

# John Deere Z970R (p/n: 1JDZ970RPR) Cab with A/C

(fits both 60" and 72" mower decks. Does not fit with mulching or 54" deck) Requires Premium Seat

While this cab kit was designed to fit on the vehicle listed above, manufacturing tolerances and vehicle assembly may affect cab fitment. It is the responsibility of the cab installer to check all vehicle pedals and levers for full functionality and, as required, adjust the cab fitment to prevent any interference of the cab components with the travel of pedals or levers.



Premium Cab Shown with Options

Available Options:

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- 1. Side View Mirrors (P/N: 9PM5)
- 2. Switch Panel (P/N: 1JDZ994RCK) (req'd for following 2 items)
- 3. Front LED Work Lights (P/N: 1ZTRLK)
- 4. Front Wiper/Washer Kit (P/N: 1ZTRWK)

# Approximate Installation Time \*

Experienced Dealer Technician – 4 Hours

Average Dealer Technician – 6 Hours

Do-It-Yourself - 6-8 Hours

(\*=Not including accessories)

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Curtis encourages all customers to register their Curtis products. However, failure to do so will not diminish right to warranty. Curtis Industries does not sell or share your information with anyone else.

## Approximate Product Specifications

Floorboard to Roof Height: 59 inches

Weight: 332 lbs.

Cab Width: 50 inches

**Download** a digital copy of your installation instructions online at <u>Curtiscab.com/literature/</u>



Curtis strives to continuously improve our products, technical documentation, etc. Therefore, the installation manual for this product may have been updated after your product was packaged. The latest revision of the installation manual can always be found at the website above.

The contents of this envelope are the property of the owner. Leave with the owner when installation is complete.

Rev. G, 07/11/2025

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# WARNINGS, TIPS, & REQUIRED TOOLS

Curtis cabs feature an assembly of parts designed for your vehicle which require adjustment and alignment of components to accommodate vehicle variations and provide proper weather protection. For accurate installation, proper operation, and years of satisfaction, please read and understand the installation and owner's manual fully prior to installing the cab.

From all of us at Curtis, we thank you for choosing our product.

		WARNING
Curtis Cabs, blades and general accessories add additional weight to the base vehicle. All Curtis accessory weights are listed in product	Ser	ious Injury or Death
brochures. Deduct the accessory's total weight from the vehicle's rated capacity and never exceed the vehicle's rated capacity including driver and passenger.		This cab enclosure does not provide protection from rollover or other accidents.
A WARNING Exposure to Carbon Monoxide can Cause illness, serious injury or death. Never operate vehicle if suspicious of Carbon Monox- ide. Inspect exhaust system for leaks monthly. Leaks can		This cab enclosure does not provide protection from flying objects including golf balls.
result from loose connections, corrosion, cracks or other damage to the exhaust manifold. If leaks are found, repair or replace exhaust system. Do not use vehicle until repair or replacement is complete.	<b>*</b>	This cab enclosure does not provide protection from lightning. When lightning threatens take cover and do not operate vehicle.

**California Health and Safety Proposition 65 Warning:** This product may contain chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

# **GENERAL INFORMATION BEFORE YOU START**

# **HELPFUL HINTS:**

•Refer to parts diagram found in the service parts section of this manual to help identify parts during the assembly process.

- •To assist with the cab installation, leave all fasteners loose for later adjustment unless otherwise specified.
- •Read and understand all instructions before beginning.
- •Apply a silicone sealant to seal any minor gaps that may occur due to vehicle variations.
- •Use caution to avoid damaging the factory installed threaded inserts or weld nuts. Begin the thread engagement by hand to avoid or correct potential cross threading.
- •Make sure the areas where the supplied self-adhesive hook Velcro will be applied are clean and dry and at room temperature for best adhesion.
- •Before installing parts with factory installed rubber, make sure the rubber is fully installed onto the parts for proper fit and sealing.

# **TOOLS REQUIRED:**

•Set of Standard and Metric Sockets (3/8" & 1/2" Drive)

- •7/16" Deep Socket
- •T25 & T30 Torx Bit
- •3/8" & 1/2" Drive Ratchets and Long Drive Extension
- •Set of Standard and Metric Open-End Wrenches
- •Set of Standard and Metric Allen Wrenches
- •#1, #2, and #3 Phillips Head Screwdrivers
- •1/4" & 5/16" Nut Drivers
- •Flat Head Screwdriver
- Needle Nose Pliers
- Pliers
- •Grease Pencil or Marker
- •Torque Wrench (3/8" and 1/2" Drive)
- •Rubber Mallet or Plastic Dead Blow Hammer
- •Bungee Cord or Twine
- •Hoisting Strap

- •Drill/Driver
- •Center Punch
- •9/32" Drill Bit
- •#2 and #3 Phillips Head Bit
- •Utility Knife
- •Pair of Scissors
- Shears
- •Grease
- •Black Silicone Sealant
- Steel Straight Edge
- •Belt tension gauge
- •Angle Wire Cutters
- •2-1/8" Hole Saw
- •Tape Measure
- •Impact Gun
- •Cut-off Wheel or Jigsaw
- •3/4" Ratchet Wrench

# **STEP 1: (VEHICLE PREP)**

- **1.1** Park vehicle in a location accessible by an overhead hoist.
- **1.2** Disconnect the negative battery terminal.
- **1.3** Remove the (4) fasteners attaching the rear engine guard to vehicle. Set aside guard and hardware. See Fig. 1.3.

## Tools required

13mm socket

**1.4** Per Figures 1.4a and b, notch the right side of the rear engine guard 3" x 1-1/8" as shown. Apply touch-up paint to the cut edges.

### **Tools required**

Cut-Off Wheel or Jigsaw

**1.5** Remove air filter and brackets. See Figure 1.5. Place a clean rag in the carburetor to keep out debris.

### **Tools required**

5/16" nut driver or flat head screw driver 10mm socket or wrench 12mm socket or wrench

**1.6** Remove and discard the rear bumper weights, studs, and hardware. **HINT:** Double up nuts on studs and turn inside nut to remove studs from vehicle. See Figure 1.6

#### **Tools required**

18mm socket 18mm wrench



Fig. 1.6 (Rear Weights)



Fig. 1.3 (Rear Engine Guard Removed)



Fig. 1.4a (Rear Guard Notch )



Fig. 1.4b (Rear Guard Notch )



Fig. 1.5 (Air Filter & Brackets)

1.7 See fig. 1.7. Remove and discard the metal or plastic flywheel finger guard and the 3 OEM screws. New M6x1.0 x 12mm long flanged hex head screws are provided for use in a later step (Ref.: approximately 1/2" long).

