

innovation in irrigation™

NELSON

SRNV100 BIG GUN®

SRNV100 BIG GUN® OPERATION AND ADJUSTMENT INSTRUCTIONS

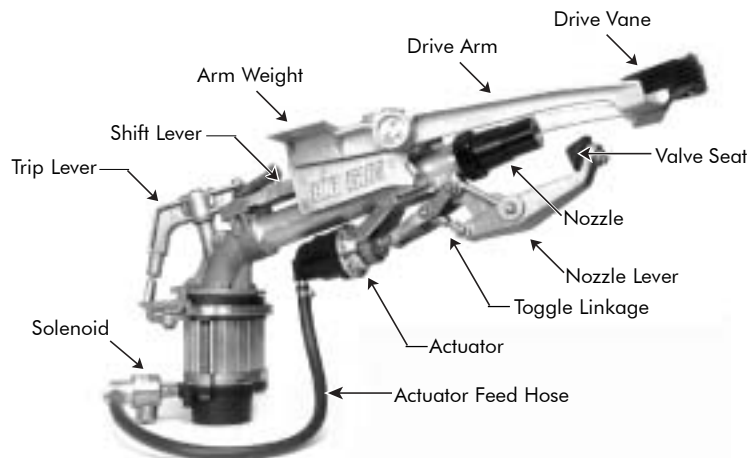
SET UP FOR OPERATION:

1. Install 100T taper bore nozzle or 100R ring nozzle. The SRNV100 is not designed to operate with the 100TR taper ring nozzle. If using the ring nozzle set, install desired ring size in the ring nozzle cap. The ring nozzle cap can be sufficiently tightened by hand. **NOTE:** If the 100R is used, it is supplied with the ring cap, part number 7872. If any other cap is used, the nozzle valve will not completely close.

2. To install the SRNV100, orient the lower unit so the solenoid or hose bracket will be located on the right when viewed from the rear of the Big Gun looking downstream.

3. Adjust location of stops to give desired arc of coverage. Stops must be mounted so that the arrows point toward each other and the trip lever is located between the arrows. If the stops are reversed on the wrong end of the arc then the Big Gun will fail to reverse.

4. The SRNV100 is factory set for normal rotation speed. If a faster or slower rotation speed is desired, move the arm weight backward for faster operation or forward for slower operation. The SR100 low pressure drive vane kit, part number 9857, is available to enhance the drive when operating in a nozzle range of .5"-.65" 100T and pressure below 60 psi. **NOTE:** If the SRNV100 is mounted on a tilted riser of 10 degrees (or 17% slope) or more, a 100CBK counter balance kit is recommended to prevent 'back-sliding' and improve proper rotation throughout the entire arc setting.



5. If installing the SRNV100E (with solenoid), connect the solenoid wires to the proper voltage source. Energizing the solenoid with the proper voltage results in the valve opening. If installing the SRNV100H hydraulically controlled (without solenoid), connect the actuator feed hose to the appropriate control pressure circuit. Application of hydraulic pressure (equal to or greater than SRNV100 base water pressure) to the actuator causes the nozzle valve to close. If actuator control pressure (line pressure) is approximately 20 psi or below, low pressure SRNV closure kit, part number 9924, is recommended to provide reliable operation.

6. Be sure the entire control system is operating properly and that the hydraulic fittings are securely installed. Failure to do so could prevent the nozzle valve from closing, possibly causing personal injury or property damage. Observe an entire opening-closing-opening cycle for proper operation.

WARNING!

1. Read operating instructions before operating sprinkler or making any adjustments.
2. Never make adjustments or perform service while sprinkler is in operation.
3. Stand clear of high velocity water stream.
4. Never direct water stream onto roadway or electrical transmission lines.
5. Stay clear of nozzle valve linkage during operation. High clamping forces exist.
6. Stand clear of sprinkler during operation. Abrupt water spray exists during opening and closing of valve.
7. To avoid injury or damage, check for proper operation of control system before using nozzle valve.

WARRANTY AND DISCLAIMER

Nelson Big Gun® Sprinklers are warranted for one year from date of original sale to be free of defective materials and workmanship when used within the working specifications for which the product was designed and under normal use and service. The manufacturer assumes no responsibility for installation, is limited solely to replacement or repair of defective parts, and the manufacturer will not be liable for any crop or other consequential damages resulting from any defects or breach of warranty. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES AND OF ALL OTHER OBLIGATIONS OR LIABILITIES OF MANUFACTURER. No agent, employee or representative of the manufacturer has authority to waive, alter or add to the provisions of the warranty, nor to make any representations or warranty not contained herein. This product may be covered by one or more of the following U.S. Patent Numbers 3,744,720 and 3,559,887 and other U.S. Patents pending or corresponding issued or pending foreign patents.

item	part number	description	qty.
1	8506	Nut, 7/16-14 UNC	1
2	8469	Valve Seat Assembly	1
3	8510	Nozzle Lever Assembly	1
4	6124	Cotter Pin, 3/32" x 3/4"	8
5	7263	Pivot Pin	1
6	6110	Flat Washer	AR
7	6110-001	Flat Washer (Thick)	AR
8	7264	Lower Toggle Pin	1
9	7265	Upper Toggle Pin	1
10	7719	Linkage Assembly	1
11	7297	Actuator Pin	1
12	7296	Jam Nut	1
13	7797	Washer	1
14	7276	Actuator Assembly	1

PROBLEM: Nozzle stopper (valve seat) continues to leak when closed.

SOLUTION: 1. Adjust valve seat to assure even contact on nozzle seal surface.

- Disconnect actuator pin (11).
- Loosen the valve seat locking nut (1).
- Rotate lever assembly (3) to closed position and hold valve seat (2) lightly against nozzle seal surface. Adjust valve seat (2) by rotating the stopper in or out as required to achieve full contact with the nozzle seal surface.
- Tighten the locking nut (1).

2. Adjust linkage to assure adequate closure force.

- Adjust linkage assembly at 'A' so that 12-15 pounds force is required to push link 'B' against closure stop (disconnect and reconnect lower toggle pin (8) during adjustment as required to check closure).
- Reconnect actuator pin (11).

PROBLEM: Nozzle stopper won't clear stream when open.

SOLUTION: Adjust actuator position to assure complete opening.

- Loosen jam nut (12).
- Hold nozzle lever (3) in the fully open rest position.
- Rotate actuator assembly (14) toward main elbow until rest buttons contact and all play is removed from the linkage. Rotate further as needed until drain hole and hose fitting port are oriented to the bottom.
- Tighten jam nut (12).

Insert #6110 &/or #6110-001 washers as required to center valve seat on nozzle seal surface while maintaining .010-.040" free play between nozzle lever and main bracket.

NOTE: Check free play with lever rotated slightly away from fully open position to avoid potential interference between lever ribs "E" & unmachined areas of bracket ribs "F".

