

Warranty Information
Operators Manual
Installation Instructions

Westfield, Wheatheart, Brandt 2014+ Mayrath/Hutchinson 4 Wheel-Twin Auger

Hopper Walker® Dual

Rust Sales, Inc.
2964 164th Ave SE
Harwood, ND 58042
(800) 478-7801
(701) 282-9194
www.hopperwalker.com



Limited Warranty Statement

Rust Sales, Inc. warrants each new Hopper Walker to be free from defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the product or components, not to exceed 12 consecutive months from the date of the delivery of the Hopper Walker Product to the original purchaser, or the date the product is first put into service via a rental agreement or other means, whichever occurs first. This warranty coverage applies only to the original owner and is not transferable.

Under no circumstances will it cover any merchandise or components thereof, which in the opinion of the company has been subject to misuse, unauthorized modification, alterations, improper installation, maintenance, an accident or if repairs have been made with parts other than those obtained through Rust Sales, Inc.

Our obligation under this warranty shall be limited to repairing at our facility or replacing, free of charge to the original purchaser, any part that, in our judgment, shall show evidence of such defect, provided further that such part be returned within 30 days from the date of failure to Rust Sales, Inc. routed through the dealer from whom the purchase was made, transportation charges prepaid. Proof of purchase must also accompany the returning defective part.

This warranty shall not be interpreted to render Rust Sales, Inc. liable for injury or damages of any kind or nature to person or property. This warranty does not extend to the loss revenue, extra labor cost associated with downtime, substitute machinery, rental or for any other reason.

Except as set forth above, Rust Sales, Inc. shall have no obligation or liability of any kind on account of any of its equipment and shall not be liable for special or consequential damages. Rust Sales, Inc. makes no other warranty, express or implied, and specifically, Rust Sales, Inc. disclaims any implied warrant or merchantability or fitness for a particular purpose. Some states or provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusions in this warranty may not apply.

This warranty is subject to any existing conditions of supply which may direct affect our ability to obtain materials or manufacture replacement parts.

No one is authorized to alter, modify or enlarge this warranty nor the exclusion, limitations and reservations

Rust Sales, Inc. reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligation to owners of units previously sold.

SAFETY

The safety guidelines are not intended to replace any rules or regulations or any applicable local, state, or federal governing laws. The following information is intended to be used in conjunction with other rules or regulations already in existence. It is important to read all safety information before operating any wireless radio remote control system.

Only properly trained persons designated by management should be permitted to operate wireless radio controlled equipment. Wireless radio controlled equipment should not be operated by any person who cannot read or understand signs, notices and operating instructions that pertain to the equipment.

Wireless radio controlled equipment should not be operated by any person with insufficient eyesight or hearing or by any person who may be suffering from a disorder or illness or is taking any medication that may impair judgment or the ability to operate equipment.

Do not use this device during electrical storms or under conditions of electrical interference, due to the potential for equipment communication issues. Ensure transmitter batteries are in good condition and power for receiver is correct. Installation and maintenance should be done only while the controlled equipment main power and receiver's power are off and locked out to prevent electrical shock.

Any person operating wireless radio controlled equipment should possess the following knowledge and/or skills:

- *Knowledge of hazards peculiar to equipment operation
- *Knowledge of safety rules for radio controlled equipment
- *Knowledge of standard methods of hand and/or non-verbal signaling
- *Knowledge of the radio transmitter
- *Limit stop test procedure
- *Proper clearance of all moving parts on the radio controlled equipment
- *Proper storage space for radio control transmitter when not in use
- *Transferring radio control transmitter to another person
- *Reporting unsafe or unusual operating conditions
- *Remote controlled equipment capacity and limitations
- *Procedures for testing controlled equipment

Radio controlled operators should always position themselves for the best view of the equipment they are controlling. The equipment should never be operated blindly. The operator should always remain at a safe distance, without losing line of sight with the equipment.

Transmitter switches should never be mechanically blocked ON or OFF for any equipment motion. When not in use turn the transmitter off (STOP).

After daily operation, shut off main power. A secure storage space should be designated for the transmitter unit especially when not in use. This precaution is

intended to prevent unauthorized use of the equipment.

