

Thunder 6000 Tarp System Troubleshooting Guide

Below you will find troubleshooting steps for common tarp system issues and their solutions.

- **Tarp system will not power on.**

1. Make sure that the 2-pole power cord is plugged into the trailer and has the proper polarity and voltage to the tarp system.
2. Check that the tarp system circuit breaker near the tractor battery is reset, if applicable.
3. Turn on the tarp system by pressing the (Open) & (Close) buttons on the keypad for 3-5 seconds until the blue LED and buttons illuminate.
4. Test the remote functions of the tarp system by pressing the (Open) & (Close) buttons on the remote 3-5 seconds to verify keypad button failure.
5. Check for grease, dirt, and corroded connections at the battery terminals, circuit breaker and also at the trailer power receptacle plug and outlet.
6. Disassemble the inner control box, located in the nose of the trailer, and check for proper voltage at the BAT+ side on the amp relay module while inspecting the control box wiring for breakage, moisture or corrosion.

➤ Replace the defective RF keypad. Test functions before re-installation to verify.

- **Tarp system powers on but does not function when pressing either (Open) or (Close), no amp relay flash codes, located in the nose of the trailer, are present.**

1. If the blue LED light is flashing rapidly, check for low voltage & loose connections.
2. Test the remote functions of the tarp system to verify keypad button failure.
3. Check for loose & corroded connections at the motor terminals and inspect the wires from the motor to the inner control box located in the nose of the trailer.
4. Perform a motor bump test by unplugging then re-plugging the tarp system power cord, making note if the motor tries to “bump” or run automatically.

➤ Replace the defective RF keypad. Test functions before re-installation to verify.

- **Tarp system does not function and a red flashing light is present on the inner control box, located in the nose of the trailer, indicating an error code. See error code explanations below:**

- a) **Four** flashes indicates an **overheat protection** issue. This typically occurs if the system has been started and stopped rapidly in a short period of time. Also can indicate increased drag in the tarp system causing excess amperage. Re-check the tarp system after a cool down period.

➤ Replace the tarp motor if a motor brake failure is creating excess drag causing overheating or premature stoppage.

- b) **Five** flashes indicates an **over voltage protection** issue. Using a voltmeter, check the tractor batteries & alternator for voltage exceeding 15.5 volts.
- c) **Six** flashes indicates an **under voltage protection** issue. Using a voltmeter, check the system for low voltage. Also check all connection points for looseness and corrosion including battery terminals, circuit breaker, power cord, and receptacle plug. The blue light on the keypad may also be blinking rapidly when there is an under voltage condition present. Connect a separate power source to verify.
- d) **Seven** flashes indicate a **ground fault**. This can be caused by moisture intrusion to the inner control box, motor or amp relay defect, and also wiring faults. To determine which failure has occurred please follow the below steps:

(1) Remove the motor lead wires from the motor. Touch the ends together completing the circuit and observe if the flashing stops or continues. This will require 2 people.

➤ **If flashing stops, there is internal motor wire damage. Replace the defective tarp motor. Test functions before completing installation to verify.**

(2) If the 7 flashes continue after the wires are touched together, inspect the wiring from the inner control box to the motor for any frays, pinched areas, or insulation being worn through. Fix or replace any areas that show insulation wear.

(3) Disassemble the inner control box located in the nose of the trailer and inspect for water intrusion. Green corrosion around the amp control relay terminals is a positive sign of relay failure due to moisture.

➤ **If moisture is present, replace the defective amp relay module. Test functions before re-installation to verify.**

(4) While the inner control box is disassembled, remove the M1 & M2 leads from the amp control module. Using a screwdriver or conductive source, bridge the M1 & M2 terminals together and make note if flashing stops.

➤ **If flashing continues, replace the defective amp relay module. If flashing stops, re-inspect or replace the wiring between the inner control box and motor. Test functions before re-installation to verify.**

- **Tarp system does not make a full cycle or closes/opens intermittently.**

a) **Three** flashes indicate an **overcurrent protection** issue. Check for obstructions in the operation of the tarp such as snow or ice buildup. Also could indicate increased drag in the tarp motor by a failing brake causing premature tarp stoppage.

b) Remove the motor terminals and connect to a battery source using jumper cables to determine if the motor labors or stops with direct current indicating a motor brake failure causing excess drag.

➤ **Replace the tarp motor if motor brake failure is found to be the cause of premature tarp stoppage.**