Smart Aligner – Advanced App Course



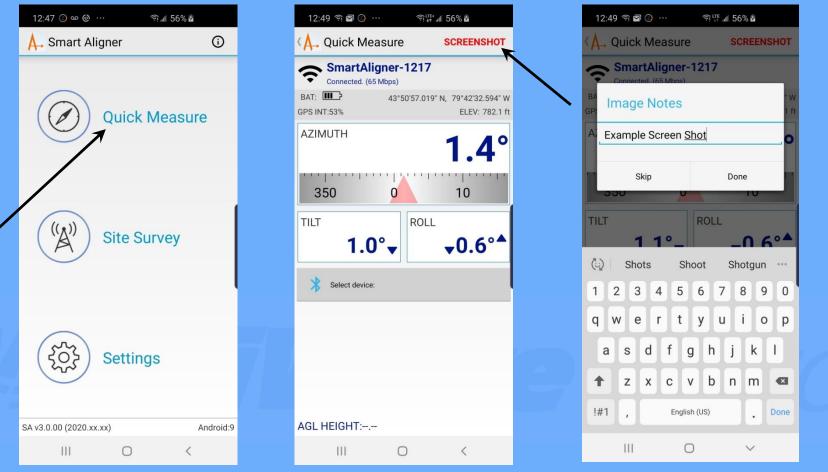
Topics Covered

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.

1.	Quick Measure:	Slide 3
2.	Settings:	Slides 4 – 13
3.	Deleting or Duplicating an Antenna File:	Slides 14 - 15
4.	Deleting or Exporting a Site:	Slides 16 - 18
5.	Importing a Site:	Slides 19 - 24

App Menu – Quick Measure

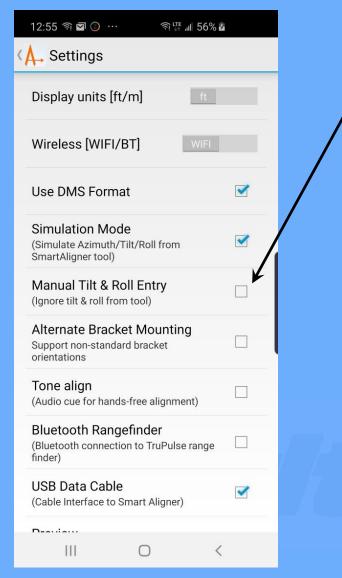
1. Quick Measure can be used to capture an alignment without targets. A SCREENSHOT can be saved with a custom note appended to it.



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KA. Settings	
Display units [ft/m]	
Wireless [WIFI/BT]	2.
Use DMS Format	≤ K
Simulation Mode (Simulate Azimuth/Tilt/Roll from SmartAligner tool)	3
Manual Tilt & Roll Entry (Ignore tilt & roll from tool)	
Alternate Bracket Mounting Support non-standard bracket orientations	□
Tone align (Audio cue for hands-free alignment)	€xt gr 2 Cur 10x 8 C_AQuick Measure SCREENSHOT 6xt B 414054000 K, 994233100 W 6st B 414054000 K, 994233100 W 6st B 41405400 K, 994233100 W 6st B 41405400 K, 994233100 W
Bluetooth Rangefinder (Bluetooth connection to TruPulse range finder)	
USB Data Cable (Cable Interface to Smart Aligner)	States
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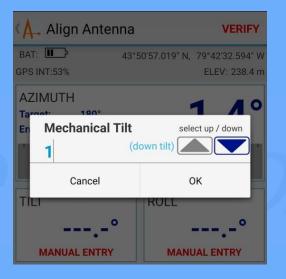
- Set the Display Units for the app screen and reports to Feet (default) or Meters.
- Choose between Wi-Fi (default) or BT. BT requires a new Tool (Serial # >3001) or updated Carrier Board and wireless set to BT (see Advanced Tool Course).
- Set the Lat/Long position format to DMS (default on).
 If unchecked, the format is D.DDDDD.

Simulation Mode generates information as if it were connected to the Tool for evaluation and training purposes (default on). Remember to disable before connecting to the Tool. The Measurement Screen will have a red SIMULATION watermark on it.

