

Operation & Troubleshooting

Uno One Step Disc Repair Machine

Auto **T**imed **L**iquid **A**brasive **S**uspension **T**echnology TM

Repair a scratched disc to like new
with the push of a button.



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 1 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. - Power Cord**



- 1 ea. Scratch Removal Poster**
Item # **adv_00222_7**

PART IDENTIFICATION



- A** Access Door:
- Policoool™ 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

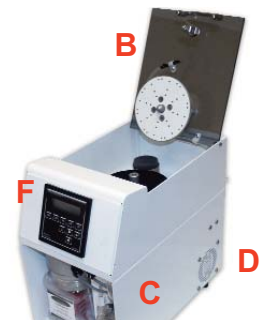
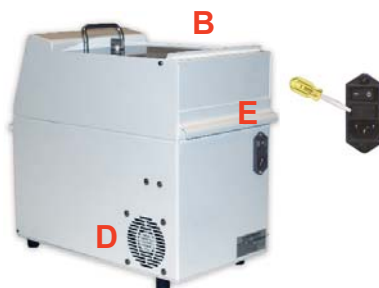
- D** Side mounted cooling fans

- E** AC Electric input receptacle
- 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™ & Smart Tag 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 tag (computer 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, Policoool™ is only sold in containers called cartridges that contains a smart tag.

About the Smart Tag IMPORTANT MUST READ INFORMATION

Each PoliCool™ cartridge is outfitted with a smart Tag 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 Tag 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 ignore the new tag and continue to use the original credits left from the previous cartridge. To properly load a new bottle and its values, you must enter the system set up and manually delete any time remaining from the machine before you can load the credits from a new bottle.

- 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 & (optional) finishing pad when installing a new cartridge.

- 1** Power the machine on. Allow the machine to fully Boot Up, the display will show Policoool™ Time in Seconds Left. The machine will stop operating when policoool time reads 0 (zero). Policoool Time must read 0 (Zero) in order to load a new Bottle.
(see erase function to intentionally delete time)



- 2** Remove Previously Depleted (used) Bottle, and set Mixer outside of machine.

Insert a new "Unopened" bottle of PoliCool as shown



Smart Tag located here under label.



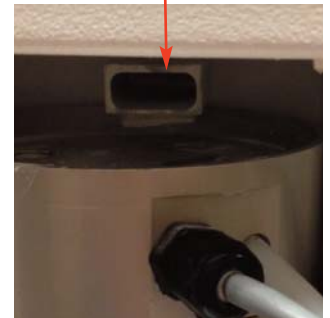
Press the enter Key to "load" a New Bottle.

Within 5 seconds or less, Policoool time will be transferred from the bottle to the Machine.

Upon successful transfer, the display will show time such as: 6600 Seconds.

- 4** Open the Bottle, Remove Seal and insert Mixer assembly into machine be sure to place under drain spout.

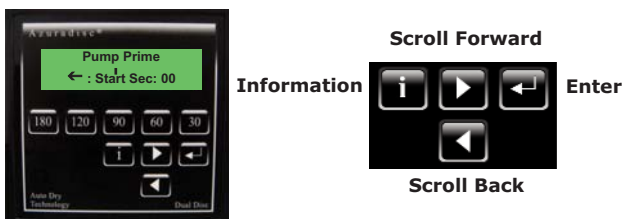
Note: The power cord and tubing will spin the mixer top as it is inserted, this is normal.



- 5** Mix /Prime Verify Liquid Flow

Prime Function will operate the mixer for 5 seconds, then mixer & pump for 10 seconds more. Repeat until liquid is mixed & flowing. Verify no air bubbles are present, and flow is not blocked in any way. It may take more than one prime cycle.

Press the **I** button, use the **▶** buttons to scroll to the prime screen. Press the enter button begins Prime function. Press **I** to stop prematurely and return to main screen.



- 6** Installing New Polishing Pads

The Abrasive & Finishing Pads must be replaced each time a new bottle of Policoool™ is installed. They are attached using velcro, to remove gently peel off pad from base, to install new ones align and press down firmly. The Smaller Finishing Pad is optional and not required for use.

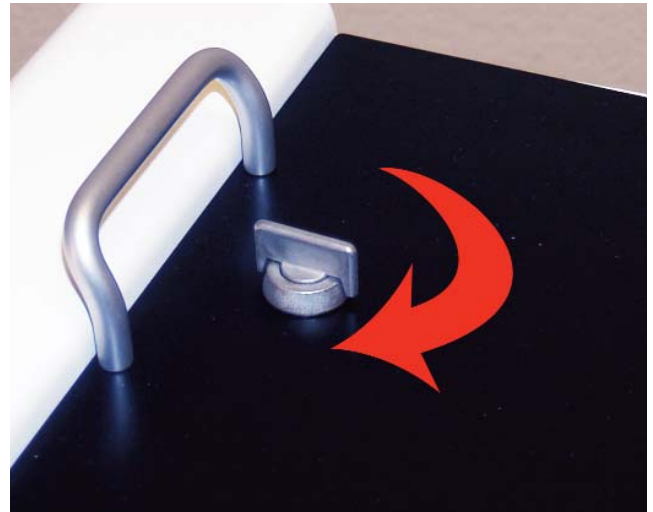


BASIC OPERATION

(Figure 2.1)



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.



