1 *Projector*
2 *Projector/Cylinder Travel Case*
3 *Projection Cylinders*
4 *Dome Duffel Bag*
5 *Blower*
6 *Blower Travel Case*
7 *Astronomy and More Curriculum Manual*
8 *Planetarium Activities for Student Success (13 volume set)*
9 *Slide Set of the Planets, Stars and Galaxies*
10 *LED Arrow Pointer*
11 *Accessory Box with replacement bulbs, planet set, moon set.*
12 *Tours of the Night Sky (tapes and CD)*
13 *STARLAB Newsletter*

Packed Standard Dome

Dimensions: 36" x 18" diameter (91.4cm x 45.7cm)

Dome Weight: 45 lbs

Contents: Fabric Dome inflates to 16' dia. x 10.5' high (4.88m x 3.2m)

Seating Capacity: 25–35 people

Packed Giant Dome

Dimensions: 46" x 23" diameter (1.2m x 58.4cm)

Dome Weight: 90 lbs

Contents: Fabric Dome inflates to 22' dia. x 13.5' high (6.71m x 4.11m)

Seating Capacity: 60+ people

Projector Case

Dimensions: 31" x 26.5" x 17" (79cm x 67cm x 43cm)

Weight: 40 lbs

Contents: Projector and 2 cylinders, box of accessories, manual

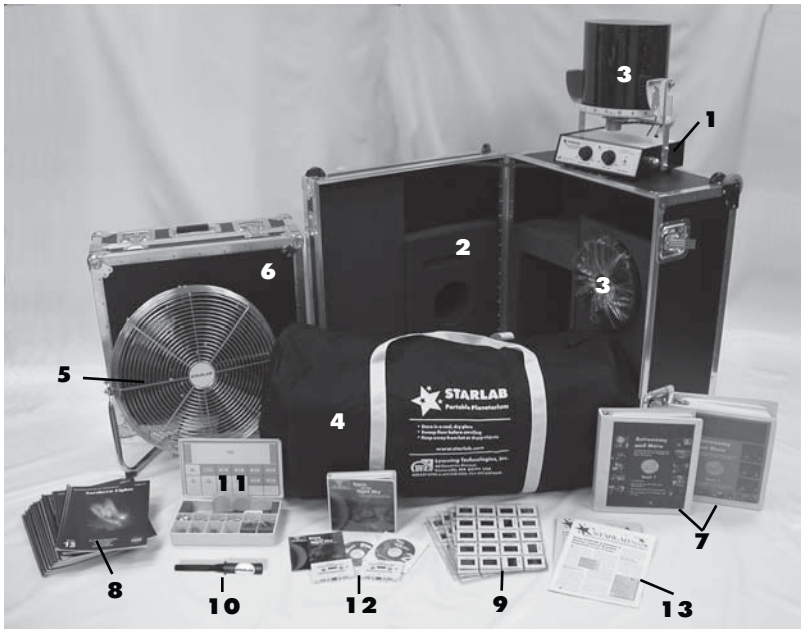
Fan Case

Dimensions: 25" x 25" x 10" (63.5cm x 25.5cm)

Weight: 20.5 lbs

Contents: Fan

The STARLAB Portable Planetarium System



The STARLAB Planetarium System consists of an inflatable dome, (which comes in two sizes), a projector and a high volume fan that is used to inflate the dome. The Standard STARLAB Dome is 16 feet (4.8 m) in diameter and has a ceiling height of 10.5 feet (3.2 m). It can easily accommodate 25 adults or 35 elementary-age students. The Giant STARLAB Dome is 22 feet (6.7m) in diameter, has a ceiling height of 13.5 feet (4.1 m), and has a seating capacity of 60 adults.

When the STARLAB is packed for transport, the basic system is contained within two hard cases and a large duffel bag. One person can carry each component and the entire system will fit into most medium sized cars. In fact, the STARLAB system is so compact that most airlines will accept it as regular baggage.