The equipment operator should keep all body parts away from any moving parts.

The equipment has been tested for correct operation before delivery from the factory. However, it must not be used in critical or hazardous operation where incorrect operation may cause personal or equipment damage. If the equipment fails to respond or behaves improperly, the equipment operator should NOT operate the equipment AND should notify his/her supervisor immediately. When serious conditions are noticed (conditions that make the equipment unsafe to operate), the equipment should be shut down immediately and the supervisor notified.

CAUTION

The receiver unit or relays are not rated as explosion proof. The receiver unit must not be installed or operated in explosive environments unless appropriate secondary enclosure measures are taken.

WARNING

The unit must be wired to the correct voltage; failure to do so may damage the system.

**NOTE

*** IN AN EMERGENCY, PUSH **"STOP"** TO STOP RADIO REMOTE CONTROLLED EQUIPMENT.

Contact *Rust Sales, Inc.* with any questions or comments regarding the mounting or operation of the HOPPER WALKER.

Rust Sales, Inc.

2964 164th Ave SE, Harwood, ND 58042 (800) 478-7801 or (701) 282-9194

Thank you for purchasing the HOPPER WALKER.

First - Read and understand <u>all owners manuals</u> and <u>safety guidelines</u> for all parts included with the hopper walker. When performing any maintenance or adjustments always disconnect the power source from the main control box. When moving the hopper, you should always be in clear view of the hopper and the hopper path, so hopper will not hit anyone or anything. The motors used on this unit are powerful and should only be used by persons familiar and trained in the operations and functions of the power swing auger system. Keep children and other persons away from the swing hopper and all controls. Before using the hopper walker system, operators should understand the workings of the remote operations as well as the hard wired control box.

Hopper Walker Remote & Base Unit

FCC Statement

15.19 - Two Part Warning

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

15.21 – Unauthorized Modification

NOTICE: The manufacturer is not responsible for any unauthorized modifications to this equipment made by the user. Such modifications could void the user's authority to operate the equipment.

15.105(b) - Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, my cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected

Industry Canada Statement

This device complies with Canadian RSS-210.

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website www.hc-sc.gc-ca

Note: The base unit is designed for mobile applications where power is supplied by a vehicular DC system or battery.

The remote hand held controller has six functions:

- 1. **OFF BUTTON** used to stop movement and to de-energize the remotes transmitter. Once the remote OFF button has been pressed the remote will not be able to send a signal to the receiver and control box. If the OFF button on the remote was used you can only move the hopper with the hard wired control box. The remote will only function again after the ON button is pressed.
- 2. **ON BUTTON** used to energize the remote transmitter and receiver. Once pressed the remote transmitter can send the signal to the receiver to accept commands. If pressed again, the work light will turn on. Press the ON button again to turn off the work light.
- **3. MANUAL LEFT** moves hopper left while button is pressed and held. Movement stops when the button is released. Press and hold button again and movement starts again.
- **4. MANUAL RIGHT** moves hopper right while button is pressed and held. Movement stops when the button is released. Press and hold the button again and movement starts again.
- **5. AUTOMATIC LEFT** moves hopper left automatically. When the button is pushed and released, the movement starts and continues automatically until the hopper reaches a predetermined limit stop, the OFF button is pressed, or any other button is pressed and released.
 - A. The remote system stays energized after the automatic movement stops from reaching the predetermined limit stop.
 - B. The start button will have to be pressed to re-energize the remote system if the stop button was used to stop the automatic movement.
 - C. The remote system stays energized when the manual left or manual right buttons are used to stop the automatic movement.
- D. Auto Left cannot be activated again until Auto Right is activated.
- **The remote is now ready for the next command.
- **6. AUTOMATIC RIGHT** moves hopper right automatically. When the button is pushed and released, the movement starts and continues automatically until the hopper reaches a predetermined limit stop, the OFF button is pressed, or any other button is pressed and released.
 - A. The remote system stays energized after the automatic movement stops from reaching the predetermined limit stop.
 - B. The start button will have to be pressed to re-energize the remote system if the stop button was used to stop the automatic movement.
 - C. The remote system stays energized when the manual left or manual right buttons are used to stop the automatic movement.
 - D. Auto Right cannot be activated again until Auto Left is activated.

