



**CENTURION**



**SECTOR™**

**For the best  
angle in high-volume  
traffic barriers!**



BARRIERS



SLIDING GATE OPERATORS



REMOTE CONTROLS



PROXIMITY ACCESS CONTROL



INTERCOMS



KEYPADS



SAFETY BEAMS





# SECTOR™

Lots of vehicles coming in and out? You need something that goes up and down. Fast!

The **SECTOR** is powered by a beefy custom-built DC motor and gearbox and can raise up to a three metre boom pole at a blistering pace of less than 1.2 seconds.

Operating slightly slower, the **SECTOR** will effortlessly raise up to a six metre pole smoothly and reliably.

The **SECTOR** lives fast – but it most definitely doesn't die young. Designed for tough, high-volume usage, it will work all day, it will work all night - lasting for millions of cycles.

Add full battery backup, and the **SECTOR** is always at your service.



## Main features



### Rapid opening

Lots of vehicles coming in and out? You need something that goes up and down. Fast!

The **SECTOR** is ideal for high-volume applications and puts a manically ticking metronome to shame – raising a three metre pole in under 1.2 seconds and lowering it just as quickly.



### Battery backup

With our 12V battery driven motor, your security is never compromised. The **SECTOR** will continue to stay on, even when the power is off – beating up and down 3000 times during a 24 hour power failure before it needs a recharge. If you're expecting no power for a while, the built-in mains failure detection can be set to keep the barrier raised under power failure conditions.



## High-torque boom pole operation

The **SECTOR**'s DC motor and reduction gearbox generate enough torque to make sure that your boom goes up and down for ever and ever. Come sunshine, rain or howling winds, you'll always be able to get in and out.



## Safe sensitivity for boom pole lowering

Your boom won't go BOOM on the roof of a visitor's car. The **SECTOR** will detect any obstruction, so you're safe – and won't have to fill out any of those pesky insurance forms.



## Robust, durable and slim-line operator casing

Our slim **SECTOR** looks particularly fetching – and epoxy-coating, in a highly visible 'traffic yellow', keeps it safe from drivers with terrible eyesight.

Available with different levels of corrosion protection for inland, coastal plains, and marine environments<sup>☆</sup>

<sup>☆</sup> Refer to 'Barrier housing specifications' on back page



## When size matters

Whether closing off an entrance from as narrow as three metres to as wide as six metres, there is a **SECTOR** model to suit.

Fit the optional jack-knife and your **SECTOR** can even be fitted in areas with limited headroom.



## Comprehensive input and output

With our intuitive, user-friendly LCD interface, setting up the **SECTOR** is not just simple – it's child's play. Set the **SECTOR** to handle any vehicle access control application with the touch of a button.

To make things even easier, our state of the art motor controller not only ensures smooth and reliable operation, it allows you to set your boom's opening and closing speed to your liking.



## Onboard FLUX loop detector

The **SECTOR** offers integrated support for both closing and free-exit loop detection. Make use of the onboard FLUX loop detector, or if you'd like to add an additional loop simply plug an 11-pin loop detector into the 11-pin socket provided – connect the loops and you're good to go.



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## Operate wirelessly, thanks to CENTURION<sup>1</sup>

Besides its code-hopping technology offering the highest level remote control security, this CENTURION onboard receiver is both multichannel and multi-user, allowing a multi-button remote to operate any combination of the system inputs, such as Barrier Raise, Barrier Lower, etc. It stores up to 500 transmitter buttons, and amongst other access control features, it provides the ability to selectively add and delete transmitter buttons saved into its memory.

1. CENTURION code-hopping

## SECTOR controller features

### Hardware features

- Fully sealed plastic housing for controller to prevent ingress of dirt and insects
- Easy setup of controller using LCD user interface
- Removable connectors on controller for easy maintenance
- Watchdog IC ensures full and safe operation of controller
- Optional Backup Memory Module allows backing up of all the information that has been set up in the system
- Standard pin plug-in bases pre-configured for approved 12V DC closing and free-exit inductive loop detectors
- Adjustable and removable controller mounting tray for easy wiring and commissioning

