

centsys V-SMART 300 Swing Gate Operators Instruction **Manual**

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centsys V-SMART 300 Swing Gate Operators



FAQs

Q: How do I reset the gate operator if it malfunctions?

• **A:** Refer to the user manual for specific instructions on resetting the gate operator. Typically, this involves powering off the system, waiting for a few seconds, and then restarting it.

Q: Can I install the swing gate operator myself?

• **A:** While installation is possible for DIY enthusiasts, it is recommended to hire a professional installer to ensure correct setup and safety compliance.

SELECTION GUIDE

SWING GATE OPERATOR QUICK SELECTION GUIDE

This quick selection guide will help you to select the perfect CENTURION for you or your client's swing gate by providing the differentiating features and key specifications of each.



- 1. Based on a 25° ambient temperature and unit not in direct sunlight
- 2. Battery-driven typically using a 7Ah D-SERIES battery and a charger (battery can be upgraded for greater power failure autonomy mounted separately). Solar power may also be used.
- 3. Gate opening and closing speeds can be configured to run slower depending on the requirements of individual installations



	R6				
Input voltage ¹	90V – 240V AC				
Maximum gate leaf width for corresponding gate m ass	2m - 600kg				
	3.5m – 260kg				
Typical gate opening time	17 sec				
Maximum daily operations	250				
Onboard multichannel receiver	_				
Interface type	LED-based				
Automatic beam test	_				
1. Can operate off a solar supply, consult Centurion Systems for assistance					

VANTAGE SMART LINEAR SWING GATE OPERATORS

- The VANTAGE SMART linear swing gate motor, available in three models with actuation strokes of 300,
 400mm, and 500mm, respectively, has been designed to automate a wide variety of swing gates, from single or double light-domestic gates to heavy industrial double swing gates.
- The fail-safe and fully redundant Position and Collision Detection System has been designed and tested to set the standard in the safety of operation and to provide an unparalleled level of reliability and durability in operation.
- The gate Travel Limits are managed by a sealed optoelectronic system that has been designed not only to
 ensure ultra-reliable operation but also to ensure precise position and trajectory control. This enables very
 accurate and reliable collision detection to ensure safe operation even under trying conditions.





MAIN FEATURES

Mechanical Features

- Interactive graphic user interface via a smartphone application
- Automated setup of gate endpoints (limits)
- · Independently-adjustable motor speed in both opening and closing directions
- Fail-safe collision detection and auto-reverse (adjustable sensitivity)
- Smooth, adjustable start/stop (ramp-up/ramp-down)
- · Multiple operational modes
- · Selectable, adjustable Autoclose
- Pedestrian (partial) opening
- Positive Close Mode
- Supports up to three sets of Photon SMART Safety beams
- Independent safety inputs for opening and closing beams (wired)
- Automatic beam test for both opening and closing beams (wired)
- Advanced lightning/surge protection
- Onboard NOVA code-hopping radio receiver with full channel-mapping capability (1500 MyCentsys Remote users

TECHNICAL SPECIFICATIONS

Technical Data	VANTAGE SMART 3 00	VANTAGE SMART 4 00	VANTAGE SMART 5 00	
Input voltage	220V AC ±10%, 50Hz	220V AC ±10%, 50Hz	220V AC ±10%, 50Hz	
Motor voltage	12V DC	12V DC	12V DC	
Motor power supply ²	Battery-driven (standar	d capacity – 7Ah) ¹		
Battery charger ¹	CP84SM - 1.8A @ 1 3.7V	CP84SM - 1.8A @ 1 3.7V	CP84SM - 1.8A @ 1 3.7V	
Current consumption (mains)	170mA	170mA	170mA	
Current consumption (motor at rated load)	3/13A	3/13A	3/13A	
Current consumption (quiescent load)	70mA	70mA	70mA	
Operator push force – maximum	220kgf	220kgf	220kgf	
Operator stroke	300mm	400mm	500mm	
Maximum leaf width corresponding t	2m/500kg	2m/500kg	2m/750kg	
o gate mass	4m/200kg	4m/200kg	4m/310kg	
Gate opening time – typical ³	11 sec	14.3 sec	17.8 sec	
Maximum daily cycle	250 cycles/day	250 cycles/day	250 cycles/day	
Design life	150 000 cycles	150 000 cycles	150 000 cycles	
Duty cycle – Mains present5 6	50%	50%	50%	

