

# **AE-MAESTRO Integrated Lift Control System**

**AE-MAESTRO PRE-WIRED SYSTEM INSTALLATION MANUAL  
(EN81-1)**

Version 1.0



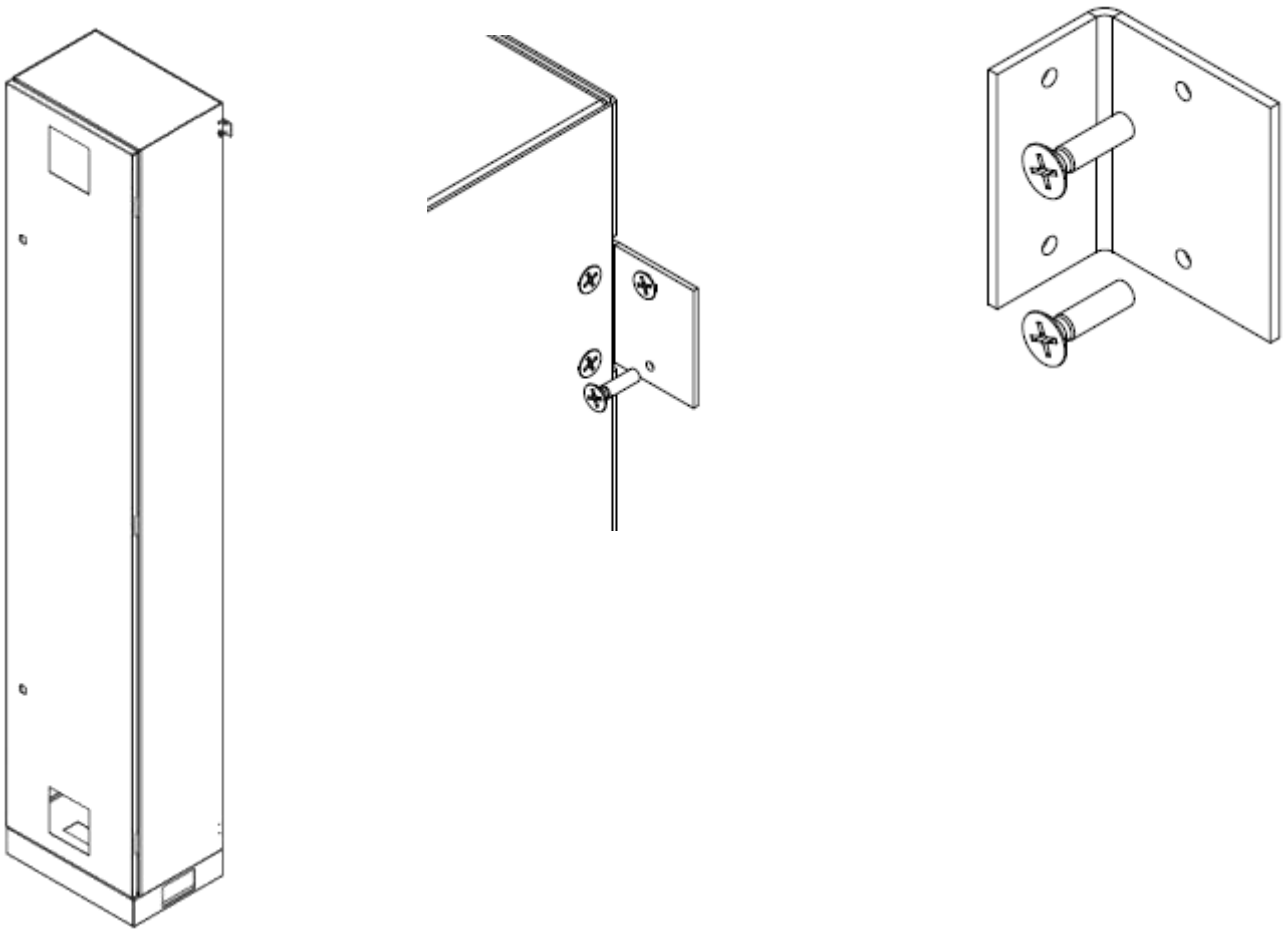
[www.aybey.com](http://www.aybey.com)

\* Before starting the installation, it is important to read the user manual and all the instructions in this document.

\* Installation must be performed by authorized person.

AE-MAESTRO Pre-Wired integrated lift control system is designed to make installation easier and faster, all the cables have plug and play connectors. To avoid to make any wrong connection all the connection has a special label, you can find each wires information on it. Before start, look at the diagram.

1. Mount the control panel to the wall as explained in *Figure 1*



*Figure 1-Control Panel Wall Mounting*

**Note:** The dimensions of the control panel can be change.

- 2. Connect the power required for the control panel to the terminals shown in *Figure 2* coming from electrical distribution panel.

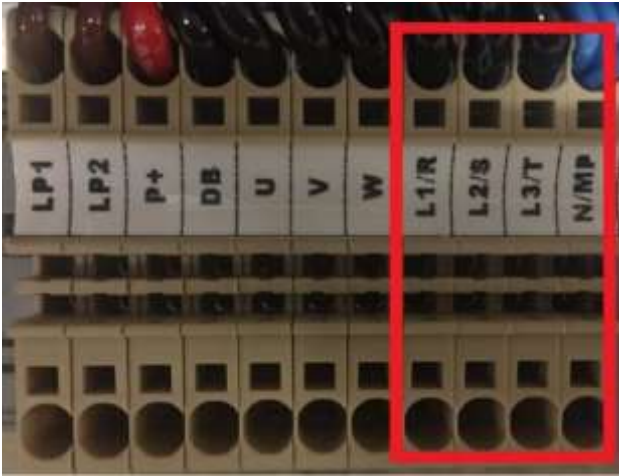


Figure 2-Main Line Connection Terminals

- 3. Connect the motor power wires to the red marked terminals (U, V, W) as shown in *Figure 3*.



