D5-Evo, D10
and D10 Turbo Pocket
system configuration guide

CENTURION

LIGHT-INDUSTRIAL SLIDING GATE OPERATOR

Prior to commissioning the system, please ensure that you have connected the wiring of all components in the system to the controller terminals correctly. Kindly refer to the diagrams provided on the back of this document for details.

1. Commissioning the system

1. If powering up the system ex-factory, it will request for the operating Profile (Operating Standard) to be set.
   - ZA: Standard profile for South Africa
   - CE: Standard profile for the European Union
   - UL325: Standard profile for the USA, compliant with requirements but not certified
2. Select the Profile that will suit the specific region from the list. With this set, the system will automatically proceed to the **Limit Setup Menu**. Follow the onscreen instructions to complete the setup procedure.
3. If powering up at any stage after this, push and hold the oblong enter button (▬) for two seconds. Select the **Limits Menu** by pressing the enter button (▬). Follow the onscreen instructions to complete the setup procedure.

2. Setting up additional features

Section 3 below provides the full menu of features that can be set up on the system.

An explanation of each feature is provided in Section 21, **Controller Features** of the full installation manual available on **www.centsys.co.za.**

When setting up the **D5-Evo, D10** and **D10 Turbo** system via the LCD display, all the steps that have to be followed are clearly provided via the display. It is only necessary to note the following:

- To get into **Setup Mode**, press the (▬) button for two seconds and follow the instructions provided
- The buttons provided on the controller for navigating the system are not marked because at each step during the setup, the function given to each button is provided on the display
- When not in **Setup Mode**, i.e. **Normal Mode**, the (●) button is used as a **test** button for operating the system
- The triangular up or down (⬍) buttons are used to scroll through the diagnostic screens
- For each feature a **Factory Default Setting** has been programmed into the controller. Referred to as an **Operating Standard** or **Profile**, these defaults have been determined to suit the requirements of the specific region where the installation is being carried out. It is only necessary to change a feature where the default does not suit the installation. When selecting any feature in the menu, details of the current setting stored in the controller are displayed

The schedule of **Factory Defaults** are detailed in the full installation manual, available for download on **www.centsys.com**

3. Menu navigation map

Icon	Menu	Sub-menu
	1. Setting limits	**1.1. Setup wizard**
	2. Safety	
	2.1. Collision force »	2.1.1. Opening collision force 2.1.2. Closing collision force
	2.2. Collision count	
	2.3. Alarm output	
	2.4. Lck input as ESTOP	
	2.5. External gate indication status »	2.5.1. Indicator output 2.5.2. Closed indication 2.5.3. Partly closed indication 2.5.4. Closing indication 2.5.5. Partly open indication 2.5.6. Opening indication 2.6.7. Open indication 2.5.8. Pedestrian indication 2.5.9. Unknown indication
	3. Autoclose	
	3.1. Autoclose Status	
	3.2. Autoclose Timer	
	3.3. Autoclose Override	
	3.4. Autoclose advanced options »	3.4.1. Autoclose fully open 3.4.2. Autoclose partly open 3.4.3. Autoclose partly closed
	4. Modes of Operation	
	4.1. Operating mode »	4.1.1. Standard Mode 4.1.2. Condominium Mode 4.1.3. Reversing Mode 4.1.4. PLC 4.1.5. Deadman Control Mode

