

Work top to bottom. Every time. Even when you're sure.

A “no” at any step means stop climbing and fix that step — don't skip ahead to the layer that feels most likely. Steps 1–4 are identical for every protocol.

1	Power Is the device actually powered, and is the transceiver getting power?
2	Physical layer RS-485: ~60Ω termination, healthy idle volts. Ethernet: cable tester + link light. FT-10: continuity/short only.
3	Traffic exists Is anything at all moving on the wire? Analyzer, bus monitor, or token activity.
4	Device discovery Does the device answer? Who-Is/I-Am, a clean Modbus response, a node in the network tool.
5	Object / register exists Is the thing you're asking for actually present on that device?
6	Can you read it Does a read return without an error, reject, or exception?
7	Can you interpret it Is the value decoded right? Byte order, scaling, units, object type.
8	Can you write it Does the write succeed — and does it use the same register/property the read used?
9	Priority / mapping correct Priority array, gateway point map, binding — is something else overriding you?
10	Equipment responds Value is correct at the point, but does the equipment physically do it? Logic, interlock, safety.

DON'T TROUBLESHOOT FROM THE FRONT END

A graphic reading “Fan = OFF” tells you one thing only: what the top of the stack currently believes. It proves nothing about binding, mapping, protocol, network, wiring, logic, or the equipment itself.