

## Pressure Control Switch Replacement Kit

309120N  
EN

**Use with MAGNUM dx, XR, 150 RPX, SR7, X5, X7, LTS 15, LTS 17, LTS 19, ProX7, ProX9, Pro LTS 17, Pro LTS 19, M3+, M5+, L10+, L30+, Pro Plus™ A20, Pro Plus™ A30, Pro Plus™ A45, Pro Plus™ A60, and Project Painter™ Plus Model Sprayers**

**dx, XR, 150 RPX, (Series A) X5, LTS 15, and Project Painter Plus (120V) Pressure Control Switch Replacement Kit: 244266**

2800 psi (19 MPa, 193 bar)

**XR5 (Series B and C), XR7, XR9 (Series A and B) SR7, X7, LTS 17 (Series A and B), ProX7, ProX9 (Series A) Pro LTS 17, and Pro LTS 19 Pressure Control Switch Replacement Kit: 244267**

3000 psi (21 MPa, 207 bar)

**dx, AX, XR9, M3+, M5+, L10+, Pro Plus A20/A30/A45/A60, Project Painter Plus (240V), X5, X7, ProX9, LTS 17, LTS 19, Pro LTS 19, 240V Models Pressure Control Switch Replacement Kit: 246286**




3000 psi (21 MPa, 207 bar)



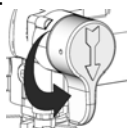
### Important Safety Instructions

Read all warnings and instructions in this manual. Save these instructions. For detailed sprayer information and warnings, see your Operation manual.

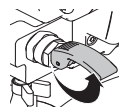
### Pressure Relief Procedure

						
To help prevent injection injuries, follow this procedure when you stop spraying and before you service or clean the sprayer, remove parts, or repair leaks.						

1. Turn Power switch OFF. Unplug sprayer.
2. Turn Spray/Prime valve to PRIME to relieve pressure. Turn Pressure Control knob left (counterclockwise) to minimize pressure.
3. Trigger gun.
4. Put trigger safety in safety ON position.



ti1868a



ti13961a

**NOTE:** Leave Spray/Prime valve in PRIME position until you are ready to spray again.

If you suspect that the spray tip or hose is completely clogged or that pressure has not been fully relieved after following the steps above, VERY SLOWLY loosen the tip guard retaining nut or hose end coupling to relieve pressure gradually. Then loosen it completely. Clear the tip or hose obstruction.

## dx, AX, and 150 RPX Airless Sprayers


- For more information, refer to assembly illustration on, page 3.

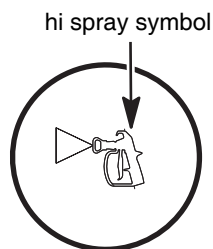
### Disassembly

1. Unplug electrical cord, and **Relieve Pressure** (see **Pressure Relief Procedure** on page 1).
2. Remove the three screws (A) securing the housing cover (B) to the motor enclosure (C) and remove the motor enclosure.
3. Unplug the pressure control switch wire connector (D) from the control board (E). Take note of the wire routing so wires for the new switch are routed the same way.
4. Remove screws (H) and remove the pump housing (J) from the housing cover (B).
5. Remove pressure control switch (F) and o-ring seal (G) from pump housing (J).

