SUPER FLO™ GI-2000

FULLY AUTOMATED
GREASE RECOVERY DEVICE (G.R.D.)

OPERATION, INSTALLATION AND MAINTENANCE MANUAL

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

PLEASE READ CAREFULLY

Grease Recovery Device will operate efficiently only when properly installed. Do not discard this manual. Manual to be distributed to installer, operator and maintenance department.

JOSAM

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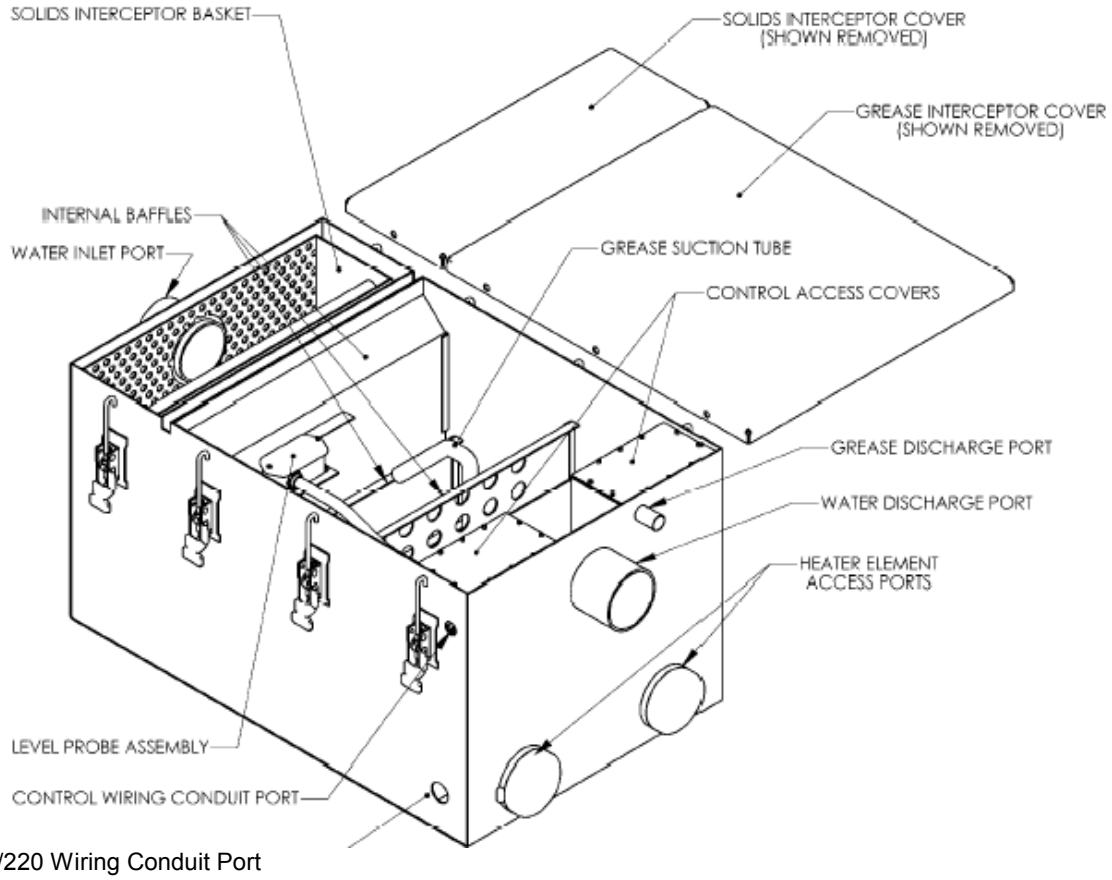
1. UNPACKING

1.1 After unpacking the GI-2000, the unit should be checked for any damage that may have occurred during shipment. Any damage should be reported to Josam Company immediately.

The following items should be included with the shipment:

QTY	DESCRIPTION
1	GI-2000 G.R.D.Unit
1	GI-2000 Flow Control Fitting
1	GI-2000 Manual
1	15' Controller Cable
1	GI-2000 Controller
1	Optional Reclaim Tank

GI-2000 UNIT
DIAGRAM "A"



2. PRIOR TO INSTALLATION

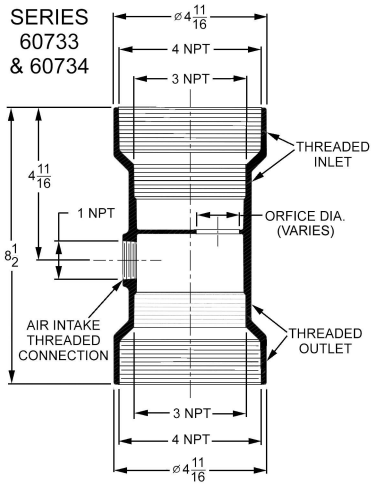
2.1 Ensure that you have selected the proper size JOSAM GI-2000 so that it can never exceed the maximum rating of the grease recovery device to suit your particular requirements. Size is based on Flow Rate per PDI G-101 and ASME A112 14.4.

SIZING TABLE		
Fixture-Equipment Drain Outlet or Trap Size	**Drainage Fixture-Unit Value**	**Drainage G.P.M. Equivalent**
1-1/4”	1	7.5
1-1/2”	2	15.0
2”	3	22.5
2-1/2”	4	30.0
3”	5	37.5
4”	6	45.0

Model	Flow Rate (GPM)	Grease (Lbs.)	Inlet Size
60305A	20	40	3”
60306A	25	50	4”
60307A	35	70	4”
60308A	50	100	4”
60309A	75	150	4”
60310A	100	200	4”
60311A	150	300	4”
60312A	200	400	5”
60313A	250	500	5”
60314A	350	700	6”
60315A	500	1000	6”

2.2 Josam Company has shipped the proper flow control fitting to suit the GRD that you have ordered. Ensure that the proper flow control fitting is included with your shipment. Changing the flow control fitting is not recommended and will effect the performance and warranty of the GRD.