### Electronic features

- Barrier raise and lower inputs
- Memory and non-memory barrier activation
- Onboard multichannel CENTURION code-hopping with the ability to:
  - learn transmitter buttons to specific functions (e.g. Barrier Raise, Barrier Lower, etc.)
  - selectively delete specific transmitters that have been lost or stolen
  - automatically learn transmitters (Autolearn) and
  - automatically delete transmitters that are no longer in use (Delete-Not-Present)
- Full configuration of barrier operating parameters including independent pole raise and lowering speeds, ramp-up and ramp-down angles
- Full configuration of barrier operating parameters including independent pole raise and lowering speeds, ramp-up and ramp-down angles
- Automatic closing
- Multiple Operating Profiles to suit region – select between ZA, CE, etc.
- Multichannel controller with integrated **ChronoGuard timer technology** (a world first)
- Free-exit facility\*
- Remote boom pole status indicator\* (pole position, power failure, low battery, multiple collision detection and security light status indication)
- Courtesy / Pillar Light Timer with adjustable duration\*
- Fully configurable pre-delays with multi-modal pre-flash\*
- Safety / Closing beam input with beam functional test\*
- Lock / Emergency stop input\*
- Ticket Vend Interlock\*



\* inductive loop detector or infrared beams must be fitted

\* remote LED must be fitted

\* an external pillar light must be connected to enable this feature

\* an external light must be connected to enable this feature

\* infrared safety beams or equivalent detection device must be fitted

\* to use this feature, a normally closed emergency stop pushbutton must be fitted

\* this feature enables connectivity to a ticket vending machine



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## ChronoGuard timer technology (a world first)

The **SECTOR** is so advanced it takes access control at the traffic barrier entrance to the next level.

With CENTURION's **ChronoGuard timer technology** onboard, any of the **SECTOR**'s inputs that activate the barrier can be set to operate automatically or be time-barred at any time you choose. Its built-in Real Time Clock and Calendar timer allows you to set up different exclusions, which can cater for public holidays, special Time-periods, etc. Once you've set up the **SECTOR**'s **ChronoGuard** using the intuitive LCD screen on the controller, you'll start feeling particularly redundant. For instance:



Very often, traffic barriers are used in conjunction with motorised gates at the entrances to business parks, housing estates, etc. The traffic barrier controls access during the day when traffic volumes are high, while the gate is used at night when greater security is required. **ChronoGuard** can now be used to automatically switch operation from the **SECTOR** to the gate motor as and when required. Security has never been this convenient.



To increase security and control traffic flow you can automatically shut down certain traffic lanes controlled by the **SECTOR** at quieter times of the day, or over weekends and on holidays.



**ChronoGuard** gives you the ability to time-bar transmitters that have been learned into the system. This gives you the flexibility to control when your barrier can be opened by specific transmitter holders. For example, staff may be given access to the office park during the week, but on weekends you may wish to limit their access to the property.

**ChronoGuard technology** allows for almost unlimited time-based functionality, all of which is very simply set up on the controller via the intuitive menu system and LCD user interface. The following functionality is available:

- Time-activate many of the physical inputs and outputs of the controller (see table below)
- Time-bar many of the physical inputs and outputs of the controller, as well as particular remote buttons learned into the onboard receiver (see table below)
- The Real Time Clock and Calendar timer has the following flexibility:
  - It supports 100 Time-periods, that may be set according to:
    - Weekdays (M + T + W + T + F)
    - Any day of the week (M, T, W, T, F, S, S)
    - Weekends (S + S)
    - Every day of the week (M + T + W + T + F + S + S)
  - Special calendar events (family holiday, etc.) occurring on any date until the year 2100
  - Annual calendar events (New Year's Day, etc.)
  - Allows for multiple Time-periods to be set during a 24-hour period
- The Real Time Clock and Calendar timer is backed up for at least one hour to maintain the current time and date in the event that all power is removed from the controller

### Physical inputs

### Physical outputs

	MI: Memory input	NMI: Non-memory input	Raise: Barrier raise	Lower: Barrier lower	Lck/Stop: Holiday Lockout	ILP: Inductive loop detector	Aux Out: Auxiliary output	Aux IO: Auxiliary input/output
<b>Time-activate</b>	X	X	✓	✓	✓	✓	✓	✓
<b>Time-bar</b>	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys
	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	X X	X X	X X

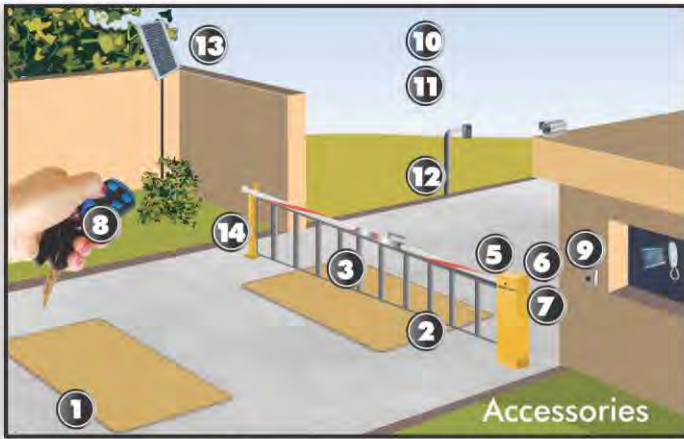
physical connection to an external device, eg. Inductive Loop Detector, SMARTGUARD keypad, etc.

interfaces with onboard CENTURION code-hopping receiver

Aux IO - open collector output that can be used to drive an external relay for operating any external device, eg. water feature, security lights, etc.



