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MASTER  
MANUFACTURING

12' DELUXE BOOM KIT



Part Number SSBK-12FB-DX | Rev 2 July, 2014

Note: Do not return product to the distributor/dealer for warranty work. Call Master Manufacturing at (800) 864-1649 for any warranty work or replacement parts.

## **INTRODUCTION**

The purpose of this manual is to assist you in the assembly, operation and maintenance of your sprayer or accessories. Please read through this manual completely too fully understand how to operate and maintain your equipment. This product has been manufactured to provide years of dependable service; proper operation and maintenance will ensure its dependability. Keep your manual in a safe, convenient place for future reference.

Always mention the model and part number in any correspondence. **You will need a 3/4" Spade Drill bit in order to drill out a hole for the return hose.**



## **ASSEMBLY**

The twelve foot deluxe boom kit is designed to fit many applications. It has been specifically designed to attach easily to other Master Manufacturing products. The following instructions are intended for the attachment of the twelve foot deluxe boom to a Master Manufacturing lawn trailer, 3-point sprayer or ATV kit.

### **Manifold Replacement**

- 1.) Remove the existing pump from the tank by removing the four screws.
- 2.) Remove the spray wand hose from the barb fitting on the outlet side of the sprayer pump.
- 3.) Remove the hose barb fitting from the outlet side of the pump.
- 4.) Obtain the new manifold (PN34-140118) and connect to QA Fitting with threaded end.
- 5.) Thread manifold onto pump using thread sealant.
- 6.) Reattach sprayer pump to tank using the screws removed from step 1.
- 7.) Apply a thread sealant too the gauge thread and thread gauge into manifold, tighten securely

### **Spray Boom Attachment**

- 1.) Extend the Twelve foot boom on a flat surface. Attach left & right wings to center section using 4 3/8" x 3/4" bolts (33-100135) and 4 3/8" nylon nuts (33-100136). Tighten the bolts securely but ensure the hinge moves freely in both directions.
- 2.) Attach the two springs provided (33-100117). Hook one side of spring to the hole on top of the left wing and the other hook to the left side of the center section. Repeat this step to the right wing.
- 3.) Attach the two upright spray boom brackets (PN 31-100160) to your lawn trailer, ATV angle brackets or other application using the four 5/16-18 x 1 bolts (PN 33-100116) and 5/16 nuts (PN 33-100113).
- 4.) Attach the spray boom (PN 34-140116) to the upright spray boom brackets using two 5/16"-18 x 1.75" bolts (PN 33-100119) and 5/16 nuts (PN 33-100113).
- 5.) Thread on the boom hose to the manifold valve installed previously and tighten securely.
- 6.) Assemble Nozzle holder by placing the spray tip (PT 90.110.002) inside of cap (PT G-T00100001). After tip is in place, place gasket (PT G-G000002020) on top of spray tip. Assemble cap to Nozzle holder (PT G-8234009) and give it a 1/4 turn to secure it.
- 7.) Optimum boom height is 14 to 15 inches above area to be sprayed. Use the location holes in the upright spray boom brackets as adjustments to obtain the optimum spray height.

### **Wiring Harness**

- 1.) Attach the new wiring harness with inline switch to the sprayer pump by pushing the two terminal connectors together.

## **OPERATION**

### **Using the 12' Deluxe Boom**

- Four things must be considered before spraying with the boom.
  1. How much chemical must be mixed in the tank?
  2. Rate of spray (gallons per acre to be sprayed.)
  3. What pressure (P.S.I) will be used.
  4. Speed traveled (M.P.H.) while spraying.
- Refer to the chemical label to determine the chemical mixture.
- See the tip chart to determine the pressure to be used. The chart will also show the speed used when spraying.
- Check the spray pattern. Usually you can see the coverage better on solid concrete surface, such as a driveway.
- Raise or lower the nozzles so that you will have a good coverage pattern. If you can see dry spots on the concrete surface you will need to raise the nozzles. Too much solution in the pattern areas means you need to lower the nozzles. Generally the proper height will be from 13 inches to 18 inches from the area to be sprayed.

### **Operation and Maintenance**

The nozzles on the boom will spray a 140" wide swath. The nozzle height is approximately 14" above the object being sprayed.

