

OPERATIONAL MANUAL
for the
HYDRAMATIC
AUTOMATIC POOL COVER SYSTEM



*Exclusive Manufacturer of the Hydramatic
Hydraulic Swimming Pool Covers*

2007 Revision
AQUAMATIC COVER SYSTEMS
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Be sure to read this manual for your safety, and care of your cover system. Your cover is one of the most advance designs in automatic covers and has one of the best warranties in the industry. However, improper care and operation may severely limit your warranty and life of the system.

Table of Contents

Important Safety Instructions	Page 2
Cover Safety	Page 3
Recommended Maintenance	Page 4
Operating Instructions	Page 5
Removing Rainwater from Pool Cover	Page 6 & 7
Rope Alignment and Rope String Up	Page 8
Hydraulic Pressure Adjustment	Page 9
Track Extrusions, Sliders, Guides & Pulleys	Page 10
Replacing a Guide	Page 11
Replacing a Slider	Page 12, 13 & 14
Winterizing your Cover & Recess Maintenance	Page 15
Fabric Facts and Patching your Cover	Page 16 & 17
Salt Water Systems and Pool Cover Maintenance	Page 18
Reference Guide	Page 19, 20 & 21
Quick Guide To Maintaining Your Cover	Page 22
Skew Adjustment	Page 23



IMPORTANT SAFETY NOTICE

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

READ AND FOLLOW ALL INSTRUCTIONS

WARNING - TO REDUCE THE RISK OF INJURY, DO NOT PERMIT CHILDREN TO USE THIS PRODUCT UNLESS THEY ARE CLOSELY SUPERVISED AT ALL TIMES.

REMOVE STANDING WATER - A CHILD CAN DROWN ON TOP OF THE COVER.

NEVER OPERATE THE COVER WHILE SOMEONE IS IN THE POOL OR SPA.

NEVER LEAVE THE COVER PARTIALLY OPEN.

WALK ON THE COVER IN AN EMERGENCY SITUATION ONLY.

A WIRE CONNECTOR IS PROVIDED ON THIS UNIT TO CONNECT A MINIMUM NO. 8 AWG (8.4MM²) SOLID COPPER CONDUCTOR BETWEEN THIS UNIT AND ANY METAL EQUIPMENT, METAL ENCLOSURES OF ELECTRICAL EQUIPMENT, METAL WATER PIPE, OR CONDUIT WITHIN 5 FEET (1.5M) OF THE UNIT. CONNECT TO A GROUND FAULT INTERRUPTER (GFCI) CIRCUIT.

FOR INSTALLATION IN A COVERED TRENCH OR COVERED ENCLOSURE ABOVE GROUND OR IN A BENCH AT THE END OF THE POOL.

SAVE THESE INSTRUCTIONS

COVER SAFETY

Sources: Drowning Prevention Society; United States Consumer Product Safety Commission; Association of Pool & Spa Professional's Operation Water Watch; and the American Academy of Pediatrics.

Child Monitoring Devices: www.safetyturtles.com

You can find other safety tips at: www.firstgov.com input 'pool safety' in the search engine.

A swimming pool can provide your family with hours of entertainment and the opportunity for healthy recreation. As a pool owner, be aware that you must secure your child's safety. There is a risk of a child drowning when around any body of water. There is no substitute for constant adult supervision. Most drowning occurs during a five minute or less lapse in supervision. By providing barriers between your child and the pool, you can avoid a tragic accident should your child momentarily slip out of sight.

- Don't rely on one system - laying safety precautions provides the strongest safeguard.
- Never leave a child alone - not even for a second.
- Maintain constant eye contact with your children when they are in and around the pool.
- Do not consider young children water-safe because they have had swimming lessons.
- Instruct baby-sitters about the potential hazards to young children in and around swimming pools and the need for constant supervision.
- Train all caretakers in life-saving, cardiopulmonary resuscitate and first aid. No exceptions.
- Install a telephone pool side with emergency numbers posted.
- Keep toys away from the pool when the pool is not in use. They can lure a child into the pool.
- Use inflatable toys only under adult supervision. They may deflate or your child may slip off.
- Post and enforce rules such as No Running, No Pushing, No Dunking, and Never Swim Alone.
- Make sure you have a rescue devices accessible pool side.
- Keep all doors and windows leading from the house to the pool area secure. Install self-closing mechanisms on doors.
- Enclose the pool with a barrier. In fact, fencing may be required in certain areas. Check with local city or county building code for more information.
- Install only child-proof, self-closing, self-latching gates around the pool.
- Vertical bars on a pool fence should be no more than three-and three-fourths inches apart. Avoid fences such as chain link that provide footholds for the little climber's feet.
- Place table and chairs well away from the pool fence to prevent children from climbing in the pool area.
- Alert your pool maintenance people, utility personnel, and your neighbors to keep cover, gates doors to pool closed and locked at all times.
- Check to ensure that spa and pool covers pass minimum safety requirements set by the American Society of Testing Materials, ASTM F1346-91.
- Never use a pool with its cover partially in place since children may become trapped under it.
- Beware of a free-floating pool cover. A child can slip beneath one unnoticed.
- Realize that a child can drown in as little as two inches of water. Remove any standing water off of your spa or pool cover.
- Investigate using a pool alarm and/or a monitoring system that can be worn by a child.
- No objects should be in the pool area for a child to climb on and into the water.
- Inspect safety and pool equipment regularly. Preventive devices are only effective if they are in proper working order.

Recommended Maintenance for your System

Monthly Maintenance

1. Spray fresh water on the ends of the cover roll-up drum, and rope take-up reels.
2. Hose out tracks and then spray silicone in the track (water based silicone only, such as LPS).
3. Check drainage on cover recess. (for recessed systems)
4. Check skew adjustment.

Bi-Annually Maintenance

1. Clean out cover recess Spring and Autumn.
2. Check wear on sliders and guides and pulleys.
3. Check hydraulic fluid level (ideal 2" below cap).
4. Clean cover with mild dishwashing soap (or biodegradable cleaner like Simple Green).
5. Check skew adjustment.
6. Check fabric for pliability and integrity of reinforced mesh scrim.
This usually manifests itself by a "thinning" appearance.
7. Check drainage in cover recess.

Annual Maintenance

1. Replace sliders and guides (*normal wear*) if necessary.
2. Clean out cover recess.
3. Check skew adjustment.
4. Check fabric for pliability and integrity of reinforced mesh scrim.
This usually manifests itself by a "thinning" appearance.
5. Check drainage in cover recess.

2 - 3 Year Maintenance

Replace all pulleys.

Maintenance on your Salt Water System

Monthly Maintenance

1. Maintain salt levels below 3000-3200ppm. Salt levels of 4500-5500ppm can be corrosive even without the generator operating.
2. Spray down mechanism, rope reels and end castings with fresh water. After thorough spray down use a soft brush to loosen salt particles; and then spray down system again.
3. Install a Zinc Anode to prevent galvanic corrosion.

OPERATING INSTRUCTIONS

Your cover is designed to be a protective safety barrier as it floats on the water surface and can easily support the weight of several adults in an emergency situation. However, playing or jumping on the cover should be discouraged.

WALK ON THE COVER IN AN EMERGENCY SITUATION ONLY!

General

Sharp objects may puncture the cover fabric. Also, walking on the cover may also cause the fabric to pull over to one side and affect the way it rolls up on the cover drum causing the cover to become temporarily out of skew.

For security and safety, your HYDRAMATIC cover is supplied with a **spring-loaded**, key-operating switch. **When you release the key switch, the cover will stop.** This is required by ASTM F1346-91 standards and by various state and local codes. It also prevents the accidental covering of swimmers when the cover is being closed. The key must be removed from the switch to prevent unauthorized persons and/or children from operating the pool cover.

Opening and Closing the Cover

There are two important SAFETY rules:

- 1. NEVER OPERATE THE COVER WHILE SOMEONE IS IN THE POOL OR SPA!**
- 2. NEVER LEAVE THE COVER PARTIALLY OPEN!**

To open or close the cover, simply turn and hold the key switch in the direction of desired travel until the cover is completely open or closed.

Your Hydramatic has a built-in **pressure relief by-pass system** which stops the cover when it encounters a resistance, such as an obstruction in the track or the pool wall at the end of travel. Clearly, the operator should then immediately release the key switch which stops the cover which prevents unnecessary loading on the pool cover mechanism, ropes and fabric. The best approach is to release the key just a moment before it reaches fully open or fully close and to treat the pressure relief by-pass as a back-up in the event you slightly over-run the cover. In the event you stop short of completely open or closed, jog the key switch to obtain the required position.

The cover switch should NOT be rapidly reversed while the cover is in motion, as this may cause the cover to remain traveling in the same direction.

NEVER FORCE THE COVER! If the cover starts to hesitate or labor in travel, stop or back up the cover slightly and try again.

