

## **Quick Start Guide – Jackal Spray Control**

Setup - Auto Mode





Setup Mizard Inputs Front Screen Other Settings GPS / Serial About Jackal

Configure a Sprayer Area/Speed Wheel Area/Speed GPS TachoMeter FlowMeter Slippage Meter Sprayer Select sprayer mode AUTO ⇒XII IANUAL

Press **SETUP** 

Highlight WIZARD & press SELECT

Highlight **Sprayer** & Press **NEXT** 

Select Spray AUTO

Flow Meter Set up Flow Meter. N⊒XV ⊒XVI Input 2 Edit pulse/L Auto Set: Target:0.000L Meas.pulses: 0 Manual Ratio: 500.00000

pulse/L: 668.000000 Input 2 Edit pulse/L Auto Set: Target:0.000L Meas.pulses: 0 Manual Ratio: 668.000000 NEXT 3ACK EDIT

Press **NEXT** to setup your Flow Meter

NB: Please have your Pulse Per Litre (PPL) factor from your flow meter to hand.

For Hardi ½ inch – 120ppl For Hardi ¾ inch – 50ppl Press the **DOWN** arrow to Manual Ratio 500.00 & Press **EDIT** 

Refer to page 28 of the manual to use the Auto Set function

Using the **NAV** buttons enter the PPL factor as displayed on the flow meter tag.

Press **EXIT** when done.

NB the placement of the decimal point

Press **NEXT** to accept the new manual ratio (PPL)

Units of Display 1: L/Ha 2: gal/Ac 3: m^3/Ha NEXW BACK

Press **NEXT** to accept the **L/Ha** 

Alarm Settings Alarm Min: 0.00 Alarm Max: 0.00 NEXW SACK EDW

Press **NEXT**(Don't worry about editing the alarm values)

Select a Name Current: RATE N≕XII SAUK ⊒DIII

Press **NEXT**(Don't worry about editing the Name for the front screen)

Speed Sensor Set up Speed input. Wheel sensor or GPS? MHIRIN SANKO GPS

Select Wheel or GPS

Setup Guides for each of these can be found on Pages 22 to 24

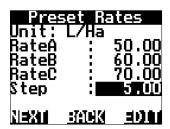
Spray Boom Set up Boom Sections. # Sections: 3 NEXI SKIP EDII

Press **EDIT** and change the number of sections required to control.

Press **NEXT** 

Boom Width
Implement Width:
12.000m
Section1: 4.000
Section2: 4.000
Section3: 4.000

Using the **NAV** & **EDIT** keys, highlight and edit the section width values as required. Press **NEXT** 



Using the **NAV** & **EDIT** keys, highlight and edit the "Preset Rates" & Step Value.

The Jackal has the ability to have **Preset (Quick) Rates** across the bottom of the screen.

Example 50/60/70 L/ha

The Step rate allows you to easily up the rate by this amount quickly from the front screen.

Press **NEXT** 

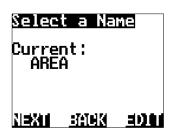


Using the **NAV** & **EDIT** keys, highlight and edit the **HOLD** & **STOP** values as described below.

- The Slow Hold Speed function is used to avoid loss of spray coverage caused by loss of pressure when travelling too slow or when reducing the target rate below the recommended minimum for the nozzles.
- If the implement is travelling below this speed (but above the minimum hold speed) then flow control is regulated as if the implement were travelling at the Slow Hold Speed.
- NOTE: Slow Hold is an optional function that can be set to operate at a minimum speed equivalent to the minimum recommended pressure for a given target rate (speed-based).

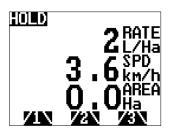
**STOP**: Will simply put the Jackal on hold at a set speed.

## Press **NEXT**



Tank Level
Set up
Tank Level
Sensor?





Press **NEXT**(Don't worry about editing the Name for the front screen)

Press **SKIP** (Don't worry about setting up a tank level sensor)

Press **NEXT** to finalise the Wizard and return to the front screen

This ends the wizard for setting up a Jackal with GPS speed input.

Now that you have completed the wizard you will need to check the Jackal is controlling your section valves and that the regulating valve is opening in the correct direction.

This can be achieved by standing still and enabling the **SIMULATE SPEED** option.

## Please Note:

- The Jackal WILL NOT allow you operate the section valves without a speed input
- The Jackal WILL NOT regulate the flow control valve without speed or flow meter pulse feedback
  - o Ensure you have water in the tank for ease of testing.

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Press the down arrow to OTHER SETTINGS & press SELECT

Other Settings
AlarmBeep: 2s
AlarmOnHold:No
Language:
English
SimultSpeed:Yes

Press the up arrow to
SIMULATSPEED and press EDIT
to change to Yes

ORATE
OL/Ha
O.OSPD
O.OAREA
O.OHa
O.OHa

Press **EXIT** twice & return to the Run Screen

ORATE
OL/Ha
O.OSPD
OMARCA
O.OAREA
STORE STORE STORES

Press the **PAGE** button until you reach the **Spd+** & **Spd-**



Adjust the speed value to reflect a typical working speed & press the **RUN** button to take the Jackal off Hold



Press the **PAGE** button until you reach the section switches.

