

# Thunder 5000 Tarp System Troubleshooting Guide

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

## ● Tarp system will not power on.

- a) Make sure that the 2-pole power cord is plugged into the trailer and has the proper polarity and voltage to the tarp system.
- b) Check that the tarp system circuit breaker near the tractor's battery is reset, if applicable.
- c) Turn on the tarp system by pressing the (Open) & (Close) buttons on the control box for 3-5 seconds until the LED and buttons illuminate.
- d) Test the remote functions of the tarp system by pressing the (Open) & (Close) buttons on the remote to verify control box button failure.
- e) Check for grease, dirt, and corroded connections at the battery terminals, circuit breaker and also at the trailer power receptacle plug and outlet.
- f) Disassemble the control box 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 control box. Re-use the existing amp relay module.  
Test functions before sealing control box.**

## ● Tarp system powers on but does not function when pressing (Open) or (Close), no amp relay flash codes are present.

- a) If the blue LED light is flashing rapidly, check for loose connections from the battery to the control box.
- b) Test the remote functions of the tarp system to verify control box button failure.
- c) Check for loose & corroded connections at the motor terminals and inspect the wires from the motor to the control box.
- d) 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 control box. Re-use the existing amp relay module.  
Test functions before sealing control box.**

## ● Tarp system does not function and a red flashing light is present 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. 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.**

- 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 voltage falling below 7.5 volts. Also check all connection points for looseness and corrosion including battery terminals, circuit breaker, power cord, and receptacle plug.
  - d) **Seven** flashes indicate a **ground fault**. This can be caused by moisture intrusion, motor/amp relay defect or a wiring issue. To determine which failure has occurred please follow the below steps:
    - (1) Remove the motor lead wires from the motor terminals. Touch the ends together completing the circuit and observe if the flashing stops or continues.
      - **If flashing stops, there is internal motor damage. Replace the defective tarp motor. Test functions before completing installation.**
    - (2) If the 7 flashes continue after the wires are touched together, inspect the wiring from the 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 control box 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 and re-use the existing RF control box. Test functions before sealing control box.**
    - (4) 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 and re-use the existing RF control box. If flashing stops, replace wiring between control box and motor. Test functions before sealing control box.**
- **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, ice etc. Also could indicate increased drag in the tarp system 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.**