

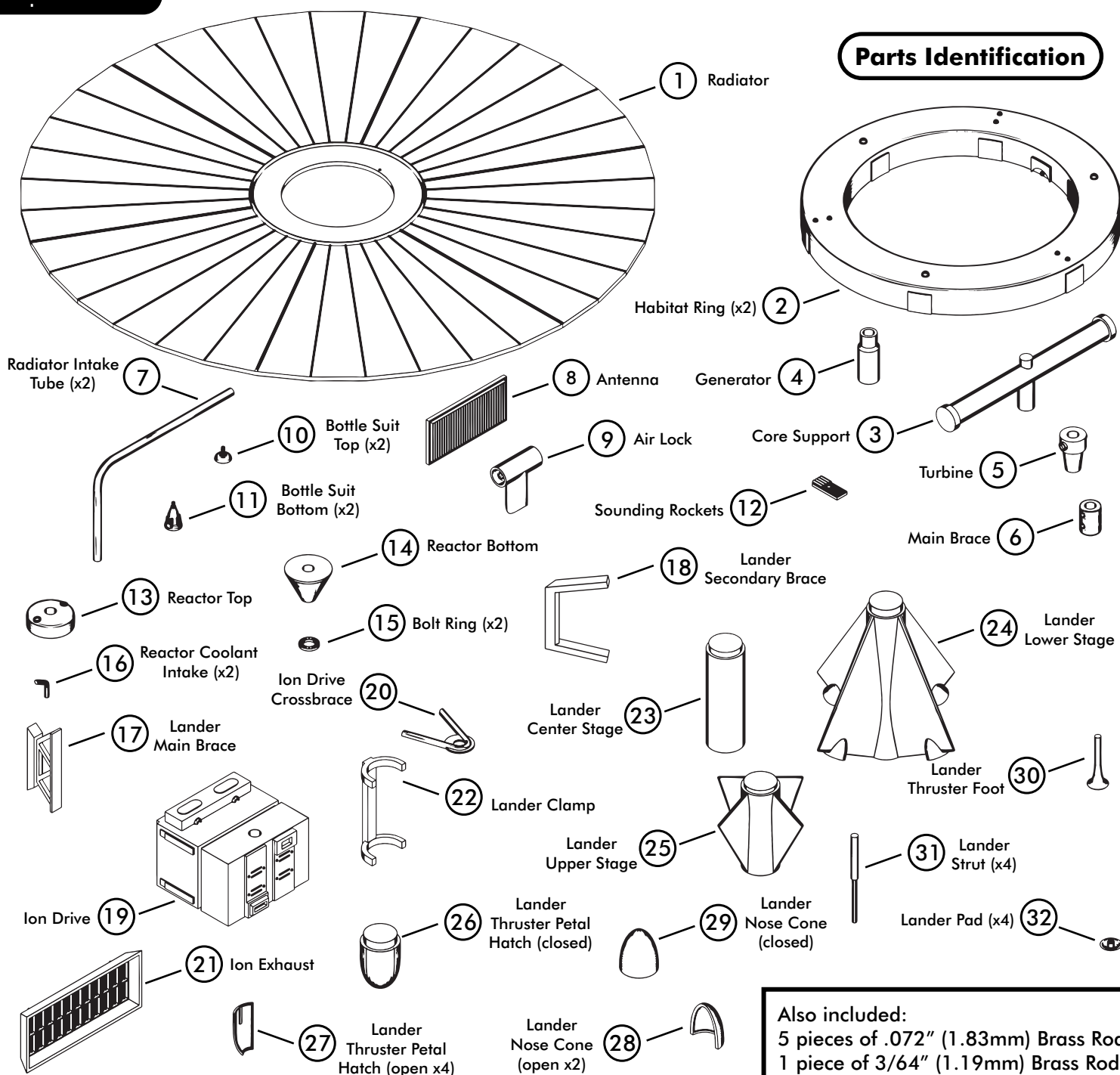
In 1957 German-born American scientist Ernst Stuhlinger designed the Umbrella Ship based on a US Army Ballistic Missile Agency study. Pushed away from the Earth by a nuclear powered ion engine, the 10 ship fleet would take it's 200 crew members on a 1276 day round trip to Mars.

