EGOLD-1000
Electronic Grease Level Detector

Installation and Operating Procedures

Josam Company
2501 South Front Street
Philadelphia, PA 19148
215-339-5370
www.JOSAM.com

⚠ **WARNING:** Cancer and Reproductive Harm - www.p65warnings.ca.gov

REV J 03/21/17

Table of Contents

Figures

1.0 General Description

The EGOLD-1000 Electronic Grease Level Detector product consists of the following components:

- A wall mounted Control Unit that contains the level measurement micro-controller electronics, control switches and indicators.
- A Tank Probe assembly consists of a tank probe mounted to a bracket. Multiple probe lengths are available to fit most existing manual interceptor configurations.
- A U.L. approved wall mount low voltage power module.
- A Cable to interconnect the wall mounted Control Unit and the Tank Probe assembly.

The Control Unit housing, connectors, control switches and indicators are water resistant for splash or spray conditions. The Tank Probe assembly is a sealed against water penetration.

The EGOLD-1000 Electronic Grease Level Detector product provides the following functions and features:

- Provides a continuous grease level measurement system that can be calibrated to most existing manual interceptor configurations.
- Provides an integral level alarm to alert the user of the need for interceptor cleaning.
- Provides an easy method of alarm level calibration.

Figure 1-1 provides an illustration of the EGOLD-1000 System

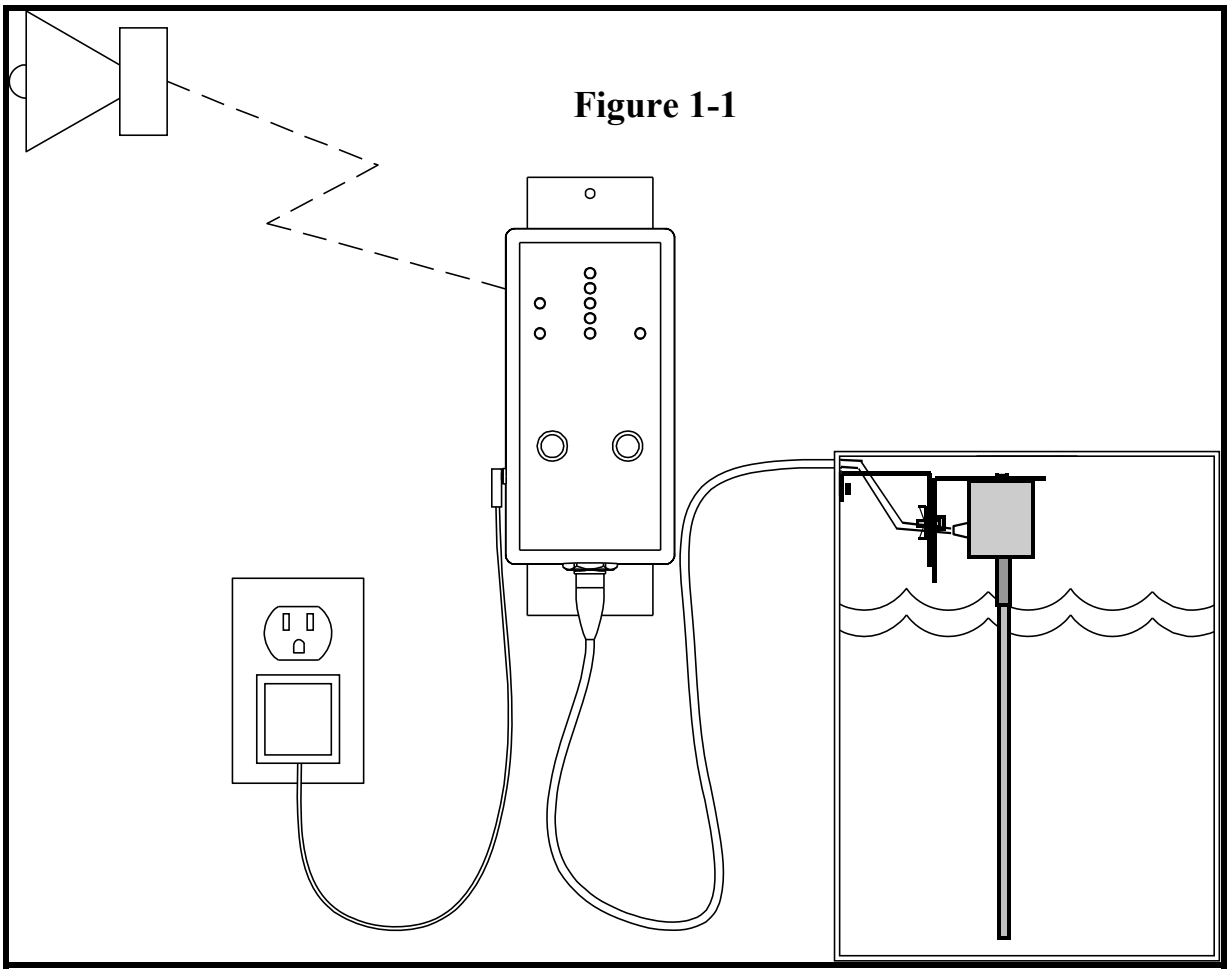

Figure 1-1

2.0 EGOLD-1000 Installation

2.1 Important Installation Points

- Check that you have selected the proper probe length to suit your particular interceptor tank requirements. See submittal sheet for available lengths.
- Prior to mounting the Tank Probe assembly in the interceptor tank, insure that the tank probe location chosen will not interfere with any baffle elements in the interceptor tank when installed.
- Installation will require drilling of the interceptor tank wall. **Note: Care should be taken when operating power tools around the interceptor tank due to the presence of water.**
- It is important to carefully follow the calibration procedure outlined below, in order to ensure proper grease level detection.
- **The wall mount power module that powers the Control Unit must be directly plugged into an outlet. Do not use an extension cord. If electric service is required, a licensed and certified electrician must install it.**

2.2 Control Unit Installation

