



BUDDY SMART REEL®

OPERATORS HANDBOOK



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INTRODUCTION

Congratulations on your purchase of a Rapid Spray Buddy Smart Reel® which is complete and ready to mount onto your sprayer.

The Buddy Smart Reel® is your ‘tangle proof’ solution to spraying the most stubborn weeds in the trickiest of places. Ideally suited for weed spraying, fence line spraying, drainage channel spraying, fire fighting, tree spraying and around buildings etc.

ACCESSORIES PACK

The following in the Buddy® Reel Accessories pack should include:

- MyPace Hand-held Remote
- 2 x Mounting Bars
- Wire Harness
- Handbook

TRANSMITTER

The Buddy Remote Reel transmitter operates in the 915 - 918Mhz spectrum.

It is classified by the Australian Communications and Media Authority (ACMA) as a low-powered Radiocomms Transmitter.

It is designed and manufactured in Australia to comply with:

- Radiocommunications (Low Interference Potential Devices (LIPD)) Class License 2000
- Radiocommunications (Short Range Devices (SRD)) Standard 2004

WARNINGS

1. When mounting to any vehicle ensure that you have read the Vehicle Owner's Manual and that you comply with all the weight restrictions as specified by the vehicle manufacturer, as overloading can cause injury or death.
2. To ensure your own safety and that of your employees if applicable you must comply with all relevant environmental, work place health and safety legislation and codes of practice.
3. Select and wear appropriate Personal Protection Equipment in accordance with the label of the product you intend using and your own safe work practices.
4. Care should be taken when spraying in windy conditions as spray drift may contaminate the air and may effect the operator or damage adjacent non-target vegetation.
5. Once the spraying operation has been completed, decontaminate the hose reel and other spray equipment. Dispose of rinsing's in compliance with current environmental, work place health and safety regulations.
6. Personal Protection Equipment must still be worn while decontaminating your hose reel as per warning at 3 above.
7. Improper or careless use of this hose reel can cause serious injury. Minors should never be allowed to use this hose reel. This hose reel should not be used when bystanders or animals are in the area. This hose reel should never be used while children are in the area.
8. Never leave the hose reel unattended without turning off the motor and relieving the line pressure, and flushing the sprayer of any harmful chemicals.
9. You must be in good mental health to operate this hose reel and not be under the influence of alcohol or any drugs that could impair your vision, physical strength, dexterity, judgment, or other mental capacity
10. This hose reel is designed to rewind hose. It should not be used to support the weight of the operator or tow any other equipment.

PRODUCT RISK ASSESSMENT

TASK	HAZARDS	RISK	CONTROL MEASURES
1. Check weather & ground conditions and select the appropriate PPE to suit the chemicals to be used.	Manual handling: slips, trips or falls.	Low	Put on PPE as per the chemical requirements in the Material Safety Data Sheet - coveralls, gloves, safety footwear, glasses & respirator: follow safe manual handling techniques: - don't lift on your own if > 20kg, bend knees & keep back straight.
2. Use spray unit	Spray drift, chemical spillage, emission of vapours or flammability; weather; untrained visitors; loss of load; work in heat & cold; noise; hose entanglement; terrain & slopes	High	As above; wear clothes to suit weather; wear hearing protection if pump noise > 85 dBA; follow manufacturer's safe operation instructions for the vehicle & the spray unit; keep visitors away from the job unless wearing full PPE; secure load to vehicle; hose tidy.
3. Retracting hose	As above.	Low	As above; ensure rewind speed suits terrain and operator; keep hands clear of moving parts.
4. Clean up, maintenance and storage.	As above.	Low	As above; continue to wear PPE for clean up; store spray unit in a dry, well-ventilated area.



CALIBRATION GUIDELINES FOR SPRAY GUNS

Non-calibrated spray nozzles can lead to inaccurate application rates, spray patterns and droplet size, which can reduce herbicide effectiveness. The first and most important step in sprayer calibration is to choose the correct nozzle type and size for your application.

