Instructions

GLC 2200
Lubrication Controller

3A2960F
EN

For controlling and monitoring an automated lubrication system.

Not approved for outdoor use or use in explosive atmospheres or hazardous locations.

Model: 24N468

Important Safety Instructions
Read all warnings and instructions in this manual. Save these instructions.

PROVEN QUALITY. LEADING TECHNOLOGY.

Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to Procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

⚠WARNING

EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working Pressure or temperature rating of the lowest rated system component. See **Technical Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS from distributor or retailer.
- Do not leave the work area while equipment is energized or under pressure.
- Turn off all equipment and follow the **Pressure Relief Procedure** when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.

Component Identification

Keypad, Display, and Icons

NOTICE

To prevent damage to soft key buttons, do not press the buttons with sharp objects such as pens, plastic cards, or fingernails.

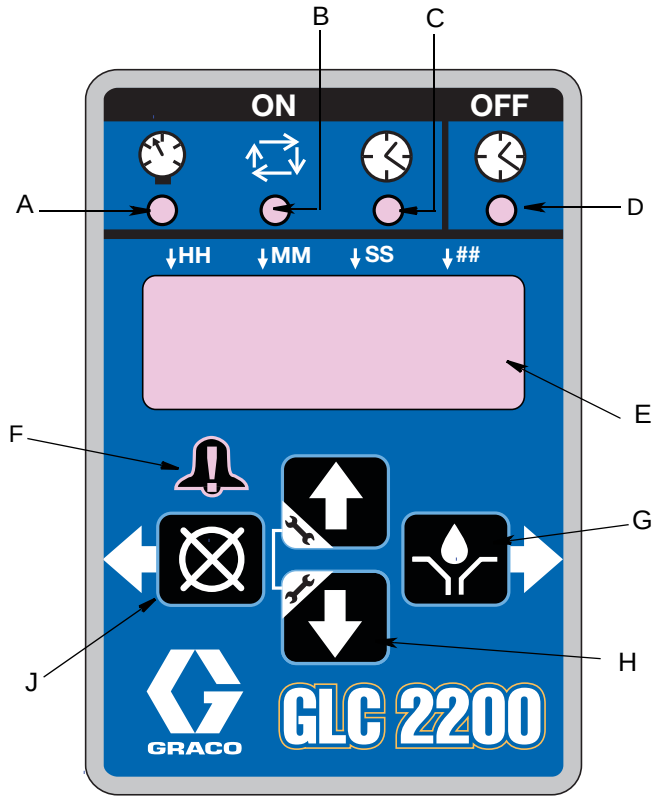


FIG. 1

Pump ON LEDs (A, B, C)

APressure Control LED: In RUN MODE illuminates indicating function mode that is currently running.

BCycle Control LED: In RUN MODE illuminates indicating function mode that is currently running.

CTime Control LED: In RUN MODE illuminates indicating function mode that is currently running.

Pump OFF LED (D)

- In RUN MODE this LED illuminates when in the OFF or RESET portion of the RUN CYCLE.

Display (E)

- A blinking field on the display indicates the controller is in SETUP MODE.
- In RUN MODE numbers on the display will not blink.

Alarm LED (F)

Illuminates when any alarm is detected. When an alarm is active an error code displays and an audible alarm also sounds.

RIGHT Direction Arrow / MANUAL RUN / ENTER (G)

- In SETUP MODE, saves entry, moves cursor in display one field to the right or to the next setup step.
- In RUN MODE activates the pump for one complete ON cycle if actuated during the OFF portion of the RUN cycle.

UP and DOWN Direction Arrows (H)

- Press and hold both the UP and DOWN Arrow keys together for 3 seconds to enter SETUP MODE.
- In SETUP MODE increase or decrease number values associated with the various RUN MODES.

LEFT Direction Arrow / RESET (J)

- In SETUP MODE moves cursor in display one field to the left.
- In RUN MODE, Pressing RESET starts a PUMP OFF cycle.
- In ALARM MODE, Press once to clear buzzer; Press and hold for 3 seconds to clear warning and switch controller to OFF MODE.

Installation

Typical Installation

The installation shown in FIG. 2 is only a guide for selecting and installing system components. Contact your Graco distributor for assistance in planning a system to suit your needs.