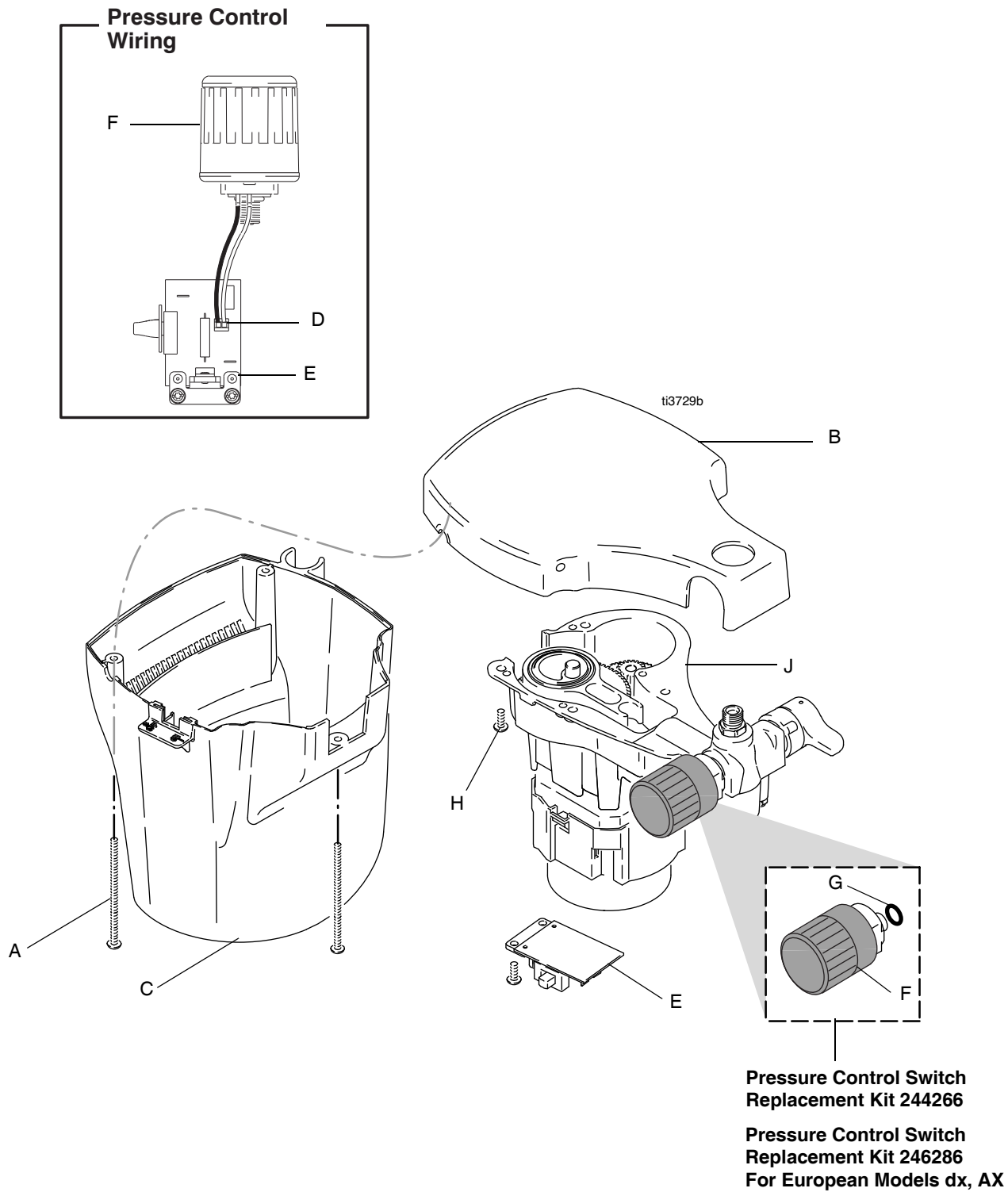
### Installation

1. Examine new pressure control switch (F) to verify o-ring seal (G) is in place. If it is not installed on pressure control switch, install o-ring seal. Torque to 140-160 in.-lbs (16-18 N•m). **Do not over-tighten or damage could occur.**
2. Insert pump housing (J) in housing cover (B). Replace screws (H). Torque to 25-35 in.-lbs (2.8 to 4.0 N•m). **Do not over-tighten or damage could occur.**
3. Attach pressure control switch wire connector (D) to control board (E), making sure wires are routed correctly. (Disassembly, step 3).
4. Reassemble motor enclosure (C) to housing cover (B). Replace 3 screws (A). Tighten securely.
5. Turn pressure control switch knob (F) clockwise as far as it will go. Apply new pressure control label to knob. To position label correctly see note below.

 When properly positioned, the indicator and hi-spray position symbol on pressure control switch label are aligned.



# dx, AX, and 150 RPX Airless Sprayers



# XR Model Sprayers

## Disassembly

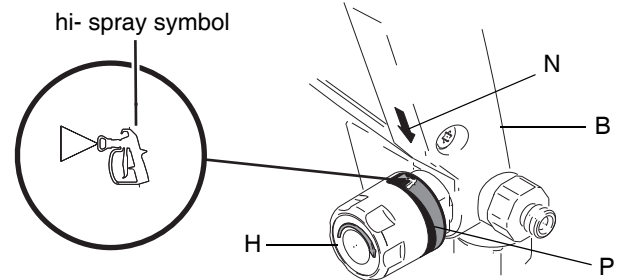
1. Unplug electrical cord, and **Relieve Pressure** (see **Pressure Relief Procedure** on page 1).
2. Remove the cover screws (A) and front cover (B).
3. Remove yoke (C) and guide rods (D).
4. Disconnect pressure control wire harness (E) from control board connector at back of drive housing (F). **Using fingernail or tip of small, flat-blade screwdriver, press tab on right side of connector to release.**
5. Remove pump (G) from drive housing (F).
6. Place pump (G) on workbench or in vise.
7. Unscrew pressure control switch knob (H). Verify the o-ring seal (J) also is removed from pump (G).

## Installation

- Before you begin reassembly, read all **Installation Notes** below. For more information, refer to assembly illustration on, page 5.
1. Examine new pressure control switch (H) to verify o-ring seal (J) is in place. If it is not installed on pressure control switch, install o-ring seal.
  2. Apply thread locker (included in kit) to threads of pressure control switch (H). Screw new pressure control switch into pump (G), and torque to 140 to 160 in-lb (16 to 18 N•m). **Do not overtighten, or damage could occur.**
  3. Route pressure control wiring harness (E) through retention clip (K), and connect to control board connector at back of drive housing (F).

4. Close retention clip securely over wires to keep wires in place.
5. Install pump (G) on mounting pin (L). **Make sure the plastic washers (M) are between the drive housing (F) and the pump (G) and that the pressure control wires (E) are not pinched between pump and drive housing.**
6. Install yoke (C) with rod cap in slot of yoke, as shown in **Rod/Yoke Detail** on page 4.
7. Check final assembly against **Drive Train Detail** on page 4.
8. Install front cover (B) and cover screws (A). Torque to 110-120 in.-lbs (12.4-13.6 N•m).
9. Apply arrow indicator label (N) to front cover (B) as shown below.
10. Turn pressure control switch knob (H) clockwise as far as it will go. Apply pressure control label (P) to switch knob. To position label correctly, see note below.

When properly positioned, the arrow indicator label (N) and hi-spray position symbol on pressure control label (P) are aligned.

