PPL Theory
Aeronautical Radio Operation

CAE Oxford
Aviation Academy

RARO 2 – Components of the Radio

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2. Related Documents

Related Documents	Document Identification

RARO 2 – Components of the Radio

Amendments made to this document since the previous version are listed below. All amendments to this document have been made in accordance with CAE OAAM's document management procedure.

Slide	Changes

HOW DOES IT ACTUALLY WORK?

Transmitting sound waves via radio waves

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The answer - modulation

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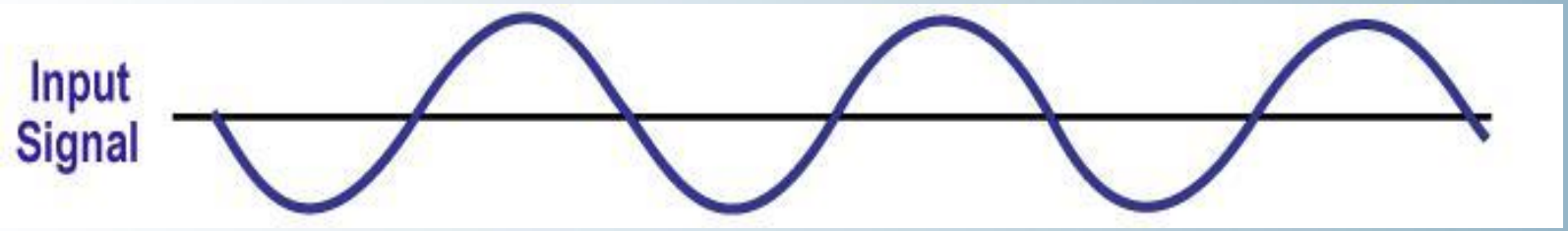

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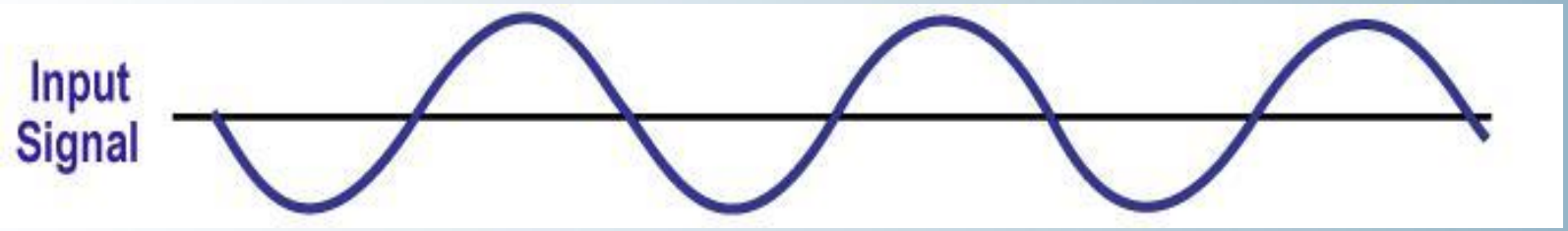

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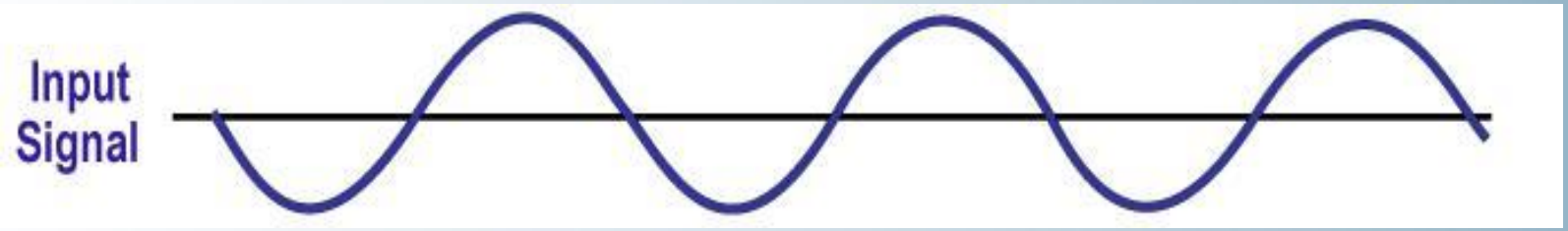

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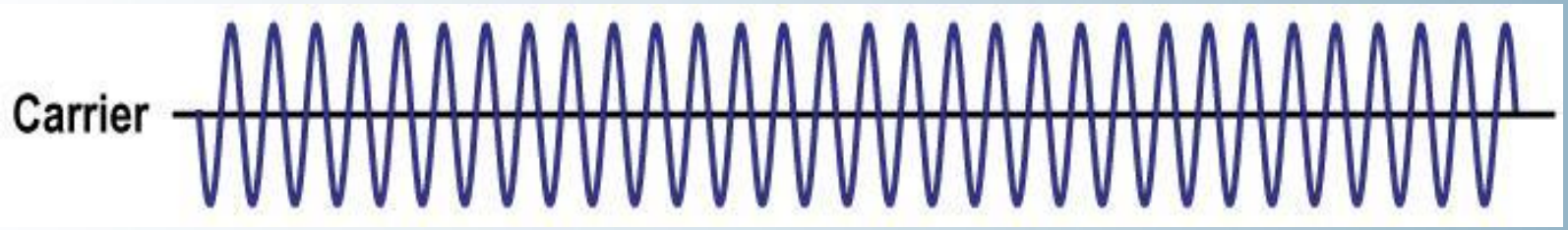

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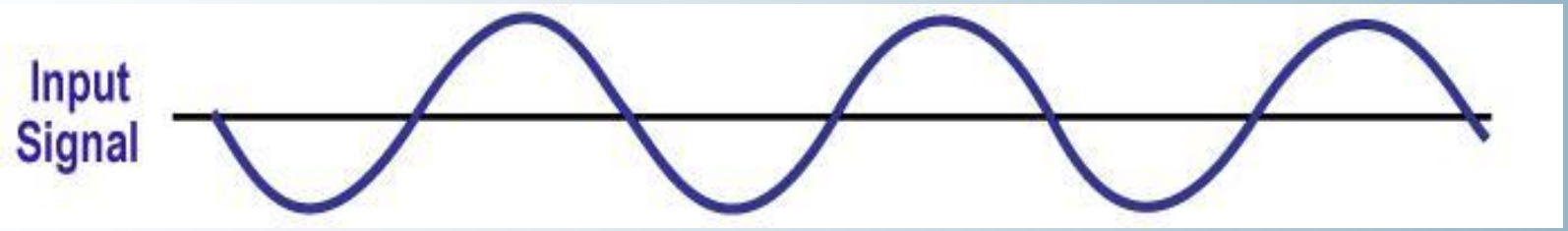

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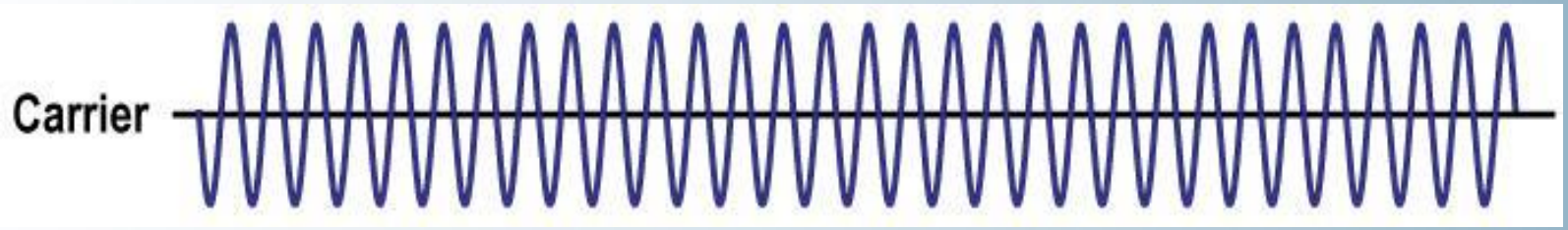
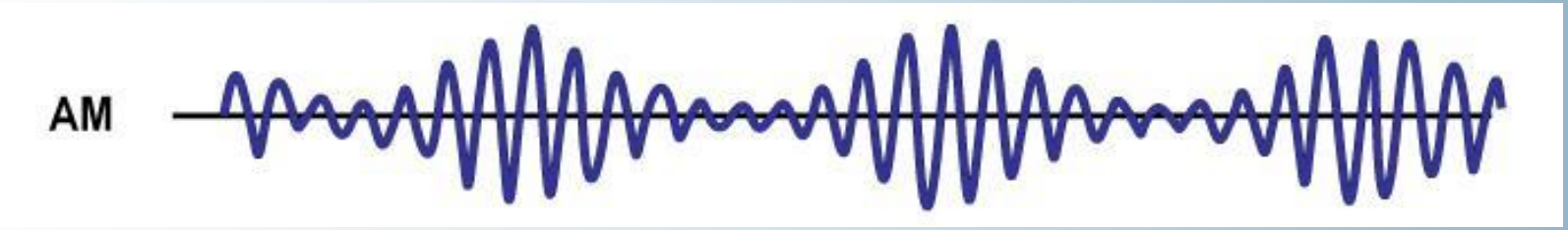


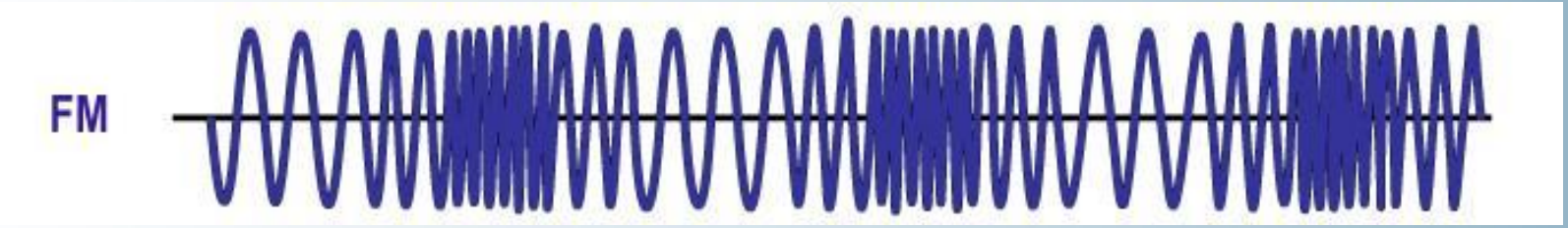
- Step 3: Once received, this superimposed message is then demodulated back into an audible frequency for us to hear.

