

DINGO™

Post Hole Digger

OPERATION & MAINTENANCE MANUAL



IMPORTANT: Become familiar with the contents of this manual and the Dingo Operation and maintenance manual before operating the Posthole Digging attachment. Information about the Ding is contained in the Dingo Operation and Maintenance Manual.



Modified 07-04-2004

Introduction

This Post Hole Digger has been carefully designed and manufactured to give you years of reliable service. Please read this operation and safety manual to keep your Post Hole Digger running efficiently.

The information in this manual is current as at October 2001. In the effort to continually improve our products, Dingo reserves the right to change specifications without notice. Please, for critical information, contact your nearest Dingo branch.

We want you to be completely satisfied with your new product, so feel free to contact your local Dingo branch for help with service, replacement parts and any other information about the Dingo and its attachments.

Whenever you contact your local Dingo branch always know the model and serial numbers of your product. These numbers will help us to provide exact information about your specific product. You will find the model and serial number on a plate located on the product.

For your convenience, write the product model and serial numbers in the space below.

Model No: _____

Serial No: _____

DISCLAIMER:

Specifications, design & service procedures are subject to change without notice.
Specifications may vary & may be approximate.

Contents

Safety	4
Operation	4
Maintenance	5
Post Hole Digger	5
Augers	5
Wear Parts	5
Auger Teeth	5
Changing Teeth	6
Auger Pilots	6
Digging Tips	7
Post Hole Digger Assembly	8
Troubleshooting	9
Risk Hasard Assessment	10
Warranty Statement	11

Safety

- Be a responsible operator and become familiar with this manual, the Dingo Operation and Maintenance Manual, the machine and the attachment.
- Use extra caution when operating on hill, slopes or uneven ground (Refer to the Dingo Operation and Maintenance Manual).
- Do no side shift while auger is turning.
- Do not place any part of yourself, or any person under the Dingo arms.
- Do not operate auger or machine while people are standing near.
- Do not operate close to edges or excavations etc.
- Reduce speed while moving with Post hole digger attached.
- Do not rotate auger whilst travelling.

Operation

- 1 Ensure the Auxiliary hydraulics lever is in the neutral position before connecting the Post Hole Digger.
- 2 Disconnect other attachment and connect Post Hole Digger as per instructions in the Dingo Operation and Maintenance Manual. Follow all steps for connecting an attachment that requires auxiliary hydraulics. The Dingo Operation and Maintenance Manual explains the use of the auxiliary hydraulics lever. **Note:** Auger digs in a clockwise direction. If the auger is attached to Post Hole Digger go to step 6.
- 3 Have the auger lying on the ground surface pointing away from the front of the machine.
- 4 Lower the Post Hole Digger drive head (mounted on the machine) to the ground near the sleeve end of the auger.
- 5 Slide the auger sleeve onto the drive head shaft, align the holes in both and secure with the drive and lynch pin, which hold the auger in place.

6 Manoeuvre the Dingo to the required spot for drilling. Lower the auger till the pilot is touching the ground. Move the pump selector to the turtle position. The turtle position allows the big pump to power the Post Hole Digger and the small pump to power the Dingo wheels and arms. (i.e. more power is delivered to the Post Hole Digger, where it is needed most)

7 Start the auger rotating with the Auxiliary lever and lower the arms to push auger into the ground. The harder the ground the more pressure you will need to apply to the auger.

8 The front wheels may lift off the ground. Do not operate the machine in an unsafe manner (refer to the Dingo Operation & Maintenance Manual).

9 As the auger digs into the ground the arms will travel through an arc, therefore adjustment will need to be made to the position of the Dingo to keep the auger at the desired angle.

10 Do not drill the auger deep into the ground in one operation. Continually clearing the hole during digging will facilitate an easier operation. It may be necessary to clear dirt from the auger flights by spinning the auger quickly forward or by changing from forward to reverse quickly and repeatedly. This is best done off to the side of the hole.

11 The Post Hole Digger is designed to dig in most digging conditions. With the selection of Dingo Tungsten Carbide Rock teeth, some rock structures can be dug. It is impossible to dig all types of rock.

