# **Installation Manual** Model CFM-95SL 5/8 wave LPFM Broadcast **Base Station Antenna**

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#### **Specifications:**

- Frequency range: 88-108MHz
- Impedance: 50 Ohm
- Gain: 3.4dBi •
- VSWR: Less than 1.5:1 ٠
- Band-width after tuning. 3MHz ٠
- Max Power input: 200 Watts •
- Length: 88MHz 98 inches (2490mm) •
  - 108MHz 75 inches (1905mm)
- Weight: 2lbs 7ozs (1.1kgs) •
- Mast size required: 1inch 2.5inches (25-62cm)

#### **Parts list:**

No.

1	Power feeding coil	1
2	Mounting pipe	1
3	Mount bracket	2
4	U-bolt w/lock washer and nut	2
5	Hex bolt	2
6	Hex bolt w/lock washer	1
7	Upper element	1
8	Lower element	1
9	Hose clamp	1
10	Radial with nut	3
11	Screw with star washer	2

CFM-95SL **Tuning Instructions** Length of upper element Frequency MHz mm inches 108 380 15 106.5 445 17.5 103 508 20 100.5 21.5 546 99 610 24

673

737

800

864

927

991

26.5

29

31.5

34

36.5

39

97

95

93

91.5

90

88

#### **Assembly Instructions:**

- Determine the transmit frequency using the chart. Adjust the length extending 1) beyond the lower element. It is not necessary for the upper element measurement to be exact. If within 1/2 inch of the target length, SWR will be within acceptable levels.
- 2) Attach the assembled elements to the power feeding coil.
- 3) Attach the three radials to the power feeding coil and tighten the nuts with a wrench.
- Assemble the two mounting brackets to the support pipe. Pass your coax through 4) the pipe and connect to the SO-239 connector.
- 5) Slide the power feeding coil into the mounting pipe and secure it with the hex bolt.

The antenna is now ready to be used. Keep the tuning chart for future use should you ever need to re-tune it. If possible, check your system for SWR of less than 1.5:1 before transmitting.



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130		ower recuring con
	∎- 50-	-239 Connector
	PL-2	259 Connector
0-0-0-0		(4) U-Bolt with Lock Washer and Nut
(5) Hex Bolt		(3) Mounting Brackets
(2) Mounting Pipe	6	
	Note	e:
In order to keep the high use high qualit	gain of yo ty coax of	our CFM-95SL antenna, plea f 50 Ohm impedance.

(7) Upper Element

(9) Hose Clamp

(8) Lower Element

(10) Radial with Nut

(11) Screw with star washer





## **Important safety information:**

The following instructions and any safety instructions that came with the equipment you are installing must be followed.

- Make sure all the tools and equipment you are using are in good condition. Use non-conductive ladders and all recommended safety equipment. Place equipment on level ground.
- Know the phone # to the local power company before installation begins.
- Look over the installation area and be sure there are no power lines overhead or anywhere contact can be made with them. Assume that all overhead lines are power lines.
- Always work together with an assistant. In case of emergency, this partner could save your life.
- Let falling towers or antennas fall, do not attempt to catch them.
- If anything comes in contact with a power line, leave it there and call the power company for assistance
- Foul weather days are not antenna or tower installation days.

### **Contacting power lines can be deadly:**

Be sure no power lines are anywhere possible contact can be made. Antennas, towers and all supporting wires etc must be kept away. To make sure there is no possibility of contact with the tower, mast or antenna, the horizontal distance to the electrical line should be twice the total length of the mast/antenna. This safety measure will ensure that the mast will not contact electrical power during installation or later.



## If a person comes in contact with electrical power and cannot move:

- Do not touch that person or you could be electrocuted
- Use a non-conductive dry board, stick or rope to push or pull the person away from contact with the electrical power.
- Once they are not contacting electrical power or you feel you cannot safely move them CALL 911, or summon professional assistance immediately.
- If certified, begin CPR until help arrives.

Make sure all towers and masts are securely grounded and cables connected to antennas have lightning arrestors. This will help prevent electrical and fire damage as well as human injury in case of a lightning strike, static build-up or short-circuit within equipment connected to the antenna.

## Refer to the National Electrical Code for grounding details