Types of Modulation

- Amplitude Modulation (AM) – used by VHF aeronautical radios



- Frequency Modulation (FM)



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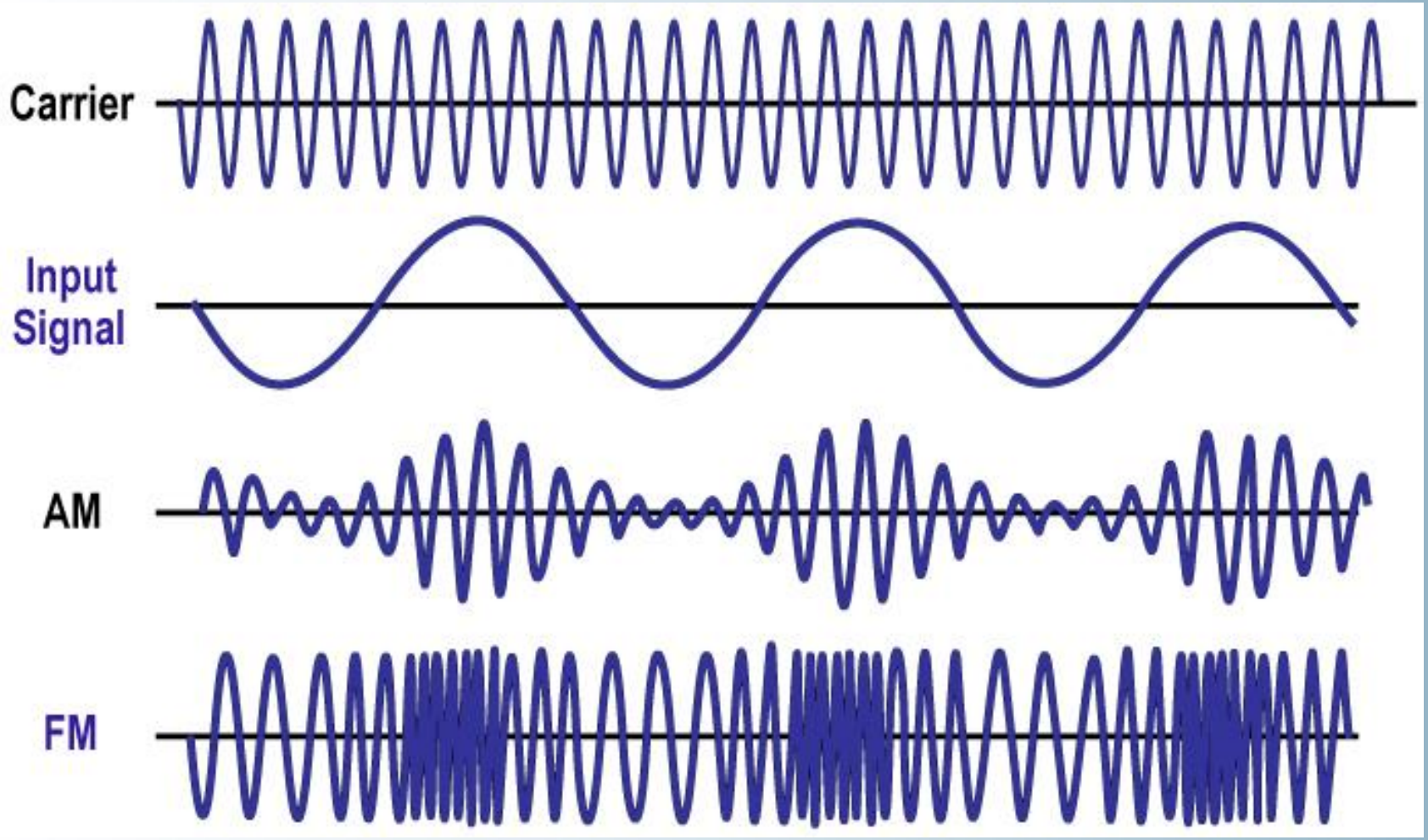
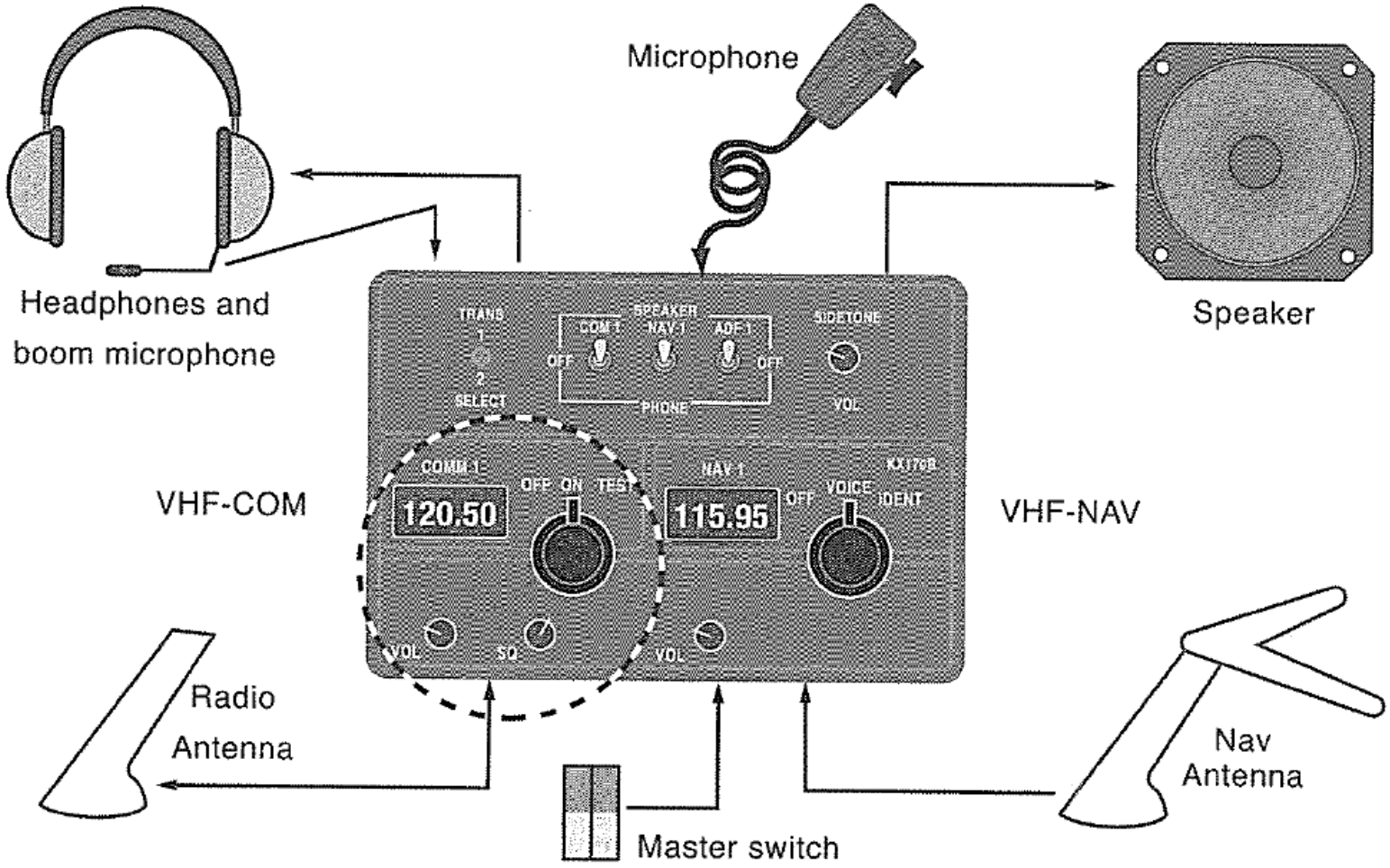


RARO 2 – Components of the Radio

QUESTIONS/COMMENTS?

