



Mahindra 5100

Cab with Heater (p/n: 1MA5100PR)

fits tractor models: 5145 & 5155 (Model Year 2022-)

While this cab kit was designed to fit on the vehicle(s) 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.

Shown with optional work lights.



Available Options:

1. Front LED Work Lights (P/N: 9LEDW4)
2. Rear LED Work Lights (P/N: 9LEDW3)
3. Strobe Light (P/N: 9LEDS2)
4. Dome Light (P/N: 9LEDD14)
5. Side View Mirrors (P/N: 9PM5)
6. Rear View Mirror (P/N: 9PM3)
7. Rear Wiper (P/N: 9PWK8512F9-11A)
8. Switch Panel (9PSF1)
9. Sure Step Kit (9CST)

Approximate Installation Time *

Experienced Dealer Technician – 3.5 Hours
Average Dealer Technician – 4.5 Hours
Do-It-Yourself – 5.5 Hours

(* = Not including accessories)

Approximate Product Specifications

Floorboard to Roof Height: 63.5 inches
Weight: 385 lbs.
Cab Width: 64 inches

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

Rev. A, 01/25/2023

P/N: IM-1MA5100PR

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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.

NOTICE

Curtis Cabs, blades and general accessories add additional weight to the base vehicle. All Curtis accessory weights are listed in product 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.

WARNING

Exposure to Carbon Monoxide can Cause illness, serious injury or death. Never operate vehicle if suspicious of Carbon Monoxide. Inspect exhaust system for leaks monthly. Leaks can 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.

WARNING

Serious Injury or Death

	This cab enclosure does not provide protection from rollover or other accidents.
	This cab enclosure does not provide protection from flying objects including golf balls.
	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 and seals will be applied are clean, 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:

- | | |
|---|--|
| <ul style="list-style-type: none"> • Set of Standard and Metric Sockets (Deep & Shallow, 3/8" Drive) • 3/8" Drive Ratchet with Extension • Torque Wrench • Set of Standard and Metric Open-End Wrenches • Set of Standard and Metric Allen Wrenches • #2 and #3 Phillips Head Screwdrivers • Flat Head Screw Driver • Body Clip Removal Tool or Needle Nose Pliers • Coolant Drain Pan • Pipe Dope (<i>Not Teflon Tape</i>) • Drill/Driver | <ul style="list-style-type: none"> • #2 and #3 Phillips Head Bit • #2 Square Drive bit • Utility Knife • Pair of Scissors • Shears • Grease • Silicone Sealant • Tape Measure • China Marker or other Non-Permanent Marker • Snips • Plastic Putty Knife • Isopropyl Alcohol |
|---|--|

CAB INSTALLATION

STEP 1: (VEHICLE PREP)

- 1.1 Remove the negative battery terminal with the cam lever. Remove and set aside the nut from the positive battery terminal stud. See Figure 1.1.

Tools required

10mm Wrench or Socket

- 1.2 Remove and set aside the toolbox and its fasteners. See figure 1.2.

Tools required

17mm Wrench or Shallow Socket

- 1.3 Remove and discard the fender mounted grab handle along with its fasteners. See Figure 1.3.

Tools required

12mm Wrench or Socket

- 1.4 Remove and discard the shin guards and their mounting fasteners found on either side of the tractor at the front of the floorboard. See Figure 1.4.

Tools required

12mm Wrench and Socket

- 1.5 Free up and fold forward the rear portion of the floorboard mat. Expose the PTO lever guide plate bolts and area around the gas pedal. See Figure 1.5. **NOTE: It may be necessary to remove the loader control cable cover plate from the right fender to lift the floormat.**

- 1.6 Remove and set aside the PTO lever guide plate and (4) bolts securing it. See Figure 1.5.

Tools required

12mm Wrench or Socket

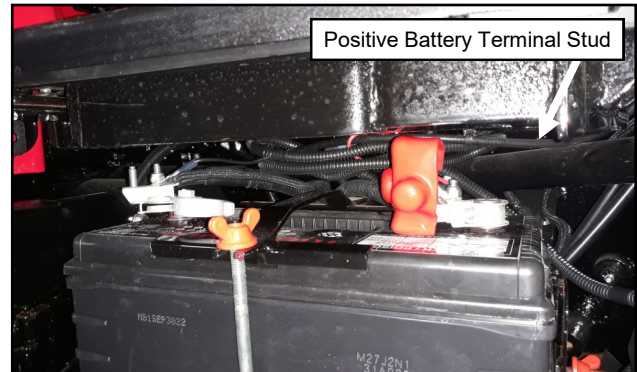


Fig. 1.1 (Battery Terminals)



Fig. 1.2 (Tool Box)



Fig. 1.3 (Fender Mounted Grab Handle)



Fig. 1.5 (Floorboard Mat, left)



Fig. 1.4 (Shin Guard - Right Side Shown)

CAB INSTALLATION

STEP 2: (CAB SEALING)

- 2.1 Wipe underside of the previously removed PTO lever guide plate with Isopropyl alcohol. Once dry, adhere the supplied .2" wide x .15" tall sealing bulb around the guide, between the welded-on standoffs. See Figure 2.1.
- 2.2 Reinstall the PTO lever guide on top of the vehicle's floorboard sandwiching the supplied rubber seal using the (4) fasteners removed in step 1.6 on the previous page. See Figure 2.2.

Tools required

12mm Wrench or Socket

- 2.3 Position the (2) 4" long supplied flex brushes to either side of the forward shuttle pedal, centered along the pedal's travel. Secure each brush with (2) self-drilling screws provided. See Figure 2.3.

Hardware Used

#10 Self-Drilling Screw

Qty

4

Tools required

#2 Square Drive Bit & Driver

- **Caution: Check for smooth and unobstructed pedal operation prior to placing machine into service.****

- 2.4 Wipe area around the fender mounted grab handle fastener holes removed in step 1.3 on the previous page with Isopropyl alcohol. Once dry, adhere a supplied red circular decal over each hole.
- 2.5 With the seat in the forward most position, using Isopropyl alcohol, wipe the top of the cross brace and up each fender at approx. 30 degrees from vertical. Once dry, adhere the supplied 1/2" x 916" foam weather seal as shown in Figure 2.5.
- 2.6 Cut supplied adhesive Velcro to fit around 3-point lever seal, leaving release paper in place. Wipe area directly around the 3-point raise and lower lever with Isopropyl alcohol. Once dry, position the supplied 3-point lever seal around lever. Fit in place, remove release paper from adhesive Velcro and adhere in place. See Figure 2.6.



Fig. 2.1 (Guide Plate with Sealing Bulb Adhered)



Fig. 2.2 (PTO Lever Guide & Seal)



Fig. 2.3 (Flex Brush Orientation)



Fig. 2.6 (3-Point Raise & Lower Lever Seal)

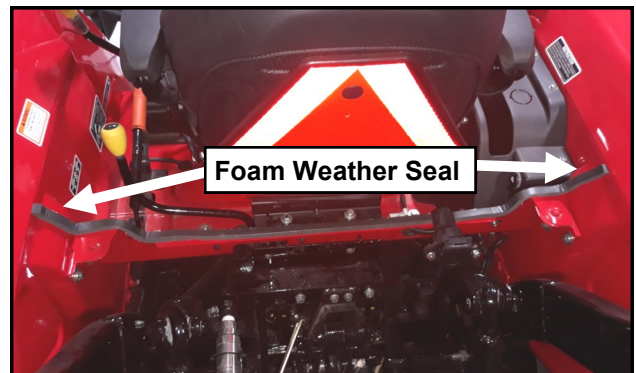


Fig. 2.5 (Foam Weather Seal Orientation)

CAB INSTALLATION

STEP 3: (FLOORBOARD BRACKETS)

3.1 Remove the left side lower fender bolt and reinstall ***finger tight only*** with the supplied floorboard-to-fender bracket as shown in Figure 3.1.

3.2 Repeat step 3.1 on the right side of the vehicle.

Tools required

12mm Wrench and Socket

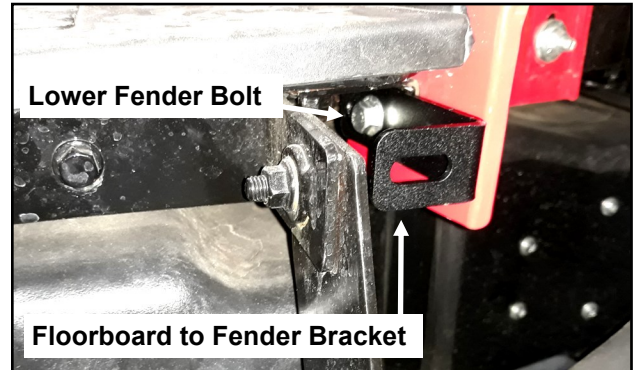


Fig. 3.1 (Floorboard-to-Fender Bracket Orientation)

STEP 4: (TOOLBOX TO REAR PANEL BRACKET)

4.1 Reinstall the toolbox using the fasteners removed in step 1.2. Sandwich the supplied toolbox to rear panel bracket between the toolbox and the OEM toolbox mount. Center supplied bracket in slots and snug fasteners. See Figure 4.1.

Tools required

17mm Wrench or Shallow Socket

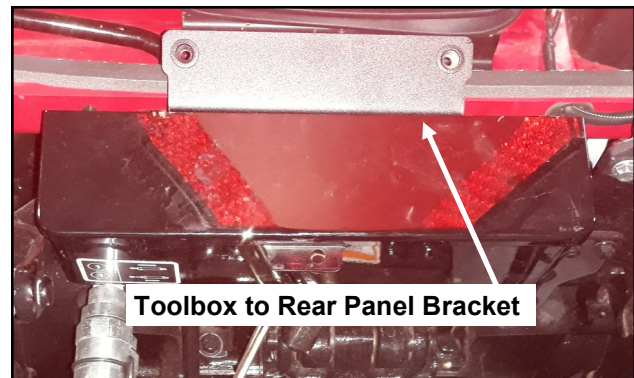


Fig. 4.1 (Toolbox to Rear Panel Bracket)

STEP 5: (LOWER REAR PANEL PRE-ASSEMBLY)

5.1 Locate the lower rear panel and rear panel to toolbox bracket. Keeping the slots centered, snug components together. See Figure 5.1.

