SCARP Quick Start Manual

Last updated 3-2-2026

1) Charge and power-up

- **Charge SCARP for at least 4 hours** using the included charger.
- **Do not expect good operation while the charger is attached.** The charger/USB power environment is noisy and can degrade reception and measurements.
- Power on the unit. After boot, SCARP comes up ready to scan.

2) What you need connected

- **Antenna:** SCARP needs an antenna to work properly. (Included with certain configurations.)
- **External filter:** For best performance, use SCARP with an external filter. (Included with certain configurations.)
- **Audio output:** SCARP's audio output is **high-impedance only**.
    - Use **high-impedance headphones** or a **powered external speaker**.
    - SCARP **will not** drive a low-impedance load or an unpowered speaker.
- **Volume:** SCARP has a volume control. Turn it to set a comfortable listening level.

3) Battery indicator and expected life

- The on-screen **battery icon** shows remaining charge (green/yellow/red segments).
- Expected battery life is **about 4 hours**, but real-world experience varies with temperature, volume level, and usage patterns.

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4) Scanning basics

SCARP scans up to **8 channels** (CH0–CH7). Each channel has:

- a stored frequency
- a stored squelch threshold
- a status color (Green / Yellow / Red)

Channel status colors (Green / Yellow / Red)

Each channel can be set to one of three status colors. These are a quick "mode tag" for the channel and also affect behavior.

- **Green**: Normal scanning / normal threshold behavior.
- **Yellow**: Priority / attention state (used to highlight channels you care about).

- **Red**: Disabled / ignore state (used to effectively remove a channel from normal scanning).

Important note:

- When you change a channel's color, SCARP also **pulls in that channel's squelch level** (so the channel behavior stays consistent with its status).

(Exact details of how your configuration uses these states may vary by firmware revision; the key point is: **color = behavior + its associated squelch**.)

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5) Programming a channel (store a frequency)

Use this to set any channel (CH0–CH7) to a new frequency.

1. Enter **PROG** (program) mode.
2. Type in the frequency as six digits (example: **134.025** → 1 3 4 0 2 5).
3. Press the channel button you want to store it into (**CH0–CH7**).
4. SCARP stores the frequency and returns to normal operation.

Tips:

- If you make a mistake while typing, use **CLR** to clear/back out.
- You can reprogram any channel at any time.

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6) Set the squelch level for a channel

Squelch determines how strong a signal must be before SCARP will "open" and stop scanning.

1. Select the channel you want to adjust (CH0–CH7).
2. Enter squelch adjust mode (from the normal screen).
3. Increase/decrease the squelch until:
    - background hiss is muted when nothing is transmitting
    - real transmissions reliably open the channel
4. Exit squelch adjust mode.

Practical guidance:

- If SCARP stops too often on noise or weak junk, **raise squelch**.
- If SCARP misses aircraft you can hear on other radios, **lower squelch**.
- If you use an external filter (recommended), squelch behavior becomes much more predictable.

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7) View the unit "serial number"

SCARP can display a unit identifier ("serial number") from the UI.

1. Enter the **Info/Version** screen (from the normal screen).
2. The serial number is shown there.

(If your build displays it as a version string plus an ID number, that's normal.)

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8) Waterfall mode (how to enter and use it)

Waterfall is SCARP's "RF visualization" mode. It shows signal activity across a slice of spectrum as a live rolling display.

Enter Waterfall

- From scan mode, use the Waterfall entry control (as labeled on your unit's UI).

What you'll see

- A frequency reference along the top.
- A live waterfall "heat map" showing relative energy over time.
- A cursor/marker showing your current focus point.
- A summary/status line and battery indicator.

Basic Waterfall controls

- **Left / Right:** move the cursor across the displayed spectrum slice.
- **Exit:** returns to scan mode.
- Watch for strong continuous signals: they show up as persistent bright lines.
- Intermittent transmitters show up as bursts or dotted patterns.

How to get useful results

- Use SCARP with a proper antenna and (ideally) the external filter.
- Avoid operating with the charger attached.
- If you're in a high-RF environment, reduce overload sources (or add filtering) before trusting fine details.

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9) Common gotchas

- **Charger attached = degraded RF performance.** Charge it, then unplug it for real use.
- **No antenna = nothing meaningful.** SCARP needs a real antenna.
- **External filter matters.** If signals seem "weird," overloaded, or inconsistent, the filter is often the fix.
- **Audio output needs high-Z headphones or powered speaker.** Unpowered speakers won't work.

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10) Fast "first flight" setup checklist

1. Charge 4+ hours, then unplug charger.
2. Connect antenna (and external filter if you have it).
3. Plug in high-impedance headphones or a powered speaker.
4. Set volume.
5. Program CH0–CH7 with your local freqs.
6. Set squelch per channel.
7. Scan.
8. Use Waterfall when you want to see what's happening instead of guessing