

Diamatic 780PRO

Original Operating Instructions

Version 1.0



Operating Instructions

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EC DECLARATION OF CONFORMITY
in accordance with Appendix II sub A of Directive 2006/42/EC**Diamatic**

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Declare under our sole responsibility that the machine as described below Conforms with the Health and Safety requirements of the European Directive of the machine Safety.

In case of changes to the machine without our written authorization this declaration loses its validity.

Model: *Diamatic 780PRO* **Serial number:** *XXXXB*

1. satisfies the conditions set out in the Machine Directive (Directive 2006/42/EC); Low voltage directive (2006/95/EC, as last amended; EMC directive 2004/108/EC, as last amended)
2. satisfies the following harmonized standards:
NEN-EN 349, NEN-EN 418, NEN-EN 294 and NEN-EN 60204

Nieuwegein 13-11-2009



Michiel Kalisvaart



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1. Introduction

It is important that all persons who are working with or maintaining this machine must read this manual carefully and understand it fully. Keep this manual near to the machine, so it can always be consulted.

Only authorized and trained personnel may operate this machine.

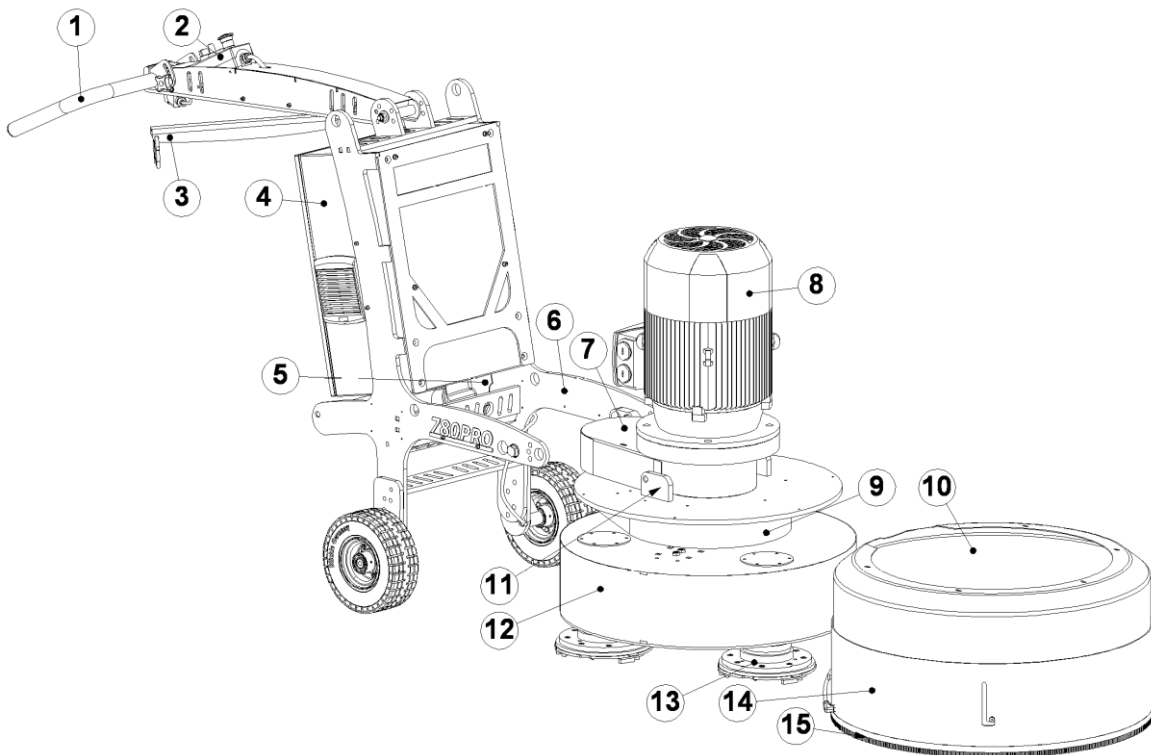
2. Machine Description

The Diamatic 780PRO is an electrical driven planetary grinding machine. This is a three headed machine for levelling and polishing of floors.

