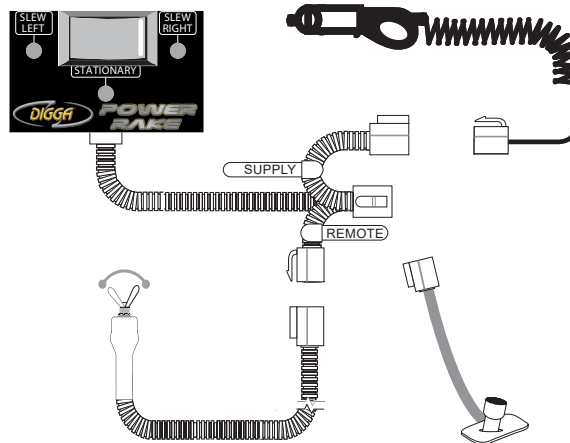


ELECTRICAL KIT

OPERATOR'S & PARTS MANUAL

HARLEY RAKE / FFC POWER RAKE / DIGGA POWER RAKES



MY.DIGGA.COM



DECAL IS APPLIED TO THE
ATTACHMENT

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DECAL TO BE APPLIED TO
WINDOW OF MACHINE

ACCESS OPERATOR MANUALS RISK ASSESSMENTS AND MORE

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To the Purchaser

Thank you and congratulations on the purchase of your new Digga Electrical Kit.

This product was carefully designed and manufactured to give you years of dependable service. To keep it running efficiently, please read the instructions in the manual to keep it in top working condition.

Before Operation

Inspect the product for shipping damage and if any damage does exist, do not operate until the damaged parts have been replaced or repaired. The primary responsibility for safety with this equipment falls to the operator. Make sure the equipment is operated only by trained individuals that have read and understood this manual. If there is any portion of this manual or function you do not understand, contact your local authorized Digga dealer or the manufacturer to obtain further assistance. Keep this manual available for reference.

About This Manual

This manual has been designed to help you do a better and safer job. **Read this manual carefully and become familiar with its contents before connecting and operating this unit.**

No responsibility will be taken by Digga for any omissions or errors in this manual as all data is correct at time of print, however Digga reserve the right to revise this manual without further notice.

Service

Use only manufacturer replacement parts. Substitute parts may not meet the required standards.



CAUTION

Never allow anyone to operate the attachments without reading the “Safety precautions” and “Operating instructions” sections of the manual. Always choose hard and level ground to park the vehicle on and set the brake, so the unit cannot roll.

KITS AND MODELS COVERED IN THIS MANUAL

EC-000027 - TO SUIT FFC POWER RAKE (PRE 2014)

EH-000011 - TO SUIT FFC POWER RAKE (POST 2014) & HARLEY RAKE (ALL YEARS)

