Trailer Circuits STEM Kit

QUICK START GUIDE

TRAILER CIRCUITS STEM KIT

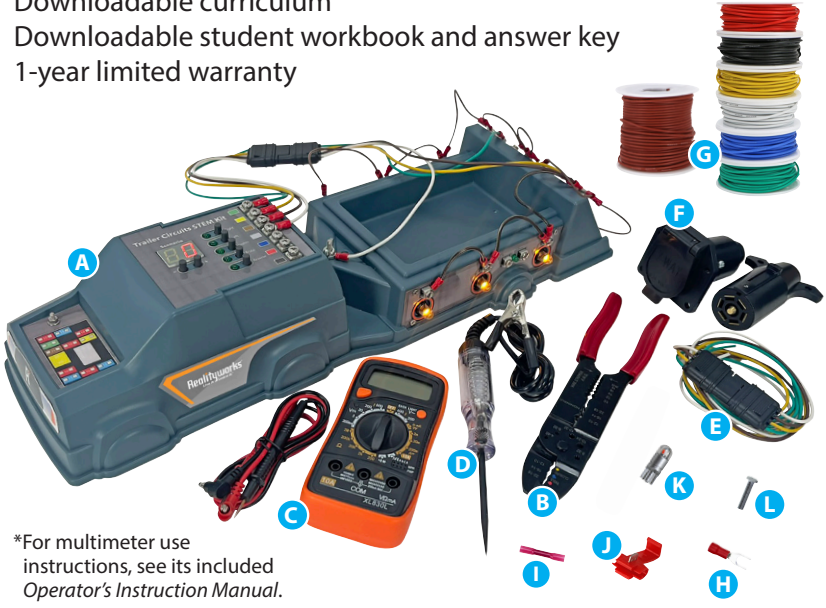
The Trailer Circuits STEM Kit helps students learn about electricity, circuits, and the troubleshooting process in a safe, hands-on environment.

Parts identification:

A. 3 Trailer Circuits Trucks, each with:
- B. Wire stripper and crimping tool
- C. Multimeter*
- D. Auto light tester
- E. 4-way connection harness
- F. 7-way connection harness
- Screwdriver
- Batteries
- Storage box

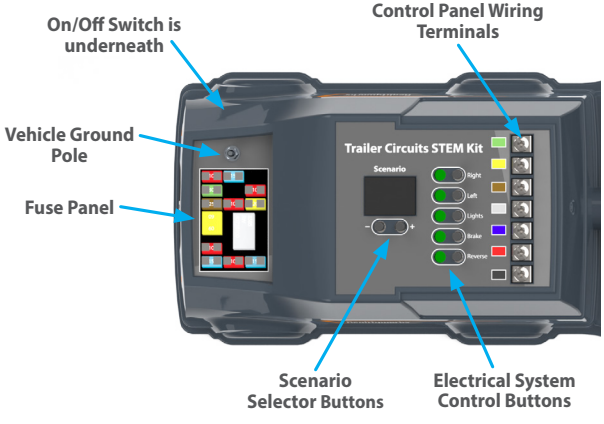
- Spare Parts Kit with:
  - G. 7 spools of wire
  - H. 200 U-shaped crimp terminals
  - I. 100 butt connectors
  - J. 100 3-way connectors
  - K. 14 spare bulbs
  - L. 10 spare terminal screws
  - Storage box

- Downloadable curriculum
- Downloadable student workbook and answer key
- 1-year limited warranty