12 Disconnect the Post Hole Digger as per instructions in the Dingo Operation and Maintenance Manual.

13 Remember, as with any type of drilling, you need a sharp drill point. Auger teeth and pilot must be in good condition if the auger is to work correctly. See wear parts section for more

information.

14 When travelling with the auger attached, tilt the drive head back so the auger points out the front and does not swing freely. This prevents the auger swinging back and damaging the front of the Dingo.

15 If more down pressure is required, use the “Diggers Mate” on the back of the machine.

16 If drilling on uneven ground, it may be necessary to loosen the two grub screws (Item 16 on page 8) to allow the auger to swing from left to right as well as back and forward. To do this, loosen the lock nuts and turn grub screws anti-clockwise until planetary drive is able to swing from left to right. Then retighten lock nuts. This will free up the auger to hang vertically even if drilling holes across a slope.

Maintenance

Post Hole Digger

One of the features of your Dingo Post Hole Digger is its low maintenance. While this is true, it is wise to check for oil leaks on a regular basis to ensure your Post Hole Digger remains in working order.

Augers

As the auger is engaging the ground wear must occur to dig holes. Therefore, the auger teeth and pilot must be checked regularly and replaced as necessary (see wear parts section). Failure to replace missing and worn teeth will damage the auger pockets and flighting resulting in costly repairs.

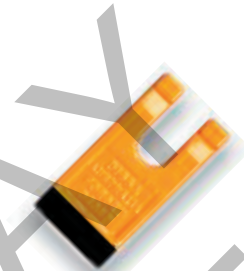
Wear Parts

Auger Teeth

Make sure that your auger teeth are in good condition so that your drilling performance is satisfactory and wear on your auger is minimised.



Standard
Earth Tooth



Tungsten
Earth Tooth



Tungsten Rock Tooth
(Hard Digging)



Earth Spear
Tooth



Tungsten
Earth Spear
Tooth

Changing Teeth

- 1 Tap the worn tooth from the tooth pocket using a hammer and a punch or old screw driver etc.
- 2 Remove the old rubber from within the tooth pocket.
- 3 Replace with a new rubber. It is a good idea to lubricate the new rubber with water to prevent it breaking when the new tooth is inserted. The rubber should measure just short of the width of the tooth.
- 4 Insert the new tooth by tapping it with a copper or plastic hammer (Your normal hammer may chip the cutting edge of the new tooth).

Auger Pilots

The condition of your pilot is most important to ensure good ground penetration. Whilst it seems such a small part of your overall drill, **it is the most important part of the auger.**

Note: Rock teeth and pilots will not dig earth, soil, etc. They are designed to grind away rock, not chisel into it.
Earth teeth and pilots are designed to chisel into earth - not rock.

It is simple to change teeth and pilots and it is much more cost efficient to do this than to use the incorrect or worn teeth and pilots.

Dingo augers are configured with tungsten earth teeth in the outside pockets (the outside teeth travel the greatest distance & wear fastest), earth spear teeth in the inside pockets (for better ground penetration) and an earth pilot. This configuration has been found to be a good cost vs wear combination in most soil conditions. Ask your Dingo representative about the tooth combination that most suits your soil conditions.



