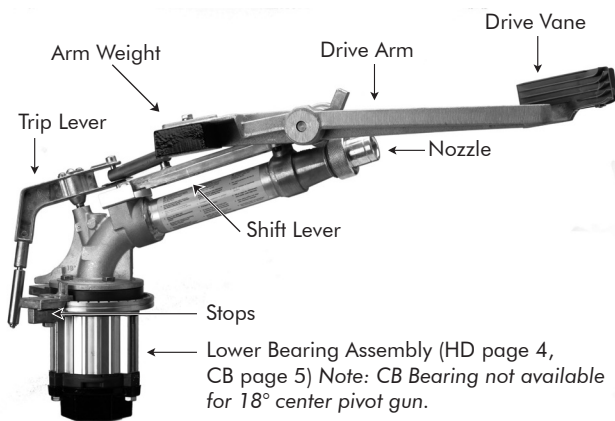


## SR75 BIG GUN® OPERATION & MAINTENANCE INSTRUCTIONS

### SET UP FOR OPERATION:

1. Install desired Taper Ring size in ring nozzle cap. The ring nozzle cap can be sufficiently tightened by hand.
2. Adjust location of stops to give desired arc of coverage. Stops must be mounted so that arrows point toward each other and trip lever is located between arrows. If the stops are set incorrectly on the wrong end of the arc, the sprinkler will fail to reverse.



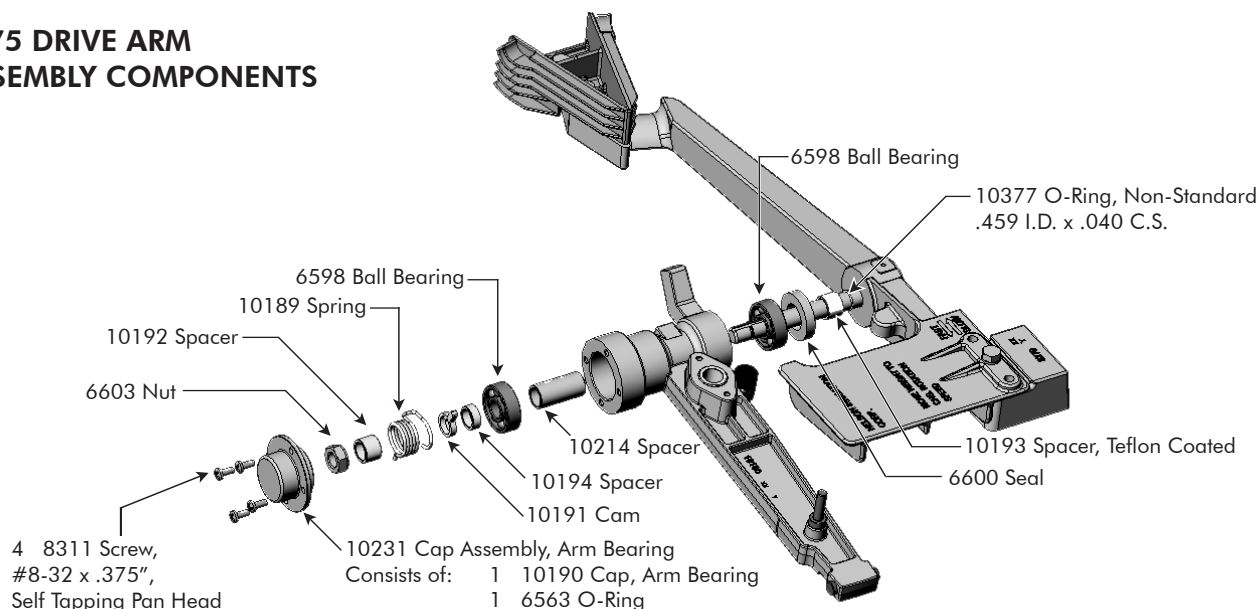
### NOTE ON LUBRICATION:

The SR75 sprinkler is lifetime lubricated and does not require periodic lubrication. The ball bearings in the HD lower bearing operate in a water resistant lubricant that is packed in the housing cavities and retained by seals. If repair of the lower bearing is done, it is recommended to use Nelson #6143 lubricant or a good grade of water resistant lubricant such as Lubriplate 130-AA.

The **SR75** is available in fixed trajectory angles of **18°, 21°, 24°, 43°**

**CAUTION:** Read operating instructions before operating sprinkler or making any adjustments. Never make adjustments or perform service while sprinkler is in operation. Stand clear of operating sprinkler. Stand clear of high velocity water stream. Never direct water stream onto roadway or electrical transmission lines.

### SR75 DRIVE ARM ASSEMBLY COMPONENTS

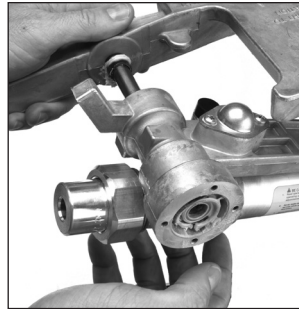


SEE FRONT FOR DRIVE ARM ASSEMBLY COMPONENTS / SEE SR75 PARTS LIST FOR COMPLETE PARTS LIST AND DESCRIPTIONS

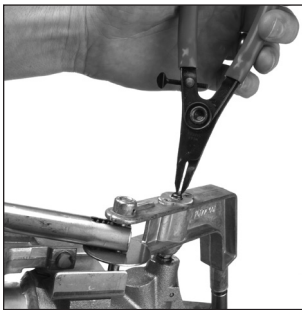
## DISASSEMBLY



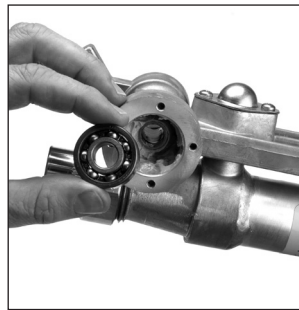
**STEP 1 (Trip Lever)**  
 Remove two #8311 screws and #10185 cap.



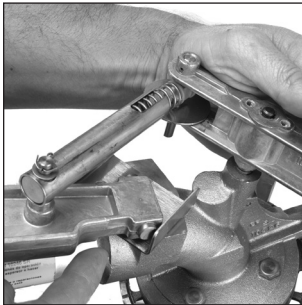
**STEP 6**  
 Holding the range tube, pull drive arm from the right side until it is free from hub.



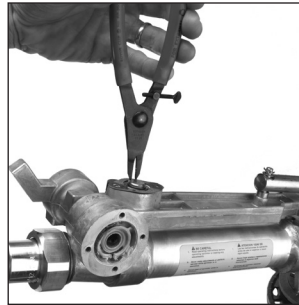
**STEP 2**  
 Using small retaining ring pliers, remove #8323-201 ring.



**STEP 7**  
 Inspect both left and right #6598 ball bearings. Replace if worn or corroded. Inspect #6600 seals as well. Lubricate seal with silicon grease prior to reassembly.



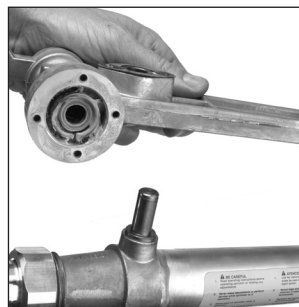
**STEP 3**  
 Remove one #8311 screw from the shift stop bracket. Rotate the trip lever to pull follower from spring guide. Pull entire trip lever assembly from gun. Inspect wear on the #8282 follower and #8193 pin.



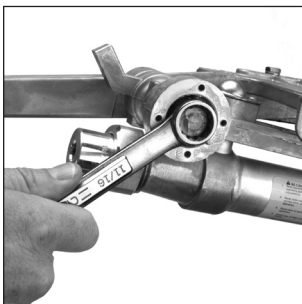
**STEP 8 (Shift Lever)**  
 Remove two #8311 screws and the #10364 cap. Using retaining ring pliers, remove #8323-212 ring.



**STEP 4 (Drive Arm)**  
 Remove four #8311 screws. Remove #10231 cap.



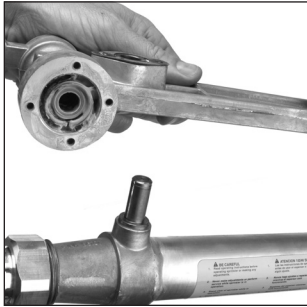
**STEP 9**  
 Pull #10226-004 shift lever from mount. Inspect the mount shaft and shift lever bushing for wear.