## **Tools required**

10mm socket

**1.8** Remove and discard the (4) flywheel fan screen fasteners. Set aside the flywheel fan screen for future use. See Figure 1.8.

### **Tools required**

T30 Torx

**1.9** Remove the (4) OEM hex stand-offs and the flywheel fan's keeper plate and discard. See Figure 1.8.

## **Tools required**

10mm socket

**1.10** See Figure 1.10. Use supplied metal drill template and hardware from the small polybag found in the hardware box. Attach the template to the underside of the flywheel screen using the hardware from the polybag.

Use a 2-1/8" hole saw, with the center pilot drill removed and locating the hole saw in the large center hole in the drill template. A small rotary cutter, wire cutters or similar tools may also be used, using the template to ensure the size and concentricity of the hole. The hole in the flywheel screen should fit closely over the new stub shaft. The screen will rotate with the shaft, so a tight fit is permissible, however the hole can be trimmed further if desired. Remove and discard the template and hardware.

### **Tools required**

3/8" and 7/16" hex wrenches or sockets Drill 2-1/8" hole saw or other cutter

Hardware Used	Qty
1/4-20 x 5/8" Flanged Hex Bolt	4
1/4-20 Flanged Lock Nut	4

**1.11** Remove and discard the flywheel bolt and washer. See Figure 1.11.

Tools required 17mm socket Impact gun



Fig. 1.7 (Flywheel Finger Guard)



Fig. 1.8 (Flywheel Fan Screen, Keeper & Stand-offs)



Fig. 1.10 (Cut Hole in Flywheel Screen)



Fig. 1.11 (Flywheel Fasteners)

1.12 Ref. Fig 1.12, install the flywheel adapter plate, ensure the plastic lugs on the OEM plastic flywheel fan are aligned with the (4) recesses found in the OD of adapter. Torque center M12 screw to 62ft-lbs. (84 N-m). Fully tighten M6 fasteners in accordance with the torque specs listed at the back of this manual.

### Hardware Used

Hardware Used	Qty
M6X1 x 30mm Hex Head Screw	4
M6 Split Lock Washer	4
M12X1.25 x 40mm Hex Head Screw	1

### **Tools required**

10mm socket and wrench 19mm socket and torque wrench

1.13 See Figure 1.13. Locate the stub shaft into flywheel adapter plate's pocket. Fasten using the hardware listed below. Fully tighten hardware at this time.

### **Tools required**

6mm Allen hex wrench or driver

Hardware Used	<u>Qty</u>
M8X1.25 x 25mm Socket Cap Screw	3
M8 Split Lock Washer	3

1.14 Install the (4) supplied hex stand-offs into the threaded holes found on the flywheel adapter plate. Position the modified flywheel screen over stub shaft and fasten to stand-offs with hardware listed below. Fully tighten hardware at this time. See Fig. 1.14.

#### **Tools required**

1/2" socket or wrench 5/32" Allen wrench or driver

Hardware Used 1/4-20 x 5/8" Button Head Screw <u>Qty</u> 4

1.15 See Figure 1.15. Locate the pulley found in the hardware box. Loosen the set screw on the pulley until it does not protrude into the keyway. Place the machine key in the slot in the stub shaft and slide the pulley over the shaft, aligned to the key. Secure the pulley with the large washer from the large polybag found in the "small" hardware box, along with the hardware listed below. Torgue bolt to 32ftlbs. (43.4 N-m). Tighten set screw.

#### **Tools required**

5/32" Allen wrench or driver	
5/8" socket or wrench	
Hardware Used	<u>Qty</u>
1/4" Square x 3/4" lg. Machine Key	1
7/16-20 x 1.75" Hex Head Bolt	1
7/16" Split Lock Washer	1



Fig. 1.12 (Adapter Plate Orientation)



Fig. 1.13 (Stub Shaft Orientation)



Fig. 1.14 (Hex Stand-offs & Flywheel Screen)



Fig. 1.15 (Pulley Orientation)

**1.16** Remove the (4) Torx fasteners and bolt securing instrument panel to right side fender. See Figure 1.16.

### **Tools required**

T25 wrench or driver 10mm socket or wrench

**1.17** Remove cover from the 2-pin connector found behind the removed instrument panel. Next, cut wire tie and route connector so that it is accessible once the instrument panel is reinstalled. See Figure 1.17.

# Tools required

Angle Wire Cutters

**1.18** Remove the sleeve and retainer from the rear of the right side fender and set aside for later reinstallation. Remove and discard M8X1.25 Lock Nut. See Figure 1.18.

Loosen the (2) fasteners securing the lower portion of the fender (found on the underside of fender).

### **Tools required**

13mm socket and wrench 10mm socket or wrench

**1.19** Install supplied spacer and lock nut along with the hardware set aside in the previous step. See Figures 1.19a and b.

Hardware Used
M8X1.25 Lock Nut

Tools required 13mm socket and wrench 10mm socket and wrench



Fig. 1.19a (Image of Right Side Fender Spacer)



Fig. 1.16 (Instrument Panel Fasteners)



Fig. 1.17 (Rerouted 2-Pin Connector)



Fig. 1.18 (Right Side Fender)



Fig. 1.19b (Right Side Fender Spacer in Place)



**1.20** On the right side of the vehicle, remove the rear bolt that secures the rear bumper to vehicle. One at a time remove the front bolts and partially thread in the longer supplied bolts. See Figure 1.20. (Right wheel removed for clarity)

### Hardware Used

M12X1.75 x 40mm Flange Hex Bolt

<u>Qty</u> 2

### Tools required

16mm socket or wrench 18mm socket or wrench

**1.21** Remove and set aside footrests (this includes bolts, fender washers, and nuts). Next, remove M10 Carriage bolt and nut found below brake pedal. See Fig. 1.21.

