MISSION-CRITICAL
INTERCONNECT SOLUTIONS

Glenair®

WARFIGHTER-TOUGH

STAR-PAN™ NG

STAR-PAN Ops Control

QUICK-START USER'S GUIDE

with SPOC

APRIL 2025

STAR-PAN NG: Next-Generation STAR-PAN Multiport USB Hub, Cable, and Power Management System

STAR-PAN NG

Key Elements

SPOC Overview

Cross Platform Application
for STAR-PAN System Control
of Data and Power Distribution.

SPOC UI

Visual Display of Each Page

SPOC Overview:

Cross Platform Application
for STAR-PAN System Control
of Data and Power distribution.

Android:

- Samsung S9 TE Android 8
- Samsung S20 TE
  Android 10 / 11
- Samsung S23 TE Android 13

Windows:

- Windows 10 / 11
- Stand Alone application

Docker:

- Arm64 (64bit)
- Armv7 (32bit)

Linux:

- Red Hat Enterprise Linux 9.4

SPOC UI Android – Main Page

SPOC Version

Slide-Out Menu

Hub Quick Status Menu

Port Icon

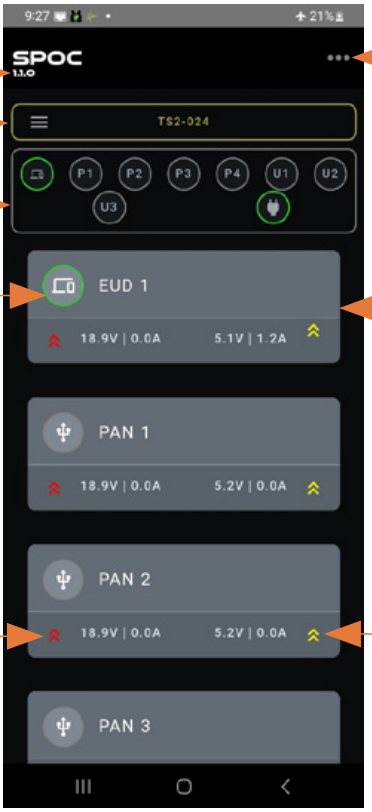
- Green Circle indicates connection
- Icon changes based on connection

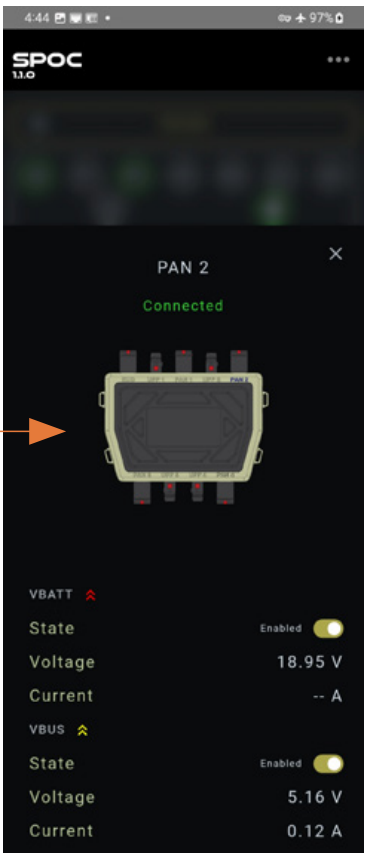
VBATT

- Up indicates output of hub
- Down indicates input to hub
- Animates to show current flow

Port Card

- Drawer expands port info and allows for port control





Overflow Menu

- Shutdown
- Refresh
- MMConfig View

Port Card

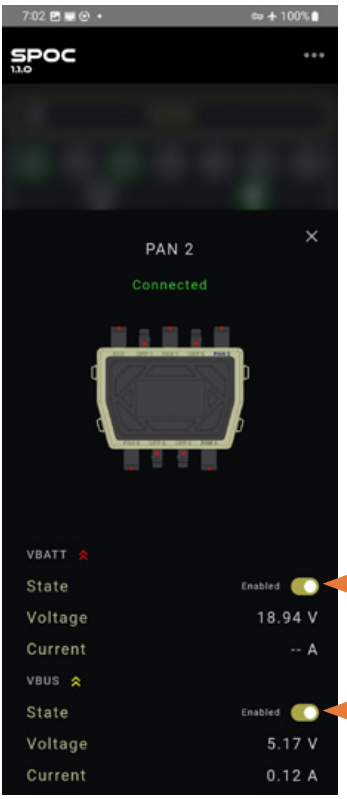
- Tap on card to open port drawer
- Drawer expands port info and allows for port control

