FL-CTL-TW Tunable White Controller & Remote

Two-channel RF controller (WW, CW) for dual-color tape, with touch color-wheel remote FL-RMT-TW
12–24V DC input from a constant-voltage power supply; 2 × 5 A outputs, up to 120 W per channel at 24V

CAUTION

Read all of these instructions carefully before you begin. Tighten every terminal fully: a loose terminal has high contact resistance and can burn from the heat when it runs at full load for a long time.

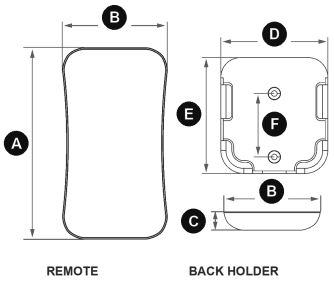
WARNING

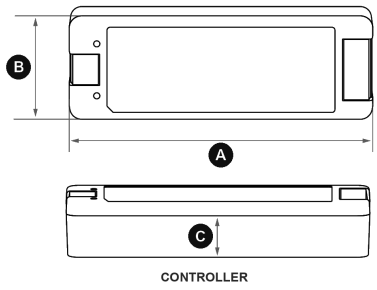
1. Size the constant-voltage power supply at no less than 1.2 times the load (the tape). A supply run at its full output can make the light flicker or shake.
2. The remote is for indoor and dry location use only.
3. Handle the remote gently and do not drop it.
4. Mind the battery's + and − polarity when you fit it. Remove the battery if the remote will not be used for a long time.

QUICK SPECS

- Input 12–24V DC, 10.5 A, from a constant-voltage power supply
- 2 channels (WW, CW), 5 A per channel, 2 × (60–120 W)
- 4096-level dimming, 0–100%, linear
- RF 2.4 GHz remote, 30 m (barrier-free); up to 10 remotes per controller
- Auto-transmitting and synchronization between controllers
- Selectable fade in/out; power-failure memory
- Reverse-polarity and short-circuit protection
- IP20; Ta -22°F to +131°F; Tc max +185°F
- Wire 0.5–2.5 mm², strip 0.24–0.28 in
- Sizes: see Dimensions below

DIMENSIONS





ITEM	A	B	C	D	E	F
FL-CTL-TW	3.82	1.30	0.71	–	–	–
FL-RMT-TW	4.21	2.30	0.35	2.48	2.68	1.46

Inches. D, E and F are the remote's wall back holder (F: screw-hole spacing).

INSTALLATION PRECAUTIONS

1. Do not stack controllers. Keep them at least 20 cm (8 in) apart so heat can escape; poor heat dissipation shortens their life.
2. Keep the controller at least 20 cm (8 in) from the switching power supply to avoid radio interference from it.
3. Mount the controller at least 1 m (3.3 ft) above the floor; weak reception there shortens the remote's range.
4. Keep the controller at least 20 cm (8 in) from metal objects and never cover it with metal, which weakens the signal and shortens the range.
5. Do not install it in the corner of a wall or a beam; keep at least 20 cm (8 in) away to avoid signal interference.

INSTALLING THE CONTROLLER

a. **Power supply.** Connect the + and − DC output of a 12–24V DC constant-voltage power supply to the controller's INPUT + and − terminals.
b. **Tape.** Connect the tape's CW to the CW output, WW to the WW output and + to a + output.
c. **Wire.** Use solid or stranded wire of 0.5 to 2.5 mm²; a standard 1 mm² wire carries 10 A. Strip 0.24–0.28 in of insulation.
d. **Tighten.** Tighten every terminal fully before you apply power.
e. **Match the remote.** Pair the FL-RMT-TW remote with the controller using one of the two methods below. Up to 10 remotes can be matched to one controller.

FlowLite

Installation Instructions

FL-CTL-TW Tunable White Controller & Remote

MATCH: USE THE MATCH KEY

Match

Short press the Match key, then immediately press the remote's On/Off key (single-zone remote) or zone key (multi-zone remote). The indicator flashes quickly a few times when the match is made.

Delete

Press and hold the Match key for 5 s to delete all matches. The indicator flashes quickly a few times.

MATCH: USE POWER RESTART

Match

Switch the power off and on, then repeat once. Immediately short press On/Off (single zone) or the zone key (multi-zone) 3 times. The light blinks 3 times when the match is made.

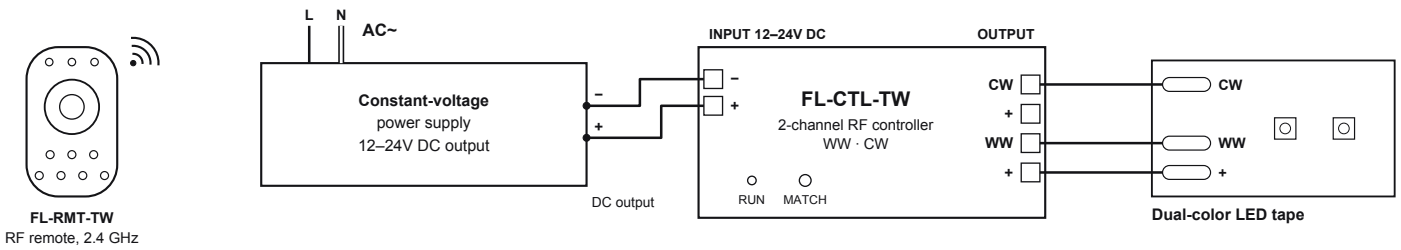
Delete

Switch the power off and on, then repeat once. Immediately short press On/Off or the zone key 5 times. The light blinks 5 times when all remotes are deleted.

WIRING DIAGRAM

For reference only. Connect CW to CW, WW to WW and + to +.

Tunable-white (dual-color) tape with RF remote



SETTINGS (MATCH KEY)

Fade in and out	Hold the Match key 5 s, then short press it 3 times: the light fades in and out over 3 s and the indicator blinks 3 times.
Factory reset	Hold the Match key 10 s: factory settings return and the on/off time goes back to 0.5 s.
3-step white	Hold the Match key 15 s to turn on 3-step color temperature (WW, NW, CW), chosen by switching the power off and on twice quickly. Off by factory default; hold 10 s to restore factory settings.
Power-failure memory	5 s after you set the light, its state is saved and stays the same after power returns.
White balance	Each channel supplies up to 120 W at 24V. Cool white: WW 0 W, CW 120 W. Neutral white: WW 60 W, CW 60 W. Warm white: WW 120 W, CW 0 W.

REMOTE (FL-RMT-TW)

On/Off	Turn the light on or off.
Color wheel	Touch to change color temperature.
Bright + / –	Short press: 10 levels. Hold 1–6 s: continuous 256-level adjustment.
100% / 50%	Full or half brightness directly.
WW / CW	Warm white or cool white directly.
3 Scene	Short press to recall; hold 2 s to save the current color (the indicator stays lit longer when saved).
Wall mounting	Fix the back holder to the wall with two screws, or stick it on with adhesive.
Battery	Remove the protective film before first use. If the indicator does not light when you press a key, the battery is flat or loose: replace it, or raise the battery contact with a screwdriver. If the controller does not respond, match the remote again.

TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
No light	No power; wrong or loose connection	Check the power; check the connection
Uneven brightness along the run (voltage drop)	Output cable too long; wire too thin; load beyond the power supply or the controller	Shorten the cable or loop the supply; use thicker wire; use a larger power supply; add a power repeater
No response from the remote	Battery flat; out of range; remote not matched	Replace the battery; move closer; match the remote again