RADIO COMPONENTS

Radio Components



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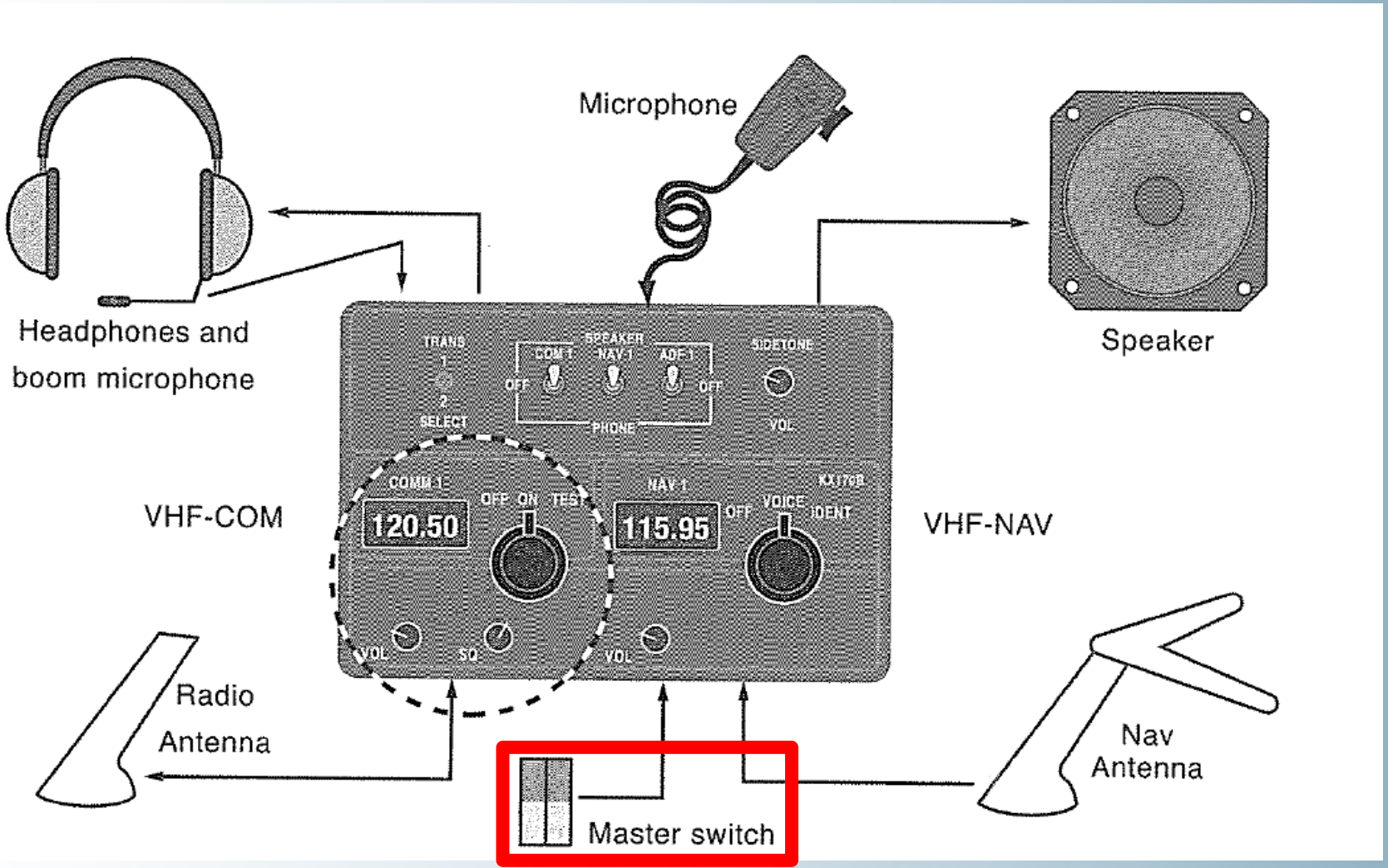

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- **Note: in some aircraft, there is a separate avionics switch**

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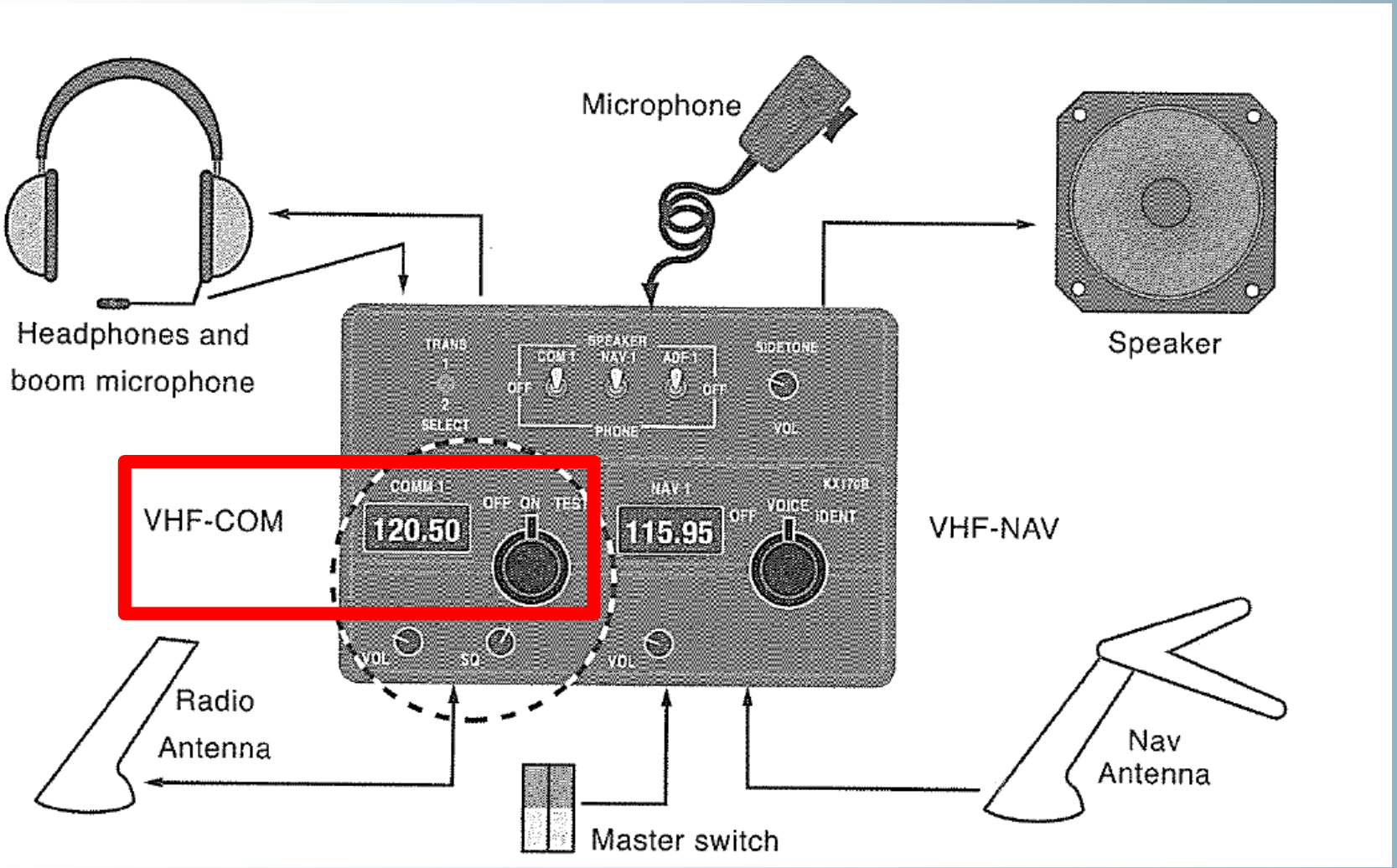

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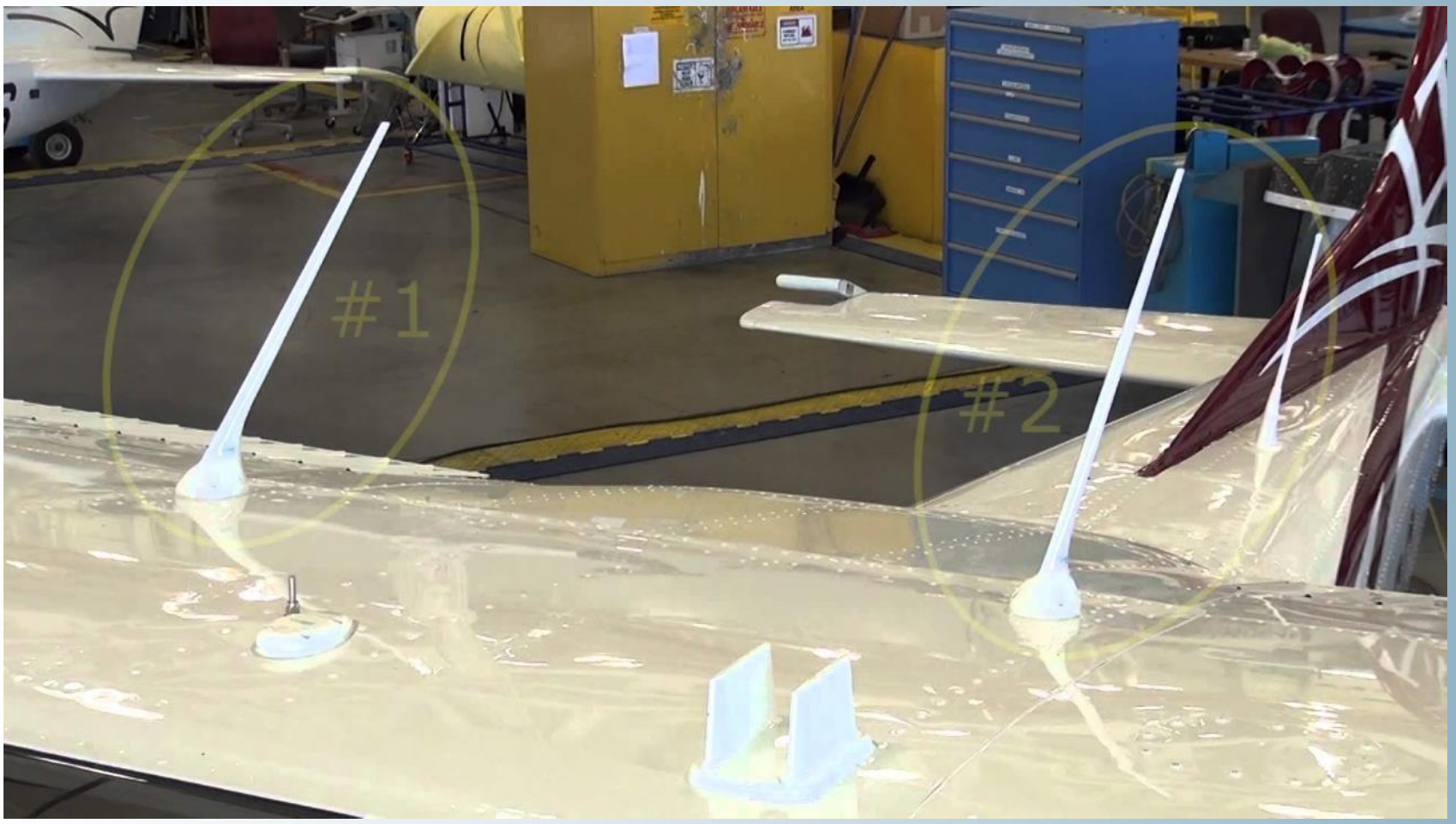

