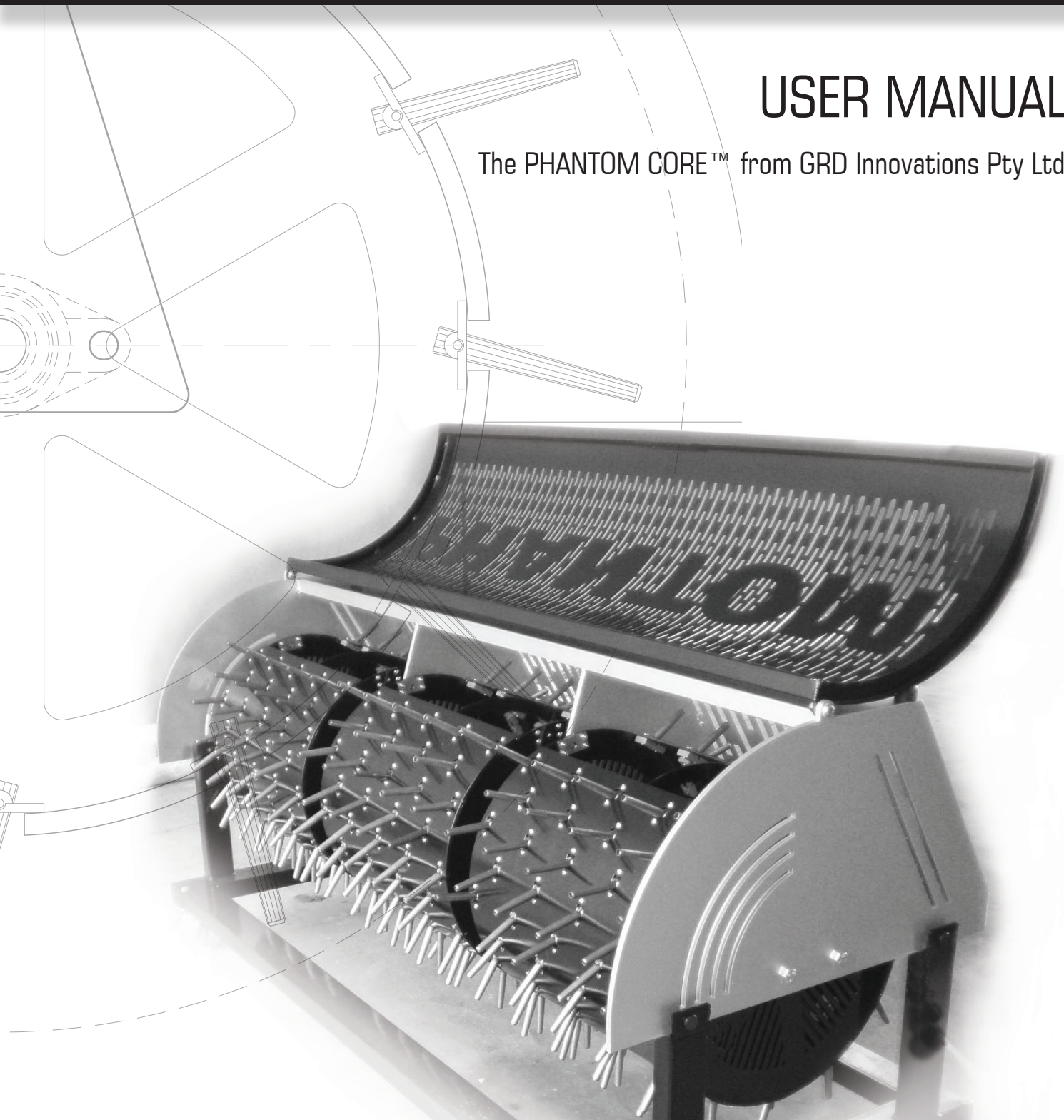




# USER MANUAL

The PHANTOM CORE™ from GRD Innovations Pty Ltd



## Foreword

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Congratulations on the purchase of your new PHANTOM CORE™. To ensure safe and long use, it is essential that all users read and understand this manual. Operation of this machine is not safe without the full knowledge of the content of this manual.

The PHANTOM CORE™ is not an independently operated machine and it is the responsibility of the operator to ensure the selected tractor meets the recommended specifications. The operator must also check the tractor/attachment combination for safety aspects such as, guards, safety devices and any associated risks.

## Warranty

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The PHANTOM CORE™ warranty is additional to the conditions and warranties which are mandatorily implied by the laws and regulations of the individual States and Territories of Australia and the Trade Practices Act, 1974 (Aust) and the Consumer Guarantees Act in New Zealand and any non-excludable laws.