### **Tools required**

13mm socket and wrench 15mm socket

**1.22** Remove (2) M10 lock nuts and washers from the left side of the vehicle's caster arm per Fig. 1.22a. Install front mount using the recently removed M10 lock nut. Leave mounts loose per Figure 1.22b. Repeat on right side of vehicle.

## **Tools required**

18mm wrench 19mm socket



Fig. 1.20 (Right Side Bumper Fasteners)



Fig. 1.21 (Remove Footrests & Brake Pedal Bolt)



Fig. 1.22a (Remove M12 Washers and Nuts)



Fig. 1.22b (Install Front Mount, Left Side)

1.23 Remove ballast box from shipping pallet. Next, install ballast box on the front edge of the vehicle. Install top bolts first into the vehicles floorboard (do not fully tighten). Place backing plate between the underside of the floorboard and locking nuts. Next, install front lower carriage bolts from inside the vehicle floorboard outwards to the front of the vehicle. To tighten down the lock nuts, you will need a 3/4" rachet wrench to access the nuts found on the inside of the ballast box. Fully tighten the front bolts and then the top bolts. See Figures 1.23a and 1.23b.

Hardware Used	<u>Qty</u>
1/2-13X1-1/4" Carriage Bolt	4
1/2-13 Flange Lock Nut	4

### **Tools required**

3/4" Ratchet Wrench 3/4" Socket or Wrench

1.24 Place the footrest lip floormat on the vehicle. Place floormat material found on the lower right and left into the sides of the vehicle frame. Install 5/16" hardware into square hole to the right of the pedal. Next, install 3/8" hardware below the pedal making sure 3/8" washers are wedged between the vehicle and clipped washer. Re-install the vehicle footrests. Now fully tighten hardware. See Figures 1.24a and 1.24b.

### Hardware Used

Hardware Used	Qty
3/8-16X1-1/2" Flange Hex Screw	1
3/8" Clipped Washer (in Hardware Box)	1
3/8" Washer	2
3/8-16 Flange Lock Nut	1
5/16-18X1" Flange Hex Screw	1
5/16" Fender Washer	1
5/16-18 Flange Lock Nut	1

### **Tools required**

13mm socket and wrench 1/2" socket and wrench 9/16" socket and wrench

1.25 Install the footrest floormat making sure the rubber is on the top surface (foam on bottom). Push the extra material into the back edge and sides to fully seal the floorboard. See Fig. 1.25.



Fig. 1.25 (Install Footrest Floormat)



Fig. 1.23a (Install Ballast Box, Backing Plate)



Fig. 1.23b (Install Ballast Box)



1.24a (Install Footrest Lip Floormat) Fig.



Fig. 1.24b (Brake Pedal Hardware)

# **CAB INSTALLATION**

# STEP 1: (VEHICLE PREP CONT'D.)

1.26 Tilt the seat forward. See Figure 1.26.

**1.27** Disconnect 2-pin connector from the underside of the seat.

Remove harness clip from the seat frame.

Remove/set aside spring lock pin from prop rod.

While holding the seat, remove the prop rod from the seat frame and set the seat back down. See Figure 1.27.

# Tools required

Needle Nose Pliers

**1.28** Remove and save seat frame hinge bolts and nuts per Fig. 1.28. Remove seat from vehicle.

Tools required 13mm socket and wrench



Fig. 1.26 (Tilt Seat Forward)



Fig. 1.27 (Disconnect Seat Connector & Prop Rod)



Fig. 1.28 (Remove Front Hinge Bolts)

# **CAB INSTALLATION**

# **STEP 1: (VEHICLE PREP CONT'D.)**

1.29 Apply 5/8" wide P.S.A. Velcro to the bottom edge of Arm Restrictors. See Figure 1.29.

### **Tools required**

Scissors

**1.30** Install the arm restrictors using 1/4-20 hardware, making sure the locating pin is on the front hole as shown in Figure 1.30. Fully tighten.

Hardware Used	Qty
1/4-20X3/4" Flange Hex Screw	2
1/4-20 Flange Lock Nut	2

# Tools required 3/8" socket

7/16" wrench

1.31 Install (13) pieces of Velcro as shown in Figure 1.31.

#### **Tools required** Scissors



Fig. 1.29 (Install Velcro to Arm Restrictors)



Fig. 1.30 (Install Arm Restrictors, Right)



# **CAB INSTALLATION**

# STEP 1: (VEHICLE PREP CONT'D.)

**1.32** Remove and set aside the (4) nuts and washers holding the seat frame to the seat adjuster rails. Next, remove frame from the seat. See Figure 1.32.

### **Tools required**

13mm deep socket

**1.33** Install (4) Clip-On Nuts using a socket to push them onto the screws going through the (2) adjuster rails. See Figure 1.33 with detail.

<u>Qty</u>

<u>Qty</u>

1

Hardware Used M8X1.25 Clip-On Nut

### **Tools required**

7/16" deep socket Socket wrench extension

**1.34** Place supplied seat pan assembly onto seat. Next, re-install seat frame onto the seat pan. Loosely install OEM washers and nuts back on. Fully tighten left side hardware first followed by the right side. See Figures 1.32 and 1.34.

### **Tools required**

13mm deep socket

**1.35** Install supplied release lever by pushing through the underside of seat pan's rubber filler. Placing the hole of the lever onto the seat frame's latch bar mounting bolt and the fork of the lever onto the latch bar. Install lock nut onto the mounting bolt. Fully tighten. See Figures 1.34 and 1.35.

<u>Hardware Used</u>
M10X1.5 Hex Lock Nut

## s required

<u>Tools required</u> 17mm wrench and socket



Fig. 1.35 (Install Release Lever)



Fig. 1.32 (Remove Seat Frame)



Fig. 1.33 (Install (4) Clip-On Nuts)



Fig. 1.34 (Install Seat Pan Assembly)

1.36 Re-install seat with seat pan assembly back onto the vehicle by re-installing OEM hinge bolts and nuts per figure 1.36.

#### **Tools required**

13mm socket and wrench

1.37 Tilt the seat forward, while holding the seat, reinstall the prop rod to the seat frame and re-install spring lock pin. Next, reconnect 2-pin connector from the underside of the seat and re-install the harness clip to the seat frame. Lower the seat back down. See Figure 1.37.