EK-000006 - TO SUIT DIGGA POWER RAKE SLEW PRO

EK-000007 - TO SUIT DIGGA POWER RAKE SLEW STANDARD

EK-000011 - TO SUIT DIGGA MINI POWER RAKE

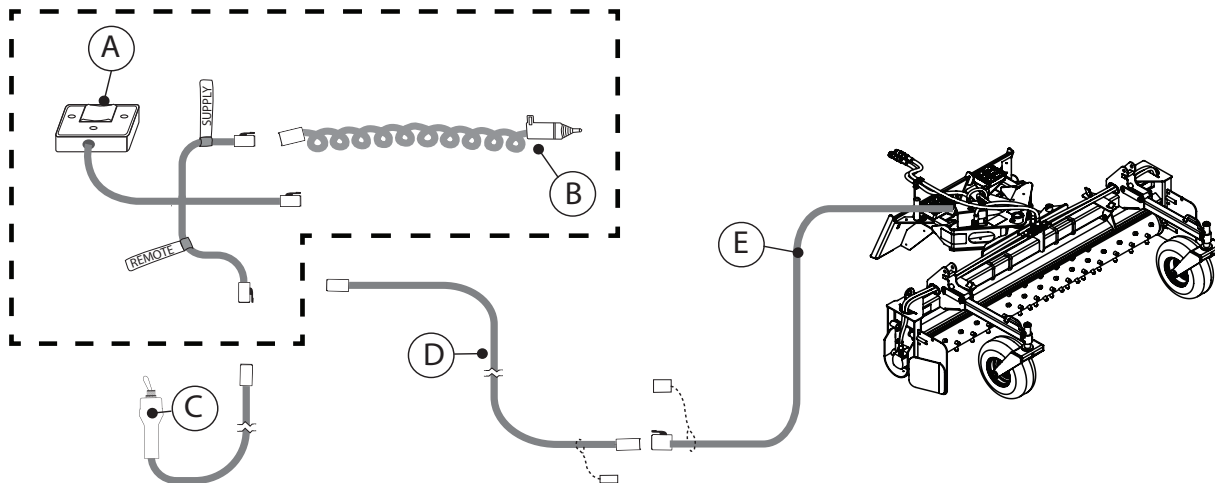
NOTE

This attachment is known as Power Rake in Australia/New Zealand and Soil Conditioner in North America.

Preparation for use

Electrical Kit EC-000027 (FFC Power Rake - Pre 2014):

To avoid any inconvenience before operation, please check that you have received the following items which you may have ordered.

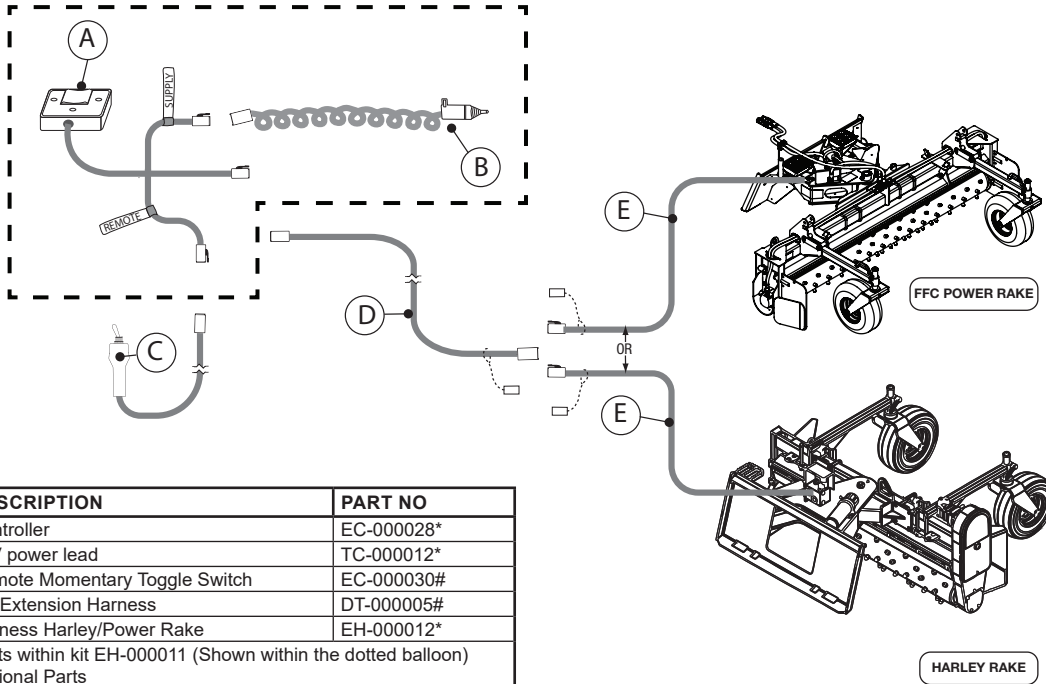


ITEM	DESCRIPTION	PART NO
A	Controller	EC-000028*
B	12V power lead	TC-000012*
C	Remote Momentary Toggle Switch	EC-000030#
D	6m Extension Harness	DT-000005#
E	Harness Harley/Power Rake	EC-000029*
*	Parts within kit EC-000027 (Shown within the dotted balloon)	
#	Optional Parts	

Preparation for use

Electrical Kit EH-000011 (FFC Power Rake - Post 2014 / Harley Rake):

To avoid any inconvenience before operation, please check that you have received the following items which you may have ordered.

