

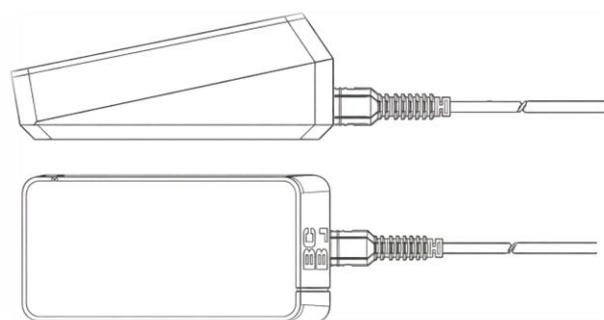
Black Control Box BASE

Service Assistant for machines



BCB Base monitors machine operating hours, location, battery voltage and impacts.

It uses a four-wire power and ignition connection and operates independently of the machine's CAN bus or ECU.



Side and top views

Technical specifications

ELECTRICAL

Nominal input voltage	12–80 V DC
Power consumption, active	< 0.1 W
Power consumption, sleep	< 0.01 W
Ignition input	12–80 V DC; galvanically isolated from the device power supply
Electrical protection	Reverse polarity; overvoltage and transients; electrostatic discharge (ESD); short circuit

CONNECTIVITY & SENSORS

Cellular	LTE Cat 1
GNSS positioning	GPS / GLONASS / BDS / Galileo
On-board sensors	Magnetometer; 3-axis accelerometer (impact and vibration); gyroscope; temperature sensor; battery voltage sensor

MECHANICAL & ENVIRONMENTAL

Dimensions (L × W × H)	112.6 × 54.0 × 44.3 mm
Weight	289 g
Mounting	Integrated magnetic base; metal surface inside the cabin
Enclosure	Shock-absorbing rubber body
Operating temperature	-20 °C to +60 °C
Connector protection	IP44 (wire connector only)

Intended use & responsibility

BCB Base is a Service Assistant for monitoring only. It is not a safety component and must not perform, replace or bypass any machine control or safety function.

It does not replace operator checks, statutory inspections or manufacturer-prescribed maintenance. Machine owners and operators remain responsible for safe operation and ensuring that required maintenance and inspections are carried out.

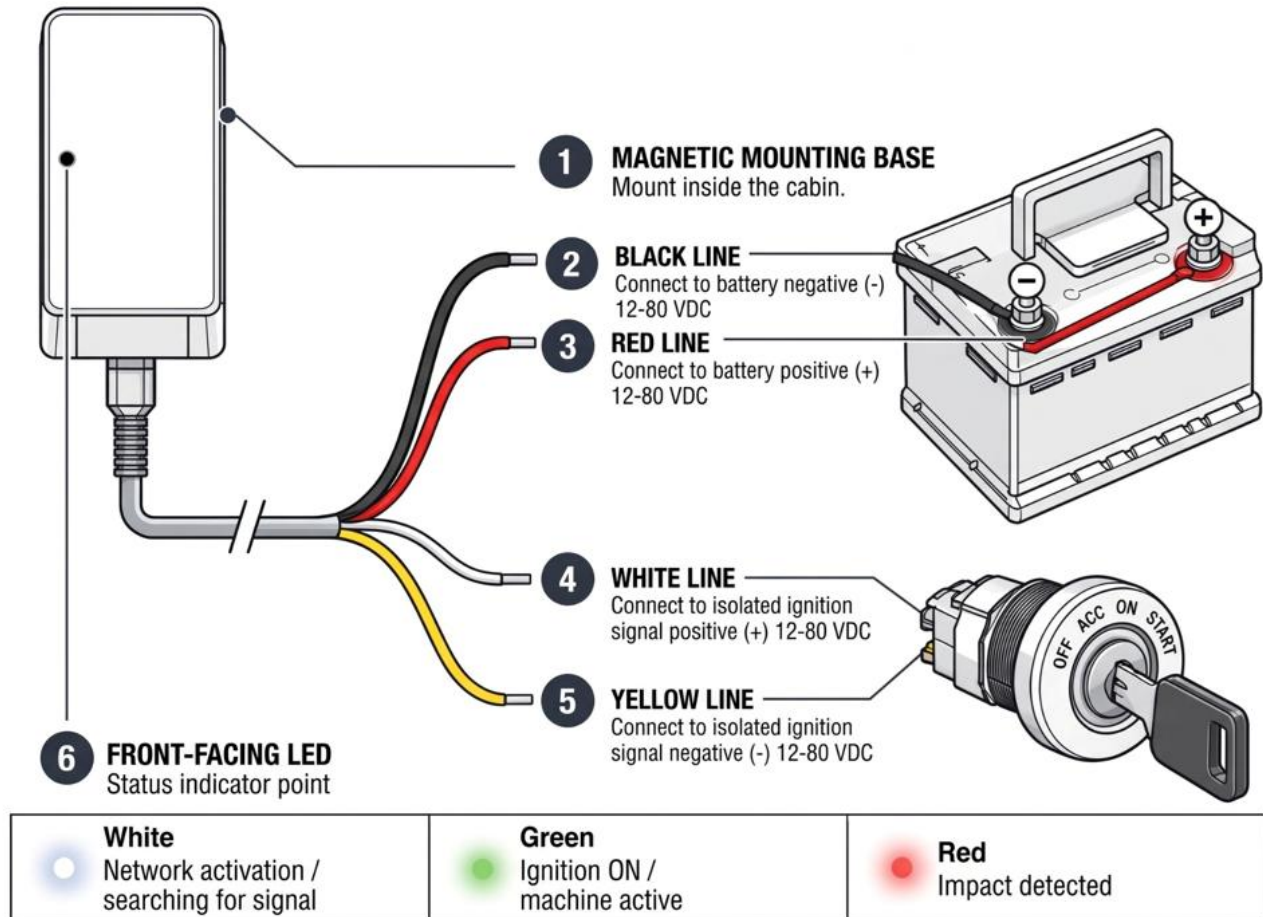
Data and alerts are supplementary information, not confirmation that a machine is safe. Nothing in this document excludes or limits liability that cannot lawfully be excluded or limited.

Installation & LED status

Qualified installation required

Installation must be performed by a qualified technician familiar with the machine's electrical system and authorised by the machine owner or responsible operator. Follow the machine manufacturer's instructions and applicable local regulations.

Before wiring: isolate the machine power supply and secure it against reconnection.



Schematic only: identify ignition (+) and its return from the machine wiring documentation. Do not connect white/yellow across key-switch contacts or assume that yellow is chassis ground.

Installer checks & commissioning

Mount. Secure the unit inside the cabin without obstructing controls or visibility. Keep cables away from moving parts, heat and sharp edges. Avoid metal shielding over the unit.

Connect. The installer must verify supply and ignition voltages, polarity and connection points, and provide suitable external circuit protection in accordance with the machine manufacturer's instructions.

Verify & activate. Check device availability in BCB Cloud / App and all wiring before restoring power. Allow approximately 30 seconds for network connection, then assign the device to the machine profile. Verify data reception and normal operation of all machine controls and safety functions. Record the installer, date, machine and device ID.

Use restrictions. Do not modify the device or use it outside its specifications. Do not install or operate in potentially explosive atmospheres.

RF separation. Keep at least 20 cm from people and active medical devices. Follow any stricter medical-device instructions.