# **OWNER'S MANUAL**

(Tank NOT Included with Boom Kit)

# Model: BK-120 (5300886)

(3-Nozzle Boom Assembly)

# **Technical Specifications**

- 3-Nozzle Boom Assembly (120" Spray Coverage)
- Corrosion-Resistant Nylon Nozzles
- Check Valve Strainers, 50 Mesh, 5 PSI

BEFORE RETURNING THIS PRODUCT FOR ANY REASON, PLEASE CALL **1-800-831-0027** 

IF YOU SHOULD HAVE A QUESTION OR EXPERIENCE A PROBLEM WITH YOUR FIMCO INDUSTRIES PRODUCT:

# 1-800-831-0027

BEFORE YOU CALL, PLEASE HAVE THE FOLLOWING INFORMATION AVAILABLE: SALES RECEIPT & MODEL NUMBER. IN MOST CASES, A FIMCO INDUSTRIES EMPLOYEE CAN RESOLVE THE PROBLEM OVER THE PHONE.



**WARNING:** To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

WARNING: Cancer and Reproductive Harm www.P65Warnings.ca.gov

Retain a copy of your receipt for your unit, as it will be required to validate any warranty service Products are warranted against manufacturer or workmanship defects for one year from date of purchase for home owner usage and 90 days for commercial usage.

For technical assistance, call: **TOLL FREE @ 1-800-831-0027** Our Technical Support Representatives will be happy to help you. To obtain prompt, efficient service, always remember to give the following information...

- Correct Part Description and/or part number
  - Model #/Serial # of your sprayer

Part descriptions and numbers can be obtained from the illustrated parts list section(s) of this manual.

# **General Information**

Thank you for purchasing this product. The purpose of this manual is to assist you in operating and maintaining your boom assembly.

## Assembly Instructions

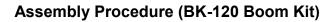
Remove the parts to the boom assembly from the carton. Refer to the parts list and exploded view drawing to help identify all the components.

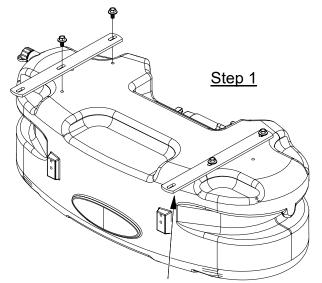
Follow the steps on pages 2 and 3 to properly assemble the sprayer.



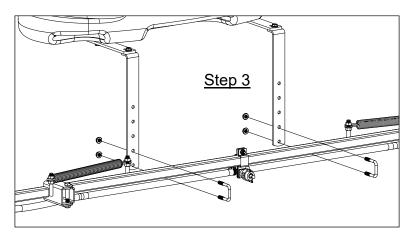
www.fimcoindustries.com

1000 FIMCO Lane, P.O. Box 1700, North Sioux City, SD 57049 Toll Free Phone: 800-831-0027 : Toll Free Fax: 800-494-0440 [5004460 (11/18)]





(\*\*) 'Long' portion of brackets should be facing towards the 'back' side of the tank (opposite of the pump/manifold assembly)



# <u>Step 1</u>

Normally, the sprayer will be mounted on an ATV with the pump assembly at the operator's back. Right Hand (RH) and Left Hand (LH) sides of the sprayer are determined as if you are standing behind the sprayer, looking at it (facing forward)

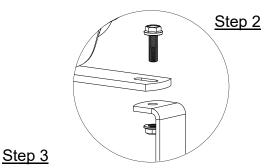
#### A 1/2" socket or wrench is required for this step.

(\*\*) Mount the tank-to-boom brackets to the underside of the tank as shown in Step 1. Use (4) bolts to secure to the tank. **Do not over-tighten.** 

After you have attached the brackets to the tank, place the sprayer onto the carrier rack of the ATV. Use your own hardware to secure the tank mount to the rack. Tie straps would work well, if you choose.

