



Assembly Instruction Manual

Kit: Electric boom lap nozzle, dry boom plumbing
Model: A312K-D

Manufactured by PBZ LLC
A Paul B Zimmerman Inc. Company
www.CropCareEquipment.com

Form: A312K-DAM_REV-A

A312K-D Assembly Instructions

Subject

The purpose of this document is to show the procedure for installing the kit for the electric lap nozzle onto a sprayer with dry boom plumbing.

Installation Time:

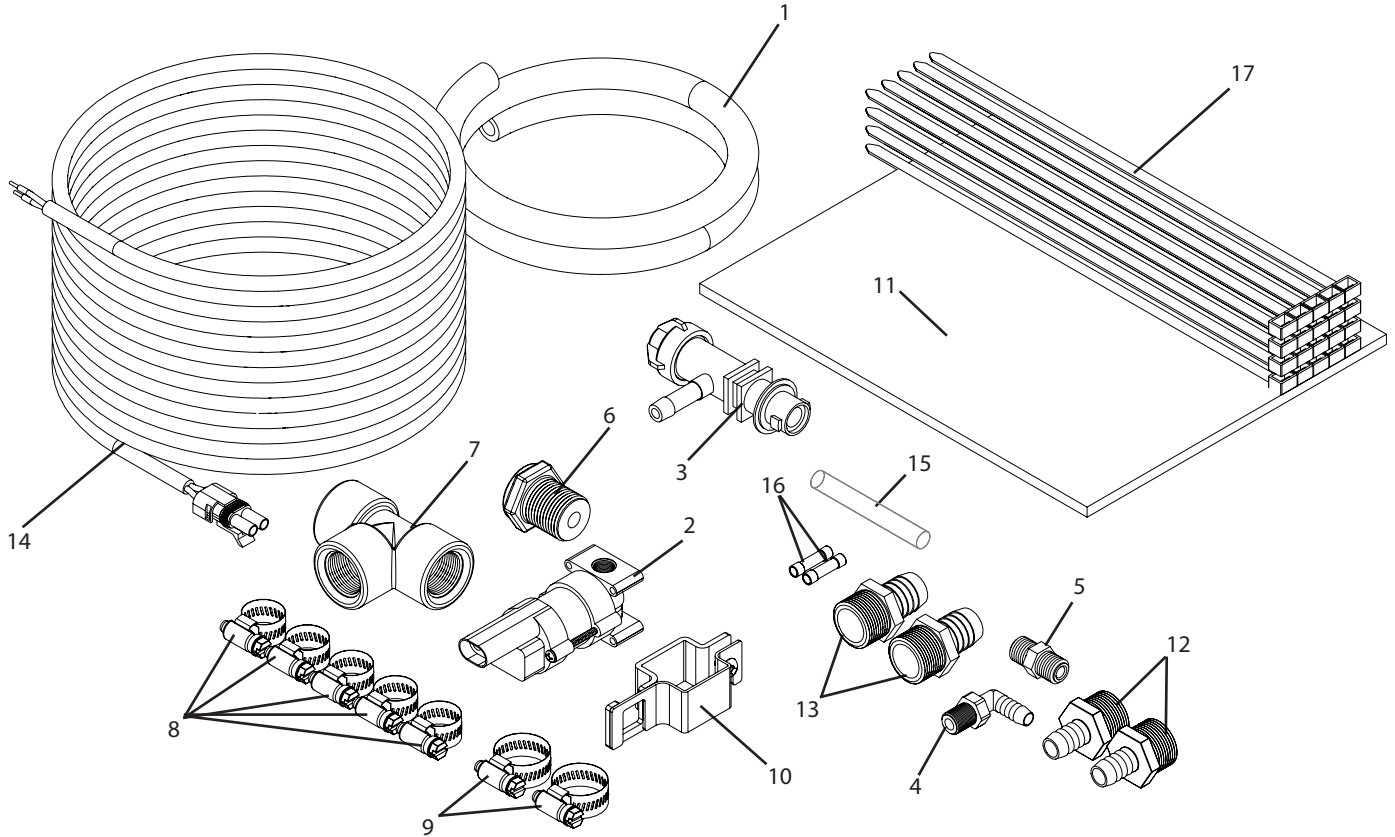
- Approximately 2 hours

Recommended Tools

- Wire crimp
- Wire stripper
- Flat head screw driver or 1/4" socket
- Phillip's head screw driver
- Adjustable wrench or pliers
- Pipe sealant
- Thread tape
- Hose cutter or knife to cut hoses to length

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A312K-D Kit Contents

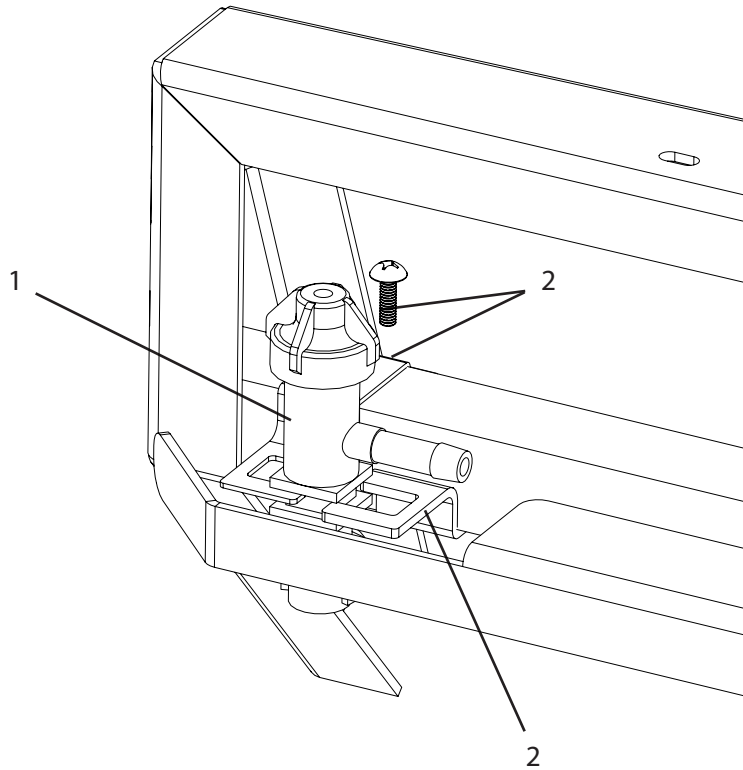


Ref#	Qty.	Part Number	Description
