

Reading a wiring diagram

Symbols, splice and connector callouts, how to trace a circuit from fuse to ground, and what the diagram will never tell you.

PROCEDURE

- 1 Find the load**
Locate the component you are chasing and work outward from it.
- 2 Trace to power**
Follow upstream through the switch or relay to the fuse. Note every connector on the way.
- 3 Trace to ground**
Follow downstream to the ground callout. Write down the G number.
- 4 Pick your test point**
Choose a connector near the middle of the path and start halving — this is where the diagram pays for itself.

NUMBERS

C-number	connector	physical plug, locatable in service info
S-number	splice	where several wires join inside the loom
G-number	ground point	shared grounds explain multi-symptom faults
Wire callout	gauge, colour, circuit number	e.g. 18 GA DK BLU/WHT — the tracer is the second colour

COMMON MISTAKES

- Assuming the chassis diagram covers bodybuilder wiring. On fire apparatus it usually does not.
- Ignoring shared ground points when several unrelated things fail together.
- Reading a solid line as a single unbroken wire — splices and connectors hide in the loom.
- Trusting wire colour over position at the connector. Repairs and replacement harnesses change colours.

Overhaul Prep · overhaulprep.app/learn/reading-wiring-diagrams · practice and prep material, not a substitute for the manufacturer's service information.