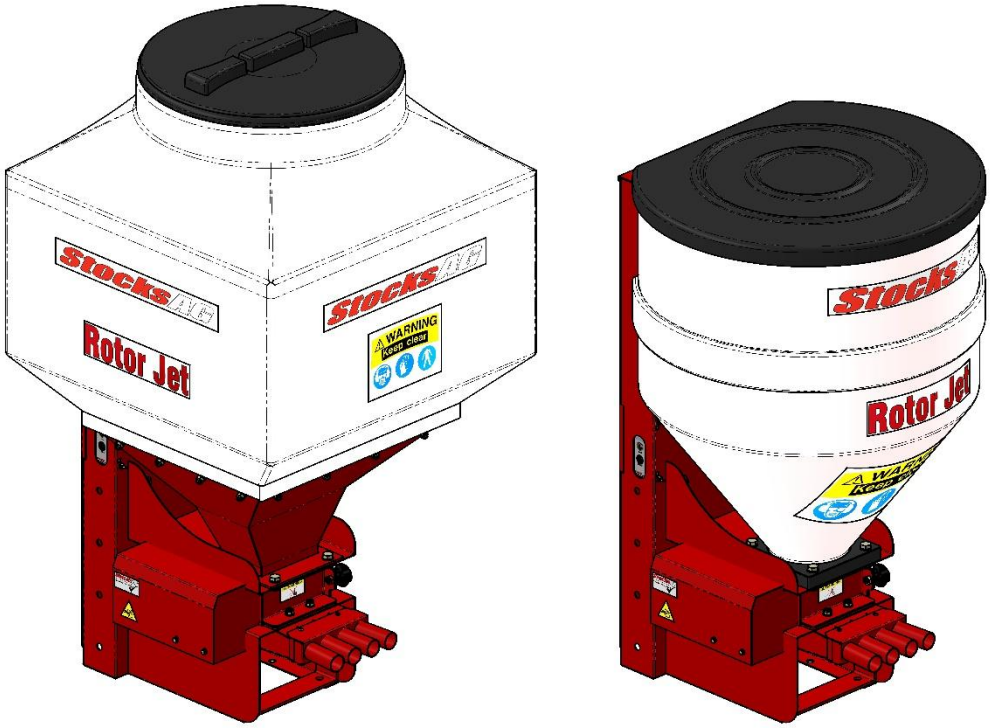
Rotor Jet 130 and 240 - Jackal

ORIGINAL OPERATING MANUAL & PARTS LIST



Read carefully before installation and operation

MADE IN BRITAIN
EST.1977

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TABLE OF CONTENTS

Section		Page
1.0	**General Information**	**6**
1.1	Technical Data	6
1.2	Intended Use	6
1.3	Unintended Use	6
1.4	Machine Identification	7
1.5	Warranty	7
2.0	**Safety**	**8**
2.1	Safety Decals	10
3.0	**Emergency Stop Instructions**	**11**
4.0	**Storage**	**11**
5.0	**PVC Waterproof Covers**	**11**
6.0	**Disposal**	**12**
7.0	**General Maintenance**	**12**
7.1	Before use	12
7.2	Daily Checks	12
7.3	After Each Use	13
8.0	**Installation Guide**	**14**
8.1	Base Plate	15
8.2	Spreader Plates	15
8.3	Spreader Plate Set Up	16
8.4	C Section Rail	18
8.5	Feed Hose	18
9.0	**Machine Components**	**19**
9.1	Feed Motor	19
9.2	12v Fan Unit	19
9.3	Main Power Cable	19
9.4	Instrument Lead	19
10.0	**Inspection**	**20**

10.1	12v Fan Inspection	20
10.2	Feed Block Assembly Inspection	20
11.0	**Hopper Emptying Procedure**	**21**
12.0	**Clearing a Feed Hose Blockage**	**22**
13.0	**Checking the Feed Motor**	**22**
14.0	**Jackal Control System Overview**	**23**
14.1	Jack Control System Options	23
14.2	Control System Operation	24
14.3	Machine Junction Box	25
15.0	**Electrical Components**	**26**
15.1	Run Hold/Cut Out Switch – Optional	27
15.2	Hopper Level Sensor – Optional	27
15.3	GPS Speed Sensor Kit – Optional	28
15.4	Wiring for Optional Extras	29
16.0	**Power Connection**	**30**
16.1	Instrument Button Functions	31
16.2	Initial Instrument Setup	32
16.3	Run/Hold Automatic Switch	34
17.0	**First/New Product Calibration**	**35**
17.1	Product Calibration	38
18.0	**Spreading/Applying Product**	**42**
19.0	**Simulated Speed**	**44**
19.1	Alarms and Trip Functions	45
19.2	Quick Rate and Step Size Adjustment	46
19.3	Flush/Hopper Empty	47
19.4	Diagnostics	47
20.0	**Feed Block Kit Information**	**48**
20.1	Standard Large Seed Feed Block Kit – 50mm	48
20.2	High Capacity Feed Block Kit – 59mm	48
20.3	Precision Small Seed Feed Block Kit	49

20.4	Granular Feed Kit	50
21.0	**Ready for Work**	**51**
21.1	Land Wheel Speed – Fly Lead Wiring	52
22.0	**Jackal Control System – Drawing and Parts**	**53**
23.0	**Rotor Jet 130 Parts Drawing**	**54**
23.1	Rotor Jet 130 Parts List	55
24.0	**Rotor Jet 240 Parts Drawing.**	**56**
24.1	Rotor Jet 240 Parts List	57
25.0	**Granular Feed Roller - Parts**	**58**
26.0	**Precision (small seed) Feed Roller – Parts**	**59**
27.0	**Large Seed Feed Roller – Parts**	**60**
28.0	**High-Capacity Feed Block – Parts**	**61**

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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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StocksAG

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 Rotor Jet 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: Rotor Jet Jackal

Hopper capacity: 130 litre or 240 litre

Max spreading width 12v fan: RJ - 4 outlets 3m

RJ – 8 outlets 4m

Operating voltage: 12v

Power requirement: 25 amps

Motor output: 360 watt

Noise level: 50dB Electric Fan

Power consumption of the motor: 25 amps when starting, up to 20 amps during normal operation

130 litre machine:	
Net weight:	42kg with spreader kit 52kg
Dimensions:	66 x 100 x 116cm

240 litre machine:	
Net weight:	50kg with spreader kit 65kg
Dimensions:	70 x 110 x 143cm

1.2 Intended Use

This Rotor Jet has been designed solely to apply small seed and granular products for use in the agricultural, horticulture and the amenity sector.

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.

NOTE: Do not use this machine during adverse weather conditions.

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 non-intended use.

1.4 Machine Identification

Example Decal Only

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 covers fitted with eyelets and bungie cord for easy attachment.

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 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

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.**

7.1 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.

7.2 Daily Checks

1. Check the feed motor and agitator motors are working correctly.

2. Check the 12v fan and air intake meshes are clean and free from any debris.

3. Check feed hoses for any blockages and all hose clips are tight.

4. Check the spreader plates are positioned correctly

7.3 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

8.0 Installation Guide

The Rotor Jet can be used for a wide variety of seeding applications in conjunction with a wide variety of parent implements.

It is not practical to supply tailored mounting brackets for every implement on the market, and so the final attachment of the Rotor Jet to the implement is the responsibility of the supplying dealer or end user.

The positioning of the hopper, the spreader plate, and "C" section mounting rails, if used, will depend upon the type and design of host implement. Here are a few basic pointers to ensure the Rotor Jet performs correctly.

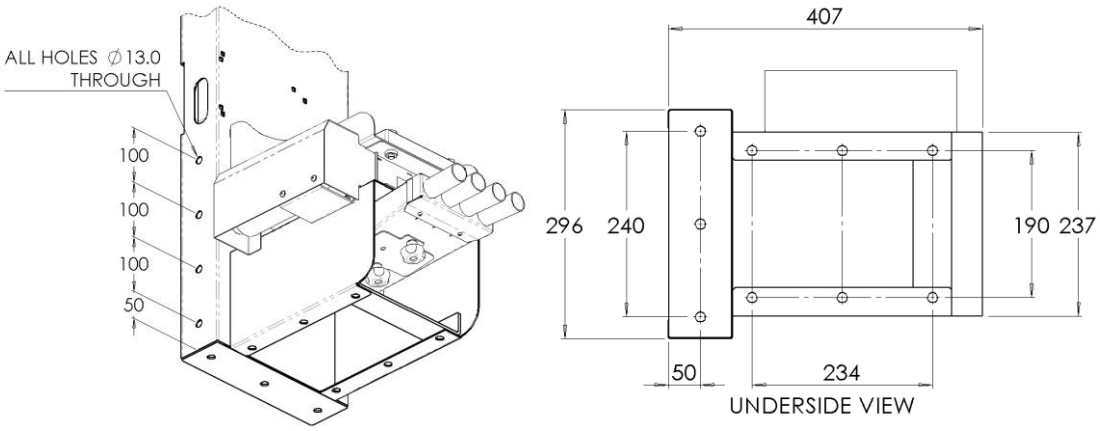
Position the Rotor Jet high enough above the implement to facilitate routing of the flexible tubes, to the spreader plates, without severe bends or uphill runs. Try to route all tubes generally downhill. Do not block the air intakes to the fans under the base plate.

If mounting on a folding implement, ensure the wing sections do not foul the hopper and all hose runs are long enough to fold with the implement.

Ensure you can access the hopper to fill, are able to remove the feed block assembly and position the calibration tray underneath to calibrate or empty.

When filling, emptying or calibrating the Rotor Jet ensure you work safely. If necessary, fabricate and fit a work platform and steps, complete with handrails. The hopper may face forwards or backwards, whichever offers the easiest mounting and best flexible hose run. Select a strong, rigid position and use the heavy flat base plate provided to weld or bolt to your implement as per the following example.

8.1 Base Plate



8.2 Spreader Plates

The machine has 4 outlets, if required the feed hoses can be split with the black "Y" connectors in the relevant kits, to give 8 spreader plates. Depending on the implement width and if you require a broadcast or band sown effect.

Plan the positioning of the pipes/spreader plates to be equal distant across the width of your implement. If using the black plastic "Y" connectors ensure they are fitted above the spreader plate using as short a run of flexible hose to the plates a possible, whilst still providing a smooth flow and of being equal length. It is recommended that a straight of a minimum 300mm section of pipe is utilised prior to the "Y" connector, to ensure a more even split of product. Flexible hoses from the connectors run to the outlet pipes on the Rotor Jet. Aim to route all hoses smoothly and generally downhill from the hopper to the spreader plate, avoiding severe bends and uphill runs.

8.3 Spreader Plate Set Up

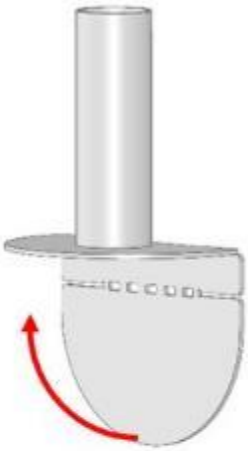
The Stocks Ag spreader plate was developed to allow a wider spread pattern while positioning the outlets closer to the ground.