Standard
Earth Pilot



Tungsten
Earth Pilot

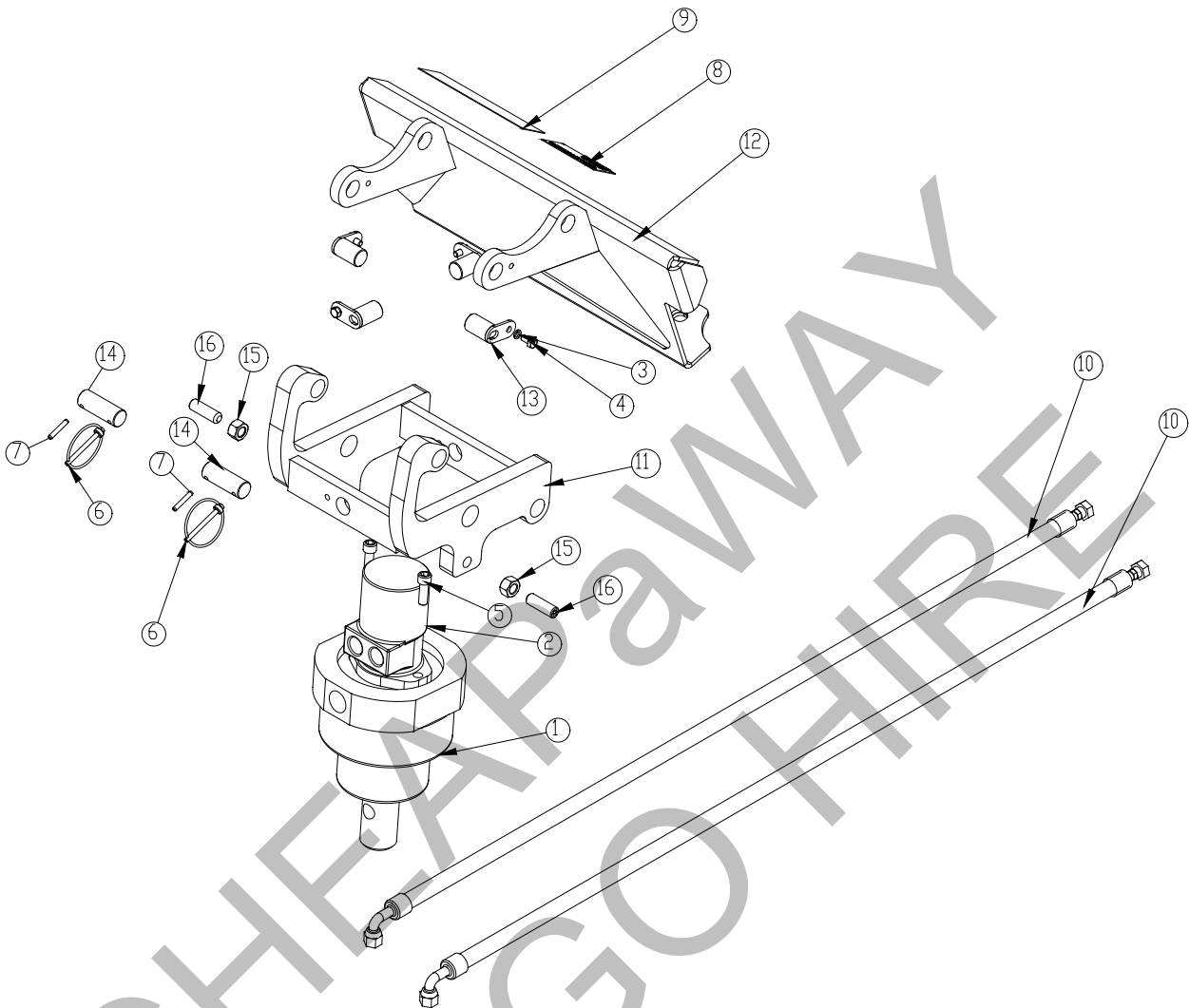


Tungsten
Rock Pilot
(Hard Digging)

