Operation and Parts



XP™ PressureTrak Kit

3A3320B

Monitors pressures to provide ratio assurance on XP plural-component sprayers in hazardous or non-hazardous locations. For professional use only.

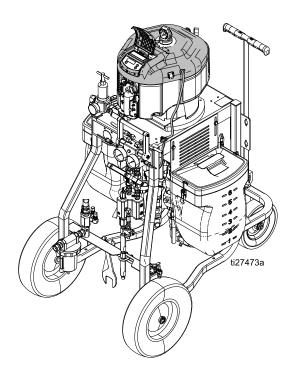


Important Safety Instructions

Read all warnings and instructions in this manual **and the XP sprayer operation manual**. **Save these instructions**.

17G807 — N3400 Pressure Monitor Kit 17G808 — N6500 Pressure Monitor Kit

See page 2 for Related Manuals and Approvals.





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Related Manuals

Manual	Description
3A0420	XP Sprayer, Instructions/Parts

Agency Approvals

Model	Agency Approval
17G807	
17G808	Note that Note

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.





SPECIAL CONDITIONS FOR SAFE USE

Equipment must comply with the following conditions to avoid a hazardous condition which can cause fire or explosion.



- All label and marking material must be cleaned with a damp cloth (or equivalent).
- The electronic monitoring system is required to be grounded. See **Grounding** instructions in your pump operation manual.



FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion:



- · Use equipment only in well ventilated area.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking).



- Ground all equipment in the work area. See **Grounding** instructions.
- Never spray or flush solvent at high pressure.
- · Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.



- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are anti-static or conductive.
- Stop operation immediately if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.

Overview

The purpose of the XP PressureTrak is to shut down the sprayer if abnormal pressure conditions are detected in order to prevent spraying material that is not mixed on ratio.

Two pressure transducers read the A and B fluid pressures in the outlet manifold and send the readings back to the XP PressureTrak.

The XP PressureTrak monitors the difference between the A and B fluid pressures, alerting the user when an imbalance is detected. An imbalance may be due to a plug, leak, or running out of fluid.

When an imbalance is detected, the electric solenoid disables the air motor, an alarm is displayed on the screen, and the LED on the front of the display flashes. For more error code information see Alarms, Deviations, and Advisories, page 10.

The following alarms can occur:

- · Differential Pressure (B>A)
- Differential Pressure (A>B)
- · Pressure A High
- · Pressure B High
- · Electric Solenoid Disconnected
- Pressure A Disconnected
- · Pressure B Disconnected
- · Low Battery
- · Blown Fuse

Operating Window

Below Minimum Spray Pressure

The air motor is allowed to automatically operate in Circulation Mode any time the fluid pressures are below the minimum spray pressure. This allows for loading the system and circulating the fluids without alarms or shutdowns.

