

OWNER'S MANUAL

MANUAL P/N: IM-BX4070
MANUAL P/N: 77700-08524

Kubota®

***BX-80 Series TL Cab
P/N BX4070***



For use with: KUBOTA BX1880, 2380 & 2680

Rev. F, 10/27/2020

**PLEASE READ THIS MANUAL CAREFULLY
KEEP READY AT ALL TIMES**

INTRODUCTION

TO THE PURCHASER

All products are designed to give safe, dependable service if they are operated and maintained according to instructions. **Read and understand this manual before operation, and keep it in your files for further reference.**

This manual has been prepared to assist the owner and operators in the safe operation and suitable maintenance of the equipment. The information is applicable to products at the time of manufacture and does not include modifications made afterwards.

Read and understand this operator's manual before attempting to put equipment into service. Familiarize yourself with the operating instructions and all the safety recommendations contained in this manual and those labeled on the equipment and on the machine. Follow the safety recommendations and make sure that those with whom you work follow them.

TO THE DEALER

Give this manual to the owner upon delivery of the equipment.

TO THE PURCHASER AND THE DEALER

Illustrations

The illustrations may not necessarily reproduce the full detail and the exact shape of the parts or depict the actual models, but are for reference only.

Direction Reference

All references to right and left, forward or rearward are from the operator seat.

To assist your dealer in handling your needs, please record hereafter the model number and serial number of your equipment and machine. It is also advisable to supply them to your insurance company. It will be helpful in the event that equipment or machine is lost or stolen

Product Category

MODEL: _____

SERIAL NUMBER: _____

ROPS SERIAL NUMBER: _____

DATE OF PURCHASE: _____

DEALER NAME: _____

DEALER TELEPHONE NUMBER: _____

All products are designed to give safe, dependable service if they are operated and maintained according to the instructions. **Read and understand this manual before operation.** It is the owner's responsibility to be certain anyone operating this product reads this manual, and all other applicable manuals, to become familiar with this equipment and all safety precautions. Failure to do so could result in serious personal injury or equipment damage. If you have any questions, consult your dealer.



SAFETY FIRST

This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and on labels on the machine itself to warn of the possibility of personal injury. Read these instructions carefully. It is essential that you read the instructions and safety regulations before you attempt to assemble or use this unit.



DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

IMPORTANT:

Indicates that equipment or property damage could result if instructions are not followed.

NOTE:

Gives helpful information.

Legal Disclaimer

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The Product(s) described in this Publication are designed and manufactured only for the country in which they are initially wholesaled by Kubota. Kubota does not provide parts, warranty or service for any Product which is re-sold or retailed in any country other than the country for which the Product(s) were designed or manufactured.

California Proposition 65



WARNING



Engine exhaust, some of its constituents, certain machine components and fluids, contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

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SAFETY INFORMATION



WARNING:

BEFORE OPERATION

Children Tragic accidents can occur if the operator is not alert to the presence of children. Children are generally attracted to machines and the work being done. Never assume children will remain where you last saw them

1. Keep children out of the operating area and under the watchful eye of another responsible adult.
2. Be alert and turn machine off if children enter the work area.
3. Before and when backing, look behind for small children.
4. Never carry children while operating the machine. They may fall off and be seriously injured or interfere with the safe operation of the machine.
5. Never allow children to play on the machine or attachment even when the machine is turned off.
6. Never allow children to operate the machine even under adult supervision.
7. Use extra care when approaching blind corners, shrubs, trees, or other obstructions that might hide children from sight.

SAFE OPERATION

1. Prior to operation, clear work area of all objects that can be picked up and thrown. Mark all curbs, pipes, etc. that cannot be moved
2. Before leaving the machine unattended, take all possible precautions. Park the machine/ equipment on level ground, set the parking brake, lower the equipment to the ground, place all levers in neutral, shut off the engine and remove the ignition key BEFORE leaving the machine.
3. Do not run the engine indoors except when starting engine and transporting attachment in or out of building. Carbon monoxide gas is colorless, odorless and deadly
4. Never allow anyone to operate the blade until they have read the manual completely and are thoroughly familiar with basic machine and blade operation.
5. Do not attempt to operate on steep slopes. If operating on slopes is necessary, exercise extreme caution when changing direction.
6. Exercise extreme caution when operating on or crossing a gravel drive, walks, or roads. Stay alert for hidden hazards or traffic.
7. Do not carry passengers on the quick

Safe Operation Continued

- hitch or the implement.
8. Park the machine/implement on level ground, place the transmission in neutral, set the parking brake, lower the equipment to the ground, place all control levers in neutral, shut off the engine and remove the ignition key BEFORE making any repairs, adjustments or inspections.
 9. For your safety, do not work under any hydraulically supported machine elements, they may creep down, suddenly drop or be accidentally lowered.
 10. Keep clear of all rotating parts. Do not put hands or feet under blade and frame.
 11. Never operate heater without safety protective devices in place. All machine and equipment shields and covers must be correctly installed at all times. When necessary to remove these, they must be reinstalled immediately.
 12. Never operate machine at high transport speeds on a slippery surface.
 13. Use extra caution when backing up.
 14. Never operate the heater without good visibility and lighting.
 15. Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable noises.
 16. Never allow anyone near the work area.
 17. Rear ballast on the tractor is required while this cab is in use. Install one set of rear wheel weights OR liquid ballast per the tractor operator manual.
 18. Always make sure all heater components are properly installed and securely fastened BEFORE operation.
 19. Do not use loader, quick hitch, or an implement as a jack for servicing

General Information

1. Always make sure all components are properly installed and securely fastened BEFORE operation
2. Read the operator's manual carefully before using machine. Lack of operating knowledge can lead to accidents. Do not allow passengers on the machine at any time (except one on the passenger seat). The operator must sit in the driver seat. Never allow anyone to operate the equipment until they have read the manual completely and are thoroughly familiar with basic machine and blade operation
3. Never allow an open flame near the fuel tank or battery
4. Handle fuel with care, as it is highly flammable. Use approved fuel container. Never add fuel to a running engine or a hot engine. Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors. Replace fuel cap securely and wipe up any spilled fuel. Confirm that fueling system is properly grounded.
5. Use of tire chains for better traction and stability is recommended when appropriate.
6. Always drive the machine at speeds compatible with safety, especially when operating over rough ground, crossing ditches, or when turning.

During Operation

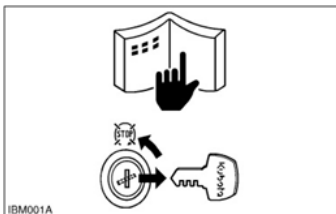
1. Do not allow anyone to ride on the machine/equipment at any time. There is no safe place for passengers on this equipment (except one on the passenger seat). The operator MUST sit in the seat.
2. Use appropriate personal protective

During Operation Continued

- gear as required by the operating environment.
3. Operate only during daylight hours, or when the area is well lit with bright artificial light.
4. Inspect the equipment after striking any foreign object to assure that all equipment parts are safe and secure and not damaged



GENERAL SAFETY INFORMATION



IBM001A

BEFORE YOU START SERVICE

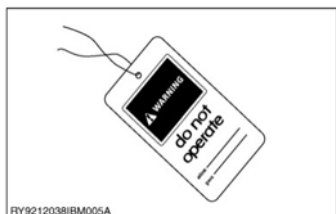
- Read all instructions and safety instructions in this manual and on your machine safety decals.
- Clean the work area and machine.
- Park the machine on a stable and level ground, and set parking brake.
- Lower the implement to the ground.
- Stop the engine, then remove the key.
- Disconnect the battery negative cable.
- Hang a "DO NOT OPERATE" tag in the operator station.



RY9212001IBM006A

NO SMOKING OR OPEN FLAMES WHILE FUELING

- Fuel is extremely flammable and dangerous. Never smoke near fuel. If fuel is spilled on the machine, its engine, or electrical parts, it may cause a fire. If fuel is spilled, wipe it all up immediately.
- Never smoke while filling machine with fuel. And always tighten the fuel cap securely and wipe up any spilled fuel.



RY9212038IBM005A

- When performing maintenance on the equipment, hang the DO NOT OPERATE sign where it will be obvious from and around the driver's seat.
- When performing maintenance or repairs, always lower attachments to the ground, stop the engine and secure the tracks with blocks.
- When performing maintenance on the equipment, always disconnect the negative battery cable.
- Before using tools, make sure you understand how to use them correctly and use tools in good condition and of the right size for the job.



RY9212001IBM003A

- Before getting on/off of the machine, clean off around the steps so there is no mud on them. Always give yourself 3-point support when getting on/off the machine

CAUTION

- 3-point support means using both legs and one hand or both hands and one leg as you climb up/down.



IBM002A

START SAFELY

- Do not do the procedures below when you start the engine
 - short across starter terminals
 - bypass the safety start switch
- Do not alter or remove any part of machine safety system.
- Before you start the engine, make sure that all shift levers are in neutral positions or in disengaged position.
- Do not start the engine when you stay on the ground. Start the engine only from operator's seat.



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- Do not remove the radiator cap when the engine operates, or immediately after it stops. If not, hot water can spout out from radiator. Only remove the radiator cap when it is at a sufficiently low temperature to touch with bare hands. Slowly loosen the cap to release the pressure before you remove it fully.



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STARTING THE MACHINE SAFELY

- Before starting the engine, always sit in the driver's seat and make sure the area is safe and clear.
- As it is dangerous, never start the engine from anywhere but the driver's seat
- Always check and make sure control lever(s) are not engaged before starting the engine.
- Never start the engine by hot-wiring the starter circuit. This is not only dangerous, but may damage the machine.



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- The engine, muffler, radiator, hydraulic line, etc., have parts that remain very hot even after the engine has been stopped. Be sure to avoid these parts, as touching them can result in burns. Radiator coolant, hydraulic fluid and oil also remain hot. Therefore, do not attempt to remove caps and plugs, etc., before these fluids have sufficiently cooled.
- Make sure the coolant temperature has dropped sufficiently before opening the radiator cap. Also since the inside of the radiator is pressurized, when removing the cap, first loosen it to release the pressure before removing the cap completely.



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- Wear clothes appropriate for working on equipment. Do not wear loose-fitting clothes as they may catch on the machine controls.
- When working on the equipment, use all safety gear, such as a helmet, safety glasses and shoes, that are required by law or regulation.
- Never perform maintenance while drowsy or under the influence of alcohol or drugs.



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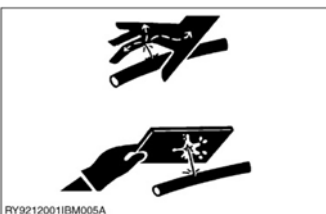
- Grease is under high pressure inside the hydraulic cylinder. It is very dangerous to loosen a grease nipple quickly as it may shoot off. Always loosen grease nipples slowly.
- And never face a grease nipple while loosening it.



IBM010A

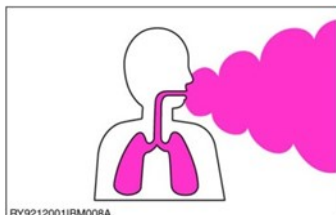
BE READY FOR AN EMERGENCY

- Keep a first-aid kit and fire extinguisher close at hand so you can use it when needed.
- Keep emergency contact information for doctors, hospitals and ERs handy.



RY9212001IBM005A

- The pressure in the hydraulic circuit stays at pressure even after the engine stops. Before removing parts, such as hydraulic devices from the machine, first release the pressure. Please note that when releasing residual pressure, the machine itself and/or implements may move without warning, so be very careful when releasing the pressure.
- Oil gushing out under pressure is extremely dangerous as it may pierce your skin or your eyes. Similarly, oil leaking out of pinholes is not visible. So when checking for oil leaks, always wear safety glasses and gloves and use a piece of cardboard or a wood block to shield yourself from oil.



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KEEP A GOOD AIRFLOW IN THE WORK AREA

- If the engine is in operation, make sure that the area has good airflow. Do not operate the engine in a closed area. The exhaust gas contains poisonous carbon monoxide.

- Do not open a fuel system under high pressure. The fluid under high pressure that stays in fuel lines can cause serious injury. Do not disconnect or repair the fuel lines, sensors, or any other components between the fuel pump and injectors on engine with a common rail fuel system under high pressure.
- Put on an applicable ear protective device (earmuffs or earplugs) to prevent injury against loud noises.
- Be careful about electric shock. The engine generates a high voltage of more than DC100 V in the ECU and is applied to injector.



GENERAL SAFETY INFORMATION



IRM006A

PREVENT A FIRE

- Fuel is very flammable and explosive under some conditions. Do not smoke or let flames or sparks in your work area.
- To prevent sparks from an accidental short circuit, always disconnect the battery negative cable first and connect it last.
- The battery gas can cause an explosion. Keep the sparks and open flame away from the top of battery. Especially when you charge the battery.
- Make sure that you do not spill fuel on the engine.



LOADER AND BACKHOE SAFETY

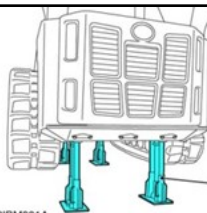
- Engage the loader control valve lock to prevent accidental actuation when the implement is not in use or during transport. Do not utilize the valve lock for machine maintenance or repair.
- Engage the loader control valve lock to prevent accidental actuation when the implement is not in use or during transport. Do not utilize the valve lock for machine maintenance or repair.
- Do not perform machine maintenance with loader in the air. If possible, follow loader instructions to remove loader before performing maintenance.
- If the machine has a backhoe, engage swing and boom locks



IRM009A

DISPOSE OF WASTE FLUIDS PROPERLY

- Never dispose of waste fluids on the ground, in the gutter, a river, pond or lake. Always dispose of hazardous substances like waste oil, coolant and electrolytic fluid in accordance with the relevant environmental protection regulations.
- Keep the safety plates clean so they can be read. If a safety plate is damaged and comes off or becomes illegible, put a plate with the same warnings back in its place.



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(1) SAFETY STAND

- When you need to access the underside of the machine for maintenance purposes, be sure to support the machine with a safety stand. Getting under the machine while supporting the machine by machine's own hydraulic cylinder or using a hydraulic jack can be extremely dangerous in the event of a hydraulic fluid leakage or similar mishap.
- Whenever it is necessary to open the engine covers or hood in order to service the machine, always prop them open.
- If it is absolutely necessary to run the engine while working on the machine, make sure you are clear of all rotating or moving parts. Also take care not to leave anything, such as tools or rags, near any moving parts.