Hardware Used

	<u>Qty</u>
5/16-18 x 3/4" Hex Head Screw	2
5/16" x 1" OD Fender Washer	2
5/16-18 Hex Lock Nut	2

Tools required

1/2" Socket & Wrench

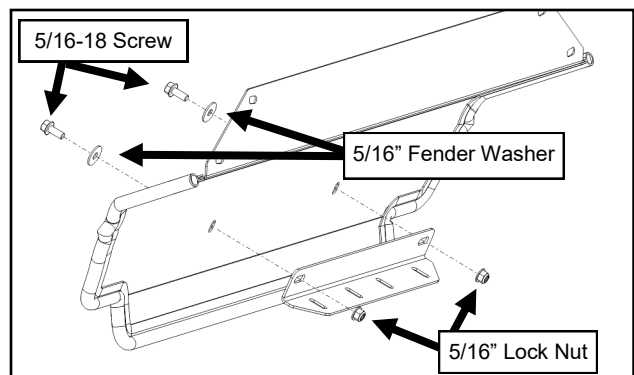


Fig. 5.1 (Rear Panel to Toolbox Bracket)

STEP 6: (LOWER REAR PANEL)

6.1 Have an assistant, while kneeling in the tractor seat, locate the lower rear panel between the fenders and aligning the front of it with the fender cross brace. Push down from the top, compressing the sealing bulb on the lower rear panel and the foam weather seal previously installed to the vehicle. Align slots in brackets and fasten using the provided hardware. See Figure 6.1.

Hardware Used

	<u>Qty</u>
5/16-18 x 3/4" Hex Head Screw	2

Tools required

1/2" Socket or Wrench

If necessary, adjust assembly to be parallel with cross brace and fully compress the seals on the fender cross brace and retighten mounting bracket hardware.

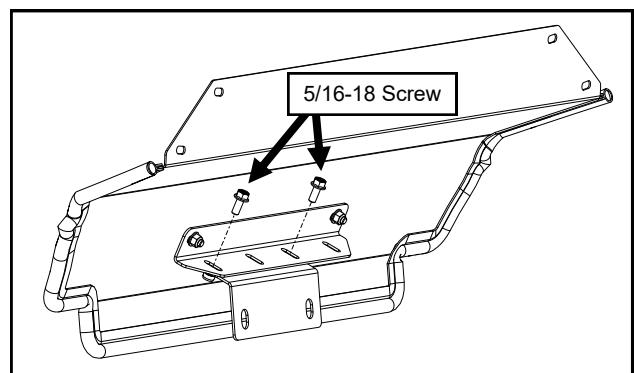


Fig. 6.1 (Lower Rear Panel to Rear Mount Bracket)

CAB INSTALLATION

STEP 7: (SIDE FRAMES - REAR LEGS)

- 7.1 With assistance, remove the pre-assembled left door from the left side frame and set aside. Do not lose the brass washers on the hinge pins.
- 7.2 Locate the left side rear leg and align lower edge of rear leg with the lower edge of the side frame's contour filler. Secure rear leg to side frame with the supplied hardware ensuring there is no gap at "A". See Figure 7.2.

Hardware Used	Qty
5/16-18 x 3/4" Hex Head Screw	5

Tools required
1/2" Wrench or Socket

- 7.3 Install 1" bulb rubber to the side frame assembly; starting at the floorboard, continuing on to the rear leg as shown in Figure 7.3. **Note: Ensure the bulb rubber's grip is fully seated along the entire length and cut to length.**
- 7.4 With an assistant, position the side frame assembly up onto the fender and rotate the front in. Install the front side frame fasteners finger tight at this time. See Figure 7.4.

Hardware Used	Qty
5/16-18 Hex Lock Nut	2
5/16-18 x 1" Hex Head Screw	2

Tools required
1/2" Wrench and Socket

- 7.5 Secure the rear portion of the side frame assembly finger tight only. **Side frame can be shifted forward or back to help sealing at fender.** See Figure 7.5.

Hardware Used	Qty
5/16-18 x 3/4" Hex Head Screw	3
5/16-18 Hex Lock Nut	3

Tools required
1/2" Wrench and Socket

- 7.6 Repeat steps 7.1 thru 7.5 on the right side of tractor. See Figure 7.6.

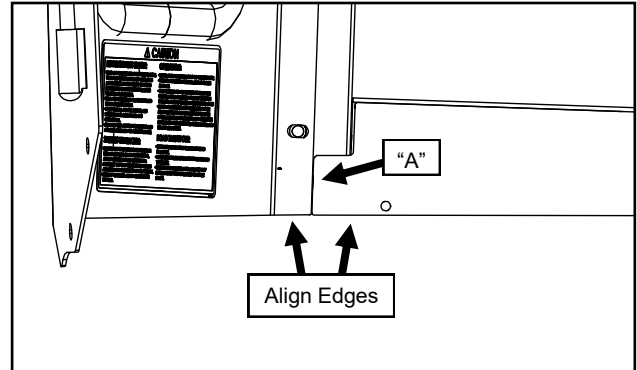


Fig. 7.2 (Side Frame to Rear Leg Orientation)

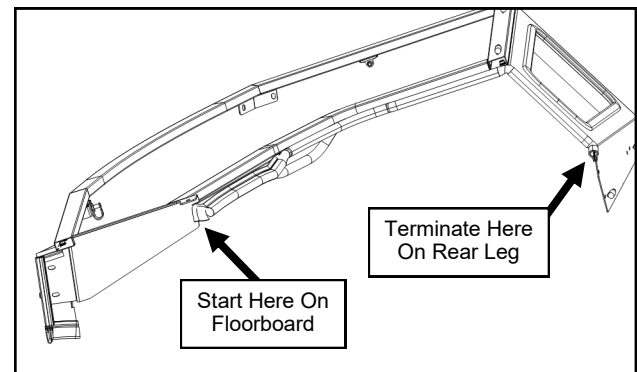


Fig. 7.3 (Side Frame - Rear Leg Sealing Bulb)

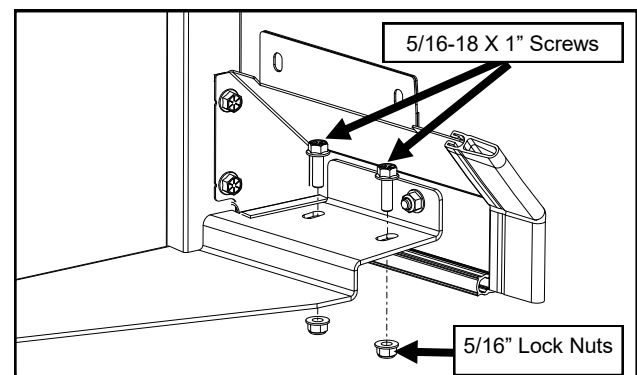


Fig. 7.4 (Front Side Frame Fasteners)

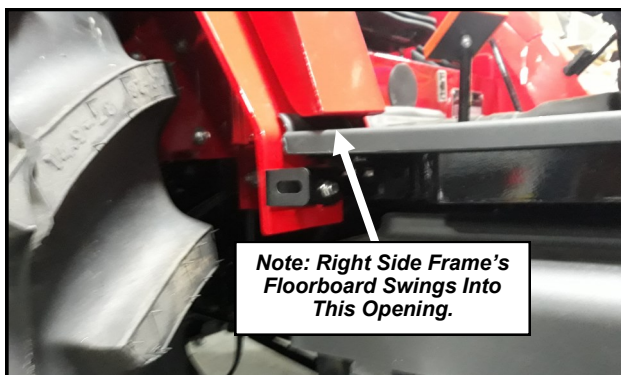


Fig. 7.6 (Right Side Frame Fasteners)

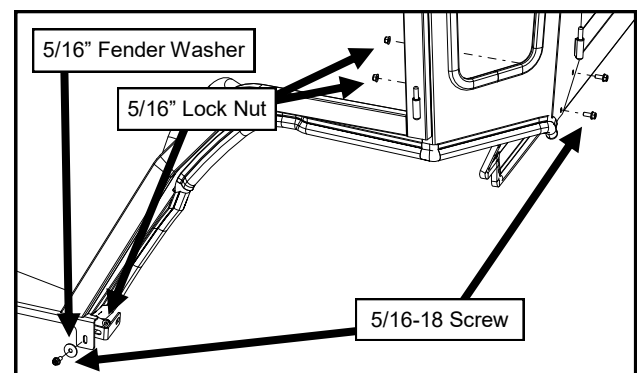


Fig. 7.5 (Rear Side Frame Fasteners)

CAB INSTALLATION

STEP 8: (ROPS BRACKET & CLAMPS)

- 8.1 Assemble the ROPS bracket to the rear leg as shown in Figure 8.1.

Hardware Used

5/16-18 x 3/4" Hex Head Screw	Qty 2
5/16-18 Hex Lock Nut	2

Tools required

1/2" Wrench and Socket

- 8.2 Position the ROPS clamp around the ROPS and fasten it to the previously installed ROPS bracket as shown in Figure 8.1.

Hardware Used

5/16-18 x 3/4" Hex Head Screw	Qty 4
5/16-18 Hex Lock Nut	4

Tools required

1/2" Wrench and Socket

- 8.3 Repeat steps 8.1 and 8.2 on the right side of tractor.

STEP 9: (COWL)

- 9.1 With an assistant, carefully lower the cowl assembly down into place as shown. The polycarbonate side windows mount to the outside surface of the front legs while upper steel portion of the cowl fastens to the inboard side of the side frames. See Figures 9.1a & 9.1b.

Hardware Used

5/16-18 x 3/4" Hex Head Screw	Qty 10
5/16" Nylon Washers	4
5/16-18 Hex Lock Nut	4

Tools required

1/2" Wrench and Socket

- 9.2 Install the left side cowl bracket. See figure 9.2.

Hardware Used

5/16-18 x 3/4" Hex Head Screw	Qty 3
5/16" Nylon Washers	2
5/16-18 Hex Lock Nut	2

Tools required

1/2" Wrench and Socket

- 9.3 Repeat step 9.2 on the right side of tractor.

STEP 10: (WINDSHIELD SUPPORT)

- 10.1 Position the windshield support across the side frames and install the front fasteners, snug only at this time. See Figure 10.1.

