

PROXY STATEMENT PURSUANT TO SECTION 14(a) OF THE SECURITIES
EXCHANGE ACT OF 1934 (Amendment No.)

Filed by the Registrant
Filed by a Party other than the Registrant
Check the appropriate box:
 Preliminary Proxy Statement
 Confidential, for Use of the Commission Only (as permitted by
Rule 14a-6(e) (2))
 Definitive Proxy Statement
 Definitive Additional Materials
 Soliciting Material Pursuant to Section 240.14a-11(c) or Section 240.14a-12

KLA-TENCOR CORPORATION

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

No fee required.
 Fee computed on table below per Exchange Act Rules 14a-6(i) (4) and 0-11.

- 1) Title of each class of securities to which transaction applies:

2) Aggregate number of securities to which transaction applies:

3) Per unit price or other underlying value of transaction computed
pursuant to Exchange Act Rule 0-11 (Set forth the amount on which the
filing fee is calculated and state how it was determined):

4) Proposed maximum aggregate value of transaction:

5) Total fee paid:

Fee previously paid.
 Check box if any part of the fee is offset as provided by Exchange Act
Rule 0-11(a) (2) and identify the filing for which the offsetting fee was
paid previously. Identify the previous filing by registration statement
number, or the Form or Schedule and the date of its filing.

- 1) Amount Previously Paid:

2) Form, Schedule or Registration Statement No.:

3) Filing Party:

4) Date Filed:

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KLA-TENCOR CORPORATION
NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
NOVEMBER 18, 1997

To the Stockholders:

NOTICE IS HEREBY GIVEN that the Annual Meeting of Stockholders of
KLA-Tencor Corporation (the "Company"), a Delaware corporation, will be held on
Tuesday, November 18, 1997 at 11:00 a.m., local time, at the Company's offices
located at One Technology Drive, Milpitas, California 95035, for the following
purposes:

1. To elect the Class II directors to serve for a three year term and until
their successors are elected.
2. To approve an amendment to the 1981 Employee Stock Purchase Plan to
increase the number of shares of Common Stock of the Company reserved
for issuance thereunder by 800,000 shares.
3. To approve the new 1997 Employee Stock Purchase Plan and to reserve for
issuance thereunder 200,000 shares of the Common Stock of the Company.

4. To ratify the appointment of Price Waterhouse LLP as the independent accountants of the Company for the fiscal year ending June 30, 1998.

5. To transact such other business as may properly come before the meeting and any adjournments thereof.

The foregoing items of business are more fully described in the Proxy Statement accompanying this Notice.

Only stockholders of record at the close of business on September 22, 1997 are entitled to notice of and to vote at the meeting.

Sincerely,

Larry W. Sonsini
Secretary

San Jose, California

October 10, 1997

YOUR VOTE IS IMPORTANT

All stockholders are cordially invited to attend the meeting in person, however, to assure your representation at the meeting, you are requested to complete, sign and date the enclosed proxy card as promptly as possible and return it in the enclosed envelope (to which no postage need be affixed if mailed in the United States). Any stockholder attending the meeting may vote in person even if he or she returned a proxy.

KLA-TENCOR CORPORATION

PROXY STATEMENT

INFORMATION CONCERNING SOLICITATION AND VOTING

GENERAL

The enclosed proxy is solicited on behalf of KLA-Tencor Corporation (the "Company") for use at the Annual Meeting of Stockholders to be held on Tuesday, November 18, 1997 at 11:00 a.m., local time, or at any adjournment(s) thereof (the "Annual Meeting"), for the purposes set forth herein and in the accompanying Notice of Annual Meeting of Stockholders. The Annual Meeting will be held at the Company's offices at One Technology Drive, Milpitas, California 95035. The Company's principal executive offices are located at 160 Rio Robles, San Jose, California 95134 and its telephone number is (408) 875-4200.

These proxy solicitation materials were mailed on or about October 10, 1997 to all stockholders entitled to vote.

RECORD DATE

Stockholders of record at the close of business on September 22, 1997 are entitled to notice of and to vote at the Annual Meeting. As of the record date 84,407,111 shares of the Company's Common Stock, \$0.001 par value, were issued and outstanding.

REVOCABILITY OF PROXIES

Any proxy given pursuant to this solicitation may be revoked by the person giving it at any time before its use by delivering to the Company a written notice of revocation or a duly executed proxy bearing a later date or by attending the meeting and voting in person.

QUORUM; ABSTENTIONS; BROKER NON-VOTES

The required quorum for the transaction of business at the Annual Meeting is a majority of the votes eligible to be cast by holders of shares of Common Stock issued and outstanding on the record date. Shares that are voted "FOR", "AGAINST", "ABSTAIN" or "WITHHELD FROM" a matter are treated as being present at the Annual Meeting for purposes of establishing a quorum and are also treated as

shares entitled to vote at the Annual Meeting (the "Votes Cast") with respect to such matter.

While there is no definitive statutory or case law authority in Delaware as to the proper treatment of abstentions, the Company believes that abstentions should be counted for purposes of determining both (i) the presence or absence of a quorum for the transaction of business and (ii) the total number of Votes Cast with respect to a proposal (other than the election of directors). In the absence of controlling precedent to the contrary, the Company intends to treat abstentions in this manner. Accordingly, abstentions will have the same effect as a vote against the proposal.

Broker non-votes will be counted for purposes of determining the presence or absence of a quorum for the transaction of business, but will not be counted for purposes of determining the number of Votes Cast with respect to the particular proposal on which the broker has expressly not voted. Accordingly, broker non-votes will not affect the outcome of the voting on a proposal that requires a majority of the Votes Cast (such as the approval of a plan).

VOTING AND SOLICITATION

On all matters other than the election of directors, each outstanding share has one vote. See "PROPOSAL ONE -- Required Vote."

The cost of soliciting proxies will be borne by the Company. The Company has retained the services of Skinner & Co. to aid in the solicitation of proxies from brokers, bank nominees and other institutional owners. The Company estimates that it will pay Skinner & Co. a fee not to exceed \$5,000 for its services and will reimburse it for certain out of pocket expenses estimated to be \$15,000. In addition, the Company may reimburse brokerage firms and other persons representing beneficial owners of shares for their expenses in forwarding solicitation material to such beneficial owners. Proxies may be solicited by certain of the Company's directors, officers and regular employees, without additional compensation, personally or by telephone or telegram.

DEADLINE FOR RECEIPT OF STOCKHOLDER PROPOSALS

Proposals of stockholders of the Company that are intended to be presented by such stockholders at the Company's 1998 Annual Meeting of Stockholders must be received by the Company no later than June 12, 1998 and be otherwise in compliance with applicable laws and regulations in order that such proposals may be included in the proxy statement and form of proxy relating to that meeting.

SECURITY OWNERSHIP

PRINCIPAL STOCKHOLDERS

As of August 31, 1997, the following persons were known to the Company to be beneficial owners of more than 5% of the Company's Common Stock:

<TABLE>
<CAPTION>

NAME AND ADDRESS	NUMBER OF SHARES OWNED	PERCENTAGE OF TOTAL (1)
<S> The Capital Group Companies, Inc.(2)..... 333 South Hope Street Los Angeles, CA 90071	<C> 5,182,000	<C> 6.14%
The Prudential Insurance Company of America(3)..... Prudential Plaza Newark, N.J. 07102	5,518,596	6.54%

</TABLE>

(1) Based on 84,318,173 outstanding shares of Common Stock as of August 31, 1997.

(2) Based on information provided pursuant to Schedule 13G filed with the Securities and Exchange Commission on September 10, 1997. The Capital Group Companies, Inc. is the parent holding company of a group of investment management companies that hold investment power and, in some cases, voting power over the securities reported in the Schedule 13G. The Capital Group Companies, Inc. does not have investment power or voting power over any of the securities reported in the Schedule 13G; however, the Capital Group Companies, Inc. may be deemed to beneficially own such securities. Capital Guardian Trust Company is a wholly-owned subsidiary of The Capital Group Companies, Inc. and is the beneficial owner of 4,473,100 shares as a result of its serving as investment manager of various institutional accounts.

(3) Includes shares beneficially owned by Jennison Associates, a wholly-owned subsidiary of the Prudential Insurance Company of America ("Prudential"). Prudential may be deemed to have sole or shared voting or dispositive power with respect to such shares in its capacity as investment advisor.

SECURITY OWNERSHIP OF MANAGEMENT

The following table sets forth the beneficial ownership of Common Stock of the Company as of September 22, 1997 (the most recent practicable date) by all directors and nominees (naming them), each of the named executive officers set forth in the Summary Compensation Table and by all directors and current executive officers as a group:

<TABLE>
<CAPTION>

NAME	AMOUNT OWNED	APPROXIMATE PERCENTAGE OWNED*
<S>	<C>	<C>
Kenneth Levy(1)	1,787,280	2.1%
Jon D. Tompkins(2)	145,252	**
Kenneth L. Schroeder(3)	352,024	**
James W. Bagley(4)	16,665	**
Edward W. Barnholt(5)	2,406	**
Leo J. Chamberlain(6)	19,512	**
Richard J. Elkus, Jr.	75,000	**
Dean O. Morton(7)	11,665	**
Yoshio Nishi(8)	27,886	**
Samuel Rubinovitz(9)	8,553	**
Dag Tellefsen(10)	9,136	**
Lida Urbanek(11)	832,109	**
Robert J. Boehlke(12)	24,229	**
Gary E. Dickerson(13)	11,965	**
Arthur P. Schnitzer(14)	122,254	**
Graham J. Siddall(15)	182,283	**
All directors and executive officers as a group (21 persons)(16)	3,655,923	4.3%

</TABLE>

* Based on 84,407,111 outstanding shares of the Common Stock of the Company as of September 22, 1997.

** Less than 1%.

(1) Includes 246,325 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.

(2) Includes 137,122 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.

(3) Includes 228,325 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.

- (4) Includes 16,665 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.
- (5) Includes 2,406 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.
- (6) Includes 11,112 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.
- (7) Includes 6,665 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.
- (8) Includes 27,886 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.
- (9) Includes 4,553 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.

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- (10) Includes 9,136 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.
- (11) Includes 16,665 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.
- (12) Includes 21,292 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.
- (13) Includes 10,636 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.
- (14) Includes 117,859 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.
- (15) Includes 160,950 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.
- (16) Includes 1,051,785 shares, options for which are presently exercisable or will become exercisable within 60 days of September 22, 1997.

PROPOSAL ONE

TO ELECT THE CLASS II DIRECTORS TO SERVE FOR A

THREE YEAR TERM AND UNTIL THEIR SUCCESSORS ARE ELECTED

NOMINEES

The Company has a classified board of 12 directors consisting of four Class I directors (Kenneth Levy, Samuel Rubinovitz, Jon D. Tompkins and Lida Urbanek), three Class II directors (Leo J. Chamberlain, Richard J. Elkus, Jr. and Dag Tellefsen) and five Class III directors (James W. Bagley, Edward W. Barnholt, Dean O. Morton, Yoshio Nishi and Kenneth L. Schroeder) who will serve until the

annual meetings of stockholders to be held in 1999, 1997 and 1998, respectively, or until their respective successors are duly elected and qualified. At each annual meeting of stockholders, directors are elected for a full term of three years to succeed those directors whose terms expire at the annual meeting.