1	3.5 FT	1006	Hose, EPDM Rubber 3/8" 300 PSI
2	1	2201A-WP	Solenoid, 1/4" FPT, 1gpm, 125psi, 12V, 1.1A
3	1	22251311375NYB	Body, Nozzle Elbow 3/8" QJ300
4	1	3EL1438	Adapter, Hose 90° 1/4" MPT x 3/8" HB
5	1	3M14	Nipple, Pipe 1/4" MPT Poly
6	1	3RB3414	Bushing, Reducer 3/4" MPT x 1/4" FPT Sch 40 poly
7	1	8TT34	Tee, Fitting 3/4" FPT x 3/4" HB Run Poly
8	4	6806052	Hose Clamp, 1/2" - 29/32" SS
9	2	6812052	Hose Clamp, 1/2" - 1-1/4" SS
10	2	QJ1115Q114SS	Clamp, Nozzle Body 1-1/4" Sq Tube SS
11	1	A312K-DAM	Manual, assembly, lap nozzle accessory kit
12	2	3A3412	Fitting, Hose 3/4" MPT x 1/2" HB
13	2	3A3434	Fitting, Hose 3/4" MPT x 3/4" HB
14	1	T1101	Wire harness, lap nozzle accessory kit
15	1	HST38*3	Heat shrink tubing, 3/8" x 3" long
16	2	506346	Connector, Wire Butt Terminal 16-14 Ga Insulated
17	20	1175UV	Cable Tie, 11" 75 lb UV Black

