

# Guide to corrosion free use for Louvers, hinges, garage doors & locks:

#### Louvers

New louvers, hinges and locks will work best if lubricants with rust inhibitors are used to protect and lubricate these parts shortly after new installation. Excellent results are found with use of **CarWell CP90/Rust COP** Rust Inhibitor and Lubricant.

CarWell CP90/Rust COP is a highly refined petroleum based product that is free of harmful ingredients. Since CarWell is highly refined, use of this product will not result in lubricant build up. Typically, low refined products, or products that use a high degree of mineral spirits can build up on surfaces. The result of the build up is the attraction of dust and dirt that combines with the lubricant build up. Over time the lubricant build up with dust and dirt works to cause tight operation locks, hinges and louvers to bind and stick requiring down time for removal, disassembly, reassembly and replacement of parts. Often, the result of clogged apparatus is that surfaces become worn and require replacement. With locks, cleaning may not be possible, therefore requiring replacement.

Use of CarWell CP90/RustCOP will not cause lubricant and rust inhibitor build up as the film left behind by CarWell CP90/RustCOP is ultra thin and over time is absorbed into the metal substrate. This action slows the rate of corrosion by over 90% and that is enough to allow years of easy operation of louvers, hinges and locks without binding and freeze up.

We recommend at least a once a year inspection with locks if these are left outdoors. Security hinged covers and doors should be operated at least once every 4 months to insure free operation. Louvers, these are typically used daily so you'll know if operation with these goes from freely operating to being tight or worse, should you have not treated these components, freeze up.

When you discover that your louvers are binding, or it takes extra effort to open a lock or when a door is being opened or closed and binding and squeaking sounds, take a few minutes to lubricate with CarWell CP90/RustCOP and you'll have pivot points in each item that won't restrict or freeze up.

Perhaps the most difficult chore is when one or all of these mechanical assemblies are not used frequently become frozen. Louvers won't open, locks freeze and hinges bind up so badly that metal doors where the hinges are attached can bend if forced. Treatments with CarWell CP90/Rust COP will aid in easily allowing unrestricted and bind free use of these assemblies with multiple years of easy operation.

Applying a small amount of CarWell CP90/Rust COP to pivot points in mechanical assemblies will lubricate and provide years of bind free use.

Should louver assemblies freeze to where nothing seems to move, apply CarWell CP90/Rust COP to the area just below the crank handle, where a small amount of product can seep into the gear housing assembly. Insure treatment is sprayed into the area where the worm gear or link assembly is located. Also, if you look at the links at each side of the louver assembly you'll see rivets holding the aluminum linkage together. Each one of the rivet points seen on the louver linkage should be treated with CarWell CP90/RustCOP.

Allow a 24 hour set time after treating assemblies.

When trying to either open or close the louvers the next day, have one hand on the crank and one hand on one of the louvers. While using the crank with a minimum amount of force, with the other hand on the louver, crank the louver in the direction of opening the louver while lifting the louver with the other hand at the same time.

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**Important, do not to force anything!** All you are trying to do here is to break loose the frozen assembly. Applying too much force can cause permanent damage to the louver crank assembly, bend the linkage on the louver sides or worse, break a louver and possibly causing a cut to yourself.

If the louver does not free up, treat again with CarWell CP90/RustCOP and again allow another 24 hours to pass before attempting to work the system free.

We have found that usually the first treatment works to free everything up. Some binding may be felt and if this is the case, apply a second treatment to the crank assembly area. Inspect the linkage area for pivot points where the rivet and linkage are connected. While inspecting the rivet/linkage area, wiggle the louver with your hand up and down a very, very short distance while watching the linkage at each rivet point. If there is binding at any of these points the linkage will move side to side. Free operation will show the linkage move up and down slightly as the linkage has a small amount of free play for up and down movement. You are looking at each point to be sure no binding or frozen pivot point was missed in first treatment or perhaps requires more CarWell CP90/RustCOP

We have experienced years of easy free operation of louvers after following this treatment system. Should you notice that over time, binding seems to be returning, apply another treatment of CarWell CP90 Rust COP.

