

Graco InSite™

332590C

Remote Reporting Field Installation Kit

EN

For remote reporting of actual temperature, temperature setpoint, actual pressure, pressure setpoint, cycles, and GPS location from a Reactor® proportioner.

For professional use only.

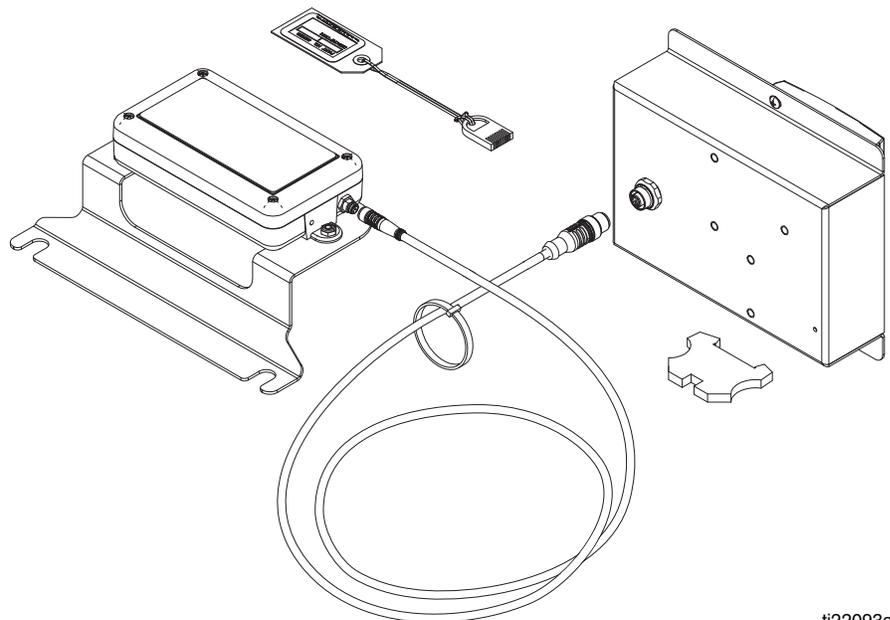
Not approved for use in explosive atmospheres or hazardous locations.

Model 24T278



Important Safety Instructions

Read all warnings and instructions in this manual and in your Reactor manual. Save all instructions.



ti22093a



Contents

Related Manuals 2
Reactor Compatibility 2
Warnings 3
Installation 3
Operation 7
Troubleshooting 8
Parts 9
Technical Data 10
Graco Standard Warranty 12

Related Manuals

Manuals are available at www.graco.com. Component manuals in English:

Manual	Description
312062	Hydraulic Reactor Operation
312063	Hydraulic Reactor Repair
312065	Electric Reactor Operation
312066	Electric Reactor Repair

Reactor Compatibility

The Graco InSite is compatible with the following Reactor models:

Reactor Model	Part Numbers
E-20	259025
	259030
	259034
E-30	259026
	259031
	259035
	259057
	259058
	259059
E-XP1	259024
	259029
	259033

Reactor Model	Part Numbers
E-XP2	259028
	259032
	259036
H-25	255400
	255401
	255402
	255406
	255407
	255408
H-40	253400
	253401
	253402
	253407
	253408
	256886
	256887
H-50	253725
	253726
	253727
	256505
	256506
H-XP2	255403
	255404
	255405
H-XP3	253403
	253404
	253405

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	
 	<p>ELECTRIC SHOCK HAZARD</p> <p>This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.</p> <ul style="list-style-type: none"> • Turn off and disconnect power at main switch before disconnecting any cables and before servicing or installing equipment. • Connect only to grounded power source. • All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

Installation

NOTICE
To prevent damage to the Graco InSite, do not expose to rain.

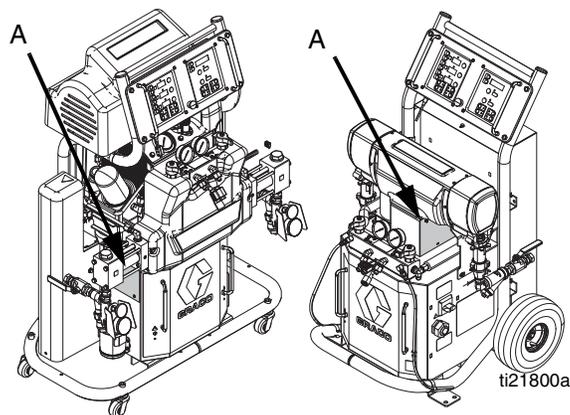
						
To prevent electric shock, wait 5 minutes after turning power OFF for stored voltage to discharge (E-30 and E-XP2 models only) before entering Reactor electrical cabinet. Read warnings in Reactor repair manual. All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.						

