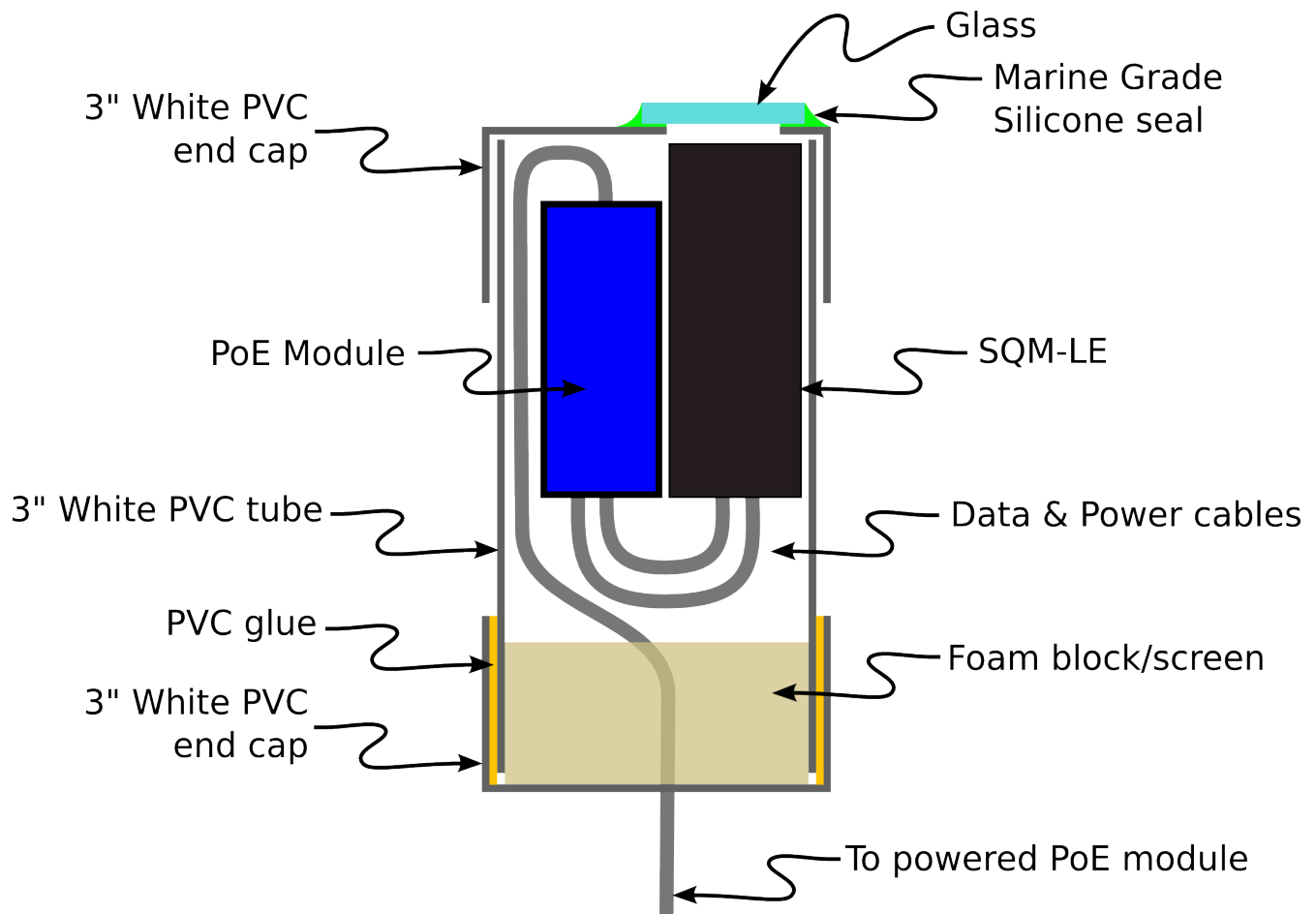


SQM-LE Weatherproof housing

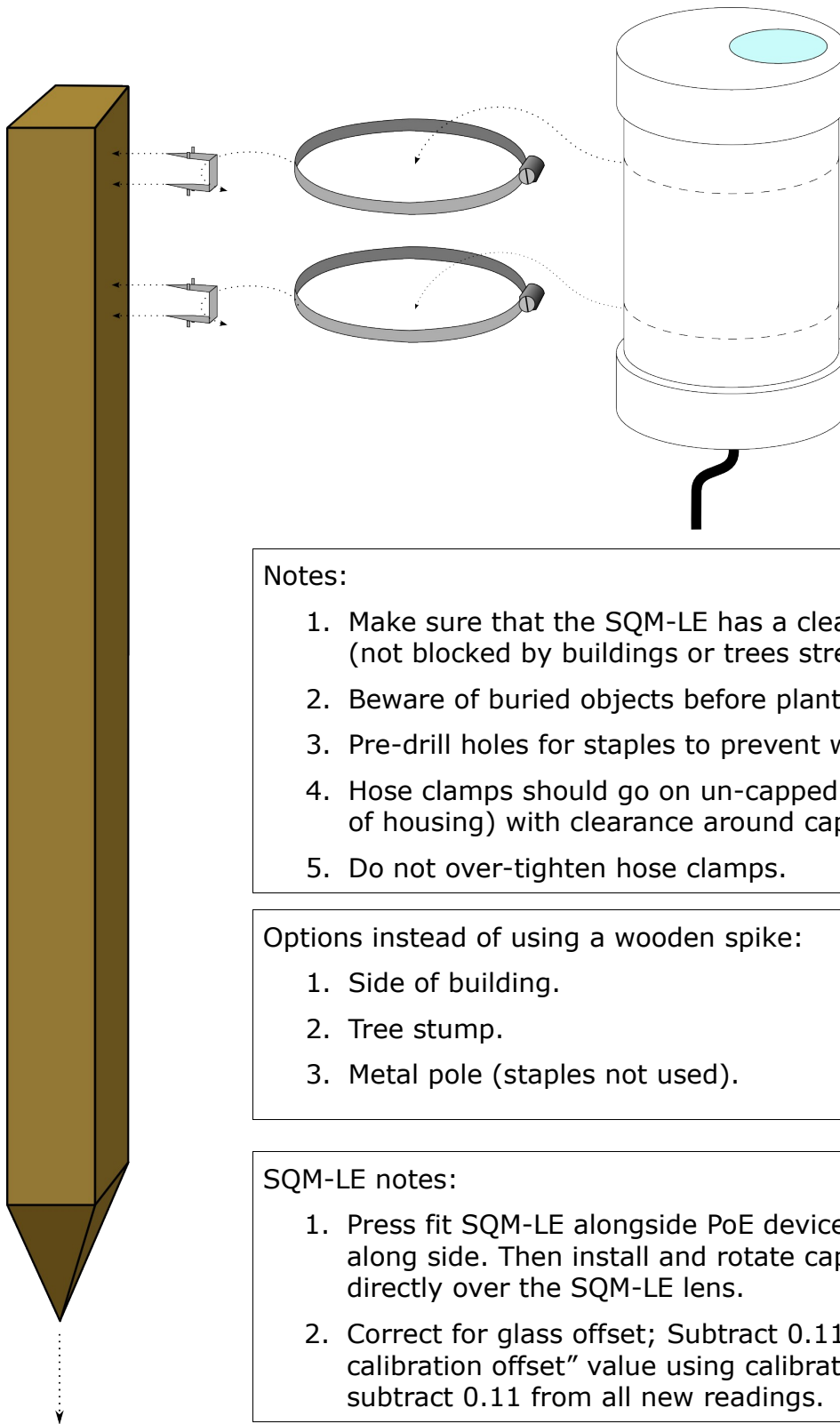
Features

- White surfaces reflect the hot summer sunshine.
- Opening on bottom to allow moisture to escape.
- Glass top to prevent scratching when removing ice.
- Raised glass surface to prevent dirt and leaves from collecting.
- Small glass opening to minimize internal heating due to the Sun.
- Cable opening at bottom sealed with open-cell (breathable) foam prevents insects from entering.
- Marine silicone seal rated for outdoor use.
- Silicone seal around glass extends beyond glass-plastic interface to prevent ice from building in crevices.
- Hose clamps for easy mounting to pole.



Mounting

One possible mounting method is shown below:



Notes:

1. Make sure that the SQM-LE has a clear view of the sky (not blocked by buildings or trees street lights).
2. Beware of buried objects before planting wooden stake.
3. Pre-drill holes for staples to prevent wood splitting.
4. Hose clamps should go on un-capped housing area (center of housing) with clearance around caps for staples.
5. Do not over-tighten hose clamps.

Options instead of using a wooden spike:

1. Side of building.
2. Tree stump.
3. Metal pole (staples not used).

SQM-LE notes:

1. Press fit SQM-LE alongside PoE device, or with foam insert along side. Then install and rotate cap so window is directly over the SQM-LE lens.
2. Correct for glass offset; Subtract 0.11 from "Light calibration offset" value using calibration software, or subtract 0.11 from all new readings.

Plans to make your own housing

Using simple materials available at most hardware stores, you can make or improvise your own housing from these instructions:

