

tpsPTT — User & Configuration Guide

One Windows tray app that lets a USB footswitch, headset button, keyboard key, or mouse button key up L3Harris BeOn's push-to-talk — even while BeOn runs in the background.

Version 1.0

Windows 10 / 11 · 64-bit

Revised 22 Jul 2026

1 Overview

tpsPTT replaces the old **JoyToKey + AutoHotKey** workaround with one program. Hold a trigger; tpsPTT presses BeOn's talk-group key until you release it. No config files to copy, no Startup-folder juggling.

- **Any/all triggers at once** — footswitch, headset, key, mouse.
- **Two delivery modes** — silent Background or reliable Focus-flip, with a guided Test.
- **Setup wizard** — guided first run, re-runnable any time.
- **Export / Import** settings between computers.
- **Safe trigger test** — verify a device fires PTT without going on air.
- **Background-capable** — triggers seen regardless of focus.
- **BeOn sync** — verifies and can set BeOn's key for you (auto-backup).
- **Run at sign-in**, minimize to tray, optional transmit sound.
- **Machine-wide settings** shared by every user of the PC.
- **Port-proof device lock** — a locked trigger survives USB-port & reconnect changes.

2 Installation

tpsPTT is a single self-contained `tpsPTT.exe` — no .NET runtime or dependencies to install.

Recommended — the installer (all users)

Double-click `install.bat` (shipped next to the exe). It asks for administrator rights, then installs machine-wide to `C:\Program Files\tpsPTT` with **all-users** Start-Menu and Desktop shortcuts. Safe to run straight from a **flash drive** — the exe is copied onto the C: drive.

Manual

Copy `tpsPTT.exe` to the PC and run it. Keep it in a **permanent folder** — "Run at sign-in" points at the exe's current path, so a copy you later delete breaks auto-launch.

Running as Administrator: if BeOn runs elevated, run tpsPTT elevated too — otherwise Windows (UIPI) blocks the keystroke.

3 First-run setup wizard

On first launch tpsPTT opens a guided wizard. **Skip** any time to use the tabs directly, or re-open it from **Help ► Run setup wizard**.

- 1 **Choose the PTT key** — the key tpsPTT presses in BeOn (Escape recommended).
- 2 **Set the key in BeOn** — the wizard checks the match and can set it for you.
- 3 **Add your trigger** — press your footswitch / headset / key / mouse button.
- 4 **Test & finish** — fires a test, switches to Focus-flip if needed, offers "start at sign-in", saves.

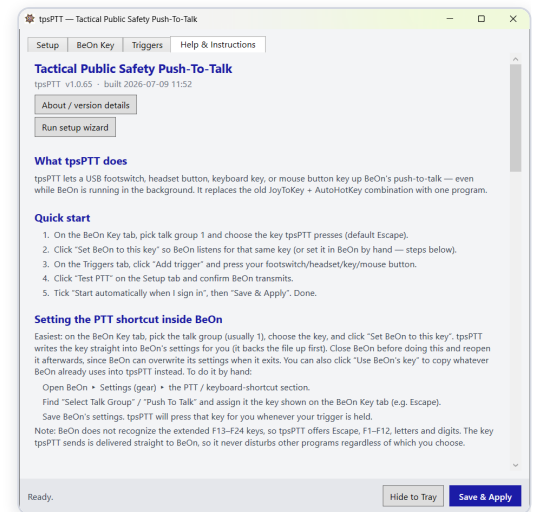


Figure 1. Every option is explained on-screen, and the full instructions live on the **Help & Instructions** tab — where you can re-open this wizard any time.

4 BeOn Key tab

BeOn gives every shortcut its own push-to-talk key. While you hold a trigger, tpsPTT presses **that shortcut's key** inside BeOn — not one key for everything. This tab keeps the two in agreement, one shortcut at a time.

Selected is the default and the usual choice: it keys **whichever talk group is currently selected** in BeOn, so operators change groups in BeOn and the footswitch simply follows. Choose **Talk Group 1–16** only when a trigger must always key one fixed group.

