

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

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

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

Receiver Specification

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

Internal Duplexer Specification

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

*Encryption subject to export controls

