Revision 2

17/02/2026

Fan Jet Mini - Jackal

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
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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 Plus	All Variants and Versions
	Fan Jet Mini	All Variants and Versions
	Fan Jet Duo	All Variants and Versions
	Maxi Jet	All Variants and Versions
	Turbo Jet	All Variants and Versions
	Rotor Meter	All Variants and Versions
	Rotor Jet	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 fertiliser 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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Name:..... J Woolway

Date: 01st December 2020

Position: Managing Director

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1.0 General Information

Congratulations on your Fan Jet Mini Jackal 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 publication but may be subject to change. This manual is correct at the time of printing but Stocks Ag 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 Mini Jackal

Hopper capacity: 65 litre or 130 litre

Max spreading width: 12m

Recommended working width: 3-12m

Operating voltage: 12v

Power requirement: 20 amps

Motor output: 240 watt

Max disc speed: 3700rpm

Noise level: 80dB

65 litre machine:

Net weight: 40kg

Dimensions: 50 x 56 x 82cm
(Boxed 52 x 58 x 100cm)

130 litre machine:

Net weight: 45kg

Dimensions: 60 x 60 x 90cm
(Boxed 62 x 62 x 113cm)

1.2 Intended Use

This Fan Jet Mini Jackal has been designed for use in the agricultural, horticulture and amenity sector to apply large dense slug pellets from 3 to 12m and various small seeds and granular products to varying widths depending upon the seed or product density. It can also be used for game cover seeding and as a game feeder.

The applicator can be mounted to operate facing forwards or backwards. Often mounted on the rear of drills and set of rolls to apply slug pellets.

Any other use is considered to be un-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 and grit or for applying salt products.

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

1.4 Machine Identification

The machine can be identified by the serial number decal mounted on the steel chassis to the left of the feed cassette.

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.

Stocks Ag cannot be held responsible for any claims or injuries to the owner or any third parties while in the operation of Stocks Ag equipment.

On no account can Stocks Ag be held liable for accidental or consequential damages (including loss on anticipated profits) for any impairment due to failure or defect of the machine.

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 it functions correctly.

2.0 Safety - continued

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 Decals

⚠**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 switch off the main power switch on the control panel and isolate the power supply immediately by disconnecting the power cable.

1. Power down the control system immediately by switching the main power switch to the middle setting marked "O" on the cab mounted control panel.
2. Disconnect the power supply by unplugging the power cable or removing the fuse.

"POWER OFF" SWITCH POSITION

4.0 Storage

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

It is the responsibility of the operator to ensure the hopper is empty after 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

Heavy duty white PVC cover fitted with eyelets and bungie cord for easy attachment.

65L Waterproof PVC Cover **Part No. 45FJT5002** 130L Waterproof PVC Cover **Part No. 45FJT5007**

Please contact your local Stocks Ag dealer for more information.

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 and any toxic residue have been 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

Ensure the parent machine is stationary and parked on level ground before working on the machine.

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

⚠**WARNING! Always ensure the power supply is disconnected before any maintenance work or cleaning of this machine by unplugging the power cable or removing the fuse in the power cable.**

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.

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

8.0 Before use

1. Ensure the machine is securely mounted.

2. Check the power supply and ensure the power cable is connected directly to the vehicle battery.

3. Check the feed block is configured correctly and free running before starting work.

9.0 Daily Checks

1. Check the feed motor is working correctly.

2. Check the 12v disc is clean and free from any debris.

3. Check hopper is clear of foreign objects.

4. Check the machine is secured correctly.

10.0 After Each Use

1. Empty hopper and clean the machine thoroughly.

2. Disconnect the power supply.

3. Replace the PVC waterproof cover (if applicable).

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

⚠WARNING!

DO NOT JET WASH THIS MACHINE

11.0 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, so ensure that the machine is securely attached to a suitably strong, rigid mounting point.

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

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

NOTE: The machines can be operated facing forwards or backwards.

Ensure the disc height is a minimum of 1 metre above the crop canopy or the ground – more height may improve the maximum spread width.

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.

⚠**WARNING! The control panel is not waterproof and so will need to be protected.**

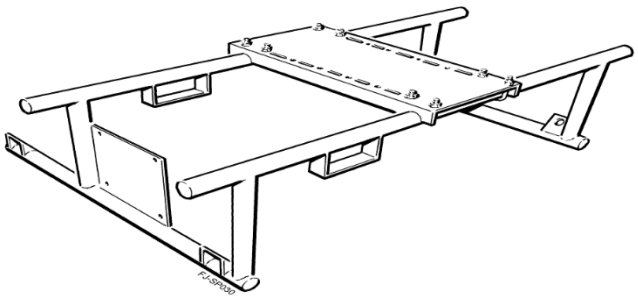
12.0 UTV Fitting Kit – Optional

Part No. 45FJT5130 (available through your local dealer).

The cost option UTV kit is available for most UTV fitments.

It offers a sturdy frame with 4 hooked anchor points and hand-release fittings.

One-piece tubular steel construction with detachable machine mounting plate.



13.0 Mounting Plate

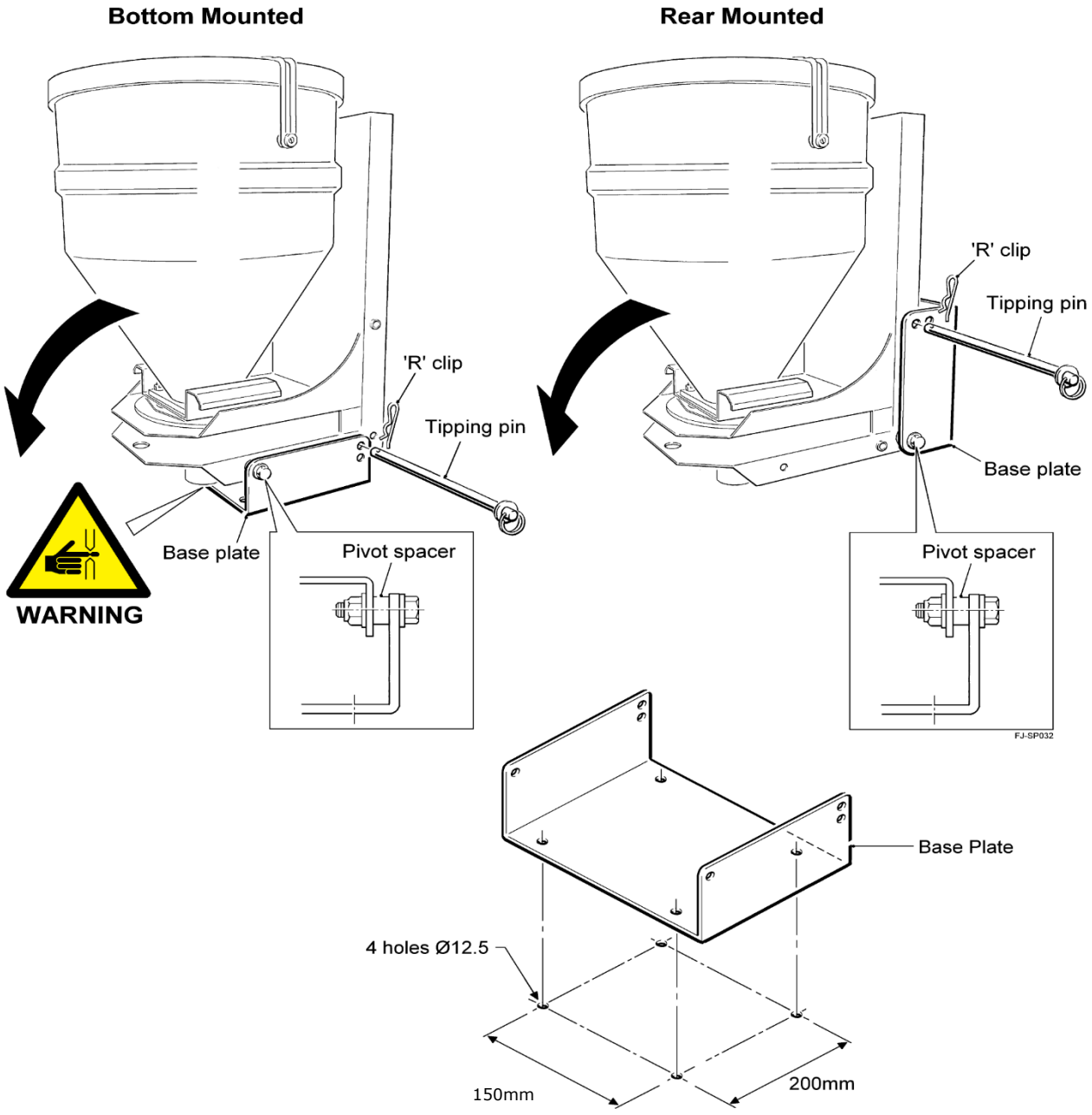
Mount the machine using the tipping base plate. This has 4 holes in the base to take M12 bolts (see below) used to attach to the parent vehicle. The base plate can also be repositioned to fit the holes in the back of the machine to attach to a vertical mounting point – use whichever is best for you.

