

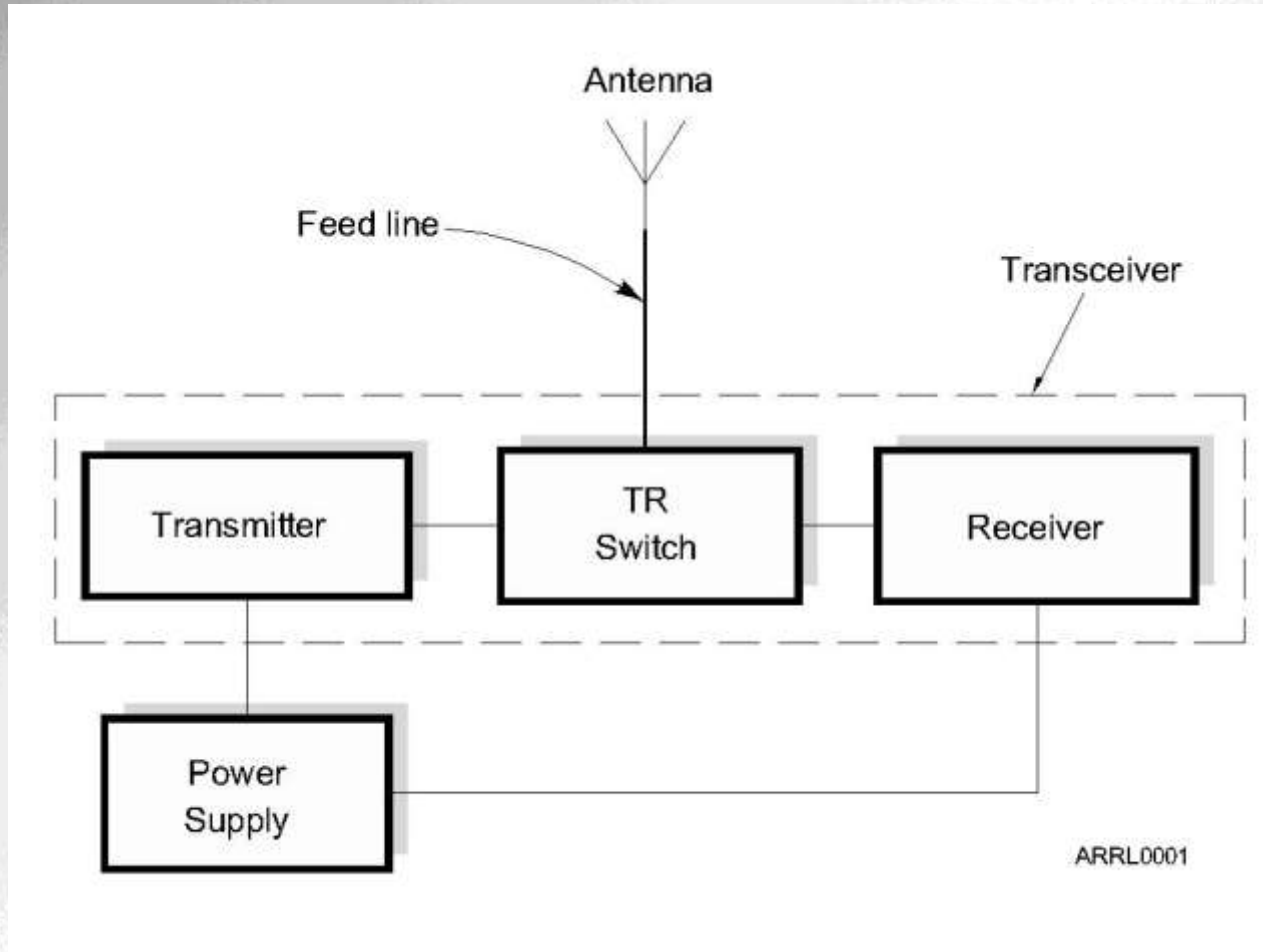


Technician License Course  
Chapter 2  
Radio Equipment Basics



**ARRL** *The national association for  
AMATEUR RADIO*

# The Basic Radio Station



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EBARC, Inc.



# Basic Station Organization

## Station Equipment

- Receiver
- Transmitter
- Antenna
- Power Supply

## Accessory Station Equipment

- Test Equipment
- Computers and Modems



# Special Stations – Repeaters

- Repeaters are automated stations located at high places that receive and then retransmit your signal – simultaneously.
- The basic components of a repeater are the same as your station: receiver, transmitter, antenna and power supply.
- A repeater improves or allows contacts beyond the Line-of-Sight horizon.



