

Cushcraft/Signals

S8063B / S8963B

800/900 MHz Gain Omni Antenna

Features:

- Long lasting fiberglass radome with UV protection built in
- Low profile and gray color makes this antenna inconspicuous
- No ground plane required
- Built in DC ground for static protection
- Flexible UltraLink Cable® makes this antenna easy to mount

Warning:

THIS ANTENNA IS AN ELECTRICAL CONDUCTOR. CONTACT WITH POWER LINES CAN RESULT IN DEATH OR SERIOUS INJURY. DO NOT INSTALL THIS ANTENNA WHERE THERE IS ANY POSSIBILITY OF CONTACT WITH OR HIGH VOLTAGE ARC-OVER FROM POWER CABLES OR SERVICE DROPS TO BUILDINGS. THE ANTENNA, SUPPORTING MAST AND/OR TOWER MUST NOT BE CLOSE TO ANY POWER LINES DURING INSTALLATION, REMOVAL OR IN THE EVENT PART OF THE SYSTEM SHOULD ACCIDENTALLY FALL. FOLLOW THE GUIDELINES FOR ANTENNA INSTALLATION RECOMMENDED BY THE U.S. CONSUMER PRODUCT SAFETY COMMISSION AND LISTED IN THE ENCLOSED PAMPHLETS.

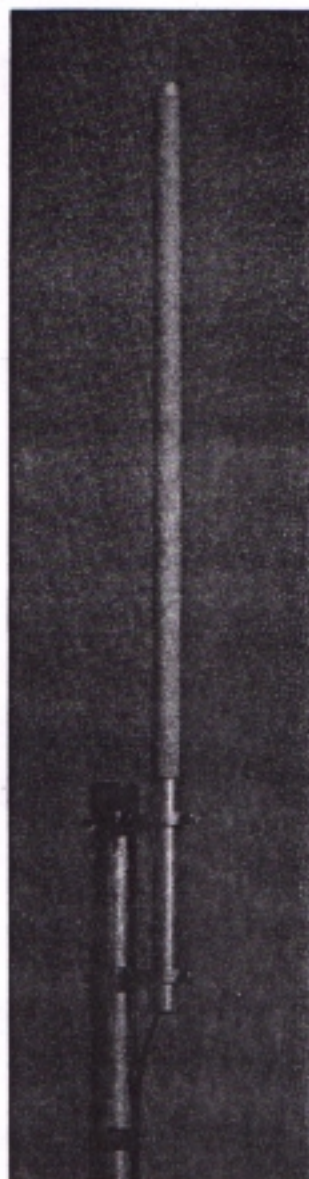
Location:

Location of any antenna is very important for maximum efficiency and best performance. Mount this antenna as high and in the clear as practical. A spacing of 39 inches (1 m) or greater is recommended if the antenna is side mounted on a tower.

System grounding:

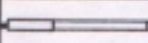
Direct grounding of the antenna, mast and tower serves as protection from lightning strikes, static buildup, and from high voltage which is present in the radio equipment connected to the antenna. A good electrical connection should be made to one or more ground rods (or other extensive ground system) directly at the tower or mast using at least #10 AWG ground wire and non-corrosive hardware. For details and safety standards, consult the National Electrical Code. Also consider using a coaxial lightning arrester such as the Cushcraft model LAC4N.

Model	S8063B	S8963B
Frequency, MHz	806-895	896-940
Gain, dBi	3	3
Wind Surface Area, ft ² (m ²)	.083 (.008)	.083 (.008)
Wind Survivability, mph (kph)	125 (200)	125 (200)
Weight, lb (kg)	1.1 (.5)	1.1 (.5)
Height, in (cm)	33 (84)	33 (84)
Nominal Impedance, Ohms	50	50
VSWR	1.5:1 max., 1.2:1 typ	1.5:1 max., 1.2:1 typ
Power handling, Watts	150	150
Lightning Protection	DC grounded	DC grounded
Radiating Element	Plated copper laminate	Plated copper laminate
Enclosure	Gray fiberglass	Gray fiberglass
Hardware	Stainless steel	Stainless steel
Feed	N-female connector on 12" (30.5 cm) UltraLink pigtail	N-female connector on 12" (30.5 cm) UltraLink pigtail
Shipping Dimensions, in (cm)	4 x 2.7 x 35 (10.2 x 7 x 89)	4 x 2.7 x 35 (10.2 x 7 x 89)
Max. Mount Diameter, in (cm)	1.25 to 2 (3.2 to 5.1)	1.25 to 2 (3.2 to 5.1)



Mounting:

The mounting brackets provided with the antenna will accommodate a 1.25 to 2 inch (3.2 to 5.1 cm) mast as shown in the figure. A 1.5" (3.8 cm) OD or larger tubing mast should be used. If multiple antennas are mounted on the same mast, it is important to place this antenna at least 39 inches (1 m) from the others to keep interaction to a minimum. Attach the aluminum mounting brackets to the base of the omni antenna. To do this, slide the two mounting clamps (228) on from the top of the antenna. Both clamps should slide over the aluminum base sleeve of the antenna. Place one clamp next to the rivets in the base and the other one near the top of the aluminum base tube. Hand tighten the mounting brackets in place using the screws (214), lock washers (84) and nuts (85). Attach the danger label (326) to the antenna base. Attach the antenna to the mast using the 2.5 inch (6.35 cm) U-bolts (404), lock washers (119), and nuts (118). Make sure that the mast does not protrude above the metal base tube of the omni antenna. After the antenna is properly aligned, tighten all the nuts.