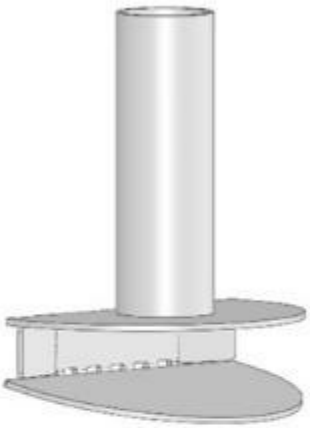
For products such as grass seed, oil seed rape and Avadex, a spread width per outlet of 750mm is achievable from as low as 250mm above the ground (air flow dependent).

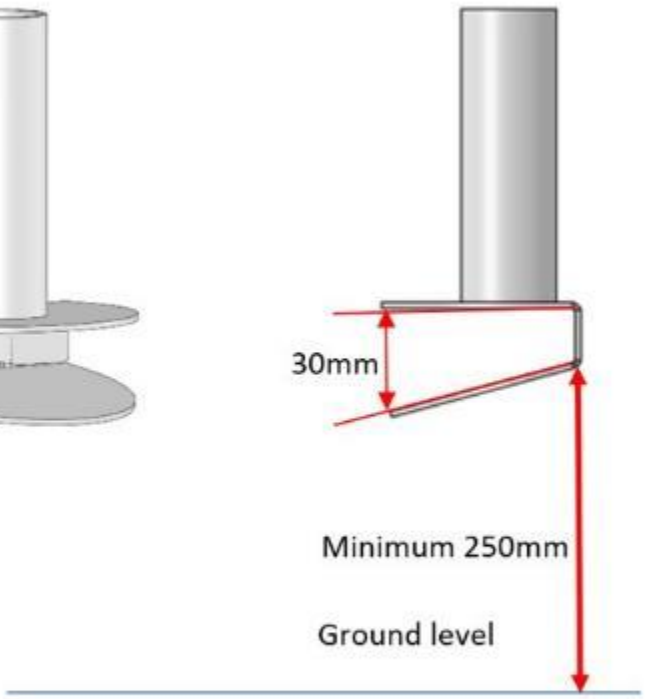
A 3m grass harrow only requires 4 evenly spaced outlets. With the addition of the Y pieces a max spread with of 4m is achievable.

The spreader plates have two main adjustments to set up the optimum spread pattern to suit a variety of products and machine fitments.

The main bottom plate requires bending into position. The angle of the bottom plate alters the spread width from each outlet. A common setup would be to bend from vertical to approximately 30mm at the opening (see below).



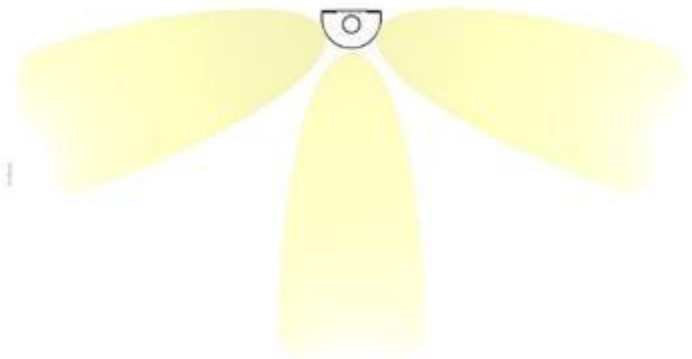




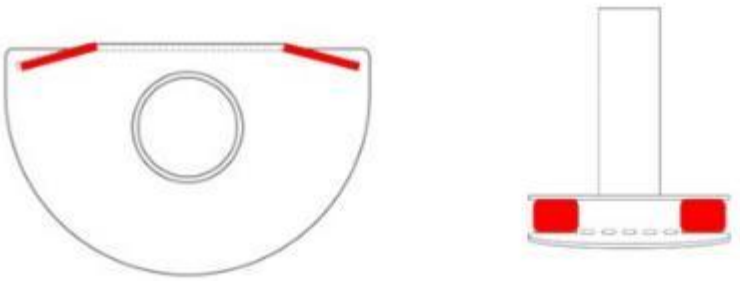
8.3 Spreader Plate Set Up Continued

2) There are two adjustable tabs on the back plate of each outlet. These tabs are used to create an even arc shaped spread pattern and when required, to adjust overlap between outlets.

When the back plate is left straight, some products can produce a spread pattern similar to the diagram below.



By bending the back plate tabs in slightly (see diagram below).



The coverage of product over the ground can be made much more uniform.

These recommended settings are an initial guide, set up vary between different products and machines fitments and required further adjustment.

8.4 “C” Section Rail

The spreader plates themselves are mounted to the “C” section rails, these can be ordered in 2m lengths as an option. Part no. **47TJT5008**. These can be cut down to suit the implement width. The “C” section rails can be attached to the implement using the supplied straight brackets, two per rail, which can be welded or bolted into position.

The spreader plates slide along the rails to give the planned spacing and lock into position using the integral bolts. It is generally better to position the spreader plates facing to the rear of the implement as this can prevent wet mud or tilth being thrown up into the mouth of the spreader causing blockages, especially if positioned close behind the tractor wheels, roller or discs.

8.5 Feed Hose

The feed hose comes in lengths of 4m for the 4 outlet and 8m for the 8 outlet kits, to be ordered as an option with a new machine. Extra feed hose can be ordered by the metre as a spare part. This requires cutting into lengths according to the positioning of the hopper and spreader. Ensure all hose runs are as short as possible whilst giving a smooth downhill route to the spreader plates. Avoid kinks, severe bends or uphill runs. Plan and measure the individual hose runs before cutting, fit the hose clips to the “Y” connector tails.

9.0 Machine Components

9.1 Feed Motor

The feed motor can be turned ON or OFF, either manually via the head unit, or automatically using the linkage position sensor through the 7 pin plug. Alternatively, through an optional remote mounted spring type finger switch, which can be fitted to the linkage or the implement.

9.2 12v Fan Unit

The single 12v fan unit is housed within the main chassis, behind the outlet manifold. Air is drawn through the intakes on the sides of the fan.

9.3 Main Power Cable

The heavy duty power cable must be connected directly to the vehicle battery posts to ensure adequate 12v supply and is fitted with a 40 amp fuse to protect the control system.

This cable should be long enough to give a break point at the rear of the tractor so that the 5m power extension cable, also supplied (and any additional extension cable needed), can then be connected to the power input fly lead on the machine.

9.4 Instrument Lead

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

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

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

Please contact your local Stocks Ag dealer for more information.

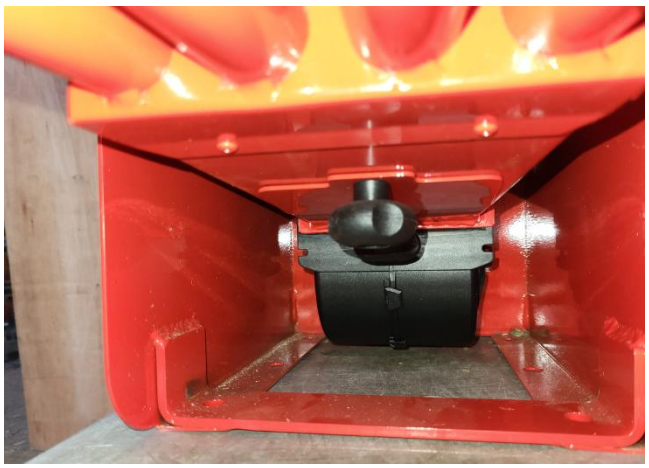
10.0 Inspection

10.1 12v Fan Inspection

⚠**WARNING**! **Always isolate the power before inspecting or servicing the machine.**

To inspect the fan unit, look underneath the hose outlet manifold, the fan is bolted to the rear. Wearing appropriate PPE, use an airline and brush to clean the fan blades regularly to maintain performance and prevent eccentric running.

Always check the fan air intakes are clean and free from debris.



10.2 Feed Block Assembly Inspection

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

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

1. Empty the hopper completely to prevent spillage, unscrew the two threaded knobs and drop the cover under the feed rolls and position the plastic collection tray directly underneath to catch any remaining seed or product.

2. Undo and remove the 2 black plastic knobs holding the mechanism in place and slide out the feed block assembly.

Be aware that the feed block assembly may retain some seed product.

3**.** Use an airline and brush to clean the feed block and internal components checking for any wear or damage replacing any worn or damaged parts as necessary. When doing this wear appropriate PPE.

4. Before re-fitting the feed block ensure that the feed shaft can easily be turned by hand using the black PVC knob fitted to the end of the shaft. If difficult to turn remove the end cap at the opposite end of the feed block assembly and remove all spacers and feed rollers by sliding each one off the shaft.

5. Check the drive shaft engages correctly when sliding the feed block back into the machine by slowly rotating the central black plastic knob before re-fitting the outer black plastic retaining knobs.

11.0 Hopper Emptying Procedure

The Jackal control box has a FLUSH function. This function can be used to meter product out through the calibration cover into a suitable container. Any remaining product is best removed by using an industrial vacuum before the feed block is removed from the machine.

Once the feed block has been removed from the machine dispose of any remaining product held in the feed block. Undo the bottom calibration door and check the air chambers for any sign of debris or build up of product and clear as necessary.

12.0 Clearing a Feed Hose Blockage

In the unlikely event of a blockage, remove the hose and clear any obstruction from within the hose or manifold on the machine. Remove the feed block and check the air chamber below the feed block opening and clear any debris. Re-position the feed hoses if this has been the cause of the problem.

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

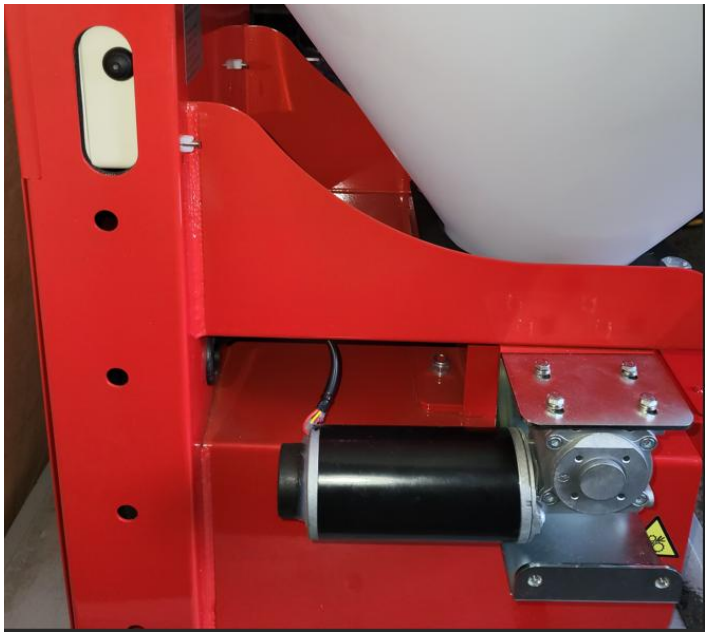
NOTE: If unsure contact your seed or product supplier for more information.

13.0 Checking the Feed Motor

Firstly, empty the hopper then remove the feed block assembly. Remove the motor guard by releasing the fixing screws.

Check to see if the feed motor shaft rotates using the FLUSH (section 19.3) function on the screen.