Flow Control Rating (GPM)	Orifice Diameter
20	1-1/8”
25	1-1/4”
35	1-1/2”
50	1-3/4”
75	2-1/8”
100	2-7/16”
150	3”
200	3-7/16”
250	3-3/4”
350	4-7/16”
500	5-1/8”



3. WARNINGS

3.1 The GI-2000 uses heating elements in it's operation. Therefore, the unit must always be filled with water. Elements damaged by electricity prior to the unit being filled with water will void any said warranties.

3.2 To maintain optimum system performance and accuracy it is necessary to remove solids accumulations in the tank on a regular basis.

4. PLUMBING INSTALLATION

4.1 INSTALLER

Installation is to be performed by a licensed and certified plumber.

4.2 LOCATION OF GRD

The Plumbing & Drainage Institute (PDI) recommends that the unit be located within 25' or as close as possible to the source of grease being served. The unit may be set on the floor, partially recessed or completely recessed below the floor. If the unit is to be recessed you must have proper installation of the electrical hook-up, drain line and LCD control unit.

4.3 CLEARANCE

When installing, ensure that there is 6" minimum clearance per side for latch removal. Also provide a minimum of 24" on the outlet end in the event that the heating elements require service. Provide adequate space on the inlet side for installation or flow control servicing. When installing the GI-2000 in a pit/vault provide a drain or a sump pump to prevent water damage.

4.4 LEVELING THE UNIT

The GRD must be leveled from front to back and from side to side. The unit must be leveled prior to calibration.

4.5 IMPORTANCE OF FLOW CONTROL FITTING

Extensive test reports conclude that both satisfactory operation and maximum efficiency of the GI-2000 is dependant on the proper rate of flow for the GI-2000 connected, which is accomplished by a flow control fitting. As a result, a specially designed Josam flow control fitting with a 3", 4", 5" or 6" threaded inlet and outlet connection, depending on size of unit, and a threaded air intake is furnished with every GI 2000 at no extra cost. The flow control must be installed to prevent overloading the trap and to maintain maximum grease retention efficiency.

4.6 FLOW CONTROL LOCATION

The GI 2000 must be correctly installed with the flow control as per model plumbing codes or the local authority having jurisdiction. The GI-2000 must have a flow control device properly vented at the inlet or in close to proximity to the GRD inlet, thus allowing the fixtures to be plumbed and vented as required without having any negative impact on the GRD or flow control device whose purpose is integral to the performance of the GRD. (See Diagram B)

4.7 FLOW CONTROL INSTALLATION

Install air intake vent from flow control to outside opening and fit elbow, turned down; or intersect a common vent or vent stack without a trap as permitted by local codes. Top of air intake from Flow Control is to be at least 6” above flood rim level of the lowest fixture served. (See Diagram B) It is recommended that the air intake be tied to the vent stack.