Once you know how much you are going to spray then determine (from the tip chart) the spraying pressure (PSI) and the spraying speed (MPH). The pressure can be set by running the sprayer with the boom nozzles "ON" and then by adjusting the garden hose valve lever until the gauge reads the desired pressure. Notice that the pressure will go up when the garden hose valve is slowly closed.

When selecting pressure from the tip chart, it is a good idea to try for the 20 or 30 PSI range as this allows an excellent nozzle pattern. At 10 PSI the pattern begins to break up and at 40 PSI you may notice some drift. Conditions of weather and terrain must be considered when setting the sprayer. Do not spray on windy days. Protective clothing must be worn in some cases. Be sure to read the chemical label carefully.

The deluxe boom allows the operator to turn off or on each section of the boom. There is a total of three ball valves that operate each section of the boom. (Left, Center & Right)

After all calibrations have been completed, add water and then chemical to the tank. Always follow chemical manufacturer's instructions for mixing.

## **CLEANING & STORAGE**

Most spray materials are highly corrosive. The most important aspect of long dependable service from the sprayer is a thorough cleaning immediately following each use. In addition, the residue of one type of chemical could cause an undesirable effect when a different chemical is used for a different purpose.

The most effective cleaning method is to pump several rinses of clean water through the tank, pump, hoses, boom, spray gun, etc. A neutralizing agent such as a solution of Nutra-Sol, a detergent or household ammonia as recommended by the chemical manufacturer can assist in removal of a persistent chemical. When the system is thoroughly cleaned drain the tank, suction line, pump, hoses, etc.

The following steps should be followed for the maintenance and storage of your sprayer.

1. Wash and flush out sprayer after completion of each phase of your program. Flush out sprayer when changing chemicals if there is a possibility of the chemicals being incompatible. Use of a detergent is advisable if the chemical manufacturer does not make specific cleaning recommendations. Flush system completely, including nozzles. Never use metal objects to open clogged nozzles.
2. Clean sprayer thoroughly before storing at the end of the spraying season. Permanent type anti-freeze added to the final rinse will leave a rust inhibiting film in parts of the sprayer.

### **WARRANTY PARTS SERVICE**

Products sold shall be warranted from defects in workmanship and material when used within the service and scope for which they were designed for a period of one year from date of purchase. Warranty covers replacement parts ONLY. Contact Master Manufacturing for warranty parts at (800) 864-1649. Do not return product to your distributor/dealer. Please have your original sales receipt or other proof of purchase date when requesting any warranty parts. To ensure the correct parts are acquired always provide the model number of your sprayer/attachment and the part number and description obtained from the illustrated parts breakdown in this manual.

