

Professional Disc Repair Machine Operation Manual



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Thank you for purchasing the EcoPro2. Please take a few minutes to read through this manual to become familiar with your new machine and achieve the best results.

If you have questions concerning the operation or maintenance of this machine, please contact the Service Department 1300 547 844

Important Safeguards

Please read through this entire manual and retain it for future reference. To prevent personal injury or equipment damage, the following precautions should be observed:

- Always ground this unit. A surge protected power bar is recommended.
- Use only the AC adapter provided with the Eco Pro. Do not try to use a different cord if the original has been lost. Contact RTI for a replacement cord.
- Keep the AC inlet and adapter dry. DO NOT USE if wet.
- Do not use the Power cable if it is bundled or tangled. Never use the power cable if it is damaged. It can overheat and a fire may result.
- Do not alter, bend, or stretch the power cable forcibly, or unplug by pulling on the cord.
- Keep the power plug clean. If the power plug is dirty, clean it with a dry cloth after unplugging the unit.
- Do not use this equipment during a thunderstorm. Turn the machine off completely until the storm has passed.
- **WARNING:** Do not turn this unit OFF during operation, unless there is an emergency.
- If smoke or a strange odor should occur, please turn OFF the Main Power Switch. Immediately contact a service technician for assistance. If this procedure is not followed, fire or electrical shock may result.
- Use only the specified consumable materials. The use of substitute consumables may damage the machine and void the warranty.
- Do not disassemble or modify this unit unless instructed to do so by a trained technician.
- Never perform repair work yourself. It is dangerous and not recommended.
- Do not use this unit in an area where there is flammable or explosive gas.

Setup Instructions

Choose a proper place for installation

Before you unpack and set up your ECO PRO, please ensure you have a flat, level surface on which to unpack, situate and operate the machine. There is the possibility that water may leak from the machine if installed incorrectly, so keep any water sensitive material away from unit operational area.

Use a correct power receptacle for the unit's electric capacity.

ECO PRO Electric Capacity: 100-240VAC, 50/60 Hz, 120W (Max)

Environmental conditions

Do not use the ECO PRO in areas exposed to:

- Direct sunlight
- Excessive humidity
- Dust
- Vibrations
- Corrosive or flammable gas

Specifications

Operation ambient Temperature range	5 to 35 degrees C.
Operation ambient Humidity range	15 to 85 % (Non-condensing)
Power supply (50/60Hz)	100 VAC to 240 VAC, 120 W
Dimensions (W * D * H inches)	8 * 10 (13) * 11.5 (With bottles)

Unpacking Guide

The unit weighs 13lbs (6kg), so please use caution when unpacking.

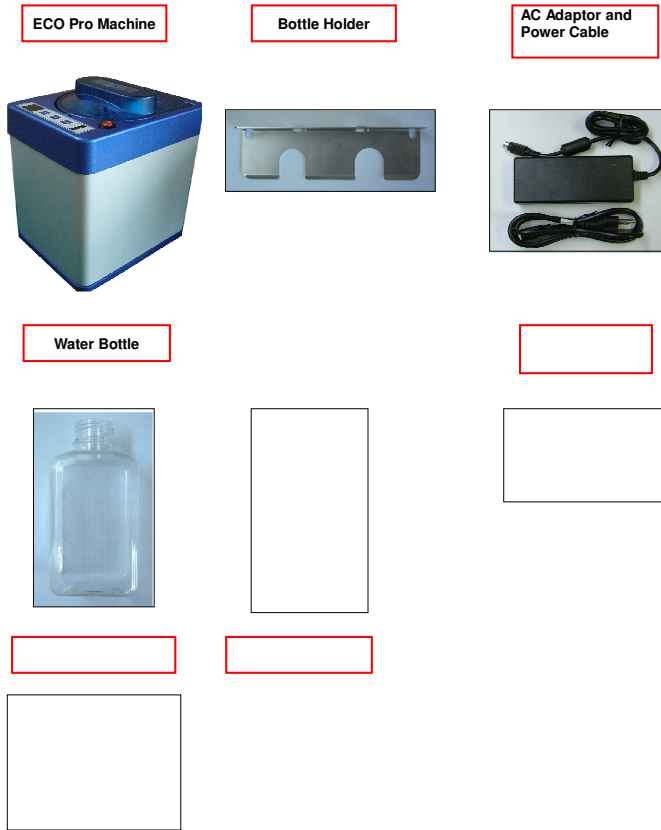
Carefully lift the unit out of the box and set on a flat, stable location.