If the shaft is not rotating this may indicate the motor is faulty or has been damaged and needs to be replaced.



WARNING This procedure must be carried out by a competent person who is aware of any risks involved as moving parts of this machine are powerful and can cause injury.

For any parts or if no faults found and the alarm persists contact your local Stocks Ag dealer.

14.0 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.

14.1 Jack Control System Options

1. **Feed Cut Out Switch** - this can be mounted in a suitable place on the implement or linkage of the tractor, thus 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 not able 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.

14.2 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.

14.3 Machine Junction Box

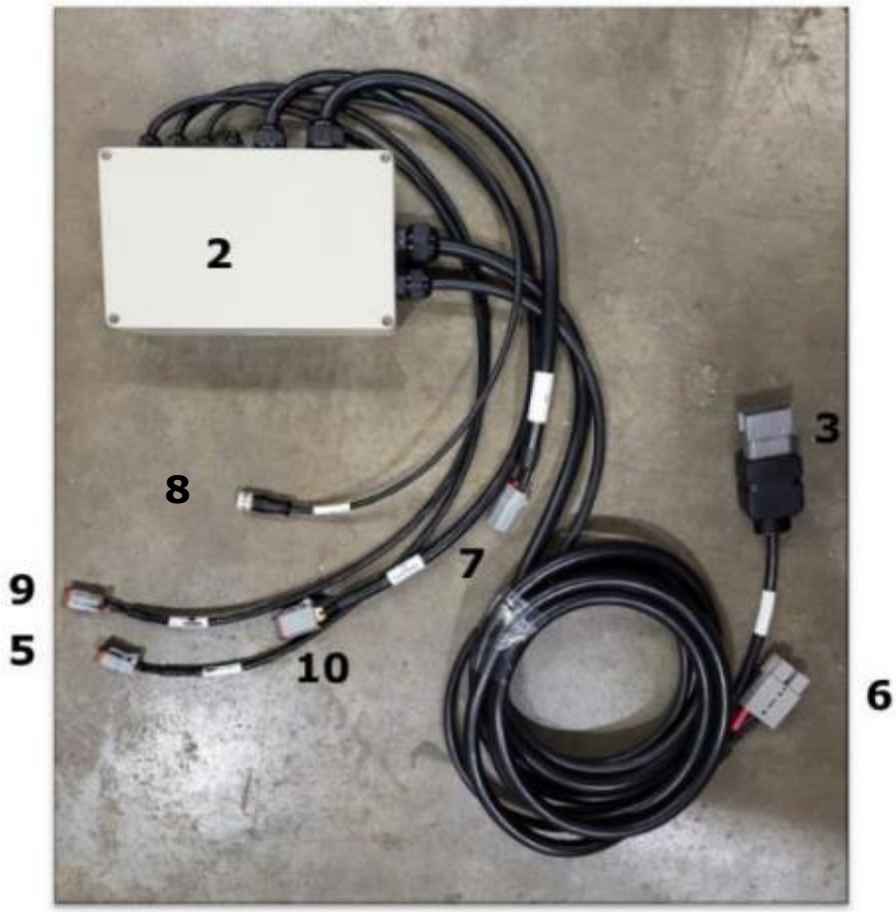
The Jackal Junction box (MMD) is located behind the back panel, which is on the rear of the applicator.

The single button on the side is for calibrating the Rotor Jet.

See Jackal control box instructions.

15.0 Electrical Components

1



1. Cab control panel	8. Hopper level sensor connection - Optional
2. Junction box (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 fan connection	

15.1 Run Hold/Cut Out Switch – Optional

This optional switch can be mounted in a suitable place on the implement or linkage on the tractor, thus 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 as supplied for this switch is when the spring is at rest, the feed motor will run normally. If required the switch can work in the opposite mode by changing the setting on the head unit, see manual page 34 (section 16.3).

15.2 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

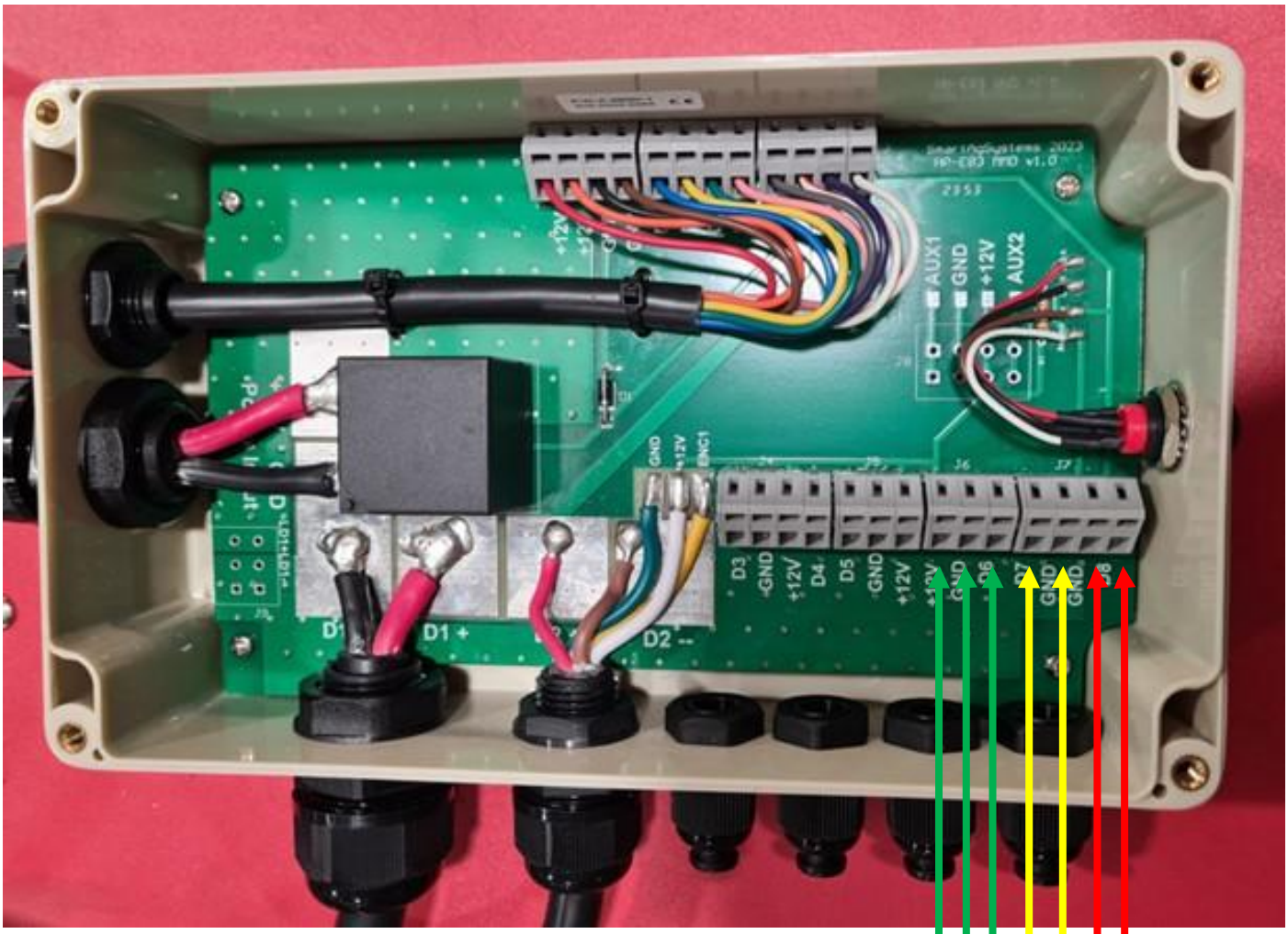
15.3 GPS Speed Sensor Kit – Optional

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

15.4 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

16.0 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**

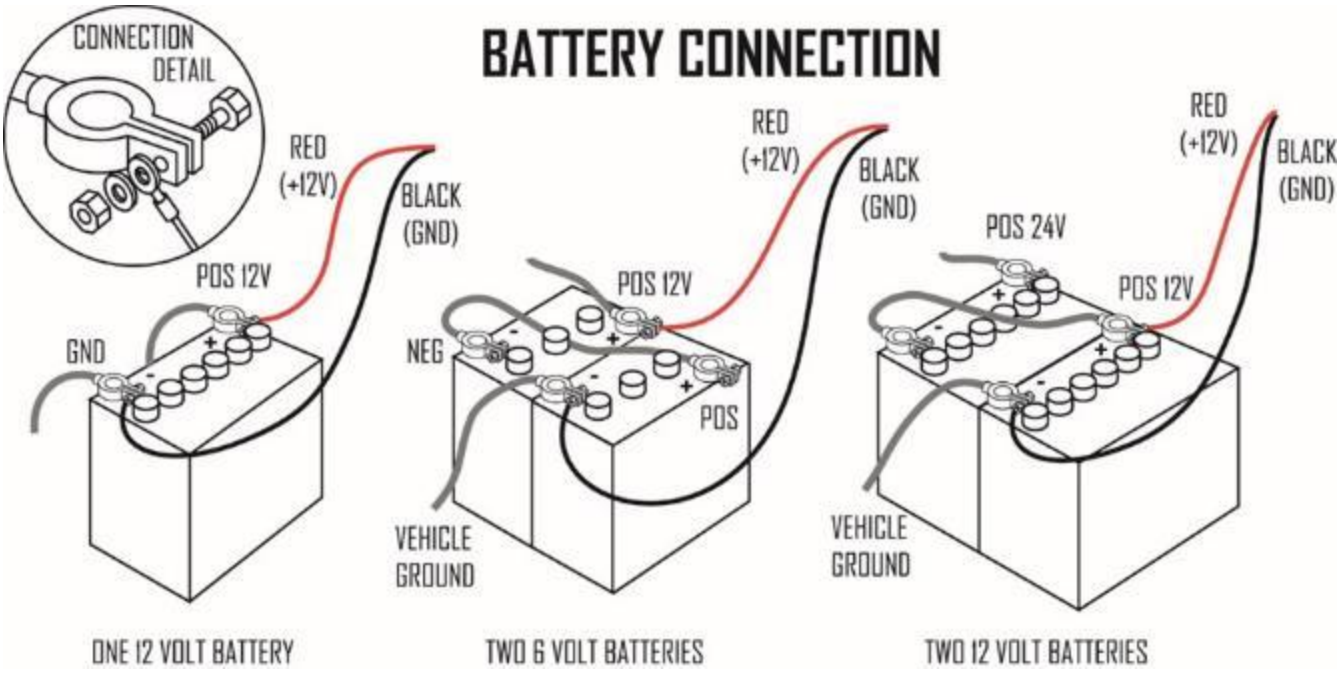
Ring terminals are used for battery connection and the bare end used to connect to the rear Jackal instrument

