

BACK-SAVER

OWNER/OPERATOR MANUAL



Table of Contents

Warranty	1
Safety	2
Installation	3-4
Maintenance	5-6

BACK SAVER

Norwood Sales Inc

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Horace, ND 58047

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Limited Warranty Policy

Norwood Sales Inc. warrants to the buyer that the new machinery is free from defects in material and workmanship.

This warrant is only effective on new machinery, which has not been altered, changed or repaired since its delivery to the buyer.

Norwood Sales Inc. shall only be liable for defects in materials or workmanship and specifically excludes liability for repairs arising as a result of normal wear and tear of the new machinery and without limiting the generality of the foregoing, excludes application or installation of parts not completed in accordance with **Norwood Sales Inc.** operator's manual, specifications, or printed instructions.

Written notice shall be given by registered mail, to **Norwood Sales Inc.** within seven (7) days after the defect shall have become apparent or the repairs shall have become necessary, addressed as follows: **Norwood Sales Inc., 11202 38th Street South, Horace, ND 58047.**

This warranty shall expire one (1) year after the date of delivery of the new machinery.

If these conditions are fulfilled, **Norwood Sales Inc.** at its option will either repair or replace any defect. The buyer shall be responsible for all expenses incurred as a result of repairs, labor, parts, transportation or any other work, unless **Norwood Sales Inc.** authorizes such expenses in advance.

The warranty shall not extend to any repairs, changes, alterations, or replacements made to the new equipment other than by **Norwood Sales Inc.** or its authorized dealers.

This warranty extends only to the original owner of the new equipment.

This warranty is limited to the terms stated herein and is in lieu of any other warranties whether expressed or implied, and without limiting the generality of the foregoing, excluded all warranties, expressed or implied or conditions whether statutory or otherwise as to quality and fitness for any purpose of the new equipment. **Norwood Sales Inc.** disclaims all liability for incidental or consequential damages.

This machine is subject to design changes and **Norwood Sales Inc.** shall not be required to retro-fit or exchange items on previously sold units except at its own option.

YOU are responsible for the **SAFE** operation and maintenance of your Back-Saver. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices

General Safety

- Read and understand the Operator's Manual before operating, maintaining, or adjusting the Back-Saver.
- Only trained competent persons shall operate the Back-Saver. An untrained operator is not qualified to operate the machine.
- Have a first-aid kit available for use should the need arise and know how to use it.
- Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.
- Wear appropriate protective equipment. This list includes but is not limited to:
 - ✓ Hard Hat
 - ✓ Protective Shoes
 - ✓ Protective Goggles
 - ✓ Heavy Gloves
 - ✓ Hearing Protection
- Disconnect from power source before servicing, adjusting, or repairing.
- Review safety related items annually with all personnel who will be operating or maintaining the Back Saver.
- Be familiar with machine hazard area. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
- Keep hands, feet and clothing away from all moving and/or rotating parts.
- Do not operate machine with any guards removed.
- Clear the area of bystanders when carrying out any maintenance and repairs or making any adjustments.
- Before resuming work, install and secure all guards when maintenance work is completed.

Battery Safety

- Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive.
- Avoid contact with battery electrolyte: Wash off any spilled electrolyte immediately.
- Wear safety glasses when working near batteries.
- To avoid injury from spark or short circuit, disconnect battery cables before servicing any part of the electrical system.

Assembly Instructions

Your Back-Saver package should contain the following:

1. (2) Wheel and Tire Assemblies
2. (1) Back-Saver Base Unit Assembly
3. (1) Jack Assembly
4. (1) Tube Clamp Base
5. (1) Tube Clamp Top
6. (1) Control Package
7. (1) Base Unit Bolt Bag
8. (1) Tube Clamp Bolt Bag