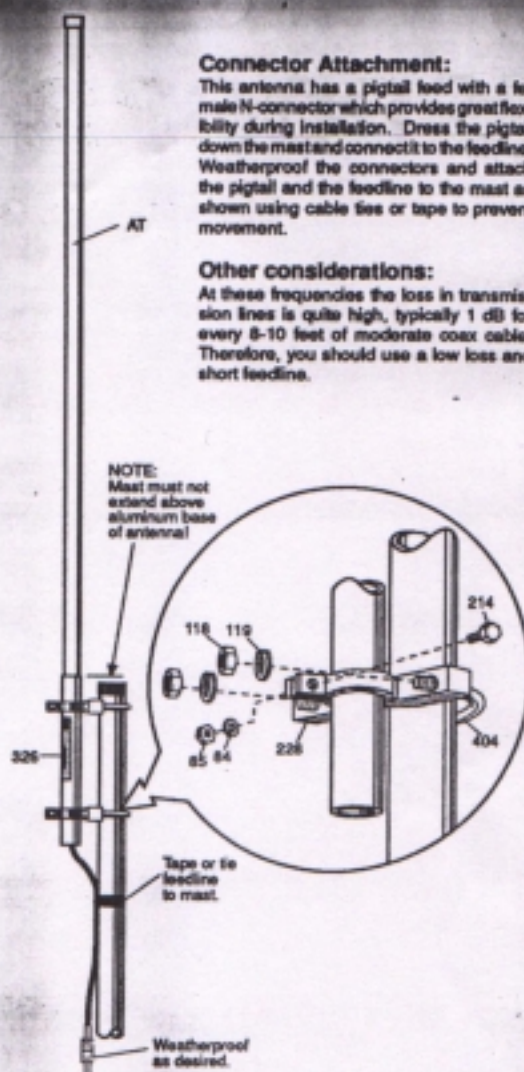
KEY	P/N	DISPLAY	DESC	SIZE	QTY
326	290326		DANGER LABEL		1
84	010084		SS LOCK WASHER	1/4" (.6 cm)	2
85	010085		SS HEX NUT	1/4" (.6 cm)	2
118	010118		SS HEX NUT	5/16" (.8 cm)	4
119	010119		SS LOCK WASHER	5/16" (.8 cm)	4
214	010214		SS MACHINE SCREW	1/4-20 x 3/4" (1.9 cm)	2
228	323228		MOUNTING BRACKET		2
404	010404		SS U-BOLT	2-7/16" x 3-1/4" (6.2 x 8.2 cm)	2
AT	S8063B S8963B		OMNI ANTENNA	35" (89 cm)	1

Connector Attachment:

This antenna has a pigtail feed with a female N-connector which provides great flexibility during installation. Dress the pigtail down the mast and connect it to the feedline. Weatherproof the connectors and attach the pigtail and the feedline to the mast as shown using cable ties or tape to prevent movement.

Other considerations:

At these frequencies the loss in transmission lines is quite high, typically 1 dB for every 8-10 feet of moderate coax cable. Therefore, you should use a low loss and short feedline.



Limited Warranty

Cushcraft/Signals Corporation, 48 Perimeter Road, Manchester, New Hampshire 03103, warrants to the original consumer purchaser for one year from date of purchase that each Cushcraft/Signals antenna is free of defects in material or workmanship. If, in the judgment of Cushcraft/Signals, any such antenna is defective, then Cushcraft/Signals will, at its option, repair or replace the antenna at its expense within thirty days of the date the antenna is returned (at purchaser's expense) to Cushcraft/Signals or one of its authorized representatives. This warranty is in lieu of all other expressed warranties. Any implied warranty is limited in duration to one year.

Cushcraft/Signals Corporation shall not be liable for any incidental or consequential damages which may result from a defect. Some states do not allow a limitation on how long an implied warranty lasts or exclusions or limitations of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty does not extend to any products which have been subject to misuse, neglect, accident or improper installation. Any repairs or alterations outside of the Cushcraft/Signals factory will nullify this warranty.

cushcraft/Signals

P.O. BOX 4680 • 48 PERIMETER ROAD • MANCHESTER, NH 03106 • 603-627-7877 • TELEX: 4949472 • FAX: 603-627-1764