

TURNTABLE

MAINTENANCE INSTRUCTIONS

GENERAL INFORMATION:

Turntable has a 40" platter that turns at 60-70 RPM. Assorted toy wheels are located around the platter for people to spin onto the rotating platter and send them into an orbiting trajectory around the platter's axis of rotation. The platter is faced with stainless steel and weighs about 80 lbs. It just sits on the spindle flange. (Making it important to remove the platter if the exhibit must be turned on its side during transportation.) This arrangement provides a clutch for visitor safety as well as to ease the motor load during start up.

General Cleaning:

The outside of the exhibit may be cleaned with a soap solution.

Removing the Platen:

Two people are required to remove the platen. TURN OFF THE POWER TO THE EXHIBIT-THIS PROCEDURE EXPOSES THE DRIVE BELT. Reach underneath the exhibit, one person on each side, then push up firmly and evenly on the platter. It will take time for the clutch grease to lose its suction so expect it to feel stuck for a second before it pops free. Once free the platen must be lifted straight up without tilting for about two inches until the locating pin is completely withdrawn from the spindle. The platen can then be set down on this pin a few inches off to the side (so it doesn't fall back into the hole). Now the platen can be grasped by the edge and carried. Replacing the platen is the reverse of this being careful keep the platter level as the locating pin is lowered into the spindle.

Adjusting the Belt:

The belt guard has removable sides if it is necessary to feel the belt for tension, however a visual examination of the belt through the screen should indicate if the belt needs adjusting. Turn off the power if the guard is removed. Four allen cap screws clamp the drive mount to the frame under the exhibit. The motor, worm drive and isolastic mount are one unit that ride in these screw slots to tension the belt.

It is not necessary to keep the V-belt tight, but stopping the platter should cause the clutch to slip and not make the belt slip.

Changing the V-belt:

The platen must first be removed to change the belt. (See: Removing the Platen) Next loosen the four allen cap screws that clamp the drive mount and slide the drive unit all the way towards the spindle. The old belt can now be removed and the new one installed. (The variable pulley on the worm drive output shaft may need to be loosened to remove the belt, in which case the speed of the platen, 60-70 RPM, should be verified after the new belt is installed.

Drive Maintenance:

The worm drive and spindle bearings are greased and sealed units. They should provide several years of service before needing attention. The worm drive should periodically be checked for leaks. If a problem is found, Grainger should be consulted for servicing. On installation, check that the worm drive has a vented plug located on the top side of the case. (It allows the case to breath with operating temperature fluctuations, thus keeping the seals from weeping.)