Hardware Used

5/16-18 x 1" Hex Head Screw	Qty 2
5/16-18 Hex Nut	2

Tools required

1/2" Wrench and Socket

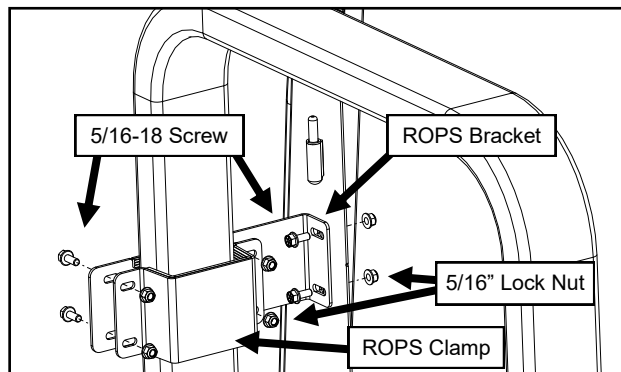


Fig. 8.1 (ROPS Bracket to Rear Leg Orientation)

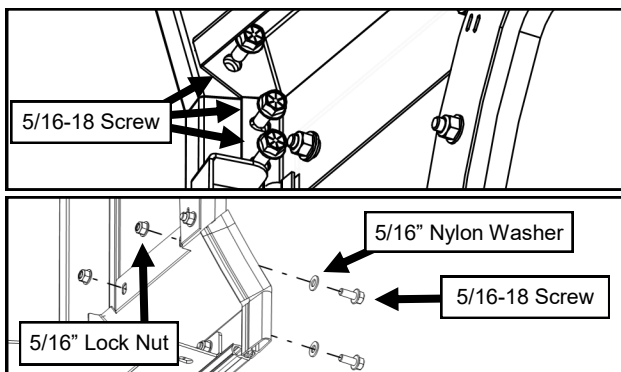


Fig. 9.1a & 9.1b (Cowl Fasteners)

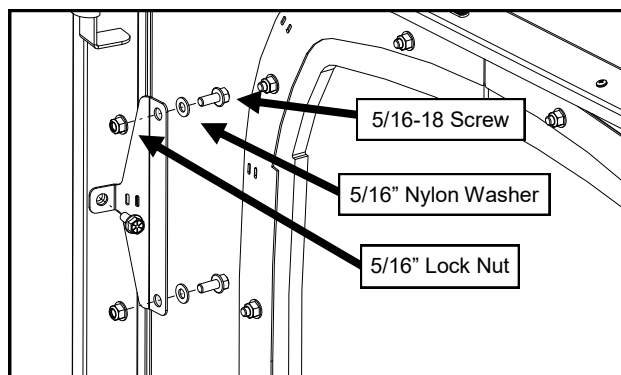


Fig. 9.2 (Cowl Bracket Orientation)

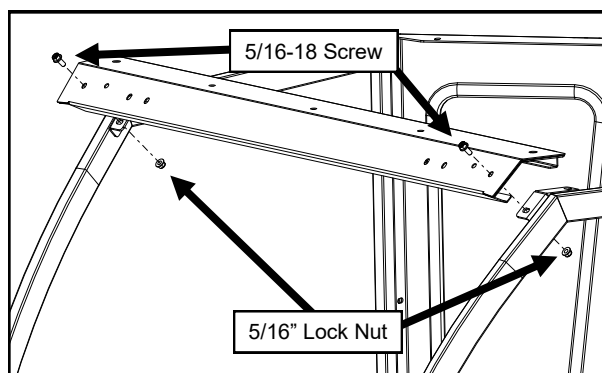


Fig. 10.1 (Windshield Support)

CAB INSTALLATION

STEP 11: (CAB WIRING)

- 11.1** Attach the main power wire harness to the top of the cowl cross brace, about 6" from the end of the windshield wiper motor connector, using a P-clip and hardware. The connector end should be outside the cab with the rest of the harness on the inside. See Figure 11.1.

Hardware Used

	<u>Qty</u>
#10-32 x 1/2" Pan Head Screw	1
#10-32 Hex lock Nut	1

Tools required

#2 Phillips Screw Driver
3/8" Wrench or Socket.

- 11.2** Snap in the heater switch and connect the wire harness.
- 11.3** Attach the harness to the under side of the cowl with the supplied P-clamp & hardware listed below. See Figure 11.1.

Hardware Used

	<u>Qty</u>
#10-32 x 1/2" Pan Head Screw	1
#10-32 Hex lock Nut	1

Tools required

#2 Phillips Screw Driver
3/8" Wrench or Socket.

- 11.4** Run the wire harness down along the right side trim ring, fastening with the (3) factory installed wire ties and through the 11/16" hole in the right side cowl window. See Figure 11.4.
- 11.5** Locate the supplied 7/16" I.D. rubber grommet. Slice the grommet in order to wrap it over the wire harness and then install into the 11/16" cowl hole.
- 11.6** Run the harness to the battery compartment on the right side of vehicle under the floorboard. Make sure that wires will not be cut or pinched routing to battery.
- 11.7** Locate the fuse harness (WH-GF). Make certain the fuse is installed in the fuse holder. Connect the fuse harness to the main power harness via the bullet connectors. Install the ring terminal found on the fuse harness to the positive battery terminal stud and secure using the nut which was removed in step 1.1. See Figure 11.7.
- 11.8** Install the ring terminal of the main power wire harness to the negative battery terminal stud. ***Do not reinstall the negative battery terminal at this time.*** Coil the slack in the power harness and secure with a wire tie. See Figure 11.7. Double check that the wires are not pinched or near sharp or hot surfaces.

NOTE: At the installer's discretion, wiring for accessories may also be installed at this time.

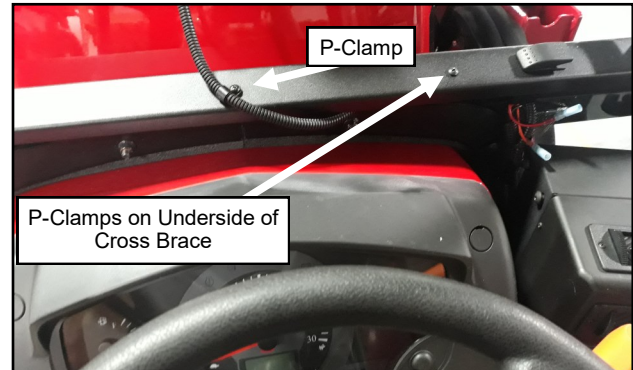


Fig. 11.1 (Attach Main Harness To Cowl)

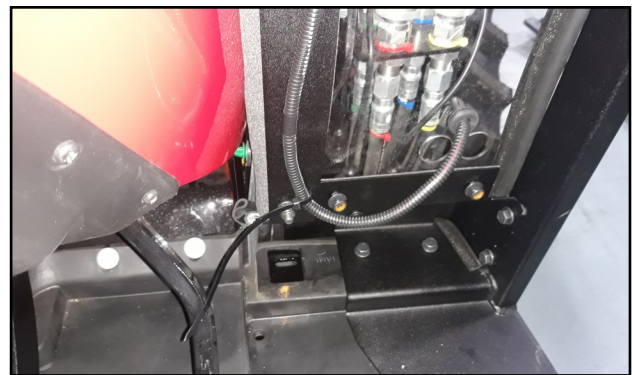


Fig. 11.4 (Bottom shown, top similar)

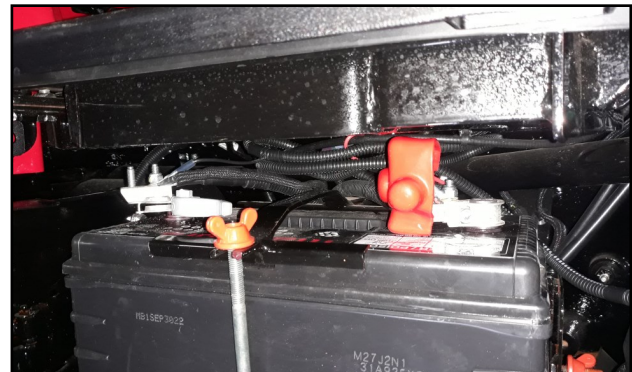


Fig. 11.7 (Power Supply Connections)

CAB INSTALLATION

STEP 12: (WINDSHIELD ASSMBLY)

- 12.1** With assistance, set the windshield up to the side frames and secure it to the windshield support using the hinge spacers and hardware. See Figure 12.1. Leave hardware loose.

Hardware Used

	Qty
5/16-18 x 1-1/2" Flat Head Screw	4
5/16-18 Hex Lock Nut	4

Tools required

#3 Phillips screw driver
1/2" Wrench or Socket.

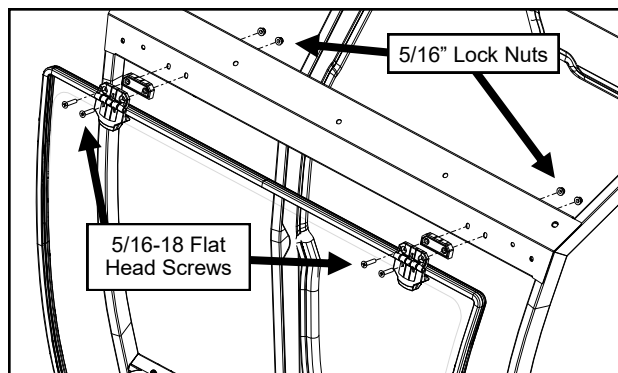


Fig. 12.1 (Windshield Assembly)

- 12.2** Secure the windshield latches to the side frames with the latches open, and tighten latch hardware. See Figure 12.2.

Hardware Used

	Qty
1/4-20 x 5/8" Hex Head Screw	4
1/4-20 Hex Lock Nut	4

Tools required

3/8" Wrench or Socket
7/16" Wrench or Socket

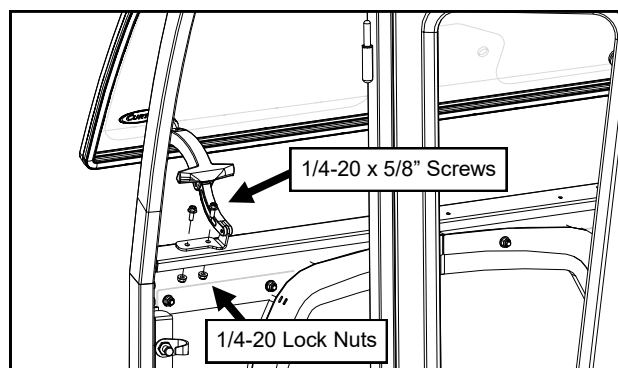


Fig. 12.2 (Secure Windshield Latches)

- 12.3** Close the windshield while lifting up on the bottom edge. Tighten hinge hardware.

Caution: The windshield hinges are plastic components. Do not overtighten the flat head screws. Torque to 7 ft.-lbs. max.

- 12.4** Ensure the windshield latches function properly and the windshield pivots open.

- 12.5** Remove the over-tightening caution decal from the top of the windshield. See Figure 12.5.

