



# Frame Information Guide

- Maintenance
- Towing
- Electronics

**Valley Manufacturing**

1020 Town Road  
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## Washing

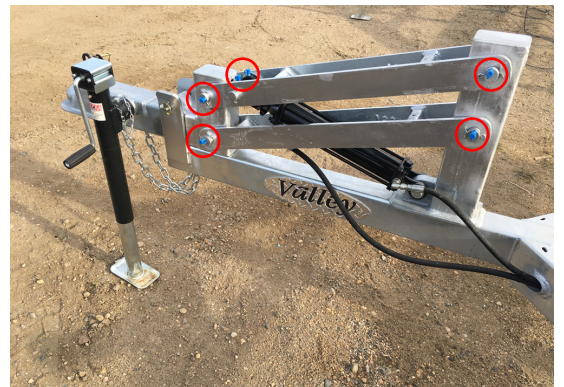
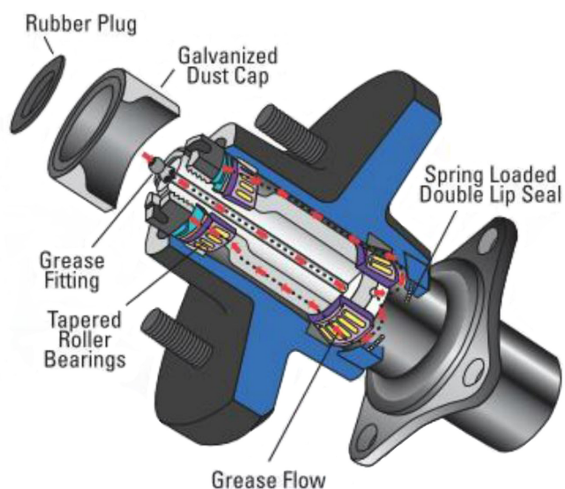
Due to winter road conditions, it is a good idea to wash your frame often to prevent rust from road salt and other contaminants. This is specifically true for any hydraulic hose ends that are exposed. Even galvanized frames should be washed to prevent spotting and pitting.

## Storing

It is recommended to store your house in the “down” position during long periods of time. This will take stress off the axles when not in use. Make sure to store on a flat level surface free of debris.

## Greasing

- Fittings should be greased at least once a year.
- When greased for the first time it may take more grease than normal to fill any empty voids that may occur during manufacturing.
- Fully synthetic bearing grease is recommended and can be purchased at any auto-parts store.
- Each wheel hub should be greased using the hub’s grease fitting. To access this fitting you will remove the outer rubber plug on each wheel.





## Hydraulic

- Use ATF (transmission) oil **ONLY** when filling the pump.
  - Use of any other type of fluid or oil may void the warranty.
- Pump requires 10.2 volts minimum to operate

## Wheels / Tires

- Torque specifications for wheels on all models should be 105 ft. lbs.
  - Wheels should be re-torqued after the first trip to ensure proper tightness.
- Torque should be check **at least** twice per year.
- Tire pressure should be maintained at 70-80 psi.

## Frame

- Regularly check the frame for any signs of peeling or rust.
- Check the frame for any signs of peeling or rust.
- If you plan to leave your house on frozen ground for any period it is recommended to “block up” the corners to prevent the frame from freezing down. This helps prevent peeling of the protective rubber coating when moving the house later.
- To repair protective coating, it is recommended to use “PlastiKote Bed Liner” for small touch-ups. It is available at most hardware stores.



## Preparation

- Trailer must always be raised in the fully up position with the front safety pin installed.

## Hauling

- It is recommended that you maintain as close to level as possible from front to back of the trailer to keep equal balance across all axles.
- Adjustments to the height of your ball hitch may be necessary.
- It is **very important** you are using the correct ball size for your trailer. All trailer lengths except the 14' and 16' models use a 2-5/16" size ball. Smaller 14' and 16' trailer models use a 2" ball.
  - Use of the wrong ball can result in damage to not only your trailer but also your vehicle. Please check the coupler for the correct size you should be using.





