Smart Aligner – Miscellaneous Options Course

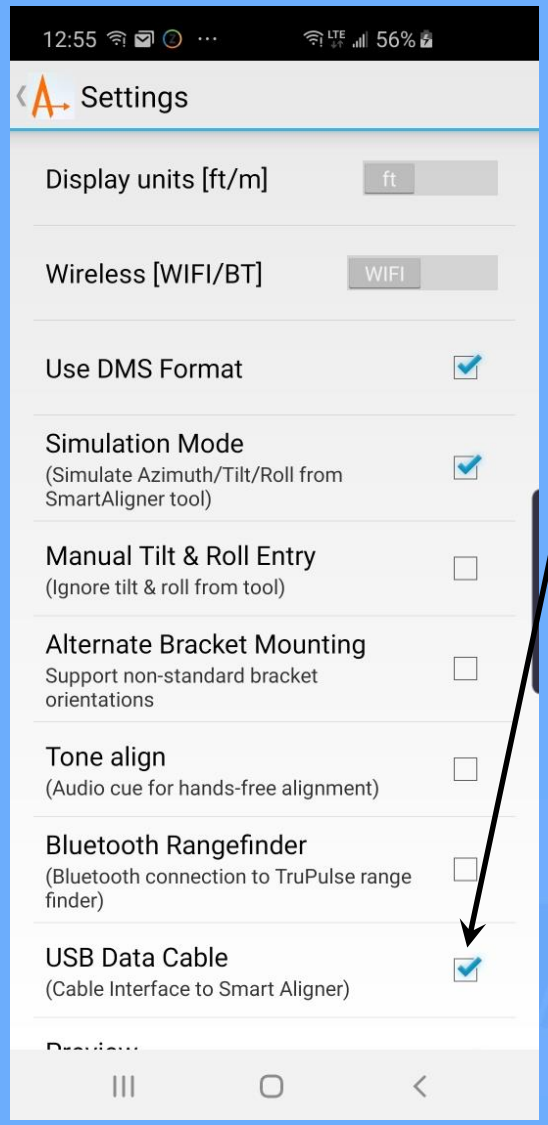
Topics Covered

Note: This training course assumes that the Introductory Course has been completed and the user is familiar with the basic operation of the Smart Aligner System.

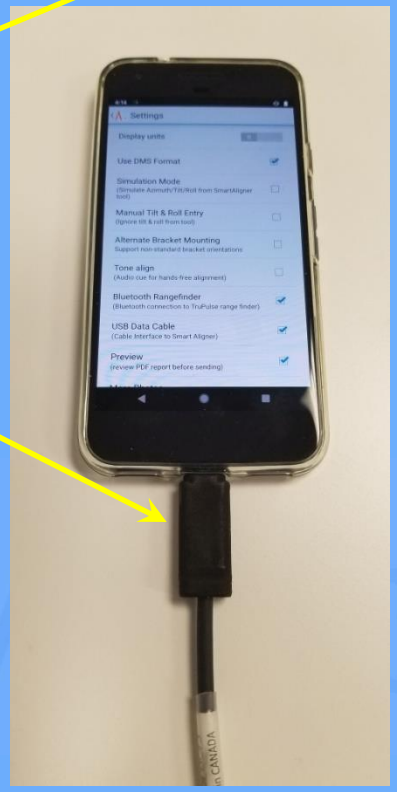
USB Data Cable

1. With rapid advancement and multiple variations of smart phone operating systems, there may be some occasions when the Smart Aligner will not connect to the phone until an app update is available. Also, in severe RF conditions, Wi-Fi transmission can possibly be affected.
2. The USB Data Cable has been designed to allow the phone to be cabled to the Tool for uninterrupted communication. Note: Tool's Data Port must be set to Data from the menu. See Advanced Tool Course.
3. Due to restrictions in the iOS (Apple) USB access, this cable can only be used for Android phones with a USB-C connector, which is currently the Android standard.