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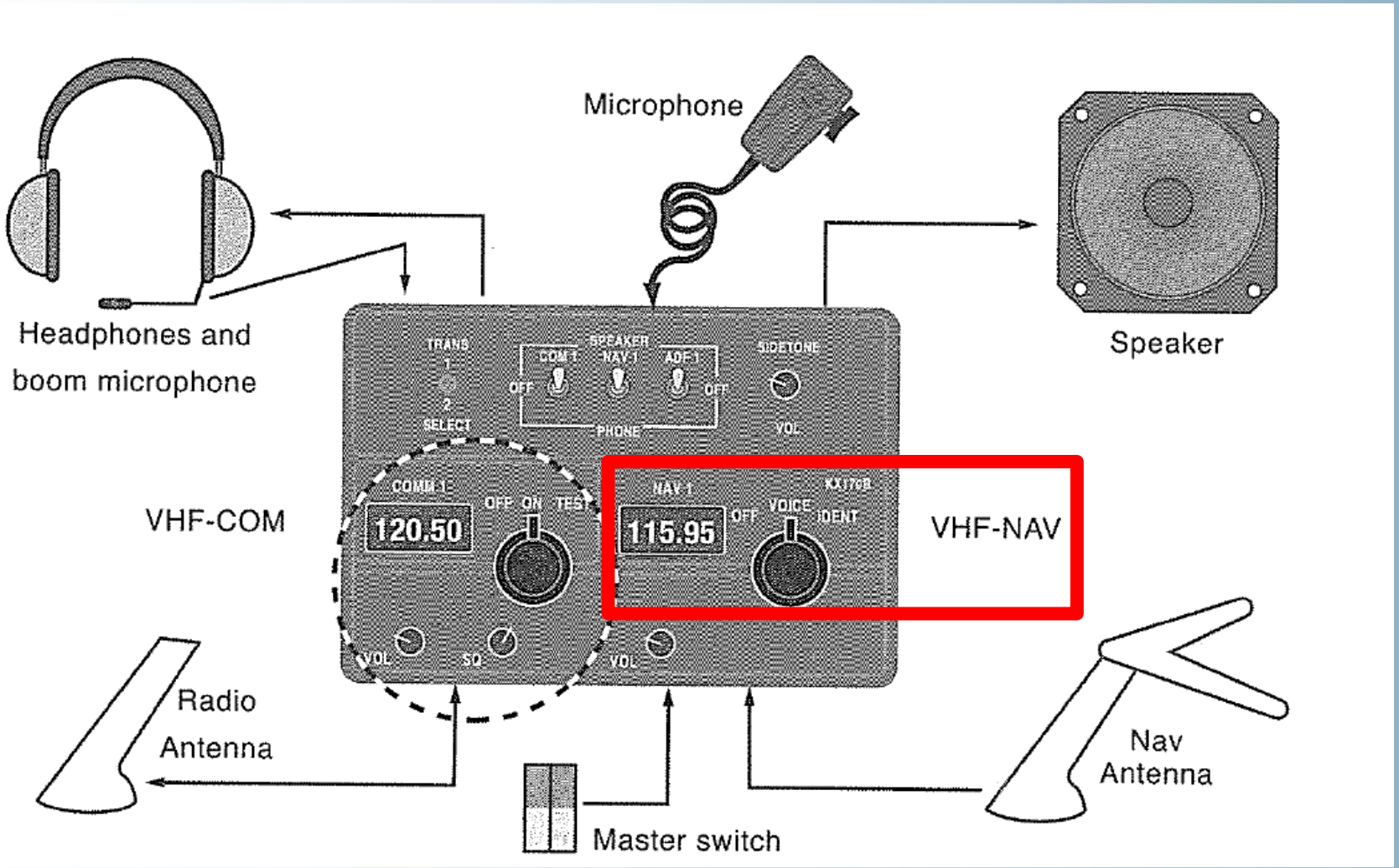

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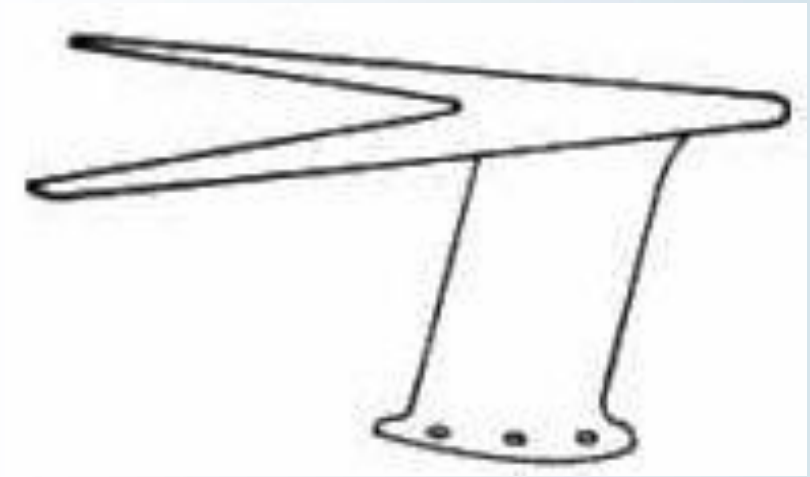

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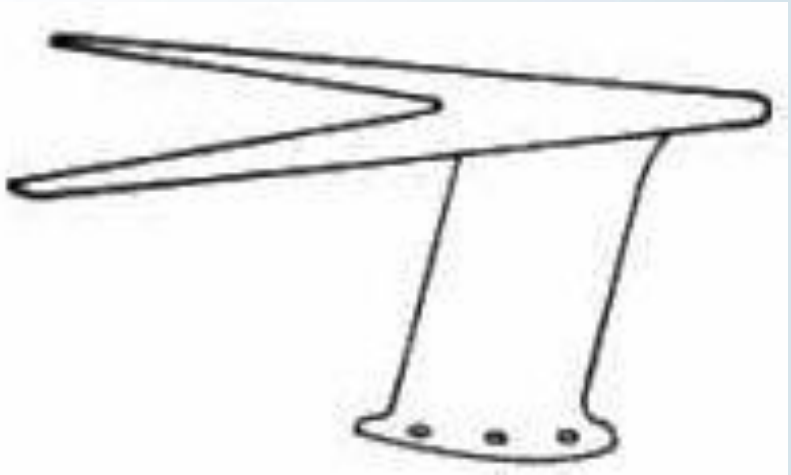

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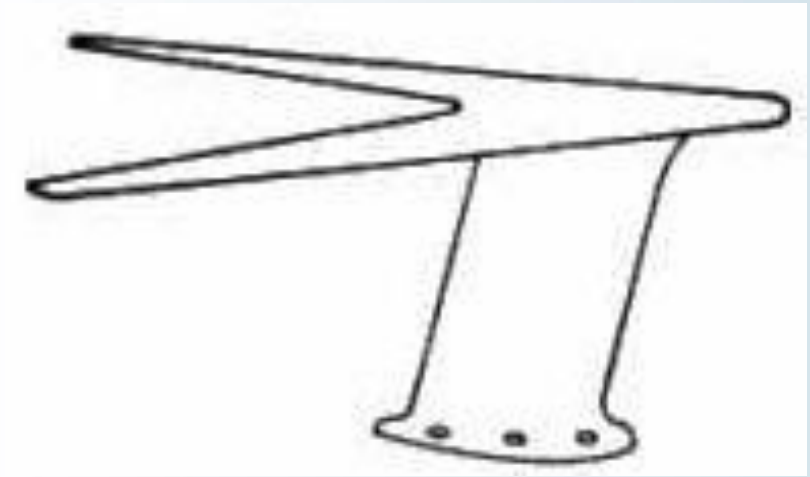

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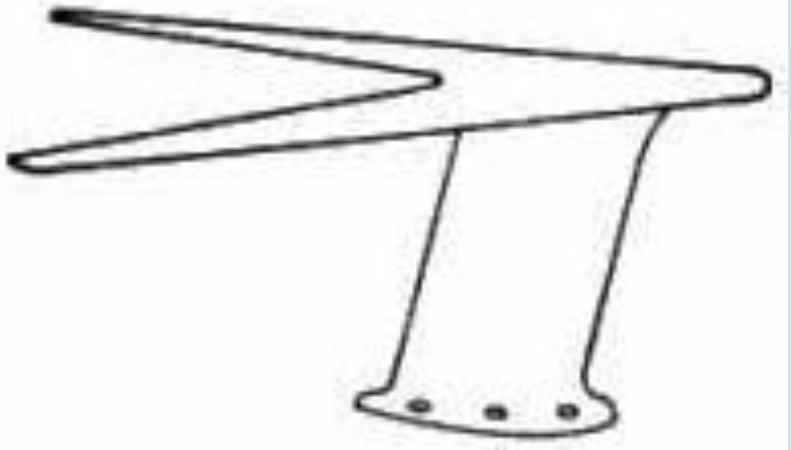

