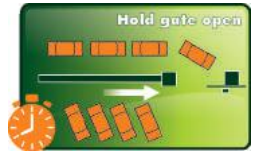


## CHRONOGUARD TIMER TECHNOLOGY (a world first)

These operators are so advanced that they no longer need humans to look after them. With CENTURION's ChronoGuard timer technology onboard, many of the features can be set to operate automatically or be time-barred at any time you choose. Its built-in Real Time Clock and Calendar allows you to set up different exclusions, which can cater for public holidays, special Time-periods, etc.

Once you've set up the **D10** and **D10 Turbo**'s ChronoGuard using the intuitive LCD screen on the controller, you'll start feeling particularly redundant. For instance:



If your factory is particularly busy during certain hours of the day from Monday to Friday, set the operators to keep the gates open during these peak times, allowing for quicker movement of vehicles in or out of your factory.

During all other times and over the weekend or public holidays, you'll have to use your CENTURION remote control, SMARTGUARD keypad, Lattice proximity reader, etc. to get in or out.



Better still - automatically time-activate the Holiday Lockout feature when you go to bed, ensuring that only specific, authorised remotes will be able to open the gate while you're sleeping, keeping teenagers at home and unwanted 'visitors' out.



ChronoGuard gives you the ability to time-bar specific CENTURION code-hopping remote controls. This gives you the flexibility to control when specific remote control holders can open your gate.

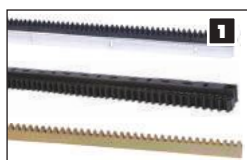
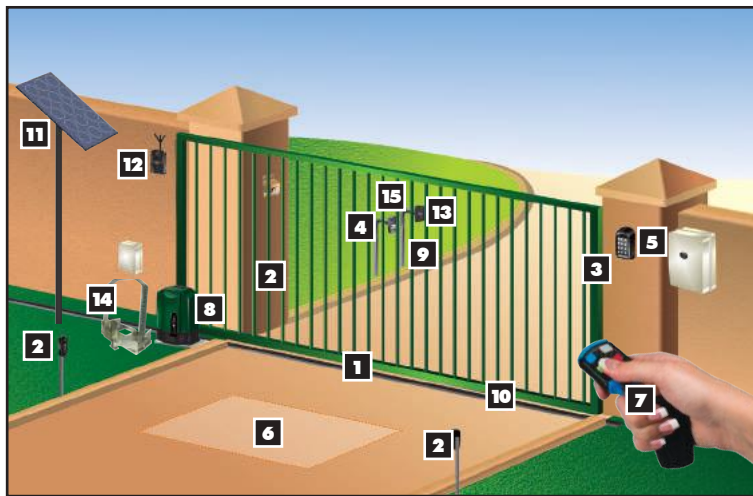
For example, your domestic staff may be given access to your property during the week, but on weekends you may prefer to limit their access to your property.

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)
    - Weekends (S + S) Automatic closing with adjustable time, pushbutton override and selectable according to gate position
    - Any day of the week (M, T, W, T, F, 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		
	Trg: Gate trigger	Ped: Pedestrian opening	FRX: Free-exit	Aux: Pillar light control	Lck/Stp: Holiday Lockout	Close: Closing safety beams	Aux IO: Auxiliary output	Light: Pillar light relay
Time-activate	X	✓	✓	✓	✓	✓	✓	X
Time-bar	Phys. ✓	Phys. ✓	Phys. ✓	Phys. ✓	Phys. ✓	Phys. ✓	Phys. ✓	Phys. ✓

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



**Steel, Nylon RAZ or Nylon angle rack**  
A variety of rack available in different lengths, for different strengths



**CENTURION Infrared beams**  
Always recommended on any gate automation installation



**P36**  
Passive sensitive edge provides additional protection against crushing



**POLOphone intercom**  
Allows visitors to communicate with people inside in order to gain access to the property



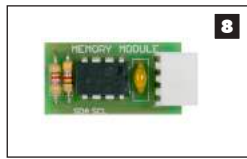
**SMARTGUARD or SMARTGUARDair keypad**  
Cost-effective and versatile wired and wireless keypad, allowing access to pedestrians



**FLUX SA Loop Detector**  
Allows free-exit of vehicles from the property - requires ground loop to be fitted



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



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



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



**Wheel kits**  
A variety of wheel kits are available from your CENTURION dealer



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



**G-SWITCH-22 devices**  
Allows for monitoring and activating the operator, via your phone, from anywhere in the world that has GSM network coverage



**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



**Theft-resistant cage & padlock**  
Retro-installable steel cage that increases the resistance of the operator against theft



**G-SPEAK mobile-based intercom**  
Mobile-based intercom system - answer your intercom from anywhere in the world for maximum security and convenience.