USB Data Cable

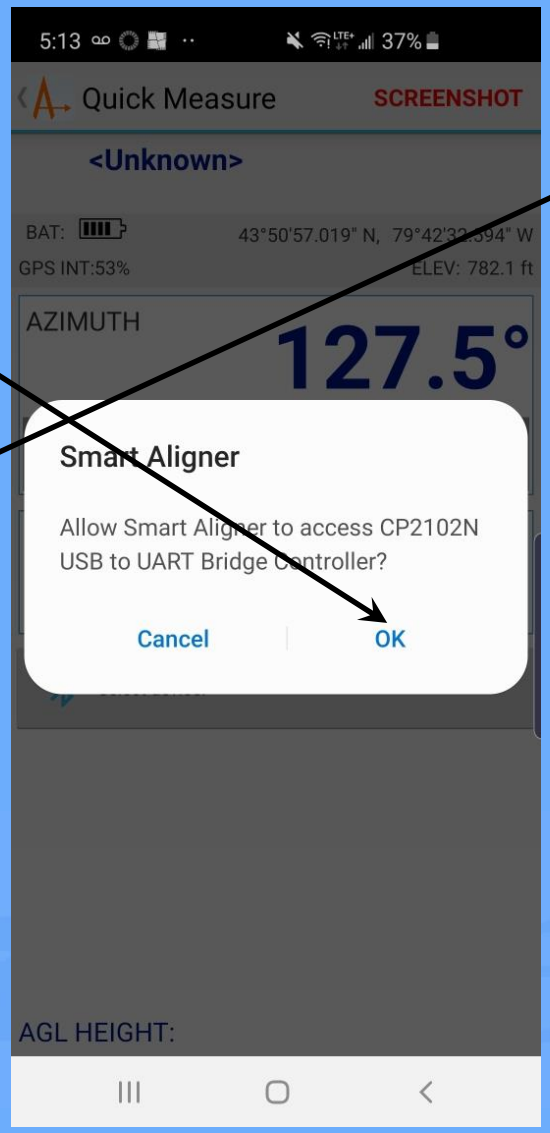


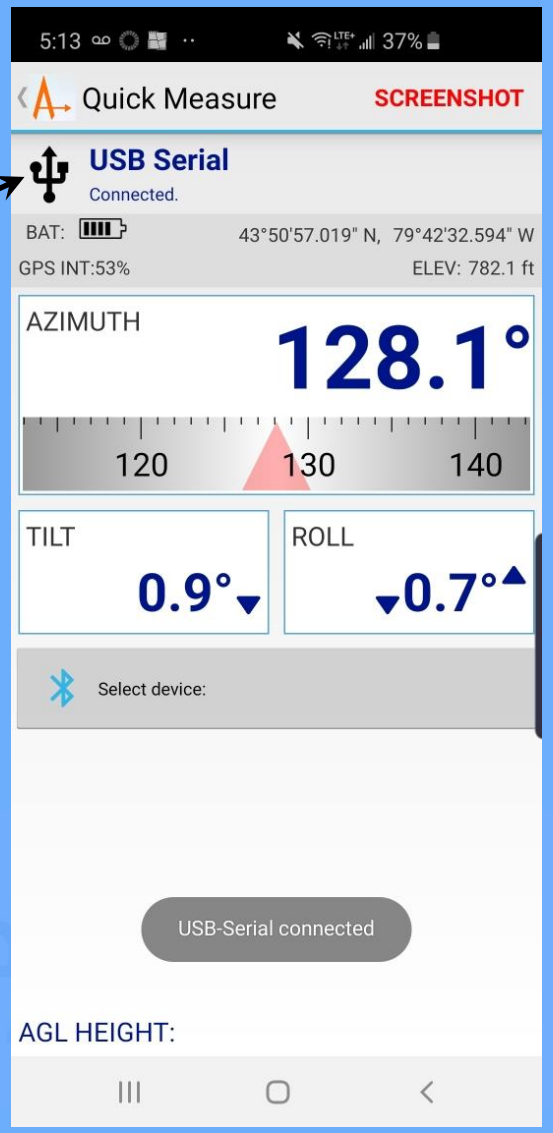
4. Make sure that this option is enabled in the app.
5. Connect the USB Data Cable to the Data Port of the Tool.
6. Connect the USB-C Connector to the phone.