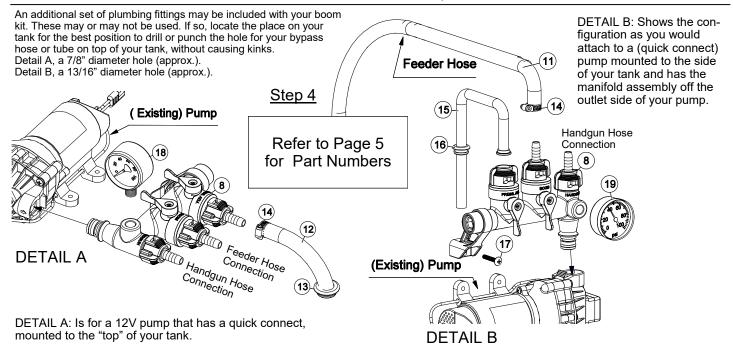
## Step 2

A 1/2" socket or wrench is required for this step. After you secure your sprayer to the ATV, attach the boom mount brackets to the tank-to-boom brackets. Secure in place using (2) bolts and (2) whiz nuts.

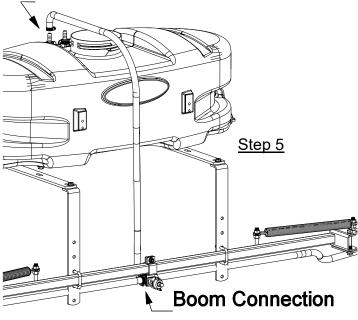


Center the boom onto your boom mounts and secure in place using (2) u-bolts and (4)whiz nuts .

The boom can be positioned as shown or in a few alternate positions.



# **Manifold Connection**



#### **Testing the Sprayer**

NOTE: It is VERY important for to test your sprayer with plain water before actual spraying is attempted. This will enable you to check for leaks without the possibility of losing any expensive chemicals.

Fill the tank about 1/2 full with plain water. When you are ready to spray, turn the boom valve to the "on" position. This will start solution spraying from the tips of the boom. The pressure will decrease slightly when the boom is spraying. Adjust the pressure by turning the "ON/OFF" valve lever on the bypass line valve.

Read the operating instructions and initially begin spraying by closing the 'bypass' valve and opening the boom line valve. This will enable the air in the line to be eliminated (purged) through all the tips, while building pressure. When everything tests all right (no leaks and good pressure), add the desired chemicals to the mixture and water combination and start your spraying operation. Adjust the pressure and spray as you did in the testing procedure.

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(s) before application!

#### Calibration

Chemical labels may show application rates in gallons per acre, gallons per 1000 square feet or gallons per 100 square feet. You will note that the tip chart shows all 3 of these rating systems. 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).

Determining the proper speed of the pulling vehicle can be done by marking off 100, 200 & 300 feet. The speed chart indicates the number of seconds it takes to travel the distances. Set the throttle and with a running start, travel the distances. Adjust the throttle until you travel the distances in the number of seconds indicated by the speed chart. Once you have reached the throttle setting needed, mark the throttle location so you can stop and go again, returning to the same speed.

Add water and proper amount of chemical to the tank and drive to the starting place for spraying.

### Step 5

After your boom is attached to the boom mount brackets, locate the 48" hose and the (2) hose clamps.

Place the hose clamps over each end of the hose loosely. Route the hose under or over the unit to the back end of the spraver. Slip the ends of the hose over the hose barb on the manifold and the 'CROSS' fitting on the nozzle harness.

Use a twisting motion, if necessary, to get the hose fully onto each barb. Bring the hose clamps to the connection points and tighten securely.

#### NOTE:

Make sure this boom feeder hose does not end up on the 'outside' of the spray wand hose (if applicable), otherwise unwrapping the spray wand hose from around the tank may be difficult.

#### 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 (mph) while spraying.
- \* Refer to the chemical label to determine your chemical mixture
- \* See the tip chart to determine the pressure to be used. The chart will also show the speed used when spraying.

#### Operation

Always fill the tank 1/2 full with water first and then add the chemical slowly, mixing as you pour the chemical into the tank and then fill the rest of the way. You may use the bypass in order to mix the chemical and water.

- Activate the handgun by squeezing the handle lever
- Rotating the adjustable nozzle tip on the handgun will change the tip pattern from a straight stream to a cone pattern (fine mist)

Speed Chart					
	Time Required in seconds to travel a distance of				
Speed in M.P.H. (Miles Per Hour)	100 Ft.	200 Ft.	300 Ft.		
1.0	68 sec.				
2.0	34	68	102		
3.0	23	45	68		
4.0	17	34	51		
5.0	14	27	41		
6.0	11	23	34		
7.0	9.7	19	29		
8.0	8.5	17	26		

#### **Maintenance During/After Spraying**

Periodically check the strainer and clean the screen on your intake line.

