

Installation Instructions

85100500 Brine Kit

WARNING: FAILURE TO FOLLOW INSTRUCTIONS could result in personal injury and/or damage to unit.

Read, understand, and follow all safety practices in Operator's Manual before beginning.

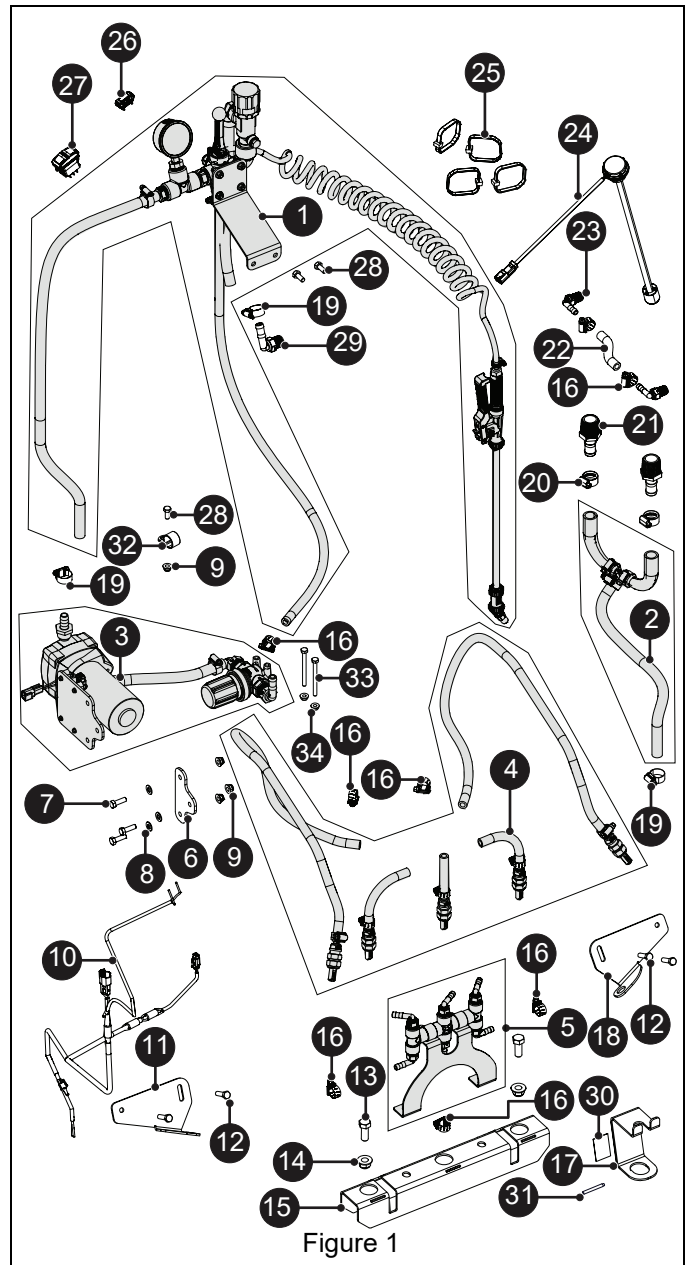
Item	Description	Qty	AriensCo P/N
33	1/4"-20 x 3" Hex Bolt	2	05902128
34	1/4"-20 Locking Center Flange Nut	2	06500821

‡ See parts catalog for individual part numbers of assemblies.

Package Contents

Check the contents of your kit for the parts listed below. Also see Figure 1.

Item	Description	Qty	AriensCo P/N
1	Control Valve Assembly	1	‡
2	Tank Drain Hose Assembly	1	‡
3	Pump and Filter Assembly	1	‡
4	Nozzle and Hose Assembly	1	‡
5	Manifold Assembly	1	‡
6	Pump Spacer Bracket	1	09474459
7	5/16"-18 x 1" Hex Bolt	3	05901701
8	11/32" x 11/16" Flat Washer	3	06401017
9	5/16"-18 Nylon Flange Nut	4	06500809
10	Accessory Harness	1	09445600
11	Left Spray Bracket	1	09470059
12	5/16"-18 x 1 1/2" Hex Bolt	4	05901803
13	1/2"-13 x 1 1/4" Hex Bolt	2	05901637
14	1/2"-13 Nylon Flange Nut	2	06500810
15	Nozzle Shield Plate	1	09454000
16	7/16" x 13/16" Hose Clamp	8	06922100
17	Spray Gun Bracket	1	09470259
18	Right Spray Bracket	1	09470159
19	#8 SAE Hose Clamp	3	06923500
20	#12 x 3/4" Hose Clamp	2	06934410
21	1" MNPT x 3/4" Hose Fitting	2	09472200
22	3/8" x 5/8" x 3 1/2" Hose	1	09472900
23	3/8" MNPT x 3/8" 90° Hose Fitting	2	09471600
24	Fluid Level Sender	1	09495100
25	15 1/4" Tie Wrap	4	04003500
26	Red Indicator Light	1	05128700
27	On - Off - On Rocker Switch	1	09492100
28	5/16"-18 x 3/4" Hex Bolt	3	05901704
29	1/2" MNPT x 1/2" 90° Hose Fitting	1	09471400
30	Bracket Adhesive	1	09450200
31	3M 94 Pen Primer	1	09671300
32	1" Cushioned Steel Clamp	1	06917900



PREPARING FOR INSTALLATION

IMPORTANT: IMPORTANT: All references to left, right, front or rear are given from the perspective of operator position, facing the direction of forward travel.

NOTICE: Installation requires draining fuel and removing the fuel tank. Attempt to keep fuel level at a minimum to reduce the amount of fuel to be drained before installation.



WARNING: Fuel tank must be drained and removed. Installation **MUST** be done in a well-ventilated area away from any sources of ignition.

1. Park unit on a flat level surface and engage parking brake.
2. Stop engine, remove key and wait for moving parts to stop and for hot parts to cool.
3. Disconnect spark plug wires.
See Figure 2.
4. Chock front wheels and lift rear of unit so rear wheels are off the ground.



WARNING: AVOID INJURY! ALWAYS ensure that jack stands are secure and strong enough to support weight of unit during maintenance.

5. Remove and retain lug nuts securing left and right rear wheel assemblies. Remove and retain rear wheels.
6. Securely support rear of unit with two jack stands under wheel motors.

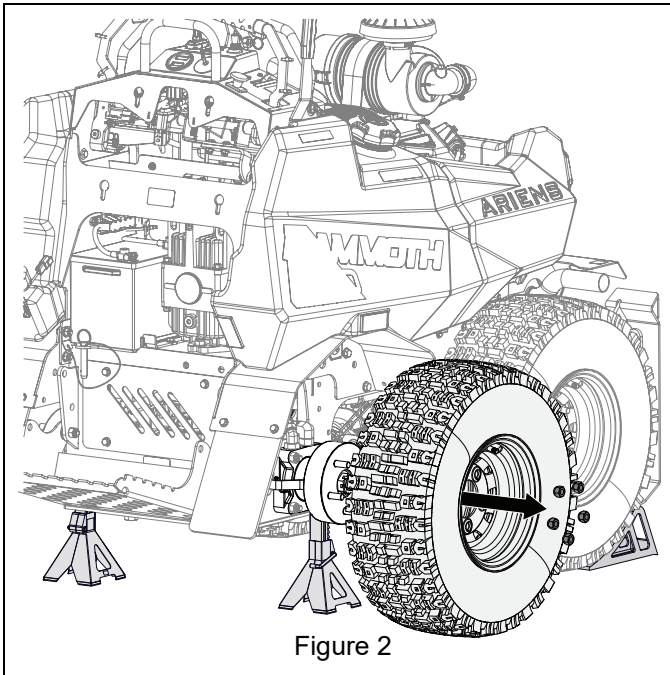


Figure 2

INSTALLATION

NOTICE: CONNECTING HOSES

When connecting hoses always install closed hose clamp onto hose before inserting hose end onto fittings. A soap and water solution may be used to ease inserting fittings into hoses. Before tightening hose clamps note position of clamp barrel to ensure there is sufficient clearance between clamp and any moving parts, wires or hoses.

1. Remove fasteners retaining front access plate and temporarily move to the side to increase access to brine tank fasteners. See Figure 3.

NOTICE: To keep it out of the way, plate may be temporarily reinstalled without tightening fasteners until tank removal and installation steps are completed.

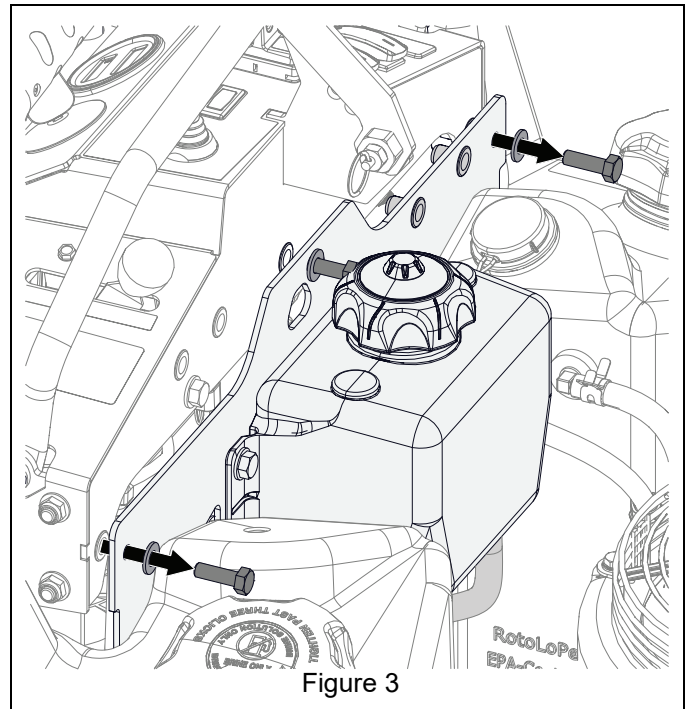


Figure 3

- Remove and retain five hex bolts and flat washers securing brine tank to tractor. Remove and retain brine tank. See Figure 4.

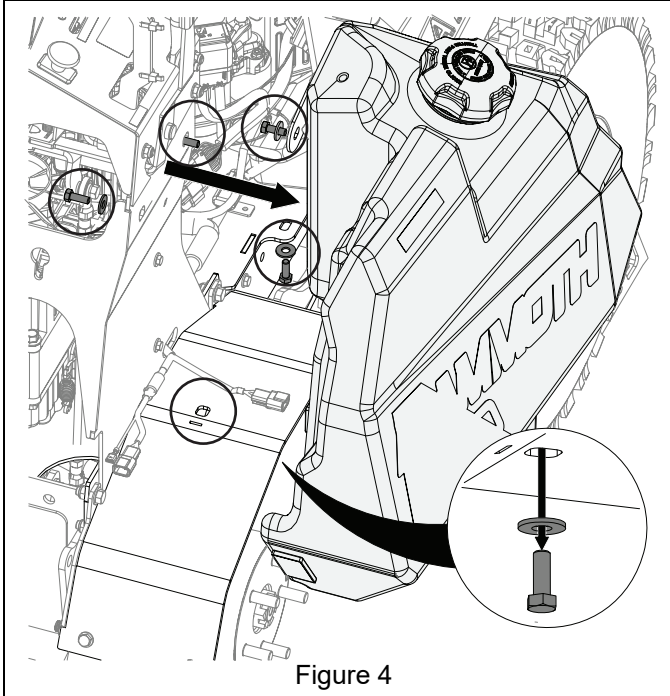


Figure 4

- Place a suitable container under the fuel tank. Drain all fuel from fuel tank.
- Disconnect fuel hose and vapor line from fuel tank.
- Disconnect fuel tank sender connector. See Figure 5.
- Disconnect connector for rear LED light.
- Remove and retain four hex bolts and flat washers retaining fuel tank. Remove fuel tank and store in a well-ventilated area.

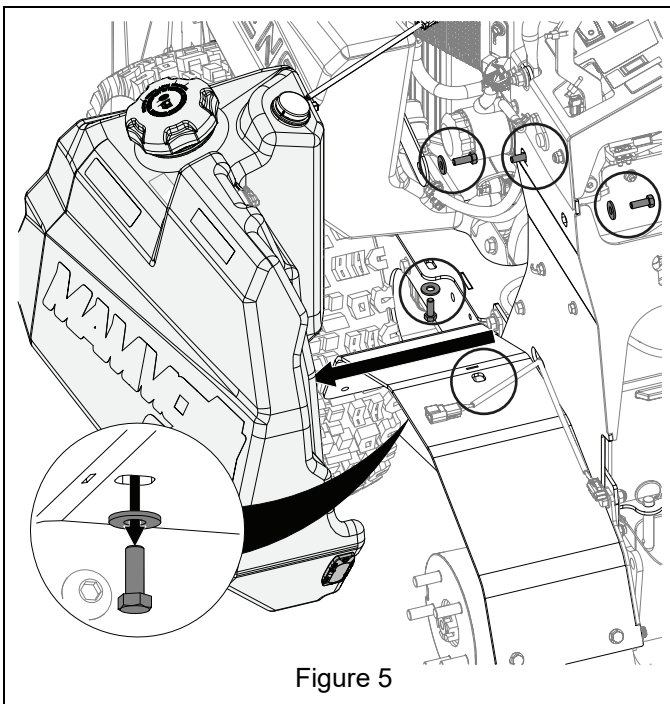


Figure 5

- Position the control valve assembly (item 1) at the front of the operator tower and secure with two 5/16" x 3/4" hex bolts (item 28). See Figure 6.