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



Select Repair Cycle



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. A Dry Cycle Timer will countdown after the repair cycle. Dry time is not deducted* from polycool time (*versions 6.3 and higher).



After repair cycle is finished remove Disc from spindle.

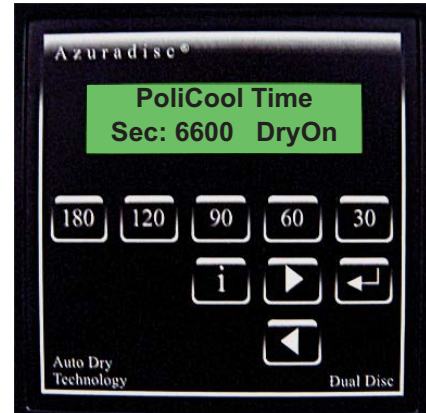
INFORMATION SCREENS

Please Load Policoool NO PoliCool Time Remaining



To load a new cartridge, insert new cartridge, and press enter button. You should see 6600 seconds appear within 5 seconds or less.

Policoool Time Display PoliCool Time Remaining



Displays remaining PoliCool time in seconds.

Policoool Low Screen



At 1500 seconds the screen will indicate a *warning*. Once it reaches 0 seconds, the machine will no longer start.

The machine will not operate once it has reached zero.

You must "load" a New Policoool cartridge once you have reached 0 (Zero).

You cannot load a new bottle if there is time remaining.

(See Erase function to intentionally erase time)

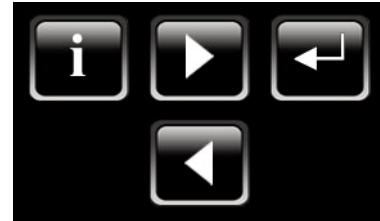
Lid Open Screen

Machine Will Not Operate With Lid Open



Forward Scroll Button

Info Button

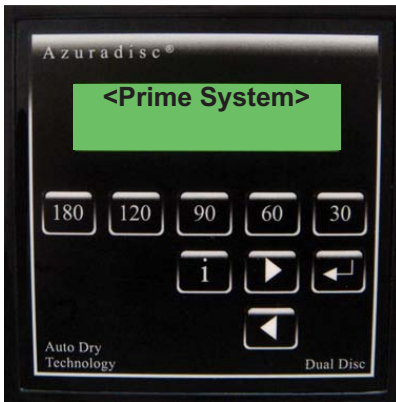


Enter Button

Reverse Scroll Button

• Prime System (mix & pump)

Press the **i** button, use the **▶** buttons to scroll to the prime system screen. Pressing the **◀** button to enter function. Press again to prime **i** button will stop the prime and pressing again will exit the screen.



• Load Policool

Press the **i** button, use the arrow buttons to scroll to the load policool screen. Pressing the **◀** button to enter function. Press it again to transfer credits to machine Press **i** to return to main screen.



• System Statistics

Press the **i** button, use the **▶** buttons to scroll to the System Statistics screen to see the number of cartridges used and time cycle counts.



• Total Runtime Meter

Press the **i** button, use the **▶** buttons to scroll to the Runtime Meter screen to see the total amount of cycle run time displayed in hours.



• System Set Up

Press the **i** button, use the arrow buttons to scroll to the load policool screen. Pressing the **◀** button to enter the function. Press it again to transfer credits to machine Press **i** to return to main screen.

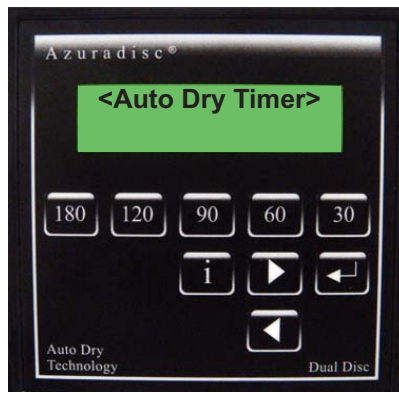


• Auto Dry Timer

Press the **i** button, use the arrow buttons to scroll to the Auto Dry Timer screen. Pressing the **◀** button to enter the function. use the arrow buttons to set the dry time Press **i** to return to main screen.



