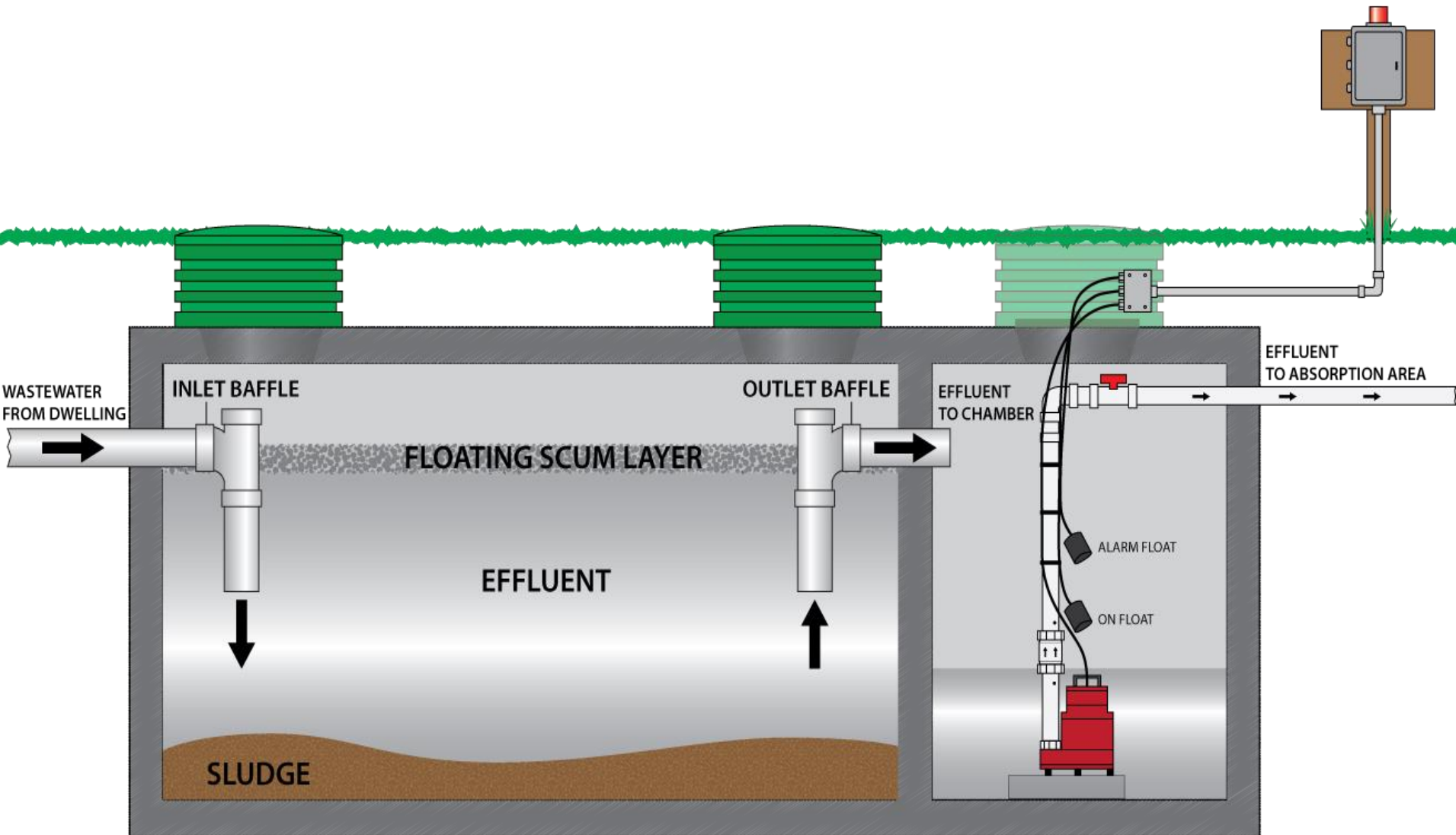


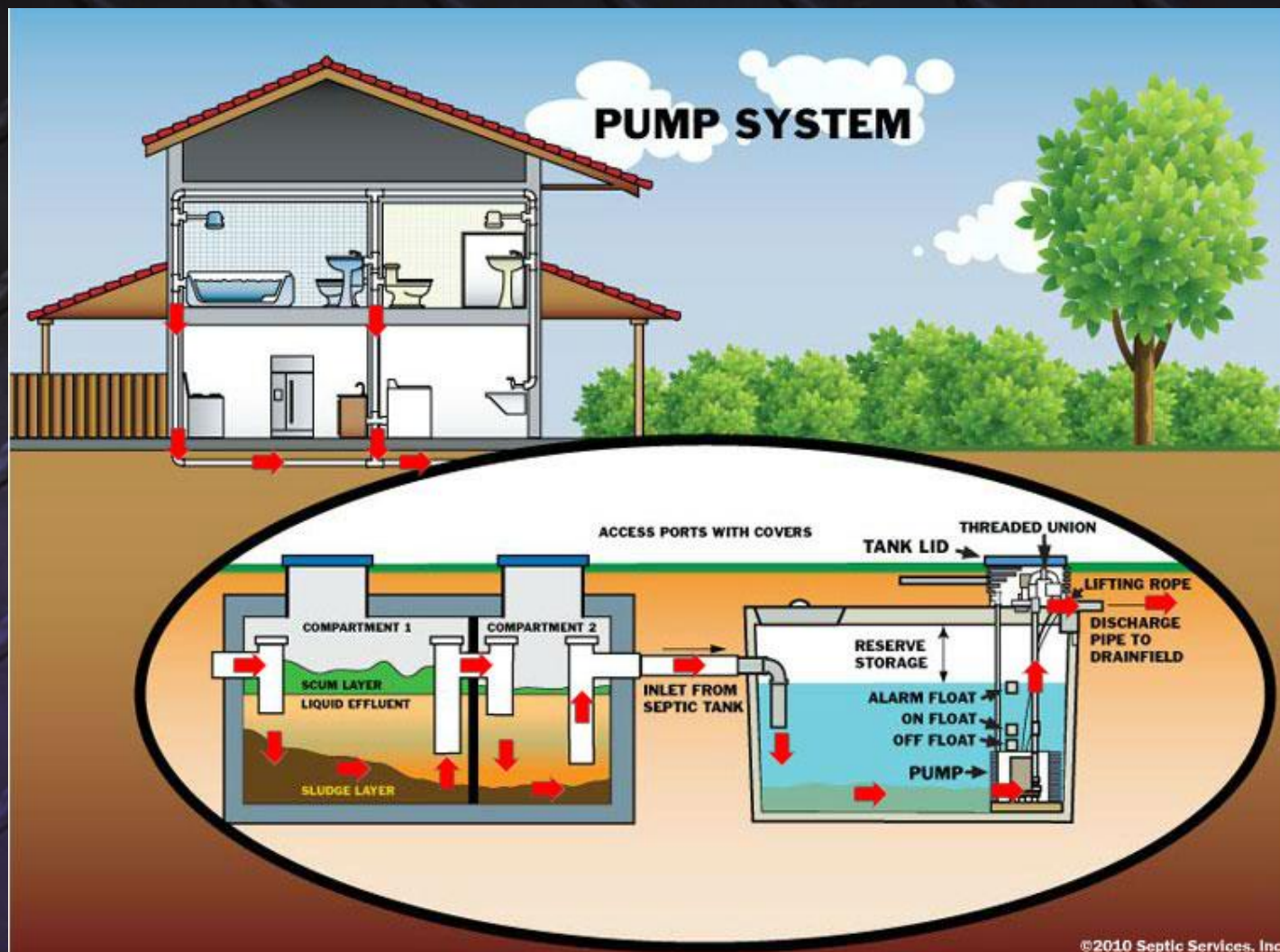
PUMP CONTROLS, FLOATS, PANELS AND INSTALLATION



