

## ■ CABLES & CONNECTORS

Lin Engineering step motors are available with either 2-coil Bipolar, or 4-coil Unipolar windings. Bipolar motors have 4 leads, while unipolar motors have 6 leads. Additionally, some motors are designed with 8 leads, so they may be connected in a variety of ways.




## ■ CONNECTION INSTRUCTIONS

By following a series of easy steps, the below charts can be used to properly connect your motor to your drive.





- 1 Determine how many lead wires your motor has: 4, 6, or 8 wires. Locate the proper box below.
- 2 Next, examine the color code of the lead wires on your motor; find the row of colors that match your wires, this is your "Color Code". You will have either Code 1, Code 2, or Code 3. For example, if you have 4 wires and the wires are Red, Blue, Green, and Black, your Color Code is 1.
- 3 Next, connect the proper color to the appropriate terminal on your drive. If you have a Bipolar drive, the terminal on your drive will be labeled  $\bar{A}$ , A,  $\bar{B}$ , B.









For example, if using the above 4 wire motor with Color Code 1, the Red wire would be connected to A, Blue connected to  $\bar{A}$ , Green connected to B, and Black connected to  $\bar{B}$ .

If you have a Unipolar drive, the terminal will be labeled A, B, C, D and A/C Common, B/D Common (or Comm.)

- Notes:
-  Indicates that the particular wire is not connected to the drive.
  -  Indicates that two particular wires are connected to each other, but not the driver.
  -  Indicates that two particular wires are connected to each other, and then connected to the indicated terminal on the drive. In this example, two wires are connected together, then both wired to terminal A on the drive.

<b>4 LEADS</b>	Code 1	Red	Blue	Green	Black
	Code 2	Brown	Orange	Red	Yellow
	Code 3	Red	Red / White	Green	Green / White
	Bipolar Drive	A	$\bar{A}$	B	$\bar{B}$

<b>6 LEADS</b>	Code 1	Red	White	Blue	Green	Yellow	Black	
	Code 2	Brown	Black	Orange	Red	White	Yellow	
	Code 3	Red	Black	Red / White	Green	White	Green / White	
	Bipolar Drive	Half Coil Connection	A	$\bar{A}$		B	$\bar{B}$	
		Series Connection	A		$\bar{A}$	B		$\bar{B}$
Unipolar Drive	A	A/C Comm	C	B	B/D Comm	D		

<b>8 LEADS</b>	Code 1	Blue / White	Red / White	Blue	Red	Green / White	Black / White	Green	Black	
	Code 2	Red	Yellow / White	Red / White	Yellow	Orange	Black / White	Orange / White	Black	
	Code 3	Red	Black / White	Red / White	Black	Green	Yellow / White	Green / White	Yellow	
	Bipolar Drive	Parallel Connection	 A		 $\bar{A}$		 B		 $\bar{B}$	
		Series Connection	A		$\bar{A}$	B		B		
Unipolar Drive	A	 A/C Comm		$\bar{C}$	B	 B/D Comm		$\bar{D}$		

### BLDC

Vcc	Hall A	Hall B	Hall C	GND	Phase A	Phase B	Phase C
Red	Blue	Green	White	Black	Yellow	Red	Black