USB Data Cable

7. The text message will appear asking to use the USB. Select OK.
8. The Tool's data will come through the cable to the phone now. Note the Connection Banner showing the status.
9. Use the system as usual. If no Cable is present, the app will go back to the last wireless connection.



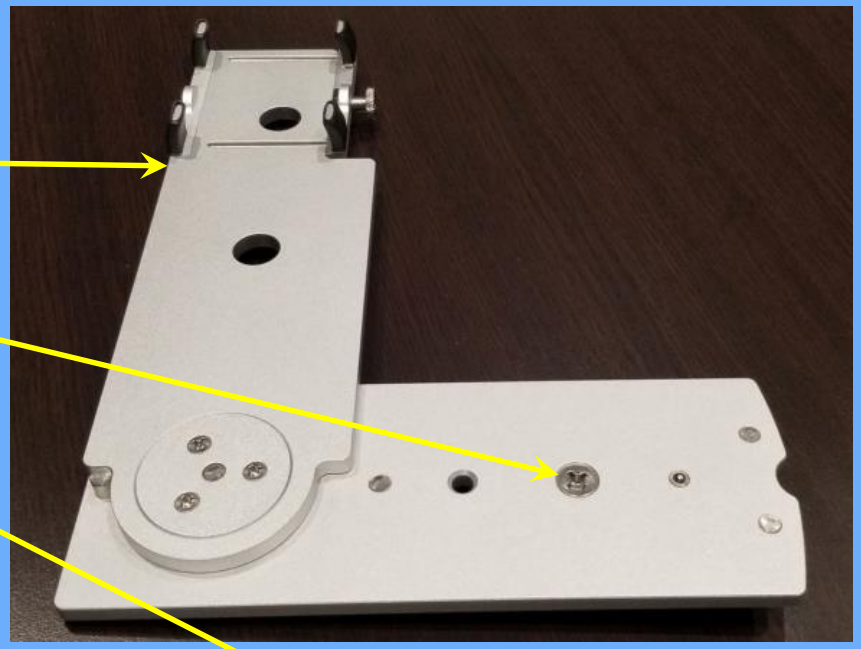


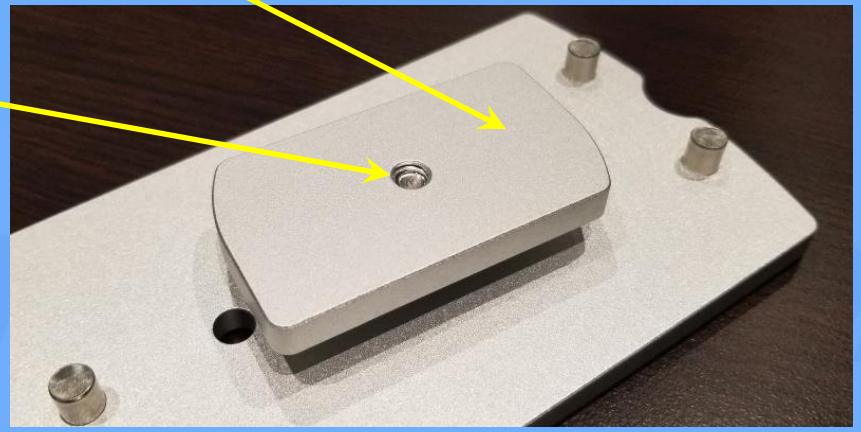
Line-of-Sight Verification Accessory

1. AT&T has mandated that a line-of-sight verification picture be taken for FirstNet installations.
2. Before climbing to the RAD center, install the Accessory as per the following slides.

