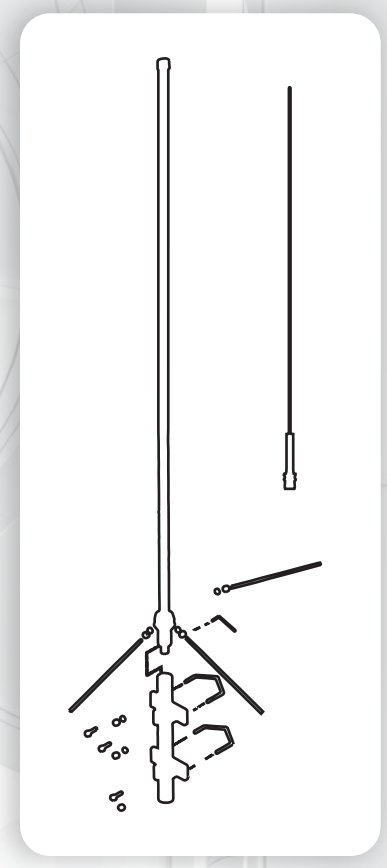
LT-ANTL144-174-6.7

VHF CUT-TUNED BASE STATION ANTENNA



The LT-ANTL144-174-6.7 is a VHF cut-tuned base station antenna designed for the 144–174 MHz band. Using a 7/8λ over 7/8λ design, it provides 6.7 dBd gain and handles up to 200 W input power, ensuring reliable wide-area coverage. Its 2.95 m two-section fiberglass radiator with ground radials makes it lightweight, easy to assemble, and durable for long-term outdoor operation.

Key Features

- Frequency range: 144–174 MHz (cut-tuned adjustment)
- Gain: 6.7 dBd
- 200 W maximum input power
- Low VSWR (≤1.5)
- SO-239 connector for PL-259 compatibility
- Two-section 2.95 m fiberglass radiator with ground radials
- Lightweight design (~1.0 kg) for easy installation
- Wind resistance up to 130 mph (55 m/s)
- Supplied with U-Bolts, brackets, and mounting hardware

Feature	LT-ANTL144-174-6.7
Frequency Range	144–174 MHz (cut-tuned)
Gain	6.7 dBd
VSWR	≤ 1.5
Impedance	50 Ω
Polarization	Vertical
Max. Power	200 W
Connector	SO-239
Radiation Pattern	Omnidirectional (7/8λ over 7/8λ design)
Length	2.95 m (2 sections)
Weight	~1.0 kg
Wind Rating	130 mph (55 m/s)
Mounting	Support pipe, U-Bolts, and ground radials (supplied)

Applications

VHF base station communications
Public safety and emergency services
Industrial and transportation networks
Amateur radio and utility networks
Lightweight and cost-effective deployment

Ordering Information

The LT-ANTL144-174-6.7 belongs to the VHF Cut-Tuned Antenna Series (200 W, radial-mount design).
Other available models in this series include:

LT-ANTL134-184-4.5 (134–184 MHz)
LT-ANTL406-512-6.5 (406–512 MHz)

Custom options are available upon request, including frequency tuning, connector types, and mounting accessories.

LT-ANTL144-174-6.7

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Cutting Chart

Frequency (MHz)	L1 (mm)	L2 (mm)
144	1152	1370
146	1130	1335
148	1090	1290
150	1055	1260
152	1030	1230
154	990	1200
156	940	1180
159	900	1155
162	845	1135
165	815	1105
168	770	1080
171	740	1065
174	720	1055

Package Content

No.	Description	Qty.
1	Upper outer tube	1
2	Upper outer tube joint	1
3	Lower outer tube joint	1
4	Lower outer tube	1
5	Radials & nut, spring washer	3
6	Metal antenna base	1
7	Locking screw	3
8	Locking washer	4
9	Nut	9
10	Supporting pipe	1
11	U-Bolt	2
12	Bracket	2
13	Upper radiator element	1
14	Element joint	1
15	Lower radiator element	1
16	Set screw	2
17	Wrench (larger one)	1
18	Wrench (smaller one)	1

Adjustments

The LT-ANTL144-174-6.7 operates across the 144–174 MHz band through radiator element cut-tuning.

1- Refer to the cutting chart to determine the correct length for L1 and L2 according to the desired frequency.

2- Install the upper radiator element (part #13) onto the lower radiator element (part #15) by inserting the element joint (part #14) fully and securing with the set screw (part #16).

3- Slide the upper outer tube (part #1) into the lower outer tube (part #4). Thread the outer tube joints (parts #2 and #3) together and tighten securely.

Once the correct length is set, ensure all connections are tightened properly before installation.

Re-assembly

Place the locking nut and washer onto the ground plane radials, then screw the three radials (part #5) into the threaded holes on the metal antenna base (part #6). Tighten by hand, then secure with the locking nuts using a wrench.

Secure the support pipe (part #10) to the mounting pole (not included) in the desired location using the supplied brackets (part #12), U-bolts (part #11), locking screws (part #7), lock washers (part #8), and nuts (part #9). Tighten securely with a wrench.

Run the cable from the radio through the support pipe (part #10). Attach the PL-259 connector on the cable end to the SO-239 connector at the base of the antenna.

Insert the antenna into the support pipe, aligning the threaded hole with the locking screw hole. Insert the locking screw (part #7) and tighten securely with a wrench or screwdriver.