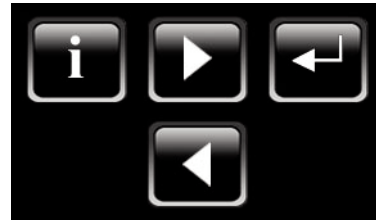
INFO MENU



DRY TIME SETUP

Forward Scroll Button

Info Button

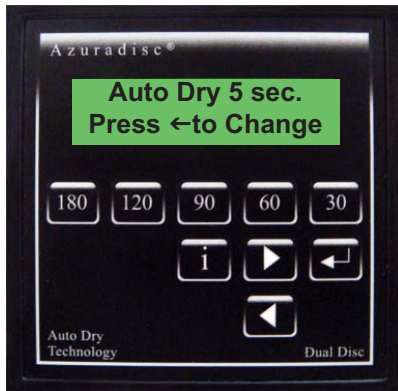


Enter Button

Reverse Scroll Button

• Auto Dry On/Off

Press the **i** button, use the **▶** buttons to scroll to the auto dry screen. Pressing the **↵** button enters the function.



Use the arrow keys to select value
 •Zero turns the timer off: 10 seconds is max
 •Press Enter: Confirm change
 •Press >: Increase timer selection by 1
 •Press <: Decrease the timer selection by 1
 •Press i: Cancel and do not load new selection. Takes back to Auto Dry timer Main



Dry Timer Facts:

- Drying Time is no longer included in policool time in software version 6.3 and higher.
- Dry time will not deduct from policool timer.
- Dry Cycle feature works by stopping the liquid pump, and allowing friction to dry the pad and disc.
- Dry Times may Vary- Depending on the pad pressure against the disc, you may want to increase or decrease the dry timer to "fine tune" how dry your discs come out.

Dry Timer Fine tuning:

- Dry but not Hot is the goal when selecting a proper dry cycle. You want the machine to stop at the moment the pad and disc are dry but not a moment longer.
- Overdrying, causes excessiv heat, which may prematurely wear your pads out, or cause premature pad failure, or potentionally over heat a disc causing damage.
- Overdrying can leave wispy repair marks. If the pad becomes too dry, light rescratching will begin to occur, this means you are over drying, and should either reduce the dry time or the disc/pad pressure.

Dry Timer & Disc Finish:

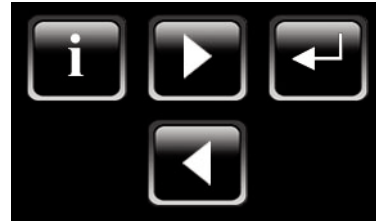
- When the dry cycle is set accurately, your discs will come out shiny & ready to go into the case.
- If your discs come out dry but have a light dry powder on them, the dry time may need to be adjusted by 1 or 2 seconds up or down to perfect it. A light powder residue that wipes off without scratching is considered normal to average.
- Some Discs will vary- Some discs are thicker or thinner than others and may come out damp, or drier than others due to the variance from disc to disc. Things like a scratch guard, can affect your finish. The dry timer is adjustable to fit keep your repair experience similar from disc to disc.

When to Change Dry timer:

- If your discs are coming out HOT, you may want to reduce your dry time.
- If your discs are coming out Wet, you may want to increase dry time.
- if your discs have a light wispy repair marks, try reducing your dry time.
- If your pads are not lasting the full bottle, reducing dry times may help reduce this. If pad pressures are too high, reducing dry timer by a few seconds may not impact this, and you may need to adjust your pad pressure.
- If discs have a light powder- try increasing by 1 or 2 seconds.
- If you operating at high temperatures, you may need to reduce your dry times.

Forward Scroll Button

Info Button



Enter Button

Reverse Scroll Button

• Mixer Menu (Turn On / Off)

Press the **i** button, use the arrow buttons to scroll to the Mixer Menu screen. Pressing the **←** button to enter the function. Pressing the enter button again to set turn off or on Press **i** to return to main screen.



• Mixer Test

Press the **i** button, use the arrow buttons to scroll to the Mixer Test screen. Pressing the **←** button to enter the function. Pressing the enter button again and hold to Test Press **i** to return to main screen.



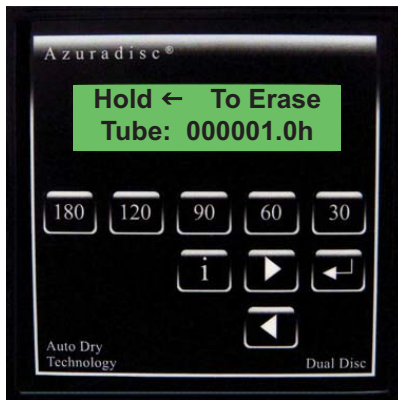
• Pump Test

Press the **i** button, use the arrow buttons to scroll to the Pump Test screen. Pressing the **←** button to enter the function. Pressing the enter button again and hold to Test, Press **i** to return to main screen.



• Pump Tube Timer Reset

Press the **i** button, use the arrow buttons to scroll to the Pump Tube timer Reset screen. Press **←** button to enter the function. Press and hold again and hold to reset the timer Press **i** to return to main screen.



• Tag Test (Read Only)

Press the **i** button, use the arrow buttons to scroll to the Tag Test screen. Press the **←** button to enter the function. Pressing the enter button again to Test, Press **i** to return to main screen.