Before Setting Up The STARLAB

Room Requirements for Using the STARLAB

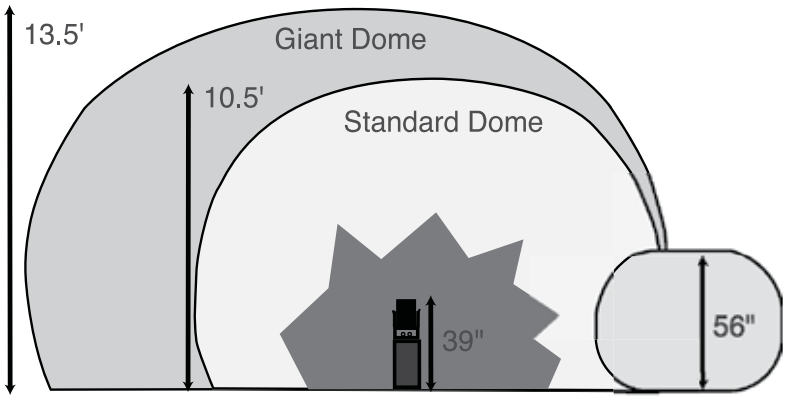
The type of room that you select to set up the STARLAB Planetarium will depend on which of the two domes is being used. For the Standard (16-foot) Dome, a minimum ceiling height of 11 feet is needed with a cleared square floor space of 21 feet. The Standard Dome can fit into most classrooms that have had the desks and chairs removed or on the stage of an auditorium. For the Giant (22-foot) Dome, the minimum ceiling height is 14 feet and an open floor space of 27 x 27 feet is needed. As a result of these bigger dimensions, the Giant Dome is most often set up in a gymnasium, large multipurpose room, or cafeteria.

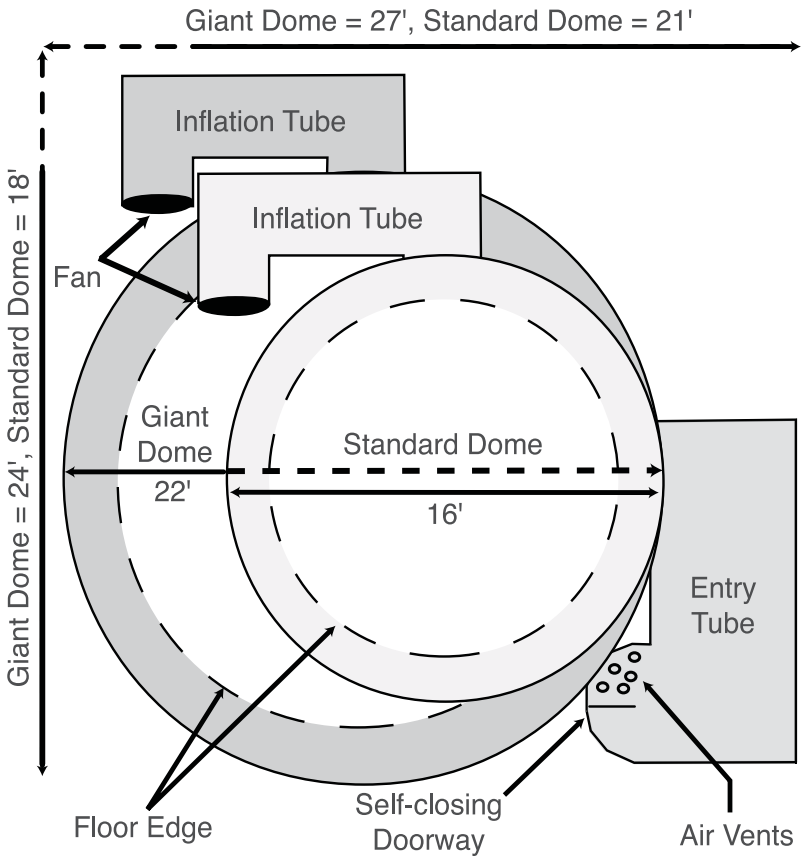
Note

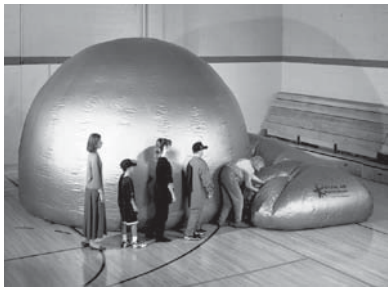
Although many rooms are constructed with a 10-foot ceiling (slightly lower than the dome), it is still possible to set up STARLAB because of the dome's