## **Tools required**

**Needle Nose Pliers** 

1.38 Install left and right ROPS brackets onto the vehicle's ROPS. See Figures 1.38a and 1.38b. NOTE: The bracket holes that mount the cab go inside of the ROPS.

#### **Hardware Used**

Hardware Used	<u>Qty</u>
5/8-11X1-1/4" Hex Flange Bolt	4
5/8-11 Flange Hex Lock Nut	4

### **Tools required**

15/16" wrench and socket



Fig. 1.36 (Re-Install Seat with Seat Pan)



Fig. 1.37 (Reconnect Seat Connector & Prop Rod)



Fig. 1.38a (Install ROPS Bracket, Left)



Fig. 1.38b (Install ROPS Bracket, Right)

**1.39** Remove and discard the (4) bolts securing the muffler hangers to the rear of the engine block. Loosen the right side hanger to muffler bolt and rotate the hanger down clockwise. See figure 1.39.

### **Tools required**

13mm socket or wrench

**1.40** Install dynamo support bracket by maneuvering down from above ensuring not to damage vehicle linkages. When the support bracket's slots align with the holes in the left side muffler hanger, loosely install the provided hardware listed below. Rotate the right side muffler bracket up between the engine block and support bracket and loosely install right side hardware. Right side hanger to muffler bolt can be fully tightened at this time, leave the (4) support bracket fasteners loose. See Figures 1.40a thru 1.40c.

Qty

### <u>Hardware Used</u> M8x1.25 x 25mm Hex Flange Bolt

Tools required

13mm socket or wrench

- **1.41** At this time, remove the compressor from its mounting bracket which is fastened to the rear pallet frame and retain all hardware. See Figure 1.41.
- Caution: Once removed, use a bungee cord, wire, or other means, to support compressor to prevent its weight from pulling on the A/C hoses.

## Tools required

13mm socket or wrench







Fig. 1.39 (Muffler Hangers)



Fig. 1.40a (Dynamo Support Bracket)



Fig. 1.40b (Dynamo Support Bracket)



Fig. 1.40c (Dynamo Support Bracket)

**1.42** Remove and discard all hardware fastening the compressor mount to the rear pallet frame. Leaving the factory installed dynamo fastened to the compressor bracket, remove from pallet. See Figures 1.42a and 1.42b.

#### **Tools required**

3/4" socket and wrench 7/16" socket or wrench

- **1.43** Install compressor bracket on the vehicle, slipping the (2) open slots over the previous-loosely installed bolts in step 1.20. Thread in the third lower fastener. Begin to snug up the (3) lower fasteners of excessive play. See Figure 1.43.
- Caution: Do not fully tighten! Ensure fasteners are not too tight by being able to move the bracket slightly and the ability to align the (3) holes in the compressor bracket with the holes in the top of the dynamo support bracket.

Hardware Used	<u>Qty</u>
M12X1.75 x 40mm Flange Hex Bolt	1

Tools required 16mm socket or wrench

18mm socket or wrench

**1.44** Install the compressor to dynamo support bracket hardware using the hardware listed below. Do not fully tighten at this time. See Figure 1.44.

Hardware Used	<u>Qty</u>
3/8-16 x 1" Flange Hex Bolt	3

#### Tools required

9/16" socket or wrench

- **1.45** Fully tighten all dynamo support bracket and compressor mount hardware using the sequence below:
  - 1. Compressor bracket to frame hardware. See Figure 1.43.
  - Compressor bracket to dynamo support bracket bolts. See Figure 1.44.
  - 3. Dynamo support bracket to engine block bolts. See Figure 1.40a, b, and c on previous page.

### **Tools required**

16mm socket or wrench 9/16" socket or wrench 13mm socket or wrench



Fig. 1.42a (Compressor Mount to Pallet Frame Fasteners)



Fig. 1.42b (Compressor Mount to Rear Strut)



Fig. 1.43 (Compressor Bracket to Vehicle)



Fig. 1.44 (Comp. Bracket to Dynamo Supp. Bracket)

**1.46** Position the supplied P-clamp around the fuel vent hose and secure to the dynamo support bracket using the hardware listed below. See Figure 1.46.

### <u>Hardware Used</u>

1/4-20 x 5/8" Flange Head Bolt

<u>Qty</u> 1

#### Tools required 3/8" socket or wrench

**1.47** Remove the rag placed in the carburetor in step 1.5 Install the supplied air filter extension hose with the provided hose clamp onto the carburetor in which the air filter hose was previously installed. See Figure 1.47.

Place a clean rag in the hose to keep out debris.

### **Tools required**

5/16" nut driver or flat head screw driver

- **1.48** Tighten the (3) fasteners securing the right fender. Ref. Step 1.18-1.19.
- **1.49** Clean the vehicle frame rails on either side of the floorboard. Apply P.S.A. D-Rubber (9PRO9) to the top surface of the frame rails. Apply along the inner edge of the surface as shown in Figure 1.49. Repeat for left side.

## **Tools required**

Scissors



Fig. 1.46 (Fuel Vent Hose P-Clamp)



Fig. 1.47 (Air Filter Extension Hose)

 Apply Rubber

 Here

Fig. 1.49 Install Rubber to Vehicle's Frame (Right Side Shown)

- **2.1** Remove the doors from the cab and set aside carefully to prevent scratching the panels.
- 2.2 Lower the mower deck to 2"
- **2.3** Position a lifting strap so that it sits roughly 7-1/2" behind the gas shock mount as shown in Figure 2.3.
- **2.4** Put tension on the lifting strap with the overhead hoist. Remove and discard the (4) bolts holding the rear of the cab down to the rear shipping bracket (located inside the cab) as well as the (4) bolts holding the floorboards to the front shipping brackets. See Figures 2.4a, b, and c.

### **Tools required**

1/2" wrench or socket

- **2.5** With assistance, lift the cabin and position over the vehicle. Be sure to support the A/C compressor so that it never hangs from the hoses.
- **2.6** Lower the cab slowly onto the vehicle being careful to not scratch the fenders with the rear edge of the floorboards.