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. There are 2 positions for the pin – these can be used 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.



Additional Base Plates available: Part No. FJ514B.

14.0 Machine Components

14.1 Feed Motor

The feed motor can be turned ON or OFF, either manually via the head unit, or automatically by the remote mounted spring finger switch which can be fitted to the linkage or the implement. The feed motor must be switched ON via the head unit for the spring finger switch to work automatically.

14.2 12v Disc Motor

The disc motor can be switched ON and OFF and the disc speed adjusted on the instrument panel.

14.3 GPS Sensor - Optional

Small and compact with integrated magnetic base for ease of fitting to the tractor cab or suitable mounting position. Fitted with a 5m lead which plugs into a fly lead on the back of the instrument screen.

14.4 Main Power Cable

The power cable should connect directly to the vehicle battery posts to ensure adequate 12v supply to the disc motor. The in-line is 25 amp. This 6m power cable connects from the battery to the power input fly lead on the machine.

14.5 Instrument Lead - (Coms Cable)

The 6m instrument lead connects to the junction box of the Fan Jet and runs to the control panel in the tractor cab.

NOTE: Extension power and instrument cables available, if required.

Please contact your local Stocks AG dealer for more information.

14.6 Spring Finger Switch - Optional

The switch should be mounted to a suitable place on the implement or linkage of the tractor, Deflecting the spring, automatically switching the feed motor OFF or ON accordingly as the circuit is made or broken.

Position the finger switch so that the tip of the spring comes into contact with the moving part of the implement or linkage when lifted out of work, and remains deflected until the implement is lowered back into work.

NOTE. Ensure that there is sufficient and positive deflection on the spring to prevent accidental switching ON or if the implement moves slightly up or down in work.

If the operation of the finger switch works opposite to what is required, this can be altered on the Jackal

control box. See section 25 Run/Hold Automatic Switch.

NOTE: The area meter also stops when the feed motor stops.

14.7 Hopper Level Sensor – Optional

The instrument will alarm once the product in the hopper falls below the level of the sensor.

15.0 Hopper Emptying Procedure

Removing the hopper for cleaning and maintenance.

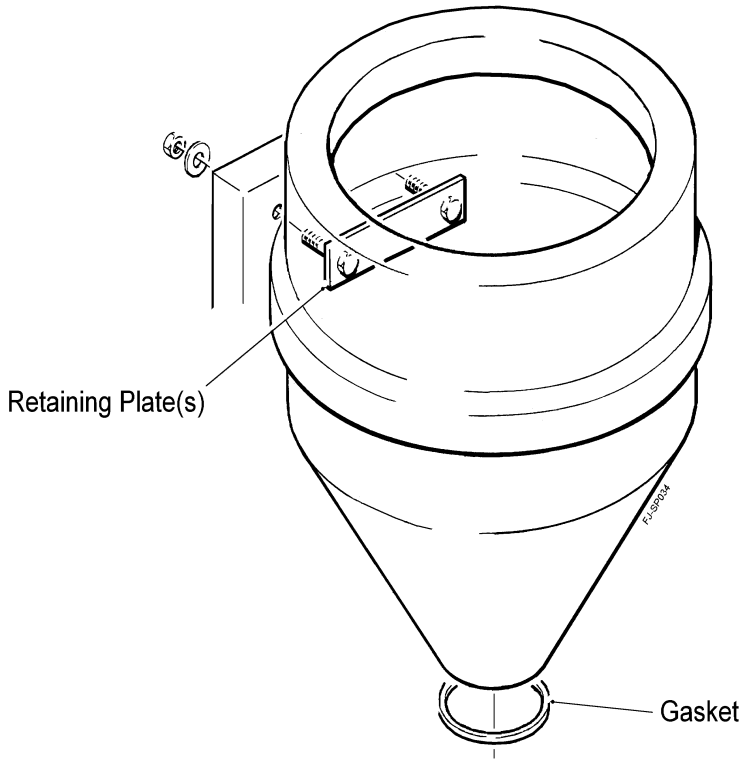
Ensure the hopper is completely empty and free from any product residue.

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

Release the rubber lid retaining straps and remove the lid. The hopper can then be lifted away after removing the retaining plate(s) from within the hopper. This is done by releasing the M8 external fixing nuts and washers.

When replacing the hopper ensure the gasket fitted under the base of the hopper is in good order.

Replace if damaged: Part number FJ017S



16.0 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 disconnect 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 contaminate the environment.

17.0 Instrument Lead Plug

The 5m instrument lead connects to the junction box of the Fan Jet Plus and runs to the control panel in the tractor cab.

Ensure the multi pin connector on the instrument cables are connected the correct way round, as shown.



NOTE: Extension power and instrument cables available if, required.

Please contact your local Stocks Ag dealer for more information.

18.0 Jackal Control System Overview

All control system components integral to the applicator are factory fitted.

The instrument has a 128mm x 64mm Mono Graphic LCD Screen which has multiple functions.

Separate heavy duty power cable and head unit leads interconnect the tractor and the seed applicator unit.

Electrical components supplied with the machine:

- Jackal Instrument (fitted with 3m instrument lead) c/w fly lead to connect to a 7 pin tractor cab socket
- Instrument mounting kit
- 5m instrument cable
- 5m fused power cable (machine junction box has a 3m fly lead attached)

All components packed inside the hopper from factory.

19.0 Jackal Control System Options

1. Feed Cut Out Switch - this can be mounted in a suitable place on the implement or linkage of the tractor. Deflecting the spring, and automatically switching the feed motor OFF or ON accordingly, as the circuit is made or broken.

2. GPS Speed Sensor Kit - to avoid any over applying of product this offers speed proportionate metering of product, maintaining the pre-set application rate in line with forward speed changes. If the system is unable to maintain the rate it will alarm and alert the operator.

3. Hopper Level Sensor - alarms to warn the operator if the hopper contents are getting low.

4. Power and Instrument extension cables - available in 5m lengths.

Please contact your local Stocks Ag dealer for more details.

20.0 Control System Operation

1. Power On/Off button

Power is turned on by pressing the **ON/OFF** button for 1 second.

Power is turned off by holding the **ON/OFF** button for 2 seconds.

2. Run/Hold button

The **RUN/HOLD** button has a dual function.

Press **RUN/HOLD** once to place the 'Metering unit ON HOLD'.

Press **RUN/HOLD** again to resume operation.

The **RUN/HOLD** state is indicated in the top left-hand corner of the screen. When the metering unit is in **RUN** mode, the unit displays **RUN** to signify that the metering unit is active (turning).

When the metering unit is in **HOLD** mode the unit displays the word "**HOLD**" & beeps every 2 seconds.

3. Page button

The **PAGE** button is used to scroll through function screens.

4. Select buttons

The Jackal has 3 buttons placed directly under the LCD. These buttons will change function in different menus.

The function of the button is indicated at the bottom of the screen directly above the button.

