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MASTER  
MANUFACTURING

PRECISION NO-BOOM



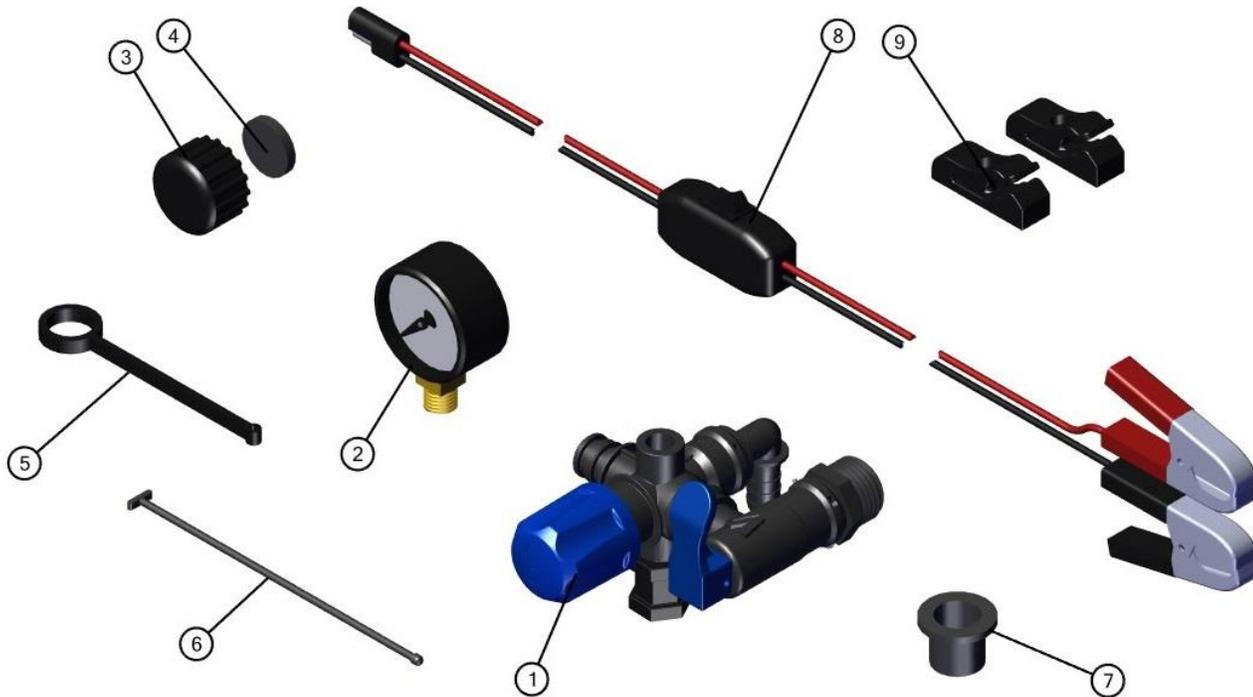
Part Number SSBK-PNB | Rev 3 Sep. 2018

Note: Do not return product to the distributor/dealer for warranty work.  
 Call Master Manufacturing at 320-340-6464 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 to 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.

### HARDWARE BAG CONTENTS



BOM ID	Description	Qty	Description
1	34-140158	1	REGULATOR, ASSY, SPRAYER, MINUS OUTLET
2	1124DAB100	1	GAUGE, 2" ABS, 1/4" LM 100PSI
3	33-103218	1	OUTLET CAP, 3/4" BLACK
4	33-103220	1	GASKET, 3/4" SUPERSEAL
5	33-103219	1	TETHER, DRAIN, SHORT, BLACK

BOM ID	Description	Qty	Description
6	33-103222	1	LANYARD, LID, SHORT, BLACK
7	33-100098	1	GROMMET, TOP HAT, BLACK, 3/4" HB, 1/2" HOSE
8	33-103233	1	HARNESS, WIRE, SWITCHED, 16GA, 10FT
9	GC-100-KIT	1	CLIP, GUN (PAIR)