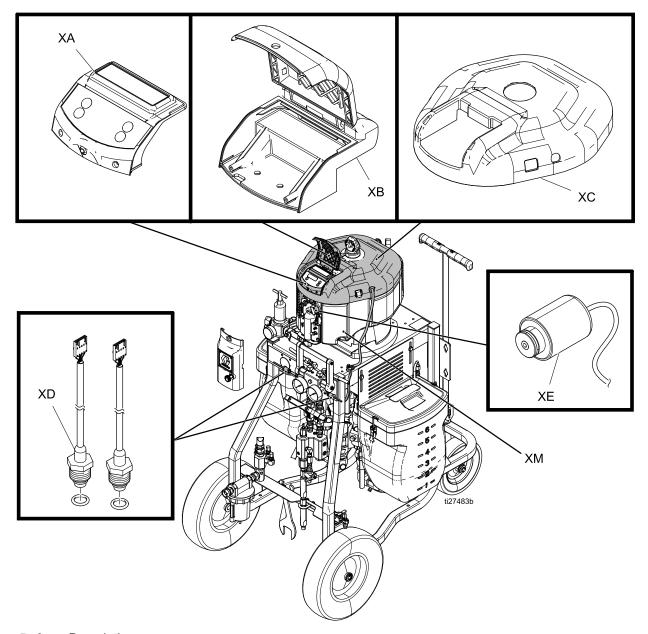
Above Minimum Spray Pressure

When the XP PressureTrak detects the fluid pressures above the minimum spray pressure for 30 seconds, and the pressures are balanced within the pre-set limits, it will automatically start pressure monitoring. If the XP PressureTrak does not see balanced pressures within 30 seconds of going above the minimum spray pressure, it will detect the fault and disable the air motor. The default minimum spray pressure is 2000 psi (14 MPa, 138 bar). Enter Setup Mode to change the minimum spray pressure as necessary (see Setup Mode Details, page 16).

Maximum Spray Pressure

The XP PressureTrak will alarm and shutdown if it detects either A or B fluid pressures above the maximum working pressure of 7250 psi (50 MPa, 500 bar). Enter Setup Mode to reduce the maximum allowable pressure set point (see Setup Mode Details, page 16).

Component Identification



Ref. Description

XA Module

XB Housing

XC Cover

XD Pressure Sensors

XE Solenoid XM Air Motor

User Interface

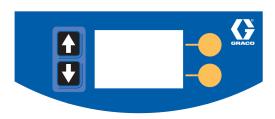


Table 1 LCM Button Functions

Button	Function
Arrows Up/Down	Navigate up or down within a screen or to a new screen.
1	
Soft Keys	Soft keys activate the mode or action represented by the icon next to each soft key.
	See Table 2 for soft key icons and actions.
	Top Soft Key: Edit data, accept edited data, or move right within a selected field.
	Bottom Soft Key: Enter a screen, exit a screen, or cancel edited data.

NOTICE

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

Table 2 Display Soft Key Icons

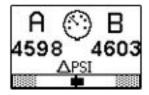
Icon	Function			
Enter Screen	In screens that have editable fields, press to access the fields and make changes.			
Exit Screen	In screens that have editable fields, press to exit edit mode.			
Enter	In screens that have editable fields, press to make data selections or to enter changes.			
Right	In screens that have editable fields, press to move to the right while in a field.			
Cancel	Cancel a selection or edited data. Returns to the original data.			
Clear Error Log 123 000	Clear entire error log.			

NOTE: The display will turn OFF after one minute of inactivity to save battery life. The PressureTrak will continue to monitor the pressures.

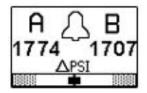
Display Components

Table 3 identifies components shown on the Spray Mode Active, Circulation Mode Active, Alarm Active, and Deviation Active Run screens. For more information see Run Screen Details, page 19.

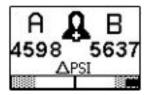
Spray Mode Active Screen



Circulation Mode Active Screen



Alarm Active Screen



Deviation Active Screen



Table 3 Display Components

Icon	Function			
AB	Actual spray pressures.			
APSI	Differential pressure alarm bar graph and pressure units.			
(Indicates that you are in spray mode.			
4	Indicates that you are in circulation mode.			
<u>B</u>	Indicates that there is an active alarm.			
	Indicates that there is an active deviation.			

Installation









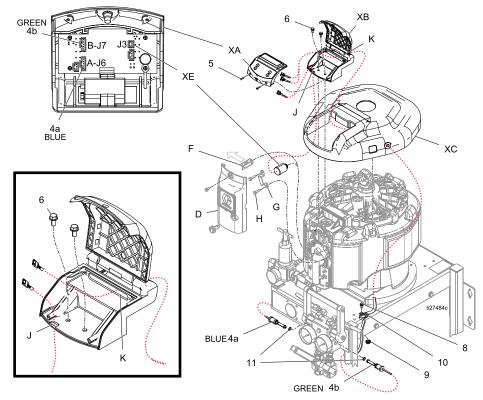
To reduce the risk of skin injection and shock, shut down the XP Sprayer before installing your XP PressureTrak. Follow the **Shutdown** and **Pressure Relief** procedures in the XP Sprayer operation manual.