Removing Rainwater from the Cover

IT IS IMPORTANT TO KEEP WATER OFF THE COVER WHENEVER POSSIBLE FOR TWO SEPARATE REASONS:

Safety - water left on top of the cover may still be unsafe for small children. Stepping on part of the cover will create a low area towards which water will flow. Hence, 1/2" of water will become a puddle 4 to 6 inches deep.

WATER ON TOP OF THE COVER IS THE SAME AS NO COVER AT ALL.

Your Hydramatic cover *may* be equipped with easy-to-use, built in, patented rainwater removal system which removes the water from on top of the cover, as the cover is retracted into the recessed housing or bench. Normally it should take only a few minutes to remove all of the water from the top of the cover.

** Not all covers are equipped with this option. Limitations are due to size, pool design relative to vanishing edge and spa placement. Aquamatic reserves the right to exclude this from any system without notice **



*****If you have any more than 1" of water on top of your pool cover, the cover pump is needed.*****

There are two types of rainwater removal systems

Zipper-enclosed screen system for the Under Track units (Hydramatic only)

With the cover still in the closed position, reach down and pull the zipper open the entire width of the cover. As you retract (open) the cover, the surface water on the cover will begin to dam up at the mechanism end until the leading edge of the cover is back far enough to allow the water to flow through the screen mesh pocket into the swimming pool.

Take caution, do not bring the cover back too fast! When the leading edge bar of the cover starts to bow down, release the key switch until the lower edge of the screen mesh comes back up to the surface of the water, then retract the cover some more, normally about a foot or two. Continue this procedure until the cover is completely retracted.

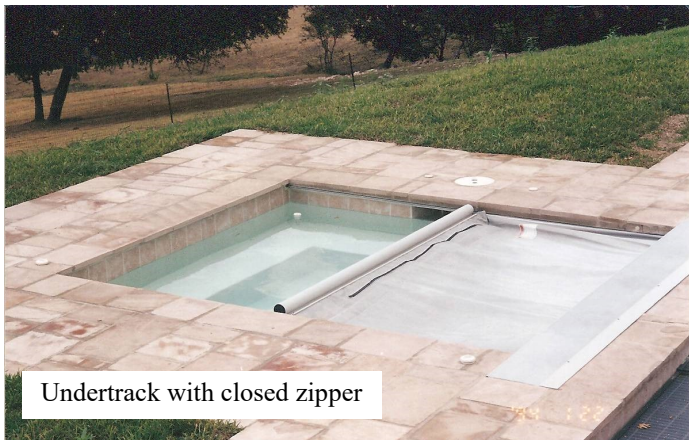
Run the cover slightly forward from underneath the unit lid to expose the zipper, and with your hand, remove the debris from the mesh pocket. Zip the pocket back up before closing the cover or it will scoop water back up as it travels across the pool.

Note: Vanishing edge, Lift-Lid, and other hidden (inverted) leading edge installation will likely exclude this option.

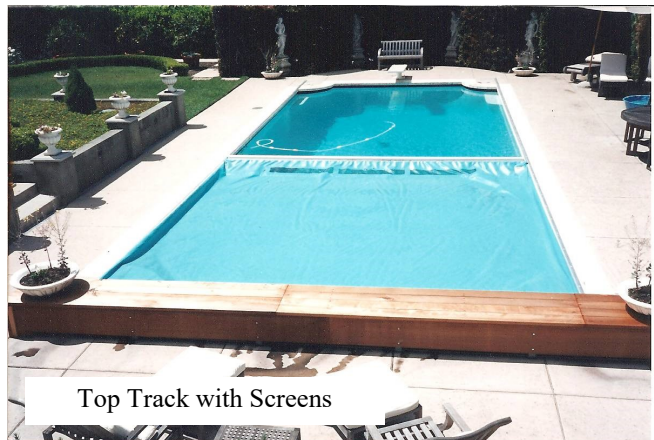
Open mesh system for the Top Track units (Hydramatic only)

Use the same procedure as above, except there will be no opening of the zipper. There will be more of a damming action on the top track units, so you will have to take more time to drain the water on these systems. This is due to the fact that the track sits at a greater height from the water surface than an undertrack installation.

Removing Rainwater from the Cover - continued



Undertrack with closed zipper



Top Track with Screens



Cover Pump

Cover Pump

A third, top-of-the-cover water removal system, which has been supplied with your unit, is an automatic cover pump. With this system you must attach a garden hose to the pump's outlet side, plug it into a standard GFCI outlet, and place it near the center of the cover. Read the instructions supplied with the pump for assembly. Be sure the outlet hose is run out of an area that has adequate drainage away from the swimming pool. *The pump is covered under the manufacturer's warranty. For service, return it to the cover pump manufacturer's service center.*

Removing water from the cover with these pumps may take up to several hours, after which time, the pump, outlet hose and electrical cord must be removed from the cover before retracting it and then be placed back on the cover after it is closed.

This automatic self-starting pump has been supplied with the cover in order to conform to ASTM F134-91 standards.

The intent of this standard is to require a means of removing water from the top of pool covers during the owner's absence, especially during the rainy seasons.

If you are going to be absent from your pool, it is advised that you arrange for a responsible person or neighbor to periodically check the cover surface for water and remove it if needed, using the built-in system. If you are using your cover pump, have that person make sure that it is working properly.

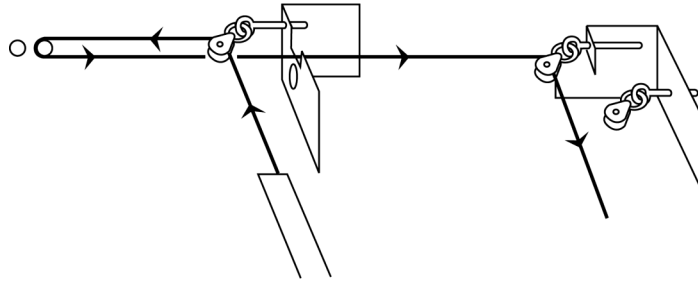
Note: On non-rectangular pools and top track systems you will need to sweep any appreciable water off of the top of any part of the fabric which is resting on the deck area. Attempting to move the cover without doing the above will severely stress and overload the system.

Note: In some extreme storm conditions, you may find it easier to leave the cover open during these times. Once that weather has subsided, return cover to the closed position. Include high winds in this condition.

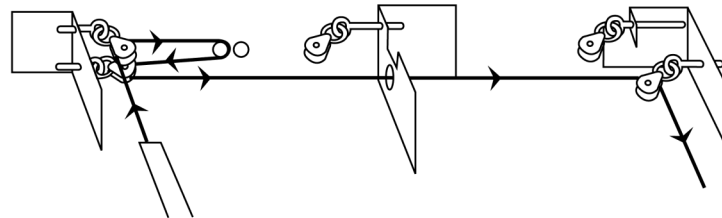
Note: If the pool or spa are drained, **DO NOT** keep the cover on the pool, retract completely.

Left Hand Motor Unit Rope String-Up

Left Hand Motor Unit Rope String-Up

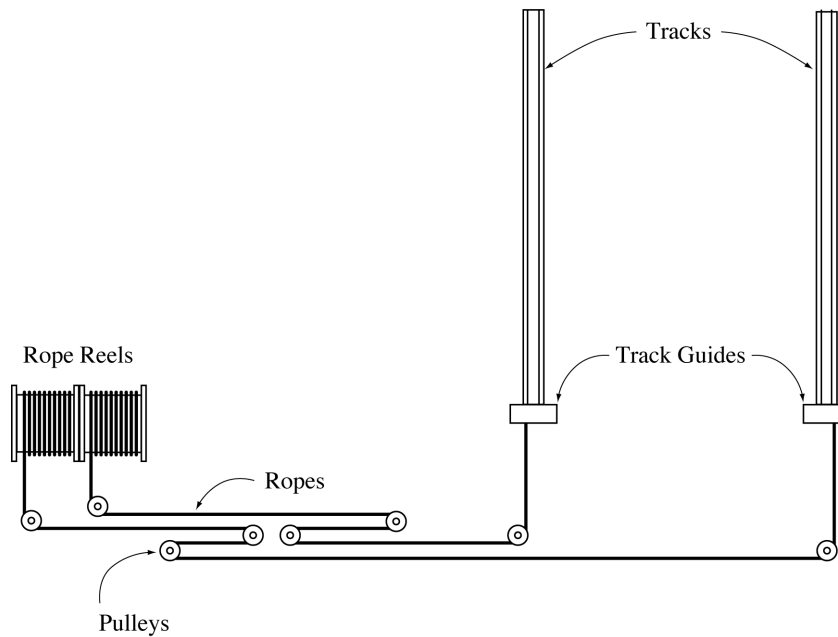


Motor side rope routing



Non-Motor side rope routing

ROPE ALIGNMENT, TOP MOUNT



Please note that the compensating pulley and pulley brackets are not to scale. This rendering is only meant to show proper rope mounting.