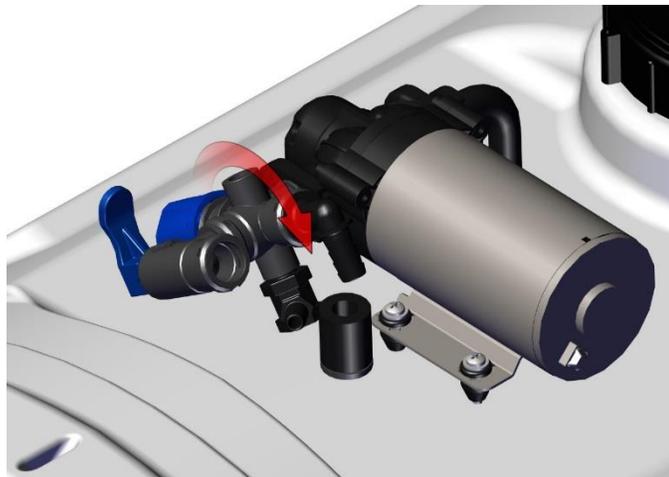
## ASSEMBLY

The Precision No-Boom 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 Precision No-Boom to a Master Manufacturing spot sprayer, lawn trailer, 3-point sprayer or ATV kit.

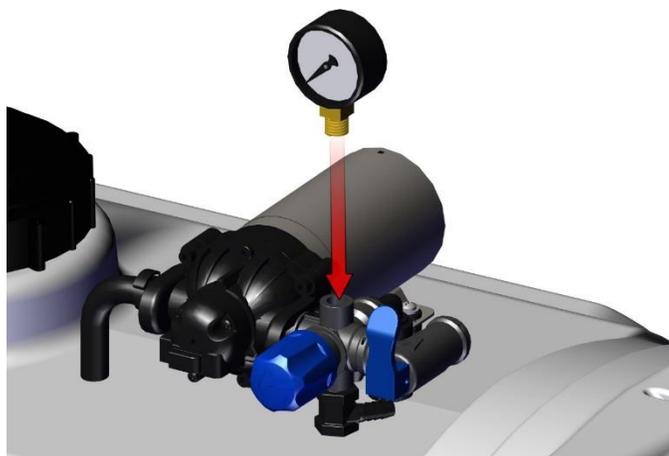


**Step 1:** Remove Spray Gun Hose from Pump. Using a flat blade screwdriver, push the Locking Clip back to release the fitting. Remove the Fitting from the Hose and discard, saving the Hose and Wand.

**Step 2:** Locate the Regulator Valve Assembly. Insert the Regulator into the Pump Outlet (as shown), making sure it is fully seated. Slide the Locking Clip into the locked position.

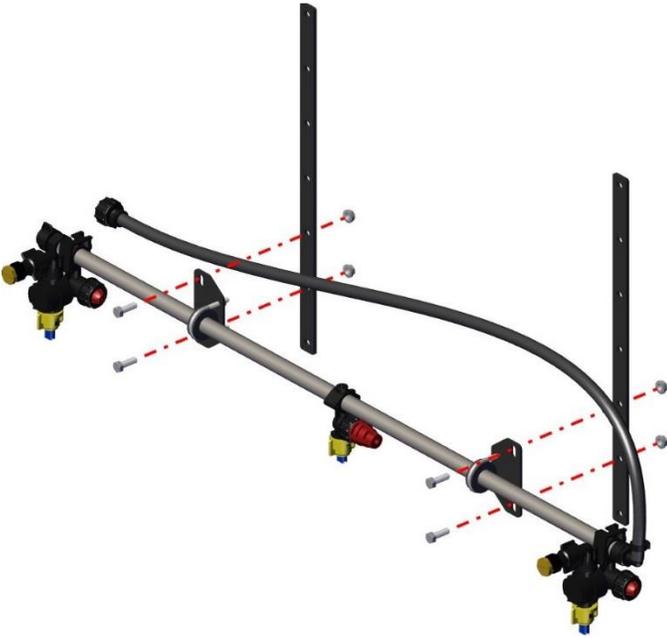


**Step 3:** Insert Regulator Return Fitting into the Return Line coming from the Tank. Use pliers to secure the Return Line with the F Size clamp.