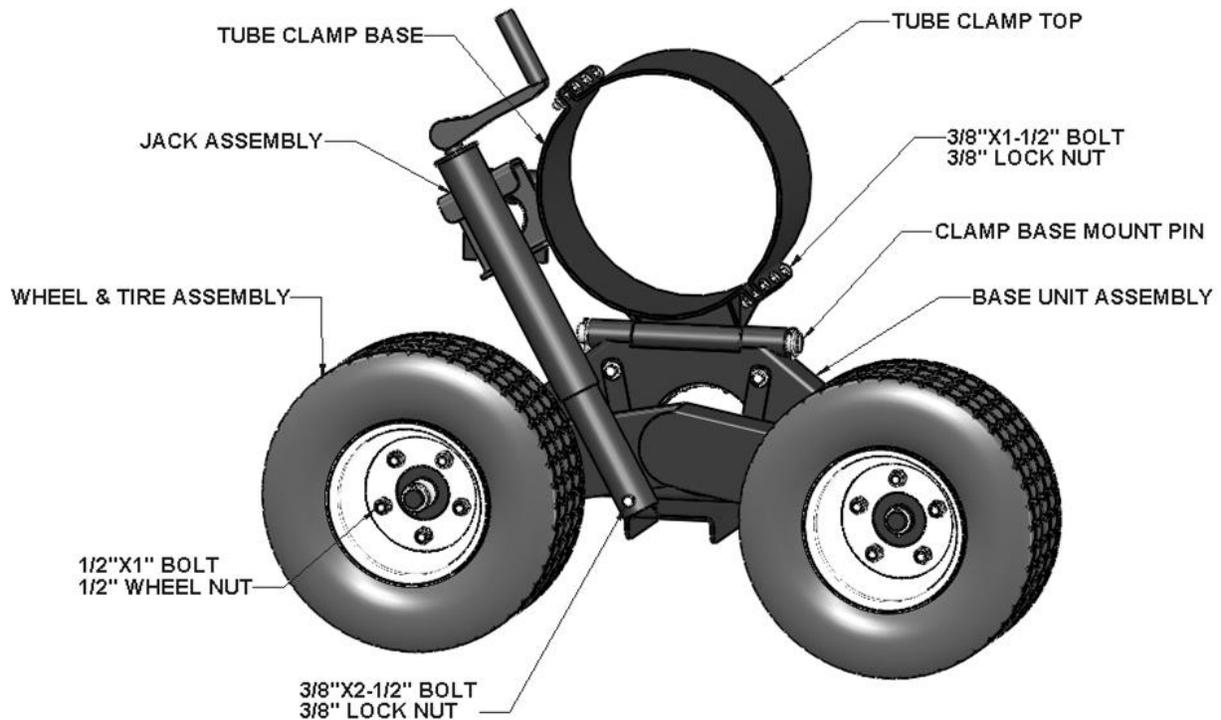


Step 1:

Mount the Wheel and Tire Assemblies to the Wheel Hubs on the base unit using the (10) 1/2" X 1" bolts and 1/2" Wheel Nuts.

Step 2:

Attach the Tube Clamp Base to the Base Unit Assembly using the pin that ships in the base unit.



Step 3:

Install the Jack Assembly to the Tube Clamp Base and lock in place using the provided Lynch Pin. Connect the lower end of the jack to the Base Unit using the 3/8" X 2-1/2" bolt and lock nut.

Step 4:

Lift and block the Swing Hopper about 1 foot off the ground to ease in installation. Clamp the Back-Saver Assembly to the Swing Hopper with the wheel side facing the hopper. The Back-Saver typically mounts about 12" up from the hopper transition, but to insure the proper location the auger should be raised to the normal operating position, then set the Back-Saver so that the wheels are flat on the ground and the Swing Hopper is just off the ground.

Step 5:

Mount the Receiver/Control Box (with the toggle switch up) to the Auger using the attached magnet. Ensure that the wire harness hangs down from the box to insure that water will not wick into the control box.

Step 6:

Connect the 10 foot cord to the electric motor. Connect the 3 foot cord to the light and mount the light facing the hopper.

Operation

Connect the battery clips to your 12 volt battery source. The BLACK clip connects to the negative terminal and the RED clip connects to the positive battery terminal.

Once the power is connected the manual toggle switch on top of the control box will operate the system at any time. To use the key-fobs, press either arrow button to activate the motor and move the hopper. Pressing the light bulb button will turn on the work light for ten minutes

