



# Manual

ENERGY - EFFICIENT MOTORS

OV 400 DD  
SERIES

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## Packing List

Stator	1
Rotor	1
Control Box	1
Hand wheel	1
Pipe link	1
Hexagon screw	6
Locator bush	1
Fan blade	1
Pedal	1
Self tapping screw	6
Manual	1
Quality Certificate	1

### **Environmental Requirements**

1. Please do not work at damp place
2. The voltage requires being stable (210V -240V)
3. Must be adequately grounded for safety
4. Do not work at high temperature
5. Do not run motor and control system near to ferromagnetic or high-radiance area

### **Warranty Service**

- 1 Our products come with 1 year of quality guarantee, from the ship day. Within guarantee period, service is free of charge, unless man-made damage or misuse.
2. During the guarantee period, our free service does not cover below:
  - A. Dismantle the motor unit without permission, and cause damage.
3. Please contact us whenever have problem.

### **General Safety Instructions**

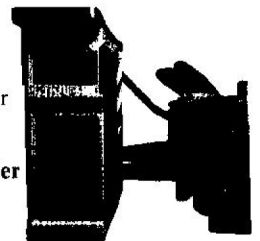
1. Do not place your foot onto the pedal when connecting to the power source
2. Installation and trial-run must be done by skilled person
3. Open control box or motor cover under electrical power is not permitted
4. Make sure the earthing system is working well
5. When doing the following the machine has to be disconnected from the power supply
  - A. When threading machine, replacing needle, bottom thread
  - B. When install, dismantle and repair
  - C. When turn over the sewing machine

### **Product Instruction**

We design and manufacture the servomotor for the purpose of Mechanotronics. This motor features in energy-saving, high production efficiency, environmental and compact. Could be used for different industrial sewing machines.

The servomotor is composed of control system and motor

A. Control system includes control box and pedal speeder



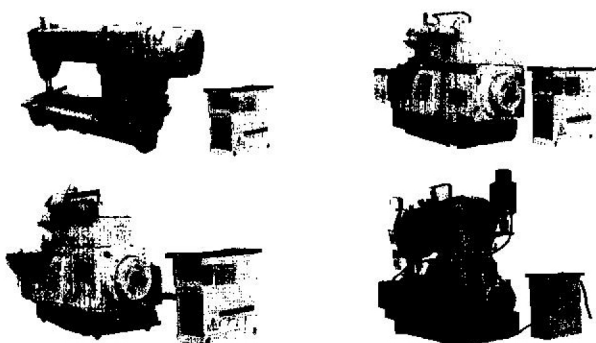
This control system features is easy to use and features in excellent performance, including quick start, quick stop (sewing machine), accurate needle position. Furthermore, the modular circuit has Self-Protection System when against lower voltage, over current, over heat etc. Speed stepless is realized by the pedal speeder.

### B . motor

Rotor is made of Rare earth permanent magnet, guarantee high power and environmental. Exactly needle UP/DOWN position due to its built-in Hall type sensor. Compact design.



### C Partial demonstration



### Common faults and treatments

The serial number	Error code	Error content	Several possible error problem
1	Er01:		1.The handwheel is not close, clearance within 2 mm. 2. Nine plug contact undesirable 3. Motor HuoEr bad, to replace the motor, 4. The handwheel magnet in the loss.
2	Er02:	Not detected boot speed regulator	1.Speed control device without plug, 2. Speed wire is broken
3	Er03:	Motor HuoEr or phase error	1. Nine hole plug contact undesirable, 2. The motor doesn't pack good, 3. HuoEr bad
4	Er04:	Locked-rotor protection	1. The motor overload, 2. The motor and the controller connected four hole line contact is not good
5	Er05:	Hardware over-current protection;	1. Motor overload, 2. Line contact is bad or broken,
6	Er07:	serial port communication timeout error	Display to the system board signal bad or bad,

#### 4. Commonly used parameter setting

The serial number	Parameters of the code	The parameter name	Adjusting range		The factory reset Settings	Other
1	P-01	Maximum speed lock	200-6500RPM		4500	
2	P-02	Direction of rotation	0 is reverse turn needle	1 is a clockwise turn	1	
3	P-03	The needle Angle	6-18		12	
4	P-04	Start sewing speed	200-800		250	
5	P-05	Speed up and slow	2000-4000		3500	
6	P-06	Set the seam	0-999		0	
7	P-07					
8	P-08					
9	P-09					
10	P-10	Automatic clearance run (run)	Then press the S key change 0 to 1 change 0 to 1		0	Turn off the electricity stopped running
11	P-11	Presser foot ascend starting time	0-2000ms		0	
12	P-12	Ascension presser	1-120 s		4s	
13	P-13	Old motor selection	Motor option 1 is the old one		0	0 is ordinary sewing machine
14	P-14	Maximum current limiting	50-1000		280	
15	P-15	The location of the needle	1: detecting needle 0: no detection		1	

