Instructions for lubricating your Galtech Deluxe Auto-Tilt umbrella
Model 727, 737, 779, 789

Your may notice in time that your Galtech Deluxe Auto-Tilt umbrella isn’t as sprightly as it used to be. The crank handle may be getting hard to turn, or the umbrella won’t tilt any more. Perhaps it squeaks or the runner hub doesn’t slide smoothly. It’s time to clean and lubricate the main pole.

Recommended Tools:
Penetrating Oil - aerosol
White Lithium Grease - aerosol
Silicone Lubricant – aerosol
Hammer and punch (if needed)
Plug Wrench (if needed)

Parts:
None

Procedure:

Open your umbrella out where you can easily reach it. Do not make the umbrella tilt now. You may have to move your umbrella base out from under a table for this but it’s worth the effort. Look closely at the main pole. Notice that there are two brass pulleys near the top where the cable comes out of the pole. Shoot a little silicone lubricant on the sides of these pulleys. Use the little tube to reach the sides of the pulleys inside the long slot.

If the handle is hard to turn:

There is more to the crank handle design than one might think. The center hole through the base of the handle is threaded on the inside to allow it to screw onto the end of the crankshaft. Galtech has installed a plastic disk between the crank handle and the crank housing that serves as a variable friction clutch to help hold the top in place once you have cranked the umbrella open enough to make it tilt. The arrows marked on top of the handle are intended to help you turn the handle the right way to make the design work properly. The thread design allows the handle to tighten the disk when you crank the umbrella open and loosen when you close it. Sometimes these threads need to be lubricated so the handle can work freely. The steps below tell you how to disassemble the crank mechanism to get it working properly again.

Remove the plastic label from the center of the crank handle.

Remove the Phillips screw you will find under the label.

Remove the crank handle stop washer. This washer has a special countersunk hole that matches the taper underneath the head of the screw. You have to put this washer back on the same way you found it.

Remove the shaft rotation damper washer next. This special washer has an oblong hole with straight sides cut into it.

Squirt a little penetrating oil on the threads you can see on the shaft in the joint next to the handle.
Now use the plug wrench to hold the crankshaft by the flat sides in the end to keep it from turning and unscrew the handle itself slightly by turning it counter-clockwise. It is not necessary to turn the handle more than one turn. When it comes loose, tighten it again and put some silicone lubricant on the shaft. Replace the rotation damper, the countersunk washer and the screw. Run the handle in and out a few times to work the lubricant into the joint.

**Lubricate the Hinge:**

Crank the umbrella a little more to make it tilt. If it tilts properly look for the little hole in the bottom of the long side of the hinge you can now find sticking out of the pole. Use the tube on your lithium grease can to shoot a little into this hole.

*The tilt is stuck! The umbrella just squeaks instead of tilting.*

Look closely at the shiny metal hinge in the main pole. Notice that one side has a horizontal slot in it. Use the spray tube on your can of penetrating oil to lubricate the hinge release inside the pole. Push the tube through the slot and down a couple of inches before spraying.

Now crank the umbrella open until it stops. My experience is that it will make a creaking sound without tilting, but you can see the end of the long part of the hinge move a little. Don’t try to force it to tilt. Back the crank off and try again. Repeat until the umbrella finally tilts. Then shoot grease into the hole underneath the long end as I described earlier. The umbrella should now tilt properly.

Notice the dimples in the pole next to the slot in the side. A pin runs through the pole here to act as a fulcrum for tilting. Sometimes this pin works its way out of position due to repeated tilting of the umbrella. If you see that the end of this pin is actually sticking out beyond the curve of the side of the pole, use a hammer and punch to drive it back in where it belongs. The runner hub snagging on something as it goes by the hinge is a symptom of this problem.

**Lubricate the Cable:**

Open the umbrella about half way and then lay it on its side on the ground. Remove the bottom pole by unscrewing it. You will see the crankshaft inside the pole about three inches from the bottom. Use the tube on your lithium grease can to shoot a little onto the shaft including the cable still wound around it. This will help the cable wind more smoothly.

**Don't lubricate the bottom pole joint:**

The bottom pole threads into the crank housing, but you do not want to lubricate this joint! In fact, you might consider cleaning this joint and gluing it with LocTite blue. Umbrella owners in windy areas are encouraged to tighten the screws in the umbrella base neck tube to hold the umbrella tightly to prevent an updraft from lifting it up out of the base. Sometimes the force of the wind over an open canopy is stronger on the right side than the left. Perhaps some obstruction shelters the left side more from the wind than the right. This uneven force creates a counter-clockwise twisting motion that is capable of unscrewing the top of the umbrella off its bottom pole in time. It takes about ten complete turns to get the top to fall off. It is a good idea to check your umbrellas once in a while to make sure the bottom poles are tight.