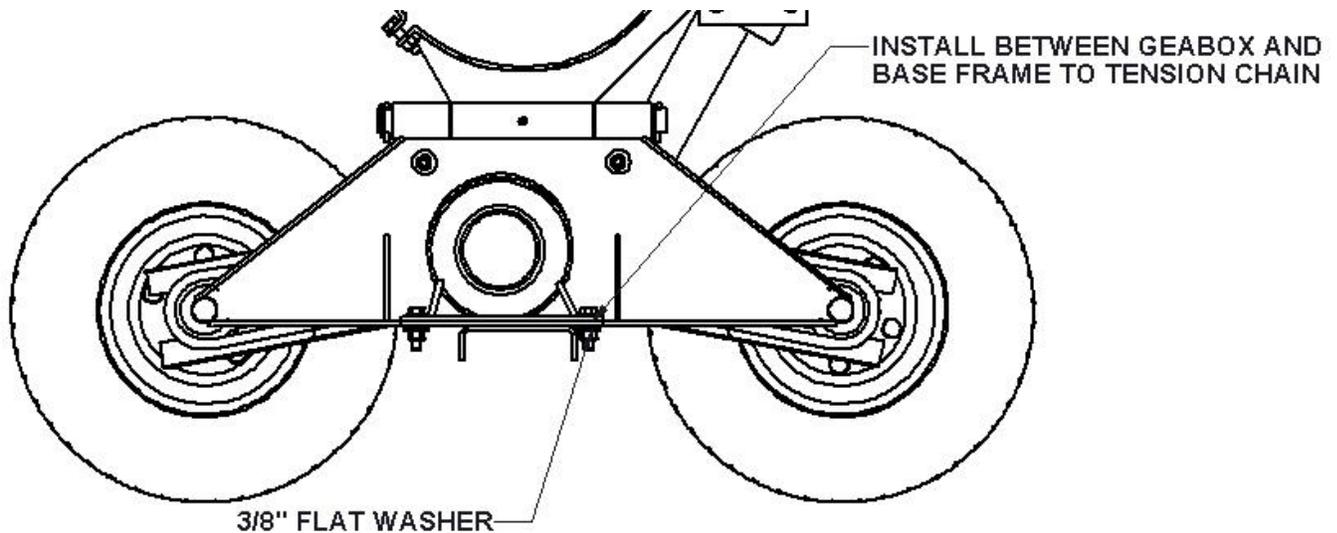
By following a basic maintenance program for your Back-Saver, you will enjoy many years of trouble-free operation.

Mechanical

Lubricate the (4) grease fittings after every 20 hours of use.

Lubricate the (2) roller chains after every 20 hours of use.

Check the chain tension daily. If the chain is loose, remove the 3/8" flat washers from the bottom of the frame and use as shims to lift the gearbox at all four bolt points. Use only the number of washers needed to maintain proper chain tension.



Electrical

The Back-Saver control system is designed to perform effectively in all outdoor conditions; however, to further guarantee the life and performance of the unit, it is recommended to remove the control package during the off season.

The main power lead contains a 20 Amp Manual Reset Circuit breaker to provide additional protection for the control unit. In the event of a short or overload situation, the breaker will trigger. Once the source of the problem has been identified and corrected, you can reset the breaker by disconnecting the power at the battery for a short period of time.

Programming the Remote Control Transmitter and Receiver

The transmitters were programmed with the receiver prior to shipment. For difficulties, first check the breaker in the main power wire and the connections to the power source. You may also want to check the batteries in the remote and at your power source.

Each key-fob transmitter has a unique internal address that is transmitted whenever the buttons are pressed. The receiver is programmed to respond only to the key-fob transmitters which are intended to operate it. Up to 12 key-fob transmitters can be programmed to one receiver. **Please read the entire programming procedure before starting.**

When the receiver enters program mode, **all previously stored transmitter addresses will be deleted.** To access the receiver, remove the four screws from the front of the gray electrical box and remove the cover. Verify that the unit is connected to 12 volt power.

1. Locate the button labeled **"LEARN"** on the receiver. Press and hold the learn button until the red LED illuminates (approximately 3 seconds). Release the learn button at this time. The receiver is now in the transmitter program mode and all previously stored transmitted addresses are erased.
2. Press either button on the key-fob transmitter and verify that the red LED briefly turns off, then back on (blinks 1x), then release the button.
3. Repeat step 2 for each additional receiver. The red LED should blink the same number of times as the number of receivers you have programmed (2x for second, 3X for third).
4. The receiver will return to normal operation after 5 seconds of no transmitter activity. To indicate this, the red LED will blink rapidly and then turn off. The receiver will retain all of its programming even when the power is removed.

Battery Replacement

It is important to change the battery in the transmitters at least once every operation season. There is a small amount of battery drain, even when the transmitter is not in use, so it is important to keep fresh batteries on hand. The transmitters use a **12 volt #23A battery** which is available in most stores. To change the battery, remove the Phillips screw at the bottom of the key-fob and pry the two halves apart. Replace the battery and fasten the two halves back together using the Phillips screw you removed.

