

# SLIDING GATE OPERATORS



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## **D2 Turbo/D2 Turbo Low-Voltage**

The **D2 Turbo/D2 Turbo Low-Voltage** sliding gate operators for domestic gates are renowned for their supremely easy setup, incredibly user-friendly interface and click-together modular design.

Like all Centurion operators, the **D2 Turbo/D2 Turbo Low-Voltage** will give feedback should it encounter any errors in its operation, using a combination of the Status LED and the onboard buzzer to provide users with the information necessary to perform diagnostic exercises.

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# HOW TO USE THIS GUIDE

The purpose of this guide is to equip users with the necessary skills for accurately diagnosing and resolving any technical challenges which may be encountered while working on Centurion access automation products.

The document is divided into different sections, each referring to a specific Centurion product or range of products, and each section is further divided into the different symptoms typical to the product in question.

Furthermore, diagnostic messages are categorised according to the stage of operation during which they are most likely to occur, be it during setup or normal operation. A category also exists for 'Information Screens'.

The information screen or indication will in each case be presented first, followed by a list of possible symptoms associated with the product in question, possible cause(s) of the diagnostic message and, lastly, all the possible means of resolving the problem will be documented. This system provides the user with a simple means of cross-referencing when performing troubleshooting and diagnostic exercises.



## Icons used in this guide

### DIAGNOSTIC INDICATION

**This is the audible or visual feedback provided by the operator.**

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#### Symptom



Refers to the physical behaviour of the operator. For example, a gate not responding to a valid trigger would be a symptom.

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#### LED output



The visual feedback provided by a system's Status LED, which will flash at a specific frequency to indicate a fault condition.

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#### Audible feedback



The feedback provided by the controller's onboard buzzer.

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#### Cause



The underlying reason for an operator behaving a certain way.

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#### Solution(s)



The course of action needed to resolve a fault and return the device to normal operation.

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## FAULT CONDITIONS DURING SETUP

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**Symptom: Gate moves to endstop, but does not complete setup**

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**LED output: Continuous 'flashing' red LED**



**Possible causes**

- The origin magnet is missing or incorrectly mounted
- Faulty origin sensor
- Poor connection between battery and controller
- The battery voltage is low or the battery is faulty or disconnected



**Solutions**

- Check that the magnet is still mounted on the gate and that the gap between the magnet and the sensor is minimal. Refer to Figure 1 on page 2
- Ensure that there is an audible 'click' whenever the magnet passes the origin sensor
- Ensure that the arrow on the magnet is facing the operator – there should be a repelling action when the magnet is brought near the sensor
- Ensure that the battery terminals are properly connected on both the controller and battery side
- Measure the battery voltage – it should be no lower than 11V DC when placed under load. Refer to Appendix A on page 71 for an explanation of how to accurately test battery voltage
- Check for corrosive build-up around the battery terminals; if there is corrosion replace both the battery and battery terminals.
- Replace the battery
- Measure the onboard charger's output voltage. It should be about 14V DC with the battery disconnected
- Replace the motor module



## Symptom: Gate does not move at all



### LED output: Continuous 'flashing' red LED



### Audible feedback/Buzzer output

- Five quick beeps continuously



### Possible causes

- Poor connection between battery and controller
- The battery voltage is low or the battery is faulty or disconnected
- Poor connection between motor wires and controller
- Motor fuse blown
- DOSS physically disconnected
- Faulty controller
- Faulty motor and DOSS assembly



### Solutions

- Ensure that the battery terminals are properly connected on both the controller and battery side
- Measure the battery voltage – it should be no lower than 11V DC when placed under load. Refer to Appendix A on page 71 for an explanation of how to accurately test battery voltage
- Check for corrosive build-up around the battery terminals; if there is corrosion replace both the battery and battery terminals
- Measure the onboard charger's output voltage. It should be about 14V DC
- Replace blown fuse. If it blows again, replace the controller
- Disconnect the motor wires and reconnect, ensuring that the screws have been sufficiently tightened
- Ensure that the DOSS cable is securely connected on both the controller and motor assembly side
- Replace the battery
- Replace faulty controller
- Replace motor assembly

