

## Linear Motor Installation Guide

### Motor Type: Linear Iron-core and Coreless Servomotor (LMS/C/F)

If the motor cannot be installed successfully according to the following guidelines, please contact us.

TEL : 886-4-23550110 ext. 200

FAX : 886-4-23550123

#### I. Before Installation:

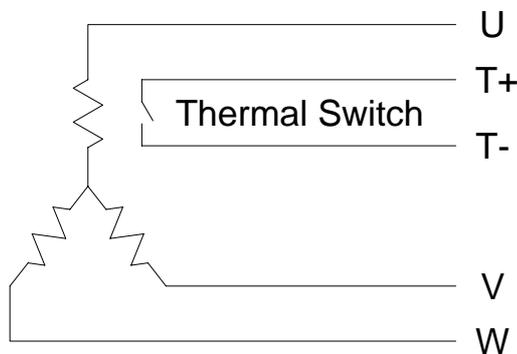
1. Check the motor appearance to see if it is damaged during transportation. If so, please contact us.
2. Confirm the motor specifications such as type and number of phases.
3. Check if you have the complete kit such as instructions and cables.
4. Beware there are strong magnets in the stator.

#### II. Installation:

1. **Be cautious that the attractive force between the forcer and the stator is as high as several hundred kgf for LMS and LMF.**
2. Procedures:
  - (1) Install the linear guideways and ensure their straightness and parallelism. (Install at least one guideway on each side. Each linear guideway should have sufficient blocks on it. Be careful about the direction of the blocks' grease nipples for future lubrication.)
  - (2) Fix the forcer on your forcer housing. It's better you tighten the screws from the center to both sides. Then fix the forcer housing on the blocks (figure 1). **Make sure the gap between the forcer and the stator is in the range of 0.8 to 1.0 mm for LMS and LMF. (Please refer to standard forcer and stator drawings)** If the gap lies outside the range, either the cogging force will be prominent, or the thrust will be reduced.

- (3) Before you install stator 1 on side B, shift the forcer and its housing to side A (figure 2) **to avoid the danger of clamping hands.**
- (4) As in (3), shift the forcer and its housing to side B before you install stator 2 on side A.
- (5) Install the linear scale according to your own design.
- (6) Run the cables properly so they will not interfere with other objects in motion. (It is recommended to use a cable chain to organize all the cables.) Also, provide the cables with sufficient radius of gyration.
- (7) Anti-dust bellow or cover shall be required especially when there are dusts or chips of ferrous metals.

### III. Wiring of HIWIN LMS/C/F is shown below.



### IV. Trouble shooting:

1. If the driver cannot drive the motor, check if they are wired correctly.
2. If HIWIN LMDS driver is used, please refer to LMDS Installation Guide for the settings of parameters and the wiring with an encoder.
3. If you are not using HIWIN driver, please contact your driver supplier to set parameters using the available motor specifications, or contact us or HIWIN agents.

### V. Seller warrants the products sold free from defects in

material workmanship for a period of one year from the date of shipment to Buyer. During this period, Seller guarantees to repair or replace the sold items if failure has NOT resulted from accident, disaster, misapplication, or abuse (refer to the Notices in the manual).