The terms of the Class II directors will expire on the date of the Annual Meeting to which this proxy statement relates. Three persons are to be elected to Class II of the Board of Directors at the Annual Meeting. The nominees for election by the stockholders to these three positions are Leo J. Chamberlain, Richard J. Elkus, Jr. and Dag Tellefsen, each of whom is currently a Class II director. If elected, the nominees will serve as directors until the Company's annual meeting of stockholders in the year 2000, or until their successors are elected and qualified. If any of the nominees declines to serve or becomes unavailable for any reason, or if a vacancy occurs before the election, the proxies may be voted for such substitute nominees as the Board of Directors may designate. The proxy holders also have been advised that, in the event any of the nominees shall not be available for election, a circumstance that is not currently expected, they may vote for the election of substitute nominees in accordance with their judgment. If additional persons are nominated for election as directors, the proxy holders intend to vote all proxies received by them in such a manner in accordance with cumulative voting (if invoked) as will assure the election of as many of the nominees as possible and, in such event, the specific nominees to be voted for will be determined by the proxy holders.

If a quorum is present and voting, the three nominees for Class II directors receiving the highest number of votes will be elected as Class II directors. Abstentions and shares held by brokers that are not present, but not voted because the brokers were prohibited from exercising discretionary authority, i.e., "broker non-votes," will be counted as present in determining if a quorum is present.

The following table sets forth certain information with respect to the Company's Board of Directors.

<TABLE>
<CAPTION>

NAME OF DIRECTOR	AGE	POSITION	DIRECTOR SINCE
<S>	<C>	<C>	<C>
Kenneth Levy	55	Chairman of the Board	1975
Jon D. Tompkins	57	Chief Executive Officer	1997
Kenneth L. Schroeder	51	President and Chief Operating Officer	1991
James W. Bagley	58	Director	1997
Edward W. Barnholt	54	Director	1995
Leo J. Chamberlain	67	Director	1982
Richard J. Elkus, Jr.	62	Director	1997
Dean O. Morton	65	Director	1997
Yoshio Nishi	57	Director	1989
Samuel Rubinovitz	67	Director	1990
Dag Tellefsen	55	Director	1978
Lida Urbanek	54	Director	1997

</TABLE>

There are no family relationships between or among any directors or executive officers of the Company.

Kenneth Levy is a co-founder of the Company and is Chairman of the Board. From 1975 until April 30, 1997 he was Chairman of the Board and Chief Executive Officer. He currently serves on the boards of directors of Ultratech Stepper, Inc., Network Peripherals, Inc., Integrated Process Equipment Corporation and Trikon Technologies, Inc.

Jon D. Tompkins has been Chief Executive Officer and a Director of the Company since April 30, 1997. From April 1991 until April 30, 1997 he was president and chief executive officer of Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the semiconductor industry. He was a director of Tencor Instruments from 1991 until 1997 and was appointed chairman of the board of directors of Tencor Instruments in November 1993. He currently serves on the board of directors of Varian Corporation as well as SEMI/SEMATECH, a private research and development consortium of U.S. semiconductor equipment and materials companies.

Kenneth L. Schroeder has been President, Chief Operating Officer and a Director of the Company since November 1991. He currently serves on the board of directors of GaSonics International.

James W. Bagley has been a Director of the Company since April 30, 1997. He was a director of Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the semiconductor industry, from June 1993 until April 30, 1997. He has been chief executive officer and a director of Lam Research Corporation, a manufacturer of semiconductor processing equipment, since August 1997. From May 1996 until August 1997 he was chairman of the board and chief executive officer of OnTrak Systems, Inc. until its merger with Lam Research Corporation in August 1997. From December 1987 until December 1993, Mr. Bagley was president and chief operating officer for Applied Materials, Inc., a manufacturer of wafer fabrication systems to the semiconductor industry. From January 1994 until October 1995 he was vice chairman and chief operating officer of Applied Materials, Inc., and vice chairman from November 1995 until May 1996. Mr. Bagley currently serves on the boards of directors of Teradyne, Inc., Kulicke & Soffa Industries, Inc., Micron Technology, Inc. and SEMI/SEMATECH.

Edward W. Barnholt has been a Director of the Company since 1995. Mr. Barnholt joined Hewlett-Packard Company, a manufacturer of electronic and computer equipment in December 1966. From 1988 to 1990 he was general manager of the Electronics Instruments Group of Hewlett-Packard Company. In July 1988, he was elected vice president and in November 1993 he was elected senior vice president of Hewlett-Packard Company. Mr. Barnholt is currently executive vice president and general manager of the Test and Measurement Organization of Hewlett-Packard Company.

Leo J. Chamberlain has been a Director of the Company since 1982. He is a private investor. Mr. Chamberlain currently serves on the board of directors of Otel Communications Corporation.

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Richard J. Elkus, Jr. has been a Director of the Company since April 30, 1997. He was executive vice president and vice chairman of the board of directors of Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the semiconductor industry, from February 1994 until April 30, 1997. Previously, he was with Prometrix Corporation from September 1983 until February 1994 where he held the positions of chairman and chief executive officer until its merger with Tencor Instruments in February 1994. He currently serves on the boards of directors of Voyan Technology and Lam Research Corporation.

Dean O. Morton has been a Director of the Company since April 30, 1997. From June 1993 until April 30, 1997 he was a director of Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the semiconductor industry. In October 1992 Mr. Morton retired as executive vice president and chief operating officer and as a director of Hewlett-Packard Company, a manufacturer of electronic and computer equipment, where he held various positions from 1960 until his retirement. Mr. Morton currently serves as chairman of the board of Centigram Communications Corporation and as a director of ALZA Corporation, The Clorox Company, BEA Systems Inc. and Raychem Corporation. Mr. Morton is also a trustee of the Metropolitan Series Fund and State Street Research Funds Group and Portfolio, Inc.

Yoshio Nishi has been a Director of the Company since 1989. Since May 1995 he has been director of research and development and senior vice president of the Semiconductor Group of Texas Instruments Incorporated, a manufacturer of integrated circuits and electronic equipment. From January 1986 to April 1995 he was director of Silicon Process Laboratory for Hewlett-Packard Laboratories, a semiconductor technology research facility affiliated with Hewlett-Packard Company.

Samuel Rubinovitz has been a Director of the Company since 1990. He previously served as a Director of the Company from October 1979 to January 1989. From April 1989 to January 1994 he was executive vice president of EG&G, Inc., a diversified manufacturer of scientific instruments and electronic, optical and mechanical equipment. He currently serves on the boards of directors

of Richardson Electronics, Inc., LTX Corporation and Kronos, Inc.

Dag Tellefsen has been a Director of the Company since 1978. He is the general partner of the Investment Manager of Glenwood Ventures I and II, venture capital funds. He currently serves on the boards of directors of Iwerks Entertainment Corporation, Aptix and Metorex International.

Lida Urbanek has been a Director of the Company since April 30, 1997. She is a private investor. She was a director of Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the semiconductor industry, from August 1991 until April 30, 1997.

BOARD MEETINGS AND COMMITTEES

The Board of Directors of the Company held a total of eight meetings during the fiscal year ended June 30, 1997. The Board of Directors has an Audit Committee, a Compensation Committee and a Nominating Committee.

The Audit Committee, which consists of Mr. Morton, Mr. Rubinovitz and Mr. Tellefsen, held one meeting during the last fiscal year. The Audit Committee recommends engagement of the Company's independent accountants, and is primarily responsible for approving the services performed by the Company's independent accountants and for reviewing and evaluating the Company's accounting principles and its system of internal accounting controls. The Compensation Committee, which consists of Mr. Bagley, Mr. Chamberlain and Mrs. Urbanek, held two meetings during the last fiscal year. The Compensation Committee reviews and approves the Company's executive compensation policy and makes recommendations concerning the Company's employee benefit plans. The Nominating Committee, which consists of Mr. Barnholt, Mr. Levy and Mr. Tompkins, held one meeting during the last fiscal year. The Nominating Committee is primarily responsible for identifying and evaluating the qualifications of all candidates for election to the Board of Directors. The Nominating Committee will consider nominations recommended by stockholders. Stockholders wishing to submit nominations must notify the Company of their intent to do so

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and provide the Company with certain information set forth in the Company's bylaws on or before the date on which stockholder proposals to be included in the proxy statement for the stockholder meeting must be received by the Company.

During the fiscal year ended June 30, 1997, all incumbent Directors attended at least 75% of the aggregate number of meetings of the Board of Directors and meetings of the committees of the Board on which they served.

COMPENSATION OF DIRECTORS

Members of the Board of Directors who are not employees of the Company receive an annual fee of \$15,000 and \$1,000 (\$500 if participation is by telephone) for each meeting they attend, plus expenses. Committee members receive \$500 (\$250 if participation is by telephone) per committee meeting they attend. The Company's Outside Directors Stock Option Plan (the "Director Plan"), as adopted by the Board of Directors and approved by the stockholders, provides for the grant of an option to purchase 2,500 shares of Common Stock of the Company to each of the Company's non-employee directors on the date on which such person is elected a director. Thereafter, each non-employee director is automatically granted an option to purchase 2,500 shares of Common Stock of the Company on the anniversary of such date. The Director Plan provides that the exercise price shall be equal to the fair market value of the Common Stock on the date of grant of the option. Options granted pursuant to the Director Plan have a term of ten years with 25% vesting after 12 months and the remainder vesting monthly over the following 36 months but only while the optionee is a director of the Company, within six months after death or within 30 days after the optionee ceases to serve as a director of the Company.

REQUIRED VOTE

Directors shall be elected by a plurality of the votes of the shares of the Company's Common Stock entitled to vote and represented in person or by proxy at the Annual Meeting. Votes against, votes withheld and broker non-votes have no legal effect on the election of directors due to the fact that such elections

are by a plurality. Every stockholder voting for the election of directors may cumulate such stockholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which the stockholder's shares are entitled, or may distribute the stockholder's votes on the same principle among as many candidates as the stockholder thinks fit, provided that votes cannot be cast for more than three candidates. However, no stockholder shall be entitled to cumulate votes unless the candidate's name has been placed in nomination prior to the voting and the stockholder, or any other stockholder, has given notice at the Annual Meeting prior to the voting of the intention to cumulate the stockholder's votes. The proxy holders will exercise discretionary authority to cumulate votes in the event that additional persons are nominated at the Annual Meeting for election of directors.

MANAGEMENT RECOMMENDS A VOTE FOR EACH OF THE CLASS II NOMINEES LISTED ABOVE.

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PROPOSAL TWO

TO APPROVE AN AMENDMENT TO THE 1981 EMPLOYEE STOCK PURCHASE PLAN

TO INCREASE THE NUMBER OF SHARES OF COMMON STOCK OF THE COMPANY

RESERVED FOR ISSUANCE THEREUNDER BY 800,000 SHARES

GENERAL

As of the date hereof 4,800,000 shares of the Company's Common Stock have been reserved for issuance under the Company's 1981 Employee Stock Purchase Plan (the "1981 Purchase Plan"). In September 1997, the Board of Directors adopted an amendment to the 1981 Purchase Plan, subject to stockholder approval, to increase the number of shares reserved for issuance thereunder by 800,000 shares, to a total of 5,600,000 shares. As of August 30, 1997 4,177,957 shares of Common Stock had been issued under the 1981 Purchase Plan at an average price of \$8.1325 per share and 622,043 shares remained available for purchase.