5. Navigation button (Up, Down, Left, Right, Enter)

The round navigation (**NAV**) buttons are used to navigate **UP/DOWN/LEFT/RIGHT** in calibration screens as well as scrolling through the display lines on the main screen.

ENTER is used to select the option highlighted onscreen.

20.1 Machine Junction Box

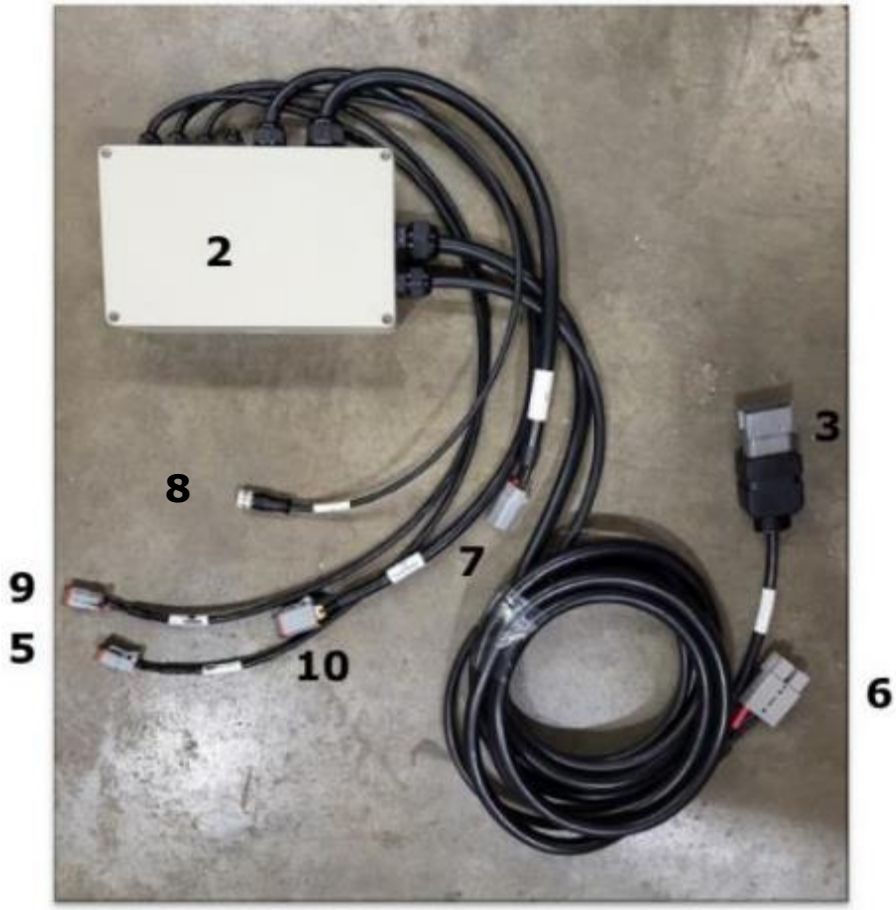
The Jackal Junction box (MMD) is located underneath a panel, which is the top half of the fan guard.

The single button on the side is for calibrating the Fan Jet Mini.

See Jackal control box instructions.

21.0 Electrical Components

1



1. Cab control panel	8. Hopper level sensor connection - Optional
2. Junction box MMD Disc (machine mounted)	9. Agitator motor connection
3. Control cable connection	10. Feed motor connection
4. GPS sensor connection - Optional (not shown)	11. 6m control extension cable (not shown)
5. Cut out switch connection - Optional	12. 5m fused power cable (not shown)
6. Power cable connection	13. 5m power cable extension (not shown)
7. 12v Disc connection	

21.1 Run Hold/Cut Out Switch – Optional

This optional switch can be mounted in a suitable place on the implement or linkage of the tractor. Deflecting the spring, and automatically switching the feed motor OFF or ON accordingly, as the circuit is made or broken.

Part No: 47TJT50025

Position the optional finger switch so that the tip of the spring comes into contact with the moving part of the implement or linkage when lifted out of work and remains deflected until the implement is lowered back into work.

NOTE: Ensure that there is sufficient and positive deflection on the spring to prevent accidental switching ON or OFF if the implement moves slightly up or down in work. The standard wiring supplied for this switch is with the spring at rest and the feed motor running normally. If required the switch can work in the opposite mode by changing the setting on the head unit, see manual page 31 (section 25).

21.2 Hopper Level Sensor – Optional

There is an optional hopper level sensor available. This option is useful when the hopper of the applicator is out of view of the operator. The alarm will sound once the product in hopper drops below the level of the sensor.

For more information please contact your local Stocks Ag dealer.

Hopper level sensor - Part No: 47TJT5037

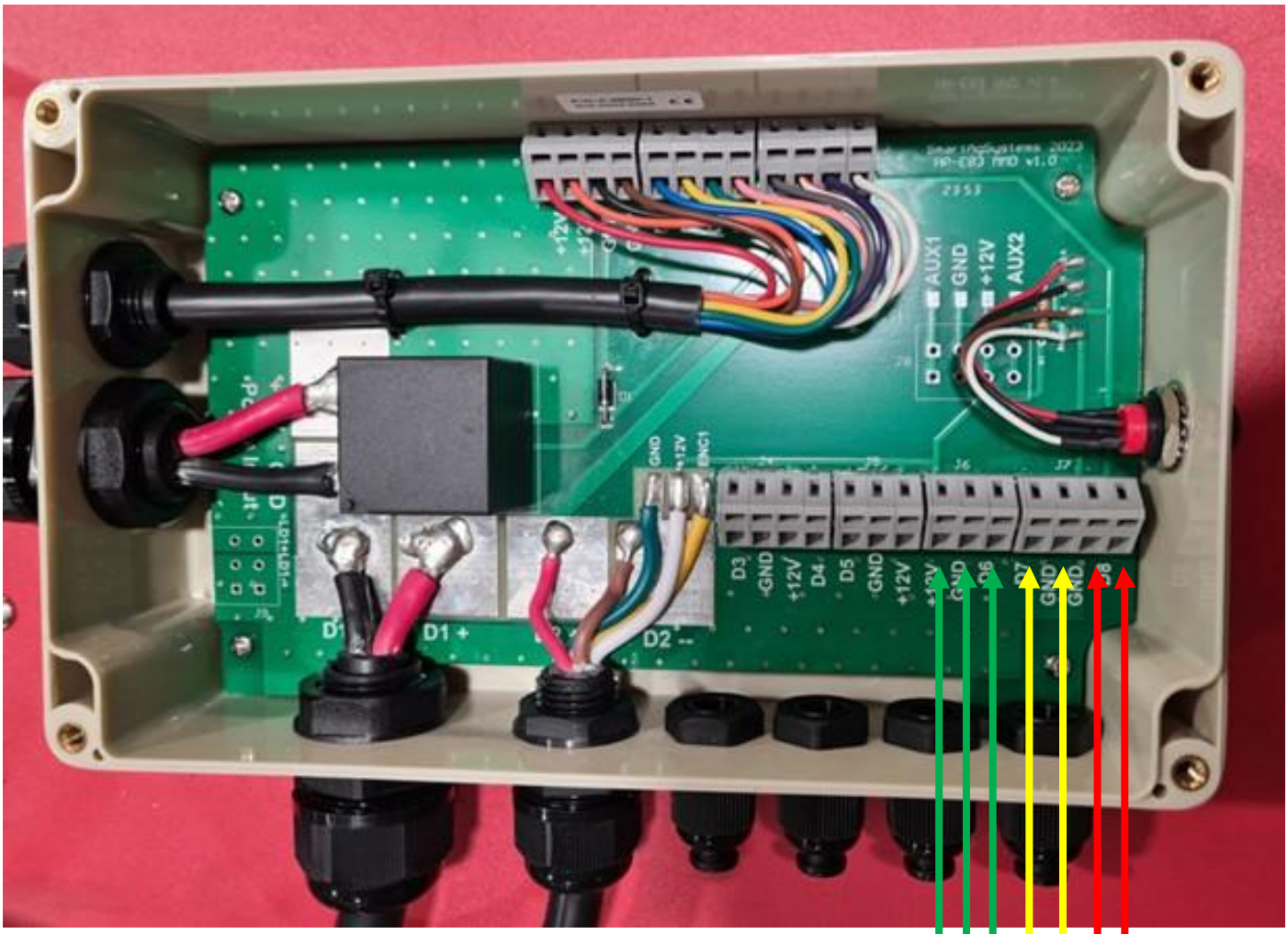
21.3 GPS Speed Sensor Kit – Optional

When a tractors 7 pin implement socket is not available for a forward speed signal, the Jackal can be fitted with this optional GPS sensor kit. This will give speed proportionate metering of product whilst maintaining the pre-set application rate in line with changes in forward speed. The fly lead is required to connect the GPS receiver to the plug on the back of the head unit.