The PHANTOM CORE™ warranty commences from the date of purchase for 12 months against mechanical defects and faulty workmanship or materials. This warranty covers only the replacement, repair or adjustment of parts which fail due to a fault in manufacture. Defective parts will be replaced or repaired by an authorised PHANTOM CORE™ distributor without charge for labor or materials. Repairs or adjustments required by a failure to follow the manufacturer's instructions are chargeable to the owner.

PHANTOM CORE™ distribution and service representatives or agents are authorised to determine whether a claim will be covered under warranty or payable by the owner on completion.

You should seek independent legal advice to determine whether a claim not covered by this warranty is covered by any warranties implied by law.

- This warranty applies to the original purchaser only. Proof of purchase date must be provided prior to any warranty work.
- Use of parts other than genuine PHANTOM CORE™ spare parts cancels this warranty.
- Repair by other than an authorised PHANTOM CORE™ distributor/agent cancels this warranty.
- Altering the product in any way cancels this warranty.
- Failure to follow the User Manual or attached labels cancels this warranty.
- Fair and reasonable wear is not covered under this warranty.
- Damage from an accident, misuse or neglect is not covered under this warranty.
- Costs of transportation of the PHANTOM CORE™ are to be paid by the owner.

## Safety

The PHANTOM CORE™ is designed for safe use. However this is only possible if the user fully observes the safety instructions given in this manual. Read and understand the User Manual before starting to use the PHANTOM CORE™. Not operating the PHANTOM CORE™ as described in this manual could lead to injury and or damage to the machine.

Note: The PHANTOM CORE™ is solely intended for use on natural turf surfaces.

- The PHANTOM CORE™ is designed to fit a standard 3 point linkage tractor. Specifications of tractor should be checked to ensure suitable lifting capacity and stability. Front weights may be required to avoid rear tipping.
- Ensure all guards and safety devices are in place and in good working order.
- Remove foreign objects from area to be used to avoid damage or malfunction to the machine resulting in the potential risk of injury to the operator or bystanders.
- Ensure bystanders are alerted to the operation of machinery.
- Complete a visual pre-start check of the PHANTOM CORE™ prior to operation to ensure all nuts, bolts, tines, fittings, links and connections are present and tight.
- Replace damaged or worn parts immediately.

## Maintenance

- Grease all axle bearings (x6) monthly.
- Wash thoroughly after use, ensuring all tines are clean to maintain maximum efficiency while in use (failure to do so can lead to reduced harvesting capacity).
- Replace worn parts immediately.
- Check tine mounting bolts regularly to avoid malfunction and potential damage to turf/machine.

## Operation

- Ensure all operators are trained in the safe use of machinery and are competent certified tractor operators.
- All operators are to read User Manual prior to use.
- Attach PHANTOM CORE™ correctly to selected tractor. Ensure machine is level and tyre pressures are even. Tighten sway bars to avoid sideways movement and potential damage to tines. Do not remove from storage dolly until attachment is complete.
- **Prior to use:**
  - Ensure all latches are in the closed position as shown in figures 1 & 2.
  - Wet tines thoroughly by rinsing with water. This will assist the efficient removal of cores and prevent clogging.
- When transporting, ensure three point linkage is fully raised and the hydraulic top-link is compressed for maximum ground clearance.
- When in position on area to be cored lower into turf while in a stationary position. Ensure machine is lowered completely and level using the hydraulic top-link control.
- Forward operation only at up to 12km/hr in a straight line. Slight curves are permissible but sharp corners should be avoided.
- Slow down and lift PHANTOM CORE™ before turning using the three point linkage and hydraulic top link. When in position slowly lower machine and return tractor to speed.
- When drums are full, relocate to level dumping area. Retract hydraulic top link fully to tilt machine forward.
- Lower machine to comfortable working height using three point linkage control avoiding tines hitting the ground.
- Apply park brake and dismount from tractor.
- Move to the rear of the PHANTOM CORE™.
- Raise rear safety cover using the central handle until resting on rubber stops located on top of the main frame.
- Rotate drum by pulling tines towards you until hatch appears at top. **NEVER PUSH TINES AWAY FROM YOURSELF AS THIS MAY LEAD TO ENTANGLEMENT.**
- Remove hatch by sliding the 2 latch handles, figure 1 & 2, towards the centre of the drum.
- Discard hatch to one side and rotate drum to empty contents by pulling tines towards you. **NEVER PUSH TINES AWAY FROM YOURSELF AS THIS MAY LEAD TO ENTANGLEMENT.**
- When empty, refit the hatch, ensuring latch bolts are located correctly into the hubs, figures 1 & 2.
- Repeat the process for each drum. When complete, lower safety cover and return to work area and resume operation.

## Cleaning

Thorough cleaning of the PHANTOM CORE™ is essential to its ongoing performance; failure to clean as directed will dramatically affect the harvest quantity on subsequent uses.

