NOTE:

Before starting you should have a copy of the PowerFlex 520 series *Quick start manual and a CAMCO Data Sheet for your application obtained from CAMCO or your local salesman.

You may have to change the specific values of motor frequency and the acceleration P41 and deceleration P42 for your application.

Refer to the CAMCO Data sheet for the application motor speed and motor acc/dec ramps. Use the following equation to calculate frequency for a desired motor speed:

frequency [hz] = motor speed from data sheet [rpm] * motor name plate frequency [hz] / motor name plate speed [rpm]
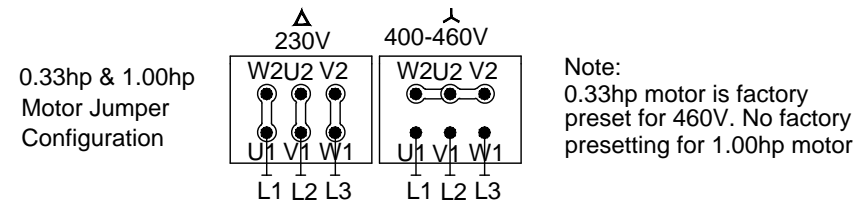
a) Drive Size

You will need to determine which size drive you have for proper mounting and wiring.

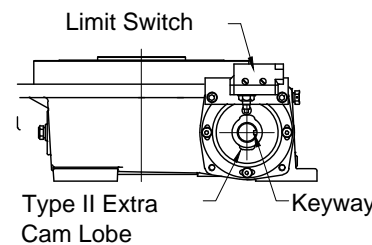| Powerflex Model	CAMCO Part Number	Motor Power	Rating
523	92B91475510000	1 hp (0.75 kW)	120V Single Phase
523	92B91475520000	1 hp (0.75 kW)	240V Single Phase
523	92B91475530000	1 hp (0.75 kW)	460V Three Phase
525	92B91475250000	1 hp (0.75 kW)	120V Single Phase
525	92B91475170000	1 hp (0.75 kW)	240V Single Phase
525	92B91475120000	1 hp (0.75 kW)	460V Three Phase

b) Jumper Motor for same voltage as control.

Note: The controller output voltage is never greater than the supply voltage except for the 120V control; then jumper the motor for 230V.

0.33hp & 1.00hp Motor Jumper Configuration

Δ 230V — W2 U2 V2 / U1 V1 W1 / L1 L2 L3
Y 400-460V — W2 U2 V2 / U1 V1 W1 / L1 L2 L3

Note:
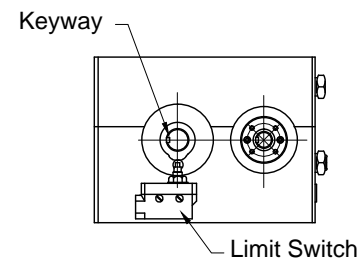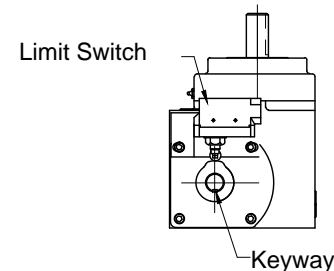0.33hp motor is factory preset for 460V. No factory presetting for 1.00hp motor

c) Indexer must be in middle of dwell when motor is stopped.

Keyway position of a Roller Gear, Right Angle or Parallel indexer stopped in the middle of dwell. The normally closed limit switch has opened to signal a stop. For an RPP, LPP or WBD see the timing diagram or assembly drawing supplied for the signal cam lobe and camshaft key location for dwell.

Limit Switch — Type II Extra Cam Lobe — Keyway

A standard Roller Gear unit with Cam & Limit Switch mounted on the correct keyway position directly opposite of the output shaft, 90 degrees (clockwise) from Cam lobe. The Cam & Limit Switch may also be mounted on the reducer. *If the unit is a "Type II" motion, a special Limit Switch Cam is needed with one extra Lobe, 180 degrees from the first Lobe. (as shown)

A standard Right Angle unit with Cam & Limit Switch mounted on the housing has a correct keyway position directly opposite of the Cam Lobe. Cam & Limit Switch may also be mounted on the reducer.