Talk group & its key

- **BeOn shortcut** — **Selected (current talk group)** by default, or Talk Group 1–16 for a fixed group; tpsPTT reads the key BeOn currently uses for it and shows it below.
- **Key for this group** — the key tpsPTT presses. It's delivered only to BeOn's window, so any key is safe — **Escape** (BeOn's default) is recommended. BeOn does **not** accept the extended **F13–F24** keys, so the list offers Escape, F1–F12, letters and digits.
- The status line shows BeOn's current key and whether it ✓ **matches** or ✗ **does not**.

Disabled talk groups

Most sites only need **Selected**, so any slot BeOn has no key for shows "**Disabled — no PTT key**". The usual setup is **Selected = Escape**: pick Selected, choose Escape, click **Set BeOn to this key**. A slot stays Disabled until you give it a key here (or inside BeOn), so before pointing a trigger at a fixed talk group, set that group's key on this tab first. To switch a slot off again, choose **Disabled** and click **Set BeOn to this key** — tpsPTT clears that shortcut in BeOn.

Keeping BeOn in sync

- **Set BeOn to this key** writes the chosen key into BeOn for the selected group · **Use BeOn's key** copies BeOn's key into tpsPTT · **Re-check** re-reads the file.

Close BeOn before writing. BeOn can overwrite its settings on exit, so close it, click **Set BeOn to this key**, then reopen. The original is backed up to `settings.xml.tpsptt.bak`.

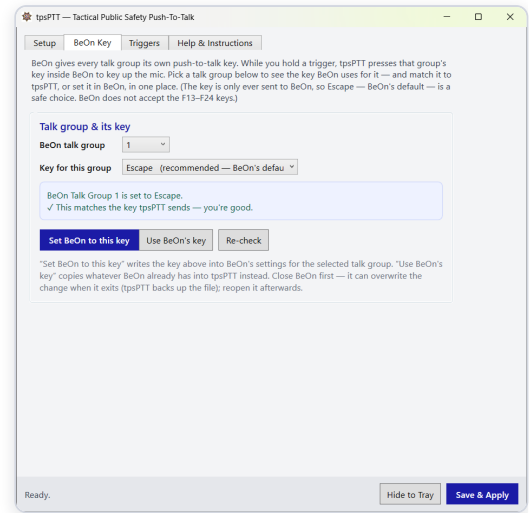


Figure 2. The **BeOn Key** tab. Pick a talk group; tpsPTT reads the key BeOn uses for it and shows whether it matches. Here talk group 1 uses **Escape** and matches — **you're good**.

5 Setup tab

BeOn target window

tpsPTT finds BeOn by window title — the default matches the standard client; use `/regex/` for advanced matching. Click **Detect** to confirm BeOn is found.

How to deliver PTT

- **Auto** (recommended) — tries silent Background delivery. Confirm with Test PTT; switch if BeOn doesn't transmit.
- **Background** — posts the key to BeOn with no focus change. Silent; works only if BeOn reads its shortcut through its message loop.
- **Focus-flip** — briefly activates BeOn, sends the key, then restores your window, text caret, and BeOn's prior minimized state. Always works.

Test PTT fires a 1.2-second transmission; if BeOn doesn't key up, tpsPTT offers to switch you to Focus-flip.

Startup & moving between PCs

- **Start at sign-in** · **Start minimized to tray** · **Play a sound when transmission starts**.
- **Export / Import settings** — save your setup to a `.json`, copy it to another PC, Import, then Save & Apply.

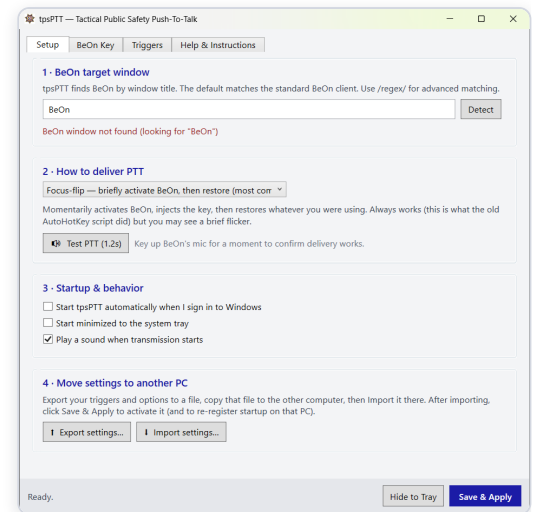


Figure 3. The **Setup** tab — match BeOn's window, choose how PTT is delivered (with a one-click Test), set startup behaviour, and export/import settings between PCs.