Line-of-Sight Verification Accessory

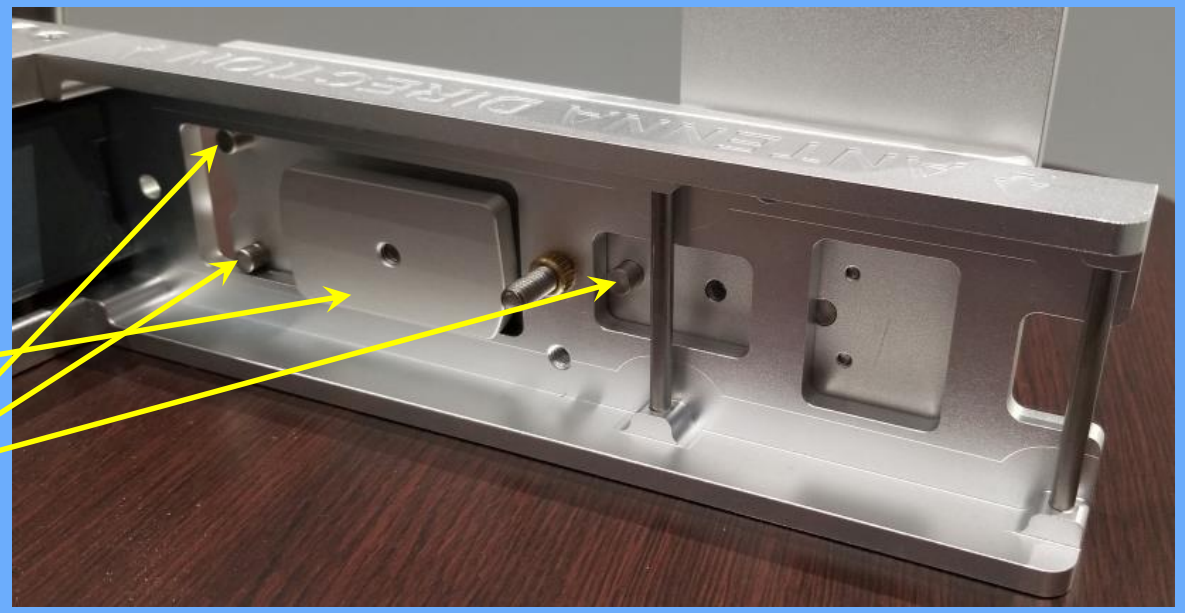
3. Rotate the Arm 90° as shown.
4. Undo the screw until the Locking Plate it is attached to is almost coming off (screw is halfway down the hole).