The Control Unit has integral mounting brackets for wall mounting.

Install the Control Unit as follows:

1) Find a wall location that is within 10 feet of the interceptor and within 5 feet of an 115VAC wall outlet.
2) Place the Control Unit on the wall and mark the two (2) mounting hole locations. Drill 3/16” holes to accept the mounting hardware.
3) Use the mounting hardware provided to fasten the Control Unit to the wall.
4) Plug the power module provided into the wall and plug the power module cord into the Control Unit. Note: The LED indicators should flash ON then OFF when the unit is properly powered.

2.3 Tank Probe Assembly Installation

The Tank Probe Assembly consists of a bracket set and the Tank Probe mounted to it. Figure 2-1 illustrates an installed Tank Probe Assembly.

Install the Tank Probe Assembly as follows:

1) The interceptor should be located within 10 feet of the Control Unit mounting location.

2) Place Bracket A the top of the tank wall in the area where the Tank Probe Assembly is to be mounted. Mark and drill holes for self tapping 10-24 hardware.

Note: Before drilling the holes insure that the Tank Probe Assembly will not interfere with any mechanical or baffle elements in the tank when installed.

3) Secure the bracket indicated as Bracket A with (2) 10-24 self tapping screws provided into the holes drilled in the tank wall.

4) Attach the bracket indicated as B to bracket A with the ¼-20 screw and wing nut provided. Bracket B should be free to slide up and down on bracket A. Attach the probe to the underside of bracket A with the ¼-20 screw provided. Slide the probe and bracket B assembly until the bottom of the yellow band on the probe is at the same level as the bottom of the outlet pipe. Once positioned tighten the wing nut holding bracket B to Bracket A.

Note: Be careful not to bend, scrape or otherwise damage the probe shaft when mounting the Tank Probe assembly.

5) Attach the connector of the cable provided from the Control Unit to the Tank Probe Assembly. A path for the cable to exit the tank between the tank cover and side wall must be provided. **Note: The cable must not be sharply bent or crushed as it exits the tank.**

6) Note: Care must be taken to prevent the cable running between the interceptor tank and the Control Unit from becoming a safety hazard for foot traffic or damaged. If run along the floor, a method such as saw cutting a groove in the floor or covering the cable with a cable guide will be required.

7) Attach the cable to the Control Unit.