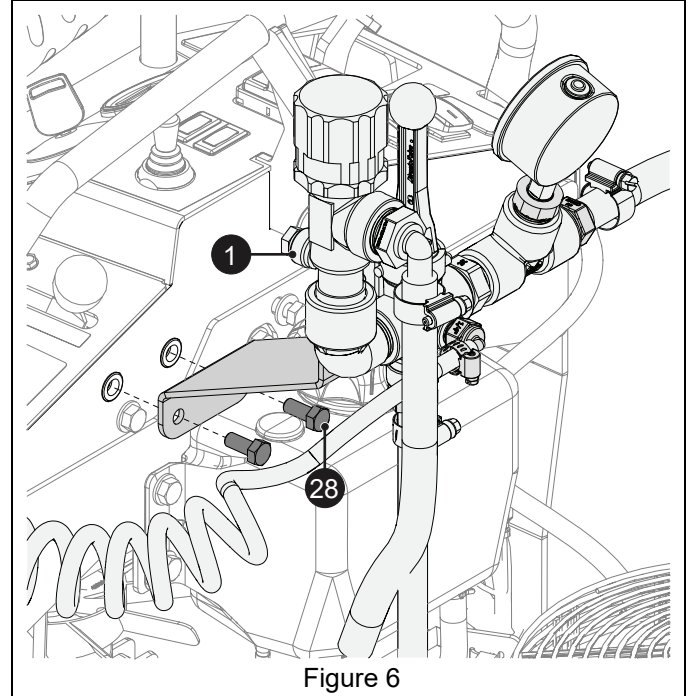


Figure 6

- Route hose from pressure gauge down and through opening on left side of engine. Continue to route hose so it rests between two hydraulic hoses and parking brake rod on inside of frame. See Figure 7.

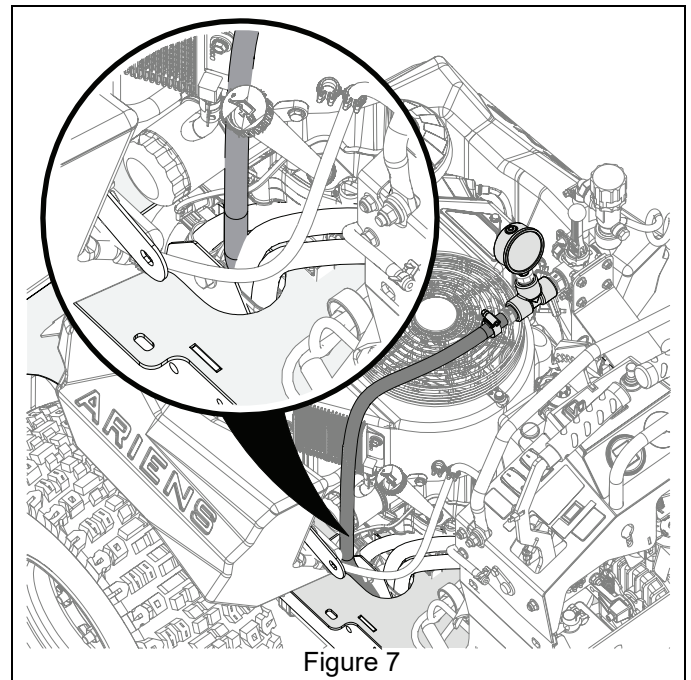


Figure 7

10. Route hose from bottom of control lever down through right side frame opening in front of PTO gearbox. See Figure 8.

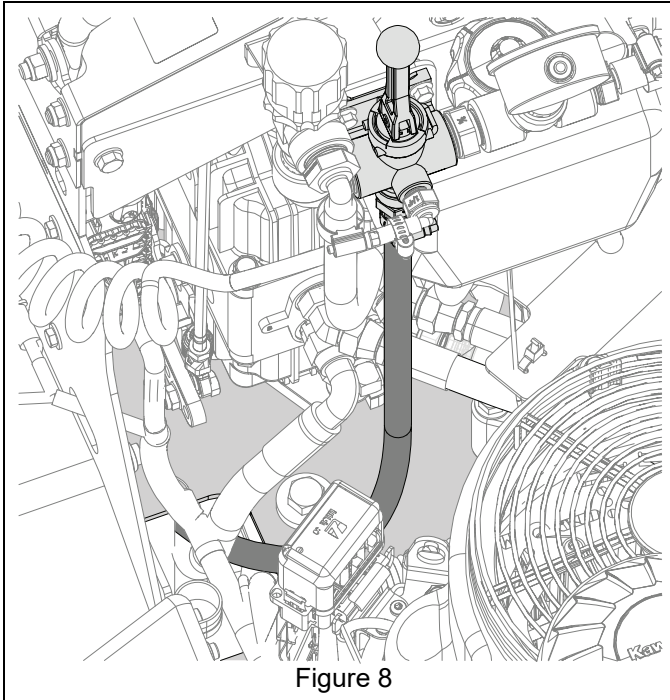


Figure 8

11. Remove and retain hex bolt, flat washer and flange nut securing dual-hose clamp located inside of left frame. See Figure 9.

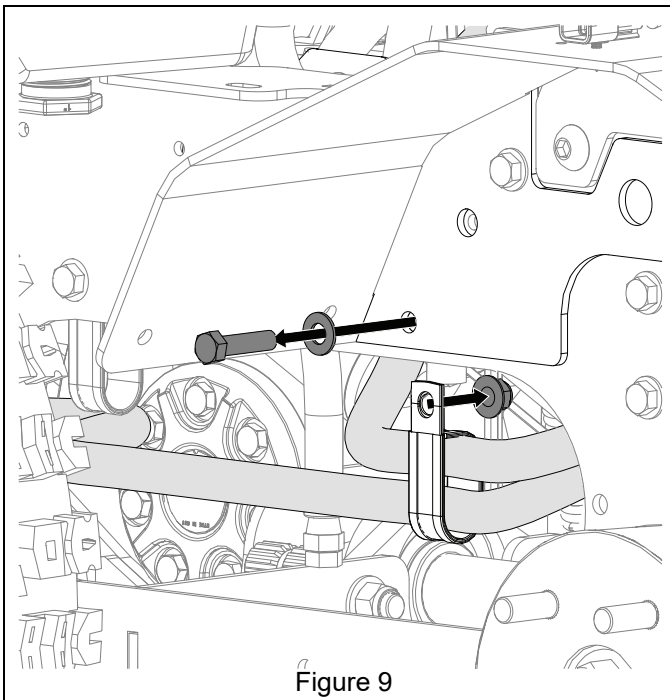


Figure 9

12. From left side of tractor position pump assembly (item 3) inside of left side frame. Route filter assembly under drive shaft to inside right side frame. See Figure 10.

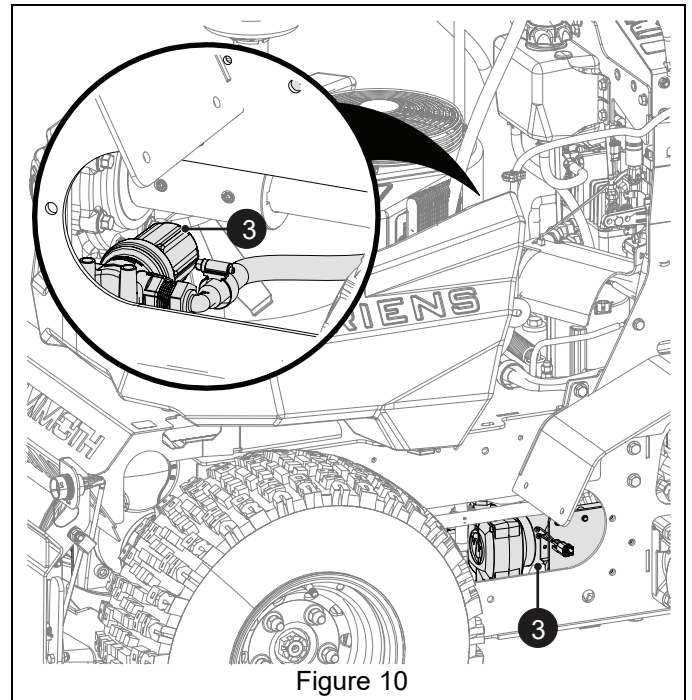


Figure 10

13. Install one #8 hose clamp (item 19) on hose routed from pressure gauge. Install hose onto fitting on top of pump. Tighten hose clamp. See Figure 11.

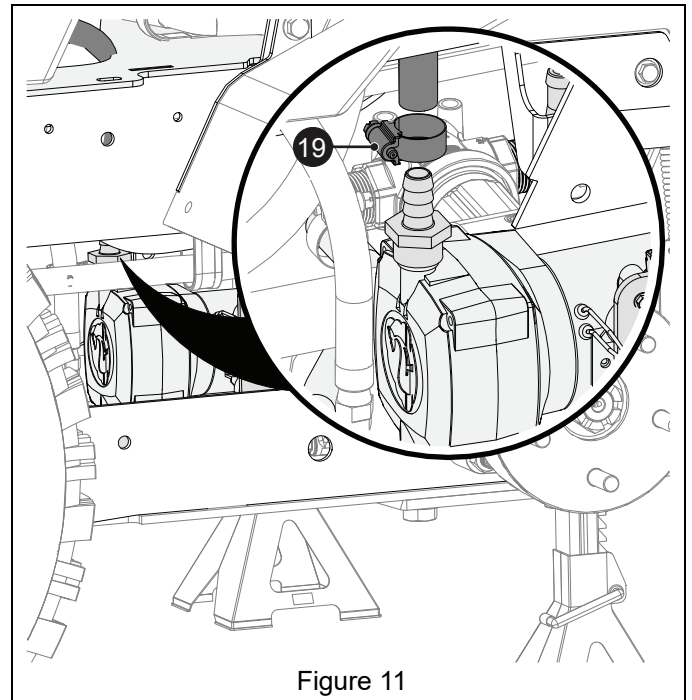
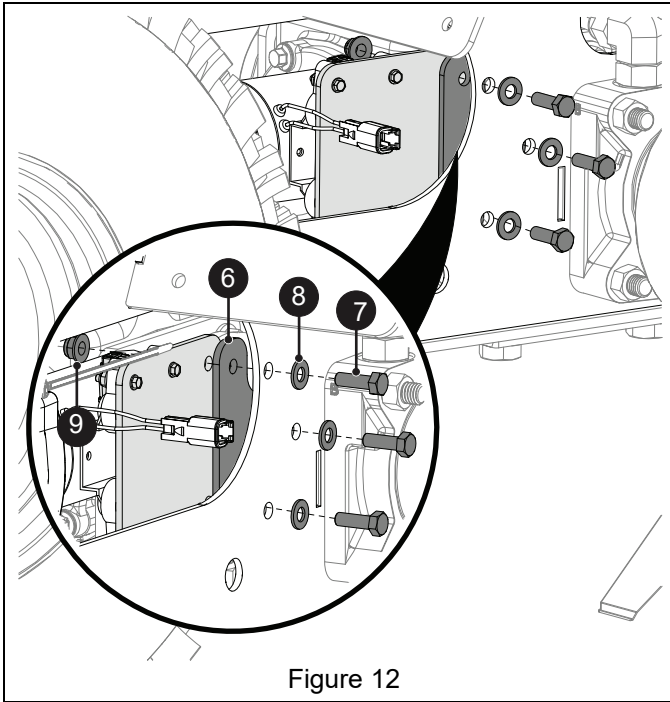


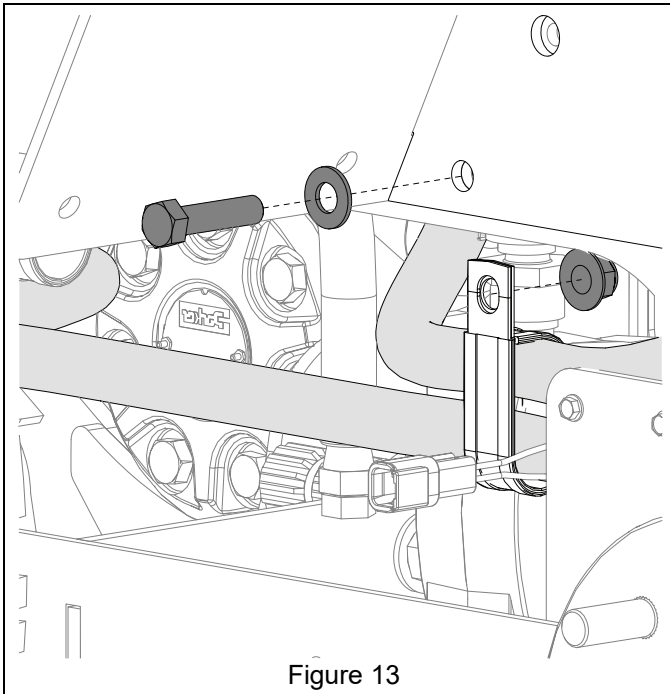
Figure 11

14. Position pump spacer bracket (item 6) between pump assembly and frame and secure pump and spacer with three 5/16" x 1" hex bolts (item 7), three 11/16" flat washers (item 8) and three 5/16" nylon flange nuts (item 9). See Figure 12.

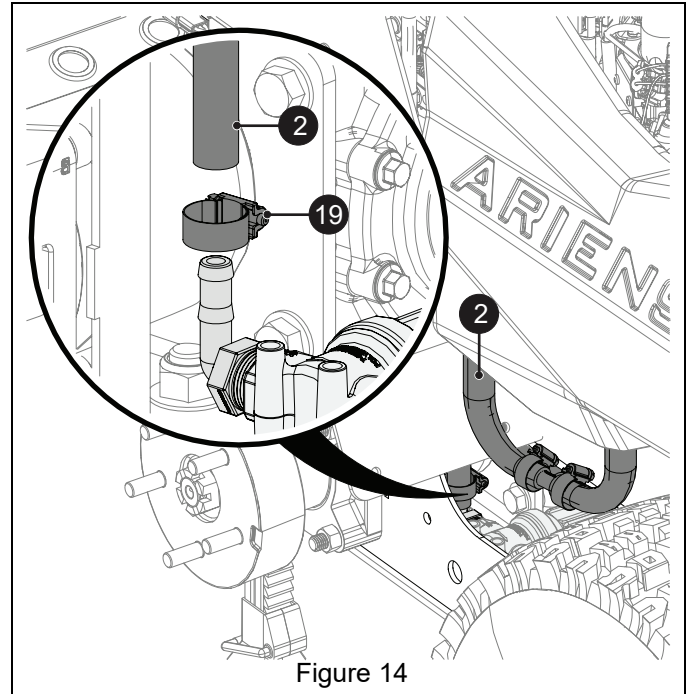
NOTICE: Access two lower bolts from right side frame cutout.



