



PICKUP TRUCK SNOWPLOW V-PLOW

Models 9585, 9595, 9863, 9963, 9710

OPERATOR'S MANUAL

**DO NOT USE OR OPERATE THIS EQUIPMENT UNTIL THIS MANUAL
HAS BEEN READ AND THOROUGHLY UNDERSTOOD**

Please visit www.snowplows.hiniker.com to access the most recent version

PART NUMBER 25014775

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TO THE PURCHASER

This product is designed and manufactured to give years of dependable service when properly maintained and used for the purpose for which it is intended. Never allow anyone to operate this equipment until they fully understand the complete contents of this manual. It is the responsibility of owners who do not operate this equipment to ensure the operator is properly instructed and understands the contents of this manual. It is also the owner's responsibility to ensure that anyone operating this equipment is mentally and physically capable of so doing.

Important information is contained in this manual to help ensure safe and efficient operation.

If you have any questions about this manual, or the equipment discussed herein, contact your Hiniker dealer.



TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.



THIS SYMBOL MEANS:

- ATTENTION!
- BECOME ALERT!
- YOUR SAFETY IS INVOLVED!



SAFETY SIGNAL WORDS:

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

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

CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury, or damage to components.

NOTE: Addresses safety practices not related to personal safety.

All references to Left or Right are defined as viewing the plow from the cab of the truck.

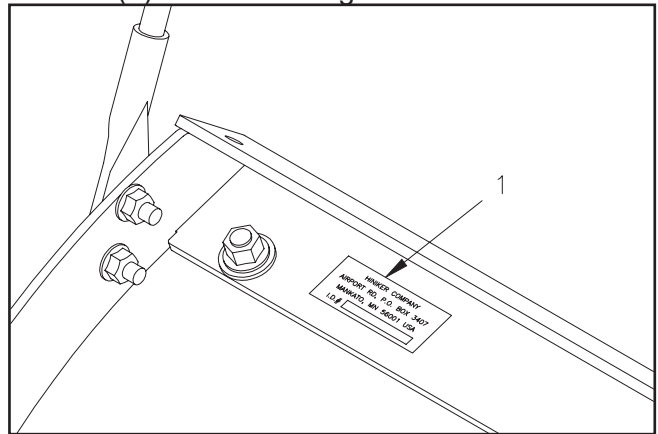
Instructions for raising and lowering the plow refer to the joystick controller as received from the factory. The raise and lower functions may be reversed to suit the preference of the operator by following the instructions in the Controller Configuration section.

This Operator's Manual is shipped with this equipment. For additional copies contact your Hiniker dealer or visit www.snowplows.hiniker.com.

Always obtain original Hiniker service parts. Substitute parts could adversely affect equipment performance and warranty.

Check that your dealer has forwarded the Hiniker delivery report form along with the plow identification number because it helps maintain maximum service and warranty benefits. This does not put you on any mailing list, and information thereon is not available to others.

Your plow's identification number plate is at location (1) in the following illustration.



DWG NO. 5689

Record the following information for later reference when obtaining service parts:

Purchase Date _____

Purchaser's Name _____

Dealer's Name _____

Machine I.D. No. _____

SAFETY



This is a safety alert symbol. It alerts an operator to information concerning personal safety. Always observe and heed these symbols and instructions, otherwise death or serious injury can result.

Operator safety is a principle concern in equipment design and distribution. However, many accidents occur because a few seconds of thought, and a more careful approach to handling, were ignored.

Accidents can be avoided by knowing and following the precautions cited in this manual.

GENERAL SAFETY

1. Read this manual thoroughly. Make sure the operator understands it and knows how to operate this equipment safely. This equipment can kill or injure an untrained or careless operator and bystanders. If you sell this equipment, ensure the new owner acknowledges receipt of this manual.
2. This plow is intended for plowing snow only. Plowing gravel, rocks, etc., or using the plow for any purpose other than plowing snow could result in harm to the operator or bystanders or cause damage to the plow or vehicle, and will void the warranty.
3. Do not service or otherwise handle a plow in the raised position unless it is securely blocked against unexpected falling.
4. Do not attempt to handle or service this equipment, or direct others to do the same, unless you know how to do it safely and have the proper tools for the job.
5. Keep hands, feet, hair, and clothing away from moving parts.
6. Do not alter the equipment to the extent of compromising safety or performance.

BEFORE OPERATION

1. Discipline yourself to visually check for worn, damaged or cracked parts before starting use. Replace these with genuine Hiniker parts.
2. Escaping hydraulic oil under pressure can penetrate the skin, causing serious injury. Do not use your hand to check for leaks. Use a piece of paper or cardboard to find suspected leaks. Tighten all connections before pressurizing hydraulic lines.

If fluid is injected into the skin, get medical attention immediately to prevent serious infection.

3. Check all controls and operating functions of the machine in a safe area before starting to work.

DURING OPERATION

1. Always wear seat belts when operating a motor vehicle.
2. Ensure everyone is clear of the machine, especially away from blind areas of the operator, before starting, actuating hydraulics or operating this equipment.
3. Do not plow snow at excessively high speeds.
4. Avoid hitting objects that will damage your plow or truck.
5. Set the brakes and stop the truck's engine before adjusting or servicing your plow.

AFTER OPERATION

1. Park the plow on a solid, level surface. Fully collapse the lift cylinder and use the stop plate, as described in the Operating Procedures Removing The Plow section, before unhitching the plow to prevent the frame from falling forward.