^{**}The remote is now ready for the next command.

IMPORTANT

- 1. The predetermined limit stops only stop the movement when the automatic left or automatic right buttons are used. The manual left and manual right buttons on the remotes or the hard wired control box, when pressed and held, will override the predetermined limit stops.
- 2. Make sure the adjustable limit stops are removed when moving the hopper to the opposite side of the main auger. This ensures that nothing is broken during moving. The stops will have to be reset after the hopper has been moved to the opposite side.
- 3. Limit stop sensors and magnets must always be adjusted to ensure proper shut off when moving, using the automatic left and automatic right buttons.
- ** Use only the manual left and manual right buttons or the hard wired box buttons when moving the hopper over to the opposite side of auger. **Never use the automatic controls.**

HARD WIRED BOX

This is the box with the red emergency stop button and also a left and right control button (joystick). This box will be located on the auger tube above the hopper.

The functions of this box:

- **Red Emergency Stop Button** - When button is pushed down, it stops any and all movement of the hopper. To stop movement, press down on top of the button.

To resume movement from right or left buttons on this box or the remote this button needs to be in the up position.

To place this button in the up position, twist and the button will pop up.

- **Joystick** – Hopper will move in the directions the joystick is moved.

IMPORTANT – Moving the joystick will override limit stops.

NOTICE: Just an example of a working demo- You push "AUTO LEFT" to place hopper under grain trailer. Hopper will stop at a predetermined point when the limit stop sensor comes in contact with the magnetic field of the limit stop magnet. If you need to continue to the left you would need to push and hold manual left to override auto stop and hopper would move more to the left. Be aware if you continue to the left at some point the stop sensor will go past the magnetic field of the limit stop magnet. If this happens you will not have any movement from auto left until hopper is brought back to the right using auto right. This process resets the safety logic built into the controller.





WARNING:

DISCONNECT the motor cable from the motors to avoid any damage to electrical components when pushing the hopper to the other side of the auger.

DO NOT jump start the tractor with the Hopper Walker plugged in and powered up. You may damage the base unit.

If during the installation of the HOPPER WALKER DUAL you notice some parts missing or if you encounter difficulty mounting please contact *Rust Sales, Inc.* (800) 478-7801 or (701) 282-9194

Tools needed:

1/8" and 3/16" hex key wrenches
7/16" wrenches and/or sockets
9/16" wrenches and/or sockets
Impact wrench (if available)
5/16" nut driver or Flat head screwdriver
13mm wrench or small adjustable wrench
10mm wrenches or small adjustable wrench
Side cutting pliers – to cut zip tie tails

Mayrath/Hutchinson Only:

³/₄" or 13/16" drill bit or die grinder with grinding bit

Please also note the model of Hopper Walker that you purchased. Certain sections require different installation procedures based on the Hopper Walker model. Please note the HM, H1 and H2 labels when they appear.

If you are not sure what model you purchased, check the serial number on the back side of the control box (amber box) or on the side of the joystick box. The prefix, HM, H1 or H2, is the model of your unit. Example: H2 16-4523

MOUNTING THE MOTOR AND WHEEL ASSEMBLIES

HM, H1 and H2 Models

The motor and wheel assemblies can be mounted on either side of the hopper.

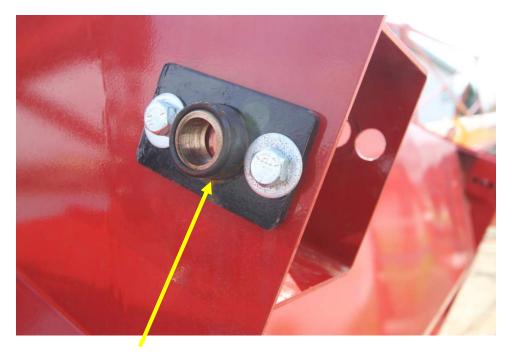
Pictures and instructions, used in this manual, are for mounting the motor and wheel assemblies on the front side of the hopper with the hopper on the right side of main hopper (standing in front of auger and looking toward the back of the main auger). If mounting on the left hand side, the procedure is the same. If there is a certain side of the main auger which is normally used more, use that side for a starting point. If there isn't just use a side of your choice.