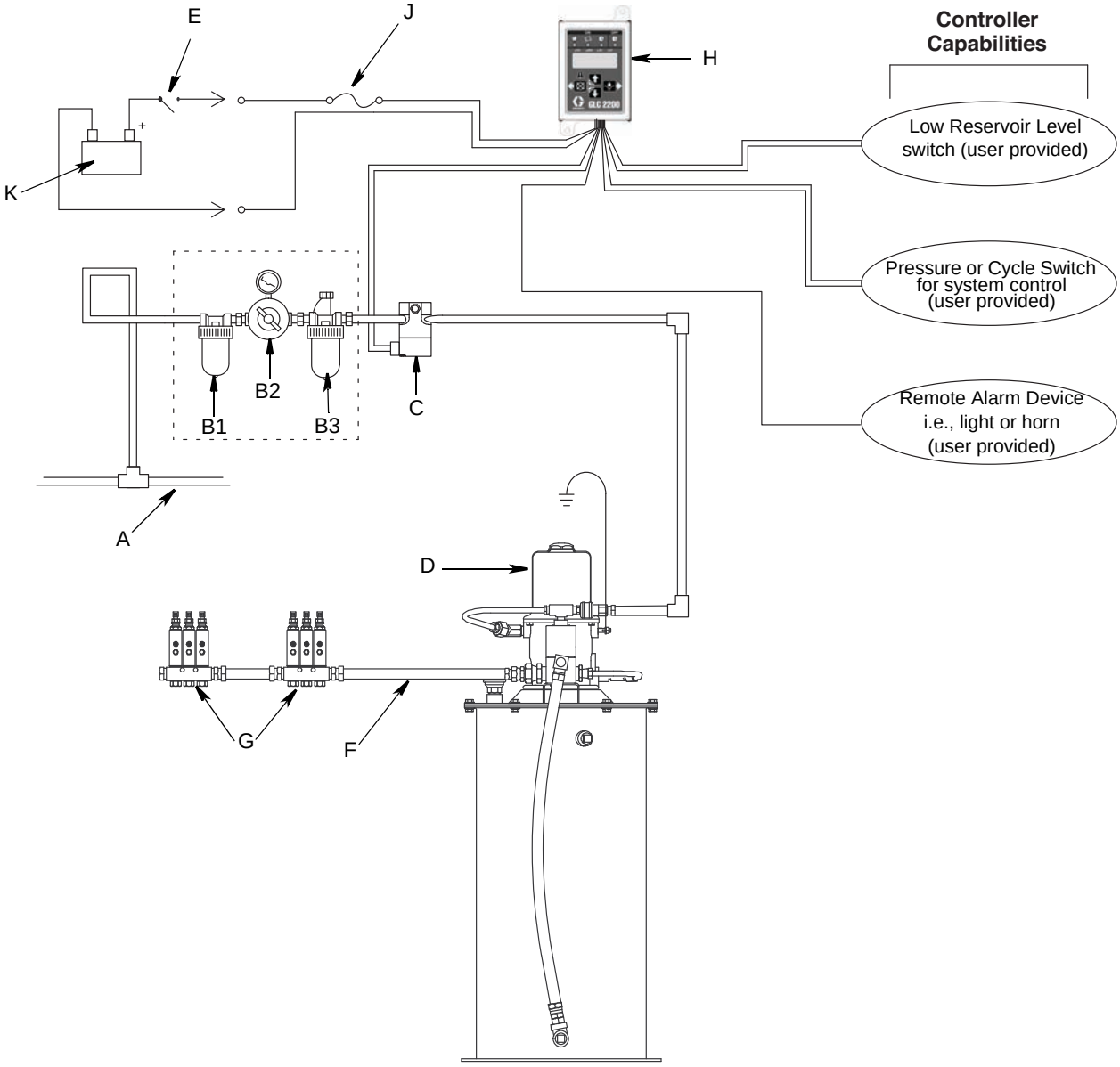


FIG. 2

AMain Air Supply
BFilter/Regulator/Lubricator Assembly
- B1 - Filter
- B2 - Regulator
- B3 - Lubricator

CAir Solenoid Valve
DPump Module
EIgnition Switch
FHigh-Pressure Lubricant Supply Lines
GInjector Banks
HLubrication Controller
JIn-line Fuse
KPower Source

Installing the Lubrication Controller

AUTOMATIC SYSTEM ACTIVATION HAZARD

Unexpected activation of the system could result in serious injury, including skin injection and amputation.

This device has an automatic timer that activates the pump lubrication system when power is connected or when exiting the programming function. Before you install or remove the Lubrication Controller from the system, disconnect and isolate all power supplies and relieve all pressure.

1. Select a flat surface to install the Lubrication Controller. Drill mounting holes. Refer to Mounting Hole Layout Provided in the Technical Data section of this manual, page 24.

2. Align junction box with predrilled holes (FIG. 3, (a). Use two screws (not provided) to secure junction box to mounting surface.

FIG. 3

System Configuration and Wiring

The System Configuration Diagrams (FIG. 4 - FIG. 6), Sensor Wiring Diagrams (FIG. 8 - FIG. 9) and Wiring Diagrams (FIG. 7) on the following pages, show typical Injector, Series Progressive and Dual Line lubrication system configurations.

Refer to Table 1, 2 and 3 to determine the Required System Configuration, Sensor Configuration and Wiring Diagram to use to setup your system.

Table 1: System Configurations

System	Figure	Page
Injector	4	6
Series Progressive	5	7
Dual Line	6	8

Table 2: Sensor Wiring Configurations

Sensor	Figure	Page
Dry Contact	7	10
Source Switch	8	10

Table 3: Modes of Operation

Mode	Power	Figure	Page
Time ON/Time OFF	DC	9	9
Cycle ON or Pressure ON/Time OFF	DC	9	9
Low Level Switch		9	9