2.1 Application

The Diamatic 780PRO can be used on almost any floor to plane, to make ready for coatings, or to remove coatings or glue residues.

1	Steer handle	6	Machine	1	Frame mounting
2	Operating panel	7	Protection	1	Lower drive
3	Swing arm for dust	8	Drive motor	1	Grinding buffer
4	Electric control box	9	Upper drive	1	Dust floating
5	Electric supply	1	Dust cover	1	Brush for



2.2 Accessories

<i>Part</i>	<i>Description</i>
Adaptor Plates	
<i>DIA-SUPERMAG-2</i>	Heavy Duty Quick Change Plate
<i>E10366</i>	Resin Adaptor Full Round
<i>E07240-2</i>	(DIAMAG 780/735 Plates 2 nd generation)
Buffalo Wings	
<i>BFL708320S-2</i>	(18/20 Grit Extra Large Double Seg Soft (Red)) For Hard Concrete
<i>BFL708340S-2</i>	(30/40 Grit Extra Large Double Seg Soft (Red)) For Hard Concrete
<i>BFL708380S-2</i>	(60/80 Grit Extra Large Double Seg Soft (Red)) For Hard Concrete
<i>BFL7083140S-2</i>	(120/140 Grit Extra Large Double Seg Soft (Red)) For Hard Concrete
<i>BFL708320-2</i>	(18/20 Grit Extra Large Double Seg Medium (Green)) For Medium Concrete
<i>BFL708340-2</i>	(30/40 Grit Extra Large Double Seg Medium (Green)) For Medium Concrete
<i>BFL708380-2</i>	(60/80 Grit Extra Large Double Seg Medium (Green)) For Medium Concrete
<i>BFL7083140-2</i>	(120/140 Grit Extra Large Double Seg Medium (Green)) For Medium Concrete
<i>BFL708320H-2</i>	(18/20 Grit Extra Large Double Seg Hard (Blue)) For Soft Concrete
<i>BFL708340H-2</i>	(30/40 Grit Extra Large Double Seg Hard (Blue)) For Soft Concrete
<i>BFL708380H-2</i>	(60/80 Grit Extra Large Double Seg Hard (Blue)) For Soft Concrete
<i>BFL7083140H-2</i>	(120/140 Grit Extra Large Double Seg Hard (Blue)) For Soft Concrete
Poly Crystalline Diamonds	
<i>BG200995-2</i>	(Wing PCD 1x1)
<i>BG200997-2</i>	(Wing PCD Split 18/20 Grit)
<i>BG200999-2</i>	(Wing PCD ¼ round)
Bush Hammering Tools	
<i>E09119/Set</i>	(Replacement Bush Hammer/Specify set of 9 or 15)
<i>E10240</i>	(Cutter Plate with 5 Bush Hammers-Complete)
<i>E09580</i>	(Cutterplate Only 240mm for 5 tools)
<i>E07240-2</i>	(DIAMAG 780/735 Plates 2 nd generation)
10 SEG Round	
<i>DIA18/20PLUG-S</i>	(18/20 Grit 10 Seg Soft (Red)) For Hard Concrete
<i>DIA30/40PLUG-S</i>	(30/40 Grit 10 Seg Soft (Red)) For Hard Concrete
<i>DIA60/80PLUG-S</i>	(60/80 Grit 10 Seg Soft (Red)) For Hard Concrete
<i>DIA120/150PLUG-S</i>	(120/150 Grit 10 Seg Soft (Red)) For Hard Concrete
<i>DIA18/20PLUG</i>	(18/20 Grit 10 Seg Soft (Green)) For Medium Concrete
<i>DIA30/40PLUG</i>	(30/40 Grit 10 Seg Soft (Green)) For Medium Concrete
<i>DIA60/80PLUG</i>	(60/80 Grit 10 Seg Soft (Green)) For Medium Concrete
<i>DIA120/150PLUG</i>	(120/150 Grit 10 Seg Soft (Green)) For Medium Concrete
<i>DIA18/20PLUG-H</i>	(18/20 Grit 10 Seg Soft (Blue)) For Soft Concrete
<i>DIA30/40PLUG-H</i>	(30/40 Grit 10 Seg Soft (Blue)) For Soft Concrete
<i>DIA60/80PLUG-H</i>	(60/80 Grit 10 Seg Soft (Blue)) For Soft Concrete
<i>DIA120/150PLUG-H</i>	(120/150 Grit 10 Seg Soft (Blue)) For Soft Concrete
Resin Types	
<i>PA-103050</i>	(#0 50 Grit 3" Transitional Diamond)
<i>PA-103100</i>	(#1 100 Grit 3" Transitional Diamond)
<i>DIA3SUPERFLEX50</i>	(50 Grit 3" Superflex Resin)
<i>DIA3SUPERFLEX100</i>	(100 Grit 3" Superflex Resin)
<i>DIA3SUPERFLEX200</i>	(200 Grit 3" Superflex Resin)
<i>DIA3SUPERFLEX400</i>	(400 Grit 3" Superflex Resin)
<i>DIA3SUPERFLEX800</i>	(800 Grit 3" Superflex Resin)
<i>DIA3SUPERFLEX1500</i>	(1500 Grit 3" Superflex Resin)
<i>DIA3SUPERFLEX3000</i>	(3000 Grit 3" Superflex Resin)
<i>DIA3SEMI50</i>	(50 Grit 3" Semi Metal Resin)
<i>DIA3SEMI100</i>	(100 Grit 3" Semi Metal Resin)
<i>DIA3SEMI200</i>	(200 Grit 3" Semi Metal Resin)
<i>DIAITS800100-2</i>	(100 Grit 3" 6mm resin Black)
<i>DIAITS800200-2</i>	(200 Grit 3" 6mm resin Black)
<i>DIAITS800400-2</i>	(400 Grit 3" 6mm resin Black)
<i>DIAITS800800-2</i>	(800 Grit 3" 6mm resin Black)
<i>DIAITS801500-2</i>	(1500 Grit 3" 6mm resin Black)
<i>DIAITS803000-2</i>	(3000 Grit 3" 6mm resin Black)