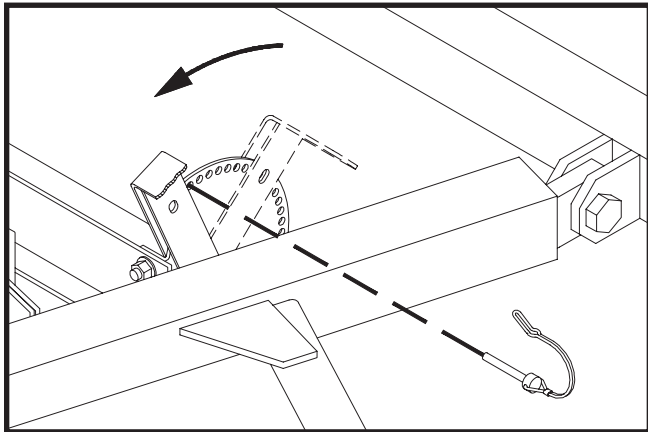
OPERATING PROCEDURES

ATTACHING THE PLOW

Attachment prongs on the truck should be mounted such that the bottom edge of the prongs measure about 10 inches above the ground. Prong receivers on the plow frame should remain parallel to the ground and at the correct height by fully retracting the lift cylinder with the upper lift links and bracing the frame with the stop plate before removing the plow from the truck (see "Removing the Plow"). Ideally, the prongs on the truck should lift the plow frame slightly when driving into the plow for attachment.

Powdered graphite applied on the prongs will help the plow slide on and off more easily.

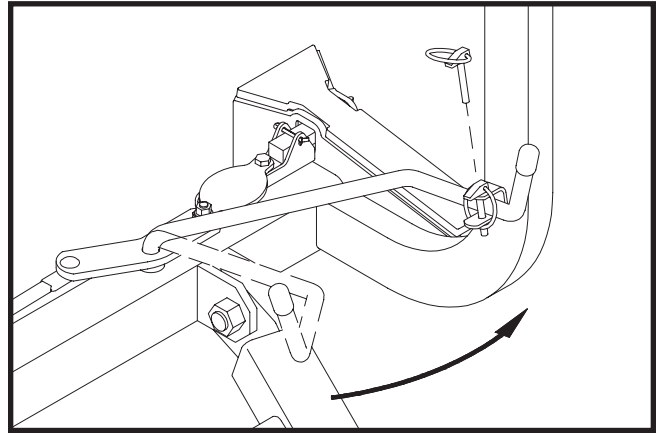
Check that prongs are in line with the receivers before slowly driving into the plow. Set the parking brake in the truck to prevent it from creeping back out from the receivers.



DWG. NO. 7196

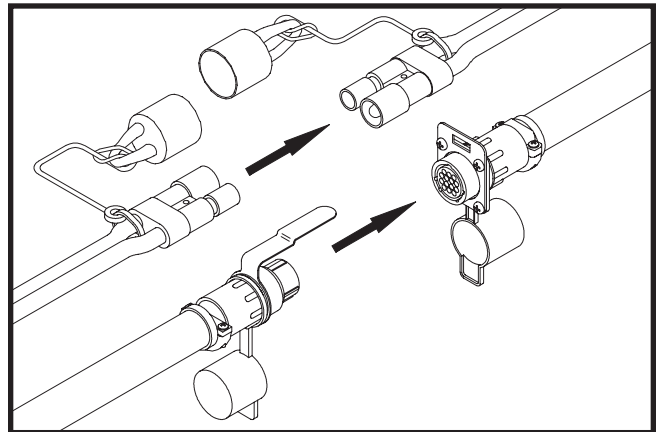
Remove the tab lock pin from the parking stand index plate to raise the stand to its highest position. Reinstall the pin in the plate for transport.

Pull the latch handle into the clevis on the lift frame to force the sliders through the notches in the prongs and receivers. Check that both sliders are fully engaged. Pin the handle in the clevis with its klik pin. Failure to pin the handle in place may allow the plow to fall off the truck.



Handle Pinned With Plow On Truck DWG. NO. 6721A

Plug in the two electrical connectors between the plow and the truck after latching the plow. The alignment tab on the 16 pin plug will mate with the slot on the mating receptacle to ensure proper connection.



Alignment Tab and Slot

DWG. NO. 6697

Check that the plow headlamps and turn signals are operational, and headlamps are aimed correctly. Test the lift and angling cylinders in a safe area before using the plow.

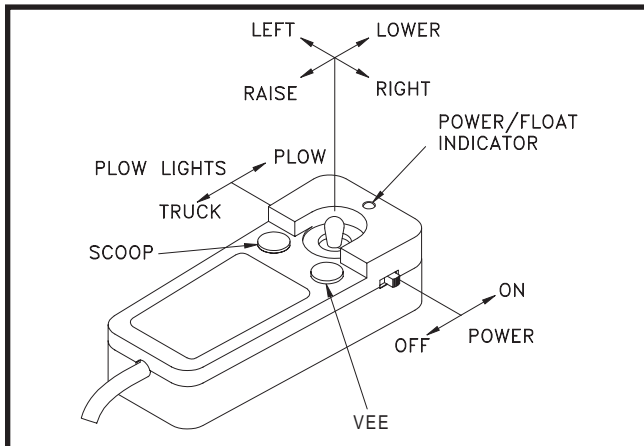
To make alignment of the plow easier in the future, mark a point on the back of the LH headlamp, a point on the hood near the front of the truck and a point on the windshield that are in line when you are seated behind the steering wheel. Line up these three points when driving into the plow.

THE JOYSTICK CONTROLLER

The joystick control box has slide switches for controlling power to the snowplow and for switching from the truck headlights to the headlights on the plow. The joystick controller raises and lowers the plow and angles the blade left or right. Two push buttons on the box are used to extend both wings to the scoop position or retract both wings to the V-position.

NOTE: Drawings 4181 and 4163 show the raise and lower functions of the joystick controller as received from the factory. Functions may be reversed to suit the preference of the operator by following the instructions in the Controller Configuration section for switching the controller joystick and face plate.

The vehicle's electrical power must be turned on before the control box will function.