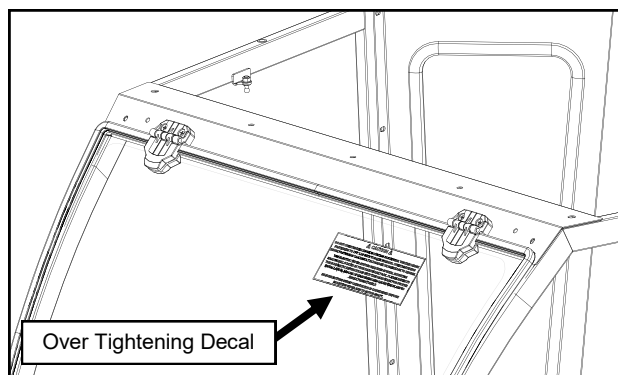


Fig. 12.5 (Decal Removal)

STEP 13: (WINDSHIELD WIPER MOTOR)

- 13.1** Mount the wiper motor to the windshield. See Figure 13.1. Make sure the wires are above the wiper motor shaft to prevent pinching the wires when the windshield is opened and closed, then connect to the wire harness.

NOTE: Do not install the wiper arm and blade at this time. Once all the wiring is complete and power is restored, it can be turned on and off to ensure that the wiper arm will be parked in the correct position once it is attached at a later step.

- 13.2** Re-check the windshield pop-out function. The wiper motor should easily clear the cowl, but if not, loosen the windshield hinges and raise the windshield to gain some clearance.

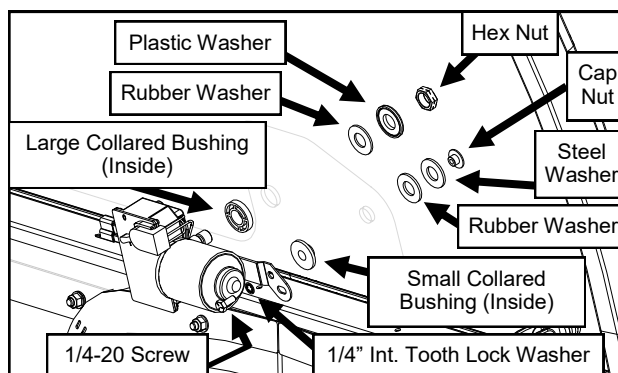


Fig. 13.1 (Windshield Wiper Motor)

CAB INSTALLATION

STEP 14: (ROOF)

- 14.1 With assistance, set the roof on top of the cab. Loosely secure with the hardware listed below. See Figures 14.1 and 14.2. Nylon washers are not used on the rear fasteners depicted in Figure 14.2.

Hardware Used

	Qty
5/16-18 x 3/4" Hex Head Screw	13
5/16" Nylon Washers	11
5/16-18 Hex Lock Nut	11

Tools required

1/2" Wrenches and/or Sockets

- 14.2 Once all roof fasteners are started, measure the width of the opening between rear legs. Adjust the width if needed, to 25-1/8" - 25-3/16". See Figure 14.2.

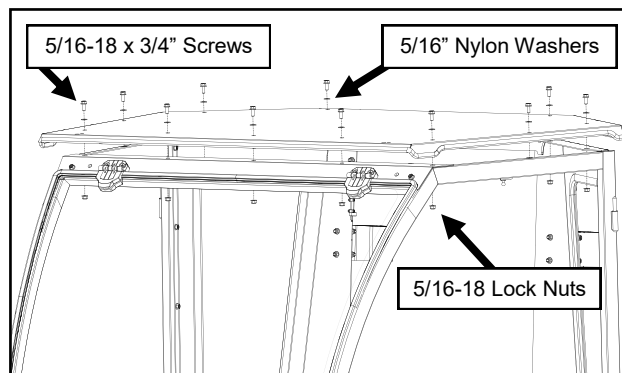


Fig. 14.1 (Roof Fasteners)

STEP 15: (TIGHTEN HARDWARE)

- 15.1 Tighten all hardware at this time, using the torque values found on the last (2) pages of this manual.

Note: Each side frame can be pushed rearward to close any gaps along the fender contour before tightening hardware.

Note: Suggested tightening sequence is as follows:
Floorboards, lower rear panel, cowl, windshield support, roof, and ROPS brackets.

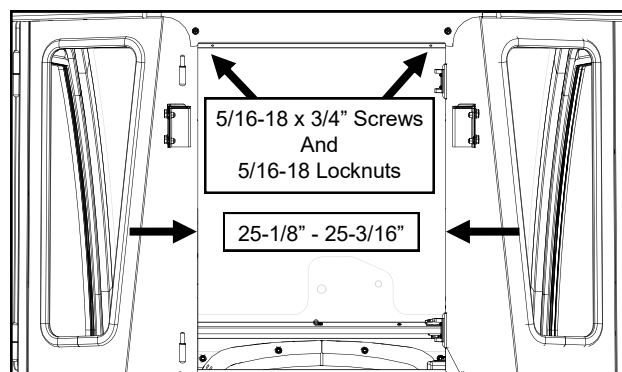


Fig. 14.2 (Rear Leg Opening)

STEP 16: (REAR WINDOW)

- 16.1 Grease the hinge pins found on the left side rear leg and slide on greased brass washers (one washer per pin). See Figure 16.1.

- 16.2 Hang the rear window on the hinges.

Note: Loosen rear window hinges if adjustment is needed.

- 16.3 Connect the window latches to the right rear leg by depressing the tabs on the latch and inserting into the receivers mounted on the rear leg. Close and check the alignment of the window. If off, check measurements and re-align the rear legs. Tighten the hinge hardware to 7 ft.-lbs. Verify smooth operation of the latches.

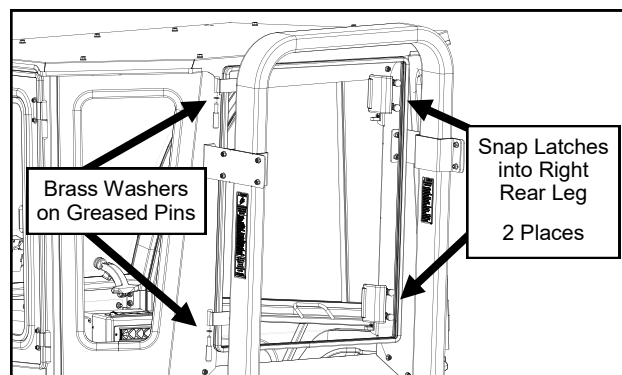


Fig. 16.1 (Hang Rear Window)

STEP 17: (HEATER)

- 17.1 Attach the heater bracket to the right side frame. See Figure 17.1. Fully tighten hardware at this time.

Hardware Used

	Qty
5/16-18 x 3/4" Hex Head Screw	2

Tools required

1/2" Socket and Extension

- 17.2 Attach the heater to the heater bracket by removing and re-using the screws on the side of the heater. Tighten hardware.

Tools needed

#2 Phillips Screw driver.

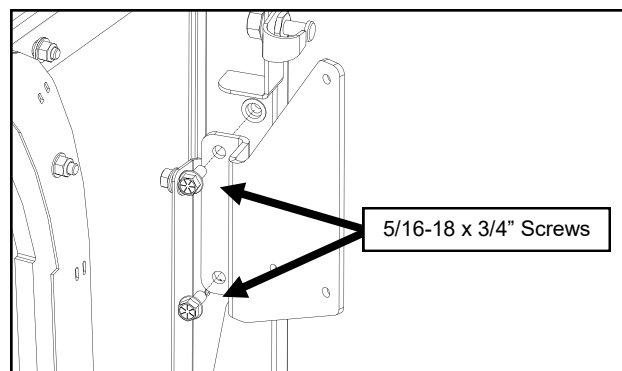


Fig. 17.1 (Install Heater Bracket to Side Frame)

CAB INSTALLATION

STEP 18: (HEATER PLUMBING)

*** CAUTION *** To avoid injury caused by hot engine coolant, make sure the engine has completely cooled down before beginning plumbing of auxiliary heater.

- 18.1 Place a clean coolant drain pan under the radiator, loosen petcock and let the coolant drain into the pan.
- 18.2 Once coolant is drained, remove and set aside the upper radiator hose, side guards and air filter. Reference the vehicle's manual if needed. See Figure 18.2.
- 18.3 Skip to step 18.4 if installing on tractor with block heater. Cut the lower radiator hose and install the supplied T-fitting with 2 large hose clamps as shown in figure 18.3.
- 18.4 Remove plug from block heater and install it on the end of the supplied sending unit adaptor. Thread plug into adaptor and tighten. See Figure 18.4.
- 18.5 Install a small nylon washer onto the other end of the sending unit adaptor and install the hex bushing. Install the assembly into the engine block heater with a large nylon washer where the plug was removed. If the sending unit adaptor does not tighten so that the port on the side for the 3/8" NPT nipple orients as desired, then remove it and install another nylon washer and try again. Install the 3/8" NPT nipple into the side port of the adaptor, using Teflon tape (not provided).
- 18.6 Install 3/8" block adaptor into side of previously installed sending unit adaptor, using Teflon tape (not provided).
- 18.7 Connect the supplied heater hose to the block adaptor with a hose clamp and route over the top of the radiator as shown in figure 18.7.
- 18.8 Route as shown; down right side of engine, rearward along the OEM ridged coolant line, up and through inboard bushing in right side cowl window, trim to length and connect to inboard heater pipe with a hose clamp. See Figures 18.8



Fig. 18.2 (OEM Items to be Removed)

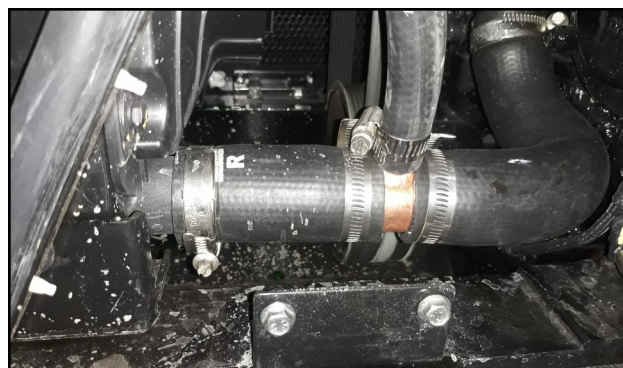


Fig. 18.3 (Install Tee fitting)