It is easier to mount the motor and wheel assemblies if the hopper is in transport position.

Remove existing wheels and axles from the hopper.

On Mayrath/Hutchinson 4 wheel, twin auger hoppers, the middle hole needs to be enlarged to fit our ³/₄" drive shaft. The hole should be slightly oversized so the shaft can move freely.

Install 4 bronze bushing in bushing holder brackets.



Bushing installed in bushing holder bracket.

Loosely attach one bushing holder and bushing to hopper as shown below, using a bushing holder bracket as a support plate on the inside. Two 3/8" x 1-1/4" bolts with 3/8" flat washers and 3/8" flanged nuts attach the bracket to the hopper. The washer must be under the bolt head.



Loosely install another bushing holder and bushing, with the anti-rotation bracket used as a support plate, on the holes on the inside plate on the hopper. Two 3/8" x 1-1/4" bolts with 3/8" flat washers and 3/8" flanged nuts attach the bracket to the hopper. See picture below.

Install the drive shaft through the outside bushing and slide on two locking collars. The shaft end with the keyway cut to the end is for the tire and needs to be on the outside of the hopper when installed.



Bushing holder brackets and drive shaft partially installed.

Insert the shaft through both bushings. It may be necessary to loosen the nuts on the inner bushing holder so the drive shaft will line up with the bushing.

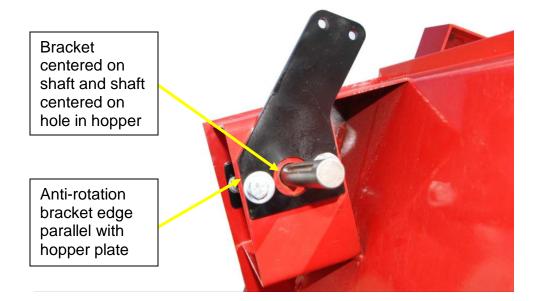


Note the bushings face the same direction.

Adjust the drive shaft so it is centered in the hole on the hopper and tighten the bolts.



Center shaft on hole in hopper



Make sure the anti-rotation bracket is centered on the shaft and parallel with the bottom plate of the hopper.

Tighten remaining bolts.

The shaft should be able to spin by hand fairly easily when adjusted correctly.

Install the tire using 3/16" keystock and set screws for the tire hub. The shaft should be flush with the end of the hub. Slide shaft in until tire has $\frac{1}{2}$ " – 1" of clearance with the hopper.



Install the inner motor using the 3/16" keystock and 23 RPM motor. Check the name plate on the motor to make sure the correct motor is installed in the correct location. Make sure the 3/16" keystock is installed before sliding the motor on the shaft. Use anti-seize to ensure motor can be removed in the future.



The anti-rotation bracket may need to be adjusted so the top mounting hole on the motor lines up with one of the holes in the anti-rotation bracket. The **inside motor** uses the **top hole** on the anti-rotation bracket. The **outside motor** uses the **lower hole**.

Attach inner motor to anti-rotation bracket using the knob with 3/4" of thread.

The outer motor attaches to the plate using a knob with 1-1/2" of thread and a spacer between the motor and the anti-rotation bracket.

NOTE: Brandt Hoppers will use two knobs with 1-1/2" of thread and two spacers; one on the inner motor and one on the outer motor.

Slide the locking collars out as far as possible and tighten.



Locking collars slid out as far as possible.

Motor attached to anti-rotation bracket. (No spacer on inside motor)

Repeat the above procedure for mounting the outside motor and wheel assembly. See below pictures for reference.



Anti-rotation bracket and bushings brackets loosely mounted.



Locking collars installed on shaft

Remember to center the shaft on the holes in the hopper and center the anti-rotation bracket before tightening the bolts.



Tire installed on outside of hopper. Note the keyway for the motor; it is NOT cut to the end of the shaft. Leave approximately $\frac{1}{2}$ " – 1" of clearance between the tire and the hopper.