Typical Septic & Pump Tank



PUMP SYSTEM



Typical Lift Station



TYPES OF FLOATS AND SWITCHES



FLOATS AND SWITCHES

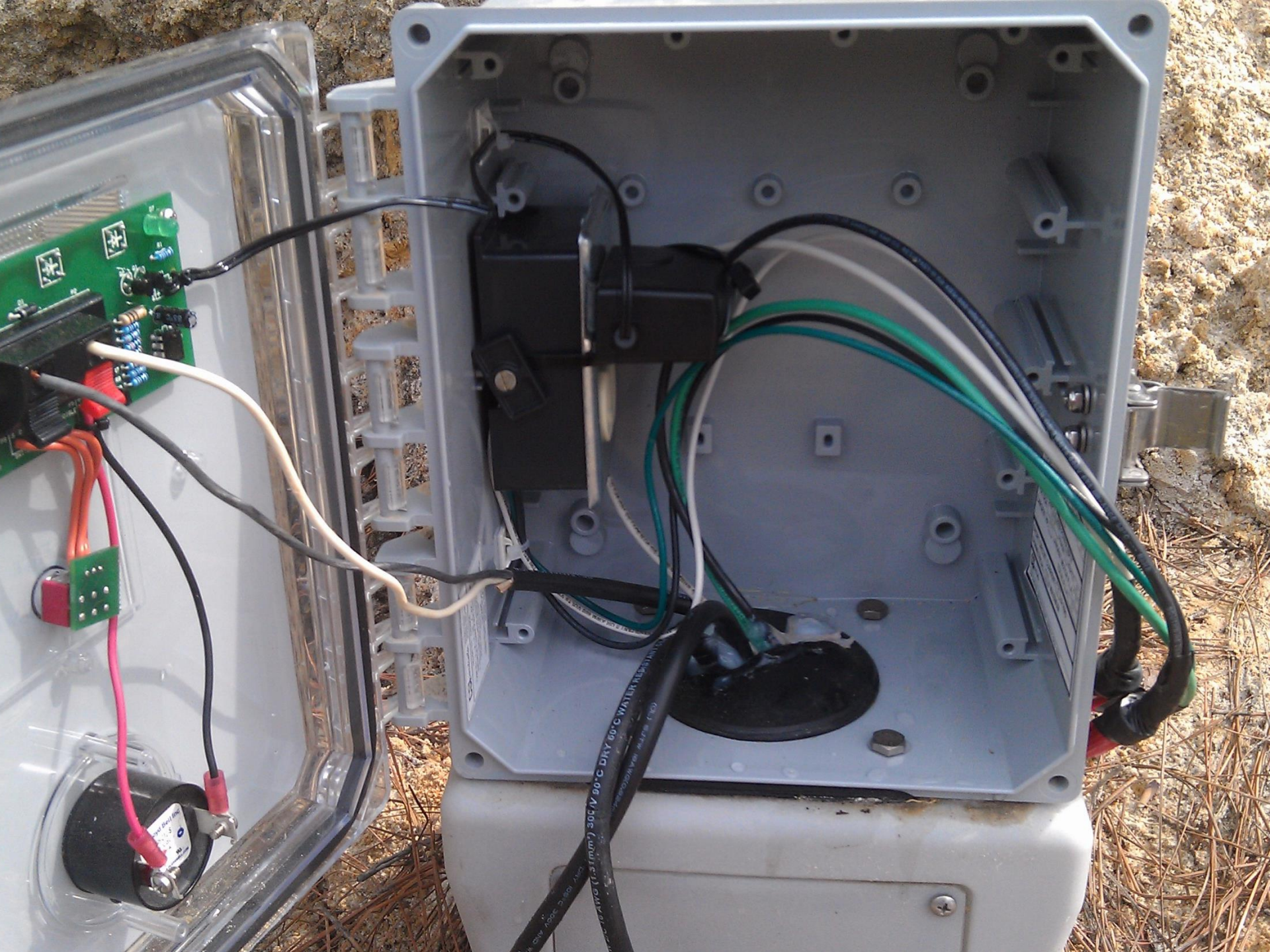


INSTALLING CONTROL PANELS

Best Installation Practices

- Locate control panel where it is easily accessible







INSTALLING CONTROL PANELS

Best Installation Practices

- Locate panel where it is easily accessible
- Use the proper drill bit when making penetrations in enclosure
- Avoid holes in top and sides of panel enclosure

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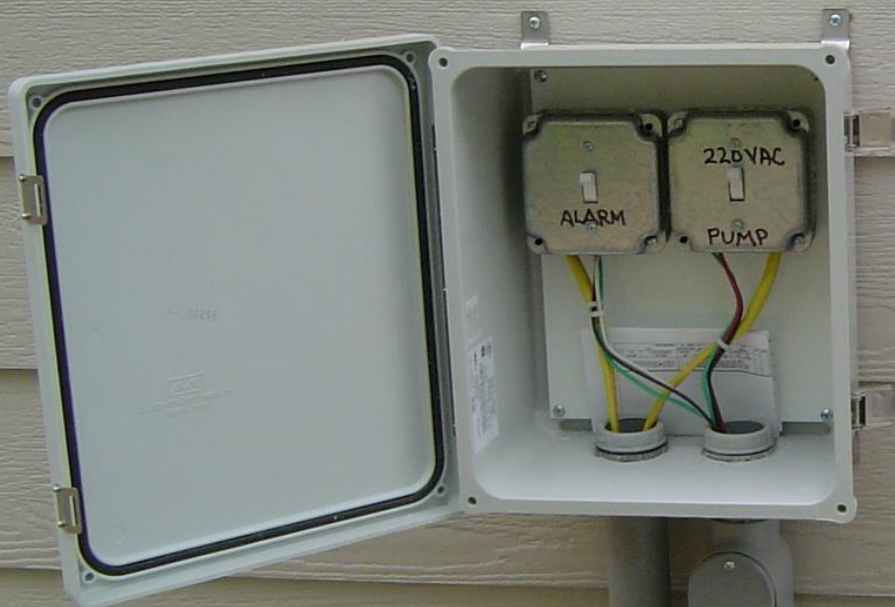
07/29/2009 11:57 am

This image shows a close-up of a grey plastic pipe fitting, likely a union or elbow, mounted on a white surface. The fitting has a hexagonal base and a flange. There is visible rust and discoloration around the base of the fitting, suggesting a leak or moisture exposure. A metal rod or screw is visible on the left side of the fitting. The overall appearance is aged and worn.



07/29/2009 11:56 am





APR 20 2010

DISCONNECT SWITCH



INSTALLING CONTROL PANELS



WARNING!
ELECTRICAL SHOCK HAZARD
Disconnect all power
sources before servicing.
Failure to do so could result
in serious injury or death.



INSTALLING CONTROL PANELS

Best Installation Practices

- Locate panel where it is easily accessible
- Use the proper drill bit when making penetrations in enclosure
- Avoid holes in top and sides of panel enclosure
- Use proper “Liquid tight” fittings on penetrations
- Seal conduits coming from sewage tank
- Seal off possible ground moisture into panel

INSTALLING CONTROL PANELS

Cable
Connectors



Provides strain relief and a liquid-tight seal. Round or flat models.

