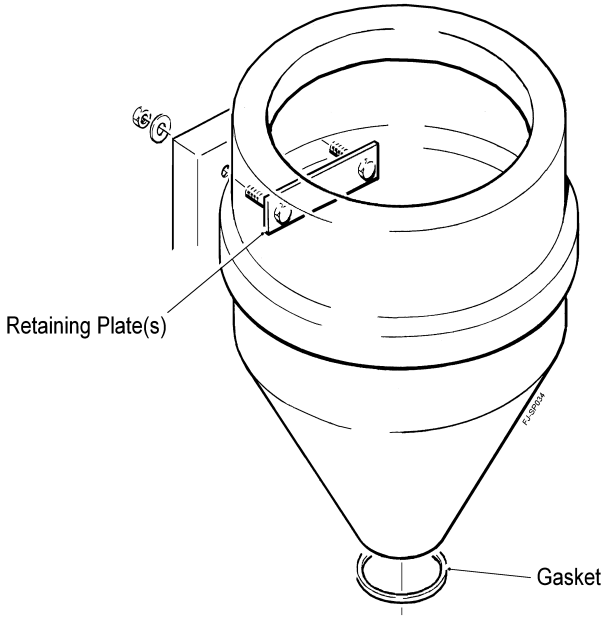
Ensure there is sufficient room to tip the hopper for emptying and ensure any potential trapping points are noted, taking care not to trap hands or fingers.

NOTE: The machine must be on level ground or flat surface before tipping the hopper to avoid the hopper accidently tipping forward once the tipping pin has been removed.

Release the rubber lid retaining straps and remove the lid.

To tip the hopper, remove the R Clip and washer. Whilst supporting the hopper, remove the Tipping Pin, lowering gently when emptying the hopper through the three outlet holes in the top. When replacing the hopper ensure the gasket fitted under the base of the hopper is in good order.

Replace if damaged: Part number FJ017S.



9.1 Clearing a Blockage

Switch off the main power switch on the control panel.

Ensure the parent machine is stationary, switched off, and parked on level ground.

Ensure the main power switch on the control panel is off and unplug the 2 core power supply cable from the control box or disconnecting the power cable from the vehicle battery.

Ensure appropriate personal protection equipment is worn for the product being applied.

Ensure any product removed is put back into its original container.

Care to be taken not to spill any product that could contamination the environment.

9.2 Hopper Level Sensor

This hopper level sensor is supplied at standard with TM models only.

The alarm will sound once the product in hopper drops below the level of the sensor.

Recommended if the hopers are not in full view of the operator.

Part No. TM016

10.0 Control System Overview

Key Features

- 4.3" (10.9 cm) touchscreen display supplied with Ram ™ mount
- Internal 900mb storage and 256mb RAM
- 1 CAN interface
- 1 RS 232 for GPS input
- 1 x USB for data up/down load

Featuring 4 main run screens to enable the user to switch between the home screen with Widget, parameters screen, details screen and mapping/camera screen.

The "TM" controller is a simple, easy-to-use full colour touchscreen display.

It has a single, compact 4.3-inch touchscreen display that controls all the key functions of the Fan Jet Duo as well as displaying all the important information.

The home screen incorporates an integrated widget displaying feedback information regarding disc and feed motor function. Application rate and forward speed are also displayed along with the cutting-edge feature, section control.

Section control is a user defined parameter, enabling the operator to reduce, the disc speed and thus the spread width down by the single press of an icon on the main home screen for either sides of the machine.

As the disc speed is reduced the application rate is also reduced to match, ensuring a consistent application rate.

Headland mode is another new feature, enabling the operator to define the field boundary with the first pass around the field. The application rate will switch from on to off automatically once a percentage of the spread width is within the already applied section of the coverage map.

To ensure high levels of accuracy are possible in terms of recording as well as application, the controller's software incorporates features enabling products to be 'created' and stored and allowing calibration settings to be recorded for each new product. In addition, there is a job creation and export feature that enables each field task to be recorded.

The unit is also capable of governing variable rate application in conjunction with an uploaded application prescription map, which can be observed in real time through the display.

⚠ **WARINING! Failure to connect to the vehicle battery may result in control function problems and possible damage to the vehicle battery. The charging system must be in good condition to achieve the best results.**

All cables and controls are fitted with matching plugs and sockets. Extension cables available from your local Stocks Ag dealer

⚠ **WARNING! Any modification to the wiring, fuse holder or controls will invalidate any warranty claim and may affect the performance of the Fan Jet. Always replace any blown fuse with the same type and amp rated fuse as the original one fitted.**

11.0 Electrical Connections

When connecting the system it must be connected to a +12V power supply.

Recommended output voltage is approximately 13.6V.

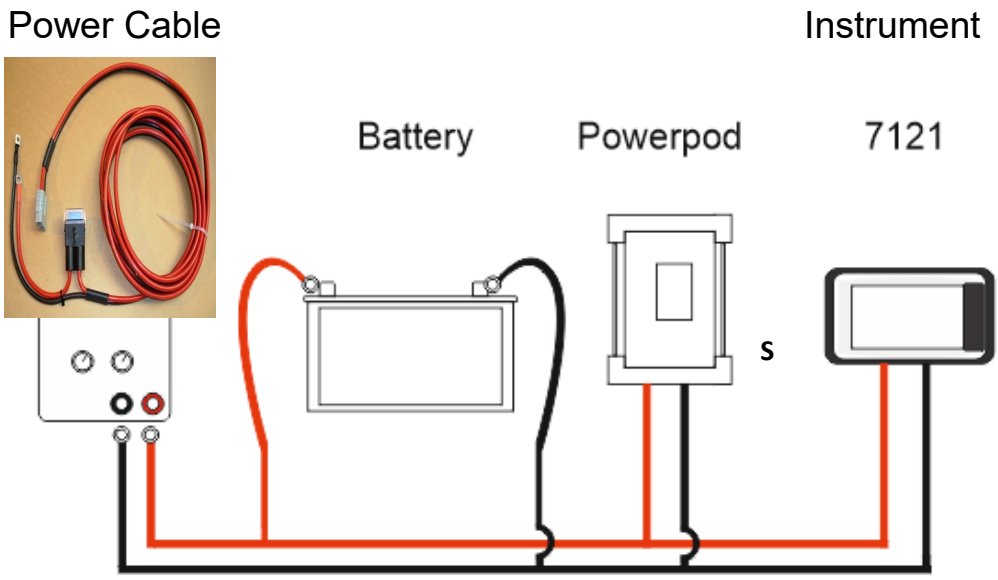
Ensure the battery is connected to the power supply BEFORE the Powerpod and Instrument screen are connected.

After connecting the main power supply, connect the 3 way COBO plug from the instrument screen power cable into the tractor cab socket (or connect to a suitable 5 amp supply).

When using a switch mode power supply – ensure that a battery is also connected in parallel to overcome the limitations of the switch mode power supply.

Always use the heavy duty fused 5m power cable supplied and connect directly to the vehicle battery to ensure adequate maximum voltage to the spinning discs. The in-line fuse fitted needs to be 60 amp. (Ensure the **RED** fused wire is connected to the **positive** (+) terminal).

NOTE: Extension power and instrument cables available through your local Stocks Ag dealer.



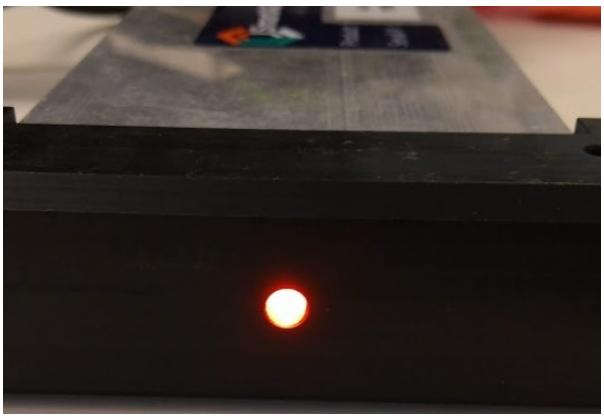
NOTE: Powerpods are mounted at the rear of each hopper unit and can be accessed by removing the protective cover plate.

Each has a single light in the top of the case which changes colour to indicate the following:

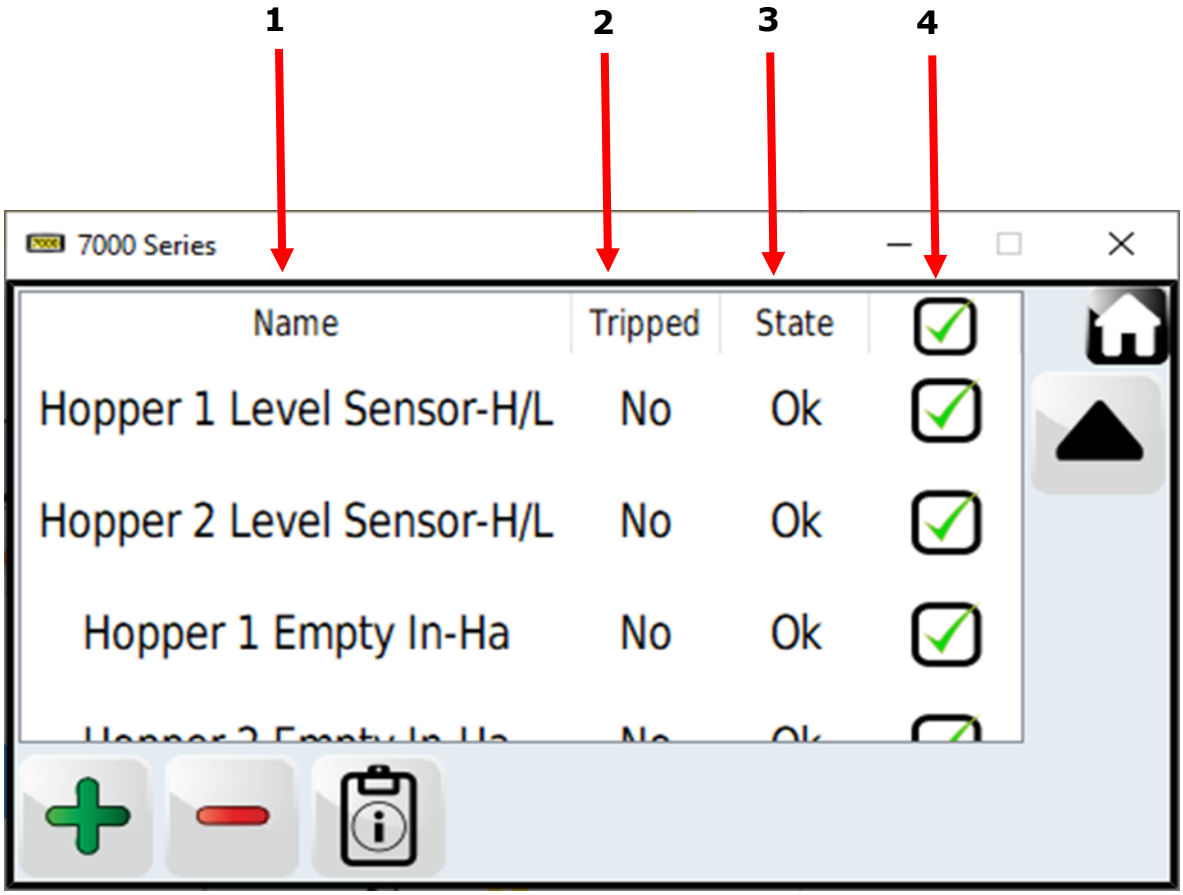
Red light power supply to the unit.

Orange light power supply and instrument cable connected / a CANBus signal located.

Green/ Flashing system running / machine operating with power to the feed and disc motors.



12.0 Alarm Functions



1. **Alarm Title**
    a. The title of the Alarm, it indicates what the alarm is monitoring.

2. **Alarm Tripped Status**
    a. Indicates whether the Alarm has been 'Tripped'.
    b. An Alarm is 'Tripped' if it has gone into the 'Alarm' state and has not been reset yet.

3. **Alarm State Status**
    a. Indicates whether the Alarm is in 'Alarm' or 'Ok' state.
    b. An Alarm is in the 'Alarm' state when it has exceeded a given limit set for the Alarm. e.g. Speed going over a maximum speed or Tank level going below a minimum level.

4. **Alarm Active/Inactive**
    a. Select this checkbox to turn the Alarm active or inactive.
    b. A tick in the box indicates the Alarm is active.

⚠ **WARNING! Inactive Alarms will not indicate when their set limits have been exceeded.**

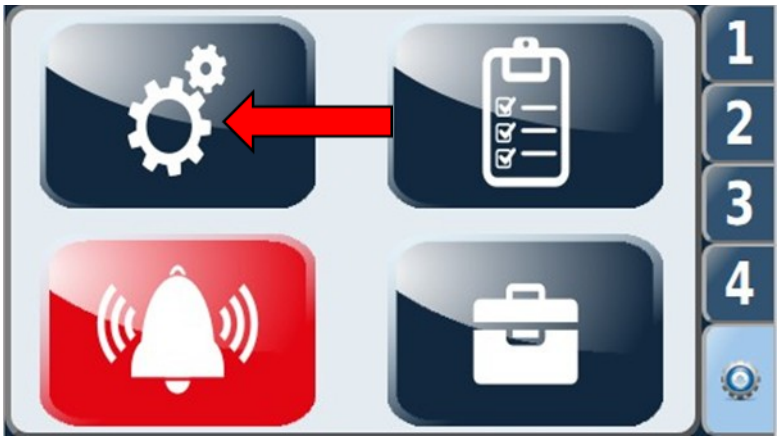
13.0 Configuration

Assigning PODS

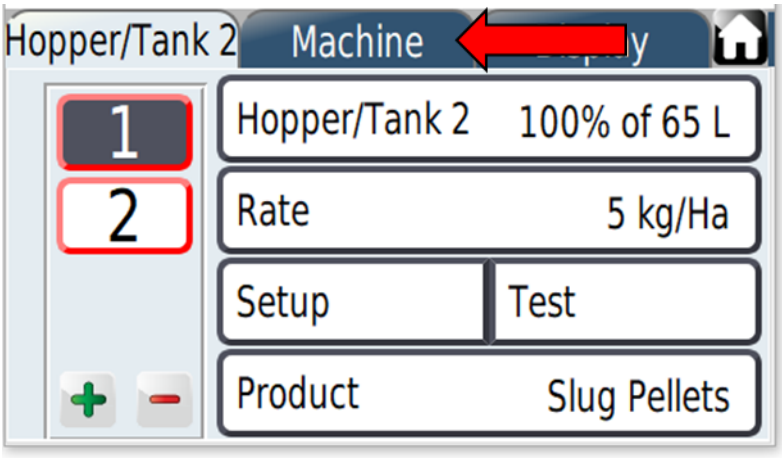
The hopper icons shown on the instrument screen are defaulted for a forward mounted machine.

If the machines are to be mounted on the rear, please follow the below procedure to switch the on-screen display so that the hopper icons are shown on the correct side.

From the home screen, press the gears icon in the bottom right.