Joystick Control Box

DWG. NO. 4181

Place the on/off switch on the joystick control box in the "On" position to supply power to the snowplow. A green light will indicate power is on.

Move the headlight slide switch on the control box to the "Plow" position to change from the truck lights to the snowplow lights. Activate high beam/low beam and turn signal/parking lamps from the truck as you normally would without the plow attached.

NOTE: When removing the plow, remember to place the headlight switch in the "Truck" position to return power to the truck's headlights.

Raise and lower the plow by moving the joystick forward and backward. Hold the plow at an intermediate height by releasing the joystick from the "Raise" position when the plow reaches the desired height. Moving the joystick to the "Lower" position will lower the blade to the ground and allow the plow to "Float" along the contour of the ground while plowing snow.

The green light on the control box will turn yellow to indicate the plow is in the float mode. Momentarily moving the joystick to the "Raise" position will remove the plow from the float mode and the yellow light will return to green.

Raise the blade before working the wing functions of the plow to avoid resistance from the ground. Move the joystick left or right to angle the blade to that side.

Push the left button on the control box to extend both wings into the scoop position. Push the right button to retract both wings into the V-position.

To hold the wings in position straight across the truck, start with the plow in the V-position, then push the left button on the control box to move both wings forward together and release the button when the wings are at the desired position.

TRANSPORTING THE PLOW

The extra weight of the snowplow on your truck will impair handling response and increase braking distance. The plow will also block some airflow to the vehicle's cooling system, possibly causing the vehicle to overheat. Therefore, it is important not to exceed speeds above 45 mph when the plow is attached. Remove the plow if you must drive your truck for long distances when the temperature is warm.

Raise the blade to a position where it will not interfere with the headlights before driving. Transport the plow with power to the joystick control box switched off to prevent accidental lowering of the plow. Never adjust the blade height or angle the wings while transporting the plow.

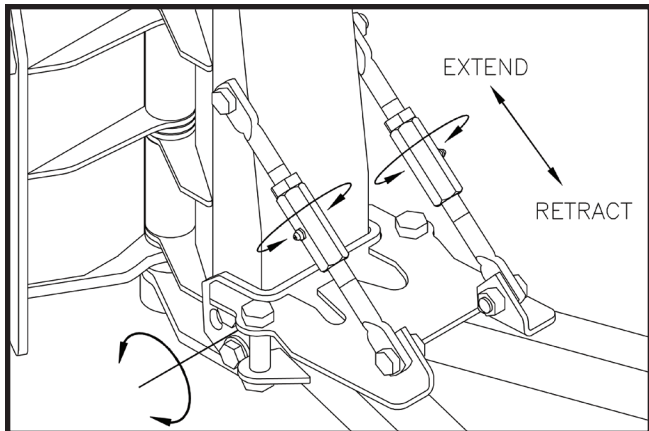
PLOWING SNOW



WARNING: Always wear a seat belt when plowing snow. Sudden contact with a hidden object can result in serious personal injury.

Inspect areas to be plowed before snowfall for potential hazards, and mark obstructions with stakes that will be seen when snow covers the ground. Identify any emergency equipment and utility outlets that may need to be cleared in the event of a storm. Prepare a plan beforehand for clearing snow from tight or enclosed areas and locate sites for stacking snow.

Level the plow blade with adjustable braces to ensure best cleanup of snow and to obtain even wear of the cutting edges.



DWG. NO. 7197C

When using skid shoes on the back of the moldboard, adjust the skids according to the surface to be plowed. The bottom of the skids should be about 1/2" below the cutting edge when plowing gravel roads or lots. Skids should be even with the cutting edge on hard surfaces such as asphalt or concrete.

Always plow snow as it is accumulating. Wet snow may weigh about 12 lbs per cubic foot. The weight of snow being pushed by your plow may increase to several tons.

Allowing snow depth to grow to unmanageable levels can cause difficult removal problems and can be costly in terms of wear on equipment.



WARNING: Serious personal injury can result from plowing at excessive speeds, as well as costly damage to equipment and property, if an obstruction is encountered while plowing. Do not exceed 10 mph while plowing.

Plow snow in the lowest truck gear to transfer maximum power to the cutting edge. Clear areas in front of buildings first. Backdrag snow away from buildings by driving to the building with the plow raised, then dropping the blade to pull snow away. Push snow to outer edges of the lot after snow is away from buildings.

Begin clearing large lots by putting the plow in the V-position and creating a single path. Roll snow to the outer edges of the lot by taking successive passes with the blade angled, or put the plow in the scoop position and push snow to the end of the lot. Break up hard snowbanks with the plow in the V-position.

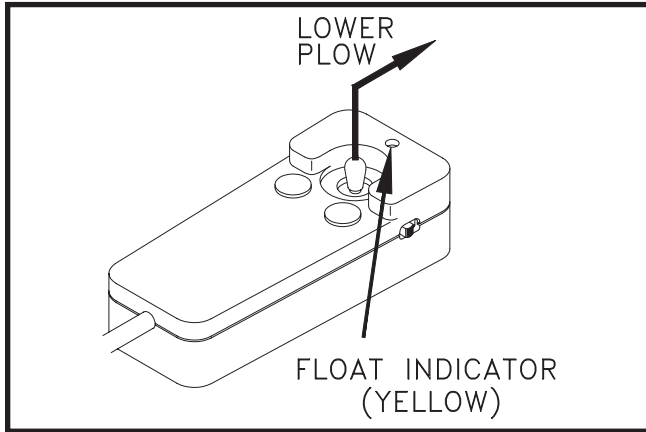
When plowing very deep snow, it may be necessary to raise the blade and shear off layers of snow until a working area is cleared. Work small areas in multiple passes to push snow to outer edges. Generally, 6" snow can be plowed with the entire blade width; 9" snow with 3/4 of the blade width; 12" snow with 1/2 of the blade width. Local conditions will determine how much work can be done before stalling or getting stuck.