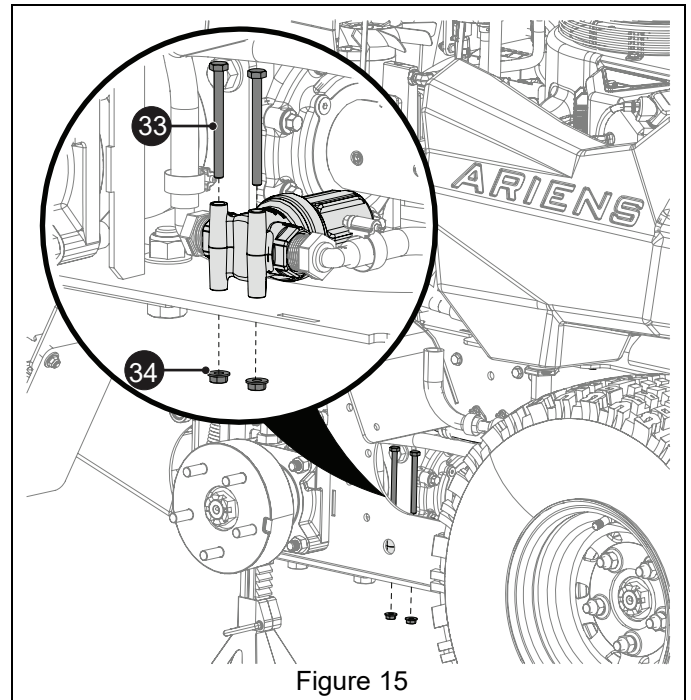
15. Reinstall dual-hose clamp on hydraulic hoses and attach to frame with hardware removed earlier. See Figure 13.



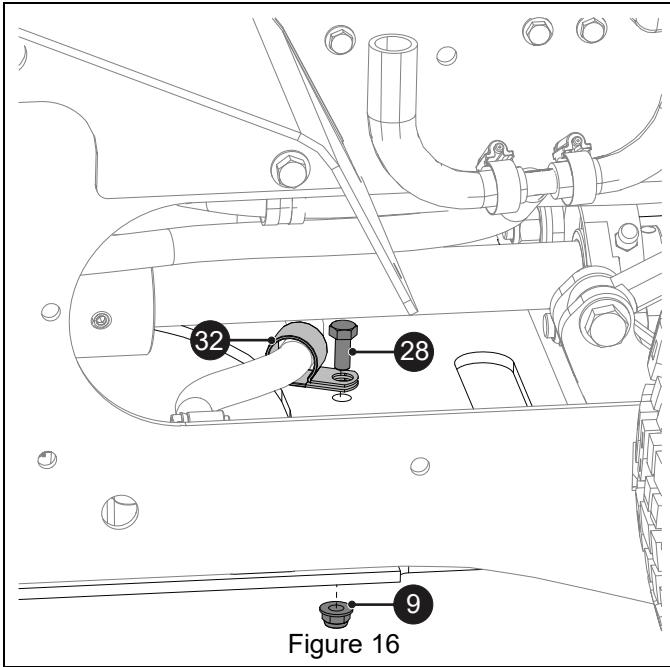
16. Position one #8 hose clamp (item 19) on lower hose of tank drain hose assembly (item 2) and install hose on rear filter assembly fitting. Orient hose assembly to prevent lower hose from kinking when installed onto tank fittings. Tighten hose clamp. See Figure 14.



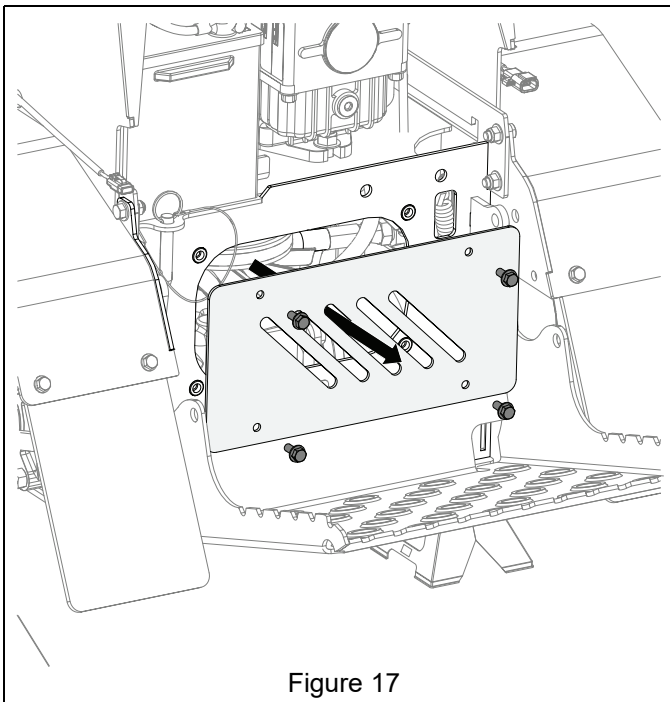
17. Secure filter assembly to frame with two 1/4" x 3" hex bolts (item 33) and two 1/4" locking center flange nuts (item 34). See Figure 15.



18. Install one cushioned clamp (item 32) on hose between pump and filter and attach to frame bottom with one 5/16" x 3/4" hex bolt (item 28) and one 5/16" nylon flange nut (item 9). See Figure 16.



19. Remove and retain four flange hex bolts securing rear access panel. Remove and retain access panel. See Figure 17.



See Figure 18.

20. Install two 6 1/4" hose assemblies and one 3 3/4" hose assembly (item 4) and secure three 13/16" hose clamps (item 16):

- Position clamp and install one 6 1/4" hose assembly on left lower manifold fitting.
- Position clamp and install one 6 1/4" hose assembly on right lower manifold fitting.
- Position clamp and install one 3 3/4" hose assembly on center lower manifold fitting.

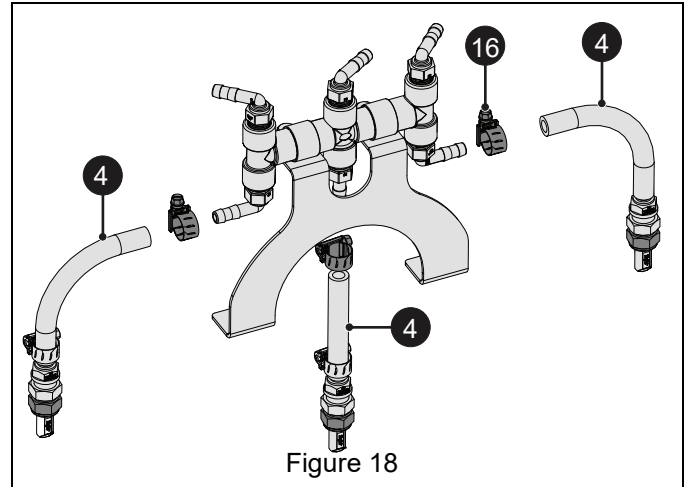
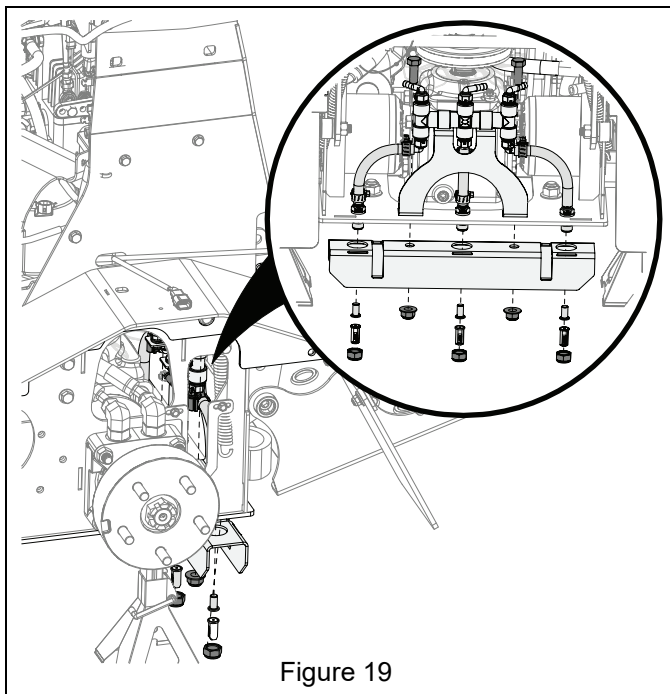


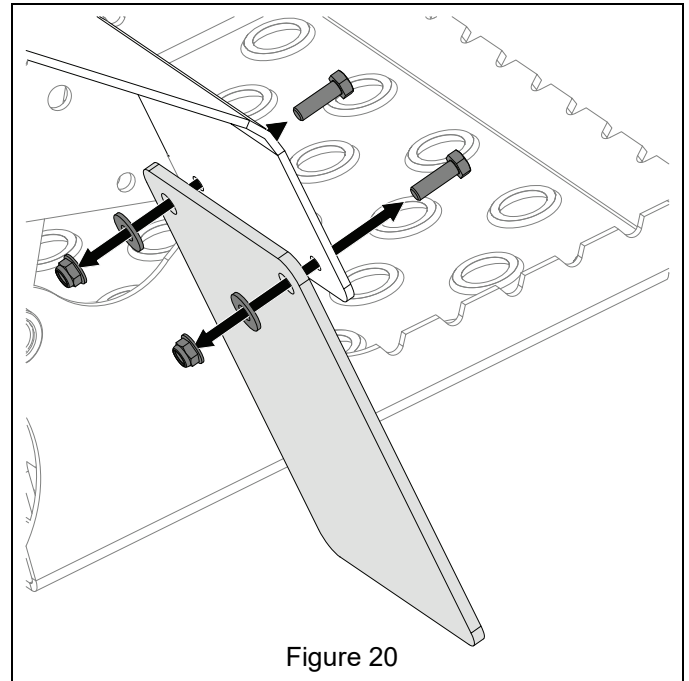
Figure 18

See Figure 19.

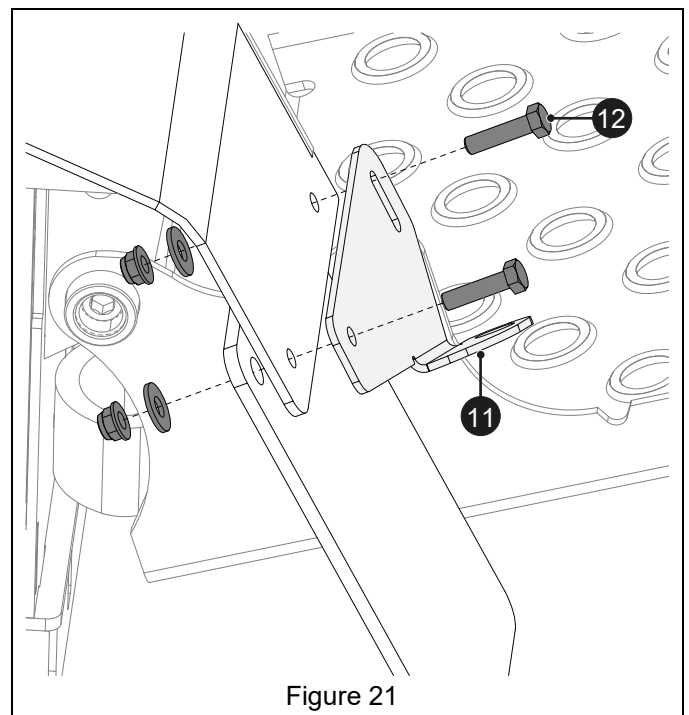
21. Remove locking nuts, nozzles and filter screens from three hose assemblies.
22. Position manifold assembly in back of unit with mounting bracket tabs facing forward.
23. Position nozzle shield plate (item 15) under unit with cutouts in top of plate facing forward.
24. Secure manifold and shield plate to unit with two 1/2" x 1 1/4" hex bolts (item 13) and two 1/2" nylon flange nuts (item 14).
25. Position 6 1/4" hoses in two outer holes and 3 3/4" hose in center hole.
26. From under unit secure hose nozzles in plate with lock nuts.
27. Reinstall screen filters and nozzle retainers on nozzle/hose assemblies. Verify nozzle spray pattern orientation before fully tightening. DO NOT overtighten.



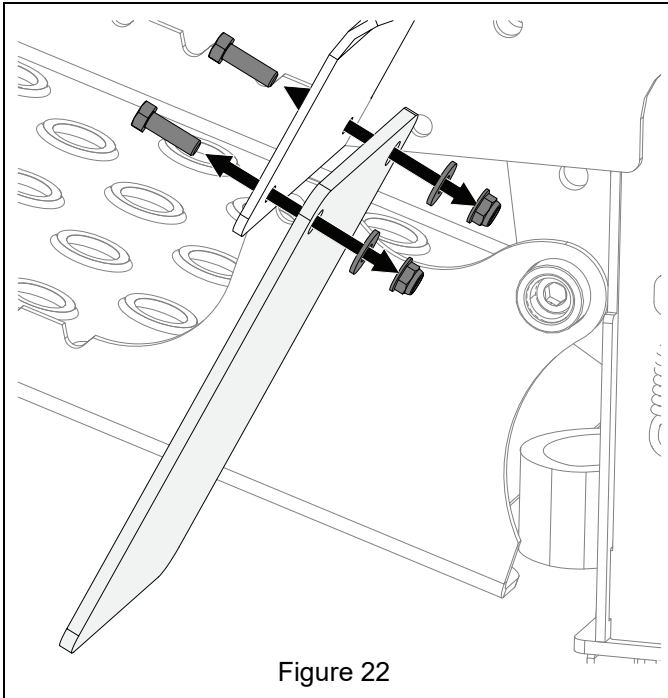
28. Remove two hex bolts, flat washers and nylon flange nuts securing left fender flap. Discard hex bolts; retain flap, flat washers and flange nuts. See Figure 20.