### **Gallons per Acre, 20" spacing**

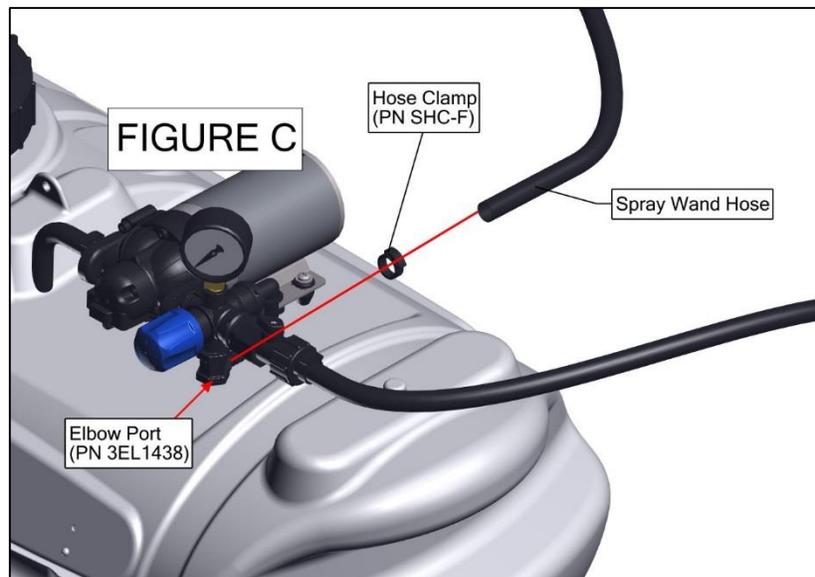
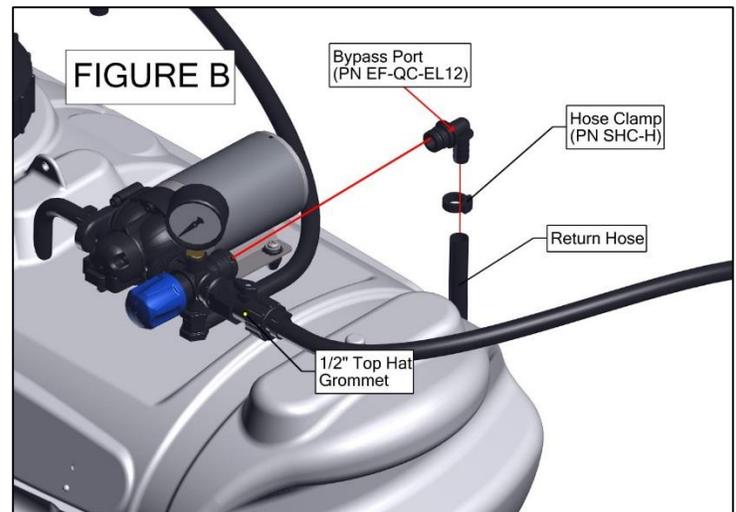
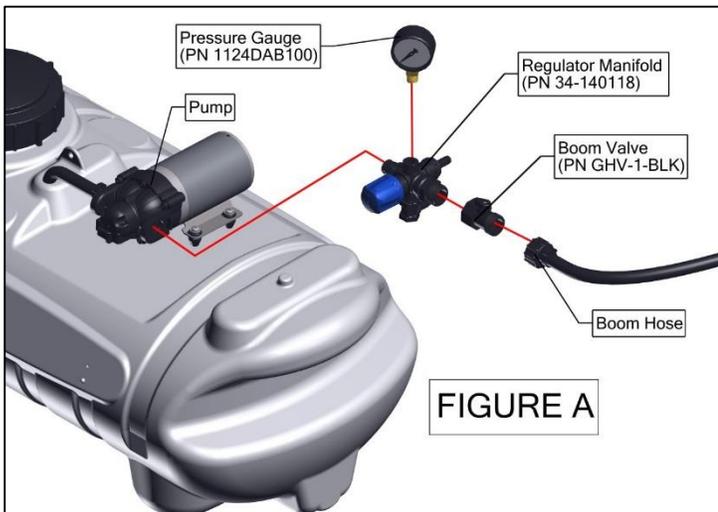
Nozzle part #	PSI	Flow GPM	4 mph	5 mph	6 mph	8 mph	10 mph	12 mph	15 mph
90.110.002 Yellow Colored Nozzle	30	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4
	35	0.19	14.1	11.3	9.4	7.1	5.6	4.7	3.8
	40	0.2	14.9	11.9	9.9	7.4	5.9	5.0	4.0
	50	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4
	60	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8

