

# SBB250 V2 SRB250 REPEATER BATTERY BOX

simoco

The SBB250 V2 is a supplementary battery box that extends the run time of the SRB250 rapid deployment repeater. This enhanced version is an evolution of the previous SBB250, specifically designed for prolonged operational scenarios, such as supporting communication during floods, bushfires, or other critical situations that necessitate several days of sustained battery power for the SRB250 repeater.

## Improvements over SBB250 V1

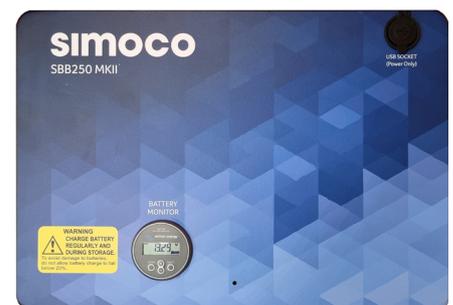
- Simpler design
- Uses locally sourced components
- Standardised battery form factor
- More comprehensive battery monitor
- USB outputs

## Features

- 60 Amp Hour capacity, 13.2 V nominal
- Inbuilt mains charger
- Inbuilt solar charger ready for connection to a solar panel
- Safer Lithium Ferro Phosphate technology (LiFePO4)
- USB charger output for field charging of devices
- Multi-Function battery monitor: current, voltage, power and state of battery charge
- Standardised battery form factor
- Can be fitted with Lead Acid batteries if required
- Weight approx. 17kg
- Dimensions 50 x 40 x 20 cm

## Optional features

- Solar panel (160 Watt)



Secure. Reliable. Adaptive.

**General Specification**

<b>Frequency Bands</b>	AC (136-174 MHz) TU (400-480 MHz) UW (440-520 MHz)
<b>Channel Stability</b>	<1.5 ppm
<b>Channel Spacing</b>	12.5 kHz
<b>Zones/Channels</b>	40 Zones/1,500 Channels
<b>Dimensions (LxWxD)</b>	502 x 401 x 188 mm
<b>Weight</b>	14 kg
<b>Power Source</b>	Internal batteries Optional external battery box Option external power supply
<b>Internal Batteries</b>	1 or 2 LiFePO <sub>4</sub> 12.8 V DC 7.5 Ah
<b>Internal Battery Life (90% Stby 10% Tx)</b>	5 W Tx: 22 Hours 25 W Tx: 14 Hours
<b>Internal Charger</b>	Single battery: 90% charge <2hours Dual battery: 90% charge <4 hours (from fully discharged)
<b>Conformance</b>	AS4295, FCC, IC
<b>Environmental Protection</b>	IP55
<b>Operating Temperature</b>	-20° C to +60° C operating

**P25 Operation**

- Transparent P25 digital repeater
- DES OFB and AES 256 Encryption\*
- Encrypted repeat or local encrypt/decrypt in repeater

**Transmitter Specification**

<b>Duty Cycle</b>	25 W (lid open): 45 mins Tx, 15mins Stby @ 25° C 25 W (lid closed): 30 mins Tx, 30 mins Stby @ 25 °C
<b>Hum and Noise</b>	>40 dB
<b>Modulation</b>	C4FM, Analogue FM
<b>Transmitter Power</b>	3 levels programmable 1-25 W
<b>Transmit Rise Time</b>	<25 ms

**Receiver Specification**

<b>Audio Output</b>	4 W @ <5% distortion
<b>Blocking</b>	>95 dB at +/-1 MHz
<b>Hum and Noise</b>	>40 dB
<b>Intermodulation</b>	>70 dB
<b>Selectivity</b>	>65 dB
<b>Sensitivity</b>	<0.3 V for 5% BER

**Internal Duplexer Specification**

<b>Insertion Loss</b>	<1.5dB (typical)
<b>Tx/Rx Split</b>	VHF: 4.7-7 MHz UHF: 5.2-10 MHz
<b>Antenna Connector</b>	Type N

\*Encryption subject to export controls