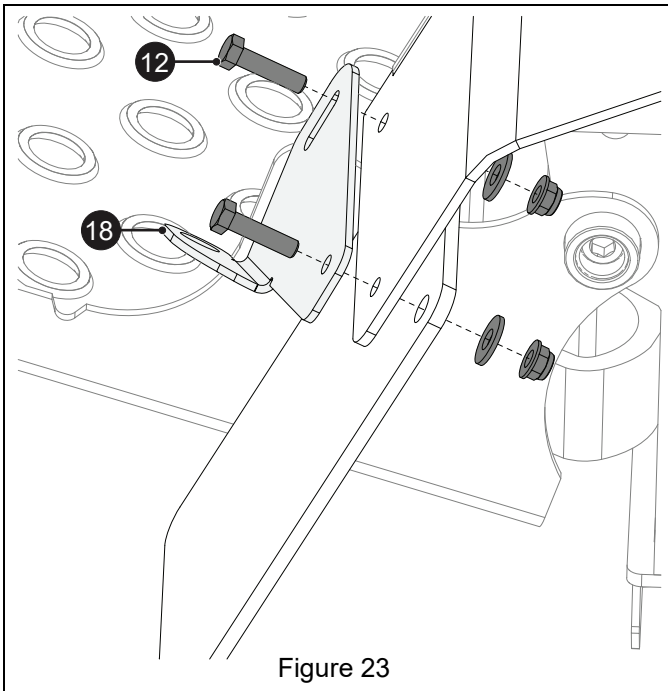
29. Position left fender flap and left spray bracket (item 11) on fender and secure with two 5/16" x 1 1/2" hex bolts (item 12), and washers and flange nuts removed earlier. Position spray bracket fully down for widest spray pattern. See Figure 21.



30. Remove two hex bolts, flat washers and nylon flange nuts securing right fender flap. Discard hex bolts; retain flap, flat washers and flange nuts. See Figure 22.

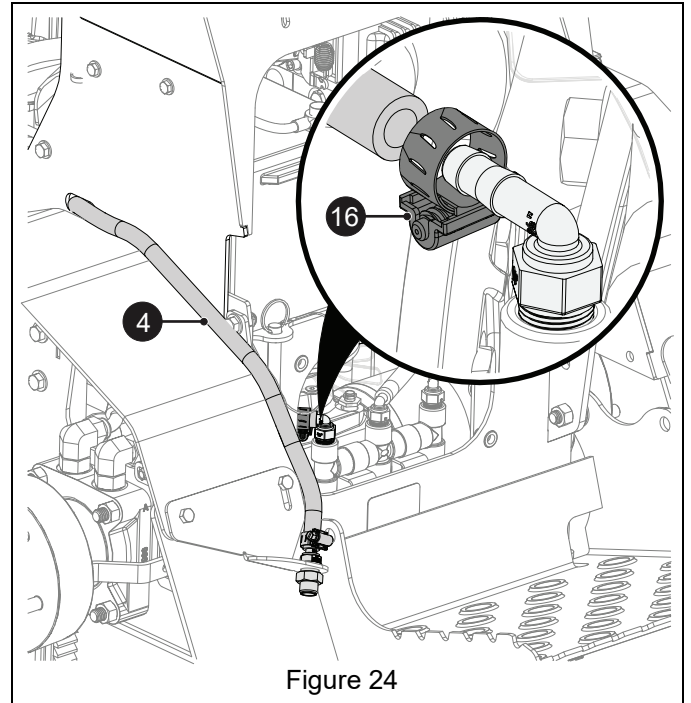


31. Position right fender flap and right spray bracket (item 18) on fender and secure with two 5/16" x 1 1/2" hex bolts (item 12), and washers and flange nuts removed earlier. Position spray bracket fully down for widest spray pattern. See Figure 23.



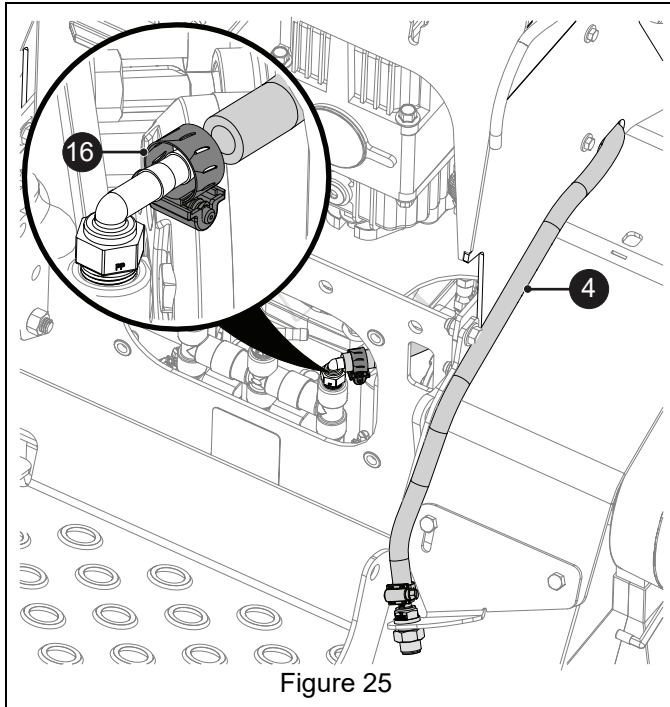
See Figure 24.

32. Route one 35" hose assembly (item 4) from left spray bracket forward along left fender to access in left side operator tower.
33. Continue routing hose down through hole closest to battery and back to manifold.
34. Install one 13/16" hose clamp (item 16) on 35" hose assembly and connect to top left fitting on manifold assembly. Tighten hose clamp. Position hose away from PTO gearbox pulley and fan and secure with tie wrap (item 25).



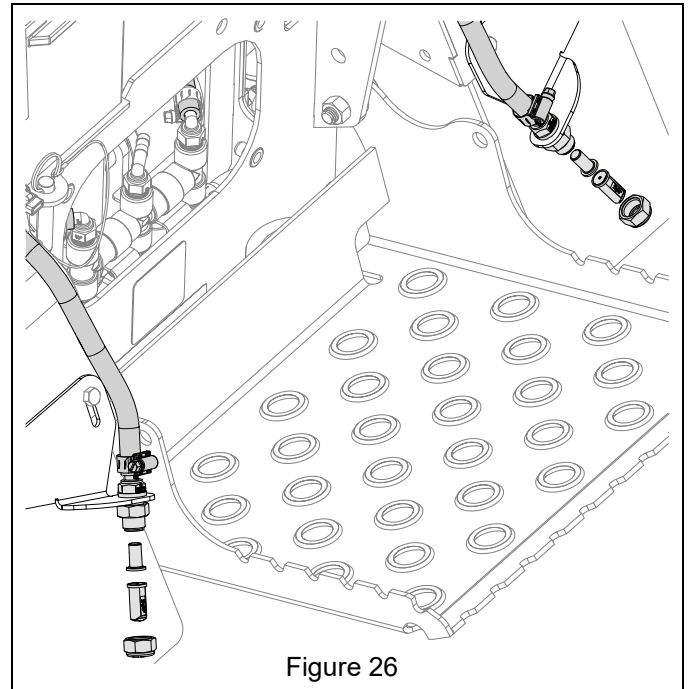
See Figure 25.

35. Route one 35" hose assembly (item 4) from right spray bracket forward along right fender to access hole in right side operator tower.
36. Continue routing hose down through cutout next to hydraulic pump.
37. Install one 13/16" hose clamp (item 16) on 35" hose assembly and connect to top right fitting on manifold assembly. Tighten hose clamp. Position hose away from PTO gearbox pulley and fan and secure with one tie wrap (item 25).



See Figure 26.

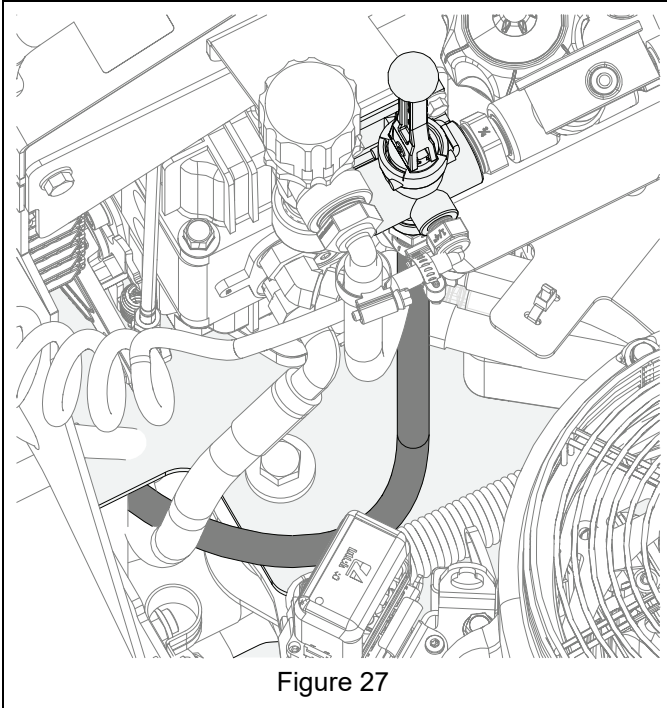
38. Remove and retain nozzles, nozzle retainers, screen filters and lock nuts from left and right nozzle/hose assemblies.
39. Secure nozzle/hose assemblies in left and right sprayer brackets with lock nuts.
40. Reinstall screen filters and nozzle retainers on nozzle/hose assemblies. Verify nozzle spray pattern orientation before fully tightening. **DO NOT** overtighten.



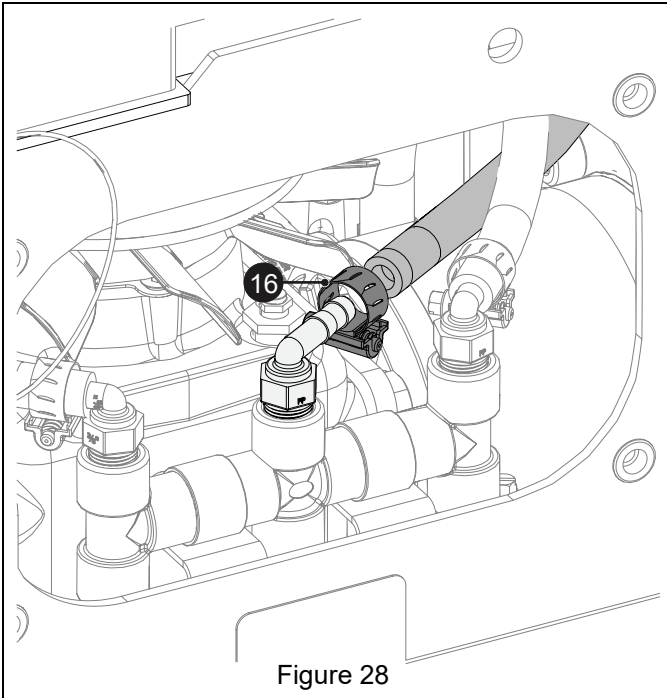
See Figure 27.

41. Route hose from bottom of control lever assembly down through down through hole next to hydraulic pump and back to manifold.

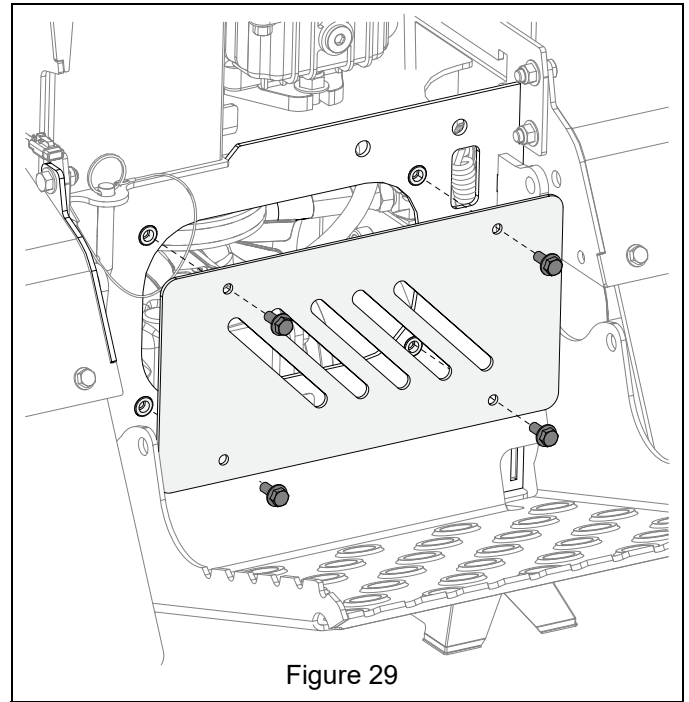
42. Position hose away from PTO gearbox pulley and fan and secure with one tie wrap (item 25).