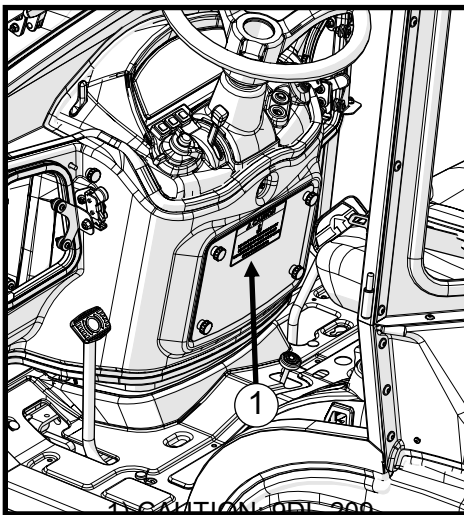
DECALS AND PLACEMENT

IMPORTANT: Keep all decals clean and legible. Replace all missing, illegible, or damaged decals.

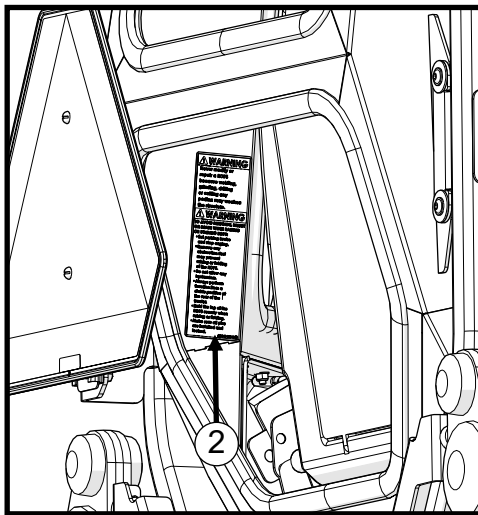
IMPORTANT: Decal placement locations shown are approximate; decals should not be placed in a location where the operator's field of view is impeded, and should not cover any portion of other decals installed in the same vicinity.

INSTALLING OR REPLACING DECALS: Thoroughly clean the area where decal is to be placed using mild soap and water. Allow the surface to fully dry. Remove the backing from the decal, exposing the adhesive surface. Apply the decal to the recommended position shown in the diagram below and smooth out any bubbles.

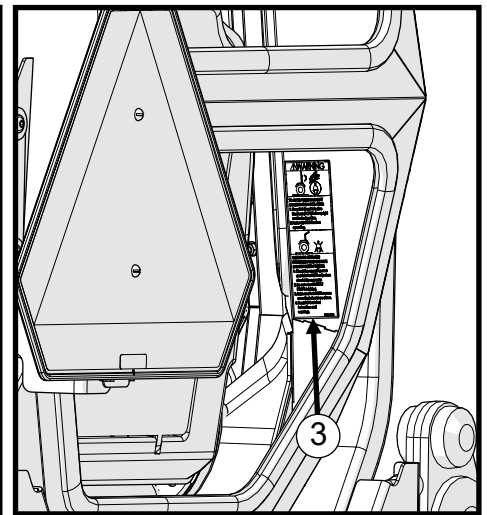
- **CAUTION: PREVENT OVERHEATING - 9DL-209.** Located on center of Auxiliary Air Intake Panel
- **WARNING: ROPS SAFETY - 9DL-204.** Located on inside left of Rear Panel
- **WARNING: ROLL OVER WARNING - 9DL-212.** Located on inside right of Rear Panel



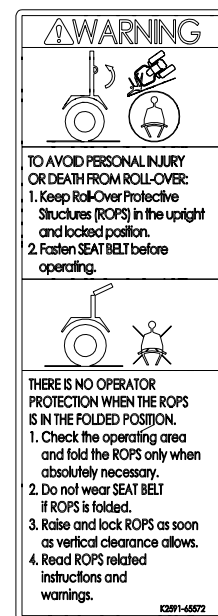
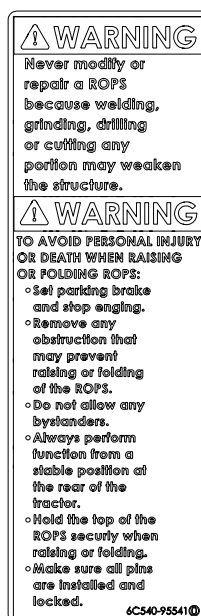
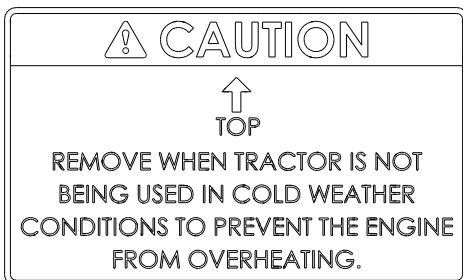
1) CAUTION: 9DL-209



2) WARNING: 9DL-204



3) WARNING: 9DL-212



ESTIMATED ASSEMBLY TIME

Refer to the following table for the estimated assembly time to open the crate and assemble the tractor cab enclosure.

Approximate Installation Time	4 hours
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Assembly times on the table are just reference under the average conditions with following assumption(s)

1. Assembly is done by one worker
2. The following tools are prepared.
 - 1) Standard Sockets
 - 2) Metric Sockets
 - 3) Ratchet
 - 4) Ratchet Extension
 - 5) Standard Allen Wrenches
 - 6) Standard Open/Box Wrenches
 - 7) Metric Open/Box Wrenches
 - 8) Snips

ASSEMBLY

All installation procedures listed within this manual are generally representative of the machine model for which the manual is written. Your machine may be configured differently (e.g. SP1 vs. SP2, etc.), but the outline for the procedure should still be followed. For further support for any issues not covered within the pages of this manual, please contact your local Kubota representative.

WARNING:

TO PREVENT SERIOUS PERSONAL INJURY OR DEATH: REQUIRED BEFORE INSTALLATION:

1. Read and understand this entire manual and any other publications for the equipment being operated.
2. Ensure that the surrounding area is clear and that personnel are positioned away from the area where engagement and disengagement of attachments will occur.
3. Always shut off engine when leaving the operator's area to perform any portion of the listed procedures.

ASSEMBLY

1. Remove and save the SMV Sign

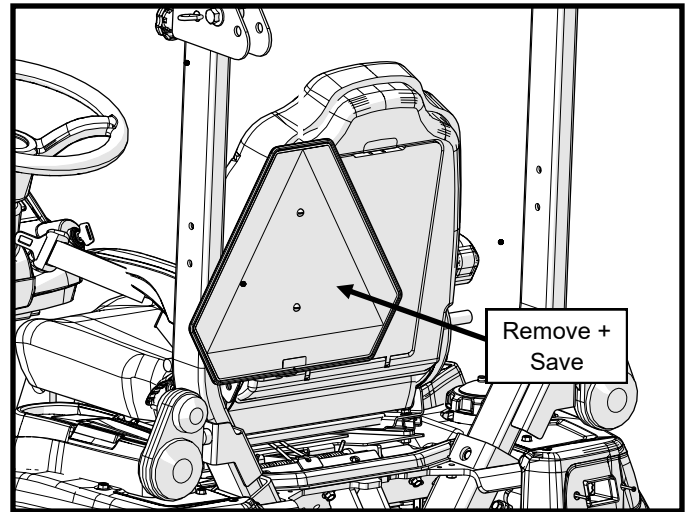


Figure 1: Remove SMV Sign

2. Remove and save the front three screws holding the left lever cover to the fender.

Tools: 10mm Socket

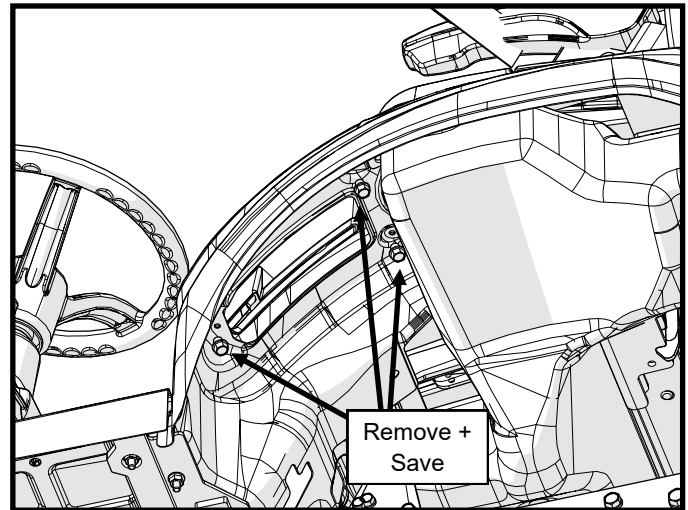


Figure 2: Remove 3 Screws (Left Side)

3. Remove and save the rear two screws holding the right lever cover to the fender.

Tools: 10mm Socket

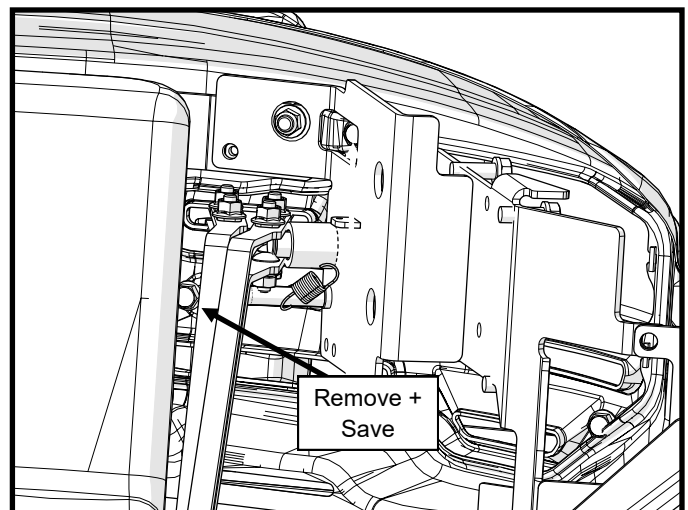


Figure 3: Remove 2 Screws (Right Side)

4. Remove the grab handles from the fenders by removing the two nuts located on the underside of the fenders.

Tools: 14mm Wrench

ASSEMBLY

14mm Socket

5. Install a bolt in each hole to re-secure the tractor fenders.

HW: (4) 3/8-16x3/4 Flange Bolts
(4) 3/8-16 Flange Locknuts

Tools: 9/16 Wrench
9/16 Socket

6. If installing optional seal kit (BX4077), it should be installed at this time for easiest access. Proceed to Step 7 if no kit is being installed.

7. Re-install the 5 screws removed in step 2 and 3 that hold the plastic lever covers to the fenders

Tools: 10mm Socket

8. Remove the ROPS tensioning knobs and replace with the following hardware. Tighten the bolts after installation.

HW: (2) M10 x 1.25 x 25mm Flange Bolts

Tools: 9/16 Wrench

WARNING

DO NOT WELD, DRILL OR OTHERWISE MODIFY STRUCTURAL INTEGRITY OF THE ROPS.



9. Remove and save the air intake screen and thumbnut.

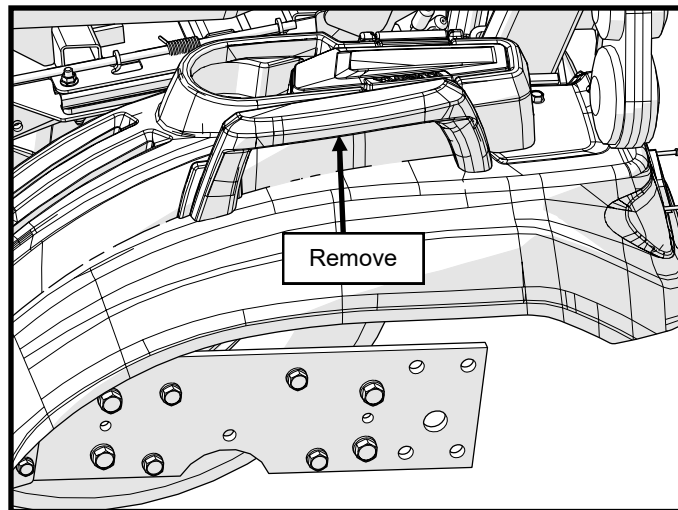


Figure 4: Remove Grab Handles (Left + Right)

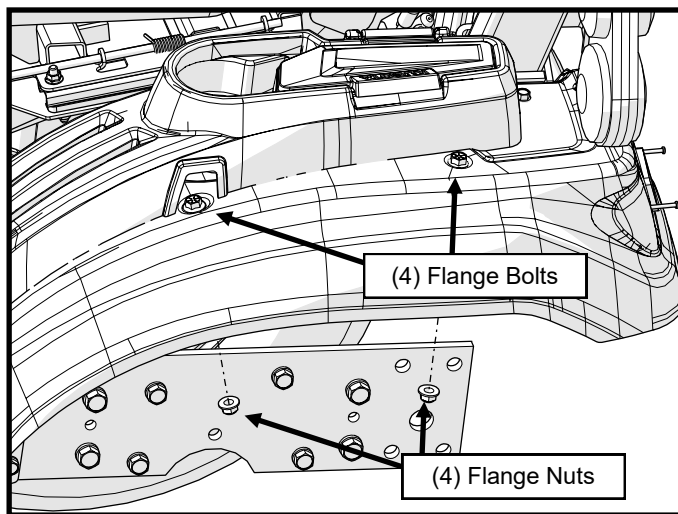


Figure 5: Install Bolts into Holes (Left and Right)

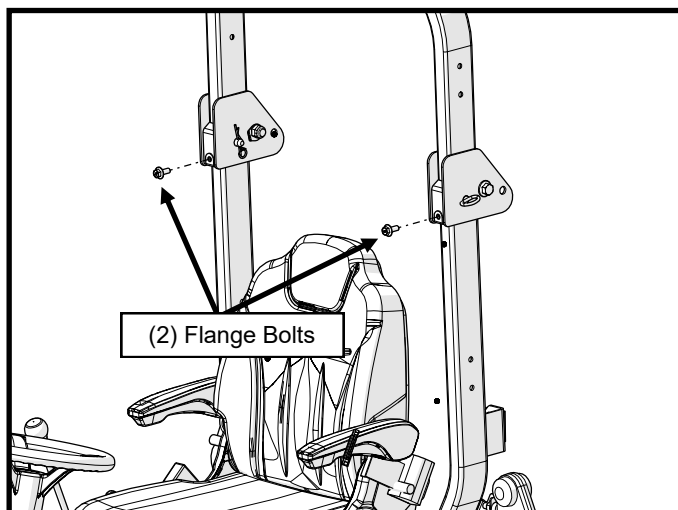


Figure 8: Replace Tensioning Knobs

ASSEMBLY

10. Remove the carriage bolt that the air intake screen thumbnut was attached to and replace with a longer carriage bolt (supplied). Reuse the nut from the factory bolt. Note: The steering wheel may need to be tilted to allow the bolt to come out of the hole.