(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

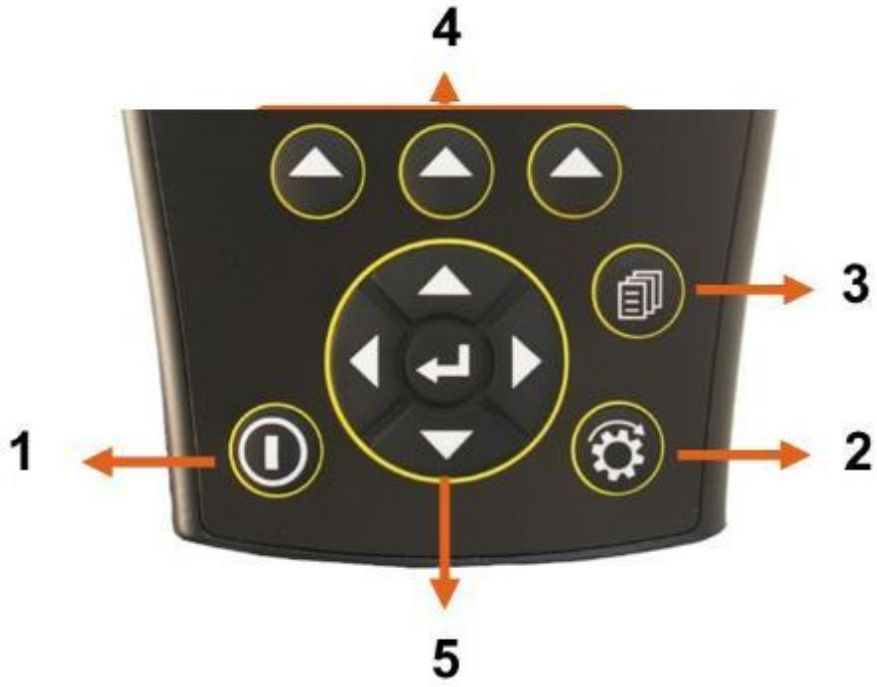
Ensure that the battery connection to the Jackal is +12 Volts



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**

16.1 Instrument Button Functions



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 button**

   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.

16.2 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.

16.2 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.

16.3 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 change from 5 to 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.

17.0 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.

17.0 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.

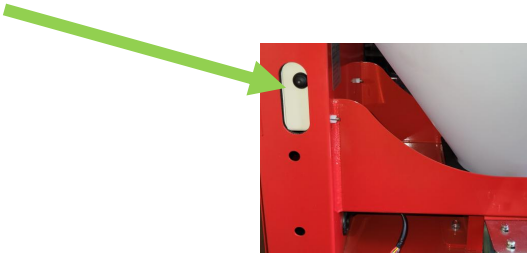
Press and hold the arrow button below **START** on the Jackal Instrument or the button on the applicator junction box.

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.



17.0 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.**

17.1 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.**

17.1 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.

17.1 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.**

17.1 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.**

18.0 Spreading/Applying Product

NOTE:
These instructions are for the 12v electric fan. If the applicator is fitted with the optional hydraulic fan, turn the fan on using the tractors hydraulic remote (spool) valves.
See section at the rear of this manual.

From the HOME screen, using the **PAGE** button, scroll through until **FAN** is displayed.

Press the arrow button directly below **FAN** to switch the fan on.

When **FAN** is highlighted, the fan should be running.

Using the down arrow on the navigation key pad, scroll down to see the **FAN %** display.

This display shows the 12v electric current being supplied to the fan.

Note: *The fan will quickly get up to speed, the % counter takes longer to count up. The % must be at least 70% before the feed rollers can be turned on.*

18.1 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.

19.0 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 tractors speed changes.

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

19.1 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

19.2 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.**

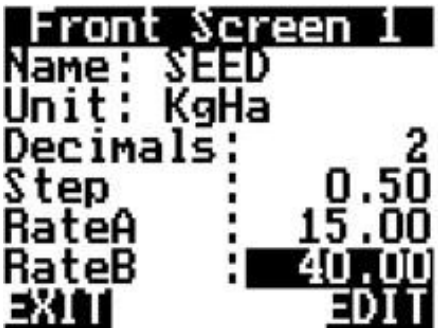
Press **EDIT** and set the required **Step** size in kg/ha (screen opposite shows steps of 0.50 kg/ha).

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.



19.3 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.

19.4 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.

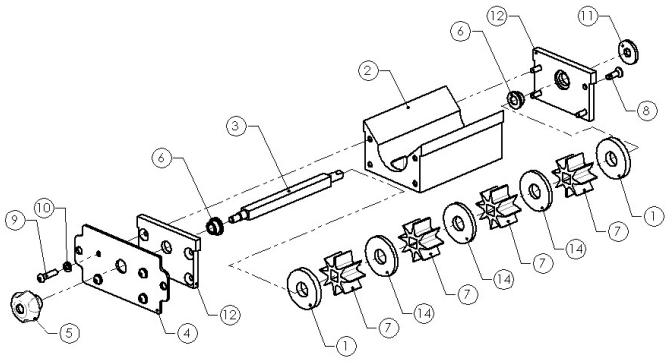
20.0 Feed Block Kit Information

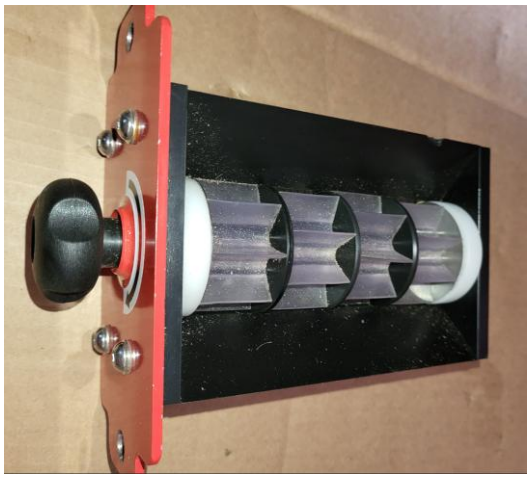
⚠**WARNING**! **Moving parts of this machine are powerful and can cause injury. Be especially careful whilst performing calibration tests. Always observe all application standards and guidelines provided by the product manufacturer as some seed dressings and granular products may be toxic.**

If unsure contact your seed or product supplier for more information

NOTE: Before applying very fine seeds or product please contact your local dealer or Stocks Ag directly to ensure the machine is suitable. Failure to do so could invalidate your warranty.

20.1 Standard Large Seed Feed Block Kit – 50mm



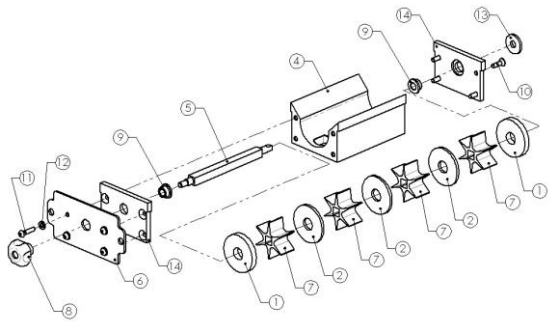


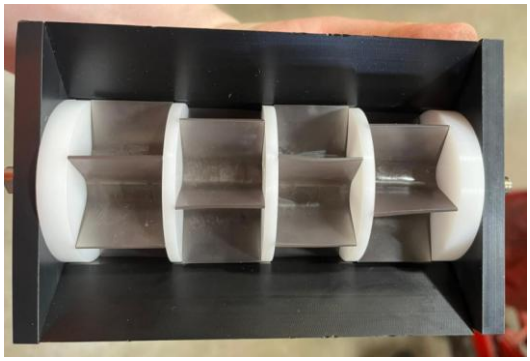
Part Number: 47RME5025

Supplied from factory with 8 or 10 feed rollers (1 feed roller per outlet) for grass seed and cover crop applications typically applied at rates up to 35kg/ha.

20.2 High Capacity Feed Block Kit – 59mm

When extra volume output is required above the standard 50mm large seed feed block. The Rotor Jet can be fitted with the 59mm diameter high capacity roller. This feed block is suitable for low weight, high volume products when installed in the Rotor Jet.

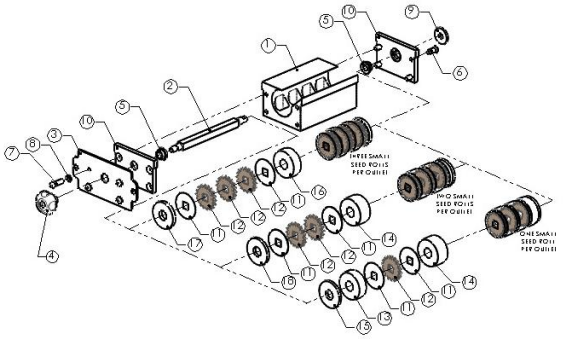


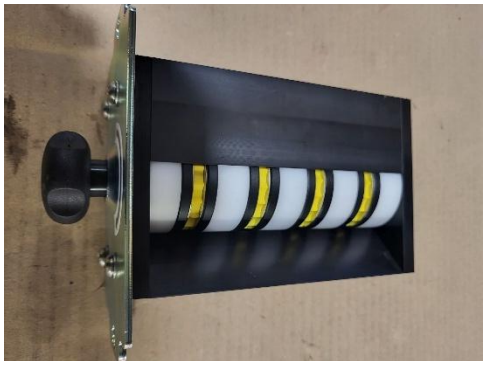


Part Number: 47RME5026

WARNING! It is the responsibility of the operator to ensure the feed block assembly is suitable for the product being applied.

20.3 Precision Small Seed Feed Block Kit





Part Number: 47RME5027

This block has been developed to eliminate finer products from leaking around the feed rollers and into the airstream and is required for low rate work such as small seed and slug pellet application.

Yellow feed rollers are fitted from factory and typically used for small seed application such as OSR with 1 feed roller fitted over each outlet as shown below. If higher rates are required the **white** feed rollers, also supplied in the kit, can be fitted to increase output.

NOTE: Yellow feed rollers apply approximately 40% less than the white rollers - product dependent.

If you cannot achieve the required rate using just a single yellow or white roll, then use multiple rolls together per outlet for example 2 or 3. You can also mix the yellow and white provided each outlet has the same configuration of feed rolls. Other components from this kit, which include 16 white feed rollers and 3 black 5mm blanking spacers can be found in a bag packed inside the hopper.

NOTE: Before applying very fine seeds or product please contact your local dealer or Stocks Ag direct to ensure the machine is suitable. Failure to do so could invalidate your warranty.

The feed rollers are easily exchanged by removing the feed mechanism as follows:

1. Ensure the hopper is completely empty.

2. Undo and remove the 2 black plastic knobs holding the mechanism in place and slide out the feed block.

3. Undo and remove the 4 socket head screws on the end of the housing and remove the end plate. Slide the feed rollers and spacers off the shaft and replace with the alternative rollers required.

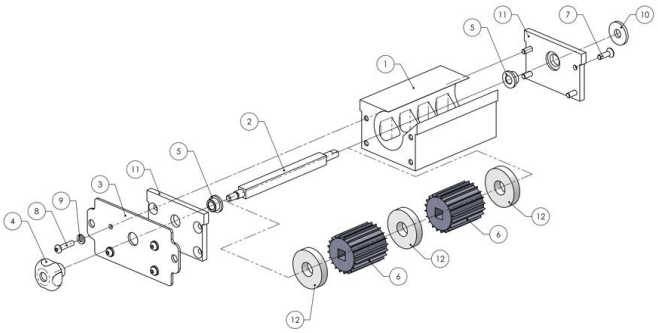
The black blanking spacers (3 supplied) are the same width as the small seed rolls and are used in combination with the feed rolls to allow 1, 2 or 3 feed rolls per outlet to be used or to replace the feed rolls and blank off an outlet completely. For example if reducing the number of outlets from 8 to 7, to correspond with subsoiler legs or tines, remove all the feed rollers from that that outlet and replace with a 5mm blanking spacer.