33 RPM outer motor installed on shaft and attached to anti-rotation bracket using knob with 1-1/2" of thread and 1/4" lock washer. **Note the spacer between the motor and anti-rotation bracket.** Use anti-seize to ensure motor can be removed in the future.

Slide locking collars out as far as possible and tighten.



Attach motor cable to the inner and outer motors.

Make sure the main connection is facing up the swing auger tube.

MOUNTING THE TUBE MOUNT CONTROLLER BRACKET

HM, H1 and H2 Models

Mount the tube mount controller bracket using 2 large hose clamps. The bracket should be located 24" - 36" from the flange at the end of the swing tube or up to 6' from the hopper. Position the tube mount bracket so it is centered on the tube when the hopper is in working position.



Once the tube mount controller bracket is mounted, loosen one hose clamp enough to slide a zip tie underneath and retighten the hose clamp. This zip tie will hold the excess length of the hose clamp. Repeat process for the other hose clamp.



MOUNTING THE REMOTE CONTROL BOX AND BEEPER

HM, H1 and H2 Models

Mount the control box on the controller plate using two $\frac{1}{4}$ " x 1-1/2" bolts and $\frac{1}{4}$ " flanged nuts. Make sure the connectors on the controller are facing towards the hopper.

The beeper will also get mounted on the bottom of the controller plate to one of the $\frac{1}{4}$ " bolts used to mount the controller. **On HM Models, there will not be a beeper.**





MOUNTING THE HARD WIRED CONTROL BOX

HM, H1 and H2 Models

Place joystick box into cradle and secure with bungee cord. The large cable will lead up the swing tube. Connect the gray receiver connector to the gray receiver outlet on control box. **On HM Models, this gray connector will not be connected**.



Secure the hard wired control box with bungee cord as shown.



Connect the motor cable attached to the motors to the 8' lead coming from the joystick box. When pushing the hopper to the other side of the auger, unplug this connection to avoid any damage to electrical components.

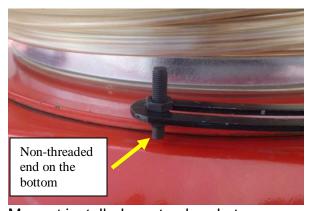
MOUNTING LIMIT STOP BRACKETS AND LIMIT STOP SENSORS

H2 Models

This section shows how to mount the limit stop hardware to a Westfield MKX and MK auger. Other brands of augers will follow the same procedure. Contact *Rust Sales*, *Inc.* if your auger is different than what is shown below.

Install limit stop magnet in long slot on limit stop bracket. The non-threaded end of the magnet faces down.

Remove bolt or bolts from spout head retainer. Install limit stop brackets so one is on the front side of the boot above the PTO shaft and the other is on the opposite side of the boot than the hopper. **Depending on auger size and configuration, only one mounting bolt may be needed to mount limit stop bracket.** This will allow the bracket to be adjusted in or out as needed. Use existing bolts and a supplied washer on the short slot to install stop bracket. Bracket may need to be adjusted to work properly.



Magnet installed on stop bracket



Limit stop bracket installed on spout head retainer



Both limit stop brackets installed on auger boot.

Loosely install limit stop sensor on sensor bracket.

Position the hopper to dump position or 90 degrees from auger. Decide where to mount sensor bracket by holding it in the general area. **Make sure the sensor does not touch the magnet.** There should be a 1/8" to 3/16" of clearance between the sensor and the magnet. The sensor may need to be adjusted up or down and in or out.



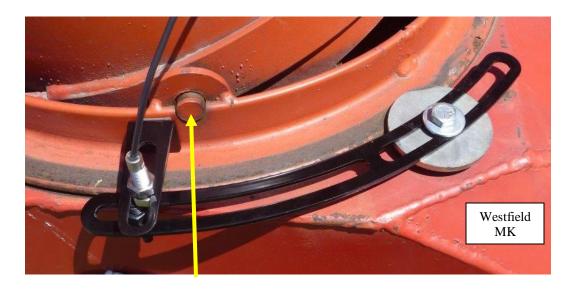
Limit stop sensor and limit stop adjusted properly

The limit stop magnet and bracket may also need to be adjusted for the sensor to work properly.

