Technician Quick Guide

getting started · https://www.diagnostic-assistance.com/docs/technician-quick-guide/

How to Use This Guide

TL;DR

This guide is for DAVO users in the workshop. Dip in when you need it. You don’t need to read the whole thing.

What the Coloured Boxes Mean

TL;DR

These blue boxes give you the key points FIRST. Read these before anything else.

FIND IT

These amber boxes tell you exactly where to look in the DAVO app. Follow these directions.

➡ DO THIS

1. These grey boxes give you step-by-step instructions.

QUICK TIP

These teal boxes are short practical tips to save you time.

STUCK?

These orange boxes help when something isn’t working. Common problems and their fixes.

CRITICAL CONCEPT

These red boxes highlight things you MUST get right. Don’t skip them.

DID IT WORK?
These green boxes tell you what you should see if everything worked correctly.

“I Need To…” Quick Index

I Need To…	Go To
Create a new case	Section 1: Getting Started
Enter vehicle details (VRM/VIN)	Section 1: Getting Started
Search for symptoms or DTCs	Section 3: Step 1 — Observations
Understand hypothesis rankings	Section 5: Step 3 — Hypotheses
Choose which test to run	Section 7: Step 5 — Test List
Run a test and see expected values	Section 8: Step 6 — Test Execution
Record my results (Pass/Fail)	Section 9: Step 7 — Results
Go back to an earlier step	Section 11: Return To
Find a training document	Section 12: Technical Library
Share or delete a case	Section 13: Managing Cases

Section 1: Getting Started

FIND IT
Top navigation bar → Cases

TL;DR
Log in, go to Cases, create a new case, and enter the vehicle details. That’s it — you’re ready to diagnose.

The Navigation Bar

The bar across the top of every page has everything you need:

Item	What It Does
Home	Dashboard / landing page
Cases	Where you create and work on diagnostic cases — your main area
Business Administrator	Manage sites and users (ask your admin)
Help	Link to online documentation
Dark Mode Toggle	Switch between light and dark themes

Creating a New Case

➡ DO THIS

1. Click Cases in the top navigation bar.

QUICK TIP

VRM is usually faster than VIN. Type the full registration and hit Info.

STUCK?

Vehicle not found? Check the VRM/VIN is correct — no spaces, no typos.

Opening an Existing Case

➡ DO THIS

1. Click Cases in the top navigation bar.

DID IT WORK?

You should see a tab labelled “Case: #N” and the 8-step progress bar across the top of the editor.

Section 2: The 8-Step Workflow

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8

TL;DR

DAVO guides you through 8 steps to find the root cause. You describe symptoms, the system suggests what to test, you run the tests and record what you find.

Step	Name	What You Do
1	Observations	Describe what the vehicle is doing — symptoms, faults, DTCs
2	Confidence Indicators	Rate how confident you are about each observation
3	Hypothesis List	Review the system's ranked list of possible root causes
4	Elements	See which components need investigating
5	Test List	Choose which specific test to run
6	Test Execution	Run the test with reference data and expected values
7	Results	Record your findings and decide Pass or Fail
8	Case Summary	Document your final diagnosis

CRITICAL CONCEPT

Think of yourself as a detective. You gather clues (observations), form theories (hypotheses), test them (test execution), and rule them out until you find the answer.

The Next button (bottom right) advances to the next step. Steps are sequential — you must use Next to move forward. Use the Return To mechanism to go back (see Section 11).

Section 3: Step 1 — Observations

▶ Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8

FIND IT

Case editor → Step 1 panel. Left side: search. Right side: your selected observations.

TL;DR

Tell the system what the vehicle is doing. Search by symptom description, fault condition, or DTC code.

Searching for Observations

The left panel has four search tabs:

Tab	What It Searches	When to Use
Observations	Symptom descriptions	When you know the symptom (e.g., “misfires on single cylinder”)
Fault	Fault condition descriptions	When searching by fault type
Condition	Operating conditions	When the fault is condition-specific
DTC’s	Diagnostic Trouble Codes	When you have DTCs from a scan tool

➡ DO THIS

1. Choose a search tab (Observations, Fault, Condition, or DTC’s).

QUICK TIP

You can load multiple DTCs at once using the DTC’s tab. The system finds matching observations automatically.

STUCK?

No results? Try different keywords. “Won’t start” vs “fails to start” vs “no crank” may give different results.

DID IT WORK?

You should see your selected observations listed in the right panel. The current System Standard is displayed. Click Next to continue.

Section 4: Step 2 — Confidence Indicators

Step 1	▶ Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8

FIND IT

Case editor → Step 2

TL;DR

Rate how confident you are about each observation. This helps the system rank which hypotheses are most likely.

Level	What It Means	Example
High	Fault is present and repeatable right now	Engine misfires every time you start it
Medium	Related DTC appears intermittently	P0301 stored but clears on reset
Low	Symptom appears intermittently	Customer reports occasional misfire, can’t reproduce

QUICK TIP

If the fault is happening right now in front of you, rate it High. If it comes and goes, rate it Medium or Low.