# FAULT CONDITIONS DURING NORMAL OPERATION

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## Symptom: Gate does not move at all

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## Audible feedback/Buzzer output

- Five beeps



## Possible causes

- Motor disconnected
- DOSS disconnected
- Faulty controller



## Solutions

- Ensure that the DOSS cable is securely connected on both the controller and motor assembly side
  - Ensure that the motor terminals are connected to the controller
  - Replace faulty controller
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## Symptom: Gate does not move at all

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## Audible feedback/Buzzer output

- Three short beeps



## Possible cause

- End-of-travel limits have not been established



## Solution

- Set the gate limits as per the procedure documented in the installation manual



## Symptom: Gate does not move at all or move a short distance and stops

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### Audible feedback/Buzzer output

- Three long beeps



### Possible causes

- Poor connection between battery and controller
- The battery voltage is low or the battery is faulty or disconnected
- There is no mains power to the motor
- Faulty controller



### Solutions

- Ensure that the battery terminals are properly connected on both the controller and battery side
  - Measure the battery voltage – it should be no lower than 11V DC when placed under load. Refer to Appendix A on page 71 for an explanation of how to accurately test battery voltage
  - Check for corrosive build-up around the battery terminals. If there is corrosion, replace both the battery and terminals
  - Replace the battery
  - Measure the onboard charger's output voltage. It should be about 14V DC
  - Ensure that the safety beams are in working order
  - Replace controller
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## Symptom: Gate does not close from the fully open position

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### LED output: Green Safe CLS LED flashes rapidly



### Audible feedback/Buzzer output

- Three short beeps



## Possible causes

- Closing infrared gate safety beams incorrectly wired
- Closing beams faulty



## Solutions

- Ensure that the beam transmitter negative has been connected to Safe Com and not to Com
- Ensure that the beam receiver relay Com has been connected to Safe Com (Centurion Photon beams only) (Refer to D2 Turbo manual)
- Replace faulty infrared beams



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## Symptom: Gate does not close from the fully open position

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## Audible feedback/Buzzer output

- One beep every two seconds



## Possible causes

- Closing infrared gate safety beams interrupted
- Closing infrared safety beams faulty, misaligned or disconnected
- Damaged Safe Common input



## Solutions

- Ensure that no people or objects are in the path of the beam
- Ensure that the Safety Open and Safety Close LEDs are lit – if not, the inputs can be permanently bridged to Com, or the controller can be reset to factory defaults.  
**Bridging the safety inputs will disable all safety features and poses a safety hazard!**
- Ensure that the beams are in working order
- Replace faulty controller





## Symptom: Gate does not open from the fully closed position

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### LED output (Green): Safe OPN LED flashes rapidly



### Audible feedback/Buzzer output

- Three short beeps



### Possible causes

- Opening infrared gate safety beams incorrectly wired
- Opening beams faulty



### Solutions

- Ensure that the beam receiver relay Com has been connected to Safe Com (Centurion Photon beams only) (Refer to D2 Turbo manual)
  - Replace faulty infrared beams
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### Audible feedback/Buzzer output

- One beep every two seconds



### Possible causes

- Opening infrared gate safety beams interrupted
- Opening infrared safety beams faulty, misaligned or disconnected
- Damaged Safe Common input



### Solutions

- Ensure that no people or objects are in the path of the beam
- Ensure that the Safety Open and Safety Close LEDs are illuminated – if not, the inputs can be permanently bridged to Com, or the controller can be reset to factory defaults  
**Bridging the safety inputs will disable all safety features and poses a safety hazard!**
- Ensure that the beams are in working order
- Replace faulty controller