

PHILLIPS

Qwik Tech Tips

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FEATURED PRODUCT

7-Way Socket Circuit Checker – 15-200

- LED lights glow when circuit is functioning correctly
- Handy and essential tool for every shop
- Internally grounded



Troubleshooting Trailer Lights

Have a light out! Let's see why...

A simple 7-way socket circuit checker and plug circuit checker are great tools to keep onboard. If you've noticed you have flickering lights or a group of lights out, there could be several reasons for the malfunction. Let's troubleshoot the problem by following the simple steps below.

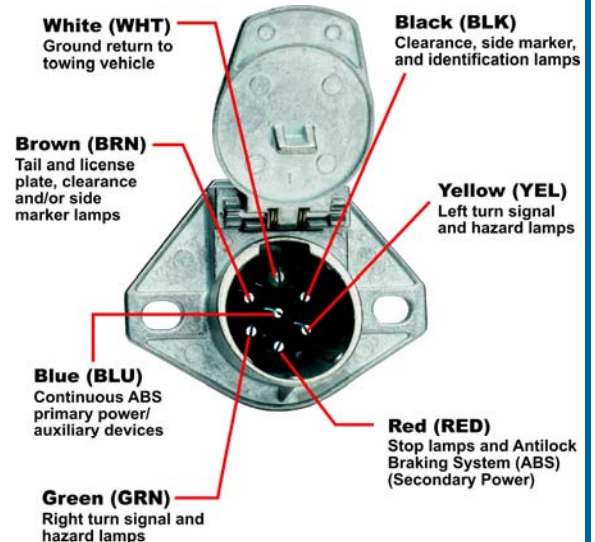
1. Clean both 7-way sockets on the tractor and trailer, then also clean both plugs on your electrical cable with a 7-way plug and socket brush. This may remedy your problem.
2. On the tractor, insert a socket circuit checker, into your 7-way socket.
3. Go inside the cab, and turn on each of the circuits individually, i.e. Marker Lights, Tail Lights, etc
4. Check the tester to see that only 1 LED is lit. If the proper LED's light up, connect your 7-way electrical cable to the tractor and use the 7-way plug tester at the other end of the cable.
 - a. If the LED's light up correctly, we have determined the problem is somewhere on the trailer.
 - b. Check the circuit breakers on the trailers 7-way nosebox. They may be bad or simply need to be tightened.
 - c. If the circuit breakers are working properly and you still have a problem. We can assume the problem is with the trailer wiring.
5. If (2) or more lights on the tester are turned on, then there is a problem with the tractor wiring.

6. If no LED's are lit, check fuses and relays inside the tractor.

- a. If the tractors fuses and relays are working properly, then measure the voltage of the correlating circuit breakers on the tractors 7-way socket.
- b. If there is no voltage, then there is a cut or loose wire from the fuse box to the back of the tractor.

Note: You cannot diagnose a wiring problem directly at the front of the trailer with a tester, only at the back of the trailer if it is set-up as a "pup" trailer (a tractor pulling two or three trailers at a time). In which case, plug the light/circuit tester at the rear of the trailer. Then simply turn on the flashers, marker lights, and engage the brakes to determine if all the circuits are working properly.

The same process can be used by using a 7-way plug circuit checker on a 7-way cable when plugged into the back of the tractor.



- Keep a 7-way socket circuit checker on board for easy check on why light may be out
- Plug tester into socket and start checking each circuit individually by turning them on inside the cab
- If multiple LED lights on the tester come on, there is a problem with the tractor wiring
- If tester does not indicate trouble with wiring, follow up checks should be made for fuses and relays inside the tractor
- Finally, measure the voltage of the correlating circuit breakers on the tractors 7-way socket.

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