



# Model 8230/8230AJ Outdoor GPS/GNSS Antenna Installation Guide

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Spectracom offers model 8230 for certain products with embedded GPS/GNSS receivers. Model 8230AJ also includes horizon-blocking anti-jam technology. Each antenna is shipped with an L-bracket and clamps for affixing the antenna to an appropriate structure. Various accessories are offered to facilitate installation of the antenna.

**NOTE:** A rugged antenna mount, post mounting kit, weather-proofing kit and free-standing base are sold separately. Contact Spectracom for details and to order these accessories for your antenna.

Model 8230 and 8230AJ are active GPS/GNSS antennas covering the following bands:

- GPS L1
- GLONASS L1
- BeiDou B1
- Galileo E1, and
- QZSS L1.

The active antenna circuitry provides 40dB of gain and requires 2.5 to 16 V<sub>DC</sub> at 21 milliamps (provided by a Spectracom receiver over the antenna cable) to operate.

## Specifications Summary

	<b>8230 Antenna</b>	<b>8230AJ Antenna</b>
Type	Active	Active
Frequency	1559 to 1606 MHz	1559 to 1606 MHz
Temp Range	-40 to +85°C	-40 to +85°C
Gain	40dB	40dB
Connector	N type, female	N type, female
Diameter	66.5 mm dia. x 47.5 mm H (2.62" x 1.87")	100 mm dia. x 101.5 mm H (3.9" x 4")
Weight	150 g (5.3 oz)	370 g (13 oz)



Model 8230

## Installing the Antenna

The GPS/GNSS antenna must be installed outdoors with an unobstructed view of the sky (to 20° elevation from the horizon). An unobstructed line of sight to the sky allows the antenna to locate and track the maximum number of satellites throughout the day. Installations with obstructed views may still prove functional, but the equipment may experience reduced reception quality or be unable to simultaneously track the maximum number of satellites. Make sure the antenna is installed somewhere that it will not be buried in loose or drifting snow, or obstructed by growing foliage. Whenever possible, avoid placing the GPS/GNSS antenna in close proximity to broadcast antennas. See Spectracom's Technical Note for detailed information on antenna installation.



Model 8230AJ  
(with ANT-KT mount)

When using the included L-bracket, remove the double panel nuts, insert the connector end into the 19 mm (0.75") through hole and replace and tighten the nuts. Connect the L-bracket to a post, pole, vent pipe, or other suitable location via hose clamps. Then connect the antenna to the antenna cable via type N connectors. In wet weather locations, it is recommended to wrap the connection in weather-proofing tape. Spectracom offers a weather-proofing kit for this purpose.

**A rugged antenna mount is available separately as model ANT-KT (see picture on the left). It is designed to mount to a vertical or horizontal pipe, or to a flat surface.**