System Configuration

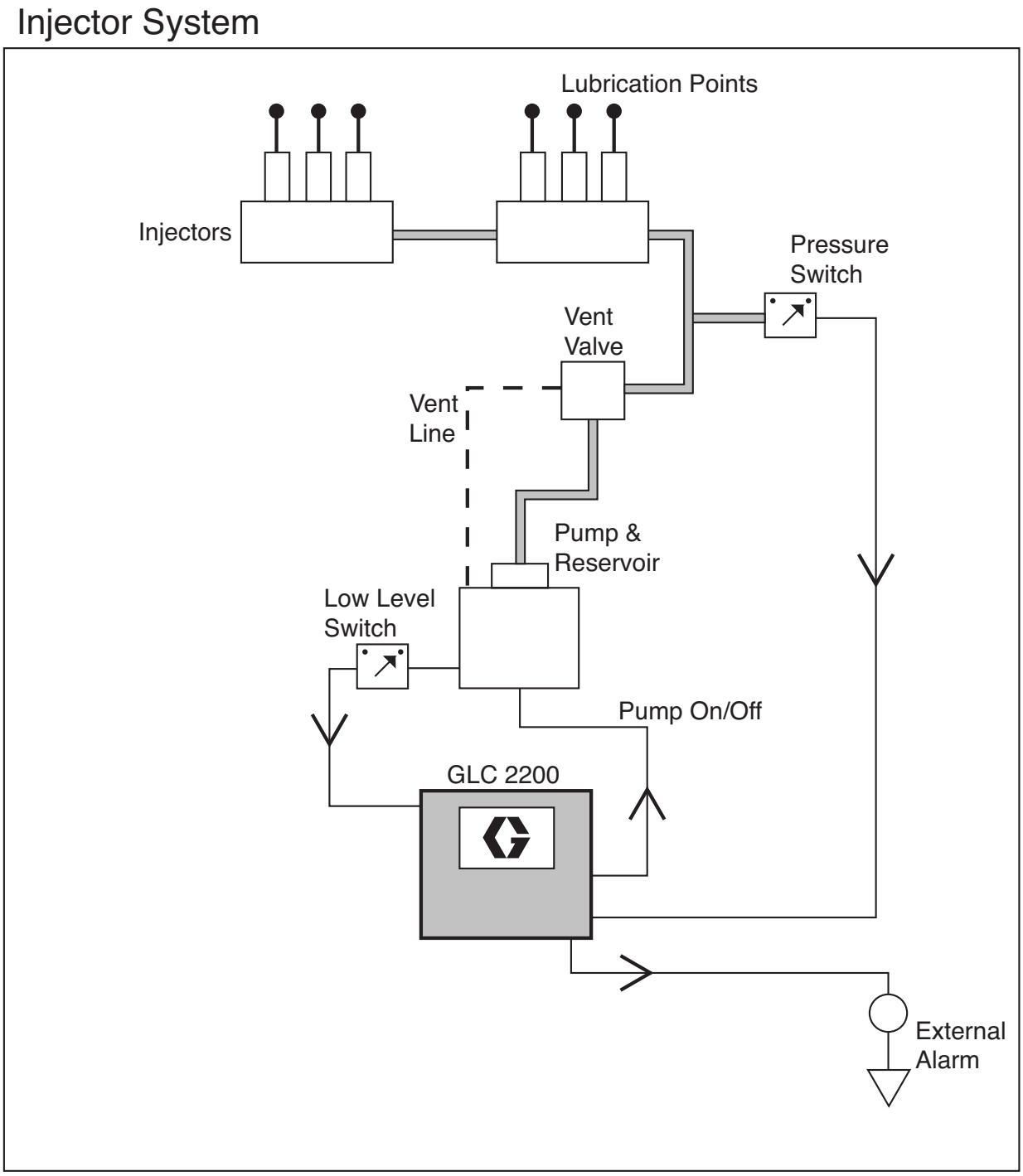


FIG. 4

Divider Valve System

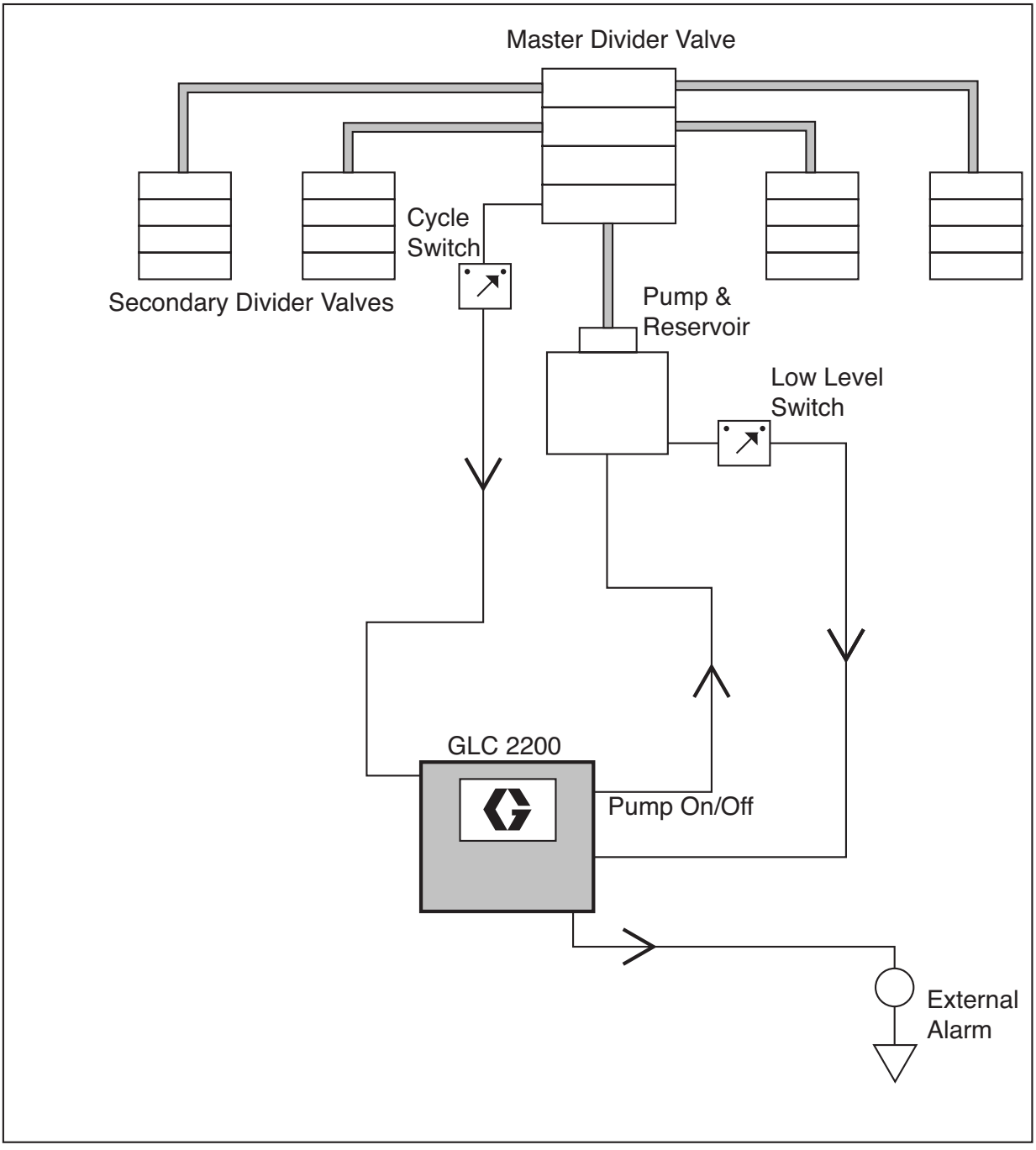


FIG. 5

Dual Line System

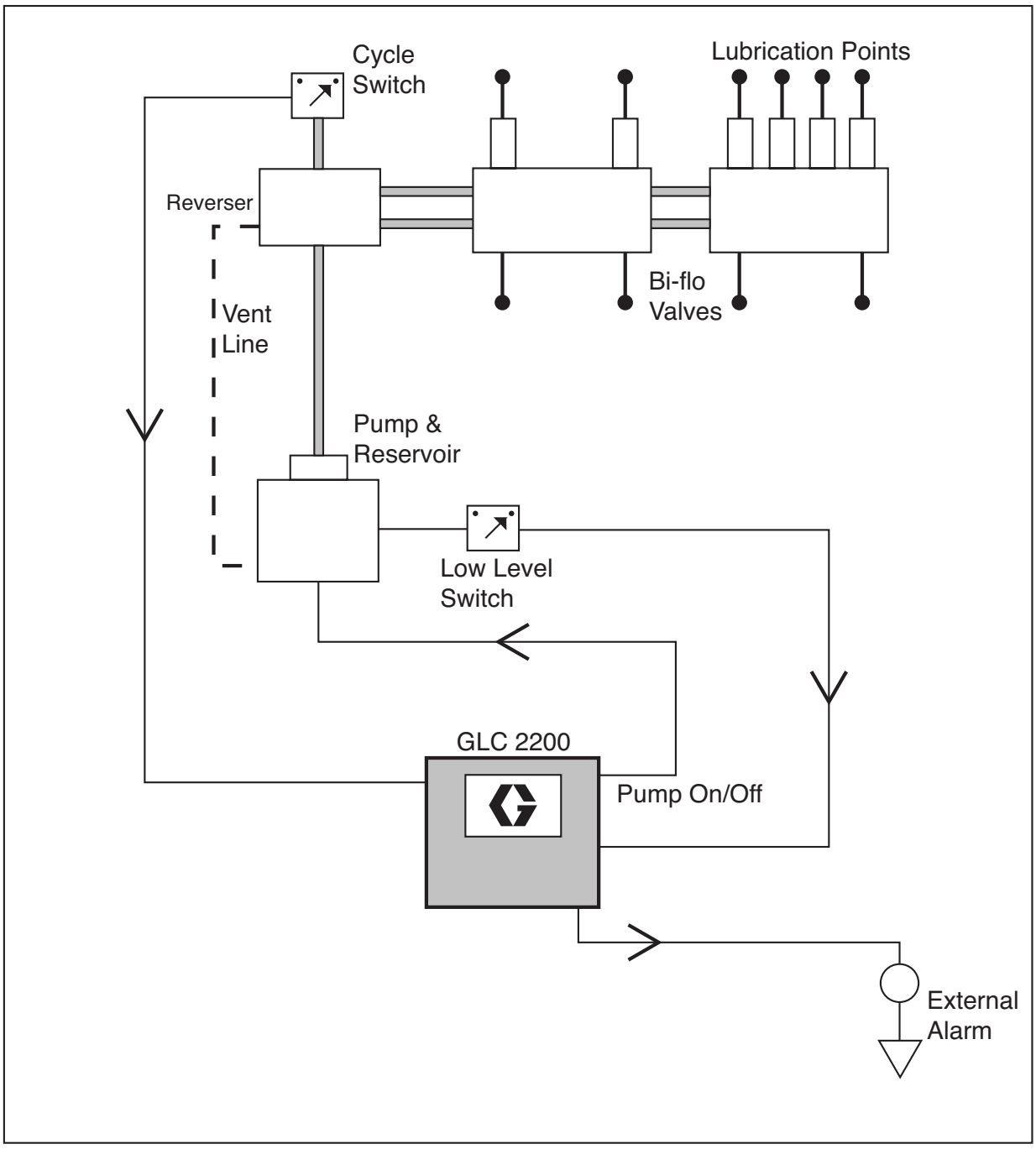


FIG. 6

Wiring Diagram

Modes of Operation: Optional I/O Wiring Diagram

Used with all modes of GLC2200 Operation

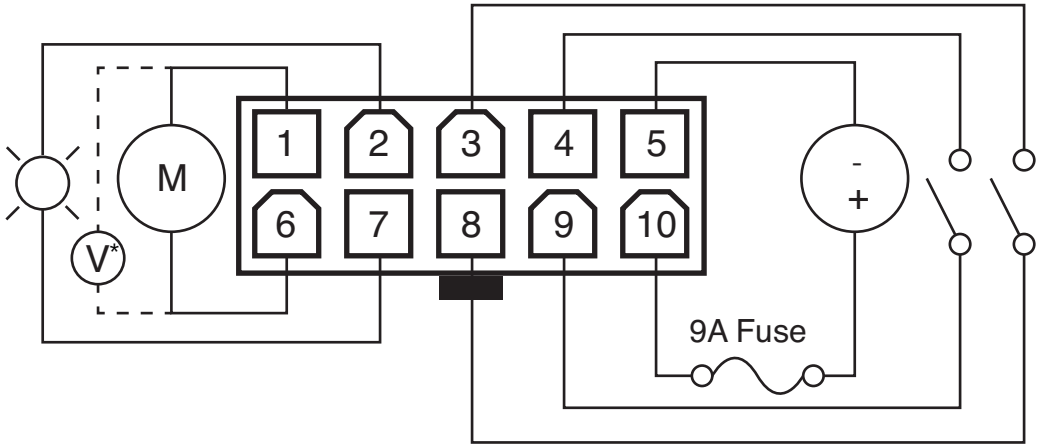


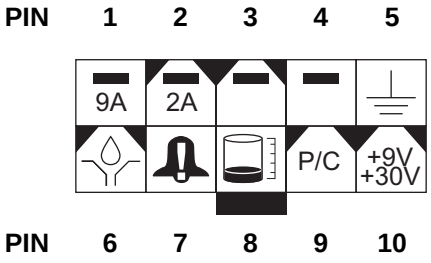
FIG. 7

*Normally open vent valve for use with Injector-based systems

Wiring Key

Pin	Description	+/-
1	Pump	-
2	Alarm	-
3	Low Level	-
4	Pressure/Cycle Switch	-
5	Voltage Input	-
6	Pump	+
7	Alarm	+
8	Low Level	+
9	Pressure/Cycle Switch	+
10	Voltage Input	+

Connector Identification Label



Sensor Wiring Configurations

DRY CONTACT SWITCH