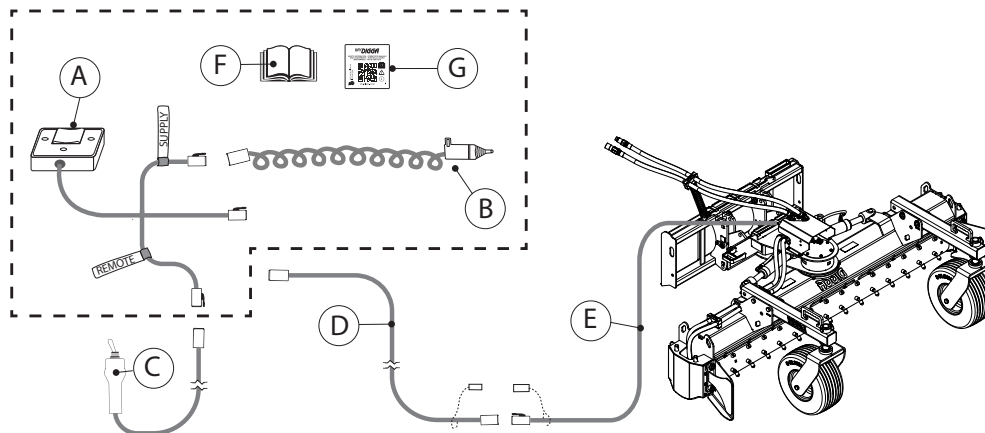


ITEM	DESCRIPTION	PART NO
A	Controller	EC-000028*
B	12V power lead	TC-000012*
C	Remote Momentary Toggle Switch	EC-000030#
D	6m Extension Harness	DT-000005#
E	Harness Harley/Power Rake	EH-000012*
*	Parts within kit EH-000011 (Shown within the dotted balloon)	
#	Optional Parts	

Preparation for use

Electrical Kit EK-000006 (Digga Power Rake Slew Pro):

To avoid any inconvenience before operation, please check that you have received the following items which you may have ordered.



ITEM	DESCRIPTION	PART NO
A	Controller	EC-000028*
B	12V power lead	TC-000012*
C	Remote Momentary Toggle Switch	EC-000030#
D	6m Extension Harness	DT-000005#
E	Harness (Supplied with Power Rake)	EH-000012
F	Operators Manual	PM-000092*
G	Window Decal - QR Code	DE-000977*
*	Parts within kit EK-000006 (Shown within the dotted balloon)	
#	Optional Parts	

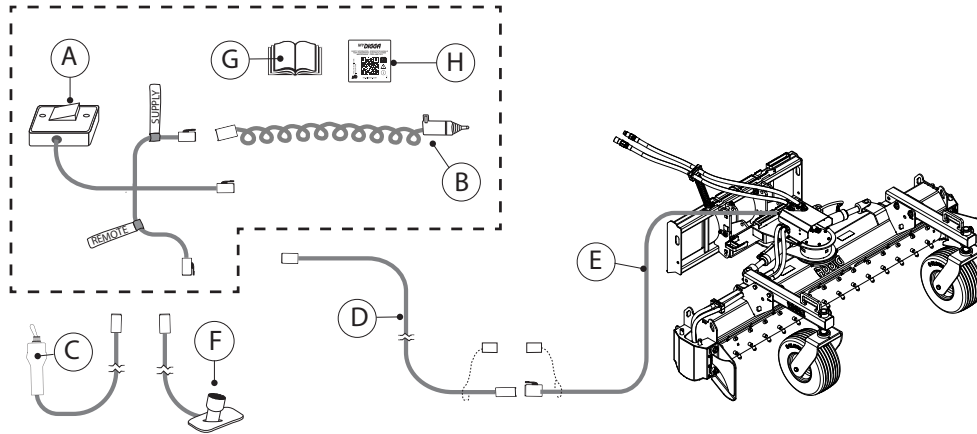
NOTE

Digga North America - Electrical Kit includes item D.

