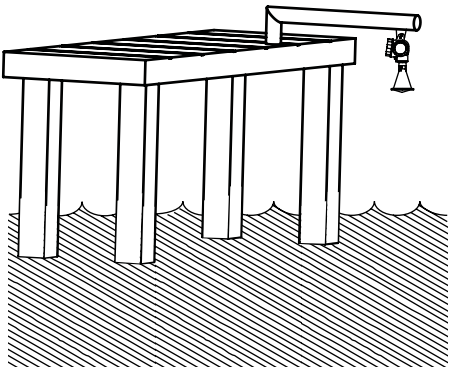
WAVELET SURFACE WATER LEVEL KIT

QUICK START GUIDE



AYYEKA

July 2016 V0.2

IMPORTANT

Contact **AYYEKA SUPPORT** for technical support at +1 (310) 876-8040.

The **WARRANTY** offered by Ayyeka covers only Ayyeka supplied hardware and software for the duration of the warranty period as per the warranty terms and conditions.

AYYEKA IS NOT LIABLE for damage or injury as a result of handling, installation or maintenance of its supplied systems.

DO NOT THROW AWAY the Wavelet Demo Kit, as it contains a lithium battery. Please dispose of properly.

2G/3G/CDMA cellular network signal.

OPERATING TEMPERATURE RANGE of -14°F to +125°F (-10°C to 51°C).

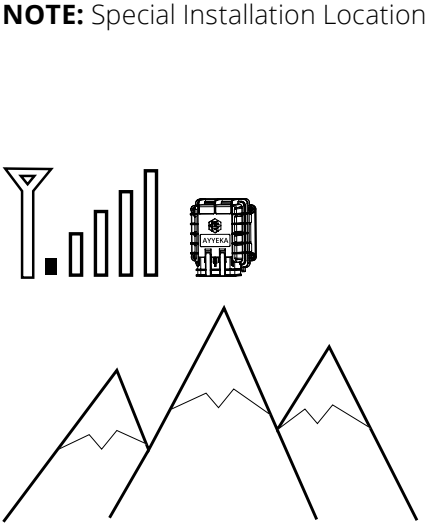
SERVICE THE SENSOR according to manufacturer's instructions.

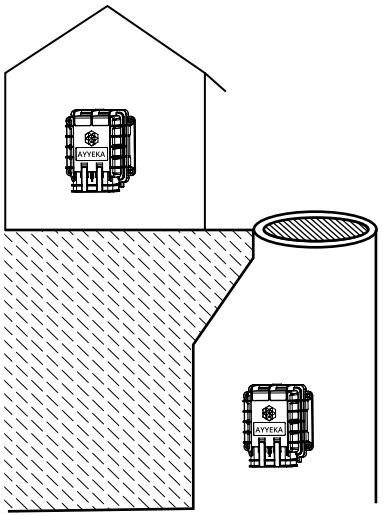
SITE REQUIREMENTS & PREPARATION

REQUIRED SITE CONDITIONS:

- Temperature range of
- 40°C to +80°C-
- (-40°F to 176°F)
- 2G/3G/CDMA cellular network signal.
- Site the sensor above ground in order to accurately measure the distance from a reference point to the surface water.
- It is important to know the correct reference point on the sensor in order to determine that the correct reading is being given. The reference point of this sensor is located on the outer edge of the antenna horn. Align the antenna horn within 1° of vertical ? to prevent measurement errors.
- Site a solid structure for installing the sensor and Wavelet. Concrete and metal bridges or rods are the most stable installation sites. Vibrations caused by wind, temperature, and traffic may impact the accuracy of data received.
- Other Considerations: It is recommended to mount the sensor above bridges to avoid data echo.
- The mounting bracket can be used with horizontal or vertical mounting poles of 2 or 2.5 inches in diameter.
- This guide includes instructions for the mounting bracket. For mounting flange instructions, please contact support@ayyeka.com

NOTE: Special Installation Locations





WEAK CELLULAR SERVICE LOCATIONS:

If the Wavelet is installed in an area with weak cellular reception, activate the Wavelet and place in the intended installation location with closed doors/ access hatch.