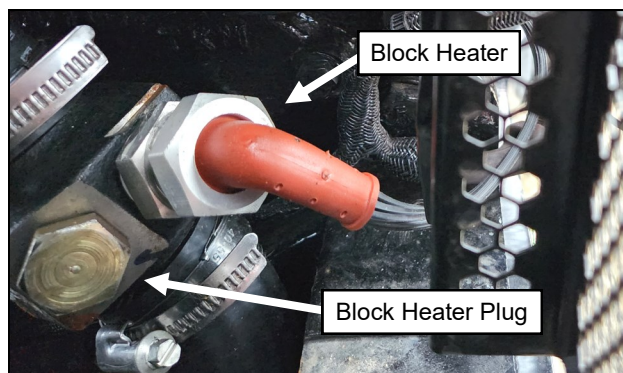


Figure 18.4 (Block Heater Plug)

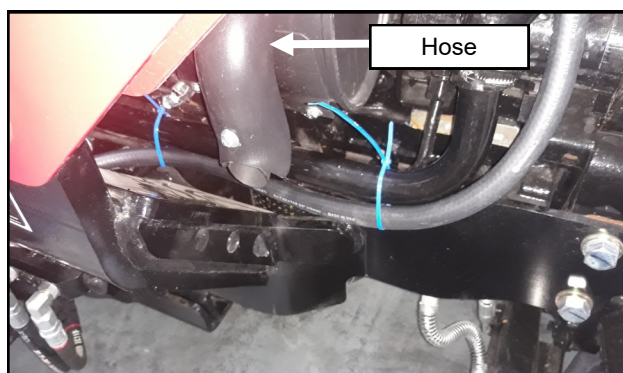


Figure 18.8 (Return Line Routing)

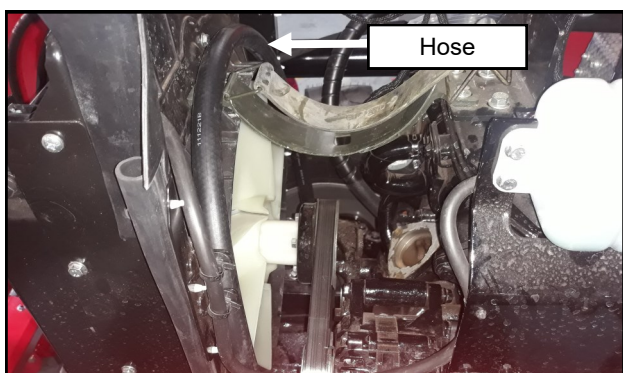


Figure 18.7 (Return Line Routing)

CAB INSTALLATION

Supply line all models:

- 18.9** See fig. 18.9. Locate the 5/8" by-pass hose that runs from the top of the water pump to the EGR system. Mark the top of the hose in the center of the long straight section where a T-fitting will be installed. Remove spring clamps from both ends of hose and remove hose from vehicle.
- 18.10** Cut the by-pass hose where marked and remove a 1/2" piece at the spot where cut. Keeping the molded by-pass hose oriented as it was before cutting, install the provided T-fitting at the cut with 2 hose clamps removed in step 18.9. Install the remaining heater hose to the top of the T-fitting with hose clamp provided. See Figure 18.10.
- 18.11** Feed by-pass hose assembly down through the injectors and wiring, attach to water pump and EGR with hose clamps provided. See Figure 18.11.
- 18.12** Route the hose as shown to the right side of the engine. Follow the previously installed return hose to the heater, passing through the remaining bushing in the cowl. Trim to length and connect to heater with hose clamp. See Figures 18.12a - 18.12c.
- 18.13** Splice the provided shut-off valve into either of the heater hoses. Locate anywhere along the length of the hose where there is good access, and the hose is not transitioning through a bend.
- 18.14** Secure all heater hoses from moving parts and excessive heat sources with the supplied wire ties. Check for clearance when closing hood.
- 18.15** Reinstall the upper radiator hose, side guards, and air filter.

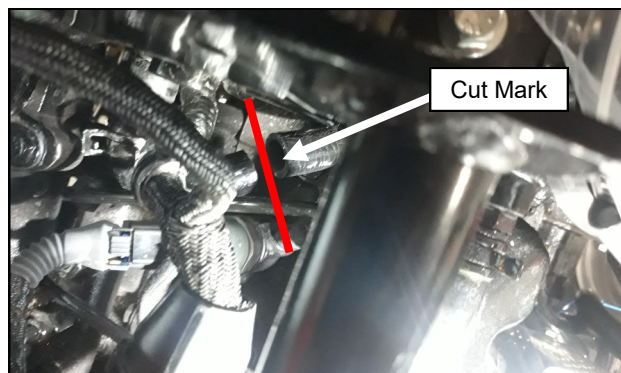


Figure 18.9 (Mark By-Pass Hose)

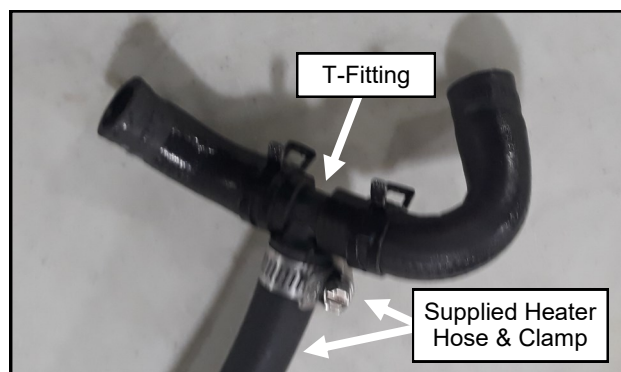


Figure 18.10 (By-Pass Hose w/ T-Fitting)

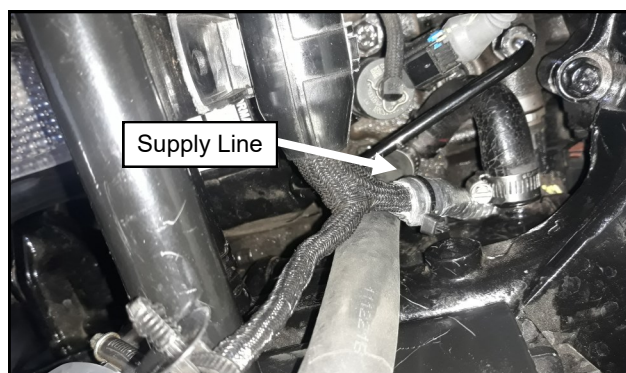


Fig. 18.11 (Installed By-Pass Hose Assy.)



Figure 18.12a (Supply Line Routing)

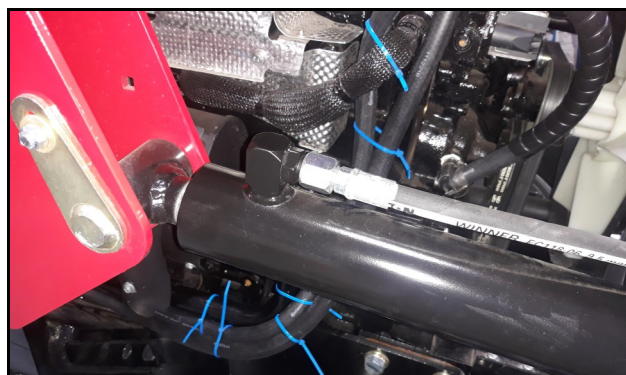


Figure 18.12b (Supply Line Routing)



Figure 18.12c (Supply Line Routing)

CAB INSTALLATION

STEP 19: (FINISH HEATER)

- 19.1 Connect the leads found on the heater to the main power wire harness (orange to orange, red to red & black to black).
- 19.2 Install the provided 8" length of 1/2" wire loom to the heater leads.
- 19.3 Re-install the negative battery terminal to the battery.
- 19.4 Refill the cooling system. Start the tractor and inspect coolant system for leaks.
- 19.5 With the tractor running, check the heater hoses and make sure they get warm. If not, remove the heater from its mount and let hang from the hoses as low as possible. If the heater and hoses still do not get warm, temporarily put a clamp on the upper radiator hose to force coolant through the heater. **Warning:** To avoid engine damage, remove the clamp as soon as heater gets warm. Reattach heater to the bracket. Once complete, let the engine cool, check the coolant level, and top off coolant if required.

STEP 20: (FINISH WIPER)

- 20.1 Turn on the wiper motor briefly, then turn back off. This will ensure the motor shaft is in the correct parked position.
- 20.2 Pre-assemble the wiper arm and wiper blade.
- 20.3 Install the wiper arm onto the wiper motor so that the wiper is approximately 55 degrees from vertical as shown in Figure 20.3. Tighten the Set Screws.

Tools required

2.5mm Allen Wrench

- 20.4 Adjust the length of the wiper arm as long as possible while still clearing the sealing rubber around the perimeter of the windshield. Turn on the wiper to check proper operation. Reference step 5 of the wiper installation instructions.

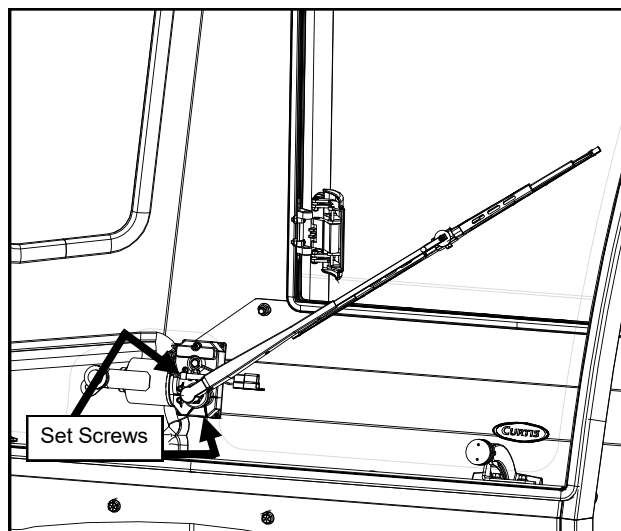


Fig. 20.3 (Wiper Arm and Blade)

CAB INSTALLATION

STEP 21: (DOORS)

21.1 Check to make sure that the brass washers are still installed on the left side hinge pins and then apply grease to the pins.

21.2 Hang the left door on the hinge pins.

Note: If necessary, adjust the door as outlined in steps 21.3 thru 21.5.

21.3 Loosen the door hinges to allow for adjustment later. While lifting up and forward on the door handle, line up the door latch with the striker pin and carefully attempt to latch. You should be able to hear 2 clicks as you slowly engage the latch on the pin. If the latch is too far forward or back to latch on the pin, adjust as shown. See Figures 21.3a through 21.3c. Then retighten and latch.

21.4 Stand back and examine the alignment of the door with the roof and the A-pillar. You can adjust this by moving the striker pin up or down as shown to help with alignment. *TIP: In the final step, the front of the door will drop a small amount the first time you open it. Set the front of the door a little bit higher so it aligns properly.* Adjust as necessary until you are happy with the alignment. Have an assistant sit inside the cab and once more carefully close the door like you did in step 21.3. Work with the assistant and tighten the hinge bolts.