Hub
Assembly

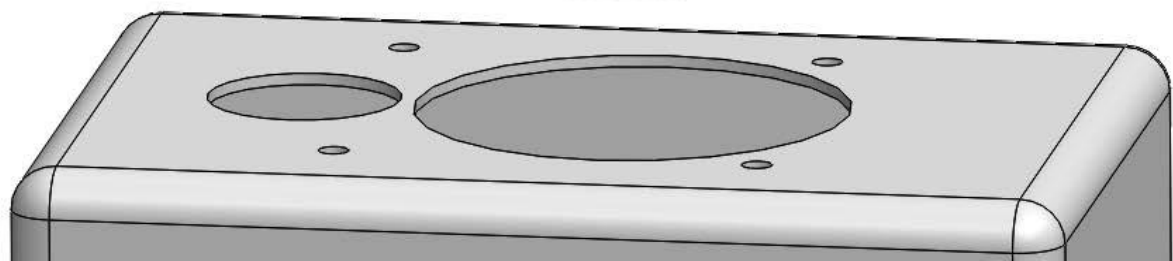
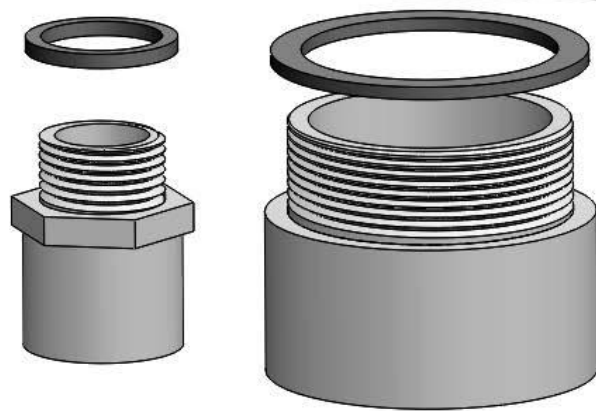
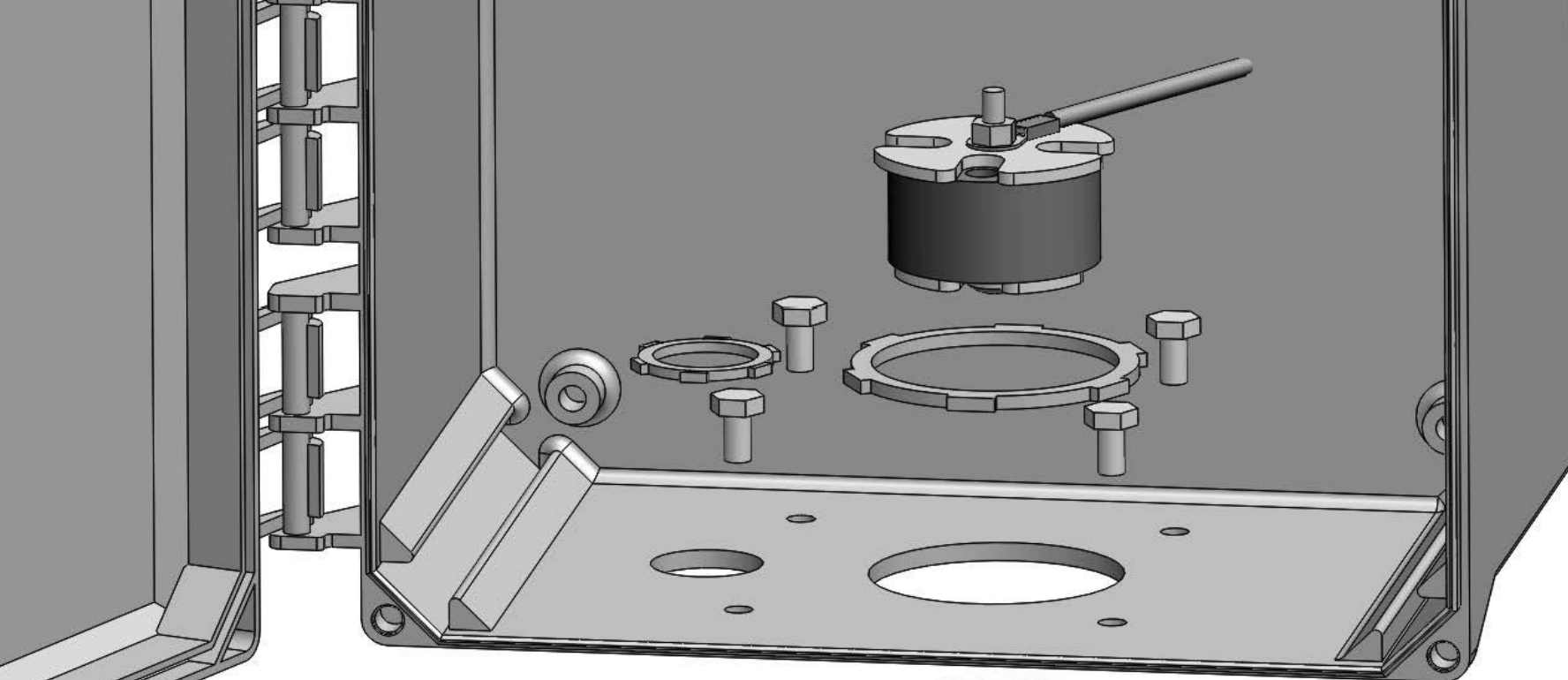