HW: (1) M8 x 1.25 x 40mm Carriage Bolt
(1) OEM Nut

Tools: 12mm Wrench

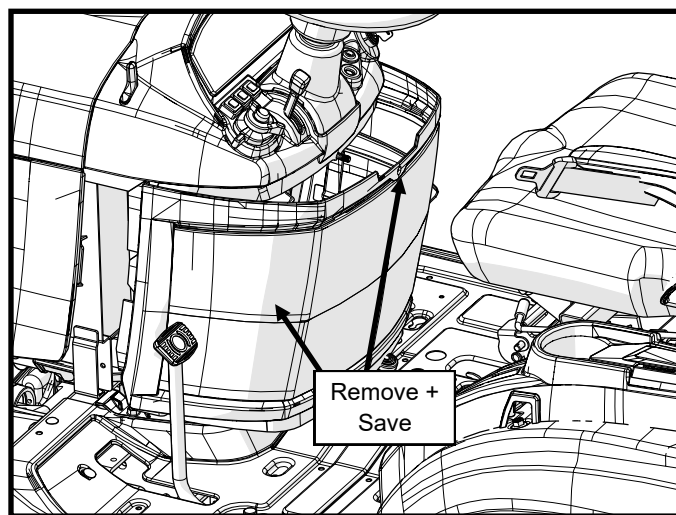


Figure 9: Remove Screen and Thumbnut

11. Remove and discard the two fir tree clips securing the floormat to the tractor in the locations shown.

Tools: Snips

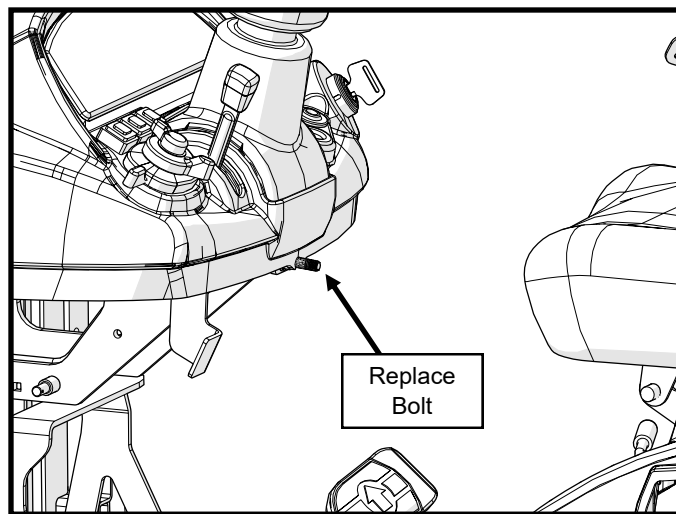


Figure 10: Replace Carriage Bolt

12. Remove and discard the two carriage bolts on the front of the floorboard on either side of the radiator.

Tools: 12mm Socket or Wrench

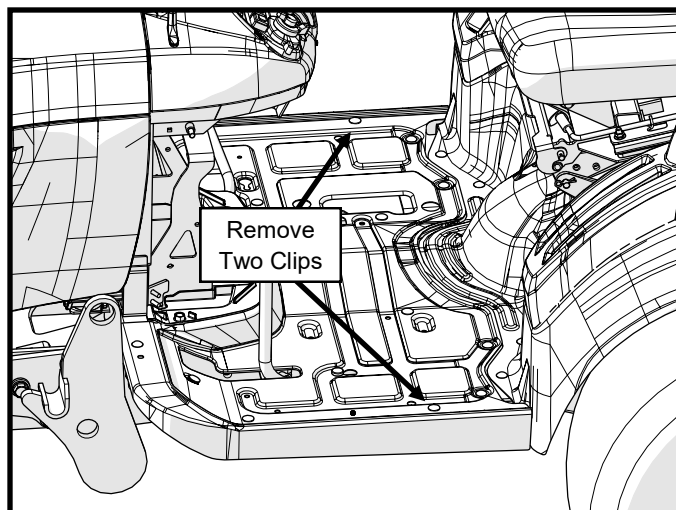


Figure 11: Remove Fir Tree Clips

ASSEMBLY

13. Disconnect the negative battery terminal.

Tools: 13mm Wrench

14. Remove the nut from the positive battery terminal

Tools: 10mm Wrench

15. Locate the Relay Wire Harness (P/N: 77700-05439) in the hardware box. Connect the ring terminal on the red wire to the stud on the positive battery terminal and reinstall the nut.

Tools: 10mm Wrench

16. Connect the ring terminal on the black wire to the stud on the negative battery terminal and reinstall the nut. Reinstall the battery terminal onto the battery and tighten.

Tools: 13mm Wrench

17. Locate the ignition source on the tractor. It is a female bullet terminal secured to the wire harness above the battery with blue electrical tape. Remove the tape to expose the terminal.

18. Connect the male bullet terminal on the end of the purple wire on the cab power harness to the terminal on the tractor.

19. Turn the key on without starting the tractor and check that the relay on the cab power harness clicks which would indicate power.

20. Route the plug on the end of the harness out along the right side of the radiator and down under the hood. Be sure to route the wire to avoid sharp edges and have clearance from the moving hood panel.

21. Attach the rear mounts and backer plates to the holes in the ROPS structure. Tighten bolts so that the components are still loose enough to move freely.

HW: (4) 3/8-16 x 2.25" Flange Bolts
(4) 3/8-16 Flanged Locknuts

Tools: 9/16 wrench
9/16 socket

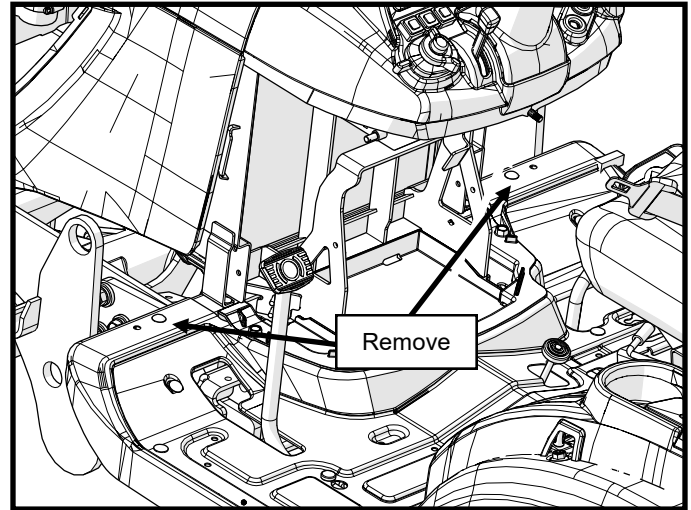


Figure 12: Remove Bolts



Figure 15: Install Red Wire



Figure 16: Install Black Wire

ASSEMBLY

22. Prepare the following fasteners to attach the rear panel and place in a convenient-to-reach location.

HW: (4) 5/16-18 x 3/4" Flange Bolts
(4) 5/16ID x 1.25" OD Steel Fender Washers

23. With assistance, place the rear panel into position as shown in Figure 21 using extra caution to ensure that the plastic on the left side fits properly between the ROPS and the storage box. Begin installation of the prepared hardware by hand to ensure that the threaded inserts are not cross threaded.

HW: (4) 5/16-18 x 3/4" flange bolts
(4) 5/16ID x 1.25" OD Steel Fender Washers

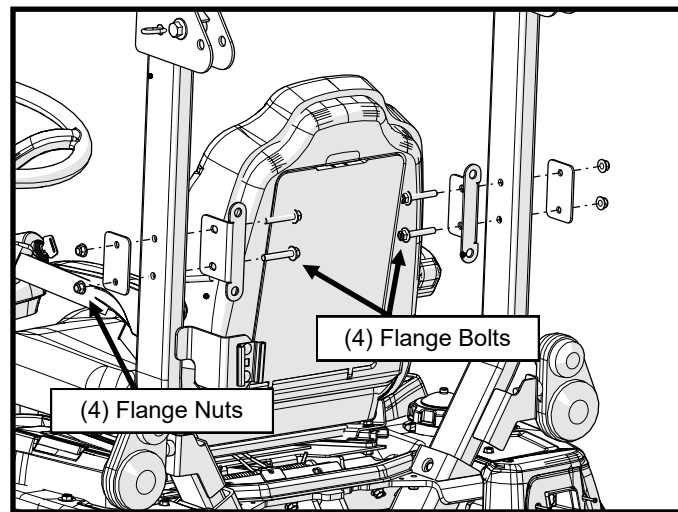


Figure 21: Install Rear Mounts

24. Locate the left sideframe and install the supplied foam gasket along the bottom of the floorboard as shown in figure 24.

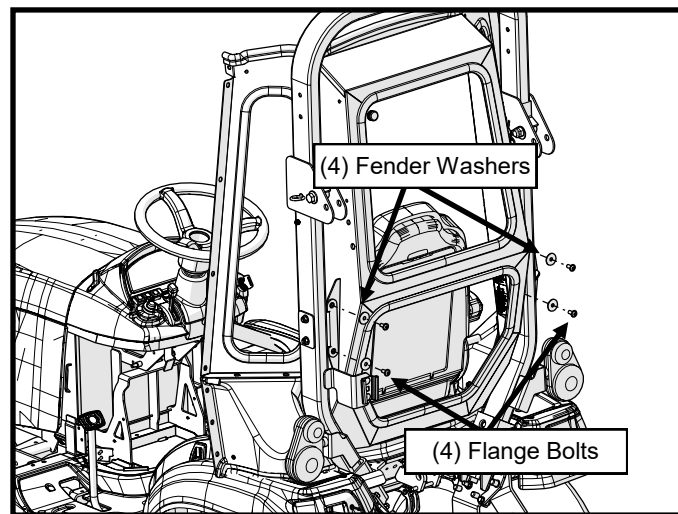


Figure 22: Install Rear Panel

25. With assistance, place the left sideframe into position. Be sure that the wire extending from the rear tube is positioned on the inside of the cab and is not pinched under the rubber. Lift the left 3" of rubber running along the top of the rear panel. Fasten through the tab at the top of the rear panel and leave finger tight. Re-install the rubber over both the rear panel and sideframe header.

HW: (1) 5/16-18 x 3/4" Flange Bolt
(1) 5/16-18 Flange Nut

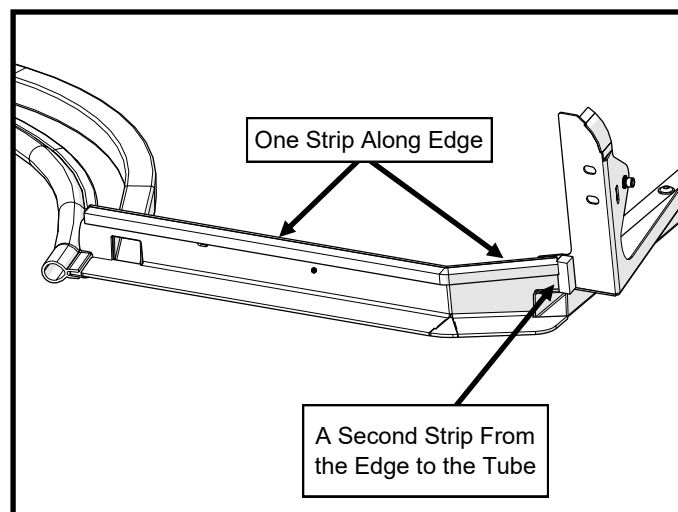


Figure 24: Install Foam Gasket

ASSEMBLY

26. Secure the front of the left frame to the front of the floorboard and leave finger tight.

HW: (1) 5/16-18 x 3/4" Flange Bolt
(1) 5/16-18 Flange Nut

27. Punch out the decal covering the outer hole in the floorboard and install the following bolt. Leave finger tight.

HW: (1) 5/16-18 x 3/4" Flange Bolt
(1) 5/16-18 Flange Nut

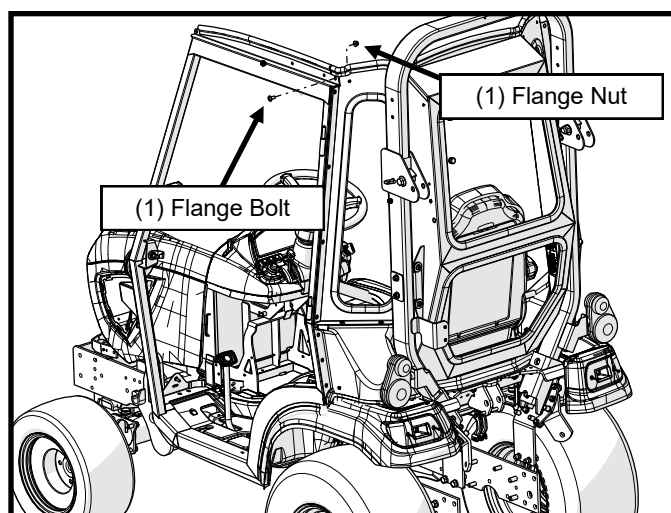


Figure 25: Install Left Sideframe

28. Install a bolt through the floorboard and leave finger tight.

HW: (1) 1/4-20 x 3/4" flange bolt
(1) 1/4-20 flange nut

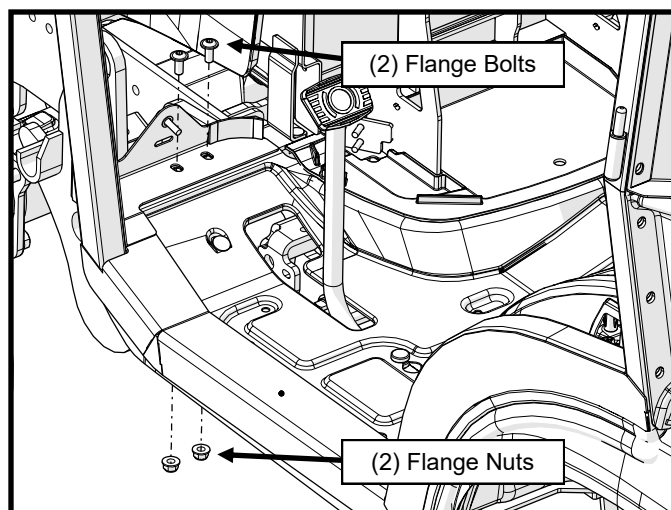


Figure 26: Secure Front of Sideframe to Floorboard

29. Install bolts through the rear panel and into the rear of the sideframe. Leave finger tight.

HW: (7) 5/16-18 x 3/4" Flange Bolt

30. Repeat steps 24-28 for the right sideframe

31. If installing a heater (BX4071), install at this time and then proceed to step 34. If no heater will be installed, proceed to the following step.

