02 / LOGGING REFERENCE

Send data I can work with.

Subaru WRX / STI | COBB examples, with vehicle-specific channel selection

Ask for the logging list for your exact year, engine, ECU/ROM and software before collecting tuning logs. These are channel families and common COBB labels, not a universal importable preset. Available names, units and sensors differ across platforms.

Core engine and operating context

Time / elapsed time; Engine Speed (RPM); vehicle speed and gear where available; accelerator position and throttle position; calculated engine load; intake air temperature; coolant temperature; battery voltage.

Airflow and boost control

MAF airflow and/or MAF voltage where used; manifold pressure or Boost; requested boost or boost error; wastegate duty cycle. Record the units and whether pressure is gauge or absolute. Do not substitute one for the other without telling me.

Fueling and knock response

Measured air/fuel ratio or lambda; commanded fueling where exposed; A/F Correction 1; A/F Learning 1; ignition timing; DAM (Dynamic Advance Multiplier); Feedback Knock; Fine Knock Learning. Include requested external wideband and fuel-pressure channels when fitted.

The right channels matter more than the longest list. I may request a smaller or different selection to preserve useful sample rates. Confirm all required channels are actually present in a short test CSV before a tuning session.

Use the exact channel names your software exposes. An unavailable sensor cannot be created by selecting a similar label. Do not use a single DAM, knock or air/fuel value as a universal pass/fail threshold across EJ and DIT engines.

02 / PLATFORM DIFFERENCES

Choose the correct engine family.

Keep the common channels, then confirm the additions with Keith.

EJ | 2002-2014 WRX and 2004-2021 STI

Confirm injector pulse width or duty cycle, requested fuel delivery, and external wideband logging as required for the setup. Fuel-pressure data requires a supported sensor and logging input; do not assume every EJ ECU measures it. Do not rely on the stock oxygen-sensor reading alone to validate high-load fueling.

FA20 DIT | 2015-2021 WRX

Confirm actual and target high-pressure fuel-rail readings, relevant direct-injection data, and any requested manifold-temperature or cam-control channels. The direct-injection fuel system and logging strategy differ from the EJ. Availability depends on the ROM and platform.

FA24 DIT | 2022+ WRX

Use the FA24-specific list supplied for the installed software. Include actual/target fuel-rail pressure and other requested DIT channels where available. Do not copy an EJ or FA20 preset and assume the names and interpretation are identical.

External wideband and flex fuel

EJ WRX/STI remote tuning requires an external wideband with an approved way to record AFR or lambda alongside the engine log. This also applies to 2015-2017 FA20 WRX remote fueling work. Later FA20 and FA24 WRX measurement plans are reviewed individually. A factory oxygen-sensor reading, gauge or video does not replace recorded data. Confirm controller, units, connection and time alignment before testing.

For an approved flex-fuel setup, log ethanol content and requested fuel-pressure/flex channels where supported. Send the kit, sensor and calibration details, including any legacy system. A kit being installed does not establish compatibility with the present ECU software. Do not alter the blend mid-process without agreement.

02 / CAPTURE AND SEND

One file. One clear story.

Use the instructions for the current calibration revision.

1. Configure while stationary

Secure the logger and route cables away from pedals, steering and shifter. Set channels before moving. Verify the current map, fuel and required sensors. On Accessport, export logs with Accessport Manager; for other platforms, use the agreed export format.

2. Collect only the requested test

Begin with the approved idle or light-load checks. A full-load test requires separate instructions and a suitable dyno or controlled closed course. Never operate the logger or watch a screen while driving. Stop the test if there is a misfire, unexpected boost, abnormal temperature, warning light, fuel smell or other unsafe behavior.

3. Preserve the original data

Send original CSV files with headers, timestamps and units intact. Include the whole requested event, not a cropped screenshot. Use clear filenames such as TBK-reference_R03_warm-idle_2026-10-12.csv. Describe symptoms, fuel, conditions and any changes since the last file.

4. Wait for review

Do not repeat aggressive tests to generate more data after a fault. Send the available log and explain what happened. I review the result and specify whether the next step is another log, a revision or a mechanical check.

Manufacturer references (accessed October 12, 2026)

COBB Subaru Monitor List - channel definitions and availability. COBB Subaru Data Logging Overview - monitor context. COBB Subaru Datalog Guide - engine-family differences. COBB Accessport Manager - file transfer.

This guide is Keith's customer preparation workflow, not a COBB-issued preset.