

CTCSS on the MARC Repeater

~~What YOU Need to Know~~

What is CTCSS?



- ✓ Generic term for Continuous Tone Coded Squelch System
- ✓ Motorola calls it Private Line™ (“PL”), GE calls it Channel Guard™ RCA called it Quiet Channel™, etc.
- ✓ No matter what you call it, it is CTCSS

Why Does the Repeater Need It?



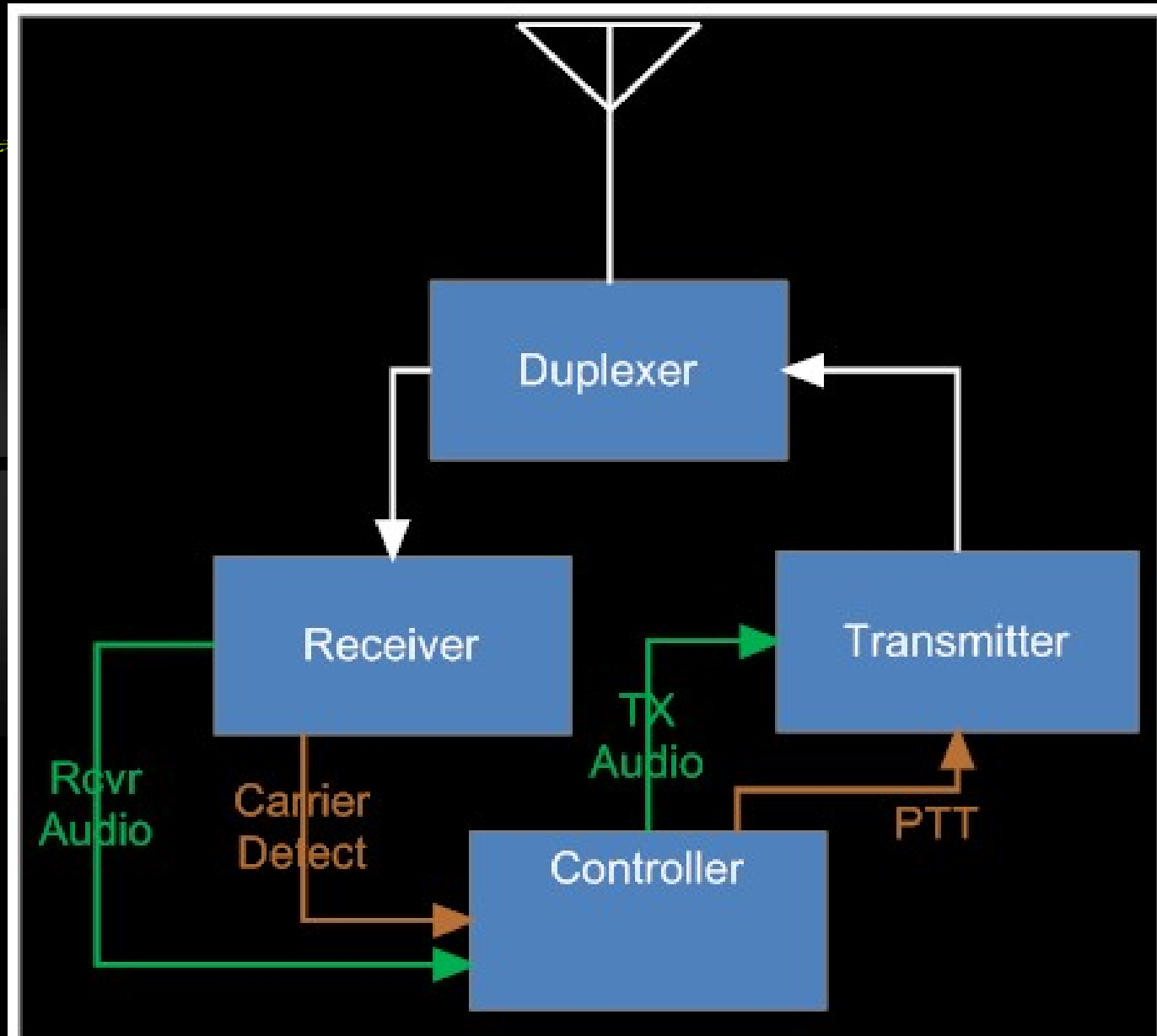
- ✓ The MARC repeater is getting keyed by quite a bit – sometimes repeatedly
- ✓ The key-and-drop problem is getting steadily worse
 - ✓ Some of it is caused by co-channel users
 - ✓ Some of it simply is grunge on the band
- ✓ It won't get better on its own

Why Will CTCSS Help?