The Company is asking stockholders to approve a new, updated employee stock purchase plan (see Proposal Three) and intends to phase out the 1981 Purchase Plan over the two-year period ending June 30, 1999. The increase in the reserve for issuance under the 1981 Purchase Plan will allow the Company to complete the phase out the 1981 Purchase Plan. The Company estimates that it will utilize a substantial portion of the 622,043 remaining available shares leaving an insufficient number of shares for issuance in the exercise periods between December 31, 1997 and throughout the period of the phase-out of the 1981 Purchase Plan on June 30, 1999.

The Board of Directors believes that it is in the best interests of the Company to provide employees with an opportunity to purchase Common Stock of the Company through payroll deductions. The Board of Directors believes that the shares remaining available for issuance pursuant to the 1981 Purchase Plan are insufficient for such purpose. Accordingly, at the Annual Meeting the stockholders are being requested to consider and to approve the amendment of the 1981 Purchase Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 800,000 shares which the Company believes is sufficient to phase out the 1981 Purchase Plan over the next two years.

SUMMARY OF THE 1981 PURCHASE PLAN

The following summary is qualified in its entirety by the specific language of the 1981 Purchase Plan, a copy of which is available upon request.

The 1981 Purchase Plan enables employees of the Company to purchase shares of Common Stock through payroll deductions. The 1981 Purchase Plan provides for offering periods of two years duration (each of which is referred to herein as an "Offering") commencing on January 1 and July 1 of each year. Each Offering consists of four consecutive purchase periods of six months duration (each of

which is referred to herein as a "Purchase Period") ending on June 30 and December 31 of each year. All employees of the Company are eligible to participate in the 1981 Purchase Plan; provided, however, that employees who own or hold options to purchase or who, as a result of participation in the 1981 Purchase Plan, would own or hold options to purchase, Common Stock of the Company possessing five percent or more of the voting power of the Company, are not eligible to participate.

At the beginning of each Offering, employees may elect to participate in the 1981 Purchase Plan by authorizing payroll deductions of up to 10% of their compensation (as defined in the 1981 Purchase Plan), provided that no participant may purchase more than 2,000 shares during an Offering. At the end of each Purchase Period, shares of the Company's Common Stock may be purchased by participants at 85% of the lower of the fair market value of the Common Stock on the first day of the Offering or the fair market value of the Common Stock on the last day of the applicable Purchase Period. If the fair market value of the Common Stock at the end of a Purchase Period of an Offering is less than the fair market value of the Common Stock on the first day of such Offering, every participant in the Offering is automatically withdrawn from the Offering at the close of the Purchase Period and enrolled in the Offering commencing concurrently with the

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termination of such Purchase Period. Upon termination of employment, all amounts withheld under the 1981 Purchase Plan are refunded in lieu of any right to purchase shares.

The 1981 Purchase Plan is administered by the Board of Directors. All expenses incurred in connection with the administration of the 1981 Purchase Plan are paid by the Company. The Board of Directors may at any time amend or terminate the 1981 Purchase Plan, except that approval by the stockholders of the Company is required if such amendment would increase the number of shares of Common Stock authorized for issuance under the 1981 Purchase Plan or would change the designation of corporations whose employees may be eligible to participate in the 1981 Purchase Plan.

The 1981 Purchase Plan, and the right of participants to make purchases thereunder, is intended to qualify under the provisions of Sections 421 and 423 of the Code. Under these provisions, no income will be taxable to a participant at the time of grant of the option or purchase of shares. Upon disposition of the shares, the participant will generally be subject to tax and the amount of the tax will depend upon the holding period. If the shares have been held by the participant for more than two years after the offering date and more than one year after the exercise date, the lesser of: (a) the excess of the fair market value of the shares at the time of such disposition over the option price, or (b) the excess of the fair market value of the shares at the time the option was granted over the option price (which option price will be computed as of the grant date) will be treated as ordinary income, and any further gain will be treated as long-term capital gain. If the shares are disposed of before the expiration of these holding periods, the excess of the fair market value of the shares on the exercise date over the option price will be treated as ordinary income, and any further gain or any loss on such disposition will be long-term or short-term capital gain or loss, depending on the holding period. Different rules may apply with respect to participants subject to Section 16(b) of the Securities Exchange Act of 1934, as amended. The Company is not entitled to a deduction for amounts taxed as ordinary income or capital gain to a participant except to the extent of ordinary income reported by participants upon disposition of shares prior to the expiration of the two holding periods described above. The foregoing is only a summary of the effect of federal income taxation upon the participant and the Company with respect to the grant and exercise of options under the 1981 Purchase Plan, does not purport to be complete, and does not discuss the income tax laws of any municipality, state or foreign country in which a participant may reside. It is advisable that a participant contact his or her own tax advisor concerning the application of these tax laws.

STOCK PRICE

The closing price of a share of the Common Stock on the Nasdaq National Market on September 22, 1997 was \$70.125.

PLAN BENEFITS

The Company cannot now determine the number of shares to be purchased in the future by the named executive officers, all current executive officers as a group or all employees (excluding executive officers) as a group. In the fiscal year ended June 30, 1997 however, the following shares of Common Stock were purchased by such persons pursuant to the 1981 Purchase Plan:

<TABLE>
<CAPTION>

NAME OR GROUP	NUMBER OF SHARES
<S>	<C>
Kenneth Levy.....	909
Jon D. Tompkins(1).....	0
Kenneth L. Schroeder.....	773
Robert J. Boehlke.....	1,043
Gary E. Dickerson.....	1,144
Arthur P. Schnitzer.....	1,318
Graham J. Siddall(2).....	0
All Current Executive Officers (12 persons -- as a group).....	8,617
All employees (excluding executive officers)(3).....	466,751

</TABLE>

(1) 2,393 shares were purchased between July 1, 1996 and June 30, 1997 pursuant to the Tencor Instruments Employee Stock Purchase Plan which was assumed by the Company as of April 30, 1997 in the merger and was terminated effective July 31, 1997.

(2) 1,952 shares were purchased between July 1, 1996 and June 30, 1997 pursuant to the Tencor Instruments Employee Stock Purchase Plan which was assumed by the Company as of April 30, 1997 in the merger and was terminated effective July 31, 1997.

(3) Does not include shares purchased pursuant to the Tencor Instruments Employee Stock Purchase Plan which was assumed by the Company as of April 30, 1997 in the merger and was terminated effective July 31, 1997.

REQUIRED VOTE

The affirmative vote of a majority of the Votes Cast will be required to approve amendment of the 1981 Purchase Plan.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR THE AMENDMENT OF THE 1981 PURCHASE PLAN.

PROPOSAL THREE

TO APPROVE THE NEW 1997 EMPLOYEE STOCK PURCHASE PLAN AND TO RESERVE FOR ISSUANCE THEREUNDER 200,000 SHARES OF THE COMMON STOCK OF THE COMPANY

GENERAL

The Company's 1997 Employee Stock Purchase Plan (the "1997 Purchase Plan") was adopted by the Board of Directors in September 1997 to replace the 1981 Purchase Plan and is intended to enable employees of the Company to purchase the Company's Common Stock through payroll deductions. The Board of Directors approved the 1997 Purchase Plan in conjunction with the Board of Directors' approval of a systematic stock repurchase plan, whereby under certain conditions the Company will repurchase its Common Stock in the open market. Employees of the Company, as they complete their respective Offering Periods (as defined in the 1981 Purchase Plan) under the 1981 Purchase Plan will, if they so elect, participate thereafter in the 1997 Purchase Plan. Employees may not participate in both purchase plans simultaneously. The Company has initially reserved

200,000 shares of Common Stock for issuance under the 1997 Purchase Plan; however, the Company intends to repurchase shares in the open market pursuant to the Company's systematic stock repurchase plan and to use those repurchased shares to satisfy the 1997 Purchase Plan requirements rather than issue new shares.

At the Annual Meeting, the stockholders are being asked to approve the 1997 Purchase Plan and to approve reservation of 200,000 shares for issuance thereunder.

SUMMARY OF THE 1997 PURCHASE PLAN

The essential features of the 1997 Purchase Plan are outlined below.

Purpose

The purpose of the 1997 Purchase Plan is to provide employees of the Company and those foreign subsidiaries designated by the Board of Directors with an opportunity to purchase Common Stock of the Company through payroll deductions.

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Administration

The 1997 Purchase Plan shall be administered by the Board of Directors or a committee appointed by the Board of Directors. The Board of Directors may delegate routine matters to management. All questions of interpretation or application of the 1997 Purchase Plan are determined in the sole discretion of the Board of Directors, and its decisions are final and binding upon all participants. The Board of Directors will determine, in its sole discretion, the requirements and conditions of participation, if any, by employees of foreign subsidiaries. Members of the Board of Directors who are eligible employees are permitted to participate in the 1997 Purchase Plan, but no eligible employee may purchase shares under the 1997 Purchase Plan until the Company's stockholders approve the 1997 Purchase Plan. Members of the Board of Directors will receive no additional compensation for their services in connection with the administration of the 1997 Purchase Plan. All payroll deductions received or held by the Company may be used by the Company for any corporate purpose.

Eligibility

Any person who is employed by the Company or its subsidiaries for at least 20 hours per week and more than five months in a calendar year is eligible to participate in the 1997 Purchase Plan. No employees are currently participating in the 1997 Purchase Plan. Employees of foreign subsidiaries may be subject to additional requirements and restrictions depending upon applicable local law.

Offering Dates

The 1997 Purchase Plan is implemented by 24-month offering periods (each an "Offering Period"), commencing on January 1 and July 1 of each year. Each Offering Period is composed of four consecutive six-month purchase periods (each a "Purchase Period"). The Board of Directors has the power to alter the duration of the Offering Periods without stockholder approval. If the stockholders approve Proposal Three, the first Offering Period under the 1997 Purchase Plan will commence on January 1, 1998.

Eligible employees become participants in the 1997 Purchase Plan by delivering to the Company a subscription agreement authorizing payroll deductions. An eligible employee may participate in an Offering Period only if, as of the enrollment date of such Offering Period, such employee is not participating in the 1981 Purchase Plan or in any prior Offering Period under the 1997 Purchase Plan that is continuing at the time of such proposed enrollment. An employee who becomes eligible to participate in the 1997 Purchase Plan after the commencement of an Offering Period may not participate until the commencement of the next Offering Period.

Purchase Price

The purchase price per share at which shares are sold under the 1997

Purchase Plan shall be 85% of the lesser of (a) the fair market value of the shares of Common Stock on the first day of such Offering Period, and (b) the fair market value of the shares of Common Stock at the time of exercise of a participant's purchase option. The fair market value of the Common Stock on a given date shall be determined by the Board of Directors based on the closing price of the Company's Common Stock on such date as reported on the Nasdaq National Market.

Payment of Purchase Price; Payroll Deductions

The purchase price for the shares is accumulated by payroll deductions during the Offering Period. The deductions may not exceed 10% of a participant's eligible compensation. A participant may institute decreases in the rate of payroll deductions at any time and such decreases are immediately effective. Increases in the rate of payroll deductions are effective as of the commencement of the next Offering Period.