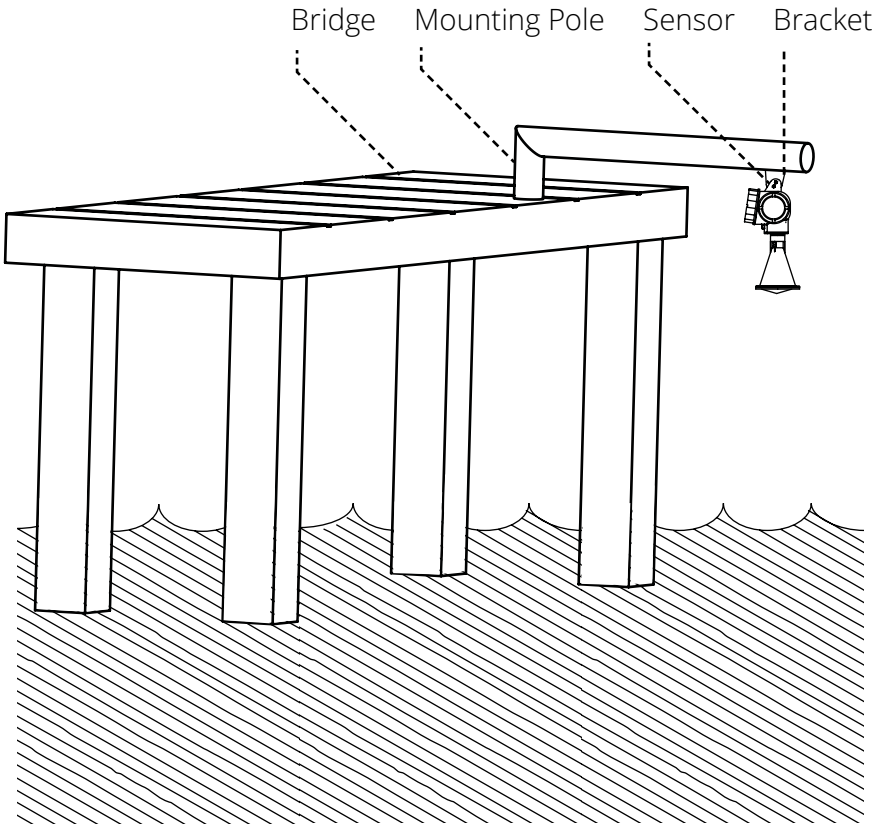
Log in to home.ayyeka.com to ensure that cellular signal has been recently updated in the last few minutes.

UNDERGROUND/INDOOR WAVELET INSTALLATIONS:

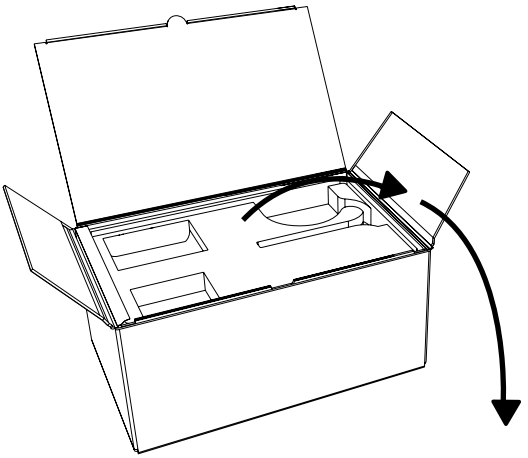
Before installation, activate the GPS outside by turning on the Wavelet (see step 8).

Wait for at least 8 minutes, then log in to the user interface at home.ayyeka.com to confirm updated location on the map.