The procedures in this section are specific to each component of the XP PressureTrak. For sprayer installation instructions, refer to the sprayer operation manual.

- Perform Pressure Relief Procedure. See your XP Operations sprayer manual 3A0420.
- 2. Remove the existing NXT air motor cover and front (D) of the motor cover.
- 3. Remove the insert from the solenoid hole (F).
- 4. Install the solenoid (XE). Use the retainer (G) and two bolts (H) to secure the solenoid.

NOTE: The holes in the casting may not have threads, but the screws are thread-forming.

- 5. Pass the pressure sensor (4a and 4b) through slot (K) and the solenoid (XE) through slot (J) in the housing (XB) and secure the housing to the air motor with two bolts (6).
- 6. Reinstall the front (D) and install the XP PressureTrak cover (3).
- 7. Connect the pressure sensor cables to the connectors on the circuit board. NOTE: Be sure to match the color codes (connect the blue cord to J6, circuit board labeled A and green cord to J7, circuit board labeled B). Connect the solenoid to J3, then connect the battery to the battery terminals.
- 8. Slide the module (XA) into the channel of the housing (XB) and secure with two screws (5).
- Insert o-ring (11) on pressure sensor (XD).
 Lubricate o-ring and install into the A side (blue) of the manifold. Torque sensor nut to 40–50 in-lb (54–67 N•m). Insert o-ring (11) on pressure sensor (XD). Lubricate o-ring and install into the B side (green) of the manifold. Torque sensor nut to 40–50 in-lb (54–67 N•m).
- Install the pressure sensor harness (XD) through clamp (10) and secure to the frame with screw (8) and nut (9).



Startup

1. Refer to your XP sprayer operation manual for sprayer startup instructions.

NOTE: The XP PressureTrak modifies XP sprayers. However, the operation procedures from the XP sprayer operation manual still apply.

2. Press any key to wake the XP PressureTrak. The display will turn off in one minute to save battery life, but will continue to monitor the pressures.

NOTE: To enter into Setup, press and hold any button for three seconds.

Set the system parameters before spraying.
 These can be changed as necessary. Press and hold any of the four keys on the User Interface Display for three seconds and the XP PressureTrak will enter into the Setup Mode (see Setup Mode Details, page 16).

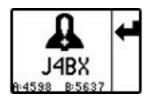
Shutdown

Refer to your XP sprayer operation manual for sprayer shutdown instructions. The XP PressureTrak will enter a hibernation mode to save battery life.

Alarms, Deviations, and Advisories

There are three types of errors that can occur: Alarms, Deviations, and Advisories. Errors are indicated by the flashing red LED as well as on the display.

Alarms, indicated by A, require immediate attention; therefore, the XP PressureTrak disables the air motor and the alarm screen automatically displays.



Deviations, indicated by $\stackrel{\bullet}{\longrightarrow}$, require attention, but not immediately.

Advisories, indicated by \triangle , do not require attention. Therefore, if a deviation or advisory occur, the system continues running and \bigcirc or \bigcirc is displayed on the run screen.

The following table shows the status of the front LED for Alarms and Advisories.

Front LED	Description
OFF	System is powered up and monitoring pressure.
OFF	In Circulation Mode or Manual Bypass Mode.
OFF	A deviation exists.
Red Flash	An alarm exists and the system shuts down.

Clear Alarms

- 1. Turn the air valve to OFF.
- 2. Reduce the air pressure regulator to minimum.

- 3. Wait for the air pressure to drop.
- 4. Clear the cause of the error.
- Press ←.

NOTE: If the system has pressure when is pressed, the screen will change to indicate this as the screens below. If these screens are displayed, repeat steps 1 through 5.







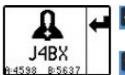




- 6. Turn the air valve to ON.
- 7. Increase the pressure to achieve the best pattern.

