

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20594

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 2)*

KLA Tencor

(Name of Issuer)

Common Stock

(Title of Class of Securities)

482480100

(CUSIP Number)

Check the following box if a fee is being paid with this statement [].
(A fee is not required only if the filing person: (1) has a previous statement on file reporting beneficial ownership of more than five percent of the class of securities described in Item 1: and (2) has filed no amendment subsequent thereto reporting beneficial ownership of five percent or less of such class.) (See Rule 13d-7).

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON
The Capital Group Companies, Inc.
86-0206507

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
(a)
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5 SOLE VOTING POWER

4,455,500

NUMBER OF SHARED VOTING POWER
6

SHARES
BENEFICIAL
LY OWNED BY
EACH

7 SOLE DISPOSITIVE POWER

REPORTING
PERSON WITH 5,182,000

8 SHARED DISPOSITIVE POWER

9 NONE

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

9 5,182,000 Beneficial ownership disclaimed pursuant to Rule 13d-4

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

6.2%

TYPE OF REPORTING PERSON*

12 HC

* SEE INSTRUCTION BEFORE FILLING OUT!

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON
Capital Guardian Trust Company
95-2553868

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
(a)
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

California

5 SOLE VOTING POWER

3,746,600

NUMBER OF SHARED VOTING POWER
6

SHARES
BENEFICIAL
LY OWNED BY
EACH

7 SOLE DISPOSITIVE POWER

REPORTING
PERSON WITH 4,473,100

8 SHARED DISPOSITIVE POWER

8

NONE

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

9

4,473,100 Beneficial ownership disclaimed pursuant to Rule 13d-4

CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

10

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

5.3%

TYPE OF REPORTING PERSON*

12

BK

* SEE INSTRUCTION BEFORE FILLING OUT!

SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

Schedule 13G
Under the Securities Exchange Act of 1934

Amendment No. 2

Item 1(a) Name of Issuer:
KLA Tencor

Item 1(b) Address of Issuer's Principal Executive Offices:
160 Rio Robles
San Jose, CA 95134

Item 2(a) Name of Person(s) Filing:
The Capital Group Companies, Inc., Capital Guardian Trust Company

Item 2(b) Address of Principal Business Office:
333 South Hope Street
Los Angeles, CA 90071

Item 2(c) Citizenship: N/A

Item 2(d) Title of Class of Securities:
Common Stock

Item 2(e) CUSIP Number:
482480100

Item 3 The person(s) filing is(are):

- (b) Bank as defined in Section 3(a)(6) of the Act.
(g) Parent Holding Company in accordance with Section
240.13d-1(b)(1)(ii)(G).

Item 4 Ownership

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 this Schedule 13G. The investment management companies, which include a "bank" as defined in Section 3(a)(6) of the Securities Exchange Act of 1934 (the "Act") and several investment advisers registered under Section 203 of the Investment Advisers Act of 1940, provide investment advisory and management services for their respective clients which include registered investment companies and institutional accounts. The Capital Group Companies, Inc. does not have investment power or voting power over any of the securities reported herein; however, The Capital Group Companies, Inc. may

be deemed to "beneficially own" such securities by virtue of Rule 13d-3 under the Act.

Capital Guardian Trust Company, a bank as defined in Section 3(a)6 of the Act and a wholly owned subsidiary of The Capital Group Companies, Inc., is the beneficial owner of 4,473,100 shares or 5.3% of the 83,712,000 shares of Common Stock believed to be outstanding as a result of its serving as the investment manager of various institutional accounts.

The remaining shares reported as being beneficially owned by The Capital Group Companies, Inc. are beneficially owned by other subsidiaries of The Capital Group Companies, Inc. listed under item 7, none of which by itself owns 5% or more of the outstanding securities.

Item 5 Ownership of 5% or Less of a Class: []

Item 6 Ownership of More than 5% on Behalf of Another Person: N/A

Item 7 Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company

1. Capital Guardian Trust Company is a bank as defined in Section 3(a)(6) of the Act and a wholly owned subsidiary of The Capital Group Companies, Inc.

2. Capital International Limited (CIL) does not fall within any of the categories described in Rule 13d-1-(b)(ii)(A-F) but its holdings of any reported securities come within the five percent limitation as set forth in a December 15, 1986 no-action letter from the Staff of the Securities and Exchange Commission to The Capital Group Companies, Inc. CIL is a wholly owned subsidiary of Capital Group International, Inc. which is a wholly owned subsidiary of The Capital Group Companies, Inc.

3. Capital International S.A. (CISA) does not fall within any of the categories described in Rule 13d-1-(b)(ii)(A-F) but its holdings of any reported securities come within the five percent limitation as set forth in a December 15, 1986 no-action letter from the Staff of the Securities and Exchange Commission to The Capital Group Companies, Inc. CISA is a wholly owned subsidiary of Capital Group International, Inc. which is a wholly owned subsidiary of The Capital Group Companies, Inc.

Item 8 Identification and Classification of Members of the Group: N/A

Item 9 Notice of Dissolution of the Group: N/A

Item 10 Certification

By signing below, I certify that, to the best of my knowledge and belief, the securities referred to above were acquired in the ordinary course of business and were not acquired for the purpose of and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purpose or effect.

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: September 10, 1997

Signature: *Larry P. Clemmensen

Name/Title: Larry P. Clemmensen, President

The Capital Group Companies, Inc.

Date: September 10, 1997
Signature: *David I. Fisher
Name/Title: David I. Fisher, Vice Chairman
Capital Guardian Trust Company

*By

James P. Ryan
Attorney-in-fact

Signed pursuant to a Power of Attorney dated February 11, 1997 included as an Exhibit to Schedule 13G filed with the Securities and Exchange Commission by The Capital Group Companies, Inc. on February 12, 1997 with respect to AAR Corporation.

AGREEMENT

Los Angeles, CA
September 10, 1997

The Capital Group Companies, Inc. ("CGC") and Capital Guardian Trust Company ("CGTC") hereby agree to file a joint statement on Schedule 13G under the Securities Exchange Act of 1934 (the "Act") in connection with their beneficial ownership of Common Stock issued by KLA Tencor.

CGC and CGTC state that they are each entitled to individually use Schedule 13G pursuant to Rule 13d-1(c) of the Act.

CGC and CGTC are each responsible for the timely filing of the statement and any amendments thereto, and for the completeness and accuracy of the information concerning each of them contained therein but are not responsible for the completeness or accuracy of the information concerning the others.

THE CAPITAL GROUP COMPANIES, INC.

BY: *Larry P. Clemmensen
Larry P. Clemmensen, President
The Capital Group Companies,
Inc.

CAPITAL GUARDIAN TRUST COMPANY

BY: *David I. Fisher
David I. Fisher, Vice Chairman
Capital Guardian Trust Company

*By

James P. Ryan
Attorney-in-fact

Signed pursuant to a Power of Attorney dated February 11, 1997 included as an Exhibit to Schedule 13G filed with the Securities and Exchange Commission by The Capital Group Companies, Inc. on February 12, 1997 with respect to AAR Corporation.