NEW
FROG-X
SWING GATE OPERATOR

THE ULTIMATE UNDERGROUND MOTOR, REINVENTED

CAME

CAME.COM

FROG-X: REINVENTING A CLASSIC

## OUR NEW DIGITALLY CONTROLLED BRUSHLESS UNDERGROUND OPERATOR

Introducing FROG-X, the revolutionary swing gate operator with a cutting-edge digital brushless motor, setting a new standard in gate automation. Designed to provide unmatched reliability, efficiency, and control, FROG-X combines advanced technology with sleek aesthetics to deliver a gate operator that surpasses all expectations.

Whether you're securing your residential property or managing access to a commercial facility, FROG-X ensures seamless operation, enhanced safety features, and effortless control, making it the ultimate solution for automated swing gate systems.

Experience the future of gate automation with the FROG-X and unlock a world of convenience and security.

FROG-X is the ideal underground motor for automating swing gates in residential and industrial settings. Fast, silent, invisible.
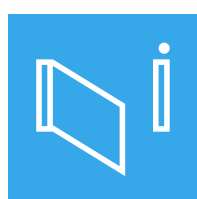
INTRODUCING
FROG-X

- **FAST AND SILENT**
  24V brushless motor with speed up to 10 seconds for 90° opening

- **POWERFUL AND RELIABLE**
  For gate leaves up to 4 meters and 400 kg, with MCBF 250,000 cycles, ideal for both residential and industrial settings.

- **STRESS-RESISTANT**
  All-metal frame and gears made of hardened and tempered carbon steel, and high quality steel gate leaf support pin.

- **WEATHER RESISTANT**
  Aluminium motor casing with IP67 protection rating.

- **ADVANCED ELECTRONICS**
  Control panel with smart configuration through CAME KEY and advanced functions

- **COMPATIBLE WITH FOUNDATION BOXES OF PREVIOUS MODELS**
  It can also be installed in conjunction with existing FROG foundation boxes.

A BRUSHLESS MOTOR TESTED TO WITHSTAND THE ELEMENTS

FROG-X was developed with the goal of achieving a universal motor capable of operating under any conditions.

The absence of brushes ensures silent operation and reliability over time because there are no components subject to wear and tear.

In addition, the motor is equipped with the innovative star coupling for connection to the worm screw, specially designed to increase the system's efficiency.

The motor and each of its components have undergone rigorous testing to ensure that all parameters are met: in CAME's Central Laboratory, FROG-X has continuously performed thousands of operations to certify an incredible **MCBF of 250,000 cycles.**

By way of comparison:

The FROG-A24 can operate 27 times a day, every day, for 10 years before failure.

The FROG-X at 250,000 MCBF can operate 68 times every day for 10 years.

That's an incredible 2.5 times better!

FAST & QUIET OPERATION

Thanks to a maximum torque of **300 Nm**, the motor moves gate leaves up to **4 meters in length and 400 kg in weight** taking only **10 seconds** to open them to 90°.

Frog-X operates almost silently thanks to its brushless motor.

Watch the Frog-X compared to the previous Frog.

Listen to the Frog-X compared to the previous Frog.

Frog-X opens in 10 seconds

Frog opens in 18 seconds

FROG-X
THE OPERATOR

FROG-X represents the evolution of the historic FROG motor while inheriting its inimitable qualities that have made it the underground motor par excellence.

In addition, Brushless technology ensures exceptional reliability and extends the average life of the system significantly, while making FROG-X virtually free from malfunctions.
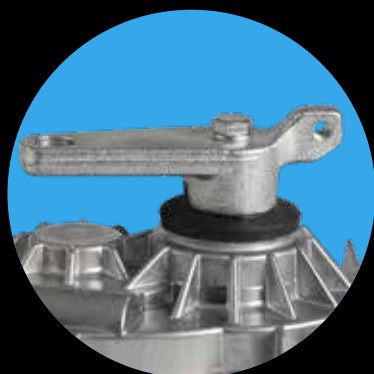
New motor arm attachment to the shaft for easier disassembly.

New DIN key release with improved mechanics that ensures smoother operation and eliminates the risk of malfunction.

NEW 180° OPENING ACCESSORY

With gear transmission for smoother gate leaf movement.

The pin and gears are specifically designed to withstand high speeds and high loads to open gates up to 3.5 meters in length and 400 kg in weight.

THE NEW FOUNDATION BOX

The FROG-X foundation box been developed to meet the highest weather resistance standards and the most extreme environmental conditions.

Certified with IP67 protection rating against water and dust penetration, it is compatible with all motors in the FROG series, and is also equipped with 4 slots for lateral fastening.

The gate leaf support pin is made entirely of high-quality steel and is secured by special reinforced welding that provides exceptional resistance to stress, torsion and wear.

To ensure a secure and stationary placement while cementing, the casing now features a set of additional mounting points, enabling the box to be securely bolted onto the gate post.

Hardened and tempered carbon steel
slow-moving crown gear

Star coupling for connection
between the motor and the worm gear

Permanent
grease lubrication

Perimeter
seal

Brushless
motor

Steel
gears

IP67 die-cast aluminium
enclosures

IP67 watertight power
connection

CAME.COM

OUR MOST ADVANCED
CONTROL PANEL

FROG-X, combined with the ZLB24-SA electronic board, is the most advanced and complete solution for underground automations. The board is equipped with a special tilting removable housing that allows for easier and safer wiring and has an impact-resistant ABS cover.

With this mechanism, it is also possible to conveniently install, directly under the board, additional modules (such as RGSM module or SMA module).

In addition, the box is equipped with the traditional 4 holes for wall mounting and also allows quick mounting via DIN rail.

CONFIGURATION
VIA SMARTPHONE

Through Wi-Fi connection with CAME KEY, users can greatly reduce installation and setup time by using the wizard via smartphone.

Simply plug CAME KEY into the appropriate socket on the control panel and launch the CONNECT Setup App on the smartphone to access advanced functions:

➜ Guided set up for quick and simple commissioning.