Fig. 2.3 (Position Lifting Strap)



Fig. 2.4a (Tension Lifting Strap)



Fig. 2.4c (Remove Rear Shipping Bracket Bolts)



Fig. 2.4b (Remove Front Shipping Bracket Bolts)

**2.7** Install the back of the cab to ROPS mounts per Figure 2.7.

Hardware Used 5/16-18X1-3/4" Flange Hex Screw 5/16-18 Flange Lock Nut

### **Tools required**

1/2" wrench and socket

**2.8** Install the front of the cab to front mounts per Figure 2.8.

Hardware Used	Qty
5/16-18X1" Flange Hex Screw	4
5/16-18 Flange Lock Nut	4

### Tools required

1/2" wrench and socket

**2.9** Fully tighten front mount hardware going into the vehicle's side frame. Torque to 110 ft-lbs. (150 Nm). See Figure 2.9.

#### **Tools required**

18mm wrench 18mm socket Torque Wrench

**2.10** Install the block-off plate to the right side floorboard using supplied hardware listed below. See Figure 2.10.

#### Hardware Used

#8-32 X5/8" Pan Head Screw #8-32 Flange Lock Nut

Qty	
5	
5	

<u>Qty</u>

4

### **Tools required**

11/32" wrench or socket #2 Phillips bit or screw driver



Fig. 2.7 (Install Back of Cab Screws)



Fig. 2.8 (Install Front Mount Screws)



Fig. 2.9 (Tighten Vehicle Frame Bolts, Left)



Fig. 2.10 (Right Floorboard Block-Off Plate)

**2.11** Refer to step 1.41 and re-install the compressor to the compressor mount using all the hardware removed and set aside in step 1.41. Fully tighten all hardware at this time.

#### **Tools required**

1/2" wrench or socket

- **2.12** Attach the black (ground wire) with the ring terminal to the lower most rearward factory installed fastener. Plug the bullet connector found on the blue wire to the black wire on the bullet connector on the compressor. See Figure 2.12.
- **2.13** Locate the shroud assembly in the large hardware box. Remove and set aside the (7) fasteners retaining the access cover to the shroud assembly. Next, remove the hardware fastening the mesh portion of the shroud assembly along with hardware securing the top to the shroud mount. See Figure 2.13.

### Tools required

3/8" wrench or socket

**2.14** Position the shroud mount on top of the engine shroud and fasten with the (3) OEM M6x1.0 bolts set aside from step 1.7 along with the (3) fasteners listed below securing it to the compressor mount. See Figure 2.14. Fully tighten all shroud mount hardware at this time.

Qty

### Hardware Used

1/4-20 X 3/4" Flange Hex Screw

#### **Tools required**

10mm socket or wrench 3/8" socket or wrench

**2.15** Locate the supplied V-belt found in the large hardware box and install as shown in Figure 2.15. Once properly tensioned via the dynamo, ensure both dynamo bolts are fully tightened.

#### **Tools required**

9/16" socket or wrench 13mm socket or wrench

**2.16** Remove the rag placed in the air filter extension hose in step 1.46. Slip the provided aluminum tube into the previously installed air filter extension hose installed in step 1.45. Keep the aluminum tube protruding 2" beyond the air filter extension hose. Secure with provided hose clamp. See Figure 2.15.

Place a clean rag in the aluminum tube to keep out debris.

#### Tools required

5/16" nut driver or flat head screw driver Tape measure



Fig. 2.12 (Compressor Wire Connections)



Fig. 2.13 (Shroud Assembly)



Fig. 2.14 (Shroud Mount Orientation)



Fig. 2.15 (V-Belt Orientation)

2.17 Install the supplied voltage regulator and bracket to the right side ROPS mount. Attach two ring terminals to the lower bolt (one ring terminal is from the voltage regulator and the other ring terminal is from the voltage regulator harness). Use the hardware listed below. See Figures 2.17a and b. Plug the voltage regulator harness into the voltage regulator. Route the end with the (3) white connectors down to the compressor following the (2) A/C hoses, keeping the harness between the hoses. Route under elbow of refrigerant hose to ensure wires stay away from belt. Connect the (3) white connectors to the dynamo pigtails, any connector to any connector. Secure harness to mounting bracket with wire tie, just behind dynamo slot. See Figure 2.17b

#### Tools required

Pliers & Wire cutters

#### Hardware Used

1/4-20 X 3/4" Flange Hex Screw	
1/4-20 X 1-1/4" Socket Head Screw	
1/4-20 X 3/4" Flange Nut	

<u>Qty</u> 4 2

#### **Tools required**

3/8" wrench or socket 3/16" Allen wrench or bit 7/16" wrench or socket Pliers & Wire cutters

- 2.18 Slide the seat rearward then tilt seat forward.
- **2.19** Install right filler onto the cab from the outside using provided hardware per Figure 2.19. Notes: Tuck upper rear corner in front of ROPS bracket. Side screws have lock nuts on the inside.

#### Hardware Used

5/16-18X3/4" Flange Hex Screw 5/16-18 Flange Lock Nut

#### **Tools required**

1/2" wrench and socket



Fig. 2.17a (Voltage Regulator)



Fig. 2.17b (Voltage Regulator Harness)



Fig. 2.19 (Install Right Filler)

**2.20** Install left filler onto the cab from the inside using provided hardware per Figures 2.20a and 2.20b. Flex Panel as necessary to fit in place.

Hardware Used 5/16-18X3/4" Flange Hex Screw

Qty 5

### **Tools required**

1/2" wrench and socket

2.21 Apply P.S.A. Velcro on the left fender up the left filler per Figure 2.21. Continue the Velcro on the lower edge of the window.

# Tools required Scissors



Fig. 2.20a (Install Left Filler, Inside View)



Fig. 2.20b (Install Left Filler, Outside View)



Fig. 2.21 (Apply Velcro to Left Filler and Fender)

**2.22** Place the rear panel assembly onto the ROPS brackets applying pressure towards the A/C Unit. Install the top horizonal screws first and then the (4) screws in two rear fillers. Attach to the previously installed Velcro. See Figure 2.22.

<u>Qty</u> 2 2

### Hardware Used

1/4-20X5/8" Flange Hex Screw	
1/4-20X3/4" Flange Hex Screw	
1/4-20 Flange Lock Nut	

#### **Tools required**

3/8" wrench or socket 7/16" wrench or socket

**2.23** At the bottom of the left side rear panel assembly, there is a small piece of Velcro. Place a piece of P.S.A. Velcro onto the rear fender as shown in Figure 2.23. Attach lower corner of rear panel vinyl onto installed Velcro.

