

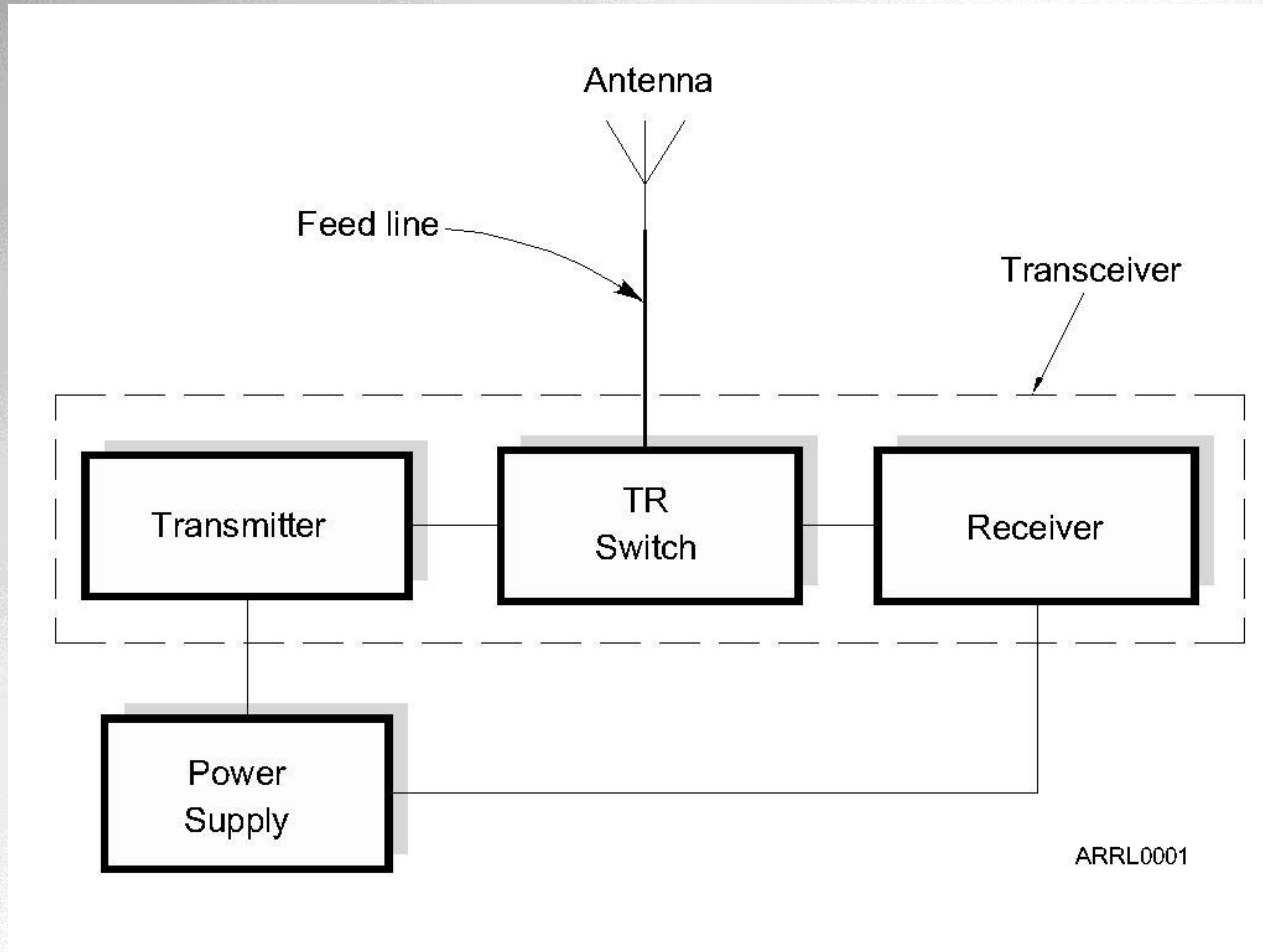


Technician License Course
Chapter 2
Radio Equipment Basics



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

Receiver and Transmitter are usually combined in one unit called a Transceiver.

Handheld Transceiver combines everything.



Special Stations – Repeaters

- Repeaters are stations that receive a signal on one frequency and retransmit it on a different frequency at the same time.
- Usually located at high sites to allow contacts beyond the Line-of-Sight horizon.
- The basic components of a repeater are the same as any station: receiver, transmitter, antenna and power supply.

