## FORM 4

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

OMB APPROVAL

OMB Number: 3235-0287

Estimated average burden hours per response... 0.5

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

#### STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| Print or Type Responses)                    |                                    |  |                        |                                |           |  |  |             |  |  |                         |
|---|------------------------------------|--|------------------------|--------------------------------|-----------|--|--|-------------|--|--|-------------------------|
| 1. Name and Address of Ro<br>SCHROEDER KENN | 2. Issuer Name and<br>KLA TENCOR ( |  |                        | ıg Symbol                      |           | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner   |  |             |  |  |                         |
| C/O KLA-TENCOR,                             | EC                                 | 3. Date of Earliest To<br>08/14/2003   | ransaction (           | Montl                          | n/Day/Yea | ır)  | X_ Officer (give title below) Other (specify below)  Chief Executive Officer |             |  |  |                         |
| SAN JOSE, CA 9513                           | 4. If Amendment, Da                | ate Original   | Filed                  | (Month/Day/                    | Year)     | Individual or Joint/Group Filing(Check Applicable Line)     X_ Form filed by One Reporting Person     Form filed by More than One Reporting Person |  |             |  |  |                         |
| (City)                                      | (Zip)                              | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned |                        |                                |           |  |  |             |  |  |                         |
| (Instr. 3) Date                             |                                    | 2. Transaction<br>Date<br>(Month/Day/Year)                                       | Execution Date, if any | (Instr. 8) (Instr. 3, 4 and 5) |           |  | isposed o  | of (D)      | 5. Amount of Securities Beneficially<br>Owned Following Reported<br>Transaction(s) | Ownership of Indi<br>Form: Benefi              | Beneficial              |
|   |                                    |  | (Month/Day/Year)       | Code                           | V         | Amount   | (A) or<br>(D)  | Price       | (Instr. 3 and 4)   | Direct (D)<br>or Indirect<br>(I)<br>(Instr. 4) | Ownership<br>(Instr. 4) |
| Common Stock                                |                                    | 08/14/2003   |                        | M                              |           | 25,000   | A  | \$<br>10.81 | 0 (1)  | D  |                         |
| Common Stock                                |                                    | 08/14/2003   |                        | S                              |           | 25,000   | D  | \$ 52       | 211,230  | D  |                         |

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

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

| Derivative<br>Security<br>(Instr. 3) | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | Date       | 3A. Deemed<br>Execution Date, if<br>any<br>(Month/Day/Year) | Code |   |     |        | (Month/Day/Year)    |                    | 7. Title and Amount<br>of Underlying<br>Securities<br>(Instr. 3 and 4) |                                     |       | Derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s) | Ownership<br>Form of<br>Derivative<br>Security:<br>Direct (D)<br>or Indirect<br>(I) | Beneficial |
|--------------------------------------|---|------------|---|------|---|-----|--------|---------------------|--------------------|--|-------------------------------------|-------|--|---|------------|
|                                      |   |            |   | Code | V | (A) | (D)    | Date<br>Exercisable | Expiration<br>Date | Title  | Amount<br>or<br>Number<br>of Shares |       | (Instr. 4)   | (Instr. 4)  |            |
| Non-<br>Qualified<br>Stock<br>Option | \$ 10.63  |            |   |      |   |     |        | 08/31/1999          | 08/31/2008         | Common<br>Stock  | 204,272                             |       | 204,272  | D   |            |
| Non-<br>Qualified<br>Stock<br>Option | \$ 10.81  | 08/14/2003 |   | M    |   |     | 25,000 | 10/07/1997          | 10/08/2006         | Common<br>Stock  | 25,000                              | \$ 52 | 50,000   | D   |            |
| Non-<br>Qualified<br>Stock<br>Option | \$ 16.97  |            |   |      |   |     |        | 10/23/1999          | 10/23/2008         | Common<br>Stock  | 220,728                             |       | 220,728  | D   |            |
| Non-<br>Qualified<br>Stock<br>Option | \$ 26.25  |            |   |      |   |     |        | 11/10/2001          | 11/10/2010         | Common<br>Stock  | 37,900                              |       | 37,900   | D   |            |
| Non-<br>Qualified<br>Stock<br>Option | \$ 29.31  |            |   |      |   |     |        | 10/02/2002          | 10/02/2011         | Common<br>Stock  | 341,100                             |       | 341,100  | D   |            |
| Non-<br>Qualified<br>Stock<br>Option | \$ 32.75  |            |   |      |   |     |        | 04/04/2002          | 04/04/2011         | Common<br>Stock  | 37,900                              |       | 37,900   | D   |            |

| Non-<br>Qualified<br>Stock<br>Option | \$ 33.75      |  |  | 10/27/2000 | 10/27/2009 | Common<br>Stock | 150,000 | 150,000 | D |  |
|--------------------------------------|---------------|--|--|------------|------------|-----------------|---------|---------|---|--|
| Non-<br>Qualified<br>Stock<br>Option | \$ 34.67      |  |  | 11/08/2003 | 01/28/2013 | Common<br>Stock | 62,900  | 62,900  | D |  |
| Non-<br>Qualified<br>Stock<br>Option | \$ 37.05      |  |  | 11/08/2003 | 11/08/2012 | Common<br>Stock | 31,450  | 31,450  | D |  |
| Non-<br>Qualified<br>Stock<br>Option | \$<br>44.6875 |  |  | 08/13/2000 | 08/13/2010 | Common<br>Stock | 75,800  | 75,800  | D |  |
| Non-<br>Qualified<br>Stock<br>Option | \$ 51.229     |  |  | 11/08/2003 | 07/30/2013 | Common<br>Stock | 31,450  | 31,450  | D |  |

#### **Reporting Owners**

| Ī | P ( 0 N /   |          |              | Relationships           |       |  |  |  |  |  |
|---|---|----------|--------------|-------------------------|-------|--|--|--|--|--|
|   | Reporting Owner Name /<br>Address   | Director | 10%<br>Owner | Officer                 | Other |  |  |  |  |  |
|   | SCHROEDER KENNETH L<br>C/O KLA-TENCOR<br>160 RIO ROBLES<br>SAN JOSE, CA 95134 | X        |              | Chief Executive Officer |       |  |  |  |  |  |

#### **Signatures**

| Kenneth L Schroeder             | 08/14/2003 |
|---------------------------------|------------|
| **Signature of Reporting Person | Date       |

### **Explanation of Responses:**

- \* If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- Amount of securities beneficially owned following all reported transactions is equal to 211,230. This total is indicated on the last line on which a transaction is reproted for Table I.

 $Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, {\it see}\ Instruction\ 6 for procedure.$ 

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