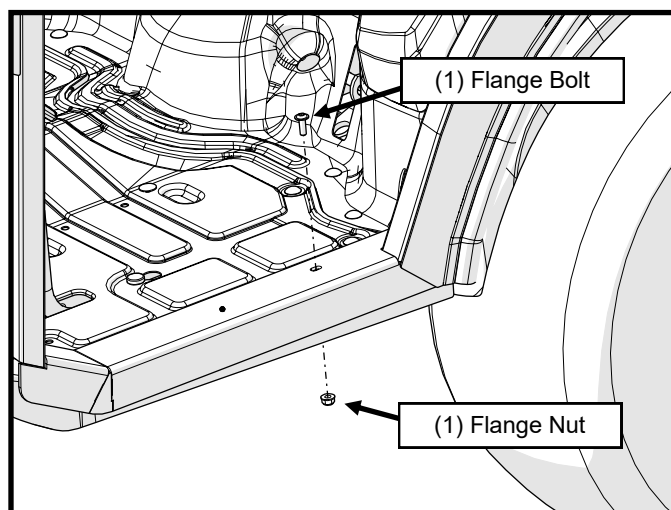


Figure 28: Secure Sideframe to Floorboard

ASSEMBLY

32. With no heater being installed, remove the wire grommet from the hole on the right frame where shown and push the wire leads back into the tube. Install the supplied hole plug to cover the hole. Install a flange bolt into threaded inserts on both sides of the cab.

HW: (2) 5/16-18 x 3/4" Flange Bolt
(1) 11/16" Dome Plug

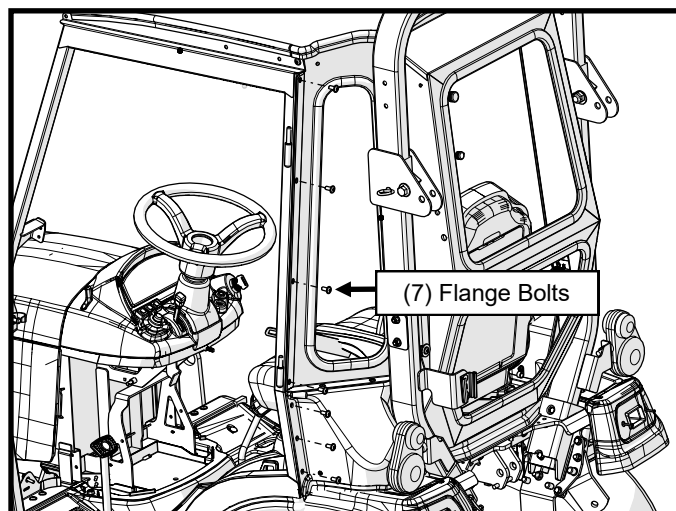


Figure 29: Install Rear Panel Fasteners

33. Install the cowl and attach to the sideframes. Leave the bolts finger tight.

HW: (4) 5/16-18 x 3/4" Flange Bolt

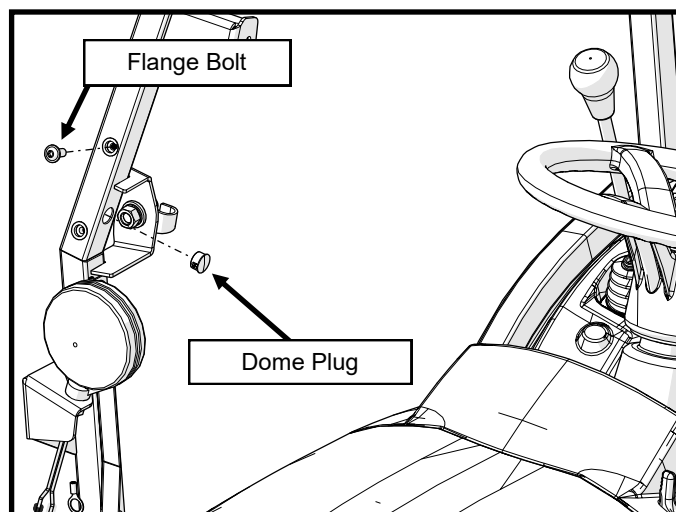


Figure 32: Replace Grommet with Hole Plug

34. Install the windshield support by sliding upwards along the front tubes. Leave the bolts finger tight.

HW: (4) 5/16-18 x 3/4" Flange Bolt

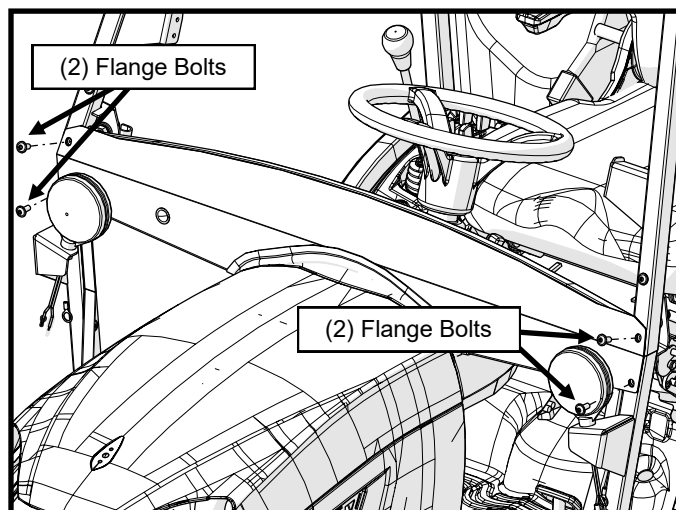


Figure 33: Install the Cowl

35. Tighten the cab bolts in the following order:

ASSEMBLY

Qty: 4 - 5/16 bolts through rear mounts and into rear panel.
 Note: Be sure that there is proper clearance between the bottom of the rear panel and the ROPS. If there is little clearance, use assistance to lift the rear of the cab and then tighten.

Tools: 3/16 Allen Wrench

Qty: 4 - Rear mount bolts through ROPS.

Note: Be sure that there is proper clearance between the bottom of the rear panel and the ROPS. If there is little clearance, use assistance to lift the rear of the cab and then tighten.

Tools: 9/16 Wrench
 9/16 Socket

Qty: 16 - Rear panel to sideframe bolts.

Tools: 3/16 Allen Wrench
 1/2" Socket

Qty: 4 - Front floorboard bolts

Tools: 3/16 Allen Wrench
 1/2" Socket or Wrench

Qty: 2 - Rear floorboard bolts

Tools: 5/32 Allen Wrench
 7/16" Socket

Qty: 4 or 6 - Cowl/Heater bolts

Tools: 3/16 Allen Wrench

Qty: 4 - Windshield Support Bolts

Tools: 3/16 Allen Wrench

36. Install the left front roof mount. Tighten so that the fastener is snug and the top surface is in line with the curve of the rubber along the top edge of the sideframe.

HW: (1) 1/4-20 x 3/4" Flange Bolt
 (3) 1/4ID Nylon Washers
 (1) 1/4-20 Flange Nut

Tools: 5/32" Allen Wrench
 7/16" Socket

37. Repeat step 36 for right side.

38. Install the left rear roof mount, fully tighten.

HW: (2) 5/16-18 x 3/4" Flange bolts
 (2) 5/16-18 Flange nuts

Tools: 3/16 Allen Wrench
 1/2" Socket

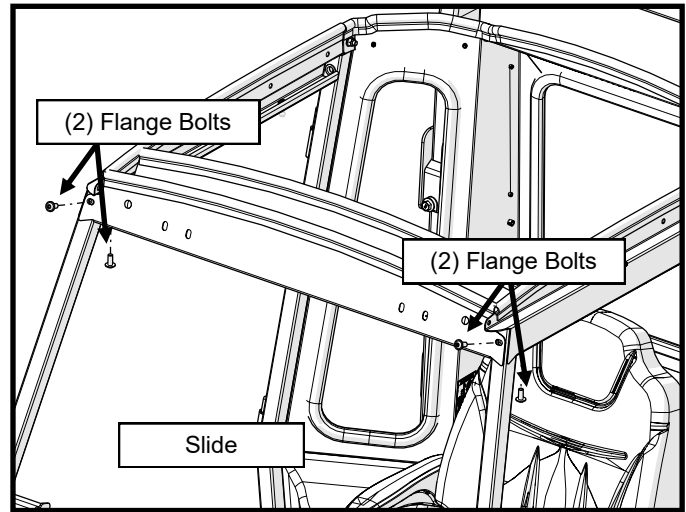


Figure 34: Install Windshield Support

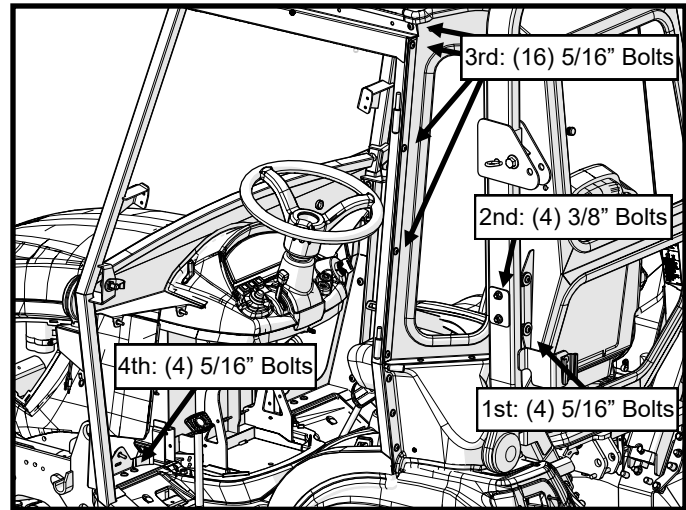


Figure 35a: Tighten Cab Bolts

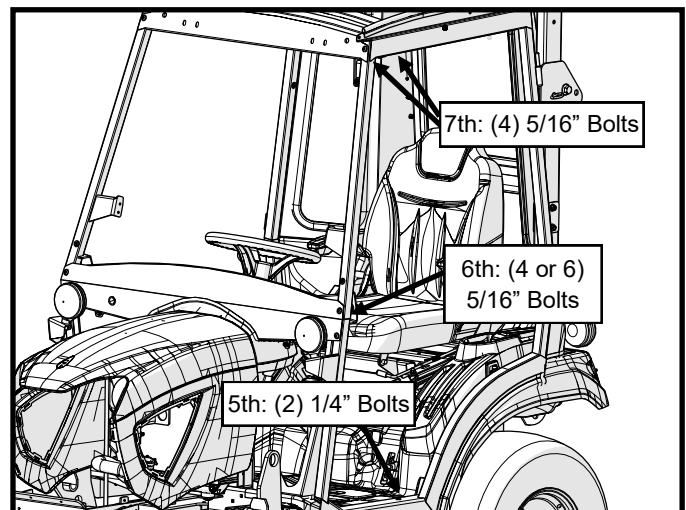


Figure 35b: Tighten Cab Bolts

ASSEMBLY

39. Repeat step 38 for right side.

40. With assistance, install the windshield. Use a spacer block under each hinge. Leave bolts finger tight.

HW: (4) 5/16-18 x 1-1/2" Flat Head Bolts
(4) 5/16-18 Flange Nuts

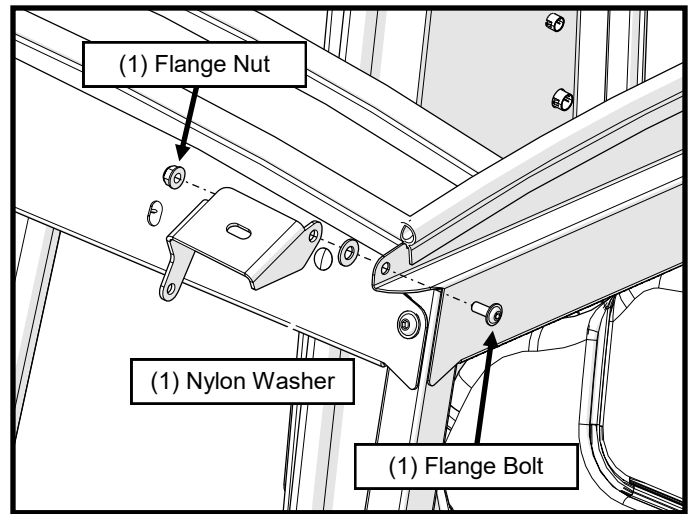


Figure 36: Install Left Front Roof Mount

41. Attach the windshield latches to the sideframes and tighten.

HW: (4) 1/4-20 x 3/4" Flange Bolts
(4) 1/4-20 Flange Nuts

Tools: 5/32" Allen Wrench
7/16" Wrench

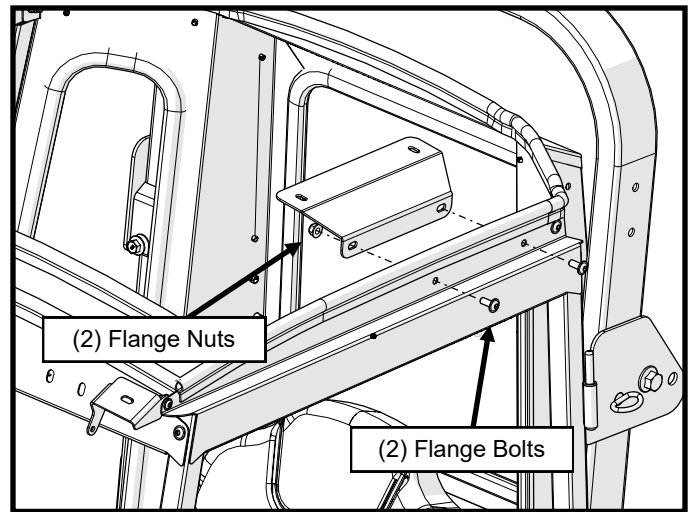


Figure 38: Install Left Rear Roof Mount

42. Clamp the two windshield latches closed and then tighten the four windshield hinge bolts at this time.

Caution: The windshield hinges are plastic components. Do not over tighten the 5/16-18 flat head screws.

Torque to 7 ft.-lbs. max.