GPS receiver - Part No: 47TJT5036

GPS fly lead - Part No: 97APC0048

21.4 Wiring for Optional Extras



Hopper Level Sensor wire connections

BROWN = +12V

BLUE = GROUND

YELLOW / GREEN = D6

Agitator Motor wire connections

BROWN = D7

BLUE = GROUND

Cut Out Switch wire connections

BLUE = GROUND

BROWN = D8

22.0 Power Connection

Power connection must come direct from the battery terminals, **WARRANTY VOID** if power is not connected as described in this section.

Connect power cable supplied **DIRECTLY TO BATTERY**

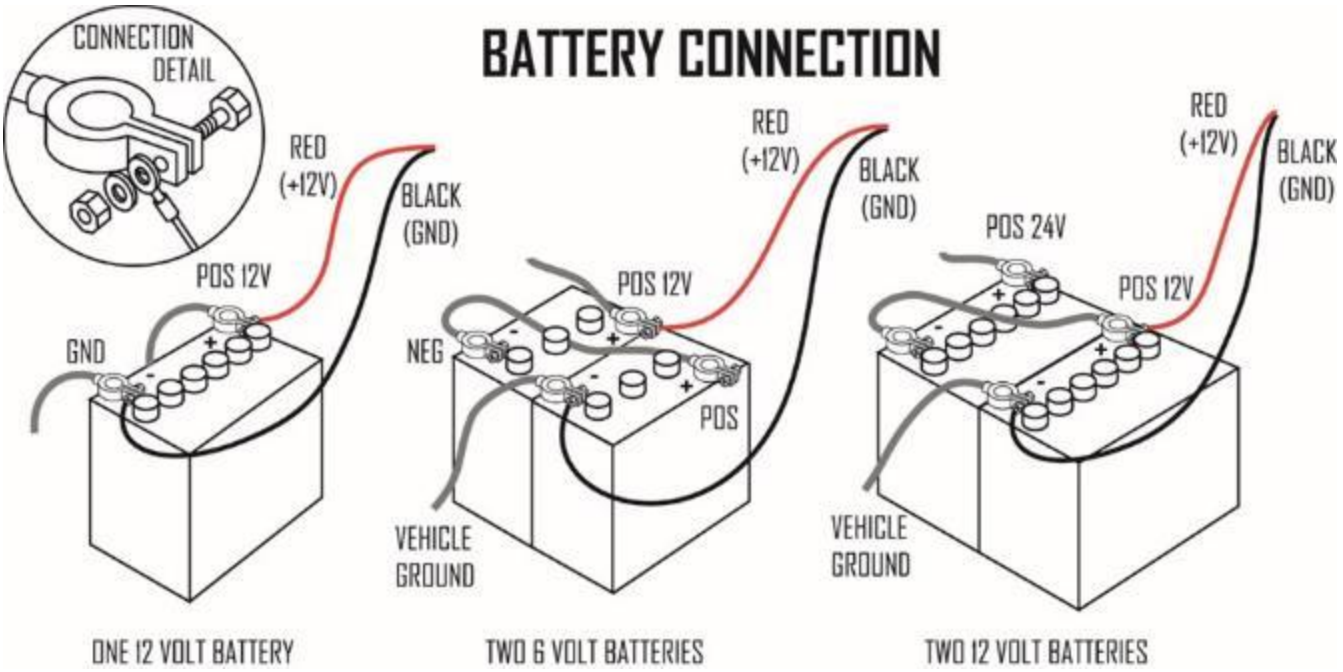
Ring terminals are used for battery connection and the bare end used to connect to the rear Jackal instrument

(Refer to the image below for power connection)

Connect Ground to BATT (-V) **Terminal A11** using the **RED** with **BLACK** stripe wire

Connect +12 Volts (+battery terminal) to BATT (+V) **Terminal A10** using the RED wire

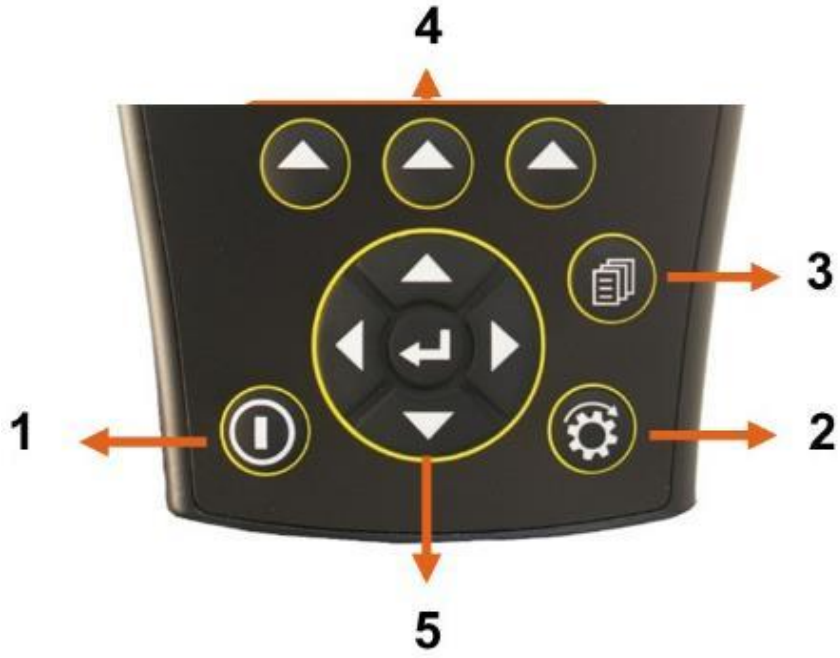
Ensure that the battery connection to the Jackal is +12 Volts



Connecting 24v to the Jackal will damage the system and also VOID WARRANTY

WARNING **Disconnect the terminal plugs from the Jackal if ARC WELDING on machinery**

23.0 Instrument Button Functions



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5. **Navigation button (Up, Down, Left, Right, Enter)**

   The round navigation (**NAV**) buttons are used to navigate **UP/DOWN/LEFT/RIGHT** in calibration screens as well as scrolling through the display lines on the main screen.

   ENTER is used to select the option highlighted onscreen.

24.0 Initial Instrument Setup

This display is called the **RUN** screen and displays the information required when the machine is in normal use.

It displays on a scrolling list:

Application Rate

Forward Speed

Hopper Level sensor

SCROLL DOWN TO VIEW

Fan Current (as a % of battery voltage)

Area Meter

Setting the Working Width

Using the **PAGE** button scroll through until the **SETUP** option displays over the select buttons.

Press the SELECT button to enter the SETUP Menu.

Using the DOWN Arrow on the Navigation key pad, scroll down to **Other Settings.**

Using either the ENTER button on the Navigation key pad or the right hand **SELECT** button, with SELECT above it, to confirm.

24.0 Initial Instrument Setup Continued

Using the navigation keys, scroll down to implement width.

Press the left navigation button to highlight the numerical value to be adjusted.

Press **EDIT.**

On the next screen enter the working width in metres.

To adjust the value, use the navigation up and down buttons to change the value.

Use the left and right buttons to select to the unit to be adjusted.