Proper care and maintenance will prolong the life of your sprayer.

After use, drain the tank and store or dispose of chemical properly. Fill the sprayer half way with clean water. Start the pump and allow the water to pump through the entire plumbing system and nozzles. Drain and then refill half full, add the recommended amount of a good quality tank cleaner, such as FIMCO Tank Neutralizer and Cleaner. (If no tank cleaner is available, you may substitute dish soap for this step, about 1-2 oz. per gallon). Turn pump on and circulate through system for 15 minutes and then spray out through boom and handgun nozzles. Refill sprayer half way with clean water and repeat. Follow the chemical manufacturer's disposal instructions of all wash or rinsing water.

If boom or handgun nozzles need cleaning, remove them from the sprayer and soak in warm soapy water. Clean with a soft bristled brush or toothpick if necessary. Never use a metal object. Even the slightest damage can change the flow rate and spray distribution. Water rinse and dry the tips before storing.

**WARNING:** Some chemicals will damage the pump valves if allowed to soak untreated for a length of time! ALWAYS flush the pump as instructed after each use. DO NOT allow chemicals to sit in the pump for extended times of idleness. Follow the chemical manufacturer's instructions on disposal of all waste water from the sprayer.

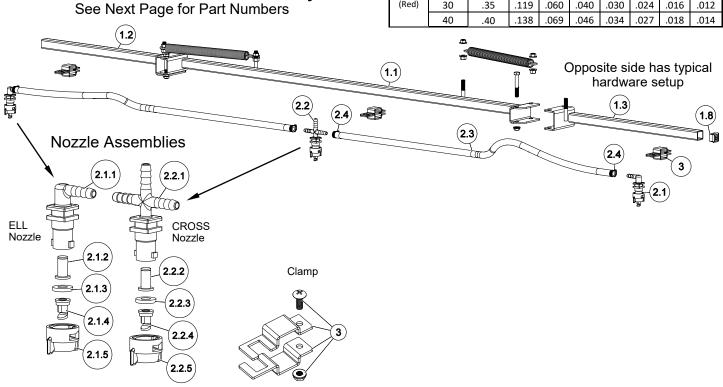
3-Nozzle Boom Assembly

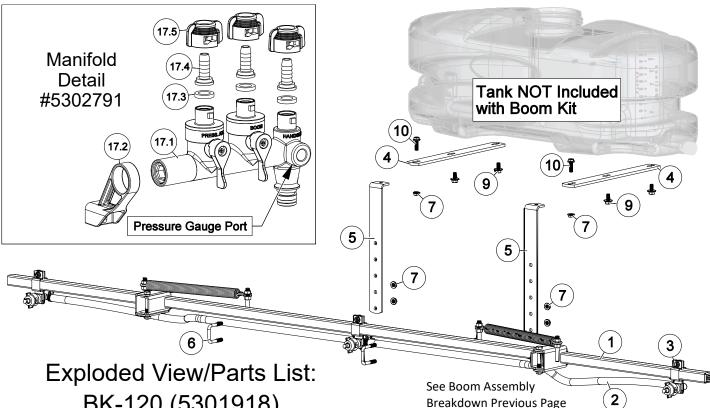
#### Winter Storage

Prepare the sprayer for end-of-season storage by running RV antifreeze through the system. This will keep internal parts lubricated, protect against corrosion and keep the unit from freezing. Note: RV antifreeze is non-toxic and biodegradable and generally safer for the environment than automotive antifreeze. Before storing your sprayer for winter or long term storage, thoroughly clean and drain it as much as possible. Then pour enough pink RV antifreeze into the tank so that when the pump is turned on you can pump the antifreeze throughout the entire plumbing system, including the bypass. Make sure to operate the boom and handgun until you see pink fluid spraying from the nozzles. Leave any remaining antifreeze in the tank. Before your next usage, rinse the antifreeze from the sprayer with clean water. It is nearly impossible to drain all of the water from the sprayer and any trapped water can freeze in cold weather and damage parts of the sprayer. Pumping the antifreeze through the system will displace the water and help prevent this damage.