Tools: #3 Phillips Screwdriver
1/2" Wrench

43. Install any of the following accessories at this time.

BX4072 - Front Wiper

BX4073 - Rear Wiper

BX4074 - Front LED Lights

BX4075 - Rear LED Lights

F5314 - Interior Rear View Mirror

44. The Cab Side Power Harness (P/N: 77700-08545) is factory installed in the cab's right side frame. Connect the white wire extending from the top of the side frame to the male portion of the piggyback terminal on the

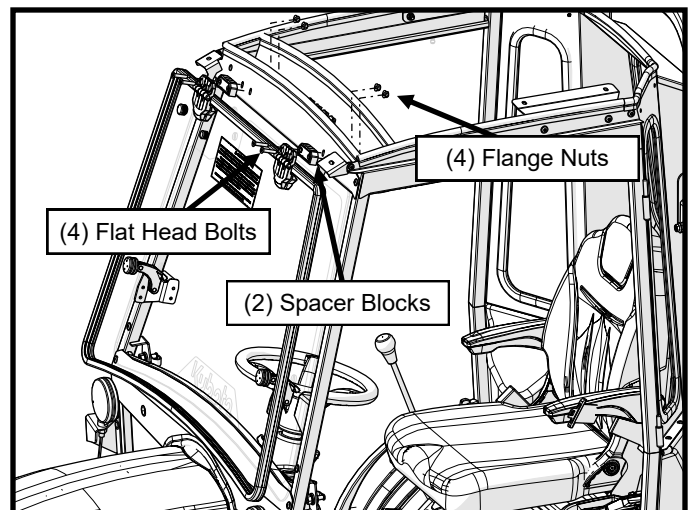


Figure 40: Install the Windshield

ASSEMBLY

first circuit breaker. If no accessories are installed, no connection is required.

45. Connect the black wire with the push-on terminal to the ground strip.

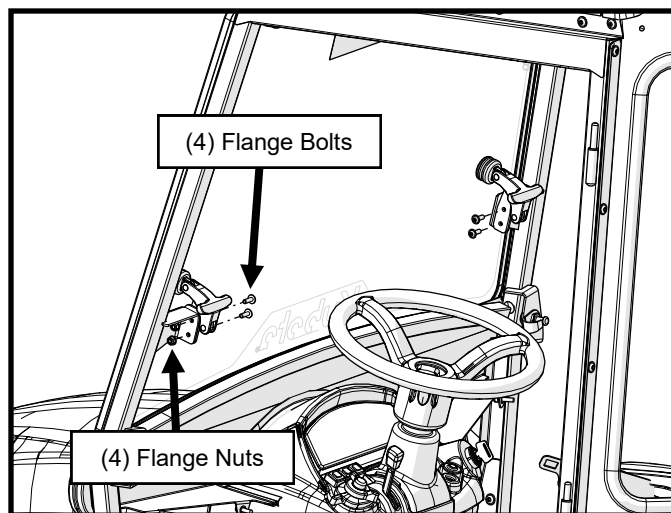


Figure 41: Attach Windshield Latches

46. Connect the weatherproof connector from the relay wire harness installed in steps 14-17 to the connector on the cab side power harness protruding from the bottom of the right sideframe. Be sure to route the harnesses to avoid sagging. Pull any excess wire back into the battery compartment and secure with cable ties.

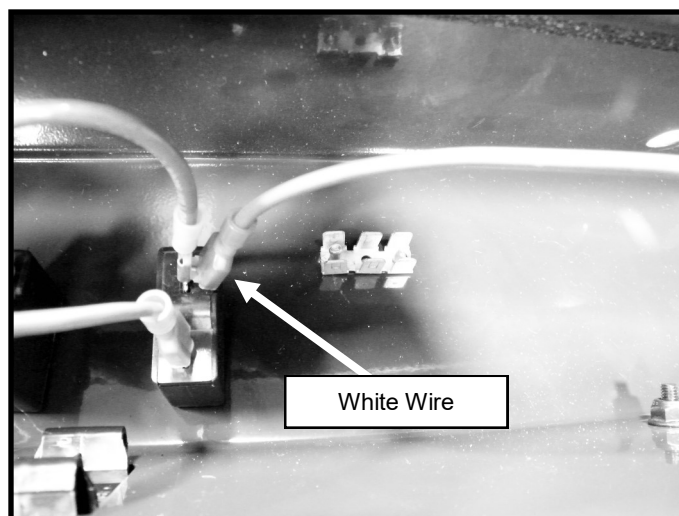


Figure 44: Connect Red Wire

47. Turn the key to the on position and test the function of the accessories at this time.

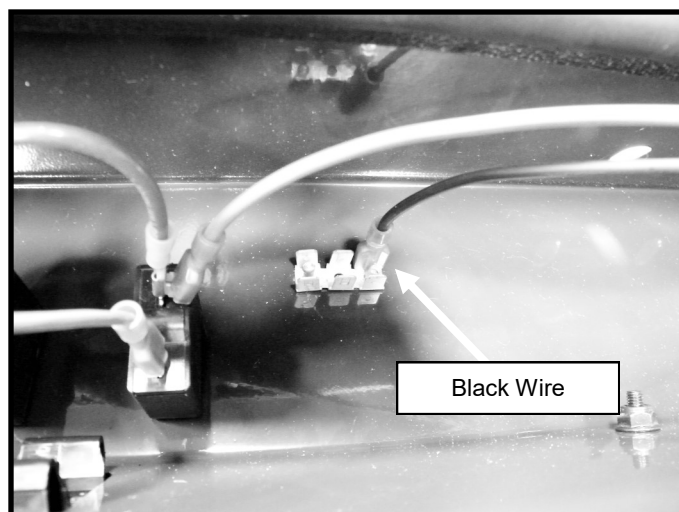


Figure 45: Connect Black Wire

48. Install the roof using the fastening order shown. Do not overtighten as damage to the plastic will occur. Hand tighten until the rubber washer just begins to bulge from under the steel fender washer.

HW: (6) 5/16-18 x 3/4" Flange bolts
 (6) 5/16"ID x 1-1/4"OD Steel Fender Washers
 (6) 5/16"ID x 1-1/4"OD Rubber Fender Washers
 (6) 5/16-18 Flange nuts
 Tools: 3/16 Allen Wrench
 1/2" Socket

ASSEMBLY

49. Install a 7" piece of foam (see the white dashed lines in photo) to the top of the floorboard and route it down under where the air intake screen will sit as in Figure 49, repeat for the right side.



Figure 46: Connect Weatherproof Connector

50. Re-install the air intake screen, but do not use the OEM thumbnut yet.

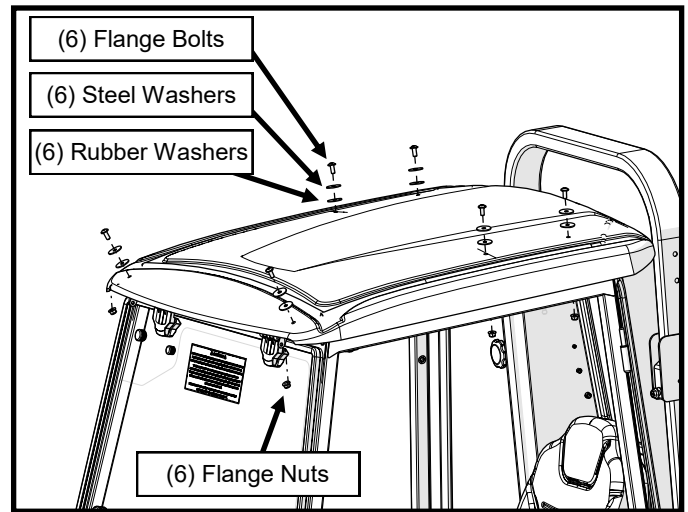


Figure 48: Install Roof and Hardware

51. Install the plastic air intake shroud
HW: (6) 1/4-20 Thumbnuts
(1) OEM Thumbnut

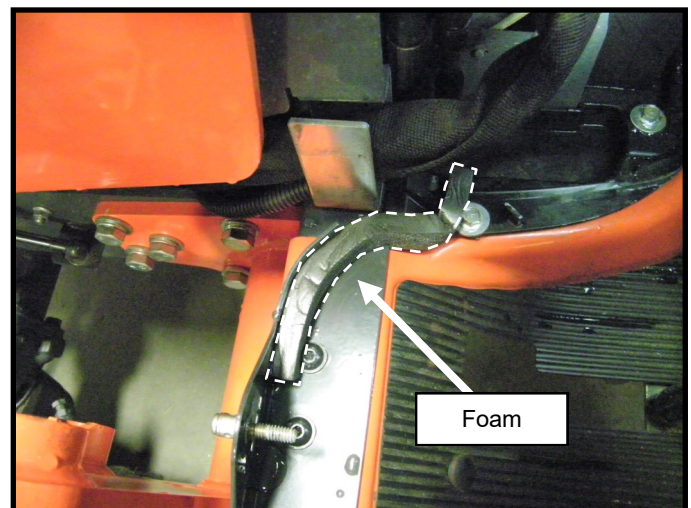


Figure 49: Foam Installation

ASSEMBLY

52. The front flasher light harnesses (P/N: 77700-08546) are factory installed in each cab side frame. Route the harnesses around the plastic panels (see the white dashed lines in photo) using the cable clamps provided. Be sure the wires are close to the fenders as they are routed down and out of the cab so the seat springs clear them easily.

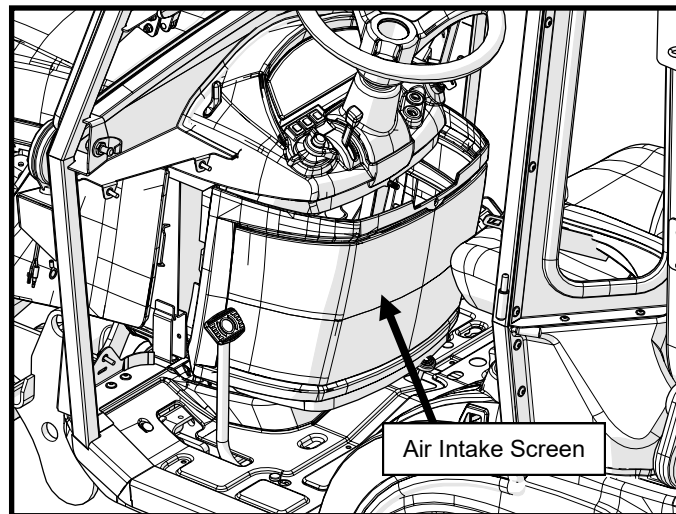


Figure 50: Install Air Intake Screen

53. Connect the front flasher light harnesses to the existing rear lights. Connect Black to Black, Red to Red, and White to Black/White stripe.

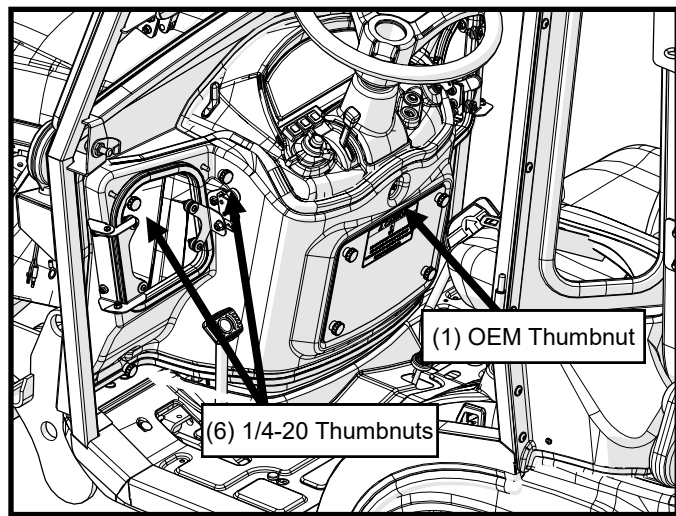


Figure 51: Install Plastic Air Intake Shroud

54. Remove factory carriage bolt and nut from the front left corner of the seat slider and discard. Install the seat limiting plate inside the seat slider track with (3) washers as spacers.

HW: (1) 5/16-18 x 1" Carriage Bolt
(3) 5/16"ID Steel Washers
(1) 5/16-18 Flange Nut

Tools: 1/2" Wrench

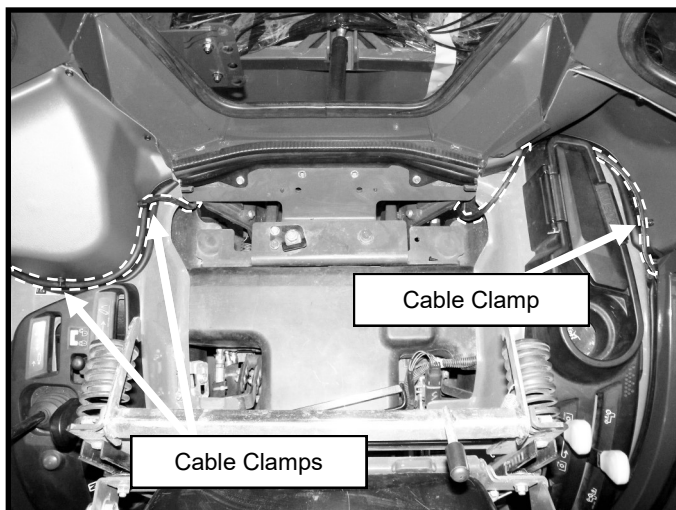


Figure 52: Route Front Flasher Light Harness

ASSEMBLY

55. Install the doors and reconnect the gas shocks. Holding the door 180° from closed will allow it to slide under the roof before aligning the hinge pins.

See door troubleshooting on page 30 for information about adjusting the door latches and hinges.

