
USER GUIDE

Concens C3-CON-0W

Actuator controller



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2. Introduction

The Concens C3-CON-0W is a battery-based actuator controller developed especially for mobile applications. The controller can manage one actuator with a wired handset and it is supplied by a NiMH battery.

Symbols used:



Attention: Consult accompanying documents

3. Technical data and model designation

Input voltage: 24VDC

Operating temperature: 5°C to 40°C

Relative humidity: 20% to 70%

Atmospheric pressure: 1atm

Max. operating attitude: 2000m

Battery technology: NiMH

Model designation and label:

C3-CON-0W-000-000000: Controller for one actuator



4. Preparation

Before the system may be used, the battery must be charged using the accompanying charger. It takes 5-8 hours to fully charge a battery.



Battery mounted in charger

The yellow LED lights up when the charger is connected to power. Place the battery in the charger by sliding it in and rotating it until it is pulled into place by the magnets. The green LED will flash at approx. 1 second intervals while the battery is being charged. Once charging is complete the green LED remains permanently lit. Remove the battery by rotating it 90 degrees. It will then be ejected and be ready for use.

Once the battery is fully charged, insert it into the controller. Follow the same procedure as for the charger. If everything is OK, the controller will simply sound a beep (one second) once the battery is in place. If the system has any faults, the beep will be followed by an error indication according to table 1 below.



Battery, controller and remote control



Battery mounted in the controller – ready for use

When the battery requires recharging, transfer it to the charger as described above. It is recommended that you keep an extra battery on hand to avoid disruption to operation.

5. Normal operation

During normal operation the actuator is driven in and out using the appropriate buttons on the remote control. Situations may arise which require a particular action. These situations are described below.

Low battery level

If the battery level goes below a warning level while operating the actuators, **three short buzzer tones** are sounded. This means that the battery requires recharging, and the actuator can therefore only be driven in one direction (normally in).

Flat battery

If the battery level goes below a minimum level while operating the actuator, **one short buzzer tone** is sounded. The actuator will stop immediately and the controller will shut down. The battery must be charged. You must wait at least one minute before inserting a new battery into the controller.

Extreme battery load

The battery may become too hot if it is subject to extreme load due to repeated operations in rapid succession, thereby activating the battery's safety thermostat. The controller will shut down and the battery must be allowed to cool for at least half an hour before being used again. You must wait at least one minute before inserting a different battery into the controller.

Error indications

Long buzzer tone at startup (battery inserted): Power on, controller OK

Two buzzer tones during standby (every 24 seconds): Low battery level, please recharge

Two buzzer tones during operation: Low battery voltage, please change or recharge battery soon

Long buzzer tone during operation: Low battery voltage – actuator can only move down/in

Buzzer tone every one second: High temperature inside controller

6. Tips

It is recommended that you follow the tips below to achieve the best results and avoid problems in daily operation.

General:

- If the battery's safety thermostat is activated due to overload, the battery must be allowed to cool for at least half an hour before being used again. A new battery may be inserted into the controller after one minute.

Batteries:

- Always use batteries which are in good condition and fully charged when inserted into the controller.
- You can extend the lifetime of the battery by occasionally recharging it even though it is not fully discharged.
- If the battery level drops below the critical level and the system shuts down, you must wait at least one minute before inserting a different battery and using the system again.
- If the system is not to be used for an extended period (several days or weeks), the battery should be removed from the controller to avoid deep discharge, which can cause lasting damage to it.

Handling:

- Avoid getting metal shavings or other magnetic objects on the battery poles or in the controller.

7. Troubleshooting

If problems or irregularities arise you should go through the points below (in consultation with a technician where appropriate).

- Check that all connectors are correctly attached to the controller.
- Check that the controller sounds a beep when the battery is inserted.

If none of the above resolve the problem, please contact the supplier.