PARKING

Lower the plow to the ground when parking your truck for a long period of time with the plow attached. Place the on/off switch in the "off" position to prevent the plow from drawing power from the truck battery. The plow's power unit may continue to draw electrical current from the truck battery if the control switch is left on; possibly resulting in insufficient charge to start the truck.

REMOVING THE PLOW

To remove the snowplow from your truck, park on a solid level surface with the blade straight across the truck. Lower the plow to the ground and leave the controller in the “float” mode.

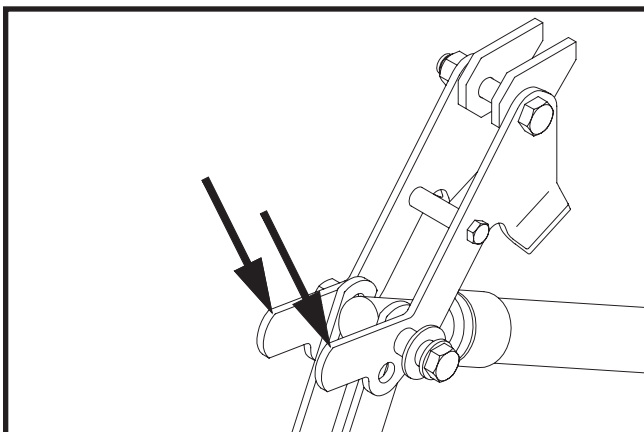


Lower Plow, Leave Controller In “float” DWG. NO. 4163

NOTE: The plow control box must be in the “float” mode to manually retract the lift cylinder rod. If the cylinder rod cannot be retracted with power on and the controller in float, loosen the packing nut on the lift cylinder up to 1 1/2 turns to reduce friction.

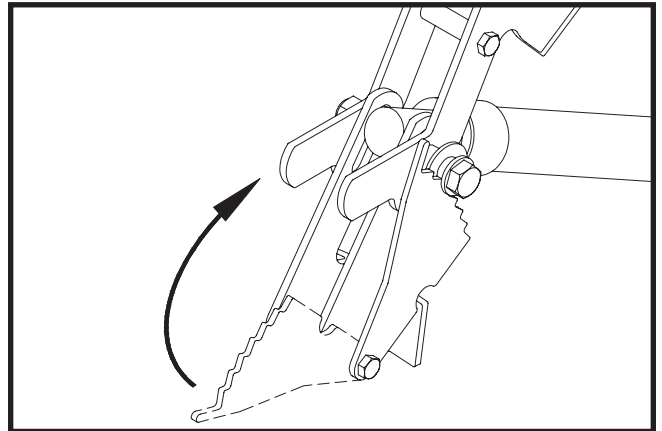
Retracting the lift cylinder before removing the plow from the truck will orient the prong receivers correctly for reattaching the plow later. Failure to retract the lift cylinder rod will allow the lift frame to fall forward, possibly causing personal injury or damage to plow components.

With the plow lowered to the ground and the controller in the “float” mode, push down on the upper lift links to full retract the lift cylinder rod.



Retract Cylinder With Upper Lift Links DWG. NO. 6000A

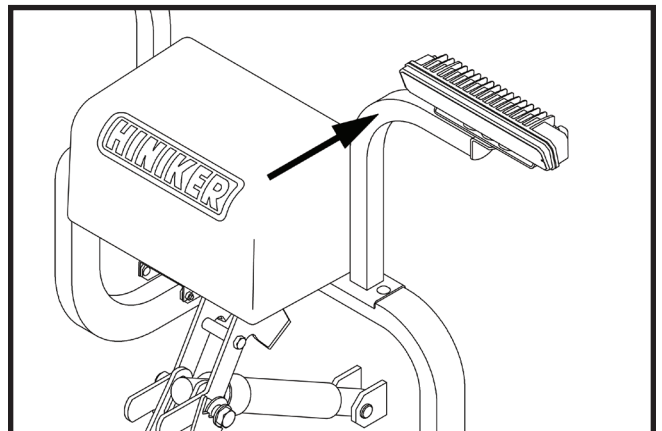
Rotate the stop plate up to contact the spacer bushing on the lift cylinder bolt.



Rotate Stop Plate

DWG. NO. 6004A

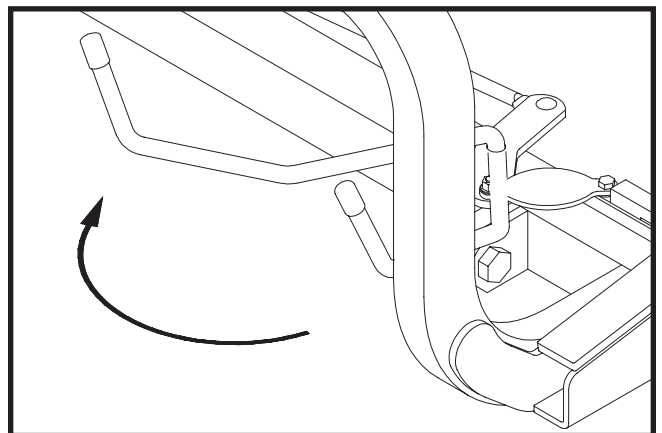
Gently push back on the headlight bracket to tilt the frame back as far as possible, then release the bracket to allow the weight of the lift frame to lock the stop plate in place.



Push Lift Frame Back

DWG. NO. 6005C

Swing the latch handle open until the sliders are fully removed from the attachment prongs.