SCHEMATIC

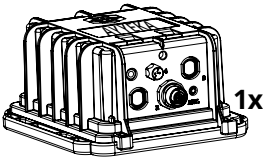


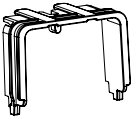
GETTING STARTED



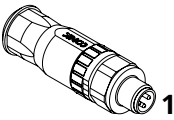
WAVELET SURFACE WATER LEVEL KIT

1 Wavelet Device & Protector

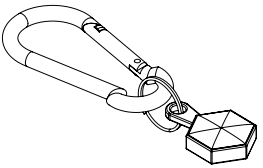




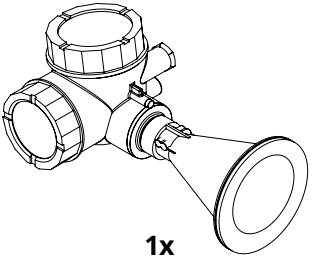
2 M8 Male Power Connector (optional, see page 17)



3 Wavelet Activator

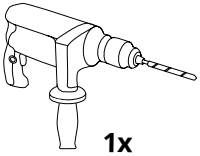


4 Nile Radar Sensor



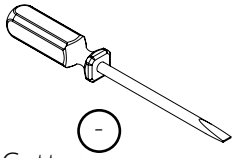
Tools and/or materials required (not included):

Rotary Hammer



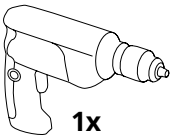
1x

Flat Screwdriver 3/32"



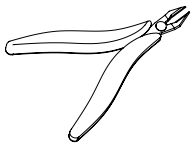
1x

Electric Screw Driver

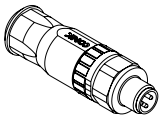


1x

Cutter

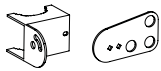


5 M12 Male Power Connector (optional, see page 17)

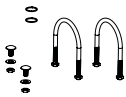


1x

6 Bracket

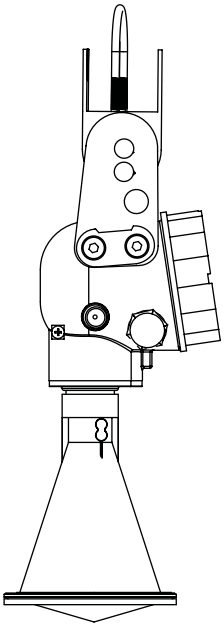


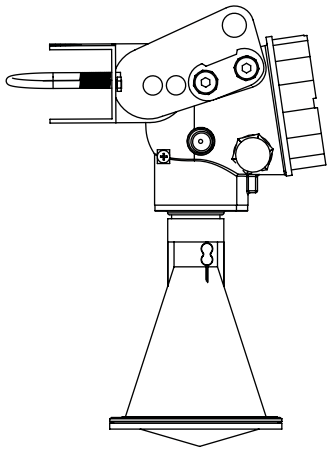
7 Washers, Screws, Bolts, U-bolts.



INSTALLATION

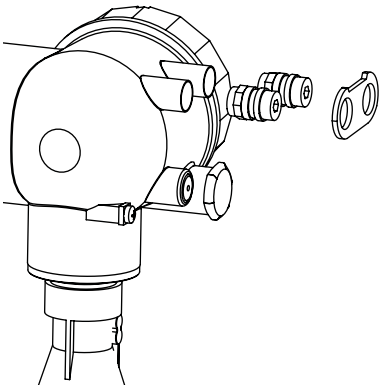
1 The radar level sensor must be sited above ground. Install the sensor and Wavelet on a solid structure. Concrete and metal bridges or rods are usually the most stable structures.