NOZZLES AND PRESSURES FOR DIFFERENT SPRAY VOLUMES

Prior to spraying, select a bush to spray and decide what shape the weed can be categorized as (either dome or cylindrical). Spray that bush normally to achieve good coverage to the point of run-off. Time how long it took you to spray. Repeat this process spraying into a bucket. Measure the spray volume and compare this with the recommended spray and water rate using the tables attached. Installing a flow meter on the high pressure hose next to the hand gun will make calibration easier.

SPRAY VOLUME	NOZZLE	DIAMETER	OUTPUT	PRESSURE	PSI
	(L/ha)	(mm)	(L/min)	(kPa)	
1000 - 2000	D4	1.6	2.5	400	57
1500 - 3000	D5	2.0	3.8	500	71
2000 - 4000	D6	2.4	5.5	600	85
3000 - 6000	D7	2.8	7.8	700	100
4000 - 8000	D8	3.2	8.6	800	114

DECONTAMINATION

After use the Buddy® Smart Reel must be thoroughly decontaminated, inside and out, including pump, hoses, boom and hand lance to avoid damage to crops from harmful spray residues and to the sprayer from corrosion or abrasion. As a guide follow the decontamination procedures below:

- After spraying the tank, pump, hand lance and spray hose should be flushed by running it with clean water plus a recommended cleaning fluid. It is best to clean sprayers in the field or area just treated. This avoids the difficult problem of disposing of the dilute washings.
- See Sprayer Operator Handbook for further instruction

When storing the unit ensure that it is clean and dry and store in a well ventilated place undercover.

INSTRUCTIONS

INSTALLATION

Check all hoses, connections and hose clamps to ensure that the unit has been delivered without transportation loss or damage. If the Buddy Smart Reel® was supplied as part of a Rapid Spray sprayer unit, it will be mounted and have its supply hose connected. If the Buddy Smart Reel® was purchased as a stand-alone, to be added to an existing sprayer unit, please follow the instructions below on how to mount and connect to the sprayer unit.

MOUNTING THE BUDDY SMART REEL®

1. Locate a sturdy flat surface on the frame that could withstand the weight of the hose reel.
2. Using the mounting template provided on the box flap, check and ensure sufficient clearance from other equipment, mark out and drill the 4 X 12mm mounting holes.
3. Place the reel over the holes, slide the 2 mounting bars provided into the gap below the switch panel, taking account of the orientation of the angled ends.
4. Insert the M10 bolts (fitted with the spring washers) from below the mounting plate, and tighten.
5. Connect short hose fitted to the side of the reel to a spare outlet on the spray regulator.
6. Please note that the reel must not be connected to a pressure reading that is greater than 40Bar.
7. Connect the spray gun to the fitting at the end of the hose.
8. In case of a misplaced remote, the button on the switch panel will operate as a manual fast rewind.





ELECTRICAL CONNECTION TO THE BUDDY SMART REEL®

1. Using electrical leads supplied connect between the power plug on your reel (located below the switch panel) and a suitable 12VDC power source ensuring that correct polarity is maintained. Red is +ve, Black is -ve. The alligator style clips may be connected direct to a vehicle battery.

CAUTION If the supplied electrical leads are not long enough, they must only be extended with cable containing copper that is no smaller than 6mm cross sectional area. Extending using too small wire size will cause voltage drop and result in the unit stopping during rewind operation. It will also cause the fault code LL to be displayed momentarily.

2. Move the power switch toggle to the ON (up) position. If power is connected and the polarity is correct, a 0 will be visible on the display of the control panel. If polarity is reversed, the display will remain blank and the reel will not operate.