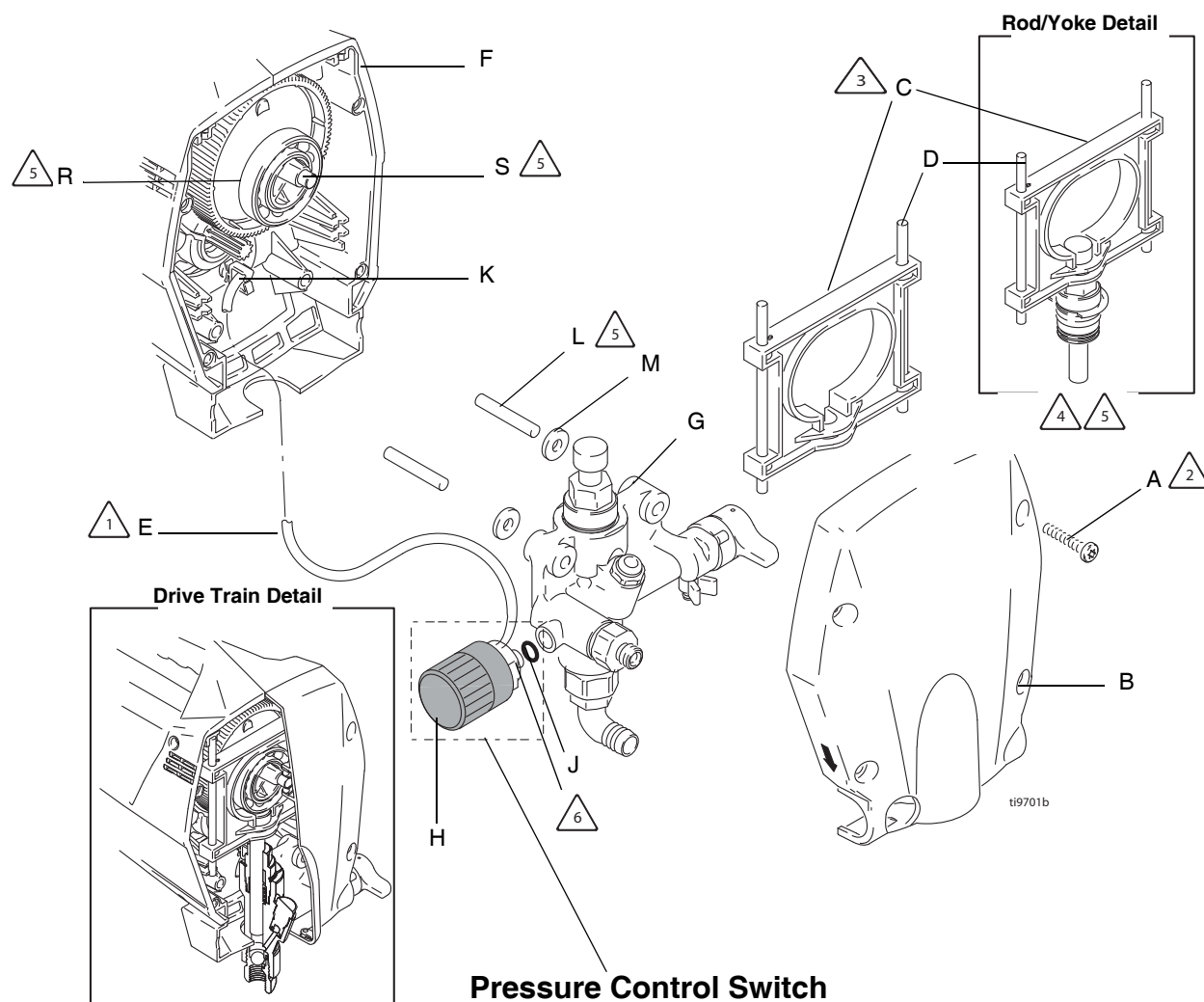


## Installation Notes for page 5

To prevent misalignment, assemble with sprayer tipped onto back of enclosure.

1. Take care to not pinch wiring harness (E) between pump (G) and any part of drive housing (F) or between front cover (B) and drive housing. Use a needle-nose pliers to remove harness.
2. For best cover (B) alignment, tighten lower two cover screws (A) first, then top two. Torque screws to 110-120 in.-lbs (12.4-13.6 N•m).
3. For yoke (C) installation, bearing (R) on gear (S) must touch top of pump rod. Turn gear to move bearing to proper height.
4. If yoke guide rods (D) drop out of position during assembly, damage will occur when cover (B) is tightened. Always check position of guide rods before tightening cover.
5. Apply light coat of oil.
6. Apply one or two drops of thread locking adhesive (included in kit) to threads of pressure control switch (H). Torque to 140-160 in.-lbs (16-18 N•m).

# XR Model Sprayers



**Pressure Control Switch  
Replacement Kit 244266 or 244267**

**Pressure Control Switch  
Replacement Kit 246286  
XR9 European Model**

# SR7 Model Sprayers

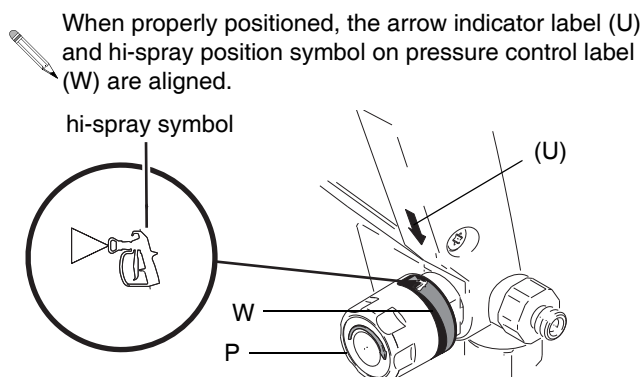
## Disassembly

1. Unplug electrical cord, and **Relieve Pressure** (see **Pressure Relief Procedure** on page 1).
2. Remove AutoPrime cover (A).
3. Remove the four cover screws (B) and front cover (C).
4. Remove yoke (D) and guide rods (E).
5. Disconnect pressure control wiring harness (F) and AutoPrime (G) wiring harness from control board connector (H) at back of drive housing (J). **Using fingernail or tip of small, flat-blade screwdriver, press tab on right side of retention clips (K) to release harness wires.**
6. Remove pump (M) from drive housing (J).
7. Place pump (M) on workbench or in vise.
8. Unscrew pressure control switch knob (P). Verify the o-ring seal (R) is removed from pump (M).