3. Safety

Before operating the machine, the personnel who are going to use it must be familiar with the safety instructions given in this manual.

Keep this manual near to the machine, so that it may be consulted.

3.1 Safety Precautions

- The surface to be treated must be swept clean to remove stones, screws etc.
- Never use the machine when the surface is not clear and if there is a risk of tripping.
- Make sure there is not any water on the surface to be treated.
- Remove any trailing electrical cables and or dust hoses from the surface to be treated
- Always use a dust collector
- Don't get disturbed during the activities.

3.2 Safety Regulations

- Persons who are not operating the machine must not be permitted to stay in the surrounding area of the machine.
- Do not change anything on the machine. Always use cables that are approved and safety earthed. Make sure that the machine is equipped with an earthed connection, do not change this and always use earthed cables with an earthed plug.
- Connect main power supply cable to an installation with an earth leakage circuitbreaker.
- Inspect and test the electrical components regularly. The electrical components have to satisfy the requirements that apply to these components.
- Always call a skilled electrician or your distributor when you have questions about the safety of the electrical components.
- Work on electrical equipment or operating materials may only be undertaken by a skilled electrician or by trained persons under the guidance and supervision of a skilled electrician as well as in accordance with the electrical engineering regulations.
- Pull out the main electric supply during inspections and maintenance on the machine.
- Never operate the machine when the surface is wet.
- Never use the machine in the rain.
- The machine contains rotating parts; because of this never pull the machine backwards with a turning motor.
- Be careful with the machine and pull or let down the machine slowly, big shocks can damage the electrical parts.

The following sticker is placed on the machine.