Once the proper adjustments have be made, clean surface to remove all dirt and oil with an appropriate cleaner where the sensor bracket is to be mounted. Remove backing on tape and install sensor bracket.



Swing the hopper up against auger and repeat the process for the other sensor.



Some augers will have the sensor bracket mounted to the pivot ring on the left or right side of the hinge pin. What works best for your specific situation will determine this location.



Adjust sensor and magnet so they DO NOT touch.

When the hopper is moved to the opposite side of the auger, remove the side limit stop bracket and move it to the side opposite of the swing hopper. The limit stop magnet will have to be adjusted as needed.

INSTALL LIMIT SENSOR/WORK LIGHT/BEEPER CABLE AND WORK LIGHT

H1 and H2 Models



Install limit sensor/work light/beeper cable to the black connector on the controller. On H2 models, run the cable along tube to the swing head on the auger. The 2 pin connectors are for the limit sensors. **H1 models will not have this cable.**

On H1 models, attach the work light/beeper cable to the black connector on the controller. The 3 pin connector is for the light and the 2 pin connects to the beeper. The H2 connections are the same.



Fasten the light to light bracket using supplied hardware. The light should face the hopper. Attach the 3 pin connector.

After the Hopper Walker has been installed and powered up, test the limit stop sensors to make sure they are properly plugged in. If the hopper is on the left side of the auger, the limit stop sensor on the left will stop the auto left function and the limit stop sensor on the right will stop the auto right function. The red and black wired connector from the controller will connect to the left limit stop sensor. The green and white wired connector from the controller will connect to the right limit stop sensor. If they are opposite, switch the limit stop sensor connections. The auger does not have to move in a full swing to test this. Simply engage the auto left/right and trip the limit stop sensor with a magnet.



H1 shown with beeper and light cables attached.

SECURE CABLES TO THE SWING AUGER

HM, H1 and H2 Models



Use the two rubber bungee straps to secure the cables on the auger swing tube.



Use mounting points on the hopper where possible to zip tie the motor cable.



Use the magnetic zip tie holders to secure the cable to the hopper when an existing mounting point is not available.

On H2 models, use 1 magnetic zip tie holder and zip tie to secure the limit sensor cable on top of the swing auger head.

Use remaining zip ties to secure any cables that may need it.

PLACEMENT OF INFORMATIONAL STICKERS

HM, H1 and H2 Models



Place one each on the front of the auger boot.

ATTENTION - To Prevent Limit Switch Damage...

CAUTION - To Prevent
Damage or Injury, Keep
Switches Adjusted
Properly.

Place one each on both sides of the auger boot.

ATTENTION - To Prevent Limit Switch Damage...

CAUTION - To Prevent
Damage or Injury, Keep
Switches Adjusted
Properly.





Place one each on both sides of swing tube centered from top to bottom.

DANGER – Stay Clear Pinch Point

Place one each on both sides of main auger tube approximately 3-4 feet from the beginning of the main auger tube.

DANGER – Stay Clear Pinch Point





Place one on each side and end of the swing hopper.

DANGER – KEEP AWAY Automatic Movement of the Swing Hopper may occur without warning.

POWERING UP THE CONTROL BOX

This system is designed to work with 12 volt NEGATIVE GROUND ONLY. DO NOT power the Hopper Walker using a 12 volt POSTIVE GROUND system; it will damage the Hopper Walker and may start a fire.

Run the included power wire to the battery on the tractor. **The red wire from the fuse holder is positive and black wire is ground.** On tractors with two 6 volt batteries, attach the red lead to the starter solenoid and attach the black lead to the frame.

Make sure cord is properly placed so that it does not get caught or pinched.

If the control box does not power up, check the fuse on the red wire at the battery and make sure the red stop button on the joystick box is in the up position.

DO NOT jump start the tractor with the Hopper Walker plugged in and powered up. You may damage the base unit.

SETTING LIMIT STOP SENSOR AND STOPS

One LIMIT SENSOR stops AUTO LEFT and the other LIMIT SENSOR stops AUTO RIGHT. Please refer to MOUNTING LIMIT STOP BRACKETS AND LIMIT STOP SENSORS section for proper adjustment.