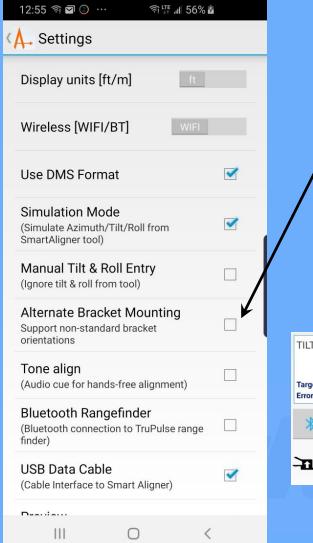


 Select Manual Tilt & Roll if the carrier will not allow automatic Tilt and Roll information from Tool. Alternate inclination data is entered manually on measurement screen by selecting the field (default off).

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BAT: 🔳	43°50'57.019" N, 79°42'32.594" W
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°	°
MANUAL ENTRY	MANUAL ENTRY

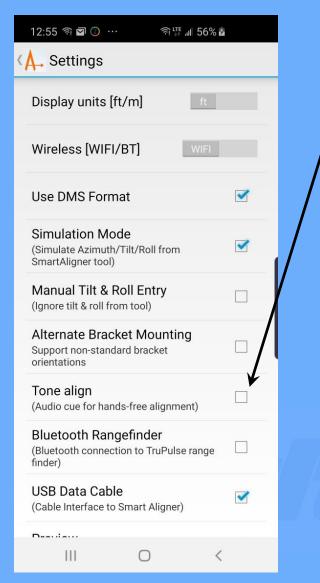


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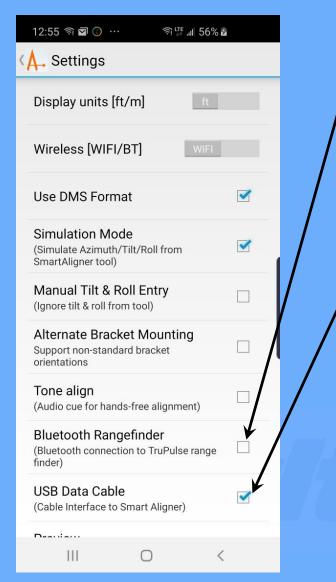
6. Select Alternate Bracket Mounting if you want to mount the Bracket in a different orientation than designed (default off). An icon appears on the measurement screen for alternate orientations as follows:

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		Target: Error:	0.0° 0.1°	Target: Error:	1.0° ▼ 0.9°	Target: Error:	0.0° 0.2°		Target: Error:	1.0°▼ 1.1°	Target: Error:	0.0° 0.2°	Target: Error:	1.0° ▼ 0.8°	Target: Error:	0.0° 0.2°	
Select device:				*	Select device:				Sel	ect device:			*	Select device:			
- TO B rac	ket p	oints forw	vard	Bracket points left					R R	Bracket p	oints ri	ght	Bracket points backwards				



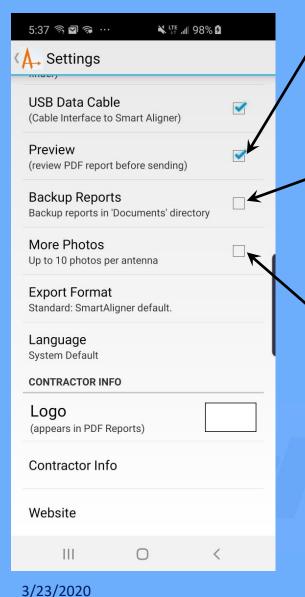
Select Tone Align to have 7. the phone beep during alignment. The beep gets more rapid and at a higher frequency when the target is approaching (default off). This allows both hands to align the antenna. User enables and disables from the measurement screen.





