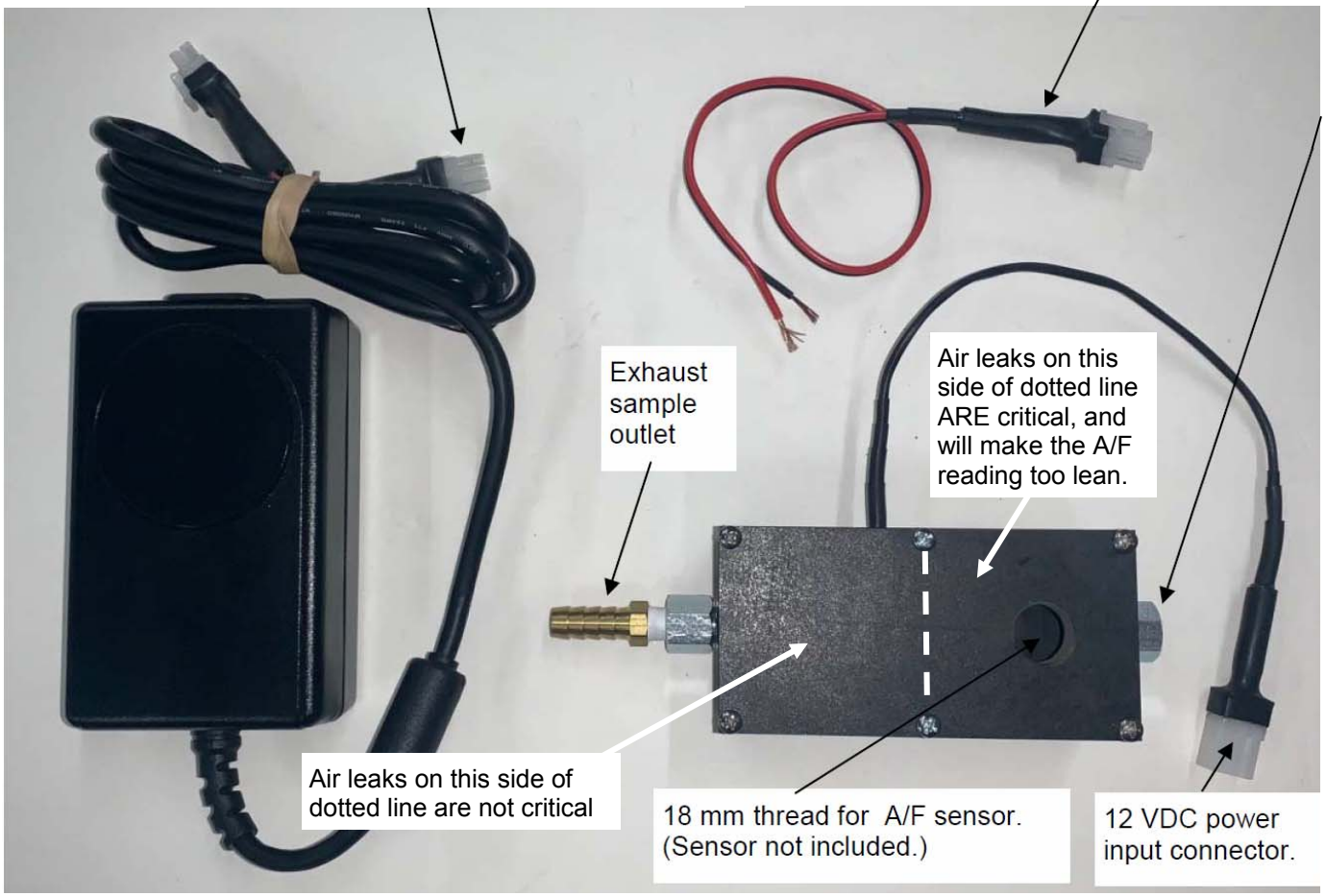
A/F Mini Remote Sampler Instructions

12 VDC power supply provided with most Performance Trends A/F sensors (not included with sampler). This is an ideal power source for the pump and typically has an extra connector which plugs directly into the sampler's 12 VDC power connector.

Optional 12 VDC power "pigtail" for you to wire up your own 12 VDC power for the sampler's pump. Red is 12 v power and black is ground. Pump needs up to 1.5 amps and voltage should be between 10.8 to 12.6 volts. Automotive 12 volt battery will likely provide too much voltage and may shorten pump lift. Typically this is only supplied if you do not purchase an A/F sensor with 110 or 220 vac power supply.



Inlet is fitting closest to A/F (O2, lambda, wideband, etc) sensor. Use 2-3 feet of metal tubing at the enclosure (for cooling the sample), then flexible tubing, and then a metal probe which you place up inside the exhaust outlet for sampling. Typically 1/4" piece of copper or stainless tubing works for a probe. **DO NOT over-tighten the fittings (inlet or outlet) as you could crack the enclosure.**

We are now shipping the remote sampler with straight thread adapters on the inlet and outlet, which are much less likely to crack the enclosure. Be sure to use these adapters for any 1/8" male pipe thread fittings you add.

We **strongly** recommend that you attach about 2-3 feet of metal tubing on the inlet at the sampler. This is to help the exhaust sample to cool before entering the chamber, to improve the durability of the sampler and the blower.

Note: If you are working with small diameter exhaust headers, the probe you insert will change the effective diameter of the exhaust and can change the exhaust tuning. Also, the exhaust flow being sucked out can be significant for smaller engines and also change the exhaust tuning characteristics of the engine. For smaller engines, you may want to use smaller lines and diameter probe (3/16")to reduce the exhaust sample flow (more restrictive) and have less effect on reducing the change in the exhaust header effective diameter. Smaller than 3/16 is too restrictive.

Some users report longer blower life by mounting the sampler vertically, with the inlet fitting point down. This better prevents moisture building up in the sampler.

You may want to put a filter or trap on the inlet to protect the A/F sensor from being "sooted up" by rich exhaust or 2 stroke exhaust oil mist or particulates. However, the more restrictions you put on the inlet, the slower will be the response of the A/F sensor and the more likely that any air leak will let room air into the chamber producing a reading which is too lean.

Note: Vent exhaust sample outlet safely outside. Keep this line as large and short as practical to avoid restrictions in this outlet flow, which also increases the delays in readings.