Operations on standby with standard battery

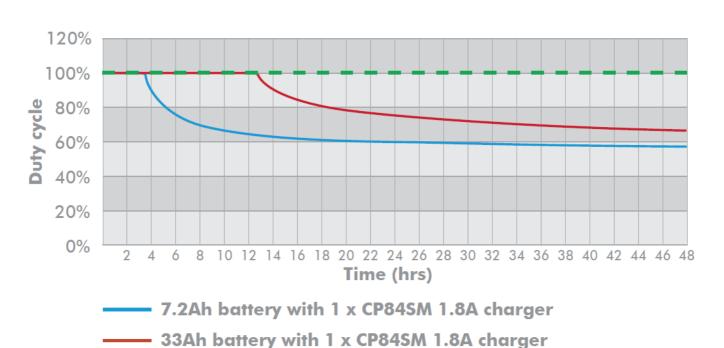
Half day	70					
Full day	58					
Collision sensing	Electronic	Electronic	Electronic			
Operating temperature	-15°C to +50°C	-15°C to +50°C	-15°C to +50°C			
Degree of protection	IP55	IP55	IP55			
Controller incorporated	V-Series in separate wallbox	V-Series in separate wallbox	V-Series in separate wallbox			
Onboard receiver type	NOVA code-hopping onboard, multichannel					
Receiver frequency	433.92MHz 433.92MHz 433.92MHz					
Receiver code storage capacity	60 transmitter buttons	60 transmitter buttons	60 transmitter buttons			

Mass of unit packed

Single kit	8kg	8.5kg	9kg	
Double kit	13kg	14kg	15kg	
Packaging dimensions				
Single kit ⁸	Length: 1125mm x W idth: 335mm x Height: 270mm	Length: 1125mm x W idth: 335mm x Height: 270mm	Width: 1105mm x Wi dth: 335mm x Height: 270mm	
Double kit ⁹	Width: 1105mm x Wi dth: 335mm x Height: 270mm	Width: 1105mm x Wi dth: 335mm x Height: 270mm	Width: 1105mm x Wi dth: 335mm x Height: 270mm	

- 1. Can increase battery capacity for longer standby times.
- 2. Can operate off a solar supply, consult your reseller for assistance.
- 3. Assumes a full stroke of the operator is used on a level gate with no wind.
- 4. Each operator comes with a unique set of keys.
- 5. Based on 25°C ambient temperature and unit not in direct sunlight.
- 6. Based on an operator push force of less than 50% of rated.
- 7. Based on double kit excluding Infrared Safety Beams.
- 8. A single kit contains one operator and a Wall Box.
- 9. The double kit contains two operators and one Wall Box.