1. Turn Reactor main power OFF . Disconnect power. Wait 5 minutes for stored voltage to discharge.
2. After 5 minutes, remove Reactor cabinet front access door.

Install Control Box

3. Remove screws then remove side plate (A).

NOTE: The plate is on the right side of the Electric Reactor and on the left side of the Hydraulic Reactor.



4. *Electric Reactor only:* route all wires and cables from control box (2) through split rubber sheet in top of cabinet.

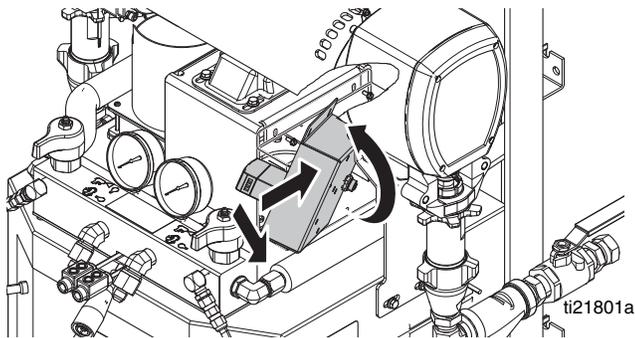
NOTE: *Electric Reactor only:* When installing the control box in the following step, pull wires through the split rubber sheet in top of cabinet while maneuvering the control box into place.

						
To prevent electric shock, do not pinch wires when installing control box in the following step.						

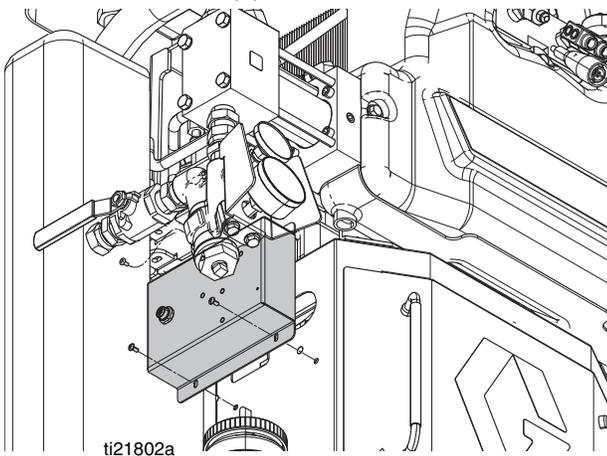
5. Install control box:

- *Electric Reactor only:* Tilt control box (2) right and forward then insert left of insulated tubing. Secure with screws (7).

NOTE: If the control box does not easily slide into place, loosening or removing the motor cover can help.



- *Hydraulic Reactor only:* Use three screws (7) to install control box (2) in location shown.



Attach Control Box Electrical Connections

6. Find the DIN rail inside of the Reactor cabinet. See FIG. 1, FIG. 2, or FIG. 3 on page 5.
7. *Electric Reactors only,* see FIG. 1 and FIG. 2 on page 5 to identify whether your system uses style 1 or style 2 of DIN rail.

NOTE: The difference between style 1 and style 2 DIN rails is the layout of the terminal blocks on the left hand side.

NOTE: In the following steps, ensure stripped wire ends are fully inserted into terminal connectors.

8. Insert green grounding wire (G) from control box into grounding terminal block (6) supplied with kit, then tighten screw (Y) to secure wire.
9. Install grounding terminal block (6) onto right end of DIN rail then tighten center screw (X) to secure in place. See FIG. 1 for DIN rail style 1 or FIG. 2 for DIN rail style 2.

NOTE: The black power wires (B, C) are interchangeable.

10. *For electric Reactor DIN rail style 1,* loosen screws (S) then insert black power wires (B, C) into same slots as existing wires (Z) as shown in FIG. 1. Tighten screws (S).

For electric Reactor DIN rail style 2, insert black power wires (B, C) into the bottom of the highlighted terminal blocks (F) shown in FIG. 2. Tighten screws (S).

For hydraulic Reactors, loosen screws (S) then insert black power wires (B, C) into the top of the highlighted terminal blocks (F) shown in FIG. 3. Tighten screws (S).

