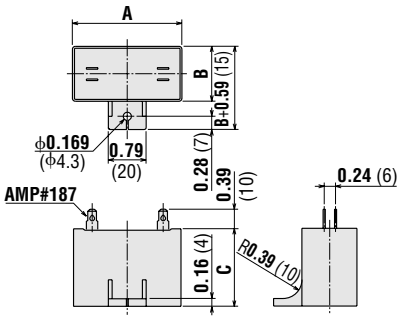
Capacitor (included with the motors)

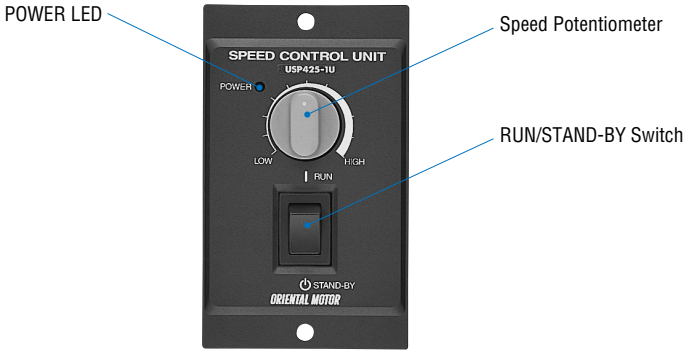


Capacitor Dimensions Unit = inch (mm)

Package Model	Capacitor Model	A	B	C	Weight oz (g)
US560-□01U	CH180CFAUL	2.28 (58)	0.93 (23.5)	1.46 (37)	2.5 (70)
US560-□02E	CH40BFAUL	2.28 (58)	0.93 (23.5)	1.46 (37)	2.5 (70)
US590-□01U	CH200CFAUL	2.28 (58)	1.14 (29)	1.61 (41)	3.4 (95)
US590-□02E	CH60BFAUL	2.28 (58)	1.14 (29)	1.61 (41)	3.0 (85)

- If you need to order a capacitor without a motor, add "-C" to the capacitor model name shown. A capacitor cap is included with a capacitor.

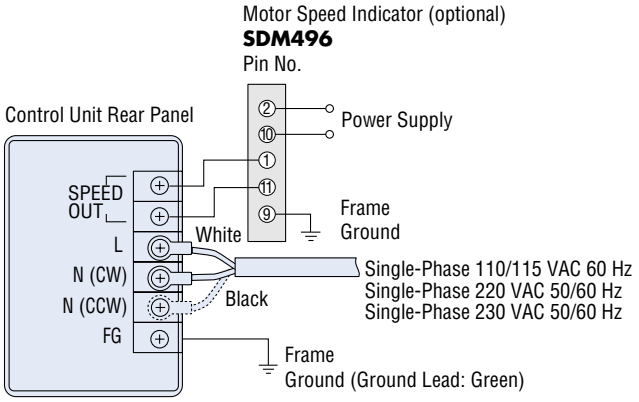
Connection and Operation



Connection Diagrams

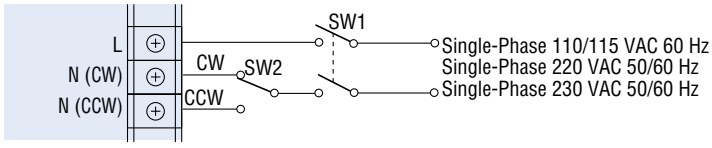
US206, US315, US425, US540 types

Uni-directional Rotation:



In the diagrams above, the motor shaft rotates in the clockwise direction. When changed to the dotted line [N (CCW)] position, the motor shaft rotates in the counterclockwise direction.

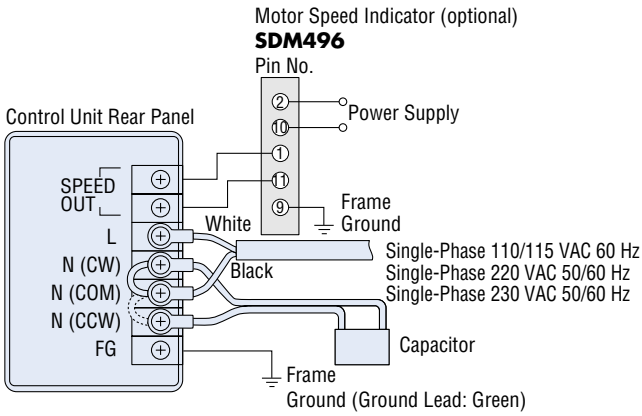
Bi-directional Rotation:



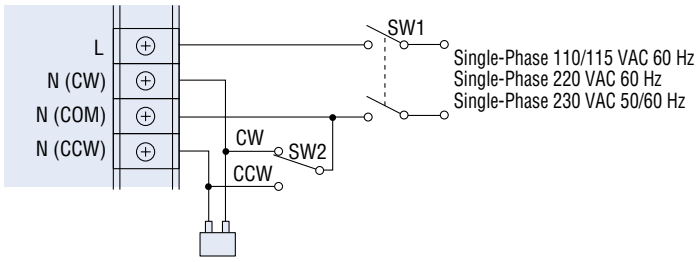
Switch Specifications: 250 VAC, Inductive Load, 5 A min.

US560, US590 types

Uni-directional Rotation:



Bi-directional Rotation:

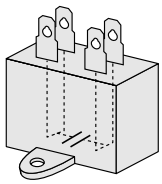


Switch Specifications: 250 VAC, Inductive Load, 5 A min.

- If an extension between the motor and control unit is required, an extension cable can be used (sold separately). Using the longest cord, the distance can be extended up to 15.7 feet (4.75 m).→Page B-130

● Inner Connection Diagram for 4-Terminal Capacitor

Terminals of the capacitor are connected as shown in the figure. For lead wire connection, use one lead wire per terminal.



● Operation Method

There is a difference in operation method between the **US206, US315, US425, US540** types and the **US560, US590** types.

US206, US315, US425 and US540 types

Connect the motor lead wire connectors to the control unit. Then connect the power cord to the power supply. When the RUN/STAND-BY switch of the control unit is switched to RUN, the motor rotates in the clockwise (CW) direction as seen from the motor shaft.
(Control units are set for clockwise rotation at shipment. The direction of rotation for the gearhead output shaft may be the reverse of the direction of the motor shaft depending on the gear ratio.)

US560 and US590 types

Connect the control unit and the motor, and attach the capacitor wire leading from the control unit to the capacitor. Next, plug in the power supply cord into an AC power supply. When the RUN/STAND-BY switch located on the control unit is switched to RUN, the motor will rotate in the direction set by the connection of the capacitor.
(Control units are set for clockwise rotation at shipment. The direction of rotation for the gearhead output shaft may be the reverse of the direction of the motor shaft depending on the gear ratio.)

● Changing Speed

When the potentiometer located on the front of the control unit is turned in a clockwise direction, motor speed increases; when turned in the counter clockwise direction, motor speed decreases. Motor speed can be set and adjusted over a range of 90 r/min-1600 r/min.

● Stopping

When the RUN/STAND-BY switch on the control unit is set to STAND-BY, the motor stops. This switch is not a power ON/OFF switch. If the motor is to be stopped for a long time, a separate power ON/OFF switch should be installed.

● Changing the Direction of Rotation

US206, US315, US425 and US540 types

(Capacitor is included in the control unit.)

Uni-directional Rotation

When the direction of motor rotation needs to be reversed for reasons relating to transmission mechanisms such as gearheads, change the terminal used for attaching the power cord, located at the back of control unit, from terminal N (CW) to terminal N (CCW). The power cord connections are located at terminals L and N (CW) when shipped. See the diagram on the previous page.
(This should always be done with the power OFF.)

Bi-directional Rotation

Install an additional power switch (SW1) and CW/CCW switch (SW2) as shown on previous page, and use these switches to change the direction of rotation. (Motor cannot be reversed instantaneously. Turn SW1 off and wait until the motor has come to a complete stop before switching SW2.) See the diagram on the previous page.

US560 and US590 types

(Connection of the included capacitor is necessary.)

Uni-directional Rotation

When the direction of motor rotation needs to be reversed, change the terminal used for attaching the power cord, located at the back of control unit, from terminals N (CW)-N (COM) to terminals N (COM)-N (CCW). The power cord connections are located at terminals N (CW)-N (COM) when shipped. See the diagram on the previous page.
(This should always be done with the power OFF.)

Bi-directional Rotation

Install an additional power switch (SW1) and CW/CCW switch (SW2) as shown on the previous page, and use these switches to change the direction of rotation. (Motor cannot be reversed instantaneously. Turn SW1 off and wait until the motor has come to a complete stop before switching SW2.) See the diagram on the previous page.