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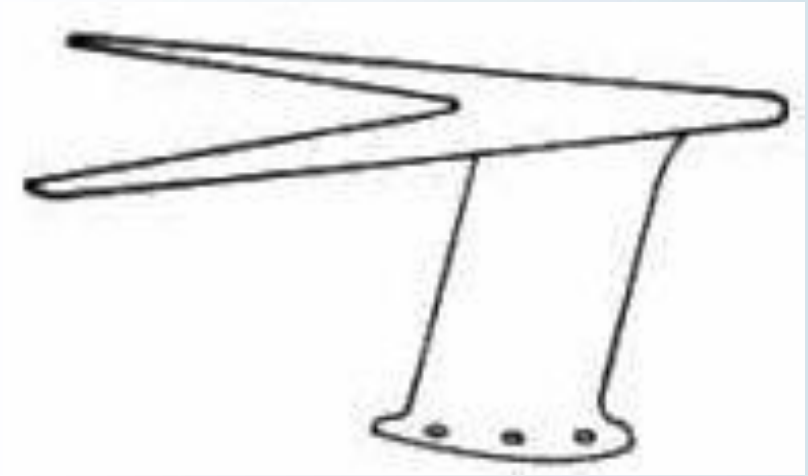

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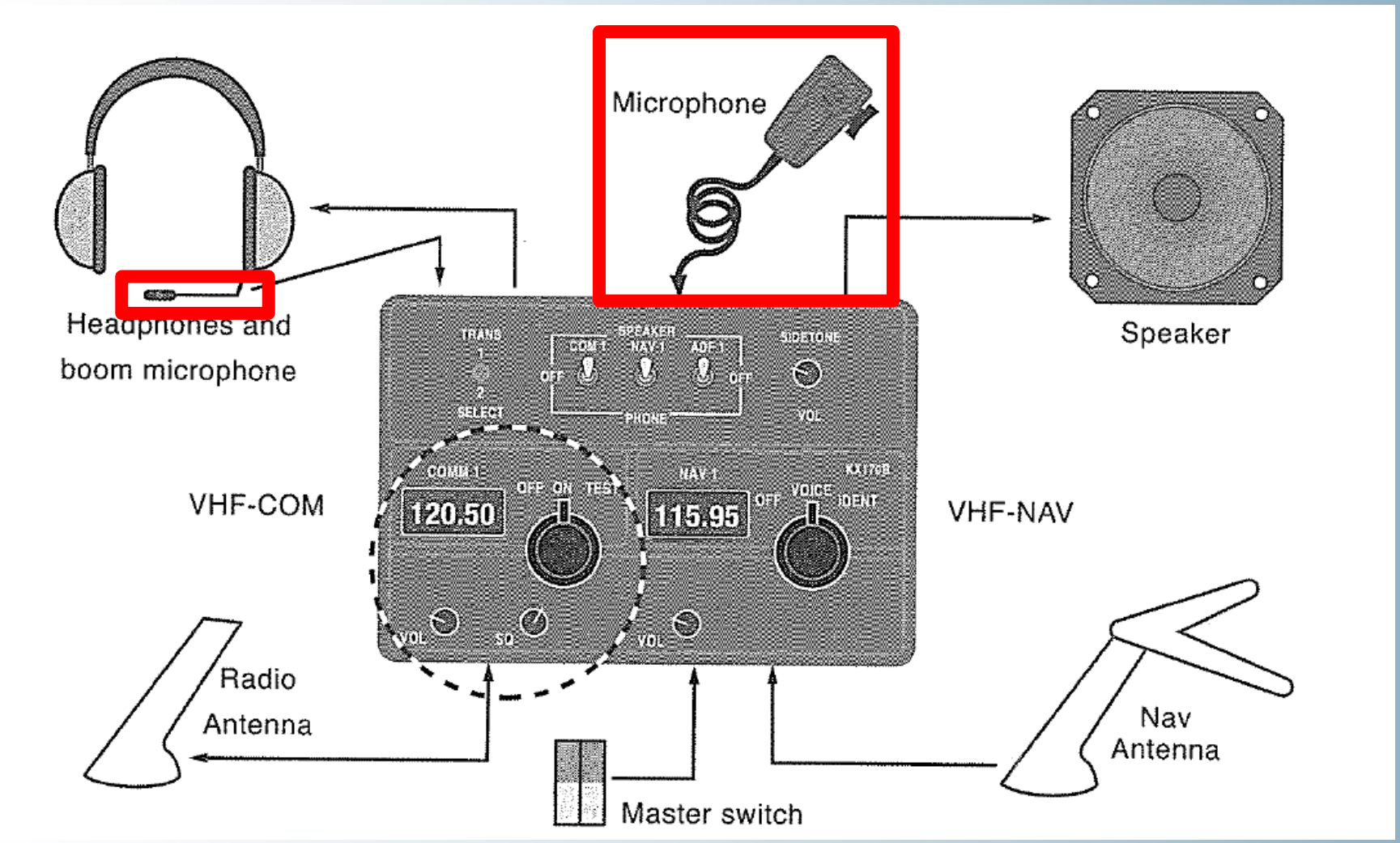

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- We can group the power supply, microphone & antenna into a system known as the transmitter

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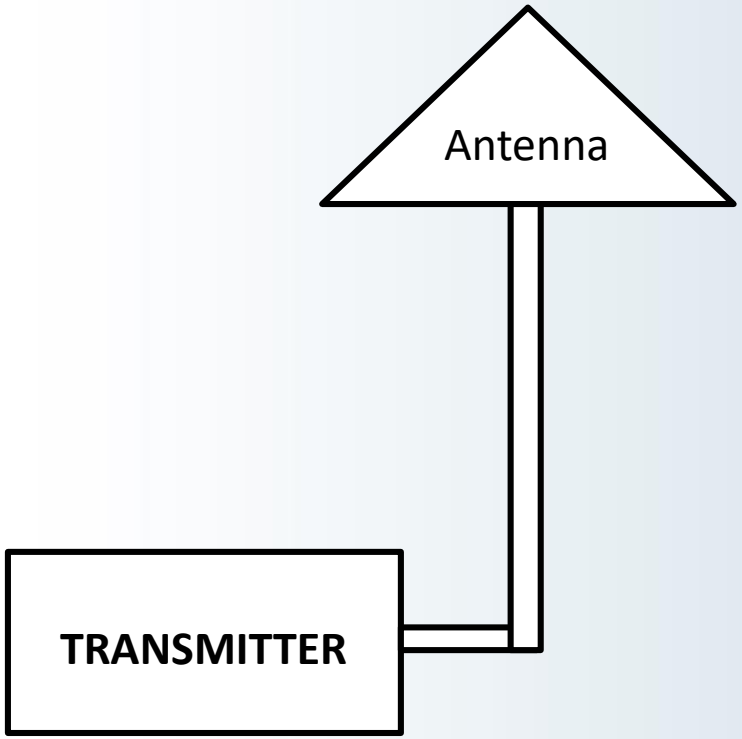

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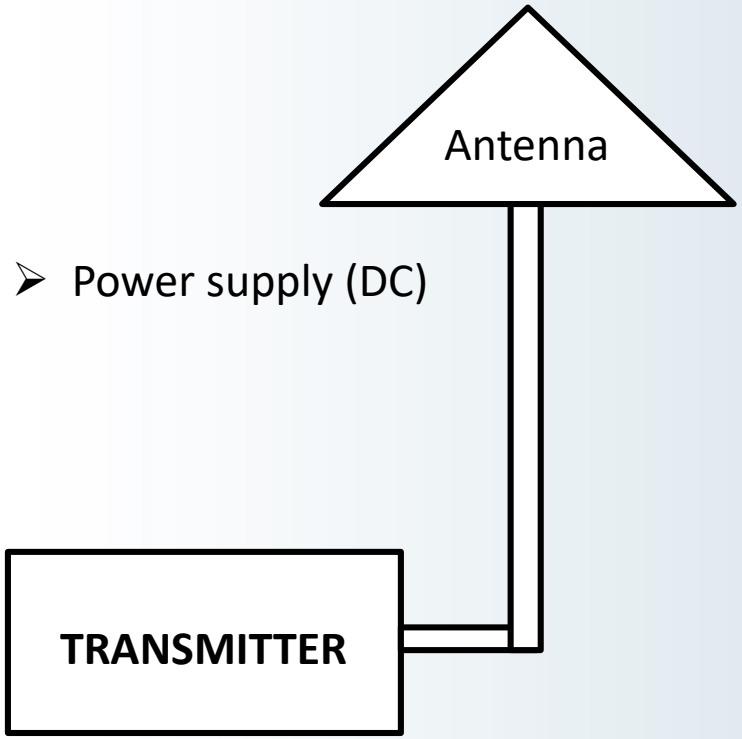

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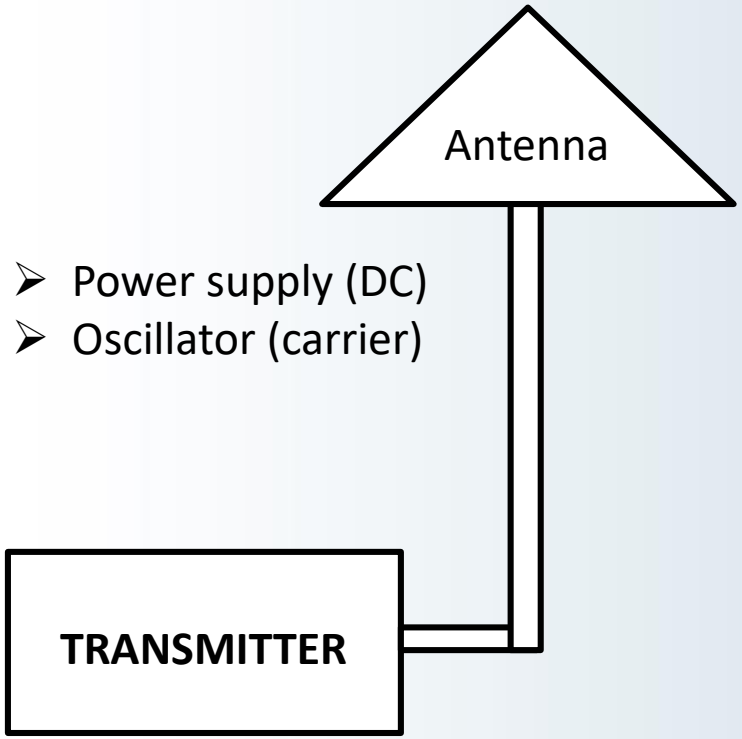

