INTELLIGENT MOTION
Columbus McKinnon

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Quick Start Guide – ABB

PHR (Phoenix Robotics) lifting column

Lifting Column for Industrial Applications

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PFAFF silberblau By Columbus McKinnon

ABOUT THIS QUICK START GUIDE

This Quick Start Guide contains a summarized version of the instructions needed to set up and connect a Columbus McKinnon PHR (Phoenix Robotics) lifting column (hereafter simply referred to as the “lifting column”).

Please note that this Quick Start Guide should always be read together with the operating manual. Both the operating manual and all rules and regulations that apply at the location of use must be observed (with examples including accident prevention regulations).

⚠ WARNING

Hazard posed by improper assembly and installation

- Both assembly and installation must be carried out exclusively by qualified personnel tasked with the corresponding work.

SCOPE OF SUPPLY

Immediately after receipt, check to make sure that all the items included match the corresponding shipping documents.

Please note that we will be unable to honor defect claims that are not filed in a timely manner.

Immediately file a claim for any defects and/or missing items with CMCO Engineered Products.

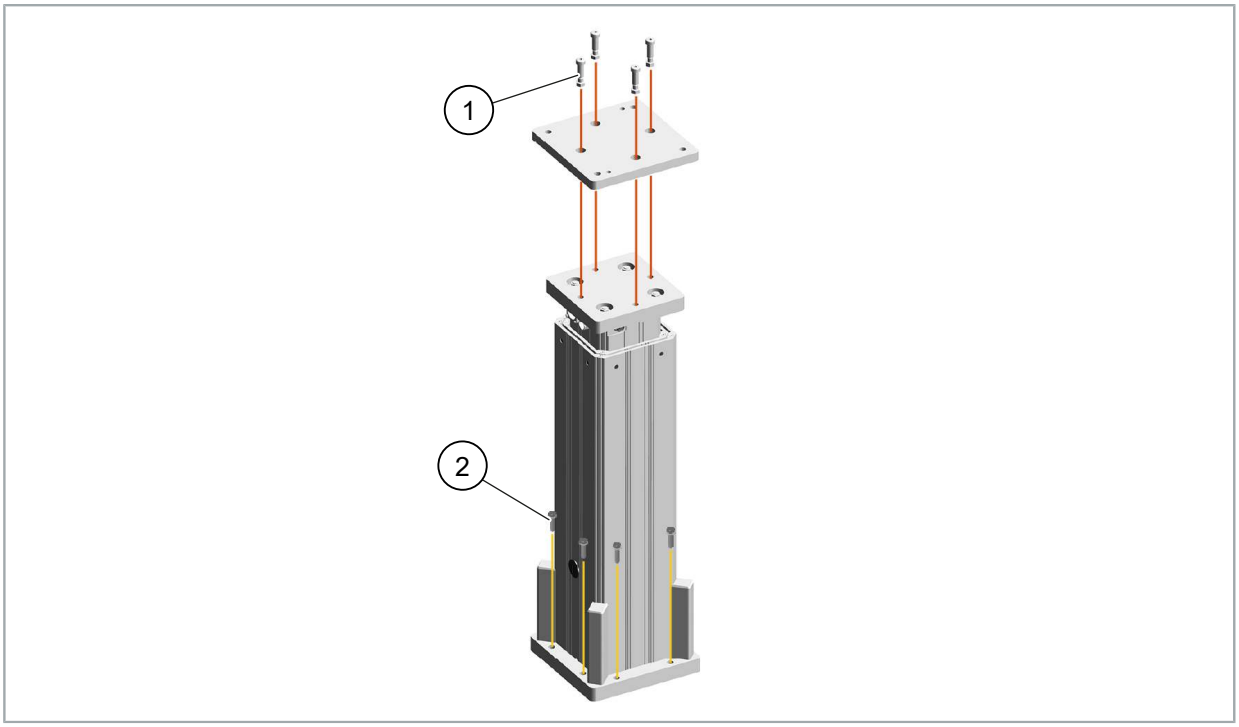
If you notice any transit damage, file a claim immediately with the shipping company.

