

RECEIVER LED DECODER

PATTERN	MEANING	CAUSE	FIX
Solid on	Bound and connected	All good	Nothing. Fly.
Slow blink (1 Hz)	Bind seeking	First-power bind mode, or a double power-cycle entered bind mode	Is the radio in bind mode? Does the bind phrase match?
Fast blink (10 Hz)	Connected, low link quality	Noisy RF environment, or a damaged antenna	Move the radio closer. Check the antennas are intact, then reboot.
Double blink	No bind packets received	Bind phrase mismatch between radio and receiver	Re-enter the bind phrase on the radio. Type it out. Compare character by character.
Triple blink	Major version mismatch	Radio on ELRS 4.0.x, receiver still on 3.x	Flash the receiver to 4.0.x — chapter 8 has the procedure.
Off, no LED	No power	Wiring fault, blown receiver, or reversed polarity	Check for 5 V on the receiver pads. Continuity meter first, then look at the joint.
Brief flicker	Power cycling	Brown-out or poor wiring under load	Check pack voltage and the FC’s BEC output. Re-solder if the joint looks dull.
Anything else	Hardware-specific status	Vendor-specific pattern	Check the manufacturer’s datasheet. Most elaborate patterns are vendor status codes.

BIND THE RECEIVER

ON THE RADIO

1. Power on the radio.
2. System → Tools → ExpressLRS → Bind.
3. The internal module starts transmitting the bind packet. The screen shows “BINDING…” and the bind LED on the antenna housing pulses.
4. Wait. Do not power-cycle.

ON THE RECEIVER

1. Apply power for the first time after a fresh flash and it enters bind mode automatically. On a receiver that is not freshly flashed, force it: power up, power down within two seconds, power up again.
2. The receiver LED enters the bind-seeking pattern — see the decoder below.
3. When the bind packet reaches the receiver, the LED switches to solid within one to three seconds.
4. The receiver is now bound to this bind phrase.

VERIFY IN BETAFLIGHT

1. Power the flight controller over USB, open Configurator and connect.
2. Open the Receiver tab and confirm Serial Provider is CRSF.
3. Power the FC from a pack — props off, on the bench — so the receiver wakes.
4. Move the sticks. The channel bars should move with them.
5. If they do not move, work the LED decoder below.

Bind phrase. The bind phrase lives on the radio AND on the receiver, and both must match: same string, exactly, case-sensitive, no trailing spaces.

AUX CHANNEL MAP

CHANNEL	MODE	SWITCH	RANGE
AUX1 (ch 5)	ARM	SA (2-position)	1700–2100
AUX2 (ch 6)	ANGLE (5-inch optional)	SB (2-position)	1700–2100
AUX3 (ch 7)	PREARM	Momentary trim or button	1700–2100
AUX4 (ch 8)	BEEPER	SC (2-position)	1700–2100
AUX5 (ch 9)	BLACKBOX	SD (3-position, top)	1700–2100
AUX6 (ch 10)	GPS RESCUE (5-inch only)	SD (3-position, middle)	1300–1700
AUX7 (ch 11)	FLIP / TURTLE	SE (2-position)	1700–2100
AUX8 (ch 12)	Spare / reserved	—	—

The book is opinionated, not religious. If your hand prefers ARM on SB and BEEPER on SA, run the swap and set the aux lines to match. The pattern that matters is deliberate switches with ranges that never overlap.