➜ Access to all automation parameters, which are organized by type.

➜ Automations management, operations and maintenance control organized by customer.

➜ Quick radio controls configuration via QR code

➜ Update firmware on the control board for new features.

➜ Configurations backup to CONNECT.

GUIDED CONFIGURATION
WITH AUTO-SETUP

The graphical display allows all configurations to be made in 13 different languages using the 4 control keys. The two available guided procedures make the installer's work much easier.

Through these special functions, it is simply a matter of following the instructions on the display to properly perform both the commissioning of the automation and the impact tests.

In fact, based on the gate leaf length and weight setting, all the relevant speed, acceleration and deceleration parameters are automatically configured.

The installer can also set a password to protect access to the menu and prevent unauthorized persons from changing configurations.

ABS ENCLOSURE

TOROIDAL TRANSFORMER

CONNECTION TO THE LINE
protected by fuse

QUICK PLUG-IN CONNECTORS

GRAPHIC DISPLAY

CAME KEY/GATEWAY CONNECTOR

MEMORY ROLL
for saving the configurations
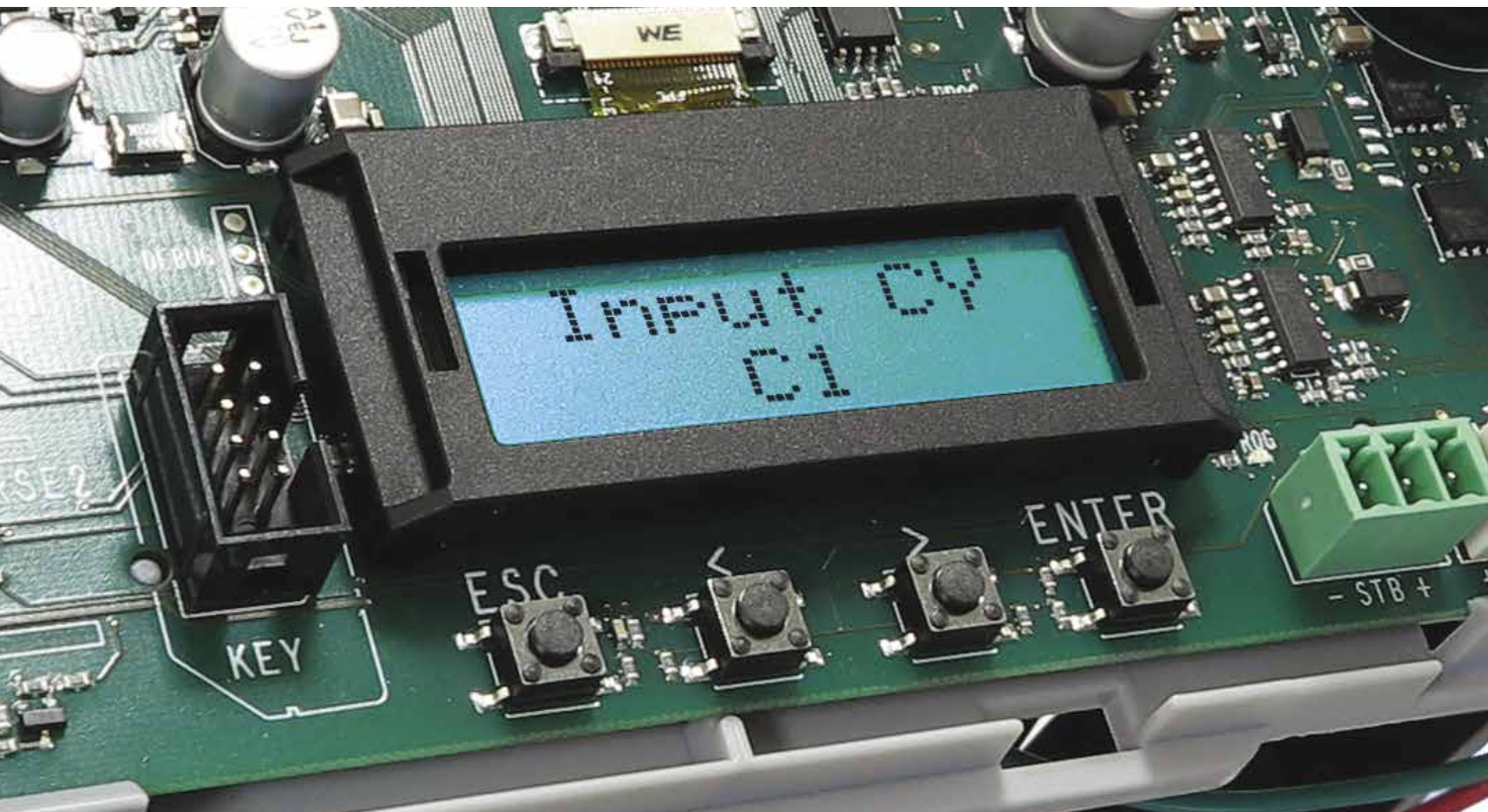
PROTECTION
of the shockproof ABS board

The plastic box is equipped with DIN BAR mounting system and is pre-arranged for installing the antenna.

The tilting stand, allows easy and quick handling of wiring and accessories.

FULL BACKLIT GRAPHICAL DISPLAY

QUICKLY SETUP THE MOTOR, ELIMINATING THE NEED TO REFERENCE THE MANUAL

The ZLB24 control panel includes a full graphical display to improve your experience when setting up the motor & performing maintenance.

Designed to simplify your setup, it comes with a blue backlit display and 4 programming buttons for a speedy menu selection.

A setup assistant function is also built-in so you can perform all the standard configurations through a quick 7-step on-screen guided journey, also available in 7 different languages.

This intuitive programming display means it's never been so easy to conduct set up without needing to refer to the technical manual.

The panel also include the CAME "F code" mode within the display options if this is your preferred set up method.