View Current Alarms

To toggle the screens between the Alarm Information Screen and the Run Alarm Active Screen, press or

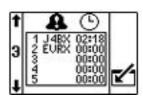






View Error Log

Setup Screen 3 is the error log screen. It displays the most recent error on the top of the list with the past 20 errors below it. This screen displays a list of advisory or alarm error codes and the time the error occurred since the unit went to spray mode. The timer will restart when the pressure falls and unit enters into circulation mode, or when the timer rolls over 23:59.



Error Codes

Code	Icon	Code Name	LED Status	Cause	Solution								
Alarms													
J4AX	B	Differential Pressure	Flashing Red	Ran out of B side material.	Refill hopper or change drum.								
	(A>B)	Cavitating B side pump.	Warm material or add feed pressure.										
				B material leaking.	Follow pump troubleshooting in XP70 Sprayer manual.								
				No mix manifold B side restriction.	Add restriction to B side on mix manifold to balance pressures.								
				A side hose is too small.	Change to larger hose size.								
				Too much B side offset in control setup.	Adjust B side offset in setup screens if B normally runs at a higher pressure than A.								
				Improper configuration.	Adjust setpoints on setup screens. See Setup Mode Details, page 16.								
J4BX	Q	Differential Pressure	Flashing Red	Ran out of A side material.	Refill hopper or change drum.								
	(B>A)		Cavitating A side pump.	Warm material or add feed pressure.									
			ı									A material leaking.	Follow pump troubleshooting in XP70 Sprayer manual.
			Too much restriction on mix manifold B side restriction.	Reduce restriction to B side on mix manifold.									
			* B side hose is too small.	Change to larger diameter hose size.									
				* No B side offset in control setup.	Adjust B side offset in setup screens if B normally runs at a higher pressure than A. See Setup Mode Details, page 16.								
				Improper configuration.	Adjust setpoints on setup screens. See Setup Mode Details, page 16.								
P6AX	<u>R</u>	Pressure A	Flashing Red	Broken cable.	Replace transducer.								
	{	Disconnected		Disconnected cable.	Connect cable.								

Code	Icon	Code Name	LED Status	Cause	Solution
Alarms					
P6BX	£	Pressure B	Flashing Red	Broken cable.	Replace transducer.
	ę.	Disconnected		Disconnected cable.	Connect cable.
WJPX	Ω	Air Solenoid	Flashing Red	Broken cable.	Replace cable.
	4.4	Disconnected		Disconnected cable.	Connect cable.
				Damaged solenoid.	Replace solenoid.
P4AX	Q.	Pressure A High	Flashing Red	A pressure exceeded maximum working pressure set point.	Reduce air pressure to motor or adjust setpoint.
P4BX	x &	Pressure B High	Flashing Red	A pressure exceeded maximum working	Reduce air pressure to motor or adjust setpoint.
				pressure set point.	Open down stream valve.
			Too much restriction on mix manifold B side restriction.	Reduce restriction to B side on mix manifold.	
				Blockage in B line downstream.	Reduce downstream restriction.
					Clean mix manifold.
BATT	B	Low Battery	Flashing Red	Battery is low. Replace battery	See Repair, page 14.
FUSE	₽.	Blown Fuse	Flashing Red	Fuse is blown. Replace	See Repair, page 14.
psi	ybar 100	System Pressurized	Flashing Red	System is pressurized when clearing an alarm.	Shut off air pressure and wait for air pressure to drop.

^{*} Remote mix manifold applications only.

Code	Icon	Code Name	LED Status	Cause	Solution	
Deviations						
J3AX		Differential Pressure	OFF	Ran out of B side material.	Refill hopper or change drum.	
		(A>B)		Cavitating B side pump.	Warm material or add feed pressure.	
				B material leaking.	Follow pump troubleshooting in XP70 Sprayer manual.	
				No mix manifold B side restriction.	Add restriction to B side on mix manifold to balance pressures.	
				A side hose is too small.	Change to larger hose size.	
J3BX	Differential Pressure (B>A)	Pressure	2±3 Pressure	OFF	Ran out of A side material.	Refill hopper or change drum.
				Cavitating A side pump.	Warm material or add feed pressure.	
				A material leaking.	Follow pump troubleshooting in XP70 Sprayer manual.	
			Too much restriction on mix manifold B side restriction.	Reduce restriction to GB side on mix manifold.		
			* B side hose too small.	Change to larger hose size.		
				* No B side offset in control setup.	Add B side offset in setup screen.	
			Events ar	nd Advisories		
EERX	4	Under Minimum Spray Pressure, Circulation, Loading	OFF	Under minimum spray pressure.	Normal for circulation mode.	
EVRX	0	Entered into spray mode	OFF	Pressure went above minimum spray limit	Normal for spray mode.	

