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# Smart Aligner

## A Major Advancement in Antenna Alignment Systems

### Live Antenna Alignment



Image courtesy of Fortune Wireless, Indianapolis, IN.

### Foldable and Easily Transportable



### Multiple Mounting Configurations

RIGHT SIDE OF ANTENNA  
BACKWARD MOUNTING  
LEFT POINTING ARMS

RIGHT SIDE OF ANTENNA  
FORWARD MOUNTING  
RIGHT POINTING ARMS

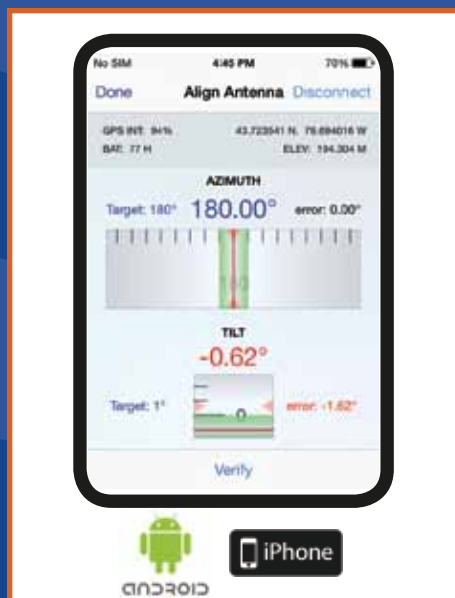
RIGHT SIDE OF ANTENNA  
SIDE MOUNTING  
FORWARD POINTING ARMS

Arrow represents antenna alignment direction.

The Smart Aligner can be mounted on either side of the antenna, in any arm position.

*Irrespective of where the Smart Aligner is mounted or pointing, it always measures the antenna alignment direction.*

### Smartphone Enabled



## Smart Aligner Features

- First foldable GPS Antenna Alignment Tool
- Universal Mounting Bracket - only one bracket required
- Multiple antenna mounting configurations for the most demanding spatial and RF conditions
- Tool and Bracket fit into Ruggedized Case
- Carry on baggage acceptable size
- Included Backpack to carry the Tool and Bracket – all included weighs 10 pounds
- GLONASS (Global Navigation Satellite System) enabled for increased performance
- Free smartphone *app*
- Pre-site setup using *app*:
  - » Azimuth and Tilt targets
  - » Sector/Position
  - » Antenna types
- Measure, Verify and Save data using *app*
- Create Report from *app*
  - » Include up to four photos in the report
  - » Email Report directly from *app*
  - » Database-ready data
- Import emailed Site data directly to *app*

## Smart Aligner Specifications

### Performance

Azimuth accuracy: 0.5°  
Tilt and roll accuracy: 0.1°  
Position accuracy: 60 cm with SBAS  
Start up time: < 30 seconds

### Power

Internal battery: Rechargeable lithium ion  
Operation time: 7 hrs (over 80 alignments)  
Battery charger: AC wall charger and DC car charger

### Physical

#### Smart Aligner Tool (patent pending)

Dimensions: 19"x 4.5"x 3" (48.3 cm x 11.4 cm x 7.6 cm)  
Weight: 4 lb (1.8 kg)

#### Universal Mounting Bracket (patented)

Dimensions: 19"x 5"x 3" (48.3 cm x 12.7 cm x 7.6 cm)  
Weight: 5 lb (2.3 kg)

#### Carrying Case (contains all components)

Dimensions: 21"x 16"x 8.5" (53.3 cm x 40.6 cm x 21.6 cm)  
Weight: 12 lb (5.4 kg)

**TOTAL WEIGHT** 21 lb (9.5 kg)

### Communication Ports

LED backlit display: User interface and display  
Wi-Fi: Smart Aligner to user's mobile device  
Connectivity: Smartphone/Tablet – iOS or Android  
Cable interface: Serial RS-232

### Reporting

Report formats: JPEG (screenshot), PDF or CSV  
Photos: Embedded in PDF report

*Photos can also be used as a backup, by taking a picture of the User Display.*

### Environmental

Operational temp: -22° F to +158° F (-30° C to + 70° C)  
Sealing: NEMA 4X, IP67  
Shock/vibration: IEC 68-2-27 / IEC 68-2-6  
EMI: FCC Part 15 Subpart B: 2008 and ICES-003:2004



### Mounting Configurations to Antenna

**Multiple offset positions from bracket:** forward, side, backwards on left or right side of antenna

**Multiple arm positions:** user can orientate the arms according to physical limitations

**Offset and arm position tracking:** sensors track tool configuration and adjust the azimuth and tilt relative to antenna

**Number of mounting configurations:** 18

### Modes of Use (Smart Aligner App)

**Quick measure:** real time display of antenna orientation information with option to save a screenshot of the data

**Site survey:** set up of site and antenna information

**Align antenna:** real time display of antenna orientation information with option to verify the alignment

**Verify:** verify the alignment - ability to "Save" the alignment information after verification

**Report mode:** create PDF reports from verified alignments or historically saved sites - automatic attachment to email message

**Import profiles:** import CSV file with site and antenna information

**Export profiles:** export completed CSV file with appended measured alignment information - automatic attachment to email message