Manuals+ — User Manuals Simplified.
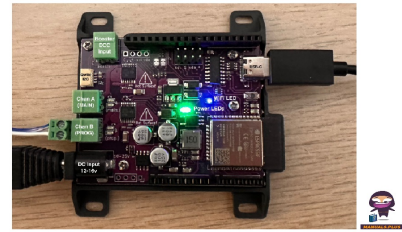

DCC-EX
EX-CSB1
Command
Station
Booster

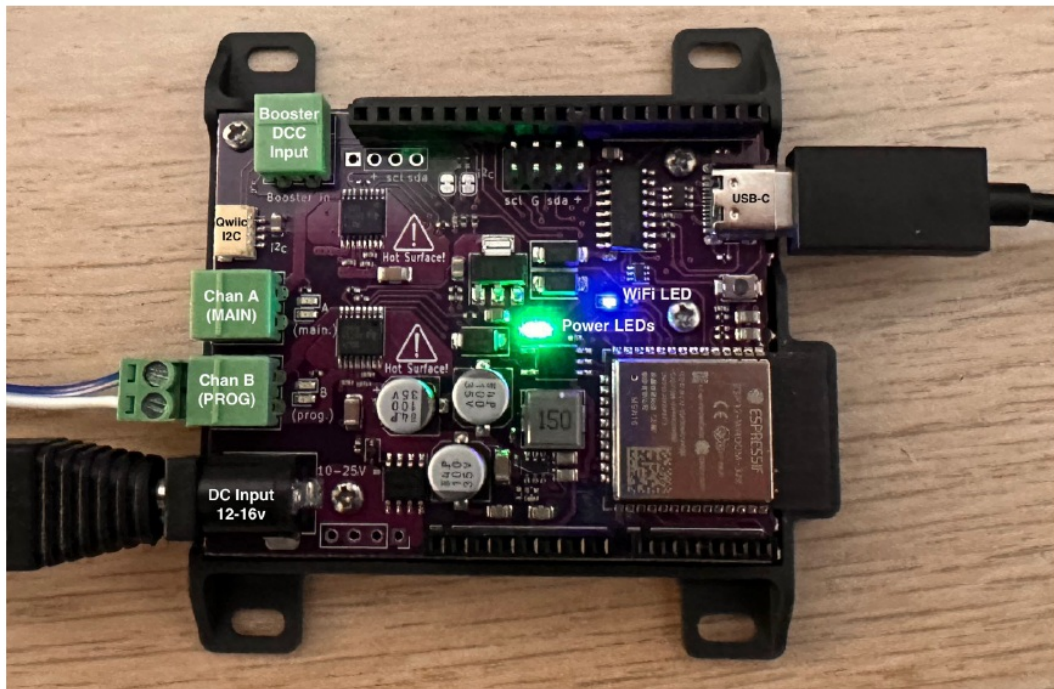# DCC-EX EX-CSB1 Command Station Booster User Guide

Contents

**DCC-EX EX-CSB1 Command Station Booster**

Features

The DCC-EX EX-CSB1 Command Station/Booster comes ready to use out of the box and has the following features:

- Dual DCC/PWM DC outputs with up to 5A capacity – easily expandable to 4 outputs.
- WiFi built-in – fast 802.11n capable, with Access Point and Station modes and support for connecting as many as 10 WiFi throttles (you can connect to JMRI this way too, but a USB cable is often better).
- Single power supply for track and onboard electronics – 12-25V DC with polarity protection.
- USB-C connector – for software upload, diagnostic monitoring, DCC-EX WebThrottle and JMRI connectivity.
- Railsync DCC input – enables booster mode, which with an optional EX-RAIL script can be automatically engaged on receipt of a signal.
- OLED screen – for diagnostics, status and information display.