Meanings of these symbols are:

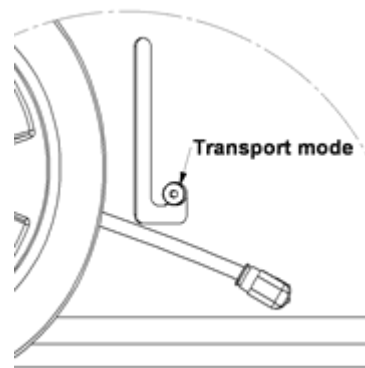
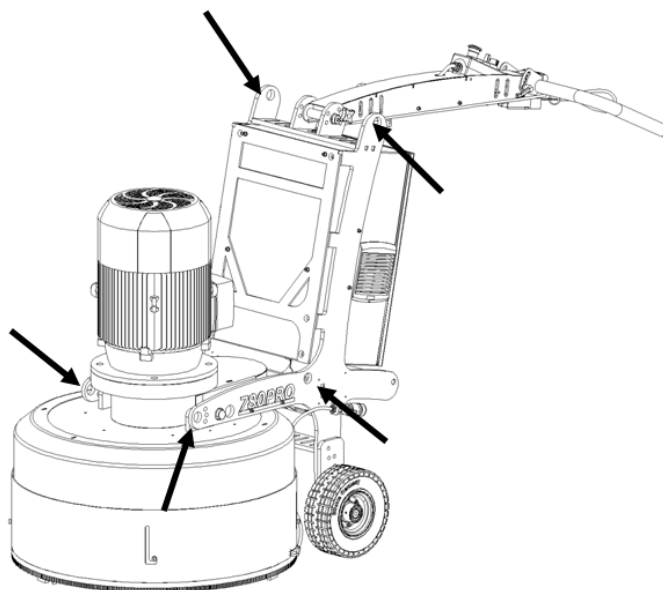
- Ear protection is obligatory
- Safety glasses with lateral protection are obligatory.
- CE-mark on this machine
- Safety shoes obligatory.
- Consult the manual before operating the machine

Personnel must tie back long hair and not wear loose clothing or jewellery including rings.

Wear gloves and dust mask whilst operating the machine.

3.3 Safety Instructions

- Make sure the machine is clean and that the handgrips are dry and free of grease and oil.
- Make sure the dust brush is in good condition, this to reduce the dust.
- Pull out the main plug when changing the diamond wings
- Always wear gloves when changing the diamond wings
- It is not allowed to lift the machine without appropriate appliances as a lift or crane, lift the machine with a rope on the lifting eyes as showed in imagine mentioned below.
- Make sure the floating shroud is in transport mode when you transport the machine



4. Initial Operations

Before using the machine it is important to inspect the machine.

It is not permitted to use the machine if the machine safety is not according the checkpoints below.

4.1 Checkpoints of Electrical Safety

- Use only extension cables for extending the main cable that are sized and marked in accordance with the overall power consumption of the machine.
- Electrical cables must be rolled entirely off of the reels.
- Any damage to electric cables is not permitted
- Use an electrical power supply connection with earth connection

4.2 Checkpoints of Machine Safety

Check if:

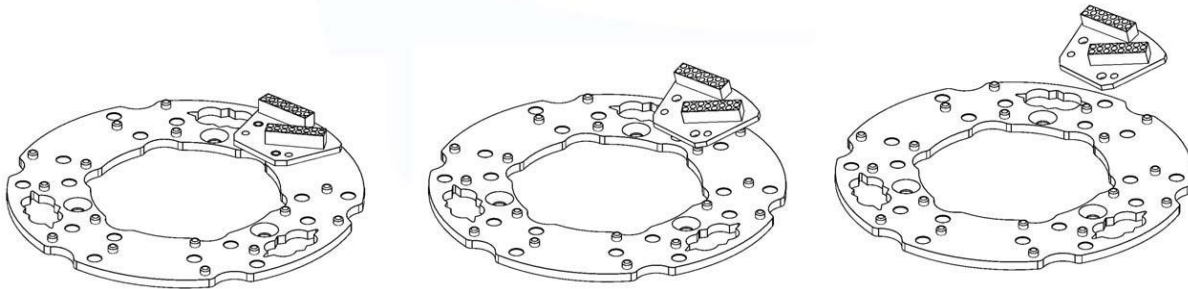
- The safety functions and operating functions work correct.
- The diamond wings are not damaged
- There are not any damage to the electrical components.
- There are not any loose nuts or bolts
- There is not any damage to the dust hose and if it is connected correctly.