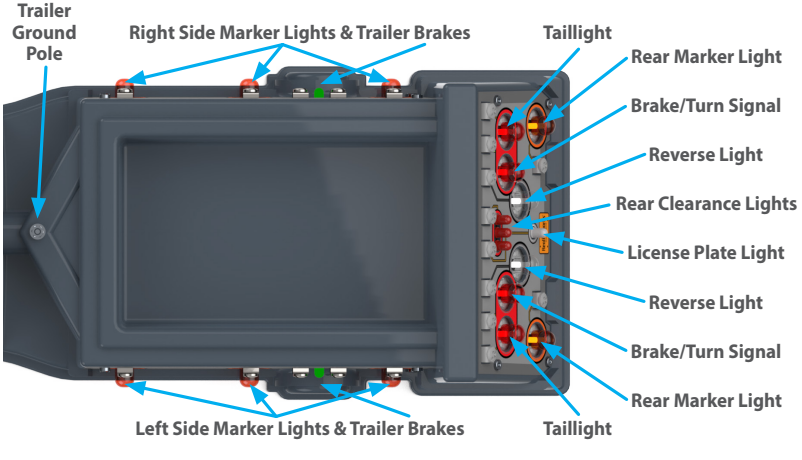


*For multimeter use instructions, see its included *Operator's Instruction Manual*.

Trailer Circuits Truck Parts Identification:



NOTE: Electrical System Control Buttons labeled "Left" and "Right" turn on the blinkers. The button labeled "Lights" powers on the side marker and taillights.



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Set-up instructions:

1. Insert the batteries into the Trailer Circuits Truck and flip the power switch to turn it on.

Use instructions:

1. Wire up the Trailer Circuits Truck, connecting the vehicle wires to the control panel wiring terminal and the trailer wires to their appropriate terminal on the trailer.
2. When the Trailer Circuits Truck is wired up, push the **Electrical System Control Buttons** to test the lights.
3. When working through troubleshooting scenarios, push the + and - buttons to navigate through scenarios.
4. When learners are ready for assessment, select the scenario you want students to work through and activate Assessment Mode by quickly pushing both the + and - buttons. The letter "A" should display on the screen.

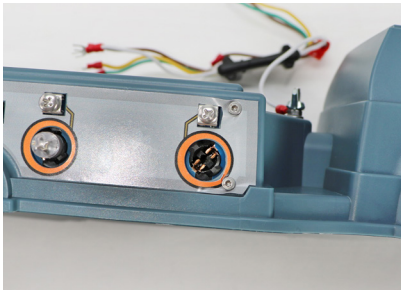
   NOTE: In Assessment Mode, the scenario number will not display, preventing students from memorizing the answers based on the scenario number.

SCENARIO KEY	
0	No issues. Trailer functions as normal.
1	Dead bulb
2	Loose/dirty connection in the socket
3	Faulty ground
4	Broken wire, poor/loose/dirty connection, connector damage, corrosion, or short circuit
5	Faulty ground
6	Faulty bulb
7	Broken wire, poor/loose/dirty connection, connector damage, corrosion, or short circuit
8	Blown fuse
9	Loose connection
10	Wrong wire connection

Replacing bulbs:

1. Pull the old bulb out of the socket.
2. Align the new bulb with the socket and push it in.

NOTE: If the light bulb does not work. Flip it around and try it again.



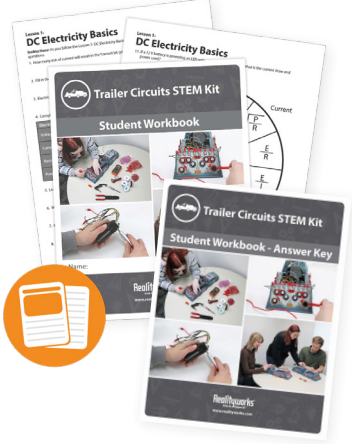
TRAILER CIRCUITS STEM KIT

Cleaning instructions:

- All surfaces can be cleaned with disinfectant wipes

Downloads

We want to make sure you have the tools you need to get started in your classroom. Our Downloads page has resources to help you integrate the Trailer Circuits STEM Kit into your curriculum.



Student Workbook with Answer Key

Slide Presentations

Lesson Plans

Additional Help and Information

We're here to help! Our online Product Support features video tutorials, downloadable documents, frequently asked questions, and product notices, all of which make it easy for you to get support for products, software and more, day or night. Find our online product support area here: ***www.realityworks.com/knowledge-base***

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