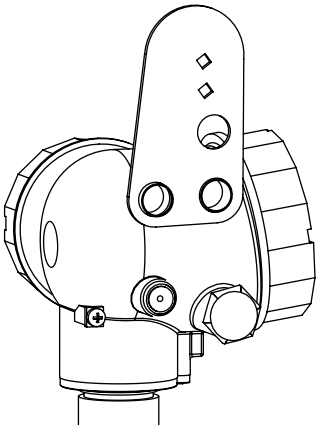


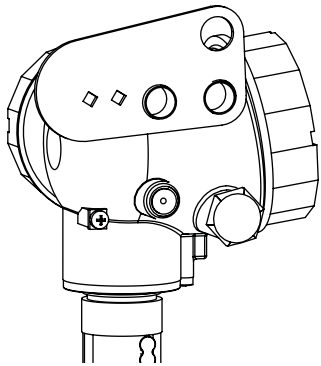
2 Remove the wire nut retaining bracket and the two wire routing nuts from the radar body. (Be sure that the o-rings stay attached to the Wire Routing Nuts).

Note: Any wires that have been routed through the wire nuts and connected to electronics within the radar body will have to be disconnected and removed until installation of the bracket is complete.

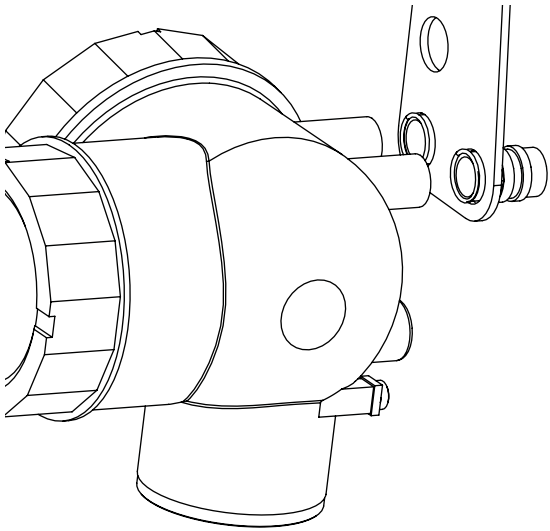


3 Decide if you will be mounting the radar on a vertical pole or a hotizontal pole. Align the radar bracket accordingly.

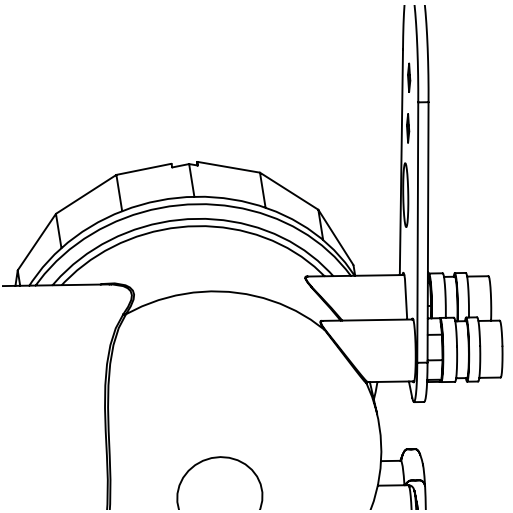




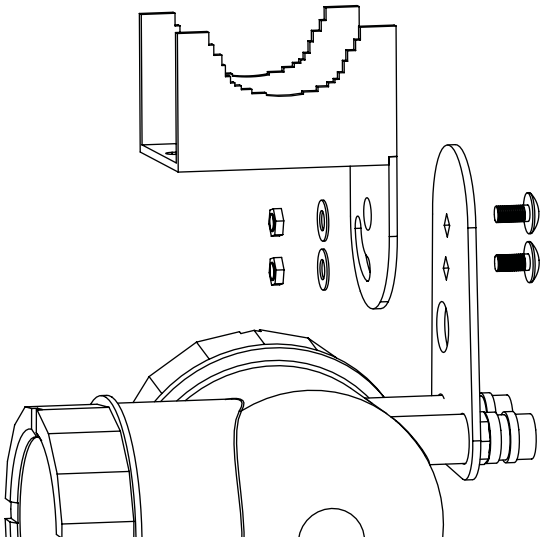
5 Insert both wire routing nuts through the appropriate holes in the mounting flange and install an o-ring on each of the wire routing nuts.