VBus/ VCharge

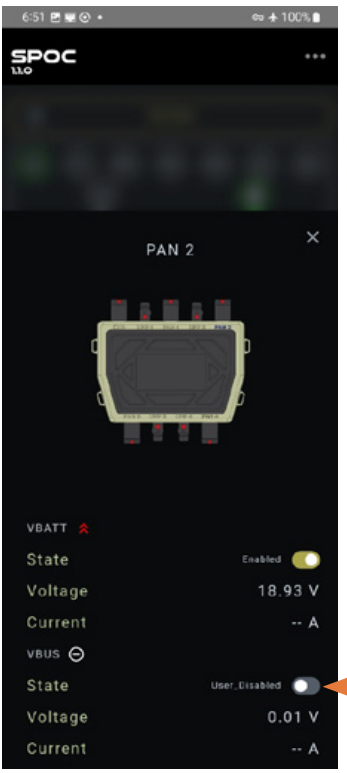
- Up indicates output of hub
- Down indicates input to hub
- Animates to show current flow

Port Control PAN

SPOC enables full control over all Ports



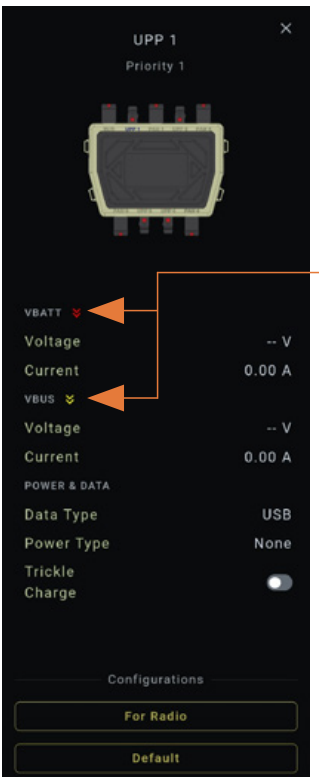
VBATT / VBus output enabled by default



User can individually toggle VBATT / VBus output

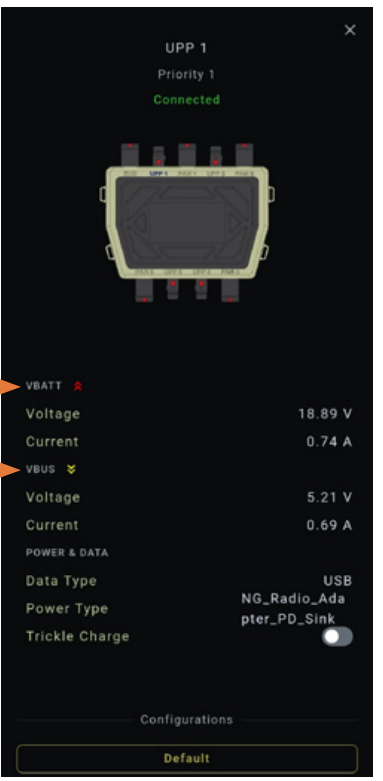
Port Control UPP

Universal Power Ports will default to input and SMBus for battery connection. The UPP VBATT and VBus lines can change to output and the data lines to USB based on what is connected.



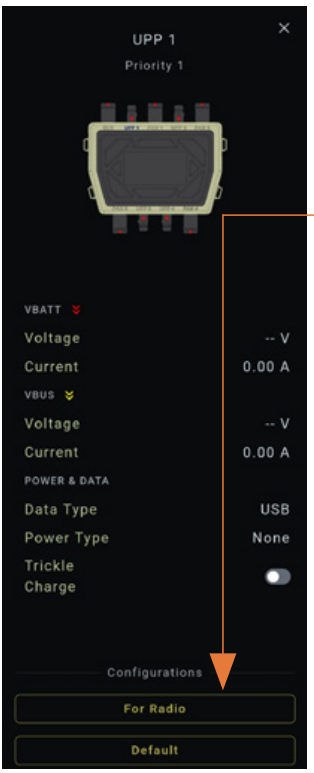
VBATT / VBus input enabled by default

With NG Radio Adapter connected, VBATT changes to output while VBus stays as input based on USB Power Delivery Negotiation

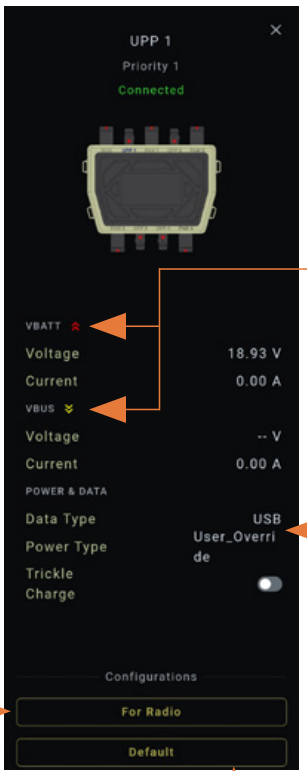


Port Control UPP – Configurations

UPP Configurations allow a user to manually configure a UPP if autodetection isn't possible. This is the case with some STAR-PAN Plus radio cables where the hub doesn't automatically recognize a handheld or Manpack radio connection. The UPP will be configured as a legacy Radio port.