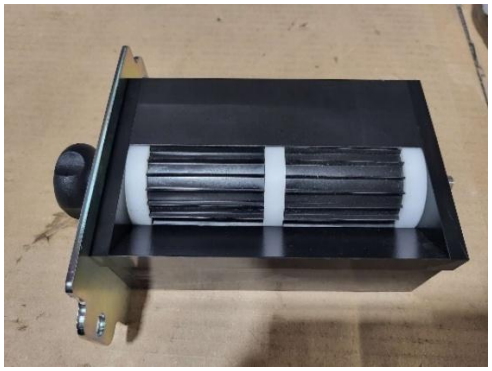
NOTE: When re-fitting the end plate to the feed block after changing the feed roller configuration, the end plate should be able to fit flush with the feed block by hand, without having to pull it home with the socket head screws. The assembled rolls and spacers should not be under compression. Once re-assembled, slide the feed block assembly back into the machine ensuring the drive shaft engages correctly by slowly rotating the feed shaft. Once engaged secure the two black plastic retaining knobs.

⚠**WARNING! It is the responsibility of the operator to ensure the feed block assembly is suitable for the product being applied.**

20.4 Granular Feed Kit

Designed for fine granules at higher application rates such as Avadex®* Excel 15G at 15kg/ha and can also be used for fine seed work where high outputs are required.





Part Number: 47RME5030

NOTE: If replacing the feed rollers always ensure the outer two rollers are positioned so that the blank end of the feed roller faces each of the PVC end plates.

Avadex ®* is a Trademark used under licence by Gowan Crop Protection Ltd.

WARNING! It is the responsibility of the operator to ensure the feed block assembly is suitable for the product being applied.

NOTE: Before applying very fine seeds or product please contact your local dealer or Stocks Ag directly to ensure the machine is suitable. Failure to do so could invalidate your warranty.

21.0 Ready for Work

Once calibrated your machine is ready for work

1. Remove the calibration tray and store away safely.
2. Re fit and secure the calibration cover on the bottom of the outlet manifold.
3. Check all outlet pipes are seeding correctly.
4. Ensure that you are travelling at the correct chosen speed if not using the optional GPS Kit.
5. Stop after a few metres – check for even distribution, spread and application rate.
6. Commence work checking periodically to ensure the machine is working correctly.

If you are unable to calibrate correctly or you have any other questions about the machine please contact us.

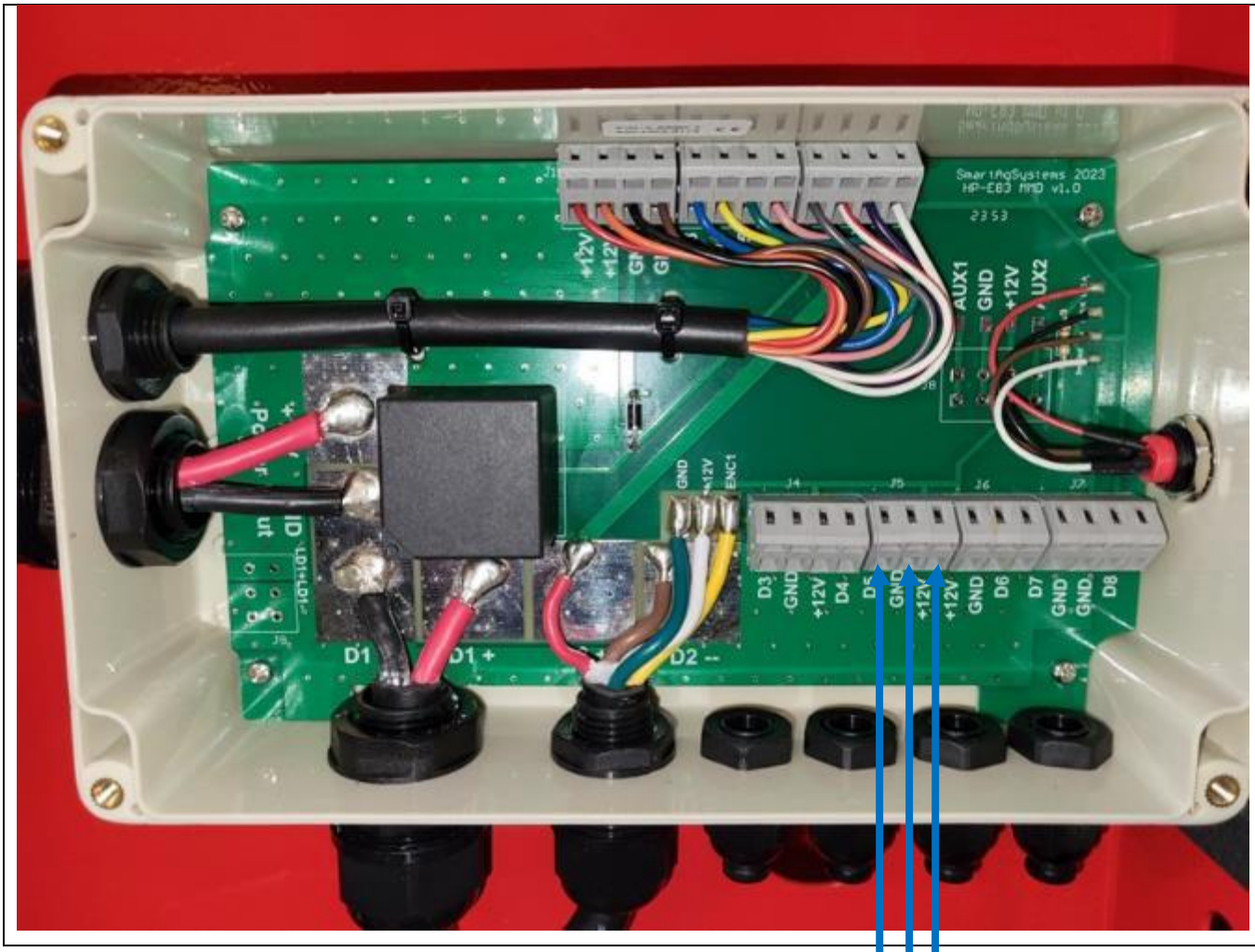
CAUTION. The feed rolls and agitator can pull in hair or loose clothing. The motor is so powerful that you will be unable to stop it.

Always clean out the machine at the end of the day, use a brush not your hand to sweep out the hopper.

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

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

21.1 Land Wheel Speed – Fly Lead Wiring



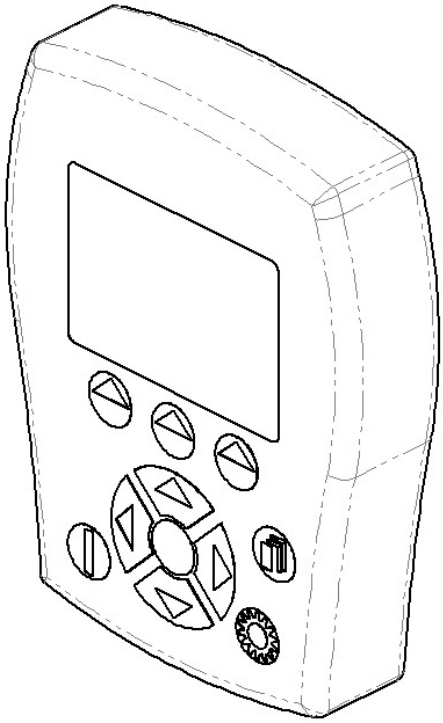
Wheel Speed Sensor wire connections

YELLOW / GREEN = D5

BLUE = GROUND

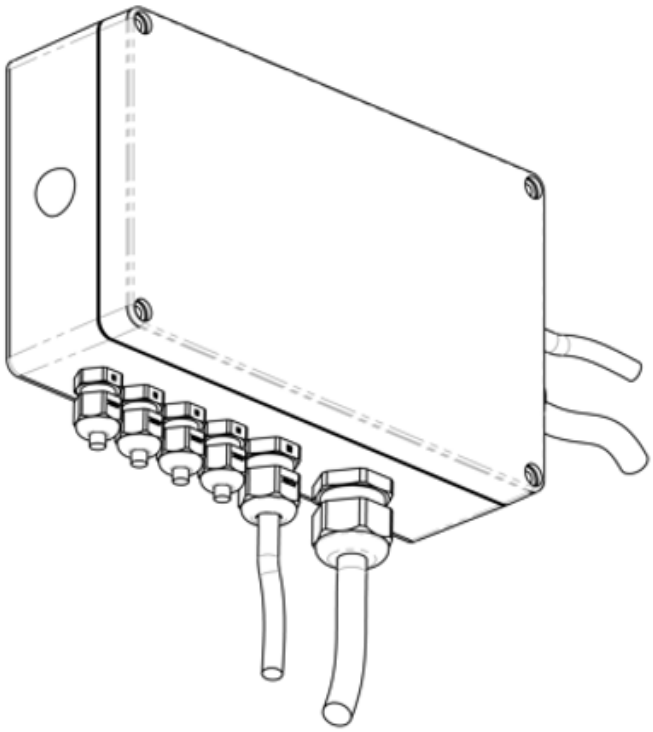
BROWN = +12V

22.0 Jackal Control System – Drawing and Parts



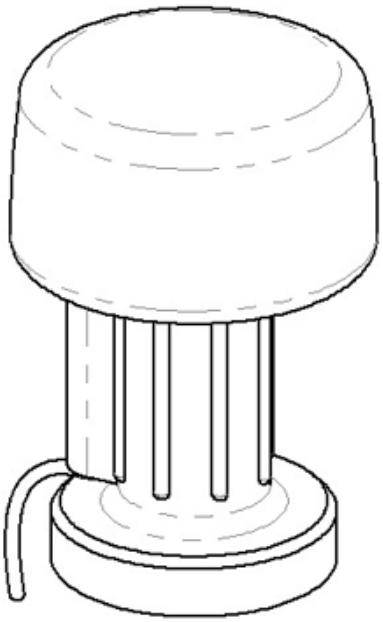
Jackal Control Box

Part number: 97APC0046



MMD Junction Box

Part number: 97APC0040

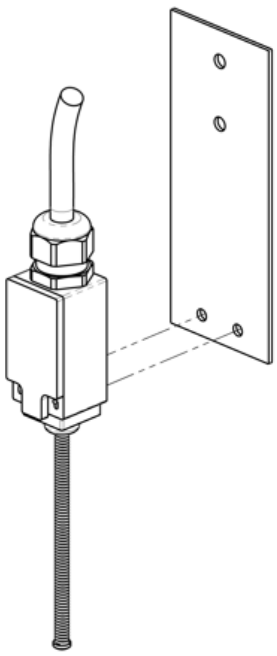


GPS Receiver

Part number: TJ255B

5m Fused Power Cable

Part number TJ238 (No Image)



