

Card reader fault-finding checklist

Work down the list and stop at the first check that fails. Record the reading at each step — the second visit starts from data instead of from scratch.

Companion sheet to <https://www.falco-ecom.com/reader-troubleshooting>

The six checks

CHECK	PASS CONDITION	READING OR RESULT
1. Reader LED on	LED lit with the controller powered	
2. Supply at the reader	Supply matches the reader's requirement (12V or 24V)	
3. D0 / D1 termination	D0 to D0, D1 to D1, tight at both ends, not reversed	
4. Reader bit mode	Mode matches the reader model and card type (mode 1 EM, mode 3 MIFARE)	
5. Cable route and screening	Screened cable, clear of mains cable, no damage	
6. Spare reader	Same model at the same door reads correctly	

If the settings and the wiring are correct and the fault stays, a spare reader of the same model isolates reader from controller.

Symptom to starting point

WHAT YOU SEE	START AT
Reader LED off	Power: reader port output and supply
Card reads at one door, not another	Reader bit mode and data wiring on the failing door
Reads once, then stops	Supply under load, loose terminal, or noise on the run
Reads the wrong number	Bit mode for that reader and card type
Nothing reads after a reader change	D0/D1 reversed, or 12V and 0V swapped

Outcome

DOOR	FAULT FOUND	ACTION TAKEN	READER REPLACED	DATE	ENGINEER

Grounded in Falco controller datasheets, VAULT Site support documentation and the Falco controller wiring diagrams. Model lists, pricing and project scoping:
<https://www.falco-ecom.com/contact-us>