Additionally, the graphical display hosts further advanced features such as:

- A manoeuvre counter which can be viewed on the display to show the number of manoeuvres carried out by the system, making system maintenance even easier.

- An opening direction setting is available via the quick function on the display, without having to modify the motor's wiring.

- A graphical display of the cycle calibration process.

ADAPTIVE SPEED & TORQUE

CONSTANT SPEED CONTROL & ADAPTIVE POWER TO MEET CHANGING CONDITIONS

The ZLB24-SA control panel monitors the motor speed, acceleration and deceleration phases, alongside the absorbed current, to allow automated adjustments to be made.

The adaptive torque system constantly evaluates gate weight and friction to detect obstacles and to keep the speed at the pre-set level.

PERFECT OPERATION THROUGHOUT THE WHOLE YEAR

The continuous torque adaptation allows the motor to always be updating to possible friction variations and to perform consistently in every operation, during changing weather conditions.

LOW

MED

HIGH

MAX
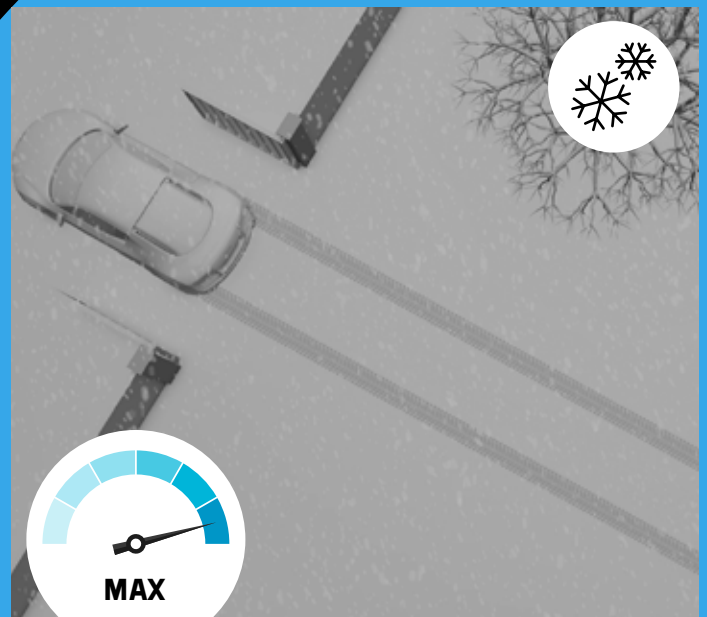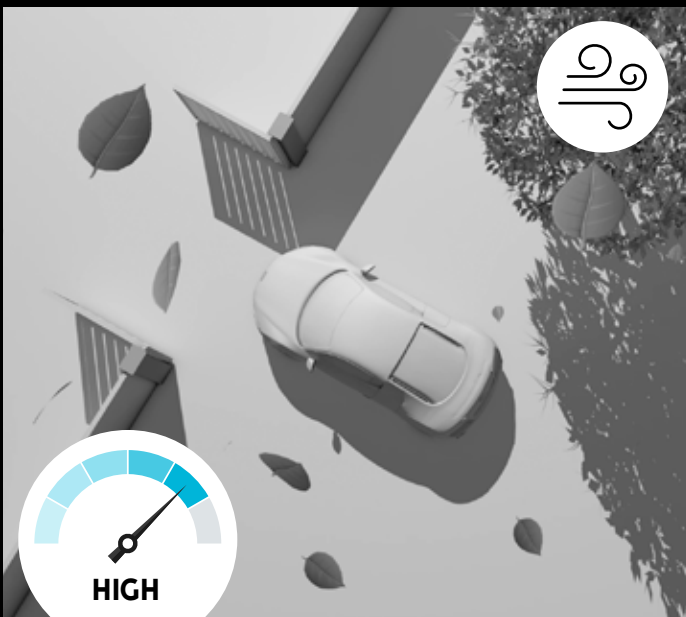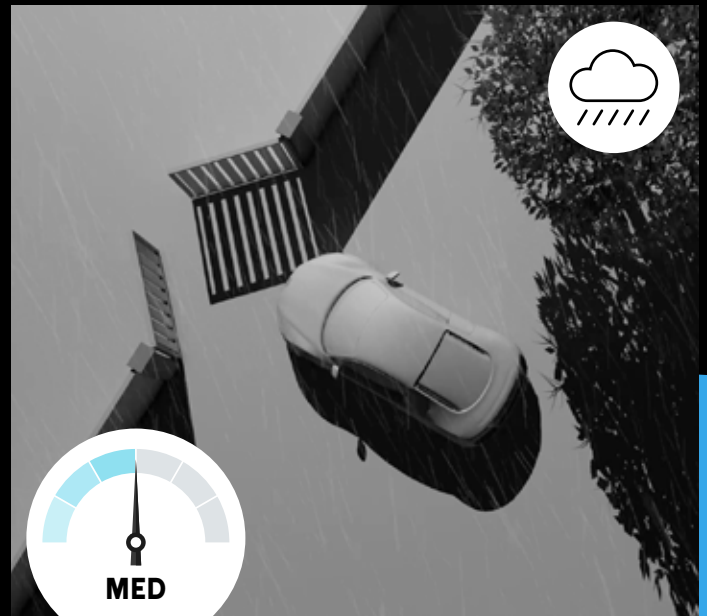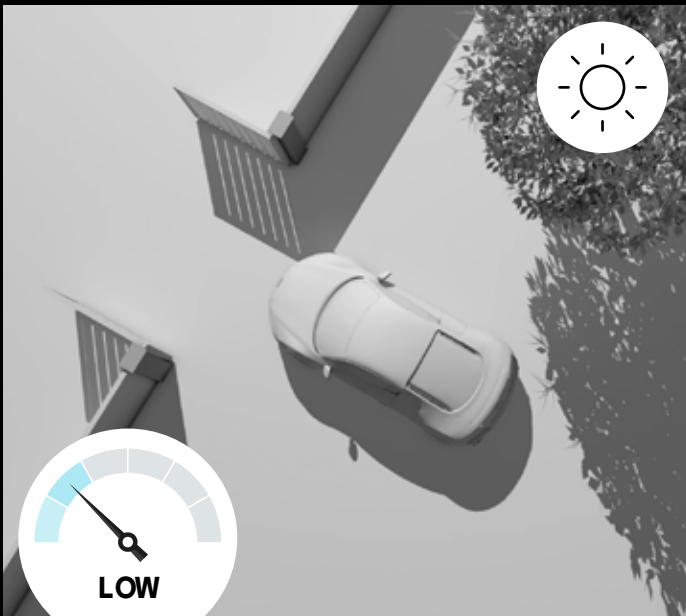
Where the conditions are mild, the control board will provide the minimum torque. As conditions become more challenging, the board will detect this and provide more torque to compensate.
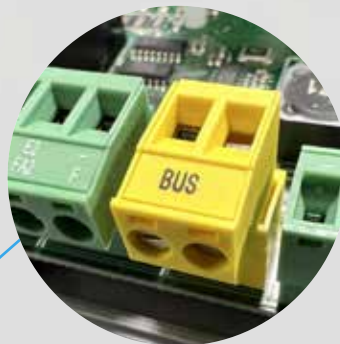
ON-BOARD FEATURES:
CXN BUS CONNECTION