11. Pull on all wires (B, C, G, Z) to ensure the connections are secure. Re-install and tighten any loose wires.

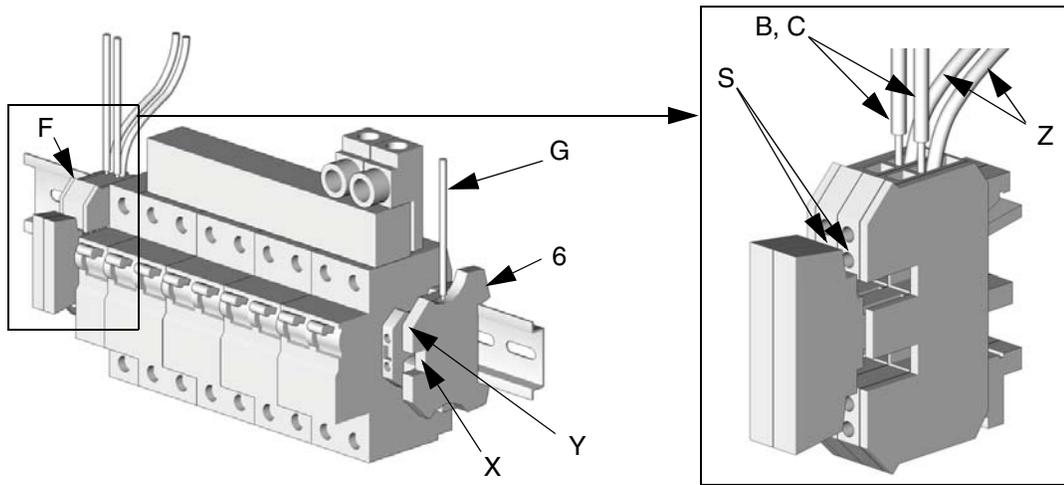


FIG. 1: Electric Reactor DIN Rail Style 1

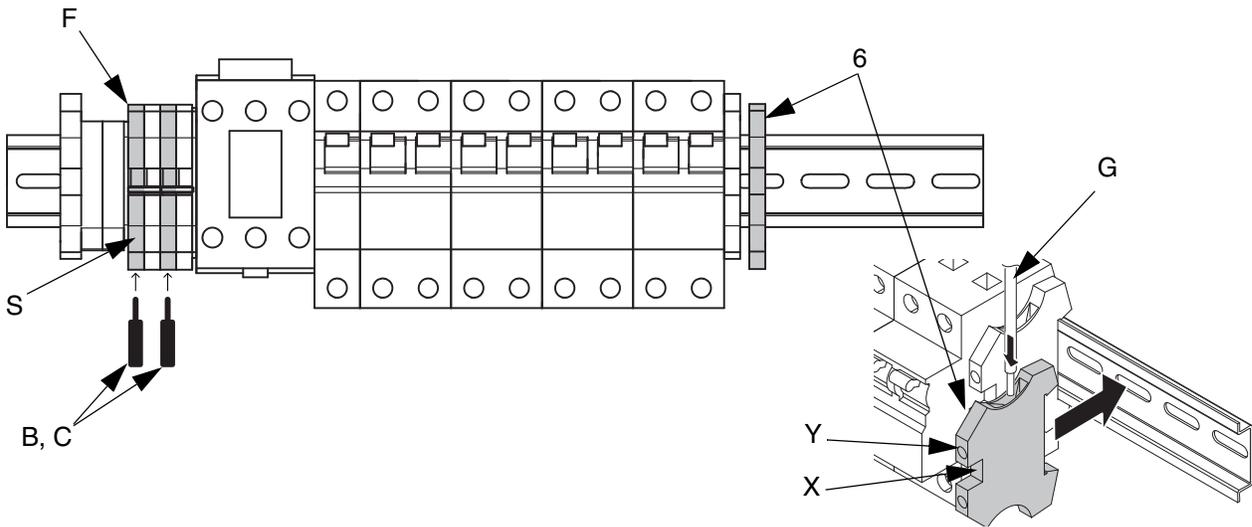


FIG. 2: Electric Reactor DIN Rail Style 2

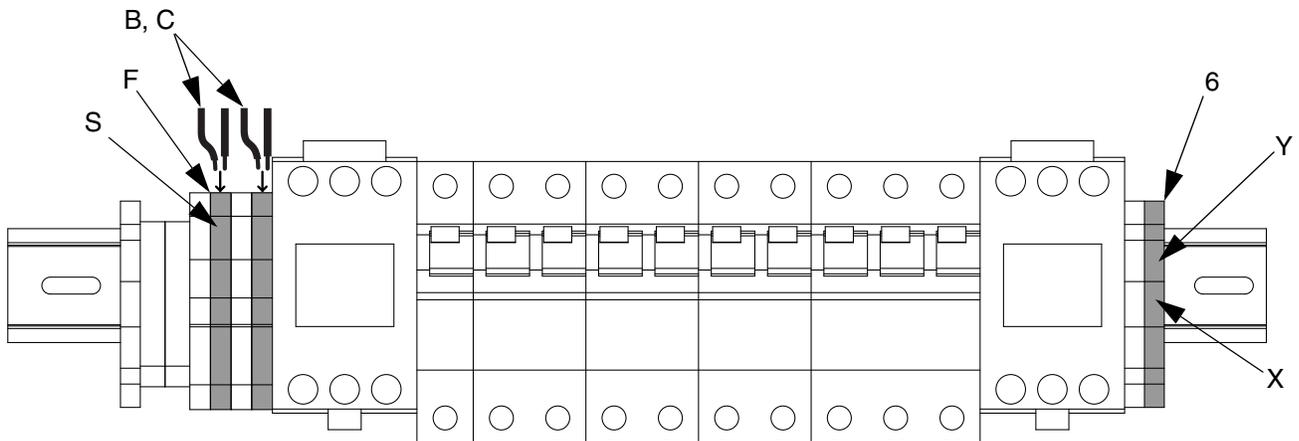


FIG. 3: Hydraulic Reactor DIN Rail Style 3

12. On the left wall inside the Reactor cabinet, locate and identify whether your system uses the temperature control module or temperature control board. See FIG. 4 and FIG. 5 for an example of each.