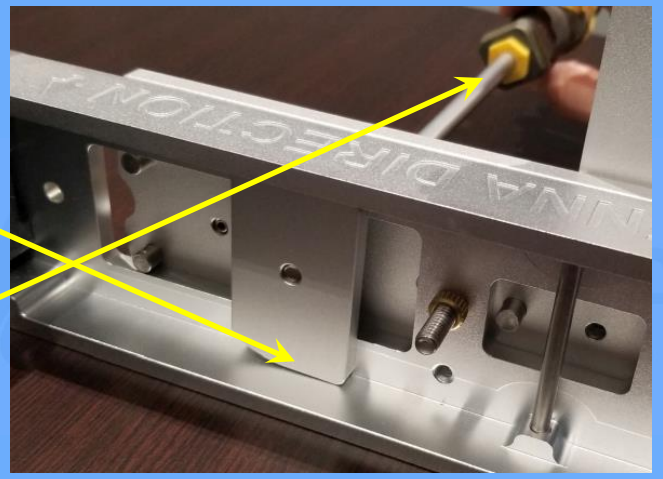




Line-of-Sight Verification Accessory

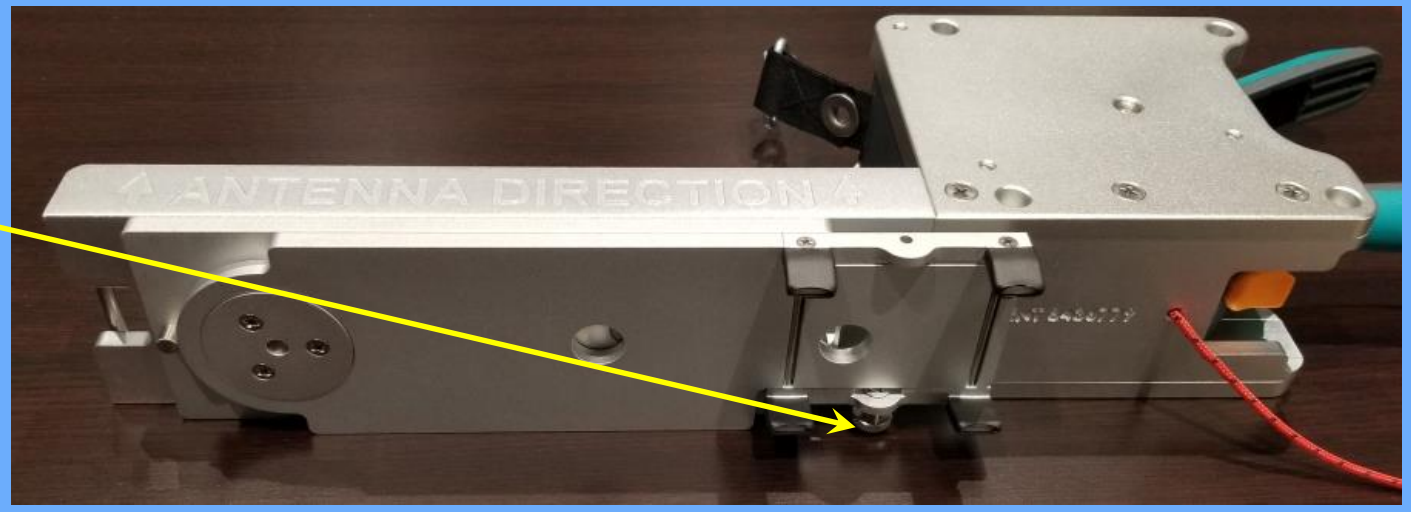
5. Using a table as a guide, insert the Accessory onto the Channel as shown.
6. The Locking Plate and three alignment pins should appear as shown.
7. Rotate the Locking Plate clockwise and then fasten securely with screwdriver.

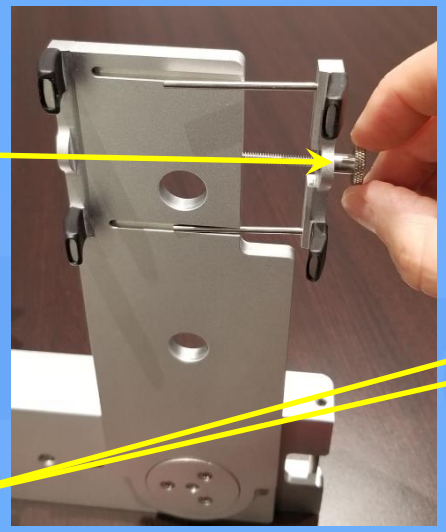




Line-of-Sight Verification Accessory

8. Rotate the Arm back to the home position. Ensure that the Phone Clamp Knob is screwed in tight before going to the RAD center.
9. At the RAD center, rotate the Arm up and open the Phone Clamp to insert the phone.
10. Tighten the Phone Clamp Knob, but make sure that the phone's camera lens clears the end of the Arm.