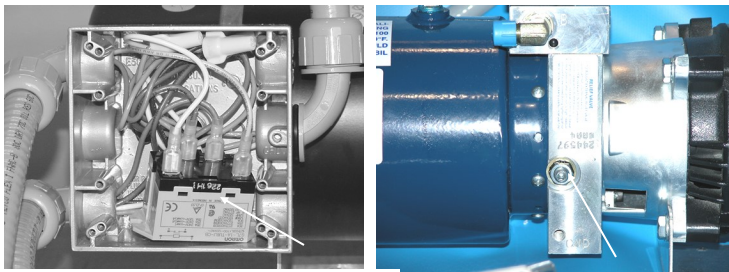
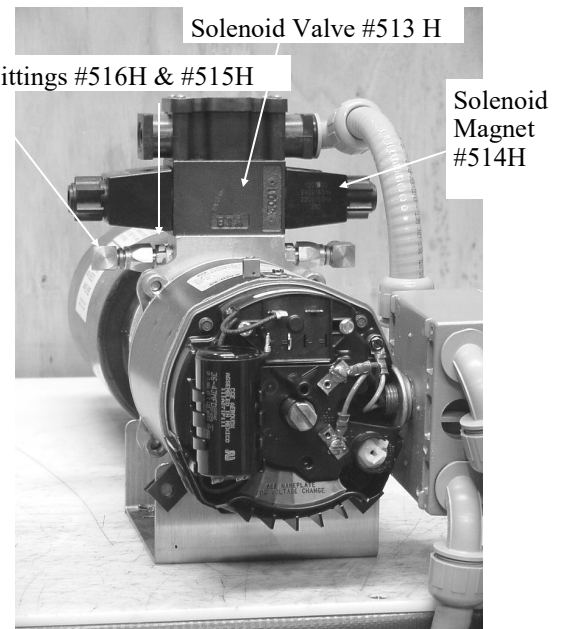
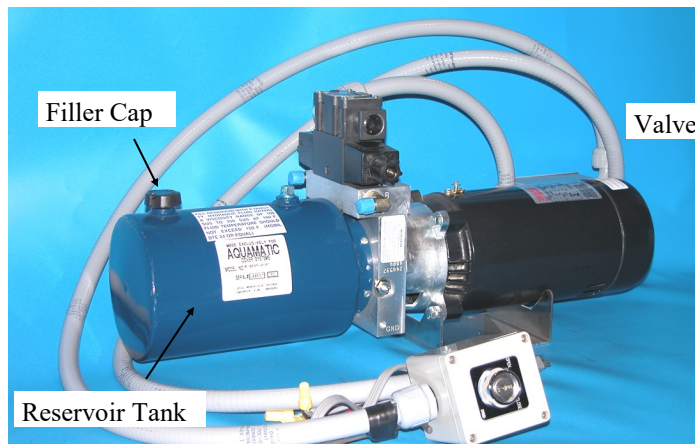
Hydraulic Pressure Adjustment

The amount of pressure that the powerpack (hydraulic pump) supplies to the hydraulic motors is more or less directly related to the amount of torque or turning power that the motor can produce. Less pressure-less torque, more pressure-more torque. Since you are using the pressure as a sensor to stop the cover when it reaches the end of travel or meets an obstruction, you want to set the pressure just high enough to make the cover move, but low enough so that it will stop when it meets an obstruction.

At the powerpack, there is an adjustable pressure relief valve. This is a spring-loaded screw valve, which will allow hydraulic fluid to bypass back to the reservoir above a certain pressure setting. If the pressure needs to be adjusted, refer to the following:

The pressure can be adjusted with a minimum amount of effort. The adjustment valve is located at the three o'clock position, mid pack (looking from the tank end). *See diagram below.* Loosen the 9/16" nut with a socket. While holding down the nut, screw the 3/16" Allen set screw in, to increase the pressure. This can be done by inserting the Allen wrench through the end of the socket. Tighten the nut to reseal the adjustment. Make only small adjustments at a time; 1/4 to 1/2 turns. Check to see that the cover operates in both directions without any hesitations. Repeat adjustment if necessary.

It is very important to make sure that moisture and dirt stay out of the hydraulic fluid. Normally, the only place that it might enter the system is through the powerpack's fluid reservoir filler cap. Make sure that it is always on. **Dirt and moisture can severely affect the life of the pump and hydraulic motors.**



It is recommended that you arrange to have your fluid changed at least every ten years to make sure that the system remains in top condition. This can be done

simply by removing the filler cap of the reservoir and inverting the powerpack to drain the old fluid. Pour the old fluid into an approved oil reclamation container. Replace the fluid with automatic transmission fluid (Dexron type only). You may need approximately 3.5 quarts to fill the reservoir. Run the system several times and repeat the draining and filling process as described above. Only fill the reservoir to within 1-2 inch of the top to allow for fluid expansion.

Track Extrusions

The tracks on the undertrack units will usually stay free of debris, so there should be no need to clean these.

The tracks on the deck (top and flush) tend to accumulate debris, especially if the cover is left off of the pool for extended lengths of time. In order to clean the tracks out, simply use a garden hose with a pressure nozzle attached and spray down the exposed inside edge of the track. If your pool environment is in an area with a lot of blowing sand or dirt, you may need to clean out the tracks more often, in some cases even once a month. If you are on a weekly or bi-monthly pool maintenance program, then you could have it added to the maintenance routine.

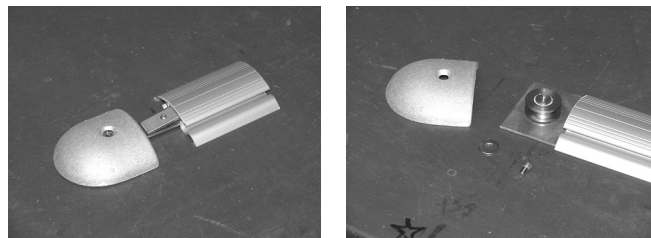
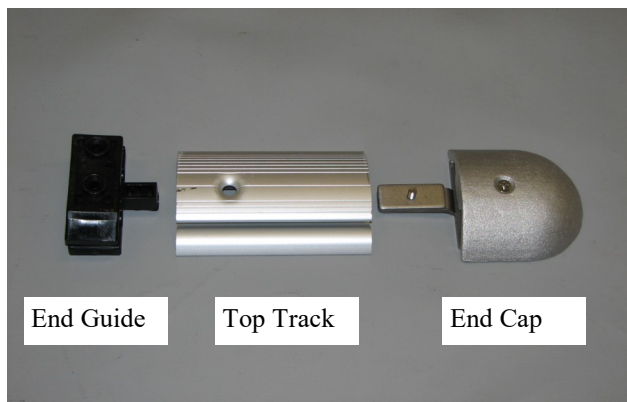
Lubrication of Track

Using water based Silicone spray such as LPS (**NOT** WD 40 or similar oil based products). Spray along aluminum tracks where the slider will travel. Lubricate between black slider and stainless steel leading edge bar plate. The bolt that attaches these two parts together should remain slightly loose to allow the leading edge bar to slide laterally from side to side. ***Excessive wear on sliders will result if tracks are not lubricated and may result in abnormal wear on the tracks, which would require non-warranty replacement.***

Changing a Pulley

The pulley end caps on the top track units should also be cleaned every six months, as this is a prime area for debris to be impacted. This is done by unscrewing the cap hold down screw and removing the pulley cap. Once removed, flush the debris out with water. **Always make sure that the system has NOT been operated for a least an hour so that the hydraulic pressure has bled off. Do not remove the pulley.** Reposition the pulley cap and secure the hold down screw, making sure that it is properly positioned and the rope is on the pulley.

Never run the system with the pulley caps removed.



Sliders and Guides

The sliders and guides are wear surfaces. These parts should give you many years of use if properly maintained. Periodically spraying a small amount of silicone spray on these pieces will significantly reduce the friction on these parts. Also, keeping the track cleaned as described previously will reduce the wear on the sliders.

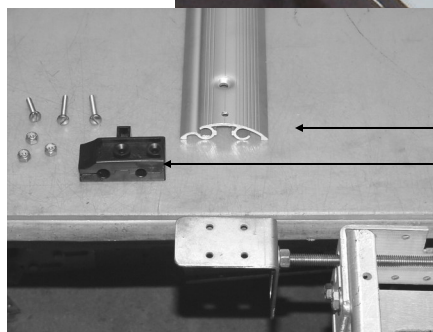
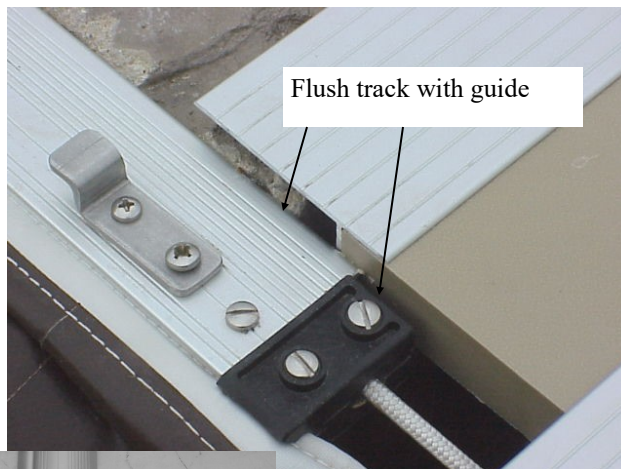
Track guides (black delrin piece at end of the track, as shown above) wear because of the movement of the fabric across them as the cover travels across the pool. These ensure that the fabric feeds into the track. When they wear down a point that allows the fabric to pull out of the track, there can be severe damage caused to the edges of the fabric. Therefore, it is necessary to replace these as they become worn. Guides can be replaced by the homeowner with relative ease.