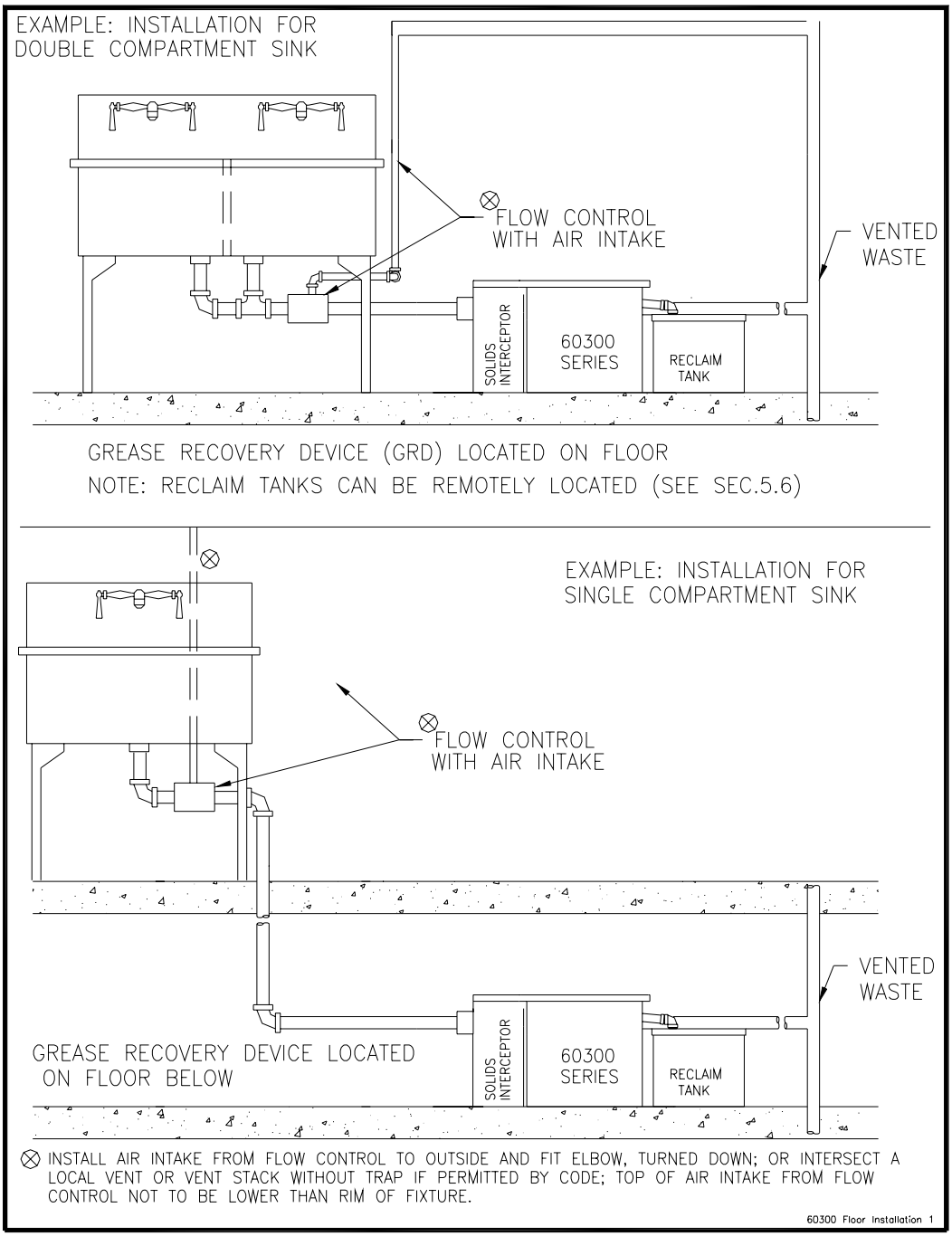
4.8 VENTED WASTE

The GI 2000 must have a vented waste (outlet), sized as required by local code or local authority having jurisdiction for venting traps to retain water seal and prevent siphoning. (See Diagram B)

4.9 ADDITIONAL REQUIREMENTS

When local codes require floor drains to flow through a GRD, the flow control must be accessible and installed prior to the inlet of the unit.

DIAGRAM “B”



ILLUSTRATIONS ARE JOSAM'S RECOMENDATIONS AND ARE INTENDED TO ASSIST THE INSTALLER OF THE JOSAM GI–2000 GRD. IF YOU HAVE AN UNUSAL SITE CONDITION OR REQUIRE ASSISTANCE, PLEASE CONTACT OUR TECHNICAL ASSISTANCE DEPT.

Locate the installation diagram which most closely suits your requirement. Install the flow control and GI 2000 as shown.

5. ELECTRICAL INSTALLATION

5.1 INSTALLER

The electric service and connections to the GRD must be installed by a licensed certified electrician.

5.2 POWER HOOKUP

WARNING! Do not apply power to the unit until the GI-2000 is completely full of water. Install this unit as any GRD would normally be installed with the exception to provide a 220/208VAC, single phase, Ground Fault Circuit Interrupter (do not apply power to the unit at this point), 4 wire connection hard wired to the main power box side of the GI-2000 per code. The electrical installation must conform to NEMA-4 standards. The main power wire cannot be run through a wall and must be wired to the main breaker panel so that it can be viewed from the GI-2000 area.

Model	Voltage	Heating Watts	GFI Breaker
60306A	220/208 VAC	5000 Watts	25 AMP
60307A	220/208 VAC	7000 Watts	40 AMP
60308A	220/208 VAC	7000 Watts	40 AMP
60309A	220/208 VAC	7000 Watts	40 AMP
60310A	220/208 VAC	9000 Watts	50 AMP

For special order models not listed consult Josam Company for power requirements.

5.3 NEMA-4 BOX

Red: 120VAC (L1)
Black: 120VAC (L2)
White: Neutral
Green: Ground

Wire Type: (Type MTW) 10 Awg min.
Conduit Description: 1” Liquid-Tight Flexible Nonmetallic Conduit
Conduit Part #: 7581K44

WARNING! System power should be secured into the power inlet box (access via heater element port as shown in Diagram A) in a method that conforms to NEMA-4 standards. Wire nuts are used to connect the power wires behind the power conduit port.

5.4 INITIAL POWER TEST

After confirming that the unit is level, fill the GI-2000 with water before applying power to the unit. Verify with a current probe that L1 and L2 are below 1 amp. Once confirmed, remove power from the unit.

5.5 CONTROL

Mount the GI-2000 controller conduit port on the GI-2000. The control wiring conduit port is the round connector near the top of the GRD (See Diagram A)**.** Connect the controller cable to the control wiring conduit port. Should additional length be required use Beldon type 8469 (9 Conductor Cable). DO NOT exceed 200'.

