

## 4.0 Projection Module Installation

---

### Contents

4.1 Projection Module Orientation.....	4-1
4.2 Leveling the Projection Module.....	4-2
4.3 Tilting the Projection Module.....	4-4

---

When the Projection Module and Arc Lamp Module have been uncrated and moved to their final location, the Projection Module must be swiveled and tilted (if necessary), and leveled.

### 4.1 Projection Module Orientation

The Projection Module can be tilted up or down a maximum 15°. The Projection Module is shipped with the tilt mechanism at the rear of the Projection Module. With the tilt mechanism in the rear, the Projection Module can be tilted down. To tilt the Projection Module up, the Projection Module must be swiveled 180° so the tilt mechanism is in front. The Projection Module swivels 180° on its base. If this is necessary, it must be done before attaching the Arc Lamp Module to the Projection Module. The Projection Module must be on a level surface prior to swiveling.

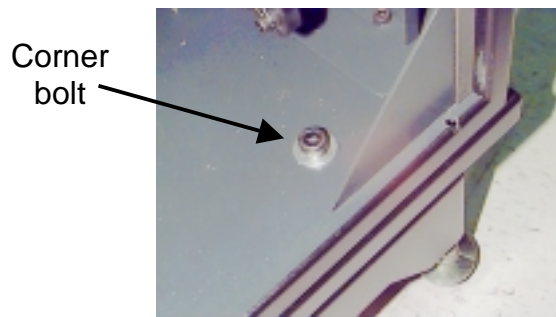
**NOTE:** If the Arc Lamp Module is attached to the Projection Module from a previous operation, it must be detached before reorienting. The “*Attaching the Arc Lamp Module*” section in Chapter 5 provides instructions on how to attach the Arc Lamp Module to the Projection Module. Use these instructions in reverse order to remove the Arc Lamp Module.

#### Tools Needed

- 7/8-inch open-end wrench
- 12-mm Balldriver Hex-head wrench

To swivel the projector:

1. Use the 7/8-inch open-end wrench to loosen the leveling foot at each corner (see Figure 4-2). Turn each leveling foot down so that the projector is securely resting on the feet rather than the wheels.
2. Remove the four corner bolts securing the Projection Module to the Projector Base using a 12-mm Balldriver Hex-head wrench (see *Figure 4-1*).



**Figure 4-1** Corner bolt that secures the Projection Module to the Projector Base

3. Carefully rotate the Projection Module around so it faces the opposite direction.



**CAUTION!** The Projection Module is extremely heavy. Do not swivel the Projection Module on its base unless it is on a level surface.

4. Reinstall the four corner bolts securely. Do not operate the projector with the corner bolts removed.
5. Raise the projector feet and reposition the projector to face the screen if necessary.

## 4.2 Leveling the Projection Module

The Projection Module is leveled using leveling feet that are located at each corner (*see Figure 4-2*).

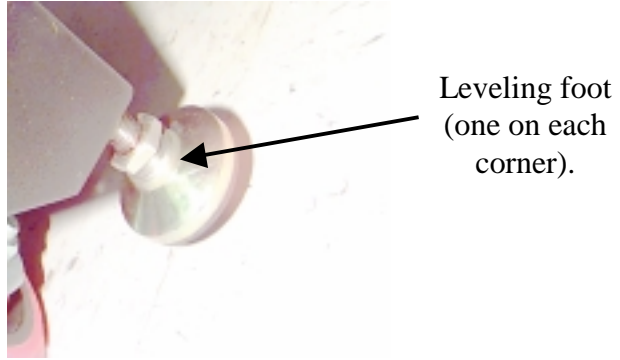
### Tools Needed

7/8-inch open-end wrench

To level the Projection Module:

1. Loosen the adjustment nuts on each leveling foot with the 7/8-inch open-end wrench.
2. Turn the foot up or down, as needed, to level the projector.

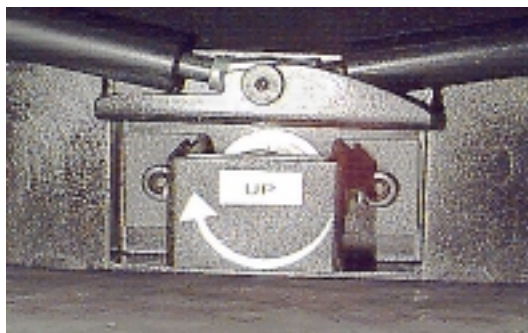
**NOTE:** The projector must be level within 2° to operate properly.



**Figure 4-2** Projection Module leveling foot.

### 4.3 Tilting the Projection Module

The Projection Module has a tilt mechanism located on the projector base at the front or rear of the Projection Module (depending on whether the Projection Module has been swiveled or not). If the tilt mechanism is at the rear of the Projection Module, it will tilt the module down. If the tilt mechanism is at the front of the Projection Module, it will tilt the Projection Module up. Maximum tilt angle is 15° up or down.



**Figure 4-3** Tilt Mechanism.

Tools Needed:

- ½-inch drive Ratchet wrench
- ½-inch drive x 5-inch extension

To tilt the projector:

1. The tilt adjustment nut has a cover that must be flipped down (use two hands and pull the cover out and down).
2. Use the ½-inch socket drive with the 5-inch extension to turn the tilt adjustment nut clockwise to raise the Projection Module up to the *approximate* angle desired.

**NOTE:** An approximate tilt angle is all that is necessary at this point. After an image is on the screen, the tilt mechanism may be readjusted to align the image more precisely to the screen. One degree of tilt is equal to a height increase of 1" (2.5cm). When the tilt adjustment is complete, rotate the Arc Lamp Module to maintain an approximately vertical orientation.