Replacing a Guide

Top Track

To replace a guide the cover can be in the open or closed position.

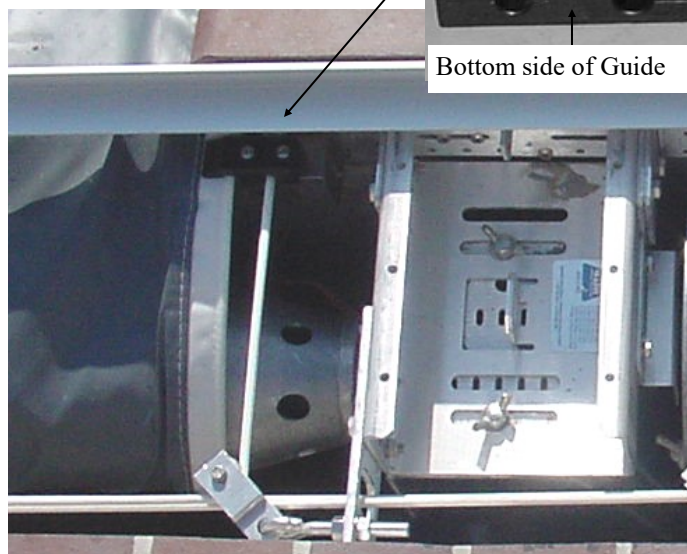
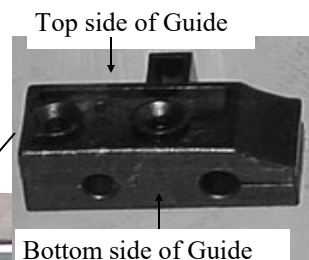
- 1). You should be able to have access to the guides from the front opening, if not remove the top of the bench.
- 2). Remove the 3 (3/8") nuts that secure the guide to the threaded studs.
- 3). Remove the top half of guide, then remove the bottom half. You may need to remove a track screw if the track cannot be raised to release the guide from the forward stud.
- 4). Replace bottom half of guide over forward stud, and secure nut.
- 5). Make sure rope and cover are properly seated in the bottom half. Secure top half with the two remaining nuts.



Top track
Guide

Under Track

- 1). Take lid off the cover recess.
- 2). Remove the (3) screws and 3/8" nuts that hold the guide to the guide bracket.
- 3). Remove top half of the guide.
- 4). Remove bottom half of the guide.
- 5). Replace the bottom with the tab in center groove of the track, make sure rope and cover are properly sealed in bottom half grooves.
- 6). Replace top half of the guide.
- 7). Re-secure nuts and bolts as required.

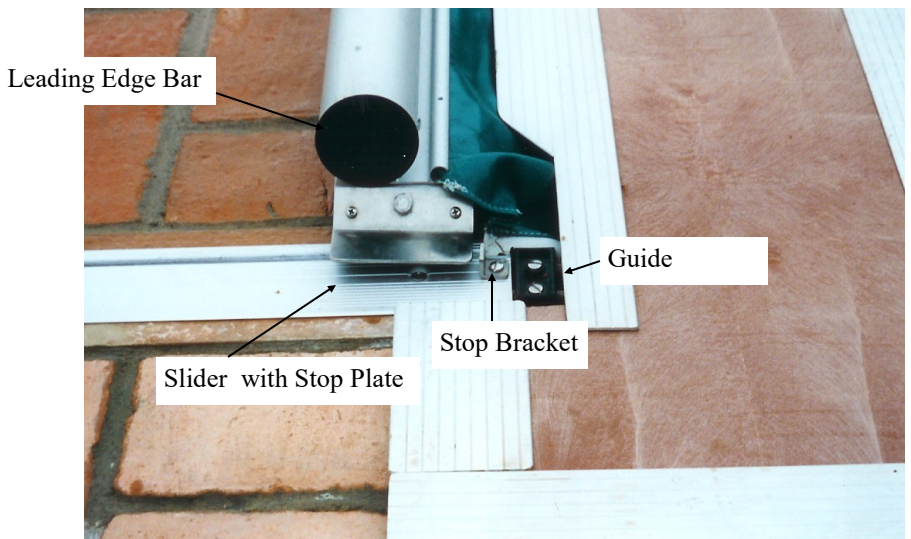


Replacing a Slider

Sliders (black delrin piece holding up front of cover) wear as they move along the length of the track. Maintaining the proper angle in the track will reduce some of the wear. The slider is secured to the rope at the front of the cover with two small screws. As the slider wears, the screws are exposed and will start to drag in the track. This causes the lower edge of the track to become marred. Aluminum shavings from the track is an indication that the sliders are worn out and need to be replaced.

The sliders can be changed by the homeowner but are somewhat more involved than any other maintenance repair.

The sliders can also be used to replace a rope in the unlikely event of breakage. Ropes are not part of the cover fabric warranty and may need replacing before new fabric is needed. Ropes, sliders, guides, pulleys and fabric edges (white webbing) are considered consumables and are not covered by the fabric warranty.

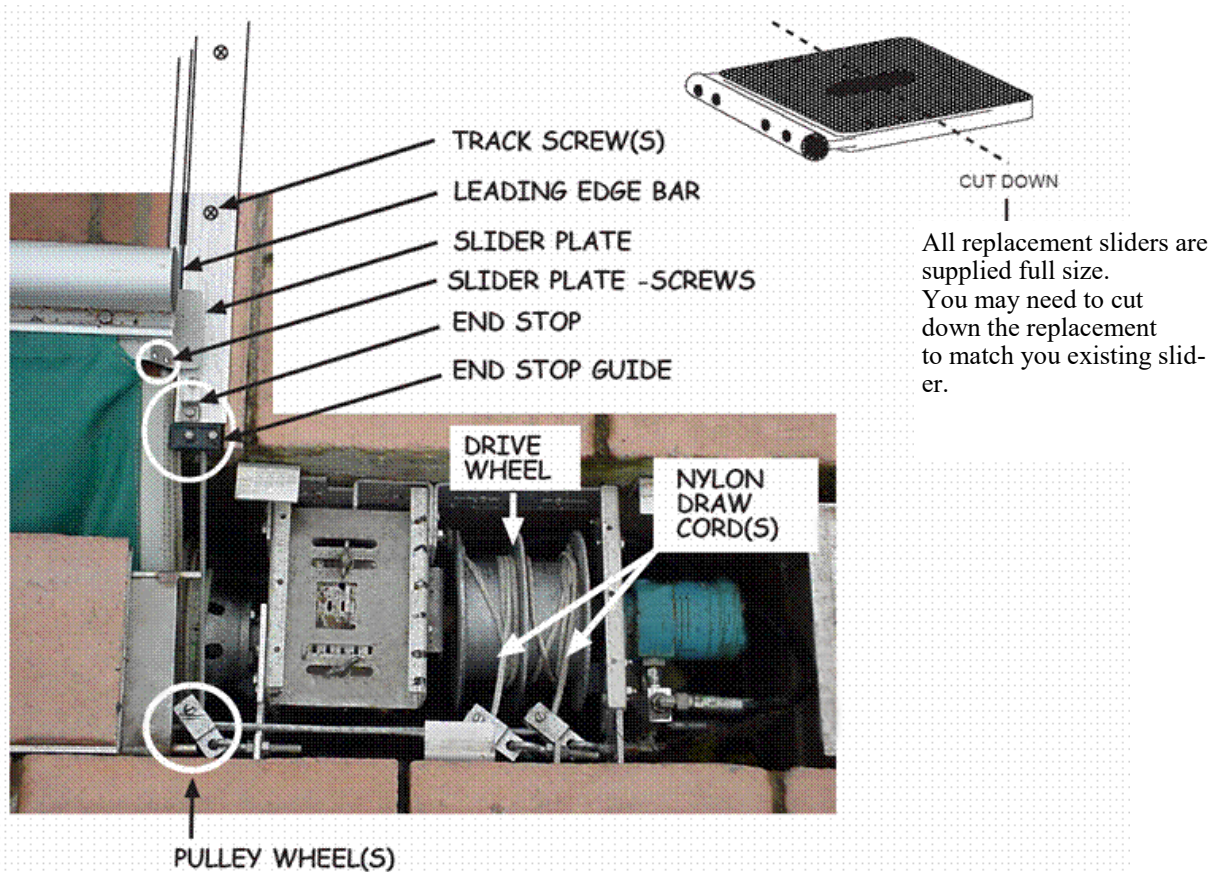


If you are replacing a slider due to wear and tear or as part of a maintenance program then it is advisable that the “end stop guides” are also replaced.