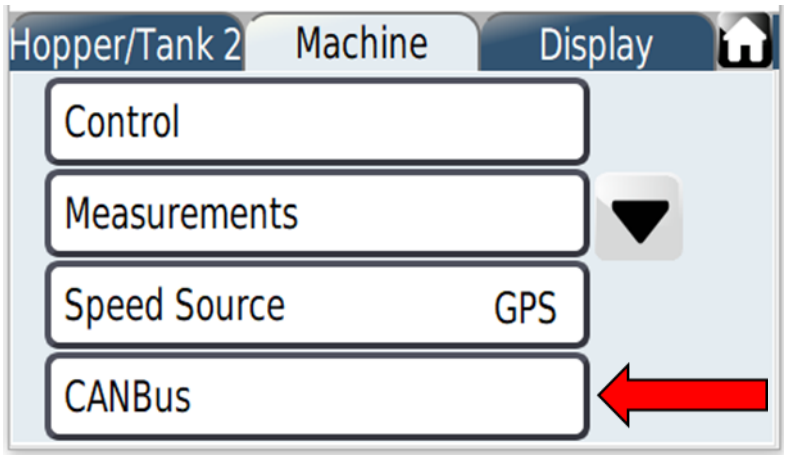


Then press the larger gears icon in the top left.

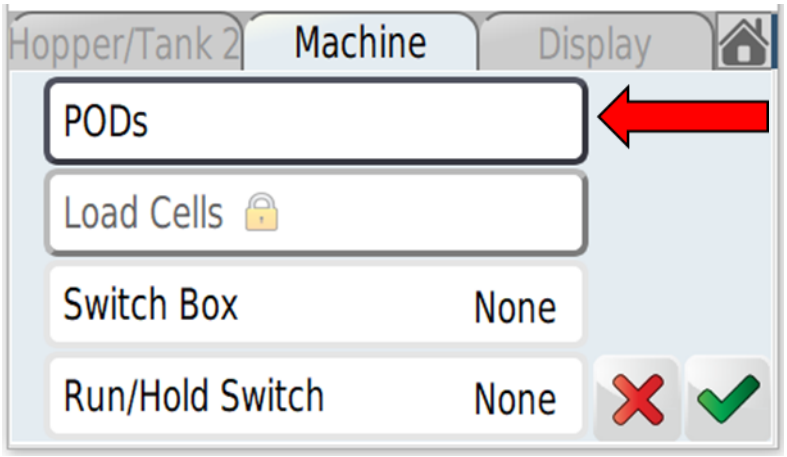


Select the Machine tap from the top.

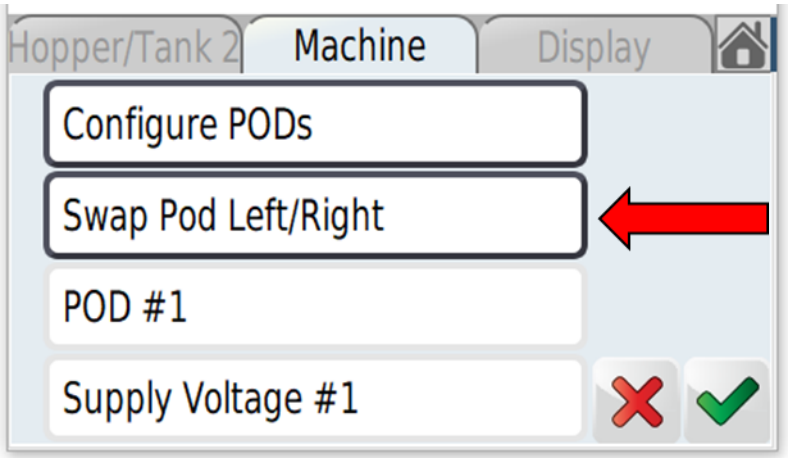
13.1 Configuration Continued



Press the CANBus tab from the menu.



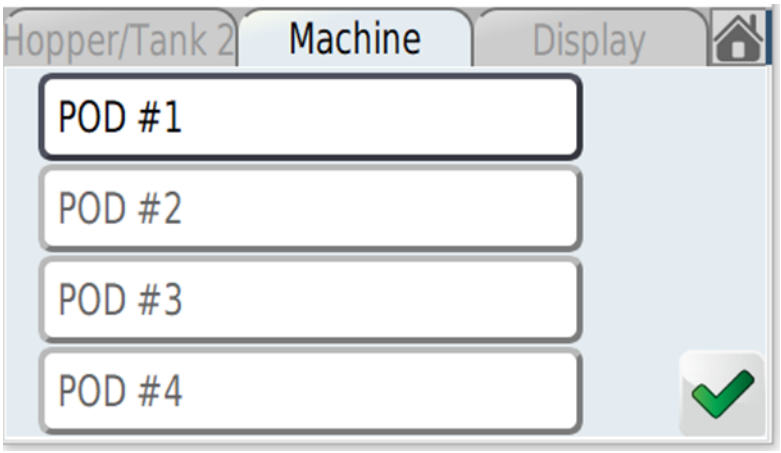
Select the POD's tab.



If required click configure POD's.

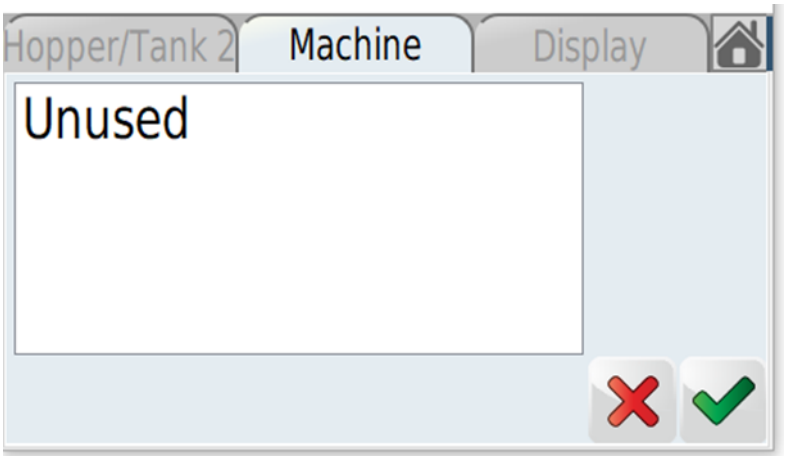
This is necessary when a new POD is installed.

13.2 Configuration Continued



The serial number of any POD's connected and configured in these boxes.

If the POD's are connected but not configured, click on either POD #1 or POD #2.



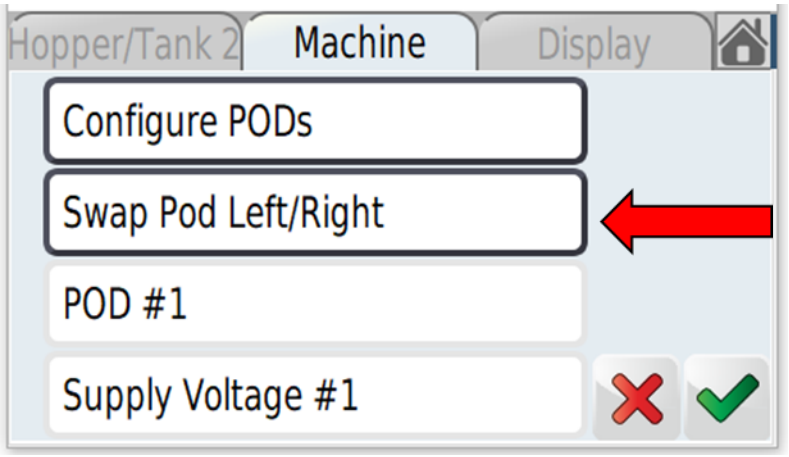
If the POD's are connected, but not yet configured, the serial numbers will be listed in the box above.

Select the serial number that corresponds to the left or right-hand applicator. The serial number for the POD's is stamped on each POD. Which is mounted behind the removable panel on the rear of each applicator frame.

Click the green tick to save and exit the screen.

13.3 Swapping PODs

Although you can assign each serial number to either POD #1 or POD#2. If the left and right is not the right way round, you can swap POD's as follows.



Click the Swap POD tab to change the Left and Right over.

This is required depending if the DUO is front facing or rearward-mounted and the left and right changes.

Press the Green Tick to confirm and come out that screen.

Press Green Tick a second time to return to machine menu.

Press the House icon to return to Home screen.

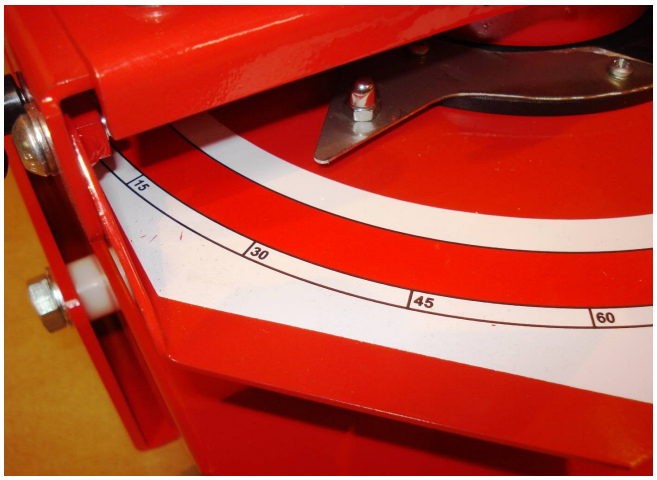
14.0 Spread Bias Adjustment

Ensure the correct Fan Jets are fitted in the correct position – the fixed deflectors fitted to the side of the Fan Jet chassis should be facing inwards towards each other.

Ensure the disc rotation is correct. When viewed from behind the left hand side Fan Jet disc should rotate in a clockwise direction and the right hand side Fan Jet disc should rotate in an anti-clockwise direction, for clarification see disc rotation arrows on the decal.

The position of where the pellets flow onto the disc will affect where they come off the disc – this will affect the overall spread width and pattern. Adjustment is provided by rotating the bias dial * factory set at 65 degrees.

- The black plastic knob on the side of the chassis secures the bias adjustment. Unscrew prior to adjustment and then retighten.
- For maximum spread width ensure the disc speed is set to at full speed.
- Adjust the spread pattern bias so that the two spread patterns from the left hand and right hand machine meet and overlap in the middle.



NOTE: For most slug pellets applications the spread bias will need to be set between 60 and 75 degrees.

15.0 Spread Width and Pattern

BASIC RULE. The spread width is dependent upon the density of the granule or seed and the disc speed (plus other factors).

Large, dense granules and seeds with a high disc speed give the maximum spread width – small, light granules and seeds will not spread as far.

Other factors affect the spread width:

Type of slug pellet. Typically, a large, dense hard pellet should spread further than a small, light, soft pellet, because it is comparatively heavy and does not powder on the disc. Typically, a 'wet' produced pellet will be hardest, a steam produced pellet mid range, and a dry produced pellet the softest.

Seed varieties and dressings. Different varieties and dressings will affect the density and the spread.

Wind Conditions. Dead calm conditions are the optimum: any wind will affect the width pattern.

High forward speed. The same as driving into a headwind of the same speed on a calm day, and this will peel the edges of the spread pattern backwards and inwards.

Disc speed. Altering the disc speed will affect the width. A higher disc speed will give a wider spread width.

Disc vanes. Ensure they are in good condition and not worn excessively. Replace if necessary.

Low disc height. Will not allow the product to reach its maximum width before gravity takes over.

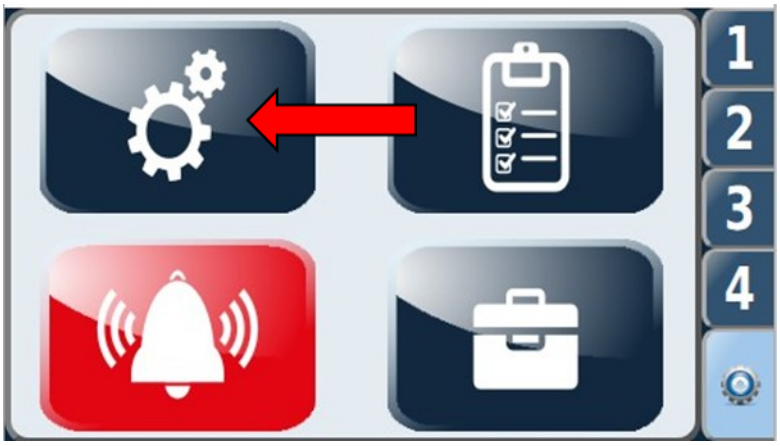
Low electrical power. Will not allow the disc to reach full speed.

High application rates. Loads the disc more than a lighter rate and can slow it down.

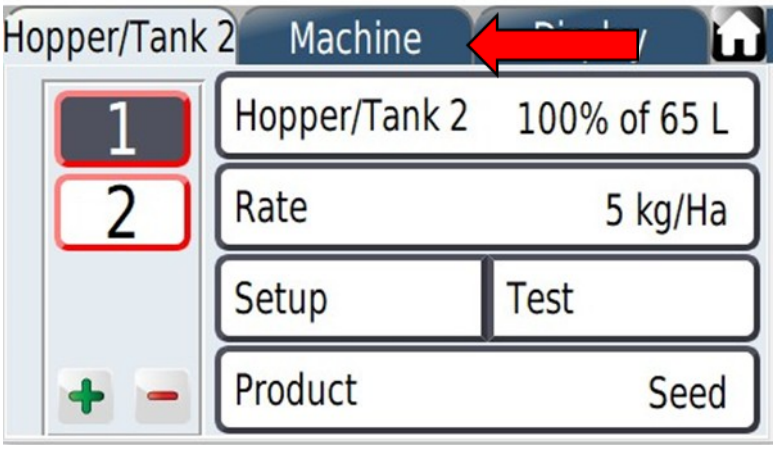
Incorrect disc angle. It must be at least horizontal – not angled downwards.

16.0 Setting the Spread Width

From the home screen, press the gears icon in the bottom right.

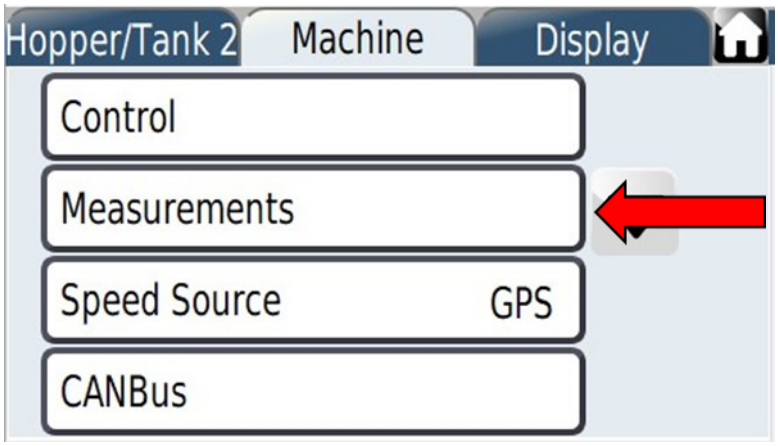


Then press the larger gears icon in the top left.

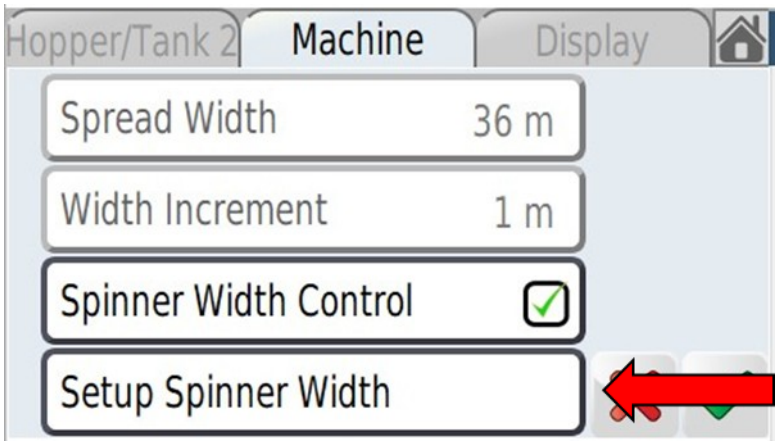


Press the "Machine" tab.