4.3 Removing the Diamond Wings

- Read chapter 3 Safety on page 6 & 7
- Lay down the machine so it is laying on the metal support underneath the electrical box. Make sure the machine will not fall back down. A second person can stands on the handle to make sure the machine will not fall back down.
- Grab the diamond wings at the place where the gap in the Diamag plate is and roll the wing over so the wing can be taken of the plate.

4.4 Mounting the Diamond Wings

- Read chapter 3 Safety on page 6 & 7
- Lay down the machine so it is laying on the metal support underneath the electrical box. Make sure the machine will not fall back down. A second person can stands on the handle to make sure the machine will not fall back down.
- Clean the Diamag plates so the diamond wings will connect well to the plate.
- Place the diamond wings one by one on the Diamag plates.

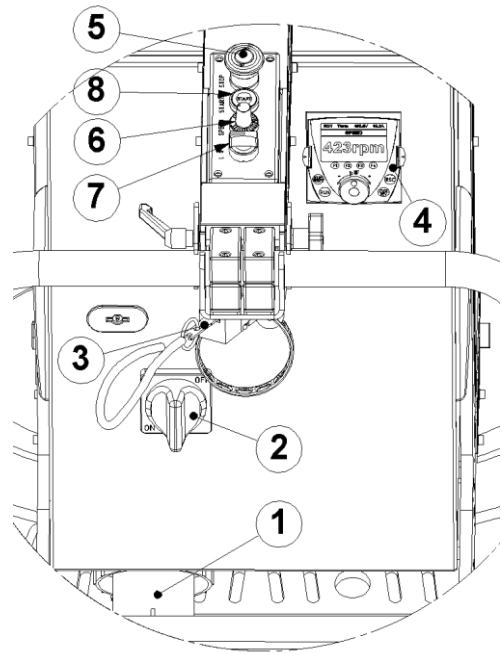


5. Operating

When operating the Diamatic 780PRO, the following additional safety instructions must be followed closely.

5.1 Switch on the Machine

- Turn on the dust collector before switching on the machine and connect the dust hose to the machine.
- Make sure the electric component box is closed
- Connect the power supply to the connector (1)
- Turn the main switch (2) to the right.
- Stand behind the machine and hold the handle tight.
- Put the cord of the deadman switch (3) on to your arm or put it on to your clothing.
- Check the display (4) to make sure there are not any faults or warnings.
- Be sure that the emergency switch (5) is turned up.
- Turn the speed regulation button (6) counter clockwise so the machine will turn as slow as possible.
- Turn the Left/Right button (7) to one of the positions.
- To start the machine, push the green Start button (8).
- Raise if necessary the speed of the machine with the speed regulation button (6)



5.3 Switch off the Machine

- Push the red (emergency) button (5) on the electrical box.
- Wait until the machine stops rotating.
- Pull out the cord of the deadman switch (3)
- Turn the main switch (2) to the left
- Pull the power supply out of the connector (1)
- Shut down the dust collector.

5.4 Operating During Grinding

This machine will always have an even grinding result because of the planetary system.

However it is advised to keep the machine constantly in movement for an optimum grinding result.

For soft floors it is recommended to work on high disc speed, for hard floors it is recommended to grind with low speed of the tools.