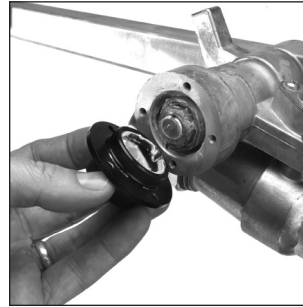
**STEP 5**  
 Using an 11/16" socket, remove the #6603 nut from left side of arm.

SEE FRONT FOR DRIVE ARM ASSEMBLY COMPONENTS / SEE SR75 PARTS LIST FOR COMPLETE PARTS LIST AND DESCRIPTIONS

## REASSEMBLY



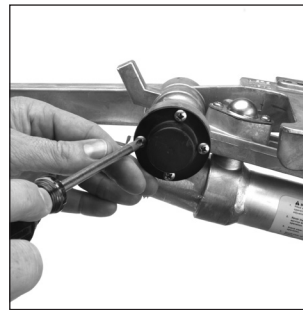
**STEP 1 (Shift Lever)**  
 Slide #10226-004 shift lever onto mount. Snap the #8323-212 retaining ring onto the mount. Replace the #10364 cap and the two #8311 screws.



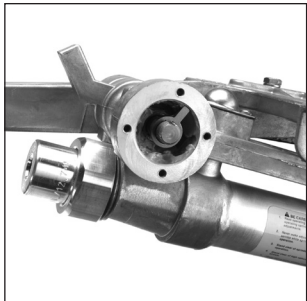
**STEP 6**  
 Replace the #10231 cap making sure that the notch on the #10231 engages the spring tab on the #10189.



**STEP 2 (Drive Arm)**  
 Assure the #10377 O-ring and #10193 spacer is on the drive arm shaft. Push the shaft all the way into the right arm hub. From the left side slide onto the arm shaft, in sequence, the #10214 spacer, #6598 bearing, #10194 spacer, #10191 cam.



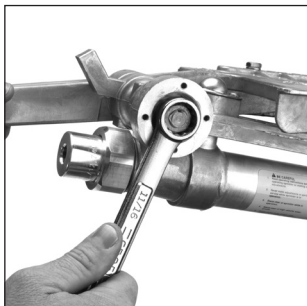
**STEP 7**  
 Replace the 4 #8311 screws. Make sure the drive arm rotates freely and returns to its at-rest position.



**STEP 3**  
 Make sure the #10191 cam is correctly keyed into the slot on the drive arm shaft. Notice the correct orientation of the finger on the cam for proper arm operation.



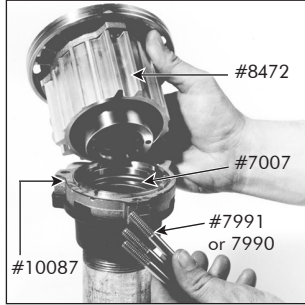
**STEP 4**  
 Continue the sequence of sliding onto the drive arm shaft the #10192 spacer and the #10189 spring. Notice the hook end of the spring goes in first so the spring wire loops around the finger of the #10191 cam.



**STEP 5**  
 Thread on #6603 nut. Torque to 25 ft. lbs. using the 11/16" socket (metric torque = 34 NM or 3.5 MKG). Replace the lubricant.

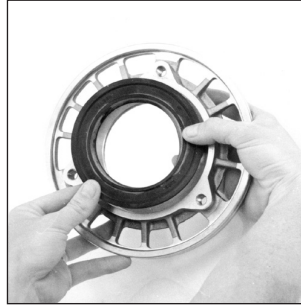
SEE SR75 PARTS LIST FOR PARTS INFORMATION

## DISASSEMBLY (HD LOWER UNIT)



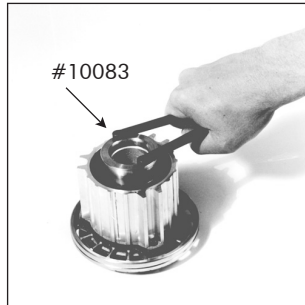
### STEP 1

Remove three #7990 or #7991 bolts from flange. Separate #8472 housing from #10087 Spacer Assembly. Remove #7007 O-Ring from #10087 Spacer Assembly.



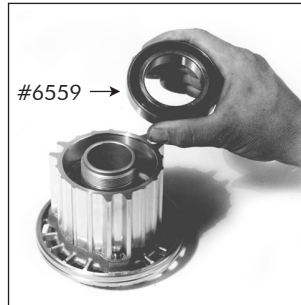
### STEP 2

Place #6997 Lip Seal into #6858 cover as shown with Nelson name toward ball bearing. Pack #6559 Bearing with #6143 lubricant or equivalent. (See "Notes on Lubrication" on the front cover.) Press bearing into #6858 Cover. Slide cover assembly onto bearing shaft. CAUTION: Do not get grease on brake surfaces. To clean plastic brake, use soap and water (solvents may damage plastic). Clean #6858 cover with acetone.



### STEP 2

The #10083 Retainer Assembly is removed by using spanner wrench. To hold the #7031 Shaft Assembly from rotating insert two 5/16-18 bolts (#6635) into shaft top. Clamp bolt heads into a vise securely. Remove retainer and #8472 Housing from bearing shaft.



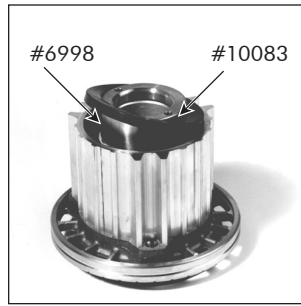
### STEP 3

Assemble #6566 Gasket. Press on #8472 Housing. Fully pack housing with #6143 Lubricant. Assemble #6559 Bearing into housing.



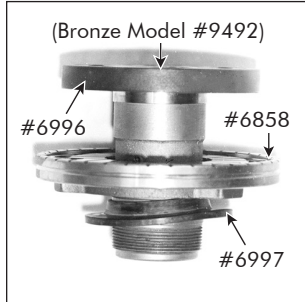
### STEP 3

Remove the #6998 Seal. To remove the two #6559 Bearings use a hammer and three blocks of wood. Lightly tap uniformly around inner race of bearing until removed. Bearings are removed from opposite sides of the #8472 Housing.



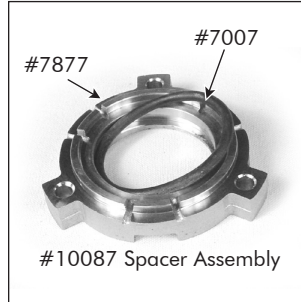
### STEP 4

Install #6999 O-Ring in #7003 Retainer and assemble retainer on shaft. Using method described in disassembly (Lower Unit) instructions Step 2, secure bearing shaft from rotating. Torque Retainer to 95-110 ft. lbs. Apply a light coating of #9673 Silicone Grease to O.D. of Retainer. Assemble #6998 Lip Seal. Orient with lip side out. Metric Torque = 129-149 NM or 13-15 MKG.



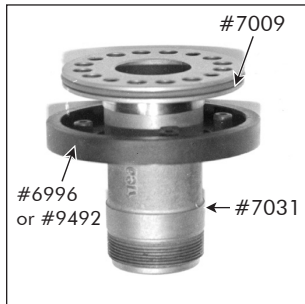
### STEP 4

Remove #6585 Cover from shaft. Remove #6997 Seal from cover. Remove #6996 Brake Ring and #7009 Dust Seal from shaft.



### STEP 5

Fully coat #7007 O-Ring with #9673 Silicone Grease & #9680 Graphite. Install prepared O-Ring into #7877 Spacer and mount onto assembly.



## REASSEMBLY (HD LOWER UNIT)

### STEP 1

Assemble #7009 Dust Seal onto #7031 Shaft Assembly. Slide #6996 Brake Ring onto shaft. Locate the four studs of the brake ring in the center holes between the smaller threaded holes.



### STEP 6

Assemble #8967 O-Ring into the Flange Adapter. Mount Flange Adapter using required Bolts. Torque Bolts to 130-150 inch pounds.

SEE SR75 PARTS LIST FOR PARTS INFORMATION

## DISASSEMBLY (CB LOWER UNIT)



### STEP 1

Remove three #6010 screws. Remove 10088-xxx Flange Assembly Connection.



### STEP 6

Remove the #6996 Brake Ring from the #10696 Adapter Assembly. Inspect all parts for wear and replace as required.



### STEP 2

To prevent the #10696 Adapter assembly from rotating insert two 5/16-18 bolts into the adapter's threaded holes. Clamp bolt heads securely into a vice.



### STEP 7

Remove three #10706 screws.



### STEP 3

Place a .25" thick by 2.25" wide piece of steel in the slot of the #10719 Nipple Bearing. Remove the #10719 Nipple Bearing by holding the piece of steel with a wrench and slowly unthreading from the #10696 Adapter Assembly.



