Troubleshooting the Sector Control

> The following assistance applies to **sector firmware version 36** and newer. For older versions, errors may have different causes.

Ensure that your Raindancer sector control is switched on and connected to a transmitting Raindancer module.

> **All error messages from the sector control should be taken seriously!**
> If the position of the stops cannot be determined accurately, the display on the smartphone may be incorrect and calculations can be wrong.

Error List

The sector control distinguishes between four different errors. We will go through each one and show you potential countermeasures to prevent further damage.

1. Turned Off or Connection Lost

This error indicates that the Raindancer panel and the motor box of the sector control cannot establish a connection. In most cases, this is because the sector control is switched off or a cable connection is defective or loose.

> On older software versions, it may also be due to a wrong configuration. After checking cables and the switch, we recommend performing a firmware update (version P32 or higher) to rule out this cause.

What You Must Do:

- Check the cable connection between the Raindancer GPS module and the motor box for:

    - Proper seating
    - Bent or damaged pins
    - Water or corrosion damage
- Make sure the sector control is switched on.
- Ensure that your Raindancer module is already connected to the Raindancer cloud and is sufficiently charged.

If you still cannot establish contact with the sector control, please contact customer support to discuss the next step

2. Stop Blocked

This error message means that one or both stops cannot move as intended. In this case, first check the **moveablility** of the sector control.

Steps for Checking:

1. **Decouple the stops** Release the blue couplings at the lower end of the sector control to decouple the stops.
2. **Manual Inspection of the Stops**
    - Turn each stop by hand a full 360°—this should be possible without significant force.
    - Check for any **grippy spots**.
    - If a stop is unusually grippy, the sector should be cleaned or serviced (an instructional video is available).
3. **Check Behavior on Start-Up**
    - Switch on the sector control using the rear switch.
    - **Expected Behavior:**
        - Both motors move.
        - If the stops are coupled, the arms move about 20 degrees and then return to the starting position.
4. **Possible Causes of Motor Non-Movement:**
    - **Defective Motor:** If only one motor remains still, that motor is likely defective.
    - **Power Supply:** If both motors do not respond, the sector control may lack sufficient power.
        - Check whether the connected Raindancer GPS module is functioning and has had enough sunlight to charge sufficiently to power the sector control .
    - If the above checks do not resolve the issue, customer support may be able to help via configuration adjustments.
5. **Sensor Malfunction** If both motors work normally but the message “Stop Blocked” still appears, there is likely an issue with the sensors on the motors.

When to Contact Support: If the error persists, please reach out to customer support.

> **Quick Self-Help for Older Sector Control**
>
> Follow our instructions forremoving the motor box gasket.

In Short:

- Check free movement in the decoupled state.
- If the sector is stiff, wait and perform maintenance.
- If only one motor turns or the error persists during movement:
  - Possibly remove the seal.
  - Inform support.
- If both motors do not turn:
  - Ensure power supply.
  - Check cables.
  - Inspect the Raindancer GPS module.
  - Allow enough time for charging.
- If both motors do turn:
  - Sensor issue likely.
- If the problem continues, please contact us.

3. Stop Angle Unknown

This error message means that the sector control cannot determine its exact position. Although a blocked motor could also cause this (in which case both error messages would appear), the usual cause is a fault in the **upper sensor**.

Key Points:

- Position detection is not based solely on the motor but also on a sensor located between the upper rings.
- For this sensor to work correctly, the cable connection from the motor box to the upper sensor must be flawless.

What You Must Do:

1. **Check Cable Connection** Inspect the connector between the motor box and the upper sensor:
   - Are all pins present and undamaged?
   - Does the connector sit firmly and without wiggle?
   - Is the connector housing intact (no cracks or breaks)?
2. **Exclude Prior Errors** Ensure that the error message “Stop Blocked” has already been resolved (see the corresponding section above).

When to Contact Support: If the error persists after checking the cable connection and ruling out a blocked stop, please contact customer support to discuss the next steps.

4. Stop Decoupled

This error message indicates two possible problems:

1. **Physical Decoupling of the Shaft** The shafts are connected to the motors via the blue couplings at the lower end. In the coupled state, it should be impossible to move the stops by hand.
2. **Same Cause as “Stop Angle Unknown”** If no physical decoupling is present, the error can have the same cause as “Stop Angle Unknown” (e.g., sensor or cable issues).

What You Must Do:

1. **Check If the Stops Are Truly Decoupled**
   - Release the blue couplings to separate the shaft from the motor movement.
   - Turn the stops by hand:
     - Do they now move freely?
     - If yes, physical decoupling is normal.
   - In the coupled state, the stops should **not** turn by hand. If they do, check the following points.
2. **Inspect These Points if the Stops Are Unexpectedly Loose**
   - **Locking Screw:** Is the screw on the coupling present and tightened?
   - **Motor Pulley (Riemenrad):**
     - Remove the belt cover and try to turn the pulley by hand.
     - The pulley must not turn by hand.
   - **Upper Stop Pinion (Ritzel):**
     - You should not be able to see or reach the pinion from the outside. If any of these components are missing or loose, the stop may be decoupled when it should not be.
3. **Exclude Cause “Stop Angle Unknown”** If all mechanical components are intact and the stops still cannot be located, the cause may be the same as for the error “Stop Angle Unknown.” Proceed as follows:
   - Check the cable connection from the motor box to the upper sensor (see the section "Stop Angle Unknown").
   - Ensure connectors are fully seated and pins are undamaged.

When to Contact Support: If the problem continues after checking the mechanical couplings and sensor wiring, please contact customer support to determine the next steps.

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