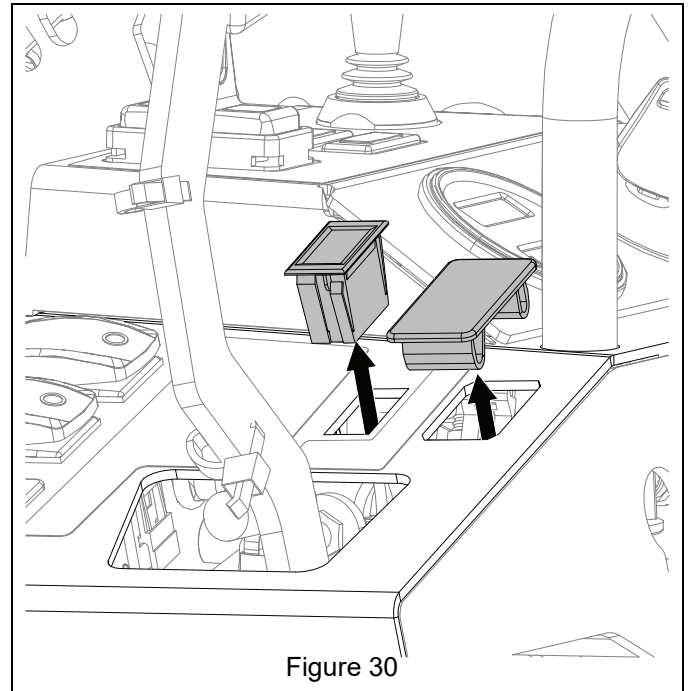
43. Install one 13/16" hose clamp (item 16) on hose and connect hose to top center fitting on manifold assembly. Tighten hose clamp. See Figure 28.



44. Reinstall access cover. See Figure 28.

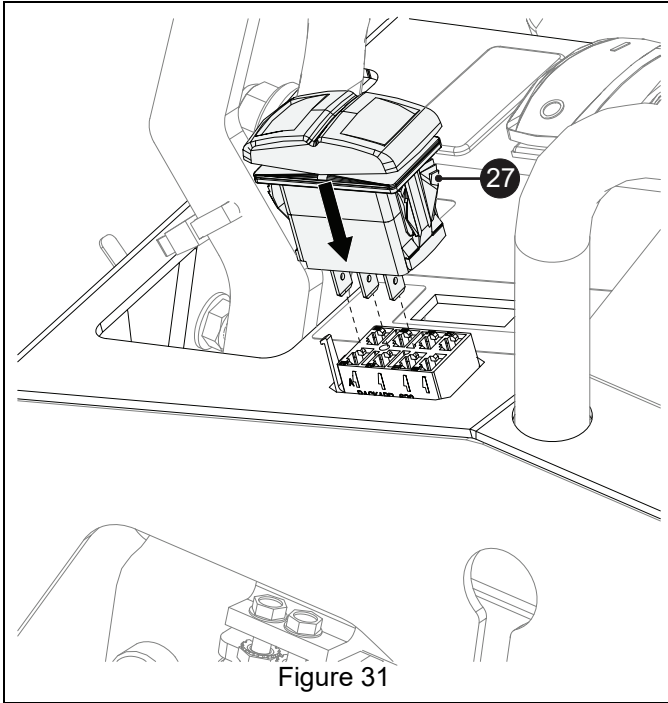


45. Remove two blanks covering holes in left side of control panel. See Figure 30.

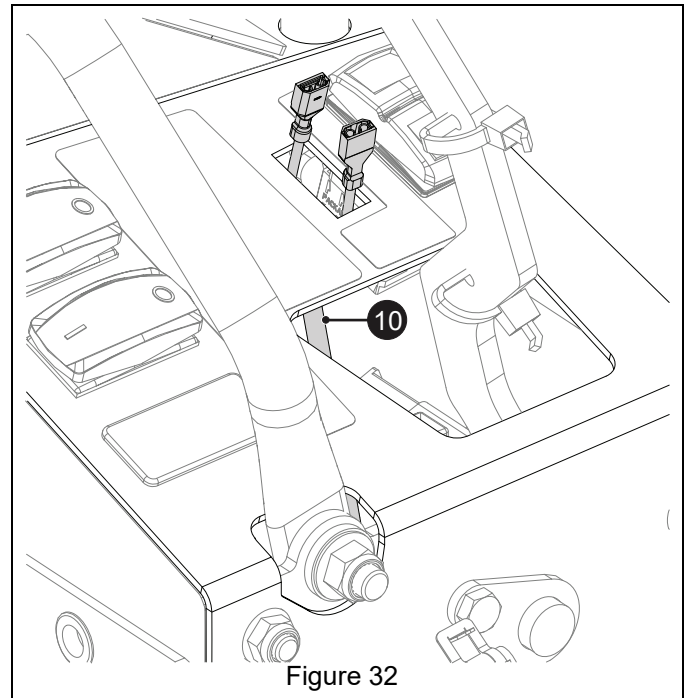


See Figure 31.

46. Locate 8-pin plug under control panel and route partially through large hole.
47. Connect on-off-on rocker switch (item 27) to plug.
48. Position switch so that three wires and locking clip on plug are facing to the rear as viewed from the operator platform.
49. Push switch into control panel until it snaps into place.

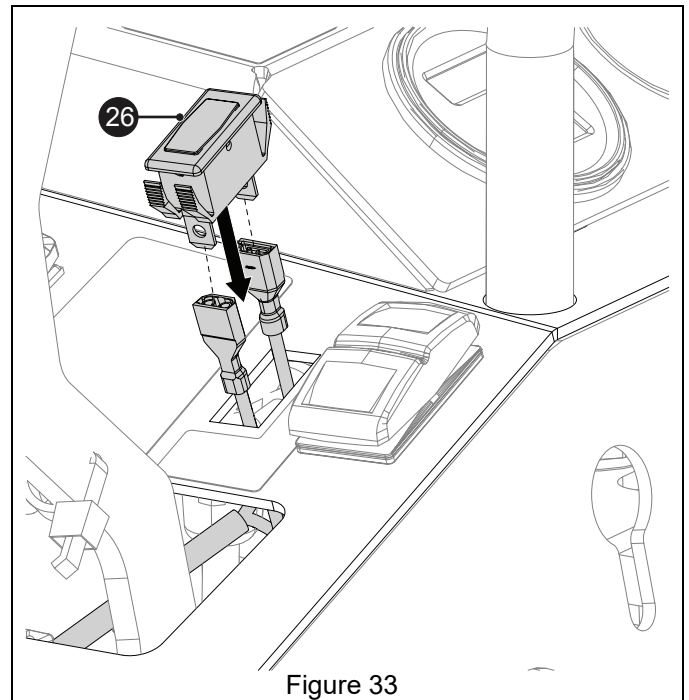


50. From the front of the unit, route two purple wires from accessory wire harness (item 10) up under the control panel and out of small hole above switch. See Figure 32.



See Figure 33.

51. Connect two purple harness wires to terminals on back of indicator light (item 26).
52. Push indicator light into control panel until it snaps into place.



See Figure 34.

53. Locate tractor harness connector on left lower side of operator tower.

54. Remove and discard protective cap from connector.

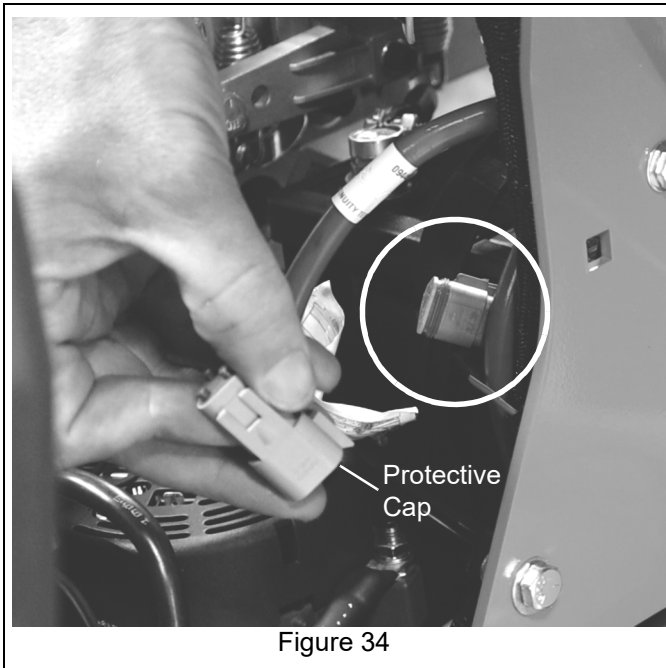


Figure 34

55. Connect triangle-shaped accessory harness connector to tractor harness connector. See Figure 35.

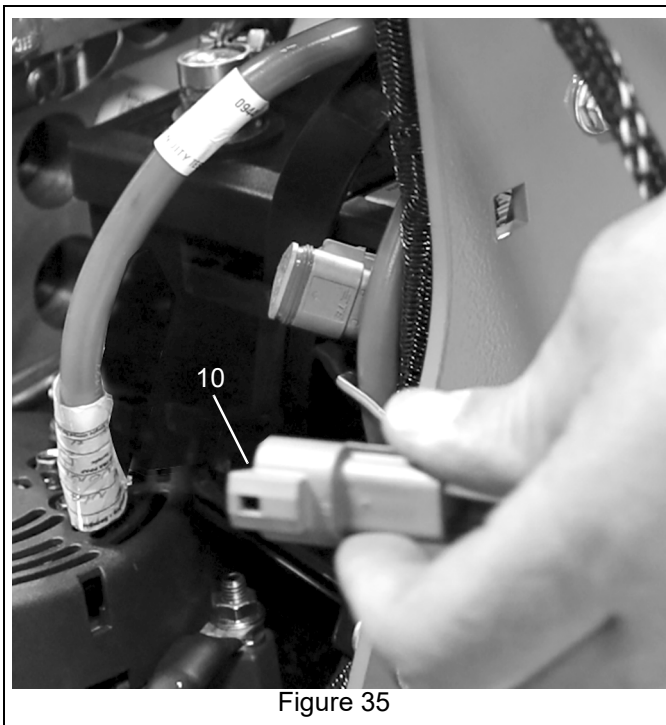


Figure 35

56. Route two-pin accessory brine level sensor wire across front of unit for later connection.

57. Route brine pump connector down through hole to left of engine and connect to brine pump. Wrap excess harness into a coil and secure to frame with one tie wrap (item 25). See Figure 36.

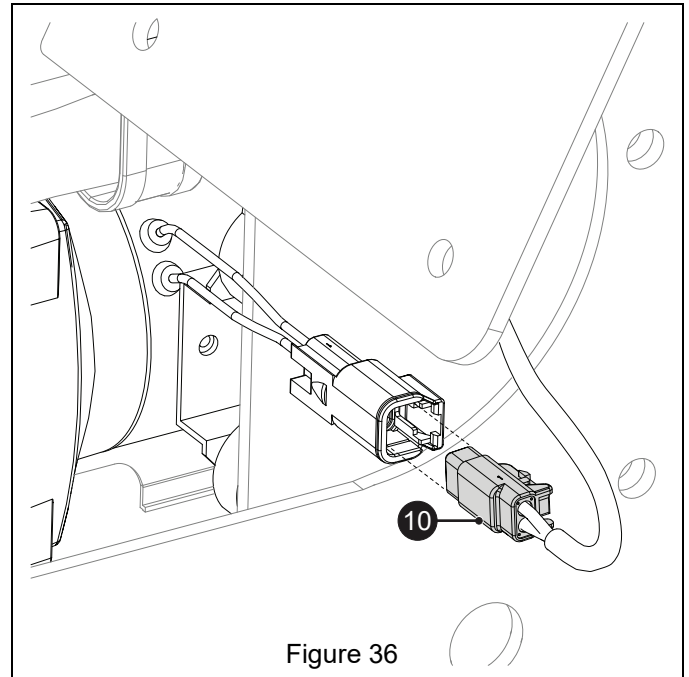


Figure 36

58. Reinstall fuel tank. Reconnect fuel hose and vapor line. Reconnect fuel sender wiring connector and rear LED light connector. See Figure 37.