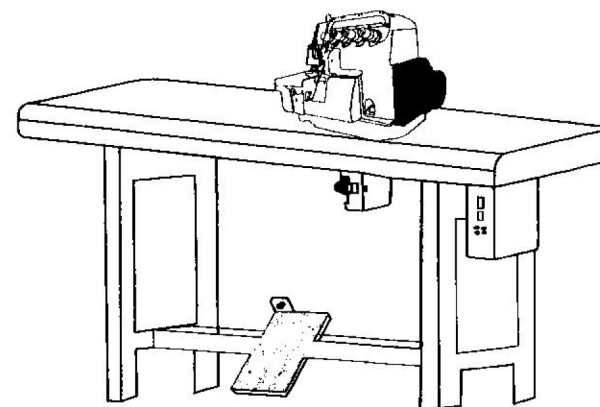
#### 2、Specifications

Voltage	220V	2 phase
Frequency	50~60HZ	
Speed	200~6000RPM	
Motor torque	≤ 4N-M	

#### Installation and trial-run (Direct Drive type)

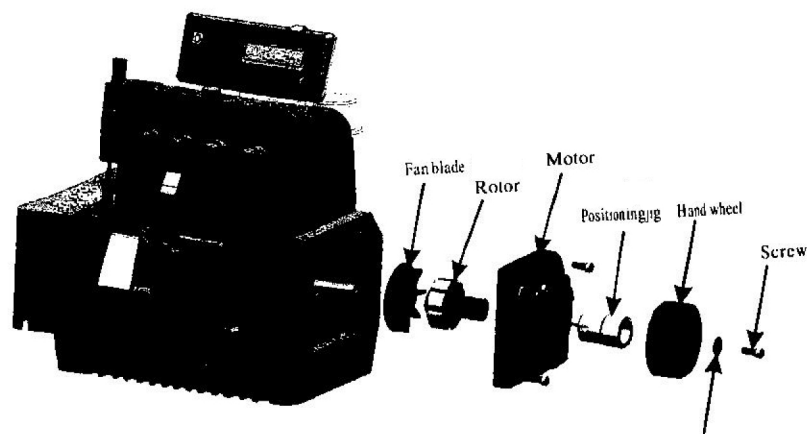
##### 1、 Install control box and pedal as below figure

Using screws, mount the Control Box and Pedal onto sewing table properly.

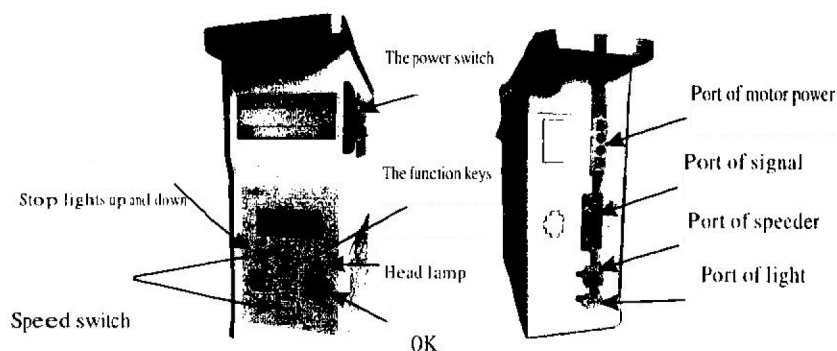


##### 2、 Install the direct drive motor as below figure

Mount below parts in turn. CHECK: turn the main shaft of motor by hand, no friction between stator and rotor



3, Illustration for control panel



## Installation for Control Panel

Each key purpose:

### (1) "P" key

This key has two uses : The first use is to direct press "P" key to switch up or down needle position, if up pinhole lamp lights means up needle position, if down pinhole lamp lights means down needle position, if two lamps off means no needle position.

The second use is: Function Enter button, below point 2 are described below.

### (2) "S" key

This button also has two uses : The first use is to simply press "S" key to off or on lamp on the head.

The second use is to function parameters ( confirm ) key, point 2 are described below .

### (3) "+" "-" key

These two keys are used to adjust speed.

### (2) To enter the parameter method of operation:

Example: How to change the motor from clockwise to Counterclockwise

The first step: Open the power;

Step two: Press the "P" key, no leave, and use the other hand press the "+" key , the screen will display the P-00

The third step: press "+" key, the screen will display P-02, (P-02) is a motor clockwise or Counterclockwise parameters (common parameter list has).

Step Four: Now press "P" key (enter into parameter) screen will display "1"

Fifth step: press "-" key, change "1" to "0"

("1" clockwise "0" for the counter-clockwise , common parameters list has ) .

Step Six: Press the "S" key to determine the parameters, save and exit the parameter.

### 3. Restore factory settings:

Restore factory settings : Press the "P" key, no leave, and use the other hand press the "+" key , the screen will display the P-00, then press "S" key 3 seconds, it will Restore factory settings.