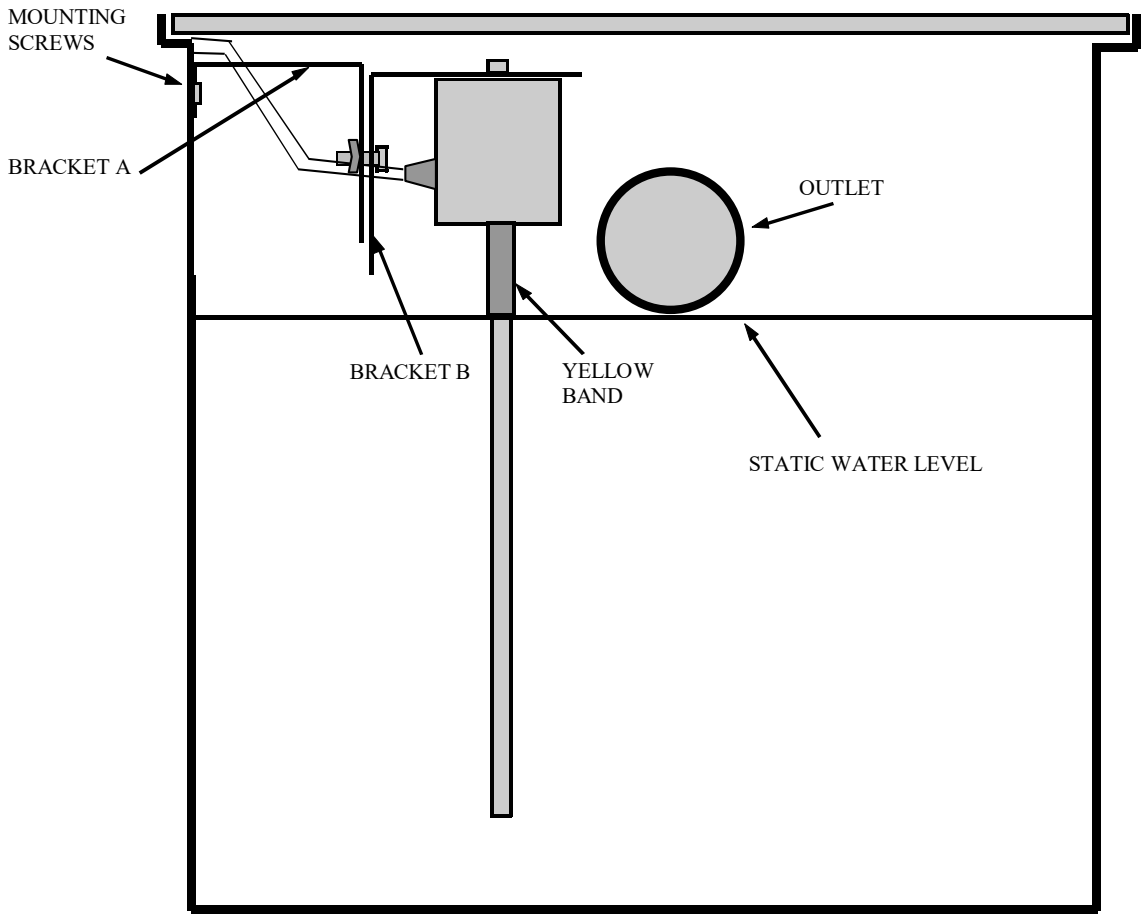
MOUNTING
SCREWS
BRACKET A
OUTLET
BRACKET B
YELLOW
BAND
STATIC WATER LEVEL

Figure 2-1

EGOLD-1000 System

3.0 EGOLD-1000 Controls and Indicators

3.1 Control Unit

The face of Control Unit has two (2) momentary push button controls:

Calibrate Button -This button is pressed to initiate a calibration procedure.

Alarm Reset Button -This button is pressed to turn off the level alarm buzzer.

The face of the Control Unit has the following LED indicators:

Power LED -When ON this LED indicates that the Control Unit has power applied.

Operating LED -When ON this LED indicates that the EGOLD-1000 Electronic Grease Level Detector system is operating properly in the grease level detection mode.

Calibration LED -When ON this LED indicates that the EGOLD-1000 Electronic Grease Level Detector system is in the grease level calibration mode.

Level LEDs -A set of 5 vertical LED indicators displays the current level of grease being detected in the interceptor tank. Each LED indicator represents approximately one fifth (1/5) of the maximum grease level volume.

-The bottom three (3) ***Green*** LEDs indicate the grease volume is below the level required for grease interceptor tank cleaning. Note: The three (3) ***Green*** LED indicators are also used during the system calibration.

-The ***Yellow*** LED indicates the grease volume is approaching the level required for cleaning the grease interceptor tank.

-The ***Red*** LED indicates the grease volume has reached the level requiring the grease interceptor tank to be cleaned.

Figure 3-1 illustrates the face of the Control Unit.

