
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 55 - 57

Station setup: connecting microphones, reducing unwanted emissions, power sources, connecting a computer, RF grounding, connecting digital equipment

Choosing the radio is an important consideration in setting up your ham shack, but you must also choose a wide range of accessories, such as power supplies and microphones. Connecting all of these pieces of equipment together correctly is essential for your station to operate properly.



T4A03

Why should wiring between the power source and radio be heavy-gauge wire and kept as short as possible?

- A. To avoid voltage falling below that needed for proper operation
- B. To provide a good counterpoise for the antenna
- C. To avoid RF interference
- D. All of these choices are correct



RPSS1 Q1 of 12

FCC Tech 7/18 to 6/22
Station Setup

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

T4A03

Why should wiring between the power source and radio be heavy-gauge wire and kept as short as possible?

- A. To avoid voltage falling below that needed for proper operation**
- B. To provide a good counterpoise for the antenna
- C. To avoid RF interference
- D. All of these choices are correct



T4A01

What must be considered to determine the minimum current capacity needed for a transceiver power supply?

- A. Efficiency of the transmitter at full power output
- B. Receiver and control circuit power
- C. Power supply regulation and heat dissipation
- D. All of these choices are correct



RPSS1 Q2 of 12

FCC Tech 7/18 to 6/22
Station Setup

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

T4A01

What must be considered to determine the minimum current capacity needed for a transceiver power supply?

- A. Efficiency of the transmitter at full power output
- B. Receiver and control circuit power
- C. Power supply regulation and heat dissipation
- D. All of these choices are correct**



T4A02

How might a computer be used as part of an amateur radio station?

- A. For logging contacts and contact information
- B. For sending and/or receiving CW
- C. For generating and decoding digital signals
- D. All of these choices are correct



RPSS1 Q3 of 12

FCC Tech 7/18 to 6/22
Station Setup

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

T4A02

How might a computer be used as part of an amateur radio station?

- A. For logging contacts and contact information
- B. For sending and/or receiving CW
- C. For generating and decoding digital signals
- D. All of these choices are correct**



T4A06

Which of the following connections might be used between a voice transceiver and a computer for digital operation?

- A. Receive and transmit mode, status, and location
- B. Antenna and RF power
- C. Receive audio, transmit audio, and push-to-talk (PTT)
- D. NMEA GPS location and DC power



T4A06

Which of the following connections might be used between a voice transceiver and a computer for digital operation?

- A. Receive and transmit mode, status, and location
- B. Antenna and RF power
- C. Receive audio, transmit audio, and push-to-talk (PTT)**
- D. NMEA GPS location and DC power



T4A04

Which computer sound card port is connected to a transceiver's headphone or speaker output for operating digital modes?

- A. Headphone output
- B. Mute
- C. Microphone or line input
- D. PCI or SDI



RPSS1 Q5 of 12

FCC Tech 7/18 to 6/22
Station Setup

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

T4A04

Which computer sound card port is connected to a transceiver's headphone or speaker output for operating digital modes?

- A. Headphone output
- B. Mute
- C. Microphone or line input**
- D. PCI or SDI



T4A07

How is a computer's sound card used when conducting digital communications?

- A. The sound card communicates between the computer CPU and the video display
- B. The sound card records the audio frequency for video display
- C. The sound card provides audio to the radio's microphone input and converts received audio to digital form
- D. All of these choices are correct



T4A07

How is a computer's sound card used when conducting digital communications?

- A. The sound card communicates between the computer CPU and the video display
- B. The sound card records the audio frequency for video display
- C. The sound card provides audio to the radio's microphone input and converts received audio to digital form**
- D. All of these choices are correct



T4A09

Which of the following could you use to cure distorted audio caused by RF current on the shield of a microphone cable?

- A. Band-pass filter
- B. Low-pass filter
- C. Preamplifier
- D. Ferrite choke



RPSS1 Q7 of 12

FCC Tech 7/18 to 6/22
Station Setup

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

T4A09

Which of the following could you use to cure distorted audio caused by RF current on the shield of a microphone cable?

- A. Band-pass filter
- B. Low-pass filter
- C. Preamplifier
- D. Ferrite choke**



T4A08

Which of the following conductors provides the lowest impedance to RF signals?

- A. Round stranded wire
- B. Round copper-clad steel wire
- C. Twisted-pair cable
- D. Flat strap



RPSS1 Q8 of 12

FCC Tech 7/18 to 6/22
Station Setup

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

T4A08

Which of the following conductors provides the lowest impedance to RF signals?

- A. Round stranded wire
- B. Round copper-clad steel wire
- C. Twisted-pair cable
- D. Flat strap**



T4A11

Where should the negative return connection of a mobile transceiver's power cable be connected?

- A. At the battery or engine block ground strap
- B. At the antenna mount
- C. To any metal part of the vehicle
- D. Through the transceiver's mounting bracket



T4A11

Where should the negative return connection of a mobile transceiver's power cable be connected?

- A. At the battery or engine block ground strap**
- B. At the antenna mount
- C. To any metal part of the vehicle
- D. Through the transceiver's mounting bracket



T4A10

What is the source of a high-pitched whine that varies with engine speed in a mobile transceiver's receive audio?

- A. The ignition system
- B. The alternator
- C. The electric fuel pump
- D. Anti-lock braking system controllers



RPSS1 Q10 of 12

FCC Tech 7/18 to 6/22
Station Setup

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

T4A10

What is the source of a high-pitched whine that varies with engine speed in a mobile transceiver's receive audio?

- A. The ignition system
- B. The alternator**
- C. The electric fuel pump
- D. Anti-lock braking system controllers



T4B12

Which of the following could be used to remove power line noise or ignition noise?

- A. Squelch
- B. Noise blanker
- C. Notch filter
- D. All of these choices are correct



RPSS1 Q11 of 12

FCC Tech 7/18 to 6/22
Station Setup

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

T4B12

Which of the following could be used to remove power line noise or ignition noise?

- A. Squelch
- B. Noise blanker**
- C. Notch filter
- D. All of these choices are correct



T4B05

Which of the following would reduce ignition interference to a receiver?

- A. Change frequency slightly
- B. Decrease the squelch setting
- C. Turn on the noise blanker
- D. Use the RIT control



T4B05

Which of the following would reduce ignition interference to a receiver?

- A. Change frequency slightly
- B. Decrease the squelch setting
- C. Turn on the noise blanker**
- D. Use the RIT control





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