OPERATION OF THE BUDDY SMART REEL®

1. Switch power to the Reel and confirm that the display shows 0.
2. Pull the hose out to the required length for spraying.
3. To retract hose at maximum speed, press the  button on the MyPace hand-held remote.
4. To retract the hose at a slower speed, press the  button on the MyPace hand-held remote.
5. Always maintain a slight pull on the hose as it is rewinding to ensure a consistent layout of the hose on the spool.
6. Please note that the reel must not be connected to a pressure reading that is greater than 40Bar.
7. Connect the spray gun to the fitting at the end of the hose.
8. In case of a misplaced remote the button on the switch panel will operate as a manual fast rewind.



CUSTOM SPEED ON THE MYPACE HAND-HELD REMOTE

The MyPace function allows a custom rewind speed to be set and stored. It can easily be re-calibrated as often as needed to suit changing conditions in terrain, weather or each operator's personal preference.

1. Pull the hose out to at least 20m.
2. Press both   buttons on the MyPace hand-held remote.
3. The Buddy® hose reel will begin to rewind at its minimum speed. The speed will gradually increase while both buttons remain pressed.
4. When the desired speed is reached, release the  button and the reel will continue at that set speed. (If both buttons are held for approximately 20 seconds the reel will reach maximum speed).
5. Releasing both buttons will cause the custom speed to be stored in the memory of the remote.
6. When the  button is pressed the reel will operate at the set speed.
7. The custom speed can be reset as often as needed by starting back at step 2.

PAIRING THE MYPACE HAND-HELD REMOTE TO THE BUDDY SMART REEL®






The MyPace hand-held remote should be delivered already paired to the Buddy Smart Reel®. If several reels have been purchased and it is not clear as to which remote is paired to which reel or if the remote has been replaced, the remote can be re-paired to the reel at any time.

How to pair a remote

1. Stand within reach of the Buddy® Reel switch panel.
2. Ensure the reel is powered and switched on.
3. Remove the batteries from the remote.
4. Press both buttons on the remote and insert the batteries while holding the buttons.
5. Green lights will flash slowly on the remote and the display on the switch panel on the reel will slowly flash **PR**.
6. Within 10 seconds, press the manual rewind button on the reel switch panel.
7. Successful pairing will be acknowledged by the display on the switch panel flashing **PR** fast for a few seconds then return to a steady **□**. (The green light on the remote may continue to flash slowly for a few more seconds then stop).
8. After the green light on the remote stops flashing, press either button to confirm that the reel is responding.







READING LED LIGHTS

MYPACE HAND-HELD REMOTE LEDS

 Slow Flash	Unit in radio pairing mode
 Very fast flash	Fast rewind button pressed
 Fast flash	Slow rewind button pressed
 Very fast flash	Battery low and fast rewind pressed
 Slow Flash	Battery low and slow rewind pressed

BUDDY SMART REEL® SWITCH PANEL DISPLAY CODES

Your Buddy Smart Reel® is equipped with a display to indicate its current status. During operation of your reel, you may observe the following messages on the display.

-  = Reel powered correctly, on standby, ready to operate
-  = Reel has not been paired to a remote
-  = Reel is in pairing mode
-  = Supply voltage to reel is too low
-  = Reel is rewinding at the fastest setting
-  = Reel is rewinding at the slow speed



EASY HOSE MANAGEMENT (EHM)

Your Buddy Smart Reel® comes with an advanced hose reel control system that we refer to as Easy Hose Management (EMH). It is simply safer, easier and more comfortable for you to use.

Conventional auto rewind hose reels start with a jerk, and increase the hose speed as you return closer to the unit, often requiring you to jog or run unless you stop and start (with the resulting uncomfortable whipping action) Manufacturers of those reels will also ask you to stop electrically winding the hose several meters before you reach the reel, requiring you to complete the operation manually. This is to prevent injury to the operator, or damage to the reel, due to being dragged at speed and slammed into the unit.