VANTAGE SMART single operator duty cycle as a function of operating time



- - 33Ah battery with 1 x High Capacity charger

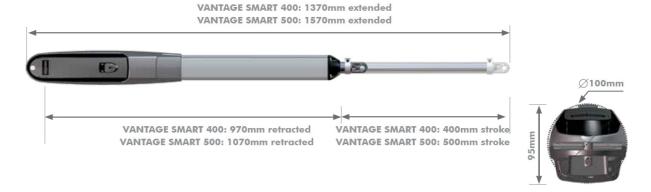


CABLING REQUIREMENTS



- 90V / 220V 240V AC mains cable via mains isolator switch1 (3 core LNE 1,5mm² SWA)2, or low-voltage 15V 19V AC cable via transformer in a dwelling (3 core LNE 1.5mm² Surfix)3
- 2. Master Motor (MTR M) or Slave Motor (MTR S) cable (minimum, 2 core 2mm2 + 4 core 0,5mm² multi-stranded) see note6 Optional Wiring (all cable is multi-stranded):
- 3. Intercom, cable from the control box to dwelling (n17 + 6 core4 0.5mm² multi-stranded) or cable from the control box to entry panel (n27 0.5mm² multi-stranded)
- 4. Radio receiver cable (3 core 0,5mm2 multi-stranded, optional)5
- 5. Pedestrian Keyswitch (2 core 0,5mm2 multi-stranded) or optional keypad (3 core 0,5mm2 multi-stranded)
- 6. Infrared Safety Beams or safety edge (3 core 0,5mm2 multi-stranded or 4 core 0.5mm² for CE compliance)
- 7. Intercom cable (n2 + 2 core 0,5mm² multi-stranded) to gate station
- 8. Electric lock (2 core 1.5mm²)
- 9. Pillar Light cable (3 core LNE SWA), size according to power regulations)
- 10. Inductive loop detector for free-exit (1 core 0.5mm2 multi-stranded silicone-coated)
 - 1. The main isolator must be fitted less than 1m from the controller
 - 2. Increase cable thickness if Pillar Lights are to be installed
 - 3. Screened cable is always recommended to provide better protection against lightning earth one end of screening

- 4. Domestic charger only
- 5. For optimum range, an external receiver can be mounted on the wall
- 6. CENTURION has available custom VANTAGE SMART cable order reference: CABLEVEC68
- 7. Number of cores required by the intercom





SWING GATE OPERATOR ACCESSORIES

• A CENTURION INFRARED SAFETY BEAMS

 Always recommended on any gate automation installation to increase the safety of the automated system.

• B FLUX SA LOOP DETECTOR

Allows free exit of vehicles from the property (requires a ground loop to be fitted).





C SOLAR SUPPLY

• Alternative means of powering the system with our 20, 40, 60, 80, 120 or 150-watt panels.

• D CENTURION NOVA TRANSMITTER

 Incorporates ultra-secure code-hopping technology. Available in one-, two-, three- and four-button variants.





• E G-ULTRA GSM DEVICE

• The ultimate new GSM solution for monitoring and activating electrical appliances via your mobile phone.

• F SMARTGUARD or SMARTGUARDair KEYPAD

• Cost-effective and versatile wired or wireless keypad, allowing access for pedestrians.





• G CENTURION INTERCOM SYSTEM

Allows visitors to communicate with people inside to gain access to the property.

• H G-SPEAK ULTRA

• Allows you to answer your intercom from anywhere.





• I V-SERIES CONTROL BOX

• A fully weatherproof wallmounted enclosure for the operator's controller electronics

J GOOSENECK

Steel pole for mounting intercom gate station or access control.





• K V-SERIES CABLE

 Cable has been optimized for the V-SERIES range of swing gate operators to provide reliable operation time and time again.



SWING GATE OPERATOR KITS

SINGLE VANTAGE SMART 300, 400, or 500 KIT

Product Code: VAN4KITSLIND or VAN5KITSLIND

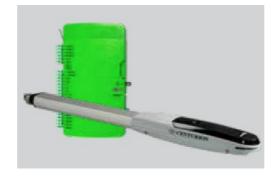
- 1 x VANTAGE SMART operator including:
 - Mounting hardware K
- 1 x Wallbox including C
 - 1 x Mains isolator
 - 1 x 2A Switch Mode charger G
 - 1 x V-Series Controller A
- 1 x 7Ah battery H
- 1 x Battery housing J
- 2 x 4 button CENTURION transmitters C

DOUBLE VANTAGE SMART 300, 400, or 500 KIT

Product Code: VAN4KITDLIND or VAN5KITDLIND

- 2 x VANTAGE SMART operators including:
 - Mounting hardware K
- 1 x Wallbox including B
 - 1 x Mains isolator
 - 1 x 2A Switch Mode charger G
 - 1 x V-Series Controller A
- 1 x 7Ah battery H
- 1 x Battery housing J
- 2 x 4 button CENTURION transmitters D

SWING GATE OPERATORS























R6 SWING GATE OPERATORS

- The R6 is a gate motor of obvious distinction that you'll be proud to own. Its velvety movement is visual poetry and makes the R6 the latest word in comfort that will not only be a striking addition to your swing gate but also offer stalwart security, convenience, and reliability.
- And it's built strong, too! Our proven techniques combined with superior engineering and the most robust and durable materials ensure that the R6 is a long-term companion for your swing gate and a formidable access automation solution for your home.
- The R6 is not only polished and refined, but it's your assurance of peace of mind.