DID IT WORK?

You should see confidence ratings next to each observation. Click Next to see the hypothesis list.

Section 5: Step 3 — Hypothesis List

Step 1	Step 2	▶ Step 3	Step 4	Step 5	Step 6	Step 7	Step 8

FIND IT

Case editor → Step 3

TL;DR

The system shows you ranked possible root causes based on your observations and confidence ratings.

Each hypothesis is a specific causal proposition. For example, “fuel injector solenoid resistance drift” tells you exactly what failure to look for, not just “something wrong with the injector.”

➡ DO THIS

1. Review the ranked hypothesis list.

STUCK?

Empty hypothesis list? Go back to Step 1 and make sure you've selected at least one observation.

Section 6: Step 4 — Elements

Step 1	Step 2	Step 3	▶ Step 4	Step 5	Step 6	Step 7	Step 8

FIND IT

Case editor → Step 4

TL;DR

These are the components to investigate, listed in recommended order. Start from the top.

For example, for "low fuel rail pressure due to high pressure pump malfunction," the system might suggest: fuel rail pressure sensor (confirm the symptom), then fuel filter (easy/cheap), then the pump itself.

QUICK TIP

The order is a recommendation, not a rule. If you already know the fuel filter is new, skip it and move to the next element.

➡ DO THIS

1. Review the element list and note the recommended order.

Section 7: Step 5 — Test List

Step 1	Step 2	Step 3	Step 4	▶ Step 5	Step 6	Step 7	Step 8

FIND IT

Case editor → Step 5

TL;DR

Each line is a complete test instruction: what to measure, when, where, and with what tool.

Reading the Test Specification

Every test has four key fields — the “4 Rights”:

Field	The Right	What It Means
Test Name	Right Thing	What you’re measuring (e.g., solenoid resistance, supply voltage)
Test State	Right Time	Vehicle condition during the test (engine off, running, cranking)
Test Location	Right Way	Where to connect (at component, at controller, in harness)
Connection Type	Right Tool	How to connect your instrument (multimeter, scope, etc.)

CRITICAL CONCEPT

A test only has a valid expected value when ALL 4 Rights are met.

➡ DO THIS

1. Review the available tests for your selected element.

Section 8: Step 6 — Test Execution

Step 1	Step 2	Step 3	Step 4	Step 5	▶ Step 6	Step 7	Step 8

FIND IT

Case editor → Step 6

TL;DR

This is where you see everything you need to run the test: reference images, waveforms, expected values, and component information.

What You’ll See

Panel	What It Shows
Reference Images	What the component looks like — helps you find it on the vehicle
Reference Waveforms	What a good signal looks like — compare against your oscilloscope
Component Test Info	Plain-English description of the test and what to look for
Expected Values	What your reading SHOULD be if the component is working correctly
Associated DTCs	Fault codes related to this component

➡ DO THIS

1. Review the reference data to understand what you’re testing.

QUICK TIP

Compare your live reading against the expected value chart. The chart shows what a healthy component produces under these exact conditions.

STUCK?

No expected value shown? The authored data may be incomplete for this test.

Section 9: Step 7 — Results

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	▶ Step 7	Step 8

FIND IT

Case editor → Step 7

TL;DR

Record what you found. Enter your measurement, then decide: Pass or Fail.

Three Recording Types

Type	What It's For	Example
Data Value	Numerical measurements	12.6V, 4.7Ω, 1850 bar
Waveform Comparison	Oscilloscope pattern matching	Compare your waveform to the reference
Non-measured Value	Visual, audible, or tactile assessment	Component looks corroded, unusual noise

➡ DO THIS

1. Select the recording type that matches your test.

CRITICAL CONCEPT

The Pass/Fail decision is deliberately in YOUR hands. DAVO provides the expected values and reference data. You use your judgement to decide whether your reading is acceptable.

Section 10: Step 8 — Case Summary

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	▶ Step 8

FIND IT

Case editor → Step 8

TL;DR

Document your final diagnosis. Set the case status. Done.

➡ DO THIS

1. Write a brief conclusion: what was wrong, what you tested, what you found.

QUICK TIP

Good case summaries help other technicians. Write what you found, what you did, and what fixed it. Future you will thank you.

Section 11: Going Back — The Return To Mechanism

TL;DR

Diagnosis is iterative. You can jump back to any step at any time. Evidence changes your thinking — the system is designed for that.

Use the Return To dropdown or Step back button to go to any previous step.

Three Common Scenarios

Scenario 1: Hypothesis didn’t confirm

Your test result eliminated the top hypothesis. Return to Step 3 (Hypothesis List) and investigate the next most likely cause.

Scenario 2: Need more observations

Partway through testing, you notice a new symptom. Return to Step 1 (Observations) to add it. This may change the hypothesis ranking.

Scenario 3: Verification after repair

You’ve fixed the fault. Return to Step 5 (Test List) and re-run the original test. Record the new result to confirm the repair worked.

