



Laser Voltage Conversion Kits

Model LCY-380

Model LCD-220

Lee Laser Series 800 Nd:YAG Lasers have been designed to operate from the most common mains power sources worldwide:

4-wire, $220 \pm 10\%$ VAC, 3-phase, 50/60 Hz

5-wire, $380 \pm 10\%$ VAC, 3-phase, 50/60 Hz

These voltages are to be measured between the high-voltage phases of the incoming power source.

4-wire, 220 VAC

This configuration utilizes power station rear panel circuit breakers that are rated at 250 VAC, and electrical line cord that complies with the U.S. National Electrical Code (NEC):

3 current conductors: Connect to: Circuit Breaker CB1
Colors: black, white, red

1 ground conductor: Connects to: ground bar on power supply side panel
Color: green

5-wire, 380/400/415 VAC

This configuration utilizes circuit breakers that are rated at 415 VAC, but at a lower current level than the circuit breakers for 220 VAC. The electrical line cord complies with the European color convention:

- 3 current conductors: Connect to: Circuit Breaker CB1
Colors: black, black, brown
- 1 ground conductor: Connects to: ground bar on power supply side panel
Color: green/yellow stripe
- 1 neutral conductor: Connects to: Line Filter, line side terminal block, Term. # 4, or
Line Filter, line side, Term. "N" (CE laser models)
Color: blue

Model LCY-380 Conversion Kit (P/N 120094-001)

This kit has been prepared for users of Series 800 lasers, that wish to convert their power supplies from **4-wire, 220 VAC** to **5-wire, WYE, 380 (400) VAC**. It contains the following:

- | | |
|--|---|
| 1. Input Power Line Cord. | 5-wire, European color convention. |
| 2. Main Power Circuit Breaker, CB1. | Current rating as required. |
| 3. Pump Circuit Breaker, CB2. | 3 Ampere. |
| 4. Label. | "INPUT POWER, 3P/N/E AC 400V, 20A,
50/60 HZ" |

Model LCD-220 Conversion Kit (P/N 120134-001)

This kit has been prepared for users of Series 800 lasers, that wish to convert their power supplies from **5-wire, WYE, 380 (400)VAC** to **4-wire, 220 VAC**. It contains the following:

- | | |
|--|--------------------------------|
| 1. Input Power Line Cord. | 4-wire, U.S. color convention. |
| 2. Main Power Circuit Breaker, CB1. | Current rating as required. |
| 3. Pump Circuit Breaker, CB2. | 5 Ampere. |

Installations for which the mains power source is other than 4-wire, 220 or 5-wire WYE 380 (400) may require a transformer. User should contact Lee Laser.

Section 4.4 of the Operation Manual, reproduced below, lists the changes that are necessary for power supply voltage conversions.

4.4 380/415 VAC OPERATION

The power station, which includes the power supply and cooling station, is designed for 220 VAC 4 wire or 380/415 VAC 5 wire services. The following configuration is different from 220 VAC operation:

SERIES 800 LASERS

	220 VAC	380/415 VAC
Input Power Cable	4 wire cable 3 hot lines 1 ground	5 wire cable 3 hot lines, 1 neutral 1 ground
Main Power Circuit Breaker CB1	3-phase, 30A 250 VAC Breaker	3-phase, 20A 415 VAC Breaker or 3 of 20A, 600V fuse
Pump Circuit Breaker	3-phase, 5A 250VAC Breaker or 3 of 5A, 250V fuse	3-phase, 3A 480VAC Breaker or 3 of 3A, 600V fuse
Power Supply TB Jumpers (see Power Supply Drawing, section 7)	#225-TB3-2 to TB3-3 #226- TB1-2 to TB1-4 #227- TB1-6 to TB1-7	#225- TB3-1 to TB3-2 #226- TB1-1 to TB1-2 #227- TB1-5 to TB1-6
Isolation Transformer Primary Tap (see System Drawing, section 7)	DELTA Configuration	WYE Configuration
Water Pump * Input Power Cable (see "Pump Replace / Install" pg. 4-8)	WHT - T8/T2 BLK - T1/T7 RED - T3/T9 GRN - Case Tie T4, T5, T6 together	WHT - T2, BLK - T1 RED - T3, GRN - Case Tie - T4/T7 Tie - T5/T8 Tie - T6/T9

* Also refer to wiring diagram on side of pump motor housing.