Connecting

The DCC-EX EX-CSB1 Command Station/Booster needs the minimum following connections to be able to run trains:
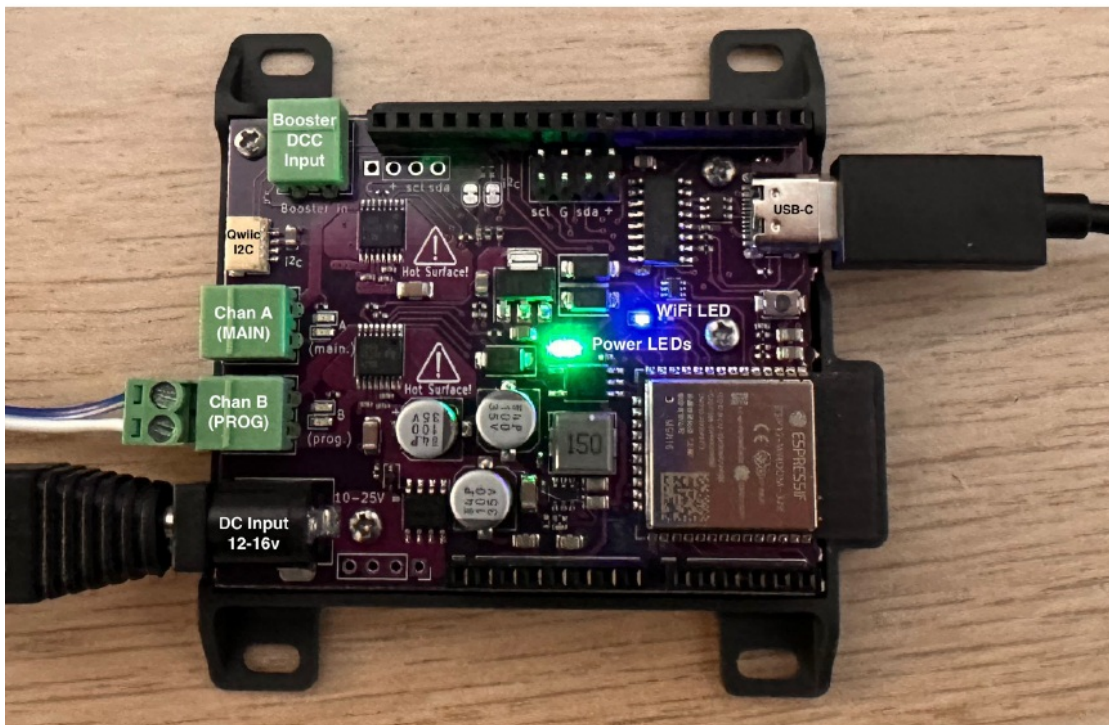
- Power input on the 2.1mm black barrel connector – accepts10-25V DC fully regulated, preferably a modern switch-mode power brick, double-insulated with good power overload protection. Minimum current capability of 4A, suggested 12-16V for Z, N or HO/OO scales, with DCC+Sound locos generally wanting 14- 16V even in N scale. Millennium Engineering sells 12V@4A, 12V@6A and 15V@4A supplies.
- One track connection on either the A (topmost) or B (beside the power) connector. Note that by default, A is configured for DCC MAIN operation, and B is configured for PROG or programming track. We recommend connecting your track to the A MAIN output initially to test running of trains.

On Powering up
The DCC-EX EX-CSB1 Command Station/Booster will power up in WiFi Access Point mode, with an Wifi network SSID of DCCEX_xxxxxx and password of PASS_xxxxxx, both of which will be visible on the OLED display, if installed, after it boots, like so:

Please connect your smartphone or tablet to this WiFi network with the password shown on the OLED to begin running trains immediately! You have nothing further to do to start using your DCC-EX EX-CSB1. You can remove the protective cover on the OLED if you wish.

**Changing WiFi Network and Configuring**

The DCC-EX EX-CSB1 Command Station/Booster can have its configuration altered using the EX-Installer application. You may want to do this if you would prefer your EX- CSB1 to connect to your home, or layout WiFi network rather than create its own for instance.

Steps for using EX-Installer:

- Plug your EX-CSB1 into your PC via a suitable USB-C cable (not included.) Depending on the USB ports available on your PC, this will be a USB-A to USB-C cable, or a USB-C to USB-C cable.
- If you are using a Windows PC, you may need to download and install a device driver for the EX-CSB1's serial port. In Device Manager under Windows you can check for a CH340 USB-SERIAL device. If not there, please install the CH341SER.EXE driver found here which supports all Windows versions: **https://www.wch-ic.com/downloads/CH341SER_ZIP.html**
- Download and run EX-Installer per the instructions here: **https://dccex.com/ex-installer/installing.html#download-and-run-ex-installer**