Limit Switch — Keyway

Keyway — Limit Switch

A standard Parallel unit with Cam & Limit Switch mounted on the housing has a correct keyway position directly opposite the output shaft, 90 degrees (clockwise) from Cam lobe. The Cam & Limit Switch may also be mounted on the reducer.

d) Quick Start Guide

Read and follow all the Safety Warnings found in the Quick Start Guide. The Quick Start Guide covers all the wiring, fusing and mounting information. The guide also describes how to change the parameters for your application.
The table below shows a list of common application parameters.

I/O	CONNECTION EXAMPLE	
3 Wire SRC Control - Non-Reversing	INTERNAL SUPPLY (SRC)	EXTERNAL SUPPLY (SRC)
P046 [Start Source 1] = 2, t062 [Digin TermBlk 02] =49 and t063 [Digin TermBlk 03]=51. A momentary input will start the drive. An open stop input to I/O Terminal 02 will stop the drive as specified by P045 [Stop Mode].	Stop / Start / 11 (Jumper) / 01 02	Stop / Start / 11 (Jumper) / 01 02 04 / +24V Common / Each digital input draws 6 mA.
3 Wire SRC Control - Reversing	INTERNAL SUPPLY (SRC)	EXTERNAL SUPPLY (SRC)
P046 [Start Source 1] = 2, t062 [Digin TermBlk 02] =49 and t063 [Digin TermBlk 03]=51. A momentary input will start the drive. A open stop input to I/O Terminal 02 will stop the drive as specified by P045 [Stop Mode]. I/O Terminal 03 determines direction.	Stop / Start / Direction / 11 (Jumper) / 01 02 03	Stop / Start / Direction / 11 (Jumper) / 01 02 03 04 / +24V Common / Each digital input draws 6 mA.
3 Wire SNK Control - Non-Reversing	INTERNAL SUPPLY (SNK)	
	Non-Reversing: Stop / Start / 11 (Jumper) / 01 02 04	Reversing: Stop / Start / Direction / 11 (Jumper) / 01 02 03 04

WIRING DIAGRAMS:
Refer to PowerFlex 520-Series Adjustable Frequency AC Drive Manual

Additional copies of this document are available at http:\\www.destaco.com

Powerflex 520 series quick start and complete user manuals:

http:\\literature.rockwellautomation.com\idc\groups\literature\documents\qs\520-qs001_-en-e.pdf
http:\\literature.rockwellautomation.com\idc\groups\literature\documents\um\520-um001_-en-e.pdf

POWERFLEX 523 & 525 INVERTER SET-UP FOR INDEXING

PARAMETER SETTINGS
Several parameters need to the changed for the Inverter to function properly in indexing applications.

Note:
To reset parameters to default values, set parameter P053=1 <enter>

Parameter	Description	Index Setting	Default Setting
P036	Motor NP RPM	From Motor Name Plate	1750
P039	Torque Perf Mode	V/Hz (0)	SVC (1)
P041	Accel Time 1	.05	10
P042	Decel Time 1	.05	10
P045	Stop Mode	4 (Ramp)	
P046	Start Source	2 (Digin TrmBlk)	1 (Keypad)
P032	Motor Nameplate Hertz (rated freq.)	50 or 60 Hz from Name Plate	60Hz (Range 15-500 Hz)
P033	Motor Overload Current	200% Nameplate FL Current (P034)	Based on Drive Rating
P034	Motor Nameplate FLA	Set to Nameplate Full Load Current	Drive Rated Amps
A434	DC Brake Time	0.2	0.0
A435	DC Brake Level**	2.0	.1
A550	DC Bus Enable	Disabled (0)	
A573*	Motor Options Config	Set to 0002 (entry mode) (displays as 00010 in display mode)	00011 (display mode)

* Applies ONLY to 525 models (not available on 523)
** 200% of motor rated amperage