Preparation for use

Electrical Kit EK-000007 (Digga Power Rake Slew Standard):

To avoid any inconvenience before operation, please check that you have received the following items which you may have ordered.



ITEM	DESCRIPTION	PART NO
A	Controller	EC-000361*
B	12V power lead	TC-000012*
C	Remote Toggle Switch	DM-000026#
D	6m Extension Harness	DM-000024#
E	Harness (Supplied with Power Rake)	DM-000021
F	Remote Floor Mounted Switch	DM-000030#
G	Operators Manual	PM-000092*
H	Window Decal - QR Code	DE-000977*
*	Parts within kit EK-000007 (Shown within the dotted balloon)	
#	Optional Parts	

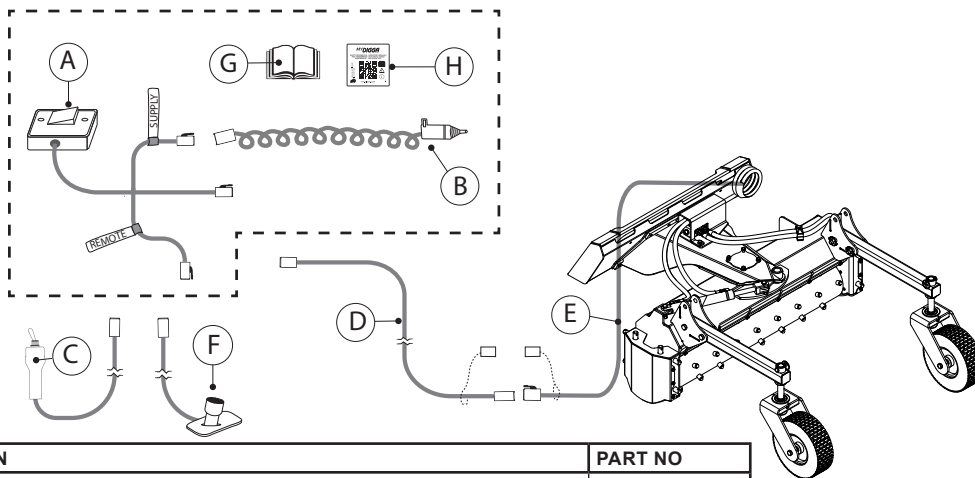
NOTE

Digga North America - Electrical Kit
includes item D.

Preparation for use

Electrical Kit EK-000011 (Digga Mini Power Rake):

To avoid any inconvenience before operation, please check that you have received the following items which you may have ordered.



ITEM	DESCRIPTION	PART NO
A	Controller	EC-000009*
B	12V power lead	TC-000012*
C	Remote Toggle Switch	DM-000026#
D	6m Extension Harness	DM-000024#
E	Harness (Supplied with Electro-Hyd Mini Power Rake & Electro-Hyd Retrofit Kit)	DM-000021
F	Remote Floor Mounted Switch	DM-000030#
G	Operators Manual	PM-000092*
H	Window Decal - QR Code	DE-000977*
*	Parts within kit EK-000011 (Shown within the dotted balloon)	
#	Optional Parts	

NOTE
Electrical Kit EK-000011
DOES NOT require item D
when used on a stand-on
mini loader.