## TECHNICAL SPECIFICATIONS

	D10	D10 Turbo
Input voltage	220V - 240V AC ± 10%, 50Hz <sup>1</sup>	
Motor voltage	24V DC	
Motor power supply	Battery driven (standard capacity - 2 x 7Ah) <sup>2</sup>	
Battery charger	2A @27.5V	
Current consumption (mains)	170mA	
Current consumption (motor at rated load)	4A	8A
Operator push force	40kgf	20kgf
Operator push forced	30kgf	15kgf
Maximum gate mass	1000kg	Varies with speed <sup>3</sup>
Maximum gate length	100m	50m
Maximum gate speed (varies with load) <sup>4</sup>	22-26m/min	40-50m/min
Manual override	Lockable lever with key release	
Maximum number of operations per day	750 <sup>5</sup>	
Duty cycle (mains present) <sup>6,7</sup>	45%	25%
Operations in standby with <sup>2</sup> x 7Ah batteries		
Half day <sup>8</sup>	87	58
Full day <sup>8</sup>	69	37
Collision sensing	Electronic	
Operating temperature range	-15°C to +50°C	
Onboard receiver type	CENTURION code-hopping multichannel	
Receiver code storage capacity	500 transmitter buttons	
Receiver frequency	433MHz	
Mass of unit packed (with standard kit but excl. rack and battery)	13kg	
Packaging dimensions (with standard kit but excl. rack and battery)	355mm wide x 288mm deep x 485mm high	

- Can operate off a solar supply, consult your local dealer for assistance
- Can increase battery capacity for longer standby times
- See table above
- Gate opening and closing speeds can be configured to run slower depending on the requirements of individual installations
- With brush replacement interval of two years
- Based on 25°C ambient temperature and unit not in direct sunlight
- Based on an operator push force of less than 50% of rated
- Based on four metre gates, excluding infrared safety beams

## D10 Turbo maximum operating speed for corresponding gate mass

Gate mass (kg)	Operator max. running speed (m/min)
240kg	50m/min
300kg	42m/min
400kg	36m/min
500kg	32m/min
600kg	29m/min
700kg	27m/min
800kg	25m/min
900kg	24m/min
1000kg	23m/min

## OVERALL DIMENSIONS



## INDUSTRIAL SLIDING GATE OPERATORS

Intelligent speed control - high speed for greater security and convenience



So much thought has been put into every aspect of the **D10** and **D10 Turbo** operators that we'll have to wait for technology to catch up before we can make any improvements!

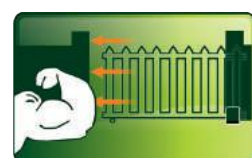
Both operators use a battery driven high-torque 24V DC motor, coupled to a robust gearbox to provide an automation system that is quick, powerful and battery backed up – perfect for industrial and commercial applications where heavy gates are installed.

Upgrade to the lightning-fast **D10 Turbo**. It's the perfect solution for speed freaks to get their fix. Whether you're just in a hurry, or seriously concerned about your security, there is no time wasted with the **D10 Turbo** at your gate. This beast will move a gate weighing up to 240kg at a blistering speed of 40 metres per minute, and a gate weighing a ton at an equally impressive 23 metres per minute. It is our fastest operator yet!

Easy to set up and easy on the eye, the **D10** and **D10 Turbo** have everything you'd expect from CENTURION.

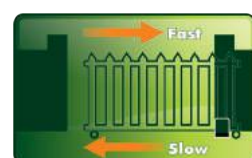
Add an LCD controller that can monitor diagnostics and set any function at the touch of a button and you'll understand why you won't need another operator for a long time.

## MAIN FEATURES



### Speed and power

Brains and brawn! A robust but quiet 24V DC motor, coupled with a precision die-cast aluminium gearbox, generates enough torque to allow the **D10** to shift a four metre gate in ten seconds – and the **D10 Turbo** is even quicker. An oil-lubricated gearset makes sure that these operators will just keep on going.



### Intelligent speed control

An operator to suit your lifestyle. Play it safe and set your gate to move slowly so your children won't be hurt. If it's your security you are worried about, open the gate so fast that you don't have to slow down when you turn into your driveway. It will lock behind you in a matter of seconds. There's not much criminals can do with a CENTURION gate operator standing in the way



### Battery backup

A 24V battery with rapid charger ensures that come low voltages, power spikes or failures, you can always get in or out!



### Accurate and safe position control

With one of the **D10s** on guard, there's no chance that your gates will damage your vehicle or hurt your children or pets. The tiniest obstruction will stop your gate dead in its tracks!



### Attractive styling

These gate operators' sleek design and rugged, yet modern armour will complement any driveway.