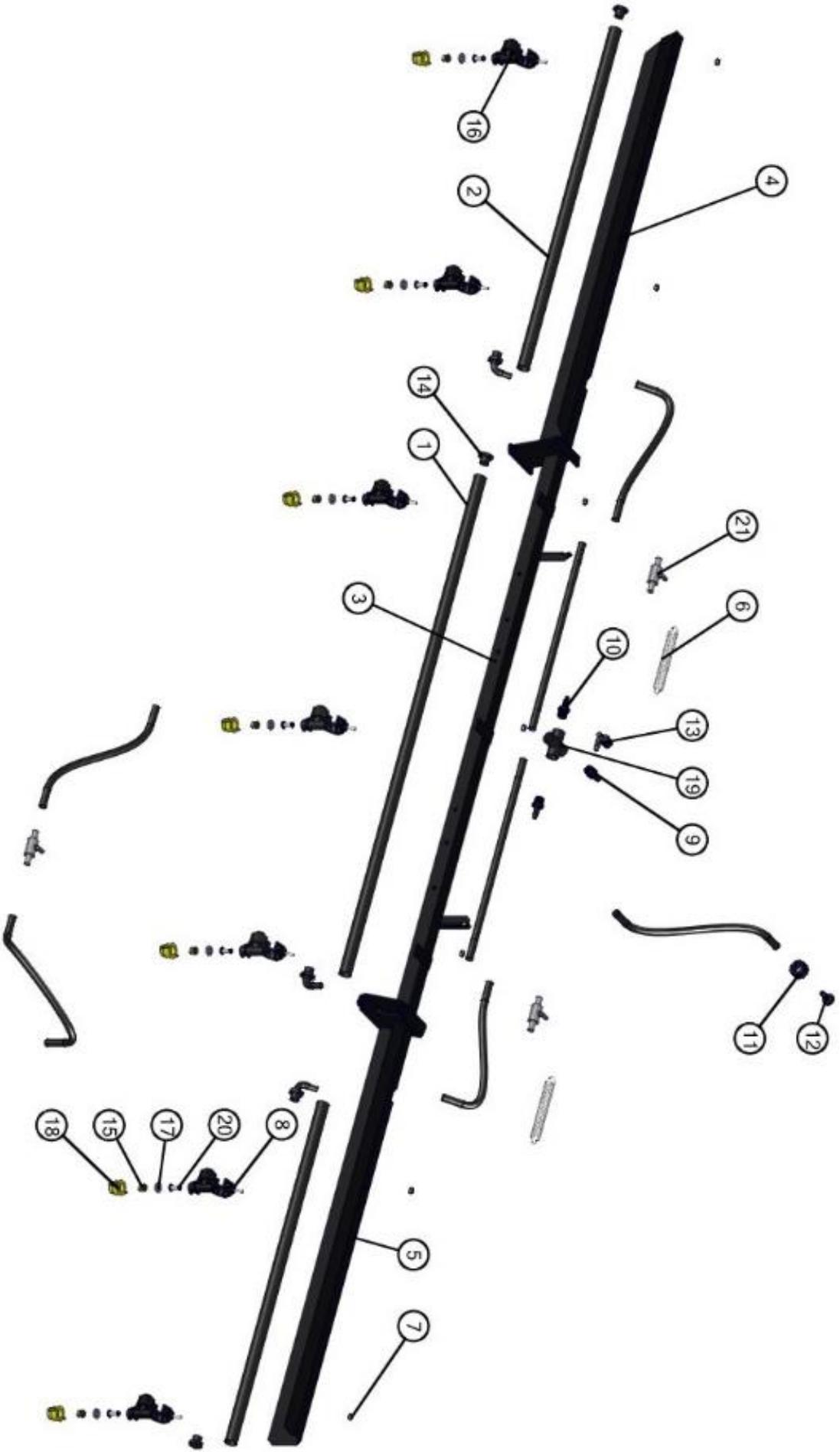
Note: All GPA calculations above are per nozzle.

## **Pump Assembly**

Your pump comes attached to the tank with the Inlet hose already attached. You will need to attach the Regulator Manifold to the pump following the steps below and the diagrams included.

- 1.) Move the Outlet Port Clip on the pump into the Open position.
- 2.) Obtain the Regulator Manifold(PN 34-140118) and slide into the Outlet Port of the pump so that the Blue Knob is facing the front of the pump as seen in FIGURE A
- 3.) Obtain the Boom Valve(PN GHV-1-BLK) and thread onto the Garden Hose Fitting on the Regulator Manifold(PN EF-QC-E34)
- 4.) Obtain the Boom Hose and thread onto the Boom Valve you just attached to the Regulator Manifold
- 5.) Obtain the Pressure Gauge (1124DAB100) and thread into the Top Port on the Regulator manifold.
- 6.) Attach Return Line Hose to Bypass Port (PN EF-QC-EL12) and push other end through the 1/2" Top Hat Grommet in Tank. FIGURE B
- 7.) Attach Hose Clamp to Hose. Make sure that the clamp is on the Bypass Port
- 8.) Attach Spray Wand Hose to Elbow Port on bottom of the Regulator Manifold(PN 3EL1438) FIGURE C
- 9.) Attach Hose Clamp to Hose. Make sure that the clamp is on the Elbow Port