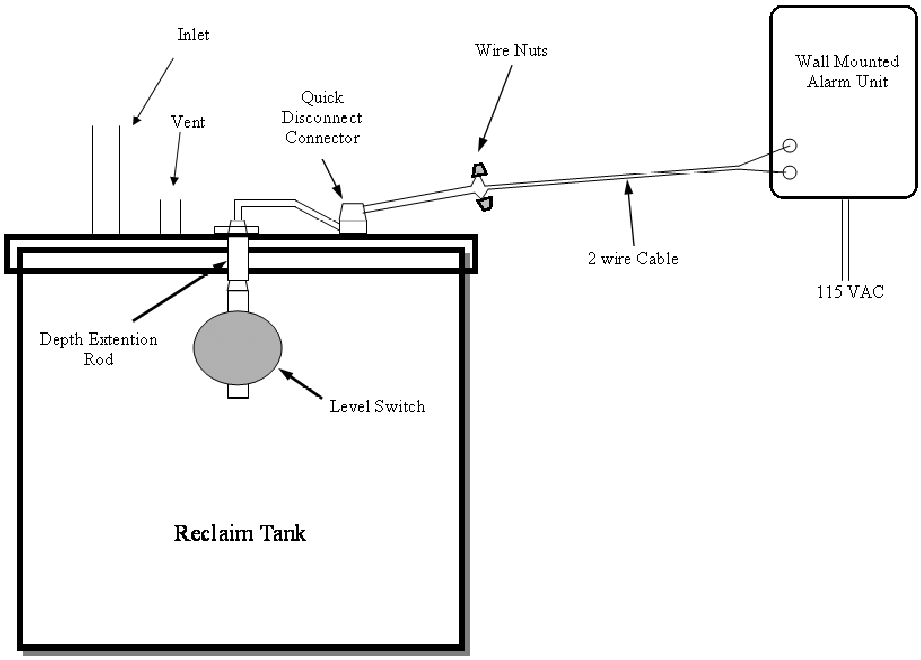
5.6 RECLAIM TANK

The GI-2000 is shipped with a ¾" NPT brass outlet fitting. The fitting if removed is a ¾" M.I.P. fitting. Maximum head is 15' (maintain ¾" connection). Appropriate material should be used to accommodate possible temperatures of 140°F, as well as vibrations, when pumping. When applications warrant a distance between the GI-2000 and the reclaim tank, the piping must be sloped toward the reclaim tank. Heat tracing may also be required. **Venting is required**.

5.7 RECLAIM TANK ALARM

A reclaim tank alarm is suggested and available as an optional feature (See Diagram C). Contact Josam Company or your local Josam representative for additional pumping requirements and available options.

DIAGRAM "C"



6. TESTING

6.1 G.R.D. TEST

6.1.1 Confirm that the unit is level and unlatch and lift off the large cover on the GI-2000 tank.

6.1.2 Run water through the drain installation until the unit is full. The unit is full when water runs out of the outlet of the GI-2000.

6.1.3 Check the system installation for leaks.

6.1.4 Turn the Auto/Manual mode switch located on the front of the controller to the MANUAL position.

6.1.5 Apply power to the GI-2000. The controller will beep and start the initialization procedures. Wait until the display indicates the unit is in MANUAL mode. This will take approximately 15 seconds. Should any part of the diagnostics fail, the unit will beep every 5 seconds and display a message about the failure. (See Controller Operating Section and Troubleshooting Guide for details on addressing possible problems with the GI-2000)

6.2 HEATER TEST

6.2.1 Open the controller door by loosening the front panel screws on the controller door.

6.2.2 Press the TEST button once and the following message will be displayed:

```
    PRESS UP OR DOWN KEYS UNTIL
        DESIRED TEST APPEARS
```

6.2.3 Press UP or DOWN until the following message is displayed:

```
HEATER TEST (DO NOT RUN DRY): HEATER:OFF
   PRESS ENTER TO CYCLE HEATER STATUS
```

6.2.4 Press ENTER to turn the heaters on and ensure that they are operating. Evidence that they are operating can be detected by heat waves and bubbles forming around the heater elements. Pressing ENTER again will turn the heater off. Check the display and green LED indicator to ensure proper operation. The heaters will also automatically shut off after three minutes.

WARNING! Do not run the heater dry! Running the heater dry may cause damage to the heaters and the unit.

6.3 PUMP TEST

6.3.1 Open the controller door by loosening the front panel screws on the controller door.

6.3.2 Press the TEST button once and the following message will be displayed:

```
     PRESS UP OR DOWN KEYS UNTIL
         DESIRED TEST APPEARS
```

6.3.3 Press UP or DOWN until the following message is displayed:

```
PUMP TEST (DO NOT RUN DRY):      PUMP:OFF
  PRESS ENTER TO CYCLE PUMP STATUS
```

6.3.4 Press ENTER to turn the pump on and observe that the pump is running and water is being pumped into the reclaim tank.

WARNING! Do not run the pump dry! Pressing ENTER again will turn the pump off. Check the display and green LED indicator to ensure proper operation. The unit will also automatically turn the pump off after 60 seconds.

6.4 TEMP SWITCH TEST

6.4.1 Open the controller door by loosening the front panel screws on the controller door.

6.4.2 Press the TEST button once and the following message will be displayed:

```
     PRESS UP OR DOWN KEYS UNTIL
         DESIRED TEST APPEARS
```

6.4.3 Press UP or DOWN until the following message is displayed:

```
 TEMP.SWITCH TEST:    SWITCH STATUS: OFF
```

6.4.4 Using a meter confirm change in status (continuity) when cycling switch.

6.4.5 Press ENTER to change the switch status to ON on the LCD.

6.5 WATER LEVEL TEST

6.5.1 Open the controller door by loosening the front panel screws on the controller door.

6.5.2 Press the TEST button once and the following message will be displayed:

```
     PRESS UP OR DOWN KEYS UNTIL
         DESIRED TEST APPEARS
```

6.5.3 Press UP or DOWN until the following message is displayed:

```
WATER LEVEL TEST:
        WATER LEVEL: XX.XINCHES
```

6.5.4 Verify that the unit reads a minimum of 4 inches of water and that the tank level is full of water only with little to no grease. If the tank level appears out of range run a calibration on the system (See Section 7.5 of Controller Operating Section).

6.6 DISPLAY & LED TEST

6.6.1 Open the controller door by loosening the front panel screws on the controller door.

6.6.2 Press the TEST button once and the following message will be displayed:

```
PRESS UP OR DOWN KEYS UNTIL
    DESIRED TEST APPEARS
```

6.6.3 Press UP or DOWN until the following message is displayed:

```
        DISPLAY & LED TEST:
   PRESS ENTER TO START TEST
```

6.6.4 Press ENTER to start the test. After pressing ENTER the LED will be lit and test messages will be displayed on the LCD. Pressing UP will revert to the previous test. Pressing DOWN will display the following message:

```
          END OF TEST MODE
       PRESS ENTER TO EXIT.
```

6.7 COMPLETION OF TESTING

6.7.1 To exit test mode press Test/Cancel button twice.

6.7.2 Carefully close the control front panel and reinstall the locking screws.

6.7.3 Turn the Auto/Manual switch on the front panel to AUTO.

6.7.4 Install the top cover of the grease trap section.

7. MAINTENANCE

7.1 To maintain optimum system performance and accuracy it is important to remove all solids that have accumulated in the solids interceptor. Do not allow any solids to build up in the GI-2000.