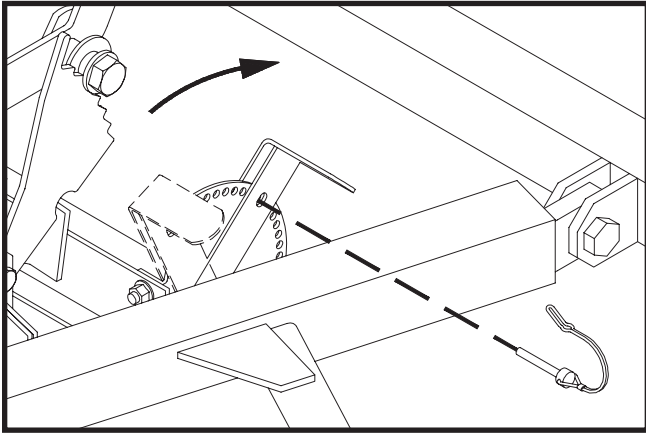


Swing Handle To Remove Sliders

DWG. NO. 6722A

8 Operating Procedures

Lower the parking stand to the ground by removing the tab lock pin from the stand index plate, then swing the stand to the ground with the lever.



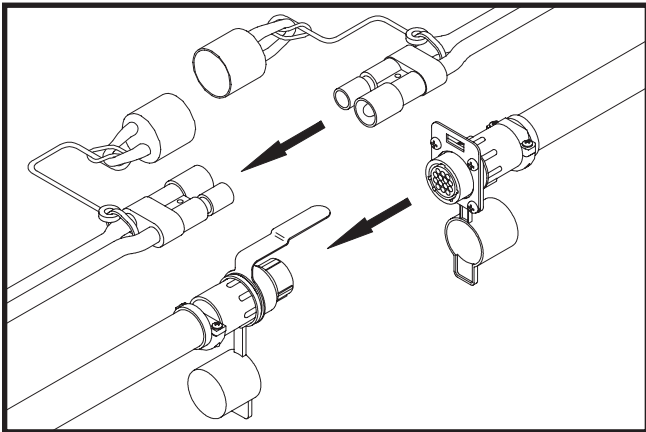
Lower And Pin Parking Stand

DWG. NO. 7198

Reinstall the pin in the index plate through the hole in the lever to hold the stand in place.

Disconnect the electrical connectors by pulling them straight out from the receptacles. Do not twist the connectors. Twisting will damage the connector pins or the wiring harness.

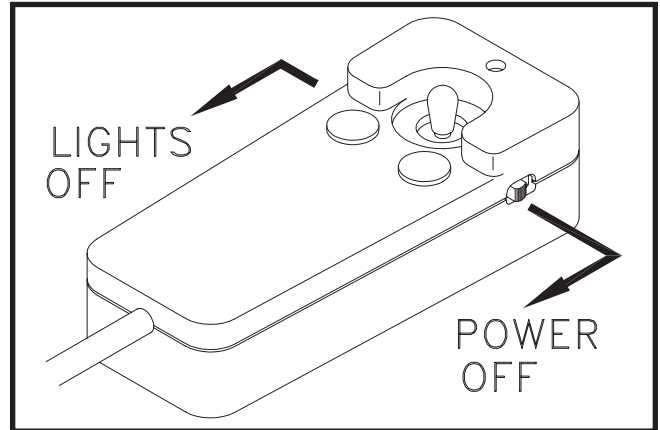
Place dust caps on connectors to prevent contamination.



Disconnect Plugs

DWG. NO. 6698

Back inside the truck, return control of the headlights to the truck and switch power off on the snowplow control box, then slowly back the truck out from the plow.



Turn Off Lights And Power

DWG. NO. 4164

NOTE: The stop plate will automatically fall forward as soon as the lift cylinder is fully extended for raising the blade prior to transporting the plow.

If the snowplow won't be used for an extended period of time, the prong weldment can be removed from the truck by removing the hex bolts that fasten it to the truck mount frame.

HEADLAMP AIMING PROCEDURE

NOTE: Headlamp aiming should be done while plow is in a raised position.

NOTE: This procedure should be done with no load on the vehicle other than the driver, snowplow, and rear ballast weight, inspect the vehicle for proper tire inflation and broken or sagging suspension components. Check functioning of any automatic vehicle leveling systems and any specific manufacturer's instructions pertaining to vehicle preparation for headlamp aiming. Stabilize the suspension by rocking the vehicle sideways.

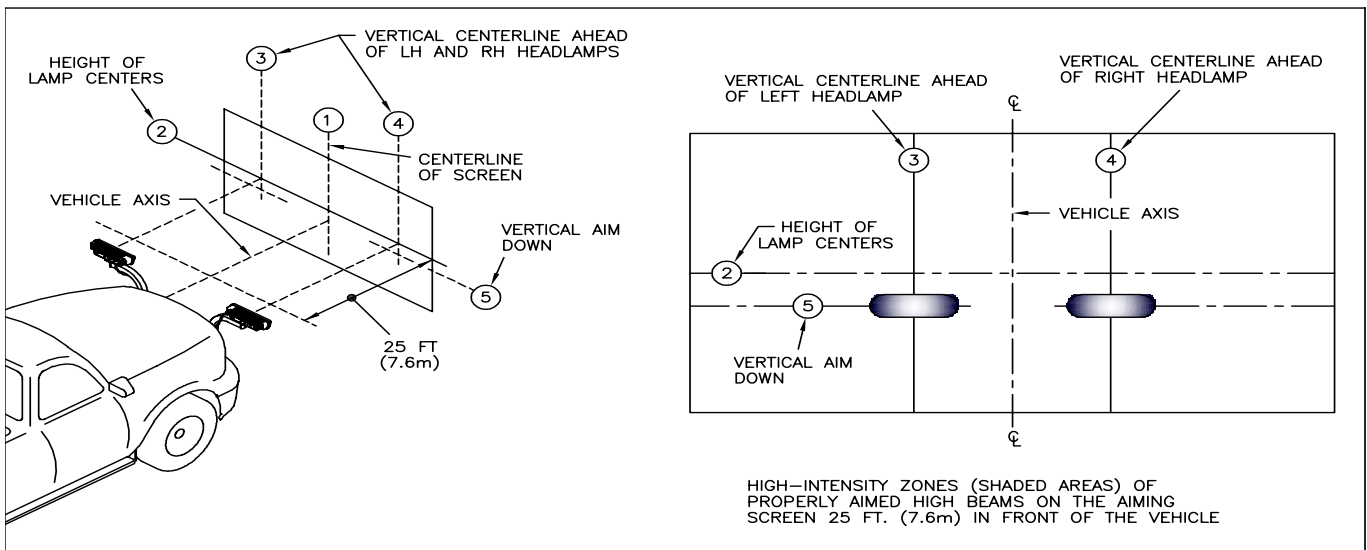
1. Park the vehicle with the plow attached on a level surface 25' (7.6 m) from a flat, unobstructed light-colored wall.
 1. Centerline of vehicle.
 2. Height of Lamp Centers.
 3. LH Headlight Center (see Table 1 for dimensions from Line 1).
 4. RH Headlight Center (see Table 1 for dimensions from Line 1).
 5. Vertical Aim Down Height (see Table 2 for dimension from Line 2)
2. Mark the wall with black tape according to drawing 5698B.
3. Wipe the lamp lenses clean and check for proper switching and function.
4. Activate the plow lamp HIGH beams to illuminate toward the wall.

