



Operating instruction MCP-006 and MCP-BLE4



True Innovative Moving Technology

Start of operation

After mounting the controller and the control panels, making all electrical connections and making sure that the right parameter set is loaded to the controller, the column can be put into service.

At the first start up the column makes a reference run to acquire the reference position. To do so the “up” or “down” key must be pressed until the column reaches the reference position (normally the lowest point or the position of a limit switch) and further until the column elevates to the lowest programmed position. (this may be about 25mm or 1” higher than the lowest position).

After the reference has been established, the column is ready for normal operation. By pushing the “up” or the “down” key the column can be moved between the upper and the lower positions defined in the parameter set in the controller specific for this column.

Current based collision detection

As a standard all controllers are equipped with a simple, current based collision detection. This collision detection must be activated through the parameter set. Also to achieve a satisfactory functioning of this feature parameters specific to the column must be defined and entered.

When activated the current based collision detection will stop the movement of the column as soon as the column top hits an obstacle. After the stop the column top will move in the opposite direction by the distance specified in the parameter set. After that the “up” or “down” key have to be pressed again to move the column top.



Please note that the sensitivity of the current based collision detection on down ward movements is reduced drastically if the column is loaded with some weight!

Should the performance of the current based collision detection not be satisfactory, the use of the GyroSense Collision detection system is recommended.

GyroSense based collision detection

The Movetec GyroSense Systems provides collision detection between a column and an obstacle. To enable that, controllers ordered with this option are equipped with a very sensitive sensor what will sense even the smallest disturbance of the column upward or downward movement.

This system insures a reliable detection of a collision as long as the collision leads to an at least very small change in position of the column top.

To sense such a change in position the GyroSense equipped Controller must be mounted to the column top. Placing the controller in the crossbar will not work!





Attention

Even if the system will sense reliably even very small unusual movements of the column it cannot be 100% insured that this will avoid injuries of the column users and persons around the column as also the mechanic of the column and the environment of the column can cause such injuries! This is why no liability can be accepted for personal injury or any other damage! It is the user's sole responsibility to make sure that personal injury and any other damage is avoided throughout the operation of the column.

Control through control panels

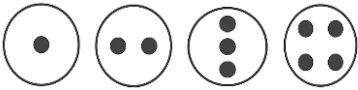
All Control panels

	Column will move upward	Keep the key pushed until the desired position is reached
	Column will move downward	Keep the key pushed until the desired position is reached

Control panels with memory keys

By use of the memory keys the user can assign individual heights to these keys what then can be recalled when the memory key is pressed.

Whether memory positions are stored in a new controller depends on the parameter set entered into the controller when configured at the column supplier.

	Recall previously stored memory positions	Keep the appropriate memory key pushed until the column stops at the stored position
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Control panels with height indication

Control panels with height indication show the actual height of the column top in cm or Inches depending on the configuration.

Configuration of the controller though the MCP-006/BLE4 control panels (control panels without height indication)

Store memory positions with MCP-006/BLE4 control panels



- Move the column to the desired height by use of the “up” or “down” keys

- Press the left arrow key 4 times quickly one after another

- Reaching the program mode will be confirmed by a sound



- Press the right arrow key once shortly

- Reaching the memory menu will be confirmed by one sound.

- After the sound press the memory key the position should be saved in



- Successful position saving will be confirmed by the number of sounds that correspond to the selected memory key number



- From now on height stored in the memory position can be adjusted by pressing and holding pressed the selected memory key until the column stops at the height stored

User height limit adjustment by MCP-006/BLE4 control panels

Adjust upper and lower limit

Should window boards or drawer container limit the possible movement of the column then an upper and lower limit can be defined as follows.



- Move the column top by use of the arrow keys to the maximum or minimum desired height

- Press the left arrow key 4 times quickly one after another

- Reaching the program mode will be confirmed by a sound



- Press the right arrow key shortly twice

- Reaching the limit adjustment menu will be confirmed by two sounds

- Then



- If the maximum height should be defined press the “up” key. The successful adjustment of the new upper limit will be confirmed by two sounds



- If the minimum height should be defined press the “down” key. The successful adjustment of the new lower limit will be confirmed by two sounds

Attention: The top and lower positions must keep a minimum distance so that the column can still move after the new limits have been adjusted. This minimum distance is defined in the parameter set entered into the controller. Saving a new upper or lower limit is not possible if the minimum distance is not maintained. In this case when pushing the appropriate arrow key to save the new limit the following short beeps can be heard, indicating that the new limit was not saved. In this case the distance between the upper and lower limit must be increased.