7.2 It is recommended that owner maintain a daily maintenance log to insure GI-2000 maximum performance. See sample Maintenance Log on next page.

JOSAM GI-2000 MAINTENANCE LOG **PART NUMBER: _____**
MONTH: _____ **SERIAL NUMBER: _____**

CONTACT: Chas Tevis **(Phone) 215-339-5370 Ext. 212** **(Fax) 800-962-3312**

Date	Power	Mode	Cycles Completed	Water Level	Cleaned Solids	Reclaim Tank Status	Initial	Time	Comments
Ex.	Y	Auto	0 – 1 – 1 – 2	4.3	Y	Half Filled	CT	9:00 AM	Temp LED On
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
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27									
28									
29									
30									
31									

CONTROLLER OPERATING PROCEDURES

1. WARNINGS

1.1 The GI-2000 uses electric heating elements in its operation. Therefore, the unit must always be filled with water.

1.2 To maintain optimum system performance and accuracy it is necessary to remove solids that have accumulated in the solids tank on a regular basis.

2. UNIT INITIALIZATION

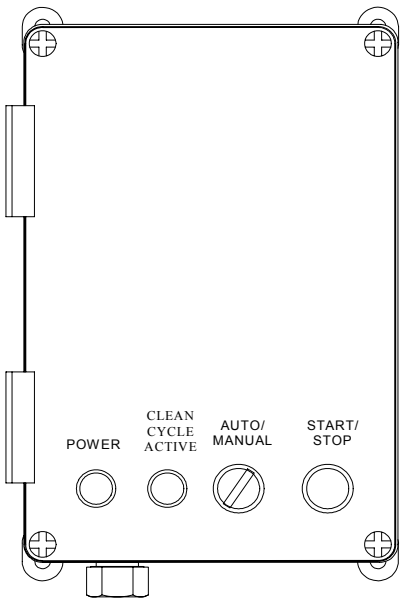
2.1 When power is first applied to the GI-2000 the unit will beep and go through internal diagnostics. Should any part of the diagnostics fail, the unit will beep every 5 seconds and display a message about the failure. The critical values of time/date, pump run time and calibration values are stored in the unit and tested at start-up (See Section 6 of Installation Section). Should one of the values be determined to be invalid, the unit will wait for the user to re-enter the correct values.

3. EXTERNAL CONTROLS

LCD Display
Two (2) line X 40 character liquid crystal display provides information and instructions to operators and maintenance personnel.

LED Indicators
Display the following modes of operation:

- Heaters On
- Pump On
- Grease Level High
- Temperature Switch On
- Activity 1 (Spare)
- Activity 2 (Spare)



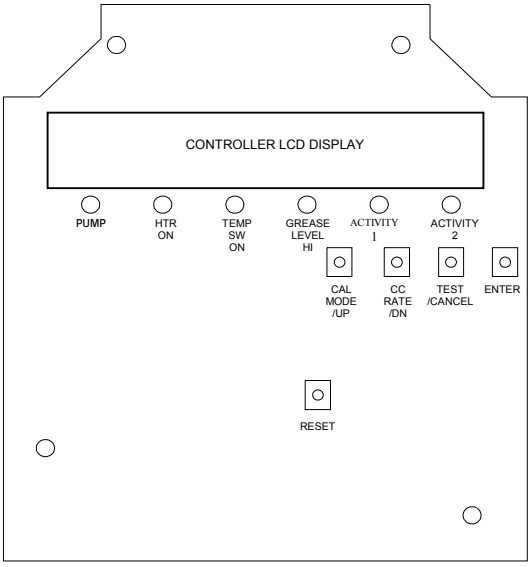
Power
Indicates that the unit is powered up.

Clean Cycle Active
Indicates that the clean cycle is in operation.

Auto/Manual (Sec 5.1)
Allows the operator to select between automatic clean cycle or manual clean cycle operation.

Start/Stop
Allows the operator to start the manual clean cycle operation.

4. ENCLOSURE CONTROLS



Cal Mode/Up
Initiates the water level sensor calibration mode and adjusts time and date values in the time and date entry mode.

CC Rate
Initiates the clean cycle rate adjustment mode.

Test Mode /Cancel
Initiates the test mode operation.

Enter
Mode selection and data entry switch.

Reset
Soft Reset

5. MANUAL CYCLE

5.1 WHEN

5.1.1 A manual clean cycle is typically initiated when the unit is in the MANUAL mode. A manual clean cycle is typically initiated when personnel wish to clean the GRD regardless of grease level or when supervision is required.

5.2 HOW

5.2.1 To begin a manual clean cycle rotate the Auto/Manual mode switch to the MANUAL position. The following messages will be displayed at this point.

```
        MANUAL OPERATING MODE
  DyCyc:XX  WkCyc:XX  MoCyc:XX YrCyc:XXX
```

```
        MANUAL OPERATING MODE
   PRESS "START" TO BEGIN CLEAN CYCLE
```

5.2.2 To initiate the manual clean cycle press the START button.

5.3 PROCESS

5.3.1 Once the START button is pressed, the clean cycle will begin, the controller will beep and the following message will be displayed:

```
      MANUAL CLEAN CYCLE INITIATED
  X.XX MINUTES BEFORE CLEAN CYCLE STARTS
```

5.3.2 The user can start or stop a cycle at any time during the manual cycle by pressing the START/STOP button. If the Start/Stop button is pressed, the cycle will be interrupted for 60 minutes or until the Stop/Start button is pressed. The following message will flash on the display periodically during the clean cycle:

```
PRESS START/STOP BUTTON TO HALT
 THE START OF THE CLEAN CYCLE
```

```
      MANUAL CYCLE COMPLETE
    WAITING FOR LEVEL TO RISE
```

5.3.3 Once the clean cycle has started, the controller will then turn on the heaters and the following message will be displayed:

```
MANUAL CLEAN CYCLE IN PROGRESS
         HEATERS ON
```

The heaters will remain on until the grease temperature is 110°F. If the temperature is not reached in 8 hours the controller LCD display will indicate an error. Should this error occur, disconnect power from the unit and call for maintenance.