The following are included in the scope of supply:

- PHR (Phoenix Robotics) lifting column
- Control box for power supply (incl. internals, approx. 18 kg)
- Power cable, 5 m
- Adapter plate for cobot (model-specific)
- Ethernet cable, 5 m
- I/O cable, 5 m
- Two (2) interposing relays

SETTING UP THE LIFTING COLUMN

NOTE The lifting column must be exclusively installed on the floor.



1 Four (4) ISO 4762 socket head cap screws (M12 x 30, property class 8.8) and two (2) ISO 8752 spring pins (12 x 45)

2 Eight (8) ISO 4017 hex cap screws (M12 x 60, property class 8.8)

Assembly sequence

1. Tightly fasten the lifting column's mounting plate to the floor with the eight (8) hex cap screws (with a tightening torque of 79 Nm).
2. Tightly fasten the adapter plate for the cobot to the top of the lifting column with the four (4) socket head cap screws and the spring pins (with a tightening torque of 79 Nm).
3. Use a locking device or other thread locking method to secure the screws in such a way as to prevent self-loosening.

You can now install the cobot on the adapter plate.

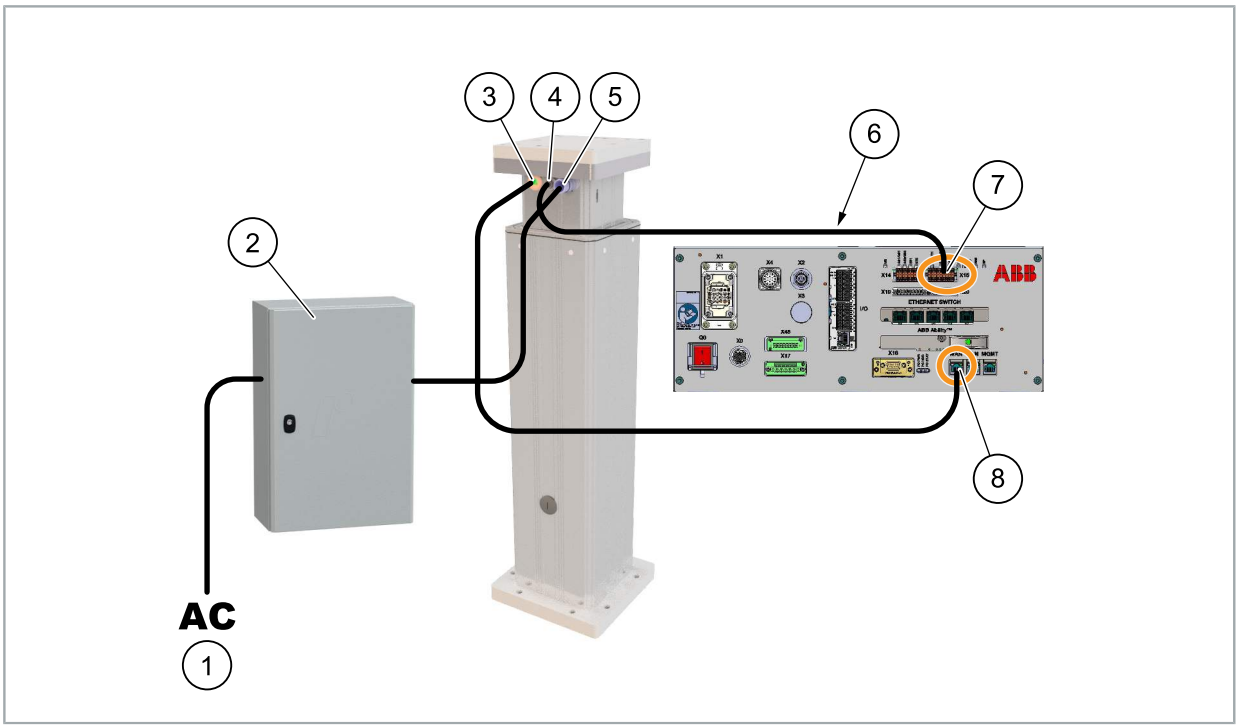
Before installing it, make sure that the cobot is compatible with the lifting column as indicated in the corresponding order confirmation.