Select the "For Radio" button to configure the UPP as a legacy Radio Port



VBATT changes to output and VBus stays input

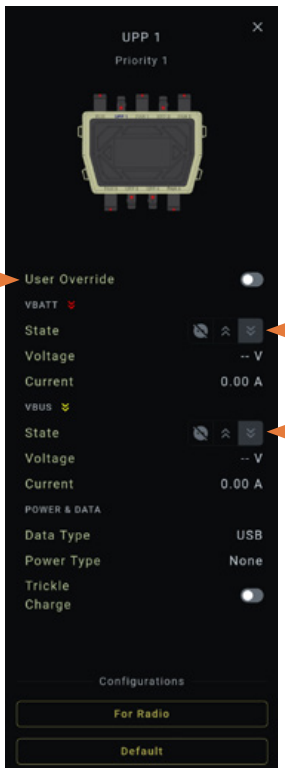
Power Type changes from "None" to "User Override"

"For Radio" configuration button only visible when current power type is "None" or "User Override"

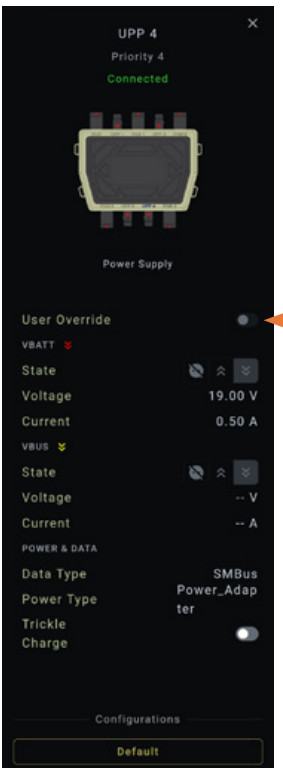
Select the "Default" button to revert the UPP back to auto configuration

Port Control UPP – Advanced Mode

Advanced Mode allows users to manually configure a UPP if nothing is connected to the UPP or the port is already in “User Override” Mode. Advanced Mode is turned on from the settings menu.



VBATT and VBus can be set to input, output or disabled.