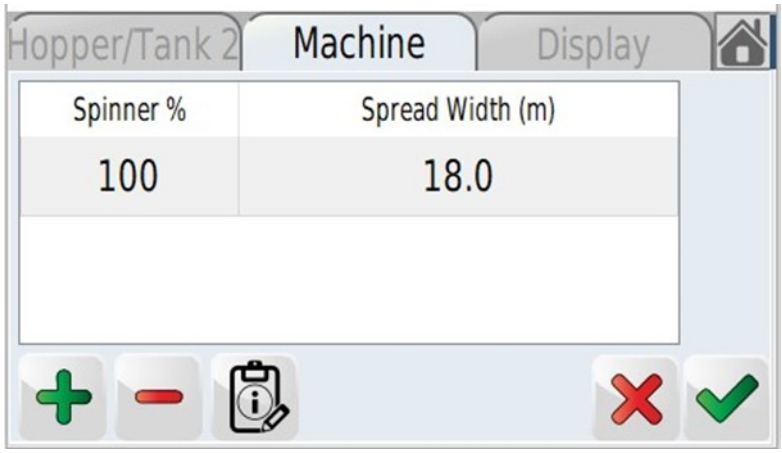
16.1 Setting the Spread Width Continued



Select the “Measurements” Tab.



Select “Set Up Spinner Width”.



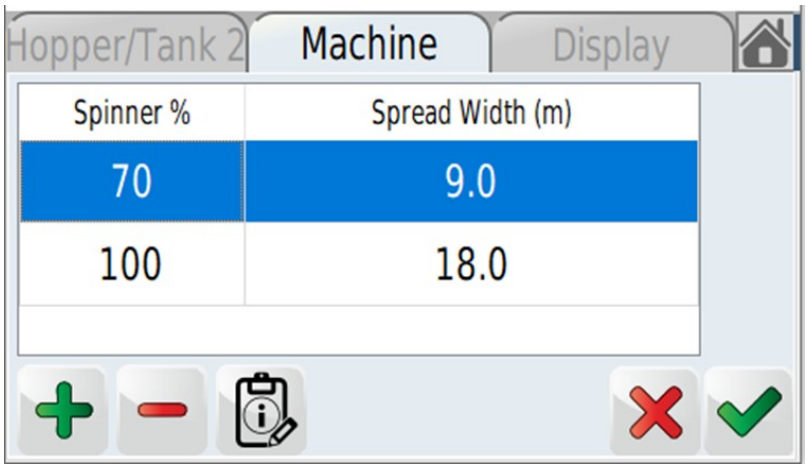
16.2 Setting the Spread Width Continued

It is important to remember that the performance of the machine is related to the size and quality of the product going through it. Small slug pellets can not travel as far as larger ones, pellets that are prone to breaking up will not travel as far and will give an uneven spread pattern. There are larger and more dense slug pellets on the market, with a number having around 60,000 pellets per kg, which would be required to achieve 36m. Some are much smaller at around 82,000 pellets per kg and may not reach wider widths.

A 36m spread width is only achievable when the applicators are mounted higher up, with the discs being around 1.8m from the floor. Combined with a larger machine like a tractor or sprayer where the current supply to the discs is not limited. If mounting to a UTV, spread widths will be reduced to a maximum of 32m. This is only achievable if the UTV is fitted with an alternator producing 55 amps or more. Some UTV's are fitted with a dynamo, rather than an alternator, these may not be sufficient to power the DUO.

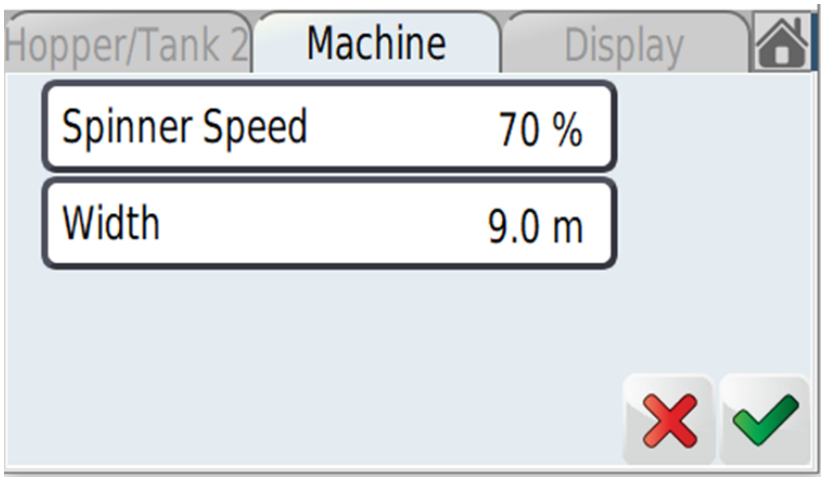
Clipboard Icon

Click Edit



Set Spinner speed by % and width.

This corresponds to speed to a relevant width. i.e @70% of spinner speed, the relevant width is 15m. This is per individual disc.



Press the Green Tick to confirm and come out that screen.

Press Green Tick a second time to return to Machine menu.

Press the House icon to return to Home screen.

17.0 Setting The Feed Rate

The feed rate is adjusted primarily by the motor speed.

In addition, different feed rollers may be fitted that deliver different rates of material per revolution. Refer to the Calibration Procedure and with the appropriate feed rollers fitted, follow the instructions. You may have to change the feed rollers to obtain the application rate within a sensible forward speed range which is calculated during the calibration procedure.

STANDARD 8 SECTION FEED ROLLS - Wide 8 section rolls for high rate application and large granules.

The two feed rollers fitted should allow for typical slug pellets application rates.

There are extra feed rollers supplied in the kit and appropriate spacers to allow 1,2 or 3 feed rollers to be fitted to each feed block to help obtain the correct feed rate required for lower or higher outputs and varying speeds. **Optional feed rollers are available, for more information please contact your local Stocks Ag dealer.**

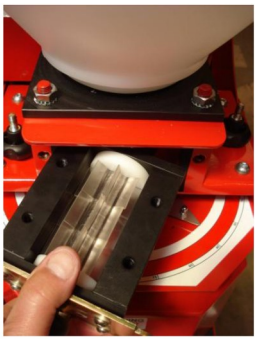
⚠ **WARNING! Always observe all application standards and guidelines provided by the product manufacturer as some products may be toxic. If unsure contact your supplier for more information.**

17.1 Changing The Feed Rollers

The feed rollers are easily changed by removing the feed block assembly as follows.

NOTE: Empty the hopper completely before doing this using the tipping facility.

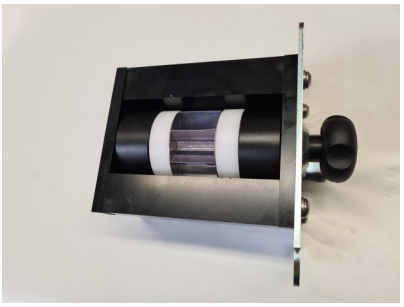
- Undo and remove the 2 black plastic retaining knobs holding the feed block in place.
- Slide the complete mechanism out.
- Undo and remove the 4 socket head screws on the end of the housing opposite the retaining plate and remove the end plate.
- Slide the rolls and spacers off the shaft and replace with the alternative rolls and spacers in the required combination.

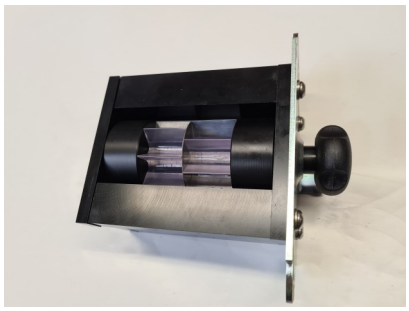


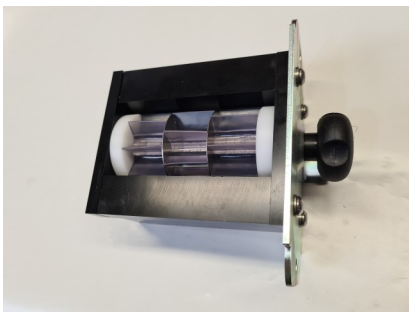
- Refit the end plates and re-fit the feed block and black plastic retaining knobs.

17.2 Feed Roller Configuration

1 x 8 Section Feed Rollers **2 x 8 Section Feed Rollers** **3 x 8 Section Feed Rollers**







The assembled rollers and spacers should not be under compression.

NOTE: You should be able to rotate the feed shaft with your fingers – if it feels excessively tight, check the feed roller and spacer composition is correct as shown above or call Stocks Ag Ltd for advice.

18.0 Calibration Information

NOTE: To ensure the maximum spread width is obtained, large hard dense slug pellet must be used.

Ensure the two spread patterns meet and just overlap in the centre, and reach each side of centre to give the required total width.

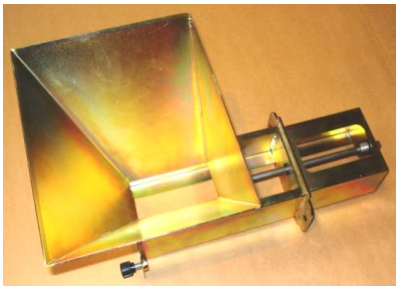
Some smaller, lighter and less dense pellets may not reach the full width, especially in breezy conditions and with many pellets the pattern may be thinner towards the outer edges.

Ensure the disc height is a minimum of 1.5 metre above the crop canopy or the ground – more height may improve the maximum spread width depending upon pellet density.

NOTE: Minimum disc height of 2m above the crop canopy, or the ground required for 36m work.

The Fan Jet Duo comprises of two separate machines. Each machine, left hand and right hand are calibrated as an individual machines. When setting the application rate, (kgs/ha) and spread width, the combined overall rate and spread width of both machines should equal the total required.

18.1 Calibration Hopper



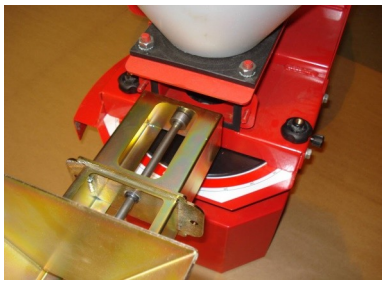
Supplied with the machine

Part No. 45FJT5016

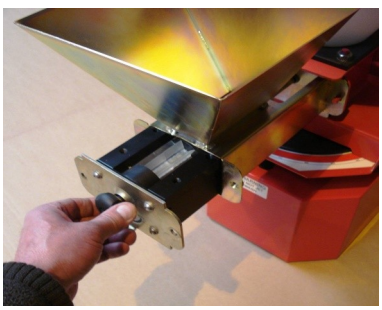
18.2 Fitting Instructions

1. With an empty hopper, remove the feed block assembly from one of the Fan Jets.

2. Slide the Calibration Hopper into the Fan Jet in place of the feed block with the hopper uppermost, ensure the drive shaft aligns and secure with the supplied screw knobs.



3. Insert the (removed) feed block into the Calibration Hopper ensure the drive shaft aligns by slowly rotating the feed shaft



4. Secure with the two small black PVC knobs supplied.

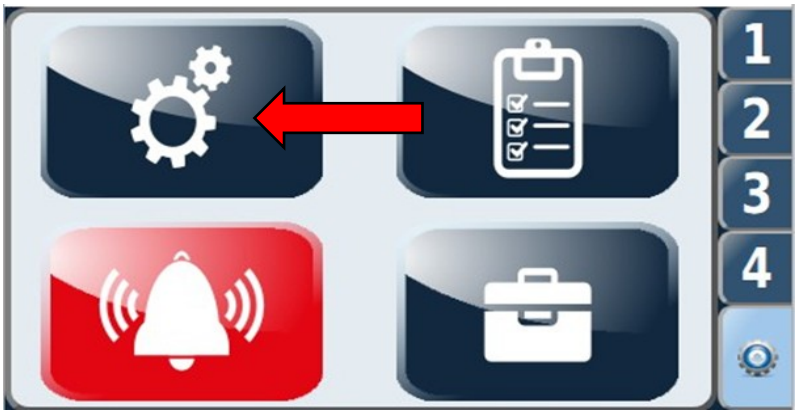
5. Place a suitable container under the Calibration Hopper to collect pellets whilst calibrating.

18.4 Calibration procedure

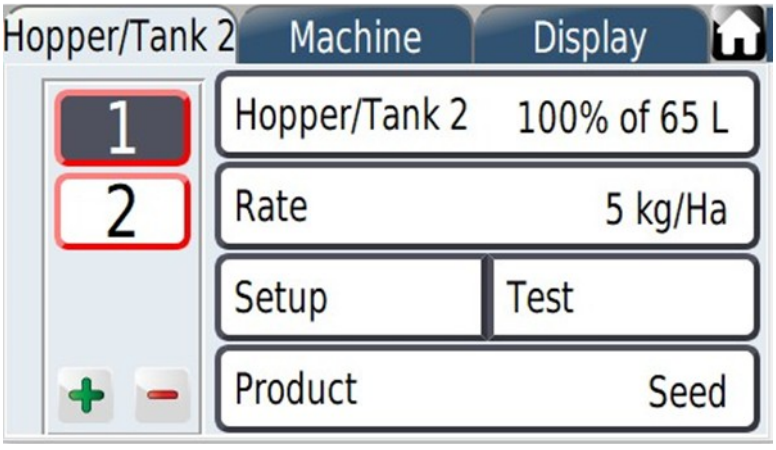
Make sure the calibration hopper is installed and the correct metering unit is fitted. Place 1.5 to 2kg of product in the calibration hopper (not the main hopper).

Hang a suitable bucket under the calibration hopper. Make sure the tare weight of the bucket in known or accounted for.

From the home screen, press the gears icon in the bottom right.



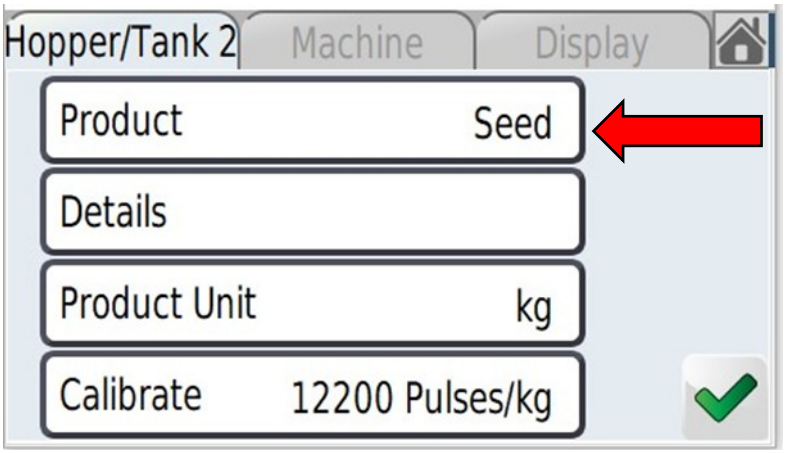
Then press the larger gears icon in the top left.



Press the product tab.

