

SCHEDULE 13G

Amendment No.
KLA Instruments Corporation
common stock
Cusip # 482480100
Filing Fee: Yes

Cusip # 482480100
Item 1: Reporting Person - FMR Corp. - (Tax ID: 04-2507163)
Item 4: Commonwealth of Massachusetts
Item 5: 24,800
Item 6: None
Item 7: 2,576,600
Item 8: None
Item 9: 2,576,600
Item 11: 11.90%
Item 12: HC

Cusip # 482480100
Item 1: Reporting Person - Edward C. Johnson 3d - (Tax ID: ###-##-####)
Item 4: United States of America
Item 5: None
Item 6: None
Item 7: 2,576,600
Item 8: None
Item 9: 2,576,600
Item 11: 11.90%
Item 12: IN

SCHEDULE 13G - TO BE INCLUDED IN STATEMENTS
FILED PURSUANT TO RULE 13d-1(b) or 13d-2(b)

Item 1(a). Name of Issuer:

KLA Instruments Corporation

Item 1(b). Name of Issuer's Principal Executive Offices:

160 Rio Robles,
San Jose, CA 95134

Item 2(a). Name of Person Filing:

FMR Corp.

Item 2(b). Address or Principal Business Office or, if None, Residence:

82 Devonshire Street, Boston, Massachusetts 02109

Item 2(c). Citizenship:

Not applicable

Item 2(d). Title of Class of Securities:

Common Stock

Item 2(e). CUSIP Number:

482480100

Item 3. This statement is filed pursuant to Rule 13d-1(b) or 13d-2(b) and the person filing, FMR Corp., is a parent holding company in accordance with Section 240.13d-1(b)(ii)(G). (Note: See Item 7).

Item 4. Ownership

(a) Amount Beneficially Owned:
2,576,600

(b) Percent of Class:
11.90%

(c) Number of shares as to which such person has:

(i) sole power to vote or to direct the vote:
24,800

(ii) shared power to vote or to direct the vote:
None

(iii) sole power to dispose or to direct the disposition of:
2,576,600

(iv) shared power to dispose or to direct the disposition
of: None

Item 5. Ownership of Five Percent or Less of a Class.

Not applicable.

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Various persons have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the common stock of KLA Instruments Corporation. The interest of one person, Fidelity Magellan Fund, an investment company registered under the Investment Company Act of 1940, in the common stock of KLA Instruments Corporation, amounted to 1,573,700 shares or 7.27% of the total outstanding common stock at April 30, 1994.

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

See attached Exhibit(s) A and B.

Item 8. Identification and Classification of Members of the Group.

Not applicable, see attached Exhibit A.

Item 9. Notice of Dissolution of Group.

Not applicable.

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.

May 5, 1994
Date

/s/Arthur S. Loring
Signature

Arthur S. Loring, Vice
President
Name/Title

Pursuant to the instructions in Item 7 of Schedule 13G, Fidelity Management & Research Company ("Fidelity"), 82 Devonshire Street, Boston, Massachusetts 02109, a wholly-owned subsidiary of FMR Corp. and an investment adviser registered under Section 203 of the Investment Advisers Act of 1940, is the beneficial owner of 2,551,800 shares or 11.78% of the common stock outstanding of KLA Instruments Corporation ("the Company") as a result of acting as investment adviser to several investment companies registered under Section 8 of the Investment Company Act of 1940.

The ownership of one investment company, Fidelity Magellan Fund, amounted to 1,573,700 shares or 7.27% of the common stock outstanding. Fidelity Magellan Fund has its principal business office at 82 Devonshire Street, Boston, Massachusetts 02109.

Edward C. Johnson 3d, FMR Corp., through its control of Fidelity, and the Funds each has sole power to dispose of the 2,551,800 shares owned by the Funds.

Neither FMR Corp. nor Edward C. Johnson 3d, Chairman of FMR Corp., has the sole power to vote or direct the voting of the shares owned directly by the Fidelity Funds, which power resides with the Funds' Boards of Trustees. Fidelity carries out the voting of the shares under written guidelines established by the Funds' Boards of Trustees.

Fidelity Management Trust Company, 82 Devonshire Street, Boston, Massachusetts 02109, a wholly-owned subsidiary of FMR Corp. and a bank as defined in Section 3(a)(6) of the Securities Exchange Act of 1934, is the beneficial owner of 24,800 shares or 0.11% of the common stock outstanding of the company as a result of its serving as investment manager of the institutional account(s).

FMR Corp., through its control of Fidelity Management Trust Company, has sole voting and dispositive power over 24,800 shares of common stock owned by the institutional account(s) as reported above.

Edward C. Johnson 3d owns 34.0% of the outstanding voting common stock of FMR Corp. Mr. Johnson 3d is Chairman of FMR Corp. Various Johnson family members and trusts for the benefit of Johnson family members own FMR Corp. voting common stock. These Johnson family members, through their ownership of voting common stock, form a controlling group with respect to FMR Corp.

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FILED PURSUANT TO RULE 13d-1(b) or 13d-2(b)

RULE 13d-1(e) AGREEMENT

The undersigned persons, on May 5, 1994, agree and consent to the joint filing on their behalf of this Schedule 13G in connection with their beneficial ownership of the common stock of KLA Instruments Corporation at April 30, 1994.

FMR Corp.
By /s/Arthur S. Loring
Arthur S. Loring
Vice President - Legal
Edward C. Johnson 3d
By /s/Arthur S. Loring
Arthur S. Loring
Under Power of Attorney dated
5/17/89
On File with Schedule 13G for
Airborne Freight Corp. 9/10/91
Fidelity Management & Research Company
By /s/Arthur S. Loring
Arthur S. Loring
Sr. V.P. and General Counsel
Fidelity Magellan Fund
By /s/Arthur S. Loring
Arthur S. Loring
Secretary