

## Using the Bluetooth Laser AGL with the Smart Aligner

**ONLY AVAILABLE FOR ANDROID Release 2.5 or higher**

**NOTE:** It is assumed that the user is already familiar with how the Smart Aligner System (Smart Aligner Tool, Universal Mounting Bracket and App) operates and mounts to standard antennas. If not please follow instructions for operation of the Smart Aligner System by watching our videos and reading the User Guide and other information at:  
<http://www.mutiwavesensors.com/antenna-alignment/>

**The Bluetooth Laser AGL allows the user to take an AGL measurement wirelessly. The Bluetooth Laser (TruPulse 200B from Laser Technology Inc. [www.lasertech.com](http://www.lasertech.com)) is paired with your Android Smartphone and AGL data is collected directly into the Smart Aligner App.**

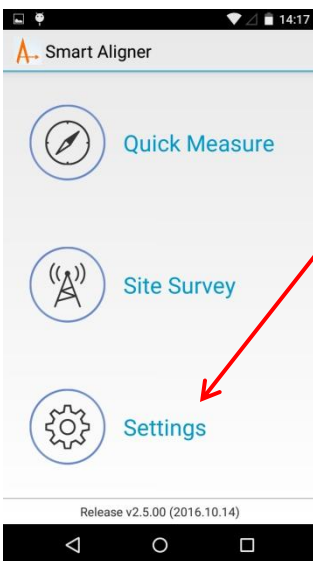


### STEP 1: Set up the TruPulse 200B by turning Bluetooth ON

1. Press the Fire button to power on the TruPulse
2. Press the DOWN button for 4 seconds. "UnitS" will appear in the Main Display
3. Press the DOWN button to display the "bt" option
4. Press the Fire button to enable Bluetooth. "bt\_on" will appear
5. Press the Fire button again to set the Bluetooth
6. You are now back in the Main Display. Press the DOWN button till you see "SD" displayed to the left

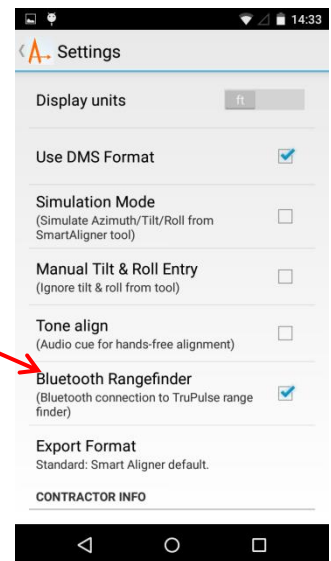
**Each time the TruPulse 200B is turned ON it will return to the same Bluetooth setting that was last used**

### STEP 2: Smart Aligner App Setting



1. Tap "Settings"
2. Select "Bluetooth Rangefinder"

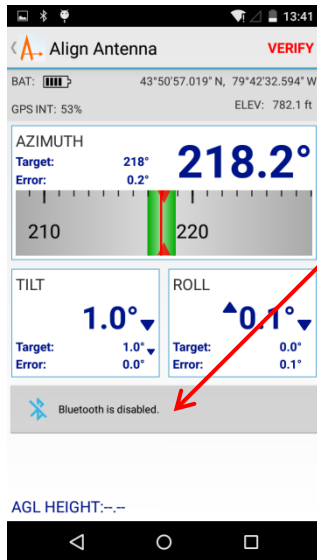
**"Bluetooth Rangefinder" must be set in order to work with the TruPulse.**