Press each of your section switches to ensure your sections are turning ON & OFF



Press the **PAGE** button until you reach the Quick Rates.

Press each of these from lowest to highest & then back again to confirm target rate can be achieved.

NB. You may have to adjust your speed to achieve a higher/lower rate.



Please remember to turn off speed simulation before operation!

If the desired rate cannot be achieved, it's possible the Flow Control Valve is working in the reverse direction.

PLEASE TURN OVER FOR COMMON QUESTIONS & ANSWERS.



## **Common Questions & Answers**

QUESTION	ANSWER
I think my control valve is working back to front. My rates seem to only adjust in one direction.	Setup > Outputs > 1: Rate + > Select > Press the Right arrow to change the value to Rate - > Exit
	2: Rate - > Select > Press the Left arrow to change the value to Rate + > Exit
	(Reverse this procedure to return to factory defaults)
Why aren't my sections turning on and off when I'm pressing the section buttons?	<ol> <li>Check you have a speed input or you are moving</li> <li>Turn on simulation speed if you want to be stationary</li> <li>Ensure the monitor is NOT on hold</li> </ol>
My Rate is all over the place what can I do?	<ol> <li>Check you have a stable speed input (The Jackal controls to varying speed)</li> <li>Ensure you have enough flow &amp; you have no restrictions, blocks, dirty filters</li> <li>Test in simulation mode &amp; ensure your flow control valve is opening up in the correct direction (or if its working at all)</li> </ol>

How do I update my Pulse Per Litre Factor?	Setup > Inputs > Input 2: L > Select > "Edit the Manual Ratio" Value. Exit when done.
	<ul> <li>Refer to page 28 of the manual if you wish to use the Auto Set function.</li> </ul>
How do I update my Quick Pre-set Rates?	Setup > Front Screen > 1: Rate L/Ha > Edit > "Scroll down and edit the necessary fields". Exit when done.
How do I update my Wheel Factor? (My speed is out)	Setup > Inputs > Input 4: L > Select > "Edit the Manual Ratio" Value. Exit when done
How do I change my section Widths?	Setup > Other Settings > Select > "Scroll down and edit the necessary section widths". Exit when done.
How do I enable/disable with Speed simulation?	Setup > Other Settings > Select > "Scroll down until you select on SimulatSpeed, Press Edit to change Yes/No. Exit when done (Repeat procedure to disable speed simulation)
How do I FLUSH my lines?	Press the PAGE button until Rate + Rate – Flush appears.  Press FLUSH. This will open all valves, close the dump & fully open the flow control valve. It's possible to adjust the rate by pressing the Rate + & Rate –. The rate will adjust by the step rate predefined in your Quick Pre-set rates.
How do I enable Manual Rate Control? (I don't want it to adjust to varying speed)  - Useful if you lose speed input  Simply drive to a set speed and monitor the L/Ha live on the screen by adjusting the flow control valve.	It's possible to-do basic Manual rate control by simply using the FLUSH function as mentioned above. However, if you require a permanent solution, press Setup > Front Screen > 1: Rate L/Ha > Edit > Press the left arrow once and change the MODE: Rate to MODE: RateManual, Exit when done.
	Press the PAGE button to Rate + Rate – Flush.
	Use the Rate + or Rate – to manually adjust the flow control valve.
How do I check I am getting a GPS input?	Setup > GPS/Serial > Select (Confirm in this window) or
	Press Setup & confirm the NMEA messages are registering as Y. You can also press EDIT to change the Baud Rate of the GPS. The Jackal will take in both GPS & GLONASS messages.
How do I change the decimal place values?	Setup > Front Screen > "Select the value" > Edit > "Scroll down and use the Left/Right arrows to change the Decimal value required.
Can I redo the Wizard? Will I lose my settings?	Yes, you can, however you will be prompted to confirm that any Outputs will be reset. – You can select YES or NO
How do I work out my minimum and maximum flow rate? I want to ensure I have the correct flow insert.	Rate (L/Ha) x Speed (km/h) x Width (Metres) = L/Min 600; 50L/Ha x 12 Kph x 12m = 12L/min 600
I think my tank volume is out. I am using more or less than I should. I have product left or run out early. What do I do?	Adjust your PPL factor by using the following calculation method. (If you are displaying the tank volume as below)
	Monitor Volume x Current PPL Actual Volume = New PPL Factor
Front Screen 4 Mode: Batch Input# : 2 Name: TANK Unit: L Decimals: 0 Target : 1000.0 EXAMOREM TANK Unit: L Decimals: 0 Target : 1000.0 EXAMOREM TANK EXAMOREM TANK Unit: L Decimals: 0 Target : 1000.0 EXAMOREM TANK EXAMOREM TANK Unit: L Decimals: 0 Target : 1000.0 EXAMOREM TANK EXAMO	Setup > Front Screen > Scroll down to position 4 > Edit > Press Edit and change the Mode to Batch > Change input to 2 > Name to Tank > Unit to L > Decimals to 0 > Target "Tank Volume" > Count Down > Press Exit When Done.  Press the down arrow when in the working screen, you will now see the tank volume. Press the PAGE button to START RESET. Pressing RESET will fill the tank to the predefined value.

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