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Accessories



**FLUX 11 12V**  
Required to enable the free-exit facility or the closing/safety loop facility - ground loop to be fitted



**CLAWS**  
Add real security with seamless integration to our SECTOR - available in Flush or Surface mounted models



**TRAPEX**  
A traffic barrier pedestrian fence that stops people from circumventing the SECTOR access control point



**Jack-knife assembly**  
Accommodates applications with limited headroom



**Breakaway Coupling**  
Pole hinges away from barrier if accidentally knocked reducing the chance of being damaged



**MIDI Traffic Light**  
Visually indicate when it is safe for a vehicle to proceed into or out of an access controlled area



**Backup Memory Module**  
Back up all the transmitters and operating details set up in the controller



**CENTURION transmitters**  
Available in one, two, three and four button variants. Incorporates ultra-secure code-hopping encryption



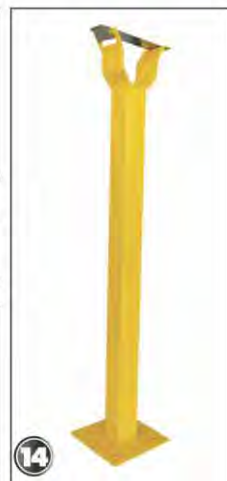
**Manual pushbutton**  
Industrially rated switch, typically for a guard to manually activate the barrier



**SOLO/Lattice Proximity Access Control System**  
Proximity reader allowing for access to both pedestrians and vehicles, while offering a higher level of security than a keypad



**SMARTGUARD or SMARTGUARDair keypad**  
Cost-effective and versatile wired and wireless keypad, allowing access to pedestrians



**Catchpost**  
Allows locking the boom pole in the lowered position - recommended with 6m boom poles to support pole tip and prevent drooping due to flexure in the pole



**Gooseneck**  
Steel pole for mounting intercom gate station or access control reader



**Solar supply**  
Alternative means of powering the system - consult your local CENTURION dealer for details

## Technical specifications

SECTOR 3 SECTOR 4.5 SECTOR 6

Input voltage	220V - 240V ± 10%, 50Hz ★		
Motor voltage	12V DC		
Motor power supply	Battery driven (standard capacity - 7Ah)†		
Battery charger	CP84SM - 2A @ 13.8V		
Current consumption (mains)	170mA		
Boom pole length	3.0m	4.5m	6.0m
Boom pole raise time (adjustable)★	1.2 sec	3 sec	3 sec
Manual override	Allan key operated from outside unit		
Maximum number of operations per day	3000		
Duty cycle - mains present ★★	80%		
Operations in standby with 7Ah battery			
Half day‡	3000*		
Full day‡	3000*		
Collision sensing	Electronic		
Operating temperature range	-15°C to +65°C		
Onboard receiver type	CENTURION code-hopping multichannel		
Receiver code storage capacity	500 transmitter buttons		
Receiver frequency	433MHz		

- ★ Can operate off a solar supply, consult your local CENTURION dealer for assistance
- † Can increase battery capacity for longer standby times
- ‡ Boom pole raise and lower times are both individually configurable to suit individual installation requirements
- ‡ Based on 25°C ambient temperature and unit not in direct sunlight
- ★ Based on an output torque of less than 50% of rated
- ‡ Based on basic operator excluding closing loop detector
- \* Limited by daily usage

## Barrier housing specifications

Application	Inland areas	Coastal plains -no airborne salt	Marine areas
Main housing surface protection	Zinc-passivated mild steel with epoxy coating	Grade 430 stainless steel with epoxy coating	Grade 316 brushed stainless steel
Base frame surface protection	Mild steel, hot dip galvanised	Mild steel, hot dip galvanised	Grade 316 brushed stainless steel
Housing construction	Sheet metal housing, 1.6mm wall thickness with separate fabricated base frame, 3mm wall thickness to raise housing above ground		
Colour	Traffic yellow		
Housing protection rating	IP 55		

## Barrier pole specifications

Material and profile	Aluminium, round profile with plastic end cap
Dimensions	Outside diameter: 76.2mm; Wall thickness: 1.27mm
Weight	800g/metre
Surface protection, colour and markings	Epoxy-coated white with red reflective tape

## Overall dimensions