5. Focus the center of the LH light beam on the intersections of lines 3 and 5.
6. Focus the center of the RH light beam on the intersections of lines 4 and 5.
7. Tighten the headlamp hardware according to the table below.

Type	Line 3 & 4 Dimension
LED	19 in (48 cm)
Halogen	22 in (56 cm)

Height from Ground	Dimension
22 to 36 in (56 to 90 cm)	0
36 to 48 in (90 to 120 cm)	2 in (5 cm)
48 to 54 in (120 to 140 cm)	4 in (6.4 cm)

Type	Size	Ft-Lbs	N-m
LED	1/2" (Bracket to Bar)	58-82	79-112
	1/4" (Light to Bracket)	6-7	8-10
Halogen	1/2" (Bracket to Bar)	58-82	79-112
	3/8" (Light to Bracket)	29-41	39-56

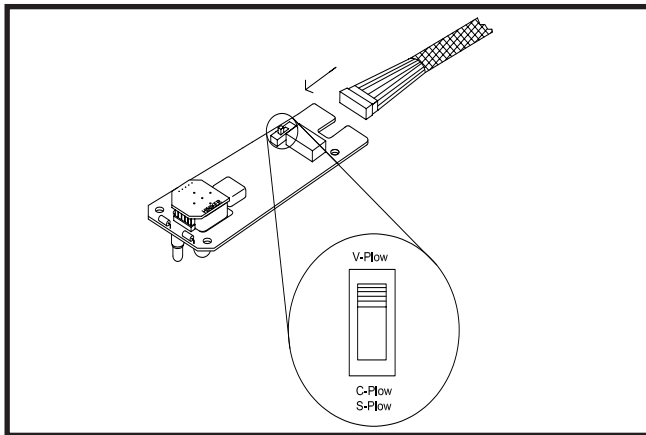


CONTROLLER CONFIGURATION

NOTE: The 2 pin power cable and 16 pin plow harness must be connected, and the vehicle's ignition switch must be switched on in order to test the functions of the headlights and power unit.

1. Ensure the black and white 12 pin connector from the cab harness is attached to the controller.
2. Use the plow selection switch to select whether you have a V-Plow or a Straight Blade.

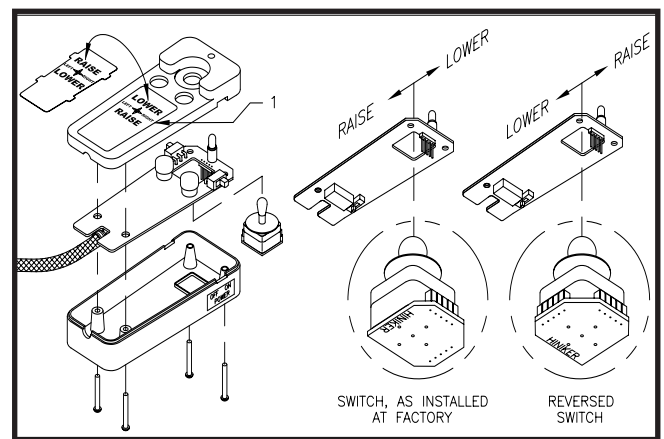
NOTE: As supplied from the factory, the snowplow controller raises the plow when the joystick is pulled backward and lowers the plow when the joystick is pushed forward. If you wish to reverse this follow steps 3 through 5. If not, skip to step 6.



DWG. NO. 8006

Model	Plow Type	Position
9585, 9595	Torsion V	Up
9863, 9963, 9710	Compression V	Up
2754, 2804, 2854	Steel Straight	Down
8804, 8904	C	Down
6814, 6914	Scoop	Down
7814, 7914	Poly Straight	Down
703, 753	Mid Size Straight	Down

3. Pry the face plate of the controller by inserting a small screwdriver along the side of the plate of the plate at location 1 in drawing 5855A. Flip the plate over, then reinstall by gently sliding the 4 tabs into the slots in the controller top.
4. To reverse the joystick switch, gently pull on the edges of the small circuit board at the base of the joystick switch to remove the switch from the 5 pins on the main circuit board.
5. Rotate the switch 90 degrees then gently push the switch back onto the 5 pins.
6. Insert the main circuit board into the case top ensuring the joystick is properly seated and the harness strain relief is inside the case.
7. Assemble the case with the 4 screws.
8. Test the controller on the snow plow to verify that raise and lower functions are what the operator desires.