**Enable the extra platform: "Espressif ESP32" on the Manage the Arduino CLI page:**

- Enable the extra platform: "Espressif ESP32" on the Manage the Arduino CLI page:
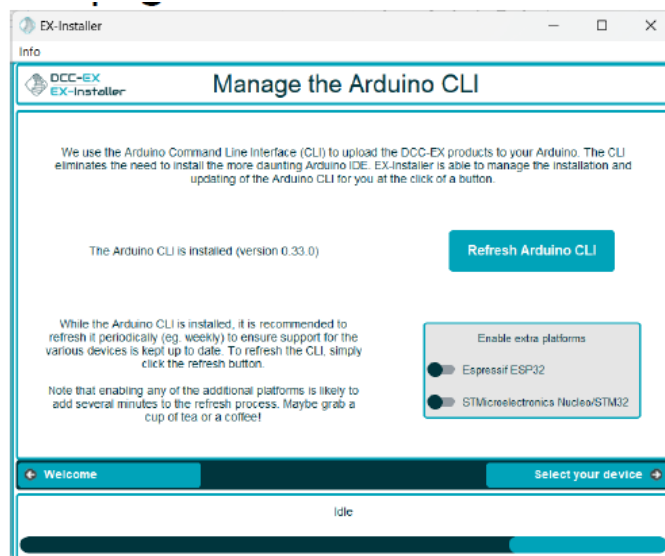
- On the Select your Device screen, choose "EX-CSB1" which will typically be under "Unknown/clone detected as USB-SERIAL CH340"
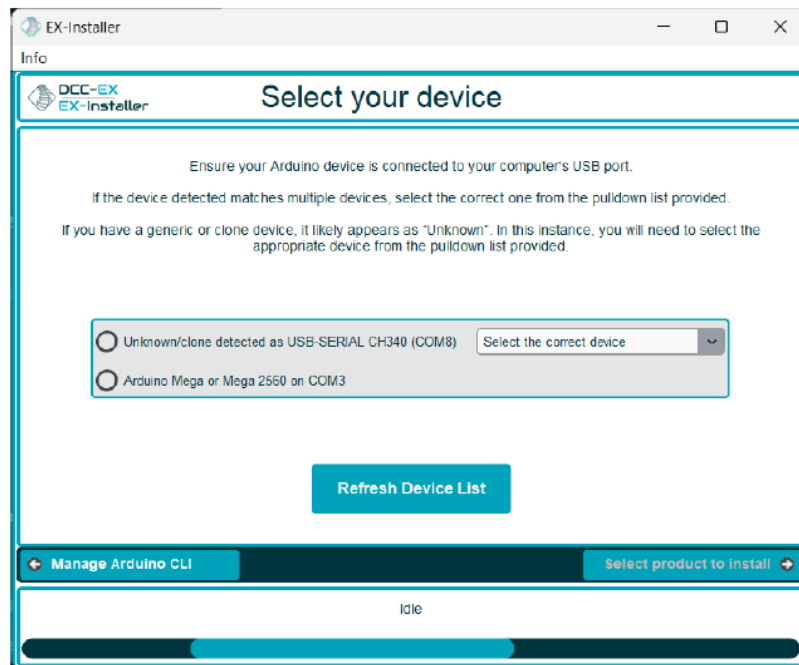
- Select "EX-CommandStation" on the Product to Install page
- Select which version of EX-CommandStation to install – your EX-CSB1 was loaded with v5.4.0-Prod use that version or a later one.
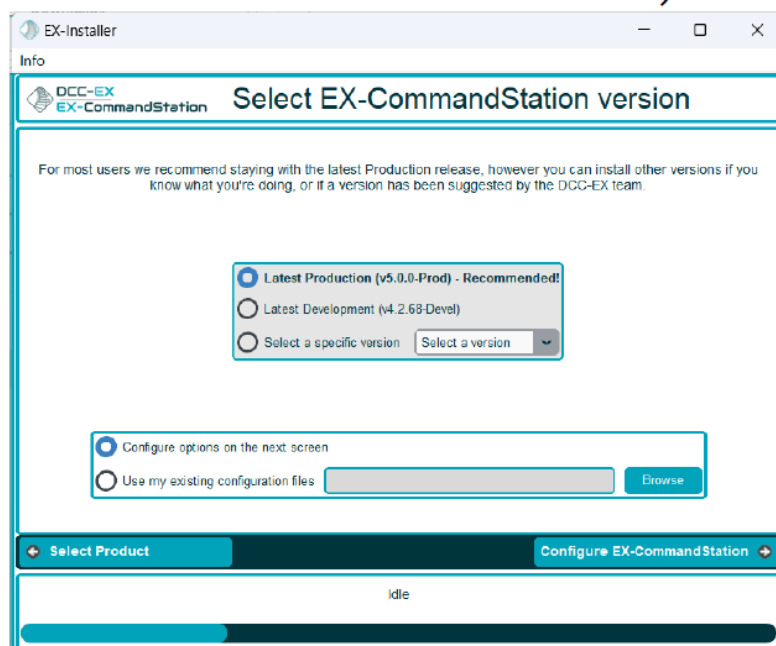
- Select "EX-CommandStation" on the Product to Install page
- Select which version of EX-CommandStation to install – your EX-CSB1 was loaded with 5.4.0-Prod, either select that or a later version.
- Under the install Ex-command station screen, select the following options:
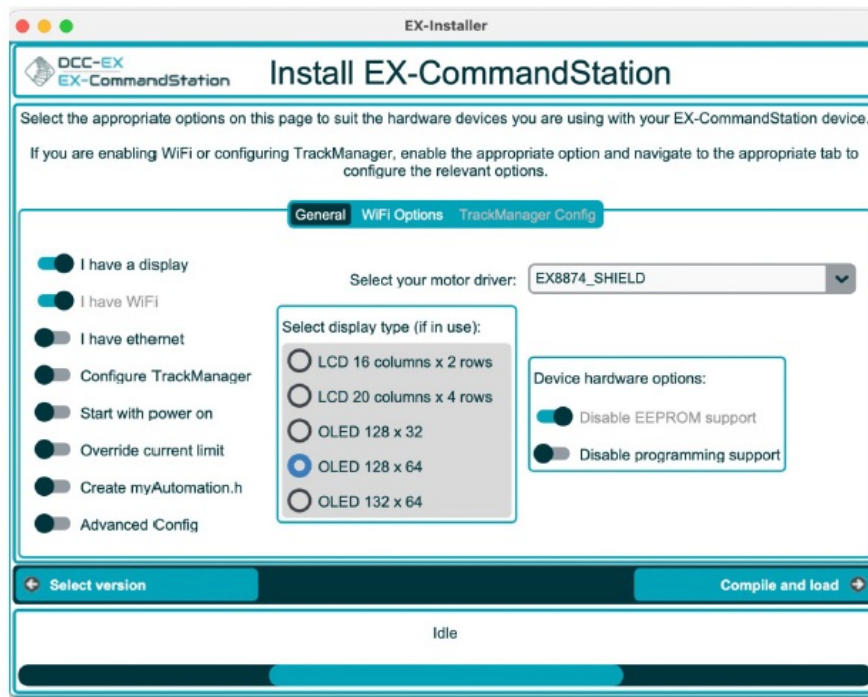
- if you have a display Choose I have a display – then select 128×64 OLED from display types
- Select your motor driver as EXCSB1 for the basic EX-CSB1, or EXCSB1_with_EX8874 for the 4-output model with stacked EXMotorShield8874
- From the WiFi Options tab you can change from Access Point mode to connecting to your home or train WiFi network
- Select Compile and load and then Load button to upload to the EXCSB1.

Further Information & Support

For further information we recommend reading the extensive documentation on the DCC-EX website at:
https://www.dcc-ex.com
We also recommend joining the DCC-EX Discord server to be able to chat live with both the development team members and our experienced and helpful team of users: **https://dcc-ex.com/support/index.html#preferred-option-discord**
You can also email ACI Model Railways for support at **wecare@acimodelrailways.co.uk**

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Millennium Engineering.

Documents / Resources

DCC-EX EX-CSB1 Command Station Booster [pdf] User Guide
EX-CSB1, EX-CSB1 Command Station Booster, EX-CSB1, Command Station Booster, Station Booster, Booster

References

- 🖉 **DCC-EX Model Railroading — DCC-EX Model Railroading documentation**

- 🖎 **[DCC-EX Model Railroading — DCC-EX Model Railroading documentation](#)**
- 🖎 **[Troubleshooting & Getting Help — DCC-EX Model Railroading documentation](#)**
- **[User Manual](#)**