If unit is accidentally dropped, contact RTI. Do not attempt to use the machine until you check with Technical Support.

IMPORTANT: Keep the shipping carton and packing material in case the machine needs to be shipped for servicing.

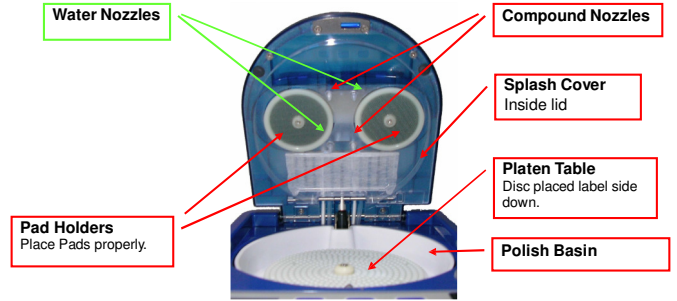
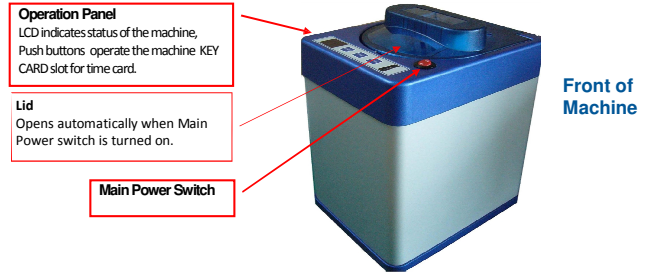
Contents of Package

ce



5 Revision # 1010-3, 2013

Description and function of each part

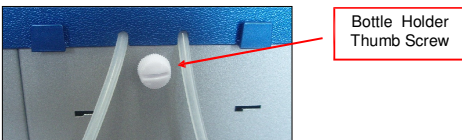


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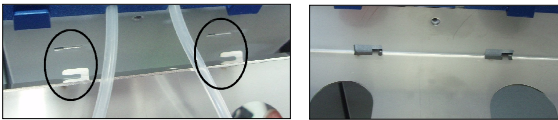
Setting up the ECO PRO

Attach the Bottle Holder

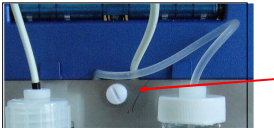
1. Loosen and set aside the bottle holder thumb screw from the back of the machine.



2. Hook up the Bottle Holder to the back of the Unit by inserting the hooks of the Bottle Holder into the slits in the back and then slide the holder to the left to lock it in place.

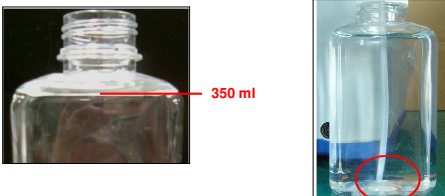


3. Secure the Bottle Holder by re-installing and tightening the Bottle Holder Thumb Screw.



Prepare the Water and Compound Bottles

4. Pour 350 ml of water into the Water Bottle. Attach the Water Bottle Cap, tighten the lid, and push the Water Supply Tube into the bottle.

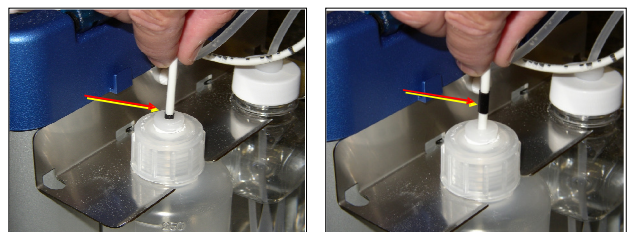


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Prepare the Water and Compound Bottles

Shake the Compound Bottle

5. Uncap the Compound Bottle and attach the bottle to the Compound Bottle Cap.



✓ This position is correct.

✗ This position is INCORRECT. The compound pump will not prime properly with the tube in this position.

6. Attach the Compound Bottle and the Water Bottle to the Bottle Holder as shown.



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Using the KEY CARD

Installing the Key Card

Caution! Be sure the Unit is turned OFF before inserting/removing the KEY CARD.

1. Insert the KEY CARD so that the label side faces to the right (when viewing from the front of the machine).



The KEY CARD should be inserted with arrow pointing down.