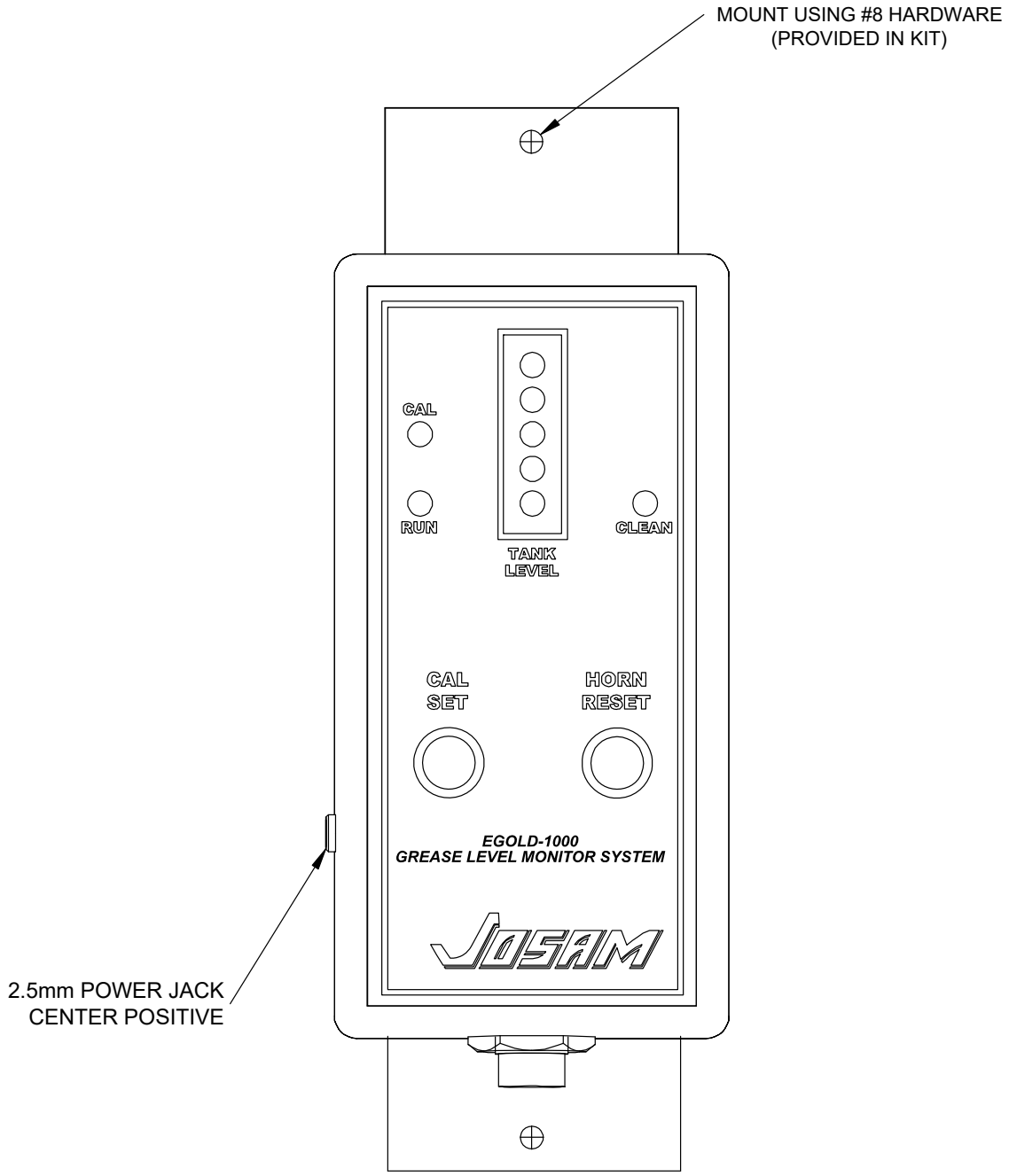

Figure 3-1
Control Unit

4.0 EGOLD-1000 Calibration

The calibration of the EGOLD-1000 Electronic Grease Level Detector system sets the grease level at which the alarm (Horn) sounds indicating that the grease interceptor is due for cleaning.

Typically, the alarm level is approximately 1/3 of the distance between the bottom of the outlet pipe on the interceptor tank and the bottom of the tank.

4.1 Calibration Procedure

Perform the following steps to calibrate a newly installed EGOLD-1000 Electronic Grease Level Detector system:

1) Start with the Control Unit unpowered (power module removed from the wall socket).

2) Mark a line on the inside interceptor tank wall that is approximately 1/3 of the distance from the bottom of the outlet pipe to the bottom of the tank
   Note: When grease fills the interceptor tank down to this level the alarm will be activated.

3) Fill the interceptor tank with water up to the line marked in Step 2.

4) Secure the tank cover with the Tank Probe Assembly installed onto the interceptor tank.

5) Power up the Control Unit (plug power module into the wall socket) The LED indicators should flash ON then OFF (the horn will also beep) to indicate Power has been applied.

6) The Control Unit LED indicators should be in the following states:

   - ***Run*** LED is OFF
   - ***Cal*** LED is Off
   - ***Red*** *Level* LED will be flashing (the horn will also intermittently beep)
   - The other ***Level Indicating*** LEDS are OFF

7) Press the **Cal Set** Button on the Control Unit. The CAL LED will start flashing indicating the Control Unit is in the calibration mode. The Red Level LED will go OFF.