MIXED connection
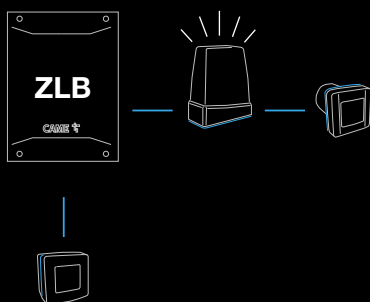
STAR connection
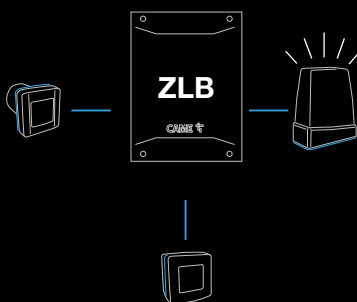
DAISY CHAIN connection
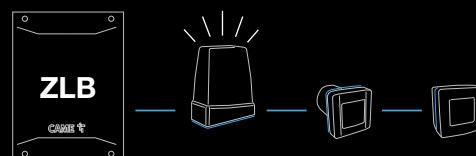
The ZLB24-SA has a designated CXN BUS connection terminal which guarantees simple installation of CXN BUS accessories.
A range of CXN bus accessories are now available that can wire directly into the BUS terminal making installation options greater than ever before...

EVERYTHING WITH TWO WIRES!

The direct connection terminal on the ZLB24 board allow you to integrate a range of CAME accessories.

See page 22 for the full list of CXN BUS accessories.

DEVICE 1

DEVICE 4

DEVICE 2

DEVICE 3
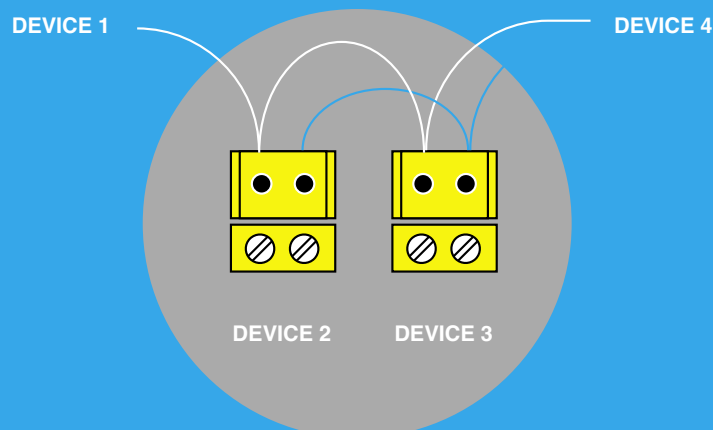
COMPATIBLE WITH AMAZON ALEXA

Thanks to the optional Wi-Fi gateway that can be plugged directly onto the ZLB24-SA electronic board, FROG-X can connect to any router to enable remote management.

In addition to the Automation App that enables users to control the automation from a smartphone, it is also possible to use Amazon Alexa voice commands, to open and close the gate, stop it, or know its status.

INTRODUCING KRX BUS

KRX makes traditional flashing lights smarter. No longer a simple warning system, KRX BUS lets you control and monitor your Frog-X automation directly from your smartphone.

KRX is a new range of flashing lights for entrance automation and control systems, consisting of three models – standard, KRX BUS and KRX CONNECT. They are versatile and perfectly suited to any installation type, from private homes to apartment buildings and industrial complexes, with a modern, streamlined design.

By using the Setup App it is possible to customise your KRX BUS or KRX CONNECT with any different RGB colour.

For example, you could have a Green flashing light when the Frog-X performs the opening operation, and Red during the closing operation.