Be sure the KEY CARD is fully inserted into the KEY CARD slot by pushing it down and forward to lock it in place.

WARNING: Always turn off the machine when taking out the Key card

Removing the Key Card:

1. Pull the tab forward to release the card.



Operating the Compound and Water

Before you prime the pumps, If your model has them (and some do not) remove the black polish compound nozzle caps and set aside



1. Find a small container or use a piece of paper towel to catch water and compound from the nozzles during the priming process.



Operating the Water Pump

2. Press and hold "START" button, and then press "FUNC" button. The LCD displays "Water Pump ON", and the Water Pump begins running.

NOTE: You will hear a rhythmic clunking sound each time the water pump operates.



It may take several minutes for water to come out of the nozzles. If you do not see water after that time, gently squeeze the sides of the water bottle to push water into the tubing and clear the air.

If the water still does not come out, press Stop. Remove the lid from the water bottle and use a can of compressed air to blow some air through the tubing until you feel air coming out of the nozzles. Repeat step 2.

Starting the ECO PRO

1. Connect the Power Cable to the AC Adaptor securely.
2. Connect the cable of the AC Adaptor to the AC Inlet at the backside of the Main Unit.
3. Plug the power plug into a grounded outlet or power bar.



4. Turn ON the Main Power Switch.

The LCD displays "Starting", the Hatch opens automatically, and then the LCD displays "CD/DVD" and the remaining time of the KEY CARD.



If the LCD displays "No KEY CARD" message, turn OFF the Main Power Switch, insert the KEY CARD to the KEY CARD Slot properly, and then turn ON the Main Power Switch again



★ IMPORTANT: Before repairing a disc, the water and polish tubing must be filled with water and polish compound. Failure to do so may cause damage to the disc and pads! See next page for instructions.

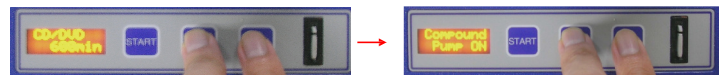
Operating the Water Pump Cont'd.

The water will not come out in a steady stream, but a few drops should come out each time the pump engages.

3. Press any button on the Operation Panel to stop the pump after confirming that water is coming from both Water Nozzles. The display on the LCD returns to "CD/DVD" or "BD" with the remaining time of the KEY CARD.

Operating the Compound Pump

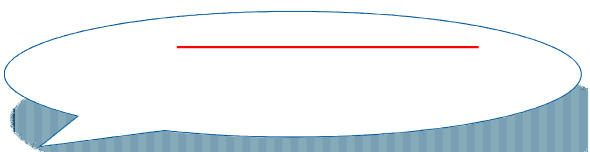
1. Press and hold "STOP" button, and then press "FUNC" button. The LCD displays "Compound Pump ON", and the Platen Table begins rotating clockwise to run the Compound Pump.



It may take several minutes for the compound to fill the lines and drip out of the nozzles.

2. Press any button on the Operation Panel to stop the Platen Table after confirming that compound comes out from both Compound Nozzles. The display on the LCD returns to "CD/DVD" or "BD" with the remaining time of the KEY CARD.

★ IMPORTANT: On a daily basis, run these tests to confirm that water and compound are coming out from each nozzle before using the machine.

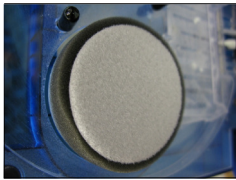


Reversing the Compound Pump

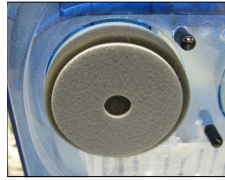
Reversing the direction of the pump should only be done for troubleshooting. Please see page **XX** for details.

Installing the Pads

The pads have a polishing side, and a Velcro side that attaches to the pad holder.

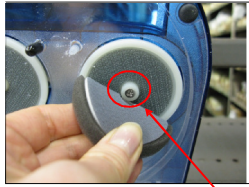


✓ Pad installed **CORRECTLY**

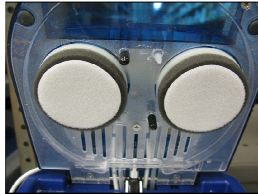


✗ Pad installed **INCORRECTLY**

1. Place each pad to be sure it is centered within each pad holder.



Bend the Pad slightly with fingertips, and fit the hole in the middle of the pad over the center pin of the Pad Holder



2. Press the center of the Pad lightly after placing it into the Pad Holder to attach the Velcro.

If the pads have been used before, make sure they are clean and dry before reusing them. See How to Clean the Pads on page 16.

