• Periodically check and tighten all fasteners.
• Stripped, fractured, or bent bolts or nuts need to be replaced.
• After washing of the vehicle make sure to fully dry all surfaces

PLEASE NOTE PARKING SENSORS ARE EXTREMELY DELICATE AND MUST BE HANDLED WITH CARE!

Do NOT touch or shift the clear rubber grommet that surrounds the sensor face. DO NOT glue housing into place until orientation and functionality is determined.

Troubleshooting Vehicle Sensors

• Start with a general inspection of the sensor fitment. Check that both the sensors and the sensor clips are fully secure and the sensors are properly centered in the housing.
• Confirm plastic housing is in the correct mounting holes. Misplaced sensor housings could compress sensor and give false readings or faults.
• Use a clean microfiber to wipe the front face of the sensor.
• Inspect connection. Be sure that the sensor is firmly seated into the harness.
• Run through several start cycles (i.e. fully turn the vehicle on and off).
• Finally, disconnect the battery to reset the sensors.

If your vehicle has adaptive cruise, please ensure that your adaptive cruise is working correctly once the Ranch Hand bumper is installed. Adaptive cruise may need to be cleaned or adjusted to ensure it functions properly. See your owner’s manual for care of the adaptive cruise.

Special care should be exercised in the handling, storage and installation of Kaspar Ranch Hand equipment. The actual weight of each piece of equipment will vary depending on style and model. The weight of the equipment is sufficient in volume to warrant special care, assistance and in some instances, the use of mechanical equipment during the transfer and installation of the equipment. Do not assume a position directly under the equipment during installation. Be sure the equipment has been connected and stabilized during installation to prevent falling or shifting of positions. Periodically check tightness of bolts to make sure they are tight, and unlikely to fail.

• In order to help you make informed decisions about safety, we have provided installation instructions and other information.
• These instructions alert you to potential injury hazards
• Please do a job safety analysis before each task to identify potential hazards for your situation and remove/pro\xtect against them.
• You must use your own good judgment.
• Read and understand all safety precautions and instructions before installing this product

FAILURE TO OBSERVE THESE INSTRUCTIONS COULD LEAD TO SEVERE INJURY OR DEATH.

• Always remove jewelry and wear eye protection.
• Always use extreme caution when jacking up a vehicle for work. Set emergency brake and use tire blocks. Locate and use the vehicle manufacturers designated lifting points. Use jack stands.
• Always use appropriate and adequate care in lifting components into place.
• Always insure components will remain secure during installation and operation.
• Always wear safety glasses when drilling on a vehicle. A drilling operation will cause flying metal chips. Flying chips can cause serious eye injury.
• Always use extreme caution when drilling on a vehicle. Thoroughly inspect the area to be drilled (on both sides of material) prior to drilling, and relocate any objects that may be damaged.
• Always use extreme caution when cutting and trimming during fitting.
• Always tighten all nuts and bolts securely per installation instructions.
• Always route electrical cables carefully. Avoid moving parts, components that become hot and rough or sharp edges.
• Always insulate and protect all exposed wiring and electrical terminals.
• Always perform regular inspections and maintenance on mounts and related hardware.
1. Unplug fog light wire from behind the bumper. Remove factory bumper by removing four 18mm bolts from front of bumper and two 13mm bolts from the frame behind the bumper.

2. Remove the first existing bolt on each side of the frame (on 4x4 bolts). On 4x2 models, use 1/2” x 1 1/2” bolt. Mount “L” bracket to side of frame so that the holes line up with the top holes of the factory bumper mounting bracket and tighten.

3. If tow hooks are present, remove them and replace the factory bolts with six 1/2” x 1 1/2” bolts and lock nuts. Mount the tow hooks to the brackets that are to the inside of the uprights.

4. Remove fog lights from factory bracket. Mount and place fog lights in the front bumper replacement brackets. There is a driver and passenger side light bracket. Mount fog light brackets to the vertical slotted holes on the mounting brackets.

5. 1500lb. winch: Place front bumper replacement face down. Mount winch using the holes that are behind the formed channel and insert the bolts through the fairlead brackets to teh winch. Slide the winch plate under winch and insert winch bolts through winch plate. Hand tighten bolts. Place 2 1/2”x1 3/4” bolts through winch plate and mount brackets. Tighten all bolts on winch and winch plate.

6. Warn TI series and Mile Marker 12000lb. hydraulic winch: Mount winch to winch plate. Mount winch plate to the top horizontal holes on the mounting brackets. Mount fairlead to the bottom two 9/16” x 3/4” slotted holes in the middle of the front bumper replacement.

7. Mount the front bumper replacement with 1/2” x 2” bolts, washers and lock nuts. Raise to to the desired height and center from left to right.

8. Plug in wires and adjust fog lights after installation.

9. Make sure all nuts and bolts are tight!!