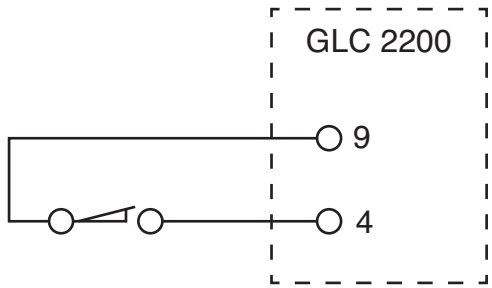


FIG. 8

SOURCE SWITCH - 2 or 3 Wire Type

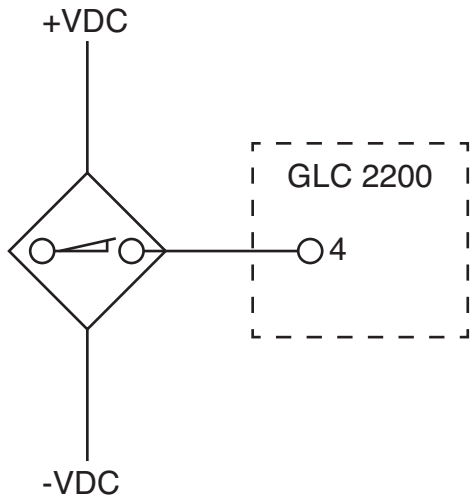


FIG. 9

Setup

Entering SETUP MODE

1.Press both the UP and DOWN ARROW buttons together for three seconds.

NOTE:

•If a button is not pushed for 1 minute, the controller returns to the start of an OFF cycle.

•Setting changes are not stored unless programming is completed and setup mode is exited normally by pressing the ENTER button.

•A blinking dot below the HH, MM, SS, or ## indicates the field currently being programmed.

PIN Code (Series E or later models only)

NOTE: If, after entering Setup Mode, four 0000's are displayed, the unit has a PIN Code lock out enabled. See Entering a PIN Code to Access Setup Mode for instructions on entering a value.

