

KLA TENCOR CORP
 Form 4/A
 August 15, 2005

FORM 4

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549**

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
BARNHOLT EDWARD W

(Last) (First) (Middle)

C/O KLA-TENCOR CORPORATION, 160 RIO ROBLES

(Street)

SAN JOSE, CA 95130

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol
KLA TENCOR CORP [KLAC]

3. Date of Earliest Transaction
 (Month/Day/Year)
08/02/2005

4. If Amendment, Date Original Filed(Month/Day/Year)
08/03/2005

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

Director 10% Owner
 Officer (give title below) Other (specify below)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)		
				(A) or (D)	Code	V	Amount	(D)	Price

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

SEC 1474 (9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative	2. Conversion	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if	4. Transaction of Derivative	5. Number	6. Date Exercisable and Expiration Date	7. Title and Amount of Underlying Security
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Security (Instr. 3)	or Exercise Price of Derivative Security	any (Month/Day/Year)	Code (Instr. 8)	Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	(Month/Day/Year)	(Instr. 3 and 4)				
			Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Number of Shares
Non-Qualified Stock Option (right to buy)	\$ 51.35	08/02/2005	A		2,500		08/02/2005	08/02/2012 ⁽¹⁾	Common Stock	2

Reporting Owners

Reporting Owner Name / Address

Relationships

Director 10% Owner Officer Other

BARNHOLT EDWARD W
C/O KLA-TENCOR CORPORATION
160 RIO ROBLES
SAN JOSE, CA 95130

X

Signatures

By: Stuart J. Nichols For: Edward W.
Barnholt

08/15/2005

__Signature of Reporting Person

Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).
 - ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) Option expiration date was reported incorrectly on the original Form 4.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.