Instruction Manual

For MCR-30 DC Motor Speed Control

INTRODUCTION

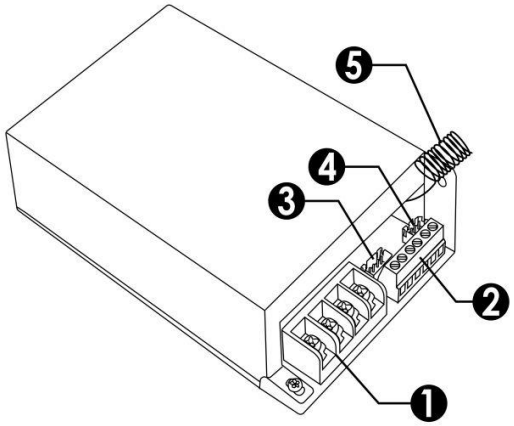
MCR-30 DC Motor Speed Controller can achieve simple automatic functions. It can adapt to a wide DC low voltage operating range and it's suitable for SCM, PLC and other upper control.

TECHNICAL PARAMETERS

- Input supply voltage:12V-30VDC
- The output power:12V:250W(max) ; 24V:350W(max);
- The maximum output current: 30A (contain 30A fuse).

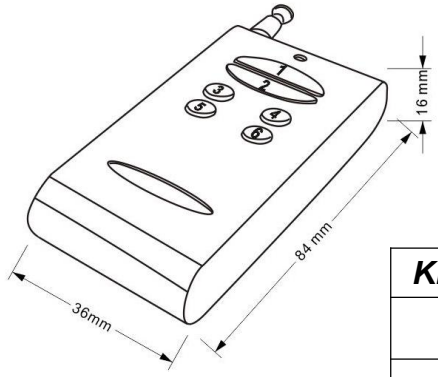
PRODUCT STRUCTURE DIAGRAM

- Controller



① Power terminal
② Limit sensor terminal
③ Manual switch control interface
④ Potentiometer interface
⑤ Receiving antenna

- Remote Control Key Function



KEY	FUNCTION	KEY	FUNCTION
1	Positive	2	Reverse
3	Stop	5	Blank
4	Speed Up	6	Speed Down

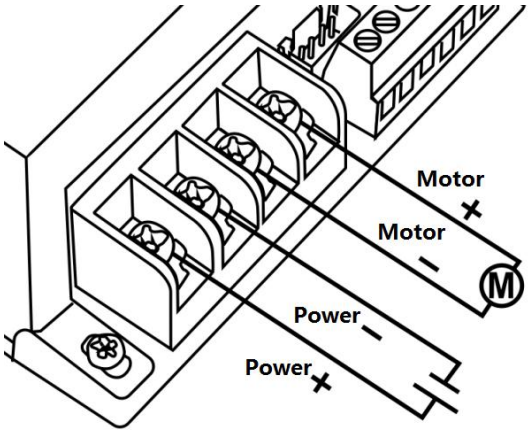
OPERATING INSTRUCTION

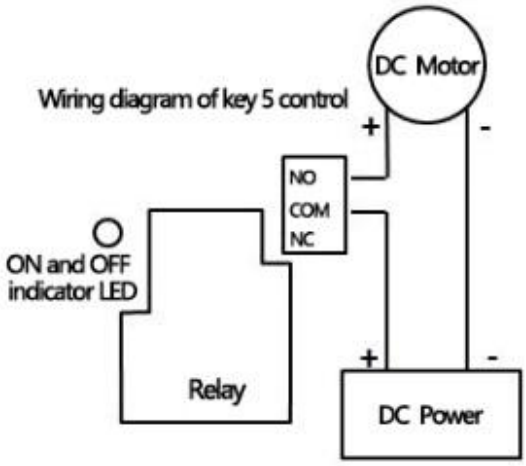
- **Remote controller**

  Use to remote control speed and direction of motor

  Battery size: 23A 12V.

- **Power and motor wiring diagram**

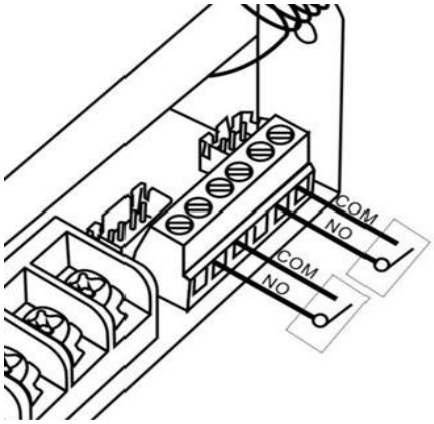




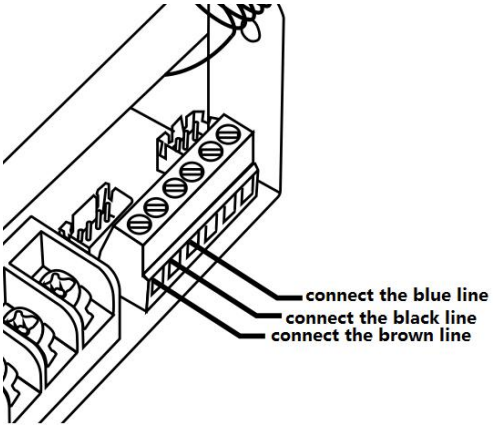
- **Limit sensor control**

  Motor working, corresponding sensor or switch is closed, then motor stop.

  1. Mechanical stroke switch wiring diagram



  2. 12-30V NPN sensor wiring diagram (normally open type sensor)



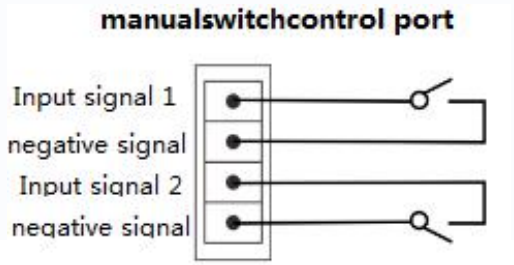
- **Manual switch control**

  Connect two manual switches.

  Turn on the power, motor remotes on the corresponding direction.

  When reach the limit switch, motor stops.

  In manual working process, the remote controller is invalid.



- **Potentiometer**
  Control the speed of the motor. The value of the potentiometer is 10K or 100K. Adjust the initial speed of the system. When the system starts, the position of the potentiometer determines the initial speed.
  Press the remote controller to speed up and down the motor. When adjust the potentiometer over 15 degree angle, recovery potentiometer to control speed.

- **Indicator LED lights**
  System starts normally, the two LEDs flash at the same time.
  When the motor is in stop status, the LED D3 flashes once per second.
  In operation, push Key 1 or Key 2 of remote control (control direction of motor), the LED D4 or D3 lights up.

IMPORTANT NOTES:

- An appropriately rated fuse (rated a little higher than the maximum current you expect to draw) is recommended to ensure safe operation.
- The controller is NOT reverse-polarity protected and it will be damaged if connect the supply voltage with wrong polarity. Double check all connections before applying power and always turn off the power supply before making any wiring changes