All payroll deductions are credited to the participant's account under the 1997 Purchase Plan; no interest accrues on the payroll deductions. All payroll deductions received or held by the Company may be used by the Company for any corporate purpose and such payroll deductions need not be segregated.

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Purchase of Stock; Exercise of Option

At the beginning of each Offering Period, by executing a subscription agreement to participate in the 1997 Purchase Plan, each employee is in effect granted an option to purchase shares of Common Stock. The maximum number of shares placed under option to a participant in an Offering Period is determined by dividing \$20,000 by 85% of the fair market value of the Common Stock at the beginning of the Offering Period. Notwithstanding the foregoing, no employee may make aggregate purchases of stock of the Company and its subsidiaries under the 1997 Purchase Plan and any other employee stock purchase plans qualified as such under Section 423(b) of the Code, in excess of \$25,000 (determined using the fair market value of the shares at the time the option is granted) during any calendar year.

Withdrawal

While each employee in the 1997 Purchase Plan is required to sign a subscription agreement authorizing payroll deductions to participate, a participant may terminate his or her participation in the 1997 Purchase Plan at any time by signing and delivering to the Company a notice of withdrawal from the 1997 Purchase Plan. All of the participant's accumulated payroll deductions will be paid to the participant promptly after receipt of his or her notice of withdrawal and his or her participation in the current Offering Period will be automatically terminated, and no further payroll deductions for the purchase of shares will be made during the Offering Period. No resumption of payroll deductions will occur on behalf of such participant unless such participant re-enrolls in the 1997 Purchase Plan by delivering a new subscription agreement to the Company during the applicable open enrollment period preceding the commencement of a subsequent Offering Period. A participant's withdrawal from the 1997 Purchase Plan during an Offering Period does not have any effect upon such participant's eligibility to participate in subsequent Offering Periods under the 1997 Purchase Plan.

Termination of Employment

Termination of a participant's employment for any reason, including retirement or death, cancels his or her participation in the 1997 Purchase Plan immediately. In such event, the payroll deductions credited to the participant's account will be returned to such participant or, in the case of death, to the participant's legal representative.

Capital Changes

If any change is made in the capitalization of the Company, such as stock splits or stock dividends, which results in an increase or decrease in the number of shares of Common Stock outstanding or in the event of any merger, sale or other reorganization, appropriate adjustments shall be made by the Company in the 1997 Purchase Plan's reserve and the number and class of shares subject to outstanding purchase options and in the purchase price per share. Notwithstanding such adjustment, if in a transaction the stockholders of the Company no longer retain at least a majority of the beneficial interest in the voting stock of the Company following such transaction ("Transfer of Control"), the Board may, in its sole discretion (a) provide that the purchase options

become fully exercisable prior to the date of the Transfer of Control, (b) provide that such successor entity assume the Company's obligations under the 1997 Purchase Plan, or (c) terminate the 1997 Purchase Plan. The Board of Directors may also make provisions for adjusting the number of shares subject to the 1997 Purchase Plan and the purchase price per share if the Company effects one or more reorganizations, recapitalizations, rights offerings or other increases or decreases in the number of shares of the Company's outstanding Common Stock.

Amendment and Termination of the 1997 Purchase Plan

The Board of Directors may at any time amend or terminate the 1997 Purchase Plan; however, amendments that would increase the number of shares reserved for purchase or would otherwise require stockholder approval in order to comply with other regulatory requirements, require stockholder approval.

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Certain United States Federal Income Tax Information

The 1997 Purchase Plan is intended to qualify under the provisions of Sections 421 and 423 of the Code with respect to participants who are citizens of the United States ("U.S. Participants"). Under these provisions, no income will be taxable to a U.S. Participant at the time of grant of the option or purchase of shares. Upon disposition of the shares, the U.S. Participant will generally be subject to tax, the amount of which will depend upon the holding period. If the shares have been held by the U.S. Participant for more than two years after the offering date and more than one year after the exercise date, the lesser of: (a) the excess of the fair market value of the shares at the time of such disposition over the option price, or (b) the excess of the fair market value of the shares at the time the option was granted over the option price (which option price will be computed as of the grant date) will be treated as ordinary income, and any further gain will be treated as long-term capital gain. If the shares are disposed of before the expiration of these holding periods, the excess of the fair market value of the shares on the exercise date over the option price will be treated as ordinary income, and any further gain or any loss on such disposition will be long-term or short-term capital gain or loss, depending on the holding period. Special rules may apply with respect to U.S. Participants subject to Section 16(b) of the Securities Exchange Act of 1934, as amended. The Company is not entitled to a deduction for amounts taxed as ordinary income or capital gain to a U.S. Participant except to the extent of ordinary income reported by U.S. Participants upon disposition of shares prior to the expiration of the two holding periods described above. The consequences to non-U.S. Participants are governed by foreign laws, which typically do not offer the same tax advantages as U.S. laws.

The foregoing is only a summary of the effect of federal income taxation upon the participant and the Company with respect to the grant and exercise of options under the 1997 Purchase Plan, does not purport to be complete, and does not discuss the income tax laws of any municipality, state or foreign country in which a participant may reside. It is advisable that a participant contact his or her own tax advisor concerning the application of all of these tax laws.

STOCK PRICE

The closing price of a share of the Common Stock on the Nasdaq National Market on September 22, 1997 was \$70.125.

PLAN BENEFITS

The Company cannot now determine the number of shares to be purchased in the future by the named executive officers, all current executive officers as a group or all employees as a group. For information regarding purchases under the 1981 Purchase Plan during the last fiscal year, see "Proposal Two -- Plan Benefits."

REQUIRED VOTE

The affirmative vote of a majority of the Votes Cast will be required to approve the adoption of the 1997 Purchase Plan.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR APPROVAL OF THE 1997 EMPLOYEE STOCK PURCHASE PLAN AND RESERVATION OF 200,000 SHARES OF THE COMPANY'S COMMON STOCK FOR ISSUANCE THEREUNDER.

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PROPOSAL FOUR

TO RATIFY THE APPOINTMENT OF PRICE WATERHOUSE LLP

AS THE INDEPENDENT ACCOUNTANTS OF THE COMPANY

FOR THE FISCAL YEAR ENDING JUNE 30, 1998

The Board of Directors has selected Price Waterhouse LLP, independent accountants, to audit the consolidated financial statements of the Company for its 1998 fiscal year and recommends that the stockholders vote for ratification of such appointment. If there is a negative vote on such ratification, the Board of Directors will reconsider its selection. Representatives of Price Waterhouse LLP are expected to be present at the Annual Meeting with the opportunity to make a statement if they desire to do so, and are expected to be available to respond to appropriate questions.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR THE RATIFICATION OF THE APPOINTMENT OF PRICE WATERHOUSE LLP AS THE INDEPENDENT ACCOUNTANTS FOR THE 1998 FISCAL YEAR.

EXECUTIVE COMPENSATION

EXECUTIVE COMPENSATION

The following table shows, as to each person who served as Chief Executive Officer during the fiscal year ended June 30, 1997 and each of the five other most highly compensated executive officers whose salary plus bonus exceeded \$100,000, information concerning all reportable compensation awarded to, earned by or paid to each for services to the Company in all capacities during the fiscal year ended June 30, 1997, as well as such compensation for each such individual for the Company's previous two fiscal years.

SUMMARY COMPENSATION TABLE

<TABLE>
<CAPTION>

OTHER NAME AND PRINCIPAL POSITION YEAR	ANNUAL COMPENSATION		LONG-TERM COMPENSATION					
	SALARY (\$)	BONUS (\$)	OTHER ANNUAL COMPEN- SATION (\$) (1)	AWARDS		PAYOUTS		ALL (\$)
				RESTRICTED STOCK AWARD (S) (\$) (2)	SECURITIES UNDERLYING OPTIONS/ SARS (#) (3)	LTIP PAYOUTS (\$) (4)		
<S> Kenneth Levy (6) 72,158 Chairman of the Board and \$111,023 Chief Executive Officer 65,066	<C> 1997	<C> \$402,122	<C> \$334,277	<C> N/A	<C> -0-	<C> 162,500	<C> -0-	<C> \$
Jon D. Tompkins (7) 1,500 Chief Executive Officer 12,291	1997	\$389,589	\$396,462 (9)	N/A	-0-	100,000	-0-	\$
Chief Executive Officer 12,582	1996 (8)	\$352,067	\$381,562	N/A	-0-	71,999	-0-	\$
Chief Executive Officer 12,582	1995 (8)	\$307,475	\$422,115	N/A	-0-	40,000	-0-	\$
Kenneth L. Schroeder 12,582	1997	\$384,231	\$332,800	N/A	-0-	162,500	-0-	\$

71,452 President and Chief \$106,810 Operating Officer	1996	\$330,777	\$396,095	N/A	-0-	-0-	-0-	
62,802 Robert J. Boehlke.....	1997	\$257,908	\$143,587	N/A	-0-	73,500	-0-	\$
49,911 Executive Vice President 79,526 and Chief Financial Officer	1996	\$248,185	\$186,008	N/A	-0-	-0-	-0-	\$
54,414 Gary E. Dickerson.....	1997	\$260,631	\$129,441	N/A	-0-	82,500	-0-	\$
50,197 Executive Vice President, 73,104 Yield Management Group	1996	\$221,346	\$172,500	N/A	-0-	20,000	-0-	\$
43,456 Arthur P. Schnitzer.....	1997	\$171,593	\$ 56,532	N/A	-0-	60,000	-0-	\$
48,874 Executive Vice President, 73,104 Human Resources	1996	\$256,616	\$133,697	N/A	-0-	73,500	-0-	\$
49,752 Graham J. Siddall(10).....	1995	\$225,826	\$154,790	N/A	-0-	-0-	-0-	\$
1,500 Executive Vice President, 1,500 Wafer Inspection Group	1997	\$199,846	\$127,539	N/A	-0-	80,000	-0-	\$
1,000 </TABLE>	1996(8)	\$261,062	\$217,661(11)	N/A	-0-	40,000	-0-	\$
	1995(8)	\$242,062	\$214,132	N/A	-0-	87,999	-0-	\$
		\$191,580	\$242,074	N/A	-0-	35,000	-0-	\$

(1) The amount of perquisites paid during the fiscal year to the named executive officers was less than the lesser of (a) \$50,000 or (b) 10% of the executive officer's total reported salary and bonus.

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(2) The Company has not granted any restricted stock awards.

(3) The Company has not granted any stock appreciation rights.

(4) The Company does not have any Long-Term Incentive Plans as that term is defined in the regulations.