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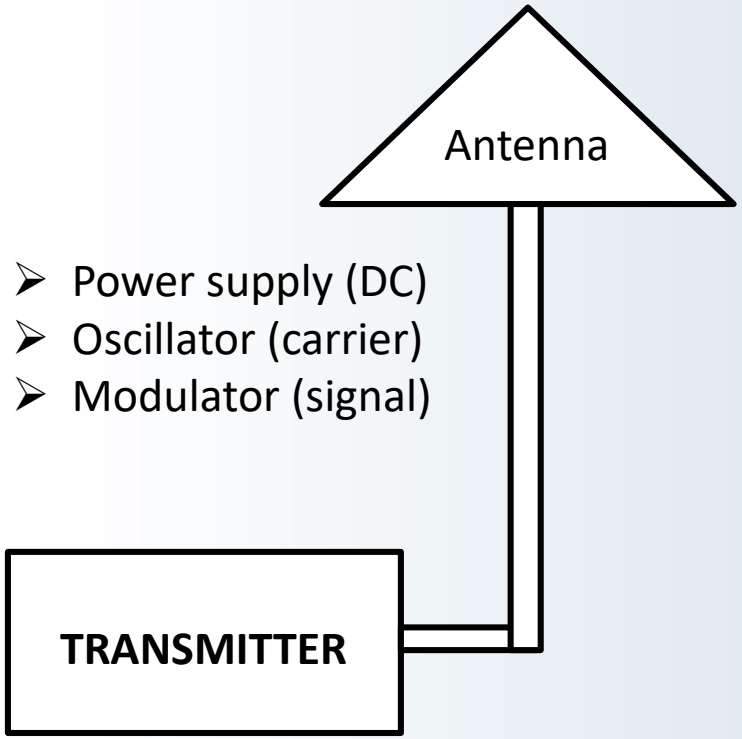

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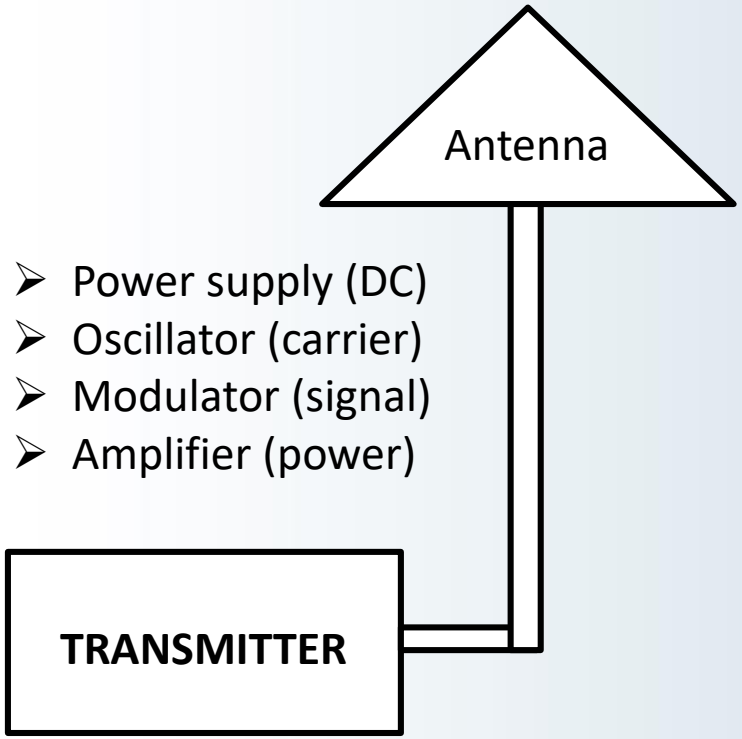

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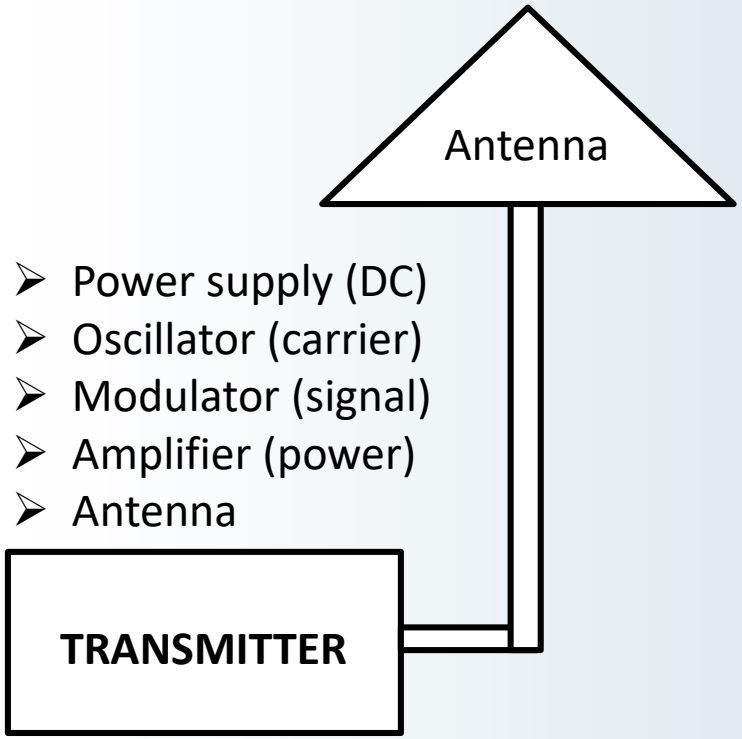

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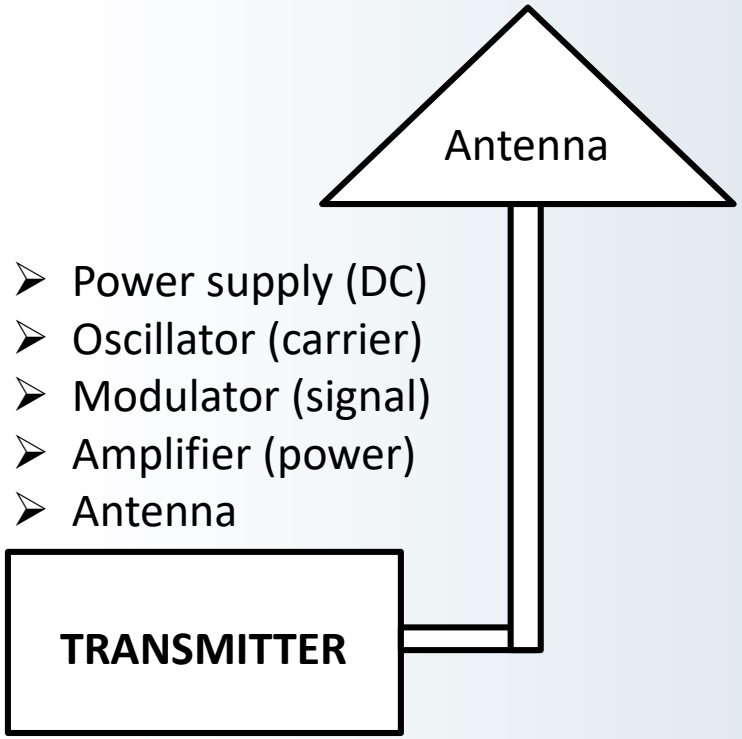

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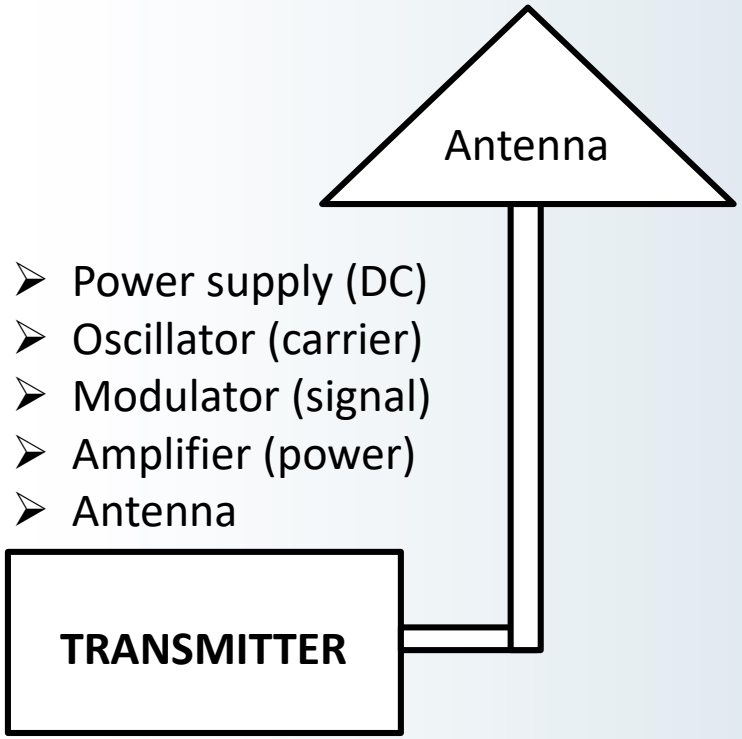