### STEP 3: Connecting the TruPulse 200B Laser to the Smart Aligner App

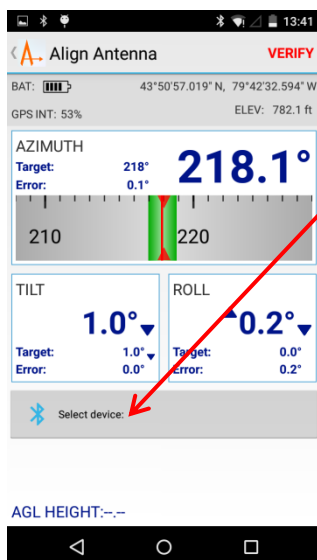
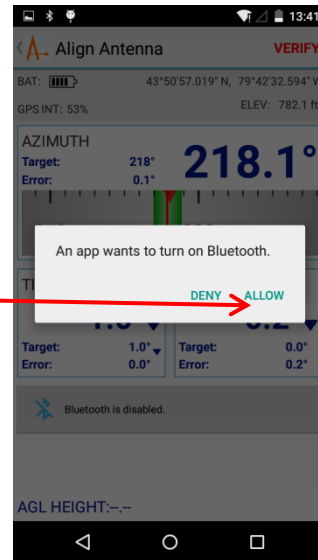
*The sequence of events or messages may be different if your Smartphone Bluetooth is "On" or "Off" when starting the Smart Aligner App. The messages appearing will guide you through the set up. The example shown below has the Smartphone Bluetooth "Off" to start.*

*Set up a Site/Antenna in the Smart Aligner App and connect to the Smart Aligner Tool. If you want to test the functionality without connecting to the Smart Aligner Tool you can also set the Smart Aligner App to "SIMULATION" mode and follow the steps below.*



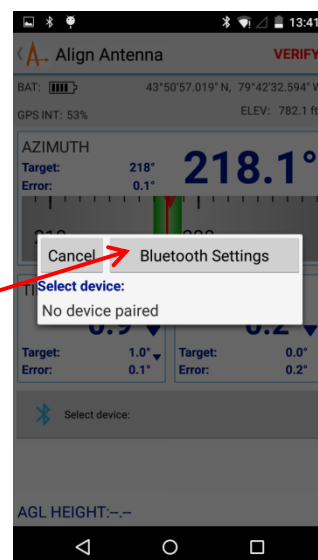
1. Tap the message "Bluetooth is disabled"

2. Select "ALLOW"



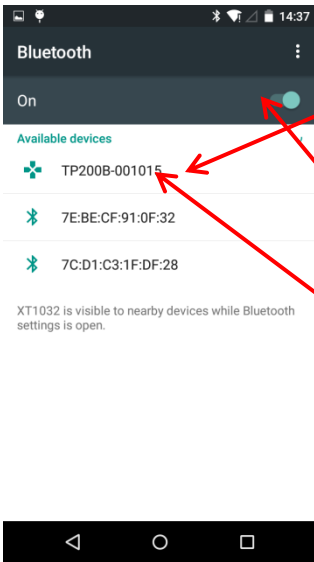
3. Tap the message "Select device"

4. Select "Bluetooth Settings"



*The App will now take you to the Bluetooth Settings on your Smartphone*

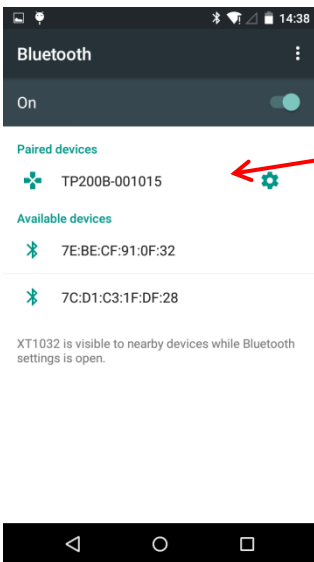
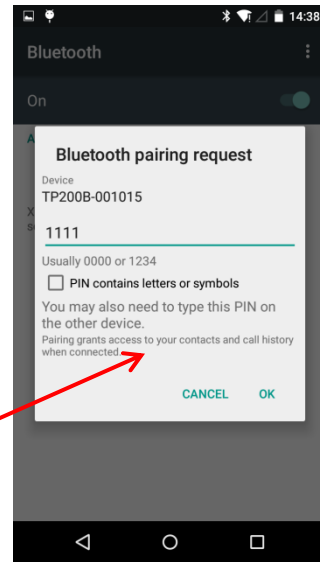
### STEP 3: Connecting the TruPulse 200B Laser to the Smart Aligner App



5. The TruPulse identifier should be displayed here. **If it is not displayed** then make sure the TruPulse is powered on (Press Fire Button) and toggle the Smartphone Bluetooth switch Off then back On.