21.5 Open the door and check for smooth operation of the latch. As noted in step 21.4, the door will likely drop a little bit at the front and the striker pin will need to be adjusted down accordingly. Also make sure the door seal is making contact along the perimeter of the door and the latch clicks twice when closing. If necessary, adjust the striker in or out to achieve this.

21.6 With the door open, attach a gas strut to the ball studs on the side frame and door. Make sure the quick release end is on the side frame so that the gas strut stays with the door if removed for ventilation.

21.7 Repeat steps 21.1 through 21.6 for the right door.

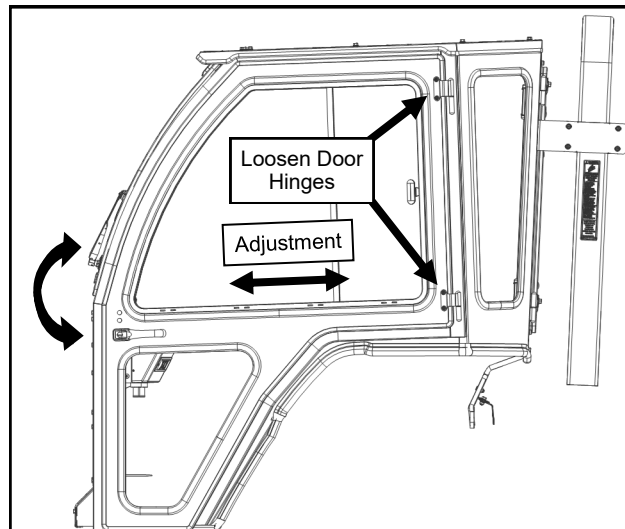


Fig. 21.3a (Door Hinge Adjustment)

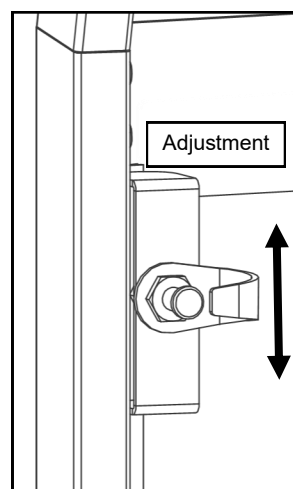


Fig. 21.3b (Striker Pin)

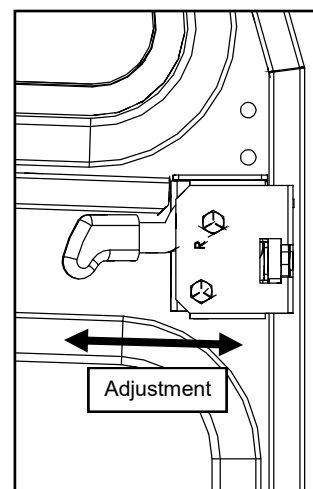


Fig. 21.3c (Door Latch)

CAB INSTALLATION

STEP 22: (REPLACEMENT DECALS)

- 22.1** It is mandatory to install the newly supplied **WARNING** decal to the outboard side of the left ROPS upright due to the original decal being partially covered by the ROPS bracket. See figure 22.1.
- 22.2** It is necessary to install the newly supplied **CAUTION** decal to the inboard side of the right ROPS upright as shown in figure 22.1.

STEP 23: (ACCESSORIES/PLUGS)

- 23.1** If installing accessories, please do so now. If not, use the supplied plugs and/or fasteners to fill any exposed holes. *The roof assembly has been hidden for clarity in fig. 23.1b.* See Figures 23.1a thru 23.1c.

23.2 Optional Rear Wiper Note:

For easier wiper motor harness disconnection, cut the main wiring harness connector off a few inches from the end and create a jumper harness with it using bullet connectors. **Do not cut the connector off the wiper motor.**

Strip all the wires, crimp a male bullet connector onto the ground (black) wire of the main wire harness and a female bullet connector on the positive (red) wire.

Reverse the male and female bullet connectors on the new jumper wire harness so that the male bullet connector is on the positive (red) wire and the female bullet connector is on the ground (black) wire.

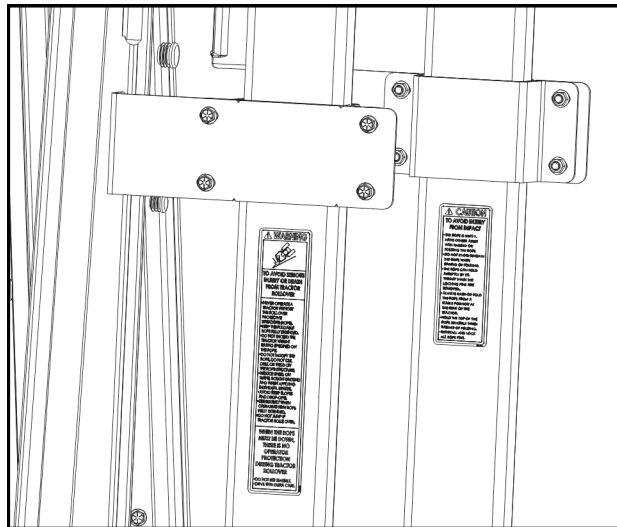


Fig. 22.1 (ROPS Decals)

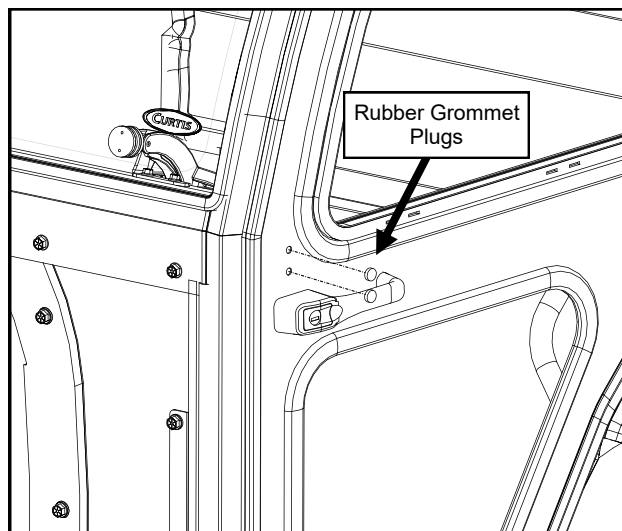


Fig. 23.1a (Install Mirror Mounting Hole Plugs)

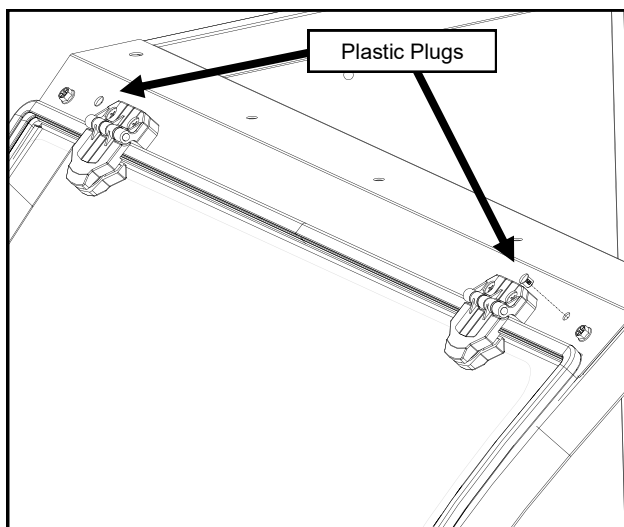


Fig. 23.1b (Windshield Support Plugs)

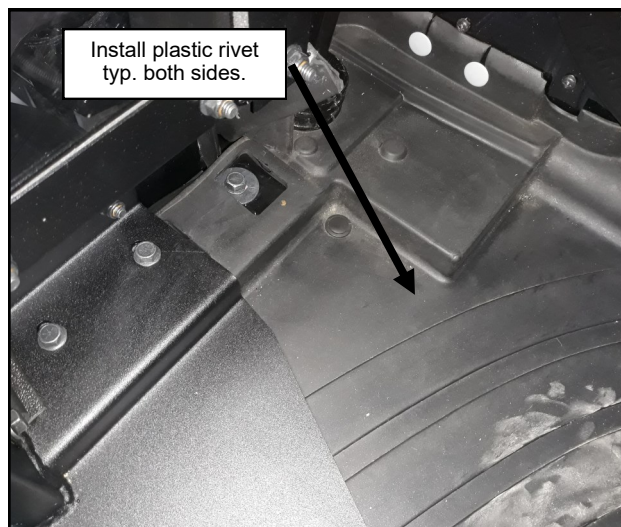


Fig. 23.1c (Floorboard Holes Plugged)

CAB INSTALLATION

STEP 24: (FINISHING TOUCHES)

- 24.1** It may be necessary to roll out the right side frame's bulb rubber around the **CAUTION** decal found on the top of the right fender. See Figure 24.1
- 24.2** Remove the protective film from rear leg, lower door, and/or cowl windows if present at this time.
- 24.3** Due to the nature of the packaging materials used for shipping this product, the components of the cab system may have dust on their surfaces upon removal from the packaging. It is recommended that after completion of the cab installation, the cab and vehicle are washed thoroughly to eliminate any dust or contaminants. See the Care and Maintenance section below for critical information on cleaning the cab.
- 24.4** For best seal, massage the rubber seal between the side frames and the fenders with a putty knife, pushing in or out, to close any gaps in the area shown in Figure 24.4.



Fig. 24.1 (Right Fender - Caution Decal)



Fig. 24.4 (Fender Seal, right side shown)

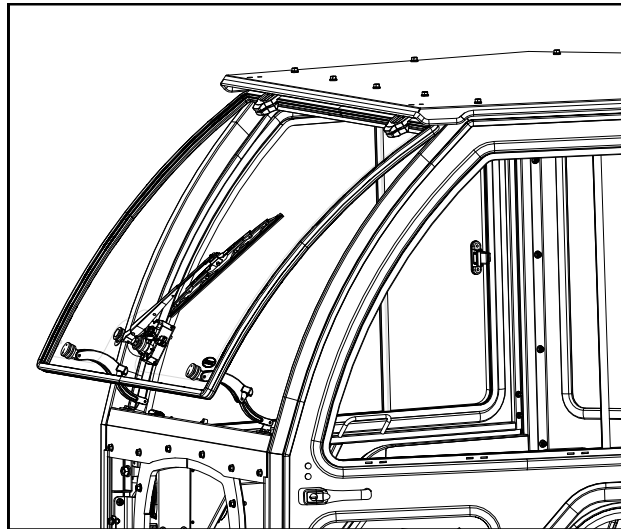
CARE AND MAINTENANCE

- Re-apply lubrication (preferably grease) periodically as needed to the door striker pins, door latch assemblies, and the door hinges.
- Check and tighten hardware after 40 hours of operation. Periodically inspect and tighten hardware for the remainder of the unit's life.
- Wash the painted surfaces of the cab with commercial automotive cleaning products.
- Clean glass windows with glass cleaner. *Note: Some windows on the cab are acrylic. DO NOT* clean acrylic windows with harsh chemicals. It will damage the plastic. Mild soap and water should be used on all acrylic windows.