ELECTRICAL CONNECTION – ABB CONTROLLER

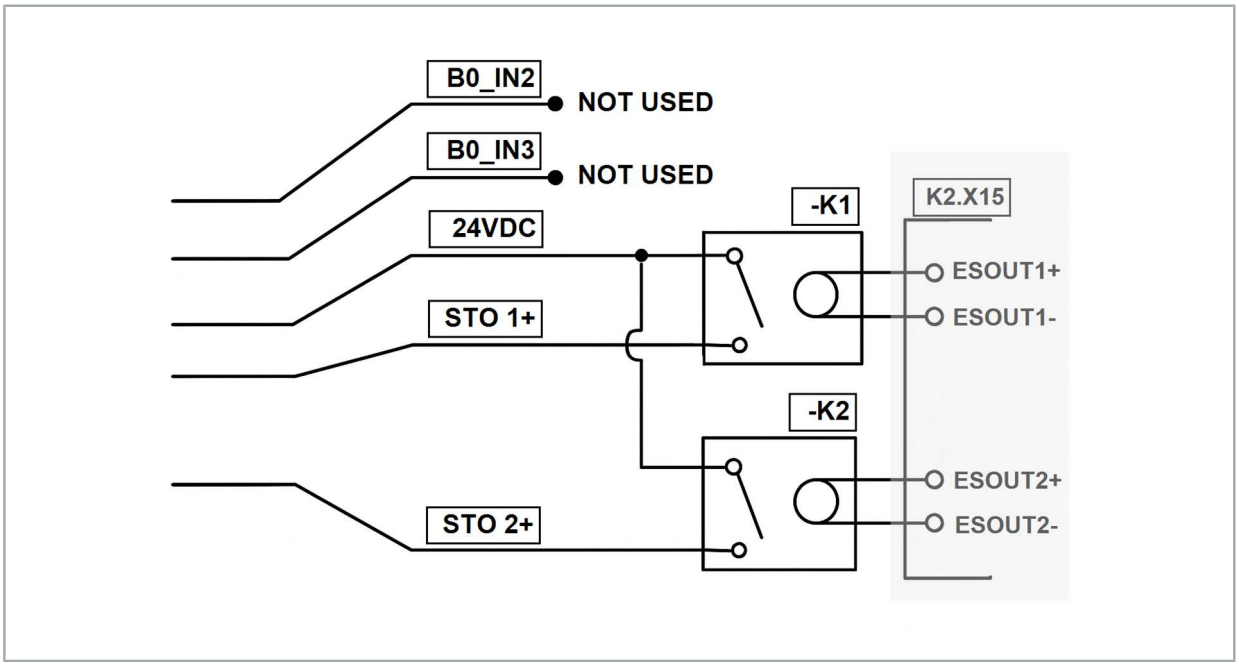
⚠ WARNING

Electrical shock hazard

- Check to make sure that the assembled and installed parts are grounded properly (resistance to ground of less than 10^6 Ω).



1	230 V power (provided by customer) through CEE 7/4 (type F) plug	**5**	Power supply connection (48 VDC)
2	Power supply control box	**6**	Interposing relays
3	Ethernet interface (RJ45)	**7**	I/O & STO interface (ABB connector: “**X15**”)
4	I/O & STO interface (M12, 8 pins)	**8**	Ethernet port (ABB connector: “**WAN**”)



The figure above shows the I/O cable and Safe Torque Off (STO) signal connections between the lifting column and the robot controller.

The lifting columns' signal cables are connected to external safety relays for this purpose. From there, the safe outputs are connected to the controller.

Signals that are not needed are labeled accordingly and are not used.

