Operation & Troubleshooting

Uno One Step Disc Repair Machine



ТΜ

Repair a scratched disc to like new

with the push of a button.





07-16-2010

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SAFETY

When using the Azuradisc Uno disc repair machine, the following basic safety precautions should always be followed to reduce the risk of fire, electric shock, or injury to persons:

- Read this manual before assembling or using the machine.
- Use this machine only for its intended use as described in this manual.
- Use only with Azuradisc-recommended accessories and repair materials. (The use of repair materials not approved by Azuradisc may damage discs permanently or cause injuries.)
- Pay close attention when the machine is used near children. The machine is not intended for use by children or infirm persons.
- Do not operate the machine if the cord or plug is damaged, is not working properly, has been damaged, or immersed in water. If these conditions are present, return the machine to Azuradisc for examination, repair, or adjustment.
- Do not drop or insert objects into any openings.
- To disconnect, turn off the machine, then remove plug from the electrical outlet.
- Use a grounded plug when using an extension cord.
- Keep fingers and all body parts away from moving parts and openings.
- Disconnect electrical supply before cleaning.

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Every effort has been made to ensure that the information in this manual is accurate. Azuradisc is not responsible for printing or clerical errors.

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Azuradisc Inc. is not responsible or liable for damage, of any type, to discs inserted into an Azuradisc machine. If you believe that an Azuradisc machine is malfunctioning, discontinue use and contact Azuradisc or an authorized representative.

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OUT OF THE BOX

After unpacking the Uno, verify the following items, in the quantities shown, are included. Contact Azuradisc, or the local representative if any items are missing. Place the machine on sturdy surface. Ensure there are no obstructions of air circulation around the bottom and rear of the machine. Make sure that new cartridges are not stored within 2 feet of the Uno.









1 ea. - PoliCool[™] v4.0 Cartridge Kit Includes 32oz of **PoliCool[™]**, and 2 Pads. Item **# uno_02889_0** (Sold as a Kit)

(Combo Item)

- 1 ea. Micro-Fiber Wiping Cloths 6x6 Hand washable and reusable super soft material to clean optical surfaces.
- 1 ea. Optical SprayCleaner 2oz.- Laser clear anti-static formula spray cleaner. Item # CK 00262 3
- 1 ea. Maintenance Kit Small brush, 3 hex key wrenches and 1 bottle of Quick Load Head Lubricant. (tl_03044_2)

1 ea. - Power Cord



1 ea. Scratch Removal Poster Item # adv_00222_7

PART IDENTIFICATION

- A Access Door: • Policool™ Cartridge
 - Easy access to PoliCool™ pump
 - Easy access to PoliCool™ Mixer
- B Safety Lid:
 - Automatic shut-off when open

C Aluminum Casing

- Will not conduct electricity
- Waterproof
- Easy to clean
- D Side mounted cooling fans
- E AC Electric input recepticle
- Industrial Strength
- Fused
- On/Off Switch
- F Electronic Controller and User Interface

CAUTION!

Make sure there is adequate room for air flow around and underneath the machine AT ALL TIMES!





Important Information About PoliCool ^w & Smart Chip Technology

What is PoliCool™?

PoliCool[™] is an advanced formula of micro-abrasives particles, along with a cooling solution and other proprietary ingredients mixed together in a single liquid to provide maximum scratch removal and polishing properties.

Performance

PoliCool[™] outperforms polish compounds in cut rate & finish. PoliCool[™] lasts longer than most fixed abrasives. One of the greatest benefits of PoliCool[™] is that it can be recycled over and over (with filtering) until it has reached the end of its useable life. This creates the benefits of cooling a disc during repair without creating wastewater, or having a complex recirculation system. There is no need to add water, or clean up messy polish compound splatter or dust from the machine similar to those used in "water based" or "dry process" machines. PoliCool[™] is automatically recycled back into the cartridge at the end of the cycle.

Usable Life

The performance and life of this product is measured in seconds run time. Different size containers and mixtures contain a smart chip with the information containing the maximum "seconds of run time" per cartridge. If PoliCool™ were used beyond this life, poor performance would result, and disc damage could occur. Since product life is critical to performance, Policool™ is only sold in containers called cartridges that contains a smart chip.

About the Smart Chip IMPORTANT MUST READ INFORMATION

Each PoliCool™ cartridge is outfitted with a smart chip that carries the information about the maximum useable life (run time) of each individual cartridge. Azuradisc disc repair machines that use PoliCool™ technology are outfitted with a smart chip reader that reads and transfers the "run time" information from the cartridge to the disc repair machine. Once transferred, the runtime information cannot be transferred back to the PoliCool™ cartridge, nor can it be transferred to a different machine. To get maximum life out of each PoliCool™ cartridge, it must be completely used before replacement. Once a cartridge has been mated with a machine, only that machine (not the cartridge) keeps track of the credits of repair seconds and assumes that the same cartridge stays in place to be used until that repair time is used-up. The cartridge itself is no longer able to identify itself or to provide left-over credits to this or any other machine.

