

Vertical Stacking Chromstar FM Antennas

Stacking two CH-6060 or CH-6065 FM antennas is an excellent way to increase gain, improve directivity and increase capture area.

Where gain is an important factor, stacking FM antennas can provide enough boost in signal to establish a much better signal to noise ratio in the first amplifier.

Good directivity in an FM antenna can eliminate many reception problems such as airplane flutter, reflected signals and noise pick-up from ground level sources. Vertically stacking two FM antennas can also narrow the directivity up to 45%.

Also, by increasing the capture area of the CH-6060 or CH-6065, fading problems of very weak signals can be eliminated.

According to Dale Hemmie, technical services manager, stacking two FM antennas is becoming more and more popular. "The consumer can get up to 3dB extra gain which is a 40% improvement over a single antenna," he stated.

For vertically stacking two Chromstar FM antennas on a tower. This procedure allows the array to be assembled in steps as the mast is raised up out of the tower top.

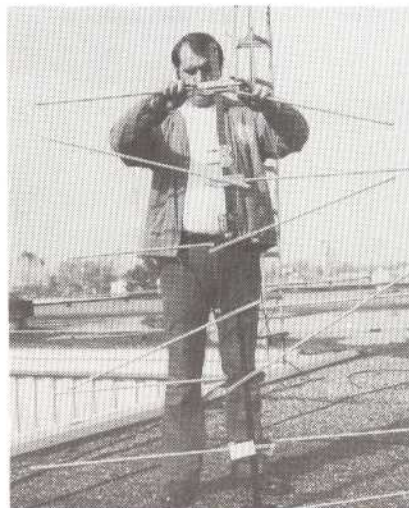
Equipment requires:

1. Two Chromstar FM antennas,
2. One CC-787 Coupler,
3. Two (2) pieces of CL-2700 cable, cut 52 inches long,
4. Mast 10' long.

Assembly Instructions

1. Unfold both antennas.
2. Set terminal boards for 75 ohm output.
3. Insert CL-2700 cable (52 inches long) up through boot in bottom of each cartridge housing and attach to jack on terminal board.
4. Mount upper antenna on mast.
5. Close up housing on upper antenna.
6. Mount CC-787 coupler approximately 36 inches below upper antenna.
7. Connect CL-2700 cable from upper antenna to "set 1" jack of CC-787 coupler and tape cable to mast.
8. Connect CL-2700 cable of housing bottom for lower antenna to "set 2" jack of CC-787 coupler and tape to mast.

Note 1: If a preamp is not required, the downlead should be connected to



Hans Rabong, Winegard sales engineer carefully unfolds the elements of the CH-6060.

the "antenna" jack on CC-787 coupler at this point.

Note 2: If a preamp is required, then a third length of CL-2700 (52 inches long) must be attached to "antenna" jack on CC-787 and taped to mast with lower antenna CL-2700 cable.

9. Mount lower antenna on mast approximately 72 inches below upper antenna.

10. Close up lower antenna housing.

This completes assembly if preamplifier is not used. Proceed to step 11 if preamp is used.

11. Mount AH-0300 housing below lower antenna.

12. Slide boot over loose end of CL-2700 cable attached to "antenna" jack of CC-787 coupler and install connector.

13. Attach connector to "VHF input" jack of AH-0300 housing and slide boot in place over collar around jack.

Caution: Care must be taken when making this connection. If too much pressure is applied, the "F" jack may rotate in housing and short out.

14. Install preamp and close up AH-0300 housing.



The CH-6060 features a double-boom for additional strength. Rabong attaches the two together with a heavy-duty brace.

Selecting the Preamp.

- A. AC-6950: Recommended for metropolitan and any area where strong local TV stations are present.
- B. AC-2950: Recommended for medium to weak reception (FM trap out position).
- C. AC-9130: Recommended for deep fringe reception with no strong TV or FM stations present (FM trap out position).

SPECIAL NOTES:

- A. TP series traps are available for reducing a strong TV or FM station. The traps mount inside the cartridge housing and lower the signal level before it enters the amplifier.
- B. Feel free to contact the Winegard Technical Services Department if you have a question or a special reception requirement.



The terminal boards are set for 75 ohm.



After connecting a 52' length of CL-2700 to the output of the terminal board, Rabong screws the housing shut.



Rabong attaches the top antenna to the mast, tightening down the U-bolt securely.



The CC-787 coupler is mounted approximately 36 inches below the upper antenna.



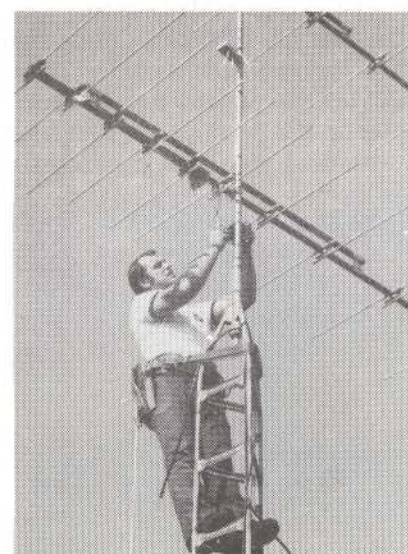
After connecting the cable from the upper antenna to the "set 1" jack of the CC-787, Rabong connects cable from housing bottom of lower antenna to "set 2" jack of coupler.



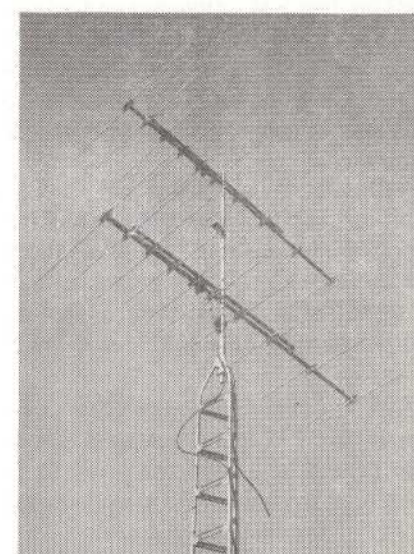
The lower antenna is mounted approximately 72" below upper antenna.



Rabong orients both antennas so they point directly to reception area desired.



The AH-0300 universal cartridge housing, with the desired preamp enclosed, is mounted below lower antenna.



The finished installation! Neat and efficient. Performance of the vertical stack is excellent.