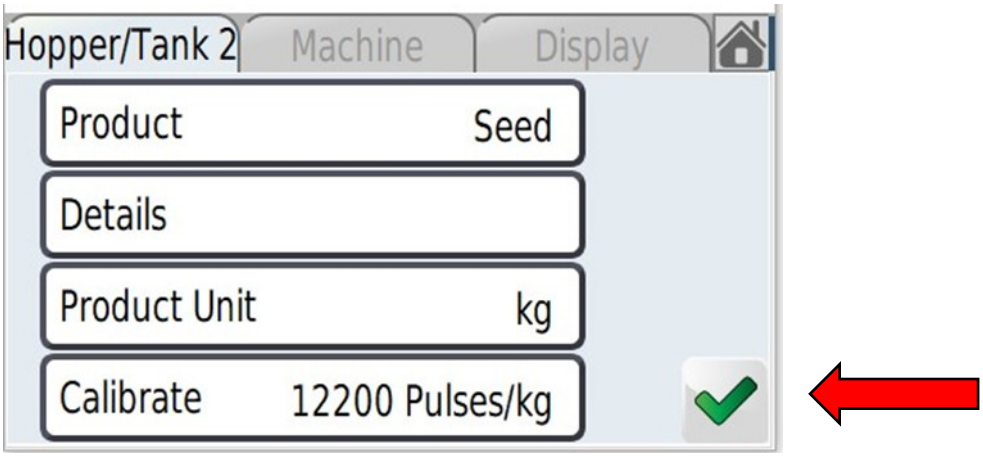
18.5 Calibration procedure continued

NB The following procedure must be carried out for both hoppers, by selecting 1 or 2 from the left-hand side and repeating.



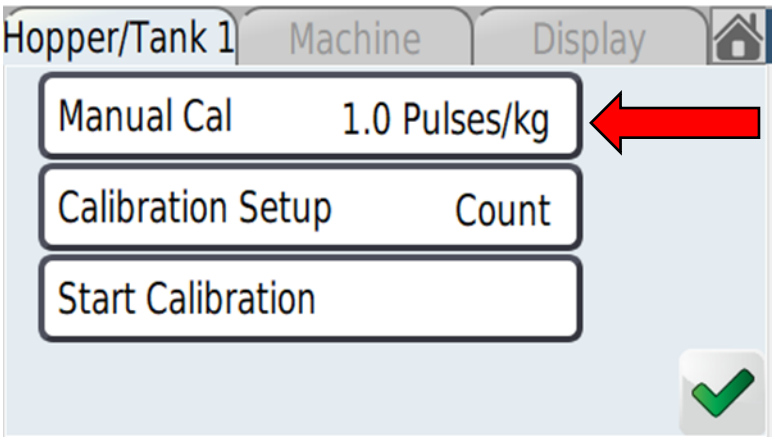
Change the name of the product by pressing the Icon.

1. A product can be added by pressing the green plus symbol +.
2. Once a product has been named and calibrated, the calibration will be stored to that name.
3. A product can be deleted by pressing the red minus symbol –.
4. Once deleted, any calibration information will also be lost.
5. The product name can be amended by pressing the clipboard Icon.
6. The red X will allow you to exit without saving.
7. The green tick will save and exit.

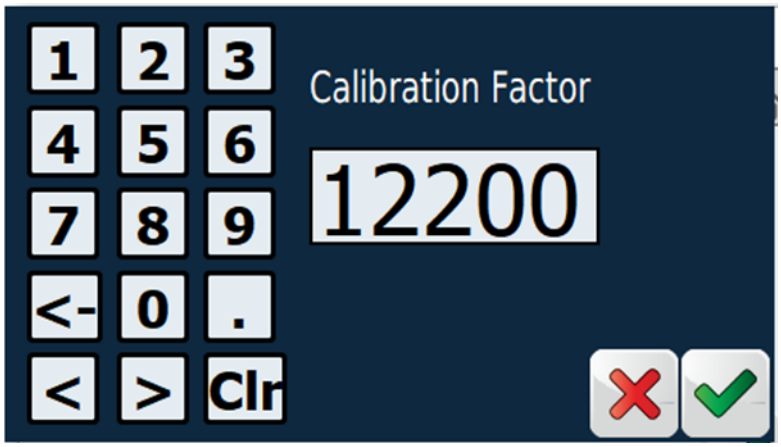


Press the calibrate tab.

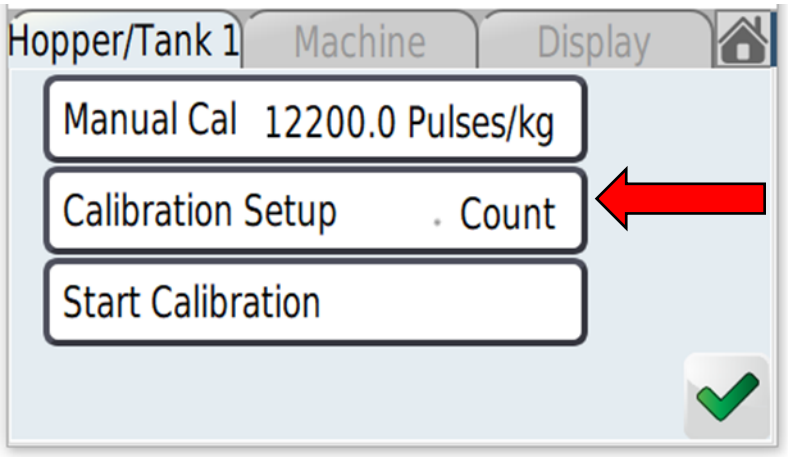
18.3 Calibration procedure (continued)



You can manually enter a calibration if known, press the Manual Cal tab.



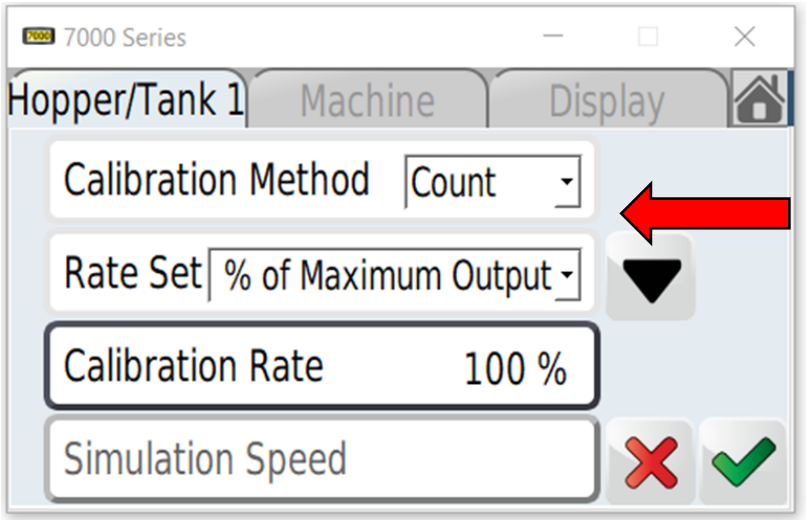
For Ferric Phosphate slug pellets, a good starting point in 12200 pulses per kg. Press the green tick to confirm.



The Manual Cal tab now shows the 12200 pluses per kg.

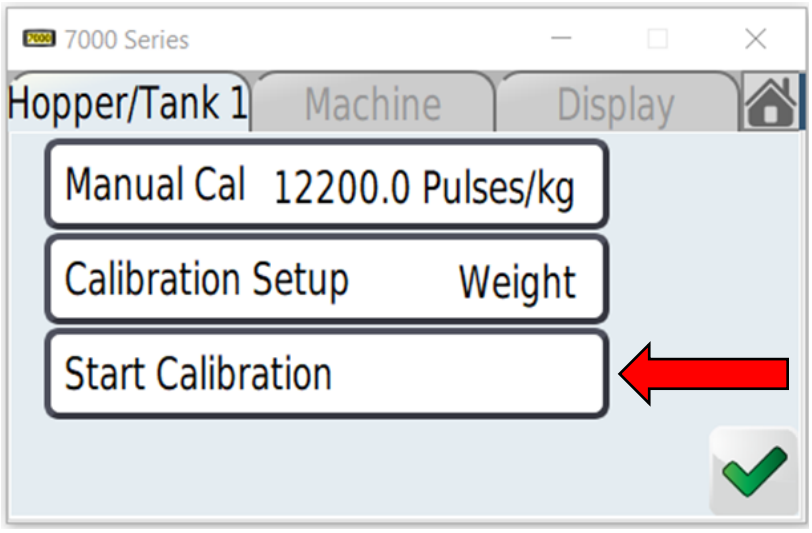
Press the Calibration Set Up tab.

18.6 Calibration procedure (continued)

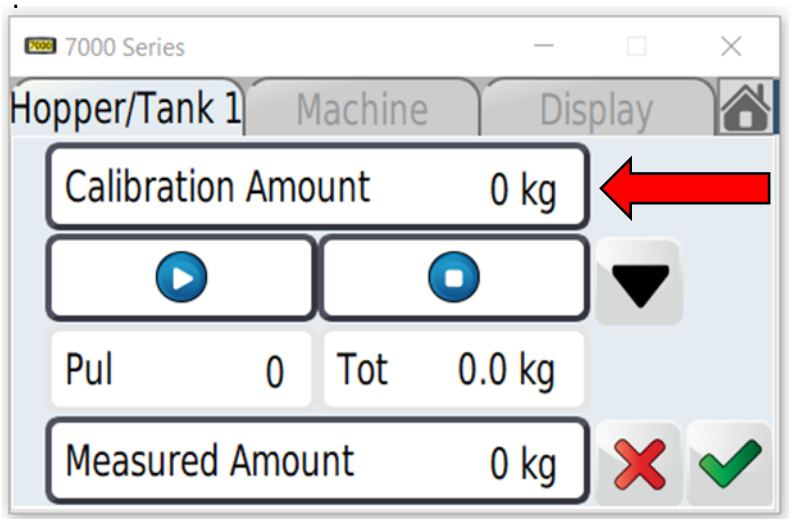


Select the drop-down menu from the Calibration method tab.

Change it from "count" to "weight" then confirm and exit by pressing the green tick.

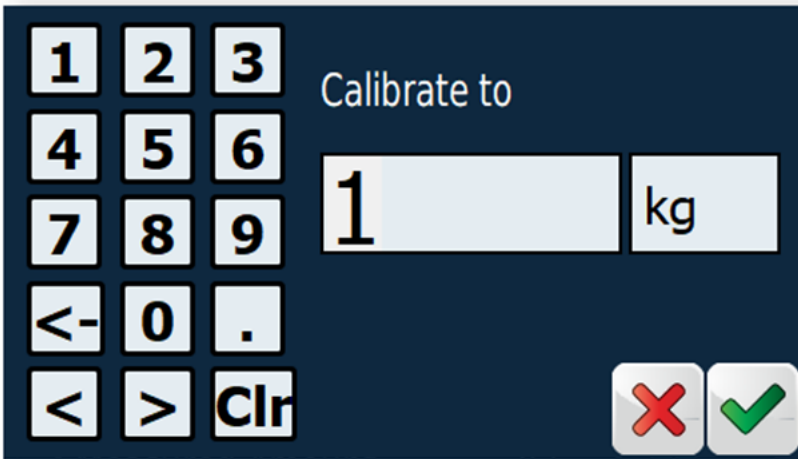


Press "Start Calibration".

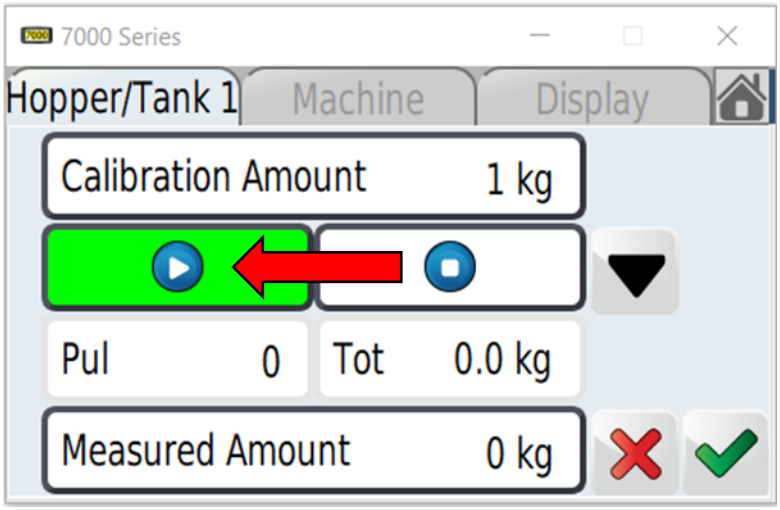


Press "Calibration Amount".

18.7 Calibration procedure (continued)

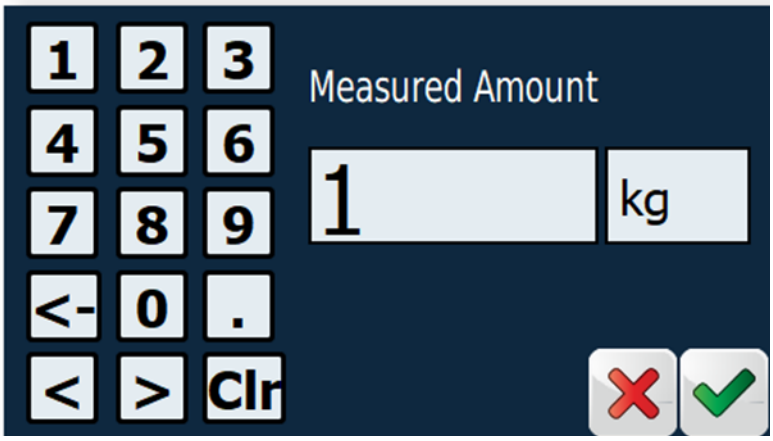


Enter 1kg and confirm with the green tick.



Press the "PLAY" tab to start. The machine will start to meter out the product.

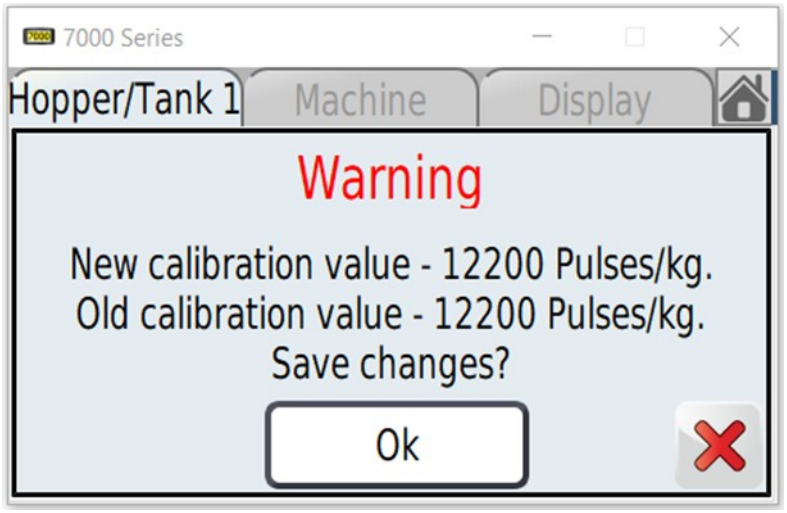
Once the machine stops, press the bottom box labeled "measured amount".



Enter the weighed amount into the pop-out screen.

Press the green tick to save and exit.

18.8 Calibration procedure (continued)



Confirm the new calibration factor when prompted by pressing "Ok".

Keep pressing the green tick to return to the screen required.