## Installation

- Before you begin reassembly, read all **Installation Notes** below. For more information, refer to assembly illustrations on page 7.
1. Examine new pressure control switch (P) to verify o-ring seal (R) is in place. If it is not installed on pressure control switch, install o-ring seal.
  2. Apply thread locker (included in kit) to threads of pressure control switch (P). Screw new pressure control switch knob into pump (M). Torque to 140 to 160 in-lb (16 to 18 N•m). **Do not overtighten, or damage could occur.**
  3. Route AutoPrime wiring harness (G) through AutoPrime cover (A) and retention clip (K) and pressure control wiring harness (F) through retention clip (K) and connect to

- control board connector (H) at back of drive housing (J) (as shown in wiring diagram, page 7).
4. Secure wires (F and G) in place by closing retention clips (K) securely over wires.
5. Install pump (M) on mounting pins (S). **Make sure the plastic washers (T) are between the drive housing (J) and the pump (M) and that the pressure control wires (F) and AutoPrime wires (G) are not pinched between pump and drive housing.**
6. Install yoke (D) with rod cap in slot of yoke, as shown in **Rod/Yoke Detail**.
7. Check final assembly against **Drive Train Detail**.
8. Install front cover (C) and cover screws (B). Torque to 110-120 in.-lbs (12.4-13.6 N•m).
9. Apply arrow indicator label (U) to front cover (C) as shown below.
10. Turn pressure control switch knob (P) clockwise as far as it will go. Apply pressure control label (W) to pressure control switch knob. To position label correctly, see note below.

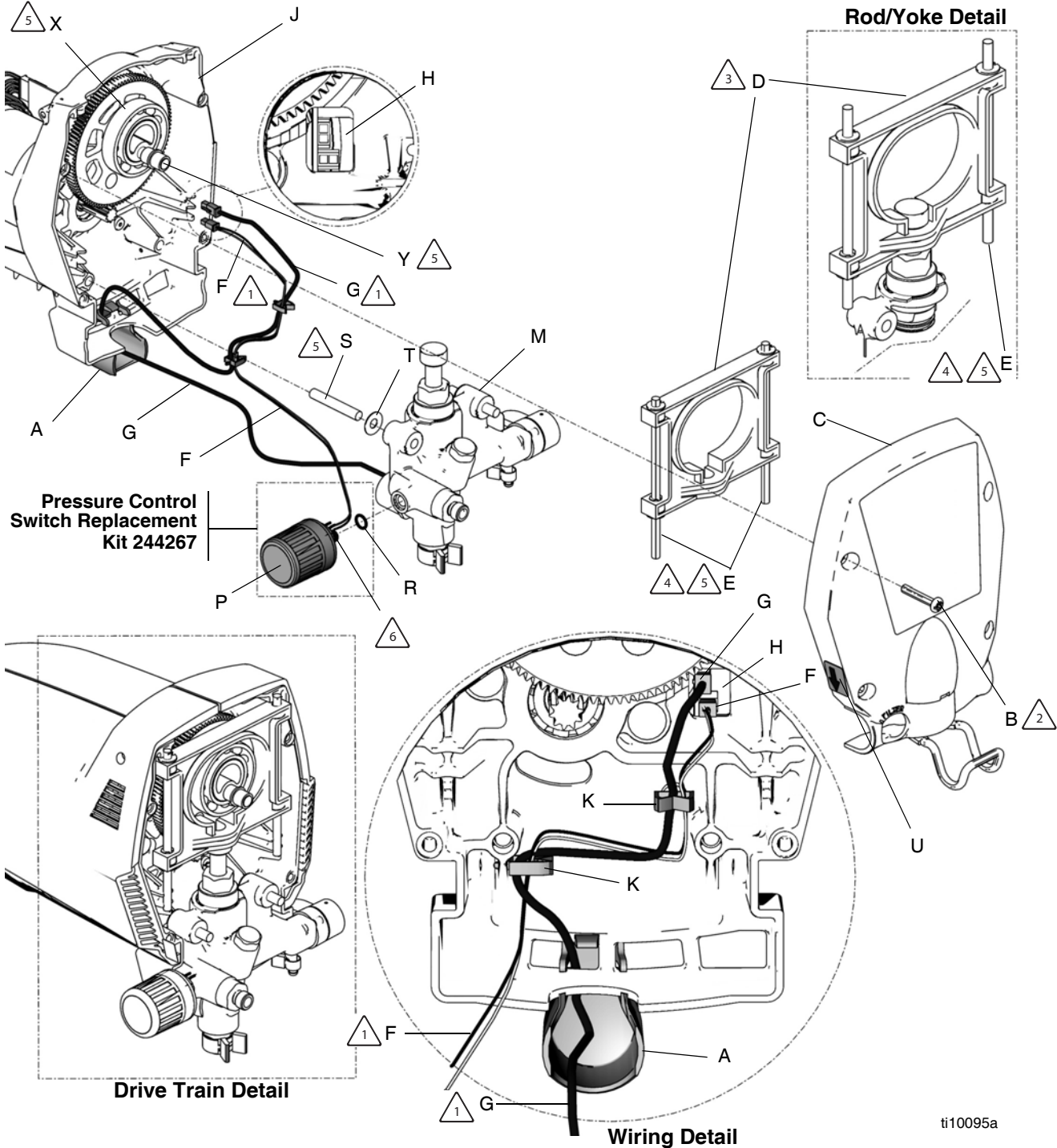


## Installation Notes for page 7

To prevent misalignment, assemble with sprayer tipped onto back of enclosure.