5.3.4 Once the preset temperature is reached the GI-2000 will pump the grease out and the following message will be displayed:

```
MANUAL CLEAN CYCLE IN PROGRESS
  PUMP ON     XXXX TIME REMAINING
```

WARNING, DO NOT RUN PUMP DRY! The GI-2000 has been pre-calibrated at the factory, prior to shipping, to ensure a suitable pump time and water sense level. However, if adjustments have been made it is important to ensure that pump does not run dry!

5.3.5 After the pump cycle is complete, the controller will beep again and the following message will be displayed:

```
    MANUAL CLEAN CYCLE COMPLETE
```

5.3.6 After the indication of the cycle being complete the horn will sound and the unit will wait for the water level in the tank to rise above the pump inlet. The following message will be displayed:

```
      MANUAL CYCLE COMPLETE
    WAITING FOR LEVEL TO RISE
```

5.3.7 Once the water level rises, the unit display will cycle to the main manual mode.

6. AUTOMATIC CLEAN CYCLE

6.1 WHEN

6.1.1 When the unit is in the automatic mode it will perform the entire cleaning cycle automatically when the grease quantity builds up to the preset level.

6.2 HOW

6.2.1 To put the system in automatic mode, rotate the Auto/Manual mode switch to the AUTO position. The following message will be displayed:

```
        AUTOMATIC OPERATING MODE
DyCyc:XX  WkCyc:XX  MoCyc:XX  YrCyc:XXX
```

6.3 PROCESS

6.3.1 Once the grease quantity builds up to the preset level, a horn will sound for 10 seconds to alert personnel using the sinks. The following messages will be displayed:

```
   AUTOMATIC CLEAN CYCLE INITIATED
X.XX MINUTES BEFORE CLEAN CYCLE START
```

```
    PRESS START/STOP BUTTON TO HALT
      THE START OF THE CLEAN CYCLE
```

6.3.2 Without any action from the user the clean cycle will automatically begin. The user may at this time or at any point in the clean cycle press the START/STOP button to interrupt the cycle. The cycle will be interrupted for 60 minutes or until the Start/Stop button is pressed again.

6.3.3 Once the clean cycle has started, the controller will then turn on the heaters and the following message will be displayed:

```
   AUTOMATIC CLEAN CYCLE IN PROGRESS
            HEATERS ON
```

The heaters will remain on until the grease temperature has reached 110°F. If the temperature is not reached within 8 hours the controller LCD display will indicate an error. Should this error occur, disconnect power from the unit and call for maintenance.

6.3.4 Once the tank temperature is reached the G.R.D. will pump the grease out and the following message will be displayed:

```
   AUTOMATIC CLEAN CYCLE IN PROGRESS
      PUMP ON         XXXX TIME REMAINING
```

WARNING, DO NOT RUN PUMP DRY! The system has been pre-calibrated at the factory, prior to shipping, to ensure a suitable pump time and water sense level. However, if adjustments have been made it is important to ensure that pump does not run dry!

6.3.5 After the pump cycle is complete, the controller will beep again and the following message will be displayed:

```
AUTOMATIC CLEAN CYCLE COMPLETE
```

6.3.6 After the indication of the cycle being complete the horn will sound and the unit will wait for the water level in the tank to rise above the pump inlet. The following message will be displayed:

```
AUTOMATIC CYCLE COMPLETE
 WAITING FOR LEVEL TO RISE
```

6.3.7 Once the level rises, the unit display will cycle to the main automatic mode.

7. CALIBRATION MODE

7.1 WHEN

7.1.1 The calibration mode is intended to enter the date, pump run time and calibrate the probe for measuring grease. It is important to note that the probe calibration senses the water level in the tank. Therefore, the tank should not have any grease introduced into the system. **The time/date, pump run time and the probe calibration should typically be checked at a minimum of once a year.**

7.2 HOW

7.2.1 Open the controller enclosure and push the CAL/MODE button. The following message will be displayed:

```
PRESS UP/DWN KEYS FOR DESIRED CAL
 PRESS ENTER TO CHANGE TIME AND DATE
```

7.3 CANCELLING THE CALIBRATION MODE

7.3.1 Pressing the CANCEL button TWICE at any point during the calibration mode will exit the calibration mode and revert to the previous calibration values. Pressing the CANCEL button ONCE will display the following message:

```
PRESS CANCEL KEY AGAIN TO EXIT CAL MODE
 THIS LINE WILL DISPLAY AS PREVIOUS
```

