LARIAT CHAIN
by Norman Tuck

MAINTENANCE INSTRUCTIONS

GENERAL INFORMATION:

Lariat Chain is an interactive, kinetic sculpture, which demonstrates standing wave patterns by use of a long chain hanging from a spinning, motorized bicycle wheel. When you disturb the continuously moving chain, it writhes and ripples in unexpected patterns of movement. If left undisturbed, the chain dances over an inverted wire brush, creating fascinating movements.

General Cleaning:

The finished or painted surfaces of the exhibit may be cleaned with a mild soap solution or general purpose cleaner. The Plexiglas graphic panel should be cleaned with a plexi cleaner and a soft wipe that will not leave scratches, (we suggest Wype-All™).

Initial Set-up:

A ladder and two people will be required for this procedure. The piece is shipped in three separate crates. First set the tread plate base in its final location. Remove the nuts from the base (or locate them in the crate if they were shipped in a separate package.) Next, bolt the column down so it tilts over the base. (It will only assemble one way.) Next, the two steel struts need to be positioned to support the column. The struts are labeled "A" and "B" on the bottom of the lower tab. These tabs bolt to the base plate at the positions marked "A" and "B" also.

The wheel assembly fits on the top with studs that double nut either side of the steel flange on the wheel frame. The nuts are used to level the wheel as well as raise it to the proper height to allow the chain to graze the brush as described below. The wheel tilt should be adjusted so the chain does not rub continuously on either side of the guides. (Take care not to bump the speed control on the back of the motor, as it is fragile by comparison to the rest of the wheel assembly.)

The chain will probably have to be untangled after shipment. It rests in the rim of the wheel and should hang about 1 inch below the brush with the motor stopped. The weighted round scrub brush is used to tease the moving chain to produce a slow hopping motion. It should remain directly under the hanging chain while running.

Chain replacement:

The chain will give years of service, however it may occasionally need a link repaired. The best way to mend a broken link (or make up a new chain loop) is to TIG weld the link. If welding equipment is not available, silver brazing the link will hold it sufficiently.

Drive Chain Adjustment:

The motor is mounted with slots for proper tension and alignment of the drive chain. The drive chain should ride on the 17 tooth sprocket, (second from the smallest,) to run at about 60 RPM with the speed control turned all the way up. Both the motor and wheel sprockets are aligned with each other by sighting along their faces. Adjust the chain tension for 1/2" of up and down play between the sprockets.

Wheel Alignment:

The rim needs to be true in order to run in the frame without rubbing. The spokes are adjusted for this alignment as with any bicycle wheel.

Clutch adjustment:

The clutch has a spring-loaded friction pad that bears against the face of the drive sprocket. The pressure on this pad determines how hard visitors can pull on the chain and load the motor before it slips. It should be set to release just before the chain slips on the rim under moderate tension when pulling down on the chain.

115 Vac to 230 Vac conversion:

This exhibit has a step down transformer to allow 115 Vac or 230 Vac. The circuit breaker connects directly to an outlet box located in the top of the column. For 115 Vac operation, the exhibit

outlet strip (or component power cord) is plugged into the outlet connecting it directly to the line. For 230 Vac operation, this plug must be switched over to the step-down transformer receptacle, and the motor control is then plugged into the transformer outlet. Check this configuration during initial set-up before plugging the exhibit in.