13. For models with temperature control board, connect TEMP cable (T) to J8 on board. See FIG. 4.

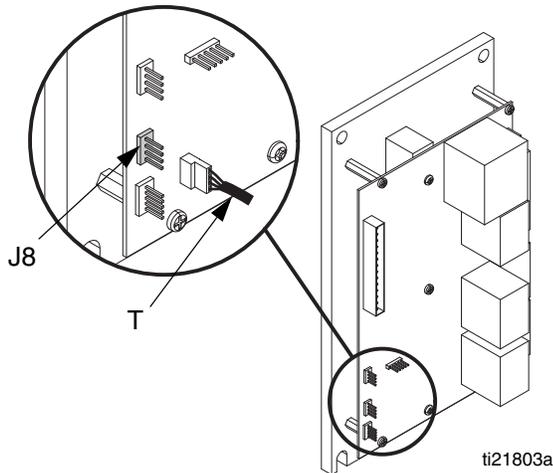


FIG. 4: Temperature Control Board

14. For models with temperature control module, remove cover kit (AA) then connect TEMP cable to J8 on module. Re-install cover kit (AA). See FIG. 5.

NOTE: The cap on the HEAT cable plug may prevent plug from being fully inserted into the temperature control module. Press plug to the right then press plug the rest of the way into place.

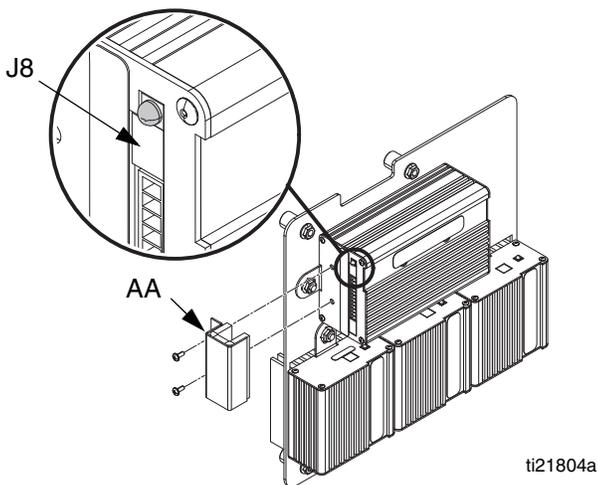
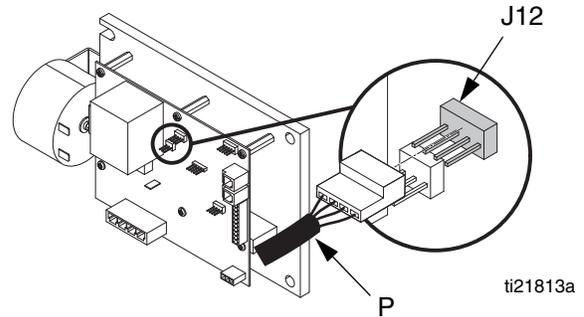