SOFTWARE INSTALLATION – ABB

System Requirements

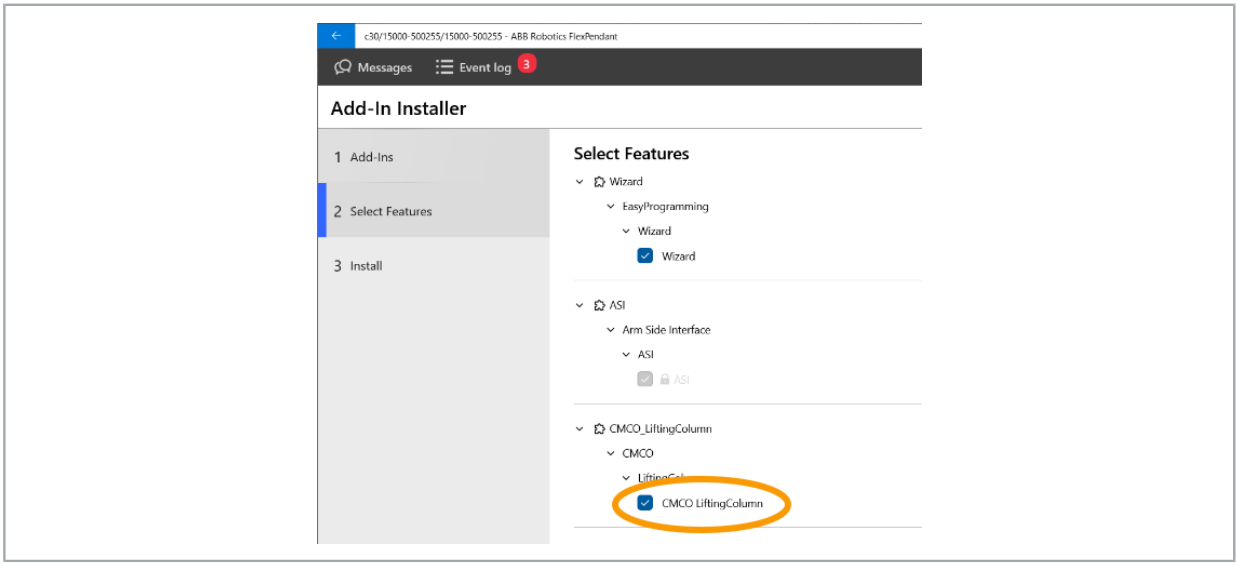
- This software version supports ABB (GoFa 5, 10 & 12) OmniCore C30 Version RW7.18.0 and higher
- Wizard Easy Programming Version 1.7.0 and higher
- Web app mode: “Standard mode” on FlexPendant.

Creating a cobot backup with the FlexPendant

1. Plug an empty USB drive into the FlexPendant.
2. Select “Settings” in the main menu.
3. Select the “Backup” option.
4. Tap “Browse” and select the USB drive.
5. Tap “Backup” to start creating the backup.
   ✓ The backup process should be done in a few seconds.

Installing the lifting column software

1. Format an empty USB drive to NTFS with a conventional PC.
2. Download the installation file (e.g., *CMCO_LiftingColumn_1.4.1.zip*) from the following link: *https://www.cmco.com/de-de/Software-Downloads/*
3. Unzip the ZIP file in a separate folder. The ZIP file should contain two files:
   open.cmco.liftingcolumn_1.4.1.rmf
   open.cmco.liftingcolumn_1.4.1.rpk
   Both files are password-protected (the password will be provided by Sales).
4. Copy the folder with the two files to the empty USB drive.
   Important: Make absolutely sure to copy the entire folder with the two files.
5. Turn on the cobot.
6. On the FlexPendant, select “Controller Software” and then select “Add-In Installer”.
7. Select the “+Add Add-In” option.
8. Plug the USB drive into the cobot.
9. Select the drive and then the add-in from the list.
10. Make sure that the add-in is selected under “Select Features”.



11. Install the add-in.
    - ✓ The cobot will restart and install the add-in. This operation can take a few minutes.
    - ✓ Once the installation is completed successfully, the “CMCO Lifting Column” application will be shown on the FlexPendant start screen.

For more information, please refer to the operating manual.

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