

An Alternative Method for Mounting Tidbit™ Temperature Sensors

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Current Methods of Mounting Tidbits™

Epoxy method



Limitations:

- ❖ Messy
- ❖ 24 hour curing time
- ❖ More difficult to mount in warm water

Rebar method



Limitations

- ❖ Can be washed downstream
- ❖ Can be buried

Block method



Limitations:

- ❖ Can be washed downstream
- ❖ Can be buried
- ❖ Not easily portable

Anchor Bolt Method for Mounting Tidbits™



Method requires a cordless battery-operated underwater drill, a 3/8" diamond tile drill bit and a 3/8" diameter strike anchor bolt cut down to 2" long to match the length of the drill bit.

PROCESS

1. Select the rock you want and drill the hole to the depth of your bolt allowing enough threads to stick through the mounting base so you can place a nut to hold the base in place.
2. Place your modified expansion bolt in the hole and using a hammer drive the expansion pin into the bolt until the pin is flush with the top of the bolt.
3. Attach the PVC base to the rock using the threaded nut, wrench and socket.
4. Attach the Tidbit™ to the PVC cap using a zip tie or rot resistant twine. Use Teflon tape on the threads.
5. Screw the cap onto the base using pliers.

1



2



3



4



5



Conclusions

- The Anchor Bolt method for mounting Tidbits™ eliminates the need to use epoxy.
- Units can be mounted in any water temperature.
- Mounting method provides a robust connection to the rock.
- Mounting can occur even with an uneven rock surface.
- Anchor Bolt Method is efficient to install.

Caveats

- Photos next to numbers 1-5 were done out of the water for clarity.
- We have not evaluated the possible impact of the bolt on water temperature readings.

Bibliography

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