

## Think Make Create Labs

### TMC Trailer Basic Specs:

Our labs are built inside a 14 feet long by 7 feet wide Loadrunner Utility trailer from Trailers Plus, built in Nampa, Idaho. Our trailers have 2 axles (4 tires) and are 9 feet wide and about 8 foot 6 inches tall. Trailers have trailer brakes & an emergency connector to the safety break. There are 2 rear stabilizers, a side door on the curbside and two rear barn doors. There is no electricity or insulation in the trailer, although our materials include a 75 ft extension cord and reel.

### Tow Vehicle Requirements:

- Capacity for 2,300 lbs trailer & weight of materials and supplies = 3,000 lbs total.
- Requires 2"-5/16th inch ball - DO NOT ATTEMPT TO PULL TRAILER WITH A 2" BALL
- 7 prong light/brake connector

### TMC also Provides:

Wheel chocks, 2 padlocks, one for each exterior door, and a coupler lock that goes into the trailer receiver. A first aid kit and fire extinguisher are located inside the trailer.

### Instructions for unhooking trailer

The trailer is stable when coupled to the towing vehicle, however it becomes unsafe to enter the trailer when it is unhitched without using the wheel chocks and rear stabilizers. Always secure wheel chocks on both sides of a tire to prevent the trailer from moving forwards or backwards. This should be done at minimum on one side of a trailer, ideally securing wheel chocks on both sides of the trailer. The stabilizers should also be put down before opening the doors and entering an unhitched trailer.

### Unhitching the trailer:

- A. Set wheel chocks (safety blocks) behind and in front of trailer wheels
- B. Coupler: Pull out cotter pin on coupler (ball clasp/receiver), raise the lever and pull it back towards the trailer.
- C. Crank up trailer jack until trailer weight transfers off of the truck ball onto jack
- D. Undo chains
- E. Undo 7-prong light connector
- F. Find the emergency-brake tripwire connector box on the tow-frame and turn it upwards away from frame:
  - 1) Pull out the connector plug (pull straight out with a strong steady pull)
  - 2) Unthread the tripwire from the truck
  - 3) Reinsert connector plug, and push connector box down flush with frame
- F. Move the tow vehicle away from the trailer
- G. Lower the jack onto them so its level and stable
- H. Go to back end of trailer and set both rear stabilizers:
  - 1) Reach under back of trailer and push stabilizer foot towards center of trailer
  - 2) Swing stabilizer down toward ground
  - 3) Press foot release with fingers until foot slides down and locks in position
- I. Re-secure wheel chocks as they may have moved when lowering the trailer or installing the stabilizers

### Instructions for how to hook up the trailer to a tow vehicle -

1. Make sure wheel chocks (safety blocks) are set and secure
2. Release both rear stabilizer feet
  - a. "Push up and in" on bars so they swing up towards center of trailer
3. Jack up front of trailer if needed so that receiver is above location of ball on tow vehicle
4. Move tow vehicle into position until ball is located under receiver
5. Lower jack so weight of trailer goes on ball
6. Lower coupler/lever until it snaps/secures over ball
7. Insert cotter pin to secure lever
8. Check that the coupler is secure to the ball (you can jack up the trailer until the gap on top of the stinger disappears showing that the truck is being lifted by the trailer or by looking to see that the ball is fully engulfed within the trailer's receiver and not sitting below it).
9. Hook up both chains from trailer to truck frame (crossing each other is recommended). If they are too long, will drag on the ground, twist them until they are the correct length.
10. Find the emergency-brake tripwire connector unit on the tongue
  - a. Lift up and pull to remove connector
  - b. Thread tripwire through frame of tow vehicle then back through the loop
  - c. Reconnect and lower connector unit
11. Remove wheel chocks & place in trailer
12. Double check that doors are secured
13. Double check that stabilizers are up
14. Double check chains, brakes, break tripwire, and coupler pin are secure
15. Confirm that all brake lights and blinkers are working
16. Always Last thing: Double check ball clasp lever is down and cotterpin is in place

### Special Instructions on Trailer Doors

TRAILER DOORS ARE A SIGNIFICANT WIND HAZARD.

Whenever opened, all TMC trailer doors must immediately be placed in the full-open position and hooked into the safety latches which can be found on the trailer at knee-level behind the doors.

Rear doors close right side first. After closing the left door, pull the large lever on the left door straight down towards the ground before swinging it over the right door. This engages the door-ratchets that you can see at the top and bottom of the left door. Finally, secure the large lever across the right door and drop the thumb latch into position. The trailer can be driven with the door in this position or you can add the padlock for extra security.