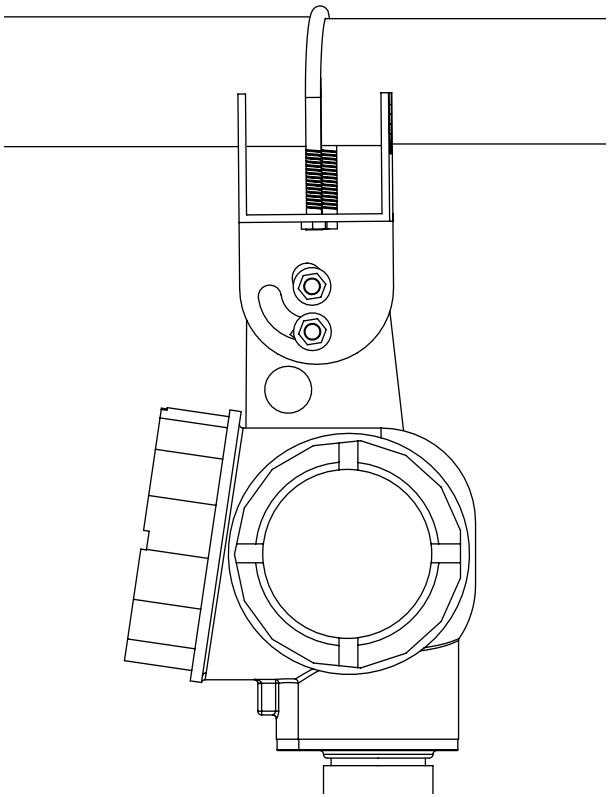
6 Reinstall wire routing nuts into the radar body and tighten until the flange plate is secure. (Overtightening will impact the O-rings and reduce the water resistant qualities of the radar.)



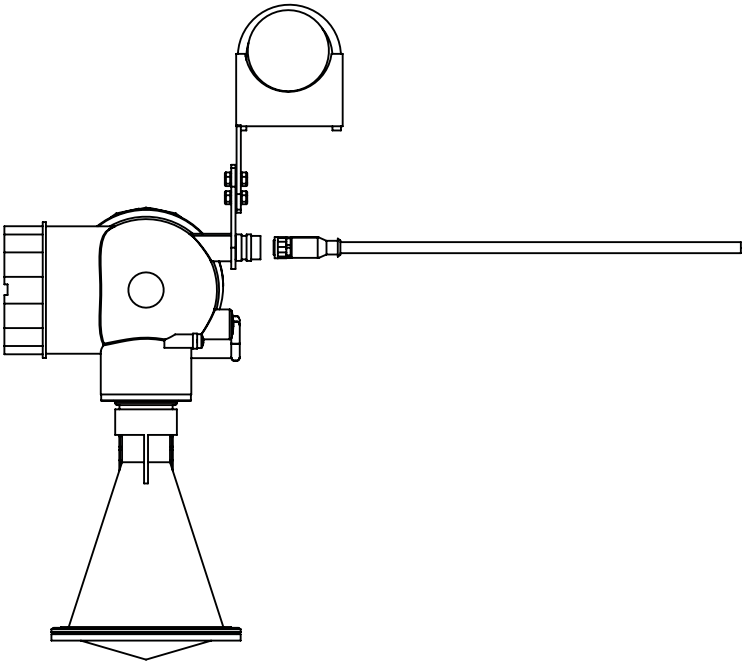
7 Using Bolts, Washers, and Lock Nuts to mount the rod Bracket to the Flange Plate. The lock nuts should be slightly loose to ensure radar alignment.



8 Choose the appropriate u-bolt based on the diameter of the mounting rod. Mount the radar bracket on the rod. Align the radar unit to ensure optimal radar function. Tighten lock nuts to secure mounting bracket.

