

General Description

The YeboTech Gen2 Bluetooth key is an electronic key used to access locks incorporating Yebo plugs. Bluetooth permits real-time auditing and update, and syncing of Yebo plugs using the key.

Warranty: 1 year

Features

- YIP™ inductive interface
- Bluetooth + NFC + 2MB memory
- Background auto-sync using YeboMobile™
- Qi wireless charging
- AES128 encryption, IP68 housing
- Compatible with all Yebo Gen1.x products



Specifications

Ratings

EMI	EN 55032	Radiated emissions 30MHz-6GHz
EMI	EN 300 330(2017)	Permitted range of operating frequencies
EMI	EN 300 328(2019)	Compliance for operation in 2.4GHz Band
EMC	IEC6100-4(2,3)	Immunity to ESD 15kV
Safety	EN 62311:2020	Human exposure to RF emissions
IP67	SANS 60529(2013)	Dust and water ingress

Battery

Battery	Li-ion	EEMB LIR1655 rechargeable 300x
Battery Capacity	110	mAh
Operating temperature	-20 - 60	°C

Battery life ¹

Standby life	3.1	Years (estimated)
Lock accesses	25,000	opens @ 1.5s actuation time
BLE standby @ 2s advertising	3	Months



Wireless charging ²

Maximum charge current	50	mA
Thermal limit	50	°C
Charge to 80%	< 2	Hours
Charge to 100%	~4	Hours

Mechanical

Maximum blade torque	2.5	Nm
Beeper	2.5	kHz, configurable
LED	Red, Green, Blue	
Identity decal	18.7	mm, circular
Branding decal	26.0 x 25	mm, circular truncated square

Capacity

Flash memory	2	Mbyte
Lock authorizations ³	> 10,000	
Audit trail ³	> 10,000	events

¹ From fully charged. Estimated, performance will vary according to ambient temperature.

² Performance charger-dependent. See user manual YT-KEY_GEN2-UM-1.0, "Battery & Qi Wireless Charging".

³ Depends on chosen memory configuration(s). See user manual YT-KEY_GEN2-UM-1.0, "Memories and Database".

Special features

- **Key:** A compact hand-held key provides a robust means of transmitting high torques to locks, together with the means to power and communicate with a lock. Locks require no battery maintenance, and the key holder possesses a compact, autonomous and very robust means of accessing locks. YeboTech's YIP™ contactless interface to locks does not wear and will work reliably even in the presence of water, grit and corrosion.
- **Battery:** the key's extremely low power consumption provides extended battery life, usage dependent, and most users will be able to recharge using their own readily accessible chargers. Users are reminded by the YeboMobile™ App when the battery charge is low weeks before the key goes into a standby mode. A rechargeable battery eliminates the cost and environmental impact of replaceable batteries, improves reliability due to elimination of battery contacts, and ensures a reliable real-time clock. A key with a completely dead or even disconnected battery may be recovered by placing on a wireless charger, during which it may engage in BLE communications for sync or diagnostic.
- **Ultra-low power standby:** If the battery voltage drops below a safe level the key enters a standby mode extending the battery life to several years, while preserving the real-time clock. Keys may be put into standby for shipping or storage using the YeboMobile™ App.



- **Covers:** Covers are cheap and easily replaceable and available a variety of tints, and accommodate decals for custom branding and identification. They are self-sealing and very strong, assuring IP67 rating and correct key function even if abused or exposed to water and harsh environments.
- **Background sync:** The YeboMobile™ mobile app available on Android, iOS and Windows, supports background or on demand sync of the key with the YeboManager™ management site supporting real-time monitoring of key activity, audit trail uploads and acquisition of lock authorizations on the go. The app also supports user authentication using PIN or biometrics, efficient installation and geo-location of product for installers, key diagnostics, and other management functions.
- **Plug sync:** The key supports a write-through mode permitting YeboManager™ to establish an end-to-end encrypted connection with locks for secure collection of audit trails, blacklist management, and other lock management functions. An auditor can rapidly perform a real-time audit of locks at a site simply by inserting their BLE connected key into a lock.
- **NFC:** NFC greatly speeds key management by installers and support staff as it enables quick identification and sync of the physical product without having to BLE locate. The persistent memory permits identification of a key even if it has a dead battery or is damaged. The Gen2 key NFC is much faster than the Gen1.5 product and can sync a key as fast as Bluetooth.
- **Site locking:** Product can be locked to a management site prior to installation, preventing it from being deployed outside of the desired distribution network. This includes configuration of NFC tag NDEF records directing a user's mobile phone to install a branded YeboMobile™ app and connect to the desired management site. A new key user simply needs to read the key's tag with their phone to get up and running within seconds.
- **Diagnostics:** The key supports self-diagnostics and will identify any hardware issue. Detailed diagnostics may be obtained using the YeboSync™ app.
- **Security:** Site-locked or captured keys support AES128 end-to-end encryption to the management server, assuring secure communications even over compromised network channels. The key employs a challenge-response protocol with locks defeating replay attacks and never transmitting security codes in the clear.
- **Upgradeable:** Keys are fully firmware-upgradeable and can be done securely during a sync with a management site. New firmware is only installed once fully downloaded and validated, assuring the key is always in a functional state.