Digging Tips

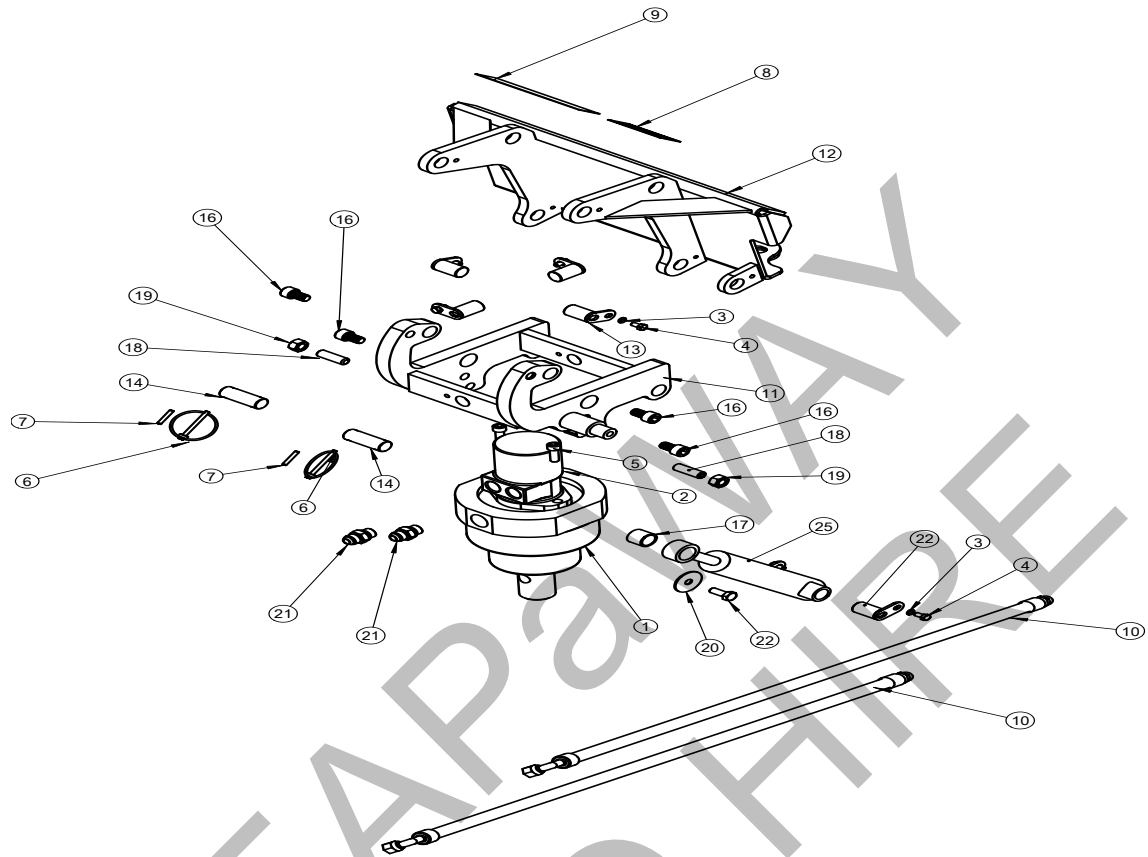
- In dry conditions pour water into the hole to help clean the last of the material from the bottom.
- Use a “Diggers Mate” on the foot plate of the Dingo to give extra down pressure on the auger in hard digging.
- Maneuver the Dingo back and forward in stony conditions to help lever the stones from the ground.
- Water can also help in stony conditions to loosen the stones from their position.
- Using water when boring into rock will keep your teeth cooler and lasting longer.
- Rock teeth are only good for boring into solid rock. Use earth teeth for stony ground.
- When using larger augers, only dig into the ground up to the top of the auger flight. Then remove the auger and clean it. Continue this process until the desired depth is reached. Going in deeper than the top of the auger flights may make the auger too heavy to lift from the ground.
- In grassy conditions reverse the auger whilst in the ground to remove any grass that has become tangled amongst the teeth.
- Use auger extensions to go deeper. The Dingo can dig to 1.5m normally, and to 2.3m with an auger extension.

Post Hole Digger Assembly



ITEM	QTY.	PART NO.	DESCRIPTION
1	1	060-100-010	Planetary Drive Assembly PHD with Motor
2	1	331-011-001	Hyd Mtr Suit PHD
3	6	132-131-000	Spring Lock Washer M8
4	6	111-311-016	Hex Bolt M8 x 16
5	2	111-522-035	Socket Head Cap Screw M12 x 35
6	2	100-000-013	Lynch Pin 1/4"
7	2	100-000-051	Roll Pin 1/4" X 1 1/2"
8	1	021-000-024	I.D. Plate for Attachment
9	1	021-000-035	Caution Decal
10	2	APU015	PHD Hydraulic Hose 1300mm
11	1	APU005	PHD Driver Carriage (Can Use New Style)
12	1	APU002	PHD Mount Plate Assembly (Can Use New Style)
13	6	APU008	40mm Pin
14	2	APU010	Locking Pin
15	2	121-371-000	5/8" UNC Zinc Nut
16	2	113-822-032	5/8" X 2" Grub Screw

Post Hole Digger Assembly With SCS (Swing Control System)



