



SD-QR4

CONTROLLER CODE SUMMARY

CURRENT CONTROLLERS

3011864B – ALL TGS SPREADERS

2018+ S/N 50000+



SYSTEM STATUS	SPEED DISPLAY	VIBRATOR SWITCH	NOTE
Spinner initial current calibration signal out of the specification	C	X	Replace controller
Spinner fuse OFF	F	X	Open controller box, replace 40 AMP fuse
Vibrator fuse OFF or Vibrator motor disconnected	X	BLINKS	Inspect and reconnect Vibrator. Replace 30 AMP fuse on Brown wire.
Spinner motor disconnected	P	X	Inspect wire harness, motor, reconnect.
Spinner motor OVERLOAD	P	X	P letter blink. Inspect, clear spinner disc.
Spinner motor JAMMED	J	X	Turn controller OFF, clear jam.
Low voltage (less than 10V for more than 10 seconds) applied to the system	L	X	Controller shuts OFF automatically.
Spinner motor or wires short	H	X	Inspect, replace wire harness.
Inside temperature over 70 degrees C.	C	X	Controller shuts OFF automatically. You can re-start controller after temperature drops below 70 degrees C.



SD-QR4

CONTROLLER CODE SUMMARY

3014199 – ALL SHPE SPREADERS

2018+ S/N 50000+



SYSTEM STATUS	AUGER DISPLAY	SPINNER DISPLAY	VIBRATOR SWITCH	NOTE
Auger initial current calibration signal out of the specification	C	X	X	Replace Controller
Spinner initial current calibration signal out of the specification	X	C	X	Replace Controller
Auger fuse OFF	F	X	X	Open controller, replace 40 AMP fuse, marked Auger.
Spinner fuse OFF	X	F	X	Open controller box, replace 40 AMP fuse marked Spinner
Vibrator fuse OFF or Vibrator motor disconnected	U	F	ON	Inspect and reconnect Vibrator. Replace 30 AMP fuse on Gray wire.
Spinner motor disconnected	X	P	X	Inspect and re-connect gear motor, wire harness.
Auger motor disconnected	A	X	X	Inspect, re-connect wire harnesses, gear motor.
Spinner motor OVERLOAD	X	P	X	P letter blink . Clear spinner disk.
Auger motor OVERLOAD	A	X	X	A letter blink . Stop spreader. Clear jam.
Spinner motor JAMMED	X	J	X	Turn controller OFF, clear jam.
Auger motor JAMMED	J	X	X	Controller will automatically reverse auger motor 3 times. If this action will not clear jam, controller will turn OFF. Clear jam, restart controller.
Low voltage (less than 10V for more than 10 seconds) applied to the system	L	0	X	Controller shuts OFF automatically.
Auger motor or wires short	H	X	X	Inspect, replace wire harness.
Spinner motor or wires short	X	H	X	Inspect, replace wire harness.
Inside temperature over 70 degrees C.	C	C		Controller shuts OFF automatically. You can re-start controller after temperature drops below 70 degrees C.



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CONTROLLER CODE SUMMARY

3011864B – ALL TGS SPREADERS

2018+ S/N 50000+



SYSTEM STATUS	SPEED DISPLAY	VIBRATOR SWITCH	NOTE
Spinner initial current calibration signal out of the specification	C	X	Replace controller
Spinner fuse OFF	F	X	Open controller box, replace 40 AMP fuse
Vibrator fuse OFF or Vibrator motor disconnected	X	BLINKS	Inspect and reconnect Vibrator. Replace 30 AMP fuse on Brown wire.
Spinner motor disconnected	P	X	Inspect wire harness, motor, reconnect.
Spinner motor OVERLOAD	P	X	P letter blink. Inspect, clear spinner disc.
Spinner motor JAMMED	J	X	Turn controller OFF, clear jam.
Low voltage (less than 10V for more than 10 seconds) applied to the system	L	X	Controller shuts OFF automatically.
Spinner motor or wires short	H	X	Inspect, replace wire harness.
Inside temperature over 70 degrees C.	C	X	Controller shuts OFF automatically. You can re-start controller after temperature drops below 70 degrees C.

CONTROLLER CODE SUMMARY

3057918/3049810 – ALL PRO/SCH/MUNI/UTS/RTS SPREADERS



FEED NC, SPIN NC, VIBR NC - feed, spinner or vibrator motor not connected. Inspect and connect motors.

FEED JAM - feed motor jammed or overloaded. Clear jam, adjust inverted vee inside hopper to reduce motor load.

SPIN JAM - spinner motor jammed or overloaded. Reduce amount of material to spinner, clear spinner before starting spreader, make sure that spinner not rubbing against anything.

FEED SHORT, SPIN SHORT, VIBR SHORT - short circuit in electrical system. Find and eliminate short circuit.

OVER TEMP - controller internal temperature too high. Turn off controller to reduce temperature. Lower speed to reduce controller load.

HIGH VOLT - voltage higher than 16 VDC is detected. Turn controller off. Correct truck electrical system to have proper voltage.

LOW VOLT - voltage near 10VDC. Check and correct truck electrical system.

SERV VIBR - vibrator diagnostic. To use vibrator diagnostics properly following steps must be followed.

1. Make sure that spreader is secured in trucks bed. Inspect and tighten spreader tie downs.
2. Inspect and retighten vibrator if necessary.
3. With empty spreader, start controller and turn VIBR on.
4. Hold the AUX button down for 5 seconds until the display shows "V-LEARN". Press the VIBE button until the "V-LEARN" message disappears.
5. If vibrator become loose or electric current rises above normal value, SERV VIBR message will appear. If message appears, retighten vibrator, inspect/ replace connectors.