The example across shows a working width of 8.5 metres being entered.

Press **EXIT** to save and go back to settings menu.

25.0 Run/Hold Automatic Switch

The Jackal has 3 main methods of switching the metering roller on and off. On is referred to as **Run** to apply product and off is referred to as **Hold** to stop the metering roller.
The **Run** or **Hold** button on the bottom right of the control box can be used to manually switch the metering motor on and off.
When using an implement attached to the 3 point linkage, the 7 pin implement socket in the cab can be used to provide an on/off signal for the **Run/Hold** function.
To use the 7 pin input as the **Run/Hold** function, the **Input#** must be set to **9**.
Note: This input may require changing, please contact Stocks for technical assistance to unlock this function.

There is also an optional cut out finger switch available.

This is set from factory to be in the **Hold** position when not activated (in its central rest position) and when the finger is moved, the metering motor will start or **Run**.

The set up for this function is displayed in **SET UP/Other Settings**, scroll down to **Extern.Run/Hold**

This will be shown on the screen as **Normally Off**

If required, the operation of the **Run/Hold** can be made to operate the opposite way round to suit a particular tractor or position of the optional finger switch.

Finger switch and 7 pin implement switch setting:

In **Set Up, Other Settings, Extern.Run.Hold.**

By changing the setting to **Normally On**, the machine will meter product with the **Run/Hold** finger switch in the rest position and then switch off when the **Run/Hold** finger switch is moved.

26.0 First/New Product Calibration

From the front screen, select **SETUP**, by pressing the arrow directly below.

Then select **Inputs** by pressing **SELECT** or the Enter button in the middle of the navigation keys.

The on the next screen, highlight **1: kg** then press select.

26.0 First/New Calibration continued

Important! – On the first ever calibration run or when changing product types. Leave the target set to 0.000kg, do not enter a target weight.

To prime, first release the calibration door on the bottom of the machine and place the calibration tray underneath.

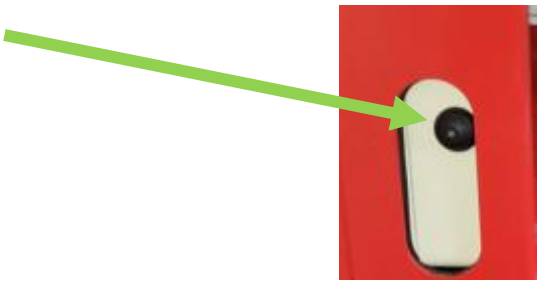
Press and hold the arrow button below **START** on the Jackal Instrument or the button on the applicator junction box.

Once product is dispensed, release the button. The screen will AUTO RESET for the calibration run.

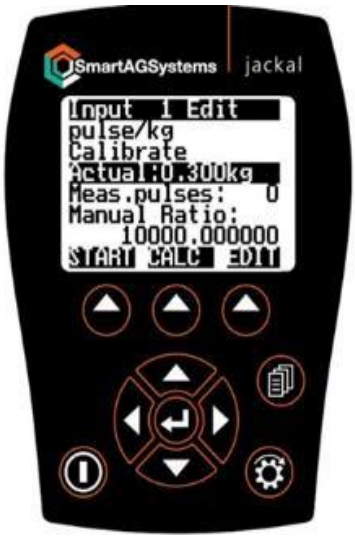
To start calibration, you can either press and hold the arrow button under the word **START** on the screen.

Or press and hold the button on the junction box on the side of the machine.

The calibration run will stop when the button is released.



26.0 First/New Calibration continued



Weigh the product dispensed with scales that weigh in grams or kgs to 3 decimal places.

The TARGET line will now read **Actual.**

With **Actual** highlighted. Press the arrow key below **EDIT** and enter the weight of product dispensed.

A new screen opens to allow you to enter the weight of product dispensed.

Example: If you weighed 256 grams, you need to enter this as 0.256kg on the screen.

Using the left and right navigation key pad to highlight the figure that needs adjusting, use the up and down to change the figure.

To save and exit, press the arrow below **EXIT.**

DEL is to delete a digit and **INS** is to insert a digit.

To confirm the actual weight that has been entered, now press **CALC** to work out the new ratio.

Note: *This ratio is the number of pulses from the encoder on the metering motor per kg of product.*

For reference, the calculated ratio can be recorded along with the product type and feed roller set. This ratio can be entered manually to quickly change between products in the future.

Scroll down to highlight Manual Ratio press **EDIT** and enter the recorded figure.

To save and exit, press **EXIT.**

27.0 Product Calibration

From the front screen, to select **SETUP** press the arrow directly below.

Then select **Inputs** by pressing **SELECT** or the Enter button in the middle of the navigation keys.

Once the first calibration run has been completed and calculated, the manual ratio will change.

A target rate can now be entered.

Using the Navigation keys, scroll down to highlight **Target.**

Press the arrow key below **EDIT.**

27.0 Product Calibration continued

This is the weight you want to dispense during your calibration. This is usually 0.100kg (100 grams) up to around 0.800kg (800 grams).

Example: Set to 300 grams or 0.300 kg.

To prime, first release the calibration door on the bottom of the machine and place the calibration tray underneath.

Press and hold the arrow button below **START** on the Jackal Instrument or the button on the applicator junction box. Once the product is dispensed, release the button. The screen will auto reset for the calibration run.

To START the calibration, you can either press and hold the arrow button under **START** or press and hold the button on the side of the applicator junction box.

The calibration run will stop when the target rate is reached or when the button is released.

27.0 Product Calibration continued

Weigh the product dispensed with scales that weigh in grams or kgs to 3 decimal places.

The TARGET line will now read **Actual** with **Actual** highlighted. Press the arrow key below **EDIT** and enter the weight of product dispensed.

Example: If you weighed 256 grams, you need to enter this as 0.256kg on the screen.

To save and exit, press the arrow below **EXIT.**

27.0 Product Calibration continued

To confirm the actual weight that has been entered, now press **CALC** to work out the new ratio.

***Note**: This ratio is the number of pulses from the encoder on the metering motor per kg or product.*

For reference, the calculated ratio can be written down along with the product type and feed roller set. This ratio can be entered manually to quickly change between products in the future.

Scroll down to highlight **Manual Ratio** press **EDIT** and enter the recorded figure.

To save and exit, press **EXIT.**

28.0 Spreading/Applying Product

From the HOME screen, using the PAGE button, scroll through until DISC Rate + Rate - is displayed.

Press the arrow button directly below DISC to turn the disc on. Press Rate+ to increase speed.
The speed is indicated in % of battery voltage.
For slug pellets to 24m, 100% will be required (product dependent).
Grass seed will spread to a maximum of 6m at 100%.
To reduce spread width or limit seed damage, drop the disc speed % with Rate-.

***Note**: The Disc will quickly get up to speed, the % counter takes longer to count up. The % must be at 70% or above before the feed rollers can be turned on.*
To turn the disc off, press the arrow key under DISC so it is no longer highlighted.

28.0 Spreading/Applying Product Continued

For the machine to operate, the **RUN/HOLD** in the top left of the screen, must display **RUN.**

This is either switched by the linkage position switch/sensor. (This is either on the 7 pin plug or external finger switch, if supplied).

Alternatively, if there is no 7 pin input or external finger switch, the **RUN/HOLD** button on the bottom right of the keypad can be used to switch the metering unit on and off.

As the machine is about to start work, set the application rate required. This can be done by selecting one of the two preset "**quick rate**" buttons, as highlighted opposite.

See Quick Rate section to adjust the preset rates.

Until the machine is moving, **STOP RATE** will be displayed in the top right of the screen.

Alternatively, the rate can be set manually on the **RATE+** or **RATE–** page.

Once the machine starts to move, the forward speed will be displayed and the **STOP** message will change to **OK**.

The applicator should now be applying product.

29.0 Simulated Speed

Simulated speed is used when no forward speed input is available, or if you need to run the machine while stationary for testing.

If simulated speed is switched on, it will override any external speed input.

