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 or Section 30(h) of the Investment Company Act of 1940

(Print or Ty	pe Response	s)																	
1. Name and Address of Reporting Person * BARNHOLT EDWARD W				2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC]									5. Relationship of Reporting Person(s) to Issuer (Check all applicable) _X_ Director 10% Owner						
(Last) (First) (Middle) C/O KLA-TENCOR CORPORATION, ONE TECHNOLOGY DRIVE				3. Date of Earliest Transaction (Month/Day/Year) 11/01/2017									Officer (give title below) X Other (specify below) Chairman of the Board						
(Street) MILPITAS, CA 95035				4. If Amendment, Date Original Filed(Month/Day/Year)								6. Individual or Joint/Group Filing(Check Applicable Line) _X_Form filed by One Reporting PersonForm filed by More than One Reporting Person							
(City) (State) (Zip)					Table I - Non-Derivative Securities Acqui								lired, Disposed of, or Beneficially Owned						
(Instr. 3)			2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Da any (Month/Day/		ate, if	Code (Instr. 8)		ction	(A) or (D)	4. Securities Acqui (A) or Disposed of (D) (Instr. 3, 4 and 5)		Beneficia Reported	mount of Securities efficially Owned Following orted Transaction(s) r. 3 and 4)		6. Ownership Form: Direct (D) or Indirect	7. Nature of Indirect Beneficial Ownership		
							C	Code	v	Amour	(A) or (D)	Price				(I) (Instr. 4)	(mou. 4)		
Common Stock - Restricted Stock Units (1)		estricted	11/01/2017				A		2,567 (2)	A	\$ 0	5,243			D				
Common Stock - Restricted Stock Units (1)		11/02/2017			M			2,676	D	\$ 0	2,567	2,567		D					
Common Stock			11/02/2017			M			2,676	A	\$ 0	18,559			D				
Common Stock													39,167	,167		I	By Trust (3)		
Reminder:	Report on a s	separate line for	r each class of securi	Derivat	ive Se	curiti	ies Ac	i d t cquire	Personta conta the fo	ons whained in	o respor this for splays a	m are curre eficial	not requesting ntly valid	OMB con	formation spond unle trol numbe	ess	1474 (9-02)		
1. Title of	2.	3. Transaction			g., puts, calls, warrants, options, convertible securities) 4. 5. 6. Date Exercisable 7. Title and									8. Price of	9. Number	of 10.	11. Natur		
Derivative Security (Instr. 3)		r Exercise rice of Derivative (Month/Day/Year) any (Month/Day/Year)						ber	and Expiration Date (Month/Day/Year)			Amo Und Secu	ount of erlying urities tr. 3 and	Derivative Security (Instr. 5)	Derivative Securities Beneficiall Owned Following Reported Transaction (Instr. 4)	Owners Form of Derivat Securit Direct of Or India	ship of Indire Beneficia Ownersh (Instr. 4)		
					Code	V	(A)		Date Exer		Expiration Date	Title	Amount or Number of Shares						

Reporting Owners

	Relationships							
Reporting Owner Name / Address	Director	10% Owner	Officer	Other				
BARNHOLT EDWARD W C/O KLA-TENCOR CORPORATION ONE TECHNOLOGY DRIVE MILPITAS, CA 95035	X			Chairman of the Board				

Signatures

Teri A. Little as Attorney-in-Fact for Edward W. Barnholt	11/02/2017	7
-*Signature of Reporting Person	Date	
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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) Each restricted stock unit ("RSU") represents a contingent right to receive one share of KLA-Tencor common stock.
- Award vests on the earliest to occur of the next annual meeting of stockholders, the one year anniversary of the grant date and 10 days prior to a change of control
- (3) By The Barnholt Family Trust dated January 8, 1987, of which the Reporting Person is a trustee and beneficiary.

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.