**For additional preparation instructions, please refer to the last page of this manual. Please use the reference CD for your color guide.**

## Umbrella Ship Specifications

Crew Size: .....20  
Electric System: .....23,000.00 average kW.  
Gross mass: .....660,000 kg (1,450,000 lb).  
Unfuelled mass: .....328,000 kg (723,000 lb).  
Payload: .....136,000 kg (299,000 lb).  
Height: .....46.00 m (150.00 ft).  
Thrust: .....490 N (110 lbf).  
Specific impulse: .....8,200 s

## 0 PARTS

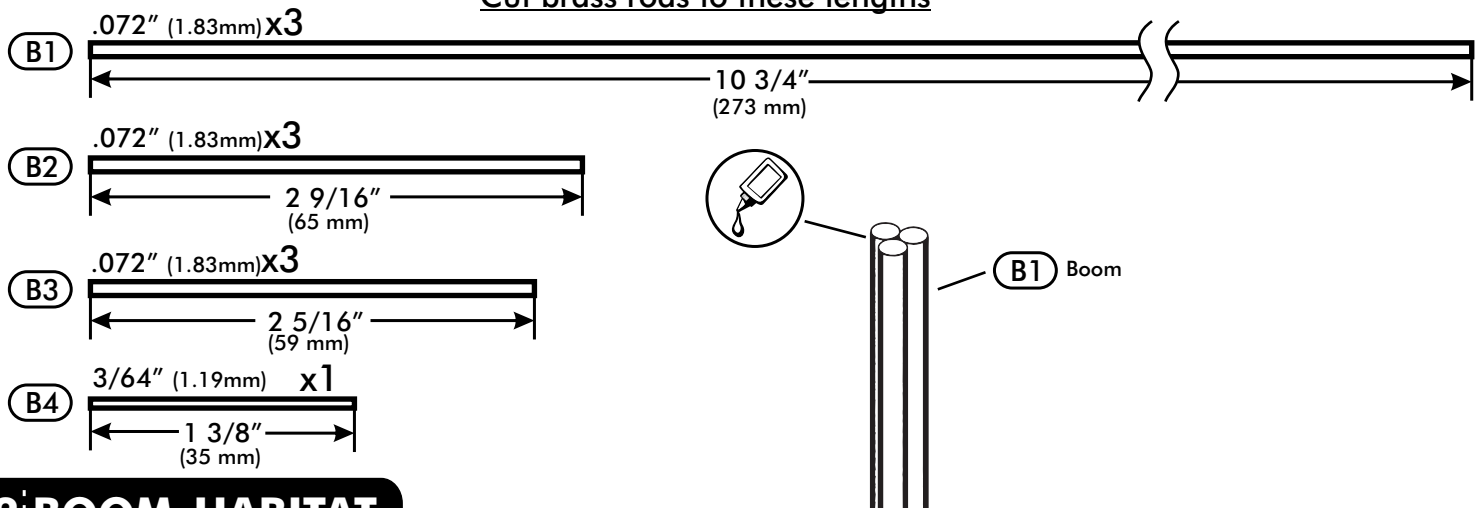


### Also included:

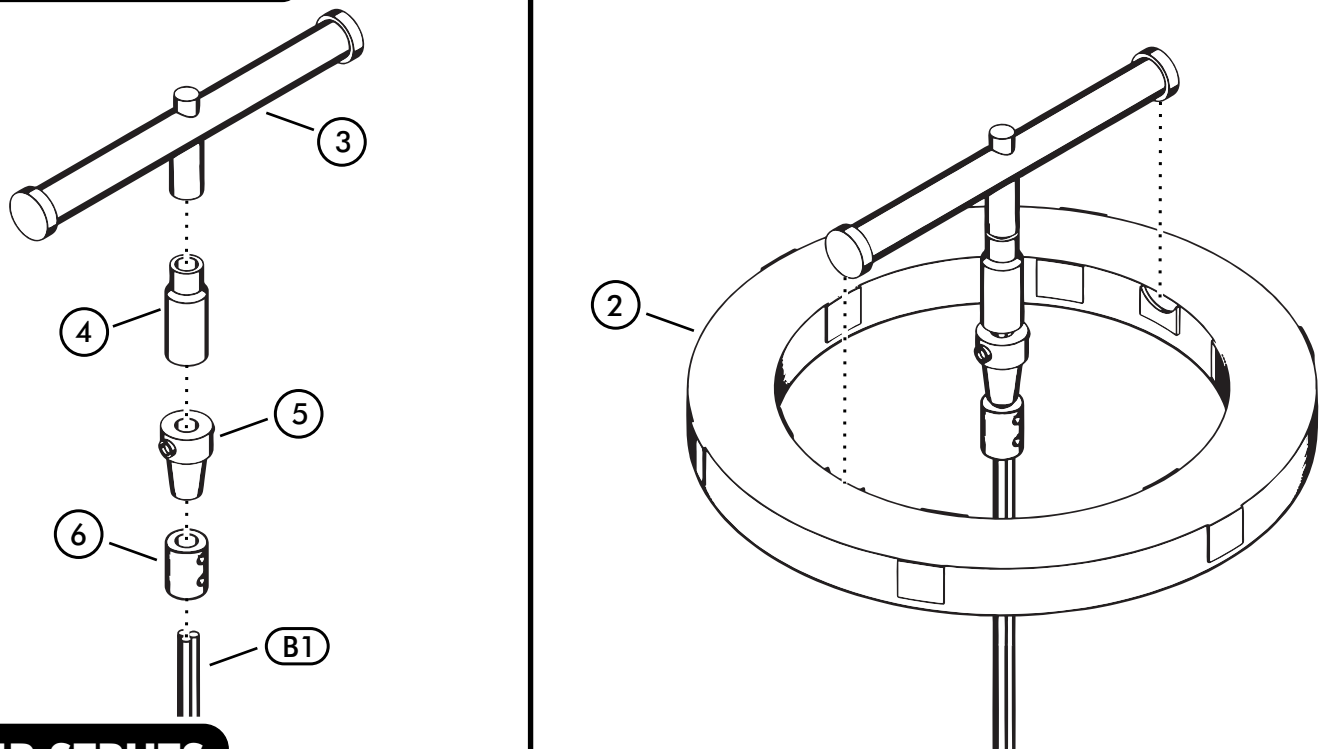
5 pieces of .072" (1.83mm) Brass Rod  
1 piece of 3/64" (1.19mm) Brass Rod