Skid Steer Loaders

1. Installation using the optional 6m boom extension harness (6m extension harness is standard offering at Digga USA) - Should the customer have opted for the optional 6m boom extension harness (Item D - see the attached illustration - pages 6-10) this will provide a more tidy installation on the skid-steer loader. The first step is to run the extension harness along the boom of the skid steer loader ensuring that the correct mating plug corresponds with the plug on the attachment harness (Item E). The boom extension harness will have to follow the hydraulic lines along the boom and at the boom pivot point, then attach to the main chassis of the loader. The harness can be loosely tied to the hydraulic line using cable ties, until the installation is setup and no further adjustments are required. The cab end of the boom extension harness needs to enter the cab of the skid steer loader. A convenient cab entry point will have to be located through an existing harness entry point or one will have to be provided by the customer/dealer doing the installation. The harness will need to be sealed at the penetration point into the cab to prevent water, dust, fumes and unnecessary noise from entering the cab. Use an appropriately sized rubber grommet and/or silicone sealant ensuring that the access hole cannot cut or chafe through the harness and cause an electrical short.

NOTE

Where the harness passes over the boom pivot point at the rear of the loader, provide enough slack in the harness to allow for boom movement.

2. If the electrical installation kit was not optioned up to include the optional boom extension harness (Item D - see illustration pages 6-10), then the lead on the controller can simply plug directly into the harness on the attachment (Item E - see illustration pages 6-10) and not require the boom extension harness. However, attention must be paid when lifting of the Harley Rake/Power Rake attachment using the skid steer loader, as the harness will pull tight and can be damaged. If the skid steer loader is being used to lift the Harley Rake/Power Rake onto a truck, then disconnect the attachment harness from the controller harness before attempting to lift the Harley Rake/Power Rake.

Installation Instructions

3. The controller (Item A- see illustration pages 6-10) mounts in the cab, usually on the same side of the operator to where the location of the auxiliary cigarette lighter socket is mounted. This is not essential as the harness can still be routed behind the operator to the cigarette lighter socket if the length of the lead permits this. If the customer has not optioned to the 6m boom extension harness, then reach between the controller and the 4 pin plug on the Harley Rake/Power Rake harness may pose a problem if the controller is mounted on the right hand side of the operator. The controller can be mounted using cable ties or a more permanent mounting means can be used. If the installation is to be temporary, then the lead from the controller can be passed out of the LHS window of the skid steer loader. If a more permanent installation is required, then it is recommended to use the optional 6m boom extension harness (Item D - see the attached illustration pages 6-10) and follow the installation instructions as layed out in paragraph 1 above.
4. Using the 12V power lead in the kit, (Item B- see illustration pages 6-10) connect the two-pin plug to the mating two-pin plug on the harness leg of the controller marked "supply". (This leg branches off the main lead of the controller harness).
5. If the optional joystick mounted toggle switch (Item C-see illustration - pages 6-10) was optioned, then connect it to the plug on the controller harness lead marked "remote". (This plug is on the lead which branches off the main harness of the controller). This allows the operator to slew the Rake from left to right using the toggle switch rather than removing hands from the handles of the joystick to operate the controller box.
6. Make any adjustments and tighten all the cable ties once you are satisfied that the installation is satisfactorily installed.

NOTE

Only the Digga Power Rake (Slew Standard) or Mini Power Rake can use an optional foot operated remote switch part no: DM-000030 (See page 9 & 10).