(5) "All Other Compensation" is itemized as follows:

- In 1997, Mr. Levy received \$29,859 in cash profit sharing; \$13,271 in profit sharing was contributed by the Company to the 401(k) Plan; \$20,528 in profit sharing was contributed on his behalf to the Excess Profit Stock Plan; \$1,000 was contributed by the Company as a matching contribution to the 401(k) Plan; \$7,500 was contributed by the Company to the Supplemental Executive Benefit Plan.
- In 1997, Tencor Instruments ("Tencor") contributed \$1,500 to the Tencor 401(k) plan on behalf of Mr. Tompkins.
- In 1997, Mr. Schroeder received \$29,540 in cash profit sharing; \$13,129 in profit sharing was contributed by the Company to the 401(k) Plan; \$20,283 in profit sharing was contributed on his behalf to the Excess Profit Stock Plan; \$1,000 was contributed by the Company as a matching contribution to the 401(k) Plan; \$7,500 was contributed by the Company to the Supplemental Executive Benefit Plan.
- In 1997, Mr. Boehlke received \$19,442 in cash profit sharing; \$8,641 in profit sharing was contributed by the Company to the 401(k) Plan; \$13,328 in profit sharing was contributed on his behalf to the Excess Profit Stock Plan; \$1,000 was contributed by the Company as a matching

contribution to the 401(k) Plan; \$7,500 was contributed by the Company to the Supplemental Executive Benefit Plan.

- In 1997, Mr. Dickerson received \$19,546 in cash profit sharing; \$8,687 in profit sharing was contributed by the Company to the 401(k) Plan; \$13,464 in profit sharing was contributed on his behalf to the Excess Profit Stock Plan; \$1,000 was contributed by the Company as a matching contribution to the 401(k) Plan; \$7,500 was contributed by the Company to the Supplemental Executive Benefit Plan.

- In 1997, Mr. Schnitzer received \$18,962 in cash profit sharing; \$8,428 in profit sharing was contributed by the Company to the 401(k) Plan; \$12,984 in profit sharing was contributed on his behalf to the Excess Profit Stock Plan; \$1,000 was contributed by the Company as a matching contribution to the 401(k) Plan; \$7,500 was contributed by the Company to the Supplemental Executive Benefit Plan.

- In 1997, Tencor contributed \$1,500 to the Tencor 401(k) plan on behalf of Mr. Siddall.

(6) Kenneth Levy was Chief Executive Officer of the Company until April 30, 1997 when, as a result of the merger of Tencor into a wholly-owned subsidiary of the Company (the "Merger"), he became Chairman of the Board of Directors.

(7) Jon D. Tompkins was previously president and chief executive officer of Tencor. As a result of the Merger, he became Chief Executive Officer of the Company effective April 30, 1997. The compensation described in this Summary Compensation Table reflects certain amounts that were paid during the period prior to the Merger when Tencor was an independent, publicly traded company. Tencor reported its results on a calendar year basis, while the Company reports its results based on a June 30 year end. Accordingly, the amounts reflected in the Summary Compensation Table for 1997 include a combination of amounts paid by both the Company and Tencor during the fiscal year ended June 30, 1997. The Merger was accounted for as a pooling-of-interests, therefore all revenues and expenses for the Company have been combined retroactively.

(8) The amounts reported for 1996 and 1995 for Mr. Tompkins and Mr. Siddall are those amounts paid and reported by Tencor in its proxy statements filed with the Securities and Exchange Commission for the years ended December 31, 1996 and December 31, 1995, respectively.

(9) For Tencor's reporting year ended December 31, 1996, Mr. Tompkins was paid a bonus of \$381,562, which was comprised of \$168,188 paid in July 1996 and \$213,374 paid in January 1997. The bonus reported in the Summary Compensation Table of \$396,462 is comprised of this latter amount plus

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\$183,088 that was paid in July 1997 to reflect performance of Tencor during the six months ended June 30, 1997.

(10) Graham J. Siddall was previously executive vice president and chief operating officer of Tencor. As a result of the Merger he became Executive Vice President of the Wafer Inspection Group of the Company effective April 30, 1997. The compensation described in this Summary Compensation Table reflects certain amounts that were paid during the period prior to the Merger when Tencor was an independent, publicly traded entity. Tencor reported its results on a calendar year basis, while the Company reports its results based on a June 30 year end. Accordingly, the amounts reflected in the Summary Compensation Table for 1997 include a combination of amounts paid by both the Company and Tencor during the fiscal year ended June 30, 1997. The Merger was accounted for as a pooling-of-interests, therefore all revenues and expenses for the Company have been combined retroactively.

(11) For Tencor's reporting year ended December 31, 1996, Mr. Siddall was paid a bonus of \$214,132, which was comprised of \$100,913 paid in July 1996 and \$113,219 paid in January 1997. The bonus reported in the Summary Compensation Table of \$217,661 is comprised of this latter amount plus \$104,442 that was paid in July 1997 to reflect performance of Tencor during the six months ended June 30, 1997.

STOCK OPTION GRANTS AND EXERCISES

The following tables set forth the stock options granted to each of the named executive officers under the Company's stock option plans and the options exercised by such named executive officers during the fiscal year ended June 30, 1997.

The Option/SAR Grant Table sets forth hypothetical gains or "option spreads" for the options at the end of their respective ten-year terms, as calculated in accordance with the rules of the Securities and Exchange Commission. Each gain is based on an arbitrarily assumed annualized rate of compound appreciation of the market price at the date of grant of 5% and 10% from the date the option was granted to the end of the option term. Actual gains, if any, on option exercises are dependent on the future performance of the Company's Common Stock and overall market conditions.

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OPTION/SAR(1) GRANTS IN LAST FISCAL YEAR
KLA-TENCOR CORPORATION 1982 STOCK OPTION PLAN(2)

<TABLE>
<CAPTION>

INDIVIDUAL GRANTS						
NAME	OPTIONS/SARS GRANTED (#)	PERCENT OF TOTAL OPTIONS/SARS GRANTED TO EMPLOYEES IN FISCAL YEAR	EXERCISE OR BASE PRICE (\$/SHARE)	EXPIRATION DATE	POTENTIAL REALIZABLE VALUE ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TERM	
					5%	10%
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Kenneth Levy.....	62,500	1.63%	\$21.625	10/08/06	\$ 849,990	\$2,154,043
	100,000	2.60%	\$ 44.50	04/30/07	\$2,798,581	\$7,092,154
Jon D. Tompkins.....	100,000	2.60%	\$ 44.50	04/30/07	\$2,798,581	\$7,092,154
Kenneth L. Schroeder....	62,500	1.63%	\$21.625	04/30/07	\$ 849,990	\$2,154,043
	100,000	2.60%	\$ 44.50	04/30/07	\$2,798,581	\$7,092,154
Robert J. Boehlke.....	33,500	.87%	\$21.625	10/08/06	\$ 455,595	\$1,154,567
	10,000	.26%	\$ 44.50	04/30/07	\$ 279,858	\$ 709,215
	30,000	.78%	\$ 44.50	04/30/07	\$ 839,574	\$2,127,646
Gary E. Dickerson.....	42,500	1.11%	\$21.625	10/08/06	\$ 577,993	\$1,464,749
	10,000	.26%	\$ 44.50	04/30/07	\$ 279,858	\$ 709,215
	30,000	.78%	\$ 44.50	04/30/07	\$ 839,574	\$2,127,646
Arthur P. Schnitzer.....	33,500	.87%	\$21.625	10/08/06	\$ 455,596	\$1,154,567
	10,000	.26%	\$ 44.50	04/30/07	\$ 279,858	\$ 709,215
	30,000	.78%	\$ 44.50	04/30/07	\$ 839,574	\$2,127,646
Graham J. Siddall.....	10,000	.26%	\$ 44.50	04/30/07	\$ 279,858	\$ 709,215
	30,000	.78%	\$ 44.50	04/30/07	\$ 839,574	\$2,127,646

</TABLE>

(1) The Company has not granted any stock appreciation rights.

(2) The material terms of the grants (other than those set forth in the table) are as follows: (a) The exercise price of the options is the fair market value of Common Stock as of the date of grant; (b) The options granted in October 1996 vest over a five year period. The options granted in April 1997 vest generally over a four year term with 25% cliff vesting after one year; (c) To the extent unexercised, the options lapse after ten years; (d) The options are non-transferrable and are only exercisable during the period of employment of the optionee and for 30 days following termination of employment, subject to limited exceptions in the cases of certain terminations, death or permanent disability of the optionee.

KLA-TENCOR CORPORATION 1982 STOCK OPTION PLAN

<TABLE>
<CAPTION>

NAME	NUMBER OF SHARES ACQUIRED ON EXERCISE	VALUE REALIZED(\$)	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS HELD AT FISCAL YEAR END		TOTAL VALUE (2) OF UNEXERCISED, IN-THE-MONEY OPTIONS HELD AT FISCAL YEAR END(\$)	
			EXERCISABLE	UNEXERCISABLE	EXERCISABLE	UNEXERCISABLE
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Kenneth Levy.....	-0-	-0-	224,943	265,557	\$ 9,782,156	\$ 5,340,782
Jon D. Tompkins.....	-0-	-0-	-0-	100,000	\$ -0-	\$ 425,000
Kenneth L. Schroeder.....	30,000	\$ 1,245,125	205,831	276,669	\$ 8,877,616	\$ 5,840,822
Robert J. Boehlke.....	2,900	\$ 113,100	41,637	144,675	\$ 1,624,667	\$ 3,326,014
Gary E. Dickerson.....	-0-	-0-	23,845	160,855	\$ 896,159	\$ 3,218,512
Arthur P. Schnitzer(3).....	10,000	\$ 492,500	122,556	146,360	\$ 5,281,933	\$ 3,400,891
Graham J. Siddall.....	-0-	-0-	-0-	40,000	-0-	\$ 170,000

(1) The Company has not granted any stock appreciation rights.

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(2) Total value of options based on the fair market value of the Company's Common Stock of \$48.75 per share as of June 30, 1997.

AGGREGATED OPTION/SAR(1) EXERCISES IN LAST FISCAL YEAR AND YEAR-END VALUE

TENCOR INSTRUMENTS 1993 EQUITY INCENTIVE PLAN

<TABLE>
<CAPTION>

NAME	NUMBER OF SHARES ACQUIRED ON EXERCISE	VALUE REALIZED(\$)	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS HELD AT FISCAL YEAR END		TOTAL VALUE (2) OF UNEXERCISED, IN-THE-MONEY OPTIONS HELD AT FISCAL YEAR END(\$)	
			EXERCISABLE	UNEXERCISABLE	EXERCISABLE	UNEXERCISABLE
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Kenneth Levy(3).....	-0-	-0-	-0-	-0-	-0-	-0-
Jon D. Tompkins.....	-0-	-0-	131,119	104,003	\$ 5,412,913	\$ 3,452,727
Kenneth L. Schroeder(3).....	-0-	-0-	-0-	-0-	-0-	-0-
Robert J. Boehlke(3).....	-0-	-0-	-0-	-0-	-0-	-0-
Gary E. Dickerson(3).....	-0-	-0-	-0-	-0-	-0-	-0-
Arthur P. Schnitzer(3).....	-0-	-0-	-0-	-0-	-0-	-0-
Graham J. Siddall.....	3,902	\$ 172,176	91,119	81,003	\$ 3,484,163	\$ 2,585,914

(1) Tencor did not grant any stock appreciation rights.

(2) Total value of options based on the fair market value of the Company's Common Stock of \$48.75 per share as of June 30, 1997. The Tencor Instruments 1993 Equity Incentive Plan (the "1993 Tencor Plan") was assumed by the Company effective with the Merger on April 30, 1997. No further options will be granted under the 1993 Tencor Plan.