KRX CONNECT can also be configured in Bluetooth mode, allowing the control of the Frog-X via smartphone for up to 50 different users.
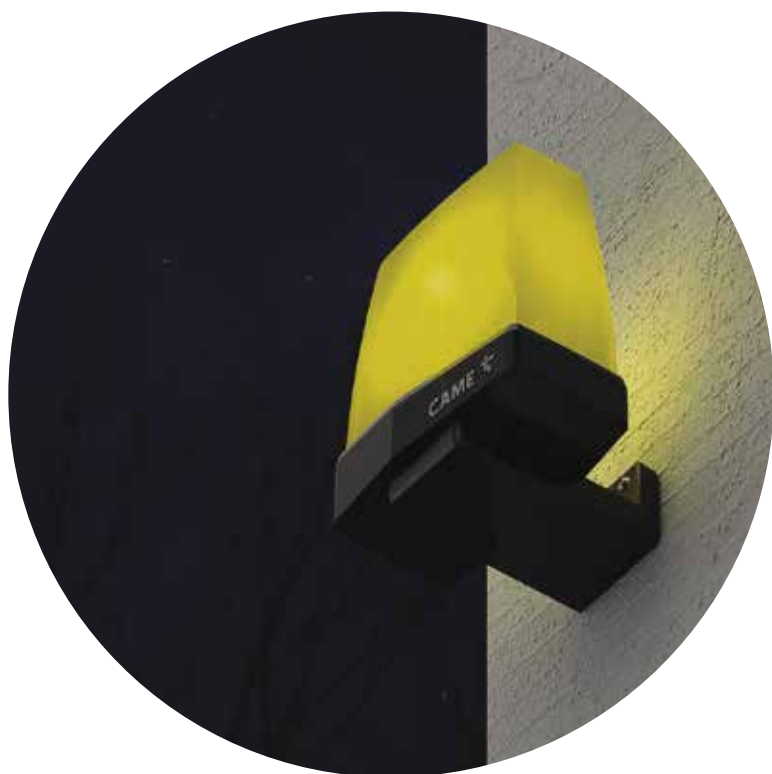
FROG-X IS CAME CONNECTED
REMOTE CONTROL, REMOTE MONITORING, REMOTE MANAGEMENT

Take advantage of cloud connectivity via CAME Connect. The benefits to you and your business are huge.

THE CAME SETUP APP
THE PERFECT ON SITE PARTNER FOR EVERY CAME INSTALLER

REMOTE DIAGNOSTICS
Real time information supplied directly to your smart phone via the cloud so that you can monitor your FROG-X 24/7 from anywhere in the world.

CONNECTED CUSTOMER LIST
Manage all your automation systems by customer name and location.

SIMPLE ACCOUNT SET UP
Simply register your details as an installer and you're away!

SYSTEM CONFIGURATION
Transfer 95% of the system configuration to your phone, making it quicker than ever to get the FROG-X system working.

TRANSMITTER MANAGEMENT
Simply scan the QR code on the remote packaging to easily add a transmitter to the system.

EVENT LOG
One of the most useful aspects of CAME Connect is being able to view the event log and monitor what events have happened on the system and when.

MAKE CHANGES ON THE GO
Make simple system configuration changes from your mobile - no need to visit site!

DEVICE LIST
Monitor all of your Connected devices by site. Know their status, see faults, monitor openings. All from within the app.

SUPPORT REQUESTS
Manage all of your support requests for every managed site in one place.

TRANSFER HISTORY
Manage and log of all the systems you own and manage and those that you have transfered to your customer.

CUSTOMER TRANSFER
Once you've set up the FROG-X, its now time to decide if you want to pass on access to your customer so they can experience all the benefits of Connect.

CAME CONNECT WEB PORTAL
THE PERFECT CONNECTED OFF SITE PARTNER FOR EVERY CAME INSTALLER

EASILY CREATE CUSTOM SCENARIOS
Create an easy to action list of scenarios that run seamlessly in the background.

CREATE ACCESS CONTROL SYSTEMS
Add and remove user access and create an easy to use access control system online via CAME Connect.

MANAGE SITE MAPPING
View and manage all of your installations on an easy to navigate site map.

MANAGE SUPPORT REQUESTS
Manage all of your support requests for every managed site via the web platform.

ADD A MAINTENANCE CALENDAR
Use the powerful calendar tool within CAME Connect to create maintenance schedules that automatically alert you when sevices are due.

MANAGE EXCLUSION CALENDERS
Manage a site exclusion schedule with the simple to use calendar function.

OTHER WAYS TO CONNECT

WIFI & BLUETOOTH CONNECTIVITY OPTIONS FOR FROG-X

PLUGIN WIFI GATEWAY

✔ Super-fast set-up.

✔ Connects the automation to Connect cloud using home WiFi.

✔ Control up to three CAME operators.

✔ Can operate as a stand alone bluetooth device with activation for up to 5 devices.

✔ Connects directly into the dedicated port on the board or via the RSE slot.

✔ Compatible with Amazon Alexa & Google Home

Best used when the automation is close to home's router and can recieve a strong WiFi signal.

PLUGIN RADIO SLV MODULE

✔ Connects directly to the automation, making an 868 radio-relay link with the QBE and GSM gateways.

✔ Easy to connect directly into board using the dedicated port on the board or via the RSE slot.

✔ Used with the RSLV001 and connected directly to the automation, making an 868 radio-relay link with the QBE/RETH.

✔ Communicates wirelessly up to 100m with the QBE or RGSM.

✔ Easy third-party activation & functional switching.

Best used when you are trying to connect third party products. Must be used in conjunction with a gateway.

WIFI GATEWAY CONNECTION

Plug-in WiFi Gateway
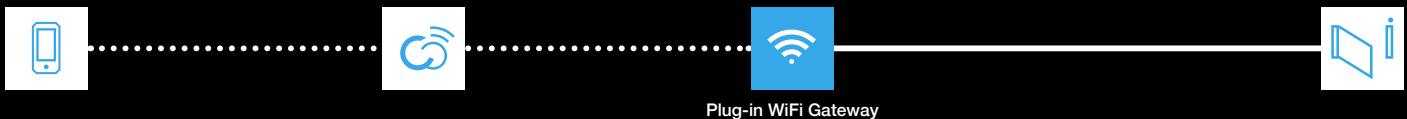
RADIO SLV CONNECTION

100m max.

QBE

Radio SLV
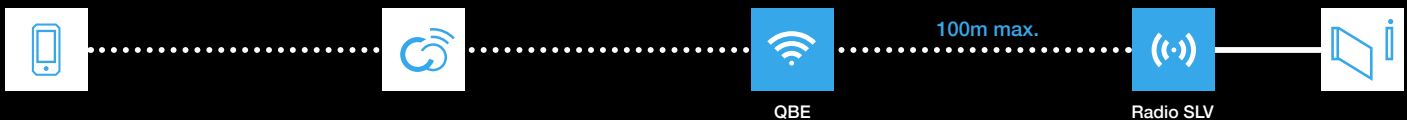
BLUETOOTH SELECTOR & FROG-X

FOR USE WITH THE ENTIRE RANGE OF FROG-X OPERATORS

SEL BT uses Bluetooth technology within your smartphone to automatically open your barrier when you arrive within a specified distance of the Bluetooth selector.