Stand-on Mini Loaders

1. The DM-000021 attachment harness & the EH-000009 controller harness can be loosely tied to the hydraulic line using cable ties, until the installation is setup and no further adjustments are required. No extension harness is used when using the Digga Mini Power Rake on a stand-on mini loader.
2. The lead on the controller (Item A) can simply plug directly into the harness on the attachment (Item E - see illustration pages 10) and not require the boom extension harness.
3. The controller (Item A- see illustration pages 10) mounts on the control panel of a stand-on mini loader, usually on the same side of the operator to where the location of the auxiliary cigarette lighter socket is mounted. The controller can be mounted using cable ties or a more permanent mounting means can be used.
4. Using the 12V power lead in the kit, (Item B- see illustration pages 10) connect the two-pin plug to the mating two-pin plug on the harness leg of the controller marked "supply". (This leg branches off the main lead of the controller harness).
5. If the optional joystick mounted toggle switch (Item C-see illustration - pages 10) was optioned, then connect it to the plug on the controller harness lead marked "remote". (This plug is on the lead which branches off the main harness of the controller). This allows the operator to switch between "slew" and "drum rotation" using the toggle switch rather than removing hands from the grab handles of the stand-on loader to operate the controller box.
6. Make any adjustments and tighten all the cable ties once you are satisfied that the installation is satisfactorily installed.

Operating Instructions

WARNING

Don't connect the cigarette lighter plug on item B to the 12V auxiliary power socket in the Skid-Steer loader until you have read the operating procedure and satisfied that you are competent to operate this kit.

NOTE

The Digga Plug'n Go kit is designed so that the harley rake, power rake and mini power rake attachments can be retro fitted to any Skid-Steer or stand-on mini loader which does not have an 7, 8 or 14 - pin electrical service plug fitted to the machine.

On Power Rakes and HarleyRakes slew function will not work if the rotational direction of the drum is incorrect. A point to remember is that the drum rotational direction must always be counter clockwise when viewed from the LHS of the attachment.

On the Mini Power Rake, angling/slewing function and drum rotation cannot be operated simultaneously, the attachment can either slew or the drum can rotate, but not both at the same time.

1. Ensure that the cigarette lighter plug is not plugged in.
2. Your electrical kit is now installed and you are ready to become acquainted with how it operates.
3. Ensure that any bystanders are standing at the minimum distance of 6m from the attachment.
4. When the cigarette lighter plug (12V DC power) is connected to the system, the central LED light (stationary position on Harley rake & Power rake) illuminates on the controller box. The LED light will remain illuminated when the rocker switch is in the "stationary" position. This is all in order and has been designed this way so that the operator can see that there is power on the system. The momentary rocker switch is only used on Harley rake, FFC rake & Digga Power rakes.
5. When the cigarette lighter plug (12V DC power) is connected to the system, the LED on the controller box (Part no: EC-000361 controller for the Power rake slew standard- see page 9 or EH-000009 controller of the Mini power rake- see page 10) will illuminate depending which position the 2-position rocker switch is in.

Operating Instructions

6. If the remote momentary toggle switch (Item C-see illustration Pages 6-10) has been optioned, then the Harley Rake/Power Rakes can be slewed left or right by joggling between left and right on the toggle switch. The corresponding LED light on the control box will illuminate accordingly. Using the optional remote toggle switch allows the operator to select the slew function whilst holding the controls of the joystick (on a skid-steer loader) and not have to remove a hand to activate the rocker switch on the control box each time that the Rake needs to be slewed.
7. You have now become acquainted with the installation instructions as well as the operating instructions and can confidently plug the cigarette lighter plug into the supply socket in the machine and commence work with your new electrical kit.

Troubleshooting

TROUBLE	POSSIBLE CAUSE	REMEDY
LED light on cigarette lighter plug will not illuminate.	Cigarette lighter plug is not plugged in.	Plug in cigarette lighter plug into machine.
	10A fuse in cigarette plug fused.	Contact your Local Digga Dealer.
Attachment unable to slew.	Harness not connected correctly.	Connect harness as per diagram.
	Drum on Harley Rake/Power Rake rotating in wrong direction. (Must rotate clockwise when viewed on the LHS of the attachment)	Operator to familiarise joystick controls to achieve correct roller/drum rotational direction.
	No power to controller.	Contact your Local Digga Dealer.
Attachment unable to slew when using remote toggle switch or floor switch.	Harness not connected correctly.	Check if connected correctly.
	Harness broken.	Contact your Local Digga Dealer.
	Drum on Harley Rake/Power Rake rotating in wrong direction.	
	Remote switch faulty.	
	Controller switch possibly faulty.	
	Rocker switch on control box is in the "on" position.	Rocker switch on control box needs to be in the "off" position for the remote toggle or floor mounted switch to operate.