EHM by Rapid Spray overcomes all these unfriendly situations. The Buddy Smart Reel® starts softly and reaches your desired speed comfortably. During rewind, the reel is constantly changing its rotations to ensure the actual speed of the hose remains constant, even as the diameter of the hose coil increases when more hose is wound onto it. In addition to this, the reel knows when the hose is almost fully wound, and that it is not good for you or the unit if you crash into it, so it slows down and stops gently, automatically, even though you may still be pressing the button on the remote.

CALIBRATING THE EHM SYSTEM

For the EHM system to be able to manage your hose it needs to know, what is your desired home position (H), and how many revolutions before this you wish to have it slow down (default is 3).

To reset home position and slowdown zone:

1. Switch power on and ensure reel is in standby (□)
2. Make sure the hose is wound to the desired stopping position. This may be where the hose stopper is almost touching the hose guide rollers for a small sprayer, or further out on a large sprayer if the spray gun is mounted away from the reel.
3. Press and hold both the ▽ and △ buttons on the control panel until the display flashes with the current setting (approx. 5 seconds). This will be the letter **H** followed by a number from zero to nine indicating how many revolutions before the stopping position the slowdown will occur.
4. If the current H value is suitable, just press the ↵ (return button) and the home position will be updated.
5. If you wish to change the slowdown position for your application, after step 3 above, press the ▽ button to reduce the **H** value or the △ to increase it. Pressing the button will save the new setting
6. To disable the slowdown zone, set the value to **H0** (not recommended).

NOTES ON EHM SYSTEM

- To get the most from the EHM system, always return the reel to the home position before switching off power, and make sure it is in the home position when switching power on.
- While EHM does not lose the home position when the power is switched off, it cannot detect movement in the reel unless it is powered.
- It is quite OK to load the reel up so that it slows down during rewind, as EHM will sense this and adjust to maximum power without blowing a fuse (unlike a conventional reel).
- If the hose is stalled by the operator at any time, the reel will hold for a few seconds, slowly relax the pull and stop winding until the rewind button is released and pressed again. The level at which this safety feature operates is much lower when operating in the slowdown zone.
- While operating in the slowdown zone, both the speed and the pulling power are reduced to ensure a smooth stop.
- Periodically the home position may require resetting as described above. This may show up by the reel stopping too far short of the home position, or the reel not stopping completely at the home position.
- If the hose stops completely before the home position, but still in the slowdown zone, releasing the rewind button and pressing it again will continue the wind at slowdown speed.
- If the hose is pulled out then the power is switched on, the EHM system will consider this as the home position. This situation will cause the reel to slow down and stop at the false home position and only rewind slowly, at low power.
- If the power is interrupted while the hose is away from the home position, but reconnected without the hose moving the correct home position will be retained.



SPRAYING GUIDELINES

The following steps are given as a guide for spraying with your spot sprayer:

1. Before commencing spraying, plan the work effectively to reduce potential contamination to a minimum.
2. Wind direction and speed must be taken into account. Avoid spraying on still, hot and sunny days or when wind speed exceeds 6.5km/h.
3. Do not spray if the operator, bystanders, watercourses or any not target vegetation appears to be in danger from spray drift contamination.
4. Drift can be reduced by lower nozzle height, lower pressures or by fitting larger nozzles.
5. To commence spraying, turn regulator lever from 'bypass' to 'pressure' and depress the hand lance trigger.
6. Release the trigger to stop the spray - the regulator will automatically allow spray solution to bypass through the return line and back to the tank.
7. Spray at a constant speed (as used during calibration) and shut off the hand lance trigger at the end of each swath or before changing direction.
8. Work in parallel lines at the correct spacing when spraying a large area - this is better than moving the hand lance from side to side in a swinging movement which causes damage by overdosing.



WARRANTY

WARRANTY POLICIES AND PROCEDURES

The following warranty is the only warranty applicable to RAPID SPRAY products, and to the maximum extent permitted by law, overrides any other conditions or warranties expressed or implied on RAPID SPRAY products.