Icon	Menu	Sub-menu
	**5. Run profile**	
	5.1. Positive Close Mode	» 5.1.1. Positive Close Mode Status 5.1.2. Positive Close Mode Force
	5.2. Pre-open delay	
	5.3. Pre-close delay	
	5.4 Opening speed	
	5.5. Closing speed	
	5.6. Ramp-up distance	
	5.7. Ramp-down distance	
	5.8. TRG stop distance	
	5.9. IRB stop distance	
	5.10. Crawl distance	
	5.11. Torque limit	
	**6. Infrared beams**	
	6.1. PIRAC control	» 6.1.1. PIRAC status 6.1.2. Stop on open 6.1.2.1. Stop on open status 6.1.2.2. Stopping distance
	6.2. IR beam test	» 6.2.1. On/Off 6.2.2. Test beam selection (IRBC; IRBC and IRBO)
	6.3. IRBO=IRBC on closing	
	6.4. IR beam alarms	» 6.4.1. Ambush Alarm 6.4.1.1. Ambush Alarm on/off 6.4.1.2. Broken IRB time 6.4.2. Break-in Alarm on/off 6.4.3. Alarm output selection
	**7. Pedestrian**	
	7.1. Pedestrian open position	
	7.2. Pedestrian Autoclose time	
	7.3. Pedestrian pre-open delay	
	7.4. Pedestrian pre-close delay	
	**8. Courtesy Light**	
	8.1. Courtesy Light Timer	
	8.2. Light Profile	» 8.2.1. Courtesy Light 8.2.2. Pre-flash A 8.2.3. Pre-flash B 8.2.4. Pre-flash C
	**9. ChronoGuard**	
	9.1. Time and date	
	9.2. Time-Periods	» 9.2.1. Add Time-period 9.2.1.1. Auto function 9.2.1.2. Time-bar function 9.2.2. Delete Time-period 9.2.3. Edit/Review Time-periods
	9.3. Exclusions	» 9.3.1. Add exclusion 9.3.1.1. Auto function 9.3.1.2. Time-bar function 9.3.2. Delete exclusion 9.3.3. Edit/Review exclusions
	9.4. Delete all Time-periods and exclusions	
	**10. General settings for D5-Evo and D10**	
	10.1. Operating standard (ZA; CE; UL325)	
	10.2. Reset options	» 10.2.1. Factory defaults 10.2.2. Delete all remotes 10.2.3. Delete all Time-periods and exclusions 10.2.4. Reset all
	10.3. Diagnostic screen on/off	
	10.4. Test button disabled/enabled	
	10.5. Backup EEPROM	
	10.6. Restore EEPROM	
	**10. General settings for D10 Turbo**	
	10.1. D10 Turbo select	
	10.2. Operating standard (ZA; CE; UL325)	
	10.3. Reset options	» 10.3.1. Factory defaults 10.3.2. Delete all remotes 10.3.3. Delete all Time-periods and exclusions 10.3.4. Reset all
	10.4. Diagnostic screen on/off	
	10.5. Test button disabled/enabled	
	10.6. Backup EEPROM	
	10.7. Restore EEPROM	

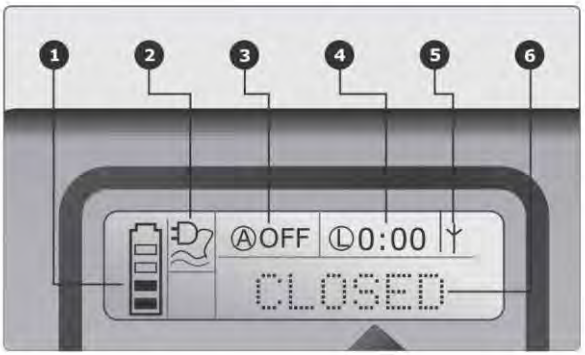
11. Remote controls

Press button of valid transmitter *(if menu locked)*

- 11.1. Add remotes
- 11.2. Delete remotes
  - 11.2.1. Delete remote by ID
  - 11.2.2. Delete remote button
  - 11.2.3. Delete remote by button
  - 11.2.4. Delete not present On/Off
  - 11.2.5. Delete all remotes
- 11.3. Edit remote button
- 11.4. Autolearn
- 11.5. Lock Tx menu
- 11.6. Onboard receiver enable/disable

4. LCD display

The LCD display shows useful information regarding the status of the system.