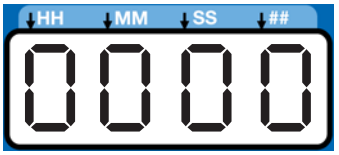
Entering a PIN Code to Access Setup Mode

The controller does not require a user to provide a PIN code to access the programming features of the unit. However, some users may want to protect the program settings and therefore, an option for adding PIN Code authorization is available. The instructions for setting a PIN Code are provided in the Advanced Programming section of this manual. See page 19.

To enter the PIN Code:

1.Press both the UP and DOWN ARROW buttons for 3 seconds.

2.Four zeros appear on the display indicating the system requires a PIN Code entry to access the SETUP MODE.



3.The cursor is automatically positioned to enter the first character of the PIN Code. Use the UP and DOWN ARROW buttons to move up and down through the numbers 0-9 until the first number in the PIN code is displayed in the field.

4.Press the ENTER (right arrow) button to set the number. The cursor automatically moves to the next number field.

5.Repeat steps 3 and 4 for each PIN Code prompt field.

If the PIN Code you entered is correct, the unit will enter setup mode.

6.Press the ENTER (right arrow) button to set the number. The cursor automatically moves to the next number field.

NOTE: A blinking field on the display indicates the is in SETUP MODE. In RUN MODE numbers on the display will not blink.

Programming ON Duration

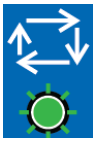
•**on:Pr, on:CY** or **on:ti** appears on the display identifying the function you are programming (see below).

•The illuminated LED below the related symbol on the controller label also indicates the function.

NOTE: Selection **on:Pr, on:CY** or **on:ti** designates the way the pump run time is controlled:

•**on:Pr** = Pressure Control, reaching a specific pressure threshold measured by an external pressure switch

•**on:CY** = Cycle Control, completing a specific number of cycles of an external prox/cycle switch



•**on:ti** = Time Control, a specific duration of time elapses

Pressure Control (on:Pr) ON Setup

1.Use the UP or DOWN ARROW until **on:Pr** displays.

2.Press the ENTER button.

3.Pressure control is an ON / OFF selection only. After you press the ENTER button, the controller saves the Pressure Control information and moves to setting Backup Time, page 13.

Cycle Control (on:CY) ON Setup

1.Use the UP or DOWN ARROW until **on:CY** displays.

2.Press the ENTER button.

The first number displayed after the **on:CY** is entered, blinks, indicating the device is ready to program the number of cycles.

NOTE: The cycle entry is a 2-digit number. A leading zero (0) must be entered in the first field if the number of cycles is fewer than 10.

3.Program the cycles by pressing the UP or DOWN ARROW to move up or down through the numbers 0-9.

4.When the correct first digit is displayed, press the ENTER button.

The cursor automatically moves to the second number field and flashes.

Use the UP or DOWN ARROW to scroll through the numerals 0-9 until the desired number appears in the second cycle number field.

5.Press the ENTER button. After you press the ENTER button, the controller saves the Cycle Control information and moves to setting Backup Time, page 13.

Time Control (on:ti) ON Setup

1.Use the UP or DOWN ARROW to cycle through until **on:ti** displays.

2.Press ENTER.

3.To set the ON time use the UP or DOWN ARROW to scroll through the numerals 0-5 until the desired number appears in the first Minutes (MM) field.

NOTE:

- •The MM field is a 2-digit number.
- •A leading zero (0) must be entered in the first field if the number of minutes is fewer than 10.
- •The highest number that can be set for the MM field value is 59.

4.Press the ENTER button.

The next MM number field to the right flashes, indicating it is ready for programming.

5.Use the UP or DOWN ARROW to scroll through the numerals 0-9 until the desired number appears in the second MM number field.

6.Press the ENTER button.

The next number field to the right flashes indicating it is ready to program the Seconds (SS) fields.

NOTE:

- •The Seconds (SS) field is a 2-digit number.
- •A leading zero (0) must be entered in the first field if the number of seconds is fewer than 10.
- •The highest number that can be set for the SS field value is 59.

7.Repeat steps 3 - 6 to set the SS fields.

8.Press the ENTER button. After you press the ENTER button the controller automatically switches to the OFF TIME SETUP MODE.

Backup Time

In both Cycle and Pressure Modes, a maximum run Time (Backup Time) for the lubrication period must be set up. If this Time expires before the lubrication is completed an alarm/warning is triggered and the pump stops.

To determine the Backup Time, Graco recommends the user verify the length of time it takes to complete a typical cycle and double that value.

Backup Time is setup after Cycle or Pressure Sensor Setup is complete.

NOTE:

•The LED below the clock in the ON field lights, indicating the Backup Time is being programmed.

•BACKUP (ON) Time is set as minutes and seconds (MM:SS) only.

•The small flashing LED under the MM indicates you are setting minutes.

•The first field (left side of display) blinks indicating the device is ready for you to begin programming.

Programming Backup Time

NOTE: When programming a time of less than 10 minutes you **must** program the leading zero in the first number field and press the ENTER button.

1.To set the ON Time use the UP or DOWN ARROW button to scroll through numerals 0 to 5 until the desired number appears in the first MM (minutes) field.

2.Press the ENTER button. The next MM number field to the right flashes indicating it is ready for programming.

3.Use the UP or DOWN ARROW button to scroll through numerals 0 to 9 until the desired number appears in the second MM number field.

4.Press the ENTER button.

The next number field to the right flashes and the LED lights under SS; indicating it is ready to program the seconds fields.

5.Repeat steps 1 - 4 to set the SS (seconds) fields.

6.After pressing the ENTER button to set the last SS field, all the programmed ON Time information is saved.

The controller automatically switches to the OFF Time SETUP MODE.

Programming OFF TIME Duration

After setting the parameters for either Pressure (Pr), Cycle (CY) or Time (Ti) ON Modes, the OFF TIME or PUMP REST CYCLE must be set up.

The LED below the OFF TIME Symbol Illuminates.

NOTE:

- •The HH field is a 2-digit number.
- •A leading zero (0) must be entered in the first field if the number of hours is fewer than 10.
- •The highest number that can be set for the HH field value is 99.

To set the OFF Time:

1.Use the UP or DOWN ARROW to scroll through the numerals 0-9 until the desired number appears in the first Hours (HH) field.

2.Press ENTER.

The next HH number field to the right flashes, indicating it is ready for programming.

3.Use the UP or DOWN ARROW to scroll through the numerals 0-9 until the desired number appears in the second HH field.