- (3) The 1993 Tencor Plan was assumed in the Merger. Kenneth Levy, Kenneth L. Schroeder, Robert J. Boehlke, Gary E. Dickerson and Arthur P. Schnitzer were not and are not eligible to receive options thereunder.

REPORT OF THE COMPENSATION COMMITTEE ON EXECUTIVE COMPENSATION

MERGER WITH TENCOR INSTRUMENTS

Effective April 30, 1997 a wholly-owned subsidiary of the Company merged with Tencor. In connection with the Merger, the Compensation Committee (as composed on April 28, 1997) reviewed a report prepared by external consultants and accompanying recommendations as to salary rationalization between the executives of the Company and Tencor who would now be managing the combined company (the "Merger Report"). The Compensation Committee recommended adjustments to executive compensation and certain option grants with most of the vesting occurring in the later years as an incentive to achieve the successful combination of the Company and Tencor.

The current composition of the Compensation Committee acknowledged the differences in compensation philosophy and method of application between Tencor and the Company. The Company's philosophy and methods were more comprehensive than those of Tencor. The Compensation Committee reviewed both the philosophy and methods and determined it would take a more simplified approach and provide for executive compensation to include base salary, incentive bonus and stock options. Certain perquisites, including automobile allowances, financial planning allowances and Company matches to the deferred compensation plan were eliminated. The Board of Directors of the Company (as composed after the Merger), unanimously ratified the actions of the previous Compensation Committee and Board of Directors (as composed at April 28, 1997) in making these adjustments in connection with the Merger. This report of the Compensation Committee takes those changes into account. The Compensation Committee periodically reviews its approach to executive compensation and makes changes as appropriate. Prior to the Merger, the Compensation

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Committee consisted of Leo J. Chamberlain and Dag Tellefsen. Subsequent to the Merger, the Compensation Committee consists of James W. Bagley, Leo J. Chamberlain and Lida Urbanek.

COMPENSATION COMMITTEE

The Compensation Committee is comprised of three of the independent, non-employee members of the Board of Directors, none of whom have interlocking relationships as defined by the Securities and Exchange Commission. The Committee is responsible for setting and administering the policies governing annual compensation of executive officers, considers their performance and makes recommendations regarding their cash compensation and stock options to the full Board of Directors.

COMPENSATION PHILOSOPHY

The Compensation Committee of the Board of Directors establishes the overall executive compensation strategies of the Company and approves compensation elements for the Chairman of the Board, the Chief Executive Officer and other executive officers. The goals of the Company's compensation policy are to attract, retain and reward executive officers who contribute to the overall success of the Company by offering compensation that is competitive in the industry, to motivate executive officers to achieve the Company's business objectives and to align the interests of executive officers with the long-term interests of stockholders. The Company currently uses salary, a management incentive plan and stock options to meet these goals.

The compensation philosophy of the Compensation Committee is to provide a comprehensive compensation package for each executive officer that is well suited to support accomplishment of the Company's business strategies, objectives and initiatives. For incentive-based compensation, the Compensation Committee considers the desirability of structuring such compensation arrangements so as to qualify for deductibility under Section 162(m) of the Code. As the Compensation Committee applies this compensation philosophy in determining appropriate executive compensation levels and other compensation

factors, the Compensation Committee reaches its decisions with a view towards the Company's overall financial performance.

EXECUTIVE OFFICER COMPENSATION

The Compensation Committee's approach is based upon a belief that a substantial portion of aggregate annual compensation for executive officers should be contingent upon the Company's performance and an individual's contribution to the Company's success. In addition, the Compensation Committee strives to align the interests of the Company's executive officers with the long-term interests of stockholders through stock option grants that can result in ownership of the Company's Common Stock. The Compensation Committee endeavors to structure each executive officer's overall compensation package to be consistent with this approach and to enable the Company to attract, retain and reward personnel who contribute to the success of the Company.

The Company provides its executive officers with a compensation package consisting of base salary, variable incentive pay and participation in benefit plans generally available to other employees. The Compensation Committee considers market information from published survey data provided to the Compensation Committee by the Company's human resources staff. The market data consists primarily of base salary and total cash compensation rates, as well as incentive bonus and stock programs of other companies considered by the Compensation Committee to be peers in the Company's industry.

Base Salary

Salaries for executive officers are set with reference to salaries for comparable positions among other companies in the Company's industry or in industries that employ individuals of similar background to the executive officer based on data provided by the Company's human resources staff.

Management Incentive Plan

Each year since fiscal 1979 the Company has adopted a management incentive plan (the "Incentive Plan") that provides for payments to officers and key employees based on the financial performance of the

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Company or the relevant business unit, and on the achievement of the person's individual performance objectives. The Incentive Plan is approved by the Compensation Committee and submitted to the Board of Directors for ratification. For fiscal 1997 the Incentive Plan set goals for profitability, achievement of measurable objectives aimed at strategic corporate goals and achievement of objectives relating to managing the ratio of assets to sales.

Long-Term Incentives

Longer term incentives are provided through the 1982 Stock Option Plan and the Excess Profit Stock Plan, each of which reward executive officers through the growth in value of the Company's Common Stock. The Compensation Committee believes that employee equity ownership is highly motivating, provides a major incentive for employees to build stockholder value and serves to align the interests of employees with those of stockholders.

Grants of stock options to executive officers are based upon each executive officer's relative position, responsibilities, historical and expected contributions to the Company, and the executive officer's previous option grants, with primary weight given to the executive officer's relative rank and responsibilities. Stock options are granted at market price on the date of grant and will provide value to the executive officers only when the price of the Company's Common Stock increases over the exercise price.

APPROVAL OF FISCAL YEAR 1998 BONUS PLAN

The Compensation Committee approved the fiscal year 1998 bonus plan

incentive formula, which is based on two components of equal weight. The first is performance against certain financial objectives and the second is achievement of certain non-financial strategic objectives. The bonuses for the Chairman of the Board, the Chief Executive Officer, the President/Chief Operating Officer and the Chief Financial Officer are based on an average of the performance of those managers reporting to the executive officers utilizing a combination of the weighted average contribution made by each manager and a simple average of those contributions.

CHIEF EXECUTIVE OFFICER COMPENSATION

Kenneth Levy had been the Company's Chief Executive Officer prior to the Merger and following the Merger moved into the role of Chairman of the Board. Based on the recommendations in the Merger Report provided by the external consultants, his base salary was increased to \$450,000. Jon D. Tompkins was the chief executive officer of Tencor prior to the Merger and following the Merger moved to the role of Chief Executive Officer of the newly combined Company. His base salary was set at \$450,000 also based on the recommendations in the Merger Report. Options to purchase 100,000 shares of the Common Stock of the Company were granted to each of Mr. Levy and Mr. Tompkins with 60% of such options vesting equally over the first four years and 40% vesting after five years. For fiscal 1997, a bonus of \$334,277 was paid to Mr. Levy and a bonus of \$396,462 was paid to Mr. Tompkins. These payments were primarily based on the overall performance of each of the Company and Tencor independently as well as the individual officers' performance with respect to certain objectives. In a year that showed some weakness as a result of a slowdown in the semiconductor industry, the Company successfully completed a billion dollar merger and continued its profitability with revenues of \$1.031 billion and earnings per share (excluding Merger costs) of \$1.78.

MEMBERS OF THE COMPENSATION COMMITTEE

James W. Bagley

Leo J. Chamberlain

Lida Urbanek

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

The members of the Compensation Committee are set forth at the end of the preceding section. There are no members of the Compensation Committee who were officers or employees of the Company or any of its subsidiaries during the fiscal year, formerly officers of the Company, or had any relationship otherwise requiring disclosure hereunder.

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PERFORMANCE GRAPH

The stock price performance shown on the graph following is not necessarily indicative of future price performance.

COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL RETURN* AMONG KLA-TENCOR CORPORATION,

THE NASDAQ STOCK MARKET - US INDEX AND THE HAMBRECHT & QUIST TECHNOLOGY INDEX

<TABLE>

<CAPTION>

	1992	1993	1994	1995	1996	1997
	----	----	----	----	----	----
<S>	<C>	<C>	<C>	<C>	<C>	<C>
KLA-Tencor Corporation	\$100.000	\$197.100	\$428.500	\$882.900	\$531.400	\$1,114.300
The Nasdaq Stock Market-US Index	\$100.000	\$125.761	\$126.969	\$169.478	\$217.594	\$264.602
H&Q Technology Index	\$100.000	\$134.963	\$137.415	\$242.232	\$282.378	\$359.293

</TABLE>

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* Assumes \$100 invested on June 30, 1992. The Company's fiscal year end is June

CERTAIN TRANSACTIONS

In connection with the Merger, certain management personnel (1) whose positions were eliminated and were not offered a position of significant responsibility or (2) who were offered positions of significant responsibility but chose not to take or keep such positions within specified time periods, received certain retention benefits. If the position was eliminated then the person was offered 12 months continued salary and applicable bonus for the next year and 24 months continued vesting of options granted prior to January 15, 1997 in exchange for providing certain agreed upon services. If the position offered was rejected then the person was offered up to 12 months continued salary and 12 months continued vesting of options granted prior to January 15, 1997 in exchange for providing certain agreed upon services. Salary continuation (and bonus where applicable) ceases upon the person going to work for any third party and all option vesting and salary continuation cease upon the person going to work for any competing company.

In connection with the Merger, the Company entered into identical employment arrangements with Kenneth Levy, Jon D. Tompkins and Kenneth L. Schroeder, all executive officers of the Company, pursuant to which certain benefits would be paid if certain events took place between April 30, 1997 and May 1, 2002. The purpose of these arrangements was to retain the services of Messrs. Levy, Tompkins and Schroeder to ensure the smooth transition associated with the Merger. The terms of those arrangements provided that if an individual were to leave the Company without good reason (defined as (i) a reduction in authority or responsibility which (a) is inconsistent with his position and/or title with the Company, or (b) diminishes or changes the substantive authority or responsibility relative to his authority and responsibility immediately prior to such reduction, (ii) a reduction in base salary or in the amount that may be earned if 100% "on target" annual bonus milestones are achieved which reduction is not approved by the executive (save for reductions applying to all of the Company's executive officers), or (iii) if the Company notifies him that the principal place of work will be relocated 100 miles or more from the Company's headquarters) during the first 12 months following the Merger then, in connection with working part-time for 12 months, he would receive (i) his base salary, (ii) an annual bonus (based on an achievement of 100% of bonus objectives), and (iii) a pro-rated bonus for the fiscal year in which part-time employment ended. If he were to leave after the second 12 months following the Merger then, in connection with working part-time for 36 months, he would receive (i) his base salary for the first 24 months of part-time employment, (ii) a mutually agreeable level of compensation per month for the final 12 months of part-time employment, (iii) an annual bonus (based on an achievement of 100% of bonus objectives) in the fiscal year of his transition to part-time employment, (iv) a bonus paid in the fiscal year following the payment of the annual bonus above, (based on achievement of 100% of his individual bonus objectives) and (v) a pro-rated bonus for the fiscal year in which part-time employment ended. If he were to leave after the third 12 months and before May 1, 2002 following the Merger then, in connection with working part-time for 12 months, he would receive (i) his base salary, (ii) an annual bonus (based on an achievement of 100% of bonus objectives), and (iii) a pro-rated bonus for the fiscal year in which part-time employment ended. If he were to leave for good reason at any time during the term of the agreement then he would (subject to releasing the Company from all claims) continue as a part-time employee for 24 months and receive (i) his base salary, (ii) an annual bonus (based on an achievement of 100% of his individual bonus objectives), (iii) a bonus paid in the fiscal year following the payment of the annual bonus above (based on an achievement of 100% of his individual bonus objectives), and (iv) a pro-rated bonus for the fiscal year in which part-time employment ended. During the periods of part-time employment, all options to exercise stock of the Company which were granted prior to the Merger would continue to vest. If he were terminated for cause (defined as (i) gross negligence or willful misconduct in connection with the performance of duties, (ii) conviction of or plea of nolo contendere to any felony, or (iii) the embezzlement or misappropriation of Company property) then he would receive a lump-sum payment equal to 25% of his base salary. If the Company terminates his employment without cause, then he would receive the same treatment as if the executive had terminated his own employment for good reason.