IMPORTANT - Proper adjustment is critical for the limit stop sensor to work properly to stop the movement of the hopper in automatic function from the remote.

With swing hopper in its 'home position' maintain 6" or more of clearance between swing hopper tube and main auger.



Swing hopper tube with 6" of clearance between main auger tube.

Every time the auger is moved to a different bin, the limit stops will need to be adjusted.

IMPORTANT - The point at which the swing hopper tube will come into contact with the main auger tube (home position) will vary depending upon the height of the main auger; set limit sensor stops accordingly.

IMPORTANT - When putting swing hopper from transport position to working position, and before using the auto function on the remote, always make sure limit sensor stop magnets are on the correct side of the limit stops to properly stop movement of hopper.

If for any reason these positions cannot be achieved with adjustment, contact *Rust Sales, Inc.* immediately. *Rust Sales, Inc.* will not be responsible for any damage caused by improper adjustment of limit sensors and limit stop magnets.

Testing your HOPPER WALKER

Now you are ready to test your HOPPER WALKER. With everyone and everything clear of the path of the hopper, press "start" on the remote. Standing in front of auger, but out of path of hopper, push the appropriate "auto" function button on remote to start movement of hopper. The hopper should move and automatically stop when the predetermined limits are reached. Be prepared to push stop or cut power in case the hopper does not stop when limits are reached. Make sure the limit stops are adjusted properly to ensure the hopper will stop. Run through the left and right sequence 5-10 times to make sure everything is adjusted, all hardware is tight and operating properly. Familiarize yourself and others, who will be operating the HOPPER WALKER, of the functions and features. Now you are ready to put the HOPPER WALKER to work.

IMPORTANT - If the hopper needs to be switched from one side of the auger to the other side, use the joystick to move the hopper as far as possible with the Hopper Walker. The hopper will need to be pushed by hand the remaining distance.

IMPORTANT - UNPLUG THE MOTOR CABLE FROM THE MOTORS BEFORE PUSHING THE HOPPER. This will eliminate any damage to the electrical components.

Scheduled maintenance:

Periodically check all cords and connections for any damage or cuts. If any are found replace immediately.

Check that all safety stickers are clearly visible to read and, if not, replace immediately.

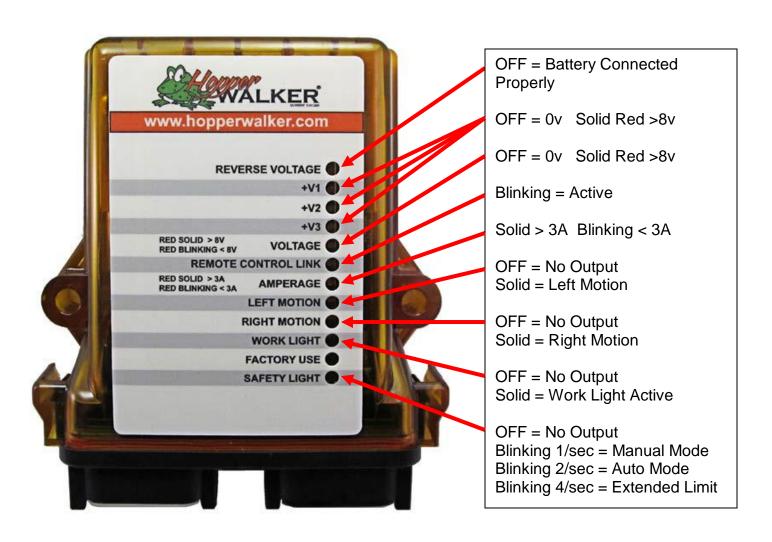
Lubricate the bronze bushing assemblies every 10 hours of use with a spray lubricant (WD-40, LPS 1, JB-80, etc.)

Before putting HOPPER WALKER into service at the beginning of each season check to make sure all functions and stops are operating properly.

DIAGNOSTIC LED LIGHTS

The controller is equipped with diagnostic LED lights to aid with trouble-shooting. Please refer to the picture below for an explanation of the lights. If the reverse polarity LED is active, it is not properly connected. Reverse the polarity of the battery cable on the tractor White is positive and black is ground.