# 1 BRASS RODS

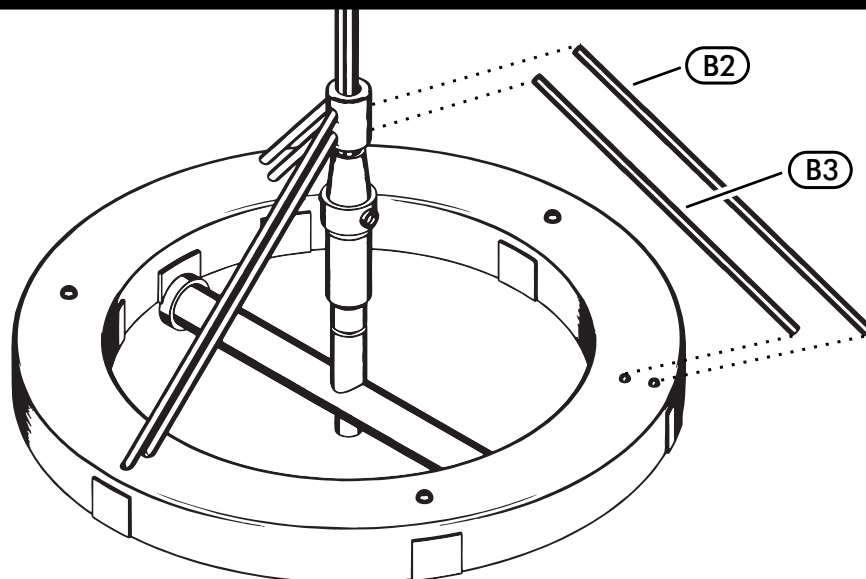
Cut brass rods to these lengths



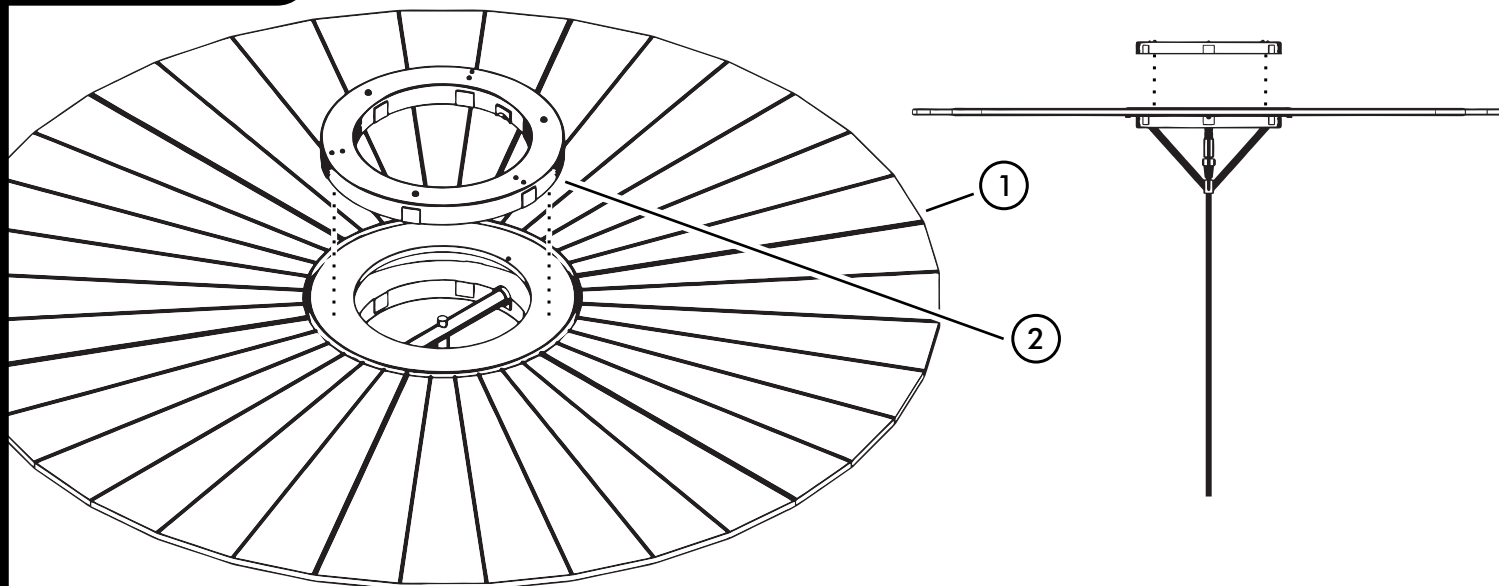
# 2 BOOM-HABITAT