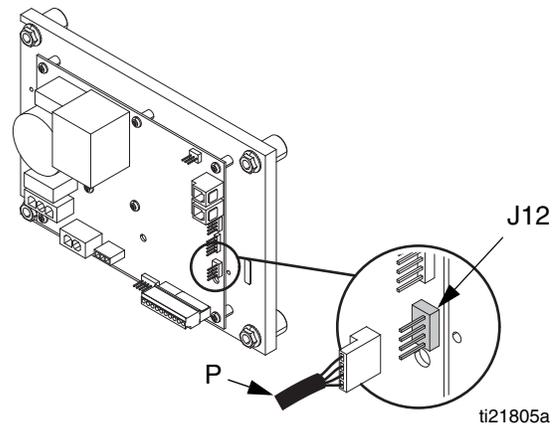
FIG. 5: Temperature Control Module

15. Connect PUMP cable (P) to J12 on motor control board.

Models E-30 and E-XP2



Models E-20 and E-XP1



Hydraulic Reactor Models

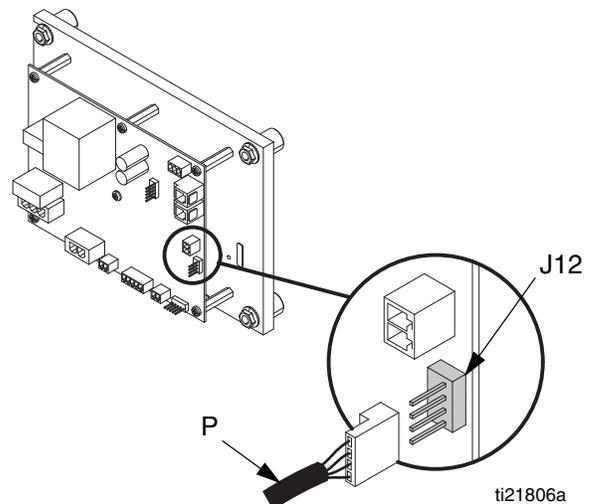


FIG. 6: Motor Control Board

16. Secure power cables away from hose transformer hot surfaces.

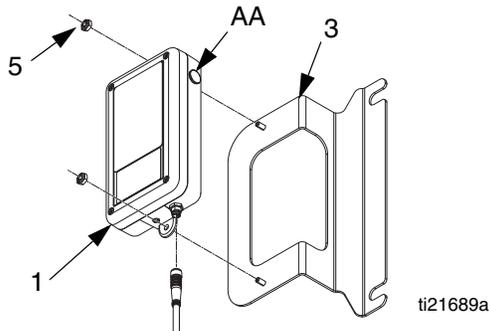
17. Re-install Reactor cabinet front access door.

Install Cellular Module

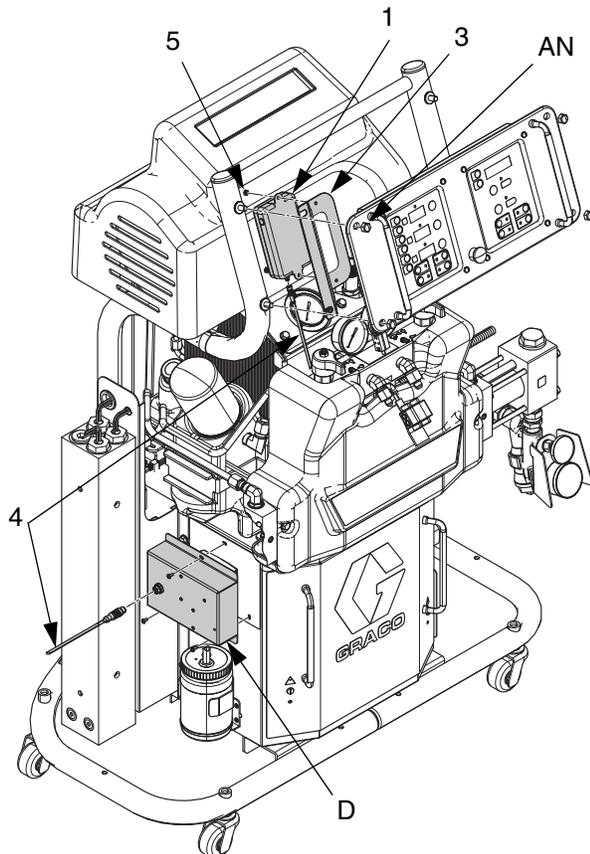
NOTICE

To prevent cracking the plastic shell of the cellular module (1), do not overtighten nuts (5) when installing onto bracket (3).

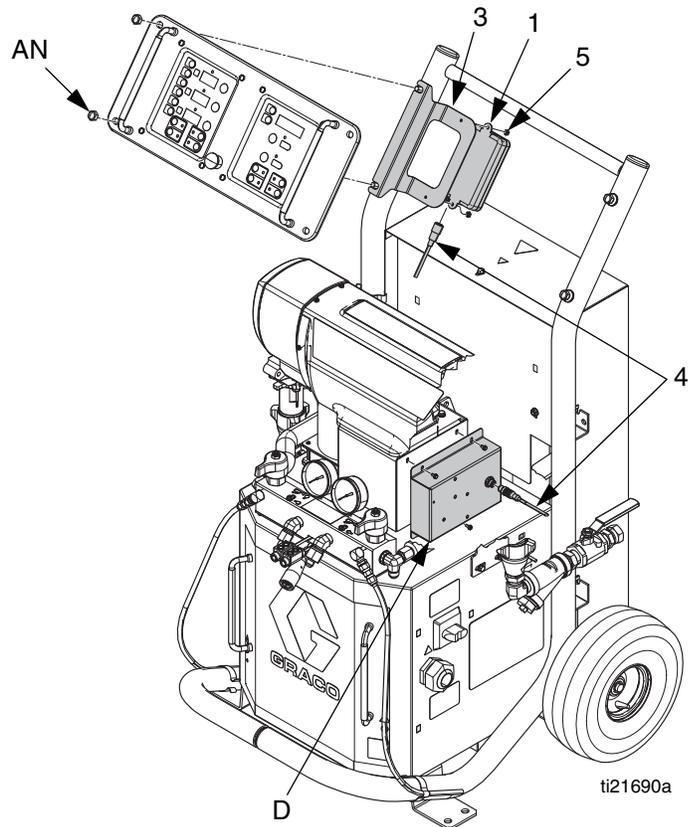
- Use two locking nuts (5) to secure cellular module (1) to bracket (3). Orient module (1) on bracket so LED window (AA) is easily visible to operator when bracket is installed on Reactor.