• Erase Policoool

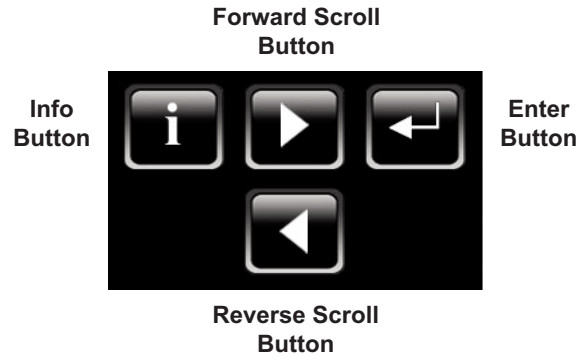
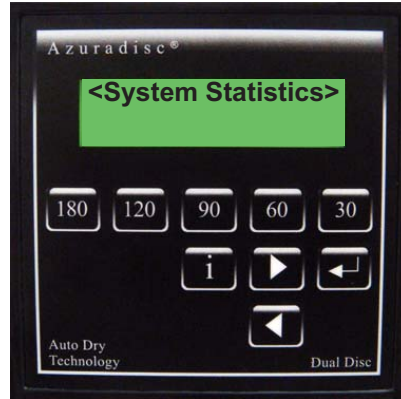
Press the **i** button, use the arrow buttons to scroll to the Erase Policoool screen. Pressing the **←** button to enter the function. Follow instructions to Erase Currently Loaded Policoool Time. Press **i** to return to main screen.



System Statistics Menu
Leads to all Statistical values
the machine tracks during
operation such as total
runtime, PoliCool Loads,
Recipe counts, etc.

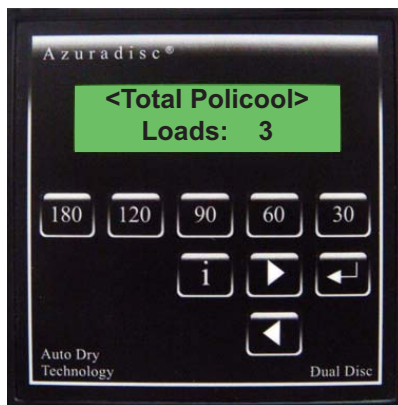
Press "i" from the main
screen to get to main info
shown at right.

Press "i" at any time to
return to the main screen



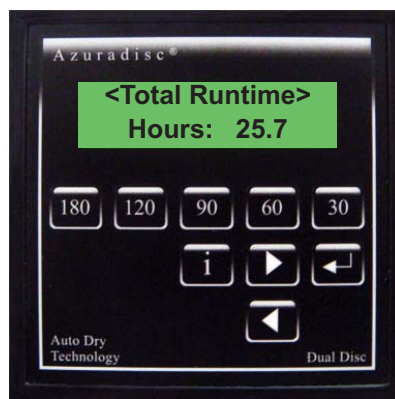
• **Total Policool Loads**

Press the **i** button, use the **▶** buttons to scroll to the count screen. Displays the total number of bottles of policool you have loaded..



• **Total Runtime**

Press the **i** button, use the **▶** buttons to scroll to the count screen. Displays the machines total runtime.



• **Total Recipe Count**

Press the **i** button, use the **▶** buttons to scroll to the count screen. Displays recipe tracking.



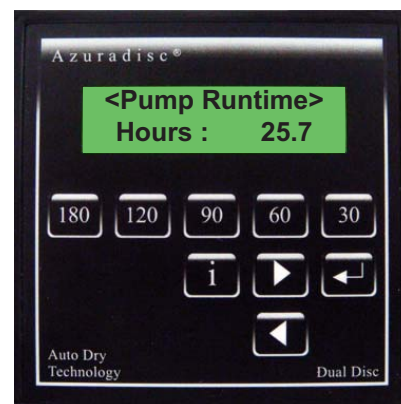
• **30,60,90,120,180 Second Cycle Count**

Press the **i** button, use the **▶** buttons to scroll to the count screen. Displays each recipe tracking.



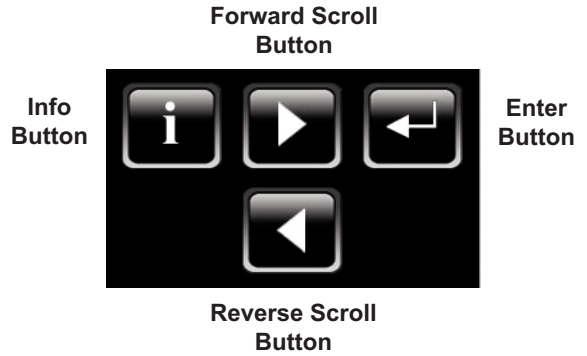
• **Pump Runtime**

Press the **i** button, use the **▶** buttons to scroll to the count screen. Displays recipe tracking.