## Wireless Troubleshooting

- For wireless transmitter troubleshooting please refer to the included specifications sheet.
- If the wireless transmitter keychain is not working, you can use the wired yellow control that comes mounted to the pump with a 30' cord. Be sure to use the corded remote at a safe distance while raising and lowering your trailer.

## Limited Warranty

- Valley Manufacturing warrants this product will be free from defects in workmanship and material for a period of 1 year. The warranty period starts the day of purchase by the original owner.
- In the event the trailer proves to be defective in material and/or workmanship under normal use, the trailer must be returned to Valley Manufacturing in Montevideo, MN and under inspection is determined to have been defective, the unit will be repaired without charge to the original purchaser. Any freight transportation charge to or from the factory is the responsibility of the purchaser and shall not be a part of the manufacturer's warranty.
- This warranty covers only defects in original components which arise from normal use and does not apply if the trailer has been subjected to negligence, accident, abuse, misuse, neglect, overload, or has been repaired or altered.
- Wearable parts including but not limited to bearings, brakes, brake linings, and tires will not be replaced due to wear.

### **Valley Manufacturing**

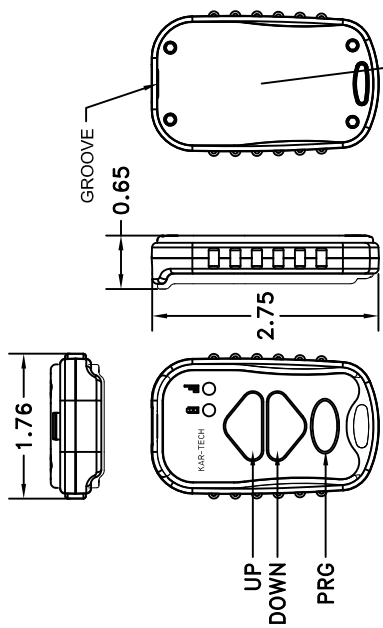
1020 Town Rd.

Montevideo, MN 56265

320-841-0861

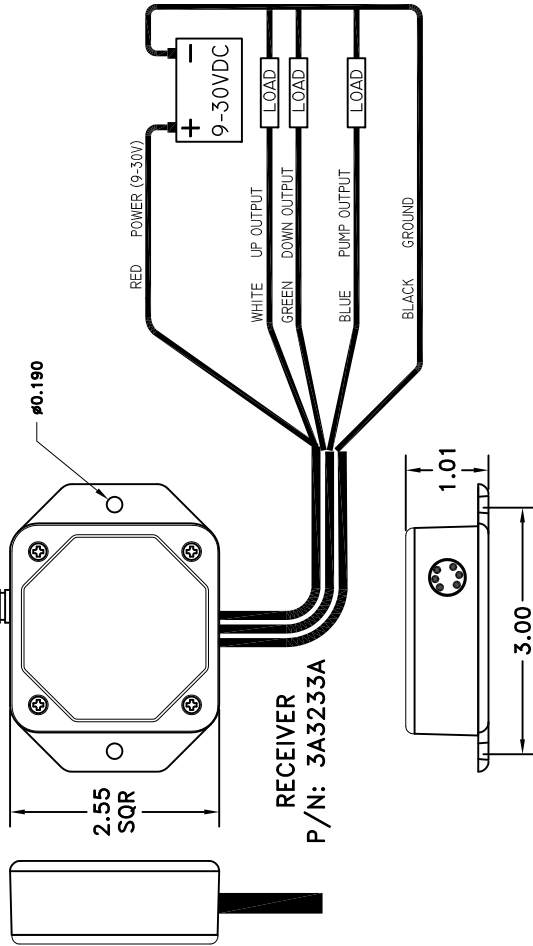
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TRANSMITTER  
P/N: 3A3232A

TO REPLACE THE INTERNAL CR2032 DISPOSABLE BATTERY, REMOVE 4 ALLEN SCREWS USING A 3/64" ALLEN WRENCH. LIFT BACK COVER USING GROOVE. DO NOT OVER TIGHTEN THE SCREWS WHEN RE-ASSEMBLING BACK COVER.