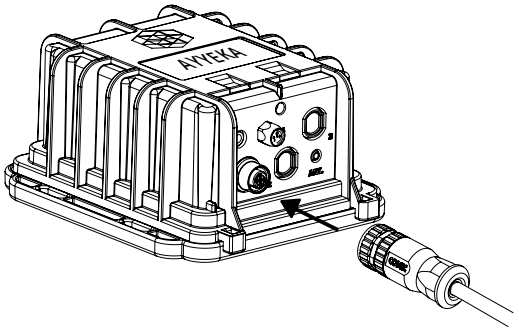


9 Connect the sensor cable to the sensor's cable fittings.

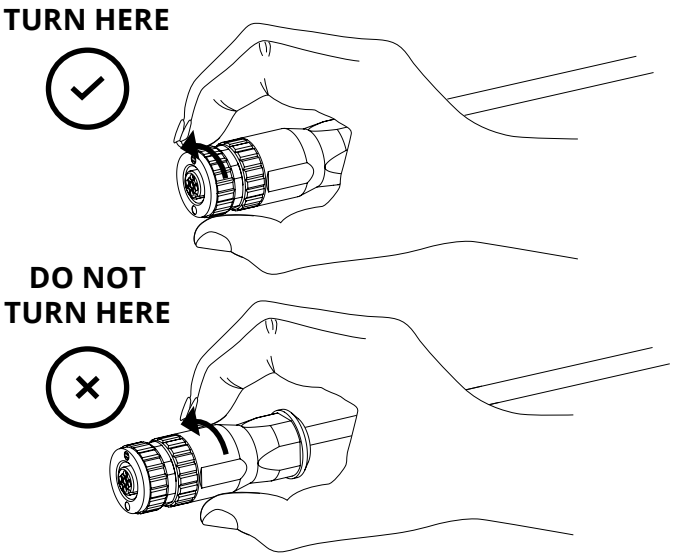


SENSOR CONNECTION

10 Connect the sensor cable with the connector to the Wavelet. Turn the adjustable black plastic or silver end piece of the connector to secure the sensor connector to the Wavelet.

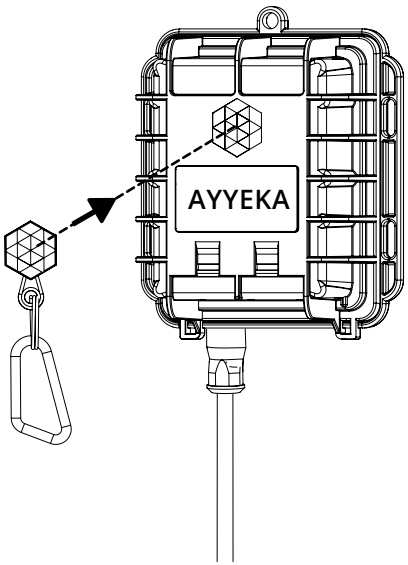


CAUTION: Do not turn the black plastic hood of the connector. Turning the black hood will cause the wires to disconnect, break, and/or damage the connector pins.



