Technician Question Pool July 2018 to June 2022

The MORE Project

http://n2re.org/m-o-r-e-project



Radio Practices & Station Setup No-Nonsense pages 80 - 83

Operating controls: tuning, use of filters, squelch function, AGC, repeater offset, memory channels

To properly operate a transceiver, you need to know how to use the controls.



FCC Tech 7/22 to 6/26 Operating Controls

What is the effect of excessive microphone gain on SSB transmissions?

A. Frequency instability
B. Distorted transmitted audio
C. Increased SWR
D. All these choices are correct



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 Q1 of 18

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FCC Tech 7/22 to 6/26 Operating Controls **RPSS2** A1 of 18

What is the result of tuning an FM receiver above or below a signal's frequency?

- A. Change in audio pitch
- **B. Sideband inversion**
- C. Generation of a heterodyne tone
- D. Distortion of the signal's audio



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What is the result of tuning an FM receiver above or below a signal's frequency?

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- C. Generation of a heterodyne tone
- **D. Distortion of the signal's audio**



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Which of the following can be used to enter a transceiver's operating frequency?

A. The keypad or VFO knob
B. The CTCSS or DTMF encoder
C. The Automatic Frequency Control
D. All of these choices are correct



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 Q3 of 18

Which of the following can be used to enter a transceiver's operating frequency?

A. The keypad or VFO knob B. The CTCSS or DTMF encoder C. The Automatic Frequency Control D. All of these choices are correct



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 A3 of 18

What is a way to enable quick access to a favorite frequency or channel on your transceiver?

- A. Enable the frequency offset
- B. Store it in a memory channel
- C. Enable the VOX
- D. Use the scan mode to select the desired frequency



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What does the scanning function of an FM transceiver do?

A. Checks incoming signal deviation
B. Prevents interference to nearby repeaters
C. Tunes through a range of frequencies to check for activity
D. Checks for messages left on a digital bulletin board



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T2B13

What is the purpose of a squelch function?

- A. Reduce a CW transmitter's key clicks
- B. Mute the receiver audio when a signal is not present
- C. Eliminate parasitic oscillations in an RF amplifier
- D. Reduce interference from impulse noise



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T2B13

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FCC Tech 7/22 to 6/26 Operating Controls RPSS2 A6 of 18

How is squelch adjusted so that a weak FM signal can be heard?

A. Set the squelch threshold so that receiver output audio is on all the time
B. Turn up the audio level until it overcomes the squelch threshold
C. Turn on the anti-squelch function

D. Enable squelch enhancement



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 Q7 of 18

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T2A07

What is meant by "repeater offset?"

- A. The difference between a repeater's transmit and receive frequencies
- B. The repeater has a time delay to prevent interference
- C. The repeater station identification is done on a separate frequency
- D. The number of simultaneous transmit frequencies used by a repeater



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T2A07

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T4A10

What function is performed with a transceiver and a digital mode hot spot?

A. Communication using digital voice or data systems via the internet
B. FT8 digital communications via AFSK
C. RTTY encoding and decoding without a computer
D. High-speed digital communications for meteor scatter



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 Q9 of 18

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T8D02

What is a "talkgroup" on a digital repeater?

A. A group of operators sharing common interests
 B. A way for groups of users to share a channel at different times without hearing other users on the channel

C. A protocol that increases the signal-to-noise ratio when multiple repeaters are linked together
 D. A net that meets at a specified time



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What does a DMR "code plug" contain?

A. Your call sign in CW for automatic identification
B. Access information for repeaters and talkgroups
C. The codec for digitizing audio
D. The DMR software version



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 Q11 of 18



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C. The codec for digitizing audio
D. The DMR software version



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How is a specific group of stations selected on a digital voice transceiver?

- A. By retrieving the frequencies from transceiver memory
- B. By enabling the group's CTCSS tone
- C. By entering the group's identification code
- D. By activating automatic identification



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 Q12 of 18

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T2B12

What is the purpose of the color code used on DMR repeater systems?

A. Establishes groups of users

- B. Defines the frequency pair to use
- C. Identifies the codec used
- D. Defines the minimum signal level required for access



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T2B12

What is the purpose of the color code used on DMR repeater systems?

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- D. Defines the minimum signal level required for access



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 A13 of 18

Which of the following must be programmed into a D-STAR digital transceiver before transmitting?

A. Your call sign
B. Your output power
C. The codec type being used
D. All of these choices are correct



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 Q14 of 18

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FCC Tech 7/22 to 6/26 Operating Controls RPSS2 A14 of 18

What is the advantage of having multiple receive bandwidth choices on a multimode transceiver?

A. Permits monitoring several modes at once by selecting a separate filter for each mode
B. Permits noise or interference reduction by selecting a bandwidth matching the mode
C. Increases the number of frequencies that can be stored in memory

D. Increases the amount of offset between receive and transmit frequencies



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 Q15 of 18

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and transmit frequencies



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 A15 of 18

Which of the following receive filter bandwidths provides the best signal-to-noise ratio for SSB reception?

A. 500 Hz
B. 1000 Hz
C. 2400 Hz
D. 5000 Hz



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 Q16 of 18

Which of the following receive filter bandwidths provides the best signal-to-noise ratio for SSB reception?

A. 500 Hz
B. 1000 Hz **C. 2400 Hz**D. 5000 Hz



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 A16 of 18

Which of the following controls could be used if the voice pitch of a single-sideband signal returning to your CQ call seems too high or low?

A. The AGC or limiter
B. The bandwidth selection
C. The tone squelch
D. The RIT or Clarifier



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 Q17 of 18

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FCC Tech 7/22 to 6/26 Operating Controls RPSS2 A17 of 18

T7A07

What is the function of a transceiver's PTT input?

A. Input for a key used to send CW

- B. Switches transceiver from receive to transmit when grounded
- C. Provides a transmit tuning tone when grounded
- D. Input for a preamplifier tuning tone



FCC Tech 7/22 to 6/26 Operating Controls RPSS2 Q18 of 18

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A non-profit initiative by the IEEE and ARDC to increase the numbers of youth (12-18) and non-males in Amateur Radio. Participants earn FCC licenses and receive free 2-way radios.

For MORE information: n2re.org/m-o-r-e-project Dr. Rebecca Mercuri, Grant Administrator, rtmercuri@ieee.org