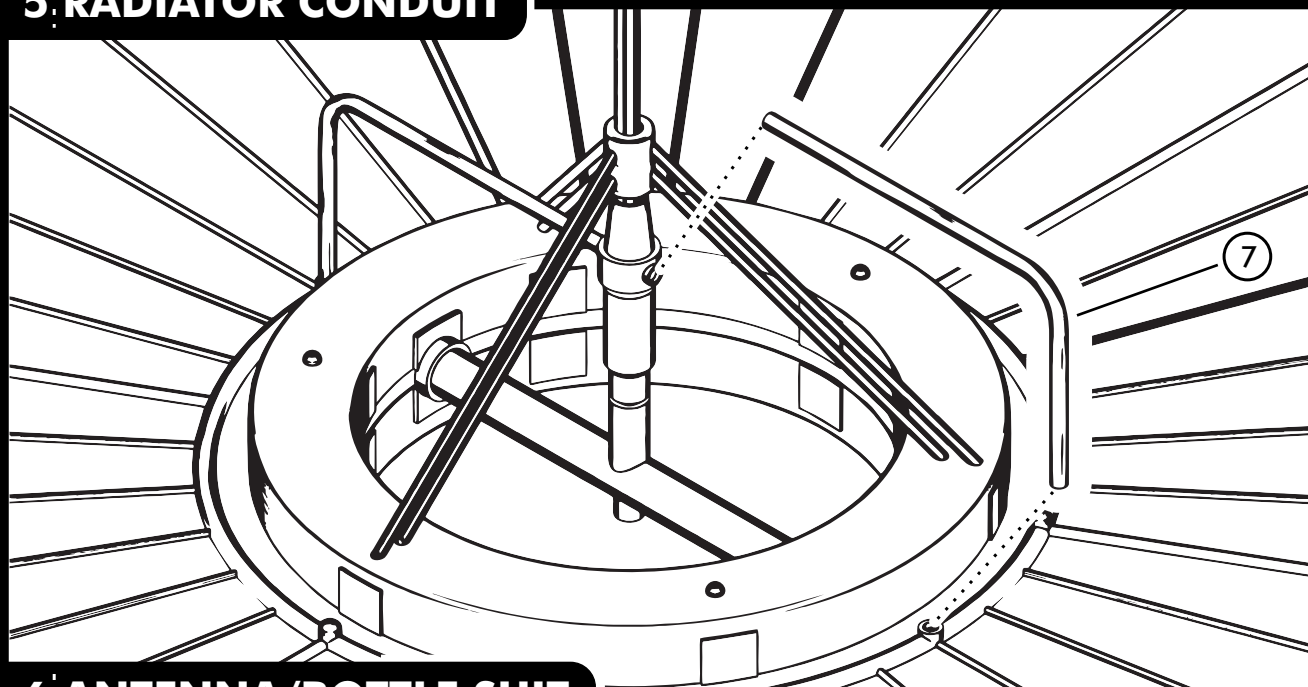
# 3 SHIP STRUTS



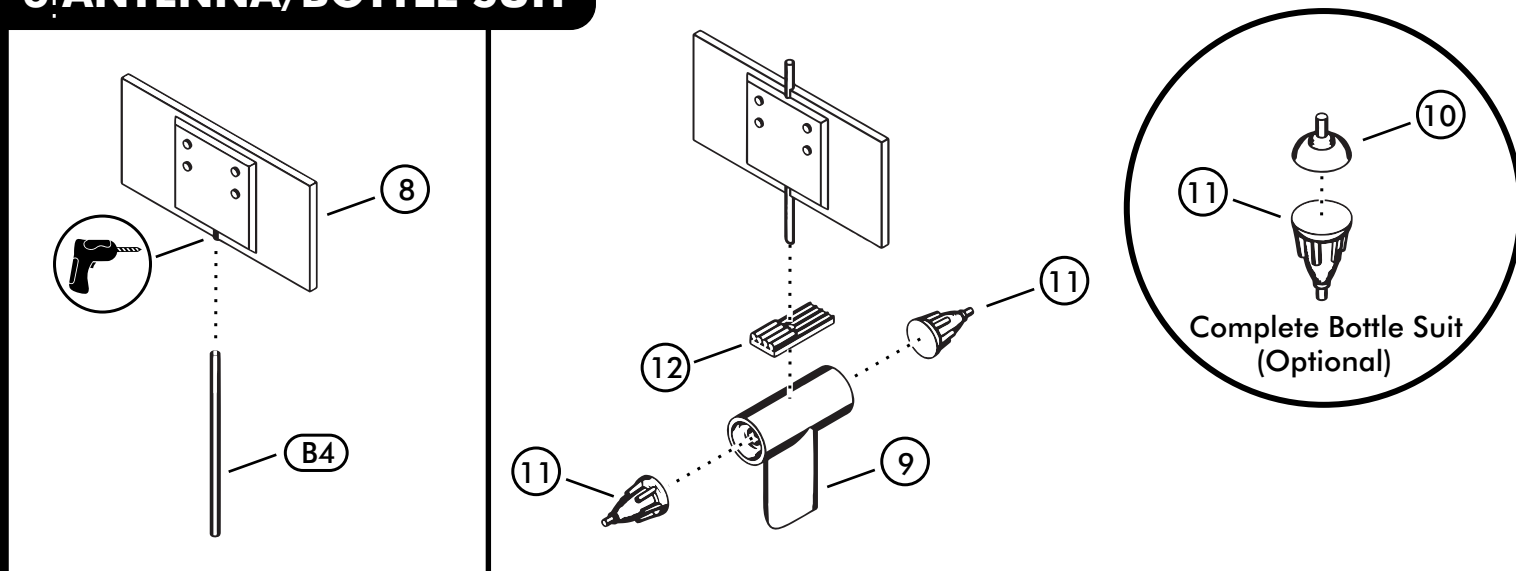
## 4 RADIATOR



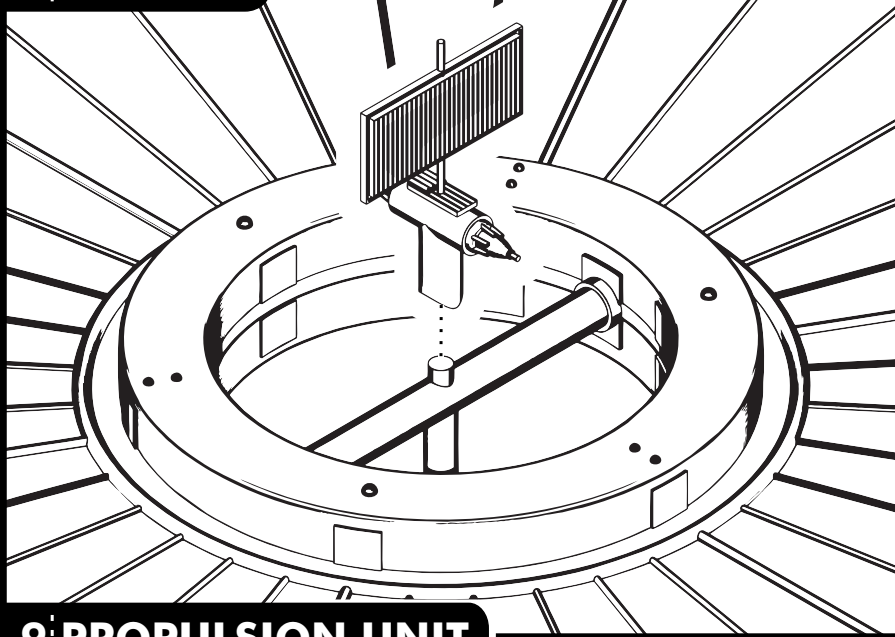
