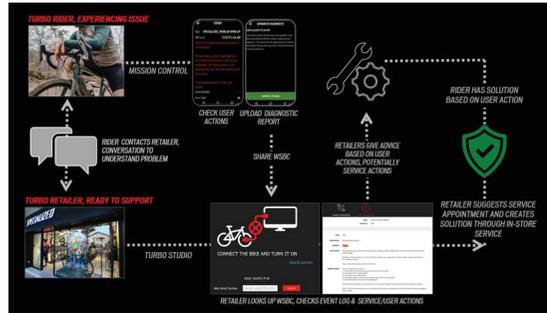




DIAGNOSTICS & TROUBLESHOOTING BASICS

These fundamentals cover the core procedure troubleshooting functional issues with Turbo bikes, that is, issues that are related to the electronic components.

1. Understand the issue
 - A. Differentiate issue vs.system behaviour
 - B. Master Rider Conversation & Reporting
2. Run Digital Diagnostics whenever possible
 - A. TCU/TCD-w bikes
 - B. Use Turbo Studio Event Log / Service Actions
3. Use Resources
 - A. Troubleshooting Guide (step-by-step guide will be integrated into Turbo Studio, likely by mid2021)
 - B. TCU Error Codes
 - C. Service Website



"Digital Diagnostics" refers to the use of digital tools to identify an issue and find a solution. Turbo bikes with a TCD-w or TCU have the capability of being diagnosed remotely with the rider using Mission Control and in store by the retailer using Turbo Studio.

This flow summarizes how Riders and Retailers should partner to create solutions as quickly as possible.

SERVICE & REPAIR (RETAILER)

RESOURCE OVERVIEW

These are some important technical resources for Retailers to use. Please visit the Service Website for these and additional resources.

- Unboxing video
- Motor replacement animation
- Schematics (small parts, cabling, suspension, etc.)
- Levo bike manual
- Many more [Service Website]



BATTERY EXPANDER AND SLEEVES

PURPOSE OF EXPANDER AND SLEEVE

The below shown expander and sleeve(s) need to be installed correctly on batteries to ensure a proper fit of the battery inside the frame.

DEFAULT CONFIGURATION

All MY22 Levo bikes should ship with batteries that have the expander and one sleeve pre-installed. Per default, all batteries in MY22 Levo carbon frames should have one sleeve installed, as illustrated further down. The sleeve is installed on the battery side with the fixation inserts and faces the ground when the battery is installed.

REQUIRED ACTION

Please ensure the default configuration is installed as a minimum and follow the guidelines here to grant correct battery fitment in the frame.

INSERTION OF BATTERY WITH ONE SLEEVE INSTALLED

With one sleeve installed, the battery should create noticeable resistance around the expander area when seated in the uppermost position in the down tube (see blue circle). This is intended and ensures a snug fit in the frame.

WHEN TO INSTALL A SECOND SLEEVE

Please install one additional sleeve on the other side of the expander under these circumstances:

1. If the battery slides into the uppermost position (see blue circle) without any resistance. This additional sleeve can be found in the small parts box that ships with the bike.
2. If a Rider reports the battery to create noise on the trail – this would manifest as a dull noise under bigger impacts and can feel like a loose headset.

Generally, frame sizes S4, S5 and S6 are more likely to require an additional sleeve. Sizes S1, S2 and S3 should be set up per default with one sleeve, but always ensure the battery creates noticeable resistance in its uppermost position.

SERVICE PART REFERENCE

This is the service part if you need to order an expander kit for MY22 Levo bikes:

- S214200032 [SUB MY22 LEVO BATTERY EXPANDER KIT]

This kit contains the expander itself and two additional sleeves.

The kit is required if you need to equip a different battery to make it compatible with a MY22 Levo frame.

Please ensure you also install the required rock guard and door kit.

1. S216800026 [ELE MY22 LEVO ROCK GUARD DOOR KIT]
2. S214200033 [SUB MY22 LEVO BATTERY ROCK GUARD KIT]



Circled in blue: uppermost position of the battery expander kit inside the frame / downtube



Expander orientation on battery: Ensure the side of the expander that says "Label Side" is facing in the same direction as the battery safety and handling symbols



Expander and parts schematic:
1 = Battery expander
2 = Expander sleeve (one per default, facing battery fixation inserts / ground)
3 = Expander fixation screws w/ washers (4 mm hex, use screw-lock, tighten to 4 Nm)