#### Locks

Apply a small amount of CarWell CP90/RustCOP directly into tumbler area where key is inserted. Treat openings where the lock arm is inserted into lock body and also the lock arm where the lock arm is anchored to the lock body.

Should the lock be frozen, allow 24 hour set time before attempting to open the lock. If the lock remains frozen, treat a second time again allowing 24 hour set time before attempting to open the lock. Locks will typically open after first treatment. If your lock has been submerged in sea water for an extended period of time, there is a chance the lock will work again, but corrosion may have caused issues with lock components where these parts are not able to operate due to loss of good material within the lock.

### Garage Doors

We were contacted by a Condominium Manager regarding the use of CarWell CP90/RustCop for parking garage security doors. These are the type that look like heavy metal matting/grating and have several hinge points that can freeze. The Condominium Manager advised he applied CarWell CP90/ RustCOP to the complete door including all hinge points. He waited several hours and tried to open the door as Fire Safety code calls for doors to be opened at least monthly to insure the door works in the event of an emergency.

The door would not open and the Condominium Manager was unhappy that he had to call for service for the door. He was afraid that the door would have had to be replaced as these cost several thousands of dollars to replace.

The next day the Door company arrived, tested the door and found that the door worked and opened completely as needed requiring no expensive service work or worse, replacement.

Garage Security doors should be treated at least annually for best results.

Home garage doors require treatments to springs. If your springs are popping and sound like they are grinding, rust has taken hold and will over time cause the spring to sheer. If you loose a garage door spring, your door will

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be difficult and may not be possible to open. Replacement should be done by qualified garage door service repair person as there are hundreds of pounds of pressure loaded onto the door spring to aid in ease of lifting the door. Should you attempt to wind the spring with the use of a bar, beware that if the spring slips from your grip you can end up with bodily injury, so we suggest if you have not done this before to call a qualified repair man. Insure treatment of all hinge points and treatment of all roller bearing assemblies on the door rollers. Periodic tightening of fasteners is highly recommended. Do not over tighten on wooden doors as you will draw the fastener through the wood and damage your door.

Cables that are attached to the pulleys that work with the spring to raise and lower door are especially hard hit by corrosion. Inspecting the wire should be done with the door open and then the door closed. Do not run your fingers along the wire as broken strands can stick out like a needle to cut and puncture skin. Be sure to inspect closely for broken strands as when any are found it is best to start planning cable replacement. Leaving damaged cables in service too long will cause the cable to fail and the result will be your garage door will cock in the rails the wheels travel in causing potential damage to the rail frame and also could cause a wooden door to be damaged beyond repair. Look closely at the cable eye that connects to the bottom corner on your door. The wire rope eye typically does not have a wire clip (a U shaped device that the wire rope rests, inside of clip rides on anchor on the door to prevent rub and wear out) that the wire rope rests on. Because of this the wire rope eye can wear out quicker than the balance of the remainder of the wire rope. Inspect the wire rope once rolled up on the pulley. Again, do not feel for broken strands. If the wire rope is not resting in one of the small runners on the pulley some alignment issues may be occurring. Lubricate the pulley while the wire rope is resting on the pulley with CarWell CP-90/RustCOP.

Any wire rope that is suspect of breaking should be changed as soon as possible. Lubricating the remaining portions of the cable with CarWell CP-90/RustCOP will insure longer performance and life of your garage door cables.

### **Piano Hinges**

We sometimes find these in outdoor use and if you happen to be one of the people or companies who have several pieces of equipment that have piano hinges on gull wing inspection doors, tool boxes, BII, or locations that find these in use, CarWell CP90/RustCOP will aid in helping the hinges work properly. However we have found that further treatment for extended operation of the hinges is the best recourse over extended periods.

A secondary treatment of a medium build film to a thick build film will give the longest results for best operation with these long extended piano hinges.

### Solutions for Rust and Corrosion

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