## 5 RADIATOR CONDUIT



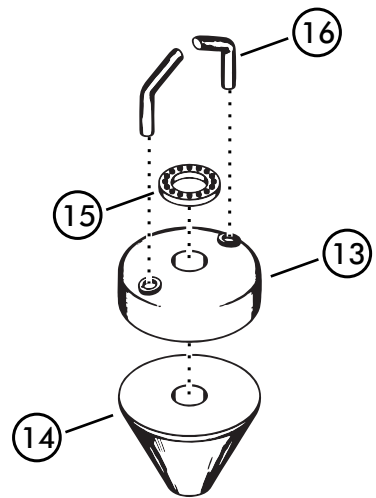
## 6 ANTENNA/BOTTLE SUIT



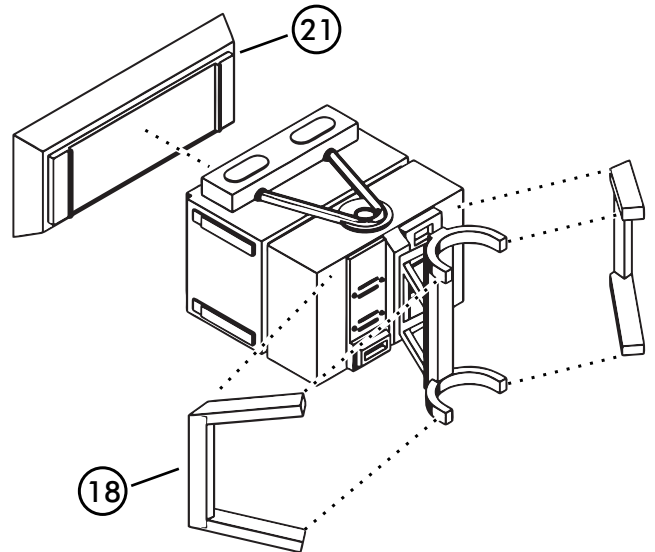
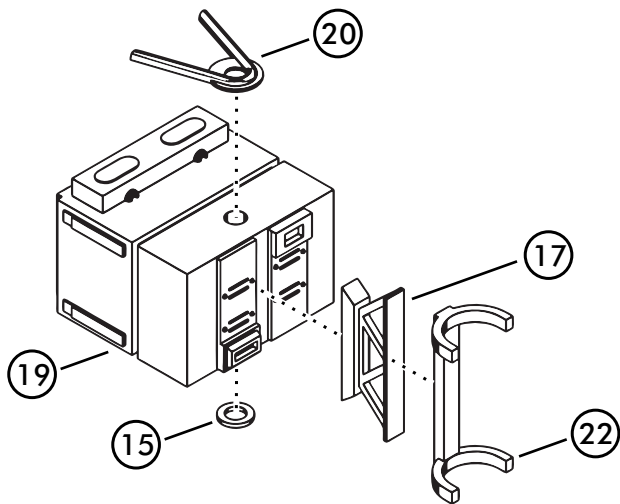
