

# ETI NOAH IV Raingage Field Assembly Procedure

Overview: The ETI NOAH IV raingage must be carefully assembled to operate properly. Lack of attention to certain details of this procedure may result in unrecoverable data loss.

Tools needed: Raingage weighing chamber lifting tool and 1/8 inch allen wrench

1. When reinstalling the raingage case, position it so that the two blue dots are aligned (Figure 1). After ensuring that the shell is on straight and is completely seated at each of the three screws, tighten the screws using the 1/8 in allen wrench.
2. Plug the optical sensor wires into their sockets, making sure that the optical sensor wires are **NOT** over the triangular plate that the raingage weighing chamber rests on (Figure 1). Make sure that there is no debris (i.e. snow, mud, etc.) on the bottom of the raingage weighing chamber in the grooves or guideposts, or on the triangular plate where the weighing chamber rests inside the housing.
3. If necessary, discard excess liquid inside the raingage weighing chamber. Add additional antifreeze to the raingage weighing chamber, if needed. If temperatures will be at or below freezing (32°F or 0°C) or if freezing/frozen precipitation will be possible, antifreeze should be added to the raingage weighing chamber.
4. Lift the raingage lifting tool and carefully lower the weighing chamber into the raingage and onto the triangular plate. **Make sure the weighing chamber is not dropped onto the triangular platform inside the raingage while removing. This could cause irreversible damage to the load cell!** Three alignment guide pins on the triangular plate fit into the indented ring on the bottom of the weighing chamber. A fourth guide pin fits into the center of the weighing chamber. Rotate the weighing chamber until the guide pins are registered into the ring.
5. Examine the relative positions of the weighing chamber and the housing. When viewed from the side, the weighing chamber will be slightly higher than the housing, and will not appear crooked (Figure 2). When viewed from above, the weighing chamber will be centered within the shell, and not touching on any side (Figure 3).
6. Rotate the weighing chamber until the vertical black alignment mark between the two optical sensors is exactly aligned with the vertical black alignment mark in the center of the opening on the weighing chamber (Figure 4). **The two optical sensors on opposite sides of the raingage must have an unobstructed view of each other through the two cut-out openings.**
7. Place the black ring (inlet orifice) on top of the raingage and press down until it registers in the housing. It should fit snugly and not touch the weighing chamber.



**1a. Correct**



**1b. Incorrect!**



**2a. Correct**



**2b. Incorrect!**



**3a. Correct**



**3b. Incorrect!**



**4a. Correct**



**4b. Incorrect!**