All you need to do is download the Automation BT App, pair the devices and you'll have instant hands free access to your property.

DOWNLOAD THE AUTOMATION BT APP

ANDROID APP ON Google play

Available on the iPhone App Store

CAME

WHY NOT INSTALL A PAIR? SAVE MONEY, AND INCREASE THE ACTIVATION RANGE...

Active area of rear Bluetooth unit

Active area of front Bluetooth unit

Approximately 30m range

Bluetooth unit

Frog-X

Top of post

Gate

Bluetooth unit

For controlling access in and out of an area it is advantageous to use one Bluetooth unit each side of the barrier cabinet.
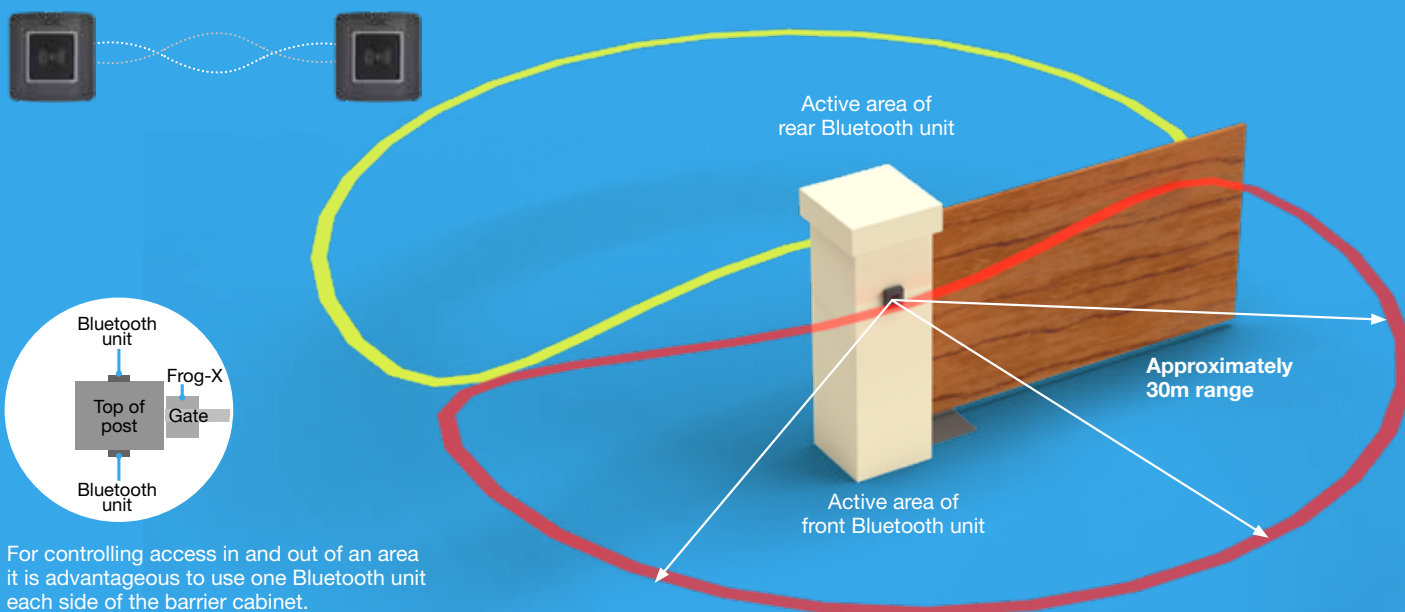
ZLB24, WIRELESS SAFETY
SIMPLE, FAST & CONVENIENT

CAME ⊕

24

RIO System 2.0 is the innovative radio-based safety system that needs no wired connection between the control module and the safety accessory. This feature drastically reduces installation times. Control module, photocells, sensitive safety-edges and flashing lights make up a complete system designed using totally wireless transceiver-technology.

All RIO 2.0 devices are battery operated with an exceptional service period. Accessories include wireless photocells, a wireless edge controller which can connect to 8k2 resistive edges or traditional mechanical edges and to complete the range a battery powered flashing safety light.

RIO 2.0 SYSTEM COMPONENTS:

806SS-0040
Plug-in radio control module for up to 3 wireless devices

806SS-0050
External radio control module for up to 10 wireless devices

806SS-0010
Wireless photocells

806SS-0020
Wireless 8k2 safety-edge module

806SS-0030
Wireless, battery-operated flashing light

EXAMPLE INSTALLATION

A = Transmitter 806SS-0010.

B = Receiver 806SS-0010.

C = Receiver 806SS-0020.

D = Sensitive safety edge of the DFWN series.

E = Flashing light 806SS-0030.

F = Plug-in radio card 806SS-0040.

F = ZLB24 control panel.
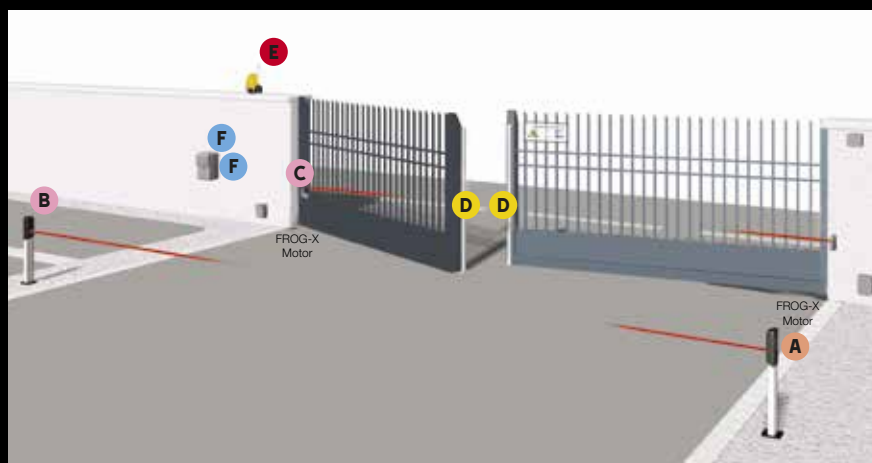
Code	RIO 2.0 Wireless Accessories
806SS-0040	RIOCN8WS - Plug-in, radio-based control module for managing up to 3 wireless accessories.
806SS-0050	RIOCT8WS - External radio-control module for managing up to 10 wireless accessories.
806SS-0010	RIOPH8WS - Pair of wireless, infrared-beam photocells. Infrared range: 10 (m).
806SS-0020	RIOED8WS - Wireless module for controlling resistive sensitive safety-edges.
806SS-0030	RIOLX8WS - Wireless flashing light.