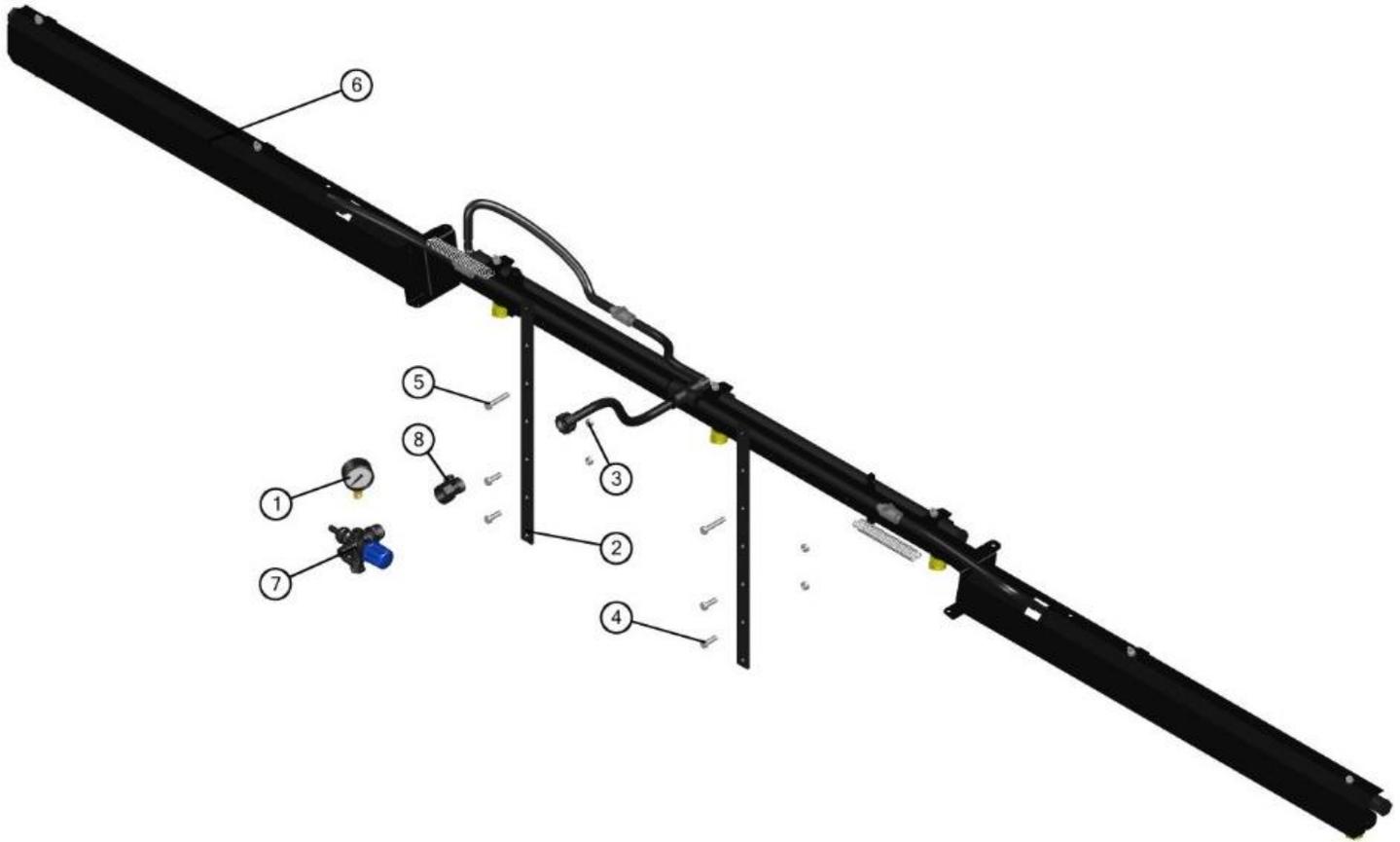
34-140116

Assy, Boom, Del, 7 Nozzle

BOM ID	Name	Description	Qty
1	31-101039	Boom, Deluxe, Center Pipe	1
2	31-101040	Boom, Deluxe, 2 Nozzle Pipe	2
3	32-101007	Boom, Deluxe Center Weldment	1
4	32-101009	2 NOZZLE, L. EXTENSION	1
5	32-101011	Wing, Right, 2 Noz Deluxe Boom	1
6	33-100117	Spring, EXT>, .75 OD x 6.5" LN	2
7	33-100143	Bolt, M6x 16MM, Hex Head	7
8	33-100422	Nut, M6	7
9	3A12	3/8 BARB TO 3/8 MALE PIPE THEAD	1
10	3A1238	3/8 BARB TO 3/8 MALE PIPE THEAD	2
11	3B34	Swivel Nut: Knurled 3/4"FGHT	1
12	3C38	Flat Seat Hose Barb: 3/8"HB	1
13	3EL1238	Elbow: 1/2"MPT x 3/8"HB Poly	4
14	3F12	Hex Plug: 1/2"MPT Poly	3
15	90.110.002	Nozzle, Fan, 100 Deg, ISO	7
16	G-8234009	Nozzle Holder, Hinged, 3/4" With Screws	7
17	G-G00002020	Gasket for Caps, EPDM	7