Delete user height limits



- Move the column top to the upper or lower limit by use of the arrow keys (press the key until the column stops as the adjusted limit is reached)

- Press the left arrow key 4 times quickly one after another

- Reaching the program mode will be confirmed by a sound
- Press the right arrow key shortly twice
- Reaching the limit adjustment menu will be confirmed by two sounds
- Then
 - If the columns top is at the upper position and the adjustment for the upper position shall be deleted press the “up” arrow key. Successful deletion of the upper position will be confirmed by a sound
 - If the columns top is at the lower position and the adjustment for the lower position shall be deleted press the “down” arrow key. Successful deletion of the lower position will be confirmed by a sound.

Change the sensitivity of the collision detection by MCP-006/BLE4 control panels

Over time the movement of the column may change due to wear or change of the lubrication properties. This may result in a false activation of the collision detection. In this case the sensitivity of the collision detection can be adjusted as follows.

- Press the left arrow key 4 times quickly one after another
- Reaching the program mode will be confirmed by a sound
- Press the right arrow key shortly three times
- Reaching the limit adjustment menu will be confirmed by three sounds
- By use of the right arrow key the sensitivity of the collision detection can now be adjusted
 - Press the right arrow key once, (one sound) the collision detection will be deactivated
 - Press the right arrow key two times, (two sounds) the collision detection will be set to the factory setting, sensitivity level 3, maximum sensitivity
 - Press the right arrow key three times, (three sounds) the collision detection will be set to sensitivity level 2, medium
 - Press the right arrow key four times, (four sounds), the collision detection will be set to sensitivity level 1, low

Initiate a reference run by MCP-006/BLE4

Should the column out of any reason show the wrong height or one leg is higher than the other a reference run must be initiated by the following action

- Press the left arrow key 4 times quickly one after another
- Reaching the program mode will be confirmed by a sound
- Press the right arrow key shortly four times
- Reaching the limit adjustment menu will be confirmed by four sounds
- Pressing either arrow key will now initiate the reference run. The key must be kept pressed unit the column reaches its reference position and then moves back for to the lower position. Now the reference is recalibrated, the column should be leveled and the height indication should be correct.

Change height indication from cm to inch by MCP-006/BLE4 control panels

The height can be indicated in cm or inch. The factory setting depends on the parameter set loaded into the controller. To change the indication, proceed as follows



- Press the left arrow key 4 times quickly one after another
- Reaching the program mode will be confirmed by a sound
- Press the right arrow key shortly five times
- Reaching the unit adjustment menu will be confirmed by five sounds.



- Now the height indication has toggled from cm to inch if cm was adjusted or inch to cm if inch was adjusted.

Factory height limit adjustment by MCP-006/BLE4 control panels

Adjust factory upper and lower limit

In some cases, the column may be built in a way that the maximum travel of the drive is limited by some additions to the column like facings. In this case a factory upper and lower limit can be adjusted what limits the stroke of the drives. The user height then can only be adjusted within the adjusted factory height. When supplied no factory height limit is set!

Once the limits have been set changes can only be made when the present value is deleted as described below, after that a new limit can be set.

To limit the highest upwards travel or the lowest downward travel proceed as follows:



- Move the column top by use of the arrow keys to the maximum or minimum desired height
- Press the left arrow key 4 times quickly one after another
- Reaching the program mode will be confirmed by a sound
- Press the right arrow key shortly 10 times



- Reaching the limit adjustment menu will be confirmed by 10 sounds
- Then



- If the maximum height should be defined press the “up” key. The successful adjustment of the new upper limit will be confirmed by two sounds



- If the minimum height should be defined press the “down” key. The successful adjustment of the new lower limit will be confirmed by two sounds



Attention: The top and lower positions must keep a minimum distance so that the column can still move after the new limits have been adjusted. This minimum distance is defined in the parameter set entered into the controller. Saving a new upper or lower limit is not possible if the minimum distance is not maintained. In this case when pushing the appropriate arrow key to save the new limit the following short beeps can be heard, indicating that the new limit was not saved. In this case the distance between the upper and lower limit must be increased.

Delete factory height limits



- **Make sure, no user height limit is defined! If a user height limit is defined, see “delete user height limits” and delete the limits set before you proceed!**



- Move the cable top to the upper or lower limit by use of the arrow keys (press the key until the column stops as the adjusted limit is reached)

- Press the left arrow key 4 times quickly one after another

- Reaching the program mode will be confirmed by a sound



- Press the right arrow key shortly 10 times

- Reaching the limit adjustment menu will be confirmed by 10 sounds

- Then



- If the column top is at the upper position and the adjustment for the upper position shall be deleted press the “up” arrow key. Successful deletion of the upper position will be confirmed by a sound



- If the column top is at the lower position and the adjustment for the lower position shall be deleted press the “down” arrow key. Successful deletion of the lower position will be confirmed by a sound.