- ✓ Once enabled, the repeater will require a carrier PLUS a CTCSS tone to key up
- ✓ The repeater will NOT be keyed without carrier plus PL, eliminating all but intentional key-ups

How the Repeater Works Now



How Will It Work With CTCSS

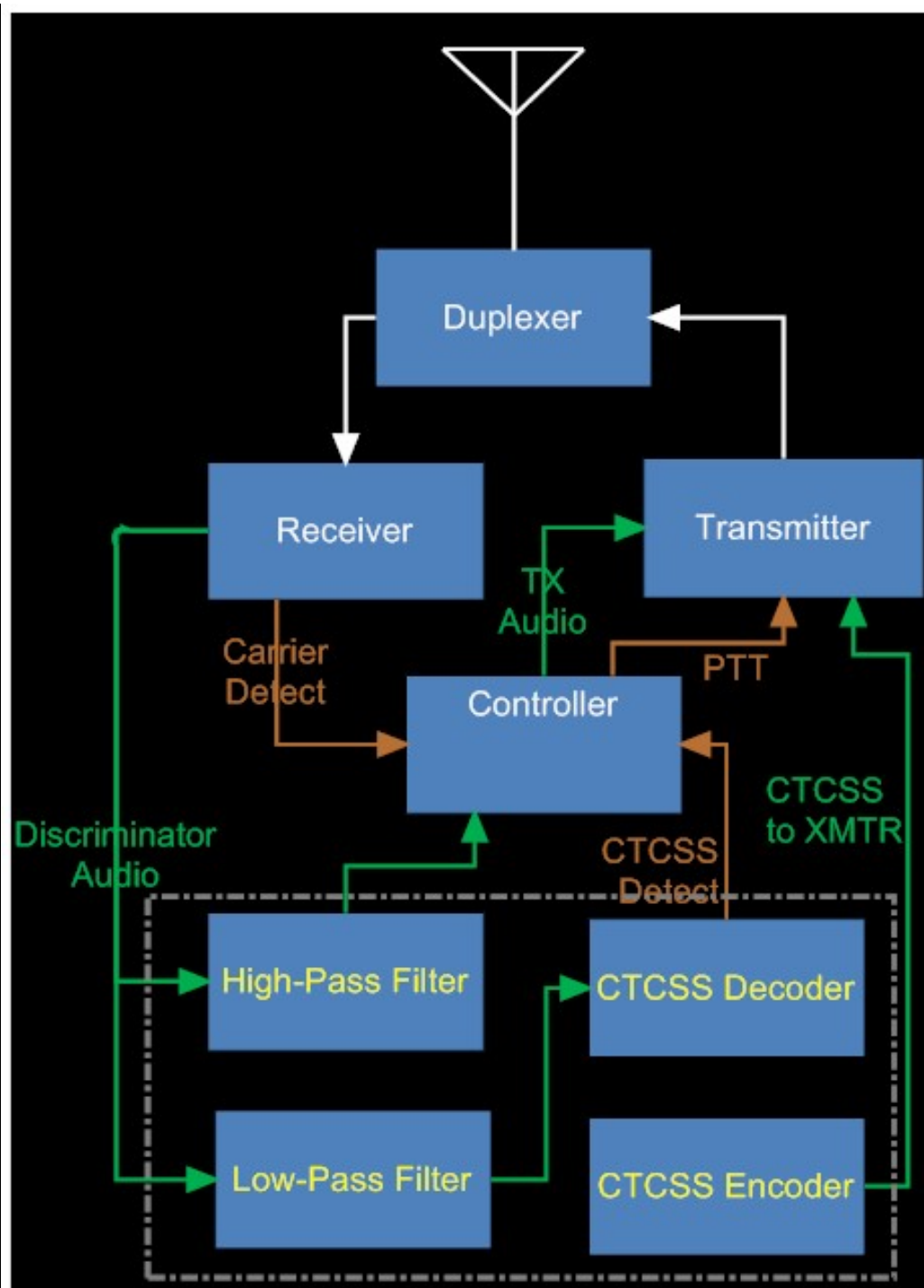


- ✓ Your transmitter will send a continuous low-frequency (100.0 Hz) tone when transmitting
- ✓ The tone is the access key
- ✓ The repeater detects your carrier and looks for a CTCSS tone
 - ✓ A CTCSS tone enables access
 - ✓ If no tone, the repeater will not key up

How It Will Work With CTCSS



- ✓ The CTCSS tone is stripped off (all audio below 300 Hz) before your audio is passed to the controller
- ✓ At the transmitter, a clean CTCSS tone will be added
 - ✓ Allows you put your receiver into a CTCSS-squelch mode (you don't have to do this, but it can be helpful)



Why Use CTCSS Detect On Your Receiver?

- ✓ You will stop hearing any other repeater on the same channel
- ✓ If you are near a strong source of stray RF, your receiver squelch won't open up and send garbage to your speaker

When Is This Happening?



- ✓ The MARC Board has decided to implement this on or about July 1, 2008 (after Field Day)
- ✓ You should program your radios with 100.0 Hz CTCSS encode beforehand so you are ready
- ✓ Do NOT program CTCSS decode (a.k.a., Tone Squelch) until after the change

Does My Radio Do CTCSS?



- ✓ If your owner's manual talks about CTCSS, it should encode (and probably decode)
- ✓ If it doesn't, you will need to either:
 - ✓ Add an outboard encoder, or
 - ✓ Get a radio that encodes CTCSS

Need Help?



- ✓ We will be forming a Task Force to help people program radios or add CTCSS encoding if needed
- ✓ Once the Task Force is formed, we will provide more details
- ✓ In the meantime, please read your owner's manual and try to solve it yourself

In Review...



- ✓ Before July 1, program the channel into your radio's memory with 100.0 Hz CTCSS encode
- ✓ DO NOT program CTCSS decode until after July 1

Questions?

A thick, horizontal orange brushstroke underline is positioned below the word "Questions?". The stroke is irregular and textured, resembling a hand-drawn line with a brush. It spans across the width of the text and extends slightly beyond the left and right edges of the word.