RECEIVER  
P/N: 3A3233A

#### OPERATION

- Press any button to begin operation. This will turn on the transmitter and turn on the selected output at the same time. The transmitter remains on for additional 3 seconds after button is released and then turns off automatically.
- The green LED light on the transmitter will blink 2 times per second when the transmitter and receiver are communicating. It will blink 1 time per second if there is no communication (i.e. - no power to the receiver)
- The red LED light on the transmitter will blink if the battery is low and should be replaced.

#### SYNCHRONIZING TRANSMITTER AND RECEIVER

Each radio remote system is designed to operate with a unique radio ID code and RF channel sequence. Each receiver is programmed to respond only to the transmitter with the correct ID code/RF channel sequence. This feature allows multiple systems to work in close proximity to one another without interference. In the event that a transmitter becomes damaged and a new one is needed, the receiver can be reprogrammed to respond to the new transmitter. To teach the ID code to the receiver, use the following procedure:

- Make sure the receiver and transmitter are OFF.
- Press and hold UP and PRG buttons for five seconds until both LEDs start blinking then release buttons.
- Apply power to the receiver.
- Wait for ~5 seconds or until the green LED on the transmitter starts blinking rapidly.
- Teach complete.

#### CLONING TRANSMITTERS

**WARNING!** This feature can pose a safety hazard for operators if both transmitters are used simultaneously- use with CAUTION! Occasionally, it is desirable to have more than one transmitter work with a single receiver. This is accomplished by a process called cloning. Cloning allows an additional transmitter (B) to have the same ID code as the original transmitter (A). If this feature is desired, use the following procedure:

- Make sure both transmitters and the receiver are off
- On Transmitter A, press and hold UP and PRG buttons for five seconds until both LEDs start blinking then release buttons
- On Transmitter B, press and hold UP and DOWN buttons for five seconds until both LEDs start toggling then release buttons
- Wait for ~5 seconds until the green LEDs start blinking rapidly
- Cloning complete

If the cloning feature has been invoked and is no longer desired, the ID code of one of the transmitters needs to be changed. This will unclone the transmitters. If this is desired, use the following procedure:

- Make sure the receiver and transmitter are OFF
- Press and hold UP, DOWN and PRG buttons for five seconds until both LEDs start toggling then release buttons
- Press any button again to select a new ID
- Uncloing complete
- Follow the SYNCHRONIZING TRANSMITTER AND RECEIVER procedure above to link the uncloned transmitter to a new receiver

#### RECEIVER OPERATION MODES

Kar-Tech MANO remote system can operate in two different modes:

- Mode 1: Pump output turns on when UP or Down output is turned on.
- Mode 2: Pump output turns on when UP output is turned.

The factory default is Mode 1. To change the mode use the following procedure:

- Turn the receiver and transmitter OFF
- Press and hold Down and PRG buttons for five seconds until the red LED starts blinking. Release buttons
- Turn the receiver on
- Press UP button for Mode 1 and DOWN button for MODE 2
- Mode programming complete

#### SPECIFICATIONS

- Power:
- Transmitter: CR2032, 3V Lithium battery
  - Battery life: 15 hrs of operation
  - Receiver: +9VDC to +30 VDC
  - Receiver solid state output rating: 5A each (sourcing), 20A system maximum
  - RF: 902-928MHz FHSS 4mW

#### Environmental:

- Operating temperature:
  - Transmitter: -20 to +60°C
  - Receiver: -40 to +85°C
- Ingress Protection:
  - Transmitter: IP64
  - Receiver: IP65

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. Changes or modifications not expressly approved by Kar-Tech will void the user's authority to operate the equipment.

KAR-TECH Delafield, WI 53018		FIELD TOLERANCE	
TYPE	MANO RADIO REMOTE SYSTEM, TS PRODUCTS	XX	± .1
		XXV	± .05
		XXVV	± .02
		FRACTIONAL	± 1/8
SCALE	FULL	DATE	REVISED
		07-24-13	
		ISSUED	REVISION
			3A-323-1-A-3B