NOTE: If the pads are not dry, the final disc finish will be hazy.

Helpful Hint: Buy another set of pads for quicker changeovers. This way you have a clean set of pads ready to be used.

Repairing Discs

1. Place a disc on the white Platen Table, with the label side down.



★ **IMPORTANT:** Place the disc so that the side to be repaired faces upwards.

2. Select the Disc mode depending on the kind of the disc to repair.

Pressing "**FUNC**" button changes "CD/DVD" mode and "BD" mode alternately. BD refers to Blu-ray discs.

When the machine is in standby, the LCD displays "CD/DVD" on the first line with "CD/DVD" mode, and "BD" with "BD" mode. The remaining time of the KEY CARD is displayed on the second line.



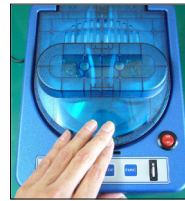
["CD/DVD" mode]



["BD" mode]

Select "**CD/DVD**" mode for repairing CDs and DVDs, or "**BD**" mode for repairing BD (Blu-ray Discs) and Hard-Coat Discs

3. Close the lid; the disc repair process will begin automatically.



Caution! Closing the Lid without a disc on the Platen Table may cause pad damage.

Repairing Disc Cont'd.

4. The LCD display shows the remaining time during the repair process.



5. The LCD displays "Drying" on the second line and the characters blink when the disc drying process begins.



6. After finishing the disc drying process, the Lid opens automatically, and then the Platen Table stops.



Caution! Take out the disc only after the Platen Table has stopped completely.

If there is compound residue left on the disc, wipe it gently with a soft cloth.

All Blu-ray discs will need to be wiped after repair to remove compound residue.

Stopping the Repair Session

Pressing the "**STOP**" button during the disc repair terminates the process.

The lid will open and the Platen will stop spinning.

★ **IMPORTANT:** Do not use the Main Power Switch to stop the repair. If switch is turned off mid-repair, it could corrupt the Key Card.

Increasing the Disc Repair Time (for more heavily scratched discs)

Pressing "**START**" button during the disc repair extends the repair time.

The first time you press the START button, the repair time increases by 1 minute. The second time you press the START button, the repair time increases by an additional 2 minutes.

(Before extending repair time)



(After pressing START button once)



(After pressing START button twice)



Cleaning the Pads

The LCD will display a "Clean Pads" message after every 20-minutes of disc repairs.



Exchange the pads for a clean dry pair and press any button on the Operation Panel to clear the message.

Rinse used pads with warm water.

Squeeze the pads several times to help remove any polish.

Once no more polish comes out of the pads, squeeze the pads again to remove extra water. At this point, you can either re-install them on the machine, or let them air dry overnight.

“Add Water” Message

The LCD displays the “Add Water” message every time the Water Pump in the Main Unit runs 2000 times.



Add water to the Water Bottle, and then press any button on the Operation Panel to clear the alert indication.

“Change KEY CARD” Message

The LCD displays “Change KEY CARD” message when the KEY CARD has no remaining time for disc repair.



Turn OFF the Main Power Switch, exchange the KEY CARD (see page 9 for removal tips)

Add water to the Water Bottle, and exchange the Compound Bottle.

Purchase new kits from RTI (see Consumables on page 26)

Part 10405—300 minute kit
Part 10106—600 minute kit

WARNING! Only use pads and compound manufactured and supplied by ELM. Using generic compound and pads can damage your machine and will void your warranty.

Daily Cleaning

1. Put the polish nozzle covers on the machine when not in use.



The polish nozzles are the upper left nozzle, and the lower right nozzle.

2. Hold onto the platen table assembly and lift it straight up to remove it from the machine.



3. Take the polish tray out of the machine and wipe it with a damp cloth. You may also wash it in the sink, if needed.



4. Spray the whole inside of the machine with glass cleaner including the lid. Avoid spraying the front panel and Key Card area. Wipe front panel with a damp cloth if needed.



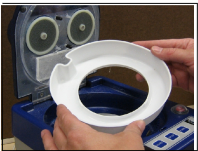
5. Wipe out the machine with a soft cloth to remove any polish build up.