### STEP 8

Remove the #10698 Wear Ring. Inspect the Wear Ring for wear and replace as required.



### STEP 4

Remove #10719 Nipple Bearing, #10701 Washer and #10699, #10700 and #10705 Seals. Inspect all parts for wear and replace as required.



### STEP 9

Remove the #6997 Upper Seal. Inspect the seal for wear and replace as required.



### STEP 5

Remove #10717 Housing Assembly from the #6996 Brake Ring and #10696 Adapter Assembly. Inspect Sleeve Bearing #10717 for wear and replace as required.

SEE SR75 PARTS LIST FOR PARTS INFORMATION

## REASSEMBLY (CB LOWER UNIT)



### STEP 1

Slide the #6996 Brake Ring on to the #10696 Adapter Assembly. Each lug on the #6996 should slide into the middle hole between any two-threaded holes.



### STEP 4

To prevent the #10696 Adapter assembly from rotating insert two 5/16-18 bolts into the adapter's threaded holes. Clamp bolt heads securely into a vice.



### STEP 2

Insert #6996 Brake Ring and #10696 Adapter Assembly into #10717 Housing Assembly.



### STEP 5

Place a .25" thick by 2.25" wide piece of steel in the slot of the 10719 Nipple Bearing. Reassemble the 10719 Nipple Bearing by holding the piece of steel with a wrench and slowly tightening into the 10696 Adapter Assembly to a torque of 90 ft-lbs.



### STEP 3

Insert #10719 Nipple Bearing, #10701 Washer and #10699, #10700 and #10705 Seals into Assembly. Start threading the #10719 Nipple bearing into the #10696 Adapter Assembly by hand.



### STEP 6

Place #6010 screws into #10088-xxx Flange Assembly Connection and tighten.

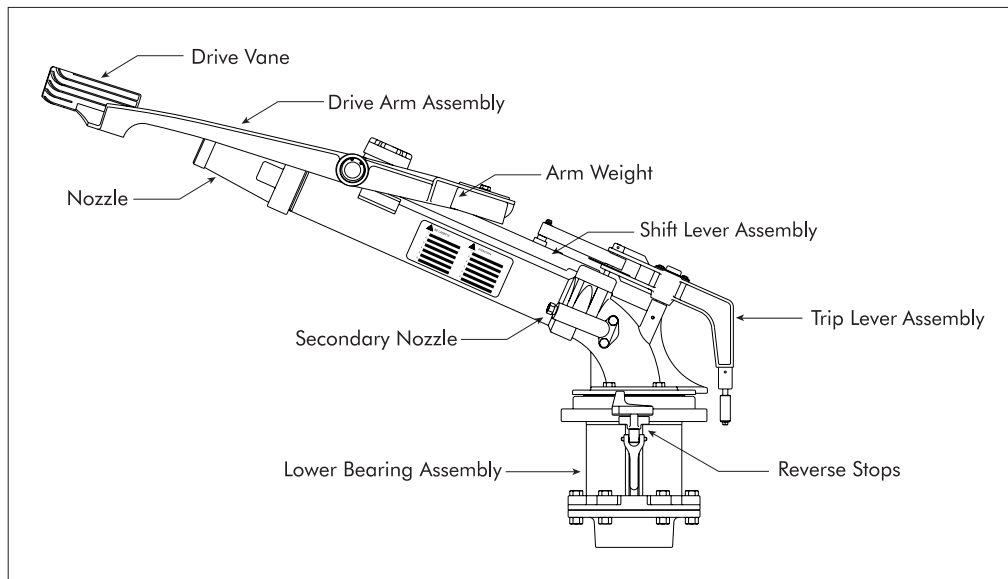
**WARRANTY AND DISCLAIMER:** Nelson Big Gun® Sprinklers are warranted for one year from date of original sale to be free of defective materials and workmanship when used within the working specifications for which the products were designed and under normal use and service. The manufacturer assumes no responsibility for installation, removal or unauthorized repair of defective parts. The manufacturer's liability under this warranty 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 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 this 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 Nos. D297,453, 3,559,887, 3,744,720, 4,193,548, 4,669,663 and other U.S. Patents pending or corresponding issued or pending foreign patents.

innovation in irrigation™

**NELSON**

# SR100 BIG GUN®

## SR100 BIG GUN® OPERATION AND MAINTENANCE INSTRUCTIONS



### SET UP FOR OPERATION:

1. Install nozzle. If using ring nozzle set, install desired ring size in ring nozzle cap. The ring nozzle cap can be sufficiently tightened by hand.

If using the **100 DN** ring nozzle, **correct orientation** is important. For reliable sprinkler operation, be sure to orient the ring with the correct side out and the "up" at the top of the nozzle. Incorrect orientation can result in failure of sprinkler to drive.

2. Adjust location of reverse stops to give desired arc of coverage. Stops must be mounted so that arrows point toward each other and the trip lever is located between arrows. If the stops are set incorrectly on the wrong end of the arc, the sprinkler will fail to reverse.
3. The SR100 is factory set for normal rotation speed. If a faster or slower speed is desired, move arm weight backward for faster operation or forward for slower operation.

**NOTE ON LUBRICATION:** The Big Gun® sprinkler is lifetime lubricated and does not require periodic lubrication. The ball bearings in the H.D. lower bearing operate in a water resistant lubricant that is packed in the housing cavities and retained by seals. If repair of the lower bearing is done, it is recommended to use Nelson #6143 lubricant or a good grade of water resistant lubricant such as Lubriplate 130-AA.

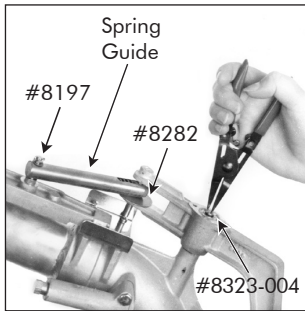
**BE CAREFUL:** Read operating instructions before operating sprinkler or making any adjustments. Never make adjustments or perform service while sprinkler is in operation. Stand clear of operating sprinkler. Stand clear of high velocity water stream. Never direct water stream onto roadway or electrical transmission lines.

### WARRANTY AND DISCLAIMER

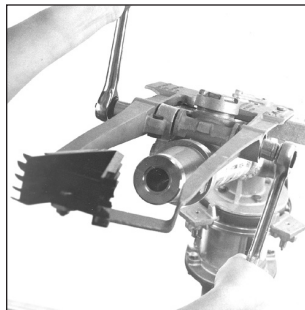
Nelson Big Gun® Sprinklers are warranted for one year from date of original sale to be free of defective materials and workmanship when used within the working specifications for which the product was designed and under normal use and service. The manufacturer assumes no responsibility for installation, 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 provision of the warranty, nor to make any representations or warranty not contained herein.

SEE SR100 PARTS LISTS FOR COMPLETE PARTS LIST AND DESCRIPTION

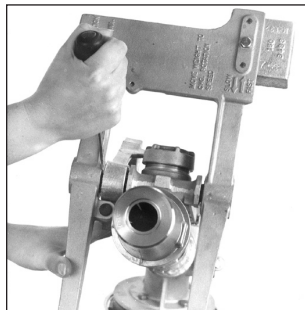
## DISASSEMBLY



**STEP 1 (Trip Lever)**  
 Remove #6714 Cotter Pin from #8197 Pin. Remove two #8311 Screws and #8263 Cap. Using small retaining ring pliers, remove #8323-004 Retaining Ring. Pull entire trip lever assembly and spring guide from gun. At this time inspect wear on #8282 Follower. Replace if worn.



**STEP 2 (Drive Arm)**  
 Using internal retaining ring pliers, remove #6565 Retaining Ring from both arm hubs. Remove two #10067-001 Arm Caps. Using two 11/16" sockets, loosen and remove one #6603 Nut from left side of arm. Holding the opposite #6603 Nut, pull shaft free from hub.



**STEP 3**  
 Using a thin-bladed screwdriver, push #8327-001 Spacer back into arm hub. Holding onto counterweight, remove drive arm and counterweight. Be careful not to damage seals.



**STEP 4 (Counterweight)**  
 Inspect seal spacer and counterweight spacer for wear. If spacers show excessive wear, replace both spacers and #6600 Seals. To remove seals, drive thin-bladed screwdriver under lip of seal and pry seal out. To replace seals, use block of wood over seal making sure lip is to the outside, and secure by lightly tapping on wooden block until seal lip is flush with hub. Apply a light coating of #9673 Silicone Grease to #6600 Seal Lips.