**Step 4:** Screw the Pressure Gauge into the Valve Port on top of the Regulator. Make sure the Pressure Gauge is well seated but not overtightened, and that it will be facing you while operating.

**Step 5:** Attach Upright Brackets to the Boom Mount Brackets using the 5/16-18 X 1" bolts and 5/16-18 nuts. Leave nuts loose.

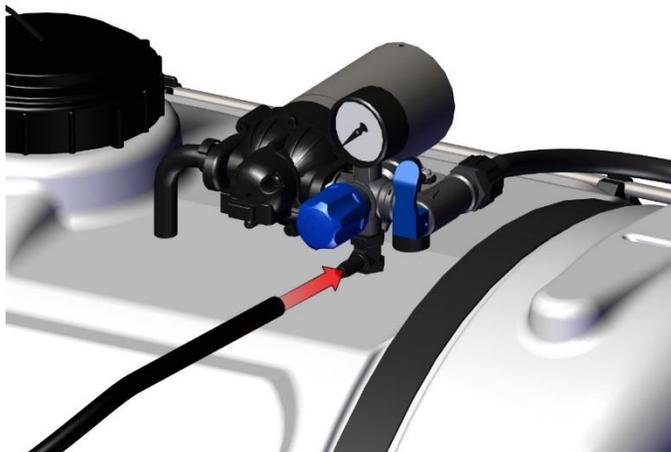


**Step 6:** Attach the Upright Brackets to your Spot Sprayer using 5/16-18 x 1" bolts and 5/16-18 nuts. Refer to the Operation section for proper mounting height. Tighten all the fasteners when proper height is located.

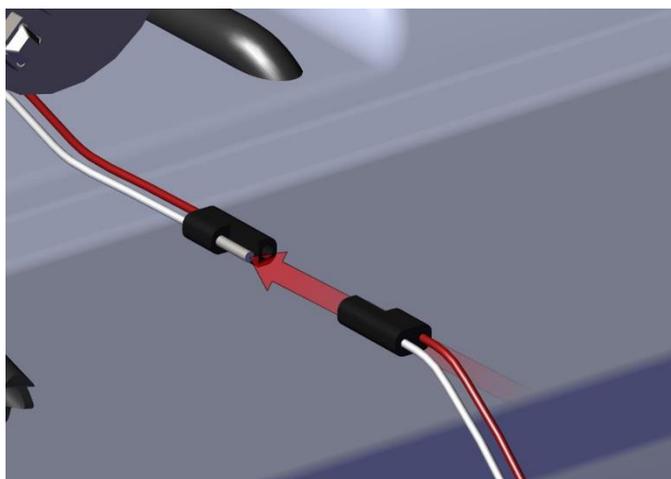


**Step 7:** Attach the Boom to the Boom Valve. Make sure the Rubber Washer (W406V) is in the end of the Boom Cap.





**Step 8:** Attach the Spray Gun Hose to the Outlet Port on the Regulator as shown. Use pliers to secure with F Size Clamp.



**Step 9:** Attach the Wiring Harness with Inline Switch to the Sprayer Pump by pushing the two terminal connectors together. Ensure that the Red and Black terminals are matched. Connecting the Wiring Harness backwards will cause the Pump to run backwards.

## OPERATION

### Using the boom nozzles

- 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.
  5. Boom height and spray pattern
- Refer to the chemical label to determine the chemical mixture.
- See the tip charts to determine the pressure, speed and rate of spray to be used for your application.
- Check the spray pattern with water only. Usually you can see the coverage better on a 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 14 inches from the ground when using the Flat Fan Nozzles and 36 inches for the Boomless Nozzles.

