



PARK ROAD DESIGNS

PRD-225

VHF COM Radio

PILOT'S GUIDE

Operating the panel in flight

This is a simulator peripheral. The PRD-225 does not transmit or receive real radio signals. It mirrors and controls a COM radio inside your flight simulator only.

For unboxing, wiring, and SimLinkHub setup, see the SimLinkHub installation guide instead — this guide assumes the panel is already wired up, powered, and connected to SimLinkHub.



The PRD-225 VHF COM Radio

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1. Layout at a Glance



Figure 1.1 — Front-panel controls

#	Control	Type
1	OLED display	256×64 pixel greyscale
2	Inner knob (with push)	Rotary encoder, also a pushbutton
3	Outer knob	Rotary encoder (ring around the inner knob)
4	Volume knob (with push)	Potentiometer, also a pushbutton
5	FF	Button
6	MON	Button
7	COM	Button
8	NRST	Button
9	SPC	Button
10	TWR	Button
11	CLR	Button
12	ENT	Button

There is no dedicated power switch or backlight dimmer — the unit powers on with whatever it's connected to, and the display runs at a fixed brightness.

2. The Display



Figure 2.1 — Display zones during normal operation

The screen has five regions:

Zone	Location	Shows
Annunciator	Top-left	TX while transmitting (flashes), or SQ when squelch override is on. Only one shows at a time — TX takes priority over SQ. (An RX state also exists in the protocol but isn't currently driven by anything — MSFS doesn't expose a "receiving" signal via SimConnect, so RX never lights up in the current build.)
Active frequency	Left, large	The frequency currently in use, formatted like 118.700 .
Standby frequency	Right, large	The frequency queued up, formatted the same way. Labelled STB , or MN when Monitor mode is on.
Radio label	Bottom row, right side	COM1 or COM2 — which sim radio this panel is controlling. Always shown here regardless of what else is in the bottom row.
Bottom row	Bottom	Airport identifier + frequency type (e.g. KXYZ TWR) on each side if that side's tuned frequency matches a known airport — left blank on a side that doesn't match. Also shows the current channel spacing, 25K or 8.33 , bottom-right — except in Monitor mode, where this area is left blank aside from the radio label.

The bottom row is temporarily replaced by a volume bar for two seconds after you turn the volume knob (Section 6) — the radio label stays visible either way.

The display redraws about 10 times per second, so all of the above updates feel instantaneous.

3. Tuning the Standby Frequency

You always tune the **standby** frequency — the active frequency is controlled by the simulator and only changes when you flip-flop (Section 5).



Figure 3.1 — Dual-concentric tuning knob

- **Outer knob** — whole-MHz steps. Each detent moves the standby frequency by **1.0 MHz**.
- **Inner knob** — fine steps. Each detent moves the standby frequency by the current channel spacing: **25 kHz**, or **8.33 kHz** if 8.33 spacing is selected (Section 7).

Both knobs wrap around at the ends of the VHF COM band (**118.000–136.975 MHz**) instead of stopping — turning past 136.975 MHz rolls back to 118.000 MHz, and vice versa.

The outer knob only tunes in whole-MHz steps while you're on the normal display. It has no effect while the Nearest Airports browser is open.

4. Direct Frequency Entry

For jumping straight to a known frequency without spinning through the whole band, press **in** on the inner knob.



Figure 4.1 — Digit-entry editor, cursor on one digit

- 1 Press the inner knob. The standby side of the display switches to an editable 6-digit view (three MHz digits, three kHz digits), starting from the current standby frequency. The active frequency display is unaffected.
- 2 Turn the **outer knob** to move the cursor left/right between digits.
- 3 Turn the **inner knob** to scroll the highlighted digit's value (0–9, wraps around).
- 4 Press **ENT**, or press the inner knob again, to accept. The entered value is rounded to the nearest valid channel step and clamped to the VHF COM band, then loaded into standby.
- 5 Press **CLR** at any point to cancel — the standby frequency is left unchanged.

The display shows an **ENT=ok / CLR=cancel** hint (two stacked lines) while entry mode is active so you don't need to remember the sequence.

5. Flip-Flop (Swap Active/Standby)

Press **FF** to swap the active and standby frequencies — the previously active frequency moves to standby, and the previously standby frequency becomes active. This is the same action as the flip-flop button on a real aviation radio.

Pressing FF also cancels digit-entry mode or exits the airport browser if either is open, then performs the swap.

COM2 note: the simulator has no single “swap” command for a second COM radio, so when this panel is set to COM2, SimLinkHub performs the flip-flop as two separate frequency updates instead of one atomic swap. Functionally identical, but you may occasionally see the sim's own radio panel flicker for a frame while it catches up.

6. Volume

Turn the volume knob to adjust COM radio volume. Turning it any noticeable amount (roughly more than a 1% change) briefly replaces the bottom row of the display with a tick-marked volume bar for two seconds, then the display returns to normal.

The volume knob is also a button — see Squelch (Section 9); it is not a mute button, despite sharing the same corner of the panel.

Volume can't be turned all the way down to silent — it's floored at 1% rather than 0%, because in MSFS a volume of exactly 0% powers the COM radio off entirely rather than just muting it. The floor keeps the radio powered while turned all the way down.