While it is possible to remove a partially used cartridge from the machine (for transportation or to shake and mix the liquid) it is important that the same cartridge is reinserted in the same machine to be able to use-up the remaining credits.

PLEASE NOTE:

- Inserting a new cartridge in a machine that still has credits left from a previous cartridge will ERASE the original credits left from the previous cartridge and replace them with the credit for the new cartridge.

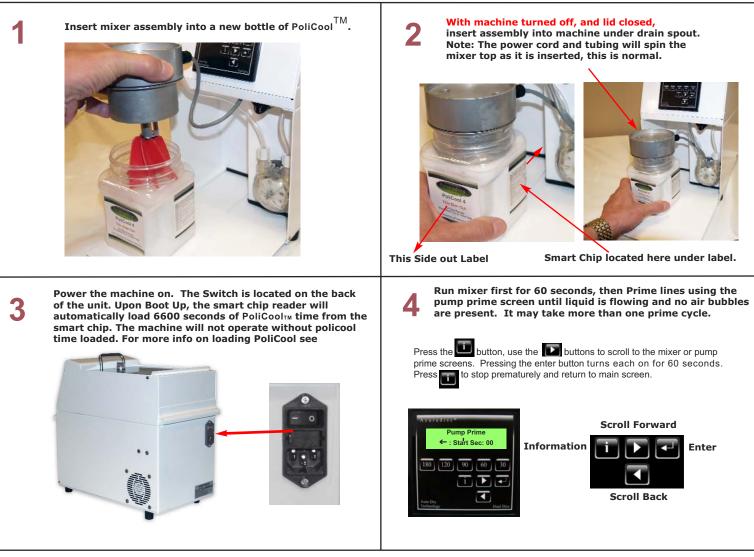
- Inserting a partially used cartridge in another machine will not transfer any credit.

Azuradisc does not provide refunds or credits for losses due to premature replacement of PoliCool™ cartridges or the improper exchange of cartridges between machines.

SET UP - SUPPLIES - CARTRIDGE & PAD INSTALLATION

To be performed initially and each time you replace the consumables.

IMPORTANT! Always change the abrasive & finishing pads when installing a new cartridge.



5

Installing New Polishing Pads

The Abrasive & Finishing Pads must be replaced each time a new bottle of Policool™ is installed. They are attached using velcro, to remove gently peel off pad from base, to install new ones align and press down firmly.







Place a Disc on the spindle as shown (repairable side will contact pad when lid is closed)

For proper operation the lid must be both closed and locked by compression.

To lock, Turn the latch clockwise until the lid is pulled down and the latch is compressed as shown in Figure 2.1

Open and unlocked Lid will open and close easily.



Select Repair Cycle

Not Compressed, Not Locked Lid will not close if in this position, if lid is closed, it is not locked