Hydraulic Reactor



Electric Reactor



- Loosen left side acorn nuts (AN) holding Reactor display to frame until display can be lifted enough to slide bracket between frame and display. See FIG. 7.

NOTE: It is not necessary to completely remove the acorn nuts on the electric Reactor.

- Slide bracket between display and frame so that bracket mounts to the behind the display with the LED status window (AA) visible to operator and the cable connector on the bottom. See FIG. 7.
- Tighten acorn nuts (AN) to secure bracket in place. See FIG. 7.
- Connect 4-pin end of cable (4) to cellular module (1) connector. See FIG. 7.
- Route cellular module cable (4) to control box (D). Secure with wire ties (8) as needed.
- Connect other end of cellular module cable (4) to control box (D) connector.

FIG. 7

Update Software, If Needed

NOTE: If the Reactor has a temperature control module and was built before 2010, a software update is needed. Otherwise, installation is complete.

25. See step 12 on page 6 to determine if system uses a temperature control board or a temperature control module.

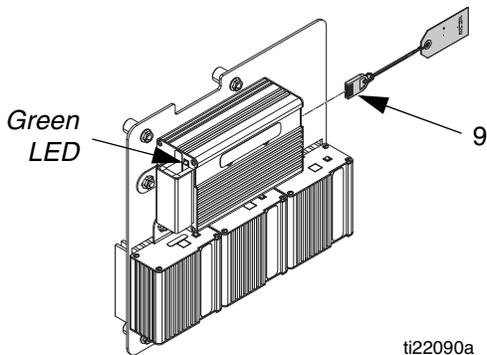
26. *If the Reactor has a Temperature Control Module*, check Reactor identification label for the date code which is in the format “G13A”. The number in the date code is the last two digits of the year built. If the year built is 2010 or later, a software update is not needed and installation is complete. Proceed to **Operation** on page 9.

27. Update the software:

a. Turn Reactor power switch OFF



b. Insert software update token (9) in back of the Temperature Control Module above the power wires.



c. Turn the Reactor power switch ON



NOTE: During the software update, the green LED on the Temperature Control Module will blink rapidly and the display will show “E99”. When the update is complete, the green light on the Temperature Control Module will blink slowly and the display will work normally.

d. When the software update is complete, turn

Reactor power switch OFF



e. Remove the software update token (9) from the Temperature Control Module.

28. With Reactor power switch OFF



, press and hold down the Actual Temperature key



ON



after power has been turned ON.



29. Press the Zone A UP arrow key



NOTE: The software version will consist of a number on each of the three temperature displays.

30. *If the software version displayed is 1, 1, 5 or 1, 1, 6 (software versions 1.01.05 and 1.01.06)*, the software did not update. Go back to step 27 to update the software.

31. *If any other software version is displayed*, the software has been successfully updated.

NOTE: Module is now ready to operate, see page 9.