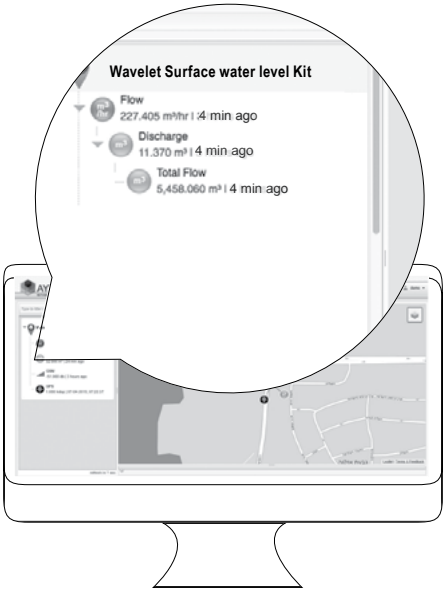
WAVELET ACTIVATION

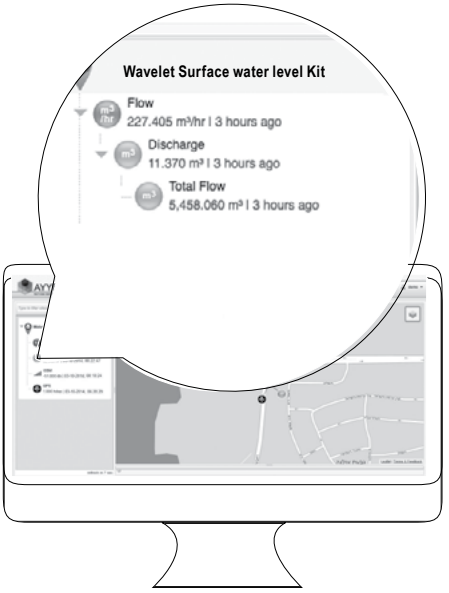
11 Place the Wavelet Activator on the Ayyeka logo on the Wavelet front panel for a few seconds. Wavelet will initiate a 10 minute online test mode.



12 Access the Ayyeka user interface at home.ayyeka.com using your log-in credentials. Expect data to appear between 10 – 20 minutes after the online test mode is complete.

13 The screen display should resemble the following:

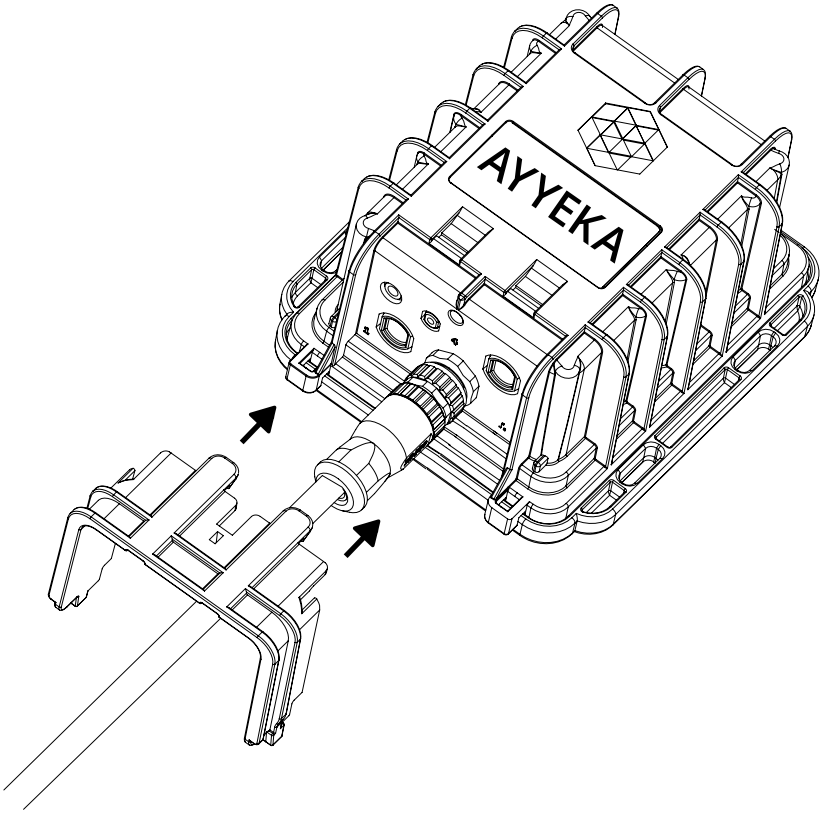




If Wavelet is transmitting properly, you have completed the installation successfully and can begin collecting and viewing your

If data does not transmit properly, change the Wavelet installation location and activate again. If the problem persists, contact support@ayyeka.com or +1 (310) 876-8040 for assistance.