Figure 3- Motor Connection Terminals

4. Mount the braking resistor (Figure 4) onto a wall. Do not put it into the controller box. Please be aware that it will emit heat to the surroundings.

Connect it to the terminals (P+, DB) as shown in Figure 5.



Figure 4- Braking Resistor

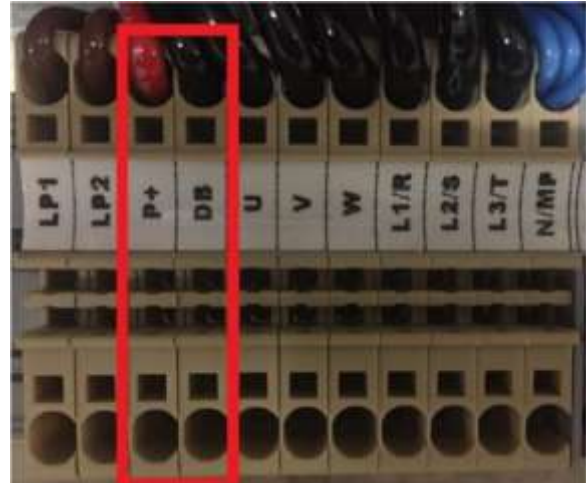


Figure 5- Braking Resistor Connection Terminals

5. XK-BRK2 terminal group is for motor electrical connections except power is shown in Figure 6. Connect related cables in accordance with your diagram. The functions a related terminal name are as follows:
  - a) *Motor Brake Connection* (2000A-840A, 200B-840B),
  - b) *Brake Contact* (BRC, BR1, BR2),
    - i. Brake Contacts are Normally Close (NC) contact and they have an important role for safety for gearless machine. For that reason, be sure that they are working perfectly, after finishing motor connection and switch on the control panel check those connection.
  - c) *Machine Side Stop* (110, 110A),
  - d) *Motor Thermistor* connection (T1, T2),
  - e) Connect them in accordance with your diagram.



Figure 6-Brake and Micro Switches Connection Terminals

6. After making sure of all connections, switch the Control Panel Inspection mode on to energize the control panel. The first thing to do after powering the control panel;
  - a. Enter the motor parameter written on the motor label to the AE-MAESTRO (see AE-MAESTRO user manual for detailed information).
  - b. Connect the encoder cable to the related terminals and enter the Encoder model and number of pulses of encoder to the AE-MAESTRO.
  - c. AE-MAESTRO has a special mode to simplify the installation process. When the Installation Mode activated, defined by parameter [A15]. The controller will bypass some inputs and some features too. That will be make installation easier for you. For more information about this feature, refer to the user manual.
  - d. Gearless motors cannot be started without doing Tuning Process. AE-MAESTRO has two tuning modes.
    - i. Stationary Tuning
    - ii. Rotational Tuning

You can find the details about Tuning Process by looking at the “AE-MAESTRO Tuning Process” document which comes from with your diagrams.

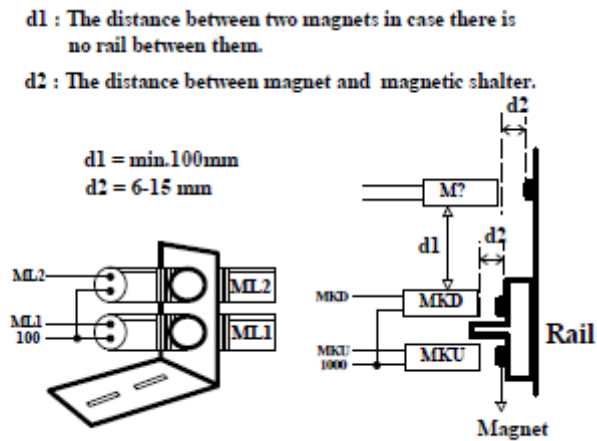
After completing the tuning process, it is necessary to confirm that the operation has been completed successfully by applying a motion command in both directions in inspection mode. In order to confirm it, it can be seen how much current is consumption during the drive and that it is driven stability at the defined speed. If any problems are encountered during the drive, tuning process must be performed again.

**Note:** In order to start the tuning process, the system must be in inspection mode and the safety circuit must be closed.

7. After the tuning process has been carried system can be use in inspection mode. And mechanical installation such as the hanging on the ropes and the installation of the cabin be done.
8. In order to ensure safety mount;

- a) Compulsory slow down switches 817/818 for up and down directions
  - b) Well limit Stop
- and limit stop switches that determine the well limits with respect to diagram given to you.

9. Next step is mounting counter magnets;
- a) ML1 and ML2 floor level sensor that detect the unlocking zone.
  - b) MKU and MKD counting and re-levelling sensor.



10. The car top box installation should be carried out as specified in your project. In the prefabricated system, the connection of the required safety device and other auxiliary units (e.g. Door Board) is already designed and the relevant connections in your project are shown in detail.
11. After finishing all the mechanical and electrical connection, accurate floor level must be carrying out. To make this process easier, AE-MAESTRO has a special feature that allows you to do adjustment inside cabin with open door. Look at the Chapter 4 in user manual for more.