A312K-D Assembly Instructions

Step 1

- Install the lap nozzle body onto the boom outer wing.
- Lap nozzle can be installed on the left or right side.
- Lap nozzle spacing from the last nozzle is half of the distance of the rest of the nozzle spacing.
- Example: 20" spacing = 10" lap nozzle distance from the last nozzle.

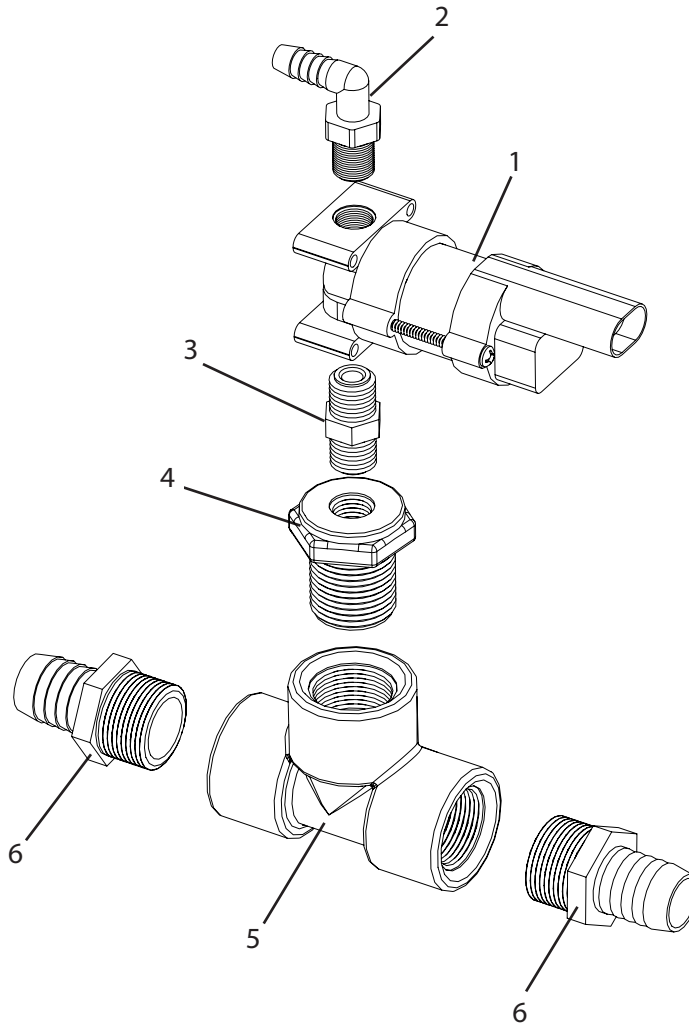


Ref#	Qty.	Part Number	Description
1	1	22251311375NYB	Body, Nozzle Elbow 3/8" QJ300
2	2	QJ111SQ114SS	Clamp, Nozzle Body 1-1/4" Sq Tube SS

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Step 2

- Determine the hose sizing used for the boom plumbing (Will be either 1/2" ID hose or 3/4" ID hose. This will determine which hose adapter fitting (Item 6) will be used.*
- Assemble the fittings for the tee and solenoid valve. Use Teflon tape and pipe sealant on all threads.



Ref#	Qty.	Part Number	Description
1	1	2201A-WP	Solenoid, 1/4" FPT, 1gpm, 125psi, 12V, 1.1A
2	1	3EL1438	Adapter, Hose 90° 1/4" MPT x 3/8" HB
3	1	3M14	Nipple, Pipe 1/4" MPT Poly
4	1	3RB3414	Bushing, Reducer 3/4" MPT x 1/4" FPT Sch 40 poly
5	1	8TT34	Tee, Fitting 3/4" FPT x 3/4" HB Run Poly
6	2	3A3434 *	Fitting, Hose 3/4" MPT x 3/4" HB

*When used on 1/2" boom plumbing, switch these with 3A3412 (Fitting, Hose 3/4" MPT x 1/2" HB) included in the kit.