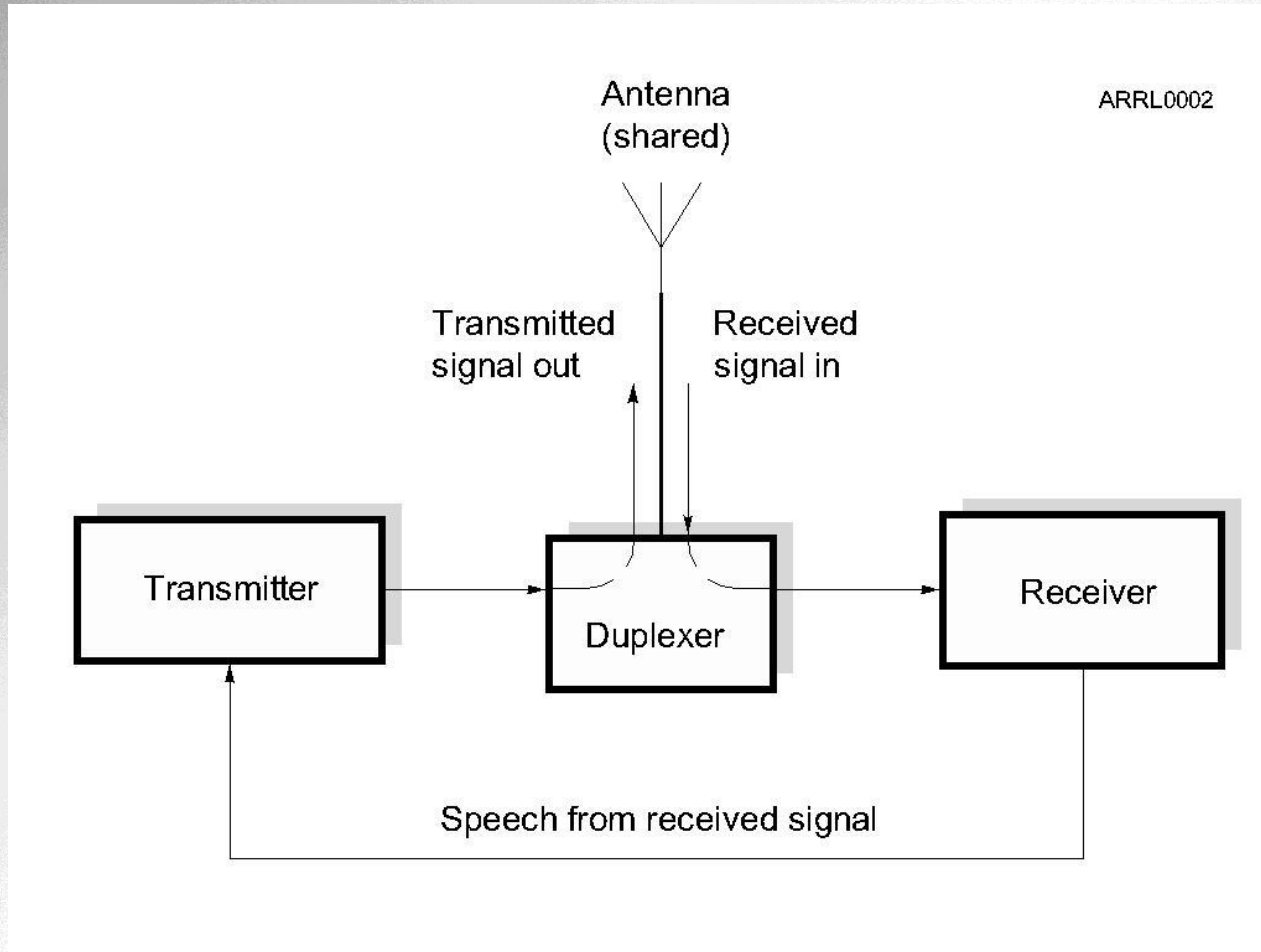


Repeaters: Special Equipment

- **Duplexer:** A very high quality filter used to prevent the transmitted signal from overpowering the receiver. Repeaters are receiving and transmitting at the same time using the same antenna.
- **Controller:** A computer to allow automatic activation to be enabled and configured remotely.



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



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Accessory Equipment