7.4 SETTING TIME AND DATE

7.4.1 WHEN

7.4.1.1 The date and time should be set when re-calibrating the unit.

7.4.2 HOW

7.4.2.1 After pressing the CAL/MODE button once, the user must press enter to set the time and date.

7.4.3 PROCESS

7.4.3.1 After pressing ENTER, following the instructions as displayed on the LCD and illustrated below:

```
USE UP AND DWN KEYS TO SET HOUR, PRESS
ENTER WHEN SET. HOUR: XX
```

```
USE UP AND DWN KEYS TO SET MIN, PRESS
ENTER WHEN SET. MIN: XX
```

```
USE UP AND DWN KEYS TO SET MONTH,
PRESS ENTER WHEN SET. MONTH: XX
```

```
USE UP AND DWN KEYS TO SET DAY, PRESS ENTER WHEN
SET. DAY: XX
```

```
USE UP AND DWN KEYS TO SET DAY OF WEEK,  PRESS
ENTER WHEN SET. DAY OF WEEK: XXX
```

```
USE UP AND DWN KEYS TO SET LAST TWO DIGITS OF YEAR,
PRESS ENTER WHEN SET. YEAR: XXXX
```

```
USE UP AND DWN KEYS TO SET FIRST TWO DIGITS OF YEAR,
PRESS ENTER WHEN SET. YEAR: XXXX
```

Once ENTER is pressed from this screen the user is prompted to confirm the time and date entry.

```
 TIME: XX:XX    DATE: XX/XX/XXXX   XXX
PRESS ENTER TO SET, CANCEL TWICE EXITS
```

A screen is then displayed confirming your selections.

```
TIME: XX:XX    DATE: XX/XX/XXXX   XXX
      TIME AND DATE UPDATED.
```

The user is then returned to the Cal/Mode menu.

7.5 SETTING PROBE CALIBRATION

7.5.1 WHEN

7.5.1.1 To adjust the electronics for level of grease sensing. It is important to remember that the sensor calibration senses the water level in the tank. Therefore, the tank should be level and not have had any grease introduced into the G.R.D. prior to performing the probe calibration sequence.

7.5.2 HOW

7.5.2.1 Press the CAL/MODE button twice.

7.5.3 PROCESS

7.5.4.1 While in any stage of the calibration mode, pressing any key other than enter or not pressing any key within 30 minutes will revert the system back to normal operation.

7.5.4.2 After pressing the CAL/MODE button TWICE the following message will be displayed:

```
LAST CALIBRATION: XX/XX/XX  PRESS ENTER   TO
START, ANY OTHER KEY TO EXIT
```

7.5.4.3 After pressing ENTER the following message will be displayed:

```
1.FILL TANK TO LEVEL ONE MARK (LOWER)
THEN PRESS ENTER TO RECORD LEVEL ONE
```

7.5.4.4 Prior to putting any water into the tank, ensure that the tank is level and free of any grease or solids. After filling the tank with water to level one of the calibration mark, allow the water to settle and press ENTER the following message will be displayed:

```
     READING LEVEL ONE CALIBRATION
               WAIT
```

7.5.4.5 Reading level of one will take a few seconds. After the system reads the calibration level the following message will be displayed:

```
          LEVEL 1 CALIBRATION
              SUCCESSFUL
```

7.5.4.6 After a few seconds the following message will be displayed:

```
2.FILL TANK TO LEVEL TWO MARK (UPPER)
THEN PRESS "ENTER" TO RECORD LEVEL TWO
```

7.5.4.7 After filling the tank to level two of the calibration mark, allow the water to settle, and press ENTER the following message will be displayed:

```
      READING LEVEL TWO CALIBRATION
               WAIT
```

7.5.4.8 It will take the system longer to read the second level of calibration then the first. After the level of calibration is read, the following message will be displayed:

```
LEVEL TWO CALIBRATION
     SUCCESSFUL
```

7.5.4.9 After a few seconds the following message will be displayed:

```
   CALIBRATION COMPLETE
RETURNING TO NORMAL OPERATION
```

7.5.4.10 Within a few seconds the system will return to automatic or manual display modes.

7.5.4.11 It is suggested at this point to check the water level which should read a minimum of 4.00". (See Section 6.5 of Installation Manual)

7.6 SETTING PUMP RUN TIME

7.6.1 Press the CAL/MODE button THREE times and the following message will be displayed:

```
PRESS UP/DWN KEYS FOR DESIRED CAL
 PRESS ENTER TO SET PUMP ON TIME
```

7.6.2 After pressing ENTER the following message will be displayed:

```
USE UP AND DOWN KEYS TO SET PUMP TIME
 PRESS ENTER WHEN SET. LEVEL :  XX
```

7.6.3 Use the UP and DOWN arrow keys to set the time (in seconds) that the pump should run. The maximum is 400 seconds and the minimum is 20 seconds. **WARNING!** Do not allow the pump time to run dry. After the desired time has been set press ENTER and the system will return to automatic or manual display mode.

7.6.4 It is important to keep a record of the correct pump time in case the value needs to be re-entered.

8. CLEAN CYCLE RATE ADJUST MODE

8.1 WHEN

8.1.1 When necessary to easily modify the pumping cycle frequency.

8.2 HOW

8.2.1 Press the CC RATE button once.

8.3 PROCESS

8.3.1 While in any stage of the CC RATE mode, pressing the CANCEL key or not pressing any key within 15 minutes will revert the system to normal operation.

8.3.2 After pressing the ENTER button the following message will be displayed:

```
CLEAN CYCLE RATE:   XXXXXXXXXXXXXXXXXXX
USE UP/DN KEY, THEN ENTER TO SELECT RATE
```

8.3.3 The section shown as xxxx… above, shows the present rate setting. The available settings are:

LESS OFTEN – HIGH	Water Level Reading of 0.4” will activate “HIGH GREASE ALARM”
LESS OFTEN – MEDIUM	Water Level Reading of 0.9” will activate “HIGH GREASE ALARM”
LESS OFTEN – LOW	Water Level Reading of 1.4” will activate “HIGH GREASE ALARM”
NORMAL	Water Level Reading of 1.9” will activate “HIGH GREASE ALARM”
MORE OFTEN – LOW	Water Level Reading of 2.4” will activate “HIGH GREASE ALARM”
MORE OFTEN – MEDIUM	Water Level Reading of 2.9” will activate “HIGH GREASE ALARM”
MORE OFTEN – HIGH	Water Level Reading of 3.4” will activate “HIGH GREASE ALARM”

If the necessary clean cycle rate cannot be obtained by any of these settings, re-calibration of the system may be required.