CAB FEATURES & OPERATION

POP-OUT WINDSHIELD

Your Mahindra 5100 cab comes equipped with a pop-out windshield for ventilation. To open the windshield, simply lift up on both of the pop-out latches and rotate until the latches rest in the over-center position.



Pop-Out Windshield

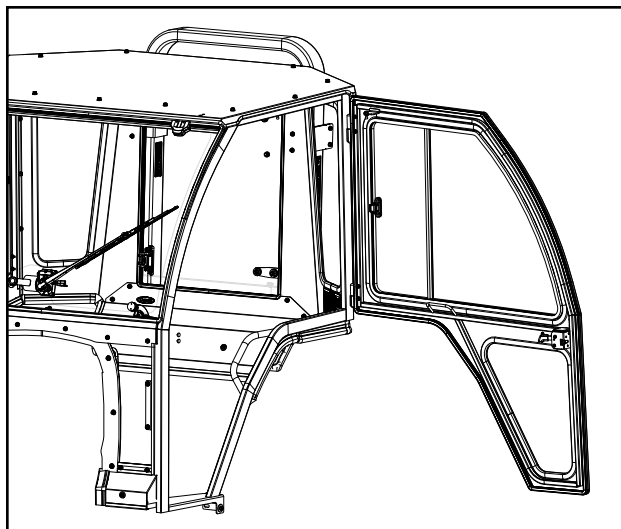
LIFT-OFF DOORS

For added ventilation, the doors on the Mahindra 5100 cab lift off in seconds without tools.

To lift off:

1. Disconnect the gas strut from the side frame by sliding the quick release lever and pulling the strut down.
2. Rotate the doors 90° to the cab and lift. Also, remove the hinge washers and store in a plastic bag.

Store the doors in a safe location to prevent damage.



Lift-Off Doors

REMOVABLE REAR WINDOW

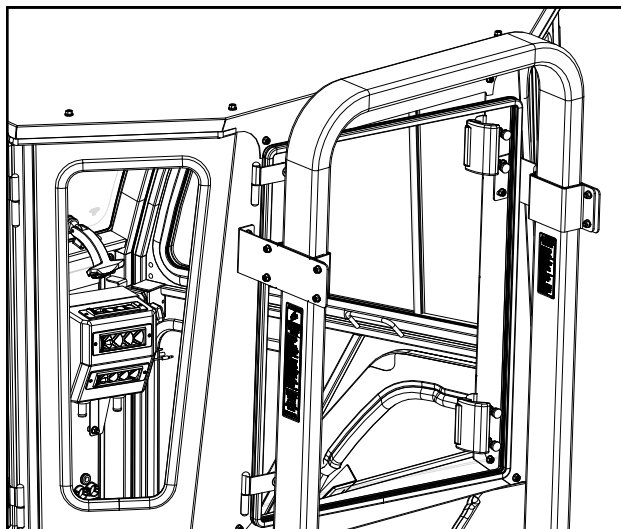
The rear window can also be removed for added ventilation.

To remove the rear window:

1. Open both window latches and disconnect from right rear leg with tabs on latch. Open the window taking care not to let the window open into the ROPS or damage may occur.
2. From outside of the cab, lift up on the rear window and slide off the hinges. Remove the hinge washers and store in a plastic bag.

Store the rear window in a safe location to prevent damage.

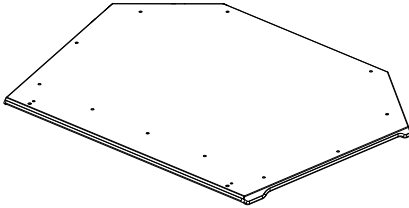
To reinstall the rear window, reinstall the hinge washers, align the hinges with the pins and drop into place. Re-attach the latches to the rear leg.



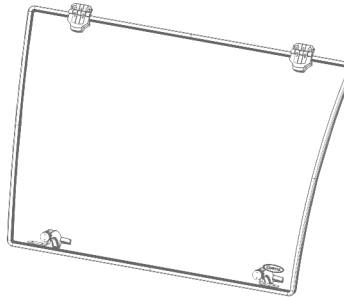
Venting/Removable Rear Window

MAHINDRA 5100 PREMIUM CAB SERVICE PARTS

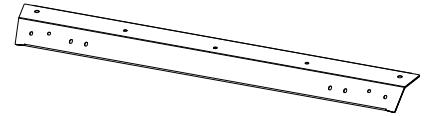
ROOF ASSEMBLY
P/N: 8SV-101-00069



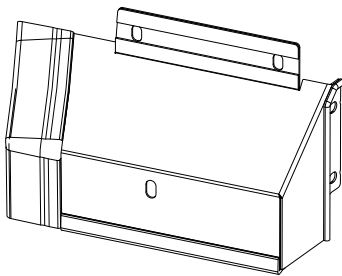
WINDSHIELD ASSEMBLY, 40" X 28.5"
P/N: 8SV-102-00042



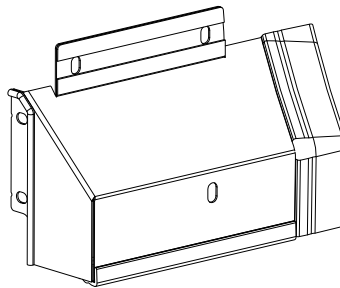
WINDSHIELD SUPPORT
P/N: 8SV-103-00033



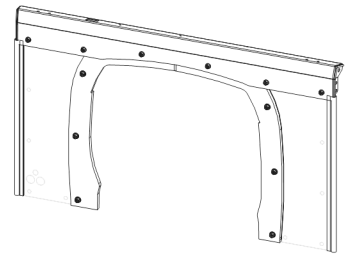
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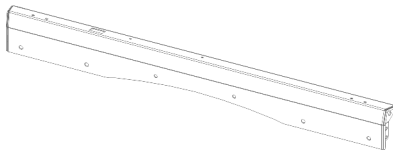
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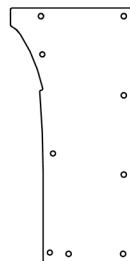
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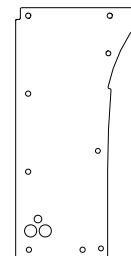
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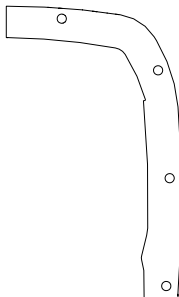
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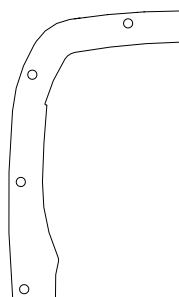
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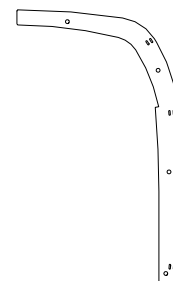
COWL FOAM SEAL, LEFT
P/N: 8SV-9FR-00087-L



COWL FOAM SEAL, RIGHT
P/N: 8SV-9FR-00087-R

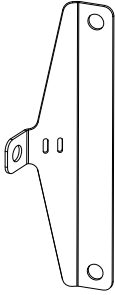


COWL TRIM RING
QTY. 1
P/N: 8SV-SM-02395

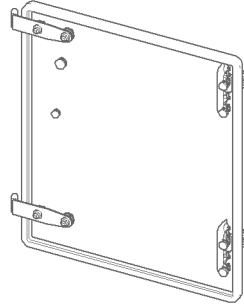


MAHINDRA 5100 PREMIUM CAB SERVICE PARTS

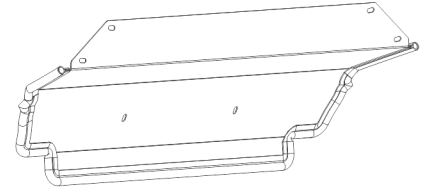
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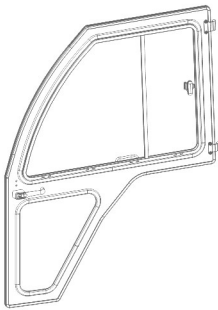
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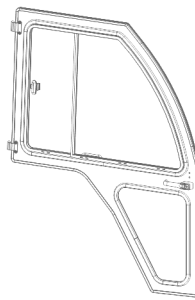
LOWER REAR PANEL ASSEMBLY
P/N: 8SV-106-00046



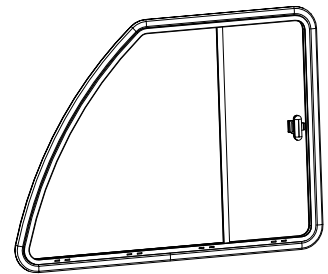
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P/N: 8SV-107-00061-L



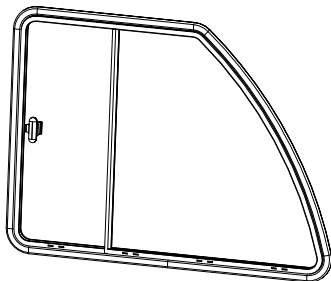
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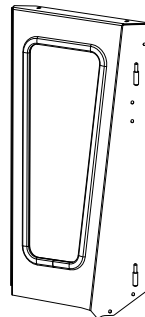
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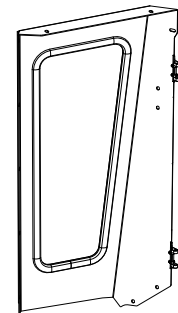
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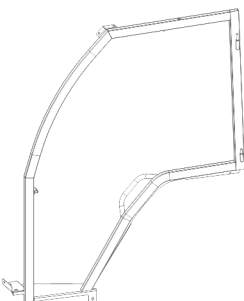
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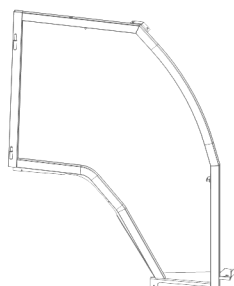
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P/N: 8SV-108-00029-R