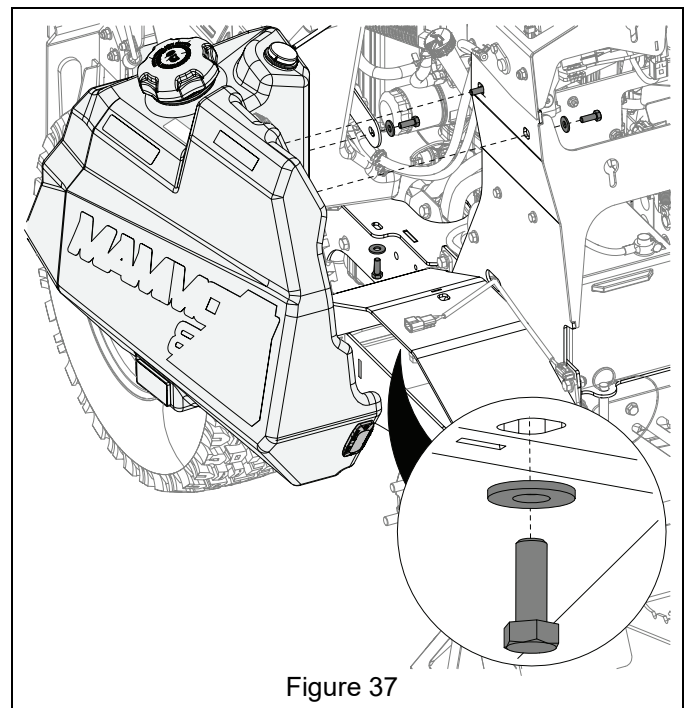
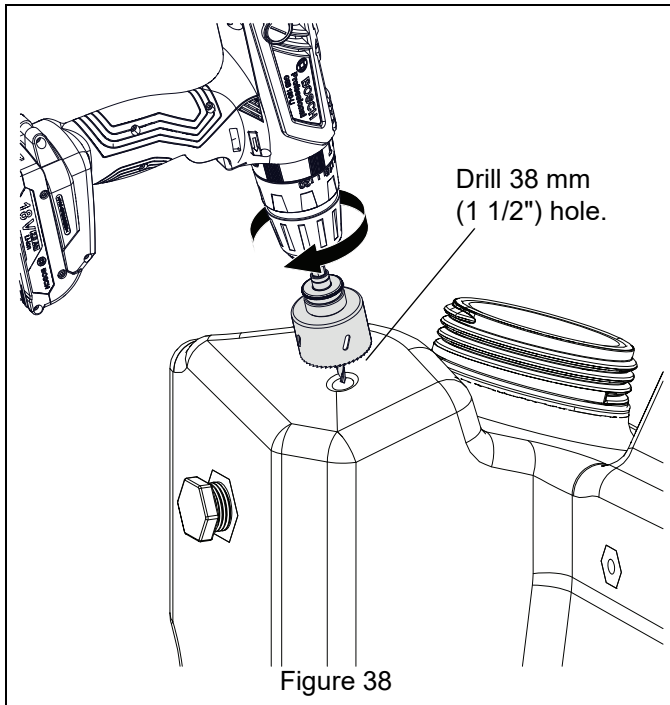
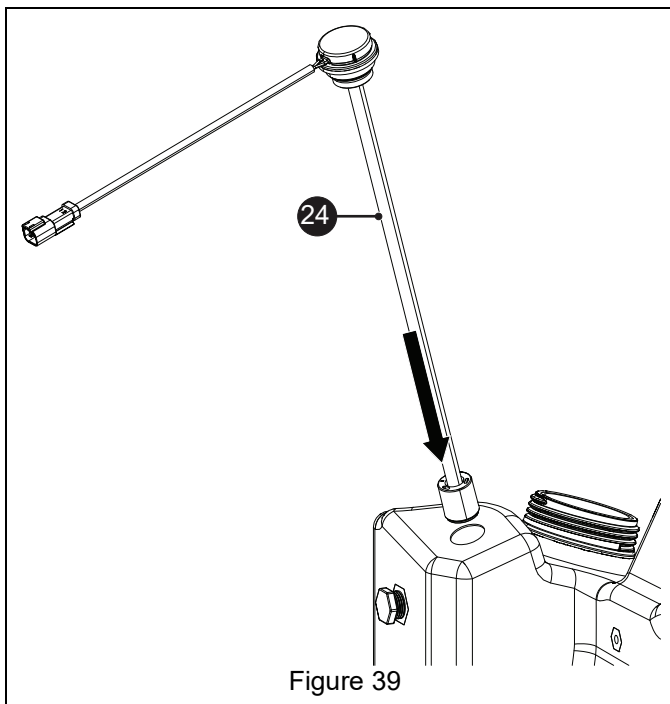


Figure 37

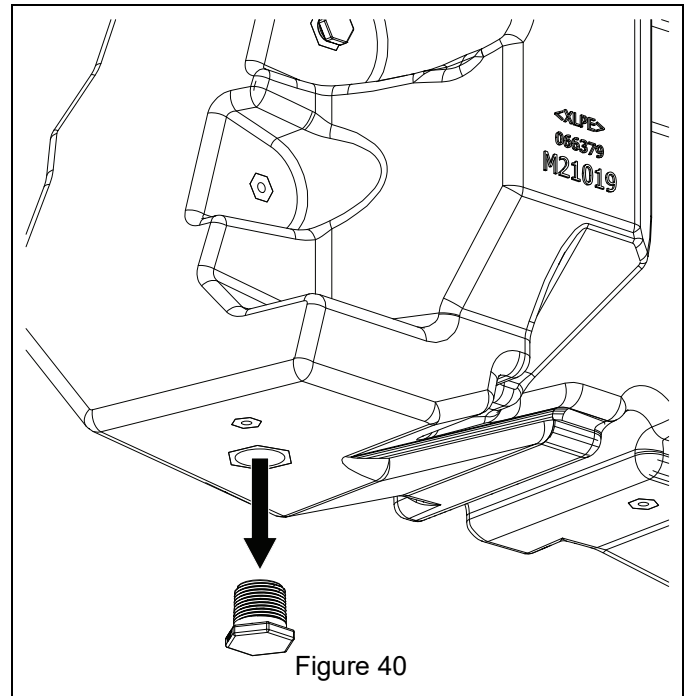
- 59. Remove brine tank filler cap.
- 60. Locate drill guide dimple on top of brine tank. Using a 38 mm (1 1/2") drill bit with center guide, drill a hole fully through the top of the brine tank. See Figure 38.



- 61. Use a fine file or sandpaper to remove all rough edges from the hole.
- 62. Use a compressed air nozzle or water to ensure all debris is removed from brine tank.
- 63. Insert grommet and brine-level sending unit (item 24) into brine tank. Ensure that sending unit is firmly seated. See Figure 39.

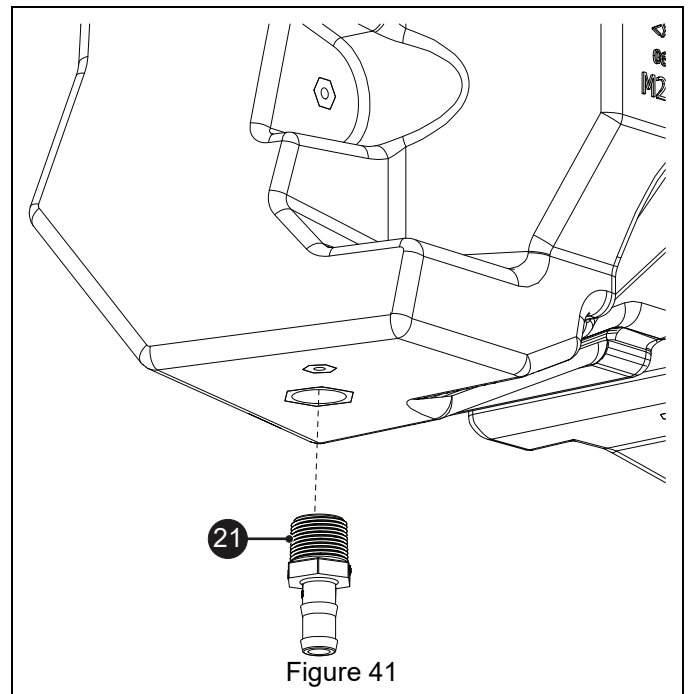


- 64. Remove and discard temporary plug from bottom of rear brine tank. See Figure 40.



- 65. Wrap threads of one 1" x 3/4" hose fitting (item 21) with teflon pipe tape and install into bottom of rear brine tank. See Figure 41.

IMPORTANT: Threads **MUST** be wrapped with teflon tape to help avoid leaks.



66. Remove and discard temporary plug from top front of rear brine tank. See Figure 42.

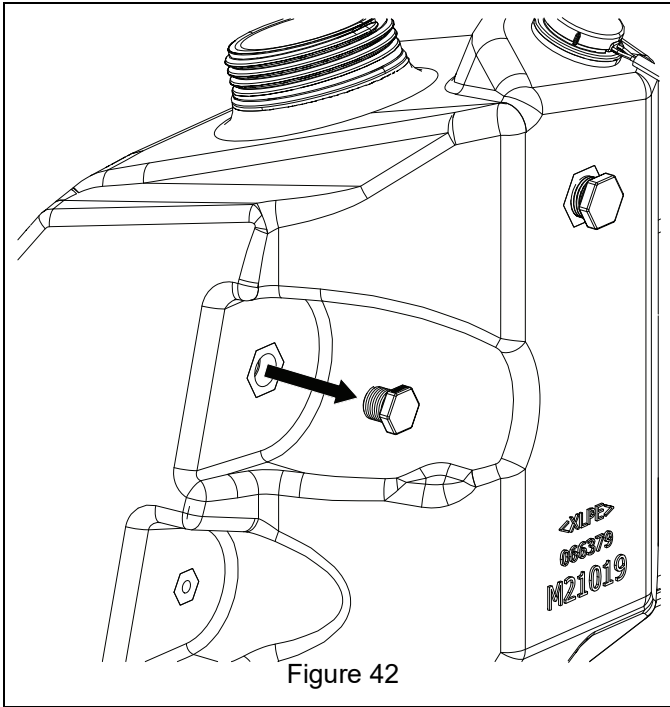


Figure 42

68. Remove and discard temporary plug from top rear of rear brine tank. See Figure 44.

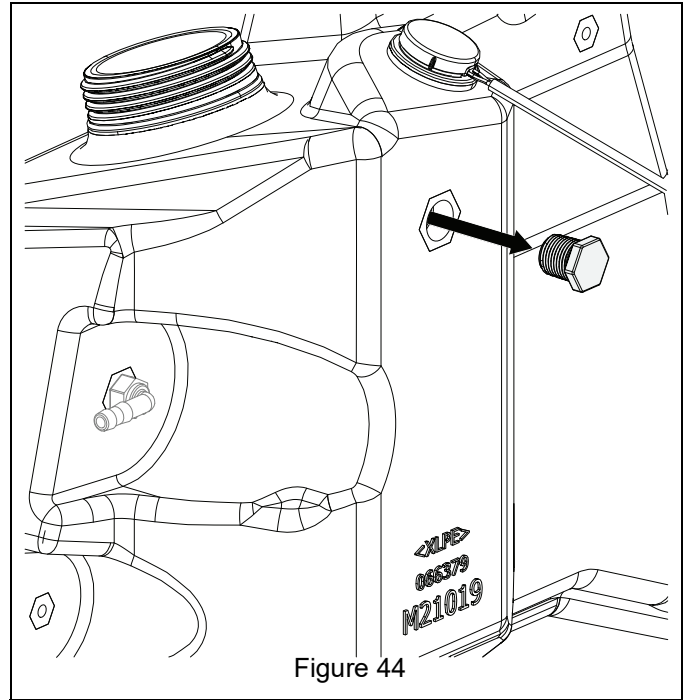


Figure 44

67. Wrap threads of one 3/8" x 3/8" 90-degree hose fitting (item 23) with teflon pipe tape and install in top front of rear brine tank. See Figure 43.

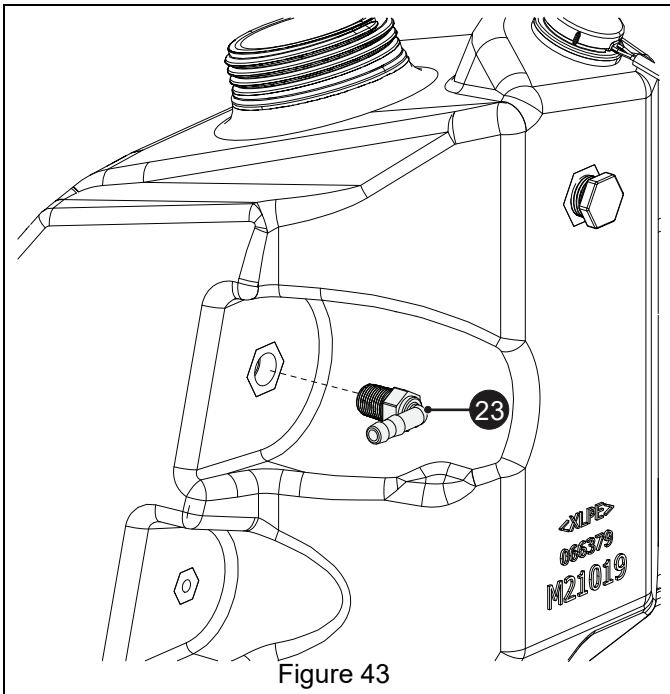


Figure 43

69. Wrap threads of one 1/2" x 1/2" 90-degree hose fitting (item 29) with teflon pipe tape and install in top rear of rear brine tank. See Figure 45.