- Ensure all cores are removed from the tines.
- Clean thoroughly with compressed air before using a high velocity water hose to ensure all loose material is removed. Pay particular attention to the internal walls of each tine.
- Return PHANTOM CORE™ to storage/transport dolly, insert dolly locking pins and unhook from tractor.



## Transporting

- When transporting PHANTOM CORE™ always ensure it is mounted to the storage transport dolly, even if it is hitched to a tractor.
- Ensure locking pins are in place and safety pins are secure.
- PHANTOM CORE™ can be moved via forklift lifting only from under the storage/transport dolly. The forks should never make contact with the tines on the PHANTOM CORE™.
- Apply castor wheel brakes and ensure PHANTOM CORE™ is fastened securely to the transport vehicle with adequate fastening devices to ensure no movement on route.
- All fasteners should be secured to the entire machine not the dolly.

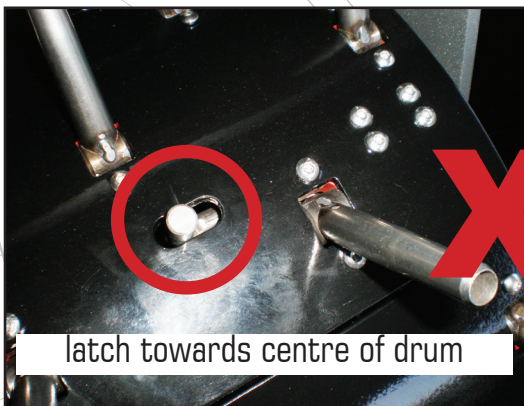


figure 1: unsecured latch

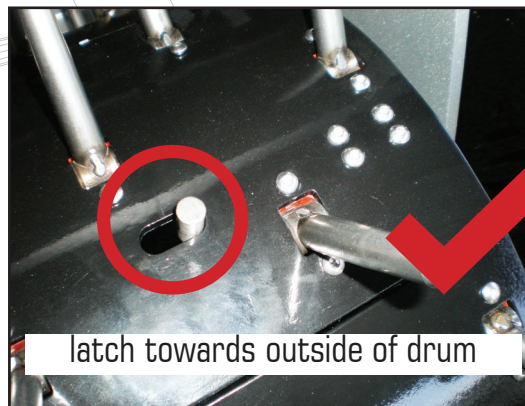


figure 2: secured latch

## Specifications:

Recommended Tractor Requirements	
Horse Power	30HP
Hitch	3-point linkage
3-point linkage lift capacity	1100kg (at link ends)
3-point attachment pins	Cat 1 - 19mm (3/4")
Rear Remote Hydraulics	Recommended
Width	2.084m
Working Width	1.974m
Height	0.805m
Dry Weight	380kg
Drums	3 independent
Drum Capacity	0.420 cubic metres
Tines - Size	12mm Hollow
Tines - Quantity	108 per drum / 324 in total
Tine Mounts	Case hardened
Core Hole Spacing	144mm forward / 65mm across
Core Holes	103 /m <sup>2</sup>
Organic Matter Removal	approx.* 1 cubic metre / 10,000m <sup>2</sup>
Coverage	over 10,000m <sup>2</sup> / hour

\* dependent on organic matter depth

\*\* specifications subject to change without notice

## Parts:

Part Number	Description	Detail	Quantity/Machine
PC-WSMC-OM	User Manual		2
PC-WSMC01	Frame		1
PC-WSMC02	Tractor Mounting Pins	Cat 1	2
PC-WSMC03		Clevis Pin	1
PC-WSMC04		Linch Pins	3
PC-WSMC05	User Manual Canister		1
PC-WSMC06	Rear Cover		1
PC-WSMC07		Handle	1
PC-WSMC08		Rubber Stop	2
PC-WSMC09		Bolts/Nuts	2
PC-WSMC10		Nylon Washer	6
PC-WSMC11		Safety Decals	4
PC-WSMC12	Drum		3
PC-WSMC13	Drum Bearings		6
PC-WSMC14	Bearing Housing		6
PC-WSMC15	Bearing Housing Bolts/Nuts	Side Plates	4
PC-WSMC16		Middle Plates	4
PC-WSMC17	Latch		6
PC-WSMC18		Fixing Bolts/Nuts	24
PC-WSMC19	Latch Flush Plate		6
PC-WSMC20		Fixing Bolts/Nuts	24
PC-WSMC21	Saddle		324
PC-WSMC22		Fixing Bolts	648
PC-WSMC23	Tine/Toggle		324
PC-WSMC24	Dolly		1
PC-WSMC25	Dolly Locking Pins		4
PC-WSMC26		Linch Pins	4
PC-WSMC27	Castor Wheels	Braked	2
PC-WSMC28		Un-Braked	2
PC-WSMC29		Fixing Bolts/Nuts	16

To order parts; contact your nearest Phantom distributor or go to **[www.phantomcore.com.au](http://www.phantomcore.com.au)**

## Contact Details:

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