ASH-DOME OPERATION

Considerations:

Before operating your Ash-Dome make sure all areas around the dome are clear of any obstructions, inside and out. The Ash-Dome uses a positive rack and gear drive system and the dome will move when the dome controls are activated.

It is suggested an Operations Procedure List, be used when using your observatory dome.

Example:

A) Unlock the door and enter the observatory.
B) Turn white lights off and red lights on.
C) Remove telescope dust cover.
D) Check area around telescope for any obstructions.
E) Turn telescope on.
F) Check for obstructions around dome.
G) Switch dome on.
H) Switch dome off.
I) Switch telescope off.
J) Replace telescope dust cover.
K) Turn off red lights and turn on white.
L) Turn off white lights.
M) Leave and lock the door of the observatory.

Chances are you will be using this equipment in darkness. The observer’s safety should always be taken into consideration; a more detailed listing may better serve the individual observatory. Safe operating procedures should always be practiced and untrained or unauthorized personnel should not be allowed to operate this equipment.

A general rule of thumb is to not operate observatory domes during periods of high gusting wind. Even thought the Ash-Dome has an up and over style shutter that minimizes turbulence inside the dome, gusting wind could greatly affect your telescope operation.

It is also suggested the Ash-Dome be parked in a home position that keeps the dome shutter turned into the prevailing wind.

Operations:

All Ash-Domes are electrically operated in azimuth and shutter drive. Most electrical operations (Open, STOP, Close, Right, STOP, Left) are done using reversing drum switches.

1) Moving a lever to the right or left of a neutral position operates the shutter. A slide lock must be moved manually from side-to-side to allow the operator to switch he lever and change the direction of the shutter. It is not necessary to open or close the shutter completely before stopping or changing direction. The forced delay (slide lock) is necessary to give the electric shutter drive motor a chance to stop completely before changing the direction of rotation. This brief stop gives the magnets in the motor time to switch. A cam located on the upper shutter activates a limit switch mounted on the shutter drive gear. The action of the limit switch arm against the cam shuts off the electric shutter drive when the door reaches the extremes, Open or Close positions.

2) The Ash-Dome, azimuth motion is a positive rack and gear drive. The gear should be adjusted so as to just press the gear into the drive track. A drum switch controls the motion. Right, OFF, Left. Off is the neutral position of the switch. There is no travel limit in the azimuth.