



**Directional Antenna**  
**Model Number: CN102**  
**v1.0.0**

**User's Manual**  
**Revised June 20, 2019**

## Features

The CN102 Directional Antenna boosts cellular signal for Altrac Stations. If your Station has trouble connecting to the cloud, a directional antenna usually helps to fix the issue.

## Warning

Static electricity can damage some of the components used in this set-up process. Before working on the circuit board, touch a grounded metal object to remove static electricity from your body.

**Please contact us if you have any questions.**

Phone: (510) 248-4141

Email: [support@altrac.io](mailto:support@altrac.io)

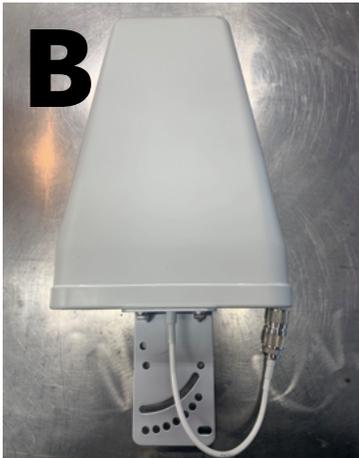
## Components

You will need the following peices of hardware to complete the installation.



### **A: Altrac Station**

The Altrac Wind Machine Station or Pump Station includes a cellular modem which connects your equipment to the internet. All components are IP 67 rated for harsh outdoor environment. The Station comes with a COAX connector pre-installed.



### **B: Directional Antenna**

The directional antenna boosts the cellular signal of your Altrac station. It should be used in situations with poor cellular service.



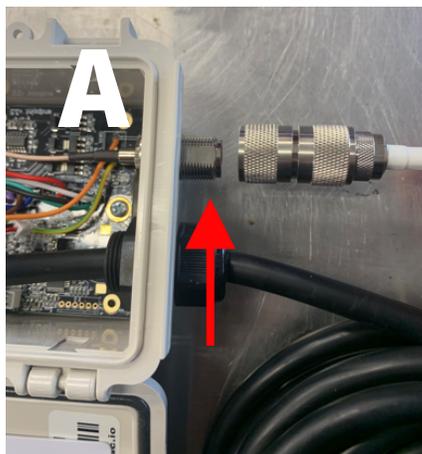
### **C: Antenna Mounting Hardware**

The mounting hardware is boxed with the directional antenna. It attaches to a 1-2” pole via u-bolts and brackets.

## Installation

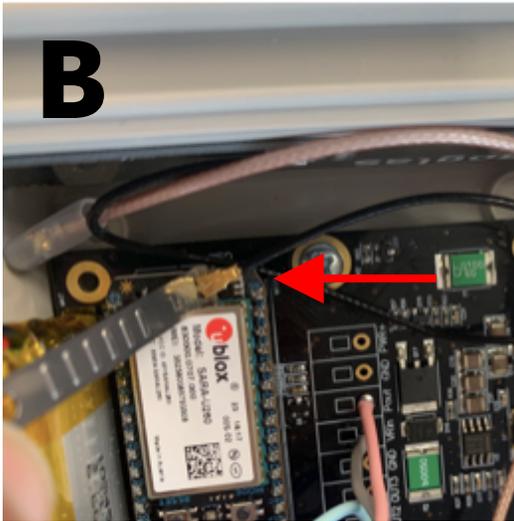
**Installation takes approximately 30 minutes. You will need a crescent wrench to tighten the bolts on the antenna bracket.**

### Attach Directional Antenna to ST100

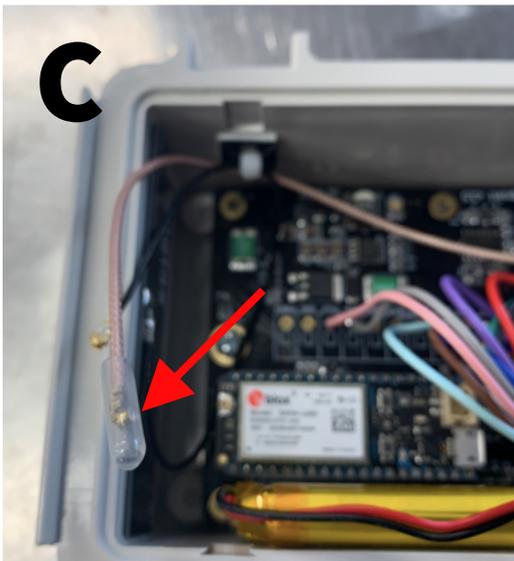


**A: Remove the plastic protective cap on the COAX connector and screw the antenna cable onto the COAX connector. The connector should be snug.**

