

# **EXD** Protective Anti-fouling Sleeves **Quick Start Guide**

The Anti-Fouling Protective Sleeve Kit (#599663) contains plastic sonde and probe covers used for long-term deployments. The kit includes sleeves for the sonde, individual sensors, and the central wiper that are heat shrunk to be form-fitting. Throughout a deployment, biofouling will collect on the sleeve rather than directly on the instrument, significantly reducing cleaning and maintenance. Review these instructions below for proper installation and removal of the protective sleeves.



### 1 Fitting the probe sleeves.

- a. Prior to installation, ensure all probes are detached from the sonde body.
- b. Insert a probe into a protective sleeve. Line up the edge of the plastic sleeve with the bottom edge of the probe housing nearest the connector; then use a marker to note where the sleeve begins to overhang the top edge of the probe head.
  - For C/T, indicate two lines above and below the vent hole to ensure its exposure during deployment.
- c. Remove the sleeve from the probe and cut it at the marked area(s) to remove excess plastic. Once appropriately sized, slide the anti-fouling sleeve back onto the probe.
  - For C/T, slide both pieces of the sleeve back onto the probe and ensure the vent hole remains exposed.
- d. Repeat this process with all probes except the EXO central wiper (see next instructions).

### 2 Fitting the EXO2 central wiper sleeve.

The central wiper sleeve is comprised of two pieces.

- a. Loosen the set screw with a 0.05 in. Allen wrench and remove the wiper brush assembly.
- b. Slide the large central wiper sleeve onto the wiper housing at the brush end until it fits snugly into the brush guard. The sleeve can be slipped between the guard and the housing by gently pulling the brush guard away from the housing. Use a marker to note where the sleeve begins to overhang the edge of the wiper housing.
- c. Remove the sleeve from the wiper and cut it at the marked area to remove excess plastic.
- d. Slide the remaining plastic onto the connector end of the wiper until it touches the bottom of the brush guard. Use a marker to note where the plastic begins to overhang the wiper housing.

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- e. Remove the sleeve from the probe and cut it at the marked area to remove the excess plastic.
- f. Once both pieces of the sleeve are appropriately sized, slide them back onto the wiper.

# 3 Fitting the EXO2 sonde sleeve.

Install all probes and the guard onto the sonde. Equip the sonde with a protective sleeve starting at the bail end of the sonde for easiest installation. Line up the end of the plastic with the top of the sonde body (in yellow).

# 4 Heat-shrinking the sleeves.

To form-fit the plastic to the equipment, you must heat shrink the sleeves using one of two methods:

#### Heat Gun/Hair Dryer (Highest Setting)

Do not hold heat on any one spot for more than one second. Move the heat back and forth and continue to rotate the equipment until the plastic clings tightly to it. This process should take less than 5 seconds with a heat gun and 15-20 seconds with a hair dryer on its highest setting.

Note: If using the heat gun method, shrink the sleeves on the probes first, install the probes in the sonde, and install the guard. Then shrink the sonde sleeve.

#### Oven/Toaster Oven

Pre-heat oven to approximately 65-70°C.

Do not exceed 80°C or you will damage components of the sonde and sensors.

Insert the equipment and safely remove it with gloves once the sleeves visibly cling to it.

Note: With either method, small air bubbles may appear in the sleeve. This is expected and will not affect the performance of the sleeve.

# 5 Removing the sleeves after use.

To remove the sleeves, find the perforation in the plastic. Pull down on this from the top. If unable to remove the sleeve with this approach, simply cut the plastic. Do so cautiously, so as to not damage the instrument.