SD-QR4

CONTROLLER CODE SUMMARY

3057918/3016934 – ALL PRO/SCH/MUNI/UTS/RTS SPREADERS



Controller Symptom	Problem and Resolution
Controller is turned on but no LEDs on the front panel light up.	If, when the POWER switch is first turned on, you do not see any LEDs light up on the front panel, then the input power to the controller may not be present or may be reversed in polarity. Check the 2 red wires and 1 black wire which provide power input to the controller. The 2 red wires should both be connected to +12 volts and the black wire should be connected to the battery negative terminal.
ERROR LED is ON	Whenever the ERROR LED is on, an error in the spreader has been detected. This may either be a fatal or non-fatal error depending on the error number. Count the number of flashes produced by the FLASH NUMBER LED to determine what the error code number is and use the table below to find out the meaning of this error code number.

ERROR LED	FLASH NUMBER LED	Problem and Resolution (Note: non-fatal errors mean that the controller continues working in spite of the error. Fatal errors means that the controller will shut itself down.)
OFF	OFF	NO PROBLEMS. NO ERRORS. This is the normal state of the controller.
ON	OFF	MOTOR OVERLOAD. This is a non-fatal error. An electrical overload has occurred in either the AUGER or SPINNER motor. The controller is trying to un-jam the appropriate motor using its un-jamming algorithm and will turn off the ERROR LED if it is successful in eliminating this motor overload condition.
ON	1 flash	LOW BATTERY VOLTAGE. This is a non-fatal error. The input voltage to the controller has been measured to be less than 10 volts. You may want to check the input voltage connection to the controller or the battery voltage.
ON	2 flashes	BLOWN FUSE. This is a non-fatal error. One of the internal controller fuses was found to be blown after power was first applied to the controller. If the AUGER dial light is off, the AUGER fuse is blown. If the SPINNER dial light is off, the SPINNER fuse is blown. If, when the VIBRATOR switch is turned on, the VIBRATOR switch LED is off, the VIBRATOR fuse is blown. If the AUGER, SPINNER, or VIBRATOR fuse is not blown, then it is the AUXILIARY fuse that is blown. Do not replace fuses with the controller connected to power.
ON	4 flashes	OVERLOADED SPINNER MOTOR. This is a fatal error. The SPINNER motor is continuously drawing greater than 40 amps of current and cannot be un-jammed by the controller. Turn off the controller and physically check that the SPINNER motor is not jammed.
ON	5 flashes	OVERLOADED AUGER MOTOR. This is a fatal error. The AUGER motor is continuously drawing greater than 60 amps of current and cannot be un-jammed by the controller. Turn off the controller and physically check that the AUGER motor is not jammed.
ON	6 flashes	EXTERNAL SHORT CIRCUIT TO GROUND. This is a fatal error. After power was first applied to the controller, the controller measured a short circuit to ground in one of the +12 Volt wires leaving the controller. This short is from either the RED AUGER +12 volt wire to ground, or it is from the YELLOW SPINNER +12 volt wire to ground. Turn off the controller. Disconnect the AUGER and SPINNER motors from the cable harness and then turn on the controller again. If this error then goes away, the short is in the cable harness. If this error does not go away after disconnecting the AUGER and SPINNER motors and power cycling the controller, then the controller needs to be replaced.
ON	7 flashes	MISSING BATTERY VOLTAGE. This is a fatal error. The +12 volts coming into the controller on the red 10 AWG wire was measured to be less than 5 volts after power was first applied to the controller. Check the 12 volt input to this controller for low voltage or for a poor connection.



CONTROLLER CODE SUMMARY

OLDER CONTROLLERS

3014199 – ALL SHPE SPREADERS

2017 AND EARLIER, PRIOR TO 50000 SN

	AUGER DISPLAY	SPINNER DISPLAY	MOTOR, WIRE HARNESS, CONTROLLER STATUS	ACTION REQUIRED
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.



SD-QR4

CONTROLLER CODE SUMMARY

3011864/3011864A/3011864B – ALL TGS SPREADERS

2017 AND EARLIER, PRIOR TO 50000 S/N



	SPEED DISPLAY	VIBRATOR SWITCH	MOTOR, WIRE HARNESS, CONTROLLER STATUS	ACTION REQUIRED
1	J		Controller out of calibration	Replace controller
2	E		Internal error.	Turn controller OFF for 30 sec. Turn controller ON. If reboot doesn't work, replace.
3	L		Ignition wire connected to 12 VDC source, positive harness wire is disconnected from battery	Connect red wire to battery
4			Truck's battery is low.	Check truck electrical system
5	F		Wire harness positive wire short to truck's body/ frame. Motor internal fuse (40 AMP) blown.	Find and eliminate short circuit. Replace fuse.
6	H		Wire harness motor wires short to each other (red to black).	Find and eliminate short circuit.
7	U		Short circuit in vibrator or in wire harness connected to vibrator. Outside fuse (30 AMP) is blown. Vibrator disconnected.	Find and eliminate short circuit. Replace fuse. Connect vibrator.
8		Light blinking	Internal vibrator fuse blown.	Find and eliminate short.
9	Speed number blinking, motor turns slow or stopped.		Motor is overloaded. Motor wires in wire harness shorted to each other.	Clear jam. Find and eliminate short.
10	P		No contact in spinner motor circuit.	Find and correct broken connection.
11	C		Controller temperature over 160F.	Turn OFF controller. Reposition controller for better temperature control.