4.Press the ENTER button.

The next number field to the right flashes indicating it is ready to program the Minutes (MM) fields.

NOTE:

- •The MM field is a 2-digit number.
- •A leading zero (0) must be entered in the first field if the number of minutes is fewer than 10.
- •The highest number that can be set for the MM field value is 59.

5.Repeat steps 1 - 4 to set the MM fields.

6.Press the ENTER button to lock in the last MM field.

The controller automatically switches to the LOW LEVEL SETUP MODE.

Programming the Low Level Setting

NOTE: If Low Level is not used (i.e., low level inputs are not connected), configuring the low level setting is still required. The unit's default settings (LL:01) can be used.

1.Use the UP or DOWN ARROW to select the low level setting.

2.Press ENTER.

LL:01 - Default

This is the default low level setup when working with a standard, normally open, low level switch. The pump stops when the low level occurs.

The unit will enter a low level fault condition after the switch input is closed for more than 1 second when the unit is in the ON portion of the RUN MODE.

When low level occurs:

- • The pump stops
- • The unit displays ER:LL

- • A buzzer sounds
- • The alarm LED illuminates

- • The alarm output contact is closed

To Clear Alarm Buzzer

Press RESET button to silence the buzzer.

To Clear Low Level Alarm

Resolve low level condition at low level sensor (i.e., fill the reservoir).

Press and hold RESET button for 3 seconds.

LL:02 - Paddle Style

This setting is intended for use with “paddle-style” low level sensors (such as the Graco G3 grease units).The pump stops when low level occurs. To ensure a low level condition has been met in this mode, 10 consecutive low level triggers must be detected. If a low level trigger is not detected in 30 seconds of run mode, the count is reset to zero.

When low level occurs:

- The pump stops
- The unit displays ER:LL

- A buzzer sounds
- The alarm LED illuminates

- The alarm output contact is closed

To Clear Alarm Buzzer

Press RESET button to silence the buzzer.

To Clear Low Level Alarm

Resolve low level condition at low level sensor (i.e., fill the reservoir).

Press and hold RESET button for 3 seconds to clear the error.

LL:03 - Low Level Warning (Series F or later models only)

This setting configures the controller into low level warning mode. This mode is intended to operate with a standard, normally open, low level switch. This mode is also intended to operate with a low level switch that provides a persistent output.

The enters a low level condition after the switch input is closed for more than 1 second when the unit is in the ON portion of the RUN MODE. The pump continues to operate.

When low level occurs:

- The unit periodically displays ER:LL (approximately 5 out of 10 seconds)

- A buzzer sounds
- The alarm LED illuminates

- The alarm output contact is closed
- The pump controller continues to operate normally

To Clear Alarm Buzzer

Press RESET button to silence the buzzer.

NOTE: The buzzer will sound again after 4 hours if the low level condition is not resolved. Buzzer will also sound again when power is cycled.

To Clear Low Level Alarm

Resolve low level condition at low level sensor (i.e., fill the reservoir). To remove the low level condition from the controller (Er:LL) the low level must be cleared for more than 5 seconds.

Operation

Run Mode

The controller is in Run Mode providing the following circumstances are present:

•The controller is not in SETUP MODE.

•An Alarm is not active.

Pressure Mode: Pump ON

The display indicates the amount of backup time remaining (see Pressure Mode (on:Pr) ON setup, page 12).

•The Pressure ON LED illuminates and the pump output is enabled as long as the system is in the Pump ON state.

•If the pressure switch input is activated before the Backup Pump On Time expires, the system switches to a Pump OFF state.

•If the pressure switch is NOT activated before the Backup Pump On Time expires the system faults, goes to the Pump OFF state and pauses until the alarm is cleared.

•Pump ON time is shown in MM:SS (minutes:seconds)

Pressure Mode: Pump OFF

The display indicates the amount of time remaining in the pump OFF cycle, counting down the Pump OFF time value (see Programming OFF Time Duration, page 13).

•The pump output is disabled during the Pump OFF time.

•The Time OFF LED is illuminated as long as the system is in the Pump OFF state.

•Pump OFF time is shown in HH:MM (hours:minutes) or MM:SS if the time remaining is less than an hour.

Cycle Mode: Pump ON

The display alternates between the number of cycles remaining and indicates the amount of time remaining in the pump cycle, counting down the Backup Pump ON time value (see Cycle Mode (on:CY) ON Setup, page 12).

•The Cycle ON LED illuminates and the pump output is enabled as long as the system is in the Pump ON state.

•If the Input Cycle Switch is activated the amount of times equal to the Cycle Definition variable before the Backup Pump On Time expires, the system switches to a Pump OFF state.

•If the cycle switch is NOT activated the number of times equal to the cycle definition variable before the Backup Pump On Time expires the system faults, goes to the Pump OFF state and pauses until the Alarm is cleared.

•Pump ON time is shown in MM:SS (minutes:seconds)

Cycle Mode: Pump OFF

The display indicates the amount of time remaining in the pump OFF cycle, counting down the Pump OFF time value (see Programming OFF Time Duration, page 13).

•The pump output is disabled during the Pump OFF time.

•The Time OFF LED illuminates as long as the system is in the Pump OFF state.

•Pump OFF time is shown in HH:MM (hours:minutes) or MM:SS if the time remaining is less than an hour.

Timer Mode: Pump ON

The display indicates the amount of time remaining in the pump cycle, counting down the Pump ON time value (see Time Control (on:ti) ON Setup, page 12).

•The Pump output is enabled.

•Pump ON time is shown in MM:SS (minutes:seconds).

Timer Mode: Pump OFF

The display indicates the amount of time remaining in the pump OFF cycle, counting down the Pump OFF time value (see Programming OFF Time Duration, page 13).

•The Time OFF LED illuminates and the pump output is disabled during the Pump OFF time.

•Pump OFF time is shown in HH:MM (hours:minutes) or MM:SS if the time remaining is less than an hour.

Alarm Operation

When an alarm situation occurs:

•pump operation is immediately disabled,

•the front panel Alarm LED illuminates,

•an error code displays

•an audible alarm sounds

•the alarm output contact activates

Press the Reset button once to clear buzzer; press and hold for 3 seconds to clear alarm and switch controller to OFF MODE.

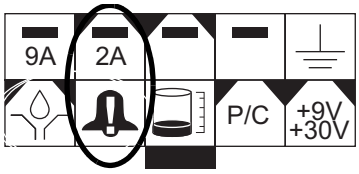
See Alarm Types and Messages Table, page 18 for additional information related to alarms and alarm messages.