## 7 AIRLOCK



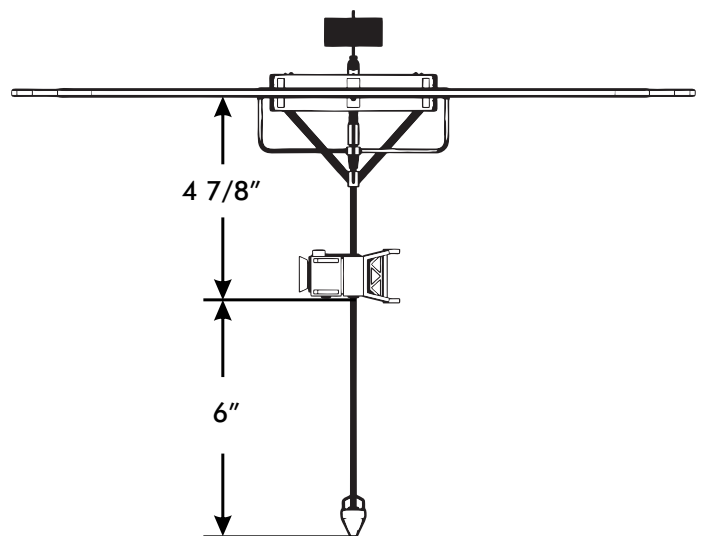
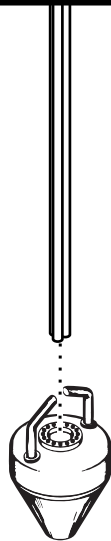
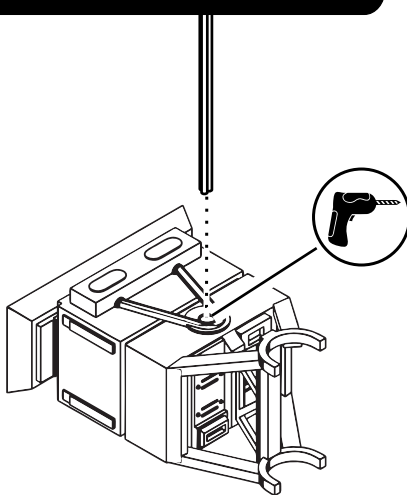
## 8 REACTOR