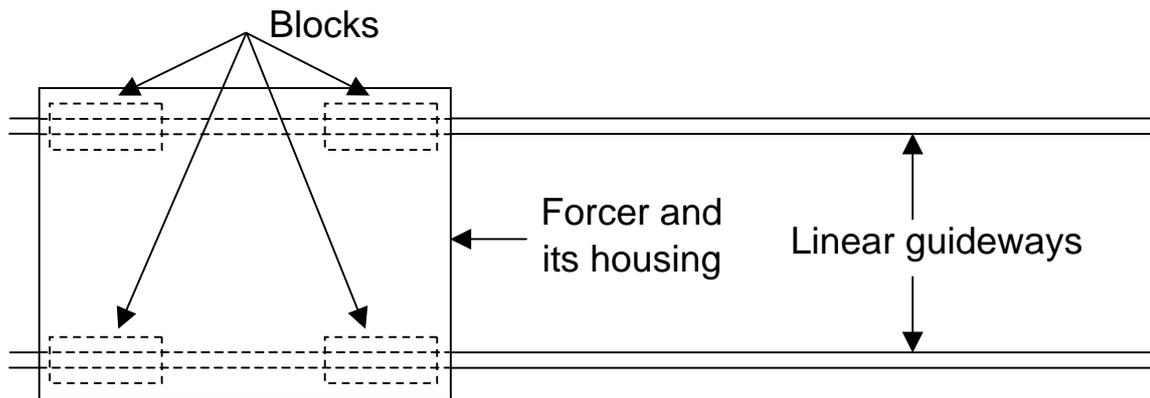


Figure 1. Installation of the forcer its housing

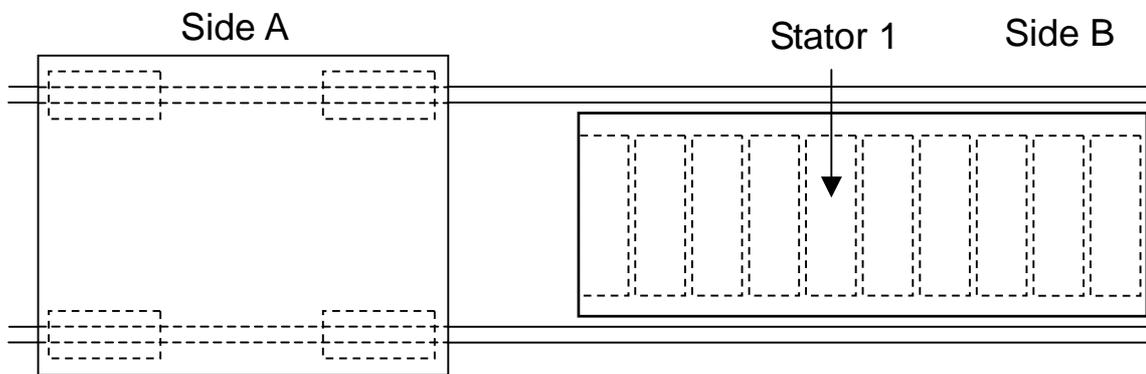


Figure 2. Installation of stator 1 on side B

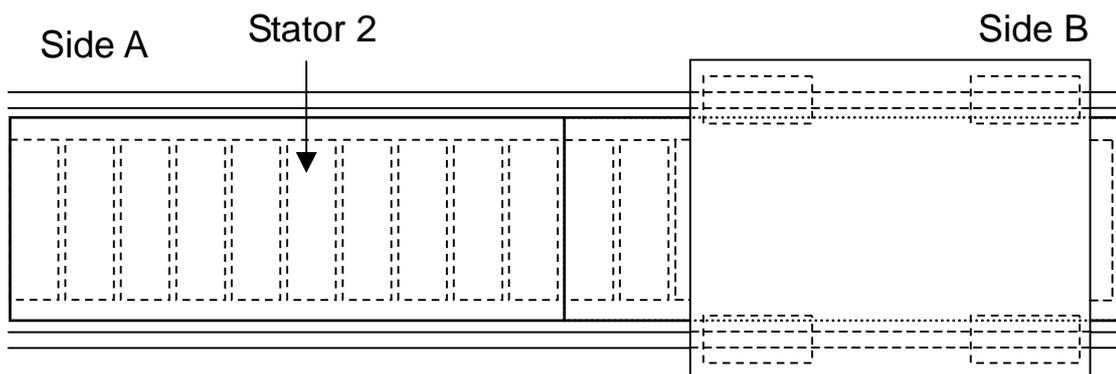


Figure 3. Installation of stator 2 on side A