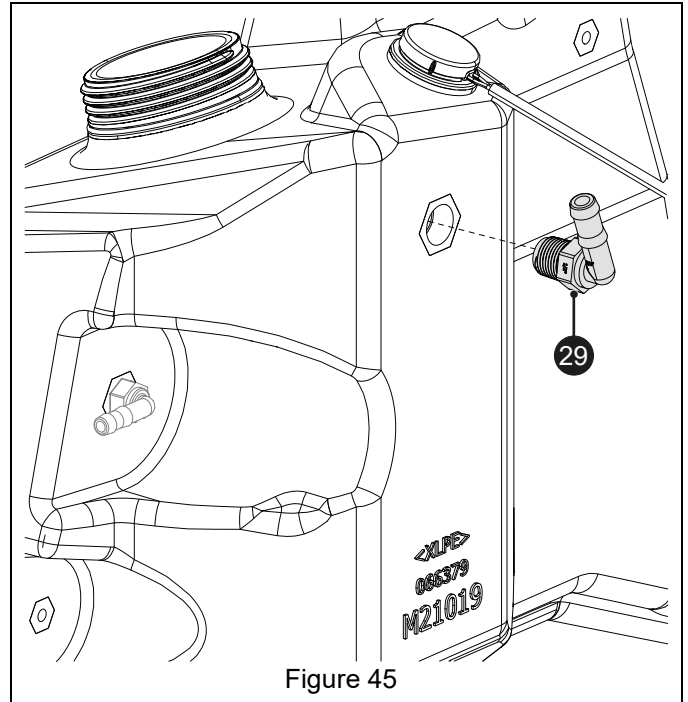


Figure 45

70. Remove and discard temporary plug from top right rear of front brine tank. See Figure 46.

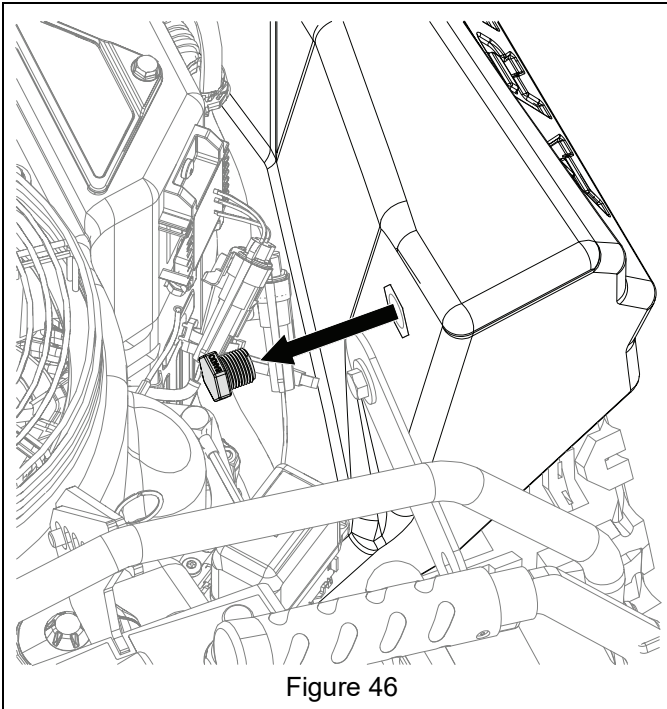


Figure 46

72. Remove and discard temporary plug from bottom right rear of front brine tank. See Figure 48.

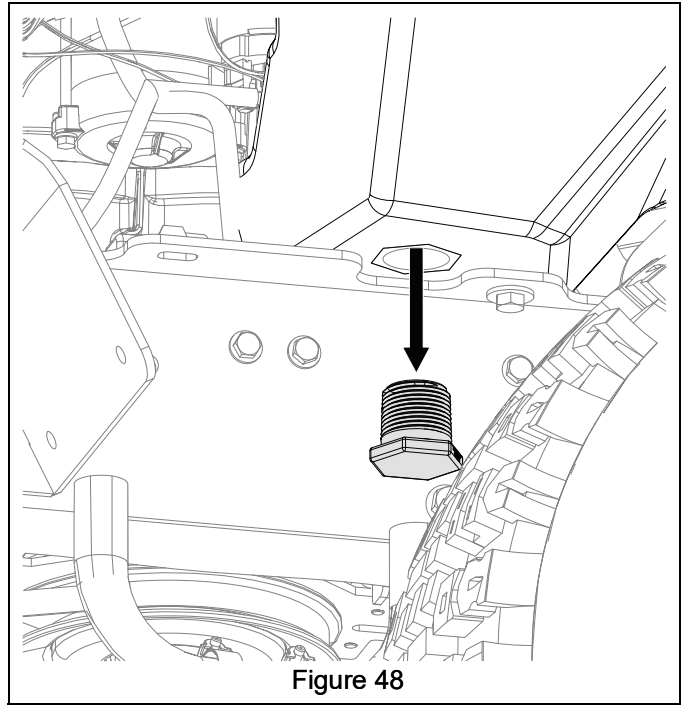


Figure 48

71. Wrap threads of one 3/8" x 3/8" 90-degree hose fitting (item 23) with teflon pipe tape and install in top right rear of front brine tank. See Figure 47.

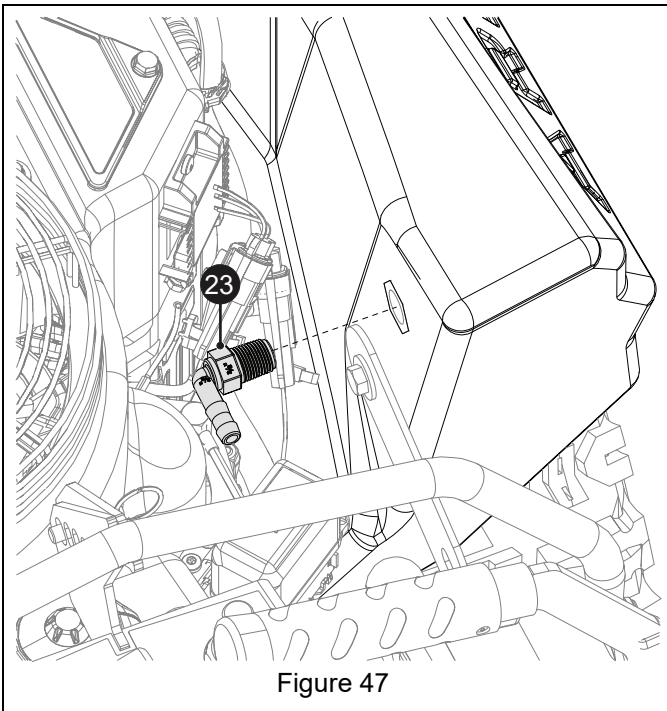


Figure 47

73. Wrap threads of one 1" x 3/4" hose fitting (item 21) with teflon pipe tape and install in bottom right rear of front brine tank. See Figure 49.

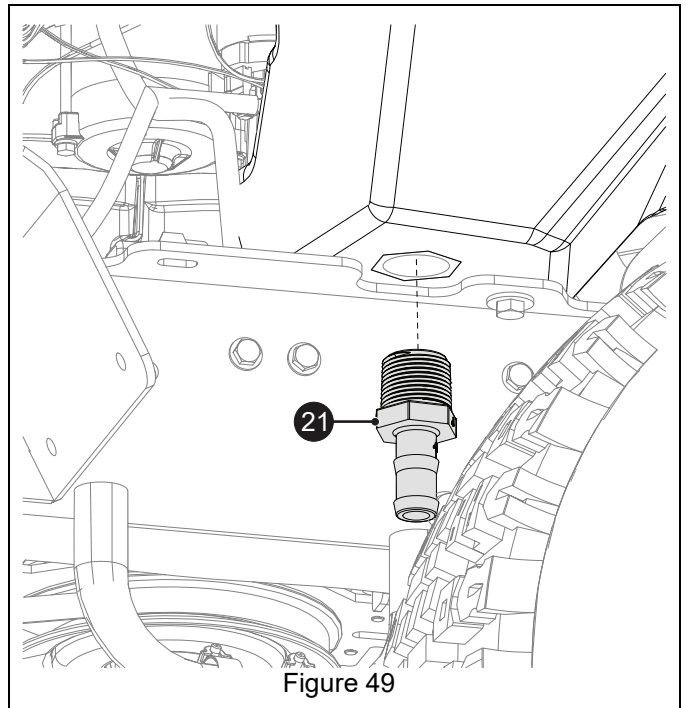
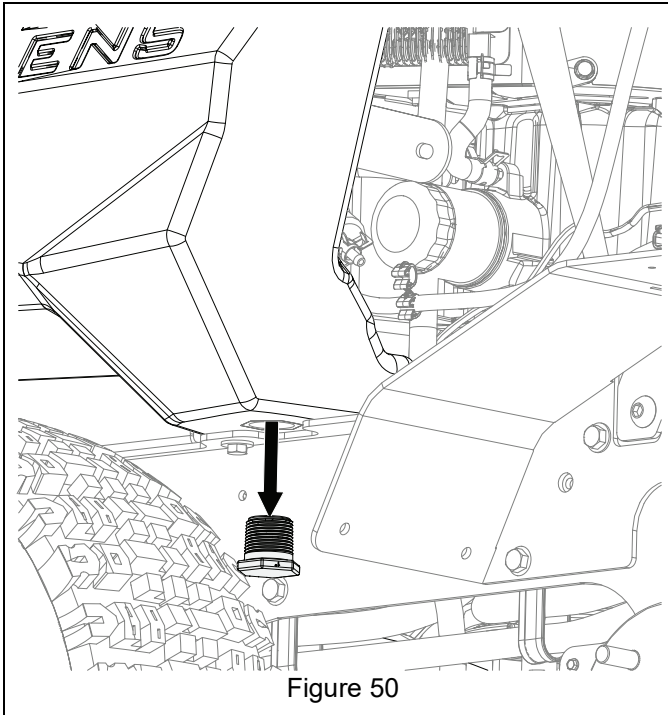


Figure 49

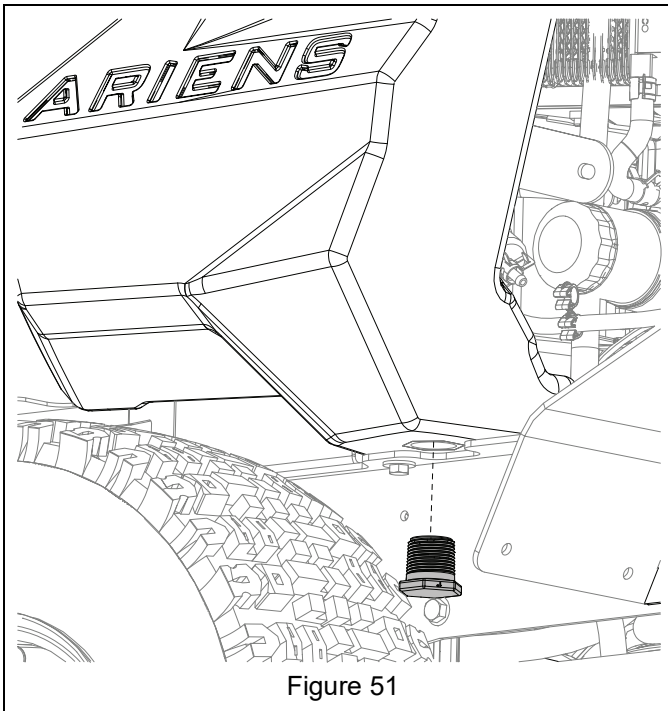
IMPORTANT: Threads **MUST** be wrapped with teflon tape to help avoid leaks.

74. Remove and retain plug from left bottom of front brine tank. See Figure 50.

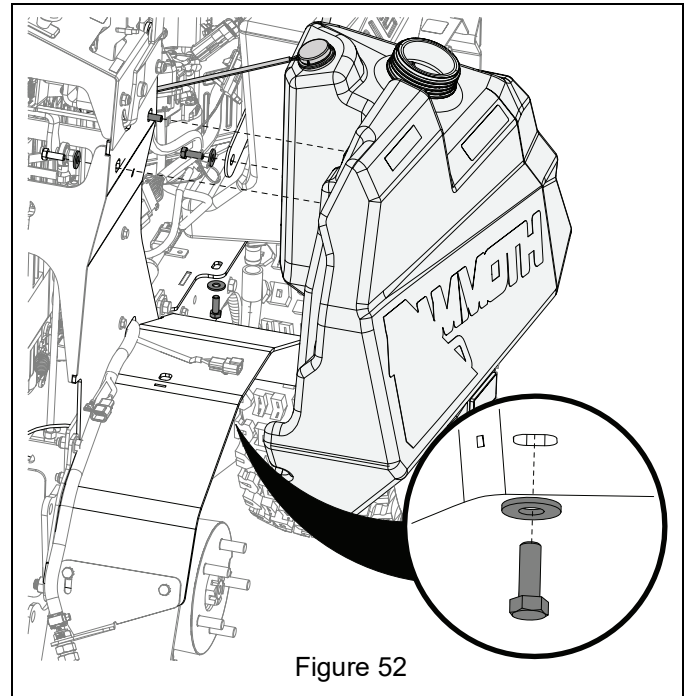


75. Wrap threads of just removed plug with teflon pipe tape and reinstall in bottom left rear of front brine tank. See Figure 51.

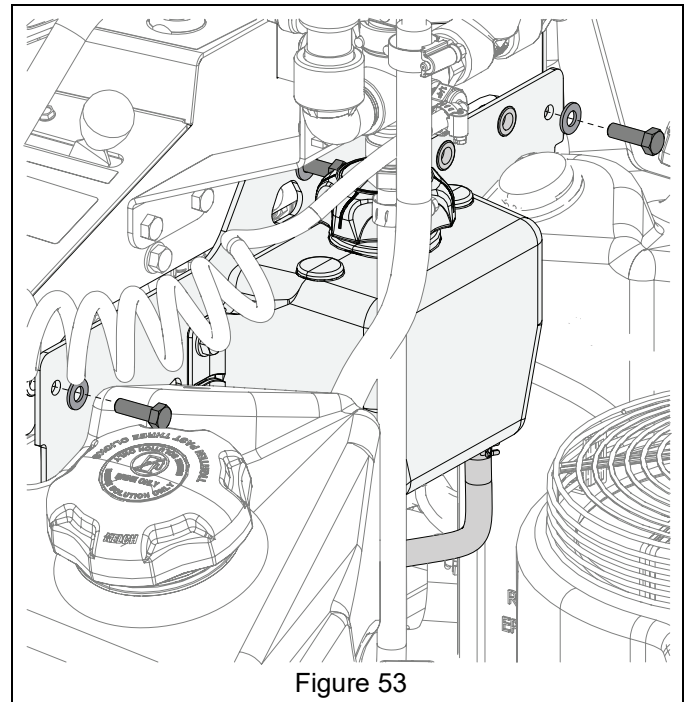
IMPORTANT: Threads **MUST** be wrapped with teflon tape to help avoid leaks.



76. Reinstall brine tank. See Figure 52.



77. Reinstall access plate. See Figure 53.



78. Install two #12 x 3/4" hose clamps (item 20) onto tank drain hoses and connect hoses (item 2) to tank fittings. Tighten hose clamps. See Figure 54.