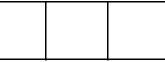
^{*} Remote mix manifold applications only.

Repair

Replace the PressureTrak Module Battery or Fuse

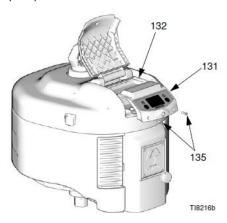






The battery and fuse must be replaced in a non-hazardous location.

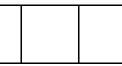
1. Remove the two screws (135). Carefully slide the PressureTrak module (131) out of the housing (132).



- 2. Disconnect the electric solenoid (7) and pressure sensor cables (4) from the module board.
- 3. Take the PressureTrak module (131) to a non-hazardous location.







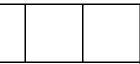
Use only the following approved replacement batteries. Use of an unapproved battery will void the Graco warranty, as well as Intertek and Ex approvals.

- · Ultralife® brand lithium # U9VL
- Duracell® brand alkaline # MN1604
- Energizer® brand alkaline # 522
- Varta® brand alkaline # 4922

4. **To replace the battery,** disconnect the used battery and replace with an approved battery.

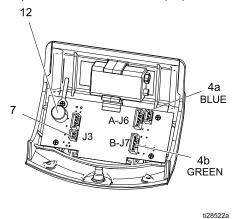






Use only a Graco-approved replacement fuse (12) Graco part number 24V216.

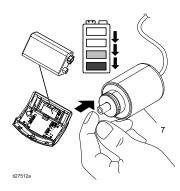
- 5. To replace the fuse (12):
 - a. Pull the fuse away from the board.
 - b. Replace with a new fuse (12).



Retract a Solenoid With a Dead Battery

First replace the battery and clear the error (this will retract the pin). If no replacement battery is available, complete the following steps to retract the solenoid.

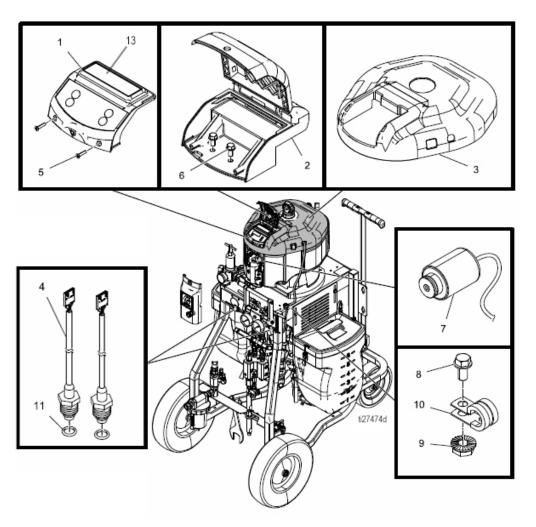
- 1. Remove cover (3), front (D), and retainer (G).
- 2. Push pin back into solenoid (7).
- 3. Reinstall solenoid (7), retainer (G), front (D), and cover (3).



NOTE: For more detail on parts orientation, see Installation, page 8.

