

# Installation Instructions

## 3014199 SHPE Spreader Controller

Serial Number 15000 and higher.

### IMPORTANT!

**Before installation, check your truck's battery and alternator using load tester. Do not proceed to installation if truck electrical system does not function properly.**

*NOTE: Always disconnect battery before attempting to install electrical components on your vehicle.*

1. Mount the controller in a convenient location in the truck cab. It is not recommended to mount the controller directly in front of heat vents. Allow ample air space around controller.

### CAUTION!

**Do not mount controller in the way of air bag deployment!**

2. Route both wire harnesses into truck cab through firewall (it maybe necessary to drill holes). Insulate hole to avoid water leaks. Insure no wires are nicked or damaged during installation.

3. Connect the round connector on the wire harness to the control box.

4. Connect the 2-pin rectangular connector on the power cable to the control box.

5. Lay out a path for the power cable to the battery, use quick ties to secure power cable.

**DO NOT CONNECT TO BATTERY AT THIS TIME!**

6. Lay out path for wire harness to the rear of the vehicle. Stay clear of the exhaust system. Excess heat can damage the wire harnesses. Use quick ties to secure harness to underbody.

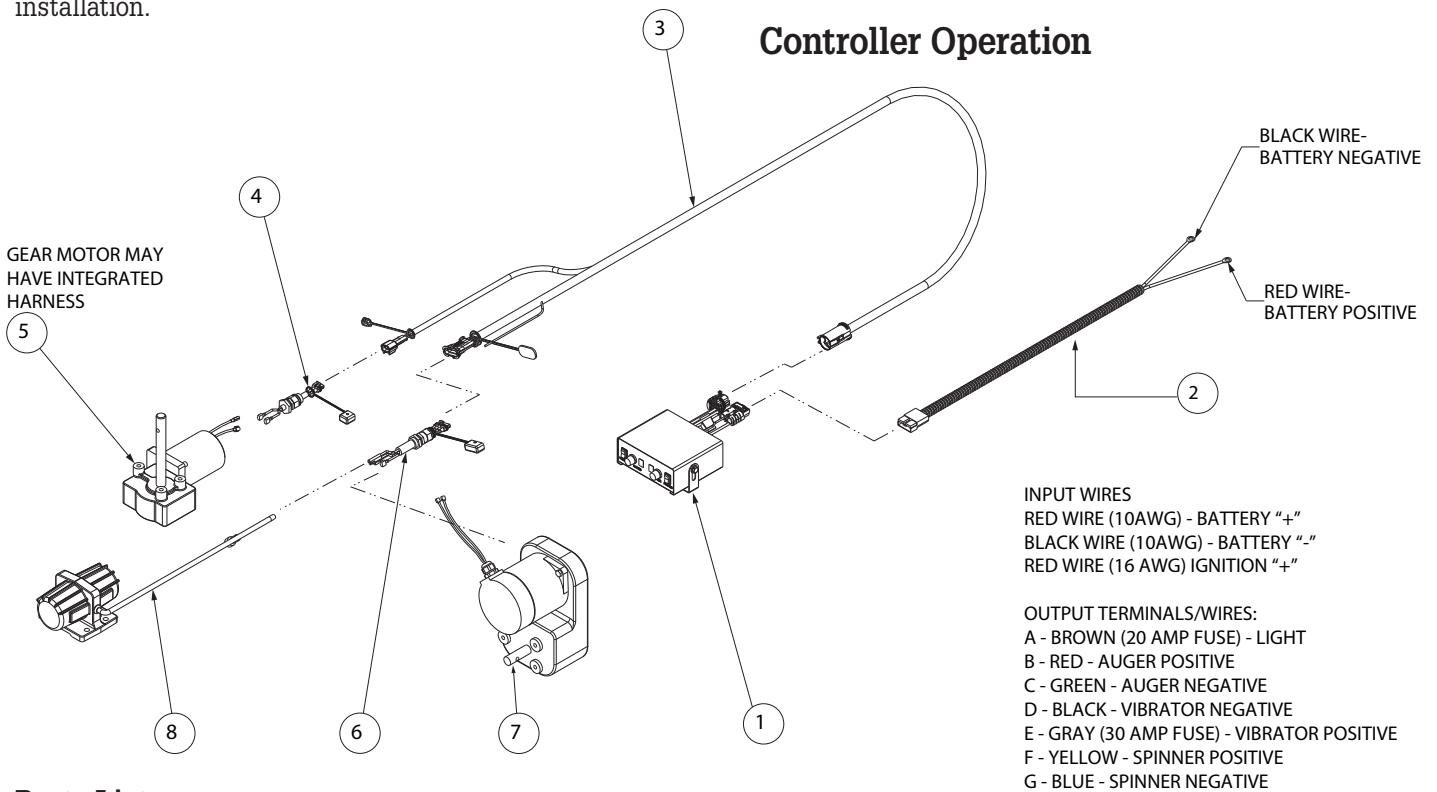
7. Connect the wire harness to the motors and vibrator.