Closed and locked To lock, turn knob clockwise until it compresses lid and locks





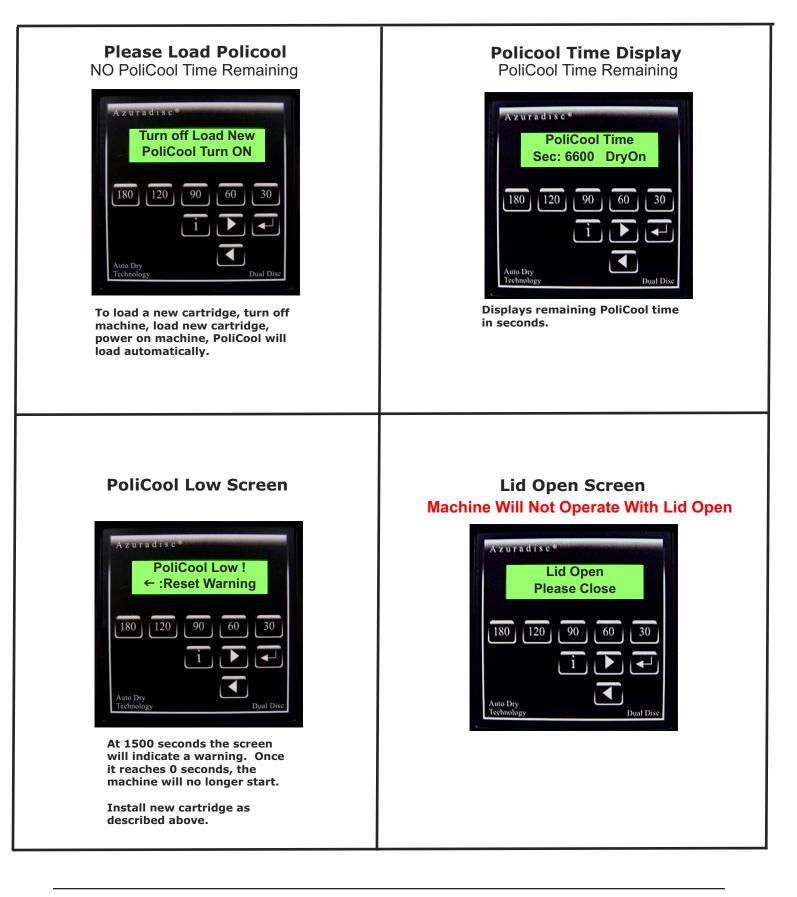
Number = Length of time in seconds

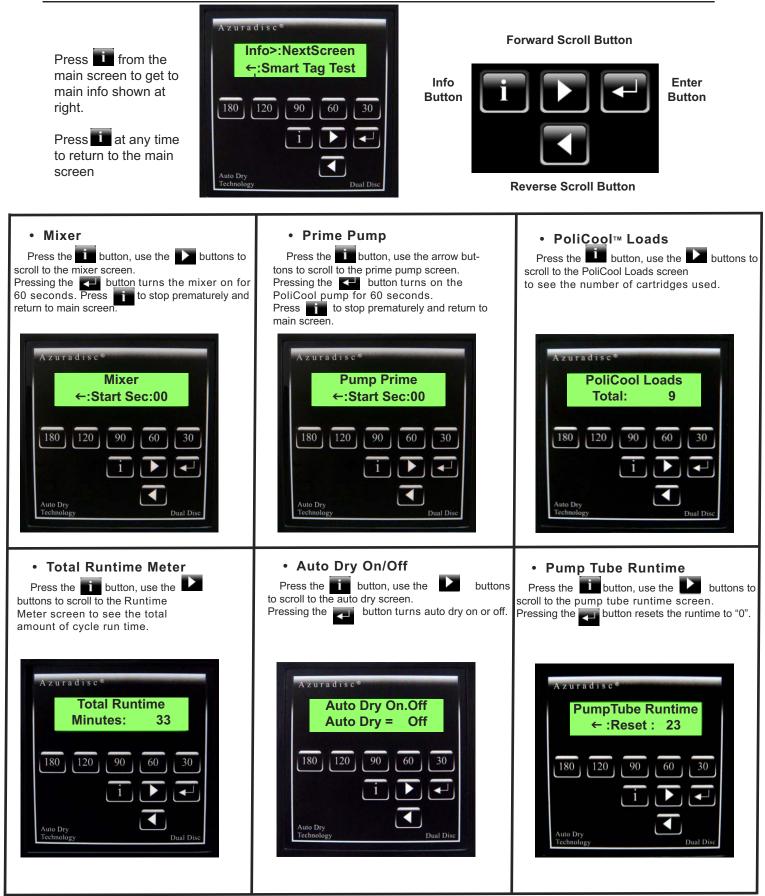
After pressing your selected time cycle, the machine will start automatically and the screen will show the cycle time as it counts down to zero, the machine shuts off automatically.



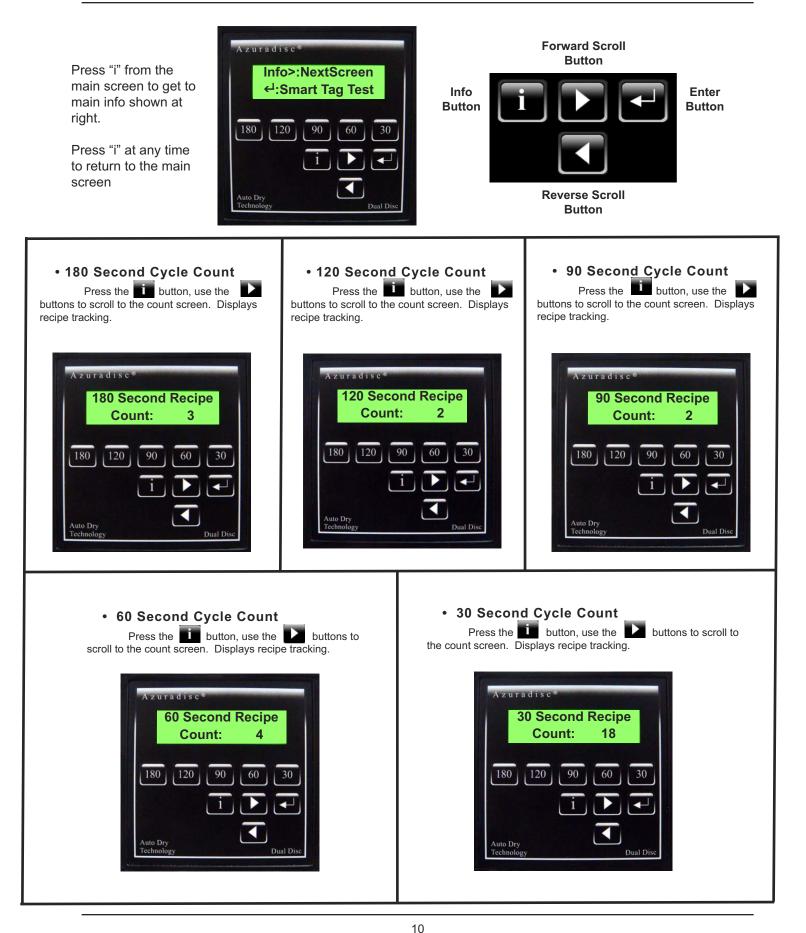
After repair cycle is finished remove **Disc from spindle.**

