## 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.

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

FOUR-STEP INPUT SEQUENCE (FULL-STEP MODE)

UR-STEP	INPUT SEG	DENCE (FU	FF-21FL W	UUE)
STEP	241	SW2	SW3	SW4
1	OH	OFF	ON	OFF
2	OH	OFF	OFF	OH
3	OFF	ON	OFF	DN
4	OFF	OH	ON	OFF
1	HO	OFF	ON	OFF

EIGHT-STEP INPUT SEQUENCE (HALF-STEP MODE)

STEP	281	SW2	2113	SW4
1	ON	OFF	DH	OFF
2	ON	OFF	OFF	OFF
3	OH	OFF	DFF	ON
4	OFF	OFF	OFF	ON
5	OFF	ON	OFF	ON
6	DFF	ON -	DFF	OFF
7	DFF	DN	ON	OFF
8	OFF	OFF	ON	OFF
1	DH	OFF	ON	DFF

ROTATION IS CO AS VIEWED FROM NAMEPLATE. FOR CCO ROTATION, READ UP FROM BOTTOM.

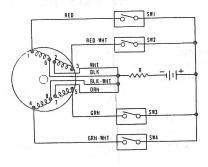
SWITCHING SEQUENCE

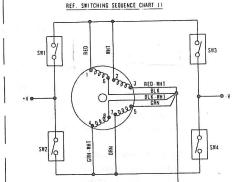
CHART II

STEP	ZMI	SW2	SW3	5114
1	OFF	OFF	DN	ON
2	ON	OFF	OFF	ON
3	ON	ON	OFF	OFF
4	OFF	OH	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 I





BIPOLAR (PARALLEL)

## BIPOLAR (SERIES)