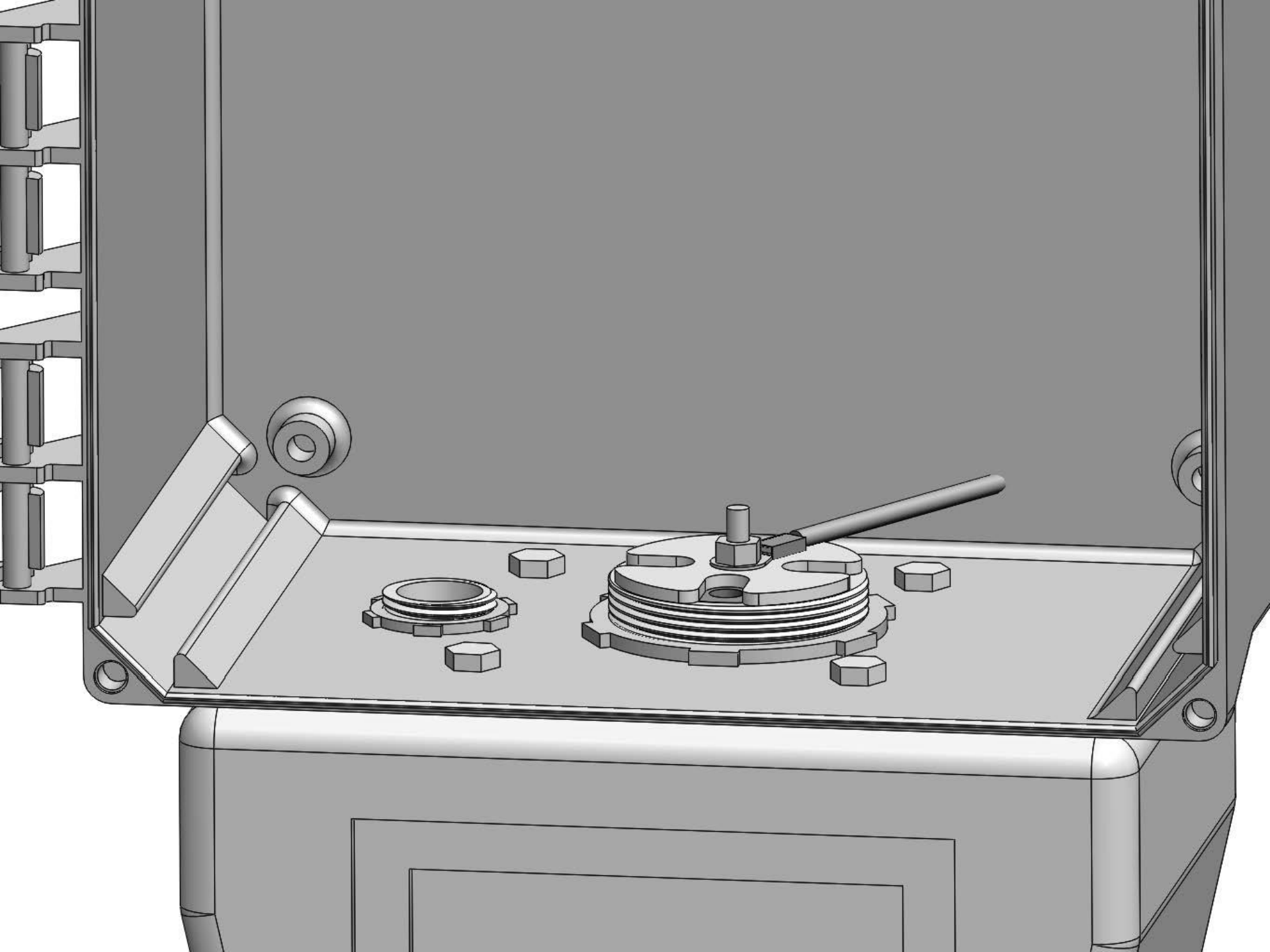
Provides liquid-tight conduit attachment location.