FROG-X 24V KITS

UNDERGROUND SWING GATE AUTOMATION WITH ENCODER FOR PAIR OF GATES, UP TO 4M PER LEAF

8K01MI-0515 kit shown.

KIT CONTENTS

- 1 pair of Frog-X gearmotors
- 1 pair of Foundation boxes
- Multifunction control panel
- Plug-in radio frequency card
- Tuned antenna

Selectable Items - See Selection Guide

- 1 pair of photocells
- 433MHz 4-button rolling code transmitters
- Release device

- Free GSM Connect module
- Free 3 year 480Mb SIM
- Full instruction manual and Setup Guide

MOTOR LIMITS

	2M	3M*	4M*
	800kg	600kg	400kg

*An electric lock or mag-lock is mandatory.
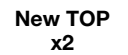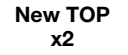
FREE GSM CONNECT MODULE

& 3 year 1NCE 480mb SIM

WITH EVERY KIT

FROG-X 24V PAIR OF GATES
KIT SELECTOR

All kits supplied with 2 x Frog-X gearmotors, 2 x foundation boxes, plug-in radio frequency card and tuned antenna, and free RGSM Connectivity Pack. Simply choose the selectable items listed in the chart below and follow the line across for your kit code.

Control Panel	Photocells	Rolling Code Remotes	Release Locks	Always Connected	Kit Code
ZLB24SA (NEW)	DXR BUS 1 Pair	New TOP x2 (NEW)	Lever Release x2		8K01MI-0636
			Key Release x2		8K01MI-0637
	DLX BUS 1 Pair	New TOP x2 (NEW)	Lever Release x2		8K01MI-0628
			Key Release x2		8K01MI-0629
		TTS x2 (PREMIUM)	Lever Release x2		8K01MI-0630
			Key Release x2		8K01MI-0631

DOWNLOAD THE LATEST PRICE LIST
In order to ensure that you have the very latest pricing, please scan the QR code to download the most up to date price list.

FROG-X 24V KITS

**UNDERGROUND SWING GATE AUTOMATION WITH ENCODER
FOR A SINGLE GATE, UP TO 4M LEAF**

KIT CONTENTS

- Single Frog-X gearmotor
- Single Foundation box
- Multifunction control panel
- Plug-in radio frequency card
- Tuned antenna

Selectable Items - See Selection Guide

- 1 pair of photocells
- 433MHz 4-button rolling code transmitters
- Release device

- Free GSM Connect module
- Free 3 year 480Mb SIM
- Full instruction manual and Setup Guide

8K01MI-0522 kit shown.

FREE GSM CONNECT MODULE
& 3 year 1NCE 480mb SIM

WITH EVERY KIT

MOTOR LIMITS

m	2M	3M*	4M*
kg	800kg	600kg	400kg

*An electric lock or mag-lock is mandatory.

20

FROG-X 24V SINGLE GATE KIT SELECTOR

All kits supplied with 1 x Frog-X gearmotor, 1 x foundation box, plug-in radio frequency card and tuned antenna, and free RGSM Connectivity Pack. Simply choose the selectable items listed in the chart below and follow the line across for your kit code.

Control Panel	Photocells	Rolling Code Remotes	Release Locks	Always Connected	Kit Code
ZLB24SA (NEW)	DXR BUS 1 Pair	New TOP x2 (NEW)	Lever Release x1		8K01MI-0638
			Key Release x1		8K01MI-0639
	DLX BUS 1 Pair	New TOP x2 (NEW)	Lever Release x1		8K01MI-0632
			Key Release x1		8K01MI-0633
		TTS x2 (PREMIUM)	Lever Release x1		8K01MI-0634
			Key Release x1		8K01MI-0635

DOWNLOAD THE LATEST PRICE LIST
In order to ensure that you have the very latest pricing, please scan the QR code to download the most up to date price list.

FROG-X THE FULL RANGE

Code	24V Below-ground Gearmotor and Control Panel
801MI-0020	FROG-X Operator with 24V motor.
ZLB24-SA	Control panel for FROG-X, featuring a graphic display Adaptive Speed & Torque Technology, CXN BUS, second radio channel B1 and B2, on board radio decoding, movement and obstruction detection control for swing gates.

Code	Accessories
806XG-0080	BUS expansion module with 2 inputs and 2 outputs. Inputs can be configured in NO, NC or resistive mode (8K2), a warning light output and a relay output.
001FROG-BI	AISI 304 steel foundation box, complete with release latching-lever, gate fastening brace, slots for fastening to post, and screw for adjusting the opening limit-switch point.
001FROG-BN	Painted, cataphoresis treated foundation box, featuring release transmission, gate fastening brace, slots for fastening to post, and spring for adjusting the opening limit-switch point.
001LOCK81	Single cylinder electric lock.
001LOCK82	Double cylinder electric lock.
001A4364	Release device with lever key.
001A4365	Release device with trilobe key.
801XA-0030	Unlocking device with custom key and EURO-DIN cylinder equipped with anti-lock system.
001A4370	Transmission lever for openings up to 140°.
801XA-0040	Transmission gear for openings up to 180°.