1. Take care to not pinch wiring harnesses (F and G) between pump (M) and any part of drive housing (J) or between front cover (C) and drive housing. Use a needle-nose pliers to remove harness.
2. For best cover (C) alignment, tighten lower two cover screws (B) first, then top two. Torque screws to 110-120 in.-lbs (12.4-13.6 N•m).
3. For yoke (D) installation, bearing (X) on gear (Y) must touch top of pump rod. Turn gear to move eccentric bearing to proper height.
4. If yoke guide rods (E) drop out of position during assembly, damage will occur when cover is tightened. Always check position of guide rods before tightening cover.
5. Apply light coat of oil.
6. Apply one or two drops of thread locking adhesive (included in kit) to threads of pressure control switch (P). Torque to 140-160 in.-lbs (16-18 N•m).

# SR7 Model Sprayers



ti10095a


# ProX7, ProX9, Pro LTS 17, Pro LTS 19, L30+, and Pro Plus A60 Model Sprayers

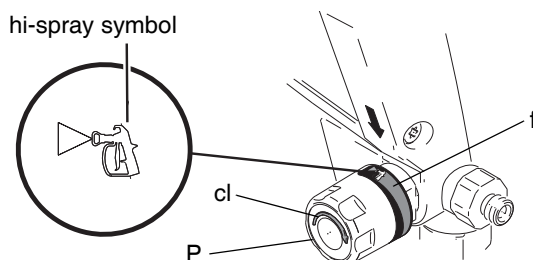
## Disassembly

1. Unplug electrical cord, and **Relieve Pressure** (see **Pressure Relief Procedure** on page 1).
2. Remove the four cover screws (B) and front cover (C).
3. Remove yoke (yk) and guide rods (gr).
4. Disconnect pressure control wiring harness (wh) and AutoPrime wiring harness (ah) from control board connector (cb) at back of drive housing (J). **Using fingernail or tip of small, flat-blade screwdriver, press tab on right side of connector to release.**
5. Remove pump (M) from drive housing (J).
6. Place pump (M) on workbench or in vise.
7. Remove AutoPrime cover (A).
8. Unscrew pressure control switch knob (P). Verify the o-ring seal (or) also is removed from pump (M).

## Assembly







- Before you begin reassembly, read all **Installation Notes** below. For more information, refer to assembly illustrations on page 9.
1. Examine new pressure control switch (P) to verify o-ring seal (or) is in place. If it is not installed on pressure control switch, install o-ring seal.
  2. Apply thread locker (included in kit) to threads of pressure control switch. Screw new pressure control switch knob (P) into pump (M), and torque to 140 to 160 in-lb (16 to 18 N•m). **Do not overtighten, or damage could occur.**
  3. Route pressure control wiring harness (wh) and AutoPrime wiring harness (ah) through AutoPrime cover (A) and retention clips (rt) and connect to control board connector (cb) at back of drive housing (J) as shown in wiring diagram, page 9.
  4. Secure wires (ff and gg) in place by closing retention clips (rt) securely over wires.
  5. Install pump (M) on mounting pins (mp). **Make sure the plastic washers (pw) are between the drive housing (J) and the pump and that the pressure control wires (ff) and AutoPrime wires (gg) are not pinched between pump and drive housing.**
  6. Install yoke (yk) with rod cap in slot of yoke, as shown in **Rod/Yoke Detail**.
  7. Check final assembly against **Drive Train Detail**.
  8. Install front cover (C) and cover screws (B). Torque to 110-120 in.-lbs (12.4-13.6 N•m).
  9. Turn pressure control switch knob (P) clockwise as far as it will go. Apply pressure control label (W) to knob. To position label correctly, see note below.

 When properly positioned, the function indicator (fi) and hi-spray position symbol on pressure control label (cl) are aligned.