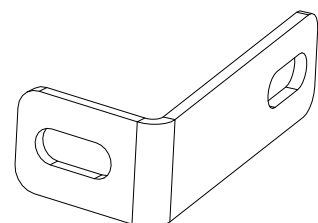
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P/N: 8SV-109-00029-L



SIDE FRAME ASSEMBLY, RIGHT
P/N: 8SV-109-00029-R

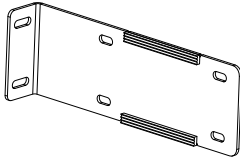


BRACKET, FLOORBOARD TO FENDER
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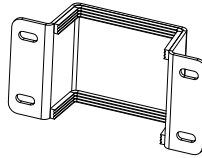


MAHINDRA 5100 PREMIUM CAB SERVICE PARTS

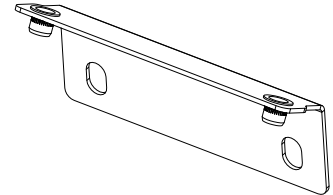
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P/N: 8SV-110-00113



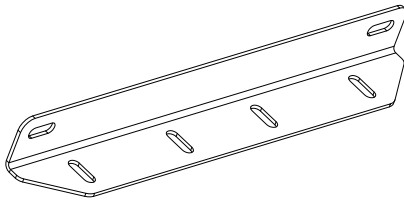
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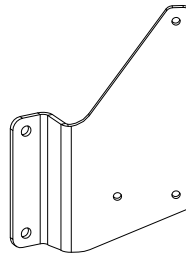
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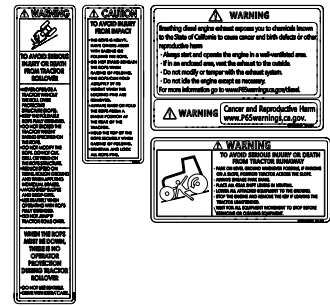
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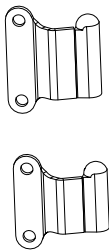
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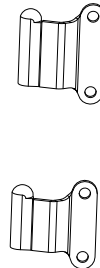
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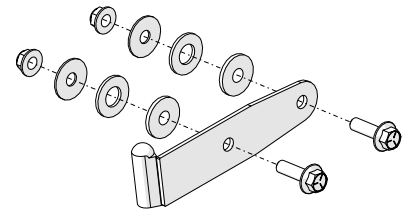
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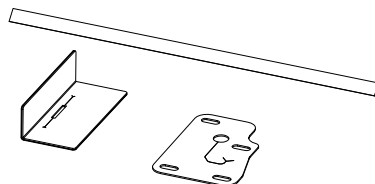
HINGE KIT, TOP & BOT, RIGHT
P/N: 8SV-HKWTB-R



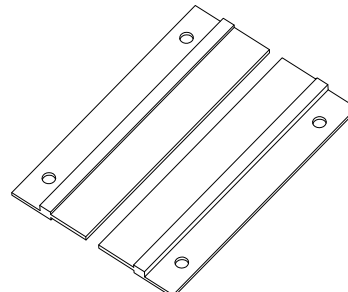
GLASS HINGE SLEEVE WITH
MOUNTING HARDWARE
P/N: 8SV-PL-00021



SEALS, PTO LEVER & 3-POINT RAISE
AND LOWER LEVERS
P/N: 8SV-CFP-00039



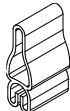



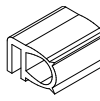

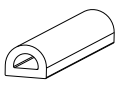


BRUSH KIT
P/N: 8SV-9SL-00015



ADDITIONAL SERVICE PARTS

PART NUMBER	DESCRIPTION
9SV-DL173	DECAL, HEARING PROTECTION
9SV-HWS	WINDSHIELD HINGE KIT
9SV-9PWM110	WIPER MOTOR, 110 DEGREE
9PWB20-FB	WIPER BLADE, 20", FLEX
9SV-9PWA14-16	WIPER ARM, ADJUSTABLE LENGTH (11" - 16")
9SV-PWKHB	GLASS MOUNTING KIT FOR WIPER SYSTEMS
9SV-GS02Q	GAS SPRINGS, 12-3/8 EXT, QUICK DISCONNECT ENDS (SET OF 2)
9SV-DSTRH	DOOR STRIKER KIT - INCLUDES CASE HARDENED STRIKER BOLT
9SV-IHRL	INSIDE HANDLE ROTARY LATCH KIT (INCL. L & R)
9SV-OHRL	OUTSIDE HANDLE ROTARY LATCH KIT (SET OF 2)
9SV-9PHW010-W	HINGE WASHER, KIT (SET OF 4) OD .635, ID .41, THK .08
9SV-GS02A	BALL STUDS, 10MM (BAG OF 10)
9PI01	POLY INSERT 1", 14-20 GA BLK MATTE, INSERT FINS .94/.95 (QTY.: 1)
9PI02	POLY INSERT 3/4", 14-20 GA BLK MATTE FINISH, INSERT FINS 0.69 (QTY.: 1)
9SV-WL1	WINDSHIELD LATCH KIT 1, POPS OPEN W/S FOR VENTING ONLY
8SV-WL3	WINDSHIELD LATCH & BRKT ASS'Y. SGL POST (SET OF L&R)
9SV-9HR04	THICK PANEL SNAP BUSHINGS, .937ID X 1.093OD (SET OF 2)
9SV-9HR0045	BLOCK ADAPTER (3/8" NIPPLE)
9SV-9HR00601.0	HOSE CLAMPS #10 (1") (QTY.: 6)
9HR0043	1-1/2" x 5/8" TEE ITTING
9HR0060-2.25	HOSE CLAMPS #28 (2-1/4") (QTY.: 1)
9HR0051A	HEATER ADAPTOR, STD SENDING UNIT W/HEX BUSHING
9SV-9HR-00025	IN-LINE MANUAL SHUT-OFF VALVE, 3/4", NSF 14
9SV-9HR0048	ROCKER SWITCH (HI-OFF-LOW)
9SV-9HR-L	REPLACEMENT LOUVER-15,000 & 20,000 BTU HEATER
8SV-9PH20WG	TUCK-AWAY HEATER WITH WIRED GROUND
9SV-HRH61-20	HEATER HOSE (5/8" I.D.)-20 FT
9SV-WH-00072	WIRING HARNESS POWER
8SV-WH-GF	WIRE HARNESS, GLASS FUSE
9DL01H	KEYS, SET OF 2 ON A RING, FOR HANDLE 1096-1, KEY CODE C40

TRIM LOK, STD, 1/16" - 1/8" GRIP	5/8" STD BULB, 1/16" GRIP	1" FLAT BULB, 1/16" GRIP	RUBBER FOAM, 1/2" X 9/16"	WINDOW RUBBER	1" ROUND BULB, 1/16" GRIP	3/4" SIDE BULB, 1/16" GRIP	3/4" SIDE BULB, 1/4" GRIP	ARCH PSA .2 X .15
								
9SV-PRO1-20	9SV-PRO2-15	9SV-PRO5-10	9SV-PR43-4	9SV-PR10-10	9SV-PR19-10	9SV-PR17-20	9SV-PR38-15	9SV-PR53-15

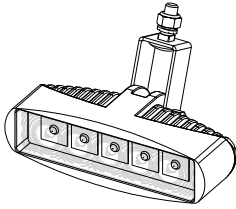
1/2"
WEATHERSEAL



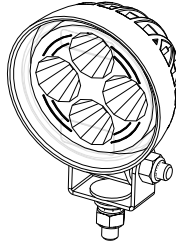
9SV-PR20-10

OPTIONAL ACCESSORIES FOR MAHINDRA 5100 PREMIUM CAB

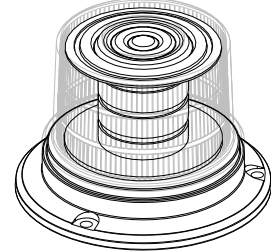
FRONT LED WORK LIGHTS (P/N: 9LEDW4)



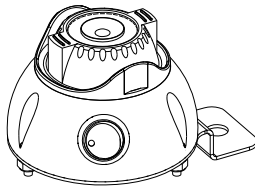
REAR LED WORK LIGHTS (P/N: 9LEDW3)



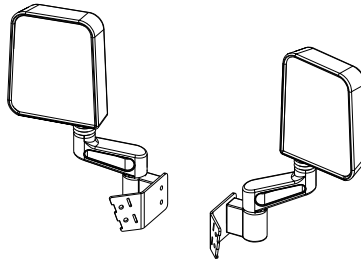
STROBE LIGHT (P/N: 9LEDS2)



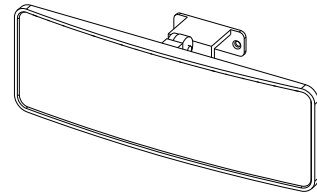
DOME LIGHT (P/N: 9LEDD14)



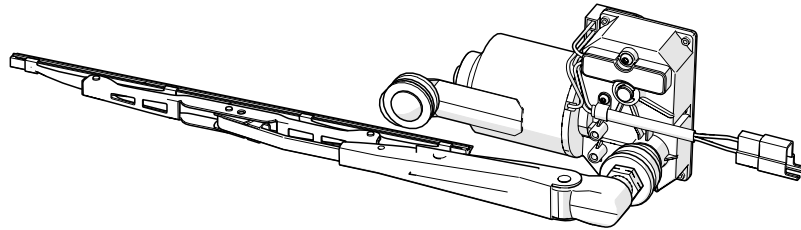
SIDE VIEW MIRRORS (P/N: 9PM5)



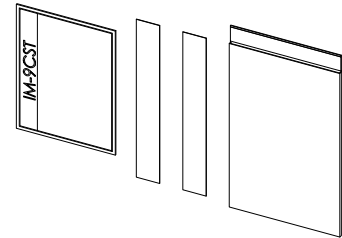
REAR VIEW MIRROR (P/N: 9PM3)



REAR WIPER KIT, 85 DEG W/ 12" FLEX BLADE (P/N: 9PWK8512F9-11A)



Sure Step Kit (9CST)



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








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. **Do not** use these high torque values on any of the following applications involving: tubing, plastic, nylon or rubber washers, threaded inserts, etc.. See previous 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 Grade No.		2				5				8*			
Bolt head identification mark as per grade. NOTE: Manufacturing Marks Will Vary						  				  			
Bolt Size		TORQUE				TORQUE				TORQUE			
Inches	Millimeters	Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters	
Min.	Max.	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

*Thick Nuts must be used with Grade 8 bolts

METRIC BOLT TORQUE SPECIFICATIONS



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