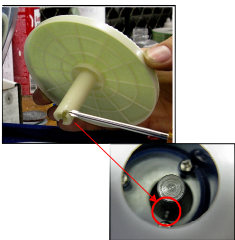
6. Spray the platen table assembly with glass cleaner and scrub with a toothbrush to clean it.



7. Put the polish tray back in the machine.



8. When you put the platen table assembly back into the machine, align the groove in the base with the pin on the motor spindle.



★ IMPORTANT: Once the platen table assembly is in the machine, rotate the platen gently until you feel it drop slightly, then push down firmly in the middle to make sure it is securely connected to the motor.

Daily Checklist for the LC

Before a Disc Repair Session:

1. Remove the black compound nozzle caps and set them aside.
2. Prime compound and water pumps; make sure compound and water are coming out of the nozzles.
Compound pump—hold Stop and press Function Button.
Water pump—hold Start then press Function Button.
3. Install a clean, dry set of pads.

After a Disc Repair Session:

1. Put the caps back on the compound nozzles.
2. Clean the machine.
Spray inside with gentle cleaner like Windex and wipe out with soft cloth. Lift out disc Platen and clean polish tray.
3. Rinse the pads, wring them out and let them dry overnight.

Special Function 1- Manual versus Automatic Start

The ECO PRO default setting will automatically start repairing discs as soon as the lid is closed. This setting can be changed so the ECO PRO will not repair a disc until after the lid is closed and the Start button is pressed.

To change this setting, go into the Special Function mode by pressing and holding the **FUNCTION** button, then press and hold the **STOP** button.

Continue holding both buttons until the screen shows a flashing "SP-Func1" at the top of the screen.

"on" is the Automatic setting

"off" is the Manual setting.



You can change the setting from Automatic to Manual by pressing the **STOP** button once. The screen will switch from "on" to "off".

To save this setting and return to the main screen, press and hold the **FUNCTION** and the **STOP** buttons at the same time until the LCD display changes back to the main screen.

Note: Once you are in the Special Function mode, use the start button to scroll between SP-F1, SP-F2 and SP-F3

Special Function 2



IMPORTANT: Do not adjust this function.

If you turn this function "on", the machine will not operate.

Special Function 3— Changing the Default Disc Repair Time

The default time for a disc repair session is 60 seconds. This setting can be changed so the default time is 30 seconds.

To change this setting, starting from the main screen, press and hold the **FUNCTION** button, then press and hold the **STOP** button until it says "SP-Func1" flashing at the top of the screen.

Press the **START** button two times until the screen shows a flashing "SP-Func3" at the top of the screen.

The "SP-Func3" will read "1-2-4".

Default settings — 1 minute repair, increases to 2 minutes or 4 minutes if the **START** button is pressed once or twice after the repair starts.



Optional shorter disc repair settings — 30 second repair, increases to 1 minute or 2 minutes if the **START** button is pressed once or twice after the repair starts.



To change to the shorter disc repair setting, press the **STOP** button once you see the top screen.

To save this setting and return to the main screen, press and hold the **FUNCTION** button and the **STOP** button at the same time until the LCD display changes back to the main screen.

LCD Display Summary Table

Condition	Character display on the LCD (2-line by 8-character)	Note
Initialization	Starting	After power turned ON
Ready ("CD/DVD" mode)	CD/DVD XXmin	Pressing "FUNC" button changes the Disc mode setting from CD to BD.
Ready ("BD" mode)	BD XXmin	The second line displays the remaining time on the KEY CARD.
Water Pump operation	Water Pump ON	Refer to pages 11 & 12.
Compound Pump operation	Compound Pump ON	USED FOR TROUBLESHOOTING ONLY Refer to page 28.
Compound Pump operation (Rev)	Compound Pump Rev	
Disc repairing	CD/DVD XXm XXs	The first line displays the Disc mode, and the second line displays the time remaining for the disc repair process.
Finishing the disc repair	CD/DVD Drying	The first line displays the Disc mode Characters on the second line flash.
Error	Error message (Flashing)	Refer to page 24.
Alert	Alert message (Flashing)	Refer to page 25.