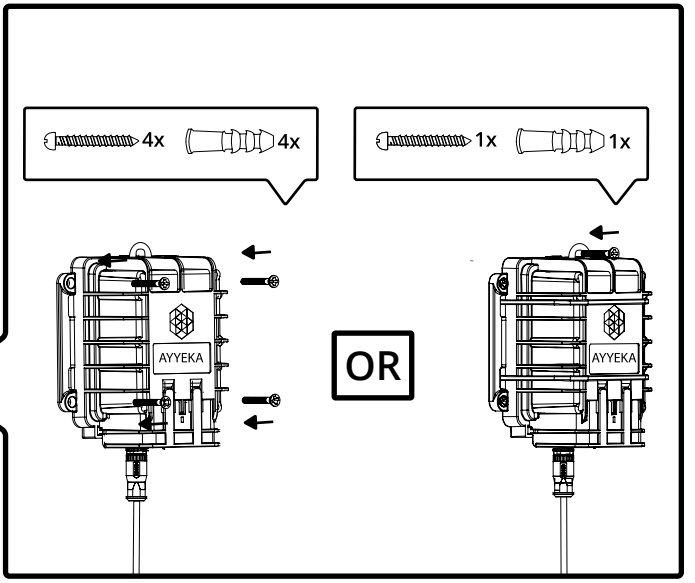
14 After the Wavelet completes the transmission process, place the Wavelet protector above the connector ports and secure the Wavelet protector into the Wavelet enclosure.



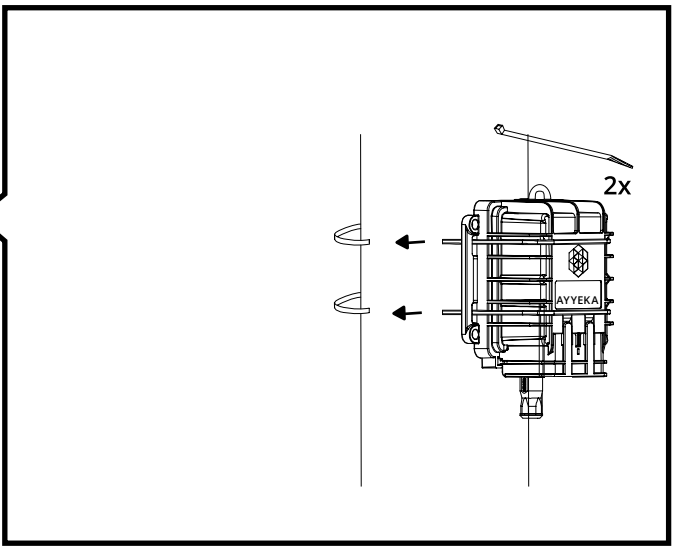
CAUTION: The protector is provided to shield the connector from tampering or overexposure that could result in disconnected wiring.

15 Install the Wavelet to its location.

Wall Mounted



Rod mounted



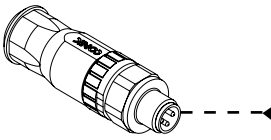
YOUR WAVELET SURFACE WATER LEVEL KIT IS NOW SUCCESSFULLY INSTALLED!

WIRING INSTRUCTIONS

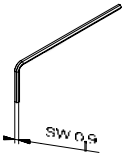
If external power connection is desired, external power connector instructions are as follows:

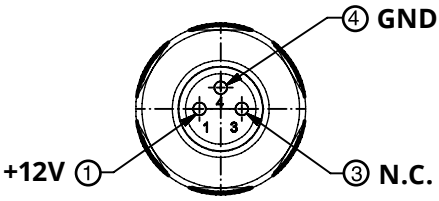
A. EXTERNAL POWER:

Power Connector



+ Installation Tool for Wire Termination (Included)





3 pos

Wire To Connect:

Cable Wire Cross Section Surface Area	0.14 – 0.5 mm^2
Wire Gauge	AWG 26-20
Cable Ø Diameter	4 – 5.5 mm

QUESTIONS?

www.ayyeka.com
support@ayyeka.com
+1 (310) 876-8040