Parts

Kits 17G807 and 17G808



	Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
	1	24Y281	MODULE, hazardous	1	6		SCREW, thd forming	2
			location pressure monitor		7	NXT403	SOLENOID, locking, DC	1
	2	24Y932	HOUSING, PressureTrak, machined	1	8		SCREW, flanged, hex hd	1
	3	17G839	COVER, PressureTrak,	1	9		NUT, hex, flange head	1
3	J	17 0000	NXT3400	•	10		CLAMP, cable	1
		17G840	COVER, PressureTrak,	1	11		PACKING, o-ring	2
			NXT6500		12	12V216	KIT, repair, fuse assembly	1
	4	17G837	SENSOR, PressureTrak,	1	13▲	15F716	LABEL, warning	1
	5		assy SCREW, high-low, flat had #6 x .625	2	,	placement L able at no co	Danger and Warning labels ar ost.	æ

Appendix A — User Interface Display

Setup Mode Details

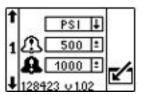
NOTE: To enter into Setup, press and hold any button for three seconds.

Setup mode screens enable the user to view or modify system configuration data. The user can set:

- · Units of pressure
- · Differential pressure deviation value
- · Differential pressure alarm value
- · High pressure limit value
- · Minimum spray pressure value
- · Normal B pressure offset value

Setup Screen 1

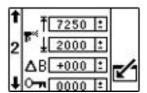
Setup Screen 1 enables the user to set units of measurement that will display on other screens, pressure warning and pressure alarm. Additionally, this screen displays the software number and version. Refer to the following table for more information.



Icon	Function
<u>P</u>	Deviation Pressure
r ≆ ⊐	Adjust the differential pressure deviation setpoint.
	Default: 400 psi (2.75 MPa, 27.5 Bar)
	Range: 0–2000 psi (13.8 MPa, 138 Bar)
Ω	Alarm Pressure
	Adjust the differential pressure alarm setpoint.
	This is the main setting that determines how far apart the A and B pressures can be before shutting down the machine. If the machine shuts down too easily, increase this to a higher setpoint.
	Default: 600 psi (4.13 MPa, 41.3 bar)
	Range: 0–2000 psi (13.8 MPa, 138 Bar)

Setup Screen 2

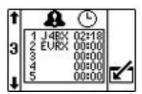
Setup Screen 2 enables the user to set the high spray pressure alarm limit value, minimum spray pressure value, and B pressure offset. Refer to the following table for more information.



Icon	Function
₽ ₹	High Pressure Limit
	Adjust the high pressure limit.
•	Default: 7250 psi (50 MPa, 500 Bar)
	Range: 0–7250 psi (50 MPa, 500 Bar) maximum
-6 7	Minimum Spray Pressure Limit
• `Ţ	Adjust the lower spray pressure limit.
_	Default: 2000 psi (13.8 MPa, 138 Bar)
	Range: 0–7250 psi (50 MPa, 500 Bar) maximum
S	B Side Pressure Offset
	Default: 0 psi (0 MPa, 0 bar)
	Range: -999 – +999 psi (-9.9 – +9.9 MPa, -99.9 – 99.9 Bar) maximum
	Only used for remote mix manifold applications where there is a normal difference in pressure between A and B.
	Remote mix manifold applications should first be balanced with proper hose sizing and adjusting the mix manifold B restrictor. See manual 3A0590.
	Use this if the differential alarm bar graph on the Spray Screen is off to one side under normal spray conditions.
0-8	Password
* "	The setup screens can be protected by a password to restrict their accessibility. To set the password, see Set Password, page 18. To deactivate the password, enter 0000.
	Default: 0000 (not active)
	Range: 0–9999

Setup Screen 3

Setup Screen 3 enables the user to scroll through all errors and clear the entire error log. The error log will display the most recent error on the top of the list. Refer tot he following table for more information.

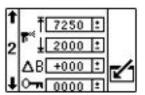


Icon	Function
	Error Number
	The first column lists the error number. Once the system has more than the maximum errors allowed, then the oldest error will be over-written.
	Maximum: 20
Ω	Error Code
	The second column lists the error codes (see Error Codes, page 11).
	Maximum: 20
ര	Time
	The third column shows the time that the error occurred since the unit was last powered on. The time will always start at 0:00 when the system is powered up. This time will be logged as code ELCX.
	Format : Hours : Minutes
	Maximum: 23:59
123	Reset
000	Press the Reset icon to clear the entire error log.