**Operation and Maintenance: Fan Spray Nozzles**

The Fan Spray Nozzles on the boom will spray an 58” wide swath, assuming a 50% overlap. The nozzle height should be approximately 13-14” above the object being sprayed.

Once you know how much you are going to spray, determine (from the tip chart) the spraying pressure (PSI) and the spraying speed (MPH).

When selecting pressure from the tip chart, it is a good idea to try for the 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.

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

PSI	NOZZLE CAPACITY		GALLONS/ACRES Recommended PSI = 30							
	GPM	Oz/Min	4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	10 MPH	12 MPH	14 MPH
30	0.26	33	19.3	15.4	12.9	11	9.7	7.7	6.4	5.5
40	0.30	38	22	17.8	14.9	12.7	11.1	8.9	7.4	6.4
50	0.34	44	25	20	16.8	14.4	12.6	10.1	8.4	7.2
60	0.37	47	27	22	18.3	15.7	13.7	11	9.2	7.8
70	0.40	51	30	24	19.8	17	14.9	11.9	9.9	8.5

*Figures are based on 20” nozzle spacing.*

**Operation and Maintenance: Boomless Spray Nozzles**

The Boomless Spray Nozzles on the boom will spray a 24’ wide swath. The nozzle height should be approximately 36” above the object being sprayed.

Once you know how much you are going to spray, determine (from the tip chart) the spraying pressure (PSI) and the spraying speed (MPH).

When selecting pressure from the tip chart, it is a good idea to try for the 30 PSI range as this allows an excellent nozzle pattern. 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.

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

PSI	NOZZLE CAPACITY		GALLONS/ACRES Recommended PSI = <b>30</b>							
	GPM	Oz/Min	4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	9 MPH	10 MPH	12 MPH
<b>30</b>	0.17	22	12.6	10.1	8.4	7.2	6.3	5.6	5	4.2
40	0.2	26	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5
50	0.22	28	16.3	13.1	10.9	9.3	8.2	7.3	6.5	5.4
60	0.24	31	17.8	14.3	11.9	10.2	8.9	7.9	7.1	5.9
75	0.27	34.8	20	16.1	13.4	11.5	10	8.9	8	6.6