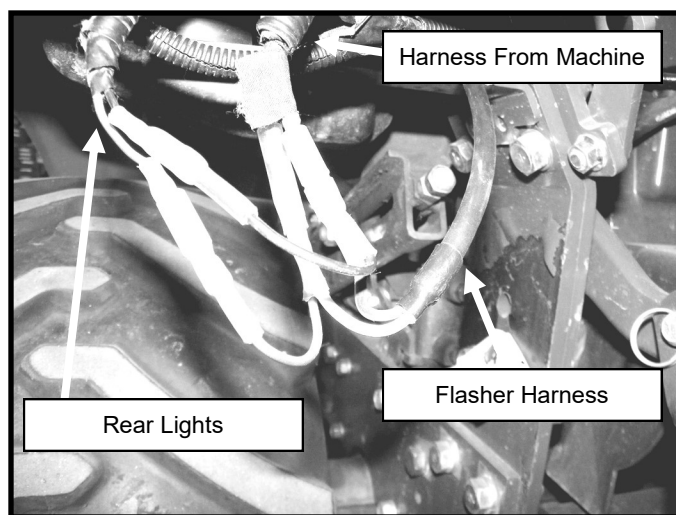


Figure 53: Connect Flasher Light Harness

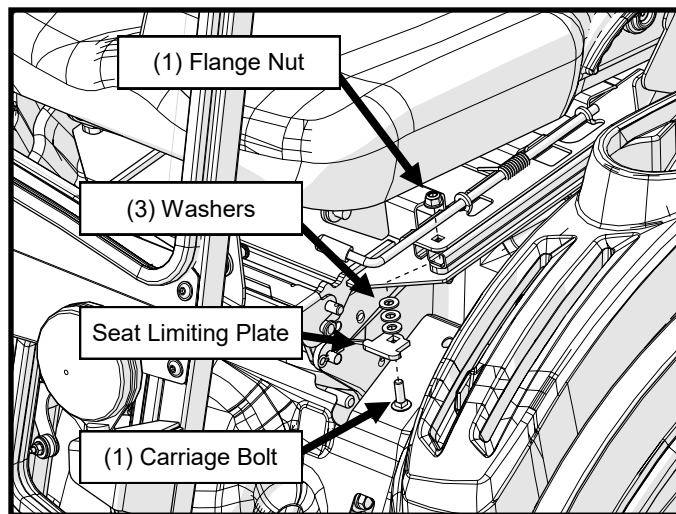


Figure 54: Install The Seat Limiting Plate

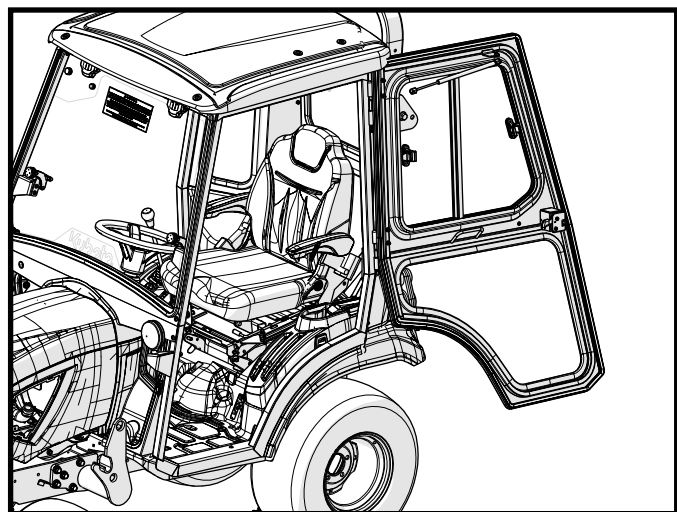


Figure 55: Install The Doors

ASSEMBLY

56. Replace SMV sign in the original location.

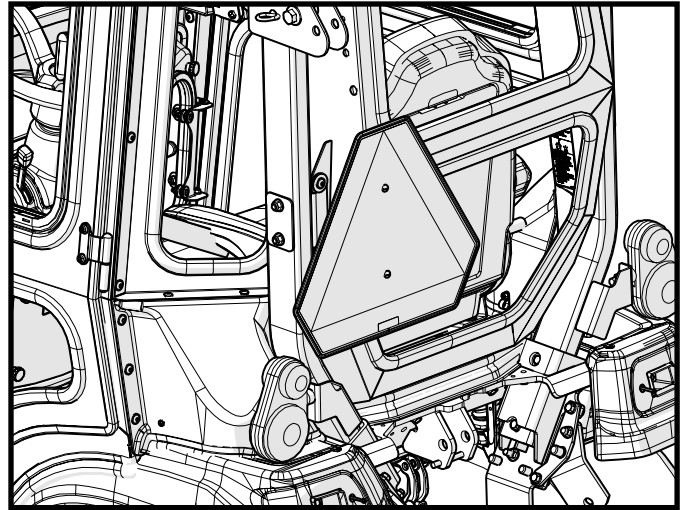


Figure 56: Install SMV Sign

57. If installing a snow blower attachment with a manual chute rotation, replace the plug in the cowl with the supplied plastic split grommet.

HW: (1) Split Grommet

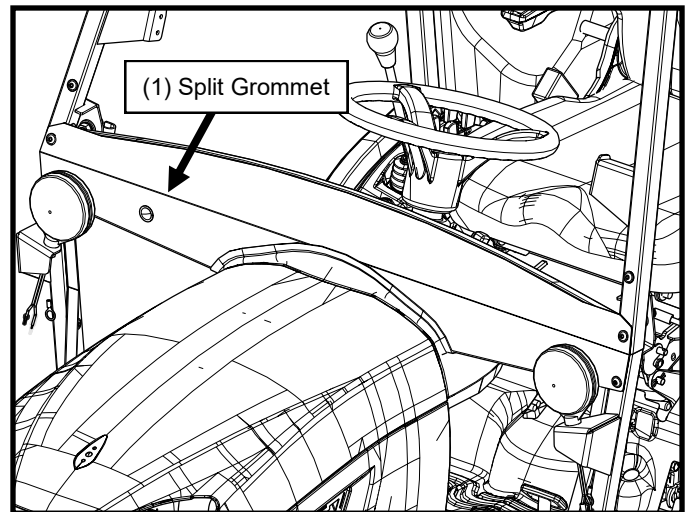


Figure 57: Install Split Grommet

OPERATION

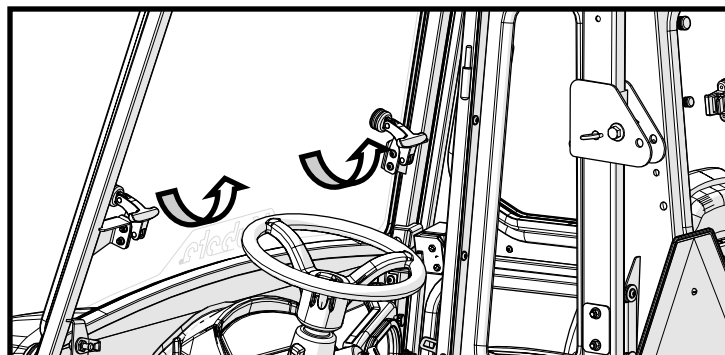
WARNING

REQUIRED BEFORE OPERATION

1. Read and understand this entire manual and any other publications for the equipment being operated.
2. Ensure that the surrounding area is clear and that personnel are positioned away from the area where engagement and disengagement of attachments will occur
3. Always shut off engine when leaving the operator's area to perform any portion of the listed procedures

POP-OUT WINDSHIELD

The BX4070 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.



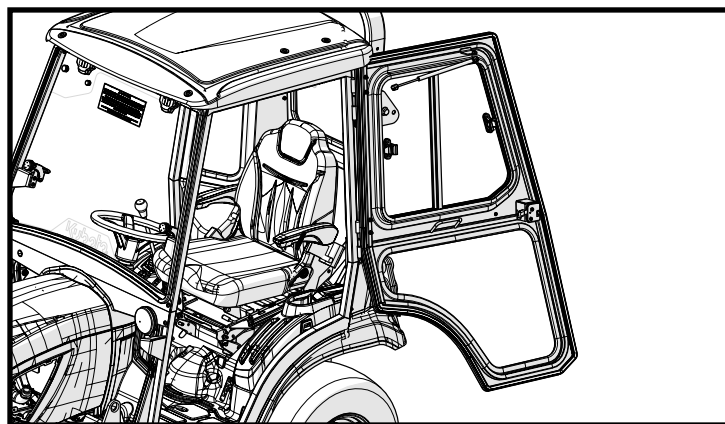
Pop-Out Windshield

LIFT-OFF DOORS

For added ventilation, the doors on the BX4070 cab lift off in seconds without tools.

To lift off:

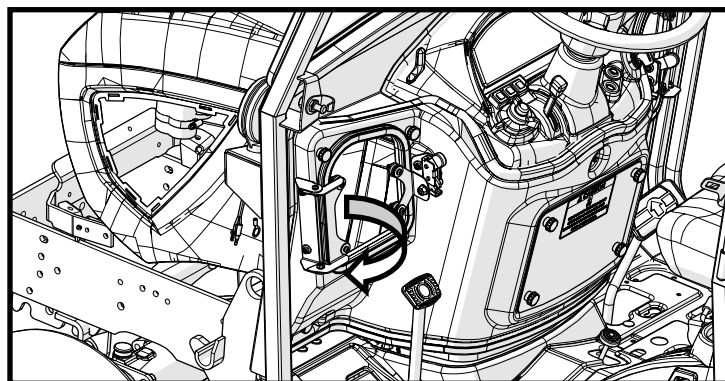
1. Stabilize the door and take pressure off the gas shock. Disconnect the gas shock from the sideframe by sliding the red release slide away from the shock body and gently pulling the shock off the ball stud.
2. Rotate the door 180° to the sideframe and lift. Also, remove the hinge washers and store in a plastic bag. *Store the doors in a safe location to prevent damage.*



Lift-Off Doors

POP-OPEN FRONT WINDOWS

The BX4070 cab has front lower windows that open for access to the machine loader attachment levers. To open the windows, release the latches and open. The window hinges are designed to stop the windows from swinging open too far and contacting the doors. When closing, ensure the latches double click to properly seal the windows back to the plastic shroud.



Pop-Open Front Windows

OPERATION

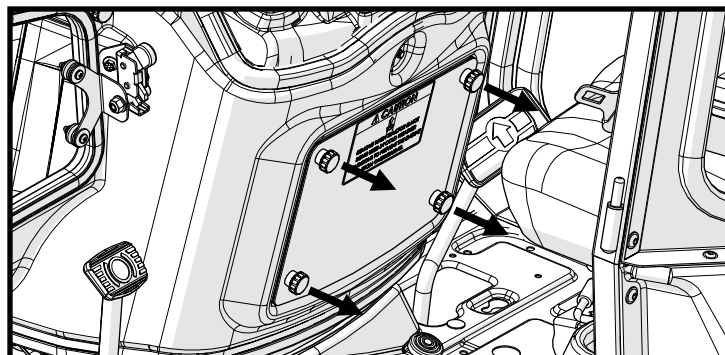
WARNING

REQUIRED BEFORE OPERATION

1. Read and understand this entire manual and any other publications for the equipment being operated.
2. Ensure that the surrounding area is clear and that personnel are positioned away from the area where engagement and disengagement of attachments will occur
3. Always shut off engine when leaving the operator's area to perform any portion of the listed procedures

AUXILIARY RADIATOR INTAKE COVER

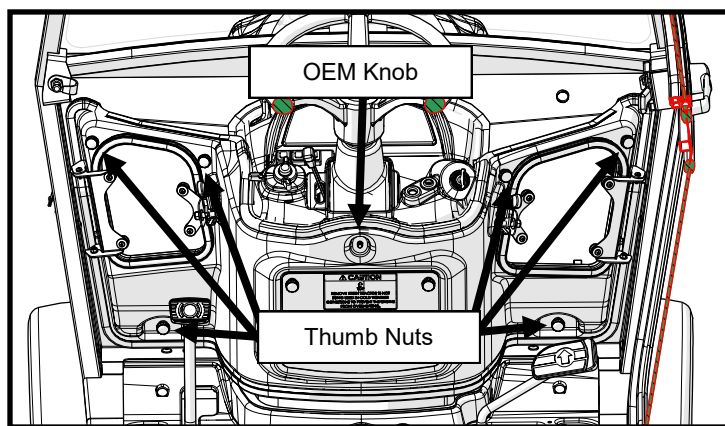
The BX4070 cab has a removable auxiliary radiator intake cover that should be removed when not operating the machine in cold weather conditions in order to prevent the machine from potentially overheating. Four thumb nuts hold the cover in place, and the cover can be stored inside the seat-back storage compartment, if equipped.



Auxiliary Radiator Intake Cover

REMOVABLE RADIATOR INTAKE SHROUD

The BX4070 cab has a removable radiator intake shroud that provides access to the under-dash battery area during machine servicing. Remove the six small thumb nuts as well as the one larger OEM knob and gently pull the shroud towards the back. Re-installation is the opposite, and it is easiest to align the lower studs first, then tilt the top of the shroud forward onto the remaining studs.



Removable Radiator Intake Shroud

SEAT RECLINING WARNING

The rear panel in the BX4070 cab is as far back as it could be placed while maintaining clearance for various BX tractor options. A seat travel limiting plate has been installed to prevent the seat bottom from sliding too far back and contacting the rear panel, however it is still possible for the seat back to be reclined into the rear panel. Care must be taken to ensure that the seat is positioned so that it does not contact the cab in order to prevent possible damage.

MAINTENANCE

CARE AND MAINTENANCE:

Check and tighten all hardware after 20 hours of operation. Periodically inspect and tighten hardware for the remainder of the unit's service life. Keep the components clean in order to prevent dust and dirt from forming an unattractive film. The life of your cab components depend upon following these care procedures:

1. **NEVER USE** AN ABRASIVE DETERGENT / VEHICLE CLEANER OR A WIRE BRISTLED BRUSH. Do not use any **CITRUS BASED CLEANERS** such as orange or lemon.
2. **NEVER USE** AN ALCOHOL-BASED PRODUCT FOR CLEANING THE PLASTICS. Do not use **WINDEX, GLASS PLUS, FANTASTIC**, etc. Use of these products will result in deterioration of the plastics.
3. Clean the enclosure surfaces thoroughly with warm soapy water and a COTTON cloth or chamois. Be sure to use mild soap, specifically a dish liquid or equivalent. Clean in a light circular motion for best results.
4. Remove grease and oil with mineral spirits and a COTTON cloth or chamois.