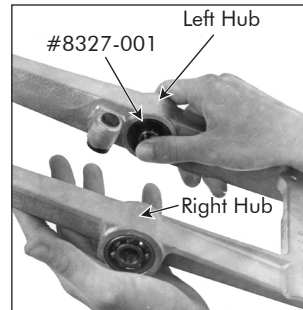


**STEP 5 (Shift Lever)**  
 Remove #10070-001 Cap Assembly. Using external retaining ring pliers, remove #8323-017 Retaining Ring. Pull Shift lever from mount. A gear puller will help in removing the lever. Inspect all parts for wear and replace as required.

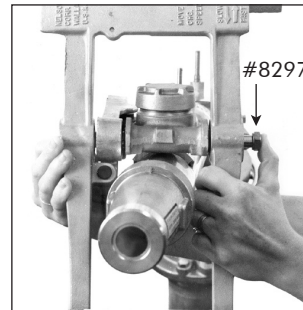
## REASSEMBLY



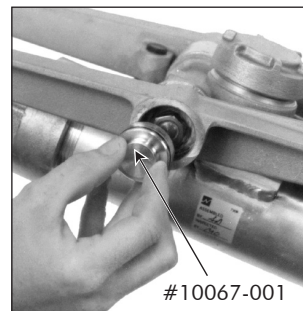
**STEP 6**  
 At the upper portion of the gun, inspect the mount shaft for wear. Press the #8325 Shift Lever assembly onto the mount. With external retaining ring pliers, snap the #8323-017 Retaining Ring on. Screw on #10070-001 Cap Assembly.



**STEP 7 (Drive Arm)**  
 Lubricate #6600 Seal lips with #9673 Silicone Grease. Install #8327-001 Spacer flush with #6600 Seal in left arm hub. Insert two #6607-001 conical Spacers into seals on inside of counterweight and right drive arm hub. Start #8297 Shaft into right arm hub.



**STEP 8**  
 Holding counterweight in place on the left side of shift lever, roll drive arm into position shown by pushing on the left arm bearing. Work #8327-001 Spacer into seal on counterweight. Be sure spacer is correctly positioned in counterweight to prevent cutting of the seal lip. Push shaft through the bearings and spacers and assemble #6603 Nut. Torque to 25 ft. lbs. using two 11/16" sockets. (Metric Torque = 34 NM or 3.5 MKG.)



**STEP 9**  
 Fill two #10067-001 Arm Cap Assemblies with #6143 Grease and snap into place. Install two #6565 Retaining Rings. Arm must have free movement at this point. If arm feels sticky, assure that lip seals at counterweight and right arm hub are not rubbing on each other.

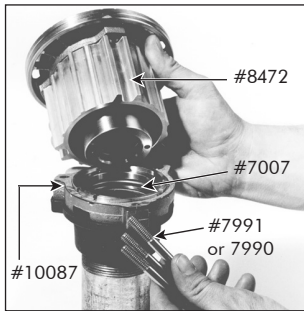


**STEP 10 (Trip Lever)**  
 Mount trip lever assembly along with spring guide onto their respective pins. Install #8323-004 Retaining Ring. Install #8263 Cap using two #8311 Screws. Install #8409 Washer and #6714 Cotter Pin onto spring guide.



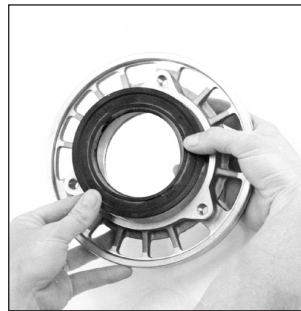
SEE BACK PAGE FOR PARTS LIST

## DISASSEMBLY (LOWER UNIT)



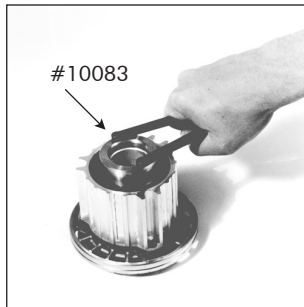
### STEP 11

Remove three #7990 or #7991 bolts from flange. Separate #8472 housing from #10087 Spacer Assembly. Remove #7007 O-Ring from #10087 Spacer Assembly.



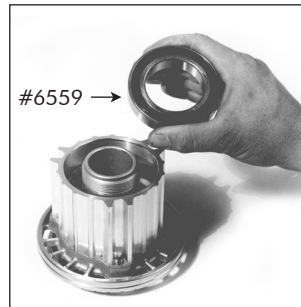
### STEP 16

Place #6997 Lip Seal into #6858 cover as shown with Nelson name toward ball bearing. Pack #6559 Bearing with #6143 lubricant or equivalent. (See "Notes on Lubrication" on the front cover.) Press bearing into #6858 Cover. Slide cover assembly onto bearing shaft. CAUTION: Do not get grease on brake surfaces. To clean plastic brake, use soap and water (solvents may damage plastic). Clean #6858 cover with acetone.



### STEP 12

The #10083 Retainer Assembly is removed by using spanner wrench. To hold the #7031 Shaft Assembly from rotating insert two 5/16-18 bolts (#6635) into shaft top. Clamp bolt heads into a vise securely. Remove retainer and #8472 Housing from bearing shaft.



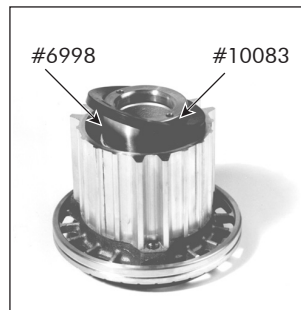
### STEP 17

Assemble #6566 Gasket. Press on #8472 Housing. Fully pack housing with #6143 Lubricant. Assemble #6559 Bearing into housing.



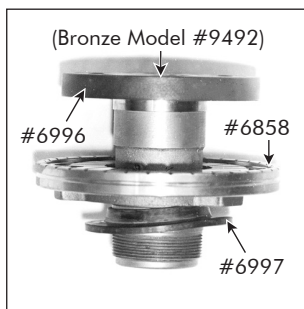
### STEP 13

Remove the #6998 Seal. To remove the two #6559 Bearings use a hammer and three blocks of wood. Lightly tap uniformly around inner race of bearing until removed. Bearings are removed from opposite sides of the #8472 Housing.



### STEP 18

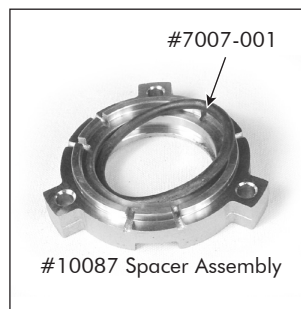
Install #6999 O-Ring in #7003 Retainer and assemble retainer on shaft. Using method described in disassembly (Lower Unit) instructions Step 12, secure bearing shaft from rotating. Torque Retainer to 95-110 ft. lbs. Apply a light coating of #9673 Silicone Grease to O.D. of Retainer. Assemble #6998 Lip Seal. Orient with lip side out. Metric Torque = 129-149 NM or 13-15 MKG.



### STEP 14

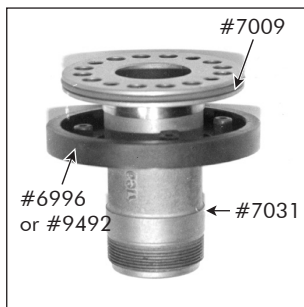
Remove #6585 Cover from shaft. Remove #6997 Seal from cover. Remove #6996 Brake Ring and #7009 Dust Seal from shaft.

Inspect all parts for wear and replace as required.



### STEP 19

Install 7007-001 O-Ring into Spacer and mount onto assembly.



## REASSEMBLY (LOWER UNIT)

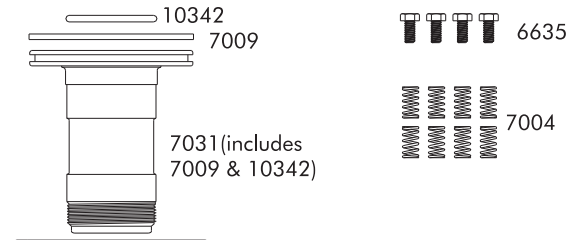
### STEP 15

Assemble #7009 Dust Seal onto #7031 Shaft Assembly. Slide #6996 Brake Ring onto shaft. Locate the four studs of the brake ring in the center holes between the smaller threaded holes.