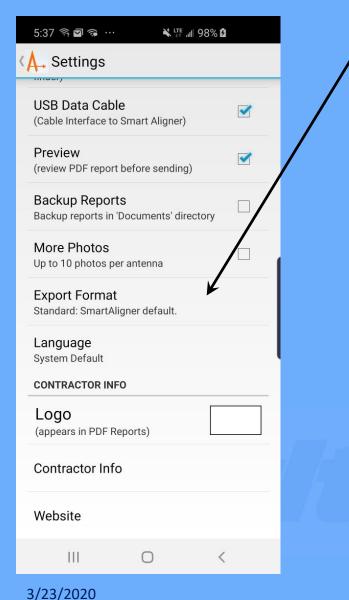
If you are using a Bluetooth enabled 8. TruPulse 200 (made by LTI), check this box. Please see AGL Measurements Course for detailed information (default off). Not available with iOS (Apple) phones. If you want to use the optional USB Data 9. Cable for wired communication to the Tool, select this box (default on). Not available with iOS (Apple) phones. See Miscellaneous

Options Course.

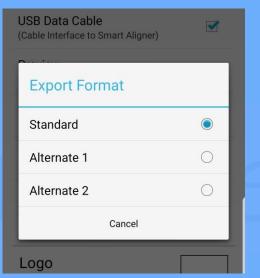


10. If Preview is selected (default), you can view the \sim PDF Report before emailing it. 11. For automatic Report backup into the Documents directory, set this option. 12. Choose this option if you require more than 4 photos per survey. If chosen, each antenna PDF will have two pages.

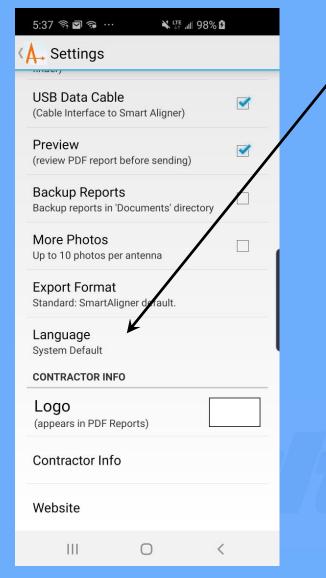




13. The complete Site Database can be exported. You can change the format with this option (default is Standard and is recommended). For more information, see Exporting a Site later in this course. Optional formats are as follows:

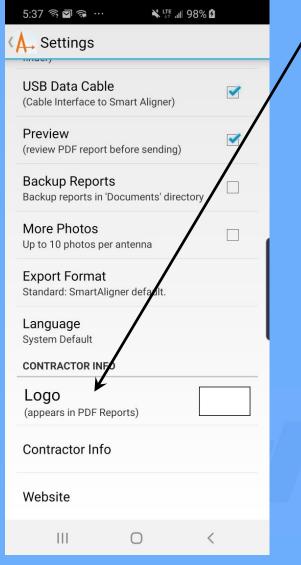


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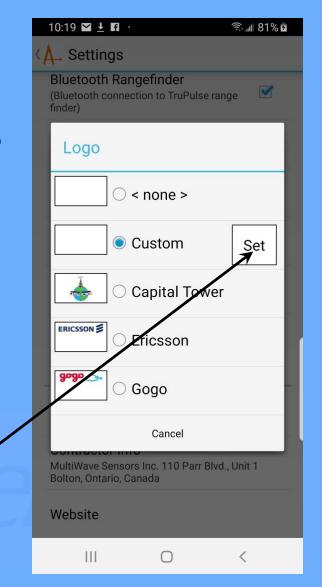


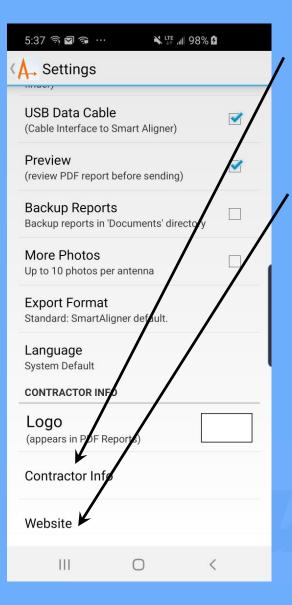
14. The Android app has multiple languages (not available on iOS devices). The list of currently available languages is shown to the right. If System Default is selected, the app will try to match the language with the operating system language.