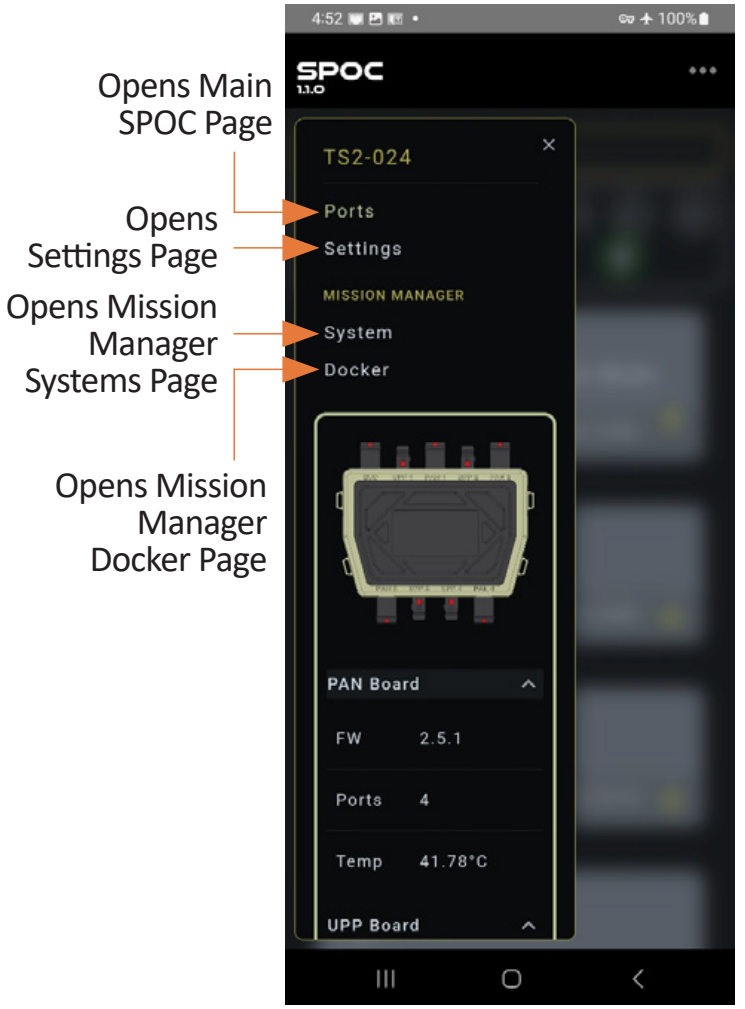


When Advanced Mode is active, User Override toggles are shown in the UPP Drawer

If something is already connected to the UPP, the User Override toggle will be grayed out and can not be toggled.

SPOC UI Android – Slide-out Menu

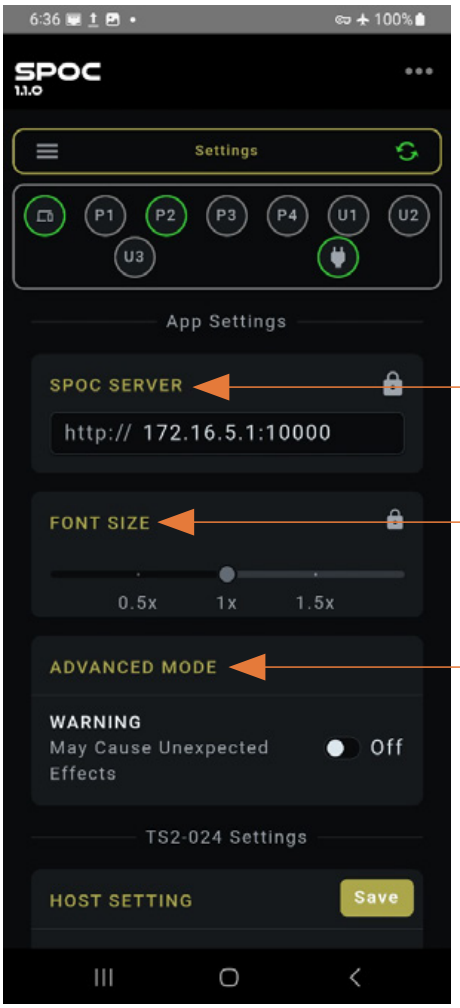
Slide-Out Menu offers quick availability of Hub information regarding firmware, temperature, and port availability as well as quick navigation to other pages within the SPOC application.



SPOC UI Android – Settings Page

The Settings Page is divided into two sections, App Settings and hub specific settings.

App Settings



Address to SPOC Server

- Typically 172.16.5.1 when in Mission Manager Mode
- Typically localhost when in EUD Mode
- Can be edited to point to any SPOC server over a network connection

Font Size

- Font size of the app can be adjusted to fit various screen sizes

Advanced Mode

- Use to access advanced menu options throughout the application
- Should not be used for basic operations

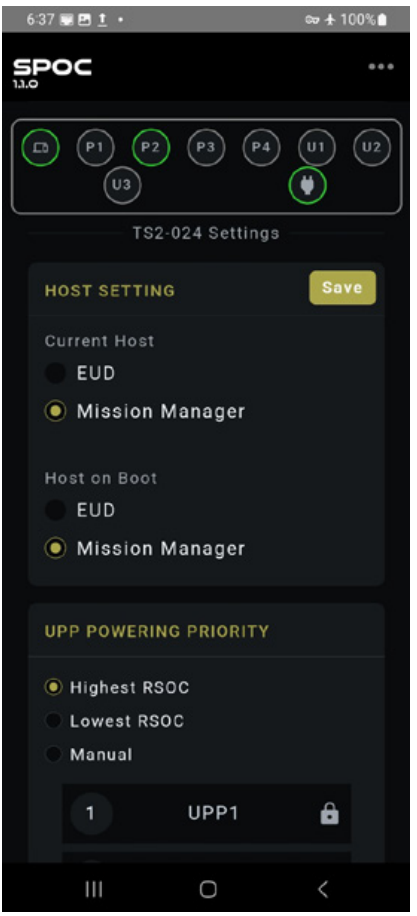
SPOC UI Android – Settings Page (Cont.)

