

# ELEVATE™

## Quick start guide for Kassow Robots



This quick start guide does not replace the user manuals of the included products.

## 1. Get your ELEVATE™ Modbus with an LC3 IC lifting column and accessory kit for Kassow Robots

You will receive the following parts:



- Lifting column LC3 IC
- Mounting plate for KR810, KR1018, KR1205, KR1410 and KR1805
- Base plate with screws to mount to the lifting column
- 5 m power cable
- 5 m signal cable
- Cable relief with screws for power and signal cable

## 2. Attach the Kassow mounting plate and the base to the column with the included screws

Make sure that the base of the column is properly mounted to the ground so the column will not tip over. It is important to use a solid ground since deflections on the ground influence the precision of the whole system.

## 3. How to attach and fit the cable relief

When the power cable and signal cable are connected to the lifting column, you can use the cable relief to secure both cables to the lifting column. Use a Torx Bit T15 screwdriver and make sure the screw is tightened with 1.6 Nm

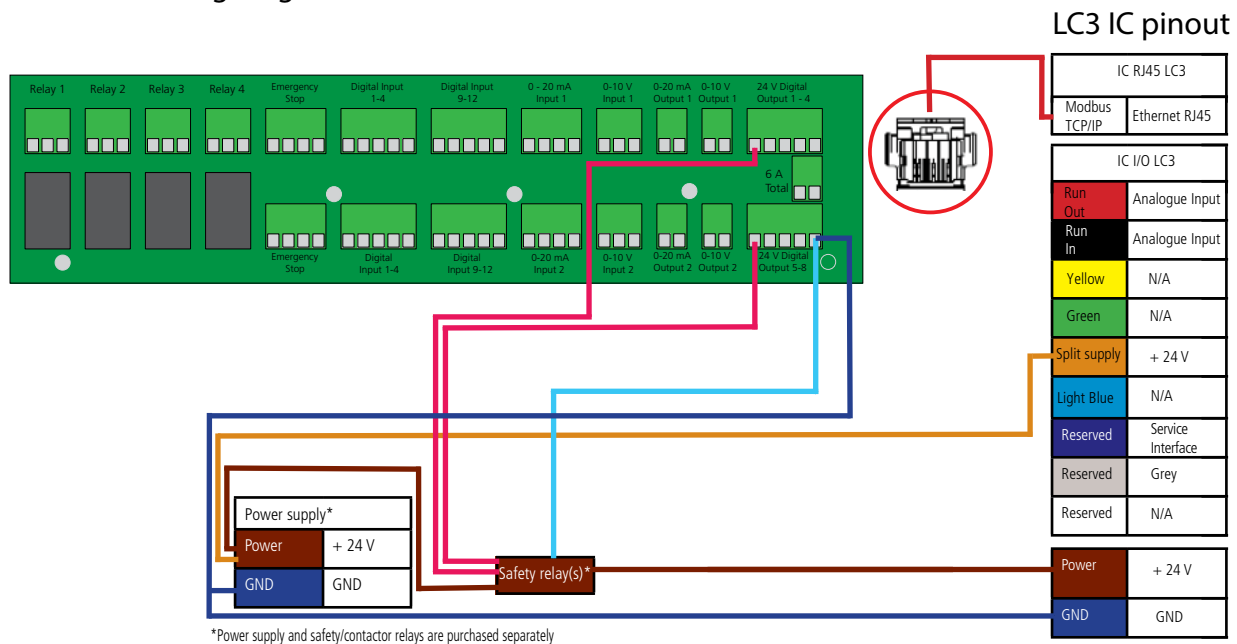
## 4. Connect the column to the Kassow robot

Be aware that **ELEVATE Modbus** works with the ELEVATE Cbun. The wiring diagram only displays one possible way to integrate ELEVATE into a safe torque off system - a risk assessment for the whole system is required.

Remember to place common ground between the power supply, safety relay and the Kassow controller. ELEVATE is by default delivered without safety relay/contactors, ethernet cable and power supply.

## Kassow wiring diagram for *ELEVATE™ Modbus\**

Kassow wiring diagram for ELEVATE Modbus



\*Ethernet cable and safety relay cables are not included in the accessory kit.

## 5. Download the ELEVATE Cbun from [linak.com](http://linak.com) and install it on your Kassow robot

Unzip the folder and paste the folder onto a USB stick. Insert the USB stick into the cobot controller and install the Cbun. More information can be found in the training video at the end of this document.

## 6. Set up the Kassow robot

ELEVATE Modbus is delivered with the following default network settings:

IP address: 192.168.1.10

Port number: 502

Subnet mask: 255.255.255.0

Gateway: 192.168.1.1

Make sure that the cobot is set to the same network range but with a different IP address. It is important to configure a static IP. Power cycle the lifting column in case you cannot find the column in your network. The network setting can be changed with Actuator Connect™.



The Ethernet cable with RJ45 plugs for Modbus TCP/IP must be plugged into the Kassow Connector.

## 7. Get started with ELEVATE™

When all prior steps are successfully completed, you can use ELEVATE in your program. Simply add the ELEVATE command to your program tree. ELEVATE has 5 different action options:

- **Run out:** The column extends upwards to the endstop position and the program continues when the position is reached.
- **Run in:** The column retracts downwards to the endstop position and the program continues when the position is reached.
- **Move:** The column moves to the desired position and the program continues when the desired position is reached.
- **Stop:** The column will stop its movement.
- **Clear error:** Error messages will be cleared to continue with the program.

Furthermore, you can customize the speed and acceleration/deceleration for each movement. There is also the possibility to run ELEVATE and the Kassow robot simultaneously.

More information can be found in the training video [here](#).



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