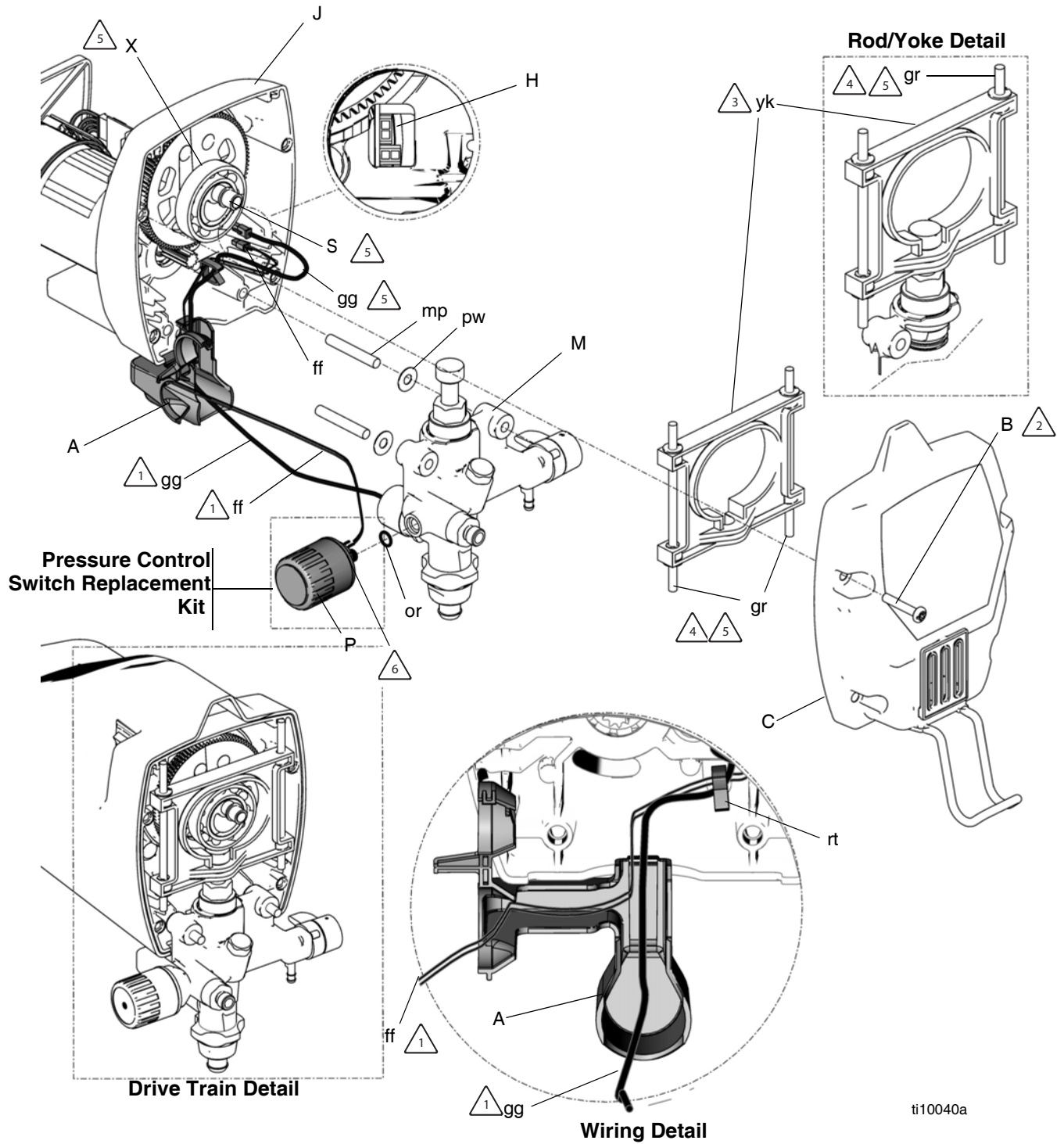
## Installation Notes for page 9

To prevent misalignment, assemble with sprayer tipped onto back of enclosure.

- 1  Take care to not pinch wiring harnesses (ff and gg) between pump (M) and any part of drive housing (J) or between front cover (C) and drive housing. Use a needle-nose pliers to remove harness.
- 2  For best cover (C) alignment, tighten lower two cover screws (B) first, then top two. Torque screws to 110 to 120 in-lb (12.4 to 13.6 N•m).
- 3  For yoke (yk) installation, bearing (S) on gear (Q) must touch top of pump rod. Turn gear to move bearing to proper height.
- 4  If yoke guide rods (gr) drop out of position during assembly, damage will occur when cover is tightened. Always check position of guide rods before tightening cover.
- 5  Apply light coat of oil.
- 6  Apply one or two drops of thread locking adhesive (included in kit) to threads of pressure control switch (P). Torque to 140 to 160 in-lb (16 to 18 N•m).



# ProX7, ProX9, Pro LTS 17, Pro LTS 19, L30+, and Pro Plus A60 Model Sprayers



# X5, X7, LTS 15, LTS 17, Project Painter Plus, M3+, M5+, L10+, Pro Plus A20, Pro Plus A30, and Pro Plus A45 Pressure Control Replacement

## Disassembly

1. Unplug electrical cord and **Relieve Pressure** (see **Pressure Relief Procedure** on page 1, or Operation manual).
2. Remove underside shroud mounting screw (D) if needed.
3. Remove side shroud screws (E) (T-20 Torx).
4. Remove 4 front cover screws (F) (T-30 Torx).
5. Remove shroud (G).
6. Disconnect power cord connectors (H) from ON/OFF switch (L).
7. Remove shroud (K).
8. Remove 2 pump housing mounting screws (ps). Be sure to support pump housing (ph).
9. Remove pump housing (ph). Pull power cord (N) through opening in pump housing mounting bracket (pb).
10. Disconnect pressure control harness from control board connector (cb). Take note of wire routing; new wires will be rerouted the same way.
11. Release tab underneath function indicator (fi) and remove indicator and front cover.
12. Turn pressure control knob fully counterclockwise to expose wrench flats. Remove pressure control (P). Verify the o-ring seal (or) has been removed from the pump (J).

## Assembly

### CAUTION

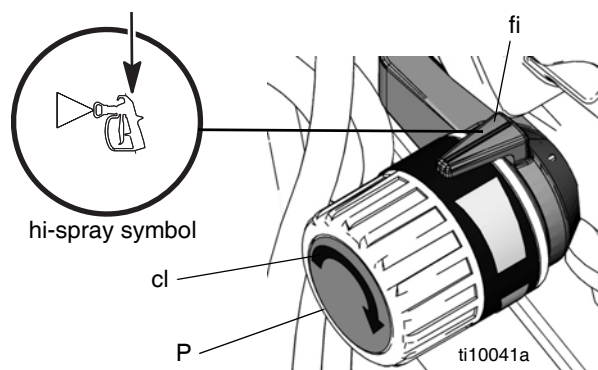
Do not pinch wires between pressure control (P) and pump housing (ph) pump mounting bracket (pb) and shrouds (G and K) while assembling.

