

# PPL Theory

## Aeronautical Radio Operation



### RARO 3 – Operating the Radio (G1000)



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| Document Identification  |                   |
|--------------------------|-------------------|
| Document Category        | Training Material |
| Document Revision Number |                   |
| Document Issue Date      |                   |
| Document Status          | Active            |
| Document Title           |                   |
| Document Identification  | MBWTRG-TRM-XXX    |

## 2. Related Documents

| Related Documents | Document Identification |
|-------------------|-------------------------|
|                   |                         |
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## Analogue



## The Radio Stack



### COMM Selector Panel

This panel allows us to select which radios we want to listen to and which we want to transmit on.

**COMM Selector Panel**



## COMM Selector Panel

### LISTENING BUTTONS

Pressing the button illuminates the green light which means you are listening to that radio

In this picture COMM 1 and COMM 2 are being listened to.





## COMM Selector Panel

### TRANSMIT SELECTOR

Indicates which COMM channel you will transmit on if you push to talk.

It is possible to listen on both channels, however you can only transmit on one.

Note: ALWAYS ensure you have the correct COMM selected before making a transmission.

### SPKR

Push the knob in allows you to hear transmissions through a speaker in the cockpit



## COMM Selector Panel

### ISOLATION Buttons

Pilots voice is isolated from other crew and passengers

### COPLT

The co-pilot's voice is isolated from the pilot and other passengers



## COMM Selector Panel

### INTERCOM KNOB

Controls the volume of transmissions amongst pilots and passengers.

You should turn the volume knob up full on your headset and use this knob to control the volume.

- Large knob for copilot and passenger volume
- Small knob for pilot volume





## COMM Selector Panel

### PLAY BUTTON

Will replay the last heard transmission

Press twice will play the last 2 transmissions and so on...



### Selecting a COM

VHF COM 1 → 126.450 ↔ 121.350 COM1  
VHF COM 2 → 118.100 118.600 COM2



- Displays frequencies for each COM
- Control panel to change frequencies

### Selecting a COM – Active Frequencies



The frequencies you can listen to or transmit on

### Selecting a COM – Standby Frequencies



- Used to dial up frequencies
- You are not transmitting or listening to these frequencies

## Selecting a COM – Frequency Selector Knob

**Small Knob**  
changes the KHz

**Large Knob**  
changes the MHz



### Push 1-2

- Allows you to select which COM you would like to change
- Will move the blue outline box between COM 1 and COM 2



### Selecting a COM – Active/Standby Selector



- Switches between the active & standby frequency.
- The COM must be selected first before transferring frequencies.

### Selecting a COM - Volume

#### Rotate

Will change the volume of the com outlined by the blue box.



#### Push SQ

Allows you to hear white noise so you can set the volume level, without hearing a transmission



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- Turning the squelch up increases background noise and the sensitivity of the intercom.
- Turning the squelch down reduces background noise but also reduces the sensitivity of the intercom
- The key is to find a good balance between background noise and intercom sensitivity.



# QUESTIONS/COMMENTS?



## RADIO TESTS

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- (2) If the check indicates any malfunctioning of any portion of the radio apparatus the pilot in command must not fly the aircraft until the apparatus has been certified by a person licensed or approved for the purpose as being in proper working order.

# Radio Tests – Readability Scale

| Scale | Pronounced | Meaning                      |
|-------|------------|------------------------------|
| 1     | WUN        | Unreadable                   |
| 2     | TOO        | Readable now and then        |
| 3     | TREE       | Readable but with difficulty |
| 4     | FOW-er     | Readable but not perfect     |
| 5     | FIFE       | Perfectly readable           |

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  5. Check the second radio (COM 2) on the same frequency

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- If nothing has worked, you may still have the handheld microphone to communicate

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