(Figure 2.1)

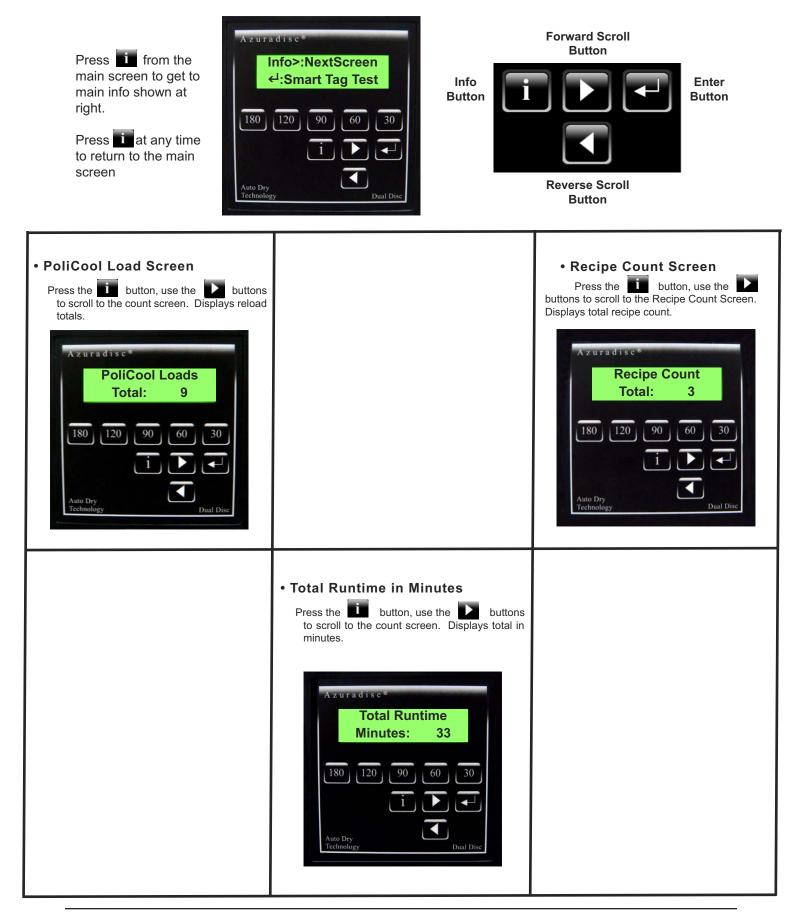


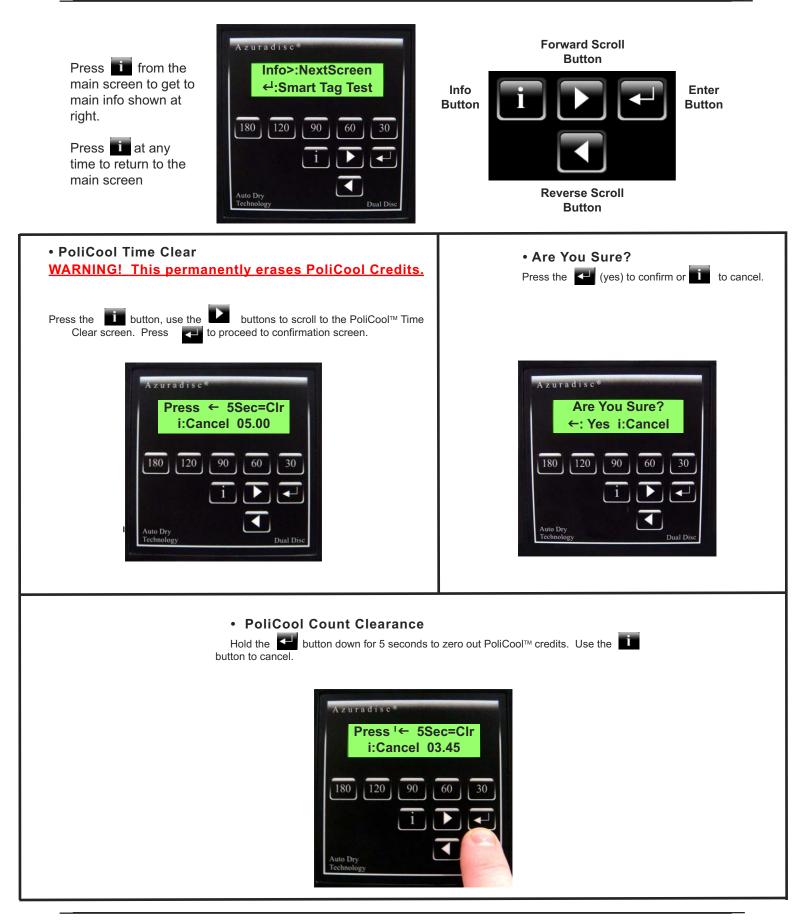


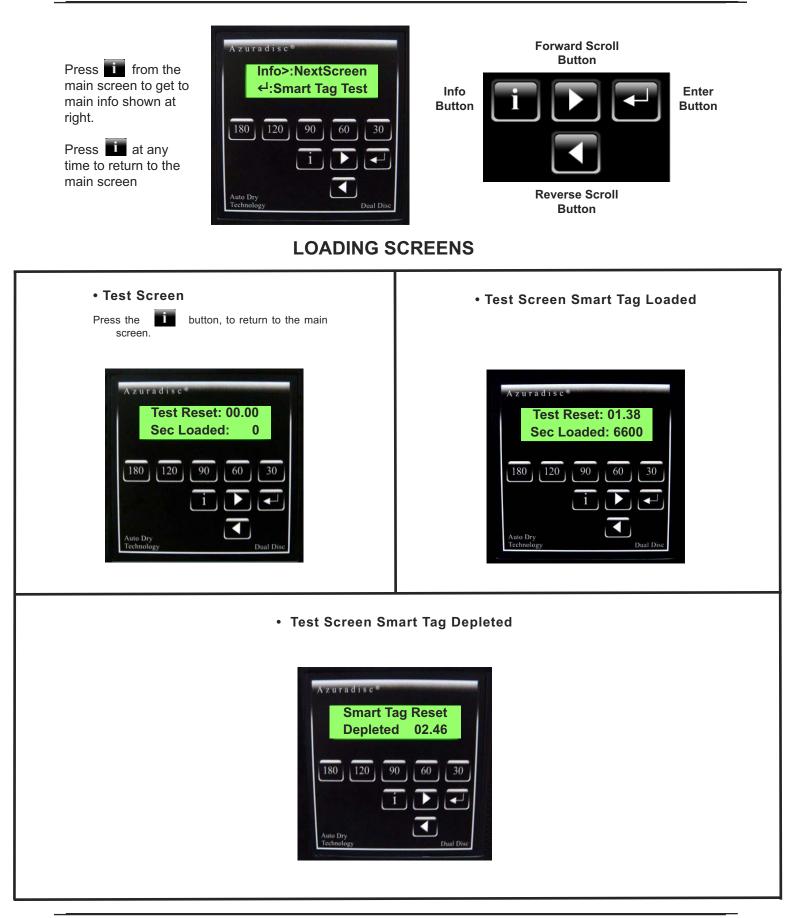
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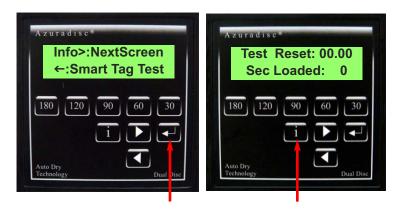
POLICOOL STATISTICS







Step 1: To start testing, press the button. (Figure 3.1) This will take you to the testing screen. To return to the main screen press the button. (Figure 3.2) When you are at the testing screen you will see a time value. (Figure 3.2)



(Figure 3.1)

(Figure 3.2)

Step 2: Place the PoliCool™ next to the Smart Chip Reader. (Figure 4.1)



(Figure 4.1)

Step 3: If the PoliCool™ is valid you will see the amount of credits in seconds. The timer will begin to count down and automatically return you to the Main Test Screen after the timer has expired. (Figure 5.1)



(Figure 5.1)

Step 4: If the PoliCool[™] has been depleted you will be taken to a different screen showing you that it is depleted and you will also see a timer counting down. When the timer has expired you will automatically return to the Main Test Screen. (Figure 6.1)

en. (Figure 6.1)

(Figure 6.1)

Step 5: If the PoliCool[™] Chip is Corrupt (BAD) you will remain on the Test Screen and nothing will occur. The timer will not count down and the Seconds will continue to display zero. (Figure 7.1) Remember if you need to return to the Main Test Screen you can do this by pushing the **ii** button.





TROUBLESHOOTING

No power	 Verify the power cord is properly inserted in a working outlet; test the outlet with another device. Check the fuse (by the power connector) on the machine. 110 -230V machines: 15A (1 spare fuse can be found in the AC outlet) Check On/Off switch is in the "On" position. Caution: To avoid electrical shock, ensure the outlet is properly equipped with a ground connection.