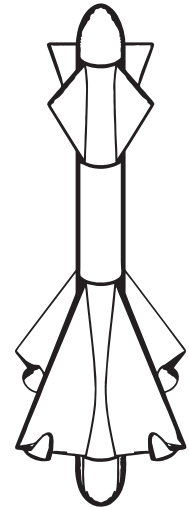
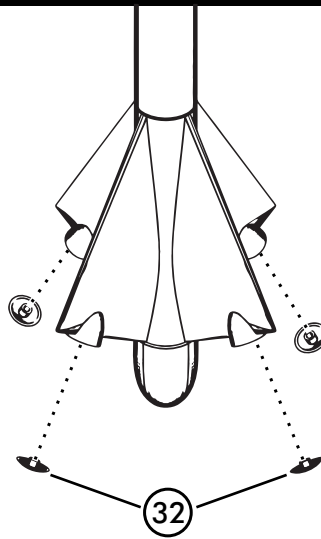
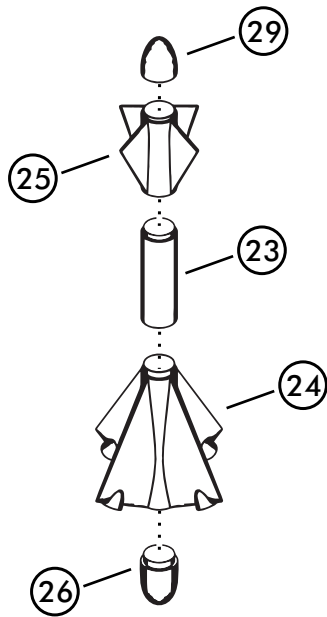
## 9 PROPULSION UNIT



## 10 REACTOR/BOOM

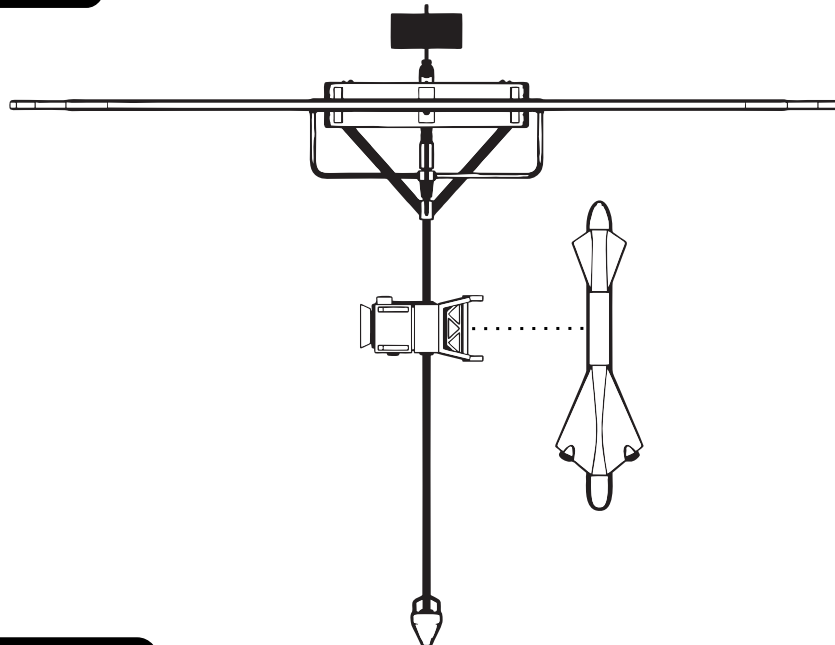


## 11 LANDER

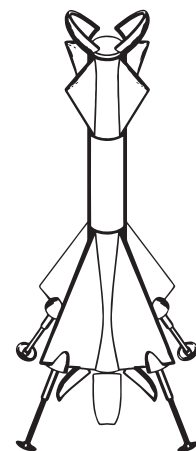
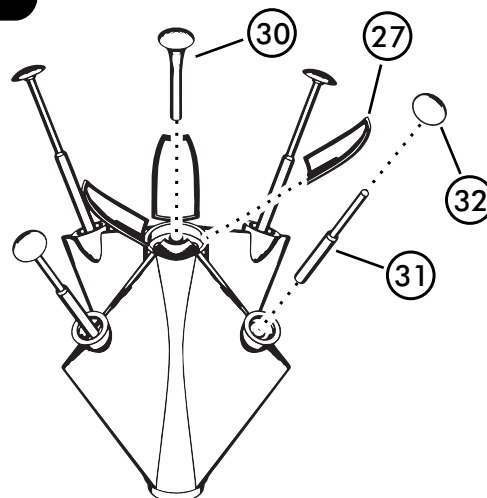
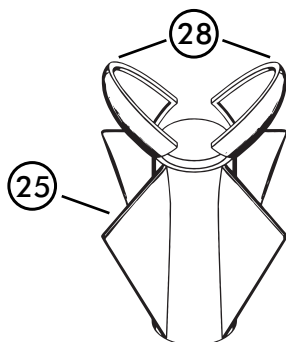