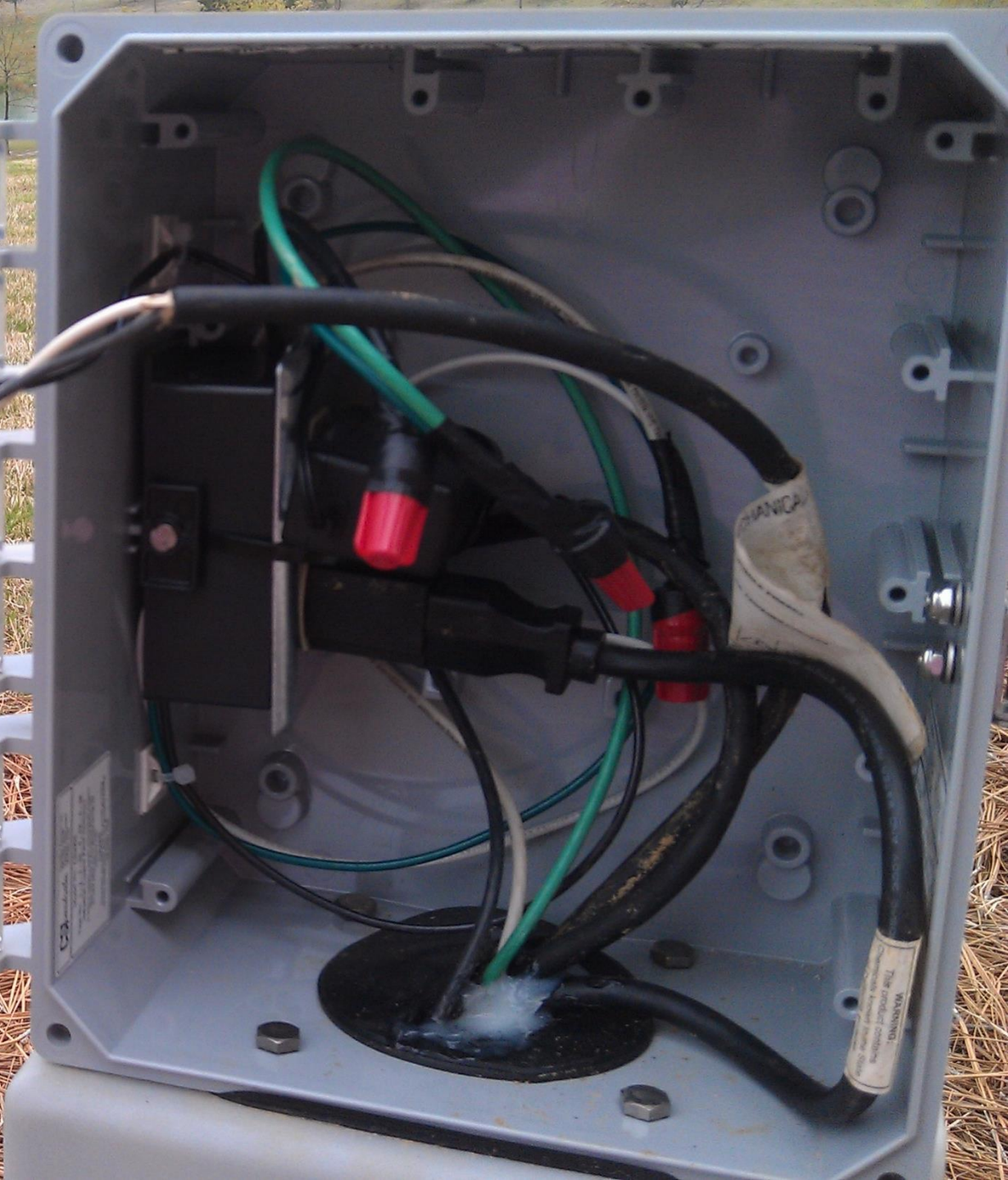
Cord
Seals



Provides strain relief and a liquid-tight seal.