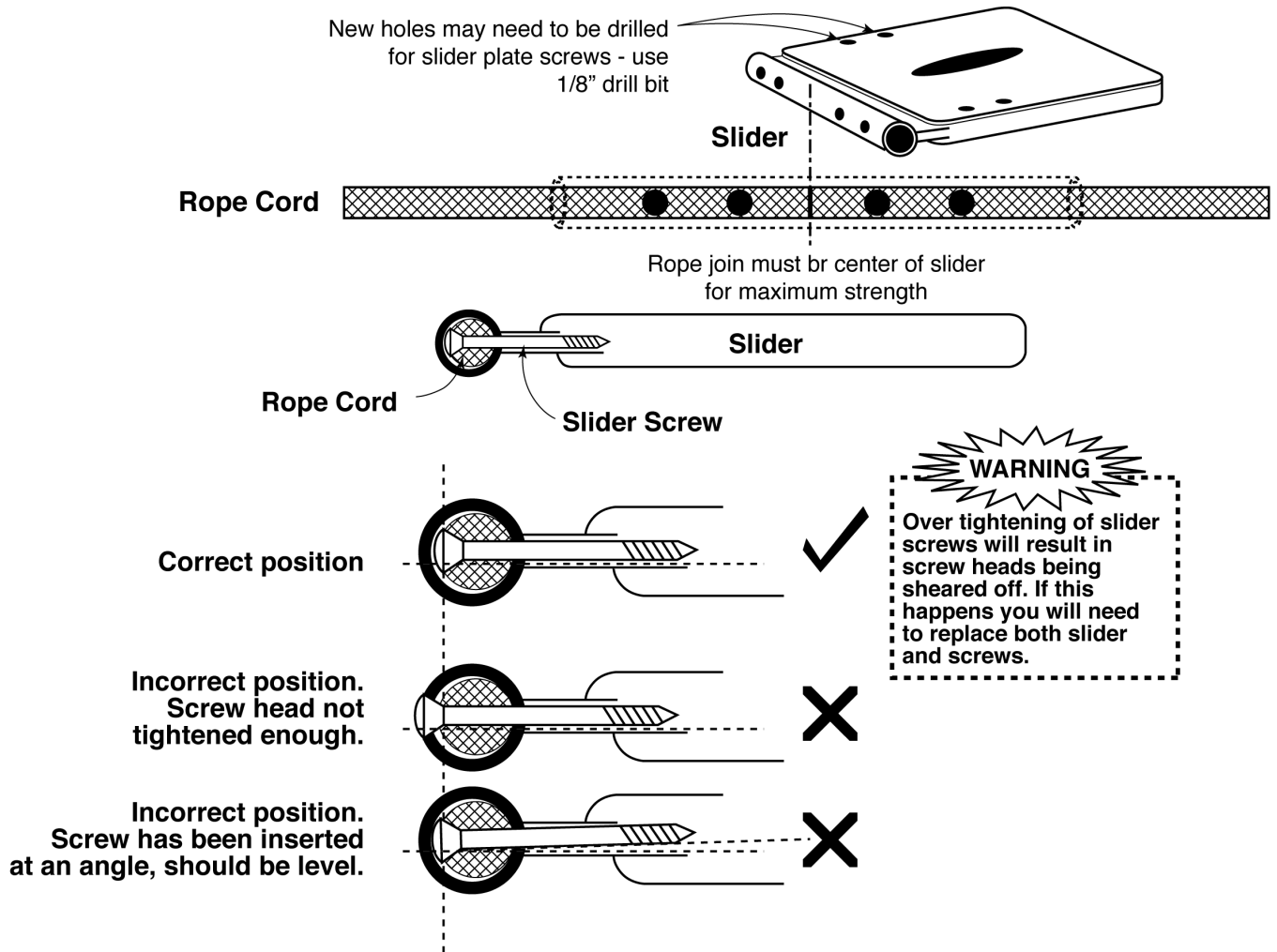
It is also advisable to change both sliders.

TO REMOVE A SLIDER

- 1). Fully retract the cover to the fully open position until the slider is as close to the track guide as possible.
- 2). Remove pit housing lid to expose drive unit.
- 3). Jog the key to open position to release tension on rope then, using your hands pull rope cords that are wound up onto the drive wheel this is required to release the tension on the cover fabric.
- 4). Remove two track screws. This will enable you to lift the track and enable ‘End Stop Guides’ to be removed.
- 5). Remove end stop and end stop guides.
- 6). Take slider out of tracks.
- 7). Remove slider plate from leading edge bar on flushtrack. On standard toprack or undertrack you need only to unbolt the slider.
- 8). Remove slider plate from slider undo 4 x ‘Slider Plate’ screws.
- 9). Remove slider from rope undo 4 x slider screws with a #0 Philips bit driver



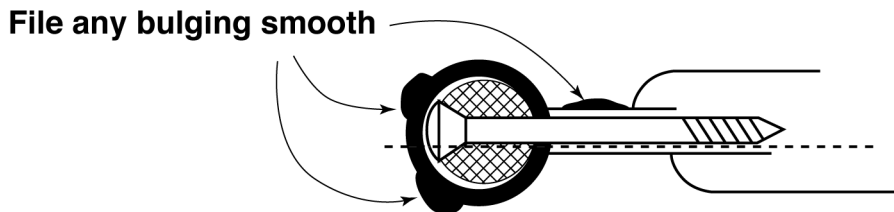
- 9). Place rope cord back into new slider GREAT CARE must be taken when replacing the new slider. It is **VERY IMPORTANT** that the slider screws are screwed down to the correct depth to prevent unnecessary wear and tear. See diagram below.



10).

When all four slider screws have been inserted slight bulging may occur in the neck and tub of the slider. If this happens take a small file and file the bulge level. See diagram below.

- 11). When you are satisfied that the slider is attached, reinsert slider back into the tracks and reassemble i.e. slider - slider Plate (using slider plate screws, new holes may need to be drilled) - leading edge bar.



NOTE: - When reassembling slider plate to leading edge bar make sure that they are free to move from left to right (this enables the leading edge bar to move back and for the preventing jamming). To identify the correct "free moving joints" LOCKING Nuts are used.

- 12). When all parts have been reassembled lubricate running tracks and leading edge 'free moving joint' with Silicone Spray (water based only) and check for skew adjustment.

Winterizing Your Cover

It is important to maintain the same water level all year. Pool covers do have a limit as to how much water, snow, and ice they can support. Without the support of water underneath the cover, tracks may pull down, and the cover may tear. Damage could also occur to the coping or may create a hazardous situation. A gallon of water equals (8) pounds, rain water accumulation can quickly result in a ton of water. ** In areas of high snowfall, open cover completely **

Do not run the cover below 40°F as this can create cold cracks in the vinyl

Inspect your water level at least once a week. *If you are intending to lower your water level when you close your pool for the winter, Aquamatic requires that you keep the cover rolled up in its recess or enclosure.*

Fall Maintenance: As freezing weather or the rainy season approaches, it is important to keep any standing water off your cover. Your cover pump can be left on the cover through freezing weather. Refer to cover pump instructions that are supplied in your cover pump box. (Any questions or warranty issues with the cover pump should be sent directly to the pump manufacturer and not Aquamatic).

Recess and Vault Maintenance

On undertrack cover systems, the cover recess, should be kept free of leaves and debris to allow rainwater and pool spillover to drain freely.

Although, moisture will not necessarily damage a hydraulic system, water should not be left standing in the pit, as the system should not be submerged. Also standing water will become stagnant and produce an offensive odor. Algae will also grow in such water and can be carried into the pool by the cover fabric being immersed in it.

If too many leaves accumulate in the pit, they will eventually rub on the cover as it winds up on the drum and possibly retard the cover operation. This will also cause the leaves to be carried back onto the pool by the cover fabric.

We suggest cleaning out the pit at least twice a year, once in the early spring, and again in the early fall. This can be accomplished by using a garden hose and spraying the debris towards one end of the cover recess and removing it with your hands and a wet-dry vacuum. **BE SURE TO ALWAYS WEAR GLOVES, AS SPIDERS, SNAKES RODENTS LIKE TO MAKE THEIR HOMES IN THESE LOCATIONS.**



Your Hydramatic Cover is designed to float on the pool water surface and will only function properly when the pool water level is maintained within 1 to 2 inches of its normal operating level.

Remember, a cubic foot of water weighs approximately 62 lbs. Therefore, 1 inch of water on a 20 ft. by 40 ft. cover is equal to about two tons of weight or about 4000 lbs. However, if the pool cover is completely supported by pool water, the net effect of the weight is essentially negligible.