Select the Other Settings page by selecting **SETUP** then **Other Settings**, scroll down to **SimulSpeed**.

The simulated speed can be switched on or off by highlighting **YES** or **NO** and pressing the arrow key below **EDIT** or the Enter Button.

To return to the Run/Home screen press **EXIT** to save and **EXIT** each screen.

When simulated speed is turned on, this function is now available when scrolling through the screen functions using the **PAGE** button.

The simulated speed function must be switched off to allow an external forward speed input to alter the application rate as the tractor speed changes.

The speed can be adjusted on the move and the feed rate will adjust accordingly.

30.0 Alarms and Trip Functions

ALARMS

The Alarms page is accessed from the home screen, using the left hand select arrow.

The Alarms are listed and show which alarms are active.

The alarm function should be set to AUTO.

=AUTO: As soon as the value moves back within the min and max range the monitor will automatically reset the alarm.

=ON: When the alarm is activated it will remain ON until you enter the ALARM menu and manually reset.

=OFF: You can disable the alarm altogether.

TRIPS

The Trips page allows accumulating area (hectare) values to be saved and recalled at a later time.

From the front-page press **TRIP,** the screen opposite allows you to SAVE/RESET individual trips or view SAVED TRIPS.

By pressing the **SAVE/RESET** you have the ability to Reset Trip | Save Trip | Reset All.

By pressing **2. Save Trip** it will be stored in the SAVED TRIPS option.

You can now view the **SAVED TRIPS**. You also have the ability to **EDIT** and name the Trip or **DEL ALL** (Delete All Trips).

When you return to the TRIPS page the Trip will continue to accumulate.
You will need to SAVE/RESET the trip if you want to start from Zero (0) again.

31.0 Quick Rate and Step Size Adjustment

The preset quick rates can be set to whatever is required.

From the front screen settings, the size of the step rate can be adjusted.

To get to the Front Screen, use the page button until SETUP is displayed. Select SETUP, then scroll down to Front Screen and select.

When the Front screen is displayed, as opposite, select **1: SEED** by highlighting and press **EDIT**.

Scroll down until **Step:** is visible.

To adjust the Step size, scroll down to highlight **Step.**

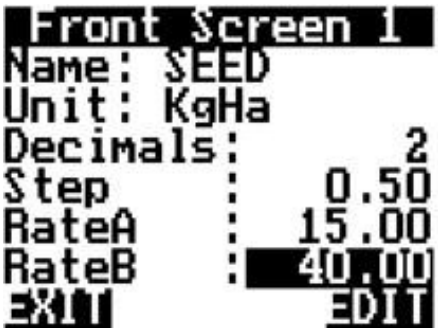
Press **EDIT** and set the required **Step** size in kg/ha (screen opposite shows steps of 0.50 kg/ha).

Press **EXIT** to save and exit.

0.50000 is a 500 grams or 0.5 kg step size.

To adjust **RateA** and/or **RateB**, scroll down and highlight the one to be altered. Then press **EDIT**.

Enter the required rate and press **EXIT** to save and exit.



32.0 Flush/Hopper Empty

The Jackal has a Flush or Hopper Empty function.

Use the Page button to scroll through the function until **SEED** and **Flush** are displayed above the arrow buttons.

Open the calibration door and place a suitable bucket or container underneath.

To begin emptying, press the arrow button under Flush.

The Flush icon will begin to flash and the metering unit turns.

Press again to stop.

33.0 Diagnostics

The Diagnostics page is accessed from the **SETUP** page and scroll down to Diagnostics.

This page will display supply voltage and current being drawn.

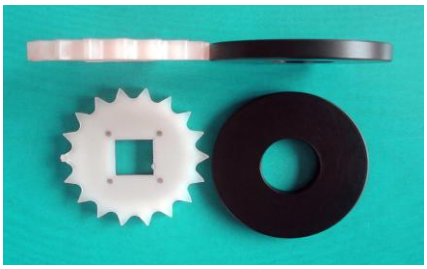
Each input and output set up on the Jackal is displayed. When switched on or operated it will show a voltage or hertz reading.

34.0 Setting the Feed Rate

The feed rate is adjusted by the feed motor speed and by fitting different feed roller combinations. Each combination gives different feed rates of material per revolution. Refer to the Calibration page 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. This is calculated during the calibration procedure.

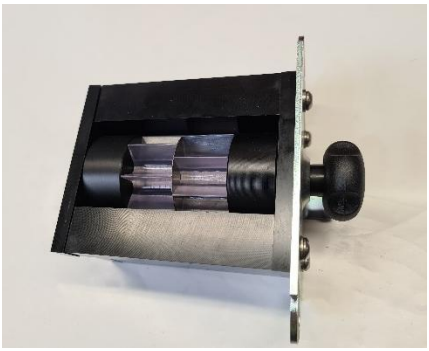
35.0 Feed Roller Configuration

The machine is fitted 10 white 5mm polyurethane 18 tooth feed rollers as standard these have a stainless-steel drive disc embedded. Depending on the combination of required seeding rate, implement width and forward speed 2 to 10 feed rollers can be fitted. The maximum rates are achieved by fitting all 10 feed rollers. The black 5mm wide spacers supplied are the same width as the white feed rollers and used to replace feed rollers as required.



NOTE: Always ensure a stainless disc is fitted to each side of the set of 1,2,3,4 or 5 feed rollers used in each half of the feed block. They are important and are needed to reduce friction between the feed rollers and the plastic spacers.

For higher outputs or applying large seeds or granules the machine is also supplied with 2 larger 8 section feed rollers and spacers to allow 1 or 2 to be fitted as required. The feed rollers are easily changed by removing the feed block as follows.



NOTE: Empty the hopper completely before removing the feed block.

1. Undo and remove the 2 black plastic knobs holding the feed block in place.

2. Slide the complete mechanism out.

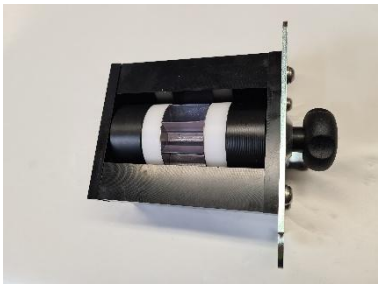
3. Undo and remove the 4 socket head screws on the end of the housing opposite the retaining plate and remove the end plate.

4. Slide the rollers and spacers off the shaft, and replace with the alternative rollers and spacers in the required combination.

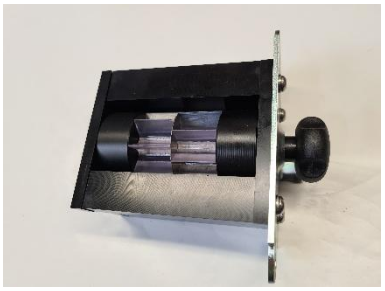
5. Refit the end plates and re-fit the feed block and black plastic knobs.

35.0 Feed Roller Configuration Continued

1 x 8 Section Feed Rollers



2 x 8 Section Feed Rollers



When re-fitting the end plates to the feed block, after changing the configuration, the feed block should be free enough to turn easily by hand, without having to pull it home with the socket head screws.

The assembled rolls 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 for advice.

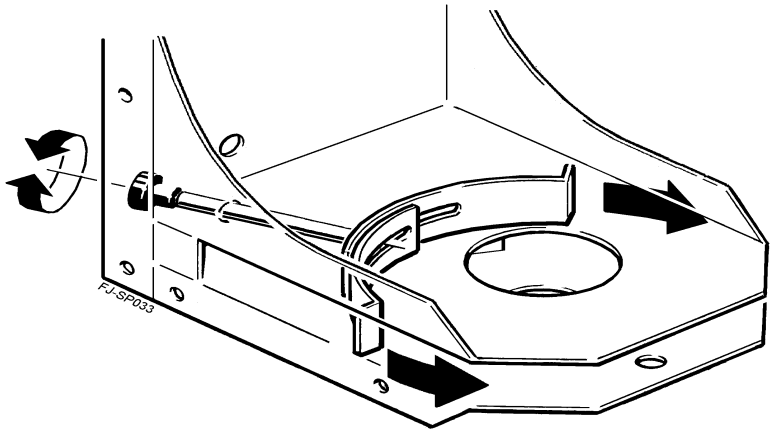
WARNING! Always observe all application standards and guidelines provided by the product manufacturer as some products may be toxic. If unsure contact your supplier for more information.