# Repeaters

Repeaters are transmitting and receiving at the same time using the same antenna.

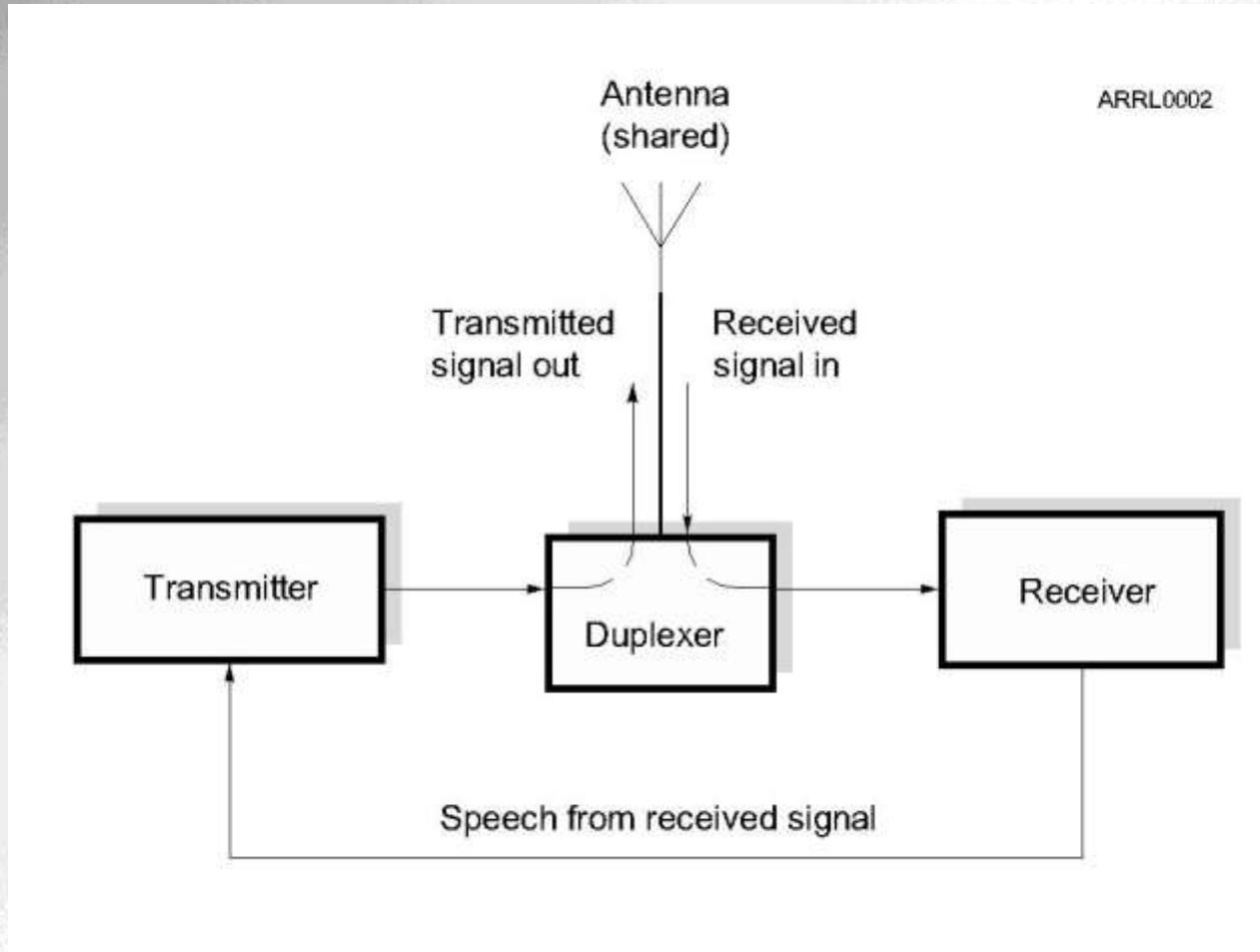
- This requires a very high quality and specialized filter to prevent the transmitted signal from overpowering the receiver.
- This specialized filter is called a duplexer.
- Repeaters are activated automatically but can be enabled and configured remotely.



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# Repeater Diagram



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# Basic Station Accessories

## Human interface accessories:

- Microphones
- Speakers
- Earphones
- Computer
- Morse code key
- TV camera
- Digital Interface

## Station performance accessories:

- Audio Equalizer
- Preamplifier
- Antenna tuner
- SWR meter
- Amplifier
- Antenna rotator
- Filters

# Accessory Equipment