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Step 3

- Cut the hose on the boom plumbing on the outer wing between the two outermost nozzles. (This is where the solenoid tee will be located, Figure A.)
- Install the tee and solenoid on the boom between the two outermost nozzles (Figure B).
- Use the provided cable ties (1175UV) to secure the tee and solenoid assembly to the boom wing.
- Route the wiring harness along the boom plumbing and secure the wiring with the cable ties (1175UV) provided.

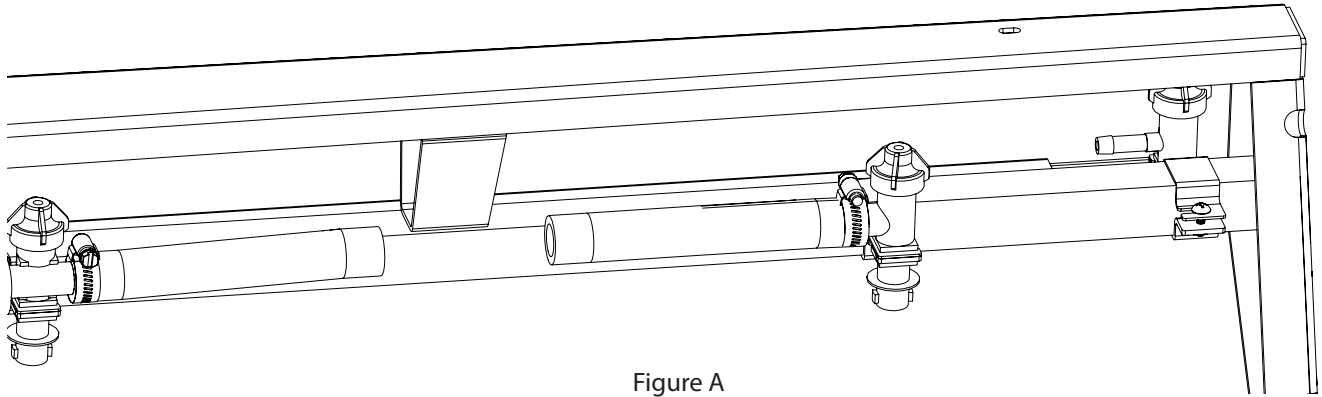


Figure A

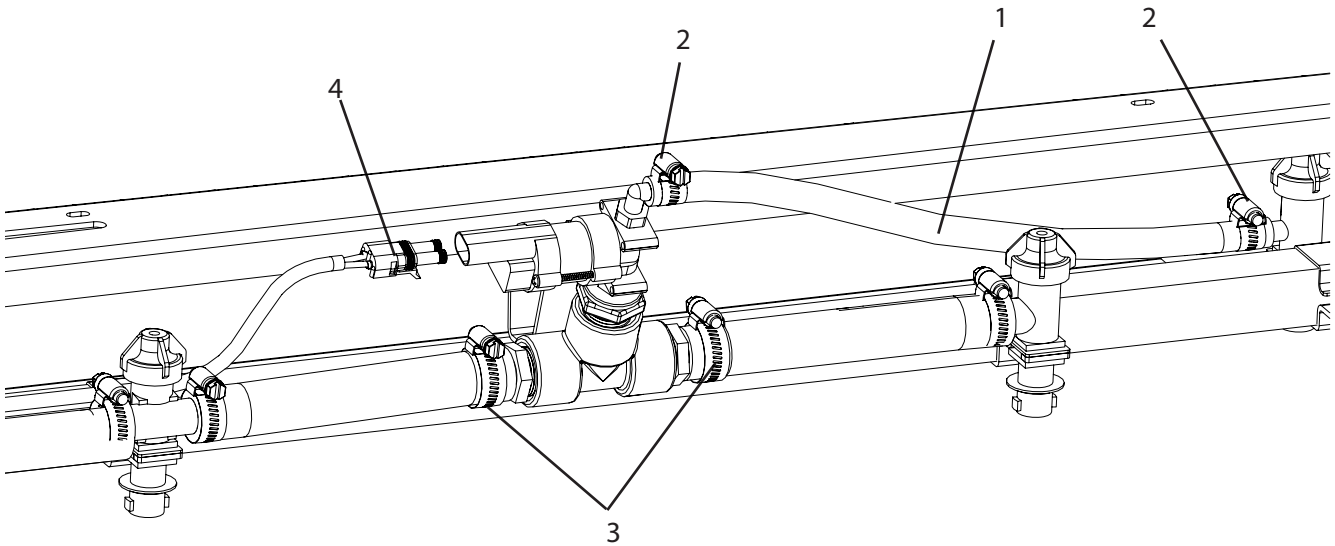


Figure B

Ref#	Qty.	Part Number	Description
1	3.5 FT	1006	Hose, EPDM Rubber 3/8" 300 PSI
2	4	6806052	Hose Clamp, 1/2" - 29/32" SS
3	2	6812052 *	Hose Clamp, 1/2" - 1-1/4" SS
4	1	T1101	Wire harness, lap nozzle accessory kit

*When used on 1/2" boom plumbing, switch these with 6802052, included in the kit.

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Step 4A

The lap nozzle solenoid harness needs to be hooked up to the sprayer controls. On electric controls with the CropCare Wiring Harness the lap nozzle solenoid wiring harness is connected to terminals inside of a junction box.

- Route the lap nozzle solenoid wiring harness to the junction box. See your sprayer's owner's manual for the junction box location (See the "Accessing Junction Box and Control Manifold" Section).
- Route through the strain reliefs on the junction box (A, Figure 1)
- Trim the ends of the lap nozzle solenoid wiring harness.
- **WARNING:** Make sure the sprayer is disconnected from the battery.
- Install the lap nozzle solenoid wire harness ends into the proper terminals for connecting the lap nozzle, 12V+ and ground wires. See the decal on the inside of the junction box lid (Figure 2), or see the "Wiring" section in the sprayer's owner's manual.