Error Messages

Error messages on the LCD	Contents and Check	Action
No Pad	Contents	There are no pads on the pad holder
	Check	Install or reposition the pads.
P.Motor WireDown	Contents	The Platen Table is not rotating properly. The wiring of the Platen Motor is broken, the motor is out of order or the Main Board that controls the Platen Motor may be out of order.
	Contents	The Unit cannot read the data or write data on the KEY CARD. The KEY CARD may be out of order, or have a poor connection with the KEY CARD Interface Board.
Invalid KEY CARD	Contents	The Unit cannot read the data or write data on the KEY CARD. The KEY CARD may be out of order, or have a poor connection with the KEY CARD Interface Board.
EEPROM Load Err	Contents	Data cannot be read from the EEPROM. The EEPROM may be out of order.
EEPROM WriteErr	Contents	Data cannot be written to the EEPROM. The EEPROM may be out of order.





Actions

A	Contact Technical Support for assistance.
B	Turn OFF the Main Power Switch, and then remove and insert the KEY CARD. If the same error occurs, contact Technical Support for assistance.
C	The pad may be worn out, or there are no pads on the Unit. Confirm the condition of the Pads — replace them with new pads, if they are worn out. If the same error occurs with new Pad, contact Technical Support.

Alert Messages

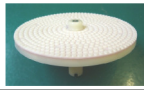

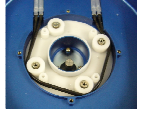




Alert messages on the LCD	Note and Action
	Turn OFF the Main Power Switch, insert the KEY CARD to the KEY CARD Slot properly, and then turn ON the Main Power Switch again.
	The message appears after every 20-minutes of disc repairs. Exchange Pads, and then press any button on the Operation Panel to clear the alert indication. Pads are reusable for 300-minutes of disc repairs. Remove pads before cleaning—do not wash while on machine.
	The message appears every time the Water Pump in the Main Unit has run 2000 times. Add water to the Water Bottle, and then press any button on the Operation Panel to clear the alert indication.
	Turn OFF the Main Power Switch, exchange the KEY CARD, add water to the Water Bottle, exchange the Compound Bottle and replace pads.

Consumables

Part Name	Part Number	Contains:
PRO-KIT 300 min	10405	Compound 100 ml (1 Bottle) PRO-Pad (2 pieces) 300 min KEY CARD (1 piece) 
PRO-KIT 600 min	10406	Compound 200 ml (1 Bottle) PRO-Pad (4 pieces) 600 min KEY CARD (1 piece) 
PRO-KIT 800 min	10408	Compound 200 ml (1 Bottle) PRO-Pad (4 pieces) 800 min KEY CARD (1 piece) 
ECO PRO PADS (PAIR)	10402PRO	

RTI SALES: 1-800-323-7520

Maintenance Parts

	Platen Table Module Part #: EDR-PRO C100C
	Under Splash Cover Part #: EDR-PRO A400
	Compound Tube Module Part #: EDR-PRO C400C
	Water Bottle Cap Module Part #: EDR-PRO F310A
	Compound Bottle Cap Module Part #: EDR-PRO F312A
	Pad Holder Velcro Part #: EDR-PRO D202A
	Gas Spring Module for Lid Part #: EDR-PRO B510A

Troubleshooting

Compound is not flowing from nozzles when Compound Pump is turned on:

Main cause: There is a clog in the polish tubing.

Step 1:

Remove any dried polish from the nozzles in the lid using a paper clip.

Turn Compound Pump on again, and let it run for a few seconds.

If compound doesn't start flowing, stop the Compound Pump and go to Step 2.

Step 2:

Reverse the Compound Pump:

Press and hold "START" and "STOP" button, and then press "FUNC" button.

The LCD displays "Compound Pump Rev", and the Platen Table begins rotating counterclockwise to run the Compound Pump in reverse, so the compound will flow back into the bottle.



Let the Compound Pump run in reverse for a few minutes.

If the clog in the tubing clears, you will see the compound flowing into the bottle through the clear tubing in the back of the Unit.

Even if you do not see the compound flowing into the bottle, turn the Compound Pump off after a few minutes, and run it in the forward direction to see if the compound now flows from the nozzles.

If there is still a clog in the tubing, please call Tech Support **1300 547 844** for assistance.

Servicing or repair of the ECO Pro disc repair machine:

Please have the following information available:

- Approximate date you received the machine
- Model name of product
- Serial Number
- Description of Problem (as much detail as possible)

Important:

For factory service of your machine, please visit www.ecopro2.com.au.
Click on **Technical Support** on the left hand side.

Hydopal Australia PTY LTD

Phone: 1300 547 844