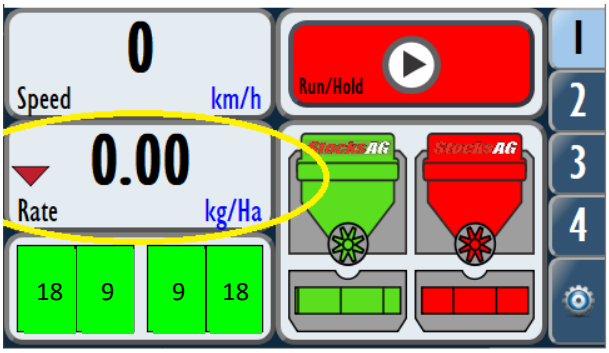
Do not forget to repeat the process for the other hopper.

19.0 Varying Machine Outputs

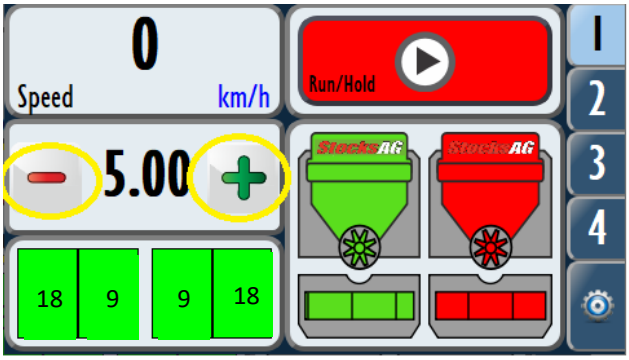
There are two ways to vary the outputs as follows:

A. Joint machine rates

1. Tap to bring up nudge.
Currently showing an 'actual' rate output of 0kg/ha.



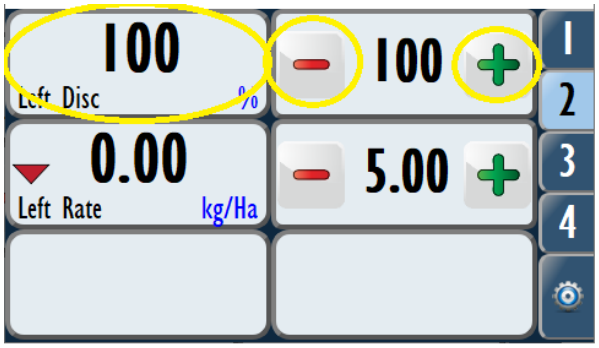
2. Use +/– to nudge up down BOTH hoppers.
Demand is 5kg/ha on both hoppers.



B. Individual machine rates

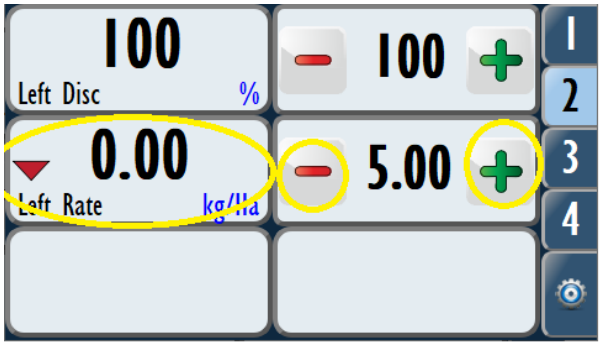
1. Tap on Left / Right disc to bring up output.
Left Disc = 100%.

Right Disc is being edited up / down.



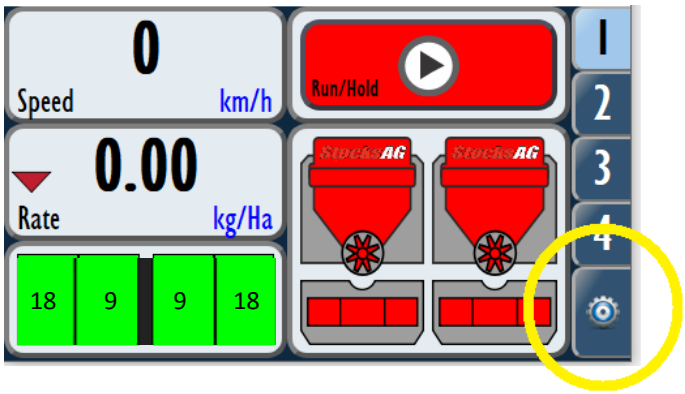
2. Tap on Left / Right Rate to bring up Rate menu.

Left rate = 0kg/h actual, Right Rate is being edited up / down but demand is 5kg/ha.



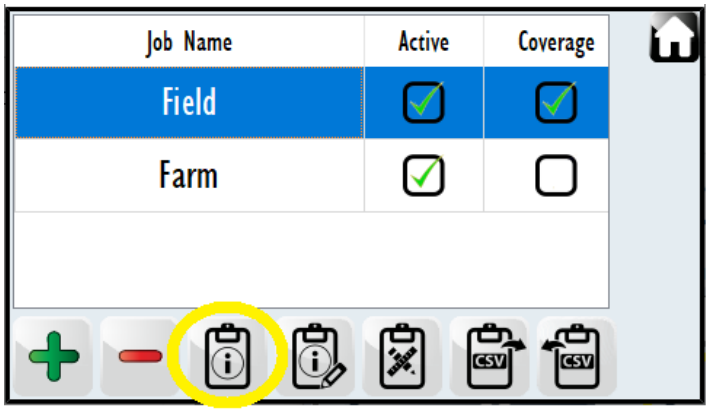
20.0 Reset Jobs

1. Settings.

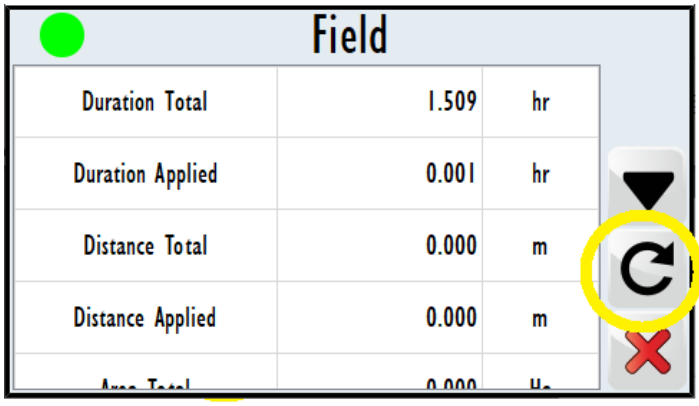


2. Jobs.

3. Edit.

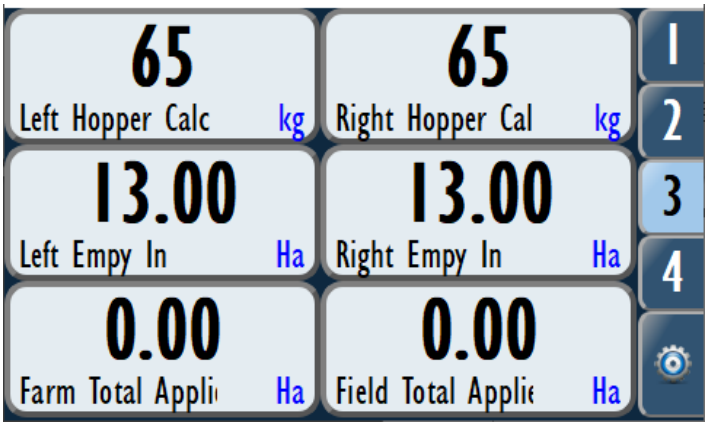


4. Reset.

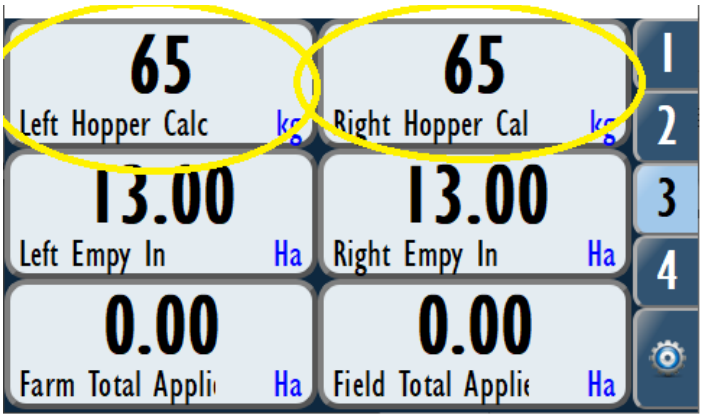


21.0 Fill Hoppers

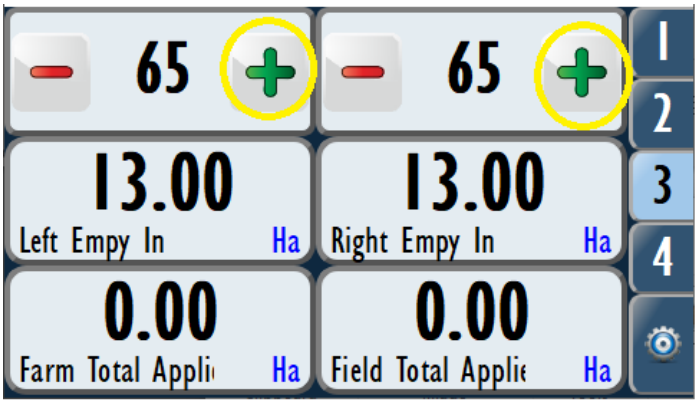
1. Go to Page 3.



2. Hopper Left / Right.



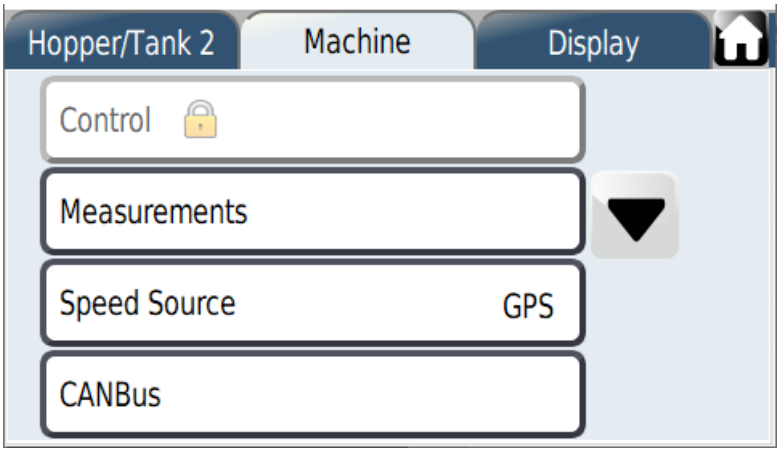
3. Weight of product added into hopper Kg.



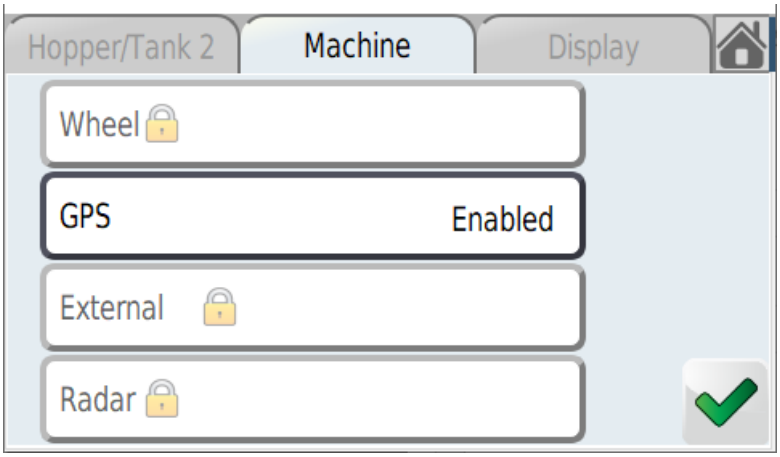
22.0 Headland Control - Implement Offset

To configure Headland Control - navigate into the 'Machine' tab of the Setup Menu.
(Settings [cog] > Setup [cog] > Machine [tab] > Speed-GPS).

Select GPS
Speed Source.

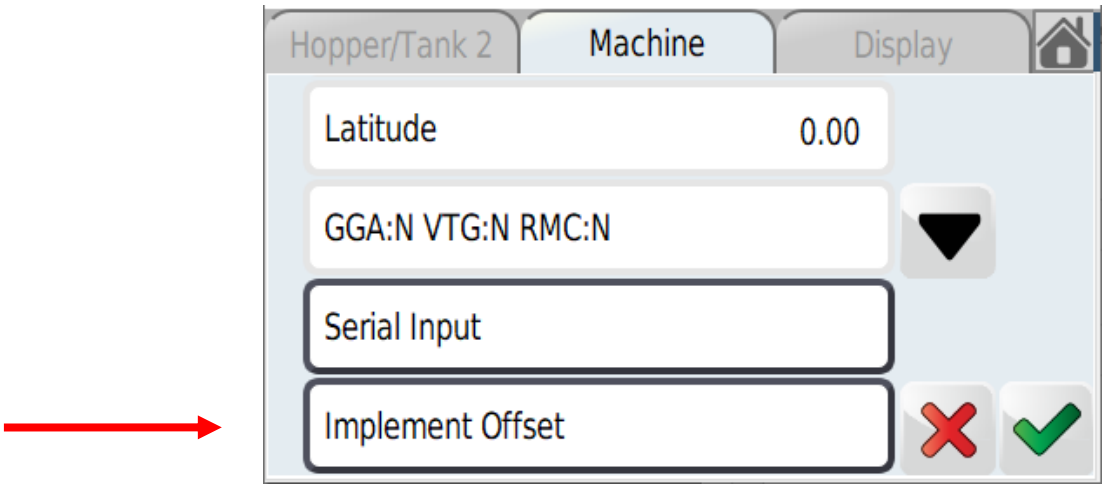


GPS Enabled.

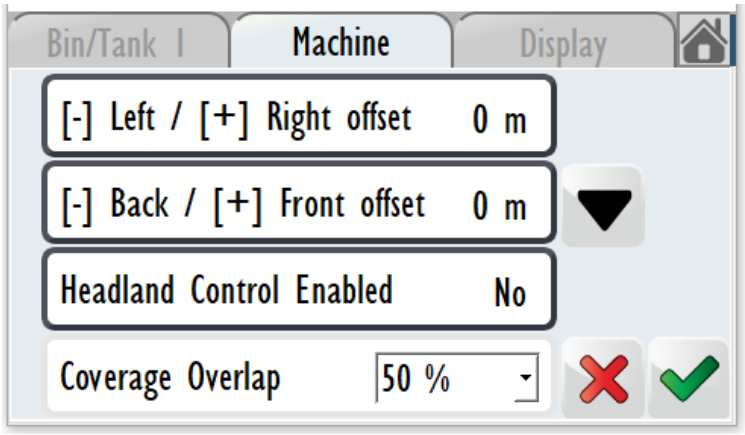


23.0 Machine Offset Menu

Navigate into the Implement Offset Menu.



23.1 Setting Machine Offset



To setup implement offset:

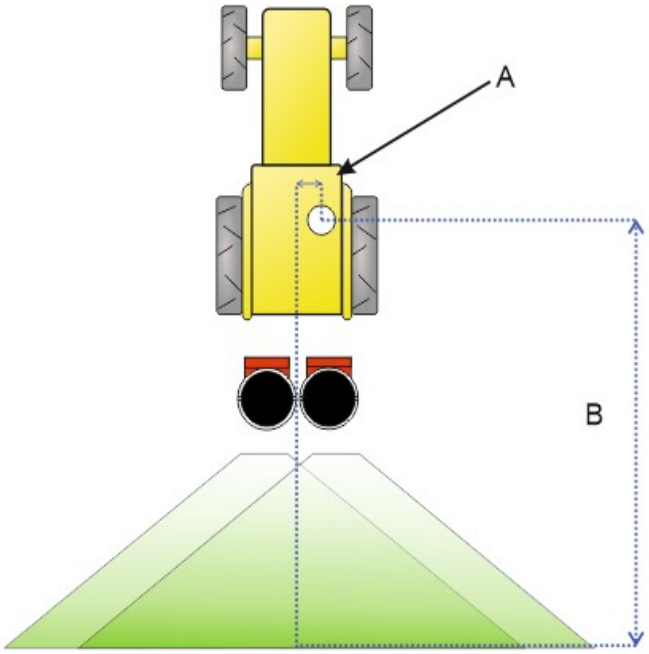
If the GPS or implement is offset, then use the left/right offset to centre the Implement to the middle of your swath.