Removing from storage: drain the antifreeze. Fill the tank with fresh water and run through the system. Dispose of antifreeze and flush water properly.

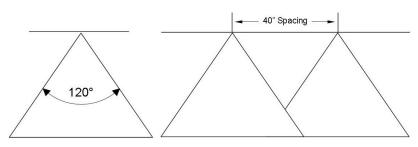
Tip Chart for TKT-VP2, TF-VP2 & 30DT2.0 Tips									
Tip	Pressure (psi)	Capacity (GPM)	Gallons Per Acre - Based on Water						
No. (Color)			1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	7.5 MPH	10 MPH
	10	.20	29.6	14.8	10.0	7.4	5.9	4.0	3.0
2 (Red)	20	.28	41.6	20.8	13.8	10.4	8.3	5.6	4.2
	30	.35	52.0	26.0	17.4	13.0	10.4	7.0	5.2
	40	.40	59.6	29.8	19.8	14.9	11.9	8.0	5.9
Tip No. (Color)	-		Gallons Per 1000 Sq. Ft Based on Water						
	Pressure Capacit (psi) (GPM)	Capacity (GPM)	1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	7.5 MPH	10 MPH
2 (Red)	10	.20	.677	.340	.225	.170	.135	.092	.069
	20	.28	.953	.478	.317	.239	.191	.129	.096
	30	.35	1.194	.597	.397	.298	.239	.158	.119
	40	.40	1.377	.689	.459	.342	.273	.181	.135
Tip	_		Gallons Per Acre - Based on Water						
No. (Color)		Capacity (GPM)	1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	7.5 MPH	10 MPH
	10	.20	.068	.034	.023	.017	.014	.009	.007
2 (Red)	20	.28	.095	.048	.032	.024	.019	.013	.010
	30	.35	.119	.060	.040	.030	.024	.016	.012
	40	.40	.138	.069	.046	.034	.027	.018	.014





BK-120 (5301918)

Ref. #	Part #	Description	
1	5277779	Boom Sub-Assembly (1" Sq. Tube)	1
1.1	5277838	Center Boom Weldment 1" Sq. Tube	1
1.2	5277834	Outer Boom Weldment 1" Sq. Tube L.H.	1
1.3	5277835	Outer Boom Weldment 1" Sq. Tube R.H.	1
1.4	5006345	3/8"-16 Flange Locknut	6
1.5	5006259	3/8"-16 Hex Nut	4
1.6	5019228	Extension Spring	2
1.7	5034169	H.H.C.S., 3/8"-16 x 2 1/2"	2
1.8	5046106	Square Cap, Black (1" Square Tube)	2
2	5277760	3-Nozzle Harness (BK-120)	1
2.1	5281305	"ELL" Nozzle Sub-Assembly (3/8")	2
2.1.1	5056113	Single Hose Shank (3/8" Hose)	1
2.1.2	5143543	Check Valve Strainer, 50 Mesh, 5 PSI	1
2.1.3	5016157	Seat Washer (QJ Caps)	1
2.1.4	5018272	Turbo FloodJet Tip (TF-VP2)	1
2.1.5	5046253	Quick TeeJet Cap ONLY (Red)	1
2.2	5281309	"Cross" Nozzle Sub-Assembly (3/8")	1
2.2.1	5056115	Triple Hose Shank (3/8" Hose)	1
2.2.2	5143543	Check Valve Strainer, 50 Mesh, 5 PSI	1
2.2.3	5016157	Seat Washer (QJ Caps)	1
2.2.4	5018272	Turbo FloodJet Tip (TF-VP2)	1
2.2.5	5046253	Quick TeeJet Cap ONLY (Red)	1
2.3	5020514	Hose, 3/8" - 1 Brd. x 43"	2
2.4	5051144	Hose Clamp, 3/8"	4



