



Repeaters: Offsets and Tones

How a mountaintop radio turns your 5 watts into 50 miles

How a repeater works

1

You transmit on its input

Usually 600 kHz away from the output on 2 meters

2

It checks your tone

The right CTCSS tone opens the repeater

3

It retransmits on its output

From a tall tower with more power

4

Everyone in range hears you

Across a whole county or more

Offsets

2 meters: 600 kHz, plus or minus.

70 centimeters: 5 MHz, usually plus.

Repeaters to program first

Repeater	Output	Offset	Tone
W4CAT Nashville	146.955	+	114.8
K5PXP Mount Nebo (ranch)	146.820	-	131.8
N4OEM Nashville ARES	442.750	+	100.0
N5XMZ Magazine Mountain	443.250	+	114.8

Listings change. Check RepeaterBook before you rely on one, and listen first.

Good repeater manners



Listen first

Make sure no one is using it



Pause between turns

Leave room for someone with an emergency



Say your call sign

'W4JUM monitoring' is all it takes



Keep it short

Many repeaters time out after a few minutes

Sources: RepeaterBook listings; ARRL repeater guidance

Remember

Right frequency, right offset, right tone; then listen before you talk.