Set Password

NOTE: When the password is "0000" the setup screens can be accessed without entering a password.

1. Navigate to Setup Screen 2.

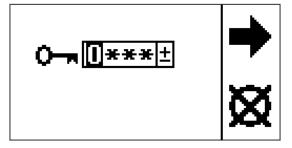


- 2. Press to access fields to make changes.
- 3. Press to navigate to the password field.

 Press to edit data.
- 4. Press and to increment or decrement to the desired digits of the password.
- 6. Press to exit edit mode.

NOTE: The password screen is shown when the setup screens are accessed and the password function has been enabled by changing the 0000 password.

NOTE: If you set and forget the password, please contact Graco Technical Assistance for a default password.



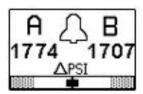
Run Screen Details

The graph on the bottom of the display shows the magnitude of the differential pressure in relation to the deviation and alarm setpoints. If the moving bar is in the center, clear area of the graph (the pressures are within tolerance). If the moving bar is in the dotted area of the graph, the pressures are in the deviation set point. If the moving bar moves to either end of the graph, the pressures are in the alarm setpoint and the PressureTrak Monitor will alarm.

Circulation Mode

This is the run screen that appears after the power up screen. A and B pressure are shown. In Circulation Mode, all alarms are disabled except for the Air Solenoid Disconnected High Pressure A, and High Pressure B alarms.

If the user needs to spray with one of the above errors active, set the Lower Spray Pressure Limit equal to the High Pressure Alarm Limit to enter Manual Bypass Mode. Only use Manual Bypass Mode for emergency operation. The XP PressureTrak no longer monitors the pressures and will not shut off the sprayer.

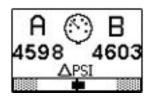


Icon	System Status
4	Indicates that you are in Circulation Mode and the fluid pressure is below the Lower Spray Pressure Limit.
	All alarms are disabled except for Air Solenoid Detection, High Pressure A, and High Pressure B alarms.

Spray Mode Active

This is the run screen that appears during spray mode. A and B pressure are shown.

When the pressure first gets above the lower spray pressure limit, the user has 30 seconds to balance the system differential pressure so it is less than the differential pressure deviation and alarm limits. Then the system will automatically go into Spray mode and start monitoring all alarms and deviations.

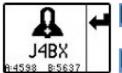


Icon	System Status
©	Indicates that you are in spray mode, at least one of the pumps has pressure greater than the lower spray pressure limit, and the differential pressure is less that the differential pressure deviation setpoint.

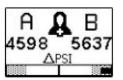
Alarm Active

This is the run screen that appears during an active alarm. A and B pressures shown are the current pressures of the system. The information screen captures the pressure at the time of the alarm. To toggle between the Alarm Active screen and the Alarm Information screen, press either the







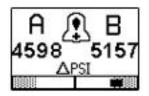


Refer to the following table for more information.

Icon	System Status
&	Indicates that there is an active alarm.

Deviation Active

This is the run screen that appears during an active deviation. A and B pressure are shown. Refer to the following table for more information.



Icon	System Status
.	Indicates that there is an active deviation.

Information Screen

The information screen is displayed when an alarm is active. It shows the active alarm code and the A and B pressure conditions at the time of the alarm, if applicable.

To toggle between the Alarm Active screen and the Alarm Information screen, press:









The red LED will flash when an alarm is present. Refer to the following table for more information.

Icon	System Status
₽	Indicates that there is an active alarm. The red light on the front LED will be flashing and the system is disabled.
J4BX	Active Alarm Code (see Error Codes, page 11).

NOTE: To clear the alarm, see Clear Alarms, page 10.

Technical Data

Pressure Transducers	
Fluid pressure range:	50-7250 psi (0.3 – 50 MPa, 3-500 bar)

Accessories

Part	Description
NXT405	Membrane Shield Kit (20 shields included) — Removable clear shield to protect the membrane switch from daily wear.

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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Original Instructions. This manual contains English. MM 3A3320

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