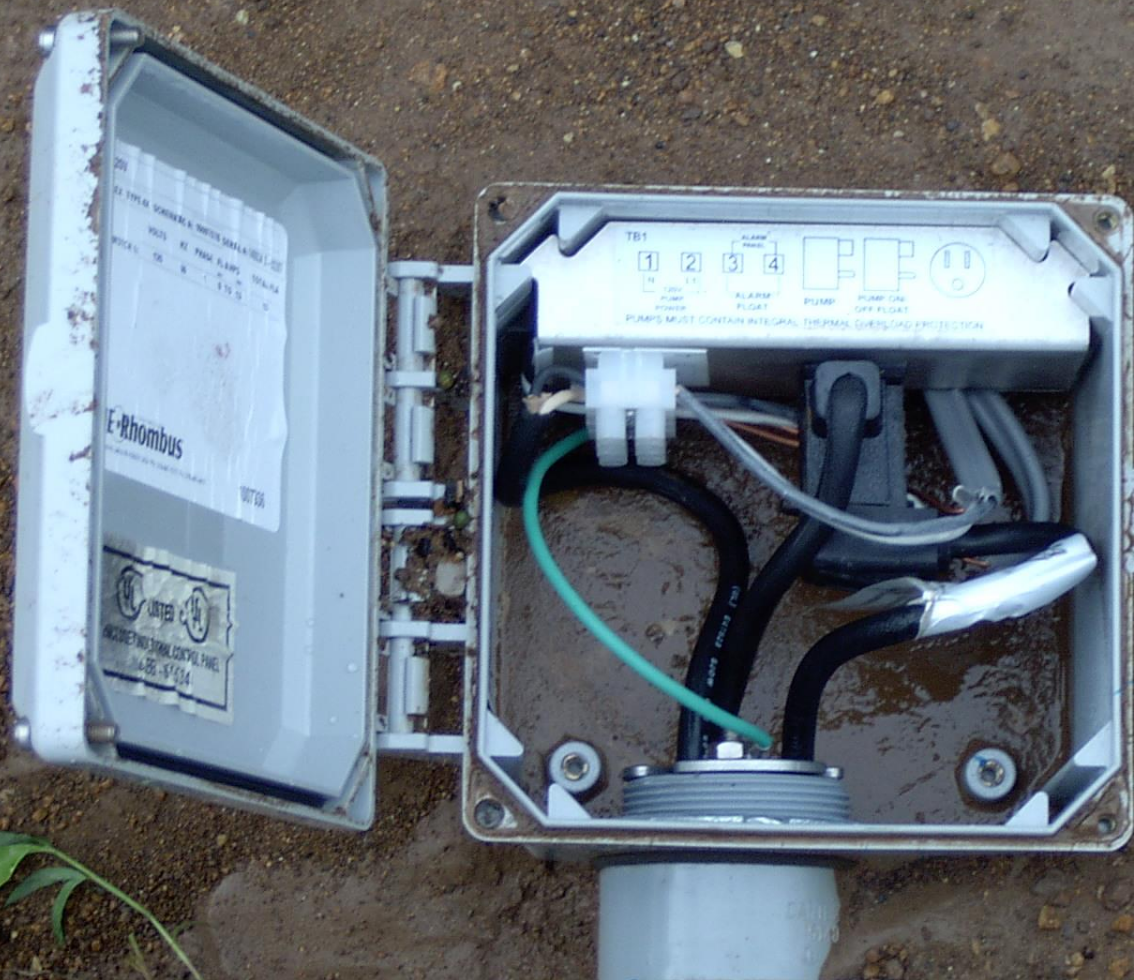












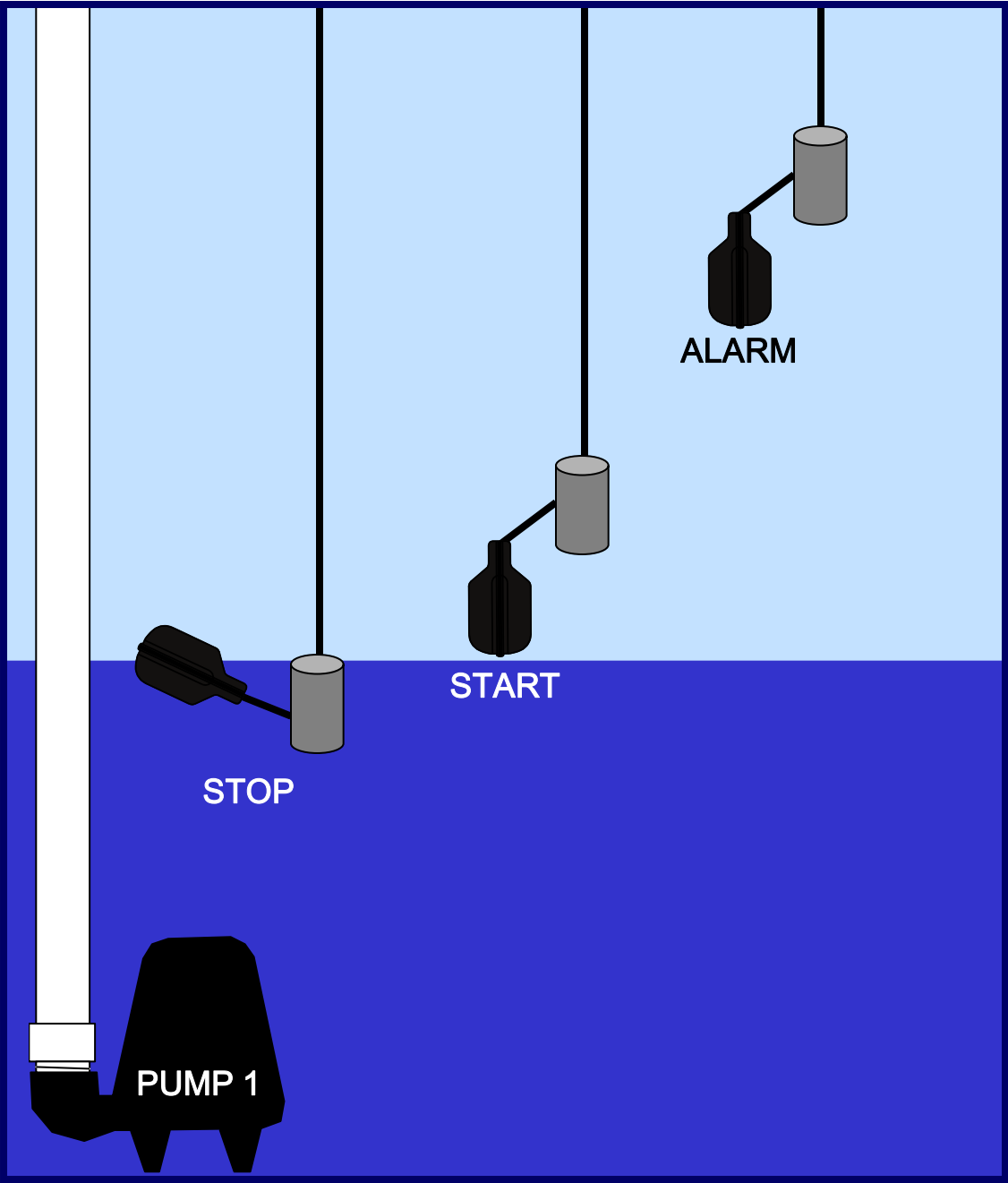


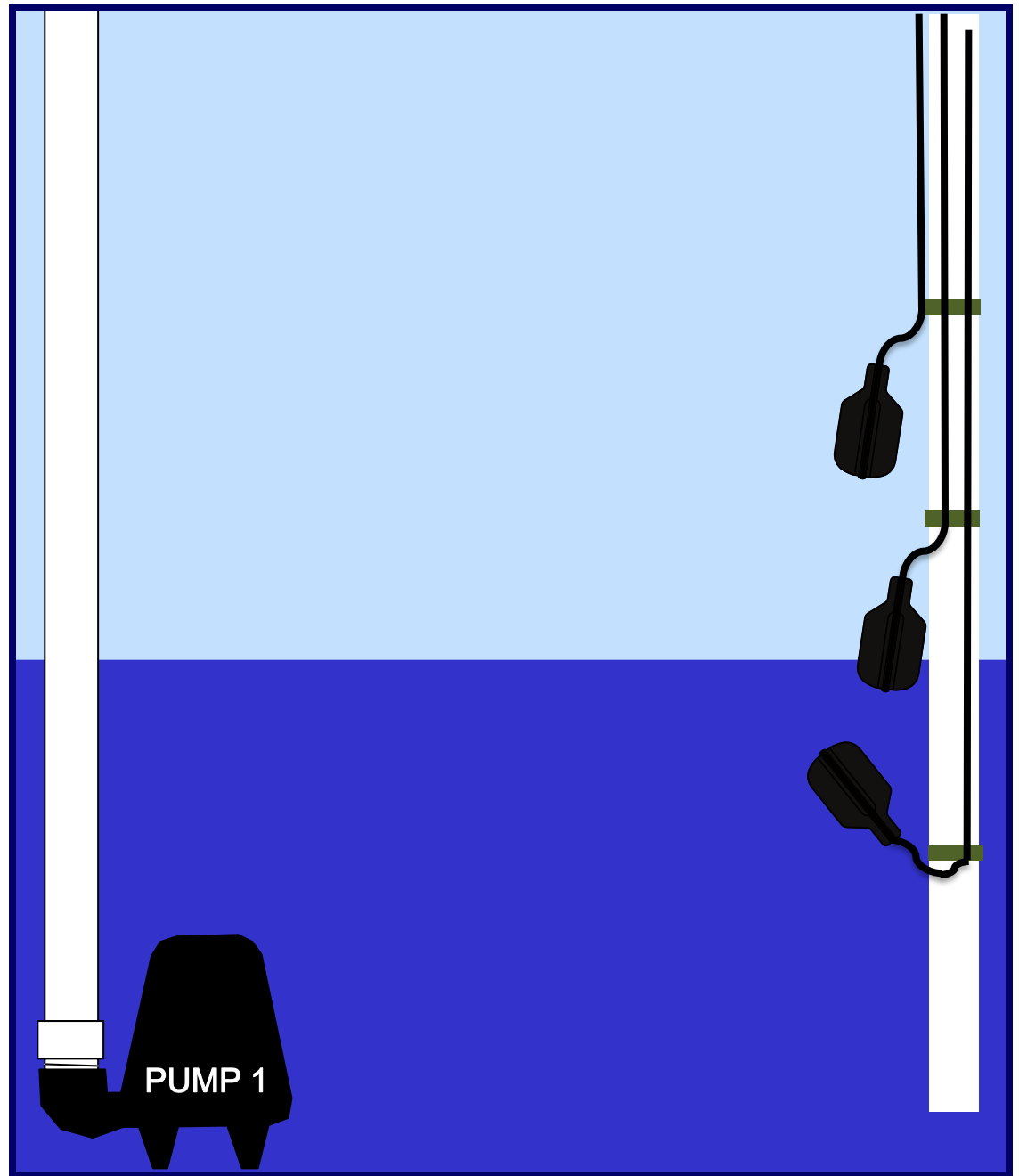
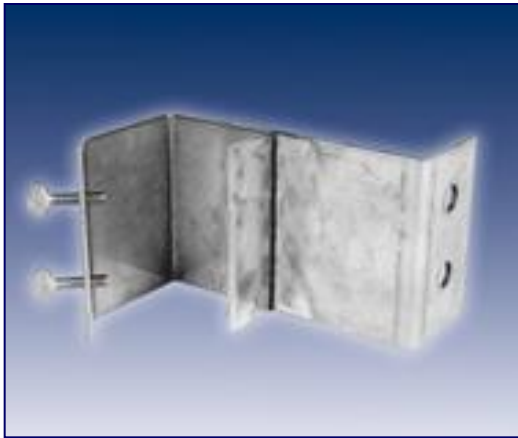
INSTALLING CONTROL PANELS

Best Installation Practices

- Locate panel where it is easily accessible
- Use the proper drill bit when making penetrations in enclosure
- Avoid holes in top and sides of panel enclosure
- Use proper “Liquid tight” fittings on penetrations
- Seal conduits coming from sewage tank
- Seal off possible ground moisture from panel
- Mount float switches so they actuate freely
