

# INSTRUCTIONS for 8-LEAD SLO-SYN® STEPPING MOTORS

**INSPECTION** — Motors should be inspected for visible shipping damage. Note: Because of the strong permanent magnet, the shaft will not turn freely — even on motors without gears.

**Motors should not be taken apart.** Removing the rotor will reduce output torque 5% or more when the motor is reassembled and the permanent magnet will pick up steel chips.

Shielded bearings are used which require no lubrication for the life of the motor.

The voltage rating and current per winding are given on the motor nameplate.

Resistors "R" as shown in the diagrams are used to limit current to the value given on the motor nameplate if the supply voltage is higher than the motor rating. Output torque and maximum speed are increased since the L/R time constant is reduced.

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SLO-SYN Motors are covered by one or more of the following U.S. Patents: 2,5892,590,000; 2,931,929; 3,148,319; 3,163,788; 3,206,623; 3,265,911; 3,268,747; 3,286,109; 3,292,065; 3,321,651; 3,441,819; 3,466,476; 3,495,109; 3,506,859; 3,509,392; 3,510,699; 3,535,604; 3,621,312; Reissue Patent 25,445. Canada Patented 1962, 1965, 1968, 1971. Other Patents Pending.

The right to make engineering refinements on all products is reserved. Dimensions and other details subject to change.



**THE SUPERIOR ELECTRIC COMPANY**

**Bristol, Connecticut 06010**

SWITCHING SEQUENCE

CHART 1

FOUR-STEP INPUT SEQUENCE (FULL-STEP MODE)

STEP	SW1	SW2	SW3	SW4
1	ON	OFF	ON	OFF
2	ON	OFF	OFF	ON
3	OFF	ON	OFF	ON
4	OFF	ON	ON	OFF
1	ON	OFF	ON	OFF

EIGHT-STEP INPUT SEQUENCE (HALF-STEP MODE)

STEP	SW1	SW2	SW3	SW4
1	ON	OFF	ON	OFF
2	ON	OFF	OFF	OFF
3	ON	OFF	OFF	ON
4	OFF	OFF	OFF	ON
5	OFF	ON	OFF	ON
6	OFF	ON	OFF	OFF
7	OFF	ON	ON	OFF
8	OFF	OFF	ON	OFF
1	ON	OFF	ON	OFF

ROTATION IS CW AS VIEWED FROM NAMEPLATE  
FOR CCW ROTATION, READ UP FROM BOTTOM.

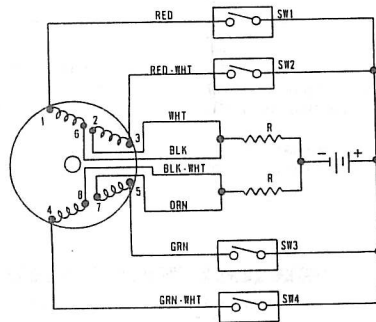
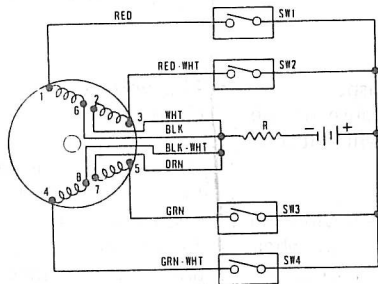
SWITCHING SEQUENCE

CHART 1

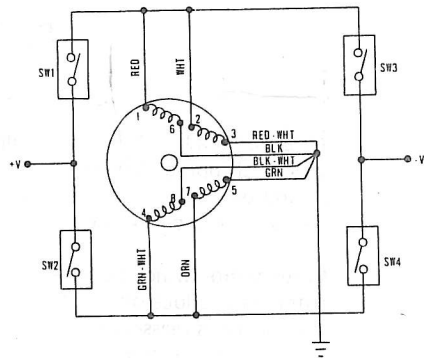
STEP	SW1	SW2	SW3	SW4
1	OFF	OFF	ON	ON
2	ON	OFF	OFF	ON
3	ON	ON	OFF	OFF
4	OFF	ON	ON	OFF
1	OFF	OFF	ON	ON

ROTATION IS CW AS VIEWED FROM NAMEPLATE  
FOR CCW ROTATION, READ UP FROM BOTTOM.

BIFILAR HOOKUP  
REF. SWITCHING SEQUENCE CHART 1



BIPOLAR (PARALLEL)  
REF. SWITCHING SEQUENCE CHART 1



BIPOLAR (SERIES)  
REF. SWITCHING SEQUENCE CHART 1