Alarm Types and Messages

Alarm Type	Error Code	Description	Things to Check/Do
Low Level	Er:LL	Low lubricant level	Refill lubrication reservoir. If low level fault occurs unexpectedly verify wiring and programming setup.
Cycle	Er:Cy	Backup time expired prior to receiving programmed number of cycle counts	Inspect lubrication system for broken or plugged lines. Confirm pump is operating correctly. Inspect wiring and switch. Confirm that sufficient backup time was programmed for environment conditions (e.g., slower system response in cold temperatures) Verify programming.
Pressure	Er:Pr	Backup time expired prior to receiving pressure switch input.	Inspect lubrication system for broken or plugged lines. Confirm pump is operating correctly. Confirm vent valve is operating correctly. Inspect wiring and switch. Confirm that sufficient backup time was programmed for environment conditions (e.g., slower system response in cold temperatures). Verify programming.
System Fault	Er:Sy	Internal system error occurred.	Cycle power. If the system error persists the controller may need to be replaced.

Advanced Programming (Series E or later models only)

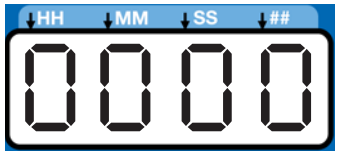
The following Table Identifies each option and when it is used.

Advanced Option	Setting	Format/ Description	Why Use This?
A1	Lockout Code (Optional)	Secures setup modes with PIN	Prevents unauthorized users from adjusting settings.
A2	Pulsed Mode	**MM:SS** (minutes:seconds) First, set Pulse ON Time; then set Pulse OFF time	Pulsed Mode allows the user to program the pump cycle on and off during the normal run mode.
A3	Auxiliary Output Mode	Enables alarm output as secondary output during run mode. 	Auxiliary Output Mode allows the user to operate a second device, such as a solenoid, during the normal run mode. When enabled, the output is on for the entire duration of the ON cycle. **NOTE:** When pulsed mode is enabled, the auxiliary output will remain enabled and will not pulse during the Pump ON cycle. When not enabled, alarm output will operate as an alarm output.

Entering Advanced Setup

1.Press the UP ARROW button for three seconds.

If a PIN Code is required, the unit will show four zeros.



2.The cursor is positioned to enter the first character of the PIN Code. Use the UP and DOWN ARROW buttons to move through the numbers 0-9 until the first number in the PIN code is displayed.

3.Press the ENTER button to set the number. The cursor automatically moves to the next number field.

4.Repeat steps 2 and 3 for each PIN Code prompt field.

If the PIN Code you entered is correct, the unit will enter advanced setup mode.

Selecting Advanced Setup Options

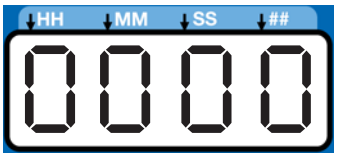
1.Press the UP or DOWN ARROW button to move up or down through Advanced Options A1 - A3.

2.Press the ENTER button to set the selection.

A1 - Setting Up PIN Code

A PIN Code can be programmed into the GLC 2200 to protect the settings from inadvertently being changed by unauthorized users.

Four zeros on the display lights, indicating you have entered the PIN Mode.



1.The word A1:OF appears in the display. Press the UP or DOWN ARROW button to change this to A1:ON.

2.The cursor is automatically positioned to entered the first character of the PIN Code. Use the UP and DOWN ARROW buttons to move up and down through the numbers 0-9 until the first number in the PIN code is displayed in the field.

3.Press the ENTER button to set the number. The cursor automatically moves to the next number field.

4.Repeat steps 2 and 3 for each PIN Code prompt field.

5.Press the ENTER button to set the PIN Code and exit Advanced Setup.

A2 - Pulsed Setup

Programs ON and OFF time in MM: SS (minutes and seconds) for pump operation during a normal pump on cycle.

1.To set the ON time use the UP or DOWN ARROW button to scroll through numerals 0 to 9 until the desired number appears in the first MM (minutes) field.

2.Press the ENTER button to set the number. The cursor automatically moves to the next number field.

3.Repeat Steps 1 and 2 until all MM:SS fields are programmed.

4.Repeat Steps 1 - 3 to program the OFF time.

NOTE: If the pulse mode is enabled, the pump ON led will blink for the duration of the pulse ON time while the pump is on in Run Mode. The pump ON led will remain solid during the Run Mode for the duration of the pulse OFF time.

A3 - Auxiliary Output Setup

Allows the use of the alarm output during normal pump ON cycle.

1.The word A3:ON appears in the display. Press the UP or DOWN ARROW button to cycle between A3:ON and A3:OF.

2.Press the ENTER button to save and exit setup.

- When the Auxiliary Output is enabled, the output will remain powered during the Pump ON cycle whether or not the main pump output is pulsing.

- When the Auxiliary Output is not enabled (OFF) the alarm output will operate as an alarm output.

Troubleshooting

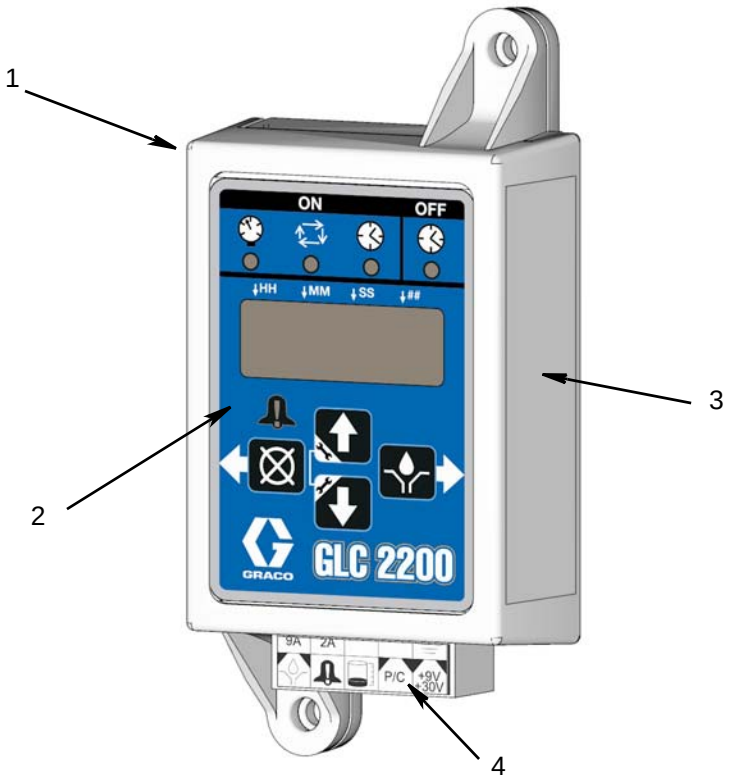
Description	Problem	Solution
Unit does not power on or display is dim/unresponsive	Incorrect or loose wiring	Refer to installation instructions beginning on page 4.
	Input voltage is out of range	Confirm power source is between 9 and 30 VDC.
	Tripped external fuse	Confirm that none of the devices or wiring connected to the controller are causing a short circuit connection. Replace fuse.
Pump is not running during Pump ON	Incorrect or loose wiring	Confirm current is being delivered to the pump during pump ON. Refer to installation instructions, page 4. Verify that your machine has been wired correctly.
	Controller output is incorrect	Confirm output voltage (PUMP+) from controller during pump ON is correct (should be similar to input voltage). **NOTE:** Measure at controller to ensure there is not wiring issue causing the problem. If controller output voltage is never present, the device may need replacement.
	Air solenoid failure	Replace air solenoid.
Reservoir quickly and unexpectedly runs out of grease	Test mode is engaged	Turn off test mode.