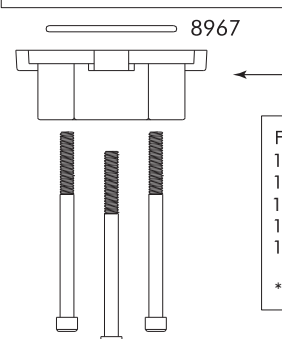
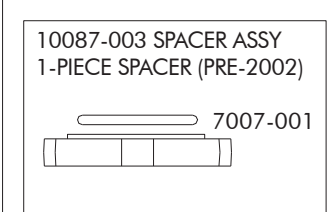
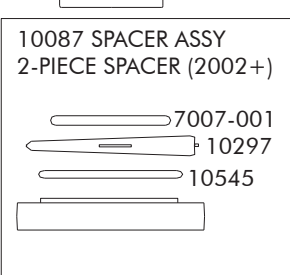
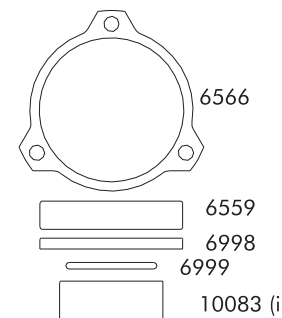
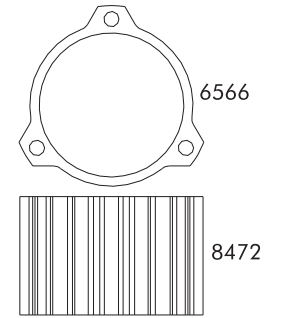
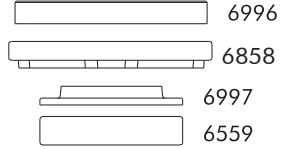


### STEP 20

Assemble #8967 O-Ring into the Flange Adapter. Mount Flange Adapter using required Bolts. Torque Bolts to 130-150 inch pounds.



| BEARING ASSEMBLY NOS. |                      |
|-----------------------|----------------------|
| 7273                  | 2" FNPT              |
| 7277                  | 2.5" FNPT            |
| 7292                  | 2" FBSP              |
| 7753                  | NELSON FLANGE        |
| 9814                  | ANSI/DIN/EURO FLANGE |



| Flg. Assy.** | Connection         | (3) Screws |
|--------------|--------------------|------------|
| 10086        | Nelson Flg.        | 7006       |
| 10088-001    | 2" FNPT            | 7990       |
| 10088-002    | 2.5" FNPT          | 7991       |
| 10088-003    | 2" FBSP            | 7990       |
| 10137-001    | ANSI/DIN/EURO Flg. | 7006       |

\*\* The Flange Assemblies include O-Ring 8967.

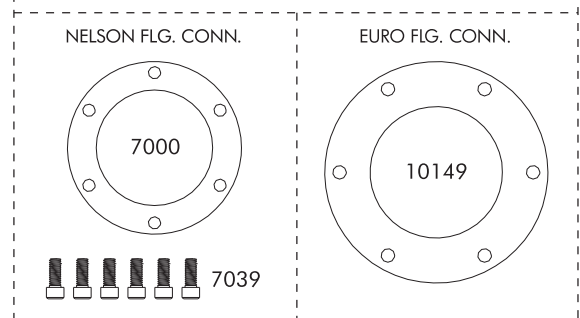
### BEARING ASSEMBLY, SR100

| part number | description                             | qty. |
|-------------|---|------|
| 6559        | Bearing, Ball, 50 x 80 x 16mm           | 2    |
| 6566        | Gasket, Housing - HD100                 | 2    |
| 6635        | Screw, .3125-18 x 688" Hex Hd. Cap      | 4    |
| 6858        | Cover, Part Circle - HD100              | 1    |
| 6996        | Ring, Brake - HD100                     | 1    |
| 6997        | Seal, Upper - HD100                     | 1    |
| 6998        | Seal, Center - HD100                    | 1    |
| 6999        | O-Ring, -224                            | 1    |
| 7004        | Spring, Brake - HD100                   | 8    |
| 7006        | Screw, .3125-18 x 3.50" Hex Skt Hd Cap  | 3    |
| 7007-001    | O-Ring, -331, Special, Externally Lubed | 1    |
| 7009        | Seal, Dust - HD100                      | 1    |
| 7031        | Shaft Assembly - HD100                  | 1    |
| 7990        | Screw, .3125-18 x 4.25" Hex Hd Cap      | 3    |
| 7991        | Screw, .3125-18 x 4" Hex Skt Hd Cap     | 3    |
| 8472        | Housing - HD100                         | 1    |
| 8967        | O-Ring -231, Special                    | 1    |
| 10083       | Retainer Assembly - HD100               | 1    |
| 10086       | Flange Assembly, Nelson                 | 1    |
| 10087       | Spacer Assy, Alum. - HD100              | 1    |
| 10087-003   | Spacer Assy, Brass - HD100              | 1    |
| 10088-001   | Flange Assembly, 2" FNPT                | 1    |
| 10088-002   | Flange Assembly, 2.5" FNPT              | 1    |
| 10088-003   | Flange Assembly, 2" FBSP                | 1    |
| 10137-001   | Flange Assembly, 2" ANSI/DIN/EURO       | 1    |
| 10297       | Retainer, O-Ring - HD100                | 1    |
| 10342       | O-Ring, -225                            | 1    |
| 10545       | O-Ring, -149                            | 1    |

### MOUNTING HARDWARE

| part number | description                           | qty. |
|-------------|---------------------------------------|------|
| 7000        | Gasket, Nelson Flange                 | 1    |
| 7039        | Screw, .3125-18 x .75" Hex Skt Hd Cap | 6    |
| 10149       | Gasket, Euro Flange                   | 1    |

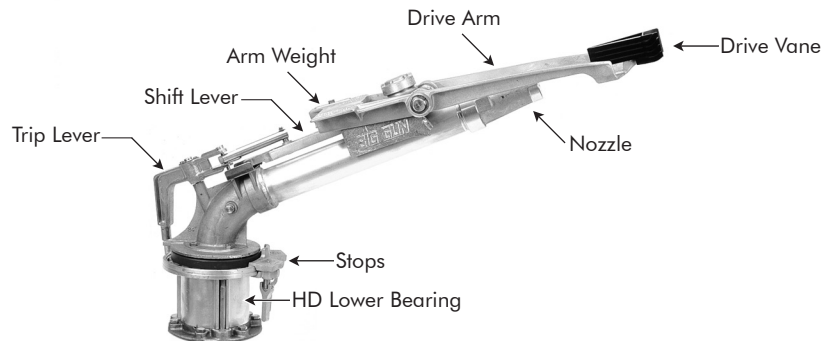
### FLANGE GASKET AND FASTENERS FOR MOUNTING GUN



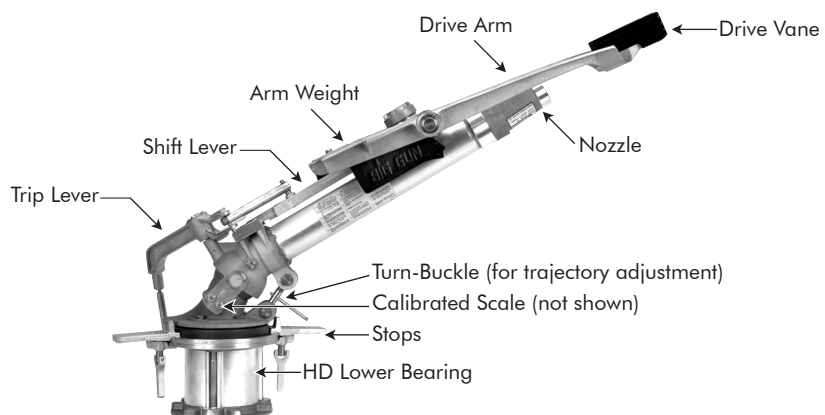
innovation in irrigation™

**NELSON****SR/SRA150 BIG GUN®****SR/SRA150 BIG GUN® OPERATION AND MAINTENANCE INSTRUCTIONS****SET UP FOR OPERATION:**

1. Install nozzle. If using ring nozzle set, or taper ring nozzle, install desired ring size in ring nozzle cap. Assure the ring is centered. The ring nozzle cap can be sufficiently tightened by hand.
2. Adjust location of arc stops to give desired arc of coverage. Stops must be mounted so that arrows point toward each other and the trip lever is located between arrows. If the stops are set incorrectly on the wrong end of the arc, the sprinkler will fail to reverse.
3. The SR150 and SRA150 are factory set for normal rotation speed. If a faster or slower speed is desired, move arm weight backward for faster operation or forward for slower operation.
4. To vary the trajectory angle of the SRA150 simply adjust the turn-buckle and dial in the desired trajectory using the calibrated scale. Varying trajectory angle is simple, and can be used to increase wind-fighting ability or to avoid obstacles such as power lines in the field.



The **SR150** is available in fixed trajectory angles of **21°, 24°, 27°** and **43°**. A trajectory modification using a 12° wedge kit #11237 is available.