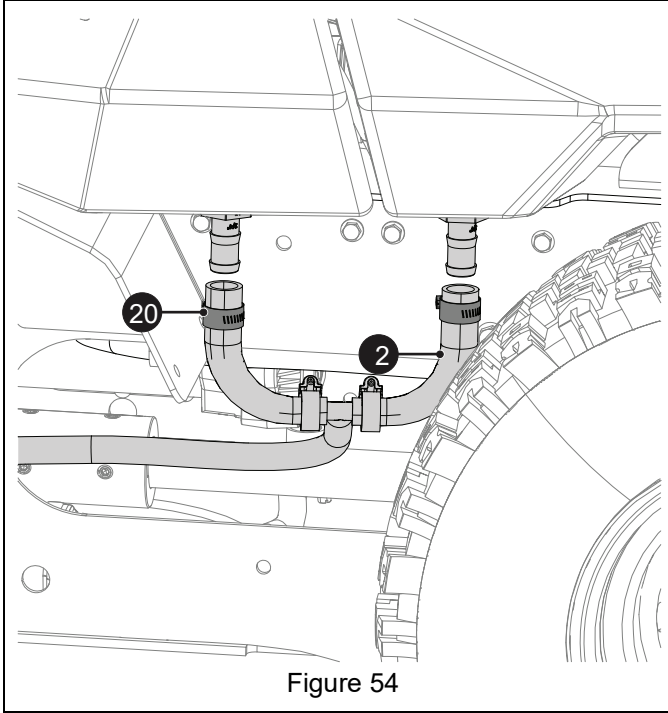


Figure 54

80. Install one #8 hose clamp (item 19) on return hose from back of pressure regulator and connect to rear brine tank fitting. Tighten hose clamp. See Figure 56.

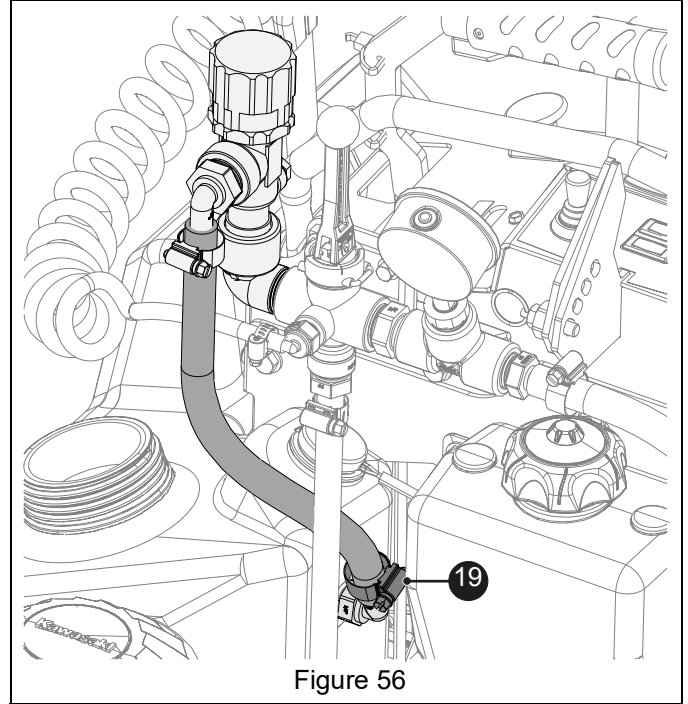


Figure 56

79. Install two 7/16" x 13/16" hose clamps (item 16) on 3/8" x 3 1/2" hose (item 22) and connect front and rear brine tanks. Tighten hose clamps. See Figure 55.

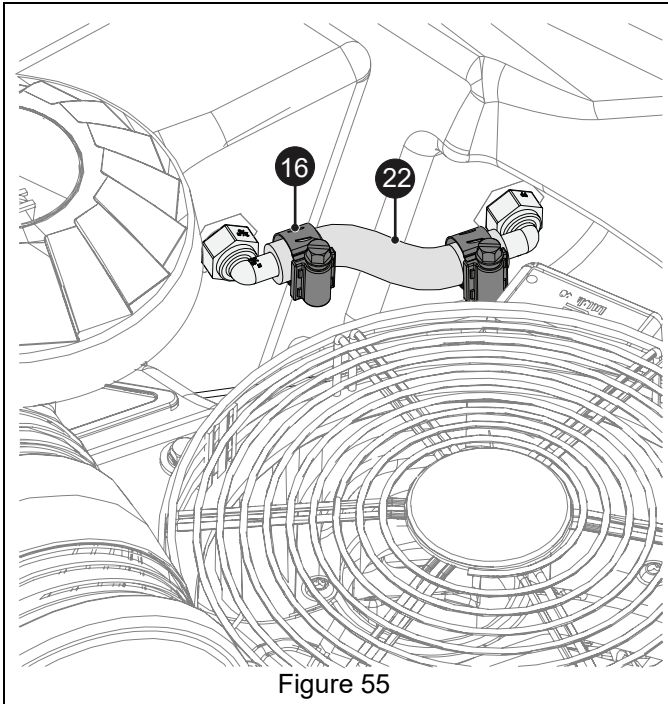


Figure 55

81. Connect two-pin accessory brine level sensor wire to brine-level sending unit. See Figure 57.

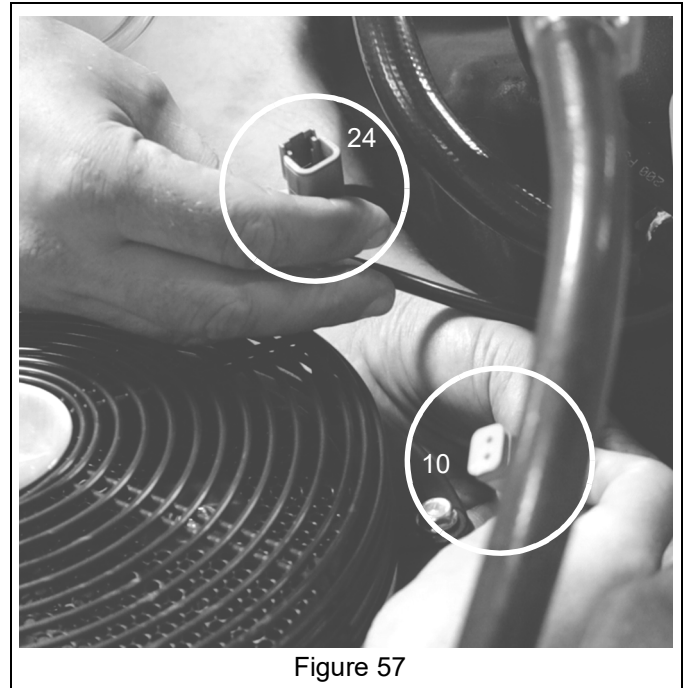
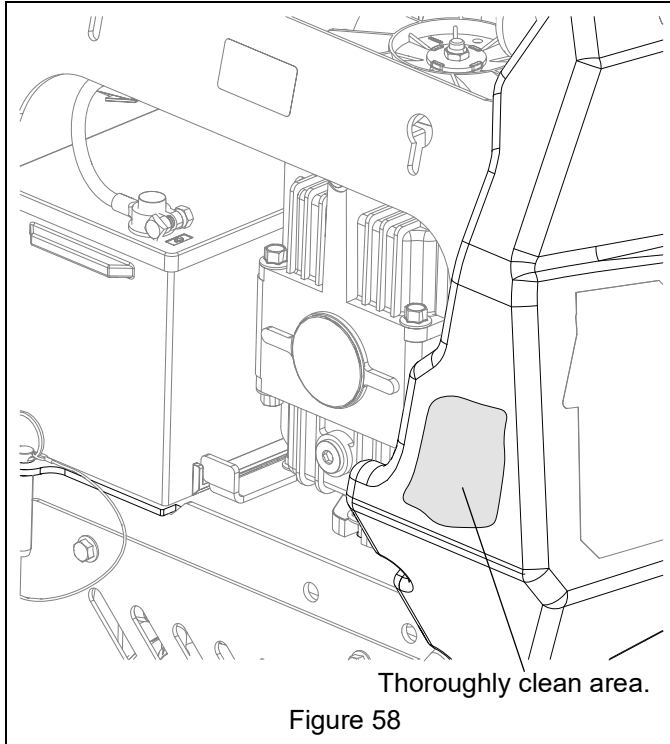


Figure 57

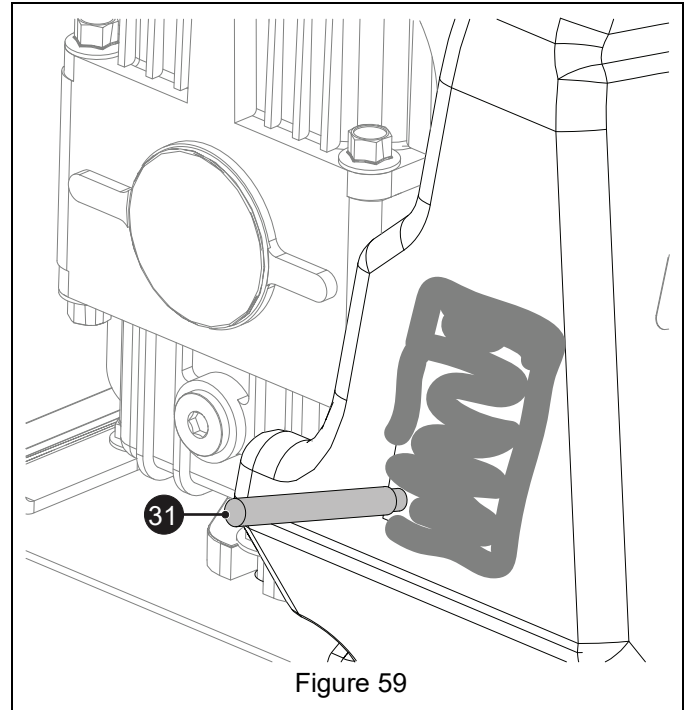
82. Locate the flattest surface on the back surface of the rear brine tank and thoroughly clean the area with isopropyl alcohol and clean cloth. See Figure 58.



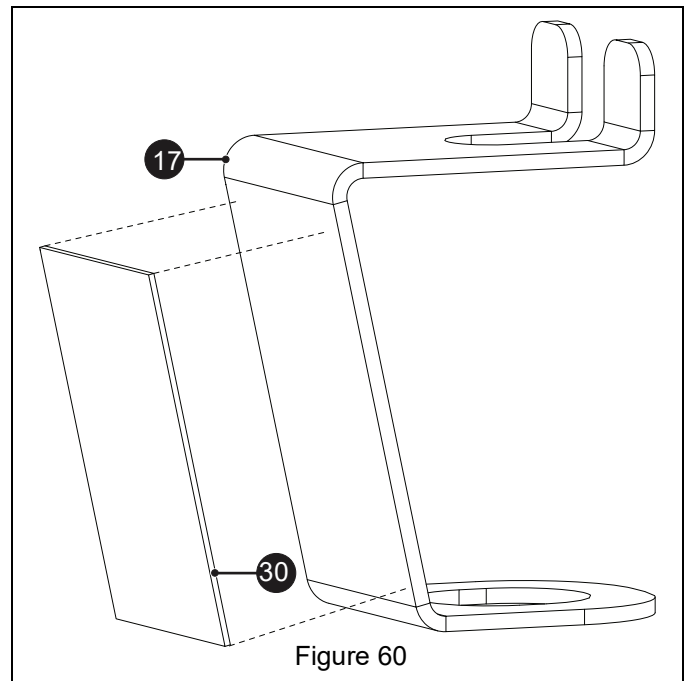
83. Clean the back of the spray gun bracket (item 17) with isopropyl alcohol and clean cloth.

84. Apply primer (item 31) to an area of the tank slightly larger than the spray gun bracket and wait five minutes. See Figure 59.

IMPORTANT: Be sure to wait a minimum of five minutes to ensure primer effectiveness.

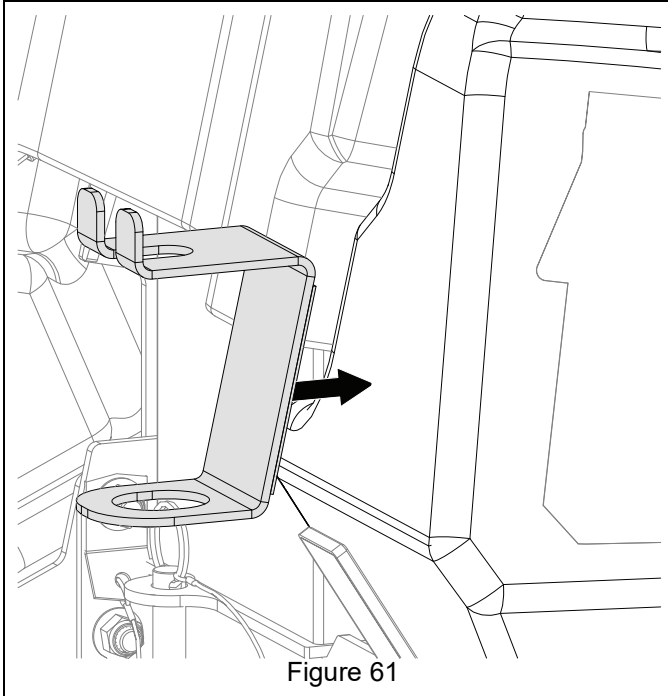


85. Remove one surface of backing material from bracket adhesive pad (item 30). Adhere pad to bracket (item 17) and apply consistent even pressure for a minimum of thirty seconds. See Figure 60.



86. After five minutes of primer cure time, remove the backing from adhesive pad on bracket.
87. Align bracket in primed area and press against tank. Apply significant pressure and hold for a minimum of one minute. See Figure 61.

IMPORTANT: Adhesive requires extended cure time to fully bond. DO NOT place weight on bracket for a minimum of 72 hours.



88. Reinstall rear wheels and lower unit to the ground.
89. Turn ignition key to on position.
90. Verify that pump operates and low-brine light is illuminated.
91. Turn ignition key to stop position.
92. Replace operator access pad.
93. Refer to Brine Accessory Operator's Manual for safety and operation instructions.