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires the Company's executive officers, directors, and persons who own more than 10% of a registered class of the Company's equity securities to file reports of ownership and changes in ownership with the Securities and Exchange Commission (the "SEC"). Executive officers, directors and greater than 10% stockholders are required by SEC regulations to furnish the Company with copies of all Section 16(a) forms they file. Arthur P. Schnitzer, an executive officer of the Company, owned two shares of the common stock of Tencor and in connection with the Merger, he received two shares of the Company's Common Stock. In filing his Form 4 for the month ended April 30, 1997 he failed to report the receipt of the two shares of the Company's Common Stock in the Merger. He filed an amended Form 4 when he discovered the error.

OTHER MATTERS

The Company knows of no other matters to be submitted to the stockholders at the Annual Meeting. If any other matters properly come before the Annual Meeting, it is the intention of the persons named in the enclosed form of proxy to vote the shares they represent as the Board of Directors may recommend.

THE BOARD OF DIRECTORS

October 10, 1997

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0729-PS-97

Appendix A

DETACH HERE

KLA-TENCOR CORPORATION

Proxy for 1997 Annual Meeting of Stockholders

P THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS
R

O The undersigned, revoking all prior proxies, hereby appoints Kenneth
X Levy and Lisa C. Berry, and each of them, as Proxies with full power of sub-
Y stitution, to represent and vote as designated in this proxy any and all
shares of the common stock of KLA-Tencor Corporation (the "Company"), held or
owned by or standing in the name of the undersigned on the Company's books on
September 22, 1997, at the Annual Meeting of Stockholders of the Company to be
held at the Company's offices at One Technology Drive, Milpitas, California
95035, at 11:00 a.m. local time on November 18, 1997, and any continuation or
adjournment thereof, with all powers the undersigned would possess if
personally present at the meeting.

The undersigned hereby directs and authorizes said proxies and each of
them, or their substitute or substitutes, to vote as specified with respect to
the proposals listed on the reverse side, or, if no specification is made, to
vote in favor thereof.

The undersigned hereby further confers upon said proxies, and each of
them, or their substitute or substitutes, discretionary authority to vote with
respect to all other matters that may properly come before the meeting or any
continuation or adjournment thereof.

The undersigned hereby acknowledges receipt of: (a) Notice of Annual
Meeting of Stockholders of the Company, (b) accompanying Proxy Statement, and
(c) Annual Report to Stockholders for the year ending June 30, 1997.

CONTINUED AND TO BE SIGNED ON REVERSE SIDE

SEE REVERSE SIDE

DETACH HERE

/X/ Please mark votes as in this example.
THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS OF THE COMPANY.
THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR THE NOMINEES FOR DIRECTOR AND FOR
PROPOSALS 2, 3 AND 4.

1. To elect the Class II directors to serve for a three year term and until their successors are elected. Nominees: Leo J. Chamberlain, Richard J. Elkus, Jr. and Dag Tellefsen

FOR WITHHELD
/ / / /

/ / _____
For all nominees, except as noted above.

2. To approve an amendment to the 1981 Employee Stock Purchase Plan to increase the number of shares of Common Stock of the Company reserved for issuance thereunder by 800,000 shares.

FOR AGAINST ABSTAIN
[] [] []

3. To approve the new 1997 Employee Stock Purchase Plan and to reserve for issuance thereunder 200,000 shares of Common Stock of the Company.

FOR AGAINST ABSTAIN
[] [] []

4. To ratify the appointment of Price Waterhouse LLP as the independent accountants of the Company for the fiscal year ending June 30, 1998.

FOR AGAINST ABSTAIN
[] [] []

In their discretion, the proxy holders are authorized to vote on all such other matters as may properly come before the meeting or any adjournment thereof.

MARK HERE FOR ADDRESS CHANGE AND NOTE AT LEFT []

Please sign exactly as your name appears on your stock certificate(s), date and return this Proxy promptly in the reply envelope provided. Please correct your address before returning this Proxy. Persons signing in a fiduciary capacity should so indicate. If shares are held by joint tenants or as community property, both should sign.

Signature: _____ Date: _____

Signature: _____ Date: _____

Appendix B

KLA-TENCOR CORPORATION

1997 EMPLOYEE STOCK PURCHASE PLAN

The following constitute the provisions of the 1997 Employee Stock Purchase Plan (the "Plan") of KLA-Tencor Corporation (the "Company"). Certain definitions of terms used in the Plan are provided at Section 2.

1. PURPOSE

The purpose of the Plan is to provide employees of the Company and its Designated Subsidiaries with an opportunity to purchase Common Stock of the Company through accumulated payroll deductions. It is the intention of the Company to have the Plan qualify as an "Employee Stock Purchase Plan" under Section 423 of the Code. The provisions of the Plan shall, accordingly, be construed so as to extend and limit participation in a manner consistent with the requirements of that section of the Code. The Plan will also be extended to employees of foreign subsidiaries subject to adjustments, in the sole discretion of the Board of Directors, to take into account the requirements of the local laws associated with the particular subsidiary. These local requirements may not provide the same favorable tax consequences as are available to participants in the United States.

2. DEFINITIONS

- (a) "BOARD" shall mean the Board of Directors of the Company.
- (b) "CODE" shall mean the Internal Revenue Code of 1986, as amended.
- (c) "COMMON STOCK" shall mean the Common Stock, \$.001 par value, of the Company.
- (d) "COMPANY" shall mean KLA-Tencor Corporation, a Delaware corporation.

(e) "COMPENSATION" Compensation shall mean all amounts includable as "wages" subject to tax under section 3101(a) of the Code without applying the dollar limitation of section 3121(a) of the Code. Accordingly, Compensation shall include, without limitation, salaries, commissions, bonuses and overtime.

Compensation shall not include reimbursements of expenses, allowances, or any amount deemed received without the actual transfer of cash or any Company contributions or payments to any trust, fund, or plan to provide retirement, pension, profit sharing, health, welfare, death, insurance or similar benefits to or on behalf of such Participant or any other payments not specifically referenced above, except to the extent that the inclusion of any such item with respect to all Participants on a nondiscriminatory basis is specifically approved by the Board.

(f) "CONTINUOUS STATUS AS AN EMPLOYEE" shall mean the absence of any interruption or termination of service as an Employee. Continuous Status as an Employee shall not be considered interrupted in the case of a leave of absence agreed to in writing by the Company, provided that such leave is for a period of not more than 90 days or re-employment upon the expiration of such leave is guaranteed by contract or statute.

(g) "DESIGNATED SUBSIDIARIES" shall mean the Subsidiaries which have been designated by the Board from time to time in its sole discretion as eligible to participate in the Plan.

(h) "EMPLOYEE" shall mean any person, including an officer, who is customarily employed for at least 20 hours per week and more than five months in a calendar year by the Company or one of its Designated Subsidiaries.

(i) "ENROLLMENT DATE" shall mean the first day of each Offering Period.

(j) "EXERCISE DATE" shall mean each December 31 and June 30 of each Offering Period of the Plan.

(k) "EXERCISE PERIOD" shall mean a period commencing on January 1 and terminating on the following June 30 or commencing on July 1 and terminating on the following December 31.

(l) "OFFERING PERIOD" shall mean a period of twenty-four (24) months commencing on January 1 and July 1 of each year during which an option granted pursuant to the Plan may be exercised.

(m) "PLAN" shall mean this 1997 Employee Stock Purchase Plan.

(n) "SUBSIDIARY" shall mean a corporation, domestic or foreign, of which not less than 50% of the voting shares are held by the Company or a Subsidiary, whether or not such corporation now exists or is hereafter organized or acquired by the Company or a Subsidiary.

3. ELIGIBILITY

(a) Any Employee who shall be employed by the Company on a given Enrollment Date shall be eligible to participate in the Plan, subject to limitations imposed by Section 423(b) of the Code or other applicable local law.

(b) Any provisions of the Plan to the contrary notwithstanding, no Employee shall be granted an option under the Plan (i) if, immediately after the grant, such Employee (or any other person whose stock would be attributed to such Employee pursuant to Section 425(d) of the Code) would own stock and/or hold outstanding options to purchase stock

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possessing five percent or more of the total combined voting power or value of all classes of stock of the Company or of any Subsidiary, or (ii) which permits such Employee's rights to purchase stock under all employee stock purchase plans of the Company and its Subsidiaries to accrue at a rate which exceeds US\$25,000 of fair market value of such stock (determined at the time such option is granted) for each calendar year in which such option is outstanding at any time.

4. OFFERING PERIODS

The Plan shall be implemented by consecutive Offering Periods with a new Offering Period commencing on January 1 and July 1 of each year, commencing January 1, 1998, or as otherwise determined by the Board, and continuing thereafter until terminated in accordance with Section 19 hereof. The Board shall have the power to change the duration of Offering Periods with respect to future offerings without stockholder approval if such change is announced at least 15 days prior to the scheduled beginning of the first Offering Period to be affected.

5. PARTICIPATION

(a) An eligible Employee may become a participant in the Plan by completing a subscription agreement authorizing payroll deductions on the form provided by the Company and filing it with the Company's payroll office prior to the applicable Enrollment Date, unless a later time for filing the subscription agreement is set by the Board for all eligible Employees with respect to a given Offering Period. An eligible Employee may participate in an Offering Period only

if, as of the Enrollment Date of such Offering Period, such Employee is not participating in any prior Offering Period which is continuing at the time of such proposed enrollment.

(b) Payroll deductions for a participant shall commence on the first payroll date following the Enrollment Date and shall end on the last payroll date in the Offering Period to which such authorization is applicable, unless sooner terminated by the participant as provided in Section 10.

6. PAYROLL DEDUCTIONS

(a) At the time a participant files his subscription agreement, he shall elect to have payroll deductions made on each paydate during the Offering Period in an amount not exceeding 10% of the Compensation which he receives on each paydate during the Offering Period, and the aggregate of such payroll deductions during the Offering Period shall not exceed 10% of his aggregate Compensation during said Offering Period.

(b) All payroll deductions made by a participant shall be credited to his account under the Plan. A participant may not make any additional payments into such account.

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(c) A participant may discontinue his participation in the Plan as provided in Section 10, may lower the rate of his payroll deductions effective immediately or may increase (but not above 10%) the rate of his payroll deductions effective as of the first date of the next Exercise Period within such Offering Period by completing or filing with the Company a new authorization for payroll deductions.