The **SRA150** is a variable trajectory model with adjustability from **15-45°**.

**NOTE ON LUBRICATION:** The SR/SRA150 sprinkler is lifetime lubricated and does not require periodic lubrication. The ball bearings in the H.D. lower bearing operate in a water resistant lubricant that is packed in the housing cavities and retained by seals. If repair of the lower bearing is done, it is recommended to use Nelson #6143 lubricant or a good grade of water resistant lubricant such as Lubriplate 130-AA.

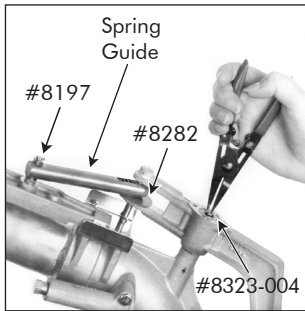
**BE CAREFUL:** Read operating instructions before operating sprinkler or making any adjustments. Never make adjustments or perform service while sprinkler is in operation. Stand clear of operating sprinkler. Stand clear of high velocity water stream. Never direct water stream onto roadway or electrical transmission lines.

**WARRANTY AND DISCLAIMER**

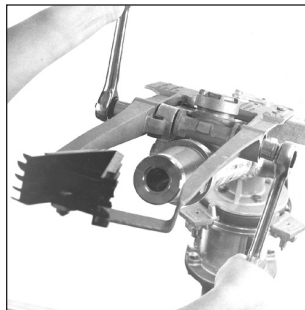
Nelson Big Gun® Sprinklers are warranted for one year from date of original sale to be free of defective materials and workmanship when used within the working specifications for which the product was designed under normal use and service. The manufacturer assumes no responsibility for installation, is limited solely to replacement or repair of defective parts, and the manufacturer will not be liable for any crops 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 provision of the warranty, nor to make any representations or warranty not contained herein.

SEE SR/SRA150 PARTS LISTS FOR COMPLETE PARTS LIST AND DESCRIPTION

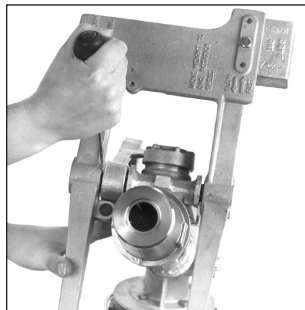
## DISASSEMBLY



**STEP 1 (Trip Lever)**  
 Remove #6714 Cotter Pin from #8197 Pin. Remove two #8311 Screws and #8263 Cap. Using small retaining ring pliers, remove #8323-004 Retaining Ring. Pull entire trip lever assembly and spring guide from gun. At this time inspect wear on #8282 Follower. Replace if worn.



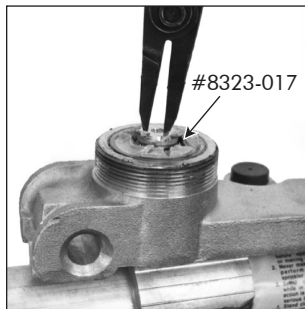
**STEP 2 (Drive Arm)**  
 Using internal retaining ring pliers, remove two #6565 Retaining Rings from both arm hubs. Remove two #10067-001 Arm Caps. Using two 11/16" sockets, loosen and remove one #6603 Nut from left side of arm. Holding the opposite #6603 Nut, pull shaft free from hub.



**STEP 3**  
 Using a thin-bladed screwdriver, push #8327-001 Spacer back into arm hub. Holding onto counterweight, remove arm and weight. Be careful not to damage seals.

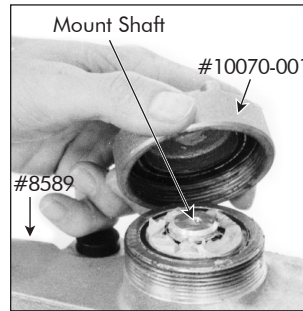


**STEP 4**  
 Inspect seal spacer and counterweight spacer for wear. If spacers show excessive wear, replace both spacers and #6600 Seals. To remove seals, drive thin-bladed screwdriver under lip of seal and pry seal out. To replace seals, use block of wood over seal making sure lip is to the outside, and secure by lightly tapping on wooden block until seal lip is flush with hub.

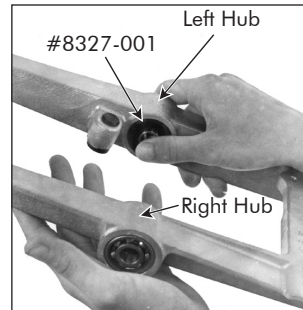


**STEP 5**  
 Remove #10070-001 Cap Assembly. Using external retaining ring pliers, remove #8323-017 Retaining Ring. Pull Shift lever from mount. A gear puller will help in removing the lever.

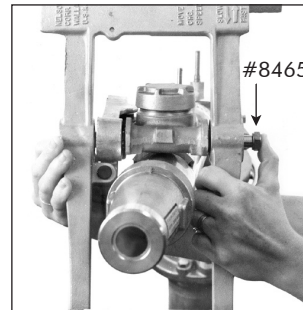
## REASSEMBLY



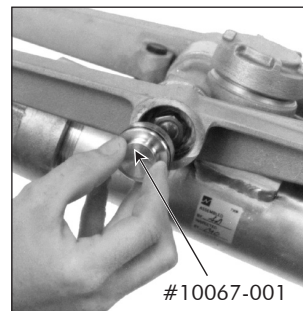
**STEP 6 (Shift Lever)**  
 At the upper portion of the gun, inspect the mount shaft for wear. Press the #8589 Shift Lever assembly onto the mount. With external retaining ring pliers, snap the #8323-017 Retaining Ring on. Be sure #8272 Cap Gasket is in place and in good condition. Replace #10070-001 Cap Assembly



**STEP 7 (Drive Arm)**  
 Lubricate #6600 Seal lips with #9673 Silicone Grease. Install #8327-001 Spacer flush with #6600 Seal in left arm hub. Insert #6607-001 (coated spacer) in right arm hub and #6607 (uncoated spacer) in left counterweight seal (or a second #6607-001 coated spacer). Start #8297 Shaft into right arm hub.



**STEP 8**  
 Holding counterweight in place on the left side of shift lever, roll drive arm into position shown by pushing on the left arm bearing. Work #8327-001 Spacer into seal on counterweight. Be sure spacer is correctly positioned in counterweight to prevent cutting of the seal lip. Push shaft through the bearings and spacers and assemble #6603 Nut. Torque to 25 ft. lbs. using two 11/16" sockets.



**STEP 9**  
 Snap in two #10067-001 Arm Cap Assemblies. Install two #6565 Retaining Rings. Arm must have free movement at this point. If arm feels sticky, assure that lip seals at counterweight and right arm hub are not rubbing on each other.



**STEP 10**  
 Mount trip lever assembly along with spring guide onto their respective pins. Install #8323-04 Retaining Ring. Install #8263 Cap using two #8311 Screws making sure #8265 gasket is in place. Install #8409 Washer and #7814 Cotter Pin onto spring guide.

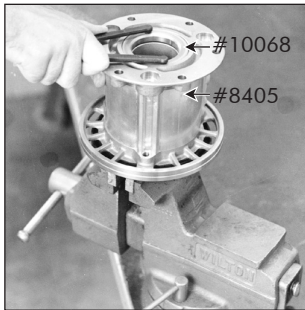
SEE BACK PAGE FOR PARTS LIST

## DISASSEMBLY (LOWER UNIT)



### STEP 11

After removing bearing from gun, insert two 5/16-18" #8408 Bolts into shaft top. Clamp bolt heads into a vise securely. Remove three #8462 Bolts (or #10153-001 for ANSI/DIN).



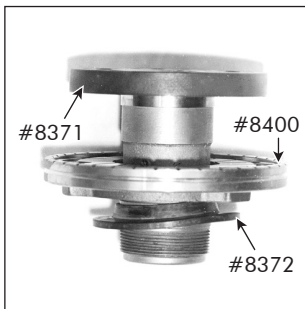
### STEP 12

The #10068 Retainer Assembly is removed by using a spanner wrench with unit still bolted into vise. NOTE: An extension handle on the spanner wrench may be needed to loosen the retainer. Remove retainer and flange, and slide #8405 Housing from bearing shaft.



### STEP 13

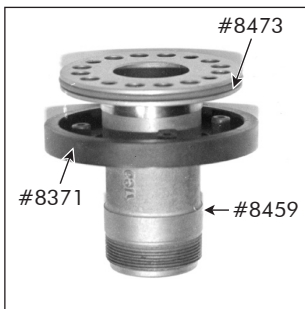
Remove the #8373 Seal. To remove the two #6253 Bearings use a hammer and three blocks of wood. Lightly tap uniformly around inner race of bearing until removed. Bearings are removed from opposite sides of the #8405 Housing.