If the actioning part of the implement is forward or reverse of the GPS, use the Back/Front offset to set the mapping to record where the implement is actioning.

NOTE: The GPS offset will impact where the Coverage Map and Variable Rate Application map are drawn.

It should be kept at the effective working position of the implement. This is where the implement is actioning i.e. product being applied is making contact with the ground.

EXAMPLE



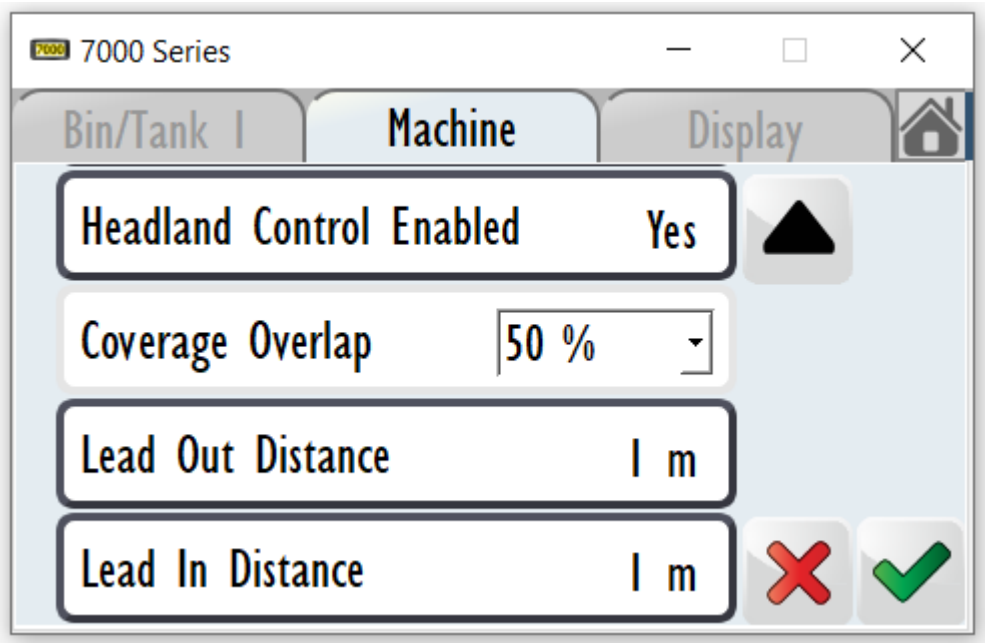
A. Implement centre is offset to the left.

B. The Implement centre is offset to the rear.

In this example, the product is being thrown behind the implement, making the offset further back to match where the product is contacting the ground.

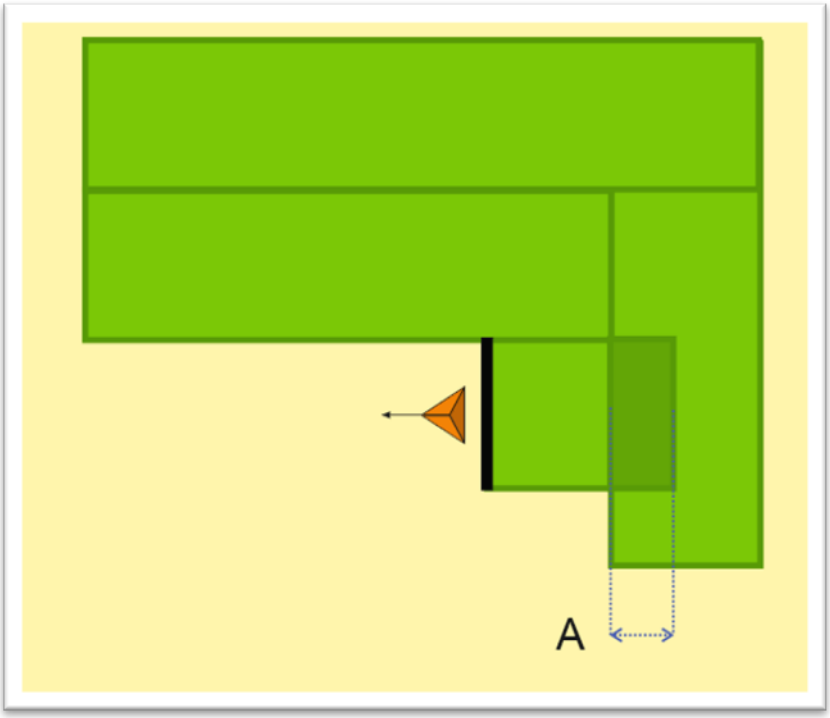
24.0 Headland Control Settings

Headland Control will automatically put the machine into Run when entering a non-painted mapping area (existing a headland) and put the machine in to Hold when entering a painted area (entering a headland).



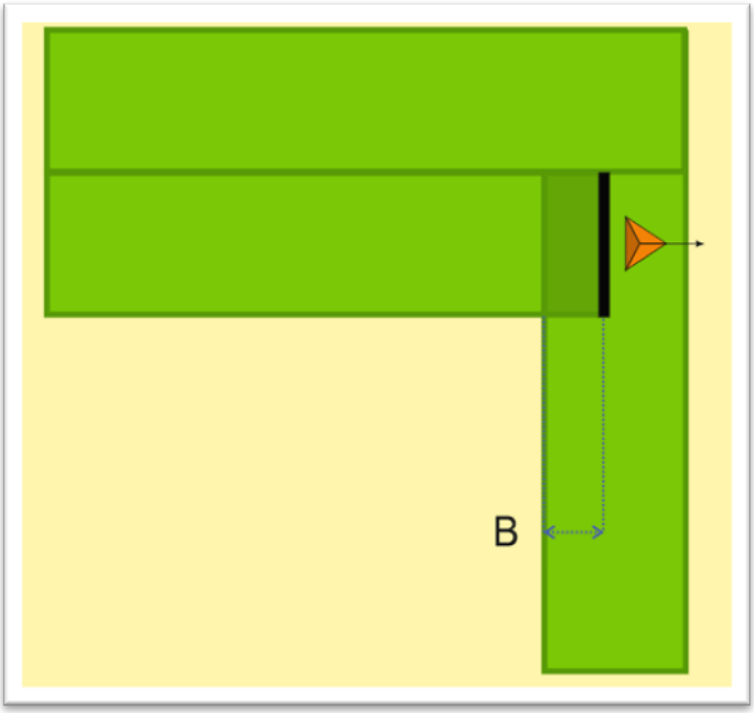
24.1 Lead Out Distance

The distance the system will turn on before exiting a headland. This distance ensures the machine will be operating at the correct rate when it leaves the headland. The distance 'A' in the diagram below represents the lead out distance, the system will turn on before leaving the headland once it is 'A' distance from the edge of the headland.



24.3 Lead in Distance

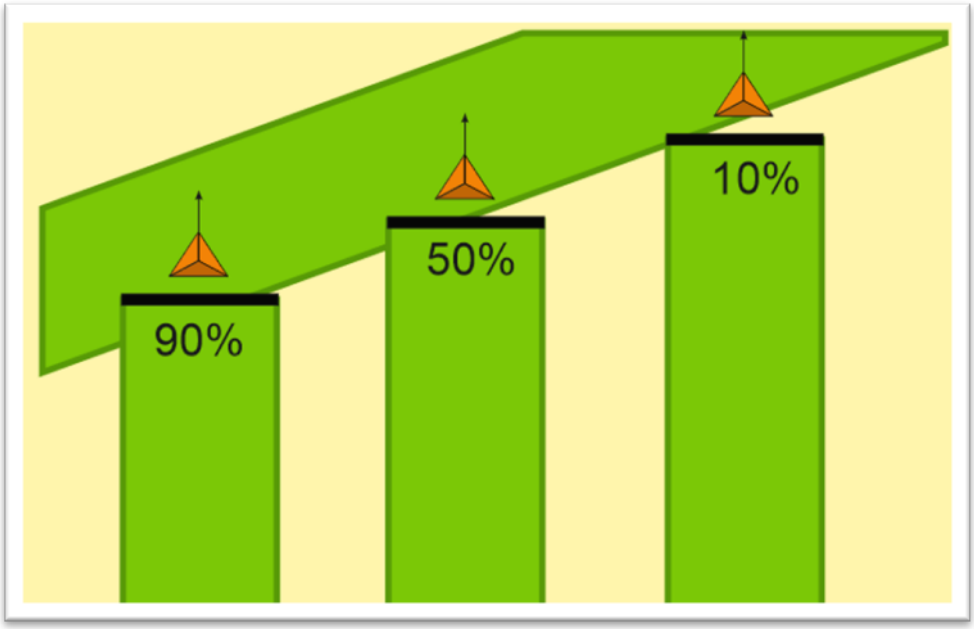
The distance the system will pass into the headland before it turns off. This distance is to ensure the machine will adequately cover the full area. The distance 'B' in the diagram below shows the lead in distance, the system will stay on by a distance of 'B' when entering a headland.



24.4 Coverage Overlap

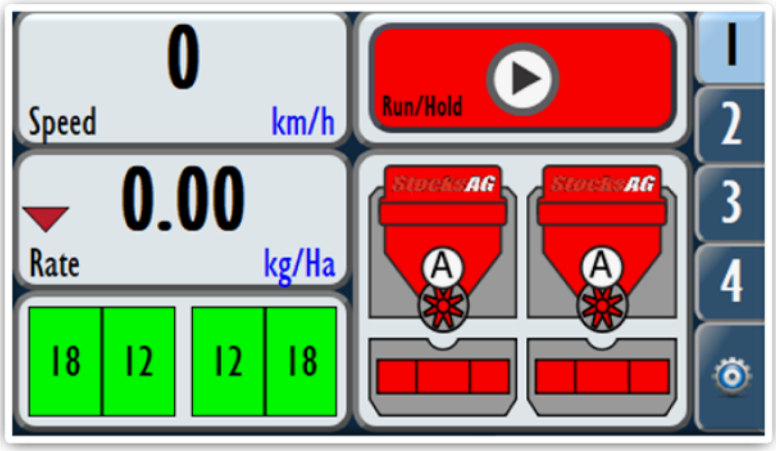
The amount of overlap the system will allow when applying product to cover a headland.

The diagram below has the coverage overlap at various percentages and shows the impact they have on coverage (lead in distance 0m). The positioning of the implement in the diagram represents when the system will turn off as it travels into the headland.



25.0 Instrument Settings

After enabling headland control, press the hopper symbol on the front screen until 'Automatic' mode is selected. In this mode a circular icon with the letter 'A' will appear over each hopper.
The hoppers will now turn on/off relative to the coverage map automatically.



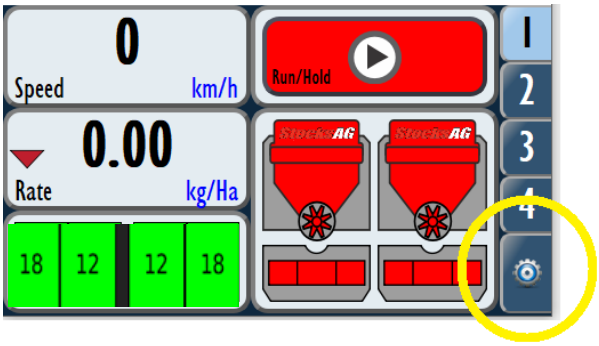
NOTE: Headland mode can be disabled by reverting the hopper symbol back to On (Green) or Off (Red).

25.1 User Name and Password Record

Username	Password

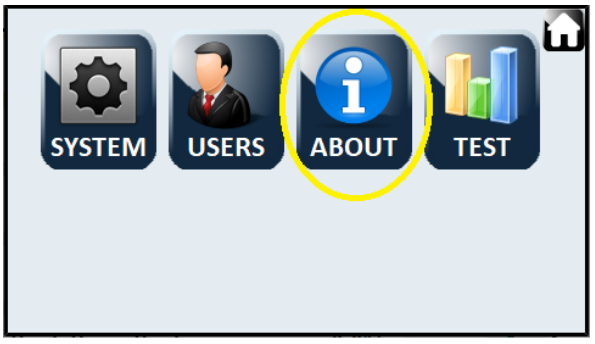
26.0 Checking Software Version

1. Settings.

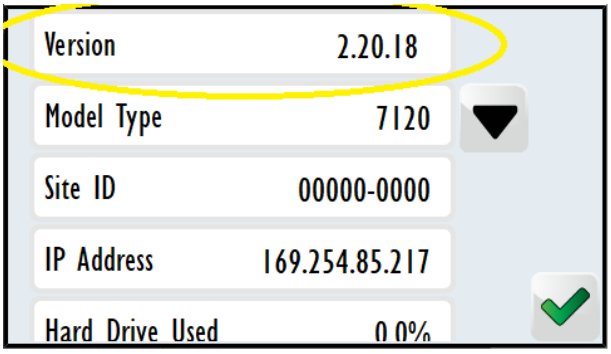


2. Press Maintenance.

3. Press About.



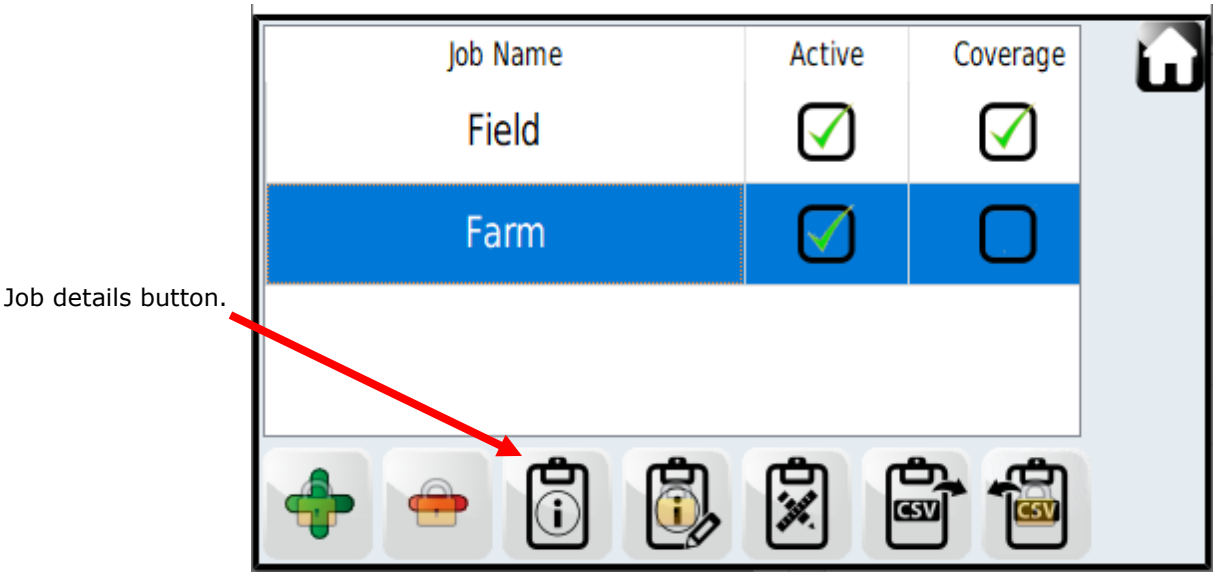
Version is displayed at the top.