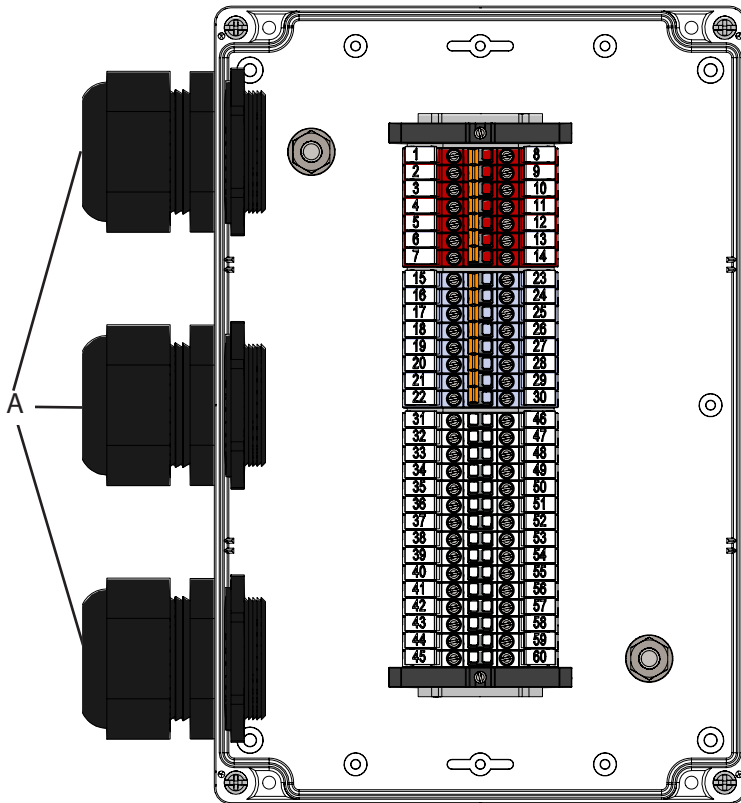


Figure 1

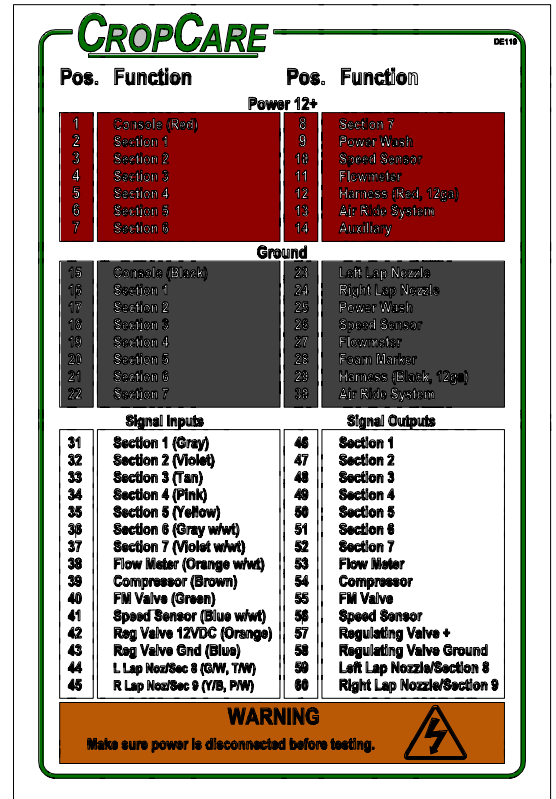


Figure 2

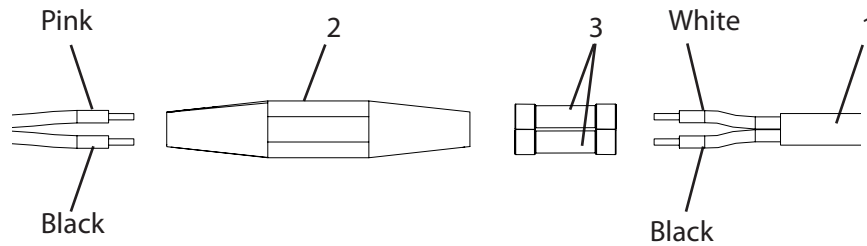
Ref#	Qty.	Part Number	Description
1	1	T1101	Wire harness, lap nozzle accessory kit

A312K-D Assembly Instructions

Step 4B

The lap nozzle solenoid harness needs to be hooked up to the sprayer controls. On electric controls without the CropCare wiring harness (SC400) needs to have the lap nozzle solenoid wiring harness connected to the sprayer end wiring harness (See SC400 owner's manual for wiring schematic.)

- Trim the ends of the lap nozzle solenoid wiring harness.
- The black wire from the lap nozzle solenoid harness must connect to the loose black wire that connects to the other solenoids in the SC400. The white wire in the lap nozzle solenoid wiring harness must be connected to the loose pink wire from the section 4 boom control switch.
- Butt crimp these wires together and heat shrink the connections to make them watertight.



Ref#	Qty.	Part Number	Description
1	1	T1101	Wire harness, lap nozzle accessory kit
2	1	HST38*3	Heat shrink tubing, 3/8" x 3" long
3	2	506346	Connector, Wire Butt Terminal 16-14 Ga Insulated