6 Triggers tab

Triggers are the devices that key PTT — add as many as you like. Click **Add trigger** and press the device to learn it.

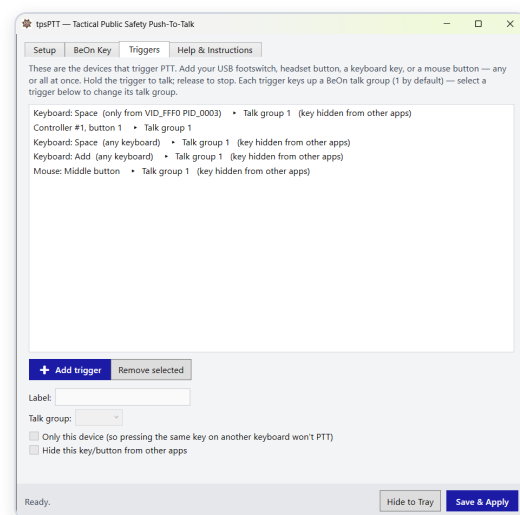


Figure 4. The **Triggers** tab. Each row is a device and the talk group it keys — a footswitch locked to one device, a controller button, a keyboard key, and a mouse button, all live at once. Select a row to change its label, talk group, or per-device options.

DEVICE	DETECTION	BACKGROUND
Keyboard key	Low-level hook + per-device Raw Input	Yes (can suppress)
Mouse button (middle / X1 / X2)	Low-level mouse hook	Yes
Footswitch / headset as game controller	Joystick polling (~15 ms)	Yes

- **BeOn shortcut** — each trigger keys up its own BeOn shortcut, **Selected** by default (follows the talk group chosen in BeOn). Select a trigger and pick a fixed **Talk Group 1–16** instead if it must always key one group; tpsPTT sends whatever key BeOn has for that slot and warns if it has none yet. Point a footswitch at Selected and a headset button at group 5, for example. If two are held at once, the most recently pressed wins.
- **Only this device** — for a pedal/headset that emits a normal key (e.g. Space), locks the trigger to that one device so typing the same key on your keyboard won't fire PTT. It matches by the device's hardware id (VID/PID), so the lock keeps working after you move the device to another USB port or reconnect it — no need to re-capture.
- **Hide this key from other apps** — swallows the key system-wide so a dedicated footswitch key doesn't leak into other programs.

Test triggers — without going on air

Not sure a footswitch or headset is wired up right? In the **Test triggers** panel click **Start test**, then press the device: tpsPTT lights up and shows the talk group it *would* key. While the test runs, **nothing is sent to BeOn**, so you can check every trigger without transmitting. Click **Stop test** — or just close the window — to return to normal; push-to-talk is always re-enabled automatically.

7 Troubleshooting

SYMPTOM	FIX
"BeOn window not found"	Open and log into BeOn, click Detect . Edit the match text if your title differs.
Nothing transmits in Background	Switch to Focus-flip , or let the Test button switch you.
Key doesn't match BeOn	BeOn Key tab ▶ pick the talk group ▶ Set BeOn to this key (close BeOn first).
A trigger's talk group shows no key	That group is Disabled . On the BeOn Key tab , select the group and give it a key.
Device not detected when adding	Should capture as Keyboard or Controller. If nothing captures, it's a pure-HID button — report the device.
Not sure a trigger works	Triggers tab ▶ Test triggers ▶ Start test , then press it — detects the press without transmitting.
Keystroke blocked	If BeOn runs as Administrator, run tpsPTT as Administrator too.
Typing a space fires PTT	Tick Only this device on that trigger.

8 File locations

WHAT	WHERE
tpsPTT settings (all users)	C:\ProgramData\tpsPTT\config.json
Installed program (all users)	C:\Program Files\tpsPTT\tpsPTT.exe
BeOn settings tpsPTT reads/writes	C:\ProgramData\BeOn\Client\beon\settings.xml
BeOn backup (before a sync write)	...\settings.xml.tpsptt.bak

tpsPTT — Tactical Public Safety Push-To-Talk · BeOn Push-To-Talk Bridge. Talk-group values in BeOn use Windows virtual-key codes (**27:0** = Escape). BeOn does not accept the extended F13–F24 keys.