Host Settings are displayed when connected to a hub with an embedded Mission Manager

Current Host shows current host selected

- EUD Mode
  - Bypasses the Mission Manager as host and makes the EUD port an upstream port
  - EUD is the USB host and used for all data routing (Network Monitor, Serial Monitor etc.)
- Mission Manager Mode
  - Selection makes the Mission Manager the upstream port and host while it makes the EUD port a standard downstream port
  - All routing and connections are handled using the SPAR application

Hub Settings (Host)

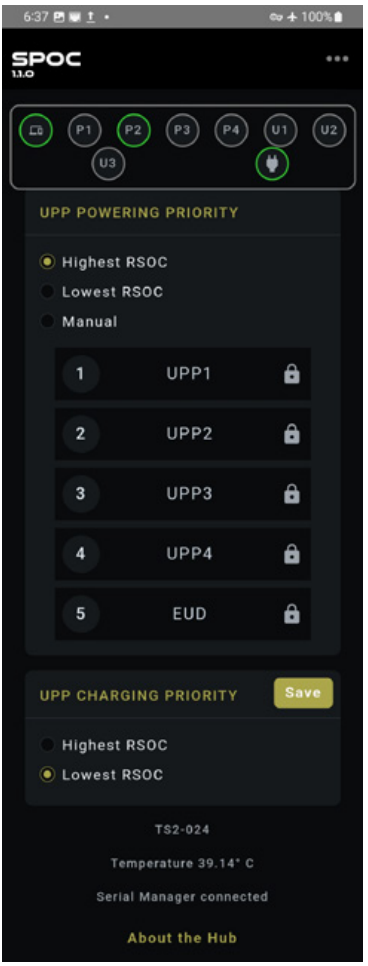


SPOC UI Android – Settings Page (Cont.)

UPP Priority Settings

UPP Powering Priority is used to determine which power source will be used to power the Hub when multiple sources are detected. A Power Supply will always take priority over batteries. Power Source selection is determined every time a power source is connected/ disconnected or a battery is depleted

- Highest RSOC (Relative State of Charge, i.e. Battery Percentage) - The power source with the highest RSOC will be chosen. The source will be used until the source is depleted even if the RSOC goes below the level of another battery. This is the system default.
- Lowest RSOC - The power source with the lowest RSOC will be chosen.
- Manual – Power Source Priority can be manually set based on physical port.



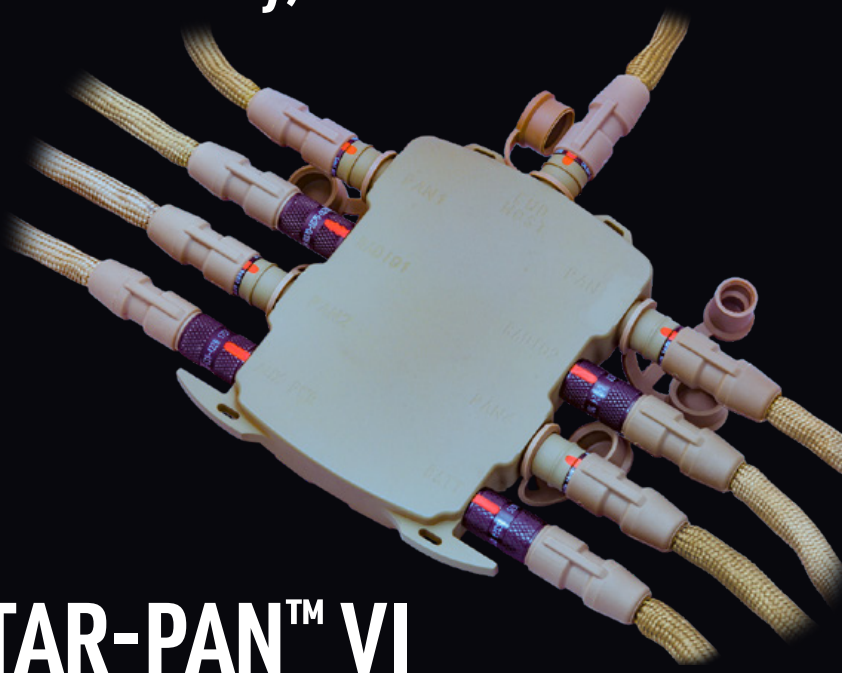
UPP Charging Priority is used to determine which battery will be charged when multiple batteries are connected at the same time as a Power Supply. Only one battery is charged at a time. Charging selection is determined every time a power source is connected/ disconnected or a battery is fully charged.

- Lowest RSOC – The Battery with the lowest RSOC will charge first. The battery will continue to be charged to full even if the RSOC goes above the level of another battery. This is the system default.
- Highest RSOC – The Battery with the highest RSOC will charge first.

STAR-PAN™

SCALABLE SOLDIER NETWORKS

STAR-PAN™ II
(Dismounted Infantry)



STAR-PAN™ VI
(JTAC / Mission Commander)

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