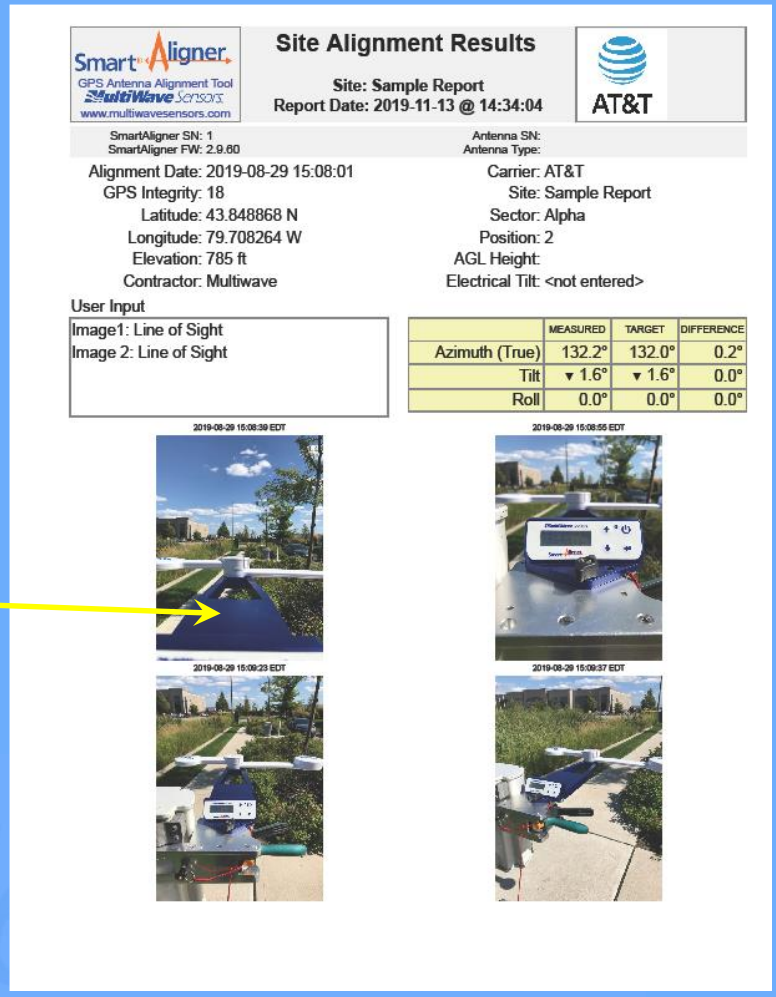




Line-of-Sight Verification Accessory

11. The Tool's Tether Pin attaches through the Accessory. Perform the alignment as normal.
12. AT&T requires that the first photo taken is the Line-Of-Sight photo as can be seen in the resulting report.

Note: This accessory can still be used if there is an Insert in the Channel.



Smart Aligner
GPS Antenna Alignment Tool
MultiWave Sensors
www.multiwavesensors.com

Site Alignment Results

Site: Sample Report
Report Date: 2019-11-13 @ 14:34:04

AT&T

SmartAligner SN: 1
SmartAligner FW: 2.9.60
Antenna SN:
Antenna Type:

Alignment Date: 2019-08-29 15:08:01
GPS Integrity: 18
Latitude: 43.848868 N
Longitude: 79.708264 W
Elevation: 785 ft
Contractor: Multiwave

Carrier: AT&T
Site: Sample Report
Sector: Alpha
Position: 2
AGL Height:
Electrical Tilt: <not entered>

User Input

Image1: Line of Sight
Image 2: Line of Sight

	MEASURED	TARGET	DIFFERENCE
Azimuth (True)	132.2°	132.0°	0.2°
Tilt	▼ 1.6°	▼ 1.6°	0.0°
Roll	0.0°	0.0°	0.0°

2019-08-29 15:08:39 EDT

2019-08-29 15:08:55 EDT

2019-08-29 15:09:23 EDT

2019-08-29 15:09:37 EDT

Line-of-Sight Verification Accessory

13. The Arm is rotated back to the home position when transferring the Bracket to another antenna at the RAD center. The phone can still be attached to the Arm, but it is recommended to remove the phone and tighten the Phone Clamp Knob before descending.

Course End