8. Connect red wire to battery positive terminal. Connect black wire to battery negative terminal.

**THIS IS A WIRE GROUND ELECTRICAL SYSTEM! NO CONNECTIONS TO TRUCK'S FRAME OR BODY ALLOWED!**

**In trucks with dual battery systems always connect power cable to primary battery (larger capacity/ truck starting battery).**

## Controller Operation



### Parts List

ITEM	PART NO.	QTY	DESCRIPTION
1	3014199	1	CONTROLLER, SHPE, SALTDogg
2	3006842	1	POWER CABLE, CONTROL BOX
3	3006724	1	WIRE HARNESS, MAIN
4	3006753	1	WIRE HARNESS, CHUTE

ITEM	PART NO.	QTY	DESCRIPTION
5	3006833	1	GEAR MOTOR 12 VDC. SPINNER
6	3006844	1	WIRE HARNESS
7	3009995	1	GEAR MOTOR, AUGER SHPE
8	3007416	1	VIBRATOR 200 LBS 12 VDC

Buyers Products Company assumes no responsibility for installations not made in accordance with these instructions.

1. To start spreader, be sure that truck engine is running to prevent battery from discharging. Flip power switch to ON position. Controller switches will illuminate. Auger and spinner motors will start with full speed for a short time (displays will show 9) and then drop to the speed settings selected.
2. To adjust speed simply rotate speed knobs until desired speed number is achieved.
3. To activate vibrator flip the Vibrator switch to ON position. Vibrator switch will illuminate. To turn vibrator OFF flip switch to OFF position.
4. To turn controller OFF, simply flip power switch to OFF position.
5. If battery voltage drops below 10 VDC, controller shuts off automatically.

## Controller Codes

	<b>AUGER DISPLAY</b>	<b>SPINNER DISPLAY</b>	<b>MOTOR, WIRE HARNESS, CONTROLLER STATUS</b>	<b>ACTION REQUIRED</b>
1	∩ blinking	∩ blinking	Ignition wire connected to 12 VDC source, positive wire is not connected to battery	Connect positive wire to battery
2	F		Positive motor wire in wire harness shorted to trucks body/frame. Internal fuse 40 AMP blown.	Find and eliminate short circuit. Replace fuse.
3		F	Positive motor wire in wire harness shorted to trucks body/frame. Internal fuse 40 AMP blown.	Find and eliminate short circuit. Replace fuse.
4	U	F	Short circuit between vibrator wires and trucks body/frame. Short circuit between vibrator wires. External 30 AMP fuse is blown. Internal fuse 40 AMP blown.	Find and eliminate short circuit. Replace vibrator. Replace fuse.
5	A		Missing connection in Auger circuit.	Find and eliminate missing connection.
6		P	Missing connection in Spinner circuit.	Find and eliminate missing connection.
7	Speed number is blinking. Auger motor is alternating forward/ reverse rotations.		Auger jammed, auger motor overloaded.	Clear jam in auger trough. Adjust hopper baffles to reduce auger load.
8		Speed number is blinking.	Spinner motor overloaded.	Reduce amount of material falling on spinner disc. Clear spinner disk before starting spreader.
9	U		Missing connection in vibrator circuit.	Find and eliminate missing connection.
10	L		Low battery voltage.	Check trucks electrical system.
11	C		Controller temperature is higher than 160F	Relocate controller to have better cooling.
12	H		Auger motor wires in wire harness shorted to each other. Short location close to controller.	Find and eliminate short circuit.
13		H	Spinner motor wires in wire harness shorted to each other. Short location close to controller.	Find and eliminate short circuit.
14	Speed number is blinking, motor stopped.		Auger motor wires in wire harness shorted to each other. Short location close to motor.	Find and eliminate short circuit.
15		Speed number is blinking, motor stopped.	Spinner motor wires in wire harness shorted to each other. Short location close to motor.	Find and eliminate short circuit.

### WARRANTY

Buyers Products Co. warrants all truck/trailer hardware manufactured or distributed by it, to be free from defects in material and workmanship for a period of one year from date of shipment. Parts must be properly installed and used under normal conditions. Any product which has been altered, including modification, misuse, accident or lack of maintenance will not be considered under warranty. Normal wear is excluded. The sole responsibility of Buyers Products Co. under this warranty is limited to repairing or replacing any part or parts which are returned, prepaid, and are found to be defective by Buyers Products Co. Authorization from Buyers Products Co. must be obtained before returning any part. No charges for transportation or labor performed on Buyers' products will be allowed under this warranty.