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Tiếng Việt		\bigcirc
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Website		
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15. Choose from the available list for the logo to appear in the upper right corner of the report. If you want to add your logo, place the logo graphic file (JPEG or PNG) in Downloads directory on the Android phone, or My Albums directory on the iOS phone, and then select Set in the Custom area. Select your logo in the directory.





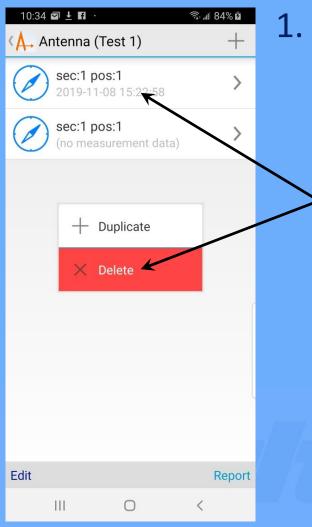
16. The Contractor Info will appear in the Contractor Box in the upper right corner of all of the reports as can be seen below with custom logo.

17. If a website is entered, it will create a hotlink in the PDF report when you tap the contractor box (Android only).

Site Alignmen Site: Tes Report Date:2019-11-	t 1	MultiWave Sensors MultiWave Sensors Inc. 110 Parr Blvd., Unit 1 Bolton, Ontario, Canada
	Antenna SN: 23 Antenna Type: Al	
11-08 15:22:58	Carrier: A Site: T	
55.993" N	Sector: 1	
33.049" W	Position: 1	

18. A Geotag will appear on an Android generated report.Tap the icon on a PC and the site location will appear in Google Maps.

Deleting an Antenna File



Android App Screen

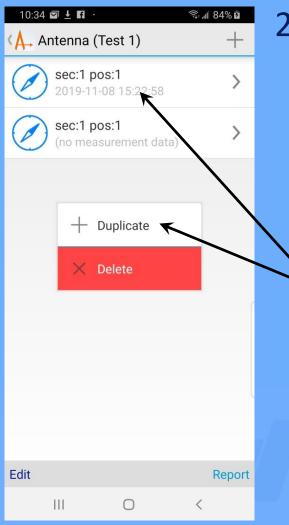
If an antenna has been surveyed incorrectly, you may want to *Delete* it. In the Android app, press and hold the file until a menu pops up. Choose *Delete* and confirm. In iOS (Apple), choose Select in the bottom left and check off which file is to be Deleted. Then choose *Delete* in the upper right corner and confirm.



Preview (1)

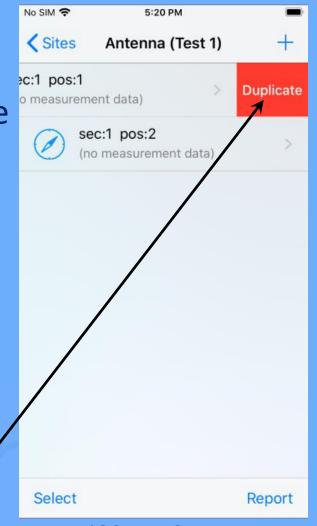
Select all

Duplicating an Antenna File

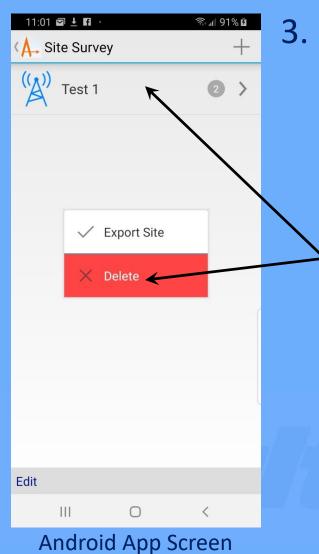


Android App Screen

2. After manually entering the information for the site's first antenna, you can duplicate the file and change its Position/Sector, targets and serial number. For Android, press and hold the antenna file you wish to duplicate and a menu will appear. Choose Duplicate. For iOS, swipe to the left and the *Duplicate* box will appear in red. Select Duplicate.