Finger Switch (Cut Out/Run Hold)

Part number: TJ252

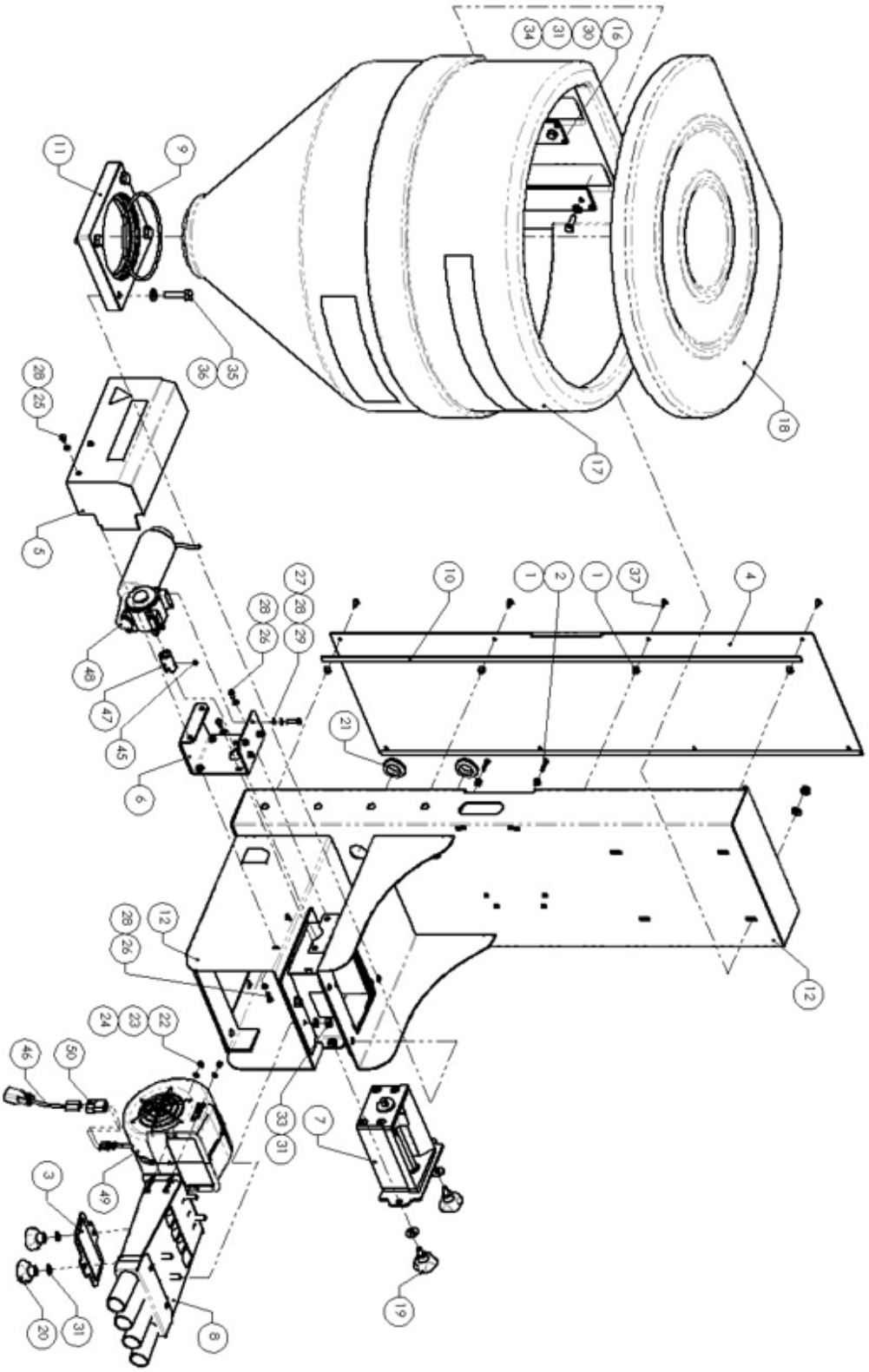
TJ253 Finger Switch Mounting Plate

TJ254 Finger Switch Cable

5m Instrument Cable

Part number 97APC0051 (No Image)

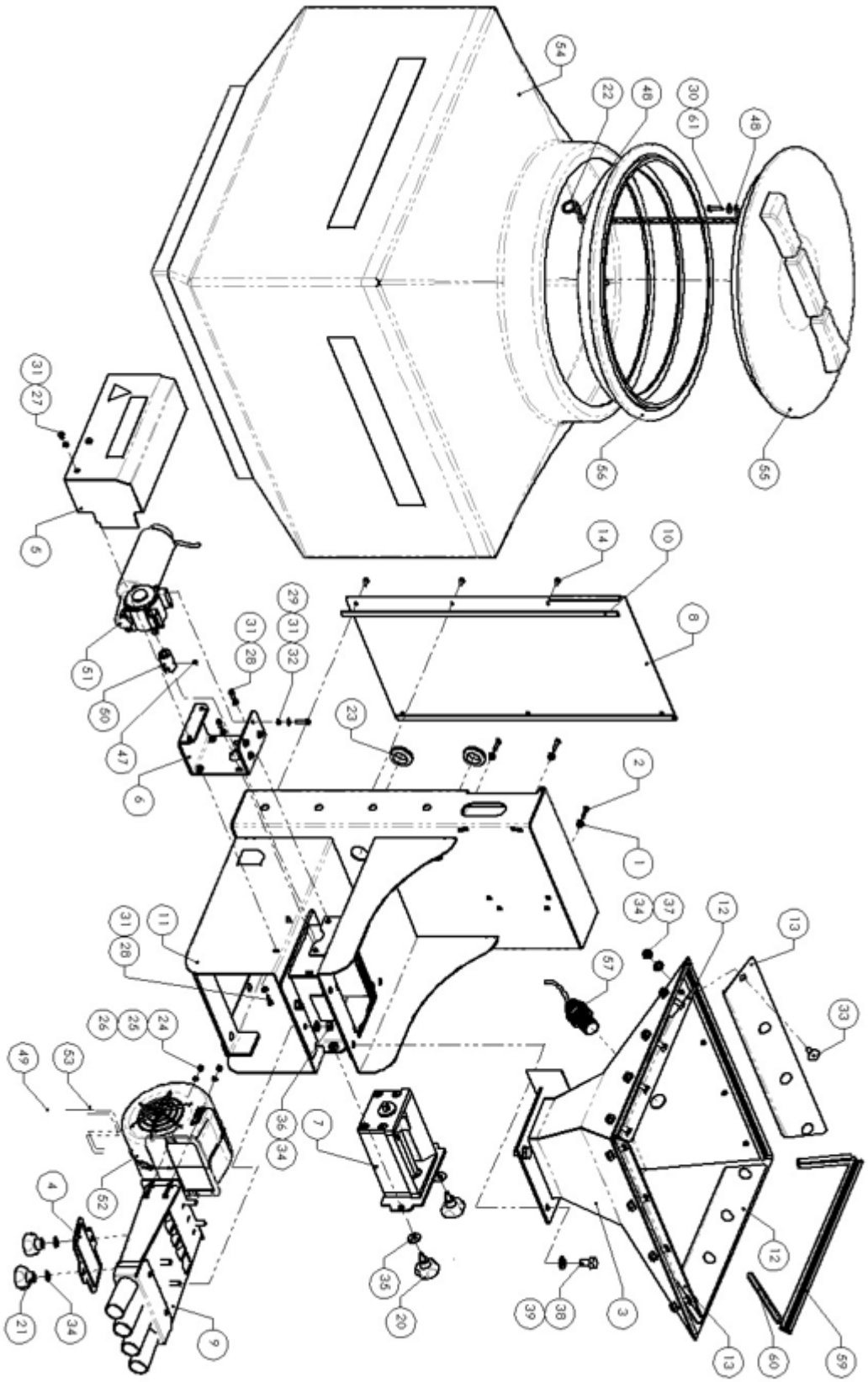
23.0 Rotor Jet 130 Parts Drawing



23.1 Rotor Jet 130 Parts List

ITEM No	PART No	DESCRIPTION	QTY
1	47RME5026	ROTOR JET HIGH OUTPUT 59.0mm DIAMETER FEED BLOCK KIT	1
2	89APP1011	JETPRESS CAN 015 SQUARE HEADED SCREW GROMMET	12
3	97APC4027	AIR CHAMBER DOOR WELD ASSEMBLY	1
4	97APC4029	BACK PLATE REAR COVER	1
5	97APC4034	DUNKER MOTOR GUARD WELD ASSEMBLY	1
6	97APC4038	DUNKER MOTOR BRACKET WELD ASSEMBLY	1
7	97APC4039	6mm WIDE x 3mm THICK CLOSED CELL SELF ADHESIVE TAPE	1
8	97APC4084	4 OUTLET AIR BOX WELD ASSEMBLY	1
9	97APC4086	5mm SECTION 140mm BORE O-RING NI 70	1
10	97APC4088	10.0 WIDE x 3.0 THICK SELF ADHESIVE FOAM STRIP (BLACK)	2
11	97APC4115	HOPPER BASE PLATE	1
12	97APC4230	CHASSIS WELD ASSEMBLY - 130L	1
13	98APP1025	STOCKS AG DECAL	1
14	98APP1051	ROTOR JET SERIAL No. UKCA CE	1
15	98APP1052	ROTOR JET DECAL	1
16	FJ005A	HOPPER BRACKET PLATE	2
17	FJ026B	130L HOPPER	1
18	FJ026B	DECAL - KEEP CLEAR	1
19	FJ027B	130L HOPPER LID	1
20	FJ032B	M8 X 15 PLASTIC KNOB - BLACK	2
21	FJ033A	M8 FEMALE PLASTIC KNOB - BLACK	2
22	GR005	GROMMET	3
23	M4-003	M4 x 10 HEX HEAD SET SCREW ST/ST	4
24	M4-004A	M4 NYLOC NUT T TYPE BZP	4
25	M4-006	M4 FLAT WASHER FORM A ST/ST	8
26	M4-011	M4 x 25 HEX SOC CAP HEAD SET SCREW ST/ST	4
27	M5-002	M5 x 12 SOC CAP HEAD SET SCREW ST/ST	4
28	M5-004	M5 x 12 HEX HEAD SET SCREW ST/ST	6
29	M5-014	M5 FLAT WASHER FORM A ST/ST	10
30	M5-019	M5 SPRING WASHER ST/ST	8
31	M8-006	M8 x 25 HEX HEAD SET SCREW SELF COLOUR	4
32	M8-010	M8 FLAT WASHER FORM A BZP	9
33	M8-017	M8 NYLOC NUT T TYPE ST/ST	4
34	M8-019	M8 NYLOC NUT T TYPE BZP	4
35	M10-009	M10 x 40 HEX HEAD SET SCREW BZP	4
36	M10-016	M10 FLAT WASHER FORM A BZP	4
37	M10-028	No. 10 x 13 POZI SELF TAPPING PAN HEAD SCREW ST ST	8
38	MD019	STOCKS QUALITY TICK DECAL	1
39	MD021	ROTATION ARROW DECAL	1
40	MD024	"MADE IN BRITIAN` DECAL	1
41	MD051	WARNING DECAL	1
42	MD051	WARNING DECAL	1
43	MD051	WARNING DECAL	1
44	MD051	WARNING DECAL	1
45	MM008A	M6 x 6 CUP POINT HEX SOCKET GRUB SCREW ST/ST	1
46	STO1138	MOTOR ADAPTOR LEAD	1
47	TJ043A	MOTOR DRIVE COUPLING - SLOTTED	1
48	TJ044B	12 Vdc FEED MOTOR	1
49	TJ120	CENTRIFUGAL SINGLE FAN UNIT	1
50	TJ122	2 WAY MALE CONNECTOR	1

