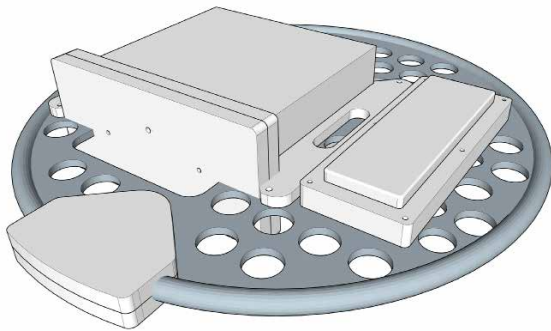


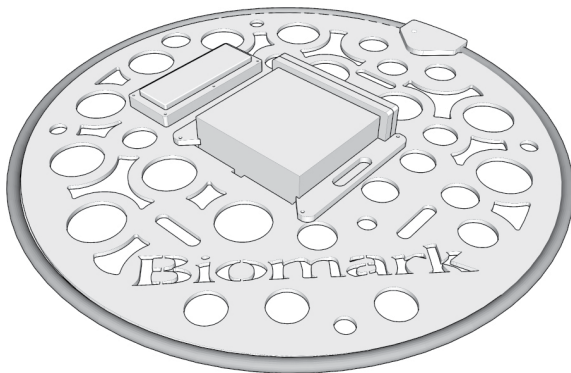
# SUBMERSIBLE ANTENNAS



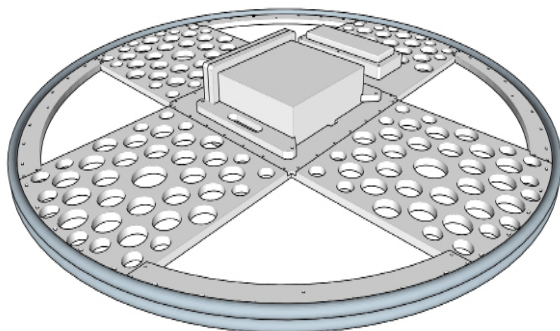
**Biomark**



**3' Rigid (0.9 m)**



**5' Rigid (1.5 m)**



**6' Collapsible (1.8 m)**

Biomark **3', 5' and 6' SUBMERSIBLE PIT-TAG DETECTION ANTENNAS** have been updated and upgraded to provide an enhanced solution for researchers that need to detect tags in remote, hard to access sites in lakes and rivers.

The antenna is designed to provide up to 15 (72Ah) or 35 (180 Ah) days of continuous operation on a single battery pack and has a data storage capacity of 1 million records. Data is downloaded via Bluetooth using Biomark Tag Manager or BioTerm software. Battery packs can be switched out in the field allowing for extended field operation without bringing the antennas back to the office.

The Submersible Antenna has been successfully used as an all-in-one PIT-tag detection system by researchers to collect PIT tag data in both lakes and rivers, in habitats previously inaccessible to pit tag detection equipment and conventional sampling techniques (electro-fishing, hoop or trammel netting). In addition, the submersible antenna has been successfully used for terrestrial applications as a small scale, all-in-one temporary monitoring station.

The Read Range listed below represents approximate read distance when the tag is parallel to the antenna face (pass-by orientation). Environmental noise caused by power lines, overhead lights, pumps, etc., can reduce read range. Read range is also affected by tag orientation.

| Tag Type | 3' Antenna Read Range | 5' Antenna Read Range | 6' Antenna Read Range |
|----------|-----------------------|-----------------------|-----------------------|
| APT 12   | 31.5" (80.0 cm)       | 24" (60.9 cm)         | 37" (94 cm)           |
| HPT 12   | 29.5" (74.9 cm)       | 16" (40.6 cm)         | 34" (86.4 cm)         |
| HPT 9    | 22.5" (57.1 cm)       | 13" (33 cm)           | 25" (63.5 cm)         |

The **Biomark Submersible Antenna System** incorporates the enhanced IS1001 based system with autotuning, increased read range, automatic virtual test tag, noise reports, and adjustable periodic standby and idling time options to extend battery life.

The all-inclusive antenna does not rely on a bank-based power source and is designed to sink in lakes and rivers where it will be anchored to the substrate. This approach allows the researcher to deploy a small-scale PIT-tag detection system from the bank or by raft/boat in previously hard to sample areas or areas where bank based systems are subject to theft and vandalism.

Each submersible antenna system can detect and decode ISO11784/11785, FDX-B and HDX PIT tags.

#### A Biomark Submersible Antenna System includes:

- One 3' rigid (0.9 m), 5' rigid (1.5 m), or 6' collapsible (1.8 m) diameter circular antenna
- One IS1001 reader with Bluetooth enabled data logger

#### Additional required devices not included:

- 72 Ah or 180 Ah LiFePO4 Battery Pack  
*Two batteries recommended per antenna to minimize monitoring down time*
- 12V LiFePO4 Smart Battery Charger
- Lap Top or field PC with Bluetooth capabilities
- Biomark Tag Manager or BioTerm Software  
*Available as a free downloads on the Biomark website*

Watch the Submersible Antenna System video at: [biomark.com/videos](http://biomark.com/videos)



| DESCRIPTION                          | PRICE   |
|--------------------------------------|---------|
| 3' (0.9 m) Antenna System            | \$4,575 |
| 5' (1.5 m) Antenna System            | \$4,825 |
| 6' (1.8 m) Antenna System            | \$5,475 |
| 72 Ah Battery<br>(15 day run time)   | \$1,882 |
| 180 Ah Battery<br>(35 day run time)  | \$2,510 |
| 12V LiFePO4 Smart<br>Battery Charger | \$345   |



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