

## Quick Start Guide: Standard Filter Cassette

### Included with your eDNA Sampler

- ❖ USB Flash Drive (Docs. & Software Install)
- ❖ DOT Control Pendant
- ❖ Serial to USB Converter Cable
- ❖ Mounting Cradles
- ❖ Tools/Spares Kit
- ❖ Reagent Kit (Purchased Separately)
- ❖ Y-Splitter Cable (Power & Comms.)
- ❖ Wall Outlet Adapter Cable

### User-Supplied Equipment

- ❖ Laptop or PC with USB port
- ❖ Wall Outlet Power (Optional)

### Recommended Accessories

- ❖ DOT Battery Pack
- ❖ Replacement Sample Filters
- ❖ Extra Filter Cassette & Transport Kit

### Cable Guide

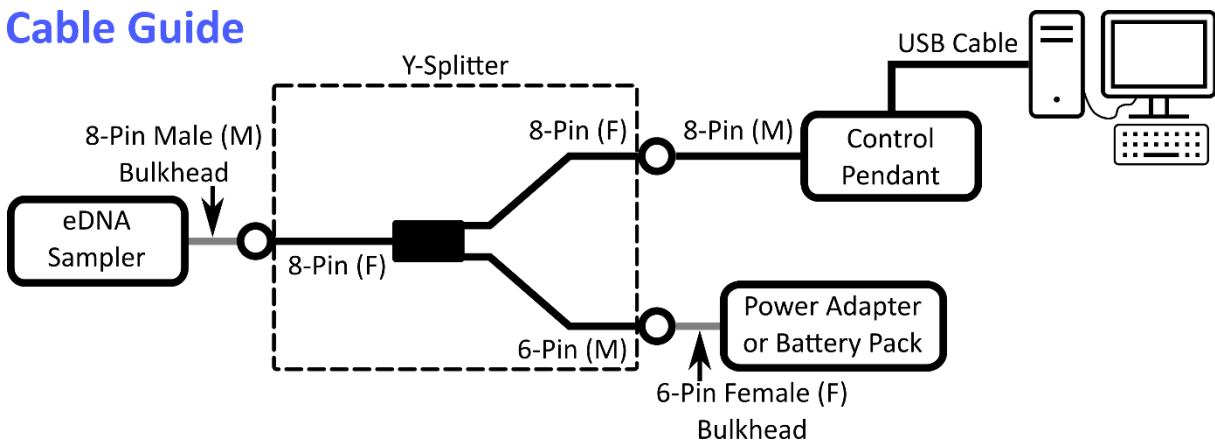


Figure 1: Cable Guide

Table 1: Fluid consumption per step. Steps 1 – 5 occur during Sampling.

Step(s)	Function	Milli-Q	HCl	RNALater	Waste	SW
C1-C2	Benchtop Cleaning & Priming (x1)	177 mL	30 mL	0 mL	0 mL	0 mL
S1-S5	Sampling (Totals for 9 Samples)	216 mL	90 mL	57 mL	57 mL	Variable
<b>Total: One Cassette with Cleaning &amp; Priming</b>		<b>393 mL</b>	<b>120 mL</b>	<b>57 mL</b>	<b>57 mL</b>	<b>Variable</b>

### ! WARNING

Deep-Rated eDNA Samplers must always be connected to power when deployed beyond 20 m, or when subjected to a change in depth beyond 20 m.

## Physical Setup: Step-by-Step Instructions from Unboxing

Upon shipment, the eDNA Sampler is loaded with nine (9) **empty** filter holders. These filter holders must be cleaned by the Sampler before fresh filter membranes are installed.

- 1) Locate flat working surface with enough space to lay the eDNA Sampler horizontally
- 2) Locate Mounting Cradles (x2). Place mounting cradles on working surface. Note that cradles are labelled.
- 3) Place eDNA Sampler onto Mounting Cradles such that each cradle supports the labelled section.
- 4) Locate Y-Splitter Cable. Connect Y-Splitter Cable to Sampler (note above diagram in **Figure 1**):
  - a. Separate Reagent Case from Sampler Body.
  - b. Remove blanking plug with Red Locking Sleeve from Sampler to expose 8-pin connector (male).
  - c. Locate the large hole in the lid of the Reagent case.
  - d. Locate the single-cabled end of the Y-Splitter (8-Pin Female). Feed cable through hole of lid.
  - e. Plug cable into 8-pin male connector. The Y-Splitter body should be outside the reagent case.
- 5) Install each of the four (4) fluid reservoirs (sold-separately). Refer to the user manual for fluid installation [**Section 3.2.1**].
  - a. For each reservoir, remove green cap. Remove clear cap from purple valve. **DO NOT REMOVE PURPLE LUER FITTING**. Attached purple fitting to corresponding port of Sampler [**remove red plug from Sampler if applicable**]. Tighten with IDEX Wrench (Spares Kit)
- 6) Re-Install Reagent Case onto Sampler Body.
- 7) Connect 8-Pin Female Cable of Y-Splitter to DOT Control Pendant
- 8) Connect Control Pendant to PC
  - a. Locate Serial to USB converter cable. Plug cable into Control Pendant. Screw to secure.
  - b. Connect USB end of Serial to USB cable into laptop / PC running windows.
- 9) Connect eDNA Sampler to Power Source (wall power or battery). See instruction manual for wall power. [**Section 4.1**]
  - a. Remove blanking plug from DOT Battery Pack to expose 6-pin female connector.
  - b. Plug 6-pin male cable from Y-Splitter into DOT Battery Pack. Secure with locking sleeve.
- 10) On PC, open DOT eDNA Sampler GUI. Connect to instrument. [Note, on first connection, an internet connection may be required to download drivers for the Prolific PL2303GT Serial to USB Converter. Refer to tag on cable.]
- 11) Update consumables according to the fluid volumes provided with your Reagent Kit.
- 12) Run the Benchtop Cleaning Process (Cleaning Tab - Clean Sampler & Cassette, Step 2 in GUI).
- 13) Upon completion, disconnect Cassette from Sampler. For each filter holder:
  - a. Remove filter holder from cassette. Open filter holder. Load fresh filter membrane. Close filter holder and reattach to cassette. Refer to Operation Manual for details if required. [**Section 3.2.2**]
- 14) Install fully-loaded filter cassette onto Sampler. Click New Cassette (Clean Sampler & Cassette, Step 3)
- 15) Run System Prime (Clean Sampler & Cassette, Step 4) to purge air from system.

## Program Sampler for Deployment

- 1) Ensure previous steps are followed.
- 2) Review Sampler Clock (displayed in bottom left, updated in Status – Clock tab). Update if necessary.
- 3) In Status – Sampling, set the desired sample volume targets for each filter.
- 4) In Automated Sampling, set Trigger Mode (Trigger by Time or Trigger by Depth [Deep-Rated units only])
- 5) Set the nine (9) trigger conditions for Filters 1 – 9 in chronological order. Refer to user manual [**Section 5.4**]. Ensure that the first filter trigger allows for sufficient time to deploy the Sampler.
- 6) Ensure Trigger Index (“Next Trigger to Sample”) is set to 1; otherwise, prior Filters will be skipped.
- 7) When all nine trigger conditions have been set, click Activate. Automated Sampling is now enabled.
- 8) When ready to deploy, disconnect Control Pendant from Y-Splitter. Plug exposed end of Y-Splitter.