FABRIC FACTS

Why is there extra slack, wrinkles or folds in the cover? There are several factors that we use in determining slack. The width of the pool, water level drop and the geographical area can all affect the amount of slack we use. The reasons we have slack or wrinkles in our pool covers are as follows:

Your pool cover is manufactured with extra slack in the cover for the following reasons

- The cover is designed to rest on the water to handle excessive surface loading from rain and snow loads. If the cover has less than 85% contact with the waters surface, damage to the cover, tracks, and coping can occur.
- Covers do shrink, the percentage does vary depending location and environment. Indoor pools may shrink more than an outdoor as they commonly heated year-round.
- If your cover becomes tight, the cover will bind, and will not open and close properly and is also no longer safe and will need to be replaced.
- To adjust and accommodate for variations and fluctuations in water levels.

The following cover maintenance will prolong the life of your Cover

- Inspect fabric for abnormal wear. *(See following page for details)*
- Maintain correct water level.
- Adjust skew when needed.
- Remove excessive bird droppings.
- Clean and maintain cover vault housing and keep drain clear of debris.
- Remove sharp objects from cover before opening the cover.
- Remove leaves, branches, sand and dirt or any organic matter from cover.
- Rinsing your cover off with fresh water every 3 to 6 months.

Chemicals for your Cover

An important thing to remember regarding chemicals and your new cover is that you will almost certainly have to change the frequency and/or quantity frequency that you add chemicals to the water. Where it was previously necessary to chlorinate your pool at a constant rate because chemicals dissipated at a constant rate, with proper use, the cover will substantially reduce the loss of chemicals.

Chemicals for your Cover - continued

- Avoid build up of excessive chemicals, which can cause improper chemical balance that can lead to premature deterioration of the vinyl cover. (This is not covered by the warranty).
- After adding chemicals to your pool, allow chemicals to circulate before closing the cover.
IF IT IS SAFE TO SWIM IN IT, IT IS SAFE TO COVER!
- High alkalinity (high pH) or high chlorine levels can begin to break down the cover prematurely.
- Some pH adjusters may create harmful levels of alkalinity (high pH) if not allowed to mix with the water before the cover is closed.
- Some chlorine shock treatments require as long as 12 to 24 hours to return to a safe swimming range.
- Making sure your water is balanced should be on top of the checklist before covering the pool for extended periods of time, such as winterizing.
- Double check the water after the chemicals have had a change to mix completely. This may require checking the pool water a day or two later.
- When covering the pool for long periods of time turn down ozone generators and chemical feeders to their lowest level. Constant long-term build up of ozone can damage the fabric.

Inspecting your Cover

You should inspect your fabric every six months for any leaks. Patch even the smallest holes as soon as they occur. If water penetrates the vinyl and comes in contact with the scrim (the thread reinforcing), the thread will soak up water carrying chemicals and contaminates to the inside of the material. This will lead to stiffening and or delaminating of the vinyl.

If you have a rip in the cover larger than 8" wide or a hole large than 6" in diameter, the cover should be returned to the factory so it can be patched on both sides, or if possible have the panel replaced with a new one. (this cannot be done on older covers or covers that are very weathered and dirty)

Patching a hole

The patch kit includes a 12" x 12" piece of fabric and a can of HH-66 adhesive. If you find a leak, you will need to clean the area around the leak and dry it thoroughly. Next cut the patch a minimum of 2" larger than the repair area. Cut the corners round to prevent peeling of the corners. Brush the adhesive on both sides of contact area, wait until tacky then press onto place and hold down with a weight for 15 minutes, and do not operate cover for at least two hours.

Patching should be done on both sides of the hole in the cover if possible.

SALT IN POOL WATER AND GALVANIC CORROSION ON AUTOMATIC SAFETY COVER SYSTEMS

“Galvanic corrosion tends to occur when dissimilar conducting materials are connected electrically and exposed to an electrolyte (salt in water). “This can be a direct contact or secondary connection such as a common grounding path. ¹ An example of dissimilar conducting materials is stainless-steel screws into aluminum. From 1962 to 1988, galvanic corrosion rarely occurred on aluminum components of automatic covers.

Since 1999 when Underwriters Laboratories (UL) dictated that all metal components of automatic pool covers must be bonded to the pool grid, we have seen an increase of galvanic corrosion on some of the aluminum components. In addition, the popularity of electric chlorinators where salt is added to the pool water has increased.

These two changes in the industry are the reason you may experience galvanic corrosion on some aluminum components. In the past it may have taken over 20 years for any noticeable corrosion. Today with bonded systems and salt water, reaction can occur within two to three years.

The salt in the water acts as an electrolyte which is a non-metallic electric conductor. When removed from the pool, the cover will deposit salt water on the mechanism end casting and main tube. If there are any “stray currents picked up” ² by the bonded pool grid, galvanic corrosion can occur starting where the stainless steel screws mount to the main tube and into the end casting. This corrosion will appear as a black pitting and/or a powdery white dust. The white dust is not salt: It is aluminum that has oxidized. Salt deposits may collect on parts such as guides and in the rope weave.

What maintenance can be done to reduce galvanic corrosion?

1. Several manufacturers of salt generators have indicated that there will be limited reaction to metals if the salt level is maintained at levels below 3000-3200 ppm. They indicate that salt levels of 4500, 5500 ppm and above can be corrosive even without the generator operating. Test the level and replace pool water if the salt levels are too high.
2. The mechanism should be washed down and brushed once a month if there is salt in the pool water. Spray down the rope reels and end castings with fresh water; with a soft brush to loosen salt particles; and then hose down again.
3. On installations without a salt system, maintain a clean cover recess with twice a year rinsing of the cover mechanism.

Salt in pool water and galvanic corrosion are not new to the industry. Salt generators were introduced over 25 years ago and those that were in the industry at that time recall some of the concerns and problems in conjunction with heaters, pumps, filters, handrails and light niches. Salt generators, like many other products, have positive and some negative factors; however, the most important issue is to maintain proper water chemistry and salt levels. Salt generators are convenient for pool owners, although many tend to neglect pH, alkalinity and salt levels. Regardless of the pool cover system, proper water chemistry is important to ensure the maximum life of the pool and pool equipment:

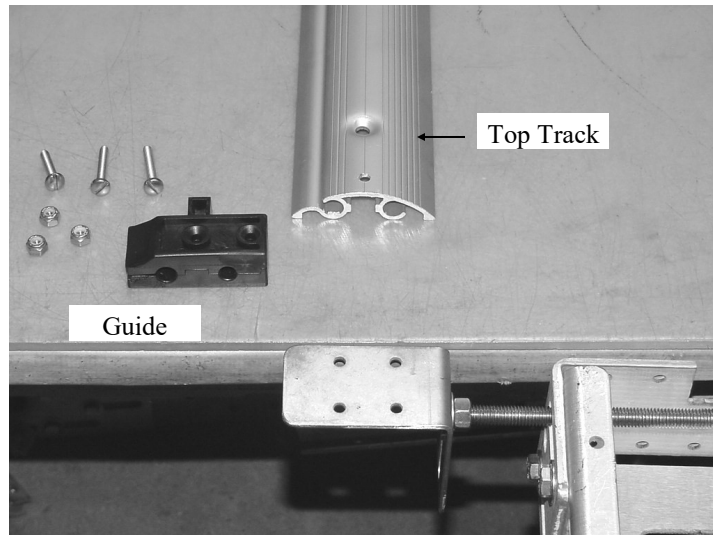
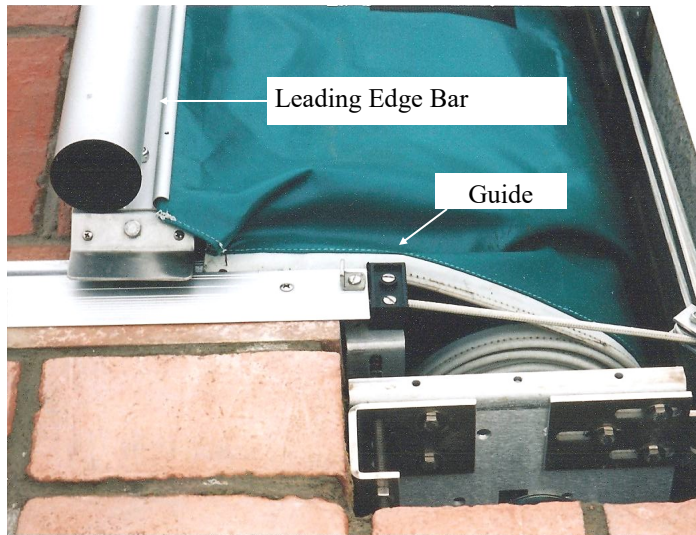
Chlorine levels:	1-5 ppm is a normal acceptable reading
Salt levels:	per manufacturers guidelines
PH levels:	7.2 - 7.8 ppm
Alkalinity levels:	80 - 120 ppm

The metal components of an Aquamatic Cover System are not warranted against galvanic corrosion created by salt water conditions; this is not a manufacturer’s defect.