DWG. NO. 5855A

MAINTENANCE



WARNING: Do not service or otherwise handle a plow in the raised position unless it is securely blocked against unexpected falling. Likewise, when servicing the plow with the wings extended, block wings to prevent unexpected wing movement due to accidental loss of hydraulic pressure or cylinder removal.

Dependable snowplow operation is the result of following good maintenance procedures. Inspect your plow frequently to ensure that all parts are working smoothly, and develop a schedule for maintenance at required intervals.

GENERAL

Wash salt and dirt off the plow before storage. **Do not power wash hydraulic cylinders, as high pressure can damage seals and cause cylinder failure.** Touch-up any chips or scratches in the paint and apply a light coating of grease to extended cylinder rods to prevent corrosion.

HYDRAULIC SYSTEM

The majority of snowplow operational problems are caused by bad oil in the hydraulic system. Hydraulic oil should be changed every year for best performance. Select Hiniker Cold Flow Hydraulic Oil or an equivalent oil that meets military specification 5606, for plowing in extremely cold temperatures.

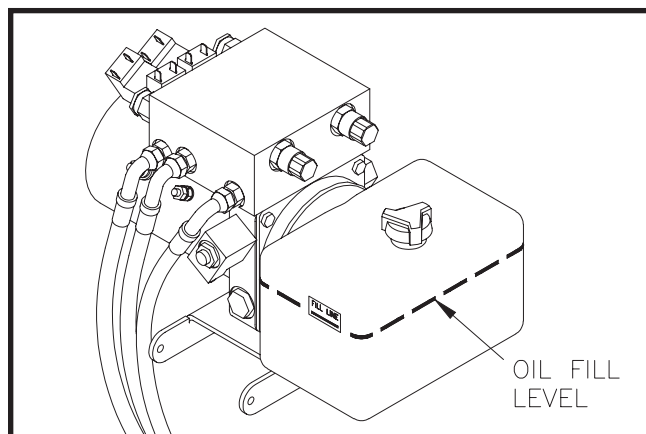
Change hydraulic oil with the wings in the V-position and the plow on the ground. Disconnect three electrical wiring harnesses from the power unit and uncouple five hydraulic lines. Unbolt the power unit from the plow, and remove it to a clean working area that can capture any spilled oil.

Carefully unbolt the oil reservoir from the power unit and discard old oil.

Clean the suction filter at the pump inlet and wipe any metal shavings off the magnet on the pump.

Re-attach the reservoir onto the power unit and re-connect the power unit on the snowplow before adding new hydraulic oil.

Pour hydraulic oil into the power unit reservoir until the oil level reaches the fill level.



DWG. NO. 6453A

Raise and lower the plow, and cycle the wings to purge any air trapped in the system. Check the oil level with the plow on the ground and the wings retracted. Add oil to the fill level, if necessary, but do not overfill the reservoir.

MECHANICAL COMPONENTS

Prior to the operation of a new snowplow, or one which has been stored, inspect all hardware and verify proper torque on all bolts and nuts in accordance with the recommended torque specifications.

GRADE 5 TYPE B & F LOCK NUT TORQUE VALUES

Size	Ft-lbs.	N-m
5/16"	13-18	17-25
3/8"	23-33	31-44
1/2"	58-82	79-112
5/8"	117-165	158-223

GRADE 5 BOLT TORQUE VALUES*

Size	Ft-lbs.	N-m
1/4"	8-12	11-16
3/8"	29-41	39-56
1/2"	73-103	99-140
5/8"	146-206	198-279

*Applications without lock nuts.

Loose bolts can cause hole elongation and part failure resulting in dangerous operating conditions and equipment breakdown.

Check all hardware periodically during the plowing season and keep tightened to specified torques. Replace worn bolts and lock nuts with grade 5 bolts and equivalent type B or type F lock nuts. Type B lock nuts are plain hex; type F lock nuts are flanged hex.

Inspect wear of the cutting edges before every plowing season and frequently throughout the season. Replace cutting edges before wear is into wing or mast sections to avoid damage to these components.

The 5/16" hex bolts in the latch sliders are factory retained with anaerobic threadlock. If removal or replacement of these bolts is necessary, purchase new bolts with threadlocker from your Hiniker dealer, or apply a commercially available threadlock, i.e., Loctite 242 (blue) to standard 5/16-18 x 3/4" grade 5 hex bolts before reassembly.

ELECTRICAL MAINTENANCE

Periodically check all electrical connections for proper fit and remove any contamination that may be present.

To prevent contamination always place dust caps on connectors when not in use. This is particularly important when the plow is being stored. A light coat of dielectric grease is recommended to reduce corrosion of the contacts and to make connecting and disconnecting easier.

Before each season check the vehicle battery and electrical system for proper operation. A weak battery, dirty terminals, or faulty charging system may cause improper operation and possible failure of the joystick controller.

Before every plowing season, and throughout the season, check the snowplow headlamps for proper function and aim.

TROUBLE SHOOTING

GENERAL

1. Check to see that the motor is wired correctly with tight connections, for the proper voltage.
2. Check reservoir oil level.
3. Check that wiring harness relay connections are wired correctly
4. Check for external leakage at cylinders, hoses and power unit.