Docked Configuration

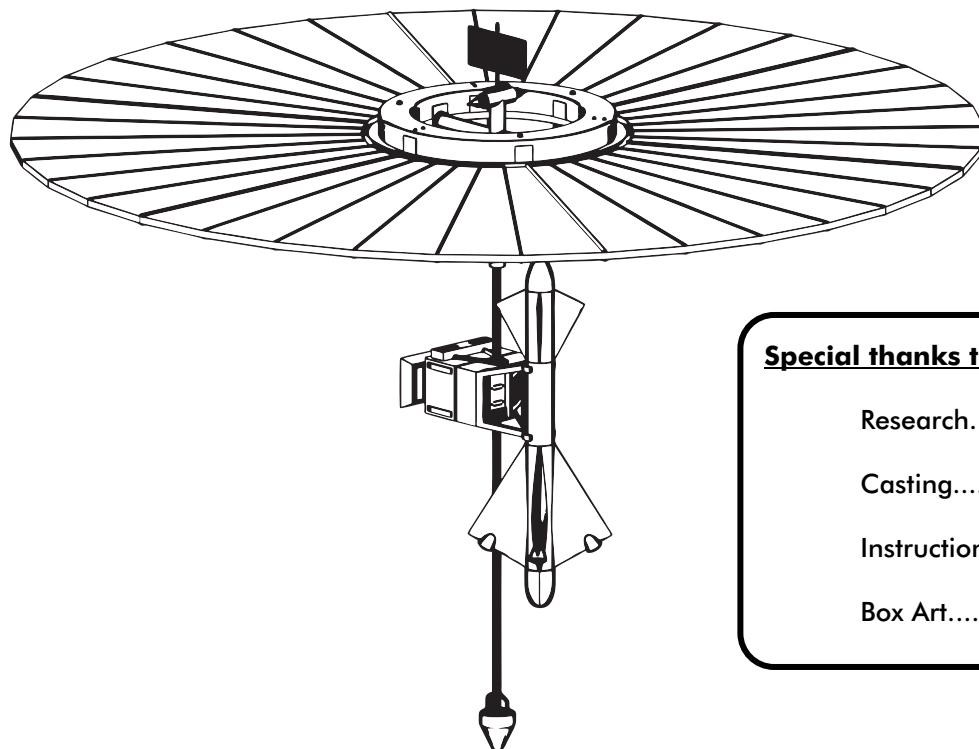
## 12 FINAL ASSEMBLY



## 13 OPTIONAL LANDER



Deployed Configuration



**Special thanks to for their contributions to this work.**

Research.....Tony Evans  
 Casting.....Masterpiece models  
 Instructions.....Charles Babbage  
 Box Art.....Chris Benshoof

**PREPARATION AND FINISHING INSTRUCTIONS--READ THOROUGHLY BEFORE YOU BEGIN**

For assembly, follow the exploded-view diagram provided with your kit. The preparation and finishing steps listed here are recommended for best overall results.

**1. DO NOT USE CYANOACRYLATE GLUE ON CLEAR PLASTIC PARTS.** This will cause fogging or "fuming" of the plastic. Instead use a clear, two-part epoxy. Devcon™ five-minute epoxy works well. We recommend this epoxy for the entire project, as the cyanoacrylate glues can be brittle and unreliable over time.

**2. PRIOR TO ASSEMBLY OR PAINTING, REMOVE FLASH AND CASTING ARTIFACTS, AND THOROUGHLY WASH ALL URETHANE RESIN (YELLOW PLASTIC) PARTS.** First, remove all mold "flashing" from the edges of the parts. sand away any "casting blocks" on a disk sander, or alternatively by carefully laying the part flat on a sheet of 80-grit sandpaper on a flat, level surface. Run the part over the sandpaper in a figure-eight pattern, occasionally rotating the part in your fingertips, to ensure an even sanding. Finish on a piece of 220 sandpaper using the same technique.

To wash the parts, use warm water with Ajax™, Comet™, or similar chlorine bleach-based powdered soap. Do this in a sink or basin, with a sponge or fine steel wool sanding pad and rinse thoroughly. This will remove any oily residue (mold release compounds, urethane residues, and even finger oils from handling) from the urethane parts which could interfere with proper glue and paint adhesion. Dry thoroughly.

**3. Paint prep and painting**

Carefully sand the model with 320- grit sand paper "be very careful not to remove any details" Clean the model Fill any seams that need filling with any hobby putty that you prefer to use. Prime the model with a good sandable Primer. We recommend using an autobody laquer primer. Lightly sand the model again using 320- grit sandpaper. Paint the model using the supplied box art or whatever reference that you may have.

**4. decals and final clearcoat**

If there are decals Clearcoat the model with a gloss paint. "this prevents silvering" To apply the decals Cut out the individual decals, soak them in warm water for 30 seconds. Once loosened from the sheet Apply to the model use a decal setting solution such as "solvaset". Once the decals are dry clear coat The model with either gloss coat or a dull coat.