Operation

Registering and Activating the Graco InSite

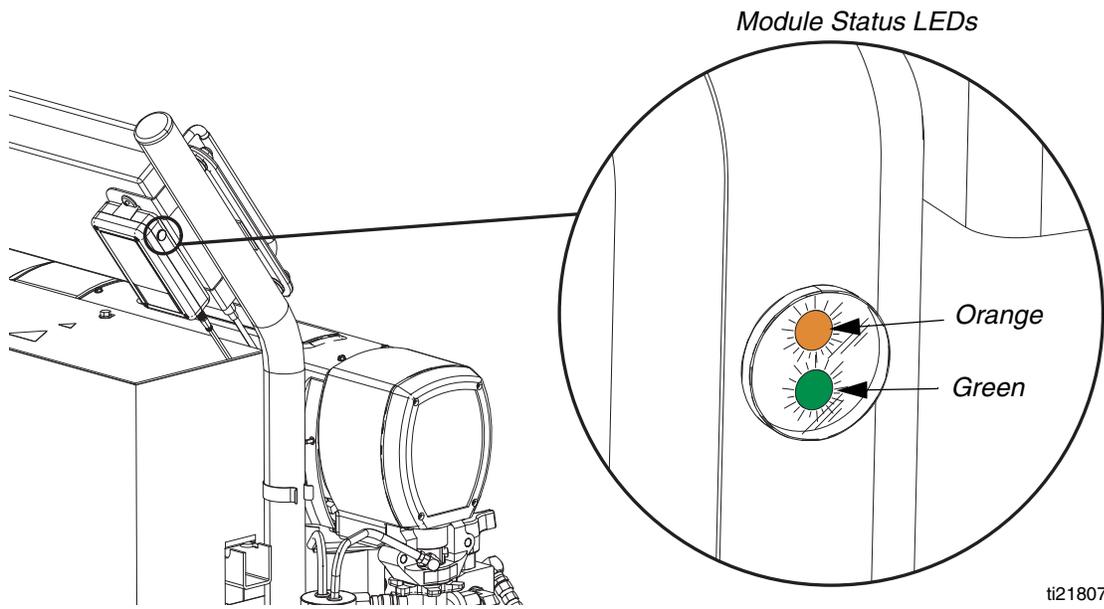
To register and activate the Graco InSite, go to www.GracoInSite.com, click on “InSite Login”, then follow the instructions on the screen.

Find and record the 15 digit serial number from the cellular box below:

Verify Module Status

To check the status of the cellular module, locate the status LEDs on the module then refer to the following chart.

LED Status	Description
Green flashing	Finding GPS location
Green solid	GPS location identified
Orange flashing	Cellular connection in process
Orange solid	Cellular connection established
Green and orange off	Reactor power is OFF



Troubleshooting



To prevent electric shock, wait 5 minutes after turning power OFF for stored voltage to discharge (E-30 and E-XP2 models only) before entering Reactor electrical cabinet. Read warnings in Reactor repair manual. All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

Problem	Cause	Solution
No module status LEDs are illuminated.	No power to control box.	Turn Reactor ON.
		Ensure unit is properly installed. See Installation on page 3.
		Verify line voltage to the power supply. If line voltage is present and 12V is not present at the output of the power supply, replace power supply.
	No power to cellular module.	Turn Reactor ON.
		Ensure unit is properly installed. See Installation on page 3.
		Verify 12V at output of the power supply.
Has not identified GPS location (green module status LED flashing).	Still identifying location.	Wait a few minutes for the unit to identify the location.
	Unable to identify location. In a location where GPS lock cannot occur. Buildings and warehouses often prevent GPS locks.	Move system to a location with a clear view of the sky.
		Use extension cable 16X521 and move cellular module to a location with a clear view of the sky.
Has not established a cellular connection (orange module status flashing).	Still establishing cellular connection.	Wait a few minutes for unit to establish the connection.
	Unable to establish cellular connection.	Move system to a location with cellular service to establish cellular connection.
		Use extension cable 16X521 and move cellular module to a location with a clear view of the sky.

Problem	Cause	Solution
Cannot view data for my unit(s) on website.	Graco InSite unit has not been activated.	Activate unit. See Registering and Activating the Graco InSite on page 9.
Temperature data not displayed on website.	4-pin connector is not plugged into the correct terminal on the temperature control board or module.	Ensure unit is properly installed. See Installation on page 3.
	Reactor temperature measurement is not working.	See Reactor repair manual.
Hose zone temperature data not displayed on website.	The RTD or thermocouple is not correctly installed on the hose or is broken.	See Reactor repair manual.
Pressure data not displayed on website.	4-pin connector is not plugged into the correct terminal on the temperature control board or module.	Ensure unit is properly installed. See Installation on page 3.
	Reactor pressure measurement is not working.	See Reactor repair manual.
Pressure setpoints not displayed on website.	Unit installed on a hydraulic Reactor.	Hydraulic Reactor pressure is set manually. InSite will not report a pressure setpoint on hydraulic Reactors.

Parts

Ref	Part	Description	Qty
1	24R926	MODULE, cellular and GPS	1
2	262922	CONTROL BOX	1
. 2a	---	ENCLOSURE, power supply	1
. 2b	---	BRACKET	1
. 2c	127191	HARNESS, wire (not shown)	1
. 2d	---	NUTS, keps, hex head, 10-24, with lock washers	4
. 2e	---	SPACER, nylon	1
. 2f	---	NUT, 4-40	1
. 2g	---	LABEL	1
. 2h	127189	CONVERTER	1
. 2i	127188	POWER SUPPLY, 12V	1
3	16V506	BRACKET, mounting	1
4	24T050	CABLE, M8 4-pin Female to M12 8-pin Male, 1.5 meters	1
5	---	NUT, locking, 8-32, with nylon insert	2
6	120839	BLOCK, terminal ground (not shown)	1
7	---	SCREWS, 8-32 x 3/8 in. panhead (not shown)	3
8	---	WIRE TIES, 7 in.(not shown)	6
9	16W459	SOFTWARE UPDATE TOKEN, Reactor heater	1

--- Not for sale.