Troubleshooting

TROUBLE	POSSIBLE CAUSE	REMEDY
Attachment operating as per design but LED lights do not operate.	Fault with controller box.	Contact Your Local Digga Dealer.
LED light on controller box not illuminating.	Power lead not properly plugged into the controller lead plug.	Ensure that the plug on the power lead is properly connected to the plug on the controller lead marked "supply".
LED light on cigarette plug not working and no power to controller.	10A fuse inside cigarette plug on power lead, fused.	Unscrew the front of the cigarette lighter plug and replace 10A fuse.

Contact Information

For further information on spare parts, please contact one of the Digga sales offices shown below, or contact your local authorised Digga dealer.

DIGGA INTERNATIONAL SALES OFFICES

ASIA PACIFIC

DIGGA HEAD OFFICE - BRISBANE

4 Octal St, Yatala QLD 4207

Phone: +61 7 3807 3330

Email: info@digga.com

DIGGA NEW SOUTH WALES

19 Mckay Close,
Wetherill Park, NSW 2164

Phone: 1300 2 DIGGA

Email: nsw@digga.com

DIGGA VICTORIA

151 Wedgewood Road,
Hallam, VIC 3803

Phone: 1300 2 DIGGA

Email: vic@digga.com

Web: www.digga.com

NORTH AMERICA

DIGGA NORTH AMERICA

2325 Industrial Parkway SW

Dyersville IA 52040

Phone: + 1 563 875 7915

Email: infous@digga.com

Web: www.diggausa.com

EUROPE

DIGGA EUROPE

Unit 1, Nexus Park

Plenty Close

Newbury, RG14 5RL

England, United Kingdom

Phone: +44 (0) 1488 688 550

Email: infouk@digga.com

Web: www.diggaeurope.com

Warranty Statement

All new Digga products are warranted to be free from defects in materials or workmanship, for a period of twelve (12) months from date of original purchase, which may cause failure under normal usage and service when used for the purpose intended. Digga Australia Pty Ltd warrants its equipment for a period of twelve (12) months dating from delivery to the original user.

In the event of failure (excluding cable, ground engaging parts such as sprockets, digging chain, bearings, teeth, tamping and demolition heads, blade cutting edges, pilot bits, auger teeth, auger heads), if after examination, Digga determines failure was due to defective material and/or workmanship, parts only will be repaired or replaced. Digga may request defective product or products be returned prepaid to them for inspection at their place of business or to a location specified by Digga. The warranty will be considered void if the product or any part of the product is modified or repaired in any way not expressly authorized by Digga, or if closed components are disassembled prior to return. Closed components include, but are not limited to: gearboxes, hydraulic pumps, motors, cylinders and actuators. Any goods returned to Digga by the customer under warranty or repair must have all freight charges prepaid for on the customers account.

Any claims under this warranty must be made within fifteen (15) days after the Buyer learns of the facts upon which such claim is based. All claims not made in writing and received by Digga outside the time period specified above shall be deemed waived.

Damage or failure through operator abuse or negligence voids warranty.

This warranty is in lieu of all other warranties expressed or implied and there are no warranties of merchantability or of fitness for a particular purpose. In no event shall Digga be liable for consequential or special damage. Digga's liability for any and all losses and damages to buyer, resulting from any cause whatsoever, including Digga's negligence, irrespective of whether such defects are discoverable or latent, shall in no event exceed the purchase price of the particular products with respect to which losses or damages are claimed, or, at the election of Digga, the repair or replacement of defective or damaged products.