Little or No water flow	 Is the hose inserted into the PoliCool™ container?
	• Are there any kinks in the hose(s)?
	• Is the pump turning? (try priming pump)
	Check and clean filter if needed.
Machine overheating	 Verify the machine is on a flat sturdy surface. A carpeted surface may block the air outlet on the bottom of the machine. Leave space around the machine to allow air flow for the cooling fans. PoliCool[™] liquid is not flowing correctly. Verify proper flow of liquid with no air bubbles by using the pump prime feature. Look for constant flow under the lid during the priming process.
Cartridge not reading	 Remove cartridge and reinstall it behind the access door making sure to position cartridge label side in. (step 2) Make sure that the cartridge is new and that it has not already been inserted in this or another machine and has already transferred its credits. Test cartridge in test mode (Refer to smart chip test mode)
Not responding to Con- trol Panel	 Power machine down. Turn machine back on and check for display on the front control panel. Wait for the screen to be on.
Has power but will not run	 Make sure there are no obstructions under the lid and reclose. Make sure the prime pump sequence has completed, and press the start button again. Check for indicators on the screen. A new PoliCool™ cartridge may be required. Make sure controller is displaying main screen.
Preamature wear on the pad	• Never run the machine without a disc. If this happens, the rubber pad from the handle will dam- age the polish pad which will then have to be replaced. The PoliCool™ will still be useable, but the pad must be replaced with a new one. The handle pad may also need to be replaced if it has been damaged.