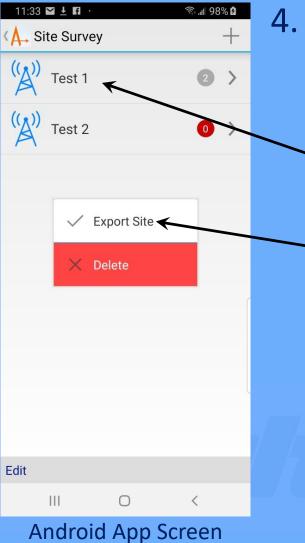
Deleting a Site



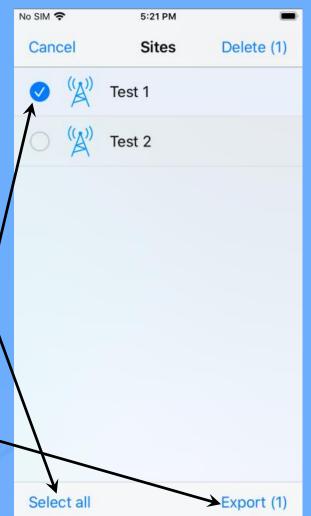
3. If a Site is complete and all reports have been made, you may want to Delete it for housekeeping purposes. In the Android app, press and hold the Site until a menu pops up. Choose **Delete** and confirm. In iOS (Apple), choose Select in the bottom left and check off which Site is to be Deleted. Then choose *Delete* in the upper right corner and confirm.



Exporting a Site



4. Some carriers require complete Site information in the form of a spreadsheet. For Android, press and hold the Site you wish to Export and a menu will appear. Choose *Export Site* and email. In iOS (Apple), choose *Select* in the bottom left and check off which Site is to be Exported. Then choose *Export* in the lower right corner and email.



iOS App Screen

Exporting a Site

5. The format of the exported Site file is comma-separated values (CSV), which can be read into any database and readily viewed by Excel. Each line of the file is one antenna survey.

ਜ਼ * •* ਵੇ* ∓	Demo 1_2016y05m04d-T14h04m47s.csv - Excel	- 0 ×
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Normal Page Break Page Custom Preview Layout Views Workbook Views Show Zoom		^
F11 • : × ✓ fx		~
A B C D E F G H I J K L 1 # SiteID Sector Position TargetA: Azimuth TargetMe TargetMe Electrics Carrier 2 Demo1 1 1 60 -0.5 0 verizon MultiWa AR3 3 Demo1 2 1 180 -0.5 0 verizon MultiWa AR3 5 R User Input Infor (entered throug	32 1134 4/15/2016 10:38:58 60.3 T -0.4 -0.1 32.982 N 97.024 W 481 ht ht ht LASER 79 2016y04 2016y04 2016y04 2016y04 00 -4 1231 32 1134 4/15/2016 10:35:09 179.9 T -0.5 0.3 32.982 N 97.024 W 476 ht ht LASER 20 2016y04 2016y04 2016y04 2016y04 00 -4 1231 32 1134 4/15/2016 10:16:58 300.4 T -0.4 0.1 32.982 N 97.024 W 480 ht 6 ht USER 61 2016y04 2016y04 2016y04 2016y04 00 -4 1231 32 1134 4/15/2016 10:16:58 300.4 T -0.4 0.1 32.982 N 97.024 W 480 ht 6 ht USER 61 2016y04 2016y04 2016y04 2016y04 2016y04 0 -4 1231 32 1134 -0.16:58 300.4 T -0.4 0.1 32.982 N 97.024 W 480 ht 6 ht USER 61 2016y04 2016y04 2016y04 2016y04 2016y04 -4 1231 4/15/2016 10:16:58 300.4 T -0.4 0.1 32.982 N 97.024 W 480 ht 6 ht	AP AQ AR Firmware DO NOT EDIT 2.4.00 0xe6a3724 2.4.00 0xb3927c2b 2.4.00 0xc0854e3