Code	BUS Safety Accessories
806TF-0110	DXR Surface mounted synchronized infrared with CXN BUS connection.
806TF-0090	DLX Recess mounted synchronized infrared photocell with CXN BUS connection.
806TF-0100	DLX Surface mounted synchronized infrared photocell with CXN BUS connection.
806LA-0050	KRX LED Lamp. Built-in antenna, with CXN BUS connection.
806LA-0070	KRX LED Lamp. Built-in antenna and CAME Connect, with CXN BUS connection.

Code	BUS Control Accessories
806SL-0300	SEL Surface mounted digital transponder with CXN BUS connection.
806SL-0310	SEL Recess mounted digital transponder with CXN BUS connection.
806SL-0320	SEL Surface mounted digital transponder MiFare with CXN BUS connection.
806SL-0330	SEL Recess mounted digital transponder MiFare with CXN BUS connection.
806SL-0280	SEL Surface mounted digital keypad with CXN BUS connection.
806SL-0290	SEL Recess mounted digital keypad with CXN BUS connection.
806SL-0070	SEL Surface mounted key-operated DIN cylinder with CXN BUS connection.
806SL-0080	SEL Recess mounted key-operated DIN cylinder with CXN BUS conenction.
806SL-0030	SEL Surface mounted key-operated cylinder with CXN BUS connection.
806SL-0040	SEL Recess mounted key-operated cylinder with CXN BUS connection.

| Code	CAME Key and CAME Connect
806SA-0110	CAME Key - point to point local WiFi gateway to enable smartphone set-up and cloud back-up.
806SA-0010	RGSM001 - GSM Gateway module with built-in radio, for remote control of CAME automated operators with the Connect dedicated system (002RSE module included). Controls up to five secondary modules.
8K06SA-002	QBE Kit, composed of: 806SA-0130 and the 806SA-0040 slave module, or remote control of CAME automated operators with the COnnect dedicated system (002RSE module included).
806SA-0040	RSLV001 - Secondary module for operators (002RSE module included).

DOWNLOAD THE LATEST PRICE LIST
In order to ensure that you have the very latest pricing, please scan the QR code to download the most up to date price list.

FROG-X DIMENSIONS
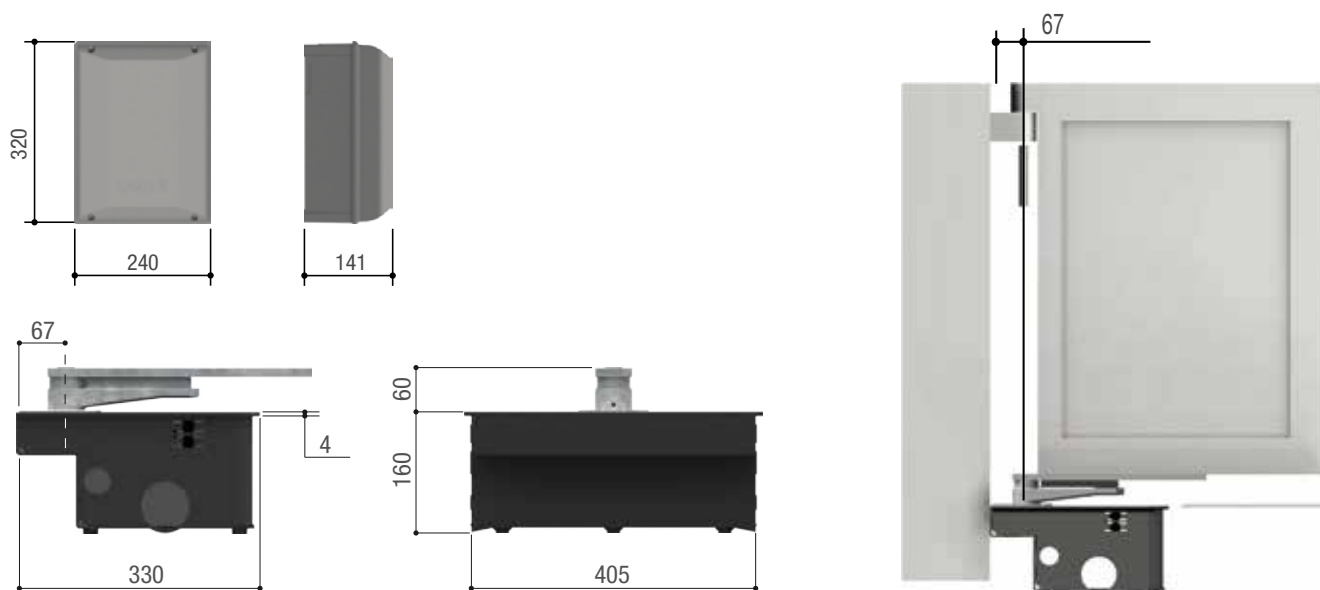
TECHNICAL SPECIFICATIONS

MODEL CODE	801MI-0020				
Max. leaf width (m)	4	3.5	3	2.5	2
Max leaf weight (Kg)	400	500	600	700	800
Protection rating (IP)	67				
Power supply (V - 50/60Hz)	24				
Motor power supply (V DC)	24				
Max current draw (mA)	15				
Power (W)	125				
Torque (Nm)	300				
Opening time at 90° (s)	10 to 18				
Cycles/hour	CONTINUOUS SERVICE				
Operating temperature (°C)	-20 to +55				

CAME ᵢᵢ

CAME - North
Unit 1B
Sills Road
Willow Farm Business Park
Castle Donington
DE74 2US

Tel: 0115 921 0430

CAME - South
Liberta House
Maxted Road
Maylands Ind. Est.
Hemel Hempstead
Herts
HP2 7DX

Tel: 01442 230 800

All list prices are GBP (£) excluding VAT.

CAME BPT - Ireland
Unit 9
The Westway Centre
Ballymount
Dublin 12

Tel: +353 (0)1 450 7442

All list prices are IE (€) excluding VAT.

UK CA C€