Step 1: Turn pump assembly counter clockwise to remove outer cover.

CHANGE PUMP TUBE



Step 2: Remove and replace hose.



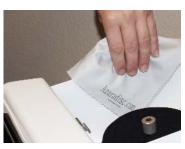
Step 3: Align pins and turn pump clockwise to replace outer cover.

CLEANING YOUR UNO PERMA FILTER

CLEANING YOUR UNO



Step 1: Mist repair chamber with Azuradisc Spray Cleaner.



Step 2: Using a soft cloth, remove PoliCool[™] residue and Spray Cleaner from all surfaces.

Step 3: Repeat as needed until clean.



After every cartridge of PoliCool remove the blue filter and run water through it until clean. (Place back on when clean)



Step 1: Remove set screw by turning counter clockwise.



LUBE QUICK LOAD SLIDERS VERSION 2

Step 2: Separate and lubricate rings with 2-3 drops of Quick Load Head Lubricant (tl 03044 2) Spread on inner brass surface with brush.



Step 3: Assembly is reverse, HOLES MUST ALIGN or damage will result. Do NOT over tighten set screw or damage will result.



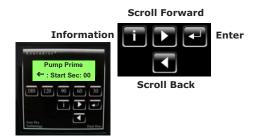
FLUSH COOLING SYSTEM



Step 1: Set an empty PoliCool_™ container under drain as a catch.



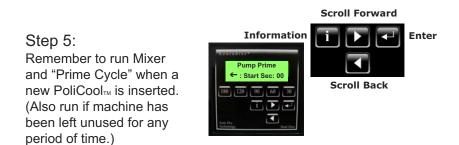
Step 2: Place the supply line to the pump into a container of HOT distilled water.



Step 3: Run "Prime Cycle" until fluid runs clear.



Step 4: As needed, remove and clean fittings under warm water. If clogged use paperclip to clear holes



Ver 1.0

UNO QUICK-START/REFERENCE GUIDE

READ BEFORE OPERATING MACHINE

Loading PoliCool Credits (See page 6 in the User's manual)

- Insert PoliCool into the Uno prior to powering up the machine.
- When prompted by the Uno, insert your PoliCool cartridge into the front chamber. Make sure the label "THIS SIDE OUT" is facing out.
- Your Uno screen will indicate "PoliCool Loading" and begin its countdown. DO NOT REMOVE during this process.
- When your machine reads "PoliCool Credits 6,600" your credit transfer is complete.

Routine Maintenance

Hourly:

• Keep your filter free of debris.

Daily

- Wipe down the surfaces and heads after each shift to prevent excessive PoliCool build up. (See page 16 in the User's manual)
- Exercise your Quick Load Assemblies at the beginning of each shift. Lubricate as needed. (See page 16 in the User's manual)

Weekly

• Flush your radiator with HOT distilled water using the "prime cycle." (See page 17 in the User's manual)

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EDUCATION

HOW DISCS ARE MADE

CDs consist of 99% clear polycarbonate plastic. The reflective layer, protective layer and screen print comprise the remaining 1% of the disc.

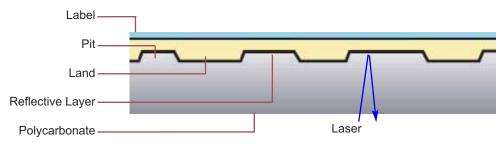


- 1. A disc is created from molten polycarbonate and digital information is stamped on the top of the disc, while it is still near melting point, using a die with microscopic bumps. These bumps are known as "pits and lands".
- 2. After the information is molded into the polycarbonate, a reflective foil layer is applied using a process called sputtering or wet silvering. This layer reflects the laser back to the player, so it's integrity is extremely important. The layer is usually silver, but can be made of gold or platinum.
- 3. A clear lacquer coating is applied to seal the reflective layer and prevent oxidation. This layer is very thin and offers little protection from top side scratches.
- 4. Finally the artwork is screen-printed on the top of the disc.

Pits and Lands are imprinted into the disc to indicate a one or a zero. A laser beam is sent from the player to the disc and the reflective layer reflects it back to the reader and the ones and zeros are translated by the player.

Recordable discs have a photosensitive dye type layer instead of the stamped information layer. This layer, when exposed to a certain light, will make an impression of a pit into the layer.