- Mount float switches so they can be easily removed
- Label float switch cables prior to pulling through conduit







TWO ELECTRICAL CIRCUITS FOR CONTROL PANEL

CONTROL AND ALARM CIRCUIT

PUMP CIRCUIT

SINGLE PHASE POWER

CONTROL AND ALARM CIRCUITS

- **THE CONTROL/ALARM CIRCUIT SENDS POWER TO THE FLOATS.**
- **THE CONTROL/ALARM CIRCUIT POWERS THE MOTOR CONTACTOR COIL, ALL THE LIGHTS, AND THE BEACON & HORN.**
- **THE CONTROL/ALARM CIRCUIT IS SEPARATE ELECTRICALLY FROM THE PUMP CIRCUIT.**

PUMP CIRCUIT

**PUMP CIRCUIT IS SEPARATE
FROM THE CONTROL/ ALARM
CIRCUIT.**

**PUMP CIRCUIT PROVIDES POWER TO
THE PUMP MOTOR.**



SAFETY

**SAFETY IS THE MOST
IMPORTANT THING. IT TAKES
LESS THAN 1 AMP OF
CURRENT TO STOP YOUR
HEART ALWAYS TURN OFF POWER
WHEN WORKING INSIDE A
CONTROL PANEL, OR ON ANY
OTHER ELECTRICAL DEVICE**

- **TURN OFF THE SERVICE BREAKER FEEDING THE CONTROL PANEL OR ELECTRICAL DEVICE, USUALLY LOCATED OUTSIDE OF THE CONTROL PANEL.**
- **TURNING OFF THE BREAKERS IN THE CONTROL PANEL ONLY KILLS POWER TO THE COMPONENTS DOWN STREAM OF THE BREAKER – THERE IS STILL POWER TO THE TOP OF THE BREAKERS AND ANYTHING BEFORE IT IN THE CIRCUIT.**



THANK YOU!!!