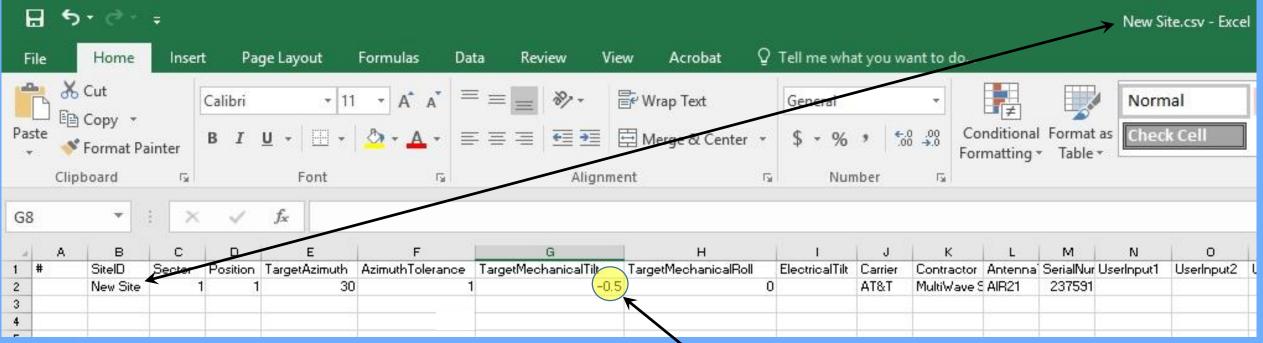
- The previous section provided information on how to Export completed Site CSV files. This same methodology can be used to create Sites and Antenna Files automatically within the Smart Aligner app.
- 2. Take an existing exported Site CSV file (Standard Format) and copy it and rename it to a New Site that you want to create (keep in CSV format).
- 3. Open the new file in Excel.
- 4. Delete all the measurement data from the file (yellow highlight).

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 Delete all rows of user input data except the first row (yellow highlight).

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2 3	Demo 1	1	1	60		-0.5	0		verizon	MultiWay		1134								
3	Demo 1	2	1	180		-0.5	0		verizon			1134								
4	Demo 1	3	1	300		-0.5	0		verizon	MultiWay	AIR32	1134								
5																				

6. Edit the first row with information on the first antenna at the new Site. Make sure to change the SiteID to the new site name (New Site in this example).



 As learned in the Introductory Course, Tilt and Roll directions use graphic symbols, but this file requires a +/– sign (yellow highlight). Down Tilt and Clockwise Roll are negative.

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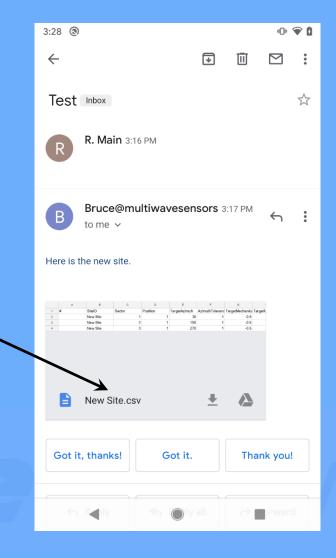
8. Copy the first row and edit the new lines with new Sector/Position, Azimuth and serial number information.

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9. This is the only time that an Azimuth Tolerance (yellow highlight) can be specified. The user will be warned after Verification if the measured azimuth is outside the Tolerance.
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10. Save the CSV file (make sure it has a CSV extension) and email it to the tower hand who will be working at that new site.

11. Upon receiving the email with the new site CSV file, the tower hand can tap the attachment and the Smart Aligner app should start automatically and import the New Site and Antenna Files. If more than one app is available to open the CSV file, select Smart Aligner.



12. The New Site is imported with all of the antenna files ready for surveying.

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Course End

Other Available Courses

- 1. AGL Measurements
- 2. Aligning Microwave Dishes
- 3. Universal Bracket and Inserts
- 4. Custom Brackets
- 5. Miscellaneous Options
- 6. Trouble Shooting and Tips

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