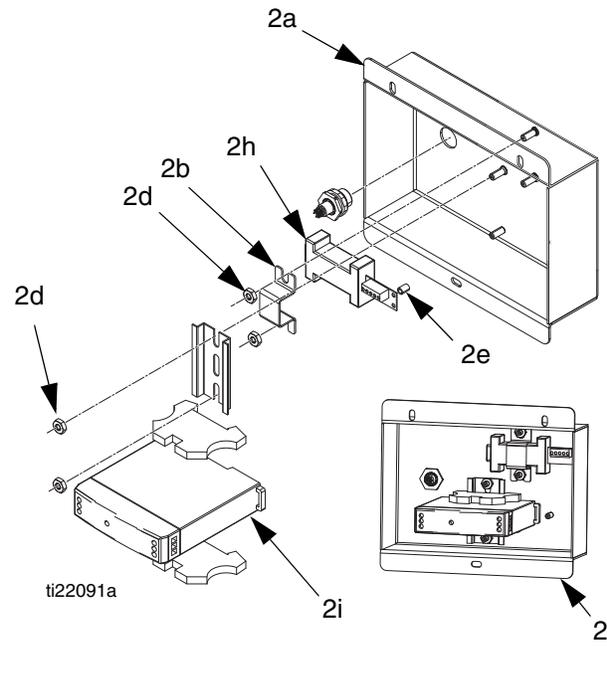
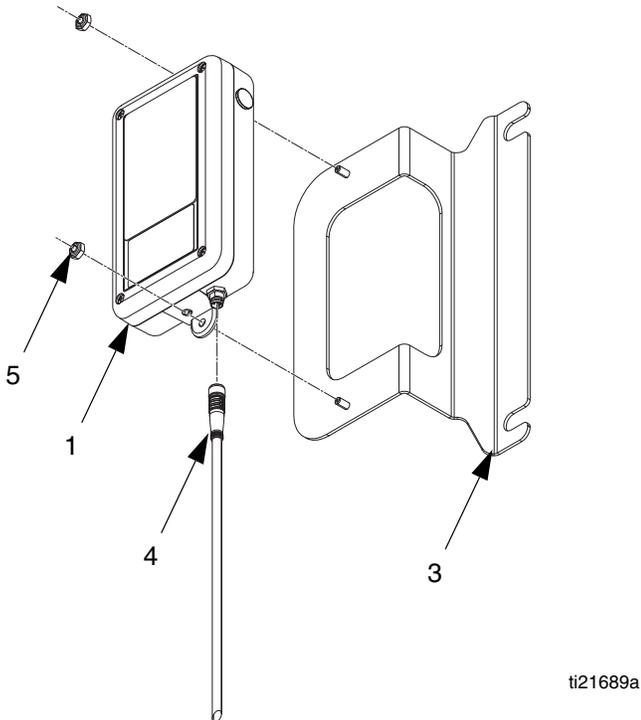


FIG. 8

Technical Data

Graco InSite Remote Reporting Field Installation Kit		
	US	Metric
Control Box Weight	2.3 lb	1.0 kg
Cellular Module Weight	0.5 lb	0.2 kg
Voltage into Control Box	100-240VAC, 50-60 Hz	
Operating Temperature	-22 to 167°F	-30 to 75°C
Storage Temperature	-40 to 185°F	-40 to 85°C
Ambient Temperature during Battery Charging	41 to 104°F	5 to 40°C
FCC ID	XPYLISAU200	
IC ID (Industry Canada)	8595A-LISAU200	
Transmit Power Data		
Technology	Frequency Band (MHz)	TX Power (dbm, Watts)
GSM/GPRS	900	33 dbm, 2 W
EGPRS	900	27 dbm, 0.5 W
WCDMA	900 (FDDVII)	24 dbm, 0.25 W
GSM/GPRS	1800	30 dbm, 1 W
EGPRS	1800	27 dbm, 0.5 W
WCDMA	2100 (FDDI)	24 dbm, 0.254 W

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.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

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.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

For the latest information about Graco products, visit www.graco.com.

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.

Phone: 612-623-6921 **or Toll Free:** 1-800-328-0211 **Fax:** 612-378-3505

*All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.*

For patent information, see www.graco.com/patents.

Original instructions. This manual contains English. MM 332590

Graco Headquarters: Minneapolis
International Offices: Belgium, China, Japan, Korea

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA

Copyright 2013, Graco Inc. All Graco manufacturing locations are registered to ISO 9001.

www.graco.com

Revision C, July 2017