1. Examine new pressure control (P) to verify o-ring seal (or) is in place. If o-ring seal is not installed on pressure control, install seal.
2. Apply one or two drops of thread locking adhesive (included in kit) to threads of pressure control switch (P). Assemble pressure control switch (P) into pump (J). Torque to 140 to 160 in.-lbs (16 to 18 N•m).
3. **Series A:** Route pressure control (P) harness as shown in harness routing detail on page 12. Con-

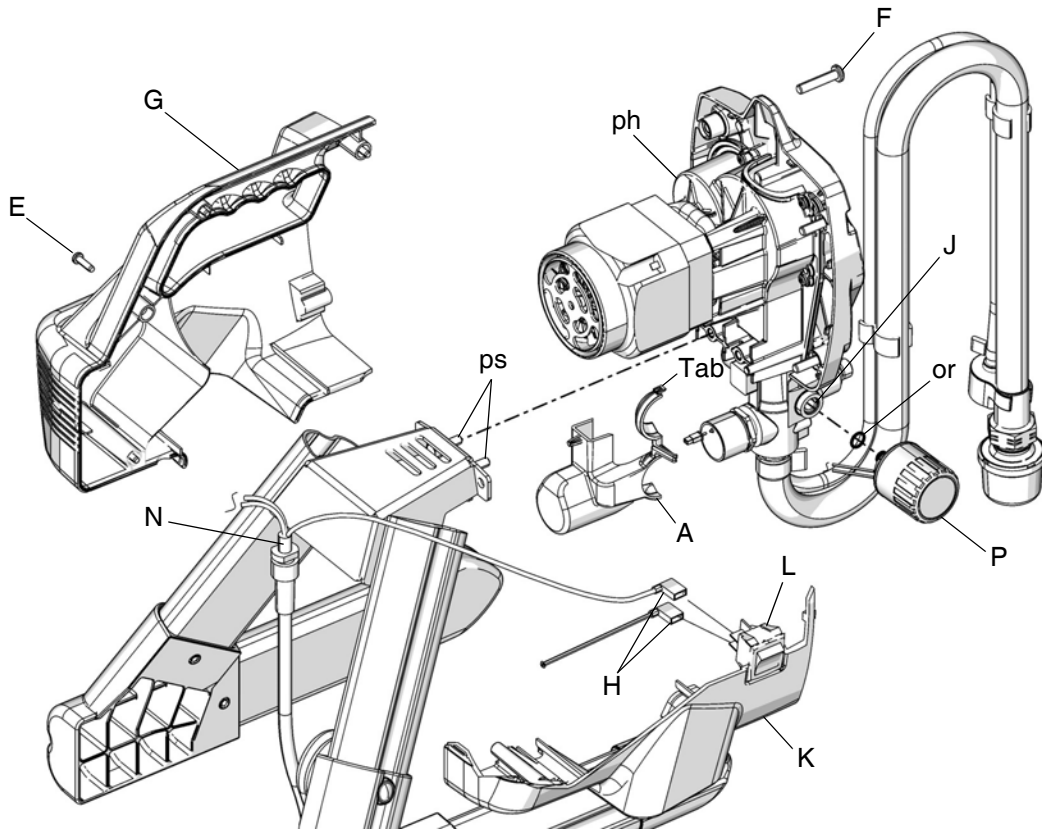
nect to control board connectors (cb) (connect with tab in front). Install AutoPrime cover (A) and latch tab.

4. Install pump housing (ph) with 2 pump housing mounting screws (ps) onto pump housing mounting bracket (pb). Torque to 80 to 90 in-lb (9 to 10.2 N•m).
5. **Series B:** Route pressure control harness through function indicator (fi) and front cover. Install indicator on pump and snap together. Align indicator and front cover as they are positioned loosely on pump. Connect harness to control board terminals (cb).
6. Reattach connectors (H) to ON/OFF switch (L).
7. Install shroud (K).
8. Route power cord (N) through opening in pump housing mounting bracket (pb).
9. Install power cord (N) into recess on left shroud (K).
10. Install shroud (G) to shroud (K) and front cover.
11. Install side shroud screws (E) (T-20 Torx). Torque to 20 to 25 in-lb (2.3 to 2.8 N•m).
12. Install 4 front cover screws (F) (T-30 Torx). Torque to 26 to 32 in-lb (2.9 to 3.6 N•m).
13. Install underside shroud mounting screw (D). Torque to 25 to 35 in-lb (2.8 to 3.9 N•m) if needed.
14. Turn pressure control switch knob (P) clockwise as far as it will go. Apply pressure control label (cl) to knob. To position label correctly, see note below:

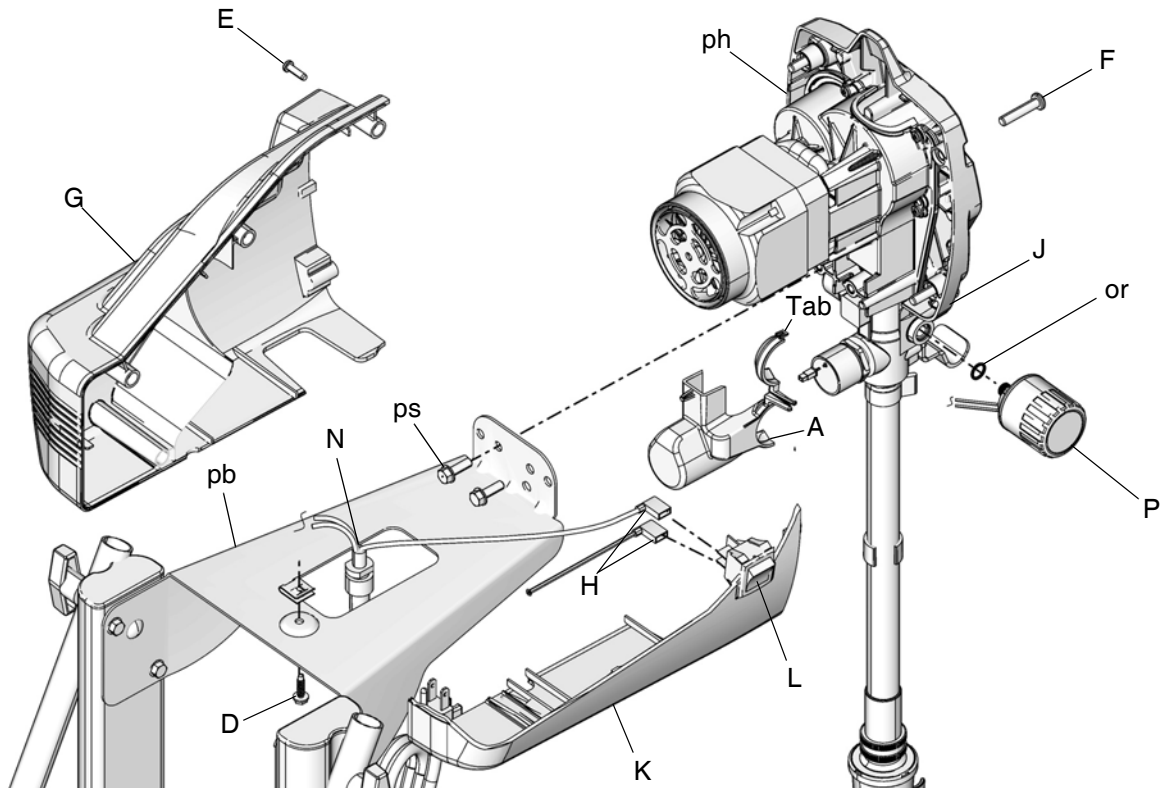
When properly positioned, the function indicator (fi) and hi-spray position symbol on pressure control label (cl) are aligned.