Re-recordable discs use a layer that allows the laser to polarize the photosensitive layer back and forth between a visible pit to an invisible pit.



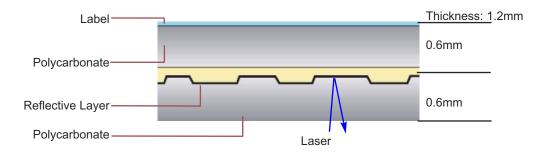
HOW A DVD IS MADE

DVDs are made in different ways depending on the amount of information that is recorded on the disc. DVDs may be single or double layered and single or double layered double sided.

NOTE: DVDs cannot be repaired as many times as CDs because the read side polycarbonate layer is thinner.

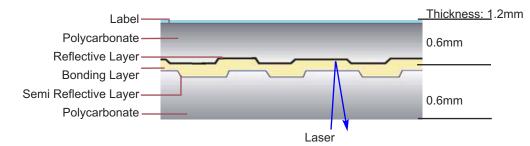
Single Layer DVDs (DVD-5 - 4.7GB)

These DVDs are made the same way as a CD with one additional polycarbonate layer added between the label and the pits and lands.



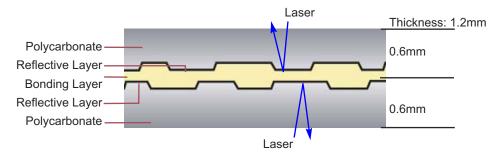
Double Layered DVDs (DVD-9 - 8.5GB)

Double layered DVDs have a semi reflective layer and a reflective layer giving two layers to store information.



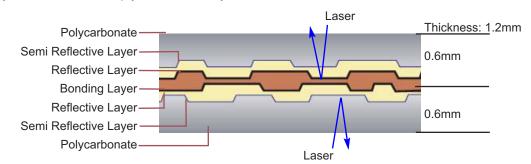
Double Sided DVDs (DVD-10 - 9.4GB)

Double sided DVDs consist of two discs bonded back to back with the reflective layers in the middle and both sides are repairable. Double sided DVDs require the use of smaller of micro-abrasive polishing papers to prevent the manufacturer's label area from being removed during the repair process.



Double Sided/Double Layered DVDs (DVD-18 - 17.1GB)

Double sided/double layered DVDs are simply two double layered discs bonded back to back.



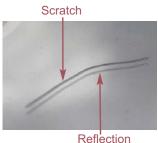
IDENTIFYING SCRATCHES

The three basic types of scratches on CDs are: topside, reading side, and top side foil dents. DVDs are not subject to top side scratches and foil dents as the manufacturing process is different from CDs.

Reading Side Scratches - CDs, CD-ROMs & DVDs

Reading side scratches are the most common type, the easiest to identify, and the only type of scratch that can be repaired.

If the scratch has a double Image, as shown in the figure to the right, it is a reading side scratch and can be repaired by using an Azuradisc scratch repair machine. The double image is the result of the actual scratch and a reflection made by the reflective foil layer.



Top Side Scratches

Note: The scratches shown below are not found on DVDs

Top side scratches are caused by a sharp object damaging the top or label side of a disc. In this case, the information just below the printed label area is damaged and causes a skip. Top side scratches cannot be repaired, however they can be prevented by using an Azuradisc Scratch Guard.

The easiest way to identify a top side scratch is to hold the suspected scratch up to a light source and verify that light will pass through the disc in that area.

Note: If light does not pass through, check the reading or bottom side of the disc for a scratch without a "double image". If a double image is not visible, it is a topside foil dent or a top side scratch that did not damage any of the label.

Top Side Foil Dents

Top side foil dents are not scratches but look like a scratch on the reading side of the disc. The dent is made by a large amount of pressure put on the label side of the disc, causing the foil layer to dent. This dent will cause skips and cannot be repaired, however they can be prevented using an Azuradisc Scratch Guard.

The easiest way to identify the top side foil dent is to see if there is a "double image" produced. There should not be a second image because the damage is to the inner foil layer. There may not be any evidence on the label side of the disc because the pressure did not cause any of the label to be removed.



ACCESSORIES



Polishing Pad Double Sided DVD with velcro. Replacement pad (Do NOT install until old pad has been removed) Item # st2_02959_0



Game Cube Adapter. Game Cube Adapter Ring Fits Dual Disc II and Uno Item # gca_02508_0

Reinforced Plastic Spindles. For handling and storage of compact discs. Item # spn_01677_4



Light passes through the disc.

EXCLUSIONS AND LIMITATIONS

This Limited Warranty applies only to the Warranted Products. This Limited Warranty does not apply to any other products, whether or not packaged or sold with the Warranted Products.

This Limited Warranty can be redeemed only by the original purchaser at the original location where Azuradisc shipped the Warranted Product. If you wish to transfer this Limited Warranty, please contact Azuradisc for more information.