Tube

- 3" diameter 7" long white PVC tube.
- Shave ends smoothly so that the caps fit in place

Bottom cap

- Drill 7/8" hole saw into bottom cap for Ethernet cable with connector to fit through .
- Set drill at lowest speed, about 570RPM so that plastic is kept cool and does not melt into drill/blade , and beware of initial grabbing of center bit.
- Glue bottom cap in place using PVC cleaner and glue.

Top cap

- The top should slide easily over tube for easy removal .
- Drill 1.5" hole saw at 1.25" center from edge so that the center is over the SQM-LE lens and debur the edges .
- Cut a square glass or obtain a glass disc.
- Use marine silicone seal (GE makes Marine Silicone) to glue glass to outer surface of cap (no recess allowed to prevent dirt from building up on the glass).

Bottom foam

- Use open cell foam (you should be able to blow air through) .
- Foam should be at least 1" thick .
- Cut to fit snugly in bottom of tube using a sharp razor or box cutter sliding back and forth in short strokes .
- Slice a cross in the bottom so that the cable comes through but is still sealed to prevent bugs from crawling up into the tube.

Optional parts

- Two Hose clamps to secure. 3 clamps can be used to mount into electrical cable wood staples. 4 1/2 clamps can be used around a 3/4 pipe mounted into the ground
- Two #3 electrical cable staples. Hammer these into wood, then loop the hose clamps through them to secure the housing.
- Power Over Ethernet (POE) adaptor kit, either:
 - LinkSys 5V Power over Ethernet adaptor: WLS POE ADPT KIT-WAPPOE
 - D-Link Power Injector + PoE Splitter: DWL-P200