#### Tools required Scissors

**2.24** Once the rear panel's vinyl filler is fully installed onto the mating Velcro, install hardware through the Vinyl into the (2) fillers. See Figures 2.24a and 2.24b. Do not over tighten or vinyl will be damaged.

#### Hardware Used

1/4-20X3/4" PH Truss Head Screw 1/4-20 Flange Lock Nut

#### **Tools required**

#3 Phillips Head Screwdriver 7/16" wrench or socket



Fig. 2.22 (Install Rear Panel Assembly)



Fig. 2.23 (Install Velcro, Left Fender)



Fig. 2.24b (Attach Rear Filler Vinyl to Right Filler)



Fig. 2.24a (Attach Rear Filler Vinyl to Left Filler)

**2.25** Slide the supplied right hand drive handle boot down over the drive handles. (The right filler does not have the hole shown in Figure 2.26)

Press the sewn-on foam into the gap between the frame and fender and attach the boot to the pre-installed Velcro.

Move the drive handle forward and backwards as well as left to right to determine best spot for locating Velcro onto drive handles that will secure the top edge of the boot and mark the top edge at the appropriate location. See Figure 2.25.

Slide the boot down the handle and apply Velcro around the handle below the mark.

Secure the top of the boot to the Velcro.

<u>Tools required</u> Scissors Marker

2.26 Repeat installation for the left boot.

Slide the hole in the left boot over the head of the adjustment bolt as shown in Figure 2.26 upon installation.

Tools required Scissors Marker

**2.28** Re-install the modified rear engine guard using the hardware set aside in step 1.3. See Figure 2.28.

Tools required 13mm socket



Fig. 2.25 (Loosely Install Drive Handle Filler, Right)



Fig. 2.26 (Install Left Filler, Outside)



Fig. 2.28 (Modified Rear Engine Mount)

**2.29** Install the compressor debris cover & 3/4" ID P-clamps as shown in Figure 2.29 using the supplied hardware listed below.

Hardware Used 1/4-20X5/8" Flange Hex Screw <u>Qty</u>

### Tools required

3/8" socket or wrench

**2.30** Position the provided 3/4" ID P-clamp around the smaller of the two A/C hoses and fasten to the right side ROPS mount as shown in Figure 2.30.

Hardware Used	Qty
1/4-20X1" Flange Hex Screw	1
1/4-20 Flange Hex Lock Nut	1
.59" OD x 1/4" Lg. Nylon Spacer	1

#### **Tools required**

3/8" socket or wrench 7/16" socket or wrench

**2.31** Position the shroud assembly over the top of the engine. Referencing Figures 2.31a & 2.31b, secure with fasteners listed below.

Re-install the OEM air filter bracket removed in step 1.5 using (3) 1/4-20X3/4" Flange Hex Screws. See Figure 2.31c.

Hardware Used	Qty
1/4-20X5/8" Flange Hex Screw	7
1/4-20X3/4" Flange Hex Screw	11
1/4" x 1" OD Fender Washer	11
1/4" x 1-1/4" OD Fender Washer	2

#### Tools required

3/8" socket or wrench



Fig. 2.29 (Compressor Debris Cover)



Fig. 2.30 (Right Side ROPS P-Clamp)



Fig. 2.31a (Right Shroud Assy. Fasteners)



Fig. 2.31b (Left Shroud Assy. Fasteners)



Fig. 2.31c (OEM Air Filter Bracket)

**2.32** Slip the air filter over the previously installed aluminum pipe at the throttle body. Secure OEM hose clamp. Reattach the OEM air filter hold down clamp. See Figure 2.32

### **Tools required**

Flat head screw driver or 1/4" nut driver 12mm socket or wrench

2.33 Re-install the access cover and the (7) bolts removed in 2.13 along with (3) additional fasteners (2) at the rear and (1) on the side of shroud. See Figure 2.33.

Hardware Used 1/4-20X5/8" Flange Hex Screw



Tools required

3/8" socket or wrench

- **2.34 <u>CAUTION</u>**: The 2-pin accessory power connector is the same as the handle safety interlock switch. Make sure to plug the Curtis connector to the accessory connector, not to either of the OEM interlock connectors.
- NOTE: There is an additional female bullet terminal on a yellow wire that is not used in this particular application.

Flip seat up. Route A/C harness and voltage regulator harness toward the battery along the right fender. Connect the 2-pin connector found on the A/C harness to the 2-pin connector on the vehicle harness that had been made accessible during step 1.17. See Figure 2.34.

**2.35** Run the harnesses (fuse holder sides) to the Positive Terminal on the Vehicle's battery. Next, run the black wires with ring terminals to the disconnected battery wire and install onto the ground lug. Reconnect lug onto the battery.

Hardware Used	
11" Heavy Duty Wire Ties	A

<u>Qty</u> As Needed

## **Tools required**

1/2" wrench or socket Angle Wire Cutters



Fig. 2.32 (Air Filter)



Fig. 2.33 (Access Cover)



Fig. 2.34 (A/C Harness to Vehicle Harness)

2.36 Using a narrow plastic putty knife, push bulb rubber down in areas between the side frame and the vehicle's fender where gaps occur. If there are still gaps, cut 1/2" X 9/16" rubber foam (into 2" pieces) and install into any gaps that may be found between the left side of the cab and fender. On the right side, at the corner of the side frame and rear filler, as well as near the floorboard. Make sure to apply adhesive side onto the fenders of the vehicle. Per Figures 2.36a and b.

### **Tools required**

Scissors Narrow Plastic Putty Knife

**2.37** Per Figure 2.37a, re-install the left and right doors. Next, install gas shocks onto the doors and side frames as shown on figure 2.37b. Making sure rod side gas shock is on the door side.



Fig. 2.36a (Install Foam on Left Fender)



Fig. 2.36b (Install Foam on Right Fender)



Fig. 2.37a (Re-Install Door, Left)



Fig. 2.37b (Install Door Gas Shock, Right)

- **2.38** Lower the mower deck. Clean the underside of the floor thoroughly in the vicinity of the park brake pedal. Block the mower rear wheels and release the park brake.
- **2.39** See image of filler below. Make note of the specified edge that faces forward. Attach the supplied PSA Velcro (Pressure Sensitive Adhesive) to the mating Velcro on the vinyl filler. Leave the release tape on while best guess fitting up the filler in place.