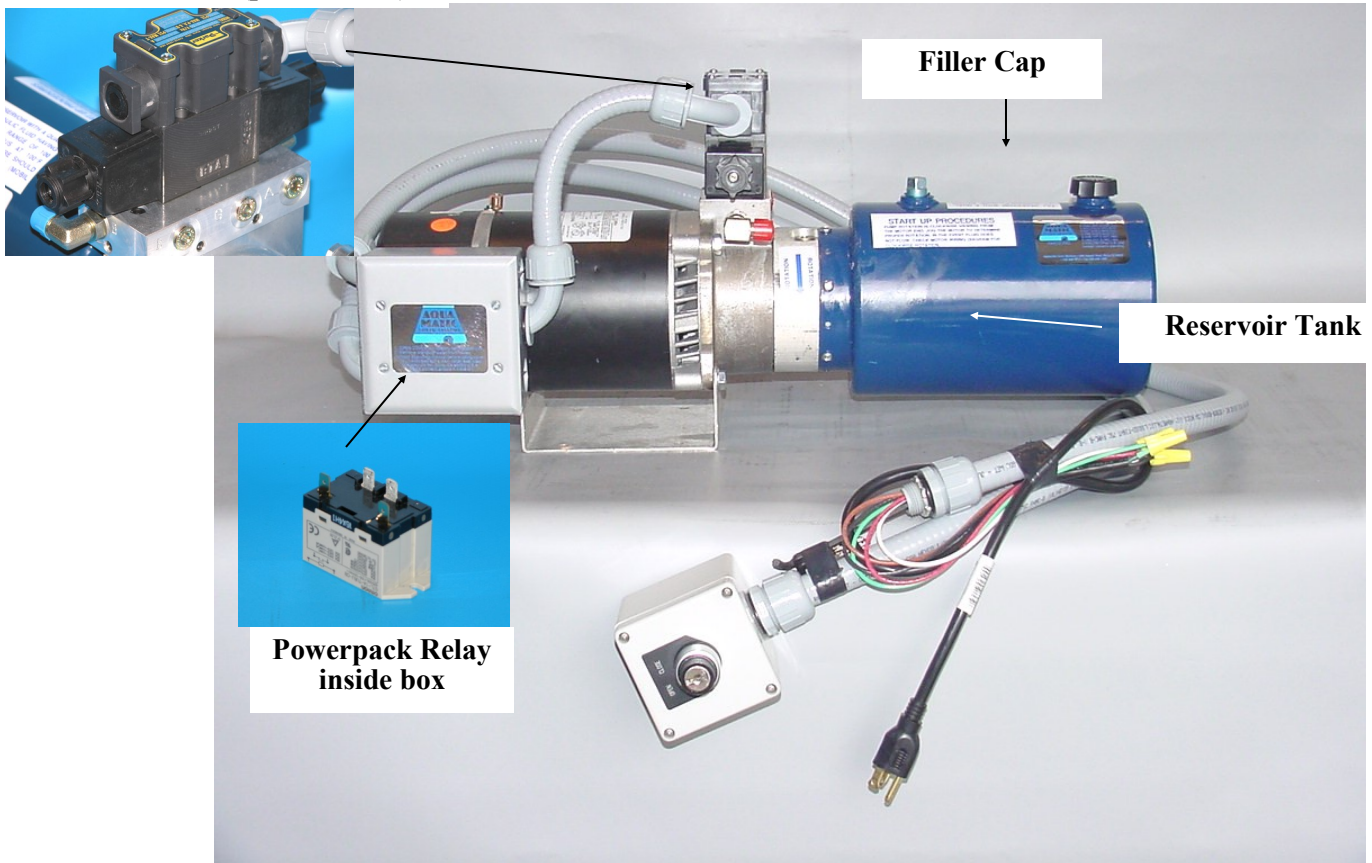
There is extensive information regarding galvanic corrosion on the internet.

Reference Guide

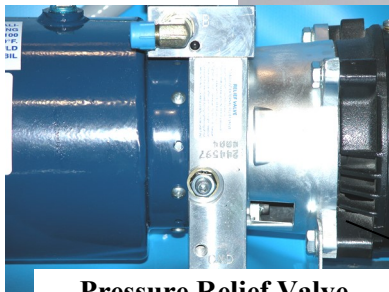
- 1). The sides of the cover are referred to as left or right when standing behind the drive unit facing the pool.
- 2). The guides are the black plastic pieces at the end of the track closest to the drive unit.
- 3). The leading edge (LE) is the 3" aluminum bar holding up the front of the cover fabric.
- 4). The tape is the white cloth webbing sewn down the entire length of the fabric on the left and right sides.
- 5). The sliders are the black plastic pieces that ride back and forth the length of the track and support the L.E.



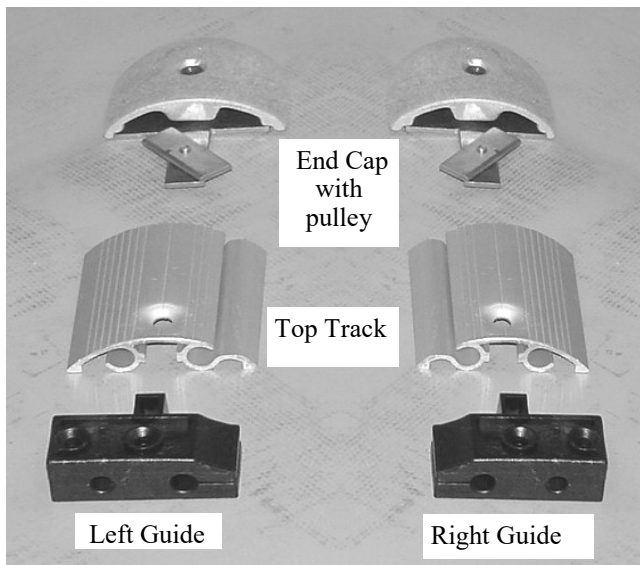
Solenoid Valve (part # 513H)



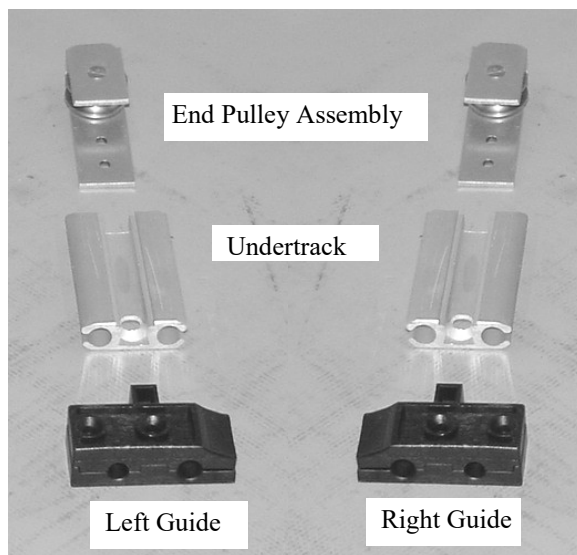
3/4 HP HYDRAULIC POWER PACK (part # 500H)