Pressing the UP and DOWN keys allows the user to select one of the above settings. Once the desired rate is displayed, press the ENTER key to select it. The following message will be displayed:

```
RATE SET TO:        XXXXXXXXXXXXXX
PRESS ENTER AGAIN TO SAVE.
```

8.3.4 Press the ENTER key to save the setting or press CANCEL twice to exit. Once the ENTER key is pressed once the following message will be displayed:

```
          RATE ADJUST SAVE
```

8.3.5. Within a few seconds the system will return to automatic or manual display mode.

9. DATA LOGGING RESET

9.1 The frequency of the clean cycle operation continuously displayed on the LCD is also stored in a non-volatile memory by the controller. The user can reset the data logging memory to zero. To reset the data, power up the unit or push the RESET button. After doing this, the following messages will be displayed:

```
GI-2000 Grease Interceptor
  SOFTWARE VERSION 6.2
```

```
  PRESS ENTER TO RESET
CLEAN CYCLE DATA LOGGING
```

9.2 If the ENTER button is not pressed within 5 seconds the unit will revert to the automatic or manual mode. If the ENTER button is pressed within the 5 seconds the following message will be displayed:

```
PRESS ENTER AGAIN TO RESET
 CLEAN CYCLE DATA LOGGING
```

9.3 If the ENTER button is pressed within 5 seconds the data log will be reset and the following message will be displayed:

```
CLEAN CYCLE DATA LOGGING
     HAS BEEN RESET
```

9.4 Within a few seconds the system will return to automatic or manual display mode.

TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Circuit Breaker continuously trips upon power up.	Mis-wired or Short	1. Verify with a digital volt meter that current between L1 & L2 is below 1 Amp.Wire per page (6) of Installation Manual
Circuit Breaker continuously trips when Heaters are energized.	Wrong size GFI Circuit Breaker	1. Replace Circuit Breaker with correct size (See page 6 of Installation Manual)
High Grease Level continuously activated.	1. Pump Failure 2. Solids build up 3. Out of Calibration	1. Enter Test Mode and initiate Pump Test (See section 6, pages 8-9 of manual). a. Check for clogged line. b. Check fuse (#2) in Controller c. Check fuse (XF2) on Interface Board 2. Inspect surface of Grease Interceptor compartment for build up in area of probe. 3. Enter Test Mode and initiate Water Level Test. Reading should be between 1.0 & 3.5. a. Calibration (See section 7, pages 16-19 of manual) b. Notify factory for assistance
Difficulty in calibrating unit.	Poor Connection to Probe	1. Verify connection between Probe and Interface Board
Temp Switch LED continuously on.	1. Temp in GRD above 110° F 2. Temp Switch Failure.	1. To verify, run cold water thru system until temperature drops below 100° F. NOTE: This process may take approx. 30 mins. 2. Meter Upper Thermostat located in Electronics Compartment for Short or go to J102 cable on Interface Board
Probe Failure	1. Build up around Probe. 2. Lost of electrical connection.	1. Enter Test Mode and initiate Water Level Test (See section 6, pages 8-9 of manual). Observe reading then initiate Pump Test for approx. one minute. Wipe off Probe and recheck Water Level. 2. Check continuity from Probe to Interface Board (J101) using Meter. a. Check Frequency on Pin 3 and 8 of U24 on Controller.

Warranty Information

Josam Company warrants the GI 2000 to be free of defects in workmanship and material for a period of one (1) year following the date of installation, evidenced by the owner's completion and return of the Josam GI 2000 Installation and Operation form. We shall not be responsible for any labor charges or any loss, injury or damages whatsoever, including incidental or consequential damages. The sole and exclusive remedy shall be limited to the replacement or repair of the defective goods at the Seller's discretion. Evidence of vandalism, unauthorized modifications, acts of God, or failure to follow installation and operating instructions will void this warranty.

GI 2000 INSTALLATION & OPERATION FORM

1. FLOW CONTROL
( ) Check for proper size
( ) Check for proper location
( ) Check for air intake

2. SOLIDS INTERCEPTOR
( ) Check for proper orientation
( ) Instruct owner on proper maintenance

3. GREASE RECOVERY DEVICE
( ) Location of unit to source
( ) Check to insure that unit is level
( ) Check for proper orientation
( ) Check for proper electrical connection
( ) Check baffles
( ) Check for proper connection to GI 2000 Controller
( ) Check for Vented Waste connection
( ) Check condition of sensing probe
( ) Check Reclaim Tank and proper connection
( ) Instruct owner on proper maintenance

4. GI 2000 Controller
( ) Instruct owner on Switches, LCD Display, and LED's
( ) Instruct owner different Modes (Automatic, Manual, Calibration, etc.)
( ) Instruct owner on Test Functions
( ) Test Pump: Check for leaks
( ) Test Heating Elements
( ) Test Probe i.e. Water Level Test — RECORD WATER LEVEL: _____
( ) Test Display & LED
( ) Check Manual/Automatic Switch — RECORD MODE: _____
( ) Instruct owner on Data Logging
( ) Instruct owner on operating sequence

GI 2000 CERTIFICATION

I CERTIFY THAT THIS PRODUCT HAS BEEN INSPECTED AND TESTED, AND THAT TRAINING WAS PERFORMED, AS INDICATED BY THE CHECK MARKS IN THE BOXES.

_____ OWNER/DATE _____ PHONE

_____ ESTABLISHMENT _____ JOSAM REP