Any Software distributed by Azuradisc, whether or not incorporated into the Warranted Products, is not covered under this Limited Warranty. Refer to Azuradisc's Software License Agreement, reviewable at www.azuradisc.com or by calling +1.480.827.8786 for more information.

This Limited Warranty does not apply to the following:

- Normal wear or deterioration (follow preventative maintenance schedules to minimize wear and tear on your machine);
- · Improper installation or maintenance including but not limited to failure to follow any preventative maintenance schedule;
- Damage caused by accident, abuse, misuse, misapplication, or failure to follow usage directions;
- Warranted Products that have been used with non-Azuradisc products;
- Damage caused by service performed by anyone other than Azuradisc or an Azuradisc-certified service technician;
- A Warranted Product that has been modified without the written permission of Azuradisc;
- If any Azuradisc serial number, date stamp or other marking has been removed or defaced;
- Any item concerning the Warranted Product's appearance that is not due to a defect in material or workmanship.

TO THE MAXIMUM EXTENT PERMITTED BY LAW, THIS LIMITED WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. AZURADISC SPECIFICALLY DIS-CLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTIC-ULAR PURPOSE. IF AZURADISC CANNOT LAWFULLY DISCLAIM OR EXCLUDE IMPLIED WARRANTIES UNDER APPLICABLE LAW, THEN TO THE EXTENT POSSIBLE ANY CLAIMS UNDER SUCH IMPLIED WARRANTIES SHALL EXPIRE ON EXPIRATION OF THE WARRANTY PERIOD. No Azuradisc reseller, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

IN NO EVENT SHALL AZURADISC BE LIABLE, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT PRODUCT LIABILITY OR OTHER-WISE, FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE WARRANTED PRODUCT WITH RESPECT TO WHICH SUCH DAMAGES ARE AS-SERTED, PLUS ANY FREIGHT CHARGES ACTUALLY PAID ATTRIBUTABLE TO SUCH WARRANTED PRODUCT, OR FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING LOSS OF PROFITS, LOSS OF USE, INTERRUPTION OF BUSINESS, OR ANY COSTS OF RECOVERING OR REPRODUCING ANY PROGRAM OR DATA STORED IN AN OPTICAL DISC, ARISING OUT OF OR IN CONNECTION WITH THE USE OF OR INABILITY TO USE THE WARRANTED PRODUCT OR AZURADISC'S PERFORMANCE OF ITS OBLIGATIONS HEREUNDER, TO THE FULL EXTENT THESE DAMAGES MAY BE DISCLAIMED BY LAW.

This Limited Warranty gives you specific legal rights and you may also have other rights that vary from jurisdiction to jurisdiction.

OBTAINING WARRANTY SERVICE

If you have a problem with one of the Warranted Products, **DO NOT SHIP THE PRODUCTS DIRECTLY TO AZURADISC**. Instead, please contact our Technical Support personnel at +1 (480) 827-8786 for a Return Materials Authorization (RMA) number and instructions.

For all warranty service, the Warranted Product must be returned to Azuradisc or an Azuradisc-designated repair center with all transportation and insurance charges prepaid all the way to AZURADISC warehouse. RMA number, dated proof of purchase and whom it was purchased from, as well as an explanation of the problem, must accompany the Warranted Product. You are responsible for any shipping costs, import/export duties, taxes and other such fees.

If Azuradisc determines that some of the necessary repairs are not covered under this Limited Warranty, you may request an estimate and the opportunity to confirm whether you agree to pay for these repairs. If you decline, Azuradisc obligations for that machine or product under this Limited Warranty end.

WARRANTY COVERAGE

Azuradisc warranty obligations for its products are limited to the terms set forth below:

Azuradisc, Inc. ("Azuradisc") warrants its standard products (the "Warranted Products"), against defects in materials and workmanship for a period ("Warranty Period") defined as follows:

The Warranty Period for disc repair machines and disc testers is a period of one (1) year from the date of original purchase or until 100,000 repairs have been processed using that Warranted Product, whichever comes first. Unless otherwise specified, the Warranty Period applicable to machines and disc testers pur chased from Azuradisc as "factory refurbished" products is 6 months or 50,000 repairs, whichever comes first.

The Warranty Period applicable to supplies, normal wear items and replacement machines, assemblies, and parts provided under this Limited Warranty against defects in materials and workmanship is ninety (90) days from their date of delivery by Azuradisc.

Replacement machines, assemblies, and parts, excluding supplies and normal wear items, are also covered for the remaining portion of the original machine's warranty, if that provides longer coverage for you.

If a defect is discovered and a valid claim received by Azuradisc within the Warranty Period, at its option, Azuradisc will (1) repair the Warranted Product using new or refurbished replacement parts, (2) exchange the Warranted Product with one that is new or that has been manufactured from new or serviceable used parts and is at least functionally equivalent to the Warranted Product, or (3) refund the purchase price of the Warranted Product.

When a Warranted Product is exchanged or repaired, any replacement item becomes your property and the replaced item becomes Azuradisc's property. When a refund is given, the Warranted Product becomes Azuradisc's property.





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