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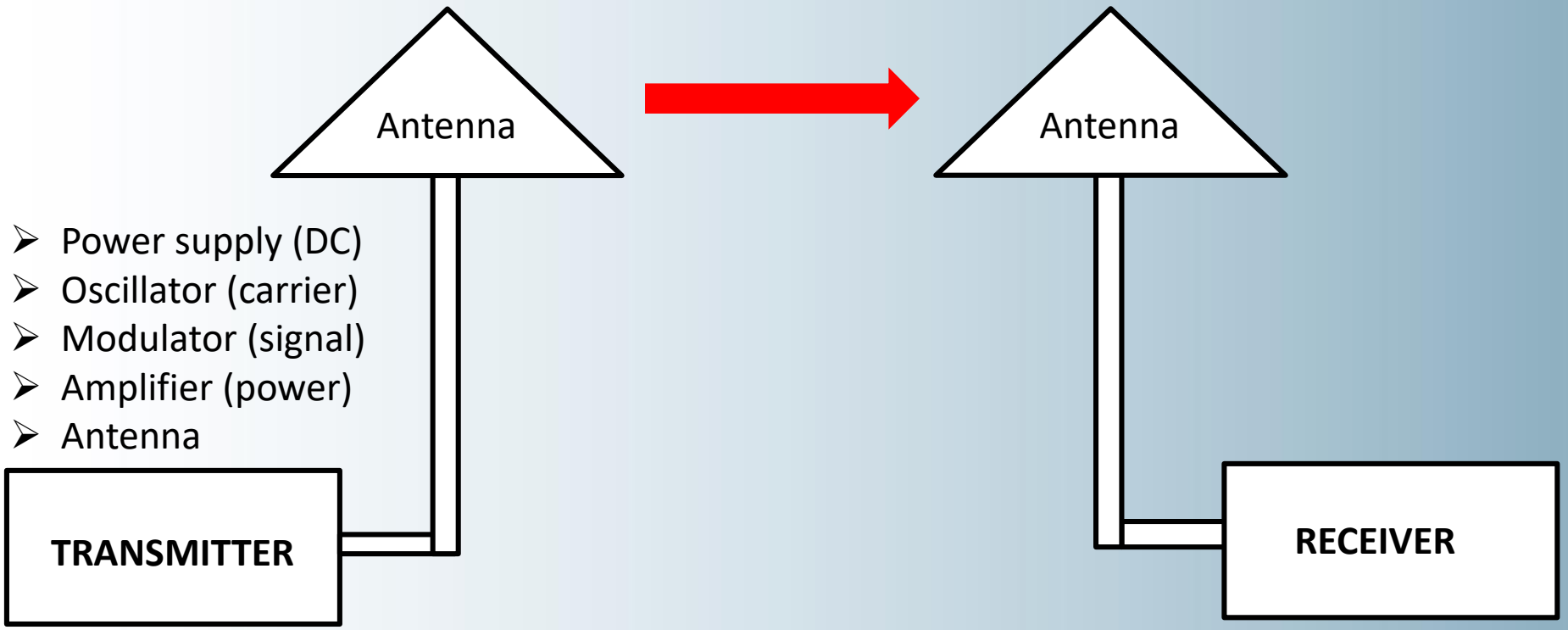

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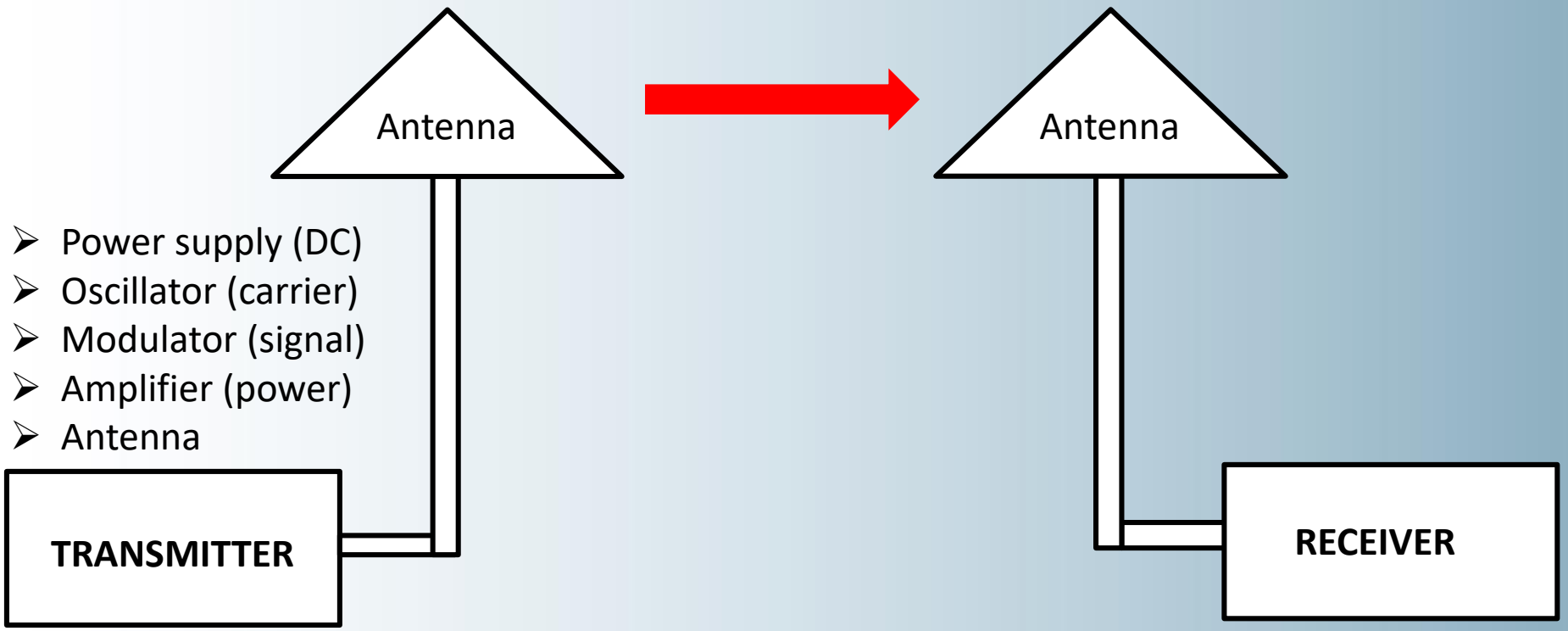

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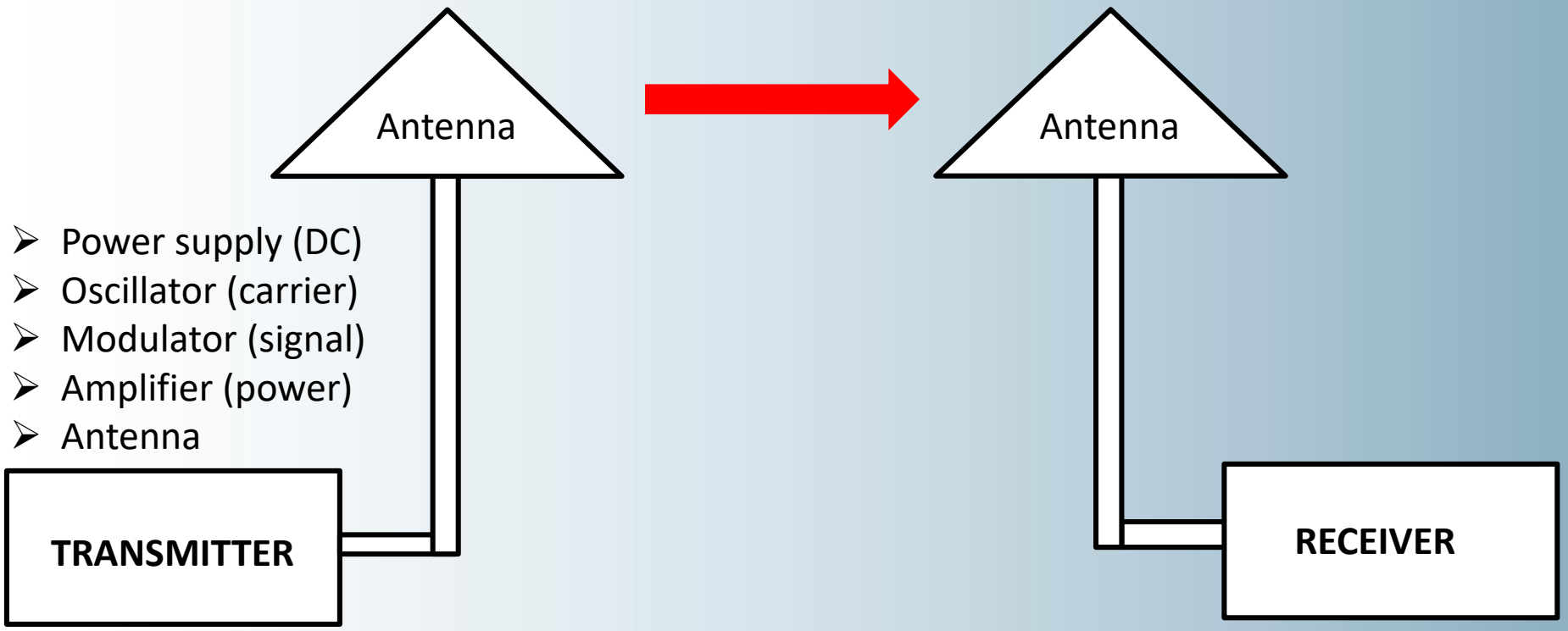