Program Settings

Description	Modes of Operation Maximum / Minimum and Additional Comments
PROGRAMMING ON, page 12	Pressure, Cycle, Time
PRESSURE CONTROL, page 12	MM:SS (00:01 - 59:59)
CYCLE CONTROL Setup, page 12	Cycles = 01 - 99
BACKUP TIME Setup, 13	MM:SS (00:01 - 59:59)
TIME CONTROL, page 12	MM:SS (00:01 - 59:59)
PUMP OFF Setup, page 14	Time Pump OFF Time: HH:MM (00:01 - 99:59)
LOW LEVEL, page 14	LL:01 = Default single activation LL:02 = “Paddle Style” - 10 count activation

Parts

Ref.	Description	Qty
1	BOX, enclosure	1
2	LABEL, control, overlay	1
3	LABEL, serial, name	1
4	LABEL, connector	1



Accessories

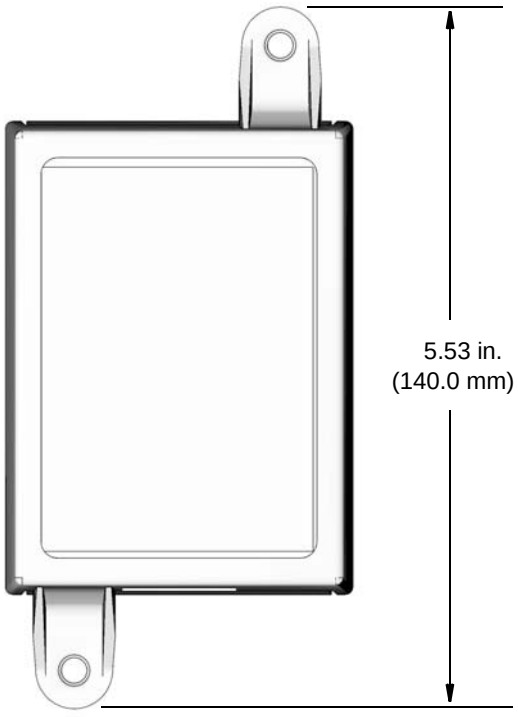
Related Kits

Kit No.	Description
24P314	GLC2200 Wiring Harness Kit
24P686	Single Connector Kit
24P687	Multiple Connector Kit

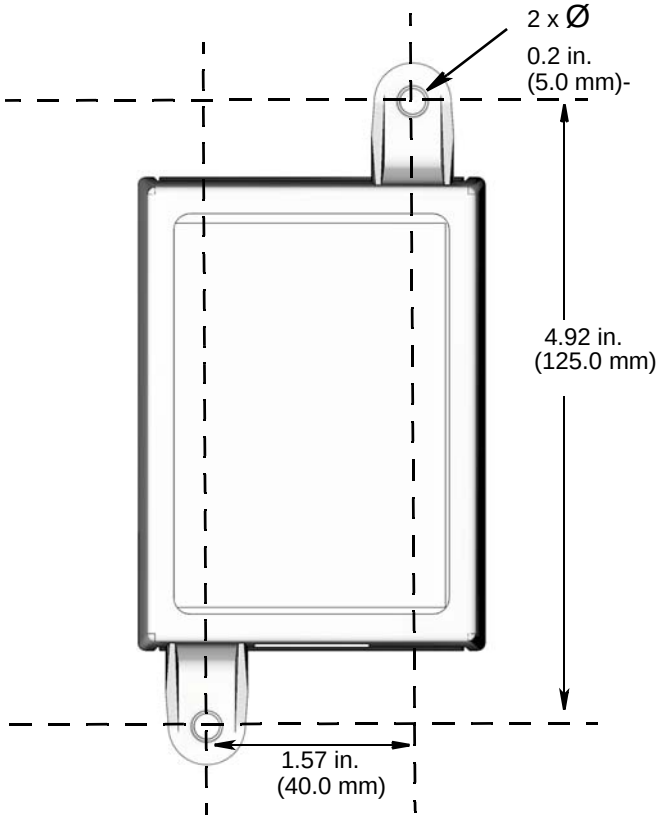
Technical Data

Input Contact	
Power Source DC	9 - 30 VDC
Power Consumption	1 Watt
Cycle/Pressure Control Input (optional)	9 - 30 VDC, Normally open Pressure or cycle switch
Lubrication level (optional)	Normally open level switch, closes upon low level
Outputs	
Pump control	Pump Control Voltage = Power Source
Voltage	Pump Control Voltage = Power Source
Max Switching Voltage	30 VDC
Max Switching Current	7A(DC), 9A (Peak)
Min Switching Current	100 mA (DC)
Alarm, normally open	
Voltage	Alarm = Power Source
Max Switching Voltage	30 VDC
Max Switching Current	2A (DC)
Protection grade	IP54 for indoors and vehicle cab use
Alarm Sound Pressure Level	75 dB
Enclosure Material	ABS
Membrane Material	Polyester
Maximum Humidity	90% RH (non-condensing)
Operating temperature range	- 40°F to 176°F (- 40°C to 80°C)
Storage Temperature	- 40°F to 176°F (- 40°C to 80°C)

Dimensions



Mounting Hole Layout



Notes

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

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This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

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Phone: 612-623-6928 **or Toll Free:** 1-800-533-9655, **Fax:** 612-378-3590

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Original instructions. This manual contains English. MM3A2960

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