36.0 Setting the Headland Deflectors

Adjustable deflectors that reduce the exit aperture from the disc are incorporated into the Fan Jet to physically limit the spread width for headland control.

Undo the black plastic knob at the rear of the chassis and slide each deflector around the disc as far as required. (This could be used to prevent chemical granules from entering a watercourse or grass margin). Then re-tighten the locking knob.

NOTE: Use the motor disc speed dial in conjunction with the deflectors and the bias adjustment.



37.0 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. However, the line between traditional 'mini' pellets and 'full size' is blurred as most are of similar size and some lower priced dry produced pellets termed, as 'minis' are actually larger and heavier than more expensive wet produced pellets, and can have a good spreading characteristic.

Seed varieties and dressings. Different varieties of seeds and seed dressings will have different densities and so affect the maximum spread width possible.

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

High forward speed. Driving fast, can have the same effect as driving into a headwind of the same speed, even on a calm day, and this will peel the edges of the spread pattern backwards and inwards.

Disc speed. If the Vario control console is used, altering the disc speed will affect the width and pattern. 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.

Spread bias. This can be adjusted to centralise the pattern, left and right of centreline.

Adjustable deflectors. We do not recommend that these are used for in-field work but only for the headland control on the outside bouts.

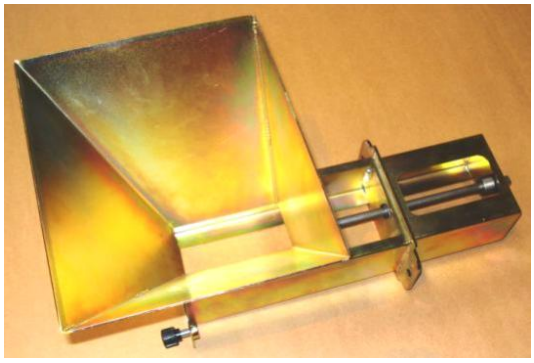
However, it is possible to adjust them to restrict the width overall, or just one side, but they may cause increased breakage of the granules or seed damage.

Our advice. Reduce the disc speed and the deflectors positioned to help limit the spread width.

NOTE: Stop after a few metres work to ensure the distribution, spread width and application rate are correct.

Then check periodically.

38.0 Calibration Hopper



Calibration Hopper is not included as standard with the machine.

Part No. 45FJT5013

38.1 Calibration Hopper – Fitting Instructions

1. With an empty hopper, remove the feed block assembly from the machine.

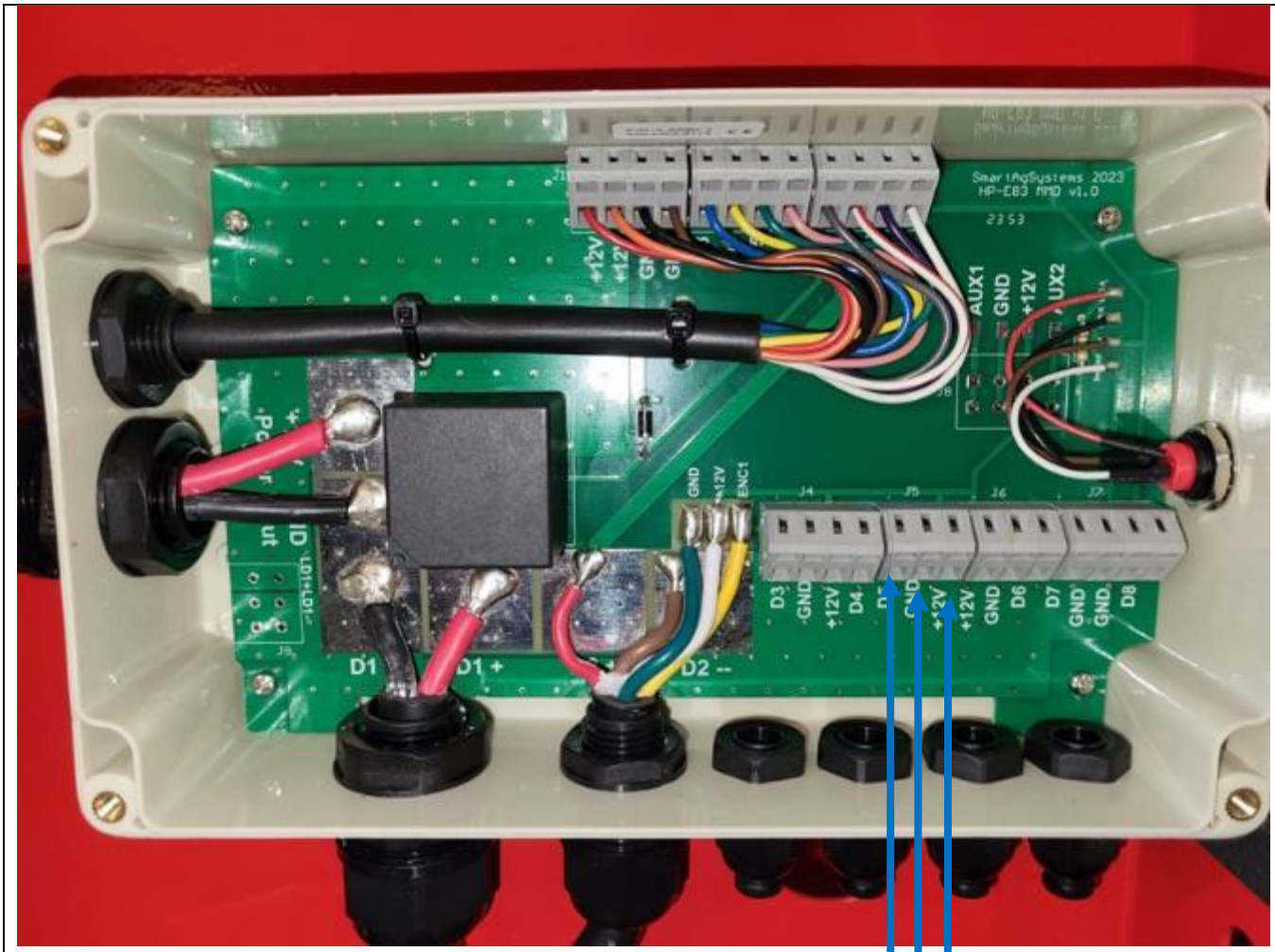
2. Slide the Calibration Hopper into the Fan Jet in place of the feed block with the hopper uppermost. Ensure the drive shaft aligns and secure with the supplied screw knobs.

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.