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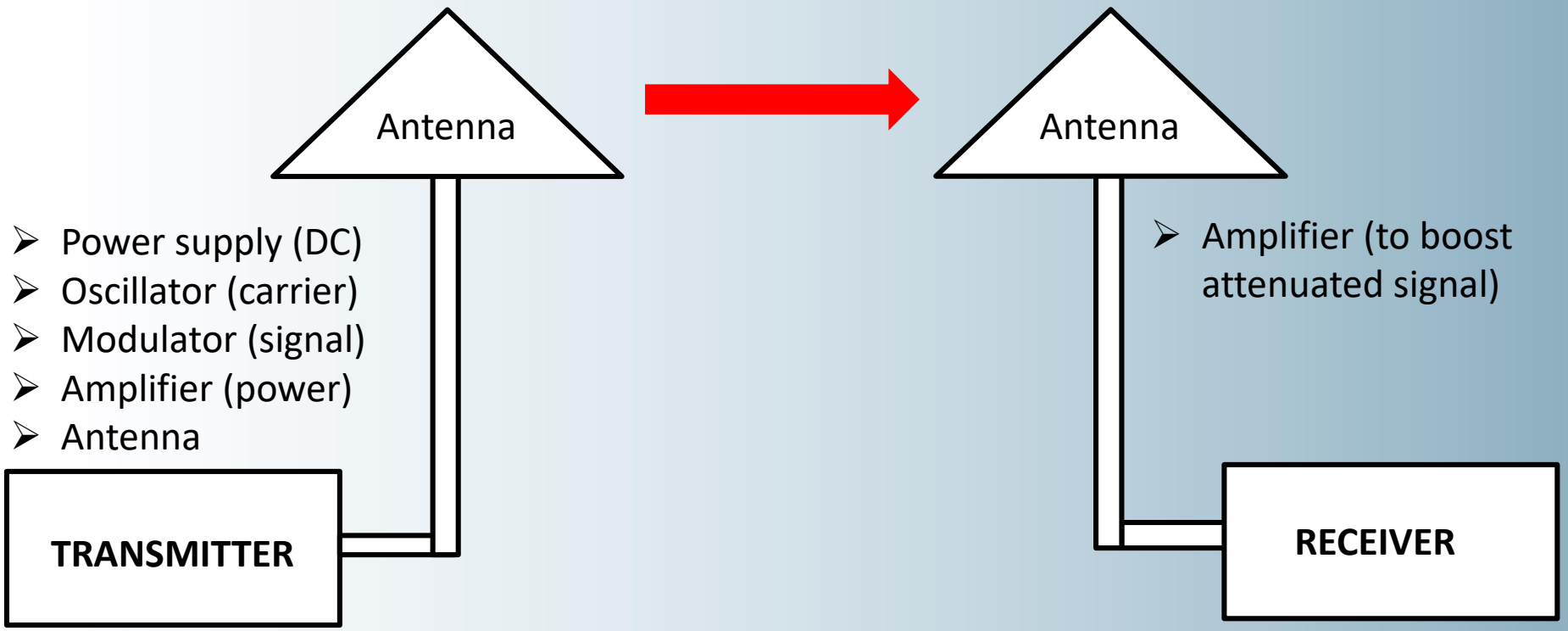

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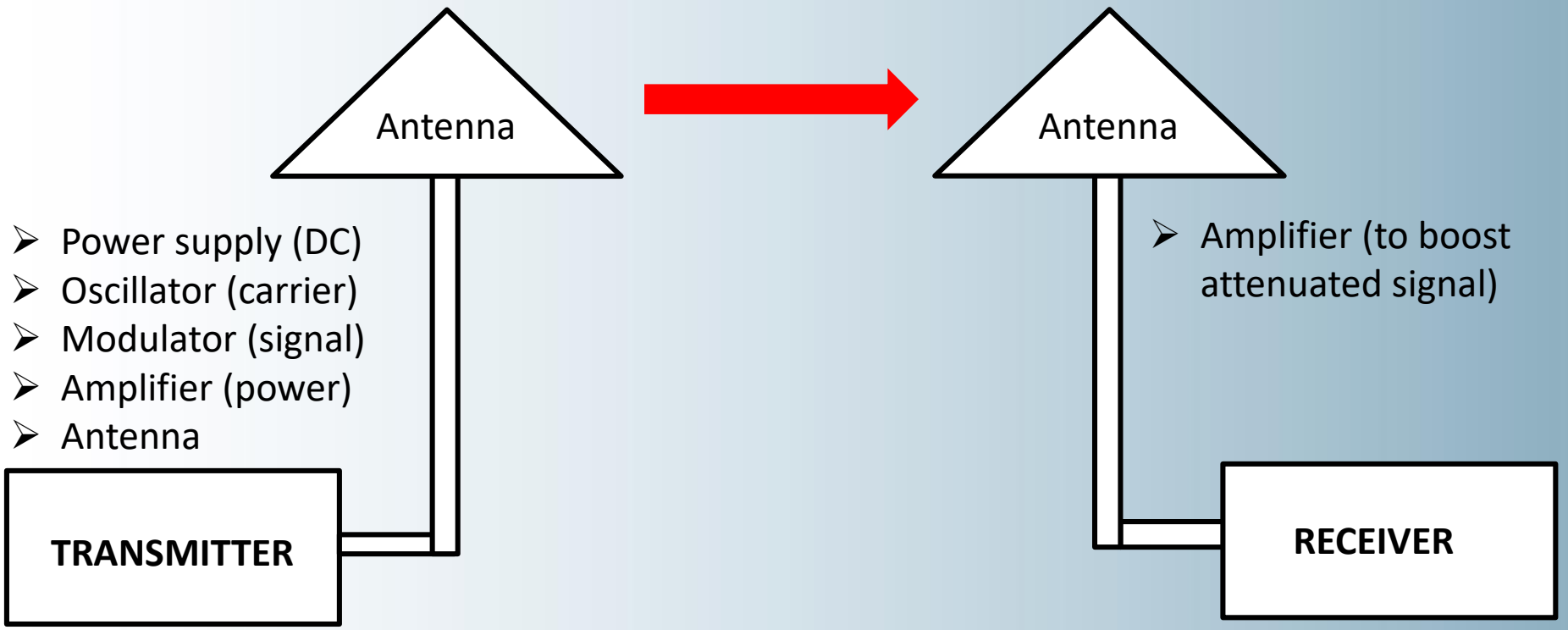

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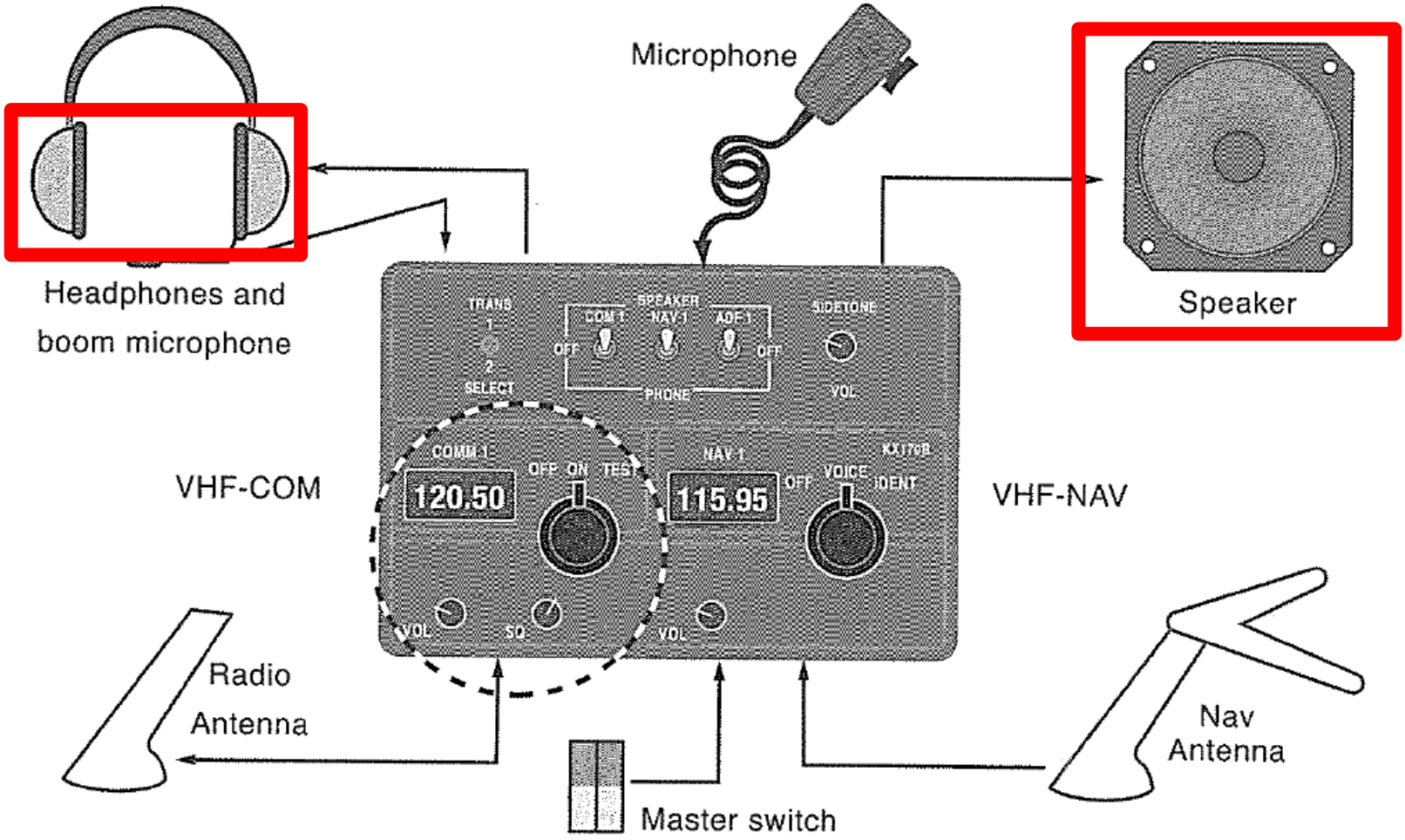

Radio Components – Headphones/Speaker

- The signal is demodulated, allowing the original message to be heard through the headphones/cabin speaker in sound waves detectable to the human ear

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- Most aircraft are also equipped with an electrical intercom system. This allows crew members to talk freely to each other without having to push any buttons
- This system, like the telephone, operates under a duplex system, meaning that more than one person can speak at any one time.

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