18	G-T00100001	Cap Only, Fits Flat Spray Tips	7
19	GCR1214-BN	Cross, Black Nylon	1
20	NS-50	Nozzle Strainer, 50M, Red	7
21	PBV-38HB	Ball Valve, Plastic 3/8"	3

SSBK-12FB-DX

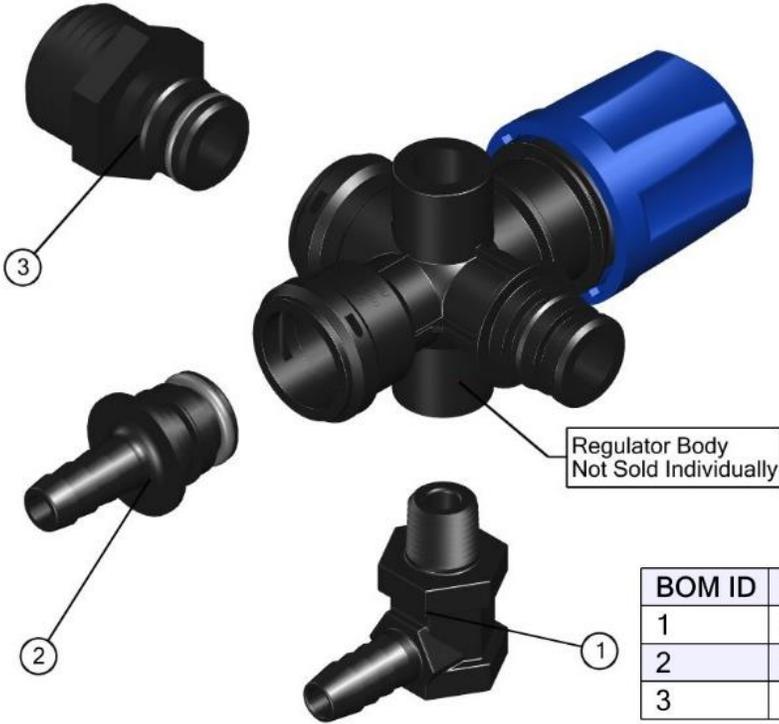
Kit, Boom, 12' Boxed



BOM ID	Name	Description	Qty
1	1124DAB100	Gauge, 2"ABS 1/4"LM	1
2	31-100160	Bracket, Upright, Spray Booms	2
3	33-100113	Nut, 5/16-18, Serrated Flange	6
4	33-100116	Bolt, 5/16-18 x 1"	4
5	33-100119	Bolt, 5/16-18 x 1.75"	2
6	34-140116	Assy, Boom, Del, 7 Nozzle	1
7	34-140118	Regulator, Assy, Sprayer, NTE	1
8	GHV-1-BLK	Valve, 3/4" FGHT x 3/4" MGHT	1

34-140118

Regulator, Assy, Sprayer



BOM ID	Name	Description	Qty
1	3EL1438	Elbow: 1/4"MPT x 3/8"HB Poly	1
2	EF-QC-A38	Fitting, 3/8"HB x QC	1
3	EF-QC-E34	Fitting, 3/4"Garden Hose x QC	1