Main Features

- Making lives easier- It's a rotary motor that turns difficult limit procedures on its head! Ingeniously designed and conceived to be intuitive and user-friendly, setting the R6 for precise, pinpoint stopping just couldn't be easier.
- The ultimate in security- The R6's rapid opening and closing help to ensure that you get into your property safely and securely. If you're worried about someone sneaking in behind you, use the Beam Autoclose feature to set your gates to automatically close the moment you have driven in and ruin any criminal's day.
- Smooth and reliable- The sinusoidal motion of the
- R6 ensures that your gate smoothly accelerates and then gradually comes to a gentle stop. Beyond just looking more professional, this fluid movement actually prolongs the lifespan of the motor. No shock-loading means the R6 will serve you for many years to come.
- Upgrade to the best- The innovative mechanical design of the R6 means it can effortlessly and seamlessly be retrofitted to replace old motors
- Uninterrupted operation-The R6 boasts our time-proven battery backup, so you can always get in and out –
 even when the power is out.
- Safe and quiet functioning- The R6's geared DC motor is very hush-hush and won't disturb the tranquillity. In addition, sensitive collision detection technology means that your gates can always be operated in complete safety.
- So versatile- We've ensured that the R6 offers the highest level of flexibility and can be adapted to a host of different sites.

	R6					
Input voltage	90V - 240V AC +/-10% @ 50Hz1					
Motor voltage	12V DC					
Current Consumption (mains) CP13E CP84SM	80mA 170mA					
Maximum DC Current Draw		10	6A			
Maximum Output Torque Standard-torque operator High-torque operator	300Nm 390Nm					
Power Supply3 Domestic Light-industrial Industrial	0.8A CP13E, 7.2Ah Battery 1.8A CP84SM, 7.2Ah Battery 1.8A CP84SM, 33Ah Battery					
Maximum Daily Operations	Mains pre	esent	Back-u	ıp²		
	Double leaf	Single leaf	Double leaf	Single leaf		
Domestic	20	30	20	30		
Light-industrial	250	250	40	60		
Industrial	250	250	250	250		
Maximum Daily Continuous Operations		Mains	present			
	Double I	eaf	Single	leaf		
Domestic	20 30					
Light-industrial	50 50					
Industrial	100		100			
Typical Gate Operating Time Standard-torque operator High-torque operator	12s 15s					
Mass of Motor Kit4 (excluding pedestal or wall bracket)	15kg					
Collision Sensitivity	Electronic - Adjustable					
Temperature Range	-15°C to +50°C					
Housing Protection	IP55					

- 1. Can operate off a solar supply, please consult Centurion Systems (Pty) Ltd for assistance.
- 2. These values are based on fully charged batteries, and derate accordingly based on connected ancillaries.
- 3. Choose appropriate variations based on site requirements.
- 4. The weight of an operator kit (regardless of Master or Slave).

GATE SPECIFICATIONS

R6 Standard-Torque Operator								
Gate Length (m)	1.5	2	2.5	3 2	3.5 2	42	4.5 2	5 2
Gate Height (m)	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Max Mass (Kg)	500	500	480	330	240	185	145	120
Allowable Wind Speed F or 25% Clad (Km/h)1	114	84.7	67.3	56.9	49.2	43.2	38.6	34.8
Allowable Wind Speed F or 100% Clad (Km/h)1	57	42.4	33.6	28.5	24.6	21.6	19.3	17.4

- 1. No wind opening time ~ 12s. Gate opening and closing times will increase as wind speed increases.
- 2. Fit an electric gate lock if the leaf width is greater than 3 meters.