air-supported structure. This will result in the top of the dome being flattened somewhat as it rests against the ceiling. As long as the STARLAB isn't flattened by more than about a foot, the images projected inside will appear correctly with little discernible distortion. If the dome must rest on a ceiling, just be careful that it does not come into contact with any sharp objects like sprinkler heads or light gratings that could damage it. In addition, the dome should not rest on or near hot light bulbs or radiant heaters which can damage the dome fabric. Though tempting, the STARLAB dome should never be set up outdoors. Moisture can damage the fan and projector and direct sunlight on the dome will make it deteriorate faster. In addition, when inflated, the STARLAB dome is quite buoyant so even a slight wind will cause it to shift position.

Dudley Observatory uses the Standard Dome.







Preparing the Floor Surface

Because the STARLAB dome has no floor of its own, and participants sit on the floor, it is important to consider the floor surface. Ideally, the STARLAB should be set up on a carpeted floor. This provides maximum comfort for the participants, and reduces wear on the dome fabric. A wood or tile floor can also be used but these are hard and often are cold. When setting up on this type of floor, individuals can sit on carpet squares or pillows to make it more comfortable. It is strongly recommended that the floor of the room be thoroughly cleaned before the STARLAB is set up. Grit and dirt on the floor can cause damage to the dome when you are setting it up and taking it down. Another option is to place gym mats, a large canvas or piece of carpet to cover the floor beneath the dome.

Electrical Requirements for Using the STARLAB

A reliable source of electricity is essential to keep both the projector and the fan running at all times when the STARLAB is in use. The standard STARLAB fan and projector are designed to plug directly into a regular 120 volt, 60 cycle grounded AC outlet. Special order 230 volt, 50 cycle models are also available from LTI. The voltage of your projector and fan are clearly marked on the back of the equipment. The STARLAB projector does not have any accessory power outlets so if you want to use any additional equipment such as slide projectors, tape recorders or reading lamps, it will be necessary to have a separate power cord with an outlet strip inside the dome.

Temperature

The STARLAB has no climate control of its own, so whatever the room temperature is on the outside of the dome will be the temperature inside the dome. Because the fan keeps the air circulating continuously through the dome, it is usually several degrees cooler inside the STARLAB than out. Even so, in very hot climates, it is best to set up the STARLAB in an air-conditioned room. If possible, the STARLAB dome should not be set up under skylights or next to windows where direct sunlight can shine on the dome. This may cause the dome to heat up.

Noise Level

While the STARLAB dome is completely light proof, sound can travel right through the material. As a result, the system should not be used in a noisy environment. People in the room outside the dome should be asked to remain quiet so they don't disrupt the program inside the STARLAB. Whenever possible, the STARLAB should be set up in a room that can be closed off from other classes so that they don't interfere with each other. Never attempt to set up the STARLAB at one end of a gym when classes are going on at the other end unless the two sections can be separated by a moveable solid wall.

Set Up Time

While an experienced user can usually set up the STARLAB in less than 15 minutes, it is best to allow a full half-hour to unpack and put up the dome. Once it's connected to the fan, the Standard Dome will take about 5 minutes to inflate (about 10 minutes for the Giant Dome). Students who have never seen the STARLAB before are often excited to watch the set-up process. In general though, it is usually a good idea to set up the STARLAB before the class is brought into the room. Deflating the dome and repacking takes about 20 minutes total.