ALL LEDS LIGHTS ARE RED







Hopper Walker Hand-Held Remote Control Quick Association

All Remotes have been associated from the factory for this Hopper Walker.

There are two types of remotes currently in circulation for the "Amber Base" style Hopper Walker.

Use the directions appropriate for either the 3 light remote or 4 light remote.

Video examples available on Youtube. Search Youtube for Hopper Walker Remote.



Link 3 light Hopper Walker remote to base

- 1. Power off Base by pressing the red STOP button by the joystick.
- 2. Power off remote
- 3. At the same time, press and release the ON and OFF buttons on the remote.
- 4. Immediately press and hold the ON button until the middle (link) light stops flashing
- 5. While still holding down the ON button on the remote, twist the red STOP button to power on the base unit.
- 6. Once the base unit is powered up, release the ON button on the remote.
- 7. The LINK light on the REMOTE and BASE should be flashing, indicating they are ready to use.



Link 4 light Hopper Walker remote to base

- 1. Power off Base by pressing the red STOP button by the joystick.
- 2. Power off remote
- 3. At the same time, press and hold the ON and OFF buttons on the remote until the top two lights are on.
- 4. Release the ON and OFF buttons
- 5. Press and hold the ON button until the top light flashes
- 6. While still holding down the ON button on the remote, twist the red STOP button to power on the base unit.
- 7. When all four lights on the remote are on, release the ON button.
- 8. The LINK light on the REMOTE and BASE should be flashing, indicating they are ready to use.

Remotes must be associated to the base every time the remote is used with a different Hopper Walker.

Handheld/Base Unit Disassociation

In some circumstances it may become necessary to break the communication link, or disassociate a handheld and a base unit. The Disassociation procedure is almost identical to the Association procedure, except the **OFF** button is used and held throughout the process instead of the **ON** button.

The Hopper Walker base unit will not communicate with any handheld remote units. A handheld remote must use the Association Procedure to re-establish a communication link with the base unit.

Hopper Walker Handheld Remote

Application Specifics

The Hopper Walker Handheld Remote is intended only to be used to control the Hopper Walker Base Unit.

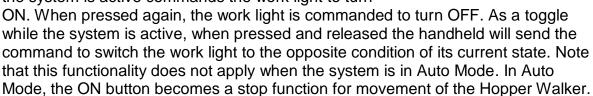
ON Button (B1)

Turn On (Activate) the Handheld

The ON button activates the handheld and establishes a communication link with the base unit.

Work Light Control

The ON button is also a toggle switch for the work light when the system is active. Pushing the ON button when the system is active commands the work light to turn



OFF Button (B2)

The OFF button turns the handheld off (deactivates the handheld). The communication link between the handheld and the base unit is broken when the OFF button is pressed.



Hopper Walker Handheld Remote Continued

MANUAL LEFT Button (B3)

The MANUAL LEFT button is a momentary control where machine activity only occurs during the time the operator presses the button.

MANUAL RIGHT Button (B4)

The MANUAL RIGHT button is a momentary control where machine activity only occurs during the time the operator presses the button.

AUTO LEFT Button (B5)

The AUTO LEFT button is a latch control where the related base unit output remains engaged (ON) following the initial press and release of the AUTO LEFT button.

A subsequent press and release of any button disengages the related base unit outputs (OFF).

*If the Auto Left function is stopped by either the limit sensor or any other button, Auto Left can not be activated again until the Auto Right button is activated.

AUTO RIGHT Button (B6)

The AUTO RIGHT button is a latch control where the related base unit output remains engaged (ON) following the initial press and release of the AUTO RIGHT button.

A subsequent press and release of any button disengages the related base unit outputs (OFF).

*If the Auto Right function is stopped by either the limit sensor or any other button, Auto Right can not be activated again until the Auto Left button is activated.

AUTO Power Down

Auto power-down occurs after 20 minutes of button inactivity. Power is removed from the handheld and the communication link with the BU-200H-HPW base unit is broken.





Rust Sales, Inc.
2964 164th Ave SE
Harwood, ND 58042
(800) 478-7801
(701) 282-9194
www.hopperwalker.com