#### Tools required Scissors

**2.40** See all images on this page. Position the filler in place under the floor and around the frame. Once confident of best filler fit and location, remove the release tape one section at a time and attach the filler to the vehicle.



(Filler orientation)



(Filler, Rear)



(Under floor Velcro position)



(Velcro on left frame)



(Filler, Left)



(Filler, Right)

2.41 Lower the seat down.

- 2.42 Check that all hardware has been tightened.
- **2.43** Turn on vehicle and test operation of the A/C Unit. If the A/C Unit does not function properly, check out the "Troubleshooting" section of this manual. See Figure 2.40 for basic A/C operation.
- 2.44 Next, install any accessories purchased for this vehicle.
- 2.45 The cab installation is now complete.



Fig. 2.43 (Test A/C Unit Functionality)

# **CAB FEATURES & OPERATION**

## **AIR CONDITIONING OPERATION**

See Figure 2.40 above. Turn the 4-position ventilation switch to activate the blower. This can be used as just a blower with the A/C compressor turned off.

Rotate the A/C switch to the desired temperature setting to turn the compressor on/off.

In order for the A/C compressor to function, the vehicle throttle must be set at full speed.

The blower must be turned on in order for the A/C compressor to function.

# **AIR FILTER CHECK**

Remove the two thumbscrews on the face of the A/C and slide the drawer out to access the air filter.

Change the filter as needed based on operating conditions.



Air Filter Access



# **CARE AND MAINTENANCE**

- •DO NOT use glass cleaner to clean windows. It will damage the material. Mild dish soap and water should be used to clean all window panels. Use a soft bristled brush or sponge to clean panels.
- •Avoid wiping the windows while they are dry. Hose down with water to remove heavy debris before wiping windows. Water acts as a lubricant to help prevent scratches.
- •Re-apply grease periodically as needed to the door striker pins, door latch assemblies, and the door hinges.
- •Check the belt tension after the first 10 hours of use.
- •Check and tighten hardware after 40 hours of operation. Periodically inspect and tighten hardware for the remainder of the unit's life. Check for any wearing or chaffing on hoses or wiring and correct as necessary.
- •Wash the painted surfaces of the cab with commercial automotive cleaning products.
- •Change cabin air filter as required depending on usage conditions.
- •Inspect/clean the exterior of the condenser of all dust and debris daily.
- •This product is designed with the use of R134a as a refrigerant. Never substitute other refrigerants, use of any other refrigerant will void warranty.
- •Charge unit with 2.3 lbs. of R134a refrigerant.
- •Apply vacuum for a minimum of 30 minutes prior to charging the air conditioner with R134a.
- •Do not vent refrigerant to the atmosphere. If the unit has to be discharged for any reason, recover the refrigerant in compliance with federal, state, and local laws.
- •Refrigerant Oil use only ZEROL ESTER 68SL to replenish any oil lost during refrigerant recovery.
- •Replace the drier receiver (9SV-9AC-00003) when replacing a compressor (9SV-9AC-00006).

# TROUBLESHOOTING

•Check all electrical connections to ensure that proper connections are made and terminals are all tight.

Check Battery Condition:

Resting/No Load Voltage should be 12.35V or greater. Terminals should be clean and tight.

Check all fuses:

30 amp fuse located at battery

15 amp fuse located near relays, located inside the air conditioner. (accessible with filter drawer removed)

•Check both relays. Located inside the air conditioner. (accessible with filter drawer removed)

•Check the tension of the OEM and secondary drive v-belts













# **ADDITIONAL SERVICE PARTS**

PART NUMBER	DESCRIPTION
9SV-HWK-00200	HARDWARE KIT, JDZ970
9SV-70-05-0544	SCREWS FOR JOHN DEERE Z970R FLYWHEEL FINGER GUARD (QTY: 3 SCREWS)
9SV-OHRL-G	OUTSIDE DOOR HANDLE (SET OF 2)
9SV-GH	INTERIOR GRAB HANDLE (SET OF 2)
9SV-HSLP	HINGE PINS AND SLEEVES (2L + 2R)
9SV-DP10	DOME PLUG, .375" HOLE (BAG OF 10)
9SV-DP16	DOME PLUG, .750" HOLE (BAG OF 4)
9SV-DP04	DOME PLUG, 1.125" HOLE (BAG OF 15)
9SV-9OR-01	O-RINGS, (INCL 1 OF EA: .301" ID .426" ID .551" ID)
9SV-GS02A	BALL STUD 10MM (BAG OF 10)
9SV-DL06S	INTERIOR DOOR LATCH W/COVER (1L +1R)
9SV-9AC-00001	CONDENSER
9SV-85-01-0076	OC, RE, 12VDC, 50/30A, SPDT, MINI ISO
9SV-9AC-00003	DRIER RECEIVER
9SV-9AC-00005	PRESSURE SWITCH, 2-28KG/CM2
9SV-9AC-00007	AXIAL FAN FOR CONDENSER
9SV-DSTRH	DOOR STRIKER PIN (BAG OF 5)
9SV-GS02Q	GAS SHOCK 12-3/8" (SET OF 2)
9SV-9AC-00046-BS	BLOWER SWITCH
9SV-9AC-00046-TS	THERMOSTAT SWITCH
9DL01H	KEYS, SET OF 2 ON A RING, FOR HANDLE 1096-1, KEY CODE C40
9SV-WH-00155	WIRE HARNESS, AC DYNAMO, THREE PHASE
9SV-WH-00155	WIRE HARNESS, AC DYNAMO, THREE PHASE

TRIM LOK, STD, 1/16" - 1/8" GRIP

5/8" STD BULB, 1/16" GRIP

ARCH RUBBER P.S.A.