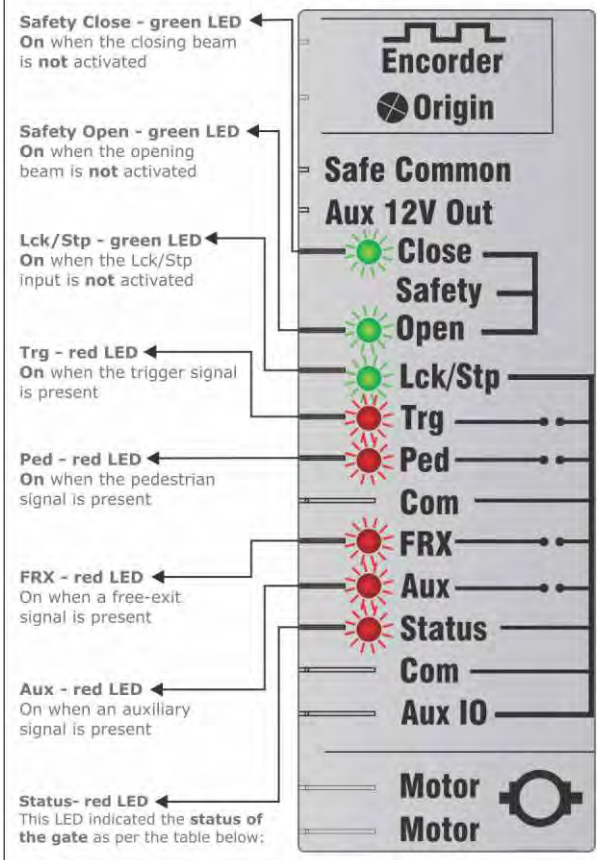
1. **Battery icon**
   Indicates the state of charge of the battery.
   - Four solid bars = full capacity
   - Two solid bars = 50% capacity
   - No solid bars, with the icon flashing = battery empty
2. **Mains icon**
   Displays the presence or absence of mains voltage:
   - Plug solid = mains present and battery charging
   - Plug hollow and flashing = No mains present and battery not charging
3. **Autoclose information**
   - Displays the state of the Autoclose function
   - Displays OFF if Autoclose is not selected
   - OVR if Autoclose is overridden, and the remaining Autoclose time if Autoclose is active
   - POVR indicates that the PIRAC option is overriden
4. **Pillar light information**
   - Displays the remaining light time if Courtesy Light Mode is selected
   - Pre-flashing Mode is displayed if Pre-flash is selected
   - LIT will be indicated if the pillar light has been turned on permanently
5. **Onboard receiver information**
   Displays the current input being activated by the onboard receiver.
6. **Status information**
   Displays useful information regarding the status of the gate.

5. Diagnostic LEDs

The **D5-Evo, D10** and **D10 Turbo** controllers have a series of diagnostic LEDs which indicate the state of the inputs.

Normally-open inputs are indicated by a **red** LED, and normally-closed inputs by a **green** LED.

An illuminated **red** LED indicates that the signal is present (e.g. intercom button pressed), while a non-illuminated **green** LED indicates that the signal is absent (e.g. IRB broken).



LED indication	Gate status
Off	Gate is closed
On	Gate is partially or fully open
Continuous slow flash	Gate is opening
Continuous fast flash	Gate is closing
One flash every two seconds	Pillar Light Override is activated
Two flashes every two seconds	No mains present
Three flashes every two seconds	Battery voltage is low
Four flashes every two seconds	Multiple collisions have occurred

6. Buzzer feedback

A warning buzzer will sound (where applicable) as per the table below:

Inhibitor name	Priority	Number of beeps	Fault type	Gate continues to operate	User can correct error
Break-in alarm	1	Continuous tone for 30 seconds	Alarm	N/A	N/A
Ambush alarm	2	Continuous tone until IRBs are cleared	Alarm	N/A	N/A
Multiple collision	4	Periodic until condition is cleared by user (500/500ms)	Collision	No	Yes
Battery low	3	Three beeps periodically for 30 seconds	Power system fault	Yes*	Yes
Auxiliary overload	5	Five beeps periodically for 30 seconds	Hardware	No	No
Holiday Lockout	6	One beep periodically for 30 seconds	User	No	Yes
Emergency stop	7	One beep periodically for 30 seconds	User	No	Yes
Time-barring	8	One beep periodically for 5 seconds	User	No	Yes
No limits set	9	Three short beeps for 5 seconds	Lost	No	Yes
Mains failure	10	Two beeps periodically for 30 seconds	Power system fault	Yes	Yes
Beams broken (any)	11	One beep periodically for 30 seconds	User	No	Yes
Beams failure	12	Five beeps periodically for 30 seconds	Hardware	No	No
DOSS disconnected	13	Five beeps periodically for 30 seconds	Hardware	No	No
Fuse blown	14	Five beeps periodically for 30 seconds	Hardware	No	Yes
Motor disconnected	15	Five beeps periodically for 30 seconds	Hardware	No	Yes
Bridge damaged	16	Five beeps periodically for 30 seconds	Hardware	No	No
Gate stalled	17	Four beeps periodically for 10 seconds	Collision	No	Yes
No magnet detected	18	Periodic while gate runs (500m/500ms)	Lost	Yes	Yes

* Gate will close fully and then shut down for two minutes

7. Electrical setup

1. **Always check that the circuit breaker in the electrical panel is in the OFF position, and that all high voltage circuits (more than 42.4V) are completely isolated from the mains supply before doing any work.**
2. **Ensure that all low voltage systems (less than 42.4V) are suitably protected from damage, by disconnecting all sources of power such as chargers and batteries before doing any work.**
3. **All electrical work must be carried out according to the requirements of all applicable local electrical codes. (It is recommended that a licensed electrical contractor perform such work).**

Connect all wiring

Connect the controller to the required input and output devices as per the wiring diagram on the right hand side.

