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

CENTSYS


# 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.com.au**

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.au**

## 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<br>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<br>2.5.2. Closed indication<br>2.5.3. Partly closed indication<br>2.5.4. Closing indication<br>2.5.5. Partly open indication<br>2.5.6. Opening indication<br>2.6.7. Open indication<br>2.5.8. Pedestrian indication<br>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<br>3.4.2. Autoclose partly open<br>3.4.3. Autoclose partly closed |
| | **4. Modes of Operation** | |
| | 4.1. Operating Mode » | 4.1.1. Standard Mode<br>4.1.2. Condominium Mode<br>4.1.3. Reversing Mode<br>4.1.4. PLC<br>4.1.5. Deadman Control Mode |

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

**11. Remote controls**

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

11.1. Add remotes

11.2.

- 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

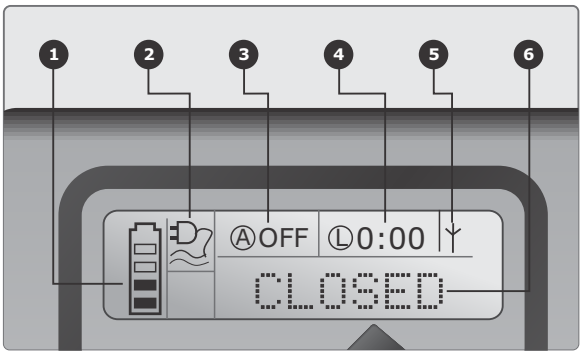
11.4. Autolearn

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.

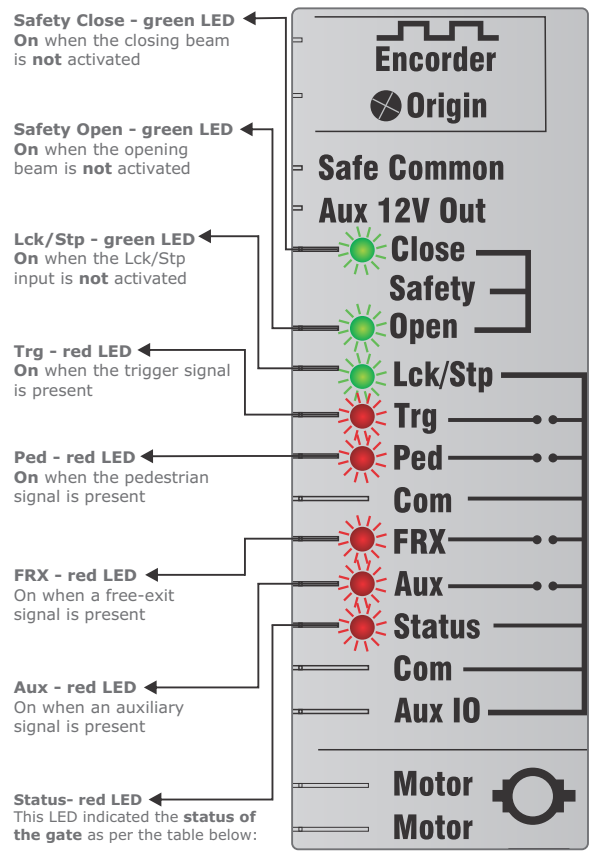
**6. Status information**
Displays useful information regarding the status of the gate.

## 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**.<br>(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**.<br>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**.<br>(A normally-closed potential-free input) |
| **Safety Open** | **Opening beam safety input**.<br>(A normally-closed potential-free input) |
| **Lck/Stp** | **Holiday Lockout or emergency stop input**.<br>(A normally-closed potential-free input) |
| **Trg** | **Trigger input.**<br>(A normally-open potential-free input) |
| **FRX** | **Free-exit input.**<br>(A normally-open potential-free input) |
| **Aux** | **Activates the pillar light relay.**<br>(A normally-open potential-free input) |
| **Ped** | **Pedestrian opening input.**<br>(A normally-open potential-free input) |
| **Com** | **Common termination point.**<br>All trigger signals, etc. have their return path to one of the **Com terminals** |
| **Status** | **External gate status indicator.**<br>(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**<br>**D5-Evo** - connects to the black motor wire<br>**D10/D10 Turbo** - connects to the blue or black motor wire |
| **Motor** | **Motor output**<br>**D5-Evo** - connects to the blue motor wire<br>**D10/D10 Turbo** - connects to there orange or red motor wire |
| **12V/24 +** | **Positive battery connection.**<br>Battery terminal normally indicated as + or **red** (right hand battery) |
| **12V/24 -** | **Negative battery connection.**<br>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 Receiver

IRB Tx

Tx

Rx

12V- 12V+ NO NC COM 12V+ 12V-

**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

E N L
Charger
L
N
E

Weatherproof isolator enclosure within two metres of motor

E N L

110 - 240V Mains in

**Battery**

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

**Loop and Loop Detector** — optional

Loop Detector

NO
NC
COM
Neg
12V+

optional

External radio receiver

Radio Receiver

12V+
Neg
COM
NC
NO

✸ There is an onboard CENTSYS receiver. Switch off the receiver if not being used

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