CHECK LIST FOR INSPECTION AFTER ASSEMBLY

Inspector:	Date Completed:
Tractor Model:	Serial Number:

Classification	Inspection Items	Result
Assembly	1. Check for proper tightening of all fasteners	
	2. Check for proper wire connections	
Operation	1. Check to see if relay clicks on/off with ignition	
	2. Check to see if doors have two audible clicks when latching	
	3. Check that front and rear flashers work properly	

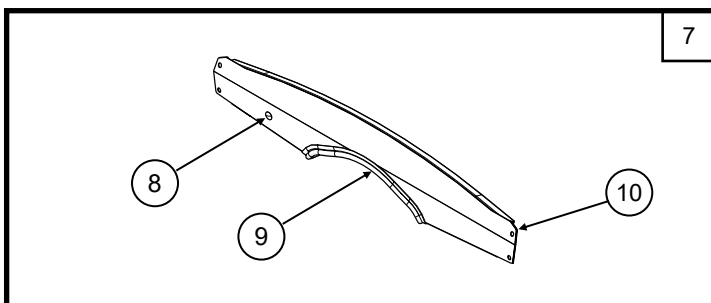
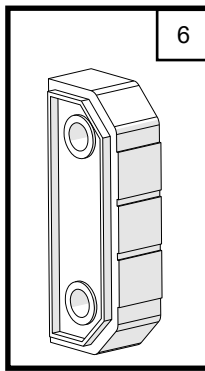
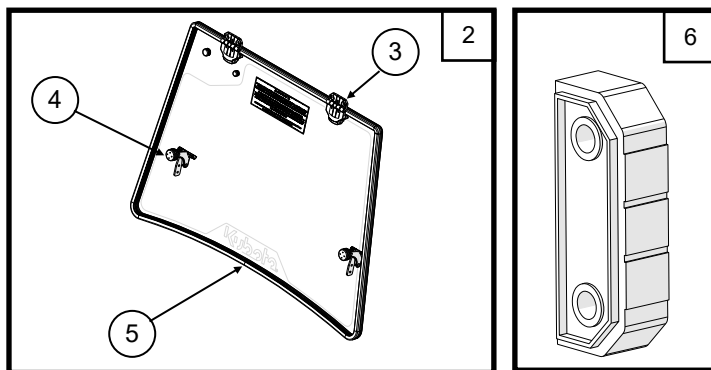
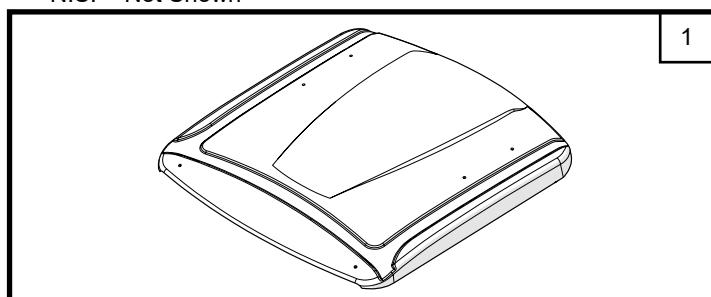
TROUBLESHOOTING

Condition	Possible Solution
<ul style="list-style-type: none"> Door latch and striker pin do not line up vertically. 	<ul style="list-style-type: none"> Loosen striker pin and move up or down using (2) 3/4" wrenches to adjust.
<ul style="list-style-type: none"> Door latch and striker pin do not line up horizontally. 	<ul style="list-style-type: none"> Loosen (2) 1/4-20 hex flange screws between latch and door. Move interior door latch forward or backward. Retighten.
<ul style="list-style-type: none"> Doors do not double click at latch 	<ul style="list-style-type: none"> Adjust door striker pin up, down, in, or out depending on need. If striker pin adjustment is not enough, loosen the bolts holding the door hinges, locate door where desired, and re-tighten hinges
<ul style="list-style-type: none"> Flasher lights are not working properly 	<ul style="list-style-type: none"> Check electrical connections at rear lights. Note: Be sure that the insulation on the male bullet on the OEM tractor light is cut back enough to provide proper connection Check to be sure front light wire is properly grounded by loosening the nut on the light and re-tightening. The light grounds through the threaded stud.
<ul style="list-style-type: none"> Accessories are not working properly 	<ul style="list-style-type: none"> Check to be sure that the relay is turning on/off with the ignition key. Confirm that the main fuse at the battery is good. Check to be sure the plug at the bottom of the right frame is connected to the machine harness Remove the roof and check the positive and negative connections for the main power harness. Negative should ground to the ground strip and positive should connect to the accessory circuit breaker
























PARTS BREAKDOWN

ITEM #:	PART NUMBER:	CODE NUMBER:	QTY/KIT:	DESCRIPTION:
1	77700-08525	101-00009	1	ROOF ASSEMBLY
2	77700-08526	102-00012	1	WINDSHIELD ASSEMBLY
3	70000-01040	9PH007	1	HINGE ASSY, STD WINDSHIELD KIT
4	77700-08560	9WL06	1	LATCH, POP-OUT, SINGLE ARM, 3IN OPENING
5	70000-01252	9PR38	169"	3/4" SIDE BULB, 1/4" GRIP WITH 2 WIPERS
6	70000-01015	9BLK01	1	WINDSHIELD HINGE BLOCK SPACER, TALL STYLE, 3/4" THICK
7	77700-08528	105-00009	1	COWL ASSEMBLY
8	77700-08557	99DP20	1	DOME PLUG, 0.812 HOLE, 0-.125, 0.99 HEAD, .410 OAL, HEYCO 2693
9	70000-01397	9PRO2	37"	5/8" STD BULB, 1/16" GRIP
10	77700-08541	9PR53	48"	ARCH PSA RUBBER, .20WDX.15TALL
11	77700-08534	HWK-00037	1	HARDWARE KIT
N.S.	70000-01216	9DL01H	2	KEYS, CAB DOOR
N.S.	77700-05439	KF2-RWH	1	WIRE HARNESS, RELAY, KF2
N.S.	77700-08524	IM-BX4070	1	INSTALLATION INSTRUCTIONS, KBX80 TL

N.S. = Not Shown

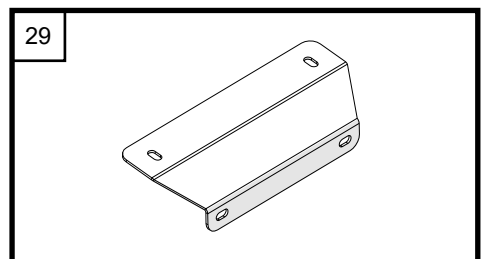
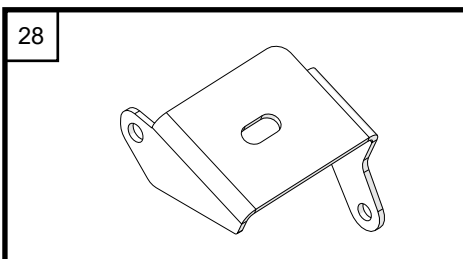
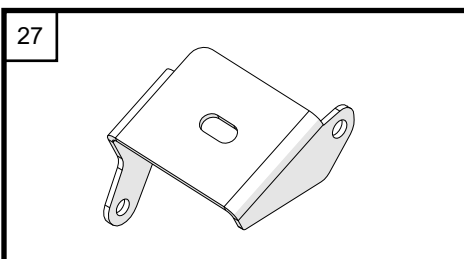
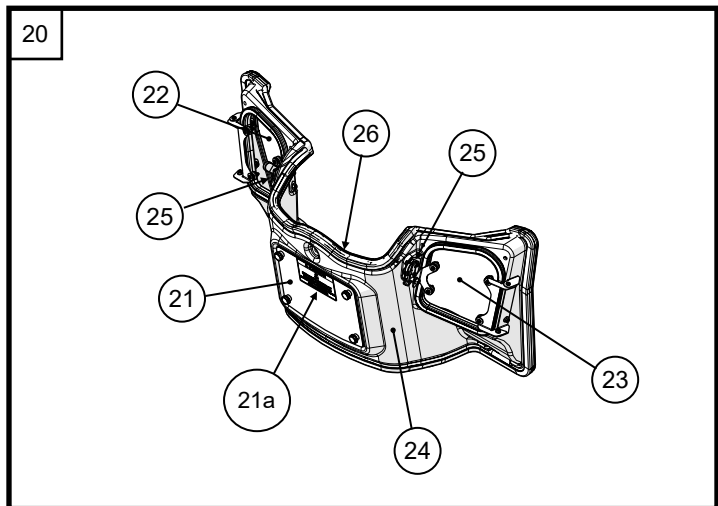
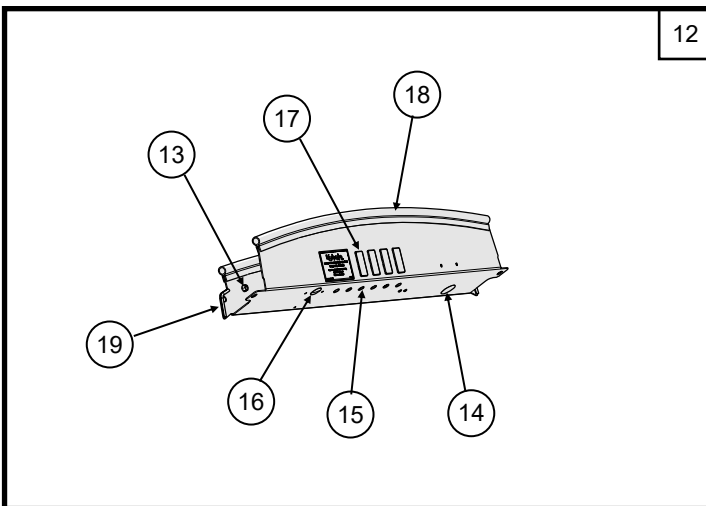


HARDWARE KIT

-  2X—BALL STUD, 10MM, 5/16-18
-  2X—SHOULDER SCREW, 3/8" DIA X 1LG
-  1X—CARRIAGE BOLT, 5/16-18 X 1LG
-  1X—CARRIAGE BOLT, M8X1.25 X 40LG
-  4X—SCREW, FLAT HEAD, 5/16-18 X 1.5LG
-  3X—SCREW, PAN HEAD, #10-32 X 5/8LG
-  2X—SCREW, BUTTON HEAD FLANGE, 1/4-20 X 5/8LG
-  6X—SCREW, BUTTON HEAD FLANGE, 1/4-20 X 3/4LG
-  44X—SCREW, BUTTON HEAD FLANGE, 5/16-18 X 3/4LG
-  4X—SCREW, HEX FLANGE, 3/8-16 X 3/4LG
-  4X—SCREW, HEX FLANGE, 3/8-16 X 2-1/4LG
-  2X—SCREW, HEX FLANGE, M10X1.25 X 25LG
-  2X—STEEL WASHER, USS, 1/4" ID X 3/4" OD
-  3X—STEEL WASHER, SAE, 5/16" ID
-  10X—STEEL FENDER WASHER, 5/16" ID X 1-1/4" OD
-  2X—NYLON WASHER, 5/16" ID X 11/16" OD
-  6X—RUBBER WASHER, 5/16" ID X 1-1/4" OD
-  3X—NYLON WASHER, #10 ID X 3/8" OD
-  3X—NUT, HEX FLANGE, NYLON INSERT, #10-32
-  8X—NUT, HEX FLANGE, NYLON INSERT, 1/4-20
-  23X—NUT, HEX FLANGE, NYLON INSERT, 5/16-18
-  8X—NUT, HEX FLANGE, NYLON INSERT, 3/8-16
-  6X—NUT, THUMB, 1/4-20

PARTS BREAKDOWN

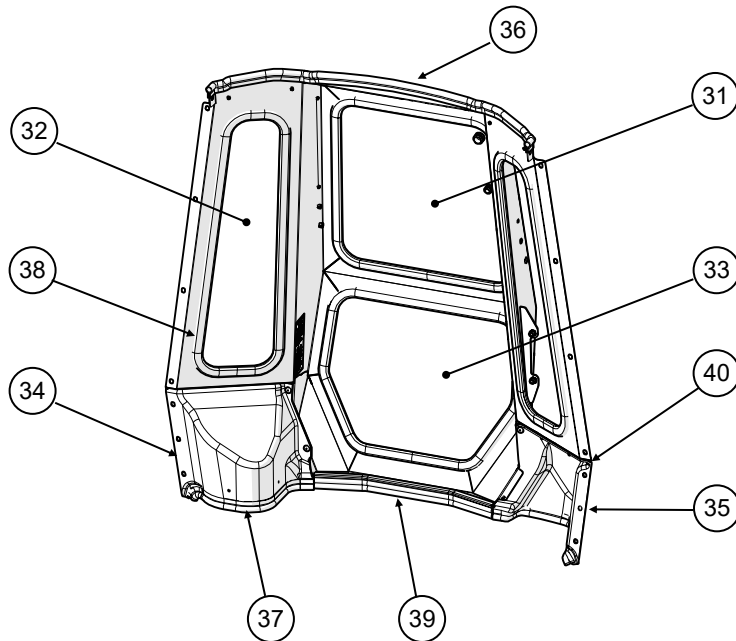
ITEM #:	PART NUMBER:	CODE NUMBER:	QTY/KIT:	DESCRIPTION:
12	77700-08527	103-00007	1	WINDSHIELD SUPPORT ASSEMBLY
13	77700-01480	9DP01	1	DOME PLUG, 7/16", HEYCO #2633
14	77700-08558	9DP02	1	DOME PLUG, 1", HEYCO #2713
15	77700-08559	9DP10	1	DOME PLUG, 3/8", HEYCO #2617
16	77700-05150	9DP16	1	HOLE PLUG, .75" X 1/8" GRIP, HEYCO #2683
17	77700-05153	9VH2-01	1	HOLE PLUG FOR V-SERIES BK CARLING SWITCH
18	70000-01397	9PRO2	37"	5/8" STD BULB, 1/16" GRIP
19	77700-08541	9PR53	48"	ARCH PSA RUBBER, .20WDX.15TALL
20	77700-08533	111-00008	1	RADIATOR SHROUD, PLASTIC
21	77700-08540	111-00009-KG	1	AUXILIARY RADIATOR INTAKE COVER
21a	77700-09080	9DL-209	1	DECAL, CAUTION, AUXILIARY RADIATOR INTAKE INFORMATION
22	77700-08542	9GL-00026	1	RADIATOR SHROUD WINDOW, LEFT
23	77700-08543	9GL-00027	1	RADIATOR SHROUD WINDOW, RIGHT
24	77700-08544	P-00026	1	RADIATOR SHROUD, MOLDED PLASTIC
25	77700-01021	9YR-LL	1	LATCH, EBERHARD, LEFT (8-240U)
		9YR-LR	1	LATCH, EBERHARD, RIGHT (8-240U)
26	70000-01252	9PR38	169"	3/4" SIDE BULB, 1/4" GRIP WITH 2 WIPERS
27	77700-08535	SM-00298-L	1	ROOF PIVOT BRACKET, LEFT
28	77700-08536	SM-00298-R	1	ROOF PIVOT BRACKET, RIGHT
29	77700-08517	SM-00333	1	ROOF MOUNT BRACKET, TL