PROBLEM	POSSIBLE CAUSE	REMEDY
1. Plow does not attach to vehicle	A. Receivers are tipped forward B. Prongs recoil out of receivers when attaching C. Park stand pinned too low	A. Fully collapse lift cylinder and rotate stop plate up to brace the lift frame before removing plow from truck B. Slowly drive into receivers and set parking brake C. Lower receivers by adjusting park stand.
2. Pump motor does not run	A. Defective solenoid B. Defective pump motor C. Weak or defective battery D. Bad electrical connections E. Defective joystick control box F. Blown fuse supplying power to control box	A. Replace solenoid B. Replace brushes or motor C. Charge or replace battery D. Clean and tighten connections E. Replace control box F. Replace fuse
3. Pump runs with joystick in neutral	A. Defective solenoid B. Defective joystick control box C. Wiring short	A. Replace solenoid B. Replace control box C. Locate and repair
4. Plow will not lower	A. Reversed wiring on valve block B. Defective joystick control box C. Defective lift return valve or coil	A. Correct wiring B. Replace control box C. Replace valve or coil
5. Hydraulic cylinder does not function or functions slowly, motor runs	A. Weak or defective truck battery B. Oil level low C. Hydraulic connection leak D. Solenoid valve not opening properly	A. Charge or replace battery B. Add oil (do not overfill) C. Tighten or redo connection D. Replace valve
6. Plow does not remain raised with joystick in "neutral" position	A. Leakage through pump check valve B. Leakage through solenoid lowering valve C. Internal leakage in cylinder D. Defective joystick control box.	A. Clean valve, or replace B. Clean valve, or replace C. Repack or replace cylinder D. Replace control box

PROBLEM	POSSIBLE CAUSE	REMEDY
7. Angling cylinders relieve too easily or too difficultly while plowing	A. Relief pressure set too low or too high	A. Have relief pressure adjusted by Hiniker snowplow dealer
8. Oil leaks from cylinder(s)	A. Loose packing B. Defective cylinder	A. Tighten packing 1/8 turn B. Repack or replace cylinder
9. Battery goes dead with power to the control box on and joystick in neutral position.	A. Short in wiring B. Defective joystick control box	A. Locate and repair B. Replace control box
10. Battery goes dead with power to the control box off.	A. Short in wiring	A. Locate and repair
11. Plow lights are dim	A. Bad connection(s) B. Lights not properly grounded	A. Repair connection B. Properly ground
12. Plow does not clean-up snow from low areas	A. Joystick controller in neutral	A. Controller should be in the down position (float)
13. In extremely cold temperatures, the oil in the hydraulic system is thickened, causing slow functioning of the plow	A. Cold temperatures	A. As the system warms, the oil will thin out and function normally. B. Select Hiniker Cold Flow Hydraulic Oil for plowing in extremely cold temperatures.
14. Pump chatters when raising plow	A. Hydraulic oil low	A. Add hydraulic oil until chattering stops. Do not overfill.
15. Oil running out of cap on hydraulic reservoir	A. Plowing on steeply inclined terrain B. Too much oil	A. Avoid excessive inclines or change direction of plowing B. Remove excess oil
16. Vehicle overheats with the plow on	A. Vehicle coolant level low B. Ice and snow buildup in grill C. Insufficient airflow to engine compartment	A. Add coolant B. Remove ice and snow C. Transport plow at lower speeds
17. Plow lights do not operate with plow attached	A. Light switch on joystick control box in "truck" position B. Defective relay C. Faulty light switch on joystick control box D. Blown fuse on vehicle accessory feed	A. Move switch to "plow" position B. Replace relay C. Replace joystick control box D. Replace fuse
18. Truck headlights do not operate properly with plow removed	A. Light switch on joystick control box in "plow" position B. Defective relay	A. Move switch to "truck" position B. Replace relay

HINIKER WARRANTY

HINIKER SNOWPLOW LIMITED WARRANTY

The only warranty Hiniker Company (Hiniker) gives and the only warranty that any Hiniker dealer is authorized to give on behalf of Hiniker is as follows: **(NO EMPLOYEE OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY.)**

Hiniker warrants to the original purchaser of a Hiniker snowplow that Hiniker will repair or replace any defects in material and workmanship that occur within two years from date of retail delivery except the following items: Hiniker warrants that it will repair or replace any defects in materials or workmanship with respect to the paint finish, any accessories, and service parts and components for a period of one year from date of retail delivery.

Hiniker's obligation and liability under this warranty is expressly limited to repairing or replacing, at Hiniker's option, at an authorized Hiniker dealer location, the defective parts at no charge to the original purchaser. **HINIKER MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED AND MAKES NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE.**

HINIKER'S OBLIGATION UNDER THIS WARRANTY SHALL NOT INCLUDE ANY TRANSPORTATION CHARGES TO OR FROM THE AUTHORIZED HINIKER DEALER LOCATION OR ANY LIABILITY FOR INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGE OR DAMAGES OF ANY KIND FOR LOST PROFITS OR DELAY. If requested by Hiniker, products or parts for which a warranty claim is made are to be returned freight prepaid to our factory. Any improper use, operation beyond rated capacity, substitution of parts not approved by Hiniker Company, or any alteration or repair in such manner as in our judgment affects the product materially and adversely shall void this warranty.

Hiniker reserves the right to make improvements or changes to any of its products without notice. Such improvements or changes shall not trigger any obligation by Hiniker to update, modify or change any products previously sold by Hiniker.

HINIKER does not warrant the following:

1. Used products.
2. Any product that has been repaired, modified or altered in a way not approved by Hiniker Company.
3. Depreciation or damage caused by normal wear, lack of reasonable and proper maintenance, failure to follow Operators Manual Instructions, misuse, lack of proper protection during storage, or accident.
4. Parts replacement and service necessitated by normal wear or maintenance including, but not limited to, cutting edges, hoses, snowplow skid shoes, blade marker guides and hardware.
5. Paint finish damage caused by normal wear.

Hiniker does not assume any liability for any damage to a motor vehicle resulting from the attachment or use of a Hiniker snowplow. Compliance with applicable motor vehicle regulations is the responsibility of the installer. Attachment of a Hiniker snowplow to a motor vehicle is at the risk of the purchaser.

It is the responsibility of the original snowplow purchaser to verify the original date of purchase.

A DELIVERY REPORT FORM must be filled out and received by Hiniker with 30 days of retail delivery at the address below to initiate the warranty coverage.

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