Press **i** from the main screen to get to main info shown at right.

Press **i** at any time to return to the main screen



Description

- Asks user to confirm clear of PoliCool timer
- Displays amount of PoliCool time left on the system

Actions

- Press Enter: NA
- Press >: NA
- Press <: NA
- Press i: Take to Clear PoliCool Menu. Or if Clear PoliCool is called from the Load PoliCool screen, returns you to Load PoliCool Main
- Press 180: Clear PoliCool Timer and return to Clear PoliCool Menu

• **Clear PoliCool Time WARNING!**



Procedure Permanently Erases PoliCool Credits!

Press the **i** button, use the **▶** buttons to scroll to the PoliCool™ Time Clear screen. Press **◀** to proceed to confirmation screen.

• **Confirm Policool Erase?**

Hold the 180 button down to erase or “zero” out any unwanted PoliCool™ credits. Use the **i** button to exit.



Step 1: To enter 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 either see a time value or the word depleted if the time has been transferred previously (used).



(Figure 3.1)



(Figure 3.2)

Step 2: Remove the Mixer and set aside to test several bottles in a row (Figure 4.1)



(Figure 4.1)

Step 3: If the PoliCool™ Tag is valid you will see the amount of Time left in seconds. The timer will reset automatically after 3 seconds.




(Figure 5.1)

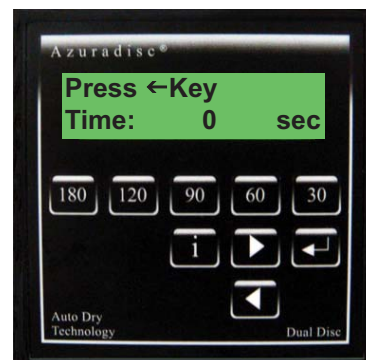
Press the enter button to retest. (Figure 5.1)

Step 4: If the PoliCool™ Tag Test displays the word “depleted” when run, this means there is no credit left on this bottle, and you must load a new bottle that has credit on it. (Figure 6.1)