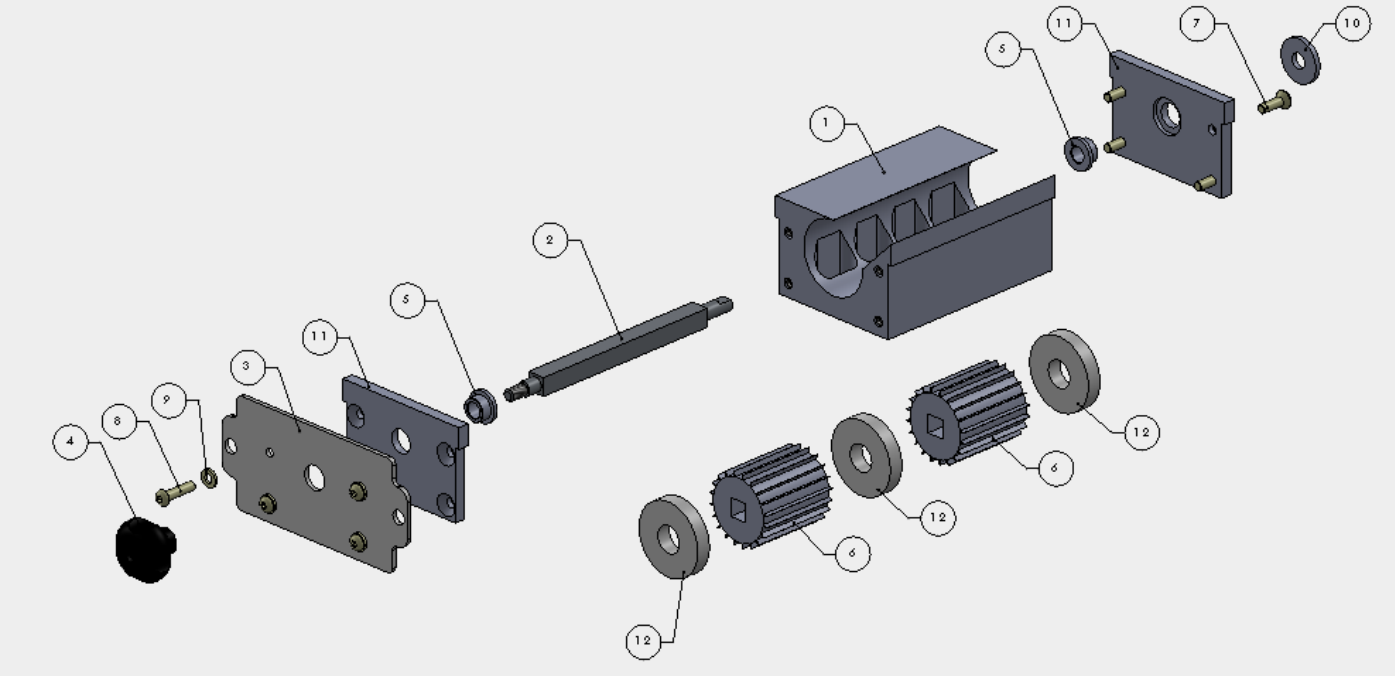
24.0 Rotor Jet 240 Parts Drawing.



24.1 Rotor Jet 240 Parts List

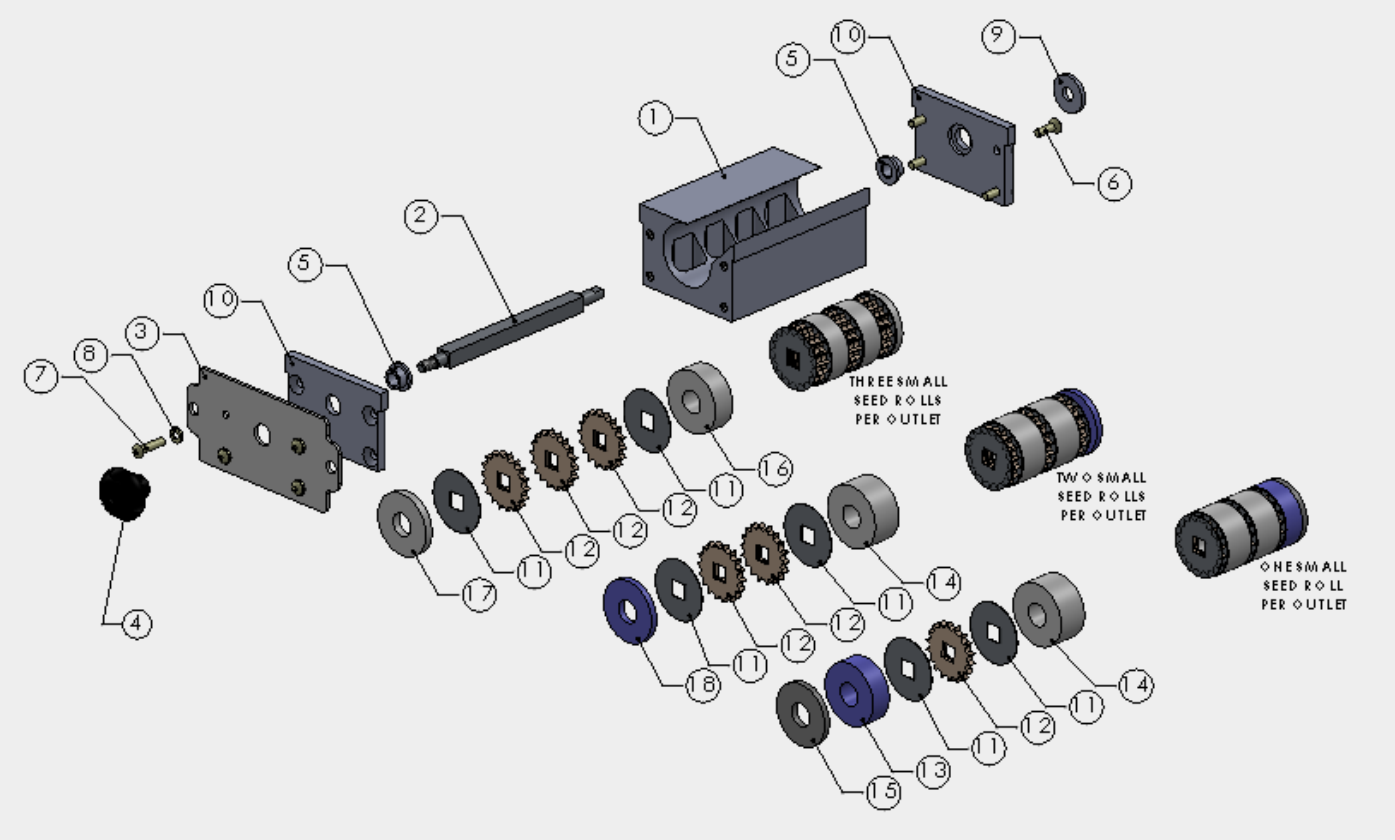
ITEM No	PART No	DESCRIPTION	QTY
1	47RME5026	ROTOR JET HIGH OUTPUT 59.0mm DIAMETER FEED BLOCK KIT	1
2	89APP1011	JETPRESS CAN 015 SQUARE HEADED SCREW GROMMET	10
3	89APP1015	No. 8 HALF INCH POZI SELF TAPPING PAN HEAD SCREW ST-ST	6
4	97APC4025	HOPPER WELD ASSEMBLY	1
5	97APC4027	AIR CHAMBER DOOR WELD ASSEMBLY	1
6	97APC4034	DUNKER MOTOR GUARD WELD ASSEMBLY	1
7	97APC4038	DUNKER MOTOR BRACKET WELD ASSEMBLY	1
8	97APC4047	BACK PLATE REAR COVER	1
9	97APC4084	4 OUTLET AIR BOX WELD ASSEMBLY	1
10	97APC4088	10.0 WIDE x 3.0 THICK SELF ADHESIVE FOAM STRIP (BLACK)	2
11	97APC4240	CHASSIS WELD ASSEMBLY	1
12	97APC5178	HOPPER DOUBLER PLATE CASSETTE SIDE WELD ASSEMBLY	2
13	97APC5180	HOPPER DOUBLER PLATE FAN SIDE WELD ASSEMBLY	2
14	98APP1025	STOCKS Ag DECAL	1
15	98APP1025	STOCKS Ag DECAL	1
16	98APP1025	STOCKS Ag DECAL	2
17	98APP1051	ROTOR JET SERIAL No. UKCA CE	1
18	98APP1052	ROTOR JET DECAL - RED	2
19	FJ032B	M8 X 15 PLASTIC KNOB - BLACK	2
20	FJ033A	M8 FEMALE PLASTIC KNOB - BLACK	2
21	FJ418A	SPLIT RING	1
22	GR005	GROMMET	3
23	M4-003	M4 x 10 HEX HEAD SET SCREW ST/ST	4
24	M4-004A	M4 NYLOC NUT T TYPE BZP	4
25	M4-006	M4 FLAT WASHER FORM A ST/ST	8
26	M4-011	M4 x 25 HEX SOC CAP HEAD SET SCREW ST/ST	4
27	M5-002	M5 x 12 SOC CAP HEAD SET SCREW ST/ST	4
28	M5-004	M5 x 12 HEX HEAD SET SCREW ST/ST	6
29	M5-014	M5 FLAT WASHER FORM A ST/ST	10
30	M5-015	M5 REPAIR WASHER BZP	1
31	M5-019	M5 SPRING WASHER ST/ST	8
32	M8-010	M8 FLAT WASHER FORM A BZP	20
33	M8-019	M8 NYLOC NUT T TYPE BZP	20
34	M10-002	M10 x 20 HEX HEAD SET SCREW BZP	4
35	M10-016	M10 FLAT WASHER FORM A BZP	4
36	MD019	STOCKS QUALITY TICK DECAL	1
37	MD021	ROTATION ARROW DECAL	1
38	MD024	"MADE IN BRITIAN` DECAL	1
39	MD051	WARNING DECAL	1
40	MD051	WARNING DECAL	1
41	MD051	WARNING DECAL	1
42	MD051	WARNING DECAL	1
43	MD052	KEEP CLEART DECAL	1
44	MM008A	M6 x 6 CUP POINT HEX SOCKET GRUB SCREW ST/ST	1
45	MM019	LOOP LINK CHAIN	1
46	STO1138	MOTOR ADAPTOR LEAD	1
47	TJ043A	MOTOR DRIVE COUPLING - SLOTTED	1
48	TJ044B	12 Vdc FEED MOTOR	1
49	TJ120	CENTRIFUGAL SINGLE FAN UNIT	1
50	TJ122	2 WAY MALE CONNECTOR	1
51	TJ126	240L SQUARE HOPPER	1
52	TJ128	LID	1
53	TJ129	NECK RING	1
54	TJ251A	HOPPER LEVEL SENSOR	1
55	TJ467-1	WHITE `P` SEAL STRIP	2
56	TJ467-1	WHITE `P` SEAL STRIP	2
57	TJ467-1	WHITE `P` SEAL STRIP	4
58	TJ1285	No.10 x 1 INCH HEX HEAD SELF TAPPING SCREW ST/ST	1