Other than legislative obligations to the contrary, RAPID SPRAY will not be liable for and incidental or consequential damages arising from the ownership or use of a product. No person, including any dealer or representative of RAPID SPRAY is authorized to make any representation or warranty on behalf of RAPID SPRAY in addition or inconsistent with these provisions. Purchasers to whom these provisions apply agree to hold RAPID SPRAY not liable for claims by their customers in excess of the obligations of RAPID SPRAY expressly set forth herein.

NOTE: All tank and spray systems must have their warranty activated by returning the warranty card located at the end of this document within 21 days of purchase by the end user.

THE WARRANTY

All products sold by RAPID SPRAY are guaranteed to be free from defect in materials workmanship or manufacture for a period of 12 months from the initial date of purchase, excepting the following exclusions;

Any parts/products found by RAPID SPRAY to be defective, either in material or workmanship will be replaced or repaired within this period, at no cost to the initial purchaser if following conditions are met:

- The item has been operated in accordance with all instructions and warnings provided
- Item is still owned and operated by the original purchaser - proof of purchase is required to obtain warranty



See <https://www.rapidspray.net/resources/warranty-registration> to register your Buddy Smart Reel for warranty.



FOLLOWING THINGS ARE EXPRESSLY EXCLUDED FROM THE ABOVE WARRANTY.

ABUSE	Failure as a result of neglect, such as improper operation. Lack of maintenance or continued operation after discovery of a defect that leads to further damage
ALTERATIONS	Any unauthorized alteration, modification, attachments or unauthorized repair to equipment.
CLEAN-UP TIME	RAPID SPRAY does not pay for cleaning of products, parts or accessories or work area before or after the warranty repair.
DAMAGE	Damages or machine/component failure caused by carelessness/recklessness or accidental damage, improper operation, excessive speed, inappropriate storage or transportation.
ENVIRONMENTAL CONDITIONS & APPLICATION	Deteriorated or failed components such as o-rings, diaphragms, hoses, seals and connections damaged by corrosive chemicals, dirt and sand, excessive heat, moisture or other environmental impacts. Warranty determination on these type of failures will be made by RAPID SPRAY, only after inspection of the failed component.
INABILITY UNSUITABILITY	In no event shall RAPID SPRAY be liable to any person for indirect or consequential damages or for injury or commercial loss resulting from any use or inability to use any RAPID SPRAY product.
MAINTENANCE	Component failure due to failure to perform maintenance services such as, oil and grease changes/top-ups, failure to clean tanks, pumps filters, nozzles and spray lines. Failure to tighten or replace loose or missing bolts, nuts, fittings, shields and covers.
NON-GENUINE PARTS	Use of parts other than RAPID SPRAY parts for repair of warranted items will automatically negate any warranty. Warranted components must be replaced with genuine parts.

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WARRANTY REGISTRATION

You can register online at www.rapidspray.net/resources/warranty-registration or complete all the details below and post this form back to:

Rapid Spray, PO Box 3119, Singleton NSW 2330

Model Serial No

Purchased From
(Dealer Name & Town)

Purchaser's Name

Purchaser's Address

.....

Purchaser's Phone Number

Purchaser's Email Address

Disclaimer: If you don't want us to keep you informed of new products or specials, please tick the following circle:

To help us help you further, please complete the following:

Purchaser's Age

Principal Usage

- Up to 25
- 25 - 40
- 41 - 55
- Over 55

- Commercial farm
- Hobby farm
- Industrial
- Other.....
- Town council
- Hire company
- Home

What influenced you to purchase a Rapid Spray product?

- Received Catalogue
- Newspaper advertisement
- Magazine advertisement
- Dealer recommendation
- Friends recommendation
- Better features than competitor product
- Quality & reliability
- Price
- Past experience with Rapid Spray products
- Other.....

What other Rapid Spray products do you use?

- Spray tanks
- Cartage tanks
- Diesel tanks
- Fire fighting
- Boom sprayers
- Engines, Pumps & controllers
- Chapin Backpack / Hand Pump Sprayers
- Other.....



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