ITEM	QTY.	PART NO.	DESCRIPTION
1	1	060-100-010	Planetary Drive Assembly PHD with Motor
2	1	331-011-001	Hyd Mtr Suit PHD
3	6	132-131-000	Spring Lock Washer M8
4	6	111-311-016	Hex Bolt M8 x 16
5	2	111-522-035	Socket Head Cap Screw M12 x 35
6	2	100-000-013	Lynch Pin 1/4"
7	2	100-000-051	Roll Pin 1/4" X 1 1/2"
8	1	021-000-024	I.D. Plate for Attachment
9	1	021-000-035	Caution Decal
10	2	APU015	PHD Hydraulic Hose 1300mm
11	1	APU005	PHD Driver Carriage
12	1	APU002	PHD Mount Plate Assembly
13	6	APU008	40mm Pin
14	2	APU010	Locking Pin
15	1	060-100-079	Ram Damper Anti-Swing PHD
16	4	113-722-016	5/8"UNC X 1" Cap Screw
17	1	043-000-056	Bush - 1 1/4" X 1" X 26mm
18	2	113-822-032	5/8" X 2" Grub Screw
19	2	121-371-000	5/8" UNC Zinc Nut
20	1	131-251-001	1/2" Body Washer
21	2	316-477-501	CR2-0814
22	1	111-511-030	Hex Bolt M12 x 30 Zinc

Troubleshooting

Problem

Possible Cause & Remedy

Auger does not rotate	<ol style="list-style-type: none"> 1. Auxiliary hydraulics not engaged properly <ul style="list-style-type: none"> - Check quick couplers 2. Quick coupler faulty <ul style="list-style-type: none"> - Replace faulty coupler 3. Auxiliary valve on Dingo not operating correctly <ul style="list-style-type: none"> - Refer to Dingo manual, call DINGO service 4. Hydraulic Motor Failure <ul style="list-style-type: none"> - Replace motor. Contact DINGO 5. Gear train failure <ul style="list-style-type: none"> - Check and repair. Contact DINGO 6. Drive shaft bearing <ul style="list-style-type: none"> - Check and repair. Contact DINGO
Oil leakage from inside housing	<ol style="list-style-type: none"> 1. Hoses or fittings leaking <ul style="list-style-type: none"> - Tighten or replace 2. 'O' ring failure <ul style="list-style-type: none"> - Call DINGO service
Oil Leaking from output shaft	<ol style="list-style-type: none"> 1. Oil shaft seal failure <ul style="list-style-type: none"> - Call DINGO service
Does not dig will thing but	<ol style="list-style-type: none"> 1. Worn teeth or pilot <ul style="list-style-type: none"> - Replace <p>Note: It does not take a lot of wear to reduce digging efficiency substantially. When teeth & pilots appear half worn out, they are often actually worn out. Digging efficiency will be lost and time and money will be wasted in every- extremely soft conditions.</p> <p>Note: The Post Hole Digger does have limits.</p> 4. Incorrect teeth or pilot <ul style="list-style-type: none"> - Replace 5. Relief valve on Dingo set too low <ul style="list-style-type: none"> - Test and reset if necessary 6. Hydraulic system hot <ul style="list-style-type: none"> - Turn off and wait to cool. - Hydraulic oil may be damaged or incorrect type. Replace Dingo oil with recommended hydraulic oil
Auger Bent	<ol style="list-style-type: none"> 1. Abuse <ul style="list-style-type: none"> - Replace or repair auger



Product Name: Post Hole Digger & Augers				
Summary of Product Application	Digging of holes up to 750mm by 1500mm in soil, clay, sand, rock and shale. Deeper holes can be achieved with the use of auger extensions. Can be used with post hole mate for extra pressure.			
Hazards	Risk Assessment			
	Probability	Exposure	Consequence	Risk Level
Moving parts Swinging auger Entanglement	Unusual Likely Unusual	Occasional Occasional Occasional	Serious Casualty Fatality	Mod/Substantial Moderate High
Control measures	<ul style="list-style-type: none"> Do not attempt to touch the auger while it is in motion. Keep hands, feet and clothes or anything else that may get caught in the auger well clear. Do not operate auger unless on the operators platform. The greatest risk is to people working around the Dingo, rather than the operator. To eliminate risk, ensure that an effective barrier is created around the operating machinery. It is recommended that a spotter or safety observer be used to ensure the user and those working around the auger are safeguarded from harm. Ensure that the safety instructions in the operation manual are always followed. 			
Residual Risk of Plant with Control Measures	<ul style="list-style-type: none"> Moderate 			
Additional Safety Comments	<ul style="list-style-type: none"> The risk assessment has been carried out using the NSCA Risk Score Calculator. For more information contact Dingo. 			