R6 High-Torque Operator								
Gate Length (m)	1.5	2	2.5	3 2	3.5 2	42	4.5 2	5 2
Gate Height (m)	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Max Mass (Kg)	750	750	620	430	315	240	190	155
Allowable Wind Speed F or 25% Clad (Km/h)1	128.4	95	76.3	64.6	55.9	49.2	43.9	39.6
Allowable Wind Speed F or 100% Clad (Km/h)1	64.2	47.5	38.1	32.3	27.9	24.6	21.9	19.8

- 1. No wind opening time ~ 15s. Gate opening and closing times will increase as wind speed increases.
- 2. Fit an electric gate lock if the leaf width is greater than 3 meters.



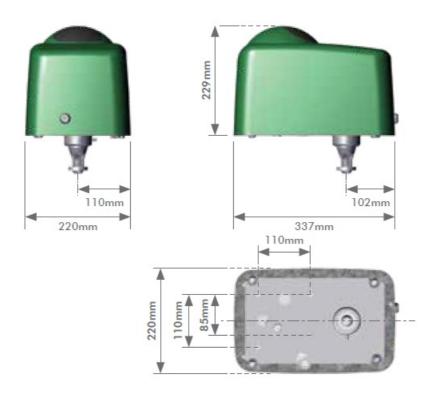


CABLING REQUIREMENTS

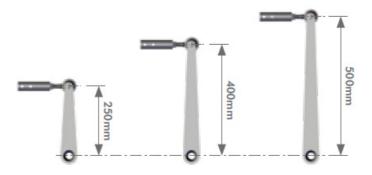
- 90V / 220V 240V AC mains cable via mains isolator switch1 (3 core LNE 1,5mm² SWA)1, 2, or low-voltage
 15V 19V AC cable via transformer in a dwelling (3 core LNE 1.5mm² Surfix)6
- 2. Master Motor (MTR M) or Slave Motor (MTR S) cable (minimum, 2 core 2mm2 + 4 core 0,5mm² multi-stranded)6

- Optional Wiring (all cable is multi-stranded):
- 3. Radio receiver cable (3 core 0,5mm2 multi-stranded, optional)4
- 4. Pedestrian Keyswitch (2 core 0,5mm2 multi-stranded) or optional keypad (3 core 0,5mm2 multi-stranded)
- 5. Infrared Safety Beams or safety edge (3 core 0,5mm2 multi-stranded or 4 core 0.5mm² for CE compliance)
- 6. Intercom cable (n25 + 2 core 0,5mm² multi-stranded) to gate station
- 7. Electric lock (2 core 1.5mm²)
- 8. Pillar Light cable (3 core LNE SWA), size according to power regulations)
- 9. Inductive loop detector for free-exit (1 core 0.5mm2 multi-stranded silicone-coated)
 - 1. The main isolator must be fitted less than 1m from the control
 - 2. Possibly increase cable thickness if Pillar Lights are to be installed
 - 3. The type of cable must adhere to municipal bylaws and preferably be screened. Screening provides better protection against lightning earth one end of the screening
 - 4. For optimum range, an external radio receiver can be mounted on the wall
 - 5. Number of cores required by the intercom
 - 6. Screened cable is always recommended to provide better protection against lightning. Earth one end of the screening

OVERALL DIMENSIONS



DRIVE ARMS1



1. Choose appropriate variations based on site requirements.



INTRODUCING THE R6 ROTARY SWING GATE MOTOR: AN OPERATOR THAT SWINGS ABOVE THE REST

- Because access gates are intended to serve a specific purpose and need to be suited to the environment, application, and architectural context of their installation, it stands to reason that gates come in a variety of different shapes and sizes. While gates can be divided into two broad categories namely swing and sliding there are further factors that may influence the profile and orientation of your gate and, by extension, the type of operator needed to automate it.
- For this article, we'll be focusing specifically on swing gates because, as you'll find out, swing gates generally have certain nuances and characteristics that will determine your choice of automation system. If this is something you'd like to learn more about as well as how our latest cutting-edge tech can help solve your swing gate automation needs read on!
- Choosing the right gate operator for your specific gate is crucial, as it determines the gate's functionality, security, and overall performance. Factors such as the size and weight of the gate, the frequency of use, and the architectural environment of the gate's installation all play a role in determining the appropriate operator. For swing gates, there are two primary types of operators: linear and rotary. The choice of operator will depend on the specific profile of the gate. While linear operators are suitable for some gates, rotary operators provide a

more specialized solution for other gates.