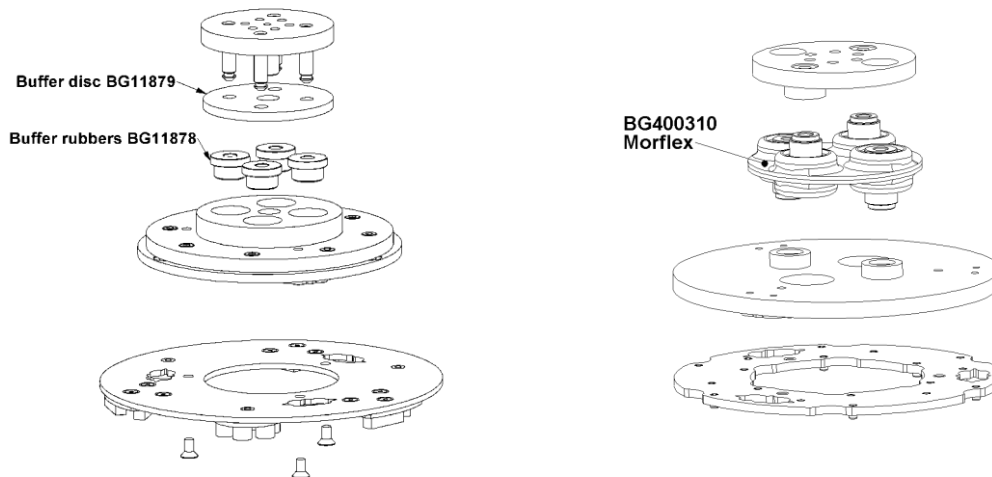
6. Maintenance

Work only with original Diamatic parts.

Dust in the electrical box can damage the frequency inverter; due to this the electrical box has to be cleaned every day from inside and outside. Clean the fans and filters from the box with compressed air and a vacuum cleaner.

Check regularly to see if the diamond wings are in good condition. Replace immediately when these are damaged or worn out.

Check weekly if the diamond plates doesn't have too much space in the buffers. If the diamond plate has too much space, replace the buffers.



Prevent premature wear by keeping the machine as dust free as possible, for these reasons clean the machine regularly with a vacuum cleaner.

Clean the machine every day with air and non-aggressive materials. Never use water to clean the machine.

Store the cleaned and dry machine in a dry and humid free room. Protect the electrical motor from moisture, heat, dust and shocks

All repair work must to be done by qualified Diamatic personnel, this to guarantee a safe and reliable machine.

Any guarantee on the machine is automatically void when:

- Non original Diamatic parts and or diamond discs have been used
- Repair work is not done by qualified Diamatic personnel
- Changes, add items, or conversions are undertaken without the written permission from Diamatic.

7. Technical Data

	Diamatic 780PRO 3x	Diamatic 780PRO 3x	Diamatic 780PRO 3x
Power consumption	17,3 kW max.	17,3 kW max.	17,3 kW max.
Electrical consumption	3x 230 Volt	3x 400 Volt	3x 480 Volt
Frequency	60 Hz	50 Hz	60 Hz
Ampèrage connection	5 pole / 63 Ampere	5 pole / 32 Ampere	5 pole / 32 Ampere
Ampèrage consumption	51 Ampere	29,5 Ampere	29,5 Ampere
Length	2110 mm	2110 mm	2110 mm
<i>Fold in</i>	1150 mm	1150 mm	1150 mm
Width	780 mm	780 mm	780 mm
Height	1250 mm	1250 mm	1250 mm
<i>Fold in</i>	1320 mm	1320 mm	1320 mm
Weight machine	436 kg	436 kg	436 kg
Weight grinding head	300 kg	300 kg	300 kg
Diamond discs	3x Ø240 mm	3x Ø240 mm	3x Ø240 mm
Work width	750 mm	750 mm	750 mm
Rotation speed discs	400 - 1200 min ⁻¹	400 - 1200 min ⁻¹	400 - 1200 min ⁻¹
Noise level	78dB(A)	78dB(A)	78dB(A)
Dust hose connection	75 mm Ø	75 mm Ø	75 mm Ø
Suitable filter unit	Contact Diamatic, we will assist you with a good advice		

Design and specifications are subject to change without notice by Diamatic

DIAMATIC® PRODUCT WARRANTY

STANDARD EQUIPMENT PRODUCTS

Diamatic warrants its **DIAMATIC** standard equipment products against defects in material and workmanship under normal and proper use for a period of **2 years** from the date of delivery or, in the case of Rental Fleet Machines, 180 days from the date of assignment to a Rental Fleet. Diamatic makes this warranty only to the buyer who purchases the products directly from Diamatic or its authorized distributor. This warranty does not include expendable parts such as, but not limited to, diamonds, wear parts, couplers, and diamond plates.

The buyer must register the product with the warranty card. This warranty card must be mailed to Diamatic within 45 days after taking delivery of the Diamatic machine to receive full warranty. Any machine not registered under warranty through Diamatic will only receive a 6 month warranty period from the date of delivery.