3/4" SIDE BULB, ARCH PSA, .20" X.15" 1/4" GRIP

1" ROUND BULB,

WEATHERSEAL 1/16" GRIP





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9SV-PR38-15







9SV-PRO1-20

9SV-PRO2-15

9SV-PRO9-10

9SV-PR53-15

9SV-PR19-10

9SV-PR20-10

1/2"

3/4" OVAL BULB WITH 3/16" GRIP

1/2" X 9/16" RUBBER FOAM





9SV-PR43-4

# **Torque Specs. for Structural Bolts**

This page is for use primarily when dealing with high-strength vehicle fasteners such as ROPS hardware that hold the structure together for safety. This page can also be used for other solid metal-to-metal joints. <u>Do not</u> use these high torque values on any of the following applications involving: tubing, plastic, nylon or rubber washers, threaded inserts, etc.. See next page regarding less critical fasteners.

The values below apply to fasteners that are dry or lubricated with normal engine oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads. Remember to always use the same grade or property class when replacing bolts.

#### IMPORTANT: on all PLATED GRADE 8 bolts, reduce torque 15% from listed bolt torque specification.

SAE G Bolt head id mark as per			2	2			Ę	5			8	8*	
NOTE: Man Marks Will \	ufacturing					$\langle \neg \rangle \langle \neg \rangle \langle \neg \rangle$				$\langle$			
			TORQUE				TORQUE				TORQUE		
Bol	t Size	Pound	ls Feet	Newtor	n-Meters	Pound	ls Feet	Newton	-Meters	Pound	s Feet	Newton	-Meters
Inches	Millimeters	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4	6.35	5	6	7	8	9	11	12	15	12	15	16	20
5/16	7.94	10	12	14	16	17	20.5	23	28	24	29	33	39
3/8	9.53	20	23	27	31	35	42	48	57	45	54	61	73
7/16	11.11	30	35	41	47	54	64	73	87	70	84	95	114
1/2	12.70	45	52	61	70	80	96	109	130	110	132	149	179
9/16	14.29	65	75	88	102	110	132	149	179	160	192	217	260
5/8	15.88	95	105	129	142	150	180	203	244	220	264	298	358
3/4	19.05	150	185	203	251	270	324	366	439	380	456	515	618
7/8	22.23	160	200	217	271	400	480	542	651	600	720	814	976
1	25.40	250	300	339	406	580	696	787	944	900	1080	1220	1464
1-1/8	25.58	-	-	-	-	800	880	1085	1193	1280	1440	1736	1953
1-1/4	31.75	-	-	-	-	1120	1240	1519	1681	1820	2000	2468	2712
1-3/8	34.93	-	-	-	-	1460	1680	1980	2278	2380	2720	3227	3688
1-1/2	38.10	-	-	-	-	1940	2200	2631	2983	3160	3560	4285	4827
										*Thi	ck Nuts must	be used with	Grade 8 bolts

#### METRIC BOLT TORQUE SPECIFICATIONS

			Course Thread			Fine Thread			
Size of Screw	Property Class	Pitch (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters		
	5.6		3.6-5.8	4.9-7.9		-	-		
M6	8.8	1.0	5.8-9.4	7.9-12.7	-	-	-		
	10.9		7.2-10	9.8-13.6		-	-		
	5.6		7.2-14	9.8-19		12-17	16.3-23		
M8	8.8	1.25	17-22	23-29.8	1.0	19-27	25.7-36.6		
	10.9		20-26	27.1-35.2		22-31	29.8-42		
	5.6		20-25	27.1-33.9		20-29	27.1-39.3		
M10	8.8	1.5	34-40	46.1-54.2	1.25	35-47	47.4-63.7		
	10.9		38-46	51.5-62.3		40-52	54.2-70.5		
	5.6		28-34	37.9-46.1		31-41	42-55.6		
M12	8.8	1.75	51-59	69.1-79.9	1.25	55-68	75.9-92.1		
	10.9		57-66	77.2-89.4		62-75	84-101.6		
	5.6		49-56	66.4-75.9		52-64	70.5-86.7		
M14	8.8	2.0	81-93	109.8-126	1.5	90-106	122-143.6		
	10.9		96-109	130.1-147.7		107-124	145-168		
	5.6		67-77	90.8-104.3		69-83	93.6-112.5		
M16	8.8	2.0	116-130	157.2-176.2	1.5	120-138	162.6-187		
	10.9		129-145	174.8-196.5		140-158	189.7-214.1		
	5.6		88-100	119.2-136		100-117	136-158.5		
M18	8.8	2.0	150-168	203.3-227.6	1.5	177-199	239.8-269.6		
	10.9		175-194	237.1-262.9		202-231	273.7-313		
	5.6		108-130	146.3-176.2		132-150	178.9-203.3		
M20	8.8	2.5	186-205	252-277.8	1.5	206-242	279.1-327.9		
	10.9		213-249	288.6-337.4		246-289	333.3-391.6		

**5.6** 

8.8

# **Tightening of Non-Structural Bolts**

For light or medium duty fastening, Curtis recommends using a general industry standard of tightening until snug and then giving an additional one quarter turn of the tool as deemed reasonable for the application (i.e.: at the installer's discretion).

If torque values are required, the examples listed below are intended as a reasonable reference for use in the majority of non-structural fastener applications such as: small diameter fasteners; bolts passing thru tubing, glass, plastic, nylon or rubber washers, threaded inserts, etc.

If more than one application below applies, use the lower torque value.

FASTENER SIZE:	FASTENER TYPE:	WASHER MATERIAL:	APPLICATION:	TORQUE (INCH-POUNDS) (±5)
#10	Machine Screws	-	in Nylon P-Clamps	20
#10	Machine Screws	-	Strobe Light (plastic base)	35
M5	Set Screws	-	Wiper Arm	20
1/4"	Cap Nut	-	Windshield Wiper	20
1/4"	Bolts	-	Tubing (5/8" to 3/4" wide)	132
1/4"	Bolts	Rubber	-	60
1/4"	Bolts	Nylon / Plastic	-	72
1/4"	Bolts	-	Factory Installed Threaded Inserts	132
5/16"	Bolts	-	Tubing (1" or wider)	60
5/16"	Flat Head Bolts	-	Plastic Windshield Hinge	79
5/16"	Bolts	Rubber	-	120
5/16"	Bolts	Nylon / Plastic	-	150
5/16"	Ball Studs	-	-	150
5/16"	Bolts	-	Factory Installed Threaded Inserts	240
3/8"	Bolts	-	Tubing	120
M12	Door Striker Pins	-	-	120