• The upshot of this division is that you need to give careful consideration to what sort of technology will provide the best reliability for your gate and, for rotary configurations, the newly-launched R6 is a stalwart solution for the ultimate in security, convenience, and peace of mind.

INTRODUCING THE R6 ROTARY SWING GATE MOTOR: AN OPERATOR THAT SWINGS ABOVE THE REST

- The R6 is a gate motor of obvious distinction that you'll be proud to own. Its velvety movement is visual poetry and makes the R6 the latest word in comfort that will not only be a striking addition to your swing gate but also offers stalwart security, convenience, and reliability.
- And it's built strong, too! Our proven techniques combined with superior engineering and the most robust and durable materials ensure that the R6 is a long-term companion for your swing gate and a formidable access automation solution for your home.
- With innovative built-in safety and security features, the R6 is not only polished and refined, but it's your assurance of peace of mind.

Here are some additional features that make the R6 a swing above the rest:

- The ultimate in security with a solidly built internal locking mechanism and rapid opening and closing
- Fluid sinusoidal motion looks more professional and prolongs the lifespan of the motor
- Ready for any power outage with time-proven battery backup
- Safe and quiet functioning
- Easy to upgrade to the latest and best can be retrofitted to existing R3, R5, and MaxiMate sites
- Choose the rotary swing gate motor that's a swing above the rest get your R6 today from your nearest CENTURION branch and leading security outlets nationwide.
- CENTURION: making lives easier.



SWING GATE OPERATOR ACCESSORIES

• A CENTURION INFRARED SAFETY BEAMS

 Always recommended on any gate automation installation to increase the safety of the automated system.

• B FLUX SA LOOP DETECTOR

• Allows free exit of vehicles from the property (requires a ground loop to be fitted).





• C SOLAR SUPPLY

• Alternative means of powering the system with our 20, 40, 60, 80, 120 or 150-watt panels.

• D CENTURION NOVA TRANSMITTER

• Incorporates ultra-secure code-hopping technology. Available in one-, two- and four-button variants.





• E G-ULTRA GSM DEVICE

• The ultimate new GSM solution for monitoring and activating electrical appliances via your mobile phone.

• F SMARTGUARD or SMARTGUARDAIR KEYPAD

Cost-effective and versatile wired or wireless keypad, allowing access for pedestrians.





G CENTURION INTERCOM SYSTEM

Allows visitors to communicate with people inside to gain access to the property.

• H G-SPEAK ULTRA

· Allows you to answer your intercom from anywhere.





• I CP77 CONTROL BOX

A fully weatherproof wallmounted enclosure for the operator's controller electronics

• J GOOSENECK

• Steel pole for mounting intercom gate station or access control.





• K V-SERIES CABLE

 Cable has been optimized for the V-SERIES range of swing gate operators to provide reliable operation time and time again.



SWING GATE OPERATOR KITS SINGLE R6 PEDESTAL/WALL-MOUNT KIT 1

Product Code: Pedestal: R611PV1, Wall: R611WV1

- 1 x R6 operator including:
 - 1 x 2A Switch Mode charger D
 - 1 x Controller A
 - 1 x 7Ah/33Ah battery E/F
- Mounting hardware H
- 1 x Separate battery housing G
- 1 x Drive arms I

DOUBLE R6 PEDESTAL/WALL-MOUNT KIT 1

Product Code: Pedestal: R621PV1, Wall: R621WV1

- 2 x R6 operators including:
 - 2 x 2A Switch Mode charger D
 - 2 x Controller A
 - \circ 2 x 7Ah/33Ah battery E/F
- Mounting hardware H
- 1 x Separate battery housing G
- 2 x Drive arms I





















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Documents / Resources



<u>centsys V-SMART 300 Swing Gate Operators</u> [pdf] Instruction Manual V-SMART 300 Swing Gate Operators, V-SMART 300, Swing Gate Operators, Operators

References

• User Manual

Manuals+, Privacy Policy

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