NB: Swing Auger Hazard Reduced by Fitting Safety Swing Cylinder.

Warranty Statement

DINGO MINI DIGGERS PTY LTD (ABN 95 060 840 011) POLICY

DINGO MINI DIGGERS PTY LTD warrants to the original buyer/owner that each new Dingo™ or Dingo attachment will be free from any proven defects in the material or workmanship for a period of twenty-four (24) months or 1000 hours, whichever is sooner, after the delivery to the owner provided that:-

1. The Dingo/Attachment has been properly and reasonably used, operated, maintained and regularly serviced.
2. All replacement or repair is authorised by DINGO MINI DIGGERS PTY LTD or an authorised DINGO MINI DIGGERS dealer.

This refers to all Dingo/Attachment parts, excluding motor and battery as outlined below.

During the warranty period, DINGO MINI DIGGERS or their authorised dealer shall repair or replace, at their option, without charge for parts and labour, any part of the Dingo/Attachment which fails because of defects in the workmanship or materials. The owner shall advise DINGO MINI DIGGERS or their authorised dealer immediately of any defect and allow reasonable time for replacement or repair. Travel time for servicemen and transportation of the Dingo/Attachment to DINGO MINI DIGGERS or the dealers premises for warranty work are the owners responsibility.

WARRANTY EXCLUSIONS

This warranty does not cover: -

1. Tyres or other consumables or service parts (nuts and bolts, trencher teeth, etc) replaced as part of a normal maintenance service as opposed to manufacturing defects.
2. Damage resulting from abuse, negligence, accidents, alterations, air flow obstructions, or failure to maintain or use the machine according to the instructions given.
3. Downtime expenses, loss of machine use, rental of another machine or related equipment while repairs are in progress, or other incidental, consequential, or special damages.
4. Communication expenses such as Telephone and Facsimile.
5. Travel time for servicemen.
6. Transportation and Insurance charges for transportation of the failed Dingo/Attachment.
7. Any labour, parts, mechanical adjustments or lubricant expenses which Dingo Mini Diggers Pty Ltd or an authorised Dingo Mini Digger dealer considers should be made as a standard maintenance procedure according to the Dingo maintenance guide-lines listed in this manual.
8. Any defect caused by work carried out without the authorisation of Dingo Mini Diggers Pty Ltd or an authorised Dingo Mini Digger Dealer.
9. Damage caused by continued use of the machine after it is known to be defective.
10. Damage caused by overloading or by racing and similar activities.

This warranty is in lieu of all other warranties, expressed or implied, and there are no warranties of merchantability or fitness for a particular purpose.

The benefits conferred by this warranty are in addition to all other rights and remedies in respect of the product which the consumer has under the Trade Practices Act (Commonwealth) and the Fair Trading Act of Queensland.

Machines of this type can be dangerous if used carelessly or improperly. The manufacturer, distributor or selling agent does not accept responsibility for accident either to the operator, to the owner or to any person directly or indirectly or to property if such an accident is caused by circumstances arising otherwise than by the negligence or default of Dingo Mini Diggers Pty Ltd.

PARTS INSTALLED DURING MACHINE WARRANTY

Components installed during a machines warranty period shall have warranty coverage for the duration of the machine warranty period or ninety (90) days, which ever is greater, provided the warranty installation is performed by Dingo Mini Diggers Pty Ltd or an authorised Dingo Mini Digger dealer.

N.B. Dingo Mini Diggers Pty Ltd reserve the right to change at any time the Dingo Mini Digger product specifications, configurations, and company policies, this is due to our constant commitment to make the best product for the job.

CHEAP PALWAY
DINGO HIRE

CHEAPALWAY
DINGO HIRE



Proudly manufactured by
Dingo Mini Diggers Pty Ltd
9 Owen Street East
Dalby Qld, 4405
Australia

Dalby Head Office	07 4672 5400
Brisbane	07 3272 7088
Sydney	02 9833 8222
Melbourne	03 8549 8111

Adelaide	08 8262 2022
Perth	08 9311 9811
Nth Queensland	0408 775 692
New Zealand	07 378 9840

www.dingo.ws