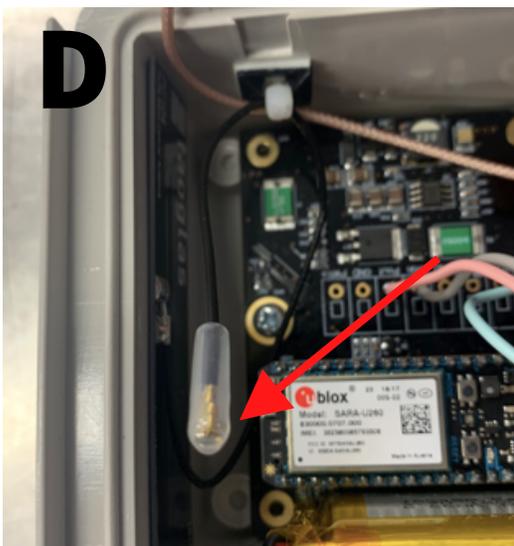




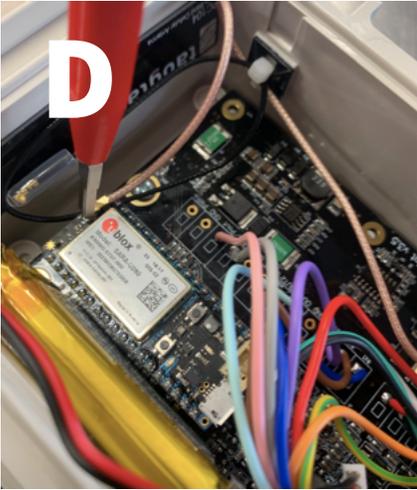
**B:** You need to switch the antenna cable so the COAX sends the cellular signal to our modem. Start by finding the internal antenna (TAOGLASS Black Rectangle), follow the wire, and remove the connector from the cellular modem by pulling up



**C:** Remove the clear protector from the COAX antenna cable.

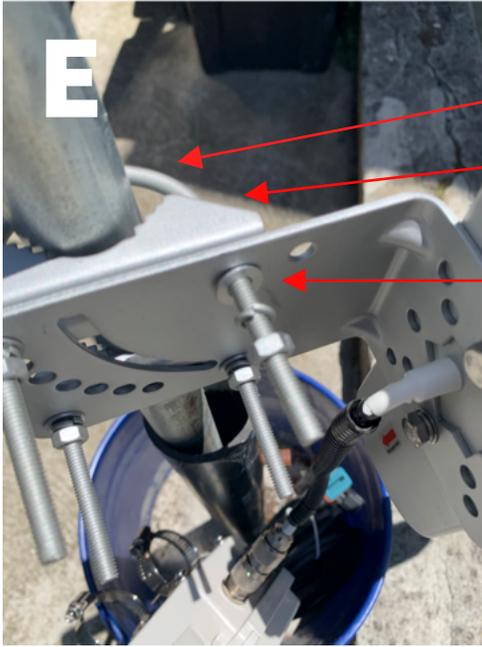


**D:** Place the clear protector on the TAOGLOSS antenna cable. This prevents the metal tip from shortcircuiting other electronics.



**D:** Attach the COAX antenna cable to the cellular modem by aligning the connector over the brass nipple and gently pressing down directly over the top of the connector.

## Mount Directional Antenna



**E:**

1. Place the u-bolt on pole
2. Slide pole grip on u-bolt
3. Slide antenna bracket onto u-bolt
4. Install flat washer, split lock washer, and then nut.
5. Tighten nut to secure to pole.

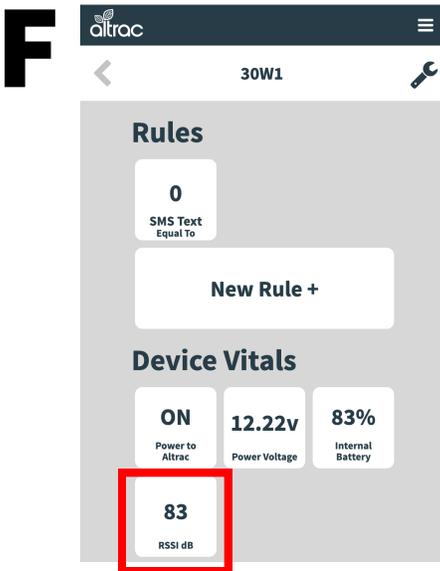


**NOTE:** The directional antenna works best when pointed directly at a cellular tower. Make sure the antenna is pointed at the horizon and the vent hole is oriented downward.

## Orient the Directional Antenna



**E:** Point the directional antenna where you think a cellular tower is located. Using the Altrac webapp, check to see if your Station is receiving cellular signal.



**F:** If your signal strength is over 100, you will need to reposition the directional antenna. Loosen the nuts holding the antenna, and rotate the antenna 90 degrees. After the Station reconnects, check the signal strength again.