

**Standard 16  
Foucault Pendulum  
Owners Manual  
Model 6A**

**Manufactured by  
The California Academy of Sciences  
Golden Gate Park  
San Francisco CA. 94118**

**For parts or service help  
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## **Operating & Caring for your Foucault Pendulum**

### **Starting your Pendulum**

Turn on the power at the control panel.

Grasp the cable just above the ball, and pull the ball all the way to it's maximum swing position. Hold the ball in this position until the ball is still, then slowly release the cable to avoid making the ball wobble.

### **Adjustments:**

No adjustments of the controls should be necessary for daily operations.

### **New installations or changing adjustments of the control settings:**

"Time-on" controls the period of time the magnet is energized. The magnet is automatically triggered when the pendulum passes through the center of it's swing. Set the "time-on" control to turn the magnet off at the end of the swing. To assist you in knowing when the magnet is energized turn on the audio switch at the bottom of the panel. This will activate a tone device which will give a tone signal whenever the magnet is energized. You should be able to watch the ball and hear the tone. When the ball reaches maximum swing and has started its return swing the magnet should turn off. Look at the top of the cable and make minor adjustments to the time control to eliminate the cable wobble. Turn the tone off when adjustments have been completed.

### **Amplitude Control:**

"Amplitude" controls the amount of power to the magnet. To increase the distance of the swing, turn the control clockwise. For adjustment reference turn on the ammeter to see increases or decreases in power adjustments. Make only minor adjustments then let the pendulum stabilize for a half hour.

In order for your pendulum to operate properly it must swing far enough for the O'rings on the armature and safety plate to contact the magnet and safety ring. On new installations start the amplitude at a meter reading of 300, and make adjustments to the swing accordingly.

Turn the meter off when adjustments have been completed.

**Maintenance:**

A maintenance schedule should be established to inspect the cable and O' rings on an annual basis. Inspect the cable at the point where it bends under the pivot. Look for frayed wires. If fraying is found replace the cable.

Inspect the O' rings for cracking and replace if necessary.

Cable and O' rings should exceed 10 years of normal operation.

**Pendulum Ball:**

The pendulum balls are made of solid brass. Brass is a soft metal and therefore is easily scratched unless proper care is taken. Use only soft materials to wipe the ball such as baby diapers, or soft flannels.

To remove any oxidation use products such as Brasso brass cleaner.

To remove minor scratching from the surface, use products such as an automobile magnesium wheel polish.

I recommend a product called Zep Five Star Brass & Metal polish. This may be ordered from the California Academy of Sciences at a cost of \$20.00 plus S&H per 6oz. Tube, or contact Zep at <[www.zep.com](http://www.zep.com)>

After polishing we recommend applying an automotive type wax finish.

For questions about the pendulum or its maintenance contact;

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