8. Description of terminal functions

Light/Light	**Pillar light connection**. (A normally-open potential-free input)
Safe Common	Used for switching the power supply to the safety beams, if automatic beam testing is required
Aux 12V Out	**Auxiliary power connection**. Provides +12V DC supply for auxiliary equipment such as a radio receiver, photo cells, etc. It is electronically limited to 300mA
Safety Close	**Closing beam safety input**. (A normally-closed potential-free input)
Safety Open	**Opening beam safety input**. (A normally-closed potential-free input)
Lck/Stp	**Holiday Lockout or emergency stop input**. (A normally-closed potential-free input)
Trg	**Trigger input.** (A normally-open potential-free input)
FRX	**Free-exit input.** (A normally-open potential-free input)
Aux	**Activates the pillar light relay.** (A normally-open potential-free input)
Ped	**Pedestrian opening input.** (A normally-open potential-free input)
Com	**Common termination point.** All trigger signals, etc. have their return path to one of the **Com terminals**
Status	**External gate status indicator.** (A low current output signal). An output terminal which provides a low current drive (approx. 4,5V DC, 20mA) to a LED which can be used to indicate the gate status remotely)
Aux IO	The **Aux IO** terminal provides an open collector output which can be used for alarm or auto function purposes
Motor	**Motor output** **D5-Evo** - connects to the black motor wire **D10/D10 Turbo** - connects to the blue or black motor wire
Motor	**Motor output** **D5-Evo** - connects to the blue motor wire **D10/D10 Turbo** - connects to there orange or red motor wire
12V/24 +	**Positive battery connection.** Battery terminal normally indicated as + or **red** (right hand battery)
12V/24 -	**Negative battery connection.** Battery terminal normally indicated as **-** or **black** (left hand battery)

12V/24V this will either be 12V or 24V depending on the motor voltage of the operator

Latched — A switch that remains in a connected or disconnected state similar to a standard light switch

Non-Latched — A switch that momentarily makes contact, and may be spring loaded similar to a push button door step

9. Installation handover

Once the installation has been successfully completed and tested, it is important for the installer to explain the operation and safety requirements of the system.

i5 Infrared safety beams (opening and closing) — optional, but recommended

Connection type: Normally-closed

IRB Tx: 12V-, 12V+

Tx

IRB Receiver: NO, NC, COM, 12V+, 12V-

Rx

Lightning rod — optional, but recommended

Earth spike (>1m copper rod hammered into the ground)

OR

Hold-down base plate bolt

Pillar Light/ Courtesy Light — optional

L N E

Optional 40kA surge arrestor

Holiday lockout keyswitch/keypad — optional

Connection type: Normally-open

Latched ✱

POLOphone Intercom push button — optional

Connection type: Normally-open

Non-latched ✱

Pedestrian Keyswitch/Keypad — optional

Connection type: Normally-open

Pillar light pushbutton — optional

Connection type: Normally-open

POLOphone handset status LED — optional

Connection type: Normally-open

3A

Light

Light

Encorder

Origin

Safe Common

Aux 12V Out

Close

Safety

Open

Lck/Stp

Trg

Ped

Com

FRX

Aux

Status

Com

Aux IO

Motor

Motor

-12V/24V

+12V/24V

Charger

3A

CENTURION THE AUTOMATIC CHOICE

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E N L

Charger

L

N

E

Weatherproof isolator enclosure within two metres of motor

E N L

110 - 220V Mains in

Loop and Loop Detector — optional

Loop Detector

NO

NC

COM

Neg

12V+

External radio receiver — optional

Radio Receiver

12V+

Neg

COM

NC

NO

Battery

Only one 12V battery is used for the D5-Evo

✱ There is an onboard CENTURION receiver. Switch off the receiver if not being used

Sharecall 0860-CENTURION (0860 236 887)
Head Office: +27 11 699 2400

Sharecall Technical Support 0861 003 123 or
+27 11 699 2481
from 07h00 to 18h00 (GMT+2)

(Sharecall numbers applicable when dialed from within South Africa only)

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