**Breakdown Previous Page** 

Ref. #	Part #	Description	Qty
3	5277923	Boom Clamp Assembly (1in Sq.)	3
4	5038505	Tank-to-Boom Bracket	2
5	5038506	Boom Mounting Bracket	2
6	5034159	Square U-Bolt, 5/16" x 1 5/16" x 1 7/8"	2
7	5006307	5/16"-18 Hex Whiz (Flange) Locknut	6
8	5302791	Quick Connect Manifold Assembly	1
8.1	5302347	Quick Connect Manifold	1
8.2	5143422	QC Manifold - Support Bracket	1
8.3	5143430	Flat Washer - Hose Barb Seal	3
8.4	5143431	QC Manifold - 3/8" Hose Barb - Straight	3
8.5	5143429	QC Manifold - QC Quarter Turn Cap	3
9	5034531	5/16"-18 x 5/8" Flange Lock Screw	4
10	5117300	5/16"-18 x 1" Flange Whiz Lock Screw	2
11	5020161	Hose, 3/8"-1 Brd. x 43"	1
12	5020532	Hose, 3/8"-1 Brd. x 7 1/4"	1
13	5075022	Grommet (5/8" I.D.)	1
14	5051144	Hose Clamp, 3/8"	3
15	5100803	Rigid By-Pass Tube Assembly	1
16	5075018	Grommet, 1/2" I.D.	1
17	5117168	#10-24 x 1" Truss Head Machine Screw	1
18	5167007	Pressure Gauge, 0-100 p.s.i.	1
19	5167097	2" Dry 100# Back Mount Gauge	1

Based on the minimum overlap required to obtain uniform distribution with 120° tips and 40" spacing. Suggested Minimum Spray Height: 18"-20" above what is being sprayed (to plant, not ground). Optimum Spray Height: 39"

Wide angle spray nozzle height is influenced by nozzle orientation. The critical factor is to achieve a minimum 30% overlap.

- Excellent spray distribution for uniform coverage • along the boom.
- Nozzle design incorporates a pre-orifice to produce larger droplets for less drift.

# Warranty

#### LIMITED WARRANTY FOR NEW FIMCO, IND. EQUIPMENT

WHO MAY USE THIS LIMITED WARRANTY. This limited warranty (the "Limited Warranty") is provided by Fimco, Ind. to the original purchaser ("you") of the Equipment (as defined below) from Fimco, Ind. or one of Fimco, Ind.'s authorized dealers. This Limited Warranty does not apply to any subsequent owner or other transferee of the Equipment. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

WHAT THIS LIMITED WARRANTY COVERS AND FOR HOW LONG. Fimco, Ind. warrants that any new Equipment will be free from defects in material and workmanship for a period of **one (1) year** (homeowner), **90 days** (commercial user), after delivery of the Equipment to you (the "Warranty Period"). The Warranty Period is not extended if Fimco, Ind. repairs or replaces the Equipment.

WHAT IS NOT COVERED BY THIS LIMITED WARRANTY. This Limited Warranty does not apply to: (1) used Equipment; (2) any Equipment that has been altered, changed, repaired or treated since its delivery to you, other than by Fimco, Ind. or its authorized dealers; (3) damage or depreciation due to normal wear and tear; (4) defects or damage due to failure to follow Fimco, Ind.'s operator's manual, specifications or other written instructions, or improper storage, operation, maintenance, application or installation of parts; (5) defects or damage due to misuse, accident or neglect, "acts of God" or other events beyond Fimco, Ind.'s reasonable control; (6) accessories, attachments, tools or parts that were not manufactured by Fimco, Ind., whether or not sold or operated with the Equipment; or (7) rubber parts, such as tires, hoses and grommets.

HOW TO OBTAIN WARRANTY SERVICE. To obtain warranty service under this Limited Warranty, you must (1) provide written notice to Fimco, Ind. of the defect during the Warranty Period and within **thirty (30)** days after the defect becomes apparent or the repair becomes necessary, at the following address: Fimco, Ind., 1000 Fimco Lane, North Sioux City, SD 57049; and (2) make the Equipment available to Fimco, Ind. or an authorized dealer within a reasonable period of time. For more information about this Limited Warranty, please call: **800-831-0027**.

WHAT REMEDIES ARE AVAILABLE UNDER THIS LIMITED WARRANTY. If the conditions set forth above are fulfilled and the Equipment or any part thereof is found to be defective, Fimco, Ind. shall, at its own cost, and at its option, either repair or replace the defective Equipment or part. Fimco, Ind. will pay for shipping and handling fees to return the repaired or replacement Equipment or part to you.

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