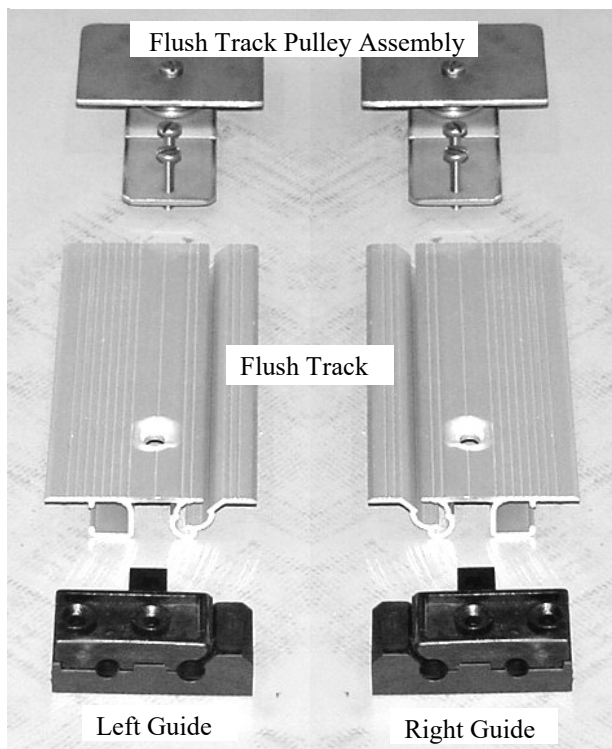
Top Track



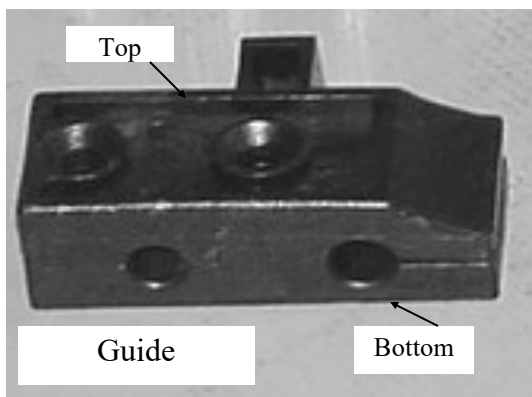
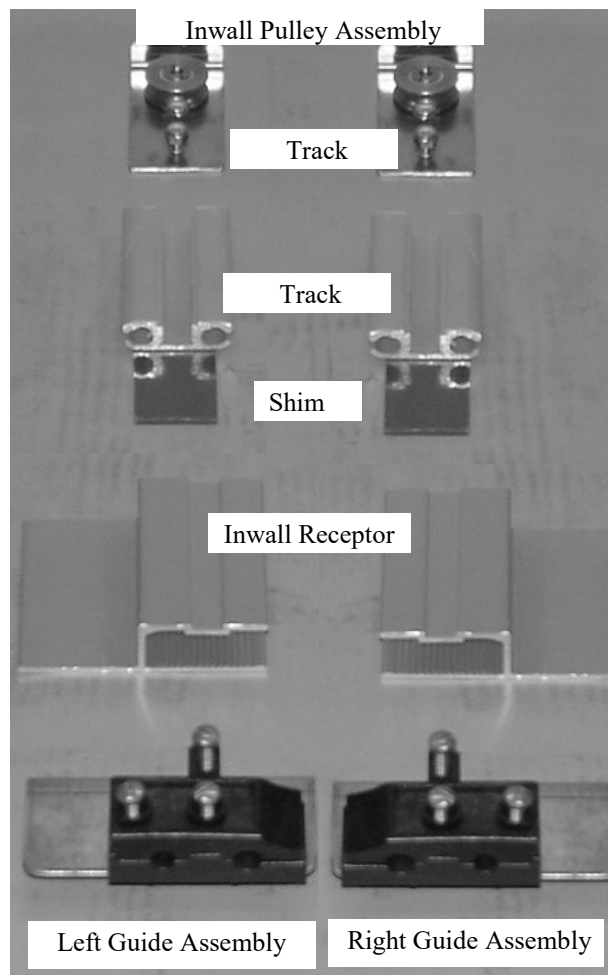
Under Track



Flush Track Top Track



Under Track Inwall Extrusion



QUICK GUIDE TO MAINTAINING YOUR AQUAMATIC COVER

*Please refer to your home owner's instruction manual for a more detailed explanation on how to use and maintain your Aquamatic System. *We recommend that only responsible adults operate the cover*.*

COVER OPERATION: To open the cover, insert key turn to "open". If you release the key, the cover will stop. Hold the key until the cover is within a few inches of the lid or bench enclosure. You can "bump" the key to bring the cover in some more. *Do not drive the cover hard into the end stop position*.

To close, make sure the pool is free and clear of swimmers, animals or any other objects. Repeat above procedure.

TRACK MAINTENANCE: - Hose or pressure wash aluminum tracks **regularly** to remove debris (particularly pine needles, dust, sand etc.).

LUBRICATION: - Using water based Silicone Spray only such as LPS (NOT W.D. 40 or similar oil based products) Spray Silicone along aluminum tracks where black slider will travel. Lubricate between black slider and stainless steel leading edge bar plate. The bolt that attaches these two parts together should remain slightly loose to allow the leading edge to slide laterally from side to side. **Excessive wear on sliders will result if tracks are not clean and lubricated and may result in an unnecessary service call!**

WATER REMOVAL:- Rainwater up to 1" can simply be removed by retracting the cover, any rainwater should pass through the built in screen mesh, if equipped with this option. Do not put unnecessary strain on the cover system, allow time for water to drain through screen mesh. (1" water depth on a 20 x 40' pool cover weighs 2 tons). During the rainy season, and/or winter months the cover pump should be left on at all times or if cover is left unattended for long periods i.e. holidays etc.

CHEMICALS:- It is important to maintain a proper chemical balance ideally pH 7.2 / Chlorine 2-3 ppm. If you are going to do a Shock treatment to your pool with a CHLORINE based product **NEVER immediately cover your pool as this will have severe adverse effects on the cover fabric**, wait until you have maximum chlorine level of 5ppm. **Pool water chemistry will seriously effect your cover fabric and is not covered under warranty.**

SKEW ADJUSTMENT;- See following page.

DO'S AND DON'TS

DO

Clean & maintain tracks at all times
Wash & maintain cover fabric
Keep pool covered when not in use
Remove surface water immediately
Maintain correct water level
Adjust skew
Inspect fabric for pliability and integrity of mesh scrim
Remove excessive bird droppings
Clean and maintain correct water chemistry
For Safety remove key from switch after use
Spray down mechanism, rope reels and end castings with fresh water, every month on Salt Water Systems

DO NOT

Walk on cover unnecessarily– it is not a toy!
Operate cover while pool is in use
Operate in very cold/icy conditions
Leave cover partially open
Hold key in open/closed position if cover is stuck
Use liquid or acid to clean fabric material
Close cover after "shock dosing" with Chlorine
Let animals or pets on cover
Leave maintenance equipment /toys on cover
Leave key in key switch at all times
Close the cover without water in the vessel

SKEW ADJUSTMENT - COVER ALIGNMENT

* A two to three inch variation on opening side to side is considered an acceptable tolerance. You may find this even more so on vanishing edges or freeform pools that have a lot of deck drag.

Step 1

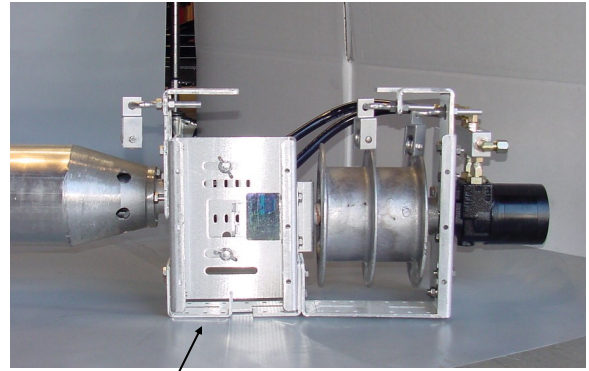
Prior to adjustment make sure that the cover is fully closed (i.e. fabric covers pool water) before attempting any skew adjustment. Remove pit housing lid.

Step 2

Loosen (do not remove) the two wing nuts (or 9/16 Hex Head Bolts) by two complete revolutions on drive unit. Insert a screwdriver into pre-cut slots (see diagram below) adjust roller tube.

Step 3

Depending on which way the skew needs to be adjusted will depend on which way you move the slots located on the drive unit.



Skew Adjustment

If for example, you need to move the leading edge bar towards the pit housing as in **fig. A**, you will need to insert a screwdriver and adjust the slots $1/2''$ - (10mm) at a time.

Step 4

Close and reopen the cover and repeat above procedure if more adjustment is required.

For surface mounted cover systems:- remove the end lid panel above drive unit, loosen the wing nuts and adjust the motor base by hand or by leveraging against a stationary area. The same principal of adjustment as described above applies.

On some Cover Installations more than one adjustment will be necessary until fabric material has been rolled onto the roller drum a number of times and created it's own memory.

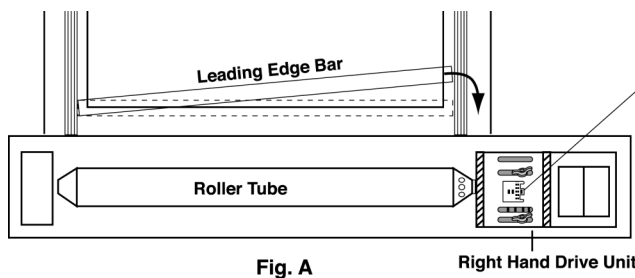
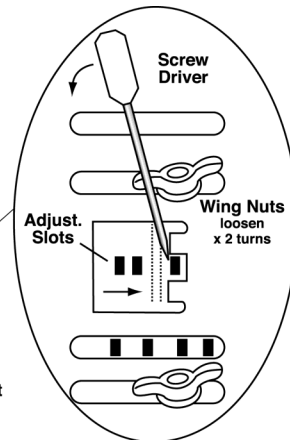


Fig. A

Right Hand Drive Unit



The same method of skew adjustment is the same for either left or right hand Drive Units.

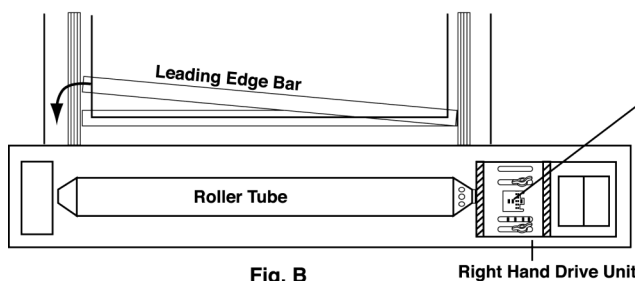


Fig. B

Right Hand Drive Unit