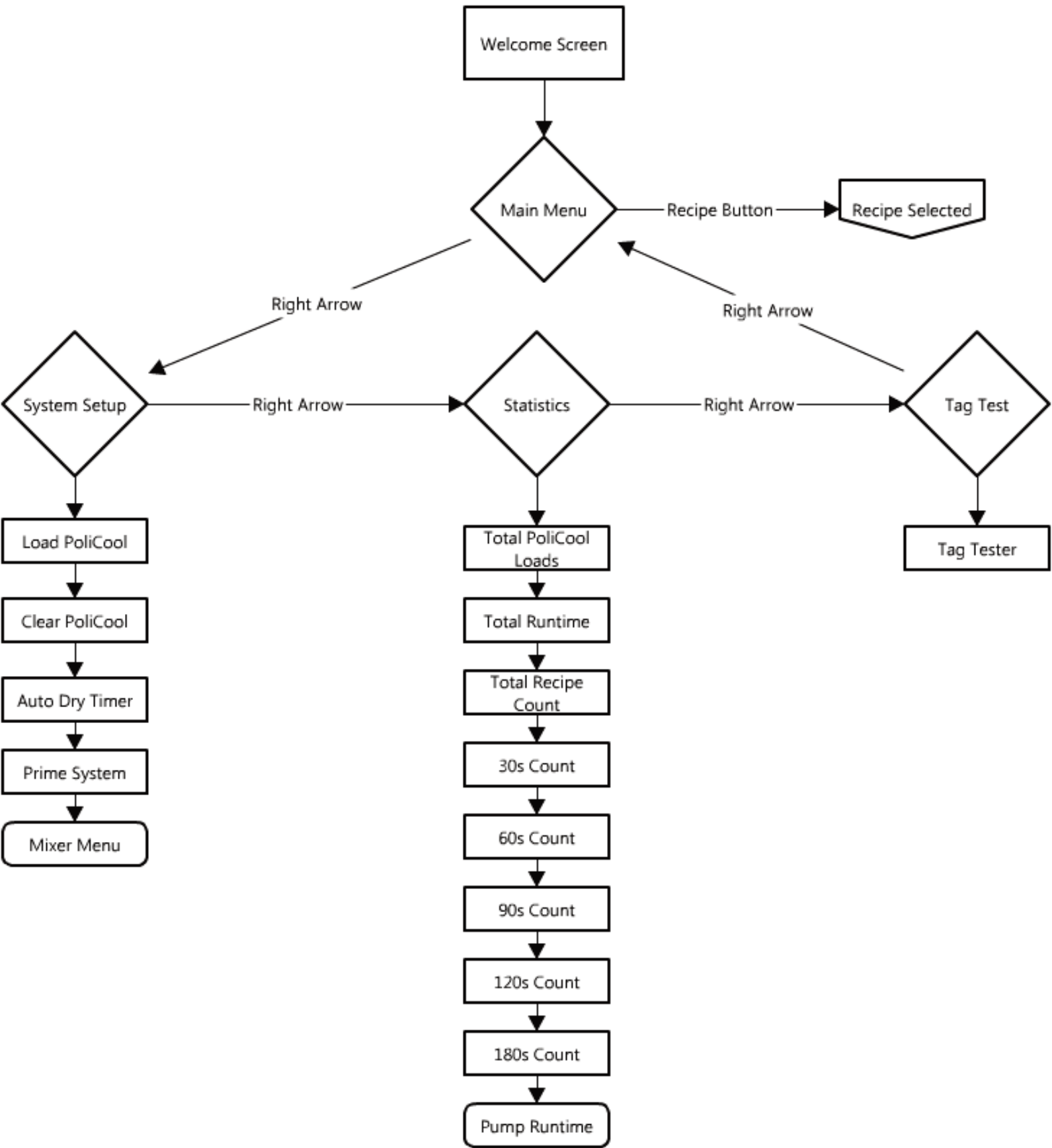


(Figure 6.1)


Step 5: If the PoliCool™ Chip is not Reckogized you will remain on the Test Screen and nothing will occur. The timer will not count down and the Sec-onds will continue to display zero. (Figure 7.1) If you need to return to the Main Test Screen you can do this by pushing the  button.



(Figure 7.1)



TROUBLESHOOTING

No power	<ul style="list-style-type: none"> • 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. <p>Caution: To avoid electrical shock, ensure the outlet is properly equipped with a ground connection.</p>	 <p>Fuse Removal</p>
Little or No water flow	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 Control Panel	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Never run the machine without a disc. If this happens, the rubber pad from the handle will damage 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. 	

TROUBLESHOOTING

“HOW TO PREVENT PADS FROM PREMATURE FAILURE”

<p>Problem:</p> <p>Pads are not lasting for the normal life expectancy of 6,600 seconds</p>	<p>The primary cause of any premature pad failure is typically due to excess HEAT. Heat will break down the fiber top layer on the pad in the following ways: fabric fraying, fabric has hole in it, exposing the rubber layers below, pad has glazing over appearing to have lighted melted and fused together.</p> <p>Maximum Rated Temperature range is 120 degrees fareinheight. Temperatures above this range are known to cause pad breakdown.</p>
<p>Possible Cause(s):</p>	<ul style="list-style-type: none"> • Lack of or Insufficient Liquid Coolant • Pad Pressure is too high • Pad thickness increases due to liquid absorbtion. • Clogged or Damaged Radiator.
<p>Insufficient Liquid Coolant</p>	<p>Lack of Liquid Coolant- Verify that you have sufficient Policoool flowing out of the nozzles. A reduced flow is a known cause of premature pad failure.</p> <p>Insufficient Liquid Coolant- Azuradisc uses Policoool to keep the pads cool which contains abra- sive materials as well as cooling agents. Although this formula is water soluble, adding water to the formula can drastically change the chemistry of the Policoool, causing the cooling agents to become ineffective. The can happen if an tap water is added to “replenish” what appears to be water loss due to evaporation, spilling or liquid that is trapped in the radiator or lines. If Tap water for instance is added, the ratios are changed and the formula can become diluted or “watered down” reducing the cooling properties. Tap water also contains hard minerals which will affect the chemistry and can mechanically cause light “wispy scratching marks” on the surface of the disc. If the Policoool has been compromised, the system must be washed clean and wiped down. Preferably using Warm Distilled Water no hotter than 90 degrees in temperature. Distilled water does not contain minerals, and will help absorb minerals.</p>
<p>Pad Pressure too High</p>	<p>Pressure too high- each pad is rated for a light compression equating to .6 mm or 10% of the thickness of the material. Compressing the pad with a greater amount of pressure will SQUEEZE the liquid content out of the upper layer of the surface, essentially causing the surface to become dry which will instantly increase friction levels to a point of pad failure due to excess heat.</p>
<p>Pad thickness in- creases due to liquid absorbtion</p>	<p>Pad thickness increases due to Liquid absorption- Each pad will absorb briefly retain a small amount of liquid which will cause the cell foam structure to swell up. If the pad pressure is set at time when the pad is dry, it is possible for excess pressure to be created due to liquid absorption swelling. If the pad swells causing overpressure, the pressure will become too high and the sur- face will overeat causing premature pad failure.</p>
<p>Clogged or Damaged Radiator</p>	<p>A radiator has been used in conjunction with Policoool to help prevent the liquid from exceeding 120 degrees F. On average a small radiator can reduce the temperatures between 10-20 de- grees. Overtime Policoool can build up inside of the radiator reducing its ability to affectively cool the liquid. A reduced capacity radiator appears to function, as the liquid is still able to flow freely through the radiator even though the lower have of the radiator has sediment built up in it pre- venting the liquid from flowing through the entire radiator. This problem can be prevented by ap- plying preventative maintenance techniques such as flushing the radiator out thoroughly and often. Bypassing the radiator all together can be a great solution; as long as you have another means of keeping the operating temperatures below 120 F. Storing the Policoool in the refrigerator at 55 F is preferred and can yield significantly better results if this temperature is maintained. Azuradisc currently is testing Chiller technology to hold this temperature down at 55 degrees F even during continuous operation and recirculation. Liquid temperatures can also be reduced with the usage of mixers which can aerate the liquid reducing the temperature enough to prevent- ing a temperature rise above 120 degrees F.</p>
<p>Hyper Extended Life-</p>	<p>Pads lasting well beyond 12,000 seconds has been recorded repeatedly in Azuradisc laboratory experiments when applying the correct pressure to the pad and maintaining liquid Policoool tem- perature of a steady 55 Degrees F. The Policoool was also continuously mixed for consistency in distribution of the cooling agents throughout the entire experiments while recirculating the same Policoool in a closed loop environment. It is well known and documented that the primary reason for pad failure is one or more of the above mentioned problems, all of them leading to excess heat, which yields repeatable failures when the temperature exceeds 120 degrees. All of the above problems have been identified as preventable.</p>