39.0 Wheel Speed Sensor – Optional – Fly Lead Wiring



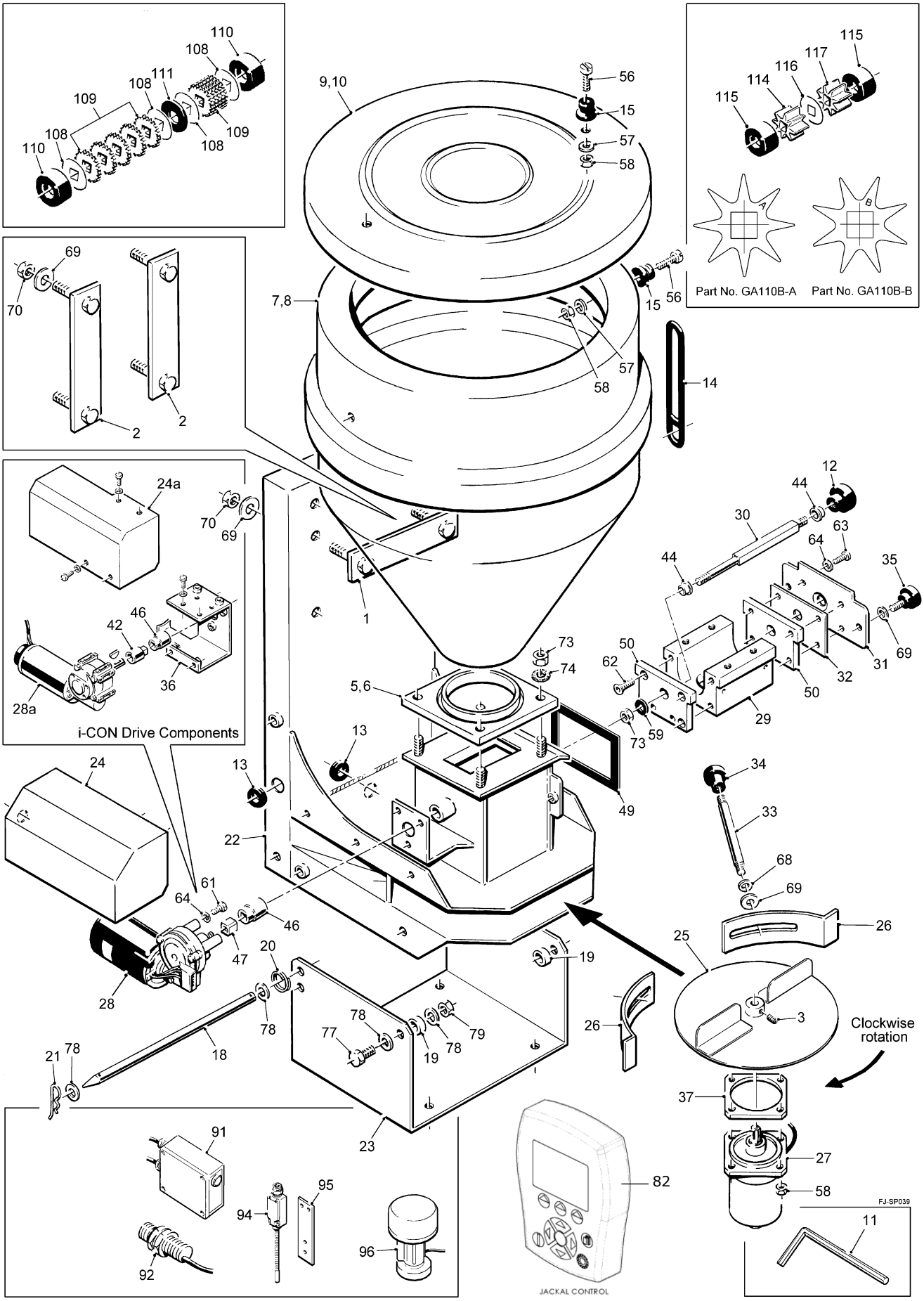
Wheel Speed Sensor Wire Connections

YELLOW / GREEN = D5

BLUE = GROUND

BROWN = +12V

40.0 Fan Jet Mini -Parts Drawing



41.0 Fan Jet Mini Part List

Item	Part #	Description	Qty	Remarks
1	FJ003A	Hopper Bracket	1	65L only
2	FJ003A	Hopper Bracket	2	130L only
3	FJ008A	M6x6mm Grub Screw	2	
5	FJ017D	Hopper Base Plate	1	
6	FJ017S	Base Plate Seal	1	Not Shown
7	FJ026A-Ass.	65 Litre Hopper Assembly	1	
8	FJ026B-Ass.	130 Litre Hopper Assembly	1	
9	FJ027A-Ass.	65 Litre Hopper Lid Assembly	2	
10	FJ027B-Ass.	130 Litre Hopper Lid Assembly	2	
11	FJ028A	3mm Allen Key	1	
12	FJ033A	M8 Female Knob	1	
13	GR005	Rubber Grommet	2	
14	FJ103A-1	Rubber Tensioner	2	Qty x 3 on 130L
15	FJ104A-1	Bobbin	4	Qty x 6 on 130L
18	FJ415B	Tipping Pin	1	
19	FJ417A	Nylon Spacer	2	
20	FJ418A	Split Ring	1	
21	FJ419A	3mm "R" Pin	1	
22	FJ500B	Chassis Weld Assembly	1	
23	FJ514B	Tipping Base Plate	1	
24a	MM055A	Motor Guard Assembly	1	
25	MFJ007A	Disc Assembly	1	
26	FJ509A	Deflector	2	
27	FJ057D	Disc Motor	1	
28a	TJ044B	Feed Motor	1	
29	GA108	Feed Block	1	
30	GA113B	Feed Shaft	1	
31	FJ540B	Feed Block Mounting Plate	1	
32	FJ539A	Block Packer	1	
33	TJ131	4mm Allen Key	1	(not shown)
35	FJ032B	M8 x 15 Knob	2	
33	FJ030A	Deflector Knob Tube	1	
34	FJ032A	M8 x 8.5 Knob	1	

41.0 Fan Jet Mini – Parts List (continued)

Item	Part#	Description	Qty	Remarks
35	FJ32B	M8 x 15 Knob	2	
36	FJ548A-ASS	Feed Motor Bracket	1	
37	FJ736B	Motor Spacer Plate	1	(not shown)
42	TJ043	Motor Drive Coupling	1	
44	GA103	PVC Bush	2	
46	MM048	17mm Drive Socket	1	
47	MM049	Drive Square	1	
49	TJ040	Feed Block Gasket	1	
50	GA109	Feed Block End Plate	2	
51	MD005	Decal "FAN JET"	1	(not shown)
52	MD008	Decal "Mini"	1	(not shown)
53	MD052	Decal "Warning" Keep Clear - Wear PPE	1	(not shown)
54	MD050	"Warning" Decal Set - Thrown or Flying objects	1	(not shown)
56	M5-012	M5x25 Slot Head CSK Screw	4	Qty x 6 on 130L
57	M5-014	M5 Flat Washer	4	Qty x 6 on 130L
58	M5-017	M5 Nyloc Nut	8	Qty x 10 on 130L

41.0 Fan Jet Plus – Parts List (continued)

Item	Part #	Description	Qty	Remarks
59	TJ033	Feed Block Gasket	1	
60	98APP1034	Decal Jackal - Grey	1	
61	M6-004	M6 x 16 Hex Head Set Screw	3	
62	M6-007	M6x20 CSK Set Screw	4	
63	M6-008	M6x25 Button Head Set Screw	4	
64	M6-016	M6 Flat Washer	7	
68	M8-010	M8 Flat Washer	1	
69	M8-012	M8 Repair Washer	3	Qty x 5 on 130L
70	M8-017	M8 Nyloc Nut	2	Qty x 4 on 130L
73	M10-023	M10 Nut S/S	5	
74	M10-026	M10 Shakeproof Washer S/S	4	
77	M12-006	M12x40 Set Screw	2	
78	M12-008	M12 Flat Washer	6	
79	M12-014	M12 Nyloc Nut	2	
80	GA103	Nylon Bush	2	
82	97APC0146	Jackal Control Panel	1	
83	FJ107D	5m Fused Power Cable	1	(not shown)
84	TJ242A	6m Instrument Cable	1	(not shown)
85	FJ109D	Tail Piece	1	(not shown)
91	97APC0040	Jackal MMD Junction Box	1	
92	47TJT5034	Hopper Level Sensor	1	
94	47TJT5025	Cut Out Switch	1	
96	TJ255B	GPS Receiver	1	
108	TJ199	Stainless Steel Shim	4	
109	TJ200	5mm Small Seed Roller (White)	10	
110	GA114	24mm Black Spacer	2	
111	TJ207	3mm Black Spacer	1	
110	TJ205	5mm Black Blanking Spacer	8	(not shown)
114	GA110B-A	8 Section Feed Roller (A)	1	
115	GA114	24mm Black Spacer	2	
116	TJ199	Stainless Steel Shim	1	
117	GA110B-B	8 Section Feed Roller (B)	1	

NOTES