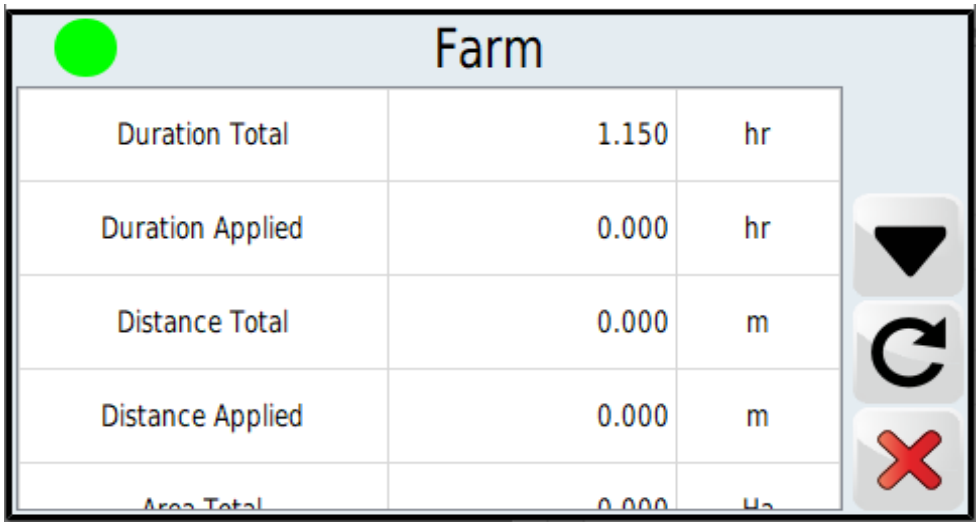


27.0 Viewing Job Details

To view the details of a Job, such as the total and applied values, follow these steps:

1. Navigate into the Job page **(Settings > Jobs).**
2. Select on the Job you want to view the details of (it will highlight the Job blue).
3. Select on the Job details button.





Screen display.

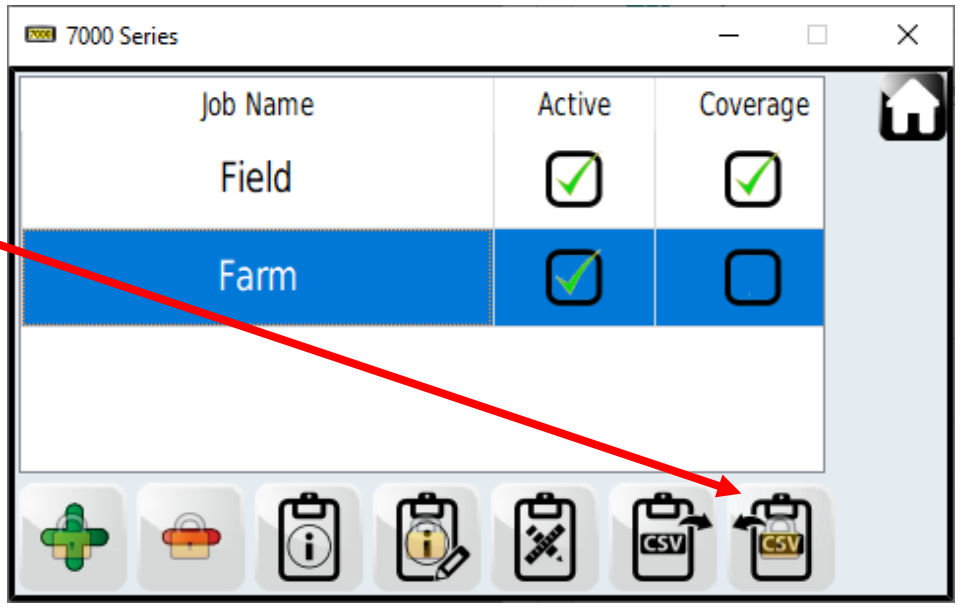
27.1 Exporting Jobs (CSV)

To export a job or multiple jobs, follow these steps:

1. Navigate into the Job page **(Settings > Jobs).**
2. Insert USB memory stick in to the instrument in cab harness.
3. Select the CSV button.
4. A prompt will determine whether the export was successful.

If successful, all job data will now be exported to the USB Stick for viewing in any Farm software that can import a CSV file.

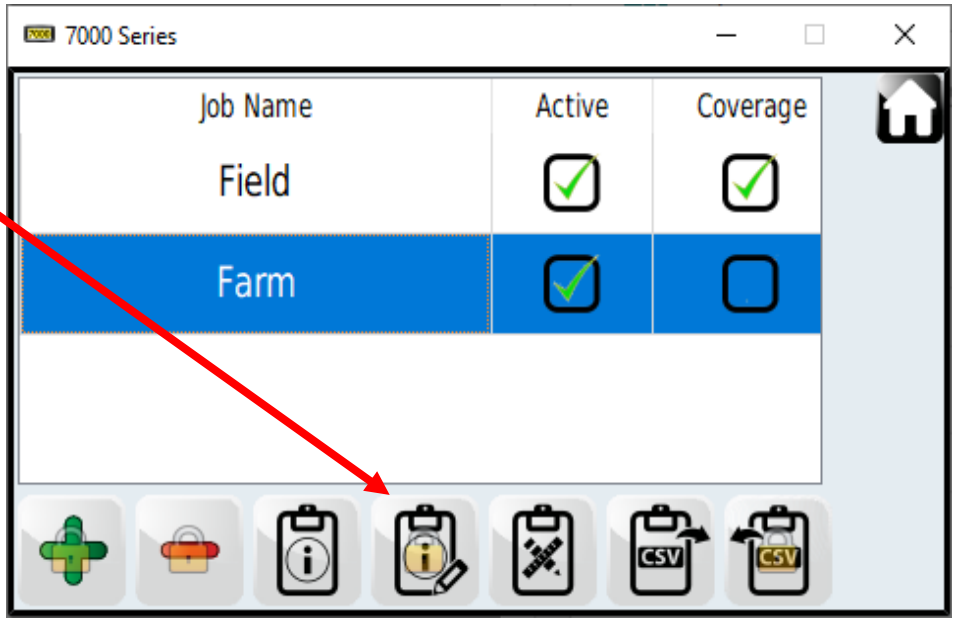
CSV button



27.2 Resetting Jobs

1. Select the Job Reset button.

Reset button



2. Confirm reset.

28.0 Screen Settings

Screen Brightness (Auto or Manual)

The brightness of the display screen can be adjusted automatically, or by the user.

To change the display screen brightness manually follow these steps:

1. Navigate into the Display tab of the Setup menu **(Settings > Setup > Display).**

2. Adjust the 'Brightness' slider to the left to decrease brightness or adjust the slider to the right to increase brightness.

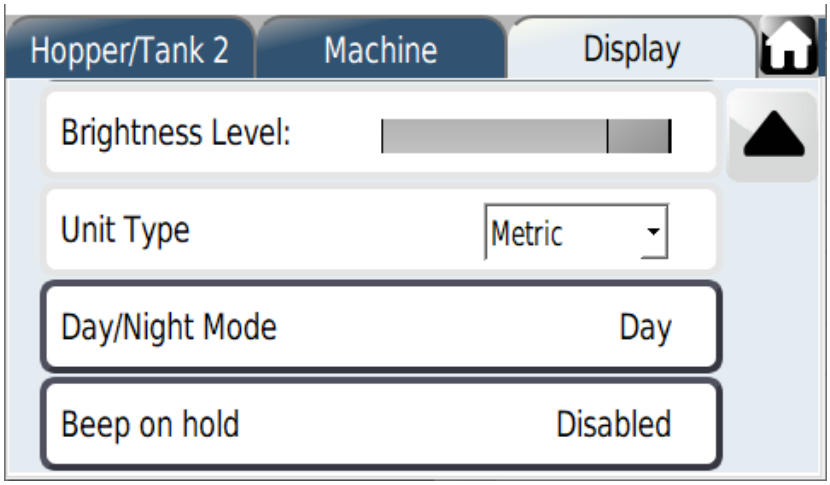
If you prefer, the screen has its own brightness indicator to automatically adjust the brightness when external conditions change.

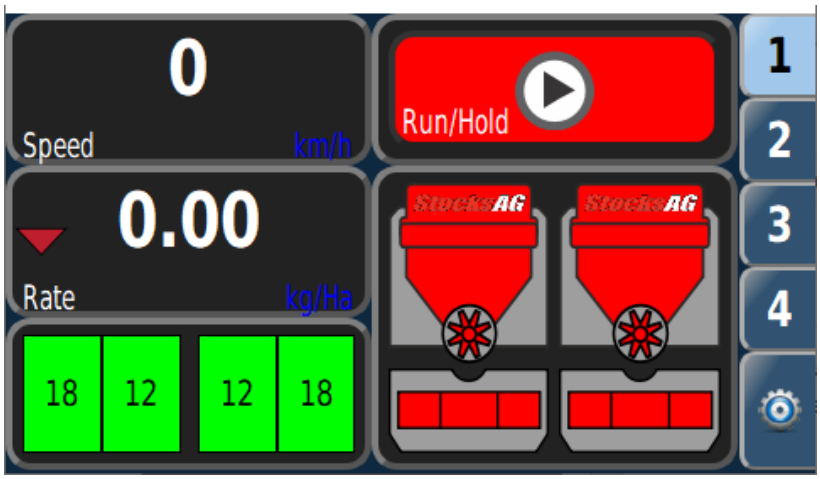
Day/Night Mode

This changes the display view of the instrument for night time or daytime viewing as below.

Unit type

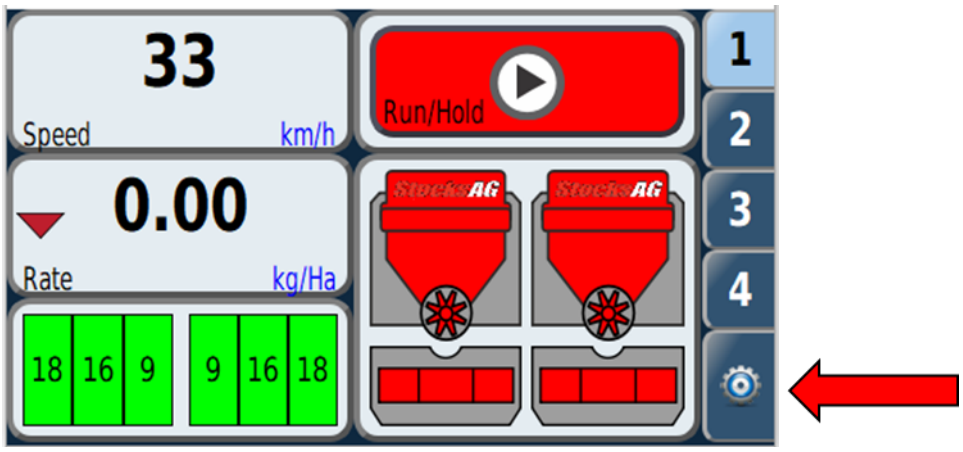
Allows settings to be changed from **Metric** or **Imperial**.



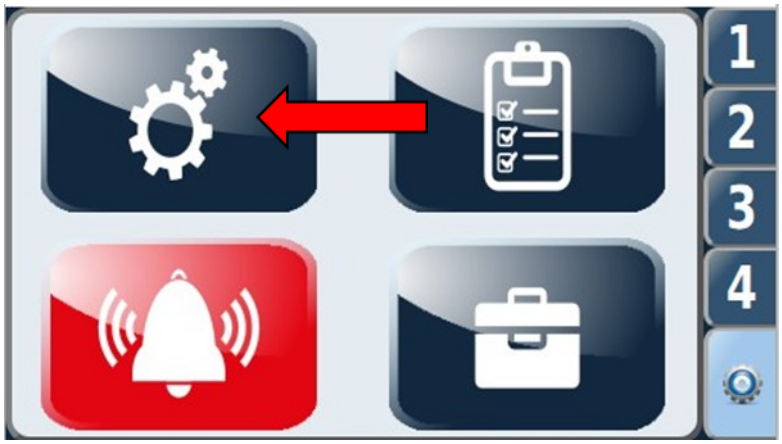


⚠ **WARNING! The instrument will restart.**

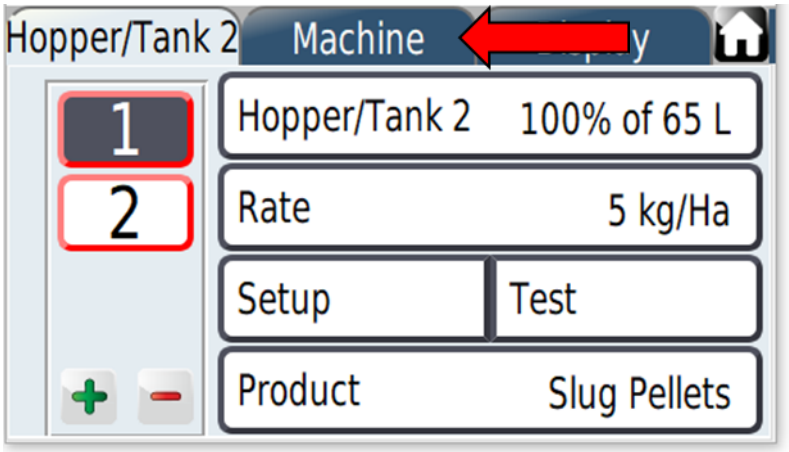
29.0 Simulated Speed



From the home screen, press the gears icon in the bottom right.

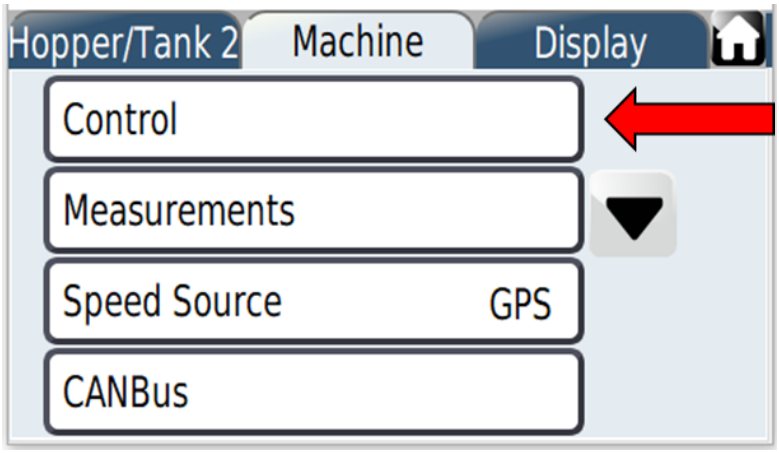


Then press the larger gears icon in the top left.