25.0 Granular Feed Roller - Parts



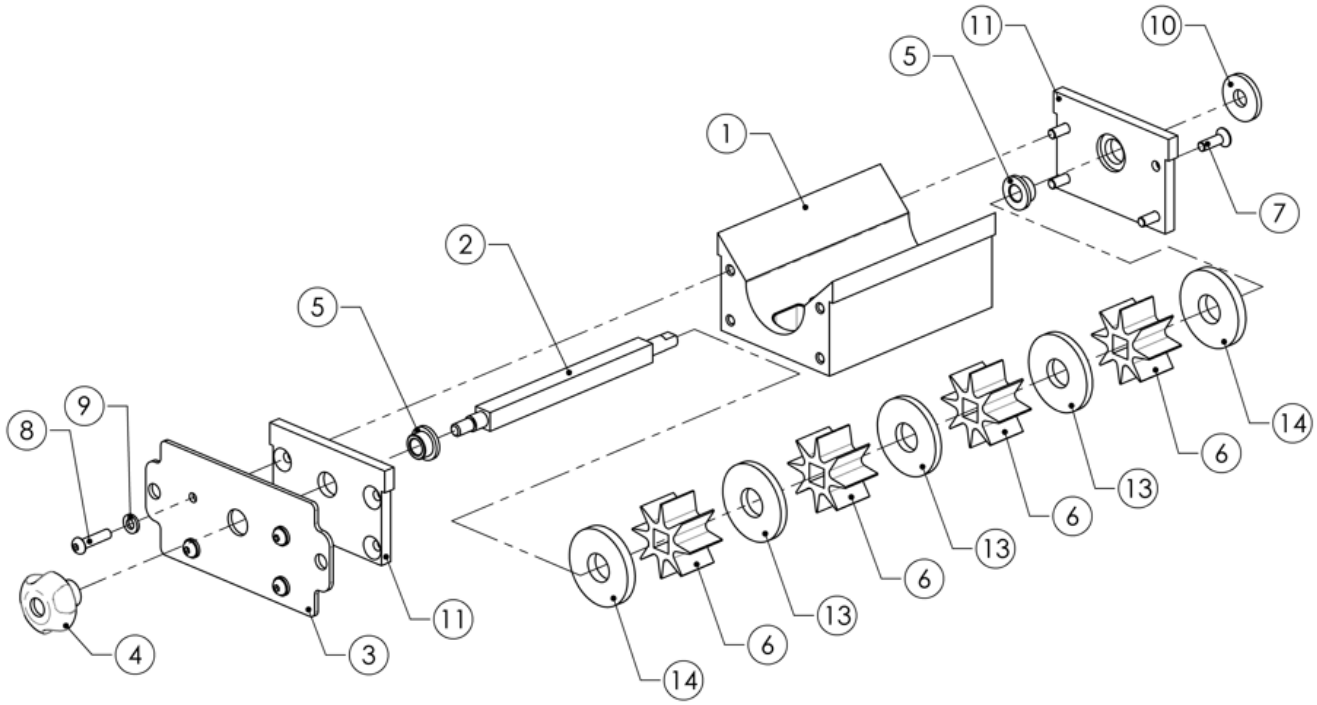
ITEM NO	PART NUMBER	DESCRIPTION	QTY
1	97APC4132	ROTOR JET PRECISION 4 OUTLET 50.8mm DIAMETER FEED BLOCK	1
2	97APC4133	SQUARE SHAFT	1
3	97APC4134	CASSETTE MOUNTING PLATE	1
4	FJ033A	M8 FEMALE PLASTIC KNOB - BLACK	1
5	GA103	FLANGED PVC BUSH	2
6	GA110	20 SECTION SMALL SEED ROLLER 28mm WIDE	2
7	M6-007	M6 x 20 CSK SOCKET HEAD SET SCREW ST/ST	4
8	M6-008	M6 x 25 HEX SOCKET BUTTON HEAD SET SCREW ST/ST	4
9	M6-016	M6 FLAT WASHER FORM A ST/ST	4
10	TJ033	WASHER GASKET	1
11	TJ101A	FEED END BLOCK PLATE	2
12	TJ208	10mm WIDE BLANKING SPACER	3

26.0 Precision (small seed) Feed Roller – Parts



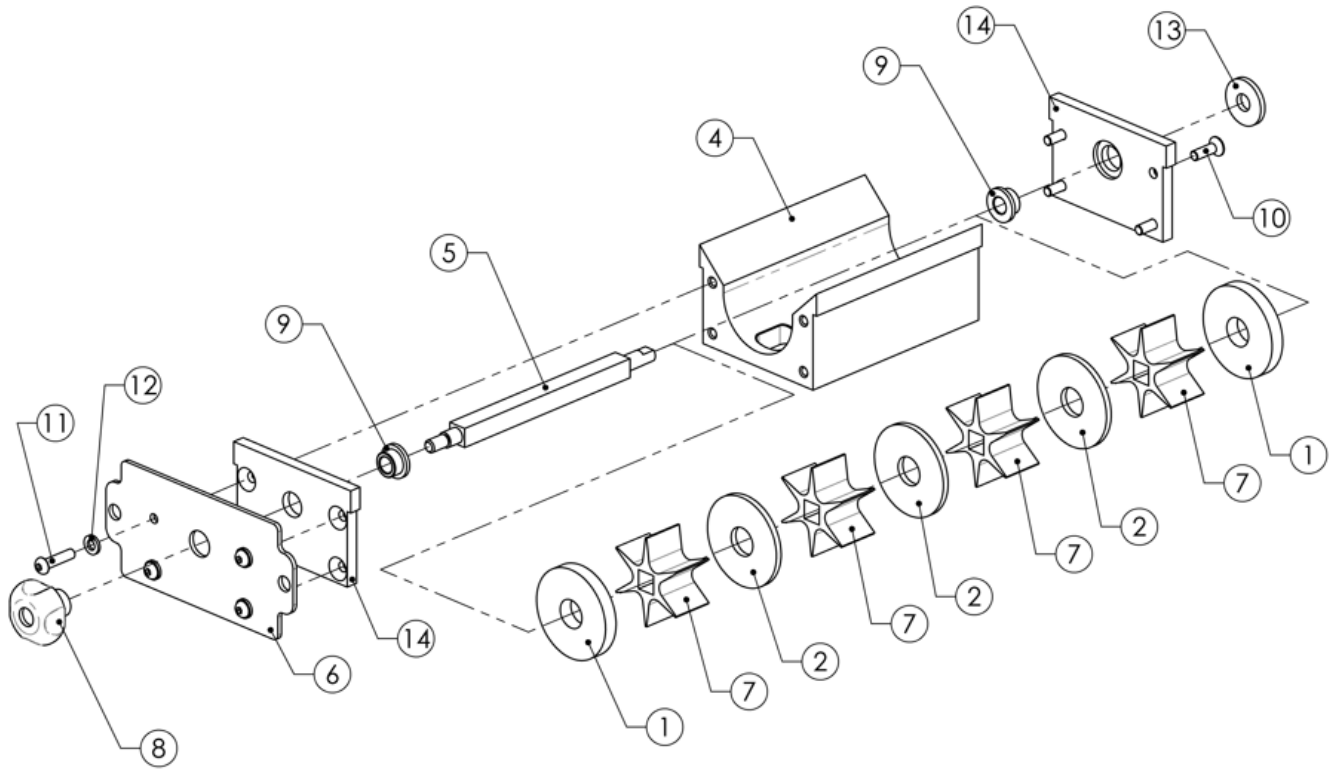
ITEM NO	PART NUMBER	DESCRIPTION	QTY
1	97APC4132	ROTOR JET PRECISION 4 OUTLET 50.8mm DIAMETER FEED BLOCK	1
2	97APC4133	SQUARE SHAFT	1
3	97APC4134	CASSETTE MOUNTING PLATE	1
4	FJ033A	M8 FEMALE PLASTIC KNOB - BLACK	1
5	GA103	FLANGED PVC BUSH	2
6	M6-007	M6 x 20 CSK SOCKET HEAD SET SCREW ST/ST	4
7	M6-008	M6 x 25 HEX SOCKET BUTTON HEAD SET SCREW ST/ST	4
8	M6-016	M6 FLAT WASHER FORM A ST/ST	4
9	TJ033	WASHER GASKET	1
10	TJ101A	FEED END BLOCK PLATE	2

27.0 Large Seed Feed Roller – Parts



ITEM NO	PART NO	DESCRIPTION	QTY
1	97APC4130	FEED BLOCK 4 OUTLET 50.8mm DIAMETER	1
2	97APC4133	SQUARE SHAFT	1
3	97APC4134	CASSETTE MOUNTING PLATE	1
4	FJ033A	M8 FEMALE PLASTIC KNOB - BLACK	1
5	GA103	FLANGED PVC BUSH	2
6	GA110B-A	8 SECTION FEED ROLLER 28mm WIDE	4
7	M6-007	M6 x 20 CSK SOCKET HEAD SET SCREW ST/ST	4
8	M6-008	M6 x 25 HEX SOCKET BUTTON HEAD SET SCREW ST/ST	4
9	M6-016	M6 FLAT WASHER FORM A ST/ST	4
10	TJ033	WASHER GASKET	1
11	TJ101A	FEED END BLOCK PLATE	2
12	TJ204A	28.0 WIDE MID SPACER	1
13	TJ205	5mm WIDE BLANKING SPACER	3
14	TJ211	6.5mm WIDE BLANKING SPACER	2

28.0 High-Capacity Feed Block – Parts



ITEM NO	PART NO	DESCRIPTION	QTY
1	97APC4054	9.0 WIDE SPACER - 59.0 OD	2
2	97APC4055	4.0 WIDE SPACER - 59.0 OD	3
3	97APC4056	28.0 WIDE SPACER - 59.0 OD	1
4	97APC4131	FEED BLOCK 4 OUTLET 59.0mm DIAMETER	1
5	97APC4133	SQUARE SHAFT	1
6	97APC4134	CASSETTE MOUNTING PLATE	1
7	97APC5196	59mm DIAMETER- 6 VANE - 28.0 WIDE FEED ROLLER	4
8	FJ033A	M8 FEMALE PLASTIC KNOB - BLACK	1
9	GA103	FLANGED PVC BUSH	2
10	M6-007	M6 x 20 CSK SOCKET HEAD SET SCREW ST/ST	4
11	M6-008	M6 x 25 HEX SOCKET BUTTON HEAD SET SCREW ST/ST	4
12	M6-016	M6 FLAT WASHER FORM A ST/ST	4
13	TJ033	WASHER GASKET	1
14	TJ101A	FEED END BLOCK PLATE	2

NOTES