

DTB Self-Install Guide

Home / Self-Install LED System • 2026



A complete DTB self-install system laid out before fitting the LEDs.

IMPORTANT - TEST BEFORE INSTALLING

Unbox and connect the complete system in a warm indoor environment before drilling or fitting any LEDs. Confirm that the controller starts, the LEDs illuminate and the app can communicate with the board.

Your DTB system has been prepared and tested before dispatch. This guide takes you from unboxing and pre-installation testing through drilling, LED installation, Wall Setup and final testing.

Watch before you start

Watch the unboxing video first. The full installation/app video can then be used alongside this guide.



[Unboxing video - watch this first](#)

[Full installation and app setup video](#)

[Full DTB Self-Install playlist](#)

Scan the QR code for the full playlist.

What you will receive



Typical self-install kit before unpacking.

- DTB control box
- LED strings
- Power supply and mains lead
- LED connection / power-boost wiring
- Access to the DTB app

You will also need a drill, a 12 mm drill bit suitable for your board, sanding/tidying tools and suitable cable-management fixings.

Plan the installation

Allow around two days for a typical installation. A sensible split is:

- Day 1 - mark and drill the 12 mm LED holes, then tidy and sand the holes.
- Day 2 - install and connect the LEDs, complete Wall Setup and test the finished board.

Before drilling

Try to keep LED positions consistent relative to the holds and avoid drilling into the wall structure.

1. Connect and test the system indoors

Do this before installing any LEDs on the wall. Keeping the LEDs accessible makes it much easier to identify a connection problem.

1. Connect the LED wiring to the green LED connector on the control box.
2. Connect the supplied 5 V power supply to the control box.
3. Connect the power supply to the mains and switch the DTB control box on.
4. Allow approximately one minute for the controller to start.

First LED / LED 0

The first LED in the string is the DTB status/indicator LED. It is NOT used for a climbing hold.



2. Check the startup status

During startup, the first LED changes colour to show progress:

Yellow	DTB controller starting
Blue	Bluetooth ready
White	Internet/time connection completed
Full flash	DTB system running
Green	DTB system ready to use

If the first LED does not reach green, make a note of the colour displayed before contacting DTB support.

3. Start Wall Setup in the DTB app

5. Install/open the DTB app on your phone or tablet.
6. Sign in using the DTB account identified when purchasing the kit.
7. Your wall should appear in the DTB wall list. Select it and load it.
8. Open Settings. At the bottom, below Delete Account, select Wall Setup.

If Wall Setup is not shown, first check that you are signed in with the correct username. If it is still missing, contact DTB.

At this stage, use the app and the installation video to confirm that the control box and LEDs respond correctly before continuing with the physical installation.

4. Drill the LED holes

9. Plan a consistent LED position near each hold, or in the hold where appropriate.
10. Drill a 12 mm hole for each hold LED.
11. Avoid drilling into the board structure.
12. Tidy and sand the holes before installing the LEDs.

Tip

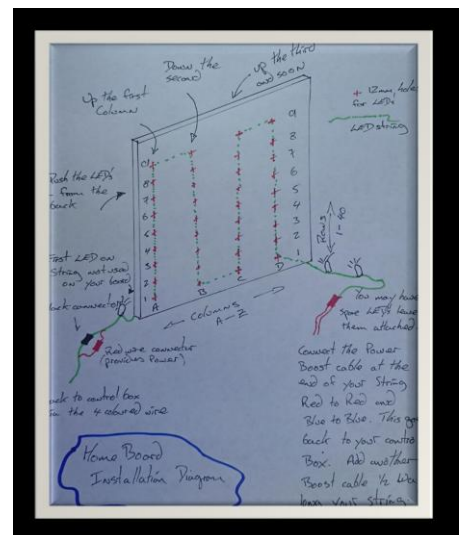
Drilling, tidying and sanding all the holes first makes the LED installation much easier the following day.

5. Install the LEDs

Switch the system off before fitting the LEDs.

Install the LEDs from the back of the board. The exact route can vary, but DTB recommends working in columns, starting on the left-hand side of the board as you look at it from the front.

- Keep LED 0 / the first status LED separate - do not allocate it to a hold.
- Work through the remaining LEDs in sequence.
- Leave a little slack between LEDs.
- Do not pull tightly on the LED wires.
- Do not trap wiring behind holds or fixings.
- Keep wiring where it cannot be pulled or damaged



6. Additional power / power boost connections

The DTB LED system uses additional positive (+) and negative (-) power connections along the LED string to maintain consistent brightness and reliable operation.

Connect the power-boost wiring at the positions supplied for your installation. Match the connections carefully and keep the polarity correct. Its recommended to use a boost wire on every 100th LED.

Check polarity

Never connect a positive wire to a negative terminal. If you are unsure about a power-boost connection, stop and contact DTB before switching the system on.

7. Reconnect and map the board

13. Reconnect the LED system to the DTB control box and switch it on.
14. Allow the controller to boot and confirm that the first/status LED reaches green.
15. Return to Wall Setup in the DTB app.
16. Add the photograph of your board.
17. Map each installed LED to the correct hold on the board image.
18. If the board is symmetrical, check the mirroring setup.
19. When the mapping is complete, submit the setup.

8. Test the completed installation

Select several different problems in the DTB app and press the lightbulb / cast button.

The app will attempt to communicate directly with the DTB control box using Bluetooth. The selected problem should appear on the board within a few seconds.

Check that:

- The correct LEDs illuminate for the selected holds.
- Every LED is working.
- LED colours display correctly.
- No LEDs flicker.
- The app can reliably send problems to the board.

Do not permanently secure all wiring until the complete system has been tested successfully.

9. Final cable check

Once testing is complete, secure the LED wiring behind the board. Make sure cables cannot:

- Rub against sharp edges.
- Be pulled when holds are changed.
- Put strain on LED connections.
- Hang where they could be caught or damaged.

Troubleshooting

The system does not turn on

Check that the mains socket is switched on, the power supply is connected and the 5 V connector is fully inserted into the DTB control box.

The first LED does not reach green

Restart the DTB control box and allow approximately one minute for it to boot. Make a note of the colour displayed if the problem continues.

Some LEDs work and then the rest stop

Check the first LED that does not illuminate and the LED immediately before it. A loose connection or incorrectly connected LED can prevent the signal reaching the remainder of the string.

LEDs are the wrong colour or flickering

Switch the system off and check the LED and power connections, particularly the additional power / power-boost connections.

The app cannot connect to the board

Make sure Bluetooth is enabled on your phone and that you are close to the DTB control box. Restart the DTB system and try again.

Need help?

If you have any problems during installation, contact Digital Training Boards:

digitaltrainingboards@btinternet.com

Include a phone number if you would like us to call you back. It is also useful to send:

- A photograph of the DTB control box and its connections.
- A photograph of the LED where the problem starts.
- The colour of the first/status LED.
- A brief description of what happens when you select/cast a problem in the DTB app.

Installation complete

Once Wall Setup has been submitted and the board has passed the final test, the system is ready to use. Go set some problems!