   Note: Calibration mode can be cancelled at any time by pressing the Alarm Reset Button.

8) The bottom two (2) ***Green*** LEDs should turn ON. Then press the ***Cal Set*** Button on the Control Unit. The two (2) ***Green*** LEDs will begin flashing and then turn OFF after several minutes (the horn will also beep). The ***CAL*** LED will continue flashing indicating the Control Unit is still in the calibration mode.

9) Fill the interceptor tank with water until water flows out of the interceptor tank outlet pipe.

10) Press the ***Cal Set*** Button on the Control Unit. The two (2) ***Green*** LEDs will begin flashing. After several minutes the ***CAL*** LED and the two (2) ***Green*** LEDs will turn OFF (the horn will also beep). The ***Run*** LED will then turn ON indicating that calibration was successfully complete and the unit is now operating in the grease level detection mode.

Note: The ***Red*** Level LED will turn ON and the ***CAL*** LED will continue flashing indicating the system calibration was not successful. Repeat the calibration procedure a second time. Contact JOSAM for technical support if system calibration is not successful the second time.

5.0 EGOLD-1000 Operation

Once the EGOLD-1000 Electronic Grease Level Detector system is calibrated, operation is fully automatic and requires no operator interaction.

Normal Operation

The EGOLD-1000 Electronic Grease Level Detector system operates as follows:

- The interceptor grease level is continuously monitored.
- The ***Level Indicating LEDs*** provide an indication of the current level.
    - The bottom three (3) ***Green*** LEDs indicate the grease volume is below the level required for grease interceptor tank cleaning.
    - The ***Yellow*** LED indicates the grease volume is approaching the level required for cleaning the grease interceptor tank.
    - The ***Red*** LED indicates the grease volume has reached the level requiring the grease interceptor tank to be cleaned.
- The audible Alarm will sound once the ***Red*** LED indicates the grease volume has reached the level requiring the grease interceptor tank to be cleaned
- Pressing the Alarm Reset Button on the Control Unit can silence the Alarms.

  Note: The audible alarm will again sound after several minutes if the grease volume is still at the level requiring the tank to be cleaned.
- Power should be removed from the Control Unit (unplug power module into the wall socket) when cleaning the grease interceptor tank.

  Note: The EGOLD-1000 Electronic Grease Level Detector system will maintain calibration when unpowered.

Error Indications

The Control Unit will indicate system operating errors as follows:

- The ***Operating*** LED will be OFF.
- The ***Red*** Level LED will be flashing.
- The audible Alarm will sound intermittently (short beeps once every ten seconds).

System errors include:

- Loss of a proper signal from the Tank Probe Assembly
  - disconnected or broken cable to Tank Probe Assembly
  - electronic failure in the Tank Probe Assembly
- System Calibration improper
  - Tank Probe Assembly level signal outside the calibration limits

6.0 EGOLD-1000 Maintenance

The EGOLD-1000 Electronic Grease Level Detector system maintenance requirements are as follows:

- The Control Unit should be unpowered (power module removed from the wall socket) during maintenance operations.

- The Control Unit requires no periodic maintenance.

  Note: The Control Unit is water resistant. Therefore, the Control unit face may be cleaned with a damp cloth as required.

- The Tank Probe Assembly requires that the tank probe protruding into the tank be cleaned of grease or debris that may be stuck to the tank probe periodically. JOSAM recommends the tank probe be cleaned every time the grease is emptied from the interceptor tank. As a minimum, the tank probe should be cleaned every 6 months.

- Tank probe cleaning can be accomplished by wiping the probe with a soft cloth or sponge. A degreaser (i.e. dish washing soap, etc.) may also be used. The housing of the Tank Probe Assembly is water resistant and may be cleaned with a damp cloth as required.

  Note: Do not use an abrasive material (i.e. scouring pad, steel wool, etc.) to clean the tank probe as this may damage the tank probe protective covering. Do not bend the tank probe during cleaning.

- Recalibration of the system is not typically required after the Tank Probe Assembly has been cleaned. JOSAM recommends that system calibration be performed once a year.

NOTE:
TO MAINTAIN SYSTEM PERFORMANCE AND ACCURACY IT IS NECESSARY TO REMOVE SOLIDS ACCUMULATION IN THE TANK ON A REGULAR BASIS.

SOLIDS BUILD UP IN THE TANK WILL ADVERSELY AFFECT THE PERFORMANCE OF THE SYSTEM.