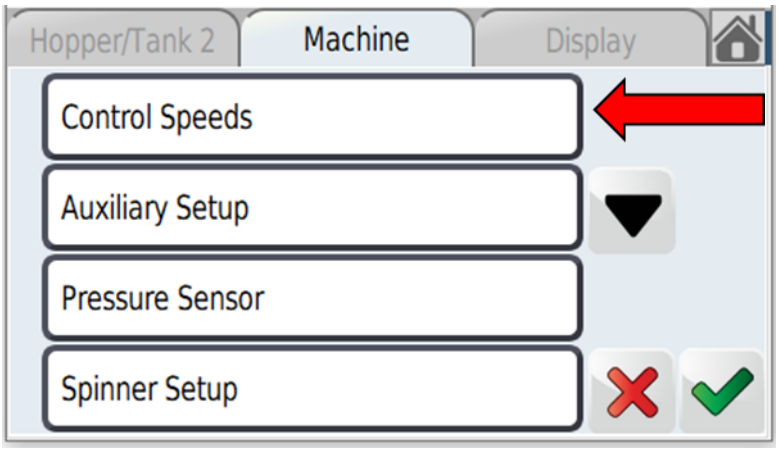


Select the Machine tap from the top.

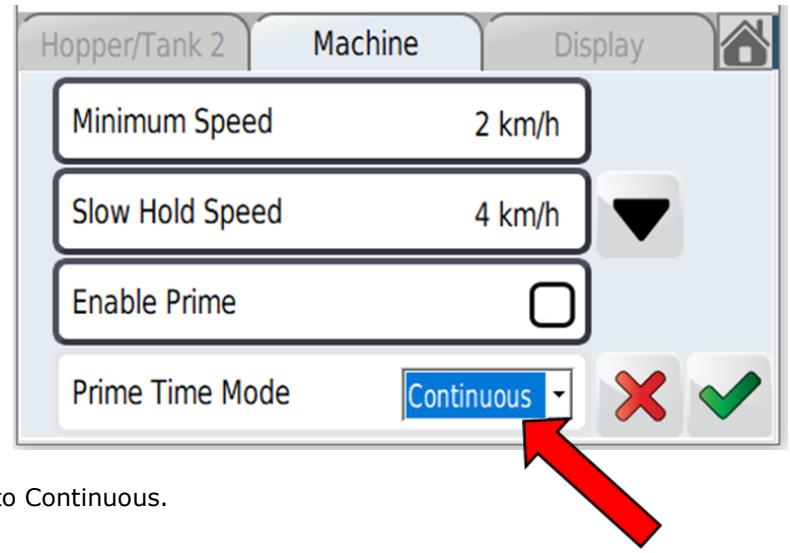
29.1 Simulated Speed Continued



Press the Control tab from the menu.

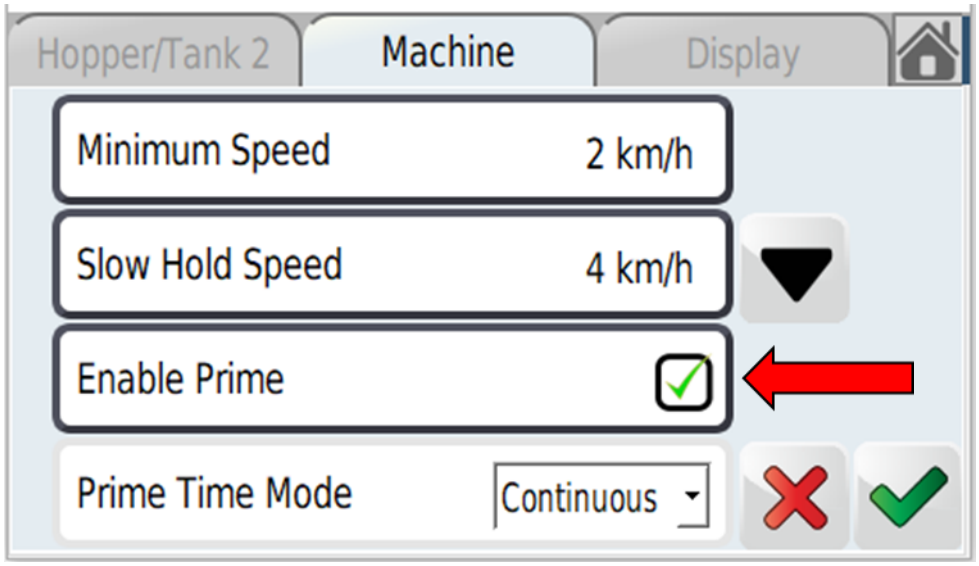


Select the Control Speeds tab.

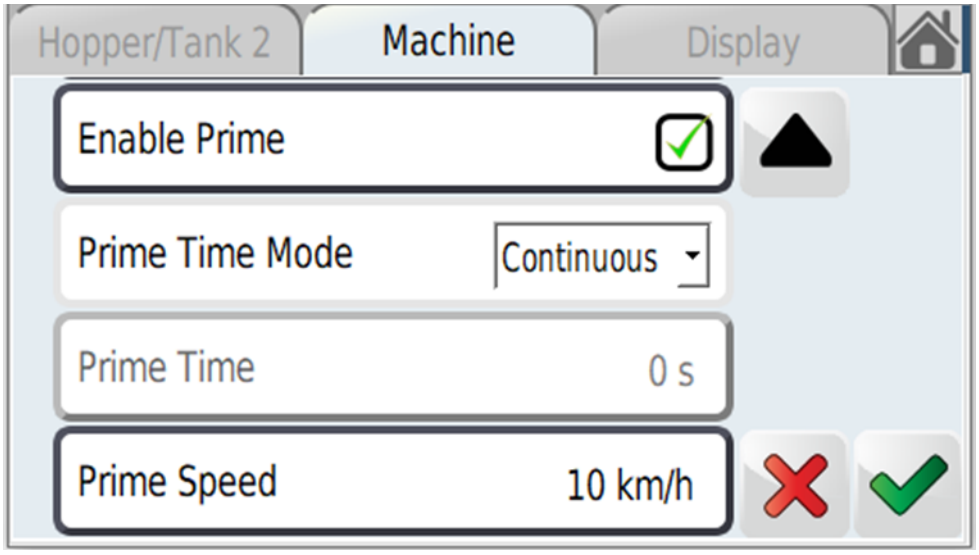


Set Prime Time Mode to Continuous.

29.2 Simulated Speed Continued



Tick the Enable Prime box.



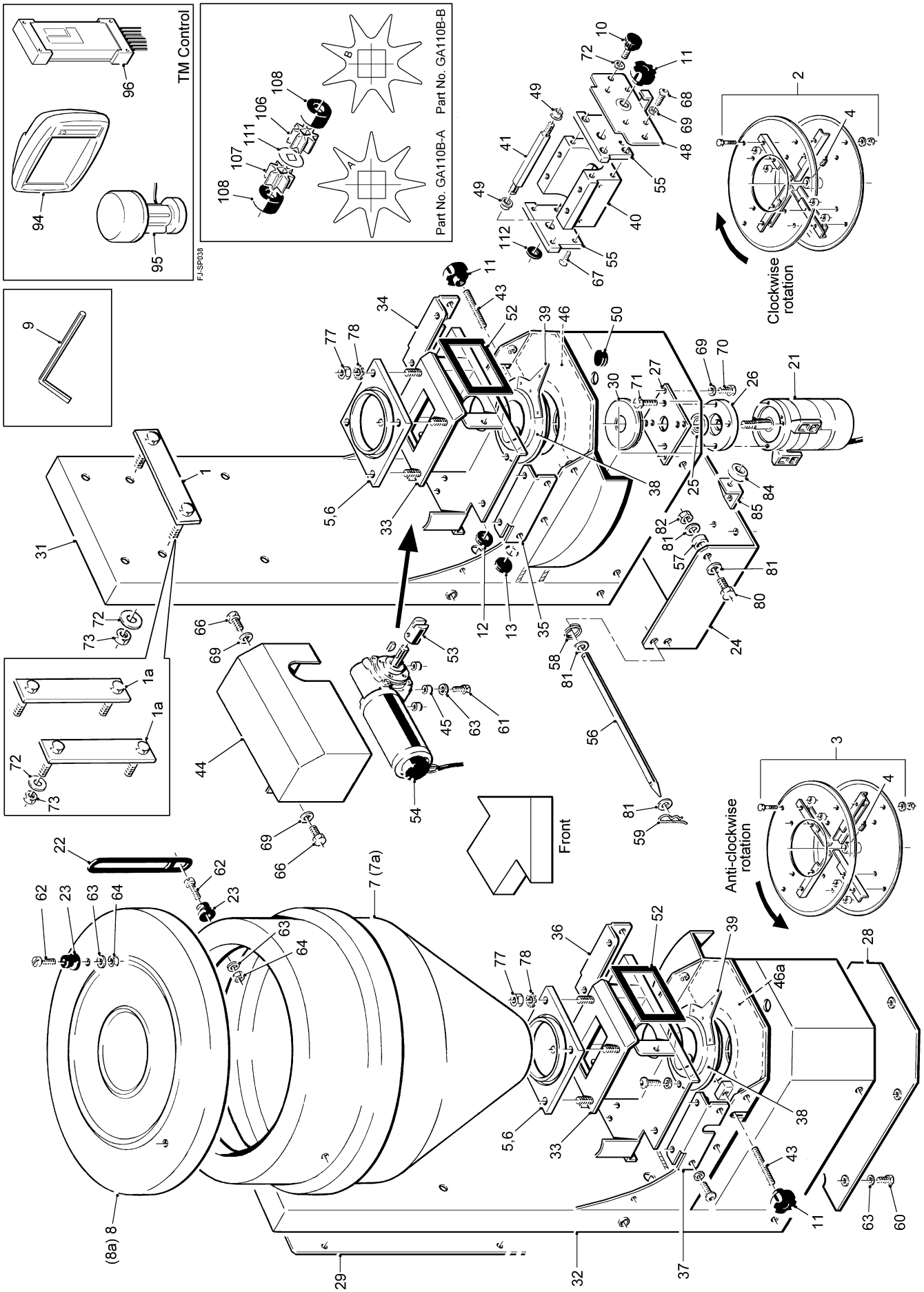
Scroll down to Prime speed, enter the required operating speed.

Press the Green Tick to confirm and come out that screen.

Press Green Tick a second time to return to Machine menu.

Press the House icon to return to Home screen.

30.0 Fan Jet Duo TM Parts Drawing



30.1 Fan Jet Duo TM Parts List

Item	Part #	Description	Qty	Remarks
1	FJ003A	Hopper Bracket	(2)	(65L only)
1a	FJ005A	Hopper Bracket	(4)	(130L only)
2	FJ007E	Clockwise Disc Assembly	1	Vane repair kit FJ006A
3	FJ007G	Anti-clockwise Disc Assembly	1	Vane repair kit FJ006B
4	FJ008A	M6x6mm Grub Screw	2	
5	FJ017D	Hopper Base Plate	2	
6	FJ017S	Base Plate Seal	2	(not shown)
7	FJ026A-Ass.	65 Litre Hopper	(2)	(65L only)
7a	FJ026B-Ass.	130 Litre Hopper	(2)	(130L only)
8	FJ027A-Ass.	65 Litre Hopper Lid	2	
8a	FJ027B-Ass.	130 Litre Hopper Lid	2	
9	FJ028A	3mm Allen Key	1	
10	FJ032B	Male Knob	4	
11	FJ033A	M8 Female Knob	4	
12	FJ039A	Rubber Grommet	4	
13	FJ039B	Blank Rubber Grommet	2	
14	MD005	Decal "FAN JET"	2	(not shown)
15	MD007	Decal "DUO"	2	(not shown)
16	MD042	Decal "Warning" Keep Clear - Wear PPE	2	(not shown)
17	MD052	Decal "Warning" Thrown or Flying objects	2	(not shown)
18	MD002	Decal "STOCKS AG"	2	(not shown)
21	FJ058A-DEU or WHI	Disc Motor	2	Dependant on grey or white plug
22	FJ103A-1	Rubber Tensioner	4	
23	FJ104A-1	Bobbin	8	
24	FJ718A	Tipping Bracket	2	Optional
25	FJ070A	Oil Seal	2	
26	FJ071A	Oil Seal Housing	2	
27	FJ605A	Motor Mounting Plate	2	
28	FJ614A	Base Cover Plate	2	
29	FJ717A	Back Cover Plate	2	
30	FJ707A	PVC Motor Protector Plate	2	
31	FJ700A	Clockwise Chassis (A)	1	
32	FJ700B	Anti-clockwise Chassis (B)	1	
33	FJ720A-Ass.	Metering Block Housing	1	
34	FJ722A	Right Hand Fixing Bracket	1	
35	FJ721A	Left Hand Fixing Bracket	1	
36	FJ722A	Right Hand Fixing Bracket	1	
37	FJ721A	Left Hand Fixing Bracket	1	
38	FJ733A	Rotary Feed Outlet	2	
39	FJ731A	Pointer	2	
40	GA108	Feed Block	2	

30.2 Fan Jet Duo TM Parts List Continued

Item	Part #	Description	Qty	Remarks
41	GA113D	Metering Shaft	2	
43	FJ732A	M8 Threaded Rod	2	
44	FJ730A	Motor Guard	2	
45	TJ042A	Motor Spacer	8	
46	MD016	Decal (clockwise)	1	
46a	MD017	Decal (anti-clockwise)	1	
47	MD052	Warning Decal - Keep Clear - PPE		(not shown)
48	FJ540B	Metering Block Mounting Plate	2	
49	GA103	PVC Bush	4	
52	TJ040	Feed Block Seal	2	
53	TJ043A	Coupler	2	
54	TJ044B	Metering Motor	2	
55	GA109	Feed Block End Plate	4	
56	FJ415A	Tipping Plate Pin	1	
57	FJ417A	Nylon Spacer	4	
58	FJ418A	Split Ring	2	
59	FJ419A	Ø3 'R' Pin	2	
60	M5-006	M5x12 Set Screw	10	
61	M5-011	M5 Set Screw	8	
62	M5-012	M5x25 Slot Head CSK Screw	8	
63	M5-014	M5 Flat Washer	18	
64	M5-017	M5 Nyloc Nut	8	
66	M6-004	M6x16 Set Screw	4	
67	M6-007	M6x20 CSK Set Screw	8	
68	M6-008	M6x25 Button Head Set Screw	8	
69	M6-016	M6 Flat Washer	16	
70	M6-002	M6x12 Set Screw	8	
71	M6-007	M6x20 Set Screw	8	
72	M8-012	M8 Repair Washer	8	
73	M8-017	M8 Nyloc Nut	4	
77	M10-023	M10 Nut	8	
78	M10-026	M10 Star Washer	4	
80	M12-004	M12x35 Set Screw	4	

30.3 Fan Jet Duo TM Parts List Continued

Item	Part #	Description	Qty	Remarks
81	M12-008	M12 Flat Washer	12	
82	M12-014	M12 Nyloc Nut	4	
83				
84	MM569	Rubber Stop	4	Optional (see page 7)
85	FJ719A	Stop Bracket	4	Optional (see page 7)
86				
87				
88				
89				
90				
91				
92				
93				
94	TM002	Instrument Panel	1	
95	TJ255B	GPS Receiver	1	
96	TM001	Power Pod	2	
97	TM004	Instrument RAM Mount	1	(not shown)
98	TM006	Instrument Power Cable	1	(not shown)
99	TM011	3m instrument Cable	1	(not shown)
100	TM012	5m instrument Cable	2	(not shown)
101	TM014	Instrument Cable Terminating Resistor	1	(not shown)
102	TM016	Hopper level Sensor	1	(not shown)
103				
104				
105				
106	GA110B-A	Grass Seed Roll	4	
107	GA110B-B	Grass Seed Roll	2	
108	TJ208	10mm Spacer	4	
109	GA114	24mm Blanking Spacer	4	(not shown)
110	TJ204	13.5mm Blanking Spacer	4	(not shown)
111	TJ199	Stainless Steel Shim	1	
112	TJ033	Feed Block Gasket	2	

Notes