MAINTENANCE

CHANGE PUMP TUBE



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



Step 2:
Remove and replace hose.



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

CLEANING YOUR UNO

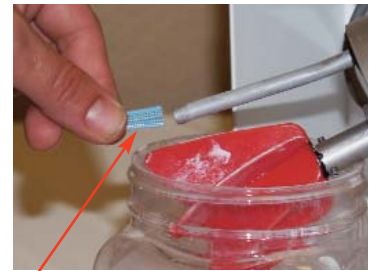


Step 1:
Mist repair chamber with Azuradisc Spray Cleaner.

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

Step 3:
Repeat as needed until clean.

CLEANING YOUR UNO PERMA FILTER



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

LUBE QUICK LOAD SLIDERS VERSION 2



Step 1:
Remove set screw by turning counter clockwise.



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.

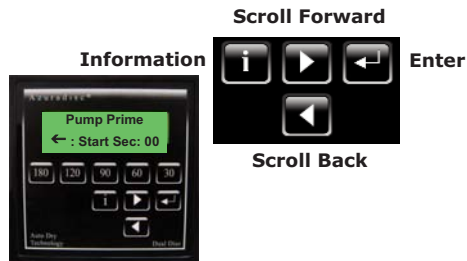
Step 1:
Set an empty PoliCool™ container under drain as a catch.



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



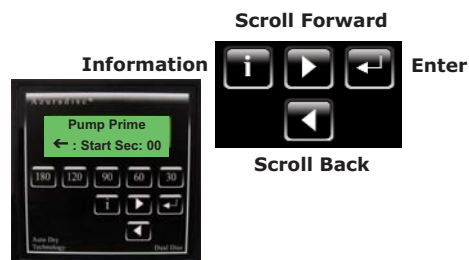
Step 3:
Run “Prime Cycle” until fluid runs clear.



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



Step 5:
Remember to run Mixer and “Prime Cycle” when a new PoliCool™ is inserted.
(Also run if machine has been left unused for any period of time.)



Step 6:
Wipe the Machine Down with a dry clean cloth. Do not use any chemicals.

Azuradisc Spray Cleaner is safe to use to clean up the machine.



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 **WARM** distilled water using the "prime cycle."
(See page 17 in the User's manual)

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United States
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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.

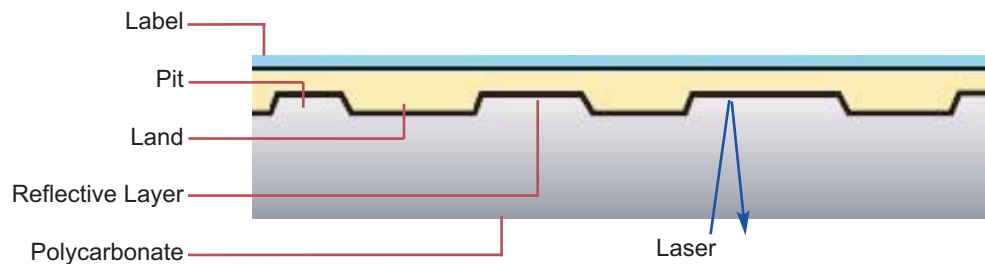


1. A disc is created from molten polycarbonate and digital information is stamped on the top of the disc, while it is still near melting point, using a die with microscopic bumps. These bumps are known as “pits and lands”.
2. After the information is molded into the polycarbonate, a reflective foil layer is applied using a process called sputtering or wet silvering. This layer reflects the laser back to the player, so its 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.