QUICK TIP

Every time you go back, the system records it in the case history. This builds a complete record of your diagnostic reasoning.

Section 12: Technical Library

FIND IT

Cases page → Technical Library tab

TL;DR

A searchable library of 195 training documents covering diagnostic techniques, sensor theory, scan tool usage, and more.

➡ DO THIS

1. Go to the Cases page and click the Technical Library tab.

QUICK TIP

Use the Technical Library to brush up on testing techniques before tackling an unfamiliar system.

Section 13: Managing Your Cases

FIND IT

Cases page → Cases tab

TL;DR

Your case list. Filter by site, search by keyword, and manage case status.

The Case List

The case list shows all cases for your selected site:

Column	What It Shows
Status	Open or Closed Inactive
Vehicle / Make / Model / Engine	Vehicle identification details
Assigned To	Which technician is working on it
Updated / Created	When the case was last changed and when it was created
Actions	Edit (green pencil), Share (grey), Delete (red)

Common Actions

➡ DO THIS

1. Filter by site: use the dropdown at the top of the case list.

STUCK?

Can’t see your case? Check the site selector dropdown — it may be filtering to a different site.

Section 14: Business Administrator Basics

FIND IT

Top navigation bar → Business Administrator

TL;DR

View your license, manage sites and users. Most technicians won’t need this — it’s for the workshop admin.

Section	What It Shows
License Details	Read-only: license name, max sites, max users, expiry date
Business Name	Editable business name with Save button
Sites	List of workshop locations — add, edit, or delete
Users	List of users with email and site assignment — add, edit, or delete

QUICK TIP

If you need a new user account or site added, ask your workshop administrator.

QUICK REFERENCE CARDS

Print these pages and pin them up in the workshop for quick lookups.

The 8 Steps at a Glance

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8

Step	Name	You Do This
1	Observations	Describe symptoms / select DTCs
2	Confidence Indicators	Rate High / Medium / Low for each observation
3	Hypothesis List	Select the most likely root cause to investigate
4	Elements	Note which components to check (in order)
5	Test List	Choose the test (check all 4 Rights match)
6	Test Execution	Run the test, compare against expected values
7	Results	Record your reading, decide Pass or Fail
8	Case Summary	Document diagnosis, set case status

Remember: Use Return To to cycle back to any step as evidence changes your thinking.

What Do I Do When…?

Problem	Solution
No observations found	Try different keywords. “Won’t start” vs “no crank” may give different results.
Empty hypothesis list	Ensure observations are selected (Step 1) with confidence indicators set (Step 2).
No expected value at Step 6	Go back to Step 5 and choose a test with all 4 Rights fields populated.
Can’t find my case	Check the site selector dropdown — it may be filtering to a different site.
Vehicle not identified	Verify VRM/VIN spelling. Try the other identifier (VRM vs VIN).
Want to test a different hypothesis	Use Return To to go back to Step 3 and select another.

Need to re-test after repair	Use Return To to go back to Step 5 and re-run the original test.
Wrong system standard	Click Change Standard in Step 1 to select the correct one.

The 4 Rights™ in Plain English

Every valid test requires all four:

Right	Plain English	If You Get It Wrong…
Right Thing	Am I testing the right component?	You’re measuring something irrelevant
Right Way	Am I connecting my equipment correctly?	Your reading can’t be compared to expected values
Right Time	Is the engine/vehicle in the right condition?	Your reading is valid but for the WRONG condition
Right Tool	Am I using the right instrument?	You get the wrong CLASS of result

CRITICAL CONCEPT
ALL FOUR must be met simultaneously. Missing even one means no valid expected value to compare against.

Glossary

Key terms in plain English.

Term	Definition
4 Rights™	DAVO’s framework: Right Thing, Right Way, Right Time, Right Tool. All four must be met for a valid test.
Confidence Indicator	A rating (High/Medium/Low) at Step 2 that describes how certain you are about an observation.
DTC	Diagnostic Trouble Code. A fault code stored by an ECU (e.g., P0301 = cylinder 1 misfire).
ECU	Electronic Control Unit. A computer module that manages a vehicle system.

Element	A testable component (e.g., coolant temp sensor, fuel pump, injector).
Expected Value	What your reading SHOULD be if the component is working correctly.
Hypothesis	A specific suspected root cause (e.g., “fuel injector solenoid resistance drift”).
KOEO / KOERunning / KOECranking	Key On Engine Off / Running / Cranking. The vehicle state during a test.
Observation	A symptom or fault description you select at Step 1.
Return To	The mechanism that lets you jump back to any previous workflow step.
System Standard	A named technology configuration for the vehicle’s fuel system.
Test Location	Where on the vehicle you perform the test (at component, at controller, in harness).
Test State	The vehicle’s operating condition during the test (engine off, running, cranking).
VRM	Vehicle Registration Mark — the number plate.
VIN	Vehicle Identification Number — the unique 17-character chassis code.