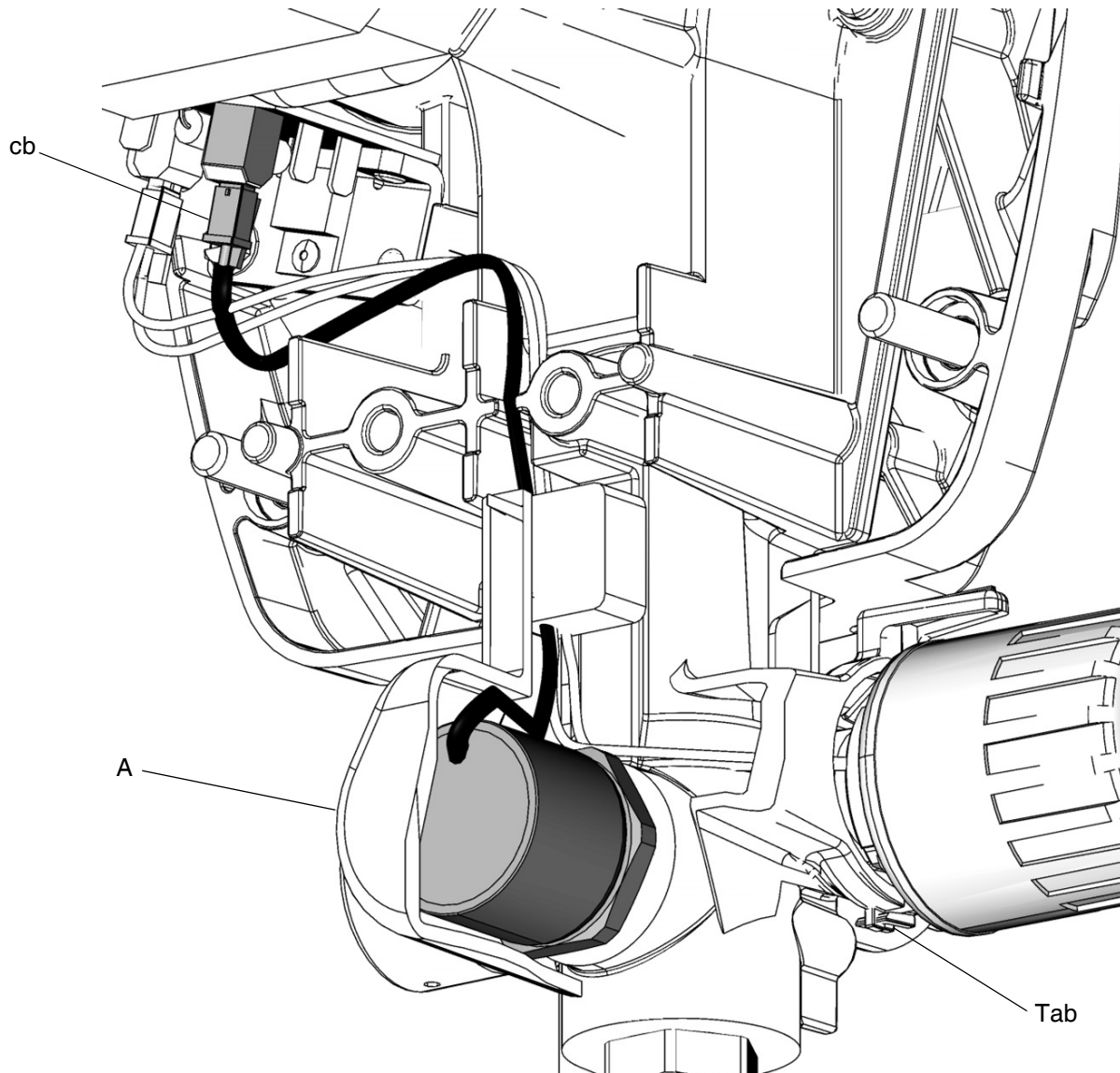
### X5 Model Sprayers (Series A unit shown)



### X7 Model Sprayers (Series A unit shown)



## X5 and X7 (Series A) Wire Routing



*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](http://www.graco.com/patents)*

Original instructions. This manual contains English. MM 309120

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

**GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441**

**Copyright 2008, Graco Inc. is registered to ISO 9001**

[www.graco.com](http://www.graco.com)

Revision N, August 2019