

Tipper LED Kit - Service and Troubleshooting

Settings, what to check, and how to get the lights back on

Kits H7019A, H7023A and H7028A • 12 volt

Doc TK-300 • Rev. 2026-10-04

Turn the light switch off before working on anything. Never put in a bigger fuse than the one listed here, and never bypass the LVD or the main breaker. A fuse that keeps blowing is telling you something is wrong.

Where everything is

Part	Location	What it does
Fuse box	On the genset, within 4 ft of the battery	Holds the main breaker and the LVD
Main breaker	Inside the fuse box	Cuts all power if a wire shorts. Resettable.
LVD (low voltage disconnect)	Inside the fuse box	Shuts the lights off before the battery gets too low to start the machine
On/off switch	Inside the cab	Turns all the lights on and off
BFB (fuse block)	Inside the cab	One fuse for each light

Which kit is on the machine

Kit	Cab flood light	Genset flood light	Draw, all lights on
H7019A	2x 6-barrel	2x 6-barrel	About 19 A
H7023A	2x 9-barrel	2x 6-barrel	About 23 A
H7028A	2x 9-barrel	2x 9-barrel	About 28 A

Every kit also has the anti-glare light and the surface light. Everything in this guide applies to all three kits.

Correct settings

Setting	Value
Main breaker	80 A, resettable
LVD shuts lights off at	12.0 V
LVD turns lights back on at	12.8 V
BFB fuse, cab flood light	15 A
BFB fuse, anti-glare (cab)	10 A
BFB fuse, surface light (cab)	5 A
BFB fuse, genset flood light	15 A

Keep a few spare fuses of each size in the cab.

This is normal

The lights went off by themselves with the engine off. That is the LVD doing its job. The battery dropped to 12.0 V, so the LVD cut the lights to save enough charge to start the machine. Start the engine. Once the battery charges back up to 12.8 V, the lights come back on by themselves. Nothing to fix.

Quick troubleshooting

Problem	Check this
All lights out, engine off	Probably the LVD protecting the battery. Start the engine and wait a minute.
All lights out, engine running	1. Switch on? 2. Main breaker tripped? (see below) 3. Battery cables tight and clean? 4. LVD settings still 12.0 V / 12.8 V?
One light out	1. That light's fuse in the BFB. A small LED next to the fuse lights up when it has blown. 2. The plug at the light: pushed all the way in and clicked, no water or green crust. 3. The splice where the wire gets thinner near the light: not pulled apart or crushed.

Same BFB fuse keeps blowing	That light or its wire is shorting. Walk its wire run and look for a rubbed-through or crushed spot. Do not go up a fuse size.
Lights dim or flicker, engine running	A loose or corroded connection. Check every terminal for tightness and heat marks.
A terminal or wire feels hot	Loose connection. Switch off, let it cool, tighten it. If the terminal or plastic is discolored or melted, replace it.

If the main breaker trips

The main breaker only trips when something shorts: a wire rubbed through against metal, a crushed wire or plug, water in a connection, or a damaged light. Find the cause before you turn the power back on, or it will just go again.

1. Look first

1. Turn the light switch off.
2. Walk every wire run. Look hardest where wires pass through metal, around anything that pivots or moves, and anywhere the wire could get stepped on or pinched.
3. Look for bare copper, melted or burned spots, and crushed wire.
4. Open the fuse box and the BFB. Look for burn marks, melted plastic, or a loose wire.

2. Find which light is the problem

1. Unplug all four lights at their plugs.
2. Reset the breaker by pushing the reset button in. Some breakers need a minute to cool down before they will hold.
3. Turn the switch on.
4. **If the breaker trips again with every light unplugged, stop.** The short is in the main wiring or one of the boxes. Call EcoPro.
5. If it holds, plug the lights back in one at a time, turning the switch on after each one.
6. The light that trips it, or blows its own fuse, is the problem. Fix its wire run or replace the light, then plug everything back in.

Checking the battery with a meter

1. Set the meter to **DC volts** (the V with a straight line over it), 20 V range.
2. Red lead on battery positive, black lead on battery negative.
3. Engine off, a healthy battery reads **12.4 V or more**. Engine running, it should read about **13.8 to 14.4 V**.

Never use the amps (A) setting on the battery or across any wire. On the amps setting the meter acts like a bare wire. Touching it across the battery makes a dead short and will melt the meter leads.

Routine checks

Do these at every scheduled machine service:

- Check every terminal is tight: battery, fuse box, switch, and BFB. Heat marks mean it was loose.
- Walk the wire runs. Grommets in place where wires pass through metal, wire clamps tight, nothing rubbing.
- Check each light plug is locked in and its rubber seal is in place.
- Check every light mount is tight and still aimed right.
- Wipe the light lenses clean.
- Confirm the LVD still reads 12.0 V off and 12.8 V on.
- Confirm there are spare fuses in the cab.