(d) Notwithstanding the foregoing, to the extent necessary to comply with section 423(b)(8) of the Code and Section 3(b) herein, a participant's payroll deductions may be decreased to zero percent at such time during any Exercise Period which is scheduled to end during the current calendar year. Payroll deductions shall recommence at the rate provided in such participant's subscription agreement at the beginning of the first Exercise Period which is scheduled to end in the following calendar year, unless terminated by the participant as provided in Section 10.

7. GRANT OF OPTION

(a) On the Enrollment Date of each Offering Period, each eligible Employee participating in such Offering Period shall be granted an option to purchase on each Exercise Date during such Offering Period (at the per share option price) up to a number of shares of the Company's Common Stock determined by dividing such Employee's payroll deductions accumulated during such Exercise Period by 85% of the fair market value of a share of the Company's Common Stock on the Enrollment Date or on the Exercise Date, whichever is lower, provided that the number of shares subject to the option shall not exceed 200% of the number of shares determined by dividing 10% of the Employee's Compensation over the Offering Period (determined as of the Enrollment Date) by 85% of the fair market value of a share of the Company's Common Stock on the Enrollment Date, subject to the limitations set forth in Sections 3(b) and 12 hereof. Fair market value of a share of the Company's Common Stock shall be determined as provided in Section 7(b) herein.

(b) The option price per share of the shares offered in a given Offering Period shall be the lower of: (i) 85% of the fair market value of a share of the Common Stock of the Company on the Enrollment Date; or (ii) 85% of the fair market value of a share of the Common Stock of the Company on the applicable Exercise Date. The fair market value of the Company's Common Stock on a given date shall be determined by the Board in its discretion; provided, however, that where there is a public market for the Common Stock, the fair market value per share shall be the closing price of the Common Stock for such date, as reported by the Nasdaq National Market. If a closing price is not available for an Enrollment Date or an Exercise Date, the fair market value of a share of the Common Stock of the Company on such date shall be the fair market value of a share of the Common Stock of the Company on the last business day prior to such date.

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8. EXERCISE OF OPTION

Unless a participant withdraws from the Plan as provided in Section 10, his option for the purchase of shares will be exercised automatically on each Exercise Date of the Offering Period, and the maximum number of full shares subject to his option will be purchased for him at the applicable option price with the accumulated payroll deductions in his account. During his lifetime, a participant's option to purchase shares hereunder is exercisable only by him. Any amount remaining in the participant's account after an Exercise Date shall be held in the account until the next Exercise Date in such Offering Period, unless the Offering Period has been over-subscribed or has terminated with such Exercise Date, in which event such amount shall be refunded to the participant.

9. DELIVERY

As promptly as practicable after each Exercise Date, the Company shall arrange the delivery to each participant, as appropriate, of a certificate representing the shares purchased upon exercise of his option.

10. WITHDRAWAL; TERMINATION OF EMPLOYMENT

(a) A participant may withdraw all but not less than all of the payroll deductions credited to his account under the Plan at any time by giving written notice to the Company. All of the participant's payroll deductions credited to his account will be paid to him promptly after receipt of his notice of withdrawal and his participation in the Plan will be automatically terminated, and no further payroll deductions for the purchase of shares will be made. Payroll deductions will not resume on behalf of a participant who has withdrawn from the Plan unless written notice is delivered to the Company within the open enrollment period preceding the commencement of an Exercise Period directing the Company to resume payroll deductions.

(b) Upon termination of the participant's Continuous Status as an Employee prior to the Exercise Date of an Offering Period for any reason, including retirement or death, the payroll deductions credited to the participant's account will be returned to the participant or, in the case of death, to the person or persons entitled thereto under Section 14, and such participant's option will be automatically terminated.

(c) If an Employee fails to maintain Continuous Status as an Employee for at least 20 hours per week during an Offering Period in which the Employee is a participant, he will be deemed to have elected to withdraw from the Plan and the payroll deductions credited to his account will be returned to him and his option terminated.

(d) A participant's withdrawal from an Offering Period will not have any effect upon his eligibility to participate in a succeeding Offering Period or in any similar plan which may hereafter be adopted by the Company.

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11. INTEREST

No interest shall accrue on the payroll deductions of a participant in the Plan.

12. STOCK

(a) The maximum number of shares of the Company's Common Stock which shall be made available for sale under the Plan shall be 200,000. If on a given Exercise Date the number of shares with respect to which options are to be exercised exceeds the number of shares then available, the Company shall make a pro rata allocation of the shares remaining available for option grant in as uniform a manner as shall be practicable and as it shall determine to be equitable. In such event, the Company shall give written notice of such reduction of the number of shares subject to the option to each Employee affected thereby and shall similarly reduce the rate of payroll deductions, if necessary.

(b) The participant will have no interest or voting right in shares covered by his option until such option has been exercised.

(c) Shares to be delivered to a participant under the Plan will be registered in the name of the participant or in the name of the participant and his or her spouse.

13. ADMINISTRATION

The Plan shall be administered by the Board of Directors of the Company or a committee appointed by the Board. The Board may delegate routine matters to management. The administration, interpretation or application of the Plan by the Board or its committee shall be final, conclusive and binding upon all participants. Members of the Board who are eligible Employees are permitted to participate in the Plan, provided that:

(a) Members of the Board who are eligible to participate in the Plan may not vote on any matter affecting the administration of the Plan or the grant of any option pursuant to the Plan.

(b) If a committee is established to administer the Plan, no member of the Board who is eligible to participate in the Plan may be a member of the committee.

14. DESIGNATION OF BENEFICIARY

(a) A participant may file a written designation of a beneficiary who is to receive any shares and cash, if any, from the participant's account under the

Plan in the event of such participant's death subsequent to the end of the Offering Period but prior to delivery to him of such shares and cash. In addition, a participant may file a written designation of a beneficiary who is to receive any cash from the participant's account under the Plan in the event of such participant's death prior to the exercise of the option.

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(b) Such designation of beneficiary may be changed by the participant at any time by written notice. In the event of the death of a participant and in the absence of a beneficiary validly designated under the Plan who is living at the time of such participant's death, the Company shall deliver such shares and/or cash to the executor or administrator of the estate of the participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its discretion, may deliver such shares and/or cash to the spouse or to any one or more dependents or relatives of the participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

15. TRANSFERABILITY

Neither payroll deductions credited to a participant's account nor any rights with regard to the exercise of an option or to receive shares under the Plan may be assigned, transferred, pledged or otherwise disposed of in any way (other than by will, the laws of descent and distribution or as provided in Section 14 hereof) by the participant. Any such attempt at assignment, transfer, pledge or other disposition shall be without effect, except that the Company may treat such act as an election to withdraw funds in accordance with Section 10.

16. USE OF FUNDS

All payroll deductions received or held by the Company under the Plan may be used by the Company for any corporate purpose, and the Company shall not be obligated to segregate such payroll deductions.

17. REPORTS

Individual accounts will be maintained for each participant in the Plan. Statements of account will be given to participating Employees semi-annually promptly following each Exercise Date, which statements will set forth the amounts of payroll deductions, the per share purchase price, the number of shares purchased and the remaining cash balance, if any.

18. ADJUSTMENTS UPON CHANGES IN CAPITALIZATION

Subject to any required action by the stockholders of the Company, the number of shares of Common Stock covered by each option under the Plan which has not yet been exercised and the number of shares of Common Stock which have been authorized for issuance under the Plan but have not yet been placed under option (collectively, the "Reserves"), as well as the price per share of Common Stock covered by each option under the Plan which has not yet been exercised, shall be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a stock split or the payment of a stock dividend (but only on the Common Stock) or any other

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increase or decrease in the number of shares of Common Stock effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration". Such adjustment shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an option.

In the event of the proposed dissolution or liquidation of the Company, the Offering Period will terminate immediately prior to the consummation of such proposed action, unless otherwise provided by the Board. In the event of a proposed sale of all or substantially all of the assets of the Company, or the merger of the Company with or into another entity, the Board, in its sole discretion, may provide that (i) each option under the Plan shall be assumed, (ii) an equivalent option shall be substituted by such successor entity or a parent or subsidiary of such successor entity, or in lieu of such assumption or substitution, that the participant shall have the right to exercise the option, including shares as to which the option would not otherwise be exercisable, or (iii) the Plan shall terminate and a shortened Exercise Period may take place or a participant's contributions returned. If the Board makes an option fully exercisable in lieu of assumption or substitution in the event of a merger or sale of assets, the Board shall notify the participant that the option shall be fully exercisable for a period of 30 days from the date of such notice, and the option will terminate upon the expiration of such period.

The Board may, if it so determines in the exercise of its sole

discretion, also make provision for adjusting the Reserves, as well as the price per share of Common Stock covered by each outstanding option, if the Company effects one or more reorganizations, recapitalizations, rights offerings or other increases or decreases of the shares of its outstanding Common Stock, and if the Company is being consolidated with or merged into any other corporation.

19. AMENDMENT OR TERMINATION

The Board of Directors of the Company may at any time terminate or amend the Plan. No such termination can affect options previously granted, nor may an amendment make any change in any option theretofore granted which adversely affects the rights of any participant, nor may an amendment be made without prior approval of the stockholders of the Company if such amendment is required by law or otherwise to be approved by the stockholders.

Amendments to the Code which impact the Plan shall be automatically implemented without further action by the Board unless such amendments require independent action by either the Board or the stockholders.

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20. NOTICES

All notices or other communications by a participant to the Company under or in connection with the Plan shall be deemed to have been duly given when received in the form specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.

21. STOCKHOLDER APPROVAL

Continuance of the Plan shall be subject to approval by the stockholders of the Company within 12 months before or after the date the Plan is adopted. If such stockholder approval is obtained at a duly held stockholders meeting, it may be obtained by the affirmative vote of the holders of a majority of the outstanding shares of the Company present or represented and entitled to vote thereon, which approval shall be:

(a) (i) solicited substantially in accordance with Section 14(a) of the Securities Exchange Act of 1934, as amended (the "Act") and the rules and regulations promulgated thereunder, or

(ii) solicited after the Company has furnished in writing to the holders entitled to vote substantially the same information concerning the Plan as that which would be required by the rules and regulations in effect under Section 14(a) of the Act at the time such information is furnished; and

(b) obtained at or prior to the first annual meeting of stockholders held subsequent to the first registration of Common Stock under Section 12 of the Act.

In the case of approval by written consent, it must be obtained by the unanimous written consent of all stockholders of the Company.

22. CONDITIONS UPON ISSUANCE OF SHARES

Shares shall not be issued with respect to an option unless the exercise of such option and the issuance and delivery of such shares pursuant thereto shall comply with all applicable provisions of law, domestic or foreign, including, without limitation, the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, the rules and regulations promulgated thereunder, and the requirements of any stock exchange upon which the shares may then be listed, and shall be further subject to the approval of counsel for the Company with respect to such compliance.

As a condition to the exercise of an option, the Company may require the person exercising such option to represent and warrant at the time of any such exercise that the shares are being purchased only for investment and without any present intention to sell or distribute such shares if, in the opinion of counsel for the Company, such a representation is required by any of the aforementioned applicable provisions of law.

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