### STEP 14

Remove #8400 Cover from shaft. Remove #8372 Seal from cover. Remove #8371 brake ring and #8473 dust seal from shaft.

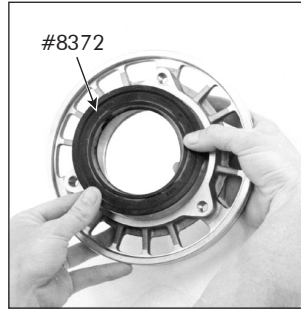
Inspect all parts for wear and replace as required.



### STEP 15

Assemble #8473 Dust Seal onto #8459 Shaft Assembly. Slide #8371 Brake Ring onto shaft. Locate the four studs of the brake ring in the center holes between the smaller threaded holes.

## REASSEMBLY (LOWER UNIT)



### STEP 16

Place #8372 Lip Seal into #8400 cover as shown with Nelson name toward ball bearing. Pack #6253 Bearing with #6143 lubricant or equivalent. (See "Notes on Lubrication" on the front cover.) Press bearing into #8400 Cover. Slide cover assembly onto bearing shaft. CAUTION: Do not get grease on brake surface.



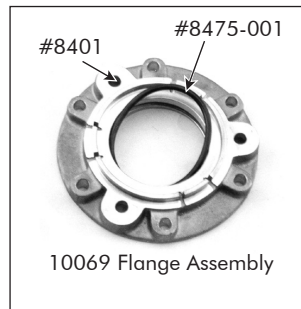
### STEP 17

Assemble #8461 Gasket. Press on #8405 Housing. Fully pack housing with #6143 Lubricant. Assemble #6253 Bearing into housing.



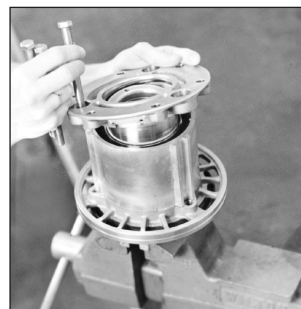
### STEP 18

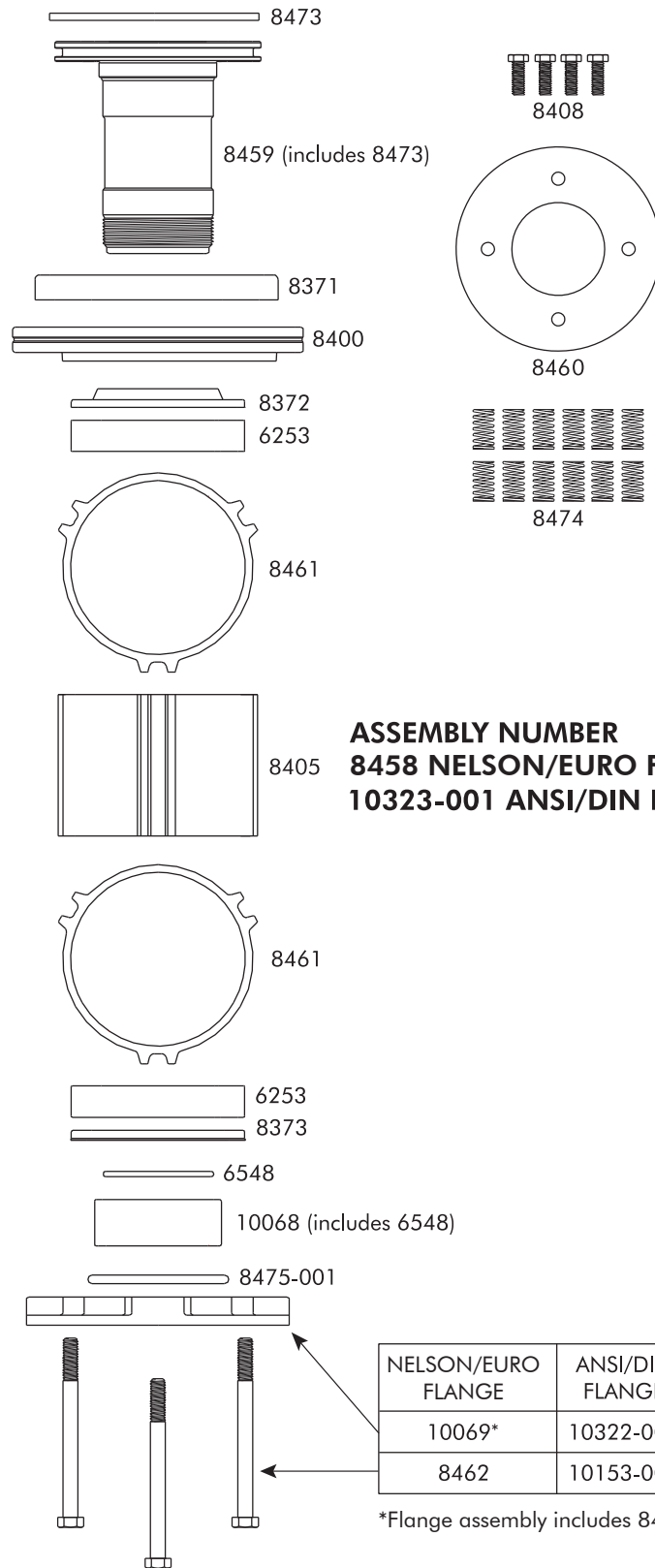
Install #6548 O-Ring in #8402 Retainer and assemble retainer on shaft. Using method described in disassembly (Lower Unit) instructions Step 12, secure bearing shaft from rotating. Torque on #10068 Retainer Assembly to 100-120 ft. lbs. Assemble #8373 Lip Seal. Orient with lip side out.



### STEP 19

Assemble #8461 Gasket. Install #8475-001 O-Ring in #8401 Flange and mount onto assembly using three #8462 Bolts. Torque bolts to 130-150 in. lbs.





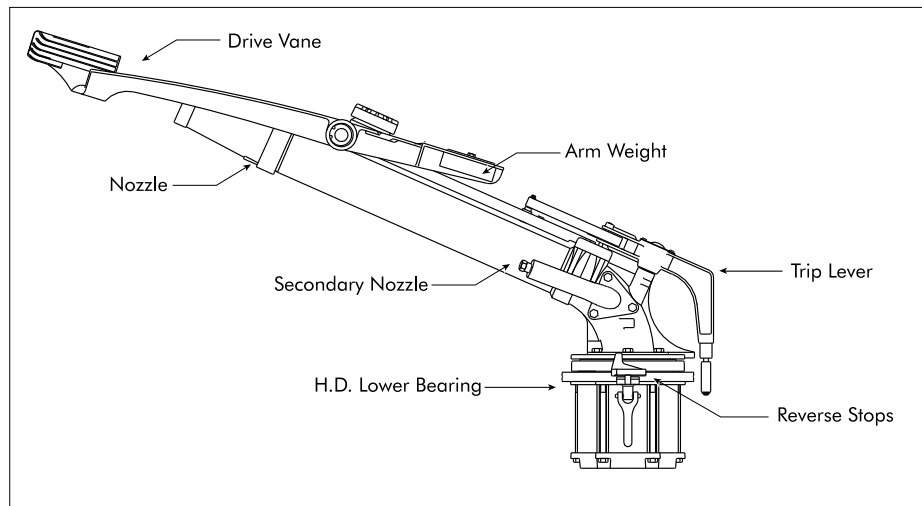
**ASSEMBLY NUMBER**  
**8458 NELSON/EURO FLG. CONN.**  
**10323-001 ANSI/DIN FLG. CONN.**

| NELSON/EURO FLANGE | ANSI/DIN FLANGE |
|--------------------|-----------------|
| 10069*             | 10322-001*      |
| 8462               | 10153-001       |