6. Select the TruPulse identifier

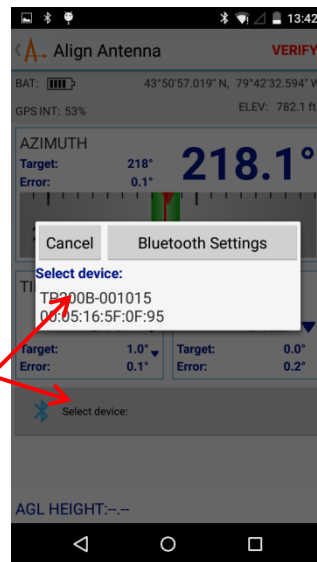
7. The pairing process will begin. The code for the TruPulse 200B is **1111**. Enter 1111 and tap OK.



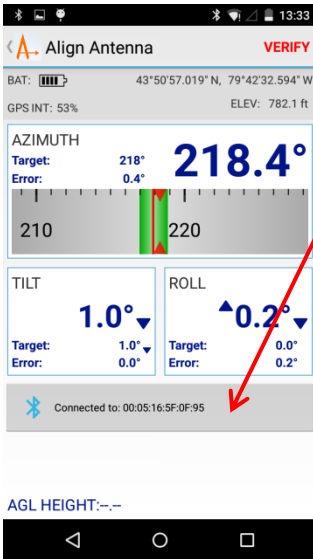
8. The TruPulse 200B is now paired to your Smartphone

9. Go back to the App screen (where you started the process) and "Select device". This time the paired TruPulse 200B will be displayed in the list

10. Tap on the TP200B identifier in the list. A message will be displayed that it is connecting and Connected

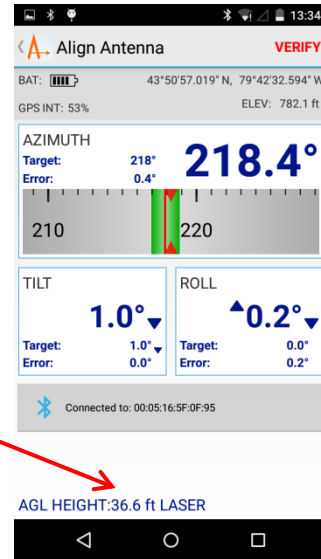


## STEP 4: Take a Laser AGL Measurement with the TruPulse 200B



11. The TruPulse 200B is Connected

12. Press the Fire button on the TruPulse 200B and take a laser measurement. It will be displayed in the AGL Height location



## Measurement Shown in Report

 GPS Antenna Alignment Tool  www.multiwavesensors.com	<h3>Site Alignment Results</h3> <p><b>Site: Bluetooth Laser AGL</b>  <b>Report Date: 2016-11-02 @ 17:49:27</b></p>		Multiwave Sensors Inc. 110 Parr Blvd Unit #1 Bolton, Ontario L7E 4J4 Canada Phone: 905 857 4481																
	SmartAligner SN: 1299 SmartAligner FW: 2.5.00	Antenna SN: 12345 Antenna Type: Panel																	
Alignment Date: 2016-11-02 17:49:15 GPS Integrity: 53 Latitude: 43°50'57.019" N Longitude: 79°42'32.594" W Elevation: 782 ft Contractor: Multiwave Sensors Inc.		Carrier: Verizon Site: Bluetooth Laser AGL Sector: Alpha Position: 1 AGL Height: 36.6 ft (LASER) Electrical Tilt: <not entered>																	
User Input Bluetooth Laser AGL		<table border="1"> <thead> <tr> <th></th> <th>MEASURED</th> <th>TARGET</th> <th>DIFFERENCE</th> </tr> </thead> <tbody> <tr> <td>Azimuth (True)</td> <td>218.2°</td> <td>218°</td> <td>0.2°</td> </tr> <tr> <td>Tilt ▼</td> <td>0.9° ▼</td> <td>1.0°</td> <td>0.1</td> </tr> <tr> <td>Roll ▲</td> <td>0.1° ▼</td> <td>0.0°</td> <td>0.1</td> </tr> </tbody> </table>			MEASURED	TARGET	DIFFERENCE	Azimuth (True)	218.2°	218°	0.2°	Tilt ▼	0.9° ▼	1.0°	0.1	Roll ▲	0.1° ▼	0.0°	0.1
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No Photo Taken		No Photo Taken																	

AGL Height is displayed in the report and identified as a "LASER" measurement