Warranty Terms and Conditions:

1. Diamatic's obligation under this warranty is limited to the replacement or repair, at Diamatic's option, of products and does not include, labor, the cost of transportation, loss of operating time, or normal maintenance services.
2. This warranty does not apply to failure occurring as a result of abuse, misuse, negligence, corrosion, erosion, normal wear and tear, alterations or modifications made to products without express written consent of Diamatic.
3. The buyer must submit all warranty claims no later than thirty (30) days after buyer becomes aware of the basis for any such claim, or should have become aware of the basis for any such claim in the exercise of reasonable diligence.

To return parts for warranty consideration, please call Diamatic Customer Service at **866-295-5512**.

Our customer service representative will obtain the necessary information to complete the Diamatic Returned Merchandise Authorization (RMA) Form. Diamatic will then send the RMA form to the customer authorizing the return of the parts for warranty evaluation.

The parts must be received within sixty (60) days following the RMA origination date or the warranty claim will be denied. Once the parts are received they will be evaluated for warranty.

If the customer cannot wait for the evaluation/replacement of the parts during this process, the customer must issue a new purchase order to Diamatic for the replacement parts before they can be shipped. Once the evaluation process is complete and parts are deemed a valid warranty claim, a credit will be issued against this invoice.

4. The buyer may not return Diamatic products without Diamatic's written authorization to do so.
5. Diamatic reserves the right to inspect and determine the scope of its warranty responsibilities for any returned Diamatic products.
6. Diamatic makes no warranty with respect to accessories it does not manufacture, including but not limited to, engines, motors, batteries, tires and all other parts. See component manufacture warranty.
7. Diamatic reserves the right to make product changes or improvements without prior notice and without undertaking any obligation such changes or improvements on previously sold products.
8. The above warranty conditions can only be altered by Diamatic. Diamatic must confirm alterations in writing for each specific transaction.
9. Diamatic reserves the right to modify this warranty for used or demo products on an individual transaction basis. Diamatic will include warranty modifications on its invoices for used or demo products
10. DIAMATIC DOES NOT AUTHORIZE ANY PERSON, REPRESENTATIVE OR SERVICE OR SALES OUTLET TO MAKE ANY WARRANTY DIFFERENT FROM THIS PRODUCT WARRANTY.
11. EXCEPT FOR ITS PRODUCT REPAIR OR REPLACEMENT OBLGATIONS DESCRIBED IN THIS PRODUCT WARRANTY, UNDER NO CIRCUMSTANCES SHALL DIAMATIC BE LIABLE TO THE BUYER OR ANY OTHER PERSON FOR ANY DIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE DIAMATIC PRODUCT OR FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER, INCLUDING WITHOUT LIMITATIONS, DAMAGES FOR ANY LOSS OF GOODWILL, WORK STOPPAGE, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES.
12. DIAMATIC MAKES NO OTHER PRODUCT WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Diamatic® Warranty Registration Card

NOTICE!

TO THE DELIVERING DISTRIBUTOR OR END USER

To ensure the proper warranty coverage is extended to the owner of this machine, fill out the attached card **COMPLETELY** and **ACCURATELY** and return to Diamatic.

The warranty period will start on the delivery date entered below.

The distributor or the end user must prepare the machine warranty information card when the machine is delivered. Return of the warranty card will extend the warranty period to **2 years** from the date entered below. **Failure to comply will make any and all warranties on the equipment void after 6 months.**

USER'S REFERENCE INFORMATION

Delivery Date _____

Machine Model No. _____

Delivering Distributor's Name and Address _____

Machine Serial No. _____

Modifications _____

Signature of Delivering Distributor's Representative _____

Blastrac is a registered trademark of Blastrac, NA

Fold and Detach Here

Warranty Registration Card

IMPORTANT! To ensure that your Diamatic® machine is covered under warranty, please fill in the following information completely and mail or fax it to:

Diamatic, 5220 Gaines Street, San Diego, CA 92110

Fax 619-295-0754

(Please print legibly)

Company _____

Address _____

City, State, & Zip _____

Telephone No. _____ Contact Person _____

Date of Purchase _____ Date Received _____

Machine Model No. _____ Serial No. _____

Distributor Name _____

End User Name _____

End User E-mail _____