\*Flange assembly includes 8475-001

SEE SR150/SRA150 PARTS LISTS FOR DETAILS ON OTHER PARTS

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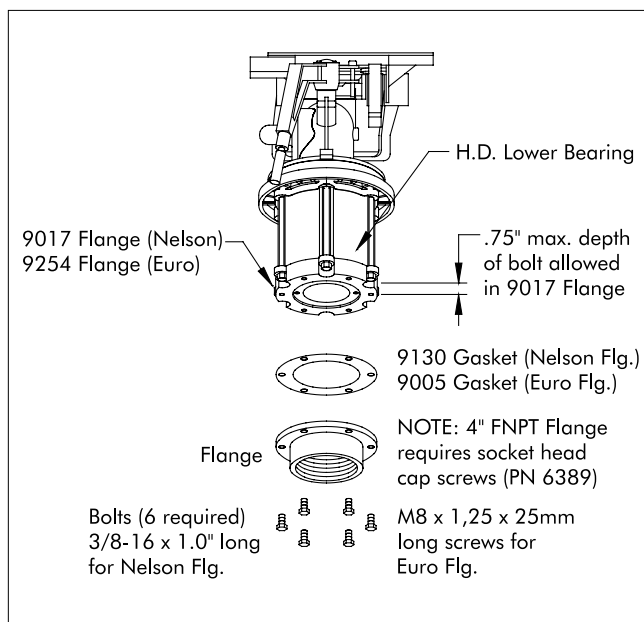
**NELSON****SR200 BIG GUN®****SR200 BIG GUN® OPERATION & ADJUSTMENT INSTRUCTIONS**

**NOTE ON LUBRICATION:** The SR200 sprinkler is lifetime lubricated and does not require periodic lubrication. The ball bearings in the H.D. lower bearing operate in a water resistant lubricant that is packed in the housing cavities and retained by seals. If repair of the lower bearing is done, it is recommended to use Nelson #6143 lubricant or a good grade of water resistant lubricant such as Lubriplate 130-AA.

**BE CAREFUL:** Read operating instructions before operating sprinkler or making any adjustments. Never make adjustments or perform service while sprinkler is in operation. Stand clear of operating sprinkler. Stand clear of high velocity water stream. Never direct water stream onto roadway or electrical transmission lines.

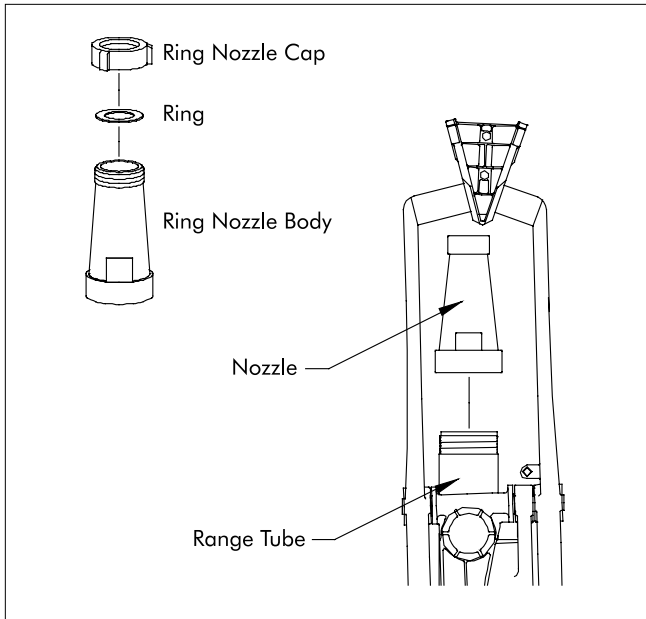
**WARRANTY AND DISCLAIMER**

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 provision of the warranty, nor to make any representations or warranty not contained herein.

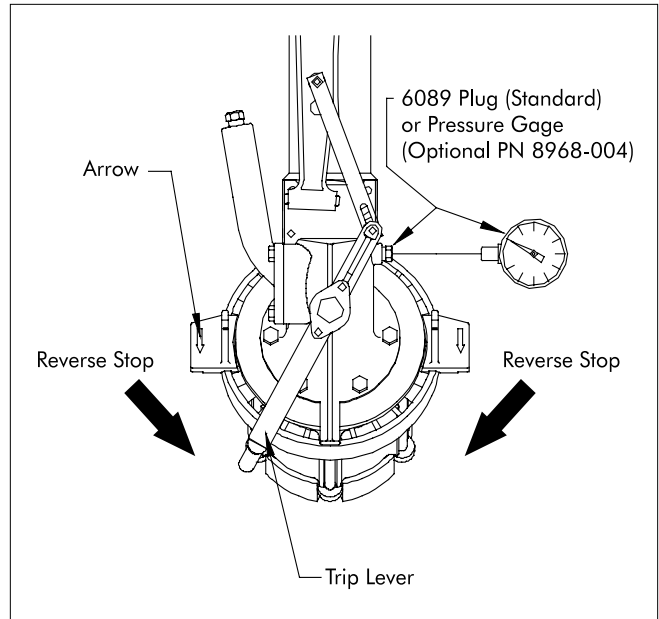


1. Securely connect SR200 Big Gun to traveller or riser designed to handle the loads of the operating sprinkler. Take care not to bottom out the bolts in the flange yet allow for at least 1/2" engagement of the bolt threads.

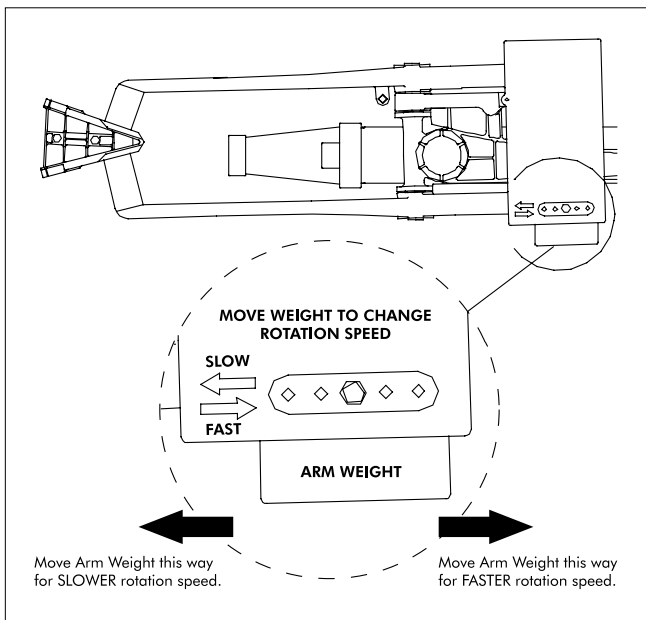
**NOTE:** 9017 Nelson Flange has a 5.75" bolt circle with six equally spaced threaded holes 3/8-16 UNC-2B x .75" deep. 9254 Euro Flange has a 5.118" (130mm) bolt circle with six equally spaced threaded holes M8 x 1,25-6H x .76" (19,3mm) deep.



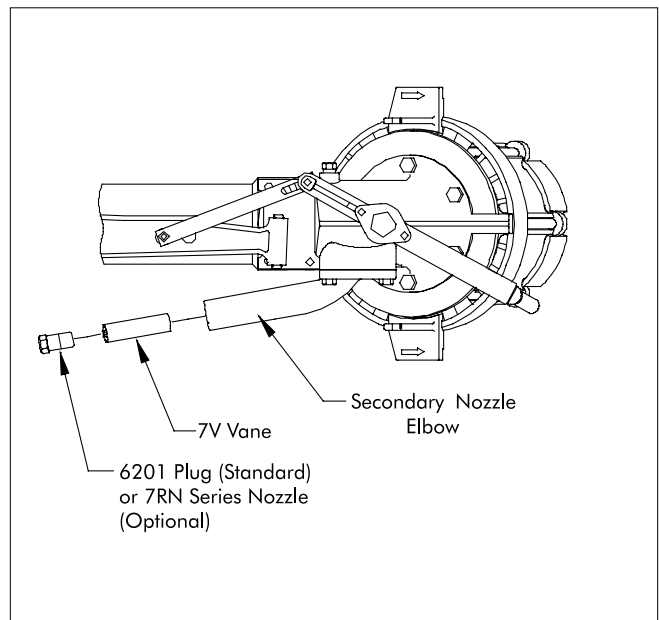
**2.** Install Nozzle on end of Range Tube. If using a Ring Nozzle, Install desired Ring size in Cap. Assure Ring is centered. Ring Nozzle Cap and Nozzle can be sufficiently tightened by hand.



**3.** Adjust location of Reverse Stops to give desired arc of coverage. Stops must be mounted such that the arrows point towards each other with the Trip Lever located between them. If the Stops are set incorrectly on the wrong end of the arc, the sprinkler will fail to reverse.



**4.** The SR200 is factory set for normal rotation speed. If a faster or slower speed is desired, move the Arm Weight backward for faster operation or forward for slower operation.



**5.** The SR200 is capable of using a Secondary Nozzle for in-close coverage. To use this feature, remove the supplied 6201 Plug and replace with the 7RN Series Nozzle of your choice. The supplied 7V Vane must be used to maintain proper stream integrity.