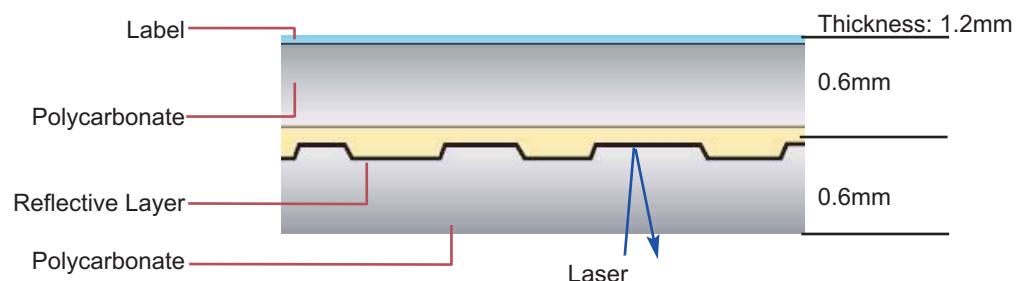
HOW A DVD IS MADE

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.

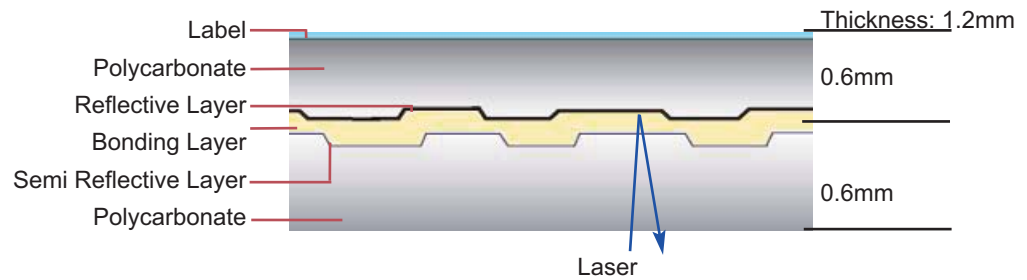
Single Layer DVDs (DVD-5 - 4.7GB)

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



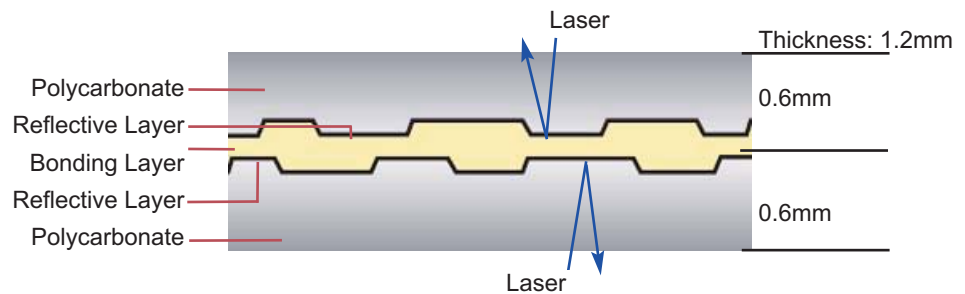
Double Layered DVDs (DVD-9 - 8.5GB)

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



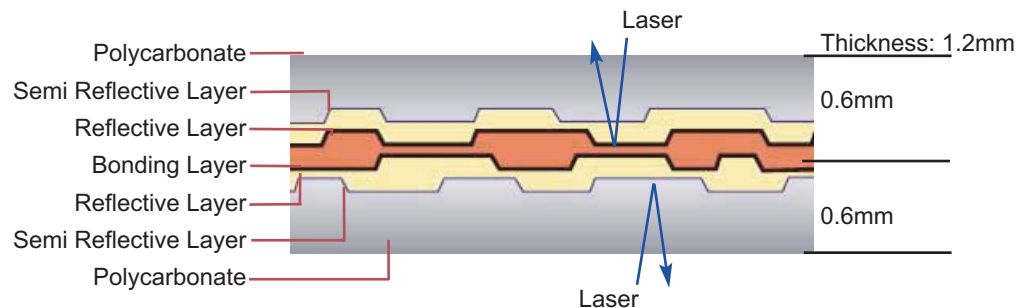
Double Sided DVDs (DVD-10 - 9.4GB)

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 or 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.



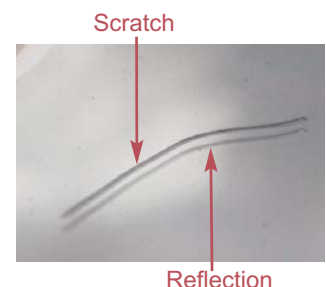
IDENTIFYING SCRATCHES

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.

Light passes through the disc.

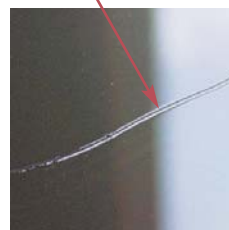


Top Side Foil Dents

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.

No double image



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**

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 DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR 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 OTHERWISE, FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE WARRANTED PRODUCT WITH RESPECT TO WHICH SUCH DAMAGES ARE ASSERTED, 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 purchased 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. Normal wear items include but are not limited to, Mixer Pump, Latch Assembly, Radiator Cooling System, liquid hosing, rubber gripping mat and polish pads.

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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