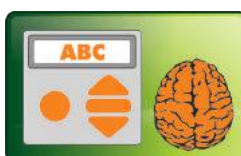
### Jam-free Manual Override

n innovative conical design means no more jamming. Both operators can be put into manual so effortlessly! No more smarting thumbs or put out backs.



### Easy access for simple installations

Ready? With only two bolts required to secure either of the operators, these are our easiest units to install yet! We've incorporated a jacking system so levelling of the operator is a cinch. Mounting points are slotted allowing large adjustment to align the operator with the gate. Set. Go!



### Intelligent automatic setup

Once you've got it in, it basically sets itself up. Use your LCD controller to follow an easy to use Q and A system that makes setting up things like gate End-of-travel Limits as easy as setting the time on your watch. The **D10** and **D10 Turbo** do all the thinking for you.



### Multiple operating features

With so many features, you're going to have to buy one of these operators just to try them all out! One of our favourites is Holiday Lockout Mode - once enabled, your gate will become totally immobilised. The only way to get in will be to go straight through – with something very large.



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

Besides its code-hopping technology offering the highest level remote control security, this multichannel and multi-user CENTURION onboard receiver allows for a multi-button remote to operate any combination of the system inputs, such as Gate Trigger, Pedestrian Opening, Holiday Lockout, 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



### Alarm features (a world first)<sup>2</sup>

Burglars have some nifty techniques to get into your home. Fortunately, criminals can't out-smart one of these motors. An Ambush Alarm will alert your security company if the opening or closing beams are interrupted for a pre-defined, but adjustable, time. Similarly, a Break-in Alarm will go off if the closing beam outside your house is interrupted. Their gig is up.

2. Requires gate safety beams to be installed



### Advanced diagnostics

Our intelligent LCD-based controller puts the power of the **D10** or the **D10 Turbo** at your fingertips. An intuitive and user-friendly interface gives you access to features you never even knew existed. Beyond setting one of the operators' numerous functions and monitoring diagnostic info - they will actually let you know if something is wrong. Somebody's been loitering at your gate? Your controller will tell you<sup>3</sup>

3. Fit a G-SWITCH device from CENTURION to receive SMS alarm notification

## D10 and D10 Turbo 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.

### Electronic features

- Opening and closing safety beam inputs with beam circuit functional test<sup>1</sup>
- High security cleared-beam Autoclose in conjunction with safety beam (PIRAC)<sup>1</sup>
- Break-in and Ambush Alarm (patent pending) with configurable outputs via onboard buzzer, Pillar Light relay, etc.<sup>1</sup>
- Multiple Modes of Operation: Standz ard Mode, Condominium Mode (multi-user), Reversing Mode, PLC<sup>2</sup> and Deadman Control Mode<sup>3</sup>
- Automatic closing with adjustable time, pushbutton override and selectable according to gate position
- Remote Gate Status Indicator (gate position, power failure, low battery, multiple collision detection and Pillar Light status indication)<sup>4</sup>
- Pedestrian opening (adjustable opening and Autoclose time)<sup>5</sup>
- Free-exit facility<sup>6</sup>
- Holiday Lockout<sup>5</sup> - configurable as Emergency Stop<sup>7</sup>
- Courtesy / Pillar Light Timer with adjustable time
- Fully configurable pre-delays with multi-modal pre-flash<sup>8</sup>
- Multiple Operating Profiles to suit region of installation– select between ZA, CE, etc.
- Full configuration of gate operating parameters, including independent gate opening and closing speeds, ramp-up and ramp-down distances and crawl speed
- Positive Close Mode (e.g. ensure activation of electric fence contact switch)
- Onboard multichannel CENTURION code-hopping receiver with the ability to:
  - learn transmitter buttons to specific functions (e.g. Gate trigger,
  - Pedestrian opening, Free-exit, Pillar Light Control, Holiday Lockout)
  - selectively delete specific transmitters that have been lost or stolen
  - automatically learn transmitters into the system (Autolearn)
  - automatically delete transmitters that are no longer in use (Delete-Not-Present)
- Integrated ChronoGuard (patent pending) with Real Time Clock and Calendar timer offering multichannel time-activated and time-barring functionality
- Auxiliary output can be configured via the ChronoGuard timer to provide timer functionality to external devices, such as security lights, entrance fountain, etc.

1. Infrared safety beams or equivalent detection device must be fitted

2. PLC: separate inputs to open, close and stop the gate

3. Deadman Control Mode: separate inputs to open and close the gate, that must be held active to move the gate

4. Remote LED must be fitted

5. Onboard receiver must be used or external access control device such as keypad or keyswitch must be fitted

6. Inductive Loop Detector or infrared beams must be fitted

7. To use this feature, a normally-closed emergency stop pushbutton must be fitted

8. Pre-flash security / Pillar Lights must be fitted