7. Channel Spacing (25 kHz / 8.33 kHz)

Press **SPC** to toggle between 25 kHz and 8.33 kHz channel spacing. The active mode is always shown at the bottom-right of the display (**25K** or **8.33**).

This setting changes the step size used by the inner tuning knob (Section 3) and the rounding used by direct frequency entry (Section 4) — it does not retune the current standby frequency on its own.

8. Monitor Mode

Press **MON** to toggle Monitor mode. While it's on:

- The standby label on the display changes from **STB** to **MN**.
- The bottom row goes blank (aside from the radio label) instead of showing airport-frequency matches.

Press **MON** again to turn it off.

Visual only. MON changes the panel display and the matching indicator in the SimLinkHub app — it does not change what you actually hear in MSFS. MSFS has no concept of listening to an untuned/standby frequency, so true dual-watch audio isn't something this button can produce; it's provided as a display/status toggle only.

9. Squelch

Press the **volume knob** to toggle a squelch override. When it's on, an **SQ** annunciator appears in the top-left of the display — unless you're transmitting or receiving at that moment, in which case TX/RX takes priority in that corner.

Visual only. Like Monitor mode, this changes the panel display and the SimLinkHub app's indicator, not actual audio in MSFS. The sim has no background static/noise for a squelch threshold to suppress, so this is a display/status toggle only.

10. Nearest Airports Browser

The panel can show a live list of the airports nearest your aircraft, along with each airport's known COM frequencies, sourced from SimLinkHub. This updates automatically as you fly — no user action needed for the data itself.

Requires Little Navmap. The Nearest Airport functionality will only work if you have installed Little Navmap. Little Navmap does not need to be running — it just needs to be installed so that this device can read its airport database.



Figure 10.1 — Level 1: airport list

Opening the browser — press **NRST**. If you were mid-way through direct frequency entry, that's cancelled first and the browser opens instead.

Level 1 — Airport list

- Shows up to 6 nearby airports with a **>** cursor on the highlighted one, plus a scrollbar if the list runs longer than the visible rows.
- Turn the **inner knob** to move the cursor up/down the list.
- Press **ENT** to drill into that airport's frequency list (Level 2).
- Press **CLR** to exit the browser entirely, leaving standby unchanged.
- On-screen hint: **ENT=open** / **CLR=exit** (two stacked lines).



Figure 10.2 — Level 2: frequency list

Level 2 — Frequency list

- Shows up to 8 frequencies for the selected airport (e.g. TWR, ATIS, GND), one per row.
- Turn the **inner knob** to move the selection.
- Press **ENT** to load the highlighted frequency into standby and close the browser.
- Press **CLR** to go back to the airport list (Level 1) without loading anything.
- On-screen hint: **ENT=STB** / **CLR=exit** (two stacked lines).

Pressing **NRST** again also closes the browser at any level.

11. TWR and COM Buttons

- **TWR** — loads the nearest airport's primary tower frequency directly into standby, without opening the browser. Requires airport data to have arrived from SimLinkHub first (it does nothing if none is available yet).
- **COM** — toggles which simulator radio this panel is controlling, **COM1** ↔ **COM2**. The radio label in the bottom row updates immediately to reflect the new selection.

12. Startup and Persistent Memory

On power-up, the panel shows an animated splash screen — the PRD-225 logo zooms and fades in at the top of the display, then “PRD-225 by Park Road Designs” appears underneath and it all holds for a moment (about 4 seconds total) — then it goes straight to the last frequencies and settings it had saved — it does not reset to any factory default.

The panel remembers, across power cycles:

- Active and standby frequency
- Channel spacing (25 kHz / 8.33 kHz)
- Monitor mode on/off
- Squelch override on/off
- COM1 / COM2 selection
- Volume level

Settings are written to memory automatically, about 2 seconds after your last change — there's nothing you need to do to save them. Once SimLinkHub reconnects, it will resync the panel to the simulator's current frequencies within a few seconds, so it's normal to briefly see old values right after power-on.

Recall to 121.500 MHz — pressing **CLR** while not in the entry mode or browser resets the *standby* frequency to 121.500 MHz. It's a quick-recall preset, not an emergency/distress function.

13. Quick Reference

Control	Normal display	Digit entry mode	Airport browser
Inner knob (turn)	Fine-tune standby (± 25 kHz / ± 8.33 kHz)	Scroll highlighted digit (0–9)	Move selection up/down
Inner knob (press)	Enter digit-entry mode	Confirm entry	—
Outer knob (turn)	Tune standby by ± 1 MHz	Move cursor between digits	No effect
FF	Swap active $\leftrightarrow$ standby	Cancel entry, then swap	Exit, then swap
MON	Toggle monitor indicator (visual only)	—	—
SPC	Toggle 25 kHz / 8.33 kHz spacing	—	—
NRST	Open airport browser	Cancel entry, then open browser	Close browser
TWR	Load nearest tower freq to standby	—	—
COM	Toggle COM1 / COM2	—	—
Volume knob (turn)	Adjust volume (shows bar for 2s)	—	—
Volume knob (press)	Toggle squelch indicator (visual only)	—	—
ENT	No effect	Confirm entry	Open airport / load frequency
CLR	Recall standby to 121.500 MHz	Cancel entry	Back a level / exit

On the normal display, ENT does nothing — use **FF** to make the standby frequency active.