## **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.

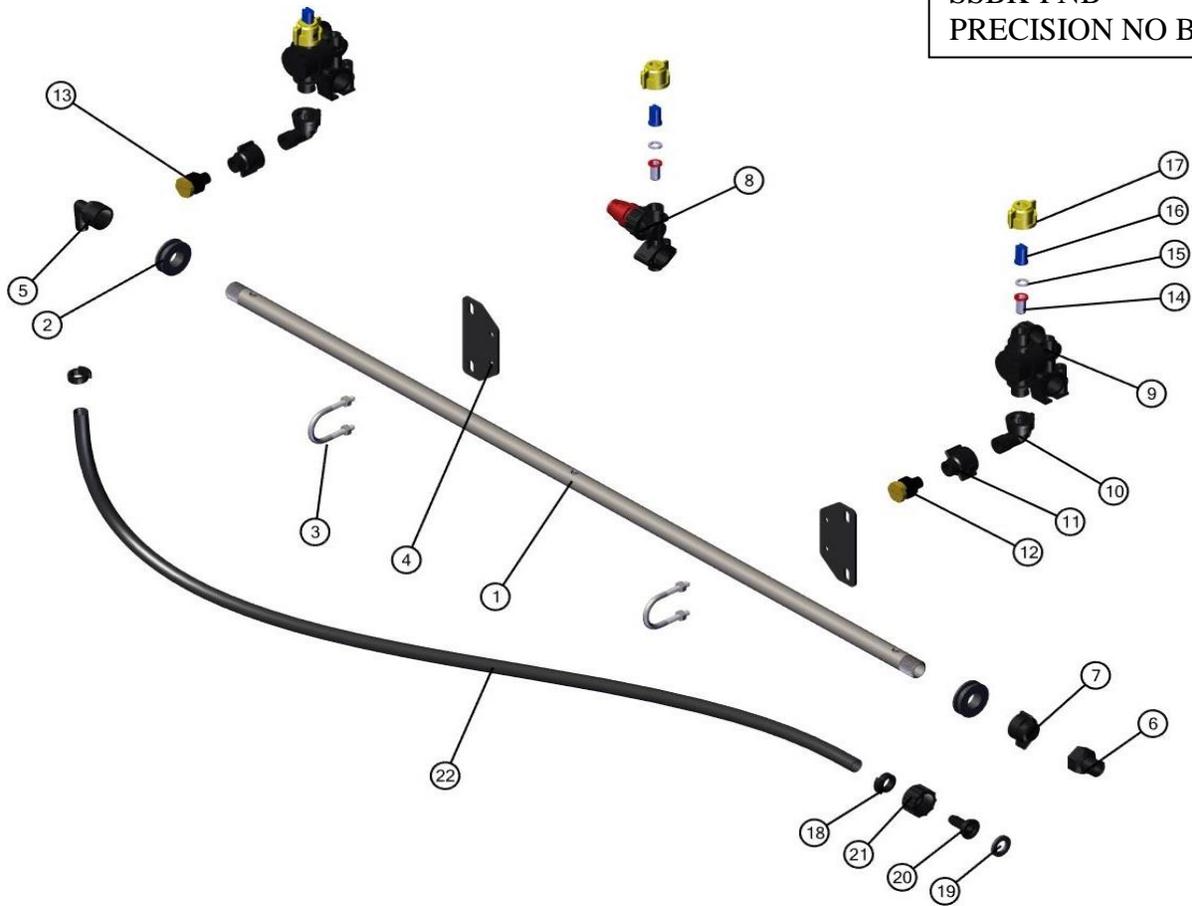
The following steps should be followed for the maintenance and storage of your sprayer.

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 320-340-6464. 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.

SSBK-PNB  
PRECISION NO BOOM



BOM ID	Qty	Part No	Description
1	1	G-8292017	STAINLESS SPRAY BOOM
2	2	33-103280	GROMMET, .75" ID, 1-1/4" OD, PNB
3	2	33-103279	U-BOLT, 1/4-20 X 1-1/4"ID X 2-1/4" LENGTH, 1-1/4" THREAD
4	2	31-100332	BRACKET, MOUNT, PNB
5	1	3EL12F	ELBOW: 1/2" FPT X 1/2" HB POLY
6	1	G-8294021	BOOM FLUSH FITTING
7	1	G-8253040	CAP & GASKET, SHUT OFF
8	1	G-8234007	NZL HOLDER, HINGED, 1/2"
9	2	G-8244190	NOZZLE BODY, DUAL
10	2	G-8230022	ELBOW, 90 DEG.
11	2	G-8253047	CAP & GASKET, ADAPTER, 1/4" FPT, BLACK
12	1	BN2BP088RSX	NOZZLE, NO-BOOM, BP, 088 RIGHT
13	1	BN2BP088LSX	NOZZLE, NO-BOOM, BP, 088 LEFT
14	3	NS-50	NOZZLE STRAINER, 50M RED
15	3	G-G00002020	GASKET FOR CAPS, EPDM
16	3	G-8259494	NOZZLE, FAN, 80 DEG, #6 (GREY)
17	3	G-T00100001	CAP ONLY, FITS FLAT SPRAY TIPS
18	2	SHC-H	SNAPPER HOSE CLIP, BLK
19	1	W406V	WASHER: 1"OD X 3/4" ID, BLACK VINYL
20	1	3C12	FLAT SEAT HOSE BARB: 3/8" HB
21	1	3B34	SWIVEL NUT, KNURLED 3/4" FGHT
22	1	33-103622-5	HOSE, RUBBER, EPDM, 1/2" ID X 5' LONG, 13/16" OD