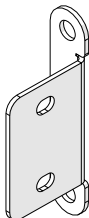
PARTS BREAKDOWN

ITEM #:	PART NUMBER:	CODE NUMBER:	QTY/KIT:	DESCRIPTION:
30	77700-08516	106-00016	1	REAR PANEL ASSEMBLY, TL
31	77700-08519	9GL-00019	1	REAR PANEL GLASS, TL
32	77700-08520	9GL-00021	1	REAR LEG WINDOW, TL
33	77700-08521	9GL-00022	1	REAR PANEL GLASS, LOWER, TL
34	77700-08522	P-00021	1	FUEL FILLER SHROUD, TL, RIGHT
35	77700-08523	P-00022	1	STORAGE BOX SHROUD, TL, LEFT
36	70000-01254	9PRO2	144"	5/8" STD BULB, 1/16" GRIP
37	70000-01397	9PRO2	37"	5/8" STD BULB, 1/16" GRIP
38	77700-00278	9PR10	80"	WINDOW RUBBER, 14-16GA STEEL, .18-.28 WINDOW THICKNESS
39	77700-05241	9PR41	189"	1-1/2" DOUBLE SIDE BULB, 1/16" GRIP AND 1 WIPER
40	77700-08541	9PR53	48"	ARCH PSA RUBBER, .20WDX.15TALL
41	77700-08518	SM-00418	1	ROPS BRACKET, TL
42	77700-08537	SM-00442	1	ANCHOR PLATE, ROPS
43	77700-08538	SM-00447	1	SEAT TRAVEL LIMITING PLATE

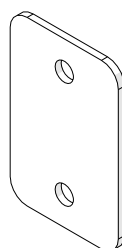
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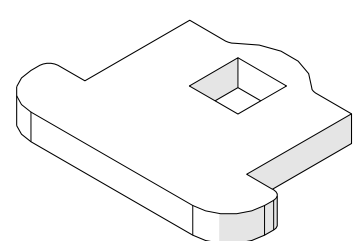
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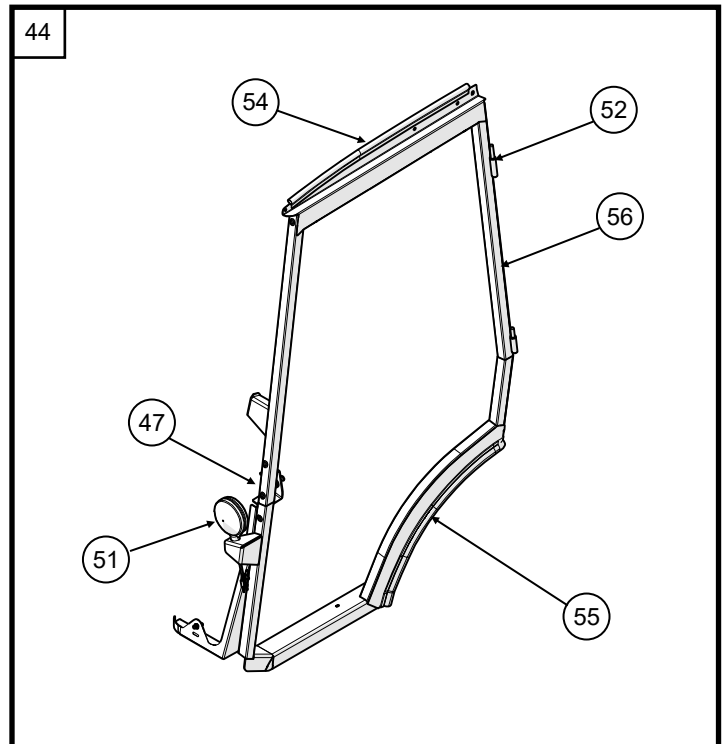
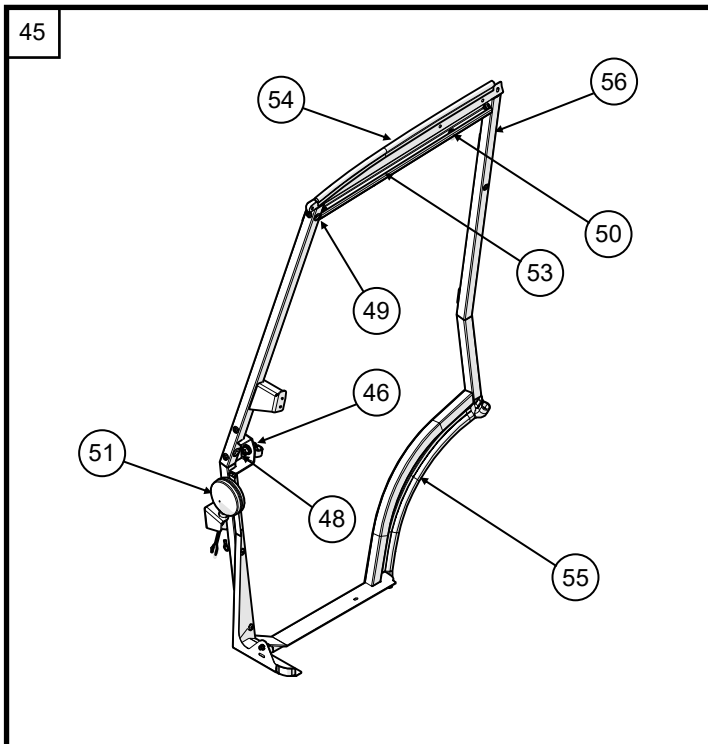
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PARTS BREAKDOWN

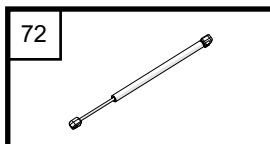
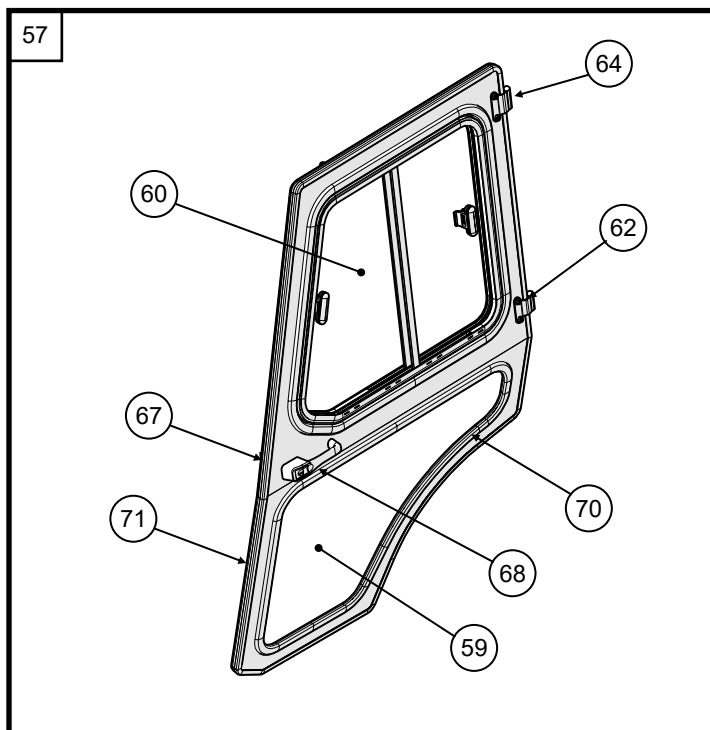
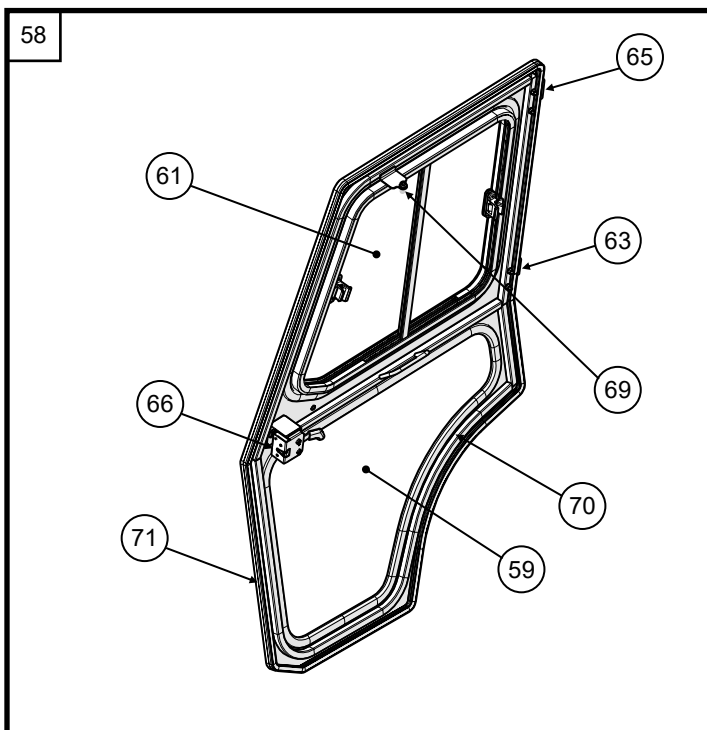
ITEM #:	PART NUMBER:	CODE NUMBER:	QTY/KIT:	DESCRIPTION:
44	77700-08531	109-00006-L	1	SIDEFRAME ASSEMBLY, LEFT
45	77700-08532	109-00006-R	1	SIDEFRAME ASSEMBLY, RIGHT
46	77700-08547	9DL01D-H	1	STRIKER BOLT, HARD, 42MM OAL 450-600 HV1, 170-200 HB 30, HB
47	77700-08548	9DP05	1	DOME PLUG, 11/16", HEYCO #2673
48	77700-05457	9HR03	1	RUBBER GROMMET, .4375IDx.125GW, x.6875GDx.9375OD (RPD G3102)
49	77700-08549	9HR05	1	RUBBER GROMMET, .5313IDx.125GW x.6875GDx.8125OD (RPD 3095)
50	70000-01024	9GS02A	1	BALL STUD, 10MM, 5/16-18, HB
51	77700-08644	114-00006	1	FRONT FLASHER, 4" ROUND, POST MOUNT, AMBER/AMBER
52	77700-05253	9PHW010-W	1	HINGE WASHER, WELD-ON, BRASS, (.635"OD X .41"ID X .08"THK)
53	70000-01050	9PRO1	220"	TRIM LOK, STD, 1/16"-1/8" GRIP
54	70000-01397	9PRO2	37"	5/8" STD BULB, 1/16" GRIP
55	77700-05144	9PR19	72"	1" ROUND BULB, 1/16" GRIP
56	77700-08541	9PR53	48"	ARCH PSA RUBBER, .20WDX.15TALL
N.S.	77700-05134	9PR43	92"	1/2" X 9/16" RUBBER FOAM WEATHERSEAL (FROST KING R930H)
N.S.	77700-08545	WH-00033	1	WIRING HARNESS, CAB SIDE POWER, KBX80
N.S.	77700-08546	WH-00034	1	WIRING HARNESS, FRONT FLASHERS TO REAR LIGHTS, KBX80

N.S. = Not Shown



PARTS BREAKDOWN

ITEM #:	PART NUMBER:	CODE NUMBER:	QTY/KIT:	DESCRIPTION:
57	77700-08529	107-00013-L	1	DOOR ASSEMBLY, LEFT
58	77700-08530	107-00013-R	1	DOOR ASSEMBLY, RIGHT
59	77700-08550	9GL-00028	1	DOOR WINDOW, LOWER, GLASS
60	77700-08554	9SW-00009-L	1	SLIDING WINDOW, FS-105, 29.56 X 24.62 X 22.55 X 28.76
61	77700-08551	9SW-00009-R	1	SLIDING WINDOW, FS-105, 29.56 X 24.62 X 22.55 X 28.76
62	77700-08555	PL-00010-L	1	HINGE SLEEVE ASSY, W-O, SHORT, KUB-DGRAY, LEFT
63	77700-08552	PL-00010-R	1	HINGE SLEEVE ASSY, W-O, SHORT, KUB-DGRAY, RIGHT
64	77700-08556	PL-00011-L	1	HINGE SLEEVE ASSY, W-O, LONG, KUB-DGRAY, LEFT
65	77700-08553	PL-00011-R	1	HINGE SLEEVE ASSY, W-O, LONG, KUB-DGRAY, RIGHT
66	70000-01016	9DL01A	1	DOOR LATCH, STD, LEFT (USED ON RIGHT SUICIDE DOORS)
67	70000-01017	9DL01B	1	DOOR LATCH, STD, RIGHT (USED ON LEFT SUICIDE DOORS)
68	70000-01018	9DL01C	1	DOOR HANDLE, OUTSIDE, PLASTIC (ROTARY LATCH)
69	70000-01024	9GS02A	1	BALL STUD, 10MM, 5/16-18, HB
70	77700-00279	9PR10	110"	WINDOW RUBBER, 14-16GA STEEL, .18-.28 WINDOW THICKNESS
71	70000-01401	9PR17	169"	3/4" SIDE BULB, 1/16" GRIP
72	77700-08539	9GS12Q	1	GAS SPRING, 20" EXT, 12" COMP, 30 LBS, QD END









TORQUE SPECIFICATION TABLE

GENERAL SPECIFICATION TABLE

USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

Note: These values apply fasteners as received from supplier dry, or when lubricated with normal engine oil. They do not apply if special graphited or moly sulphide greases or other extreme pressure lubricants are used. These values apply to dry conditions; under lubricated conditions reduce by 25% the torques in this table.

BOLT HEAD IDENTIFICATION

INCHES Bolt Size	 Grade 2		 Grade 5		 Grade 8		METRIC Bolt Size	 Class 5.8		 Class 8.8		 Class 10.9				
in-tpi ¹	N-m ²	lbs-ft ³	N-m	lbs-ft	N-m	lbs-ft	mm,pitch ⁴	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft			
1/4" – 20NC	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7			
1/4" – 28NF	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11			
5/16" – 18NC	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27			
5/16" – 24NF	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29			
3/8" – 16NC	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53			
3/8" – 24NF	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62			
7/16" – 14NC	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93			
7/16" – 20NF	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97			
1/2" – 13NC	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105			
1/2" – 20NF	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150			
9/16" – 12NC	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160			
9/16" – 18NF	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230			
5/8" – 11NC	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245			
5/8" – 18NF	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300			
3/4" – 10NC	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355			
3/4" – 16NF	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450			
7/8" – 9NC	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665			
7/8" – 14NF	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780			
1" – 8NC	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845			
1" – 12NF	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550			
1 1/8" – 7NC	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710			
1 1/8" – 12NF	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700			
1 1/4" – 7NC	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220			
1 1/4" – 12NF	750	555	1680	1240	2730	2010	<div><div>¹ in-tpi = nominal thread diameter in inches-threads per inch</div><div>² N-m = newton-meters</div><div>³ lbs-ft= pounds-foot</div><div>⁴ mm x pitch = nominal thread diameter in millimeters x thread Pitch</div></div>									
1 3/8" – 6NC	890	655	1990	1470	3230	2380										
1 3/8" – 12NF	1010	745	2270	1670	3680	2710										
1 1/2" – 6NC	1180	870	2640	1950	4290	3160										
1 1/2" – 12NF	1330	980	2970	2190	4820	3560										

*Torque tolerance +0%, -15% of torquing values. Unless otherwise specified use torque values listed above